

BECKHOFF New Automation Technology

Manual | EN

TE2000

TwinCAT 3 | Server API Reference

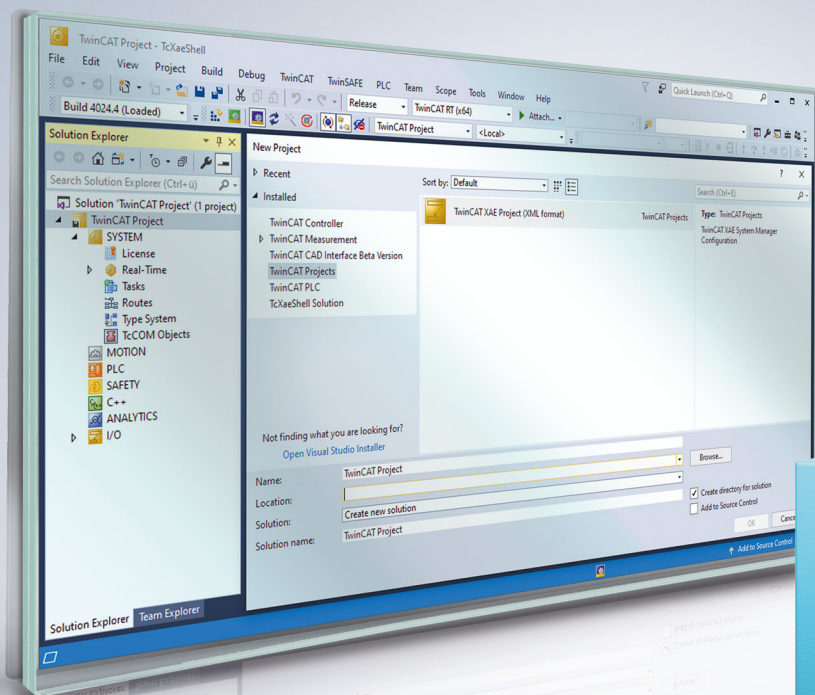


Table of contents

1 Foreword..... 5

1.1 Notes on the documentation 5

1.2 For your safety 5

1.3 Notes on information security..... 7

2 API Reference..... 8

2.1 Version 1.10 8

2.1.1 TcHmiSrv.DynamicSymbols Namespace 8

2.1.2 TcHmiSrv.Management Namespace 139

2.1.3 TcHmiSrv Namespace 147

2.2 Version 1.12 742

2.2.1 Welcome to the TcHmiSrvExtNet.Core documentation 742

2.2.2 Version History 742

2.2.3 API Differences 746

2.2.4 Namespaces 763

1 Foreword

1.1 Notes on the documentation

This description is intended exclusively for trained specialists in control and automation technology who are familiar with the applicable national standards.

The documentation and the following notes and explanations must be complied with when installing and commissioning the components.

The trained specialists must always use the current valid documentation.

The trained specialists must ensure that the application and use of the products described is in line with all safety requirements, including all relevant laws, regulations, guidelines, and standards.

Disclaimer

The documentation has been compiled with care. The products described are, however, constantly under development.

We reserve the right to revise and change the documentation at any time and without notice.

Claims to modify products that have already been supplied may not be made on the basis of the data, diagrams, and descriptions in this documentation.

Trademarks

Beckhoff®, ATRO®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, MX-System®, Safety over EtherCAT®, TC/BSD®, TwinCAT®, TwinCAT/BSD®, TwinSAFE®, XFC®, XPlanar®, and XTS® are registered and licensed trademarks of Beckhoff Automation GmbH.

If third parties make use of the designations or trademarks contained in this publication for their own purposes, this could infringe upon the rights of the owners of the said designations.



EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

Copyright

© Beckhoff Automation GmbH & Co. KG, Germany.

The distribution and reproduction of this document, as well as the use and communication of its contents without express authorization, are prohibited.

Offenders will be held liable for the payment of damages. All rights reserved in the event that a patent, utility model, or design are registered.

Third-party trademarks

Trademarks of third parties may be used in this documentation. You can find the trademark notices here: <https://www.beckhoff.com/trademarks>.

1.2 For your safety

Safety regulations

Read the following explanations for your safety.

Always observe and follow product-specific safety instructions, which you may find at the appropriate places in this document.

Exclusion of liability

All the components are supplied in particular hardware and software configurations which are appropriate for the application. Modifications to hardware or software configurations other than those described in the documentation are not permitted, and nullify the liability of Beckhoff Automation GmbH & Co. KG.

Personnel qualification

This description is only intended for trained specialists in control, automation, and drive technology who are familiar with the applicable national standards.

Signal words

The signal words used in the documentation are classified below. In order to prevent injury and damage to persons and property, read and follow the safety and warning notices.

Personal injury warnings

 DANGER
Hazard with high risk of death or serious injury.
 WARNING
Hazard with medium risk of death or serious injury.
 CAUTION
There is a low-risk hazard that could result in medium or minor injury.

Warning of damage to property or environment

NOTICE
The environment, equipment, or data may be damaged.

Information on handling the product



This information includes, for example:
recommendations for action, assistance or further information on the product.

1.3 Notes on information security

The products of Beckhoff Automation GmbH & Co. KG (Beckhoff), insofar as they can be accessed online, are equipped with security functions that support the secure operation of plants, systems, machines and networks. Despite the security functions, the creation, implementation and constant updating of a holistic security concept for the operation are necessary to protect the respective plant, system, machine and networks against cyber threats. The products sold by Beckhoff are only part of the overall security concept. The customer is responsible for preventing unauthorized access by third parties to its equipment, systems, machines and networks. The latter should be connected to the corporate network or the Internet only if appropriate protective measures have been set up.

In addition, the recommendations from Beckhoff regarding appropriate protective measures should be observed. Further information regarding information security and industrial security can be found in our <https://www.beckhoff.com/secguide>.

Beckhoff products and solutions undergo continuous further development. This also applies to security functions. In light of this continuous further development, Beckhoff expressly recommends that the products are kept up to date at all times and that updates are installed for the products once they have been made available. Using outdated or unsupported product versions can increase the risk of cyber threats.

To stay informed about information security for Beckhoff products, subscribe to the RSS feed at <https://www.beckhoff.com/secinfo>.

2 API Reference

2.1 Version 1.10

2.1.1 TcHmiSrv.DynamicSymbols Namespace

Classes

	Class	Description
	Definition [► 18]	Contains the additional information for a definition that is required by GetSchema(Command, Definition) [► 120] and GetDefinitions(Command, IEnumerable.Definition.) [► 117] .
	Symbol [► 44]	Contains the additional information for a symbol that is required by ListSymbols(Command, IEnumerable.Symbol.) [► 125] .
	TcHmiResolutionException [► 53]	Represents errors that occur during resolution.
	TcHmiResolver [► 59]	Obsolete. Provides methods to resolve sub-objects of several types by a given Path [► 196].
	TcHmiResolver.T. [► 63]	Provides basic functions to resolve values of a specified type by a given Path [► 196].
	TcHmiSchemaBuilder.TType. [► 66]	Provides basic functions to create instances of class Value [► 513] that represent a schema builded of type TType.
	TcHmiSchemaBuilder.TType.ArraySchema [► 69]	Represents a schema that contains an array type.
	TcHmiSchemaBuilder.TType.BinarySchema [► 73]	Represents a schema that contains a binary type.
	TcHmiSchemaBuilder.TType.BooleanSchema [► 74]	Represents a schema that contains a boolean type.
	TcHmiSchemaBuilder.TType.DateTimeSchema [► 76]	Represents a schema that contains a date time type.
	TcHmiSchemaBuilder.TType.DefinitionSchema [► 77]	Represents a schema that contains a definition.
	TcHmiSchemaBuilder.TType.DictionarySchema [► 80]	Represents a schema that contains a dictionary type.
	TcHmiSchemaBuilder.TType.EnumSchema [► 82]	Represents a schema that contains an enumeration type.
	TcHmiSchemaBuilder.TType.Integer64Schema [► 86]	Represents a schema that contains a long integer type.
	TcHmiSchemaBuilder.TType.IntegerSchema [► 88]	Represents a schema that contains an integer type.
	TcHmiSchemaBuilder.TType.NumberSchema [► 95]	Represents a schema that contains a number type.
	TcHmiSchemaBuilder.TType.ObjectSchema [► 100]	Represents a schema that contains an object type.
	TcHmiSchemaBuilder.TType.Schema [► 102]	Provides a base class for schemas. Never use the TcHmiSchemaBuilder.TType.Schema [► 102] class directly - use a derived class instead.

	Class	Description
	TcHmiSchemaBuilder.TType.StringSchema [► 104]	Represents a schema that contains a string type.
	TcHmiSchemaBuilder.TType.TimeSpanSchema [► 108]	Represents a schema that contains a time span type.
	TcHmiSchemaBuilder.TType.TInfo [► 109]	Provides basic functions to create instances of class Value [► 513] that represent a schema builded of type TType with additional information of type TInfo.
	TcHmiSchemaGenerator [► 112]	Provides methods to get the schema of a particular type and store it in an instance of type Value [► 513].
	TcHmiSerializer [► 127]	Provides methods to serialize between instances of type Object and Value [► 513].
	TcHmiUniversalResolver [► 135]	Provides methods to resolve sub-objects of several types by a given Path [► 196].

Structures

	Structure	Description
	BuildInfo [► 11]	Contains additional information that is used in the Definition [► 18] class to pass additional information.
	SchemaKey.T [► 42]	Represents a key of a schema.

Interfaces

	Interface	Description
	IDefinition.TType. [▶ 29]	Contains the basic information for a definition that is required by GetSchema.TType.(Command, IDefinition.TType., TcHmiSchemaBuilder.TType.) [▶ 121] and GetDefinitions.TType.(Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.) [▶ 119] .
	IEditable [▶ 32]	Defines a method that will be called by CreateObject(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [▶ 130] and EditObject(Object., String, Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [▶ 131] to set a value to a specific member.
	IEditableCollection [▶ 33]	Defines methods that will be called by EditObject(Object., String, Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [▶ 131] to get and set values in the inherited collection by index.
	IExtendedDefinition.TType, TInfo. [▶ 35]	Provides an interface to pass additional definition information to GetSchema.TType, TInfo.(Command, IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [▶ 122] and GetDefinitions.TType, TInfo.(Command, IEnumerable.IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [▶ 118] .
	IExtendedSymbol.TType, TInfo. [▶ 37]	Provides an interface to pass additional symbol information to ListSymbols.TType, TInfo.(Command, IEnumerable.IExtendedSymbol.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [▶ 125] .
	ISerializable [▶ 38]	Defines a method that will be called by CreateObject(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [▶ 130] and SerializeObject(Object, IncludeMembers, BindingFlags, ICollection.String., Boolean, UInt32, Boolean) [▶ 134] to get the value of a specific member.
	ISymbol.TType. [▶ 40]	Contains the basic information for a symbol that is required by ListSymbols.TType.(Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.) [▶ 127] .
	TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. [▶ 92]	Provides the interface for a numeric type schema.

Enumerations

	Enumeration	Description
	IncludeMembers [▶ 38]	Specifies flags that control which members are included in serialization and schema generation.
	JsonSchemaStringFormat [▶ 41]	Represents the string formats specified in the JSON Schema specification.

2.1.1.1 BuildInfo Structure

Contains additional information that is used in the [Definition](#) [[▶ 18](#)] class to pass additional information.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public struct BuildInfo
```

The BuildInfo type exposes the following members.

Constructors

	Name	Description
	BuildInfo [▶ 12]	Initializes a new instance of the BuildInfo class.

Properties

	Name	Description
	BindingAttr [▶ 13]	Contains a bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.
	IgnoreElements [▶ 14]	Contains an ICollection.T of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
	MaxDepth [▶ 14]	Contains the maximum schema depth.
	Members [▶ 15]	Contains a bitmask comprised of one or more IncludeMembers [▶ 38] that specify which members should be included.

Methods

	Name	Description
	Equals [▶ 15]	Determines whether the specified BuildInfo is equal to the current BuildInfo. (Overrides ValueType.Equals(Object) .)
	GetHashCode [▶ 16]	Serves as a hash function for a particular type. (Overrides ValueType.GetHashCode() .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns the fully qualified type name of this instance. (Inherited from ValueType .)

Operators

	Name	Description
 	Equality [▶ 17]	Determines whether the specified BuildInfo is equal to the current BuildInfo.
 	Inequality [▶ 17]	Determines whether the specified BuildInfo is not equal to the current BuildInfo.

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.1 BuildInfo Constructor

Initializes a new instance of the [BuildInfo](#) [[▶ 11](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public BuildInfo(
    IncludeMembers members,
    BindingFlags bindingAttr,
    ICollection<string> ignoreElements,
    uint maxDepth
)
```

Parameters

members	Type: TcHmiSrv.DynamicSymbols.IncludeMembers [► 38] A bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.
bindingAttr	Type: System.Reflection.BindingFlags A bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.
ignoreElements	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
maxDepth	Type: System.UInt32 The maximum schema depth.

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.2 BuildInfo Properties

The [BuildInfo \[► 11\]](#) type exposes the following members.

Properties

	Name	Description
	BindingAttr [► 13]	Contains a bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.
	IgnoreElements [► 14]	Contains an ICollection.T of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
	MaxDepth [► 14]	Contains the maximum schema depth.
	Members [► 15]	Contains a bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.2.1 BuildInfo.BindingAttr Property

Contains a bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public BindingFlags BindingAttr {  
    get;  
    set; }
```

Property Value

Type: [BindingFlags](#)

Reference

[BuildInfo Structure](#) [► 11]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.1.2.2 BuildInfo.IgnoreElements Property

Contains an [ICollection.T](#). of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public ICollection<string> IgnoreElements {  
    get;  
    set; }
```

Property Value

Type: [ICollection.String](#).

Reference

[BuildInfo Structure](#) [► 11]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.1.2.3 BuildInfo.MaxDepth Property

Contains the maximum schema depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public uint MaxDepth {  
    get;  
    set; }
```

Property Value

Type: [UInt32](#)

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.2.4 BuildInfo.Members Property

Contains a bitmask comprised of one or more [IncludeMembers \[► 38\]](#) that specify which members should be included.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public IncludeMembers Members {
    get;
    set; }
```

Property Value

Type: [IncludeMembers \[► 38\]](#)

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.3 BuildInfo Methods

The [BuildInfo \[► 11\]](#) type exposes the following members.

Methods

	Name	Description
	Equals [► 15]	Determines whether the specified BuildInfo [► 11] is equal to the current BuildInfo [► 11] . (Overrides ValueType.Equals(Object).)
	GetHashCode [► 16]	Serves as a hash function for a particular type. (Overrides ValueType.GetHashCode.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	ToString	Returns the fully qualified type name of this instance. (Inherited from ValueType.)

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.3.1 BuildInfo.Equals Method

Determines whether the specified [BuildInfo \[► 11\]](#) is equal to the current [BuildInfo \[► 11\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj	Type: System.Object The BuildInfo [► 11] to compare with the current BuildInfo [► 11] .

Return Value

Type: [Boolean](#)

true if the specified [BuildInfo \[► 11\]](#) is equal to the current [BuildInfo \[► 11\]](#); otherwise, false.

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.3.2 BuildInfo.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [BuildInfo \[► 11\]](#).

Reference

[BuildInfo Structure \[► 11\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.1.4 BuildInfo Operators

The [BuildInfo \[► 11\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [17]	Determines whether the specified BuildInfo [11] is equal to the current BuildInfo [11].
 	Inequality [17]	Determines whether the specified BuildInfo [11] is not equal to the current BuildInfo [11].

Reference

[BuildInfo Structure](#) [[11](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[8](#)]

2.1.1.1.4.1 BuildInfo.Equality Operator

Determines whether the specified [BuildInfo](#) [[11](#)] is equal to the current [BuildInfo](#) [[11](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator ==(
    BuildInfo current,
    BuildInfo other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.BuildInfo [11] The current BuildInfo [11].
other	Type: TcHmiSrv.DynamicSymbols.BuildInfo [11] The BuildInfo [11] to compare with the current BuildInfo [11].

Return Value

Type: [Boolean](#)

true if the specified [BuildInfo](#) [[11](#)] is equal to the current [BuildInfo](#) [[11](#)]; otherwise, false.

Reference

[BuildInfo Structure](#) [[11](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[8](#)]

2.1.1.1.4.2 BuildInfo.Inequality Operator

Determines whether the specified [BuildInfo](#) [[11](#)] is not equal to the current [BuildInfo](#) [[11](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator !=(
    BuildInfo current,
    BuildInfo other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.BuildInfo [► 11] The current BuildInfo [► 11] .
other	Type: TcHmiSrv.DynamicSymbols.BuildInfo [► 11] The BuildInfo [► 11] to compare with the current BuildInfo [► 11] .

Return Value

Type: [Boolean](#)
true if the specified [BuildInfo \[► 11\]](#) is not equal to the current [BuildInfo \[► 11\]](#); otherwise, false.

Reference

- [BuildInfo Structure \[► 11\]](#)
- [TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2 Definition Class

Contains the additional information for a definition that is required by [GetSchema\(Command, Definition\) \[► 120\]](#) and [GetDefinitions\(Command, IEnumerable.Definition.\) \[► 117\]](#) .

Inheritance Hierarchy

- [System.Object](#)
- [TcHmiSrv.DynamicSymbols.Definition](#)
- [TcHmiSrv.DynamicSymbols.Symbol \[► 44\]](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public class Definition : IExtendedDefinition<Type, BuildInfo>,
    IDefinition<Type>
```

The Definition type exposes the following members.

Constructors

	Name	Description
	Definition(BuildInfo, Type, Type, Boolean) [► 20]	Initializes a new instance of the Definition class.
	Definition(Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32) [► 21]	Initializes a new instance of the Definition class.

Properties

	Name	Description
	BindingAttr [▶ 22]	Obsolete. Contains a bitmask comprised of one or more ' BindingFlags ' that specify how the search is conducted.
	IgnoreElements [▶ 23]	Obsolete. Contains an ICollection.T of elements that should be ignored. To ignore elements in the WriteValue [▶ 26] use the prefix 'writeValue'.
	Info [▶ 23]	Contains additional BuildInfo [▶ 11] of the Definition.
	IsFunction [▶ 23]	Contains a value that indicates if the Definition is a function.
	MaxDepth [▶ 24]	Obsolete. Contains the maximum schema depth.
	Members [▶ 24]	Obsolete. Contains a bitmask comprised of one or more IncludeMembers [▶ 38] that specify which members should be included.
	ReadValue [▶ 25]	Contains the read value of the Definition.
	ThrowException [▶ 25]	Obsolete. Contains a value that indicates whether to throw an Exception after MaxDepth [▶ 24] has been reached or to return null schemas.
	WriteValue [▶ 26]	Contains the write value of the Definition.

Methods

	Name	Description
	Equals [▶ 27]	Determines whether the specified Definition is equal to the current Definition. (Overrides Object.Equals(Object) .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [▶ 27]	Serves as a hash function for a particular type. (Overrides Object.GetHashCode() .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [▶ 28]	Determines whether the specified Definition is equal to the current Definition.
 	Inequality [▶ 28]	Determines whether the specified Definition is not equal to the current Definition.

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.1 Definition Constructor**Overload List**

	Name	Description
	Definition(BuildInfo, Type, Type, Boolean) [► 20]	Initializes a new instance of the Definition [► 18] class.
	Definition(Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32) [► 21]	Initializes a new instance of the Definition [► 18] class.

Reference

[Definition Class \[► 18\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.1.1 Definition Constructor (BuildInfo, Type, Type, Boolean)

Initializes a new instance of the [Definition \[► 18\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public Definition(
    BuildInfo info,
    Type readValue = null,
    Type writeValue = null,
    bool isFunction = false
)
```

Parameters

info	Type: TcHmiSrv.DynamicSymbols.BuildInfo [► 11] The additional information of the definition.
readValue (Optional)	Type: System.Type The read value for which a schema is to be added.
writeValue (Optional)	Type: System.Type The write value for which a schema is to be added.
isFunction (Optional)	Type: System.Boolean true to define this symbol as a function; false to not define this symbol as a function.

Reference

[Definition Class \[► 18\]](#)

[Definition Overload \[► 20\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.1.2 Definition Constructor (Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32)

Initializes a new instance of the [Definition](#) [► 18] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public Definition(
    Type readValue = null,
    Type writeValue = null,
    bool isFunction = false,
    IncludeMembers members = IncludeMembers.Fields|IncludeMembers.Properties,
    BindingFlags bindingAttr = BindingFlags.Default,
    ICollection<string> ignoreElements = null,
    uint maxDepth = 4294967295
)
```

Parameters

readValue (Optional)	Type: System.Type The read value for which a schema is to be added.
writeValue (Optional)	Type: System.Type The write value for which a schema is to be added.
isFunction (Optional)	Type: System.Boolean true to define this symbol as a function; false to not define this symbol as a function.
members (Optional)	Type: TcHmiSrv.DynamicSymbols.IncludeMembers [► 38] A bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.
bindingAttr (Optional)	Type: System.Reflection.BindingFlags A bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
maxDepth (Optional)	Type: System.UInt32 The maximum schema depth.

Reference

[Definition Class](#) [► 18]

[Definition Overload](#) [► 20]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.2.2 Definition Properties

The [Definition](#) [► 18] type exposes the following members.

Properties

	Name	Description
	BindingAttr [► 22]	Obsolete. Contains a bitmask comprised of one or more ' BindingFlags ' that specify how the search is conducted.
	IgnoreElements [► 23]	Obsolete. Contains an ICollection.T of elements that should be ignored. To ignore elements in the WriteValue [► 26] use the prefix 'writeValue'.
	Info [► 23]	Contains additional BuildInfo [► 11] of the Definition [► 18].
	IsFunction [► 23]	Contains a value that indicates if the Definition [► 18] is a function.
	MaxDepth [► 24]	Obsolete. Contains the maximum schema depth.
	Members [► 24]	Obsolete. Contains a bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.
	ReadValue [► 25]	Contains the read value of the Definition [► 18].
	ThrowException [► 25]	Obsolete. Contains a value that indicates whether to throw an Exception after MaxDepth [► 24] has been reached or to return null schemas.
	WriteValue [► 26]	Contains the write value of the Definition [► 18].

Reference

[Definition Class](#) [► 18]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.2.2.1 Definition.BindingAttr Property

Note: This API is now obsolete.

Contains a bitmask comprised of one or more '[BindingFlags](#)' that specify how the search is conducted.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'BindingAttr' is deprecated, use 'Info.BindingAttr' instead.")]
public BindingFlags BindingAttr { get; }
```

Property Value

Type: [BindingFlags](#)

Reference

[Definition Class](#) [► 18]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.2.2.2 Definition.IgnoreElements Property

Note: This API is now obsolete.

Contains an [ICollection.T](#) of elements that should be ignored. To ignore elements in the [WriteValue](#) [► 26] use the prefix 'writeValue'.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'IgnoreElements' is deprecated, use 'Info.IgnoreElements' instead.")]  
public ICollection<string> IgnoreElements { get; }
```

Property Value

Type: [ICollection.String](#).

Reference

[Definition Class](#) [► 18]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.2.2.3 Definition.Info Property

Contains additional [BuildInfo](#) [► 11] of the [Definition](#) [► 18].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public BuildInfo Info { get; set; }
```

Property Value

Type: [BuildInfo](#) [► 11]

Implements

[IExtendedDefinition.TType, TInfo..Info](#) [► 36]

Reference

[Definition Class](#) [► 18]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.2.2.4 Definition.IsFunction Property

Contains a value that indicates if the [Definition](#) [► 18] is a function.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public bool IsFunction { get; set; }
```

Property Value

Type: [Boolean](#)

Implements

[IDefinition.TType.IsFunction](#) [[► 31](#)]

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.2.5 Definition.MaxDepth Property

Note: This API is now obsolete.

Contains the maximum schema depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'MaxDepth' is deprecated, use 'Info.MaxDepth' instead.")]  
public uint MaxDepth { get; }
```

Property Value

Type: [UInt32](#)

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.2.6 Definition.Members Property

Note: This API is now obsolete.

Contains a bitmask comprised of one or more [IncludeMembers](#) [[► 38](#)] that specify which members should be included.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'Members' is deprecated, use 'Info.Members' instead.")]  
public IncludeMembers Members { get; }
```

Property Value

Type: [IncludeMembers](#) [[► 38](#)]

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.2.7 Definition.ReadValue Property

Contains the read value of the [Definition](#) [[► 18](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public Type ReadValue { get; set; }
```

Property Value

Type: [Type](#)

Implements

[IDefinition.TType.ReadValue](#) [[► 31](#)]

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.2.8 Definition.ThrowException Property

Note: This API is now obsolete.

Contains a value that indicates whether to throw an [Exception](#) after [MaxDepth](#) [[► 24](#)] has been reached or to return null schemas.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'ThrowException' has been removed.", true)]  
public bool ThrowException { get; set; }
```

Property Value

Type: [Boolean](#)

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.2.9 Definition.WriteValue Property

Contains the write value of the [Definition \[► 18\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public Type WriteValue { get; set; }
```

Property Value

Type: [Type](#)

Implements

[IDefinition.TType.WriteValue \[► 32\]](#)

Reference

[Definition Class \[► 18\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.3 Definition Methods

The [Definition \[► 18\]](#) type exposes the following members.

Methods

	Name	Description
	Equals [► 27]	Determines whether the specified Definition [► 18] is equal to the current Definition [► 18] . (Overrides Object.Equals(Object) .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 27]	Serves as a hash function for a particular type. (Overrides Object.GetHashCode() .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Definition Class \[► 18\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.3.1 Definition.Equals Method

Determines whether the specified [Definition \[► 18\]](#) is equal to the current [Definition \[► 18\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj	Type: System.Object The Definition [► 18] to compare with the current Definition [► 18] .

Return Value

Type: [Boolean](#)

true if the specified [Definition \[► 18\]](#) is equal to the current [Definition \[► 18\]](#); otherwise, false.

Reference

[Definition Class \[► 18\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.3.2 Definition.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Definition \[► 18\]](#).

Reference

[Definition Class \[► 18\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.2.4 Definition Operators

The [Definition \[► 18\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 28]	Determines whether the specified Definition [► 18] is equal to the current Definition [► 18].
 	Inequality [► 28]	Determines whether the specified Definition [► 18] is not equal to the current Definition [► 18].

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.4.1 Definition.Equality Operator

Determines whether the specified [Definition](#) [[► 18](#)] is equal to the current [Definition](#) [[► 18](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator ==(
    Definition current,
    Definition other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.Definition [► 18] The current Definition [► 18].
other	Type: TcHmiSrv.DynamicSymbols.Definition [► 18] The Definition [► 18] to compare with the current Definition [► 18].

Return Value

Type: [Boolean](#)

true if the specified [Definition](#) [[► 18](#)] is equal to the current [Definition](#) [[► 18](#)]; otherwise, false.

Reference

[Definition Class](#) [[► 18](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.2.4.2 Definition.Inequality Operator

Determines whether the specified [Definition](#) [[► 18](#)] is not equal to the current [Definition](#) [[► 18](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator !=(
    Definition current,
    Definition other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.Definition [► 18] The current Definition [► 18].
other	Type: TcHmiSrv.DynamicSymbols.Definition [► 18] The Definition [► 18] to compare with the current Definition [► 18].

Return Value

Type: [Boolean](#)

true if the specified [Definition](#) [► 18] is not equal to the current [Definition](#) [► 18]; otherwise, false.

Reference

[Definition Class](#) [► 18]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.3 IDefinition.TType. Interface

Contains the basic information for a definition that is required by [GetSchema.TType.\(Command, IDefinition.TType., TcHmiSchemaBuilder.TType.\)](#) [► 121] and [GetDefinitions.TType.\(Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.\)](#) [► 119] .

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public interface IDefinition<out TType>
```

Type Parameters

TType	The type of the class that contains the schema information.

The [IDefinition.TType.](#) type exposes the following members.

Properties

	Name	Description
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType. is a function.
	ReadValue [► 31]	Gets the read value of the IDefinition.TType.
	WriteValue [► 32]	Gets the write value of the IDefinition.TType.

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.3.1 IDefinition.TType. Properties

The [IDefinition.TType. \[► 29\]](#) generic type exposes the following members.

Properties

	Name	Description
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType. [► 29] is a function.
	ReadValue [► 31]	Gets the read value of the IDefinition.TType. [► 29] .
	WriteValue [► 32]	Gets the write value of the IDefinition.TType. [► 29] .

Reference

[IDefinition.TType. Interface \[► 29\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.3.1.1 IDefinition.TType..IsFunction Property

true to declare this symbol as a function; false to not declare this symbol as a function.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
bool IsFunction { get; }
```

Property Value

Type: [Boolean](#)

Reference

[IDefinition.TType. Interface \[► 29\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.3.1.2 IDefinition.TType..ReadValue Property

The read value of the symbol.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
TType ReadValue { get; }
```

Property Value

Type: [TType \[► 29\]](#)

Reference

[IDefinition.TType. Interface \[► 29\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.3.1.3 IDefinition.TType..WriteValue Property

The write value of the symbol.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
TType WriteValue { get; }
```

Property Value

Type: [TType \[► 29\]](#)

Reference

[IDefinition.TType. Interface \[► 29\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.3.1.4 IDefinition.TType.IsFunction Property

Gets a value that indicates if the [IDefinition.TType. \[► 29\]](#) is a function.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
bool IsFunction { get; }
```

Property Value

Type: [Boolean](#)

Reference

[IDefinition.TType. Interface \[► 29\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.3.1.5 IDefinition.TType.ReadValue Property

Gets the read value of the [IDefinition.TType. \[► 29\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
TType ReadValue { get; }
```

Property Value

Type: [TType](#) [[► 29](#)]

Reference

[IDefinition.TType. Interface](#) [[► 29](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.3.1.6 IDefinition.TType.WriteValue Property

Gets the write value of the [IDefinition.TType](#). [[► 29](#)].

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
TType WriteValue { get; }
```

Property Value

Type: [TType](#) [[► 29](#)]

Reference

[IDefinition.TType. Interface](#) [[► 29](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.4 IEditable Interface

Defines a method that will be called by [CreateObject\(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean\)](#) [[► 130](#)] and [EditObject\(Object., String, Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean\)](#) [[► 131](#)] to set a value to a specific member.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public interface IEditable
```

The IEditable type exposes the following members.

Methods

	Name	Description
	SetValue [► 33]	Sets a value to the specified member identified by the given MemberInfo .

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.4.1 IEditable Methods

The [IEditable \[► 32\]](#) type exposes the following members.

Methods

	Name	Description
	SetValue [► 33]	Sets a value to the specified member identified by the given MemberInfo .

Reference

[IEditable Interface \[► 32\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.4.1.1 IEditable.SetValue Method

Sets a value to the specified member identified by the given [MemberInfo](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
void SetValue(  
    Object value,  
    MemberInfo info  
)
```

Parameters

value	Type: System.Object The new value for the inherited class.
info	Type: System.Reflection.MemberInfo An identifier for the specified member.

Reference

[IEditable Interface \[► 32\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.5 IEditableCollection Interface

Defines methods that will be called by [EditObject\(Object., String, Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean\)](#) [\[► 131\]](#) to get and set values in the inherited collection by index.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public interface IEditableCollection : IEnumerable
```

The `IEditableCollection` type exposes the following members.

Methods

	Name	Description
	GetEnumerator	Returns an enumerator that iterates through a collection. (Inherited from IEnumerable .)
	GetValue [▸ 34]	Gets the value at the specified position in the ICollection .
	SetValue [▸ 35]	Sets a value to the element at the specified position in the ICollection .

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[▸ 8](#)]

2.1.1.5.1 IEditableCollection Methods

The [IEditableCollection](#) [[▸ 33](#)] type exposes the following members.

Methods

	Name	Description
	GetEnumerator	Returns an enumerator that iterates through a collection. (Inherited from IEnumerable .)
	GetValue [▸ 34]	Gets the value at the specified position in the ICollection .
	SetValue [▸ 35]	Sets a value to the element at the specified position in the ICollection .

Reference

[IEditableCollection Interface](#) [[▸ 33](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▸ 8](#)]

2.1.1.5.1.1 IEditableCollection.GetValue Method

Gets the value at the specified position in the [ICollection](#).

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▸ 8](#)]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
Object GetValue(  
    int index  
)
```

Parameters

index	Type: System.Int32 An index that represents the position of the element to get.

Return Value

Type: [Object](#)

The value at the specified position.

Reference

[IEditableCollection Interface](#) [► 33]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.5.1.2 IEditableCollection.SetValue Method

Sets a value to the element at the specified position in the [ICollection](#).

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
void SetValue(  
    Object value,  
    int index  
)
```

Parameters

value	Type: System.Object The new value for the specified element.
index	Type: System.Int32 An index that represents the position of the element to set.

Reference

[IEditableCollection Interface](#) [► 33]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.6 IExtendedDefinition.TType, TInfo. Interface

Provides an interface to pass additional definition information to [GetSchema.TType, TInfo.\(Command, IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.\)](#) [► 122] and [GetDefinitions.TType, TInfo.\(Command, IEnumerable.IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.\)](#) [► 118] .

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public interface IExtendedDefinition<out TType, out TInfo> : IDefinition<TType>
```

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

The [IExtendedDefinition.TType, TInfo](#). type exposes the following members.

Properties

	Name	Description
	Info [► 36]	Contains the additional information.
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType. [► 29] is a function. (Inherited from IDefinition.TType. [► 29].)
	ReadValue [► 31]	Gets the read value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)
	WriteValue [► 32]	Gets the write value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.6.1 IExtendedDefinition.TType, TInfo. Properties

The [IExtendedDefinition.TType, TInfo. \[► 35\]](#) generic type exposes the following members.

Properties

	Name	Description
	Info [► 36]	Contains the additional information.
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType. [► 29] is a function. (Inherited from IDefinition.TType. [► 29].)
	ReadValue [► 31]	Gets the read value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)
	WriteValue [► 32]	Gets the write value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)

Reference

[IExtendedDefinition.TType, TInfo. Interface \[► 35\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.6.1.1 IExtendedDefinition.TType, TInfo..Info Property

Contains the additional information.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: [TcHmiSrvExtNet.DynamicSymbols \(in TcHmiSrvExtNet.DynamicSymbols.dll\) Version: 2.0.0.0](#)

Syntax**C#**

```
TInfo Info { get; }
```

Property Value

Type: [TInfo \[► 35\]](#)

Reference

[IExtendedDefinition.TType, TInfo. Interface \[► 35\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.7 IExtendedSymbol.TType, TInfo. Interface

Provides an interface to pass additional symbol information to [ListSymbols.TType, TInfo.\(Command, IEnumerable.IExtendedSymbol.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.\) \[► 125\]](#) .

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public interface IExtendedSymbol<out TType, out TInfo> : ISymbol<TType>,
    IDefinition<TType>, IExtendedDefinition<TType, TInfo>
```

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

The IExtendedSymbol.TType, TInfo. type exposes the following members.

Properties

	Name	Description
	Info [► 36]	Contains the additional information. (Inherited from IDefinition.TType, TInfo. [► 35].)
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType. [► 29] is a function. (Inherited from IDefinition.TType. [► 29].)
	Name [► 41]	The name of the symbol. (Inherited from ISymbol.TType. [► 40].)
	ReadValue [► 31]	Gets the read value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)
	WriteValue [► 32]	Gets the write value of the IDefinition.TType. [► 29] . (Inherited from IDefinition.TType. [► 29].)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.7.1 IExtendedSymbol.TType, TInfo. Properties

The [IExtendedSymbol.TType, TInfo. \[► 37\]](#) generic type exposes the following members.

Properties

	Name	Description
	Info [► 36]	Contains the additional information. (Inherited from IExtendedDefinition.TType , TInfo . [► 35].)
	IsFunction [► 31]	Gets a value that indicates if the IDefinition.TType . [► 29] is a function. (Inherited from IDefinition.TType . [► 29].)
	Name [► 41]	The name of the symbol. (Inherited from ISymbol.TType . [► 40].)
	ReadValue [► 31]	Gets the read value of the IDefinition.TType . [► 29]. (Inherited from IDefinition.TType . [► 29].)
	WriteValue [► 32]	Gets the write value of the IDefinition.TType . [► 29]. (Inherited from IDefinition.TType . [► 29].)

Reference

[IExtendedSymbol.TType](#), [TInfo](#). Interface [► 37]

[TcHmiSrv.DynamicSymbols](#) Namespace [► 8]

2.1.1.8 IncludeMembers Enumeration

Specifies flags that control which members are included in serialization and schema generation.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
[FlagsAttribute]
public enum IncludeMembers
```

Members

	Member name	Value	Description
	None	0	No members are included.
	Fields	1	Include fields.
	Properties	2	Include properties.

Reference

[TcHmiSrv.DynamicSymbols](#) Namespace [► 8]

2.1.1.9 ISerializable Interface

Defines a method that will be called by [CreateObject\(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean\)](#) [► 130] and [SerializeObject\(Object, IncludeMembers, BindingFlags, ICollection.String., Boolean, UInt32, Boolean\)](#) [► 134] to get the value of a specific member.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
public interface ISerializable
```

The `ISerializable` type exposes the following members.

Methods

	Name	Description
	GetValue [▸ 39]	Gets the value of the specified member identified by the given MemberInfo .

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[▸ 8](#)]

2.1.1.9.1 ISerializable Methods

The [ISerializable](#) [[▸ 38](#)] type exposes the following members.

Methods

	Name	Description
	GetValue [▸ 39]	Gets the value of the specified member identified by the given MemberInfo .

Reference

[ISerializable Interface](#) [[▸ 38](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▸ 8](#)]

2.1.1.9.1.1 ISerializable.GetValue Method

Gets the value of the specified member identified by the given [MemberInfo](#).

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▸ 8](#)]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
Object GetValue(  
    MemberInfo info  
)
```

Parameters

info	Type: System.Reflection.MemberInfo An identifier for the specified member.

Return Value

Type: [Object](#)
The value of the specified member.

Reference

[ISerializable Interface](#) [[▸ 38](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▸ 8](#)]

2.1.1.10 ISymbol.TType. Interface

Contains the basic information for a symbol that is required by [ListSymbols.TType.\(Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.\)](#) [[127](#)] .

Namespace: [TcHmiSrv.DynamicSymbols](#) [[8](#)]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public interface ISymbol<out TType> : IDefinition<TType>
```

Type Parameters

TType	The type of the class that contains the schema information.

The [ISymbol.TType](#). type exposes the following members.

Properties

	Name	Description
	IsFunction [31]	Gets a value that indicates if the IDefinition.TType. [29] is a function. (Inherited from IDefinition.TType. [29].)
	Name [41]	The name of the symbol.
	ReadValue [31]	Gets the read value of the IDefinition.TType. [29]. (Inherited from IDefinition.TType. [29].)
	WriteValue [32]	Gets the write value of the IDefinition.TType. [29]. (Inherited from IDefinition.TType. [29].)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[8](#)]

2.1.1.10.1 ISymbol.TType. Properties

The [ISymbol.TType.](#) [[40](#)] generic type exposes the following members.

Properties

	Name	Description
	IsFunction [31]	Gets a value that indicates if the IDefinition.TType. [29] is a function. (Inherited from IDefinition.TType. [29].)
	Name [41]	The name of the symbol.
	ReadValue [31]	Gets the read value of the IDefinition.TType. [29]. (Inherited from IDefinition.TType. [29].)
	WriteValue [32]	Gets the write value of the IDefinition.TType. [29]. (Inherited from IDefinition.TType. [29].)

Reference

[ISymbol.TType. Interface](#) [[40](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[8](#)]

2.1.1.10.1.1 ISymbol.TType..Name Property

The name of the symbol.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
string Name { get; }
```

Property Value

Type: [String](#)

Reference

[ISymbol.TType. Interface](#) [► 40]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.10.1.2 ISymbol.TType.Name Property

The name of the symbol.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
string Name { get; }
```

Property Value

Type: [String](#)

Reference

[ISymbol.TType. Interface](#) [► 40]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.11 JsonSchemaStringFormat Enumeration

Represents the string formats specified in the JSON Schema specification.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public enum JsonSchemaStringFormat
```

Members

	Member name	Value	Description
	DateTime	0	Date representation, as defined by https://tools.ietf.org/html/rfc3339 .
	Email	1	Internet email address, see https://tools.ietf.org/html/rfc5322 .
	Hostname	2	Internet host name, see https://tools.ietf.org/html/rfc1034 .
	IPv4	3	IPv4 address, according to dotted-quad ABNF syntax as defined in https://tools.ietf.org/html/rfc2673 .
	IPv6	4	IPv6 address, as defined in https://tools.ietf.org/html/rfc2373 .
	Uri	5	An universal resource identifier (URI), according to https://tools.ietf.org/html/rfc3986 .

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.12 SchemaKey.T. Structure

Represents a key of a schema.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public struct SchemaKey<T>
```

Type Parameters

T	The type of the value of the key.

The SchemaKey.T. type exposes the following members.

Constructors

	Name	Description
	SchemaKey.T. [► 43]	Initializes a new instance of the SchemaKey.T. class.

Properties

	Name	Description
	Value [► 43]	The value of the key.

Methods

	Name	Description
	Equals	Indicates whether this instance and a specified object are equal. (Inherited from ValueType .)
	GetHashCode	Returns the hash code for this instance. (Inherited from ValueType .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns the fully qualified type name of this instance. (Inherited from ValueType .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.12.1 SchemaKey.T. Constructor

Initializes a new instance of the [SchemaKey.T. \[► 42\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public SchemaKey(
    T value
)
```

Parameters

value	Type: T [► 42] The value of the key.

Reference

[SchemaKey.T. Structure \[► 42\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.12.2 SchemaKey.T. Properties

The [SchemaKey.T. \[► 42\]](#) generic type exposes the following members.

Properties

	Name	Description
	Value [► 43]	The value of the key.

Reference

[SchemaKey.T. Structure \[► 42\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.12.2.1 SchemaKey.T..Value Property

The value of the key.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public T Value {
    get;
}
```

Property Value

Type: [T](#) [[▶ 42](#)]

Reference

[SchemaKey.T. Structure](#) [[▶ 42](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.12.3 SchemaKey.T. Methods

The [SchemaKey.T.](#) [[▶ 42](#)] generic type exposes the following members.

Methods

	Name	Description
	Equals	Indicates whether this instance and a specified object are equal. (Inherited from ValueType .)
	GetHashCode	Returns the hash code for this instance. (Inherited from ValueType .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns the fully qualified type name of this instance. (Inherited from ValueType .)

Reference

[SchemaKey.T. Structure](#) [[▶ 42](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.13 Symbol Class

Contains the additional information for a symbol that is required by [ListSymbols\(Command, IEnumerable.Symbol.\)](#) [[▶ 125](#)] .

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.Definition](#) [[▶ 18](#)]

 TcHmiSrv.DynamicSymbols.Symbol

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public class Symbol : Definition, ISymbol<Type>,
    IDefinition<Type>
```

The Symbol type exposes the following members.

Constructors

	Name	Description
	Symbol(String, BuildInfo, Type, Type, Boolean) [▶ 46]	Initializes a new instance of the Symbol class.
	Symbol(String, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String, UInt32) [▶ 47]	Initializes a new instance of the Symbol class.

Properties

	Name	Description
	BindingAttr [▶ 22]	Obsolete. Contains a bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted. (Inherited from Definition [▶ 18].)
	IgnoreElements [▶ 23]	Obsolete. Contains an ICollection.T of elements that should be ignored. To ignore elements in the WriteValue [▶ 26] use the prefix 'writeValue'. (Inherited from Definition [▶ 18].)
	Info [▶ 23]	Contains additional BuildInfo [▶ 11] of the Definition [▶ 18]. (Inherited from Definition [▶ 18].)
	IsFunction [▶ 23]	Contains a value that indicates if the Definition [▶ 18] is a function. (Inherited from Definition [▶ 18].)
	MaxDepth [▶ 24]	Obsolete. Contains the maximum schema depth. (Inherited from Definition [▶ 18].)
	Members [▶ 24]	Obsolete. Contains a bitmask comprised of one or more IncludeMembers [▶ 38] that specify which members should be included. (Inherited from Definition [▶ 18].)
	Name [▶ 49]	Contains the name of the Symbol.
	ReadValue [▶ 25]	Contains the read value of the Definition [▶ 18]. (Inherited from Definition [▶ 18].)
	ThrowException [▶ 25]	Obsolete. Contains a value that indicates whether to throw an Exception after MaxDepth [▶ 24] has been reached or to return null schemas. (Inherited from Definition [▶ 18].)
	WriteValue [▶ 26]	Contains the write value of the Definition [▶ 18]. (Inherited from Definition [▶ 18].)

Methods

	Name	Description
	Equals [► 50]	Determines whether the specified Symbol is equal to the current Symbol. (Overrides Definition.Equals(Object) [► 27].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 51]	Serves as a hash function for a particular type. (Overrides Definition.GetHashCode [► 27].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [► 51]	Determines whether the specified Symbol is equal to the current Symbol.
 	Inequality [► 52]	Determines whether the specified Symbol is not equal to the current Symbol.

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.13.1 Symbol Constructor**Overload List**

	Name	Description
	Symbol(String, BuildInfo, Type, Type, Boolean) [► 46]	Initializes a new instance of the Symbol [► 44] class.
	Symbol(String, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String, UInt32) [► 47]	Initializes a new instance of the Symbol [► 44] class.

Reference

[Symbol Class](#) [[► 44](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.13.1.1 Symbol Constructor (String, BuildInfo, Type, Type, Boolean)

Initializes a new instance of the [Symbol](#) [[► 44](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public Symbol(  
    string name,  
    BuildInfo info,  
    Type readValue = null,  
    Type writeValue = null,  
    bool isFunction = false  
)
```

Parameters

name	Type: System.String The name of the symbol
info	Type: TcHmiSrv.DynamicSymbols.BuildInfo [▶ 11] The additional information of the symbol.
readValue (Optional)	Type: System.Type The read value for which a schema is to be added.
writeValue (Optional)	Type: System.Type The write value for which a schema is to be added.
isFunction (Optional)	Type: System.Boolean true to define this symbol as a function; false to not define this symbol as a function.

Reference

[Symbol Class](#) [[▶ 44](#)]

[Symbol Overload](#) [[▶ 46](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.13.1.2 **Symbol Constructor (String, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32)**

Initializes a new instance of the [Symbol](#) [[▶ 44](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public Symbol(  
    string name,  
    Type readValue = null,  
    Type writeValue = null,  
    bool isFunction = false,  
    IncludeMembers members = IncludeMembers.Fields|IncludeMembers.Properties,  
    BindingFlags bindingAttr = BindingFlags.Default,  
    ICollection<string> ignoreElements = null,  
    uint maxDepth = 4294967295  
)
```

Parameters

name	Type: <u>System.String</u> The name of the symbol
readValue (Optional)	Type: <u>System.Type</u> The read value for which a schema is to be added.
writeValue (Optional)	Type: <u>System.Type</u> The write value for which a schema is to be added.
isFunction (Optional)	Type: <u>System.Boolean</u> true to define this symbol as a function; false to not define this symbol as a function.
members (Optional)	Type: <u>TcHmiSrv.DynamicSymbols.IncludeMembers [► 38]</u> A bitmask comprised of one or more <u>IncludeMembers [► 38]</u> that specify which members should be included.
bindingAttr (Optional)	Type: <u>System.Reflection.BindingFlags</u> A bitmask comprised of one or more ' <u>BindingFlags</u> ' that specify how the search is conducted.
ignoreElements (Optional)	Type: <u>System.Collections.Generic.ICollection.String</u> . A collection of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
maxDepth (Optional)	Type: <u>System.UInt32</u> The maximum schema depth.

ReferenceSymbol Class [► 44]Symbol Overload [► 46]TcHmiSrv.DynamicSymbols Namespace [► 8]**2.1.1.13.2 Symbol Properties**

The Symbol [► 44] type exposes the following members.

Properties

	Name	Description
	BindingAttr [► 22]	Obsolete. Contains a bitmask comprised of one or more ' BindingFlags ' that specify how the search is conducted. (Inherited from Definition [► 18].)
	IgnoreElements [► 23]	Obsolete. Contains an ICollection.T of elements that should be ignored. To ignore elements in the WriteValue [► 26] use the prefix 'writeValue'. (Inherited from Definition [► 18].)
	Info [► 23]	Contains additional BuildInfo [► 11] of the Definition [► 18]. (Inherited from Definition [► 18].)
	IsFunction [► 23]	Contains a value that indicates if the Definition [► 18] is a function. (Inherited from Definition [► 18].)
	MaxDepth [► 24]	Obsolete. Contains the maximum schema depth. (Inherited from Definition [► 18].)
	Members [► 24]	Obsolete. Contains a bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included. (Inherited from Definition [► 18].)
	Name [► 49]	Contains the name of the Symbol [► 44].
	ReadValue [► 25]	Contains the read value of the Definition [► 18]. (Inherited from Definition [► 18].)
	ThrowException [► 25]	Obsolete. Contains a value that indicates whether to throw an Exception after MaxDepth [► 24] has been reached or to return null schemas. (Inherited from Definition [► 18].)
	WriteValue [► 26]	Contains the write value of the Definition [► 18]. (Inherited from Definition [► 18].)

Reference

[Symbol Class](#) [► 44]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.2.1 Symbol.Name Property

Contains the name of the [Symbol](#) [► 44].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Implements

[ISymbol.TType.Name](#) [► 41]

Reference

[Symbol Class](#) [► 44]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.3 **Symbol Methods**

The [Symbol](#) [► 44] type exposes the following members.

Methods

	Name	Description
	Equals [► 50]	Determines whether the specified Symbol [► 44] is equal to the current Symbol [► 44]. (Overrides Definition.Equals(Object) [► 27].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 51]	Serves as a hash function for a particular type. (Overrides Definition.GetHashCode . [► 27].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Symbol Class](#) [► 44]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.3.1 **Symbol.Equals Method**

Determines whether the specified [Symbol](#) [► 44] is equal to the current [Symbol](#) [► 44].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj	Type: System.Object The Symbol [► 44] to compare with the current Symbol [► 44].

Return Value

Type: [Boolean](#)
true if the specified [Symbol](#) [► 44] is equal to the current [Symbol](#) [► 44]; otherwise, false.

Reference

[Symbol Class](#) [► 44]
[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.3.2 **Symbol.GetHashCode Method**

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [Symbol](#) [► 44].

Reference

[Symbol Class](#) [► 44]
[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.4 **Symbol Operators**

The [Symbol](#) [► 44] type exposes the following members.

Operators

	Name	Description
 	Equality [► 51]	Determines whether the specified Symbol [► 44] is equal to the current Symbol [► 44].
 	Inequality [► 52]	Determines whether the specified Symbol [► 44] is not equal to the current Symbol [► 44].

Reference

[Symbol Class](#) [► 44]
[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.13.4.1 **Symbol.Equality Operator**

Determines whether the specified [Symbol](#) [► 44] is equal to the current [Symbol](#) [► 44].

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator ==(
    Symbol current,
    Symbol other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.Symbol [► 44] The current Symbol [► 44] .
other	Type: TcHmiSrv.DynamicSymbols.Symbol [► 44] The Symbol [► 44] to compare with the current Symbol [► 44] .

Return Value

Type: [Boolean](#)

true if the specified [Symbol \[► 44\]](#) is equal to the current [Symbol \[► 44\]](#); otherwise, false.

Reference

[Symbol Class \[► 44\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.13.4.2 Symbol.Inequality Operator

Determines whether the specified [Symbol \[► 44\]](#) is not equal to the current [Symbol \[► 44\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static bool operator !=(
    Symbol current,
    Symbol other
)
```

Parameters

current	Type: TcHmiSrv.DynamicSymbols.Symbol [► 44] The current Symbol [► 44] .
other	Type: TcHmiSrv.DynamicSymbols.Symbol [► 44] The Symbol [► 44] to compare with the current Symbol [► 44] .

Return Value

Type: [Boolean](#)

true if the specified [Symbol \[► 44\]](#) is not equal to the current [Symbol \[► 44\]](#); otherwise, false.

Reference

[Symbol Class \[► 44\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.14 **TcHmiResolutionException Class**

Represents errors that occur during resolution.

Inheritance Hierarchy

[System.Object](#)
 [System.Exception](#)
 TcHmiSrv.DynamicSymbols.TcHmiResolutionException

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public class TcHmiResolutionException : Exception
```

The TcHmiResolutionException type exposes the following members.

Constructors

	Name	Description
	TcHmiResolutionException. [► 55]	Initializes a new instance of the TcHmiResolutionException class.
	TcHmiResolutionException(Exce ption) [► 55]	Initializes a new instance of the TcHmiResolutionException class with a reference to the inner exception that is the cause of this exception.
	TcHmiResolutionException(Strin g) [► 56]	Initializes a new instance of the TcHmiResolutionException class with a specified error message.
	TcHmiResolutionException(Seri alizationInfo, StreamingContext) [► 57]	Initializes a new instance of the TcHmiResolutionException class with serialized data.
	TcHmiResolutionException(Strin g, Exception) [► 56]	Initializes a new instance of the TcHmiResolutionException class with a specified error message and a reference to the inner exception that is the cause of this exception.

Properties

	Name	Description
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HRESULT	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message	Gets a message that describes the current exception. (Inherited from Exception .)
	Path [► 58]	The path that contains the unresolved elements.
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.14.1 TcHmiResolutionException Constructor

Overload List

	Name	Description
	TcHmiResolutionException. [► 55]	Initializes a new instance of the TcHmiResolutionException [► 53] class.
	TcHmiResolutionException(Exce ption) [► 55]	Initializes a new instance of the TcHmiResolutionException [► 53] class with a reference to the inner exception that is the cause of this exception.
	TcHmiResolutionException(Strin g) [► 56]	Initializes a new instance of the TcHmiResolutionException [► 53] class with a specified error message.
	TcHmiResolutionException(Seri alizationInfo, StreamingContext) [► 57]	Initializes a new instance of the TcHmiResolutionException [► 53] class with serialized data.
	TcHmiResolutionException(Strin g, Exception) [► 56]	Initializes a new instance of the TcHmiResolutionException [► 53] class with a specified error message and a reference to the inner exception that is the cause of this exception.

Reference

[TcHmiResolutionException Class \[► 53\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.14.1.1 TcHmiResolutionException Constructor

Initializes a new instance of the [TcHmiResolutionException \[► 53\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiResolutionException()
```

Reference

[TcHmiResolutionException Class \[► 53\]](#)

[TcHmiResolutionException Overload \[► 55\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.14.1.2 TcHmiResolutionException Constructor (Exception)

Initializes a new instance of the [TcHmiResolutionException \[► 53\]](#) class with a reference to the inner exception that is the cause of this exception.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiResolutionException(  
    Exception innerException  
)
```

Parameters

innerException	Type: System.Exception The exception that is the cause of the current exception, or a null reference (Nothing in Visual Basic) if no inner exception is specified.

Reference

[TcHmiResolutionException Class](#) [► 53]

[TcHmiResolutionException Overload](#) [► 55]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.14.1.3 TcHmiResolutionException Constructor (String)

Initializes a new instance of the [TcHmiResolutionException](#) [► 53] class with a specified error message.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiResolutionException(  
    string message  
)
```

Parameters

message	Type: System.String The message that describes the error.

Reference

[TcHmiResolutionException Class](#) [► 53]

[TcHmiResolutionException Overload](#) [► 55]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.14.1.4 TcHmiResolutionException Constructor (String, Exception)

Initializes a new instance of the [TcHmiResolutionException](#) [► 53] class with a specified error message and a reference to the inner exception that is the cause of this exception.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiResolutionException(  
    string message,  
    Exception innerException  
)
```

Parameters

message	Type: System.String The error message that explains the reason for the exception.
innerException	Type: System.Exception The exception that is the cause of the current exception, or a null reference (Nothing in Visual Basic) if no inner exception is specified.

Reference

[TcHmiResolutionException Class \[► 53\]](#)

[TcHmiResolutionException Overload \[► 55\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.14.1.5 **TcHmiResolutionException Constructor (SerializationInfo, StreamingContext)**

Initializes a new instance of the [TcHmiResolutionException \[► 53\]](#) class with serialized data.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: [TcHmiSrvExtNet.DynamicSymbols \(in TcHmiSrvExtNet.DynamicSymbols.dll\) Version: 2.0.0.0](#)

Syntax

C#

```
protected TcHmiResolutionException(  
    SerializationInfo info,  
    StreamingContext context  
)
```

Parameters

info	Type: System.Runtime.Serialization.SerializationInfo The SerializationInfo that holds the serialized object data about the exception being thrown.
context	Type: System.Runtime.Serialization.StreamingContext The StreamingContext that contains contextual information about the source or destination.

Reference

[TcHmiResolutionException Class \[► 53\]](#)

[TcHmiResolutionException Overload \[► 55\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.14.2 **TcHmiResolutionException Properties**

The [TcHmiResolutionException \[► 53\]](#) type exposes the following members.

Properties

	Name	Description
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message	Gets a message that describes the current exception. (Inherited from Exception .)
	Path [► 58]	The path that contains the unresolved elements.
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Reference

[TcHmiResolutionException Class](#) [[► 53](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.14.2.1 TcHmiResolutionException.Path Property

The path that contains the unresolved elements.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiResolutionException Class](#) [[► 53](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.14.3 TcHmiResolutionException Methods

The [TcHmiResolutionException](#) [[► 53](#)] type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetBaseException</u>	When overridden in a derived class, returns the <u>Exception</u> that is the root cause of one or more subsequent exceptions. (Inherited from <u>Exception</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetObjectData</u>	When overridden in a derived class, sets the <u>SerializationInfo</u> with information about the exception. (Inherited from <u>Exception</u> .)
	<u>GetType</u>	Gets the runtime type of the current instance. (Inherited from <u>Exception</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Creates and returns a string representation of the current exception. (Inherited from <u>Exception</u> .)

Reference

TcHmiResolutionException Class [[► 53](#)]

TcHmiSrv.DynamicSymbols Namespace [[► 8](#)]

2.1.1.14.4 TcHmiResolutionException Events

The TcHmiResolutionException [[► 53](#)] type exposes the following members.

Events

	Name	Description
	<u>SerializeObjectState</u>	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from <u>Exception</u> .)

Reference

TcHmiResolutionException Class [[► 53](#)]

TcHmiSrv.DynamicSymbols Namespace [[► 8](#)]

2.1.1.15 TcHmiResolver Class

Note: This API is now obsolete.

Provides methods to resolve sub-objects of several types by a given Path [[► 196](#)].

Inheritance Hierarchy

System.Object

TcHmiSrv.DynamicSymbols.TcHmiResolver

Namespace: TcHmiSrv.DynamicSymbols [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiResolver is deprecated. If you want to resolve instances of type 'object', 'System.Type' or 'TcHmiSrv.Value', use the TcHmiUniversalResolver class instead. If you want to implement a resolver for a custom type, use the generic TcHmiResolver class instead.")]
public class TcHmiResolver
```

The TcHmiResolver type exposes the following members.

Constructors

	Name	Description
	TcHmiResolver [► 60]	Initializes a new instance of the TcHmiResolver class

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
 	ResolveObject [► 61]	Obsolete. Resolves the specified Object by the given path.
 	ResolveType [► 62]	Obsolete. Resolves the specified Type by the given path.
 	ResolveValue [► 63]	Obsolete. Resolves the specified Value [► 513] by the given path.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.15.1 TcHmiResolver Constructor

Initializes a new instance of the [TcHmiResolver](#) [[► 59](#)] class

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiResolver()
```


Reference

[TcHmiResolver Class \[► 59\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.15.2 TcHmiResolver Methods

The [TcHmiResolver \[► 59\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
 	ResolveObject [► 61]	Obsolete. Resolves the specified Object by the given path.
 	ResolveType [► 62]	Obsolete. Resolves the specified Type by the given path.
 	ResolveValue [► 63]	Obsolete. Resolves the specified Value [► 513] by the given path.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiResolver Class \[► 59\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.15.2.1 TcHmiResolver.ResolveObject Method

Note: This API is now obsolete.

Resolves the specified [Object](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiResolver.ResolveObject is deprecated. Use TcHmiUniversalResolver.ResolveObject instead.")]
public static Object ResolveObject(
```

```
Object obj,  
string path  
)
```

Parameters

obj	Type: System.Object The Object to resolve.
path	Type: System.String The Path [► 196] to the sub-object.

Return Value

Type: [Object](#)
The resolved [Object](#).

Reference

[TcHmiResolver Class](#) [[► 59](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.15.2.2 TcHmiResolver.ResolveType Method

Note: This API is now obsolete.

Resolves the specified [Type](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiResolver.ResolveType is deprecated. Use TcHmiUniversalResolver.ResolveType  
instead.")]  
public static Type ResolveType(  
    Type type,  
    string path  
)
```

Parameters

type	Type: System.Type The Type to resolve.
path	Type: System.String The Path [► 196] to the sub-type.

Return Value

Type: [Type](#)
The resolved [Type](#).

Reference

[TcHmiResolver Class](#) [[► 59](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.15.2.3 TcHmiResolver.ResolveValue Method

Note: This API is now obsolete.

Resolves the specified [Value \[► 513\]](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiResolver.ResolveValue is deprecated. Use TcHmiUniversalResolver.ResolveValue instead.")]
public static Value ResolveValue(
    Value value,
    string path
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to resolve.
path	Type: System.String The Path [► 196] to the sub-value.

Return Value

Type: [Value \[► 513\]](#)
The resolved [Value \[► 513\]](#).

Reference

[TcHmiResolver Class \[► 59\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.16 TcHmiResolver.T. Class

Provides basic functions to resolve values of a specified type by a given [Path \[► 196\]](#).

Inheritance Hierarchy

[System.Object](#)
TcHmiSrv.DynamicSymbols.TcHmiResolver.T.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public abstract class TcHmiResolver<T>
```

Type Parameters

T	The type of the values to resolve.

The TcHmiResolver.T. type exposes the following members.

Constructors

	Name	Description
	TcHmiResolver.T.  64]	Initializes a new instance of the TcHmiResolver.T. class

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetObjectByName  66]	Gets a sub-object of the specified object with the given name.
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	Resolve  65]	Resolves the specified object by the given path.
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrv.DynamicSymbols Namespace !\[\]\(ec9132f1d27c8919987d92907322654d_img.jpg\) 8\]](#)

2.1.1.16.1 TcHmiResolver.T. Constructor

Initializes a new instance of the [TcHmiResolver.T. !\[\]\(aa53ad6fea213b8b2226d3077e30533a_img.jpg\) 63\]](#) class

Namespace: [TcHmiSrv.DynamicSymbols !\[\]\(dd161862f9164df98f62b726e9846241_img.jpg\) 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
protected TcHmiResolver()
```

Reference

[TcHmiResolver.T. Class !\[\]\(899d8b7697d64725bf017d3296cfcf1b_img.jpg\) 63\]](#)

[TcHmiSrv.DynamicSymbols Namespace !\[\]\(c1168d6a8b365d11e842ece304635fa7_img.jpg\) 8\]](#)

2.1.1.16.2 TcHmiResolver.T. Methods

The [TcHmiResolver.T. !\[\]\(d3e32d099174a7c248ec1f564ee4f69c_img.jpg\) 63\]](#) generic type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectByName [► 66]	Gets a sub-object of the specified object with the given name.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Resolve [► 65]	Resolves the specified object by the given path.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiResolver.T. Class](#) [[► 63](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.16.2.1 TcHmiResolver.T..Resolve Method

Resolves the specified object by the given path.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public T Resolve(
    T obj,
    string path
)
```

Parameters

obj	Type: T [► 63] The object to resolve.
path	Type: System.String The path to the sub-object.

Return Value

Type: [T](#) [[► 63](#)]
The sub-object identified by the given path.

Reference

[TcHmiResolver.T. Class](#) [[► 63](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.16.2.2 **TcHmiResolver.T..GetObjectByName Method**

Gets a sub-object of the specified object with the given name.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected abstract T GetObjectByName (
    T obj,
    string name
)
```

Parameters

obj	Type: T [► 63] The object from which a sub-object is obtained.
name	Type: System.String The name of the sub-object.

Return Value

Type: [T](#) [► 63]
The sub-object identified by the given name.

Reference

[TcHmiResolver.T. Class](#) [► 63]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.17 **TcHmiSchemaBuilder.TType. Class**

Provides basic functions to create instances of class [Value](#) [► 513] that represent a schema builded of type TType.

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.](#)
 [TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType, TInfo.](#) [► 109]

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public abstract class TcHmiSchemaBuilder<TType>
```

Type Parameters

TType	The type of the class that contains the schema information.

The TcHmiSchemaBuilder.TType. type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType. [► 67]	Initializes a new instance of the TcHmiSchemaBuilder.TType. class

Methods

	Name	Description
	BuildSchema [► 68]	Builds the schema of a the specified type.
	DefinitionExists [► 69]	Checks if the definition with the specified name exists.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object. (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [\[► 8\]](#)

2.1.1.17.1 TcHmiSchemaBuilder.TType. Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.](#) [\[► 66\]](#) class

Namespace: [TcHmiSrv.DynamicSymbols](#) [\[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
protected TcHmiSchemaBuilder()
```

Reference

[TcHmiSchemaBuilder.TType. Class](#) [\[► 66\]](#)

[TcHmiSrv.DynamicSymbols Namespace](#) [\[► 8\]](#)

2.1.1.17.2 TcHmiSchemaBuilder.TType. Methods

The [TcHmiSchemaBuilder.TType.](#) [\[► 66\]](#) generic type exposes the following members.

Methods

	Name	Description
	BuildSchema [▶ 68]	Builds the schema of a the specified type.
	DefinitionExists [▶ 69]	Checks if the definition with the specified name exists.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType](#). Class [[▶ 66](#)]

[TcHmiSrv.DynamicSymbols](#) Namespace [[▶ 8](#)]

2.1.1.17.2.1 TcHmiSchemaBuilder.TType.BuildSchema Method

Builds the schema of a the specified type.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected abstract TcHmiSchemaBuilder.TType.Schema BuildSchema (
    TType type,
    string currentElement,
    uint currentDepth
)
```

Parameters

type	Type: TType [▶ 66] The type that contains the schema information.
currentElement	Type: System.String The name of the current element.
currentDepth	Type: System.UInt32 The current depth of the schema.

Return Value

Type: [TcHmiSchemaBuilder.TType.Schema](#) [[▶ 102](#)]

An instance of a class derived from [TcHmiSchemaBuilder.TType.Schema](#) [[▶ 102](#)] that contains the schema information of the particular type.

Reference

[TcHmiSchemaBuilder.TType](#). [Class](#) [[▶](#) [66](#)]

[TcHmiSrv.DynamicSymbols](#) [Namespace](#) [[▶](#) [8](#)]

2.1.1.17.2.2 **TcHmiSchemaBuilder.TType.DefinitionExists Method**

Checks if the definition with the specified name exists.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶](#) [8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected bool DefinitionExists(  
    string name  
)
```

Parameters

name	Type: System.String The name of the definition to search for.

Return Value

Type: [Boolean](#)

true if the definition exists; otherwise, false.

Reference

[TcHmiSchemaBuilder.TType](#). [Class](#) [[▶](#) [66](#)]

[TcHmiSrv.DynamicSymbols](#) [Namespace](#) [[▶](#) [8](#)]

2.1.1.18 **TcHmiSchemaBuilder.TType.ArraySchema Class**

Represents a schema that contains an array type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [[▶](#) [102](#)]

 TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.ArraySchema

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶](#) [8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class ArraySchema : TcHmiSchemaBuilder.TType.Schema
```

The TcHmiSchemaBuilder.TType.ArraySchema generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.ArraySchema [► 70]	Initializes a new instance of the TcHmiSchemaBuilder.TType.ArraySchema class.

Properties

	Name	Description
	Items [► 71]	The items of the current array.
	MaxItems [► 72]	Restricts the length of the array to a value less than this value.
	MinItems [► 72]	Restricts the length of the array to a value greater than this value.
	UniquelItems [► 72]	If this value is true, it ensures that each of the items in an array is unique.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.18.1 TcHmiSchemaBuilder.TType.ArraySchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.ArraySchema](#) [[► 69](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public ArraySchema(
    TType items = null,
    SchemaKey<uint> minItems = default,
    SchemaKey<uint> maxItems = default,
    SchemaKey<bool> uniqueItems = default
)
```

Parameters

items (Optional)	Type: TType [► 66] The items of the current array.
minItems (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. UInt32 . Restricts the length of the array to a value greater than this value.
maxItems (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. UInt32 . Restricts the length of the array to a value less than this value.
uniqueItems (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. Boolean . If this value is true, it ensures that each of the items in an array is unique.

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class](#) [► 69]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.18.2 ArraySchema Properties

The [TcHmiSchemaBuilder.TType.ArraySchema](#) [► 69] type exposes the following members.

Properties

	Name	Description
	Items [► 71]	The items of the current array.
	MaxItems [► 72]	Restricts the length of the array to a value less than this value.
	MinItems [► 72]	Restricts the length of the array to a value greater than this value.
	UniqueItems [► 72]	If this value is true, it ensures that each of the items in an array is unique.

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class](#) [► 69]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.18.2.1 TcHmiSchemaBuilder.TType.ArraySchema.Items Property

The items of the current array.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
public TType Items { get; }
```

Property Value

Type: [TType](#) [► 66]

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class](#) [► 69]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.18.2.2 TcHmiSchemaBuilder.TType.ArraySchema.MaxItems Property

Restricts the length of the array to a value less than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<uint> MaxItems { get; }
```

Property Value

Type: [SchemaKey \[► 42\].UInt32](#).

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class \[► 69\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.18.2.3 TcHmiSchemaBuilder.TType.ArraySchema.MinItems Property

Restricts the length of the array to a value greater than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<uint> MinItems { get; }
```

Property Value

Type: [SchemaKey \[► 42\].UInt32](#).

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class \[► 69\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.18.2.4 TcHmiSchemaBuilder.TType.ArraySchema.UniqueItems Property

If this value is true, it ensures that each of the items in an array is unique.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<bool> UniqueItems { get; }
```

Property Value

Type: [SchemaKey](#) [[► 42](#)].[Boolean](#).

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class](#) [[► 69](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.18.3 ArraySchema Methods

The [TcHmiSchemaBuilder.TType.ArraySchema](#) [[► 69](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.ArraySchema Class](#) [[► 69](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.19 TcHmiSchemaBuilder.TType.BinarySchema Class

Represents a schema that contains a binary type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [[► 102](#)]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.BinarySchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
protected sealed class BinarySchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.BinarySchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.BinarySchema [► 74]	Initializes a new instance of the TcHmiSchemaBuilder.TType.BinarySchema class.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.19.1 TcHmiSchemaBuilder.TType.BinarySchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.BinarySchema \[► 73\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public BinarySchema()
```

Reference

[TcHmiSchemaBuilder.TType.BinarySchema Class \[► 73\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.19.2 BinarySchema Methods

The [TcHmiSchemaBuilder.TType.BinarySchema \[► 73\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.BinarySchema Class \[► 73\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.20 TcHmiSchemaBuilder.TType.BooleanSchema Class

Represents a schema that contains a boolean type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [► 102]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.BooleanSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class BooleanSchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.BooleanSchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.BooleanSchema [► 75]	Initializes a new instance of the TcHmiSchemaBuilder.TType.BooleanSchema class.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.20.1 TcHmiSchemaBuilder.TType.BooleanSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.BooleanSchema](#) [► 74] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public BooleanSchema()
```

Reference

[TcHmiSchemaBuilder.TType.BooleanSchema Class](#) [► 74]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.20.2 BooleanSchema Methods

The [TcHmiSchemaBuilder.TType.BooleanSchema](#) [► 74] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.BooleanSchema Class](#) [► 74]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.21 TcHmiSchemaBuilder.TType.DateTimeSchema Class

Represents a schema that contains a date time type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [► 102]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DateTimeSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
protected sealed class DateTimeSchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.DateTimeSchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.DateTimeSchema [► 77]	Initializes a new instance of the TcHmiSchemaBuilder.TType.DateTimeSchema class.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.21.1 TcHmiSchemaBuilder.TType.DateTimeSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.DateTimeSchema](#) [► 76] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public DateTimeSchema()
```

Reference

[TcHmiSchemaBuilder.TType.DateTimeSchema Class](#) [► 76]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.21.2 DateTimeSchema Methods

The [TcHmiSchemaBuilder.TType.DateTimeSchema](#) [► 76] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.DateTimeSchema Class](#) [► 76]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.22 TcHmiSchemaBuilder.TType.DefinitionSchema Class

Represents a schema that contains a definition.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [► 102]

 TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DefinitionSchema

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class DefinitionSchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.DefinitionSchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.DefinitionSchema [► 78]	Initializes a new instance of the TcHmiSchemaBuilder.TType.DefinitionSchema class.

Properties

	Name	Description
	Name [► 79]	The name of the definition.
	Schema [► 79]	The schema that the definition references.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.22.1 TcHmiSchemaBuilder.TType.DefinitionSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.DefinitionSchema](#) [► 77] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public DefinitionSchema(
    string name,
    TcHmiSchemaBuilder.TType.Schema schema = null
)
```

Parameters

name	Type: System.String The name of the definition.
schema (Optional)	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema [► 102] The schema that the definition references.

Reference

[TcHmiSchemaBuilder.TType.DefinitionSchema Class](#) [► 77]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.22.2 DefinitionSchema Properties

The [TcHmiSchemaBuilder.TType.DefinitionSchema](#) [► 77] type exposes the following members.

Properties

	Name	Description
	Name [► 79]	The name of the definition.
	Schema [► 79]	The schema that the definition references.

Reference

[TcHmiSchemaBuilder.TType.DefinitionSchema Class](#) [► 77]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.22.2.1 TcHmiSchemaBuilder.TType.DefinitionSchema.Name Property

The name of the definition.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public string Name { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSchemaBuilder.TType.DefinitionSchema Class](#) [► 77]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.22.2.2 TcHmiSchemaBuilder.TType.DefinitionSchema.Schema Property

The schema that the definition references.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TcHmiSchemaBuilder.TType.Schema Schema { get; }
```

Property Value

Type: [TcHmiSchemaBuilder.TType.Schema](#) [► 102]

Reference

[TcHmiSchemaBuilder.TType.DefinitionSchema Class](#) [► 77]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.22.3 DefinitionSchema Methods

The [TcHmiSchemaBuilder.TType.DefinitionSchema \[► 77\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.DefinitionSchema Class \[► 77\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.23 TcHmiSchemaBuilder.TType.DictionarySchema Class

Represents a schema that contains a dictionary type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema \[► 102\]](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DictionarySchema](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class DictionarySchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.DictionarySchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.DictionarySchema [► 81]	Initializes a new instance of the TcHmiSchemaBuilder.TType.DictionarySchema class.

Properties

	Name	Description
	AdditionalProperties [► 82]	The additional properties of the current object.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.23.1 TcHmiSchemaBuilder.TType.DictionarySchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.DictionarySchema \[► 80\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public DictionarySchema(  
    TType additionalProperties = null  
)
```

Parameters

additionalProperties (Optional)	Type: TType [► 66] The additional properties of the current object.

Reference

[TcHmiSchemaBuilder.TType.DictionarySchema Class \[► 80\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.23.2 DictionarySchema Properties

The [TcHmiSchemaBuilder.TType.DictionarySchema \[► 80\]](#) type exposes the following members.

Properties

	Name	Description
	AdditionalProperties [► 82]	The additional properties of the current object.

Reference

[TcHmiSchemaBuilder.TType.DictionarySchema Class \[► 80\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.23.2.1 TcHmiSchemaBuilder.TType.DictionarySchema.AdditionalProperties Property

The additional properties of the current object.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TType AdditionalProperties { get; }
```

Property Value

Type: [TType](#) [[► 66](#)]

Reference

[TcHmiSchemaBuilder.TType.DictionarySchema Class](#) [[► 80](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.23.3 DictionarySchema Methods

The [TcHmiSchemaBuilder.TType.DictionarySchema](#) [[► 80](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.DictionarySchema Class](#) [[► 80](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.24 TcHmiSchemaBuilder.TType.EnumSchema Class

Represents a schema that contains an enumeration type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [[► 102](#)]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.EnumSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class EnumSchema : TcHmiSchemaBuilder.TType.Schema
```

The TcHmiSchemaBuilder.TType.EnumSchema generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.EnumSchema(IDictionary<String, Int32>, String) [► 84]	Initializes a new instance of the TcHmiSchemaBuilder.TType.EnumSchema class with an enumeration of integers.
	TcHmiSchemaBuilder.TType.EnumSchema(IEnumerable<String>, String) [► 84]	Initializes a new instance of the TcHmiSchemaBuilder.TType.EnumSchema class with an enumeration of strings.

Properties

	Name	Description
	Constants [► 85]	The constants defined in the current enumeration.
	DefaultValue [► 85]	The default value of the current enumeration.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.1 EnumSchema Constructor

Overload List

	Name	Description
	TcHmiSchemaBuilder.TType.EnumSchema(IDictionary<String, Int32>, String) [► 84]	Initializes a new instance of the TcHmiSchemaBuilder.TType.EnumSchema [► 82] class with an enumeration of integers.
	TcHmiSchemaBuilder.TType.EnumSchema(IEnumerable<String>, String) [► 84]	Initializes a new instance of the TcHmiSchemaBuilder.TType.EnumSchema [► 82] class with an enumeration of strings.

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class \[► 82\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.1.1 TcHmiSchemaBuilder.TType.EnumSchema Constructor (IDictionary.String, Int32., String)

Initializes a new instance of the [TcHmiSchemaBuilder.TType.EnumSchema \[► 82\]](#) class with an enumeration of integers.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public EnumSchema(
    IDictionary<string, int> constants,
    string defaultValue = ""
)
```

Parameters

constants	Type: System.Collections.Generic.IDictionary.String, Int32. The constants defined in the current enumeration.
defaultValue (Optional)	Type: System.String The default value of the current enumeration.

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class \[► 82\]](#)

[TcHmiSchemaBuilder.TType.EnumSchema Overload \[► 83\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.1.2 TcHmiSchemaBuilder.TType.EnumSchema Constructor (IEnumerable.String., String)

Initializes a new instance of the [TcHmiSchemaBuilder.TType.EnumSchema \[► 82\]](#) class with an enumeration of strings.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public EnumSchema(
    IEnumerable<string> constants,
    string defaultValue = ""
)
```


Parameters

constants	Type: <code>System.Collections.Generic.IEnumerable<String></code> . The constants defined in the current enumeration.
defaultValue (Optional)	Type: <code>System.String</code> The default value of the current enumeration.

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class \[► 82\]](#)

[TcHmiSchemaBuilder.TType.EnumSchema Overload \[► 83\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.2 EnumSchema Properties

The [TcHmiSchemaBuilder.TType.EnumSchema \[► 82\]](#) type exposes the following members.

Properties

	Name	Description
	Constants [► 85]	The constants defined in the current enumeration.
	DefaultValue [► 85]	The default value of the current enumeration.

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class \[► 82\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.2.1 TcHmiSchemaBuilder.TType.EnumSchema.Constants Property

The constants defined in the current enumeration.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public IEnumerable Constants { get; }
```

Property Value

Type: [IEnumerable](#)

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class \[► 82\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.24.2.2 TcHmiSchemaBuilder.TType.EnumSchema.DefaultValue Property

The default value of the current enumeration.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public string DefaultValue { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class](#) [► 82]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.24.3 EnumSchema Methods

The [TcHmiSchemaBuilder.TType.EnumSchema](#) [► 82] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.EnumSchema Class](#) [► 82]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.25 TcHmiSchemaBuilder.TType.Integer64Schema Class

Represents a schema that contains a long integer type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [► 102]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Integer64Schema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class Integer64Schema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.Integer64Schema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.Integer64Schema [► 87]	Initializes a new instance of the TcHmiSchemaBuilder.TType.Integer64Schema class.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.25.1 TcHmiSchemaBuilder.TType.Integer64Schema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.Integer64Schema](#) [[► 86](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
public Integer64Schema()
```

Reference

[TcHmiSchemaBuilder.TType.Integer64Schema Class](#) [[► 86](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.25.2 Integer64Schema Methods

The [TcHmiSchemaBuilder.TType.Integer64Schema](#) [[► 86](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.Integer64Schema Class \[► 86\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26 TcHmiSchemaBuilder.TType.IntegerSchema Class

Represents a schema that contains an integer type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema \[► 102\]](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.IntegerSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class IntegerSchema : TcHmiSchemaBuilder.TType.Schema,
    TcHmiSchemaBuilder.TType.INumericTypeSchema<int>
```

The TcHmiSchemaBuilder.TType.IntegerSchema generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.IntegerSchema [► 89]	Initializes a new instance of the TcHmiSchemaBuilder.TType.IntegerSchema class.

Properties

	Name	Description
	ExclusiveMaximum [► 90]	If this value is true, it indicates that the range excludes the maximum value.
	ExclusiveMinimum [► 90]	If this value is true, it indicates that the range excludes the minimum value.
	Maximum [► 91]	Restricts the number to a value less than this value.
	Minimum [► 91]	Restricts the number to a value greater than this value.
	MultipleOf [► 91]	Restricts the number to a multiple of this value.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.1 TcHmiSchemaBuilder.TType.IntegerSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.IntegerSchema \[► 88\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public IntegerSchema(
    SchemaKey<int> multipleOf = default,
    SchemaKey<int> minimum = default,
    SchemaKey<int> maximum = default,
    SchemaKey<bool> exclusiveMinimum = default,
    SchemaKey<bool> exclusiveMaximum = default
)
```

Parameters

multipleOf (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42].Int32 . Restricts the number to a multiple of this value.
minimum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42].Int32 . Restricts the number to a value greater than this value.
maximum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42].Int32 . Restricts the number to a value less than this value.
exclusiveMin imum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42].Boolean . If this value is true, it indicates that the range excludes the minimum value.
exclusiveMa ximum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42].Boolean . If this value is true, it indicates that the range excludes the maximum value.

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2 IntegerSchema Properties

The [TcHmiSchemaBuilder.TType.IntegerSchema \[► 88\]](#) type exposes the following members.

Properties

	Name	Description
	ExclusiveMaximum [► 90]	If this value is true, it indicates that the range excludes the maximum value.
	ExclusiveMinimum [► 90]	If this value is true, it indicates that the range excludes the minimum value.
	Maximum [► 91]	Restricts the number to a value less than this value.
	Minimum [► 91]	Restricts the number to a value greater than this value.
	MultipleOf [► 91]	Restricts the number to a multiple of this value.

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2.1 TcHmiSchemaBuilder.TType.IntegerSchema.ExclusiveMaximum Property

If this value is true, it indicates that the range excludes the maximum value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<bool> ExclusiveMaximum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).Boolean.

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMaximum \[► 93\]](#)

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2.2 TcHmiSchemaBuilder.TType.IntegerSchema.ExclusiveMinimum Property

If this value is true, it indicates that the range excludes the minimum value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<bool> ExclusiveMinimum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).Boolean.

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMinimum \[► 94\]](#)

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2.3 TcHmiSchemaBuilder.TType.IntegerSchema.Maximum Property

Restricts the number to a value less than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<int> Maximum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[Int32](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Maximum \[► 94\]](#)

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2.4 TcHmiSchemaBuilder.TType.IntegerSchema.Minimum Property

Restricts the number to a value greater than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<int> Minimum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[Int32](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Minimum \[► 95\]](#)

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class \[► 88\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.26.2.5 TcHmiSchemaBuilder.TType.IntegerSchema.MultipleOf Property

Restricts the number to a multiple of this value.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<int> MultipleOf { get; }
```

Property Value

Type: [SchemaKey](#) [[► 42](#)].[Int32](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..MultipleOf](#) [[► 95](#)]

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class](#) [[► 88](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.26.3 IntegerSchema Methods

The [TcHmiSchemaBuilder.TType.IntegerSchema](#) [[► 88](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.IntegerSchema Class](#) [[► 88](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.27 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface

Provides the interface for a numeric type schema.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected interface INumericTypeSchema<TNumeric>
where TNumeric : struct, new(), IComparable, IFormattable, IConvertible
```


Type Parameters

TNumeric	The type of the number that the derived schema class represents.

The `TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric`. generic type exposes the following members.

Properties

	Name	Description
	ExclusiveMaximum [► 93]	If this value is true, it indicates that the range excludes the maximum value.
	ExclusiveMinimum [► 94]	If this value is true, it indicates that the range excludes the minimum value.
	Maximum [► 94]	Restricts the number to a value less than this value.
	Minimum [► 95]	Restricts the number to a value greater than this value.
	MultipleOf [► 95]	Restricts the number to a multiple of this value.

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1 INumericTypeSchema.TNumeric. Properties

The `TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric`. [► 92] generic type exposes the following members.

Properties

	Name	Description
	ExclusiveMaximum [► 93]	If this value is true, it indicates that the range excludes the maximum value.
	ExclusiveMinimum [► 94]	If this value is true, it indicates that the range excludes the minimum value.
	Maximum [► 94]	Restricts the number to a value less than this value.
	Minimum [► 95]	Restricts the number to a value greater than this value.
	MultipleOf [► 95]	Restricts the number to a multiple of this value.

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1.1 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMaximum Property

If this value is true, it indicates that the range excludes the maximum value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
SchemaKey<bool> ExclusiveMaximum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).Boolean.

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1.2 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMinimum Property

If this value is true, it indicates that the range excludes the minimum value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
SchemaKey<bool> ExclusiveMinimum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).Boolean.

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1.3 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Maximum Property

Restricts the number to a value less than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
SchemaKey<TNumeric> Maximum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[TNumeric \[► 92\]](#).

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1.4 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Minimum Property

Restricts the number to a value greater than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
SchemaKey<TNumeric> Minimum { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[TNumeric \[► 92\]](#).

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.27.1.5 TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..MultipleOf Property

Restricts the number to a multiple of this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
SchemaKey<TNumeric> MultipleOf { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[TNumeric \[► 92\]](#).

Reference

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric. Interface \[► 92\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28 TcHmiSchemaBuilder.TType.NumberSchema Class

Represents a schema that contains a number type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema \[► 102\]](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.NumberSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected sealed class NumberSchema : TcHmiSchemaBuilder.TType.Schema,
    TcHmiSchemaBuilder.TType.INumericTypeSchema<double>
```

The `TcHmiSchemaBuilder.TType.NumberSchema` generic type exposes the following members.

Constructors

	Name	Description
	<code>TcHmiSchemaBuilder.TType.NumberSchema</code> [► 96]	Initializes a new instance of the <code>TcHmiSchemaBuilder.TType.NumberSchema</code> class.

Properties

	Name	Description
	<code>ExclusiveMaximum</code> [► 97]	If this value is true, it indicates that the range excludes the maximum value.
	<code>ExclusiveMinimum</code> [► 98]	If this value is true, it indicates that the range excludes the minimum value.
	<code>Maximum</code> [► 98]	Restricts the number to a value less than this value.
	<code>Minimum</code> [► 99]	Restricts the number to a value greater than this value.
	<code>MultipleOf</code> [► 99]	Restricts the number to a multiple of this value.

Methods

	Name	Description
	<code>Equals</code>	Determines whether the specified object is equal to the current object. (Inherited from <code>Object</code> .)
	<code>GetHashCode</code>	Serves as the default hash function. (Inherited from <code>Object</code> .)
	<code>GetType</code>	Gets the <code>Type</code> of the current instance. (Inherited from <code>Object</code> .)
	<code>ToString</code>	Returns a string that represents the current object. (Inherited from <code>Object</code> .)

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28.1 TcHmiSchemaBuilder.TType.NumberSchema Constructor

Initializes a new instance of the `TcHmiSchemaBuilder.TType.NumberSchema` [\[► 95\]](#) class.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: `TcHmiSrvExtNet.DynamicSymbols` (in `TcHmiSrvExtNet.DynamicSymbols.dll`) Version: 2.0.0.0

Syntax

C#

```
public NumberSchema (
    SchemaKey<double> multipleOf = default,
    SchemaKey<double> minimum = default,
    SchemaKey<double> maximum = default,
```

```

    SchemaKey<bool> exclusiveMinimum = default,
    SchemaKey<bool> exclusiveMaximum = default
)

```

Parameters

multipleOf (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42] .Double. Restricts the number to a multiple of this value.
minimum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42] .Double. Restricts the number to a value greater than this value.
maximum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42] .Double. Restricts the number to a value less than this value.
exclusiveMin imum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42] .Boolean. If this value is true, it indicates that the range excludes the minimum value.
exclusiveMa ximum (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42] .Boolean. If this value is true, it indicates that the range excludes the maximum value.

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class \[► 95\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28.2 NumberSchema Properties

The [TcHmiSchemaBuilder.TType.NumberSchema \[► 95\]](#) type exposes the following members.

Properties

	Name	Description
	ExclusiveMaximum [► 97]	If this value is true, it indicates that the range excludes the maximum value.
	ExclusiveMinimum [► 98]	If this value is true, it indicates that the range excludes the minimum value.
	Maximum [► 98]	Restricts the number to a value less than this value.
	Minimum [► 99]	Restricts the number to a value greater than this value.
	MultipleOf [► 99]	Restricts the number to a multiple of this value.

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class \[► 95\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28.2.1 TcHmiSchemaBuilder.TType.NumberSchema.ExclusiveMaximum Property

If this value is true, it indicates that the range excludes the maximum value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: [TcHmiSrvExtNet.DynamicSymbols \(in TcHmiSrvExtNet.DynamicSymbols.dll\)](#) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<bool> ExclusiveMaximum { get; }
```

Property Value

Type: [SchemaKey](#) [[▶ 42](#)].Boolean.

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMaximum](#) [[▶ 93](#)]

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class](#) [[▶ 95](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.28.2.2 TcHmiSchemaBuilder.TType.NumberSchema.ExclusiveMinimum Property

If this value is true, it indicates that the range excludes the minimum value.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<bool> ExclusiveMinimum { get; }
```

Property Value

Type: [SchemaKey](#) [[▶ 42](#)].Boolean.

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..ExclusiveMinimum](#) [[▶ 94](#)]

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class](#) [[▶ 95](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.28.2.3 TcHmiSchemaBuilder.TType.NumberSchema.Maximum Property

Restricts the number to a value less than this value.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<double> Maximum { get; }
```

Property Value

Type: [SchemaKey \[► 42\].Double](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Maximum \[► 94\]](#)

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class \[► 95\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28.2.4 TcHmiSchemaBuilder.TType.NumberSchema.Minimum Property

Restricts the number to a value greater than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<double> Minimum { get; }
```

Property Value

Type: [SchemaKey \[► 42\].Double](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..Minimum \[► 95\]](#)

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class \[► 95\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.28.2.5 TcHmiSchemaBuilder.TType.NumberSchema.MultipleOf Property

Restricts the number to a multiple of this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<double> MultipleOf { get; }
```

Property Value

Type: [SchemaKey \[► 42\].Double](#).

Implements

[TcHmiSchemaBuilder.TType.INumericTypeSchema.TNumeric..MultipleOf](#) [[► 95](#)]

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class](#) [[► 95](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.28.3 NumberSchema Methods

The [TcHmiSchemaBuilder.TType.NumberSchema](#) [[► 95](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.NumberSchema Class](#) [[► 95](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.29 TcHmiSchemaBuilder.TType.ObjectSchema Class

Represents a schema that contains an object type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [[► 102](#)]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.ObjectSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
protected sealed class ObjectSchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.ObjectSchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.ObjectSchema [► 101]	Initializes a new instance of the TcHmiSchemaBuilder.TType.ObjectSchema class.

Properties

	Name	Description
	Properties [► 102]	The properties of the current object.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.29.1 TcHmiSchemaBuilder.TType.ObjectSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.ObjectSchema](#) [[► 100](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public ObjectSchema(  
    IDictionary<string, TType> properties = null  
)
```

Parameters

properties (Optional)	Type: System.Collections.Generic.IDictionary.String, TType [► 66]. The properties of the current object.

Reference

[TcHmiSchemaBuilder.TType.ObjectSchema Class](#) [[► 100](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.29.2 ObjectSchema Properties

The [TcHmiSchemaBuilder.TType.ObjectSchema](#) [[► 100](#)] type exposes the following members.

Properties

	Name	Description
	Properties [► 102]	The properties of the current object.

Reference

[TcHmiSchemaBuilder.TType.ObjectSchema Class](#) [[► 100](#)]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.29.2.1 TcHmiSchemaBuilder.TType.ObjectSchema.Properties Property

The properties of the current object.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public IDictionary<string, TType> Properties { get; }
```

Property Value

Type: [IDictionary.String](#), [TType \[► 66\]](#).

Reference

[TcHmiSchemaBuilder.TType.ObjectSchema Class \[► 100\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.29.3 ObjectSchema Methods

The [TcHmiSchemaBuilder.TType.ObjectSchema \[► 100\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.ObjectSchema Class \[► 100\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.30 TcHmiSchemaBuilder.TType.Schema Class

Provides a base class for schemas. Never use the TcHmiSchemaBuilder.TType.Schema class directly - use a derived class instead.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#)

More

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected abstract class Schema
```

The `TcHmiSchemaBuilder.TType.Schema` generic type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

Inheritance Hierarchy

System.Object

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#)
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.ArraySchema](#) [► 69]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.BinarySchema](#) [► 73]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.BooleanSchema](#) [► 74]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DateTimeSchema](#) [► 76]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DefinitionSchema](#) [► 77]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.DictionarySchema](#) [► 80]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.EnumSchema](#) [► 82]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Integer64Schema](#) [► 86]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.IntegerSchema](#) [► 88]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.NumberSchema](#) [► 95]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.ObjectSchema](#) [► 100]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.StringSchema](#) [► 104]
[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.TimeSpanSchema](#) [► 108]

2.1.1.30.1 Schema Methods

The [TcHmiSchemaBuilder.TType.Schema](#) [► 102] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.Schema Class \[► 102\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31 TcHmiSchemaBuilder.TType.StringSchema Class

Represents a schema that contains a string type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema \[► 102\]](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.StringSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
protected sealed class StringSchema : TcHmiSchemaBuilder.TType.Schema
```

The TcHmiSchemaBuilder.TType.StringSchema generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.StringSchema [► 105]	Initializes a new instance of the TcHmiSchemaBuilder.TType.StringSchema class.

Properties

	Name	Description
	Format [► 106]	Restricts the string to match a commonly used format.
	MaxLength [► 106]	Constrains the length of the string to a value less than this value.
	MinLength [► 107]	Constrains the length of the string to a value greater than this value.
	Pattern [► 107]	Restricts the string to match this regular expression.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[► 8](#)]

2.1.1.31.1 TcHmiSchemaBuilder.TType.StringSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.StringSchema](#) [[► 104](#)] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public StringSchema(
    SchemaKey<uint> minLength = default,
    SchemaKey<uint> maxLength = default,
    SchemaKey<string> pattern = default,
    SchemaKey<JsonSchemaStringFormat> format = default
)
```

Parameters

minLength (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. UInt32 . Constrains the length of the string to a value greater than this value.
maxLength (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. UInt32 . Constrains the length of the string to a value less than this value.
pattern (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. String . Restricts the string to match this regular expression.
format (Optional)	Type: TcHmiSrv.DynamicSymbols.SchemaKey [► 42]. JsonSchemaStringFormat [► 41]. Restricts the string to match a commonly used format.

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class](#) [[► 104](#)]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.2 StringSchema Properties

The [TcHmiSchemaBuilder.TType.StringSchema \[► 104\]](#) type exposes the following members.

Properties

	Name	Description
	Format [► 106]	Restricts the string to match a commonly used format.
	MaxLength [► 106]	Constrains the length of the string to a value less than this value.
	MinLength [► 107]	Constrains the length of the string to a value greater than this value.
	Pattern [► 107]	Restricts the string to match this regular expression.

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class \[► 104\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.2.1 TcHmiSchemaBuilder.TType.StringSchema.Format Property

Restricts the string to match a commonly used format.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<JsonSchemaStringFormat> Format { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[JsonSchemaStringFormat \[► 41\]](#).

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class \[► 104\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.2.2 TcHmiSchemaBuilder.TType.StringSchema.MaxLength Property

Constrains the length of the string to a value less than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<uint> MaxLength { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[UInt32](#).

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class \[► 104\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.2.3 TcHmiSchemaBuilder.TType.StringSchema.MinLength Property

Constrains the length of the string to a value greater than this value.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<uint> MinLength { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[UInt32](#).

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class \[► 104\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.2.4 TcHmiSchemaBuilder.TType.StringSchema.Pattern Property

Restricts the string to match this regular expression.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public SchemaKey<string> Pattern { get; }
```

Property Value

Type: [SchemaKey \[► 42\]](#).[String](#).

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class \[► 104\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.31.3 StringSchema Methods

The [TcHmiSchemaBuilder.TType.StringSchema \[► 104\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.StringSchema Class](#) [[►](#) 104]

[TcHmiSrv.DynamicSymbols Namespace](#) [[►](#) 8]

2.1.1.32 TcHmiSchemaBuilder.TType.TimeSpanSchema Class

Represents a schema that contains a time span type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.Schema](#) [[►](#) 102]

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType.TimeSpanSchema](#)

Namespace: [TcHmiSrv.DynamicSymbols](#) [[►](#) 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
protected sealed class TimeSpanSchema : TcHmiSchemaBuilder.TType.Schema
```

The [TcHmiSchemaBuilder.TType.TimeSpanSchema](#) generic type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType.TimeSpanSchema [► 109]	Initializes a new instance of the TcHmiSchemaBuilder.TType.TimeSpanSchema class.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[►](#) 8]

2.1.1.32.1 TcHmiSchemaBuilder.TType.TimeSpanSchema Constructor

Initializes a new instance of the [TcHmiSchemaBuilder.TType.TimeSpanSchema](#) [► 108] class.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public TimeSpanSchema()
```

Reference

[TcHmiSchemaBuilder.TType.TimeSpanSchema Class](#) [► 108]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.32.2 TimeSpanSchema Methods

The [TcHmiSchemaBuilder.TType.TimeSpanSchema](#) [► 108] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType.TimeSpanSchema Class](#) [► 108]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.33 TcHmiSchemaBuilder.TType, TInfo. Class

Provides basic functions to create instances of class [Value](#) [► 513] that represent a schema builded of type TType with additional information of type TInfo.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder](#) [► 66].TType.

[TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder.TType, TInfo](#).

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public abstract class TcHmiSchemaBuilder<TType, TInfo> : TcHmiSchemaBuilder<TType>
```

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

The `TcHmiSchemaBuilder.TType, TInfo` type exposes the following members.

Constructors

	Name	Description
	TcHmiSchemaBuilder.TType, TInfo [▶ 110]	Initializes a new instance of the <code>TcHmiSchemaBuilder.TType, TInfo</code> class

Methods

	Name	Description
	BuildSchema [▶ 68]	Builds the schema of a the specified type. (Inherited from <code>TcHmiSchemaBuilder.TType</code> . [▶ 66].)
	DefinitionExists [▶ 69]	Checks if the definition with the specified name exists. (Inherited from <code>TcHmiSchemaBuilder.TType</code> . [▶ 66].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from <code>Object</code> .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <code>Object</code> .)
	GetHashCode	Serves as the default hash function. (Inherited from <code>Object</code> .)
	GetInformation [▶ 111]	Gets the additional information for the current definition.
	GetType	Gets the <code>Type</code> of the current instance. (Inherited from <code>Object</code> .)
	MemberwiseClone	Creates a shallow copy of the current <code>Object</code> . (Inherited from <code>Object</code> .)
	ToString	Returns a string that represents the current object. (Inherited from <code>Object</code> .)

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.33.1 TcHmiSchemaBuilder.TType, TInfo. Constructor

Initializes a new instance of the `TcHmiSchemaBuilder.TType, TInfo`. [[▶ 109](#)] class

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: `TcHmiSrvExtNet.DynamicSymbols` (in `TcHmiSrvExtNet.DynamicSymbols.dll`) Version: 2.0.0.0

Syntax

C#

```
protected TcHmiSchemaBuilder()
```

Reference

[TcHmiSchemaBuilder.TType, TInfo. Class](#) [[▶ 109](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.33.2 TcHmiSchemaBuilder.TType, TInfo. Methods

The [TcHmiSchemaBuilder.TType, TInfo](#). [► 109] generic type exposes the following members.

Methods

	Name	Description
	BuildSchema [► 68]	Builds the schema of a the specified type. (Inherited from TcHmiSchemaBuilder.TType . [► 66].)
	DefinitionExists [► 69]	Checks if the definition with the specified name exists. (Inherited from TcHmiSchemaBuilder.TType . [► 66].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetInformation [► 111]	Gets the additional information for the current definition.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSchemaBuilder.TType, TInfo](#). Class [► 109]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.33.2.1 TcHmiSchemaBuilder.TType, TInfo..GetInformation Method

Gets the additional information for the current definition.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
protected TInfo GetInformation()
```

Return Value

Type: [TInfo](#) [► 109]

The additional information for the current symbol.

Reference

[TcHmiSchemaBuilder.TType, TInfo](#). Class [► 109]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34 TcHmiSchemaGenerator Class

Provides methods to get the schema of a particular type and store it in an instance of type [Value](#) [[► 513](#)].

Inheritance Hierarchy

[System.Object](#)

TcHmiSrv.DynamicSymbols.TcHmiSchemaGenerator

Namespace: [TcHmiSrv.DynamicSymbols](#) [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static class TcHmiSchemaGenerator
```

Methods

	Name	Description
	GetDefinitions(Command, IEnumerable.Definition.) [117]	Gets the definitions from the enumerable collection of Definition [18]s and stores them in the read value of the specified Command [188].
	GetDefinitions.TType.(Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.) [119]	Gets the definitions from the enumerable collection of IDefinition.TType. [29]s and stores them in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType. [66].
	GetDefinitions.TType, TInfo.(Command, IEnumerable.IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [118]	Gets the definitions from the enumerable collection of IExtendedDefinition.TType, TInfo. [35]s and stores them in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType, TInfo. [109].
	GetSchema(Command, Definition) [120]	Gets the schema of the Definition [18] and stores it in the read value of the specified Command [188].
	GetSchema(Command, BuildInfo, Type, Type, Boolean) [122]	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [188].
	GetSchema(Command, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32) [123]	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [188].
	GetSchema.TType.(Command, IDefinition.TType., TcHmiSchemaBuilder.TType.) [121]	Gets the schema of the IDefinition.TType. [29] and stores it in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType. [66].
	GetSchema.TType, TInfo.(Command, IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [122]	Gets the schema of the IExtendedDefinition.TType, TInfo. [35] and stores it in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType, TInfo. [109].
	ListSymbols(Command, IEnumerable.Symbol.) [125]	Lists the schemas from the enumerable collection of Symbol [44]s and stores them in the read value of the specified Command [188].
	ListSymbols.TType.(Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.) [127]	Lists the schemas from the enumerable collection of ISymbol.TType. [40]s and stores them in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType. [66].
	ListSymbols.TType, TInfo.(Command, IEnumerable.IExtendedSymbol.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [125]	Lists the schemas from the enumerable collection of IExtendedSymbol.TType, TInfo. [37]s and stores them in the read value of the specified Command [188] using the given TcHmiSchemaBuilder.TType, TInfo. [109].

Reference

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1 TcHmiSchemaGenerator Methods

Methods

	Name	Description
	<code>GetDefinitions(Command, IEnumerable<Definition>) [▸ 117]</code>	Gets the definitions from the enumerable collection of Definition [▸ 18] s and stores them in the read value of the specified Command [▸ 188] .
	<code>GetDefinitions.TType.(Command, IEnumerable<IDefinition.TType>, TchHmiSchemaBuilder.TType) [▸ 119]</code>	Gets the definitions from the enumerable collection of IDefinition.TType. [▸ 29] s and stores them in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType. [▸ 66] .
	<code>GetDefinitions.TType, TInfo.(Command, IEnumerable<IExtendedDefinition.TType, TInfo>, TchHmiSchemaBuilder.TType, TInfo) [▸ 118]</code>	Gets the definitions from the enumerable collection of IExtendedDefinition.TType, TInfo. [▸ 35] s and stores them in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType, TInfo. [▸ 109] .
	<code>GetSchema(Command, Definition) [▸ 120]</code>	Gets the schema of the Definition [▸ 18] and stores it in the read value of the specified Command [▸ 188] .
	<code>GetSchema(Command, BuildInfo, Type, Type, Boolean) [▸ 122]</code>	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [▸ 188] .
	<code>GetSchema(Command, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection<String>, UInt32) [▸ 123]</code>	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [▸ 188] .
	<code>GetSchema.TType.(Command, IDefinition.TType, TchHmiSchemaBuilder.TType) [▸ 121]</code>	Gets the schema of the IDefinition.TType. [▸ 29] and stores it in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType. [▸ 66] .
	<code>GetSchema.TType, TInfo.(Command, IExtendedDefinition.TType, TInfo, TchHmiSchemaBuilder.TType, TInfo) [▸ 122]</code>	Gets the schema of the IExtendedDefinition.TType, TInfo. [▸ 35] and stores it in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType, TInfo. [▸ 109] .
	<code>ListSymbols(Command, IEnumerable<Symbol>) [▸ 125]</code>	Lists the schemas from the enumerable collection of Symbol [▸ 44] s and stores them in the read value of the specified Command [▸ 188] .
	<code>ListSymbols.TType.(Command, IEnumerable<ISymbol.TType>, TchHmiSchemaBuilder.TType) [▸ 127]</code>	Lists the schemas from the enumerable collection of ISymbol.TType. [▸ 40] s and stores them in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType. [▸ 66] .
	<code>ListSymbols.TType, TInfo.(Command, IEnumerable<IExtendedSymbol.TType, TInfo>, TchHmiSchemaBuilder.TType, TInfo) [▸ 125]</code>	Lists the schemas from the enumerable collection of IExtendedSymbol.TType, TInfo. [▸ 37] s and stores them in the read value of the specified Command [▸ 188] using the given TchHmiSchemaBuilder.TType, TInfo. [▸ 109] .

Reference

[TcHmiSchemaGenerator Class \[► 112\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1.1 TcHmiSchemaGenerator.GetDefinitions Method

Overload List

	Name	Description
 	GetDefinitions(Command, IEnumerable.Definition.) [► 117]	Gets the definitions from the enumerable collection of Definition [► 18] s and stores them in the read value of the specified Command [► 188] .
 	GetDefinitions.TType. (Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.) [► 119]	Gets the definitions from the enumerable collection of IDefinition.TType. [► 29] s and stores them in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType. [► 66] .
 	GetDefinitions.TType, TInfo. (Command, IEnumerable.IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [► 118]	Gets the definitions from the enumerable collection of IExtendedDefinition.TType, TInfo. [► 35] s and stores them in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType, TInfo. [► 109] .

Reference

[TcHmiSchemaGenerator Class \[► 112\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1.1.1 TcHmiSchemaGenerator.GetDefinitions Method (Command, IEnumerable.Definition.)

Gets the definitions from the enumerable collection of [Definition \[► 18\]](#)s and stores them in the read value of the specified [Command \[► 188\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void GetDefinitions(
    Command command,
    IEnumerable<Definition> definitions
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetDefinitions request.
definitions	Type: System.Collections.Generic.IEnumerable.Definition [► 18] . An enumerable collection of Definition [► 18] s that should be returned.

Reference[TcHmiSchemaGenerator Class](#) [► 112][GetDefinitions Overload](#) [► 117][TcHmiSrv.DynamicSymbols Namespace](#) [► 8]**2.1.1.34.1.1.2 *TcHmiSchemaGenerator.GetDefinitions.TType. Method (Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.)***

Gets the definitions from the enumerable collection of [IDefinition.TType.](#) [► 29]s and stores them in the read value of the specified Command using the given [TcHmiSchemaBuilder.TType.](#) [► 66].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]**Assembly:** [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 1.10.683.0 (1.10.683.0)**Syntax****C#**

```
public static void GetDefinitions<TType>(
    Command command,
    IEnumerable<IDefinition<TType>> definitions,
    TcHmiSchemaBuilder<TType> builder
)
```

Parameters

command	Type: TcHmiSrv.Command The Command that contains the GetDefinitions request.
definitions	Type: System.Collections.Generic.IEnumerable.IDefinition [► 29].TType.. An enumerable collection of IDefinition.TType. [► 29]s that should be returned.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 66].TType.. An instance of a class derived from TcHmiSchemaBuilder.TType. [► 66] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.

Reference[TcHmiSchemaGenerator Class](#) [► 112][GetDefinitions Overload](#) [► 117][TcHmiSrv.DynamicSymbols Namespace](#) [► 8]**2.1.1.34.1.1.3 *TcHmiSchemaGenerator.GetDefinitions.TType, TInfo. Method (Command, IEnumerable.IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.)***

Gets the definitions from the enumerable collection of [IExtendedDefinition.TType, TInfo.](#) [► 35]s and stores them in the read value of the specified [Command](#) [► 188] using the given [TcHmiSchemaBuilder.TType, TInfo.](#) [► 109].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]**Assembly:** [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public static void GetDefinitions<TType, TInfo>(
    Command command,
    IEnumerable<IExtendedDefinition<TType, TInfo>> definitions,
    TcHmiSchemaBuilder<TType, TInfo> builder
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetDefinitions request.
definitions	Type: System.Collections.Generic.IEnumerable.IExtendedDefinition [► 35].TType, TInfo.. An enumerable collection of IExtendedDefinition.TType, TInfo. [► 35]s that should be returned.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 109].TType, TInfo.. An instance of a class derived from TcHmiSchemaBuilder.TType, TInfo. [► 109] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[GetDefinitions Overload](#) [► 117]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.1.4 *TcHmiSchemaGenerator.GetDefinitions.TType. Method (Command, IEnumerable.IDefinition.TType., TcHmiSchemaBuilder.TType.)*

Gets the definitions from the enumerable collection of [IDefinition.TType.](#) [► 29]s and stores them in the read value of the specified [Command](#) [► 188] using the given [TcHmiSchemaBuilder.TType.](#) [► 66].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void GetDefinitions<TType>(
    Command command,
    IEnumerable<IDefinition<TType>> definitions,
    TcHmiSchemaBuilder<TType> builder
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetDefinitions request.
definitions	Type: System.Collections.Generic.IEnumerable.IDefinition [► 29].TType.. An enumerable collection of IDefinition.TType. [► 29]s that should be returned.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 66].TType.. An instance of a class derived from TcHmiSchemaBuilder.TType. [► 66] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[GetDefinitions Overload](#) [► 117]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.2 TcHmiSchemaGenerator.GetSchema Method**Overload List**

	Name	Description
 	GetSchema(Command, Definition) [► 120]	Gets the schema of the Definition [► 18] and stores it in the read value of the specified Command [► 188].
 	GetSchema.TType.(Command, IDefinition.TType., TcHmiSchemaBuilder.TType.) [► 121]	Gets the schema of the IDefinition.TType. [► 29] and stores it in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType. [► 66].
 	GetSchema.TType, TInfo.(Command, IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [► 122]	Gets the schema of the IExtendedDefinition.TType, TInfo. [► 35] and stores it in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType, TInfo. [► 109].
 	GetSchema(Command, BuildInfo, Type, Type, Boolean) [► 122]	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [► 188].
 	GetSchema(Command, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32) [► 123]	Gets the schemas of the instances of type Type and stores them in the read value of the specified Command [► 188].

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.2.1 TcHmiSchemaGenerator.GetSchema Method (Command, Definition)

Gets the schema of the [Definition](#) [► 18] and stores it in the read value of the specified [Command](#) [► 188].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public static void GetSchema(  
    Command command,  
    Definition definition  
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetSchema request.
definition	Type: TcHmiSrv.DynamicSymbols.Definition [► 18] The Definition [► 18] to get the schema.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[GetSchema Overload](#) [► 120]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.2.2 *TcHmiSchemaGenerator.GetSchema.TType. Method (Command, IDefinition.TType., TcHmiSchemaBuilder.TType.)*

Gets the schema of the [IDefinition.TType.](#) [► 29] and stores it in the read value of the specified [Command](#) [► 188] using the given [TcHmiSchemaBuilder.TType.](#) [► 66].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 2.0.0.0

Syntax

C#

```
public static void GetSchema<TType>(  
    Command command,  
    IDefinition<TType> definition,  
    TcHmiSchemaBuilder<TType> builder  
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetSchema request.
definition	Type: TcHmiSrv.DynamicSymbols.IDefinition [► 29].TType. The IDefinition.TType. [► 29] to get the schema.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 66].TType. An instance of a class derived from TcHmiSchemaBuilder.TType. [► 66] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[GetSchema Overload](#) [► 120]

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1.2.3 *TcHmiSchemaGenerator.GetSchema.TType, TInfo. Method (Command, IExtendedDefinition.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.)*

Gets the schema of the [IExtendedDefinition.TType, TInfo. \[► 35\]](#) and stores it in the read value of the specified [Command \[► 188\]](#) using the given [TcHmiSchemaBuilder.TType, TInfo. \[► 109\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void GetSchema<TType, TInfo>(
    Command command,
    IExtendedDefinition<TType, TInfo> definition,
    TcHmiSchemaBuilder<TType, TInfo> builder
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetSchema request.
definition	Type: TcHmiSrv.DynamicSymbols.IExtendedDefinition [► 35].TType, TInfo. The IExtendedDefinition.TType, TInfo. [► 35] to get the schema.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 109].TType, TInfo. An instance of a class derived from TcHmiSchemaBuilder.TType, TInfo. [► 109] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

Reference

[TcHmiSchemaGenerator Class \[► 112\]](#)

[GetSchema Overload \[► 120\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1.2.4 *TcHmiSchemaGenerator.GetSchema Method (Command, BuildInfo, Type, Type, Boolean)*

Gets the schemas of the instances of type [Type](#) and stores them in the read value of the specified [Command \[► 188\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void GetSchema(  
    Command command,  
    BuildInfo info,  
    Type readValue = null,  
    Type writeValue = null,  
    bool isFunction = false  
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetSchema request.
info	Type: TcHmiSrv.DynamicSymbols.BuildInfo [► 11] The additional information of the definition.
readValue (Optional)	Type: System.Type The read value for which a schema is to be added.
writeValue (Optional)	Type: System.Type The write value for which a schema is to be added.
isFunction (Optional)	Type: System.Boolean true to define this symbol as a function; false to not define this symbol as a function.

Reference

- [TcHmiSchemaGenerator Class](#) [► 112]
- [GetSchema Overload](#) [► 120]
- [TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.2.5 *TcHmiSchemaGenerator.GetSchema Method (Command, Type, Type, Boolean, IncludeMembers, BindingFlags, ICollection.String., UInt32)*

Gets the schemas of the instances of type [Type](#) and stores them in the read value of the specified [Command](#) [► 188].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void GetSchema(  
    Command command,  
    Type readValue = null,  
    Type writeValue = null,  
    bool isFunction = false,  
    IncludeMembers members = IncludeMembers.Fields|IncludeMembers.Properties,  
    BindingFlags bindingAttr = BindingFlags.Default,  
    ICollection<string> ignoreElements = null,  
    uint maxDepth = 4294967295  
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the GetSchema request.
readValue (Optional)	Type: System.Type The read value for which a schema is to be added.
writeValue (Optional)	Type: System.Type The write value for which a schema is to be added.
isFunction (Optional)	Type: System.Boolean true to define this symbol as a function; false to not define this symbol as a function.
members (Optional)	Type: TcHmiSrv.DynamicSymbols.IncludeMembers [► 38] A bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.
bindingAttr (Optional)	Type: System.Reflection.BindingFlags A bitmask comprised of one or more 'BindingFlags' that specify how the search is conducted.
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored. To ignore elements in the write value use the prefix 'writeValue'.
maxDepth (Optional)	Type: System.UInt32 The maximum schema depth.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[GetSchema Overload](#) [► 120]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.3 TcHmiSchemaGenerator.ListSymbols Method**Overload List**

	Name	Description
 	ListSymbols(Command, IEnumerable.Symbol.)	Lists the schemas from the enumerable collection of Symbol [► 44]s and stores them in the read value of the specified Command [► 188].
 	ListSymbols.TType.(Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.) [► 127]	Lists the schemas from the enumerable collection of ISymbol.TType. [► 40]s and stores them in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType. [► 66].
 	ListSymbols.TType, TInfo.(Command, IEnumerable.IExtendedSymbol.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.) [► 125]	Lists the schemas from the enumerable collection of IExtendedSymbol.TType, TInfo. [► 37]s and stores them in the read value of the specified Command [► 188] using the given TcHmiSchemaBuilder.TType, TInfo. [► 109].

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.3.1 *TcHmiSchemaGenerator.ListSymbols Method (Command, IEnumerable.Symbol.)*

Lists the schemas from the enumerable collection of [Symbol](#) [► 44]s and stores them in the read value of the specified [Command](#) [► 188].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void ListSymbols(
    Command command,
    IEnumerable<Symbol> symbols
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the ListSymbols request.
symbols	Type: System.Collections.Generic.IEnumerable.Symbol [► 44]. An enumerable collection of Symbol [► 44]s that should be listed.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[ListSymbols Overload](#) [► 124]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.3.2 *TcHmiSchemaGenerator.ListSymbols.TType, TInfo. Method (Command, IEnumerable.IExtendedSymbol.TType, TInfo., TcHmiSchemaBuilder.TType, TInfo.)*

Lists the schemas from the enumerable collection of [IExtendedSymbol.TType, TInfo.](#) [► 37]s and stores them in the read value of the specified [Command](#) [► 188] using the given [TcHmiSchemaBuilder.TType, TInfo.](#) [► 109].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void ListSymbols<TType, TInfo>(
    Command command,
    IEnumerable<IExtendedSymbol<TType, TInfo>> symbols,
    TcHmiSchemaBuilder<TType, TInfo> builder
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the ListSymbols request.
symbols	Type: System.Collections.Generic.IEnumerable.IExtendedSymbol [► 37].TType, TInfo.. An enumerable collection of IExtendedSymbol.TType, TInfo. [► 37]s that should be listed.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 109].TType, TInfo.. An instance of a class derived from TcHmiSchemaBuilder.TType, TInfo. [► 109] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.
TInfo	The type of the class that contains additional information.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[ListSymbols Overload](#) [► 124]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.34.1.3.3 *TcHmiSchemaGenerator.ListSymbols.TType. Method (Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.)*

Lists the schemas from the enumerable collection of [ISymbol.TType.](#) [► 40]s and stores them in the read value of the specified Command using the given [TcHmiSchemaBuilder.TType.](#) [► 66].

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: [TcHmiSrvExtNet.DynamicSymbols](#) (in [TcHmiSrvExtNet.DynamicSymbols.dll](#)) Version: 1.10.683.0 (1.10.683.0)

Syntax**C#**

```
public static void ListSymbols<TType>(
    Command command,
    IEnumerable<ISymbol<TType>> symbols,
    TcHmiSchemaBuilder<TType> builder
)
```

Parameters

command	Type: TcHmiSrv.Command The Command that contains the ListSymbols request.
symbols	Type: System.Collections.Generic.IEnumerable.ISymbol [► 40].TType.. An enumerable collection of ISymbol.TType. [► 40]s that should be listed.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 66].TType.. An instance of a class derived from TcHmiSchemaBuilder.TType. [► 66] to build the schema.

Type Parameters

TType The type of the class that contains the schema information.

Reference

[TcHmiSchemaGenerator Class](#) [► 112]

[ListSymbols Overload \[► 124\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.34.1.3.4 TcHmiSchemaGenerator.ListSymbols.TType. Method (Command, IEnumerable.ISymbol.TType., TcHmiSchemaBuilder.TType.)

Lists the schemas from the enumerable collection of [ISymbol.TType. \[► 40\]](#)s and stores them in the read value of the specified [Command \[► 188\]](#) using the given [TcHmiSchemaBuilder.TType. \[► 66\]](#).

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static void ListSymbols<TType>(
    Command command,
    IEnumerable<ISymbol<TType>> symbols,
    TcHmiSchemaBuilder<TType> builder
)
```

Parameters

command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the ListSymbols request.
symbols	Type: System.Collections.Generic.IEnumerable.ISymbol [► 40].TType. An enumerable collection of ISymbol.TType. [► 40] s that should be listed.
builder	Type: TcHmiSrv.DynamicSymbols.TcHmiSchemaBuilder [► 66].TType. An instance of a class derived from TcHmiSchemaBuilder.TType. [► 66] to build the schema.

Type Parameters

TType	The type of the class that contains the schema information.

Reference

[TcHmiSchemaGenerator Class \[► 112\]](#)

[ListSymbols Overload \[► 124\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.35 TcHmiSerializer Class

Provides methods to serialize between instances of type [Object](#) and [Value \[► 513\]](#).

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiSerializer](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static class TcHmiSerializer
```

The `TcHmiSerializer` type exposes the following members.

Methods

	Name	Description
 	<code>CreateObject(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)</code> [► 130]	Serializes an instance of type <code>Value</code> [► 513] to the corresponding instance of the given <code>Type</code> with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>CreateObject.T.(Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)</code> [► 129]	Serializes an instance of type <code>Value</code> [► 513] to the corresponding instance of the given type parameter with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>EditObject</code> [► 131]	Edits the reference of type <code>Object</code> at the specified path with the given <code>Value</code> [► 513] using the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>SerializeObject</code> [► 134]	Serializes the specified members of an instance of type <code>Object</code> to the corresponding instance of type <code>Value</code> [► 513] with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.

Reference

`TcHmiSrv.DynamicSymbols Namespace` [► 8]

2.1.1.35.1 TcHmiSerializer Methods

The `TcHmiSerializer` [► 127] type exposes the following members.

Methods

	Name	Description
 	<code>CreateObject(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)</code> [► 130]	Serializes an instance of type <code>Value</code> [► 513] to the corresponding instance of the given <code>Type</code> with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>CreateObject.T.(Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)</code> [► 129]	Serializes an instance of type <code>Value</code> [► 513] to the corresponding instance of the given type parameter with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>EditObject</code> [► 131]	Edits the reference of type <code>Object</code> at the specified path with the given <code>Value</code> [► 513] using the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.
 	<code>SerializeObject</code> [► 134]	Serializes the specified members of an instance of type <code>Object</code> to the corresponding instance of type <code>Value</code> [► 513] with the specified <code>BindingFlags</code> without the ignored elements up to the specified serialization depth.

Reference

`TcHmiSerializer Class` [► 127]

`TcHmiSrv.DynamicSymbols Namespace` [► 8]

2.1.1.35.1.1 TcHmiSerializer.CreateObject Method

Overload List

	Name	Description
 	CreateObject.T.(Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [129]	Serializes an instance of type Value [513] to the corresponding instance of the given type parameter with the specified BindingFlags without the ignored elements up to the specified serialization depth.
 	CreateObject(Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean) [130]	Serializes an instance of type Value [513] to the corresponding instance of the given Type with the specified BindingFlags without the ignored elements up to the specified serialization depth.

Reference

[TcHmiSerializer Class](#) [[127](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[8](#)]

2.1.1.35.1.1.1 TcHmiSerializer.CreateObject.T. Method (Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)

Serializes an instance of type [Value](#) [[513](#)] to the corresponding instance of the given type parameter with the specified [BindingFlags](#) without the ignored elements up to the specified serialization depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static T CreateObject<T>(
    Value value,
    bool skipAbstractOrInterface = false,
    bool allowChangeType = false,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,
    uint maxDepth = 4294967295,
    bool throwException = true
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The value to serialize.
skipAbstractOrInterface (Optional)	Type: System.Boolean true to skip abstract classes and interfaces; false to throw an exception.
allowChangeType (Optional)	Type: System.Boolean true to allow conversions between different built-in data types (e.g. int to double, bool to string or vice versa) by using ChangeType(Object, Type) ; false to allow only conversions between related built-in data types (e.g. short to int or float to double).
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: System.Boolean true to ignore null values and return null; false to throw an exception.
maxDepth (Optional)	Type: System.UInt32 The maximum serialization depth.
throwException (Optional)	Type: System.Boolean true to throw an exception after the maximum serialization depth has been reached; false to return null.

Type Parameters

T	The type of the object that will be returned.

Return Value

Type: T

An instance of the specified type that matches the specified [Value](#) [► 513].

Reference

[TcHmiSerializer Class](#) [► 127]

[CreateObject Overload](#) [► 129]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.35.1.1.2 *TcHmiSerializer.CreateObject Method (Value, Type, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)*

Serializes an instance of type [Value](#) [► 513] to the corresponding instance of the given [Type](#) with the specified [BindingFlags](#) without the ignored elements up to the specified serialization depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public static Object CreateObject(
    Value value,
    Type type,
    bool skipAbstractOrInterface = false,
    bool allowChangeType = false,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,
```

```

uint maxDepth = 4294967295,
bool throwException = true
)

```

Parameters

value	Type: TcHmiSrv.Value [► 513] The value to serialize.
type	Type: System.Type The type of the object that will be returned.
skipAbstractOrInterface (Optional)	Type: System.Boolean true to skip abstract classes and interfaces; false to throw an exception.
allowChangeType (Optional)	Type: System.Boolean true to allow conversions between different built-in data types (e.g. int to double, bool to string or vice versa) by using ChangeType(Object, Type) ; false to allow only conversions between related built-in data types (e.g. short to int or float to double).
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection<String> . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: System.Boolean true to ignore null values and return null; false to throw an exception.
maxDepth (Optional)	Type: System.UInt32 The maximum serialization depth.
throwException (Optional)	Type: System.Boolean true to throw an exception after the maximum serialization depth has been reached; false to return null.

Return Value

Type: [Object](#)

An instance of the specified type that matches the specified [Value](#) [► 513].

Reference

[TcHmiSerializer Class](#) [► 127]

[CreateObject Overload](#) [► 129]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.35.1.2 TcHmiSerializer.EditObject Method

Edits the reference of type [Object](#) at the specified path with the given [Value](#) [► 513] using the specified [BindingFlags](#) without the ignored elements up to the specified serialization depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```

public static void EditObject(
    ref Object obj,
    string path,
    Value value,
    bool skipAbstractOrInterface = false,
    bool allowChangeType = false,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,

```

```
uint maxDepth = 4294967295,
bool throwException = true
)
```

Parameters

obj	Type: System.Object . A reference to the Object that should be edited.
path	Type: System.String The path from Path [► 196] that specifies the sub-object.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] that should be written to the Object at the specified path.
skipAbstractOrInterface (Optional)	Type: System.Boolean true to skip abstract classes and interfaces; false to throw an exception.
allowChangeType (Optional)	Type: System.Boolean true to allow conversions between different built-in data types (e.g. int to double, bool to string or vice versa) by using ChangeType(Object, Type) ; false to allow only conversions between related built-in data types (e.g. short to int or float to double).
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: System.Boolean true to ignore null values and return null; false to throw an exception.
maxDepth (Optional)	Type: System.UInt32 The maximum serialization depth.
throwException (Optional)	Type: System.Boolean true to throw an exception after the maximum serialization depth has been reached; false to return null.

Reference

[TcHmiSerializer Class \[► 127\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.35.1.2.1 *TcHmiSerializer.EditObject Method (Object., String, Value, Boolean, Boolean, ICollection.String., Boolean, UInt32, Boolean)*

Edits the reference of type [Object](#) at the specified path with the given Value using the specified [BindingFlags](#) without the ignored elements up to the specified serialization depth.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
public static void EditObject(
    ref Object obj,
    string path,
    Value value,
    bool skipAbstractOrInterface = false,
    bool allowChangeType = false,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,
    uint maxDepth = 4294967295,
    bool throwException = true
)
```


Parameters

obj	Type: System.Object . A reference to the Object that should be edited.
path	Type: System.String The path from Path that specifies the sub-object.
value	Type: TcHmiSrv.Value The Value that should be written to the Object at the specified path.
skipAbstractOrInterface (Optional)	Type: System.Boolean true to skip abstract classes and interfaces; false to throw an exception.
allowChangeType (Optional)	Type: System.Boolean true to allow conversions between different built-in data types (e.g. int to double, bool to string or vice versa) by using ChangeType(Object, Type) ; false to allow only conversions between related built-in data types (e.g. short to int or float to double).
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection<String> . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: System.Boolean true to ignore null values and return null; false to throw an exception.
maxDepth (Optional)	Type: System.UInt32 The maximum serialization depth.
throwException (Optional)	Type: System.Boolean true to throw an exception after the maximum serialization depth has been reached; false to return null.

Reference

[TcHmiSerializer Class](#) [► 127]

[EditObject Overload](#) [► 131]

[TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.35.1.2.2 *TcHmiSerializer.EditObject.T. Method (T., String, Value, Boolean, Boolean, ICollection<String>, Boolean, UInt32, Boolean)*

Edits the reference at the specified path with the given Value using the specified [BindingFlags](#) without the ignored elements up to the specified serialization depth.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax**C#**

```
public static void EditObject<T>(
    ref T obj,
    string path,
    Value value,
    bool skipAbstractOrInterface = false,
    bool allowChangeType = false,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,
    uint maxDepth = 4294967295,
    bool throwException = true
)
```

Parameters

obj	Type: T. A reference to the <u>Object</u> that should be edited.
path	Type: <u>System.String</u> The path from Path that specifies the sub-object.
value	Type: TcHmiSrv.Value The Value that should be written to the <u>Object</u> at the specified path.
skipAbstract OrInterface (Optional)	Type: <u>System.Boolean</u> true to skip abstract classes and interfaces; false to throw an exception.
allowChange Type (Optional)	Type: <u>System.Boolean</u> true to allow conversions between different built-in data types (e.g. int to double, bool to string or vice versa) by using <u>ChangeType(Object, Type)</u> ; false to allow only conversions between related built-in data types (e.g. short to int or float to double).
ignoreEleme nts (Optional)	Type: <u>System.Collections.Generic.ICollection.String</u> . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: <u>System.Boolean</u> true to ignore null values and return null; false to throw an exception.
maxDepth (Optional)	Type: <u>System.UInt32</u> The maximum serialization depth.
throwExcepti on (Optional)	Type: <u>System.Boolean</u> true to throw an exception after the maximum serialization depth has been reached; false to return null.

Type Parameters

T The type of the object that will be edited.

Reference

TcHmiSerializer Class [[► 127](#)]

EditObject Overload [[► 131](#)]

TcHmiSrv.DynamicSymbols Namespace [[► 8](#)]

2.1.1.35.1.3 TcHmiSerializer.SerializeObject Method

Serializes the specified members of an instance of type Object to the corresponding instance of type Value [[► 513](#)] with the specified BindingFlags without the ignored elements up to the specified serialization depth.

Namespace: TcHmiSrv.DynamicSymbols [[► 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public static Value SerializeObject(
    Object obj,
    IncludeMembers members = IncludeMembers.Fields|IncludeMembers.Properties,
    BindingFlags bindingAttr = BindingFlags.Default,
    ICollection<string> ignoreElements = null,
    bool ignoreNull = false,
    uint maxDepth = 4294967295,
    bool throwException = true
)
```

Parameters

obj	Type: System.Object The object to serialize.
members (Optional)	Type: TcHmiSrv.DynamicSymbols.IncludeMembers [► 38] A bitmask comprised of one or more IncludeMembers [► 38] that specify which members should be included.
bindingAttr (Optional)	Type: System.Reflection.BindingFlags A bitmask comprised of one or more BindingFlags that specify how the search is conducted.
ignoreElements (Optional)	Type: System.Collections.Generic.ICollection.String . A collection of elements that should be ignored.
ignoreNull (Optional)	Type: System.Boolean true to ignore null values and return an empty value; false to throw an exception.
maxDepth (Optional)	Type: System.UInt32 The maximum serialization depth.
throwException (Optional)	Type: System.Boolean true to throw an exception after the maximum serialization depth has been reached; false to return an empty value.

Return Value

Type: [Value \[► 513\]](#)

An instance of type [Value \[► 513\]](#) that matches the specified [Object](#).

Reference

[TcHmiSerializer Class \[► 127\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.36 TcHmiUniversalResolver Class

Provides methods to resolve sub-objects of several types by a given [Path \[► 196\]](#).

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.DynamicSymbols.TcHmiUniversalResolver](#)

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax**C#**

```
public static class TcHmiUniversalResolver
```

The TcHmiUniversalResolver type exposes the following members.

Methods

	Name	Description
 	RemoveName [▶ 136]	Removes the name from the specified path.
 	ResolveObject [▶ 137]	Resolves the specified <u>Object</u> by the given path.
 	ResolveType [▶ 137]	Resolves the specified <u>Type</u> by the given path.
 	ResolveValue [▶ 138]	Resolves the specified <u>Value</u> [▶ 513] by the given path.

Reference

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.36.1 TcHmiUniversalResolver Methods

The [TcHmiUniversalResolver](#) [[▶ 135](#)] type exposes the following members.

Methods

	Name	Description
 	RemoveName [▶ 136]	Removes the name from the specified path.
 	ResolveObject [▶ 137]	Resolves the specified <u>Object</u> by the given path.
 	ResolveType [▶ 137]	Resolves the specified <u>Type</u> by the given path.
 	ResolveValue [▶ 138]	Resolves the specified <u>Value</u> [▶ 513] by the given path.

Reference

[TcHmiUniversalResolver Class](#) [[▶ 135](#)]

[TcHmiSrv.DynamicSymbols Namespace](#) [[▶ 8](#)]

2.1.1.36.1.1 TcHmiUniversalResolver.RemoveName Method

Removes the name from the specified path.

Namespace: [TcHmiSrv.DynamicSymbols](#) [[▶ 8](#)]

Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static string RemoveName(  
    string path  
)
```

Parameters

path	Type: System.String The path that contains the name and optionally additional elements. The name is the first element of the path.

Return Value

Type: [String](#)
The path without the name.

Reference

- [TcHmiUniversalResolver Class](#) [► 135]
- [TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.36.1.2 TcHmiUniversalResolver.ResolveObject Method

Resolves the specified [Object](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols](#) [► 8]
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static Object ResolveObject(  
    Object obj,  
    string path  
)
```

Parameters

obj	Type: System.Object The Object to resolve.
path	Type: System.String The Path [► 196] to the sub-object.

Return Value

Type: [Object](#)
The resolved [Object](#).

Reference

- [TcHmiUniversalResolver Class](#) [► 135]
- [TcHmiSrv.DynamicSymbols Namespace](#) [► 8]

2.1.1.36.1.3 TcHmiUniversalResolver.ResolveType Method

Resolves the specified [Type](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static Type ResolveType(  
    Type type,  
    string path  
)
```

Parameters

type	Type: System.Type The Type to resolve.
path	Type: System.String The Path [► 196] to the sub-type.

Return Value

Type: [Type](#)
The resolved [Type](#).

Reference

- [TcHmiUniversalResolver Class \[► 135\]](#)
- [TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.1.36.1.4 TcHmiUniversalResolver.ResolveValue Method

Resolves the specified [Value \[► 513\]](#) by the given path.

Namespace: [TcHmiSrv.DynamicSymbols \[► 8\]](#)
Assembly: TcHmiSrvExtNet.DynamicSymbols (in TcHmiSrvExtNet.DynamicSymbols.dll) Version: 2.0.0.0

Syntax

C#

```
public static Value ResolveValue(  
    Value value,  
    string path  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to resolve.
path	Type: System.String The Path [► 196] to the sub-value.

Return Value

Type: [Value \[► 513\]](#)
The resolved [Value \[► 513\]](#).

Reference

- [TcHmiUniversalResolver Class \[► 135\]](#)

[TcHmiSrv.DynamicSymbols Namespace \[► 8\]](#)

2.1.2 TcHmiSrv.Management Namespace

Classes

	Class	Description
	ExtensionTypeAttribute [► 139]	Specifies the default <u>Type</u> of a TwinCAT HMI server extension. This class cannot be inherited.
	ExtensionWithPath [► 142]	The base class for a managed TwinCAT HMI server extension that contains the path of the server extension.

Interfaces

	Interface	Description
	IExtension [► 145]	The default interface for a managed TwinCAT HMI server extension.

2.1.2.1 ExtensionTypeAttribute Class

Specifies the default Type of a TwinCAT HMI server extension. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

[System.Attribute](#)

[TcHmiSrv.Management.ExtensionTypeAttribute](#)

Namespace: [TcHmiSrv.Management \[► 139\]](#)

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
public sealed class ExtensionTypeAttribute : Attribute
```

The ExtensionTypeAttribute type exposes the following members.

Constructors

	Name	Description
	ExtensionTypeAttribute [► 140]	Initializes a new instance of the ExtensionTypeAttribute class with the specified <u>Type</u> .

Properties

	Name	Description
	Type [► 141]	Gets the default <u>Type</u> of the TwinCAT HMI server extension.
	TypeId	When implemented in a derived class, gets a unique identifier for this <u>Attribute</u> . (Inherited from <u>Attribute</u> .)

Methods

	Name	Description
	<u>Equals</u>	Returns a value that indicates whether this instance is equal to a specified object. (Inherited from <u>Attribute</u> .)
	<u>GetHashCode</u>	Returns the hash code for this instance. (Inherited from <u>Attribute</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>IsDefaultAttribute</u>	When overridden in a derived class, indicates whether the value of this instance is the default value for the derived class. (Inherited from <u>Attribute</u> .)
	<u>Match</u>	When overridden in a derived class, returns a value that indicates whether this instance equals a specified object. (Inherited from <u>Attribute</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Management Namespace [[► 139](#)]

2.1.2.1.1 ExtensionTypeAttribute Constructor

Initializes a new instance of the ExtensionTypeAttribute [[► 139](#)] class with the specified Type.

Namespace: TcHmiSrv.Management [[► 139](#)]

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax**C#**

```
public ExtensionTypeAttribute(
    Type type
)
```

Parameters

type	Type: <u>System.Type</u> The default <u>Type</u> of the TwinCAT HMI server extension.

Reference

ExtensionTypeAttribute Class [[► 139](#)]

TcHmiSrv.Management Namespace [[► 139](#)]

2.1.2.1.2 ExtensionTypeAttribute Properties

The ExtensionTypeAttribute [[► 139](#)] type exposes the following members.

Properties

	Name	Description
	<u>Type</u> [► 141]	Gets the default <u>Type</u> of the TwinCAT HMI server extension.
	<u>TypeId</u>	When implemented in a derived class, gets a unique identifier for this <u>Attribute</u> . (Inherited from <u>Attribute</u> .)

Reference

[ExtensionTypeAttribute Class](#) [► 139]

[TcHmiSrv.Management Namespace](#) [► 139]

2.1.2.1.2.1 ExtensionTypeAttribute.FullName Property

Contains the full name of the default type of the server extension.

Namespace: [TcHmiSrv.Management](#) [► 139]

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 1.10.683.0 (1.10.683.0)

Syntax

C#

```
public string FullName { get; }
```

Property Value

Type: [String](#)

Reference

[ExtensionTypeAttribute Class](#) [► 139]

[TcHmiSrv.Management Namespace](#) [► 139]

2.1.2.1.2.2 ExtensionTypeAttribute.Type Property

Gets the default [Type](#) of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Management](#) [► 139]

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
public Type Type { get; }
```

Property Value

Type: [Type](#)

Reference

[ExtensionTypeAttribute Class](#) [► 139]

[TcHmiSrv.Management Namespace](#) [► 139]

2.1.2.1.3 ExtensionTypeAttribute Methods

The [ExtensionTypeAttribute](#) [► 139] type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Returns a value that indicates whether this instance is equal to a specified object. (Inherited from <u>Attribute</u> .)
	<u>GetHashCode</u>	Returns the hash code for this instance. (Inherited from <u>Attribute</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>IsDefaultAttribute</u>	When overridden in a derived class, indicates whether the value of this instance is the default value for the derived class. (Inherited from <u>Attribute</u> .)
	<u>Match</u>	When overridden in a derived class, returns a value that indicates whether this instance equals a specified object. (Inherited from <u>Attribute</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

ExtensionTypeAttribute Class [[► 139](#)]

TcHmiSrv.Management Namespace [[► 139](#)]

2.1.2.2 ExtensionWithPath Class

The base class for a managed TwinCAT HMI server extension that contains the path of the server extension.

Inheritance Hierarchy

System.Object

TcHmiSrv.Management.ExtensionWithPath

Namespace: TcHmiSrv.Management [[► 139](#)]

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax**C#**

```
public abstract class ExtensionWithPath : IExtension
```

The ExtensionWithPath type exposes the following members.

Constructors

	Name	Description
	<u>ExtensionWithPath</u> [► 145]	Initializes a new instance of the ExtensionWithPath class

Properties

	Name	Description
	<u>ExtensionPath</u> [► 143]	Contains the path of the server extension.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Init [► 144]	Initializes the server extension.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Management Namespace](#) [[► 139](#)]

2.1.2.2.1 ExtensionWithPath Properties

The [ExtensionWithPath](#) [[► 142](#)] type exposes the following members.

Properties

	Name	Description
	ExtensionPath [► 143]	Contains the path of the server extension.

Reference

[ExtensionWithPath Class](#) [[► 142](#)]

[TcHmiSrv.Management Namespace](#) [[► 139](#)]

2.1.2.2.1.1 ExtensionWithPath.ExtensionPath Property

Contains the path of the server extension.

Namespace: [TcHmiSrv.Management](#) [[► 139](#)]

Assembly: [TcHmiSrvExtNet.Management](#) (in [TcHmiSrvExtNet.Management.dll](#)) Version: 2.0.0.0

Syntax**C#**

```
public string ExtensionPath { get; set; }
```

Property Value

Type: [String](#)

Reference

[ExtensionWithPath Class](#) [[► 142](#)]

[TcHmiSrv.Management Namespace](#) [[► 139](#)]

2.1.2.2.2 ExtensionWithPath Methods

The [ExtensionWithPath \[► 142\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Init [► 144]	Initializes the server extension.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ExtensionWithPath Class \[► 142\]](#)

[TcHmiSrv.Management Namespace \[► 139\]](#)

2.1.2.2.2.1 ExtensionWithPath.Init Method

Initializes the server extension.

Namespace: [TcHmiSrv.Management \[► 139\]](#)

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
public abstract ErrorValue Init(
    ITcHmiSrvExtHost host,
    Context context
)
```

Parameters

host	Type: TcHmiSrv.ITcHmiSrvExtHost [► 645] The ITcHmiSrvExtHost [► 645] that is used to initialize the server extension.
context	Type: TcHmiSrv.Context [► 237] The Context [► 237] that is used to initialize the server extension.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if initializing the server extension succeeded; or another [ErrorValue \[► 247\]](#) that describes which error has occurred.

Implements

[IExtension.Init\(ITcHmiSrvExtHost, Context\) \[► 146\]](#)

Reference

[ExtensionWithPath Class \[► 142\]](#)

[TcHmiSrv.Management Namespace \[► 139\]](#)

2.1.2.2.3 **ExtensionWithPath Constructor**

Initializes a new instance of the [ExtensionWithPath \[► 142\]](#) class

Namespace: [TcHmiSrv.Management \[► 139\]](#)

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
protected ExtensionWithPath()
```

Reference

[ExtensionWithPath Class \[► 142\]](#)

[TcHmiSrv.Management Namespace \[► 139\]](#)

2.1.2.3 **IExtension Interface**

The default interface for a managed TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Management \[► 139\]](#)

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
public interface IExtension
```

The IExtension type exposes the following members.

Methods

	Name	Description
	Init [► 146]	Initializes the server extension.

Reference

[TcHmiSrv.Management Namespace \[► 139\]](#)

2.1.2.3.1 **IExtension Methods**

The [IExtension \[► 145\]](#) type exposes the following members.

Methods

	Name	Description
	Init [► 146]	Initializes the server extension.

Reference

[IExtension Interface](#) [[► 145](#)]

[TcHmiSrv.Management Namespace](#) [[► 139](#)]

2.1.2.3.1.1 IExtension.Init Method

Initializes the server extension.

Namespace: [TcHmiSrv.Management](#) [[► 139](#)]

Assembly: TcHmiSrvExtNet.Management (in TcHmiSrvExtNet.Management.dll) Version: 2.0.0.0

Syntax

C#

```
ErrorValue Init(  
    ITcHmiSrvExtHost host,  
    Context context  
)
```

Parameters

host	Type: TcHmiSrv.ITcHmiSrvExtHost [► 645] The ITcHmiSrvExtHost [► 645] that is used to initialize the server extension.
context	Type: TcHmiSrv.Context [► 237] The Context [► 237] that is used to initialize the server extension.

Return Value

Type: [ErrorValue](#) [[► 247](#)]

[HMI_SUCCESS](#) [[► 247](#)] if initializing the server extension succeeded; or another [ErrorValue](#) [[► 247](#)] that describes which error has occurred.

Reference

[IExtension Interface](#) [[► 145](#)]

[TcHmiSrv.Management Namespace](#) [[► 139](#)]

2.1.3 TcHmiSrv Namespace

Classes

Class	Description
Alarm [► 158]	Represents an alarm.
Binary [► 172]	Obsolete. Represents binary data.
Command [► 188]	
CommandGroup [► 204]	Represents a group of Command [► 188]s.
CommandVectorIterator [► 226]	
Context [► 237]	Represents the context of an invoked method or symbol.
Event [► 253]	
IObject [► 272]	
Localizable [► 658]	Represents a localizable object that contains a language variable and parameters.
Message [► 307]	
Range [► 318]	Obsolete. Represents binary data.
ResultPair [► 327]	Represents a result pair that contains the ErrorValue [► 247] and a String that describes the result of a method call.
Session [► 336]	Represents a session that contains information about an active user.
String [► 346]	Obsolete. Represents text.
TcHmiSrvAlarmProviderListener [► 359]	Provides a listener that listens on provided Alarm [► 158]s.
TcHmiSrvAlarmProviderListener.OnConfirmEventArgs [► 363]	Provides data for an OnConfirm [► 361] event.
TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs [► 367]	Obsolete. Not used anymore.
TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs [► 663]	Provides data for an OnInitialListEvents [► 363] event.
TcHmiSrvAlarmProviderListener.OnListEventsEventArgs [► 370]	Obsolete. Not used anymore.
TcHmiSrvAlarmProviderListenerBase [► 667]	
TcHmiSrvAuthListener [► 374]	Provides a listener to implement a custom authorization.
TcHmiSrvAuthListener.OnLoginEventArgs [► 377]	Provides data for an OnLogin [► 376] event.
TcHmiSrvAuthListener.OnLogoutEventArgs [► 381]	Provides data for an OnLogout [► 377] event.
TcHmiSrvAuthListenerBase [► 671]	

	Class	Description
	TcHmiSrvConfigListener [► 384]	Provides a listener to interact with the configuration of the TwinCAT HMI server configuration.
	TcHmiSrvConfigListener.BeforeChangeEventArgs [► 389]	Provides data for a BeforeChange [► 387] event.
	TcHmiSrvConfigListener.BeforeDeleteEventArgs [► 394]	Provides data for a BeforeDelete [► 387] event.
	TcHmiSrvConfigListener.BeforeRenameEventArgs [► 399]	Provides data for a BeforeRename [► 388] event.
	TcHmiSrvConfigListener.OnChangeEventArgs [► 403]	Provides data for an OnChange [► 388] event.
	TcHmiSrvConfigListener.OnDeleteEventArgs [► 407]	Provides data for an OnDelete [► 389] event.
	TcHmiSrvConfigListener.OnRenameEventArgs [► 412]	Provides data for an OnRename [► 389] event.
	TcHmiSrvConfigListenerBase [► 675]	
	TcHmiSrvEventListener [► 417]	Provides a listener to interact with the event system of the TwinCAT HMI server.
	TcHmiSrvEventListener.OnChangeEventArgs [► 422]	Provides data for an OnChange [► 420] event.
	TcHmiSrvEventListener.OnListEventsEventArgs [► 681]	Provides data for an OnListEvents [► 421] event.
	TcHmiSrvEventListener.OnReceiveEventArgs [► 685]	Provides data for an OnReceive [► 422] event.
	TcHmiSrvEventListener.OnRequestEventArgs [► 426]	Obsolete. Not used anymore.
	TcHmiSrvEventListenerBase [► 689]	
	TcHmiSrvEventLocalizationListener [► 693]	Provides a listener to interact with the event system of the TwinCAT HMI server.
	TcHmiSrvEventLocalizationListener.OnRequestEventArgs [► 696]	Provides data for an OnRequest [► 695] event.
	TcHmiSrvEventLocalizationListenerBase [► 701]	
	TcHmiSrvExportListener [► 431]	Provides a listener to react on configuration exports and imports.

	Class	Description
	TcHmiSrvExportListener.BeforeExportEventArgs [► 435]	Provides data for a BeforeExport [► 434] event.
	TcHmiSrvExportListener.BeforeImportEventArgs [► 440]	Provides data for a BeforeImport [► 435] event.
	TcHmiSrvExportListenerBase [► 704]	
	TcHmiSrvExt [► 446]	
	TcHmiSrvExtHost [► 708]	Provides a host to communicate with a TwinCAT HMI server.
	TcHmiSrvListener [► 723]	
	TcHmiSrvRequestListener [► 449]	Provides a listener to invoke read-write requests and subscriptions.
	TcHmiSrvRequestListener.OnRequestEventArgs [► 452]	Provides data for an OnRequest [► 451] event.
	TcHmiSrvRequestListenerBase [► 727]	
	TcHmiSrvSessionListener [► 456]	Provides a listener to observe the connections of the TwinCAT HMI server.
	TcHmiSrvSessionListener.OnCloseWebsocketEventArgs [► 460]	Provides data for an OnCloseWebsocket [► 458] event.
	TcHmiSrvSessionListener.OnCreateWebsocketEventArgs [► 463]	Provides data for an OnCreateWebsocket [► 459] event.
	TcHmiSrvSessionListener.OnLoginEventArgs [► 466]	Provides data for an OnLogin [► 459] event.
	TcHmiSrvSessionListener.OnLogoutEventArgs [► 469]	Provides data for an OnLogout [► 459] event.
	TcHmiSrvSessionListenerBase [► 730]	
	TcHmiSrvShutdownListener [► 472]	Provides a listener to get notified when the TwinCAT HMI server is shutting down.
	TcHmiSrvShutdownListener.OnShutdownEventArgs [► 475]	Provides data for an OnShutdown [► 475] event.
	TcHmiSrvShutdownListenerBase [► 735]	
	TcHmiSrvSubscriptionListener [► 478]	Provides a listener to get notified when a client opens or closes a subscription. If this listener is not registered at the TwinCAT HMI server, subscriptions will just call the OnRequest [► 451] event.
	TcHmiSrvSubscriptionListener.OnSubscribeEventArgs [► 481]	Provides data for an OnSubscribe [► 481] event.

	Class	Description
	TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs [► 484]	Provides data for an OnUnsubscribe [► 481] event.
	TcHmiSrvSubscriptionListenerBase [► 738]	
	Timespan [► 488]	Obsolete. Represents a period of time in nanoseconds.
	Timestamp [► 499]	Obsolete. Represents a point of time since January 01, 1970.
	Value [► 513]	Represents a value of any ValueType [► 630].
	ValueIterator [► 620]	
	ValueVectorIterator [► 631]	

Interfaces

	Interface	Description
	ILocalizable [► 642]	Provides an interface for a localizable object that contains a language variable and parameters.
	ITcHmiSrvExtHost [► 645]	Provides an interface for a host to communicate with a TwinCAT HMI server.
	ITcHmiSrvListener [► 657]	Provides an interface for a listener.

Delegates

	Delegate	Description
	TcHmiSrvAlarmProviderListener.OnConfirmEventHandler [► 366]	Represents a method that handles an OnConfirm [► 361] event.
	TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventHandler [► 369]	Obsolete. Not used anymore.
	TcHmiSrvAlarmProviderListener.OnInitialListEventsEventHandler [► 666]	Represents a method that handles an OnInitialListEvents [► 363] event.
	TcHmiSrvAlarmProviderListener.OnListEventsEventHandler [► 373]	Obsolete. Not used anymore.
	TcHmiSrvAlarmProviderListenerBase.SwigDelegateTcHmiSrvAlarmProviderListenerBase_0 [► 670]	
	TcHmiSrvAlarmProviderListenerBase.SwigDelegateTcHmiSrvAlarmProviderListenerBase_1 [► 670]	
	TcHmiSrvAuthListener.OnLoginEventHandler [► 380]	Represents a method that handles an OnLogin [► 376] event.
	TcHmiSrvAuthListener.OnLogoutEventHandler [► 383]	Represents a method that handles an OnLogout [► 377] event.
	TcHmiSrvAuthListenerBase.SwigDelegateTcHmiSrvAuthListenerBase_0 [► 674]	
	TcHmiSrvAuthListenerBase.SwigDelegateTcHmiSrvAuthListenerBase_1 [► 674]	
	TcHmiSrvConfigListener.BeforeChangeEventHandler [► 393]	Represents a method that handles a BeforeChange [► 387] event.
	TcHmiSrvConfigListener.BeforeDeleteEventHandler [► 398]	Represents a method that handles a BeforeDelete [► 387] event.
	TcHmiSrvConfigListener.BeforeRenameEventHandler [► 403]	Represents a method that handles a BeforeRename [► 388] event.
	TcHmiSrvConfigListener.OnChangeEventHandler [► 407]	Represents a method that handles an OnChange [► 388] event.

	Delegate	Description
	TcHmiSrvConfigListener.OnDeleteEventHandler [► 411]	Represents a method that handles an OnDelete [► 389] event.
	TcHmiSrvConfigListener.OnRenameEventHandler [► 416]	Represents a method that handles an OnRename [► 389] event.
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_0 [► 677]	
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_1 [► 678]	
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_2 [► 679]	
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_3 [► 679]	
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_4 [► 680]	
	TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_5 [► 680]	
	TcHmiSrvEventListener.FilterEventHandler [► 422]	Obsolete. Not used anymore.
	TcHmiSrvEventListener.OnChangeEventHandler [► 426]	Represents a method that handles an OnChange [► 420] event.
	TcHmiSrvEventListener.OnListEventsEventHandler [► 684]	Represents a method that handles an OnListEvents [► 421] event.
	TcHmiSrvEventListener.OnReceiveEventHandler [► 688]	Represents a method that handles an OnReceive [► 422] event.
	TcHmiSrvEventListener.OnRequestEventHandler [► 431]	Obsolete. Not used anymore.
	TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_0 [► 691]	

	Delegate	Description
	TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_1 [► 692]	
	TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_2 [► 692]	
	TcHmiSrvEventLocalizationListener.OnRequestEventHandler [► 700]	Represents a method that handles an OnRequest [► 695] event.
	TcHmiSrvEventLocalizationListenerBase.SwigDelegateTcHmiSrvEventLocalizationListenerBase_0 [► 703]	
	TcHmiSrvExportListener.BeforeExportEventHandler [► 440]	Represents a method that handles a BeforeExport [► 434] event.
	TcHmiSrvExportListener.BeforeImportEventHandler [► 445]	Represents a method that handles a BeforeImport [► 435] event.
	TcHmiSrvExportListenerBase.SwigDelegateTcHmiSrvExportListenerBase_0 [► 706]	
	TcHmiSrvExportListenerBase.SwigDelegateTcHmiSrvExportListenerBase_1 [► 707]	
	TcHmiSrvRequestListener.OnRequestEventHandler [► 455]	Represents the method that handles an OnRequest [► 451] event.
	TcHmiSrvRequestListenerBase.SwigDelegateTcHmiSrvRequestListenerBase_0 [► 730]	
	TcHmiSrvSessionListener.OnCloseWebsocketEventHandler [► 462]	Represents a method that handles an OnCloseWebsocket [► 458] event.
	TcHmiSrvSessionListener.OnCreateWebsocketEventHandler [► 466]	Represents a method that handles an OnCreateWebsocket [► 459] event.
	TcHmiSrvSessionListener.OnLoginEventHandler [► 469]	Represents a method that handles an OnLogin [► 459] event.
	TcHmiSrvSessionListener.OnLogoutEventHandler [► 472]	Represents a method that handles an OnLogout [► 459] event.

	Delegate	Description
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_0 [▶ 733]	
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_1 [▶ 733]	
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_2 [▶ 734]	
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_3 [▶ 734]	
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_4 [▶ 735]	
	TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_5 [▶ 735]	
	TcHmiSrvShutdownListener.OnShutdownEventHandler [▶ 477]	Represents a method that handles an OnShutdown [▶ 475] event.
	TcHmiSrvShutdownListenerBase.SwigDelegateTcHmiSrvShutdownListenerBase_0 [▶ 738]	
	TcHmiSrvSubscriptionListener.OnSubscribeEventHandler [▶ 484]	Represents a method that handles an OnSubscribe [▶ 481] event.
	TcHmiSrvSubscriptionListener.OnUnsubscribeEventHandler [▶ 487]	Represents a method that handles an OnUnsubscribe [▶ 481] event.
	TcHmiSrvSubscriptionListenerBase.SwigDelegateTcHmiSrvSubscriptionListenerBase_0 [▶ 741]	
	TcHmiSrvSubscriptionListenerBase.SwigDelegateTcHmiSrvSubscriptionListenerBase_1 [▶ 741]	

Enumerations

	Enumeration	Description
	Access	
	AlarmChangeType [▶ 171]	
	AlarmConfirmationState [▶ 172]	
	AlarmState [▶ 641]	
	CommandOption [▶ 225]	
	ConfigChangeType [▶ 236]	
	EndpointInfo [▶ 247]	
	ErrorValue [▶ 247]	
	EventChangeFlags [▶ 264]	Obsolete. Not used anymore.
	EventLifetime [▶ 642]	
	EventType [▶ 642]	
	ListenerType [▶ 306]	
	RequestType [▶ 327]	
	Severity [▶ 346]	
	ValueType [▶ 630]	

2.1.3.1 Access Enumeration

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[FlagsAttribute]
public enum Access
```

Members

	Member name	Value	Description
	Access_None	0	
	Access_Read	1	
	Access_Write	2	
	Access_ReadWrite	3	

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2 Alarm Class

Represents an alarm.

Inheritance Hierarchy

System.Object

TcHmiSrv.IObject [► 272]

TcHmiSrv.Localizable [► 658]

TcHmiSrv.Alarm

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Alarm : Localizable, IEquatable<Alarm>
```

The Alarm type exposes the following members.

Constructors

	Name	Description
	<u>Alarm.</u> [► 160]	Initializes a new instance of the Alarm class.
	<u>Alarm(Alarm)</u> [► 160]	Initializes a new instance of the Alarm class based on another Alarm.
	<u>Alarm(Context, String)</u> [► 160]	Initializes a new instance of the Alarm class with the specified Context [► 237] and name.

Properties

	Name	Description
	<u>AlarmState</u> [► 166]	Gets or sets the <u>AlarmState</u> [► 641] of the Alarm.
	<u>ConfirmationState</u> [► 162]	Gets or sets the <u>AlarmConfirmationState</u> [► 172] of the Alarm.
	<u>Domain</u> [► 162]	Gets or sets the domain that triggered the Alarm.
	<u>Id</u> [► 162]	Gets or sets the unique ID of the Alarm.
	<u>IsSet</u> [► 163]	Gets a value that indicates whether the Alarm is set.
	<u>Name</u> [► 163]	Gets or sets the name of the Alarm.
	<u>Parameters</u> [► 163]	Gets the parameters of the Alarm.
	<u>Severity</u> [► 164]	Gets or sets the <u>Severity</u> [► 346] of the Alarm.
	<u>TimeCleared</u> [► 164]	Gets or sets the time the Alarm was cleared.
	<u>TimeConfirmed</u> [► 165]	Gets or sets the time the Alarm was confirmed.
	<u>TimeRaised</u> [► 165]	Gets or sets the time the Alarm was raised.
	<u>Type</u> [► 165]	Gets the type of the Alarm. (<u>ValueType Alarm</u> [► 630])

Methods

	Name	Description
	alarm_state [▶ 169]	Obsolete. Gets the AlarmState [▶ 641] of the Alarm.
	Dispose. [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 167]	Releases the unmanaged resources used by the Alarm and optionally releases the managed resources (Overrides Localizable.Dispose(Boolean) [▶ 663].)
	Equals(Alarm) [▶ 168]	Indicates whether the current Alarm is equal to another Alarm.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▶ 169]	Exchanges the values of two instances of the Alarm class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
	Equality [▶ 170]	Determines whether the specified Alarm is equal to the current Alarm.
	Inequality [▶ 171]	Determines whether the specified Alarm is not equal to the current Alarm.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2.1 Alarm Constructor

Overload List

	Name	Description
	Alarm. [▶ 160]	Initializes a new instance of the Alarm [▶ 158] class.
	Alarm(Alarm) [▶ 160]	Initializes a new instance of the Alarm [▶ 158] class based on another Alarm [▶ 158].
	Alarm(Context, String) [▶ 160]	Initializes a new instance of the Alarm [▶ 158] class with the specified Context [▶ 237] and name.

Reference

[Alarm Class](#) [[▶ 158](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.1.1 Alarm Constructor

Initializes a new instance of the [Alarm \[► 158\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Alarm()
```

Reference

[Alarm Class \[► 158\]](#)

[Alarm Overload \[► 159\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.1.2 Alarm Constructor (Alarm)

Initializes a new instance of the [Alarm \[► 158\]](#) class based on another [Alarm \[► 158\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Alarm(  
    Alarm other  
)
```

Parameters

other	Type: TcHmiSrv.Alarm [► 158] The other Alarm [► 158] .

Reference

[Alarm Class \[► 158\]](#)

[Alarm Overload \[► 159\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.1.3 Alarm Constructor (Context, String)

Initializes a new instance of the [Alarm \[► 158\]](#) class with the specified [Context \[► 237\]](#) and name.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Alarm(
    Context ctx,
    string name
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] to be set.
name	Type: System.String The name to be set.

Reference

[Alarm Class](#) [► 158]

[Alarm Overload](#) [► 159]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2 Alarm Properties

The [Alarm](#) [► 158] type exposes the following members.

Properties

	Name	Description
	AlarmState [► 166]	Gets or sets the AlarmState [► 641] of the Alarm [► 158].
	ConfirmationState [► 162]	Gets or sets the AlarmConfirmationState [► 172] of the Alarm [► 158].
	Domain [► 162]	Gets or sets the domain that triggered the Alarm [► 158].
	Id [► 162]	Gets or sets the unique ID of the Alarm [► 158].
	IsSet [► 163]	Gets a value that indicates whether the Alarm [► 158] is set.
	Name [► 163]	Gets or sets the name of the Alarm [► 158].
	Parameters [► 163]	Gets the parameters of the Alarm [► 158].
	Severity [► 164]	Gets or sets the Severity [► 346] of the Alarm [► 158].
	TimeCleared [► 164]	Gets or sets the time the Alarm [► 158] was cleared.
	TimeConfirmed [► 165]	Gets or sets the time the Alarm [► 158] was confirmed.
	TimeRaised [► 165]	Gets or sets the time the Alarm [► 158] was raised.
	Type [► 165]	Gets the type of the Alarm [► 158]. (ValueType Alarm [► 630])

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.1 Alarm.ConfirmationState Property

Gets or sets the [AlarmConfirmationState](#) [► 172] of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public AlarmConfirmationState ConfirmationState { get; set; }
```

Property Value

Type: [AlarmConfirmationState](#) [► 172]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.2 Alarm.Domain Property

Gets or sets the domain that triggered the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.3 Alarm.Id Property

Gets or sets the unique ID of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int Id { get; set; }
```

Property Value

Type: [Int32](#)

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.4 Alarm.IsSet Property

Gets a value that indicates whether the [Alarm](#) [► 158] is set.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.5 Alarm.Name Property

Gets or sets the name of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.6 Alarm.Parameters Property

Gets the parameters of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.7 Alarm.Severity Property

Gets or sets the [Severity](#) [► 346] of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Severity Severity { get; set; }
```

Property Value

Type: [Severity](#) [► 346]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.8 Alarm.TimeCleared Property

Gets or sets the time the [Alarm](#) [► 158] was cleared.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp TimeCleared { get; set; }
```

Property Value

Type: [Timestamp](#) [► 499]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.9 Alarm.TimeConfirmed Property

Gets or sets the time the [Alarm](#) [► 158] was confirmed.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp TimeConfirmed { get; set; }
```

Property Value

Type: [Timestamp](#) [► 499]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.10 Alarm.TimeRaised Property

Gets or sets the time the [Alarm](#) [► 158] was raised.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp TimeRaised { get; set; }
```

Property Value

Type: [Timestamp](#) [► 499]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.11 Alarm.Type Property

Gets the type of the [Alarm](#) [► 158]. ([ValueType Alarm](#) [► 630])

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 630]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.2.12 Alarm.AlarmState Property

Gets or sets the [AlarmState](#) [► 641] of the [Alarm](#) [► 158].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public AlarmState AlarmState { get; set; }
```

Property Value

Type: [AlarmState](#) [► 641]

Reference

[Alarm Class](#) [► 158]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.2.3 Alarm Methods

The [Alarm](#) [► 158] type exposes the following members.

Methods

	Name	Description
	alarm_state [► 169]	Obsolete. Gets the AlarmState [► 641] of the Alarm [► 158].
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 167]	(Overrides Localizable.Dispose(Boolean) [► 663].)
	Equals(Alarm) [► 168]	Indicates whether the current Alarm [► 158] is equal to another Alarm [► 158].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [► 169]	Exchanges the values of two instances of the Alarm [► 158] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Alarm Class \[► 158\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.3.1 Alarm.Dispose Method

Overload List

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 167]	Releases the unmanaged resources used by the Alarm [► 158] and optionally releases the managed resources (Overrides Localizable.Dispose(Boolean) [► 663].)

Reference

[Alarm Class \[► 158\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.3.1.1 Alarm.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Alarm \[► 158\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Alarm Class \[► 158\]](#)

[Dispose Overload \[► 167\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.3.2 Alarm.Equals Method

Overload List

	Name	Description
	Equals(Alarm) [▶ 168]	Indicates whether the current Alarm [▶ 158] is equal to another Alarm [▶ 158].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)

Reference

[Alarm Class](#) [[▶ 158](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2.3.2.1 Alarm.Equals Method (Alarm)

Indicates whether the current [Alarm](#) [[▶ 158](#)] is equal to another [Alarm](#) [[▶ 158](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Alarm other  
)
```

Parameters

other	Type: TcHmiSrv.Alarm [▶ 158] The Alarm [▶ 158] to compare with this Alarm [▶ 158].

Return Value

Type: [Boolean](#)

true if the current [Alarm](#) [[▶ 158](#)] is equal to the other [Alarm](#) [[▶ 158](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Alarm Class](#) [[▶ 158](#)]

[Equals Overload](#) [[▶ 168](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2.3.3 Alarm.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Alarm](#) [[▶ 158](#)].

Reference

[Alarm Class](#) [[▶ 158](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2.3.4 Alarm.alarm_state Method

Note: This API is now obsolete.

Gets the [AlarmState](#) [[▶ 641](#)] of the [Alarm](#) [[▶ 158](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Method 'Alarm.alarm_state' is obsolete. Use property 'Alarm.AlarmState' instead.", true)]  
public AlarmState alarm_state()
```

Return Value

Type: [AlarmState](#) [[▶ 641](#)]

The [AlarmState](#) [[▶ 166](#)] of the [Alarm](#) [[▶ 158](#)].

Reference

[Alarm Class](#) [[▶ 158](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.2.3.5 Alarm.swap Method

Exchanges the values of two instances of the [Alarm](#) [[▶ 158](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    Alarm arg0  
)
```

Parameters

arg0	Type: TcHmiSrv.Alarm [► 158] The other Alarm [► 158] .

Return Value

Type: [Boolean](#)

true if the swap was successful; otherwise, false.

Reference

[Alarm Class \[► 158\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.4 Alarm Operators

The [Alarm \[► 158\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 170]	Determines whether the specified Alarm [► 158] is equal to the current Alarm [► 158] .
 	Inequality [► 171]	Determines whether the specified Alarm [► 158] is not equal to the current Alarm [► 158] .

Reference

[Alarm Class \[► 158\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.2.4.1 Alarm.Equality Operator

Determines whether the specified [Alarm \[► 158\]](#) is equal to the current [Alarm \[► 158\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public static bool operator ==(
    Alarm current,
    Alarm other
)
```

Parameters

current	Type: TcHmiSrv.Alarm [► 158] The current instance of the Alarm [► 158] class.
other	Type: TcHmiSrv.Alarm [► 158] The Alarm [► 158] to compare with the current Alarm [► 158] .

Return Value

Type: [Boolean](#)
true if the specified [Alarm \[▸ 158\]](#) is equal to the current [Alarm \[▸ 158\]](#); otherwise, false.

Reference

[Alarm Class \[▸ 158\]](#)
[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.2.4.2 Alarm.Inequality Operator

Determines whether the specified [Alarm \[▸ 158\]](#) is not equal to the current [Alarm \[▸ 158\]](#).

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current	Type: TcHmiSrv.Alarm [▸ 158] The current instance of the Alarm [▸ 158] class.
other	Type: TcHmiSrv.Alarm [▸ 158] The Alarm [▸ 158] to compare with the current Alarm [▸ 158] .

Return Value

Type: [Boolean](#)
true if the specified [Alarm \[▸ 158\]](#) is not equal to the current [Alarm \[▸ 158\]](#); otherwise, false.

Reference

[Alarm Class \[▸ 158\]](#)
[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.3 AlarmChangeType Enumeration

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum AlarmChangeType
```

Members

	Member name	Value	Description
	AlarmChangeType_Raise	0	
	AlarmChangeType_Change	1	
	AlarmChangeType_Dispose	2	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.4 AlarmConfirmationState Enumeration

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public enum AlarmConfirmationState
```

Members

	Member name	Value	Description
	AlarmConfirmationState_NotSupported	0	
	AlarmConfirmationState_NotRequired	1	
	AlarmConfirmationState_Wait	2	
	AlarmConfirmationState_Confirmed	3	
	AlarmConfirmationState_Reset	4	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5 Binary Class

Note: This API is now obsolete.

Represents binary data.

Inheritance Hierarchy

[System.Object](#)
 TcHmiSrv.Binary

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
[ObsoleteAttribute("Type 'TcHmiSrv.Binary' is obsolete. Use type 'byte[]' instead.")]
public class Binary : IEquatable<Binary>,
    IDisposable
```

The Binary type exposes the following members.

Constructors

	Name	Description
	Binary. [▶ 174]	Initializes a new instance of the Binary class.
	Binary(Byte.) [▶ 175]	Initializes a new instance of the Binary class with the specified Byte array.
	Binary(Byte., Int32) [▶ 175]	Initializes a new instance of the Binary class with the specified Byte array and length.
	Binary(Byte., UInt32) [▶ 176]	Initializes a new instance of the Binary class with the specified Byte array and length.

Properties

	Name	Description
	Data [▶ 177]	Contains the data of the binary string.
	Empty [▶ 177]	Gets a value that indicates whether the Binary is empty.
	Size [▶ 177]	Represents the size of the binary string.
	Valid [▶ 178]	Gets a value that indicates whether the Binary is valid.

Methods

	Name	Description
	Dispose. [▶ 179]	Releases all resources used by the Binary
	Dispose(Boolean) [▶ 180]	Releases the unmanaged resources used by the Binary and optionally releases the managed resources
	Equals(Binary) [▶ 181]	Indicates whether the current Binary is equal to another Binary.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▶ 183]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	set_binary(Byte., Int32) [▶ 182]	Sets the binary data to the specified Byte array using the specified length.
	set_binary(Byte., UInt32) [▶ 182]	Sets the binary data to the specified Byte array using the specified length.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 S	Equality [► 184]	Determines whether two instances of the Binary class are equal.
 S	.(Binary to .Byte.) [► 186]	Converts an instance of the Binary class to the appropriate Byte array.
 S	.(Binary to Decimal) [► 187]	Converts an instance of the Binary class to the appropriate Decimal .
 S	.(Byte. to Binary) [► 185]	Converts a Byte array to the appropriate instance of the Binary class.
 S	.(Decimal to Binary) [► 186]	Converts a Decimal to the appropriate instance of the Binary class.
 S	Inequality [► 187]	Determines whether two instances of the Binary class are not equal.

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.1 Binary Constructor

Overload List

	Name	Description
	Binary. [► 174]	Initializes a new instance of the Binary [► 172] class.
	Binary(.Byte.) [► 175]	Initializes a new instance of the Binary [► 172] class with the specified Byte array.
	Binary(.Byte., Int32) [► 175]	Initializes a new instance of the Binary [► 172] class with the specified Byte array and length.
	Binary(.Byte., UInt32) [► 176]	Initializes a new instance of the Binary [► 172] class with the specified Byte array and length.

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.1.1 Binary Constructor

Initializes a new instance of the [Binary](#) [► 172] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Binary()
```

Reference

[Binary Class \[► 172\]](#)

[Binary Overload \[► 174\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.1.2 Binary Constructor (.Byte.)

Initializes a new instance of the [Binary \[► 172\]](#) class with the specified [Byte](#) array.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Binary(  
    byte[] bytes  
)
```

Parameters

bytes	Type: System.Byte . The Byte array to be set.

Reference

[Binary Class \[► 172\]](#)

[Binary Overload \[► 174\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.1.3 Binary Constructor (.Byte., Int32)

Initializes a new instance of the [Binary \[► 172\]](#) class with the specified [Byte](#) array and length.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Binary(  
    byte[] bytes,  
    int length  
)
```

Parameters

bytes	Type: System.Byte . The Byte array to be set.
length	Type: System.Int32 The length of the binary data.

Reference

[Binary Class](#) [► 172]

[Binary Overload](#) [► 174]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.1.4 Binary Constructor (.Byte., UInt32)

Initializes a new instance of the [Binary](#) [► 172] class with the specified [Byte](#) array and length.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Binary(
    byte[] bytes,
    uint length
)
```

Parameters

bytes	Type: System.Byte . The Byte array to be set.
length	Type: System.UInt32 The length of the binary data.

Reference

[Binary Class](#) [► 172]

[Binary Overload](#) [► 174]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.2 Binary Properties

The [Binary](#) [► 172] type exposes the following members.

Properties

	Name	Description
	Data [► 177]	Contains the data of the binary string.
	Empty [► 177]	Gets a value that indicates whether the Binary [► 172] is empty.
	Size [► 177]	Represents the size of the binary string.
	Valid [► 178]	Gets a value that indicates whether the Binary [► 172] is valid.

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.2.1 Binary.Data Property

Contains the data of the binary string.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public byte[] Data { get; set; }
```

Property Value

Type: [.Byte](#).

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.2.2 Binary.Empty Property

Gets a value that indicates whether the [Binary](#) [► 172] is empty.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Empty { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.2.3 Binary.Size Property

Represents the size of the binary string.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint Size { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Binary Class](#) [► [172](#)]

[TcHmiSrv Namespace](#) [► [147](#)]

2.1.3.5.2.4 Binary.Valid Property

Gets a value that indicates whether the [Binary](#) [► [172](#)] is valid.

Namespace: [TcHmiSrv](#) [► [147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Valid { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Binary Class](#) [► [172](#)]

[TcHmiSrv Namespace](#) [► [147](#)]

2.1.3.5.3 Binary Methods

The [Binary](#) [► [172](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 179]	
	Dispose(Boolean) [► 180]	
	Equals(Binary) [► 181]	Indicates whether the current Binary [► 172] is equal to another Binary [► 172].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 183]	(Overrides Object.Finalize .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	set_binary(Byte, Int32) [► 182]	Sets the binary data to the specified Byte array using the specified length.
	set_binary(Byte, UInt32) [► 182]	Sets the binary data to the specified Byte array using the specified length.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Binary Class](#) [[► 172](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.5.3.1 Binary.Dispose Method

Overload List

	Name	Description
	Dispose. [► 179]	Releases all resources used by the Binary [► 172]
	Dispose(Boolean) [► 180]	Releases the unmanaged resources used by the Binary [► 172] and optionally releases the managed resources

Reference

[Binary Class](#) [[► 172](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.5.3.1.1 Binary.Dispose Method

Releases all resources used by the [Binary](#) [[► 172](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Binary Class](#) [► 172]

[Dispose Overload](#) [► 179]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.3.1.2 *Binary.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [Binary](#) [► 172] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Binary Class](#) [► 172]

[Dispose Overload](#) [► 179]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.3.2 **Binary.Equals Method**

Overload List

	Name	Description
	Equals(Binary) [► 181]	Indicates whether the current Binary [► 172] is equal to another Binary [► 172].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)

Reference

[Binary Class \[► 172\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.3.2.1 *Binary.Equals Method (Binary)*

Indicates whether the current [Binary \[► 172\]](#) is equal to another [Binary \[► 172\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Binary other  
)
```

Parameters

other	Type: TcHmiSrv.Binary [► 172] The Binary [► 172] to compare with this Binary [► 172] .

Return Value

Type: [Boolean](#)

true if the current [Binary \[► 172\]](#) is equal to the other [Binary \[► 172\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Binary Class \[► 172\]](#)

[Equals Overload \[► 180\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.3.3 *Binary.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Binary \[► 172\]](#).

Reference[Binary Class \[► 172\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.5.3.4 Binary.set_binary Method****Overload List**

	Name	Description
	set_binary(Byte., Int32) [► 182]	Sets the binary data to the specified Byte array using the specified length.
	set_binary(Byte., UInt32) [► 182]	Sets the binary data to the specified Byte array using the specified length.

Reference[Binary Class \[► 172\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.5.3.4.1 Binary.set_binary Method (.Byte., Int32)**Sets the binary data to the specified [Byte](#) array using the specified length.**Namespace:** [TcHmiSrv \[► 147\]](#)**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0**Syntax****C#**

```
public void set_binary(
    byte[] bytes,
    int length
)
```

Parameters

bytes	Type: System.Byte . The Byte array to be set.
length	Type: System.Int32 The length of the binary data.

Reference[Binary Class \[► 172\]](#)[set_binary Overload \[► 182\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.5.3.4.2 Binary.set_binary Method (.Byte., UInt32)**Sets the binary data to the specified [Byte](#) array using the specified length.**Namespace:** [TcHmiSrv \[► 147\]](#)**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set_binary(  
    byte[] bytes,  
    uint length  
)
```

Parameters

bytes	Type: System.Byte . The Byte array to be set.
length	Type: System.UInt32 The length of the binary data.

Reference

[Binary Class](#) [► 172]

[set_binary Overload](#) [► 182]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.3.5 Binary.Finalize Method

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize](#).

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.4 Binary Operators and Type Conversions

The [Binary](#) [► 172] type exposes the following members.

Operators

	Name	Description
 S	Equality [► 184]	Determines whether two instances of the Binary [► 172] class are equal.
 S	. (Binary to .Byte.) [► 186]	Converts an instance of the Binary [► 172] class to the appropriate Byte array.
 S	. (Binary to Decimal) [► 187]	Converts an instance of the Binary [► 172] class to the appropriate Decimal .
 S	. (.Byte. to Binary) [► 185]	Converts a Byte array to the appropriate instance of the Binary [► 172] class.
 S	. (Decimal to Binary) [► 186]	Converts a Decimal to the appropriate instance of the Binary [► 172] class.
 S	Inequality [► 187]	Determines whether two instances of the Binary [► 172] class are not equal.

Reference

[Binary Class](#) [► 172]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.5.4.1 Binary.Equality Operator

Determines whether two instances of the [Binary](#) [► 172] class are equal.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Binary current,
    Binary other
)
```

Parameters

current	Type: TcHmiSrv.Binary [► 172] The first Binary [► 172] to compare.
other	Type: TcHmiSrv.Binary [► 172] The second Binary [► 172] to compare.

Return Value

Type: [Boolean](#)

true if current equals other; otherwise, false.

Reference

[Binary Class \[► 172\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.2 **Binary . Conversion Operators**

Overload List

	Name	Description
 	.(Binary to .Byte.) [► 186]	Converts an instance of the Binary [► 172] class to the appropriate Byte array.
 	.(Binary to Decimal) [► 187]	Converts an instance of the Binary [► 172] class to the appropriate Decimal .
 	.(Byte. to Binary) [► 185]	Converts a Byte array to the appropriate instance of the Binary [► 172] class.
 	.(Decimal to Binary) [► 186]	Converts a Decimal to the appropriate instance of the Binary [► 172] class.

Reference

[Binary Class \[► 172\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.2.1 **Binary . Conversion (.Byte. to Binary)**

Converts a [Byte](#) array to the appropriate instance of the [Binary \[► 172\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Binary (  
    byte[] value  
)
```

Parameters

value	Type: .System.Byte . The Byte array to convert.

Return Value

Type: [Binary \[► 172\]](#)

An instance of the [Binary \[► 172\]](#) class that is equivalent to value.

Reference

[Binary Class \[► 172\]](#)

[.Overload \[► 185\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.2.2 *Binary . Conversion (Decimal to Binary)*

Converts a [Decimal](#) to the appropriate instance of the [Binary \[► 172\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Binary (  
    decimal value  
)
```

Parameters

value	Type: System.Decimal The Decimal to convert.

Return Value

Type: [Binary \[► 172\]](#)

An instance of the [Binary \[► 172\]](#) class that is equivalent to value.

Reference

[Binary Class \[► 172\]](#)

[.Overload \[► 185\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.2.3 *Binary . Conversion (Binary to .Byte.)*

Converts an instance of the [Binary \[► 172\]](#) class to the appropriate [Byte](#) array.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator byte[] (  
    Binary value  
)
```

Parameters

value	Type: TcHmiSrv.Binary [► 172] The Binary [► 172] to convert.

Return Value

Type: [.Byte](#).

A [Byte](#) array that is equivalent to value.

Reference

[Binary Class \[► 172\]](#)

[.Overload \[► 185\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.2.4 *Binary . Conversion (Binary to Decimal)*

Converts an instance of the [Binary \[► 172\]](#) class to the appropriate [Decimal](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator decimal (  
    Binary value  
)
```

Parameters

value	Type: TcHmiSrv.Binary [► 172] The Binary [► 172] to convert.

Return Value

Type: [Decimal](#)

A [Decimal](#) that is equivalent to value.

Reference

[Binary Class \[► 172\]](#)

[.Overload \[► 185\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.5.4.3 *Binary.Inequality Operator*

Determines whether two instances of the [Binary \[► 172\]](#) class are not equal.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(  
    Binary current,  
    Binary other  
)
```

Parameters

current	Type: TcHmiSrv.Binary [▶ 172] The first Binary [▶ 172] to compare.
other	Type: TcHmiSrv.Binary [▶ 172] The second Binary [▶ 172] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Binary Class](#) [[▶ 172](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.6 Command Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject](#) [[▶ 272](#)]

 TcHmiSrv.Command

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Command : IObject, IEquatable<Command>
```

The Command type exposes the following members.

Constructors

	Name	Description
	Command. [▶ 191]	Initializes a new instance of the Command class.
	Command(Command) [▶ 191]	Initializes a new instance of the Command class based on another Command.
	Command(String) [▶ 191]	Initializes a new instance of the Command class with the specified name.

Properties

	Name	Description
	Changed [► 193]	Gets or sets a value that indicates whether the Command has changed.
	CustomerData [► 193]	Gets or sets the customer data associated with this Command. This can be used to identify multiple calls to the same method in one request.
	Domain [► 193]	Gets the domain of the symbol.
	ExtensionResult [► 194]	Gets or sets the extension result of the Command.
	HasPaging [► 198]	Gets a value that indicates whether the Command has paging.
	HasSymbolOptions [► 198]	Gets a value that indicates whether the Command has symbol options.
	IsSet [► 194]	Gets a value that indicates whether the Command is set.
	Mapping [► 195]	Gets the mapping of the symbol.
	Name [► 195]	Gets or sets the name of the symbol.
	Options [► 195]	Gets or sets the command options of the symbol.
	Paging [► 199]	Gets the paging of the Command.
	Path [► 196]	Gets the path of the mapping.
	ReadValue [► 196]	Gets or sets the read value of the Command.
	Result [► 196]	Gets the result of the symbol.
	ResultString [► 197]	Gets or sets the result string of the Command.
	SymbolOptions [► 197]	Gets the options of the symbol used by this Command.
	WriteValue [► 198]	Gets or sets the write value of the Command.

Methods

	Name	Description
	Dispose. [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 200]	Releases the unmanaged resources used by the Command and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▶ 275].)
	Equals(Command) [▶ 201]	Indicates whether the current Command is equal to another Command.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▶ 202]	Exchanges the values of two instances of the Command class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
	Equality [▶ 203]	Determines whether the specified Command is equal to the current Command.
	Inequality [▶ 203]	Determines whether the specified Command is not equal to the current Command.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.6.1 Command Constructor**Overload List**

	Name	Description
	Command. [▶ 191]	Initializes a new instance of the Command [▶ 188] class.
	Command(Command) [▶ 191]	Initializes a new instance of the Command [▶ 188] class based on another Command [▶ 188].
	Command(String) [▶ 191]	Initializes a new instance of the Command [▶ 188] class with the specified name.

Reference

[Command Class](#) [[▶ 188](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.6.1.1 Command Constructor

Initializes a new instance of the [Command](#) [► 188] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command()
```

Reference

[Command Class](#) [► 188]

[Command Overload](#) [► 190]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.1.2 Command Constructor (String)

Initializes a new instance of the [Command](#) [► 188] class with the specified name.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command(  
    string name  
)
```

Parameters

name	Type: System.String The name to be set.

Reference

[Command Class](#) [► 188]

[Command Overload](#) [► 190]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.1.3 Command Constructor (Command)

Initializes a new instance of the [Command](#) [► 188] class based on another [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command(  
    Command other  
)
```

Parameters

other	Type: TcHmiSrv.Command [► 188] The other Command [► 188].

Reference

[Command Class](#) [► 188]

[Command Overload](#) [► 190]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2 Command Properties

The [Command](#) [► 188] type exposes the following members.

Properties

	Name	Description
	Changed [► 193]	Gets or sets a value that indicates whether the Command [► 188] has changed.
	CustomerData [► 193]	Gets or sets the customer data associated with this Command [► 188]. This can be used to identify multiple calls to the same method in one request.
	Domain [► 193]	Gets the domain of the symbol.
	ExtensionResult [► 194]	Gets or sets the extension result of the Command [► 188].
	HasPaging [► 198]	Gets a value that indicates whether the Command [► 188] has paging.
	HasSymbolOptions [► 198]	Gets a value that indicates whether the Command [► 188] has symbol options.
	IsSet [► 194]	Gets a value that indicates whether the Command [► 188] is set.
	Mapping [► 195]	Gets the mapping of the symbol.
	Name [► 195]	Gets or sets the name of the symbol.
	Options [► 195]	Gets or sets the command options of the symbol.
	Paging [► 199]	Gets the paging of the Command [► 188].
	Path [► 196]	Gets the path of the mapping.
	ReadValue [► 196]	Gets or sets the read value of the Command [► 188].
	Result [► 196]	Gets the result of the symbol.
	ResultString [► 197]	Gets or sets the result string of the Command [► 188].
	SymbolOptions [► 197]	Gets the options of the symbol used by this Command [► 188].
	WriteValue [► 198]	Gets or sets the write value of the Command [► 188].

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.2.1 Command.Changed Property

Gets or sets a value that indicates whether the [Command \[► 188\]](#) has changed.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Changed { get; set; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.2.2 Command.CustomerData Property

Gets or sets the customer data associated with this [Command \[► 188\]](#). This can be used to identify multiple calls to the same method in one request.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string CustomerData { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.2.3 Command.Domain Property

Gets the domain of the symbol.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.4 Command.ExtensionResult Property

Gets or sets the extension result of the [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint ExtensionResult { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.5 Command.IsSet Property

Gets a value that indicates whether the [Command](#) [► 188] is set.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.6 Command.Mapping Property

Gets the mapping of the symbol.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Mapping { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [[► 188](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.6.2.7 Command.Name Property

Gets or sets the name of the symbol.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [[► 188](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.6.2.8 Command.Options Property

Gets or sets the command options of the symbol.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandOption Options { get; set; }
```

Property Value

Type: [CommandOption](#) [[► 225](#)]

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.9 Command.Path Property

Gets the path of the mapping.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.10 Command.ReadValue Property

Gets or sets the read value of the [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value ReadValue { get; set; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.11 Command.Result Property

Gets the result of the symbol.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue Result { get; }
```

Property Value

Type: [ErrorValue](#) [► 247]

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.12 Command.ResultString Property

Gets or sets the result string of the [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string ResultString { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.13 Command.SymbolOptions Property

Gets the options of the symbol used by this [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value SymbolOptions { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.14 Command.WriteValue Property

Gets or sets the write value of the [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value WriteValue { get; set; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.15 Command.HasPaging Property

Gets a value that indicates whether the [Command](#) [► 188] has paging.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool HasPaging { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.6.2.16 Command.HasSymbolOptions Property

Gets a value that indicates whether the [Command](#) [► 188] has symbol options.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool HasSymbolOptions { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.2.17 Command.Paging Property

Gets the paging of the [Command \[► 188\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Paging { get; }
```

Property Value

Type: [Value \[► 513\]](#)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3 Command Methods

The [Command \[► 188\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272] .)
	Dispose(Boolean) [► 200]	(Overrides IObject.Dispose(Boolean) [► 275] .)
	Equals(Command) [► 201]	Indicates whether the current Command [► 188] is equal to another Command [► 188] .
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272] .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [► 202]	Exchanges the values of two instances of the Command [► 188] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.1 Command.Dispose Method

Overload List

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 200]	Releases the unmanaged resources used by the Command [► 188] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275].)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.1.1 Command.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Command \[► 188\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Command Class \[► 188\]](#)

[Dispose Overload \[► 200\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.2 Command.Equals Method

Overload List

	Name	Description
	Equals(Command) [► 201]	Indicates whether the current Command [► 188] is equal to another Command [► 188] .
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.2.1 *Command.Equals Method (Command)*

Indicates whether the current [Command \[► 188\]](#) is equal to another [Command \[► 188\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Command other  
)
```

Parameters

other	Type: TcHmiSrv.Command [► 188] The Command [► 188] to compare with this Command [► 188] .

Return Value

Type: [Boolean](#)

true if the current [Command \[► 188\]](#) is equal to the other [Command \[► 188\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Command Class \[► 188\]](#)

[Equals Overload \[► 200\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.3 *Command.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Command \[► 188\]](#).

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.3.4 Command.swap Method

Exchanges the values of two instances of the [Command \[► 188\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(
    Command other
)
```

Parameters

other	Type: TcHmiSrv.Command [► 188] The other Command [► 188] .

Return Value

Type: Boolean

true if the swap was successful; otherwise, false.

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.4 Command Operators

The [Command \[► 188\]](#) type exposes the following members.

Operators

	Name	Description
	Equality [► 203]	Determines whether the specified Command [► 188] is equal to the current Command [► 188] .
	Inequality [► 203]	Determines whether the specified Command [► 188] is not equal to the current Command [► 188] .

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.4.1 Command.Equality Operator

Determines whether the specified [Command \[► 188\]](#) is equal to the current [Command \[► 188\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Command current,
    Command other
)
```

Parameters

current	Type: TcHmiSrv.Command [► 188] The current instance of the Command [► 188] class.
other	Type: TcHmiSrv.Command [► 188] The Command [► 188] to compare with the current Command [► 188] .

Return Value

Type: [Boolean](#)

true if the specified [Command \[► 188\]](#) is equal to the current [Command \[► 188\]](#); otherwise, false.

Reference

[Command Class \[► 188\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.6.4.2 Command.Inequality Operator

Determines whether the specified [Command \[► 188\]](#) is not equal to the current [Command \[► 188\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Command current,
    Command other
)
```

Parameters

current	Type: TcHmiSrv.Command [► 188] The current instance of the Command [► 188] class.
other	Type: TcHmiSrv.Command [► 188] The Command [► 188] to compare with the current Command [► 188] .

Return Value

Type: [Boolean](#)

true if the specified [Command \[► 188\]](#) is not equal to the current [Command \[► 188\]](#); otherwise, false.

Reference

[Command Class](#) [► 188]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7 CommandGroup Class

Represents a group of [Command](#) [► 188]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject](#) [► 272]

 TcHmiSrv.CommandGroup

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class CommandGroup : IObject,
    IEquatable<CommandGroup>, IList<Command>, ICollection<Command>,
    IEnumerable<Command>, IEnumerable, IVersionable
```

The CommandGroup type exposes the following members.

Constructors

	Name	Description
	CommandGroup. [► 207]	Initializes a new instance of the CommandGroup class.
	CommandGroup(CommandGroup) [► 208]	Initializes a new instance of the CommandGroup class based on another CommandGroup.
	CommandGroup(String) [► 207]	Initializes a new instance of the CommandGroup class with the specified domain.

Properties

	Name	Description
	BeginVector [▶ 209]	A ValueVectorIterator [▶ 631] to the begin of the vector.
	Count [▶ 212]	Gets the number of the Command [▶ 188]s contained in the CommandGroup.
	Domain [▶ 209]	Gets or sets the name of the domain.
	Empty [▶ 210]	Gets a value that indicates whether the CommandGroup is empty.
	EndVector [▶ 210]	A ValueVectorIterator [▶ 631] to the end of the vector.
	IsReadOnly [▶ 213]	Gets a value that indicates whether the CommandGroup is read-only.
	IsSet [▶ 211]	Gets a value that indicates whether the CommandGroup is set.
	Item [▶ 211]	Gets or sets the Command [▶ 188] at the specified index.
	Result [▶ 211]	Gets or sets the group result.
	Size [▶ 212]	Gets the number of Command [▶ 188]s in the CommandGroup.

Methods

	Name	Description
	Add [► 219]	Adds a Command [► 188] to the CommandGroup.
	clear [► 215]	Removes all Command [► 188] s from the CommandGroup.
	Clear [► 219]	Removes all Command [► 188] s from the CommandGroup.
	Contains [► 220]	Determines whether the CommandGroup contains the specified Command [► 188] .
	CopyTo [► 220]	Copies the Command [► 188] s of the CommandGroup to an Array starting at the specified Array index.
	Dispose. [► 274]	(Inherited from IObject [► 272] .)
	Dispose(Boolean) [► 215]	Releases the unmanaged resources used by the CommandGroup and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275] .)
	Equals(CommandGroup) [► 216]	Indicates whether the current CommandGroup is equal to another CommandGroup.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272] .)
	find [► 217]	Finds a Command [► 188] with the specified index in the vector.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	IndexOf [► 221]	Determines the index of the specific Command [► 188] in the CommandGroup.
	insert [► 217]	Inserts a Command [► 188] at the specified position in the vector.
	Insert [► 222]	Inserts a Command [► 188] to the CommandGroup at the specified index.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	remove [► 218]	Removes a Command [► 188] at the specified position from the vector.
	Remove [► 222]	Removes the first occurrence of the specified Command [► 188] from the CommandGroup.
	RemoveAt [► 223]	Removes the Command [► 188] at the specified index of the CommandGroup.
	reserve [► 219]	Reserves memory for a number of Command [► 188] s to reduce memory allocations.
	swap [► 223]	Exchanges the values of two instances of the CommandGroup class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [▸ 224]	Determines whether the specified CommandGroup is equal to the current CommandGroup.
 	Inequality [▸ 225]	Determines whether the specified CommandGroup is not equal to the current CommandGroup.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.7.1 CommandGroup Constructor

Overload List

	Name	Description
	CommandGroup. [▸ 207]	Initializes a new instance of the CommandGroup [▸ 204] class.
	CommandGroup(CommandGroup) [▸ 208]	Initializes a new instance of the CommandGroup [▸ 204] class based on another CommandGroup [▸ 204].
	CommandGroup(String) [▸ 207]	Initializes a new instance of the CommandGroup [▸ 204] class with the specified domain.

Reference

[CommandGroup Class](#) [[▸ 204](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.7.1.1 CommandGroup Constructor

Initializes a new instance of the [CommandGroup](#) [[▸ 204](#)] class.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandGroup()
```

Reference

[CommandGroup Class](#) [[▸ 204](#)]

[CommandGroup Overload](#) [[▸ 207](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.7.1.2 CommandGroup Constructor (String)

Initializes a new instance of the [CommandGroup](#) [[▸ 204](#)] class with the specified domain.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandGroup(  
    string name  
)
```

Parameters

name	Type: System.String The name of the domain.

Reference

[CommandGroup Class](#) [[▶ 204](#)]

[CommandGroup Overload](#) [[▶ 207](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.7.1.3 CommandGroup Constructor (CommandGroup)

Initializes a new instance of the [CommandGroup](#) [[▶ 204](#)] class based on another [CommandGroup](#) [[▶ 204](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandGroup(  
    CommandGroup other  
)
```

Parameters

other	Type: TcHmiSrv.CommandGroup [▶ 204] The other CommandGroup [▶ 204].

Reference

[CommandGroup Class](#) [[▶ 204](#)]

[CommandGroup Overload](#) [[▶ 207](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.7.2 CommandGroup Properties

The [CommandGroup](#) [[▶ 204](#)] type exposes the following members.

Properties

	Name	Description
	BeginVector [► 209]	A ValueVectorIterator [► 631] to the begin of the vector.
	Count [► 212]	Gets the number of the Command [► 188]s contained in the CommandGroup [► 204].
	Domain [► 209]	Gets or sets the name of the domain.
	Empty [► 210]	Gets a value that indicates whether the CommandGroup [► 204] is empty.
	EndVector [► 210]	A ValueVectorIterator [► 631] to the end of the vector.
	IsReadOnly [► 213]	Gets a value that indicates whether the CommandGroup [► 204] is read-only.
	IsSet [► 211]	Gets a value that indicates whether the CommandGroup [► 204] is set.
	Item [► 211]	Gets or sets the Command [► 188] at the specified index.
	Result [► 211]	Gets or sets the group result.
	Size [► 212]	Gets the number of Command [► 188]s in the CommandGroup [► 204].

Reference

[CommandGroup Class](#) [[► 204](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.7.2.1 CommandGroup.BeginVector Property

A [ValueVectorIterator](#) [[► 631](#)] to the begin of the vector.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator BeginVector { get; }
```

Property Value

Type: [CommandVectorIterator](#) [[► 226](#)]

Reference

[CommandGroup Class](#) [[► 204](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.7.2.2 CommandGroup.Domain Property

Gets or sets the name of the domain.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.2.3 CommandGroup.Empty Property

Gets a value that indicates whether the [CommandGroup](#) [► 204] is empty.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Empty { get; }
```

Property Value

Type: [Boolean](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.2.4 CommandGroup.EndVector Property

A [ValueVectorIterator](#) [► 631] to the end of the vector.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator EndVector { get; }
```

Property Value

Type: [CommandVectorIterator](#) [► 226]

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.2.5 **CommandGroup.IsSet Property**

Gets a value that indicates whether the [CommandGroup \[▸ 204\]](#) is set.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[CommandGroup Class \[▸ 204\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.7.2.6 **CommandGroup.Item Property**

Gets or sets the [Command \[▸ 188\]](#) at the specified index.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command this[
    uint index
] { get; set; }
```

Parameters

index	Type: System.UInt32 The zero-based index of the Command [▸ 188] to get or set.

Return Value

Type: [Command \[▸ 188\]](#)

The [Command \[▸ 188\]](#) at the specified index.

Reference

[CommandGroup Class \[▸ 204\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.7.2.7 **CommandGroup.Result Property**

Gets or sets the group result.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint Result { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.2.8 CommandGroup.Size Property

Gets the number of [Command](#) [► 188]s in the [CommandGroup](#) [► 204].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint Size { get; }
```

Property Value

Type: [UInt32](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.2.9 CommandGroup.Count Property

Gets the number of the [Command](#) [► 188]s contained in the [CommandGroup](#) [► 204].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int Count { get; }
```

Property Value

Type: [Int32](#)

Implements

[ICollection.T.Count](#)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.2.10 CommandGroup.IsReadOnly Property

Gets a value that indicates whether the [CommandGroup \[► 204\]](#) is read-only.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsReadOnly { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.T..IsReadOnly](#)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3 CommandGroup Methods

The [CommandGroup \[► 204\]](#) type exposes the following members.

Methods

	Name	Description
	Add [► 219]	Adds a Command [► 188] to the CommandGroup [► 204] .
	clear [► 215]	Removes all Command [► 188] s from the CommandGroup [► 204] .
	Clear [► 219]	Removes all Command [► 188] s from the CommandGroup [► 204] .
	Contains [► 220]	Determines whether the CommandGroup [► 204] contains the specified Command [► 188] .
	CopyTo [► 220]	Copies the Command [► 188] s of the CommandGroup [► 204] to an Array starting at the specified Array index.
	Dispose. [► 274]	(Inherited from IObject [► 272] .)
	Dispose(Boolean) [► 215]	(Overrides IObject.Dispose(Boolean) [► 275] .)
	Equals(CommandGroup) [► 216]	Indicates whether the current CommandGroup [► 204] is equal to another CommandGroup [► 204] .
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272] .)
	find [► 217]	Finds a Command [► 188] with the specified index in the vector.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	IndexOf [► 221]	Determines the index of the specific Command [► 188] in the CommandGroup [► 204] .
	insert [► 217]	Inserts a Command [► 188] at the specified position in the vector.
	Insert [► 222]	Inserts a Command [► 188] to the CommandGroup [► 204] at the specified index.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	remove [► 218]	Removes a Command [► 188] at the specified position from the vector.
	Remove [► 222]	Removes the first occurrence of the specified Command [► 188] from the CommandGroup [► 204] .
	RemoveAt [► 223]	Removes the Command [► 188] at the specified index of the CommandGroup [► 204] .
	reserve [► 219]	Reserves memory for a number of Command [► 188] s to reduce memory allocations.
	swap [► 223]	Exchanges the values of two instances of the CommandGroup [► 204] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.1 CommandGroup.clear Method

Removes all [Command](#) [► 188]s from the [CommandGroup](#) [► 204].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void clear()
```

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.2 CommandGroup.Dispose Method

Overload List

	Name	Description
	Dispose . [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 215]	Releases the unmanaged resources used by the CommandGroup [► 204] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275].)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.2.1 CommandGroup.Dispose Method (Boolean)

Releases the unmanaged resources used by the [CommandGroup](#) [► 204] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[CommandGroup Class](#) [► 204]

[Dispose Overload \[► 215\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.3 CommandGroup.Equals Method

Overload List

	Name	Description
	Equals(CommandGroup) [► 216]	Indicates whether the current CommandGroup [► 204] is equal to another CommandGroup [► 204] .
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.3.1 CommandGroup.Equals Method (CommandGroup)

Indicates whether the current [CommandGroup \[► 204\]](#) is equal to another [CommandGroup \[► 204\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    CommandGroup other  
)
```

Parameters

other	Type: TcHmiSrv.CommandGroup [► 204] The CommandGroup [► 204] to compare with this CommandGroup [► 204] .

Return Value

Type: [Boolean](#)

true if the current [CommandGroup \[► 204\]](#) is equal to the other [CommandGroup \[► 204\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[CommandGroup Class \[► 204\]](#)

[Equals Overload \[► 216\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.4 CommandGroup.find Method

Finds a [Command](#) [► 188] with the specified index in the vector.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator find(  
    uint index  
)
```

Parameters

index	Type: System.UInt32 The index of the Command [► 188] to find.

Return Value

Type: [CommandVectorIterator](#) [► 226]

A [CommandVectorIterator](#) [► 226] to the [Command](#) [► 188] with the specified key or a [CommandVectorIterator](#) [► 226] to the end of the vector if the [Command](#) [► 188] does not exist.

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.5 CommandGroup.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [CommandGroup](#) [► 204].

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.6 CommandGroup.insert Method

Inserts a [Command](#) [► 188] at the specified position in the vector.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator insert(  
    CommandVectorIterator position,  
    Command command  
)
```

Parameters

position	Type: TcHmiSrv.CommandVectorIterator [► 226] The position of the Command [► 188] to insert.
command	Type: TcHmiSrv.Command [► 188] The Command [► 188] to insert.

Return Value

Type: [CommandVectorIterator](#) [► 226]

A [CommandVectorIterator](#) [► 226] to the inserted [Command](#) [► 188].

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.7 CommandGroup.remove Method

Removes a [Command](#) [► 188] at the specified position from the vector.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue remove(  
    CommandVectorIterator position  
)
```

Parameters

position	Type: TcHmiSrv.CommandVectorIterator [► 226] The position of the Command [► 188] that should be removed.

Return Value

Type: [ErrorValue](#) [► 247]

[HMI_SUCCESS](#) [► 247] if the [Command](#) [► 188] has been removed or [HMI_E_ENTRY_NOT_FOUND](#) [► 247] if the [Command](#) [► 188] does not exist.

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.8 **CommandGroup.reserve Method**

Reserves memory for a number of [Command \[► 188\]](#)s to reduce memory allocations.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void reserve(  
    uint size  
)
```

Parameters

size	Type: System.UInt32 The number of Command [► 188] s that should be reserved.

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.9 **CommandGroup.Add Method**

Adds a [Command \[► 188\]](#) to the [CommandGroup \[► 204\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Add(  
    Command item  
)
```

Parameters

item	Type: TcHmiSrv.Command [► 188] The Command [► 188] to add to the CommandGroup [► 204] .

Implements

[ICollection.T..Add\(T\)](#)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.10 **CommandGroup.Clear Method**

Removes all [Command \[► 188\]](#)s from the [CommandGroup \[► 204\]](#).

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Clear()
```

Implements

[ICollection.T..Clear.](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.11 CommandGroup.Contains Method

Determines whether the [CommandGroup](#) [► 204] contains the specified [Command](#) [► 188].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Contains(  
    Command item  
)
```

Parameters

item	Type: TcHmiSrv.Command [► 188] The Command [► 188] to locate in the CommandGroup [► 204].

Return Value

Type: [Boolean](#)
true if item is found in the [CommandGroup](#) [► 204]; otherwise, false.

Implements

[ICollection.T..Contains\(T\)](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.12 CommandGroup.CopyTo Method

Copies the [Command](#) [► 188]s of the [CommandGroup](#) [► 204] to an [Array](#) starting at the specified [Array](#) index.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void CopyTo(  
    Command[] array,  
    int arrayIndex  
)
```

Parameters

array	Type: TcHmiSrv.Command [► 188]. The one-dimensional Array that is the destination of the Command [► 188]s copied from the CommandGroup [► 204]. The Array must have zero-based indexing.
arrayIndex	Type: System.Int32 The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[CommandGroup Class](#) [► 204]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.3.13 **CommandGroup.IndexOf Method**

Determines the index of the specific [Command](#) [► 188] in the [CommandGroup](#) [► 204].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int IndexOf(  
    Command item  
)
```

Parameters

item	Type: TcHmiSrv.Command [► 188] The Command [► 188] to locate in the CommandGroup [► 204].

Return Value

Type: [Int32](#)
The index of item if found in the [CommandGroup](#) [► 204]; otherwise, -1.

Implements

[IList.T..IndexOf\(T\)](#)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.14 **CommandGroup.Insert Method**

Inserts a [Command \[► 188\]](#) to the [CommandGroup \[► 204\]](#) at the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Insert(  
    int index,  
    Command item  
)
```

Parameters

index	Type: System.Int32 The zero-based index at which item should be inserted.
item	Type: TcHmiSrv.Command [► 188] The Command [► 188] to insert into the CommandGroup [► 204] .

Implements

[IList.T..Insert\(Int32, T\)](#)

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.3.15 **CommandGroup.Remove Method**

Removes the first occurrence of the specified [Command \[► 188\]](#) from the [CommandGroup \[► 204\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Remove(  
    Command item  
)
```

Parameters

item	Type: TcHmiSrv.Command [► 188] The Command [► 188] to remove from the CommandGroup [► 204] .

Return Value

Type: [Boolean](#)
true if item was successfully removed from the [CommandGroup](#) [[▶ 204](#)]; otherwise, false. This method also returns false if item is not found in the original [CommandGroup](#) [[▶ 204](#)].

Implements

[ICollection.T..Remove\(T\)](#)

Reference

[CommandGroup Class](#) [[▶ 204](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.7.3.16 **CommandGroup.RemoveAt Method**

Removes the [Command](#) [[▶ 188](#)] at the specified index of the [CommandGroup](#) [[▶ 204](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void RemoveAt(  
    int index  
)
```

Parameters

index	Type: System.Int32 The zero-based index of the Command [▶ 188] to remove.

Implements

[IList.T..RemoveAt\(Int32\)](#)

Reference

[CommandGroup Class](#) [[▶ 204](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.7.3.17 **CommandGroup.swap Method**

Exchanges the values of two instances of the [CommandGroup](#) [[▶ 204](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    CommandGroup arg0  
)
```

Parameters

arg0	Type: TcHmiSrv.CommandGroup [► 204] The other CommandGroup [► 204] .

Return Value

Type: [Boolean](#)

true if the swap was successful; otherwise, false.

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.4 CommandGroup Operators

The [CommandGroup \[► 204\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 224]	Determines whether the specified CommandGroup [► 204] is equal to the current CommandGroup [► 204] .
 	Inequality [► 225]	Determines whether the specified CommandGroup [► 204] is not equal to the current CommandGroup [► 204] .

Reference

[CommandGroup Class \[► 204\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.7.4.1 CommandGroup.Equality Operator

Determines whether the specified [CommandGroup \[► 204\]](#) is equal to the current [CommandGroup \[► 204\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    CommandGroup current,
    CommandGroup other
)
```

Parameters

current	Type: TcHmiSrv.CommandGroup [► 204] The current instance of the CommandGroup [► 204] class.
other	Type: TcHmiSrv.CommandGroup [► 204] The CommandGroup [► 204] to compare with the current CommandGroup [► 204] .

Return Value

Type: [Boolean](#)
true if the specified [CommandGroup](#) [► 204] is equal to the current [CommandGroup](#) [► 204]; otherwise, false.

Reference

[CommandGroup Class](#) [► 204]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.7.4.2 CommandGroup.Inequality Operator

Determines whether the specified [CommandGroup](#) [► 204] is not equal to the current [CommandGroup](#) [► 204].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    CommandGroup current,
    CommandGroup other
)
```

Parameters

current	Type: TcHmiSrv.CommandGroup [► 204] The current instance of the CommandGroup [► 204] class.
other	Type: TcHmiSrv.CommandGroup [► 204] The CommandGroup [► 204] to compare with the current CommandGroup [► 204].

Return Value

Type: [Boolean](#)
true if the specified [CommandGroup](#) [► 204] is not equal to the current [CommandGroup](#) [► 204]; otherwise, false.

Reference

[CommandGroup Class](#) [► 204]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.8 CommandOption Enumeration

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[FlagsAttribute]
public enum CommandOption
```

Members

	Member name	Value	Description
	CommandOption_None	0	
	CommandOption_SendWriteValue	1	
	CommandOption_SendErrorMessage	2	
	CommandOption_Poll	4	
	CommandOption_Offline	8	
	CommandOption_Config	16	
	CommandOption_UniqueHash	32	
	CommandOption_Add	64	
	CommandOption_Replace	128	
	CommandOption_ForceSingleWrite	256	
	CommandOption_Check	512	
	CommandOption_ValidateRead	1024	
	CommandOption_Delete	2048	
	CommandOption_PagingHandled	4096	
	CommandOption_Transaction	8192	
	CommandOption_Extension1	65536	
	CommandOption_Extension2	131072	
	CommandOption_Extension3	262144	
	CommandOption_Extension4	524288	
	CommandOption_Import	1048576	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9 CommandVectorIterator Class**Inheritance Hierarchy**

[System.Object](#)

TcHmiSrv.CommandVectorIterator

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public class CommandVectorIterator : IEquatable<CommandVectorIterator>,
    IDisposable
```

The CommandVectorIterator type exposes the following members.

Constructors

	Name	Description
	CommandVectorIterator [► 228]	Initializes a new instance of the CommandVectorIterator class.
	CommandVectorIterator(CommandVectorIterator) [► 228]	Initializes a new instance of the CommandVectorIterator class based on another CommandVectorIterator.

Properties

	Name	Description
	Current [► 229]	Gets the Command [► 188] of the CommandVectorIterator.

Methods

	Name	Description
	Dispose [► 230]	Releases all resources used by the CommandVectorIterator
	Dispose(Boolean) [► 231]	Releases the unmanaged resources used by the CommandVectorIterator and optionally releases the managed resources
	Equals(CommandVectorIterator) [► 232]	Indicates whether the current CommandVectorIterator is equal to another CommandVectorIterator.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 233]	(Overrides Object.Finalize .)
	get_by_index [► 233]	Gets the Command [► 188] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Decrement [► 234]	Decrements the current CommandVectorIterator.
 	Equality [► 234]	Determines whether the specified CommandVectorIterator is equal to the current CommandVectorIterator.
 	Increment [► 235]	Increments the current CommandVectorIterator.
 	Inequality [► 236]	Determines whether the specified CommandVectorIterator is not equal to the current CommandVectorIterator.

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.1 CommandVectorIterator Constructor

Overload List

	Name	Description
	CommandVectorIterator. [► 228]	Initializes a new instance of the CommandVectorIterator [► 226] class.
	CommandVectorIterator(Comm andVectorIterator) [► 228]	Initializes a new instance of the CommandVectorIterator [► 226] class based on another CommandVectorIterator [► 226] .

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.1.1 CommandVectorIterator Constructor

Initializes a new instance of the [CommandVectorIterator \[► 226\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator()
```

Reference

[CommandVectorIterator Class \[► 226\]](#)

[CommandVectorIterator Overload \[► 228\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.1.2 CommandVectorIterator Constructor (CommandVectorIterator)

Initializes a new instance of the [CommandVectorIterator \[► 226\]](#) class based on another [CommandVectorIterator \[► 226\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandVectorIterator(
    CommandVectorIterator other
)
```


Parameters

other	Type: TcHmiSrv.CommandVectorIterator [► 226] The other CommandVectorIterator [► 226].

Reference

[CommandVectorIterator Class](#) [► 226]

[CommandVectorIterator Overload](#) [► 228]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.9.2 CommandVectorIterator Properties

The [CommandVectorIterator](#) [► 226] type exposes the following members.

Properties

	Name	Description
	Current [► 229]	Gets the Command [► 188] of the CommandVectorIterator [► 226].

Reference

[CommandVectorIterator Class](#) [► 226]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.9.2.1 CommandVectorIterator.Current Property

Gets the [Command](#) [► 188] of the [CommandVectorIterator](#) [► 226].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command Current { get; }
```

Property Value

Type: [Command](#) [► 188]

Reference

[CommandVectorIterator Class](#) [► 226]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.9.3 CommandVectorIterator Methods

The [CommandVectorIterator](#) [► 226] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 230]	
	Dispose(Boolean) [► 231]	
	Equals(CommandVectorIterator) [► 232]	Indicates whether the current CommandVectorIterator [► 226] is equal to another CommandVectorIterator [► 226].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 233]	(Overrides Object.Finalize .)
	get_by_index [► 233]	Gets the Command [► 188] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[CommandVectorIterator Class](#) [[► 226](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.9.3.1 CommandVectorIterator.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 230]	Releases all resources used by the CommandVectorIterator [► 226]
	Dispose(Boolean) [► 231]	Releases the unmanaged resources used by the CommandVectorIterator [► 226] and optionally releases the managed resources

Reference

[CommandVectorIterator Class](#) [[► 226](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.9.3.1.1 CommandVectorIterator.Dispose Method

Releases all resources used by the [CommandVectorIterator](#) [[► 226](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax**C#**

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[CommandVectorIterator Class \[► 226\]](#)

[Dispose Overload \[► 230\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.3.1.2 **CommandVectorIterator.Dispose Method (Boolean)**

Releases the unmanaged resources used by the [CommandVectorIterator \[► 226\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[CommandVectorIterator Class \[► 226\]](#)

[Dispose Overload \[► 230\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.3.2 **CommandVectorIterator.Equals Method**

Overload List

	Name	Description
	Equals(CommandVectorIterator) [► 232]	Indicates whether the current CommandVectorIterator [► 226] is equal to another CommandVectorIterator [► 226] .
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.3.2.1 *CommandVectorIterator.Equals Method (CommandVectorIterator)*

Indicates whether the current [CommandVectorIterator](#) [► 226] is equal to another [CommandVectorIterator](#) [► 226].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    CommandVectorIterator other  
)
```

Parameters

other	Type: TcHmiSrv.CommandVectorIterator [► 226] The CommandVectorIterator [► 226] to compare with this CommandVectorIterator [► 226].

Return Value

Type: [Boolean](#)

true if the current [CommandVectorIterator](#) [► 226] is equal to the other [CommandVectorIterator](#) [► 226]; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[CommandVectorIterator Class](#) [► 226]

[Equals Overload](#) [► 231]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.9.3.3 *CommandVectorIterator.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [CommandVectorIterator](#) [► 226].

Reference

[CommandVectorIterator Class](#) [► 226]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.3.4 **CommandVectorIterator.Finalize Method**

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.3.5 **CommandVectorIterator.get_by_index Method**

Gets the [Command \[► 188\]](#) after the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command get_by_index(  
    uint diff  
)
```

Parameters

diff	Type: System.UInt32 The index of the Command [► 188] to get.

Return Value

Type: [Command \[► 188\]](#)

The [Command \[► 188\]](#) after the specified index.

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.4 **CommandVectorIterator Operators**

The [CommandVectorIterator \[► 226\]](#) type exposes the following members.

Operators

	Name	Description
 	Decrement [▶ 234]	Decrements the current CommandVectorIterator [▶ 226].
 	Equality [▶ 234]	Determines whether the specified CommandVectorIterator [▶ 226] is equal to the current CommandVectorIterator [▶ 226].
 	Increment [▶ 235]	Increments the current CommandVectorIterator [▶ 226].
 	Inequality [▶ 236]	Determines whether the specified CommandVectorIterator [▶ 226] is not equal to the current CommandVectorIterator [▶ 226].

Reference

[CommandVectorIterator Class](#) [[▶ 226](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.9.4.1 CommandVectorIterator.Decrement Operator

Decrements the current [CommandVectorIterator](#) [[▶ 226](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public static CommandVectorIterator operator --(
    CommandVectorIterator it
)
```

Parameters

it	Type: TcHmiSrv.CommandVectorIterator [▶ 226] The current CommandVectorIterator [▶ 226].

Return Value

Type: [CommandVectorIterator](#) [[▶ 226](#)]

The decremented [CommandVectorIterator](#) [[▶ 226](#)].

Reference

[CommandVectorIterator Class](#) [[▶ 226](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.9.4.2 CommandVectorIterator.Equality Operator

Determines whether the specified [CommandVectorIterator](#) [[▶ 226](#)] is equal to the current [CommandVectorIterator](#) [[▶ 226](#)].

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    CommandVectorIterator current,
    CommandVectorIterator other
)
```

Parameters

current	Type: TcHmiSrv.CommandVectorIterator [► 226] The current instance of the CommandVectorIterator [► 226] class.
other	Type: TcHmiSrv.CommandVectorIterator [► 226] The CommandVectorIterator [► 226] to compare with the current CommandVectorIterator [► 226] .

Return Value

Type: [Boolean](#)
true if the specified [CommandVectorIterator \[► 226\]](#) is equal to the current [CommandVectorIterator \[► 226\]](#); otherwise, false.

Reference

[CommandVectorIterator Class \[► 226\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.4.3 CommandVectorIterator.Increment Operator

Increments the current [CommandVectorIterator \[► 226\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static CommandVectorIterator operator ++(
    CommandVectorIterator it
)
```

Parameters

it	Type: TcHmiSrv.CommandVectorIterator [► 226] The current CommandVectorIterator [► 226] .

Return Value

Type: [CommandVectorIterator \[► 226\]](#)
The incremented [CommandVectorIterator \[► 226\]](#).

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.9.4.4 **CommandVectorIterator.Inequality Operator**

Determines whether the specified [CommandVectorIterator \[► 226\]](#) is not equal to the current [CommandVectorIterator \[► 226\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    CommandVectorIterator current,
    CommandVectorIterator other
)
```

Parameters

current	Type: TcHmiSrv.CommandVectorIterator [► 226] The current instance of the CommandVectorIterator [► 226] class.
other	Type: TcHmiSrv.CommandVectorIterator [► 226] The CommandVectorIterator [► 226] to compare with the current CommandVectorIterator [► 226] .

Return Value

Type: [Boolean](#)

true if the specified [CommandVectorIterator \[► 226\]](#) is not equal to the current [CommandVectorIterator \[► 226\]](#); otherwise, false.

Reference

[CommandVectorIterator Class \[► 226\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.10 **ConfigChangeType Enumeration**

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[FlagsAttribute]
public enum ConfigChangeType
```


Members

	Member name	Value	Description
	ConfigChangeType_BeforeChange	1	
	ConfigChangeType_BeforeDelete	2	
	ConfigChangeType_BeforeRename	4	
	ConfigChangeType_OnChange	16	
	ConfigChangeType_OnDelete	32	
	ConfigChangeType_OnRename	64	
	ConfigChangeType_AllBefore	15	
	ConfigChangeType_AllOn	240	
	ConfigChangeType_All	255	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.11 Context Class

Represents the context of an invoked method or symbol.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Context](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public class Context : IEquatable<Context>,
    IDisposable
```

The Context type exposes the following members.

Constructors

	Name	Description
	Context. [► 239]	Initializes a new instance of the Context class.
	Context(Context) [► 239]	Initializes a new instance of the Context class based on another Context.

Properties

	Name	Description
	Domain [► 240]	Gets or sets the currently active domain.
	Hash [► 240]	Gets or sets a hash value to identify identical Command [► 188] sets.
	RequestType [► 241]	Gets or sets the type of the request that is currently being executed.
	Session [► 241]	Gets or sets the Session [► 336] of the currently active user.
	SubscriptionId [► 242]	Gets or sets an identifier for subscriptions.

Methods

	Name	Description
	Dispose. [► 243]	Releases all resources used by the Context
	Dispose(Boolean) [► 243]	Releases the unmanaged resources used by the Context and optionally releases the managed resources
	Equals(Context) [► 244]	Indicates whether the current Context is equal to another Context.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 245]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [► 246]	Determines whether two instances of the Context class are equal.
 	Inequality [► 246]	Determines whether two instances of the Context class are not equal.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.11.1 Context Constructor

Overload List

	Name	Description
	Context. [► 239]	Initializes a new instance of the Context [► 237] class.
	Context(Context) [► 239]	Initializes a new instance of the Context [► 237] class based on another Context [► 237] .

Reference

[Context Class](#) [\[► 237\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.11.1.1 Context Constructor

Initializes a new instance of the [Context](#) [\[► 237\]](#) class.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context()
```

Reference

[Context Class](#) [\[► 237\]](#)

[Context Overload](#) [\[► 239\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.11.1.2 Context Constructor (Context)

Initializes a new instance of the [Context](#) [\[► 237\]](#) class based on another [Context](#) [\[► 237\]](#).

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context(  
    Context other  
)
```

Parameters

other	Type: TcHmiSrv.Context [► 237] The other Context [► 237] .

Reference

[Context Class](#) [\[► 237\]](#)

[Context Overload](#) [\[► 239\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.11.2 Context Properties

The [Context \[► 237\]](#) type exposes the following members.

Properties

	Name	Description
	Domain [► 240]	Gets or sets the currently active domain.
	Hash [► 240]	Gets or sets a hash value to identify identical Command [► 188] sets.
	RequestType [► 241]	Gets or sets the type of the request that is currently being executed.
	Session [► 241]	Gets or sets the Session [► 336] of the currently active user.
	SubscriptionId [► 242]	Gets or sets an identifier for subscriptions.

Reference

[Context Class \[► 237\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.11.2.1 Context.Domain Property

Gets or sets the currently active domain.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Context Class \[► 237\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.11.2.2 Context.Hash Property

Gets or sets a hash value to identify identical [Command \[► 188\]](#) sets.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint Hash { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.2.3 Context.RequestType Property

Gets or sets the type of the request that is currently being executed.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public RequestType RequestType { get; set; }
```

Property Value

Type: [RequestType](#) [► 327]

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.2.4 Context.Session Property

Gets or sets the [Session](#) [► 336] of the currently active user.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Session Session { get; set; }
```

Property Value

Type: [Session](#) [► 336]

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.2.5 Context.SubscriptionId Property

Gets or sets an identifier for subscriptions.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint SubscriptionId { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3 Context Methods

The [Context](#) [► 237] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 243]	
	Dispose(Boolean) [► 243]	
	Equals(Context) [► 244]	Indicates whether the current Context [► 237] is equal to another Context [► 237].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 245]	(Overrides Object.Finalize .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3.1 Context.Dispose Method

Overload List

	Name	Description
	Dispose. [► 243]	Releases all resources used by the Context [► 237]
	Dispose(Boolean) [► 243]	Releases the unmanaged resources used by the Context [► 237] and optionally releases the managed resources

Reference

[Context Class](#) [[► 237](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.11.3.1.1 Context.Dispose Method

Releases all resources used by the [Context](#) [[► 237](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Context Class](#) [[► 237](#)]

[Dispose Overload](#) [[► 243](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.11.3.1.2 Context.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Context](#) [[► 237](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Context Class](#) [► 237]

[Dispose Overload](#) [► 243]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3.2 Context.Equals Method

Overload List

	Name	Description
	Equals(Context) [► 244]	Indicates whether the current Context [► 237] is equal to another Context [► 237].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3.2.1 Context.Equals Method (Context)

Indicates whether the current [Context](#) [► 237] is equal to another [Context](#) [► 237].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Context other  
)
```

Parameters

other	Type: TcHmiSrv.Context [► 237] The Context [► 237] to compare with this Context [► 237].

Return Value

Type: [Boolean](#)

true if the current [Context](#) [► 237] is equal to the other [Context](#) [► 237]; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Context Class](#) [► 237]

[Equals Overload](#) [► 244]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3.3 Context.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Context](#) [► 237].

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.3.4 Context.Finalize Method

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize](#).

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.11.4 Context Operators

The [Context](#) [► 237] type exposes the following members.

Operators

	Name	Description
 	Equality [▸ 246]	Determines whether two instances of the Context [▸ 237] class are equal.
 	Inequality [▸ 246]	Determines whether two instances of the Context [▸ 237] class are not equal.

Reference

[Context Class](#) [[▸ 237](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.11.4.1 Context.Equality Operator

Determines whether two instances of the [Context](#) [[▸ 237](#)] class are equal.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Context current,
    Context other
)
```

Parameters

current	Type: TcHmiSrv.Context [▸ 237] The first Context [▸ 237] to compare.
other	Type: TcHmiSrv.Context [▸ 237] The second Context [▸ 237] to compare.

Return Value

Type: [Boolean](#)

true if current equals other; otherwise, false.

Reference

[Context Class](#) [[▸ 237](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.11.4.2 Context.Inequality Operator

Determines whether two instances of the [Context](#) [[▸ 237](#)] class are not equal.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Context current,
    Context other
)
```

Parameters

current	Type: TcHmiSrv.Context [► 237] The first Context [► 237] to compare.
other	Type: TcHmiSrv.Context [► 237] The second Context [► 237] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Context Class](#) [► 237]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.12 EndpointInfo Enumeration

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[FlagsAttribute]
public enum EndpointInfo
```

Members

	Member name	Value	Description
	EndpointInfo_None	0	
	EndpointInfo_Local	1	
	EndpointInfo_Remote	2	
	EndpointInfo_Internal	4	
	EndpointInfo_Persistent	8	

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.13 ErrorValue Enumeration

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum ErrorValue
```

Members

	Member name	Value	Description
	HMI_SUCCESS	0	
	HMI_FINISHED	1	
	HMI_DISCONNECTED	2	
	HMI_SHUTDOWN	3	
	HMI_RESTART	4	
	HMI_SKIP	5	
	HMI_FIRST_INIT	6	
	HMI_UPGRADE	7	
	HMI_UNCHANGED	8	
	HMI_IGNORE	9	
	HMI_E_SERVER	256	
	HMI_E_FAIL	257	
	HMI_E_UNEXPECTED	258	
	HMI_E_SCRIPT	259	
	HMI_E_REQUIRED_EXTENSION_MISSING	260	
	HMI_E_INIT	261	
	HMI_E_NO_LANGUAGE_FILE	262	
	HMI_E_SYNTAX	263	
	HMI_E_FILE_NOT_FOUND	264	
	HMI_E_FILESYSTEM	265	
	HMI_E_REQUEST_TOO_LARGE	266	
	HMI_E_DATABASE	267	
	HMI_E_INVALID_POINTER	268	
	HMI_E_INVALID_PARAMETER	269	
	HMI_E_INVALID_TYPE	270	
	HMI_E_NOT_REGISTERED	271	
	HMI_E_NOT_IMPLEMENTED	272	
	HMI_E_ID_IN_USE	273	
	HMI_E_SYMBOL_IN_USE	274	
	HMI_E_INTERRUPTED	275	
	HMI_E_FILE_LOCK	276	
	HMI_E_FILE_IN_USE	277	
	HMI_E_FILE_WRITE	278	
	HMI_E_INVALID_PATH	279	
	HMI_E_HANDLE	280	
	HMI_E_ENCODE	281	
	HMI_E_DECODE	282	
	HMI_E_NETWORK	283	
	HMI_E_LANGUAGE	284	
	HMI_E_CACHE	285	
	HMI_E_ENDPOINT_DENIED	286	
	HMI_E_ENDPOINT_BUSY	287	
	HMI_E_ENDPOINT_INVALID	288	
	HMI_E_WEBSERVER_UNEXPECTED	289	
	HMI_E_WEBSOCKET_UNEXPECTED	290	

	Member name	Value	Description
	HMI_E_LUA_EXEC	291	
	HMI_E_ENTRY_NOT_FOUND	292	
	HMI_E_INVALID_SYMBOL	293	
	HMI_E_BLACKLISTED	294	
	HMI_E_UPLOAD_TIMER_EXPIRED	295	
	HMI_E_SERVER_ALREADY_RUNNING	296	
	HMI_E_PROTOCOL	297	
	HMI_E_PAGING	298	
	HMI_E_INVALID_SUBSYMBOL	512	
	HMI_E_SYMBOL_NOT_MAPPED	513	
	HMI_E_SYMBOL_SCHEMA_MISSING	514	
	HMI_E_INVALID_METHOD	515	
	HMI_E_API	768	
	HMI_E_INTERFACE_VERSION	769	
	HMI_E_INTERFACE_POINTER	770	
	HMI_E_CRT_NOT_FOUND	771	
	HMI_E_CRT_INIT	772	
	HMI_E_LICENSE	773	
	HMI_E_LICENSE_CHECK	774	
	HMI_E_LICENSE_ADS	775	
	HMI_E_LICENSE_SERVER	776	
	HMI_E_LICENSE_CLIENT	777	
	HMI_E_LICENSE_TARGET	778	
	HMI_E_LICENSE_EXPIRED	779	
	HMI_E_LICENSE_EXTENSION	780	
	HMI_E_LICENSE_HANDSHAKE	781	
	HMI_E_LICENSE_VERIFY	782	
	HMI_E_LICENSE_EMPTY	783	
	HMI_E_STORAGE	1280	
	HMI_E_STORAGE_WRITE	1281	
	HMI_E_STORAGE_VERSION	1282	
	HMI_E_STORAGE_CREATE	1283	
	HMI_E_STORAGE_STORE	1284	
	HMI_E_STORAGE_LOAD	1285	
	HMI_E_STORAGE_FILE_NOT_FOUND	1286	
	HMI_E_STORAGE_ADD_PARAMETER	1287	
	HMI_E_STORAGE_SCHEMA	1288	
	HMI_E_STORAGE_CONSTRAINT	1289	
	HMI_E_STORAGE_ADD	1290	

	Member name	Value	Description
	HMI_E_STORAGE_EXTENSION	1291	
	HMI_E_STORAGE_PARAMETER	1292	
	HMI_E_STORAGE_TYPE	1293	
	HMI_E_CONNECT	1294	
	HMI_E_STORAGE_BACKUP	1295	
	HMI_E_SCHEMA	1536	
	HMI_E_TYPE_MISMATCH	1537	
	HMI_E_RANGE_MISMATCH	1538	
	HMI_E_INVALID_FIELD	1539	
	HMI_E_REQUIRED_FIELD	1540	
	HMI_E_UNEXPECTED_FIELD	1541	
	HMI_E_ENUM_VALUE_MISMATCH	1542	
	HMI_E_ARRAY_RANGE_MISMATCH	1543	
	HMI_E_STRING_LENGTH_MISMATCH	1544	
	HMI_E_MULTIPLE_MATCHES	1545	
	HMI_E_NO_MATCHES	1546	
	HMI_E_UNIQUE	1547	
	HMI_E_FORMAT	1548	
	HMI_E_TYPE_MISSING	1549	
	HMI_E_EXCLUDED	1550	
	HMI_E_MIGRATION	1551	
	HMI_E_MIGRATION_RULE	1552	
	HMI_E_MIGRATION_PATH	1553	
	HMI_E_RECURSION	1554	
	HMI_E_REGEX	1555	
	HMI_E_EXTENSION	2048	
	HMI_E_EXTENSION_LOAD	2049	
	HMI_E_INVALID_DOMAIN	2050	
	HMI_E_DOMAIN_ACTIVE	2051	
	HMI_E_LOG_EXTENSION	2052	
	HMI_E_AUTH_EXTENSION	2053	
	HMI_E_EXTENSION_CONFIG	2054	
	HMI_E_EXTENSION_HANDLER	2055	
	HMI_E_UNLOAD_FAILED	2056	
	HMI_E_AUTH_WAIT	2057	
	HMI_E_DOMAIN_DISABLED	2058	
	HMI_E_EXTENSION_CONNECT	2059	
	HMI_E_REMOTE_CONNECT	2060	
	HMI_E_REMOTE_TIMEOUT	2061	
	HMI_E_SESSION	4096	
	HMI_E_INVALID_SESSION	4097	
	HMI_E_AUTH_USER_NOT_FOUND	4098	

	Member name	Value	Description
	HMI_E_AUTH_FAILED	4099	
	HMI_E_AUTH_GROUP_NOT_FOUND	4100	
	HMI_E_INSUFFICIENT_ACCESS	4101	
	HMI_E_CREATE_SESSION	4102	
	HMI_E_SESSION_NOT_FOUND	4103	
	HMI_E_CERTIFICATE	4104	
	HMI_E_NO_LOGIN_DATA	4105	
	HMI_E_ALREADY_LOGGED_IN	4106	
	HMI_E_SESSION_TIMEOUT	4107	
	HMI_E_TOO_MANY_CONNECTIONS	4108	
	HMI_E_DECRYPT	4109	
	HMI_E_AUTH_DISABLED	4110	
	HMI_E_CERTIFICATE_NOT_VALID	4111	
	HMI_E_CHECKSUM	4608	
	HMI_E_INVALID_CHECKSUM	4609	
	HMI_E_CHECKSUM_UNEXPECTED	4610	
	HMI_E_CHECKSUM_MATCH	4611	
	HMI_E_SIGNATURE	4612	
	HMI_E_SIGNATURE_MISSING	4613	
	HMI_E_SIGNATURE_MISMATCH	4614	
	HMI_E_KEY_MISSING	4615	
	HMI_E_RESTART_REQUIRED	4616	
	HMI_E_INITIALIZE_PASSWORD	4617	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14 Event Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject \[► 272\]](#)

TcHmiSrv.Event

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Event : IObject, IEquatable<Event>
```

The Event type exposes the following members.

Constructors

	Name	Description
	Event [▶ 255]	Initializes a new instance of the Event class.
	Event(Event) [▶ 255]	Initializes a new instance of the Event class based on another Event.
	Event(Context, String) [▶ 256]	Initializes a new instance of the Event class with the specified Context [▶ 237] and name.

Properties

	Name	Description
	Domain [▶ 257]	Gets or sets the domain of the Event.
	IsSet [▶ 257]	Gets a value that indicates whether the Event is set.
	Name [▶ 258]	Gets or sets the name of the Event.
	Payload [▶ 258]	Gets or sets the payload of the Event.
	Session [▶ 258]	Gets or sets the Session [▶ 336] of the Event.
	TimeReceived [▶ 259]	Gets or sets the time the Event was received by the server.

Methods

	Name	Description
	Dispose [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 260]	Releases the unmanaged resources used by the Event and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▶ 275].)
	Equals(Event) [▶ 261]	Indicates whether the current Event is equal to another Event.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▶ 262]	Exchanges the values of two instances of the Event class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [▸ 263]	Determines whether the specified Event is equal to the current Event.
 	Inequality [▸ 264]	Determines whether the specified Event is not equal to the current Event.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.14.1 Event Constructor

Overload List

	Name	Description
	Event. [▸ 255]	Initializes a new instance of the Event [▸ 253] class.
	Event(Event) [▸ 255]	Initializes a new instance of the Event [▸ 253] class based on another Event [▸ 253].
	Event(Context, String) [▸ 256]	Initializes a new instance of the Event [▸ 253] class with the specified Context [▸ 237] and name.

Reference

[Event Class](#) [[▸ 253](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.14.1.1 Event Constructor

Initializes a new instance of the [Event](#) [[▸ 253](#)] class.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Event()
```

Reference

[Event Class](#) [[▸ 253](#)]

[Event Overload](#) [[▸ 255](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.14.1.2 Event Constructor (Event)

Initializes a new instance of the [Event](#) [[▸ 253](#)] class based on another [Event](#) [[▸ 253](#)].

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Event(  
    Event other  
)
```

Parameters

other	Type: TcHmiSrv.Event [► 253] The other Event [► 253].

Reference

[Event Class](#) [► 253]

[Event Overload](#) [► 255]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.14.1.3 Event Constructor (Context, String)

Initializes a new instance of the [Event](#) [► 253] class with the specified [Context](#) [► 237] and name.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Event(  
    Context ctx,  
    string name  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] to be set.
name	Type: System.String The name to be set.

Reference

[Event Class](#) [► 253]

[Event Overload](#) [► 255]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.14.2 Event Properties

The [Event](#) [► 253] type exposes the following members.

Properties

	Name	Description
	Domain [▸ 257]	Gets or sets the domain of the Event [▸ 253].
	IsSet [▸ 257]	Gets a value that indicates whether the Event [▸ 253] is set.
	Name [▸ 258]	Gets or sets the name of the Event [▸ 253].
	Payload [▸ 258]	Gets or sets the payload of the Event [▸ 253].
	Session [▸ 258]	Gets or sets the Session [▸ 336] of the Event [▸ 253].
	TimeReceived [▸ 259]	Gets or sets the time the Event [▸ 253] was received by the server.

Reference

[Event Class](#) [[▸ 253](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.14.2.1 Event.Domain Property

Gets or sets the domain of the [Event](#) [[▸ 253](#)].

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Event Class](#) [[▸ 253](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.14.2.2 Event.IsSet Property

Gets a value that indicates whether the [Event](#) [[▸ 253](#)] is set.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Event Class \[► 253\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.2.3 Event.Name Property

Gets or sets the name of the [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Event Class \[► 253\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.2.4 Event.Payload Property

Gets or sets the payload of the [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Payload { get; set; }
```

Property Value

Type: [Value \[► 513\]](#)

Reference

[Event Class \[► 253\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.2.5 Event.Session Property

Gets or sets the [Session \[► 336\]](#) of the [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Session Session { get; set; }
```

Property Value

Type: [Session](#) [[▶ 336](#)]

Reference

[Event Class](#) [[▶ 253](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.14.2.6 Event.TimeReceived Property

Gets or sets the time the [Event](#) [[▶ 253](#)] was received by the server.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp TimeReceived { get; set; }
```

Property Value

Type: [Timestamp](#) [[▶ 499](#)]

Reference

[Event Class](#) [[▶ 253](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.14.3 Event Methods

The [Event](#) [[▶ 253](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [▸ 274]	(Inherited from IObject [▸ 272].)
	Dispose(Boolean) [▸ 260]	(Overrides IObject.Dispose(Boolean) [▸ 275].)
	Equals(Event) [▸ 261]	Indicates whether the current Event [▸ 253] is equal to another Event [▸ 253].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▸ 275]	(Inherited from IObject [▸ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▸ 262]	Exchanges the values of two instances of the Event [▸ 253] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[Event Class](#) [[▸ 253](#)][TcHmiSrv Namespace](#) [[▸ 147](#)]**2.1.3.14.3.1 Event.Dispose Method****Overload List**

	Name	Description
	Dispose. [▸ 274]	(Inherited from IObject [▸ 272].)
	Dispose(Boolean) [▸ 260]	Releases the unmanaged resources used by the Event [▸ 253] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▸ 275].)

Reference[Event Class](#) [[▸ 253](#)][TcHmiSrv Namespace](#) [[▸ 147](#)]**2.1.3.14.3.1.1 Event.Dispose Method (Boolean)**

Releases the unmanaged resources used by the [Event](#) [[▸ 253](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▸ 147](#)]**Assembly:** [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Event Class](#) [► 253]

[Dispose Overload](#) [► 260]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.14.3.2 **Event.Equals Method**

Overload List

	Name	Description
	Equals(Event) [► 261]	Indicates whether the current Event [► 253] is equal to another Event [► 253].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)

Reference

[Event Class](#) [► 253]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.14.3.2.1 **Event.Equals Method (Event)**

Indicates whether the current [Event](#) [► 253] is equal to another [Event](#) [► 253].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Event other  
)
```

Parameters

other	Type: TcHmiSrv.Event [► 253] The Event [► 253] to compare with this Event [► 253].

Return Value

Type: [Boolean](#)
true if the current [Event](#) [[▶ 253](#)] is equal to the other [Event](#) [[▶ 253](#)]; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

- [Event Class](#) [[▶ 253](#)]
- [Equals Overload](#) [[▶ 261](#)]
- [TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.14.3.3 **Event.GetHashCode Method**

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [Event](#) [[▶ 253](#)].

Reference

- [Event Class](#) [[▶ 253](#)]
- [TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.14.3.4 **Event.swap Method**

Exchanges the values of two instances of the [Event](#) [[▶ 253](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    Event arg0  
)
```

Parameters

arg0	Type: TcHmiSrv.Event [▶ 253] The other Event [▶ 253].

Return Value

Type: [Boolean](#)
true if the swap was successful; otherwise, false.

Reference

[Event Class \[► 253\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.4 Event Operators

The [Event \[► 253\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 263]	Determines whether the specified Event [► 253] is equal to the current Event [► 253] .
 	Inequality [► 264]	Determines whether the specified Event [► 253] is not equal to the current Event [► 253] .

Reference

[Event Class \[► 253\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.4.1 Event.Equality Operator

Determines whether the specified [Event \[► 253\]](#) is equal to the current [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Event current,
    Event other
)
```

Parameters

current	Type: TcHmiSrv.Event [► 253] The current instance of the Event [► 253] class.
other	Type: TcHmiSrv.Event [► 253] The Event [► 253] to compare with the current Event [► 253] .

Return Value

Type: [Boolean](#)
true if the specified [Event \[► 253\]](#) is equal to the current [Event \[► 253\]](#); otherwise, false.

Reference

[Event Class \[► 253\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.14.4.2 **Event.Inequality Operator**

Determines whether the specified [Event \[► 253\]](#) is not equal to the current [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Event current,
    Event other
)
```

Parameters

current	Type: TcHmiSrv.Event [► 253] The current instance of the Event [► 253] class.
other	Type: TcHmiSrv.Event [► 253] The Event [► 253] to compare with the current Event [► 253] .

Return Value

Type: [Boolean](#)

true if the specified [Event \[► 253\]](#) is not equal to the current [Event \[► 253\]](#); otherwise, false.

Reference

[Event Class \[► 253\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.15 **EventChangeFlags Enumeration**

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.EventChangeFlags' is obsolete.",
    true)]
public enum EventChangeFlags
```

Members

	Member name	Value	Description
	EventChangeFlags_Any	0	
	EventChangeFlags_Own	1	
	EventChangeFlags_Alarm	2	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.16 EventChangeType Enumeration

Represents how an [Event \[► 253\]](#) can change.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public enum EventChangeType
```

Members

	Member name	Value	Description
	EventChangeType_Confirm	0	
	EventChangeType_Active	1	
	EcentChangeType_Remove	2	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.17 ILocalizable Class

Declares an interface for a localizable object that holds a language variable and parameters.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject \[► 272\]](#)

 TcHmiSrv.ILocalizable

[TcHmiSrv.Alarm \[► 158\]](#)

[TcHmiSrv.Message \[► 307\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public class ILocalizable : IObject
```

The ILocalizable type exposes the following members.

Properties

	Name	Description
	Domain [▸ 267]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	Name [▸ 267]	Gets or sets the name of the language variable.
	Parameters [▸ 268]	Gets the parameters of the ILocalizable. The parameter names have to match the placeholders in the localization string.
	Severity [▸ 268]	Gets the Severity [▸ 268] of the ILocalizable.
	Type [▸ 268]	Gets the ValueType [▸ 630] of the ILocalizable that will be usually ValueType_Message [▸ 630] or ValueType_Alarm [▸ 630].

Methods

	Name	Description
	Dispose [▸ 269]	Releases all resources used by the ILocalizable (Overrides IObject.Dispose. [▸ 274].)
	Equals [▸ 270]	Determines whether the specified Object is equal to the current ILocalizable. (Overrides Object.Equals(Object).)
	GetHashCode [▸ 270]	Serves as a hash function for a particular type. (Overrides Object.GetHashCode.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Operators

	Name	Description
	Equality [▸ 271]	Determines whether the specified ILocalizable is equal to the current ILocalizable.
	Inequality [▸ 271]	Determines whether the specified ILocalizable is not equal to the current ILocalizable.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.17.1 ILocalizable Properties

The [ILocalizable](#) [[▸ 265](#)] type exposes the following members.

Properties

	Name	Description
	Domain [▸ 267]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	Name [▸ 267]	Gets or sets the name of the language variable.
	Parameters [▸ 268]	Gets the parameters of the ILocalizable [▸ 265]. The parameter names have to match the placeholders in the localization string.
	Severity [▸ 268]	Gets the Severity [▸ 268] of the ILocalizable [▸ 265].
	Type [▸ 268]	Gets the ValueType [▸ 630] of the ILocalizable [▸ 265] that will be usually ValueType Message [▸ 630] or ValueType Alarm [▸ 630].

Reference

[ILocalizable Class](#) [[▸ 265](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.17.1.1 ILocalizable.Domain Property

Gets the domain of the language variable. The language file of this domain will be used for localization.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public string Domain { get; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Class](#) [[▸ 265](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.17.1.2 ILocalizable.Name Property

Gets or sets the name of the language variable.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.1.3 ILocalizable.Parameters Property

Gets the parameters of the [ILocalizable](#) [► 265]. The parameter names have to match the placeholders in the localization string.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.1.4 ILocalizable.Severity Property

Gets the Severity of the [ILocalizable](#) [► 265].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public Severity Severity { get; }
```

Property Value

Type: [Severity](#) [► 346]

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.1.5 ILocalizable.Type Property

Gets the [ValueType](#) [► 630] of the [ILocalizable](#) [► 265] that will be usually [ValueType Message](#) [► 630] or [ValueType Alarm](#) [► 630].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 630]

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.2 ILocalizable Methods

The [ILocalizable](#) [► 265] type exposes the following members.

Methods

	Name	Description
	Dispose [► 269]	(Overrides IObject.Dispose . [► 274].)
	Equals [► 270]	Determines whether the specified Object is equal to the current ILocalizable [► 265]. (Overrides Object.Equals(Object) .)
	GetHashCode [► 270]	Serves as a hash function for a particular type. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.2.1 ILocalizable.Dispose Method

Releases all resources used by the [ILocalizable](#) [► 265]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.17.2.2 ILocalizable.Equals Method

Determines whether the specified [Object](#) is equal to the current [ILocalizable \[► 265\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [ILocalizable \[► 265\]](#).

Return Value

Type: [Boolean](#)
true if the specified [Object](#) is equal to the current [ILocalizable \[► 265\]](#); otherwise, false.

Reference

[ILocalizable Class \[► 265\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.17.2.3 ILocalizable.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [ILocalizable \[► 265\]](#).

Reference

[ILocalizable Class \[► 265\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.17.3 ILocalizable Operators

The [ILocalizable \[► 265\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 271]	Determines whether the specified ILocalizable [► 265] is equal to the current ILocalizable [► 265].
 	Inequality [► 271]	Determines whether the specified ILocalizable [► 265] is not equal to the current ILocalizable [► 265].

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.3.1 ILocalizable.Equality Operator

Determines whether the specified [ILocalizable](#) [► 265] is equal to the current [ILocalizable](#) [► 265].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public static bool operator ==(
    ILocalizable current,
    ILocalizable other
)
```

Parameters

current Type: [TcHmiSrv.ILocalizable](#) [► 265]
The current instance of the [ILocalizable](#) [► 265] class.

other Type: [TcHmiSrv.ILocalizable](#) [► 265]
The [ILocalizable](#) [► 265] to compare with the current [ILocalizable](#) [► 265].

Return Value

Type: [Boolean](#)

true if the specified [ILocalizable](#) [► 265] is equal to the current [ILocalizable](#) [► 265]; otherwise, false.

Reference

[ILocalizable Class](#) [► 265]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.17.3.2 ILocalizable.Inequality Operator

Determines whether the specified [ILocalizable](#) [► 265] is not equal to the current [ILocalizable](#) [► 265].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public static bool operator !=(
    ILocalizable current,
    ILocalizable other
)
```

Parameters

- current Type: [TcHmiSrv.ILocalizable \[▸ 265\]](#)
The current instance of the [ILocalizable \[▸ 265\]](#) class.
- other Type: [TcHmiSrv.ILocalizable \[▸ 265\]](#)
The [ILocalizable \[▸ 265\]](#) to compare with the current [ILocalizable \[▸ 265\]](#).

Return Value

Type: [Boolean](#)
true if the specified [ILocalizable \[▸ 265\]](#) is not equal to the current [ILocalizable \[▸ 265\]](#); otherwise, false.

Reference

- [ILocalizable Class \[▸ 265\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.18 IObject Class

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.IObject](#)
 More...

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class IObject : IDisposable
```

The IObject type exposes the following members.

Constructors

	Name	Description
	IObject [▸ 276]	Initializes a new instance of the IObject class

Methods

	Name	Description
	Dispose. [▶ 274]	Releases all resources used by the IObject
	Dispose(Boolean) [▶ 275]	Releases the unmanaged resources used by the IObject and optionally releases the managed resources
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize [▶ 275]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object. (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

Inheritance Hierarchy

[System.Object](#)
[TcHmiSrv.IObject](#)
[TcHmiSrv.Command](#) [[▶ 188](#)]
[TcHmiSrv.CommandGroup](#) [[▶ 204](#)]
[TcHmiSrv.Event](#) [[▶ 253](#)]
[TcHmiSrv.Localizable](#) [[▶ 658](#)]
[TcHmiSrv.ResultPair](#) [[▶ 327](#)]
[TcHmiSrv.String](#) [[▶ 346](#)]
[TcHmiSrv.Value](#) [[▶ 513](#)]

2.1.3.18.1 IObject Methods

The [IObject](#) [[▶ 272](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 274]	
	Dispose(Boolean) [► 275]	
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize [► 275]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference[IObject Class](#) [[► 272](#)][TcHmiSrv Namespace](#) [[► 147](#)]**2.1.3.18.1.1 IObject.Dispose Method****Overload List**

	Name	Description
	Dispose. [► 274]	Releases all resources used by the IObject [► 272]
	Dispose(Boolean) [► 275]	Releases the unmanaged resources used by the IObject [► 272] and optionally releases the managed resources

Reference[IObject Class](#) [[► 272](#)][TcHmiSrv Namespace](#) [[► 147](#)]**2.1.3.18.1.1.1 IObject.Dispose Method**Releases all resources used by the [IObject](#) [[► 272](#)]**Namespace:** [TcHmiSrv](#) [[► 147](#)]**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0**Syntax****C#**

```
public void Dispose()
```

Implements[IDisposable.Dispose.](#)

Reference

[IObject Class \[► 272\]](#)

[Dispose Overload \[► 274\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.18.1.1.2 *IObject.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [IObject \[► 272\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[IObject Class \[► 272\]](#)

[Dispose Overload \[► 274\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.18.1.2 *IObject.Finalize Method*

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[IObject Class \[► 272\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.18.2 IObject Constructor

Initializes a new instance of the [IObject](#) [► 272] class

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public IObject()
```

Reference

[IObject Class](#) [► 272]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.19 ITcHmiSrvAlarmProviderListener Class

Allows to listen on provided [Alarm](#) [► 158]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#) [► 296]

[TcHmiSrv.ITcHmiSrvAlarmProviderListener](#)

[TcHmiSrv.TcHmiSrvAlarmProviderListener](#) [► 359]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvAlarmProviderListener : ITcHmiSrvListener
```

The [ITcHmiSrvAlarmProviderListener](#) type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296].)

Methods

	Name	Description
	Dispose [► 277]	Releases all resources used by the ITcHmiSrvAlarmProviderListener (Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.19.1 ITcHmiSrvAlarmProviderListener Properties

The [ITcHmiSrvAlarmProviderListener \[► 276\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296] .)

Reference

[ITcHmiSrvAlarmProviderListener Class \[► 276\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.19.2 ITcHmiSrvAlarmProviderListener Methods

The [ITcHmiSrvAlarmProviderListener \[► 276\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose [► 277]	(Overrides ITcHmiSrvListener.Dispose. [► 298] .)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvAlarmProviderListener Class \[► 276\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.19.2.1 ITcHmiSrvAlarmProviderListener.Dispose Method

Releases all resources used by the [ITcHmiSrvAlarmProviderListener \[► 276\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override void Dispose()
```

Implements[IDisposable.Dispose.](#)**Reference**[ITcHmiSrvAlarmProviderListener Class \[► 276\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.20 ITcHmiSrvAuthListener Class**

Allows to implement own authorization extensions.

Inheritance Hierarchy[System.Object](#)[TcHmiSrv.ITcHmiSrvListener \[► 296\]](#)[TcHmiSrv.ITcHmiSrvAuthListener](#)[TcHmiSrv.TcHmiSrvAuthListener \[► 374\]](#)**Namespace:** [TcHmiSrv \[► 147\]](#)**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)**Syntax****C#**

```
public abstract class ITcHmiSrvAuthListener : ITcHmiSrvListener
```

The ITcHmiSrvAuthListener type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296] .)

Methods

	Name	Description
	Dispose [► 279]	Releases all resources used by the ITcHmiSrvAuthListener (Overrides ITcHmiSrvListener.Dispose. [► 298] .)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.20.1 ITcHmiSrvAuthListener Properties**The [ITcHmiSrvAuthListener \[► 278\]](#) type exposes the following members.

Properties

	Name	Description
	Type [▸ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▸ 296].)

Reference

[ITcHmiSrvAuthListener Class](#) [[▸ 278](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.20.2 ITcHmiSrvAuthListener Methods

The [ITcHmiSrvAuthListener](#) [[▸ 278](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [▸ 279]	(Overrides ITcHmiSrvListener.Dispose . [▸ 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvAuthListener Class](#) [[▸ 278](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.20.2.1 ITcHmiSrvAuthListener.Dispose Method

Releases all resources used by the [ITcHmiSrvAuthListener](#) [[▸ 278](#)]

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvAuthListener Class](#) [[▸ 278](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.21 ITcHmiSrvConfigListener Class

Allows to interact with the extension configuration.

Inheritance Hierarchy

System.Object

ITcHmiSrv.ITcHmiSrvListener [[▸ 296](#)]

ITcHmiSrv.ITcHmiSrvConfigListener

ITcHmiSrv.ITcHmiSrvConfigListener [[▸ 384](#)]

Namespace: TcHmiSrv [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvConfigListener : ITcHmiSrvListener
```

The ITcHmiSrvConfigListener type exposes the following members.

Properties

	Name	Description
	<u>Type</u> [▸ 297]	Gets the type of the listener. (Inherited from <u>ITcHmiSrvListener</u> [▸ 296].)

Methods

	Name	Description
	<u>Dispose</u> [▸ 281]	Releases all resources used by the ITcHmiSrvConfigListener (Overrides <u>ITcHmiSrvListener.Dispose</u> . [▸ 298].)
	<u>Equals</u>	Determines whether the specified <u>Object</u> is equal to the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as a hash function for a particular type. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [[▸ 147](#)]

2.1.3.21.1 ITcHmiSrvConfigListener Properties

The ITcHmiSrvConfigListener [[▸ 280](#)] type exposes the following members.

Properties

	Name	Description
	<u>Type</u> [▸ 297]	Gets the type of the listener. (Inherited from <u>ITcHmiSrvListener</u> [▸ 296].)

Reference

ITcHmiSrvConfigListener Class [[▸ 280](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.21.2 **ITcHmiSrvConfigListener Methods**

The [ITcHmiSrvConfigListener \[► 280\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose [► 281]	(Overrides ITcHmiSrvListener.Dispose. [► 298] .)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvConfigListener Class \[► 280\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.21.2.1 **ITcHmiSrvConfigListener.Dispose Method**

Releases all resources used by the [ITcHmiSrvConfigListener \[► 280\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[ITcHmiSrvConfigListener Class \[► 280\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.22 **ITcHmiSrvEventListener Class**

Allows to interact with the eventing system of the server.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener \[► 296\]](#)

 TcHmiSrv.ITcHmiSrvEventListener

[TcHmiSrv.TcHmiSrvEventListener](#) [[▶ 417](#)]

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvEventListener : ITcHmiSrvListener
```

The ITcHmiSrvEventListener type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Methods

	Name	Description
	Dispose [▶ 283]	Releases all resources used by the ITcHmiSrvEventListener (Overrides ITcHmiSrvListener.Dispose . [▶ 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.22.1 ITcHmiSrvEventListener Properties

The [ITcHmiSrvEventListener](#) [[▶ 281](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Reference

[ITcHmiSrvEventListener Class](#) [[▶ 281](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.22.2 ITcHmiSrvEventListener Methods

The [ITcHmiSrvEventListener](#) [[▶ 281](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [► 283]	(Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvEventListener Class](#) [[► 281](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.22.2.1 ITcHmiSrvEventListener.Dispose Method

Releases all resources used by the [ITcHmiSrvEventListener](#) [[► 281](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvEventListener Class](#) [[► 281](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.23 ITcHmiSrvExportListener Class

Allows to react on configuration export calls.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#) [[► 296](#)]

[TcHmiSrv.ITcHmiSrvExportListener](#)

[TcHmiSrv.TcHmiSrvExportListener](#) [[► 431](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvExportListener : ITcHmiSrvListener
```

The `ITcHmiSrvExportListener` type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Methods

	Name	Description
	Dispose [▶ 285]	Releases all resources used by the <code>ITcHmiSrvExportListener</code> (Overrides ITcHmiSrvListener.Dispose . [▶ 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.23.1 ITcHmiSrvExportListener Properties

The `ITcHmiSrvExportListener` [[▶ 283](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Reference

[ITcHmiSrvExportListener Class](#) [[▶ 283](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.23.2 ITcHmiSrvExportListener Methods

The `ITcHmiSrvExportListener` [[▶ 283](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [► 285]	(Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvExportListener Class](#) [[► 283](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.23.2.1 ITcHmiSrvExportListener.Dispose Method

Releases all resources used by the [ITcHmiSrvExportListener](#) [[► 283](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvExportListener Class](#) [[► 283](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.24 ITcHmiSrvExtHost Class

This interface is used to communicate with the server.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.ITcHmiSrvExtHost

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public class ITcHmiSrvExtHost : IDisposable
```

The `ITcHmiSrvExtHost` type exposes the following members.

Methods

	Name	Description
	Dispose [► 287]	Releases all resources used by the <code>ITcHmiSrvExtHost</code>
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	exec(Context, Command) [► 288]	Executes a single Command [► 188] in the domain of the specified Context [► 237].
	exec(Context, CommandGroup) [► 289]	Executes Command [► 188]s inside any domain.
	get_config_value [► 289]	Gets the configuration Value [► 513] at the specified path from the server.
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	localize [► 290]	Localizes an ILocalizable [► 265].
	notify_listener [► 290]	Sends a notification if an Alarm [► 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [► 291]	Registers an ITcHmiSrvListener [► 296] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 292]	Registers an ITcHmiSrvListener [► 296] at the server using the specified settings.
	send(Context, Event) [► 293]	Adds or updates an Event [► 253].
	send(Context, Message) [► 293]	Adds or updates a Message [► 307].
	set_config_value [► 294]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [► 513].
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	unregister_listener(ITcHmiSrvListener) [► 295]	Unregisters an ITcHmiSrvListener [► 296] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 296]	Unregisters an ITcHmiSrvListener [► 296] at the server.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.24.1 ITcHmiSrvExtHost Methods

The `ITcHmiSrvExtHost` [[► 285](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [► 287]	
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	exec(Context, Command) [► 288]	Executes a single Command [► 188] in the domain of the specified Context [► 237].
	exec(Context, CommandGroup) [► 289]	Executes Command [► 188]s inside any domain.
	get_config_value [► 289]	Gets the configuration Value [► 513] at the specified path from the server.
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	localize [► 290]	Localizes an ILocalizable [► 265].
	notify_listener [► 290]	Sends a notification if an Alarm [► 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [► 291]	Registers an ITcHmiSrvListener [► 296] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 292]	Registers an ITcHmiSrvListener [► 296] at the server using the specified settings.
	send(Context, Event) [► 293]	Adds or updates an Event [► 253].
	send(Context, Message) [► 293]	Adds or updates a Message [► 307].
	set_config_value [► 294]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [► 513].
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	unregister_listener(ITcHmiSrvListener) [► 295]	Unregisters an ITcHmiSrvListener [► 296] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 296]	Unregisters an ITcHmiSrvListener [► 296] at the server.

Reference

[ITcHmiSrvExtHost Class](#) [[► 285](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.24.1.1 ITcHmiSrvExtHost.Dispose Method

Releases all resources used by the [ITcHmiSrvExtHost](#) [[► 285](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.2 **ITcHmiSrvExtHost.exec Method**

Overload List

	Name	Description
	exec(Context, Command) [► 288]	Executes a single Command [► 188] in the domain of the specified Context [► 237] .
	exec(Context, CommandGroup) [► 289]	Executes Command [► 188] s inside any domain.

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.2.1 **ITcHmiSrvExtHost.exec Method (Context, Command)**

Executes a single [Command \[► 188\]](#) in the domain of the specified [Context \[► 237\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue exec(  
    Context ctx,  
    Command cmd  
)
```

Parameters

ctx Type: [TcHmiSrv.Context \[► 237\]](#)
 The [Context \[► 237\]](#) under which the [Command \[► 188\]](#) should be executed.

cmd Type: [TcHmiSrv.Command \[► 188\]](#)
 The [Command \[► 188\]](#) to be executed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if executing the [Command \[► 188\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[exec Overload \[► 288\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.2.2 *ITcHmiSrvExtHost.exec Method (Context, CommandGroup)*

Executes [Command \[► 188\]](#)s inside any domain.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue exec(  
    Context ctx,  
    CommandGroup commands  
)
```

Parameters

ctx Type: [TcHmiSrv.Context \[► 237\]](#)
 The [Context \[► 237\]](#) under which the commands should be executed.

commands Type: [TcHmiSrv.CommandGroup \[► 204\]](#)
 A [CommandGroup \[► 204\]](#) containing a list of [Command \[► 188\]](#)s.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if executing the commands succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[exec Overload \[► 288\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.3 *ITcHmiSrvExtHost.get_config_value Method*

Gets the configuration [Value \[► 513\]](#) at the specified path from the server.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual Value get_config_value(  
    Context ctx,  
    string path  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] A Context [► 237] containing information about the user who tries to get a configuration Value [► 513].
path	Type: System.String The path of the requested Value [► 513].

Return Value

Type: [Value](#) [► 513]
The [Value](#) [► 513] at the specified path or a [Value](#) [► 513] containing [ValueType Null](#) [► 630].

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.4 ITcHmiSrvExtHost.localize Method

Localizes an [ILocalizable](#) [► 265].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual String localize(  
    Context ctx,  
    ILocalizable obj  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ILocalizable [► 265] should be localized.
obj	Type: TcHmiSrv.ILocalizable [► 265] The ILocalizable [► 265] to be localized.

Return Value

Type: [String](#) [► 346]
A [String](#) [► 346] containing the localized text.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.5 ITcHmiSrvExtHost.notify_listener Method

Sends a notification if an [Alarm](#) [► 158] type changed.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue notify_listener(
    Context ctx,
    AlarmChangeType type,
    Alarm alm
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
The [Context](#) [► 237] under which the [Alarm](#) [► 158] changed.

type Type: [TcHmiSrv.AlarmChangeType](#) [► 171]
Contains the type of the change.

alm Type: [TcHmiSrv.Alarm](#) [► 158]
The [Alarm](#) [► 158] that has changed.

Return Value

Type: [ErrorValue](#) [► 247]
[HMI_SUCCESS](#) [► 247] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.6 ITcHmiSrvExtHost.register_listener Method

Overload List

	Name	Description
	register_listener(Context, ITcHmiSrvListener) [► 291]	Registers an ITcHmiSrvListener [► 296] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 292]	Registers an ITcHmiSrvListener [► 296] at the server using the specified settings.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.6.1 ITcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener)

Registers an [ITcHmiSrvListener](#) [► 296] at the server.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void register_listener(  
    Context ctx,  
    ITcHmiSrvListener handler  
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
 The [Context](#) [► 237] under which the [ITcHmiSrvListener](#) [► 296] should be registered.

handler Type: [TcHmiSrv.ITcHmiSrvListener](#) [► 296]
 The [ITcHmiSrvListener](#) [► 296] that should be registered.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[register_listener Overload](#) [► 291]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.6.2 *ITcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener, Value)*

Registers an [ITcHmiSrvListener](#) [► 296] at the server using the specified settings.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void register_listener(  
    Context ctx,  
    ITcHmiSrvListener handler,  
    Value settings  
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
 The [Context](#) [► 237] under which the [ITcHmiSrvListener](#) [► 296] should be registered.

handler Type: [TcHmiSrv.ITcHmiSrvListener](#) [► 296]
 The [ITcHmiSrvListener](#) [► 296] that should be registered.

settings Type: [TcHmiSrv.Value](#) [► 513]
 A [Value](#) [► 513] containing the settings that should be used at the registration.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[register_listener Overload](#) [► 291]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.7 ITcHmiSrvExtHost.send Method

Overload List

	Name	Description
	send(Context, Event) [► 293]	Adds or updates an Event [► 253] .
	send(Context, Message) [► 293]	Adds or updates a Message [► 307] .

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.7.1 ITcHmiSrvExtHost.send Method (Context, Event)

Adds or updates an [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue send(  
    Context ctx,  
    Event evt  
)
```

Parameters

- ctx Type: [TcHmiSrv.Context \[► 237\]](#)
The [Context \[► 237\]](#) under which the [Event \[► 253\]](#) should be sent.
- evt Type: [TcHmiSrv.Event \[► 253\]](#)
The [Event \[► 253\]](#) that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if sending the [Event \[► 253\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class \[► 285\]](#)

[send Overload \[► 293\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.24.1.7.2 ITcHmiSrvExtHost.send Method (Context, Message)

Adds or updates a [Message \[► 307\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue send(  
    Context ctx,  
    Message msg  
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
 The [Context](#) [► 237] under which the [Message](#) [► 307] should be sent.

msg Type: [TcHmiSrv.Message](#) [► 307]
 The [Message](#) [► 307] that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue](#) [► 247]
[HMI SUCCESS](#) [► 247] if sending the [Message](#) [► 307] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[send Overload](#) [► 293]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.8 ITcHmiSrvExtHost.set_config_value Method

Adds an entry to a map or vector in the extension configuration or updates an existing configuration [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual ErrorValue set_config_value(  
    Context ctx,  
    string path,  
    Value value  
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
 A [Context](#) [► 237] containing information about the user who tries to get a configuration [Value](#) [► 513].

path Type: [System.String](#)
 The path of the [Value](#) [► 513] to be set.

value Type: [TcHmiSrv.Value](#) [► 513]
 The [Value](#) [► 513] to be set or nullptr to delete the configuration [Value](#) [► 513] at specified path.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if setting the configuration [Value](#) [► 513] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.9 **ITcHmiSrvExtHost.unregister_listener Method**

Overload List

	Name	Description
	unregister_listener(ITcHmiSrvListener) [► 295]	Unregisters an ITcHmiSrvListener [► 296] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 296]	Unregisters an ITcHmiSrvListener [► 296] at the server.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.9.1 ***ITcHmiSrvExtHost.unregister_listener Method (ITcHmiSrvListener)***

Unregisters an [ITcHmiSrvListener](#) [► 296] at the server.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void unregister_listener(  
    ITcHmiSrvListener handler  
)
```

Parameters

handler Type: [TcHmiSrv.ITcHmiSrvListener](#) [► 296]
 The [ITcHmiSrvListener](#) [► 296] that should be unregistered.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]
[unregister_listener Overload](#) [► 295]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.24.1.9.2 *ITcHmiSrvExtHost.unregister_listener Method (Context, ITcHmiSrvListener)*

Unregisters an [ITcHmiSrvListener](#) [► 296] at the server.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void unregister_listener(
    Context ctx,
    ITcHmiSrvListener handler
)
```

Parameters

ctx Type: [TcHmiSrv.Context](#) [► 237]
The [Context](#) [► 237] under which the [ITcHmiSrvListener](#) [► 296] should be unregistered.

handler Type: [TcHmiSrv.ITcHmiSrvListener](#) [► 296]
The [ITcHmiSrvListener](#) [► 296] that should be unregistered.

Reference

[ITcHmiSrvExtHost Class](#) [► 285]

[unregister_listener Overload](#) [► 295]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.25 **ITcHmiSrvListener Class**

Listeners are called whenever the corresponding event in the server occurs.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#)

More... **Namespace:** [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvListener : IDisposable
```

The [ITcHmiSrvListener](#) type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener.

Methods

	Name	Description
	Dispose [► 298]	Releases all resources used by the ITcHmiSrvListener
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#)

[TcHmiSrv.ITcHmiSrvAlarmProviderListener](#) [[► 276](#)]

[TcHmiSrv.ITcHmiSrvAuthListener](#) [[► 278](#)]

[TcHmiSrv.ITcHmiSrvConfigListener](#) [[► 280](#)]

[TcHmiSrv.ITcHmiSrvEventListener](#) [[► 281](#)]

[TcHmiSrv.ITcHmiSrvExportListener](#) [[► 283](#)]

[TcHmiSrv.ITcHmiSrvRequestListener](#) [[► 299](#)]

[TcHmiSrv.ITcHmiSrvSessionListener](#) [[► 300](#)]

[TcHmiSrv.ITcHmiSrvShutdownListener](#) [[► 302](#)]

[TcHmiSrv.ITcHmiSrvSubscriptionListener](#) [[► 304](#)]

2.1.3.25.1 ITcHmiSrvListener Properties

The [ITcHmiSrvListener](#) [[► 296](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener.

Reference

[ITcHmiSrvListener Class](#) [[► 296](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.25.1.1 ITcHmiSrvListener.Type Property

Gets the type of the listener.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 306]

Reference

[ITcHmiSrvListener Class](#) [► 296]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.25.2 ITcHmiSrvListener Methods

The [ITcHmiSrvListener](#) [► 296] type exposes the following members.

Methods

	Name	Description
	Dispose [► 298]	
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvListener Class](#) [► 296]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.25.2.1 ITcHmiSrvListener.Dispose Method

Releases all resources used by the [ITcHmiSrvListener](#) [► 296]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public virtual void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvListener Class](#) [► 296]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.26 ITcHmiSrvRequestListener Class

Performs read write requests and subscriptions.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener \[► 296\]](#)

[TcHmiSrv.ITcHmiSrvRequestListener](#)

[TcHmiSrv.TcHmiSrvRequestListener \[► 449\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvRequestListener : ITcHmiSrvListener
```

The ITcHmiSrvRequestListener type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296] .)

Methods

	Name	Description
	Dispose [► 300]	Releases all resources used by the ITcHmiSrvRequestListener (Overrides ITcHmiSrvListener.Dispose. [► 298] .)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.26.1 ITcHmiSrvRequestListener Properties

The [ITcHmiSrvRequestListener \[► 299\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296] .)

Reference

[ITcHmiSrvRequestListener Class \[► 299\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.26.2 ITcHmiSrvRequestListener Methods

The [ITcHmiSrvRequestListener \[► 299\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose [► 300]	(Overrides ITcHmiSrvListener.Dispose. [► 298] .)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvRequestListener Class \[► 299\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.26.2.1 ITcHmiSrvRequestListener.Dispose Method

Releases all resources used by the [ITcHmiSrvRequestListener \[► 299\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[ITcHmiSrvRequestListener Class \[► 299\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.27 ITcHmiSrvSessionListener Class

Allows to observe the servers connection state.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#) [[► 296](#)]

[TcHmiSrv.ITcHmiSrvSessionListener](#)

[TcHmiSrv.TcHmiSrvSessionListener](#) [[► 456](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvSessionListener : ITcHmiSrvListener
```

The [ITcHmiSrvSessionListener](#) type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296].)

Methods

	Name	Description
	Dispose [► 302]	Releases all resources used by the ITcHmiSrvSessionListener (Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.27.1 ITcHmiSrvSessionListener Properties

The [ITcHmiSrvSessionListener](#) [[► 300](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [► 296].)

Reference

[ITcHmiSrvSessionListener Class](#) [[► 300](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.27.2 ITcHmiSrvSessionListener Methods

The [ITcHmiSrvSessionListener](#) [► 300] type exposes the following members.

Methods

	Name	Description
	Dispose [► 302]	(Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvSessionListener Class](#) [► 300]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.27.2.1 ITcHmiSrvSessionListener.Dispose Method

Releases all resources used by the [ITcHmiSrvSessionListener](#) [► 300]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvSessionListener Class](#) [► 300]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.28 ITcHmiSrvShutdownListener Class

Allows to get notified when the server is shutting down.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#) [► 296]

[TcHmiSrv.ITcHmiSrvShutdownListener](#)

[TcHmiSrv.TcHmiSrvShutdownListener](#) [► 472]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvShutdownListener : ITcHmiSrvListener
```

The `ITcHmiSrvShutdownListener` type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Methods

	Name	Description
	Dispose [▶ 304]	Releases all resources used by the <code>ITcHmiSrvShutdownListener</code> (Overrides ITcHmiSrvListener.Dispose . [▶ 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.28.1 ITcHmiSrvShutdownListener Properties

The [ITcHmiSrvShutdownListener](#) [[▶ 302](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Reference

[ITcHmiSrvShutdownListener Class](#) [[▶ 302](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.28.2 ITcHmiSrvShutdownListener Methods

The [ITcHmiSrvShutdownListener](#) [[▶ 302](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [► 304]	(Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvShutdownListener Class](#) [[► 302](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.28.2.1 ITcHmiSrvShutdownListener.Dispose Method

Releases all resources used by the [ITcHmiSrvShutdownListener](#) [[► 302](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvShutdownListener Class](#) [[► 302](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.29 ITcHmiSrvSubscriptionListener Class

Allows to take full control over the subscription loops. If this interface is not implemented, subscriptions will just call the

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.ITcHmiSrvListener](#) [[► 296](#)]

[TcHmiSrv.ITcHmiSrvSubscriptionListener](#)

[TcHmiSrv.TcHmiSrvSubscriptionListener](#) [[► 478](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public abstract class ITcHmiSrvSubscriptionListener : ITcHmiSrvListener
```

The `ITcHmiSrvSubscriptionListener` type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Methods

	Name	Description
	Dispose [▶ 306]	Releases all resources used by the <code>ITcHmiSrvSubscriptionListener</code> (Overrides ITcHmiSrvListener.Dispose . [▶ 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.29.1 ITcHmiSrvSubscriptionListener Properties

The `ITcHmiSrvSubscriptionListener` [[▶ 304](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 297]	Gets the type of the listener. (Inherited from ITcHmiSrvListener [▶ 296].)

Reference

[ITcHmiSrvSubscriptionListener Class](#) [[▶ 304](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.29.2 ITcHmiSrvSubscriptionListener Methods

The `ITcHmiSrvSubscriptionListener` [[▶ 304](#)] type exposes the following members.

Methods

	Name	Description
	Dispose [► 306]	(Overrides ITcHmiSrvListener.Dispose . [► 298].)
	Equals	Determines whether the specified Object is equal to the current Object . (Inherited from Object .)
	GetHashCode	Serves as a hash function for a particular type. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ITcHmiSrvSubscriptionListener Class](#) [[► 304](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.29.2.1 ITcHmiSrvSubscriptionListener.Dispose Method

Releases all resources used by the [ITcHmiSrvSubscriptionListener](#) [[► 304](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override void Dispose()
```

Implements

[IDisposable.Dispose](#).

Reference

[ITcHmiSrvSubscriptionListener Class](#) [[► 304](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.30 ListenerType Enumeration

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public enum ListenerType
```

Members

	Member name	Value	Description
	ListenerType_Config	0	
	ListenerType_EventLocalization	1	
	ListenerType_Alarm	2	
	ListenerType_Request	3	
	ListenerType_Subscription	4	
	ListenerType_Session	5	
	ListenerType_Shutdown	6	
	ListenerType_Historize	7	
	ListenerType_Auth	8	
	ListenerType_File	9	
	ListenerType_Command	10	
	ListenerType_Script	11	
	ListenerType_CommitConfig	12	
	ListenerType_ExportConfig	13	
	ListenerType_Event	14	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31 Message Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject \[► 272\]](#)

[TcHmiSrv.Localizable \[► 658\]](#)

[TcHmiSrv.Message](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Message : Localizable, IEquatable<Message>
```

The Message type exposes the following members.

Constructors

	Name	Description
	Message. [► 309]	Initializes a new instance of the Message class.
	Message(Message) [► 309]	Initializes a new instance of the Message class based on another Message.
	Message(Context, Severity, String) [► 310]	Initializes a new instance of the Message class with the specified Context [► 237] , Severity [► 346] and name.

Properties

	Name	Description
	Domain [▶ 311]	Gets or sets the domain that triggered the Message.
	IsSet [▶ 311]	Gets a value that indicates whether the Message is set.
	Name [▶ 312]	Gets or sets the name of the Message.
	Parameters [▶ 312]	Gets the parameters of the Message.
	Severity [▶ 312]	Gets or sets the Severity [▶ 346] of the Message.
	TimeRaised [▶ 313]	Gets or sets the time the Message was raised.
	Type [▶ 313]	Gets the type of the Message. (ValueType Message [▶ 630])

Methods

	Name	Description
	Dispose. [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 314]	Releases the unmanaged resources used by the Message and optionally releases the managed resources (Overrides Localizable.Dispose(Boolean) [▶ 663].)
	Equals(Message) [▶ 315]	Indicates whether the current Message is equal to another Message.
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▶ 316]	Exchanges the values of two instances of the Message class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [▶ 317]	Determines whether the specified Message is equal to the current Message.
 	Inequality [▶ 318]	Determines whether the specified Message is not equal to the current Message.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.31.1 Message Constructor

Overload List

	Name	Description
	Message. [▶ 309]	Initializes a new instance of the Message [▶ 307] class.
	Message(Message) [▶ 309]	Initializes a new instance of the Message [▶ 307] class based on another Message [▶ 307].
	Message(Context, Severity, String) [▶ 310]	Initializes a new instance of the Message [▶ 307] class with the specified Context [▶ 237], Severity [▶ 346] and name.

Reference

[Message Class](#) [[▶ 307](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.31.1.1 Message Constructor

Initializes a new instance of the [Message](#) [[▶ 307](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Message()
```

Reference

[Message Class](#) [[▶ 307](#)]

[Message Overload](#) [[▶ 309](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.31.1.2 Message Constructor (Message)

Initializes a new instance of the [Message](#) [[▶ 307](#)] class based on another [Message](#) [[▶ 307](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Message(  
    Message other  
)
```

Parameters

other	Type: TcHmiSrv.Message [▶ 307] The other Message [▶ 307].

Reference

[Message Class \[▸ 307\]](#)

[Message Overload \[▸ 309\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.31.1.3 Message Constructor (Context, Severity, String)

Initializes a new instance of the [Message \[▸ 307\]](#) class with the specified [Context \[▸ 237\]](#), [Severity \[▸ 346\]](#) and name.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Message(  
    Context ctx,  
    Severity severity,  
    string name  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▸ 237] The Context [▸ 237] to be set.
severity	Type: TcHmiSrv.Severity [▸ 346] The Severity [▸ 346] to be set.
name	Type: System.String The name to be set.

Reference

[Message Class \[▸ 307\]](#)

[Message Overload \[▸ 309\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.31.2 Message Properties

The [Message \[▸ 307\]](#) type exposes the following members.

Properties

	Name	Description
	Domain [▸ 311]	Gets or sets the domain that triggered the Message [▸ 307].
	IsSet [▸ 311]	Gets a value that indicates whether the Message [▸ 307] is set.
	Name [▸ 312]	Gets or sets the name of the Message [▸ 307].
	Parameters [▸ 312]	Gets the parameters of the Message [▸ 307].
	Severity [▸ 312]	Gets or sets the Severity [▸ 346] of the Message [▸ 307].
	TimeRaised [▸ 313]	Gets or sets the time the Message [▸ 307] was raised.
	Type [▸ 313]	Gets the type of the Message [▸ 307]. (ValueType Message [▸ 630])

Reference

[Message Class](#) [[▸ 307](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.31.2.1 Message.Domain Property

Gets or sets the domain that triggered the [Message](#) [[▸ 307](#)].

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax**C#**

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Message Class](#) [[▸ 307](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.31.2.2 Message.IsSet Property

Gets a value that indicates whether the [Message](#) [[▸ 307](#)] is set.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax**C#**

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.2.3 Message.Name Property

Gets or sets the name of the [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.2.4 Message.Parameters Property

Gets the parameters of the [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.2.5 Message.Severity Property

Gets or sets the [Severity](#) [► 346] of the [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Severity Severity { get; set; }
```

Property Value

Type: [Severity](#) [[▸ 346](#)]

Reference

[Message Class](#) [[▸ 307](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.31.2.6 Message.TimeRaised Property

Gets or sets the time the [Message](#) [[▸ 307](#)] was raised.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp TimeRaised { get; set; }
```

Property Value

Type: [Timestamp](#) [[▸ 499](#)]

Reference

[Message Class](#) [[▸ 307](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.31.2.7 Message.Type Property

Gets the type of the [Message](#) [[▸ 307](#)]. ([ValueType Message](#) [[▸ 630](#)])

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [[▸ 630](#)]

Reference

[Message Class](#) [[▸ 307](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.31.3 Message Methods

The [Message](#) [► 307] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 314]	(Overrides Localizable.Dispose(Boolean) [► 663].)
	Equals(Message) [► 315]	Indicates whether the current Message [► 307] is equal to another Message [► 307].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [► 316]	Exchanges the values of two instances of the Message [► 307] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.3.1 Message.Dispose Method

Overload List

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 314]	Releases the unmanaged resources used by the Message [► 307] and optionally releases the managed resources (Overrides Localizable.Dispose(Boolean) [► 663].)

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.3.1.1 Message.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Message](#) [► 307] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Message Class](#) [► 307]

[Dispose Overload](#) [► 314]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.3.2 **Message.Equals Method**

Overload List

	Name	Description
	Equals(Message) [► 315]	Indicates whether the current Message [► 307] is equal to another Message [► 307].
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)

Reference

[Message Class](#) [► 307]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.31.3.2.1 **Message.Equals Method (Message)**

Indicates whether the current [Message](#) [► 307] is equal to another [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Message other  
)
```

Parameters

other	Type: TcHmiSrv.Message [► 307] The Message [► 307] to compare with this Message [► 307].

Return Value

Type: [Boolean](#)
true if the current [Message \[► 307\]](#) is equal to the other [Message \[► 307\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Message Class \[► 307\]](#)

[Equals Overload \[► 315\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31.3.3 **Message.GetHashCode Method**

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [Message \[► 307\]](#).

Reference

[Message Class \[► 307\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31.3.4 **Message.swap Method**

Exchanges the values of two instances of the [Message \[► 307\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    Message arg0  
)
```

Parameters

arg0	Type: TcHmiSrv.Message [► 307] The other Message [► 307] .

Return Value

Type: [Boolean](#)
true if the swap was successful; otherwise, false.

Reference

[Message Class \[► 307\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31.4 Message Operators

The [Message \[► 307\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 317]	Determines whether the specified Message [► 307] is equal to the current Message [► 307] .
 	Inequality [► 318]	Determines whether the specified Message [► 307] is not equal to the current Message [► 307] .

Reference

[Message Class \[► 307\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31.4.1 Message.Equality Operator

Determines whether the specified [Message \[► 307\]](#) is equal to the current [Message \[► 307\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Message current,
    Message other
)
```

Parameters

current	Type: TcHmiSrv.Message [► 307] The current instance of the Message [► 307] class.
other	Type: TcHmiSrv.Message [► 307] The Message [► 307] to compare with the current Message [► 307] .

Return Value

Type: [Boolean](#)
true if the specified [Message \[► 307\]](#) is equal to the current [Message \[► 307\]](#); otherwise, false.

Reference

[Message Class \[► 307\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.31.4.2 Message.Inequality Operator

Determines whether the specified [Message \[► 307\]](#) is not equal to the current [Message \[► 307\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(  
    Message current,  
    Message other  
)
```

Parameters

current	Type: TcHmiSrv.Message [► 307] The current instance of the Message [► 307] class.
other	Type: TcHmiSrv.Message [► 307] The Message [► 307] to compare with the current Message [► 307] .

Return Value

Type: [Boolean](#)

true if the specified [Message \[► 307\]](#) is not equal to the current [Message \[► 307\]](#); otherwise, false.

Reference

[Message Class \[► 307\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32 Range Class

Note: This API is now obsolete.

Represents binary data.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Range](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.Range' is obsolete.")]  
public class Range : IEquatable<Range>,  
    IDisposable
```

The Range type exposes the following members.

Constructors

	Name	Description
	Range. [▶ 320]	Initializes a new instance of the Range class
	Range(Double, Double) [▶ 320]	Initializes a new instance of the Range class with the specified lower and upper bound.

Properties

	Name	Description
	Lower [▶ 321]	
	Upper [▶ 321]	

Methods

	Name	Description
	Dispose. [▶ 322]	Releases all resources used by the Range
	Dispose(Boolean) [▶ 323]	Releases the unmanaged resources used by the Range and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(Range) [▶ 324]	Indicates whether the current Range is equal to another Range.
	Finalize [▶ 325]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Operators

	Name	Description
	Equality [▶ 325]	Determines whether two instances of the Range class are equal.
	Inequality [▶ 326]	Determines whether two instances of the Range class are not equal.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.32.1 Range Constructor

Overload List

	Name	Description
	Range. [▸ 320]	Initializes a new instance of the Range [▸ 318] class
	Range(Double, Double) [▸ 320]	Initializes a new instance of the Range [▸ 318] class with the specified lower and upper bound.

Reference

[Range Class](#) [[▸ 318](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.32.1.1 Range Constructor

Initializes a new instance of the [Range](#) [[▸ 318](#)] class

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Range()
```

Reference

[Range Class](#) [[▸ 318](#)]

[Range Overload](#) [[▸ 320](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.32.1.2 Range Constructor (Double, Double)

Initializes a new instance of the [Range](#) [[▸ 318](#)] class with the specified lower and upper bound.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Range(  
    double lower,  
    double upper  
)
```

Parameters

lower	Type: System.Double The lower bound.
upper	Type: System.Double The lower bound.

Reference

[Range Class \[► 318\]](#)

[Range Overload \[► 320\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.2 Range Properties

The [Range \[► 318\]](#) type exposes the following members.

Properties

	Name	Description
	Lower [► 321]	
	Upper [► 321]	

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.2.1 Range.Lower Property

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public double Lower { get; set; }
```

Property Value

Type: [Double](#)

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.2.2 Range.Upper Property

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public double Upper { get; set; }
```

Property Value

Type: [Double](#)

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3 Range Methods

The [Range \[► 318\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 322]	
	Dispose(Boolean) [► 323]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(Range) [► 324]	Indicates whether the current Range [► 318] is equal to another Range [► 318] .
	Finalize [► 325]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3.1 Range.Dispose Method

Overload List

	Name	Description
	Dispose. [► 322]	Releases all resources used by the Range [► 318]
	Dispose(Boolean) [► 323]	Releases the unmanaged resources used by the Range [► 318] and optionally releases the managed resources

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3.1.1 Range.Dispose Method

Releases all resources used by the [Range \[► 318\]](#)

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Range Class](#) [[► 318](#)]

[Dispose Overload](#) [[► 322](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.32.3.1.2 *Range.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [Range](#) [[► 318](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Range Class](#) [[► 318](#)]

[Dispose Overload](#) [[► 322](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.32.3.2 *Range.Equals Method*

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Range) [► 324]	Indicates whether the current Range [► 318] is equal to another Range [► 318].

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3.2.1 *Range.Equals Method (Range)*

Indicates whether the current [Range \[► 318\]](#) is equal to another [Range \[► 318\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Range other  
)
```

Parameters

other	Type: TcHmiSrv.Range [► 318] The Range [► 318] to compare with this Range [► 318] .

Return Value

Type: [Boolean](#)

true if the current [Range \[► 318\]](#) is equal to the other [Range \[► 318\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Range Class \[► 318\]](#)

[Equals Overload \[► 323\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3.3 *Range.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Range \[► 318\]](#).

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.3.4 **Range.Finalize Method**

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.4 **Range Operators**

The [Range \[► 318\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 325]	Determines whether two instances of the Range [► 318] class are equal.
 	Inequality [► 326]	Determines whether two instances of the Range [► 318] class are not equal.

Reference

[Range Class \[► 318\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.32.4.1 **Range.Equality Operator**

Determines whether two instances of the [Range \[► 318\]](#) class are equal.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Range current,
    Range other
)
```

Parameters

current	Type: TcHmiSrv.Range [▸ 318] The first Range [▸ 318] to compare.
other	Type: TcHmiSrv.Range [▸ 318] The second Range [▸ 318] to compare.

Return Value

Type: [Boolean](#)

true if current equals other; otherwise, false.

Reference

[Range Class \[▸ 318\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.32.4.2 Range.Inequality Operator

Determines whether two instances of the [Range \[▸ 318\]](#) class are not equal.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Range current,
    Range other
)
```

Parameters

current	Type: TcHmiSrv.Range [▸ 318] The first Range [▸ 318] to compare.
other	Type: TcHmiSrv.Range [▸ 318] The second Range [▸ 318] to compare.

Return Value

Type: [Boolean](#)

true if current does not equal other; otherwise, false.

Reference

[Range Class \[▸ 318\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.33 RequestType Enumeration

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum RequestType
```

Members

	Member name	Value	Description
	RequestType_Subscription	0	
	RequestType_ReadWrite	1	
	RequestType_Event	2	

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.34 ResultPair Class

Represents a result pair that contains the [ErrorValue](#) [[► 247](#)] and a [String](#) that describes the result of a method call.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject](#) [[► 272](#)]

 TcHmiSrv.ResultPair

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class ResultPair : IObject, IEquatable<ResultPair>
```

The ResultPair type exposes the following members.

Constructors

	Name	Description
	ResultPair. [► 329]	Initializes a new empty instance of the ResultPair class.
	ResultPair(ErrorValue) [► 329]	Initializes a new instance of the ResultPair class.
	ResultPair(ResultPair) [► 330]	Initializes a new instance of the ResultPair class based on another ResultPair.
	ResultPair(ErrorValue, String) [► 330]	Initializes a new instance of the ResultPair class.

Properties

	Name	Description
	Result [▸ 331]	Gets or sets the ErrorValue [▸ 247].
	Text [▸ 331]	Gets or sets the textual representation or further description of the result code.

Methods

	Name	Description
	Dispose. [▸ 274]	(Inherited from IObject [▸ 272].)
	Dispose(Boolean) [▸ 333]	Releases the unmanaged resources used by the ResultPair and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▸ 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(ResultPair) [▸ 333]	Indicates whether the current ResultPair is equal to another ResultPair.
	Finalize [▸ 275]	(Inherited from IObject [▸ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▸ 334]	Exchanges the values of two instances of the ResultPair class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
	Equality [▸ 335]	Determines whether two instances of the ResultPair class are equal.
	Inequality [▸ 336]	Determines whether two instances of the ResultPair class are not equal.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.34.1 ResultPair Constructor

Overload List

	Name	Description
	ResultPair . [▶ 329]	Initializes a new empty instance of the ResultPair [▶ 327] class.
	ResultPair (ErrorValue) [▶ 329]	Initializes a new instance of the ResultPair [▶ 327] class.
	ResultPair (ResultPair) [▶ 330]	Initializes a new instance of the ResultPair [▶ 327] class based on another ResultPair [▶ 327].
	ResultPair (ErrorValue, String) [▶ 330]	Initializes a new instance of the ResultPair [▶ 327] class.

Reference

[ResultPair Class](#) [[▶ 327](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.34.1.1 ResultPair Constructor

Initializes a new empty instance of the [ResultPair](#) [[▶ 327](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ResultPair()
```

Reference

[ResultPair Class](#) [[▶ 327](#)]

[ResultPair Overload](#) [[▶ 329](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.34.1.2 ResultPair Constructor (ErrorValue)

Initializes a new instance of the [ResultPair](#) [[▶ 327](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ResultPair(  
    ErrorValue result  
)
```

Parameters

result	Type: TcHmiSrv.ErrorValue [▶ 247] The result code, see ErrorValue [▶ 247].

Reference

[ResultPair Class \[► 327\]](#)

[ResultPair Overload \[► 329\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.1.3 **ResultPair Constructor (ResultPair)**

Initializes a new instance of the [ResultPair \[► 327\]](#) class based on another [ResultPair \[► 327\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ResultPair(  
    ResultPair other  
)
```

Parameters

other	Type: TcHmiSrv.ResultPair [► 327] The other ResultPair [► 327] .

Reference

[ResultPair Class \[► 327\]](#)

[ResultPair Overload \[► 329\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.1.4 **ResultPair Constructor (ErrorValue, String)**

Initializes a new instance of the [ResultPair \[► 327\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ResultPair(  
    ErrorValue result,  
    string text  
)
```

Parameters

result	Type: TcHmiSrv.ErrorValue [► 247] The result code, see ErrorValue [► 247] .
text	Type: System.String The textual representation or further description of the result code.

Reference

[ResultPair Class \[► 327\]](#)

[ResultPair Overload \[► 329\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.2 ResultPair Properties

The [ResultPair \[► 327\]](#) type exposes the following members.

Properties

	Name	Description
	Result [► 331]	Gets or sets the ErrorValue [► 247] .
	Text [► 331]	Gets or sets the textual representation or further description of the result code.

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.2.1 ResultPair.Result Property

Gets or sets the [ErrorValue \[► 247\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue Result { get; set; }
```

Property Value

Type: [ErrorValue \[► 247\]](#)

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.2.2 ResultPair.Text Property

Gets or sets the textual representation or further description of the result code.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Text { get; set; }
```

Property Value

Type: [String](#)

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.3 ResultPair Methods

The [ResultPair \[► 327\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 333]	(Overrides IObject.Dispose(Boolean) [► 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(ResultPair) [► 333]	Indicates whether the current ResultPair [► 327] is equal to another ResultPair [► 327] .
	Finalize [► 275]	(Inherited from IObject [► 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	swap [► 334]	Exchanges the values of two instances of the ResultPair [► 327] class.
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.3.1 ResultPair.Dispose Method

Overload List

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 333]	Releases the unmanaged resources used by the ResultPair [► 327] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275].)

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.3.1.1 *ResultPair.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [ResultPair](#) [► 327] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[ResultPair Class](#) [► 327]

[Dispose Overload](#) [► 332]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.34.3.2 *ResultPair.Equals Method*

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(ResultPair) [► 333]	Indicates whether the current ResultPair [► 327] is equal to another ResultPair [► 327].

Reference

[ResultPair Class](#) [► 327]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.34.3.2.1 *ResultPair.Equals Method (ResultPair)*

Indicates whether the current [ResultPair](#) [► 327] is equal to another [ResultPair](#) [► 327].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    ResultPair other  
)
```

Parameters

other	Type: TcHmiSrv.ResultPair [► 327] The ResultPair [► 327] to compare with this ResultPair [► 327] .

Return Value

Type: [Boolean](#)

true if the current [ResultPair \[► 327\]](#) is equal to the other [ResultPair \[► 327\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[ResultPair Class \[► 327\]](#)

[Equals Overload \[► 333\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.3.3 ResultPair.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax**C#**

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [ResultPair \[► 327\]](#).

Reference

[ResultPair Class \[► 327\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.34.3.4 ResultPair.swap Method

Exchanges the values of two instances of the [ResultPair \[► 327\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public bool swap(
    ResultPair arg0
)
```

Parameters

arg0	Type: TcHmiSrv.ResultPair [▸ 327] The other ResultPair [▸ 327] .

Return Value

Type: [Boolean](#)
true if the swap was successful; otherwise, false.

Reference

[ResultPair Class \[▸ 327\]](#)
[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.34.4 ResultPair Operators

The [ResultPair \[▸ 327\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [▸ 335]	Determines whether two instances of the ResultPair [▸ 327] class are equal.
 	Inequality [▸ 336]	Determines whether two instances of the ResultPair [▸ 327] class are not equal.

Reference

[ResultPair Class \[▸ 327\]](#)
[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.34.4.1 ResultPair.Equality Operator

Determines whether two instances of the [ResultPair \[▸ 327\]](#) class are equal.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    ResultPair current,
    ResultPair other
)
```

Parameters

current	Type: TcHmiSrv.ResultPair [▸ 327] The first ResultPair [▸ 327] to compare.
other	Type: TcHmiSrv.ResultPair [▸ 327] The second ResultPair [▸ 327] to compare.

Return Value

Type: [Boolean](#)

true if current equals other; otherwise, false.

Reference

[ResultPair Class](#) [[► 327](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.34.4.2 ResultPair.Inequality Operator

Determines whether two instances of the [ResultPair](#) [[► 327](#)] class are not equal.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    ResultPair current,
    ResultPair other
)
```

Parameters

current	Type: TcHmiSrv.ResultPair [► 327] The first ResultPair [► 327] to compare.
other	Type: TcHmiSrv.ResultPair [► 327] The second ResultPair [► 327] to compare.

Return Value

Type: [Boolean](#)

true if current does not equal other; otherwise, false.

Reference

[ResultPair Class](#) [[► 327](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.35 Session Class

Represents a session that contains information about an active user.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Session](#)

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Session : IEquatable<Session>,
    IDisposable
```

The Session type exposes the following members.

Constructors

	Name	Description
	Session. [► 338]	Initializes a new instance of the Session class.
	Session(Session) [► 338]	Initializes a new instance of the Session class based on another Session.

Properties

	Name	Description
	EndpointInfo [► 339]	Gets or sets the endpoint information.
	Id [► 339]	Gets or sets the ID of the Session.
	Locale [► 340]	Gets or sets the locale of the user in BCP 47 representation.
	SocketId [► 340]	Gets or sets the socket ID of the Session.
	User [► 340]	Gets or sets the user name.

Methods

	Name	Description
	Dispose. [► 342]	Releases all resources used by the Session
	Dispose(Boolean) [► 342]	Releases the unmanaged resources used by the Session and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(Session) [► 343]	Indicates whether the current Session is equal to another Session.
	Finalize [► 344]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Operators

	Name	Description
	Equality [► 345]	Determines whether two instances of the Session class are equal.
		
	Inequality [► 345]	Determines whether two instances of the Session class are not equal.
		

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.35.1 Session Constructor

Overload List

	Name	Description
	Session. [► 338]	Initializes a new instance of the Session [► 336] class.
	Session(Session) [► 338]	Initializes a new instance of the Session [► 336] class based on another Session [► 336] .

Reference

[Session Class](#) [\[► 336\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.35.1.1 Session Constructor

Initializes a new instance of the [Session](#) [\[► 336\]](#) class.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Session()
```

Reference

[Session Class](#) [\[► 336\]](#)

[Session Overload](#) [\[► 338\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.35.1.2 Session Constructor (Session)

Initializes a new instance of the [Session](#) [\[► 336\]](#) class based on another [Session](#) [\[► 336\]](#).

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Session(  
    Session other  
)
```

Parameters

other	Type: TcHmiSrv.Session [► 336] The other Session [► 336] .

Reference

[Session Class](#) [\[► 336\]](#)

[Session Overload](#) [\[► 338\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.2 Session Properties

The [Session \[► 336\]](#) type exposes the following members.

Properties

	Name	Description
	EndpointInfo [► 339]	Gets or sets the endpoint information.
	Id [► 339]	Gets or sets the ID of the Session [► 336] .
	Locale [► 340]	Gets or sets the locale of the user in BCP 47 representation.
	SocketId [► 340]	Gets or sets the socket ID of the Session [► 336] .
	User [► 340]	Gets or sets the user name.

Reference

[Session Class \[► 336\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.2.1 Session.EndpointInfo Property

Gets or sets the endpoint information.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public EndpointInfo EndpointInfo { get; set; }
```

Property Value

Type: [EndpointInfo \[► 247\]](#)

Reference

[Session Class \[► 336\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.2.2 Session.Id Property

Gets or sets the ID of the [Session \[► 336\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Id { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.35.2.3 Session.Locale Property

Gets or sets the locale of the user in BCP 47 representation.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public string Locale { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.35.2.4 Session.SocketId Property

Gets or sets the socket ID of the [Session](#) [► 336].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public uint SocketId { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.35.2.5 Session.User Property

Gets or sets the user name.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public string User { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.35.3 Session Methods

The [Session](#) [► 336] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 342]	
	Dispose(Boolean) [► 342]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Session) [► 343]	Indicates whether the current Session [► 336] is equal to another Session [► 336].
	Finalize [► 344]	(Overrides Object.Finalize .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.35.3.1 Session.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 342]	Releases all resources used by the Session [► 336]
	Dispose(Boolean) [► 342]	Releases the unmanaged resources used by the Session [► 336] and optionally releases the managed resources

Reference

[Session Class \[► 336\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.3.1.1 *Session.Dispose Method*

Releases all resources used by the [Session \[► 336\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Session Class \[► 336\]](#)

[Dispose Overload \[► 341\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.3.1.2 *Session.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [Session \[► 336\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Session Class \[► 336\]](#)

[Dispose Overload \[► 341\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.35.3.2 **Session.Equals Method**

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Session) [▶ 343]	Indicates whether the current Session [▶ 336] is equal to another Session [▶ 336].

Reference

[Session Class](#) [[▶ 336](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.3.2.1 **Session.Equals Method (Session)**

Indicates whether the current [Session](#) [[▶ 336](#)] is equal to another [Session](#) [[▶ 336](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Session other  
)
```

Parameters

other	Type: TcHmiSrv.Session [▶ 336] The Session [▶ 336] to compare with this Session [▶ 336].

Return Value

Type: [Boolean](#)

true if the current [Session](#) [[▶ 336](#)] is equal to the other [Session](#) [[▶ 336](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Session Class](#) [[▶ 336](#)]

[Equals Overload](#) [[▶ 343](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.3.3 **Session.GetHashCode Method**

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Session](#) [[▶ 336](#)].

Reference

[Session Class](#) [[▶ 336](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.3.4 Session.Finalize Method

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize](#).

Reference

[Session Class](#) [[▶ 336](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.4 Session Operators

The [Session](#) [[▶ 336](#)] type exposes the following members.

Operators

	Name	Description
 	Equality [▶ 345]	Determines whether two instances of the Session [▶ 336] class are equal.
 	Inequality [▶ 345]	Determines whether two instances of the Session [▶ 336] class are not equal.

Reference

[Session Class](#) [[▶ 336](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.4.1 **Session.Equality Operator**

Determines whether two instances of the Session class are equal.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Session current,
    Session other
)
```

Parameters

current	Type: TcHmiSrv.Session [▶ 336] The first Session [▶ 336] to compare.
other	Type: TcHmiSrv.Session [▶ 336] The second Session [▶ 336] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Session Class](#) [[▶ 336](#)]
[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.35.4.2 **Session.Inequality Operator**

Determines whether two instances of the Session class are not equal.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Session current,
    Session other
)
```

Parameters

current	Type: TcHmiSrv.Session [▶ 336] The first Session [▶ 336] to compare.
other	Type: TcHmiSrv.Session [▶ 336] The second Session [▶ 336] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Session Class](#) [► 336]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.36 Severity Enumeration

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum Severity
```

Members

	Member name	Value	Description
	Severity_Diagnostics	-1	
	Severity_Verbose	0	
	Severity_Info	1	
	Severity_Warning	2	
	Severity_Error	3	
	Severity_Critical	4	

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37 String Class

Note: This API is now obsolete.

Represents text.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject](#) [► 272]

 TcHmiSrv.String

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.String' is obsolete. Use type 'System.String' instead.")]  
public class String : IObject, IEquatable<String>
```

The String type exposes the following members.

Constructors

	Name	Description
	String [▶ 348]	Initializes a new instance of the String class.
	String(String) [▶ 348]	Initializes a new instance of the String class with the specified name.
	String(String) [▶ 349]	Initializes a new instance of the String class based on another String.

Properties

	Name	Description
	IsSet [▶ 350]	Gets a value that indicates whether the String is set.
	Name [▶ 350]	Gets or sets the name of the String.

Methods

	Name	Description
	Dispose [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 351]	Releases the unmanaged resources used by the String and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▶ 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(String) [▶ 352]	Indicates whether the current String is equal to another String.
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▶ 353]	Exchanges the values of two instances of the String class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
	Equality [▶ 356]	Determines whether two instances of the String class are equal.
	.(String to String) [▶ 357]	Converts an instance of the String class to the appropriate instance of the String class.
	.(String to String) [▶ 357]	Converts an instance of the String class to the appropriate instance of the String class.
	Inequality [▶ 358]	Determines whether two instances of the String class are not equal.

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.1 String Constructor

Overload List

	Name	Description
	String. [► 348]	Initializes a new instance of the String [► 346] class.
	String(String) [► 348]	Initializes a new instance of the String [► 346] class with the specified name.
	String(String) [► 349]	Initializes a new instance of the String [► 346] class based on another String [► 346] .

Reference

[String Class \[► 346\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.1.1 String Constructor

Initializes a new instance of the [String \[► 346\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String()
```

Reference

[String Class \[► 346\]](#)

[String Overload \[► 348\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.1.2 String Constructor (String)

Initializes a new instance of the [String \[► 346\]](#) class with the specified name.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String(  
    string name  
)
```


Parameters

name	Type: System.String The name to be set.

Reference

[String Class](#) [► 346]

[String Overload](#) [► 348]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.1.3 String Constructor (String)

Initializes a new instance of the [String](#) [► 346] class based on another [String](#) [► 346].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String(  
    String other  
)
```

Parameters

other	Type: TcHmiSrv.String [► 346] The other String [► 346].

Reference

[String Class](#) [► 346]

[String Overload](#) [► 348]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.2 String Properties

The [String](#) [► 346] type exposes the following members.

Properties

	Name	Description
	IsSet [► 350]	Gets a value that indicates whether the String [► 346] is set.
	Name [► 350]	Gets or sets the name of the String [► 346].

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.2.1 String.IsSet Property

Gets a value that indicates whether the [String](#) [► 346] is set.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.2.2 String.Name Property

Gets or sets the name of the [String](#) [► 346].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.3 String Methods

The [String](#) [► 346] type exposes the following members.

Methods

	Name	Description
	Dispose. [▸ 274]	(Inherited from IObject [▸ 272].)
	Dispose(Boolean) [▸ 351]	(Overrides IObject.Dispose(Boolean) [▸ 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(String) [▸ 352]	Indicates whether the current String [▸ 346] is equal to another String [▸ 346].
	Finalize [▸ 275]	(Inherited from IObject [▸ 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	swap [▸ 353]	Exchanges the values of two instances of the String [▸ 346] class.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[String Class](#) [[▸ 346](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.37.3.1 String.Dispose Method

Overload List

	Name	Description
	Dispose. [▸ 274]	(Inherited from IObject [▸ 272].)
	Dispose(Boolean) [▸ 351]	Releases the unmanaged resources used by the String [▸ 346] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▸ 275].)

Reference

[String Class](#) [[▸ 346](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.37.3.1.1 String.Dispose Method (Boolean)

Releases the unmanaged resources used by the [String](#) [[▸ 346](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[String Class](#) [► 346]

[Dispose Overload](#) [► 351]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.3.2 String.Equals Method

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(String) [► 352]	Indicates whether the current String [► 346] is equal to another String [► 346].

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.3.2.1 String.Equals Method (String)

Indicates whether the current [String](#) [► 346] is equal to another [String](#) [► 346].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(
    String other
)
```

Parameters

other	Type: TcHmiSrv.String [► 346] The String [► 346] to compare with this String [► 346].

Return Value

Type: [Boolean](#)
true if the current [String](#) [[▶ 346](#)] is equal to the other [String](#) [[▶ 346](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[String Class](#) [[▶ 346](#)]

[Equals Overload](#) [[▶ 352](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.37.3.3 **String.GetHashCode Method**

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [String](#) [[▶ 346](#)].

Reference

[String Class](#) [[▶ 346](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.37.3.4 **String.swap Method**

Exchanges the values of two instances of the [String](#) [[▶ 346](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    String arg0  
)
```

Parameters

arg0	Type: TcHmiSrv.String [▶ 346] The other String [▶ 346].

Return Value

Type: [Boolean](#)
true if the swap was successful; otherwise, false.

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.4 String Operators

The [String](#) [► 346] type exposes the following members.

Operators

	Name	Description
 	Equality [► 354]	Determines whether the specified String [► 346] is equal to the current String [► 346].
 	Inequality [► 355]	Determines whether the specified String [► 346] is not equal to the current String [► 346].

Reference

[String Class](#) [► 346]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.37.4.1 String.Equality Operator

Determines whether the specified [String](#) [► 346] is equal to the current [String](#) [► 346].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public static bool operator ==(
    String current,
    String other
)
```

Parameters

- current Type: [TcHmiSrv.String](#) [► 346]
The current instance of the [String](#) [► 346] class.
- other Type: [TcHmiSrv.String](#) [► 346]
The [String](#) [► 346] to compare with the current [String](#) [► 346].

Return Value

Type: [Boolean](#)
true if the specified [String](#) [► 346] is equal to the current [String](#) [► 346]; otherwise, false.

Reference

[String Class \[► 346\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.4.2 String.Inequality Operator

Determines whether the specified [String \[► 346\]](#) is not equal to the current [String \[► 346\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public static bool operator !=(  
    String current,  
    String other  
)
```

Parameters

current	Type: TcHmiSrv.String [► 346] The current instance of the String [► 346] class.
other	Type: TcHmiSrv.String [► 346] The String [► 346] to compare with the current String [► 346] .

Return Value

Type: [Boolean](#)

true if the specified [String \[► 346\]](#) is not equal to the current [String \[► 346\]](#); otherwise, false.

Reference

[String Class \[► 346\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.5 String Operators and Type Conversions

The [String \[► 346\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [▸ 356]	Determines whether two instances of the String [▸ 346] class are equal.
 	.(String to String) [▸ 357]	Converts an instance of the String class to the appropriate instance of the String [▸ 346] class.
 	.(String to String) [▸ 357]	Converts an instance of the String [▸ 346] class to the appropriate instance of the String class.
 	Inequality [▸ 358]	Determines whether two instances of the String [▸ 346] class are not equal.

Reference

[String Class](#) [[▸ 346](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.37.5.1 String.Equality Operator

Determines whether two instances of the [String](#) [[▸ 346](#)] class are equal.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    String current,
    String other
)
```

Parameters

current	Type: TcHmiSrv.String [▸ 346] The first String [▸ 346] to compare.
other	Type: TcHmiSrv.String [▸ 346] The second String [▸ 346] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[String Class](#) [[▸ 346](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.37.5.2 String . Conversion Operators

Overload List

	Name	Description
 	.(String to String) [▸ 357]	Converts an instance of the String class to the appropriate instance of the String [▸ 346] class.
 	.(String to String) [▸ 357]	Converts an instance of the String [▸ 346] class to the appropriate instance of the String class.

Reference

[String Class \[▸ 346\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.37.5.2.1 String . Conversion (String to String)

Converts an instance of the [String](#) class to the appropriate instance of the [String \[▸ 346\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator String (  
    string value  
)
```

Parameters

value	Type: System.String The String to convert.

Return Value

Type: [String \[▸ 346\]](#)

An instance of the [String \[▸ 346\]](#) class that is equivalent to value.

Reference

[String Class \[▸ 346\]](#)

[.Overload \[▸ 357\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.37.5.2.2 String . Conversion (String to String)

Converts an instance of the [String \[▸ 346\]](#) class to the appropriate instance of the [String](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator string (
    String value
)
```

Parameters

value	Type: TcHmiSrv.String [► 346] The String [► 346] to convert.

Return Value

Type: [String](#)
A [String](#) that is equivalent to value.

Reference

[String Class \[► 346\]](#)

[.Overload \[► 357\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.37.5.3 String.Inequality Operator

Determines whether two instances of the [String \[► 346\]](#) class are not equal.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: [TcHmiSrvExtNet \(in TcHmiSrvExtNet.dll\) Version: 3.0.0.0](#)

Syntax

C#

```
public static bool operator !=(
    String current,
    String other
)
```

Parameters

current	Type: TcHmiSrv.String [► 346] The first String [► 346] to compare.
other	Type: TcHmiSrv.String [► 346] The second String [► 346] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[String Class \[► 346\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.38 TcHmiSrvAlarmProviderListener Class

Provides a listener that listens on provided [Alarm](#) [[▶ 158](#)]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [[▶ 723](#)]

[TcHmiSrv.TcHmiSrvAlarmProviderListenerBase](#) [[▶ 667](#)]

[TcHmiSrv.TcHmiSrvAlarmProviderListener](#)

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvAlarmProviderListener : TcHmiSrvAlarmProviderListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvAlarmProviderListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAlarmProviderListener [▶ 360]	Initializes a new instance of the TcHmiSrvAlarmProviderListener class

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Methods

	Name	Description
	Dispose. [▶ 726]	(Inherited from TcHmiSrvListener [▶ 723].)
	Dispose(Boolean) [▶ 669]	(Inherited from TcHmiSrvAlarmProviderListenerBase [▶ 667].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnConfirm [► 361]	Called when an Alarm [► 158] is confirmed.
	OnInitializeAlarmList [► 362]	Obsolete. Not used anymore.
	OnInitialListEvents [► 363]	Called when the Event [► 253]s are listed once upon successful initialization.
	OnListEvents [► 362]	Obsolete. Not used anymore.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.38.1 TcHmiSrvAlarmProviderListener Constructor

Initializes a new instance of the [TcHmiSrvAlarmProviderListener](#) [[► 359](#)] class

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public TcHmiSrvAlarmProviderListener()
```

Reference

[TcHmiSrvAlarmProviderListener Class](#) [[► 359](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.38.2 TcHmiSrvAlarmProviderListener Properties

The [TcHmiSrvAlarmProviderListener](#) [[► 359](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvAlarmProviderListener Class](#) [[► 359](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.38.3 TcHmiSrvAlarmProviderListener Methods

The [TcHmiSrvAlarmProviderListener](#) [[► 359](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 669]	(Inherited from TcHmiSrvAlarmProviderListenerBase [► 667].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListener Class](#) [[► 359](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.38.4 TcHmiSrvAlarmProviderListener Events

The [TcHmiSrvAlarmProviderListener](#) [[► 359](#)] type exposes the following members.

Events

	Name	Description
	OnConfirm [► 361]	Called when an Alarm [► 158] is confirmed.
	OnInitializeAlarmList [► 362]	Obsolete. Not used anymore.
	OnInitialListEvents [► 363]	Called when the Event [► 253]s are listed once upon successful initialization.
	OnListEvents [► 362]	Obsolete. Not used anymore.

Reference

[TcHmiSrvAlarmProviderListener Class](#) [[► 359](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.38.4.1 TcHmiSrvAlarmProviderListener.OnConfirm Event

Called when an [Alarm](#) [[► 158](#)] is confirmed.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvAlarmProviderListener.OnConfirmEventHandler OnConfirm
```

Value

Type: [TcHmiSrv.TcHmiSrvAlarmProviderListener.OnConfirmEventHandler](#) [► 366]

Reference

[TcHmiSrvAlarmProviderListener Class](#) [► 359]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.38.4.2 TcHmiSrvAlarmProviderListener.OnInitializeAlarmList Event

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Event 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmList' is obsolete.", true)]  
public event TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventHandler OnInitializeAlarmList
```

Value

Type: [TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventHandler](#) [► 369]

Reference

[TcHmiSrvAlarmProviderListener Class](#) [► 359]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.38.4.3 TcHmiSrvAlarmProviderListener.OnListEvents Event

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Event 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEvents' is obsolete.", true)]  
public event TcHmiSrvAlarmProviderListener.OnListEventsEventHandler OnListEvents
```

Value

Type: [TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEventsEventHandler](#) [► 373]

Reference

[TcHmiSrvAlarmProviderListener Class \[► 359\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.38.4.4 TcHmiSrvAlarmProviderListener.OnInitialListEvents Event

Called when the [Event \[► 253\]](#)s are listed once upon successful initialization.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvAlarmProviderListener.OnInitialListEventsEventHandler OnInitialListEvents
```

Value

Type: [TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitialListEventsEventHandler \[► 666\]](#)

Reference

[TcHmiSrvAlarmProviderListener Class \[► 359\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.39 TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class

Provides data for an [OnConfirm \[► 361\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvAlarmProviderListener.OnConfirmEventArgs](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnConfirmEventArgs : EventArgs
```

The TcHmiSrvAlarmProviderListener.OnConfirmEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAlarmProviderListener.OnConfirmEventArgs [► 364]	Initializes a new instance of the TcHmiSrvAlarmProviderListener.OnConfirmEventArgs class.

Properties

	Name	Description
	Alarm [► 365]	Gets the confirmed Alarm [► 158].
	Context [► 365]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.39.1 TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Constructor

Initializes a new instance of the [TcHmiSrvAlarmProviderListener.OnConfirmEventArgs](#) [► 363] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnConfirmEventArgs(
    Context context,
    Alarm alarm
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
alarm	Type: TcHmiSrv.Alarm [► 158] The confirmed Alarm [► 158].

Reference

[TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class](#) [► 363]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.39.2 OnConfirmEventArgs Properties

The [TcHmiSrvAlarmProviderListener.OnConfirmEventArgs](#) [[▶ 363](#)] type exposes the following members.

Properties

	Name	Description
	Alarm [▶ 365]	Gets the confirmed Alarm [▶ 158].
	Context [▶ 365]	Gets the Context [▶ 237] of the event.

Reference

[TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class](#) [[▶ 363](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.39.2.1 TcHmiSrvAlarmProviderListener.OnConfirmEventArgs.Alarm Property

Gets the confirmed [Alarm](#) [[▶ 158](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Alarm Alarm { get; }
```

Property Value

Type: [Alarm](#) [[▶ 158](#)]

Reference

[TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class](#) [[▶ 363](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.39.2.2 TcHmiSrvAlarmProviderListener.OnConfirmEventArgs.Context Property

Gets the [Context](#) [[▶ 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▶ 237](#)]

Reference

[TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class \[► 363\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.39.3 OnConfirmEventArgs Methods

The [TcHmiSrvAlarmProviderListener.OnConfirmEventArgs \[► 363\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListener.OnConfirmEventArgs Class \[► 363\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.40 TcHmiSrvAlarmProviderListener.OnConfirmEventHandler Delegate

Represents a method that handles an [OnConfirm \[► 361\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnConfirmEventHandler(
    Object sender,
    TcHmiSrvAlarmProviderListener.OnConfirmEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvAlarmProviderListener.OnConfirmEventArgs [► 363] The TcHmiSrvAlarmProviderListener.OnConfirmEventArgs [► 363] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.41 TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Class

Note: This API is now obsolete.

Not used anymore.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs](#)

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs' class is obsolete.")]
public class OnInitializeAlarmListEventArgs : EventArgs
```

The [TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs](#) type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs [► 368]	Initializes a new instance of the TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs class.

Properties

	Name	Description
	Context [► 368]	Gets the current Context [► 237].

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.41.1 TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Constructor

Initializes a new instance of the [TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs \[► 367\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnInitializeAlarmListEventArgs(
    Context ctx
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Class \[► 367\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.41.2 OnInitializeAlarmListEventArgs Properties

The [TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs \[► 367\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 368]	Gets the current Context [► 237] .

Reference

[TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Class \[► 367\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.41.2.1 TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs.Context Property

Gets the current [Context \[► 237\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Class](#) [[► 367](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.41.3 OnInitializeAlarmListEventArgs Methods

The [TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs](#) [[► 367](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs Class](#) [[► 367](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.42 TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventHandler Delegate

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Delegate 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventHandl
er' is obsolete.",
    true)]
public delegate ErrorValue OnInitializeAlarmListEventHandler(
    Object sender,
    TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs e
)
```

Parameters

sender	Type: System.Object
e	Type: TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitializeAlarmListEventArgs [▶ 367]

Return Value

Type: [ErrorValue](#) [[▶ 247](#)]

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.43 TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class

Note: This API is now obsolete.

Not used anymore.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
 TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEventsEventArgs

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEventsEventArgs' class is obsolete.")]
public class OnListEventsEventArgs : EventArgs
```

The TcHmiSrvAlarmProviderListener.OnListEventsEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAlarmProviderListener.OnListEventsEventArgs [▶ 371]	Initializes a new instance of the TcHmiSrvAlarmProviderListener.OnListEventsEventArgs class.

Properties

	Name	Description
	Context [▶ 372]	Gets the Context [▶ 237] of the event.
	Events [▶ 372]	Gets the Value [▶ 513] that contains the listed Event [▶ 253]s.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.43.1 TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Constructor

Initializes a new instance of the [TcHmiSrvAlarmProviderListener.OnListEventsEventArgs \[► 370\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnListEventsEventArgs (
    Context context,
    Value events
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
events	Type: TcHmiSrv.Value [► 513] The Value [► 513] that contains the listed Event [► 253] s.

Reference

[TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class \[► 370\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.43.2 OnListEventsEventArgs Properties

The [TcHmiSrvAlarmProviderListener.OnListEventsEventArgs \[► 370\]](#) type exposes the following members.

Properties

	Name	Description
	Context [▸ 372]	Gets the Context [▸ 237] of the event.
	Events [▸ 372]	Gets the Value [▸ 513] that contains the listed Event [▸ 253]s.

Reference

[TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class](#) [[▸ 370](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.43.2.1 **TcHmiSrvAlarmProviderListener.OnListEventsEventArgs.Context Property**

Gets the [Context](#) [[▸ 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▸ 237](#)]

Reference

[TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class](#) [[▸ 370](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.43.2.2 **TcHmiSrvAlarmProviderListener.OnListEventsEventArgs.Events Property**

Gets the [Value](#) [[▸ 513](#)] that contains the listed [Event](#) [[▸ 253](#)]s.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Events { get; }
```

Property Value

Type: [Value](#) [[▸ 513](#)]

Reference

[TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class](#) [[▸ 370](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.43.3 OnListEventsEventArgs Methods

The [TcHmiSrvAlarmProviderListener.OnListEventsEventArgs](#) [► 370] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListener.OnListEventsEventArgs Class](#) [► 370]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.44 TcHmiSrvAlarmProviderListener.OnListEventsEventHandler Delegate

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Event 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEventsEventHandler' is obsolete.",
    true)]
public delegate ErrorValue OnListEventsEventHandler(
    Object sender,
    TcHmiSrvAlarmProviderListener.OnListEventsEventArgs e
)
```

Parameters

sender	Type: System.Object
e	Type: TcHmiSrv.TcHmiSrvAlarmProviderListener.OnListEventsEventArgs [► 370]

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.45 TcHmiSrvAuthListener Class

Provides a listener to implement a custom authorization.

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvListener [► 723]

TcHmiSrv.TcHmiSrvAuthListenerBase [► 671]

TcHmiSrv.TcHmiSrvAuthListener

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvAuthListener : TcHmiSrvAuthListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvAuthListener type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvAuthListener</u> [► 375]	Initializes a new instance of the TcHmiSrvAuthListener class

Properties

	Name	Description
	<u>Type</u> [► 725]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)

Methods

	Name	Description
	<u>Dispose.</u> [► 726]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)
	<u>Dispose(Boolean)</u> [► 673]	(Inherited from <u>TcHmiSrvAuthListenerBase</u> [► 671].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object.</u>)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object.</u>)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object.</u>)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object.</u>)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object.</u> (Inherited from <u>Object.</u>)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object.</u>)

Events

	Name	Description
	<u>OnLogin</u> [► 376]	Called when a user tries to log in.
	<u>OnLogout</u> [► 377]	Called when a user is logged out.

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.45.1 TcHmiSrvAuthListener Constructor

Initializes a new instance of the [TcHmiSrvAuthListener \[► 374\]](#) class

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvAuthListener()
```

Reference

[TcHmiSrvAuthListener Class \[► 374\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.45.2 TcHmiSrvAuthListener Properties

The [TcHmiSrvAuthListener \[► 374\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Reference

[TcHmiSrvAuthListener Class \[► 374\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.45.3 TcHmiSrvAuthListener Methods

The [TcHmiSrvAuthListener \[► 374\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 673]	(Inherited from TcHmiSrvAuthListenerBase [► 671].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAuthListener Class](#) [[► 374](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.45.4 TcHmiSrvAuthListener Events

The [TcHmiSrvAuthListener](#) [[► 374](#)] type exposes the following members.

Events

	Name	Description
	OnLogin [► 376]	Called when a user tries to log in.
	OnLogout [► 377]	Called when a user is logged out.

Reference

[TcHmiSrvAuthListener Class](#) [[► 374](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.45.4.1 TcHmiSrvAuthListener.OnLogin Event

Called when a user tries to log in.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvAuthListener.OnLoginEventHandler OnLogin
```

Value

Type: [TcHmiSrv.TcHmiSrvAuthListener.OnLoginEventHandler](#) [[► 380](#)]

Reference

[TcHmiSrvAuthListener Class \[► 374\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.45.4.2 TcHmiSrvAuthListener.OnLogout Event

Called when a user is logged out.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvAuthListener.OnLogoutEventHandler OnLogout
```

Value

Type: [TcHmiSrv.TcHmiSrvAuthListener.OnLogoutEventHandler \[► 383\]](#)

Reference

[TcHmiSrvAuthListener Class \[► 374\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.46 TcHmiSrvAuthListener.OnLoginEventArgs Class

Provides data for an [OnLogin \[► 376\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

TcHmiSrv.TcHmiSrvAuthListener.OnLoginEventArgs

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnLoginEventArgs : EventArgs
```

The TcHmiSrvAuthListener.OnLoginEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAuthListener.OnLoginEventArgs [► 378]	Initializes a new instance of the TcHmiSrvAuthListener.OnLoginEventArgs class.

Properties

	Name	Description
	Context [► 379]	Gets the Context [► 237] of the event.
	Value [► 379]	Gets the Value [► 513] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.46.1 TcHmiSrvAuthListener.OnLoginEventArgs Constructor

Initializes a new instance of the [TcHmiSrvAuthListener.OnLoginEventArgs](#) [[► 377](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnLoginEventArgs(
    Context context,
    Value value
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
value	Type: TcHmiSrv.Value [► 513] A Value [► 513] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Reference

[TcHmiSrvAuthListener.OnLoginEventArgs Class](#) [[► 377](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.46.2 OnLoginEventArgs Properties

The [TcHmiSrvAuthListener.OnLoginEventArgs](#) [► 377] type exposes the following members.

Properties

	Name	Description
	Context [► 379]	Gets the Context [► 237] of the event.
	Value [► 379]	Gets the Value [► 513] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Reference

[TcHmiSrvAuthListener.OnLoginEventArgs Class](#) [► 377]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.46.2.1 TcHmiSrvAuthListener.OnLoginEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvAuthListener.OnLoginEventArgs Class](#) [► 377]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.46.2.2 TcHmiSrvAuthListener.OnLoginEventArgs.Value Property

Gets the [Value](#) [► 513] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[TcHmiSrvAuthListener.OnLoginEventArgs Class \[► 377\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.46.3 OnLoginEventArgs Methods

The [TcHmiSrvAuthListener.OnLoginEventArgs \[► 377\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAuthListener.OnLoginEventArgs Class \[► 377\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.47 TcHmiSrvAuthListener.OnLoginEventHandler Delegate

Represents a method that handles an [OnLogin \[► 376\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnLoginEventHandler(
    Object sender,
    TcHmiSrvAuthListener.OnLoginEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvAuthListener.OnLoginEventArgs [► 377] The TcHmiSrvAuthListener.OnLoginEventArgs [► 377] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.48 TcHmiSrvAuthListener.OnLogoutEventArgs Class

Provides data for an [OnLogout \[► 377\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvAuthListener.OnLogoutEventArgs](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnLogoutEventArgs : EventArgs
```

The TcHmiSrvAuthListener.OnLogoutEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvAuthListener.OnLogoutEventArgs [► 382]	Initializes a new instance of the TcHmiSrvAuthListener.OnLogoutEventArgs class.

Properties

	Name	Description
	Context [► 382]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.48.1 TcHmiSrvAuthListener.OnLogoutEventArgs Constructor

Initializes a new instance of the [TcHmiSrvAuthListener.OnLogoutEventArgs \[▸ 381\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnLogoutEventArgs(  
    Context context  
)
```

Parameters

context	Type: TcHmiSrv.Context [▸ 237] The Context [▸ 237] of the event.

Reference

[TcHmiSrvAuthListener.OnLogoutEventArgs Class \[▸ 381\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.48.2 OnLogoutEventArgs Properties

The [TcHmiSrvAuthListener.OnLogoutEventArgs \[▸ 381\]](#) type exposes the following members.

Properties

	Name	Description
	Context [▸ 382]	Gets the Context [▸ 237] of the event.

Reference

[TcHmiSrvAuthListener.OnLogoutEventArgs Class \[▸ 381\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.48.2.1 TcHmiSrvAuthListener.OnLogoutEventArgs.Context Property

Gets the [Context \[▸ 237\]](#) of the event.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[▸ 237\]](#)

Reference

[TcHmiSrvAuthListener.OnLogoutEventArgs Class \[▸ 381\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.48.3 OnLogoutEventArgs Methods

The [TcHmiSrvAuthListener.OnLogoutEventArgs \[► 381\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAuthListener.OnLogoutEventArgs Class \[► 381\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.49 TcHmiSrvAuthListener.OnLogoutEventHandler Delegate

Represents a method that handles an [OnLogout \[► 377\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnLogoutEventHandler(  
    Object sender,  
    TcHmiSrvAuthListener.OnLogoutEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvAuthListener.OnLogoutEventArgs [► 381] The TcHmiSrvAuthListener.OnLogoutEventArgs [► 381] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50 TcHmiSrvConfigListener Class

Provides a listener to interact with the configuration of the TwinCAT HMI server configuration.

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvListener [► 723]

TcHmiSrv.TcHmiSrvConfigListenerBase [► 675]

TcHmiSrv.TcHmiSrvConfigListener

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvConfigListener : TcHmiSrvConfigListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvConfigListener type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvConfigListener</u> [► 385]	Initializes a new instance of the TcHmiSrvConfigListener class

Properties

	Name	Description
	<u>Type</u> [► 725]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)

Methods

	Name	Description
	<u>Dispose.</u> [► 726]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)
	<u>Dispose(Boolean)</u> [► 677]	(Inherited from <u>TcHmiSrvConfigListenerBase</u> [► 675].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object.</u>)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object.</u>)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object.</u>)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object.</u>)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object.</u> (Inherited from <u>Object.</u>)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object.</u>)

Events

	Name	Description
	BeforeChange [▶ 387]	Called before a configuration Value [▶ 513] is changed. If the returned value does not equal HMI_SUCCESS [▶ 247], the change will be aborted. This method is also called for all parent elements in the path of the changed configuration Value [▶ 513].
	BeforeDelete [▶ 387]	Called before a configuration Value [▶ 513] is deleted. If the returned value does not equal HMI_SUCCESS [▶ 247], the deletion will be aborted.
	BeforeRename [▶ 388]	Called before a configuration Value [▶ 513] is renamed. If the returned value does not equal HMI_SUCCESS [▶ 247], renaming will be aborted.
	OnChange [▶ 388]	Called after a configuration Value [▶ 513] has been successfully changed. This method is also called for all parent elements in the path of the changed configuration Value [▶ 513].
	OnDelete [▶ 389]	Called after a configuration Value [▶ 513] has been deleted. This method is also called for all parent elements in the path of the deleted configuration Value [▶ 513].
	OnRename [▶ 389]	Called after a configuration Value [▶ 513] has been renamed.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.50.1 TcHmiSrvConfigListener Constructor

Initializes a new instance of the [TcHmiSrvConfigListener](#) [[▶ 384](#)] class

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvConfigListener()
```

Reference

[TcHmiSrvConfigListener Class](#) [[▶ 384](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.50.2 TcHmiSrvConfigListener Properties

The [TcHmiSrvConfigListener](#) [[▶ 384](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.3 TcHmiSrvConfigListener Methods

The [TcHmiSrvConfigListener \[► 384\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723] .)
	Dispose(Boolean) [► 677]	(Inherited from TcHmiSrvConfigListenerBase [► 675] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.4 TcHmiSrvConfigListener Events

The [TcHmiSrvConfigListener \[► 384\]](#) type exposes the following members.

Events

	Name	Description
	BeforeChange [► 387]	Called before a configuration Value [► 513] is changed. If the returned value does not equal HMI_SUCCESS [► 247] , the change will be aborted. This method is also called for all parent elements in the path of the changed configuration Value [► 513] .
	BeforeDelete [► 387]	Called before a configuration Value [► 513] is deleted. If the returned value does not equal HMI_SUCCESS [► 247] , the deletion will be aborted.
	BeforeRename [► 388]	Called before a configuration Value [► 513] is renamed. If the returned value does not equal HMI_SUCCESS [► 247] , renaming will be aborted.
	OnChange [► 388]	Called after a configuration Value [► 513] has been successfully changed. This method is also called for all parent elements in the path of the changed configuration Value [► 513] .
	OnDelete [► 389]	Called after a configuration Value [► 513] has been deleted. This method is also called for all parent elements in the path of the deleted configuration Value [► 513] .
	OnRename [► 389]	Called after a configuration Value [► 513] has been renamed.

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.4.1 TcHmiSrvConfigListener.BeforeChange Event

Called before a configuration [Value \[► 513\]](#) is changed.
If the returned value does not equal [HMI_SUCCESS \[► 247\]](#), the change will be aborted.
This method is also called for all parent elements in the path of the changed configuration [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.BeforeChangeEventHandler BeforeChange
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.BeforeChangeEventHandler \[► 393\]](#)

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.4.2 TcHmiSrvConfigListener.BeforeDelete Event

Called before a configuration [Value \[► 513\]](#) is deleted.
If the returned value does not equal [HMI_SUCCESS \[► 247\]](#), the deletion will be aborted.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.BeforeDeleteEventHandler BeforeDelete
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.BeforeDeleteEventHandler](#) [► 398]

Reference

[TcHmiSrvConfigListener Class](#) [► 384]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.50.4.3 TcHmiSrvConfigListener.BeforeRename Event

Called before a configuration [Value](#) [► 513] is renamed.

If the returned value does not equal [HMI_SUCCESS](#) [► 247], renaming will be aborted.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.BeforeRenameEventHandler BeforeRename
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.BeforeRenameEventHandler](#) [► 403]

Reference

[TcHmiSrvConfigListener Class](#) [► 384]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.50.4.4 TcHmiSrvConfigListener.OnChange Event

Called after a configuration [Value](#) [► 513] has been successfully changed.

This method is also called for all parent elements in the path of the changed configuration [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.OnChangeEventHandler OnChange
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.OnChangeEventHandler](#) [► 407]

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.4.5 TcHmiSrvConfigListener.OnDelete Event

Called after a configuration [Value \[► 513\]](#) has been deleted.

This method is also called for all parent elements in the path of the deleted configuration [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.OnDeleteEventHandler OnDelete
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.OnDeleteEventHandler \[► 411\]](#)

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.50.4.6 TcHmiSrvConfigListener.OnRename Event

Called after a configuration [Value \[► 513\]](#) has been renamed.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvConfigListener.OnRenameEventHandler OnRename
```

Value

Type: [TcHmiSrv.TcHmiSrvConfigListener.OnRenameEventHandler \[► 416\]](#)

Reference

[TcHmiSrvConfigListener Class \[► 384\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.51 TcHmiSrvConfigListener.BeforeChangeEventArgs Class

Provides data for a [BeforeChange \[► 387\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvConfigListener.BeforeChangeEventArgs](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: [TcHmiSrvExtNet \(in TcHmiSrvExtNet.dll\) Version: 3.0.0.0](#)

Syntax

C#

```
public class BeforeChangeEventArgs : EventArgs
```

The [TcHmiSrvConfigListener.BeforeChangeEventArgs](#) type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvConfigListener.BeforeChangeEventArgs [► 390]	Initializes a new instance of the TcHmiSrvConfigListener.BeforeChangeEventArgs class.

Properties

	Name	Description
	Context [► 391]	Gets the Context [► 237] of the event.
	Path [► 392]	Gets the path of the Value [► 513] to change.
	Reference [► 392]	Gets the name of the JSON schema reference of the Value [► 513] to change.
	Value [► 393]	Gets the Value [► 513] to change.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.51.1 TcHmiSrvConfigListener.BeforeChangeEventArgs Constructor

Initializes a new instance of the [TcHmiSrvConfigListener.BeforeChangeEventArgs \[► 389\]](#) class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public BeforeChangeEventArgs(  
    Context context,  
    string path,  
    Value value,  
    string reference  
)
```

Parameters

context	Type: TcHmiSrv.Context [▶ 237] The Context [▶ 237] of the event.
path	Type: System.String The path of the Value [▶ 513] to change.
value	Type: TcHmiSrv.Value [▶ 513] The Value [▶ 513] to change.
reference	Type: System.String The name of the JSON schema reference of the Value [▶ 513] to change.

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [[▶ 389](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.51.2 BeforeChangeEventArgs Properties

The [TcHmiSrvConfigListener.BeforeChangeEventArgs](#) [[▶ 389](#)] type exposes the following members.

Properties

	Name	Description
	Context [▶ 391]	Gets the Context [▶ 237] of the event.
	Path [▶ 392]	Gets the path of the Value [▶ 513] to change.
	Reference [▶ 392]	Gets the name of the JSON schema reference of the Value [▶ 513] to change.
	Value [▶ 393]	Gets the Value [▶ 513] to change.

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [[▶ 389](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.51.2.1 TcHmiSrvConfigListener.BeforeChangeEventArgs.Context Property

Gets the [Context](#) [[▶ 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [► 389]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.51.2.2 TcHmiSrvConfigListener.BeforeChangeEventArgs.Path Property

Gets the path of the [Value](#) [► 513] to change.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [► 389]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.51.2.3 TcHmiSrvConfigListener.BeforeChangeEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [► 513] to change.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [► 389]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.51.2.4 TcHmiSrvConfigListener.BeforeChangeEventArgs.Value Property

Gets the [Value](#) [► 513] to change.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [► 389]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.51.3 BeforeChangeEventArgs Methods

The [TcHmiSrvConfigListener.BeforeChangeEventArgs](#) [► 389] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvConfigListener.BeforeChangeEventArgs Class](#) [► 389]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.52 TcHmiSrvConfigListener.BeforeChangeEventHandler Delegate

Represents a method that handles a [BeforeChange](#) [► 387] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ResultPair BeforeChangeEventHandler(  
    Object sender,  
    TcHmiSrvConfigListener.BeforeChangeEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvConfigListener.BeforeChangeEventArgs [► 389] The TcHmiSrvConfigListener.BeforeChangeEventArgs [► 389] that contain the event data.

Return Value

Type: [ResultPair](#) [► 327]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.53 TcHmiSrvConfigListener.BeforeDeleteEventArgs Class

Provides data for a [BeforeDelete](#) [► 387] event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
[TcHmiSrv.TcHmiSrvConfigListener.BeforeDeleteEventArgs](#)

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class BeforeDeleteEventArgs : EventArgs
```

The TcHmiSrvConfigListener.BeforeDeleteEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvConfigListener.BeforeDeleteEventArgs [► 395]	Initializes a new instance of the TcHmiSrvConfigListener.BeforeDeleteEventArgs class.

Properties

	Name	Description
	Context [▸ 396]	Gets the Context [▸ 237] of the event.
	Path [▸ 397]	Gets the path of the Value [▸ 513] to delete.
	Reference [▸ 397]	Gets the name of the JSON schema reference of the Value [▸ 513] to delete.
	Value [▸ 397]	Gets the Value [▸ 513] to delete.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.53.1 TcHmiSrvConfigListener.BeforeDeleteEventArgs Constructor

Initializes a new instance of the [TcHmiSrvConfigListener.BeforeDeleteEventArgs](#) [[▸ 394](#)] class.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public BeforeDeleteEventArgs(
    Context context,
    string path,
    Value value,
    string reference
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
path	Type: System.String The path of the Value [► 513] to delete.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to delete.
reference	Type: System.String The name of the JSON schema reference of the Value [► 513] to delete.

Reference

[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class](#) [► 394]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.53.2 BeforeDeleteEventArgs Properties

The [TcHmiSrvConfigListener.BeforeDeleteEventArgs](#) [► 394] type exposes the following members.

Properties

	Name	Description
	Context [► 396]	Gets the Context [► 237] of the event.
	Path [► 397]	Gets the path of the Value [► 513] to delete.
	Reference [► 397]	Gets the name of the JSON schema reference of the Value [► 513] to delete.
	Value [► 397]	Gets the Value [► 513] to delete.

Reference

[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class](#) [► 394]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.53.2.1 TcHmiSrvConfigListener.BeforeDeleteEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class](#) [► 394]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.53.2.2 TcHmiSrvConfigListener.BeforeDeleteEventArgs.Path Property

Gets the path of the [Value \[► 513\]](#) to delete.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class \[► 394\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.53.2.3 TcHmiSrvConfigListener.BeforeDeleteEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value \[► 513\]](#) to delete.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class \[► 394\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.53.2.4 TcHmiSrvConfigListener.BeforeDeleteEventArgs.Value Property

Gets the [Value \[► 513\]](#) to delete.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property ValueType: [Value](#) [► 513]**Reference**[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class](#) [► 394][TcHmiSrv Namespace](#) [► 147]**2.1.3.53.3 BeforeDeleteEventArgs Methods**The [TcHmiSrvConfigListener.BeforeDeleteEventArgs](#) [► 394] type exposes the following members.**Methods**

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[TcHmiSrvConfigListener.BeforeDeleteEventArgs Class](#) [► 394][TcHmiSrv Namespace](#) [► 147]**2.1.3.54 TcHmiSrvConfigListener.BeforeDeleteEventHandler Delegate**Represents a method that handles a [BeforeDelete](#) [► 387] event.**Namespace:** [TcHmiSrv](#) [► 147]**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0**Syntax****C#**

```
public delegate ResultPair BeforeDeleteEventHandler(
    Object sender,
    TcHmiSrvConfigListener.BeforeDeleteEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvConfigListener.BeforeDeleteEventArgs [► 394] The TcHmiSrvConfigListener.BeforeDeleteEventArgs [► 394] that contain the event data.

Return Value

Type: [ResultPair](#) [[▸ 327](#)]

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.55 TcHmiSrvConfigListener.BeforeRenameEventArgs Class

Provides data for a [BeforeRename](#) [[▸ 388](#)] event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.TcHmiSrvConfigListener.BeforeRenameEventArgs

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class BeforeRenameEventArgs : EventArgs
```

The TcHmiSrvConfigListener.BeforeRenameEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvConfigListener.BeforeRenameEventArgs [▸ 400]	Initializes a new instance of the TcHmiSrvConfigListener.BeforeRenameEventArgs class.

Properties

	Name	Description
	Context [▸ 401]	Gets the Context [▸ 237] of the event.
	NewPath [▸ 401]	Gets the new path of the Value [▸ 513] to rename.
	OldPath [▸ 402]	Gets the old path of the Value [▸ 513] to rename.
	Reference [▸ 402]	Gets the name of the JSON schema reference of the Value [▸ 513] to rename.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.55.1 TcHmiSrvConfigListener.BeforeRenameEventArgs Constructor

Initializes a new instance of the [TcHmiSrvConfigListener.BeforeRenameEventArgs \[► 399\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public BeforeRenameEventArgs (
    Context context,
    string oldPath,
    string newPath,
    string reference
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
oldPath	Type: System.String The old path of the Value [► 513] to rename.
newPath	Type: System.String The new path of the Value [► 513] to rename.
reference	Type: System.String The name of the JSON schema reference of the Value [► 513] to rename.

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class \[► 399\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.55.2 BeforeRenameEventArgs Properties

The [TcHmiSrvConfigListener.BeforeRenameEventArgs \[► 399\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 401]	Gets the Context [► 237] of the event.
	NewPath [► 401]	Gets the new path of the Value [► 513] to rename.
	OldPath [► 402]	Gets the old path of the Value [► 513] to rename.
	Reference [► 402]	Gets the name of the JSON schema reference of the Value [► 513] to rename.

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class](#) [[► 399](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.55.2.1 TcHmiSrvConfigListener.BeforeRenameEventArgs.Context Property

Gets the [Context](#) [[► 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class](#) [[► 399](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.55.2.2 TcHmiSrvConfigListener.BeforeRenameEventArgs.NewPath Property

Gets the new path of the [Value](#) [[► 513](#)] to rename.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string NewPath { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class](#) [► 399]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.55.2.3 TcHmiSrvConfigListener.BeforeRenameEventArgs.OldPath Property

Gets the old path of the [Value](#) [► 513] to rename.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value OldPath { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class](#) [► 399]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.55.2.4 TcHmiSrvConfigListener.BeforeRenameEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [► 513] to rename.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.BeforeRenameEventArgs Class](#) [► 399]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.55.3 BeforeRenameEventArgs Methods

The [TcHmiSrvConfigListener.BeforeRenameEventArgs](#) [► 399] type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrvConfigListener.BeforeRenameEventArgs Class [[► 399](#)]

TcHmiSrv Namespace [[► 147](#)]

2.1.3.56 TcHmiSrvConfigListener.BeforeRenameEventHandler Delegate

Represents a method that handles a BeforeRename [[► 388](#)] event.

Namespace: TcHmiSrv [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public delegate ResultPair BeforeRenameEventHandler (
    Object sender,
    TcHmiSrvConfigListener.BeforeRenameEventArgs e
)
```

Parameters

sender	Type: <u>System.Object</u> The source of the event.
e	Type: <u>TcHmiSrv.TcHmiSrvConfigListener.BeforeRenameEventArgs</u> [► 399] The <u>TcHmiSrvConfigListener.BeforeRenameEventArgs</u> [► 399] that contain the event data.

Return Value

Type: ResultPair [[► 327](#)]

Reference

TcHmiSrv Namespace [[► 147](#)]

2.1.3.57 TcHmiSrvConfigListener.OnChangeEventArgs Class

Provides data for an OnChange [[► 388](#)] event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.TcHmiSrvConfigListener.OnChangeEventArgs

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnChangeEventArgs : EventArgs
```

The TcHmiSrvConfigListener.OnChangeEventArgs type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvConfigListener.OnChangeEventArgs [► 404]</u>	Initializes a new instance of the TcHmiSrvConfigListener.OnChangeEventArgs class.

Properties

	Name	Description
	<u>Context [► 405]</u>	Gets the <u>Context [► 237]</u> of the event.
	<u>Path [► 406]</u>	Gets the path of the changed <u>Value [► 513]</u> .
	<u>Reference [► 406]</u>	Gets the name of the JSON schema reference of the changed <u>Value [► 513]</u> .

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object.</u>)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object.</u>)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object.</u>)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object.</u>)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object.</u> (Inherited from <u>Object.</u>)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object.</u>)

Reference

TcHmiSrv Namespace [► 147]

2.1.3.57.1 TcHmiSrvConfigListener.OnChangeEventArgs Constructor

Initializes a new instance of the TcHmiSrvConfigListener.OnChangeEventArgs [► 403] class.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnChangeEventArgs(  
    Context context,  
    string path,  
    string reference  
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
path	Type: System.String The path of the changed Value [► 513].
reference	Type: System.String The name of the JSON schema reference of the changed Value [► 513].

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class](#) [► 403]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.57.2 OnChangeEventArgs Properties

The [TcHmiSrvConfigListener.OnChangeEventArgs](#) [► 403] type exposes the following members.

Properties

	Name	Description
	Context [► 405]	Gets the Context [► 237] of the event.
	Path [► 406]	Gets the path of the changed Value [► 513].
	Reference [► 406]	Gets the name of the JSON schema reference of the changed Value [► 513].

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class](#) [► 403]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.57.2.1 TcHmiSrvConfigListener.OnChangeEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class \[► 403\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.57.2.2 TcHmiSrvConfigListener.OnChangeEventArgs.Path Property

Gets the path of the changed [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class \[► 403\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.57.2.3 TcHmiSrvConfigListener.OnChangeEventArgs.Reference Property

Gets the name of the JSON schema reference of the changed [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class \[► 403\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.57.3 OnChangeEventArgs Methods

The [TcHmiSrvConfigListener.OnChangeEventArgs \[► 403\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvConfigListener.OnChangeEventArgs Class](#) [[► 403](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.58 TcHmiSrvConfigListener.OnChangeEventHandler Delegate

Represents a method that handles an [OnChange](#) [[► 388](#)] event.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public delegate ResultPair OnChangeEventHandler(
    Object sender,
    TcHmiSrvConfigListener.OnChangeEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvConfigListener.OnChangeEventArgs [► 403] The TcHmiSrvConfigListener.OnChangeEventArgs [► 403] that contain the event data.

Return Value

Type: [ResultPair](#) [[► 327](#)]

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.59 TcHmiSrvConfigListener.OnDeleteEventArgs Class

Provides data for an [OnDelete](#) [[► 389](#)] event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.TcHmiSrvConfigListener.OnDeleteEventArgs

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnDeleteEventArgs : EventArgs
```

The TcHmiSrvConfigListener.OnDeleteEventArgs type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvConfigListener.OnDeleteEventArgs [► 408]</u>	Initializes a new instance of the TcHmiSrvConfigListener.OnDeleteEventArgs class.

Properties

	Name	Description
	<u>Context [► 409]</u>	Gets the <u>Context [► 237]</u> of the event.
	<u>Path [► 410]</u>	Gets the current path.
	<u>Reference [► 410]</u>	Gets the name of the JSON schema reference of the deleted <u>Value [► 513]</u> .
	<u>Value [► 411]</u>	Gets the current value.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [► 147]

2.1.3.59.1 TcHmiSrvConfigListener.OnDeleteEventArgs Constructor

Initializes a new instance of the TcHmiSrvConfigListener.OnDeleteEventArgs [► 407] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnDeleteEventArgs(  
    Context context,  
    string path,  
    Value value,  
    string reference  
)
```

Parameters

context	Type: TcHmiSrv.Context [▶ 237] The Context [▶ 237] of the event.
path	Type: System.String The path of the deleted Value [▶ 513].
value	Type: TcHmiSrv.Value [▶ 513] The deleted Value [▶ 513].
reference	Type: System.String The name of the JSON schema reference of the deleted Value [▶ 513].

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [[▶ 407](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.59.2 OnDeleteEventArgs Properties

The [TcHmiSrvConfigListener.OnDeleteEventArgs](#) [[▶ 407](#)] type exposes the following members.

Properties

	Name	Description
	Context [▶ 409]	Gets the Context [▶ 237] of the event.
	Path [▶ 410]	Gets the current path.
	Reference [▶ 410]	Gets the name of the JSON schema reference of the deleted Value [▶ 513].
	Value [▶ 411]	Gets the current value.

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [[▶ 407](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.59.2.1 TcHmiSrvConfigListener.OnDeleteEventArgs.Context Property

Gets the [Context](#) [[▶ 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [► 407]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.59.2.2 TcHmiSrvConfigListener.OnDeleteEventArgs.Path Property

Gets the current path.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [► 407]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.59.2.3 TcHmiSrvConfigListener.OnDeleteEventArgs.Reference Property

Gets the name of the JSON schema reference of the deleted [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [► 407]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.59.2.4 TcHmiSrvConfigListener.OnDeleteEventArgs.Value Property

Gets the current value.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [[► 513](#)]

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [[► 407](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.59.3 OnDeleteEventArgs Methods

The [TcHmiSrvConfigListener.OnDeleteEventArgs](#) [[► 407](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvConfigListener.OnDeleteEventArgs Class](#) [[► 407](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.60 TcHmiSrvConfigListener.OnDeleteEventHandler Delegate

Represents a method that handles an [OnDelete](#) [[► 389](#)] event.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ResultPair OnDeleteEventHandler(  
    Object sender,  
    TcHmiSrvConfigListener.OnDeleteEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvConfigListener.OnDeleteEventArgs [► 407] The TcHmiSrvConfigListener.OnDeleteEventArgs [► 407] that contain the event data.

Return Value

Type: [ResultPair \[► 327\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.61 TcHmiSrvConfigListener.OnRenameEventArgs Class

Provides data for an [OnRename \[► 389\]](#) event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
[TcHmiSrv.TcHmiSrvConfigListener.OnRenameEventArgs](#)

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnRenameEventArgs : EventArgs
```

The TcHmiSrvConfigListener.OnRenameEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvConfigListener.OnRenameEventArgs [► 413]	Initializes a new instance of the TcHmiSrvConfigListener.OnRenameEventArgs class.

Properties

	Name	Description
	Context [► 414]	Gets the Context [► 237] of the event.
	NewPath [► 415]	Gets the new path of the renamed Value [► 513].
	OldPath [► 415]	Gets the old path of the renamed Value [► 513].
	Reference [► 415]	Gets the name of the JSON schema reference of the renamed Value [► 513].

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.61.1 TcHmiSrvConfigListener.OnRenameEventArgs Constructor

Initializes a new instance of the [TcHmiSrvConfigListener.OnRenameEventArgs](#) [[► 412](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnRenameEventArgs(
    Context context,
    string oldPath,
    string newPath,
    string reference
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
oldPath	Type: System.String The old path of the renamed Value [► 513].
newPath	Type: System.String The new path of the renamed Value [► 513].
reference	Type: System.String The name of the JSON schema reference of the renamed Value [► 513].

Reference

[TcHmiSrvConfigListener.OnRenameEventArgs Class](#) [► 412]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.61.2 OnRenameEventArgs Properties

The [TcHmiSrvConfigListener.OnRenameEventArgs](#) [► 412] type exposes the following members.

Properties

	Name	Description
	Context [► 414]	Gets the Context [► 237] of the event.
	NewPath [► 415]	Gets the new path of the renamed Value [► 513].
	OldPath [► 415]	Gets the old path of the renamed Value [► 513].
	Reference [► 415]	Gets the name of the JSON schema reference of the renamed Value [► 513].

Reference

[TcHmiSrvConfigListener.OnRenameEventArgs Class](#) [► 412]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.61.2.1 TcHmiSrvConfigListener.OnRenameEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvConfigListener.OnRenameEventArgs Class](#) [► 412]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.61.2.2 TcHmiSrvConfigListener.OnRenameEventArgs.NewPath Property

Gets the new path of the renamed [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string NewPath { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvConfigListener.OnRenameEventArgs Class \[► 412\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.61.2.3 TcHmiSrvConfigListener.OnRenameEventArgs.OldPath Property

Gets the old path of the renamed [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value OldPath { get; }
```

Property Value

Type: [Value \[► 513\]](#)

Reference

[TcHmiSrvConfigListener.OnRenameEventArgs Class \[► 412\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.61.2.4 TcHmiSrvConfigListener.OnRenameEventArgs.Reference Property

Gets the name of the JSON schema reference of the renamed [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property ValueType: [String](#)**Reference**[TcHmiSrvConfigListener.OnRenameEventArgs Class \[► 412\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.61.3 OnRenameEventArgs Methods**The [TcHmiSrvConfigListener.OnRenameEventArgs \[► 412\]](#) type exposes the following members.**Methods**

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[TcHmiSrvConfigListener.OnRenameEventArgs Class \[► 412\]](#)[TcHmiSrv Namespace \[► 147\]](#)**2.1.3.62 TcHmiSrvConfigListener.OnRenameEventHandler Delegate**Represents a method that handles an [OnRename \[► 389\]](#) event.**Namespace:** [TcHmiSrv \[► 147\]](#)**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0**Syntax****C#**

```
public delegate ResultPair OnRenameEventHandler(
    Object sender,
    TcHmiSrvConfigListener.OnRenameEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvConfigListener.OnRenameEventArgs [► 412] The TcHmiSrvConfigListener.OnRenameEventArgs [► 412] that contain the event data.

Return Value

Type: [ResultPair](#) [[▶ 327](#)]

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.63 TcHmiSrvEventListener Class

Provides a listener to interact with the event system of the TwinCAT HMI server.

Inheritance Hierarchy

[System.Object](#)
[TcHmiSrv.TcHmiSrvListener](#) [[▶ 723](#)]
[TcHmiSrv.TcHmiSrvEventListenerBase](#) [[▶ 689](#)]
[TcHmiSrv.TcHmiSrvEventListener](#)

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvEventListener : TcHmiSrvEventListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvEventListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvEventListener [▶ 418]	Initializes a new instance of the TcHmiSrvEventListener class

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Methods

	Name	Description
	Dispose [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 690]	(Inherited from TcHmiSrvEventListenerBase [► 689].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	Filter [► 420]	Obsolete. Not used anymore.
	OnChange [► 420]	Called when an Event [► 253] is changed.
	OnListEvents [► 421]	Called when the Event [► 253]s are listed.
	OnReceive [► 422]	Called when an extension is loaded and it's initial list of Event [► 253]s is fetched.
	OnRequest [► 421]	Obsolete. Not used anymore.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.63.1 TcHmiSrvEventListener Constructor

Initializes a new instance of the [TcHmiSrvEventListener](#) [[► 417](#)] class

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public TcHmiSrvEventListener()
```

Reference

[TcHmiSrvEventListener Class](#) [[► 417](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.63.2 TcHmiSrvEventListener Properties

The [TcHmiSrvEventListener](#) [► 417] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvEventListener Class](#) [► 417]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.63.3 TcHmiSrvEventListener Methods

The [TcHmiSrvEventListener](#) [► 417] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 690]	(Inherited from TcHmiSrvEventListenerBase [► 689].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListener Class](#) [► 417]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.63.4 TcHmiSrvEventListener Events

The [TcHmiSrvEventListener](#) [► 417] type exposes the following members.

Events

	Name	Description
	Filter [▸ 420]	Obsolete. Not used anymore.
	OnChange [▸ 420]	Called when an Event [▸ 253] is changed.
	OnListEvents [▸ 421]	Called when the Event [▸ 253]s are listed.
	OnReceive [▸ 422]	Called when an extension is loaded and it's initial list of Event [▸ 253]s is fetched.
	OnRequest [▸ 421]	Obsolete. Not used anymore.

Reference

[TcHmiSrvEventListener Class](#) [[▸ 417](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.63.4.1 TcHmiSrvEventListener.Filter Event

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Event 'TcHmiSrv.TcHmiSrvEventListenerLocalizationListener.Filter' is obsolete.",
    true)]
public event TcHmiSrvEventListener.FilterEventHandler Filter
```

Value

Type: [TcHmiSrv.TcHmiSrvEventListener.FilterEventHandler](#) [[▸ 422](#)]

Reference

[TcHmiSrvEventListener Class](#) [[▸ 417](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.63.4.2 TcHmiSrvEventListener.OnChange Event

Called when an [Event](#) [[▸ 253](#)] is changed.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvEventListener.OnChangeEventHandler OnChange
```


Value

Type: [TcHmiSrv.TcHmiSrvEventListener.OnChangeEventHandler](#) [► 426]

Reference

[TcHmiSrvEventListener Class](#) [► 417]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.63.4.3 TcHmiSrvEventListener.OnRequest Event

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
[ObsoleteAttribute("Event 'TcHmiSrv.TcHmiSrvEventListener.OnRequestEventHandler' is obsolete.",  
true)]  
public event TcHmiSrvEventListener.OnRequestEventHandler OnRequest
```

Value

Type: [TcHmiSrv.TcHmiSrvEventListener.OnRequestEventHandler](#) [► 431]

Reference

[TcHmiSrvEventListener Class](#) [► 417]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.63.4.4 TcHmiSrvEventListener.OnListEvents Event

Called when the [Event](#) [► 253]s are listed.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvEventListener.OnListEventsEventHandler OnListEvents
```

Value

Type: [TcHmiSrv.TcHmiSrvEventListener.OnListEventsEventHandler](#) [► 684]

Reference

[TcHmiSrvEventListener Class](#) [► 417]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.63.4.5 TcHmiSrvEventListener.OnReceive Event

Called when an extension is loaded and it's initial list of [Event \[► 253\]](#)s is fetched.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvEventListener.OnReceiveEventHandler OnReceive
```

Value

Type: [TcHmiSrv.TcHmiSrvEventListener.OnReceiveEventHandler \[► 688\]](#)

Reference

- [TcHmiSrvEventListener Class \[► 417\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.64 TcHmiSrvEventListener.FilterEventHandler Delegate

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Delegate 'TcHmiSrv.TcHmiSrvEventListener.FilterEventHandler' is obsolete.", true)]  
public delegate EventChangeFlags FilterEventHandler(  
    Object sender,  
    EventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: System.EventArgs An instance of the EventArgs class that contains the event data.

Return Value

Type: [EventChangeFlags \[► 264\]](#)

Reference

- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.65 TcHmiSrvEventListener.OnChangeEventArgs Class

Provides data for an [OnChange \[► 420\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.TcHmiSrvEventListener.OnChangeEventArgs

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnChangeEventArgs : EventArgs
```

The TcHmiSrvEventListener.OnChangeEventArgs type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvEventListener.OnChangeEventArgs</u> [► 423]	Initializes a new instance of the TcHmiSrvEventListener.OnChangeEventArgs class.

Properties

	Name	Description
	<u>Context</u> [► 424]	Gets the <u>Context</u> [► 237] of the event.
	<u>Event</u> [► 425]	Gets the changed <u>Event</u> [► 253].
	<u>ExtensionSessionId</u> [► 425]	Gets the extension session identifier.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [► 147]

2.1.3.65.1 TcHmiSrvEventListener.OnChangeEventArgs Constructor

Initializes a new instance of the TcHmiSrvEventListener.OnChangeEventArgs [► 422] class.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnChangeEventArgs(
    Context context,
    Event event,
    String extensionSessionId
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
event	Type: TcHmiSrv.Event [► 253] The changed Event [► 253].
extensionSessionId	Type: TcHmiSrv.String [► 346] Unique identifier of an extension that changes when the extension is reloaded. Empty if the extension that changed the event doesn't implement TcHmiSrvAlarmProviderListener [► 359].

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [► 422]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.65.2 OnChangeEventArgs Properties

The [TcHmiSrvEventListener.OnChangeEventArgs](#) [► 422] type exposes the following members.

Properties

	Name	Description
	Context [► 424]	Gets the Context [► 237] of the event.
	Event [► 425]	Gets the changed Event [► 253].
	ExtensionSessionId [► 425]	Gets the extension session identifier.

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [► 422]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.65.2.1 TcHmiSrvEventListener.OnChangeEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [► 422]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.65.2.2 TcHmiSrvEventListener.OnChangeEventArgs.Event Property

Gets the changed [Event](#) [► 253].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Event Event { get; }
```

Property Value

Type: [Event](#) [► 253]

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [► 422]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.65.2.3 TcHmiSrvEventListener.OnChangeEventArgs.ExtensionSessionId Property

Gets the extension session identifier.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String ExtensionSessionId { get; }
```

Property Value

Type: [String](#) [► 346]

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [► 422]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.65.3 OnChangeEventArgs Methods

The [TcHmiSrvEventListener.OnChangeEventArgs](#) [► 422] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListener.OnChangeEventArgs Class](#) [\[► 422\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.66 TcHmiSrvEventListener.OnChangeEventHandler Delegate

Represents a method that handles an [OnChange](#) [\[► 420\]](#) event.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnChangeEventHandler(
    Object sender,
    TcHmiSrvEventListener.OnChangeEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvEventListener.OnChangeEventArgs [► 422] The TcHmiSrvEventListener.OnChangeEventArgs [► 422] that contain the event data.

Return Value

Type: [ErrorValue](#) [\[► 247\]](#)

Reference

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.67 TcHmiSrvEventListener.OnRequestEventArgs Class

Note: This API is now obsolete.

Not used anymore.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.TcHmiSrvEventListener.OnRequestEventArgs

Namespace: TcHmiSrv [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.TcHmiSrvAlarmProviderListener.OnRequestEventArgs' class is obsolete.")]
public class OnRequestEventArgs : EventArgs
```

The TcHmiSrvEventListener.OnRequestEventArgs type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvEventListener.OnRequestEventArgs</u> [▶ 428]	Initializes a new instance of the TcHmiSrvEventListener.OnRequestEventArgs class.

Properties

	Name	Description
	<u>Context</u> [▶ 428]	Gets the <u>Context</u> [▶ 237] of the event.
	<u>Locale</u> [▶ 429]	Gets the locale in BCP 47 representation.
	<u>Localizable</u> [▶ 430]	Gets the <u>ILocalizable</u> [▶ 642] object to localize.
	<u>Localized</u> [▶ 429]	Gets the localized <u>String</u> [▶ 346].

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [[▶ 147](#)]

2.1.3.67.1 TcHmiSrvEventListener.OnRequestEventArgs Constructor

Initializes a new instance of the [TcHmiSrvEventListener.OnRequestEventArgs](#) [► 426] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnRequestEventArgs (
    Context context,
    string locale,
    ILocalizable localizable
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
locale	Type: System.String The locale in BCP 47 representation.
localizable	Type: TcHmiSrv.ILocalizable [► 642] The ILocalizable [► 642] object to localize.

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [► 426]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.67.2 OnRequestEventArgs Properties

The [TcHmiSrvEventListener.OnRequestEventArgs](#) [► 426] type exposes the following members.

Properties

	Name	Description
	Context [► 428]	Gets the Context [► 237] of the event.
	Locale [► 429]	Gets the locale in BCP 47 representation.
	Localizable [► 430]	Gets the ILocalizable [► 642] object to localize.
	Localized [► 429]	Gets the localized String [► 346].

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [► 426]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.67.2.1 TcHmiSrvEventListener.OnRequestEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [[► 426](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.67.2.2 TcHmiSrvEventListener.OnRequestEventArgs.Locale Property

Gets the locale in BCP 47 representation.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Locale { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [[► 426](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.67.2.3 TcHmiSrvEventListener.OnRequestEventArgs.Localized Property

Gets the localized [String](#) [[► 346](#)].

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String Localized { get; }
```

Property Value

Type: [String](#) [[► 346](#)]

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [[► 426](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.67.2.4 TcHmiSrvEventListener.OnRequestEventArgs.Object Property

Gets the current localizeable object.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public ILocalizable Object { get; }
```

Property Value

Type: [ILocalizable](#) [[▶ 265](#)]

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [[▶ 426](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.67.2.5 TcHmiSrvEventListener.OnRequestEventArgs.Localizable Property

Gets the [ILocalizable](#) [[▶ 642](#)] object to localize.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ILocalizable Localizable { get; }
```

Property Value

Type: [ILocalizable](#) [[▶ 642](#)]

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [[▶ 426](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.67.3 OnRequestEventArgs Methods

The [TcHmiSrvEventListener.OnRequestEventArgs](#) [[▶ 426](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListener.OnRequestEventArgs Class](#) [► 426]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.68 TcHmiSrvEventListener.OnRequestEventHandler Delegate

Note: This API is now obsolete.

Not used anymore.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
[ObsoleteAttribute("Delegate 'TcHmiSrv.TcHmiSrvEventListener.OnRequestEventHandler' is obsolete.",
true)]
public delegate ErrorValue OnRequestEventHandler(
    Object sender,
    TcHmiSrvEventListener.OnRequestEventArgs e
)
```

Parameters

sender	Type: System.Object
e	Type: TcHmiSrv.TcHmiSrvEventListener.OnRequestEventArgs [► 426]

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.69 TcHmiSrvExportListener Class

Provides a listener to react on configuration exports and imports.

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvListener [► 723]

TcHmiSrv.TcHmiSrvExportListenerBase [► 704]

TcHmiSrv.TcHmiSrvExportListener

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvExportListener : TcHmiSrvExportListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvExportListener type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvExportListener</u> [► 433]	Initializes a new instance of the TcHmiSrvExportListener class

Properties

	Name	Description
	<u>Type</u> [► 725]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)

Methods

	Name	Description
	<u>Dispose.</u> [► 726]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)
	<u>Dispose(Boolean)</u> [► 706]	(Inherited from <u>TcHmiSrvExportListenerBase</u> [► 704].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object.</u>)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object.</u>)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object.</u>)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object.</u>)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object.</u> (Inherited from <u>Object.</u>)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object.</u>)

Events

	Name	Description
	BeforeExport [▶ 434]	Called before a configuration export. If the Result [▶ 331] of the returned value does not equal HMI SUCCESS [▶ 247], the configuration export will be aborted. With complex data, this method is called for every path.
	BeforeImport [▶ 435]	Called before a configuration import. If the Result [▶ 331] of the returned value does not equal HMI SUCCESS [▶ 247], the configuration import will be aborted. With complex data, this method is called for every path.

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.69.1 TcHmiSrvExportListener Constructor

Initializes a new instance of the [TcHmiSrvExportListener](#) [[▶ 431](#)] class

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvExportListener()
```

Reference

[TcHmiSrvExportListener Class](#) [[▶ 431](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.69.2 TcHmiSrvExportListener Properties

The [TcHmiSrvExportListener](#) [[▶ 431](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Reference

[TcHmiSrvExportListener Class](#) [[▶ 431](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.69.3 TcHmiSrvExportListener Methods

The [TcHmiSrvExportListener](#) [[▶ 431](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 706]	(Inherited from TcHmiSrvExportListenerBase [► 704].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvExportListener Class](#) [[► 431](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.69.4 TcHmiSrvExportListener Events

The [TcHmiSrvExportListener](#) [[► 431](#)] type exposes the following members.

Events

	Name	Description
	BeforeExport [► 434]	Called before a configuration export. If the Result [► 331] of the returned value does not equal HMI_SUCCESS [► 247], the configuration export will be aborted. With complex data, this method is called for every path.
	BeforeImport [► 435]	Called before a configuration import. If the Result [► 331] of the returned value does not equal HMI_SUCCESS [► 247], the configuration import will be aborted. With complex data, this method is called for every path.

Reference

[TcHmiSrvExportListener Class](#) [[► 431](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.69.4.1 TcHmiSrvExportListener.BeforeExport Event

Called before a configuration export.

If the [Result](#) [[► 331](#)] of the returned value does not equal [HMI_SUCCESS](#) [[► 247](#)], the configuration export will be aborted.

With complex data, this method is called for every path.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvExportListener.BeforeExportEventHandler BeforeExport
```

Value

Type: [TcHmiSrv.TcHmiSrvExportListener.BeforeExportEventHandler](#) [► 440]

Reference

[TcHmiSrvExportListener Class](#) [► 431]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.69.4.2 TcHmiSrvExportListener.BeforeImport Event

Called before a configuration import.

If the [Result](#) [► 331] of the returned value does not equal [HMI_SUCCESS](#) [► 247], the configuration import will be aborted.

With complex data, this method is called for every path.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvExportListener.BeforeImportEventHandler BeforeImport
```

Value

Type: [TcHmiSrv.TcHmiSrvExportListener.BeforeImportEventHandler](#) [► 445]

Reference

[TcHmiSrvExportListener Class](#) [► 431]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.70 TcHmiSrvExportListener.BeforeExportEventArgs Class

Provides data for a [BeforeExport](#) [► 434] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

 TcHmiSrv.TcHmiSrvExportListener.BeforeExportEventArgs

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class BeforeExportEventArgs : EventArgs
```

The TcHmiSrvExportListener.BeforeExportEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvExportListener.BeforeExportEventArgs [► 436]	Initializes a new instance of the TcHmiSrvExportListener.BeforeExportEventArgs class.

Properties

	Name	Description
	Context [► 437]	Gets the Context [► 237] of the event.
	Path [► 438]	Gets the path of the Value [► 513] to export.
	Reference [► 438]	Gets the name of the JSON schema reference of the Value [► 513] to export.
	Root [► 438]	Gets the root Value [► 513] that contains the whole data to export.
	Value [► 439]	Gets the Value [► 513] to export.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.70.1 TcHmiSrvExportListener.BeforeExportEventArgs Constructor

Initializes a new instance of the [TcHmiSrvExportListener.BeforeExportEventArgs](#) [[► 435](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public BeforeExportEventArgs (
    Context context,
    string path,
    Value value,
    Value root,
    string reference
)
```


Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
path	Type: System.String The path of the Value [► 513] to export.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to export.
root	Type: TcHmiSrv.Value [► 513] The root Value [► 513] that contains the whole data to export.
reference	Type: System.String The name of the JSON schema reference of the Value [► 513] to export.

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [► 435]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.70.2 BeforeExportEventArgs Properties

The [TcHmiSrvExportListener.BeforeExportEventArgs](#) [► 435] type exposes the following members.

Properties

	Name	Description
	Context [► 437]	Gets the Context [► 237] of the event.
	Path [► 438]	Gets the path of the Value [► 513] to export.
	Reference [► 438]	Gets the name of the JSON schema reference of the Value [► 513] to export.
	Root [► 438]	Gets the root Value [► 513] that contains the whole data to export.
	Value [► 439]	Gets the Value [► 513] to export.

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [► 435]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.70.2.1 TcHmiSrvExportListener.BeforeExportEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [[► 435](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.70.2.2 TcHmiSrvExportListener.BeforeExportEventArgs.Path Property

Gets the path of the [Value](#) [[► 513](#)] to export.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [[► 435](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.70.2.3 TcHmiSrvExportListener.BeforeExportEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [[► 513](#)] to export.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [[► 435](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.70.2.4 TcHmiSrvExportListener.BeforeExportEventArgs.Root Property

Gets the root [Value](#) [[► 513](#)] that contains the whole data to export.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Root { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [► 435]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.70.2.5 TcHmiSrvExportListener.BeforeExportEventArgs.Value Property

Gets the [Value](#) [► 513] to export.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[TcHmiSrvExportListener.BeforeExportEventArgs Class](#) [► 435]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.70.3 BeforeExportEventArgs Methods

The [TcHmiSrvExportListener.BeforeExportEventArgs](#) [► 435] type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrvExportListener.BeforeExportEventArgs Class [► 435]

TcHmiSrv Namespace [► 147]

2.1.3.71 TcHmiSrvExportListener.BeforeExportEventHandler Delegate

Represents a method that handles a BeforeExport [► 434] event.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ResultPair BeforeExportEventHandler (
    Object sender,
    TcHmiSrvExportListener.BeforeExportEventArgs e
)
```

Parameters

sender	Type: <u>System.Object</u> The source of the event.
e	Type: <u>TcHmiSrv.TcHmiSrvExportListener.BeforeExportEventArgs</u> [► <u>435</u>] The <u>TcHmiSrvExportListener.BeforeExportEventArgs</u> [► <u>435</u>] that contain the event data.

Return Value

Type: ResultPair [► 327]

Reference

TcHmiSrv Namespace [► 147]

2.1.3.72 TcHmiSrvExportListener.BeforeImportEventArgs Class

Provides data for a BeforeImport [► 435] event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.TcHmiSrvExportListener.BeforeImportEventArgs

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class BeforeImportEventArgs : EventArgs
```

The TcHmiSrvExportListener.BeforeImportEventArgs type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvExportListener.BeforeImportEventArgs</u> [► 442]	Initializes a new instance of the TcHmiSrvExportListener.BeforeImportEventArgs class.

Properties

	Name	Description
	<u>Context</u> [► 443]	Gets the <u>Context</u> [► 237] of the event.
	<u>Path</u> [► 443]	Gets the path of the <u>Value</u> [► 513] to import.
	<u>Reference</u> [► 443]	Gets the name of the JSON schema reference of the <u>Value</u> [► 513] to import.
	<u>Root</u> [► 444]	Gets the root <u>Value</u> [► 513] that contains the whole data to import.
	<u>Value</u> [► 444]	Gets the <u>Value</u> [► 513] to import.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [► 147]

2.1.3.72.1 TcHmiSrvExportListener.BeforeImportEventArgs Constructor

Initializes a new instance of the [TcHmiSrvExportListener.BeforeImportEventArgs \[► 440\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public BeforeImportEventArgs (
    Context context,
    string path,
    Value value,
    Value root,
    string reference
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
path	Type: System.String The path of the Value [► 513] to import.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to import.
root	Type: TcHmiSrv.Value [► 513] The root Value [► 513] that contains the whole data to import.
reference	Type: System.String The name of the JSON schema reference of the Value [► 513] to import.

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class \[► 440\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.72.2 BeforeImportEventArgs Properties

The [TcHmiSrvExportListener.BeforeImportEventArgs \[► 440\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 443]	Gets the Context [► 237] of the event.
	Path [► 443]	Gets the path of the Value [► 513] to import.
	Reference [► 443]	Gets the name of the JSON schema reference of the Value [► 513] to import.
	Root [► 444]	Gets the root Value [► 513] that contains the whole data to import.
	Value [► 444]	Gets the Value [► 513] to import.

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class \[► 440\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.72.2.1 TcHmiSrvExportListener.BeforeImportEventArgs.Context Property

Gets the [Context \[► 237\]](#) of the event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 237\]](#)

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class \[► 440\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.72.2.2 TcHmiSrvExportListener.BeforeImportEventArgs.Path Property

Gets the path of the [Value \[► 513\]](#) to import.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class \[► 440\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.72.2.3 TcHmiSrvExportListener.BeforeImportEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value \[► 513\]](#) to import.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class](#) [[► 440](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.72.2.4 TcHmiSrvExportListener.BeforeImportEventArgs.Root Property

Gets the root [Value](#) [[► 513](#)] that contains the whole data to import.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Root { get; }
```

Property Value

Type: [Value](#) [[► 513](#)]

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class](#) [[► 440](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.72.2.5 TcHmiSrvExportListener.BeforeImportEventArgs.Value Property

Gets the [Value](#) [[► 513](#)] to import.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [[► 513](#)]

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class](#) [[► 440](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.72.3 BeforeImportEventArgs Methods

The [TcHmiSrvExportListener.BeforeImportEventArgs](#) [[► 440](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvExportListener.BeforeImportEventArgs Class](#) [► 440]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.73 TcHmiSrvExportListener.BeforeImportEventHandler Delegate

Represents a method that handles a [BeforeImport](#) [► 435] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ResultPair BeforeImportEventHandler (
    Object sender,
    TcHmiSrvExportListener.BeforeImportEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvExportListener.BeforeImportEventArgs [► 440] The TcHmiSrvExportListener.BeforeImportEventArgs [► 440] that contain the event data.

Return Value

Type: [ResultPair](#) [► 327]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.74 TcHmiSrvExt Class

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvExt

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvExt
```

The TcHmiSrvExt type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvExt</u> [► 447]	Initializes a new instance of the TcHmiSrvExt class

Properties

	Name	Description
 	<u>CFG VERSION</u> [► 447]	

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Fields

	Name	Description
 	<u>TCHMISRVEXT API VERSION</u> [► 448]	

Reference

TcHmiSrv Namespace [► 147]

2.1.3.74.1 TcHmiSrvExt Constructor

Initializes a new instance of the [TcHmiSrvExt \[▸ 446\]](#) class

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvExt()
```

Reference

[TcHmiSrvExt Class \[▸ 446\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.74.2 TcHmiSrvExt Properties

The [TcHmiSrvExt \[▸ 446\]](#) type exposes the following members.

Properties

	Name	Description
	CFG_VERSION [▸ 447]	
		

Reference

[TcHmiSrvExt Class \[▸ 446\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.74.2.1 TcHmiSrvExt.CFG_VERSION Property

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static string CFG_VERSION { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvExt Class \[▸ 446\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.74.3 TcHmiSrvExt Methods

The [TcHmiSrvExt \[▸ 446\]](#) type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrvExt Class [[► 446](#)]

TcHmiSrv Namespace [[► 147](#)]

2.1.3.74.4 TcHmiSrvExt Fields

The TcHmiSrvExt [[► 446](#)] type exposes the following members.

Fields

	Name	Description
 	<u>TCHMISRVEXT_API_VERSION</u> [► 448]	

Reference

TcHmiSrvExt Class [[► 446](#)]

TcHmiSrv Namespace [[► 147](#)]

2.1.3.74.4.1 TcHmiSrvExt.TCHMISRVEXT_API_VERSION Field

Namespace: TcHmiSrv [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public static readonly int TCHMISRVEXT_API_VERSION
```

Field Value

Type: Int32

Reference

TcHmiSrvExt Class [[► 446](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.75 TcHmiSrvRequestListener Class

Provides a listener to invoke read-write requests and subscriptions.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener \[► 723\]](#)

[TcHmiSrv.TcHmiSrvRequestListenerBase \[► 727\]](#)

[TcHmiSrv.TcHmiSrvRequestListener](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvRequestListener : TcHmiSrvRequestListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvRequestListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvRequestListener [► 450]	Initializes a new instance of the TcHmiSrvRequestListener class

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723] .)
	Dispose(Boolean) [► 729]	(Inherited from TcHmiSrvRequestListenerBase [► 727] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Events

	Name	Description
	OnRequest [► 451]	Called when a client requests a symbol from the domain of the TwinCAT HMI server extension. This event will be called multiple times if RequestType [► 241] equals RequestType Subscription [► 327]. In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.75.1 TcHmiSrvRequestListener Constructor

Initializes a new instance of the [TcHmiSrvRequestListener](#) [[► 449](#)] class

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public TcHmiSrvRequestListener ()
```

Reference

[TcHmiSrvRequestListener Class](#) [[► 449](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.75.2 TcHmiSrvRequestListener Properties

The [TcHmiSrvRequestListener](#) [[► 449](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvRequestListener Class](#) [[► 449](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.75.3 TcHmiSrvRequestListener Methods

The [TcHmiSrvRequestListener](#) [[► 449](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 729]	(Inherited from TcHmiSrvRequestListenerBase [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvRequestListener Class](#) [[► 449](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.75.4 TcHmiSrvRequestListener Events

The [TcHmiSrvRequestListener](#) [[► 449](#)] type exposes the following members.

Events

	Name	Description
	OnRequest [► 451]	Called when a client requests a symbol from the domain of the TwinCAT HMI server extension. This event will be called multiple times if RequestType [► 241] equals RequestType Subscription [► 327]. In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Reference

[TcHmiSrvRequestListener Class](#) [[► 449](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.75.4.1 TcHmiSrvRequestListener.OnRequest Event

Called when a client requests a symbol from the domain of the TwinCAT HMI server extension.
This event will be called multiple times if [RequestType](#) [[► 241](#)] equals [RequestType Subscription](#) [[► 327](#)].
In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvRequestListener.OnRequestEventHandler OnRequest
```

Value

Type: [TcHmiSrv.TcHmiSrvRequestListener.OnRequestEventHandler](#) [[▶ 455](#)]

Reference

[TcHmiSrvRequestListener Class](#) [[▶ 449](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.76 TcHmiSrvRequestListener.OnRequestEventArgs Class

Provides data for an [OnRequest](#) [[▶ 451](#)] event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.TcHmiSrvRequestListener.OnRequestEventArgs

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnRequestEventArgs : EventArgs
```

The TcHmiSrvRequestListener.OnRequestEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvRequestListener.OnRequestEventArgs [▶ 453]	Initializes a new instance of the TcHmiSrvRequestListener.OnRequestEventArgs class.

Properties

	Name	Description
	Commands [▶ 454]	Gets the Command [▶ 188]s to invoke.
	Context [▶ 454]	Gets the Context [▶ 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.76.1 TcHmiSrvRequestListener.OnRequestEventArgs Constructor

Initializes a new instance of the [TcHmiSrvRequestListener.OnRequestEventArgs \[► 452\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnRequestEventArgs (
    Context context,
    CommandGroup commands
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
commands	Type: TcHmiSrv.CommandGroup [► 204] The Command [► 188] s to invoke.

Reference

[TcHmiSrvRequestListener.OnRequestEventArgs Class \[► 452\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.76.2 OnRequestEventArgs Properties

The [TcHmiSrvRequestListener.OnRequestEventArgs \[► 452\]](#) type exposes the following members.

Properties

	Name	Description
	Commands [► 454]	Gets the Command [► 188]s to invoke.
	Context [► 454]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvRequestListener.OnRequestEventArgs Class](#) [► 452]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.76.2.1 TcHmiSrvRequestListener.OnRequestEventArgs.Commands Property

Gets the [Command](#) [► 188]s to invoke.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public CommandGroup Commands { get; }
```

Property Value

Type: [CommandGroup](#) [► 204]

Reference

[TcHmiSrvRequestListener.OnRequestEventArgs Class](#) [► 452]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.76.2.2 TcHmiSrvRequestListener.OnRequestEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvRequestListener.OnRequestEventArgs Class](#) [► 452]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.76.3 OnRequestEventArgs Methods

The [TcHmiSrvRequestListener.OnRequestEventArgs](#) [► 452] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvRequestListener.OnRequestEventArgs Class](#) [► 452]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.77 TcHmiSrvRequestListener.OnRequestEventHandler Delegate

Represents the method that handles an [OnRequest](#) [► 451] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnRequestEventHandler(  
    Object sender,  
    TcHmiSrvRequestListener.OnRequestEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvRequestListener.OnRequestEventArgs [► 452] The TcHmiSrvRequestListener.OnRequestEventArgs [► 452] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.78 TcHmiSrvSessionListener Class

Provides a listener to observe the connections of the TwinCAT HMI server.

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvListener [► 723]

TcHmiSrv.TcHmiSrvSessionListenerBase [► 730]

TcHmiSrv.TcHmiSrvSessionListener

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvSessionListener : TcHmiSrvSessionListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvSessionListener type exposes the following members.

Constructors

	Name	Description
	<u>TcHmiSrvSessionListener</u> [► 457]	Initializes a new instance of the TcHmiSrvSessionListener class

Properties

	Name	Description
	<u>Type</u> [► 725]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)

Methods

	Name	Description
	<u>Dispose.</u> [► 726]	(Inherited from <u>TcHmiSrvListener</u> [► 723].)
	<u>Dispose(Boolean)</u> [► 732]	(Inherited from <u>TcHmiSrvSessionListenerBase</u> [► 730].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Events

	Name	Description
	OnCloseWebsocket [► 458]	Called when an existing WebSocket connection is closed.
	OnCreateWebsocket [► 459]	Called when a new WebSocket connection is created.
	OnLogin [► 459]	Called when a user is logged in.
	OnLogout [► 459]	Called when a user is logged out.

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.78.1 TcHmiSrvSessionListener Constructor

Initializes a new instance of the [TcHmiSrvSessionListener \[► 456\]](#) class

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvSessionListener()
```

Reference

[TcHmiSrvSessionListener Class \[► 456\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.78.2 TcHmiSrvSessionListener Properties

The [TcHmiSrvSessionListener \[► 456\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Reference

[TcHmiSrvSessionListener Class \[► 456\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.78.3 TcHmiSrvSessionListener Methods

The [TcHmiSrvSessionListener \[► 456\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 732]	(Inherited from TcHmiSrvSessionListenerBase [► 730].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListener Class](#) [[► 456](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.78.4 TcHmiSrvSessionListener Events

The [TcHmiSrvSessionListener](#) [[► 456](#)] type exposes the following members.

Events

	Name	Description
	OnCloseWebsocket [► 458]	Called when an existing WebSocket connection is closed.
	OnCreateWebsocket [► 459]	Called when a new WebSocket connection is created.
	OnLogin [► 459]	Called when a user is logged in.
	OnLogout [► 459]	Called when a user is logged out.

Reference

[TcHmiSrvSessionListener Class](#) [[► 456](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.78.4.1 TcHmiSrvSessionListener.OnCloseWebsocket Event

Called when an existing WebSocket connection is closed.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvSessionListener.OnCloseWebsocketEventHandler OnCloseWebsocket
```

Value

Type: [TcHmiSrv.TcHmiSrvSessionListener.OnCloseWebsocketEventHandler](#) [[▶ 462](#)]

Reference

[TcHmiSrvSessionListener Class](#) [[▶ 456](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.78.4.2 TcHmiSrvSessionListener.OnCreateWebsocket Event

Called when a new WebSocket connection is created.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvSessionListener.OnCreateWebsocketEventHandler OnCreateWebsocket
```

Value

Type: [TcHmiSrv.TcHmiSrvSessionListener.OnCreateWebsocketEventHandler](#) [[▶ 466](#)]

Reference

[TcHmiSrvSessionListener Class](#) [[▶ 456](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.78.4.3 TcHmiSrvSessionListener.OnLogin Event

Called when a user is logged in.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvSessionListener.OnLoginEventHandler OnLogin
```

Value

Type: [TcHmiSrv.TcHmiSrvSessionListener.OnLoginEventHandler](#) [[▶ 469](#)]

Reference

[TcHmiSrvSessionListener Class](#) [[▶ 456](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.78.4.4 TcHmiSrvSessionListener.OnLogout Event

Called when a user is logged out.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvSessionListener.OnLogoutEventHandler OnLogout
```

Value

Type: [TcHmiSrv.TcHmiSrvSessionListener.OnLogoutEventHandler](#) [[▶ 472](#)]

Reference

[TcHmiSrvSessionListener Class](#) [[▶ 456](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.79 TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Class

Provides data for an [OnCloseWebsocket](#) [[▶ 458](#)] event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.TcHmiSrvSessionListener.OnCloseWebsocketEventArgs

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnCloseWebsocketEventArgs : EventArgs
```

The TcHmiSrvSessionListener.OnCloseWebsocketEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSessionListener.OnCloseWebsocketEventArgs [▶ 461]	Initializes a new instance of the TcHmiSrvSessionListener.OnCloseWebsocketEventArgs class.

Properties

	Name	Description
	Context [▶ 462]	Gets the Context [▶ 237] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.79.1 TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Constructor

Initializes a new instance of the [TcHmiSrvSessionListener.OnCloseWebsocketEventArgs \[► 460\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnCloseWebsocketEventArgs(
    Context context
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Class \[► 460\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.79.2 OnCloseWebsocketEventArgs Properties

The [TcHmiSrvSessionListener.OnCloseWebsocketEventArgs \[► 460\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 462]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Class \[► 460\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.79.2.1 TcHmiSrvSessionListener.OnCloseWebsocketEventArgs.Context Property

Gets the [Context \[► 237\]](#) of the event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 237\]](#)

Reference

[TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Class \[► 460\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.79.3 OnCloseWebsocketEventArgs Methods

The [TcHmiSrvSessionListener.OnCloseWebsocketEventArgs \[► 460\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListener.OnCloseWebsocketEventArgs Class \[► 460\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.80 TcHmiSrvSessionListener.OnCloseWebsocketEventHandler Delegate

Represents a method that handles an [OnCloseWebsocket \[► 458\]](#) event.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnCloseWebsocketEventHandler(  
    Object sender,  
    TcHmiSrvSessionListener.OnCloseWebsocketEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSessionListener.OnCloseWebsocketEventArgs [► 460] The TcHmiSrvSessionListener.OnCloseWebsocketEventArgs [► 460] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.81 TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Class

Provides data for an [OnCreateWebsocket](#) [► 459] event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.TcHmiSrvSessionListener.OnCreateWebsocketEventArgs

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnCreateWebsocketEventArgs : EventArgs
```

The TcHmiSrvSessionListener.OnCreateWebsocketEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSessionListener.OnCreateWebsocketEventArgs [► 464]	Initializes a new instance of the TcHmiSrvSessionListener.OnCreateWebsocketEventArgs class.

Properties

	Name	Description
	Context [► 465]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.81.1 TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Constructor

Initializes a new instance of the [TcHmiSrvSessionListener.OnCreateWebsocketEventArgs \[► 463\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnCreateWebsocketEventArgs (
    Context context
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Class \[► 463\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.81.2 OnCreateWebsocketEventArgs Properties

The [TcHmiSrvSessionListener.OnCreateWebsocketEventArgs \[► 463\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 465]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Class \[► 463\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.81.2.1 TcHmiSrvSessionListener.OnCreateWebsocketEventArgs.Context Property

Gets the [Context \[► 237\]](#) of the event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 237\]](#)

Reference

[TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Class \[► 463\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.81.3 OnCreateWebsocketEventArgs Methods

The [TcHmiSrvSessionListener.OnCreateWebsocketEventArgs \[► 463\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListener.OnCreateWebsocketEventArgs Class \[► 463\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.82 **TcHmiSrvSessionListener.OnCreateWebsocketEventHandler Delegate**

Represents a method that handles an [OnCreateWebsocket](#) [► 459] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnCreateWebsocketEventHandler(  
    Object sender,  
    TcHmiSrvSessionListener.OnCreateWebsocketEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSessionListener.OnCreateWebsocketEventArgs [► 463] The TcHmiSrvSessionListener.OnCreateWebsocketEventArgs [► 463] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.83 **TcHmiSrvSessionListener.OnLoginEventArgs Class**

Provides data for an [OnLogin](#) [► 459] event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.TcHmiSrvSessionListener.OnLoginEventArgs

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnLoginEventArgs : EventArgs
```

The TcHmiSrvSessionListener.OnLoginEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSessionListener.OnLoginEventArgs [► 467]	Initializes a new instance of the TcHmiSrvSessionListener.OnLoginEventArgs class.

Properties

	Name	Description
	Context [► 468]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.83.1 TcHmiSrvSessionListener.OnLoginEventArgs Constructor

Initializes a new instance of the [TcHmiSrvSessionListener.OnLoginEventArgs](#) [► 466] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnLoginEventArgs(
    Context context
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnLoginEventArgs Class](#) [► 466]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.83.2 OnLoginEventArgs Properties

The [TcHmiSrvSessionListener.OnLoginEventArgs](#) [► 466] type exposes the following members.

Properties

	Name	Description
	Context [► 468]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnLoginEventArgs Class](#) [► 466]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.83.2.1 TcHmiSrvSessionListener.OnLoginEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvSessionListener.OnLoginEventArgs Class](#) [► 466]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.83.3 OnLoginEventArgs Methods

The [TcHmiSrvSessionListener.OnLoginEventArgs](#) [► 466] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListener.OnLoginEventArgs Class](#) [► 466]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.84 **TcHmiSrvSessionListener.OnLoginEventHandler Delegate**

Represents a method that handles an [OnLogin \[► 459\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnLoginEventHandler(  
    Object sender,  
    TcHmiSrvSessionListener.OnLoginEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSessionListener.OnLoginEventArgs [► 466] The TcHmiSrvSessionListener.OnLoginEventArgs [► 466] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.85 **TcHmiSrvSessionListener.OnLogoutEventArgs Class**

Provides data for an [OnLogout \[► 459\]](#) event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.TcHmiSrvSessionListener.OnLogoutEventArgs

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnLogoutEventArgs : EventArgs
```

The TcHmiSrvSessionListener.OnLogoutEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSessionListener.OnLogoutEventArgs [► 470]	Initializes a new instance of the TcHmiSrvSessionListener.OnLogoutEventArgs class.

Properties

	Name	Description
	Context [► 471]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.85.1 TcHmiSrvSessionListener.OnLogoutEventArgs Constructor

Initializes a new instance of the [TcHmiSrvSessionListener.OnLogoutEventArgs](#) [► 469] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnLogoutEventArgs(
    Context context
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnLogoutEventArgs Class](#) [► 469]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.85.2 OnLogoutEventArgs Properties

The [TcHmiSrvSessionListener.OnLogoutEventArgs](#) [► 469] type exposes the following members.

Properties

	Name	Description
	Context [► 471]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSessionListener.OnLogoutEventArgs Class](#) [[► 469](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.85.2.1 TcHmiSrvSessionListener.OnLogoutEventArgs.Context Property

Gets the [Context](#) [[► 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvSessionListener.OnLogoutEventArgs Class](#) [[► 469](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.85.3 OnLogoutEventArgs Methods

The [TcHmiSrvSessionListener.OnLogoutEventArgs](#) [[► 469](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListener.OnLogoutEventArgs Class](#) [[► 469](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.86 TcHmiSrvSessionListener.OnLogoutEventHandler Delegate

Represents a method that handles an [OnLogout \[► 459\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnLogoutEventHandler(
    Object sender,
    TcHmiSrvSessionListener.OnLogoutEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSessionListener.OnLogoutEventArgs [► 469] The TcHmiSrvSessionListener.OnLogoutEventArgs [► 469] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.87 TcHmiSrvShutdownListener Class

Provides a listener to get notified when the TwinCAT HMI server is shutting down.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener \[► 723\]](#)

[TcHmiSrv.TcHmiSrvShutdownListenerBase \[► 735\]](#)

[TcHmiSrv.TcHmiSrvShutdownListener](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvShutdownListener : TcHmiSrvShutdownListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvShutdownListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvShutdownListener [► 473]	Initializes a new instance of the TcHmiSrvShutdownListener class

Properties

	Name	Description
	<u>Type</u> [▸ 725]	(Inherited from TcHmiSrvListener [▸ 723].)

Methods

	Name	Description
	<u>Dispose.</u> [▸ 726]	(Inherited from TcHmiSrvListener [▸ 723].)
	<u>Dispose(Boolean)</u> [▸ 737]	(Inherited from TcHmiSrvShutdownListenerBase [▸ 735].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from Object .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from Object .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current Object . (Inherited from Object .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	<u>OnShutdown</u> [▸ 475]	Called when the TwinCAT HMI server is shutting down.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.87.1 TcHmiSrvShutdownListener Constructor

Initializes a new instance of the [TcHmiSrvShutdownListener](#) [[▸ 472](#)] class

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax**C#**

```
public TcHmiSrvShutdownListener()
```

Reference

[TcHmiSrvShutdownListener Class](#) [[▸ 472](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.87.2 TcHmiSrvShutdownListener Properties

The [TcHmiSrvShutdownListener](#) [[▸ 472](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvShutdownListener Class](#) [► 472]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.87.3 TcHmiSrvShutdownListener Methods

The [TcHmiSrvShutdownListener](#) [► 472] type exposes the following members.

Methods

	Name	Description
	Dispose . [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 737]	(Inherited from TcHmiSrvShutdownListenerBase [► 735].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvShutdownListener Class](#) [► 472]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.87.4 TcHmiSrvShutdownListener Events

The [TcHmiSrvShutdownListener](#) [► 472] type exposes the following members.

Events

	Name	Description
	OnShutdown [► 475]	Called when the TwinCAT HMI server is shutting down.

Reference

[TcHmiSrvShutdownListener Class](#) [► 472]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.87.4.1 TcHmiSrvShutdownListener.OnShutdown Event

Called when the TwinCAT HMI server is shutting down.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvShutdownListener.OnShutdownEventHandler OnShutdown
```

Value

Type: [TcHmiSrv.TcHmiSrvShutdownListener.OnShutdownEventHandler](#) [► 477]

Reference

[TcHmiSrvShutdownListener Class](#) [► 472]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.88 TcHmiSrvShutdownListener.OnShutdownEventArgs Class

Provides data for an [OnShutdown](#) [► 475] event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.TcHmiSrvShutdownListener.OnShutdownEventArgs

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnShutdownEventArgs : EventArgs
```

The TcHmiSrvShutdownListener.OnShutdownEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvShutdownListener.OnShutdownEventArgs [► 476]	Initializes a new instance of the TcHmiSrvShutdownListener.OnShutdownEventArgs class.

Properties

	Name	Description
	Context [► 477]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.88.1 TcHmiSrvShutdownListener.OnShutdownEventArgs Constructor

Initializes a new instance of the [TcHmiSrvShutdownListener.OnShutdownEventArgs \[► 475\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnShutdownEventArgs(
    Context context
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvShutdownListener.OnShutdownEventArgs Class \[► 475\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.88.2 OnShutdownEventArgs Properties

The [TcHmiSrvShutdownListener.OnShutdownEventArgs \[► 475\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 477]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvShutdownListener.OnShutdownEventArgs Class \[► 475\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.88.2.1 TcHmiSrvShutdownListener.OnShutdownEventArgs.Context Property

Gets the [Context \[► 237\]](#) of the event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 237\]](#)

Reference

[TcHmiSrvShutdownListener.OnShutdownEventArgs Class \[► 475\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.88.3 OnShutdownEventArgs Methods

The [TcHmiSrvShutdownListener.OnShutdownEventArgs \[► 475\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvShutdownListener.OnShutdownEventArgs Class \[► 475\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.89 TcHmiSrvShutdownListener.OnShutdownEventHandler Delegate

Represents a method that handles an [OnShutdown \[► 475\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnShutdownEventHandler(
    Object sender,
    TcHmiSrvShutdownListener.OnShutdownEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvShutdownListener.OnShutdownEventArgs [► 475] The TcHmiSrvShutdownListener.OnShutdownEventArgs [► 475] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.90 TcHmiSrvSubscriptionListener Class

Provides a listener to get notified when a client opens or closes a subscription.

If this listener is not registered at the TwinCAT HMI server, subscriptions will just call the [OnRequest](#) [► 451] event.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [► 723]

[TcHmiSrv.TcHmiSrvSubscriptionListenerBase](#) [► 738]

[TcHmiSrv.TcHmiSrvSubscriptionListener](#)

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvSubscriptionListener : TcHmiSrvSubscriptionListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvSubscriptionListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSubscriptionListener [► 479]	Initializes a new instance of the TcHmiSrvSubscriptionListener class

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 740]	(Inherited from TcHmiSrvSubscriptionListenerBase [► 738].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnSubscribe [► 481]	Called when a client opens a new subscription. The subscription will call the OnRequest [► 451] once per specified interval.
	OnUnsubscribe [► 481]	Called when a client closes a subscription.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.90.1 TcHmiSrvSubscriptionListener Constructor

Initializes a new instance of the [TcHmiSrvSubscriptionListener](#) [[► 478](#)] class

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvSubscriptionListener()
```

Reference

[TcHmiSrvSubscriptionListener Class](#) [[► 478](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.90.2 TcHmiSrvSubscriptionListener Properties

The [TcHmiSrvSubscriptionListener](#) [[► 478](#)] type exposes the following members.

Properties

	Name	Description
	<u>Type</u> [▶ 725]	(Inherited from <u>TcHmiSrvListener</u> [▶ 723].)

Reference

TcHmiSrvSubscriptionListener Class [[▶ 478](#)]

TcHmiSrv Namespace [[▶ 147](#)]

2.1.3.90.3 TcHmiSrvSubscriptionListener Methods

The TcHmiSrvSubscriptionListener [[▶ 478](#)] type exposes the following members.

Methods

	Name	Description
	<u>Dispose.</u> [▶ 726]	(Inherited from <u>TcHmiSrvListener</u> [▶ 723].)
	<u>Dispose(Boolean)</u> [▶ 740]	(Inherited from <u>TcHmiSrvSubscriptionListenerBase</u> [▶ 738].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object.</u>)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object.</u>)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object.</u>)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object.</u>)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object.</u> (Inherited from <u>Object.</u>)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object.</u>)

Reference

TcHmiSrvSubscriptionListener Class [[▶ 478](#)]

TcHmiSrv Namespace [[▶ 147](#)]

2.1.3.90.4 TcHmiSrvSubscriptionListener Events

The TcHmiSrvSubscriptionListener [[▶ 478](#)] type exposes the following members.

Events

	Name	Description
	<u>OnSubscribe</u> [▶ 481]	Called when a client opens a new subscription. The subscription will call the <u>OnRequest</u> [▶ 451] once per specified interval.
	<u>OnUnsubscribe</u> [▶ 481]	Called when a client closes a subscription.

Reference

TcHmiSrvSubscriptionListener Class [[▶ 478](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.90.4.1 TcHmiSrvSubscriptionListener.OnSubscribe Event

Called when a client opens a new subscription.

The subscription will call the [OnRequest \[► 451\]](#) once per specified interval.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvSubscriptionListener.OnSubscribeEventHandler OnSubscribe
```

Value

Type: [TcHmiSrv.TcHmiSrvSubscriptionListener.OnSubscribeEventHandler \[► 484\]](#)

Reference

[TcHmiSrvSubscriptionListener Class \[► 478\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.90.4.2 TcHmiSrvSubscriptionListener.OnUnsubscribe Event

Called when a client closes a subscription.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public event TcHmiSrvSubscriptionListener.OnUnsubscribeEventHandler OnUnsubscribe
```

Value

Type: [TcHmiSrv.TcHmiSrvSubscriptionListener.OnUnsubscribeEventHandler \[► 487\]](#)

Reference

[TcHmiSrvSubscriptionListener Class \[► 478\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.91 TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Class

Provides data for an [OnSubscribe \[► 481\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

 TcHmiSrv.TcHmiSrvSubscriptionListener.OnSubscribeEventArgs

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnSubscribeEventArgs : EventArgs
```

The `TcHmiSrvSubscriptionListener.OnSubscribeEventArgs` type exposes the following members.

Constructors

	Name	Description
	<code>TcHmiSrvSubscriptionListener.OnSubscribeEventArgs</code> [▶ 482]	Initializes a new instance of the <code>TcHmiSrvSubscriptionListener.OnSubscribeEventArgs</code> class.

Properties

	Name	Description
	<code>Context</code> [▶ 483]	Gets the <code>Context</code> [▶ 237] of the event.

Methods

	Name	Description
	<code>Equals</code>	Determines whether the specified object is equal to the current object. (Inherited from <code>Object</code> .)
	<code>Finalize</code>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <code>Object</code> .)
	<code>GetHashCode</code>	Serves as the default hash function. (Inherited from <code>Object</code> .)
	<code>GetType</code>	Gets the <code>Type</code> of the current instance. (Inherited from <code>Object</code> .)
	<code>MemberwiseClone</code>	Creates a shallow copy of the current <code>Object</code> . (Inherited from <code>Object</code> .)
	<code>ToString</code>	Returns a string that represents the current object. (Inherited from <code>Object</code> .)

Reference

`TcHmiSrv` Namespace [[▶ 147](#)]

2.1.3.91.1 TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Constructor

Initializes a new instance of the `TcHmiSrvSubscriptionListener.OnSubscribeEventArgs` [[▶ 481](#)] class.

Namespace: `TcHmiSrv` [[▶ 147](#)]

Assembly: `TcHmiSrvExtNet` (in `TcHmiSrvExtNet.dll`) Version: 3.0.0.0

Syntax

C#

```
public OnSubscribeEventArgs(  
    Context context  
)
```

Parameters

context	Type: <code>TcHmiSrv.Context</code> [▶ 237] The <code>Context</code> [▶ 237] of the event.

Reference

[TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Class \[► 481\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.91.2 OnSubscribeEventArgs Properties

The [TcHmiSrvSubscriptionListener.OnSubscribeEventArgs \[► 481\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 483]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Class \[► 481\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.91.2.1 TcHmiSrvSubscriptionListener.OnSubscribeEventArgs.Context Property

Gets the [Context \[► 237\]](#) of the event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 237\]](#)

Reference

[TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Class \[► 481\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.91.3 OnSubscribeEventArgs Methods

The [TcHmiSrvSubscriptionListener.OnSubscribeEventArgs \[► 481\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSubscriptionListener.OnSubscribeEventArgs Class](#) [► 481]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.92 TcHmiSrvSubscriptionListener.OnSubscribeEventHandler Delegate

Represents a method that handles an [OnSubscribe](#) [► 481] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public delegate ErrorValue OnSubscribeEventHandler(
    Object sender,
    TcHmiSrvSubscriptionListener.OnSubscribeEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSubscriptionListener.OnSubscribeEventArgs [► 481] The TcHmiSrvSubscriptionListener.OnSubscribeEventArgs [► 481] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.93 TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Class

Provides data for an [OnUnsubscribe](#) [► 481] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs](#)

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnUnsubscribeEventArgs : EventArgs
```

The [TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs](#) type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs [► 485]	Initializes a new instance of the TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs class.

Properties

	Name	Description
	Context [► 486]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.93.1 TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Constructor

Initializes a new instance of the [TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs](#) [► 484] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnUnsubscribeEventArgs(  
    Context context  
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.

Reference

[TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Class](#) [► 484]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.93.2 OnUnsubscribeEventArgs Properties

The [TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs](#) [► 484] type exposes the following members.

Properties

	Name	Description
	Context [► 486]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Class](#) [► 484]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.93.2.1 TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 237]

Reference

[TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Class](#) [► 484]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.93.3 OnUnsubscribeEventArgs Methods

The [TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs](#) [► 484] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs Class](#) [► 484]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.94 TcHmiSrvSubscriptionListener.OnUnsubscribeEventHandler Delegate

Represents a method that handles an [OnUnsubscribe](#) [► 481] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnUnsubscribeEventHandler(
    Object sender,
    TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs [► 484] The TcHmiSrvSubscriptionListener.OnUnsubscribeEventArgs [► 484] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.95 Timespan Class

Note: This API is now obsolete.

Represents a period of time in nanoseconds.

Inheritance Hierarchy

System.Object
TcHmiSrv.Timespan

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.Timespan' is obsolete. Use type 'System.TimeSpan' instead.")]  
public class Timespan : IEquatable<Timespan>,  
    IDisposable
```

The Timespan type exposes the following members.

Constructors

	Name	Description
	Timespan. [► 490]	Initializes a new instance of the Timespan class.
	Timespan(Int64) [► 490]	Initializes a new instance of the Timespan class with the specified number of nanoseconds.
	Timespan(Timespan) [► 490]	Initializes a new instance of the Timespan class based on another Timespan.

Properties

	Name	Description
	Milliseconds [► 491]	Gets the number of milliseconds from the current Timespan.
	Nanoseconds [► 492]	Gets the number of nanoseconds from the current Timespan.
	Seconds [► 492]	Gets the number of seconds from the current Timespan.

Methods

	Name	Description
	Dispose. [► 493]	Releases all resources used by the Timespan
	Dispose(Boolean) [► 494]	Releases the unmanaged resources used by the Timespan and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(Timespan) [► 495]	Indicates whether the current Timespan is equal to another Timespan.
	Finalize [► 496]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Operators

	Name	Description
 	Equality [► 496]	Determines whether two instances of the Timespan class are equal.
 	.(Timespan to TimeSpan) [► 498]	Converts an instance of the Timespan class to the appropriate instance of the TimeSpan class.
 	.(TimeSpan to Timespan) [► 497]	Converts an instance of the TimeSpan class to the appropriate instance of the Timespan class.
 	Inequality [► 498]	Determines whether two instances of the Timespan class are not equal.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.95.1 Timespan Constructor

Overload List

	Name	Description
	Timespan. [► 490]	Initializes a new instance of the Timespan [► 488] class.
	Timespan(Int64) [► 490]	Initializes a new instance of the Timespan [► 488] class with the specified number of nanoseconds.
	Timespan(Timespan) [► 490]	Initializes a new instance of the Timespan [► 488] class based on another Timespan [► 488].

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.1.1 Timespan Constructor

Initializes a new instance of the [Timespan \[► 488\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timespan()
```

Reference

[Timespan Class \[► 488\]](#)

[Timespan Overload \[► 489\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.1.2 Timespan Constructor (Int64)

Initializes a new instance of the [Timespan \[► 488\]](#) class with the specified number of nanoseconds.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timespan(  
    long nanoseconds  
)
```

Parameters

nanosecond s	Type: System.Int64 The nanoseconds to be set.

Reference

[Timespan Class \[► 488\]](#)

[Timespan Overload \[► 489\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.1.3 Timespan Constructor (Timespan)

Initializes a new instance of the [Timespan \[► 488\]](#) class based on another [Timespan \[► 488\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TimeSpan(  
    TimeSpan other  
)
```

Parameters

other	Type: TcHmiSrv.TimeSpan [► 488] The other TimeSpan [► 488].

Reference

[TimeSpan Class](#) [► 488]

[TimeSpan Overload](#) [► 489]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.95.2 **TimeSpan Properties**

The [TimeSpan](#) [► 488] type exposes the following members.

Properties

	Name	Description
	Milliseconds [► 491]	Gets the number of milliseconds from the current TimeSpan [► 488].
	Nanoseconds [► 492]	Gets the number of nanoseconds from the current TimeSpan [► 488].
	Seconds [► 492]	Gets the number of seconds from the current TimeSpan [► 488].

Reference

[TimeSpan Class](#) [► 488]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.95.2.1 **TimeSpan.Milliseconds Property**

Gets the number of milliseconds from the current [TimeSpan](#) [► 488].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public long Milliseconds { get; }
```

Property Value

Type: [Int64](#)

Reference

[TimeSpan Class](#) [► 488]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.2.2 Timespan.Nanoseconds Property

Gets the number of nanoseconds from the current [Timespan \[► 488\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public long Nanoseconds { get; }
```

Property Value

Type: [Int64](#)

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.2.3 Timespan.Seconds Property

Gets the number of seconds from the current [Timespan \[► 488\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int Seconds { get; }
```

Property Value

Type: [Int32](#)

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3 Timespan Methods

The [Timespan \[► 488\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 493]	
	Dispose(Boolean) [► 494]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(TimeSpan) [► 495]	Indicates whether the current Timespan [► 488] is equal to another Timespan [► 488].
	Finalize [► 496]	(Overrides Object.Finalize.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[Timespan Class](#) [[► 488](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.95.3.1 Timespan.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 493]	Releases all resources used by the Timespan [► 488]
	Dispose(Boolean) [► 494]	Releases the unmanaged resources used by the Timespan [► 488] and optionally releases the managed resources

Reference

[Timespan Class](#) [[► 488](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.95.3.1.1 Timespan.Dispose Method

Releases all resources used by the [Timespan](#) [[► 488](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Timespan Class \[► 488\]](#)

[Dispose Overload \[► 493\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3.1.2 *Timespan.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [Timespan \[► 488\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Timespan Class \[► 488\]](#)

[Dispose Overload \[► 493\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3.2 *Timespan.Equals Method*

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Timespan) [► 495]	Indicates whether the current Timespan [► 488] is equal to another Timespan [► 488] .

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3.2.1 *Timespan.Equals Method (Timespan)*

Indicates whether the current [Timespan \[► 488\]](#) is equal to another [Timespan \[► 488\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Timespan other  
)
```

Parameters

other	Type: TcHmiSrv.Timespan [► 488] The Timespan [► 488] to compare with this Timespan [► 488] .

Return Value

Type: [Boolean](#)

true if the current [Timespan \[► 488\]](#) is equal to the other [Timespan \[► 488\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Timespan Class \[► 488\]](#)

[Equals Overload \[► 494\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3.3 *Timespan.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Timespan \[► 488\]](#).

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.3.4 Timespan.Finalize Method

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.4 Timespan Operators and Type Conversions

The [Timespan \[► 488\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 496]	Determines whether two instances of the Timespan [► 488] class are equal.
 	.(Timespan to TimeSpan) [► 498]	Converts an instance of the Timespan [► 488] class to the appropriate instance of the TimeSpan class.
 	.(TimeSpan to Timespan) [► 497]	Converts an instance of the TimeSpan class to the appropriate instance of the Timespan [► 488] class.
 	Inequality [► 498]	Determines whether two instances of the Timespan [► 488] class are not equal.

Reference

[Timespan Class \[► 488\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.4.1 Timespan.Equality Operator

Determines whether two instances of the [Timespan \[► 488\]](#) class are equal.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Timespan current,
    Timespan other
)
```

Parameters

current	Type: TcHmiSrv.Timespan [► 488] The first Timespan [► 488] to compare.
other	Type: TcHmiSrv.Timespan [► 488] The second Timespan [► 488] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

- [Timespan Class \[► 488\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.4.2 Timespan . Conversion Operators

Overload List

	Name	Description
 	.(Timespan to TimeSpan) [► 498]	Converts an instance of the Timespan [► 488] class to the appropriate instance of the TimeSpan class.
 	.(TimeSpan to Timespan) [► 497]	Converts an instance of the TimeSpan class to the appropriate instance of the Timespan [► 488] class.

Reference

- [Timespan Class \[► 488\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.95.4.2.1 Timespan . Conversion (TimeSpan to Timespan)

Converts an instance of the [TimeSpan](#) class to the appropriate instance of the [Timespan \[► 488\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Timespan (
    TimeSpan value
)
```

Parameters

value	Type: System.TimeSpan The TimeSpan to convert.

Return Value

Type: [Timespan](#) [► 488]
An instance of the [Timespan](#) [► 488] class that is equivalent to value.

Reference

[Timespan Class](#) [► 488]
[. Overload](#) [► 497]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.95.4.2.2 *Timespan . Conversion (Timespan to TimeSpan)*

Converts an instance of the [Timespan](#) [► 488] class to the appropriate instance of the [TimeSpan](#) class.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator TimeSpan (  
    Timespan value  
)
```

Parameters

value	Type: TcHmiSrv.Timespan [► 488] The Timespan [► 488] to convert.

Return Value

Type: [TimeSpan](#)
An instance of the [TimeSpan](#) class that is equivalent to value.

Reference

[Timespan Class](#) [► 488]
[. Overload](#) [► 497]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.95.4.3 *Timespan.Inequality Operator*

Determines whether two instances of the [Timespan](#) [► 488] class are not equal.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    Timespan current,
    Timespan other
)
```

Parameters

current	Type: TcHmiSrv.Timespan [► 488] The first Timespan [► 488] to compare.
other	Type: TcHmiSrv.Timespan [► 488] The second Timespan [► 488] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

- [Timespan Class \[► 488\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96 Timestamp Class

Note: This API is now obsolete.

Represents a point of time since January 01, 1970.

Inheritance Hierarchy

[System.Object](#)
 TcHmiSrv.Timestamp
Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Type 'TcHmiSrv.Timestamp' is obsolete. Use type 'System.DateTime' instead.")]
public class Timestamp : IEquatable<Timestamp>,
    IDisposable
```

The Timestamp type exposes the following members.

Constructors

	Name	Description
	Timestamp. [► 501]	Initializes a new instance of the Timestamp class.
	Timestamp(Int64) [► 502]	Initializes a new instance of the Timestamp class with the specified number of nanoseconds.
	Timestamp(Timestamp) [► 502]	Initializes a new instance of the Timestamp class based on another Timestamp.

Properties

	Name	Description
	Milliseconds [► 503]	Gets the number of milliseconds from the current Timestamp.
	Nanoseconds [► 503]	Gets the number of nanoseconds from the current Timestamp.
 	Now [► 504]	Obsolete. Gets a Timestamp that represents the current point of time.
	Seconds [► 504]	Gets the number of seconds from the current Timestamp.

Methods

	Name	Description
	Dispose. [► 505]	Releases all resources used by the Timestamp
	Dispose(Boolean) [► 506]	Releases the unmanaged resources used by the Timestamp and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Timestamp) [► 507]	Indicates whether the current Timestamp is equal to another Timestamp.
	Finalize [► 509]	(Overrides Object.Finalize .)
 	from file time [► 507]	Creates a Timestamp from a Windows file time.
 	from milliseconds [► 508]	Creates a Timestamp from a number of milliseconds since 1 January 1970.
 	from unix time [► 508]	Creates a Timestamp from an unix timestamp.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [► 510]	Determines whether two instances of the Timestamp class are equal.
 	.(DateTime to Timestamp) [► 511]	Converts an instance of the DateTime class to the appropriate instance of the Timestamp class.
 	.(Timestamp to DateTime) [► 511]	Converts an instance of the Timestamp class to the appropriate instance of the DateTime class.
 	Inequality [► 512]	Determines whether two instances of the Timestamp class are not equal.

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.1 Timestamp Constructor

Overload List

	Name	Description
	Timestamp. [► 501]	Initializes a new instance of the Timestamp [► 499] class.
	Timestamp(Int64) [► 502]	Initializes a new instance of the Timestamp [► 499] class with the specified number of nanoseconds.
	Timestamp(Timestamp) [► 502]	Initializes a new instance of the Timestamp [► 499] class based on another Timestamp [► 499].

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.1.1 Timestamp Constructor

Initializes a new instance of the [Timestamp](#) [[► 499](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp()
```

Reference

[Timestamp Class](#) [[► 499](#)]

[Timestamp Overload](#) [[► 501](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.1.2 Timestamp Constructor (Int64)

Initializes a new instance of the [Timestamp \[► 499\]](#) class with the specified number of nanoseconds.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp(  
    long nanoseconds  
)
```

Parameters

nanosecond s	Type: System.Int64 The nanoseconds to be set.

Reference

- [Timestamp Class \[► 499\]](#)
- [Timestamp Overload \[► 501\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.1.3 Timestamp Constructor (Timestamp)

Initializes a new instance of the [Timestamp \[► 499\]](#) class based on another [Timestamp \[► 499\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Timestamp(  
    Timestamp other  
)
```

Parameters

other	Type: TcHmiSrv.Timestamp [► 499] The other Timestamp [► 499] .

Reference

- [Timestamp Class \[► 499\]](#)
- [Timestamp Overload \[► 501\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.2 Timestamp Properties

The [Timestamp \[► 499\]](#) type exposes the following members.

Properties

	Name	Description
	Milliseconds [► 503]	Gets the number of milliseconds from the current Timestamp [► 499].
	Nanoseconds [► 503]	Gets the number of nanoseconds from the current Timestamp [► 499].
 	Now [► 504]	Obsolete. Gets a Timestamp [► 499] that represents the current point of time.
	Seconds [► 504]	Gets the number of seconds from the current Timestamp [► 499].

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.2.1 Timestamp.Milliseconds Property

Gets the number of milliseconds from the current [Timestamp](#) [[► 499](#)].

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public long Milliseconds { get; }
```

Property Value

Type: [Int64](#)

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.2.2 Timestamp.Nanoseconds Property

Gets the number of nanoseconds from the current [Timestamp](#) [[► 499](#)].

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public long Nanoseconds { get; }
```

Property Value

Type: [Int64](#)

Reference

[Timestamp Class](#) [► 499]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.96.2.3 Timestamp.Now Property

Note: This API is now obsolete.

Gets a [Timestamp](#) [► 499] that represents the current point of time.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Property 'TcHmiSrv.Timestamp.Now' is obsolete. Use 'System.DateTime.Now' instead .")]  
public static Timestamp Now { get; }
```

Property Value

Type: [Timestamp](#) [► 499]

Reference

[Timestamp Class](#) [► 499]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.96.2.4 Timestamp.Seconds Property

Gets the number of seconds from the current [Timestamp](#) [► 499].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int Seconds { get; }
```

Property Value

Type: [Int32](#)

Reference

[Timestamp Class](#) [► 499]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.96.3 Timestamp Methods

The [Timestamp](#) [► 499] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 505]	
	Dispose(Boolean) [► 506]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Timestamp) [► 507]	Indicates whether the current Timestamp [► 499] is equal to another Timestamp [► 499].
	Finalize [► 509]	(Overrides Object.Finalize .)
 	from file time [► 507]	Creates a Timestamp [► 499] from a Windows file time.
 	from milliseconds [► 508]	Creates a Timestamp [► 499] from a number of milliseconds since 1 January 1970.
 	from unix time [► 508]	Creates a Timestamp [► 499] from an unix timestamp.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Timestamp Class](#) [[► 499](#)][TcHmiSrv Namespace](#) [[► 147](#)]**2.1.3.96.3.1 Timestamp.Dispose Method**

Overload List

	Name	Description
	Dispose. [► 505]	Releases all resources used by the Timestamp [► 499]
	Dispose(Boolean) [► 506]	Releases the unmanaged resources used by the Timestamp [► 499] and optionally releases the managed resources

Reference

[Timestamp Class](#) [[► 499](#)][TcHmiSrv Namespace](#) [[► 147](#)]**2.1.3.96.3.1.1 Timestamp.Dispose Method**Releases all resources used by the [Timestamp](#) [[► 499](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

- [Timestamp Class](#) [[► 499](#)]
- [Dispose Overload](#) [[► 505](#)]
- [TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.3.1.2 *Timestamp.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [Timestamp](#) [[► 499](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

- [Timestamp Class](#) [[► 499](#)]
- [Dispose Overload](#) [[► 505](#)]
- [TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.3.2 **Timestamp.Equals Method**

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Timestamp) [► 507]	Indicates whether the current Timestamp [► 499] is equal to another Timestamp [► 499].

Reference

[Timestamp Class \[► 499\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.3.2.1 *Timestamp.Equals Method (Timestamp)*

Indicates whether the current [Timestamp \[► 499\]](#) is equal to another [Timestamp \[► 499\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Timestamp other  
)
```

Parameters

other	Type: TcHmiSrv.Timestamp [► 499] The Timestamp [► 499] to compare with this Timestamp [► 499] .

Return Value

Type: [Boolean](#)

true if the current [Timestamp \[► 499\]](#) is equal to the other [Timestamp \[► 499\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Timestamp Class \[► 499\]](#)

[Equals Overload \[► 506\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.3.3 *Timestamp.from_file_time Method*

Creates a [Timestamp \[► 499\]](#) from a Windows file time.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static Timestamp from_file_time(  
    long filetime  
)
```

Parameters

filetime	Type: System.Int64 The Windows file time.

Return Value

Type: [Timestamp](#) [[▶ 499](#)]

A [Timestamp](#) [[▶ 499](#)] that represents the given Windows file time.

Reference

[Timestamp Class](#) [[▶ 499](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.96.3.4 Timestamp.from_milliseconds Method

Creates a [Timestamp](#) [[▶ 499](#)] from a number of milliseconds since 1 January 1970.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static Timestamp from_milliseconds(  
    long milliseconds  
)
```

Parameters

milliseconds	Type: System.Int64 The number of milliseconds since 1 January 1970.

Return Value

Type: [Timestamp](#) [[▶ 499](#)]

A [Timestamp](#) [[▶ 499](#)] that represents the given number of milliseconds since 1 January 1970.

Reference

[Timestamp Class](#) [[▶ 499](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.96.3.5 Timestamp.from_unix_time Method

Creates a [Timestamp](#) [[▶ 499](#)] from an unix timestamp.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static Timestamp from_unix_time(  
    int timestamp  
)
```


Parameters

timestamp	Type: System.Int32 The unix timestamp.

Return Value

Type: [Timestamp](#) [[► 499](#)]

A [Timestamp](#) [[► 499](#)] that represents the given unix timestamp.

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.3.6 Timestamp.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [Timestamp](#) [[► 499](#)].

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.3.7 Timestamp.Finalize Method

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[Timestamp Class](#) [[► 499](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.96.4 Timestamp Operators and Type Conversions

The [Timestamp](#) [► 499] type exposes the following members.

Operators

	Name	Description
 	Equality [► 510]	Determines whether two instances of the Timestamp [► 499] class are equal.
 	. (DateTime to Timestamp) [► 511]	Converts an instance of the DateTime class to the appropriate instance of the Timestamp [► 499] class.
 	. (Timestamp to DateTime) [► 511]	Converts an instance of the Timestamp [► 499] class to the appropriate instance of the DateTime class.
 	Inequality [► 512]	Determines whether two instances of the Timestamp [► 499] class are not equal.

Reference

[Timestamp Class](#) [► 499]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.96.4.1 Timestamp.Equality Operator

Determines whether two instances of the [Timestamp](#) [► 499] class are equal.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Timestamp current,
    Timestamp other
)
```

Parameters

current	Type: TcHmiSrv.Timestamp [► 499] The first Timestamp [► 499] to compare.
other	Type: TcHmiSrv.Timestamp [► 499] The second Timestamp [► 499] to compare.

Return Value

Type: [Boolean](#)

true if current equals other; otherwise, false.

Reference

[Timestamp Class](#) [► 499]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.4.2 **Timestamp . Conversion Operators**

Overload List

	Name	Description
 	.(DateTime to Timestamp) [► 511]	Converts an instance of the DateTime class to the appropriate instance of the Timestamp [► 499] class.
 	.(Timestamp to DateTime) [► 511]	Converts an instance of the Timestamp [► 499] class to the appropriate instance of the DateTime class.

Reference

[Timestamp Class \[► 499\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.4.2.1 Timestamp . Conversion (DateTime to Timestamp)

Converts an instance of the [DateTime](#) class to the appropriate instance of the [Timestamp](#) [\[► 499\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Timestamp (  
    DateTime value  
)
```

Parameters

value	Type: System.DateTime The DateTime to convert.

Return Value

Type: [Timestamp](#) [\[► 499\]](#)

An instance of the [Timestamp](#) [\[► 499\]](#) class that is equivalent to value.

Reference

[Timestamp Class \[► 499\]](#)

[. Overload \[► 511\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.4.2.2 Timestamp . Conversion (Timestamp to DateTime)

Converts an instance of the [Timestamp](#) [\[► 499\]](#) class to the appropriate instance of the [DateTime](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator DateTime (
    Timestamp value
)
```

Parameters

value	Type: TcHmiSrv.Timestamp [► 499] The Timestamp [► 499] to convert.

Return Value

Type: [DateTime](#)

An instance of the [DateTime](#) class that is equivalent to value.

Reference

[Timestamp Class \[► 499\]](#)

[.Overload \[► 511\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.96.4.3 Timestamp.Inequality Operator

Determines whether two instances of the [Timestamp \[► 499\]](#) class are not equal.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: [TcHmiSrvExtNet \(in TcHmiSrvExtNet.dll\) Version: 3.0.0.0](#)

Syntax

C#

```
public static bool operator !=(
    Timestamp current,
    Timestamp other
)
```

Parameters

current	Type: TcHmiSrv.Timestamp [► 499] The first Timestamp [► 499] to compare.
other	Type: TcHmiSrv.Timestamp [► 499] The second Timestamp [► 499] to compare.

Return Value

Type: [Boolean](#)

true if current does not equal other; otherwise, false.

Reference

[Timestamp Class \[► 499\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97 Value Class

Represents a value of any [ValueType](#) [► 630].

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.IObject](#) [► 272]

 TcHmiSrv.Value

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Value : IObject, IEquatable<Value>,
    ICollection, IEnumerable, IConvertible, IDictionary, IDictionary<string, Value>,
    ICollection<KeyValuePair<string, Value>>, IEnumerable<KeyValuePair<string, Value>>,
    IList<Value>, ICollection<Value>, IEnumerable<Value>,
    IReadOnlyCollection<Value>, IReadOnlyDictionary<string, Value>,
    IReadOnlyCollection<KeyValuePair<string, Value>>, IVersionable
```

The Value type exposes the following members.

Constructors

	Name	Description
	Value [▶ 524]	Initializes a new instance of the Value class.
	Value(Access) [▶ 527]	Initializes a new instance of the Value class with the specified Access [▶ 157].
	Value(Alarm) [▶ 527]	Initializes a new instance of the Value class with the specified instance of the Alarm [▶ 158] class.
	Value(Binary) [▶ 528]	Initializes a new instance of the Value class with the specified instance of the Binary [▶ 172] class.
	Value(Boolean) [▶ 525]	Initializes a new instance of the Value class with the specified boolean value.
	Value(Double) [▶ 525]	Initializes a new instance of the Value class with the specified double-precision floating-point number.
	Value(Event) [▶ 528]	Initializes a new instance of the Value class with the specified instance of the Event [▶ 253] class.
	Value(Int32) [▶ 526]	Initializes a new instance of the Value class with the specified integer.
	Value(Int64) [▶ 526]	Initializes a new instance of the Value class with the specified long integer.
	Value(Message) [▶ 529]	Initializes a new instance of the Value class with the specified instance of the Message [▶ 307] class.
	Value(Severity) [▶ 529]	Initializes a new instance of the Value class with the specified Severity [▶ 346].
	Value(String) [▶ 527]	Initializes a new instance of the Value class with the specified string.
	Value(Timespan) [▶ 530]	Initializes a new instance of the Value class with the specified instance of the Timespan [▶ 488] class.
	Value(Timestamp) [▶ 530]	Initializes a new instance of the Value class with the specified instance of the Timestamp [▶ 499] class.
	Value(Value) [▶ 531]	Initializes a new instance of the Value class based on another Value.
	Value(ValueType) [▶ 531]	Initializes a new instance of the Value class with the specified ValueType [▶ 630].

Properties

	Name	Description
	Begin [► 532]	A ValueIterator [► 620] to the begin of the map.
	BeginVector [► 533]	A ValueVectorIterator [► 631] to the begin of the vector.
	Count [► 537]	Gets the number of the Values contained in the Value.
	Empty [► 533]	Gets a value that indicates whether the Value is empty.
	End [► 533]	A ValueIterator [► 620] to the end of the map.
	EndVector [► 534]	A ValueVectorIterator [► 631] to the end of the vector.
	IsFixedSize [► 537]	
	IsReadOnly [► 538]	Gets a value that indicates whether the Value is read-only.
	IsSet [► 534]	Gets a value that indicates whether the Value is set.
	IsSynchronized [► 538]	
	Item.Int32. [► 535]	Gets or sets the Value at the specified index.
	Item.String. [► 535]	Gets or sets the Value with the specified key.
	Keys [► 539]	Gets an ICollection.T. containing the keys of the Value.
	Size [► 536]	Gets the number of Values in the map or vector.
	SyncRoot [► 539]	
	Type [► 536]	Gets or sets the type of the Value. If the ValueType [► 630] is different from the old ValueType [► 630] all data will be cleared.
	Values [► 540]	Gets an ICollection.T. containing the Values in the Value.

Methods

	Name	Description
	add [► 544]	Adds a Value to the end of the vector.
	Add(KeyValuePair.String, Value.) [► 564]	Adds a KeyValuePair<tkey, tvalue=""></tkey,> to the Value.
	Add(Value) [► 565]	Adds a Value to the Value.
	Add(String, Value) [► 565]	Adds a Value with the specified key to the Value.
	clear [► 545]	Removes all Values from the map or vector.
	Clear [► 566]	Removes all Values from the Value.
	Contains(KeyValuePair.String, Value.) [► 567]	Determines whether the Value contains the specified KeyValuePair<tkey, tvalue=""></tkey,> .
	Contains(Value) [► 567]	Determines whether the Value contains the specified Value.
	ContainsKey [► 568]	Determines whether the Value contains a Value with the specified key.
	convert [► 545]	Tries to convert the Value to another ValueType [► 630]. If conversion fails, the Value will remain unchanged. Available conversions are: - int to double - double to int if there are no fractional digits - string containing number to double or int - string containing "true" or "false" to boolean - string in ISO-8601 to timestamp - string in base64 to binary - string in base64 containing 64 bit integer to int64 - struct to alarm - struct to message - struct to event - map to vector - struct to vector
	CopyTo(KeyValuePair.String, Value., Int32) [► 569]	Copies the KeyValuePair<tkey, tvalue=""></tkey,> s of the Value to an Array starting at the specified Array index.
	CopyTo(Value., Int32) [► 570]	Copies the Values of the Value to an Array starting at the specified Array index.
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 546]	Releases the unmanaged resources used by the Value and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value) [► 547]	Indicates whether the current Value is equal to another Value.
	Finalize [► 275]	(Inherited from IObject [► 272].)
	find(String) [► 548]	Finds a Value with the specified key in the map.
	find(UInt32) [► 548]	Finds a Value with the specified index in the vector.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 570]	Gets the TypeCode for this Value.
	IndexOf [► 571]	Determines the index of the specific Value in the Value.
	insert(String, String) [► 550]	Inserts a String with the specified key in the map.
	insert(String, Value) [► 550]	Inserts a Value with the specified key in the map.
	insert(ValueVectorIterator, Value) [► 551]	Inserts a Value at the specified position in the vector.

	Name	Description
	Insert [► 571]	Inserts a Value to the Value at the specified index.
	insert_or_update(String, String) [► 552]	Inserts or updates a String with the specified key in the map.
	insert_or_update(String, Value) [► 552]	Inserts or updates a Value with the specified key in the map.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	remove(UInt32) [► 553]	Removes a Value at the specified index from the vector.
	remove(ValueIterator) [► 554]	Removes a Value at the specified position from the map.
	remove(ValueVectorIterator) [► 555]	Removes a Value at the specified position from the vector.
	remove(UInt32, UInt32) [► 555]	Removes a range of Values from the vector.
	Remove(KeyValuePair.String, Value.) [► 572]	Removes the first occurrence of the specified KeyValuePair.TKey , TValue from the Value.
	Remove(String) [► 573]	Removes the Value with the specified key from the Value.
	Remove(Value) [► 573]	Removes the first occurrence of the specified Value from the Value.
	RemoveAt [► 574]	Removes the Value at the specified index of the Value.
	RemoveRange [► 575]	Removes a range of Values from the Value.
	reserve [► 556]	Reserves memory for a number of Values to reduce memory allocations.
	set(Access) [► 559]	Sets the Value to the specified Access [► 157].
	set(Alarm) [► 560]	Sets the Value to the specified instance of the Alarm [► 158] class.
	set(Binary) [► 560]	Sets the Value to the specified instance of the Binary [► 172] class.
	set(Boolean) [► 557]	Sets the Value to the specified boolean value.
	set(Double) [► 558]	Sets the Value to the specified double-precision floating-point number.
	set(Event) [► 561]	Sets the Value to the specified instance of the Event [► 253] class.
	set(Int32) [► 558]	Sets the Value to the specified integer.
	set(Int64) [► 559]	Sets the Value to the specified long integer.
	set(Message) [► 561]	Sets the Value to the specified instance of the Message [► 307] class.
	set(Severity) [► 562]	Sets the Value to the specified Severity [► 346].
	set(String) [► 559]	Sets the Value to the specified string.
	set(Timespan) [► 562]	Sets the Value to the specified instance of the Timespan [► 488] class.
	set(Timestamp) [► 563]	Sets the Value to the specified instance of the Timestamp [► 499] class.
	set(ValueType) [► 563]	Sets the Value to the specified ValueType [► 630].
	swap [► 564]	Exchanges the values of two instances of the Value class.
	ToBoolean [► 575]	Converts the Value to an equivalent Boolean value using the specified IFormatProvider .

	Name	Description
	ToByte [► 576]	Converts the Value to an equivalent Byte using the specified IFormatProvider .
	ToChar [► 576]	Converts the Value to an equivalent Char using the specified IFormatProvider .
	ToDateTime [► 577]	Converts the Value to an equivalent DateTime using the specified IFormatProvider .
	ToDecimal [► 577]	Converts the Value to an equivalent Decimal value using the specified IFormatProvider .
	ToDouble [► 578]	Converts the Value to an equivalent Double -precision floating-point number using the specified IFormatProvider .
	ToInt16 [► 579]	Converts the Value to an equivalent Int16 integer using the specified IFormatProvider .
	ToInt32 [► 579]	Converts the Value to an equivalent Int32 using the specified IFormatProvider .
	ToInt64 [► 580]	Converts the Value to an equivalent Int64 integer using the specified IFormatProvider .
	ToSByte [► 580]	Converts the Value to an equivalent SByte using the specified IFormatProvider .
	ToSingle [► 581]	Converts the Value to an equivalent Single -precision floating-point number using the specified IFormatProvider .
	ToString .	Returns a string that represents the current object. (Inherited from Object .)
	ToString(IFormatProvider) [► 582]	Converts the Value to an equivalent String using the specified IFormatProvider .
	ToType [► 583]	Converts the Value to an equivalent Object of the specified Type using the specified IFormatProvider .
	ToUInt16 [► 583]	Converts the Value to an equivalent UInt16 integer using the specified IFormatProvider .
	ToUInt32 [► 584]	Converts the Value to an equivalent UInt32 using the specified IFormatProvider .
	ToUInt64 [► 584]	Converts the Value to an equivalent UInt64 integer using the specified IFormatProvider .
	TryGetValue [► 585]	Gets the Value associated with the specified key.

Operators

	Name	Description
 	Equality [► 591]	Determines whether the specified Value is equal to the current Value.
 	.(Access to Value) [► 603]	Converts an Access [► 157] to the appropriate instance of the Value class.
 	.(Alarm to Value) [► 603]	Converts an Alarm [► 158] to the appropriate instance of the Value class.
 	.(Binary to Value) [► 604]	Converts an instance of the Binary [► 172] class to the appropriate instance of the Value class.
 	.(Boolean to Value) [► 596]	Converts a Boolean value to the appropriate instance of the Value class.
 	.(Byte to Value) [► 596]	Converts an Byte to the appropriate instance of the Value class.
 	.(Char to Value) [► 597]	Converts a Char to the appropriate instance of the Value class.
 	.(Double to Value) [► 597]	Converts a Double -precision floating-point number to the appropriate instance of the Value class.
 	.(Event to Value) [► 604]	Converts an Event [► 253] to the appropriate instance of the Value class.
 	.(Int16 to Value) [► 598]	Converts an Int16 to the appropriate instance of the Value class.
 	.(Int32 to Value) [► 598]	Converts an Int32 to the appropriate instance of the Value class.
 	.(Int64 to Value) [► 599]	Converts a Int64 to the appropriate instance of the Value class.
 	.(Message to Value) [► 605]	Converts an Message [► 307] to the appropriate instance of the Value class.
 	.(SByte to Value) [► 599]	Converts an SByte to the appropriate instance of the Value class.
 	.(Severity to Value) [► 605]	Converts a Severity [► 346] to the appropriate instance of the Value class.
 	.(Single to Value) [► 600]	Converts a Single -precision floating-point number to the appropriate instance of the Value class.

	Name	Description
		
	.(String to Value) [► 600]	Converts a <u>String</u> to the appropriate instance of the <u>Value</u> class.
		
	.(Timespan to Value) [► 606]	Converts an instance of the <u>Timespan</u> [► 488] class to the appropriate instance of the <u>Value</u> class.
		
	.(Timestamp to Value) [► 606]	Converts an instance of the <u>Timestamp</u> [► 499] class to the appropriate instance of the <u>Value</u> class.
		
	.(UInt16 to Value) [► 601]	Converts an <u>UInt16</u> to the appropriate instance of the <u>Value</u> class.
		
	.(UInt32 to Value) [► 601]	Converts an <u>UInt32</u> to the appropriate instance of the <u>Value</u> class.
		
	.(UInt64 to Value) [► 602]	Converts a <u>UInt64</u> to the appropriate instance of the <u>Value</u> class.
		
	.(Value to Boolean) [► 607]	Converts an instance of the <u>Value</u> class to the appropriate <u>Boolean</u> value.
		
	.(Value to Byte) [► 607]	Converts an instance of the <u>Value</u> class to the appropriate <u>Byte</u> .
		
	.(Value to Char) [► 608]	Converts an instance of the <u>Value</u> class to the appropriate <u>Char</u> .
		
	.(Value to Double) [► 613]	Converts an instance of the <u>Value</u> class to the appropriate <u>Double</u> -precision floating-point number.
		
	.(Value to Int16) [► 609]	Converts an instance of the <u>Value</u> class to the appropriate <u>Int16</u> .
		
	.(Value to Int32) [► 610]	Converts an instance of the <u>Value</u> class to the appropriate <u>Int32</u> .
		
	.(Value to Int64) [► 611]	Converts an instance of the <u>Value</u> class to the appropriate <u>Int64</u> .
		
	.(Value to SByte) [► 608]	Converts an instance of the <u>Value</u> class to the appropriate <u>SByte</u> .
		
	.(Value to Single) [► 612]	Converts an instance of the <u>Value</u> class to the appropriate <u>Single</u> -precision floating-point number.

	Name	Description
 	.Value to String [► 613]	Converts an instance of the Value class to the appropriate String .
 	.Value to UInt16 [► 610]	Converts an instance of the Value class to the appropriate UInt16 .
 	.Value to UInt32 [► 611]	Converts an instance of the Value class to the appropriate UInt32 .
 	.Value to UInt64 [► 612]	Converts an instance of the Value class to the appropriate UInt64 .
 	.Value to Access [► 614]	Converts an instance of the Value class to the appropriate Access [► 157].
 	.Value to Alarm [► 614]	Converts an instance of the Value class to the appropriate Alarm [► 158].
 	.Value to Binary [► 615]	Converts an instance of the Value class to the appropriate instance of the Binary [► 172] class.
 	.Value to Event [► 615]	Converts an instance of the Value class to the appropriate Event [► 253].
 	.Value to Message [► 616]	Converts an instance of the Value class to the appropriate Message [► 307].
 	.Value to Severity [► 617]	Converts an instance of the Value class to the appropriate Severity [► 346].
 	.Value to Timespan [► 617]	Converts an instance of the Value class to the appropriate instance of the Timespan [► 488] class.
 	.Value to Timestamp [► 618]	Converts an instance of the Value class to the appropriate instance of the Timestamp [► 499] class.
 	.Value to ValueType [► 618]	Converts an instance of the Value class to the appropriate ValueType [► 630].
 	.ValueType to Value [► 619]	Converts an ValueType [► 630] to the appropriate instance of the Value class.
 	Inequality [► 619]	Determines whether the specified Value is not equal to the current Value.

ReferenceTcHmiSrv Namespace [[▶ 147](#)]**2.1.3.97.1 Value Constructor****Overload List**

	Name	Description
	Value. [▶ 524]	Initializes a new instance of the Value [▶ 513] class.
	Value(Access) [▶ 527]	Initializes a new instance of the Value [▶ 513] class with the specified Access [▶ 157].
	Value(Alarm) [▶ 527]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Alarm [▶ 158] class.
	Value(Binary) [▶ 528]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Binary [▶ 172] class.
	Value(Boolean) [▶ 525]	Initializes a new instance of the Value [▶ 513] class with the specified boolean value.
	Value(Double) [▶ 525]	Initializes a new instance of the Value [▶ 513] class with the specified double-precision floating-point number.
	Value(Event) [▶ 528]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Event [▶ 253] class.
	Value(Int32) [▶ 526]	Initializes a new instance of the Value [▶ 513] class with the specified integer.
	Value(Int64) [▶ 526]	Initializes a new instance of the Value [▶ 513] class with the specified long integer.
	Value(Message) [▶ 529]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Message [▶ 307] class.
	Value(Severity) [▶ 529]	Initializes a new instance of the Value [▶ 513] class with the specified Severity [▶ 346].
	Value(String) [▶ 527]	Initializes a new instance of the Value [▶ 513] class with the specified string.
	Value(Timespan) [▶ 530]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Timespan [▶ 488] class.
	Value(Timestamp) [▶ 530]	Initializes a new instance of the Value [▶ 513] class with the specified instance of the Timestamp [▶ 499] class.
	Value(Value) [▶ 531]	Initializes a new instance of the Value [▶ 513] class based on another Value [▶ 513].
	Value(ValueType) [▶ 531]	Initializes a new instance of the Value [▶ 513] class with the specified ValueType [▶ 630].

Reference[Value Class](#) [[▶ 513](#)]TcHmiSrv Namespace [[▶ 147](#)]**2.1.3.97.1.1 Value Constructor**Initializes a new instance of the [Value](#) [[▶ 513](#)] class.**Namespace:** [TcHmiSrv](#) [[▶ 147](#)]**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value()
```

Reference

[Value Class](#) [► 513]

[Value Overload](#) [► 524]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.1.2 Value Constructor (Boolean)

Initializes a new instance of the [Value](#) [► 513] class with the specified boolean value.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    bool value  
)
```

Parameters

value	Type: System.Boolean The boolean value to be set.

Reference

[Value Class](#) [► 513]

[Value Overload](#) [► 524]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.1.3 Value Constructor (Double)

Initializes a new instance of the [Value](#) [► 513] class with the specified double-precision floating-point number.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    double value  
)
```

Parameters

value	Type: System.Double The double-precision floating-point number to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.4 Value Constructor (Int32)

Initializes a new instance of the [Value \[► 513\]](#) class with the specified integer.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    int value  
)
```

Parameters

value	Type: System.Int32 The integer to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.5 Value Constructor (Int64)

Initializes a new instance of the [Value \[► 513\]](#) class with the specified long integer.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    long value  
)
```

Parameters

value	Type: System.Int64 The long integer to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.6 Value Constructor (String)

Initializes a new instance of the [Value \[▸ 513\]](#) class with the specified string.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    string value  
)
```

Parameters

value	Type: System.String The string to be set.

Reference

[Value Class \[▸ 513\]](#)

[Value Overload \[▸ 524\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.1.7 Value Constructor (Access)

Initializes a new instance of the [Value \[▸ 513\]](#) class with the specified [Access \[▸ 157\]](#).

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Access value  
)
```

Parameters

value	Type: TcHmiSrv.Access [▸ 157] The Access [▸ 157] to be set.

Reference

[Value Class \[▸ 513\]](#)

[Value Overload \[▸ 524\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.1.8 Value Constructor (Alarm)

Initializes a new instance of the [Value \[▸ 513\]](#) class with the specified instance of the [Alarm \[▸ 158\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Alarm value  
)
```

Parameters

value	Type: TcHmiSrv.Alarm [▶ 158] The Alarm [▶ 158] to be set.

Reference

[Value Class](#) [[▶ 513](#)]

[Value Overload](#) [[▶ 524](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.1.9 Value Constructor (Binary)

Initializes a new instance of the [Value](#) [[▶ 513](#)] class with the specified instance of the [Binary](#) [[▶ 172](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Binary value  
)
```

Parameters

value	Type: TcHmiSrv.Binary [▶ 172] The Binary to be set.

Reference

[Value Class](#) [[▶ 513](#)]

[Value Overload](#) [[▶ 524](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.1.10 Value Constructor (Event)

Initializes a new instance of the [Value](#) [[▶ 513](#)] class with the specified instance of the [Event](#) [[▶ 253](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Event value  
)
```

Parameters

value	Type: TcHmiSrv.Event [► 253] The Event [► 253] to be set.

Reference

[Value Class](#) [► 513]

[Value Overload](#) [► 524]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.1.11 Value Constructor (Message)

Initializes a new instance of the [Value](#) [► 513] class with the specified instance of the [Message](#) [► 307] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Message value  
)
```

Parameters

value	Type: TcHmiSrv.Message [► 307] The Message [► 307] to be set.

Reference

[Value Class](#) [► 513]

[Value Overload](#) [► 524]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.1.12 Value Constructor (Severity)

Initializes a new instance of the [Value](#) [► 513] class with the specified [Severity](#) [► 346].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Severity value  
)
```

Parameters

value	Type: TcHmiSrv.Severity [► 346] The Severity [► 346] to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.13 Value Constructor (Timespan)

Initializes a new instance of the [Value \[► 513\]](#) class with the specified instance of the [Timespan \[► 488\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Timespan value  
)
```

Parameters

value	Type: TcHmiSrv.Timespan [► 488] The Timespan [► 488] to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.14 Value Constructor (Timestamp)

Initializes a new instance of the [Value \[► 513\]](#) class with the specified instance of the [Timestamp \[► 499\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Timestamp value  
)
```

Parameters

value	Type: TcHmiSrv.Timestamp [► 499] The Timestamp [► 499] to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.15 Value Constructor (Value)

Initializes a new instance of the [Value \[► 513\]](#) class based on another [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    Value other  
)
```

Parameters

other	Type: TcHmiSrv.Value [► 513] The other Value [► 513] .

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.1.16 Value Constructor (ValueType)

Initializes a new instance of the [Value \[► 513\]](#) class with the specified [ValueType \[► 630\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value(  
    ValueType value  
)
```

Parameters

value	Type: TcHmiSrv.ValueType [► 630] The ValueType [► 630] to be set.

Reference

[Value Class \[► 513\]](#)

[Value Overload \[► 524\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2 Value Properties

The [Value \[► 513\]](#) type exposes the following members.

Properties

	Name	Description
	Begin [▶ 532]	A ValueIterator [▶ 620] to the begin of the map.
	BeginVector [▶ 533]	A ValueVectorIterator [▶ 631] to the begin of the vector.
	Count [▶ 537]	Gets the number of the Value [▶ 513]s contained in the Value [▶ 513].
	Empty [▶ 533]	Gets a value that indicates whether the Value [▶ 513] is empty.
	End [▶ 533]	A ValueIterator [▶ 620] to the end of the map.
	EndVector [▶ 534]	A ValueVectorIterator [▶ 631] to the end of the vector.
	IsFixedSize [▶ 537]	
	IsReadOnly [▶ 538]	Gets a value that indicates whether the Value [▶ 513] is read-only.
	IsSet [▶ 534]	Gets a value that indicates whether the Value [▶ 513] is set.
	IsSynchronized [▶ 538]	
	Item.Int32. [▶ 535]	Gets or sets the Value [▶ 513] at the specified index.
	Item.String. [▶ 535]	Gets or sets the Value [▶ 513] with the specified key.
	Keys [▶ 539]	Gets an ICollection.T. containing the keys of the Value [▶ 513].
	Size [▶ 536]	Gets the number of Value [▶ 513]s in the map or vector.
	SyncRoot [▶ 539]	
	Type [▶ 536]	Gets or sets the type of the Value [▶ 513]. If the ValueType [▶ 630] is different from the old ValueType [▶ 630] all data will be cleared.
	Values [▶ 540]	Gets an ICollection.T. containing the Value [▶ 513]s in the Value [▶ 513].

Reference

[Value Class](#) [[▶ 513](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.2.1 Value.Begin Property

A [ValueIterator](#) [[▶ 620](#)] to the begin of the map.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public ValueIterator Begin { get; }
```


Property Value

Type: [ValueIterator](#) [[▶ 620](#)]

Reference

[Value Class](#) [[▶ 513](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.2.2 Value.BeginVector Property

A [ValueVectorIterator](#) [[▶ 631](#)] to the begin of the vector.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public ValueVectorIterator BeginVector { get; }
```

Property Value

Type: [ValueVectorIterator](#) [[▶ 631](#)]

Reference

[Value Class](#) [[▶ 513](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.2.3 Value.Empty Property

Gets a value that indicates whether the [Value](#) [[▶ 513](#)] is empty.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public bool Empty { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class](#) [[▶ 513](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.2.4 Value.End Property

A [ValueIterator](#) [[▶ 620](#)] to the end of the map.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator End { get; }
```

Property Value

Type: [ValueIterator](#) [► 620]

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.2.5 Value.EndVector Property

A [ValueVectorIterator](#) [► 631] to the end of the vector.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueVectorIterator EndVector { get; }
```

Property Value

Type: [ValueVectorIterator](#) [► 631]

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.2.6 Value.IsSet Property

Gets a value that indicates whether the [Value](#) [► 513] is set.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.2.7 Value.Item Property

Overload List

	Name	Description
	Item.Int32. [► 535]	Gets or sets the Value [► 513] at the specified index.
	Item.String. [► 535]	Gets or sets the Value [► 513] with the specified key.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.7.1 Value.Item Property (Int32)

Gets or sets the [Value \[► 513\]](#) at the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value this[
    int index
] { get; set; }
```

Parameters

index	Type: System.Int32 The zero-based index of the Value [► 513] to get or set.

Return Value

Type: [Value \[► 513\]](#)

The [Value \[► 513\]](#) at the specified index.

Implements

[IList.T..Item.Int32.](#)

Reference

[Value Class \[► 513\]](#)

[Item Overload \[► 535\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.7.2 Value.Item Property (String)

Gets or sets the [Value \[► 513\]](#) with the specified key.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value this[
    string key
] { get; set; }
```

Parameters

key	Type: System.String The key of the Value [► 513] to get or set.

Return Value

Type: [Value \[► 513\]](#)

The [Value \[► 513\]](#) with the specified key.

Implements

[IDictionary.Item.](#)

[IReadOnlyDictionary.Item.](#)

Reference

[Value Class \[► 513\]](#)

[Item Overload \[► 535\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.8 Value.Size Property

Gets the number of [Value \[► 513\]](#)s in the map or vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint Size { get; }
```

Property Value

Type: [UInt32](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.9 Value.Type Property

Gets or sets the type of the [Value \[► 513\]](#). If the [ValueType \[► 630\]](#) is different from the old [ValueType \[► 630\]](#) all data will be cleared.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueType Type { get; set; }
```

Property Value

Type: [ValueType](#) [► 630]

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.2.10 Value.Count Property

Gets the number of the [Value](#) [► 513]s contained in the [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int Count { get; }
```

Property Value

Type: [Int32](#)

Implements

[ICollection.Count](#)

[ICollection.T..Count](#)

[ICollection.T..Count](#)

[IReadOnlyCollection.T..Count](#)

[IReadOnlyCollection.T..Count](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.2.11 Value.IsFixedSize Property

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsFixedSize { get; }
```

Property Value

Type: [Boolean](#)

Implements

[IDictionary.IsFixedSize](#)

Reference

[Value Class](#) [[► 513](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.2.12 Value.IsReadOnly Property

Gets a value that indicates whether the [Value](#) [[► 513](#)] is read-only.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsReadOnly { get; }
```

Property Value

Type: [Boolean](#)

Implements

[IDictionary.IsReadOnly](#)

[ICollection.T.IsReadOnly](#)

[ICollection.T.IsReadOnly](#)

Reference

[Value Class](#) [[► 513](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.2.13 Value.IsSynchronized Property

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool IsSynchronized { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.IsSynchronized](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.14 Value.Keys Property

Gets an [ICollection.T](#), containing the keys of the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ICollection<string> Keys { get; }
```

Property Value

Type: [ICollection.String](#).

Implements

[IDictionary.TKey, TValue..Keys](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.15 Value.SyncRoot Property

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Object SyncRoot { get; }
```

Property Value

Type: [Object](#)

Implements

[ICollection.SyncRoot](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.2.16 Value.Values Property

Gets an [ICollection.T](#), containing the [Value \[► 513\]](#)s in the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ICollection<Value> Values { get; }
```

Property Value

Type: [ICollection.Value \[► 513\]](#).

Implements

[IDictionary.TKey, TValue..Values](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3 Value Methods

The [Value \[► 513\]](#) type exposes the following members.

Methods

	Name	Description
	add [▶ 544]	Adds a Value [▶ 513] to the end of the vector.
	Add(KeyValuePair.String, Value.) [▶ 564]	Adds a KeyValuePair<tkey, tvalue=""></tkey,> to the Value [▶ 513].
	Add(Value) [▶ 565]	Adds a Value [▶ 513] to the Value [▶ 513].
	Add(String, Value) [▶ 565]	Adds a Value [▶ 513] with the specified key to the Value [▶ 513].
	clear [▶ 545]	Removes all Value [▶ 513]s from the map or vector.
	Clear [▶ 566]	Removes all Value [▶ 513]s from the Value [▶ 513].
	Contains(KeyValuePair.String, Value.) [▶ 567]	Determines whether the Value [▶ 513] contains the specified KeyValuePair<tkey, tvalue=""></tkey,> .
	Contains(Value) [▶ 567]	Determines whether the Value [▶ 513] contains the specified Value [▶ 513].
	ContainsKey [▶ 568]	Determines whether the Value [▶ 513] contains a Value [▶ 513] with the specified key.
	convert [▶ 545]	Tries to convert the Value [▶ 513] to another ValueType [▶ 630]. If conversion fails, the Value [▶ 513] will remain unchanged. Available conversions are: - int to double - double to int if there are no fractional digits - string containing number to double or int - string containing "true" or "false" to boolean - string in ISO-8601 to timestamp - string in base64 to binary - string in base64 containing 64 bit integer to int64 - struct to alarm - struct to message - struct to event - map to vector - struct to vector
	CopyTo(KeyValuePair.String, Value., Int32) [▶ 569]	Copies the KeyValuePair<tkey, tvalue=""></tkey,> s of the Value [▶ 513] to an Array starting at the specified Array index.
	CopyTo(Value., Int32) [▶ 570]	Copies the Value [▶ 513]s of the Value [▶ 513] to an Array starting at the specified Array index.
	Dispose . [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 546]	(Overrides IObject.Dispose(Boolean) [▶ 275].)
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value) [▶ 547]	Indicates whether the current Value [▶ 513] is equal to another Value [▶ 513].
	Finalize [▶ 275]	(Inherited from IObject [▶ 272].)
	find(String) [▶ 548]	Finds a Value [▶ 513] with the specified key in the map.
	find(UInt32) [▶ 548]	Finds a Value [▶ 513] with the specified index in the vector.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [▶ 570]	Gets the TypeCode for this Value [▶ 513].
	IndexOf [▶ 571]	Determines the index of the specific Value [▶ 513] in the Value [▶ 513].
	insert(String, String) [▶ 550]	Inserts a String with the specified key in the map.
	insert(String, Value) [▶ 550]	Inserts a Value [▶ 513] with the specified key in the map.
	insert(ValueVectorIterator, Value) [▶ 551]	Inserts a Value [▶ 513] at the specified position in the vector.

	Name	Description
	Insert [► 571]	Inserts a Value [► 513] to the Value [► 513] at the specified index.
	insert_or_update(String, String) [► 552]	Inserts or updates a String with the specified key in the map.
	insert_or_update(String, Value) [► 552]	Inserts or updates a Value [► 513] with the specified key in the map.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	remove(UInt32) [► 553]	Removes a Value [► 513] at the specified index from the vector.
	remove(ValueIterator) [► 554]	Removes a Value [► 513] at the specified position from the map.
	remove(ValueVectorIterator) [► 555]	Removes a Value [► 513] at the specified position from the vector.
	remove(UInt32, UInt32) [► 555]	Removes a range of Value [► 513]s from the vector.
	Remove(KeyValuePair.String, Value.) [► 572]	Removes the first occurrence of the specified KeyValuePair.TKey , TValue from the Value [► 513].
	Remove(String) [► 573]	Removes the Value [► 513] with the specified key from the Value [► 513].
	Remove(Value) [► 573]	Removes the first occurrence of the specified Value [► 513] from the Value [► 513].
	RemoveAt [► 574]	Removes the Value [► 513] at the specified index of the Value [► 513].
	RemoveRange [► 575]	Removes a range of Value [► 513]s from the Value [► 513].
	reserve [► 556]	Reserves memory for a number of Value [► 513]s to reduce memory allocations.
	set(Access) [► 559]	Sets the Value [► 513] to the specified Access [► 157].
	set(Alarm) [► 560]	Sets the Value [► 513] to the specified instance of the Alarm [► 158] class.
	set(Binary) [► 560]	Sets the Value [► 513] to the specified instance of the Binary [► 172] class.
	set(Boolean) [► 557]	Sets the Value [► 513] to the specified boolean value.
	set(Double) [► 558]	Sets the Value [► 513] to the specified double-precision floating-point number.
	set(Event) [► 561]	Sets the Value [► 513] to the specified instance of the Event [► 253] class.
	set(Int32) [► 558]	Sets the Value [► 513] to the specified integer.
	set(Int64) [► 559]	Sets the Value [► 513] to the specified long integer.
	set(Message) [► 561]	Sets the Value [► 513] to the specified instance of the Message [► 307] class.
	set(Severity) [► 562]	Sets the Value [► 513] to the specified Severity [► 346].
	set(String) [► 559]	Sets the Value [► 513] to the specified string.
	set(Timespan) [► 562]	Sets the Value [► 513] to the specified instance of the Timespan [► 488] class.
	set(Timestamp) [► 563]	Sets the Value [► 513] to the specified instance of the Timestamp [► 499] class.

	Name	Description
	set(ValueType) [► 563]	Sets the Value [► 513] to the specified ValueType [► 630] .
	swap [► 564]	Exchanges the values of two instances of the Value [► 513] class.
	ToBoolean [► 575]	Converts the Value [► 513] to an equivalent Boolean value using the specified IFormatProvider .
	ToByte [► 576]	Converts the Value [► 513] to an equivalent Byte using the specified IFormatProvider .
	ToChar [► 576]	Converts the Value [► 513] to an equivalent Char using the specified IFormatProvider .
	ToDateTime [► 577]	Converts the Value [► 513] to an equivalent DateTime using the specified IFormatProvider .
	ToDecimal [► 577]	Converts the Value [► 513] to an equivalent Decimal value using the specified IFormatProvider .
	ToDouble [► 578]	Converts the Value [► 513] to an equivalent Double -precision floating-point number using the specified IFormatProvider .
	ToInt16 [► 579]	Converts the Value [► 513] to an equivalent Int16 integer using the specified IFormatProvider .
	ToInt32 [► 579]	Converts the Value [► 513] to an equivalent Int32 using the specified IFormatProvider .
	ToInt64 [► 580]	Converts the Value [► 513] to an equivalent Int64 integer using the specified IFormatProvider .
	ToSByte [► 580]	Converts the Value [► 513] to an equivalent SByte using the specified IFormatProvider .
	ToSingle [► 581]	Converts the Value [► 513] to an equivalent Single -precision floating-point number using the specified IFormatProvider .
	ToString.	Returns a string that represents the current object. (Inherited from Object .)
	ToString(IFormatProvider) [► 582]	Converts the Value [► 513] to an equivalent String using the specified IFormatProvider .
	ToType [► 583]	Converts the Value [► 513] to an equivalent Object of the specified Type using the specified IFormatProvider .
	ToUInt16 [► 583]	Converts the Value [► 513] to an equivalent UInt16 integer using the specified IFormatProvider .
	ToUInt32 [► 584]	Converts the Value [► 513] to an equivalent UInt32 using the specified IFormatProvider .
	ToUInt64 [► 584]	Converts the Value [► 513] to an equivalent UInt64 integer using the specified IFormatProvider .
	TryGetValue [► 585]	Gets the Value [► 513] associated with the specified key.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.1 Value.add Method

Adds a [Value \[► 513\]](#) to the end of the vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value add(  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] of the Value [► 513] to add.

Return Value

Type: [Value \[► 513\]](#)

The [Value \[► 513\]](#) that has been added.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.2 Value.clear Method

Removes all [Value \[► 513\]](#)s from the map or vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void clear()
```

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.3 Value.convert Method

Tries to convert the [Value \[► 513\]](#) to another [ValueType \[► 630\]](#). If conversion fails, the [Value \[► 513\]](#) will remain unchanged. Available conversions are: - int to double - double to int if there are no fractional digits - string containing number to double or int - string containing "true" or "false" to boolean - string in ISO-8601 to timestamp - string in base64 to binary - string in base64 containing 64 bit integer to int64 - struct to alarm - struct to message - struct to event - map to vector - struct to vector

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Value convert(
    ValueType type
)
```

Parameters

type	Type: TcHmiSrv.ValueType [► 630] The ValueType [► 630] to convert to.

Return Value

Type: [Value](#) [► 513]
The converted [Value](#) [► 513].

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.4 Value.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 546]	Releases the unmanaged resources used by the Value [► 513] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [► 275].)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.4.1 Value.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Value](#) [► 513] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Value Class \[► 513\]](#)

[Dispose Overload \[► 546\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.5 Value.Equals Method

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value) [► 547]	Indicates whether the current Value [► 513] is equal to another Value [► 513] .

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.5.1 Value.Equals Method (Value)

Indicates whether the current [Value \[► 513\]](#) is equal to another [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    Value other  
)
```

Parameters

other	Type: TcHmiSrv.Value [► 513] The Value [► 513] to compare with this Value [► 513] .

Return Value

Type: [Boolean](#)

true if the current [Value \[► 513\]](#) is equal to the other [Value \[► 513\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 513\]](#)

[Equals Overload \[► 547\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.6 Value.find Method

Overload List

	Name	Description
	find(String) [► 548]	Finds a Value [► 513] with the specified key in the map.
	find(UInt32) [► 548]	Finds a Value [► 513] with the specified index in the vector.

Reference

[Value Class](#) [[► 513](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.3.6.1 Value.find Method (String)

Finds a [Value](#) [[► 513](#)] with the specified key in the map.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator find(  
    string key  
)
```

Parameters

key	Type: System.String The key of the Value [► 513] to find.

Return Value

Type: [ValueIterator](#) [[► 620](#)]

A [ValueIterator](#) [[► 620](#)] to the [Value](#) [[► 513](#)] with the specified key or a [ValueIterator](#) [[► 620](#)] to the end of the map if the [Value](#) [[► 513](#)] does not exist.

Reference

[Value Class](#) [[► 513](#)]

[find Overload](#) [[► 548](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.3.6.2 Value.find Method (UInt32)

Finds a [Value](#) [[► 513](#)] with the specified index in the vector.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueVectorIterator find(
    uint index
)
```

Parameters

index	Type: System.UInt32 The index of the Value [► 513] to find.

Return Value

Type: [ValueVectorIterator](#) [► 631]
A [ValueVectorIterator](#) [► 631] to the Value with the specified key or a [ValueVectorIterator](#) [► 631] to the end of the vector if the [Value](#) [► 513] does not exist.

Reference

- [Value Class](#) [► 513]
- [find Overload](#) [► 548]
- [TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.7 Value.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current [Value](#) [► 513].

Reference

- [Value Class](#) [► 513]
- [TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.8 Value.insert Method

Overload List

	Name	Description
	insert(String, String) [► 550]	Inserts a String with the specified key in the map.
	insert(String, Value) [► 550]	Inserts a Value [► 513] with the specified key in the map.
	insert(ValueVectorIterator, Value) [► 551]	Inserts a Value [► 513] at the specified position in the vector.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.8.1 *Value.insert Method (String, String)*

Inserts a [String](#) with the specified key in the map.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator insert(  
    string key,  
    string value  
)
```

Parameters

key	Type: System.String The key of the String to insert.
value	Type: System.String The String to insert.

Return Value

Type: [ValueIterator \[► 620\]](#)

A [ValueIterator \[► 620\]](#) to the inserted [String](#).

Reference

[Value Class \[► 513\]](#)

[insert Overload \[► 549\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.8.2 *Value.insert Method (String, Value)*

Inserts a [Value \[► 513\]](#) with the specified key in the map.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator insert(  
    string key,  
    Value value  
)
```

Parameters

key	Type: System.String The key of the Value [► 513] to insert.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] of the Value [► 513] to insert.

Return Value

Type: [ValueIterator \[► 620\]](#)

A [ValueIterator \[► 620\]](#) to the inserted [Value \[► 513\]](#).

Reference

[Value Class \[► 513\]](#)

[insert Overload \[► 549\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.8.3 Value.insert Method (ValueVectorIterator, Value)

Inserts a [Value \[► 513\]](#) at the specified position in the vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public ValueVectorIterator insert(  
    ValueVectorIterator position,  
    Value value  
)
```

Parameters

position	Type: TcHmiSrv.ValueVectorIterator [► 631] The position of the Value [► 513] .
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to insert.

Return Value

Type: [ValueVectorIterator \[► 631\]](#)

A [ValueVectorIterator \[► 631\]](#) to the inserted [Value \[► 513\]](#).

Reference

[Value Class \[► 513\]](#)

[insert Overload \[► 549\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.9 Value.insert_or_update Method

Overload List

	Name	Description
	insert_or_update(String, String) [► 552]	Inserts or updates a String with the specified key in the map.
	insert_or_update(String, Value) [► 552]	Inserts or updates a Value [► 513] with the specified key in the map.

Reference

[Value Class](#) [\[► 513\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.97.3.9.1 Value.insert_or_update Method (String, String)

Inserts or updates a [String](#) with the specified key in the map.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator insert_or_update(  
    string key,  
    string value  
)
```

Parameters

key	Type: System.String The key of the String to insert or update.
value	Type: System.String The String to insert or update.

Return Value

Type: [ValueIterator](#) [\[► 620\]](#)

A [ValueIterator](#) [\[► 620\]](#) to the inserted or updated [String](#).

Reference

[Value Class](#) [\[► 513\]](#)

[insert_or_update Overload](#) [\[► 552\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.97.3.9.2 Value.insert_or_update Method (String, Value)

Inserts or updates a [Value](#) [\[► 513\]](#) with the specified key in the map.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator insert_or_update(  
    string key,  
    Value value  
)
```

Parameters

key	Type: System.String The key of the Value [▸ 513] to insert or update.
value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] of the Value [▸ 513] to insert or update.

Return Value

Type: [ValueIterator \[▸ 620\]](#)
A [ValueIterator \[▸ 620\]](#) to the inserted or updated [Value \[▸ 513\]](#).

Reference

- [Value Class \[▸ 513\]](#)
- [insert_or_update Overload \[▸ 552\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.3.10 Value.remove Method

Overload List

	Name	Description
	remove(UInt32) [▸ 553]	Removes a Value [▸ 513] at the specified index from the vector.
	remove(ValueIterator) [▸ 554]	Removes a Value [▸ 513] at the specified position from the map.
	remove(ValueVectorIterator) [▸ 555]	Removes a Value [▸ 513] at the specified position from the vector.
	remove(UInt32, UInt32) [▸ 555]	Removes a range of Value [▸ 513] s from the vector.

Reference

- [Value Class \[▸ 513\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.3.10.1 Value.remove Method (UInt32)

Removes a [Value \[▸ 513\]](#) at the specified index from the vector.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue remove(  
    uint index  
)
```

Parameters

index	Type: System.UInt32 The index of the Value [► 513] that should be removed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI SUCCESS \[► 247\]](#) if the [Value \[► 513\]](#) has been removed or [HMI E ENTRY NOT FOUND \[► 247\]](#) if the [Value \[► 513\]](#) does not exist.

Reference

[Value Class \[► 513\]](#)

[remove Overload \[► 553\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.10.2 Value.remove Method (ValueIterator)

Removes a [Value \[► 513\]](#) at the specified position from the map.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue remove(  
    ValueIterator position  
)
```

Parameters

position	Type: TcHmiSrv.ValueIterator [► 620] The position of the Value [► 513] that should be removed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI SUCCESS \[► 247\]](#) if the [Value \[► 513\]](#) has been removed or [HMI E ENTRY NOT FOUND \[► 247\]](#) if the [Value \[► 513\]](#) does not exist.

Reference

[Value Class \[► 513\]](#)

[remove Overload \[► 553\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.10.3 *Value.remove Method (ValueVectorIterator)*

Removes a [Value \[► 513\]](#) at the specified position from the vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue remove(  
    ValueVectorIterator position  
)
```

Parameters

position	Type: TcHmiSrv.ValueVectorIterator [► 631] The position of the Value [► 513] that should be removed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if the [Value \[► 513\]](#) has been removed or [HMI_E_ENTRY_NOT_FOUND \[► 247\]](#) if the [Value \[► 513\]](#) does not exist.

Reference

[Value Class \[► 513\]](#)

[remove Overload \[► 553\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.10.4 *Value.remove Method (UInt32, UInt32)*

Removes a range of [Value \[► 513\]](#)s from the vector.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue remove(  
    uint first,  
    uint last  
)
```

Parameters

first	Type: System.UInt32 The index of the first Value [► 513] that should be removed.
last	Type: System.UInt32 The index of the last Value [► 513] that should be removed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if the [Value \[► 513\]](#)s have been removed; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[Value Class \[► 513\]](#)

[remove Overload \[► 553\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.11 Value.reserve Method

Reserves memory for a number of [Value \[► 513\]](#)s to reduce memory allocations.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void reserve(  
    uint size  
)
```

Parameters

size	Type: System.UInt32 The number of Value [► 513] s that should be reserved.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12 Value.set Method

Overload List

	Name	Description
	set(Access) [► 559]	Sets the Value [► 513] to the specified Access [► 157] .
	set(Alarm) [► 560]	Sets the Value [► 513] to the specified instance of the Alarm [► 158] class.
	set(Binary) [► 560]	Sets the Value [► 513] to the specified instance of the Binary [► 172] class.
	set(Boolean) [► 557]	Sets the Value [► 513] to the specified boolean value.
	set(Double) [► 558]	Sets the Value [► 513] to the specified double-precision floating-point number.
	set(Event) [► 561]	Sets the Value [► 513] to the specified instance of the Event [► 253] class.
	set(Int32) [► 558]	Sets the Value [► 513] to the specified integer.
	set(Int64) [► 559]	Sets the Value [► 513] to the specified long integer.
	set(Message) [► 561]	Sets the Value [► 513] to the specified instance of the Message [► 307] class.
	set(Severity) [► 562]	Sets the Value [► 513] to the specified Severity [► 346] .
	set(String) [► 559]	Sets the Value [► 513] to the specified string.
	set(Timespan) [► 562]	Sets the Value [► 513] to the specified instance of the Timespan [► 488] class.
	set(Timestamp) [► 563]	Sets the Value [► 513] to the specified instance of the Timestamp [► 499] class.
	set(ValueType) [► 563]	Sets the Value [► 513] to the specified ValueType [► 630] .

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.1 Value.set Method (Boolean)

Sets the [Value \[► 513\]](#) to the specified boolean value.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(
    bool value
)
```

Parameters

value	Type: System.Boolean The boolean value to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.2 Value.set Method (Double)

Sets the [Value \[► 513\]](#) to the specified double-precision floating-point number.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    double value  
)
```

Parameters

value	Type: System.Double The double-precision floating-point number to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.3 Value.set Method (Int32)

Sets the [Value \[► 513\]](#) to the specified integer.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    int value  
)
```

Parameters

value	Type: System.Int32 The integer to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.4 Value.set Method (Int64)

Sets the [Value \[► 513\]](#) to the specified long integer.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    long value  
)
```

Parameters

value	Type: System.Int64 The long integer to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.5 Value.set Method (String)

Sets the [Value \[► 513\]](#) to the specified string.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    string value  
)
```

Parameters

value	Type: System.String The string to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.6 Value.set Method (Access)

Sets the [Value \[► 513\]](#) to the specified [Access \[► 157\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Access value  
)
```

Parameters

value	Type: TcHmiSrv.Access [► 157] The Access [► 157] to be set.

Reference

[Value Class](#) [► 513]

[set Overload](#) [► 557]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.12.7 Value.set Method (Alarm)

Sets the [Value](#) [► 513] to the specified instance of the [Alarm](#) [► 158] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Alarm value  
)
```

Parameters

value	Type: TcHmiSrv.Alarm [► 158] The Alarm [► 158] to be set.

Reference

[Value Class](#) [► 513]

[set Overload](#) [► 557]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.12.8 Value.set Method (Binary)

Sets the [Value](#) [► 513] to the specified instance of the [Binary](#) [► 172] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Binary value  
)
```

Parameters

value	Type: TcHmiSrv.Binary [▶ 172] The Binary [▶ 172] to be set.

Reference

[Value Class](#) [[▶ 513](#)]

[set Overload](#) [[▶ 557](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.3.12.9 Value.set Method (Event)

Sets the [Value](#) [[▶ 513](#)] to the specified instance of the [Event](#) [[▶ 253](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Event value  
)
```

Parameters

value	Type: TcHmiSrv.Event [▶ 253] The Event [▶ 253] to be set.

Reference

[Value Class](#) [[▶ 513](#)]

[set Overload](#) [[▶ 557](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.3.12.1 Value.set Method (Message)
0

Sets the [Value](#) [[▶ 513](#)] to the specified instance of the [Message](#) [[▶ 307](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Message value  
)
```

Parameters

value	Type: TcHmiSrv.Message [▶ 307] The Message [▶ 307] to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.1 Value.set Method (Severity)
1

Sets the [Value \[► 513\]](#) to the specified [Severity \[► 346\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Severity value  
)
```

Parameters

value	Type: TcHmiSrv.Severity [► 346] The Severity [► 346] to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.1 Value.set Method (Timespan)
2

Sets the [Value \[► 513\]](#) to the specified instance of the [Timespan \[► 488\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Timespan value  
)
```

Parameters

value	Type: TcHmiSrv.Timespan [► 488] The Timespan [► 488] to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.1 Value.set Method (Timestamp)
3

Sets the [Value \[► 513\]](#) to the specified instance of the [Timestamp \[► 499\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    Timestamp value  
)
```

Parameters

value	Type: TcHmiSrv.Timestamp [► 499] The Timestamp [► 499] to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.12.1 Value.set Method (ValueType)
4

Sets the [Value \[► 513\]](#) to the specified [ValueType \[► 630\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void set(  
    ValueType value  
)
```

Parameters

value	Type: TcHmiSrv.ValueType [► 630] The ValueType [► 630] to be set.

Reference

[Value Class \[► 513\]](#)

[set Overload \[► 557\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.13 Value.swap Method

Exchanges the values of two instances of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool swap(  
    Value other  
)
```

Parameters

other	Type: TcHmiSrv.Value [► 513] The other Value [► 513] .

Return Value

Type: [Boolean](#)

true if the swap was successful; otherwise, false.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.14 Value.Add Method

Overload List

	Name	Description
	Add(KeyValuePair.String, Value.) [► 564]	Adds a KeyValuePair.TKey, TValue. to the Value [► 513] .
	Add(Value) [► 565]	Adds a Value [► 513] to the Value [► 513] .
	Add(String, Value) [► 565]	Adds a Value [► 513] with the specified key to the Value [► 513] .

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.14.1 Value.Add Method (KeyValuePair.String, Value.)

Adds a [KeyValuePair.TKey, TValue.](#) to the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Add(  
    KeyValuePair<string, Value> item  
)
```

Parameters

item	Type: System.Collections.Generic.KeyValuePair.String , Value [▸ 513] . The KeyValuePair.TKey , TValue to add to the Value [▸ 513] .

Implements

[ICollection.T..Add\(T\)](#)

Reference

[Value Class \[▸ 513\]](#)

[Add Overload \[▸ 564\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.3.14.2 Value.Add Method (Value)

Adds a [Value \[▸ 513\]](#) to the [Value \[▸ 513\]](#).

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Add(  
    Value item  
)
```

Parameters

item	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to add to the Value [▸ 513] .

Implements

[ICollection.T..Add\(T\)](#)

Reference

[Value Class \[▸ 513\]](#)

[Add Overload \[▸ 564\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.3.14.3 Value.Add Method (String, Value)

Adds a [Value \[▸ 513\]](#) with the specified key to the [Value \[▸ 513\]](#).

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Add(  
    string key,  
    Value value  
)
```

Parameters

key	Type: System.String The key of the Value [► 513] to add.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to add.

Implements

[IDictionary.Add\(TKey, TValue\)](#)

Reference

- [Value Class](#) [[► 513](#)]
- [Add Overload](#) [[► 564](#)]
- [TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.3.15 Value.Clear Method

Removes all [Value](#) [[► 513](#)]s from the [Value](#) [[► 513](#)].

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Clear()
```

Implements

- [IDictionary.Clear.](#)
- [ICollection.T..Clear.](#)
- [ICollection.T..Clear.](#)

Reference

- [Value Class](#) [[► 513](#)]
- [TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.3.16 Value.Contains Method

Overload List

	Name	Description
	Contains(KeyValuePair.String, Value.) [▶ 567]	Determines whether the Value [▶ 513] contains the specified KeyValuePair<tkey, tvalue=""></tkey,> .
	Contains(Value) [▶ 567]	Determines whether the Value [▶ 513] contains the specified Value [▶ 513].

Reference

[Value Class](#) [[▶ 513](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.3.16.1 Value.Contains Method (KeyValuePair.String, Value.)

Determines whether the [Value](#) [[▶ 513](#)] contains the specified [KeyValuePair](#).

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public bool Contains(  
    KeyValuePair<string, Value> item  
)
```

Parameters

item	Type: System.Collections.Generic.KeyValuePair.String, Value [▶ 513]. The KeyValuePair<tkey, tvalue=""></tkey,> to locate in the Value [▶ 513].

Return Value

Type: [Boolean](#)

true if item is found in the [Value](#) [[▶ 513](#)]; otherwise, false.

Implements

[ICollection.T.Contains\(T\)](#)

Reference

[Value Class](#) [[▶ 513](#)]

[Contains Overload](#) [[▶ 567](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.3.16.2 Value.Contains Method (Value)

Determines whether the [Value](#) [[▶ 513](#)] contains the specified [Value](#) [[▶ 513](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public bool Contains(  
    Value item  
)
```

Parameters

item	Type: TcHmiSrv.Value [► 513] The Value [► 513] to locate in the Value [► 513].

Return Value

Type: [Boolean](#)

true if item is found in the [Value](#) [► 513]; otherwise, false.

Implements

[ICollection.T.Contains\(T\)](#)

Reference

[Value Class](#) [► 513]

[Contains Overload](#) [► 567]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.17 Value.ContainsKey Method

Determines whether the [Value](#) [► 513] contains a [Value](#) [► 513] with the specified key.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public bool ContainsKey(  
    string key  
)
```

Parameters

key	Type: System.String The key to locate in the Value [► 513].

Return Value

Type: [Boolean](#)

true if the [Value](#) [► 513] contains a [Value](#) [► 513] with the specified key; otherwise, false.

Implements

[IDictionary.TKey, TValue..ContainsKey\(TKey\)](#)

[IReadOnlyDictionary.TKey, TValue..ContainsKey\(TKey\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.18 Value.CopyTo Method

Overload List

	Name	Description
	CopyTo(KeyValuePair.String, Value., Int32) [► 569]	Copies the KeyValuePair.TKey , TValue .s of the Value [► 513] to an Array starting at the specified Array index.
	CopyTo(Value., Int32) [► 570]	Copies the Value [► 513] s of the Value [► 513] to an Array starting at the specified Array index.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.18.1 Value.CopyTo Method (.KeyValuePair.String, Value., Int32)

Copies the [KeyValuePair.TKey](#), [TValue](#).s of the [Value \[► 513\]](#) to an [Array](#) starting at the specified [Array](#) index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void CopyTo(  
    KeyValuePair<string, Value>[] array,  
    int arrayIndex  
)
```

Parameters

array	Type: System.Collections.Generic.KeyValuePair.String , Value [► 513] .. The one-dimensional Array that is the destination of the KeyValuePair.TKey , TValue .s copied from the Value [► 513] . The Array must have zero-based indexing.
arrayIndex	Type: System.Int32 The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[Value Class \[► 513\]](#)

[CopyTo Overload \[► 569\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.18.2 Value.CopyTo Method (.Value., Int32)

Copies the [Value \[► 513\]](#)s of the [Value \[► 513\]](#) to an [Array](#) starting at the specified [Array](#) index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void CopyTo(  
    Value[] array,  
    int arrayIndex  
)
```

Parameters

array	Type: .TcHmiSrv.Value [► 513] . The one-dimensional Array that is the destination of the Value [► 513] s copied from the Value [► 513] . The Array must have zero-based indexing.
arrayIndex	Type: System.Int32 The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[Value Class \[► 513\]](#)

[CopyTo Overload \[► 569\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.19 Value.GetTypeCode Method

Gets the [TypeCode](#) for this [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TypeCode GetTypeCode()
```

Return Value

Type: [TypeCode](#)

The [TypeCode](#) of the [Value \[► 513\]](#).

Implements

[IConvertible.GetTypeCode.](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.20 Value.IndexOf Method

Determines the index of the specific [Value \[► 513\]](#) in the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int IndexOf(  
    Value item  
)
```

Parameters

item	Type: TcHmiSrv.Value [► 513] The Value [► 513] to locate in the Value [► 513] .

Return Value

Type: [Int32](#)

The index of item if found in the [Value \[► 513\]](#); otherwise, -1.

Implements

[IList.T..IndexOf\(T\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.21 Value.Insert Method

Inserts a [Value \[► 513\]](#) to the [Value \[► 513\]](#) at the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Insert(  
    int index,  
    Value item  
)
```

Parameters

index	Type: System.Int32 The zero-based index at which item should be inserted.
item	Type: TcHmiSrv.Value [► 513] The Value [► 513] to insert into the Value [► 513].

Implements

[IList.T..Insert\(Int32, T\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.22 Value.Remove Method**Overload List**

	Name	Description
	Remove(KeyValuePair.String, Value.) [► 572]	Removes the first occurrence of the specified KeyValuePair.TKey, TValue. from the Value [► 513].
	Remove(String) [► 573]	Removes the Value [► 513] with the specified key from the Value [► 513].
	Remove(Value) [► 573]	Removes the first occurrence of the specified Value [► 513] from the Value [► 513].

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.22.1 Value.Remove Method (KeyValuePair.String, Value.)

Removes the first occurrence of the specified [KeyValuePair.TKey, TValue.](#) from the [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public bool Remove(
    KeyValuePair<string, Value> item
)
```

Parameters

item	Type: System.Collections.Generic.KeyValuePair.String, Value [► 513]. The KeyValuePair.TKey, TValue. to remove from the Value [► 513].

Return Value

Type: [Boolean](#)
true if item was successfully removed from the [Value \[► 513\]](#); otherwise, false. This method also returns false if item is not found in the original [Value \[► 513\]](#).

Implements

[ICollection.T..Remove\(T\)](#)

Reference

[Value Class \[► 513\]](#)

[Remove Overload \[► 572\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.22.2 *Value.Remove Method (String)*

Removes the [Value \[► 513\]](#) with the specified key from the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Remove(  
    string key  
)
```

Parameters

key	Type: System.String The key of the Value [► 513] to remove.

Return Value

Type: [Boolean](#)
true if the [Value \[► 513\]](#) is successfully removed; otherwise, false. This method also returns false if key was not found in the original [Value \[► 513\]](#).

Implements

[IDictionary.TKey, TValue..Remove\(TKey\)](#)

Reference

[Value Class \[► 513\]](#)

[Remove Overload \[► 572\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.22.3 *Value.Remove Method (Value)*

Removes the first occurrence of the specified [Value \[► 513\]](#) from the [Value \[► 513\]](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Remove(  
    Value item  
)
```

Parameters

item	Type: TcHmiSrv.Value [► 513] The Value [► 513] to remove from the Value [► 513].

Return Value

Type: [Boolean](#)

true if item was successfully removed from the [Value](#) [► 513]; otherwise, false. This method also returns false if item is not found in the original [Value](#) [► 513].

Implements

[ICollection.T..Remove\(T\)](#)

Reference

[Value Class](#) [► 513]

[Remove Overload](#) [► 572]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.23 Value.RemoveAt Method

Removes the [Value](#) [► 513] at the specified index of the [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void RemoveAt(  
    int index  
)
```

Parameters

index	Type: System.Int32 The zero-based index of the Value [► 513] to remove.

Implements

[IList.T..RemoveAt\(Int32\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.24 Value.RemoveRange Method

Removes a range of [Value \[► 513\]](#)s from the [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void RemoveRange(  
    int index,  
    int count  
)
```

Parameters

index	Type: System.Int32 The zero-based starting index of the range of Value [► 513] s to remove.
count	Type: System.Int32 The number of Value [► 513] s to remove.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.25 Value.ToBoolean Method

Converts the [Value \[► 513\]](#) to an equivalent [Boolean](#) value using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool ToBoolean(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Boolean](#)

A [Boolean](#) value that is equivalent to the [Value \[► 513\]](#).

Implements

[IConvertible.ToBoolean\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.26 Value.ToByte Method

Converts the [Value](#) [► 513] to an equivalent [Byte](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public byte ToByte(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Byte](#)

A [Byte](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToByte\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.27 Value.ToChar Method

Converts the [Value](#) [► 513] to an equivalent [Char](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public char ToChar(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Char](#)

A [Char](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToChar\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.28 Value.ToDateTime Method

Converts the [Value](#) [► 513] to an equivalent [DateTime](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public DateTime ToDateTime(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [DateTime](#)

A [DateTime](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToDateTime\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.29 Value.ToDecimal Method

Converts the [Value](#) [► 513] to an equivalent [Decimal](#) value using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public decimal ToDecimal(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Decimal](#)

A [Decimal](#) value that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToDecimal\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.30 Value.ToDouble Method

Converts the [Value](#) [► 513] to an equivalent [Double](#)-precision floating-point number using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public double ToDouble(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Double](#)

A [Double](#)-precision floating-point number that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToDouble\(IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.31 Value.ToInt16 Method

Converts the [Value \[► 513\]](#) to an equivalent [Int16](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public short ToInt16(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Int16](#)

A [Int16](#) integer that is equivalent to the [Value \[► 513\]](#).

Implements

[IConvertible.ToInt16\(IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.32 Value.ToInt32 Method

Converts the [Value \[► 513\]](#) to an equivalent [Int32](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public int ToInt32(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Int32](#)
An [Int32](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToInt32\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.33 Value.ToInt64 Method

Converts the [Value](#) [► 513] to an equivalent [Int64](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public long ToInt64(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Int64](#)
A [Int64](#) integer that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToInt64\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.34 Value.ToSByte Method

Converts the [Value](#) [► 513] to an equivalent [SByte](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public sbyte ToSByte(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [SByte](#)

A [SByte](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToSByte\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.35 Value.ToSingle Method

Converts the [Value](#) [► 513] to an equivalent [Single](#)-precision floating-point number using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public float ToSingle(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Single](#)

A [Single](#)-precision floating-point number that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToSingle\(IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.36 Value.ToString Method

Overload List

	Name	Description
	ToString.	Returns a string that represents the current object. (Inherited from Object.)
	ToString(IFormatProvider) [► 582]	Converts the Value [► 513] to an equivalent String using the specified IFormatProvider .

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.36.1 Value.ToString Method (IFormatProvider)

Converts the [Value \[► 513\]](#) to an equivalent [String](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string ToString(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [String](#)

A [String](#) that is equivalent to the [Value \[► 513\]](#).

Implements

[IConvertible.ToString\(IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[ToString Overload \[► 582\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.37 Value.ToType Method

Converts the [Value \[► 513\]](#) to an equivalent [Object](#) of the specified [Type](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Object ToType(  
    Type conversionType,  
    IFormatProvider provider  
)
```

Parameters

conversionType	Type: System.Type The Type to which this Value [► 513] is converted.
provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [Object](#)

An [Object](#) of conversionType whose value is equivalent to the [Value \[► 513\]](#).

Implements

[IConvertible.ToType\(Type, IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.38 Value.ToUInt16 Method

Converts the [Value \[► 513\]](#) to an equivalent [UInt16](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ushort ToUInt16(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [UInt16](#)
An [UInt16](#) integer that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToUInt16\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.39 Value.ToUInt32 Method

Converts the [Value](#) [► 513] to an equivalent [UInt32](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public uint ToUInt32(  
    IFormatProvider provider  
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [UInt32](#)
An [UInt32](#) that is equivalent to the [Value](#) [► 513].

Implements

[IConvertible.ToUInt32\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 513]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.3.40 Value.ToUInt64 Method

Converts the [Value](#) [► 513] to an equivalent [UInt64](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ulong ToUInt64(
    IFormatProvider provider
)
```

Parameters

provider	Type: System.IFormatProvider An IFormatProvider that supplies culture-specific formatting information.

Return Value

Type: [UInt64](#)
An [UInt64](#) integer that is equivalent to the [Value \[► 513\]](#).

Implements

[IConvertible.ToUInt64\(IFormatProvider\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.3.41 Value.TryGetValue Method

Gets the [Value \[► 513\]](#) associated with the specified key.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool TryGetValue(
    string key,
    out Value value
)
```

Parameters

key	Type: System.String The key whose Value [► 513] to get.
value	Type: TcHmiSrv.Value [► 513] . When this method returns, the Value [► 513] associated with the specified key, if the key is found; otherwise, the default value for the type of the value parameter. This parameter is passed uninitialized.

Return Value

Type: [Boolean](#)
true if the [Value \[► 513\]](#) contains a [Value \[► 513\]](#) with the specified key; otherwise, false.

Implements

[IDictionary.TryGetValue\(TKey, TValue.\)](#)

[IReadOnlyDictionary.TryGetValue\(TKey, TValue.\)](#)

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4 Value Operators and Type Conversions

The [Value \[► 513\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 591]	Determines whether the specified Value [► 513] is equal to the current Value [► 513].
 	.(Access to Value) [► 603]	Converts an Access [► 157] to the appropriate instance of the Value [► 513] class.
 	.(Alarm to Value) [► 603]	Converts an Alarm [► 158] to the appropriate instance of the Value [► 513] class.
 	.(Binary to Value) [► 604]	Converts an instance of the Binary [► 172] class to the appropriate instance of the Value [► 513] class.
 	.(Boolean to Value) [► 596]	Converts a Boolean value to the appropriate instance of the Value [► 513] class.
 	.(Byte to Value) [► 596]	Converts an Byte to the appropriate instance of the Value [► 513] class.
 	.(Char to Value) [► 597]	Converts a Char to the appropriate instance of the Value [► 513] class.
 	.(Double to Value) [► 597]	Converts a Double -precision floating-point number to the appropriate instance of the Value [► 513] class.
 	.(Event to Value) [► 604]	Converts an Event [► 253] to the appropriate instance of the Value [► 513] class.
 	.(Int16 to Value) [► 598]	Converts an Int16 to the appropriate instance of the Value [► 513] class.
 	.(Int32 to Value) [► 598]	Converts an Int32 to the appropriate instance of the Value [► 513] class.
 	.(Int64 to Value) [► 599]	Converts a Int64 to the appropriate instance of the Value [► 513] class.
 	.(Message to Value) [► 605]	Converts an Message [► 307] to the appropriate instance of the Value [► 513] class.
 	.(SByte to Value) [► 599]	Converts an SByte to the appropriate instance of the Value [► 513] class.
 	.(Severity to Value) [► 605]	Converts a Severity [► 346] to the appropriate instance of the Value [► 513] class.
 	.(Single to Value) [► 600]	Converts a Single -precision floating-point number to the appropriate instance of the Value [► 513] class.

	Name	Description
		
	.(String to Value) [► 600]	Converts a String to the appropriate instance of the Value [► 513] class.
		
	.(Timespan to Value) [► 606]	Converts an instance of the Timespan [► 488] class to the appropriate instance of the Value [► 513] class.
		
	.(Timestamp to Value) [► 606]	Converts an instance of the Timestamp [► 499] class to the appropriate instance of the Value [► 513] class.
		
	.(UInt16 to Value) [► 601]	Converts an UInt16 to the appropriate instance of the Value [► 513] class.
		
	.(UInt32 to Value) [► 601]	Converts an UInt32 to the appropriate instance of the Value [► 513] class.
		
	.(UInt64 to Value) [► 602]	Converts a UInt64 to the appropriate instance of the Value [► 513] class.
		
	.(Value to Boolean) [► 607]	Converts an instance of the Value [► 513] class to the appropriate Boolean value.
		
	.(Value to Byte) [► 607]	Converts an instance of the Value [► 513] class to the appropriate Byte .
		
	.(Value to Char) [► 608]	Converts an instance of the Value [► 513] class to the appropriate Char .
		
	.(Value to Double) [► 613]	Converts an instance of the Value [► 513] class to the appropriate Double -precision floating-point number.
		
	.(Value to Int16) [► 609]	Converts an instance of the Value [► 513] class to the appropriate Int16 .
		
	.(Value to Int32) [► 610]	Converts an instance of the Value [► 513] class to the appropriate Int32 .
		
	.(Value to Int64) [► 611]	Converts an instance of the Value [► 513] class to the appropriate Int64 .
		
	.(Value to SByte) [► 608]	Converts an instance of the Value [► 513] class to the appropriate SByte .
		
	.(Value to Single) [► 612]	Converts an instance of the Value [► 513] class to the appropriate Single -precision floating-point number.

	Name	Description
 	.Value to String [► 613]	Converts an instance of the Value [► 513] class to the appropriate String .
 	.Value to UInt16 [► 610]	Converts an instance of the Value [► 513] class to the appropriate UInt16 .
 	.Value to UInt32 [► 611]	Converts an instance of the Value [► 513] class to the appropriate UInt32 .
 	.Value to UInt64 [► 612]	Converts an instance of the Value [► 513] class to the appropriate UInt64 .
 	.Value to Access [► 614]	Converts an instance of the Value [► 513] class to the appropriate Access [► 157].
 	.Value to Alarm [► 614]	Converts an instance of the Value [► 513] class to the appropriate Alarm [► 158].
 	.Value to Binary [► 615]	Converts an instance of the Value [► 513] class to the appropriate instance of the Binary [► 172] class.
 	.Value to Event [► 615]	Converts an instance of the Value [► 513] class to the appropriate Event [► 253].
 	.Value to Message [► 616]	Converts an instance of the Value [► 513] class to the appropriate Message [► 307].
 	.Value to Severity [► 617]	Converts an instance of the Value [► 513] class to the appropriate Severity [► 346].
 	.Value to Timespan [► 617]	Converts an instance of the Value [► 513] class to the appropriate instance of the Timespan [► 488] class.
 	.Value to Timestamp [► 618]	Converts an instance of the Value [► 513] class to the appropriate instance of the Timestamp [► 499] class.
 	.Value to ValueType [► 618]	Converts an instance of the Value [► 513] class to the appropriate ValueType [► 630].
 	.ValueType to Value [► 619]	Converts an ValueType [► 630] to the appropriate instance of the Value [► 513] class.
 	Inequality [► 619]	Determines whether the specified Value [► 513] is not equal to the current Value [► 513].

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.1 Value.Equality Operator

Determines whether the specified [Value \[► 513\]](#) is equal to the current [Value \[► 513\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    Value current,
    Value other
)
```

Parameters

current	Type: TcHmiSrv.Value [► 513] The current instance of the Value [► 513] class.
other	Type: TcHmiSrv.Value [► 513] The Value [► 513] to compare with the current Value [► 513] .

Return Value

Type: [Boolean](#)

true if the specified [Value \[► 513\]](#) is equal to the current [Value \[► 513\]](#); otherwise, false.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2 Value . Conversion Operators

Overload List

	Name	Description
 	.(Access to Value) [► 603]	Converts an Access [► 157] to the appropriate instance of the Value [► 513] class.
 	.(Alarm to Value) [► 603]	Converts an Alarm [► 158] to the appropriate instance of the Value [► 513] class.
 	.(Binary to Value) [► 604]	Converts an instance of the Binary [► 172] class to the appropriate instance of the Value [► 513] class.
 	.(Boolean to Value) [► 596]	Converts a Boolean value to the appropriate instance of the Value [► 513] class.
 	.(Byte to Value) [► 596]	Converts an Byte to the appropriate instance of the Value [► 513] class.
 	.(Char to Value) [► 597]	Converts a Char to the appropriate instance of the Value [► 513] class.
 	.(Double to Value) [► 597]	Converts a Double -precision floating-point number to the appropriate instance of the Value [► 513] class.
 	.(Event to Value) [► 604]	Converts an Event [► 253] to the appropriate instance of the Value [► 513] class.
 	.(Int16 to Value) [► 598]	Converts an Int16 to the appropriate instance of the Value [► 513] class.
 	.(Int32 to Value) [► 598]	Converts an Int32 to the appropriate instance of the Value [► 513] class.
 	.(Int64 to Value) [► 599]	Converts a Int64 to the appropriate instance of the Value [► 513] class.
 	.(Message to Value) [► 605]	Converts an Message [► 307] to the appropriate instance of the Value [► 513] class.
 	.(SByte to Value) [► 599]	Converts an SByte to the appropriate instance of the Value [► 513] class.
 	.(Severity to Value) [► 605]	Converts a Severity [► 346] to the appropriate instance of the Value [► 513] class.
 	.(Single to Value) [► 600]	Converts a Single -precision floating-point number to the appropriate instance of the Value [► 513] class.
 	.(String to Value) [► 600]	Converts a String to the appropriate instance of the Value [► 513] class.

	Name	Description
		
	.Timespan to Value [► 606]	Converts an instance of the Timespan [► 488] class to the appropriate instance of the Value [► 513] class.
	.Timestamp to Value [► 606]	Converts an instance of the Timestamp [► 499] class to the appropriate instance of the Value [► 513] class.
	.UInt16 to Value [► 601]	Converts an UInt16 to the appropriate instance of the Value [► 513] class.
	.UInt32 to Value [► 601]	Converts an UInt32 to the appropriate instance of the Value [► 513] class.
	.UInt64 to Value [► 602]	Converts a UInt64 to the appropriate instance of the Value [► 513] class.
	.Value to Boolean [► 607]	Converts an instance of the Value [► 513] class to the appropriate Boolean value.
	.Value to Byte [► 607]	Converts an instance of the Value [► 513] class to the appropriate Byte .
	.Value to Char [► 608]	Converts an instance of the Value [► 513] class to the appropriate Char .
	.Value to Double [► 613]	Converts an instance of the Value [► 513] class to the appropriate Double -precision floating-point number.
	.Value to Int16 [► 609]	Converts an instance of the Value [► 513] class to the appropriate Int16 .
	.Value to Int32 [► 610]	Converts an instance of the Value [► 513] class to the appropriate Int32 .
	.Value to Int64 [► 611]	Converts an instance of the Value [► 513] class to the appropriate Int64 .
	.Value to SByte [► 608]	Converts an instance of the Value [► 513] class to the appropriate SByte .
	.Value to Single [► 612]	Converts an instance of the Value [► 513] class to the appropriate Single -precision floating-point number.
	.Value to String [► 613]	Converts an instance of the Value [► 513] class to the appropriate String .

	Name	Description
 	.Value to UInt16 [► 610]	Converts an instance of the Value [► 513] class to the appropriate UInt16 .
 	.Value to UInt32 [► 611]	Converts an instance of the Value [► 513] class to the appropriate UInt32 .
 	.Value to UInt64 [► 612]	Converts an instance of the Value [► 513] class to the appropriate UInt64 .
 	.Value to Access [► 614]	Converts an instance of the Value [► 513] class to the appropriate Access [► 157].
 	.Value to Alarm [► 614]	Converts an instance of the Value [► 513] class to the appropriate Alarm [► 158].
 	.Value to Binary [► 615]	Converts an instance of the Value [► 513] class to the appropriate instance of the Binary [► 172] class.
 	.Value to Event [► 615]	Converts an instance of the Value [► 513] class to the appropriate Event [► 253].
 	.Value to Message [► 616]	Converts an instance of the Value [► 513] class to the appropriate Message [► 307].
 	.Value to Severity [► 617]	Converts an instance of the Value [► 513] class to the appropriate Severity [► 346].
 	.Value to Timespan [► 617]	Converts an instance of the Value [► 513] class to the appropriate instance of the Timespan [► 488] class.
 	.Value to Timestamp [► 618]	Converts an instance of the Value [► 513] class to the appropriate instance of the Timestamp [► 499] class.
 	.Value to ValueType [► 618]	Converts an instance of the Value [► 513] class to the appropriate ValueType [► 630].
 	.ValueType to Value [► 619]	Converts an ValueType [► 630] to the appropriate instance of the Value [► 513] class.

Reference

[Value Class](#) [► 513]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.4.2.1 **Value . Conversion (Boolean to Value)**

Converts a Boolean value to the appropriate instance of the Value [► 513] class.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    bool value  
)
```

Parameters

value	Type: <u>System.Boolean</u> The <u>Boolean</u> value to convert.

Return Value

Type: Value [► 513]

A Value [► 513] that represents value.

Reference

Value Class [► 513]

.Overload [► 592]

TcHmiSrv Namespace [► 147]

2.1.3.97.4.2.2 **Value . Conversion (Byte to Value)**

Converts an Byte to the appropriate instance of the Value [► 513] class.

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    byte value  
)
```

Parameters

value	Type: <u>System.Byte</u> The <u>Byte</u> to convert.

Return Value

Type: Value [► 513]

A Value [► 513] that represents value.

Reference

Value Class [► 513]

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.3 Value . Conversion (Char to Value)

Converts a [Char](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    char value  
)
```

Parameters

value	Type: System.Char The Char to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.4 Value . Conversion (Double to Value)

Converts a [Double](#)-precision floating-point number to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    double value  
)
```

Parameters

value	Type: System.Double The Double -precision floating-point number to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.5 Value . Conversion (Int16 to Value)

Converts an [Int16](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    short value  
)
```

Parameters

value	Type: System.Int16 The Int16 to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.6 Value . Conversion (Int32 to Value)

Converts an [Int32](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    int value  
)
```

Parameters

value	Type: System.Int32 The Int32 to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[.Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.7 Value . Conversion (Int64 to Value)

Converts a [Int64](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    long value  
)
```

Parameters

value	Type: System.Int64 The Int64 to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[.Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.8 Value . Conversion (SByte to Value)

Converts an [SByte](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    sbyte value  
)
```

Parameters

value	Type: System.SByte The SByte to convert.

Return Value

Type: [Value](#) [[► 513](#)]
A [Value](#) [[► 513](#)] that represents value.

Reference

[Value Class](#) [[► 513](#)]
[. Overload](#) [[► 592](#)]
[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.4.2.9 Value . Conversion (Single to Value)

Converts a [Single](#)-precision floating-point number to the appropriate instance of the [Value](#) [[► 513](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    float value  
)
```

Parameters

value	Type: System.Single The Single -precision floating-point number to convert.

Return Value

Type: [Value](#) [[► 513](#)]
A [Value](#) [[► 513](#)] that represents value.

Reference

[Value Class](#) [[► 513](#)]
[. Overload](#) [[► 592](#)]
[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.97.4.2.10 Value . Conversion (String to Value)

Converts a [String](#) to the appropriate instance of the [Value](#) [[► 513](#)] class.

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    string value  
)
```

Parameters

value	Type: System.String The String to convert.

Return Value

Type: [Value](#) [[▶ 513](#)]
A [Value](#) [[▶ 513](#)] that represents value.

Reference

[Value Class](#) [[▶ 513](#)]
[.Overload](#) [[▶ 592](#)]
[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.4.2.11 Value . Conversion (UInt16 to Value)

Converts an [UInt16](#) to the appropriate instance of the [Value](#) [[▶ 513](#)] class.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    ushort value  
)
```

Parameters

value	Type: System.UInt16 The UInt16 to convert.

Return Value

Type: [Value](#) [[▶ 513](#)]
A [Value](#) [[▶ 513](#)] that represents value.

Reference

[Value Class](#) [[▶ 513](#)]
[.Overload](#) [[▶ 592](#)]
[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.4.2.12 Value . Conversion (UInt32 to Value)

Converts an [UInt32](#) to the appropriate instance of the [Value](#) [[▶ 513](#)] class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    uint value  
)
```

Parameters

value	Type: System.UInt32 The UInt32 to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.13 Value . Conversion (UInt64 to Value)

Converts a [UInt64](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    ulong value  
)
```

Parameters

value	Type: System.UInt64 The UInt64 to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.14 Value . Conversion (Access to Value)

Converts an [Access \[▸ 157\]](#) to the appropriate instance of the [Value \[▸ 513\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Access value  
)
```

Parameters

value	Type: TcHmiSrv.Access [▸ 157] The Access [▸ 157] to convert.

Return Value

Type: [Value \[▸ 513\]](#)
A [Value \[▸ 513\]](#) that represents value.

Reference

- [Value Class \[▸ 513\]](#)
- [.Overload \[▸ 592\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.15 Value . Conversion (Alarm to Value)

Converts an [Alarm \[▸ 158\]](#) to the appropriate instance of the [Value \[▸ 513\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Alarm value  
)
```

Parameters

value	Type: TcHmiSrv.Alarm [▸ 158] The Alarm [▸ 158] to convert.

Return Value

Type: [Value \[▸ 513\]](#)
A [Value \[▸ 513\]](#) that represents value.

Reference

- [Value Class \[▸ 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.16 Value . Conversion (Binary to Value)

Converts an instance of the [Binary \[► 172\]](#) class to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Binary value  
)
```

Parameters

value	Type: TcHmiSrv.Binary [► 172] The Binary [► 172] array to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.17 Value . Conversion (Event to Value)

Converts an [Event \[► 253\]](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Event value  
)
```

Parameters

value	Type: TcHmiSrv.Event [► 253] The Event [► 253] to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.18 Value . Conversion (Message to Value)

Converts an [Message \[► 307\]](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Message value  
)
```

Parameters

value	Type: TcHmiSrv.Message [► 307] The Message [► 307] to convert.

Return Value

Type: [Value \[► 513\]](#)

A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.19 Value . Conversion (Severity to Value)

Converts a [Severity \[► 346\]](#) to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Severity value  
)
```

Parameters

value	Type: TcHmiSrv.Severity [► 346] The Severity [► 346] to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[.Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.20 Value . Conversion (Timespan to Value)

Converts an instance of the [Timespan \[► 488\]](#) class to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Timespan value  
)
```

Parameters

value	Type: TcHmiSrv.Timespan [► 488] The Timespan [► 488] to convert.

Return Value

Type: [Value \[► 513\]](#)
A [Value \[► 513\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[.Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.21 Value . Conversion (Timestamp to Value)

Converts an instance of the [Timestamp \[► 499\]](#) class to the appropriate instance of the [Value \[► 513\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    Timestamp value  
)
```

Parameters

value	Type: TcHmiSrv.Timestamp [▶ 499] The Timestamp [▶ 499] to convert.

Return Value

Type: [Value](#) [[▶ 513](#)]
A [Value](#) [[▶ 513](#)] that represents value.

Reference

[Value Class](#) [[▶ 513](#)]
[. Overload](#) [[▶ 592](#)]
[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.4.2.22 Value . Conversion (Value to Boolean)

Converts an instance of the [Value](#) [[▶ 513](#)] class to the appropriate [Boolean](#) value.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator bool (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [▶ 513] The Value [▶ 513] to convert.

Return Value

Type: [Boolean](#)
A [Boolean](#) value that represents value.

Reference

[Value Class](#) [[▶ 513](#)]
[. Overload](#) [[▶ 592](#)]
[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.97.4.2.23 Value . Conversion (Value to Byte)

Converts an instance of the [Value](#) [[▶ 513](#)] class to the appropriate [Byte](#).

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator byte (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Byte](#)
A [Byte](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.24 Value . Conversion (Value to SByte)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [SByte](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator sbyte (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [SByte](#)
A [SByte](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.25 Value . Conversion (Value to Char)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Char](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator char (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Char](#)
A [Char](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.26 Value . Conversion (Value to Int16)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Int16](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator short (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Int16](#)
A [Int16](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.27 **Value . Conversion (Value to UInt16)**

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [UInt16](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator ushort (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [UInt16](#)
An [UInt16](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.28 **Value . Conversion (Value to Int32)**

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Int32](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator int (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Int32](#)
An [Int32](#) that represents value.

Reference

- [Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.29 Value . Conversion (Value to UInt32)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [UInt32](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator uint (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [UInt32](#)

An [UInt32](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.30 Value . Conversion (Value to Int64)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Int64](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator long (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Int64](#)

A [Int64](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.31 Value . Conversion (Value to UInt64)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [UInt64](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator ulong (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [UInt64](#)

An [UInt64](#) that represents value.

Reference

[Value Class \[► 513\]](#)

[.Overload \[► 592\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.32 Value . Conversion (Value to Single)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator float (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Single](#)
A [Single](#)-point number that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.33 Value . Conversion (Value to Double)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator double (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Double](#)
A [Double](#)-precision floating-point number that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.34 Value . Conversion (Value to String)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [String](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator string (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [String](#)
A [String](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[. Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.35 Value . Conversion (Value to Access)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Access \[► 157\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Access (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Access \[► 157\]](#)
An [Access \[► 157\]](#) that represents value.

Reference

[Value Class \[► 513\]](#)
[. Overload \[► 592\]](#)
[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.36 Value . Conversion (Value to Alarm)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Alarm \[► 158\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Alarm (
    Value value
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [Alarm \[▸ 158\]](#)
An [Alarm \[▸ 158\]](#) that represents value.

Reference

- [Value Class \[▸ 513\]](#)
- [.Overload \[▸ 592\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.37 Value . Conversion (Value to Binary)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate instance of the [Binary \[▸ 172\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Binary (
    Value value
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [Binary \[▸ 172\]](#)
A [Binary \[▸ 172\]](#) that represents value.

Reference

- [Value Class \[▸ 513\]](#)
- [.Overload \[▸ 592\]](#)
- [TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.38 Value . Conversion (Value to Event)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate [Event \[▸ 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Event (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Event \[► 253\]](#)
An [Event \[► 253\]](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.39 Value . Conversion (Value to Message)

Converts an instance of the [Value \[► 513\]](#) class to the appropriate [Message \[► 307\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Message (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to convert.

Return Value

Type: [Message \[► 307\]](#)
A [Message \[► 307\]](#) that represents value.

Reference

- [Value Class \[► 513\]](#)
- [.Overload \[► 592\]](#)
- [TcHmiSrv Namespace \[► 147\]](#)

2.1.3.97.4.2.40 Value . Conversion (Value to Severity)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate [Severity \[▸ 346\]](#).

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Severity (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [Severity \[▸ 346\]](#)

A [Severity \[▸ 346\]](#) that represents value.

Reference

[Value Class \[▸ 513\]](#)

[.Overload \[▸ 592\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.41 Value . Conversion (Value to Timespan)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate instance of the [Timespan \[▸ 488\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Timespan (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [Timespan \[▸ 488\]](#)

A [Timespan \[▸ 488\]](#) that represents value.

Reference

[Value Class \[▸ 513\]](#)

[.Overload \[▸ 592\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.42 Value . Conversion (Value to Timestamp)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate instance of the [Timestamp \[▸ 499\]](#) class.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Timestamp (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [Timestamp \[▸ 499\]](#)

A [Timestamp \[▸ 499\]](#) that represents value.

Reference

[Value Class \[▸ 513\]](#)

[.Overload \[▸ 592\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.97.4.2.43 Value . Conversion (Value to ValueType)

Converts an instance of the [Value \[▸ 513\]](#) class to the appropriate [ValueType \[▸ 630\]](#).

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator ValueType (  
    Value value  
)
```

Parameters

value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to convert.

Return Value

Type: [ValueType \[▸ 630\]](#)

A [ValueType \[▸ 630\]](#) that represents value.

Reference

[Value Class](#) [► 513]

[.Overload](#) [► 592]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.4.2.44 Value . Conversion (ValueType to Value)

Converts an [ValueType](#) [► 630] to the appropriate instance of the [Value](#) [► 513] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static implicit operator Value (  
    ValueType value  
)
```

Parameters

value	Type: TcHmiSrv.ValueType [► 630] The ValueType [► 630] to convert.

Return Value

Type: [Value](#) [► 513]

A [Value](#) [► 513] that represents value.

Reference

[Value Class](#) [► 513]

[.Overload](#) [► 592]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.97.4.3 Value.Inequality Operator

Determines whether the specified [Value](#) [► 513] is not equal to the current [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(  
    Value current,  
    Value other  
)
```

Parameters

current	Type: TcHmiSrv.Value [► 513] The current instance of the Value [► 513] class.
other	Type: TcHmiSrv.Value [► 513] The Value [► 513] to compare with the current Value [► 513] .

Return Value

Type: [Boolean](#)

true if the specified [Value \[► 513\]](#) is not equal to the current [Value \[► 513\]](#); otherwise, false.

Reference

[Value Class \[► 513\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98 Valuelerator Class**Inheritance Hierarchy**

[System.Object](#)

[TcHmiSrv.Valuelerator](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public class ValueIterator : IEquatable<ValueIterator>,
    IDisposable
```

The Valuelerator type exposes the following members.

Constructors

	Name	Description
	Valuelerator. [► 622]	Initializes a new instance of the Valuelerator class
	Valuelerator(Valuelerator) [► 622]	Initializes a new instance of the Valuelerator class based on another Valuelerator.

Properties

	Name	Description
	Current [► 623]	Gets the Value [► 513] of the Valuelerator.
	Name [► 623]	Gets the name of the Valuelerator.

Methods

	Name	Description
	Dispose. [► 624]	Releases all resources used by the ValueIterator
	Dispose(Boolean) [► 625]	Releases the unmanaged resources used by the ValueIterator and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(ValueIterator) [► 626]	Indicates whether the current ValueIterator is equal to another ValueIterator .
	Finalize [► 627]	(Overrides Object.Finalize .)
	get_by_index [► 627]	Gets the Value [► 513] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Decrement [► 628]	Decrements the current ValueIterator .
 	Equality [► 629]	Determines whether the specified ValueIterator is equal to the current ValueIterator .
 	Increment [► 629]	Increments the current ValueIterator .
 	Inequality [► 630]	Determines whether the specified ValueIterator is not equal to the current ValueIterator .

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.98.1 ValueIterator Constructor

Overload List

	Name	Description
	ValueIterator. [► 622]	Initializes a new instance of the ValueIterator [► 620] class
	ValueIterator(ValueIterator) [► 622]	Initializes a new instance of the ValueIterator [► 620] class based on another ValueIterator [► 620].

Reference

[ValueIterator Class](#) [[► 620](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.1.1 Valuelterator Constructor

Initializes a new instance of the [Valuelterator \[► 620\]](#) class

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator()
```

Reference

[Valuelterator Class \[► 620\]](#)

[Valuelterator Overload \[► 621\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.1.2 Valuelterator Constructor (Valuelterator)

Initializes a new instance of the [Valuelterator \[► 620\]](#) class based on another [Valuelterator \[► 620\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueIterator(  
    ValueIterator other  
)
```

Parameters

other	Type: TcHmiSrv.Valuelterator [► 620] The other Valuelterator [► 620] .

Reference

[Valuelterator Class \[► 620\]](#)

[Valuelterator Overload \[► 621\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.2 Valuelterator Properties

The [Valuelterator \[► 620\]](#) type exposes the following members.

Properties

	Name	Description
	Current [▶ 623]	Gets the Value [▶ 513] of the Valuelterator [▶ 620].
	Name [▶ 623]	Gets the name of the Valuelterator [▶ 620].

Reference

[Valuelterator Class](#) [[▶ 620](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.98.2.1 Valuelterator.Current Property

Gets the [Value](#) [[▶ 513](#)] of the [Valuelterator](#) [[▶ 620](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Current { get; }
```

Property Value

Type: [Value](#) [[▶ 513](#)]

Reference

[Valuelterator Class](#) [[▶ 620](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.98.2.2 Valuelterator.Name Property

Gets the name of the [Valuelterator](#) [[▶ 620](#)].

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; }
```

Property Value

Type: [String](#)

Reference

[Valuelterator Class](#) [[▶ 620](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.98.3 Valuelterator Methods

The [Valuelterator](#) [► 620] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 624]	
	Dispose(Boolean) [► 625]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Valuelterator) [► 626]	Indicates whether the current Valuelterator [► 620] is equal to another Valuelterator [► 620].
	Finalize [► 627]	(Overrides Object.Finalize .)
	get by index [► 627]	Gets the Value [► 513] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[Valuelterator Class](#) [► 620]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.98.3.1 Valuelterator.Dispose Method

Overload List

	Name	Description
	Dispose. [► 624]	Releases all resources used by the Valuelterator [► 620]
	Dispose(Boolean) [► 625]	Releases the unmanaged resources used by the Valuelterator [► 620] and optionally releases the managed resources

Reference

[Valuelterator Class](#) [► 620]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.98.3.1.1 Valuelterator.Dispose Method

Releases all resources used by the [Valuelterator](#) [► 620]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[Valuelterator Class](#) [[▶ 620](#)]

[Dispose Overload](#) [[▶ 624](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.98.3.1.2 Valuelterator.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Valuelterator](#) [[▶ 620](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Valuelterator Class](#) [[▶ 620](#)]

[Dispose Overload](#) [[▶ 624](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.98.3.2 Valuelterator.Equals Method

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Valuelterator) [▶ 626]	Indicates whether the current Valuelterator [▶ 620] is equal to another Valuelterator [▶ 620].

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.3.2.1 *ValueIterator.Equals Method (ValueIterator)*

Indicates whether the current [ValueIterator \[► 620\]](#) is equal to another [ValueIterator \[► 620\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    ValueIterator other  
)
```

Parameters

other	Type: TcHmiSrv.ValueIterator [► 620] The ValueIterator [► 620] to compare with this ValueIterator [► 620] .

Return Value

Type: [Boolean](#)

true if the current [ValueIterator \[► 620\]](#) is equal to the other [ValueIterator \[► 620\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[ValueIterator Class \[► 620\]](#)

[Equals Overload \[► 625\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.3.3 *ValueIterator.GetHashCode Method*

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [ValueIterator \[► 620\]](#).

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.3.4 ValueIterator.Finalize Method

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.3.5 ValueIterator.get_by_index Method

Gets the [Value \[► 513\]](#) after the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value get_by_index(  
    uint diff  
)
```

Parameters

diff	Type: System.UInt32 The index of the Value [► 513] to get.

Return Value

Type: [Value \[► 513\]](#)

The [Value \[► 513\]](#) after the specified index.

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.4 Valuelterator Operators

The [Valuelterator](#) [► 620] type exposes the following members.

Operators

	Name	Description
 	Decrement [► 628]	Decrements the current Valuelterator [► 620].
 	Equality [► 629]	Determines whether the specified Valuelterator [► 620] is equal to the current Valuelterator [► 620].
 	Increment [► 629]	Increments the current Valuelterator [► 620].
 	Inequality [► 630]	Determines whether the specified Valuelterator [► 620] is not equal to the current Valuelterator [► 620].

Reference

[Valuelterator Class](#) [► 620]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.98.4.1 Valuelterator.Decrement Operator

Decrements the current [Valuelterator](#) [► 620].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static ValueIterator operator --(
    ValueIterator it
)
```

Parameters

it	Type: TcHmiSrv.Valuelterator [► 620] The current Valuelterator [► 620].

Return Value

Type: [Valuelterator](#) [► 620]

The decremented [Valuelterator](#) [► 620].

Reference

[Valuelterator Class](#) [► 620]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.98.4.2 **ValueIterator.Equality Operator**

Determines whether the specified [ValueIterator \[► 620\]](#) is equal to the current [ValueIterator \[► 620\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    ValueIterator current,
    ValueIterator other
)
```

Parameters

current	Type: TcHmiSrv.ValueIterator [► 620] The current instance of the ValueIterator [► 620] class.
other	Type: TcHmiSrv.ValueIterator [► 620] The ValueIterator [► 620] to compare with the current ValueIterator [► 620] .

Return Value

Type: [Boolean](#)

true if the specified [ValueIterator \[► 620\]](#) is equal to the current [ValueIterator \[► 620\]](#); otherwise, false.

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.4.3 **ValueIterator.Increment Operator**

Increments the current [ValueIterator \[► 620\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static ValueIterator operator ++(
    ValueIterator it
)
```

Parameters

it	Type: TcHmiSrv.ValueIterator [► 620] The current ValueIterator [► 620] .

Return Value

Type: [ValueIterator \[► 620\]](#)

The incremented [ValueIterator \[► 620\]](#).

Reference

[ValueIterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.98.4.4 Valuelterator.Inequality Operator

Determines whether the specified [Valuelterator \[► 620\]](#) is not equal to the current [Valuelterator \[► 620\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    ValueIterator current,
    ValueIterator other
)
```

Parameters

current	Type: TcHmiSrv.Valuelterator [► 620] The current instance of the Valuelterator [► 620] class.
other	Type: TcHmiSrv.Valuelterator [► 620] The Valuelterator [► 620] to compare with the current Valuelterator [► 620] .

Return Value

Type: [Boolean](#)

true if the specified [Valuelterator \[► 620\]](#) is not equal to the current [Valuelterator \[► 620\]](#); otherwise, false.

Reference

[Valuelterator Class \[► 620\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.99 ValueType Enumeration

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum ValueType
```

Members

	Member name	Value	Description
	ValueType_Null	0	
	ValueType_Bool	1	
	ValueType_Int	2	
	ValueType_Double	3	
	ValueType_String	4	
	ValueType_Vector	5	
	ValueType_Map	6	
	ValueType_Struct	7	
	ValueType_Binary	8	
	ValueType_Int64	9	
	ValueType_DateTime	10	
	ValueType_Timespan	11	
	ValueType_Event	64	
	ValueType_Message	65	
	ValueType_Alarm	66	
	ValueType_Any	256	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100 ValueVectorIterator Class

Inheritance Hierarchy

[System.Object](#)

TcHmiSrv.ValueVectorIterator

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class ValueVectorIterator : IEquatable<ValueVectorIterator>,
    IDisposable
```

The ValueVectorIterator type exposes the following members.

Constructors

	Name	Description
	ValueVectorIterator. [► 633]	Initializes a new instance of the ValueVectorIterator class.
	ValueVectorIterator(ValueVectorIterator) [► 633]	Initializes a new instance of the ValueVectorIterator class based on another ValueVectorIterator.

Properties

	Name	Description
	Current [► 634]	Gets the Value [► 513] of the ValueVectorIterator.

Methods

	Name	Description
	Dispose. [▸ 635]	Releases all resources used by the ValueVectorIterator
	Dispose(Boolean) [▸ 636]	Releases the unmanaged resources used by the ValueVectorIterator and optionally releases the managed resources
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(ValueVectorIterator) [▸ 637]	Indicates whether the current ValueVectorIterator is equal to another ValueVectorIterator.
	Finalize [▸ 638]	(Overrides Object.Finalize.)
	get_by_index [▸ 638]	Gets the Value [▸ 513] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object. (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Operators

	Name	Description
 	Decrement [▸ 639]	Decrements the current ValueVectorIterator.
 	Equality [▸ 639]	Determines whether the specified ValueVectorIterator is equal to the current ValueVectorIterator.
 	Increment [▸ 640]	Increments the current ValueVectorIterator.
 	Inequality [▸ 641]	Determines whether the specified ValueVectorIterator is not equal to the current ValueVectorIterator.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.100.1 ValueVectorIterator Constructor

Overload List

	Name	Description
	ValueVectorIterator. [▸ 633]	Initializes a new instance of the ValueVectorIterator [▸ 631] class.
	ValueVectorIterator(ValueVectorIterator) [▸ 633]	Initializes a new instance of the ValueVectorIterator [▸ 631] class based on another ValueVectorIterator [▸ 631].

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.1.1 ValueVectorIterator Constructor

Initializes a new instance of the [ValueVectorIterator \[► 631\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueVectorIterator()
```

Reference

[ValueVectorIterator Class \[► 631\]](#)

[ValueVectorIterator Overload \[► 632\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.1.2 ValueVectorIterator Constructor (ValueVectorIterator)

Initializes a new instance of the [ValueVectorIterator \[► 631\]](#) class based on another [ValueVectorIterator \[► 631\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ValueVectorIterator(  
    ValueVectorIterator other  
)
```

Parameters

other	Type: TcHmiSrv.ValueVectorIterator [► 631] The other ValueVectorIterator [► 631] .

Reference

[ValueVectorIterator Class \[► 631\]](#)

[ValueVectorIterator Overload \[► 632\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.2 ValueVectorIterator Properties

The [ValueVectorIterator \[► 631\]](#) type exposes the following members.

Properties

	Name	Description
	Current [► 634]	Gets the Value [► 513] of the ValueVectorIterator [► 631].

Reference

[ValueVectorIterator Class](#) [► 631]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.2.1 ValueVectorIterator.Current Property

Gets the [Value](#) [► 513] of the [ValueVectorIterator](#) [► 631].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Current { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[ValueVectorIterator Class](#) [► 631]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3 ValueVectorIterator Methods

The [ValueVectorIterator](#) [► 631] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 635]	
	Dispose(Boolean) [► 636]	
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Equals(ValueVectorIterator) [► 637]	Indicates whether the current ValueVectorIterator [► 631] is equal to another ValueVectorIterator [► 631].
	Finalize [► 638]	(Overrides Object.Finalize.)
	get_by_index [► 638]	Gets the Value [► 513] after the specified index.
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[ValueVectorIterator Class](#) [[► 631](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.100.3.1 ValueVectorIterator.Dispose Method

Overload List

	Name	Description
	Dispose. [► 635]	Releases all resources used by the ValueVectorIterator [► 631]
	Dispose(Boolean) [► 636]	Releases the unmanaged resources used by the ValueVectorIterator [► 631] and optionally releases the managed resources

Reference

[ValueVectorIterator Class](#) [[► 631](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.100.3.1.1 ValueVectorIterator.Dispose Method

Releases all resources used by the [ValueVectorIterator](#) [[► 631](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[ValueVectorIterator Class](#) [► 631]

[Dispose Overload](#) [► 635]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3.1.2 ValueVectorIterator.Dispose Method (Boolean)

Releases the unmanaged resources used by the [ValueVectorIterator](#) [► 631] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[ValueVectorIterator Class](#) [► 631]

[Dispose Overload](#) [► 635]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3.2 ValueVectorIterator.Equals Method

Overload List

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(ValueVectorIterator) [► 637]	Indicates whether the current ValueVectorIterator [► 631] is equal to another ValueVectorIterator [► 631].

Reference

[ValueVectorIterator Class](#) [► 631]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3.2.1 ValueVectorIterator.Equals Method (ValueVectorIterator)

Indicates whether the current [ValueVectorIterator](#) [► 631] is equal to another [ValueVectorIterator](#) [► 631].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public bool Equals(  
    ValueVectorIterator other  
)
```

Parameters

other	Type: TcHmiSrv.ValueVectorIterator [► 631] The ValueVectorIterator [► 631] to compare with this ValueVectorIterator [► 631].

Return Value

Type: [Boolean](#)

true if the current [ValueVectorIterator](#) [► 631] is equal to the other [ValueVectorIterator](#) [► 631]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[ValueVectorIterator Class](#) [► 631]

[Equals Overload](#) [► 636]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3.3 ValueVectorIterator.GetHashCode Method

Serves as a hash function for a particular type.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 1.10.1018.48 (1.10.1018.48)

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current [ValueVectorIterator](#) [► 631].

Reference

[ValueVectorIterator Class](#) [► 631]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.100.3.4 **ValueVectorIterator.Finalize Method**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Finalize()
```

Implements

[Object.Finalize.](#)

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.3.5 **ValueVectorIterator.get_by_index Method**

Gets the [Value \[► 513\]](#) after the specified index.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value get_by_index(  
    uint diff  
)
```

Parameters

diff	Type: System.UInt32 The index of the Value [► 513] to get.

Return Value

Type: [Value \[► 513\]](#)
The [Value \[► 513\]](#) after the specified index.

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.4 **ValueVectorIterator Operators**

The [ValueVectorIterator \[► 631\]](#) type exposes the following members.

Operators

	Name	Description
 	Decrement [► 639]	Decrements the current ValueVectorIterator [► 631] .
 	Equality [► 639]	Determines whether the specified ValueVectorIterator [► 631] is equal to the current ValueVectorIterator [► 631] .
 	Increment [► 640]	Increments the current ValueVectorIterator [► 631] .
 	Inequality [► 641]	Determines whether the specified ValueVectorIterator [► 631] is not equal to the current ValueVectorIterator [► 631] .

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.4.1 ValueVectorIterator.Decrement Operator

Decrements the current [ValueVectorIterator \[► 631\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static ValueVectorIterator operator --(
    ValueVectorIterator it
)
```

Parameters

it	Type: TcHmiSrv.ValueVectorIterator [► 631] The current ValueVectorIterator [► 631] .

Return Value

Type: [ValueVectorIterator \[► 631\]](#)

The decremented [ValueVectorIterator \[► 631\]](#).

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.4.2 ValueVectorIterator.Equality Operator

Determines whether the specified [ValueVectorIterator \[► 631\]](#) is equal to the current [ValueVectorIterator \[► 631\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static bool operator ==(
    ValueVectorIterator current,
    ValueVectorIterator other
)
```

Parameters

current	Type: TcHmiSrv.ValueVectorIterator [► 631] The current instance of the ValueVectorIterator [► 631] class.
other	Type: TcHmiSrv.ValueVectorIterator [► 631] The ValueVectorIterator [► 631] to compare with the current ValueVectorIterator [► 631] .

Return Value

Type: [Boolean](#)

true if the specified [ValueVectorIterator \[► 631\]](#) is equal to the current [ValueVectorIterator \[► 631\]](#); otherwise, false.

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.4.3 ValueVectorIterator.Increment Operator

Increments the current [ValueVectorIterator \[► 631\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public static ValueVectorIterator operator ++(
    ValueVectorIterator it
)
```

Parameters

it	Type: TcHmiSrv.ValueVectorIterator [► 631] The current ValueVectorIterator [► 631] .

Return Value

Type: [ValueVectorIterator \[► 631\]](#)

The incremented [ValueVectorIterator \[► 631\]](#).

Reference

[ValueVectorIterator Class \[► 631\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.100.4.4 ValueVectorIterator.Inequality Operator

Determines whether the specified [ValueVectorIterator](#) [► 631] is not equal to the current [ValueVectorIterator](#) [► 631].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public static bool operator !=(
    ValueVectorIterator current,
    ValueVectorIterator other
)
```

Parameters

current	Type: TcHmiSrv.ValueVectorIterator [► 631] The current instance of the ValueVectorIterator [► 631] class.
other	Type: TcHmiSrv.ValueVectorIterator [► 631] The ValueVectorIterator [► 631] to compare with the current ValueVectorIterator [► 631].

Return Value

Type: [Boolean](#)
true if the specified [ValueVectorIterator](#) [► 631] is not equal to the current [ValueVectorIterator](#) [► 631]; otherwise, false.

Reference

- [ValueVectorIterator Class](#) [► 631]
- [TcHmiSrv Namespace](#) [► 147]

2.1.3.101 AlarmState Enumeration

Namespace: [TcHmiSrv](#) [► 147]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public enum AlarmState
```

Members

	Member name	Value	Description
	AlarmState_Raised	0	
	AlarmState_Confirmed	1	
	AlarmState_Cleared	2	
	AlarmState_ClearedAndConfirmed	3	
	AlarmState_Invalid	4	

Reference

- [TcHmiSrv Namespace](#) [► 147]

2.1.3.102 **EventLifetime Enumeration**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum EventLifetime
```

Members

	Member name	Value	Description
	EventLifetime_Persistent	0	
	EventLifetime_Temporary	1	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.103 **EventType Enumeration**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public enum EventType
```

Members

	Member name	Value	Description
	EventType_Message	0	
	EventType_Alarm	1	
	EventType_Payload	2	

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.104 **ILocalizable Interface**

Provides an interface for a localizable object that contains a language variable and parameters.

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public interface ILocalizable
```

The ILocalizable type exposes the following members.

Properties

	Name	Description
	Domain [► 643]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	Name [► 644]	Contains the name of the language variable.
	Parameters [► 644]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	Severity [► 644]	Gets the Severity [► 346] of the localizable object.
	Type [► 645]	Gets the ValueType [► 630] of the localizable object that will be ValueType_Message [► 630] or ValueType_Alarm [► 630].

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1 ILocalizable Properties

The [ILocalizable](#) [► 642] type exposes the following members.

Properties

	Name	Description
	Domain [► 643]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	Name [► 644]	Contains the name of the language variable.
	Parameters [► 644]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	Severity [► 644]	Gets the Severity [► 346] of the localizable object.
	Type [► 645]	Gets the ValueType [► 630] of the localizable object that will be ValueType_Message [► 630] or ValueType_Alarm [► 630].

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1.1 ILocalizable.Domain Property

Gets the domain of the language variable. The language file of this domain will be used for localization.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
string Domain { get; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1.2 ILocalizable.Name Property

Contains the name of the language variable.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1.3 ILocalizable.Parameters Property

Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 513]

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1.4 ILocalizable.Severity Property

Gets the [Severity](#) [► 346] of the localizable object.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
Severity Severity { get; }
```

Property Value

Type: [Severity](#) [► 346]

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.104.1.5 ILocalizable.Type Property

Gets the [ValueType](#) [► 630] of the localizable object that will be [ValueType Message](#) [► 630] or [ValueType Alarm](#) [► 630].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 630]

Reference

[ILocalizable Interface](#) [► 642]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.105 ITcHmiSrvExtHost Interface

Provides an interface for a host to communicate with a TwinCAT HMI server.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public interface ITcHmiSrvExtHost
```

The ITcHmiSrvExtHost type exposes the following members.

Methods

	Name	Description
	exec(Context, Command) [► 648]	Executes a single Command [► 188] in the domain of the specified Context [► 237] .
	exec(Context, CommandGroup) [► 648]	Executes Command [► 188] s inside any domain.
	get_config_value [► 649]	Gets the configuration Value [► 513] at the specified path from the server.
	localize [► 649]	Localizes an ILocalizable [► 642] object.
	notify_listener [► 650]	Sends a notification if an Alarm [► 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server using the specified settings.
	reset temporary events [► 652]	Triggers a refresh of the list of events provided by an extension that implements the TcHmiSrvAlarmProviderListener [► 359] .
	send(Context, Event) [► 653]	Adds or updates an Event [► 253] .
	send(Context, Message) [► 653]	Adds a Message [► 307] .
	send(Context, Event, EventLifetime) [► 654]	Adds or updates an Event [► 253] .
	send(Context, Message, EventLifetime) [► 655]	Adds a Message [► 307] .
	set_config_value [► 655]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [► 513] .
	unregister_listener(ITcHmiSrvListener) [► 656]	Unregisters an ITcHmiSrvListener [► 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 657]	Unregisters an ITcHmiSrvListener [► 657] at the server.

Reference

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.105.1 ITcHmiSrvExtHost Methods

The [ITcHmiSrvExtHost](#) [\[► 645\]](#) type exposes the following members.

Methods

	Name	Description
	exec(Context, Command) [► 648]	Executes a single Command [► 188] in the domain of the specified Context [► 237] .
	exec(Context, CommandGroup) [► 648]	Executes Command [► 188] s inside any domain.
	get_config_value [► 649]	Gets the configuration Value [► 513] at the specified path from the server.
	localize [► 649]	Localizes an ILocalizable [► 642] object.
	notify_listener [► 650]	Sends a notification if an Alarm [► 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server using the specified settings.
	reset temporary_events [► 652]	Triggers a refresh of the list of events provided by an extension that implements the TcHmiSrvAlarmProviderListener [► 359] .
	send(Context, Event) [► 653]	Adds or updates an Event [► 253] .
	send(Context, Message) [► 653]	Adds a Message [► 307] .
	send(Context, Event, EventLifetime) [► 654]	Adds or updates an Event [► 253] .
	send(Context, Message, EventLifetime) [► 655]	Adds a Message [► 307] .
	set_config_value [► 655]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [► 513] .
	unregister_listener(ITcHmiSrvListener) [► 656]	Unregisters an ITcHmiSrvListener [► 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 657]	Unregisters an ITcHmiSrvListener [► 657] at the server.

Reference

[ITcHmiSrvExtHost Interface](#) [\[► 645\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.105.1.1 ITcHmiSrvExtHost.exec Method

Overload List

	Name	Description
	exec(Context, Command) [► 648]	Executes a single Command [► 188] in the domain of the specified Context [► 237] .
	exec(Context, CommandGroup) [► 648]	Executes Command [► 188] s inside any domain.

Reference

[ITcHmiSrvExtHost Interface](#) [\[► 645\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.1.1 *ITcHmiSrvExtHost.exec Method (Context, Command)*

Executes a single [Command \[► 188\]](#) in the domain of the specified [Context \[► 237\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue exec(
    Context ctx,
    Command cmd
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Command [► 188] should be executed.
cmd	Type: TcHmiSrv.Command [► 188] The Command [► 188] to be executed.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if executing the [Command \[► 188\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[exec Overload \[► 647\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.1.2 *ITcHmiSrvExtHost.exec Method (Context, CommandGroup)*

Executes [Command \[► 188\]](#)s inside any domain.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue exec(
    Context ctx,
    CommandGroup commands
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the commands should be executed.
commands	Type: TcHmiSrv.CommandGroup [► 204] A CommandGroup [► 204] containing a list of Command [► 188] s.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if executing the commands succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]
[exec Overload](#) [► 647]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.2 ITcHmiSrvExtHost.get_config_value Method

Gets the configuration [Value](#) [► 513] at the specified path from the server.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
Value get_config_value(  
    Context ctx,  
    string path  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] A Context [► 237] containing information about the user who tries to get a configuration Value [► 513].
path	Type: System.String The path of the requested Value [► 513].

Return Value

Type: [Value](#) [► 513]
The [Value](#) [► 513] at the specified path or a [Value](#) [► 513] containing [ValueType Null](#) [► 630].

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.3 ITcHmiSrvExtHost.localize Method

Localizes an [ILocalizable](#) [► 642] object.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
String localize(  
    Context ctx,  
    ILocalizable obj  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ILocalizable [► 642] object should be localized.
obj	Type: TcHmiSrv.ILocalizable [► 642] The ILocalizable [► 642] object to localize.

Return Value

Type: [String](#) [► 346]

A [String](#) [► 346] containing the localized text.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.4 ITcHmiSrvExtHost.notify_listener Method

Sends a notification if an [Alarm](#) [► 158] type changed.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue notify_listener(  
    Context ctx,  
    AlarmChangeType type,  
    Alarm alm  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Alarm [► 158] changed.
type	Type: TcHmiSrv.AlarmChangeType [► 171] Contains the type of the change.
alm	Type: TcHmiSrv.Alarm [► 158] The Alarm [► 158] that has changed.

Return Value

Type: [ErrorValue](#) [► 247]

[HMI_SUCCESS](#) [► 247] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.5 **ITcHmiSrvExtHost.register_listener Method**

Overload List

	Name	Description
	register_listener(Context, ITcHmiSrvListener) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 651]	Registers an ITcHmiSrvListener [► 657] at the server using the specified settings.

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.5.1 **ITcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener)**

Registers an [ITcHmiSrvListener \[► 657\]](#) at the server.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
void register_listener(  
    Context ctx,  
    ITcHmiSrvListener handler  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ITcHmiSrvListener [► 657] should be registered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be registered.

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[register_listener Overload \[► 651\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.5.2 **ITcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener, Value)**

Registers an [ITcHmiSrvListener \[► 657\]](#) at the server using the specified settings.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
void register_listener(  
    Context ctx,  
    ITcHmiSrvListener handler,  
    Value settings  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ITcHmiSrvListener [► 657] should be registered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be registered.
settings	Type: TcHmiSrv.Value [► 513] A Value [► 513] containing the settings that should be used at the registration.

Reference

- [ITcHmiSrvExtHost Interface](#) [► 645]
- [register_listener Overload](#) [► 651]
- [TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.6 ITcHmiSrvExtHost.reset_temporary_events Method

Triggers a refresh of the list of events provided by an extension that implements the [TcHmiSrvAlarmProviderListener](#) [► 359].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
void reset_temporary_events(  
    Context ctx  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] A Context [► 237] containing information about the user who tries to refresh it and the domain of the extension that should be refreshed.

Reference

- [ITcHmiSrvExtHost Interface](#) [► 645]
- [TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.7 ITcHmiSrvExtHost.send Method

Overload List

	Name	Description
	send(Context, Event) [► 653]	Adds or updates an Event [► 253] .
	send(Context, Message) [► 653]	Adds a Message [► 307] .
	send(Context, Event, EventLifetime) [► 654]	Adds or updates an Event [► 253] .
	send(Context, Message, EventLifetime) [► 655]	Adds a Message [► 307] .

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.7.1 ITcHmiSrvExtHost.send Method (Context, Event)

Adds or updates an [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue send(  
    Context ctx,  
    Event evt  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Event [► 253] should be sent.
evt	Type: TcHmiSrv.Event [► 253] The Event [► 253] that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if sending the [Event \[► 253\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface \[► 645\]](#)

[send Overload \[► 653\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.105.1.7.2 ITcHmiSrvExtHost.send Method (Context, Message)

Adds a [Message \[► 307\]](#).

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue send(  
    Context ctx,  
    Message msg  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Message [► 307] should be sent.
msg	Type: TcHmiSrv.Message [► 307] The Message [► 307] that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue](#) [► 247]

[HMI_SUCCESS](#) [► 247] if sending the [Message](#) [► 307] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]

[send Overload](#) [► 653]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.7.3 *ITcHmiSrvExtHost.send Method (Context, Event, EventLifetime)*

Adds or updates an [Event](#) [► 253].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue send(  
    Context ctx,  
    Event evt,  
    EventLifetime lifetime  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Event [► 253] should be sent.
evt	Type: TcHmiSrv.Event [► 253] The Event [► 253] that will be sent to the server and all current event listeners.
lifetime	Type: TcHmiSrv.EventLifetime [► 642] Specifies whether the Event [► 253] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if sending the [Event](#) [► 253] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]
[send Overload](#) [► 653]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.7.4 *ITcHmiSrvExtHost.send Method (Context, Message, EventLifetime)*

Adds a [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue send(  
    Context ctx,  
    Message msg,  
    EventLifetime lifetime  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Message [► 307] should be sent.
msg	Type: TcHmiSrv.Message [► 307] The Message [► 307] that will be sent to the server and all current event listeners.
lifetime	Type: TcHmiSrv.EventLifetime [► 642] Specifies whether the Message [► 307] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if sending the [Message](#) [► 307] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]
[send Overload](#) [► 653]
[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.8 *ITcHmiSrvExtHost.set_config_value Method*

Adds an entry to a map or vector in the extension configuration or updates an existing configuration [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ErrorValue set_config_value(  
    Context ctx,  
    string path,  
    Value value  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▸ 237] A Context [▸ 237] containing information about the user who tries to get a configuration Value [▸ 513].
path	Type: System.String The path of the Value [▸ 513] to be set.
value	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] to be set or nullptr to delete the configuration Value [▸ 513] at specified path.

Return Value

Type: [ErrorValue](#) [▸ 247]
[HMI_SUCCESS](#) [▸ 247] if setting the configuration [Value](#) [▸ 513] succeeded; otherwise, any [ErrorValue](#) [▸ 247] that best describes which error has occurred.

Reference

- [ITcHmiSrvExtHost Interface](#) [▸ 645]
- [TcHmiSrv Namespace](#) [▸ 147]

2.1.3.105.1.9 ITcHmiSrvExtHost.unregister_listener Method

Overload List

	Name	Description
	unregister_listener(ITcHmiSrvListener) [▸ 656]	Unregisters an ITcHmiSrvListener [▸ 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [▸ 657]	Unregisters an ITcHmiSrvListener [▸ 657] at the server.

Reference

- [ITcHmiSrvExtHost Interface](#) [▸ 645]
- [TcHmiSrv Namespace](#) [▸ 147]

2.1.3.105.1.9.1 ITcHmiSrvExtHost.unregister_listener Method (ITcHmiSrvListener)

Unregisters an [ITcHmiSrvListener](#) [▸ 657] at the server.

Namespace: [TcHmiSrv](#) [▸ 147]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
void unregister_listener(  
    ITcHmiSrvListener handler  
)
```

Parameters

handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be unregistered.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]

[unregister_listener Overload](#) [► 656]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.105.1.9.2 *ITcHmiSrvExtHost.unregister_listener Method (Context, ITcHmiSrvListener)*

Unregisters an [ITcHmiSrvListener](#) [► 657] at the server.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
void unregister_listener(  
    Context ctx,  
    ITcHmiSrvListener handler  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ITcHmiSrvListener [► 657] should be unregistered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be unregistered.

Reference

[ITcHmiSrvExtHost Interface](#) [► 645]

[unregister_listener Overload](#) [► 656]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.106 **ITcHmiSrvListener Interface**

Provides an interface for a listener.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public interface ITcHmiSrvListener
```

The ITcHmiSrvListener type exposes the following members.

Properties

	Name	Description
	Type [► 658]	Gets the type of the ITcHmiSrvListener.

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.106.1 ITcHmiSrvListener Properties

The [ITcHmiSrvListener \[► 657\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 658]	Gets the type of the ITcHmiSrvListener [► 657] .

Reference

[ITcHmiSrvListener Interface \[► 657\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.106.1.1 ITcHmiSrvListener.Type Property

Gets the type of the [ITcHmiSrvListener \[► 657\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
ListenerType Type { get; }
```

Property Value

Type: [ListenerType \[► 306\]](#)

Reference

[ITcHmiSrvListener Interface \[► 657\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.107 Localizable Class

Represents a localizable object that contains a language variable and parameters.

Inheritance Hierarchy

System.Object

TcHmiSrv.IObject [► 272]

TcHmiSrv.Localizable

TcHmiSrv.Alarm [► 158]

TcHmiSrv.Message [► 307]

Namespace: TcHmiSrv [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class Localizable : IObject,
    ILocalizable
```

The Localizable type exposes the following members.

Properties

	Name	Description
	<u>Domain</u> [► 660]	
	<u>Name</u> [► 660]	
	<u>Parameters</u> [► 661]	
	<u>Severity</u> [► 661]	
	<u>Type</u> [► 662]	

Methods

	Name	Description
	<u>Dispose.</u> [► 274]	(Inherited from <u>IObject</u> [► 272].)
	<u>Dispose(Boolean)</u> [► 663]	Releases the unmanaged resources used by the Localizable and optionally releases the managed resources (Overrides <u>IObject.Dispose(Boolean)</u> [► 275].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u> [► 275]	(Inherited from <u>IObject</u> [► 272].)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv Namespace [► 147]

2.1.3.107.1 Localizable Properties

The [Localizable](#) [► 658] type exposes the following members.

Properties

	Name	Description
	Domain [► 660]	
	Name [► 660]	
	Parameters [► 661]	
	Severity [► 661]	
	Type [► 662]	

Reference

[Localizable Class](#) [► 658]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.107.1.1 Localizable.Domain Property

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Domain { get; }
```

Property Value

Type: [String](#)

Implements

[ILocalizable.Domain](#) [► 643]

Reference

[Localizable Class](#) [► 658]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.107.1.2 Localizable.Name Property

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public string Name { get; set; }
```


Property Value

Type: [String](#)

Implements

[ILocalizable.Name](#) [[► 644](#)]

Reference

[Localizable Class](#) [[► 658](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.107.1.3 Localizable.Parameters Property

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [[► 513](#)]

Implements

[ILocalizable.Parameters](#) [[► 644](#)]

Reference

[Localizable Class](#) [[► 658](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.107.1.4 Localizable.Severity Property

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Severity Severity { get; }
```

Property Value

Type: [Severity](#) [[► 346](#)]

Implements

[ILocalizable.Severity](#) [[► 644](#)]

Reference[Localizable Class](#) [► 658][TcHmiSrv Namespace](#) [► 147]**2.1.3.107.1.5 Localizable.Type Property****Namespace:** [TcHmiSrv](#) [► 147]**Assembly:** TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0**Syntax****C#**

```
public ValueType Type { get; }
```

Property ValueType: [ValueType](#) [► 630]**Implements**[ILocalizable.Type](#) [► 645]**Reference**[Localizable Class](#) [► 658][TcHmiSrv Namespace](#) [► 147]**2.1.3.107.2 Localizable Methods**The [Localizable](#) [► 658] type exposes the following members.**Methods**

	Name	Description
	Dispose. [► 274]	(Inherited from IObject [► 272].)
	Dispose(Boolean) [► 663]	(Overrides IObject.Dispose(Boolean) [► 275].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize [► 275]	(Inherited from IObject [► 272].)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[Localizable Class](#) [► 658][TcHmiSrv Namespace](#) [► 147]

2.1.3.107.2.1 Localizable.Dispose Method

Overload List

	Name	Description
	Dispose. [▶ 274]	(Inherited from IObject [▶ 272].)
	Dispose(Boolean) [▶ 663]	Releases the unmanaged resources used by the Localizable [▶ 658] and optionally releases the managed resources (Overrides IObject.Dispose(Boolean) [▶ 275].)

Reference

[Localizable Class](#) [[▶ 658](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.107.2.1.1 Localizable.Dispose Method (Boolean)

Releases the unmanaged resources used by the [Localizable](#) [[▶ 658](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[Localizable Class](#) [[▶ 658](#)]

[Dispose Overload](#) [[▶ 663](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.108 TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class

Provides data for an [OnInitialListEvents](#) [[▶ 363](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs](#)

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnInitialListEventsEventArgs : EventArgs
```

The `TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs` type exposes the following members.

Constructors

	Name	Description
	<code>TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs</code> [► 664]	Initializes a new instance of the <code>TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs</code> class.

Properties

	Name	Description
	<code>Context</code> [► 665]	Gets the <code>Context</code> [► 237] of the event.
	<code>Events</code> [► 666]	Gets the <code>Value</code> [► 513] that contains the listed <code>Event</code> [► 253] s.

Methods

	Name	Description
	<code>Equals</code>	Determines whether the specified object is equal to the current object. (Inherited from <code>Object</code> .)
	<code>Finalize</code>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <code>Object</code> .)
	<code>GetHashCode</code>	Serves as the default hash function. (Inherited from <code>Object</code> .)
	<code>GetType</code>	Gets the <code>Type</code> of the current instance. (Inherited from <code>Object</code> .)
	<code>MemberwiseClone</code>	Creates a shallow copy of the current <code>Object</code> . (Inherited from <code>Object</code> .)
	<code>ToString</code>	Returns a string that represents the current object. (Inherited from <code>Object</code> .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.108.1 TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Constructor

Initializes a new instance of the `TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs` [\[► 663\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnInitialListEventsEventArgs(
    Context context,
    Value events
)
```

Parameters

context	Type: TcHmiSrv.Context [▸ 237] The Context [▸ 237] of the event.
events	Type: TcHmiSrv.Value [▸ 513] The Value [▸ 513] that contains the listed Event [▸ 253]s.

Reference

[TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class](#) [▸ 663]

[TcHmiSrv Namespace](#) [▸ 147]

2.1.3.108.2 OnInitialListEventsEventArgs Properties

The [TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs](#) [▸ 663] type exposes the following members.

Properties

	Name	Description
	Context [▸ 665]	Gets the Context [▸ 237] of the event.
	Events [▸ 666]	Gets the Value [▸ 513] that contains the listed Event [▸ 253]s.

Reference

[TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class](#) [▸ 663]

[TcHmiSrv Namespace](#) [▸ 147]

2.1.3.108.2.1 TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs.Context Property

Gets the [Context](#) [▸ 237] of the event.

Namespace: [TcHmiSrv](#) [▸ 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [▸ 237]

Reference

[TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class](#) [▸ 663]

[TcHmiSrv Namespace](#) [▸ 147]

2.1.3.108.2.2 TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs.Events Property

Gets the [Value \[► 513\]](#) that contains the listed [Event \[► 253\]](#)s.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Events { get; }
```

Property Value

Type: [Value \[► 513\]](#)

Reference

[TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class \[► 663\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.108.3 OnInitialListEventsEventArgs Methods

The [TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs \[► 663\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs Class \[► 663\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.109 TcHmiSrvAlarmProviderListener.OnInitialListEventsEventHandler Delegate

Represents a method that handles an [OnInitialListEvents \[► 363\]](#) event.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnInitialListEventsEventHandler(  
    Object sender,  
    TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs e  
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs [► 663] The TcHmiSrvAlarmProviderListener.OnInitialListEventsEventArgs [► 663] that contain the event data.

Return Value

Type: [ErrorValue \[► 247\]](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.110 TcHmiSrvAlarmProviderListenerBase Class

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.TcHmiSrvListener \[► 723\]](#)
 TcHmiSrv.TcHmiSrvAlarmProviderListenerBase
 [TcHmiSrv.TcHmiSrvAlarmProviderListener \[► 359\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvAlarmProviderListenerBase : TcHmiSrvListener
```

The TcHmiSrvAlarmProviderListenerBase type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Methods

	Name	Description
	Dispose. [▶ 726]	(Inherited from TcHmiSrvListener [▶ 723].)
	Dispose(Boolean) [▶ 669]	Releases the unmanaged resources used by the TcHmiSrvAlarmProviderListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [▶ 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.110.1 TcHmiSrvAlarmProviderListenerBase Properties

The [TcHmiSrvAlarmProviderListenerBase](#) [[▶ 667](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Reference

[TcHmiSrvAlarmProviderListenerBase Class](#) [[▶ 667](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.110.2 TcHmiSrvAlarmProviderListenerBase Methods

The [TcHmiSrvAlarmProviderListenerBase](#) [[▶ 667](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [▸ 726]	(Inherited from TcHmiSrvListener [▸ 723].)
	Dispose(Boolean) [▸ 669]	(Overrides TcHmiSrvListener.Dispose(Boolean) [▸ 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAlarmProviderListenerBase Class](#) [[▸ 667](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.110.2.1 TcHmiSrvAlarmProviderListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [▸ 726]	(Inherited from TcHmiSrvListener [▸ 723].)
	Dispose(Boolean) [▸ 669]	Releases the unmanaged resources used by the TcHmiSrvAlarmProviderListenerBase [▸ 667] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [▸ 727].)

Reference

[TcHmiSrvAlarmProviderListenerBase Class](#) [[▸ 667](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.110.2.1.1 TcHmiSrvAlarmProviderListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvAlarmProviderListenerBase](#) [[▸ 667](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvAlarmProviderListenerBase Class](#) [[▶ 667](#)]

[Dispose Overload](#) [[▶ 669](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.111 **TcHmiSrvAlarmProviderListenerBase.SwigDelegateTcHmiSrvAlarmProviderListenerBase_0 Delegate**

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvAlarmProviderListenerBase_0(  
    IntPtr ctx,  
    IntPtr alm  
)
```

Parameters

ctx	Type: System.IntPtr
alm	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.112 **TcHmiSrvAlarmProviderListenerBase.SwigDelegateTcHmiSrvAlarmProviderListenerBase_1 Delegate**

Namespace: [TcHmiSrv](#) [[▶ 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvAlarmProviderListenerBase_1(  
    IntPtr ctx,  
    IntPtr evts  
)
```

Parameters

ctx	Type: System.IntPtr
evts	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.113 TcHmiSrvAuthListenerBase Class

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.TcHmiSrvListener](#) [[▶ 723](#)]
 TcHmiSrv.TcHmiSrvAuthListenerBase
 [TcHmiSrv.TcHmiSrvAuthListener](#) [[▶ 374](#)]

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvAuthListenerBase : TcHmiSrvListener
```

The TcHmiSrvAuthListenerBase type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 673]	Releases the unmanaged resources used by the TcHmiSrvAuthListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.113.1 TcHmiSrvAuthListenerBase Properties

The [TcHmiSrvAuthListenerBase](#) [[► 671](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvAuthListenerBase Class](#) [[► 671](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.113.2 TcHmiSrvAuthListenerBase Methods

The [TcHmiSrvAuthListenerBase](#) [[► 671](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 673]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvAuthListenerBase Class](#) [[► 671](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.113.2.1 TcHmiSrvAuthListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 673]	Releases the unmanaged resources used by the TcHmiSrvAuthListenerBase [► 671] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvAuthListenerBase Class](#) [[► 671](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.113.2.1.1 TcHmiSrvAuthListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvAuthListenerBase](#) [[► 671](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvAuthListenerBase Class](#) [[▶ 671](#)]

[Dispose Overload](#) [[▶ 673](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.114 TcHmiSrvAuthListenerBase.SwigDelegateTcHmiSrvAuthListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvAuthListenerBase_0(  
    IntPtr ctx,  
    IntPtr value  
)
```

Parameters

ctx	Type: System.IntPtr
value	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.115 TcHmiSrvAuthListenerBase.SwigDelegateTcHmiSrvAuthListenerBase_1 Delegate

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvAuthListenerBase_1(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[►](#) [147](#)]

2.1.3.116 TcHmiSrvConfigListenerBase Class**Inheritance Hierarchy**

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [[►](#) [723](#)]

[TcHmiSrv.TcHmiSrvConfigListenerBase](#)

[TcHmiSrv.TcHmiSrvConfigListener](#) [[►](#) [384](#)]

Namespace: [TcHmiSrv](#) [[►](#) [147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public class TcHmiSrvConfigListenerBase : TcHmiSrvListener
```

The TcHmiSrvConfigListenerBase type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose . [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 677]	Releases the unmanaged resources used by the TcHmiSrvConfigListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.116.1 TcHmiSrvConfigListenerBase Properties

The [TcHmiSrvConfigListenerBase \[► 675\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Reference

[TcHmiSrvConfigListenerBase Class \[► 675\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.116.2 TcHmiSrvConfigListenerBase Methods

The [TcHmiSrvConfigListenerBase \[► 675\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723] .)
	Dispose(Boolean) [► 677]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvConfigListenerBase Class \[► 675\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.116.2.1 TcHmiSrvConfigListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [▶ 726]	(Inherited from TcHmiSrvListener [▶ 723].)
	Dispose(Boolean) [▶ 677]	Releases the unmanaged resources used by the TcHmiSrvConfigListenerBase [▶ 675] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [▶ 727].)

Reference

[TcHmiSrvConfigListenerBase Class](#) [[▶ 675](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.116.2.1.1 TcHmiSrvConfigListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvConfigListenerBase](#) [[▶ 675](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvConfigListenerBase Class](#) [[▶ 675](#)]

[Dispose Overload](#) [[▶ 677](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.117 TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_0(  
    IntPtr ctx,  
    string path,
```

```

    IntPtr value,
    string reference
)

```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
value	Type: System.IntPtr
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.118 TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_1 Delegate

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```

public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_1(
    IntPtr ctx,
    string path,
    IntPtr value,
    string reference
)

```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
value	Type: System.IntPtr
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.119 **TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_2 Delegate**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_2(  
    IntPtr ctx,  
    string old_path,  
    string new_path,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
old_path	Type: System.String
new_path	Type: System.String
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.120 **TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_3 Delegate**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_3(  
    IntPtr ctx,  
    string path,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.121 **TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_4 Delegate**

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_4(  
    IntPtr ctx,  
    string path,  
    IntPtr value,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
value	Type: System.IntPtr
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.122 **TcHmiSrvConfigListenerBase.SwigDelegateTcHmiSrvConfigListenerBase_5 Delegate**

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvConfigListenerBase_5(  
    IntPtr ctx,  
    string old_path,  
    string new_path,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
old_path	Type: System.String
new_path	Type: System.String
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.123 TcHmiSrvEventListener.OnListEventsEventArgs Class

Provides data for an [OnListEvents \[► 421\]](#) event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.TcHmiSrvEventListener.OnListEventsEventArgs

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnListEventsEventArgs : EventArgs
```

The TcHmiSrvEventListener.OnListEventsEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvEventListener.OnListEventsEventArgs [► 682]	Initializes a new instance of the TcHmiSrvEventListener.OnListEventsEventArgs class.

Properties

	Name	Description
	Command [► 683]	Gets the Command [► 188] that contains the listed Event [► 253] s in its read-value.
	Context [► 683]	Gets the Context [► 237] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.123.1 TcHmiSrvEventListener.OnListEventsEventArgs Constructor

Initializes a new instance of the [TcHmiSrvEventListener.OnListEventsEventArgs \[► 681\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnListEventsEventArgs (
    Context context,
    Command command
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
command	Type: TcHmiSrv.Command [► 188] The Command [► 188] that contains the listed Event [► 253] s in its read-value.

Reference

[TcHmiSrvEventListener.OnListEventsEventArgs Class \[► 681\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.123.2 OnListEventsEventArgs Properties

The [TcHmiSrvEventListener.OnListEventsEventArgs \[► 681\]](#) type exposes the following members.

Properties

	Name	Description
	Command [► 683]	Gets the Command [► 188] that contains the listed Event [► 253]s in its read-value.
	Context [► 683]	Gets the Context [► 237] of the event.

Reference

[TcHmiSrvEventListener.OnListEventsEventArgs Class](#) [[► 681](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.123.2.1 TcHmiSrvEventListener.OnListEventsEventArgs.Command Property

Gets the [Command](#) [[► 188](#)] that contains the listed [Event](#) [[► 253](#)]s in its read-value.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Command Command { get; }
```

Property Value

Type: [Command](#) [[► 188](#)]

Reference

[TcHmiSrvEventListener.OnListEventsEventArgs Class](#) [[► 681](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.123.2.2 TcHmiSrvEventListener.OnListEventsEventArgs.Context Property

Gets the [Context](#) [[► 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 237](#)]

Reference

[TcHmiSrvEventListener.OnListEventsEventArgs Class](#) [[► 681](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.123.3 OnListEventsEventArgs Methods

The [TcHmiSrvEventListener.OnListEventsEventArgs](#) [► 681] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListener.OnListEventsEventArgs Class](#) [► 681]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.124 TcHmiSrvEventListener.OnListEventsEventHandler Delegate

Represents a method that handles an [OnListEvents](#) [► 421] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnListEventsEventHandler (
    Object sender,
    TcHmiSrvEventListener.OnListEventsEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvEventListener.OnListEventsEventArgs [► 681] The TcHmiSrvEventListener.OnListEventsEventArgs [► 681] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.125 TcHmiSrvEventListener.OnReceiveEventArgs Class

Provides data for an [OnReceive \[► 422\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.TcHmiSrvEventListener.OnReceiveEventArgs](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnReceiveEventArgs : EventArgs
```

The [TcHmiSrvEventListener.OnReceiveEventArgs](#) type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvEventListener.OnReceiveEventArgs [► 686]	Initializes a new instance of the TcHmiSrvEventListener.OnReceiveEventArgs class.

Properties

	Name	Description
	Context [► 686]	Gets the Context [► 237] of the event.
	Events [► 687]	Gets the Value [► 513] that contains the listed Event [► 253] s.
	ExtensionSessionId [► 687]	Gets the extension session identifier.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.125.1 TcHmiSrvEventListener.OnReceiveEventArgs Constructor

Initializes a new instance of the [TcHmiSrvEventListener.OnReceiveEventArgs](#) [► 685] class.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public OnReceiveEventArgs (
    Context context,
    String extensionSessionId,
    Value events
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
extensionSessionId	Type: TcHmiSrv.String [► 346] Unique identifier of an extension that changes when the extension is reloaded.
events	Type: TcHmiSrv.Value [► 513] The Value [► 513] that contains the listed Event [► 253]s.

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [► 685]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.125.2 OnReceiveEventArgs Properties

The [TcHmiSrvEventListener.OnReceiveEventArgs](#) [► 685] type exposes the following members.

Properties

	Name	Description
	Context [► 686]	Gets the Context [► 237] of the event.
	Events [► 687]	Gets the Value [► 513] that contains the listed Event [► 253]s.
	ExtensionSessionId [► 687]	Gets the extension session identifier.

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [► 685]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.125.2.1 TcHmiSrvEventListener.OnReceiveEventArgs.Context Property

Gets the [Context](#) [► 237] of the event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▶ 237](#)]

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [[▶ 685](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.125.2.2 TcHmiSrvEventListener.OnReceiveEventArgs.Events Property

Gets the [Value](#) [[▶ 513](#)] that contains the listed [Event](#) [[▶ 253](#)]s.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value Events { get; }
```

Property Value

Type: [Value](#) [[▶ 513](#)]

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [[▶ 685](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.125.2.3 TcHmiSrvEventListener.OnReceiveEventArgs.ExtensionSessionId Property

Gets the extension session identifier.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String ExtensionSessionId { get; }
```

Property Value

Type: [String](#) [[▶ 346](#)]

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [[▶ 685](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.125.3 OnReceiveEventArgs Methods

The [TcHmiSrvEventListener.OnReceiveEventArgs](#) [► 685] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListener.OnReceiveEventArgs Class](#) [► 685]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.126 TcHmiSrvEventListener.OnReceiveEventHandler Delegate

Represents a method that handles an [OnReceive](#) [► 422] event.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnReceiveEventHandler(
    Object sender,
    TcHmiSrvEventListener.OnReceiveEventArgs e
)
```

Parameters

sender	Type: System.Object The source of the event.
e	Type: TcHmiSrv.TcHmiSrvEventListener.OnReceiveEventArgs [► 685] The TcHmiSrvEventListener.OnReceiveEventArgs [► 685] that contain the event data.

Return Value

Type: [ErrorValue](#) [► 247]

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.127 TcHmiSrvEventListenerBase Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [[▶ 723](#)]

[TcHmiSrv.TcHmiSrvEventListenerBase](#)

[TcHmiSrv.TcHmiSrvEventListener](#) [[▶ 417](#)]

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvEventListenerBase : TcHmiSrvListener
```

The TcHmiSrvEventListenerBase type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Methods

	Name	Description
	Dispose. [▶ 726]	(Inherited from TcHmiSrvListener [▶ 723].)
	Dispose(Boolean) [▶ 690]	Releases the unmanaged resources used by the TcHmiSrvEventListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [▶ 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.127.1 TcHmiSrvEventListenerBase Properties

The [TcHmiSrvEventListenerBase](#) [[▶ 689](#)] type exposes the following members.

Properties

	Name	Description
	Type [▶ 725]	(Inherited from TcHmiSrvListener [▶ 723].)

Reference

[TcHmiSrvEventListenerBase Class \[► 689\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.127.2 TcHmiSrvEventListenerBase Methods

The [TcHmiSrvEventListenerBase \[► 689\]](#) type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 690]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrvEventListenerBase Class \[► 689\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.127.2.1 TcHmiSrvEventListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 690]	Releases the unmanaged resources used by the TcHmiSrvEventListenerBase [► 689] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvEventListenerBase Class \[► 689\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.127.2.1.1 TcHmiSrvEventListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvEventListenerBase \[► 689\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvEventListenerBase Class](#) [[► 689](#)]

[Dispose Overload](#) [[► 690](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.128 **TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_0 Delegate**

Namespace: [TcHmiSrv](#) [[► 147](#)]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvEventListenerBase_0(  
    IntPtr ctx,  
    IntPtr evt,  
    IntPtr extension_session_id  
)
```

Parameters

ctx	Type: System.IntPtr
evt	Type: System.IntPtr
extension_session_id	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.129 TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_1 Delegate

Namespace: TcHmiSrv [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvEventListenerBase_1(
    IntPtr ctx,
    IntPtr extension_session_id,
    IntPtr evts
)
```

Parameters

ctx	Type: <u>System.IntPtr</u>
extension_session_id	Type: <u>System.IntPtr</u>
evts	Type: <u>System.IntPtr</u>

Return Value

Type: Int32

Reference

[TcHmiSrv Namespace](#) [[►](#) 147]

2.1.3.130 TcHmiSrvEventListenerBase.SwigDelegateTcHmiSrvEventListenerBase_2 Delegate

Namespace: [TchmiSrv](#) [[▶](#) [147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvEventListenerBase_2(
    IntPtr ctx,
    IntPtr command
)
```

Parameters

ctx	Type: <u>System.IntPtr</u>
command	Type: <u>System.IntPtr</u>

Return Value

Type: Int32

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.131 TcHmiSrvEventLocalizationListener Class

Provides a listener to interact with the event system of the TwinCAT HMI server.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener \[► 723\]](#)

[TcHmiSrv.TcHmiSrvEventLocalizationListenerBase \[► 701\]](#)

[TcHmiSrv.TcHmiSrvEventLocalizationListener](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvEventLocalizationListener : TcHmiSrvEventLocalizationListenerBase,
    IExternalCaller<string>
```

The TcHmiSrvEventLocalizationListener type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvEventLocalizationListener [► 694]	Initializes a new instance of the TcHmiSrvEventLocalizationListener class

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723] .)
	Dispose(Boolean) [► 703]	(Inherited from TcHmiSrvEventLocalizationListenerBase [► 701] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Events

	Name	Description
	OnRequest [► 695]	Called when a String cannot be localized using the language file of the TwinCAT HMI server extension.

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.131.1 TcHmiSrvEventLocalizationListener Constructor

Initializes a new instance of the [TcHmiSrvEventLocalizationListener](#) [► 693] class

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public TcHmiSrvEventLocalizationListener()
```

Reference

[TcHmiSrvEventLocalizationListener Class](#) [► 693]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.131.2 TcHmiSrvEventLocalizationListener Properties

The [TcHmiSrvEventLocalizationListener](#) [► 693] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvEventLocalizationListener Class](#) [► 693]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.131.3 TcHmiSrvEventLocalizationListener Methods

The [TcHmiSrvEventLocalizationListener](#) [► 693] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 703]	(Inherited from TcHmiSrvEventListenerLocalizationListenerBase [► 701].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventListenerLocalizationListener Class](#) [[► 693](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.131.4 TcHmiSrvEventListenerLocalizationListener Events

The [TcHmiSrvEventListenerLocalizationListener](#) [[► 693](#)] type exposes the following members.

Events

	Name	Description
	OnRequest [► 695]	Called when a String cannot be localized using the language file of the TwinCAT HMI server extension.

Reference

[TcHmiSrvEventListenerLocalizationListener Class](#) [[► 693](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.131.4.1 TcHmiSrvEventListenerLocalizationListener.OnRequest Event

Called when a [String](#) cannot be localized using the language file of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public event TcHmiSrvEventListenerLocalizationListener.OnRequestEventHandler OnRequest
```

Value

Type: [TcHmiSrv.TcHmiSrvEventListenerLocalizationListener.OnRequestEventHandler](#) [[► 700](#)]

Reference

[TcHmiSrvEventLocalizationListener Class \[► 693\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132 TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class

Provides data for an [OnRequest \[► 695\]](#) event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.TcHmiSrvEventLocalizationListener.OnRequestEventArgs

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class OnRequestEventArgs : EventArgs
```

The TcHmiSrvEventLocalizationListener.OnRequestEventArgs type exposes the following members.

Constructors

	Name	Description
	TcHmiSrvEventLocalizationListener.OnRequestEventArgs [► 697]	Initializes a new instance of the TcHmiSrvEventLocalizationListener.OnRequestEventArgs class.

Properties

	Name	Description
	Context [► 698]	Gets the Context [► 237] of the event.
	Locale [► 698]	Gets the locale in BCP 47 representation.
	Localizable [► 699]	Gets the ILocalizable [► 642] object to localize.
	Localized [► 699]	Gets the localized String [► 346] .

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132.1 TcHmiSrvEventLocalizationListener.OnRequestEventArgs Constructor

Initializes a new instance of the [TcHmiSrvEventLocalizationListener.OnRequestEventArgs \[► 696\]](#) class.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public OnRequestEventArgs(
    Context context,
    string locale,
    ILocalizable localizable
)
```

Parameters

context	Type: TcHmiSrv.Context [► 237] The Context [► 237] of the event.
locale	Type: System.String The locale in BCP 47 representation.
localizable	Type: TcHmiSrv.ILocalizable [► 642] The ILocalizable [► 642] object to localize.

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class \[► 696\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132.2 OnRequestEventArgs Properties

The [TcHmiSrvEventLocalizationListener.OnRequestEventArgs \[► 696\]](#) type exposes the following members.

Properties

	Name	Description
	Context [▸ 698]	Gets the Context [▸ 237] of the event.
	Locale [▸ 698]	Gets the locale in BCP 47 representation.
	Localizable [▸ 699]	Gets the ILocalizable [▸ 642] object to localize.
	Localized [▸ 699]	Gets the localized String [▸ 346].

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class](#) [[▸ 696](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.132.2.1 TcHmiSrvEventLocalizationListener.OnRequestEventArgs.Context Property

Gets the [Context](#) [[▸ 237](#)] of the event.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▸ 237](#)]

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class](#) [[▸ 696](#)]

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.132.2.2 TcHmiSrvEventLocalizationListener.OnRequestEventArgs.Locale Property

Gets the locale in BCP 47 representation.

Namespace: [TcHmiSrv](#) [[▸ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public string Locale { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class \[► 696\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132.2.3 TcHmiSrvEventLocalizationListener.OnRequestEventArgs.Localizable Property

Gets the [ILocalizable \[► 642\]](#) object to localize.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ILocalizable Localizable { get; }
```

Property Value

Type: [ILocalizable \[► 642\]](#)

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class \[► 696\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132.2.4 TcHmiSrvEventLocalizationListener.OnRequestEventArgs.Localized Property

Gets the localized [String \[► 346\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String Localized { get; }
```

Property Value

Type: [String \[► 346\]](#)

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class \[► 696\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.132.3 OnRequestEventArgs Methods

The [TcHmiSrvEventLocalizationListener.OnRequestEventArgs \[► 696\]](#) type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrvEventLocalizationListener.OnRequestEventArgs Class](#) [\[► 696\]](#)

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.133 TcHmiSrvEventLocalizationListener.OnRequestEventHandler Delegate

Represents a method that handles an [OnRequest](#) [\[► 695\]](#) event.

Namespace: [TcHmiSrv](#) [\[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate ErrorValue OnRequestEventHandler(  
    Object sender,  
    TcHmiSrvEventLocalizationListener.OnRequestEventArgs e  
)
```

Parameters

sender	Type: <u>System.Object</u> The source of the event.
e	Type: TcHmiSrv.TcHmiSrvEventLocalizationListener.OnRequestEventArgs [► 696] The TcHmiSrvEventLocalizationListener.OnRequestEventArgs [► 696] that contain the event data.

Return Value

Type: [ErrorValue](#) [\[► 247\]](#)

Reference

[TcHmiSrv Namespace](#) [\[► 147\]](#)

2.1.3.134 TcHmiSrvEventLocalizationListenerBase Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [► 723]

[TcHmiSrv.TcHmiSrvEventLocalizationListenerBase](#)

[TcHmiSrv.TcHmiSrvEventLocalizationListener](#) [► 693]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvEventLocalizationListenerBase : TcHmiSrvListener
```

The [TcHmiSrvEventLocalizationListenerBase](#) type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 703]	Releases the unmanaged resources used by the TcHmiSrvEventLocalizationListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.134.1 TcHmiSrvEventLocalizationListenerBase Properties

The [TcHmiSrvEventLocalizationListenerBase](#) [► 701] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvEventLocalizationListenerBase Class](#) [[► 701](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.134.2 TcHmiSrvEventLocalizationListenerBase Methods

The [TcHmiSrvEventLocalizationListenerBase](#) [[► 701](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 703]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvEventLocalizationListenerBase Class](#) [[► 701](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.134.2.1 TcHmiSrvEventLocalizationListenerBase.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 703]	Releases the unmanaged resources used by the TcHmiSrvEventLocalizationListenerBase [► 701] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvEventLocalizationListenerBase Class](#) [[► 701](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.134.2.1.1 **TcHmiSrvEventLocalizationListenerBase.Dispose Method (Boolean)**

Releases the unmanaged resources used by the [TcHmiSrvEventLocalizationListenerBase](#) [► 701] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvEventLocalizationListenerBase Class](#) [► 701]

[Dispose Overload](#) [► 702]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.135 **TcHmiSrvEventLocalizationListenerBase.SwigDelegateTcHmiSrvEventLocalizationListenerBase_0 Delegate**

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvEventLocalizationListenerBase_0(  
    IntPtr ctx,  
    string locale,  
    IntPtr obj,  
    IntPtr localized  
)
```

Parameters

ctx	Type: System.IntPtr
locale	Type: System.String
obj	Type: System.IntPtr
localized	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.136 TcHmiSrvExportListenerBase Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener \[► 723\]](#)

[TcHmiSrv.TcHmiSrvExportListenerBase](#)

[TcHmiSrv.TcHmiSrvExportListener \[► 431\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvExportListenerBase : TcHmiSrvListener
```

The TcHmiSrvExportListenerBase type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723] .)
	Dispose(Boolean) [► 706]	Releases the unmanaged resources used by the TcHmiSrvExportListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.136.1 TcHmiSrvExportListenerBase Properties

The [TcHmiSrvExportListenerBase \[► 704\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvExportListenerBase Class](#) [[► 704](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.136.2 TcHmiSrvExportListenerBase Methods

The [TcHmiSrvExportListenerBase](#) [[► 704](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 706]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvExportListenerBase Class](#) [[► 704](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.136.2.1 TcHmiSrvExportListenerBase.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 706]	Releases the unmanaged resources used by the TcHmiSrvExportListenerBase [► 704] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvExportListenerBase Class](#) [[► 704](#)]

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.136.2.1.1 TcHmiSrvExportListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvExportListenerBase \[► 704\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvExportListenerBase Class \[► 704\]](#)

[Dispose Overload \[► 705\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.137 TcHmiSrvExportListenerBase.SwigDelegateTcHmiSrvExportListenerBase_0 Delegate

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate IntPtr SwigDelegateTcHmiSrvExportListenerBase_0(  
    IntPtr ctx,  
    string path,  
    IntPtr value,  
    IntPtr root,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
value	Type: System.IntPtr
root	Type: System.IntPtr
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.138 TcHmiSrvExportListenerBase.SwigDelegateTcHmiSrvExportListenerBase_1 Delegate

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public delegate IntPtr SwigDelegateTcHmiSrvExportListenerBase_1(  
    IntPtr ctx,  
    string path,  
    IntPtr value,  
    IntPtr root,  
    string reference  
)
```

Parameters

ctx	Type: System.IntPtr
path	Type: System.String
value	Type: System.IntPtr
root	Type: System.IntPtr
reference	Type: System.String

Return Value

Type: [IntPtr](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139 TcHmiSrvExtHost Class

Provides a host to communicate with a TwinCAT HMI server.

Inheritance Hierarchy

System.Object

TcHmiSrv.TcHmiSrvExtHost

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvExtHost : ITcHmiSrvExtHost,  
    IDisposable
```

The TcHmiSrvExtHost type exposes the following members.

Methods

	Name	Description
	Dispose. [▸ 711]	Releases all resources used by the TcHmiSrvExtHost
	Dispose(Boolean) [▸ 711]	Releases the unmanaged resources used by the TcHmiSrvExtHost and optionally releases the managed resources
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	exec(Context, Command) [▸ 712]	Executes a single Command [▸ 188] in the domain of the specified Context [▸ 237].
	exec(Context, CommandGroup) [▸ 713]	Executes Command [▸ 188]s inside any domain.
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	get_config_value [▸ 714]	Gets the configuration Value [▸ 513] at the specified path from the server.
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	localize [▸ 714]	Localizes an ILocalizable [▸ 642] object.
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	notify_listener [▸ 715]	Sends a notification if an Alarm [▸ 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [▸ 716]	Registers an ITcHmiSrvListener [▸ 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [▸ 717]	Registers an ITcHmiSrvListener [▸ 657] at the server using the specified settings.
	reset_temporary_events [▸ 717]	Triggers a refresh of the list of events provided by an extension that implements the TcHmiSrvAlarmProviderListener [▸ 359].
	send(Context, Event) [▸ 718]	Adds or updates an Event [▸ 253].
	send(Context, Message) [▸ 719]	Adds a Message [▸ 307].
	send(Context, Event, EventLifetime) [▸ 719]	Adds or updates an Event [▸ 253].
	send(Context, Message, EventLifetime) [▸ 720]	Adds a Message [▸ 307].
	set_config_value [▸ 721]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [▸ 513].
	ToString	Returns a string that represents the current object. (Inherited from Object.)
	unregister_listener(ITcHmiSrvListener) [▸ 722]	Obsolete. Unregisters an ITcHmiSrvListener [▸ 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [▸ 723]	Unregisters an ITcHmiSrvListener [▸ 657] at the server.

Reference

[TcHmiSrv Namespace](#) [[▸ 147](#)]

2.1.3.139.1 TcHmiSrvExtHost Methods

The [TcHmiSrvExtHost](#) [► 708] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 711]	
	Dispose(Boolean) [► 711]	
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	exec(Context, Command) [► 712]	Executes a single Command [► 188] in the domain of the specified Context [► 237].
	exec(Context, CommandGroup) [► 713]	Executes Command [► 188]s inside any domain.
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	get_config_value [► 714]	Gets the configuration Value [► 513] at the specified path from the server.
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	localize [► 714]	Localizes an ILocalizable [► 642] object.
	MemberwiseClone	Creates a shallow copy of the current Object. (Inherited from Object.)
	notify_listener [► 715]	Sends a notification if an Alarm [► 158] type changed.
	register_listener(Context, ITcHmiSrvListener) [► 716]	Registers an ITcHmiSrvListener [► 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 717]	Registers an ITcHmiSrvListener [► 657] at the server using the specified settings.
	reset_temporary_events [► 717]	Triggers a refresh of the list of events provided by an extension that implements the TcHmiSrvAlarmProviderListener [► 359].
	send(Context, Event) [► 718]	Adds or updates an Event [► 253].
	send(Context, Message) [► 719]	Adds a Message [► 307].
	send(Context, Event, EventLifetime) [► 719]	Adds or updates an Event [► 253].
	send(Context, Message, EventLifetime) [► 720]	Adds a Message [► 307].
	set_config_value [► 721]	Adds an entry to a map or vector in the extension configuration or updates an existing configuration Value [► 513].
	ToString	Returns a string that represents the current object. (Inherited from Object.)
	unregister_listener(ITcHmiSrvListener) [► 722]	Obsolete. Unregisters an ITcHmiSrvListener [► 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 723]	Unregisters an ITcHmiSrvListener [► 657] at the server.

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.1 TcHmiSrvExtHost.Dispose Method

Overload List

	Name	Description
	Dispose. [► 711]	Releases all resources used by the TcHmiSrvExtHost [► 708]
	Dispose(Boolean) [► 711]	Releases the unmanaged resources used by the TcHmiSrvExtHost [► 708] and optionally releases the managed resources

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.1.1 TcHmiSrvExtHost.Dispose Method

Releases all resources used by the [TcHmiSrvExtHost \[► 708\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[Dispose Overload \[► 711\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.1.2 TcHmiSrvExtHost.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvExtHost \[► 708\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
protected virtual void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[Dispose Overload](#) [► 711]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.2 TcHmiSrvExtHost.exec Method**Overload List**

	Name	Description
	exec(Context, Command) [► 712]	Executes a single Command [► 188] in the domain of the specified Context [► 237].
	exec(Context, CommandGroup) [► 713]	Executes Command [► 188]s inside any domain.

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.2.1 TcHmiSrvExtHost.exec Method (Context, Command)

Executes a single [Command](#) [► 188] in the domain of the specified [Context](#) [► 237].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax**C#**

```
public ErrorValue exec(
    Context ctx,
    Command cmd
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Command [► 188] should be executed.
cmd	Type: TcHmiSrv.Command [► 188] The Command [► 188] to be executed.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if executing the [Command](#) [► 188] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.exec\(Context, Command\)](#) [► 648]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[exec Overload](#) [► 712]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.2.2 *TcHmiSrvExtHost.exec Method (Context, CommandGroup)*

Executes [Command](#) [► 188]s inside any domain.

Namespace: [TcHmiSrv](#) [► 147]
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue exec(  
    Context ctx,  
    CommandGroup commands  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the commands should be executed.
commands	Type: TcHmiSrv.CommandGroup [► 204] A CommandGroup [► 204] containing a list of Command [► 188]s.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if executing the commands succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.exec\(Context, CommandGroup\)](#) [► 648]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[exec Overload](#) [► 712]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.3 TcHmiSrvExtHost.get_config_value Method

Gets the configuration [Value \[▸ 513\]](#) at the specified path from the server.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public Value get_config_value(  
    Context ctx,  
    string path  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▸ 237] A Context [▸ 237] containing information about the user who tries to get a configuration Value [▸ 513] .
path	Type: System.String The path of the requested Value [▸ 513] .

Return Value

Type: [Value \[▸ 513\]](#)

The [Value \[▸ 513\]](#) at the specified path or a [Value \[▸ 513\]](#) containing [ValueType Null \[▸ 630\]](#).

Implements

[ITcHmiSrvExtHost.get_config_value\(Context, String\) \[▸ 649\]](#)

Reference

[TcHmiSrvExtHost Class \[▸ 708\]](#)

[TcHmiSrv Namespace \[▸ 147\]](#)

2.1.3.139.1.4 TcHmiSrvExtHost.localize Method

Localizes an [ILocalizable \[▸ 642\]](#) object.

Namespace: [TcHmiSrv \[▸ 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public String localize(  
    Context ctx,  
    ILocalizable obj  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▸ 237] The Context [▸ 237] under which the ILocalizable [▸ 642] object should be localized.
obj	Type: TcHmiSrv.ILocalizable [▸ 642] The ILocalizable [▸ 642] object to localize.

Return Value

Type: [String](#) [▸ 346]
A [String](#) [▸ 346] containing the localized text.

Implements

[ITcHmiSrvExtHost.localize\(Context, ILocalizable\)](#) [▸ 649]

Reference

[TcHmiSrvExtHost Class](#) [▸ 708]
[TcHmiSrv Namespace](#) [▸ 147]

2.1.3.139.1.5 TcHmiSrvExtHost.notify_listener Method

Sends a notification if an [Alarm](#) [▸ 158] type changed.

Namespace: [TcHmiSrv](#) [▸ 147]
Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue notify_listener(  
    Context ctx,  
    AlarmChangeType type,  
    Alarm alm  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▸ 237] The Context [▸ 237] under which the Alarm [▸ 158] changed.
type	Type: TcHmiSrv.AlarmChangeType [▸ 171] Contains the type of the change.
alm	Type: TcHmiSrv.Alarm [▸ 158] The Alarm [▸ 158] that has changed.

Return Value

Type: [ErrorValue](#) [▸ 247]
[HMI_SUCCESS](#) [▸ 247] if sending the notification succeeded; otherwise, any [ErrorValue](#) [▸ 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.notify_listener\(Context, AlarmChangeType, Alarm\)](#) [▸ 650]

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.6 TcHmiSrvExtHost.register_listener Method

Overload List

	Name	Description
	register_listener(Context, ITcHmiSrvListener) [► 716]	Registers an ITcHmiSrvListener [► 657] at the server.
	register_listener(Context, ITcHmiSrvListener, Value) [► 717]	Registers an ITcHmiSrvListener [► 657] at the server using the specified settings.

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.6.1 TcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener)

Registers an [ITcHmiSrvListener \[► 657\]](#) at the server.

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void register_listener(
    Context ctx,
    ITcHmiSrvListener handler
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ITcHmiSrvListener [► 657] should be registered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be registered.

Implements

[ITcHmiSrvExtHost.register_listener\(Context, ITcHmiSrvListener\) \[► 651\]](#)

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[register_listener Overload \[► 716\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.6.2 **TcHmiSrvExtHost.register_listener Method (Context, ITcHmiSrvListener, Value)**

Registers an [ITcHmiSrvListener](#) [► 657] at the server using the specified settings.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void register_listener(  
    Context ctx,  
    ITcHmiSrvListener handler,  
    Value settings  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the ITcHmiSrvListener [► 657] should be registered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be registered.
settings	Type: TcHmiSrv.Value [► 513] A Value [► 513] containing the settings that should be used at the registration.

Implements

[ITcHmiSrvExtHost.register_listener\(Context, ITcHmiSrvListener, Value\)](#) [► 651]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[register_listener Overload](#) [► 716]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.7 **TcHmiSrvExtHost.reset_temporary_events Method**

Triggers a refresh of the list of events provided by an extension that implements the [TcHmiSrvAlarmProviderListener](#) [► 359].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void reset_temporary_events(  
    Context ctx  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] A Context [► 237] containing information about the user who tries to refresh it and the domain of the extension that should be refreshed.

Implements

[ITcHmiSrvExtHost.reset_temporary_events\(Context\) \[► 652\]](#)

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.8 TcHmiSrvExtHost.send Method

Overload List

	Name	Description
	send(Context, Event) [► 718]	Adds or updates an Event [► 253] .
	send(Context, Message) [► 719]	Adds a Message [► 307] .
	send(Context, Event, EventLifetime) [► 719]	Adds or updates an Event [► 253] .
	send(Context, Message, EventLifetime) [► 720]	Adds a Message [► 307] .

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.8.1 TcHmiSrvExtHost.send Method (Context, Event)

Adds or updates an [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue send(  
    Context ctx,  
    Event evt  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Event [► 253] should be sent.
evt	Type: TcHmiSrv.Event [► 253] The Event [► 253] that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if sending the [Event \[► 253\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.send\(Context, Event\) \[► 653\]](#)

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[send Overload \[► 718\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.8.2 *TcHmiSrvExtHost.send Method (Context, Message)*

Adds a [Message \[► 307\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue send(  
    Context ctx,  
    Message msg  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Message [► 307] should be sent.
msg	Type: TcHmiSrv.Message [► 307] The Message [► 307] that will be sent to the server and all current event listeners.

Return Value

Type: [ErrorValue \[► 247\]](#)

[HMI_SUCCESS \[► 247\]](#) if sending the [Message \[► 307\]](#) succeeded; otherwise, any [ErrorValue \[► 247\]](#) that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.send\(Context, Message\) \[► 653\]](#)

Reference

[TcHmiSrvExtHost Class \[► 708\]](#)

[send Overload \[► 718\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.139.1.8.3 *TcHmiSrvExtHost.send Method (Context, Event, EventLifetime)*

Adds or updates an [Event \[► 253\]](#).

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue send(  
    Context ctx,  
    Event evt,  
    EventLifetime lifetime  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Event [► 253] should be sent.
evt	Type: TcHmiSrv.Event [► 253] The Event [► 253] that will be sent to the server and all current event listeners.
lifetime	Type: TcHmiSrv.EventLifetime [► 642] Specifies whether the Event [► 253] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 247]
[HMI_SUCCESS](#) [► 247] if sending the [Event](#) [► 253] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.send\(Context, Event, EventLifetime\)](#) [► 654]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[send Overload](#) [► 718]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.8.4 TcHmiSrvExtHost.send Method (Context, Message, EventLifetime)

Adds a [Message](#) [► 307].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue send(  
    Context ctx,  
    Message msg,  
    EventLifetime lifetime  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] The Context [► 237] under which the Message [► 307] should be sent.
msg	Type: TcHmiSrv.Message [► 307] The Message [► 307] that will be sent to the server and all current event listeners.
lifetime	Type: TcHmiSrv.EventLifetime [► 642] Specifies whether the Message [► 307] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 247]

[HMI SUCCESS](#) [► 247] if sending the [Message](#) [► 307] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.send\(Context, Message, EventLifetime\)](#) [► 655]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[send Overload](#) [► 718]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.9 TcHmiSrvExtHost.set_config_value Method

Adds an entry to a map or vector in the extension configuration or updates an existing configuration [Value](#) [► 513].

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
public ErrorValue set_config_value(  
    Context ctx,  
    string path,  
    Value value  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [► 237] A Context [► 237] containing information about the user who tries to get a configuration Value [► 513].
path	Type: System.String The path of the Value [► 513] to be set.
value	Type: TcHmiSrv.Value [► 513] The Value [► 513] to be set or nullptr to delete the configuration Value [► 513] at specified path.

Return Value

Type: [ErrorValue](#) [► 247]
HMI_SUCCESS [► 247] if setting the configuration [Value](#) [► 513] succeeded; otherwise, any [ErrorValue](#) [► 247] that best describes which error has occurred.

Implements

[ITcHmiSrvExtHost.set_config_value\(Context, String, Value\)](#) [► 655]

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.10 TcHmiSrvExtHost.unregister_listener Method

Overload List

	Name	Description
	unregister_listener(ITcHmiSrvListener) [► 722]	Obsolete. Unregisters an ITcHmiSrvListener [► 657] at the server.
	unregister_listener(Context, ITcHmiSrvListener) [► 723]	Unregisters an ITcHmiSrvListener [► 657] at the server.

Reference

[TcHmiSrvExtHost Class](#) [► 708]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.139.1.10. TcHmiSrvExtHost.unregister_listener Method (ITcHmiSrvListener)
1

Note: This API is now obsolete.

Unregisters an [ITcHmiSrvListener](#) [► 657] at the server.

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
[ObsoleteAttribute("Unregistering a listener without context is obsolete. Unregister a listener with context instead.", true)]  
public void unregister_listener(  
    ITcHmiSrvListener handler  
)
```

Parameters

handler	Type: TcHmiSrv.ITcHmiSrvListener [► 657] The ITcHmiSrvListener [► 657] that should be unregistered.

Implements

[ITcHmiSrvExtHost.unregister_listener\(ITcHmiSrvListener\)](#) [[▶ 656](#)]

Reference

[TcHmiSrvExtHost Class](#) [[▶ 708](#)]

[unregister_listener Overload](#) [[▶ 722](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.139.1.10. *TcHmiSrvExtHost.unregister_listener Method (Context, ITcHmiSrvListener)*

Unregisters an [ITcHmiSrvListener](#) [[▶ 657](#)] at the server.

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public void unregister_listener(  
    Context ctx,  
    ITcHmiSrvListener handler  
)
```

Parameters

ctx	Type: TcHmiSrv.Context [▶ 237] The Context [▶ 237] under which the ITcHmiSrvListener [▶ 657] should be unregistered.
handler	Type: TcHmiSrv.ITcHmiSrvListener [▶ 657] The ITcHmiSrvListener [▶ 657] that should be unregistered.

Implements

[ITcHmiSrvExtHost.unregister_listener\(Context, ITcHmiSrvListener\)](#) [[▶ 657](#)]

Reference

[TcHmiSrvExtHost Class](#) [[▶ 708](#)]

[unregister_listener Overload](#) [[▶ 722](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.140 TcHmiSrvListener Class

Inheritance Hierarchy

[System.Object](#)
 TcHmiSrv.TcHmiSrvListener
 More...

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvListener : ITcHmiSrvListener,
    IDisposable
```

The TcHmiSrvListener type exposes the following members.

Properties

	Name	Description
	Type [► 725]	

Methods

	Name	Description
	Dispose. [► 726]	Releases all resources used by the TcHmiSrvListener
	Dispose(Boolean) [► 727]	Releases the unmanaged resources used by the TcHmiSrvListener and optionally releases the managed resources
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object. (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#)

[TcHmiSrv.TcHmiSrvAlarmProviderListenerBase](#) [[► 667](#)]

[TcHmiSrv.TcHmiSrvAuthListenerBase](#) [[► 671](#)]

[TcHmiSrv.TcHmiSrvConfigListenerBase](#) [[► 675](#)]

[TcHmiSrv.TcHmiSrvEventListenerBase](#) [[► 689](#)]

[TcHmiSrv.TcHmiSrvEventLocalizationListenerBase](#) [[► 701](#)]

[TcHmiSrv.TcHmiSrvExportListenerBase](#) [[► 704](#)]

[TcHmiSrv.TcHmiSrvRequestListenerBase](#) [[► 727](#)]

[TcHmiSrv.TcHmiSrvSessionListenerBase](#) [[► 730](#)]

[TcHmiSrv.TcHmiSrvShutdownListenerBase](#) [[► 735](#)]

[TcHmiSrv.TcHmiSrvSubscriptionListenerBase](#) [[► 738](#)]

2.1.3.140.1 TcHmiSrvListener Properties

The [TcHmiSrvListener](#) [[► 723](#)] type exposes the following members.

Properties

	Name	Description
	Type [725]	

Reference

[TcHmiSrvListener Class](#) [[723](#)]

[TcHmiSrv Namespace](#) [[147](#)]

2.1.3.140.1.1 TcHmiSrvListener.Type Property

Namespace: [TcHmiSrv](#) [[147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [[306](#)]

Implements

[ITcHmiSrvListener.Type](#) [[658](#)]

Reference

[TcHmiSrvListener Class](#) [[723](#)]

[TcHmiSrv Namespace](#) [[147](#)]

2.1.3.140.2 TcHmiSrvListener Methods

The [TcHmiSrvListener](#) [[723](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	
	Dispose(Boolean) [► 727]	
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrvListener Class](#) [[► 723](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.140.2.1 TcHmiSrvListener.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 726]	Releases all resources used by the TcHmiSrvListener [► 723]
	Dispose(Boolean) [► 727]	Releases the unmanaged resources used by the TcHmiSrvListener [► 723] and optionally releases the managed resources

Reference

[TcHmiSrvListener Class](#) [[► 723](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.140.2.1.1 TcHmiSrvListener.Dispose Method

Releases all resources used by the [TcHmiSrvListener](#) [[► 723](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
public void Dispose()
```

Implements

[IDisposable.Dispose.](#)

Reference

[TcHmiSrvListener Class \[► 723\]](#)

[Dispose Overload \[► 726\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.140.2.1.2 *TcHmiSrvListener.Dispose Method (Boolean)*

Releases the unmanaged resources used by the [TcHmiSrvListener \[► 723\]](#) and optionally releases the managed resources

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected virtual void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvListener Class \[► 723\]](#)

[Dispose Overload \[► 726\]](#)

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.141 TcHmiSrvRequestListenerBase Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener \[► 723\]](#)

[TcHmiSrv.TcHmiSrvRequestListenerBase](#)

[TcHmiSrv.TcHmiSrvRequestListener \[► 449\]](#)

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvRequestListenerBase : TcHmiSrvListener
```

The TcHmiSrvRequestListenerBase type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723] .)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 729]	Releases the unmanaged resources used by the TcHmiSrvRequestListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.141.1 TcHmiSrvRequestListenerBase Properties

The [TcHmiSrvRequestListenerBase](#) [[► 727](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvRequestListenerBase Class](#) [[► 727](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.141.2 TcHmiSrvRequestListenerBase Methods

The [TcHmiSrvRequestListenerBase](#) [[► 727](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 729]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvRequestListenerBase Class](#) [[► 727](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.141.2.1 TcHmiSrvRequestListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 729]	Releases the unmanaged resources used by the TcHmiSrvRequestListenerBase [► 727] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvRequestListenerBase Class](#) [[► 727](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.141.2.1.1 TcHmiSrvRequestListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvRequestListenerBase](#) [[► 727](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(
    bool disposing
)
```

Parameters

disposing	Type: <u>System.Boolean</u> True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

TcHmiSrvRequestListenerBase Class [\[► 727\]](#)

Dispose Overload [[▶ 729](#)]

TcHmiSrv Namespace [[▶ 147](#)]

2.1.3.142 TcHmiSrvRequestListenerBase.SwigDelegateTcHmiSrvRequestListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [[►](#) [147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate void SwigDelegateTcHmiSrvRequestListenerBase_0(
    IntPtr ctx,
    IntPtr commands
)
```

Parameters

ctx	Type: <u>System.IntPtr</u>
commands	Type: <u>System.IntPtr</u>

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.143 TcHmiSrvSessionListenerBase Class

Inheritance Hierarchy

System.Object

[TcHmiSrv.TcHmiSrvListener](#) [► 723]

TchHmiSrv.TchHmiSrvSessionListenerBase

TcHmiSrv.TcHmiSrvSessionListener [► 456]

Namespace: TcHmiSrv [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvSessionListenerBase : TcHmiSrvListener
```

The `TcHmiSrvSessionListenerBase` type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 732]	Releases the unmanaged resources used by the TcHmiSrvSessionListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.143.1 TcHmiSrvSessionListenerBase Properties

The [TcHmiSrvSessionListenerBase](#) [► 730] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvSessionListenerBase Class](#) [► 730]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.143.2 TcHmiSrvSessionListenerBase Methods

The [TcHmiSrvSessionListenerBase](#) [► 730] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 732]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSessionListenerBase Class](#) [[► 730](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.143.2.1 TcHmiSrvSessionListenerBase.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 732]	Releases the unmanaged resources used by the TcHmiSrvSessionListenerBase [► 730] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvSessionListenerBase Class](#) [[► 730](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.143.2.1.1 TcHmiSrvSessionListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvSessionListenerBase](#) [[► 730](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
protected override void Dispose(
    bool disposing
)
```


Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvSessionListenerBase Class](#) [[► 730](#)]

[Dispose Overload](#) [[► 732](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.144 TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_0(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.145 TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_1 Delegate

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_1(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.146 TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_2 Delegate

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_2(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.147 TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_3 Delegate

Namespace: [TcHmiSrv \[► 147\]](#)

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_3(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.148 **TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_4 Delegate**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_4(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.149 **TcHmiSrvSessionListenerBase.SwigDelegateTcHmiSrvSessionListenerBase_5 Delegate**

Namespace: [TcHmiSrv \[► 147\]](#)
Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSessionListenerBase_5(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace \[► 147\]](#)

2.1.3.150 **TcHmiSrvShutdownListenerBase Class**

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.TcHmiSrvListener \[► 723\]](#)
 TcHmiSrv.TcHmiSrvShutdownListenerBase

[TcHmiSrv.TcHmiSrvShutdownListener](#) [[► 472](#)]

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvShutdownListenerBase : TcHmiSrvListener
```

The TcHmiSrvShutdownListenerBase type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 737]	Releases the unmanaged resources used by the TcHmiSrvShutdownListenerBase and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.150.1 TcHmiSrvShutdownListenerBase Properties

The [TcHmiSrvShutdownListenerBase](#) [[► 735](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvShutdownListenerBase Class](#) [[► 735](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.150.2 TcHmiSrvShutdownListenerBase Methods

The [TcHmiSrvShutdownListenerBase](#) [► 735] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 737]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvShutdownListenerBase Class](#) [► 735]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.150.2.1 TcHmiSrvShutdownListenerBase.Dispose Method

Overload List

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 737]	Releases the unmanaged resources used by the TcHmiSrvShutdownListenerBase [► 735] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvShutdownListenerBase Class](#) [► 735]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.150.2.1.1 TcHmiSrvShutdownListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvShutdownListenerBase](#) [► 735] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [► 147]

Assembly: [TcHmiSrvExtNet](#) (in [TcHmiSrvExtNet.dll](#)) Version: 3.0.0.0

Syntax

C#

```
protected override void Dispose(  
    bool disposing  
)
```

Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvShutdownListenerBase Class](#) [► 735]

[Dispose Overload](#) [► 737]

[TcHmiSrv Namespace](#) [► 147]

2.1.3.151 TcHmiSrvShutdownListenerBase.SwigDelegateTcHmiSrvShutdownListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvShutdownListenerBase_0(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [► 147]

2.1.3.152 TcHmiSrvSubscriptionListenerBase Class

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.TcHmiSrvListener](#) [► 723]

 TcHmiSrv.TcHmiSrvSubscriptionListenerBase

[TcHmiSrv.TcHmiSrvSubscriptionListener](#) [► 478]

Namespace: [TcHmiSrv](#) [► 147]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public class TcHmiSrvSubscriptionListenerBase : TcHmiSrvListener
```

The `TcHmiSrvSubscriptionListenerBase` type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 740]	Releases the unmanaged resources used by the <code>TcHmiSrvSubscriptionListenerBase</code> and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.152.1 TcHmiSrvSubscriptionListenerBase Properties

The [TcHmiSrvSubscriptionListenerBase](#) [[► 738](#)] type exposes the following members.

Properties

	Name	Description
	Type [► 725]	(Inherited from TcHmiSrvListener [► 723].)

Reference

[TcHmiSrvSubscriptionListenerBase Class](#) [[► 738](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.152.2 TcHmiSrvSubscriptionListenerBase Methods

The [TcHmiSrvSubscriptionListenerBase](#) [[► 738](#)] type exposes the following members.

Methods

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 740]	(Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrvSubscriptionListenerBase Class](#) [[► 738](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.152.2.1 TcHmiSrvSubscriptionListenerBase.Dispose Method**Overload List**

	Name	Description
	Dispose. [► 726]	(Inherited from TcHmiSrvListener [► 723].)
	Dispose(Boolean) [► 740]	Releases the unmanaged resources used by the TcHmiSrvSubscriptionListenerBase [► 738] and optionally releases the managed resources (Overrides TcHmiSrvListener.Dispose(Boolean) [► 727].)

Reference

[TcHmiSrvSubscriptionListenerBase Class](#) [[► 738](#)]

[TcHmiSrv Namespace](#) [[► 147](#)]

2.1.3.152.2.1.1 TcHmiSrvSubscriptionListenerBase.Dispose Method (Boolean)

Releases the unmanaged resources used by the [TcHmiSrvSubscriptionListenerBase](#) [[► 738](#)] and optionally releases the managed resources

Namespace: [TcHmiSrv](#) [[► 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax**C#**

```
protected override void Dispose(
    bool disposing
)
```


Parameters

disposing	Type: System.Boolean True to release both managed and unmanaged resources; false to release only unmanaged resources

Reference

[TcHmiSrvSubscriptionListenerBase Class](#) [[▶ 738](#)]

[Dispose Overload](#) [[▶ 740](#)]

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.153 TcHmiSrvSubscriptionListenerBase.SwigDelegateTcHmiSrvSubscriptionListenerBase_0 Delegate

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSubscriptionListenerBase_0(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.1.3.154 TcHmiSrvSubscriptionListenerBase.SwigDelegateTcHmiSrvSubscriptionListenerBase_1 Delegate

Namespace: [TcHmiSrv](#) [[▶ 147](#)]

Assembly: TcHmiSrvExtNet (in TcHmiSrvExtNet.dll) Version: 3.0.0.0

Syntax

C#

```
public delegate int SwigDelegateTcHmiSrvSubscriptionListenerBase_1(  
    IntPtr ctx  
)
```

Parameters

ctx	Type: System.IntPtr

Return Value

Type: [Int32](#)

Reference

[TcHmiSrv Namespace](#) [[▶ 147](#)]

2.2 Version 1.12

2.2.1 Welcome to the TcHmiSrvExtNet.Core documentation

This is the documentation of the new TwinCAT HMI server extension API for .NET.

It's written in C# and targets the .NET Standard 2.0 framework, so it can be referenced in TwinCAT HMI server extensions targeting the classic .NET Framework (version 4.7.2 or higher) as well as .NET Core (version 2.0 or higher).

Important notes

Please pay attention to these notes in order to avoid unnecessary errors when developing and running TwinCAT HMI server extensions:

- To debug your TwinCAT HMI server extension the debugger has to be attached to the TcHmiExtensionContainer process.
Release configurations can be debugged by replacing "dotNetConfiguration": "Release" with "dotNetConfiguration": "Debug" in the '*.Config.json' of your TwinCAT HMI server extension.

Getting Started

A reference to TcHmiSrvExtNet.Core.dll will be automatically added to your project if you create a new TwinCAT HMI server extension for .NET.

If you have already created TwinCAT HMI server extension using TwinCAT HMI release 1.10 you may be interested in the [API Differences](#) [[▶ 746](#)] between the former TwinCAT HMI server extension API TcHmiSrvExtNet and TcHmiSrvExtNet.Core.

Or you can take a look at the guide, which will help you [How to migrate](#) [[▶ 761](#)] from TcHmiSrvExtNet to TcHmiSrvExtNet.Core.

Other Resources

[Version History](#) [[▶ 742](#)]

[API Differences](#) [[▶ 746](#)]

[How to migrate](#) [[▶ 761](#)]

2.2.2 Version History

The topics in this section describe the various changes made to TcHmiSrvExtNet.Core over the life of the project.

If you're looking for the differences between the former TwinCAT HMI server extension API TcHmiSrvExtNet and TcHmiSrvExtNet.Core, take a look at the [API Differences](#) [[▶ 746](#)].

Version History

Select a version below to see a description of its changes to the previous version:

- [Version 1.0.0.0](#) [[▶ 743](#)]
- [Version 1.1.0.0](#) [[▶ 743](#)]

- [Version 1.2.0.0 \[► 744\]](#)
- [Version 1.3.0.0 \[► 744\]](#)

Other Resources

[Welcome to the TcHmiSrvExtNet.Core documentation \[► 742\]](#)

2.2.2.1 Version 1.0.0.0

TcHmiSrvExtNet.Core version 1.0.0.0 was released on August 14, 2020.

Changes in this release

- This is the initial release of the TcHmiSrvExtNet.Core.dll.
For changes between the former TwinCAT HMI server extension API TcHmiSrvExtNet and TcHmiSrvExtNet.Core take a look at the [API Differences \[► 746\]](#).

Other Resources

[Version History \[► 742\]](#)

2.2.2.2 Version 1.1.0.0

TcHmiSrvExtNet.Core version 1.1.0.0 was released on February 15, 2021.

Issues fixed in this release

- Fixed an issue where property [Alarm.Name \[► 774\]](#) could be null.
- Fixed an issue where creating a deep copy of an [TcHmiSrv.Core.Alarm \[► 767\]](#) threw a [System.NullReferenceException](#) if property [Alarm.Parameters \[► 775\]](#) was null.
- Fixed an issue where creating a deep copy of a [TcHmiSrv.Core.Command \[► 788\]](#) threw a [System.NullReferenceException](#) if property [Command.ReadValue \[► 799\]](#), [Command.WriteValue \[► 800\]](#) or [Command.SymbolOptions \[► 800\]](#) was null.
- Fixed an issue where creating a deep copy of a [TcHmiSrv.Core.Context \[► 833\]](#) threw a [System.NullReferenceException](#) if property [Context.Session \[► 836\]](#) was null.
- Fixed an issue where creating a deep copy of an [TcHmiSrv.Core.Event \[► 850\]](#) threw a [System.NullReferenceException](#) if property [Event.Payload \[► 856\]](#) or [Event.Session \[► 856\]](#) was null.
- Fixed an issue where creating a deep copy of a [TcHmiSrv.Core.Message \[► 924\]](#) threw a [System.NullReferenceException](#) if property [Alarm.Parameters \[► 775\]](#) was null.
- Fixed an issue where properties [Command.IsSet \[► 796\]](#) and [Command.Paging \[► 797\]](#) were not set in the deep copy of [TcHmiSrv.Core.Command \[► 788\]](#)s.
- Fixed an issue where method [Value.GetHashCode. \[► 1079\]](#) threw a [System.StackOverflowException](#).
- Fixed an issue where methods and properties of the [TcHmiSrv.Core.Value \[► 952\]](#) class threw a [System.NullReferenceException](#) because the internal value was null or of an unexpected [System.Type](#).
- Fixed an issue where property [JsonSchemaValue.Definitions \[► 1443\]](#) could be modified by adding or removing elements from the [System.Collections.Generic.IDictionary.TKey, TValue](#), that was used to initialize a new instance of the [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#) class. This could have resulted in [TcHmiSrv.Core.Tools.DynamicSymbols.Definition \[► 1348\]](#)s not being cleaned up after the corresponding [TcHmiSrv.Core.Tools.DynamicSymbols.Symbol \[► 1477\]](#) was removed from the [TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolsProvider \[► 1391\]](#).

New features in this release

- Classes [TcHmiSrv.Core.CommandGroup](#) [► 807] and [TcHmiSrv.Core.Value](#) [► 952] implement the [System.Collections.ICollection](#) interface.
- Constructors [CommandGroup.CommandGroup\(IList.Command.\)](#) [► 814] and [CommandGroup.CommandGroup\(String, IList.Command.\)](#) [► 815] were added to create new [TcHmiSrv.Core.CommandGroup](#) [► 807]s without having to copy the specified collection of [TcHmiSrv.Core.Command](#) [► 788]s first.
- Constructor [Event.Event\(Context, String\)](#) [► 854] was added.
- Method [CommandGroup.RemoveRange\(Int32, Int32\)](#) [► 829] was added to remove a range of [TcHmiSrv.Core.Command](#) [► 788]s from a [TcHmiSrv.Core.CommandGroup](#) [► 807].
- Property [Command.Paging](#) [► 797] can be set.
- Methods [TcHmiApplication.JoinPath\(Object.\)](#) [► 1185], [TcHmiApplication.JoinPath.T.\(IEnumerable.String.\)](#) [► 1184] and [TcHmiApplication.JoinPath.T.\(IEnumerable.T.\)](#) [► 1185] were added to concatenate elements using [TcHmiApplication.PathElementSeparator](#) [► 1190].
- Property [Symbol.ReadOnly](#) [► 1487] was added and can be specified in the constructors of classes [TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#) [► 1477], [TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithValue](#) [► 1510] and [TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithDirectValue](#) [► 1492].

Other Resources

[Version History](#) [► 742]

2.2.2.3 Version 1.2.0.0

TcHmiSrvExtNet.Core version 1.2.0.0 was released on July 13, 2021.

New features in this release

- The following types and properties were added to communicate with the TwinCAT HMI server asynchronously:
 - [TcHmiSrv.Core.ITcHmiSrvExtAsyncHost](#) [► 869]
 - [TcHmiSrv.Core.General.TcHmiAsyncLogger](#) [► 1191]
 - [TcHmiApplication.AsyncHost](#) [► 1181]

Other Resources

[Version History](#) [► 742]

2.2.2.4 Version 1.3.0.0

TcHmiSrvExtNet.Core version 1.3.0.0 was released on July 13, 2021.

New features in this release

- The following constructor, method and properties were added to class [TcHmiSrv.Core.Value](#) [► 952] to increase the performance of creating a fixed-size collection of [TcHmiSrv.Core.Value](#) [► 952]s:
 - [Value.Value\(Value.\)](#) [► 991]

- [Value.ToArray.](#) [► 1107]
- [Value.IsArray](#) [► 994]
- [Value.Length](#) [► 999]
- [Value.LongLength](#) [► 1000]

Remarks:

Creating a [System.Array](#) and setting its elements is faster than creating a [System.Collections.Generic.List.T.](#) and adding the same number of elements to it, even if you set [List.T.Capacity](#) to the total number of elements. This is because [System.Collections.Generic.List.T.](#) is a wrapper around [System.Array](#), which makes it about 5% slower for this scenario. Therefore, if you need to create a fixed-sized collection of [TcHmiSrv.Core.Value](#) [► 952]s, you can now use a [System.Array](#) instead of a [System.Collections.Generic.List.T.](#) to increase performance. Please also note the [Performance Considerations](#) and [Remarks](#) about the limited modifiability of [System.Arrays](#) when choosing between [System.Array](#) and [System.Collections.Generic.List.T.](#).

- Constructor [JsonSchemaValue.JsonSchemaValue\(Value, Boolean\)](#) [► 1439] was added to allow creating a [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [► 1421] from a [TcHmiSrv.Core.Value](#) [► 952] containing JSON schema definitions.
- Method [DynamicSymbolsProvider.HandleCommand\(Command\)](#) [► 1412] was added and method [DynamicSymbolsProvider.HandleCommands\(CommandGroup\)](#) [► 1413] was marked as virtual to allow customized handling of [TcHmiSrv.Core.Command](#) [► 788]s in a [TcHmiSrv.Core.CommandGroup](#) [► 807] by overriding it.
- Method [DynamicSymbolsProvider.HandleException\(Command, Exception\)](#) [► 1413] was added to allow customized handling of [System.Exceptions](#) by overriding it and enabling it in one of these newly added constructors:
 - [DynamicSymbolsProvider.DynamicSymbolsProvider\(IEnumerable.KeyValuePair.String, Symbol..., IComparer.String, Boolean\)](#) [► 1400]
 - [DynamicSymbolsProvider.DynamicSymbolsProvider\(IEnumerable.KeyValuePair.String, Symbol..., Boolean\)](#) [► 1399]
 - [DynamicSymbolsProvider.DynamicSymbolsProvider\(Boolean\)](#) [► 1398]
 - [SortedDynamicSymbolsProvider.SortedDynamicSymbolsProvider\(IEnumerable.KeyValuePair.String, Symbol..., IComparer.String, Boolean\)](#) [► 1472]
 - [SortedDynamicSymbolsProvider.SortedDynamicSymbolsProvider\(IEnumerable.KeyValuePair.String, Symbol..., Boolean\)](#) [► 1471]

[DynamicSymbolsProvider.HandleException\(Command, Exception\)](#) [► 1413] is not overridden, it throws an exception of newly added type [TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolException](#) [► 1386].

- JSON schemas that contain `allOf`, `anyOf`, `oneOf` or `not` can be resolved by [TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolsProvider](#) [► 1391].

Other Resources

[Version History](#) [► 742]

2.2.3 API Differences

The topics in this section describe the API differences between TcHmiSrvExtNet and TcHmiSrvExtNet.Core.

TcHmiSrvExtNet.Core was introduced to replace the former TwinCAT HMI server extension API TcHmiSrvExtNet.

To ensure backward compatibility with existing TwinCAT HMI server extensions, TcHmiSrvExtNet.dll is still shipped with this release.

We **strongly** recommend to use only TcHmiSrvExtNet.Core for developing new TwinCAT HMI server extensions from now on, as stability, performance and usability have been improved in the new TwinCAT HMI server extension API.

We also recommend to migrate your existing TwinCAT HMI server extensions to use the new TwinCAT HMI server extension API TcHmiSrvExtNet.Core instead of TcHmiSrvExtNet.

See the instructions on [How to migrate \[► 761\]](#) from TcHmiSrvExtNet to TcHmiSrvExtNet.Core or take a look at the detailed API differences between TcHmiSrvExtNet.Core and TcHmiSrvExtNet [Version 1.10.1018.48 \[► 746\]](#).

Other Resources

[Welcome to the TcHmiSrvExtNet.Core documentation \[► 742\]](#)

[How to migrate \[► 761\]](#)

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1 Version 1.10.1018.48

Version 1.10.1018.48 of TcHmiSrvExtNet was released on August 30, 2018.

Differences between this release

Select a type below to see a description of its differences to the current version of TcHmiSrvExtNet.Core:

- [Access Enumeration \[► 747\]](#)
- [Alarm Class \[► 748\]](#)
- [AlarmChangeType Enumeration \[► 748\]](#)
- [AlarmConfirmationState Enumeration \[► 748\]](#)
- [AlarmState Enumeration \[► 748\]](#)
- [Binary Class \[► 749\]](#)
- [Command Class \[► 749\]](#)
- [CommandGroup Class \[► 749\]](#)
- [CommandOption Enumeration \[► 750\]](#)
- [CommandVectorIterator Class \[► 750\]](#)
- [ConfigChangeType Enumeration \[► 750\]](#)
- [Context Class \[► 750\]](#)
- [EndpointInfo Enumeration \[► 751\]](#)
- [ErrorValue Enumeration \[► 751\]](#)
- [Event Class \[► 751\]](#)
- [EventChangeFlags Enumeration \[► 751\]](#)
- [EventChangeType Enumeration \[► 751\]](#)
- [ILocalizable Class \[► 752\]](#)
- [IObject Class \[► 752\]](#)

- [ITcHmiSrvAlarmProviderListener Class \[► 752\]](#)
- [ITcHmiSrvAuthListener Class \[► 752\]](#)
- [ITcHmiSrvConfigListener Class \[► 752\]](#)
- [ITcHmiSrvEventLocalizationListener Class \[► 752\]](#)
- [ITcHmiSrvExportListener Class \[► 753\]](#)
- [ITcHmiSrvExtHost Class \[► 753\]](#)
- [ITcHmiSrvListener Class \[► 753\]](#)
- [ITcHmiSrvRequestListener Class \[► 754\]](#)
- [ITcHmiSrvSessionListener Class \[► 754\]](#)
- [ITcHmiSrvShutdownListener Class \[► 754\]](#)
- [ITcHmiSrvSubscriptionListener Class \[► 754\]](#)
- [ListenerType Enumeration \[► 754\]](#)
- [Message Class \[► 754\]](#)
- [Range Class \[► 755\]](#)
- [RequestType Enumeration \[► 755\]](#)
- [ResultPair Class \[► 755\]](#)
- [Session Class \[► 755\]](#)
- [Severity Enumeration \[► 756\]](#)
- [String Class \[► 756\]](#)
- [TcHmiSrvAlarmProviderListener Class \[► 756\]](#)
- [TcHmiSrvAuthListener Class \[► 756\]](#)
- [TcHmiSrvConfigListener Class \[► 756\]](#)
- [TcHmiSrvEventLocalizationListener Class \[► 757\]](#)
- [TcHmiSrvExportListener Class \[► 757\]](#)
- [TcHmiSrvExt Class \[► 757\]](#)
- [TcHmiSrvRequestListener Class \[► 757\]](#)
- [TcHmiSrvSessionListener Class \[► 757\]](#)
- [TcHmiSrvShutdownListener Class \[► 758\]](#)
- [TcHmiSrvSubscriptionListener Class \[► 758\]](#)
- [Timespan Class \[► 758\]](#)
- [Timestamp Class \[► 758\]](#)
- [Value Class \[► 758\]](#)
- [ValueIterator Class \[► 760\]](#)
- [ValueType Enumeration \[► 760\]](#)
- [ValueVectorIterator Class \[► 760\]](#)

Other Resources

[API Differences \[► 746\]](#)

2.2.3.1.1 Access Enumeration

The [TcHmiSrv.Access](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core \[► 764\]](#) namespace. It was therefore replaced by the [TcHmiSrv.Core.Access \[► 766\]](#) enumeration.

Differences between this release

- The `Access_` prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.2 Alarm Class

The `TcHmiSrv.Alarm` class was moved from the `TcHmiSrv` to the `TcHmiSrv.Core` [[► 764](#)] namespace. It was therefore replaced by the `TcHmiSrv.Core.Alarm` [[► 767](#)] class.

Differences between this release

- `TcHmiSrv.Core.Alarm` [[► 767](#)] implements `TcHmiSrv.Core.Duplication.ICopyable.T` [[► 1170](#)], `System.IEquatable.T`, and `TcHmiSrv.Core.ILocalizable` [[► 866](#)].
- The `Alarm.Alarm(Alarm)` constructor was removed. Use the `Alarm.DeepCopy` [[► 779](#)] method instead.
- The `Alarm.AlarmState` [[► 772](#)] property was added.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.3 AlarmChangeType Enumeration

The `TcHmiSrv.AlarmChangeType` enumeration was moved from the `TcHmiSrv` to the `TcHmiSrv.Core` [[► 764](#)] namespace. It was therefore replaced by the `TcHmiSrv.Core.AlarmChangeType` [[► 787](#)] enumeration.

Differences between this release

- The `AlarmChangeType_` prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.4 AlarmConfirmationState Enumeration

The `TcHmiSrv.AlarmConfirmationState` enumeration was moved from the `TcHmiSrv` to the `TcHmiSrv.Core` [[► 764](#)] namespace. It was therefore replaced by the `TcHmiSrv.Core.AlarmConfirmationState` [[► 787](#)] enumeration.

Differences between this release

- The `AlarmConfirmationState_` prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.5 AlarmState Enumeration

The `TcHmiSrv.Core.AlarmState` [[► 787](#)] enumeration was added.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.6 Binary Class

The `TcHmiSrv.Binary` class was replaced by `System.Byte[]`.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.7 Command Class

The `TcHmiSrv.Command` class was moved from the `TcHmiSrv` to the `TcHmiSrv.Core` [[► 764](#)] namespace. It was therefore replaced by the `TcHmiSrv.Core.Command` [[► 788](#)] class.

Differences between this release

- `TcHmiSrv.Core.Command` [[► 788](#)] implements `TcHmiSrv.Core.Duplication.ICopyable.T.` [[► 1170](#)] and `System.IEquatable.T.`
- The `Command.Command(Command)` constructor was removed. Use the `Command.DeepCopy.` [[► 802](#)] method instead.
- The `Command.HasSymbolOptions` [[► 796](#)], `Command.HasPaging` [[► 795](#)] and `Command.Paging` [[► 797](#)] properties were added.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.8 CommandGroup Class

The `TcHmiSrv.CommandGroup` class was moved from the `TcHmiSrv` to the `TcHmiSrv.Core` [[► 764](#)] namespace. It was therefore replaced by the `TcHmiSrv.Core.CommandGroup` [[► 807](#)] class.

Differences between this release

- `TcHmiSrv.Core.CommandGroup` [[► 807](#)] implements `TcHmiSrv.Core.Duplication.ICopyable.T.` [[► 1170](#)], `System.Collections.Generic.IList.T.` and `System.IEquatable.T.`
- The `CommandGroup.CommandGroup(CommandGroup)` constructor was removed. Use the `CommandGroup.DeepCopy.` [[► 824](#)] method instead.
- The `CommandGroup.CommandGroup(IEnumerable.Command.)` [[► 813](#)] and `CommandGroup.CommandGroup(String, IEnumerable.Command.)` [[► 814](#)] constructors were added.
- The `CommandGroup.Empty` property was replaced by `CommandGroup.IsEmpty` [[► 817](#)].
- The `CommandGroup.BeginVector` and `CommandGroup.EndVector` properties were removed. Please take a look at [How to migrate](#) [[► 761](#)] to see how they can be replaced in your TwinCAT HMI server extension.
- The `CommandGroup.Item(UInt32)` property throws a `System.ArgumentOutOfRangeException` instead of returning an empty `TcHmiSrv.Core.Command` [[► 788](#)] if the index is not a valid index in the `TcHmiSrv.Core.CommandGroup` [[► 807](#)].
- The `CommandGroup.clear()` method was replaced by `CommandGroup.Clear.` [[► 823](#)].
- The `CommandGroup.find(UInt32)` method was removed. Use the `CommandGroup.Item.Int32.` [[► 819](#)] indexer instead.
- The `CommandGroup.insert(CommandVectorIterator, Command)` method was replaced by `CommandGroup.Insert(Int32, Command)` [[► 827](#)].
- The `CommandGroup.remove(CommandVectorIterator)` method was replaced by `CommandGroup.RemoveAt(Int32)` [[► 828](#)].
- The `CommandGroup.reserve(UInt32)` method was replaced by `CommandGroup.Capacity` [[► 816](#)].

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.9 CommandOption Enumeration

The [TcHmiSrv.CommandOption](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.CommandOption](#) [[► 831](#)] enumeration.

Differences between this release

- The [CommandOption_](#) prefix was removed from all members.
- The [CommandOption.Delete](#) [[► 831](#)], [CommandOption.PagingHandled](#) [[► 831](#)], [CommandOption.Transaction](#) [[► 831](#)] and [CommandOption.Import](#) [[► 831](#)] members were added.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.10 CommandVectorIterator Class

The [TcHmiSrv.CommandVectorIterator](#) class was removed.

Please take a look at [How to migrate](#) [[► 761](#)] to see how it can be replaced in your TwinCAT HMI server extension.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.11 ConfigChangeType Enumeration

The [TcHmiSrv.ConfigChangeType](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.ConfigChangeType](#) [[► 832](#)] enumeration.

Differences between this release

- The [ConfigChangeType_](#) prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.12 Context Class

The [TcHmiSrv.Context](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.Context](#) [[► 833](#)] class.

Differences between this release

- [TcHmiSrv.Core.Context](#) [[► 833](#)] implements [TcHmiSrv.Core.Duplication.ICopyable.T.](#) [[► 1170](#)] and [System.IEquatable.T.](#)
- The [Context.Context\(Context\)](#) constructor was removed. Use the [Context.DeepCopy.](#) [[► 838](#)] method instead.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.13 EndpointInfo Enumeration

The [TcHmiSrv.EndpointInfo](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.EndpointInfo](#) [► 844] enumeration.

Differences between this release

- The [EndpointInfo_](#) prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.14 ErrorValue Enumeration

The [TcHmiSrv.ErrorValue](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.ErrorValue](#) [► 845] enumeration.

Differences between this release

- The [ErrorValue.HMI E PAGING](#) [► 845], [ErrorValue.HMI E EXTENSION CONNECT](#) [► 845], [ErrorValue.HMI E REMOTE CONNECT](#) [► 845] and [ErrorValue.HMI E REMOTE TIMEOUT](#) [► 845] members were added.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.15 Event Class

The [TcHmiSrv.Event](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.Event](#) [► 850] class.

Differences between this release

- [TcHmiSrv.Core.Event](#) [► 850] implements [TcHmiSrv.Core.Duplication.ICopyable.T.](#) [► 1170] and [System.IEquatable.T.](#).
- The [Event.Event\(Event\)](#) constructor was removed. Use the [Event.DeepCopy.](#) [► 859] method instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.16 EventChangeFlags Enumeration

The [TcHmiSrv.EventChangeFlags](#) enumeration was removed because it is no longer necessary.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.17 EventChangeType Enumeration

The [TcHmiSrv.EventChangeType](#) enumeration was removed because it is no longer necessary.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.18 ILocalizable Class

The [TcHmiSrv.ILocalizable](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.ILocalizable](#) [► 866] interface.

We recommend to not use the [TcHmiSrv.Core.ILocalizable](#) [► 866] interface directly in your TwinCAT HMI server extension anymore. Please cast it to an instance of the or class depending on the value of the property instead. [TcHmiSrv.Core.Alarm](#) [► 767] [TcHmiSrv.Core.Message](#) [► 924] [ILocalizable.Type](#) [► 869]

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.19 IObject Class

The [TcHmiSrv.IObject](#) class was removed because it is no longer necessary.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.20 ITcHmiSrvAlarmProviderListener Class

The [TcHmiSrv.ITcHmiSrvAlarmProviderListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.AlarmProviderListener](#) [► 1226] class instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.21 ITcHmiSrvAuthListener Class

The [TcHmiSrv.ITcHmiSrvAuthListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.AuthListener](#) [► 1230] class instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.22 ITcHmiSrvConfigListener Class

The [TcHmiSrv.ITcHmiSrvConfigListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.ConfigListener](#) [► 1234] class instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.23 ITcHmiSrvEventLocalizationListener Class

The [TcHmiSrv.ITcHmiSrvEventLocalizationListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.EventLocalizationListener](#) [► 1244] class instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.24 ITcHmiSrvExportListener Class

The `TcHmiSrv.ITcHmiSrvExportListener` class was replaced by a hidden interface. Use the `TcHmiSrv.Core.Listeners.ExportListener` [► 1247] class instead.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.25 ITcHmiSrvExtHost Class

The `TcHmiSrv.ITcHmiSrvExtHost` class was replaced by `TcHmiSrv.Core.ITcHmiSrvExtHost` [► 904].

Differences between this release

- The `ITcHmiSrvExtHost.exec(Context, Command)` method was replaced by `ITcHmiSrvExtHost.Execute(Context, Command)` [► 912].
- The `ITcHmiSrvExtHost.exec(Context, CommandGroup)` method was replaced by `ITcHmiSrvExtHost.Execute(Context, CommandGroup)` [► 913].
- The `ITcHmiSrvExtHost.get_config_value(Context, String)` method was replaced by `ITcHmiSrvExtHost.GetConfigValue(Context, String)` [► 913].
- The `ITcHmiSrvExtHost.set_config_value(Context, String, Value)` method was replaced by `ITcHmiSrvExtHost.SetConfigValue(Context, String, Value)` [► 922].
- The `ITcHmiSrvExtHost.localize(Context, ILocalizable)` method was replaced by `ITcHmiSrvExtHost.Localize(Context, ILocalizable)` [► 914].
- The `ITcHmiSrvExtHost.notify_listener(Context, AlarmChangeType, Alarm)` method was replaced by `ITcHmiSrvExtHost.NotifyListener(Context, AlarmChangeType, Alarm)` [► 914].
- The `ITcHmiSrvExtHost.register_listener(Context, ITcHmiSrvListener)` method was removed. Listeners that don't need any settings are automatically registered when you add an event handler to one of the events of the listener.
- The `ITcHmiSrvExtHost.register_listener(Context, ITcHmiSrvListener, Value)` method was replaced by `ITcHmiSrvExtHost.RegisterListener(Context, IListener, Value)` [► 916].
- The `ITcHmiSrvExtHost.unregister_listener(ITcHmiSrvListener)` method was removed. Use the `ITcHmiSrvExtHost.UnregisterListener(Context, IListener)` [► 923] method instead.
- The `ITcHmiSrvExtHost.unregister_listener(Context, ITcHmiSrvListener)` method was replaced by `ITcHmiSrvExtHost.UnregisterListener(Context, IListener)` [► 923].
- The `ITcHmiSrvExtHost.send(Context, Event)` method was replaced by `ITcHmiSrvExtHost.Send(Context, Event)` [► 919].
- The `ITcHmiSrvExtHost.send(Context, Message)` method was replaced by `ITcHmiSrvExtHost.Send(Context, Message)` [► 920].

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.26 ITcHmiSrvListener Class

The `TcHmiSrv.ITcHmiSrvListener` class was replaced by the `TcHmiSrv.Core.Listeners.IListener` [► 1251] interface.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.27 ITcHmiSrvRequestListener Class

The [TcHmiSrv.ITcHmiSrvRequestListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.RequestListener \[► 1252\]](#) class instead.

Other Resources

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1.28 ITcHmiSrvSessionListener Class

The [TcHmiSrv.ITcHmiSrvSessionListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.SessionListener \[► 1255\]](#) class instead.

Other Resources

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1.29 ITcHmiSrvShutdownListener Class

The [TcHmiSrv.ITcHmiSrvShutdownListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.ShutdownListener \[► 1260\]](#) class instead.

Other Resources

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1.30 ITcHmiSrvSubscriptionListener Class

The [TcHmiSrv.ITcHmiSrvSubscriptionListener](#) class was replaced by a hidden interface. Use the [TcHmiSrv.Core.Listeners.SubscriptionListener \[► 1264\]](#) class instead.

Other Resources

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1.31 ListenerType Enumeration

The [TcHmiSrv.ListenerType](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core \[► 764\]](#) namespace. It was therefore replaced by the [TcHmiSrv.Core.ListenerType \[► 923\]](#) enumeration.

Differences between this release

- The `ListenerType_` prefix was removed from all members.

Other Resources

[Version 1.10.1018.48 \[► 746\]](#)

2.2.3.1.32 Message Class

The [TcHmiSrv.Message](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core \[► 764\]](#) namespace. It was therefore replaced by the [TcHmiSrv.Core.Message \[► 924\]](#) class.

Differences between this release

- [TcHmiSrv.Core.Message \[► 924\]](#) implements [TcHmiSrv.Core.Duplication.ICopyable.T. \[► 1170\]](#), [System.IEquatable.T.](#) and [TcHmiSrv.Core.ILocalizable \[► 866\]](#).

- The [Message.Message\(Message\)](#) constructor was removed. Use the [Message.DeepCopy.](#) [[▶ 933](#)] method instead.

Other Resources

[Version 1.10.1018.48](#) [[▶ 746](#)]

2.2.3.1.33 Range Class

The [TcHmiSrv.Range](#) class was removed because it is no longer necessary.

Other Resources

[Version 1.10.1018.48](#) [[▶ 746](#)]

2.2.3.1.34 RequestType Enumeration

The [TcHmiSrv.RequestType](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[▶ 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.RequestType](#) [[▶ 941](#)] enumeration.

Differences between this release

- The `RequestType_` prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [[▶ 746](#)]

2.2.3.1.35 ResultPair Class

The [TcHmiSrv.ResultPair](#) class was removed.

Please take a look at [How to migrate](#) [[▶ 761](#)] to see how it can be replaced in your TwinCAT HMI server extension.

Other Resources

[Version 1.10.1018.48](#) [[▶ 746](#)]

2.2.3.1.36 Session Class

The [TcHmiSrv.Session](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[▶ 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.Session](#) [[▶ 941](#)] class.

Differences between this release

- [TcHmiSrv.Core.Session](#) [[▶ 941](#)] implements [TcHmiSrv.Core.Duplication.ICopyable.T.](#) [[▶ 1170](#)] and [System.IEquatable.T.](#).
- The [Session.Session\(Session\)](#) constructor was removed. Use the [Session.DeepCopy.](#) [[▶ 946](#)] method instead.

Other Resources

[Version 1.10.1018.48](#) [[▶ 746](#)]

2.2.3.1.37 Severity Enumeration

The TcHmiSrv.Severity enumeration was moved from the TcHmiSrv to the TcHmiSrv.Core [► 764] namespace. It was therefore replaced by the TcHmiSrv.Core.Severity [► 951] enumeration.

Differences between this release

- The Severity_ prefix was removed from all members.

Other Resources

Version 1.10.1018.48 [► 746]

2.2.3.1.38 String Class

The TcHmiSrv.String class was replaced by System.String.

Other Resources

Version 1.10.1018.48 [► 746]

2.2.3.1.39 TcHmiSrvAlarmProviderListener Class

The TcHmiSrv.TcHmiSrvAlarmProviderListener class was renamed and moved from the TcHmiSrv to the TcHmiSrv.Core [► 764] namespace. It was therefore replaced by the TcHmiSrv.Core.Listeners.AlarmProviderListener [► 1226] class.

Differences between this release

- The TcHmiSrvAlarmProviderListener.OnInitializeAlarmList event was removed.

Other Resources

Version 1.10.1018.48 [► 746]

2.2.3.1.40 TcHmiSrvAuthListener Class

The TcHmiSrv.TcHmiSrvAuthListener class was renamed and moved from the TcHmiSrv to the TcHmiSrv.Core [► 764] namespace. It was therefore replaced by the TcHmiSrv.Core.Listeners.AuthListener [► 1230] class.

Other Resources

Version 1.10.1018.48 [► 746]

2.2.3.1.41 TcHmiSrvConfigListener Class

The TcHmiSrv.TcHmiSrvConfigListener class was renamed and moved from the TcHmiSrv to the TcHmiSrv.Core [► 764] namespace. It was therefore replaced by the TcHmiSrv.Core.Listeners.ConfigListener [► 1234] class.

Other Resources

Version 1.10.1018.48 [► 746]

2.2.3.1.42 TcHmiSrvEventLocalizationListener Class

The [TcHmiSrv.TcHmiSrvEventLocalizationListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.EventLocalizationListener](#) [► 1244] class.

Differences between this release

- The [TcHmiSrvEventLocalizationListener.Filter](#) event was removed.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.43 TcHmiSrvExportListener Class

The [TcHmiSrv.TcHmiSrvExportListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.ExportListener](#) [► 1247] class.

Differences between this release

- The [BeforeExportEventArgs.Value](#) [► 1317] and [BeforeImportEventArgs.Value](#) [► 1321] properties will always be null.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.44 TcHmiSrvExt Class

The [TcHmiSrv.TcHmiSrvExt](#) class was removed because it is no longer necessary.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.45 TcHmiSrvRequestListener Class

The [TcHmiSrv.TcHmiSrvRequestListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.RequestListener](#) [► 1252] class.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.46 TcHmiSrvSessionListener Class

The [TcHmiSrv.TcHmiSrvSessionListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.SessionListener](#) [► 1255] class.

Differences between this release

- The [SessionListener.OnCreateSession](#) [► 1259] and [SessionListener.OnCloseSession](#) [► 1258] events were added.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.47 TcHmiSrvShutdownListener Class

The [TcHmiSrv.TcHmiSrvShutdownListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.ShutdownListener](#) [[► 1260](#)] class.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.48 TcHmiSrvSubscriptionListener Class

The [TcHmiSrv.TcHmiSrvSubscriptionListener](#) class was renamed and moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.Listeners.SubscriptionListener](#) [[► 1264](#)] class.

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.49 Timespan Class

The [TcHmiSrv.Timespan](#) class was replaced by [System.TimeSpan](#).

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.50 Timestamp Class

The [TcHmiSrv.Timestamp](#) class was replaced by [System.DateTime](#).

Other Resources

[Version 1.10.1018.48](#) [[► 746](#)]

2.2.3.1.51 Value Class

The [TcHmiSrv.Value](#) class was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [[► 764](#)] namespace. It was therefore replaced by the [TcHmiSrv.Core.Value](#) [[► 952](#)] class.

Differences between this release

- [TcHmiSrv.Core.Value](#) [[► 952](#)] implements [TcHmiSrv.Core.Duplication.ICopyable.T](#). [[► 1170](#)], [System.Collections.Generic.IDictionary.TKey, TValue](#)., [System.Collections.Generic.IReadOnlyDictionary.TKey, TValue](#)., [System.Collections.Generic.IList.T](#)., [System.IConvertible](#) and [System.IEquatable.T](#)..
- The [Value.Value\(Value\)](#) constructor was removed. Use the [Value.DeepCopy](#). [[► 1043](#)] method instead.
- The [Value.Value\(ValueType\)](#) constructor was removed. Set the [Value.Type](#) [[► 1001](#)] instead.

- The [Value.Value\(Byte\)](#) [► 980], [Value.Value\(SByte\)](#) [► 984], [Value.Value\(Char\)](#) [► 981], [Value.Value\(Decimal\)](#) [► 982], [Value.Value\(Int16\)](#) [► 983], [Value.Value\(UInt16\)](#) [► 986], [Value.Value\(UInt32\)](#) [► 987], [Value.Value\(UInt64\)](#) [► 987], [Value.Value\(Single\)](#) [► 985], [Value.Value\(IEnumerable.Value.\)](#) [► 990] and [Value.Value\(IDictionary.String, Value.\)](#) [► 981] constructors were added.
- The [Value.IsSet](#) property was removed. Check for null instead to determine if the [TcHmiSrv.Core.Value](#) [► 952] is set or check if [Value.Type](#) [► 1001] equals [ValueType.Null](#) [► 1169] to determine if the [TcHmiSrv.Core.Value](#) [► 952] represents null like in JSON.
- The [Value.Empty](#) property was replaced by [Value.IsEmpty](#) [► 994].
- The [Value.Size](#) property was replaced by [Value.Count](#) [► 993].
- The [Value.Begin](#), [Value.BeginVector](#), [Value.End](#) and [Value.EndVector](#) properties were removed. Please take a look at [How to migrate](#) [► 761] to see how they can be replaced in your TwinCAT HMI server extension.
- The [Value.Item\(Int32\)](#) property throws a [System.ArgumentOutOfRangeException](#) instead of returning an empty [TcHmiSrv.Core.Value](#) [► 952] if the index is not a valid index in the [TcHmiSrv.Core.Value](#) [► 952].
- The [Value.Item\(String\)](#) property throws a [System.Collections.Generic.KeyNotFoundException](#) instead of returning an empty [TcHmiSrv.Core.Value](#) [► 952] if the key is not found in the [TcHmiSrv.Core.Value](#) [► 952].
- The [Value.convert\(ValueType\)](#) method was removed. Use an overload of the [Convert.ChangeType](#) methods to convert an instance of type [TcHmiSrv.Core.Value](#) [► 952] to another [System.Type](#).
- The [Value.AddRange\(IEnumerable.Value.\)](#) [► 1018] method was added.
- The [Value.add\(Value\)](#) method was replaced by [Value.Add\(Value\)](#) [► 1016].
- The [Value.clear\(\)](#) method was replaced by [Value.Clear.](#) [► 1019].
- The [Value.find\(String\)](#) method was removed. Use the [Value.Item.String.](#) [► 998] indexer instead.
- The [Value.find\(UInt32\)](#) method was removed. Use the [Value.Item.Int32.](#) [► 998] indexer instead.
- The [Value.insert\(String,String\)](#) method was removed. Use the [Value.Add\(String, Value\)](#) [► 1017] method instead.
- The [Value.insert\(String, Value\)](#) method was replaced by [Value.Add\(String, Value\)](#) [► 1017].
- The [Value.insert\(ValueVectorIterator, Value\)](#) method was replaced by [Value.Insert\(Int32, Value\)](#) [► 1088].
- The [Value.insert_or_update\(String, String\)](#) method was removed. Use the [Value.AddOrUpdate\(String, Value\)](#) [► 1018] method instead.
- The [Value.insert_or_update\(String, Value\)](#) method was replaced by [Value.AddOrUpdate\(String, Value\)](#) [► 1018].
- The [Value.remove\(UInt32\)](#) method was replaced by [Value.RemoveAt\(Int32\)](#) [► 1091].
- The [Value.remove\(ValueIterator\)](#) method was replaced by [Value.Remove\(String\)](#) [► 1090].
- The [Value.remove\(ValueVectorIterator\)](#) method was removed. Use the [Value.RemoveAt\(Int32\)](#) [► 1091] method instead.
- The [Value.remove\(UInt32, UInt32\)](#) method was replaced by [Value.RemoveRange\(Int32, Int32\)](#) [► 1092]. **Please note the different meaning of the second parameters.**
- The [Value.reserve\(UInt32\)](#) method was replaced by [Value.Capacity](#) [► 993].
- The [Value.set\(Boolean\)](#) method was replaced by [Value.SetValue\(Boolean\)](#) [► 1095].
- The [Value.set\(Double\)](#) method was replaced by [Value.SetValue\(Double\)](#) [► 1098].
- The [Value.set\(Int32\)](#) method was replaced by [Value.SetValue\(Int32\)](#) [► 1099].
- The [Value.set\(Int64\)](#) method was replaced by [Value.SetValue\(Int64\)](#) [► 1099].
- The [Value.set\(String\)](#) method was replaced by [Value.SetValue\(String\)](#) [► 1100].
- The [Value.set\(Access\)](#) method was replaced by [Value.SetValue\(Access\)](#) [► 1103].

- The [Value.set\(Alarm\)](#) method was replaced by [Value.SetValue\(Alarm\)](#) [► 1103].
- The [Value.set\(Binary\)](#) method was replaced by [Value.SetValue\(.Byte.\)](#) [► 1096].
- The [Value.set\(Event\)](#) method was replaced by [Value.SetValue\(Event\)](#) [► 1104].
- The [Value.set\(Message\)](#) method was replaced by [Value.SetValue\(Message\)](#) [► 1104].
- The [Value.set\(Severity\)](#) method was replaced by [Value.SetValue\(Severity\)](#) [► 1105].
- The [Value.set\(Timespan\)](#) method was replaced by [Value.SetValue\(TimeSpan\)](#) [► 1101].
- The [Value.set\(Timestamp\)](#) method was replaced by [Value.SetValue\(DateTime\)](#) [► 1097].
- The [Value.set\(ValueType\)](#) method was removed.
- The [Value.SetValue\(Byte\)](#) [► 1095], [Value.SetValue\(SByte\)](#) [► 1099], [Value.SetValue\(Char\)](#) [► 1096], [Value.SetValue\(Decimal\)](#) [► 1097], [Value.SetValue\(Int16\)](#) [► 1098], [Value.SetValue\(UInt16\)](#) [► 1101], [Value.SetValue\(UInt32\)](#) [► 1102], [Value.SetValue\(UInt64\)](#) [► 1102] and [Value.SetValue\(Single\)](#) [► 1100] methods were added.
- The [Value.swap\(Value\)](#) method was removed.
- The [Value.\(Decimal to Value\)](#) [► 1146] and [Value.\(Value to Decimal\)](#) [► 1166] implicit conversion operators were added.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.52 ValueIterator Class

The [TcHmiSrv.ValueIterator](#) class was removed.

Please take a look at [How to migrate](#) [► 761] to see how it can be replaced in your TwinCAT HMI server extension.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.53 ValueType Enumeration

The [TcHmiSrv.ValueType](#) enumeration was moved from the [TcHmiSrv](#) to the [TcHmiSrv.Core](#) [► 764] namespace. It was therefore replaced by the [TcHmiSrv.Core.ValueType](#) [► 1169] enumeration.

Differences between this release

- The [ValueType_](#) prefix was removed from all members.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.1.54 ValueVectorIterator Class

The [TcHmiSrv.ValueVectorIterator](#) class was removed.

Please take a look at [How to migrate](#) [► 761] to see how it can be replaced in your TwinCAT HMI server extension.

Other Resources

[Version 1.10.1018.48](#) [► 746]

2.2.3.2 How to migrate

This guide describes how to migrate a TwinCAT HMI server extension project from the former TwinCAT HMI server extension API `TcHmiSrvExtNet` to `TcHmiSrvExtNet.Core`.

1. Migrate assembly references

These steps migrate the assembly references in your TwinCAT HMI server extension project from version 1.10 to 1.12.

For example, this changes the reference to `TcHmiSrvExtNet.dll` to `TcHmiSrvExtNet.Core.dll`.

To migrate all assembly references in your TwinCAT HMI server extension project, follow these steps:

1. Right-click on the TwinCAT HMI server extension project in the solution explorer.
2. Click on *Migrate References (1.12)*.

2. Adjust types and namespaces

Your TwinCAT HMI server extension project will now complain about missing types and namespaces that cannot be found.

This is because the newly references assemblies use different namespaces than the old assemblies to clearly distinguish the types.

Follow these steps to tell your TwinCAT HMI server extension project where the missing types and namespaces are:

1. Replace all occurrences of using `TcHmiSrv`; with using `TcHmiSrv.Core`;
If you directly refer to the `TcHmiSrv` namespace in your TwinCAT HMI server extension project (for example: `TcHmiSrv.ValueType`), replace it with `TcHmiSrv.Core` [► 764].
This will fix most of the missing types errors in your TwinCAT HMI server extension project.
2. Remove `TcHmiSrv` from all listener types that inherit from the `TcHmiSrv.Core.Listeners.IListener` [► 1251] interface.
For example: `TcHmiSrvRequestListener` -> `RequestListener`
3. Add using `TcHmiSrv.Core.Listeners`; to all C# source files of your TwinCAT HMI server extension project that use listener types that inherit from the `TcHmiSrv.Core.Listeners.IListener` [► 1251] interface or use TwinCAT HMI specific event data types that inherit from the `System.EventArgs` class.
4. The `TcHmiSrv.Management.ExtensionTypeAttribute` class was replaced by `TcHmiSrv.Core.Tools.TypeAttribute.ServerExtensionTypeAttribute` [► 1845].
If you want to use this attribute in your TwinCAT HMI server extension project add a reference to `TcHmiSrvExtNet.Tools.TypeAttribute.dll`.
5. If you use `TcHmiSrv.DynamicSymbols` in your TwinCAT HMI server extension project, replace all occurrences with `TcHmiSrv.Tools.DynamicSymbols`.
6. If you use `TcHmiSrv.Management` in your TwinCAT HMI server extension project, replace all occurrences with `TcHmiSrv.Tools.Management`.

3. Rename enum constants

As already mentioned in the [API Differences](#) [► 746], the prefixes have been removed from all enum constants in the `TcHmiSrv.Core` [► 764] namespace.

Rename the enum constants in your TwinCAT HMI server extension project to the correct definitions by removing the prefixes.

For example: `Severity.Severity_Info` -> `Severity.Info`

4. Change event handler signatures

Event handlers associated with events of listener types that inherit from the `TcHmiSrv.Core.Listeners.IListener` [► 1251] and returned an `TcHmiSrv.ErrorValue` or an instance of the `TcHmiSrv.ResultPair` class must not return them any more:

1. Change the return type of event handlers associated with events of listener types that inherit from the `TcHmiSrv.Core.Listeners.IListener` [► 1251] and return an `TcHmiSrv.ErrorValue` or an instance of the `TcHmiSrv.ResultPair` class to void.

2. Throw a [TcHmiSrv.Core.General.TcHmiException](#) [► 1208] with the appropriate information in your TwinCAT HMI server extension project instead of returning an [TcHmiSrv.ErrorValue](#) or an instance of the [TcHmiSrv.ResultPair](#) class that indicates an error.
3. If you don't return an [TcHmiSrv.ErrorValue](#) or an instance of the [TcHmiSrv.ResultPair](#) class that indicates an error, you can omit the entire return statement or replace it with an empty return statement depending on the following code in your TwinCAT HMI server extension project.

5. Adjust the initialization method

The signature of the method that initializes your TwinCAT HMI server extension has changed. Follow these steps to adopt the new signature in your TwinCAT HMI server extension project:

1. Remove the [TcHmiSrv.Management.IExtension](#) interface or [TcHmiSrv.Management.ExtensionWithPath](#) abstract base class from the main type of your TwinCAT HMI server extension if it inherits from them.
2. Implement [TcHmiSrv.Core.Tools.Management.IServerExtension](#) [► 1740] in the main type of your TwinCAT HMI server extension by removing the parameters from the existing `Init(ITcHmiSrvExtHost, Context)` method and remove the override modifier if specified.
3. Do not explicitly register listeners that don't need any settings. Listeners that don't need any settings are automatically registered when you add an event handler to one of the events of the listener.

The only listener that currently needs settings is the [TcHmiSrv.Core.Listeners.ConfigListener](#) [► 1234].

Use the [TcHmiSrv.Core.Tools.Settings.ConfigListenerSettings](#) [► 1833] class from the `TcHmiSrvExtNet.Tools.Settings.dll` to create a [TcHmiSrv.Core.Value](#) [► 952] that represents the settings for the [TcHmiSrv.Core.Listeners.ConfigListener](#) [► 1234] class and pass them to the `ITcHmiSrvExtHost.RegisterListener(Context, IListener, Value)` [► 916] method.

4. An instance of the [TcHmiSrv.Core.ITcHmiSrvExtHost](#) [► 904] class is provided by the [TcHmiApplication.Host](#) [► 1182] property which replaces the first parameter of the previous `Init(ITcHmiSrvExtHost, Context)` method.
5. An instance of the [TcHmiSrv.Core.Context](#) [► 833] class is provided by the [TcHmiApplication.Context](#) [► 1182] property which replaces the second parameter of the previous `Init(ITcHmiSrvExtHost, Context)` method.
You don't need to make a deep copy of the administrator [TcHmiSrv.Core.Context](#) [► 833] because the [TcHmiApplication.Context](#) [► 1182] property already returns a deep copy of it.
6. The path of your TwinCAT HMI server extension is provided by the [TcHmiApplication.Path](#) [► 1182] property.

6. Replace the logger

Most TwinCAT HMI server extensions use a custom Log class to send messages to the TwinCAT HMI server and localize text.

A default implementation of this Log class was shipped with the TwinCAT HMI server extension templates. Since it is a very common scenario to send messages to the TwinCAT HMI server and localize text, the [TcHmiSrv.Core.General.TcHmiLogger](#) [► 1214] class has now been added.

Follow these steps to replace the custom Log class in your TwinCAT HMI server extension project with the [TcHmiSrv.Core.General.TcHmiLogger](#) [► 1214] class:

1. Remove the C# source file `Log.cs` from your TwinCAT HMI server extension project.
2. Remove all occurrences of the Log class from your TwinCAT HMI server extension project.
3. Replace the invoked `Send` and `Localize` methods with the appropriate [TcHmiLogger.Send](#) [► 1219] and [TcHmiLogger.Localize](#) [► 1217] methods.

Note that the order of the parameters when sending a [TcHmiSrv.Core.Message](#) [► 924] has changed to support specifying multiple `params string[]` parameters more easily.

7. Migrate methods

Unlike most properties, many method names and signatures of the [TcHmiSrv.Core.CommandGroup](#) [► 807] and [TcHmiSrv.Core.Value](#) [► 952] classes have changed to implement the [System.Collections.Generic.IList.T](#) and / or [System.Collections.Generic.IDictionary.TKey, TValue](#) interfaces.

If you're using such methods in your TwinCAT HMI server extension project, take a look at the [API Differences](#) [► 746] to see how they can be replaced.

8. Replace iterators

The [TcHmiSrv.CommandVectorIterator](#), [TcHmiSrv.ValueVectorIterator](#) and [TcHmiSrv.ValueIterator](#) classes were removed because they were considered unsafe when the underlying collection was modified.

To access [TcHmiSrv.Core.Command](#) [► 788]s in a [TcHmiSrv.Core.CommandGroup](#) [► 807] and [TcHmiSrv.Core.Value](#) [► 952]s in a [TcHmiSrv.Core.Value](#) [► 952], use the methods and indexers provided by the implementation of the [System.Collections.Generic.IList.T](#) and [System.Collections.Generic.IDictionary.TKey, TValue](#) interfaces instead.

9. Adjustments for dynamic symbols (only required if you used TcHmiSrvExtNet.DynamicSymbols)

The implementation of [TcHmiSrvExtNet.DynamicSymbols](#) was completely replaced by [Newtonsoft.Json](#) and [Newtonsoft.Json.Schema](#) as well as the [TcHmiSrv.Core.Tools.Json](#) [► 1542], [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345] and [TcHmiSrv.Core.Tools.Resolving](#) [► 1762] namespaces. There is no one-to-one guide, as with the other sections, for the necessary adjustments for dynamic symbols, because these may have been implemented very differently depending on the TwinCAT HMI server extension.

Instead, the new concept for implementing dynamic symbols in TwinCAT HMI server extensions using the current API will be shown here. A good starting point for this is the documentation of the [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345] namespace, which explains the basic concepts for providing dynamic symbols in TwinCAT HMI server extensions.

Other Resources

[API Differences](#) [► 746]

[Version 1.10.1018.48](#) [► 746]

2.2.4 Namespaces

The topics in this section describe the namespaces contained in the [TcHmiSrvExtNet.Core.dll](#), referenced assemblies and assemblies that reference [TcHmiSrvExtNet.Core.dll](#).

Namespaces

Namespace	Description
TcHmiSrv.Core [► 764]	Contains the core types of the TwinCAT HMI server extension API.
TcHmiSrv.Core.Duplication [► 1170]	Contains interfaces that declare methods to support deep and shallow copying.
TcHmiSrv.Core.Extensions [► 1173]	Provides extension methods for the core types of the TwinCAT HMI server extension API.
TcHmiSrv.Core.General [► 1179]	Contains general API types that allow to communicate with the TwinCAT HMI Server, for example by executing Command [► 788]s or sending Message [► 924]s.
TcHmiSrv.Core.Listeners [► 1222]	Contains the event listeners that are triggered by the TwinCAT HMI Server and their EventArgs .
TcHmiSrv.Core.Tools [► 1344]	Contains tools for the core types of the TwinCAT HMI server extension API.

2.2.4.1 TcHmiSrv.Core Namespace

Contains the core types of the TwinCAT HMI server extension API.

Classes

	Class	Description
	Alarm [▶ 767]	Represents an alarm.
	Command [▶ 788]	Represents a command to execute a symbol of the TwinCAT HMI server or a TwinCAT HMI server extension.
	CommandGroup [▶ 807]	Represents a group of Command [▶ 788]s.
	Context [▶ 833]	Represents the context of an invoked method or symbol.
	DateTimeRange [▶ 843]	Provides the smallest and largest possible value of DateTime that the TwinCAT HMI server can handle.
	Event [▶ 850]	Represents an event.
	Message [▶ 924]	Represents a message
	Session [▶ 941]	Represents a session that contains information about an active user.
	UnixTime [▶ 951]	Provides the zero DateTime value that represents the default DateTime value of the TwinCAT HMI server.
	Value [▶ 952]	Represents a value of any ValueType [▶ 1169].

Interfaces

	Interface	Description
	ILocalizable [▶ 866]	Provides an interface for a localizable object that contains a language variable and parameters.
	ITcHmiSrvExtAsyncHost [▶ 869]	Provides an interface to asynchronously communicate with the TwinCAT HMI server.
	ITcHmiSrvExtHost [▶ 904]	Obsolete. Provides an interface to communicate with the TwinCAT HMI server.

Enumerations

	Enumeration	Description
	Access [► 766]	
	AlarmChangeType [► 787]	
	AlarmConfirmationState [► 787]	
	AlarmState [► 787]	
	CommandOption [► 831]	
	ConfigChangeType [► 832]	
	EndpointInfo [► 844]	
	ErrorValue [► 845]	
	EventLifetime [► 866]	
	EventType [► 866]	
	ListenerType [► 923]	
	RequestType [► 941]	
	Severity [► 951]	
	ValueType [► 1169]	

2.2.4.1.1 Access Enumeration

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[FlagsAttribute]
public enum Access
```

Members

	Member name	Value	Description
	None	0	
	Read	1	
	Write	2	
	ReadWrite	3	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2 Alarm Class

Represents an alarm.

Inheritance Hierarchy

[System.Object](#)
[TcHmiSrv.Core.Alarm](#)

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class Alarm : IComparable<Alarm>,
    ICopyable<Alarm>, IDeepCopyable<Alarm>, IShallowCopyable<Alarm>,
    IEquatable<Alarm>, ILocalizable
```

The Alarm type exposes the following members.

Constructors

	Name	Description
	Alarm. [► 770]	Initializes a new instance of the Alarm class.
	Alarm(Context t, String) [► 771]	Initializes a new instance of the Alarm class with the specified Context [► 833] and name.

Properties

	Name	Description
	<u>AlarmState</u> [▶ 772]	Contains the <u>AlarmState</u> [▶ 787] of the Alarm.
	<u>Confirmation State</u> [▶ 773]	Contains the <u>AlarmConfirmationState</u> [▶ 787] of the Alarm.
	<u>Domain</u> [▶ 773]	Contains the domain of the Alarm.
	<u>Id</u> [▶ 773]	Contains the unique identifier of the Alarm.
	<u>IsSet</u> [▶ 774]	Gets a value that indicates whether the Alarm is set.
	<u>Name</u> [▶ 774]	Contains the name of the language variable.
	<u>Parameters</u> [▶ 775]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	<u>Severity</u> [▶ 775]	Contains the <u>Severity</u> [▶ 951] of the Alarm.
	<u>TimeCleared</u> [▶ 776]	Contains the <u>DateTime</u> when the Alarm was cleared.
	<u>TimeConfirmed</u> [▶ 776]	Contains the <u>DateTime</u> when the Alarm was confirmed.
	<u>TimeRaised</u> [▶ 776]	Contains the <u>DateTime</u> when the Alarm was raised.
	<u>Type</u> [▶ 777]	Gets the <u>ValueType</u> [▶ 1169] of the localizable object that will be <u>Alarm</u> [▶ 1169].

Methods

	Name	Description
	<u>CompareTo</u> [▶ 779]	Compares the current Alarm with another Alarm and returns an integer that indicates whether the current Alarm precedes, follows, or occurs in the same position in the sort order as the other Alarm.
	<u>DeepCopy</u> [▶ 779]	Creates a new object that is a deep copy of the current Alarm.
	<u>Equals(Object)</u> [▶ 780]	Determines whether the specified <u>Object</u> is equal to the current Alarm. (Overrides <u>Object.Equals(Object)</u> .)
	<u>Equals(Alarm)</u> [▶ 781]	Indicates whether the current Alarm is equal to another Alarm.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u> [▶ 781]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ShallowCopy</u> [▶ 782]	Creates a new Alarm that is a shallow copy of the current Alarm.
	<u>ToString</u> [▶ 782]	Returns a <u>String</u> that represents the <u>Name</u> [▶ 774] of the current Alarm. (Overrides <u>Object.ToString</u> .)

Operators

	Name	Description
 	<u>Equality</u> [▶ 783]	Determines whether two instances of the Alarm class are equal.
 	<u>GreaterThan</u> [▶ 784]	Determines whether the current instance of the Alarm class is greater than another instance.
 	<u>GreaterThanOrEqual</u> [▶ 784]	Determines whether the current instance of the Alarm class is greater than or equal to another instance.
 	<u>Inequality</u> [▶ 785]	Determines whether two instances of the Alarm class are not equal.
 	<u>LessThan</u> [▶ 785]	Determines whether the current instance of the Alarm class is less than another instance.
 	<u>LessThanOrEqual</u> [▶ 786]	Determines whether the current instance of the Alarm class is less than or equal to another instance.

Extension Methods

	Name	Description
	ToJson [▶ 1582]	Overloaded. Returns an unformatted JSON String that represents the current Alarm. (Defined by AlarmExtensions [▶ 1578].)
	ToJson(Boole an) [▶ 1583]	Overloaded. Returns an unformatted JSON String that represents the current Alarm. (Defined by AlarmExtensions [▶ 1578].)
	ToJson(Boole an, Boolean) [▶ 1583]	Overloaded. Returns a JSON String that represents the current Alarm. (Defined by AlarmExtensions [▶ 1578].)

Reference

[TcHmiSrv.Core Namespace](#) [▶ 764]

2.2.4.1.2.1 Alarm Constructor

Overload List

	Name	Description
	Alarm. [▶ 770]	Initializes a new instance of the Alarm [▶ 767] class.
	Alarm(Contex t, String) [▶ 771]	Initializes a new instance of the Alarm [▶ 767] class with the specified Context [▶ 833] and name.

Reference

[Alarm Class](#) [▶ 767]

[TcHmiSrv.Core Namespace](#) [▶ 764]

2.2.4.1.2.1.1 Alarm Constructor

Initializes a new instance of the [Alarm](#) [▶ 767] class.

Namespace: [TcHmiSrv.Core](#) [▶ 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm()
```

Reference

[Alarm Class](#) [▶ 767]

[Alarm Overload](#) [▶ 770]

[TcHmiSrv.Core Namespace](#) [▶ 764]

2.2.4.1.2.1.2 Alarm Constructor (Context, String)

Initializes a new instance of the [Alarm](#) [► 767] class with the specified [Context](#) [► 833] and name.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Alarm(  
    Context context,  
    string name  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Alarm [► 767].
name	Type: System.String The name of the Alarm [► 767].

Reference

[Alarm Class](#) [► 767]

[Alarm Overload](#) [► 770]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2 Alarm Properties

The [Alarm](#) [► 767] type exposes the following members.

Properties

	Name	Description
	AlarmState [▸ 772]	Contains the AlarmState [▸ 787] of the Alarm [▸ 767].
	ConfirmationState [▸ 773]	Contains the AlarmConfirmationState [▸ 787] of the Alarm [▸ 767].
	Domain [▸ 773]	Contains the domain of the Alarm [▸ 767].
	Id [▸ 773]	Contains the unique identifier of the Alarm [▸ 767].
	IsSet [▸ 774]	Gets a value that indicates whether the Alarm [▸ 767] is set.
	Name [▸ 774]	Contains the name of the language variable.
	Parameters [▸ 775]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	Severity [▸ 775]	Contains the Severity [▸ 951] of the Alarm [▸ 767].
	TimeCleared [▸ 776]	Contains the DateTime when the Alarm [▸ 767] was cleared.
	TimeConfirmed [▸ 776]	Contains the DateTime when the Alarm [▸ 767] was confirmed.
	TimeRaised [▸ 776]	Contains the DateTime when the Alarm [▸ 767] was raised.
	Type [▸ 777]	Gets the ValueType [▸ 1169] of the localizable object that will be Alarm [▸ 1169].

Reference

[Alarm Class](#) [[▸ 767](#)]

[TcHmiSrv.Core Namespace](#) [[▸ 764](#)]

2.2.4.1.2.2.1 Alarm.AlarmState Property

Contains the [AlarmState](#) [[▸ 787](#)] of the [Alarm](#) [[▸ 767](#)].

Namespace: [TcHmiSrv.Core](#) [[▸ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public AlarmState AlarmState { get; set; }
```

Property Value

Type: [AlarmState](#) [[▸ 787](#)]

Reference

[Alarm Class](#) [[▸ 767](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.2.2 *Alarm.ConfirmationState Property*

Contains the [AlarmConfirmationState \[► 787\]](#) of the [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public AlarmConfirmationState ConfirmationState { get; set; }
```

Property Value

Type: [AlarmConfirmationState \[► 787\]](#)

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.2.3 *Alarm.Domain Property*

Contains the domain of the [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Implements

[ILocalizable.Domain \[► 867\]](#)

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.2.4 *Alarm.Id Property*

Contains the unique identifier of the [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Id { get; set; }
```

Property Value

Type: [Int32](#)

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.2.5 *Alarm.IsSet Property*

Gets a value that indicates whether the [Alarm \[► 767\]](#) is set.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.2.6 *Alarm.Name Property*

Contains the name of the language variable.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Implements

[ILocalizable.Name \[► 868\]](#)

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.7 *Alarm.Parameters Property*

Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 952]

Implements

[ILocalizable.Parameters](#) [► 868]

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.8 *Alarm.Severity Property*

Contains the [Severity](#) [► 951] of the [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Severity Severity { get; set; }
```

Property Value

Type: [Severity](#) [► 951]

Implements

[ILocalizable.Severity](#) [► 869]

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.9 *Alarm.TimeCleared Property*

Contains the [DateTime](#) when the [Alarm](#) [► 767] was cleared.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime TimeCleared { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.10 *Alarm.TimeConfirmed Property*

Contains the [DateTime](#) when the [Alarm](#) [► 767] was confirmed.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime TimeConfirmed { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.11 *Alarm.TimeRaised Property*

Contains the [DateTime](#) when the [Alarm](#) [► 767] was raised.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime TimeRaised { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.2.12 *Alarm.Type Property*

Gets the [ValueType](#) [► 1169] of the localizable object that will be [Alarm](#) [► 1169].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 1169]

Implements

[ILocalizable.Type](#) [► 869]

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.3 *Alarm Methods*

The [Alarm](#) [► 767] type exposes the following members.

Methods

	Name	Description
	CompareTo [► 779]	Compares the current Alarm [► 767] with another Alarm [► 767] and returns an integer that indicates whether the current Alarm [► 767] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767] .
	DeepCopy [► 779]	Creates a new object that is a deep copy of the current Alarm [► 767] .
	Equals(Object) [► 780]	Determines whether the specified Object is equal to the current Alarm [► 767] . (Overrides Object.Equals(Object).)
	Equals(Alarm) [► 781]	Indicates whether the current Alarm [► 767] is equal to another Alarm [► 767] .
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 781]	Serves as the default hash function. (Overrides Object.GetHashCode.)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 782]	Creates a new Alarm [► 767] that is a shallow copy of the current Alarm [► 767] .
	ToString [► 782]	Returns a String that represents the Name [► 774] of the current Alarm [► 767] . (Overrides Object.ToString.)

Extension Methods

	Name	Description
	ToJson. [► 1582]	Overloaded. Returns an unformatted JSON String that represents the current Alarm [► 767] . (Defined by AlarmExtensions [► 1578] .)
	ToJson(Boolean) [► 1583]	Overloaded. Returns an unformatted JSON String that represents the current Alarm [► 767] . (Defined by AlarmExtensions [► 1578] .)
	ToJson(Boolean, Boolean) [► 1583]	Overloaded. Returns a JSON String that represents the current Alarm [► 767] . (Defined by AlarmExtensions [► 1578] .)

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.3.1 *Alarm.CompareTo Method*

Compares the current [Alarm \[▸ 767\]](#) with another [Alarm \[▸ 767\]](#) and returns an integer that indicates whether the current [Alarm \[▸ 767\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Alarm \[▸ 767\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Alarm other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Alarm \[▸ 767\]](#)
The [Alarm \[▸ 767\]](#) to compare with this [Alarm \[▸ 767\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Alarm \[▸ 767\]](#) precedes other in the sort order, zero if the current [Alarm \[▸ 767\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Alarm \[▸ 767\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Alarm Class \[▸ 767\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.2.3.2 *Alarm.DeepCopy Method*

Creates a new object that is a deep copy of the current [Alarm \[▸ 767\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm DeepCopy()
```

Return Value

Type: [Alarm \[▸ 767\]](#)

A new object that is a deep copy of the current [Alarm \[▸ 767\]](#).

Implements

[IDeepCopyable.T..DeepCopy.](#) [[▶ 1172](#)]

Reference

[Alarm Class](#) [[▶ 767](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.2.3.3 *Alarm.Equals Method*

Overload List

	Name	Description
	Equals(Object) [▶ 780]	Determines whether the specified Object is equal to the current Alarm [▶ 767]. (Overrides Object.Equals(Object) .)
	Equals(Alarm) [▶ 781]	Indicates whether the current Alarm [▶ 767] is equal to another Alarm [▶ 767].

Reference

[Alarm Class](#) [[▶ 767](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.2.3.3.1 **Alarm.Equals Method (Object)**

Determines whether the specified [Object](#) is equal to the current [Alarm](#) [[▶ 767](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Alarm](#) [[▶ 767](#)].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Alarm](#) [[▶ 767](#)]; otherwise, false.

Reference

[Alarm Class](#) [[▶ 767](#)]

[Equals Overload](#) [[▶ 780](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.2.3.3.2 Alarm.Equals Method (Alarm)

Indicates whether the current [Alarm](#) [► 767] is equal to another [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Alarm other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Alarm](#) [► 767]
The [Alarm](#) [► 767] to compare with this [Alarm](#) [► 767].

Return Value

Type: [Boolean](#)

true if the current [Alarm](#) [► 767] is equal to the other [Alarm](#) [► 767]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Alarm Class](#) [► 767]

[Equals Overload](#) [► 780]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.3.4 Alarm.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.3.5 *Alarm.ShallowCopy Method*

Creates a new [Alarm](#) [► 767] that is a shallow copy of the current [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm ShallowCopy()
```

Return Value

Type: [Alarm](#) [► 767]

A new [Alarm](#) [► 767] that is a shallow copy of the current [Alarm](#) [► 767].

Implements

[IShallowCopyable.T..ShallowCopy.](#) [► 1173]

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.3.6 *Alarm.ToString Method*

Returns a [String](#) that represents the [Name](#) [► 774] of the current [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A [String](#) that represents the [Name](#) [► 774] of the current [Alarm](#) [► 767].

Reference

[Alarm Class](#) [► 767]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.2.4 *Alarm Operators*

The [Alarm](#) [► 767] type exposes the following members.

Operators

	Name	Description
 	<u>Equality</u> [▶ 783]	Determines whether two instances of the <u>Alarm</u> [▶ 767] class are equal.
 	<u>GreaterThan</u> [▶ 784]	Determines whether the current instance of the <u>Alarm</u> [▶ 767] class is greater than another instance.
 	<u>GreaterThanOrEqual</u> [▶ 784]	Determines whether the current instance of the <u>Alarm</u> [▶ 767] class is greater than or equal to another instance.
 	<u>Inequality</u> [▶ 785]	Determines whether two instances of the <u>Alarm</u> [▶ 767] class are not equal.
 	<u>LessThan</u> [▶ 785]	Determines whether the current instance of the <u>Alarm</u> [▶ 767] class is less than another instance.
 	<u>LessThanOrEqual</u> [▶ 786]	Determines whether the current instance of the <u>Alarm</u> [▶ 767] class is less than or equal to another instance.

Reference

Alarm Class [▶ 767]

TcHmiSrv.Core Namespace [▶ 764]

2.2.4.1.2.4.1 *Alarm.Equality Operator*

Determines whether two instances of the Alarm [▶ 767] class are equal.

Namespace: TcHmiSrv.Core [▶ 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Alarm current,
    Alarm other
)
```

Parameters

- current Type: TcHmiSrv.Core.Alarm [▶ 767]
 The first Alarm [▶ 767] to compare.
- other Type: TcHmiSrv.Core.Alarm [▶ 767]
 The second Alarm [▶ 767] to compare.

Return Value

Type: Boolean
true if current equals other; otherwise, false.

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.4.2 *Alarm.GreaterThan Operator*

Determines whether the current instance of the [Alarm \[► 767\]](#) class is greater than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Alarm [► 767] The first Alarm [► 767] to compare.
other	Type: TcHmiSrv.Core.Alarm [► 767] The second Alarm [► 767] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than other; otherwise, false.

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.4.3 *Alarm.GreaterThanOrEqual Operator*

Determines whether the current instance of the [Alarm \[► 767\]](#) class is greater than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >=(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Alarm [► 767] The first Alarm [► 767] to compare.
other	Type: TcHmiSrv.Core.Alarm [► 767] The second Alarm [► 767] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than or equal to other; otherwise, false.

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.4.4 *Alarm.Inequality Operator*

Determines whether two instances of the [Alarm \[► 767\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Alarm [► 767] The first Alarm [► 767] to compare.
other	Type: TcHmiSrv.Core.Alarm [► 767] The second Alarm [► 767] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Alarm Class \[► 767\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.2.4.5 *Alarm.LessThan Operator*

Determines whether the current instance of the [Alarm \[► 767\]](#) class is less than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current Type: [TcHmiSrv.Core.Alarm \[▸ 767\]](#)
The first [Alarm \[▸ 767\]](#) to compare.

other Type: [TcHmiSrv.Core.Alarm \[▸ 767\]](#)
The second [Alarm \[▸ 767\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current is less than other; otherwise, false.

Reference

[Alarm Class \[▸ 767\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.2.4.6 *Alarm.LessThanOrEqual Operator*

Determines whether the current instance of the [Alarm \[▸ 767\]](#) class is less than or equal to another instance.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <=(  
    Alarm current,  
    Alarm other  
)
```

Parameters

current Type: [TcHmiSrv.Core.Alarm \[▸ 767\]](#)
The first [Alarm \[▸ 767\]](#) to compare.

other Type: [TcHmiSrv.Core.Alarm \[▸ 767\]](#)
The second [Alarm \[▸ 767\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current is less than or equal to other; otherwise, false.

Reference

[Alarm Class \[▸ 767\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.3 AlarmChangeType Enumeration

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum AlarmChangeType
```

Members

	Member name	Value	Description
	Raise	0	
	Change	1	
	Dispose	2	

Reference

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.4 AlarmConfirmationState Enumeration

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum AlarmConfirmationState
```

Members

	Member name	Value	Description
	NotSupported	0	
	NotRequired	1	
	Wait	2	
	Confirmed	3	
	Reset	4	

Reference

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.5 AlarmState Enumeration

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum AlarmState
```

Members

	Member name	Value	Description
	Raised	0	
	Confirmed	1	
	Cleared	2	
	ClearedAndConfirmed	3	
	Invalid	4	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6 Command Class

Represents a command to execute a symbol of the TwinCAT HMI server or a TwinCAT HMI server extension.

Inheritance Hierarchy

[System.Object](#)

TcHmiSrv.Core.Command

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public sealed class Command : ICopyable<Command>,
    IDeepCopyable<Command>, IShallowCopyable<Command>, IEquatable<Command>,
    IExchangeable<Command>, ICommandMapper
```

The Command type exposes the following members.

Constructors

	Name	Description
	Command. [► 791]	Initializes a new instance of the Command class.
	Command(String) [► 791]	Initializes a new instance of the Command class with the specified name.

Properties

	Name	Description
	<u>Changed</u> [▶ 794]	Contains a value that indicates whether the Command has changed.
	<u>CustomerData</u> [▶ 794]	Contains the customer data associated with this Command. This can be used to identify multiple calls to the same symbol in one request.
	<u>Domain</u> [▶ 794]	Gets the domain of the symbol.
	<u>ExtensionResult</u> [▶ 795]	Contains the extension result of the Command.
	<u>HasPaging</u> [▶ 795]	Gets a value that indicates whether the result will be filtered.
	<u>HasSymbolOptions</u> [▶ 796]	Gets a value that indicates whether the Command has symbol options.
	<u>IsSet</u> [▶ 796]	Gets a value that indicates whether the Command is set.
	<u>Mapping</u> [▶ 796]	Gets the mapping of the symbol.
	<u>Name</u> [▶ 797]	Contains the name of the symbol.
	<u>Options</u> [▶ 797]	Contains the <u>CommandOption</u> [▶ 831]s of the symbol.
	<u>Paging</u> [▶ 797]	Gets the filter of the symbol used by this Command. Filters can be used to set rules for reducing the size of returned <u>Value</u> [▶ 952]s of type <u>Vector</u> [▶ 1169] or <u>Map</u> [▶ 1169]. If your TwinCAT HMI server extension handles the filtering or paging itself set <u>PagingHandled</u> [▶ 831].
	<u>Path</u> [▶ 798]	Gets the path of the <u>Mapping</u> [▶ 796].
	<u>ProcessedEnd</u> [▶ 798]	Contains the <u>DateTime</u> that indicates when processing the data in this Command ended.
	<u>ProcessedStart</u> [▶ 799]	Contains the <u>DateTime</u> that indicates when processing the data in this Command started.
	<u>ReadValue</u> [▶ 799]	Contains the read value of the Command.
	<u>Result</u> [▶ 799]	Gets the result of the symbol.
	<u>ResultString</u> [▶ 800]	Contains the result <u>String</u> of the Command.
	<u>SymbolOptions</u> [▶ 800]	Gets the options of the symbol.
	<u>WriteValue</u> [▶ 800]	Contains the write value of the Command.

Methods

	Name	Description
	DeepCopy [► 802]	Creates a new object that is a deep copy of the current Command.
	Equals(Object) [► 803]	Determines whether the specified <u>Object</u> is equal to the current Command. (Overrides <u>Object.Equals(Object)</u> .)
	Equals(Command) [► 803]	Indicates whether the current Command is equal to another Command.
	GetHashCode [► 804]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	GetType	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	ShallowCopy [► 804]	Creates a new Command that is a shallow copy of the current Command.
	ToString [► 805]	Returns a <u>String</u> that represents the <u>Name</u> [► 797] of the current Command. (Overrides <u>Object.ToString</u> .)

Operators

	Name	Description
 	Equality [► 806]	Determines whether two instances of the Command class are equal.
 	Inequality [► 806]	Determines whether two instances of the Command class are not equal.

Extension Methods

	Name	Description
	ToJson [► 1588]	Overloaded. Returns an unformatted JSON <u>String</u> that represents the current Command. (Defined by <u>CommandExtensions</u> [► 1584].)
	ToJson(Boolean) [► 1589]	Overloaded. Returns an unformatted JSON <u>String</u> that represents the current Command. (Defined by <u>CommandExtensions</u> [► 1584].)
	ToJson(Boolean, Boolean) [► 1589]	Overloaded. Returns a JSON <u>String</u> that represents the current Command. (Defined by <u>CommandExtensions</u> [► 1584].)

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.1 Command Constructor

Overload List

	Name	Description
	Command [► 791]	Initializes a new instance of the Command [► 788] class.
	Command(String) [► 791]	Initializes a new instance of the Command [► 788] class with the specified name.

Reference

[Command Class](#) [\[► 788\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.6.1.1 Command Constructor

Initializes a new instance of the [Command](#) [\[► 788\]](#) class.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Command()
```

Reference

[Command Class](#) [\[► 788\]](#)

[Command Overload](#) [\[► 791\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.6.1.2 Command Constructor (String)

Initializes a new instance of the [Command](#) [\[► 788\]](#) class with the specified name.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Command(  
    string name  
)
```

Parameters

name Type: [System.String](#)
The name of the symbol of the [Command](#) [\[► 788\]](#).

Reference

[Command Class](#) [\[► 788\]](#)

[Command Overload \[► 791\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.2 Command Properties

The [Command \[► 788\]](#) type exposes the following members.

Properties

	Name	Description
	<u>Changed</u> [▶ 794]	Contains a value that indicates whether the <u>Command</u> [▶ 788] has changed.
	<u>CustomerData</u> [▶ 794]	Contains the customer data associated with this <u>Command</u> [▶ 788]. This can be used to identify multiple calls to the same symbol in one request.
	<u>Domain</u> [▶ 794]	Gets the domain of the symbol.
	<u>ExtensionResult</u> [▶ 795]	Contains the extension result of the <u>Command</u> [▶ 788].
	<u>HasPaging</u> [▶ 795]	Gets a value that indicates whether the result will be filtered.
	<u>HasSymbolOptions</u> [▶ 796]	Gets a value that indicates whether the <u>Command</u> [▶ 788] has symbol options.
	<u>IsSet</u> [▶ 796]	Gets a value that indicates whether the <u>Command</u> [▶ 788] is set.
	<u>Mapping</u> [▶ 796]	Gets the mapping of the symbol.
	<u>Name</u> [▶ 797]	Contains the name of the symbol.
	<u>Options</u> [▶ 797]	Contains the <u>CommandOption</u> [▶ 831]s of the symbol.
	<u>Paging</u> [▶ 797]	Gets the filter of the symbol used by this <u>Command</u> [▶ 788]. Filters can be used to set rules for reducing the size of returned <u>Value</u> [▶ 952]s of type <u>Vector</u> [▶ 1169] or <u>Map</u> [▶ 1169]. If your TwinCAT HMI server extension handles the filtering or paging itself set <u>PagingHandled</u> [▶ 831].
	<u>Path</u> [▶ 798]	Gets the path of the <u>Mapping</u> [▶ 796].
	<u>ProcessedEnd</u> [▶ 798]	Contains the <u>DateTime</u> that indicates when processing the data in this <u>Command</u> [▶ 788] ended.
	<u>ProcessedStart</u> [▶ 799]	Contains the <u>DateTime</u> that indicates when processing the data in this <u>Command</u> [▶ 788] started.
	<u>ReadValue</u> [▶ 799]	Contains the read value of the <u>Command</u> [▶ 788].
	<u>Result</u> [▶ 799]	Gets the result of the symbol.
	<u>ResultString</u> [▶ 800]	Contains the result <u>String</u> of the <u>Command</u> [▶ 788].
	<u>SymbolOptions</u> [▶ 800]	Gets the options of the symbol.
	<u>WriteValue</u> [▶ 800]	Contains the write value of the <u>Command</u> [▶ 788].

Reference

[Command Class \[► 788\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.2.1 *Command.Changed Property*

Contains a value that indicates whether the [Command \[► 788\]](#) has changed.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Changed { get; set; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class \[► 788\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.2.2 *Command.CustomerData Property*

Contains the customer data associated with this [Command \[► 788\]](#). This can be used to identify multiple calls to the same symbol in one request.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string CustomerData { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class \[► 788\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.2.3 *Command.Domain Property*

Gets the domain of the symbol.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.4 *Command.ExtensionResult Property*

Contains the extension result of the [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint ExtensionResult { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.5 *Command.HasPaging Property*

Gets a value that indicates whether the result will be filtered.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool HasPaging { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.6 *Command.HasSymbolOptions Property*

Gets a value that indicates whether the [Command](#) [► 788] has symbol options.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool HasSymbolOptions { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.7 *Command.IsSet Property*

Gets a value that indicates whether the [Command](#) [► 788] is set.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.8 *Command.Mapping Property*

Gets the mapping of the symbol.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Mapping { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.9 *Command.Name Property*

Contains the name of the symbol.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.10 *Command.Options Property*

Contains the [CommandOption](#) [► 831]s of the symbol.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandOption Options { get; set; }
```

Property Value

Type: [CommandOption](#) [► 831]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.11 *Command.Paging Property*

Gets the filter of the symbol used by this [Command](#) [► 788]. Filters can be used to set rules for reducing the size of returned [Value](#) [► 952]s of type [Vector](#) [► 1169] or [Map](#) [► 1169]. If your TwinCAT HMI server extension handles the filtering or paging itself set [PagingHandled](#) [► 831].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Paging { get; set; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.12 *Command.Path Property*

Gets the path of the [Mapping](#) [► 796].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.13 *Command.ProcessedEnd Property*

Contains the [DateTime](#) that indicates when processing the data in this [Command](#) [► 788] ended.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime ProcessedEnd { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.14 *Command.ProcessedStart Property*

Contains the [DateTime](#) that indicates when processing the data in this [Command](#) [► 788] started.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime ProcessedStart { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.15 *Command.ReadValue Property*

Contains the read value of the [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value ReadValue { get; set; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.16 *Command.Result Property*

Gets the result of the symbol.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ErrorValue Result { get; }
```

Property Value

Type: [ErrorValue](#) [► 845]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.17 *Command.ResultString Property*

Contains the result [String](#) of the [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ResultString { get; set; }
```

Property Value

Type: [String](#)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.18 *Command.SymbolOptions Property*

Gets the options of the symbol.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value SymbolOptions { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.2.19 *Command.WriteValue Property*

Contains the write value of the [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value WriteValue { get; set; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3 Command Methods

The [Command](#) [► 788] type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 802]	Creates a new object that is a deep copy of the current Command [► 788].
	Equals(Object) [► 803]	Determines whether the specified Object is equal to the current Command [► 788]. (Overrides Object.Equals(Object) .)
	Equals(Command) [► 803]	Indicates whether the current Command [► 788] is equal to another Command [► 788].
	GetHashCode [► 804]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ShallowCopy [► 804]	Creates a new Command [► 788] that is a shallow copy of the current Command [► 788].
	ToString [► 805]	Returns a String that represents the Name [► 797] of the current Command [► 788]. (Overrides Object.ToString .)

Extension Methods

	Name	Description
	ToJson [► 1588]	Overloaded. Returns an unformatted JSON String that represents the current Command [► 788]. (Defined by CommandExtensions [► 1584].)
	ToJson(Boole an) [► 1589]	Overloaded. Returns an unformatted JSON String that represents the current Command [► 788]. (Defined by CommandExtensions [► 1584].)
	ToJson(Boole an, Boolean) [► 1589]	Overloaded. Returns a JSON String that represents the current Command [► 788]. (Defined by CommandExtensions [► 1584].)

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3.1 *Command.DeepCopy Method*

Creates a new object that is a deep copy of the current [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Command DeepCopy()
```

Return Value

Type: [Command](#) [► 788]

A new object that is a deep copy of the current [Command](#) [► 788].

Implements

[IDeepCopyable.T..DeepCopy.](#) [► 1172]

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3.2 *Command.Equals Method*

Overload List

	Name	Description
	Equals(Object) [788]	Determines whether the specified Object is equal to the current Command [788]. (Overrides Object.Equals(Object) .)
	Equals(Command) [803]	Indicates whether the current Command [788] is equal to another Command [788].

Reference

[Command Class](#) [[788](#)]

[TcHmiSrv.Core Namespace](#) [[764](#)]

2.2.4.1.6.3.2.1 **Command.Equals Method (Object)**

Determines whether the specified [Object](#) is equal to the current [Command](#) [[788](#)].

Namespace: [TcHmiSrv.Core](#) [[764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Command](#) [[788](#)].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Command](#) [[788](#)]; otherwise, false.

Reference

[Command Class](#) [[788](#)]

[Equals Overload](#) [[803](#)]

[TcHmiSrv.Core Namespace](#) [[764](#)]

2.2.4.1.6.3.2.2 **Command.Equals Method (Command)**

Indicates whether the current [Command](#) [[788](#)] is equal to another [Command](#) [[788](#)].

Namespace: [TcHmiSrv.Core](#) [[764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Command other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to compare with this [Command](#) [► 788].

Return Value

Type: [Boolean](#)
true if the current [Command](#) [► 788] is equal to the other [Command](#) [► 788]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Command Class](#) [► 788]

[Equals Overload](#) [► 803]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3.3 *Command.GetHashCode Method*

Serves as the default hash function.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current object.

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3.4 *Command.ShallowCopy Method*

Creates a new [Command](#) [► 788] that is a shallow copy of the current [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Command ShallowCopy()
```

Return Value

Type: [Command](#) [► 788]
A new [Command](#) [► 788] that is a shallow copy of the current [Command](#) [► 788].

Implements

[IShallowCopyable.T..ShallowCopy.](#) [► 1173]

Reference

- [Command Class](#) [► 788]
- [TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.3.5 *Command.ToString Method*

Returns a [String](#) that represents the [Name](#) [► 797] of the current [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)
A [String](#) that represents the [Name](#) [► 797] of the current [Command](#) [► 788].

Reference

- [Command Class](#) [► 788]
- [TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.6.4 *Command Operators*

The [Command](#) [► 788] type exposes the following members.

Operators

	Name	Description
 	Equality [► 806]	Determines whether two instances of the Command [► 788] class are equal.
 	Inequality [► 806]	Determines whether two instances of the Command [► 788] class are not equal.

Reference

[Command Class \[► 788\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.4.1 *Command.Equality Operator*

Determines whether two instances of the [Command \[► 788\]](#) class are equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Command current,
    Command other
)
```

Parameters

current	Type: TcHmiSrv.Core.Command [► 788] The first Command [► 788] to compare.
other	Type: TcHmiSrv.Core.Command [► 788] The second Command [► 788] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Command Class \[► 788\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.6.4.2 *Command.Inequality Operator*

Determines whether two instances of the [Command \[► 788\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(
    Command current,
    Command other
)
```

Parameters

current	Type: TcHmiSrv.Core.Command [► 788] The first Command [► 788] to compare.
other	Type: TcHmiSrv.Core.Command [► 788] The second Command [► 788] to compare.

Return Value

Type: [Boolean](#)

true if current does not equal other; otherwise, false.

Reference

[Command Class](#) [► 788]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7 CommandGroup Class

Represents a group of [Command](#) [► 788]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.CommandGroup](#)

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class CommandGroup : ICopyable<CommandGroup>,
    IDeepCopyable<CommandGroup>, IShallowCopyable<CommandGroup>, IEquatable<CommandGroup>,
    ICollection, IEnumerable, IExchangeable<CommandGroup>, ICommandGroupMapper,
    IList<Command>, ICollection<Command>, IEnumerable<Command>
```

The CommandGroup type exposes the following members.

Constructors

	Name	Description
	CommandGroup up . [▸ 812]	Initializes a new instance of the CommandGroup class.
	CommandGroup up(String) [▸ 813]	Initializes a new instance of the CommandGroup class with the specified domain.
	CommandGroup up(ICollectionable.Command.) [▸ 813]	Initializes a new instance of the CommandGroup class with the specified Command [▸ 788]s.
	CommandGroup up(ICollectionable.Command.) [▸ 814]	Initializes a new instance of the CommandGroup class with the specified Command [▸ 788]s.
	CommandGroup up(String, ICollectionable.Command.) [▸ 814]	Initializes a new instance of the CommandGroup class with the specified domain and Command [▸ 788]s.
	CommandGroup up(String, ICollectionable.Command.) [▸ 815]	Initializes a new instance of the CommandGroup class with the specified domain and Command [▸ 788]s.

Properties

	Name	Description
	<u>Capacity</u> [▶ 816]	Contains the total number of <u>Command</u> [▶ 788]s the internal data structure can hold without resizing.
	<u>Count</u> [▶ 816]	Gets the number of <u>Command</u> [▶ 788]s contained in the CommandGroup.
	<u>Domain</u> [▶ 817]	Contains the domain of the CommandGroup.
	<u>IsEmpty</u> [▶ 817]	Gets a value that indicates whether the CommandGroup is empty.
	<u>IsReadOnly</u> [▶ 818]	Gets a value that indicates whether the CommandGroup is read-only.
	<u>IsSet</u> [▶ 818]	Gets a value that indicates whether the CommandGroup is set.
	<u>IsSynchroniz</u> <u>ed</u> [▶ 819]	
	<u>Item</u> [▶ 819]	Gets or sets the <u>Command</u> [▶ 788] at the specified index.
	<u>Result</u> [▶ 820]	Contains the result of the CommandGroup.
	<u>SyncRoot</u> [▶ 820]	

Methods

	Name	Description
	Add [► 822]	Add the specified Command [► 788] to the CommandGroup.
	AddRange [► 822]	Adds the specified Command [► 788] s to the end of the CommandGroup.
	Clear [► 823]	Removes all Command [► 788] s from the CommandGroup.
	Contains [► 823]	Determines whether the CommandGroup contains the specified Command [► 788] .
	CopyTo [► 824]	Copies the Command [► 788] s of the CommandGroup to the specified Array , starting at the specified index.
	DeepCopy [► 824]	Creates a new object that is a deep copy of the current CommandGroup.
	Equals(Object) [► 825]	Determines whether the specified Object is equal to the current CommandGroup. (Overrides Object.Equals(Object) .)
	Equals(CommandGroup) [► 826]	Indicates whether the current CommandGroup is equal to another CommandGroup.
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 826]	(Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	IndexOf [► 827]	Determines the index of the specified Command [► 788] in the CommandGroup.
	Insert [► 827]	Inserts a Command [► 788] to the CommandGroup at the specified index.
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove [► 828]	Removes the first occurrence of the specified Command [► 788] from the CommandGroup.
	RemoveAt [► 828]	Removes the Command [► 788] at the specified index.
	RemoveRange [► 829]	Removes a range of Command [► 788] s from the CommandGroup.
	ShallowCopy [► 829]	Creates a new CommandGroup that is a shallow copy of the current CommandGroup.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	<u>Equality</u> [► 830]	Determines whether two instances of the <code>CommandGroup</code> class are equal.
 	<u>Inequality</u> [► 831]	Determines whether two instances of the <code>CommandGroup</code> class are not equal.

Extension Methods

	Name	Description
	<u>ToJson</u> [► 1594]	Overloaded. Returns an unformatted JSON <u>String</u> that represents the current <code>CommandGroup</code> . (Defined by <code>CommandGroupExtensions</code> [► 1590] .)
	<u>ToJson(Boole an)</u> [► 1595]	Overloaded. Returns an unformatted JSON <u>String</u> that represents the current <code>CommandGroup</code> . (Defined by <code>CommandGroupExtensions</code> [► 1590] .)
	<u>ToJson(Boole an, Boolean)</u> [► 1595]	Overloaded. Returns a JSON <u>String</u> that represents the current <code>CommandGroup</code> . (Defined by <code>CommandGroupExtensions</code> [► 1590] .)

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.1 CommandGroup Constructor

Overload List

	Name	Description
	CommandGroup up . [▶ 812]	Initializes a new instance of the CommandGroup [▶ 807] class.
	CommandGroup up(String) [▶ 813]	Initializes a new instance of the CommandGroup [▶ 807] class with the specified domain.
	CommandGroup up(ICollection.Command.) [▶ 813]	Initializes a new instance of the CommandGroup [▶ 807] class with the specified Command [▶ 788]s.
	CommandGroup up(ICollection.Command.) [▶ 814]	Initializes a new instance of the CommandGroup [▶ 807] class with the specified Command [▶ 788]s.
	CommandGroup up(String, ICollection.Command.) [▶ 814]	Initializes a new instance of the CommandGroup [▶ 807] class with the specified domain and Command [▶ 788]s.
	CommandGroup up(String, ICollection.Command.) [▶ 815]	Initializes a new instance of the CommandGroup [▶ 807] class with the specified domain and Command [▶ 788]s.

Reference

[CommandGroup Class](#) [[▶ 807](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.7.1.1 CommandGroup Constructor

Initializes a new instance of the [CommandGroup](#) [[▶ 807](#)] class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup()
```

Reference

[CommandGroup Class](#) [[▶ 807](#)]

[CommandGroup Overload \[► 812\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.1.2 **CommandGroup Constructor (String)**

Initializes a new instance of the [CommandGroup \[► 807\]](#) class with the specified domain.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup(  
    string domain  
)
```

Parameters

domain Type: [System.String](#)
The domain of the [CommandGroup \[► 807\]](#).

Reference

[CommandGroup Class \[► 807\]](#)

[CommandGroup Overload \[► 812\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.1.3 **CommandGroup Constructor (IEnumerable.Command.)**

Initializes a new instance of the [CommandGroup \[► 807\]](#) class with the specified [Command \[► 788\]](#)s.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup(  
    IEnumerable<Command> commands  
)
```

Parameters

commands Type: [System.Collections.Generic.IEnumerable.Command \[► 788\]](#).
The [Command \[► 788\]](#)s of the [CommandGroup \[► 807\]](#).

Reference

[CommandGroup Class \[► 807\]](#)

[CommandGroup Overload \[► 812\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.1.4 *CommandGroup Constructor (IList.Command.)*

Initializes a new instance of the [CommandGroup](#) [► 807] class with the specified [Command](#) [► 788]s.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup(  
    IList<Command> commands  
)
```

Parameters

commands Type: [System.Collections.Generic.IList.Command](#) [► 788].
The [Command](#) [► 788]s of the [CommandGroup](#) [► 807].

Reference

[CommandGroup Class](#) [► 807]

[CommandGroup Overload](#) [► 812]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.1.5 *CommandGroup Constructor (String, IEnumerable.Command.)*

Initializes a new instance of the [CommandGroup](#) [► 807] class with the specified domain and [Command](#) [► 788]s.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup(  
    string domain,  
    IEnumerable<Command> commands  
)
```

Parameters

domain Type: [System.String](#)
The domain of the [CommandGroup](#) [► 807].

commands Type: [System.Collections.Generic.IEnumerable.Command](#) [► 788].
The [Command](#) [► 788]s of the [CommandGroup](#) [► 807].

Reference

[CommandGroup Class](#) [► 807]

[CommandGroup Overload](#) [► 812]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.1.6 *CommandGroup Constructor (String, IList.Command.)*

Initializes a new instance of the [CommandGroup](#) [► 807] class with the specified domain and [Command](#) [► 788]s.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup(  
    string domain,  
    IList<Command> commands  
)
```

Parameters

domain	Type: System.String The domain of the CommandGroup [► 807].
commands	Type: System.Collections.Generic.IList.Command [► 788]. The Command [► 788]s of the CommandGroup [► 807].

Reference

[CommandGroup Class](#) [► 807]

[CommandGroup Overload](#) [► 812]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2 *CommandGroup Properties*

The [CommandGroup](#) [► 807] type exposes the following members.

Properties

	Name	Description
	Capacity [► 816]	Contains the total number of Command [► 788] s the internal data structure can hold without resizing.
	Count [► 816]	Gets the number of Command [► 788] s contained in the CommandGroup [► 807] .
	Domain [► 817]	Contains the domain of the CommandGroup [► 807] .
	IsEmpty [► 817]	Gets a value that indicates whether the CommandGroup [► 807] is empty.
	IsReadOnly [► 818]	Gets a value that indicates whether the CommandGroup [► 807] is read-only.
	IsSet [► 818]	Gets a value that indicates whether the CommandGroup [► 807] is set.
	IsSynchronized [► 819]	
	Item [► 819]	Gets or sets the Command [► 788] at the specified index.
	Result [► 820]	Contains the result of the CommandGroup [► 807] .
	SyncRoot [► 820]	

Reference

[CommandGroup Class](#) [\[► 807\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.7.2.1 *CommandGroup.Capacity Property*

Contains the total number of [Command](#) [\[► 788\]](#)s the internal data structure can hold without resizing.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public int Capacity { get; set; }
```

Property Value

Type: [Int32](#)

Reference

[CommandGroup Class](#) [\[► 807\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.7.2.2 *CommandGroup.Count Property*

Gets the number of [Command](#) [\[► 788\]](#)s contained in the [CommandGroup](#) [\[► 807\]](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Count { get; }
```

Property Value

Type: [Int32](#)

Implements

[ICollection.Count](#)

[ICollection.T.Count](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.3 *CommandGroup.Domain Property*

Contains the domain of the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.4 *CommandGroup.IsEmpty Property*

Gets a value that indicates whether the [CommandGroup](#) [► 807] is empty.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsEmpty { get; }
```

Property Value

Type: [Boolean](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.5 *CommandGroup.IsReadOnly Property*

Gets a value that indicates whether the [CommandGroup](#) [► 807] is read-only.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public bool IsReadOnly { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.T.IsReadOnly](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.6 *CommandGroup.IsSet Property*

Gets a value that indicates whether the [CommandGroup](#) [► 807] is set.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.7 *CommandGroup.IsSynchronized Property*

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSynchronized { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.IsSynchronized](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.8 *CommandGroup.Item Property*

Gets or sets the [Command](#) [► 788] at the specified index.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Command this[  
    int index  
] { get; set; }
```

Parameters

index Type: [System.Int32](#)
The zero-based index of the [Command](#) [► 788] to get or set.

Return Value

Type: [Command](#) [► 788]
The [Command](#) [► 788] at the specified index.

Implements

[IList.T..Item.Int32](#).

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.9 *CommandGroup.Result Property*

Contains the result of the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint Result { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.2.10 *CommandGroup.SyncRoot Property*

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Object SyncRoot { get; }
```

Property Value

Type: [Object](#)

Implements

[ICollection.SyncRoot](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3 *CommandGroup Methods*

The [CommandGroup](#) [► 807] type exposes the following members.

Methods

	Name	Description
	Add [► 822]	Add the specified Command [► 788] to the CommandGroup [► 807] .
	AddRange [► 822]	Adds the specified Command [► 788] s to the end of the CommandGroup [► 807] .
	Clear [► 823]	Removes all Command [► 788] s from the CommandGroup [► 807] .
	Contains [► 823]	Determines whether the CommandGroup [► 807] contains the specified Command [► 788] .
	CopyTo [► 824]	Copies the Command [► 788] s of the CommandGroup [► 807] to the specified Array , starting at the specified index.
	DeepCopy [► 824]	Creates a new object that is a deep copy of the current CommandGroup [► 807] .
	Equals(Object) [► 825]	Determines whether the specified Object is equal to the current CommandGroup [► 807] . (Overrides Object.Equals(Object) .)
	Equals(CommandGroup) [► 826]	Indicates whether the current CommandGroup [► 807] is equal to another CommandGroup [► 807] .
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 826]	(Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	IndexOf [► 827]	Determines the index of the specified Command [► 788] in the CommandGroup [► 807] .
	Insert [► 827]	Inserts a Command [► 788] to the CommandGroup [► 807] at the specified index.
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove [► 828]	Removes the first occurrence of the specified Command [► 788] from the CommandGroup [► 807] .
	RemoveAt [► 828]	Removes the Command [► 788] at the specified index.
	RemoveRange [► 829]	Removes a range of Command [► 788] s from the CommandGroup [► 807] .
	ShallowCopy [► 829]	Creates a new CommandGroup [► 807] that is a shallow copy of the current CommandGroup [► 807] .
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Extension Methods

	Name	Description
	ToJson [► 1594]	Overloaded. Returns an unformatted JSON String that represents the current CommandGroup [► 807]. (Defined by CommandGroupExtensions [► 1590].)
	ToJson(Boole an) [► 1595]	Overloaded. Returns an unformatted JSON String that represents the current CommandGroup [► 807]. (Defined by CommandGroupExtensions [► 1590].)
	ToJson(Boole an, Boolean) [► 1595]	Overloaded. Returns a JSON String that represents the current CommandGroup [► 807]. (Defined by CommandGroupExtensions [► 1590].)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.1 *CommandGroup.Add Method*

Add the specified [Command](#) [► 788] to the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Add(  
    Command item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Command](#) [► 788]
 The [Command](#) [► 788] to add to the [CommandGroup](#) [► 807].

Implements

[ICollection.T..Add\(T\)](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.2 *CommandGroup.AddRange Method*

Adds the specified [Command](#) [► 788]s to the end of the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void AddRange(  
    IEnumerable<Command> commands  
)
```

Parameters

commands Type: [System.Collections.Generic.IEnumerable.Command](#) [► 788].
The [Command](#) [► 788]s that should be added to the end of the [CommandGroup](#) [► 807].

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.3 **CommandGroup.Clear Method**

Removes all [Command](#) [► 788]s from the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Clear()
```

Implements

[ICollection.T..Clear.](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.4 **CommandGroup.Contains Method**

Determines whether the [CommandGroup](#) [► 807] contains the specified [Command](#) [► 788].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Contains(  
    Command item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to locate in the [CommandGroup](#) [► 807].

Return Value

Type: [Boolean](#)

true if item is found in the [CommandGroup](#) [► 807]; otherwise, false.

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.5 *CommandGroup.CopyTo Method*

Copies the [Command](#) [► 788]s of the [CommandGroup](#) [► 807] to the specified [Array](#), starting at the specified index.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void CopyTo(  
    Command[] array,  
    int arrayIndex  
)
```

Parameters

array	Type: TcHmiSrv.Core.Command [► 788]. The one-dimensional Array that is the destination of the Command [► 788]s copied from the CommandGroup [► 807]. The Array must have zero-based indexing.
arrayIndex	Type: System.Int32 The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.6 *CommandGroup.DeepCopy Method*

Creates a new object that is a deep copy of the current [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup DeepCopy()
```

Return Value

Type: [CommandGroup](#) [► 807]
A new object that is a deep copy of the current [CommandGroup](#) [► 807].

Implements

[IDeepCopyable.T..DeepCopy.](#) [► 1172]

Reference

[CommandGroup Class](#) [► 807]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.7 *CommandGroup.Equals Method*

Overload List

	Name	Description
	Equals(Object) [► 825]	Determines whether the specified Object is equal to the current CommandGroup [► 807]. (Overrides Object.Equals(Object) .)
	Equals(CommandGroup) [► 826]	Indicates whether the current CommandGroup [► 807] is equal to another CommandGroup [► 807].

Reference

[CommandGroup Class](#) [► 807]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.7.1 *CommandGroup.Equals Method (Object)*

Determines whether the specified [Object](#) is equal to the current [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
 The [Object](#) to compare with the current [CommandGroup](#) [► 807].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [CommandGroup](#) [► 807]; otherwise, false.

Reference

[CommandGroup Class \[► 807\]](#)

[Equals Overload \[► 825\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.3.7.2 **CommandGroup.Equals Method (CommandGroup)**

Indicates whether the current [CommandGroup \[► 807\]](#) is equal to another [CommandGroup \[► 807\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    CommandGroup other  
)
```

Parameters

other Type: [TcHmiSrv.Core.CommandGroup \[► 807\]](#)
The [CommandGroup \[► 807\]](#) to compare with this [CommandGroup \[► 807\]](#).

Return Value

Type: [Boolean](#)

true if the current [CommandGroup \[► 807\]](#) is equal to the other [CommandGroup \[► 807\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[CommandGroup Class \[► 807\]](#)

[Equals Overload \[► 825\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.3.8 **CommandGroup.GetHashCode Method**

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

[Missing <returns> documentation for "M:TcHmiSrv.Core.CommandGroup.GetHashCode"]

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.9 *CommandGroup.IndexOf Method*

Determines the index of the specified [Command](#) [► 788] in the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int IndexOf(  
    Command item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to locate in the [CommandGroup](#) [► 807].

Return Value

Type: [Int32](#)
The index of item if found in the [CommandGroup](#) [► 807]; otherwise, -1.

Implements

[IList.T..IndexOf\(T\)](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.10 *CommandGroup.Insert Method*

Inserts a [Command](#) [► 788] to the [CommandGroup](#) [► 807] at the specified index.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Insert(  
    int index,  
    Command item  
)
```

Parameters

index	Type: System.Int32 The zero-based index at which item should be inserted.
item	Type: TcHmiSrv.Core.Command [► 788] A Command [► 788] to insert to the CommandGroup [► 807].

Implements

[IList.T..Insert\(Int32, T\)](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.11 *CommandGroup.Remove Method*

Removes the first occurrence of the specified [Command](#) [► 788] from the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Remove(  
    Command item  
)
```

Parameters

item	Type: TcHmiSrv.Core.Command [► 788] The Command [► 788] to remove from the CommandGroup [► 807].

Return Value

Type: [Boolean](#)

true if item was successfully removed from the [CommandGroup](#) [► 807]; otherwise, false. This method also returns false if item is not found in the original [CommandGroup](#) [► 807].

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.12 *CommandGroup.RemoveAt Method*

Removes the [Command](#) [► 788] at the specified index.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void RemoveAt(  
    int index  
)
```

Parameters

index Type: [System.Int32](#)
The zero-based index of the [Command](#) [► 788] to remove.

Implements

[IList.T..RemoveAt\(Int32\)](#)

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.13 *CommandGroup.RemoveRange Method*

Removes a range of [Command](#) [► 788]s from the [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void RemoveRange(  
    int index,  
    int count  
)
```

Parameters

index Type: [System.Int32](#)
The zero-based starting index of the range of [Command](#) [► 788]s to remove.

count Type: [System.Int32](#)
The number of [Command](#) [► 788]s to remove.

Reference

[CommandGroup Class](#) [► 807]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.7.3.14 *CommandGroup.ShallowCopy Method*

Creates a new [CommandGroup](#) [► 807] that is a shallow copy of the current [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup ShallowCopy()
```

Return Value

Type: [CommandGroup \[▸ 807\]](#)
A new [CommandGroup \[▸ 807\]](#) that is a shallow copy of the current [CommandGroup \[▸ 807\]](#).

Implements

[IShallowCopyable.T..ShallowCopy. \[▸ 1173\]](#)

Reference

- [CommandGroup Class \[▸ 807\]](#)
- [TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.7.4 CommandGroup Operators

The [CommandGroup \[▸ 807\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [▸ 830]	Determines whether two instances of the CommandGroup [▸ 807] class are equal.
 	Inequality [▸ 831]	Determines whether two instances of the CommandGroup [▸ 807] class are not equal.

Reference

- [CommandGroup Class \[▸ 807\]](#)
- [TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.7.4.1 CommandGroup.Equality Operator

Determines whether two instances of the [CommandGroup \[▸ 807\]](#) class are equal.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    CommandGroup current,
    CommandGroup other
)
```

Parameters

current	Type: TcHmiSrv.Core.CommandGroup [► 807] The first CommandGroup [► 807] to compare.
other	Type: TcHmiSrv.Core.CommandGroup [► 807] The second CommandGroup [► 807] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[CommandGroup Class \[► 807\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.7.4.2 *CommandGroup.Inequality Operator*

Determines whether two instances of the [CommandGroup \[► 807\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(  
    CommandGroup current,  
    CommandGroup other  
)
```

Parameters

current	Type: TcHmiSrv.Core.CommandGroup [► 807] The first CommandGroup [► 807] to compare.
other	Type: TcHmiSrv.Core.CommandGroup [► 807] The second CommandGroup [► 807] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[CommandGroup Class \[► 807\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.8 *CommandOption Enumeration*

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
[FlagsAttribute]
public enum CommandOption
```

Members

	Member name	Value	Description
	None	0	
	SendWriteValue	1	
	SendErrorMessage	2	
	Poll	4	
	Offline	8	
	Config	16	
	UniqueHash	32	
	Add	64	
	Replace	128	
	ForceSingleWrite	256	
	Check	512	
	ValidateRead	1024	
	Delete	2048	
	PagingHandled	4096	
	Transaction	8192	
	Extension1	65536	
	Extension2	131072	
	Extension3	262144	
	Extension4	524288	
	Import	1048576	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.9 ConfigChangeType Enumeration

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
[FlagsAttribute]
public enum ConfigChangeType
```

Members

	Member name	Value	Description
	BeforeChange	1	
	BeforeDelete	2	
	BeforeRename	4	
	OnChange	16	
	OnDelete	32	
	OnRename	64	
	AllBefore	15	
	AllOn	240	
	All	255	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10 Context Class

Represents the context of an invoked method or symbol.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.Context

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class Context : ICopyable<Context>,
    IDeepCopyable<Context>, IShallowCopyable<Context>, IEquatable<Context>
```

The Context type exposes the following members.

Constructors

	Name	Description
	Context [► 834]	Initializes a new instance of the Context class.

Properties

	Name	Description
	Domain [► 835]	Contains the currently active domain.
	Hash [► 836]	Contains a hash value that uniquely identifies the Context.
	RequestType [► 836]	Contains the type of the request that is currently being executed.
	Session [► 836]	Contains the Session [► 941] of the active user.
	SubscriptionId [► 837]	Contains an identifier to uniquely identify a subscription.

Methods

	Name	Description
	DeepCopy [► 838]	Creates a new object that is a deep copy of the current Context.
	Equals(Object) [► 839]	Determines whether the specified Object is equal to the current Context. (Overrides Object.Equals(Object) .)
	Equals(Context) [► 840]	Indicates whether the current Context is equal to another Context.
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 840]	Serves as the default hash function. (Overrides Object.GetHashCode() .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 841]	Creates a new Context that is a shallow copy of the current Context.
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Operators

	Name	Description
 	Equality [► 842]	Determines whether two instances of the Context class are equal.
 	Inequality [► 842]	Determines whether two instances of the Context class are not equal.

Extension Methods

	Name	Description
	ToJson [► 1598]	Overloaded. Returns an unformatted JSON String that represents the current Context. (Defined by ContextExtensions [► 1596].)
	ToJson(Boolean) [► 1599]	Overloaded. Returns a JSON String that represents the current Context. (Defined by ContextExtensions [► 1596].)

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.1 Context Constructor

Initializes a new instance of the [Context](#) [► 833] class.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context()
```

Reference

- [Context Class \[▸ 833\]](#)
- [TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.10.2 Context Properties

The [Context \[▸ 833\]](#) type exposes the following members.

Properties

	Name	Description
	Domain [▸ 835]	Contains the currently active domain.
	Hash [▸ 836]	Contains a hash value that uniquely identifies the Context [▸ 833] .
	RequestType [▸ 836]	Contains the type of the request that is currently being executed.
	Session [▸ 836]	Contains the Session [▸ 941] of the active user.
	SubscriptionId [▸ 837]	Contains an identifier to uniquely identify a subscription.

Reference

- [Context Class \[▸ 833\]](#)
- [TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.10.2.1 Context.Domain Property

Contains the currently active domain.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Context Class \[► 833\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10.2.2 *Context.Hash Property*

Contains a hash value that uniquely identifies the [Context \[► 833\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint Hash { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Context Class \[► 833\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10.2.3 *Context.RequestType Property*

Contains the type of the request that is currently being executed.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public RequestType RequestType { get; set; }
```

Property Value

Type: [RequestType \[► 941\]](#)

Reference

[Context Class \[► 833\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10.2.4 *Context.Session Property*

Contains the [Session \[► 941\]](#) of the active user.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Session Session { get; set; }
```

Property Value

Type: [Session](#) [[▶ 941](#)]

Reference

[Context Class](#) [[▶ 833](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.10.2.5 *Context.SubscriptionId Property*

Contains an identifier to uniquely identify a subscription.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint SubscriptionId { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Context Class](#) [[▶ 833](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.10.3 *Context Methods*

The [Context](#) [[▶ 833](#)] type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 838]	Creates a new object that is a deep copy of the current Context [► 833].
	Equals(Object) [► 839]	Determines whether the specified Object is equal to the current Context [► 833]. (Overrides Object.Equals(Object) .)
	Equals(Context) [► 840]	Indicates whether the current Context [► 833] is equal to another Context [► 833].
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 840]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 841]	Creates a new Context [► 833] that is a shallow copy of the current Context [► 833].
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Extension Methods

	Name	Description
	ToJson . [► 1598]	Overloaded. Returns an unformatted JSON String that represents the current Context [► 833]. (Defined by ContextExtensions [► 1596].)
	ToJson(Boolean) [► 1599]	Overloaded. Returns a JSON String that represents the current Context [► 833]. (Defined by ContextExtensions [► 1596].)

Reference

[Context Class](#) [► 833]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.3.1 Context.DeepCopy Method

Creates a new object that is a deep copy of the current [Context](#) [► 833].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Context DeepCopy()
```

Return Value

Type: [Context](#) [► 833]
A new object that is a deep copy of the current [Context](#) [► 833].

Implements

[IDeepCopyable.T..DeepCopy.](#) [► 1172]

Reference

[Context Class](#) [► 833]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.3.2 Context.Equals Method

Overload List

	Name	Description
	Equals(Object) [► 839]	Determines whether the specified Object is equal to the current Context [► 833]. (Overrides Object.Equals(Object) .)
	Equals(Context) [► 840]	Indicates whether the current Context [► 833] is equal to another Context [► 833].

Reference

[Context Class](#) [► 833]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.3.2.1 Context.Equals Method (Object)

Determines whether the specified [Object](#) is equal to the current [Context](#) [► 833].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
 The [Object](#) to compare with the current [Context](#) [► 833].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Context](#) [► 833]; otherwise, false.

Reference

[Context Class \[► 833\]](#)

[Equals Overload \[► 839\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10.3.2 Context.Equals Method (Context)

Indicates whether the current [Context \[► 833\]](#) is equal to another [Context \[► 833\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Context other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) to compare with this [Context \[► 833\]](#).

Return Value

Type: [Boolean](#)

true if the current [Context \[► 833\]](#) is equal to the other [Context \[► 833\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Context Class \[► 833\]](#)

[Equals Overload \[► 839\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.10.3.3 Context.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)
A hash code for the current object.

Reference

[Context Class](#) [► 833]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.3.4 Context.ShallowCopy Method

Creates a new [Context](#) [► 833] that is a shallow copy of the current [Context](#) [► 833].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context ShallowCopy()
```

Return Value

Type: [Context](#) [► 833]
A new [Context](#) [► 833] that is a shallow copy of the current [Context](#) [► 833].

Implements

[IShallowCopyable.T...ShallowCopy.](#) [► 1173]

Reference

[Context Class](#) [► 833]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.4 Context Operators

The [Context](#) [► 833] type exposes the following members.

Operators

	Name	Description
 	Equality [► 842]	Determines whether two instances of the Context [► 833] class are equal.
 	Inequality [► 842]	Determines whether two instances of the Context [► 833] class are not equal.

Reference

[Context Class](#) [► 833]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.4.1 *Context.Equality Operator*

Determines whether two instances of the [Context](#) [► 833] class are equal.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Context current,
    Context other
)
```

Parameters

current	Type: TcHmiSrv.Core.Context [► 833] The first Context [► 833] to compare.
other	Type: TcHmiSrv.Core.Context [► 833] The second Context [► 833] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Context Class](#) [► 833]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.10.4.2 *Context.Inequality Operator*

Determines whether two instances of the [Context](#) [► 833] class are not equal.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(
    Context current,
    Context other
)
```

Parameters

current	Type: TcHmiSrv.Core.Context [► 833] The first Context [► 833] to compare.
other	Type: TcHmiSrv.Core.Context [► 833] The second Context [► 833] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Context Class \[► 833\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.11 DateTimeRange Class

Provides the smallest and largest possible value of [DateTime](#) that the TwinCAT HMI server can handle.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.DateTimeRange

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class DateTimeRange
```

The [DateTimeRange](#) type exposes the following members.

Fields

	Name	Description
 	MaxValue [► 844]	Represents the largest possible value of DateTime that the TwinCAT HMI server can handle.
 	MinValue [► 844]	Represents the smallest possible value of DateTime that the TwinCAT HMI server can handle.

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.11.1 DateTimeRange Fields

The [DateTimeRange](#) [\[► 843\]](#) type exposes the following members.

Fields

	Name	Description
 	MaxValue [► 844]	Represents the largest possible value of DateTime that the TwinCAT HMI server can handle.
 	MinValue [► 844]	Represents the smallest possible value of DateTime that the TwinCAT HMI server can handle.

Reference

[DateTimeRange Class \[► 843\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.11.1.1 *DateTimeRange.MaxValue Field*

Represents the largest possible value of [DateTime](#) that the TwinCAT HMI server can handle.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static readonly DateTime MaxValue
```

Field Value

Type: [DateTime](#)

Reference

[DateTimeRange Class](#) [[► 843](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.11.1.2 *DateTimeRange.MinValue Field*

Represents the smallest possible value of [DateTime](#) that the TwinCAT HMI server can handle.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static readonly DateTime MinValue
```

Field Value

Type: [DateTime](#)

Reference

[DateTimeRange Class](#) [[► 843](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.12 *EndpointInfo Enumeration*

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[FlagsAttribute]  
public enum EndpointInfo
```


Members

	Member name	Value	Description
	None	0	
	Local	1	
	Remote	2	
	Internal	4	
	Persistent	8	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.13 **ErrorValue Enumeration**

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum ErrorValue
```

Members

	Member name	Value	Description
	HMI_SUCCESS	0	
	HMI_FINISHED	1	
	HMI_DISCONNECTED	2	
	HMI_SHUTDOWN	3	
	HMI_RESTART	4	
	HMI_SKIP	5	
	HMI_FIRST_INIT	6	
	HMI_UPGRADE	7	
	HMI_UNCHANGED	8	
	HMI_IGNORE	9	
	HMI_E_SERVER	256	
	HMI_E_FAIL	257	
	HMI_E_UNEXPECTED	258	
	HMI_E_SCRIPT	259	
	HMI_E_REQUIRED_EXTENSION_MISSING	260	
	HMI_E_INIT	261	
	HMI_E_NO_LANGUAGE_FILE	262	
	HMI_E_SYNTAX	263	
	HMI_E_FILE_NOT_FOUND	264	
	HMI_E_FILESYSTEM	265	
	HMI_E_REQUEST_TOO_LARGE	266	
	HMI_E_DATABASE	267	
	HMI_E_INVALID_POINTER	268	
	HMI_E_INVALID_PARAMETER	269	
	HMI_E_INVALID_TYPE	270	
	HMI_E_NOT_REGISTERED	271	
	HMI_E_NOT_IMPLEMENTED	272	
	HMI_E_ID_IN_USE	273	
	HMI_E_SYMBOL_IN_USE	274	
	HMI_E_INTERRUPTED	275	
	HMI_E_FILE_LOCK	276	
	HMI_E_FILE_IN_USE	277	
	HMI_E_FILE_WRITE	278	
	HMI_E_INVALID_PATH	279	
	HMI_E_HANDLE	280	
	HMI_E_ENCODE	281	
	HMI_E_DECODE	282	
	HMI_E_NETWORK	283	
	HMI_E_LANGUAGE	284	
	HMI_E_CACHE	285	
	HMI_E_ENDPOINT_DENIED	286	
	HMI_E_ENDPOINT_BUSY	287	
	HMI_E_ENDPOINT_INVALID	288	
	HMI_E_WEBSERVER_UNEXPECTED	289	
	HMI_E_WEBSOCKET_UNEXPECTED	290	

	Member name	Value	Description
	HMI_E_LUA_EXEC	291	
	HMI_E_ENTRY_NOT_FOUND	292	
	HMI_E_INVALID_SYMBOL	293	
	HMI_E_BLACKLISTED	294	
	HMI_E_UPLOAD_TIMER_EXPIRED	295	
	HMI_E_SERVER_ALREADY_RUNNING	296	
	HMI_E_PROTOCOL	297	
	HMI_E_PAGING	298	
	HMI_E_INVALID_SUBSYMBOL	512	
	HMI_E_SYMBOL_NOT_MAPPED	513	
	HMI_E_SYMBOL_SCHEMA_MISSING	514	
	HMI_E_INVALID_METHOD	515	
	HMI_E_API	768	
	HMI_E_INTERFACE_VERSION	769	
	HMI_E_INTERFACE_POINTER	770	
	HMI_E_CRT_NOT_FOUND	771	
	HMI_E_CRT_INIT	772	
	HMI_E_LICENSE	773	
	HMI_E_LICENSE_CHECK	774	
	HMI_E_LICENSE_ADS	775	
	HMI_E_LICENSE_SERVER	776	
	HMI_E_LICENSE_CLIENT	777	
	HMI_E_LICENSE_TARGET	778	
	HMI_E_LICENSE_EXPIRED	779	
	HMI_E_LICENSE_EXTENSION	780	
	HMI_E_LICENSE_HANDSHAKE	781	
	HMI_E_LICENSE_VERIFY	782	
	HMI_E_LICENSE_EMPTY	783	
	HMI_E_STORAGE	1280	
	HMI_E_STORAGE_WRITE	1281	
	HMI_E_STORAGE_VERSION	1282	
	HMI_E_STORAGE_CREATE	1283	
	HMI_E_STORAGE_STORE	1284	
	HMI_E_STORAGE_LOAD	1285	
	HMI_E_STORAGE_FILE_NOT_FOUND	1286	
	HMI_E_STORAGE_ADD_PARAMETER	1287	
	HMI_E_STORAGE_SCHEMA	1288	
	HMI_E_STORAGE_CONSTRAINT	1289	
	HMI_E_STORAGE_ADD	1290	

	Member name	Value	Description
	HMI_E_STORAGE_EXTENSION	1291	
	HMI_E_STORAGE_PARAMETER	1292	
	HMI_E_STORAGE_TYPE	1293	
	HMI_E_CONNECT	1294	
	HMI_E_STORAGE_BACKUP	1295	
	HMI_E_SCHEMA	1536	
	HMI_E_TYPE_MISMATCH	1537	
	HMI_E_RANGE_MISMATCH	1538	
	HMI_E_INVALID_FIELD	1539	
	HMI_E_REQUIRED_FIELD	1540	
	HMI_E_UNEXPECTED_FIELD	1541	
	HMI_E_ENUM_VALUE_MISMATCH	1542	
	HMI_E_ARRAY_RANGE_MISMATCH	1543	
	HMI_E_STRING_LENGTH_MISMATCH	1544	
	HMI_E_MULTIPLE_MATCHES	1545	
	HMI_E_NO_MATCHES	1546	
	HMI_E_UNIQUE	1547	
	HMI_E_FORMAT	1548	
	HMI_E_TYPE_MISSING	1549	
	HMI_E_EXCLUDED	1550	
	HMI_E_MIGRATION	1551	
	HMI_E_MIGRATION_RULE	1552	
	HMI_E_MIGRATION_PATH	1553	
	HMI_E_RECURSION	1554	
	HMI_E_REGEX	1555	
	HMI_E_EXTENSION	2048	
	HMI_E_EXTENSION_LOAD	2049	
	HMI_E_INVALID_DOMAIN	2050	
	HMI_E_DOMAIN_ACTIVE	2051	
	HMI_E_LOG_EXTENSION	2052	
	HMI_E_AUTH_EXTENSION	2053	
	HMI_E_EXTENSION_CONFIG	2054	
	HMI_E_EXTENSION_HANDLER	2055	
	HMI_E_UNLOAD_FAILED	2056	
	HMI_E_AUTH_WAIT	2057	
	HMI_E_DOMAIN_DISABLED	2058	
	HMI_E_EXTENSION_CONNECT	2059	
	HMI_E_REMOTE_CONNECT	2060	
	HMI_E_REMOTE_TIMEOUT	2061	
	HMI_E_SESSION	4096	
	HMI_E_INVALID_SESSION	4097	
	HMI_E_AUTH_USER_NOT_FOUND	4098	

	Member name	Value	Description
	HMI_E_AUTH_FAILED	4099	
	HMI_E_AUTH_GROUP_NOT_FOUND	4100	
	HMI_E_INSUFFICIENT_ACCESS	4101	
	HMI_E_CREATE_SESSION	4102	
	HMI_E_SESSION_NOT_FOUND	4103	
	HMI_E_CERTIFICATE	4104	
	HMI_E_NO_LOGIN_DATA	4105	
	HMI_E_ALREADY_LOGGED_IN	4106	
	HMI_E_SESSION_TIMEOUT	4107	
	HMI_E_TOO_MANY_CONNECTIONS	4108	
	HMI_E_DECRYPT	4109	
	HMI_E_AUTH_DISABLED	4110	
	HMI_E_CERTIFICATE_NOT_VALID	4111	
	HMI_E_CHECKSUM	4608	
	HMI_E_INVALID_CHECKSUM	4609	
	HMI_E_CHECKSUM_UNEXPECTED	4610	
	HMI_E_CHECKSUM_MATCH	4611	
	HMI_E_SIGNATURE	4612	
	HMI_E_SIGNATURE_MISSING	4613	
	HMI_E_SIGNATURE_MISMATCH	4614	
	HMI_E_KEY_MISSING	4615	
	HMI_E_RESTART_REQUIRED	4616	
	HMI_E_INITIALIZE_PASSWORD	4617	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14 Event Class

Represents an event.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Event](#)

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class Event : IComparable<Event>,
    ICopyable<Event>, IDeepCopyable<Event>, IShallowCopyable<Event>,
    IEquatable<Event>
```

The Event type exposes the following members.

Constructors

	Name	Description
	Event . [► 853]	Initializes a new instance of the Event class.
	Event (Context , String) [► 854]	Initializes a new instance of the Event class with the specified Context [► 833] and name.

Properties

	Name	Description
	Domain [► 855]	Contains the domain of the Event.
	IsSet [► 855]	Gets a value that indicates whether the Event is set.
	Name [► 855]	Contains the name of the Event.
	Payload [► 856]	Contains the payload of the Event.
	Session [► 856]	Contains the Session [► 941] of the Event.
	TimeReceived [► 856]	Contains the DateTime when the Event was received.

Methods

	Name	Description
	<u>CompareTo</u> [▶ 858]	Compares the current Event with another Event and returns an integer that indicates whether the current Event precedes, follows, or occurs in the same position in the sort order as the other Event.
	<u>DeepCopy</u> [▶ 859]	Creates a new object that is a deep copy of the current Event.
	<u>Equals(Object)</u> [▶ 859]	Determines whether the specified <u>Object</u> is equal to the current Event. (Overrides <u>Object.Equals(Object)</u> .)
	<u>Equals(Event)</u> [▶ 860]	Indicates whether the current Event is equal to another Event.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u> [▶ 861]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ShallowCopy</u> [▶ 861]	Creates a new Event that is a shallow copy of the current Event.
	<u>ToString</u> [▶ 861]	Returns a <u>String</u> that represents the <u>Name</u> [▶ 855] of the current Event. (Overrides <u>Object.ToString</u> .)

Operators

	Name	Description
 	<u>Equality</u> [▶ 862]	Determines whether two instances of the Event class are equal.
 	<u>GreaterThan</u> [▶ 863]	Determines whether the current instance of the Event class is greater than another instance.
 	<u>GreaterThanOrEqual</u> [▶ 864]	Determines whether the current instance of the Event class is greater than or equal to another instance.
 	<u>Inequality</u> [▶ 864]	Determines whether two instances of the Event class are not equal.
 	<u>LessThan</u> [▶ 865]	Determines whether the current instance of the Event class is less than another instance.
 	<u>LessThanOrEqual</u> [▶ 865]	Determines whether the current instance of the Event class is less than or equal to another instance.

Extension Methods

	Name	Description
	ToJson [► 1603]	Overloaded. Returns an unformatted JSON String that represents the current Event. (Defined by EventExtensions [► 1599].)
	ToJson(Boole an) [► 1604]	Overloaded. Returns an unformatted JSON String that represents the current Event. (Defined by EventExtensions [► 1599].)
	ToJson(Boole an, Boolean) [► 1604]	Overloaded. Returns a JSON String that represents the current Event. (Defined by EventExtensions [► 1599].)

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.1 **Event Constructor**

Overload List

	Name	Description
	Event. [► 853]	Initializes a new instance of the Event [► 850] class.
	Event(Context String) [► 854]	Initializes a new instance of the Event [► 850] class with the specified Context [► 833] and name.

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.1.1 **Event Constructor**

Initializes a new instance of the [Event](#) [► 850] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Event()
```

Reference

[Event Class](#) [► 850]

[Event Overload](#) [► 853]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.1.2 *Event Constructor (Context, String)*

Initializes a new instance of the [Event \[► 850\]](#) class with the specified [Context \[► 833\]](#) and name.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Event(  
    Context context,  
    string name  
)
```

Parameters

- context Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) of the [Event \[► 850\]](#).
- name Type: [System.String](#)
The name of the [Event \[► 850\]](#).

Reference

[Event Class \[► 850\]](#)

[Event Overload \[► 853\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.2 *Event Properties*

The [Event \[► 850\]](#) type exposes the following members.

Properties

	Name	Description
	Domain [► 855]	Contains the domain of the Event [► 850] .
	IsSet [► 855]	Gets a value that indicates whether the Event [► 850] is set.
	Name [► 855]	Contains the name of the Event [► 850] .
	Payload [► 856]	Contains the payload of the Event [► 850] .
	Session [► 856]	Contains the Session [► 941] of the Event [► 850] .
	TimeReceived [► 856]	Contains the DateTime when the Event [► 850] was received.

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.2.1 *Event.Domain Property*

Contains the domain of the [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.2.2 *Event.IsSet Property*

Gets a value that indicates whether the [Event](#) [► 850] is set.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.2.3 *Event.Name Property*

Contains the name of the [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.2.4 *Event.Payload Property*

Contains the payload of the [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Payload { get; set; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.2.5 *Event.Session Property*

Contains the [Session](#) [► 941] of the [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Session Session { get; set; }
```

Property Value

Type: [Session](#) [► 941]

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.2.6 *Event.TimeReceived Property*

Contains the [DateTime](#) when the [Event](#) [► 850] was received.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public DateTime TimeReceived { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3 Event Methods

The [Event \[► 850\]](#) type exposes the following members.

Methods

	Name	Description
	CompareTo [► 858]	Compares the current Event [► 850] with another Event [► 850] and returns an integer that indicates whether the current Event [► 850] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850] .
	DeepCopy [► 859]	Creates a new object that is a deep copy of the current Event [► 850] .
	Equals(Object) [► 859]	Determines whether the specified Object is equal to the current Event [► 850] . (Overrides Object.Equals(Object) .)
	Equals(Event) [► 860]	Indicates whether the current Event [► 850] is equal to another Event [► 850] .
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 861]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 861]	Creates a new Event [► 850] that is a shallow copy of the current Event [► 850] .
	ToString [► 861]	Returns a String that represents the Name [► 855] of the current Event [► 850] . (Overrides Object.ToString .)

Extension Methods

	Name	Description
	ToJson [► 1603]	Overloaded. Returns an unformatted JSON String that represents the current Event [► 850] . (Defined by EventExtensions [► 1599] .)
	ToJson(Boole an) [► 1604]	Overloaded. Returns an unformatted JSON String that represents the current Event [► 850] . (Defined by EventExtensions [► 1599] .)
	ToJson(Boole an, Boolean) [► 1604]	Overloaded. Returns a JSON String that represents the current Event [► 850] . (Defined by EventExtensions [► 1599] .)

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.1 *Event.CompareTo Method*

Compares the current [Event \[► 850\]](#) with another [Event \[► 850\]](#) and returns an integer that indicates whether the current [Event \[► 850\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Event other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to compare with this [Event \[► 850\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Event \[► 850\]](#) precedes other in the sort order, zero if the current [Event \[► 850\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Event \[► 850\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.2 *Event.DeepCopy Method*

Creates a new object that is a deep copy of the current [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Event DeepCopy()
```

Return Value

Type: [Event \[► 850\]](#)

A new object that is a deep copy of the current [Event \[► 850\]](#).

Implements

[IDeepCopyable.T..DeepCopy. \[► 1172\]](#)

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.3 *Event.Equals Method*

Overload List

	Name	Description
	Equals(Object) [► 859]	Determines whether the specified Object is equal to the current Event [► 850] . (Overrides Object.Equals(Object) .)
	Equals(Event) [► 860]	Indicates whether the current Event [► 850] is equal to another Event [► 850] .

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.3.1 *Event.Equals Method (Object)*

Determines whether the specified [Object](#) is equal to the current [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Event \[► 850\]](#).

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Event \[► 850\]](#); otherwise, false.

Reference

[Event Class \[► 850\]](#)

[Equals Overload \[► 859\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.3.2 Event.Equals Method (Event)

Indicates whether the current [Event \[► 850\]](#) is equal to another [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Event other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to compare with this [Event \[► 850\]](#).

Return Value

Type: [Boolean](#)
true if the current [Event \[► 850\]](#) is equal to the other [Event \[► 850\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Event Class \[► 850\]](#)

[Equals Overload \[► 859\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.4 *Event.GetHashCode Method*

Serves as the default hash function.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.5 *Event.ShallowCopy Method*

Creates a new [Event \[► 850\]](#) that is a shallow copy of the current [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Event ShallowCopy()
```

Return Value

Type: [Event \[► 850\]](#)

A new [Event \[► 850\]](#) that is a shallow copy of the current [Event \[► 850\]](#).

Implements

[IShallowCopyable.T...ShallowCopy. \[► 1173\]](#)

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.3.6 *Event.ToString Method*

Returns a [String](#) that represents the [Name \[► 855\]](#) of the current [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A [String](#) that represents the [Name](#) [► 855] of the current [Event](#) [► 850].

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.4 Event Operators

The [Event](#) [► 850] type exposes the following members.

Operators

	Name	Description
 	Equality [► 862]	Determines whether two instances of the Event [► 850] class are equal.
 	GreaterThan [► 863]	Determines whether the current instance of the Event [► 850] class is greater than another instance.
 	GreaterThanOrEqual [► 864]	Determines whether the current instance of the Event [► 850] class is greater than or equal to another instance.
 	Inequality [► 864]	Determines whether two instances of the Event [► 850] class are not equal.
 	LessThan [► 865]	Determines whether the current instance of the Event [► 850] class is less than another instance.
 	LessThanOrEqual [► 865]	Determines whether the current instance of the Event [► 850] class is less than or equal to another instance.

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.4.1 Event.Equality Operator

Determines whether two instances of the [Event](#) [► 850] class are equal.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Event current,
    Event other
)
```

Parameters

current Type: [TcHmiSrv.Core.Event](#) [► 850]
The first [Event](#) [► 850] to compare.

other Type: [TcHmiSrv.Core.Event](#) [► 850]
The second [Event](#) [► 850] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.4.2 *Event.GreaterThan Operator*

Determines whether the current instance of the [Event](#) [► 850] class is greater than another instance.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >(
    Event current,
    Event other
)
```

Parameters

current Type: [TcHmiSrv.Core.Event](#) [► 850]
The first [Event](#) [► 850] to compare.

other Type: [TcHmiSrv.Core.Event](#) [► 850]
The second [Event](#) [► 850] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than other; otherwise, false.

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.14.4.3 *Event.GreaterThanOrEqual Operator*

Determines whether the current instance of the [Event \[► 850\]](#) class is greater than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >=(  
    Event current,  
    Event other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Event [► 850] The first Event [► 850] to compare.
other	Type: TcHmiSrv.Core.Event [► 850] The second Event [► 850] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than or equal to other; otherwise, false.

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.4.4 *Event.Inequality Operator*

Determines whether two instances of the [Event \[► 850\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(  
    Event current,  
    Event other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Event [► 850] The first Event [► 850] to compare.
other	Type: TcHmiSrv.Core.Event [► 850] The second Event [► 850] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.4.5 *Event.LessThan Operator*

Determines whether the current instance of the [Event \[► 850\]](#) class is less than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <(  
    Event current,  
    Event other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Event [► 850] The first Event [► 850] to compare.
other	Type: TcHmiSrv.Core.Event [► 850] The second Event [► 850] to compare.

Return Value

Type: [Boolean](#)
true if current is less than other; otherwise, false.

Reference

[Event Class \[► 850\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.14.4.6 *Event.LessThanOrEqual Operator*

Determines whether the current instance of the [Event \[► 850\]](#) class is less than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <=(  
    Event current,  
    Event other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Event [► 850] The first Event [► 850] to compare.
other	Type: TcHmiSrv.Core.Event [► 850] The second Event [► 850] to compare.

Return Value

Type: [Boolean](#)

true if current is less than or equal to other; otherwise, false.

Reference

[Event Class](#) [► 850]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.15 EventLifetime Enumeration

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum EventLifetime
```

Members

	Member name	Value	Description
	Persistent	0	
	Temporary	1	

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.16 EventType Enumeration

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum EventType
```

Members

	Member name	Value	Description
	Message	0	
	Alarm	1	
	Payload	2	

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.17 ILocalizable Interface

Provides an interface for a localizable object that contains a language variable and parameters.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface ILocalizable
```

The ILocalizable type exposes the following members.

Properties

	Name	Description
	<u>Domain</u> [► 867]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	<u>Name</u> [► 868]	Contains the name of the language variable.
	<u>Parameters</u> [► 868]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	<u>Severity</u> [► 869]	Gets the <u>Severity</u> [► 951] of the localizable object.
	<u>Type</u> [► 869]	Gets the <u>ValueType</u> [► 1169] of the localizable object that will be <u>Message</u> [► 1169] or <u>Alarm</u> [► 1169] .

Reference

TcHmiSrv.Core Namespace [\[► 764\]](#)

2.2.4.1.17.1 ILocalizable Properties

The ILocalizable [\[► 866\]](#) type exposes the following members.

Properties

	Name	Description
	<u>Domain</u> [► 867]	Gets the domain of the language variable. The language file of this domain will be used for localization.
	<u>Name</u> [► 868]	Contains the name of the language variable.
	<u>Parameters</u> [► 868]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	<u>Severity</u> [► 869]	Gets the <u>Severity</u> [► 951] of the localizable object.
	<u>Type</u> [► 869]	Gets the <u>ValueType</u> [► 1169] of the localizable object that will be <u>Message</u> [► 1169] or <u>Alarm</u> [► 1169] .

Reference

ILocalizable Interface [\[► 866\]](#)

TcHmiSrv.Core Namespace [\[► 764\]](#)

2.2.4.1.17.1.1 ILocalizable.Domain Property

Gets the domain of the language variable. The language file of this domain will be used for localization.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
string Domain { get; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Interface](#) [► 866]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.17.1.2 *ILocalizable.Name Property*

Contains the name of the language variable.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
string Name { get; set; }
```

Property Value

Type: [String](#)

Reference

[ILocalizable Interface](#) [► 866]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.17.1.3 *ILocalizable.Parameters Property*

Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[ILocalizable Interface](#) [► 866]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.17.1.4 *ILocalizable.Severity Property*

Gets the [Severity](#) [► 951] of the localizable object.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Severity Severity { get; }
```

Property Value

Type: [Severity](#) [► 951]

Reference

[ILocalizable Interface](#) [► 866]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.17.1.5 *ILocalizable.Type Property*

Gets the [ValueType](#) [► 1169] of the localizable object that will be [Message](#) [► 1169] or [Alarm](#) [► 1169].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 1169]

Reference

[ILocalizable Interface](#) [► 866]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18 *ITcHmiSrvExtAsyncHost Interface*

Provides an interface to asynchronously communicate with the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface ITcHmiSrvExtAsyncHost
```

The ITcHmiSrvExtAsyncHost type exposes the following members.

Methods

	Name	Description
	DeleteConfigValue [▶ 878]	Deletes a Value [▶ 952] from the configuration of the TwinCAT HMI server extension.
	DeleteConfigValueAsync [▶ 879]	Deletes a Value [▶ 952] from the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	Execute(Cont ext., Command.) [▶ 880]	Executes a single Command [▶ 788] in the domain of the specified Context [▶ 833].
	Execute(Cont ext., CommandGroup.) [▶ 881]	Executes the specified CommandGroup [▶ 807] inside any domain.
	ExecuteAsync (Context, Command) [▶ 882]	Executes a single Command [▶ 788] in the domain of the specified Context [▶ 833] as an asynchronous operation.
	ExecuteAsync (Context, CommandGroup) [▶ 883]	Executes the specified CommandGroup [▶ 807] inside any domain as an asynchronous operation.
	GetConfigValue [▶ 883]	Gets the configuration Value [▶ 952] at the specified path.
	GetConfigValueAsync [▶ 884]	Gets the configuration Value [▶ 952] at the specified path as an asynchronous operation.
	Localize [▶ 884]	Localizes an ILocalizable [▶ 866].
	LocalizeAsync [▶ 885]	Localizes an ILocalizable [▶ 866] as an asynchronous operation.
	NotifyListener [▶ 886]	Sends a notification if an Alarm [▶ 767] has changed.
	NotifyListener Async [▶ 886]	Sends a notification if an Alarm [▶ 767] has changed as an asynchronous operation.
	RegisterListener(Context, IListener) [▶ 887]	Registers the specified IListener [▶ 1251] at the TwinCAT HMI server.

	Name	Description
	RegisterListener(Context, IListener, Value) [► 888]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings.
	RegisterListenerAsync(Context, IListener) [► 889]	Registers the specified IListener [► 1251] at the TwinCAT HMI server as an asynchronous operation.
	RegisterListenerAsync(Context, IListener, Value) [► 890]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings as an asynchronous operation.
	RemoveTemporaryEvent [► 890]	Sends a notification if an Alarm [► 767] should be removed.
	RemoveTemporaryEventAsync [► 891]	Sends a notification if an Alarm [► 767] should be removed as an asynchronous operation.
	RenameConfigValue [► 891]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	RenameConfigValueAsync [► 892]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	ReplaceConfigValue [► 893]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ReplaceConfigValueAsync [► 894]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	ResetTemporaryEvents [► 894]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226] .
	ResetTemporaryEventsAsync [► 895]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226] as an asynchronous operation.
	Send(Context, Event.) [► 896]	Adds or updates an Event [► 850] .
	Send(Context, Message) [► 897]	Adds a Message [► 924] .

	Name	Description
	Send(Context, Event, EventLifetime) [► 897]	Adds or updates an Event [► 850] .
	Send(Context, Message, EventLifetime) [► 898]	Adds a Message [► 924] .
	SendAsync(Context, Event) [► 899]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message) [► 900]	Adds a Message [► 924] as an asynchronous operation.
	SendAsync(Context, Event, EventLifetime) [► 901]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message, EventLifetime) [► 901]	Adds a Message [► 924] as an asynchronous operation.
	SetConfigValue [► 902]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] .
	SetConfigValueAsync [► 903]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] as an asynchronous operation.
	UnregisterListener [► 903]	Unregisters the specified IListener [► 1251] at the TwinCAT HMI server.
	UnregisterListenerAsync [► 904]	Unregisters the specified IListener [► 1251] at the TwinCAT HMI server as an asynchronous operation.

Reference

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.18.1 ITcHmiSrvExtAsyncHost Methods

The [ITcHmiSrvExtAsyncHost](#) [\[► 869\]](#) type exposes the following members.

Methods

	Name	Description
	<u>DeleteConfig</u> <u>Value</u> [▶ 878]	Deletes a <u>Value</u> [▶ 952] from the configuration of the TwinCAT HMI server extension.
	<u>DeleteConfig</u> <u>ValueAsync</u> [▶ 879]	Deletes a <u>Value</u> [▶ 952] from the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	<u>Execute(Cont</u> <u>ext.,</u> <u>Command.)</u> [▶ 880]	Executes a single <u>Command</u> [▶ 788] in the domain of the specified <u>Context</u> [▶ 833].
	<u>Execute(Cont</u> <u>ext.,</u> <u>CommandGro</u> <u>up.)</u> [▶ 881]	Executes the specified <u>CommandGroup</u> [▶ 807] inside any domain.
	<u>ExecuteAsync</u> (<u>Context,</u> <u>Command</u>) [▶ 882]	Executes a single <u>Command</u> [▶ 788] in the domain of the specified <u>Context</u> [▶ 833] as an asynchronous operation.
	<u>ExecuteAsync</u> (<u>Context,</u> <u>CommandGro</u> <u>up)</u> [▶ 883]	Executes the specified <u>CommandGroup</u> [▶ 807] inside any domain as an asynchronous operation.
	<u>GetConfigVal</u> <u>ue</u> [▶ 883]	Gets the configuration <u>Value</u> [▶ 952] at the specified path.
	<u>GetConfigVal</u> <u>ueAsync</u> [▶ 884]	Gets the configuration <u>Value</u> [▶ 952] at the specified path as an asynchronous operation.
	<u>Localize</u> [▶ 884]	Localizes an <u>ILocalizable</u> [▶ 866].
	<u>LocalizeAsync</u> [▶ 885]	Localizes an <u>ILocalizable</u> [▶ 866] as an asynchronous operation.
	<u>NotifyListener</u> [▶ 886]	Sends a notification if an <u>Alarm</u> [▶ 767] has changed.
	<u>NotifyListener</u> <u>Async</u> [▶ 886]	Sends a notification if an <u>Alarm</u> [▶ 767] has changed as an asynchronous operation.
	<u>RegisterListen</u> <u>er(Context,</u> <u>IListener)</u> [▶ 887]	Registers the specified <u>IListener</u> [▶ 1251] at the TwinCAT HMI server.

	Name	Description
	RegisterListener(Context, IListener, Value) [► 888]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings.
	RegisterListenerAsync(Context, IListener) [► 889]	Registers the specified IListener [► 1251] at the TwinCAT HMI server as an asynchronous operation.
	RegisterListenerAsync(Context, IListener, Value) [► 890]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings as an asynchronous operation.
	RemoveTemporaryEvent [► 890]	Sends a notification if an Alarm [► 767] should be removed.
	RemoveTemporaryEventAsync [► 891]	Sends a notification if an Alarm [► 767] should be removed as an asynchronous operation.
	RenameConfigValue [► 891]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	RenameConfigValueAsync [► 892]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	ReplaceConfigValue [► 893]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ReplaceConfigValueAsync [► 894]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension as an asynchronous operation.
	ResetTemporaryEvents [► 894]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226] .
	ResetTemporaryEventsAsync [► 895]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226] as an asynchronous operation.
	Send(Context, Event.) [► 896]	Adds or updates an Event [► 850] .
	Send(Context, Message) [► 897]	Adds a Message [► 924] .

	Name	Description
	Send(Context, Event, EventLifetime) [► 897]	Adds or updates an Event [► 850] .
	Send(Context, Message, EventLifetime) [► 898]	Adds a Message [► 924] .
	SendAsync(Context, Event) [► 899]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message) [► 900]	Adds a Message [► 924] as an asynchronous operation.
	SendAsync(Context, Event, EventLifetime) [► 901]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message, EventLifetime) [► 901]	Adds a Message [► 924] as an asynchronous operation.
	SetConfigValue [► 902]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] .
	SetConfigValueAsync [► 903]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] as an asynchronous operation.
	UnregisterListener [► 903]	Unregisters the specified IListener [► 1251] at the TwinCAT HMI server.
	UnregisterListenerAsync [► 904]	Unregisters the specified IListener [► 1251] at the TwinCAT HMI server as an asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [\[► 869\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.18.1.1 *ITcHmiSrvExtAsyncHost.DeleteConfigValue Method*

Deletes a [Value](#) [\[► 952\]](#) from the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue DeleteConfigValue(  
    Context context,  
    string path  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to delete the configuration [Value](#) [► 952].

path Type: [System.String](#)
The path of the configuration [Value](#) [► 952] to delete.

Return Value

Type: [ErrorValue](#) [► 845]

HMI_SUCCESS [► 845] if deleting the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.2 *ITcHmiSrvExtAsyncHost.DeleteConfigValueAsync Method*

Deletes a [Value](#) [► 952] from the configuration of the TwinCAT HMI server extension as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> DeleteConfigValueAsync(  
    Context context,  
    string path  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to delete the configuration [Value](#) [► 952].

path Type: [System.String](#)
The path of the configuration [Value](#) [► 952] to delete.

Return Value

Type: Task.ErrorValue [[► 845](#)].

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI_SUCCESS](#) [► 845] if deleting the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

ITChmiSrvExtAsyncHost Interface [► 869]

TcHmiSrv.Core Namespace [[▶ 764](#)]

2.2.4.1.18.1.3 *ITcHmiSrvExtAsyncHost.Execute Method*

Overload List

	Name	Description
	<u>Execute(Cont ext., Command.)</u> [▶ 880]	Executes a single <u>Command</u> [▶ 788] in the domain of the specified <u>Context</u> [▶ 833].
	<u>Execute(Cont ext., CommandGro up.)</u> [▶ 881]	Executes the specified <u>CommandGroup</u> [▶ 807] inside any domain.

Reference

[ITChmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.3.1 ITcHmiSrvExtAsyncHost.Execute Method (Context., Command.)

Executes a single Command [► 788] in the domain of the specified Context [► 833].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Execute(  
    ref Context context,  
    ref Command command  
)
```

Parameters

context Type: TcHmiSrv.Core.Context [[► 833](#)].
The Context [[► 833](#)] under which the command should be executed.

command Type: [TcHmiSrv.Core.Command](#) [► 788].
The Command [► 788] to execute.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if executing the command succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Execute Overload](#) [► 880]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.3.2 ITcHmiSrvExtAsyncHost.Execute Method (Context., CommandGroup.)

Executes the specified [CommandGroup](#) [► 807] inside any domain.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Execute(  
    ref Context context,  
    ref CommandGroup commands  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833].
The [Context](#) [► 833] under which the commands should be executed.
- commands** Type: [TcHmiSrv.Core.CommandGroup](#) [► 807].
A [CommandGroup](#) [► 807] that contains the [Command](#) [► 788]s to execute.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if executing the commands succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Execute Overload](#) [► 880]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.4 ITcHmiSrvExtAsyncHost.ExecuteAsync Method

Overload List

	Name	Description
	ExecuteAsync (Context, Command) [▸ 882]	Executes a single Command [▸ 788] in the domain of the specified Context [▸ 833] as an asynchronous operation.
	ExecuteAsync (Context, CommandGroup) [▸ 883]	Executes the specified CommandGroup [▸ 807] inside any domain as an asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface \[▸ 869\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.18.1.4.1 ITcHmiSrvExtAsyncHost.ExecuteAsync Method (Context, Command)

Executes a single [Command \[▸ 788\]](#) in the domain of the specified [Context \[▸ 833\]](#) as an asynchronous operation.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
Task<(ErrorValue , Context , Command )> ExecuteAsync (
    Context context,
    Command command
)
```

Parameters

context Type: [TcHmiSrv.Core.Context \[▸ 833\]](#)
The [Context \[▸ 833\]](#) under which the command should be executed.

command Type: [TcHmiSrv.Core.Command \[▸ 788\]](#)
The [Command \[▸ 788\]](#) to execute.

Return Value

Type: [Task.ValueTuple.ErrorValue \[▸ 845\]](#), [Context \[▸ 833\]](#), [Command \[▸ 788\]](#)..
A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns a [ValueTuple.T1, T2, T3](#) containing [HMI SUCCESS \[▸ 845\]](#) if executing the command succeeded, the [Context \[▸ 833\]](#) and the executed [Command \[▸ 788\]](#); otherwise, any [ErrorValue \[▸ 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface \[▸ 869\]](#)

[ExecuteAsync Overload \[► 882\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.4.2 **ITcHmiSrvExtAsyncHost.ExecuteAsync Method (Context, CommandGroup)**

Executes the specified [CommandGroup \[► 807\]](#) inside any domain as an asynchronous operation.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<(ErrorValue , Context , CommandGroup )> ExecuteAsync (
    Context context,
    CommandGroup commands
)
```

Parameters

context Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) under which the commands should be executed.

commands Type: [TcHmiSrv.Core.CommandGroup \[► 807\]](#)
A [CommandGroup \[► 807\]](#) that contains the [Command \[► 788\]](#)s to execute.

Return Value

Type: [Task.ValueTuple.ErrorValue \[► 845\]](#), [Context \[► 833\]](#), [CommandGroup \[► 807\]](#)..
A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns a [ValueTuple.T1, T2, T3](#) containing [HMI SUCCESS \[► 845\]](#) if executing the commands succeeded, the [Context \[► 833\]](#) and the executed [CommandGroup \[► 807\]](#); otherwise, any [ErrorValue \[► 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface \[► 869\]](#)

[ExecuteAsync Overload \[► 882\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.5 **ITcHmiSrvExtAsyncHost.GetConfigValue Method**

Gets the configuration [Value \[► 952\]](#) at the specified path.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Value GetConfigValue (
    Context context,
    string path
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to get the configuration [Value](#) [► 952].

path Type: [System.String](#)
The path of the requested configuration [Value](#) [► 952].

Return Value

Type: [Value](#) [► 952]
The [Value](#) [► 952] at the specified path if it exists; otherwise a [Value](#) [► 952] that of [Null](#) [► 1169].

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.6 *ITcHmiSrvExtAsyncHost.GetConfigValueAsync Method*

Gets the configuration [Value](#) [► 952] at the specified path as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
Task<Value> GetConfigValueAsync(  
    Context context,  
    string path  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to get the configuration [Value](#) [► 952].

path Type: [System.String](#)
The path of the requested configuration [Value](#) [► 952].

Return Value

Type: [Task.Value](#) [► 952].
A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns the [Value](#) [► 952] at the specified path if it exists; otherwise a [Value](#) [► 952] that of [Null](#) [► 1169].

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.7 *ITcHmiSrvExtAsyncHost.Localize Method*

Localizes an [ILocalizable](#) [► 866].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
string Localize(  
    Context context,  
    ILocalizable localizable  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the localizable should be localized.

localizable Type: [TcHmiSrv.Core.ILocalizable](#) [► 866]
The [ILocalizable](#) [► 866] to localize.

Return Value

Type: [String](#)
A [String](#) that contains the localized text.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.8 *ITcHmiSrvExtAsyncHost.LocalizeAsync Method*

Localizes an [ILocalizable](#) [► 866] as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<string> LocalizeAsync(  
    Context context,  
    ILocalizable localizable  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the localizable should be localized.

localizable Type: [TcHmiSrv.Core.ILocalizable](#) [► 866]
The [ILocalizable](#) [► 866] to localize.

Return Value

Type: [Task.String](#).
A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns a [String](#) that contains the localized text.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.9 *ITcHmiSrvExtAsyncHost.NotifyListener Method*

Sends a notification if an [Alarm](#) [► 767] has changed.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue NotifyListener(  
    Context context,  
    AlarmChangeType type,  
    Alarm alarm  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the alarm has changed.
type	Type: TcHmiSrv.Core.AlarmChangeType [► 787] The AlarmChangeType [► 787].
alarm	Type: TcHmiSrv.Core.Alarm [► 767] The Alarm [► 767] that has changed.

Return Value

Type: [ErrorValue](#) [► 845]

HMI_SUCCESS [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.10 *ITcHmiSrvExtAsyncHost.NotifyListenerAsync Method*

Sends a notification if an [Alarm](#) [► 767] has changed as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> NotifyListenerAsync(  
    Context context,  
    AlarmChangeType type,  
    Alarm alarm  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the alarm has changed.
type	Type: TcHmiSrv.Core.AlarmChangeType [► 787] The AlarmChangeType [► 787].
alarm	Type: TcHmiSrv.Core.Alarm [► 767] The Alarm [► 767] that has changed.

Return Value

Type: [Task.ErrorValue](#) [► 845].

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI SUCCESS](#) [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.11 ITcHmiSrvExtAsyncHost.RegisterListener Method**Overload List**

	Name	Description
	RegisterListener(Context, IListener) [► 887]	Registers the specified IListener [► 1251] at the TwinCAT HMI server.
	RegisterListener(Context, IListener, Value) [► 888]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.11.1 ITcHmiSrvExtAsyncHost.RegisterListener Method (Context, IListener)

Registers the specified [IListener](#) [► 1251] at the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
void RegisterListener(  
    Context context,  
    IListener handler  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the handler should be registered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
The [IListener](#) [► 1251] that should be registered at the TwinCAT HMI server.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[RegisterListener Overload](#) [► 887]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.11.2 ITcHmiSrvExtAsyncHost.RegisterListener Method (Context, IListener, Value)

Registers the specified [IListener](#) [► 1251] at the TwinCAT HMI server using the specified settings.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void RegisterListener(  
    Context context,  
    IListener handler,  
    Value settings  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the handler should be registered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
The [IListener](#) [► 1251] that should be registered at the TwinCAT HMI server.

settings Type: [TcHmiSrv.Core.Value](#) [► 952]
An [Value](#) [► 952] that contains the settings to use for registration.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[RegisterListener Overload](#) [► 887]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.12 *ITcHmiSrvExtAsyncHost.RegisterListenerAsync Method*

Overload List

	Name	Description
	RegisterListenerAsync(Context, IListener) [► 889]	Registers the specified IListener [► 1251] at the TwinCAT HMI server as an asynchronous operation.
	RegisterListenerAsync(Context, IListener, Value) [► 890]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings as an asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [[► 869](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.18.1.12.1 *ITcHmiSrvExtAsyncHost.RegisterListenerAsync Method (Context, IListener)*

Registers the specified [IListener](#) [[► 1251](#)] at the TwinCAT HMI server as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
Task RegisterListenerAsync (
    Context context,
    IListener handler
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [[► 833](#)]
The [Context](#) [[► 833](#)] under which the handler should be registered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [[► 1251](#)]
The [IListener](#) [[► 1251](#)] that should be registered at the TwinCAT HMI server.

Return Value

Type: [Task](#)
A [Task](#) that represents the asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [[► 869](#)]

[RegisterListenerAsync Overload](#) [[► 889](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.18.1.12.2 ITcHmiSrvExtAsyncHost.RegisterListenerAsync Method (Context, IListener, Value)

Registers the specified [IListener](#) [► 1251] at the TwinCAT HMI server using the specified settings as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
Task RegisterListenerAsync(  
    Context context,  
    IListener handler,  
    Value settings  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the handler should be registered.
- handler** Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
The [IListener](#) [► 1251] that should be registered at the TwinCAT HMI server.
- settings** Type: [TcHmiSrv.Core.Value](#) [► 952]
An [Value](#) [► 952] that contains the settings to use for registration.

Return Value

Type: [Task](#)

A [Task](#) that represents the asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[RegisterListenerAsync Overload](#) [► 889]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.13 ITcHmiSrvExtAsyncHost.RemoveTemporaryEvent Method

Sends a notification if an [Alarm](#) [► 767] should be removed.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue RemoveTemporaryEvent(  
    Context context,  
    Event e  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the e has changed.

e Type: [TcHmiSrv.Core.Event](#) [► 850]
The [Event](#) [► 850] should be removed.

Return Value

Type: [ErrorValue](#) [► 845]
HMI [SUCCESS](#) [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.14 *ITcHmiSrvExtAsyncHost.RemoveTemporaryEventAsync Method*

Sends a notification if an [Alarm](#) [► 767] should be removed as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> RemoveTemporaryEventAsync(  
    Context context,  
    Event e  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the e has changed.

e Type: [TcHmiSrv.Core.Event](#) [► 850]
The [Event](#) [► 850] should be removed.

Return Value

Type: [Task.ErrorValue](#) [► 845].
A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI SUCCESS](#) [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.15 *ITcHmiSrvExtAsyncHost.RenameConfigValue Method*

Renames a [Value](#) [► 952] in the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue RenameConfigValue(  
    Context context,  
    string oldPath,  
    string newPath  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to rename the configuration [Value](#) [► 952].
- oldPath** Type: [System.String](#)
The old path of the configuration [Value](#) [► 952].
- newPath** Type: [System.String](#)
The new path of the configuration [Value](#) [► 952].

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if renaming the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.16 *ITcHmiSrvExtAsyncHost.RenameConfigValueAsync Method*

Renames a [Value](#) [► 952] in the configuration of the TwinCAT HMI server extension as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> RenameConfigValueAsync(  
    Context context,  
    string oldPath,  
    string newPath  
)
```


Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to rename the configuration Value [► 952].
oldPath	Type: System.String The old path of the configuration Value [► 952].
newPath	Type: System.String The new path of the configuration Value [► 952].

Return Value

Type: [Task.ErrorValue](#) [► 845].

A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns [HMI_SUCCESS](#) [► 845] if renaming the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.17 *ITcHmiSrvExtAsyncHost.ReplaceConfigValue Method*

Replaces a [Value](#) [► 952] in the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue ReplaceConfigValue(  
    Context context,  
    string path,  
    Value value  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to replace the configuration Value [► 952].
path	Type: System.String The path of the configuration Value [► 952] to replace.
value	Type: TcHmiSrv.Core.Value [► 952] The new configuration Value [► 952].

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if replacing the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.18 *ITcHmiSrvExtAsyncHost.ReplaceConfigValueAsync Method*

Replaces a [Value \[► 952\]](#) in the configuration of the TwinCAT HMI server extension as an asynchronous operation.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> ReplaceConfigValueAsync (
    Context context,
    string path,
    Value value
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to replace the configuration Value [► 952] .
path	Type: System.String The path of the configuration Value [► 952] to replace.
value	Type: TcHmiSrv.Core.Value [► 952] The new configuration Value [► 952] .

Return Value

Type: [Task.ErrorValue \[► 845\]](#).

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI SUCCESS \[► 845\]](#) if replacing the configuration [Value \[► 952\]](#) succeeded; otherwise, any [ErrorValue \[► 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface \[► 869\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.19 *ITcHmiSrvExtAsyncHost.ResetTemporaryEvents Method*

Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the [AlarmProviderListener \[► 1226\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void ResetTemporaryEvents (
    Context context
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] containing information about the user who tries to refresh temporary events and the domain of the TwinCAT HMI server extension that should be refreshed.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.20 *ITcHmiSrvExtAsyncHost.ResetTemporaryEventsAsync Method*

Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the [AlarmProviderListener](#) [► 1226] as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task ResetTemporaryEventsAsync(  
    Context context  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] containing information about the user who tries to refresh temporary events and the domain of the TwinCAT HMI server extension that should be refreshed.

Return Value

Type: [Task](#)
A [Task](#) that represents the asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.21 ITcHmiSrvExtAsyncHost.Send Method**Overload List**

	Name	Description
	Send(Context, Event.) [► 896]	Adds or updates an Event [► 850].
	Send(Context, Message) [► 897]	Adds a Message [► 924].
	Send(Context, Event, EventLifetime) [► 897]	Adds or updates an Event [► 850].
	Send(Context, Message, EventLifetime) [► 898]	Adds a Message [► 924].

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [[► 869](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.18.1.21.1 ITcHmiSrvExtAsyncHost.Send Method (Context, Event.)

Adds or updates an [Event](#) [[► 850](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
ErrorValue Send(
    Context context,
    ref Event e
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [[► 833](#)]
The [Context](#) [[► 833](#)] under which the e should be sent.

e Type: [TcHmiSrv.Core.Event](#) [[► 850](#)].
The [Event](#) [[► 850](#)] to send to the TwinCAT HMI server and all current [Listener](#) [[► 1251](#)]s. When this method returns, the [Payload](#) [[► 856](#)] may have been localized if it can be converted to [ILocalizable](#) [[► 866](#)].

Return Value

Type: [ErrorValue](#) [[► 845](#)]

[HMI_SUCCESS](#) [[► 845](#)] if sending the [Event](#) [[► 850](#)] succeeded; otherwise any [ErrorValue](#) [[► 845](#)] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Send Overload](#) [► 896]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.21.2 ITcHmiSrvExtAsyncHost.Send Method (Context, Message)

Adds a [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    Context context,  
    Message message  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the message should be sent.
- message** Type: [TcHmiSrv.Core.Message](#) [► 924]
The [Message](#) [► 924] to send to the TwinCAT HMI server and all current [IListener](#) [► 1251]s.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Send Overload](#) [► 896]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.21.3 ITcHmiSrvExtAsyncHost.Send Method (Context, Event., EventLifetime)

Adds or updates an [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    Context context,  
    ref Event e,  
    EventLifetime lifetime  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the e should be sent.
e	Type: TcHmiSrv.Core.Event [► 850]. The Event [► 850] to send to the TwinCAT HMI server and all current IListener [► 1251]s. When this method returns, the Payload [► 856] may have been localized if it can be converted to ILocalizable [► 866].
lifetime	Type: TcHmiSrv.Core.EventLifetime [► 866] Specifies whether the Event [► 850] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if sending the [Event](#) [► 850] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Send Overload](#) [► 896]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.21.4 ITcHmiSrvExtAsyncHost.Send Method (Context, Message, EventLifetime)

Adds a [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
ErrorValue Send(
    Context context,
    Message message,
    EventLifetime lifetime
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the message should be sent.
message	Type: TcHmiSrv.Core.Message [► 924] The Message [► 924] to send to the TwinCAT HMI server and all current IListener [► 1251]s.
lifetime	Type: TcHmiSrv.Core.EventLifetime [► 866] Specifies whether the Event [► 850] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[Send Overload](#) [► 896]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.22 *ITcHmiSrvExtAsyncHost.SendAsync Method*

Overload List

	Name	Description
	SendAsync(Context, Event) [► 899]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message) [► 900]	Adds a Message [► 924] as an asynchronous operation.
	SendAsync(Context, Event, EventLifetime) [► 901]	Adds or updates an Event [► 850] as an asynchronous operation.
	SendAsync(Context, Message, EventLifetime) [► 901]	Adds a Message [► 924] as an asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.22.1 *ITcHmiSrvExtAsyncHost.SendAsync Method (Context, Event)*

Adds or updates an [Event](#) [► 850] as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue , Event > SendAsync(  
    Context context,  
    Event e  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the e should be sent.
e	Type: TcHmiSrv.Core.Event [► 850] The Event [► 850] to send to the TwinCAT HMI server and all current IListener [► 1251]s. When this method returns, the Payload [► 856] may have been localized if it can be converted to ILocalizable [► 866].

Return Value

Type: [Task.ValueTuple.ErrorValue](#) [► 845], [Event](#) [► 850].

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns a [ValueTuple.T1, T2](#), containing [HMI SUCCESS](#) [► 845] if sending the [Event](#) [► 850] succeeded and the sent [Event](#) [► 850]; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[SendAsync Overload](#) [► 899]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.22.2 ITcHmiSrvExtAsyncHost.SendAsync Method (Context, Message)

Adds a [Message](#) [► 924] as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
Task<ErrorValue> SendAsync(
    Context context,
    Message message
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the message should be sent.
message	Type: TcHmiSrv.Core.Message [► 924] The Message [► 924] to send to the TwinCAT HMI server and all current IListener [► 1251]s.

Return Value

Type: [Task.ErrorValue](#) [► 845].

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[SendAsync Overload](#) [► 899]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.22.3 ITcHmiSrvExtAsyncHost.SendAsync Method (Context, Event, EventLifetime)

Adds or updates an [Event \[► 850\]](#) as an asynchronous operation.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue , Event > SendAsync(  
    Context context,  
    Event e,  
    EventLifetime lifetime  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) under which the e should be sent.
- e** Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to send to the TwinCAT HMI server and all current [IListener \[► 1251\]](#)s. When this method returns, the [Payload \[► 856\]](#) may have been localized if it can be converted to [ILocalizable \[► 866\]](#).
- lifetime** Type: [TcHmiSrv.Core.EventLifetime \[► 866\]](#)
Specifies whether the [Event \[► 850\]](#) is stored persistently.

Return Value

Type: [Task.ValueTuple.ErrorValue \[► 845\]](#), [Event \[► 850\]](#)..

A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns a [ValueTuple.T1, T2](#) containing [HMI SUCCESS \[► 845\]](#) if sending the [Event \[► 850\]](#) succeeded and the sent [Event \[► 850\]](#); otherwise any [ErrorValue \[► 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface \[► 869\]](#)

[SendAsync Overload \[► 899\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.18.1.22.4 ITcHmiSrvExtAsyncHost.SendAsync Method (Context, Message, EventLifetime)

Adds a [Message \[► 924\]](#) as an asynchronous operation.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> SendAsync(
    Context context,
    Message message,
    EventLifetime lifetime
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the message should be sent.
- message** Type: [TcHmiSrv.Core.Message](#) [► 924]
The [Message](#) [► 924] to send to the TwinCAT HMI server and all current [Listener](#) [► 1251]s.
- lifetime** Type: [TcHmiSrv.Core.EventLifetime](#) [► 866]
Specifies whether the [Event](#) [► 850] is stored persistently.

Return Value

Type: [Task.ErrorValue](#) [► 845].

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns [HMI_SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[SendAsync Overload](#) [► 899]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.23 *ITcHmiSrvExtAsyncHost.SetConfigValue Method*

Adds a [Value](#) [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue SetConfigValue(
    Context context,
    string path,
    Value value
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to set the configuration [Value](#) [► 952].
- path** Type: [System.String](#)
The path of the configuration [Value](#) [► 952] to set.
- value** Type: [TcHmiSrv.Core.Value](#) [► 952]
The configuration [Value](#) [► 952] to set.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if setting the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.24 *ITcHmiSrvExtAsyncHost.SetConfigValueAsync Method*

Adds a [Value](#) [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration [Value](#) [► 952] as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task<ErrorValue> SetConfigValueAsync(  
    Context context,  
    string path,  
    Value value  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to set the configuration Value [► 952].
path	Type: System.String The path of the configuration Value [► 952] to set.
value	Type: TcHmiSrv.Core.Value [► 952] The configuration Value [► 952] to set.

Return Value

Type: [Task.ErrorValue](#) [► 845].

A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns [HMI_SUCCESS](#) [► 845] if setting the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.25 *ITcHmiSrvExtAsyncHost.UnregisterListener Method*

Unregisters the specified [IListener](#) [► 1251] at the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void UnregisterListener(  
    Context context,  
    IListener handler  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
 The [Context](#) [► 833] under which the handler should be unregistered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
 The [IListener](#) [► 1251] that should be unregistered.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.18.1.26 *ITcHmiSrvExtAsyncHost.UnregisterListenerAsync Method*

Unregisters the specified [IListener](#) [► 1251] at the TwinCAT HMI server as an asynchronous operation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Task UnregisterListenerAsync(  
    Context context,  
    IListener handler  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
 The [Context](#) [► 833] under which the handler should be unregistered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
 The [IListener](#) [► 1251] that should be unregistered.

Return Value

Type: [Task](#)

A [Task](#) that represents the asynchronous operation.

Reference

[ITcHmiSrvExtAsyncHost Interface](#) [► 869]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19 **ITcHmiSrvExtHost Interface**

Note: This API is now obsolete.

Provides an interface to communicate with the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("ITcHmiSrvExtHost is obsolete. Use ITcHmiSrvExtAsyncHost instead.")]  
public interface ITcHmiSrvExtHost
```

The ITcHmiSrvExtHost type exposes the following members.

Methods

	Name	Description
	DeleteConfigValue [► 911]	Deletes a Value [► 952] from the configuration of the TwinCAT HMI server extension.
	Execute(Context, Command) [► 912]	Executes a single Command [► 788] in the domain of the specified Context [► 833].
	Execute(Context, CommandGroup) [► 913]	Executes the specified CommandGroup [► 807] inside any domain.
	GetConfigValue [► 913]	Gets the configuration Value [► 952] at the specified path.
	Localize [► 914]	Localizes an ILocalizable [► 866].
	NotifyListener [► 914]	Sends a notification if an Alarm [► 767] has changed.
	RegisterListener(Context, IListener) [► 915]	Registers the specified IListener [► 1251] at the TwinCAT HMI server.
	RegisterListener(Context, IListener, Value) [► 916]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings.
	RemoveTemporaryEvent [► 917]	Sends a notification if an Alarm [► 767] should be removed.
	RenameConfigValue [► 917]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ReplaceConfigValue [► 918]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ResetTemporaryEvents [► 918]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226].
	Send(Context, Event) [► 919]	Adds or updates an Event [► 850].

	Name	Description
	Send(Context, Message) [► 920]	Adds a Message [► 924] .
	Send(Context, Event, EventLifetime) [► 921]	Adds or updates an Event [► 850] .
	Send(Context, Message, EventLifetime) [► 921]	Adds a Message [► 924] .
	SetConfigValue [► 922]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] .
	UnregisterListener [► 923]	Unregisters the specified IListener [► 1251] at the TwinCAT HMI server.

Reference

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.19.1 ITcHmiSrvExtHost Methods

The [ITcHmiSrvExtHost](#) [\[► 904\]](#) type exposes the following members.

Methods

	Name	Description
	DeleteConfigValue [► 911]	Deletes a Value [► 952] from the configuration of the TwinCAT HMI server extension.
	Execute(Context, Command) [► 912]	Executes a single Command [► 788] in the domain of the specified Context [► 833].
	Execute(Context, CommandGroup) [► 913]	Executes the specified CommandGroup [► 807] inside any domain.
	GetConfigValue [► 913]	Gets the configuration Value [► 952] at the specified path.
	Localize [► 914]	Localizes an ILocalizable [► 866].
	NotifyListener [► 914]	Sends a notification if an Alarm [► 767] has changed.
	RegisterListener(Context, IListener) [► 915]	Registers the specified Listener [► 1251] at the TwinCAT HMI server.
	RegisterListener(Context, IListener, Value) [► 916]	Registers the specified Listener [► 1251] at the TwinCAT HMI server using the specified settings.
	RemoveTemporaryEvent [► 917]	Sends a notification if an Alarm [► 767] should be removed.
	RenameConfigValue [► 917]	Renames a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ReplaceConfigValue [► 918]	Replaces a Value [► 952] in the configuration of the TwinCAT HMI server extension.
	ResetTemporaryEvents [► 918]	Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the AlarmProviderListener [► 1226].
	Send(Context, Event) [► 919]	Adds or updates an Event [► 850].

	Name	Description
	Send(Context, Message) [► 920]	Adds a Message [► 924] .
	Send(Context, Event, EventLifetime) [► 921]	Adds or updates an Event [► 850] .
	Send(Context, Message, EventLifetime) [► 921]	Adds a Message [► 924] .
	SetConfigValue [► 922]	Adds a Value [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration Value [► 952] .
	UnregisterListener [► 923]	Unregisters the specified Listener [► 1251] at the TwinCAT HMI server.

Reference

[ITcHmiSrvExtHost Interface](#) [\[► 904\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.19.1.1 *ITcHmiSrvExtHost.DeleteConfigValue Method*

Deletes a [Value](#) [\[► 952\]](#) from the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue DeleteConfigValue(
    Context context,
    string path
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [\[► 833\]](#)
A [Context](#) [\[► 833\]](#) that contains information about the user who tries to delete the configuration [Value](#) [\[► 952\]](#).
- path** Type: [System.String](#)
The path of the configuration [Value](#) [\[► 952\]](#) to delete.

Return Value

Type: [ErrorValue](#) [\[► 845\]](#)

[HMI_SUCCESS](#) [\[► 845\]](#) if deleting the configuration [Value](#) [\[► 952\]](#) succeeded; otherwise, any [ErrorValue](#) [\[► 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.2 *ITcHmiSrvExtHost.Execute Method*

Overload List

	Name	Description
	Execute(Cont ext., Command) [► 912]	Executes a single Command [► 788] in the domain of the specified Context [► 833].
	Execute(Cont ext., CommandGro up) [► 913]	Executes the specified CommandGroup [► 807] inside any domain.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.2.1 **ITcHmiSrvExtHost.Execute Method (Context., Command)**

Executes a single [Command](#) [► 788] in the domain of the specified [Context](#) [► 833].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Execute(  
    ref Context context,  
    Command command  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833].
The [Context](#) [► 833] under which the command should be executed.

command Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to execute.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if executing the command succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[Execute Overload](#) [► 912]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.2.2 ITcHmiSrvExtHost.Execute Method (Context., CommandGroup)

Executes the specified [CommandGroup](#) [► 807] inside any domain.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Execute(  
    ref Context context,  
    CommandGroup commands  
)
```

Parameters

- context** Type: [TcHmiSrv.Core.Context](#) [► 833].
The [Context](#) [► 833] under which the commands should be executed.
- commands** Type: [TcHmiSrv.Core.CommandGroup](#) [► 807]
A [CommandGroup](#) [► 807] that contains the [Command](#) [► 788]s to execute.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI SUCCESS](#) [► 845] if executing the commands succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[Execute Overload](#) [► 912]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.3 ITcHmiSrvExtHost.GetConfigValue Method

Gets the configuration [Value](#) [► 952] at the specified path.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
Value GetConfigValue(  
    Context context,  
    string path  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to get the configuration [Value](#) [► 952].

path Type: [System.String](#)
The path of the requested configuration [Value](#) [► 952].

Return Value

Type: [Value](#) [► 952]
The [Value](#) [► 952] at the specified path if it exists; otherwise a [Value](#) [► 952] that of [Null](#) [► 1169].

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.4 *ITcHmiSrvExtHost.Localize Method*

Localizes an [ILocalizable](#) [► 866].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
string Localize(  
    Context context,  
    ILocalizable localizable  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the localizable should be localized.

localizable Type: [TcHmiSrv.Core.ILocalizable](#) [► 866]
The [ILocalizable](#) [► 866] to localize.

Return Value

Type: [String](#)
A [String](#) that contains the localized text.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.5 *ITcHmiSrvExtHost.NotifyListener Method*

Sends a notification if an [Alarm](#) [► 767] has changed.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue NotifyListener(
    Context context,
    AlarmChangeType type,
    Alarm alarm
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the alarm has changed.

type Type: [TcHmiSrv.Core.AlarmChangeType](#) [► 787]
The [AlarmChangeType](#) [► 787].

alarm Type: [TcHmiSrv.Core.Alarm](#) [► 767]
The [Alarm](#) [► 767] that has changed.

Return Value

Type: [ErrorValue](#) [► 845]
HMI_SUCCESS [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.6 *ITcHmiSrvExtHost.RegisterListener Method*

Overload List

	Name	Description
	RegisterListener(Context, IListener) [► 915]	Registers the specified IListener [► 1251] at the TwinCAT HMI server.
	RegisterListener(Context, IListener, Value) [► 916]	Registers the specified IListener [► 1251] at the TwinCAT HMI server using the specified settings.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.6.1 *ITcHmiSrvExtHost.RegisterListener Method (Context, IListener)*

Registers the specified [IListener](#) [► 1251] at the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void RegisterListener(  
    Context context,  
    IListener handler  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the handler should be registered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
The [IListener](#) [► 1251] that should be registered at the TwinCAT HMI server.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[RegisterListener Overload](#) [► 915]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.6.2 ITcHmiSrvExtHost.RegisterListener Method (Context, IListener, Value)

Registers the specified [IListener](#) [► 1251] at the TwinCAT HMI server using the specified settings.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void RegisterListener(  
    Context context,  
    IListener handler,  
    Value settings  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the handler should be registered.

handler Type: [TcHmiSrv.Core.Listeners.IListener](#) [► 1251]
The [IListener](#) [► 1251] that should be registered at the TwinCAT HMI server.

settings Type: [TcHmiSrv.Core.Value](#) [► 952]
An [Value](#) [► 952] that contains the settings to use for registration.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[RegisterListener Overload](#) [► 915]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.7 *ITcHmiSrvExtHost.RemoveTemporaryEvent Method*

Sends a notification if an [Alarm](#) [► 767] should be removed.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue RemoveTemporaryEvent(  
    Context context,  
    Event e  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] under which the e has changed.

e Type: [TcHmiSrv.Core.Event](#) [► 850]
The [Event](#) [► 850] should be removed.

Return Value

Type: [ErrorValue](#) [► 845]

[HMI SUCCESS](#) [► 845] if sending the notification succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.8 *ITcHmiSrvExtHost.RenameConfigValue Method*

Renames a [Value](#) [► 952] in the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue RenameConfigValue(  
    Context context,  
    string oldPath,  
    string newPath  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] that contains information about the user who tries to rename the configuration [Value](#) [► 952].

oldPath Type: [System.String](#)
The old path of the configuration [Value](#) [► 952].

newPath Type: [System.String](#)
The new path of the configuration [Value](#) [► 952].

Return Value

Type: [ErrorValue](#) [► 845]

HMI_SUCCESS [► 845] if renaming the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.9 *ITcHmiSrvExtHost.ReplaceConfigValue Method*

Replaces a [Value](#) [► 952] in the configuration of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue ReplaceConfigValue(  
    Context context,  
    string path,  
    Value value  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to replace the configuration Value [► 952].
path	Type: System.String The path of the configuration Value [► 952] to replace.
value	Type: TcHmiSrv.Core.Value [► 952] The new configuration Value [► 952].

Return Value

Type: [ErrorValue](#) [► 845]

HMI_SUCCESS [► 845] if replacing the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.10 *ITcHmiSrvExtHost.ResetTemporaryEvents Method*

Triggers a refresh of the list of events provided by a TwinCAT HMI server extension that implements the [AlarmProviderListener](#) [► 1226].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void ResetTemporaryEvents (
    Context context
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
A [Context](#) [► 833] containing information about the user who tries to refresh temporary events and the domain of the TwinCAT HMI server extension that should be refreshed.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.11 *ITcHmiSrvExtHost.Send Method*

Overload List

	Name	Description
	Send(Context, Event) [► 919]	Adds or updates an Event [► 850].
	Send(Context, Message) [► 920]	Adds a Message [► 924].
	Send(Context, Event, EventLifetime) [► 921]	Adds or updates an Event [► 850].
	Send(Context, Message, EventLifetime) [► 921]	Adds a Message [► 924].

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.11.1 **ITcHmiSrvExtHost.Send Method (Context., Event)**

Adds or updates an [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    ref Context context,  
    Event e  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833].
The [Context](#) [► 833] under which the e should be sent.

e Type: [TcHmiSrv.Core.Event](#) [► 850]
The [Event](#) [► 850] to send to the TwinCAT HMI server and all current [Listener](#) [► 1251]s.

Return Value

Type: [ErrorValue](#) [► 845]
[HMI_SUCCESS](#) [► 845] if sending the [Event](#) [► 850] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[Send Overload](#) [► 919]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.11.2 ITcHmiSrvExtHost.Send Method (Context., Message)

Adds a [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    ref Context context,  
    Message message  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833].
The [Context](#) [► 833] under which the message should be sent.

message Type: [TcHmiSrv.Core.Message](#) [► 924]
The [Message](#) [► 924] to send to the TwinCAT HMI server and all current [Listener](#) [► 1251]s.

Return Value

Type: [ErrorValue](#) [► 845]
[HMI_SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[Send Overload \[► 919\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.19.1.11.3 ITcHmiSrvExtHost.Send Method (Context., Event, EventLifetime)

Adds or updates an [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    ref Context context,  
    Event e,  
    EventLifetime lifetime  
)
```

Parameters

- context Type: [TcHmiSrv.Core.Context \[► 833\]](#).
The [Context \[► 833\]](#) under which the e should be sent.
- e Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to send to the TwinCAT HMI server and all current [IListener \[► 1251\]](#)s.
- lifetime Type: [TcHmiSrv.Core.EventLifetime \[► 866\]](#)
Specifies whether the [Event \[► 850\]](#) is stored persistently.

Return Value

Type: [ErrorValue \[► 845\]](#)

[HMI_SUCCESS \[► 845\]](#) if sending the [Event \[► 850\]](#) succeeded; otherwise any [ErrorValue \[► 845\]](#) that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface \[► 904\]](#)

[Send Overload \[► 919\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.19.1.11.4 ITcHmiSrvExtHost.Send Method (Context., Message, EventLifetime)

Adds a [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Send(  
    ref Context context,  
    Message message,  
    EventLifetime lifetime  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833]. The Context [► 833] under which the message should be sent.
message	Type: TcHmiSrv.Core.Message [► 924] The Message [► 924] to send to the TwinCAT HMI server and all current IListener [► 1251]s.
lifetime	Type: TcHmiSrv.Core.EventLifetime [► 866] Specifies whether the Event [► 850] is stored persistently.

Return Value

Type: [ErrorValue](#) [► 845]
[HMI_SUCCESS](#) [► 845] if sending the [Message](#) [► 924] succeeded; otherwise any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[Send Overload](#) [► 919]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.12 ITcHmiSrvExtHost.SetConfigValue Method

Adds a [Value](#) [► 952] to a map or vector in the configuration of the TwinCAT HMI server extension or updates an existing configuration [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
ErrorValue SetConfigValue(
    Context context,
    string path,
    Value value
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] A Context [► 833] that contains information about the user who tries to set the configuration Value [► 952].
path	Type: System.String The path of the configuration Value [► 952] to set.
value	Type: TcHmiSrv.Core.Value [► 952] The configuration Value [► 952] to set.

Return Value

Type: [ErrorValue](#) [► 845]
[HMI_SUCCESS](#) [► 845] if setting the configuration [Value](#) [► 952] succeeded; otherwise, any [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.19.1.13 *ITcHmiSrvExtHost.UnregisterListener Method*

Unregisters the specified [IListener](#) [► 1251] at the TwinCAT HMI server.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
void UnregisterListener(  
    Context context,  
    IListener handler  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] under which the handler should be unregistered.
handler	Type: TcHmiSrv.Core.Listeners.IListener [► 1251] The IListener [► 1251] that should be unregistered.

Reference

[ITcHmiSrvExtHost Interface](#) [► 904]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.20 **ListenerType Enumeration**

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum ListenerType
```

Members

	Member name	Value	Description
	Config	0	
	EventLocalization	1	
	Alarm	2	
	Request	3	
	Subscription	4	
	Session	5	
	Shutdown	6	
	Historize	7	
	Auth	8	
	File	9	
	Command	10	
	Script	11	
	CommitConfig	12	
	ExportConfig	13	
	Event	14	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21 Message Class

Represents a message

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Message](#)

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class Message : IComparable<Message>,
    ICopyable<Message>, IDeepCopyable<Message>, IShallowCopyable<Message>,
    IEquatable<Message>, ILocalizable
```

The Message type exposes the following members.

Constructors

	Name	Description
	Message. [► 927]	Initializes a new instance of the Message class.
	Message(Con text, Severity, String) [► 927]	Initializes a new instance of the Message class with the specified parameters.

Properties

	Name	Description
	<u>Domain</u> [▶ 928]	Contains the domain of the Message.
	<u>IsSet</u> [▶ 929]	Gets a value that indicates whether the Message is set.
	<u>Name</u> [▶ 929]	Contains the name of the language variable.
	<u>Parameters</u> [▶ 930]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	<u>Severity</u> [▶ 930]	Contains the <u>Severity</u> [▶ 951] of the Message.
	<u>TimeRaised</u> [▶ 931]	Contains the <u>DateTime</u> when the Message was raised.
	<u>Type</u> [▶ 931]	Gets the <u>ValueType</u> [▶ 1169] of the localizable object that will be <u>Message</u> [▶ 1169].

Methods

	Name	Description
	<u>CompareTo</u> [▶ 933]	Compares the current Message with another Message and returns an integer that indicates whether the current Message precedes, follows, or occurs in the same position in the sort order as the other Message.
	<u>DeepCopy</u> [▶ 933]	Creates a new object that is a deep copy of the current Message.
	<u>Equals(Object)</u> [▶ 934]	Determines whether the specified <u>Object</u> is equal to the current Message. (Overrides <u>Object.Equals(Object)</u> .)
	<u>Equals(Message)</u> [▶ 935]	Indicates whether the current Message is equal to another Message.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u> [▶ 935]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ShallowCopy</u> [▶ 936]	Creates a new Message that is a shallow copy of the current Message.
	<u>ToString</u> [▶ 936]	Returns a <u>String</u> that represents the <u>Name</u> [▶ 929] of the current Message. (Overrides <u>Object.ToString</u> .)

Operators

	Name	Description
 S	Equality [► 937]	Determines whether two instances of the Message class are equal.
 S	GreaterThan [► 938]	Determines whether the current instance of the Message class is greater than another instance.
 S	GreaterThanOrEqual [► 938]	Determines whether the current instance of the Message class is greater than or equal to another instance.
 S	Inequality [► 939]	Determines whether two instances of the Message class are not equal.
 S	LessThan [► 939]	Determines whether the current instance of the Message class is less than another instance.
 S	LessThanOrEqual [► 940]	Determines whether the current instance of the Message class is less than or equal to another instance.

Extension Methods

	Name	Description
	ToJson [► 1609]	Overloaded. Returns an unformatted JSON String that represents the current Message. (Defined by MessageExtensions [► 1605] .)
	ToJson(Boolean) [► 1609]	Overloaded. Returns an unformatted JSON String that represents the current Message. (Defined by MessageExtensions [► 1605] .)
	ToJson(Boolean, Boolean) [► 1610]	Overloaded. Returns a JSON String that represents the current Message. (Defined by MessageExtensions [► 1605] .)

Reference

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.21.1 Message Constructor

Overload List

	Name	Description
	Message . [► 927]	Initializes a new instance of the Message [► 924] class.
	Message(Con text, Severity, String) [► 927]	Initializes a new instance of the Message [► 924] class with the specified parameters.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.1.1 Message Constructor

Initializes a new instance of the [Message \[► 924\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Message()
```

Reference

[Message Class \[► 924\]](#)

[Message Overload \[► 927\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.1.2 Message Constructor (Context, Severity, String)

Initializes a new instance of the [Message \[► 924\]](#) class with the specified parameters.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Message(  
    Context context,  
    Severity severity,  
    string name  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924].
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924].
name	Type: System.String The name of the Message [► 924].

Reference[Message Class](#) [► 924][Message Overload](#) [► 927][TcHmiSrv.Core Namespace](#) [► 764]**2.2.4.1.21.2 Message Properties**

The [Message](#) [► 924] type exposes the following members.

Properties

	Name	Description
	Domain [► 928]	Contains the domain of the Message [► 924].
	IsSet [► 929]	Gets a value that indicates whether the Message [► 924] is set.
	Name [► 929]	Contains the name of the language variable.
	Parameters [► 930]	Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.
	Severity [► 930]	Contains the Severity [► 951] of the Message [► 924].
	TimeRaised [► 931]	Contains the DateTime when the Message [► 924] was raised.
	Type [► 931]	Gets the ValueType [► 1169] of the localizable object that will be Message [► 1169].

Reference[Message Class](#) [► 924][TcHmiSrv.Core Namespace](#) [► 764]**2.2.4.1.21.2.1 Message.Domain Property**

Contains the domain of the [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public string Domain { get; set; }
```

Property Value

Type: [String](#)

Implements

[ILocalizable.Domain](#) [[▸ 867](#)]

Reference

[Message Class](#) [[▸ 924](#)]

[TcHmiSrv.Core Namespace](#) [[▸ 764](#)]

2.2.4.1.21.2.2 *Message.IsSet Property*

Gets a value that indicates whether the [Message](#) [[▸ 924](#)] is set.

Namespace: [TcHmiSrv.Core](#) [[▸ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSet { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Message Class](#) [[▸ 924](#)]

[TcHmiSrv.Core Namespace](#) [[▸ 764](#)]

2.2.4.1.21.2.3 *Message.Name Property*

Contains the name of the language variable.

Namespace: [TcHmiSrv.Core](#) [[▸ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Name { get; set; }
```

Property Value

Type: [String](#)

Implements

[ILocalizable.Name](#) [► 868]

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.2.4 *Message.Parameters Property*

Gets the parameters of the localizable object. The names of the parameters must match the placeholders in the localization string.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Parameters { get; }
```

Property Value

Type: [Value](#) [► 952]

Implements

[ILocalizable.Parameters](#) [► 868]

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.2.5 *Message.Severity Property*

Contains the [Severity](#) [► 951] of the [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Severity Severity { get; set; }
```

Property Value

Type: [Severity](#) [► 951]

Implements

[ILocalizable.Severity](#) [► 869]

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.2.6 *Message.TimeRaised Property*

Contains the [DateTime](#) when the [Message](#) [► 924] was raised.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime TimeRaised { get; set; }
```

Property Value

Type: [DateTime](#)

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.2.7 *Message.Type Property*

Gets the [ValueType](#) [► 1169] of the localizable object that will be [Message](#) [► 1169].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueType Type { get; }
```

Property Value

Type: [ValueType](#) [► 1169]

Implements

[ILocalizable.Type](#) [► 869]

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.3 *Message Methods*

The [Message](#) [► 924] type exposes the following members.

Methods

	Name	Description
	CompareTo [► 933]	Compares the current Message [► 924] with another Message [► 924] and returns an integer that indicates whether the current Message [► 924] precedes, follows, or occurs in the same position in the sort order as the other Message [► 924] .
	DeepCopy [► 933]	Creates a new object that is a deep copy of the current Message [► 924] .
	Equals(Object) [► 934]	Determines whether the specified Object is equal to the current Message [► 924] . (Overrides Object.Equals(Object) .)
	Equals(Message) [► 935]	Indicates whether the current Message [► 924] is equal to another Message [► 924] .
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 935]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 936]	Creates a new Message [► 924] that is a shallow copy of the current Message [► 924] .
	ToString [► 936]	Returns a String that represents the Name [► 929] of the current Message [► 924] . (Overrides Object.ToString .)

Extension Methods

	Name	Description
	ToJson [► 1609]	Overloaded. Returns an unformatted JSON String that represents the current Message [► 924] . (Defined by MessageExtensions [► 1605] .)
	ToJson(Boolean) [► 1609]	Overloaded. Returns an unformatted JSON String that represents the current Message [► 924] . (Defined by MessageExtensions [► 1605] .)
	ToJson(Boolean, Boolean) [► 1610]	Overloaded. Returns a JSON String that represents the current Message [► 924] . (Defined by MessageExtensions [► 1605] .)

Reference[Message Class](#) [\[► 924\]](#)[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.21.3.1 *Message.CompareTo Method*

Compares the current [Message \[▸ 924\]](#) with another [Message \[▸ 924\]](#) and returns an integer that indicates whether the current [Message \[▸ 924\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Message \[▸ 924\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Message other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The [Message \[▸ 924\]](#) to compare with this [Message \[▸ 924\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Message \[▸ 924\]](#) precedes other in the sort order, zero if the current [Message \[▸ 924\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Message \[▸ 924\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Message Class \[▸ 924\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.21.3.2 *Message.DeepCopy Method*

Creates a new object that is a deep copy of the current [Message \[▸ 924\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Message DeepCopy()
```

Return Value

Type: [Message \[▸ 924\]](#)

A new object that is a deep copy of the current [Message \[▸ 924\]](#).

Implements

[IDeepCopyable.T..DeepCopy.](#) [[▶ 1172](#)]

Reference

[Message Class](#) [[▶ 924](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.21.3.3 *Message.Equals Method*

Overload List

	Name	Description
	Equals(Object) [▶ 934]	Determines whether the specified Object is equal to the current Message [▶ 924]. (Overrides Object.Equals(Object) .)
	Equals(Message) [▶ 935]	Indicates whether the current Message [▶ 924] is equal to another Message [▶ 924].

Reference

[Message Class](#) [[▶ 924](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.21.3.3.1 *Message.Equals Method (Object)*

Determines whether the specified [Object](#) is equal to the current [Message](#) [[▶ 924](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Message](#) [[▶ 924](#)].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Message](#) [[▶ 924](#)]; otherwise, false.

Reference

[Message Class](#) [[▶ 924](#)]

[Equals Overload](#) [[▶ 934](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.3.3.2 Message.Equals Method (Message)

Indicates whether the current [Message \[► 924\]](#) is equal to another [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Message other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Message \[► 924\]](#)
The [Message \[► 924\]](#) to compare with this [Message \[► 924\]](#).

Return Value

Type: [Boolean](#)

true if the current [Message \[► 924\]](#) is equal to the other [Message \[► 924\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Message Class \[► 924\]](#)

[Equals Overload \[► 934\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.3.4 Message.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.3.5 *Message.ShallowCopy Method*

Creates a new [Message \[► 924\]](#) that is a shallow copy of the current [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Message ShallowCopy()
```

Return Value

Type: [Message \[► 924\]](#)

A new [Message \[► 924\]](#) that is a shallow copy of the current [Message \[► 924\]](#).

Implements

[IShallowCopyable.T..ShallowCopy. \[► 1173\]](#)

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.3.6 *Message.ToString Method*

Returns a [String](#) that represents the [Name \[► 929\]](#) of the current [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A [String](#) that represents the [Name \[► 929\]](#) of the current [Message \[► 924\]](#).

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.4 *Message Operators*

The [Message \[► 924\]](#) type exposes the following members.

Operators

	Name	Description
 S	Equality [► 937]	Determines whether two instances of the Message [► 924] class are equal.
 S	GreaterThan [► 938]	Determines whether the current instance of the Message [► 924] class is greater than another instance.
 S	GreaterThanOrEqual [► 938]	Determines whether the current instance of the Message [► 924] class is greater than or equal to another instance.
 S	Inequality [► 939]	Determines whether two instances of the Message [► 924] class are not equal.
 S	LessThan [► 939]	Determines whether the current instance of the Message [► 924] class is less than another instance.
 S	LessThanOrEqual [► 940]	Determines whether the current instance of the Message [► 924] class is less than or equal to another instance.

Reference

[Message Class](#) [► 924]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.21.4.1 Message.Equality Operator

Determines whether two instances of the [Message](#) [► 924] class are equal.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Message current,
    Message other
)
```

Parameters

current Type: [TcHmiSrv.Core.Message](#) [► 924]
The first [Message](#) [► 924] to compare.

other Type: [TcHmiSrv.Core.Message](#) [► 924]
The second [Message](#) [► 924] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.4.2 *Message.GreaterThan Operator*

Determines whether the current instance of the [Message \[► 924\]](#) class is greater than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >(  
    Message current,  
    Message other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Message [► 924] The first Message [► 924] to compare.
other	Type: TcHmiSrv.Core.Message [► 924] The second Message [► 924] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than other; otherwise, false.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.4.3 *Message.GreaterThanOrEqual Operator*

Determines whether the current instance of the [Message \[► 924\]](#) class is greater than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >=(  
    Message current,  
    Message other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Message [► 924] The first Message [► 924] to compare.
other	Type: TcHmiSrv.Core.Message [► 924] The second Message [► 924] to compare.

Return Value

Type: [Boolean](#)
true if current is greater than or equal to other; otherwise, false.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.4.4 *Message.Inequality Operator*

Determines whether two instances of the [Message \[► 924\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(  
    Message current,  
    Message other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Message [► 924] The first Message [► 924] to compare.
other	Type: TcHmiSrv.Core.Message [► 924] The second Message [► 924] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Message Class \[► 924\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.21.4.5 *Message.LessThan Operator*

Determines whether the current instance of the [Message \[► 924\]](#) class is less than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <(  
    Message current,  
    Message other  
)
```

Parameters

current Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The first [Message \[▸ 924\]](#) to compare.

other Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The second [Message \[▸ 924\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current is less than other; otherwise, false.

Reference

[Message Class \[▸ 924\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.21.4.6 *Message.LessThanOrEqual Operator*

Determines whether the current instance of the [Message \[▸ 924\]](#) class is less than or equal to another instance.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <=(  
    Message current,  
    Message other  
)
```

Parameters

current Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The first [Message \[▸ 924\]](#) to compare.

other Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The second [Message \[▸ 924\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current is less than or equal to other; otherwise, false.

Reference

[Message Class \[▸ 924\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.22 RequestType Enumeration

Namespace: TcHmiSrv.Core [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum RequestType
```

Members

	Member name	Value	Description
	Subscription	0	
	ReadWrite	1	
	Event	2	

Reference

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.23 Session Class

Represents a session that contains information about an active user.

Inheritance Hierarchy

[System.Object](#)
TcHmiSrv.Core.Session

Namespace: TcHmiSrv.Core [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class Session : ICopyable<Session>,
    IDeepCopyable<Session>, IShallowCopyable<Session>, IEquatable<Session>
```

The Session type exposes the following members.

Constructors

	Name	Description
	Session [▶ 943]	Initializes a new instance of the Session class.

Properties

	Name	Description
	<u>EndpointInfo</u> [▶ 944]	Contains the <u>EndpointInfo</u> [▶ 844] the Session.
	<u>Id</u> [▶ 944]	Contains the identifier of the Session.
	<u>Locale</u> [▶ 944]	Contains the locale of the active user in BCP 47 representation.
	<u>SocketId</u> [▶ 945]	Contains the numeric identifier of the WebSocket of the Session.
	<u>User</u> [▶ 945]	Contains the name of the active user.

Methods

	Name	Description
	<u>DeepCopy</u> [▶ 946]	Creates a new object that is a deep copy of the current Session.
	<u>Equals(Object)</u> [▶ 947]	Determines whether the specified <u>Object</u> is equal to the current Session. (Overrides <u>Object.Equals(Object)</u> .)
	<u>Equals(Session)</u> [▶ 948]	Indicates whether the current Session is equal to another Session.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u> [▶ 948]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ShallowCopy</u> [▶ 949]	Creates a new Session that is a shallow copy of the current Session.
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Operators

	Name	Description
	<u>Equality</u> [▶ 950]	Determines whether two instances of the Session class are equal.
	<u>Inequality</u> [▶ 950]	Determines whether two instances of the Session class are not equal.

Extension Methods

	Name	Description
	ToJson [► 1612]	Overloaded. Returns an unformatted JSON String that represents the current Session. (Defined by SessionExtensions [► 1611] .)
	ToJson(Boolean) [► 1613]	Overloaded. Returns a JSON String that represents the current Session. (Defined by SessionExtensions [► 1611] .)

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.1 Session Constructor

Initializes a new instance of the [Session \[► 941\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Session()
```

Reference

[Session Class \[► 941\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.2 Session Properties

The [Session \[► 941\]](#) type exposes the following members.

Properties

	Name	Description
	EndpointInfo [► 944]	Contains the EndpointInfo [► 844] the Session [► 941] .
	Id [► 944]	Contains the identifier of the Session [► 941] .
	Locale [► 944]	Contains the locale of the active user in BCP 47 representation.
	SocketId [► 945]	Contains the numeric identifier of the WebSocket of the Session [► 941] .
	User [► 945]	Contains the name of the active user.

Reference

[Session Class \[► 941\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.2.1 *Session.EndpointInfo Property*

Contains the [EndpointInfo](#) [► 844] the [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public EndpointInfo EndpointInfo { get; set; }
```

Property Value

Type: [EndpointInfo](#) [► 844]

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.2.2 *Session.Id Property*

Contains the identifier of the [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Id { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.2.3 *Session.Locale Property*

Contains the locale of the active user in BCP 47 representation.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Locale { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.2.4 *Session.SocketId Property*

Contains the numeric identifier of the WebSocket of the [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint SocketId { get; set; }
```

Property Value

Type: [UInt32](#)

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.2.5 *Session.User Property*

Contains the name of the active user.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string User { get; set; }
```

Property Value

Type: [String](#)

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.3 *Session Methods*

The [Session](#) [► 941] type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 946]	Creates a new object that is a deep copy of the current Session [► 941].
	Equals(Object) [► 947]	Determines whether the specified Object is equal to the current Session [► 941]. (Overrides Object.Equals(Object) .)
	Equals(Session) [► 948]	Indicates whether the current Session [► 941] is equal to another Session [► 941].
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 948]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ShallowCopy [► 949]	Creates a new Session [► 941] that is a shallow copy of the current Session [► 941].
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Extension Methods

	Name	Description
	ToJson . [► 1612]	Overloaded. Returns an unformatted JSON String that represents the current Session [► 941]. (Defined by SessionExtensions [► 1611].)
	ToJson(Boolean) [► 1613]	Overloaded. Returns a JSON String that represents the current Session [► 941]. (Defined by SessionExtensions [► 1611].)

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.3.1 Session.DeepCopy Method

Creates a new object that is a deep copy of the current [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Session DeepCopy()
```

Return Value

Type: [Session](#) [► 941]
A new object that is a deep copy of the current [Session](#) [► 941].

Implements

[IDeepCopyable.T..DeepCopy.](#) [► 1172]

Reference

[Session Class](#) [► 941]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.3.2 *Session.Equals Method*

Overload List

	Name	Description
	Equals(Object) [► 947]	Determines whether the specified Object is equal to the current Session [► 941]. (Overrides Object.Equals(Object).)
	Equals(Session) [► 948]	Indicates whether the current Session [► 941] is equal to another Session [► 941].

Reference

[Session Class](#) [► 941]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.3.2.1 *Session.Equals Method (Object)*

Determines whether the specified [Object](#) is equal to the current [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Session](#) [► 941].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Session](#) [► 941]; otherwise, false.

Reference

[Session Class \[► 941\]](#)

[Equals Overload \[► 947\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.3.2.2 Session.Equals Method (Session)

Indicates whether the current [Session \[► 941\]](#) is equal to another [Session \[► 941\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Session other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Session \[► 941\]](#)
The [Session \[► 941\]](#) to compare with this [Session \[► 941\]](#).

Return Value

Type: [Boolean](#)
true if the current [Session \[► 941\]](#) is equal to the other [Session \[► 941\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Session Class \[► 941\]](#)

[Equals Overload \[► 947\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.3.3 Session.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```


Return Value

Type: [Int32](#)
A hash code for the current object.

Reference

[Session Class](#) [► 941]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.3.4 *Session.ShallowCopy Method*

Creates a new [Session](#) [► 941] that is a shallow copy of the current [Session](#) [► 941].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Session ShallowCopy()
```

Return Value

Type: [Session](#) [► 941]
A new [Session](#) [► 941] that is a shallow copy of the current [Session](#) [► 941].

Implements

[IShallowCopyable.T...ShallowCopy.](#) [► 1173]

Reference

[Session Class](#) [► 941]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.4 Session Operators

The [Session](#) [► 941] type exposes the following members.

Operators

	Name	Description
 	Equality [► 950]	Determines whether two instances of the Session [► 941] class are equal.
 	Inequality [► 950]	Determines whether two instances of the Session [► 941] class are not equal.

Reference

[Session Class](#) [► 941]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.23.4.1 *Session.Equality Operator*

Determines whether two instances of the [Session \[► 941\]](#) class are equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Session current,
    Session other
)
```

Parameters

current	Type: TcHmiSrv.Core.Session [► 941] The first Session [► 941] to compare.
other	Type: TcHmiSrv.Core.Session [► 941] The second Session [► 941] to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Session Class \[► 941\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.23.4.2 *Session.Inequality Operator*

Determines whether two instances of the [Session \[► 941\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(
    Session current,
    Session other
)
```

Parameters

current	Type: TcHmiSrv.Core.Session [► 941] The first Session [► 941] to compare.
other	Type: TcHmiSrv.Core.Session [► 941] The second Session [► 941] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Session Class](#) [► 941]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.24 Severity Enumeration

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum Severity
```

Members

	Member name	Value	Description
	Diagnostics	-1	
	Verbose	0	
	Info	1	
	Warning	2	
	Error	3	
	Critical	4	

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.25 UnixTime Class

Provides the zero [DateTime](#) value that represents the default [DateTime](#) value of the TwinCAT HMI server.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.UnixTime

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class UnixTime
```

The UnixTime type exposes the following members.

Fields

	Name	Description
 	UnixEpoch [► 952]	Represents the zero DateTime value, that is the time 00:00:00 UTC on 1 January 1970.

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.25.1 **UnixTime Fields**

The [UnixTime](#) [► 951] type exposes the following members.

Fields

	Name	Description
 	UnixEpoch [► 952]	Represents the zero DateTime value, that is the time 00:00:00 UTC on 1 January 1970.

Reference

[UnixTime Class](#) [► 951]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.25.1.1 ***UnixTime.UnixEpoch Field***

Represents the zero [DateTime](#) value, that is the time 00:00:00 UTC on 1 January 1970.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static readonly DateTime UnixEpoch
```

Field Value

Type: [DateTime](#)

Reference

[UnixTime Class](#) [► 951]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26 **Value Class**

Represents a value of any [ValueType](#) [► 1169].

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Value](#)

[TcHmiSrv.Core.Tools.Json.JsonValue](#) [► 1542]

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class Value : ICollection, IEnumerable,
    IConvertible, IDictionary, IDictionary<string, Value>,
    ICollection<KeyValuePair<string, Value>>, IEnumerable<KeyValuePair<string, Value>>,
    IList<Value>, ICollection<Value>, IEnumerable<Value>,
    IReadOnlyCollection<Value>, IReadOnlyDictionary<string, Value>,
    IReadOnlyCollection<KeyValuePair<string, Value>>, IComparable<Value>,
    ICopyable<Value>, IDeepCopyable<Value>, IShallowCopyable<Value>,
    IEquatable<Value>, IComparable<bool>, IComparable<byte>,
    IComparable<sbyte>, IComparable<char>, IComparable<decimal>,
    IComparable<short>, IComparable<ushort>, IComparable<int>,
    IComparable<uint>, IComparable<long>, IComparable<ulong>,
    IComparable<float>, IComparable<double>, IComparable<string>,
    IComparable<Access>, IComparable<Alarm>, IComparable<byte[]>,
    IComparable<Event>, IComparable<Message>, IComparable<Severity>,
    IComparable<DateTime>, IComparable<TimeSpan>, IEquatable<bool>,
    IEquatable<byte>, IEquatable<sbyte>, IEquatable<char>,
    IEquatable<decimal>, IEquatable<short>, IEquatable<ushort>,
    IEquatable<int>, IEquatable<uint>, IEquatable<long>,
    IEquatable<ulong>, IEquatable<float>, IEquatable<double>,
    IEquatable<string>, IEquatable<Access>, IEquatable<Alarm>,
    IEquatable<byte[]>, IEquatable<Event>, IEquatable<Message>,
    IEquatable<Severity>, IEquatable<DateTime>, IEquatable<TimeSpan>,
    IExchangeable<Value>
```

The Value type exposes the following members.

Constructors

	Name	Description
	Value . [▶ 979]	Initializes a new instance of the Value class.
	Value(Boolean) [▶ 979]	Initializes a new instance of the Value class with the specified Boolean value.
	Value(Byte) [▶ 980]	Initializes a new instance of the Value class with the specified Byte .
	Value(Byte.) [▶ 980]	Initializes a new instance of the Value class with the specified Bytes .
	Value(Char) [▶ 981]	Initializes a new instance of the Value class with the specified Char .
	Value(IDictionary.String, Value.) [▶ 981]	Initializes a new instance of the Value class with the specified IDictionary.TKey, TValue.
	Value(DateTime) [▶ 982]	Initializes a new instance of the Value class with the specified DateTime .
	Value(Decimal) [▶ 982]	Initializes a new instance of the Value class with the specified Decimal value.
	Value(Double) [▶ 983]	Initializes a new instance of the Value class with the specified Double -precision floating-point number.
	Value(Int16) [▶ 983]	Initializes a new instance of the Value class with the specified Int16 integer.
	Value(Int32) [▶ 983]	Initializes a new instance of the Value class with the specified Int32 .
	Value(Int64) [▶ 984]	Initializes a new instance of the Value class with the specified Int64 integer.
	Value(SByte) [▶ 984]	Initializes a new instance of the Value class with the specified SByte .
	Value(Single) [▶ 985]	Initializes a new instance of the Value class with the specified Single -precision floating-point number.
	Value(String) [▶ 985]	Initializes a new instance of the Value class with the specified String .
	Value(TimeSpan) [▶ 986]	Initializes a new instance of the Value class with the specified TimeSpan .
	Value(UInt16) [▶ 986]	Initializes a new instance of the Value class with the specified UInt16 integer.
	Value(UInt32) [▶ 987]	Initializes a new instance of the Value class with the specified UInt32 .
	Value(UInt64) [▶ 987]	Initializes a new instance of the Value class with the specified UInt64 integer.
	Value(Access) [▶ 988]	Initializes a new instance of the Value class with the specified Access [▶ 766].
	Value(Alarm) [▶ 988]	Initializes a new instance of the Value class with the specified Alarm [▶ 767].

	Name	Description
	Value(Event) [► 988]	Initializes a new instance of the Value class with the specified Event [► 850].
	Value(Message) [► 989]	Initializes a new instance of the Value class with the specified Message [► 924].
	Value(Severity) [► 989]	Initializes a new instance of the Value class with the specified Severity [► 951].
	Value(ICollection.Value) [► 990]	Initializes a new instance of the Value class with the specified IEnumerable.T.
	Value(IList.Value) [► 990]	Initializes a new instance of the Value class with the specified IEnumerable.T.
	Value(Value) [► 991]	Initializes a new instance of the Value class with the specified Array .

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Values the internal data structure can hold without resizing.
	ContainsJson [► 993]	Gets a value that indicates whether the Value contains a JSON String .
	Count [► 993]	Gets the number of Values contained in the Value.
	IsArray [► 994]	Gets a value that indicates whether the Value is an Array .
	IsEmpty [► 994]	Gets a value that indicates whether the Value is empty.
	IsFixedSize [► 995]	
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169].
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169].
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169], Double [► 1169] or Int64 [► 1169].
	IsReadOnly [► 996]	Gets a value that indicates whether the Value is read-only.
	IsSynchronized [► 997]	
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169].
	Item.Int32 [► 998]	Gets or sets the Value at the specified index.
	Item.String [► 998]	Gets or sets the Value with the specified key.
	Keys [► 999]	Gets an ICollection.T , containing the keys of the Value.
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array .
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array .
	SyncRoot [► 1000]	
	Type [► 1001]	Contains the ValueType [► 1169] of the Value.
	Values [► 1001]	Gets an ICollection.T , containing the Values in the Value.

Methods

	Name	Description
	Add(KeyValuePair.String, Value.) [► 1016]	Adds a KeyValuePair<tkey, tvalue=""></tkey,> to the Value.
	Add(Value) [► 1016]	Adds the specified Value to the Value.
	Add(String, Value) [► 1017]	Adds a Value with the specified key to the Value.
	AddOrUpdate [► 1018]	Adds a Value with the specified key to the Value if the key does not already exist, or updates a Value in the Value if the key already exists.
	AddRange [► 1018]	Adds the specified Values to the end of the Value.
	ChangeType [► 1018]	Changes the Type [► 1001] of this Value to the specified ValueType [► 1169] and adjusts the containing data.
	Clear [► 1019]	Removes all Values from the Value.
	CompareTo(Boolean) [► 1023]	Compares the current Value with another Boolean value and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Boolean value.
	CompareTo(Byte) [► 1024]	Compares the current Value with another Byte and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Byte .
	CompareTo(Byte.) [► 1024]	Compares the current Value with other Bytes and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Bytes .
	CompareTo(Char) [► 1025]	Compares the current Value with another Char and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Char .
	CompareTo(DateTime) [► 1026]	Compares the current Value with another DateTime and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other DateTime .
	CompareTo(Decimal) [► 1026]	Compares the current Value with another Decimal value and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Decimal value.
	CompareTo(Double) [► 1027]	Compares the current Value with another Double -precision floating-point number and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number.

	Name	Description
	CompareTo(Int16) [▶ 1028]	Compares the current Value with another Int16 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Int16 .
	CompareTo(Int32) [▶ 1029]	Compares the current Value with another Int32 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Int32 .
	CompareTo(Int64) [▶ 1029]	Compares the current Value with another Int64 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Int64 .
	CompareTo(SByte) [▶ 1030]	Compares the current Value with another SByte and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other SByte .
	CompareTo(Single) [▶ 1031]	Compares the current Value with another Single -precision floating-point number and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number.
	CompareTo(String) [▶ 1031]	Compares the current Value with another String and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other String .
	CompareTo(TimeSpan) [▶ 1032]	Compares the current Value with another TimeSpan and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other TimeSpan .
	CompareTo(UInt16) [▶ 1033]	Compares the current Value with another UInt16 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other UInt16 .
	CompareTo(UInt32) [▶ 1033]	Compares the current Value with another UInt32 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other UInt32 .
	CompareTo(UInt64) [▶ 1034]	Compares the current Value with another UInt64 and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other UInt64 .
	CompareTo(Access) [▶ 1035]	Compares the current Value with another Access [▶ 766] and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Access [▶ 766].
	CompareTo(Alarm) [▶ 1035]	Compares the current Value with another Alarm [▶ 767] and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Alarm [▶ 767].

	Name	Description
	CompareTo(Event) [▶ 1036]	Compares the current Value with another Event [▶ 850] and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Event [▶ 850].
	CompareTo(Message) [▶ 1037]	Compares the current Value with another Message [▶ 924] and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Message [▶ 924].
	CompareTo(Severity) [▶ 1037]	Compares the current Value with another Severity [▶ 951] and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Severity [▶ 951].
	CompareTo(Value) [▶ 1038]	Compares the current Value with another Value and returns an integer that indicates whether the current Value precedes, follows, or occurs in the same position in the sort order as the other Value.
	Contains(KeyValuePair<String, Value>) [▶ 1039]	Determines whether the Value contains the specified KeyValuePair<TKey, TValue> .
	Contains(Value) [▶ 1040]	Determines whether the Value contains the specified Value.
	ContainsKey [▶ 1040]	Determines whether the Value contains a Value with the specified key.
	CopyTo(KeyValuePair<String, Value>, Int32) [▶ 1041]	Copies the KeyValuePair<TKey, TValue> s of the Value to the specified Array , starting at the specified index.
	CopyTo(Value, Int32) [▶ 1042]	Copies the Values of the Value to the specified Array , starting at the specified index.
	DeepCopy [▶ 1043]	Creates a new object that is a deep copy of the current Value.
	Equals(Boolean) [▶ 1046]	Indicates whether the current Value is equal to another Boolean value.
	Equals(Byte) [▶ 1046]	Indicates whether the current Value is equal to another Byte .
	Equals(Byte[]) [▶ 1047]	Indicates whether the current Value is equal to another Array of Bytes .
	Equals(Char) [▶ 1048]	Indicates whether the current Value is equal to another Char .

	Name	Description
	Equals(DateTime) [► 1048]	Indicates whether the current Value is equal to another DateTime .
	Equals(Decimal) [► 1049]	Indicates whether the current Value is equal to another Decimal value.
	Equals(Double) [► 1050]	Indicates whether the current Value is equal to another Double -precision floating-point number.
	Equals(Int16) [► 1050]	Indicates whether the current Value is equal to another Int16 .
	Equals(Int32) [► 1051]	Indicates whether the current Value is equal to another Int32 .
	Equals(Int64) [► 1052]	Indicates whether the current Value is equal to another Int64 .
	Equals(Object) [► 1052]	Determines whether the specified Object is equal to the current Value. (Overrides Object.Equals(Object) .)
	Equals(SByte) [► 1053]	Indicates whether the current Value is equal to another SByte .
	Equals(Single) [► 1053]	Indicates whether the current Value is equal to another Single -precision floating-point number.
	Equals(String) [► 1054]	Indicates whether the current Value is equal to another String .
	Equals(TimeSpan) [► 1055]	Indicates whether the current Value is equal to another TimeSpan .
	Equals(UInt16) [► 1055]	Indicates whether the current Value is equal to another UInt16 .
	Equals(UInt32) [► 1056]	Indicates whether the current Value is equal to another UInt32 .
	Equals(UInt64) [► 1057]	Indicates whether the current Value is equal to another UInt64 .
	Equals(Access) [► 1057]	Indicates whether the current Value is equal to another Access [► 766].
	Equals(Alarm) [► 1058]	Indicates whether the current Value is equal to another Alarm [► 767].
	Equals(Event) [► 1058]	Indicates whether the current Value is equal to another Event [► 850].
	Equals(Message) [► 1059]	Indicates whether the current Value is equal to another Message [► 924].
	Equals(Severity) [► 1060]	Indicates whether the current Value is equal to another Severity [► 951].

	Name	Description
	<u>Equals(Value)</u> [► 1060]	Indicates whether the current Value is equal to another Value.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
 	<u>FromAccess</u> [► 1061]	Converts an instance of the Value class to the appropriate <u>Access</u> [► 766].
 	<u>FromAlarm</u> [► 1062]	Converts an <u>Alarm</u> [► 767] to the appropriate instance of the Value class.
 	<u>FromBoolean</u> [► 1062]	Converts a <u>Boolean</u> value to the appropriate instance of the Value class.
 	<u>FromByte</u> [► 1063]	Converts an <u>Byte</u> to the appropriate instance of the Value class.
 	<u>FromBytes</u> [► 1063]	Converts an array of <u>Bytes</u> to the appropriate instance of the Value class.
 	<u>FromChar</u> [► 1064]	Converts a <u>Char</u> to the appropriate instance of the Value class.
 	<u>FromDateTim</u> <u>e</u> [► 1064]	Converts an instance of the <u>DateTime</u> class to the appropriate instance of the Value class.
 	<u>FromDecimal</u> [► 1065]	Converts a <u>Decimal</u> value to the appropriate instance of the Value class.
 	<u>FromDouble</u> [► 1065]	Converts a <u>Double</u> -precision floating-point number to the appropriate instance of the Value class.
 	<u>FromEvent</u> [► 1066]	Converts an <u>Event</u> [► 850] to the appropriate instance of the Value class.
 	<u>FromInt16</u> [► 1066]	Converts an <u>Int16</u> to the appropriate instance of the Value class.
 	<u>FromInt32</u> [► 1067]	Converts an <u>Int32</u> to the appropriate instance of the Value class.
 	<u>FromInt64</u> [► 1067]	Converts a <u>Int64</u> to the appropriate instance of the Value class.
 	<u>FromMessage</u> [► 1068]	Converts an <u>Message</u> [► 924] to the appropriate instance of the Value class.
 	<u>FromSByte</u> [► 1068]	Converts an <u>SByte</u> to the appropriate instance of the Value class.

	Name	Description
 	FromSeverity [► 1069]	Converts a Severity [► 951] to the appropriate instance of the Value class.
 	FromSingle [► 1069]	Converts a Single -precision floating-point number to the appropriate instance of the Value class.
 	FromString [► 1070]	Converts a String to the appropriate instance of the Value class.
 	FromTimeSpan [► 1070]	Converts an instance of the TimeSpan class to the appropriate instance of the Value class.
 	FromUInt16 [► 1071]	Converts an UInt16 to the appropriate instance of the Value class.
 	FromUInt32 [► 1071]	Converts an UInt32 to the appropriate instance of the Value class.
 	FromUInt64 [► 1072]	Converts a UInt64 to the appropriate instance of the Value class.
	GetAccess [► 1072]	Gets the Access [► 766] of the Value .
	GetAlarm [► 1072]	Gets the Alarm [► 767] of the Value .
	GetBool [► 1073]	Gets the Boolean value of the Value .
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value , using the specified culture-specific formatting information.
	GetByte [► 1074]	Gets the Byte of the Value .
	GetBytes [► 1074]	Gets the Bytes of the Value .
	GetChar [► 1075]	Gets the Char of the Value .
	GetDateTime [► 1076]	Gets the DateTime of the Value .
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value , using the specified culture-specific formatting information.
	GetDecimal [► 1077]	Gets the Decimal value of the Value .
	GetDouble [► 1077]	Gets the Double -precision floating-point number of the Value .

	Name	Description
	GetDouble(IFormatProvider) [► 1078]	Gets the Double -precision floating-point number of the Value, using the specified culture-specific formatting information.
	GetEvent [► 1078]	Gets the Event [► 850] of the Value.
	GetHashCode [► 1079]	Serves as the default hash function. (Overrides Object.GetHashCode ..)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value.
	GetInt32 [► 1080]	Gets the Int32 of the Value.
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value, using the specified culture-specific formatting information.
	GetInt64 [► 1081]	Gets the Int64 integer of the Value.
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value, using the specified culture-specific formatting information.
	GetMessage [► 1082]	Gets the Message [► 924] of the Value.
	GetSByte [► 1083]	Gets the SByte of the Value.
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value.
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value.
	GetString [► 1084]	Gets the String of the Value.
	GetString(IFormatProvider) [► 1084]	Gets the String of the Value, using the specified culture-specific formatting information.
	GetTimeSpan [► 1085]	Gets the TimeSpan of the Value.
	GetTimeSpan(IFormatProvider) [► 1086]	Gets the TimeSpan of the Value, using the specified culture-specific formatting information.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value.
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value.

	Name	Description
	GetUInt32 [► 1087]	Gets the UInt32 of the Value.
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value.
	IndexOf [► 1088]	Determines the index of the specified Value in the Value.
	Insert [► 1088]	Inserts a Value to the Value at the specified index.
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyValuePair<String, Value>) [► 1089]	Removes the first occurrence of the specified KeyValuePair.TKey, TValue . from the Value.
	Remove(String) [► 1090]	Removes the Value with the specified key from the Value.
	Remove(Value) [► 1091]	Removes the first occurrence of the specified Value from the Value.
	RemoveAt [► 1091]	Removes the Value at the specified index.
	RemoveRange [► 1092]	Removes a range of Values from the Value.
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value.
	SetValue(Byte) [► 1095]	Gets the Byte of the Value.
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value.
	SetValue(Char) [► 1096]	Gets the Char of the Value.
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value.
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value.
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value.
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value.

	Name	Description
	SetValue(Int32) [▶ 1099]	Gets the Int32 of the Value.
	SetValue(Int64) [▶ 1099]	Gets the Int64 integer of the Value.
	SetValue(SByte) [▶ 1099]	Gets the SByte of the Value.
	SetValue(Single) [▶ 1100]	Gets the Single -precision floating-point number of the Value.
	SetValue(String) [▶ 1100]	Gets the String of the Value.
	SetValue(TimeSpan) [▶ 1101]	Gets the TimeSpan of the Value.
	SetValue(UInt16) [▶ 1101]	Gets the UInt16 integer of the Value.
	SetValue(UInt32) [▶ 1102]	Gets the UInt32 of the Value.
	SetValue(UInt64) [▶ 1102]	Gets the UInt64 integer of the Value.
	SetValue(Access) [▶ 1103]	Gets the Access [▶ 766] of the Value.
	SetValue(Alarm) [▶ 1103]	Gets the Alarm [▶ 767] of the Value.
	SetValue(Event) [▶ 1104]	Gets the Event [▶ 850] of the Value.
	SetValue(Message) [▶ 1104]	Gets the Message [▶ 924] of the Value.
	SetValue(Severity) [▶ 1105]	Gets the Severity [▶ 951] of the Value.
	ShallowCopy [▶ 1105]	Creates a new Value that is a shallow copy of the current Value.
	ToAccess [▶ 1106]	Converts this instance of the Value class to the appropriate Access [▶ 766].
	ToAlarm [▶ 1106]	Converts this instance of the Value class to the appropriate Alarm [▶ 767].
	ToArray [▶ 1107]	Converts this instance of the Value class to the appropriate Array .

	Name	Description
	ToBoolean. [► 1107]	Converts this instance of the Value class to the appropriate Boolean .
	ToBoolean(IFormatProvider) [► 1108]	Converts the Value to an equivalent Boolean value using the specified IFormatProvider .
	ToByte. [► 1109]	Converts this instance of the Value class to the appropriate Byte .
	ToByte(IFormatProvider) [► 1109]	Converts the Value to an equivalent Byte using the specified IFormatProvider .
	ToBytes [► 1110]	Converts this instance of the Value class to the appropriate array of Bytes .
	ToChar. [► 1111]	Converts this instance of the Value class to the appropriate Char .
	ToChar(IFormatProvider) [► 1111]	Converts the Value to an equivalent Char using the specified IFormatProvider .
	ToDateTime. [► 1112]	Converts this instance of the Value class to the appropriate instance of the DateTime class.
	ToDateTime(IFormatProvider) [► 1112]	Converts the Value to an equivalent DateTime using the specified IFormatProvider .
	ToDecimal. [► 1113]	Converts this instance of the Value class to the appropriate Decimal .
	ToDecimal(IFormatProvider) [► 1114]	Converts the Value to an equivalent Decimal value using the specified IFormatProvider .
	ToDouble. [► 1115]	Converts this instance of the Value class to the appropriate Double -precision floating-point number.
	ToDouble(IFormatProvider) [► 1115]	Converts the Value to an equivalent Double -precision floating-point number using the specified IFormatProvider .
	ToEvent [► 1116]	Converts this instance of the Value class to the appropriate Event [► 850].
	ToInt16. [► 1117]	Converts this instance of the Value class to the appropriate Int16 .
	ToInt16(IFormatProvider) [► 1117]	Converts the Value to an equivalent Int16 integer using the specified IFormatProvider .
	ToInt32. [► 1118]	Converts this instance of the Value class to the appropriate Int32 .

	Name	Description
	ToInt32(IFormatProvider) [► 1118]	Converts the Value to an equivalent Int32 using the specified IFormatProvider .
	ToInt64 [► 1119]	Converts this instance of the Value class to the appropriate Int64 .
	ToInt64(IFormatProvider) [► 1120]	Converts the Value to an equivalent Int64 integer using the specified IFormatProvider .
	ToMessage [► 1120]	Converts this instance of the Value class to the appropriate Message [► 924].
	ToSByte [► 1121]	Converts this instance of the Value class to the appropriate SByte .
	ToSByte(IFormatProvider) [► 1122]	Converts the Value to an equivalent SByte using the specified IFormatProvider .
	ToSeverity [► 1122]	Converts this instance of the Value class to the appropriate Severity [► 951].
	ToSingle [► 1123]	Converts this instance of the Value class to the appropriate Single -precision floating-point number.
	ToSingle(IFormatProvider) [► 1123]	Converts the Value to an equivalent Single -precision floating-point number using the specified IFormatProvider .
	ToString [► 1124]	Returns a String that represents the current Value. (Overrides Object.ToString .)
	ToString(IFormatProvider) [► 1125]	Converts the Value to an equivalent String using the specified IFormatProvider .
	ToTimeSpan [► 1125]	Converts this instance of the Value class to the appropriate instance of the TimeSpan class.
	ToType [► 1126]	Converts the Value to an equivalent Object of the specified Type using the specified IFormatProvider .
	ToUInt16 [► 1127]	Converts this instance of the Value class to the appropriate UInt16 .
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value to an equivalent UInt16 integer using the specified IFormatProvider .
	ToUInt32 [► 1128]	Converts this instance of the Value class to the appropriate UInt32 .
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value to an equivalent UInt32 using the specified IFormatProvider .
	ToUInt64 [► 1130]	Converts this instance of the Value class to the appropriate UInt64 .

	Name	Description
	<u>ToUInt64(IFormatProvider)</u> [► 1130]	Converts the Value to an equivalent <u>UInt64</u> integer using the specified <u>IFormatProvider</u> .
	<u>ToValue</u> [► 1131]	Returns the current Value.
	<u>TryGetValue</u> [► 1131]	Gets the Value associated with the specified key.

Operators

	Name	Description
 	Equality [► 1137]	Determines whether two instances of the Value class are equal.
 	GreaterThan [► 1138]	Determines whether the current instance of the Value class is greater than another instance.
 	GreaterThanOrEqual [► 1138]	Determines whether the current instance of the Value class is greater than or equal to another instance.
 	.Boolean to Value [► 1144]	Converts a Boolean value to the appropriate instance of the Value class.
 	.Byte to Value [► 1144]	Converts an Byte to the appropriate instance of the Value class.
 	.Byte. to Value [► 1145]	Converts an array of Bytes to the appropriate instance of the Value class.
 	.Char to Value [► 1145]	Converts a Char to the appropriate instance of the Value class.
 	.DateTime to Value [► 1146]	Converts an instance of the DateTime class to the appropriate instance of the Value class.
 	.Decimal to Value [► 1146]	Converts a Decimal value to the appropriate instance of the Value class.
 	.Double to Value [► 1147]	Converts a Double -precision floating-point number to the appropriate instance of the Value class.
 	.Int16 to Value [► 1147]	Converts an Int16 to the appropriate instance of the Value class.
 	.Int32 to Value [► 1148]	Converts an Int32 to the appropriate instance of the Value class.
 	.Int64 to Value [► 1148]	Converts a Int64 to the appropriate instance of the Value class.
 	.SByte to Value [► 1149]	Converts an SByte to the appropriate instance of the Value class.
 	.Single to Value [► 1149]	Converts a Single -precision floating-point number to the appropriate instance of the Value class.

	Name	Description
 	.String to Value [► 1150]	Converts a String to the appropriate instance of the Value class.
 	.TimeSpan to Value [► 1151]	Converts an instance of the TimeSpan class to the appropriate instance of the Value class.
 	.UInt16 to Value [► 1151]	Converts an UInt16 to the appropriate instance of the Value class.
 	.UInt32 to Value [► 1152]	Converts an UInt32 to the appropriate instance of the Value class.
 	.UInt64 to Value [► 1152]	Converts a UInt64 to the appropriate instance of the Value class.
 	.Access to Value [► 1153]	Converts an Access [► 766] to the appropriate instance of the Value class.
 	.Alarm to Value [► 1153]	Converts an Alarm [► 767] to the appropriate instance of the Value class.
 	.Event to Value [► 1154]	Converts an Event [► 850] to the appropriate instance of the Value class.
 	.Message to Value [► 1154]	Converts an Message [► 924] to the appropriate instance of the Value class.
 	.Severity to Value [► 1155]	Converts a Severity [► 951] to the appropriate instance of the Value class.
 	.Value to Boolean [► 1155]	Converts an instance of the Value class to the appropriate Boolean value.
 	.Value to Byte [► 1156]	Converts an instance of the Value class to the appropriate Byte .
 	.Value to SByte [► 1156]	Converts an instance of the Value class to the appropriate SByte .
 	.Value to Char [► 1157]	Converts an instance of the Value class to the appropriate Char .
 	.Value to Int16 [► 1158]	Converts an instance of the Value class to the appropriate Int16 .

	Name	Description
 	.Value to UInt16 [► 1158]	Converts an instance of the Value class to the appropriate UInt16 .
 	.Value to Int32 [► 1159]	Converts an instance of the Value class to the appropriate Int32 .
 	.Value to UInt32 [► 1159]	Converts an instance of the Value class to the appropriate UInt32 .
 	.Value to Int64 [► 1160]	Converts an instance of the Value class to the appropriate Int64 .
 	.Value to UInt64 [► 1160]	Converts an instance of the Value class to the appropriate UInt64 .
 	.Value to Single [► 1161]	Converts an instance of the Value class to the appropriate Single -precision floating-point number.
 	.Value to Double [► 1161]	Converts an instance of the Value class to the appropriate Double -precision floating-point number.
 	.Value to String [► 1162]	Converts an instance of the Value class to the appropriate String .
 	.Value to Access [► 1162]	Converts an instance of the Value class to the appropriate Access [► 766].
 	.Value to Alarm [► 1163]	Converts an instance of the Value class to the appropriate Alarm [► 767].
 	.Value to Event [► 1163]	Converts an instance of the Value class to the appropriate Event [► 850].
 	.Value to Message [► 1164]	Converts an instance of the Value class to the appropriate Message [► 924].
 	.Value to Severity [► 1165]	Converts an instance of the Value class to the appropriate Severity [► 951].
 	.Value to DateTime [► 1165]	Converts an instance of the Value class to the appropriate instance of the DateTime class.
 	.Value to TimeSpan [► 1166]	Converts an instance of the Value class to the appropriate instance of the TimeSpan class.

	Name	Description
 	<u>.(Value to Decimal)</u> [► 1166]	Converts an instance of the Value class to the appropriate <u>Decimal</u> value.
 	<u>.(Value to .Byte.)</u> [► 1167]	Converts an instance of the Value class to the appropriate array of <u>Bytes</u> .
 	<u>Inequality</u> [► 1167]	Determines whether two instances of the Value class are not equal.
 	<u>LessThan</u> [► 1168]	Determines whether the current instance of the Value class is less than another instance.
 	<u>LessThanOrEqual</u> [► 1168]	Determines whether the current instance of the Value class is less than or equal to another instance.

Extension Methods

	Name	Description
	OrderBy [► 1761]	Sorts the Values of a sequence according to the specified String . (Defined by ValueExtensions [► 1760].)
	ResolveBy(Queue.String.) [► 1175]	Overloaded. Resolves the current Value by the specified Queue.T. of elements. (Defined by ValueExtensions [► 1173].)
	ResolveBy(String) [► 1176]	Overloaded. Resolves the current Value by the specified path. (Defined by ValueExtensions [► 1173].)
	ToJson. [► 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean) [► 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean, Boolean) [► 1619]	Overloaded. Returns a JSON String that represents the current Value. (Defined by ValueExtensions [► 1614].)
	ToJsonValue [► 1620]	Returns a JsonValue [► 1542] that contains an unformatted JSON String representing the current Value. (Defined by ValueExtensions [► 1614].)
	TryResolveBy(Queue.String., Value.) [► 1177]	Overloaded. Resolves the current Value by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)
	TryResolveBy(String, Value.) [► 1178]	Overloaded. Resolves the current Value by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)

Reference

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1 Value Constructor

Overload List

	Name	Description
	Value [▶ 979]	Initializes a new instance of the Value [▶ 952] class.
	Value(Boolean) [▶ 979]	Initializes a new instance of the Value [▶ 952] class with the specified Boolean value.
	Value(Byte) [▶ 980]	Initializes a new instance of the Value [▶ 952] class with the specified Byte .
	Value(Byte.) [▶ 980]	Initializes a new instance of the Value [▶ 952] class with the specified Bytes .
	Value(Char) [▶ 981]	Initializes a new instance of the Value [▶ 952] class with the specified Char .
	Value(IDictionary.String, Value.) [▶ 981]	Initializes a new instance of the Value [▶ 952] class with the specified IDictionary.TKey, TValue .
	Value(DateTime) [▶ 982]	Initializes a new instance of the Value [▶ 952] class with the specified DateTime .
	Value(Decimal) [▶ 982]	Initializes a new instance of the Value [▶ 952] class with the specified Decimal value.
	Value(Double) [▶ 983]	Initializes a new instance of the Value [▶ 952] class with the specified Double -precision floating-point number.
	Value(Int16) [▶ 983]	Initializes a new instance of the Value [▶ 952] class with the specified Int16 integer.
	Value(Int32) [▶ 983]	Initializes a new instance of the Value [▶ 952] class with the specified Int32 .
	Value(Int64) [▶ 984]	Initializes a new instance of the Value [▶ 952] class with the specified Int64 integer.
	Value(SByte) [▶ 984]	Initializes a new instance of the Value [▶ 952] class with the specified SByte .
	Value(Single) [▶ 985]	Initializes a new instance of the Value [▶ 952] class with the specified Single -precision floating-point number.
	Value(String) [▶ 985]	Initializes a new instance of the Value [▶ 952] class with the specified String .
	Value(TimeSpan) [▶ 986]	Initializes a new instance of the Value [▶ 952] class with the specified TimeSpan .
	Value(UInt16) [▶ 986]	Initializes a new instance of the Value [▶ 952] class with the specified UInt16 integer.
	Value(UInt32) [▶ 987]	Initializes a new instance of the Value [▶ 952] class with the specified UInt32 .
	Value(UInt64) [▶ 987]	Initializes a new instance of the Value [▶ 952] class with the specified UInt64 integer.
	Value(Access) [▶ 988]	Initializes a new instance of the Value [▶ 952] class with the specified Access [▶ 766].

	Name	Description
	Value(Alarm) [► 988]	Initializes a new instance of the Value [► 952] class with the specified Alarm [► 767] .
	Value(Event) [► 988]	Initializes a new instance of the Value [► 952] class with the specified Event [► 850] .
	Value(Message) [► 989]	Initializes a new instance of the Value [► 952] class with the specified Message [► 924] .
	Value(Severity) [► 989]	Initializes a new instance of the Value [► 952] class with the specified Severity [► 951] .
	Value(Enumerable.Value) [► 990]	Initializes a new instance of the Value [► 952] class with the specified IEnumerable.T .
	Value(ICollection.Value) [► 990]	Initializes a new instance of the Value [► 952] class with the specified IEnumerable.T .
	Value(Value) [► 991]	Initializes a new instance of the Value [► 952] class with the specified Array .

Reference

[Value Class](#) [\[► 952\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.1.1 Value Constructor

Initializes a new instance of the [Value](#) [\[► 952\]](#) class.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value()
```

Reference

[Value Class](#) [\[► 952\]](#)

[Value Overload](#) [\[► 977\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.1.2 Value Constructor (Boolean)

Initializes a new instance of the [Value](#) [\[► 952\]](#) class with the specified [Boolean](#) value.

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    bool value  
)
```

Parameters

value Type: [System.Boolean](#)
The initial value of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[Value Overload](#) [[▶ 977](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.1.3 Value Constructor (Byte)

Initializes a new instance of the [Value](#) [[▶ 952](#)] class with the specified [Byte](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    byte value  
)
```

Parameters

value Type: [System.Byte](#)
The initial value of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[Value Overload](#) [[▶ 977](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.1.4 Value Constructor (.Byte.)

Initializes a new instance of the [Value](#) [[▶ 952](#)] class with the specified [Bytes](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    byte[] value  
)
```


Parameters

value Type: [System.Byte](#).
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.5 *Value Constructor (Char)*

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [Char](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    char value  
)
```

Parameters

value Type: [System.Char](#)
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.6 *Value Constructor (IDictionary.String, Value.)*

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [IDictionary.TKey, TValue.](#)

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    IDictionary<string, Value> dictionary  
)
```

Parameters

dictionary Type: [System.Collections.Generic.IDictionary.String, Value \[► 952\]](#).
The [IDictionary.TKey, TValue.](#) whose keys and [Value \[► 952\]](#)s are copied to the new [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.7 Value Constructor (DateTime)

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [DateTime](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    DateTime value  
)
```

Parameters

value Type: [System.DateTime](#)
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.8 Value Constructor (Decimal)

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [Decimal](#) value.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    decimal value  
)
```

Parameters

value Type: [System.Decimal](#)
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.9 Value Constructor (Double)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    double value  
)
```

Parameters

value Type: [System.Double](#)
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.10 Value Constructor (Int16)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Int16](#) integer.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    short value  
)
```

Parameters

value Type: [System.Int16](#)
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.11 Value Constructor (Int32)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Int32](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    int value  
)
```

Parameters

value Type: [System.Int32](#)
The initial value of the [Value](#) [► 952].

Return Value

Type:
A new instance of the [Value](#) [► 952] class.

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.12 Value Constructor (Int64)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Int64](#) integer.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    long value  
)
```

Parameters

value Type: [System.Int64](#)
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.13 Value Constructor (SByte)

Initializes a new instance of the [Value](#) [► 952] class with the specified [SByte](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    sbyte value  
)
```

Parameters

value Type: [System.SByte](#)
The initial value of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[Value Overload](#) [[▶ 977](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.1.14 *Value Constructor (Single)*

Initializes a new instance of the [Value](#) [[▶ 952](#)] class with the specified [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    float value  
)
```

Parameters

value Type: [System.Single](#)
The initial value of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[Value Overload](#) [[▶ 977](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.1.15 *Value Constructor (String)*

Initializes a new instance of the [Value](#) [[▶ 952](#)] class with the specified [String](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    string value  
)
```

Parameters

value Type: `System.String`
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.16 Value Constructor (TimeSpan)

Initializes a new instance of the [Value](#) [► 952] class with the specified [TimeSpan](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    TimeSpan value  
)
```

Parameters

value Type: `System.TimeSpan`
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.17 Value Constructor (UInt16)

Initializes a new instance of the [Value](#) [► 952] class with the specified [UInt16](#) integer.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    ushort value  
)
```

Parameters

value Type: `System.UInt16`
The initial value of the [Value](#) [► 952].

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.18 Value Constructor (UInt32)

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [UInt32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    uint value  
)
```

Parameters

value Type: [System.UInt32](#)
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.19 Value Constructor (UInt64)

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [UInt64](#) integer.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    ulong value  
)
```

Parameters

value Type: [System.UInt64](#)
The initial value of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.20 Value Constructor (Access)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Access](#) [► 766].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Access value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Access](#) [► 766]
 The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.21 Value Constructor (Alarm)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Alarm value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Alarm](#) [► 767]
 The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.22 Value Constructor (Event)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Event value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Event](#) [► 850]
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.23 Value Constructor (Message)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Message](#) [► 924].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Message value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message](#) [► 924]
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.24 Value Constructor (Severity)

Initializes a new instance of the [Value](#) [► 952] class with the specified [Severity](#) [► 951].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Severity value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Severity](#) [► 951]
The initial value of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.25 *Value Constructor (IEnumerable.Value.)*

Initializes a new instance of the [Value](#) [► 952] class with the specified [IEnumerable.T.](#)

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    IEnumerable<Value> collection  
)
```

Parameters

collection Type: [System.Collections.Generic.IEnumerable.Value](#) [► 952].
The [IEnumerable.T.](#) whose [Value](#) [► 952]s are copied to the new [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[Value Overload](#) [► 977]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.1.26 *Value Constructor (IList.Value.)*

Initializes a new instance of the [Value](#) [► 952] class with the specified [IEnumerable.T.](#)

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    IList<Value> list  
)
```

Parameters

list Type: [System.Collections.Generic.IList.Value](#) [► 952].
The [IList.T.](#) containing the [Value](#) [► 952]s of the new [Value](#) [► 952].

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.1.27 *Value Constructor (.Value.)*

Initializes a new instance of the [Value \[► 952\]](#) class with the specified [Array](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value(  
    Value[] array  
)
```

Parameters

array Type: [.TcHmiSrv.Core.Value \[► 952\]](#).
The [Array](#) containing the [Value \[► 952\]](#)s of the new [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[Value Overload \[► 977\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2 *Value Properties*

The [Value \[► 952\]](#) type exposes the following members.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952] s the internal data structure can hold without resizing.
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String .
	Count [► 993]	Gets the number of Value [► 952] s contained in the Value [► 952] .
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array .
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty.
	IsFixedSize [► 995]	
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169] .
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169] .
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169] , Double [► 1169] or Int64 [► 1169] .
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only.
	IsSynchronized [► 997]	
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169] .
	Item.Int32 [► 998]	Gets or sets the Value [► 952] at the specified index.
	Item.String [► 998]	Gets or sets the Value [► 952] with the specified key.
	Keys [► 999]	Gets an ICollection.T , containing the keys of the Value [► 952] .
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array .
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array .
	SyncRoot [► 1000]	
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952] .
	Values [► 1001]	Gets an ICollection.T , containing the Value [► 952] s in the Value [► 952] .

Reference

[Value Class](#) [\[► 952\]](#)[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.2.1 *Value.Capacity Property*

Contains the total number of [Value \[► 952\]](#)s the internal data structure can hold without resizing.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Capacity { get; set; }
```

Property Value

Type: [Int32](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.2 *Value.ContainsJson Property*

Gets a value that indicates whether the [Value \[► 952\]](#) contains a JSON [String](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool ContainsJson { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.3 *Value.Count Property*

Gets the number of [Value \[► 952\]](#)s contained in the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Count { get; }
```

Property Value

Type: [Int32](#)

Implements

[ICollection.Count](#)

[ICollection.T.Count](#)

[ICollection.T.Count](#)

[IReadOnlyCollection.T.Count](#)

[IReadOnlyCollection.T.Count](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.4 *Value.IsArray Property*

Gets a value that indicates whether the [Value \[► 952\]](#) is an [Array](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsArray { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.5 *Value.IsEmpty Property*

Gets a value that indicates whether the [Value \[► 952\]](#) is empty.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsEmpty { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.6 *Value.IsFixedSize Property*

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsFixedSize { get; }
```

Property Value

Type: [Boolean](#)

Implements

[IDictionary.IsFixedSize](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.7 *Value.IsMapOrStruct Property*

Gets a value that indicates whether [Type \[► 1001\]](#) equals [Map \[► 1169\]](#) or [Struct \[► 1169\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsMapOrStruct { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.8 *Value.IsNull Property*

Gets a value that indicates whether [Type \[► 1001\]](#) equals [Null \[► 1169\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsNull { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.2.9 *Value.IsNumber Property*

Gets a value that indicates whether [Type](#) [► 1001] equals [Int32](#) [► 1169], [Double](#) [► 1169] or [Int64](#) [► 1169].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public bool IsNumber { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.2.10 *Value.IsReadOnly Property*

Gets a value that indicates whether the [Value](#) [► 952] is read-only.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public virtual bool IsReadOnly { get; }
```

Property Value

Type: [Boolean](#)

Implements

[IDictionary.IsReadOnly](#)

[ICollection.T..IsReadOnly](#)

[ICollection.T..IsReadOnly](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.2.11 Value.IsSynchronized Property

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsSynchronized { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.IsSynchronized](#)

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.2.12 Value.IsVector Property

Gets a value that indicates whether [Type \[▸ 1001\]](#) equals [Vector \[▸ 1169\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsVector { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.2.13 Value.Item Property

Overload List

	Name	Description
	Item.Int32. [▸ 998]	Gets or sets the Value [▸ 952] at the specified index.
	Item.String. [▸ 998]	Gets or sets the Value [▸ 952] with the specified key.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.13.1 Value.Item Property (Int32)

Gets or sets the [Value \[► 952\]](#) at the specified index.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value this[
    int index
] { get; set; }
```

Parameters

index Type: [System.Int32](#)
The zero-based index of the [Value \[► 952\]](#) to get or set.

Return Value

Type: [Value \[► 952\]](#)
The [Value \[► 952\]](#) at the specified index.

Implements

[IList.T..Item.Int32.](#)

Reference

[Value Class \[► 952\]](#)

[Item Overload \[► 997\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.13.2 Value.Item Property (String)

Gets or sets the [Value \[► 952\]](#) with the specified key.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value this[
    string key
] { get; set; }
```

Parameters

key Type: [System.String](#)
The key of the [Value \[▸ 952\]](#) to get or set.

Return Value

Type: [Value \[▸ 952\]](#)
The [Value \[▸ 952\]](#) with the specified key.

Implements

[IDictionary.Item](#).
[IReadOnlyDictionary.Item](#).

Reference

[Value Class \[▸ 952\]](#)

[Item Overload \[▸ 997\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.2.14 ***Value.Keys Property***

Gets an [ICollection<T>](#) containing the keys of the [Value \[▸ 952\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ICollection<string> Keys { get; }
```

Property Value

Type: [ICollection<String>](#).

Implements

[IDictionary<TKey, TValue>.Keys](#)

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.2.15 ***Value.Length Property***

Gets the total number of elements in all the dimensions of the [Array](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Length { get; }
```

Property Value

Type: [Int32](#)

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.2.16 *Value.LongLength Property*

Gets a 64-bit integer that represents the total number of elements in all the dimensions of the [Array](#).

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public long LongLength { get; }
```

Property Value

Type: [Int64](#)

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.2.17 *Value.SyncRoot Property*

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Object SyncRoot { get; }
```

Property Value

Type: [Object](#)

Implements

[ICollection.SyncRoot](#)

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.2.18 Value.Type Property

Contains the [ValueType](#) [► 1169] of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueType Type { get; set; }
```

Property Value

Type: [ValueType](#) [► 1169]

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.2.19 Value.Values Property

Gets an [ICollection.T](#). containing the [Value](#) [► 952]s in the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ICollection<Value> Values { get; }
```

Property Value

Type: [ICollection.Value](#) [► 952].

Implements

[IDictionary.TKey, TValue..Values](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3 Value Methods

The [Value](#) [► 952] type exposes the following members.

Methods

	Name	Description
	Add(KeyValuePair.String, Value.) [► 1016]	Adds a KeyValuePair.TKey, TValue. to the Value [► 952] .
	Add(Value) [► 1016]	Adds the specified Value [► 952] to the Value [► 952] .
	Add(String, Value) [► 1017]	Adds a Value [► 952] with the specified key to the Value [► 952] .
	AddOrUpdate [► 1018]	Adds a Value [► 952] with the specified key to the Value [► 952] if the key does not already exist, or updates a Value [► 952] in the Value [► 952] if the key already exists.
	AddRange [► 1018]	Adds the specified Value [► 952] s to the end of the Value [► 952] .
	ChangeType [► 1018]	Changes the Type [► 1001] of this Value [► 952] to the specified ValueType [► 1169] and adjusts the containing data.
	Clear [► 1019]	Removes all Value [► 952] s from the Value [► 952] .
	CompareTo(Boolean) [► 1023]	Compares the current Value [► 952] with another Boolean value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value.
	CompareTo(Byte) [► 1024]	Compares the current Value [► 952] with another Byte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Byte .
	CompareTo(Byte.) [► 1024]	Compares the current Value [► 952] with other Bytes and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes .
	CompareTo(Char) [► 1025]	Compares the current Value [► 952] with another Char and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Char .
	CompareTo(DateTime) [► 1026]	Compares the current Value [► 952] with another DateTime and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime .
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value.

	Name	Description
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number.
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 .
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 .
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 .
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte .
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number.
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String .
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan .
	CompareTo(UInt16) [► 1033]	Compares the current Value [► 952] with another UInt16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 .
	CompareTo(UInt32) [► 1033]	Compares the current Value [► 952] with another UInt32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 .

	Name	Description
	CompareTo(UInt64) [► 1034]	Compares the current Value [► 952] with another UInt64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 .
	CompareTo(Access) [► 1035]	Compares the current Value [► 952] with another Access [► 766] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Access [► 766].
	CompareTo(Alarm) [► 1035]	Compares the current Value [► 952] with another Alarm [► 767] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767].
	CompareTo(Event) [► 1036]	Compares the current Value [► 952] with another Event [► 850] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850].
	CompareTo(Message) [► 1037]	Compares the current Value [► 952] with another Message [► 924] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Message [► 924].
	CompareTo(Severity) [► 1037]	Compares the current Value [► 952] with another Severity [► 951] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [► 951].
	CompareTo(Value) [► 1038]	Compares the current Value [► 952] with another Value [► 952] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Value [► 952].
	Contains(KeyValuePair.String, Value.) [► 1039]	Determines whether the Value [► 952] contains the specified KeyValuePair.TKey, TValue.
	Contains(Value) [► 1040]	Determines whether the Value [► 952] contains the specified Value [► 952].
	ContainsKey [► 1040]	Determines whether the Value [► 952] contains a Value [► 952] with the specified key.
	CopyTo(KeyValuePair.String, Value..., Int32) [► 1041]	Copies the KeyValuePair.TKey, TValue.s of the Value [► 952] to the specified Array , starting at the specified index.

	Name	Description
	CopyTo(Value, Int32) [▶ 1042]	Copies the Value [▶ 952]s of the Value [▶ 952] to the specified Array , starting at the specified index.
	DeepCopy [▶ 1043]	Creates a new object that is a deep copy of the current Value [▶ 952].
	Equals(Boolean) [▶ 1046]	Indicates whether the current Value [▶ 952] is equal to another Boolean value.
	Equals(Byte) [▶ 1046]	Indicates whether the current Value [▶ 952] is equal to another Byte .
	Equals(Byte[]) [▶ 1047]	Indicates whether the current Value [▶ 952] is equal to another Array of Bytes .
	Equals(Char) [▶ 1048]	Indicates whether the current Value [▶ 952] is equal to another Char .
	Equals(DateTime) [▶ 1048]	Indicates whether the current Value [▶ 952] is equal to another DateTime .
	Equals(Decimal) [▶ 1049]	Indicates whether the current Value [▶ 952] is equal to another Decimal value.
	Equals(Double) [▶ 1050]	Indicates whether the current Value [▶ 952] is equal to another Double -precision floating-point number.
	Equals(Int16) [▶ 1050]	Indicates whether the current Value [▶ 952] is equal to another Int16 .
	Equals(Int32) [▶ 1051]	Indicates whether the current Value [▶ 952] is equal to another Int32 .
	Equals(Int64) [▶ 1052]	Indicates whether the current Value [▶ 952] is equal to another Int64 .
	Equals(Object) [▶ 1052]	Determines whether the specified Object is equal to the current Value [▶ 952]. (Overrides Object.Equals(Object) .)
	Equals(SByte) [▶ 1053]	Indicates whether the current Value [▶ 952] is equal to another SByte .
	Equals(Single) [▶ 1053]	Indicates whether the current Value [▶ 952] is equal to another Single -precision floating-point number.
	Equals(String) [▶ 1054]	Indicates whether the current Value [▶ 952] is equal to another String .
	Equals(TimeSpan) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another TimeSpan .
	Equals(UInt16) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another UInt16 .
	Equals(UInt32) [▶ 1056]	Indicates whether the current Value [▶ 952] is equal to another UInt32 .

	Name	Description
	Equals(UInt64) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another UInt64 .
	Equals(Access) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another Access [▶ 766].
	Equals(Alarm) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Alarm [▶ 767].
	Equals(Event) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Event [▶ 850].
	Equals(Message) [▶ 1059]	Indicates whether the current Value [▶ 952] is equal to another Message [▶ 924].
	Equals(Severity) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Severity [▶ 951].
	Equals(Value) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Value [▶ 952].
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
 	FromAccess [▶ 1061]	Converts an instance of the Value [▶ 952] class to the appropriate Access [▶ 766].
 	FromAlarm [▶ 1062]	Converts an Alarm [▶ 767] to the appropriate instance of the Value [▶ 952] class.
 	FromBoolean [▶ 1062]	Converts a Boolean value to the appropriate instance of the Value [▶ 952] class.
 	FromByte [▶ 1063]	Converts an Byte to the appropriate instance of the Value [▶ 952] class.
 	FromBytes [▶ 1063]	Converts an array of Bytes to the appropriate instance of the Value [▶ 952] class.
 	FromChar [▶ 1064]	Converts a Char to the appropriate instance of the Value [▶ 952] class.
 	FromDateTime [▶ 1064]	Converts an instance of the DateTime class to the appropriate instance of the Value [▶ 952] class.
 	FromDecimal [▶ 1065]	Converts a Decimal value to the appropriate instance of the Value [▶ 952] class.
 	FromDouble [▶ 1065]	Converts a Double -precision floating-point number to the appropriate instance of the Value [▶ 952] class.
 	FromEvent [▶ 1066]	Converts an Event [▶ 850] to the appropriate instance of the Value [▶ 952] class.

	Name	Description
	FromInt16 [► 1066]	Converts an Int16 to the appropriate instance of the Value [► 952] class.
	FromInt32 [► 1067]	Converts an Int32 to the appropriate instance of the Value [► 952] class.
	FromInt64 [► 1067]	Converts a Int64 to the appropriate instance of the Value [► 952] class.
	FromMessage [► 1068]	Converts an Message [► 924] to the appropriate instance of the Value [► 952] class.
	FromSByte [► 1068]	Converts an SByte to the appropriate instance of the Value [► 952] class.
	FromSeverity [► 1069]	Converts a Severity [► 951] to the appropriate instance of the Value [► 952] class.
	FromSingle [► 1069]	Converts a Single -precision floating-point number to the appropriate instance of the Value [► 952] class.
	FromString [► 1070]	Converts a String to the appropriate instance of the Value [► 952] class.
	FromTimeSpan [► 1070]	Converts an instance of the TimeSpan class to the appropriate instance of the Value [► 952] class.
	FromUInt16 [► 1071]	Converts an UInt16 to the appropriate instance of the Value [► 952] class.
	FromUInt32 [► 1071]	Converts an UInt32 to the appropriate instance of the Value [► 952] class.
	FromUInt64 [► 1072]	Converts a UInt64 to the appropriate instance of the Value [► 952] class.
	GetAccess [► 1072]	Gets the Access [► 766] of the Value [► 952].
	GetAlarm [► 1072]	Gets the Alarm [► 767] of the Value [► 952].
	GetBool. [► 1073]	Gets the Boolean value of the Value [► 952].
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information.
	GetByte [► 1074]	Gets the Byte of the Value [► 952].
	GetBytes [► 1074]	Gets the Bytes of the Value [► 952].

	Name	Description
	GetChar [► 1075]	Gets the Char of the Value [► 952].
	GetDateTime . [► 1076]	Gets the DateTime of the Value [► 952].
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value [► 952], using the specified culture-specific formatting information.
	GetDecimal [► 1077]	Gets the Decimal value of the Value [► 952].
	GetDouble . [► 1077]	Gets the Double -precision floating-point number of the Value [► 952].
	GetDouble(IFormatProvider) [► 1078]	Gets the Double -precision floating-point number of the Value [► 952], using the specified culture-specific formatting information.
	GetEvent [► 1078]	Gets the Event [► 850] of the Value [► 952].
	GetHashCode [► 1079]	Serves as the default hash function. (Overrides Object.GetHashCode ..)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value [► 952].
	GetInt32 . [► 1080]	Gets the Int32 of the Value [► 952].
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952], using the specified culture-specific formatting information.
	GetInt64 . [► 1081]	Gets the Int64 integer of the Value [► 952].
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value [► 952], using the specified culture-specific formatting information.
	GetMessage [► 1082]	Gets the Message [► 924] of the Value [► 952].
	GetSByte [► 1083]	Gets the SByte of the Value [► 952].
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952].
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952].
	GetString . [► 1084]	Gets the String of the Value [► 952].
	GetString(IFormatProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information.

	Name	Description
	GetTimeSpan [► 1085]	Gets the TimeSpan of the Value [► 952] .
	GetTimeSpan(IFormatProvider) [► 1086]	Gets the TimeSpan of the Value [► 952] , using the specified culture-specific formatting information.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952] .
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952] .
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952] .
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952] .
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952] .
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index.
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyValuePair<String, Value>) [► 1089]	Removes the first occurrence of the specified KeyValuePair<TKey, TValue> from the Value [► 952] .
	Remove(String) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952] .
	Remove(Value) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952] .
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index.
	RemoveRange [► 1092]	Removes a range of Value [► 952] s from the Value [► 952] .
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952] .
	SetValue(Byte) [► 1095]	Gets the Byte of the Value [► 952] .
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value [► 952] .

	Name	Description
	SetValue(Char) [► 1096]	Gets the Char of the Value [► 952].
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value [► 952].
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value [► 952].
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value [► 952].
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value [► 952].
	SetValue(Int32) [► 1099]	Gets the Int32 of the Value [► 952].
	SetValue(Int64) [► 1099]	Gets the Int64 integer of the Value [► 952].
	SetValue(SByte) [► 1099]	Gets the SByte of the Value [► 952].
	SetValue(Single) [► 1100]	Gets the Single -precision floating-point number of the Value [► 952].
	SetValue(String) [► 1100]	Gets the String of the Value [► 952].
	SetValue(TimeSpan) [► 1101]	Gets the TimeSpan of the Value [► 952].
	SetValue(UInt16) [► 1101]	Gets the UInt16 integer of the Value [► 952].
	SetValue(UInt32) [► 1102]	Gets the UInt32 of the Value [► 952].
	SetValue(UInt64) [► 1102]	Gets the UInt64 integer of the Value [► 952].
	SetValue(Access) [► 1103]	Gets the Access [► 766] of the Value [► 952].
	SetValue(Alarm) [► 1103]	Gets the Alarm [► 767] of the Value [► 952].
	SetValue(Event) [► 1104]	Gets the Event [► 850] of the Value [► 952].

	Name	Description
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952].
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952].
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952].
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766].
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767].
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array .
	ToBoolean [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean .
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider .
	ToByte [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte .
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider .
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes .
	ToChar [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char .
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider .
	ToDateTime [▸ 1112]	Converts this instance of the Value [▸ 952] class to the appropriate instance of the DateTime class.
	ToDateTime(IFormatProvider) [▸ 1112]	Converts the Value [▸ 952] to an equivalent DateTime using the specified IFormatProvider .
	ToDecimal [▸ 1113]	Converts this instance of the Value [▸ 952] class to the appropriate Decimal .
	ToDecimal(IFormatProvider) [▸ 1114]	Converts the Value [▸ 952] to an equivalent Decimal value using the specified IFormatProvider .
	ToDouble [▸ 1115]	Converts this instance of the Value [▸ 952] class to the appropriate Double -precision floating-point number.

	Name	Description
	ToDouble(IFormatProvider) [► 1115]	Converts the Value [► 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider .
	ToEvent [► 1116]	Converts this instance of the Value [► 952] class to the appropriate Event [► 850].
	ToInt16 [► 1117]	Converts this instance of the Value [► 952] class to the appropriate Int16 .
	ToInt16(IFormatProvider) [► 1117]	Converts the Value [► 952] to an equivalent Int16 integer using the specified IFormatProvider .
	ToInt32 [► 1118]	Converts this instance of the Value [► 952] class to the appropriate Int32 .
	ToInt32(IFormatProvider) [► 1118]	Converts the Value [► 952] to an equivalent Int32 using the specified IFormatProvider .
	ToInt64 [► 1119]	Converts this instance of the Value [► 952] class to the appropriate Int64 .
	ToInt64(IFormatProvider) [► 1120]	Converts the Value [► 952] to an equivalent Int64 integer using the specified IFormatProvider .
	ToMessage [► 1120]	Converts this instance of the Value [► 952] class to the appropriate Message [► 924].
	ToSByte [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte .
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider .
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951].
	ToSingle [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number.
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider .
	ToString [► 1124]	Returns a String that represents the current Value [► 952]. (Overrides Object.ToString .)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider .
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class.

	Name	Description
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider .
	ToUInt16 [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 .
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider .
	ToUInt32 [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 .
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider .
	ToUInt64 [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 .
	ToUInt64(IFormatProvider) [► 1130]	Converts the Value [► 952] to an equivalent UInt64 integer using the specified IFormatProvider .
	ToValue [► 1131]	Returns the current Value [► 952] .
	TryGetValue [► 1131]	Gets the Value [► 952] associated with the specified key.

Extension Methods

	Name	Description
	OrderBy [► 1761]	Sorts the Value [► 952]s of a sequence according to the specified String . (Defined by ValueExtensions [► 1760].)
	ResolveBy(Queue.String.) [► 1175]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [► 1173].)
	ResolveBy(String) [► 1176]	Overloaded. Resolves the current Value [► 952] by the specified path. (Defined by ValueExtensions [► 1173].)
	ToJson. [► 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean) [► 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean, Boolean) [► 1619]	Overloaded. Returns a JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJsonValue [► 1620]	Returns a JsonValue [► 1542] that contains an unformatted JSON String representing the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	TryResolveBy(Queue.String., Value.) [► 1177]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)
	TryResolveBy(String, Value.) [► 1178]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)

Reference

[Value Class](#) [► 952][TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.1 Value.Add Method

Overload List

	Name	Description
	Add(KeyValuePair.String, Value.) [► 1016]	Adds a KeyValuePair.TKey, TValue. to the Value [► 952] .
	Add(Value) [► 1016]	Adds the specified Value [► 952] to the Value [► 952] .
	Add(String, Value) [► 1017]	Adds a Value [► 952] with the specified key to the Value [► 952] .

Reference

[Value Class](#) [\[► 952\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.3.1.1 Value.Add Method (KeyValuePair.String, Value.)

Adds a [KeyValuePair.TKey, TValue.](#) to the [Value](#) [\[► 952\]](#).

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void Add(  
    KeyValuePair<string, Value> item  
)
```

Parameters

item Type: [System.Collections.Generic.KeyValuePair.String, Value](#) [\[► 952\]](#).
The [KeyValuePair.TKey, TValue.](#) to add to the [Value](#) [\[► 952\]](#).

Implements

[ICollection.T..Add\(T\)](#)

Reference

[Value Class](#) [\[► 952\]](#)

[Add Overload](#) [\[► 1016\]](#)

[TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.3.1.2 Value.Add Method (Value)

Adds the specified [Value](#) [\[► 952\]](#) to the [Value](#) [\[► 952\]](#).

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void Add(  
    Value item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to add to the [Value \[► 952\]](#).

Implements

[ICollection.T..Add\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Add Overload \[► 1016\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.1.3 Value.Add Method (String, Value)

Adds a [Value \[► 952\]](#) with the specified key to the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Add(  
    string key,  
    Value value  
)
```

Parameters

key Type: [System.String](#)
The key of the [Value \[► 952\]](#) to add.

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to add.

Implements

[IDictionary.TKey, TValue..Add\(TKey, TValue\)](#)

Reference

[Value Class \[► 952\]](#)

[Add Overload \[► 1016\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.2 *Value.AddOrUpdate Method*

Adds a [Value \[► 952\]](#) with the specified key to the [Value \[► 952\]](#) if the key does not already exist, or updates a [Value \[► 952\]](#) in the [Value \[► 952\]](#) if the key already exists.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void AddOrUpdate(  
    string key,  
    Value value  
)
```

Parameters

key	Type: System.String The String to use as the key of the Value [► 952] to add or update.
value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] to add or update.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.3 *Value.AddRange Method*

Adds the specified [Value \[► 952\]](#)s to the end of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void AddRange(  
    IEnumerable<Value> values  
)
```

Parameters

values	Type: System.Collections.Generic.IEnumerable.Value [► 952] . The Value [► 952] s that should be added to the end of the Value [► 952] .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.4 *Value.ChangeType Method*

Changes the [Type \[► 1001\]](#) of this [Value \[► 952\]](#) to the specified [ValueType \[► 1169\]](#) and adjusts the containing data.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void ChangeType(  
    ValueType type  
)
```

Parameters

type Type: [TcHmiSrv.Core.ValueType](#) [► 1169]
The [ValueType](#) [► 1169] to which this [Value](#) [► 952] is changed.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.5 *Value.Clear Method*

Removes all [Value](#) [► 952]s from the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Clear()
```

Implements

[IDictionary.Clear.](#)

[ICollection.T..Clear.](#)

[ICollection.T..Clear.](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.6 *Value.CompareTo Method*

Overload List

	Name	Description
	CompareTo(Boolean) [► 1023]	Compares the current Value [► 952] with another Boolean value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value.
	CompareTo(Byte) [► 1024]	Compares the current Value [► 952] with another Byte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Byte .
	CompareTo(Bytes) [► 1024]	Compares the current Value [► 952] with other Bytes and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes .
	CompareTo(Char) [► 1025]	Compares the current Value [► 952] with another Char and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Char .
	CompareTo(DateTime) [► 1026]	Compares the current Value [► 952] with another DateTime and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime .
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value.
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number.
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 .
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 .
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 .

	Name	Description
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte .
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number.
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String .
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan .
	CompareTo(UInt16) [► 1033]	Compares the current Value [► 952] with another UInt16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 .
	CompareTo(UInt32) [► 1033]	Compares the current Value [► 952] with another UInt32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 .
	CompareTo(UInt64) [► 1034]	Compares the current Value [► 952] with another UInt64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 .
	CompareTo(Access) [► 1035]	Compares the current Value [► 952] with another Access [► 766] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Access [► 766].
	CompareTo(Alarm) [► 1035]	Compares the current Value [► 952] with another Alarm [► 767] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767].
	CompareTo(Event) [► 1036]	Compares the current Value [► 952] with another Event [► 850] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850].

	Name	Description
	CompareTo(Message) [▶ 1037]	Compares the current Value [▶ 952] with another Message [▶ 924] and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Message [▶ 924].
	CompareTo(Severity) [▶ 1037]	Compares the current Value [▶ 952] with another Severity [▶ 951] and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [▶ 951].
	CompareTo(Value) [▶ 1038]	Compares the current Value [▶ 952] with another Value [▶ 952] and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Value [▶ 952].

Reference

[Value Class](#) [▶ 952]

[TcHmiSrv.Core Namespace](#) [▶ 764]

2.2.4.1.26.3.6.1 Value.CompareTo Method (Boolean)

Compares the current [Value](#) [▶ 952] with another [Boolean](#) value and returns an integer that indicates whether the current [Value](#) [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other [Boolean](#) value.

Namespace: [TcHmiSrv.Core](#) [▶ 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    bool other  
)
```

Parameters

other Type: [System.Boolean](#)
A [Boolean](#) value to compare with this [Value](#) [▶ 952].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [▶ 952] precedes other in the sort order, zero if the current [Value](#) [▶ 952] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [▶ 952] follows other in the sort order.

Implements

[IComparable.T.CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.2 Value.CompareTo Method (Byte)

Compares the current [Value \[► 952\]](#) with another [Byte](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Byte](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    byte other  
)
```

Parameters

other Type: [System.Byte](#)
A [Byte](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.3 Value.CompareTo Method (.Byte.)

Compares the current [Value \[► 952\]](#) with other [Bytes](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Bytes](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    byte[] other  
)
```

Parameters

other Type: [System.Byte](#).
An [Array](#) of [Bytes](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [[▶ 952](#)] precedes other in the sort order, zero if the current [Value](#) [[▶ 952](#)] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [[▶ 952](#)] follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[CompareTo Overload](#) [[▶ 1020](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.6.4 Value.CompareTo Method (Char)

Compares the current [Value](#) [[▶ 952](#)] with another [Char](#) and returns an integer that indicates whether the current [Value](#) [[▶ 952](#)] precedes, follows, or occurs in the same position in the sort order as the other [Char](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    char other  
)
```

Parameters

other Type: [System.Char](#)
A [Char](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [[▶ 952](#)] precedes other in the sort order, zero if the current [Value](#) [[▶ 952](#)] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [[▶ 952](#)] follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.5 Value.CompareTo Method (DateTime)

Compares the current [Value \[► 952\]](#) with another [DateTime](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [DateTime](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    DateTime other  
)
```

Parameters

other Type: [System.DateTime](#)
A [DateTime](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.6 Value.CompareTo Method (Decimal)

Compares the current [Value \[► 952\]](#) with another [Decimal](#) value and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Decimal](#) value.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    decimal other  
)
```

Parameters

other Type: [System.Decimal](#)
A [Decimal](#) value to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.7 Value.CompareTo Method (Double)

Compares the current [Value \[► 952\]](#) with another [Double](#)-precision floating-point number and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    double other  
)
```

Parameters

other Type: [System.Double](#)
A [Double](#)-precision floating-point number to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.8 Value.CompareTo Method (Int16)

Compares the current [Value \[► 952\]](#) with another [Int16](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Int16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    short other  
)
```

Parameters

other Type: [System.Int16](#)
A [Int16](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.9 Value.CompareTo Method (Int32)

Compares the current [Value \[► 952\]](#) with another [Int32](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Int32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    int other  
)
```

Parameters

other Type: [System.Int32](#)
An [Int32](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.10 Value.CompareTo Method (Int64)

Compares the current [Value \[► 952\]](#) with another [Int64](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Int64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    long other  
)
```

Parameters

other Type: [System.Int64](#)
A [Int64](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[▸ 952\]](#) precedes other in the sort order, zero if the current [Value \[▸ 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[▸ 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[▸ 952\]](#)

[CompareTo Overload \[▸ 1020\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.6.11 Value.CompareTo Method (SByte)

Compares the current [Value \[▸ 952\]](#) with another [SByte](#) and returns an integer that indicates whether the current [Value \[▸ 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [SByte](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    sbyte other  
)
```

Parameters

other Type: [System.SByte](#)
A [SByte](#) to compare with this [Value \[▸ 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[▸ 952\]](#) precedes other in the sort order, zero if the current [Value \[▸ 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[▸ 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[▸ 952\]](#)

[CompareTo Overload \[▸ 1020\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.6.12 Value.CompareTo Method (Single)

Compares the current [Value \[► 952\]](#) with another [Single](#)-precision floating-point number and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    float other  
)
```

Parameters

other Type: [System.Single](#)
A [Single](#)-precision floating-point number to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.13 Value.CompareTo Method (String)

Compares the current [Value \[► 952\]](#) with another [String](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [String](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    string other  
)
```

Parameters

other Type: [System.String](#)
A [String](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.14 Value.CompareTo Method (TimeSpan)

Compares the current [Value \[► 952\]](#) with another [TimeSpan](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [TimeSpan](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    TimeSpan other  
)
```

Parameters

other Type: [System.TimeSpan](#)
A [TimeSpan](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.15 Value.CompareTo Method (UInt16)

Compares the current [Value \[► 952\]](#) with another [UInt16](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [UInt16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    ushort other  
)
```

Parameters

other Type: [System.UInt16](#)
An [UInt16](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.16 Value.CompareTo Method (UInt32)

Compares the current [Value \[► 952\]](#) with another [UInt32](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [UInt32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    uint other  
)
```

Parameters

other Type: [System.UInt32](#)
An [UInt32](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.17 Value.CompareTo Method (UInt64)

Compares the current [Value \[► 952\]](#) with another [UInt64](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [UInt64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    ulong other  
)
```

Parameters

other Type: [System.UInt64](#)
An [UInt64](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.18 Value.CompareTo Method (Access)

Compares the current [Value \[► 952\]](#) with another [Access \[► 766\]](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Access \[► 766\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Access other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Access \[► 766\]](#)
An [Access \[► 766\]](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.19 Value.CompareTo Method (Alarm)

Compares the current [Value \[► 952\]](#) with another [Alarm \[► 767\]](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Alarm other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Alarm](#) [► 767]
An [Alarm](#) [► 767] to compare with this [Value](#) [► 952].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [► 952] precedes other in the sort order, zero if the current [Value](#) [► 952] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [► 952] follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class](#) [► 952]

[CompareTo Overload](#) [► 1020]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.6.20 Value.CompareTo Method (Event)

Compares the current [Value](#) [► 952] with another [Event](#) [► 850] and returns an integer that indicates whether the current [Value](#) [► 952] precedes, follows, or occurs in the same position in the sort order as the other [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Event other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Event](#) [► 850]
An [Event](#) [► 850] to compare with this [Value](#) [► 952].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [► 952] precedes other in the sort order, zero if the current [Value](#) [► 952] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [► 952] follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.21 Value.CompareTo Method (Message)

Compares the current [Value \[► 952\]](#) with another [Message \[► 924\]](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Message other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Message \[► 924\]](#)
A [Message \[► 924\]](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value \[► 952\]](#) precedes other in the sort order, zero if the current [Value \[► 952\]](#) occurs in the same position in the sort other as other or greater than zero if the current [Value \[► 952\]](#) follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[CompareTo Overload \[► 1020\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.6.22 Value.CompareTo Method (Severity)

Compares the current [Value \[► 952\]](#) with another [Severity \[► 951\]](#) and returns an integer that indicates whether the current [Value \[► 952\]](#) precedes, follows, or occurs in the same position in the sort order as the other [Severity \[► 951\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Severity other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Severity](#) [► 951]
A [Severity](#) [► 951] to compare with this [Value](#) [► 952].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [► 952] precedes other in the sort order, zero if the current [Value](#) [► 952] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [► 952] follows other in the sort order.

Implements

[IComparable.T..CompareTo\(T\)](#)

Reference

[Value Class](#) [► 952]

[CompareTo Overload](#) [► 1020]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.6.23 Value.CompareTo Method (Value)

Compares the current [Value](#) [► 952] with another [Value](#) [► 952] and returns an integer that indicates whether the current [Value](#) [► 952] precedes, follows, or occurs in the same position in the sort order as the other [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int CompareTo(  
    Value other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to compare with this [Value](#) [► 952].

Return Value

Type: [Int32](#)

A value that is less than zero if the current [Value](#) [► 952] precedes other in the sort order, zero if the current [Value](#) [► 952] occurs in the same position in the sort other as other or greater than zero if the current [Value](#) [► 952] follows other in the sort order.

Implements

[IComparable.T.CompareTo\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[CompareTo Overload](#) [[▶ 1020](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.7 **Value.Contains Method**

Overload List

	Name	Description
	Contains(KeyValuePair.String, Value.) [▶ 1039]	Determines whether the Value [▶ 952] contains the specified KeyValuePair.TKey, TValue.
	Contains(Value) [▶ 1040]	Determines whether the Value [▶ 952] contains the specified Value [▶ 952].

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.7.1 **Value.Contains Method (KeyValuePair.String, Value.)**

Determines whether the [Value](#) [[▶ 952](#)] contains the specified [KeyValuePair.TKey, TValue.](#)

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Contains(  
    KeyValuePair<string, Value> item  
)
```

Parameters

item Type: [System.Collections.Generic.KeyValuePair.String, Value](#) [[▶ 952](#)].
The [KeyValuePair.TKey, TValue.](#) to locate in the [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if item is found in the [Value](#) [[▶ 952](#)]; otherwise, false.

Implements

[ICollection.T.Contains\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Contains Overload \[► 1039\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.7.2 Value.Contains Method (Value)

Determines whether the [Value \[► 952\]](#) contains the specified [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Contains(  
    Value item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to locate in the [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)
true if item is found in the [Value \[► 952\]](#); otherwise, false.

Implements

[ICollection.T.Contains\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Contains Overload \[► 1039\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.8 Value.ContainsKey Method

Determines whether the [Value \[► 952\]](#) contains a [Value \[► 952\]](#) with the specified key.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool ContainsKey(  
    string key  
)
```

Parameters

key Type: [System.String](#)
The key to locate in the [Value](#) [\[▶ 952\]](#).

Return Value

Type: [Boolean](#)
true if the [Value](#) [\[▶ 952\]](#) contains a [Value](#) [\[▶ 952\]](#) with the specified key; otherwise, false.

Implements

[IDictionary.ContainsKey\(TKey\)](#)
[IReadOnlyDictionary.ContainsKey\(TKey\)](#)

Reference

[Value Class](#) [\[▶ 952\]](#)
[TcHmiSrv.Core Namespace](#) [\[▶ 764\]](#)

2.2.4.1.26.3.9 Value.CopyTo Method

Overload List

	Name	Description
	CopyTo(KeyValuePair.String, Value..., Int32) [▶ 1041]	Copies the KeyValuePair<tkey, tvalue="">.s</tkey,> of the Value [▶ 952] to the specified Array , starting at the specified index.
	CopyTo(Value, Int32) [▶ 1042]	Copies the Value [▶ 952] s of the Value [▶ 952] to the specified Array , starting at the specified index.

Reference

[Value Class](#) [\[▶ 952\]](#)
[TcHmiSrv.Core Namespace](#) [\[▶ 764\]](#)

2.2.4.1.26.3.9.1 Value.CopyTo Method (.KeyValuePair.String, Value..., Int32)

Copies the [KeyValuePair.s](#) of the [Value](#) [\[▶ 952\]](#) to the specified [Array](#), starting at the specified index.

Namespace: [TcHmiSrv.Core](#) [\[▶ 764\]](#)
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void CopyTo(  
    KeyValuePair<string, Value>[] array,  
    int arrayIndex  
)
```

Parameters

- array** Type: [.System.Collections.Generic.KeyValuePair.String, Value \[► 952\]](#)..
The one-dimensional [Array](#) that is the destination of the [KeyValuePairs](#) copied from the [Value \[► 952\]](#). The [Array](#) must have zero-based indexing.
- arrayIndex** Type: [System.Int32](#)
The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[Value Class \[► 952\]](#)

[CopyTo Overload \[► 1041\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.9.2 Value.CopyTo Method (.Value., Int32)

Copies the [Value \[► 952\]](#)s of the [Value \[► 952\]](#) to the specified [Array](#), starting at the specified index.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void CopyTo(  
    Value[] array,  
    int arrayIndex  
)
```

Parameters

- array** Type: [.TcHmiSrv.Core.Value \[► 952\]](#).
The one-dimensional [Array](#) that is the destination of the [Value \[► 952\]](#)s copied from the [Value \[► 952\]](#). The [Array](#) must have zero-based indexing.
- arrayIndex** Type: [System.Int32](#)
The zero-based index in array at which copying begins.

Implements

[ICollection.T..CopyTo\(T., Int32\)](#)

Reference

[Value Class \[► 952\]](#)

[CopyTo Overload \[► 1041\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.10 *Value.DeepCopy Method*

Creates a new object that is a deep copy of the current [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value DeepCopy()
```

Return Value

Type: [Value \[► 952\]](#)

A new object that is a deep copy of the current [Value \[► 952\]](#).

Implements

[IDeepCopyable.T..DeepCopy. \[► 1172\]](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11 *Value.Equals Method*

Overload List

	Name	Description
	Equals(Boolean) [► 1046]	Indicates whether the current Value [► 952] is equal to another Boolean value.
	Equals(Byte) [► 1046]	Indicates whether the current Value [► 952] is equal to another Byte .
	Equals(Byte[]) [► 1047]	Indicates whether the current Value [► 952] is equal to another Array of Bytes .
	Equals(Char) [► 1048]	Indicates whether the current Value [► 952] is equal to another Char .
	Equals(DateTime) [► 1048]	Indicates whether the current Value [► 952] is equal to another DateTime .
	Equals(Decimal) [► 1049]	Indicates whether the current Value [► 952] is equal to another Decimal value.
	Equals(Double) [► 1050]	Indicates whether the current Value [► 952] is equal to another Double-precision floating-point number .
	Equals(Int16) [► 1050]	Indicates whether the current Value [► 952] is equal to another Int16 .
	Equals(Int32) [► 1051]	Indicates whether the current Value [► 952] is equal to another Int32 .
	Equals(Int64) [► 1052]	Indicates whether the current Value [► 952] is equal to another Int64 .
	Equals(Object) [► 1052]	Determines whether the specified Object is equal to the current Value [► 952] . (Overrides Object.Equals(Object) .)
	Equals(SByte) [► 1053]	Indicates whether the current Value [► 952] is equal to another SByte .
	Equals(Single) [► 1053]	Indicates whether the current Value [► 952] is equal to another Single-precision floating-point number .
	Equals(String) [► 1054]	Indicates whether the current Value [► 952] is equal to another String .
	Equals(TimeSpan) [► 1055]	Indicates whether the current Value [► 952] is equal to another TimeSpan .
	Equals(UInt16) [► 1055]	Indicates whether the current Value [► 952] is equal to another UInt16 .
	Equals(UInt32) [► 1056]	Indicates whether the current Value [► 952] is equal to another UInt32 .
	Equals(UInt64) [► 1057]	Indicates whether the current Value [► 952] is equal to another UInt64 .
	Equals(Access) [► 1057]	Indicates whether the current Value [► 952] is equal to another Access [► 766] .
	Equals(Alarm) [► 1058]	Indicates whether the current Value [► 952] is equal to another Alarm [► 767] .

	Name	Description
	Equals(Event) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Event [▸ 850] .
	Equals(Message) [▸ 1059]	Indicates whether the current Value [▸ 952] is equal to another Message [▸ 924] .
	Equals(Severity) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Severity [▸ 951] .
	Equals(Value) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Value [▸ 952] .

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.11.1 Value.Equals Method (Boolean)

Indicates whether the current [Value \[▸ 952\]](#) is equal to another [Boolean](#) value.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(
    bool other
)
```

Parameters

other Type: [System.Boolean](#)
A [Boolean](#) value to compare with this [Value \[▸ 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[▸ 952\]](#) is equal to the other [Boolean](#) value; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[▸ 952\]](#)

[Equals Overload \[▸ 1044\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.11.2 Value.Equals Method (Byte)

Indicates whether the current [Value \[▸ 952\]](#) is equal to another [Byte](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    byte other  
)
```

Parameters

other Type: [System.Byte](#)
A [Byte](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[► 952\]](#) is equal to the other [Byte](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.3 Value.Equals Method (.Byte.)

Indicates whether the current [Value \[► 952\]](#) is equal to another [Array](#) of [Bytes](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    byte[] other  
)
```

Parameters

other Type: [.System.Byte.](#)
An [Array](#) of [Bytes](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[► 952\]](#) is equal to the other [Array](#) of [Bytes](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.4 Value.Equals Method (Char)

Indicates whether the current [Value \[► 952\]](#) is equal to another [Char](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    char other  
)
```

Parameters

other Type: [System.Char](#)
A [Char](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[► 952\]](#) is equal to the other [Char](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.5 Value.Equals Method (DateTime)

Indicates whether the current [Value \[► 952\]](#) is equal to another [DateTime](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    DateTime other  
)
```

Parameters

other Type: [System.DateTime](#)
A [DateTime](#) to compare with this [Value](#) [► 952].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [► 952] is equal to the other [DateTime](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [► 952]

[Equals Overload](#) [► 1044]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.11.6 Value.Equals Method (Decimal)

Indicates whether the current [Value](#) [► 952] is equal to another [Decimal](#) value.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    decimal other  
)
```

Parameters

other Type: [System.Decimal](#)
A [Decimal](#) value to compare with this [Value](#) [► 952].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [► 952] is equal to the other [Decimal](#) value; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.7 Value.Equals Method (Double)

Indicates whether the current [Value \[► 952\]](#) is equal to another [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    double other  
)
```

Parameters

other Type: [System.Double](#)
A [Double](#)-precision floating-point number to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if the current [Value \[► 952\]](#) is equal to the other [Double](#)-precision floating-point number; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.8 Value.Equals Method (Int16)

Indicates whether the current [Value \[► 952\]](#) is equal to another [Int16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    short other  
)
```

Parameters

other Type: [System.Int16](#)
A [Int16](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [Int16](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.9 Value.Equals Method (Int32)

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [Int32](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    int other  
)
```

Parameters

other Type: [System.Int32](#)
An [Int32](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [Int32](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (Int64)

0

Indicates whether the current [Value \[► 952\]](#) is equal to another [Int64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    long other  
)
```

Parameters

other Type: [System.Int64](#)
A [Int64](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if the current [Value \[► 952\]](#) is equal to the other [Int64](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.1 Value.Equals Method (Object)

1

Determines whether the specified [Object](#) is equal to the current [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if obj is equal to the current [Value](#) [[▶ 952](#)]; otherwise, false.

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (SByte)

2

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [SByte](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    sbyte other  
)
```

Parameters

other Type: [System.SByte](#)
A [SByte](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)

true if the current [Value](#) [[▶ 952](#)] is equal to the other [SByte](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (Single)

3

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    float other  
)
```

Parameters

other Type: [System.Single](#)
A [Single](#)-precision floating-point number to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [Single](#)-precision floating-point number; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (String)

4

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [String](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    string other  
)
```

Parameters

other Type: [System.String](#)
A [String](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [String](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.1 Value.Equals Method (TimeSpan) 5

Indicates whether the current [Value \[► 952\]](#) is equal to another [TimeSpan](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    TimeSpan other  
)
```

Parameters

other Type: [System.TimeSpan](#)
A [TimeSpan](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[► 952\]](#) is equal to the other [TimeSpan](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.1 Value.Equals Method (UInt16) 6

Indicates whether the current [Value \[► 952\]](#) is equal to another [UInt16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    ushort other  
)
```

Parameters

other Type: [System.UInt16](#)
An [UInt16](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [UInt16](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (UInt32)

7

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [UInt32](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    uint other  
)
```

Parameters

other Type: [System.UInt32](#)
An [UInt32](#) to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)
true if the current [Value](#) [[▶ 952](#)] is equal to the other [UInt32](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.1 Value.Equals Method (UInt64)

8

Indicates whether the current [Value \[► 952\]](#) is equal to another [UInt64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    ulong other  
)
```

Parameters

other Type: [System.UInt64](#)
An [UInt64](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if the current [Value \[► 952\]](#) is equal to the other [UInt64](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.1 Value.Equals Method (Access)

9

Indicates whether the current [Value \[► 952\]](#) is equal to another [Access \[► 766\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Access other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Access \[► 766\]](#)
An [Access \[► 766\]](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if the current [Value](#) [[▶ 952](#)] is equal to the other [Access](#) [[▶ 766](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.2 Value.Equals Method (Alarm)

0

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [Alarm](#) [[▶ 767](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Alarm other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Alarm](#) [[▶ 767](#)]
An [Alarm](#) [[▶ 767](#)] to compare with this [Value](#) [[▶ 952](#)].

Return Value

Type: [Boolean](#)

true if the current [Value](#) [[▶ 952](#)] is equal to the other [Alarm](#) [[▶ 767](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[Equals Overload](#) [[▶ 1044](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.11.2 Value.Equals Method (Event)

1

Indicates whether the current [Value](#) [[▶ 952](#)] is equal to another [Event](#) [[▶ 850](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Event other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Event](#) [[► 850](#)]
An [Event](#) [[► 850](#)] to compare with this [Value](#) [[► 952](#)].

Return Value

Type: [Boolean](#)

true if the current [Value](#) [[► 952](#)] is equal to the other [Event](#) [[► 850](#)]; otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class](#) [[► 952](#)]

[Equals Overload](#) [[► 1044](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.11.2 Value.Equals Method (Message) 2

Indicates whether the current [Value](#) [[► 952](#)] is equal to another [Message](#) [[► 924](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Message other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Message](#) [[► 924](#)]
An [Message](#) [[► 924](#)] to compare with this [Value](#) [[► 952](#)].

Return Value

Type: [Boolean](#)

true if the current [Value](#) [[► 952](#)] is equal to the other [Message](#) [[► 924](#)]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.2 Value.Equals Method (Severity)

3

Indicates whether the current [Value \[► 952\]](#) is equal to another [Severity \[► 951\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Severity other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Severity \[► 951\]](#)
A [Severity \[► 951\]](#) to compare with this [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if the current [Value \[► 952\]](#) is equal to the other [Severity \[► 951\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Equals Overload \[► 1044\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.11.2 Value.Equals Method (Value)

4

Indicates whether the current [Value \[► 952\]](#) is equal to another [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Value other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Value \[▸ 952\]](#)
The [Value \[▸ 952\]](#) to compare with this [Value \[▸ 952\]](#).

Return Value

Type: [Boolean](#)
true if the current [Value \[▸ 952\]](#) is equal to the other [Value \[▸ 952\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[Value Class \[▸ 952\]](#)

[Equals Overload \[▸ 1044\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.12 Value.FromAccess Method

Converts an instance of the [Value \[▸ 952\]](#) class to the appropriate [Access \[▸ 766\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromAccess(  
    Access value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Access \[▸ 766\]](#)
The [Value \[▸ 952\]](#) to convert.

Return Value

Type: [Value \[▸ 952\]](#)
An [Access \[▸ 766\]](#) that represents value.

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.13 *Value.FromAlarm Method*

Converts an [Alarm](#) [► 767] to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromAlarm(  
    Alarm value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Alarm](#) [► 767]
The [Alarm](#) [► 767] to convert.

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.14 *Value.FromBoolean Method*

Converts a [Boolean](#) value to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromBoolean(  
    bool value  
)
```

Parameters

value Type: [System.Boolean](#)
The [Boolean](#) value to convert.

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.15 *Value.FromByte Method*

Converts an [Byte](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromByte(  
    byte value  
)
```

Parameters

value Type: [System.Byte](#)
The [Byte](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.16 *Value.FromBytes Method*

Converts an array of [Bytes](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromBytes(  
    byte[] value  
)
```

Parameters

value Type: [System.Byte](#).
The array of [Bytes](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.17 *Value.FromChar Method*

Converts a [Char](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromChar(  
    char value  
)
```

Parameters

value Type: [System.Char](#)
The [Char](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.18 *Value.FromDateTime Method*

Converts an instance of the [DateTime](#) class to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromDateTime(  
    DateTime value  
)
```

Parameters

value Type: [System.DateTime](#)
The [DateTime](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.19 *Value.FromDecimal Method*

Converts a [Decimal](#) value to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromDecimal(  
    decimal value  
)
```

Parameters

value Type: [System.Decimal](#)
The [Decimal](#) value to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.20 *Value.FromDouble Method*

Converts a [Double](#)-precision floating-point number to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromDouble(  
    double value  
)
```

Parameters

value Type: [System.Double](#)
The [Double](#)-precision floating-point number to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.21 *Value.FromEvent Method*

Converts an [Event \[► 850\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromEvent(  
    Event value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to convert.

Return Value

Type: [Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.22 *Value.FromInt16 Method*

Converts an [Int16](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromInt16(  
    short value  
)
```

Parameters

value Type: [System.Int16](#)
The [Int16](#) to convert.

Return Value

Type: [Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.23 *Value.FromInt32 Method*

Converts an [Int32](#) to the appropriate instance of the [Value](#) [[▶ 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromInt32(  
    int value  
)
```

Parameters

value Type: [System.Int32](#)
The [Int32](#) to convert.

Return Value

Type: [Value](#) [[▶ 952](#)]

A [Value](#) [[▶ 952](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.24 *Value.FromInt64 Method*

Converts a [Int64](#) to the appropriate instance of the [Value](#) [[▶ 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromInt64(  
    long value  
)
```

Parameters

value Type: [System.Int64](#)
The [Int64](#) to convert.

Return Value

Type: [Value](#) [[▶ 952](#)]

A [Value](#) [[▶ 952](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.25 *Value.FromMessage Method*

Converts an [Message](#) [► 924] to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromMessage(  
    Message value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message](#) [► 924]
The [Message](#) [► 924] to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.26 *Value.FromSByte Method*

Converts an [SByte](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromSByte(  
    sbyte value  
)
```

Parameters

value Type: [System.SByte](#)
The [SByte](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.27 *Value.FromSeverity Method*

Converts a [Severity](#) [► 951] to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromSeverity(  
    Severity value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Severity](#) [► 951]
The [Severity](#) [► 951] to convert.

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.28 *Value.FromSingle Method*

Converts a [Single](#)-precision floating-point number to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromSingle(  
    float value  
)
```

Parameters

value Type: [System.Single](#)
The [Single](#)-precision floating-point number to convert.

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.29 *Value.FromString Method*

Converts a [String](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromString(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The [String](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.30 *Value.FromTimeSpan Method*

Converts an instance of the [TimeSpan](#) class to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromTimeSpan(  
    TimeSpan value  
)
```

Parameters

value Type: [System.TimeSpan](#)
The [TimeSpan](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.31 *Value.FromUInt16 Method*

Converts an [UInt16](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromUInt16(  
    ushort value  
)
```

Parameters

value Type: [System.UInt16](#)
The [UInt16](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.32 *Value.FromUInt32 Method*

Converts an [UInt32](#) to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromUInt32(  
    uint value  
)
```

Parameters

value Type: [System.UInt32](#)
The [UInt32](#) to convert.

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents value.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.33 *Value.FromUInt64 Method*

Converts a [UInt64](#) to the appropriate instance of the [Value](#) [[▶ 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromUInt64(  
    ulong value  
)
```

Parameters

value Type: [System.UInt64](#)
The [UInt64](#) to convert.

Return Value

Type: [Value](#) [[▶ 952](#)]

A [Value](#) [[▶ 952](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.34 *Value.GetAccess Method*

Gets the [Access](#) [[▶ 766](#)] of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Access GetAccess()
```

Return Value

Type: [Access](#) [[▶ 766](#)]

The [Access](#) [[▶ 766](#)] of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.35 *Value.GetAlarm Method*

Gets the [Alarm](#) [[▶ 767](#)] of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm GetAlarm()
```

Return Value

Type: [Alarm](#) [[▶ 767](#)]
The [Alarm](#) [[▶ 767](#)] of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.36 Value.GetBool Method

Overload List

	Name	Description
	GetBool [▶ 1073]	Gets the Boolean value of the Value [▶ 952].
	GetBool(IFormatProvider) [▶ 1074]	Gets the Boolean value of the Value [▶ 952], using the specified culture-specific formatting information.

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.36.1 Value.GetBool Method

Gets the [Boolean](#) value of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool GetBool()
```

Return Value

Type: [Boolean](#)
The [Boolean](#) value of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[GetBool Overload](#) [[▶ 1073](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.36.2 Value.GetBool Method (IFormatProvider)

Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool GetBool(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Boolean](#)
The Boolean value of the Value [► 952].

Reference

[Value Class](#) [► 952]

[GetBool Overload](#) [► 1073]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.37 Value.GetByte Method

Gets the Byte of the Value [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public byte GetByte()
```

Return Value

Type: [Byte](#)
The Byte of the Value [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.38 Value.GetBytes Method

Gets the Bytes of the Value [► 952].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public byte[] GetBytes()
```

Return Value

Type: [Byte](#).
The [Bytes](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.39 Value.GetChar Method

Gets the [Char](#) of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public char GetChar()
```

Return Value

Type: [Char](#)
The [Char](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.40 Value.GetDateTime Method

Overload List

	Name	Description
	GetDateTime , [▶ 1076]	Gets the DateTime of the Value [▶ 952].
	GetDateTime(IFormatProvider) [▶ 1076]	Gets the DateTime of the Value [▶ 952], using the specified culture-specific formatting information.

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.40.1 Value.GetDateTime Method

Gets the [DateTime](#) of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime GetDateTime()
```

Return Value

Type: [DateTime](#)

The [DateTime](#) of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[GetDateTime Overload \[► 1075\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.40.2 Value.GetDateTime Method (IFormatProvider)

Gets the [DateTime](#) of the [Value \[► 952\]](#), using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime GetDateTime(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [DateTime](#)

The [DateTime](#) of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[GetDateTime Overload \[► 1075\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.41 Value.GetDecimal Method

Gets the Decimal value of the Value [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public decimal GetDecimal()
```

Return Value

Type: Decimal

The Decimal value of the Value [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.42 Value.GetDouble Method

Overload List

	Name	Description
	GetDouble. [► 1077]	Gets the <u>Double</u> -precision floating-point number of the <u>Value</u> [► 952].
	GetDouble(IF ormatProvide r) [► 1078]	Gets the <u>Double</u> -precision floating-point number of the <u>Value</u> [► 952], using the specified culture-specific formatting information.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.42.1 Value.GetDouble Method

Gets the Double-precision floating-point number of the Value [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public double GetDouble()
```

Return Value

Type: Double

The Double-precision floating-point number of the Value [► 952].

Reference

[Value Class \[► 952\]](#)

[GetDouble Overload \[► 1077\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.42.2 Value.GetDouble Method (IFormatProvider)

Gets the [Double](#)-precision floating-point number of the [Value \[► 952\]](#), using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public double GetDouble(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Double](#)
The [Double](#)-precision floating-point number of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[GetDouble Overload \[► 1077\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.43 Value.GetEvent Method

Gets the [Event \[► 850\]](#) of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Event GetEvent()
```

Return Value

Type: [Event \[► 850\]](#)
The [Event \[► 850\]](#) of the [Value \[► 952\]](#).

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.44 *Value.GetHashCode Method*

Serves as the default hash function.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.45 *Value.GetInt16 Method*

Gets the [Int16](#) integer of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public short GetInt16()
```

Return Value

Type: [Int16](#)

The [Int16](#) integer of the [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.46 Value.GetInt32 Method

Overload List

	Name	Description
	GetInt32 [► 1080]	Gets the Int32 of the Value [► 952] .
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952] , using the specified culture-specific formatting information.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.46.1 Value.GetInt32 Method

Gets the [Int32](#) of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int GetInt32()
```

Return Value

Type: [Int32](#)

The [Int32](#) of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[GetInt32 Overload \[► 1080\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.46.2 Value.GetInt32 Method (IFormatProvider)

Gets the [Int32](#) of the [Value \[► 952\]](#), using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int GetInt32(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Int32](#)
The [Int32](#) of the [Value](#) [[▶ 952](#)].

Reference

- [Value Class](#) [[▶ 952](#)]
- [GetInt32 Overload](#) [[▶ 1080](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.47 **Value.GetInt64 Method**

Overload List

	Name	Description
	GetInt64 . [▶ 1081]	Gets the Int64 integer of the Value [▶ 952].
	GetInt64(IFormatProvider) . [▶ 1082]	Gets the Int64 integer of the Value [▶ 952], using the specified culture-specific formatting information.

Reference

- [Value Class](#) [[▶ 952](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.47.1 **Value.GetInt64 Method**

Gets the [Int64](#) integer of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public long GetInt64()
```

Return Value

Type: [Int64](#)
The [Int64](#) integer of the [Value](#) [[▶ 952](#)].

Reference

- [Value Class](#) [[▶ 952](#)]
- [GetInt64 Overload](#) [[▶ 1081](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.47.2 Value.GetInt64 Method (IFormatProvider)

Gets the [Int64](#) integer of the [Value \[► 952\]](#), using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public long GetInt64(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Int64](#)
The [Int64](#) integer of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[GetInt64 Overload \[► 1081\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.48 Value.GetMessage Method

Gets the [Message \[► 924\]](#) of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Message GetMessage()
```

Return Value

Type: [Message \[► 924\]](#)
The [Message \[► 924\]](#) of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.49 *Value.GetSByte Method*

Gets the SByte of the Value [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sbyte GetSByte()
```

Return Value

Type: SByte

The SByte of the Value [[► 952](#)].

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.50 *Value.GetSeverity Method*

Gets the Severity [[► 951](#)] of the Value [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Severity GetSeverity()
```

Return Value

Type: Severity [[► 951](#)]

The Severity [[► 951](#)] of the Value [[► 952](#)].

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.51 *Value.GetSingle Method*

Gets the Single-precision floating-point number of the Value [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public float GetSingle()
```

Return Value

Type: [Single](#)
The [Single](#)-precision floating-point number of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.52 Value.GetString Method

Overload List

	Name	Description
	GetString . [▶ 1084]	Gets the String of the Value [▶ 952].
	GetString(IFormatProvider) . [▶ 1084]	Gets the String of the Value [▶ 952], using the specified culture-specific formatting information.

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.52.1 Value.GetString Method

Gets the [String](#) of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public string GetString()
```

Return Value

Type: [String](#)
The [String](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]
[GetString Overload](#) [[▶ 1084](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.52.2 Value.GetString Method (IFormatProvider)

Gets the [String](#) of the [Value](#) [[▶ 952](#)], using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core \[► 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string GetString(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [String](#)
The [String](#) of the [Value \[► 952\]](#).

Reference

- [Value Class \[► 952\]](#)
- [GetString Overload \[► 1084\]](#)
- [TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.53 *Value.GetTimeSpan Method*

Overload List

	Name	Description
	GetTimeSpan. [► 1085]	Gets the TimeSpan of the Value [► 952] .
	GetTimeSpan(IFormatProvid er) [► 1086]	Gets the TimeSpan of the Value [► 952] , using the specified culture-specific formatting information.

Reference

- [Value Class \[► 952\]](#)
- [TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.53.1 *Value.GetTimeSpan Method*

Gets the [TimeSpan](#) of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TimeSpan GetTimeSpan()
```

Return Value

Type: [TimeSpan](#)

The [TimeSpan](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[GetTimeSpan Overload](#) [[▶ 1085](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.53.2 Value.GetTimeSpan Method (IFormatProvider)

Gets the [TimeSpan](#) of the [Value](#) [[▶ 952](#)], using the specified culture-specific formatting information.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TimeSpan GetTimeSpan(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [TimeSpan](#)

The [TimeSpan](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[GetTimeSpan Overload](#) [[▶ 1085](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.54 Value.GetTypeCode Method

Gets the [TypeCode](#) for this [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TypeCode GetTypeCode()
```

Return Value

Type: [TypeCode](#)

The [TypeCode](#) of the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.GetTypeCode](#).

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.55 *Value.GetUInt16 Method*

Gets the [UInt16](#) integer of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public ushort GetUInt16()
```

Return Value

Type: [UInt16](#)

The [UInt16](#) integer of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.56 *Value.GetUInt32 Method*

Gets the [UInt32](#) of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public uint GetUInt32()
```

Return Value

Type: [UInt32](#)

The [UInt32](#) of the [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.57 *Value.GetUInt64 Method*

Gets the [UInt64](#) integer of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ulong GetUInt64()
```

Return Value

Type: [UInt64](#)

The [UInt64](#) integer of the [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.58 *Value.IndexOf Method*

Determines the index of the specified [Value \[► 952\]](#) in the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int IndexOf(  
    Value item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to locate in the [Value \[► 952\]](#).

Return Value

Type: [Int32](#)

The index of item if found in the list; otherwise, -1.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.59 *Value.Insert Method*

Inserts a [Value \[► 952\]](#) to the [Value \[► 952\]](#) at the specified index.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Insert(  
    int index,  
    Value item  
)
```

Parameters

index Type: [System.Int32](#)
 The zero-based index at which item should be inserted.

item Type: [TcHmiSrv.Core.Value](#) [[▶ 952](#)]
 The [Value](#) [[▶ 952](#)] to insert into the [Value](#) [[▶ 952](#)].

Implements

[IList.T..Insert\(Int32, T\)](#)

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.60 Value.Remove Method

Overload List

	Name	Description
	Remove(KeyValuePair.String, Value.) [▶ 1089]	Removes the first occurrence of the specified KeyValuePair.TKey, TValue. from the Value [▶ 952].
	Remove(String) [▶ 1090]	Removes the Value [▶ 952] with the specified key from the Value [▶ 952].
	Remove(Value) [▶ 1091]	Removes the first occurrence of the specified Value [▶ 952] from the Value [▶ 952].

Reference

[Value Class](#) [[▶ 952](#)]
[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.60.1 Value.Remove Method (KeyValuePair.String, Value.)

Removes the first occurrence of the specified [KeyValuePair.TKey, TValue.](#) from the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Remove(  
    KeyValuePair<string, Value> item  
)
```

Parameters

item Type: [System.Collections.Generic.KeyValuePair.String, Value \[▸ 952\]](#).
The [KeyValuePair.TKey, TValue](#) to remove from the [Value \[▸ 952\]](#).

Return Value

Type: [Boolean](#)

true if item is successfully removed from the [Value \[▸ 952\]](#); otherwise, false. This method also returns false if item was not found in the original [Value \[▸ 952\]](#).

Implements

[ICollection.T.Remove\(T\)](#)

Reference

[Value Class \[▸ 952\]](#)

[Remove Overload \[▸ 1089\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.60.2 Value.Remove Method (String)

Removes the [Value \[▸ 952\]](#) with the specified key from the [Value \[▸ 952\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool Remove(  
    string key  
)
```

Parameters

key Type: [System.String](#)
The key of the [Value \[▸ 952\]](#) to remove.

Return Value

Type: [Boolean](#)

true if the [Value \[▸ 952\]](#) is successfully removed; otherwise, false. This method also returns false if key was not found in the original [Value \[▸ 952\]](#).

Implements

[IDictionary.TKey, TValue.Remove\(TKey\)](#)

Reference

[Value Class \[► 952\]](#)

[Remove Overload \[► 1089\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.60.3 Value.Remove Method (Value)

Removes the first occurrence of the specified [Value \[► 952\]](#) from the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Remove(  
    Value item  
)
```

Parameters

item Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to remove from the [Value \[► 952\]](#).

Return Value

Type: [Boolean](#)

true if item is successfully removed from the [Value \[► 952\]](#); otherwise, false. This method also returns false if item was not found in the original [Value \[► 952\]](#).

Implements

[ICollection.T..Remove\(T\)](#)

Reference

[Value Class \[► 952\]](#)

[Remove Overload \[► 1089\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.61 Value.RemoveAt Method

Removes the [Value \[► 952\]](#) at the specified index.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void RemoveAt(  
    int index  
)
```

Parameters

index Type: [System.Int32](#)
The zero-based index of the [Value \[► 952\]](#) to remove.

Implements

[IList.T.RemoveAt\(Int32\)](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.62 *Value.RemoveRange Method*

Removes a range of [Value \[► 952\]](#)s from the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void RemoveRange(  
    int index,  
    int count  
)
```

Parameters

index Type: [System.Int32](#)
The zero-based starting index of the range of [Value \[► 952\]](#)s to remove.

count Type: [System.Int32](#)
The number of [Value \[► 952\]](#)s to remove.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.63 *Value.SetValue Method*

Overload List

	Name	Description
	SetValue(Bool ean) [► 1095]	Sets the <u>Boolean</u> value of the <u>Value</u> [► 952].
	SetValue(Byte) [► 1095]	Gets the <u>Byte</u> of the <u>Value</u> [► 952].
	SetValue(.Byt e.) [► 1096]	Gets the <u>Bytes</u> of the <u>Value</u> [► 952].
	SetValue(Char) [► 1096]	Gets the <u>Char</u> of the <u>Value</u> [► 952].
	SetValue(Date Time) [► 1097]	Gets the <u>DateTime</u> of the <u>Value</u> [► 952].
	SetValue(Deci mal) [► 1097]	Gets the <u>Decimal</u> value of the <u>Value</u> [► 952].
	SetValue(Dou ble) [► 1098]	Gets the <u>Double</u> -precision floating-point number of the <u>Value</u> [► 952].
	SetValue(Int1 6) [► 1098]	Gets the <u>Int16</u> integer of the <u>Value</u> [► 952].
	SetValue(Int3 2) [► 1099]	Gets the <u>Int32</u> of the <u>Value</u> [► 952].
	SetValue(Int6 4) [► 1099]	Gets the <u>Int64</u> integer of the <u>Value</u> [► 952].
	SetValue(SByt e) [► 1099]	Gets the <u>SByte</u> of the <u>Value</u> [► 952].
	SetValue(Sing le) [► 1100]	Gets the <u>Single</u> -precision floating-point number of the <u>Value</u> [► 952].
	SetValue(Strin g) [► 1100]	Gets the <u>String</u> of the <u>Value</u> [► 952].
	SetValue(Tim eSpan) [► 1101]	Gets the <u>TimeSpan</u> of the <u>Value</u> [► 952].
	SetValue(UInt 16) [► 1101]	Gets the <u>UInt16</u> integer of the <u>Value</u> [► 952].
	SetValue(UInt 32) [► 1102]	Gets the <u>UInt32</u> of the <u>Value</u> [► 952].
	SetValue(UInt 64) [► 1102]	Gets the <u>UInt64</u> integer of the <u>Value</u> [► 952].

	Name	Description
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952] .
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952] .
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952] .
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952] .
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952] .

Reference

[Value Class \[▸ 952\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.63.1 Value.SetValue Method (Boolean)

Sets the [Boolean](#) value of the [Value \[▸ 952\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(
    bool value
)
```

Parameters

value Type: [System.Boolean](#)
The [Boolean](#) value to set.

Reference

[Value Class \[▸ 952\]](#)

[SetValue Overload \[▸ 1093\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.3.63.2 Value.SetValue Method (Byte)

Gets the [Byte](#) of the [Value \[▸ 952\]](#).

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    byte value  
)
```

Parameters

value Type: [System.Byte](#)
The [Byte](#) to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.3 Value.SetValue Method (.Byte.)

Gets the [Bytes](#) of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    byte[] value  
)
```

Parameters

value Type: [System.Byte](#).
The [Bytes](#) to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.4 Value.SetValue Method (Char)

Gets the [Char](#) of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    char value  
)
```

Parameters

value Type: [System.Char](#)
The [Char](#) to set.

Reference

[Value Class](#) [[► 952](#)]

[SetValue Overload](#) [[► 1093](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.63.5 Value.SetValue Method (DateTime)

Gets the [DateTime](#) of the [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    DateTime value  
)
```

Parameters

value Type: [System.DateTime](#)
The [DateTime](#) to set.

Reference

[Value Class](#) [[► 952](#)]

[SetValue Overload](#) [[► 1093](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.63.6 Value.SetValue Method (Decimal)

Gets the [Decimal](#) value of the [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    decimal value  
)
```

Parameters

value Type: [System.Decimal](#)
The [Decimal](#) value to set.

Reference

[Value Class \[► 952\]](#)

[SetValue Overload \[► 1093\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.63.7 Value.SetValue Method (Double)

Gets the [Double](#)-precision floating-point number of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    double value  
)
```

Parameters

value Type: [System.Double](#)
The [Double](#)-precision floating-point number to set.

Reference

[Value Class \[► 952\]](#)

[SetValue Overload \[► 1093\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.63.8 Value.SetValue Method (Int16)

Gets the [Int16](#) integer of the [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    short value  
)
```

Parameters

value Type: [System.Int16](#)
The [Int16](#) integer to set.

Reference

[Value Class \[► 952\]](#)

[SetValue Overload \[► 1093\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.63.9 Value.SetValue Method (Int32)

Gets the [Int32](#) of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    int value  
)
```

Parameters

value Type: [System.Int32](#)
The [Int32](#) to set.

Reference

[Value Class](#) [[▶ 952](#)]

[SetValue Overload](#) [[▶ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.63.1 Value.SetValue Method (Int64)

0

Gets the [Int64](#) integer of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    long value  
)
```

Parameters

value Type: [System.Int64](#)
The [Int64](#) integer to set.

Reference

[Value Class](#) [[▶ 952](#)]

[SetValue Overload](#) [[▶ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.63.1 Value.SetValue Method (SByte)

1

Gets the [SByte](#) of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    sbyte value  
)
```

Parameters

value Type: [System.SByte](#)
The [SByte](#) to set.

Reference

[Value Class](#) [[► 952](#)]

[SetValue Overload](#) [[► 1093](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.63.1 Value.SetValue Method (Single) 2

Gets the [Single](#)-precision floating-point number of the [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    float value  
)
```

Parameters

value Type: [System.Single](#)
The [Single](#)-precision floating-point number to set.

Reference

[Value Class](#) [[► 952](#)]

[SetValue Overload](#) [[► 1093](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.3.63.1 Value.SetValue Method (String) 3

Gets the [String](#) of the [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The [String](#) to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (TimeSpan)

4

Gets the [TimeSpan](#) of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    TimeSpan value  
)
```

Parameters

value Type: [System.TimeSpan](#)
The [TimeSpan](#) to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (UInt16)

5

Gets the [UInt16](#) integer of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    ushort value  
)
```

Parameters

value Type: [System.UInt16](#)
The [UInt16](#) integer to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (UInt32) 6

Gets the [UInt32](#) of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    uint value  
)
```

Parameters

value Type: [System.UInt32](#)
The [UInt32](#) to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (UInt64) 7

Gets the [UInt64](#) integer of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    ulong value  
)
```

Parameters

value Type: [System.UInt64](#)
The [UInt64](#) integer to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (Access)

8

Gets the [Access](#) [► 766] of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    Access value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Access](#) [► 766]
The [Access](#) [► 766] to set.

Reference

[Value Class](#) [► 952]

[SetValue Overload](#) [► 1093]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.63.1 Value.SetValue Method (Alarm)

9

Gets the [Alarm](#) [► 767] of the [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    Alarm value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Alarm](#) [[▶ 767](#)]
The [Alarm](#) [[▶ 767](#)] to set.

Reference

[Value Class](#) [[▶ 952](#)]

[SetValue Overload](#) [[▶ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.63.2 Value.SetValue Method (Event) 0

Gets the [Event](#) [[▶ 850](#)] of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    Event value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Event](#) [[▶ 850](#)]
The [Event](#) [[▶ 850](#)] to set.

Reference

[Value Class](#) [[▶ 952](#)]

[SetValue Overload](#) [[▶ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.63.2 Value.SetValue Method (Message) 1

Gets the [Message](#) [[▶ 924](#)] of the [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    Message value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message](#) [[▸ 924](#)]
The [Message](#) [[▸ 924](#)] to set.

Reference

[Value Class](#) [[▸ 952](#)]

[SetValue Overload](#) [[▸ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▸ 764](#)]

2.2.4.1.26.3.63.2 Value.SetValue Method (Severity) 2

Gets the [Severity](#) [[▸ 951](#)] of the [Value](#) [[▸ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▸ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(  
    Severity value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Severity](#) [[▸ 951](#)]
The [Severity](#) [[▸ 951](#)] to set.

Reference

[Value Class](#) [[▸ 952](#)]

[SetValue Overload](#) [[▸ 1093](#)]

[TcHmiSrv.Core Namespace](#) [[▸ 764](#)]

2.2.4.1.26.3.64 Value.ShallowCopy Method

Creates a new [Value](#) [[▸ 952](#)] that is a shallow copy of the current [Value](#) [[▸ 952](#)].

Namespace: [TcHmiSrv.Core](#) [[▸ 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value ShallowCopy()
```

Return Value

Type: [Value](#) [► 952]

A new [Value](#) [► 952] that is a shallow copy of the current [Value](#) [► 952].

Implements

[IShallowCopyable.T..ShallowCopy.](#) [► 1173]

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.65 *Value.ToAccess Method*

Converts this instance of the [Value](#) [► 952] class to the appropriate [Access](#) [► 766].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Access ToAccess()
```

Return Value

Type: [Access](#) [► 766]

An [Access](#) [► 766] that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.66 *Value.ToAlarm Method*

Converts this instance of the [Value](#) [► 952] class to the appropriate [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm ToAlarm()
```

Return Value

Type: [Alarm](#) [► 767]

An [Alarm](#) [► 767] that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.67 *Value.ToArray Method*

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Array](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value[] ToArray()
```

Return Value

Type: [.Value \[► 952\]](#).

The inner [Array](#) of the current [Value \[► 952\]](#) if [IsArray \[► 994\]](#) is true. -or- An [Array](#) that represents the current [Value \[► 952\]](#) if it contains a [List.T..](#) -or- An empty [Array](#).

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.68 *Value.ToBoolean Method*

Overload List

	Name	Description
	ToBoolean. [► 1107]	Converts this instance of the Value [► 952] class to the appropriate Boolean .
	ToBoolean(IF ormatProvide r) [► 1108]	Converts the Value [► 952] to an equivalent Boolean value using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.68.1 *Value.ToBoolean Method*

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Boolean](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool ToBoolean()
```

Return Value

Type: [Boolean](#)

A [Boolean](#) that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[ToBoolean Overload](#) [► 1107]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.68.2 Value.ToBoolean Method (IFormatProvider)

Converts the [Value](#) [► 952] to an equivalent [Boolean](#) value using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool ToBoolean(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Boolean](#)

A [Boolean](#) value that is equivalent to the [Value](#) [► 952].

Implements

[IConvertible.ToBoolean\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 952]

[ToBoolean Overload](#) [► 1107]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.69 Value.ToByte Method

Overload List

	Name	Description
	ToByte. [► 1109]	Converts this instance of the Value [► 952] class to the appropriate Byte .
	ToByte(IFormatProvider) [► 1109]	Converts the Value [► 952] to an equivalent Byte using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.69.1 Value.ToByte Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Byte](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public byte ToByte()
```

Return Value

Type: [Byte](#)

A [Byte](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToByte Overload \[► 1109\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.69.2 Value.ToByte Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [Byte](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public byte ToByte(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Byte](#)
A [Byte](#) that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToByte\(IFormatProvider\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[ToByte Overload](#) [[▶ 1109](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.70 **Value.ToBytes Method**

Converts this instance of the [Value](#) [[▶ 952](#)] class to the appropriate array of [Bytes](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public byte[] ToBytes()
```

Return Value

Type: [.Byte](#).
An array of [Bytes](#) that represents the current [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.71 **Value.ToChar Method**

Overload List

	Name	Description
	ToChar . [▶ 1111]	Converts this instance of the Value [▶ 952] class to the appropriate Char .
	ToChar(IForm atProvider) . [▶ 1111]	Converts the Value [▶ 952] to an equivalent Char using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.71.1 Value.ToChar Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Char](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public char ToChar()
```

Return Value

Type: [Char](#)

A [Char](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToChar Overload \[► 1110\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.71.2 Value.ToChar Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [Char](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public char ToChar(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Char](#)

A [Char](#) that is equivalent to the [Value \[► 952\]](#).

Implements

[IConvertible.ToChar\(IFormatProvider\)](#)

Reference

[Value Class \[► 952\]](#)

[ToChar Overload \[► 1110\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.72 Value.ToDateTime Method

Overload List

	Name	Description
	ToDateTime. [► 1112]	Converts this instance of the Value [► 952] class to the appropriate instance of the DateTime class.
	ToDateTime(FormatProvid er) [► 1112]	Converts the Value [► 952] to an equivalent DateTime using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.72.1 Value.ToDateTime Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate instance of the [DateTime](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime ToDateTime()
```

Return Value

Type: [DateTime](#)

A [DateTime](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToDateTime Overload \[► 1112\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.72.2 Value.ToDateTime Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [DateTime](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DateTime ToDateTime(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [DateTime](#)
A [DateTime](#) that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToDateTime\(IFormatProvider\)](#)

Reference

- [Value Class](#) [[▶ 952](#)]
- [ToDateTime Overload](#) [[▶ 1112](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.73 **Value.ToDecimal Method**

Overload List

	Name	Description
	ToDecimal . [▶ 1113]	Converts this instance of the Value [▶ 952] class to the appropriate Decimal .
	ToDecimal(IFormatProvider) [▶ 1114]	Converts the Value [▶ 952] to an equivalent Decimal value using the specified IFormatProvider .

Reference

- [Value Class](#) [[▶ 952](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.73.1 **Value.ToDecimal Method**

Converts this instance of the [Value](#) [[▶ 952](#)] class to the appropriate [Decimal](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public decimal ToDecimal()
```

Return Value

Type: [Decimal](#)

A [Decimal](#) that represents the current [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[ToDecimal Overload](#) [[▶ 1113](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.73.2 Value.ToDecimal Method (IFormatProvider)

Converts the [Value](#) [[▶ 952](#)] to an equivalent [Decimal](#) value using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public decimal ToDecimal(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Decimal](#)

A [Decimal](#) value that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToDecimal\(IFormatProvider\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[ToDecimal Overload](#) [[▶ 1113](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.74 Value.ToDouble Method

Overload List

	Name	Description
	ToDouble. [► 1115]	Converts this instance of the Value [► 952] class to the appropriate Double -precision floating-point number.
	ToDouble(IFormatProvider) [► 1115]	Converts the Value [► 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.74.1 Value.ToDouble Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public double ToDouble()
```

Return Value

Type: [Double](#)

A [Double](#)-precision floating-point number that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToDouble Overload \[► 1115\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.74.2 Value.ToDouble Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [Double](#)-precision floating-point number using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public double ToDouble(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Double](#)
A [Double](#)-precision floating-point number that is equivalent to the [Value](#) [► 952].

Implements

[IConvertible.ToDouble\(IFormatProvider\)](#)

Reference

- [Value Class](#) [► 952]
- [ToDouble Overload](#) [► 1115]
- [TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.75 **Value.ToEvent Method**

Converts this instance of the [Value](#) [► 952] class to the appropriate [Event](#) [► 850].

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Event ToEvent()
```

Return Value

Type: [Event](#) [► 850]
An [Event](#) [► 850] that represents the current [Value](#) [► 952].

Reference

- [Value Class](#) [► 952]
- [TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.76 **Value.ToInt16 Method**

Overload List

	Name	Description
	ToInt16 [► 1117]	Converts this instance of the Value [► 952] class to the appropriate Int16 .
	ToInt16(IFormatProvider) [► 1117]	Converts the Value [► 952] to an equivalent Int16 integer using the specified IFormatProvider .

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.76.1 Value.ToInt16 Method

Converts this instance of the [Value](#) [► 952] class to the appropriate [Int16](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public short ToInt16()
```

Return Value

Type: [Int16](#)

A [Int16](#) that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[ToInt16 Overload](#) [► 1116]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.76.2 Value.ToInt16 Method (IFormatProvider)

Converts the [Value](#) [► 952] to an equivalent [Int16](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public short ToInt16(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Int16](#)

A [Int16](#) integer that is equivalent to the [Value](#) [► 952].

Implements

[IConvertible.ToInt16\(IFormatProvider\)](#)

Reference

[Value Class \[► 952\]](#)

[ToInt16 Overload \[► 1116\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.77 Value.ToInt32 Method

Overload List

	Name	Description
	ToInt32 [► 1118]	Converts this instance of the Value [► 952] class to the appropriate Int32 .
	ToInt32(IFormatProvider) [► 1118]	Converts the Value [► 952] to an equivalent Int32 using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.77.1 Value.ToInt32 Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Int32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int ToInt32()
```

Return Value

Type: [Int32](#)

An [Int32](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToInt32 Overload \[► 1118\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.77.2 Value.ToInt32 Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [Int32](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int ToInt32(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Int32](#)
An [Int32](#) that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToInt32\(IFormatProvider\)](#)

Reference

- [Value Class](#) [[▶ 952](#)]
- [ToInt32 Overload](#) [[▶ 1118](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.78 *Value.ToInt64 Method*

Overload List

	Name	Description
	ToInt64 [▶ 1119]	Converts this instance of the Value [▶ 952] class to the appropriate Int64 .
	ToInt64(IForm atProvider) [▶ 1120]	Converts the Value [▶ 952] to an equivalent Int64 integer using the specified IFormatProvider .

Reference

- [Value Class](#) [[▶ 952](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.78.1 **Value.ToInt64 Method**

Converts this instance of the [Value](#) [[▶ 952](#)] class to the appropriate [Int64](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public long ToInt64()
```

Return Value

Type: [Int64](#)

A [Int64](#) that represents the current [Value](#) [[▶ 952](#)].

Reference

[Value Class](#) [[▶ 952](#)]

[ToInt64 Overload](#) [[▶ 1119](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.78.2 Value.ToInt64 Method (IFormatProvider)

Converts the [Value](#) [[▶ 952](#)] to an equivalent [Int64](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public long ToInt64(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Int64](#)

A [Int64](#) integer that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToInt64\(IFormatProvider\)](#)

Reference

[Value Class](#) [[▶ 952](#)]

[ToInt64 Overload](#) [[▶ 1119](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.79 Value.ToMessage Method

Converts this instance of the [Value](#) [[▶ 952](#)] class to the appropriate [Message](#) [[▶ 924](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Message ToMessage()
```

Return Value

Type: [Message](#) [► 924]
An [Message](#) [► 924] that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.80 Value.ToSByte Method

Overload List

	Name	Description
	ToSByte . [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte .
	ToSByte(IFormatProvider) . [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider .

Reference

[Value Class](#) [► 952]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.80.1 Value.ToSByte Method

Converts this instance of the [Value](#) [► 952] class to the appropriate [SByte](#).

Namespace: [TcHmiSrv.Core](#) [► 764]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sbyte ToSByte()
```

Return Value

Type: [SByte](#)
A [Byte](#) that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]
[ToSByte Overload](#) [► 1121]
[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.80.2 Value.ToSByte Method (IFormatProvider)

Converts the [Value](#) [► 952] to an equivalent [SByte](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sbyte ToSByte(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [SByte](#)
A [SByte](#) that is equivalent to the [Value](#) [► 952].

Implements

[IConvertible.ToSByte\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 952]

[ToSByte Overload](#) [► 1121]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.81 Value.ToSeverity Method

Converts this instance of the [Value](#) [► 952] class to the appropriate [Severity](#) [► 951].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Severity ToSeverity()
```

Return Value

Type: [Severity](#) [► 951]
A [Severity](#) [► 951] that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.82 Value.ToSingle Method

Overload List

	Name	Description
	ToSingle [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number.
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.82.1 Value.ToSingle Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public float ToSingle()
```

Return Value

Type: [Single](#)

A [Single](#)-precision floating-point number that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToSingle Overload \[► 1123\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.82.2 Value.ToSingle Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [Single](#)-precision floating-point number using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public float ToSingle(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Single](#)
A [Single](#)-precision floating-point number that is equivalent to the [Value](#) [\[► 952\]](#).

Implements

[IConvertible.ToSingle\(IFormatProvider\)](#)

Reference

- [Value Class](#) [\[► 952\]](#)
- [ToSingle Overload](#) [\[► 1123\]](#)
- [TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.3.83 *Value.ToString Method*

Overload List

	Name	Description
	ToString [► 1124]	Returns a String that represents the current Value [► 952] . (Overrides Object.ToString .)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider .

Reference

- [Value Class](#) [\[► 952\]](#)
- [TcHmiSrv.Core Namespace](#) [\[► 764\]](#)

2.2.4.1.26.3.83.1 **Value.ToString Method**

Returns a [String](#) that represents the current [Value](#) [\[► 952\]](#).

Namespace: [TcHmiSrv.Core](#) [\[► 764\]](#)
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)
A [String](#) that represents the current [Value](#) [\[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToString Overload \[► 1124\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.83.2 Value.ToString Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [String](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ToString(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [String](#)
A [String](#) that is equivalent to the [Value \[► 952\]](#).

Implements

[IConvertible.ToString\(IFormatProvider\)](#)

Reference

[Value Class \[► 952\]](#)

[ToString Overload \[► 1124\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.84 Value.ToTimeSpan Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate instance of the [TimeSpan](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TimeSpan ToTimeSpan()
```

Return Value

Type: [TimeSpan](#)

A [TimeSpan](#) that represents the current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.85 *Value.ToType Method*

Converts the [Value](#) [► 952] to an equivalent [Object](#) of the specified [Type](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Object ToType(  
    Type conversionType,  
    IFormatProvider provider  
)
```

Parameters

conversionType Type: [System.Type](#)
The [Type](#) to which this [Value](#) [► 952] is converted.

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [Object](#)

An [Object](#) of conversionType whose value is equivalent to the [Value](#) [► 952].

Implements

[IConvertible.ToType\(Type, IFormatProvider\)](#)

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.86 Value.ToUInt16 Method

Overload List

	Name	Description
	ToUInt16 [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 .
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.86.1 Value.ToUInt16 Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [UInt16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ushort ToUInt16()
```

Return Value

Type: [UInt16](#)

An [UInt16](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToUInt16 Overload \[► 1127\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.86.2 Value.ToUInt16 Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [UInt16](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ushort ToUInt16(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [UInt16](#)
An [UInt16](#) integer that is equivalent to the [Value](#) [[▶ 952](#)].

Implements

[IConvertible.ToUInt16\(IFormatProvider\)](#)

Reference

- [Value Class](#) [[▶ 952](#)]
- [ToUInt16 Overload](#) [[▶ 1127](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.87 **Value.ToUInt32 Method**

Overload List

	Name	Description
	ToUInt32 [▶ 1128]	Converts this instance of the Value [▶ 952] class to the appropriate UInt32 .
	ToUInt32(IFormatProvider) [▶ 1129]	Converts the Value [▶ 952] to an equivalent UInt32 using the specified IFormatProvider .

Reference

- [Value Class](#) [[▶ 952](#)]
- [TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.3.87.1 **Value.ToUInt32 Method**

Converts this instance of the [Value](#) [[▶ 952](#)] class to the appropriate [UInt32](#).

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public uint ToUInt32()
```

Return Value

Type: [UInt32](#)
An [UInt32](#) that represents the current [Value](#) [[▶ 952](#)].

Reference

[Value Class \[► 952\]](#)

[ToUInt32 Overload \[► 1128\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.87.2 Value.ToUInt32 Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [UInt32](#) using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public uint ToUInt32(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [UInt32](#)
An [UInt32](#) that is equivalent to the [Value \[► 952\]](#).

Implements

[IConvertible.ToUInt32\(IFormatProvider\)](#)

Reference

[Value Class \[► 952\]](#)

[ToUInt32 Overload \[► 1128\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.88 Value.ToUInt64 Method

Overload List

	Name	Description
	ToUInt64 [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 .
	ToUInt64(IFormatProvider) [► 1130]	Converts the Value [► 952] to an equivalent UInt64 integer using the specified IFormatProvider .

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.88.1 Value.ToUInt64 Method

Converts this instance of the [Value \[► 952\]](#) class to the appropriate [UInt64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ulong ToUInt64()
```

Return Value

Type: [UInt64](#)

An [UInt64](#) that represents the current [Value \[► 952\]](#).

Reference

[Value Class \[► 952\]](#)

[ToUInt64 Overload \[► 1129\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.3.88.2 Value.ToUInt64 Method (IFormatProvider)

Converts the [Value \[► 952\]](#) to an equivalent [UInt64](#) integer using the specified [IFormatProvider](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ulong ToUInt64(  
    IFormatProvider provider  
)
```

Parameters

provider Type: [System.IFormatProvider](#)
An [IFormatProvider](#) that supplies culture-specific formatting information.

Return Value

Type: [UInt64](#)

An [UInt64](#) integer that is equivalent to the [Value \[► 952\]](#).

Implements

[IConvertible.ToUInt64\(IFormatProvider\)](#)

Reference

[Value Class](#) [► 952]

[ToUInt64 Overload](#) [► 1129]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.89 *Value.ToValue Method*

Returns the current [Value](#) [► 952].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public virtual Value ToValue()
```

Return Value

Type: [Value](#) [► 952]

The current [Value](#) [► 952].

Reference

[Value Class](#) [► 952]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.3.90 *Value.TryGetValue Method*

Gets the [Value](#) [► 952] associated with the specified key.

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool TryGetValue(  
    string key,  
    out Value value  
)
```

Parameters

key Type: [System.String](#)

The key of the [Value](#) [► 952] to get.

value Type: [TcHmiSrv.Core.Value](#) [► 952].

When this method returns, the [Value](#) [► 952] associated with the specified key, if the key is found; otherwise, the default [Value](#) [► 952] for the type of the value. This parameter is passed uninitialized.

Return Value

Type: [Boolean](#)

true if the [Value](#) [► 952] contains a [Value](#) [► 952] with the specified key; otherwise, false.

Implements

[IDictionary.TryGetValue\(TKey, TValue.\)](#)

[IReadOnlyDictionary.TryGetValue\(TKey, TValue.\)](#)

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4 Value Operators and Type Conversions

The [Value \[► 952\]](#) type exposes the following members.

Operators

	Name	Description
 	Equality [► 1137]	Determines whether two instances of the Value [► 952] class are equal.
 	GreaterThan [► 1138]	Determines whether the current instance of the Value [► 952] class is greater than another instance.
 	GreaterThanOrEqual [► 1138]	Determines whether the current instance of the Value [► 952] class is greater than or equal to another instance.
 	.Boolean to Value [► 1144]	Converts a Boolean value to the appropriate instance of the Value [► 952] class.
 	.Byte to Value [► 1144]	Converts an Byte to the appropriate instance of the Value [► 952] class.
 	.Byte. to Value [► 1145]	Converts an array of Bytes to the appropriate instance of the Value [► 952] class.
 	.Char to Value [► 1145]	Converts a Char to the appropriate instance of the Value [► 952] class.
 	.DateTime to Value [► 1146]	Converts an instance of the DateTime class to the appropriate instance of the Value [► 952] class.
 	.Decimal to Value [► 1146]	Converts a Decimal value to the appropriate instance of the Value [► 952] class.
 	.Double to Value [► 1147]	Converts a Double -precision floating-point number to the appropriate instance of the Value [► 952] class.
 	.Int16 to Value [► 1147]	Converts an Int16 to the appropriate instance of the Value [► 952] class.
 	.Int32 to Value [► 1148]	Converts an Int32 to the appropriate instance of the Value [► 952] class.
 	.Int64 to Value [► 1148]	Converts a Int64 to the appropriate instance of the Value [► 952] class.
 	.SByte to Value [► 1149]	Converts an SByte to the appropriate instance of the Value [► 952] class.
 	.Single to Value [► 1149]	Converts a Single -precision floating-point number to the appropriate instance of the Value [► 952] class.

	Name	Description
 	.(String to Value) [► 1150]	Converts a String to the appropriate instance of the Value [► 952] class.
 	.(TimeSpan to Value) [► 1151]	Converts an instance of the TimeSpan class to the appropriate instance of the Value [► 952] class.
 	.(UInt16 to Value) [► 1151]	Converts an UInt16 to the appropriate instance of the Value [► 952] class.
 	.(UInt32 to Value) [► 1152]	Converts an UInt32 to the appropriate instance of the Value [► 952] class.
 	.(UInt64 to Value) [► 1152]	Converts a UInt64 to the appropriate instance of the Value [► 952] class.
 	.(Access to Value) [► 1153]	Converts an Access [► 766] to the appropriate instance of the Value [► 952] class.
 	.(Alarm to Value) [► 1153]	Converts an Alarm [► 767] to the appropriate instance of the Value [► 952] class.
 	.(Event to Value) [► 1154]	Converts an Event [► 850] to the appropriate instance of the Value [► 952] class.
 	.(Message to Value) [► 1154]	Converts an Message [► 924] to the appropriate instance of the Value [► 952] class.
 	.(Severity to Value) [► 1155]	Converts a Severity [► 951] to the appropriate instance of the Value [► 952] class.
 	.(Value to Boolean) [► 1155]	Converts an instance of the Value [► 952] class to the appropriate Boolean value.
 	.(Value to Byte) [► 1156]	Converts an instance of the Value [► 952] class to the appropriate Byte .
 	.(Value to SByte) [► 1156]	Converts an instance of the Value [► 952] class to the appropriate SByte .
 	.(Value to Char) [► 1157]	Converts an instance of the Value [► 952] class to the appropriate Char .
 	.(Value to Int16) [► 1158]	Converts an instance of the Value [► 952] class to the appropriate Int16 .

	Name	Description
 	.Value to UInt16 [► 1158]	Converts an instance of the Value [► 952] class to the appropriate UInt16 .
 	.Value to Int32 [► 1159]	Converts an instance of the Value [► 952] class to the appropriate Int32 .
 	.Value to UInt32 [► 1159]	Converts an instance of the Value [► 952] class to the appropriate UInt32 .
 	.Value to Int64 [► 1160]	Converts an instance of the Value [► 952] class to the appropriate Int64 .
 	.Value to UInt64 [► 1160]	Converts an instance of the Value [► 952] class to the appropriate UInt64 .
 	.Value to Single [► 1161]	Converts an instance of the Value [► 952] class to the appropriate Single -precision floating-point number.
 	.Value to Double [► 1161]	Converts an instance of the Value [► 952] class to the appropriate Double -precision floating-point number.
 	.Value to String [► 1162]	Converts an instance of the Value [► 952] class to the appropriate String .
 	.Value to Access [► 1162]	Converts an instance of the Value [► 952] class to the appropriate Access [► 766].
 	.Value to Alarm [► 1163]	Converts an instance of the Value [► 952] class to the appropriate Alarm [► 767].
 	.Value to Event [► 1163]	Converts an instance of the Value [► 952] class to the appropriate Event [► 850].
 	.Value to Message [► 1164]	Converts an instance of the Value [► 952] class to the appropriate Message [► 924].
 	.Value to Severity [► 1165]	Converts an instance of the Value [► 952] class to the appropriate Severity [► 951].
 	.Value to DateTime [► 1165]	Converts an instance of the Value [► 952] class to the appropriate instance of the DateTime class.
 	.Value to TimeSpan [► 1166]	Converts an instance of the Value [► 952] class to the appropriate instance of the TimeSpan class.

	Name	Description
 	.Value to Decimal [► 1166]	Converts an instance of the Value [► 952] class to the appropriate Decimal value.
 	.Value to Byte. [► 1167]	Converts an instance of the Value [► 952] class to the appropriate array of Bytes .
 	Inequality [► 1167]	Determines whether two instances of the Value [► 952] class are not equal.
 	LessThan [► 1168]	Determines whether the current instance of the Value [► 952] class is less than another instance.
 	LessThanOrEqual [► 1168]	Determines whether the current instance of the Value [► 952] class is less than or equal to another instance.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.1 Value.Equality Operator

Determines whether two instances of the [Value \[► 952\]](#) class are equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static bool operator ==(
    Value current,
    Value other
)
```

Parameters

current Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The first [Value \[► 952\]](#) to compare.

other Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The second [Value \[► 952\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current equals other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.2 *Value.GreaterThan Operator*

Determines whether the current instance of the [Value \[► 952\]](#) class is greater than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >(  
    Value current,  
    Value other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The first Value [► 952] to compare.
other	Type: TcHmiSrv.Core.Value [► 952] The second Value [► 952] to compare.

Return Value

Type: [Boolean](#)

true if current is greater than other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.3 *Value.GreaterThanOrEqual Operator*

Determines whether the current instance of the [Value \[► 952\]](#) class is greater than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator >=(  
    Value current,  
    Value other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The first Value [► 952] to compare.
other	Type: TcHmiSrv.Core.Value [► 952] The second Value [► 952] to compare.

Return Value

Type: [Boolean](#)

true if current is greater than or equal to other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4 *Value . Conversion Operators*

Overload List

	Name	Description
	.Boolean to Value [► 1144]	Converts a Boolean value to the appropriate instance of the Value [► 952] class.
	.Byte to Value [► 1144]	Converts an Byte to the appropriate instance of the Value [► 952] class.
	.Byte. to Value [► 1145]	Converts an array of Bytes to the appropriate instance of the Value [► 952] class.
	.Char to Value [► 1145]	Converts a Char to the appropriate instance of the Value [► 952] class.
	.DateTime to Value [► 1146]	Converts an instance of the DateTime class to the appropriate instance of the Value [► 952] class.
	.Decimal to Value [► 1146]	Converts a Decimal value to the appropriate instance of the Value [► 952] class.
	.Double to Value [► 1147]	Converts a Double -precision floating-point number to the appropriate instance of the Value [► 952] class.
	.Int16 to Value [► 1147]	Converts an Int16 to the appropriate instance of the Value [► 952] class.
	.Int32 to Value [► 1148]	Converts an Int32 to the appropriate instance of the Value [► 952] class.
	.Int64 to Value [► 1148]	Converts a Int64 to the appropriate instance of the Value [► 952] class.
	.SByte to Value [► 1149]	Converts an SByte to the appropriate instance of the Value [► 952] class.
	.Single to Value [► 1149]	Converts a Single -precision floating-point number to the appropriate instance of the Value [► 952] class.
	.String to Value [► 1150]	Converts a String to the appropriate instance of the Value [► 952] class.
	.TimeSpan to Value [► 1151]	Converts an instance of the TimeSpan class to the appropriate instance of the Value [► 952] class.
	.UInt16 to Value [► 1151]	Converts an UInt16 to the appropriate instance of the Value [► 952] class.

	Name	Description
 	.UInt32 to Value [► 1152]	Converts an UInt32 to the appropriate instance of the Value [► 952] class.
 	.UInt64 to Value [► 1152]	Converts a UInt64 to the appropriate instance of the Value [► 952] class.
 	.Access to Value [► 1153]	Converts an Access [► 766] to the appropriate instance of the Value [► 952] class.
 	.Alarm to Value [► 1153]	Converts an Alarm [► 767] to the appropriate instance of the Value [► 952] class.
 	.Event to Value [► 1154]	Converts an Event [► 850] to the appropriate instance of the Value [► 952] class.
 	.Message to Value [► 1154]	Converts an Message [► 924] to the appropriate instance of the Value [► 952] class.
 	.Severity to Value [► 1155]	Converts a Severity [► 951] to the appropriate instance of the Value [► 952] class.
 	.Value to Boolean [► 1155]	Converts an instance of the Value [► 952] class to the appropriate Boolean value.
 	.Value to Byte [► 1156]	Converts an instance of the Value [► 952] class to the appropriate Byte .
 	.Value to SByte [► 1156]	Converts an instance of the Value [► 952] class to the appropriate SByte .
 	.Value to Char [► 1157]	Converts an instance of the Value [► 952] class to the appropriate Char .
 	.Value to Int16 [► 1158]	Converts an instance of the Value [► 952] class to the appropriate Int16 .
 	.Value to UInt16 [► 1158]	Converts an instance of the Value [► 952] class to the appropriate UInt16 .
 	.Value to Int32 [► 1159]	Converts an instance of the Value [► 952] class to the appropriate Int32 .
 	.Value to UInt32 [► 1159]	Converts an instance of the Value [► 952] class to the appropriate UInt32 .

	Name	Description
 	.Value to Int64 [► 1160]	Converts an instance of the Value [► 952] class to the appropriate Int64 .
 	.Value to UInt64 [► 1160]	Converts an instance of the Value [► 952] class to the appropriate UInt64 .
 	.Value to Single [► 1161]	Converts an instance of the Value [► 952] class to the appropriate Single -precision floating-point number.
 	.Value to Double [► 1161]	Converts an instance of the Value [► 952] class to the appropriate Double -precision floating-point number.
 	.Value to String [► 1162]	Converts an instance of the Value [► 952] class to the appropriate String .
 	.Value to Access [► 1162]	Converts an instance of the Value [► 952] class to the appropriate Access [► 766].
 	.Value to Alarm [► 1163]	Converts an instance of the Value [► 952] class to the appropriate Alarm [► 767].
 	.Value to Event [► 1163]	Converts an instance of the Value [► 952] class to the appropriate Event [► 850].
 	.Value to Message [► 1164]	Converts an instance of the Value [► 952] class to the appropriate Message [► 924].
 	.Value to Severity [► 1165]	Converts an instance of the Value [► 952] class to the appropriate Severity [► 951].
 	.Value to DateTime [► 1165]	Converts an instance of the Value [► 952] class to the appropriate instance of the DateTime class.
 	.Value to TimeSpan [► 1166]	Converts an instance of the Value [► 952] class to the appropriate instance of the TimeSpan class.
 	.Value to Decimal [► 1166]	Converts an instance of the Value [► 952] class to the appropriate Decimal value.
 	.Value to Byte [► 1167]	Converts an instance of the Value [► 952] class to the appropriate array of Bytes .

Reference

[Value Class](#) [[► 952](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.1 Value . Conversion (Boolean to Value)

Converts a [Boolean](#) value to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    bool value  
)
```

Parameters

value Type: [System.Boolean](#)
The [Boolean](#) value to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.2 Value . Conversion (Byte to Value)

Converts an [Byte](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    byte value  
)
```

Parameters

value Type: [System.Byte](#)
The [Byte](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.3 Value . Conversion (.Byte. to Value)

Converts an array of [Bytes](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    byte[] value  
)
```

Parameters

value Type: [.System.Byte.](#)
The array of [Bytes](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.4 Value . Conversion (Char to Value)

Converts a [Char](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    char value  
)
```

Parameters

value Type: [System.Char](#)
The [Char](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.5 Value . Conversion (DateTime to Value)

Converts an instance of the [DateTime](#) class to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    DateTime value  
)
```

Parameters

value Type: [System.DateTime](#)
The [DateTime](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.6 Value . Conversion (Decimal to Value)

Converts a [Decimal](#) value to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    decimal value  
)
```

Parameters

value Type: [System.Decimal](#)
The [Decimal](#) value to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.7 Value . Conversion (Double to Value)

Converts a [Double](#)-precision floating-point number to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    double value  
)
```

Parameters

value Type: [System.Double](#)
The [Double](#)-precision floating-point number to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.8 Value . Conversion (Int16 to Value)

Converts an [Int16](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    short value  
)
```

Parameters

value Type: [System.Int16](#)
The [Int16](#) to convert.

Return Value

Type: [Value](#) [[► 952](#)]
A [Value](#) [[► 952](#)] that represents value.

Reference

[Value Class](#) [[► 952](#)]

[. Overload](#) [[► 1140](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.9 Value . Conversion (Int32 to Value)

Converts an [Int32](#) to the appropriate instance of the [Value](#) [[► 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    int value  
)
```

Parameters

value Type: [System.Int32](#)
The [Int32](#) to convert.

Return Value

Type: [Value](#) [[► 952](#)]
A [Value](#) [[► 952](#)] that represents value.

Reference

[Value Class](#) [[► 952](#)]

[. Overload](#) [[► 1140](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.10 Value . Conversion (Int64 to Value)

Converts a [Int64](#) to the appropriate instance of the [Value](#) [[► 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    long value  
)
```

Parameters

value Type: [System.Int64](#)
The [Int64](#) to convert.

Return Value

Type: [Value](#) [[▶ 952](#)]
A [Value](#) [[▶ 952](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[.Overload](#) [[▶ 1140](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.4.4.11 Value . Conversion (SByte to Value)

Converts an [SByte](#) to the appropriate instance of the [Value](#) [[▶ 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    sbyte value  
)
```

Parameters

value Type: [System.SByte](#)
The [SByte](#) to convert.

Return Value

Type: [Value](#) [[▶ 952](#)]
A [Value](#) [[▶ 952](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[.Overload](#) [[▶ 1140](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.4.4.12 Value . Conversion (Single to Value)

Converts a [Single](#)-precision floating-point number to the appropriate instance of the [Value](#) [[▶ 952](#)] class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    float value  
)
```

Parameters

value Type: [System.Single](#)
The [Single](#)-precision floating-point number to convert.

Return Value

Type: [Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.13 Value . Conversion (String to Value)

Converts a [String](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    string value  
)
```

Parameters

value Type: [System.String](#)
The [String](#) to convert.

Return Value

Type: [Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.14 Value . Conversion (TimeSpan to Value)

Converts an instance of the [TimeSpan](#) class to the appropriate instance of the [Value](#) [[► 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    TimeSpan value  
)
```

Parameters

value Type: [System.TimeSpan](#)
The [TimeSpan](#) to convert.

Return Value

Type: [Value](#) [[► 952](#)]

A [Value](#) [[► 952](#)] that represents value.

Reference

[Value Class](#) [[► 952](#)]

[.Overload](#) [[► 1140](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.15 Value . Conversion (UInt16 to Value)

Converts an [UInt16](#) to the appropriate instance of the [Value](#) [[► 952](#)] class.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    ushort value  
)
```

Parameters

value Type: [System.UInt16](#)
The [UInt16](#) to convert.

Return Value

Type: [Value](#) [[► 952](#)]

A [Value](#) [[► 952](#)] that represents value.

Reference

[Value Class](#) [[► 952](#)]

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.16 Value . Conversion (UInt32 to Value)

Converts an [UInt32](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    uint value  
)
```

Parameters

value Type: [System.UInt32](#)
The [UInt32](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.17 Value . Conversion (UInt64 to Value)

Converts a [UInt64](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    ulong value  
)
```

Parameters

value Type: [System.UInt64](#)
The [UInt64](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.18 Value . Conversion (Access to Value)

Converts an [Access \[► 766\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    Access value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Access \[► 766\]](#)
The [Access \[► 766\]](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.19 Value . Conversion (Alarm to Value)

Converts an [Alarm \[► 767\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    Alarm value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Alarm \[► 767\]](#)
The [Alarm \[► 767\]](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.20 Value . Conversion (Event to Value)

Converts an [Event \[► 850\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    Event value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Event \[► 850\]](#)
The [Event \[► 850\]](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.21 Value . Conversion (Message to Value)

Converts an [Message \[► 924\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    Message value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message \[▸ 924\]](#)
The [Message \[▸ 924\]](#) to convert.

Return Value

Type: [Value \[▸ 952\]](#)
A [Value \[▸ 952\]](#) that represents value.

Reference

[Value Class \[▸ 952\]](#)

[.Overload \[▸ 1140\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.4.4.22 Value . Conversion (Severity to Value)

Converts a [Severity \[▸ 951\]](#) to the appropriate instance of the [Value \[▸ 952\]](#) class.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    Severity value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Severity \[▸ 951\]](#)
The [Severity \[▸ 951\]](#) to convert.

Return Value

Type: [Value \[▸ 952\]](#)
A [Value \[▸ 952\]](#) that represents value.

Reference

[Value Class \[▸ 952\]](#)

[.Overload \[▸ 1140\]](#)

[TcHmiSrv.Core Namespace \[▸ 764\]](#)

2.2.4.1.26.4.4.23 Value . Conversion (Value to Boolean)

Converts an instance of the [Value \[▸ 952\]](#) class to the appropriate [Boolean](#) value.

Namespace: [TcHmiSrv.Core \[▸ 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator bool (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to convert.

Return Value

Type: [Boolean](#)
A [Boolean](#) value that represents value.

Reference

[Value Class](#) [► 952]

[.Overload](#) [► 1140]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.4.4.24 Value . Conversion (Value to Byte)

Converts an instance of the [Value](#) [► 952] class to the appropriate [Byte](#).

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator byte (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to convert.

Return Value

Type: [Byte](#)
A [Byte](#) that represents value.

Reference

[Value Class](#) [► 952]

[.Overload](#) [► 1140]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.4.4.25 Value . Conversion (Value to SByte)

Converts an instance of the [Value](#) [► 952] class to the appropriate [SByte](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator sbyte (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [SByte](#)

A [SByte](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.26 Value . Conversion (Value to Char)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Char](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator char (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Char](#)

A [Char](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.27 Value . Conversion (Value to Int16)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Int16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator short (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Int16](#)
A [Int16](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.28 Value . Conversion (Value to UInt16)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [UInt16](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator ushort (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [UInt16](#)
An [UInt16](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.29 Value . Conversion (Value to Int32)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Int32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator int (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Int32](#)

An [Int32](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.30 Value . Conversion (Value to UInt32)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [UInt32](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator uint (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [UInt32](#)

An [UInt32](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.31 Value . Conversion (Value to Int64)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Int64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator long (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Int64](#)

A [Int64](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.32 Value . Conversion (Value to UInt64)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [UInt64](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator ulong (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [UInt64](#)

An [UInt64](#) that represents value.

Reference

[Value Class](#) [[► 952](#)]

[.Overload](#) [[► 1140](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.33 Value . Conversion (Value to Single)

Converts an instance of the [Value](#) [[► 952](#)] class to the appropriate [Single](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator float (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [[► 952](#)]
The [Value](#) [[► 952](#)] to convert.

Return Value

Type: [Single](#)

A [Single](#)-precision floating-point number that represents value.

Reference

[Value Class](#) [[► 952](#)]

[.Overload](#) [[► 1140](#)]

[TcHmiSrv.Core Namespace](#) [[► 764](#)]

2.2.4.1.26.4.4.34 Value . Conversion (Value to Double)

Converts an instance of the [Value](#) [[► 952](#)] class to the appropriate [Double](#)-precision floating-point number.

Namespace: [TcHmiSrv.Core](#) [[► 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator double (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Double](#)
A [Double](#)-precision floating-point number that represents value.

Reference

[Value Class \[► 952\]](#)

[. Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.35 Value . Conversion (Value to String)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [String](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator string (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [String](#)
A [String](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[. Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.36 Value . Conversion (Value to Access)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Access \[► 766\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Access (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to convert.

Return Value

Type: [Access](#) [► 766]
An [Access](#) [► 766] that represents value.

Reference

[Value Class](#) [► 952]

[.Overload](#) [► 1140]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.4.4.37 Value . Conversion (Value to Alarm)

Converts an instance of the [Value](#) [► 952] class to the appropriate [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core](#) [► 764]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Alarm (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to convert.

Return Value

Type: [Alarm](#) [► 767]
An [Alarm](#) [► 767] that represents value.

Reference

[Value Class](#) [► 952]

[.Overload](#) [► 1140]

[TcHmiSrv.Core Namespace](#) [► 764]

2.2.4.1.26.4.4.38 Value . Conversion (Value to Event)

Converts an instance of the [Value](#) [► 952] class to the appropriate [Event](#) [► 850].

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Event (
    Value value
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Event \[► 850\]](#)

An [Event \[► 850\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.39 Value . Conversion (Value to Message)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Message \[► 924\]](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Message (
    Value value
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [Message \[► 924\]](#)

A [Message \[► 924\]](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.40 Value . Conversion (Value to Severity)

Converts an instance of the [Value](#) [[▶ 952](#)] class to the appropriate [Severity](#) [[▶ 951](#)].

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Severity (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [[▶ 952](#)]
The [Value](#) [[▶ 952](#)] to convert.

Return Value

Type: [Severity](#) [[▶ 951](#)]
A [Severity](#) [[▶ 951](#)] that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[.Overload](#) [[▶ 1140](#)]

[TcHmiSrv.Core Namespace](#) [[▶ 764](#)]

2.2.4.1.26.4.4.41 Value . Conversion (Value to DateTime)

Converts an instance of the [Value](#) [[▶ 952](#)] class to the appropriate instance of the [DateTime](#) class.

Namespace: [TcHmiSrv.Core](#) [[▶ 764](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator DateTime (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [[▶ 952](#)]
The [Value](#) [[▶ 952](#)] to convert.

Return Value

Type: [DateTime](#)
A [DateTime](#) that represents value.

Reference

[Value Class](#) [[▶ 952](#)]

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.42 Value . Conversion (Value to TimeSpan)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate instance of the [TimeSpan](#) class.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator TimeSpan (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
 The [Value \[► 952\]](#) to convert.

Return Value

Type: [TimeSpan](#)

A [TimeSpan](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.43 Value . Conversion (Value to Decimal)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate [Decimal](#) value.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator decimal (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
 The [Value \[► 952\]](#) to convert.

Return Value

Type: [Decimal](#)

A [Decimal](#) value that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.4.44 Value . Conversion (Value to .Byte.)

Converts an instance of the [Value \[► 952\]](#) class to the appropriate array of [Bytes](#).

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator byte[] (  
    Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to convert.

Return Value

Type: [.Byte](#).

An array of [Bytes](#) that represents value.

Reference

[Value Class \[► 952\]](#)

[.Overload \[► 1140\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.5 Value.Inequality Operator

Determines whether two instances of the [Value \[► 952\]](#) class are not equal.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator !=(  
    Value current,  
    Value other  
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The first Value [► 952] to compare.
other	Type: TcHmiSrv.Core.Value [► 952] The second Value [► 952] to compare.

Return Value

Type: [Boolean](#)
true if current does not equal other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.6 *Value.LessThan Operator*

Determines whether the current instance of the [Value \[► 952\]](#) class is less than another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <(
    Value current,
    Value other
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The first Value [► 952] to compare.
other	Type: TcHmiSrv.Core.Value [► 952] The second Value [► 952] to compare.

Return Value

Type: [Boolean](#)
true if current is less than other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.26.4.7 *Value.LessThanOrEqual Operator*

Determines whether the current instance of the [Value \[► 952\]](#) class is less than or equal to another instance.

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool operator <=(  
    Value current,  
    Value other  
)
```

Parameters

current Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The first [Value \[► 952\]](#) to compare.

other Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The second [Value \[► 952\]](#) to compare.

Return Value

Type: [Boolean](#)
true if current is less than or equal to other; otherwise, false.

Reference

[Value Class \[► 952\]](#)

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.1.27 ValueType Enumeration

Namespace: [TcHmiSrv.Core \[► 764\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public enum ValueType
```

Members

	Member name	Value	Description
	Null	0	
	Bool	1	
	Int32	2	
	Double	3	
	String	4	
	Vector	5	
	Map	6	
	Struct	7	
	Binary	8	
	Int64	9	
	DateTime	10	
	TimeSpan	11	
	Event	64	
	Message	65	
	Alarm	66	
	Any	256	

Reference

[TcHmiSrv.Core Namespace \[► 764\]](#)

2.2.4.2 TcHmiSrv.Core.Duplication Namespace

Contains interfaces that declare methods to support deep and shallow copying.

Interfaces

	Interface	Description
	ICopyable.T. [► 1170]	Supports deep and shallow copying, which creates a new instance of a class with the same value as an existing instance.
	IDeepCopyable.T. [► 1171]	Supports deep copying, which creates a new independent instance of a class with the same value as an existing instance.
	IShallowCopyable.T. [► 1172]	Supports shallow copying, which creates a new instance of a class with the same value as an existing instance and shared references.

2.2.4.2.1 ICopyable.T. Interface

Supports deep and shallow copying, which creates a new instance of a class with the same value as an existing instance.

Namespace: [TcHmiSrv.Core.Duplication](#) [\[► 1170\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface ICopyable<out T> : IDeepCopyable<T>,
    IShallowCopyable<T>
```

Type Parameters

T The type that is copyable.

The ICopyable.T. type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 1172]	Creates a new object that is a deep copy of the current instance. (Inherited from IDeepCopyable.T. [► 1171] .)
	ShallowCopy [► 1173]	Creates a new object that is a shallow copy of the current instance. (Inherited from IShallowCopyable.T. [► 1172] .)

Reference

[TcHmiSrv.Core.Duplication Namespace \[► 1170\]](#)

2.2.4.2.1.1 ICopyable.T. Methods

The [ICopyable.T.](#) [\[► 1170\]](#) generic type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 1172]	Creates a new object that is a deep copy of the current instance. (Inherited from IDeepCopyable.T. [► 1171].)
	ShallowCopy [► 1173]	Creates a new object that is a shallow copy of the current instance. (Inherited from IShallowCopyable.T. [► 1172].)

Reference

[ICopyable.T. Interface](#) [► 1170]

[TcHmiSrv.Core.Duplication Namespace](#) [► 1170]

2.2.4.2.2 IDeepCopyable.T. Interface

Supports deep copying, which creates a new independent instance of a class with the same value as an existing instance.

Namespace: [TcHmiSrv.Core.Duplication](#) [► 1170]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface IDeepCopyable<out T>
```

Type Parameters

T The type that is deep copyable.

The IDeepCopyable.T. type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 1172]	Creates a new object that is a deep copy of the current instance.

Reference

[TcHmiSrv.Core.Duplication Namespace](#) [► 1170]

2.2.4.2.2.1 IDeepCopyable.T. Methods

The [IDeepCopyable.T.](#) [► 1171] generic type exposes the following members.

Methods

	Name	Description
	DeepCopy [► 1172]	Creates a new object that is a deep copy of the current instance.

Reference

[IDeepCopyable.T. Interface](#) [► 1171]

[TcHmiSrv.Core.Duplication Namespace \[▸ 1170\]](#)

2.2.4.2.2.1.1 *IDeepCopyable.T..DeepCopy Method*

Creates a new object that is a deep copy of the current instance.

Namespace: [TcHmiSrv.Core.Duplication \[▸ 1170\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
T DeepCopy()
```

Return Value

Type: [T \[▸ 1171\]](#)
A new object that is a deep copy of the current instance.

Reference

[IDeepCopyable.T. Interface \[▸ 1171\]](#)
[TcHmiSrv.Core.Duplication Namespace \[▸ 1170\]](#)

2.2.4.2.3 *IShallowCopyable.T. Interface*

Supports shallow copying, which creates a new instance of a class with the same value as an existing instance and shared references.

Namespace: [TcHmiSrv.Core.Duplication \[▸ 1170\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface IShallowCopyable<out T>
```

Type Parameters

T The type that is shallow copyable.

The IShallowCopyable.T. type exposes the following members.

Methods

	Name	Description
	ShallowCopy [▸ 1173]	Creates a new object that is a shallow copy of the current instance.

Reference

[TcHmiSrv.Core.Duplication Namespace \[▸ 1170\]](#)

2.2.4.2.3.1 *IShallowCopyable.T. Methods*

The [IShallowCopyable.T. \[▸ 1172\]](#) generic type exposes the following members.

Methods

	Name	Description
	ShallowCopy [► 1173]	Creates a new object that is a shallow copy of the current instance.

Reference

[IShallowCopyable.T. Interface \[► 1172\]](#)

[TcHmiSrv.Core.Duplication Namespace \[► 1170\]](#)

2.2.4.2.3.1.1 *IShallowCopyable.T..ShallowCopy Method*

Creates a new object that is a shallow copy of the current instance.

Namespace: [TcHmiSrv.Core.Duplication \[► 1170\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
T ShallowCopy()
```

Return Value

Type: [T \[► 1172\]](#)

A new object that is a shallow copy of the current instance.

Reference

[IShallowCopyable.T. Interface \[► 1172\]](#)

[TcHmiSrv.Core.Duplication Namespace \[► 1170\]](#)

2.2.4.3 TcHmiSrv.Core.Extensions Namespace

Provides extension methods for the core types of the TwinCAT HMI server extension API.

Classes

	Class	Description
	ValueExtensions [► 1173]	Provides extension methods for the Value [► 952] class.

2.2.4.3.1 ValueExtensions Class

Provides extension methods for the [Value \[► 952\]](#) class.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Extensions.ValueExtensions](#)

Namespace: [TcHmiSrv.Core.Extensions \[► 1173\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class ValueExtensions
```

Methods

	Name	Description
 	ResolveBy(Value, Queue.String) [▶ 1175]	Resolves the current Value [▶ 952] by the specified Queue.T . of elements.
 	ResolveBy(Value, String) [▶ 1176]	Resolves the current Value [▶ 952] by the specified path.
 	TryResolveBy(Value, Queue.String, Value) [▶ 1177]	Resolves the current Value [▶ 952] by the specified Queue.T . of elements. A return value indicates whether resolving succeeded.
 	TryResolveBy(Value, String, Value) [▶ 1178]	Resolves the current Value [▶ 952] by the specified Queue.T . of elements. A return value indicates whether resolving succeeded.

Reference

[TcHmiSrv.Core.Extensions Namespace](#) [[▶ 1173](#)]

2.2.4.3.1.1 ValueExtensions Methods

Methods

	Name	Description
	ResolveBy(Value, Queue.String.) [▶ 1175]	Resolves the current Value [▶ 952] by the specified Queue.T. of elements.
	ResolveBy(Value, String) [▶ 1176]	Resolves the current Value [▶ 952] by the specified path.
	TryResolveBy(Value, Queue.String., Value.) [▶ 1177]	Resolves the current Value [▶ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded.
	TryResolveBy(Value, String, Value.) [▶ 1178]	Resolves the current Value [▶ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded.

Reference

[ValueExtensions Class](#) [[▶ 1173](#)]

[TcHmiSrv.Core.Extensions Namespace](#) [[▶ 1173](#)]

2.2.4.3.1.1.1 ValueExtensions.ResolveBy Method

Overload List

	Name	Description
	ResolveBy(Value, Queue.String.) [▶ 1175]	Resolves the current Value [▶ 952] by the specified Queue.T. of elements.
	ResolveBy(Value, String) [▶ 1176]	Resolves the current Value [▶ 952] by the specified path.

Reference

[ValueExtensions Class](#) [[▶ 1173](#)]

[TcHmiSrv.Core.Extensions Namespace](#) [[▶ 1173](#)]

2.2.4.3.1.1.1.1 ValueExtensions.ResolveBy Method (Value, Queue.String.)

Resolves the current [Value](#) [[▶ 952](#)] by the specified [Queue.T.](#) of elements.

Namespace: [TcHmiSrv.Core.Extensions](#) [► 1173]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value ResolveBy(  
    this Value value,  
    Queue<string> elements  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to resolve.

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#) containing the elements by which value should be resolved.

Return Value

Type: [Value](#) [► 952]
A sub-[Value](#) [► 952] of value resolved by elements.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value](#) [► 952]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [► 1173]

[ResolveBy Overload](#) [► 1175]

[TcHmiSrv.Core.Extensions Namespace](#) [► 1173]

2.2.4.3.1.1.1.2 ValueExtensions.ResolveBy Method (Value, String)

Resolves the current [Value](#) [► 952] by the specified path.

Namespace: [TcHmiSrv.Core.Extensions](#) [► 1173]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value ResolveBy(  
    this Value value,  
    string path  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to resolve.

path Type: [System.String](#)
The path by which value should be resolved.

Return Value

Type: [Value](#) [► 952]
A sub-[Value](#) [► 952] of value resolved by path.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value](#) [► 952]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

- [ValueExtensions Class](#) [► 1173]
- [ResolveBy Overload](#) [► 1175]
- [TcHmiSrv.Core.Extensions Namespace](#) [► 1173]

2.2.4.3.1.1.2 *ValueExtensions.TryResolveBy Method*

Overload List

	Name	Description
 	TryResolveBy (Value , Queue.String , Value) [► 1177]	Resolves the current Value [► 952] by the specified Queue.T of elements. A return value indicates whether resolving succeeded.
 	TryResolveBy (Value , String , Value) [► 1178]	Resolves the current Value [► 952] by the specified Queue.T of elements. A return value indicates whether resolving succeeded.

Reference

- [ValueExtensions Class](#) [► 1173]
- [TcHmiSrv.Core.Extensions Namespace](#) [► 1173]

2.2.4.3.1.1.2.1 *ValueExtensions.TryResolveBy Method (Value, Queue.String, Value)*

Resolves the current [Value](#) [► 952] by the specified [Queue.T](#) of elements. A return value indicates whether resolving succeeded.

Namespace: [TcHmiSrv.Core.Extensions](#) [► 1173]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool TryResolveBy(  
    this Value value,  
    Queue<string> elements,  
    out Value result  
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] to resolve.
elements	Type: System.Collections.Generic.Queue.String . A Queue.T containing the elements by which value should be resolved.
result	Type: TcHmiSrv.Core.Value [► 952] . When this method returns, contains the sub- Value [► 952] of value resolved by elements, if resolving succeeded, or the last Value [► 952] at which resolving succeeded if resolving all elements failed.

Return Value

Type: [Boolean](#)
true if resolving value by elements succeeded; otherwise, false.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value \[► 952\]](#). When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class \[► 1173\]](#)

[TryResolveBy Overload \[► 1177\]](#)

[TcHmiSrv.Core.Extensions Namespace \[► 1173\]](#)

2.2.4.3.1.1.2.2 ValueExtensions.TryResolveBy Method (Value, String, Value.)

Resolves the current [Value \[► 952\]](#) by the specified [Queue.T](#) of elements. A return value indicates whether resolving succeeded.

Namespace: [TcHmiSrv.Core.Extensions \[► 1173\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static bool TryResolveBy(  
    this Value value,  
    string path,  
    out Value result  
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] to resolve.
path	Type: System.String The path by which value should be resolved.
result	Type: TcHmiSrv.Core.Value [► 952] . When this method returns, contains the sub- Value [► 952] of value resolved by path, if resolving succeeded, or the last Value [► 952] at which resolving succeeded if resolving the entire path failed.

Return Value

Type: [Boolean](#)

true if resolving value by path succeeded; otherwise, false.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value](#) [► 952]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [► 1173]

[TryResolveBy Overload](#) [► 1177]

[TcHmiSrv.Core.Extensions Namespace](#) [► 1173]

2.2.4.4 TcHmiSrv.Core.General Namespace

Contains general API types that allow to communicate with the TwinCAT HMI Server, for example by executing [Command](#) [► 788]s or sending [Message](#) [► 924]s.

Classes

	Class	Description
	TcHmiApplication [► 1179]	Provides the ITcHmiSrvExtHost [► 904], Context [► 833] and path of a TwinCAT HMI server extension.
	TcHmiAsyncLogger [► 1191]	Provides an asynchronous logger to send and localize Message [► 924]s.
	TcHmiException [► 1208]	Represents an Exception that is thrown when an event invoked by an IListener [► 1251] failed.
	TcHmiLogger [► 1214]	Obsolete. Provides a logger to send and localize Message [► 924]s.

2.2.4.4.1 TcHmiApplication Class

Provides the [ITcHmiSrvExtHost](#) [► 904], [Context](#) [► 833] and path of a TwinCAT HMI server extension.

Inheritance Hierarchy

[System.Object](#)

TcHmiSrv.Core.General.TcHmiApplication

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class TcHmiApplication
```

The TcHmiApplication type exposes the following members.

Properties

	Name	Description
S	AsyncHost [► 1181]	Gets the ITcHmiSrvExtAsyncHost [► 869] that is used to initialize the TwinCAT HMI server extension.
S	Context [► 1182]	Gets the administrator Context [► 833] that is used to initialize the TwinCAT HMI server extension.
S	Host [► 1182]	Obsolete. Gets the ITcHmiSrvExtHost [► 904] that is used to initialize the TwinCAT HMI server extension.
S	Path [► 1182]	Gets the path of the TwinCAT HMI server extension.

Methods

	Name	Description
S	JoinPath(Object) [► 1185]	Concatenates all elements of the specified Object array, using PathElementSeparator [► 1190] between each element.
S	JoinPath(String) [► 1186]	Concatenates all elements of the specified String array, using PathElementSeparator [► 1190] between each element.
S	JoinPath.T.(IEnumerable.String) [► 1184]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
S	JoinPath.T.(IEnumerable.T.) [► 1185]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
S	SplitPath(String) [► 1187]	Splits the specified path into substrings based on PathElementSeparator [► 1190].
S	SplitPath(String, StringSplitOptions) [► 1187]	Splits the specified path into substrings based on PathElementSeparator [► 1190].
S	SplitSymbolPath(String) [► 1188]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].
S	SplitSymbolPath(String, StringSplitOptions) [► 1189]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].

Fields

	Name	Description
 	PathElementSeparator [▸ 1190]	Contains the separator that separates the elements of a path.
 	SymbolPathElementSeparators [▸ 1190]	Contains the separator that separates the elements of a symbol path.

Reference

[TcHmiSrv.Core.General Namespace](#) [[▸ 1179](#)]

2.2.4.4.1.1 TcHmiApplication Properties

The [TcHmiApplication](#) [[▸ 1179](#)] type exposes the following members.

Properties

	Name	Description
 	AsyncHost [▸ 1181]	Gets the ITcHmiSrvExtAsyncHost [▸ 869] that is used to initialize the TwinCAT HMI server extension.
 	Context [▸ 1182]	Gets the administrator Context [▸ 833] that is used to initialize the TwinCAT HMI server extension.
 	Host [▸ 1182]	Obsolete. Gets the ITcHmiSrvExtHost [▸ 904] that is used to initialize the TwinCAT HMI server extension.
 	Path [▸ 1182]	Gets the path of the TwinCAT HMI server extension.

Reference

[TcHmiApplication Class](#) [[▸ 1179](#)]

[TcHmiSrv.Core.General Namespace](#) [[▸ 1179](#)]

2.2.4.4.1.1.1 TcHmiApplication.AsyncHost Property

Gets the [ITcHmiSrvExtAsyncHost](#) [[▸ 869](#)] that is used to initialize the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.General](#) [[▸ 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static ITcHmiSrvExtAsyncHost AsyncHost { get; }
```

Property Value

Type: [ITcHmiSrvExtAsyncHost](#) [[► 869](#)]

Reference

[TcHmiApplication Class](#) [[► 1179](#)]

[TcHmiSrv.Core.General Namespace](#) [[► 1179](#)]

2.2.4.4.1.1.2 *TcHmiApplication.Context Property*

Gets the administrator [Context](#) [[► 833](#)] that is used to initialize the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.General](#) [[► 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Context Context { get; }
```

Property Value

Type: [Context](#) [[► 833](#)]

Reference

[TcHmiApplication Class](#) [[► 1179](#)]

[TcHmiSrv.Core.General Namespace](#) [[► 1179](#)]

2.2.4.4.1.1.3 *TcHmiApplication.Host Property*

Note: This API is now obsolete.

Gets the [ITcHmiSrvExtHost](#) [[► 904](#)] that is used to initialize the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.General](#) [[► 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiApplication.Host is obsolete. Use TcHmiApplication.AsyncHost instead.")]  
public static ITcHmiSrvExtHost Host { get; }
```

Property Value

Type: [ITcHmiSrvExtHost](#) [[► 904](#)]

Reference

[TcHmiApplication Class](#) [[► 1179](#)]

[TcHmiSrv.Core.General Namespace](#) [[► 1179](#)]

2.2.4.4.1.1.4 *TcHmiApplication.Path Property*

Gets the path of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Path { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiApplication Class](#) [► 1179]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.1.2 TcHmiApplication Methods

Methods

	Name	Description
 	JoinPath(Object) [► 1185]	Concatenates all elements of the specified Object array, using PathElementSeparator [► 1190] between each element.
 	JoinPath(String) [► 1186]	Concatenates all elements of the specified String array, using PathElementSeparator [► 1190] between each element.
 	JoinPath.T.(IEnumerable.String) [► 1184]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
 	JoinPath.T.(IEnumerable.T.) [► 1185]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
 	SplitPath(String) [► 1187]	Splits the specified path into substrings based on PathElementSeparator [► 1190].
 	SplitPath(String, StringSplitOptions) [► 1187]	Splits the specified path into substrings based on PathElementSeparator [► 1190].
 	SplitSymbolPath(String) [► 1188]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].
 	SplitSymbolPath(String, StringSplitOptions) [► 1189]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].

Reference

[TcHmiApplication Class \[► 1179\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.1.2.1 *TcHmiApplication.JoinPath Method*

Overload List

	Name	Description
 	JoinPath.T. (IEnumerable. String.) [► 1184]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
 	JoinPath.T. (IEnumerable. T.) [► 1185]	Concatenates all elements of the specified IEnumerable.T. , using PathElementSeparator [► 1190] between each element.
 	JoinPath.Obj ect.) [► 1185]	Concatenates all elements of the specified Object array, using PathElementSeparator [► 1190] between each element.
 	JoinPath.Stri ng.) [► 1186]	Concatenates all elements of the specified String array, using PathElementSeparator [► 1190] between each element.

Reference

[TcHmiApplication Class \[► 1179\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.1.2.1.1 *TcHmiApplication.JoinPath.T. Method (IEnumerable.String.)*

Concatenates all elements of the specified [IEnumerable.T.](#), using [PathElementSeparator \[► 1190\]](#) between each element.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string JoinPath<T>(
    IEnumerable<string> elements
)
```

Parameters

elements Type: [System.Collections.Generic.IEnumerable.String.](#)
An [IEnumerable.T.](#) of [Strings](#) that contains the elements to concatenate.

Type Parameters

T [Missing <typeparam name="T"/> documentation for "M:TcHmiSrv.Core.General.TcHmiApplication.JoinPath`1(System.Collections.Generic.IEnumerable{System.String})"]

Return Value

Type: [String](#)

A [String](#) that consists of the specified elements delimited by [PathElementSeparator](#) [[▶ 1190](#)]. If elements has no members, the method returns [Empty](#).

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[JoinPath Overload](#) [[▶ 1184](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.1.2.1.2 TcHmiApplication.JoinPath.T. Method (IEnumerable.T.)

Concatenates all elements of the specified [IEnumerable.T.](#), using [PathElementSeparator](#) [[▶ 1190](#)] between each element.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string JoinPath<T>(
    IEnumerable<T> elements
)
```

Parameters

elements Type: [System.Collections.Generic.IEnumerable.T.](#)
An [IEnumerable.T.](#) of the specified type that contains the elements to concatenate.

Type Parameters

T The type of the elements to concatenate.

Return Value

Type: [String](#)

A [String](#) that consists of the specified elements delimited by [PathElementSeparator](#) [[▶ 1190](#)]. If elements has no members, the method returns [Empty](#).

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[JoinPath Overload](#) [[▶ 1184](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.1.2.1.3 TcHmiApplication.JoinPath Method (.Object.)

Concatenates all elements of the specified [Object](#) array, using [PathElementSeparator](#) [[▶ 1190](#)] between each element.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string JoinPath(  
    params Object[] elements  
)
```

Parameters

elements Type: [.System.Object](#).
An array of [Objects](#) that contains the elements to concatenate.

Return Value

Type: [String](#)

A [String](#) that consists of the specified elements delimited by [PathElementSeparator](#) [[▶ 1190](#)]. If elements is an empty array, the method returns [Empty](#).

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[JoinPath Overload](#) [[▶ 1184](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.1.2.1.4 TcHmiApplication.JoinPath Method (.String.)

Concatenates all elements of the specified [String](#) array, using [PathElementSeparator](#) [[▶ 1190](#)] between each element.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string JoinPath(  
    params string[] elements  
)
```

Parameters

elements Type: [.System.String](#).
An array of [Strings](#) that contains the elements to concatenate.

Return Value

Type: [String](#)

A [String](#) that consists of the specified elements delimited by [PathElementSeparator](#) [[▶ 1190](#)]. If elements is an empty array, the method returns [Empty](#).

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[JoinPath Overload](#) [[▶ 1184](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.1.2.2 *TcHmiApplication.SplitPath Method*

Overload List

	Name	Description
 	SplitPath(String) [▸ 1187]	Splits the specified path into substrings based on PathElementSeparator [▸ 1190] .
 	SplitPath(String, StringSplitOptions) [▸ 1187]	Splits the specified path into substrings based on PathElementSeparator [▸ 1190] .

Reference

[TcHmiApplication Class \[▸ 1179\]](#)

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.1.2.2.1 **TcHmiApplication.SplitPath Method (String)**

Splits the specified path into substrings based on [PathElementSeparator \[▸ 1190\]](#).

Namespace: [TcHmiSrv.Core.General \[▸ 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string[] SplitPath(  
    string path  
)
```

Parameters

path Type: [System.String](#)
The path to split.

Return Value

Type: [.String](#).
An array whose elements contain the substrings in path that are delimited by [PathElementSeparator \[▸ 1190\]](#).

Reference

[TcHmiApplication Class \[▸ 1179\]](#)

[SplitPath Overload \[▸ 1187\]](#)

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.1.2.2.2 **TcHmiApplication.SplitPath Method (String, StringSplitOptions)**

Splits the specified path into substrings based on [PathElementSeparator \[▸ 1190\]](#).

Namespace: [TcHmiSrv.Core.General \[▸ 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string[] SplitPath(
    string path,
    StringSplitOptions options
)
```

Parameters

- path Type: [System.String](#)
The path to split.
- options Type: [System.StringSplitOptions](#)
[RemoveEmptyEntries](#) to omit empty array elements from the array returned; or [None](#) to include empty array elements in the array returned.

Return Value

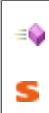
Type: [.String](#).
An array whose elements contain the substrings in path that are delimited by [PathElementSeparator](#) [► 1190].

Reference

- [TcHmiApplication Class](#) [► 1179]
- [SplitPath Overload](#) [► 1187]
- [TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.1.2.3 TcHmiApplication.SplitSymbolPath Method

Overload List

	Name	Description
	SplitSymbolPath(String) [► 1188]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].
	SplitSymbolPath(String, StringSplitOptions) [► 1189]	Splits the specified symbol path into substrings based on SymbolPathElementSeparators [► 1190].

Reference

- [TcHmiApplication Class](#) [► 1179]
- [TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.1.2.3.1 TcHmiApplication.SplitSymbolPath Method (String)

Splits the specified symbol path into substrings based on [SymbolPathElementSeparators](#) [► 1190].

Namespace: [TcHmiSrv.Core.General](#) [► 1179]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string[] SplitSymbolPath(  
    string path  
)
```

Parameters

path Type: [System.String](#)
The symbol path to split.

Return Value

Type: [.String](#).

An array whose elements contain the substrings in path that are delimited by [SymbolPathElementSeparators](#) [[▶ 1190](#)].

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[SplitSymbolPath Overload](#) [[▶ 1188](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.1.2.3.2 TcHmiApplication.SplitSymbolPath Method (String, StringSplitOptions)

Splits the specified symbol path into substrings based on [SymbolPathElementSeparators](#) [[▶ 1190](#)].

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string[] SplitSymbolPath(  
    string path,  
    StringSplitOptions options  
)
```

Parameters

path Type: [System.String](#)
The symbol path to split.

options Type: [System.StringSplitOptions](#)
[RemoveEmptyEntries](#) to omit empty array elements from the array returned; or [None](#) to include empty array elements in the array returned.

Return Value

Type: [.String](#).

An array whose elements contain the substrings in path that are delimited by [SymbolPathElementSeparators](#) [[▶ 1190](#)].

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[SplitSymbolPath Overload \[▸ 1188\]](#)

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.1.3 **TcHmiApplication Fields**

The [TcHmiApplication \[▸ 1179\]](#) type exposes the following members.

Fields

	Name	Description
 	PathElementSeparator [▸ 1190]	Contains the separator that separates the elements of a path.
 	SymbolPathElementSeparators [▸ 1190]	Contains the separator that separates the elements of a symbol path.

Reference

[TcHmiApplication Class \[▸ 1179\]](#)

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.1.3.1 ***TcHmiApplication.PathElementSeparator Field***

Contains the separator that separates the elements of a path.

Namespace: [TcHmiSrv.Core.General \[▸ 1179\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public const string PathElementSeparator = "::"
```

Field Value

Type: [String](#)

Reference

[TcHmiApplication Class \[▸ 1179\]](#)

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.1.3.2 ***TcHmiApplication.SymbolPathElementSeparators Field***

Contains the separator that separates the elements of a symbol path.

Namespace: [TcHmiSrv.Core.General \[▸ 1179\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static readonly string[] SymbolPathElementSeparators
```

Field Value

Type: [.String](#).

Reference

[TcHmiApplication Class](#) [[▶ 1179](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.2 TcHmiAsyncLogger Class

Provides an asynchronous logger to send and localize [Message](#) [[▶ 924](#)]s.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.General.TcHmiAsyncLogger

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class TcHmiAsyncLogger
```

Methods

	Name	Description
	Localize(String, String.) [▶ 1197]	Localizes a Message [▶ 924] with the specified name and parameters.
	Localize(Context, String, String.) [▶ 1198]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters.
	Localize(ITcHmiSrvExtAsyncHost, Context, String, String.) [▶ 1199]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters.
	LocalizeAsync(String, String.) [▶ 1200]	Localizes a Message [▶ 924] with the specified name and parameters as an asynchronous operation.
	LocalizeAsync(Context, String, String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters as an asynchronous operation.
	LocalizeAsync(ITcHmiSrvExtAsyncHost, Context, String, String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters as an asynchronous operation.
	Send(Severity, String, String.) [▶ 1203]	Sends a Message [▶ 924] with the specified name, Severity [▶ 951] and parameters.
	Send(Context, Severity, String, String.) [▶ 1203]	Sends a Message [▶ 924] with the specified Context [▶ 833], name, Severity [▶ 951] and parameters.
	Send(ITcHmiSrvExtAsyncHost, Context, Severity, String, String.) [▶ 1204]	Sends a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name, Severity [▶ 951] and parameters.
	SendAsync(Severity, String, String.) [▶ 1206]	Sends a Message [▶ 924] with the specified name, Severity [▶ 951] and parameters as an asynchronous operation.

	Name	Description
 	SendAsync(Context, Severity, String, String) [▸ 1206]	Sends a Message [▸ 924] with the specified Context [▸ 833] , name, Severity [▸ 951] and parameters as an asynchronous operation.
 	SendAsync(ITcHmiSrvExtAsyncHost, Context, Severity, String, String) [▸ 1207]	Sends a Message [▸ 924] with the specified ITcHmiSrvExtAsyncHost [▸ 869] , Context [▸ 833] , name, Severity [▸ 951] and parameters as an asynchronous operation.

Reference

[TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.2.1 TcHmiAsyncLogger Methods

Methods

	Name	Description
 	Localize(String, String.) [▶ 1197]	Localizes a Message [▶ 924] with the specified name and parameters.
 	Localize(Context, String, String.) [▶ 1198]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters.
 	Localize(ITcHmiSrvExtAsyncHost, Context, String, String.) [▶ 1199]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters.
 	LocalizeAsync(String, String.) [▶ 1200]	Localizes a Message [▶ 924] with the specified name and parameters as an asynchronous operation.
 	LocalizeAsync(Context, String, String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters as an asynchronous operation.
 	LocalizeAsync(ITcHmiSrvExtAsyncHost, Context, String, String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters as an asynchronous operation.
 	Send(Severity, String, String.) [▶ 1203]	Sends a Message [▶ 924] with the specified name, Severity [▶ 951] and parameters.
 	Send(Context, Severity, String, String.) [▶ 1203]	Sends a Message [▶ 924] with the specified Context [▶ 833], name, Severity [▶ 951] and parameters.
 	Send(ITcHmiSrvExtAsyncHost, Context, Severity, String, String.) [▶ 1204]	Sends a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name, Severity [▶ 951] and parameters.
 	SendAsync(Severity, String, String.) [▶ 1206]	Sends a Message [▶ 924] with the specified name, Severity [▶ 951] and parameters as an asynchronous operation.

	Name	Description
 	SendAsync(Context, Severity, String, .String.) [▶ 1206]	Sends a Message [▶ 924] with the specified Context [▶ 833], name, Severity [▶ 951] and parameters as an asynchronous operation.
 	SendAsync(ITcHmiSrvExtAsyncHost, Context, Severity, String, .String.) [▶ 1207]	Sends a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name, Severity [▶ 951] and parameters as an asynchronous operation.

Reference

[TcHmiAsyncLogger Class](#) [[▶ 1191](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.2.1.1 *TcHmiAsyncLogger.Localize Method*

Overload List

	Name	Description
 	Localize(String, .String.) [▶ 1197]	Localizes a Message [▶ 924] with the specified name and parameters.
 	Localize(Context, String, .String.) [▶ 1198]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters.
 	Localize(ITcHmiSrvExtAsyncHost, Context, String, .String.) [▶ 1199]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters.

Reference

[TcHmiAsyncLogger Class](#) [[▶ 1191](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.2.1.1.1 *TcHmiAsyncLogger.Localize Method (String, .String.)*

Localizes a [Message](#) [[▶ 924](#)] with the specified name and parameters.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    string name,  
    params string[] parameters  
)
```

Parameters

name Type: [System.String](#)
The name of the [Message](#) [► 924] to localize.

parameters Type: [System.String](#).
The parameters of the [Message](#) [► 924] to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

[TcHmiAsyncLogger Class](#) [► 1191]

[Localize Overload](#) [► 1197]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.2.1.1.2 TcHmiAsyncLogger.Localize Method (Context, String, .String.)

Localizes a [Message](#) [► 924] with the specified [Context](#) [► 833], name and parameters.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    Context context,  
    string name,  
    params string[] parameters  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] of the [Message](#) [► 924] to localize.

name Type: [System.String](#)
The name of the [Message](#) [► 924] to localize.

parameters Type: [System.String](#).
The parameters of the [Message](#) [► 924] to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[Localize Overload \[► 1197\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.1.3 TcHmiAsyncLogger.Localize Method (ITcHmiSrvExtAsyncHost, Context, String, .String.)

Localizes a [Message \[► 924\]](#) with the specified [ITcHmiSrvExtAsyncHost \[► 869\]](#), [Context \[► 833\]](#), name and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    ITcHmiSrvExtAsyncHost host,  
    Context context,  
    string name,  
    params string[] parameters  
)
```

Parameters

host	Type: TcHmiSrv.Core.ITcHmiSrvExtAsyncHost [► 869] The ITcHmiSrvExtAsyncHost [► 869] that is used to localize the Message [► 924] .
context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924] to localize.
name	Type: System.String The name of the Message [► 924] to localize.
parameters	Type: .System.String . The parameters of the Message [► 924] to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[Localize Overload \[► 1197\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.2 *TcHmiAsyncLogger.LocalizeAsync Method*

Overload List

	Name	Description
	LocalizeAsync (String, .String.) [▶ 1200]	Localizes a Message [▶ 924] with the specified name and parameters as an asynchronous operation.
	LocalizeAsync (Context, String, .String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters as an asynchronous operation.
	LocalizeAsync (ITcHmiSrvExtAsyncHost, Context, String, .String.) [▶ 1201]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtAsyncHost [▶ 869], Context [▶ 833], name and parameters as an asynchronous operation.

Reference

[TcHmiAsyncLogger Class](#) [[▶ 1191](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.2.1.2.1 **TcHmiAsyncLogger.LocalizeAsync Method (String, .String.)**

Localizes a [Message](#) [[▶ 924](#)] with the specified name and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Task<string> LocalizeAsync(  
    string name,  
    params string[] parameters  
)
```

Parameters

- name Type: [System.String](#)
 The name of the [Message](#) [[▶ 924](#)] to localize.
- parameters Type: [.System.String](#).
 The parameters of the [Message](#) [[▶ 924](#)] to localize.

Return Value

Type: [Task.String](#).
A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns the localized [String](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[LocalizeAsync Overload \[► 1200\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.2.2 TcHmiAsyncLogger.LocalizeAsync Method (Context, String, .String.)

Localizes a [Message \[► 924\]](#) with the specified [Context \[► 833\]](#), name and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Task<string> LocalizeAsync(  
    Context context,  
    string name,  
    params string[] parameters  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924] to localize.
name	Type: System.String The name of the Message [► 924] to localize.
parameters	Type: .System.String . The parameters of the Message [► 924] to localize.

Return Value

Type: [Task.String](#).

A [Task.TResult](#), that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#), returns the localized [String](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[LocalizeAsync Overload \[► 1200\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.2.3 TcHmiAsyncLogger.LocalizeAsync Method (ITcHmiSrvExtAsyncHost, Context, String, .String.)

Localizes a [Message \[► 924\]](#) with the specified [ITcHmiSrvExtAsyncHost \[► 869\]](#), [Context \[► 833\]](#), name and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Task<string> LocalizeAsync(
    ITcHmiSrvExtAsyncHost host,
    Context context,
    string name,
    params string[] parameters
)
```

Parameters

- host Type: [TcHmiSrv.Core.ITcHmiSrvExtAsyncHost \[▸ 869\]](#)
The [ITcHmiSrvExtAsyncHost \[▸ 869\]](#) that is used to localize the [Message \[▸ 924\]](#).
- context Type: [TcHmiSrv.Core.Context \[▸ 833\]](#)
The [Context \[▸ 833\]](#) of the [Message \[▸ 924\]](#) to localize.
- name Type: [System.String](#)
The name of the [Message \[▸ 924\]](#) to localize.
- parameters Type: [.System.String](#).
The parameters of the [Message \[▸ 924\]](#) to localize.

Return Value

Type: [Task.String](#).
A [Task.TResult](#) that represents the asynchronous operation. The [Result](#) of the [Task.TResult](#) returns the localized [String](#).

Reference

- [TcHmiAsyncLogger Class \[▸ 1191\]](#)
- [LocalizeAsync Overload \[▸ 1200\]](#)
- [TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.2.1.3 TcHmiAsyncLogger.Send Method

Overload List

	Name	Description
 	Send(Severity, String, .String.) [▸ 1203]	Sends a Message [▸ 924] with the specified name, Severity [▸ 951] and parameters.
 	Send(Context, Severity, String, .String.) [▸ 1203]	Sends a Message [▸ 924] with the specified Context [▸ 833] , name, Severity [▸ 951] and parameters.
 	Send(ITcHmiSrvExtAsyncHost, Context, Severity, String, .String.) [▸ 1204]	Sends a Message [▸ 924] with the specified ITcHmiSrvExtAsyncHost [▸ 869] , Context [▸ 833] , name, Severity [▸ 951] and parameters.

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.3.1 TcHmiAsyncLogger.Send Method (Severity, String, .String.)

Sends a [Message \[► 924\]](#) with the specified name, [Severity \[► 951\]](#) and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ErrorValue Send(  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```

Parameters

severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: .System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [ErrorValue \[► 845\]](#)

The [ErrorValue \[► 845\]](#) returned by [Send\(Context, Message\) \[► 897\]](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[Send Overload \[► 1202\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.3.2 TcHmiAsyncLogger.Send Method (Context, Severity, String, .String.)

Sends a [Message \[► 924\]](#) with the specified [Context \[► 833\]](#), name, [Severity \[► 951\]](#) and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ErrorValue Send(  
    Context context,  
    Severity severity,
```

```

    string name,
    params string[] parameters
)

```

Parameters

context Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) of the [Message \[► 924\]](#) to send.

severity Type: [TcHmiSrv.Core.Severity \[► 951\]](#)
The [Severity \[► 951\]](#) of the [Message \[► 924\]](#) to send.

name Type: [System.String](#)
The name of the [Message \[► 924\]](#) to send.

parameters Type: [.System.String](#).
The parameters of the [Message \[► 924\]](#) to send.

Return Value

Type: [ErrorValue \[► 845\]](#)
The [ErrorValue \[► 845\]](#) returned by [Send\(Context, Message\) \[► 897\]](#).

Reference

[TcHmiAsyncLogger Class \[► 1191\]](#)

[Send Overload \[► 1202\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.2.1.3.3 TcHmiAsyncLogger.Send Method (ITcHmiSrvExtAsyncHost, Context, Severity, String, .String.)

Sends a [Message \[► 924\]](#) with the specified [ITcHmiSrvExtAsyncHost \[► 869\]](#), [Context \[► 833\]](#), name, [Severity \[► 951\]](#) and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```

public static ErrorValue Send(
    ITcHmiSrvExtAsyncHost host,
    Context context,
    Severity severity,
    string name,
    params string[] parameters
)

```


Parameters

host	Type: TcHmiSrv.Core.ITcHmiSrvExtAsyncHost [► 869] The ITcHmiSrvExtAsyncHost [► 869] that is used to send the Message [► 924].
context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924] to send.
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [ErrorValue](#) [► 845]
The [ErrorValue](#) [► 845] returned by [Send\(Context, Message\)](#) [► 897].

Reference

[TcHmiAsyncLogger Class](#) [► 1191]

[Send Overload](#) [► 1202]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.2.1.4 TcHmiAsyncLogger.SendAsync Method**Overload List**

	Name	Description
	SendAsync(Severity, String, .String.) [► 1206]	Sends a Message [► 924] with the specified name, Severity [► 951] and parameters as an asynchronous operation.
	SendAsync(Context, Severity, String, .String.) [► 1206]	Sends a Message [► 924] with the specified Context [► 833], name, Severity [► 951] and parameters as an asynchronous operation.
	SendAsync(ITcHmiSrvExtAsyncHost, Context, Severity, String, .String.) [► 1207]	Sends a Message [► 924] with the specified ITcHmiSrvExtAsyncHost [► 869], Context [► 833], name, Severity [► 951] and parameters as an asynchronous operation.

Reference

[TcHmiAsyncLogger Class](#) [► 1191]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.2.1.4.1 TcHmiAsyncLogger.SendAsync Method (Severity, String, .String.)

Sends a [Message](#) [► 924] with the specified name, [Severity](#) [► 951] and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Task<ErrorValue> SendAsync(  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```

Parameters

severity Type: [TcHmiSrv.Core.Severity](#) [► 951]
The [Severity](#) [► 951] of the [Message](#) [► 924] to send.

name Type: [System.String](#)
The name of the [Message](#) [► 924] to send.

parameters Type: [System.String](#).
The parameters of the [Message](#) [► 924] to send.

Return Value

Type: [Task.ErrorValue](#) [► 845].

The [Task.TResult](#) returned by [SendAsync\(Context, Message\)](#) [► 900].

Reference

[TcHmiAsyncLogger Class](#) [► 1191]

[SendAsync Overload](#) [► 1205]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.2.1.4.2 TcHmiAsyncLogger.SendAsync Method (Context, Severity, String, .String.)

Sends a [Message](#) [► 924] with the specified [Context](#) [► 833], name, [Severity](#) [► 951] and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Task<ErrorValue> SendAsync(  
    Context context,  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```

Parameters

context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924] to send.
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: .System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [Task.ErrorValue](#) [► 845].
The [Task.TResult](#) returned by [SendAsync\(Context, Message\)](#) [► 900].

Reference

[TcHmiAsyncLogger Class](#) [► 1191]

[SendAsync Overload](#) [► 1205]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.2.1.4.3 TcHmiAsyncLogger.SendAsync Method (ITcHmiSrvExtAsyncHost, Context, Severity, String, .String.)

Sends a [Message](#) [► 924] with the specified [ITcHmiSrvExtAsyncHost](#) [► 869], [Context](#) [► 833], name, [Severity](#) [► 951] and parameters as an asynchronous operation.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static Task<ErrorValue> SendAsync(
    ITcHmiSrvExtAsyncHost host,
    Context context,
    Severity severity,
    string name,
    params string[] parameters
)
```

Parameters

host	Type: TcHmiSrv.Core.ITcHmiSrvExtAsyncHost [► 869] The ITcHmiSrvExtAsyncHost [► 869] that is used to send the Message [► 924].
context	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] of the Message [► 924] to send.
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: .System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [Task.ErrorValue](#) [[▸ 845](#)].
The [Task.TResult](#), returned by [SendAsync\(Context, Message\)](#) [[▸ 900](#)].

Reference

- [TcHmiAsyncLogger Class](#) [[▸ 1191](#)]
- [SendAsync Overload](#) [[▸ 1205](#)]
- [TcHmiSrv.Core.General Namespace](#) [[▸ 1179](#)]

2.2.4.4.3 TcHmiException Class

Represents an [Exception](#) that is thrown when an event invoked by an [IListener](#) [[▸ 1251](#)] failed.

Inheritance Hierarchy

[System.Object](#)
[System.Exception](#)
[TcHmiSrv.Core.General.TcHmiException](#)
Namespace: [TcHmiSrv.Core.General](#) [[▸ 1179](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class TcHmiException : Exception
```

The TcHmiException type exposes the following members.

Constructors

	Name	Description
	TcHmiException(ErrorValue) [▸ 1210]	Initializes a new instance of the TcHmiException class with the specified result.
	TcHmiException(String, ErrorValue) [▸ 1211]	Initializes a new instance of the TcHmiException class with the specified error message and result.

Properties

	Name	Description
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message [► 1212]	Gets a message that describes the current TcHmiException . (Overrides Exception.Message .)
	Result [► 1213]	Gets the ErrorValue [► 845] that describes the current TcHmiException .
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.3.1 TcHmiException Constructor

Overload List

	Name	Description
	TcHmiException(ErrorValue) [▶ 1210]	Initializes a new instance of the TcHmiException [▶ 1208] class with the specified result.
	TcHmiException(String, ErrorValue) [▶ 1211]	Initializes a new instance of the TcHmiException [▶ 1208] class with the specified error message and result.

Reference

[TcHmiException Class](#) [[▶ 1208](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.3.1.1 TcHmiException Constructor (ErrorValue)

Initializes a new instance of the [TcHmiException](#) [[▶ 1208](#)] class with the specified result.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public TcHmiException(  
    ErrorValue result  
)
```

Parameters

result Type: [TcHmiSrv.Core.ErrorValue](#) [[▶ 845](#)]
 An [ErrorValue](#) [[▶ 845](#)] that describes the error.

Reference

[TcHmiException Class](#) [[▶ 1208](#)]

[TcHmiException Overload](#) [[▶ 1210](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.3.1.2 *TcHmiException Constructor (String, ErrorValue)*

Initializes a new instance of the [TcHmiException](#) [► 1208] class with the specified error message and result.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TcHmiException(  
    string message,  
    ErrorValue result  
)
```

Parameters

message Type: [System.String](#)
The message that describes the error.

result Type: [TcHmiSrv.Core.ErrorValue](#) [► 845]
An [ErrorValue](#) [► 845] that describes the error.

Reference

[TcHmiException Class](#) [► 1208]

[TcHmiException Overload](#) [► 1210]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.3.2 *TcHmiException Properties*

The [TcHmiException](#) [► 1208] type exposes the following members.

Properties

	Name	Description
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message [► 1212]	Gets a message that describes the current TcHmiException [► 1208]. (Overrides Exception.Message .)
	Result [► 1213]	Gets the ErrorValue [► 845] that describes the current TcHmiException [► 1208].
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Reference

[TcHmiException Class](#) [[► 1208](#)]

[TcHmiSrv.Core.General Namespace](#) [[► 1179](#)]

2.2.4.4.3.2.1 *TcHmiException.Message Property*

Gets a message that describes the current [TcHmiException](#) [[► 1208](#)].

Namespace: [TcHmiSrv.Core.General](#) [[► 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public override string Message { get; }
```

Property Value

Type: [String](#)

Reference

[TcHmiException Class](#) [[► 1208](#)]

[TcHmiSrv.Core.General Namespace](#) [[► 1179](#)]

2.2.4.4.3.2.2 *TcHmiException.Result Property*

Gets the [ErrorValue](#) [► 845] that describes the current [TcHmiException](#) [► 1208].

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public ErrorValue Result { get; }
```

Property Value

Type: [ErrorValue](#) [► 845]

Reference

[TcHmiException Class](#) [► 1208]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.3.3 *TcHmiException Methods*

The [TcHmiException](#) [► 1208] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Reference

[TcHmiException Class](#) [► 1208]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.3.4 TcHmiException Events

The [TcHmiException](#) [[▶ 1208](#)] type exposes the following members.

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[TcHmiException Class](#) [[▶ 1208](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.4 TcHmiLogger Class

Note: This API is now obsolete.

Provides a logger to send and localize [Message](#) [[▶ 924](#)]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.General.TcHmiLogger](#)

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiLogger is obsolete. Use TcHmiAsyncLogger instead.")]
public static class TcHmiLogger
```

Methods

	Name	Description
 	Localize(String, String.) [► 1217]	Localizes a Message [► 924] with the specified name and parameters.
 	Localize(Context, String, String.) [► 1218]	Localizes a Message [► 924] with the specified Context [► 833], name and parameters.
 	Localize(ITcHmiSrvExtHost, Context, String, String.) [► 1218]	Localizes a Message [► 924] with the specified ITcHmiSrvExtHost [► 904], Context [► 833], name and parameters.
 	Send(Severity, String, String.) [► 1219]	Sends a Message [► 924] with the specified name, Severity [► 951] and parameters.
 	Send(Context, Severity, String, String.) [► 1220]	Sends a Message [► 924] with the specified Context [► 833], name, Severity [► 951] and parameters.
 	Send(ITcHmiSrvExtHost, Context, Severity, String, String.) [► 1221]	Sends a Message [► 924] with the specified ITcHmiSrvExtHost [► 904], Context [► 833], name, Severity [► 951] and parameters.

Reference

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.4.1 TcHmiLogger Methods

Methods

	Name	Description
 	Localize(String, .String.) [▶ 1217]	Localizes a Message [▶ 924] with the specified name and parameters.
 	Localize(Context, String, .String.) [▶ 1218]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters.
 	Localize(ITcHmiSrvExtHost, Context, String, .String.) [▶ 1218]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtHost [▶ 904], Context [▶ 833], name and parameters.
 	Send(Severity, String, .String.) [▶ 1219]	Sends a Message [▶ 924] with the specified name, Severity [▶ 951] and parameters.
 	Send(Context, .Severity, String, .String.) [▶ 1220]	Sends a Message [▶ 924] with the specified Context [▶ 833], name, Severity [▶ 951] and parameters.
 	Send(ITcHmiSrvExtHost, Context, .Severity, String, .String.) [▶ 1221]	Sends a Message [▶ 924] with the specified ITcHmiSrvExtHost [▶ 904], Context [▶ 833], name, Severity [▶ 951] and parameters.

Reference

[TcHmiLogger Class](#) [▶ 1214]

[TcHmiSrv.Core.General Namespace](#) [▶ 1179]

2.2.4.4.4.1.1 *TcHmiLogger.Localize Method*

Overload List

	Name	Description
 	Localize(String, .String.) [▶ 1217]	Localizes a Message [▶ 924] with the specified name and parameters.
 	Localize(Context, String, .String.) [▶ 1218]	Localizes a Message [▶ 924] with the specified Context [▶ 833], name and parameters.
 	Localize(ITcHmiSrvExtHost, Context, String, .String.) [▶ 1218]	Localizes a Message [▶ 924] with the specified ITcHmiSrvExtHost [▶ 904], Context [▶ 833], name and parameters.

Reference

[TcHmiLogger Class](#) [[▶ 1214](#)]

[TcHmiSrv.Core.General Namespace](#) [[▶ 1179](#)]

2.2.4.4.4.1.1.1 **TcHmiLogger.Localize Method (String, .String.)**

Localizes a [Message](#) [[▶ 924](#)] with the specified name and parameters.

Namespace: [TcHmiSrv.Core.General](#) [[▶ 1179](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    string name,  
    params string[] parameters  
)
```

Parameters

- name Type: [System.String](#)
 The name of the [Message](#) [[▶ 924](#)] to localize.
- parameters Type: [.System.String](#).
 The parameters of the [Message](#) [[▶ 924](#)] to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

[TcHmiLogger Class](#) [[▶ 1214](#)]

[Localize Overload \[► 1217\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.1.1.2 TcHmiLogger.Localize Method (Context, String, .String.)

Localizes a [Message \[► 924\]](#) with the specified [Context \[► 833\]](#), name and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    Context context,  
    string name,  
    params string[] parameters  
)
```

Parameters

context Type: [TcHmiSrv.Core.Context \[► 833\]](#)
The [Context \[► 833\]](#) of the [Message \[► 924\]](#) to localize.

name Type: [System.String](#)
The name of the [Message \[► 924\]](#) to localize.

parameters Type: [.System.String](#).
The parameters of the [Message \[► 924\]](#) to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

[TcHmiLogger Class \[► 1214\]](#)

[Localize Overload \[► 1217\]](#)

[TcHmiSrv.Core.General Namespace \[► 1179\]](#)

2.2.4.4.1.1.3 TcHmiLogger.Localize Method (ITcHmiSrvExtHost, Context, String, .String.)

Localizes a [Message \[► 924\]](#) with the specified [ITcHmiSrvExtHost \[► 904\]](#), [Context \[► 833\]](#), name and parameters.

Namespace: [TcHmiSrv.Core.General \[► 1179\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Localize(  
    ITcHmiSrvExtHost host,  
    Context context,  
    string name,  
    params string[] parameters  
)
```

Parameters

- host

Type: [TcHmiSrv.Core.ITcHmiSrvExtHost \[▸ 904\]](#)
The [ITcHmiSrvExtHost \[▸ 904\]](#) that is used to localize the [Message \[▸ 924\]](#).
- context

Type: [TcHmiSrv.Core.Context \[▸ 833\]](#)
The [Context \[▸ 833\]](#) of the [Message \[▸ 924\]](#) to localize.
- name

Type: [System.String](#)
The name of the [Message \[▸ 924\]](#) to localize.
- parameters

Type: [.System.String](#).
The parameters of the [Message \[▸ 924\]](#) to localize.

Return Value

Type: [String](#)
The localized [String](#).

Reference

- [TcHmiLogger Class \[▸ 1214\]](#)
- [Localize Overload \[▸ 1217\]](#)
- [TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.4.1.2 *TcHmiLogger.Send Method*

Overload List

	Name	Description
	Send(Severity, String, .String.) [▸ 1219]	Sends a Message [▸ 924] with the specified name, Severity [▸ 951] and parameters.
	Send(Context, Severity, String, .String.) [▸ 1220]	Sends a Message [▸ 924] with the specified Context [▸ 833] , name, Severity [▸ 951] and parameters.
	Send(ITcHmiSrvExtHost, Context, Severity, String, .String.) [▸ 1221]	Sends a Message [▸ 924] with the specified ITcHmiSrvExtHost [▸ 904] , Context [▸ 833] , name, Severity [▸ 951] and parameters.

Reference

- [TcHmiLogger Class \[▸ 1214\]](#)
- [TcHmiSrv.Core.General Namespace \[▸ 1179\]](#)

2.2.4.4.4.1.2.1 **TcHmiLogger.Send Method (Severity, String, .String.)**

Sends a [Message \[▸ 924\]](#) with the specified name, [Severity \[▸ 951\]](#) and parameters.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ErrorValue Send(  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```

Parameters

- severity** Type: [TcHmiSrv.Core.Severity](#) [► 951]
The [Severity](#) [► 951] of the [Message](#) [► 924] to send.
- name** Type: [System.String](#)
The name of the [Message](#) [► 924] to send.
- parameters** Type: [.System.String](#).
The parameters of the [Message](#) [► 924] to send.

Return Value

Type: [ErrorValue](#) [► 845]

The [ErrorValue](#) [► 845] returned by [Send\(Context., Message\)](#) [► 920].

Reference

[TcHmiLogger Class](#) [► 1214]

[Send Overload](#) [► 1219]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.4.1.2.2 TcHmiLogger.Send Method (Context., Severity, String, .String.)

Sends a [Message](#) [► 924] with the specified [Context](#) [► 833], name, [Severity](#) [► 951] and parameters.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ErrorValue Send(  
    ref Context context,  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```


Parameters

context	Type: TcHmiSrv.Core.Context [► 833]. The Context [► 833] of the Message [► 924] to send.
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [ErrorValue](#) [► 845]
The [ErrorValue](#) [► 845] returned by [Send\(Context., Message\)](#) [► 920].

Reference

[TcHmiLogger Class](#) [► 1214]

[Send Overload](#) [► 1219]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.4.4.1.2.3 TcHmiLogger.Send Method (ITcHmiSrvExtHost, Context., Severity, String, .String.)

Sends a [Message](#) [► 924] with the specified [ITcHmiSrvExtHost](#) [► 904], [Context](#) [► 833], name, [Severity](#) [► 951] and parameters.

Namespace: [TcHmiSrv.Core.General](#) [► 1179]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static ErrorValue Send(  
    ITcHmiSrvExtHost host,  
    ref Context context,  
    Severity severity,  
    string name,  
    params string[] parameters  
)
```

Parameters

host	Type: TcHmiSrv.Core.ITcHmiSrvExtHost [► 904] The ITcHmiSrvExtHost [► 904] that is used to send the Message [► 924].
context	Type: TcHmiSrv.Core.Context [► 833]. The Context [► 833] of the Message [► 924] to send.
severity	Type: TcHmiSrv.Core.Severity [► 951] The Severity [► 951] of the Message [► 924] to send.
name	Type: System.String The name of the Message [► 924] to send.
parameters	Type: System.String . The parameters of the Message [► 924] to send.

Return Value

Type: [ErrorValue](#) [► 845]

The [ErrorValue](#) [► 845] returned by [Send\(Context., Message\)](#) [► 920].

Reference

[TcHmiLogger Class](#) [► 1214]

[Send Overload](#) [► 1219]

[TcHmiSrv.Core.General Namespace](#) [► 1179]

2.2.4.5 TcHmiSrv.Core.Listeners Namespaces

Contains the event listeners that are triggered by the TwinCAT HMI Server and their [EventArgs](#).

Namespaces

Namespace	Description
TcHmiSrv.Core.Listeners [► 1225]	Contains the event listeners that are triggered by the TwinCAT HMI Server.
TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs [► 1267]	
TcHmiSrv.Core.Listeners.AuthListenerEventArgs [► 1273]	
TcHmiSrv.Core.Listeners.ConfigListenerEventArgs [► 1278]	
TcHmiSrv.Core.Listeners.EventListenerEventArgs [► 1298]	
TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs [► 1310]	
TcHmiSrv.Core.Listeners.ExportListenerEventArgs [► 1314]	
TcHmiSrv.Core.Listeners.RequestListenerEventArgs [► 1322]	

Namespace	Description
TcHmiSrv.Core.Listeners.SessionListenerEventArgs [► 1325]	
TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs [► 1338]	
TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs [► 1340]	

2.2.4.5.1 TcHmiSrv.Core.Listeners Namespace

Contains the event listeners that are triggered by the TwinCAT HMI Server.

Classes

	Class	Description
	AlarmProviderListener [► 1226]	Represents a listener that listens on provided Alarm [► 767]s. This class cannot be inherited.
	AuthListener [► 1230]	Represents a listener to implement a custom authorization. This class cannot be inherited.
	ConfigListener [► 1234]	Represents a listener to interact with the configuration of the TwinCAT HMI server configuration. This class cannot be inherited.
	EventListener [► 1239]	Provides a listener to interact with the event system of the TwinCAT HMI server.
	EventLocalizationListener [► 1244]	Represents a listener to interact with the event system of the TwinCAT HMI server. This class cannot be inherited.
	ExportListener [► 1247]	Represents a listener to react on configuration exports and imports. This class cannot be inherited.
	RequestListener [► 1252]	Represents a listener to invoke read-write requests and subscriptions. This class cannot be inherited.
	SessionListener [► 1255]	Represents a listener to observe the connections of the TwinCAT HMI server. This class cannot be inherited.
	ShutdownListener [► 1260]	Represents a listener to get notified when the TwinCAT HMI server is shutting down. This class cannot be inherited.
	SubscriptionListener [► 1264]	Represents a listener to get notified when a client opens or closes a subscription. If this listener is not registered at the TwinCAT HMI server, subscriptions will just call the OnRequest [► 1255] event. This class cannot be inherited.

Interfaces

	Interface	Description
	IListener [► 1251]	Provides an interface for a listener.

2.2.4.5.1.1 AlarmProviderListener Class

Represents a listener that listens on provided [Alarm](#) [► 767]s. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

[Listener](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListener](#)

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sealed class AlarmProviderListener : Listener,
    IExternalCaller<string, ErrorValue>
```

The AlarmProviderListener type exposes the following members.

Constructors

	Name	Description
	AlarmProviderListener [▶ 1227]	Initializes a new instance of the AlarmProviderListener class.

Properties

	Name	Description
	Type [▶ 1228]	Gets the type of the AlarmProviderListener. (Overrides Listener.Type.)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnConfirm [▶ 1229]	Called when an Alarm [▶ 767] is confirmed.
	OnInitialListEvents [▶ 1230]	Called when the Event [▶ 850]s are listed.

Reference

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.1.1 AlarmProviderListener Constructor

Initializes a new instance of the [AlarmProviderListener](#) [[▶ 1226](#)] class.

Namespace: [TcHmiSrv.Core.Listeners](#) [[▶ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public AlarmProviderListener()
```

Reference

[AlarmProviderListener Class \[► 1226\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.1.2 *AlarmProviderListener Properties*

The [AlarmProviderListener \[► 1226\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1228]	Gets the type of the AlarmProviderListener [► 1226] . (Overrides Listener.Type .)

Reference

[AlarmProviderListener Class \[► 1226\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.1.2.1 *AlarmProviderListener.Type Property*

Gets the type of the [AlarmProviderListener \[► 1226\]](#).

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType \[► 923\]](#)

Implements

[IListener.Type \[► 1251\]](#)

Reference

[AlarmProviderListener Class \[► 1226\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.1.3 *AlarmProviderListener Methods*

The [AlarmProviderListener \[► 1226\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[AlarmProviderListener Class](#) [► 1226]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.1.4 AlarmProviderListener Events

The [AlarmProviderListener](#) [► 1226] type exposes the following members.

Events

	Name	Description
	OnConfirm [► 1229]	Called when an Alarm [► 767] is confirmed.
	OnInitialListEvents [► 1230]	Called when the Event [► 850]s are listed.

Reference

[AlarmProviderListener Class](#) [► 1226]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.1.4.1 AlarmProviderListener.OnConfirm Event

Called when an [Alarm](#) [► 767] is confirmed.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<OnConfirmEventArgs> OnConfirm
```

Value

Type: [System.EventHandler.OnConfirmEventArgs](#) [► 1267].

Reference

[AlarmProviderListener Class](#) [► 1226]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.1.4.2 AlarmProviderListener.OnInitialListEvents Event

Called when the [Event \[► 850\]](#)s are listed.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnInitialListEventsEventArgs> OnInitialListEvents
```

Value

Type: [System.EventHandler.OnInitialListEventsEventArgs \[► 1270\]](#).

Reference

[AlarmProviderListener Class \[► 1226\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2 AuthListener Class

Represents a listener to implement a custom authorization. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)
 [Listener](#)
 TcHmiSrv.Core.Listeners.AuthListener

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class AuthListener : Listener, IExternalCaller<string, ErrorValue>
```

The AuthListener type exposes the following members.

Constructors

	Name	Description
	AuthListener [► 1231]	Initializes a new instance of the AuthListener class.

Properties

	Name	Description
	Type [► 1232]	Gets the type of the AuthListener. (Overrides Listener.Type .)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnLogin [► 1233]	Called when a user tries to log in.
	OnLogout [► 1233]	Called when a user is logged out.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2.1 *AuthListener Constructor*

Initializes a new instance of the [AuthListener \[► 1230\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public AuthListener()
```

Reference

[AuthListener Class \[► 1230\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2.2 *AuthListener Properties*

The [AuthListener \[► 1230\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1232]	Gets the type of the AuthListener [► 1230] . (Overrides Listener.Type .)

Reference

[AuthListener Class \[► 1230\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2.2.1 AuthListener.Type Property

Gets the type of the [AuthListener](#) [► 1230].

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 923]

Implements

[IListener.Type](#) [► 1251]

Reference

[AuthListener Class](#) [► 1230]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.2.3 AuthListener Methods

The [AuthListener](#) [► 1230] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[AuthListener Class](#) [► 1230]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.2.4 AuthListener Events

The [AuthListener](#) [► 1230] type exposes the following members.

Events

	Name	Description
	OnLogin [► 1233]	Called when a user tries to log in.
	OnLogout [► 1233]	Called when a user is logged out.

Reference

[AuthListener Class \[► 1230\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2.4.1 **AuthListener.OnLogin Event**

Called when a user tries to log in.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnLoginEventArgs> OnLogin
```

Value

Type: [System.EventHandler.OnLoginEventArgs \[► 1273\]](#).

Reference

[AuthListener Class \[► 1230\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.2.4.2 **AuthListener.OnLogout Event**

Called when a user is logged out.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnLogoutEventArgs> OnLogout
```

Value

Type: [System.EventHandler.OnLogoutEventArgs \[► 1276\]](#).

Reference

[AuthListener Class \[► 1230\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3 ConfigListener Class

Represents a listener to interact with the configuration of the TwinCAT HMI server configuration. This class cannot be inherited.

Inheritance Hierarchy

System.Object

TcHmiSrv.Core.Listeners.ConfigListener

Namespace: TcHmiSrv.Core.Listeners [[▶ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class ConfigListener : IListener
```

The ConfigListener type exposes the following members.

Constructors

	Name	Description
	<u>ConfigListene</u> <u>r</u> [▶ 1235]	Initializes a new instance of the ConfigListener class.

Properties

	Name	Description
	<u>Type</u> [▶ 1236]	Gets the type of the ConfigListener.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Events

	Name	Description
	BeforeChange [► 1237]	Called before a configuration Value [► 952] is changed. If an Exception is thrown, the change will be aborted. For complex data, this method is called for each element.
	BeforeDelete [► 1237]	Called before a configuration Value [► 952] is deleted. If an Exception is thrown, the deletion will be aborted.
	BeforeRename [► 1238]	Called before a configuration Value [► 952] is renamed. If an Exception is thrown, renaming will be aborted.
	OnChange [► 1238]	Called after a configuration Value [► 952] has been successfully changed. For complex data, this method is called for each element.
	OnDelete [► 1239]	Called after a configuration Value [► 952] has been deleted. For complex data, this method is called for each element.
	OnRename [► 1239]	Called after a configuration Value [► 952] has been renamed.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.1 *ConfigListener Constructor*

Initializes a new instance of the [ConfigListener \[► 1234\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ConfigListener()
```

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.2 *ConfigListener Properties*

The [ConfigListener \[► 1234\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1236]	Gets the type of the ConfigListener [► 1234] .

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.2.1 ConfigListener.Type Property

Gets the type of the [ConfigListener \[► 1234\]](#).

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ListenerType Type { get; }
```

Property Value

Type: [ListenerType \[► 923\]](#)

Implements

[IListener.Type \[► 1251\]](#)

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.3 ConfigListener Methods

The [ConfigListener \[► 1234\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.4 ConfigListener Events

The [ConfigListener \[► 1234\]](#) type exposes the following members.

Events

	Name	Description
	BeforeChange [► 1237]	Called before a configuration Value [► 952] is changed. If an Exception is thrown, the change will be aborted. For complex data, this method is called for each element.
	BeforeDelete [► 1237]	Called before a configuration Value [► 952] is deleted. If an Exception is thrown, the deletion will be aborted.
	BeforeRename [► 1238]	Called before a configuration Value [► 952] is renamed. If an Exception is thrown, renaming will be aborted.
	OnChange [► 1238]	Called after a configuration Value [► 952] has been successfully changed. For complex data, this method is called for each element.
	OnDelete [► 1239]	Called after a configuration Value [► 952] has been deleted. For complex data, this method is called for each element.
	OnRename [► 1239]	Called after a configuration Value [► 952] has been renamed.

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.4.1 ConfigListener.BeforeChange Event

Called before a configuration [Value \[► 952\]](#) is changed. If an [Exception](#) is thrown, the change will be aborted. For complex data, this method is called for each element.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<BeforeChangeEventArgs> BeforeChange
```

Value

Type: [System.EventHandler.BeforeChangeEventArgs \[► 1278\]](#).

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.4.2 ConfigListener.BeforeDelete Event

Called before a configuration [Value \[► 952\]](#) is deleted. If an [Exception](#) is thrown, the deletion will be aborted.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<BeforeDeleteEventArgs> BeforeDelete
```

Value

Type: [System.EventHandler.BeforeDeleteEventArgs](#) [► 1282].

Reference

[ConfigListener Class](#) [► 1234]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.3.4.3 ConfigListener.BeforeRename Event

Called before a configuration [Value](#) [► 952] is renamed. If an [Exception](#) is thrown, renaming will be aborted.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<BeforeRenameEventArgs> BeforeRename
```

Value

Type: [System.EventHandler.BeforeRenameEventArgs](#) [► 1285].

Reference

[ConfigListener Class](#) [► 1234]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.3.4.4 ConfigListener.OnChange Event

Called after a configuration [Value](#) [► 952] has been successfully changed. For complex data, this method is called for each element.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnChangeEventArgs> OnChange
```

Value

Type: [System.EventHandler.OnChangeEventArgs](#) [► 1288].

Reference

[ConfigListener Class](#) [► 1234]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.3.4.5 ConfigListener.OnDelete Event

Called after a configuration [Value \[► 952\]](#) has been deleted. For complex data, this method is called for each element.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnDeleteEventArgs> OnDelete
```

Value

Type: [System.EventHandler.OnDeleteEventArgs \[► 1291\]](#).

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.3.4.6 ConfigListener.OnRename Event

Called after a configuration [Value \[► 952\]](#) has been renamed.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnRenameEventArgs> OnRename
```

Value

Type: [System.EventHandler.OnRenameEventArgs \[► 1295\]](#).

Reference

[ConfigListener Class \[► 1234\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.4 EventListener Class

Provides a listener to interact with the event system of the TwinCAT HMI server.

Inheritance Hierarchy

[System.Object](#)

Listener

TcHmiSrv.Core.Listeners.EventListener

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class EventListener : Listener,
    IExternalCaller<string, ErrorValue>
```

The EventListener type exposes the following members.

Constructors

	Name	Description
	EventListener [► 1240]	Initializes a new instance of the EventListener class.

Properties

	Name	Description
	Type [► 1241]	Gets the type of the EventListener. (Overrides Listener.Type.)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnChange [► 1242]	Called when an Event [► 850] is changed.
	OnListEvents [► 1243]	Called when the Event [► 850] s are listed.
	OnReceive [► 1243]	Called when an extension is loaded and it's initial list of Event [► 850] s is fetched.
	OnRemoveEvent [► 1243]	Called when an Event [► 850] is deleted.

Reference

[TcHmiSrv.Core.Listeners Namespace](#) [\[► 1225\]](#)

2.2.4.5.1.4.1 *EventListener Constructor*

Initializes a new instance of the [EventListener](#) [\[► 1239\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners](#) [\[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public EventListener()
```

Reference

[EventListener Class](#) [► 1239]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.4.2 *EventListener Properties*

The [EventListener](#) [► 1239] type exposes the following members.

Properties

	Name	Description
	Type [► 1241]	Gets the type of the EventListener [► 1239]. (Overrides Listener.Type .)

Reference

[EventListener Class](#) [► 1239]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.4.2.1 *EventListener.Type Property*

Gets the type of the [EventListener](#) [► 1239].

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 923]

Implements

[IListener.Type](#) [► 1251]

Reference

[EventListener Class](#) [► 1239]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.4.3 *EventListener Methods*

The [EventListener](#) [► 1239] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[EventListener Class](#) [[► 1239](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[► 1225](#)]

2.2.4.5.1.4.4 EventListener Events

The [EventListener](#) [[► 1239](#)] type exposes the following members.

Events

	Name	Description
	OnChange [► 1242]	Called when an Event [► 850] is changed.
	OnListEvents [► 1243]	Called when the Event [► 850]s are listed.
	OnReceive [► 1243]	Called when an extension is loaded and it's initial list of Event [► 850]s is fetched.
	OnRemoveEvent [► 1243]	Called when an Event [► 850] is deleted.

Reference

[EventListener Class](#) [[► 1239](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[► 1225](#)]

2.2.4.5.1.4.4.1 EventListener.OnChange Event

Called when an [Event](#) [[► 850](#)] is changed.

Namespace: [TcHmiSrv.Core.Listeners](#) [[► 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<OnChangeEventArgs> OnChange
```

Value

Type: [System.EventHandler.OnChangeEventArgs](#) [[► 1298](#)].

Reference

[EventListener Class \[► 1239\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.4.4.2 EventListener.OnListEvents Event

Called when the [Event \[► 850\]](#)s are listed.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnListEventsEventArgs> OnListEvents
```

Value

Type: [System.EventHandler.OnListEventsEventArgs \[► 1301\]](#).

Reference

[EventListener Class \[► 1239\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.4.4.3 EventListener.OnReceive Event

Called when an extension is loaded and it's initial list of [Event \[► 850\]](#)s is fetched.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnReceiveEventArgs> OnReceive
```

Value

Type: [System.EventHandler.OnReceiveEventArgs \[► 1304\]](#).

Reference

[EventListener Class \[► 1239\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.4.4.4 EventListener.OnRemoveEvent Event

Called when an [Event \[► 850\]](#) is deleted.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnRemoveEventArgs> OnRemoveEvent
```

Value

Type: [System.EventHandler.OnRemoveEventArgs](#) [► 1307].

Reference

[EventListener Class](#) [► 1239]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.5 EventLocalizationListener Class

Represents a listener to interact with the event system of the TwinCAT HMI server. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)
Listener
TcHmiSrv.Core.Listeners.EventLocalizationListener

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class EventLocalizationListener : Listener, IExternalCaller<string, ErrorValue>
```

The EventLocalizationListener type exposes the following members.

Constructors

	Name	Description
	EventLocalizationListener [► 1245]	Initializes a new instance of the EventLocalizationListener class.

Properties

	Name	Description
	Type [► 1246]	Gets the type of the EventLocalizationListener. (Overrides Listener.Type.)

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Events

	Name	Description
	<u>OnRequest</u> [► 1247]	Called when a <u>String</u> cannot be localized using the language file of the TwinCAT HMI server extension.

Reference

TcHmiSrv.Core.Listeners Namespace [► 1225]

2.2.4.5.1.5.1 *EventLocalizationListener Constructor*

Initializes a new instance of the EventLocalizationListener [► 1244] class.

Namespace: TcHmiSrv.Core.Listeners [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public EventLocalizationListener()
```

Reference

EventLocalizationListener Class [► 1244]

TcHmiSrv.Core.Listeners Namespace [► 1225]

2.2.4.5.1.5.2 *EventLocalizationListener Properties*

The EventLocalizationListener [► 1244] type exposes the following members.

Properties

	Name	Description
	<u>Type</u> [► 1246]	Gets the type of the <u>EventLocalizationListener</u> [► 1244]. (Overrides <u>Listener.Type</u> .)

Reference

EventLocalizationListener Class [► 1244]

TcHmiSrv.Core.Listeners Namespace [► 1225]

2.2.4.5.1.5.2.1 EventLocalizationListener.Type Property

Gets the type of the [EventLocalizationListener](#) [► 1244].

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 923]

Implements

[IListener.Type](#) [► 1251]

Reference

[EventLocalizationListener Class](#) [► 1244]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.5.3 EventLocalizationListener Methods

The [EventLocalizationListener](#) [► 1244] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[EventLocalizationListener Class](#) [► 1244]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.5.4 EventLocalizationListener Events

The [EventLocalizationListener](#) [► 1244] type exposes the following members.

Events

	Name	Description
	OnRequest [► 1247]	Called when a String cannot be localized using the language file of the TwinCAT HMI server extension.

Reference

[EventLocalizationListener Class \[► 1244\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.5.4.1 **EventLocalizationListener.OnRequest Event**

Called when a [String](#) cannot be localized using the language file of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnRequestEventArgs> OnRequest
```

Value

Type: [System.EventHandler.OnRequestEventArgs \[► 1310\]](#).

Reference

[EventLocalizationListener Class \[► 1244\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.6 **ExportListener Class**

Represents a listener to react on configuration exports and imports. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

Listener

TcHmiSrv.Core.Listeners.ExportListener

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class ExportListener : Listener
```

The ExportListener type exposes the following members.

Constructors

	Name	Description
	ExportListener [► 1248]	Initializes a new instance of the ExportListener class.

Properties

	Name	Description
	Type [► 1249]	Gets the type of the ExportListener. (Overrides Listener.Type.)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	BeforeExport [► 1250]	Called before a configuration export. If an Exception is thrown, the configuration export will be aborted. For complex data, this method is called for each element.
	BeforeImport [► 1250]	Called before a configuration import. If an Exception is thrown, the configuration import will be aborted. For complex data, this method is called for each element.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.6.1 *ExportListener Constructor*

Initializes a new instance of the [ExportListener](#) [\[► 1247\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public ExportListener()
```

Reference

[ExportListener Class \[► 1247\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.6.2 *ExportListener Properties*

The [ExportListener](#) [\[► 1247\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1249]	Gets the type of the ExportListener [► 1247] . (Overrides Listener.Type .)

Reference

[ExportListener Class](#) [► 1247]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.6.2.1 **ExportListener.Type Property**

Gets the type of the [ExportListener](#) [► 1247].

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 923]

Implements

[IListener.Type](#) [► 1251]

Reference

[ExportListener Class](#) [► 1247]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.6.3 **ExportListener Methods**

The [ExportListener](#) [► 1247] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ExportListener Class](#) [► 1247]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.6.4 **ExportListener Events**

The [ExportListener](#) [► 1247] type exposes the following members.

Events

	Name	Description
	BeforeExport [► 1250]	Called before a configuration export. If an Exception is thrown, the configuration export will be aborted. For complex data, this method is called for each element.
	BeforeImport [► 1250]	Called before a configuration import. If an Exception is thrown, the configuration import will be aborted. For complex data, this method is called for each element.

Reference

[ExportListener Class \[► 1247\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.6.4.1 ExportListener.BeforeExport Event

Called before a configuration export. If an [Exception](#) is thrown, the configuration export will be aborted. For complex data, this method is called for each element.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<BeforeExportEventArgs> BeforeExport
```

Value

Type: [System.EventHandler.BeforeExportEventArgs \[► 1314\]](#).

Reference

[ExportListener Class \[► 1247\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.6.4.2 ExportListener.BeforeImport Event

Called before a configuration import. If an [Exception](#) is thrown, the configuration import will be aborted. For complex data, this method is called for each element.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<BeforeImportEventArgs> BeforeImport
```

Value

Type: [System.EventHandler.BeforeImportEventArgs \[► 1318\]](#).

Reference

[ExportListener Class \[► 1247\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.7 **IListener Interface**

Provides an interface for a listener.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface IListener
```

The IListener type exposes the following members.

Properties

	Name	Description
	Type [► 1251]	Gets the type of the IListener.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.7.1 **IListener Properties**

The [IListener \[► 1251\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1251]	Gets the type of the IListener [► 1251] .

Reference

[IListener Interface \[► 1251\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.7.1.1 **IListener.Type Property**

Gets the type of the [IListener \[► 1251\]](#).

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
IListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [[▶ 923](#)]

Reference

[IListener Interface](#) [[▶ 1251](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.8 RequestListener Class

Represents a listener to invoke read-write requests and subscriptions. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

[Listener](#)

[TcHmiSrv.Core.Listeners.RequestListener](#)

Namespace: [TcHmiSrv.Core.Listeners](#) [[▶ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class RequestListener : Listener,
    IExternalCaller<string>
```

The RequestListener type exposes the following members.

Constructors

	Name	Description
	RequestListener [▶ 1253]	Initializes a new instance of the RequestListener class.

Properties

	Name	Description
	Type [▶ 1253]	Gets the type of the RequestListener. (Overrides Listener.Type.)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnRequest [► 1255]	Called when a client requests a symbol from the domain of the TwinCAT HMI server extension. This event will be called multiple times if RequestType [► 836] equals Subscription [► 941] . In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.8.1 *RequestListener Constructor*

Initializes a new instance of the [RequestListener](#) [\[► 1252\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public RequestListener()
```

Reference

[RequestListener Class \[► 1252\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.8.2 *RequestListener Properties*

The [RequestListener](#) [\[► 1252\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1253]	Gets the type of the RequestListener [► 1252] . (Overrides Listener.Type.)

Reference

[RequestListener Class \[► 1252\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.8.2.1 *RequestListener.Type Property*

Gets the type of the [RequestListener](#) [\[► 1252\]](#).

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [[▶ 923](#)]

Implements

[IListener.Type](#) [[▶ 1251](#)]

Reference

[RequestListener Class](#) [[▶ 1252](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.8.3 RequestListener Methods

The [RequestListener](#) [[▶ 1252](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[RequestListener Class](#) [[▶ 1252](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.8.4 RequestListener Events

The [RequestListener](#) [[▶ 1252](#)] type exposes the following members.

Events

	Name	Description
	OnRequest [▶ 1255]	Called when a client requests a symbol from the domain of the TwinCAT HMI server extension. This event will be called multiple times if RequestType [▶ 836] equals Subscription [▶ 941]. In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Reference

[RequestListener Class](#) [[▶ 1252](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.8.4.1 RequestListener.OnRequest Event

Called when a client requests a symbol from the domain of the TwinCAT HMI server extension. This event will be called multiple times if [RequestType](#) [► 836] equals [Subscription](#) [► 941]. In a subscription the returned data will only be sent to clients if either the read value or the return codes changed.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnRequestEventArgs> OnRequest
```

Value

Type: [System.EventHandler.OnRequestEventArgs](#) [► 1322].

Reference

- [RequestListener Class](#) [► 1252]
- [TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.9 SessionListener Class

Represents a listener to observe the connections of the TwinCAT HMI server. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)
 [Listener](#)
 TcHmiSrv.Core.Listeners.SessionListener
Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class SessionListener : Listener,  
    IExternalCaller<string, ErrorValue>
```

The SessionListener type exposes the following members.

Constructors

	Name	Description
	SessionListener [► 1256]	Initializes a new instance of the SessionListener class.

Properties

	Name	Description
	Type [► 1257]	Gets the type of the SessionListener. (Overrides Listener.Type .)

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Events

	Name	Description
	<u>OnCloseSession</u> [▶ 1258]	Called when a session is closed.
	<u>OnCloseWebSocket</u> [▶ 1259]	Called when an existing WebSocket connection is closed.
	<u>OnCreateSession</u> [▶ 1259]	Called when a new session is created.
	<u>OnCreateWebSocket</u> [▶ 1259]	Called when a new WebSocket connection is created.
	<u>OnLogin</u> [▶ 1260]	Called when a user is logged in.
	<u>OnLogout</u> [▶ 1260]	Called when a user is logged out.

Reference

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.9.1 SessionListener Constructor

Initializes a new instance of the [SessionListener](#) [[▶ 1255](#)] class.

Namespace: [TcHmiSrv.Core.Listeners](#) [[▶ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public SessionListener()
```

Reference

[SessionListener Class](#) [[▶ 1255](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[▶ 1225](#)]

2.2.4.5.1.9.2 *SessionListener Properties*

The [SessionListener](#) [▸ 1255] type exposes the following members.

Properties

	Name	Description
	Type [▸ 1257]	Gets the type of the SessionListener [▸ 1255]. (Overrides Listener.Type .)

Reference

[SessionListener Class](#) [▸ 1255]

[TcHmiSrv.Core.Listeners Namespace](#) [▸ 1225]

2.2.4.5.1.9.2.1 *SessionListener.Type Property*

Gets the type of the [SessionListener](#) [▸ 1255].

Namespace: [TcHmiSrv.Core.Listeners](#) [▸ 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [▸ 923]

Implements

[IListener.Type](#) [▸ 1251]

Reference

[SessionListener Class](#) [▸ 1255]

[TcHmiSrv.Core.Listeners Namespace](#) [▸ 1225]

2.2.4.5.1.9.3 *SessionListener Methods*

The [SessionListener](#) [▸ 1255] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.9.4 SessionListener Events

The [SessionListener \[► 1255\]](#) type exposes the following members.

Events

	Name	Description
	OnCloseSession [► 1258]	Called when a session is closed.
	OnCloseWebSocket [► 1259]	Called when an existing WebSocket connection is closed.
	OnCreateSession [► 1259]	Called when a new session is created.
	OnCreateWebSocket [► 1259]	Called when a new WebSocket connection is created.
	OnLogin [► 1260]	Called when a user is logged in.
	OnLogout [► 1260]	Called when a user is logged out.

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.9.4.1 SessionListener.OnCloseSession Event

Called when a session is closed.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<OnCloseSessionEventArgs> OnCloseSession
```

Value

Type: [System.EventHandler.OnCloseSessionEventArgs \[► 1325\]](#).

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.9.4.2 SessionListener.OnCloseWebSocket Event

Called when an existing WebSocket connection is closed.

Namespace: [TcHmiSrv.Core.Listeners](#) [[► 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnCloseWebSocketEventArgs> OnCloseWebSocket
```

Value

Type: [System.EventHandler.OnCloseWebSocketEventArgs](#) [[► 1327](#)].

Reference

[SessionListener Class](#) [[► 1255](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[► 1225](#)]

2.2.4.5.1.9.4.3 SessionListener.OnCreateSession Event

Called when a new session is created.

Namespace: [TcHmiSrv.Core.Listeners](#) [[► 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnCreateSessionEventArgs> OnCreateSession
```

Value

Type: [System.EventHandler.OnCreateSessionEventArgs](#) [[► 1329](#)].

Reference

[SessionListener Class](#) [[► 1255](#)]

[TcHmiSrv.Core.Listeners Namespace](#) [[► 1225](#)]

2.2.4.5.1.9.4.4 SessionListener.OnCreateWebSocket Event

Called when a new WebSocket connection is created.

Namespace: [TcHmiSrv.Core.Listeners](#) [[► 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnCreateWebSocketEventArgs> OnCreateWebSocket
```

Value

Type: [System.EventHandler.OnCreateWebSocketEventArgs](#) [[► 1331](#)].

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.9.4.5 SessionListener.OnLogin Event

Called when a user is logged in.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnLoginEventArgs> OnLogin
```

Value

Type: [System.EventHandler.OnLoginEventArgs \[► 1333\]](#).

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.9.4.6 SessionListener.OnLogout Event

Called when a user is logged out.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnLogoutEventArgs> OnLogout
```

Value

Type: [System.EventHandler.OnLogoutEventArgs \[► 1335\]](#).

Reference

[SessionListener Class \[► 1255\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.10 ShutdownListener Class

Represents a listener to get notified when the TwinCAT HMI server is shutting down. This class cannot be inherited.

Inheritance Hierarchy

System.Object

Listener

TcHmiSrv.Core.Listeners.ShutdownListener

Namespace: TcHmiSrv.Core.Listeners [[▸ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class ShutdownListener : Listener,
    IExternalCaller<string, ErrorValue>
```

The ShutdownListener type exposes the following members.

Constructors

	Name	Description
	<u>ShutdownListener</u> [▸ 1261]	Initializes a new instance of the ShutdownListener class.

Properties

	Name	Description
	<u>Type</u> [▸ 1262]	Gets the type of the ShutdownListener. (Overrides Listener.Type.)

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Events

	Name	Description
	<u>OnShutdown</u> [▸ 1263]	Called when the TwinCAT HMI server is shutting down.

Reference

TcHmiSrv.Core.Listeners Namespace [[▸ 1225](#)]

2.2.4.5.1.10.1 ShutdownListener Constructor

Initializes a new instance of the ShutdownListener [[▸ 1260](#)] class.

Namespace: TcHmiSrv.Core.Listeners [[▸ 1225](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ShutdownListener()
```

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.10.2 ShutdownListener Properties

The [ShutdownListener](#) [► 1260] type exposes the following members.

Properties

	Name	Description
	Type [► 1262]	Gets the type of the ShutdownListener [► 1260]. (Overrides Listener.Type .)

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.10.2.1 ShutdownListener.Type Property

Gets the type of the [ShutdownListener](#) [► 1260].

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType](#) [► 923]

Implements

[IListener.Type](#) [► 1251]

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.10.3 ShutdownListener Methods

The [ShutdownListener](#) [► 1260] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.10.4 ShutdownListener Events

The [ShutdownListener](#) [► 1260] type exposes the following members.

Events

	Name	Description
	OnShutdown [► 1263]	Called when the TwinCAT HMI server is shutting down.

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.10.4.1 ShutdownListener.OnShutdown Event

Called when the TwinCAT HMI server is shutting down.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public event EventHandler<OnShutdownEventArgs> OnShutdown
```

Value

Type: [System.EventHandler.OnShutdownEventArgs](#) [► 1338].

Reference

[ShutdownListener Class](#) [► 1260]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.11 SubscriptionListener Class

Represents a listener to get notified when a client opens or closes a subscription. If this listener is not registered at the TwinCAT HMI server, subscriptions will just call the [OnRequest \[► 1255\]](#) event. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

Listener

TcHmiSrv.Core.Listeners.SubscriptionListener

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class SubscriptionListener : Listener,
    IExternalCaller<string, ErrorValue>
```

The SubscriptionListener type exposes the following members.

Constructors

	Name	Description
	SubscriptionListener [► 1265]	Initializes a new instance of the SubscriptionListener class.

Properties

	Name	Description
	Type [► 1265]	Gets the type of the SubscriptionListener. (Overrides Listener.Type.)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	OnSubscribe [► 1266]	Called when a client opens a new subscription. The subscription will call the OnRequest [► 1255] once per specified interval.
	OnUnsubscribe [► 1267]	Called when a client closes a subscription.

Reference

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.1 **SubscriptionListener Constructor**

Initializes a new instance of the [SubscriptionListener \[► 1264\]](#) class.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SubscriptionListener()
```

Reference

[SubscriptionListener Class \[► 1264\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.2 **SubscriptionListener Properties**

The [SubscriptionListener \[► 1264\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1265]	Gets the type of the SubscriptionListener [► 1264] . (Overrides Listener.Type.)

Reference

[SubscriptionListener Class \[► 1264\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.2.1 **SubscriptionListener.Type Property**

Gets the type of the [SubscriptionListener \[► 1264\]](#).

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override ListenerType Type { get; }
```

Property Value

Type: [ListenerType \[► 923\]](#)

Implements

[IListener.Type \[► 1251\]](#)

Reference

[SubscriptionListener Class \[► 1264\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.3 SubscriptionListener Methods

The [SubscriptionListener \[► 1264\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[SubscriptionListener Class \[► 1264\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.4 SubscriptionListener Events

The [SubscriptionListener \[► 1264\]](#) type exposes the following members.

Events

	Name	Description
	OnSubscribe [► 1266]	Called when a client opens a new subscription. The subscription will call the OnRequest [► 1255] once per specified interval.
	OnUnsubscribe [► 1267]	Called when a client closes a subscription.

Reference

[SubscriptionListener Class \[► 1264\]](#)

[TcHmiSrv.Core.Listeners Namespace \[► 1225\]](#)

2.2.4.5.1.11.4.1 SubscriptionListener.OnSubscribe Event

Called when a client opens a new subscription. The subscription will call the [OnRequest \[► 1255\]](#) once per specified interval.

Namespace: [TcHmiSrv.Core.Listeners \[► 1225\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnSubscribeEventArgs> OnSubscribe
```

Value

Type: [System.EventHandler.OnSubscribeEventArgs](#) [► 1340].

Reference

[SubscriptionListener Class](#) [► 1264]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.1.11.4.2 SubscriptionListener.OnUnsubscribe Event

Called when a client closes a subscription.

Namespace: [TcHmiSrv.Core.Listeners](#) [► 1225]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public event EventHandler<OnUnsubscribeEventArgs> OnUnsubscribe
```

Value

Type: [System.EventHandler.OnUnsubscribeEventArgs](#) [► 1342].

Reference

[SubscriptionListener Class](#) [► 1264]

[TcHmiSrv.Core.Listeners Namespace](#) [► 1225]

2.2.4.5.2 TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace

Classes

	Class	Description
	OnConfirmEventArgs [► 1267]	Provides data for an OnConfirm [► 1229] event.
	OnInitialListEventsEventArgs [► 1270]	Provides data for an OnInitialListEvents [► 1230] event.

2.2.4.5.2.1 OnConfirmEventArgs Class

Provides data for an [OnConfirm](#) [► 1229] event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs.OnConfirmEventArgs

Namespace: TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs [► 1267]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnConfirmEventArgs : EventArgs
```

The OnConfirmEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Alarm</u> [► 1269]	Gets the confirmed <u>Alarm</u> [► 767].
	<u>Context</u> [► 1269]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace [► 1267]

2.2.4.5.2.1.1 OnConfirmEventArgs Properties

The OnConfirmEventArgs [► 1267] type exposes the following members.

Properties

	Name	Description
	<u>Alarm</u> [► 1269]	Gets the confirmed <u>Alarm</u> [► 767].
	<u>Context</u> [► 1269]	Gets the <u>Context</u> [► 833] of the event.

Reference

[OnConfirmEventArgs Class \[► 1267\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.1.1.1 OnConfirmEventArgs.Alarm Property

Gets the confirmed [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs \[► 1267\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Alarm Alarm { get; }
```

Property Value

Type: [Alarm \[► 767\]](#)

Reference

[OnConfirmEventArgs Class \[► 1267\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.1.1.2 OnConfirmEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs \[► 1267\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnConfirmEventArgs Class \[► 1267\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.1.2 OnConfirmEventArgs Methods

The [OnConfirmEventArgs \[► 1267\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnConfirmEventArgs Class](#) [► 1267]

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace](#) [► 1267]

2.2.4.5.2.2 OnInitialListEventsEventArgs Class

Provides data for an [OnInitialListEvents](#) [► 1230] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs.OnInitialListEventsEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs](#) [► 1267]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class OnInitialListEventsEventArgs : EventArgs
```

The [OnInitialListEventsEventArgs](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1271]	Gets the Context [► 833] of the event.
	Events [► 1272]	Gets the listed Event [► 850]s.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.2.1 OnInitialListEventsEventArgs Properties

The [OnInitialListEventsEventArgs \[► 1270\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1271]	Gets the Context [► 833] of the event.
	Events [► 1272]	Gets the listed Event [► 850] s.

Reference

[OnInitialListEventsEventArgs Class \[► 1270\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.2.1.1 OnInitialListEventsEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs \[► 1267\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnInitialListEventsEventArgs Class \[► 1270\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.2.1.2 OnInitialListEventsEventArgs.Events Property

Gets the listed [Event \[► 850\]](#)s.

Namespace: [TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs \[► 1267\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Value Events { get; }
```

Property Value

Type: [Value \[► 952\]](#)

Reference

[OnInitialListEventsEventArgs Class \[► 1270\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.2.2.2 OnInitialListEventsEventArgs Methods

The [OnInitialListEventsEventArgs \[► 1270\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnInitialListEventsEventArgs Class \[► 1270\]](#)

[TcHmiSrv.Core.Listeners.AlarmProviderListenerEventArgs Namespace \[► 1267\]](#)

2.2.4.5.3 TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace

Classes

	Class	Description
	OnLoginEventArgs [► 1273]	Provides data for an OnLogin [► 1233] event.
	OnLogoutEventArgs [► 1276]	Provides data for an OnLogout [► 1233] event.

2.2.4.5.3.1 OnLoginEventArgs Class

Provides data for an [OnLogin](#) [\[► 1233\]](#) event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.Core.Listeners.AuthListenerEventArgs.OnLoginEventArgs
Namespace: [TcHmiSrv.Core.Listeners.AuthListenerEventArgs](#) [\[► 1273\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnLoginEventArgs : EventArgs
```

The OnLoginEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1274]	Gets the Context [► 833] of the event.
	Value [► 1275]	Gets the Value [► 952] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[► 1273\]](#)

2.2.4.5.3.1.1 OnLoginEventArgs Properties

The [OnLoginEventArgs](#) [► 1273] type exposes the following members.

Properties

	Name	Description
	Context [► 1274]	Gets the Context [► 833] of the event.
	Value [► 1275]	Gets the Value [► 952] that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Reference

[OnLoginEventArgs Class \[► 1273\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[► 1273\]](#)

2.2.4.5.3.1.1.1 OnLoginEventArgs.Context Property

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.AuthListenerEventArgs](#) [► 1273]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnLoginEventArgs Class \[▸ 1273\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[▸ 1273\]](#)

2.2.4.5.3.1.1.2 OnLoginEventArgs.Value Property

Gets the [Value \[▸ 952\]](#) that describes the user that tries to log in according to the JSON schema for symbol 'Login' as described in 'TcHmiSrv.Config.json'.

Namespace: [TcHmiSrv.Core.Listeners.AuthListenerEventArgs \[▸ 1273\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value \[▸ 952\]](#)

Reference

[OnLoginEventArgs Class \[▸ 1273\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[▸ 1273\]](#)

2.2.4.5.3.1.2 OnLoginEventArgs Methods

The [OnLoginEventArgs \[▸ 1273\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnLoginEventArgs Class \[▸ 1273\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[▸ 1273\]](#)

2.2.4.5.3.2 OnLogoutEventArgs Class

Provides data for an [OnLogout](#) [[▶ 1233](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs.OnLogoutEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.AuthListenerEventArgs](#) [[▶ 1273](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnLogoutEventArgs : EventArgs
```

The OnLogoutEventArgs type exposes the following members.

Properties

	Name	Description
	Context [▶ 1277]	Gets the Context [▶ 833] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace](#) [[▶ 1273](#)]

2.2.4.5.3.2.1 OnLogoutEventArgs Properties

The OnLogoutEventArgs [[▶ 1276](#)] type exposes the following members.

Properties

	Name	Description
	Context [▶ 1277]	Gets the Context [▶ 833] of the event.

Reference

[OnLogoutEventArgs Class \[► 1276\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[► 1273\]](#)

2.2.4.5.3.2.1.1 OnLogoutEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.AuthListenerEventArgs \[► 1273\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnLogoutEventArgs Class \[► 1276\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[► 1273\]](#)

2.2.4.5.3.2.2 OnLogoutEventArgs Methods

The [OnLogoutEventArgs \[► 1276\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnLogoutEventArgs Class \[► 1276\]](#)

[TcHmiSrv.Core.Listeners.AuthListenerEventArgs Namespace \[► 1273\]](#)

2.2.4.5.4 TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace

Classes

	Class	Description
	BeforeChangeEventArgs [▸ 1278]	Provides data for a BeforeChange [▸ 1237] event.
	BeforeDeleteEventArgs [▸ 1282]	Provides data for a BeforeDelete [▸ 1237] event.
	BeforeRenameEventArgs [▸ 1285]	Provides data for a BeforeRename [▸ 1238] event.
	OnChangeEventArgs [▸ 1288]	Provides data for an OnChange [▸ 1238] event.
	OnDeleteEventArgs [▸ 1291]	Provides data for an OnDelete [▸ 1239] event.
	OnRenameEventArgs [▸ 1295]	Provides data for an OnRename [▸ 1239] event.

2.2.4.5.4.1 BeforeChangeEventArgs Class

Provides data for a [BeforeChange](#) [[▸ 1237](#)] event.

Inheritance Hierarchy

[System.Object](#)
[System.EventArgs](#)
TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.BeforeChangeEventArgs

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [[▸ 1278](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class BeforeChangeEventArgs : EventArgs
```

The BeforeChangeEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1280]	Gets the Context [► 833] of the event.
	Path [► 1280]	Gets the path of the Value [► 952] to change.
	Reference [► 1280]	Gets the name of the JSON schema reference of the Value [► 952] to change.
	Value [► 1281]	Gets the Value [► 952] to change.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.1.1 BeforeChangeEventArgs Properties

The [BeforeChangeEventArgs](#) [\[► 1278\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1280]	Gets the Context [► 833] of the event.
	Path [► 1280]	Gets the path of the Value [► 952] to change.
	Reference [► 1280]	Gets the name of the JSON schema reference of the Value [► 952] to change.
	Value [► 1281]	Gets the Value [► 952] to change.

Reference

[BeforeChangeEventArgs Class \[► 1278\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.1.1.1 BeforeChangeEventArgs.Context Property

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[BeforeChangeEventArgs Class](#) [► 1278]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.1.1.2 BeforeChangeEventArgs.Path Property

Gets the path of the [Value](#) [► 952] to change.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeChangeEventArgs Class](#) [► 1278]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.1.1.3 BeforeChangeEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [► 952] to change.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeChangeEventArgs Class \[► 1278\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.1.1.4 BeforeChangeEventArgs.Value Property

Gets the [Value \[► 952\]](#) to change.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value \[► 952\]](#)

Reference

[BeforeChangeEventArgs Class \[► 1278\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.1.2 BeforeChangeEventArgs Methods

The [BeforeChangeEventArgs \[► 1278\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[BeforeChangeEventArgs Class \[► 1278\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.2 BeforeDeleteEventArgs Class

Provides data for a [BeforeDelete](#) [► 1237] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.BeforeDeleteEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class BeforeDeleteEventArgs : EventArgs
```

The [BeforeDeleteEventArgs](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1283]	Gets the Context [► 833] of the event.
	Path [► 1283]	Gets the path of the Value [► 952] to delete.
	Reference [► 1284]	Gets the name of the JSON schema reference of the Value [► 952] to delete.
	Value [► 1284]	Gets the Value [► 952] to delete.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.2.1 BeforeDeleteEventArgs Properties

The [BeforeDeleteEventArgs](#) [► 1282] type exposes the following members.

Properties

	Name	Description
	Context [► 1283]	Gets the Context [► 833] of the event.
	Path [► 1283]	Gets the path of the Value [► 952] to delete.
	Reference [► 1284]	Gets the name of the JSON schema reference of the Value [► 952] to delete.
	Value [► 1284]	Gets the Value [► 952] to delete.

Reference

[BeforeDeleteEventArgs Class](#) [\[► 1282\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [\[► 1278\]](#)

2.2.4.5.4.2.1.1 BeforeDeleteEventArgs.Context Property

Gets the [Context](#) [\[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [\[► 1278\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [\[► 833\]](#)

Reference

[BeforeDeleteEventArgs Class](#) [\[► 1282\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [\[► 1278\]](#)

2.2.4.5.4.2.1.2 BeforeDeleteEventArgs.Path Property

Gets the path of the [Value](#) [\[► 952\]](#) to delete.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [\[► 1278\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeDeleteEventArgs Class](#) [\[► 1282\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.2.1.3 BeforeDeleteEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value \[► 952\]](#) to delete.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeDeleteEventArgs Class \[► 1282\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.2.1.4 BeforeDeleteEventArgs.Value Property

Gets the [Value \[► 952\]](#) to delete.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value \[► 952\]](#)

Reference

[BeforeDeleteEventArgs Class \[► 1282\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.2.2 BeforeDeleteEventArgs Methods

The [BeforeDeleteEventArgs \[► 1282\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[BeforeDeleteEventArgs Class](#) [[► 1282](#)]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [[► 1278](#)]

2.2.4.5.4.3 BeforeRenameEventArgs Class

Provides data for a [BeforeRename](#) [[► 1238](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.BeforeRenameEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [[► 1278](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class BeforeRenameEventArgs : EventArgs
```

The [BeforeRenameEventArgs](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1286]	Gets the Context [► 833] of the event.
	NewPath [► 1287]	Gets the new path of the Value [► 952] to rename.
	OldPath [► 1287]	Gets the old path of the Value [► 952] to rename.
	Reference [► 1287]	Gets the name of the JSON schema reference of the Value [► 952] to rename.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.3.1 BeforeRenameEventArgs Properties

The [BeforeRenameEventArgs \[► 1285\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1286]	Gets the Context [► 833] of the event.
	NewPath [► 1287]	Gets the new path of the Value [► 952] to rename.
	OldPath [► 1287]	Gets the old path of the Value [► 952] to rename.
	Reference [► 1287]	Gets the name of the JSON schema reference of the Value [► 952] to rename.

Reference

[BeforeRenameEventArgs Class \[► 1285\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.3.1.1 BeforeRenameEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[► 833](#)]

Reference

[BeforeRenameEventArgs Class](#) [[► 1285](#)]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [[► 1278](#)]

2.2.4.5.4.3.1.2 BeforeRenameEventArgs.NewPath Property

Gets the new path of the [Value](#) [[► 952](#)] to rename.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [[► 1278](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string NewPath { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeRenameEventArgs Class](#) [[► 1285](#)]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [[► 1278](#)]

2.2.4.5.4.3.1.3 BeforeRenameEventArgs.OldPath Property

Gets the old path of the [Value](#) [[► 952](#)] to rename.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [[► 1278](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string OldPath { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeRenameEventArgs Class](#) [[► 1285](#)]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [[► 1278](#)]

2.2.4.5.4.3.1.4 BeforeRenameEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [[► 952](#)] to rename.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [[► 1278](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public string Reference { get; }
```

Property ValueType: [String](#)**Reference**[BeforeRenameEventArgs Class \[► 1285\]](#)[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)**2.2.4.5.4.3.2 BeforeRenameEventArgs Methods**The [BeforeRenameEventArgs \[► 1285\]](#) type exposes the following members.**Methods**

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference[BeforeRenameEventArgs Class \[► 1285\]](#)[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)**2.2.4.5.4.4 OnChangeEventArgs Class**Provides data for an [OnChange \[► 1238\]](#) event.**Inheritance Hierarchy**[System.Object](#)[System.EventArgs](#)[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.OnChangeEventArgs](#)**Namespace:** [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)**Assembly:** [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class OnChangeEventArgs : EventArgs
```

The OnChangeEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1290]	Gets the <u>Context</u> [▶ 833] of the event.
	<u>Path</u> [▶ 1290]	Gets the path of the changed <u>Value</u> [▶ 952].
	<u>Reference</u> [▶ 1290]	Gets the name of the JSON schema reference of the changed <u>Value</u> [▶ 952].

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace [▶ 1278]

2.2.4.5.4.4.1 OnChangeEventArgs Properties

The OnChangeEventArgs [▶ 1288] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1290]	Gets the <u>Context</u> [▶ 833] of the event.
	<u>Path</u> [▶ 1290]	Gets the path of the changed <u>Value</u> [▶ 952].
	<u>Reference</u> [▶ 1290]	Gets the name of the JSON schema reference of the changed <u>Value</u> [▶ 952].

Reference

OnChangeEventArgs Class [▶ 1288]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.4.1.1 OnChangeEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnChangeEventArgs Class \[► 1288\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.4.1.2 OnChangeEventArgs.Path Property

Gets the path of the changed [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[OnChangeEventArgs Class \[► 1288\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.4.1.3 OnChangeEventArgs.Reference Property

Gets the name of the JSON schema reference of the changed [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[OnChangeEventArgs Class \[► 1288\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.4.2 **OnChangeEventArgs Methods**

The [OnChangeEventArgs \[► 1288\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnChangeEventArgs Class \[► 1288\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.5 **OnDeleteEventArgs Class**

Provides data for an [OnDelete \[► 1239\]](#) event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.OnDeleteEventArgs
Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnDeleteEventArgs : EventArgs
```

The OnDeleteEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1293]	Gets the Context [► 833] of the event.
	Path [► 1293]	Gets the current path.
	Reference [► 1293]	Gets the name of the JSON schema reference of the deleted Value [► 952] .
	Value [► 1294]	Gets the current value.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [\[► 1278\]](#)

2.2.4.5.4.5.1 OnDeleteEventArgs Properties

The [OnDeleteEventArgs](#) [\[► 1291\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1293]	Gets the Context [► 833] of the event.
	Path [► 1293]	Gets the current path.
	Reference [► 1293]	Gets the name of the JSON schema reference of the deleted Value [► 952] .
	Value [► 1294]	Gets the current value.

Reference

[OnDeleteEventArgs Class](#) [\[► 1291\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [\[► 1278\]](#)

2.2.4.5.4.5.1.1 OnDeleteEventArgs.Context Property

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnDeleteEventArgs Class](#) [► 1291]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.5.1.2 OnDeleteEventArgs.Path Property

Gets the current path.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[OnDeleteEventArgs Class](#) [► 1291]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.5.1.3 OnDeleteEventArgs.Reference Property

Gets the name of the JSON schema reference of the deleted [Value](#) [► 952].

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[OnDeleteEventArgs Class \[► 1291\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.5.1.4 OnDeleteEventArgs.Value Property

Gets the current value.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public Value Value { get; }
```

Property Value

Type: [Value \[► 952\]](#)

Reference

[OnDeleteEventArgs Class \[► 1291\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.5.2 OnDeleteEventArgs Methods

The [OnDeleteEventArgs \[► 1291\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnDeleteEventArgs Class \[► 1291\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.6 OnRenameEventArgs Class

Provides data for an [OnRename](#) [► 1239] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs.OnRenameEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnRenameEventArgs : EventArgs
```

The OnRenameEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1296]	Gets the Context [► 833] of the event.
	NewPath [► 1296]	Gets the new path of the renamed Value [► 952].
	OldPath [► 1297]	Gets the old path of the renamed Value [► 952].
	Reference [► 1297]	Gets the name of the JSON schema reference of the renamed Value [► 952].

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.6.1 OnRenameEventArgs Properties

The [OnRenameEventArgs](#) [► 1295] type exposes the following members.

Properties

	Name	Description
	Context [► 1296]	Gets the Context [► 833] of the event.
	NewPath [► 1296]	Gets the new path of the renamed Value [► 952].
	OldPath [► 1297]	Gets the old path of the renamed Value [► 952].
	Reference [► 1297]	Gets the name of the JSON schema reference of the renamed Value [► 952].

Reference

[OnRenameEventArgs Class](#) [► 1295]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.6.1.1 OnRenameEventArgs.Context Property

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnRenameEventArgs Class](#) [► 1295]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.4.6.1.2 OnRenameEventArgs.NewPath Property

Gets the new path of the renamed [Value](#) [► 952].

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs](#) [► 1278]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public string NewPath { get; }
```

Property Value

Type: [String](#)

Reference

[OnRenameEventArgs Class \[► 1295\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.6.1.3 OnRenameEventArgs.OldPath Property

Gets the old path of the renamed [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string OldPath { get; }
```

Property Value

Type: [String](#)

Reference

[OnRenameEventArgs Class \[► 1295\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.6.1.4 OnRenameEventArgs.Reference Property

Gets the name of the JSON schema reference of the renamed [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Listeners.ConfigListenerEventArgs \[► 1278\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[OnRenameEventArgs Class \[► 1295\]](#)

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace \[► 1278\]](#)

2.2.4.5.4.6.2 OnRenameEventArgs Methods

The [OnRenameEventArgs \[► 1295\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnRenameEventArgs Class](#) [► 1295]

[TcHmiSrv.Core.Listeners.ConfigListenerEventArgs Namespace](#) [► 1278]

2.2.4.5.5 TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace**Classes**

	Class	Description
	OnChangeEventArgs [► 1298]	Provides data for an OnChange [► 1242] event.
	OnListEventsEventArgs [► 1301]	Provides data for an OnListEvents [► 1243] event.
	OnReceiveEventArgs [► 1304]	Provides data for an OnReceive [► 1243] event.
	OnRemoveEventEventArgs [► 1307]	Provides data for an OnRemoveEvent [► 1243] event.

2.2.4.5.5.1 OnChangeEventEventArgs Class

Provides data for an [OnChange](#) [► 1242] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs.OnChangeEventEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnChangeEventArgs : EventArgs
```

The OnChangeEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1300]	Gets the <u>Context</u> [▶ 833] of the event.
	<u>Event</u> [▶ 1300]	Gets the changed <u>Event</u> [▶ 850].
	<u>ExtensionSessionId</u> [▶ 1300]	Gets the extension session identifier.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace [▶ 1298]

2.2.4.5.5.1.1 OnChangeEventArgs Properties

The OnChangeEventArgs [▶ 1298] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1300]	Gets the <u>Context</u> [▶ 833] of the event.
	<u>Event</u> [▶ 1300]	Gets the changed <u>Event</u> [▶ 850].
	<u>ExtensionSessionId</u> [▶ 1300]	Gets the extension session identifier.

Reference

[OnChangeEventArgs Class \[► 1298\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.1.1.1 OnChangeEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnChangeEventArgs Class \[► 1298\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.1.1.2 OnChangeEventArgs.Event Property

Gets the changed [Event \[► 850\]](#).

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Event Event { get; }
```

Property Value

Type: [Event \[► 850\]](#)

Reference

[OnChangeEventArgs Class \[► 1298\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.1.1.3 OnChangeEventArgs.ExtensionSessionId Property

Gets the extension session identifier.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ExtensionSessionId { get; }
```

Property Value

Type: [String](#)

Reference

[OnChangeEventArgs Class](#) [► 1298]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.1.2 OnChangeEventArgs Methods

The [OnChangeEventArgs](#) [► 1298] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnChangeEventArgs Class](#) [► 1298]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.2 OnListEventsEventArgs Class

Provides data for an [OnListEvents](#) [► 1243] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

 TcHmiSrv.Core.Listeners.EventListenerEventArgs.OnListEventsEventArgs

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnListEventsEventArgs : EventArgs
```

The OnListEventsEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Command</u> [► 1303]	Gets the <u>Command</u> [► 1303] that contains the listed <u>Event</u> [► 850] s in its read-value.
	<u>Context</u> [► 1303]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.2.1 OnListEventsEventArgs Properties

The OnListEventsEventArgs [\[► 1301\]](#) type exposes the following members.

Properties

	Name	Description
	<u>Command</u> [► 1303]	Gets the <u>Command</u> [► 1303] that contains the listed <u>Event</u> [► 850] s in its read-value.
	<u>Context</u> [► 1303]	Gets the <u>Context</u> [► 833] of the event.

Reference

[OnListEventsEventArgs Class \[► 1301\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.2.1.1 OnListEventsEventArgs.Command Property

Gets the Command that contains the listed [Event](#) [[▶ 850](#)]s in its read-value.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [[▶ 1298](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Command Command { get; }
```

Property Value

Type: [Command](#) [[▶ 788](#)]

Reference

[OnListEventsEventArgs Class](#) [[▶ 1301](#)]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [[▶ 1298](#)]

2.2.4.5.5.2.1.2 OnListEventsEventArgs.Context Property

Gets the [Context](#) [[▶ 833](#)] of the event.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [[▶ 1298](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▶ 833](#)]

Reference

[OnListEventsEventArgs Class](#) [[▶ 1301](#)]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [[▶ 1298](#)]

2.2.4.5.5.2.2 OnListEventsEventArgs Methods

The [OnListEventsEventArgs](#) [[▶ 1301](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnListEventsEventArgs Class \[► 1301\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.3 OnReceiveEventArgs Class

Provides data for an [OnReceive \[► 1243\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs.OnReceiveEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class OnReceiveEventArgs : EventArgs
```

The OnReceiveEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1305]	Gets the Context [► 833] of the event.
	Events [► 1306]	Gets the Command [► 788] that contains the listed Event [► 850] s in its read-value.
	ExtensionSessionId [► 1306]	Gets the extension session identifier.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.3.1 OnReceiveEventArgs Properties

The [OnReceiveEventArgs \[► 1304\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1305]	Gets the Context [► 833] of the event.
	Events [► 1306]	Gets the Command [► 788] that contains the listed Event [► 850] s in its read-value.
	ExtensionSessionId [► 1306]	Gets the extension session identifier.

Reference

[OnReceiveEventArgs Class \[► 1304\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.3.1.1 OnReceiveEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnReceiveEventArgs Class](#) [► 1304]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.3.1.2 OnReceiveEventArgs.Events Property

Gets the [Command](#) [► 788] that contains the listed [Event](#) [► 850]s in its read-value.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Events { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[OnReceiveEventArgs Class](#) [► 1304]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.3.1.3 OnReceiveEventArgs.ExtensionSessionId Property

Gets the extension session identifier.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ExtensionSessionId { get; }
```

Property Value

Type: [String](#)

Reference

[OnReceiveEventArgs Class](#) [► 1304]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.3.2 OnReceiveEventArgs Methods

The [OnReceiveEventArgs](#) [► 1304] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnReceiveEventArgs Class](#) [[► 1304](#)]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [[► 1298](#)]

2.2.4.5.5.4 OnRemoveEventEventArgs Class

Provides data for an [OnRemoveEvent](#) [[► 1243](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs.OnRemoveEventEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [[► 1298](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class OnRemoveEventEventArgs : EventArgs
```

The OnRemoveEventEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1308]	Gets the Context [► 833] of the event.
	Event [► 1309]	Gets the changed Event [► 850].
	ExtensionSessionId [► 1309]	Gets the extension session identifier.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.4.1 OnRemoveEventEventArgs Properties

The [OnRemoveEventEventArgs \[► 1307\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1308]	Gets the Context [► 833] of the event.
	Event [► 1309]	Gets the changed Event [► 850] .
	ExtensionSessionId [► 1309]	Gets the extension session identifier.

Reference

[OnRemoveEventEventArgs Class \[► 1307\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.5.4.1.1 OnRemoveEventEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs \[► 1298\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public Context Context { get; }
```


Property Value

Type: [Context](#) [► 833]

Reference

[OnRemoveEventEventArgs Class](#) [► 1307]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.4.1.2 OnRemoveEventEventArgs.Event Property

Gets the changed [Event](#) [► 850].

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Event Event { get; }
```

Property Value

Type: [Event](#) [► 850]

Reference

[OnRemoveEventEventArgs Class](#) [► 1307]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.4.1.3 OnRemoveEventEventArgs.ExtensionSessionId Property

Gets the extension session identifier.

Namespace: [TcHmiSrv.Core.Listeners.EventListenerEventArgs](#) [► 1298]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ExtensionSessionId { get; }
```

Property Value

Type: [String](#)

Reference

[OnRemoveEventEventArgs Class](#) [► 1307]

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace](#) [► 1298]

2.2.4.5.5.4.2 OnRemoveEventEventArgs Methods

The [OnRemoveEventEventArgs](#) [► 1307] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnRemoveEventEventArgs Class \[► 1307\]](#)

[TcHmiSrv.Core.Listeners.EventListenerEventArgs Namespace \[► 1298\]](#)

2.2.4.5.6 TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace

Classes

	Class	Description
	OnRequestEventArgs [► 1310]	Provides data for an OnRequest [► 1247] event.

2.2.4.5.6.1 OnRequestEventArgs Class

Provides data for an [OnRequest \[► 1247\]](#) event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs.OnRequestEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs \[► 1310\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class OnRequestEventArgs : EventArgs
```

The OnRequestEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1312]	Gets the <u>Context</u> [► 833] of the event.
	<u>Locale</u> [► 1312]	Gets the locale in BCP 47 representation.
	<u>Localizable</u> [► 1312]	Gets the <u>ILocalizable</u> [► 866] to localize.
	<u>Localized</u> [► 1313]	Contains the localized <u>String</u> .

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace [► 1310]

2.2.4.5.6.1.1 OnRequestEventArgs Properties

The OnRequestEventArgs [► 1310] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1312]	Gets the <u>Context</u> [► 833] of the event.
	<u>Locale</u> [► 1312]	Gets the locale in BCP 47 representation.
	<u>Localizable</u> [► 1312]	Gets the <u>ILocalizable</u> [► 866] to localize.
	<u>Localized</u> [► 1313]	Contains the localized <u>String</u> .

Reference

OnRequestEventArgs Class [► 1310]

TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace [► 1310]

2.2.4.5.6.1.1.1 OnRequestEventArgs.Context Property

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs](#) [► 1310]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnRequestEventArgs Class](#) [► 1310]

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace](#) [► 1310]

2.2.4.5.6.1.1.2 OnRequestEventArgs.Locale Property

Gets the locale in BCP 47 representation.

Namespace: [TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs](#) [► 1310]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Locale { get; }
```

Property Value

Type: [String](#)

Reference

[OnRequestEventArgs Class](#) [► 1310]

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace](#) [► 1310]

2.2.4.5.6.1.1.3 OnRequestEventArgs.Localizable Property

Gets the [ILocalizable](#) [► 866] to localize.

Namespace: [TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs](#) [► 1310]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ILocalizable Localizable { get; }
```

Property Value

Type: [ILocalizable](#) [► 866]

Reference

[OnRequestEventArgs Class \[► 1310\]](#)

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace \[► 1310\]](#)

2.2.4.5.6.1.1.4 OnRequestEventArgs.Localized Property

Contains the localized [String](#).

Namespace: [TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs \[► 1310\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Localized { get; set; }
```

Property Value

Type: [String](#)

Reference

[OnRequestEventArgs Class \[► 1310\]](#)

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace \[► 1310\]](#)

2.2.4.5.6.1.2 OnRequestEventArgs Methods

The [OnRequestEventArgs \[► 1310\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnRequestEventArgs Class \[► 1310\]](#)

[TcHmiSrv.Core.Listeners.EventLocalizationListenerEventArgs Namespace \[► 1310\]](#)

2.2.4.5.7 TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace

Classes

	Class	Description
	BeforeExportEventArgs [▶ 1314]	Provides data for a BeforeExport [▶ 1250] event.
	BeforeImportEventArgs [▶ 1318]	Provides data for a BeforeImport [▶ 1250] event.

2.2.4.5.7.1 BeforeExportEventArgs Class

Provides data for a [BeforeExport](#) [[▶ 1250](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs.BeforeExportEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [[▶ 1314](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class BeforeExportEventArgs : EventArgs
```

The BeforeExportEventArgs type exposes the following members.

Properties

	Name	Description
	Context [▶ 1315]	Gets the Context [▶ 833] of the event.
	Path [▶ 1316]	Gets the path of the Value [▶ 952] to export.
	Reference [▶ 1316]	Gets the name of the JSON schema reference of the Value [▶ 952] to export.
	Root [▶ 1317]	Gets the root Value [▶ 952] that contains the whole data to export.
	Value [▶ 1317]	Gets the Value [▶ 952] to export.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace \[► 1314\]](#)

2.2.4.5.7.1.1 BeforeExportEventArgs Properties

The [BeforeExportEventArgs \[► 1314\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1315]	Gets the Context [► 833] of the event.
	Path [► 1316]	Gets the path of the Value [► 952] to export.
	Reference [► 1316]	Gets the name of the JSON schema reference of the Value [► 952] to export.
	Root [► 1317]	Gets the root Value [► 952] that contains the whole data to export.
	Value [► 1317]	Gets the Value [► 952] to export.

Reference

[BeforeExportEventArgs Class \[► 1314\]](#)

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace \[► 1314\]](#)

2.2.4.5.7.1.1.1 BeforeExportEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs \[► 1314\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[BeforeExportEventArgs Class](#) [► 1314]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.1.1.2 BeforeExportEventArgs.Path Property

Gets the path of the [Value](#) [► 952] to export.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeExportEventArgs Class](#) [► 1314]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.1.1.3 BeforeExportEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [► 952] to export.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeExportEventArgs Class](#) [► 1314]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.1.1.4 BeforeExportEventArgs.Root Property

Gets the root [Value](#) [► 952] that contains the whole data to export.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Root { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[BeforeExportEventArgs Class](#) [► 1314]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.1.1.5 BeforeExportEventArgs.Value Property

Gets the [Value](#) [► 952] to export.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[BeforeExportEventArgs Class](#) [► 1314]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.1.2 BeforeExportEventArgs Methods

The [BeforeExportEventArgs](#) [► 1314] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[BeforeEventArgs Class](#) [[► 1314](#)]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [[► 1314](#)]

2.2.4.5.7.2 BeforeImportEventArgs Class

Provides data for a [BeforeImport](#) [[► 1250](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs.BeforeImportEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [[► 1314](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public class BeforeImportEventArgs : EventArgs
```

The [BeforeImportEventArgs](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1319]	Gets the Context [► 833] of the event.
	Path [► 1320]	Gets the path of the Value [► 952] to import.
	Reference [► 1320]	Gets the name of the JSON schema reference of the Value [► 952] to import.
	Root [► 1321]	Gets the root Value [► 952] that contains the whole data to import.
	Value [► 1321]	Gets the Value [► 952] to import.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace \[► 1314\]](#)

2.2.4.5.7.2.1 BeforeImportEventArgs Properties

The [BeforeImportEventArgs \[► 1318\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1319]	Gets the Context [► 833] of the event.
	Path [► 1320]	Gets the path of the Value [► 952] to import.
	Reference [► 1320]	Gets the name of the JSON schema reference of the Value [► 952] to import.
	Root [► 1321]	Gets the root Value [► 952] that contains the whole data to import.
	Value [► 1321]	Gets the Value [► 952] to import.

Reference

[BeforeImportEventArgs Class \[► 1318\]](#)

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace \[► 1314\]](#)

2.2.4.5.7.2.1.1 BeforeImportEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs \[► 1314\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[BeforeImportEventArgs Class](#) [► 1318]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.2.1.2 BeforeImportEventArgs.Path Property

Gets the path of the [Value](#) [► 952] to import.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Path { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeImportEventArgs Class](#) [► 1318]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.2.1.3 BeforeImportEventArgs.Reference Property

Gets the name of the JSON schema reference of the [Value](#) [► 952] to import.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Reference { get; }
```

Property Value

Type: [String](#)

Reference

[BeforeImportEventArgs Class](#) [► 1318]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.2.1.4 BeforeImportEventArgs.Root Property

Gets the root [Value](#) [► 952] that contains the whole data to import.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Root { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[BeforeImportEventArgs Class](#) [► 1318]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.2.1.5 BeforeImportEventArgs.Value Property

Gets the [Value](#) [► 952] to import.

Namespace: [TcHmiSrv.Core.Listeners.ExportListenerEventArgs](#) [► 1314]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value Value { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[BeforeImportEventArgs Class](#) [► 1318]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [► 1314]

2.2.4.5.7.2.2 BeforeImportEventArgs Methods

The [BeforeImportEventArgs](#) [► 1318] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[BeforeImportEventArgs Class](#) [[► 1318](#)]

[TcHmiSrv.Core.Listeners.ExportListenerEventArgs Namespace](#) [[► 1314](#)]

2.2.4.5.8 TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace**Classes**

	Class	Description
	OnRequestEventArgs [► 1322]	Provides data for an OnRequest [► 1255] event.

2.2.4.5.8.1 OnRequestEventArgs Class

Provides data for an [OnRequest](#) [[► 1255](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.RequestListenerEventArgs.OnRequestEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.RequestListenerEventArgs](#) [[► 1322](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public class OnRequestEventArgs : EventArgs
```

The [OnRequestEventArgs](#) type exposes the following members.

Properties

	Name	Description
	<u>Commands</u> [► 1323]	Contains the <u>Command</u> [► 788]s to invoke.
	<u>Context</u> [► 1324]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace [► 1322]

2.2.4.5.8.1.1 OnRequestEventArgs Properties

The OnRequestEventArgs [► 1322] type exposes the following members.

Properties

	Name	Description
	<u>Commands</u> [► 1323]	Contains the <u>Command</u> [► 788]s to invoke.
	<u>Context</u> [► 1324]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnRequestEventArgs Class [► 1322]

TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace [► 1322]

2.2.4.5.8.1.1.1 OnRequestEventArgs.Commands Property

Contains the Command [► 788]s to invoke.

Namespace: TcHmiSrv.Core.Listeners.RequestListenerEventArgs [► 1322]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public CommandGroup Commands { get; }
```

Property Value

Type: [CommandGroup](#) [[▶ 807](#)]

Reference

[OnRequestEventArgs Class](#) [[▶ 1322](#)]

[TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace](#) [[▶ 1322](#)]

2.2.4.5.8.1.1.2 OnRequestEventArgs.Context Property

Gets the [Context](#) [[▶ 833](#)] of the event.

Namespace: [TcHmiSrv.Core.Listeners.RequestListenerEventArgs](#) [[▶ 1322](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [[▶ 833](#)]

Reference

[OnRequestEventArgs Class](#) [[▶ 1322](#)]

[TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace](#) [[▶ 1322](#)]

2.2.4.5.8.1.2 OnRequestEventArgs Methods

The [OnRequestEventArgs](#) [[▶ 1322](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnRequestEventArgs Class \[► 1322\]](#)

[TcHmiSrv.Core.Listeners.RequestListenerEventArgs Namespace \[► 1322\]](#)

2.2.4.5.9 TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace**Classes**

	Class	Description
	OnCloseSessionEventArgs [► 1325]	Provides data for an OnCloseSession [► 1258] event.
	OnCloseWebSocketEventArgs [► 1327]	Provides data for an OnCloseWebSocket [► 1259] event.
	OnCreateSessionEventArgs [► 1329]	Provides data for an OnCreateSession [► 1259] event.
	OnCreateWebSocketEventArgs [► 1331]	Provides data for an OnCreateWebSocket [► 1259] event.
	OnLoginEventArgs [► 1333]	Provides data for an OnLogin [► 1260] event.
	OnLogoutEventArgs [► 1335]	Provides data for an OnLogout [► 1260] event.

2.2.4.5.9.1 OnCloseSessionEventArgs Class

Provides data for an [OnCloseSession \[► 1258\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnCloseSessionEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[► 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnCloseSessionEventArgs : EventArgs
```

The OnCloseSessionEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1327]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[► 1325](#)]

2.2.4.5.9.1.1 OnCloseSessionEventArgs Properties

The OnCloseSessionEventArgs [[► 1325](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1327]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnCloseSessionEventArgs Class [[► 1325](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.1.1 OnCloseSessionEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[► 1325\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnCloseSessionEventArgs Class \[► 1325\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.1.2 OnCloseSessionEventArgs Methods

The [OnCloseSessionEventArgs \[► 1325\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnCloseSessionEventArgs Class \[► 1325\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.2 OnCloseWebSocketEventArgs Class

Provides data for an [OnCloseWebSocket \[► 1259\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnCloseWebSocketEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[► 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnCloseWebSocketEventArgs : EventArgs
```

The OnCloseWebSocketEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1329]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[► 1325](#)]

2.2.4.5.9.2.1 OnCloseWebSocketEventArgs Properties

The OnCloseWebSocketEventArgs [[► 1327](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1329]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnCloseWebSocketEventArgs Class [[► 1327](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.2.1.1 **OnCloseWebSocketEventArgs.Context Property**

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[► 1325\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnCloseWebSocketEventArgs Class \[► 1327\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.2.2 **OnCloseWebSocketEventArgs Methods**

The [OnCloseWebSocketEventArgs \[► 1327\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnCloseWebSocketEventArgs Class \[► 1327\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.3 **OnCreateSessionEventArgs Class**

Provides data for an [OnCreateSession \[► 1259\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnCreateSessionEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[► 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnCreateSessionEventArgs : EventArgs
```

The OnCreateSessionEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1331]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[► 1325](#)]

2.2.4.5.9.3.1 OnCreateSessionEventArgs Properties

The OnCreateSessionEventArgs [[► 1329](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1331]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnCreateSessionEventArgs Class [[► 1329](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.3.1.1 OnCreateSessionEventArgs.Context Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[► 1325\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnCreateSessionEventArgs Class \[► 1329\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.3.2 OnCreateSessionEventArgs Methods

The [OnCreateSessionEventArgs \[► 1329\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnCreateSessionEventArgs Class \[► 1329\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.4 OnCreateWebSocketEventArgs Class

Provides data for an [OnCreateWebSocket \[► 1259\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnCreateWebSocketEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[▶ 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnCreateWebSocketEventArgs : EventArgs
```

The OnCreateWebSocketEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1333]	Gets the <u>Context</u> [▶ 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[▶ 1325](#)]

2.2.4.5.9.4.1 OnCreateWebSocketEventArgs Properties

The OnCreateWebSocketEventArgs [[▶ 1331](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1333]	Gets the <u>Context</u> [▶ 833] of the event.

Reference

OnCreateWebSocketEventArgs Class [[▶ 1331](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.4.1.1 **OnCreateWebSocketEventArgs.Context** Property

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[► 1325\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnCreateWebSocketEventArgs Class \[► 1331\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.4.2 **OnCreateWebSocketEventArgs Methods**

The [OnCreateWebSocketEventArgs \[► 1331\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnCreateWebSocketEventArgs Class \[► 1331\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.5 **OnLoginEventArgs Class**

Provides data for an [OnLogin \[► 1260\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnLoginEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[▶ 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnLoginEventArgs : EventArgs
```

The OnLoginEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1335]	Gets the <u>Context</u> [▶ 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[▶ 1325](#)]

2.2.4.5.9.5.1 OnLoginEventArgs Properties

The OnLoginEventArgs [[▶ 1333](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [▶ 1335]	Gets the <u>Context</u> [▶ 833] of the event.

Reference

OnLoginEventArgs Class [[▶ 1333](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.5.1.1 **OnLoginEventArgs.Context Property**

Gets the [Context \[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[► 1325\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[► 833\]](#)

Reference

[OnLoginEventArgs Class \[► 1333\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.5.2 **OnLoginEventArgs Methods**

The [OnLoginEventArgs \[► 1333\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnLoginEventArgs Class \[► 1333\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[► 1325\]](#)

2.2.4.5.9.6 **OnLogoutEventArgs Class**

Provides data for an [OnLogout \[► 1260\]](#) event.

Inheritance Hierarchy

System.Object

System.EventArgs

TcHmiSrv.Core.Listeners.SessionListenerEventArgs.OnLogoutEventArgs

Namespace: TcHmiSrv.Core.Listeners.SessionListenerEventArgs [[► 1325](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnLogoutEventArgs : EventArgs
```

The OnLogoutEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1337]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace [[► 1325](#)]

2.2.4.5.9.6.1 OnLogoutEventArgs Properties

The OnLogoutEventArgs [[► 1335](#)] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1337]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnLogoutEventArgs Class [[► 1335](#)]

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[▸ 1325\]](#)

2.2.4.5.9.6.1.1 **OnLogoutEventArgs.Context** Property

Gets the [Context \[▸ 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SessionListenerEventArgs \[▸ 1325\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context \[▸ 833\]](#)

Reference

[OnLogoutEventArgs Class \[▸ 1335\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[▸ 1325\]](#)

2.2.4.5.9.6.2 **OnLogoutEventArgs Methods**

The [OnLogoutEventArgs \[▸ 1335\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnLogoutEventArgs Class \[▸ 1335\]](#)

[TcHmiSrv.Core.Listeners.SessionListenerEventArgs Namespace \[▸ 1325\]](#)

2.2.4.5.10 TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs Namespace

Classes

	Class	Description
	OnShutdownEventArgs [► 1338]	Provides data for an OnShutdown [► 1263] event.

2.2.4.5.10.1 OnShutdownEventArgs Class

Provides data for an [OnShutdown](#) [[► 1263](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs.OnShutdownEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs](#) [[► 1338](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnShutdownEventArgs : EventArgs
```

The OnShutdownEventArgs type exposes the following members.

Properties

	Name	Description
	Context [► 1339]	Gets the Context [► 833] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs Namespace](#) [[► 1338](#)]

2.2.4.5.10.1.1 *OnShutdownEventArgs Properties*

The [OnShutdownEventArgs](#) [► 1338] type exposes the following members.

Properties

	Name	Description
	Context [► 1339]	Gets the Context [► 833] of the event.

Reference

[OnShutdownEventArgs Class](#) [► 1338]

[TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs Namespace](#) [► 1338]

2.2.4.5.10.1.1.1 *OnShutdownEventArgs.Context Property*

Gets the [Context](#) [► 833] of the event.

Namespace: [TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs](#) [► 1338]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnShutdownEventArgs Class](#) [► 1338]

[TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs Namespace](#) [► 1338]

2.2.4.5.10.1.2 *OnShutdownEventArgs Methods*

The [OnShutdownEventArgs](#) [► 1338] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnShutdownEventArgs Class](#) [[► 1338](#)]

[TcHmiSrv.Core.Listeners.ShutdownListenerEventArgs Namespace](#) [[► 1338](#)]

2.2.4.5.11 TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace

Classes

	Class	Description
	OnSubscribeEventArgs [► 1340]	Provides data for an OnSubscribe [► 1266] event.
	OnUnsubscribeEventArgs [► 1342]	Provides data for an OnUnsubscribe [► 1267] event.

2.2.4.5.11.1 OnSubscribeEventArgs Class

Provides data for an [OnSubscribe](#) [[► 1266](#)] event.

Inheritance Hierarchy

[System.Object](#)

[System.EventArgs](#)

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs.OnSubscribeEventArgs](#)

Namespace: [TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs](#) [[► 1340](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public class OnSubscribeEventArgs : EventArgs
```


The `OnSubscribeEventArgs` type exposes the following members.

Properties

	Name	Description
	Context [► 1341]	Gets the Context [► 833] of the event.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace \[► 1340\]](#)

2.2.4.5.11.1.1 OnSubscribeEventArgs Properties

The `OnSubscribeEventArgs` [\[► 1340\]](#) type exposes the following members.

Properties

	Name	Description
	Context [► 1341]	Gets the Context [► 833] of the event.

Reference

[OnSubscribeEventArgs Class \[► 1340\]](#)

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace \[► 1340\]](#)

2.2.4.5.11.1.1.1 OnSubscribeEventArgs.Context Property

Gets the [Context](#) [\[► 833\]](#) of the event.

Namespace: [TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs \[► 1340\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnSubscribeEventArgs Class](#) [► 1340]

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace](#) [► 1340]

2.2.4.5.11.1.2 *OnSubscribeEventArgs Methods*

The [OnSubscribeEventArgs](#) [► 1340] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnSubscribeEventArgs Class](#) [► 1340]

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace](#) [► 1340]

2.2.4.5.11.2 **OnUnsubscribeEventArgs Class**

Provides data for an [OnUnsubscribe](#) [► 1267] event.

Inheritance Hierarchy

[System.Object](#)
 [System.EventArgs](#)
 TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs.OnUnsubscribeEventArgs

Namespace: [TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs](#) [► 1340]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class OnUnsubscribeEventArgs : EventArgs
```

The OnUnsubscribeEventArgs type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1343]	Gets the <u>Context</u> [► 833] of the event.

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace [► 1340]

2.2.4.5.11.2.1 OnUnsubscribeEventArgs Properties

The OnUnsubscribeEventArgs [► 1342] type exposes the following members.

Properties

	Name	Description
	<u>Context</u> [► 1343]	Gets the <u>Context</u> [► 833] of the event.

Reference

OnUnsubscribeEventArgs Class [► 1342]

TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace [► 1340]

2.2.4.5.11.2.1.1 OnUnsubscribeEventArgs.Context Property

Gets the Context [► 833] of the event.

Namespace: TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs [► 1340]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Context Context { get; }
```

Property Value

Type: [Context](#) [► 833]

Reference

[OnUnsubscribeEventArgs Class](#) [► 1342]

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace](#) [► 1340]

2.2.4.5.11.2.2 OnUnsubscribeEventArgs Methods

The [OnUnsubscribeEventArgs](#) [► 1342] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[OnUnsubscribeEventArgs Class](#) [► 1342]

[TcHmiSrv.Core.Listeners.SubscriptionListenerEventArgs Namespace](#) [► 1340]

2.2.4.6 TcHmiSrv.Core.Tools Namespaces

Contains tools for the core types of the TwinCAT HMI server extension API.

Namespaces

Namespace	Description
TcHmiSrv.Core.Tools.DynamicSymbols [► 1345]	Provides types to dynamically create, read and write symbols in TwinCAT HMI server extensions.
TcHmiSrv.Core.Tools.Json [► 1541]	Contains types and namespaces to interact with JSON.
TcHmiSrv.Core.Tools.Management [► 1739]	Contains interfaces that the default <u>Type</u> of a TwinCAT HMI server extension can implement to support initialization and conversion error codes into human readable <u>Strings</u> .
TcHmiSrv.Core.Tools.Queries [► 1741]	Contains types to filter and sort collections of <u>Value</u> [► 952]s.
TcHmiSrv.Core.Tools.Resolving [► 1762]	Contains types to resolve instances of any type by a specified path.
TcHmiSrv.Core.Tools.Settings [► 1833]	Contains types to generate settings for the configuration of listeners more easily. The generated settings can be specified when calling <code>ITcHmiSrvExtHost.RegisterListener(Context, IListener, Value)</code> [► 916].
TcHmiSrv.Core.Tools.TypeAttribute [► 1845]	Contains the <u>ServerExtensionTypeAttribute</u> [► 1845] that is used to specify the default <u>Type</u> of a TwinCAT HMI server extension.

2.2.4.6.1 TcHmiSrv.Core.Tools.DynamicSymbols Namespace

Provides types to dynamically create, read and write symbols in TwinCAT HMI server extensions.

Classes

	Class	Description
	Definition [► 1348]	Represents a definition that can be referenced in a JSON schema.
	DefinitionMismatchException [► 1379]	Represents an Exception that is thrown when two Definition [► 1348]s with the same key are not equal.
	DynamicSymbolException [► 1386]	Represents an Exception that is thrown when handling a Command [► 788] in the DynamicSymbolsProvider [► 1391] failed.
	DynamicSymbolsProvider [► 1391]	Provides dynamic symbols in TwinCAT HMI server extensions.
	JsonSchemaContractResolver [► 1415]	Represents an IContractResolver for JSON schemas.
	JsonSchemaValue [► 1421]	Represent a JSON schema.
	SortedDynamicSymbolsProvider [► 1464]	Provides dynamic symbols in TwinCAT HMI server extensions. The Symbol [► 1477]s are sorted using StringComparer [► 1473]
	Symbol [► 1477]	Represents a symbol of a TwinCAT HMI server extension.
	SymbolWithDirectValue [► 1492]	Represents a symbol of a TwinCAT HMI server extension with a Value [► 952] that can be set directly.
	SymbolWithValue [► 1510]	Represents a symbol of a TwinCAT HMI server extension with a Value [► 952].
	TcHmiSchemaGenerator [► 1529]	Generates a JsonSchemaValue [► 1421] from a specified Type .

Remarks

This implementation replaces the [TcHmiSrv.DynamicSymbols.TcHmiSchemaGenerator](#) class.

Dynamic symbols are exposed through an instance of the [DynamicSymbolsProvider](#) [► 1391] class. It represents a collection of symbols provided by a TwinCAT HMI server extension.

The [DynamicSymbolsProvider](#) [► 1391] class implements the [IDictionary.TKey, TValue](#) interface, which makes it easy to add new symbols with [DynamicSymbolsProvider.Add\(string, Symbol\)](#) [► 1407] and remove existing symbols with [DynamicSymbolsProvider.Remove\(string\)](#) [► 1414] at runtime of the TwinCAT HMI server extension.

There are also many other methods to read and modify the contents of a [DynamicSymbolsProvider](#) [► 1391]. Just take a look at its documentation to explore them all.

When adding a new symbol to the [DynamicSymbolsProvider](#) [► 1391] using

[DynamicSymbolsProvider.Add\(string, Symbol\)](#) [► 1407], [DynamicSymbolsProvider.AddOrUpdate\(string, Symbol\)](#) [► 1407] or the [IDictionary.TKey, TValue](#) indexer, you have to provide a [String](#) and an instance of a type derived from the abstract [Symbol](#) [► 1477] class:

- **key [String](#)**
Represents the name of the symbol to add. This [String](#) must be an unique key, just like every symbol offered by a TwinCAT HMI server extension is unique. The name of the symbol is addressed by the [Command.Mapping](#) [► 796] property.
- **[Symbol](#) [► 1477] [symbol](#)**
Represents the symbol to add, including its schema and value:
 - The schema of the symbol must be constant and can be specified in the constructor when initializing a new instance of the [Symbol](#) [► 1477] class. Schemas of the [readValue](#) and [writeValue](#) are represented by instances of the [JsonSchemaValue](#) [► 1421] class, whereas function, [readOnly](#) and [doc](#) can be specified directly by an instance of the corresponding type. [JsonSchemaValue](#) [► 1421]s can be created either by a manually constructed instance of the [Value](#) [► 952] class containing a valid JSON schema, or by an automatically generated [JSchema](#). The [TcHmiJSchemaGenerator](#) [► 1529] is also able to create a [JsonSchemaValue](#) [► 1421] for a specified [Type](#) by calling [TcHmiJSchemaGenerator.Generate\(Type\)](#) [► 1538].
 - The value of the symbol is represented by the abstract [Symbol.Read\(Queue{string}\)](#) [► 1491] and [Symbol.Write\(Queue{string}, Value\)](#) [► 1492] methods, which allow to read or write the value of the symbol itself or any of its sub-elements.
The value to be read or written is wrapped in an instance of the [Value](#) [► 952] class, because it can store values of all types supported by the TwinCAT HMI server.
To access a sub-element of the current value of the symbol, a [Queue.T](#) containing the path to the sub-element is passed to the [Symbol.Read\(Queue{string}\)](#) [► 1491] and [Symbol.Write\(Queue{string}, Value\)](#) [► 1492] methods to determine the sub-element to be read or written. The [Queue.T](#) is normally created from the [Command.Path](#) [► 798] property. Call [Queue{T}.Dequeue](#) to get the name of the next sub-element until [Queue{T}.Count](#)== 0 is true and then read or write the current element. You can use a [ResolveHandler](#) [► 1771] from the [TcHmiSrv.Core.Tools.Resolving](#) [► 1762] namespace to read or write sub-elements of almost any .NET type.
There are also the [SymbolWithValue](#) [► 1510] and [SymbolWithDirectValue](#) [► 1492] classes, which have already implemented [Symbol.Read\(Queue{string}\)](#) [► 1491] and [Symbol.Write\(Queue{string}, Value\)](#) [► 1492] by using a [RecursiveResolveHandler.T](#) [► 1764] with the [RecursiveValueResolver.DefaultResolver](#) [► 1811] to read and write the [SymbolWithValue.Value](#) [► 1524] property.

Now, how are the dynamic symbols provided by your TwinCAT HMI server extension with

[DynamicSymbolsProvider](#) [► 1391] ?

First of all, dynamic symbols are provided by three function symbols that the TwinCAT HMI Server calls for each TwinCAT HMI server extension that implements them. Therefore, you have to add the following lines to the "symbols" property in the Config.json of your TwinCAT HMI server extension: Which information does each of the above symbols provide? Let's take a quick look at them:

- **ListSymbols**
Lists the dynamic symbols of a TwinCAT HMI server extension with their names and schemes. If the schemes contain definitions, they're also listed here.
- **GetDefinitions**
Gets the definitions used by the schemes that are returned by ListSymbols. This symbol is called when only the definitions are needed, without the symbols that actually use them.
- **GetSchema**
Gets the schema of a specified symbol or sub-symbol. The path of the symbol or sub-symbol whose schema should be retrieved is specified as a [String](#) in the [Command.WriteValue](#) [► 800] property.

After declaring the required symbols ListSymbols, GetDefinitions and GetSchema by adding them to the Config.json of your TwinCAT HMI server extension, they still need to be defined by implementing them. But don't worry: You don't have to do this on your own!

The [Symbol](#) [► 1477] class that was mentioned above already contains all the necessary information that must be returned for the above symbols. Therefore, you only have to pass the [CommandGroup](#) [► 807] specified

by the [OnRequestEventArgs.Commands](#) [► 1323] property of the [RequestListener.OnRequest](#) [► 1255] event handler to the [DynamicSymbolsProvider.HandleCommands\(CommandGroup\)](#) [► 1413] method as in the following piece of code where this.provider represents the instance of the [DynamicSymbolsProvider](#) [► 1391] class: This adds the appropriate information to the [Command.ReadValue](#) [► 799] property of the [ListSymbols](#), [GetDefinitions](#) and [GetSchemaCommand](#) [► 788]s.

Furthermore, [DynamicSymbolsProvider.HandleCommands\(CommandGroup\)](#) [► 1413] also handles [Command](#) [► 788]s for reading and writing dynamic symbols by calling the [Symbol.Read\(Queue\(string\)\)](#) [► 1491] and [Symbol.Write\(Queue\(string\), Value\)](#) [► 1492] methods mentioned above.

Non-dynamic symbols and symbols other than [ListSymbols](#), [GetDefinitions](#) and [GetSchema](#) included in the [Config.json](#) of your TwinCAT HMI server extension cannot be handled by [DynamicSymbolsProvider.HandleCommands\(CommandGroup\)](#) [► 1413]. To not ignore them, unhandled [Command](#) [► 788]s are returned as an [IEnumerable.T](#), so that you can handle them normally in your TwinCAT HMI server extension.

2.2.4.6.1.1 **Definition Class**

Represents a definition that can be referenced in a JSON schema.

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.Core.Value](#) [► 952]
 [TcHmiSrv.Core.Tools.Json.JsonValue](#) [► 1542]
 [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [► 1421]
 [TcHmiSrv.Core.Tools.DynamicSymbols.Definition](#)
Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class Definition : JsonSchemaValue
```

The [Definition](#) type exposes the following members.

Constructors

	Name	Description
	Definition [► 1363]	Initializes a new instance of the Definition class with the specified Value [► 952].

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952]s the internal data structure can hold without resizing. (Inherited from Value [► 952].)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952].)
	Count [► 993]	Gets the number of Value [► 952]s contained in the Value [► 952]. (Inherited from Value [► 952].)
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952].)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952].)
	IsFixedSize [► 995]	(Inherited from Value [► 952].)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169]. (Inherited from Value [► 952].)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169]. (Inherited from Value [► 952].)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169], Double [► 1169] or Int64 [► 1169]. (Inherited from Value [► 952].)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952].)
	IsSynchronized [► 997]	(Inherited from Value [► 952].)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169]. (Inherited from Value [► 952].)
	Item.Int32. [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Item.String. [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952].)
	Keys [► 999]	Gets an ICollection.T. containing the keys of the Value [► 952]. (Inherited from Value [► 952].)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	SyncRoot [► 1000]	(Inherited from Value [► 952].)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952]. (Inherited from Value [► 952].)
	Values [► 1001]	Gets an ICollection.T. containing the Value [► 952]s in the Value [► 952]. (Inherited from Value [► 952].)

Methods

	Name	Description
	Add(KeyValuePair<String, Value> [▶ 1016])	Adds a KeyValuePair.TKey, TValue to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(Value) [▶ 1016]	Adds the specified Value [▶ 952] to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(String, Value) [▶ 1017]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	AddOrUpdate [▶ 1018]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] if the key does not already exist, or updates a Value [▶ 952] in the Value [▶ 952] if the key already exists. (Inherited from Value [▶ 952] .)
	AddRange [▶ 1018]	Adds the specified Value [▶ 952] s to the end of the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	ChangeType [▶ 1018]	Changes the Type [▶ 1001] of this Value [▶ 952] to the specified ValueType [▶ 1169] and adjusts the containing data. (Inherited from Value [▶ 952] .)
	Clear [▶ 1019]	Removes all Value [▶ 952] s from the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	CompareTo(Boolean) [▶ 1023]	Compares the current Value [▶ 952] with another Boolean value and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [▶ 952] .)
	CompareTo(Byte) [▶ 1024]	Compares the current Value [▶ 952] with another Byte and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [▶ 952] .)
	CompareTo(Bytes) [▶ 1024]	Compares the current Value [▶ 952] with other Bytes and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [▶ 952] .)
	CompareTo(Char) [▶ 1025]	Compares the current Value [▶ 952] with another Char and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [▶ 952] .)
	CompareTo(DateTime) [▶ 1026]	Compares the current Value [▶ 952] with another DateTime and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [▶ 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [▸ 1033]	Compares the current Value [▸ 952] with another UInt16 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [▸ 952].)
	CompareTo(UInt32) [▸ 1033]	Compares the current Value [▸ 952] with another UInt32 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [▸ 952].)
	CompareTo(UInt64) [▸ 1034]	Compares the current Value [▸ 952] with another UInt64 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [▸ 952].)
	CompareTo(Access) [▸ 1035]	Compares the current Value [▸ 952] with another Access [▸ 766] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Access [▸ 766]. (Inherited from Value [▸ 952].)
	CompareTo(Alarm) [▸ 1035]	Compares the current Value [▸ 952] with another Alarm [▸ 767] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	CompareTo(Event) [▸ 1036]	Compares the current Value [▸ 952] with another Event [▸ 850] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Event [▸ 850]. (Inherited from Value [▸ 952].)
	CompareTo(Message) [▸ 1037]	Compares the current Value [▸ 952] with another Message [▸ 924] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Message [▸ 924]. (Inherited from Value [▸ 952].)
	CompareTo(Severity) [▸ 1037]	Compares the current Value [▸ 952] with another Severity [▸ 951] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [▸ 951]. (Inherited from Value [▸ 952].)
	CompareTo(Value) [▸ 1038]	Compares the current Value [▸ 952] with another Value [▸ 952] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	Contains(KeyValuePair<String, Value>) [▸ 1039]	Determines whether the Value [▸ 952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [▸ 952] .)
	Contains(Value) [▸ 1040]	Determines whether the Value [▸ 952] contains the specified Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ContainsKey [▸ 1040]	Determines whether the Value [▸ 952] contains a Value [▸ 952] with the specified key. (Inherited from Value [▸ 952] .)
	CopyTo(KeyValuePair<String, Value>, Value..., Int32) [▸ 1041]	Copies the KeyValuePair.TKey, TValue s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	CopyTo(Value[], Int32) [▸ 1042]	Copies the Value [▸ 952] s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	DeepCopy [▸ 1043]	Creates a new object that is a deep copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	Equals(Boolean) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Boolean value. (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Byte . (Inherited from Value [▸ 952] .)
	Equals(Byte[]) [▸ 1047]	Indicates whether the current Value [▸ 952] is equal to another Array of Bytes . (Inherited from Value [▸ 952] .)
	Equals(Char) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another Char . (Inherited from Value [▸ 952] .)
	Equals(DateTime) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another DateTime . (Inherited from Value [▸ 952] .)
	Equals(Decimal) [▸ 1049]	Indicates whether the current Value [▸ 952] is equal to another Decimal value. (Inherited from Value [▸ 952] .)
	Equals(Double) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Double-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(Int16) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Int16 . (Inherited from Value [▸ 952] .)
	Equals(Int32) [▸ 1051]	Indicates whether the current Value [▸ 952] is equal to another Int32 . (Inherited from Value [▸ 952] .)
	Equals(Int64) [▸ 1052]	Indicates whether the current Value [▸ 952] is equal to another Int64 . (Inherited from Value [▸ 952] .)
	Equals(SByte) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another SByte . (Inherited from Value [▸ 952] .)

	Name	Description
	Equals(Single) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another Single -precision floating-point number. (Inherited from Value [▸ 952].)
	Equals(String) [▸ 1054]	Indicates whether the current Value [▸ 952] is equal to another String . (Inherited from Value [▸ 952].)
	Equals(TimeSpan) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another TimeSpan . (Inherited from Value [▸ 952].)
	Equals(UInt16) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another UInt16 . (Inherited from Value [▸ 952].)
	Equals(UInt32) [▸ 1056]	Indicates whether the current Value [▸ 952] is equal to another UInt32 . (Inherited from Value [▸ 952].)
	Equals(UInt64) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another UInt64 . (Inherited from Value [▸ 952].)
	Equals(Object) [▸ 1460]	Determines whether the specified Object is equal to the current JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	Equals(Access) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another Access [▸ 766]. (Inherited from Value [▸ 952].)
	Equals(Alarm) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	Equals(Event) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Event [▸ 850]. (Inherited from Value [▸ 952].)
	Equals(JsonSchemaValue) [▸ 1461]	Indicates whether the current JsonSchemaValue [▸ 1421] is equal to another JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	Equals(JsonValue) [▸ 1576]	Indicates whether the current JsonValue [▸ 1542] is equal to another JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	Equals(Message) [▸ 1059]	Indicates whether the current Value [▸ 952] is equal to another Message [▸ 924]. (Inherited from Value [▸ 952].)
	Equals(Severity) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Severity [▸ 951]. (Inherited from Value [▸ 952].)
	Equals(Value) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Value [▸ 952]. (Inherited from Value [▸ 952].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [▸ 1072]	Gets the Access [▸ 766] of the Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	GetAlarm [▶ 1072]	Gets the Alarm [▶ 767] of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBool . [▶ 1073]	Gets the Boolean value of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBool(IFormatProvider) [▶ 1074]	Gets the Boolean value of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetByte [▶ 1074]	Gets the Byte of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBytes [▶ 1074]	Gets the Bytes of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetChar [▶ 1075]	Gets the Char of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDateTime . [▶ 1076]	Gets the DateTime of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDateTime(IFormatProvider) [▶ 1076]	Gets the DateTime of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetDecimal [▶ 1077]	Gets the Decimal value of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDouble . [▶ 1077]	Gets the Double -precision floating-point number of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDouble(IFormatProvider) [▶ 1078]	Gets the Double -precision floating-point number of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetEvent [▶ 1078]	Gets the Event [▶ 850] of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetHashCode [▶ 1461]	Serves as the default hash function. (Inherited from JsonSchemaValue [▶ 1421].)
	GetInt16 [▶ 1079]	Gets the Int16 integer of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt32 . [▶ 1080]	Gets the Int32 of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt32(IFormatProvider) [▶ 1080]	Gets the Int32 of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetInt64 . [▶ 1081]	Gets the Int64 integer of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt64(IFormatProvider) [▶ 1082]	Gets the Int64 integer of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetMessage [▶ 1082]	Gets the Message [▶ 924] of the Value [▶ 952]. (Inherited from Value [▶ 952].)

	Name	Description
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(Ifor matProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvid er) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyV aluePair.Strin g, Value.) [► 1089]	Removes the first occurrence of the specified KeyValuePair<tkey, tvalue=""></tkey,> from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Strin g) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Valu e) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)

	Name	Description
	RemoveRange [► 1092]	Removes a range of Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte) [► 1095]	Gets the Byte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Char) [► 1096]	Gets the Char of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int32) [► 1099]	Gets the Int32 of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int64) [► 1099]	Gets the Int64 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(SByte) [► 1099]	Gets the SByte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Single) [► 1100]	Gets the Single -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(String) [► 1100]	Gets the String of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(TimeSpan) [► 1101]	Gets the TimeSpan of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(UInt16) [► 1101]	Gets the UInt16 integer of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	SetValue(UInt32) [▸ 1102]	Gets the UInt32 of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(UInt64) [▸ 1102]	Gets the UInt64 integer of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766] . (Inherited from Value [▸ 952] .)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767] . (Inherited from Value [▸ 952] .)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952] .)
	ToBoolean. [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952] .)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToByte. [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952] .)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952] .)
	ToChar. [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952] .)

	Name	Description
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDateTime . [▸ 1112]	Converts this instance of the Value [▸ 952] class to the appropriate instance of the DateTime class. (Inherited from Value [▸ 952].)
	ToDateTime(IFormatProvider) [▸ 1112]	Converts the Value [▸ 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDecimal . [▸ 1113]	Converts this instance of the Value [▸ 952] class to the appropriate Decimal . (Inherited from Value [▸ 952].)
	ToDecimal(IFormatProvider) [▸ 1114]	Converts the Value [▸ 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDouble . [▸ 1115]	Converts this instance of the Value [▸ 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [▸ 952].)
	ToDouble(IFormatProvider) [▸ 1115]	Converts the Value [▸ 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToEvent [▸ 1116]	Converts this instance of the Value [▸ 952] class to the appropriate Event [▸ 850]. (Inherited from Value [▸ 952].)
	ToInt16 . [▸ 1117]	Converts this instance of the Value [▸ 952] class to the appropriate Int16 . (Inherited from Value [▸ 952].)
	ToInt16(IFormatProvider) [▸ 1117]	Converts the Value [▸ 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt32 . [▸ 1118]	Converts this instance of the Value [▸ 952] class to the appropriate Int32 . (Inherited from Value [▸ 952].)
	ToInt32(IFormatProvider) [▸ 1118]	Converts the Value [▸ 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt64 . [▸ 1119]	Converts this instance of the Value [▸ 952] class to the appropriate Int64 . (Inherited from Value [▸ 952].)
	ToInt64(IFormatProvider) [▸ 1120]	Converts the Value [▸ 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToMessage [▸ 1120]	Converts this instance of the Value [▸ 952] class to the appropriate Message [▸ 924]. (Inherited from Value [▸ 952].)

	Name	Description
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952].)
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952].)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952].)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString. [► 1462]	Returns a String that represents the current Value [► 952] . (Inherited from JsonSchemaValue [► 1421].)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString(Boolean) [► 1463]	Returns a String that represents the current JsonSchemaValue [► 1421] . (Inherited from JsonSchemaValue [► 1421].)
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952].)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952].)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952].)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952].)

	Name	Description
	ToUInt64(IFormatProvider) [▸ 1130]	Converts the Value [▸ 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToValue. [▸ 1577]	Returns a Value [▸ 952] that represents the current JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	ToValue(Boolean) [▸ 1463]	Returns a Value [▸ 952] that represents the current JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	TryGetValue [▸ 1131]	Gets the Value [▸ 952] associated with the specified key. (Inherited from Value [▸ 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [▸ 1175]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [▸ 1173].)
	ResolveBy(String) [▸ 1176]	Overloaded. Resolves the current Value [▸ 952] by the specified path. (Defined by ValueExtensions [▸ 1173].)
	ToJson. [▸ 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean) [▸ 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean, Boolean) [▸ 1619]	Overloaded. Returns a JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	TryResolveBy(Queue.String., Value.) [▸ 1177]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)
	TryResolveBy(String, Value.) [▸ 1178]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.1.1 *Definition Constructor*

Initializes a new instance of the [Definition \[► 1348\]](#) class with the specified [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Definition(  
    Value schema  
)
```

Parameters

schema Type: [TcHmiSrv.Core.Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents a JSON schema definition.

Reference

[Definition Class \[► 1348\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.1.2 *Definition Properties*

The [Definition \[► 1348\]](#) type exposes the following members.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952]s the internal data structure can hold without resizing. (Inherited from Value [► 952].)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952].)
	Count [► 993]	Gets the number of Value [► 952]s contained in the Value [► 952]. (Inherited from Value [► 952].)
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952].)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952].)
	IsFixedSize [► 995]	(Inherited from Value [► 952].)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169]. (Inherited from Value [► 952].)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169]. (Inherited from Value [► 952].)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169], Double [► 1169] or Int64 [► 1169]. (Inherited from Value [► 952].)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952].)
	IsSynchronized [► 997]	(Inherited from Value [► 952].)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169]. (Inherited from Value [► 952].)
	Item.Int32. [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Item.String. [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952].)
	Keys [► 999]	Gets an ICollection.T. containing the keys of the Value [► 952]. (Inherited from Value [► 952].)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	SyncRoot [► 1000]	(Inherited from Value [► 952].)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952]. (Inherited from Value [► 952].)
	Values [► 1001]	Gets an ICollection.T. containing the Value [► 952]s in the Value [► 952]. (Inherited from Value [► 952].)

Reference

[Definition Class](#) [[► 1348](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.1.3 *Definition Methods*

The [Definition](#) [[► 1348](#)] type exposes the following members.

Methods

	Name	Description
	Add(KeyValuePair<String, Value> [▶ 1016])	Adds a KeyValuePair.TKey, TValue to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(Value) [▶ 1016]	Adds the specified Value [▶ 952] to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(String, Value) [▶ 1017]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	AddOrUpdate [▶ 1018]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] if the key does not already exist, or updates a Value [▶ 952] in the Value [▶ 952] if the key already exists. (Inherited from Value [▶ 952] .)
	AddRange [▶ 1018]	Adds the specified Value [▶ 952] s to the end of the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	ChangeType [▶ 1018]	Changes the Type [▶ 1001] of this Value [▶ 952] to the specified ValueType [▶ 1169] and adjusts the containing data. (Inherited from Value [▶ 952] .)
	Clear [▶ 1019]	Removes all Value [▶ 952] s from the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	CompareTo(Boolean) [▶ 1023]	Compares the current Value [▶ 952] with another Boolean value and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [▶ 952] .)
	CompareTo(Byte) [▶ 1024]	Compares the current Value [▶ 952] with another Byte and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [▶ 952] .)
	CompareTo(Bytes) [▶ 1024]	Compares the current Value [▶ 952] with other Bytes and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [▶ 952] .)
	CompareTo(Char) [▶ 1025]	Compares the current Value [▶ 952] with another Char and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [▶ 952] .)
	CompareTo(DateTime) [▶ 1026]	Compares the current Value [▶ 952] with another DateTime and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [▶ 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [▸ 1033]	Compares the current Value [▸ 952] with another UInt16 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [▸ 952].)
	CompareTo(UInt32) [▸ 1033]	Compares the current Value [▸ 952] with another UInt32 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [▸ 952].)
	CompareTo(UInt64) [▸ 1034]	Compares the current Value [▸ 952] with another UInt64 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [▸ 952].)
	CompareTo(Access) [▸ 1035]	Compares the current Value [▸ 952] with another Access [▸ 766] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Access [▸ 766]. (Inherited from Value [▸ 952].)
	CompareTo(Alarm) [▸ 1035]	Compares the current Value [▸ 952] with another Alarm [▸ 767] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	CompareTo(Event) [▸ 1036]	Compares the current Value [▸ 952] with another Event [▸ 850] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Event [▸ 850]. (Inherited from Value [▸ 952].)
	CompareTo(Message) [▸ 1037]	Compares the current Value [▸ 952] with another Message [▸ 924] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Message [▸ 924]. (Inherited from Value [▸ 952].)
	CompareTo(Severity) [▸ 1037]	Compares the current Value [▸ 952] with another Severity [▸ 951] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [▸ 951]. (Inherited from Value [▸ 952].)
	CompareTo(Value) [▸ 1038]	Compares the current Value [▸ 952] with another Value [▸ 952] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	Contains(KeyValuePair<String, Value>) [▸ 1039]	Determines whether the Value [▸ 952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [▸ 952] .)
	Contains(Value) [▸ 1040]	Determines whether the Value [▸ 952] contains the specified Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ContainsKey [▸ 1040]	Determines whether the Value [▸ 952] contains a Value [▸ 952] with the specified key. (Inherited from Value [▸ 952] .)
	CopyTo(KeyValuePair<String, Value>, Int32) [▸ 1041]	Copies the KeyValuePair.TKey, TValue s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	CopyTo(Value, Int32) [▸ 1042]	Copies the Value [▸ 952] s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	DeepCopy [▸ 1043]	Creates a new object that is a deep copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	Equals(Boolean) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Boolean value. (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Byte . (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1047]	Indicates whether the current Value [▸ 952] is equal to another Array of Bytes . (Inherited from Value [▸ 952] .)
	Equals(Char) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another Char . (Inherited from Value [▸ 952] .)
	Equals(DateTime) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another DateTime . (Inherited from Value [▸ 952] .)
	Equals(Decimal) [▸ 1049]	Indicates whether the current Value [▸ 952] is equal to another Decimal value. (Inherited from Value [▸ 952] .)
	Equals(Double) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Double-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(Int16) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Int16 . (Inherited from Value [▸ 952] .)
	Equals(Int32) [▸ 1051]	Indicates whether the current Value [▸ 952] is equal to another Int32 . (Inherited from Value [▸ 952] .)
	Equals(Int64) [▸ 1052]	Indicates whether the current Value [▸ 952] is equal to another Int64 . (Inherited from Value [▸ 952] .)
	Equals(SByte) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another SByte . (Inherited from Value [▸ 952] .)

	Name	Description
	Equals(Single) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another Single -precision floating-point number. (Inherited from Value [▸ 952].)
	Equals(String) [▸ 1054]	Indicates whether the current Value [▸ 952] is equal to another String . (Inherited from Value [▸ 952].)
	Equals(TimeSpan) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another TimeSpan . (Inherited from Value [▸ 952].)
	Equals(UInt16) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another UInt16 . (Inherited from Value [▸ 952].)
	Equals(UInt32) [▸ 1056]	Indicates whether the current Value [▸ 952] is equal to another UInt32 . (Inherited from Value [▸ 952].)
	Equals(UInt64) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another UInt64 . (Inherited from Value [▸ 952].)
	Equals(Object) [▸ 1460]	Determines whether the specified Object is equal to the current JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	Equals(Access) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another Access [▸ 766]. (Inherited from Value [▸ 952].)
	Equals(Alarm) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	Equals(Event) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Event [▸ 850]. (Inherited from Value [▸ 952].)
	Equals(JsonSchemaValue) [▸ 1461]	Indicates whether the current JsonSchemaValue [▸ 1421] is equal to another JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	Equals(JsonValue) [▸ 1576]	Indicates whether the current JsonValue [▸ 1542] is equal to another JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	Equals(Message) [▸ 1059]	Indicates whether the current Value [▸ 952] is equal to another Message [▸ 924]. (Inherited from Value [▸ 952].)
	Equals(Severity) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Severity [▸ 951]. (Inherited from Value [▸ 952].)
	Equals(Value) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Value [▸ 952]. (Inherited from Value [▸ 952].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [▸ 1072]	Gets the Access [▸ 766] of the Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	GetAlarm [▶ 1072]	Gets the Alarm [▶ 767] of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBool . [▶ 1073]	Gets the Boolean value of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBool(IFor matProvider) [▶ 1074]	Gets the Boolean value of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetByte [▶ 1074]	Gets the Byte of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetBytes [▶ 1074]	Gets the Bytes of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetChar [▶ 1075]	Gets the Char of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDateTime . [▶ 1076]	Gets the DateTime of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDateTime(IFormatProvid er) [▶ 1076]	Gets the DateTime of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetDecimal [▶ 1077]	Gets the Decimal value of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDouble . [▶ 1077]	Gets the Double -precision floating-point number of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetDouble(IF ormatProvide r) [▶ 1078]	Gets the Double -precision floating-point number of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetEvent [▶ 1078]	Gets the Event [▶ 850] of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetHashCode [▶ 1461]	Serves as the default hash function. (Inherited from JsonSchemaValue [▶ 1421].)
	GetInt16 [▶ 1079]	Gets the Int16 integer of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt32 . [▶ 1080]	Gets the Int32 of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt32(IFor matProvider) [▶ 1080]	Gets the Int32 of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetInt64 . [▶ 1081]	Gets the Int64 integer of the Value [▶ 952]. (Inherited from Value [▶ 952].)
	GetInt64(IFor matProvider) [▶ 1082]	Gets the Int64 integer of the Value [▶ 952], using the specified culture-specific formatting information. (Inherited from Value [▶ 952].)
	GetMessage [▶ 1082]	Gets the Message [▶ 924] of the Value [▶ 952]. (Inherited from Value [▶ 952].)

	Name	Description
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(Ifor matProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvid er) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyV aluePair.Strin g, Value.) [► 1089]	Removes the first occurrence of the specified KeyValuePair<tkey, tvalue=""></tkey,> from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Strin g) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Valu e) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)

	Name	Description
	RemoveRange [► 1092]	Removes a range of Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte) [► 1095]	Gets the Byte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Char) [► 1096]	Gets the Char of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int32) [► 1099]	Gets the Int32 of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int64) [► 1099]	Gets the Int64 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(SByte) [► 1099]	Gets the SByte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Single) [► 1100]	Gets the Single -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(String) [► 1100]	Gets the String of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(TimeSpan) [► 1101]	Gets the TimeSpan of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(UInt16) [► 1101]	Gets the UInt16 integer of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	SetValue(UInt32) [▸ 1102]	Gets the UInt32 of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(UInt64) [▸ 1102]	Gets the UInt64 integer of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766] . (Inherited from Value [▸ 952] .)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767] . (Inherited from Value [▸ 952] .)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952] .)
	ToBoolean. [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952] .)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToByte. [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952] .)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952] .)
	ToChar. [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952] .)

	Name	Description
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDateTime . [▸ 1112]	Converts this instance of the Value [▸ 952] class to the appropriate instance of the DateTime class. (Inherited from Value [▸ 952].)
	ToDateTime(IFormatProvider) [▸ 1112]	Converts the Value [▸ 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDecimal . [▸ 1113]	Converts this instance of the Value [▸ 952] class to the appropriate Decimal . (Inherited from Value [▸ 952].)
	ToDecimal(IFormatProvider) [▸ 1114]	Converts the Value [▸ 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDouble . [▸ 1115]	Converts this instance of the Value [▸ 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [▸ 952].)
	ToDouble(IFormatProvider) [▸ 1115]	Converts the Value [▸ 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToEvent [▸ 1116]	Converts this instance of the Value [▸ 952] class to the appropriate Event [▸ 850]. (Inherited from Value [▸ 952].)
	ToInt16 . [▸ 1117]	Converts this instance of the Value [▸ 952] class to the appropriate Int16 . (Inherited from Value [▸ 952].)
	ToInt16(IFormatProvider) [▸ 1117]	Converts the Value [▸ 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt32 . [▸ 1118]	Converts this instance of the Value [▸ 952] class to the appropriate Int32 . (Inherited from Value [▸ 952].)
	ToInt32(IFormatProvider) [▸ 1118]	Converts the Value [▸ 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt64 . [▸ 1119]	Converts this instance of the Value [▸ 952] class to the appropriate Int64 . (Inherited from Value [▸ 952].)
	ToInt64(IFormatProvider) [▸ 1120]	Converts the Value [▸ 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToMessage [▸ 1120]	Converts this instance of the Value [▸ 952] class to the appropriate Message [▸ 924]. (Inherited from Value [▸ 952].)

	Name	Description
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952].)
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952].)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952].)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString. [► 1462]	Returns a String that represents the current Value [► 952] . (Inherited from JsonSchemaValue [► 1421].)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString(Boolean) [► 1463]	Returns a String that represents the current JsonSchemaValue [► 1421] . (Inherited from JsonSchemaValue [► 1421].)
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952].)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952].)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952].)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952].)

	Name	Description
	ToUInt64(IFormatProvider) [▸ 1130]	Converts the Value [▸ 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToValue. [▸ 1577]	Returns a Value [▸ 952] that represents the current JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	ToValue(Boolean) [▸ 1463]	Returns a Value [▸ 952] that represents the current JsonSchemaValue [▸ 1421]. (Inherited from JsonSchemaValue [▸ 1421].)
	TryGetValue [▸ 1131]	Gets the Value [▸ 952] associated with the specified key. (Inherited from Value [▸ 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [▸ 1175]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [▸ 1173].)
	ResolveBy(String) [▸ 1176]	Overloaded. Resolves the current Value [▸ 952] by the specified path. (Defined by ValueExtensions [▸ 1173].)
	ToJson. [▸ 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean) [▸ 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean, Boolean) [▸ 1619]	Overloaded. Returns a JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	TryResolveBy(Queue.String., Value.) [▸ 1177]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)
	TryResolveBy(String, Value.) [▸ 1178]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)

Reference

[Definition Class \[► 1348\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.2 DefinitionMismatchException Class

Represents an [Exception](#) that is thrown when two [Definition \[► 1348\]](#)s with the same key are not equal.

Inheritance Hierarchy

[System.Object](#)

[System.Exception](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.DefinitionMismatchException](#)

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class DefinitionMismatchException : Exception
```

The DefinitionMismatchException type exposes the following members.

Constructors

	Name	Description
	DefinitionMismatchException(String, String, Definition, Definition) [► 1381]	Initializes a new instance of the DefinitionMismatchException class with the specified error message, key and Definition [► 1348] s.
	DefinitionMismatchException(String, String, Definition, Definition, Exception) [► 1382]	Initializes a new instance of the DefinitionMismatchException class with the specified error message, key, Definition [► 1348] s and a reference to the inner Exception that is the cause of this DefinitionMismatchException.

Properties

	Name	Description
	<u>Data</u>	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from <u>Exception</u> .)
	<u>First</u> [▶ 1383]	Gets the first <u>Definition</u> [▶ 1348].
	<u>HelpLink</u>	Gets or sets a link to the help file associated with this exception. (Inherited from <u>Exception</u> .)
	<u>HResult</u>	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from <u>Exception</u> .)
	<u>InnerException</u>	Gets the <u>Exception</u> instance that caused the current exception. (Inherited from <u>Exception</u> .)
	<u>Key</u> [▶ 1384]	Gets the key of the <u>Definition</u> [▶ 1348]s.
	<u>Message</u> [▶ 1384]	Gets a message that describes the current <u>DefinitionMismatchException</u> . (Overrides <u>Exception.Message</u> .)
	<u>Second</u> [▶ 1384]	Gets the second <u>Definition</u> [▶ 1348].
	<u>Source</u>	Gets or sets the name of the application or the object that causes the error. (Inherited from <u>Exception</u> .)
	<u>StackTrace</u>	Gets a string representation of the immediate frames on the call stack. (Inherited from <u>Exception</u> .)
	<u>TargetSite</u>	Gets the method that throws the current exception. (Inherited from <u>Exception</u> .)

Methods

	Name	Description
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetBaseException</u>	When overridden in a derived class, returns the <u>Exception</u> that is the root cause of one or more subsequent exceptions. (Inherited from <u>Exception</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetObjectData</u>	When overridden in a derived class, sets the <u>SerializationInfo</u> with information about the exception. (Inherited from <u>Exception</u> .)
	<u>GetType</u>	Gets the runtime type of the current instance. (Inherited from <u>Exception</u> .)
	<u>MemberwiseClone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ToString</u>	Creates and returns a string representation of the current exception. (Inherited from <u>Exception</u> .)

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.2.1 **DefinitionMismatchException Constructor**

Overload List

	Name	Description
	DefinitionMismatchException(String, String, Definition, Definition) [▶ 1381]	Initializes a new instance of the DefinitionMismatchException [▶ 1379] class with the specified error message, key and Definition [▶ 1348]s.
	DefinitionMismatchException(String, String, Definition, Definition, Exception) [▶ 1382]	Initializes a new instance of the DefinitionMismatchException [▶ 1379] class with the specified error message, key, Definition [▶ 1348]s and a reference to the inner Exception that is the cause of this DefinitionMismatchException [▶ 1379].

Reference

[DefinitionMismatchException Class](#) [[▶ 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.2.1.1 **DefinitionMismatchException Constructor (String, String, Definition, Definition)**

Initializes a new instance of the [DefinitionMismatchException](#) [[▶ 1379](#)] class with the specified error message, key and [Definition](#) [[▶ 1348](#)]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public DefinitionMismatchException(  
    string message,  
    string key,  
    Definition first,  
    Definition second  
)
```

Parameters

message	Type: System.String The error message that explains the reason for the DefinitionMismatchException [► 1379].
key	Type: System.String The key of the Definition [► 1348]s.
first	Type: TcHmiSrv.Core.Tools.DynamicSymbols.Definition [► 1348] The first Definition [► 1348].
second	Type: TcHmiSrv.Core.Tools.DynamicSymbols.Definition [► 1348] The second Definition [► 1348].

Reference

[DefinitionMismatchException Class](#) [► 1379]

[DefinitionMismatchException Overload](#) [► 1381]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.2.1.2 DefinitionMismatchException Constructor (String, String, Definition, Definition, Exception)

Initializes a new instance of the [DefinitionMismatchException](#) [► 1379] class with the specified error message, key, [Definition](#) [► 1348]s and a reference to the inner [Exception](#) that is the cause of this [DefinitionMismatchException](#) [► 1379].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public DefinitionMismatchException(
    string message,
    string key,
    Definition first,
    Definition second,
    Exception innerException
)
```

Parameters

message	Type: System.String The error message that explains the reason for the DefinitionMismatchException [► 1379].
key	Type: System.String The key of the Definition [► 1348]s.
first	Type: TcHmiSrv.Core.Tools.DynamicSymbols.Definition [► 1348] The first Definition [► 1348].
second	Type: TcHmiSrv.Core.Tools.DynamicSymbols.Definition [► 1348] The second Definition [► 1348].
innerException	Type: System.Exception The Exception that is the cause of the current DefinitionMismatchException [► 1379], or a null reference (Nothing in Visual Basic) if no inner Exception is specified.

Reference

[DefinitionMismatchException Class](#) [► 1379]

[DefinitionMismatchException Overload \[► 1381\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.2.2 *DefinitionMismatchException Properties*

The [DefinitionMismatchException \[► 1379\]](#) type exposes the following members.

Properties

	Name	Description
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	First [► 1383]	Gets the first Definition [► 1348] .
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Key [► 1384]	Gets the key of the Definition [► 1348] s.
	Message [► 1384]	Gets a message that describes the current DefinitionMismatchException [► 1379] . (Overrides Exception.Message .)
	Second [► 1384]	Gets the second Definition [► 1348] .
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Reference

[DefinitionMismatchException Class \[► 1379\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.2.2.1 *DefinitionMismatchException.First Property*

Gets the first [Definition \[► 1348\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public Definition First { get; }
```

Property Value

Type: [Definition](#) [[▶ 1348](#)]

Reference

[DefinitionMismatchException Class](#) [[▶ 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.2.2.2 DefinitionMismatchException.Key Property

Gets the key of the [Definition](#) [[▶ 1348](#)]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Key { get; }
```

Property Value

Type: [String](#)

Reference

[DefinitionMismatchException Class](#) [[▶ 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.2.2.3 DefinitionMismatchException.Message Property

Gets a message that describes the current [DefinitionMismatchException](#) [[▶ 1379](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string Message { get; }
```

Property Value

Type: [String](#)

Reference

[DefinitionMismatchException Class](#) [[▶ 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.2.2.4 DefinitionMismatchException.Second Property

Gets the second [Definition](#) [[▶ 1348](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Definition Second { get; }
```

Property Value

Type: [Definition](#) [[► 1348](#)]

Reference

[DefinitionMismatchException Class](#) [[► 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.2.3 *DefinitionMismatchException Methods*

The [DefinitionMismatchException](#) [[► 1379](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Reference

[DefinitionMismatchException Class](#) [[► 1379](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.2.4 *DefinitionMismatchException Events*

The [DefinitionMismatchException](#) [[► 1379](#)] type exposes the following members.

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[DefinitionMismatchException Class \[► 1379\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.3 **DynamicSymbolException Class**

Represents an [Exception](#) that is thrown when handling a [Command \[► 788\]](#) in the [DynamicSymbolsProvider \[► 1391\]](#) failed.

Inheritance Hierarchy

[System.Object](#)

[System.Exception](#)

 TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolException

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class DynamicSymbolException : Exception
```

The DynamicSymbolException type exposes the following members.

Constructors

	Name	Description
	DynamicSymbolException [► 1388]	Initializes a new instance of the DynamicSymbolException class with the specified error message, Command [► 788] and a reference to the inner Exception that is the cause of this DynamicSymbolException.

Properties

	Name	Description
	Command [► 1389]	Gets the Command [► 788] that caused the InnerException .
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message [► 1390]	Gets a message that describes the current DynamicSymbolException . (Overrides Exception.Message .)
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.3.1 *DynamicSymbolException Constructor*

Initializes a new instance of the [DynamicSymbolException \[► 1386\]](#) class with the specified error message, [Command \[► 788\]](#) and a reference to the inner [Exception](#) that is the cause of this [DynamicSymbolException \[► 1386\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DynamicSymbolException(  
    string message,  
    Command command,  
    Exception innerException  
)
```

Parameters

- message Type: [System.String](#)
The error message that explains the reason for the [DynamicSymbolException \[► 1386\]](#).
- command Type: [TcHmiSrv.Core.Command \[► 788\]](#)
The [Command \[► 788\]](#) that caused innerException.
- innerException Type: [System.Exception](#)
The [Exception](#) that is the cause of the current [DynamicSymbolException \[► 1386\]](#).

Reference

[DynamicSymbolException Class \[► 1386\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.3.2 *DynamicSymbolException Properties*

The [DynamicSymbolException \[► 1386\]](#) type exposes the following members.

Properties

	Name	Description
	Command [► 1389]	Gets the Command [► 788] that caused the InnerException .
	Data	Gets a collection of key/value pairs that provide additional user-defined information about the exception. (Inherited from Exception .)
	HelpLink	Gets or sets a link to the help file associated with this exception. (Inherited from Exception .)
	HResult	Gets or sets HRESULT, a coded numerical value that is assigned to a specific exception. (Inherited from Exception .)
	InnerException	Gets the Exception instance that caused the current exception. (Inherited from Exception .)
	Message [► 1390]	Gets a message that describes the current DynamicSymbolException [► 1386]. (Overrides Exception.Message .)
	Source	Gets or sets the name of the application or the object that causes the error. (Inherited from Exception .)
	StackTrace	Gets a string representation of the immediate frames on the call stack. (Inherited from Exception .)
	TargetSite	Gets the method that throws the current exception. (Inherited from Exception .)

Reference

[DynamicSymbolException Class](#) [[► 1386](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.3.2.1 DynamicSymbolException.Command Property

Gets the [Command](#) [[► 788](#)] that caused the [InnerException](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public Command Command { get; }
```

Property Value

Type: [Command](#) [[► 788](#)]

Reference

[DynamicSymbolException Class](#) [[► 1386](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.3.2.2 **DynamicSymbolException.Message** Property

Gets a message that describes the current [DynamicSymbolException](#) [► 1386].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string Message { get; }
```

Property Value

Type: [String](#)

Reference

[DynamicSymbolException Class](#) [► 1386]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.3.3 **DynamicSymbolException Methods**

The [DynamicSymbolException](#) [► 1386] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetBaseException	When overridden in a derived class, returns the Exception that is the root cause of one or more subsequent exceptions. (Inherited from Exception .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetObjectData	When overridden in a derived class, sets the SerializationInfo with information about the exception. (Inherited from Exception .)
	GetType	Gets the runtime type of the current instance. (Inherited from Exception .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Creates and returns a string representation of the current exception. (Inherited from Exception .)

Reference

[DynamicSymbolException Class](#) [► 1386]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.3.4 *DynamicSymbolException Events*

The [DynamicSymbolException](#) [► 1386] type exposes the following members.

Events

	Name	Description
	SerializeObjectState	Occurs when an exception is serialized to create an exception state object that contains serialized data about the exception. (Inherited from Exception .)

Reference

[DynamicSymbolException Class](#) [► 1386]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4 **DynamicSymbolsProvider Class**

Provides dynamic symbols in TwinCAT HMI server extensions.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolsProvider](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.SortedDynamicSymbolsProvider](#) [► 1464]

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class DynamicSymbolsProvider : IDictionary<string, Symbol>,
    ICollection<KeyValuePair<string, Symbol>>, IEnumerable<KeyValuePair<string, Symbol>>,
    IEnumerable
```

The [DynamicSymbolsProvider](#) type exposes the following members.

Constructors

	Name	Description
	DynamicSymbolsProvider . [► 1398]	Initializes a new instance of the DynamicSymbolsProvider class without Symbol [► 1477]s.
	DynamicSymbolsProvider (Boolean) [► 1398]	Initializes a new instance of the DynamicSymbolsProvider class without Symbol [► 1477]s.
	DynamicSymbolsProvider (IEnumerable<KeyValuePair<String, Symbol>>) [► 1398]	Initializes a new instance of the DynamicSymbolsProvider class with the specified Symbol [► 1477]s.
	DynamicSymbolsProvider (IEnumerable<KeyValuePair<String, Symbol>> , Boolean) [► 1399]	Initializes a new instance of the DynamicSymbolsProvider class with the specified Symbol [► 1477]s.
	DynamicSymbolsProvider (IEnumerable<KeyValuePair<String, Symbol>> , IComparer<String>) [► 1399]	Initializes a new instance of the DynamicSymbolsProvider class with the specified Symbol [► 1477]s and an IComparer<String> that is used to sort the Definition [► 1348]s.
	DynamicSymbolsProvider (IEnumerable<KeyValuePair<String, Symbol>> , IComparer<String> , Boolean) [► 1400]	Initializes a new instance of the DynamicSymbolsProvider class with the specified Symbol [► 1477]s and an IComparer<String> that is used to sort the Definition [► 1348]s.

Properties

	Name	Description
	Count [▸ 1401]	Gets the number of Symbol [▸ 1477]s contained in the DynamicSymbolsProvider.
	Definitions [▸ 1402]	Gets the Definition [▸ 1348]s of the Symbol [▸ 1477]s of the DynamicSymbolsProvider.
	IsReadOnly [▸ 1402]	Gets a value indicating whether the DynamicSymbolsProvider is read-only.
	Item [▸ 1402]	Gets or sets the Symbol [▸ 1477] with the specified key.
	Keys [▸ 1403]	Gets an ICollection.T. containing the keys of the Symbol [▸ 1477]s.
	Values [▸ 1403]	Gets an ICollection.T. containing the Symbol [▸ 1477]s.

Methods

	Name	Description
	Add [▸ 1407]	Adds a Symbol [▸ 1477] with the specified key to the DynamicSymbolsProvider .
	AddOrUpdate [▸ 1407]	Add a Symbol [▸ 1477] to the DynamicSymbolsProvider if the specified key does not already exist, or updates an existing Symbol [▸ 1477] of the DynamicSymbolsProvider .
	Clear [▸ 1408]	Removes all Symbol [▸ 1477] s from the DynamicSymbolsProvider .
	ContainsKey [▸ 1408]	Determines whether the DynamicSymbolsProvider contains a Symbol [▸ 1477] with the specified key.
	CopyTo [▸ 1409]	Copies the Symbol [▸ 1477] s of the DynamicSymbolsProvider to a compatible one-dimensional array, starting at the specified index of the target array.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetEnumerator or [▸ 1410]	Returns an IEnumerator.T that iterates through the Symbol [▸ 1477] s of the DynamicSymbolsProvider .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetSchema(Queue.String.) [▸ 1410]	Gets the schema of the Symbol [▸ 1477] at the specified path.
	GetSchema(String) [▸ 1411]	Gets the schema of the Symbol [▸ 1477] at the specified path.
	GetSchema(String, Queue.String.) [▸ 1412]	Gets the schema of the Symbol [▸ 1477] with the specified key at the specified path.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	HandleCommand [▸ 1412]	Handles the specified Command [▸ 788] .
	HandleCommands [▸ 1413]	Handles the Command [▸ 788] s in the specified CommandGroup [▸ 807] .
	HandleException [▸ 1413]	Handles the Exception that was thrown while handling the specified Command [▸ 788] .
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)

	Name	Description
	<u>Remove</u> [► 1414]	Removes the <u>Symbol</u> [► 1477] with the specified key from the DynamicSymbolsProvider.
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)
	<u>TryGetValue</u> [► 1415]	Gets the <u>Symbol</u> [► 1477] associated with the specified key.

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.1 *DynamicSymbolsProvider Constructor*

Overload List

	Name	Description
	DynamicSymbolsProvider [▶ 1398]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class without Symbol [▶ 1477]s.
	DynamicSymbolsProvider(Boolean) [▶ 1398]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class without Symbol [▶ 1477]s.
	DynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>) [▶ 1398]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class with the specified Symbol [▶ 1477]s.
	DynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, Boolean) [▶ 1399]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class with the specified Symbol [▶ 1477]s.
	DynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, IComparer<String>) [▶ 1399]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class with the specified Symbol [▶ 1477]s and an IComparer<String> that is used to sort the Definition [▶ 1348]s.
	DynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, IComparer<String>, Boolean) [▶ 1400]	Initializes a new instance of the DynamicSymbolsProvider [▶ 1391] class with the specified Symbol [▶ 1477]s and an IComparer<String> that is used to sort the Definition [▶ 1348]s.

Reference

[DynamicSymbolsProvider Class](#) [[▶ 1391](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.4.1.1 DynamicSymbolsProvider Constructor

Initializes a new instance of the [DynamicSymbolsProvider](#) [► 1391] class without [Symbol](#) [► 1477]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DynamicSymbolsProvider()
```

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[DynamicSymbolsProvider Overload](#) [► 1397]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.1.2 DynamicSymbolsProvider Constructor (Boolean)

Initializes a new instance of the [DynamicSymbolsProvider](#) [► 1391] class without [Symbol](#) [► 1477]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DynamicSymbolsProvider(  
    bool handleException  
)
```

Parameters

handleException Type: [System.Boolean](#)
true to invoke [HandleException\(Command, Exception\)](#) [► 1413] if an [Exception](#) is thrown while handling a [Command](#) [► 788]; otherwise, false to rethrow the original [Exception](#).

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[DynamicSymbolsProvider Overload](#) [► 1397]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.1.3 DynamicSymbolsProvider Constructor (IEnumerable.KeyValuePair.String, Symbol..)

Initializes a new instance of the [DynamicSymbolsProvider](#) [► 1391] class with the specified [Symbol](#) [► 1477]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[DynamicSymbolsProvider Overload \[► 1397\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.1.4 **DynamicSymbolsProvider Constructor** **(IEnumerable.KeyValuePair.String, Symbol., Boolean)**

Initializes a new instance of the [DynamicSymbolsProvider \[► 1391\]](#) class with the specified [Symbol \[► 1477\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public DynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols,
    bool handleException
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.

handleException Type: [System.Boolean](#)
true to invoke [HandleException\(Command, Exception\) \[► 1413\]](#) if an [Exception](#) is thrown while handling a [Command \[► 788\]](#); otherwise, false to rethrow the original [Exception](#).

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[DynamicSymbolsProvider Overload \[► 1397\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.1.5 **DynamicSymbolsProvider Constructor** **(IEnumerable.KeyValuePair.String, Symbol., IComparer.String.)**

Initializes a new instance of the [DynamicSymbolsProvider \[► 1391\]](#) class with the specified [Symbol \[► 1477\]](#)s and an [IComparer.T.](#) that is used to sort the [Definition \[► 1348\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected DynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols,
    IComparer<string> comparer
)
```

Parameters

- symbols** Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.
- comparer** Type: [System.Collections.Generic.IComparer.String.](#)
An [IComparer.T.](#) that is used to sort the [Definition \[► 1348\]](#)s. -or- null to not sort the [Definition \[► 1348\]](#)s.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[DynamicSymbolsProvider Overload \[► 1397\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.1.6 **DynamicSymbolsProvider Constructor** ([IEnumerable.KeyValuePair.String, Symbol..](#), [IComparer.String..](#), [Boolean](#))

Initializes a new instance of the [DynamicSymbolsProvider \[► 1391\]](#) class with the specified [Symbol \[► 1477\]](#)s and an [IComparer.T.](#) that is used to sort the [Definition \[► 1348\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected DynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols,
    IComparer<string> comparer,
    bool handleException
)
```

Parameters

- symbols** Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.
- comparer** Type: [System.Collections.Generic.IComparer.String.](#)
An [IComparer.T.](#) that is used to sort the [Definition \[► 1348\]](#)s. -or- null to not sort the [Definition \[► 1348\]](#)s.
- handleException** Type: [System.Boolean](#)
true to invoke [HandleException\(Command, Exception\) \[► 1413\]](#) if an [Exception](#) is thrown while handling a [Command \[► 788\]](#); otherwise, false to rethrow the original [Exception](#).

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[DynamicSymbolsProvider Overload \[► 1397\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.2 **DynamicSymbolsProvider Properties**

The [DynamicSymbolsProvider \[► 1391\]](#) type exposes the following members.

Properties

	Name	Description
	Count [► 1401]	Gets the number of Symbol [► 1477] s contained in the DynamicSymbolsProvider [► 1391] .
	Definitions [► 1402]	Gets the Definition [► 1348] s of the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] .
	IsReadOnly [► 1402]	Gets a value indicating whether the DynamicSymbolsProvider [► 1391] is read-only.
	Item [► 1402]	Gets or sets the Symbol [► 1477] with the specified key.
	Keys [► 1403]	Gets an ICollection.T. containing the keys of the Symbol [► 1477] s.
	Values [► 1403]	Gets an ICollection.T. containing the Symbol [► 1477] s.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.2.1 **DynamicSymbolsProvider.Count Property**

Gets the number of [Symbol \[► 1477\]](#)s contained in the [DynamicSymbolsProvider \[► 1391\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public int Count { get; }
```

Property Value

Type: [Int32](#)

Implements

[ICollection.T..Count](#)

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.2.2 **DynamicSymbolsProvider.Definitions Property**

Gets the [Definition](#) [► 1348]s of the [Symbol](#) [► 1477]s of the [DynamicSymbolsProvider](#) [► 1391].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ReadOnlyDictionary<string, Definition> Definitions { get; }
```

Property Value

Type: [ReadOnlyDictionary.String](#), [Definition](#) [► 1348].

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.2.3 **DynamicSymbolsProvider.IsReadOnly Property**

Gets a value indicating whether the [DynamicSymbolsProvider](#) [► 1391] is read-only.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool IsReadOnly { get; }
```

Property Value

Type: [Boolean](#)

Implements

[ICollection.T..IsReadOnly](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.2.4 **DynamicSymbolsProvider.Item Property**

Gets or sets the [Symbol](#) [► 1477] with the specified key.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Symbol this[
    string key
] { get; set; }
```

Parameters

key Type: [System.String](#)
The key of the [Symbol](#) [► 1477] to get or set.

Return Value

Type: [Symbol](#) [► 1477]
The [Symbol](#) [► 1477] with the specified key.

Implements

[IDictionary.TKey, TValue..Item.TKey.](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.2.5 **DynamicSymbolsProvider.Keys Property**

Gets an [ICollection.T.](#) containing the keys of the [Symbol](#) [► 1477]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ICollection<string> Keys { get; }
```

Property Value

Type: [ICollection.String.](#)

Implements

[IDictionary.TKey, TValue..Keys](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.2.6 **DynamicSymbolsProvider.Values Property**

Gets an [ICollection.T.](#) containing the [Symbol](#) [► 1477]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ICollection<Symbol> Values { get; }
```

Property Value

Type: [ICollection.Symbol](#) [[► 1477](#)].

Implements

[IDictionary.TKey, TValue..Values](#)

Reference

[DynamicSymbolsProvider Class](#) [[► 1391](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.4.3 *DynamicSymbolsProvider Methods*

The [DynamicSymbolsProvider](#) [[► 1391](#)] type exposes the following members.

Methods

	Name	Description
	Add [► 1407]	Adds a Symbol [► 1477] with the specified key to the DynamicSymbolsProvider [► 1391] .
	AddOrUpdate [► 1407]	Add a Symbol [► 1477] to the DynamicSymbolsProvider [► 1391] if the specified key does not already exist, or updates an existing Symbol [► 1477] of the DynamicSymbolsProvider [► 1391] .
	Clear [► 1408]	Removes all Symbol [► 1477] s from the DynamicSymbolsProvider [► 1391] .
	ContainsKey [► 1408]	Determines whether the DynamicSymbolsProvider [► 1391] contains a Symbol [► 1477] with the specified key.
	CopyTo [► 1409]	Copies the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] to a compatible one-dimensional array, starting at the specified index of the target array.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetEnumerator or [► 1410]	Returns an IEnumerator.T that iterates through the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetSchema(Queue.String.) [► 1410]	Gets the schema of the Symbol [► 1477] at the specified path.
	GetSchema(String) [► 1411]	Gets the schema of the Symbol [► 1477] at the specified path.
	GetSchema(String, Queue.String.) [► 1412]	Gets the schema of the Symbol [► 1477] with the specified key at the specified path.
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	HandleCommand [► 1412]	Handles the specified Command [► 788] .
	HandleCommands [► 1413]	Handles the Command [► 788] s in the specified CommandGroup [► 807] .
	HandleException [► 1413]	Handles the Exception that was thrown while handling the specified Command [► 788] .

	Name	Description
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove [► 1414]	Removes the Symbol [► 1477] with the specified key from the DynamicSymbolsProvider [► 1391].
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	TryGetValue [► 1415]	Gets the Symbol [► 1477] associated with the specified key.

Reference

[DynamicSymbolsProvider Class](#) [[► 1391](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.4.3.1 DynamicSymbolsProvider.Add Method

Adds a [Symbol](#) [[► 1477](#)] with the specified key to the [DynamicSymbolsProvider](#) [[► 1391](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void Add(
    string key,
    Symbol value
)
```

Parameters

- key Type: [System.String](#)
The key of the [Symbol](#) [[► 1477](#)] to add.
- value Type: [TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#) [[► 1477](#)]
The [Symbol](#) [[► 1477](#)] to add.

Implements

[IDictionary.Add\(TKey, TValue\)](#)

Reference

[DynamicSymbolsProvider Class](#) [[► 1391](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.4.3.2 DynamicSymbolsProvider.AddOrUpdate Method

Add a [Symbol](#) [[► 1477](#)] to the [DynamicSymbolsProvider](#) [[► 1391](#)] if the specified key does not already exist, or updates an existing [Symbol](#) [[► 1477](#)] of the [DynamicSymbolsProvider](#) [[► 1391](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public bool AddOrUpdate(  
    string key,  
    Symbol value  
)
```

Parameters

key Type: [System.String](#)
The key to be added or whose [Symbol](#) [► 1477] should be updated.

value Type: [TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#) [► 1477]
The [Value](#) [► 952] to add or update.

Return Value

Type: [Boolean](#)
true if value was added to the [DynamicSymbolsProvider](#) [► 1391]; false if an existing [Symbol](#) [► 1477] was updated with value.

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.3 **DynamicSymbolsProvider.Clear Method**

Removes all [Symbol](#) [► 1477]s from the [DynamicSymbolsProvider](#) [► 1391].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public void Clear()
```

Implements

[ICollection.T..Clear.](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.4 **DynamicSymbolsProvider.ContainsKey Method**

Determines whether the [DynamicSymbolsProvider](#) [► 1391] contains a [Symbol](#) [► 1477] with the specified key.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool ContainsKey(  
    string key  
)
```

Parameters

key Type: [System.String](#)
The key to locate in the [DynamicSymbolsProvider](#) [► 1391].

Return Value

Type: [Boolean](#)
true if the [DynamicSymbolsProvider](#) [► 1391] contains a [Symbol](#) [► 1477] with key; otherwise, false.

Implements

[IDictionary.ContainsKey\(TKey\)](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.5 **DynamicSymbolsProvider.CopyTo Method**

Copies the [Symbol](#) [► 1477]s of the [DynamicSymbolsProvider](#) [► 1391] to a compatible one-dimensional array, starting at the specified index of the target array.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void CopyTo(  
    KeyValuePair<string, Symbol>[] array,  
    int arrayIndex  
)
```

Parameters

array Type: [System.Collections.Generic.KeyValuePair<String, Symbol>](#) [► 1477]..
The one-dimensional array that is the destination of the [Symbol](#) [► 1477]s copied from [DynamicSymbolsProvider](#) [► 1391]. The array must have zero-based indexing.

arrayIndex Type: [System.Int32](#)
The zero-based index in array at which copying begins.

Implements

[ICollection<T>.CopyTo\(T, Int32\)](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.6 DynamicSymbolsProvider.GetEnumerator Method

Returns an [IEnumerator.T.](#) that iterates through the [Symbol \[► 1477\]](#)s of the [DynamicSymbolsProvider \[► 1391\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public IEnumerator<KeyValuePair<string, Symbol>> GetEnumerator()
```

Return Value

Type: [IEnumerator.KeyValuePair.String, Symbol \[► 1477\]](#)..

An [IEnumerator.T.](#) for the [Symbol \[► 1477\]](#)s of the [DynamicSymbolsProvider \[► 1391\]](#).

Implements

[IEnumerable.T..GetEnumerator.](#)

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.7 DynamicSymbolsProvider.GetSchema Method

Overload List

	Name	Description
	GetSchema(Queue.String.) [► 1410]	Gets the schema of the Symbol [► 1477] at the specified path.
	GetSchema(String) [► 1411]	Gets the schema of the Symbol [► 1477] at the specified path.
	GetSchema(String, Queue.String.) [► 1412]	Gets the schema of the Symbol [► 1477] with the specified key at the specified path.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.7.1 DynamicSymbolsProvider.GetSchema Method (Queue.String.)

Gets the schema of the [Symbol \[► 1477\]](#) at the specified path.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value GetSchema(  
    Queue<string> elements  
)
```

Parameters

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#). containing the elements that specify the path of the schema to get. The element at the beginning of the [Queue.T](#). identifies the [Symbol](#) [[► 1477](#)] from which to get a schema. Therefore the [Queue.T](#). must not be empty.

Return Value

Type: [Value](#) [[► 952](#)]

The schema of the [Symbol](#) [[► 1477](#)] at the specified path if a [Symbol](#) [[► 1477](#)] identified by the element at the beginning of elements exists; otherwise, null.

Reference

[DynamicSymbolsProvider Class](#) [[► 1391](#)]

[GetSchema Overload](#) [[► 1410](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.4.3.7.2 DynamicSymbolsProvider.GetSchema Method (String)

Gets the schema of the [Symbol](#) [[► 1477](#)] at the specified path.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value GetSchema(  
    string path  
)
```

Parameters

path Type: [System.String](#)
The path of the schema to get. The elements in the path must be separated by [PathElementSeparator](#) [[► 1190](#)], '[' or ']'. The first element identifies the [Symbol](#) [[► 1477](#)] from which to get a schema. Therefore the [String](#) must not be null or empty.

Return Value

Type: [Value](#) [[► 952](#)]

The schema of the [Symbol](#) [[► 1477](#)] at the specified path if a [Symbol](#) [[► 1477](#)] identified by the first element in path exists; otherwise, null.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[GetSchema Overload \[► 1410\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.7.3 **DynamicSymbolsProvider.GetSchema Method (String, Queue.String.)**

Gets the schema of the [Symbol \[► 1477\]](#) with the specified key at the specified path.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value GetSchema(  
    string key,  
    Queue<string> elements  
)
```

Parameters

key	Type: System.String The key of the Symbol [► 1477] from which to get a schema.
elements	Type: System.Collections.Generic.Queue.String . A Queue.T containing the elements that specify the path of the schema to get. -or- null to get the root schema of the Symbol [► 1477] with the specified key.

Return Value

Type: [Value \[► 952\]](#)

The schema of the [Symbol \[► 1477\]](#) at the specified path if a [Symbol \[► 1477\]](#) with the specified key exists; otherwise, null.

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[GetSchema Overload \[► 1410\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.8 **DynamicSymbolsProvider.HandleCommand Method**

Handles the specified [Command \[► 788\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected bool HandleCommand(  
    Command command  
)
```


Parameters

command Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to handle.

Return Value

Type: [Boolean](#)
true if command was handled; otherwise, false.

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.9 **DynamicSymbolsProvider.HandleCommands Method**

Handles the [Command](#) [► 788]s in the specified [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public virtual IEnumerable<Command> HandleCommands (  
    CommandGroup commands  
)
```

Parameters

commands Type: [TcHmiSrv.Core.CommandGroup](#) [► 807]
A [CommandGroup](#) [► 807] containing the [Command](#) [► 788]s to handle.

Return Value

Type: [IEnumerable.Command](#) [► 788].
An [IEnumerable.T](#), containing the [Command](#) [► 788]s that cannot be handled by the [DynamicSymbolsProvider](#) [► 1391].

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.10 **DynamicSymbolsProvider.HandleException Method**

Handles the [Exception](#) that was thrown while handling the specified [Command](#) [► 788].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected virtual bool HandleException(  
    Command command,  
    Exception exception  
)
```

Parameters

command Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] that caused exception.

exception Type: [System.Exception](#)
The [Exception](#) that was thrown while handling command.

Return Value

Type: [Boolean](#)
true if command is handled; otherwise, false.

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.4.3.11 DynamicSymbolsProvider.Remove Method

Removes the [Symbol](#) [► 1477] with the specified key from the [DynamicSymbolsProvider](#) [► 1391].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Remove(  
    string key  
)
```

Parameters

key Type: [System.String](#)
The key of the [Symbol](#) [► 1477] to remove.

Return Value

Type: [Boolean](#)
true if the [Symbol](#) [► 1477] is successfully removed; otherwise, false. This method also returns false if key was not found in the original [DynamicSymbolsProvider](#) [► 1391].

Implements

[IDictionary.Remove\(TKey\)](#)

Reference

[DynamicSymbolsProvider Class](#) [► 1391]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.4.3.12 DynamicSymbolsProvider.TryGetValue Method

Gets the [Symbol \[► 1477\]](#) associated with the specified key.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool TryGetValue(  
    string key,  
    out Symbol value  
)
```

Parameters

key	Type: System.String The key whose Symbol [► 1477] to get.
value	Type: TcHmiSrv.Core.Tools.DynamicSymbols.Symbol [► 1477] . When this method returns, the Symbol [► 1477] associated with key, if key is found; otherwise, null. This parameter is passed uninitialized.

Return Value

Type: [Boolean](#)

true if the [DynamicSymbolsProvider \[► 1391\]](#) contains a [Symbol \[► 1477\]](#) with key; otherwise, false.

Implements

[IDictionary.TryGetValue\(TKey, TValue.\)](#)

Reference

[DynamicSymbolsProvider Class \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.5 JsonSchemaContractResolver Class

Represents an [IContractResolver](#) for JSON schemas.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaContractResolver](#)

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class JsonSchemaContractResolver : IContractResolver
```

The [JsonSchemaContractResolver](#) type exposes the following members.

Constructors

	Name	Description
	JsonSchemaContractResolver [▶ 1417]	Initializes a new instance of the JsonSchemaContractResolver class where PreContractResolver [▶ 1419] is null and PostContractResolver [▶ 1418] is DefaultContractResolver .
	JsonSchemaContractResolver(IContractResolver, IContractResolver) [▶ 1417]	Initializes a new instance of the JsonSchemaContractResolver class with the specified IContractResolvers .

Properties

	Name	Description
	PostContractResolver [▶ 1418]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type after JsonSchemaContractResolver tried to resolve the JsonContract .
	PreContractResolver [▶ 1419]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type before JsonSchemaContractResolver tries to resolve the JsonContract .

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ResolveContract [▶ 1420]	Resolves the JsonContract for a given Type .
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.5.1 *JsonSchemaContractResolver Constructor*

Overload List

	Name	Description
	JsonSchemaContractResolver [▶ 1417]	Initializes a new instance of the JsonSchemaContractResolver [▶ 1415] class where PreContractResolver [▶ 1419] is null and PostContractResolver [▶ 1418] is DefaultContractResolver .
	JsonSchemaContractResolver(IContractResolver, IContractResolver) [▶ 1417]	Initializes a new instance of the JsonSchemaContractResolver [▶ 1415] class with the specified IContractResolvers .

Reference

[JsonSchemaContractResolver Class](#) [[▶ 1415](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.5.1.1 **JsonSchemaContractResolver Constructor**

Initializes a new instance of the [JsonSchemaContractResolver](#) [[▶ 1415](#)] class where [PreContractResolver](#) [[▶ 1419](#)] is null and [PostContractResolver](#) [[▶ 1418](#)] is [DefaultContractResolver](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaContractResolver()
```

Reference

[JsonSchemaContractResolver Class](#) [[▶ 1415](#)]

[JsonSchemaContractResolver Overload](#) [[▶ 1417](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.5.1.2 **JsonSchemaContractResolver Constructor (IContractResolver, IContractResolver)**

Initializes a new instance of the [JsonSchemaContractResolver](#) [[▶ 1415](#)] class with the specified [IContractResolvers](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaContractResolver(
    IContractResolver preContractResolver,
    IContractResolver postContractResolver
)
```

Parameters

- preContractResolver** Type: [IContractResolver](#)
An [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) before [JsonSchemaContractResolver](#) [► 1415] tries to resolve the [JsonContract](#). -or- null to use the resolving mechanism of [JsonSchemaContractResolver](#) [► 1415]. The resolving mechanism of [JsonSchemaContractResolver](#) [► 1415] is also used if [IContractResolver.ResolveContract\(Type\)](#) returns null.
- postContractResolver** Type: [IContractResolver](#)
An [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) after [JsonSchemaContractResolver](#) [► 1415] tried to resolve the [JsonContract](#). -or- null to use the resolving mechanism of [DefaultContractResolver](#). The resolving mechanism of [DefaultContractResolver](#) is also used if [IContractResolver.ResolveContract\(Type\)](#) returns null.

Reference

- [JsonSchemaContractResolver Class](#) [► 1415]
- [JsonSchemaContractResolver Overload](#) [► 1417]
- [TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.5.2 *JsonSchemaContractResolver Properties*

The [JsonSchemaContractResolver](#) [► 1415] type exposes the following members.

Properties

	Name	Description
	PostContractResolver [► 1418]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type after JsonSchemaContractResolver [► 1415] tried to resolve the JsonContract .
	PreContractResolver [► 1419]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type before JsonSchemaContractResolver [► 1415] tries to resolve the JsonContract .

Reference

- [JsonSchemaContractResolver Class](#) [► 1415]
- [TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.5.2.1 *JsonSchemaContractResolver.PostContractResolver Property*

Contains the [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) after [JsonSchemaContractResolver](#) [► 1415] tried to resolve the [JsonContract](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IContractResolver PostContractResolver { get; set; }
```

Property Value

Type: IContractResolver

Reference

[JsonSchemaContractResolver Class](#) [[► 1415](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.5.2.2 **JsonSchemaContractResolver.PreContractResolver Property**

Contains the [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) before [JsonSchemaContractResolver](#) [[► 1415](#)] tries to resolve the [JsonContract](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IContractResolver PreContractResolver { get; set; }
```

Property Value

Type: IContractResolver

Reference

[JsonSchemaContractResolver Class](#) [[► 1415](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.5.3 **JsonSchemaContractResolver Methods**

The [JsonSchemaContractResolver](#) [[► 1415](#)] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ResolveContract [▶ 1420]	Resolves the JsonContract for a given Type .
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[JsonSchemaContractResolver Class](#) [[▶ 1415](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.5.3.1 JsonSchemaContractResolver.ResolveContract Method

Resolves the [JsonContract](#) for a given [Type](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonContract ResolveContract(
    Type type
)
```

Parameters

type Type: [System.Type](#)
The [Type](#) to resolve a [JsonContract](#) for.

Return Value

Type: [JsonContract](#)
The [JsonContract](#) for type.

Implements

[IContractResolver.ResolveContract\(Type\)](#)

Reference

[JsonSchemaContractResolver Class \[► 1415\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6 **JsonSchemaValue Class**

Represent a JSON schema.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Value \[► 952\]](#)

[TcHmiSrv.Core.Tools.Json.JsonValue \[► 1542\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.Definition \[► 1348\]](#)

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class JsonSchemaValue : JsonValue,
    IEquatable<JsonSchemaValue>
```

The JsonSchemaValue type exposes the following members.

Constructors

	Name	Description
	JsonSchemaValue(JsonSchema) [► 1438]	Initializes a new instance of the JsonSchemaValue class with the specified JSchema .
	JsonSchemaValue(Value) [► 1439]	Initializes a new instance of the JsonSchemaValue class with the specified Value [► 952] .
	JsonSchemaValue(Value, Boolean) [► 1439]	Initializes a new instance of the JsonSchemaValue class with the specified Value [► 952] .
	JsonSchemaValue(Value, IDictionary<String, Definition>) [► 1440]	Initializes a new instance of the JsonSchemaValue class with the specified Value [► 952] and Definition [► 1348] s.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952] s the internal data structure can hold without resizing. (Inherited from Value [► 952] .)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952] .)
	Count [► 993]	Gets the number of Value [► 952] s contained in the Value [► 952] . (Inherited from Value [► 952] .)
	Definitions [► 1443]	Gets the Definition [► 1348] s of the JsonSchemaValue .
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952] .)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952] .)
	IsFixedSize [► 995]	(Inherited from Value [► 952] .)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169] . (Inherited from Value [► 952] .)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169] . (Inherited from Value [► 952] .)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169] , Double [► 1169] or Int64 [► 1169] . (Inherited from Value [► 952] .)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952] .)
	IsSynchronized [► 997]	(Inherited from Value [► 952] .)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169] . (Inherited from Value [► 952] .)
	Item.Int32 [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952] .)
	Item.String [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952] .)
	Keys [► 999]	Gets an ICollection.T , containing the keys of the Value [► 952] . (Inherited from Value [► 952] .)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	SyncRoot [► 1000]	(Inherited from Value [► 952] .)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	Values [▶ 1001]	Gets an <u>ICollection.T.</u> containing the <u>Value [▶ 952]</u> s in the <u>Value [▶ 952]</u> . (Inherited from <u>Value [▶ 952]</u> .)

Methods

	Name	Description
	Add(KeyValuePair<String, Value>) [► 1016]	Adds a KeyValuePair.TKey, TValue to the Value [► 952] . (Inherited from Value [► 952] .)
	Add(Value) [► 1016]	Adds the specified Value [► 952] to the Value [► 952] . (Inherited from Value [► 952] .)
	Add(String, Value) [► 1017]	Adds a Value [► 952] with the specified key to the Value [► 952] . (Inherited from Value [► 952] .)
	AddOrUpdate [► 1018]	Adds a Value [► 952] with the specified key to the Value [► 952] if the key does not already exist, or updates a Value [► 952] in the Value [► 952] if the key already exists. (Inherited from Value [► 952] .)
	AddRange [► 1018]	Adds the specified Value [► 952] s to the end of the Value [► 952] . (Inherited from Value [► 952] .)
	ChangeType [► 1018]	Changes the Type [► 1001] of this Value [► 952] to the specified ValueType [► 1169] and adjusts the containing data. (Inherited from Value [► 952] .)
	Clear [► 1019]	Removes all Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	CompareTo(Boolean) [► 1023]	Compares the current Value [► 952] with another Boolean value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [► 952] .)
	CompareTo(Byte) [► 1024]	Compares the current Value [► 952] with another Byte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [► 952] .)
	CompareTo(Bytes) [► 1024]	Compares the current Value [► 952] with other Bytes and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [► 952] .)
	CompareTo(Char) [► 1025]	Compares the current Value [► 952] with another Char and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [► 952] .)
	CompareTo(DateTime) [► 1026]	Compares the current Value [► 952] with another DateTime and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [► 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [► 1033]	Compares the current Value [► 952] with another UInt16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [► 952].)
	CompareTo(UInt32) [► 1033]	Compares the current Value [► 952] with another UInt32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [► 952].)
	CompareTo(UInt64) [► 1034]	Compares the current Value [► 952] with another UInt64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [► 952].)
	CompareTo(Access) [► 1035]	Compares the current Value [► 952] with another Access [► 766] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Access [► 766]. (Inherited from Value [► 952].)
	CompareTo(Alarm) [► 1035]	Compares the current Value [► 952] with another Alarm [► 767] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767]. (Inherited from Value [► 952].)
	CompareTo(Event) [► 1036]	Compares the current Value [► 952] with another Event [► 850] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850]. (Inherited from Value [► 952].)
	CompareTo(Message) [► 1037]	Compares the current Value [► 952] with another Message [► 924] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Message [► 924]. (Inherited from Value [► 952].)
	CompareTo(Severity) [► 1037]	Compares the current Value [► 952] with another Severity [► 951] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [► 951]. (Inherited from Value [► 952].)
	CompareTo(Value) [► 1038]	Compares the current Value [► 952] with another Value [► 952] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	Contains(KeyValuePair<String, Value>) [► 1039]	Determines whether the Value [► 952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [► 952] .)
	Contains(Value) [► 1040]	Determines whether the Value [► 952] contains the specified Value [► 952] . (Inherited from Value [► 952] .)
	ContainsKey [► 1040]	Determines whether the Value [► 952] contains a Value [► 952] with the specified key. (Inherited from Value [► 952] .)
	CopyTo(KeyValuePair<String, Value>, Int32) [► 1041]	Copies the KeyValuePair.TKey, TValue s of the Value [► 952] to the specified Array , starting at the specified index. (Inherited from Value [► 952] .)
	CopyTo(Value[], Int32) [► 1042]	Copies the Value [► 952] s of the Value [► 952] to the specified Array , starting at the specified index. (Inherited from Value [► 952] .)
	DeepCopy [► 1043]	Creates a new object that is a deep copy of the current Value [► 952] . (Inherited from Value [► 952] .)
	Equals(Boolean) [► 1046]	Indicates whether the current Value [► 952] is equal to another Boolean value. (Inherited from Value [► 952] .)
	Equals(Byte) [► 1046]	Indicates whether the current Value [► 952] is equal to another Byte . (Inherited from Value [► 952] .)
	Equals(Byte[]) [► 1047]	Indicates whether the current Value [► 952] is equal to another Array of Bytes . (Inherited from Value [► 952] .)
	Equals(Char) [► 1048]	Indicates whether the current Value [► 952] is equal to another Char . (Inherited from Value [► 952] .)
	Equals(DateTime) [► 1048]	Indicates whether the current Value [► 952] is equal to another DateTime . (Inherited from Value [► 952] .)
	Equals(Decimal) [► 1049]	Indicates whether the current Value [► 952] is equal to another Decimal value. (Inherited from Value [► 952] .)
	Equals(Double) [► 1050]	Indicates whether the current Value [► 952] is equal to another Double-precision floating-point number . (Inherited from Value [► 952] .)
	Equals(Int16) [► 1050]	Indicates whether the current Value [► 952] is equal to another Int16 . (Inherited from Value [► 952] .)
	Equals(Int32) [► 1051]	Indicates whether the current Value [► 952] is equal to another Int32 . (Inherited from Value [► 952] .)
	Equals(Int64) [► 1052]	Indicates whether the current Value [► 952] is equal to another Int64 . (Inherited from Value [► 952] .)
	Equals(SByte) [► 1053]	Indicates whether the current Value [► 952] is equal to another SByte . (Inherited from Value [► 952] .)

	Name	Description
	Equals(Single) [▶ 1053]	Indicates whether the current Value [▶ 952] is equal to another Single -precision floating-point number. (Inherited from Value [▶ 952].)
	Equals(String) [▶ 1054]	Indicates whether the current Value [▶ 952] is equal to another String . (Inherited from Value [▶ 952].)
	Equals(TimeSpan) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another TimeSpan . (Inherited from Value [▶ 952].)
	Equals(UInt16) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another UInt16 . (Inherited from Value [▶ 952].)
	Equals(UInt32) [▶ 1056]	Indicates whether the current Value [▶ 952] is equal to another UInt32 . (Inherited from Value [▶ 952].)
	Equals(UInt64) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another UInt64 . (Inherited from Value [▶ 952].)
	Equals(Object) [▶ 1460]	Determines whether the specified Object is equal to the current JsonSchemaValue . (Overrides JsonValue.Equals(Object) [▶ 1575].)
	Equals(Access) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another Access [▶ 766]. (Inherited from Value [▶ 952].)
	Equals(Alarm) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Alarm [▶ 767]. (Inherited from Value [▶ 952].)
	Equals(Event) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Event [▶ 850]. (Inherited from Value [▶ 952].)
	Equals(JsonSchemaValue) [▶ 1461]	Indicates whether the current JsonSchemaValue is equal to another JsonSchemaValue .
	Equals(JsonValue) [▶ 1576]	Indicates whether the current JsonValue [▶ 1542] is equal to another JsonValue [▶ 1542]. (Inherited from JsonValue [▶ 1542].)
	Equals(Message) [▶ 1059]	Indicates whether the current Value [▶ 952] is equal to another Message [▶ 924]. (Inherited from Value [▶ 952].)
	Equals(Severity) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Severity [▶ 951]. (Inherited from Value [▶ 952].)
	Equals(Value) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Value [▶ 952]. (Inherited from Value [▶ 952].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [▶ 1072]	Gets the Access [▶ 766] of the Value [▶ 952]. (Inherited from Value [▶ 952].)

	Name	Description
	GetAlarm [► 1072]	Gets the Alarm [► 767] of the Value [► 952]. (Inherited from Value [► 952].)
	GetBool . [► 1073]	Gets the Boolean value of the Value [► 952]. (Inherited from Value [► 952].)
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetByte [► 1074]	Gets the Byte of the Value [► 952]. (Inherited from Value [► 952].)
	GetBytes [► 1074]	Gets the Bytes of the Value [► 952]. (Inherited from Value [► 952].)
	GetChar [► 1075]	Gets the Char of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime . [► 1076]	Gets the DateTime of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetDecimal [► 1077]	Gets the Decimal value of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble . [► 1077]	Gets the Double -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble(IFormatProvider) [► 1078]	Gets the Double -precision floating-point number of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetEvent [► 1078]	Gets the Event [► 850] of the Value [► 952]. (Inherited from Value [► 952].)
	GetHashCode [► 1461]	Serves as the default hash function. (Overrides JsonValue.GetHashCode . [► 1576].)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32 . [► 1080]	Gets the Int32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetInt64 . [► 1081]	Gets the Int64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetMessage [► 1082]	Gets the Message [► 924] of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString . [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(Ifor matProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan . [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvid er) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyV aluePair.Strin g, Value.) [► 1089]	Removes the first occurrence of the specified KeyValuePair<tkey, tvalue=""></tkey,> from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Strin g) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Valu e) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)

	Name	Description
	RemoveRange [► 1092]	Removes a range of Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte) [► 1095]	Gets the Byte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Char) [► 1096]	Gets the Char of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int32) [► 1099]	Gets the Int32 of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int64) [► 1099]	Gets the Int64 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(SByte) [► 1099]	Gets the SByte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Single) [► 1100]	Gets the Single -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(String) [► 1100]	Gets the String of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(TimeSpan) [► 1101]	Gets the TimeSpan of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(UInt16) [► 1101]	Gets the UInt16 integer of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	SetValue(UInt32) [▸ 1102]	Gets the UInt32 of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(UInt64) [▸ 1102]	Gets the UInt64 integer of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766] . (Inherited from Value [▸ 952] .)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767] . (Inherited from Value [▸ 952] .)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952] .)
	ToBoolean. [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952] .)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToByte. [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952] .)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952] .)
	ToChar. [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952] .)

	Name	Description
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDateTime . [▸ 1112]	Converts this instance of the Value [▸ 952] class to the appropriate instance of the DateTime class. (Inherited from Value [▸ 952].)
	ToDateTime(IFormatProvider) [▸ 1112]	Converts the Value [▸ 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDecimal . [▸ 1113]	Converts this instance of the Value [▸ 952] class to the appropriate Decimal . (Inherited from Value [▸ 952].)
	ToDecimal(IFormatProvider) [▸ 1114]	Converts the Value [▸ 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDouble . [▸ 1115]	Converts this instance of the Value [▸ 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [▸ 952].)
	ToDouble(IFormatProvider) [▸ 1115]	Converts the Value [▸ 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToEvent [▸ 1116]	Converts this instance of the Value [▸ 952] class to the appropriate Event [▸ 850]. (Inherited from Value [▸ 952].)
	ToInt16 . [▸ 1117]	Converts this instance of the Value [▸ 952] class to the appropriate Int16 . (Inherited from Value [▸ 952].)
	ToInt16(IFormatProvider) [▸ 1117]	Converts the Value [▸ 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt32 . [▸ 1118]	Converts this instance of the Value [▸ 952] class to the appropriate Int32 . (Inherited from Value [▸ 952].)
	ToInt32(IFormatProvider) [▸ 1118]	Converts the Value [▸ 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt64 . [▸ 1119]	Converts this instance of the Value [▸ 952] class to the appropriate Int64 . (Inherited from Value [▸ 952].)
	ToInt64(IFormatProvider) [▸ 1120]	Converts the Value [▸ 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToMessage [▸ 1120]	Converts this instance of the Value [▸ 952] class to the appropriate Message [▸ 924]. (Inherited from Value [▸ 952].)

	Name	Description
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952].)
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952].)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952].)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString. [► 1462]	Returns a String that represents the current Value [► 952] . (Overrides JsonValue.ToString. [► 1577].)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString(Boolean) [► 1463]	Returns a String that represents the current JsonSchemaValue .
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952].)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952].)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952].)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952].)

	Name	Description
	ToUInt64(IFormatProvider) [▸ 1130]	Converts the Value [▸ 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToValue. [▸ 1577]	Returns a Value [▸ 952] that represents the current JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	ToValue(Boolean) [▸ 1463]	Returns a Value [▸ 952] that represents the current JsonSchemaValue .
	TryGetValue [▸ 1131]	Gets the Value [▸ 952] associated with the specified key. (Inherited from Value [▸ 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [▸ 1175]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [▸ 1173].)
	ResolveBy(String) [▸ 1176]	Overloaded. Resolves the current Value [▸ 952] by the specified path. (Defined by ValueExtensions [▸ 1173].)
	ToJson. [▸ 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean) [▸ 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean, Boolean) [▸ 1619]	Overloaded. Returns a JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	TryResolveBy(Queue.String., Value.) [▸ 1177]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)
	TryResolveBy(String, Value.) [▸ 1178]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.1 *JsonSchemaValue Constructor*

Overload List

	Name	Description
	JsonSchemaValue(JSchema) [► 1438]	Initializes a new instance of the JsonSchemaValue [► 1421] class with the specified JSchema .
	JsonSchemaValue(Value) [► 1439]	Initializes a new instance of the JsonSchemaValue [► 1421] class with the specified Value [► 952].
	JsonSchemaValue(Value, Boolean) [► 1439]	Initializes a new instance of the JsonSchemaValue [► 1421] class with the specified Value [► 952].
	JsonSchemaValue(Value, IDictionary<String, Definition>) [► 1440]	Initializes a new instance of the JsonSchemaValue [► 1421] class with the specified Value [► 952] and Definition [► 1348]s.

Reference

[JsonSchemaValue Class](#) [► 1421]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.6.1.1 *JsonSchemaValue Constructor (JSchema)*

Initializes a new instance of the [JsonSchemaValue](#) [► 1421] class with the specified [JSchema](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue(  
    JSchema schema  
)
```

Parameters

schema Type: [JSchema](#)
A [JSchema](#) that represents the JSON schema to convert into a [JsonSchemaValue](#) [► 1421].

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[JsonSchemaValue Overload \[► 1438\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.1.2 JsonSchemaValue Constructor (Value)

Initializes a new instance of the [JsonSchemaValue \[► 1421\]](#) class with the specified [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue(  
    Value schema  
)
```

Parameters

schema Type: [TcHmiSrv.Core.Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents a JSON schema without [Definition \[► 1348\]](#)s.

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[JsonSchemaValue Overload \[► 1438\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.1.3 JsonSchemaValue Constructor (Value, Boolean)

Initializes a new instance of the [JsonSchemaValue \[► 1421\]](#) class with the specified [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue(  
    Value schema,  
    bool extractDefinitions  
)
```

Parameters

schema Type: [TcHmiSrv.Core.Value \[► 952\]](#)
A [Value \[► 952\]](#) that represents a JSON schema.

extractDefinitions Type: [System.Boolean](#)
true to extract the [Definition \[► 1348\]](#)s from schema; otherwise, false.

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[JsonSchemaValue Overload \[► 1438\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.1.4 **JsonSchemaValue Constructor (Value, IDictionary.String, Definition.)**

Initializes a new instance of the [JsonSchemaValue \[► 1421\]](#) class with the specified [Value \[► 952\]](#) and [Definition \[► 1348\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue(  
    Value schema,  
    IDictionary<string, Definition> definitions  
)
```

Parameters

schema	Type: TcHmiSrv.Core.Value [► 952] A Value [► 952] that represents a JSON schema without Definition [► 1348] s.
definitions	Type: System.Collections.Generic.IDictionary.String, Definition [► 1348] . The Definition [► 1348] s associated with schema. -or- null if no Definition [► 1348] s are associated with schema.

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[JsonSchemaValue Overload \[► 1438\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.2 **JsonSchemaValue Properties**

The [JsonSchemaValue \[► 1421\]](#) type exposes the following members.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952] s the internal data structure can hold without resizing. (Inherited from Value [► 952] .)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952] .)
	Count [► 993]	Gets the number of Value [► 952] s contained in the Value [► 952] . (Inherited from Value [► 952] .)
	Definitions [► 1443]	Gets the Definition [► 1348] s of the JsonSchemaValue [► 1421] .
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952] .)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952] .)
	IsFixedSize [► 995]	(Inherited from Value [► 952] .)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169] . (Inherited from Value [► 952] .)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169] . (Inherited from Value [► 952] .)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169] , Double [► 1169] or Int64 [► 1169] . (Inherited from Value [► 952] .)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952] .)
	IsSynchronized [► 997]	(Inherited from Value [► 952] .)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169] . (Inherited from Value [► 952] .)
	Item.Int32 [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952] .)
	Item.String [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952] .)
	Keys [► 999]	Gets an ICollection.T , containing the keys of the Value [► 952] . (Inherited from Value [► 952] .)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	SyncRoot [► 1000]	(Inherited from Value [► 952] .)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	Values [► 1001]	Gets an ICollection.T. containing the Value [► 952] s in the Value [► 952] . (Inherited from Value [► 952] .)

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.2.1 **JsonSchemaValue.Definitions Property**

Gets the [Definition \[► 1348\]](#)s of the [JsonSchemaValue \[► 1421\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public virtual ReadOnlyDictionary<string, Definition> Definitions { get; }
```

Property Value

Type: [ReadOnlyDictionary.String](#), [Definition \[► 1348\]](#).

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.3 **JsonSchemaValue Methods**

The [JsonSchemaValue \[► 1421\]](#) type exposes the following members.

Methods

	Name	Description
	Add(KeyValuePair<String, Value> [▶ 1016])	Adds a KeyValuePair.TKey, TValue to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(Value) [▶ 1016]	Adds the specified Value [▶ 952] to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	Add(String, Value) [▶ 1017]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	AddOrUpdate [▶ 1018]	Adds a Value [▶ 952] with the specified key to the Value [▶ 952] if the key does not already exist, or updates a Value [▶ 952] in the Value [▶ 952] if the key already exists. (Inherited from Value [▶ 952] .)
	AddRange [▶ 1018]	Adds the specified Value [▶ 952] s to the end of the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	ChangeType [▶ 1018]	Changes the Type [▶ 1001] of this Value [▶ 952] to the specified ValueType [▶ 1169] and adjusts the containing data. (Inherited from Value [▶ 952] .)
	Clear [▶ 1019]	Removes all Value [▶ 952] s from the Value [▶ 952] . (Inherited from Value [▶ 952] .)
	CompareTo(Boolean) [▶ 1023]	Compares the current Value [▶ 952] with another Boolean value and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [▶ 952] .)
	CompareTo(Byte) [▶ 1024]	Compares the current Value [▶ 952] with another Byte and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [▶ 952] .)
	CompareTo(Bytes) [▶ 1024]	Compares the current Value [▶ 952] with other Bytes and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [▶ 952] .)
	CompareTo(Char) [▶ 1025]	Compares the current Value [▶ 952] with another Char and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [▶ 952] .)
	CompareTo(DateTime) [▶ 1026]	Compares the current Value [▶ 952] with another DateTime and returns an integer that indicates whether the current Value [▶ 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [▶ 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [► 1033]	Compares the current Value [► 952] with another UInt16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [► 952].)
	CompareTo(UInt32) [► 1033]	Compares the current Value [► 952] with another UInt32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [► 952].)
	CompareTo(UInt64) [► 1034]	Compares the current Value [► 952] with another UInt64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [► 952].)
	CompareTo(Access) [► 1035]	Compares the current Value [► 952] with another Access [► 766] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Access [► 766]. (Inherited from Value [► 952].)
	CompareTo(Alarm) [► 1035]	Compares the current Value [► 952] with another Alarm [► 767] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767]. (Inherited from Value [► 952].)
	CompareTo(Event) [► 1036]	Compares the current Value [► 952] with another Event [► 850] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850]. (Inherited from Value [► 952].)
	CompareTo(Message) [► 1037]	Compares the current Value [► 952] with another Message [► 924] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Message [► 924]. (Inherited from Value [► 952].)
	CompareTo(Severity) [► 1037]	Compares the current Value [► 952] with another Severity [► 951] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [► 951]. (Inherited from Value [► 952].)
	CompareTo(Value) [► 1038]	Compares the current Value [► 952] with another Value [► 952] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	Contains(KeyValuePair<String, Value>) [► 1039]	Determines whether the Value [► 952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [► 952] .)
	Contains(Value) [► 1040]	Determines whether the Value [► 952] contains the specified Value [► 952] . (Inherited from Value [► 952] .)
	ContainsKey [► 1040]	Determines whether the Value [► 952] contains a Value [► 952] with the specified key. (Inherited from Value [► 952] .)
	CopyTo(KeyValuePair<String, Value>, Int32) [► 1041]	Copies the KeyValuePair.TKey, TValue s of the Value [► 952] to the specified Array , starting at the specified index. (Inherited from Value [► 952] .)
	CopyTo(Value[], Int32) [► 1042]	Copies the Value [► 952] s of the Value [► 952] to the specified Array , starting at the specified index. (Inherited from Value [► 952] .)
	DeepCopy [► 1043]	Creates a new object that is a deep copy of the current Value [► 952] . (Inherited from Value [► 952] .)
	Equals(Boolean) [► 1046]	Indicates whether the current Value [► 952] is equal to another Boolean value. (Inherited from Value [► 952] .)
	Equals(Byte) [► 1046]	Indicates whether the current Value [► 952] is equal to another Byte . (Inherited from Value [► 952] .)
	Equals(Byte[]) [► 1047]	Indicates whether the current Value [► 952] is equal to another Array of Bytes . (Inherited from Value [► 952] .)
	Equals(Char) [► 1048]	Indicates whether the current Value [► 952] is equal to another Char . (Inherited from Value [► 952] .)
	Equals(DateTime) [► 1048]	Indicates whether the current Value [► 952] is equal to another DateTime . (Inherited from Value [► 952] .)
	Equals(Decimal) [► 1049]	Indicates whether the current Value [► 952] is equal to another Decimal value. (Inherited from Value [► 952] .)
	Equals(Double) [► 1050]	Indicates whether the current Value [► 952] is equal to another Double-precision floating-point number . (Inherited from Value [► 952] .)
	Equals(Int16) [► 1050]	Indicates whether the current Value [► 952] is equal to another Int16 . (Inherited from Value [► 952] .)
	Equals(Int32) [► 1051]	Indicates whether the current Value [► 952] is equal to another Int32 . (Inherited from Value [► 952] .)
	Equals(Int64) [► 1052]	Indicates whether the current Value [► 952] is equal to another Int64 . (Inherited from Value [► 952] .)
	Equals(SByte) [► 1053]	Indicates whether the current Value [► 952] is equal to another SByte . (Inherited from Value [► 952] .)

	Name	Description
	Equals(Single) [▶ 1053]	Indicates whether the current Value [▶ 952] is equal to another Single -precision floating-point number. (Inherited from Value [▶ 952].)
	Equals(String) [▶ 1054]	Indicates whether the current Value [▶ 952] is equal to another String . (Inherited from Value [▶ 952].)
	Equals(TimeSpan) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another TimeSpan . (Inherited from Value [▶ 952].)
	Equals(UInt16) [▶ 1055]	Indicates whether the current Value [▶ 952] is equal to another UInt16 . (Inherited from Value [▶ 952].)
	Equals(UInt32) [▶ 1056]	Indicates whether the current Value [▶ 952] is equal to another UInt32 . (Inherited from Value [▶ 952].)
	Equals(UInt64) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another UInt64 . (Inherited from Value [▶ 952].)
	Equals(Object) [▶ 1460]	Determines whether the specified Object is equal to the current JsonSchemaValue [▶ 1421]. (Overrides JsonValue.Equals(Object) [▶ 1575].)
	Equals(Access) [▶ 1057]	Indicates whether the current Value [▶ 952] is equal to another Access [▶ 766]. (Inherited from Value [▶ 952].)
	Equals(Alarm) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Alarm [▶ 767]. (Inherited from Value [▶ 952].)
	Equals(Event) [▶ 1058]	Indicates whether the current Value [▶ 952] is equal to another Event [▶ 850]. (Inherited from Value [▶ 952].)
	Equals(JsonSchemaValue) [▶ 1461]	Indicates whether the current JsonSchemaValue [▶ 1421] is equal to another JsonSchemaValue [▶ 1421].
	Equals(JsonValue) [▶ 1576]	Indicates whether the current JsonValue [▶ 1542] is equal to another JsonValue [▶ 1542]. (Inherited from JsonValue [▶ 1542].)
	Equals(Message) [▶ 1059]	Indicates whether the current Value [▶ 952] is equal to another Message [▶ 924]. (Inherited from Value [▶ 952].)
	Equals(Severity) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Severity [▶ 951]. (Inherited from Value [▶ 952].)
	Equals(Value) [▶ 1060]	Indicates whether the current Value [▶ 952] is equal to another Value [▶ 952]. (Inherited from Value [▶ 952].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [▶ 1072]	Gets the Access [▶ 766] of the Value [▶ 952]. (Inherited from Value [▶ 952].)

	Name	Description
	GetAlarm [► 1072]	Gets the Alarm [► 767] of the Value [► 952]. (Inherited from Value [► 952].)
	GetBool . [► 1073]	Gets the Boolean value of the Value [► 952]. (Inherited from Value [► 952].)
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetByte [► 1074]	Gets the Byte of the Value [► 952]. (Inherited from Value [► 952].)
	GetBytes [► 1074]	Gets the Bytes of the Value [► 952]. (Inherited from Value [► 952].)
	GetChar [► 1075]	Gets the Char of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime . [► 1076]	Gets the DateTime of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetDecimal [► 1077]	Gets the Decimal value of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble . [► 1077]	Gets the Double -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble(IFormatProvider) [► 1078]	Gets the Double -precision floating-point number of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetEvent [► 1078]	Gets the Event [► 850] of the Value [► 952]. (Inherited from Value [► 952].)
	GetHashCode [► 1461]	Serves as the default hash function. (Overrides JsonValue.GetHashCode . [► 1576].)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32 . [► 1080]	Gets the Int32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetInt64 . [► 1081]	Gets the Int64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetMessage [► 1082]	Gets the Message [► 924] of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString . [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(Ifor matProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan . [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvid er) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyV aluePair.Strin g, Value.) [► 1089]	Removes the first occurrence of the specified KeyValuePair<tkey, tvalue=""></tkey,> from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Strin g) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Valu e) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)

	Name	Description
	RemoveRange [► 1092]	Removes a range of Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte) [► 1095]	Gets the Byte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Byte[]) [► 1096]	Gets the Bytes of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Char) [► 1096]	Gets the Char of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(DateTime) [► 1097]	Gets the DateTime of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Decimal) [► 1097]	Gets the Decimal value of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Double) [► 1098]	Gets the Double -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int16) [► 1098]	Gets the Int16 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int32) [► 1099]	Gets the Int32 of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Int64) [► 1099]	Gets the Int64 integer of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(SByte) [► 1099]	Gets the SByte of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(Single) [► 1100]	Gets the Single -precision floating-point number of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(String) [► 1100]	Gets the String of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(TimeSpan) [► 1101]	Gets the TimeSpan of the Value [► 952] . (Inherited from Value [► 952] .)
	SetValue(UInt16) [► 1101]	Gets the UInt16 integer of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	SetValue(UInt32) [▸ 1102]	Gets the UInt32 of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(UInt64) [▸ 1102]	Gets the UInt64 integer of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766] . (Inherited from Value [▸ 952] .)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767] . (Inherited from Value [▸ 952] .)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952] .)
	ToBoolean. [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952] .)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToByte. [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952] .)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952] .)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952] .)
	ToChar. [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952] .)

	Name	Description
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDateTime . [▸ 1112]	Converts this instance of the Value [▸ 952] class to the appropriate instance of the DateTime class. (Inherited from Value [▸ 952].)
	ToDateTime(IFormatProvider) [▸ 1112]	Converts the Value [▸ 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDecimal . [▸ 1113]	Converts this instance of the Value [▸ 952] class to the appropriate Decimal . (Inherited from Value [▸ 952].)
	ToDecimal(IFormatProvider) [▸ 1114]	Converts the Value [▸ 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToDouble . [▸ 1115]	Converts this instance of the Value [▸ 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [▸ 952].)
	ToDouble(IFormatProvider) [▸ 1115]	Converts the Value [▸ 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToEvent [▸ 1116]	Converts this instance of the Value [▸ 952] class to the appropriate Event [▸ 850]. (Inherited from Value [▸ 952].)
	ToInt16 . [▸ 1117]	Converts this instance of the Value [▸ 952] class to the appropriate Int16 . (Inherited from Value [▸ 952].)
	ToInt16(IFormatProvider) [▸ 1117]	Converts the Value [▸ 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt32 . [▸ 1118]	Converts this instance of the Value [▸ 952] class to the appropriate Int32 . (Inherited from Value [▸ 952].)
	ToInt32(IFormatProvider) [▸ 1118]	Converts the Value [▸ 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToInt64 . [▸ 1119]	Converts this instance of the Value [▸ 952] class to the appropriate Int64 . (Inherited from Value [▸ 952].)
	ToInt64(IFormatProvider) [▸ 1120]	Converts the Value [▸ 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToMessage [▸ 1120]	Converts this instance of the Value [▸ 952] class to the appropriate Message [▸ 924]. (Inherited from Value [▸ 952].)

	Name	Description
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952].)
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952].)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952].)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString. [► 1462]	Returns a String that represents the current Value [► 952] . (Overrides JsonValue.ToString. [► 1577].)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToString(Boolean) [► 1463]	Returns a String that represents the current JsonSchemaValue [► 1421] .
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952].)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952].)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952].)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952].)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952].)

	Name	Description
	ToUInt64(IFormatProvider) [▸ 1130]	Converts the Value [▸ 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToValue. [▸ 1577]	Returns a Value [▸ 952] that represents the current JsonValue [▸ 1542]. (Inherited from JsonValue [▸ 1542].)
	ToValue(Boolean) [▸ 1463]	Returns a Value [▸ 952] that represents the current JsonSchemaValue [▸ 1421].
	TryGetValue [▸ 1131]	Gets the Value [▸ 952] associated with the specified key. (Inherited from Value [▸ 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [▸ 1175]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [▸ 1173].)
	ResolveBy(String) [▸ 1176]	Overloaded. Resolves the current Value [▸ 952] by the specified path. (Defined by ValueExtensions [▸ 1173].)
	ToJson. [▸ 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean) [▸ 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJson(Boolean, Boolean) [▸ 1619]	Overloaded. Returns a JSON String that represents the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952]. (Defined by ValueExtensions [▸ 1614].)
	TryResolveBy(Queue.String., Value.) [▸ 1177]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)
	TryResolveBy(String, Value.) [▸ 1178]	Overloaded. Resolves the current Value [▸ 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [▸ 1173].)

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.3.1 JsonSchemaValue.Equals Method

Overload List

	Name	Description
	Equals(Boolean) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Boolean value. (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Byte . (Inherited from Value [▸ 952] .)
	Equals(Byte[]) [▸ 1047]	Indicates whether the current Value [▸ 952] is equal to another Array of Bytes . (Inherited from Value [▸ 952] .)
	Equals(Char) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another Char . (Inherited from Value [▸ 952] .)
	Equals(DateTime) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another DateTime . (Inherited from Value [▸ 952] .)
	Equals(Decimal) [▸ 1049]	Indicates whether the current Value [▸ 952] is equal to another Decimal value. (Inherited from Value [▸ 952] .)
	Equals(Double) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Double-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(Int16) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Int16 . (Inherited from Value [▸ 952] .)
	Equals(Int32) [▸ 1051]	Indicates whether the current Value [▸ 952] is equal to another Int32 . (Inherited from Value [▸ 952] .)
	Equals(Int64) [▸ 1052]	Indicates whether the current Value [▸ 952] is equal to another Int64 . (Inherited from Value [▸ 952] .)
	Equals(SByte) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another SByte . (Inherited from Value [▸ 952] .)
	Equals(Single) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another Single-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(String) [▸ 1054]	Indicates whether the current Value [▸ 952] is equal to another String . (Inherited from Value [▸ 952] .)
	Equals(TimeSpan) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another TimeSpan . (Inherited from Value [▸ 952] .)
	Equals(UInt16) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another UInt16 . (Inherited from Value [▸ 952] .)
	Equals(UInt32) [▸ 1056]	Indicates whether the current Value [▸ 952] is equal to another UInt32 . (Inherited from Value [▸ 952] .)
	Equals(UInt64) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another UInt64 . (Inherited from Value [▸ 952] .)
	Equals(Object) [▸ 1460]	Determines whether the specified Object is equal to the current JsonSchemaValue [▸ 1421] . (Overrides JsonValue.Equals(Object) [▸ 1575] .)

	Name	Description
	Equals(Access) [1057]	Indicates whether the current Value [952] is equal to another Access [766]. (Inherited from Value [952].)
	Equals(Alarm) [1058]	Indicates whether the current Value [952] is equal to another Alarm [767]. (Inherited from Value [952].)
	Equals(Event) [1058]	Indicates whether the current Value [952] is equal to another Event [850]. (Inherited from Value [952].)
	Equals(JsonSchemaValue) [1461]	Indicates whether the current JsonSchemaValue [1421] is equal to another JsonSchemaValue [1421].
	Equals(JsonValue) [1576]	Indicates whether the current JsonValue [1542] is equal to another JsonValue [1542]. (Inherited from JsonValue [1542].)
	Equals(Message) [1059]	Indicates whether the current Value [952] is equal to another Message [924]. (Inherited from Value [952].)
	Equals(Severity) [1060]	Indicates whether the current Value [952] is equal to another Severity [951]. (Inherited from Value [952].)
	Equals(Value) [1060]	Indicates whether the current Value [952] is equal to another Value [952]. (Inherited from Value [952].)

Reference

[JsonSchemaValue Class](#) [[1421](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[1345](#)]

2.2.4.6.1.6.3.1.1 JsonSchemaValue.Equals Method (Object)

Determines whether the specified [Object](#) is equal to the current [JsonSchemaValue](#) [[1421](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(
    Object obj
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [JsonSchemaValue](#) [[1421](#)].

Return Value

Type: [Boolean](#)

true if obj is equal to the current [JsonSchemaValue](#) [► 1421]; otherwise, false.

Reference

[JsonSchemaValue Class](#) [► 1421]

[Equals Overload](#) [► 1458]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.6.3.1.2 **JsonSchemaValue.Equals Method (JsonSchemaValue)**

Indicates whether the current [JsonSchemaValue](#) [► 1421] is equal to another [JsonSchemaValue](#) [► 1421].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    JsonSchemaValue other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [► 1421]
The [JsonSchemaValue](#) [► 1421] to compare with this [JsonSchemaValue](#) [► 1421].

Return Value

Type: [Boolean](#)

true if the current [JsonSchemaValue](#) [► 1421] is equal to the other [JsonSchemaValue](#) [► 1421]; otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[JsonSchemaValue Class](#) [► 1421]

[Equals Overload](#) [► 1458]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.6.3.2 **JsonSchemaValue.GetHashCode Method**

Serves as the default hash function.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[JsonSchemaValue Class](#) [[▶ 1421](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.6.3.3 JsonSchemaValue.ToString Method

Overload List

	Name	Description
	ToString [▶ 1462]	Returns a String that represents the current Value [▶ 952]. (Overrides JsonValue.ToString . [▶ 1577].)
	ToString(IFormatProvider) [▶ 1125]	Converts the Value [▶ 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [▶ 952].)
	ToString(Boolean) [▶ 1463]	Returns a String that represents the current JsonSchemaValue [▶ 1421].

Reference

[JsonSchemaValue Class](#) [[▶ 1421](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.6.3.3.1 JsonSchemaValue.ToString Method

Returns a [String](#) that represents the current [Value](#) [[▶ 952](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A [String](#) that represents the current [Value](#) [[▶ 952](#)].

Reference

[JsonSchemaValue Class](#) [[▶ 1421](#)]

[ToString Overload \[► 1462\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.6.3.3.2 **JsonSchemaValue.ToString Method (Boolean)**

Returns a [String](#) that represents the current [JsonSchemaValue](#) [► 1421].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string ToString(  
    bool omitDefinitions  
)
```

Parameters

omitDefinitions Type: [System.Boolean](#)
true to omit the [Definitions](#) [► 1443] in the returned [String](#); otherwise, false to add them to the returned [String](#).

Return Value

Type: [String](#)
A [String](#) that represents the current [JsonSchemaValue](#) [► 1421].

Reference

[JsonSchemaValue Class](#) [► 1421]

[ToString Overload](#) [► 1462]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.6.3.4 **JsonSchemaValue.ToValue Method**

Overload List

	Name	Description
	ToValue [► 1577]	Returns a Value [► 952] that represents the current JsonValue [► 1542]. (Inherited from JsonValue [► 1542].)
	ToValue(Boolean) [► 1463]	Returns a Value [► 952] that represents the current JsonSchemaValue [► 1421].

Reference

[JsonSchemaValue Class](#) [► 1421]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.6.3.4.1 **JsonSchemaValue.ToValue Method (Boolean)**

Returns a [Value](#) [► 952] that represents the current [JsonSchemaValue](#) [► 1421].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value ToValue(  
    bool omitDefinitions  
)
```

Parameters

omitDefinitions Type: [System.Boolean](#)
true to omit the [Definitions \[► 1443\]](#) in the returned [Value \[► 952\]](#); otherwise, false to add them to the returned [Value \[► 952\]](#).

Return Value

Type: [Value \[► 952\]](#)

A [Value \[► 952\]](#) that represents the current [JsonSchemaValue \[► 1421\]](#).

Reference

[JsonSchemaValue Class \[► 1421\]](#)

[ToValue Overload \[► 1463\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.7 SortedDynamicSymbolsProvider Class

Provides dynamic symbols in TwinCAT HMI server extensions. The [Symbol \[► 1477\]](#)s are sorted using [StringComparer \[► 1473\]](#)

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.DynamicSymbolsProvider \[► 1391\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.SortedDynamicSymbolsProvider](#)

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class SortedDynamicSymbolsProvider : DynamicSymbolsProvider
```

The SortedDynamicSymbolsProvider type exposes the following members.

Constructors

	Name	Description
	SortedDynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>) [► 1470]	Initializes a new instance of the SortedDynamicSymbolsProvider class with the specified Symbol [► 1477]s and Ordinal .
	SortedDynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, Boolean) [► 1471]	Initializes a new instance of the SortedDynamicSymbolsProvider class with the specified Symbol [► 1477]s and Ordinal .
	SortedDynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, IComparer<String>) [► 1471]	Initializes a new instance of the SortedDynamicSymbolsProvider class with the specified Symbol [► 1477]s and an IComparer<T> that is used to sort the Symbol [► 1477]s and Definition [► 1348]s.
	SortedDynamicSymbolsProvider(IEnumerable<KeyValuePair<String, Symbol>>, IComparer<String>, Boolean) [► 1472]	Initializes a new instance of the SortedDynamicSymbolsProvider class with the specified Symbol [► 1477]s and an IComparer<T> that is used to sort the Symbol [► 1477]s and Definition [► 1348]s.

Properties

	Name	Description
	<u>Count</u> [▶ 1401]	Gets the number of <u>Symbol</u> [▶ 1477]s contained in the <u>DynamicSymbolsProvider</u> [▶ 1391]. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)
	<u>Definitions</u> [▶ 1402]	Gets the <u>Definition</u> [▶ 1348]s of the <u>Symbol</u> [▶ 1477]s of the <u>DynamicSymbolsProvider</u> [▶ 1391]. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)
	<u>IsReadOnly</u> [▶ 1402]	Gets a value indicating whether the <u>DynamicSymbolsProvider</u> [▶ 1391] is read-only. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)
	<u>Item</u> [▶ 1402]	Gets or sets the <u>Symbol</u> [▶ 1477] with the specified key. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)
	<u>Keys</u> [▶ 1403]	Gets an <u>ICollection.T</u> , containing the keys of the <u>Symbol</u> [▶ 1477]s. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)
	<u>StringComparer</u> [▶ 1473]	Gets the <u>IComparer.T</u> , that is used to sort the <u>Symbol</u> [▶ 1477]s and <u>Definition</u> [▶ 1348]s.
	<u>Values</u> [▶ 1403]	Gets an <u>ICollection.T</u> , containing the <u>Symbol</u> [▶ 1477]s. (Inherited from <u>DynamicSymbolsProvider</u> [▶ 1391].)

Methods

	Name	Description
	Add [► 1407]	Adds a Symbol [► 1477] with the specified key to the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	AddOrUpdate [► 1407]	Add a Symbol [► 1477] to the DynamicSymbolsProvider [► 1391] if the specified key does not already exist, or updates an existing Symbol [► 1477] of the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	Clear [► 1408]	Removes all Symbol [► 1477] s from the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	ContainsKey [► 1408]	Determines whether the DynamicSymbolsProvider [► 1391] contains a Symbol [► 1477] with the specified key. (Inherited from DynamicSymbolsProvider [► 1391] .)
	CopyTo [► 1409]	Copies the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] to a compatible one-dimensional array, starting at the specified index of the target array. (Inherited from DynamicSymbolsProvider [► 1391] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetEnumerator or [► 1410]	Returns an IEnumerator.T that iterates through the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetSchema(Queue.String.) [► 1410]	Gets the schema of the Symbol [► 1477] at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetSchema(String) [► 1411]	Gets the schema of the Symbol [► 1477] at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetSchema(String, Queue.String.) [► 1412]	Gets the schema of the Symbol [► 1477] with the specified key at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	HandleCommand [► 1412]	Handles the specified Command [► 788] . (Inherited from DynamicSymbolsProvider [► 1391] .)

	Name	Description
	HandleCommands [▶ 1413]	Handles the Command [▶ 788]s in the specified CommandGroup [▶ 807]. (Inherited from DynamicSymbolsProvider [▶ 1391].)
	HandleException [▶ 1413]	Handles the Exception that was thrown while handling the specified Command [▶ 788]. (Inherited from DynamicSymbolsProvider [▶ 1391].)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove [▶ 1414]	Removes the Symbol [▶ 1477] with the specified key from the DynamicSymbolsProvider [▶ 1391]. (Inherited from DynamicSymbolsProvider [▶ 1391].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	TryGetValue [▶ 1415]	Gets the Symbol [▶ 1477] associated with the specified key. (Inherited from DynamicSymbolsProvider [▶ 1391].)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.7.1 *SortedDynamicSymbolsProvider Constructor*

Overload List

	Name	Description
	SortedDynamicSymbolsProvider(Enumerable.KeyValuePair<String, Symbol>...) [► 1470]	Initializes a new instance of the SortedDynamicSymbolsProvider [► 1464] class with the specified Symbol [► 1477]s and Ordinal .
	SortedDynamicSymbolsProvider(Enumerable.KeyValuePair<String, Symbol>..., Boolean) [► 1471]	Initializes a new instance of the SortedDynamicSymbolsProvider [► 1464] class with the specified Symbol [► 1477]s and Ordinal .
	SortedDynamicSymbolsProvider(Enumerable.KeyValuePair<String, Symbol>..., IComparer<String>) [► 1471]	Initializes a new instance of the SortedDynamicSymbolsProvider [► 1464] class with the specified Symbol [► 1477]s and an IComparer<String> that is used to sort the Symbol [► 1477]s and Definition [► 1348]s.
	SortedDynamicSymbolsProvider(Enumerable.KeyValuePair<String, Symbol>..., IComparer<String>, Boolean) [► 1472]	Initializes a new instance of the SortedDynamicSymbolsProvider [► 1464] class with the specified Symbol [► 1477]s and an IComparer<String> that is used to sort the Symbol [► 1477]s and Definition [► 1348]s.

Reference

[SortedDynamicSymbolsProvider Class](#) [► 1464]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.7.1.1 *SortedDynamicSymbolsProvider Constructor (IEnumerable<KeyValuePair<String, Symbol>>)*

Initializes a new instance of the [SortedDynamicSymbolsProvider](#) [► 1464] class with the specified [Symbol](#) [► 1477]s and [Ordinal](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SortedDynamicSymbolsProvider(  
    IEnumerable<KeyValuePair<string, Symbol>> symbols  
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.

Reference

[SortedDynamicSymbolsProvider Class \[► 1464\]](#)

[SortedDynamicSymbolsProvider Overload \[► 1470\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.7.1.2 SortedDynamicSymbolsProvider Constructor (IEnumerable.KeyValuePair.String, Symbol., Boolean)

Initializes a new instance of the [SortedDynamicSymbolsProvider \[► 1464\]](#) class with the specified [Symbol \[► 1477\]](#)s and [Ordinal](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SortedDynamicSymbolsProvider(  
    IEnumerable<KeyValuePair<string, Symbol>> symbols,  
    bool handleException  
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol \[► 1477\]](#)..
An [IEnumerable.T.](#) containing the [Symbol \[► 1477\]](#)s of the TwinCAT HMI server extension.

handleException Type: [System.Boolean](#)
true to invoke [HandleException\(Command, Exception\) \[► 1413\]](#) if an [Exception](#) is thrown while handling a [Command \[► 788\]](#); otherwise, false to rethrow the original [Exception](#).

Reference

[SortedDynamicSymbolsProvider Class \[► 1464\]](#)

[SortedDynamicSymbolsProvider Overload \[► 1470\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.7.1.3 SortedDynamicSymbolsProvider Constructor (IEnumerable.KeyValuePair.String, Symbol., IComparer.String.)

Initializes a new instance of the [SortedDynamicSymbolsProvider \[► 1464\]](#) class with the specified [Symbol \[► 1477\]](#)s and an [IComparer.T.](#) that is used to sort the [Symbol \[► 1477\]](#)s and [Definition \[► 1348\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SortedDynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols,
    IComparer<string> stringComparer
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol](#) [[▶ 1477](#)].
An [IEnumerable.T](#) containing the [Symbol](#) [[▶ 1477](#)]s of the TwinCAT HMI server extension.

stringComparer Type: [System.Collections.Generic.IComparer.String](#).
An [IComparer.T](#) that is used to sort the [Symbol](#) [[▶ 1477](#)]s and [Definition](#) [[▶ 1348](#)]s. -or- null to not sort the [Symbol](#) [[▶ 1477](#)]s and [Definition](#) [[▶ 1348](#)]s.

Reference

[SortedDynamicSymbolsProvider Class](#) [[▶ 1464](#)]

[SortedDynamicSymbolsProvider Overload](#) [[▶ 1470](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.7.1.4 SortedDynamicSymbolsProvider Constructor (IEnumerable.KeyValuePair.String, Symbol., IComparer.String., Boolean)

Initializes a new instance of the [SortedDynamicSymbolsProvider](#) [[▶ 1464](#)] class with the specified [Symbol](#) [[▶ 1477](#)]s and an [IComparer.T](#) that is used to sort the [Symbol](#) [[▶ 1477](#)]s and [Definition](#) [[▶ 1348](#)]s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SortedDynamicSymbolsProvider(
    IEnumerable<KeyValuePair<string, Symbol>> symbols,
    IComparer<string> stringComparer,
    bool handleException
)
```

Parameters

symbols Type: [System.Collections.Generic.IEnumerable.KeyValuePair.String, Symbol](#) [[▶ 1477](#)].
An [IEnumerable.T](#) containing the [Symbol](#) [[▶ 1477](#)]s of the TwinCAT HMI server extension.

stringComparer Type: [System.Collections.Generic.IComparer.String](#).
An [IComparer.T](#) that is used to sort the [Symbol](#) [[▶ 1477](#)]s and [Definition](#) [[▶ 1348](#)]s. -or- null to not sort the [Symbol](#) [[▶ 1477](#)]s and [Definition](#) [[▶ 1348](#)]s.

handleException Type: [System.Boolean](#)
true to invoke [HandleException\(Command, Exception\)](#) [[▶ 1413](#)] if an [Exception](#) is thrown while handling a [Command](#) [[▶ 788](#)]; otherwise, false to rethrow the original [Exception](#).

Reference

[SortedDynamicSymbolsProvider Class \[► 1464\]](#)

[SortedDynamicSymbolsProvider Overload \[► 1470\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.7.2 SortedDynamicSymbolsProvider Properties

The [SortedDynamicSymbolsProvider \[► 1464\]](#) type exposes the following members.

Properties

	Name	Description
	Count [► 1401]	Gets the number of Symbol [► 1477] s contained in the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	Definitions [► 1402]	Gets the Definition [► 1348] s of the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	IsReadOnly [► 1402]	Gets a value indicating whether the DynamicSymbolsProvider [► 1391] is read-only. (Inherited from DynamicSymbolsProvider [► 1391] .)
	Item [► 1402]	Gets or sets the Symbol [► 1477] with the specified key. (Inherited from DynamicSymbolsProvider [► 1391] .)
	Keys [► 1403]	Gets an ICollection.T , containing the keys of the Symbol [► 1477] s. (Inherited from DynamicSymbolsProvider [► 1391] .)
	StringComparer [► 1473]	Gets the IComparer.T , that is used to sort the Symbol [► 1477] s and Definition [► 1348] s.
	Values [► 1403]	Gets an ICollection.T , containing the Symbol [► 1477] s. (Inherited from DynamicSymbolsProvider [► 1391] .)

Reference

[SortedDynamicSymbolsProvider Class \[► 1464\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.7.2.1 SortedDynamicSymbolsProvider.StringComparer Property

Gets the [IComparer.T](#), that is used to sort the [Symbol \[► 1477\]](#)s and [Definition \[► 1348\]](#)s.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IComparer<string> StringComparer { get; }
```

Property Value

Type: [IComparer.String](#).

Reference

[SortedDynamicSymbolsProvider Class](#) [► 1464]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.7.3 *SortedDynamicSymbolsProvider Methods*

The [SortedDynamicSymbolsProvider](#) [► 1464] type exposes the following members.

Methods

	Name	Description
	Add [► 1407]	Adds a Symbol [► 1477] with the specified key to the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	AddOrUpdate [► 1407]	Add a Symbol [► 1477] to the DynamicSymbolsProvider [► 1391] if the specified key does not already exist, or updates an existing Symbol [► 1477] of the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	Clear [► 1408]	Removes all Symbol [► 1477] s from the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	ContainsKey [► 1408]	Determines whether the DynamicSymbolsProvider [► 1391] contains a Symbol [► 1477] with the specified key. (Inherited from DynamicSymbolsProvider [► 1391] .)
	CopyTo [► 1409]	Copies the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] to a compatible one-dimensional array, starting at the specified index of the target array. (Inherited from DynamicSymbolsProvider [► 1391] .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetEnumerator or [► 1410]	Returns an IEnumerator.T that iterates through the Symbol [► 1477] s of the DynamicSymbolsProvider [► 1391] . (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetSchema(Queue.String.) [► 1410]	Gets the schema of the Symbol [► 1477] at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetSchema(String) [► 1411]	Gets the schema of the Symbol [► 1477] at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetSchema(String, Queue.String.) [► 1412]	Gets the schema of the Symbol [► 1477] with the specified key at the specified path. (Inherited from DynamicSymbolsProvider [► 1391] .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	HandleCommand [► 1412]	Handles the specified Command [► 788] . (Inherited from DynamicSymbolsProvider [► 1391] .)

	Name	Description
	HandleCommands [1413]	Handles the Command [788]s in the specified CommandGroup [807]. (Inherited from DynamicSymbolsProvider [1391].)
	HandleException [1413]	Handles the Exception that was thrown while handling the specified Command [788]. (Inherited from DynamicSymbolsProvider [1391].)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove [1414]	Removes the Symbol [1477] with the specified key from the DynamicSymbolsProvider [1391]. (Inherited from DynamicSymbolsProvider [1391].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	TryGetValue [1415]	Gets the Symbol [1477] associated with the specified key. (Inherited from DynamicSymbolsProvider [1391].)

Reference

[SortedDynamicSymbolsProvider Class](#) [[1464](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[1345](#)]

2.2.4.6.1.8 Symbol Class

Represents a symbol of a TwinCAT HMI server extension.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithValue](#) [[1510](#)]

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract class Symbol : IEquatable<Symbol>
```

The Symbol type exposes the following members.

Constructors

	Name	Description
	Symbol(JsonSchemaValue) [► 1481]	Initializes a new instance of the Symbol class with the specified schema.
	Symbol(JsonSchemaValue, Nullable.Boolean) [► 1481]	Initializes a new instance of the Symbol class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue) [► 1482]	Initializes a new instance of the Symbol class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean) [► 1482]	Initializes a new instance of the Symbol class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean) [► 1483]	Initializes a new instance of the Symbol class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [► 1484]	Initializes a new instance of the Symbol class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [► 1484]	Initializes a new instance of the Symbol class with the specified schemes.

Properties

	Name	Description
	<u>Definitions</u> [▶ 1486]	Gets the <u>Definition</u> [▶ 1348]s of the Symbol.
	<u>Doc</u> [▶ 1486]	Gets the documentation of the Symbol.
	<u>Function</u> [▶ 1486]	Gets a value that indicates whether the Symbol is a function.
	<u>ReadOnly</u> [▶ 1487]	Gets a value that indicates whether the Symbol is read-only.
	<u>ReadValue</u> [▶ 1487]	Gets the read value of the Symbol.
	<u>Schema</u> [▶ 1487]	Gets the <u>JsonSchemaValue</u> [▶ 1421] representing the JSON schema of the Symbol.
	<u>WriteValue</u> [▶ 1488]	Gets the write value of the Symbol.

Methods

	Name	Description
	<u>Equals(Object)</u> [▶ 1489]	Determines whether the specified <u>Object</u> is equal to the current Symbol. (Overrides <u>Object.Equals(Object)</u> .)
	<u>Equals(Symbol)</u> [▶ 1490]	Indicates whether the current Symbol is equal to another Symbol.
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u> [▶ 1491]	Serves as the default hash function. (Overrides <u>Object.GetHashCode</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>Read</u> [▶ 1491]	Reads the <u>Value</u> [▶ 952] at the specified path from the current Symbol.
	<u>ToString</u> [▶ 1492]	Returns a string that represents the current object. (Overrides <u>Object.ToString</u> .)
	<u>Write</u> [▶ 1492]	Writes the specified <u>Value</u> [▶ 952] at the specified path to the current Symbol.

Reference

TcHmiSrv.Core.Tools.DynamicSymbols Namespace [▶ 1345]

2.2.4.6.1.8.1 *Symbol Constructor*

Overload List

	Name	Description
	Symbol(JsonSchemaValue) [▶ 1481]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schema.
	Symbol(JsonSchemaValue, Nullable.Boolean) [▶ 1481]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue) [▶ 1482]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean) [▶ 1482]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean) [▶ 1483]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [▶ 1484]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.
	Symbol(JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [▶ 1484]	Initializes a new instance of the Symbol [▶ 1477] class with the specified schemes.

Reference

[Symbol Class \[► 1477\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.1 Symbol Constructor (JsonSchemaValue)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schema.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(  
    JsonSchemaValue readValue  
)
```

Parameters

readValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [Symbol \[► 1477\]](#).

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.2 Symbol Constructor (JsonSchemaValue, Nullable.Boolean.)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(  
    JsonSchemaValue readValue,  
    Nullable<bool> function  
)
```

Parameters

readValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [Symbol \[► 1477\]](#).

function Type: [System.Nullable.Boolean.](#)
A value that indicates whether the [Symbol \[► 1477\]](#) is a function. -or- null to use the default value.

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.3 Symbol Constructor (JsonSchemaValue, JsonSchemaValue)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(  
    JsonSchemaValue readValue,  
    JsonSchemaValue writeValue  
)
```

Parameters

readValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [Symbol \[► 1477\]](#).

writeValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the write value of the [Symbol \[► 1477\]](#).

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.4 Symbol Constructor (JsonSchemaValue, JsonSchemaValue, Nullable.Boolean.)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(  
    JsonSchemaValue readValue,  
    JsonSchemaValue writeValue,  
    Nullable<bool> function  
)
```

Parameters

- readValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [Symbol \[► 1477\]](#).
- writeValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the write value of the [Symbol \[► 1477\]](#).
- function** Type: [System.Nullable.Boolean](#).
A value that indicates whether the [Symbol \[► 1477\]](#) is a function. -or- null to use the default value.

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.5 **Symbol Constructor (JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean.)**

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(  
    JsonSchemaValue readValue,  
    JsonSchemaValue writeValue,  
    Nullable<bool> function,  
    Nullable<bool> readOnly  
)
```

Parameters

- readValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [Symbol \[► 1477\]](#).
- writeValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the write value of the [Symbol \[► 1477\]](#).
- function** Type: [System.Nullable.Boolean](#).
A value that indicates whether the [Symbol \[► 1477\]](#) is a function. -or- null to use the default value.
- readOnly** Type: [System.Nullable.Boolean](#).
A value that indicates whether the [Symbol \[► 1477\]](#) is read-only. -or- null to use the default value.

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.6 Symbol Constructor (JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., String)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    string doc
)
```

Parameters

readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the Symbol [► 1477] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the Symbol [► 1477] .
function	Type: System.Nullable.Boolean. A value that indicates whether the Symbol [► 1477] is a function. -or- null to use the default value.
doc	Type: System.String The documentation of the Symbol [► 1477] .

Reference

[Symbol Class \[► 1477\]](#)

[Symbol Overload \[► 1480\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.1.7 Symbol Constructor (JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean., String)

Initializes a new instance of the [Symbol \[► 1477\]](#) class with the specified schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Symbol(
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    Nullable<bool> readOnly,
    string doc
)
```


Parameters

readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [▸ 1421] A JsonSchemaValue [▸ 1421] that represents the JSON schema of the read value of the Symbol [▸ 1477] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [▸ 1421] A JsonSchemaValue [▸ 1421] that represents the JSON schema of the write value of the Symbol [▸ 1477] .
function	Type: System.Nullable.Boolean . A value that indicates whether the Symbol [▸ 1477] is a function. -or- null to use the default value.
readOnly	Type: System.Nullable.Boolean . A value that indicates whether the Symbol [▸ 1477] is read-only. -or- null to use the default value.
doc	Type: System.String The documentation of the Symbol [▸ 1477] .

Reference[Symbol Class \[▸ 1477\]](#)[Symbol Overload \[▸ 1480\]](#)[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[▸ 1345\]](#)**2.2.4.6.1.8.2 Symbol Properties**

The [Symbol \[▸ 1477\]](#) type exposes the following members.

Properties

	Name	Description
	Definitions [▸ 1486]	Gets the Definition [▸ 1348] s of the Symbol [▸ 1477] .
	Doc [▸ 1486]	Gets the documentation of the Symbol [▸ 1477] .
	Function [▸ 1486]	Gets a value that indicates whether the Symbol [▸ 1477] is a function.
	ReadOnly [▸ 1487]	Gets a value that indicates whether the Symbol [▸ 1477] is read-only.
	ReadValue [▸ 1487]	Gets the read value of the Symbol [▸ 1477] .
	Schema [▸ 1487]	Gets the JsonSchemaValue [▸ 1421] representing the JSON schema of the Symbol [▸ 1477] .
	WriteValue [▸ 1488]	Gets the write value of the Symbol [▸ 1477] .

Reference[Symbol Class \[▸ 1477\]](#)[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[▸ 1345\]](#)

2.2.4.6.1.8.2.1 Symbol.Definitions Property

Gets the [Definition](#) [► 1348]s of the [Symbol](#) [► 1477].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ReadOnlyDictionary<string, Definition> Definitions { get; }
```

Property Value

Type: [ReadOnlyDictionary.String](#), [Definition](#) [► 1348].

Reference

[Symbol Class](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.8.2.2 Symbol.Doc Property

Gets the documentation of the [Symbol](#) [► 1477].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public string Doc { get; }
```

Property Value

Type: [String](#)

Reference

[Symbol Class](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.8.2.3 Symbol.Function Property

Gets a value that indicates whether the [Symbol](#) [► 1477] is a function.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Nullable<bool> Function { get; }
```

Property Value

Type: [Nullable.Boolean](#).

Reference

[Symbol Class](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.8.2.4 Symbol.ReadOnly Property

Gets a value that indicates whether the [Symbol](#) [► 1477] is read-only.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Nullable<bool> ReadOnly { get; }
```

Property Value

Type: [Nullable.Boolean](#).

Reference

[Symbol Class](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.8.2.5 Symbol.ReadValue Property

Gets the read value of the [Symbol](#) [► 1477].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue ReadValue { get; }
```

Property Value

Type: [JsonSchemaValue](#) [► 1421]

Reference

[Symbol Class](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.8.2.6 Symbol.Schema Property

Gets the [JsonSchemaValue](#) [► 1421] representing the JSON schema of the [Symbol](#) [► 1477].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue Schema { get; }
```

Property Value

Type: [JsonSchemaValue](#) [[▶ 1421](#)]

Reference

[Symbol Class](#) [[▶ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.8.2.7 **Symbol.WriteValue Property**

Gets the write value of the [Symbol](#) [[▶ 1477](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue WriteValue { get; }
```

Property Value

Type: [JsonSchemaValue](#) [[▶ 1421](#)]

Reference

[Symbol Class](#) [[▶ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.8.3 **Symbol Methods**

The [Symbol](#) [[▶ 1477](#)] type exposes the following members.

Methods

	Name	Description
	Equals(Object) [▸ 1489]	Determines whether the specified Object is equal to the current Symbol [▸ 1477]. (Overrides Object.Equals(Object) .)
	Equals(Symbol) [▸ 1490]	Indicates whether the current Symbol [▸ 1477] is equal to another Symbol [▸ 1477].
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [▸ 1491]	Serves as the default hash function. (Overrides Object.GetHashCode .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Read [▸ 1491]	Reads the Value [▸ 952] at the specified path from the current Symbol [▸ 1477].
	ToString [▸ 1492]	Returns a string that represents the current object. (Overrides Object.ToString .)
	Write [▸ 1492]	Writes the specified Value [▸ 952] at the specified path to the current Symbol [▸ 1477].

Reference

[Symbol Class](#) [[▸ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▸ 1345](#)]

2.2.4.6.1.8.3.1 **Symbol.Equals Method**

Overload List

	Name	Description
	Equals(Object) [▸ 1489]	Determines whether the specified Object is equal to the current Symbol [▸ 1477]. (Overrides Object.Equals(Object) .)
	Equals(Symbol) [▸ 1490]	Indicates whether the current Symbol [▸ 1477] is equal to another Symbol [▸ 1477].

Reference

[Symbol Class](#) [[▸ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▸ 1345](#)]

2.2.4.6.1.8.3.1.1 **Symbol.Equals Method (Object)**

Determines whether the specified [Object](#) is equal to the current [Symbol](#) [[▸ 1477](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [Symbol \[► 1477\]](#).

Return Value

Type: [Boolean](#)
true if obj is equal to the current [Symbol \[► 1477\]](#); otherwise, false.

Reference

[Symbol Class \[► 1477\]](#)

[Equals Overload \[► 1489\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.3.1.2 Symbol.Equals Method (Symbol)

Indicates whether the current [Symbol \[► 1477\]](#) is equal to another [Symbol \[► 1477\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    Symbol other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Tools.DynamicSymbols.Symbol \[► 1477\]](#)
The [Symbol \[► 1477\]](#) to compare with this [Symbol \[► 1477\]](#).

Return Value

Type: [Boolean](#)
true if the current [Symbol \[► 1477\]](#) is equal to the other [Symbol \[► 1477\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[Symbol Class \[► 1477\]](#)

[Equals Overload \[► 1489\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.3.2 Symbol.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[Symbol Class \[► 1477\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.3.3 Symbol.Read Method

Reads the [Value \[► 952\]](#) at the specified path from the current [Symbol \[► 1477\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected abstract Value Read(  
    Queue<string> elements  
)
```

Parameters

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#). containing the elements that specify the path of [Value \[► 952\]](#) to read from.

Return Value

Type: [Value \[► 952\]](#)

The [Value \[► 952\]](#) that was read from [Value \[► 952\]](#) at the specified path.

Reference

[Symbol Class \[► 1477\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.8.3.4 Symbol.ToString Method

Returns a string that represents the current object.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A string that represents the current object.

Reference

[Symbol Class](#) [[▶ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.8.3.5 Symbol.Write Method

Writes the specified [Value](#) [[▶ 952](#)] at the specified path to the current [Symbol](#) [[▶ 1477](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected abstract Value Write(  
    Queue<string> elements,  
    Value value  
)
```

Parameters

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#) containing the elements that specify the path of [Value](#) [[▶ 952](#)] to write to.

value Type: [TcHmiSrv.Core.Value](#) [[▶ 952](#)]
The [Value](#) [[▶ 952](#)] to write.

Return Value

Type: [Value](#) [[▶ 952](#)]

The [Value](#) [[▶ 952](#)] that was written to [Value](#) [[▶ 952](#)] at the specified path.

Reference

[Symbol Class](#) [[▶ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.9 SymbolWithDirectValue Class

Represents a symbol of a TwinCAT HMI server extension with a [Value](#) [[▶ 952](#)] that can be set directly.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#) [[▶ 1477](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithValue](#) [[▶ 1510](#)]

 TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithDirectValue

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class SymbolWithDirectValue : SymbolWithValue
```

The SymbolWithDirectValue type exposes the following members.

Constructors

	Name	Description
	<u>SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue) [► 1501]</u>	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schema.
	<u>SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, Nullable.Boolean) [► 1502]</u>	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.
	<u>SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue) [► 1503]</u>	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.
	<u>SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean) [► 1504]</u>	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.

	Name	Description
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean) [► 1505]	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [► 1505]	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [► 1506]	Initializes a new instance of the SymbolWithDirectValue class with the specified Value [► 952], IEqualityComparer.T, and schemes.

Properties

	Name	Description
	<u>Definitions</u> [▸ 1486]	Gets the <u>Definition</u> [▸ 1348]s of the <u>Symbol</u> [▸ 1477]. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>Doc</u> [▸ 1486]	Gets the documentation of the <u>Symbol</u> [▸ 1477]. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>Function</u> [▸ 1486]	Gets a value that indicates whether the <u>Symbol</u> [▸ 1477] is a function. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>ReadOnly</u> [▸ 1487]	Gets a value that indicates whether the <u>Symbol</u> [▸ 1477] is read-only. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>ReadValue</u> [▸ 1487]	Gets the read value of the <u>Symbol</u> [▸ 1477]. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>Schema</u> [▸ 1487]	Gets the <u>JsonSchemaValue</u> [▸ 1421] representing the JSON schema of the <u>Symbol</u> [▸ 1477]. (Inherited from <u>Symbol</u> [▸ 1477].)
	<u>Value</u> [▸ 1508]	Gets the <u>Value</u> [▸ 952] of the <u>SymbolWithDirectValue</u> . (Overrides <u>SymbolWithValue.Value</u> [▸ 1524].)
	<u>WriteValue</u> [▸ 1488]	Gets the write value of the <u>Symbol</u> [▸ 1477]. (Inherited from <u>Symbol</u> [▸ 1477].)

Methods

	Name	Description
	Equals(Object) [▸ 1526]	Determines whether the specified Object is equal to the current SymbolWithValue [▸ 1510]. (Inherited from SymbolWithValue [▸ 1510].)
	Equals(Symbol) [▸ 1490]	Indicates whether the current Symbol [▸ 1477] is equal to another Symbol [▸ 1477]. (Inherited from Symbol [▸ 1477].)
	Equals(SymbolWithValue) [▸ 1526]	Indicates whether the current SymbolWithValue [▸ 1510] is equal to another SymbolWithValue [▸ 1510]. (Inherited from SymbolWithValue [▸ 1510].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [▸ 1527]	Serves as the default hash function. (Inherited from SymbolWithValue [▸ 1510].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Read [▸ 1527]	Reads the Value [▸ 952] at the specified path from Value [▸ 1524]. (Inherited from SymbolWithValue [▸ 1510].)
	SetValue [▸ 1509]	Sets the Value [▸ 1508] of the SymbolWithDirectValue .
	ToString [▸ 1492]	Returns a string that represents the current object. (Inherited from Symbol [▸ 1477].)
	Write [▸ 1528]	Writes the specified Value [▸ 952] at the specified path to Value [▸ 1524]. (Inherited from SymbolWithValue [▸ 1510].)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▸ 1345](#)]

2.2.4.6.1.9.1 *SymbolWithDirectValue Constructor*

Overload List

	Name	Description
	SymbolWithValue , IEqualityComparer.Value , JsonSchemaValue [▶ 1501]	Initializes a new instance of the SymbolWithValue [▶ 1492] class with the specified Value [▶ 952], IEqualityComparer.T , and schema.
	SymbolWithValue , IEqualityComparer.Value , JsonSchemaValue , Nullable.Boolean [▶ 1502]	Initializes a new instance of the SymbolWithValue [▶ 1492] class with the specified Value [▶ 952], IEqualityComparer.T , and schemes.
	SymbolWithValue , IEqualityComparer.Value , JsonSchemaValue , JsonSchemaValue [▶ 1503]	Initializes a new instance of the SymbolWithValue [▶ 1492] class with the specified Value [▶ 952], IEqualityComparer.T , and schemes.
	SymbolWithValue , IEqualityComparer.Value , JsonSchemaValue , JsonSchemaValue , Nullable.Boolean [▶ 1504]	Initializes a new instance of the SymbolWithValue [▶ 1492] class with the specified Value [▶ 952], IEqualityComparer.T , and schemes.

	Name	Description
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean) [► 1505]	Initializes a new instance of the SymbolWithDirectValue [► 1492] class with the specified Value [► 952] , IEqualityComparer.T , and schemes.
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [► 1505]	Initializes a new instance of the SymbolWithDirectValue [► 1492] class with the specified Value [► 952] , IEqualityComparer.T , and schemes.
	SymbolWithDirectValue(Value, IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [► 1506]	Initializes a new instance of the SymbolWithDirectValue [► 1492] class with the specified Value [► 952] , IEqualityComparer.T , and schemes.

Reference

[SymbolWithDirectValue Class \[► 1492\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.9.1.1 **SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value, JsonSchemaValue)**

Initializes a new instance of the [SymbolWithDirectValue \[► 1492\]](#) class with the specified [Value \[► 952\]](#), [IEqualityComparer.T](#), and schema.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue(  
    Value value,  
    IEqualityComparer<Value> valueComparer,  
    JsonSchemaValue readValue  
)
```

Parameters

- value** Type: [TcHmiSrv.Core.Value](#) [[► 952](#)]
The [Value](#) [[► 952](#)] of the [SymbolWithDirectValue](#) [[► 1492](#)].
- valueComparer** Type: [System.Collections.Generic.IEqualityComparer.Value](#) [[► 952](#)].
An [IEqualityComparer.T](#), that is used to compare [Value](#) [[► 1508](#)] with other [Value](#) [[► 952](#)]s. -or- null to use the default [IEqualityComparer.T](#), for [Value](#) [[► 952](#)]s.
- readValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [[► 1421](#)]
A [JsonSchemaValue](#) [[► 1421](#)] that represents the JSON schema of the read value of the [SymbolWithDirectValue](#) [[► 1492](#)].

Reference

[SymbolWithDirectValue Class](#) [[► 1492](#)]

[SymbolWithDirectValue Overload](#) [[► 1499](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.9.1.2 **SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, Nullable.Boolean.)**

Initializes a new instance of the [SymbolWithDirectValue](#) [[► 1492](#)] class with the specified [Value](#) [[► 952](#)], [IEqualityComparer.T](#), and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue(  
    Value value,  
    IEqualityComparer<Value> valueComparer,  
    JsonSchemaValue readValue,  
    Nullable<bool> function  
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] of the SymbolWithDirectValue [► 1492] .
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T. that is used to compare Value [► 1508] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T. for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [► 1492] .
function	Type: System.Nullable.Boolean. A value that indicates whether the SymbolWithDirectValue [► 1492] is a function. -or- null to use the default value.

Reference

[SymbolWithDirectValue Class \[► 1492\]](#)

[SymbolWithDirectValue Overload \[► 1499\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.9.1.3 **SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue)**

Initializes a new instance of the [SymbolWithDirectValue \[► 1492\]](#) class with the specified [Value \[► 952\]](#), [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public SymbolWithDirectValue (
    Value value,
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] of the SymbolWithDirectValue [► 1492] .
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T. that is used to compare Value [► 1508] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T. for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [► 1492] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithDirectValue [► 1492] .

Reference

[SymbolWithDirectValue Class \[► 1492\]](#)

[SymbolWithDirectValue Overload \[► 1499\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.9.1.4 SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean.)

Initializes a new instance of the [SymbolWithDirectValue \[► 1492\]](#) class with the specified [Value \[► 952\]](#), [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue (
    Value value,
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] of the SymbolWithDirectValue [► 1492] .
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T. that is used to compare Value [► 1508] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T. for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [► 1492] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithDirectValue [► 1492] .
function	Type: System.Nullable.Boolean. A value that indicates whether the SymbolWithDirectValue [► 1492] is a function. -or- null to use the default value.

Reference

[SymbolWithDirectValue Class \[► 1492\]](#)

[SymbolWithDirectValue Overload \[► 1499\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.9.1.5 SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean.)

Initializes a new instance of the [SymbolWithDirectValue](#) [► 1492] class with the specified [Value](#) [► 952], [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue (
    Value value,
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    Nullable<bool> readOnly
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] of the SymbolWithDirectValue [► 1492].
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952]. An IEqualityComparer.T. that is used to compare Value [► 1508] with other Value [► 952]s. -or- null to use the default IEqualityComparer.T. for Value [► 952]s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [► 1492].
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithDirectValue [► 1492].
function	Type: System.Nullable.Boolean. A value that indicates whether the SymbolWithDirectValue [► 1492] is a function. -or- null to use the default value.
readOnly	Type: System.Nullable.Boolean. A value that indicates whether the SymbolWithDirectValue [► 1492] is read-only. -or- null to use the default value.

Reference

[SymbolWithDirectValue Class](#) [► 1492]

[SymbolWithDirectValue Overload](#) [► 1499]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.9.1.6 SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., String)

Initializes a new instance of the [SymbolWithDirectValue](#) [► 1492] class with the specified [Value](#) [► 952], [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue(
    Value value,
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    string doc
)
```

Parameters

value	Type: TcHmiSrv.Core.Value [▶ 952] The Value [▶ 952] of the SymbolWithDirectValue [▶ 1492].
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [▶ 952]. An IEqualityComparer.T . that is used to compare Value [▶ 1508] with other Value [▶ 952]s. -or- null to use the default IEqualityComparer.T . for Value [▶ 952]s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [▶ 1421] A JsonSchemaValue [▶ 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [▶ 1492].
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [▶ 1421] A JsonSchemaValue [▶ 1421] that represents the JSON schema of the write value of the SymbolWithDirectValue [▶ 1492].
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithDirectValue [▶ 1492] is a function. -or- null to use the default value.
doc	Type: System.String The documentation of the SymbolWithDirectValue [▶ 1492].

Reference

[SymbolWithDirectValue Class](#) [[▶ 1492](#)]

[SymbolWithDirectValue Overload](#) [[▶ 1499](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.9.1.7 SymbolWithDirectValue Constructor (Value, IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean., String)

Initializes a new instance of the [SymbolWithDirectValue](#) [[▶ 1492](#)] class with the specified [Value](#) [[▶ 952](#)], [IEqualityComparer.T](#). and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public SymbolWithDirectValue(
    Value value,
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
```

```

    JsonSchemaValue writeValue,
    Nullable<bool> function,
    Nullable<bool> readOnly,
    string doc
)

```

Parameters

value	Type: TcHmiSrv.Core.Value [► 952] The Value [► 952] of the SymbolWithDirectValue [► 1492] .
valueComparer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T , that is used to compare Value [► 1508] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T , for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithDirectValue [► 1492] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithDirectValue [► 1492] .
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithDirectValue [► 1492] is a function. -or- null to use the default value.
readOnly	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithDirectValue [► 1492] is read-only. -or- null to use the default value.
doc	Type: System.String The documentation of the SymbolWithDirectValue [► 1492] .

Reference

[SymbolWithDirectValue Class \[► 1492\]](#)

[SymbolWithDirectValue Overload \[► 1499\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.9.2 *SymbolWithDirectValue Properties*

The [SymbolWithDirectValue \[► 1492\]](#) type exposes the following members.

Properties

	Name	Description
	Definitions [▸ 1486]	Gets the Definition [▸ 1348] s of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Doc [▸ 1486]	Gets the documentation of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Function [▸ 1486]	Gets a value that indicates whether the Symbol [▸ 1477] is a function. (Inherited from Symbol [▸ 1477] .)
	ReadOnly [▸ 1487]	Gets a value that indicates whether the Symbol [▸ 1477] is read-only. (Inherited from Symbol [▸ 1477] .)
	ReadValue [▸ 1487]	Gets the read value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Schema [▸ 1487]	Gets the JsonSchemaValue [▸ 1421] representing the JSON schema of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Value [▸ 1508]	Gets the Value [▸ 952] of the SymbolWithDirectValue [▸ 1492] . (Overrides SymbolWithValue.Value [▸ 1524] .)
	WriteValue [▸ 1488]	Gets the write value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)

Reference

[SymbolWithDirectValue Class](#) [\[▸ 1492\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [\[▸ 1345\]](#)

2.2.4.6.1.9.2.1 SymbolWithDirectValue.Value Property

Gets the [Value](#) [\[▸ 952\]](#) of the [SymbolWithDirectValue](#) [\[▸ 1492\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [\[▸ 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
protected override Value Value { get; }
```

Property Value

Type: [Value](#) [\[▸ 952\]](#)

Reference

[SymbolWithDirectValue Class](#) [\[▸ 1492\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [\[▸ 1345\]](#)

2.2.4.6.1.9.3 SymbolWithDirectValue Methods

The [SymbolWithDirectValue](#) [\[▸ 1492\]](#) type exposes the following members.

Methods

	Name	Description
	Equals(Object) [▸ 1526]	Determines whether the specified Object is equal to the current SymbolWithValue [▸ 1510]. (Inherited from SymbolWithValue [▸ 1510].)
	Equals(Symbol) [▸ 1490]	Indicates whether the current Symbol [▸ 1477] is equal to another Symbol [▸ 1477]. (Inherited from Symbol [▸ 1477].)
	Equals(SymbolWithValue) [▸ 1526]	Indicates whether the current SymbolWithValue [▸ 1510] is equal to another SymbolWithValue [▸ 1510]. (Inherited from SymbolWithValue [▸ 1510].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [▸ 1527]	Serves as the default hash function. (Inherited from SymbolWithValue [▸ 1510].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Read [▸ 1527]	Reads the Value [▸ 952] at the specified path from Value [▸ 1524]. (Inherited from SymbolWithValue [▸ 1510].)
	SetValue [▸ 1509]	Sets the Value [▸ 1508] of the SymbolWithDirectValue [▸ 1492].
	ToString [▸ 1492]	Returns a string that represents the current object. (Inherited from Symbol [▸ 1477].)
	Write [▸ 1528]	Writes the specified Value [▸ 952] at the specified path to Value [▸ 1524]. (Inherited from SymbolWithValue [▸ 1510].)

Reference

[SymbolWithDirectValue Class](#) [[▸ 1492](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▸ 1345](#)]

2.2.4.6.1.9.3.1 [SymbolWithDirectValue.SetValue](#) Method

Sets the [Value](#) [[▸ 1508](#)] of the [SymbolWithDirectValue](#) [[▸ 1492](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▸ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public void SetValue(
    Value value
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
The [Value](#) [► 952] to set.

Reference

[SymbolWithDirectValue Class](#) [► 1492]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.10 SymbolWithValue Class

Represents a symbol of a TwinCAT HMI server extension with a [Value](#) [► 952].

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.Symbol](#) [► 1477]

[TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithValue](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithDirectValue](#) [► 1492]

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract class SymbolWithValue : Symbol,  
    IEquatable<SymbolWithValue>
```

The [SymbolWithValue](#) type exposes the following members.

Constructors

	Name	Description
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue) [▶ 1517]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T. and schema.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, Nullable.Boolean.) [▶ 1518]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T. and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue) [▶ 1519]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T. and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean.) [▶ 1519]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T. and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean.) [▶ 1520]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T. and schemes.

	Name	Description
	SymbolWithValue(IEqualityComparer.T, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [▸ 1521]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T , and schemes.
	SymbolWithValue(IEqualityComparer.Val ue, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [▸ 1522]	Initializes a new instance of the SymbolWithValue class with the specified IEqualityComparer.T , and schemes.

Properties

	Name	Description
	Definitions [▸ 1486]	Gets the Definition [▸ 1348] s of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Doc [▸ 1486]	Gets the documentation of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Function [▸ 1486]	Gets a value that indicates whether the Symbol [▸ 1477] is a function. (Inherited from Symbol [▸ 1477] .)
	ReadOnly [▸ 1487]	Gets a value that indicates whether the Symbol [▸ 1477] is read-only. (Inherited from Symbol [▸ 1477] .)
	ReadValue [▸ 1487]	Gets the read value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Schema [▸ 1487]	Gets the JsonSchemaValue [▸ 1421] representing the JSON schema of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Value [▸ 1524]	Gets the Value [▸ 952] of the SymbolWithValue. If you override property Value [▸ 1524] by not returning an instance variable and if you write to the Symbol [▸ 1477] , you must also override method Write(Queue.String, Value) [▸ 1492] .
	WriteValue [▸ 1488]	Gets the write value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)

Methods

	Name	Description
	Equals(Object) [▶ 1526]	Determines whether the specified Object is equal to the current SymbolWithValue . (Overrides Symbol.Equals(Object) [▶ 1489].)
	Equals(Symbol) [▶ 1490]	Indicates whether the current Symbol [▶ 1477] is equal to another Symbol [▶ 1477]. (Inherited from Symbol [▶ 1477].)
	Equals(SymbolWithValue) [▶ 1526]	Indicates whether the current SymbolWithValue is equal to another SymbolWithValue .
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [▶ 1527]	Serves as the default hash function. (Overrides Symbol.GetHashCode . [▶ 1491].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Read [▶ 1527]	Reads the Value [▶ 952] at the specified path from Value [▶ 1524]. (Overrides Symbol.Read(Queue.String.) [▶ 1491].)
	ToString [▶ 1492]	Returns a string that represents the current object. (Inherited from Symbol [▶ 1477].)
	Write [▶ 1528]	Writes the specified Value [▶ 952] at the specified path to Value [▶ 1524]. (Overrides Symbol.Write(Queue.String., Value) [▶ 1492].)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.10.1 *SymbolWithValue Constructor*

Overload List

	Name	Description
	SymbolWithValue(IEqualityComparer.T, JsonSchemaValue) [► 1517]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T and schema.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, Nullable.Boolean) [► 1518]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue) [► 1519]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean) [► 1519]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean) [► 1520]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T and schemes.

	Name	Description
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, String) [► 1521]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T , and schemes.
	SymbolWithValue(IEqualityComparer.Value, JsonSchemaValue, JsonSchemaValue, Nullable.Boolean, Nullable.Boolean, String) [► 1522]	Initializes a new instance of the SymbolWithValue [► 1510] class with the specified IEqualityComparer.T , and schemes.

Reference

[SymbolWithValue Class](#) [► 1510]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.10.1.1 **SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue)**

Initializes a new instance of the [SymbolWithValue](#) [► 1510] class with the specified [IEqualityComparer.T](#), and schema.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
protected SymbolWithValue(  
    IEqualityComparer<Value> valueComparer,  
    JsonSchemaValue readValue  
)
```

Parameters

valueComparer Type: [System.Collections.Generic.IEqualityComparer.Value \[► 952\]](#).
An [IEqualityComparer.T](#), that is used to compare [Value \[► 1524\]](#) with other [Value \[► 952\]](#)s. -or- null to use the default [IEqualityComparer.T](#), for [Value \[► 952\]](#)s.

readValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [SymbolWithValue \[► 1510\]](#).

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.1.2 **SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, Nullable.Boolean.)**

Initializes a new instance of the [SymbolWithValue \[► 1510\]](#) class with the specified [IEqualityComparer.T](#), and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected SymbolWithValue (
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    Nullable<bool> function
)
```

Parameters

valueComparer Type: [System.Collections.Generic.IEqualityComparer.Value \[► 952\]](#).
An [IEqualityComparer.T](#), that is used to compare [Value \[► 1524\]](#) with other [Value \[► 952\]](#)s. -or- null to use the default [IEqualityComparer.T](#), for [Value \[► 952\]](#)s.

readValue Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue \[► 1421\]](#)
A [JsonSchemaValue \[► 1421\]](#) that represents the JSON schema of the read value of the [SymbolWithValue \[► 1510\]](#).

function Type: [System.Nullable.Boolean](#).
A value that indicates whether the [SymbolWithValue \[► 1510\]](#) is a function. -or- null to use the default value.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.1.3 SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue)

Initializes a new instance of the [SymbolWithValue](#) [► 1510] class with the specified [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
protected SymbolWithValue(  
    IEqualityComparer<Value> valueComparer,  
    JsonSchemaValue readValue,  
    JsonSchemaValue writeValue  
)
```

Parameters

- valueComparer** Type: [System.Collections.Generic.IEqualityComparer.Value](#) [► 952].
An [IEqualityComparer.T.](#) that is used to compare [Value](#) [► 1524] with other [Value](#) [► 952]s. -or- null to use the default [IEqualityComparer.T.](#) for [Value](#) [► 952]s.
- readValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [► 1421]
A [JsonSchemaValue](#) [► 1421] that represents the JSON schema of the read value of the [SymbolWithValue](#) [► 1510].
- writeValue** Type: [TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [► 1421]
A [JsonSchemaValue](#) [► 1421] that represents the JSON schema of the write value of the [SymbolWithValue](#) [► 1510].

Reference

[SymbolWithValue Class](#) [► 1510]

[SymbolWithValue Overload](#) [► 1515]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.10.1.4 SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean.)

Initializes a new instance of the [SymbolWithValue](#) [► 1510] class with the specified [IEqualityComparer.T.](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
protected SymbolWithValue(  
    IEqualityComparer<Value> valueComparer,  
    JsonSchemaValue readValue,  
    JsonSchemaValue writeValue,  
    Nullable<bool> function  
)
```

Parameters

valueCompa rer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T , that is used to compare Value [► 1524] with other Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithValue [► 1510] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithValue [► 1510] .
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is a function. -or- null to use the default value.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.1.5 **SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean.)**

Initializes a new instance of the [SymbolWithValue \[► 1510\]](#) class with the specified [IEqualityComparer.T](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected SymbolWithValue (
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    Nullable<bool> readOnly
)
```

Parameters

valueCompa rer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T , that is used to compare Value [► 1524] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithValue [► 1510] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithValue [► 1510] .
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is a function. -or- null to use the default value.
readOnly	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is read-only. -or- null to use the default value.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.1.6 **SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., String)**

Initializes a new instance of the [SymbolWithValue \[► 1510\]](#) class with the specified [IEqualityComparer.T](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected SymbolWithValue(
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    string doc
)
```

Parameters

valueCompa rer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T , that is used to compare Value [► 1524] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithValue [► 1510] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithValue [► 1510] .
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is a function. -or- null to use the default value.
doc	Type: System.String The documentation of the SymbolWithValue [► 1510] .

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.1.7 **SymbolWithValue Constructor (IEqualityComparer.Value., JsonSchemaValue, JsonSchemaValue, Nullable.Boolean., Nullable.Boolean., String)**

Initializes a new instance of the [SymbolWithValue \[► 1510\]](#) class with the specified [IEqualityComparer.T](#) and schemes.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected SymbolWithValue(
    IEqualityComparer<Value> valueComparer,
    JsonSchemaValue readValue,
    JsonSchemaValue writeValue,
    Nullable<bool> function,
    Nullable<bool> readOnly,
    string doc
)
```

Parameters

valueCompa rer	Type: System.Collections.Generic.IEqualityComparer.Value [► 952] . An IEqualityComparer.T , that is used to compare Value [► 1524] with other Value [► 952] s. -or- null to use the default IEqualityComparer.T for Value [► 952] s.
readValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the read value of the SymbolWithValue [► 1510] .
writeValue	Type: TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue [► 1421] A JsonSchemaValue [► 1421] that represents the JSON schema of the write value of the SymbolWithValue [► 1510] .
function	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is a function. -or- null to use the default value.
readOnly	Type: System.Nullable.Boolean . A value that indicates whether the SymbolWithValue [► 1510] is read-only. -or- null to use the default value.
doc	Type: System.String The documentation of the SymbolWithValue [► 1510] .

Reference

[SymbolWithValue Class \[► 1510\]](#)

[SymbolWithValue Overload \[► 1515\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.2 *SymbolWithValue Properties*

The [SymbolWithValue \[► 1510\]](#) type exposes the following members.

Properties

	Name	Description
	Definitions [▸ 1486]	Gets the Definition [▸ 1348] s of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Doc [▸ 1486]	Gets the documentation of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Function [▸ 1486]	Gets a value that indicates whether the Symbol [▸ 1477] is a function. (Inherited from Symbol [▸ 1477] .)
	ReadOnly [▸ 1487]	Gets a value that indicates whether the Symbol [▸ 1477] is read-only. (Inherited from Symbol [▸ 1477] .)
	ReadValue [▸ 1487]	Gets the read value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Schema [▸ 1487]	Gets the JsonSchemaValue [▸ 1421] representing the JSON schema of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)
	Value [▸ 1524]	Gets the Value [▸ 952] of the SymbolWithValue [▸ 1510] . If you override property Value [▸ 1524] by not returning an instance variable and if you write to the Symbol [▸ 1477] , you must also override method Write(Queue.String., Value) [▸ 1492] .
	WriteValue [▸ 1488]	Gets the write value of the Symbol [▸ 1477] . (Inherited from Symbol [▸ 1477] .)

Reference

[SymbolWithValue Class \[▸ 1510\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[▸ 1345\]](#)

2.2.4.6.1.10.2.1 SymbolWithValue.Value Property

Gets the [Value \[▸ 952\]](#) of the [SymbolWithValue \[▸ 1510\]](#).

If you override property [Value](#) by not returning an instance variable and if you write to the [Symbol \[▸ 1477\]](#), you must also override method [Write\(Queue.String., Value\) \[▸ 1492\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[▸ 1345\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
protected abstract Value Value { get; }
```

Property Value

Type: [Value \[▸ 952\]](#)

Reference

[SymbolWithValue Class \[▸ 1510\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[▸ 1345\]](#)

2.2.4.6.1.10.3 *SymbolWithValue Methods*

The [SymbolWithValue](#) [► 1510] type exposes the following members.

Methods

	Name	Description
	Equals(Object) [► 1526]	Determines whether the specified Object is equal to the current SymbolWithValue [► 1510]. (Overrides Symbol.Equals(Object) [► 1489].)
	Equals(Symbol) [► 1490]	Indicates whether the current Symbol [► 1477] is equal to another Symbol [► 1477]. (Inherited from Symbol [► 1477].)
	Equals(SymbolWithValue) [► 1526]	Indicates whether the current SymbolWithValue [► 1510] is equal to another SymbolWithValue [► 1510].
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode [► 1527]	Serves as the default hash function. (Overrides Symbol.GetHashCode [► 1491].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Read [► 1527]	Reads the Value [► 952] at the specified path from Value [► 1524]. (Overrides Symbol.Read(Queue.String) [► 1491].)
	ToString [► 1492]	Returns a string that represents the current object. (Inherited from Symbol [► 1477].)
	Write [► 1528]	Writes the specified Value [► 952] at the specified path to Value [► 1524]. (Overrides Symbol.Write(Queue.String, Value) [► 1492].)

Reference

[SymbolWithValue Class](#) [► 1510]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.10.3.1 **SymbolWithValue.Equals Method**

Overload List

	Name	Description
	Equals(Object) [▶ 1526]	Determines whether the specified Object is equal to the current SymbolWithValue [▶ 1510]. (Overrides Symbol.Equals(Object) [▶ 1489].)
	Equals(Symbol) [▶ 1490]	Indicates whether the current Symbol [▶ 1477] is equal to another Symbol [▶ 1477]. (Inherited from Symbol [▶ 1477].)
	Equals(SymbolWithValue) [▶ 1526]	Indicates whether the current SymbolWithValue [▶ 1510] is equal to another SymbolWithValue [▶ 1510].

Reference

[SymbolWithValue Class](#) [[▶ 1510](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.10.3.1.1 **SymbolWithValue.Equals Method (Object)**

Determines whether the specified [Object](#) is equal to the current [SymbolWithValue](#) [[▶ 1510](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[▶ 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Object obj  
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [SymbolWithValue](#) [[▶ 1510](#)].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [SymbolWithValue](#) [[▶ 1510](#)]; otherwise, false.

Reference

[SymbolWithValue Class](#) [[▶ 1510](#)]

[Equals Overload](#) [[▶ 1526](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[▶ 1345](#)]

2.2.4.6.1.10.3.1.2 **SymbolWithValue.Equals Method (SymbolWithValue)**

Indicates whether the current [SymbolWithValue](#) [[▶ 1510](#)] is equal to another [SymbolWithValue](#) [[▶ 1510](#)].

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    SymbolWithValue other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Tools.DynamicSymbols.SymbolWithValue \[► 1510\]](#)
The [SymbolWithValue \[► 1510\]](#) to compare with this [SymbolWithValue \[► 1510\]](#).

Return Value

Type: [Boolean](#)

true if the current [SymbolWithValue \[► 1510\]](#) is equal to the other [SymbolWithValue \[► 1510\]](#); otherwise, false.

Implements

[IEquatable.T..Equals\(T\)](#)

Reference

[SymbolWithValue Class \[► 1510\]](#)

[Equals Overload \[► 1526\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.3.2 SymbolWithValue.GetHashCode Method

Serves as the default hash function.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.3.3 SymbolWithValue.Read Method

Reads the [Value \[► 952\]](#) at the specified path from [Value \[► 1524\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected override Value Read(  
    Queue<string> elements  
)
```

Parameters

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#). containing the elements that specify the path of [Value \[► 1524\]](#) to read from.

Return Value

Type: [Value \[► 952\]](#)

The [Value \[► 952\]](#) that was read from [Value \[► 1524\]](#) at the specified path.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.10.3.4 SymbolWithValue.Write Method

Writes the specified [Value \[► 952\]](#) at the specified path to [Value \[► 1524\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected override Value Write(  
    Queue<string> elements,  
    Value value  
)
```

Parameters

elements Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#). containing the elements that specify the path of [Value \[► 1524\]](#) to write to.

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to write.

Return Value

Type: [Value \[► 952\]](#)

The [Value \[► 952\]](#) that was written to [Value \[► 1524\]](#) at the specified path.

Reference

[SymbolWithValue Class \[► 1510\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.11 TcHmiJSchemaGenerator Class

Generates a [JsonSchemaValue](#) [► 1421] from a specified [Type](#).

Inheritance Hierarchy

[System.Object](#)

[JSchemaGenerator](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.TcHmiJSchemaGenerator](#)

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sealed class TcHmiJSchemaGenerator : JSchemaGenerator
```

The [TcHmiJSchemaGenerator](#) type exposes the following members.

Properties

	Name	Description
S	DefaultEnumGenerationProvider [► 1532]	Gets the default JSchemaGenerationProvider that customizes JSchema generation for all Types where IsEnum is true.
S	DefaultGenerator [► 1533]	Gets a new default TcHmiJSchemaGenerator .
S	DefaultRequired [► 1533]	Contains a value that indicates the default required state of JSON schemas. (Overrides JSchemaGenerator.DefaultRequired .)
S	GenerationProviders [► 1534]	Gets an IList.T. of JSchemaGenerationProviders that are used to customize JSchema generation. (Overrides JSchemaGenerator.GenerationProviders .)
S	PostContractResolver [► 1534]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type after JsonSchemaContractResolver [► 1415] tried to resolve the JsonContract .
S	PreContractResolver [► 1534]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type before ContractResolver tries to resolve the JsonContract .
S	SchemaIdGenerationHandling [► 1535]	Contains a value that indicates how IDs are generated for JSON schemas with no ID. (Overrides JSchemaGenerator.SchemaIdGenerationHandling .)
S	SchemaLocationHandling [► 1535]	Contains a value that indicates the location of referenced JSON schemas. (Overrides JSchemaGenerator.SchemaLocationHandling .)
S	SchemaPropertyOrderHandling	(Inherited from JSchemaGenerator .)
S	SchemaReferenceHandling	(Inherited from JSchemaGenerator .)

Methods

	Name	Description
	CreateEnumGenerationProvider [► 1536]	Creates a new JSchemaGenerationProvider for the specified Type where IsEnum is true.
	CreateGenerator [► 1537]	Creates a TcHmiJSchemaGenerator with the specified parameters.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Generate(Type) [► 1538]	Generates a JsonSchemaValue [► 1421] from the specified Type .
	Generate(Type, Boolean)	(Inherited from JSchemaGenerator .)
	GetGenerationProvider(Type) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the DefaultGenerator [► 1533] that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, JSchemaGenerator) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the specified JSchemaGenerator that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, IEnumerable<JSchemaGenerationProvider>) [► 1541]	Gets a JSchemaGenerationProvider from the specified IEnumerable.T of JSchemaGenerationProviders that can generate a JSchema for the specified Type .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1 TcHmiJSchemaGenerator Properties

The [TcHmiJSchemaGenerator](#) [[► 1529](#)] type exposes the following members.

Properties

	Name	Description
	DefaultEnumGenerationProvider [► 1532]	Gets the default JSchemaGenerationProvider that customizes JSchema generation for all Types where IsEnum is true.
	DefaultGenerator [► 1533]	Gets a new default TcHmiJSchemaGenerator [► 1529].
	DefaultRequired [► 1533]	Contains a value that indicates the default required state of JSON schemas. (Overrides JSchemaGenerator.DefaultRequired .)
	GenerationProviders [► 1534]	Gets an IList.T. of JSchemaGenerationProviders that are used to customize JSchema generation. (Overrides JSchemaGenerator.GenerationProviders .)
	PostContractResolver [► 1534]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type after JsonSchemaContractResolver [► 1415] tried to resolve the JsonContract .
	PreContractResolver [► 1534]	Contains the IContractResolver that is used to resolve a JsonContract for a given Type before ContractResolver tries to resolve the JsonContract .
	SchemaIdGenerationHandling [► 1535]	Contains a value that indicates how IDs are generated for JSON schemas with no ID. (Overrides JSchemaGenerator.SchemaIdGenerationHandling .)
	SchemaLocationHandling [► 1535]	Contains a value that indicates the location of referenced JSON schemas. (Overrides JSchemaGenerator.SchemaLocationHandling .)
	SchemaPropertyOrderHandling	(Inherited from JSchemaGenerator .)
	SchemaReferenceHandling	(Inherited from JSchemaGenerator .)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1.1 TcHmiJSchemaGenerator.DefaultEnumGenerationProvider Property

Gets the default [JSchemaGenerationProvider](#) that customizes [JSchema](#) generation for all [Types](#) where [IsEnum](#) is true.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static JSchemaGenerationProvider DefaultEnumGenerationProvider { get; }
```

Property Value

Type: JSchemaGenerationProvider

Reference

[TcHmiJSchemaGenerator Class \[► 1529\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.11.1.2 TcHmiJSchemaGenerator.DefaultGenerator Property

Gets a new default [TcHmiJSchemaGenerator \[► 1529\]](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static TcHmiJSchemaGenerator DefaultGenerator { get; }
```

Property Value

Type: [TcHmiJSchemaGenerator \[► 1529\]](#)

Reference

[TcHmiJSchemaGenerator Class \[► 1529\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.11.1.3 TcHmiJSchemaGenerator.DefaultRequired Property

Contains a value that indicates the default required state of JSON schemas.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols \[► 1345\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Required DefaultRequired { get; set; }
```

Property Value

Type: Required

Reference

[TcHmiJSchemaGenerator Class \[► 1529\]](#)

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace \[► 1345\]](#)

2.2.4.6.1.11.1.4 TcHmiJSchemaGenerator.GenerationProviders Property

Gets an [IList.T](#) of [JSchemaGenerationProviders](#) that are used to customize [JSchema](#) generation.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed IList<JSchemaGenerationProvider> GenerationProviders { get; }
```

Property Value

Type: [IList.JSchemaGenerationProvider](#).

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1.5 TcHmiJSchemaGenerator.PostContractResolver Property

Contains the [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) after [JsonSchemaContractResolver](#) [[► 1415](#)] tried to resolve the [JsonContract](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IContractResolver PostContractResolver { get; set; }
```

Property Value

Type: [IContractResolver](#)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1.6 TcHmiJSchemaGenerator.PreContractResolver Property

Contains the [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) before [ContractResolver](#) tries to resolve the [JsonContract](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IContractResolver PreContractResolver { get; set; }
```

Property Value

Type: [IContractResolver](#)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1.7 TcHmiJSchemaGenerator.SchemaIdGenerationHandling Property

Contains a value that indicates how IDs are generated for JSON schemas with no ID.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public override sealed SchemaIdGenerationHandling SchemaIdGenerationHandling { get; set; }
```

Property Value

Type: [SchemaIdGenerationHandling](#)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.1.8 TcHmiJSchemaGenerator.SchemaLocationHandling Property

Contains a value that indicates the location of referenced JSON schemas.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public override sealed SchemaLocationHandling SchemaLocationHandling { get; set; }
```

Property Value

Type: [SchemaLocationHandling](#)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.2 TcHmiJSchemaGenerator Methods

The [TcHmiJSchemaGenerator](#) [[► 1529](#)] type exposes the following members.

Methods

	Name	Description
	CreateEnumGenerationProvider [► 1536]	Creates a new JSchemaGenerationProvider for the specified Type where IsEnum is true.
	CreateGenerator [► 1537]	Creates a TcHmiJSchemaGenerator [► 1529] with the specified parameters.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Generate(Type) [► 1538]	Generates a JsonSchemaValue [► 1421] from the specified Type .
	Generate(Type, Boolean)	(Inherited from JSchemaGenerator .)
	GetGenerationProvider(Type) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the DefaultGenerator [► 1533] that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, JSchemaGenerator) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the specified JSchemaGenerator that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, IEnumerable<JSchemaGenerationProvider>) [► 1541]	Gets a JSchemaGenerationProvider from the specified IEnumerable.T of JSchemaGenerationProviders that can generate a JSchema for the specified Type .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.2.1 TcHmiJSchemaGenerator.CreateEnumGenerationProvider Method

Creates a new [JSchemaGenerationProvider](#) for the specified [Type](#) where [IsEnum](#) is true.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static JSchemaGenerationProvider CreateEnumGenerationProvider(  
    Type enumType,  
    bool hasDefault  
)
```

Parameters

- enumType** Type: [System.Type](#)
The [Type](#) for which to create a new [JSchemaGenerationProvider](#). -or- null to create new [JSchemaGenerationProvider](#) for all [Types](#) where [IsEnum](#) is true.
- hasDefault** Type: [System.Boolean](#)
true if the [JSchema](#) created by the returned [JSchemaGenerationProvider](#) should contain a default value which will be the first constant in the enumeration; otherwise, false.

Return Value

Type: [JSchemaGenerationProvider](#)
A new [JSchemaGenerationProvider](#) for enumType.

Reference

[TcHmiJSchemaGenerator Class](#) [[► 1529](#)]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[► 1345](#)]

2.2.4.6.1.11.2.2 TcHmiJSchemaGenerator.CreateGenerator Method

Creates a [TcHmiJSchemaGenerator](#) [[► 1529](#)] with the specified parameters.

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[► 1345](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static TcHmiJSchemaGenerator CreateGenerator(  
    SchemaPropertyOrderHandling schemaPropertyOrderHandling,  
    SchemaReferenceHandling schemaReferenceHandling,  
    bool required,  
    IEnumerable<JSchemaGenerationProvider> generationProviders,  
    IContractResolver preContractResolver,  
    IContractResolver postContractResolver  
)
```

Parameters

schemaProp Type: [SchemaPropertyOrderHandling](#)
ertyOrderHa The [SchemaPropertyOrderHandling](#) that indicates in which order the properties should appear
ndling in the generated schema.
schemaRef Type: [SchemaReferenceHandling](#)
erenceHandlin The [SchemaReferenceHandling](#) that indicates which generated schemas can be referenced.
g
required Type: [System.Boolean](#)
true if all properties in the generated JSON schema are required; otherwise, false.
generationPr Type: [System.Collections.Generic.IEnumerable.JSchemaGenerationProvider](#).
viders An [IEnumerable.T.](#) of [JSchemaGenerationProviders](#) that are used to customize [JSchema](#) generation.
preContract Type: [IContractResolver](#)
Resolver An [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) before [JsonSchemaContractResolver](#) [[1415](#)] tries to resolve the [JsonContract](#).
postContract Type: [IContractResolver](#)
Resolver An [IContractResolver](#) that is used to resolve a [JsonContract](#) for a given [Type](#) after [JsonSchemaContractResolver](#) [[1415](#)] tried to resolve the [JsonContract](#).

Return Value

Type: [TcHmiJSchemaGenerator](#) [[1529](#)]
A [TcHmiJSchemaGenerator](#) [[1529](#)] with the specified parameters.

Reference

[TcHmiJSchemaGenerator Class](#) [[1529](#)]
[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[1345](#)]

2.2.4.6.1.11.2.3 TcHmiJSchemaGenerator.Generate Method

Overload List

	Name	Description
	Generate(Type) [1538]	Generates a JsonSchemaValue [1421] from the specified Type .
	Generate(Type, Boolean)	(Inherited from JSchemaGenerator .)

Reference

[TcHmiJSchemaGenerator Class](#) [[1529](#)]
[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [[1345](#)]

2.2.4.6.1.11.2.3.1 TcHmiJSchemaGenerator.Generate Method (Type)

Generates a [JsonSchemaValue](#) [[1421](#)] from the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [[1345](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public JsonSchemaValue Generate(  
    Type type  
)
```

Parameters

type Type: [System.Type](#)
The [Type](#) to generate a [JsonSchemaValue](#) [► 1421] from.

Return Value

Type: [JsonSchemaValue](#) [► 1421]
A [JsonSchemaValue](#) [► 1421] generated from type.

Reference

- [TcHmiJSchemaGenerator Class](#) [► 1529]
- [Generate Overload](#) [► 1538]
- [TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.11.2.4 TcHmiJSchemaGenerator.GetGenerationProvider Method

Overload List

	Name	Description
	GetGenerationProvider(Type) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the DefaultGenerator [► 1533] that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, JSchemaGenerator) [► 1540]	Gets a JSchemaGenerationProvider from the JSchemaGenerator.GenerationProviders of the specified JSchemaGenerator that can generate a JSchema for the specified Type .
	GetGenerationProvider(Type, IEnumerable<JSchemaGenerationProvider>) [► 1541]	Gets a JSchemaGenerationProvider from the specified IEnumerable.T , of JSchemaGenerationProviders that can generate a JSchema for the specified Type .

Reference

- [TcHmiJSchemaGenerator Class](#) [► 1529]
- [TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.11.2.4.1 TcHmiJSchemaGenerator.GetGenerationProvider Method (Type)

Gets a [JSchemaGenerationProvider](#) from the [JSchemaGenerator.GenerationProviders](#) of the [DefaultGenerator](#) [► 1533] that can generate a [JSchema](#) for the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static JSchemaGenerationProvider GetGenerationProvider(  
    Type objectType  
)
```

Parameters

objectType Type: [System.Type](#)
The [Type](#) to generate a [JSchema](#) from.

Return Value

Type: [JSchemaGenerationProvider](#)

A [JSchemaGenerationProvider](#) from [DefaultGenerator](#) [► 1533] that can generate a [JSchema](#) for [objectType](#), if found; otherwise, null.

Reference

[TcHmiJSchemaGenerator Class](#) [► 1529]

[GetGenerationProvider Overload](#) [► 1539]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.11.2.4.2 TcHmiJSchemaGenerator.GetGenerationProvider Method (Type, JSchemaGenerator)

Gets a [JSchemaGenerationProvider](#) from the [JSchemaGenerator.GenerationProviders](#) of the specified [JSchemaGenerator](#) that can generate a [JSchema](#) for the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static JSchemaGenerationProvider GetGenerationProvider(  
    Type objectType,  
    JSchemaGenerator generator  
)
```

Parameters

objectType Type: [System.Type](#)
The [Type](#) to generate a [JSchema](#) from.

generator Type: [JSchemaGenerator](#)
A [JSchemaGenerator](#) from which to select a [JSchemaGenerationProvider](#) that can generate a [JSchema](#) for [objectType](#).

Return Value

Type: [JSchemaGenerationProvider](#)

A [JSchemaGenerationProvider](#) from generator that can generate a [JSchema](#) for objectType, if found; otherwise, null.

Reference

[TcHmiJSchemaGenerator Class](#) [► 1529]

[GetGenerationProvider Overload](#) [► 1539]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.1.11.2.4.3 TcHmiJSchemaGenerator.GetGenerationProvider Method (Type, IEnumerable.JSchemaGenerationProvider.)

Gets a [JSchemaGenerationProvider](#) from the specified [IEnumerable.T.](#) of [JSchemaGenerationProviders](#) that can generate a [JSchema](#) for the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.DynamicSymbols](#) [► 1345]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JSchemaGenerationProvider GetGenerationProvider(  
    Type objectType,  
    IEnumerable<JSchemaGenerationProvider> generationProviders  
)
```

Parameters

objectType Type: [System.Type](#)
The [Type](#) to generate a [JSchema](#) from.

generationProviders Type: [System.Collections.Generic.IEnumerable.JSchemaGenerationProvider](#).
An [IEnumerable.T.](#) of [JSchemaGenerationProvider](#) from which to select a [JSchemaGenerationProvider](#) that can generate a [JSchema](#) for objectType.

Return Value

Type: [JSchemaGenerationProvider](#)

A [JSchemaGenerationProvider](#) from generationProviders that can generate a [JSchema](#) for objectType, if found; otherwise, null.

Reference

[TcHmiJSchemaGenerator Class](#) [► 1529]

[GetGenerationProvider Overload](#) [► 1539]

[TcHmiSrv.Core.Tools.DynamicSymbols Namespace](#) [► 1345]

2.2.4.6.2 TcHmiSrv.Core.Tools.Json Namespaces

Contains types and namespaces to interact with JSON.

Namespaces

Namespace	Description
TcHmiSrv.Core.Tools.Json [▶ 1542]	Contains the JsonValue [▶ 1542] class that inherits from the Value [▶ 952] class and stores a raw JSON String .
TcHmiSrv.Core.Tools.Json.Extensions [▶ 1578]	Provides extension methods for the core types of the TwinCAT HMI server extension API to convert them to and from JSON.
TcHmiSrv.Core.Tools.Json.Newtonsoft [▶ 1621]	Contains types and namespaces for the core types of the TwinCAT HMI server extension API to interact with types from the Newtonsoft.Json namespace.

Remarks

This implementation replaces the [TcHmiSrv.DynamicSymbols.TcHmiSerializer](#) class.

Instead of converting [Objects](#) directly to and from [Value](#) [[▶ 952](#)]s, they're first converted into JSON [Strings](#). Despite this intermediate step, conversions can be much faster than before because, for example, the use of relatively slow operations from the [System.Reflection](#) namespace can be completely dispensed.

To convert [Objects](#) to and from JSON [Strings](#), you can use the JSON API of your choice. To convert [Value](#) [[▶ 952](#)]s and other types from the [TcHmiSrv.Core](#) [[▶ 764](#)] namespace to and from JSON [Strings](#) [Newtonsoft.Json](#) is used.

This namespace contains many types that can be used with [Newtonsoft.Json](#) to implement a fast and reliable way to convert [Objects](#) of almost any type (including the core types of the TwinCAT HMI server extension API) to and from JSON.

2.2.4.6.2.1 TcHmiSrv.Core.Tools.Json Namespace

Contains the [JsonValue](#) [[▶ 1542](#)] class that inherits from the [Value](#) [[▶ 952](#)] class and stores a raw JSON [String](#).

Classes

	Class	Description
	JsonValue [▶ 1542]	Represents an immutable Value [▶ 952] containing JSON.

2.2.4.6.2.1.1 JsonValue Class

Represents an immutable [Value](#) [[▶ 952](#)] containing JSON.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Value](#) [[▶ 952](#)]

[TcHmiSrv.Core.Tools.Json.JsonValue](#)

[TcHmiSrv.Core.Tools.DynamicSymbols.JsonSchemaValue](#) [[▶ 1421](#)]

Namespace: [TcHmiSrv.Core.Tools.Json](#) [[▶ 1542](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class JsonValue : Value, IEquatable<JsonValue>
```

The JsonValue type exposes the following members.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952] s the internal data structure can hold without resizing. (Inherited from Value [► 952] .)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952] .)
	Count [► 993]	Gets the number of Value [► 952] s contained in the Value [► 952] . (Inherited from Value [► 952] .)
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952] .)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952] .)
	IsFixedSize [► 995]	(Inherited from Value [► 952] .)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169] . (Inherited from Value [► 952] .)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169] . (Inherited from Value [► 952] .)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169] , Double [► 1169] or Int64 [► 1169] . (Inherited from Value [► 952] .)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952] .)
	IsSynchronized [► 997]	(Inherited from Value [► 952] .)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169] . (Inherited from Value [► 952] .)
	Item.Int32. [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952] .)
	Item.String. [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952] .)
	Keys [► 999]	Gets an ICollection.T , containing the keys of the Value [► 952] . (Inherited from Value [► 952] .)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952] .)
	SyncRoot [► 1000]	(Inherited from Value [► 952] .)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952] . (Inherited from Value [► 952] .)
	Values [► 1001]	Gets an ICollection.T , containing the Value [► 952] s in the Value [► 952] . (Inherited from Value [► 952] .)

Methods

	Name	Description
	Add(KeyValuePair.String, Value) [▸ 1016]	Adds a KeyValuePair.TKey, TValue to the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	Add(Value) [▸ 1016]	Adds the specified Value [▸ 952] to the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	Add(String, Value) [▸ 1017]	Adds a Value [▸ 952] with the specified key to the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	AddOrUpdate [▸ 1018]	Adds a Value [▸ 952] with the specified key to the Value [▸ 952] if the key does not already exist, or updates a Value [▸ 952] in the Value [▸ 952] if the key already exists. (Inherited from Value [▸ 952] .)
	AddRange [▸ 1018]	Adds the specified Value [▸ 952] s to the end of the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ChangeType [▸ 1018]	Changes the Type [▸ 1001] of this Value [▸ 952] to the specified ValueType [▸ 1169] and adjusts the containing data. (Inherited from Value [▸ 952] .)
	Clear [▸ 1019]	Removes all Value [▸ 952] s from the Value [▸ 952] . (Inherited from Value [▸ 952] .)
	CompareTo(Boolean) [▸ 1023]	Compares the current Value [▸ 952] with another Boolean value and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [▸ 952] .)
	CompareTo(Byte) [▸ 1024]	Compares the current Value [▸ 952] with another Byte and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [▸ 952] .)
	CompareTo(Bytes) [▸ 1024]	Compares the current Value [▸ 952] with other Bytes and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [▸ 952] .)
	CompareTo(Char) [▸ 1025]	Compares the current Value [▸ 952] with another Char and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [▸ 952] .)
	CompareTo(DateTime) [▸ 1026]	Compares the current Value [▸ 952] with another DateTime and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [▸ 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [► 1033]	Compares the current Value [► 952] with another UInt16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [► 952] .)
	CompareTo(UInt32) [► 1033]	Compares the current Value [► 952] with another UInt32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [► 952] .)
	CompareTo(UInt64) [► 1034]	Compares the current Value [► 952] with another UInt64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [► 952] .)
	CompareTo(Access) [► 1035]	Compares the current Value [► 952] with another Access [► 766] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Access [► 766] . (Inherited from Value [► 952] .)
	CompareTo(Alarm) [► 1035]	Compares the current Value [► 952] with another Alarm [► 767] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [► 767] . (Inherited from Value [► 952] .)
	CompareTo(Event) [► 1036]	Compares the current Value [► 952] with another Event [► 850] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Event [► 850] . (Inherited from Value [► 952] .)
	CompareTo(Message) [► 1037]	Compares the current Value [► 952] with another Message [► 924] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Message [► 924] . (Inherited from Value [► 952] .)
	CompareTo(Severity) [► 1037]	Compares the current Value [► 952] with another Severity [► 951] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [► 951] . (Inherited from Value [► 952] .)
	CompareTo(Value) [► 1038]	Compares the current Value [► 952] with another Value [► 952] and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	Contains(KeyValuePair<String, Value>) [▸ 1039]	Determines whether the Value [▸ 952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [▸ 952] .)
	Contains(Value) [▸ 1040]	Determines whether the Value [▸ 952] contains the specified Value [▸ 952] . (Inherited from Value [▸ 952] .)
	ContainsKey [▸ 1040]	Determines whether the Value [▸ 952] contains a Value [▸ 952] with the specified key. (Inherited from Value [▸ 952] .)
	CopyTo(KeyValuePair<String, Value>, Int32) [▸ 1041]	Copies the KeyValuePair.TKey, TValue s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	CopyTo(Value, Int32) [▸ 1042]	Copies the Value [▸ 952] s of the Value [▸ 952] to the specified Array , starting at the specified index. (Inherited from Value [▸ 952] .)
	DeepCopy [▸ 1043]	Creates a new object that is a deep copy of the current Value [▸ 952] . (Inherited from Value [▸ 952] .)
	Equals(Boolean) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Boolean value. (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Byte . (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1047]	Indicates whether the current Value [▸ 952] is equal to another Array of Bytes . (Inherited from Value [▸ 952] .)
	Equals(Char) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another Char . (Inherited from Value [▸ 952] .)
	Equals(DateTime) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another DateTime . (Inherited from Value [▸ 952] .)
	Equals(Decimal) [▸ 1049]	Indicates whether the current Value [▸ 952] is equal to another Decimal value. (Inherited from Value [▸ 952] .)
	Equals(Double) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Double-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(Int16) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Int16 . (Inherited from Value [▸ 952] .)
	Equals(Int32) [▸ 1051]	Indicates whether the current Value [▸ 952] is equal to another Int32 . (Inherited from Value [▸ 952] .)
	Equals(Int64) [▸ 1052]	Indicates whether the current Value [▸ 952] is equal to another Int64 . (Inherited from Value [▸ 952] .)
	Equals(SByte) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another SByte . (Inherited from Value [▸ 952] .)

	Name	Description
	Equals(Single) [► 1053]	Indicates whether the current Value [► 952] is equal to another Single -precision floating-point number. (Inherited from Value [► 952] .)
	Equals(String) [► 1054]	Indicates whether the current Value [► 952] is equal to another String . (Inherited from Value [► 952] .)
	Equals(TimeSpan) [► 1055]	Indicates whether the current Value [► 952] is equal to another TimeSpan . (Inherited from Value [► 952] .)
	Equals(UInt16) [► 1055]	Indicates whether the current Value [► 952] is equal to another UInt16 . (Inherited from Value [► 952] .)
	Equals(UInt32) [► 1056]	Indicates whether the current Value [► 952] is equal to another UInt32 . (Inherited from Value [► 952] .)
	Equals(UInt64) [► 1057]	Indicates whether the current Value [► 952] is equal to another UInt64 . (Inherited from Value [► 952] .)
	Equals(Object) [► 1575]	Determines whether the specified Object is equal to the current JsonValue . (Overrides Value.Equals(Object) [► 1052] .)
	Equals(Access) [► 1057]	Indicates whether the current Value [► 952] is equal to another Access [► 766] . (Inherited from Value [► 952] .)
	Equals(Alarm) [► 1058]	Indicates whether the current Value [► 952] is equal to another Alarm [► 767] . (Inherited from Value [► 952] .)
	Equals(Event) [► 1058]	Indicates whether the current Value [► 952] is equal to another Event [► 850] . (Inherited from Value [► 952] .)
	Equals(JsonValue) [► 1576]	Indicates whether the current JsonValue is equal to another JsonValue .
	Equals(Message) [► 1059]	Indicates whether the current Value [► 952] is equal to another Message [► 924] . (Inherited from Value [► 952] .)
	Equals(Severity) [► 1060]	Indicates whether the current Value [► 952] is equal to another Severity [► 951] . (Inherited from Value [► 952] .)
	Equals(Value) [► 1060]	Indicates whether the current Value [► 952] is equal to another Value [► 952] . (Inherited from Value [► 952] .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [► 1072]	Gets the Access [► 766] of the Value [► 952] . (Inherited from Value [► 952] .)
	GetAlarm [► 1072]	Gets the Alarm [► 767] of the Value [► 952] . (Inherited from Value [► 952] .)
	GetBool. [► 1073]	Gets the Boolean value of the Value [► 952] . (Inherited from Value [► 952] .)

	Name	Description
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetByte [► 1074]	Gets the Byte of the Value [► 952]. (Inherited from Value [► 952].)
	GetBytes [► 1074]	Gets the Bytes of the Value [► 952]. (Inherited from Value [► 952].)
	GetChar [► 1075]	Gets the Char of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime [► 1076]	Gets the DateTime of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetDecimal [► 1077]	Gets the Decimal value of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble [► 1077]	Gets the Double-precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble(IFormatProvider) [► 1078]	Gets the Double-precision floating-point number of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetEvent [► 1078]	Gets the Event [► 850] of the Value [► 952]. (Inherited from Value [► 952].)
	GetHashCode [► 1576]	Serves as the default hash function. (Overrides Value.GetHashCode. [► 1079].)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32 [► 1080]	Gets the Int32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetInt64 [► 1081]	Gets the Int64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetMessage [► 1082]	Gets the Message [► 924] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString . [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(IFormatProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan . [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvider) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyValuePair<String, Value>) [► 1089]	Removes the first occurrence of the specified KeyValuePair.TKey, TValue . from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(String) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Value) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	RemoveRange [► 1092]	Removes a range of Value [► 952]s from the Value [► 952]. (Inherited from Value [► 952].)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	SetValue(Byte) [▸ 1095]	Gets the <u>Byte</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Byte) [▸ 1096]	Gets the <u>Bytes</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Char) [▸ 1096]	Gets the <u>Char</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(DateTime) [▸ 1097]	Gets the <u>DateTime</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Decimal) [▸ 1097]	Gets the <u>Decimal</u> value of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Double) [▸ 1098]	Gets the <u>Double</u> -precision floating-point number of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Int16) [▸ 1098]	Gets the <u>Int16</u> integer of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Int32) [▸ 1099]	Gets the <u>Int32</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Int64) [▸ 1099]	Gets the <u>Int64</u> integer of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(SByte) [▸ 1099]	Gets the <u>SByte</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(Single) [▸ 1100]	Gets the <u>Single</u> -precision floating-point number of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(String) [▸ 1100]	Gets the <u>String</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(TimeSpan) [▸ 1101]	Gets the <u>TimeSpan</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(UInt16) [▸ 1101]	Gets the <u>UInt16</u> integer of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(UInt32) [▸ 1102]	Gets the <u>UInt32</u> of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)
	SetValue(UInt64) [▸ 1102]	Gets the <u>UInt64</u> integer of the <u>Value</u> [▸ 952]. (Inherited from <u>Value</u> [▸ 952].)

	Name	Description
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952]. (Inherited from Value [▸ 952].)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766]. (Inherited from Value [▸ 952].)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952].)
	ToBoolean [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952].)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToByte [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952].)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952].)
	ToChar [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952].)
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)

	Name	Description
	ToDateTime. [► 1112]	Converts this instance of the Value [► 952] class to the appropriate instance of the DateTime class. (Inherited from Value [► 952] .)
	ToDateTime(IFormatProvider) [► 1112]	Converts the Value [► 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToDecimal. [► 1113]	Converts this instance of the Value [► 952] class to the appropriate Decimal . (Inherited from Value [► 952] .)
	ToDecimal(IFormatProvider) [► 1114]	Converts the Value [► 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToDouble. [► 1115]	Converts this instance of the Value [► 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [► 952] .)
	ToDouble(IFormatProvider) [► 1115]	Converts the Value [► 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToEvent [► 1116]	Converts this instance of the Value [► 952] class to the appropriate Event [► 850] . (Inherited from Value [► 952] .)
	ToInt16. [► 1117]	Converts this instance of the Value [► 952] class to the appropriate Int16 . (Inherited from Value [► 952] .)
	ToInt16(IFormatProvider) [► 1117]	Converts the Value [► 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToInt32. [► 1118]	Converts this instance of the Value [► 952] class to the appropriate Int32 . (Inherited from Value [► 952] .)
	ToInt32(IFormatProvider) [► 1118]	Converts the Value [► 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToInt64. [► 1119]	Converts this instance of the Value [► 952] class to the appropriate Int64 . (Inherited from Value [► 952] .)
	ToInt64(IFormatProvider) [► 1120]	Converts the Value [► 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToMessage [► 1120]	Converts this instance of the Value [► 952] class to the appropriate Message [► 924] . (Inherited from Value [► 952] .)
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952] .)

	Name	Description
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952] .)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952] .)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToString. [► 1577]	Returns a String that represents the current Value [► 952] . (Overrides Value.ToString. [► 1124] .)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952] .)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952] .)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952] .)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952] .)
	ToUInt64(IFormatProvider) [► 1130]	Converts the Value [► 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToValue [► 1577]	Returns a Value [► 952] that represents the current JsonValue . (Overrides Value.ToValue. [► 1131] .)

	Name	Description
	TryGetValue [► 1131]	Gets the Value [► 952] associated with the specified key. (Inherited from Value [► 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [► 1175]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [► 1173].)
	ResolveBy(String) [► 1176]	Overloaded. Resolves the current Value [► 952] by the specified path. (Defined by ValueExtensions [► 1173].)
	ToJson [► 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean) [► 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean, Boolean) [► 1619]	Overloaded. Returns a JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJsonValue [► 1620]	Returns a JsonValue that contains an unformatted JSON String representing the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	TryResolveBy(Queue.String., Value.) [► 1177]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)
	TryResolveBy(String, Value.) [► 1178]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)

Reference

[TcHmiSrv.Core.Tools.Json Namespace](#) [► 1542]

2.2.4.6.2.1.1 JsonValue Properties

The [JsonValue](#) [► 1542] type exposes the following members.

Properties

	Name	Description
	Capacity [► 993]	Contains the total number of Value [► 952]s the internal data structure can hold without resizing. (Inherited from Value [► 952].)
	ContainsJson [► 993]	Gets a value that indicates whether the Value [► 952] contains a JSON String . (Inherited from Value [► 952].)
	Count [► 993]	Gets the number of Value [► 952]s contained in the Value [► 952]. (Inherited from Value [► 952].)
	IsArray [► 994]	Gets a value that indicates whether the Value [► 952] is an Array . (Inherited from Value [► 952].)
	IsEmpty [► 994]	Gets a value that indicates whether the Value [► 952] is empty. (Inherited from Value [► 952].)
	IsFixedSize [► 995]	(Inherited from Value [► 952].)
	IsMapOrStruct [► 995]	Gets a value that indicates whether Type [► 1001] equals Map [► 1169] or Struct [► 1169]. (Inherited from Value [► 952].)
	IsNull [► 995]	Gets a value that indicates whether Type [► 1001] equals Null [► 1169]. (Inherited from Value [► 952].)
	IsNumber [► 996]	Gets a value that indicates whether Type [► 1001] equals Int32 [► 1169], Double [► 1169] or Int64 [► 1169]. (Inherited from Value [► 952].)
	IsReadOnly [► 996]	Gets a value that indicates whether the Value [► 952] is read-only. (Inherited from Value [► 952].)
	IsSynchronized [► 997]	(Inherited from Value [► 952].)
	IsVector [► 997]	Gets a value that indicates whether Type [► 1001] equals Vector [► 1169]. (Inherited from Value [► 952].)
	Item.Int32. [► 998]	Gets or sets the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	Item.String. [► 998]	Gets or sets the Value [► 952] with the specified key. (Inherited from Value [► 952].)
	Keys [► 999]	Gets an ICollection.T. containing the keys of the Value [► 952]. (Inherited from Value [► 952].)
	Length [► 999]	Gets the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	LongLength [► 1000]	Gets a 64-bit integer that represents the total number of elements in all the dimensions of the Array . (Inherited from Value [► 952].)
	SyncRoot [► 1000]	(Inherited from Value [► 952].)
	Type [► 1001]	Contains the ValueType [► 1169] of the Value [► 952]. (Inherited from Value [► 952].)
	Values [► 1001]	Gets an ICollection.T. containing the Value [► 952]s in the Value [► 952]. (Inherited from Value [► 952].)

Reference

[JsonValue Class \[► 1542\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2 JsonValue Methods

The [JsonValue \[► 1542\]](#) type exposes the following members.

Methods

	Name	Description
	Add(KeyValuePair<String, Value>) [► 1016]	Adds a KeyValuePair.TKey, TValue to the Value [► 952] . (Inherited from Value [► 952] .)
	Add(Value) [► 1016]	Adds the specified Value [► 952] to the Value [► 952] . (Inherited from Value [► 952] .)
	Add(String, Value) [► 1017]	Adds a Value [► 952] with the specified key to the Value [► 952] . (Inherited from Value [► 952] .)
	AddOrUpdate [► 1018]	Adds a Value [► 952] with the specified key to the Value [► 952] if the key does not already exist, or updates a Value [► 952] in the Value [► 952] if the key already exists. (Inherited from Value [► 952] .)
	AddRange [► 1018]	Adds the specified Value [► 952] s to the end of the Value [► 952] . (Inherited from Value [► 952] .)
	ChangeType [► 1018]	Changes the Type [► 1001] of this Value [► 952] to the specified ValueType [► 1169] and adjusts the containing data. (Inherited from Value [► 952] .)
	Clear [► 1019]	Removes all Value [► 952] s from the Value [► 952] . (Inherited from Value [► 952] .)
	CompareTo(Boolean) [► 1023]	Compares the current Value [► 952] with another Boolean value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Boolean value. (Inherited from Value [► 952] .)
	CompareTo(Byte) [► 1024]	Compares the current Value [► 952] with another Byte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Byte . (Inherited from Value [► 952] .)
	CompareTo(Bytes) [► 1024]	Compares the current Value [► 952] with other Bytes and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Bytes . (Inherited from Value [► 952] .)
	CompareTo(Char) [► 1025]	Compares the current Value [► 952] with another Char and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Char . (Inherited from Value [► 952] .)
	CompareTo(DateTime) [► 1026]	Compares the current Value [► 952] with another DateTime and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other DateTime . (Inherited from Value [► 952] .)

	Name	Description
	CompareTo(Decimal) [► 1026]	Compares the current Value [► 952] with another Decimal value and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Decimal value. (Inherited from Value [► 952].)
	CompareTo(Double) [► 1027]	Compares the current Value [► 952] with another Double -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Double -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(Int16) [► 1028]	Compares the current Value [► 952] with another Int16 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int16 . (Inherited from Value [► 952].)
	CompareTo(Int32) [► 1029]	Compares the current Value [► 952] with another Int32 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int32 . (Inherited from Value [► 952].)
	CompareTo(Int64) [► 1029]	Compares the current Value [► 952] with another Int64 and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Int64 . (Inherited from Value [► 952].)
	CompareTo(SByte) [► 1030]	Compares the current Value [► 952] with another SByte and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other SByte . (Inherited from Value [► 952].)
	CompareTo(Single) [► 1031]	Compares the current Value [► 952] with another Single -precision floating-point number and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other Single -precision floating-point number. (Inherited from Value [► 952].)
	CompareTo(String) [► 1031]	Compares the current Value [► 952] with another String and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other String . (Inherited from Value [► 952].)
	CompareTo(TimeSpan) [► 1032]	Compares the current Value [► 952] with another TimeSpan and returns an integer that indicates whether the current Value [► 952] precedes, follows, or occurs in the same position in the sort order as the other TimeSpan . (Inherited from Value [► 952].)

	Name	Description
	CompareTo(UInt16) [▸ 1033]	Compares the current Value [▸ 952] with another UInt16 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt16 . (Inherited from Value [▸ 952].)
	CompareTo(UInt32) [▸ 1033]	Compares the current Value [▸ 952] with another UInt32 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt32 . (Inherited from Value [▸ 952].)
	CompareTo(UInt64) [▸ 1034]	Compares the current Value [▸ 952] with another UInt64 and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other UInt64 . (Inherited from Value [▸ 952].)
	CompareTo(Access) [▸ 1035]	Compares the current Value [▸ 952] with another Access [▸ 766] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Access [▸ 766]. (Inherited from Value [▸ 952].)
	CompareTo(Alarm) [▸ 1035]	Compares the current Value [▸ 952] with another Alarm [▸ 767] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	CompareTo(Event) [▸ 1036]	Compares the current Value [▸ 952] with another Event [▸ 850] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Event [▸ 850]. (Inherited from Value [▸ 952].)
	CompareTo(Message) [▸ 1037]	Compares the current Value [▸ 952] with another Message [▸ 924] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Message [▸ 924]. (Inherited from Value [▸ 952].)
	CompareTo(Severity) [▸ 1037]	Compares the current Value [▸ 952] with another Severity [▸ 951] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Severity [▸ 951]. (Inherited from Value [▸ 952].)
	CompareTo(Value) [▸ 1038]	Compares the current Value [▸ 952] with another Value [▸ 952] and returns an integer that indicates whether the current Value [▸ 952] precedes, follows, or occurs in the same position in the sort order as the other Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	Contains(KeyValuePair<String, Value>) [1039]	Determines whether the Value [952] contains the specified KeyValuePair.TKey, TValue . (Inherited from Value [952].)
	Contains(Value) [1040]	Determines whether the Value [952] contains the specified Value [952]. (Inherited from Value [952].)
	ContainsKey [1040]	Determines whether the Value [952] contains a Value [952] with the specified key. (Inherited from Value [952].)
	CopyTo(KeyValuePair<String, Value>, Int32) [1041]	Copies the KeyValuePair.TKey, TValue s of the Value [952] to the specified Array , starting at the specified index. (Inherited from Value [952].)
	CopyTo(Value[], Int32) [1042]	Copies the Value [952]s of the Value [952] to the specified Array , starting at the specified index. (Inherited from Value [952].)
	DeepCopy [1043]	Creates a new object that is a deep copy of the current Value [952]. (Inherited from Value [952].)
	Equals(Boolean) [1046]	Indicates whether the current Value [952] is equal to another Boolean value. (Inherited from Value [952].)
	Equals(Byte) [1046]	Indicates whether the current Value [952] is equal to another Byte . (Inherited from Value [952].)
	Equals(Byte[]) [1047]	Indicates whether the current Value [952] is equal to another Array of Bytes . (Inherited from Value [952].)
	Equals(Char) [1048]	Indicates whether the current Value [952] is equal to another Char . (Inherited from Value [952].)
	Equals(DateTime) [1048]	Indicates whether the current Value [952] is equal to another DateTime . (Inherited from Value [952].)
	Equals(Decimal) [1049]	Indicates whether the current Value [952] is equal to another Decimal value. (Inherited from Value [952].)
	Equals(Double) [1050]	Indicates whether the current Value [952] is equal to another Double -precision floating-point number. (Inherited from Value [952].)
	Equals(Int16) [1050]	Indicates whether the current Value [952] is equal to another Int16 . (Inherited from Value [952].)
	Equals(Int32) [1051]	Indicates whether the current Value [952] is equal to another Int32 . (Inherited from Value [952].)
	Equals(Int64) [1052]	Indicates whether the current Value [952] is equal to another Int64 . (Inherited from Value [952].)
	Equals(SByte) [1053]	Indicates whether the current Value [952] is equal to another SByte . (Inherited from Value [952].)

	Name	Description
	Equals(Single) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another Single -precision floating-point number. (Inherited from Value [▸ 952].)
	Equals(String) [▸ 1054]	Indicates whether the current Value [▸ 952] is equal to another String . (Inherited from Value [▸ 952].)
	Equals(TimeSpan) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another TimeSpan . (Inherited from Value [▸ 952].)
	Equals(UInt16) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another UInt16 . (Inherited from Value [▸ 952].)
	Equals(UInt32) [▸ 1056]	Indicates whether the current Value [▸ 952] is equal to another UInt32 . (Inherited from Value [▸ 952].)
	Equals(UInt64) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another UInt64 . (Inherited from Value [▸ 952].)
	Equals(Object) [▸ 1575]	Determines whether the specified Object is equal to the current JsonValue [▸ 1542]. (Overrides Value.Equals(Object) [▸ 1052].)
	Equals(Access) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another Access [▸ 766]. (Inherited from Value [▸ 952].)
	Equals(Alarm) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	Equals(Event) [▸ 1058]	Indicates whether the current Value [▸ 952] is equal to another Event [▸ 850]. (Inherited from Value [▸ 952].)
	Equals(JsonValue) [▸ 1576]	Indicates whether the current JsonValue [▸ 1542] is equal to another JsonValue [▸ 1542].
	Equals(Message) [▸ 1059]	Indicates whether the current Value [▸ 952] is equal to another Message [▸ 924]. (Inherited from Value [▸ 952].)
	Equals(Severity) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Severity [▸ 951]. (Inherited from Value [▸ 952].)
	Equals(Value) [▸ 1060]	Indicates whether the current Value [▸ 952] is equal to another Value [▸ 952]. (Inherited from Value [▸ 952].)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetAccess [▸ 1072]	Gets the Access [▸ 766] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	GetAlarm [▸ 1072]	Gets the Alarm [▸ 767] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	GetBool. [▸ 1073]	Gets the Boolean value of the Value [▸ 952]. (Inherited from Value [▸ 952].)

	Name	Description
	GetBool(IFormatProvider) [► 1074]	Gets the Boolean value of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetByte [► 1074]	Gets the Byte of the Value [► 952]. (Inherited from Value [► 952].)
	GetBytes [► 1074]	Gets the Bytes of the Value [► 952]. (Inherited from Value [► 952].)
	GetChar [► 1075]	Gets the Char of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime [► 1076]	Gets the DateTime of the Value [► 952]. (Inherited from Value [► 952].)
	GetDateTime(IFormatProvider) [► 1076]	Gets the DateTime of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetDecimal [► 1077]	Gets the Decimal value of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble [► 1077]	Gets the Double-precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetDouble(IFormatProvider) [► 1078]	Gets the Double-precision floating-point number of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetEvent [► 1078]	Gets the Event [► 850] of the Value [► 952]. (Inherited from Value [► 952].)
	GetHashCode [► 1576]	Serves as the default hash function. (Overrides Value.GetHashCode. [► 1079].)
	GetInt16 [► 1079]	Gets the Int16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32 [► 1080]	Gets the Int32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt32(IFormatProvider) [► 1080]	Gets the Int32 of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetInt64 [► 1081]	Gets the Int64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetInt64(IFormatProvider) [► 1082]	Gets the Int64 integer of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetMessage [► 1082]	Gets the Message [► 924] of the Value [► 952]. (Inherited from Value [► 952].)
	GetSByte [► 1083]	Gets the SByte of the Value [► 952]. (Inherited from Value [► 952].)
	GetSeverity [► 1083]	Gets the Severity [► 951] of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	GetSingle [► 1083]	Gets the Single -precision floating-point number of the Value [► 952]. (Inherited from Value [► 952].)
	GetString . [► 1084]	Gets the String of the Value [► 952]. (Inherited from Value [► 952].)
	GetString(IFormatProvider) [► 1084]	Gets the String of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetTimeSpan . [► 1085]	Gets the TimeSpan of the Value [► 952]. (Inherited from Value [► 952].)
	GetTimeSpan(IFormatProvider) [► 1086]	Gets the TimeSpan of the Value [► 952], using the specified culture-specific formatting information. (Inherited from Value [► 952].)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	GetTypeCode [► 1086]	Gets the TypeCode for this Value [► 952]. (Inherited from Value [► 952].)
	GetUInt16 [► 1087]	Gets the UInt16 integer of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt32 [► 1087]	Gets the UInt32 of the Value [► 952]. (Inherited from Value [► 952].)
	GetUInt64 [► 1088]	Gets the UInt64 integer of the Value [► 952]. (Inherited from Value [► 952].)
	IndexOf [► 1088]	Determines the index of the specified Value [► 952] in the Value [► 952]. (Inherited from Value [► 952].)
	Insert [► 1088]	Inserts a Value [► 952] to the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Remove(KeyValuePair<String, Value>) [► 1089]	Removes the first occurrence of the specified KeyValuePair.TKey, TValue . from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(String) [► 1090]	Removes the Value [► 952] with the specified key from the Value [► 952]. (Inherited from Value [► 952].)
	Remove(Value) [► 1091]	Removes the first occurrence of the specified Value [► 952] from the Value [► 952]. (Inherited from Value [► 952].)
	RemoveAt [► 1091]	Removes the Value [► 952] at the specified index. (Inherited from Value [► 952].)
	RemoveRange [► 1092]	Removes a range of Value [► 952]s from the Value [► 952]. (Inherited from Value [► 952].)
	SetValue(Boolean) [► 1095]	Sets the Boolean value of the Value [► 952]. (Inherited from Value [► 952].)

	Name	Description
	SetValue(Byte) [► 1095]	Gets the <u>Byte</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Byte) [► 1096]	Gets the <u>Bytes</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Char) [► 1096]	Gets the <u>Char</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(DateTime) [► 1097]	Gets the <u>DateTime</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Decimal) [► 1097]	Gets the <u>Decimal</u> value of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Double) [► 1098]	Gets the <u>Double</u> -precision floating-point number of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Int16) [► 1098]	Gets the <u>Int16</u> integer of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Int32) [► 1099]	Gets the <u>Int32</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Int64) [► 1099]	Gets the <u>Int64</u> integer of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(SByte) [► 1099]	Gets the <u>SByte</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(Single) [► 1100]	Gets the <u>Single</u> -precision floating-point number of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(String) [► 1100]	Gets the <u>String</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(TimeSpan) [► 1101]	Gets the <u>TimeSpan</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(UInt16) [► 1101]	Gets the <u>UInt16</u> integer of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(UInt32) [► 1102]	Gets the <u>UInt32</u> of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)
	SetValue(UInt64) [► 1102]	Gets the <u>UInt64</u> integer of the <u>Value</u> [► 952]. (Inherited from <u>Value</u> [► 952].)

	Name	Description
	SetValue(Access) [▸ 1103]	Gets the Access [▸ 766] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Alarm) [▸ 1103]	Gets the Alarm [▸ 767] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Event) [▸ 1104]	Gets the Event [▸ 850] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Message) [▸ 1104]	Gets the Message [▸ 924] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	SetValue(Severity) [▸ 1105]	Gets the Severity [▸ 951] of the Value [▸ 952]. (Inherited from Value [▸ 952].)
	ShallowCopy [▸ 1105]	Creates a new Value [▸ 952] that is a shallow copy of the current Value [▸ 952]. (Inherited from Value [▸ 952].)
	ToAccess [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Access [▸ 766]. (Inherited from Value [▸ 952].)
	ToAlarm [▸ 1106]	Converts this instance of the Value [▸ 952] class to the appropriate Alarm [▸ 767]. (Inherited from Value [▸ 952].)
	ToArray [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Array . (Inherited from Value [▸ 952].)
	ToBoolean [▸ 1107]	Converts this instance of the Value [▸ 952] class to the appropriate Boolean . (Inherited from Value [▸ 952].)
	ToBoolean(IFormatProvider) [▸ 1108]	Converts the Value [▸ 952] to an equivalent Boolean value using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToByte [▸ 1109]	Converts this instance of the Value [▸ 952] class to the appropriate Byte . (Inherited from Value [▸ 952].)
	ToByte(IFormatProvider) [▸ 1109]	Converts the Value [▸ 952] to an equivalent Byte using the specified IFormatProvider . (Inherited from Value [▸ 952].)
	ToBytes [▸ 1110]	Converts this instance of the Value [▸ 952] class to the appropriate array of Bytes . (Inherited from Value [▸ 952].)
	ToChar [▸ 1111]	Converts this instance of the Value [▸ 952] class to the appropriate Char . (Inherited from Value [▸ 952].)
	ToChar(IFormatProvider) [▸ 1111]	Converts the Value [▸ 952] to an equivalent Char using the specified IFormatProvider . (Inherited from Value [▸ 952].)

	Name	Description
	ToDateTime. [► 1112]	Converts this instance of the Value [► 952] class to the appropriate instance of the DateTime class. (Inherited from Value [► 952] .)
	ToDateTime(IFormatProvider) [► 1112]	Converts the Value [► 952] to an equivalent DateTime using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToDecimal. [► 1113]	Converts this instance of the Value [► 952] class to the appropriate Decimal . (Inherited from Value [► 952] .)
	ToDecimal(IFormatProvider) [► 1114]	Converts the Value [► 952] to an equivalent Decimal value using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToDouble. [► 1115]	Converts this instance of the Value [► 952] class to the appropriate Double -precision floating-point number. (Inherited from Value [► 952] .)
	ToDouble(IFormatProvider) [► 1115]	Converts the Value [► 952] to an equivalent Double -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToEvent [► 1116]	Converts this instance of the Value [► 952] class to the appropriate Event [► 850] . (Inherited from Value [► 952] .)
	ToInt16. [► 1117]	Converts this instance of the Value [► 952] class to the appropriate Int16 . (Inherited from Value [► 952] .)
	ToInt16(IFormatProvider) [► 1117]	Converts the Value [► 952] to an equivalent Int16 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToInt32. [► 1118]	Converts this instance of the Value [► 952] class to the appropriate Int32 . (Inherited from Value [► 952] .)
	ToInt32(IFormatProvider) [► 1118]	Converts the Value [► 952] to an equivalent Int32 using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToInt64. [► 1119]	Converts this instance of the Value [► 952] class to the appropriate Int64 . (Inherited from Value [► 952] .)
	ToInt64(IFormatProvider) [► 1120]	Converts the Value [► 952] to an equivalent Int64 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToMessage [► 1120]	Converts this instance of the Value [► 952] class to the appropriate Message [► 924] . (Inherited from Value [► 952] .)
	ToSByte. [► 1121]	Converts this instance of the Value [► 952] class to the appropriate SByte . (Inherited from Value [► 952] .)

	Name	Description
	ToSByte(IFormatProvider) [► 1122]	Converts the Value [► 952] to an equivalent SByte using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToSeverity [► 1122]	Converts this instance of the Value [► 952] class to the appropriate Severity [► 951] . (Inherited from Value [► 952] .)
	ToSingle. [► 1123]	Converts this instance of the Value [► 952] class to the appropriate Single -precision floating-point number. (Inherited from Value [► 952] .)
	ToSingle(IFormatProvider) [► 1123]	Converts the Value [► 952] to an equivalent Single -precision floating-point number using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToString. [► 1577]	Returns a String that represents the current Value [► 952] . (Overrides Value.ToString. [► 1124] .)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToTimeSpan [► 1125]	Converts this instance of the Value [► 952] class to the appropriate instance of the TimeSpan class. (Inherited from Value [► 952] .)
	ToType [► 1126]	Converts the Value [► 952] to an equivalent Object of the specified Type using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt16. [► 1127]	Converts this instance of the Value [► 952] class to the appropriate UInt16 . (Inherited from Value [► 952] .)
	ToUInt16(IFormatProvider) [► 1127]	Converts the Value [► 952] to an equivalent UInt16 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt32. [► 1128]	Converts this instance of the Value [► 952] class to the appropriate UInt32 . (Inherited from Value [► 952] .)
	ToUInt32(IFormatProvider) [► 1129]	Converts the Value [► 952] to an equivalent UInt32 using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToUInt64. [► 1130]	Converts this instance of the Value [► 952] class to the appropriate UInt64 . (Inherited from Value [► 952] .)
	ToUInt64(IFormatProvider) [► 1130]	Converts the Value [► 952] to an equivalent UInt64 integer using the specified IFormatProvider . (Inherited from Value [► 952] .)
	ToValue [► 1577]	Returns a Value [► 952] that represents the current JsonValue [► 1542] . (Overrides Value.ToValue. [► 1131] .)

	Name	Description
	TryGetValue [► 1131]	Gets the Value [► 952] associated with the specified key. (Inherited from Value [► 952].)

Extension Methods

	Name	Description
	ResolveBy(Queue.String.) [► 1175]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. (Defined by ValueExtensions [► 1173].)
	ResolveBy(String) [► 1176]	Overloaded. Resolves the current Value [► 952] by the specified path. (Defined by ValueExtensions [► 1173].)
	ToJson [► 1618]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean) [► 1619]	Overloaded. Returns an unformatted JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJson(Boolean, Boolean) [► 1619]	Overloaded. Returns a JSON String that represents the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	ToJsonValue [► 1620]	Returns a JsonValue [► 1542] that contains an unformatted JSON String representing the current Value [► 952]. (Defined by ValueExtensions [► 1614].)
	TryResolveBy(Queue.String., Value.) [► 1177]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)
	TryResolveBy(String, Value.) [► 1178]	Overloaded. Resolves the current Value [► 952] by the specified Queue.T. of elements. A return value indicates whether resolving succeeded. (Defined by ValueExtensions [► 1173].)

Reference

[JsonValue Class](#) [► 1542]

[TcHmiSrv.Core.Tools.Json Namespace](#) [► 1542]

2.2.4.6.2.1.1.2.1 JsonValue.Equals Method

Overload List

	Name	Description
	Equals(Boolean) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Boolean value. (Inherited from Value [▸ 952] .)
	Equals(Byte) [▸ 1046]	Indicates whether the current Value [▸ 952] is equal to another Byte . (Inherited from Value [▸ 952] .)
	Equals(Byte[]) [▸ 1047]	Indicates whether the current Value [▸ 952] is equal to another Array of Bytes . (Inherited from Value [▸ 952] .)
	Equals(Char) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another Char . (Inherited from Value [▸ 952] .)
	Equals(DateTime) [▸ 1048]	Indicates whether the current Value [▸ 952] is equal to another DateTime . (Inherited from Value [▸ 952] .)
	Equals(Decimal) [▸ 1049]	Indicates whether the current Value [▸ 952] is equal to another Decimal value. (Inherited from Value [▸ 952] .)
	Equals(Double) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Double-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(Int16) [▸ 1050]	Indicates whether the current Value [▸ 952] is equal to another Int16 . (Inherited from Value [▸ 952] .)
	Equals(Int32) [▸ 1051]	Indicates whether the current Value [▸ 952] is equal to another Int32 . (Inherited from Value [▸ 952] .)
	Equals(Int64) [▸ 1052]	Indicates whether the current Value [▸ 952] is equal to another Int64 . (Inherited from Value [▸ 952] .)
	Equals(SByte) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another SByte . (Inherited from Value [▸ 952] .)
	Equals(Single) [▸ 1053]	Indicates whether the current Value [▸ 952] is equal to another Single-precision floating-point number . (Inherited from Value [▸ 952] .)
	Equals(String) [▸ 1054]	Indicates whether the current Value [▸ 952] is equal to another String . (Inherited from Value [▸ 952] .)
	Equals(TimeSpan) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another TimeSpan . (Inherited from Value [▸ 952] .)
	Equals(UInt16) [▸ 1055]	Indicates whether the current Value [▸ 952] is equal to another UInt16 . (Inherited from Value [▸ 952] .)
	Equals(UInt32) [▸ 1056]	Indicates whether the current Value [▸ 952] is equal to another UInt32 . (Inherited from Value [▸ 952] .)
	Equals(UInt64) [▸ 1057]	Indicates whether the current Value [▸ 952] is equal to another UInt64 . (Inherited from Value [▸ 952] .)
	Equals(Object) [▸ 1575]	Determines whether the specified Object is equal to the current JsonValue [▸ 1542] . (Overrides Value.Equals(Object) [▸ 1052] .)

	Name	Description
	Equals(Access) [1057]	Indicates whether the current Value [952] is equal to another Access [766]. (Inherited from Value [952].)
	Equals(Alarm) [1058]	Indicates whether the current Value [952] is equal to another Alarm [767]. (Inherited from Value [952].)
	Equals(Event) [1058]	Indicates whether the current Value [952] is equal to another Event [850]. (Inherited from Value [952].)
	Equals(JsonValue) [1576]	Indicates whether the current JsonValue [1542] is equal to another JsonValue [1542].
	Equals(Message) [1059]	Indicates whether the current Value [952] is equal to another Message [924]. (Inherited from Value [952].)
	Equals(Severity) [1060]	Indicates whether the current Value [952] is equal to another Severity [951]. (Inherited from Value [952].)
	Equals(Value) [1060]	Indicates whether the current Value [952] is equal to another Value [952]. (Inherited from Value [952].)

Reference

[JsonValue Class](#) [[1542](#)]

[TcHmiSrv.Core.Tools.Json Namespace](#) [[1542](#)]

2.2.4.6.2.1.1.2.1.1 *JsonValue.Equals Method (Object)*

Determines whether the specified [Object](#) is equal to the current [JsonValue](#) [[1542](#)].

Namespace: [TcHmiSrv.Core.Tools.Json](#) [[1542](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(
    Object obj
)
```

Parameters

obj Type: [System.Object](#)
The [Object](#) to compare with the current [JsonValue](#) [[1542](#)].

Return Value

Type: [Boolean](#)
true if obj is equal to the current [JsonValue](#) [[1542](#)]; otherwise, false.

Reference

[JsonValue Class](#) [[1542](#)]

[Equals Overload \[► 1573\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2.1.2 *JsonValue.Equals Method (JsonValue)*

Indicates whether the current [JsonValue \[► 1542\]](#) is equal to another [JsonValue \[► 1542\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json \[► 1542\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool Equals(  
    JsonValue other  
)
```

Parameters

other Type: [TcHmiSrv.Core.Tools.Json.JsonValue \[► 1542\]](#)
The [JsonValue \[► 1542\]](#) to compare with this [JsonValue \[► 1542\]](#).

Return Value

Type: [Boolean](#)

true if the current [JsonValue \[► 1542\]](#) is equal to the other [JsonValue \[► 1542\]](#); otherwise, false.

Implements

[IEquatable.T.Equals\(T\)](#)

Reference

[JsonValue Class \[► 1542\]](#)

[Equals Overload \[► 1573\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2.2 *JsonValue.GetHashCode Method*

Serves as the default hash function.

Namespace: [TcHmiSrv.Core.Tools.Json \[► 1542\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode()
```

Return Value

Type: [Int32](#)

A hash code for the current object.

Reference

[JsonValue Class \[► 1542\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2.3 **JsonValue.ToString Method**

Overload List

	Name	Description
	ToString. [► 1577]	Returns a String that represents the current Value [► 952] . (Overrides Value.ToString. [► 1124] .)
	ToString(IFormatProvider) [► 1125]	Converts the Value [► 952] to an equivalent String using the specified IFormatProvider . (Inherited from Value [► 952] .)

Reference

[JsonValue Class \[► 1542\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2.3.1 **JsonValue.ToString Method**

Returns a [String](#) that represents the current [Value](#) [\[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json \[► 1542\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override string ToString()
```

Return Value

Type: [String](#)

A [String](#) that represents the current [Value](#) [\[► 952\]](#).

Reference

[JsonValue Class \[► 1542\]](#)

[ToString Overload \[► 1577\]](#)

[TcHmiSrv.Core.Tools.Json Namespace \[► 1542\]](#)

2.2.4.6.2.1.1.2.4 **JsonValue.ToValue Method**

Returns a [Value](#) [\[► 952\]](#) that represents the current [JsonValue](#) [\[► 1542\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json \[► 1542\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Value ToValue()
```

Return Value

Type: [Value](#) [► 952]

A [Value](#) [► 952] that represents the current [JsonValue](#) [► 1542].

Reference

[JsonValue Class](#) [► 1542]

[TcHmiSrv.Core.Tools.Json Namespace](#) [► 1542]

2.2.4.6.2.2 TcHmiSrv.Core.Tools.Json.Extensions Namespace

Provides extension methods for the core types of the TwinCAT HMI server extension API to convert them to and from JSON.

Classes

	Class	Description
	AlarmExtensions [► 1578]	Provides extension methods for the Alarm [► 767] class.
	CommandExtensions [► 1584]	Provides extension methods for the Command [► 788] class.
	CommandGroupExtensions [► 1590]	Provides extension methods for the CommandGroup [► 807] class.
	ContextExtensions [► 1596]	Provides extension methods for the Context [► 833] class.
	EventExtensions [► 1599]	Provides extension methods for the Event [► 850] class.
	MessageExtensions [► 1605]	Provides extension methods for the Message [► 924] class.
	SessionExtensions [► 1611]	Provides extension methods for the Session [► 941] class.
	ValueExtensions [► 1614]	Provides extension methods for the Value [► 952] class.

2.2.4.6.2.2.1 AlarmExtensions Class

Provides extension methods for the [Alarm](#) [► 767] class.

Inheritance Hierarchy

System.Object

TcHmiSrv.Core.Tools.Json.Extensions.AlarmExtensions

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [▸ 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class AlarmExtensions
```

Methods

	Name	Description
 	FromJson(String) [▸ 1580]	Returns a Alarm [▸ 767] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1581]	Returns a Alarm [▸ 767] that represents the specified JSON String .
 	ToJson(Alarm) [▸ 1582]	Returns an unformatted JSON String that represents the current Alarm [▸ 767].
 	ToJson(Alarm, Boolean) [▸ 1583]	Returns an unformatted JSON String that represents the current Alarm [▸ 767].
 	ToJson(Alarm, Boolean, Boolean) [▸ 1583]	Returns a JSON String that represents the current Alarm [▸ 767].

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [▸ 1578]

2.2.4.6.2.2.1.1 AlarmExtensions Methods

Methods

	Name	Description
	FromJson(String) [▸ 1580]	Returns a Alarm [▸ 767] that represents the specified JSON String .
	FromJson(String, Boolean) [▸ 1581]	Returns a Alarm [▸ 767] that represents the specified JSON String .
	ToJson(Alarm) [▸ 1582]	Returns an unformatted JSON String that represents the current Alarm [▸ 767] .
	ToJson(Alarm, Boolean) [▸ 1583]	Returns an unformatted JSON String that represents the current Alarm [▸ 767] .
	ToJson(Alarm, Boolean, Boolean) [▸ 1583]	Returns a JSON String that represents the current Alarm [▸ 767] .

Reference

[AlarmExtensions Class \[▸ 1578\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.1.1.1 AlarmExtensions.FromJson Method

Overload List

	Name	Description
	FromJson(String) [▸ 1580]	Returns a Alarm [▸ 767] that represents the specified JSON String .
	FromJson(String, Boolean) [▸ 1581]	Returns a Alarm [▸ 767] that represents the specified JSON String .

Reference

[AlarmExtensions Class \[▸ 1578\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.1.1.1.1 AlarmExtensions.FromJson Method (String)

Returns a [Alarm \[▸ 767\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Alarm FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Alarm](#) [► 767].

Return Value

Type: [Alarm](#) [► 767]
A [Alarm](#) [► 767] that represents value.

Reference

[AlarmExtensions Class](#) [► 1578]

[FromJson Overload](#) [► 1580]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.1.1.2 *AlarmExtensions.FromJson Method (String, Boolean)*

Returns a [Alarm](#) [► 767] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Alarm FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Alarm](#) [► 767].

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Alarm](#) [► 767]
A [Alarm](#) [► 767] that represents value.

Reference

[AlarmExtensions Class](#) [► 1578]

[FromJson Overload](#) [► 1580]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.1.1.2 AlarmExtensions.ToJson Method

Overload List

	Name	Description
 	ToJson(Alarm) [► 1582]	Returns an unformatted JSON String that represents the current Alarm [► 767].
 	ToJson(Alarm, Boolean) [► 1583]	Returns an unformatted JSON String that represents the current Alarm [► 767].
 	ToJson(Alarm, Boolean, Boolean) [► 1583]	Returns a JSON String that represents the current Alarm [► 767].

Reference

[AlarmExtensions Class](#) [[► 1578](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.1.1.2.1 AlarmExtensions.ToJson Method (Alarm)

Returns an unformatted JSON [String](#) that represents the current [Alarm](#) [[► 767](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Alarm value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Alarm](#) [[► 767](#)]
The [Alarm](#) [[► 767](#)] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Alarm](#) [[► 767](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[AlarmExtensions Class](#) [[► 1578](#)]

[ToJson Overload](#) [[► 1582](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.1.1.2.2 *AlarmExtensions.ToJson Method (Alarm, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [Alarm](#) [[▶ 767](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[▶ 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Alarm value,  
    bool format  
)
```

Parameters

value	Type: TcHmiSrv.Core.Alarm [▶ 767] The Alarm [▶ 767] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Alarm](#) [[▶ 767](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[AlarmExtensions Class](#) [[▶ 1578](#)]

[ToJson Overload](#) [[▶ 1582](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[▶ 1578](#)]

2.2.4.6.2.2.1.1.2.3 *AlarmExtensions.ToJson Method (Alarm, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [Alarm](#) [[▶ 767](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[▶ 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Alarm value,  
    bool format,  
    bool enableAdvancedConversions  
)
```

Parameters

value	Type: TcHmiSrv.Core.Alarm [► 767] The Alarm [► 767] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.
enableAdvancedConversions	Type: System.Boolean true to enable advanced conversions; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Alarm](#) [► 767]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[AlarmExtensions Class](#) [► 1578]

[ToJson Overload](#) [► 1582]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.2 *CommandExtensions Class*

Provides extension methods for the [Command](#) [► 788] class.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.Tools.Json.Extensions.CommandExtensions

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class CommandExtensions
```

Methods

	Name	Description
 	FromJson(String) [▸ 1586]	Returns a Command [▸ 788] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1587]	Returns a Command [▸ 788] that represents the specified JSON String .
 	ToJson(Command) [▸ 1588]	Returns an unformatted JSON String that represents the current Command [▸ 788] .
 	ToJson(Command, Boolean) [▸ 1589]	Returns an unformatted JSON String that represents the current Command [▸ 788] .
 	ToJson(Command, Boolean, Boolean) [▸ 1589]	Returns a JSON String that represents the current Command [▸ 788] .

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.2.1 CommandExtensions Methods

Methods

	Name	Description
 	FromJson(String) [▸ 1586]	Returns a Command [▸ 788] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1587]	Returns a Command [▸ 788] that represents the specified JSON String .
 	ToJson(Command) [▸ 1588]	Returns an unformatted JSON String that represents the current Command [▸ 788] .
 	ToJson(Command, Boolean) [▸ 1589]	Returns an unformatted JSON String that represents the current Command [▸ 788] .
 	ToJson(Command, Boolean, Boolean) [▸ 1589]	Returns a JSON String that represents the current Command [▸ 788] .

Reference

[CommandExtensions Class \[▸ 1584\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.2.1.1 CommandExtensions.FromJson Method

Overload List

	Name	Description
 	FromJson(String) [▸ 1586]	Returns a Command [▸ 788] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1587]	Returns a Command [▸ 788] that represents the specified JSON String .

Reference

[CommandExtensions Class \[▸ 1584\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.2.1.1.1 CommandExtensions.FromJson Method (String)

Returns a [Command \[▸ 788\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Command FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Command](#) [► 788].

Return Value

Type: [Command](#) [► 788]
A [Command](#) [► 788] that represents value.

Reference

[CommandExtensions Class](#) [► 1584]

[FromJson Overload](#) [► 1586]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.2.1.1.2 *CommandExtensions.FromJson Method (String, Boolean)*

Returns a [Command](#) [► 788] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Command FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Command](#) [► 788].

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Command](#) [► 788]
A [Command](#) [► 788] that represents value.

Reference

[CommandExtensions Class](#) [► 1584]

[FromJson Overload \[▸ 1586\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.2.1.2 **CommandExtensions.ToJson Method**

Overload List

	Name	Description
 	ToJson(Command) [▸ 1588]	Returns an unformatted JSON String that represents the current Command [▸ 788].
 	ToJson(Command, Boolean) [▸ 1589]	Returns an unformatted JSON String that represents the current Command [▸ 788].
 	ToJson(Command, Boolean, Boolean) [▸ 1589]	Returns a JSON String that represents the current Command [▸ 788].

Reference

[CommandExtensions Class \[▸ 1584\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.2.1.2.1 **CommandExtensions.ToJson Method (Command)**

Returns an unformatted JSON [String](#) that represents the current [Command](#) [▸ 788].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Command value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Command \[▸ 788\]](#)
The [Command](#) [▸ 788] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Command](#) [► 788]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandExtensions Class](#) [► 1584]

[ToJson Overload](#) [► 1588]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.2.1.2.2 *CommandExtensions.ToJson Method (Command, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [Command](#) [► 788].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Command value,  
    bool format  
)
```

Parameters

value	Type: TcHmiSrv.Core.Command [► 788] The Command [► 788] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Command](#) [► 788]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandExtensions Class](#) [► 1584]

[ToJson Overload](#) [► 1588]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.2.1.2.3 *CommandExtensions.ToJson Method (Command, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [Command](#) [► 788].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(
    this Command value,
    bool format,
    bool enableAdvancedConversions
)
```

Parameters

value Type: [TcHmiSrv.Core.Command](#) [► 788]
The [Command](#) [► 788] to convert into a JSON [String](#).

format Type: [System.Boolean](#)
true to format the JSON [String](#) by indenting; otherwise, false.

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Command](#) [► 788]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandExtensions Class](#) [► 1584]

[ToJson Overload](#) [► 1588]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.3 *CommandGroupExtensions Class*

Provides extension methods for the [CommandGroup](#) [► 807] class.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Json.Extensions.CommandGroupExtensions](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class CommandGroupExtensions
```

Methods

	Name	Description
 	FromJson(String) [▸ 1592]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1593]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .
 	ToJson(CommandGroup) [▸ 1594]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807].
 	ToJson(CommandGroup, Boolean) [▸ 1595]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807].
 	ToJson(CommandGroup, Boolean, Boolean) [▸ 1595]	Returns a JSON String that represents the current CommandGroup [▸ 807].

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[▸ 1578](#)]

2.2.4.6.2.2.3.1 CommandGroupExtensions Methods

Methods

	Name	Description
 	FromJson(String) [▸ 1592]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1593]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .
 	ToJson(CommandGroup) [▸ 1594]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807] .
 	ToJson(CommandGroup, Boolean) [▸ 1595]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807] .
 	ToJson(CommandGroup, Boolean, Boolean) [▸ 1595]	Returns a JSON String that represents the current CommandGroup [▸ 807] .

Reference

[CommandGroupExtensions Class \[▸ 1590\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.3.1.1 CommandGroupExtensions.FromJson Method

Overload List

	Name	Description
 	FromJson(String) [▸ 1592]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1593]	Returns a CommandGroup [▸ 807] that represents the specified JSON String .

Reference

[CommandGroupExtensions Class \[▸ 1590\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.3.1.1.1 CommandGroupExtensions.FromJson Method (String)

Returns a [CommandGroup \[▸ 807\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static CommandGroup FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [CommandGroup](#) [[► 807](#)].

Return Value

Type: [CommandGroup](#) [[► 807](#)]
A [CommandGroup](#) [[► 807](#)] that represents value.

Reference

[CommandGroupExtensions Class](#) [[► 1590](#)]

[FromJson Overload](#) [[► 1592](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.3.1.1.2 *CommandGroupExtensions.FromJson Method (String, Boolean)*

Returns a [CommandGroup](#) [[► 807](#)] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static CommandGroup FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [CommandGroup](#) [[► 807](#)].

enableAdvan Type: [System.Boolean](#)
cedConversi true to enabled advanced conversions; otherwise, false.
ons

Return Value

Type: [CommandGroup](#) [[► 807](#)]
A [CommandGroup](#) [[► 807](#)] that represents value.

Reference

[CommandGroupExtensions Class](#) [[► 1590](#)]

[FromJson Overload \[▸ 1592\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.3.1.2 **CommandGroupExtensions.ToJson Method**

Overload List

	Name	Description
 	ToJson(CommandGroup) [▸ 1594]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807].
 	ToJson(CommandGroup, Boolean) [▸ 1595]	Returns an unformatted JSON String that represents the current CommandGroup [▸ 807].
 	ToJson(CommandGroup, Boolean, Boolean) [▸ 1595]	Returns a JSON String that represents the current CommandGroup [▸ 807].

Reference

[CommandGroupExtensions Class \[▸ 1590\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.3.1.2.1 **CommandGroupExtensions.ToJson Method (CommandGroup)**

Returns an unformatted JSON [String](#) that represents the current [CommandGroup](#) [▸ 807].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this CommandGroup value  
)
```

Parameters

value Type: [TcHmiSrv.Core.CommandGroup \[▸ 807\]](#)
The [CommandGroup](#) [▸ 807] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [CommandGroup](#) [► 807]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandGroupExtensions Class](#) [► 1590]

[ToJson Overload](#) [► 1594]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.3.1.2.2 *CommandGroupExtensions.ToJson Method (CommandGroup, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this CommandGroup value,  
    bool format  
)
```

Parameters

value	Type: TcHmiSrv.Core.CommandGroup [► 807] The CommandGroup [► 807] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [CommandGroup](#) [► 807]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandGroupExtensions Class](#) [► 1590]

[ToJson Overload](#) [► 1594]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.3.1.2.3 *CommandGroupExtensions.ToJson Method (CommandGroup, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [CommandGroup](#) [► 807].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(
    this CommandGroup value,
    bool format,
    bool enableAdvancedConversions
)
```

Parameters

value Type: [TcHmiSrv.Core.CommandGroup](#) [► 807]
The [CommandGroup](#) [► 807] to convert into a JSON [String](#).

format Type: [System.Boolean](#)
true to format the JSON [String](#) by indenting; otherwise, false.

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [CommandGroup](#) [► 807]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[CommandGroupExtensions Class](#) [► 1590]

[ToJson Overload](#) [► 1594]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4 ContextExtensions Class

Provides extension methods for the [Context](#) [► 833] class.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Json.Extensions.ContextExtensions](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class ContextExtensions
```

The ContextExtensions type exposes the following members.

Methods

	Name	Description
 	FromJson [► 1597]	Returns a Context [► 833] that represents the specified JSON String .
 	ToJson(Conte xt) [► 1598]	Returns an unformatted JSON String that represents the current Context [► 833].
 	ToJson(Conte xt, Boolean) [► 1599]	Returns a JSON String that represents the current Context [► 833].

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4.1 ContextExtensions Methods

The [ContextExtensions](#) [► 1596] type exposes the following members.

Methods

	Name	Description
 	FromJson [► 1597]	Returns a Context [► 833] that represents the specified JSON String .
 	ToJson(Conte xt) [► 1598]	Returns an unformatted JSON String that represents the current Context [► 833].
 	ToJson(Conte xt, Boolean) [► 1599]	Returns a JSON String that represents the current Context [► 833].

Reference

[ContextExtensions Class](#) [► 1596]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4.1.1 ContextExtensions.FromJson Method

Returns a [Context](#) [► 833] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Context FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Context](#) [► 833].

Return Value

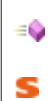
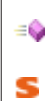
Type: [Context](#) [► 833]
A [Context](#) [► 833] that represents value.

Reference

[ContextExtensions Class](#) [► 1596]
[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4.1.2 ContextExtensions.ToJson Method

Overload List

	Name	Description
	ToJson(Context) [► 1598]	Returns an unformatted JSON String that represents the current Context [► 833].
	ToJson(Context, Boolean) [► 1599]	Returns a JSON String that represents the current Context [► 833].

Reference

[ContextExtensions Class](#) [► 1596]
[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4.1.2.1 ContextExtensions.ToJson Method (Context)

Returns an unformatted JSON [String](#) that represents the current [Context](#) [► 833].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Context value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Context](#) [► 833]
The [Context](#) [► 833] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Context](#) [► 833]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ContextExtensions Class](#) [► 1596]

[ToJson Overload](#) [► 1598]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.4.1.2.2 *ContextExtensions.ToJson Method (Context, Boolean)*

Returns a JSON [String](#) that represents the current [Context](#) [► 833].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Context value,  
    bool format  
)
```

Parameters

value	Type: TcHmiSrv.Core.Context [► 833] The Context [► 833] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Context](#) [► 833]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ContextExtensions Class](#) [► 1596]

[ToJson Overload](#) [► 1598]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5 *EventExtensions Class*

Provides extension methods for the [Event](#) [► 850] class.

Inheritance Hierarchy

System.Object

TcHmiSrv.Core.Tools.Json.Extensions.EventExtensions

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class EventExtensions
```

Methods

	Name	Description
 	FromJson(String) [► 1601]	Returns a Event [► 850] that represents the specified JSON String .
 	FromJson(String, Boolean) [► 1602]	Returns a Event [► 850] that represents the specified JSON String .
 	ToJson(Event) [► 1603]	Returns an unformatted JSON String that represents the current Event [► 850].
 	ToJson(Event, Boolean) [► 1604]	Returns an unformatted JSON String that represents the current Event [► 850].
 	ToJson(Event, Boolean, Boolean) [► 1604]	Returns a JSON String that represents the current Event [► 850].

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5.1 EventExtensions Methods

Methods

	Name	Description
	FromJson(String) [▸ 1601]	Returns a Event [▸ 850] that represents the specified JSON String .
	FromJson(String, Boolean) [▸ 1602]	Returns a Event [▸ 850] that represents the specified JSON String .
	ToJson(Event) [▸ 1603]	Returns an unformatted JSON String that represents the current Event [▸ 850] .
	ToJson(Event, Boolean) [▸ 1604]	Returns an unformatted JSON String that represents the current Event [▸ 850] .
	ToJson(Event, Boolean, Boolean) [▸ 1604]	Returns a JSON String that represents the current Event [▸ 850] .

Reference

[EventExtensions Class \[▸ 1599\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.5.1.1 EventExtensions.FromJson Method

Overload List

	Name	Description
	FromJson(String) [▸ 1601]	Returns a Event [▸ 850] that represents the specified JSON String .
	FromJson(String, Boolean) [▸ 1602]	Returns a Event [▸ 850] that represents the specified JSON String .

Reference

[EventExtensions Class \[▸ 1599\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.5.1.1.1 EventExtensions.FromJson Method (String)

Returns a [Event \[▸ 850\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Event FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Event](#) [► 850].

Return Value

Type: [Event](#) [► 850]
A [Event](#) [► 850] that represents value.

Reference

[EventExtensions Class](#) [► 1599]

[FromJson Overload](#) [► 1601]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5.1.1.2 *EventExtensions.FromJson Method (String, Boolean)*

Returns a [Event](#) [► 850] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Event FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Event](#) [► 850].

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Event](#) [► 850]
A [Event](#) [► 850] that represents value.

Reference

[EventExtensions Class](#) [► 1599]

[FromJson Overload](#) [► 1601]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5.1.2 **EventExtensions.ToJson Method**

Overload List

	Name	Description
	ToJson(Event) [► 1603]	Returns an unformatted JSON String that represents the current Event [► 850].
	ToJson(Event, Boolean) [► 1604]	Returns an unformatted JSON String that represents the current Event [► 850].
	ToJson(Event, Boolean, Boolean) [► 1604]	Returns a JSON String that represents the current Event [► 850].

Reference

[EventExtensions Class](#) [► 1599]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5.1.2.1 **EventExtensions.ToJson Method (Event)**

Returns an unformatted JSON [String](#) that represents the current [Event](#) [► 850].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Event value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Event](#) [► 850]
The [Event](#) [► 850] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Event](#) [► 850]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[EventExtensions Class](#) [► 1599]

[ToJson Overload](#) [► 1603]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.5.1.2.2 *EventExtensions.ToJson Method (Event, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [Event](#) [[► 850](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Event value,  
    bool format  
)
```

Parameters

value	Type: TcHmiSrv.Core.Event [► 850] The Event [► 850] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Event](#) [[► 850](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[EventExtensions Class](#) [[► 1599](#)]

[ToJson Overload](#) [[► 1603](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.5.1.2.3 *EventExtensions.ToJson Method (Event, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [Event](#) [[► 850](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Event value,  
    bool format,  
    bool enableAdvancedConversions  
)
```


Parameters

value	Type: TcHmiSrv.Core.Event [► 850] The Event [► 850] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.
enableAdvancedConversions	Type: System.Boolean true to enable advanced conversions; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Event](#) [► 850]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[EventExtensions Class](#) [► 1599]

[ToJson Overload](#) [► 1603]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.6 *MessageExtensions Class*

Provides extension methods for the [Message](#) [► 924] class.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.Tools.Json.Extensions.MessageExtensions

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class MessageExtensions
```

Methods

	Name	Description
 	FromJson(String) [▸ 1607]	Returns a Message [▸ 924] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1607]	Returns a Message [▸ 924] that represents the specified JSON String .
 	ToJson(Message) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924] .
 	ToJson(Message, Boolean) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924] .
 	ToJson(Message, Boolean, Boolean) [▸ 1610]	Returns a JSON String that represents the current Message [▸ 924] .

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.6.1 MessageExtensions Methods**Methods**

	Name	Description
 	FromJson(String) [▸ 1607]	Returns a Message [▸ 924] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1607]	Returns a Message [▸ 924] that represents the specified JSON String .
 	ToJson(Message) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924] .
 	ToJson(Message, Boolean) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924] .
 	ToJson(Message, Boolean, Boolean) [▸ 1610]	Returns a JSON String that represents the current Message [▸ 924] .

Reference

[MessageExtensions Class \[▸ 1605\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[► 1578\]](#)

2.2.4.6.2.2.6.1.1 **MessageExtensions.FromJson Method**

Overload List

	Name	Description
 	FromJson(String) [► 1607]	Returns a Message [► 924] that represents the specified JSON String .
 	FromJson(String, Boolean) [► 1607]	Returns a Message [► 924] that represents the specified JSON String .

Reference

[MessageExtensions Class \[► 1605\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[► 1578\]](#)

2.2.4.6.2.2.6.1.1.1 **MessageExtensions.FromJson Method (String)**

Returns a [Message \[► 924\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[► 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Message FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Message \[► 924\]](#).

Return Value

Type: [Message \[► 924\]](#)
A [Message \[► 924\]](#) that represents value.

Reference

[MessageExtensions Class \[► 1605\]](#)

[FromJson Overload \[► 1607\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[► 1578\]](#)

2.2.4.6.2.2.6.1.1.2 **MessageExtensions.FromJson Method (String, Boolean)**

Returns a [Message \[► 924\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[▸ 1578](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Message FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
 The JSON [String](#) to convert into an instance of type [Message](#) [[▸ 924](#)].
enableAdvan Type: [System.Boolean](#)
cedConversi true to enabled advanced conversions; otherwise, false.
ons

Return Value

Type: [Message](#) [[▸ 924](#)]
A [Message](#) [[▸ 924](#)] that represents value.

Reference

- [MessageExtensions Class](#) [[▸ 1605](#)]
- [FromJson Overload](#) [[▸ 1607](#)]
- [TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[▸ 1578](#)]

2.2.4.6.2.2.6.1.2 **MessageExtensions.ToJson Method**

Overload List

	Name	Description
 	ToJson(Message) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924].
 	ToJson(Message, Boolean) [▸ 1609]	Returns an unformatted JSON String that represents the current Message [▸ 924].
 	ToJson(Message, Boolean, Boolean) [▸ 1610]	Returns a JSON String that represents the current Message [▸ 924].

Reference

- [MessageExtensions Class](#) [[▸ 1605](#)]
- [TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[▸ 1578](#)]

2.2.4.6.2.2.6.1.2.1 *MessageExtensions.ToJson Method (Message)*

Returns an unformatted JSON [String](#) that represents the current [Message](#) [[► 924](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Message value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message](#) [[► 924](#)]
The [Message](#) [[► 924](#)] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Message](#) [[► 924](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[MessageExtensions Class](#) [[► 1605](#)]

[ToJson Overload](#) [[► 1608](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.6.1.2.2 *MessageExtensions.ToJson Method (Message, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [Message](#) [[► 924](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Message value,  
    bool format  
)
```

Parameters

value Type: [TcHmiSrv.Core.Message](#) [[► 924](#)]
The [Message](#) [[► 924](#)] to convert into a JSON [String](#).

format Type: [System.Boolean](#)
true to format the JSON [String](#) by indenting; otherwise, false.

Return Value

Type: [String](#)

A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Message](#) [[► 924](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[MessageExtensions Class](#) [[► 1605](#)]

[ToJson Overload](#) [[► 1608](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.6.1.2.3 *MessageExtensions.ToJson Method (Message, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [Message](#) [[► 924](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Message value,  
    bool format,  
    bool enableAdvancedConversions  
)
```

Parameters

value	Type: TcHmiSrv.Core.Message [► 924] The Message [► 924] to convert into a JSON String .
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.
enableAdvancedConversions	Type: System.Boolean true to enabled advanced conversions; otherwise, false.

Return Value

Type: [String](#)

A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Message](#) [[► 924](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[MessageExtensions Class](#) [[► 1605](#)]

[ToJson Overload \[▸ 1608\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.7 **SessionExtensions Class**

Provides extension methods for the [Session \[▸ 941\]](#) class.

Inheritance Hierarchy

[System.Object](#)

 TcHmiSrv.Core.Tools.Json.Extensions.SessionExtensions

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class SessionExtensions
```

The SessionExtensions type exposes the following members.

Methods

	Name	Description
 	FromJson [▸ 1612]	Returns a Session [▸ 941] that represents the specified JSON String .
 	ToJson(Session) [▸ 1612]	Returns an unformatted JSON String that represents the current Session [▸ 941] .
 	ToJson(Session, Boolean) [▸ 1613]	Returns a JSON String that represents the current Session [▸ 941] .

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.7.1 **SessionExtensions Methods**

The [SessionExtensions \[▸ 1611\]](#) type exposes the following members.

Methods

	Name	Description
 	FromJson [▸ 1612]	Returns a Session [▸ 941] that represents the specified JSON String .
 	ToJson(Session) [▸ 1612]	Returns an unformatted JSON String that represents the current Session [▸ 941] .
 	ToJson(Session, Boolean) [▸ 1613]	Returns a JSON String that represents the current Session [▸ 941] .

Reference

[SessionExtensions Class \[▸ 1611\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.7.1.1 **SessionExtensions.FromJson Method**

Returns a [Session \[▸ 941\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Session FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
 The JSON [String](#) to convert into an instance of type [Session \[▸ 941\]](#).

Return Value

Type: [Session \[▸ 941\]](#)
A [Session \[▸ 941\]](#) that represents value.

Reference

[SessionExtensions Class \[▸ 1611\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.7.1.2 **SessionExtensions.ToJson Method**

Overload List

	Name	Description
	ToJson(Session) [▸ 1612]	Returns an unformatted JSON String that represents the current Session [▸ 941] .
	ToJson(Session, Boolean) [▸ 1613]	Returns a JSON String that represents the current Session [▸ 941] .

Reference

[SessionExtensions Class \[▸ 1611\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.7.1.2.1 **SessionExtensions.ToJson Method (Session)**

Returns an unformatted JSON [String](#) that represents the current [Session \[▸ 941\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Session value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Session](#) [[► 941](#)]
The [Session](#) [[► 941](#)] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Session](#) [[► 941](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[SessionExtensions Class](#) [[► 1611](#)]

[ToJson Overload](#) [[► 1612](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.7.1.2.2 *SessionExtensions.ToJson Method (Session, Boolean)*

Returns a JSON [String](#) that represents the current [Session](#) [[► 941](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Session value,  
    bool format  
)
```

Parameters

value Type: [TcHmiSrv.Core.Session](#) [[► 941](#)]
The [Session](#) [[► 941](#)] to convert into a JSON [String](#).

format Type: [System.Boolean](#)
true to format the JSON [String](#) by indenting; otherwise, false.

Return Value

Type: [String](#)

A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Session](#) [► 941]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[SessionExtensions Class](#) [► 1611]

[ToJson Overload](#) [► 1612]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.8 *ValueExtensions Class*

Provides extension methods for the [Value](#) [► 952] class.

Provides extension methods for the [Value](#) [► 952] class.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Json.Extensions.ValueExtensions](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static class ValueExtensions
```

The [ValueExtensions](#) type exposes the following members.

Methods

	Name	Description
 	FromJson(String) [▸ 1616]	Returns a Value [▸ 952] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1617]	Returns a Value [▸ 952] that represents the specified JSON String .
 	ToJson(Value) [▸ 1618]	Returns an unformatted JSON String that represents the current Value [▸ 952] .
 	ToJson(Value, Boolean) [▸ 1619]	Returns an unformatted JSON String that represents the current Value [▸ 952] .
 	ToJson(Value, Boolean, Boolean) [▸ 1619]	Returns a JSON String that represents the current Value [▸ 952] .
 	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952] .

Reference

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.8.1 ValueExtensions Methods

The [ValueExtensions \[▸ 1614\]](#) type exposes the following members.

Methods

	Name	Description
 	FromJson(String) [▸ 1616]	Returns a Value [▸ 952] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1617]	Returns a Value [▸ 952] that represents the specified JSON String .
 	ToJson(Value) [▸ 1618]	Returns an unformatted JSON String that represents the current Value [▸ 952] .
 	ToJson(Value, Boolean) [▸ 1619]	Returns an unformatted JSON String that represents the current Value [▸ 952] .
 	ToJson(Value, Boolean, Boolean) [▸ 1619]	Returns a JSON String that represents the current Value [▸ 952] .
 	ToJsonValue [▸ 1620]	Returns a JsonValue [▸ 1542] that contains an unformatted JSON String representing the current Value [▸ 952] .

Reference

[ValueExtensions Class \[▸ 1614\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.8.1.1 ValueExtensions.FromJson Method**Overload List**

	Name	Description
 	FromJson(String) [▸ 1616]	Returns a Value [▸ 952] that represents the specified JSON String .
 	FromJson(String, Boolean) [▸ 1617]	Returns a Value [▸ 952] that represents the specified JSON String .

Reference

[ValueExtensions Class \[▸ 1614\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[▸ 1578\]](#)

2.2.4.6.2.2.8.1.1.1 ValueExtensions.FromJson Method (String)

Returns a [Value \[▸ 952\]](#) that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[▸ 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Value FromJson(  
    string value  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Value](#) [► 952].

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[ValueExtensions Class](#) [► 1614]

[FromJson Overload](#) [► 1616]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.8.1.1.2 *ValueExtensions.FromJson Method (String, Boolean)*

Returns a [Value](#) [► 952] that represents the specified JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Value FromJson(  
    string value,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
The JSON [String](#) to convert into an instance of type [Value](#) [► 952].

enableAdvancedConversions Type: [System.Boolean](#)
true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Value](#) [► 952]
A [Value](#) [► 952] that represents value.

Reference

[ValueExtensions Class](#) [► 1614]

[FromJson Overload](#) [► 1616]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.8.1.2 **ValueExtensions.ToJson Method**

Overload List

	Name	Description
	ToJson(Value) [► 1618]	Returns an unformatted JSON String that represents the current Value [► 952].
	ToJson(Value, Boolean) [► 1619]	Returns an unformatted JSON String that represents the current Value [► 952].
	ToJson(Value, Boolean, Boolean) [► 1619]	Returns a JSON String that represents the current Value [► 952].

Reference

[ValueExtensions Class](#) [► 1614]
[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.8.1.2.1 **ValueExtensions.ToJson Method (Value)**

Returns an unformatted JSON [String](#) that represents the current [Value](#) [► 952].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [► 1578]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Value value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [► 952]
 The [Value](#) [► 952] to convert into an unformatted JSON [String](#).

Return Value

Type: [String](#)
An unformatted JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value](#) [► 952]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [► 1614]
[ToJson Overload](#) [► 1618]
[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [► 1578]

2.2.4.6.2.2.8.1.2.2 *ValueExtensions.ToJson Method (Value, Boolean)*

Returns an unformatted JSON [String](#) that represents the current [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Value value,  
    bool format  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value](#) [[► 952](#)]
The [Value](#) [[► 952](#)] to convert into a JSON [String](#).

format Type: [System.Boolean](#)
true to format the JSON [String](#) by indenting; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value](#) [[► 952](#)]. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [[► 1614](#)]

[ToJson Overload](#) [[► 1618](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.2.8.1.2.3 *ValueExtensions.ToJson Method (Value, Boolean, Boolean)*

Returns a JSON [String](#) that represents the current [Value](#) [[► 952](#)].

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions](#) [[► 1578](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string ToJson(  
    this Value value,  
    bool format,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
 The [Value \[► 952\]](#) to convert into a JSON [String](#).

format Type: [System.Boolean](#)
 true to format the JSON [String](#) by indenting; otherwise, false.

enableAdvancedConversions Type: [System.Boolean](#)
 true to enabled advanced conversions; otherwise, false.

Return Value

Type: [String](#)
 A JSON [String](#) that represents value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value \[► 952\]](#). When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class \[► 1614\]](#)

[ToJson Overload \[► 1618\]](#)

[TcHmiSrv.Core.Tools.Json.Extensions Namespace \[► 1578\]](#)

2.2.4.6.2.2.8.1.3 ValueExtensions.ToJsonValue Method

Returns a [JsonValue \[► 1542\]](#) that contains an unformatted JSON [String](#) representing the current [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Extensions \[► 1578\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public static JsonValue ToJsonValue(
    this Value value
)
```

Parameters

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
 The [Value \[► 952\]](#) to convert.

Return Value

Type: [JsonValue \[► 1542\]](#)
 A [JsonValue \[► 1542\]](#) that contains an unformatted JSON [String](#) representing value.

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [Value \[► 952\]](#). When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [[► 1614](#)]

[TcHmiSrv.Core.Tools.Json.Extensions Namespace](#) [[► 1578](#)]

2.2.4.6.2.3 TcHmiSrv.Core.Tools.Json.Newtonsoft Namespaces

Contains types and namespaces for the core types of the TwinCAT HMI server extension API to interact with types from the [Newtonsoft.Json](#) namespace.

Namespaces

Namespace	Description
TcHmiSrv.Core.Tools.Json.Newtonsoft [► 1621]	Contains the TcHmiJsonSerializer [► 1621] to serialize instances of types from the TcHmiSrv.Core [► 764] namespace to JSON Strings and back.
TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters [► 1674]	Contains JsonConverters to convert the core API types to and from JSON.

2.2.4.6.2.3.1 TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace

Contains the [TcHmiJsonSerializer](#) [[► 1621](#)] to serialize instances of types from the [TcHmiSrv.Core](#) [[► 764](#)] namespace to JSON [Strings](#) and back.

Classes

	Class	Description
	TcHmiJsonSerializer [► 1621]	Provides methods to serialize instances of any type from the TcHmiSrv.Core [► 764] namespace to JSON Strings and back.

2.2.4.6.2.3.1.1 TcHmiJsonSerializer Class

Provides methods to serialize instances of any type from the [TcHmiSrv.Core](#) [[► 764](#)] namespace to JSON [Strings](#) and back.

Inheritance Hierarchy

[System.Object](#)

[JsonSerializer](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.TcHmiJsonSerializer](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[► 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class TcHmiJsonSerializer : JsonSerializer
```

The [TcHmiJsonSerializer](#) type exposes the following members.

Constructors

	Name	Description
	TcHmiJsonSer ializer [► 1631]	Initializes a new instance of the TcHmiJsonSerializer class

Properties

	Name	Description
 S	AdvancedJsonConverters [► 1634]	Gets a JsonConverterCollection that contains the default JsonConverters with advanced conversions enabled.
	Binder	Obsolete. (Inherited from JsonSerializer.)
	CheckAdditionalContent	(Inherited from JsonSerializer.)
	ConstructorHandling	(Inherited from JsonSerializer.)
	Context	(Inherited from JsonSerializer.)
	ContractResolver	(Inherited from JsonSerializer.)
	Converters	(Inherited from JsonSerializer.)
	Culture	(Inherited from JsonSerializer.)
	DateFormatHandling	(Inherited from JsonSerializer.)
	DateFormatString	(Inherited from JsonSerializer.)
	DateParseHandling	(Inherited from JsonSerializer.)
	DateTimeZoneHandling	(Inherited from JsonSerializer.)
 S	DefaultAdvancedJsonConverters [► 1635]	Obsolete. Gets a JsonConverterCollection that contains the default JsonConverters with advanced conversions enabled.
 S	DefaultJsonConverters [► 1635]	Gets a JsonConverterCollection that contains the default JsonConverters .
 S	DefaultSettings [► 1636]	Gets the default JsonSerializerSettings .
 S	DefaultSettingsWithAdvancedConverters [► 1636]	Gets the default JsonSerializerSettings with the AdvancedJsonConverters [► 1634].
 S	DefaultSettingsWithConverters [► 1636]	Obsolete. Gets the default JsonSerializerSettings with the DefaultJsonConverters [► 1635].
 S	DefaultSettingsWithDefaultConverters [► 1637]	Gets the default JsonSerializerSettings with the DefaultJsonConverters [► 1635].
	DefaultValueHandling	(Inherited from JsonSerializer.)

	Name	Description
	EqualityComparer	(Inherited from JsonSerializer.)
	FloatFormatHandling	(Inherited from JsonSerializer.)
	FloatParseHandling	(Inherited from JsonSerializer.)
	Formatting	(Inherited from JsonSerializer.)
	MaxDepth	(Inherited from JsonSerializer.)
	MetadataPropertyHandling	(Inherited from JsonSerializer.)
	MissingMemberHandling	(Inherited from JsonSerializer.)
	NullValueHandling	(Inherited from JsonSerializer.)
	ObjectCreationHandling	(Inherited from JsonSerializer.)
	PreserveReferencesHandling	(Inherited from JsonSerializer.)
	ReferenceLoopHandling	(Inherited from JsonSerializer.)
	ReferenceResolver	(Inherited from JsonSerializer.)
	SerializationBinder	(Inherited from JsonSerializer.)
	StringEscapeHandling	(Inherited from JsonSerializer.)
	TraceWriter	(Inherited from JsonSerializer.)
	TypeNameAssemblyFormat	Obsolete. (Inherited from JsonSerializer.)
	TypeNameAssemblyFormatHandling	(Inherited from JsonSerializer.)
	TypeNameHandling	(Inherited from JsonSerializer.)

Methods

	Name	Description
	Create [► 1643]	Creates a new <code>TcHmiJsonSerializer</code> instance. The <code>TcHmiJsonSerializer</code> will not use default settings from <code>DefaultSettings</code> [► 1636].
	Create(JsonSerializerSettings) [► 1643]	Creates a new <code>TcHmiJsonSerializer</code> instance using the specified <code>JsonSerializerSettings</code> . The <code>TcHmiJsonSerializer</code> will not use default settings from <code>DefaultSettings</code> [► 1636].
	CreateDefault [► 1644]	Creates a new <code>TcHmiJsonSerializer</code> instance. The <code>TcHmiJsonSerializer</code> will use default settings from <code>DefaultSettings</code> [► 1636].
	CreateDefault(JsonSerializerSettings) [► 1645]	Creates a new <code>TcHmiJsonSerializer</code> instance using the specified <code>JsonSerializerSettings</code> . The <code>TcHmiJsonSerializer</code> will use default settings from <code>DefaultSettings</code> [► 1636] as well as the specified <code>JsonSerializerSettings</code> .
	Deserialize(TextReader, Type)	(Inherited from <code>JsonSerializer</code> .)
	Deserialize(JsonReader, Type) [► 1652]	Deserializes the JSON <code>String</code> contained by the specified <code>JsonReader</code> to an equivalent instance of the specified <code>Type</code> .
	Deserialize(String, Type) [► 1654]	Deserializes the specified JSON <code>String</code> to an equivalent instance of the specified <code>Type</code> .
	Deserialize(JsonReader, Type, JsonSerializerSettings) [► 1655]	Deserializes the JSON <code>String</code> contained by the specified <code>JsonReader</code> to an equivalent instance of the specified <code>Type</code> .
	Deserialize(JsonReader, Type, Boolean) [► 1656]	Deserializes the JSON <code>String</code> contained by the specified <code>JsonReader</code> to an equivalent instance of the specified <code>Type</code> .
	Deserialize(String, Type, JsonSerializerSettings) [► 1657]	Deserializes the specified JSON <code>String</code> to an equivalent instance of the specified <code>Type</code> .
	Deserialize(String, Type, Boolean) [► 1657]	Deserializes the specified JSON <code>String</code> to an equivalent instance of the specified <code>Type</code> .

	Name	Description
 	Deserialize.T. (JsonReader) [► 1648]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (JsonConverter r.T., String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
 	Deserialize.T. (JsonReader, JsonSerializer Settings) [► 1650]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (JsonReader, Boolean) [► 1651]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (String, JsonSerializer Settings) [► 1652]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (String, Boolean) [► 1653]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (JsonConverter r.T., String, JsonSerializer) [► 1654]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Populate(Text Reader, Object)	(Inherited from JsonSerializer .)
	Populate(Json Reader, Object)	(Inherited from JsonSerializer .)

	Name	Description
	Serialize(Object) [▶ 1662]	Serializes the specified Object to an equivalent JSON String .
	Serialize(TextWriter, Object)	(Inherited from JsonSerializer.)
	Serialize(JsonWriter, Object)	(Inherited from JsonSerializer.)
	Serialize(Object, JsonSerializerSettings) [▶ 1663]	Serializes the specified Object to an equivalent JSON String using the specified JsonSerializerSettings .
	Serialize(Object, Boolean) [▶ 1664]	Serializes the specified Object to an equivalent JSON String .
	Serialize(JsonWriter, Object, Type)	(Inherited from JsonSerializer.)
	Serialize(TextWriter, Object, Type)	(Inherited from JsonSerializer.)
	Serialize(JsonWriter, Object, JsonSerializerSettings) [▶ 1666]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
	Serialize(JsonWriter, Object, Boolean) [▶ 1667]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
	Serialize(Int32, Object, JsonSerializerSettings) [▶ 1667]	Serializes the specified Object to an equivalent JSON String using the specified capacity and JsonSerializerSettings .
	Serialize(Object, Boolean, Boolean) [▶ 1668]	Serializes the specified Object to an equivalent JSON String .

	Name	Description
	Serialize(Object, Type, JsonSerializerSettings) [► 1669]	Serializes the specified Object to an equivalent JSON String using the specified Type and JsonSerializerSettings .
	Serialize(JsonWriter, Object, Boolean, Boolean) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
	Serialize(JsonWriter, Object, Type, JsonSerializerSettings) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
	Serialize(Int32, Object, Type, JsonSerializerSettings) [► 1672]	Serializes the specified Object to an equivalent JSON String using the specified capacity, Type and JsonSerializerSettings .
	Serialize.T.(JsonConverter{T}, T) [► 1662]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
	Serialize.T.(JsonConverter{T}, T, JsonSerializer) [► 1664]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
	Serialize.T.(JsonConverter{T}, T, Boolean) [► 1665]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
	Serialize.T.(Int32, JsonConverter{T}, T, JsonSerializer) [► 1671]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Events

	Name	Description
	Error	(Inherited from JsonSerializer .)

Fields

	Name	Description
	DefaultCapacity [► 1674]	Contains the default capacity of StringBuilders that are used to create a JSON String .

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [\[► 1621\]](#)

2.2.4.6.2.3.1.1.1 TcHmiJsonSerializer Constructor

Initializes a new instance of the [TcHmiJsonSerializer](#) [\[► 1621\]](#) class

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [\[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public TcHmiJsonSerializer()
```

Reference

[TcHmiJsonSerializer Class](#) [\[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [\[► 1621\]](#)

2.2.4.6.2.3.1.1.2 TcHmiJsonSerializer Properties

The [TcHmiJsonSerializer](#) [\[► 1621\]](#) type exposes the following members.

Properties

	Name	Description
 S	AdvancedJsonConverters [► 1634]	Gets a JsonConverterCollection that contains the default JsonConverters with advanced conversions enabled.
	Binder	Obsolete. (Inherited from JsonSerializer.)
	CheckAdditionalContent	(Inherited from JsonSerializer.)
	ConstructorHandling	(Inherited from JsonSerializer.)
	Context	(Inherited from JsonSerializer.)
	ContractResolver	(Inherited from JsonSerializer.)
	Converters	(Inherited from JsonSerializer.)
	Culture	(Inherited from JsonSerializer.)
	DateFormatHandling	(Inherited from JsonSerializer.)
	DateFormatString	(Inherited from JsonSerializer.)
	DateParseHandling	(Inherited from JsonSerializer.)
	DateTimeZoneHandling	(Inherited from JsonSerializer.)
 S	DefaultAdvancedJsonConverters [► 1635]	Obsolete. Gets a JsonConverterCollection that contains the default JsonConverters with advanced conversions enabled.
 S	DefaultJsonConverters [► 1635]	Gets a JsonConverterCollection that contains the default JsonConverters .
 S	DefaultSettings [► 1636]	Gets the default JsonSerializerSettings .
 S	DefaultSettingsWithAdvancedConverters [► 1636]	Gets the default JsonSerializerSettings with the AdvancedJsonConverters [► 1634].
 S	DefaultSettingsWithConverters [► 1636]	Obsolete. Gets the default JsonSerializerSettings with the DefaultJsonConverters [► 1635].
 S	DefaultSettingsWithDefaultConverters [► 1637]	Gets the default JsonSerializerSettings with the DefaultJsonConverters [► 1635].
	DefaultValueHandling	(Inherited from JsonSerializer.)

	Name	Description
	EqualityComparer	(Inherited from JsonSerializer.)
	FloatFormatHandling	(Inherited from JsonSerializer.)
	FloatParseHandling	(Inherited from JsonSerializer.)
	Formatting	(Inherited from JsonSerializer.)
	MaxDepth	(Inherited from JsonSerializer.)
	MetadataPropertyHandling	(Inherited from JsonSerializer.)
	MissingMemberHandling	(Inherited from JsonSerializer.)
	NullValueHandling	(Inherited from JsonSerializer.)
	ObjectCreationHandling	(Inherited from JsonSerializer.)
	PreserveReferencesHandling	(Inherited from JsonSerializer.)
	ReferenceLoopHandling	(Inherited from JsonSerializer.)
	ReferenceResolver	(Inherited from JsonSerializer.)
	SerializationBinder	(Inherited from JsonSerializer.)
	StringEscapeHandling	(Inherited from JsonSerializer.)
	TraceWriter	(Inherited from JsonSerializer.)
	TypeNameAssemblyFormat	Obsolete. (Inherited from JsonSerializer.)
	TypeNameAssemblyFormatHandling	(Inherited from JsonSerializer.)
	TypeNameHandling	(Inherited from JsonSerializer.)

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.2.1 *TcHmiJsonSerializer.AdvancedJsonConverters Property*

Gets a [JsonConverterCollection](#) that contains the default [JsonConverters](#) with advanced conversions enabled.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JsonConverterCollection AdvancedJsonConverters { get; }
```

Property Value

Type: [JsonConverterCollection](#)

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.2.2 *TcHmiJsonSerializer.DefaultAdvancedJsonConverters Property*

Note: This API is now obsolete.

Gets a [JsonConverterCollection](#) that contains the default [JsonConverters](#) with advanced conversions enabled.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiJsonSerializer.DefaultAdvancedJsonConverters is obsolete. Use TcHmiJsonSerializer.AdvancedJsonConverters instead.")]  
public static JsonConverterCollection DefaultAdvancedJsonConverters { get; }
```

Property Value

Type: [JsonConverterCollection](#)

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.2.3 *TcHmiJsonSerializer.DefaultJsonConverters Property*

Gets a [JsonConverterCollection](#) that contains the default [JsonConverters](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JsonConverterCollection DefaultJsonConverters { get; }
```

Property Value

Type: [JsonConverterCollection](#)

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.1.1.2.4 *TcHmiJsonSerializer.DefaultSettings Property*

Gets the default [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JsonSerializerSettings DefaultSettings { get; }
```

Property Value

Type: JsonSerializerSettings

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.1.1.2.5 *TcHmiJsonSerializer.DefaultSettingsWithAdvancedConverters Property*

Gets the default [JsonSerializerSettings](#) with the [AdvancedJsonConverters \[► 1634\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JsonSerializerSettings DefaultSettingsWithAdvancedConverters { get; }
```

Property Value

Type: JsonSerializerSettings

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.1.1.2.6 *TcHmiJsonSerializer.DefaultSettingsWithConverters Property*

Note: This API is now obsolete.

Gets the default [JsonSerializerSettings](#) with the [DefaultJsonConverters \[► 1635\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("TcHmiJsonSerializer.DefaultSettingsWithConverters is obsolete. Use TcHmiJsonSerializer.DefaultSettingsWithDefaultConverters instead.")]  
public static JsonSerializerSettings DefaultSettingsWithConverters { get; }
```

Property Value

Type: JsonSerializerSettings

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.2.7 *TcHmiJsonSerializer.DefaultSettingsWithDefaultConverters Property*

Gets the default [JsonSerializerSettings](#) with the [DefaultJsonConverters](#) [► 1635].

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static JsonSerializerSettings DefaultSettingsWithDefaultConverters { get; }
```

Property Value

Type: JsonSerializerSettings

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.3 *TcHmiJsonSerializer Methods*

The [TcHmiJsonSerializer](#) [► 1621] type exposes the following members.

Methods

	Name	Description
 	Create [► 1643]	Creates a new TcHmiJsonSerializer [► 1621] instance. The TcHmiJsonSerializer [► 1621] will not use default settings from DefaultSettings [► 1636].
 	Create(JsonSerializerSettings) [► 1643]	Creates a new TcHmiJsonSerializer [► 1621] instance using the specified JsonSerializerSettings . The TcHmiJsonSerializer [► 1621] will not use default settings from DefaultSettings [► 1636].
 	CreateDefault [► 1644]	Creates a new TcHmiJsonSerializer [► 1621] instance. The TcHmiJsonSerializer [► 1621] will use default settings from DefaultSettings [► 1636].
 	CreateDefault(JsonSerializerSettings) [► 1645]	Creates a new TcHmiJsonSerializer [► 1621] instance using the specified JsonSerializerSettings . The TcHmiJsonSerializer [► 1621] will use default settings from DefaultSettings [► 1636] as well as the specified JsonSerializerSettings .
	Deserialize(TextReader, Type)	(Inherited from JsonSerializer .)
 	Deserialize(JsonReader, Type) [► 1652]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .
 	Deserialize(String, Type) [► 1654]	Deserializes the specified JSON String to an equivalent instance of the specified Type .
 	Deserialize(JsonReader, Type, JsonSerializerSettings) [► 1655]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .
 	Deserialize(JsonReader, Type, Boolean) [► 1656]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .
 	Deserialize(String, Type, JsonSerializerSettings) [► 1657]	Deserializes the specified JSON String to an equivalent instance of the specified Type .
 	Deserialize(String, Type, Boolean) [► 1657]	Deserializes the specified JSON String to an equivalent instance of the specified Type .

	Name	Description
 	Deserialize.T. (JsonReader) [► 1648]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (JsonConverter r.T., String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
 	Deserialize.T. (JsonReader, JsonSerializer Settings) [► 1650]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (JsonReader, Boolean) [► 1651]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (String, JsonSerializer Settings) [► 1652]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (String, Boolean) [► 1653]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (JsonConverter r.T., String, JsonSerializer) [► 1654]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	Populate(Text Reader, Object)	(Inherited from JsonSerializer .)
	Populate(Json Reader, Object)	(Inherited from JsonSerializer .)

	Name	Description
 	Serialize(Object) [▶ 1662]	Serializes the specified Object to an equivalent JSON String .
	Serialize(TextWriter, Object)	(Inherited from JsonSerializer.)
	Serialize(JsonWriter, Object)	(Inherited from JsonSerializer.)
 	Serialize(Object, JsonSerializerSettings) [▶ 1663]	Serializes the specified Object to an equivalent JSON String using the specified JsonSerializerSettings .
 	Serialize(Object, Boolean) [▶ 1664]	Serializes the specified Object to an equivalent JSON String .
	Serialize(JsonWriter, Object, Type)	(Inherited from JsonSerializer.)
	Serialize(TextWriter, Object, Type)	(Inherited from JsonSerializer.)
 	Serialize(JsonWriter, Object, JsonSerializerSettings) [▶ 1666]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Boolean) [▶ 1667]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(Int32, Object, JsonSerializerSettings) [▶ 1667]	Serializes the specified Object to an equivalent JSON String using the specified capacity and JsonSerializerSettings .
 	Serialize(Object, Boolean, Boolean) [▶ 1668]	Serializes the specified Object to an equivalent JSON String .

	Name	Description
 	Serialize(Object, Type, JsonSerializerSettings) [► 1669]	Serializes the specified Object to an equivalent JSON String using the specified Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Boolean, Boolean) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Type, JsonSerializerSettings) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(Int32, Object, Type, JsonSerializerSettings) [► 1672]	Serializes the specified Object to an equivalent JSON String using the specified capacity, Type and JsonSerializerSettings .
 	Serialize.T.(JsonConverter{T}, T) [► 1662]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize.T.(JsonConverter{T}, T, JsonSerializer) [► 1664]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize.T.(JsonConverter{T}, T, Boolean) [► 1665]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize.T.(Int32, JsonConverter{T}, T, JsonSerializer) [► 1671]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.3.1 *TcHmiJsonSerializer.Create Method*

Overload List

	Name	Description
 	Create [► 1643]	Creates a new TcHmiJsonSerializer [► 1621] instance. The TcHmiJsonSerializer [► 1621] will not use default settings from DefaultSettings [► 1636] .
 	Create(JsonSerializerSettings) [► 1643]	Creates a new TcHmiJsonSerializer [► 1621] instance using the specified JsonSerializerSettings . The TcHmiJsonSerializer [► 1621] will not use default settings from DefaultSettings [► 1636] .

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Create Method
4.6.
2.3.
1.1.
3.1.
1

Creates a new [TcHmiJsonSerializer \[► 1621\]](#) instance. The [TcHmiJsonSerializer \[► 1621\]](#) will not use default settings from [DefaultSettings \[► 1636\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: [TcHmiSrvExtNet.Core \(in TcHmiSrvExtNet.Core.dll\) Version: 1.3.0.0](#)

Syntax

C#

```
public static TcHmiJsonSerializer Create()
```

Return Value

Type: [TcHmiJsonSerializer \[► 1621\]](#)

A new [TcHmiJsonSerializer \[► 1621\]](#) instance. The [TcHmiJsonSerializer \[► 1621\]](#) will not use default settings from [DefaultSettings \[► 1636\]](#).

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Create Overload \[► 1643\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Create Method (JsonSerializerSettings)
4.6.
2.3.
1.1.
3.1.
2

Creates a new [TcHmiJsonSerializer \[► 1621\]](#) instance using the specified [JsonSerializerSettings](#). The [TcHmiJsonSerializer \[► 1621\]](#) will not use default settings from [DefaultSettings \[► 1636\]](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static TcHmiJsonSerializer Create(  
    JsonSerializerSettings settings  
)
```

Parameters

settings Type: JsonSerializerSettings
 The settings to be applied to the [TcHmiJsonSerializer](#) [► 1621].

Return Value

Type: [TcHmiJsonSerializer](#) [► 1621]
A new [TcHmiJsonSerializer](#) [► 1621] instance using settings. The [TcHmiJsonSerializer](#) [► 1621] will not use default settings from [DefaultSettings](#) [► 1636].

Reference

- [TcHmiJsonSerializer Class](#) [► 1621]
- [Create Overload](#) [► 1643]
- [TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.3.2 *TcHmiJsonSerializer.CreateDefault Method*

Overload List

	Name	Description
 	CreateDefault . [► 1644]	Creates a new TcHmiJsonSerializer [► 1621] instance. The TcHmiJsonSerializer [► 1621] will use default settings from DefaultSettings [► 1636].
 	CreateDefault (JsonSerializer Settings) [► 1645]	Creates a new TcHmiJsonSerializer [► 1621] instance using the specified JsonSerializerSettings . The TcHmiJsonSerializer [► 1621] will use default settings from DefaultSettings [► 1636] as well as the specified JsonSerializerSettings .

Reference

- [TcHmiJsonSerializer Class](#) [► 1621]
- [TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]
- 2.2.TcHmiJsonSerializer.CreateDefault Method
- 4.6.
- 2.3.
- 1.1.
- 3.2.
- 1

Creates a new [TcHmiJsonSerializer](#) [► 1621] instance. The [TcHmiJsonSerializer](#) [► 1621] will use default settings from [DefaultSettings](#) [► 1636].

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static TcHmiJsonSerializer CreateDefault()
```

Return Value

Type: [TcHmiJsonSerializer](#) [► 1621]

A new [TcHmiJsonSerializer](#) [► 1621] instance. The [TcHmiJsonSerializer](#) [► 1621] will use default settings from [DefaultSettings](#) [► 1636].

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[CreateDefault Overload](#) [► 1644]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.CreateDefault Method \(JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.2.

2

Creates a new [TcHmiJsonSerializer](#) [► 1621] instance using the specified [JsonSerializerSettings](#). The [TcHmiJsonSerializer](#) [► 1621] will use default settings from [DefaultSettings](#) [► 1636] as well as the specified [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static TcHmiJsonSerializer CreateDefault(  
    JsonSerializerSettings settings  
)
```

Parameters

settings Type: [JsonSerializerSettings](#)
The settings to be applied to the [TcHmiJsonSerializer](#) [► 1621].

Return Value

Type: [TcHmiJsonSerializer](#) [► 1621]

A new [TcHmiJsonSerializer](#) [► 1621] instance using settings. The [TcHmiJsonSerializer](#) [► 1621] will use default settings from [DefaultSettings](#) [► 1636] as well as the specified [JsonSerializerSettings](#).

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[CreateDefault Overload](#) [► 1644]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.3.3 *TcHmiJsonSerializer.Deserialize Method*

Overload List

	Name	Description
 	Deserialize.T. (JsonReader) [► 1648]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type.
	Deserialize(T extReader, Type)	(Inherited from JsonSerializer.)
 	Deserialize.T. (JsonConverte r.T., String) [► 1649]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
 	Deserialize.T. (JsonReader, JsonSerializer Settings) [► 1650]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize.T. (JsonReader, Boolean) [► 1651]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.
 	Deserialize(Js onReader, Type) [► 1652]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .
 	Deserialize.T. (String, JsonSerializer Settings) [► 1652]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize.T. (String, Boolean) [► 1653]	Deserializes the specified JSON String to an equivalent instance of the specified type.
 	Deserialize(St ring, Type) [► 1654]	Deserializes the specified JSON String to an equivalent instance of the specified Type .
 	Deserialize.T. (JsonConverte r.T., String, JsonSerializer) [► 1654]	Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T} .
 	Deserialize(Js onReader, Type, JsonSerializer Settings) [► 1655]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .

	Name	Description
 	Deserialize(JsonReader, Type, Boolean) [► 1656]	Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type .
 	Deserialize(String, Type, JsonSerializerSettings) [► 1657]	Deserializes the specified JSON String to an equivalent instance of the specified Type .
 	Deserialize(String, Type, Boolean) [► 1657]	Deserializes the specified JSON String to an equivalent instance of the specified Type .

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.TcHmiJsonSerializer.Deserialize.T. Method (JsonReader)

4.6.

2.3.

1.1.

3.3.

1

Deserializes the JSON [String](#) contained by the specified [JsonReader](#) to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(
    JsonReader reader
)
```

Parameters

reader Type: [JsonReader](#)
The [JsonReader](#) that contains the JSON [String](#) to convert.

Type Parameters

T The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to the JSON [String](#) contained by reader.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Deserialize.T. Method (String)

4.6.

2.3.

1.1.

3.3.

2

Deserializes the specified JSON String to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(
    string value
)
```

Parameters

value Type: [System.String](#)
The JSON String to convert.

Type Parameters

T The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Deserialize.T. Method (JsonConverter`1.T., String)

4.6.

2.3.

1.1.

3.3.

3

Deserializes the specified JSON String to an equivalent instance of the specified type using the specified [JsonConverter{T}](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(  
    JsonSerializer<T> converter,  
    string value  
)
```

Parameters

converter	Type: <code>JsonConverter.T</code> . The <code>JsonConverter{T}</code> that is used to deserialize value to an equivalent instance of the specified type.
value	Type: <code>System.String</code> The JSON <code>String</code> to convert.

Type Parameters

T	The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. `TcHmiJsonSerializer.Deserialize.T`. Method (`JsonReader`, `JsonSerializerSettings`)

4.6.

2.3.

1.1.

3.3.

4

Deserializes the JSON `String` contained by the specified `JsonReader` to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: `TcHmiSrvExtNet.Core` (in `TcHmiSrvExtNet.Core.dll`) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(  
    JsonReader reader,  
    JsonSerializerSettings settings  
)
```

Parameters

reader	Type: <code>JsonReader</code> The <code>JsonReader</code> that contains the JSON <code>String</code> to convert.
settings	Type: <code>JsonSerializerSettings</code> The <code>JsonSerializerSettings</code> that will be used to deserialize the specified JSON <code>String</code> or null to use the default <code>JsonSerializerSettings</code> .

Type Parameters

T The type of the value to return.

Return Value

Type: T

An instance of the specified type that is equivalent to the JSON String contained by reader.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Deserialize.T. Method (JsonReader, Boolean)

4.6.

2.3.

1.1.

3.3.

5

Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(  
    JsonReader reader,  
    bool enableAdvancedConversions  
)
```

Parameters

reader Type: JsonReader
 The JsonReader that contains the JSON String to convert.

enableAdvancedConversions Type: System.Boolean
 true to enabled advanced conversions; otherwise, false.

Type Parameters

T The type of the value to return.

Return Value

Type: T

An instance of the specified type that is equivalent to the JSON String contained by reader.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Deserialize Method (JsonReader, Type)

4.6.

2.3.

1.1.

3.3.

6

Deserializes the JSON String contained by the specified JsonReader to an equivalent instance of the specified Type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[► 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Object Deserialize(  
    JsonReader reader,  
    Type type  
)
```

Parameters

reader Type: JsonReader
The JsonReader that contains the JSON String to convert.

type Type: System.Type
The Type of the value to return.

Return Value

Type: Object

An Object instance that is equivalent to the JSON String contained by reader.

Reference

[TcHmiJsonSerializer Class](#) [[► 1621](#)]

[Deserialize Overload](#) [[► 1646](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [[► 1621](#)]

2.2.TcHmiJsonSerializer.Deserialize.T. Method (String, JsonSerializerSettings)

4.6.

2.3.

1.1.

3.3.

7

Deserializes the specified JSON String to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[► 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(  
    string value,  
    JsonSerializerSettings settings  
)
```


Parameters

value	Type: System.String The JSON String to convert.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to deserialize the specified JSON String or null to use the default JsonSerializerSettings .

Type Parameters

T	The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Deserialize Overload](#) [► 1646]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Deserialize.T. Method \(String, Boolean\)](#)

4.6.

2.3.

1.1.

3.3.

8

Deserializes the specified JSON [String](#) to an equivalent instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(
    string value,
    bool enableAdvancedConversions
)
```

Parameters

value	Type: System.String The JSON String to convert.
enableAdvancedConversions	Type: System.Boolean true to enabled advanced conversions; otherwise, false.

Type Parameters

T	The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Deserialize Method (String, Type)

4.6.

2.3.

1.1.

3.3.

9

Deserializes the specified JSON String to an equivalent instance of the specified Type.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Object Deserialize(
    string value,
    Type type
)
```

Parameters

value	Type: System.String The JSON <u>String</u> to convert.
type	Type: System.Type The <u>Type</u> of the value to return.

Return Value

Type: [Object](#)

An [Object](#) instance that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Deserialize.T. Method (JsonConverter`1.T., String, JsonSerializer)

4.6.

2.3.

1.1.

3.3.

10

Deserializes the specified JSON String to an equivalent instance of the specified type using the specified JsonConverter{T}.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static T Deserialize<T>(
    JsonSerializer<T> converter,
    string value,
    JsonSerializer serializer
)
```

Parameters

converter	Type: <code>JsonConverter.T</code> . The <code>JsonConverter{T}</code> that is used to deserialize value to an equivalent instance of the specified type.
value	Type: <code>System.String</code> The JSON <code>String</code> to convert.
serializer	Type: <code>JsonSerializer</code> The calling <code>JsonSerializer</code> .

Type Parameters

T	The type of the value to return.

Return Value

Type: T
An instance of the specified type that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. [TcHmiJsonSerializer.Deserialize Method \(JsonReader, Type, JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.3.

11

Deserializes the JSON `String` contained by the specified `JsonReader` to an equivalent instance of the specified `Type`.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Object Deserialize(
    JsonReader reader,
    Type type,
    JsonSerializerSettings settings
)
```

Parameters

reader	Type: JsonReader The JsonReader that contains the JSON String to convert.
type	Type: System.Type The Type of the value to return.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to deserialize the specified JSON String or null to use the default JsonSerializerSettings .

Return Value

Type: [Object](#)
An [Object](#) instance that is equivalent to the JSON [String](#) contained by reader.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Deserialize Overload](#) [► 1646]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Deserialize Method \(JsonReader, Type, Boolean\)](#)

4.6.

2.3.

1.1.

3.3.

12

Deserializes the JSON [String](#) contained by the specified [JsonReader](#) to an equivalent instance of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static Object Deserialize(
    JsonReader reader,
    Type type,
    bool enableAdvancedConversions
)
```

Parameters

reader	Type: JsonReader The JsonReader that contains the JSON String to convert.
type	Type: System.Type The Type of the value to return.
enableAdvancedConversions	Type: System.Boolean true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Object](#)
An [Object](#) instance that is equivalent to the JSON [String](#) contained by reader.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Deserialize Method (String, Type, JsonSerializerSettings)

4.6.

2.3.

1.1.

3.3.

13

Deserializes the specified JSON [String](#) to an equivalent instance of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Object Deserialize(  
    string value,  
    Type type,  
    JsonSerializerSettings settings  
)
```

Parameters

value	Type: System.String The JSON String to convert.
type	Type: System.Type The Type of the value to return.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to deserialize value or null to use the default JsonSerializerSettings .

Return Value

Type: [Object](#)

An [Object](#) instance that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Deserialize Method (String, Type, Boolean)

4.6.

2.3.

1.1.

3.3.

14

Deserializes the specified JSON [String](#) to an equivalent instance of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Object Deserialize(  
    string value,  
    Type type,  
    bool enableAdvancedConversions  
)
```

Parameters

value Type: [System.String](#)
 The JSON [String](#) to convert.

type Type: [System.Type](#)
 The [Type](#) of the value to return.

enableAdvancedConversions Type: [System.Boolean](#)
 true to enabled advanced conversions; otherwise, false.

Return Value

Type: [Object](#)
An [Object](#) instance that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Deserialize Overload \[► 1646\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.1.1.3.4 *TcHmiJsonSerializer.Serialize Method*

Overload List

	Name	Description
 	Serialize(Object) [▶ 1662]	Serializes the specified Object to an equivalent JSON String .
	Serialize(TextWriter, Object)	(Inherited from JsonSerializer .)
	Serialize(JsonWriter, Object)	(Inherited from JsonSerializer .)
 	Serialize.T.(JsonConverter.T, T) [▶ 1662]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize(Object, JsonSerializerSettings) [▶ 1663]	Serializes the specified Object to an equivalent JSON String using the specified JsonSerializerSettings .
 	Serialize(Object, Boolean) [▶ 1664]	Serializes the specified Object to an equivalent JSON String .
	Serialize(JsonWriter, Object, Type)	(Inherited from JsonSerializer .)
	Serialize(TextWriter, Object, Type)	(Inherited from JsonSerializer .)
 	Serialize.T.(JsonConverter.T, T, JsonSerializer) [▶ 1664]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize.T.(JsonConverter.T, T, Boolean) [▶ 1665]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize(JsonWriter, Object, JsonSerializerSettings) [▶ 1666]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Boolean) [▶ 1667]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .

	Name	Description
 	Serialize(Int32, Object, JsonSerializerSettings) [► 1667]	Serializes the specified Object to an equivalent JSON String using the specified capacity and JsonSerializerSettings .
 	Serialize(Object, Boolean, Boolean) [► 1668]	Serializes the specified Object to an equivalent JSON String .
 	Serialize(Object, Type, JsonSerializerSettings) [► 1669]	Serializes the specified Object to an equivalent JSON String using the specified Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Boolean, Boolean) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize(JsonWriter, Object, Type, JsonSerializerSettings) [► 1670]	Serializes the specified Object to an equivalent JSON String using the specified JsonWriter , Type and JsonSerializerSettings .
 	Serialize.T.(Int32, JsonSerializer.T., T, JsonSerializer) [► 1671]	Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T} .
 	Serialize(Int32, Object, Type, JsonSerializerSettings) [► 1672]	Serializes the specified Object to an equivalent JSON String using the specified capacity, Type and JsonSerializerSettings .

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.TcHmiJsonSerializer.Serialize Method (Object)

4.6.

2.3.

1.1.

3.4.

1

Serializes the specified Object to an equivalent JSON String.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[▶ 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public static string Serialize(
    Object value
)
```

Parameters

value Type: [System.Object](#)
The Object to convert.

Return Value

Type: [String](#)

A JSON String that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [[▶ 1621](#)]

[Serialize Overload](#) [[▶ 1659](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [[▶ 1621](#)]

2.2.TcHmiJsonSerializer.Serialize.T. Method (JsonConverter`1.T., T)

4.6.

2.3.

1.1.

3.4.

2

Serializes the specified value to an equivalent JSON String using the specified JsonConverter{T}.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[▶ 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public static string Serialize<T>(
    JsonConverter<T> converter,
    T value
)
```

Parameters

converter	Type: JsonConverter.T . The JsonConverter{T} that is used to serialize value to an equivalent JSON String
value	Type: T The value to convert.

Type Parameters

T	The type of the value to convert.

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Serialize Method \(Object, JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.4.

3

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    Object value,  
    JsonSerializerSettings settings  
)
```

Parameters

value	Type: System.Object The Object to convert.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to serialize value or null to use the default JsonSerializerSettings .

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload \[► 1659\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Serialize Method (Object, Boolean)

4.6.

2.3.

1.1.

3.4.

4

Serializes the specified [Object](#) to an equivalent JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    Object value,  
    bool format  
)
```

Parameters

value	Type: System.Object The Object to convert.
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Return Value

Type: [String](#)

A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Serialize Overload \[► 1659\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.TcHmiJsonSerializer.Serialize.T. Method (JsonConverter`1.T., T, JsonSerializer)

4.6.

2.3.

1.1.

3.4.

5

Serializes the specified value to an equivalent JSON [String](#) using the specified [JsonConverter{T}](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize<T>(
    JsonSerializer converter,
    T value,
    JsonSerializer serializer
)
```

Parameters

converter	Type: JsonSerializer.T. The JsonConverter{T} that is used to serialize value to an equivalent JSON String
value	Type: T The value to convert.
serializer	Type: JsonSerializer The calling JsonSerializer .

Type Parameters

T	The type of the value to convert.

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.TcHmiJsonSerializer.Serialize.T. Method (JsonConverter`1.T., T, Boolean)

4.6.

2.3.

1.1.

3.4.

6

Serializes the specified value to an equivalent JSON [String](#) using the specified [JsonConverter{T}](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize<T>(
    JsonSerializer converter,
    T value,
    bool format
)
```

Parameters

converter	Type: JsonConverter.T . The JsonConverter{T} that is used to serialize value to an equivalent JSON String
value	Type: T The value to convert.
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Type Parameters

T	The type of the value to convert.

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Serialize Method \(JsonWriter, Object, JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.4.

7

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified [JsonWriter](#), [Type](#) and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public static void Serialize(
    JsonWriter writer,
    Object value,
    JsonSerializerSettings settings
)
```

Parameters

writer	Type: JsonWriter The JsonWriter that is used to write the JSON String .
value	Type: System.Object The Object to convert.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to serialize value or null to use the default JsonSerializerSettings .

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload \[► 1659\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Serialize Method (JsonWriter, Object, Boolean)

4.6.

2.3.

1.1.

3.4.

8

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified [JsonWriter](#), [Type](#) and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static void Serialize(  
    JsonWriter writer,  
    Object value,  
    bool format  
)
```

Parameters

writer	Type: JsonWriter The JsonWriter that is used to write the JSON String .
value	Type: System.Object The Object to convert.
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[Serialize Overload \[► 1659\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2. TcHmiJsonSerializer.Serialize Method (Int32, Object, JsonSerializerSettings)

4.6.

2.3.

1.1.

3.4.

9

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified capacity and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    int capacity,  
    Object value,  
    JsonSerializerSettings settings  
)
```

Parameters

capacity	Type: System.Int32 The capacity of the StringBuilder that is used to create the JSON String .
value	Type: System.Object The Object to convert.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to serialize value or null to use the default JsonSerializerSettings .

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Serialize Method \(Object, Boolean, Boolean\)](#)

4.6.

2.3.

1.1.

3.4.

10

Serializes the specified [Object](#) to an equivalent JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    Object value,  
    bool format,  
    bool enableAdvancedConversions  
)
```


Parameters

value	Type: System.Object The Object to convert.
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.
enableAdvancedConversions	Type: System.Boolean true to enable advanced conversions; otherwise, false.

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Serialize Method \(Object, Type, JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.4.

11

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified [Type](#) and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    Object value,  
    Type type,  
    JsonSerializerSettings settings  
)
```

Parameters

value	Type: System.Object The Object to convert.
type	Type: System.Type The Type of the value being serialized. This parameter is used when TypeNameHandling is TypeNameHandling.Auto to write out the Type name if the Type of the value does not match. Specifying the Type is optional.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to serialize value or null to use the default JsonSerializerSettings .

Return Value

Type: [String](#)

A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.TcHmiJsonSerializer.Serialize Method (JsonWriter, Object, Boolean, Boolean)

4.6.

2.3.

1.1.

3.4.

12

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified [JsonWriter](#), [Type](#) and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```

public static void Serialize(
    JsonWriter writer,
    Object value,
    bool format,
    bool enableAdvancedConversions
)

```

Parameters

writer	Type: JsonWriter The JsonWriter that is used to write the JSON String .
value	Type: System.Object The Object to convert.
format	Type: System.Boolean true to format the JSON String by indenting; otherwise, false.
enableAdvancedConversions	Type: System.Boolean true to enabled advanced conversions; otherwise, false.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.TcHmiJsonSerializer.Serialize Method (JsonWriter, Object, Type, JsonSerializerSettings)

4.6.

2.3.

1.1.

3.4.

13

Serializes the specified Object to an equivalent JSON String using the specified JsonWriter, Type and JsonSerializerSettings.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[► 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static void Serialize(
    JsonWriter writer,
    Object value,
    Type type,
    JsonSerializerSettings settings
)
```

Parameters

writer	Type: JsonWriter The JsonWriter that is used to write the JSON String .
value	Type: System.Object The Object to convert.
type	Type: System.Type The Type of the value being serialized. This parameter is used when TypeNameHandling is TypeNameHandling.Auto to write out the Type name if the Type of the value does not match. Specifying the Type is optional.
settings	Type: JsonSerializerSettings The JsonSerializerSettings that will be used to serialize value or null to use the default JsonSerializerSettings .

Reference

[TcHmiJsonSerializer Class](#) [[► 1621](#)]

[Serialize Overload](#) [[► 1659](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [[► 1621](#)]

2.2. [TcHmiJsonSerializer.Serialize.T. Method](#) (Int32, [JsonConverter`1.T](#), T, [JsonSerializer](#))

4.6.

2.3.

1.1.

3.4.

14

Serializes the specified value to an equivalent JSON [String](#) using the specified [JsonConverter{T}](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [[► 1621](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize<T>(
    int capacity,
    JsonConverter<T> converter,
    T value,
    JsonSerializer serializer
)
```

Parameters

capacity	Type: System.Int32 The capacity of the StringBuilder that is used to create the JSON String .
converter	Type: JsonConverter.T . The JsonConverter{T} that is used to serialize value to an equivalent JSON String
value	Type: T The value to convert.
serializer	Type: JsonSerializer The calling JsonSerializer .

Type Parameters

T	The type of the value to convert.

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

[TcHmiJsonSerializer Class](#) [► 1621]

[Serialize Overload](#) [► 1659]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2. [TcHmiJsonSerializer.Serialize Method \(Int32, Object, Type, JsonSerializerSettings\)](#)

4.6.

2.3.

1.1.

3.4.

15

Serializes the specified [Object](#) to an equivalent JSON [String](#) using the specified capacity, [Type](#) and [JsonSerializerSettings](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft](#) [► 1621]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static string Serialize(  
    int capacity,  
    Object value,  
    Type type,  
    JsonSerializerSettings settings  
)
```

Parameters

- capacity

Type: [System.Int32](#)
The capacity of the [StringBuilder](#) that is used to create the JSON [String](#).
- value

Type: [System.Object](#)
The [Object](#) to convert.
- type

Type: [System.Type](#)
The [Type](#) of the value being serialized. This parameter is used when [TypeNameHandling](#) is [TypeNameHandling.Auto](#) to write out the [Type](#) name if the [Type](#) of the value does not match. Specifying the [Type](#) is optional.
- settings

Type: [JsonSerializerSettings](#)
The [JsonSerializerSettings](#) that will be used to serialize value or null to use the default [JsonSerializerSettings](#).

Return Value

Type: [String](#)
A JSON [String](#) that is equivalent to value.

Reference

- [TcHmiJsonSerializer Class](#) [► 1621]
- [Serialize Overload](#) [► 1659]
- [TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.4 TcHmiJsonSerializer Events

The [TcHmiJsonSerializer](#) [► 1621] type exposes the following members.

Events

	Name	Description
	Error	(Inherited from JsonSerializer .)

Reference

- [TcHmiJsonSerializer Class](#) [► 1621]
- [TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace](#) [► 1621]

2.2.4.6.2.3.1.1.5 TcHmiJsonSerializer Fields

The [TcHmiJsonSerializer](#) [► 1621] type exposes the following members.

Fields

	Name	Description
 	DefaultCapacity [► 1674]	Contains the default capacity of StringBuilders that are used to create a JSON String .

Reference

- [TcHmiJsonSerializer Class](#) [► 1621]

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.1.1.5.1 *TcHmiJsonSerializer.DefaultCapacity Field*

Contains the default capacity of [StringBuilder](#)s that are used to create a JSON [String](#).

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft \[► 1621\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public const int DefaultCapacity = 256
```

Field Value

Type: [Int32](#)

Reference

[TcHmiJsonSerializer Class \[► 1621\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft Namespace \[► 1621\]](#)

2.2.4.6.2.3.2 *TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace*

Contains [JsonConverters](#) to convert the core API types to and from JSON.

Classes

	Class	Description
	AlarmJsonConverter [▶ 1675]	Represents a JsonConverter to convert Alarm [▶ 767]s to and from JSON.
	CommandGroupJsonConverter [▶ 1684]	Represents a JsonConverter to convert CommandGroup [▶ 807]s to and from JSON.
	CommandJsonConverter [▶ 1692]	Represents a JsonConverter to convert Command [▶ 788]s to and from JSON.
	ContextJsonConverter [▶ 1701]	Represents a JsonConverter to convert Context [▶ 833]s to and from JSON.
	EventJsonConverter [▶ 1708]	Represents a JsonConverter to convert Event [▶ 850]s to and from JSON.
	MessageJsonConverter [▶ 1716]	Represents a JsonConverter to convert Message [▶ 924]s to and from JSON.
	SessionJsonConverter [▶ 1724]	Represents a JsonConverter to convert Session [▶ 941]s to and from JSON.
	ValueJsonConverter [▶ 1731]	Represents a JsonConverter to convert Value [▶ 952]s to and from JSON.

2.2.4.6.2.3.2.1 AlarmJsonConverter Class

Represents a [JsonConverter](#) to convert [Alarm](#) [[▶ 767](#)]s to and from JSON.

Inheritance Hierarchy

[System.Object](#)

[JsonConverter](#)

[JsonConverter.Alarm](#) [[▶ 767](#)].

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▶ 1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public class AlarmJsonConverter : JsonConverter<Alarm>
```

The [AlarmJsonConverter](#) type exposes the following members.

Properties

	Name	Description
 	<u>AdvancedCon</u> <u>verter</u> [▶ 1678]	Gets an AlarmJsonConverter with advanced conversions to and from <u>Value</u> [▶ 952] enabled to convert <u>Alarm</u> [▶ 767]s to and from JSON.
	CanRead	(Inherited from JsonConverter.)
	CanWrite	(Inherited from JsonConverter.)
 	<u>Converter</u> [▶ 1678]	Obsolete. Gets an AlarmJsonConverter to convert <u>Alarm</u> [▶ 767]s to and from JSON.
 	<u>DefaultConve</u> <u>rtter</u> [▶ 1679]	Gets an AlarmJsonConverter to convert <u>Alarm</u> [▶ 767]s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Alarm [▶ 767]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Alarm [▶ 767]..)
	ReadJson(JsonReader, Type, Alarm, Boolean, JsonSerializer) [▶ 1681]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Alarm [▶ 767]..)
	WriteJson(JsonWriter, Alarm, JsonSerializer) [▶ 1683]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.1.1 AlarmJsonConverter Properties

The [AlarmJsonConverter](#) [[▶ 1675](#)] type exposes the following members.

Properties

	Name	Description
S	AdvancedConverter [1678]	Gets an AlarmJsonConverter [1675] with advanced conversions to and from Value [952] enabled to convert Alarm [767]s to and from JSON.
S	CanRead	(Inherited from JsonConverter .)
S	CanWrite	(Inherited from JsonConverter .)
S	Converter [1678]	Obsolete. Gets an AlarmJsonConverter [1675] to convert Alarm [767]s to and from JSON.
S	DefaultConverter [1679]	Gets an AlarmJsonConverter [1675] to convert Alarm [767]s to and from JSON.

Reference

[AlarmJsonConverter Class](#) [[1675](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.1.1.1 AlarmJsonConverter.AdvancedConverter Property

Gets an [AlarmJsonConverter](#) [[1675](#)] with advanced conversions to and from [Value](#) [[952](#)] enabled to convert [Alarm](#) [[767](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static AlarmJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [AlarmJsonConverter](#) [[1675](#)]

Reference

[AlarmJsonConverter Class](#) [[1675](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.1.1.2 AlarmJsonConverter.Converter Property

Note: This API is now obsolete.

Gets an [AlarmJsonConverter](#) [[1675](#)] to convert [Alarm](#) [[767](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("AlarmJsonConverter.Converter is obsolete. Use AlarmJsonConverter.DefaultConverter instead.")]  
public static AlarmJsonConverter Converter { get; }
```

Property Value

Type: [AlarmJsonConverter](#) [► 1675]

Reference

[AlarmJsonConverter Class](#) [► 1675]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.1.1.3 *AlarmJsonConverter.DefaultConverter Property*

Gets an [AlarmJsonConverter](#) [► 1675] to convert [Alarm](#) [► 767]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static AlarmJsonConverter DefaultConverter { get; }
```

Property Value

Type: [AlarmJsonConverter](#) [► 1675]

Reference

[AlarmJsonConverter Class](#) [► 1675]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.1.2 *AlarmJsonConverter Methods*

The [AlarmJsonConverter](#) [► 1675] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Alarm [► 767]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Alarm [► 767]..)
	ReadJson(JsonReader, Type, Alarm, Boolean, JsonSerializer) [► 1681]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Alarm [► 767]..)
	WriteJson(JsonWriter, Alarm, JsonSerializer) [► 1683]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[AlarmJsonConverter Class](#) [► 1675]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.1.2.1 AlarmJsonConverter.ReadJson Method

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Alarm [► 767]..)
	ReadJson(JsonReader, Type, Alarm, Boolean, JsonSerializer) [► 1681]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)

Reference

[AlarmJsonConverter Class](#) [► 1675]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.AlarmJsonConverter.ReadJson Method (JsonReader, Type, Alarm, Boolean, JsonSerializer)
4.6.
2.3.
2.1.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Alarm ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Alarm existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: `JsonReader`

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: `System.Type`

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: `TcHmiSrv.Core.Alarm` [[▶ 767](#)]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: `System.Boolean`

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: `JsonSerializer`

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: `Alarm` [[▶ 767](#)]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Alarm,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[AlarmJsonConverter Class](#) [[▶ 1675](#)]

[ReadJson Overload](#) [[▶ 1681](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.1.2.2 AlarmJsonConverter.WriteJson Method

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonSerializer. WriteJson [▶ 767]..)
	WriteJson(JsonWriter, Alarm, JsonSerializer) [▶ 1683]	(Overrides JsonSerializer. WriteJson (JsonWriter, UTP, JsonSerializer).)

Reference

[AlarmJsonConverter Class](#) [▶ 1675]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [▶ 1674]

2.2.AlarmJsonConverter.WriteJson Method (JsonWriter, Alarm, JsonSerializer)
4.6.
2.3.
2.1.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [▶ 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Alarm value,  
    JsonSerializer serializer  
)
```

Parameters

writer Type: JsonWriter

[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Alarm,Newtonsoft.Json.JsonSerializer)"]

value Type: [TcHmiSrv.Core.Alarm](#) [▶ 767]

[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Alarm,Newtonsoft.Json.JsonSerializer)"]

serializer Type: JsonSerializer

[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.AlarmJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Alarm,Newtonsoft.Json.JsonSerializer)"]

Reference

[AlarmJsonConverter Class \[► 1675\]](#)

[WriteJson Overload \[► 1683\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.2 CommandGroupJsonConverter Class

Represents a [JsonConverter](#) to convert [CommandGroup \[► 807\]](#)s to and from JSON.

Inheritance Hierarchy

[System.Object](#)

[JsonConverter](#)

[JsonConverter.CommandGroup \[► 807\]](#).

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class CommandGroupJsonConverter : JsonConverter<CommandGroup>
```

The [CommandGroupJsonConverter](#) type exposes the following members.

Properties

	Name	Description
 	AdvancedConverter [► 1686]	Gets an CommandGroupJsonConverter with advanced conversions to and from Value [► 952] enabled to convert CommandGroup [► 807] s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
 	Converter [► 1686]	Obsolete. Gets an CommandGroupJsonConverter to convert CommandGroup [► 807] s to and from JSON.
 	DefaultConverter [► 1687]	Gets an CommandGroupJsonConverter to convert CommandGroup [► 807] s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.CommandGroup [▶ 807]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.CommandGroup [▶ 807]..)
	ReadJson(JsonReader, Type, CommandGroup, Boolean, JsonSerializer) [▶ 1689]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.CommandGroup [▶ 807]..)
	WriteJson(JsonWriter, CommandGroup, JsonSerializer) [▶ 1691]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.2.1 CommandGroupJsonConverter Properties

The [CommandGroupJsonConverter](#) [[▶ 1684](#)] type exposes the following members.

Properties

	Name	Description
	AdvancedConverter [1686]	Gets an CommandGroupJsonConverter [1684] with advanced conversions to and from Value [952] enabled to convert CommandGroup [807]s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
	Converter [1686]	Obsolete. Gets an CommandGroupJsonConverter [1684] to convert CommandGroup [807]s to and from JSON.
	DefaultConverter [1687]	Gets an CommandGroupJsonConverter [1684] to convert CommandGroup [807]s to and from JSON.

Reference

[CommandGroupJsonConverter Class](#) [[1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.2.1.1 *CommandGroupJsonConverter.AdvancedConverter Property*

Gets an [CommandGroupJsonConverter](#) [[1684](#)] with advanced conversions to and from [Value](#) [[952](#)] enabled to convert [CommandGroup](#) [[807](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static CommandGroupJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [CommandGroupJsonConverter](#) [[1684](#)]

Reference

[CommandGroupJsonConverter Class](#) [[1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.2.1.2 *CommandGroupJsonConverter.Converter Property*

Note: This API is now obsolete.

Gets an [CommandGroupJsonConverter](#) [[1684](#)] to convert [CommandGroup](#) [[807](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("CommandGroupJsonConverter.Converter is obsolete. Use CommandGroupJsonConverter.DefaultConverter instead.")]  
public static CommandGroupJsonConverter Converter { get; }
```

Property Value

Type: [CommandGroupJsonConverter](#) [[► 1684](#)]

Reference

[CommandGroupJsonConverter Class](#) [[► 1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[► 1674](#)]

2.2.4.6.2.3.2.2.1.3 *CommandGroupJsonConverter.DefaultConverter Property*

Gets an [CommandGroupJsonConverter](#) [[► 1684](#)] to convert [CommandGroup](#) [[► 807](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[► 1674](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static CommandGroupJsonConverter DefaultConverter { get; }
```

Property Value

Type: [CommandGroupJsonConverter](#) [[► 1684](#)]

Reference

[CommandGroupJsonConverter Class](#) [[► 1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[► 1674](#)]

2.2.4.6.2.3.2.2.2 *CommandGroupJsonConverter Methods*

The [CommandGroupJsonConverter](#) [[► 1684](#)] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverters. CommandGroup [▶ 807]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverters. CommandGroup [▶ 807]..)
	ReadJson(JsonReader, Type, CommandGroup, Boolean, JsonSerializer) [▶ 1689]	(Overrides JsonConverters. ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverters. CommandGroup [▶ 807]..)
	WriteJson(JsonWriter, CommandGroup, JsonSerializer) [▶ 1691]	(Overrides JsonConverters. WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[CommandGroupJsonConverter Class](#) [[▶ 1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.2.2.1 *CommandGroupJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.CommandGroup [▶ 807]..)
	ReadJson(JsonReader, Type, CommandGroup, Boolean, JsonSerializer) [▶ 1689]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)

Reference

[CommandGroupJsonConverter Class](#) [[▶ 1684](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.CommandGroupJsonConverter.ReadJson Method (JsonReader, Type, CommandGroup, Boolean, JsonSerializer)
2.3.
2.2.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▶ 1674](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override CommandGroup ReadJson(  
    JsonReader reader,  
    Type objectType,  
    CommandGroup existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: [JsonReader](#)

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: [System.Type](#)

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: [TcHmiSrv.Core.CommandGroup](#) [► 807]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: [System.Boolean](#)

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: [JsonSerializer](#)

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: [CommandGroup](#) [► 807]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.ReadJ
son(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.CommandGroup,System.Boo
lean,Newtonsoft.Json.JsonSerializer)"]

Reference

[CommandGroupJsonConverter Class](#) [► 1684]

[ReadJson Overload](#) [► 1689]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.2.2.2 CommandGroupJsonConverter.WriteJson Method

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.CommandGroup [► 807] ..)
	WriteJson(JsonWriter, CommandGroup, JsonSerializer) [► 1691]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

[CommandGroupJsonConverter Class \[► 1684\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.CommandGroupJsonConverter.WriteJson Method (JsonWriter, CommandGroup, JsonSerializer)
4.6.
2.3.
2.2.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    CommandGroup value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: <code>JsonWriter</code>
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.CommandGroup,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.CommandGroup [► 807]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.CommandGroup,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: <code>JsonSerializer</code>
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandGroupJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.CommandGroup,Newtonsoft.Json.JsonSerializer)"]

Reference

[CommandGroupJsonConverter Class](#) [► 1684]

[WriteJson Overload](#) [► 1691]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.3 CommandJsonConverter Class

Represents a [JsonConverter](#) to convert [Command](#) [► 788]s to and from JSON.

Inheritance Hierarchy

[System.Object](#)

[JsonConverter](#)

[JsonConverter.Command](#) [► 788].

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public class CommandJsonConverter : JsonConverter<Command>
```

The `CommandJsonConverter` type exposes the following members.

Properties

	Name	Description
 S	AdvancedConverter [▶ 1695]	Gets an CommandJsonConverter with advanced conversions to and from Value [▶ 952] enabled to convert Command [▶ 788]s to and from JSON.
 S	CanRead	(Inherited from JsonConverter.)
 S	CanWrite	(Inherited from JsonConverter.)
 S	Converter [▶ 1695]	Obsolete. Gets an CommandJsonConverter to convert Command [▶ 788]s to and from JSON.
 S	DefaultConverter [▶ 1696]	Gets an CommandJsonConverter to convert Command [▶ 788]s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConvert. Command [▶ 788]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConvert. Command [▶ 788]..)
	ReadJson(JsonReader, Type, Command, Boolean, JsonSerializer) [▶ 1698]	(Overrides JsonConvert. ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConvert. Command [▶ 788]..)
	WriteJson(JsonWriter, Command, JsonSerializer) [▶ 1700]	(Overrides JsonConvert. WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.3.1 CommandJsonConverter Properties

The [CommandJsonConverter](#) [[▶ 1692](#)] type exposes the following members.

Properties

	Name	Description
 	AdvancedConverter [▶ 1695]	Gets an CommandJsonConverter [▶ 1692] with advanced conversions to and from Value [▶ 952] enabled to convert Command [▶ 788]s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
 	Converter [▶ 1695]	Obsolete. Gets an CommandJsonConverter [▶ 1692] to convert Command [▶ 788]s to and from JSON.
 	DefaultConverter [▶ 1696]	Gets an CommandJsonConverter [▶ 1692] to convert Command [▶ 788]s to and from JSON.

Reference

[CommandJsonConverter Class](#) [[▶ 1692](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.3.1.1 *CommandJsonConverter.AdvancedConverter Property*

Gets an [CommandJsonConverter](#) [[▶ 1692](#)] with advanced conversions to and from [Value](#) [[▶ 952](#)] enabled to convert [Command](#) [[▶ 788](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▶ 1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static CommandJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [CommandJsonConverter](#) [[▶ 1692](#)]

Reference

[CommandJsonConverter Class](#) [[▶ 1692](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.3.1.2 *CommandJsonConverter.Converter Property*

Note: This API is now obsolete.

Gets an [CommandJsonConverter](#) [[▶ 1692](#)] to convert [Command](#) [[▶ 788](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▶ 1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("CommandJsonConverter.Converter is obsolete. Use CommandJsonConverter.DefaultConverter instead.")]  
public static CommandJsonConverter Converter { get; }
```

Property Value

Type: [CommandJsonConverter](#) [► 1692]

Reference

[CommandJsonConverter Class](#) [► 1692]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.3.1.3 *CommandJsonConverter.DefaultConverter Property*

Gets an [CommandJsonConverter](#) [► 1692] to convert [Command](#) [► 788]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static CommandJsonConverter DefaultConverter { get; }
```

Property Value

Type: [CommandJsonConverter](#) [► 1692]

Reference

[CommandJsonConverter Class](#) [► 1692]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.3.2 *CommandJsonConverter Methods*

The [CommandJsonConverter](#) [► 1692] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConvert.Command [▶ 788]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConvert.Command [▶ 788]..)
	ReadJson(JsonReader, Type, Command, Boolean, JsonSerializer) [▶ 1698]	(Overrides JsonConvert.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConvert.Command [▶ 788]..)
	WriteJson(JsonWriter, Command, JsonSerializer) [▶ 1700]	(Overrides JsonConvert.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

[CommandJsonConverter Class \[▶ 1692\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[▶ 1674\]](#)

2.2.4.6.2.3.2.3.2.1 *CommandJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter. Command [788]..)
	ReadJson(JsonReader, Type, Command, Boolean, JsonSerializer) [1698]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)

Reference

CommandJsonConverter Class [► 1692]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.CommandJsonConverter.ReadJson Method (JsonReader, Type, Command, Boolean, JsonSerializer)

4.6.

2.3.

2.3.

2.1.

1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Command ReadJson(
    JsonReader reader,
    Type objectType,
    Command existingValue,
    bool hasExistingValue,
    JsonSerializer serializer
)
```

Parameters

reader Type: [JsonReader](#)

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: [System.Type](#)

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: [TcHmiSrv.Core.Command](#) [[► 788](#)]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: [System.Boolean](#)

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: [JsonSerializer](#)

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: [Command](#) [[► 788](#)]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Command,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[CommandJsonConverter Class](#) [[► 1692](#)]

[ReadJson Overload](#) [[► 1698](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[► 1674](#)]

2.2.4.6.2.3.2.3.2.2 *CommandJsonConverter.WriteJson Method*

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Command [► 788]..)
	WriteJson(JsonWriter, Command, JsonSerializer) [► 1700]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[CommandJsonConverter Class](#) [► 1692]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.CommandJsonConverter.WriteJson Method (JsonWriter, Command, JsonSerializer)
4.6.
2.3.
2.3.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Command value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: JsonWriter
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Command,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Command [► 788]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Command,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.CommandJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Command,Newtonsoft.Json.JsonSerializer)"]

Reference

[CommandJsonConverter Class \[► 1692\]](#)

[WriteJson Overload \[► 1700\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.4 ContextJsonConverter Class

Represents a [JsonConverter](#) to convert [Context](#) [► 833]s to and from JSON.

Inheritance Hierarchy

[System.Object](#)
 [JsonConverter](#)
 [JsonConverter.Context](#) [► 833].
 TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter
Namespace: TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters [► 1674]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class ContextJsonConverter : JsonConverter<Context>
```

The ContextJsonConverter type exposes the following members.

Properties

	Name	Description
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
 	Converter [► 1703]	Obsolete. Gets a ContextJsonConverter to convert Context [► 833]s to and from JSON.
 	DefaultConverter [► 1703]	Gets a ContextJsonConverter to convert Context [► 833]s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Context [► 833]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Context [► 833]..)
	ReadJson(JsonReader, Type, Context, Boolean, JsonSerializer) [► 1705]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Context [► 833]..)
	WriteJson(JsonWriter, Context, JsonSerializer) [► 1707]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.4.1 ContextJsonConverter Properties

The [ContextJsonConverter](#) [► 1701] type exposes the following members.

Properties

	Name	Description
	CanRead	(Inherited from JsonSerializer.)
	CanWrite	(Inherited from JsonSerializer.)
 	Converter [► 1703]	Obsolete. Gets a ContextJsonConverter [► 1701] to convert Context [► 833] s to and from JSON.
 	DefaultConverter [► 1703]	Gets a ContextJsonConverter [► 1701] to convert Context [► 833] s to and from JSON.

Reference

[ContextJsonConverter Class \[► 1701\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.4.1.1 *ContextJsonConverter.Converter Property*

Note: This API is now obsolete.

Gets a [ContextJsonConverter \[► 1701\]](#) to convert [Context \[► 833\]](#)s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("ContextJsonConverter.Converter is obsolete. Use ContextJsonConverter.DefaultConverter instead.")]
public static ContextJsonConverter Converter { get; }
```

Property Value

Type: [ContextJsonConverter \[► 1701\]](#)

Reference

[ContextJsonConverter Class \[► 1701\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.4.1.2 *ContextJsonConverter.DefaultConverter Property*

Gets a [ContextJsonConverter \[► 1701\]](#) to convert [Context \[► 833\]](#)s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ContextJsonConverter DefaultConverter { get; }
```

Property Value

Type: [ContextJsonConverter](#) [► 1701]

Reference

[ContextJsonConverter Class](#) [► 1701]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.4.2 ContextJsonConverter Methods

The [ContextJsonConverter](#) [► 1701] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Context [► 833]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Context [► 833]..)
	ReadJson(JsonReader, Type, Context, Boolean, JsonSerializer) [► 1705]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Context [► 833]..)
	WriteJson(JsonWriter, Context, JsonSerializer) [► 1707]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[ContextJsonConverter Class \[► 1701\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.4.2.1 *ContextJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Context [► 833]..)
	ReadJson(JsonReader, Type, Context, Boolean, JsonSerializer) [► 1705]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)

Reference

[ContextJsonConverter Class \[► 1701\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.ContextJsonConverter.ReadJson Method (JsonReader, Type, Context, Boolean, JsonSerializer)
4.6.
2.3.
2.4.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Context ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Context existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: [JsonReader](#)

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: [System.Type](#)

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: [TcHmiSrv.Core.Context](#) [[► 833](#)]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: [System.Boolean](#)

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: [JsonSerializer](#)

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: [Context](#) [[► 833](#)]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Context,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[ContextJsonConverter Class](#) [[► 1701](#)]

[ReadJson Overload](#) [[► 1705](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[► 1674](#)]

2.2.4.6.2.3.2.4.2.2 ContextJsonConverter.WriteJson Method

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonSerializer.Context [▶ 833]..)
	WriteJson(JsonWriter, Context, JsonSerializer) [▶ 1707]	(Overrides JsonSerializer.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

ContextJsonConverter Class [▶ 1701]

TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace [▶ 1674]

2.2.ContextJsonConverter.WriteJson Method (JsonWriter, Context, JsonSerializer)
4.6.
2.3.
2.4.
2.2.
1

Namespace: TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters [▶ 1674]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(
    JsonWriter writer,
    Context value,
    JsonSerializer serializer
)
```

Parameters

writer	Type: JsonWriter
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Context,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Context [▶ 833]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Context,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ContextJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Context,Newtonsoft.Json.JsonSerializer)"]

Reference

[ContextJsonConverter Class \[► 1701\]](#)

[WriteJson Overload \[► 1707\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.5 EventJsonConverter Class

Represents a [JsonConverter](#) to convert [Event \[► 850\]](#)s to and from JSON.

Inheritance Hierarchy

[System.Object](#)

[JsonConverter](#)

[JsonConverter.Event \[► 850\]](#).

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class EventJsonConverter : JsonConverter<Event>
```

The EventJsonConverter type exposes the following members.

Properties

	Name	Description
 	AdvancedConverter [► 1710]	Gets an EventJsonConverter with advanced conversions to and from Value [► 952] enabled to convert Event [► 850] s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
 	Converter [► 1710]	Obsolete. Gets an EventJsonConverter to convert Event [► 850] s to and from JSON.
 	DefaultConverter [► 1711]	Gets an EventJsonConverter to convert Event [► 850] s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Event [► 850]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Event [► 850]..)
	ReadJson(JsonReader, Type, Event, Boolean, JsonSerializer) [► 1713]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Event [► 850]..)
	WriteJson(JsonWriter, Event, JsonSerializer) [► 1715]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.5.1 EventJsonConverter Properties

The [EventJsonConverter \[► 1708\]](#) type exposes the following members.

Properties

	Name	Description
S	AdvancedConverter [1710]	Gets an EventJsonConverter [1708] with advanced conversions to and from Value [952] enabled to convert Event [850]s to and from JSON.
S	CanRead	(Inherited from JsonConverter .)
S	CanWrite	(Inherited from JsonConverter .)
S	Converter [1710]	Obsolete. Gets an EventJsonConverter [1708] to convert Event [850]s to and from JSON.
S	DefaultConverter [1711]	Gets an EventJsonConverter [1708] to convert Event [850]s to and from JSON.

Reference

[EventJsonConverter Class](#) [[1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.5.1.1 *EventJsonConverter.AdvancedConverter Property*

Gets an [EventJsonConverter](#) [[1708](#)] with advanced conversions to and from [Value](#) [[952](#)] enabled to convert [Event](#) [[850](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static EventJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [EventJsonConverter](#) [[1708](#)]

Reference

[EventJsonConverter Class](#) [[1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.5.1.2 *EventJsonConverter.Converter Property*

Note: This API is now obsolete.

Gets an [EventJsonConverter](#) [[1708](#)] to convert [Event](#) [[850](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("EventJsonConverter.Converter is obsolete. Use EventJsonConverter.DefaultConverter instead.")]  
public static EventJsonConverter Converter { get; }
```

Property Value

Type: [EventJsonConverter](#) [[▶ 1708](#)]

Reference

[EventJsonConverter Class](#) [[▶ 1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.5.1.3 *EventJsonConverter.DefaultConverter Property*

Gets an [EventJsonConverter](#) [[▶ 1708](#)] to convert [Event](#) [[▶ 850](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▶ 1674](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static EventJsonConverter DefaultConverter { get; }
```

Property Value

Type: [EventJsonConverter](#) [[▶ 1708](#)]

Reference

[EventJsonConverter Class](#) [[▶ 1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.5.2 *EventJsonConverter Methods*

The [EventJsonConverter](#) [[▶ 1708](#)] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConvert.Event [▶ 850]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConvert.Event [▶ 850]..)
	ReadJson(JsonReader, Type, Event, Boolean, JsonSerializer) [▶ 1713]	(Overrides JsonConvert.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConvert.Event [▶ 850]..)
	WriteJson(JsonWriter, Event, JsonSerializer) [▶ 1715]	(Overrides JsonConvert.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

[EventJsonConverter Class](#) [[▶ 1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.5.2.1 *EventJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Event [1708].)
	ReadJson(JsonReader, Type, Event, Boolean, JsonSerializer) [1713]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)

Reference

[EventJsonConverter Class](#) [[1708](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.EventJsonConverter.ReadJson Method (JsonReader, Type, Event, Boolean, JsonSerializer)
4.6.
2.3.
2.5.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Event ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Event existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: [JsonReader](#)

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: [System.Type](#)

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: [TcHmiSrv.Core.Event](#) [► 850]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: [System.Boolean](#)

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: [JsonSerializer](#)

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: [Event](#) [► 850]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Event,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[EventJsonConverter Class](#) [► 1708]

[ReadJson Overload](#) [► 1713]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.5.2.2 *EventJsonConverter.WriteJson Method*

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Event [► 850]..)
	WriteJson(JsonWriter, Event, JsonSerializer) [► 1715]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[EventJsonConverter Class](#) [► 1708]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.EventJsonConverter.WriteJson Method (JsonWriter, Event, JsonSerializer)
4.6.
2.3.
2.5.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Event value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: JsonWriter
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Event,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Event [► 850]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Event,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.EventJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Event,Newtonsoft.Json.JsonSerializer)"]

Reference

[EventJsonConverter Class \[► 1708\]](#)

[WriteJson Overload \[► 1715\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.6 MessageJsonConverter Class

Represents a [JsonConverter](#) to convert [Message \[► 924\]](#)s to and from JSON.

Inheritance Hierarchy

[System.Object](#)

[JsonConverter](#)

[JsonConverter.Message \[► 924\]](#).

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter](#)

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public class MessageJsonConverter : JsonConverter<Message>
```

The MessageJsonConverter type exposes the following members.

Properties

	Name	Description
	AdvancedConverter [► 1718]	Gets a MessageJsonConverter with advanced conversions to and from Value [► 952] enabled to convert Message [► 924] s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
	Converter [► 1718]	Obsolete. Gets a MessageJsonConverter to convert Value [► 952] s to and from JSON.
	DefaultConverter [► 1719]	Gets a MessageJsonConverter to convert Value [► 952] s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Message [► 924]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924]..)
	ReadJson(JsonReader, Type, Message, Boolean, JsonSerializer) [► 1721]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924]..)
	WriteJson(JsonWriter, Message, JsonSerializer) [► 1723]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.6.1 MessageJsonConverter Properties

The [MessageJsonConverter \[► 1716\]](#) type exposes the following members.

Properties

	Name	Description
	AdvancedConverter [▸ 1718]	Gets a MessageJsonConverter [▸ 1716] with advanced conversions to and from Value [▸ 952] enabled to convert Message [▸ 924]s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
	Converter [▸ 1718]	Obsolete. Gets a MessageJsonConverter [▸ 1716] to convert Value [▸ 952]s to and from JSON.
	DefaultConverter [▸ 1719]	Gets a MessageJsonConverter [▸ 1716] to convert Value [▸ 952]s to and from JSON.

Reference

[MessageJsonConverter Class](#) [[▸ 1716](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▸ 1674](#)]

2.2.4.6.2.3.2.6.1.1 MessageJsonConverter.AdvancedConverter Property

Gets a [MessageJsonConverter](#) [[▸ 1716](#)] with advanced conversions to and from [Value](#) [[▸ 952](#)] enabled to convert [Message](#) [[▸ 924](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▸ 1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public static MessageJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [MessageJsonConverter](#) [[▸ 1716](#)]

Reference

[MessageJsonConverter Class](#) [[▸ 1716](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▸ 1674](#)]

2.2.4.6.2.3.2.6.1.2 MessageJsonConverter.Converter Property

Note: This API is now obsolete.

Gets a [MessageJsonConverter](#) [[▸ 1716](#)] to convert [Value](#) [[▸ 952](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[▸ 1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("MessageJsonConverter.Converter is obsolete. Use MessageJsonConverter.DefaultConverter instead.")]  
public static MessageJsonConverter Converter { get; }
```

Property Value

Type: [MessageJsonConverter](#) [► 1716]

Reference

[MessageJsonConverter Class](#) [► 1716]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.6.1.3 *MessageJsonConverter.DefaultConverter Property*

Gets a [MessageJsonConverter](#) [► 1716] to convert [Value](#) [► 952]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static MessageJsonConverter DefaultConverter { get; }
```

Property Value

Type: [MessageJsonConverter](#) [► 1716]

Reference

[MessageJsonConverter Class](#) [► 1716]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.6.2 *MessageJsonConverter Methods*

The [MessageJsonConverter](#) [► 1716] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Message [► 924]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924]..)
	ReadJson(JsonReader, Type, Message, Boolean, JsonSerializer) [► 1721]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924]..)
	WriteJson(JsonWriter, Message, JsonSerializer) [► 1723]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[MessageJsonConverter Class](#) [► 1716]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.6.2.1 *MessageJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924]..)
	ReadJson(JsonReader, Type, Message, Boolean, JsonSerializer) [► 1721]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)

Reference

[MessageJsonConverter Class](#) [► 1716]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.MessageJsonConverter.ReadJson Method (JsonReader, Type, Message, Boolean, JsonSerializer)
4.6.
2.3.
2.6.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Message ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Message existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: `JsonReader`

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: `System.Type`

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: `TcHmiSrv.Core.Message` [[► 924](#)]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: `System.Boolean`

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: `JsonSerializer`

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: `Message` [[► 924](#)]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Message,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[MessageJsonConverter Class](#) [[► 1716](#)]

[ReadJson Overload](#) [[► 1721](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[► 1674](#)]

2.2.4.6.2.3.2.6.2.2 *MessageJsonConverter.WriteJson Method*

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Message [► 924] ..)
	WriteJson(JsonWriter, Message, JsonSerializer) [► 1723]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[MessageJsonConverter Class \[► 1716\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.MessageJsonConverter.WriteJson Method (JsonWriter, Message, JsonSerializer)
4.6.
2.3.
2.6.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Message value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: JsonWriter
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Message,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Message [► 924]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Message,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.MessageJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Message,Newtonsoft.Json.JsonSerializer)"]

Reference

[MessageJsonConverter Class \[► 1716\]](#)

[WriteJson Overload \[► 1723\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.7 **SessionJsonConverter Class**

Represents a [JsonConverter](#) to convert [Session \[► 941\]](#)s to and from JSON.

Inheritance Hierarchy

[System.Object](#)
 [JsonConverter](#)
 [JsonConverter.Session \[► 941\]](#).
 TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter
Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class SessionJsonConverter : JsonConverter<Session>
```

The SessionJsonConverter type exposes the following members.

Properties

	Name	Description
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
 	Converter [► 1726]	Obsolete. Gets a SessionJsonConverter to convert Session [► 941] s to and from JSON.
 	DefaultConverter [► 1726]	Gets a SessionJsonConverter to convert Session [► 941] s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Session [► 941]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Session [► 941]..)
	ReadJson(JsonReader, Type, Session, Boolean, JsonSerializer) [► 1728]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)
	ToString	Returns a string that represents the current object. (Inherited from Object.)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Session [► 941]..)
	WriteJson(JsonWriter, Session, JsonSerializer) [► 1730]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.7.1 SessionJsonConverter Properties

The [SessionJsonConverter \[► 1724\]](#) type exposes the following members.

Properties

	Name	Description
	CanRead	(Inherited from JsonSerializer.)
	CanWrite	(Inherited from JsonSerializer.)
 	Converter [► 1726]	Obsolete. Gets a SessionJsonConverter [► 1724] to convert Session [► 941] s to and from JSON.
 	DefaultConverter [► 1726]	Gets a SessionJsonConverter [► 1724] to convert Session [► 941] s to and from JSON.

Reference

[SessionJsonConverter Class \[► 1724\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.7.1.1 SessionJsonConverter.Converter Property

Note: This API is now obsolete.

Gets a [SessionJsonConverter \[► 1724\]](#) to convert [Session \[► 941\]](#)s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
[ObsoleteAttribute("SessionJsonConverter.Converter is obsolete. Use SessionJsonConverter.DefaultConverter instead.")]
public static SessionJsonConverter Converter { get; }
```

Property Value

Type: [SessionJsonConverter \[► 1724\]](#)

Reference

[SessionJsonConverter Class \[► 1724\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.7.1.2 SessionJsonConverter.DefaultConverter Property

Gets a [SessionJsonConverter \[► 1724\]](#) to convert [Session \[► 941\]](#)s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public static SessionJsonConverter DefaultConverter { get; }
```

Property Value

Type: [SessionJsonConverter](#) [► 1724]

Reference

[SessionJsonConverter Class](#) [► 1724]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.7.2 SessionJsonConverter Methods

The [SessionJsonConverter](#) [► 1724] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Session [► 941]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Session [► 941]..)
	ReadJson(JsonReader, Type, Session, Boolean, JsonSerializer) [► 1728]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Session [► 941]..)
	WriteJson(JsonWriter, Session, JsonSerializer) [► 1730]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[SessionJsonConverter Class \[► 1724\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.7.2.1 *SessionJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Session [► 941] ..)
	ReadJson(JsonReader, Type, Session, Boolean, JsonSerializer) [► 1728]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)

Reference

[SessionJsonConverter Class \[► 1724\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.SessionJsonConverter.ReadJson Method (JsonReader, Type, Session, Boolean, JsonSerializer)
4.6.
2.3.
2.7.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Session ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Session existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: [JsonReader](#)

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: [System.Type](#)

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: [TcHmiSrv.Core.Session](#) [[▶ 941](#)]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: [System.Boolean](#)

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: [JsonSerializer](#)

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: [Session](#) [[▶ 941](#)]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Session,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[SessionJsonConverter Class](#) [[▶ 1724](#)]

[ReadJson Overload](#) [[▶ 1728](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[▶ 1674](#)]

2.2.4.6.2.3.2.7.2.2 *SessionJsonConverter.WriteJson Method*

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonSerializer.Session [▸ 941]..)
	WriteJson(JsonWriter, Session, JsonSerializer) [▸ 1730]	(Overrides JsonSerializer.WriteJson(JsonWriter, UTP, JsonSerializer).)

Reference

[SessionJsonConverter Class \[▸ 1724\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[▸ 1674\]](#)

2.2.SessionJsonConverter.WriteJson Method (JsonWriter, Session, JsonSerializer)
4.6.
2.3.
2.7.
2.2.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[▸ 1674\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Session value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: JsonWriter [Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Session,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Session [▸ 941] [Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Session,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer [Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.SessionJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Session,Newtonsoft.Json.JsonSerializer)"]

Reference

[SessionJsonConverter Class \[► 1724\]](#)

[WriteJson Overload \[► 1730\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.8 **ValueJsonConverter Class**

Represents a [JsonConverter](#) to convert [Value \[► 952\]](#)s to and from JSON.

Inheritance Hierarchy

[System.Object](#)
 [JsonConverter](#)
 [JsonConverter.Value \[► 952\]](#).
 TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter
Namespace: TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters [► 1674]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

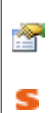
Syntax

C#

```
public class ValueJsonConverter : JsonConverter<Value>
```

The ValueJsonConverter type exposes the following members.

Properties

	Name	Description
	AdvancedConverter [► 1733]	Gets a ValueJsonConverter with advanced conversions to and from Alarm [► 767] , Event [► 850] and Message [► 924] enabled to convert Value [► 952] s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
	Converter [► 1733]	Obsolete. Gets a ValueJsonConverter to convert Value [► 952] s to and from JSON.
	DefaultConverter [► 1734]	Gets a ValueJsonConverter to convert Value [► 952] s to and from JSON.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Value [► 952]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Value [► 952]..)
	ReadJson(JsonReader, Type, Value, Boolean, JsonSerializer) [► 1736]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Value [► 952]..)
	WriteJson(JsonWriter, Value, JsonSerializer) [► 1738]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.8.1 ValueJsonConverter Properties

The [ValueJsonConverter \[► 1731\]](#) type exposes the following members.

Properties

	Name	Description
	AdvancedConverter [1733]	Gets a ValueJsonConverter [1731] with advanced conversions to and from Alarm [767], Event [850] and Message [924] enabled to convert Value [952]s to and from JSON.
	CanRead	(Inherited from JsonConverter .)
	CanWrite	(Inherited from JsonConverter .)
	Converter [1733]	Obsolete. Gets a ValueJsonConverter [1731] to convert Value [952]s to and from JSON.
	DefaultConverter [1734]	Gets a ValueJsonConverter [1731] to convert Value [952]s to and from JSON.

Reference

[ValueJsonConverter Class](#) [[1731](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.8.1.1 *ValueJsonConverter.AdvancedConverter Property*

Gets a [ValueJsonConverter](#) [[1731](#)] with advanced conversions to and from [Alarm](#) [[767](#)], [Event](#) [[850](#)] and [Message](#) [[924](#)] enabled to convert [Value](#) [[952](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static ValueJsonConverter AdvancedConverter { get; }
```

Property Value

Type: [ValueJsonConverter](#) [[1731](#)]

Reference

[ValueJsonConverter Class](#) [[1731](#)]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [[1674](#)]

2.2.4.6.2.3.2.8.1.2 *ValueJsonConverter.Converter Property*

Note: This API is now obsolete.

Gets a [ValueJsonConverter](#) [[1731](#)] to convert [Value](#) [[952](#)]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [[1674](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
[ObsoleteAttribute("ValueJsonConverter.Converter is obsolete. Use ValueJsonConverter.DefaultConverter instead.")]  
public static ValueJsonConverter Converter { get; }
```

Property Value

Type: [ValueJsonConverter](#) [► 1731]

Reference

[ValueJsonConverter Class](#) [► 1731]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.8.1.3 *ValueJsonConverter.DefaultConverter Property*

Gets a [ValueJsonConverter](#) [► 1731] to convert [Value](#) [► 952]s to and from JSON.

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters](#) [► 1674]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ValueJsonConverter DefaultConverter { get; }
```

Property Value

Type: [ValueJsonConverter](#) [► 1731]

Reference

[ValueJsonConverter Class](#) [► 1731]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.8.2 *ValueJsonConverter Methods*

The [ValueJsonConverter](#) [► 1731] type exposes the following members.

Methods

	Name	Description
	CanConvert	(Inherited from JsonConverter.Value [► 952]..)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonConverter.Value [► 952]..)
	ReadJson(JsonReader, Type, Value, Boolean, JsonSerializer) [► 1736]	(Overrides JsonConverter.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer) .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Value [► 952]..)
	WriteJson(JsonWriter, Value, JsonSerializer) [► 1738]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[ValueJsonConverter Class \[► 1731\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.2.3.2.8.2.1 *ValueJsonConverter.ReadJson Method*

Overload List

	Name	Description
	ReadJson(JsonReader, Type, Object, JsonSerializer)	(Inherited from JsonSerializer.Value [▸ 952]..)
	ReadJson(JsonReader, Type, Value, Boolean, JsonSerializer) [▸ 1736]	(Overrides JsonSerializer.ReadJson(JsonReader, Type, UTP, Boolean, JsonSerializer).)

Reference

[ValueJsonConverter Class \[▸ 1731\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[▸ 1674\]](#)

2.2.ValueJsonConverter.ReadJson Method (JsonReader, Type, Value, Boolean, JsonSerializer)
4.6.
2.3.
2.8.
2.1.
1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[▸ 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Value ReadJson(  
    JsonReader reader,  
    Type objectType,  
    Value existingValue,  
    bool hasExistingValue,  
    JsonSerializer serializer  
)
```

Parameters

reader Type: `JsonReader`

[Missing <param name="reader"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

objectType Type: `System.Type`

[Missing <param name="objectType"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

existingValue Type: `TcHmiSrv.Core.Value` [► 952]

[Missing <param name="existingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

hasExistingValue Type: `System.Boolean`

[Missing <param name="hasExistingValue"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

serializer Type: `JsonSerializer`

[Missing <param name="serializer"/> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Return Value

Type: `Value` [► 952]

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.ReadJson(Newtonsoft.Json.JsonReader,System.Type,TcHmiSrv.Core.Value,System.Boolean,Newtonsoft.Json.JsonSerializer)"]

Reference

[ValueJsonConverter Class](#) [► 1731]

[ReadJson Overload](#) [► 1736]

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace](#) [► 1674]

2.2.4.6.2.3.2.8.2.2 *ValueJsonConverter.WriteJson Method*

Overload List

	Name	Description
	WriteJson(JsonWriter, Object, JsonSerializer)	(Inherited from JsonConverter.Value [► 952] ..)
	WriteJson(JsonWriter, Value, JsonSerializer) [► 1738]	(Overrides JsonConverter.WriteJson(JsonWriter, UTP, JsonSerializer) .)

Reference

[ValueJsonConverter Class \[► 1731\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2. ValueJsonConverter.WriteJson Method (JsonWriter, Value, JsonSerializer)

4.6.

2.3.

2.8.

2.2.

1

Namespace: [TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters \[► 1674\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override void WriteJson(  
    JsonWriter writer,  
    Value value,  
    JsonSerializer serializer  
)
```

Parameters

writer	Type: JsonWriter
	[Missing <param name="writer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Value,Newtonsoft.Json.JsonSerializer)"]
value	Type: TcHmiSrv.Core.Value [► 952]
	[Missing <param name="value"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Value,Newtonsoft.Json.JsonSerializer)"]
serializer	Type: JsonSerializer
	[Missing <param name="serializer"/> documentation for "M:TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters.ValueJsonConverter.WriteJson(Newtonsoft.Json.JsonWriter,TcHmiSrv.Core.Value,Newtonsoft.Json.JsonSerializer)"]

Reference

[ValueJsonConverter Class \[► 1731\]](#)

[WriteJson Overload \[► 1738\]](#)

[TcHmiSrv.Core.Tools.Json.Newtonsoft.Converters Namespace \[► 1674\]](#)

2.2.4.6.3 TcHmiSrv.Core.Tools.Management Namespace

Contains interfaces that the default Type of a TwinCAT HMI server extension can implement to support initialization and conversion error codes into human readable Strings.

Interfaces

	Interface	Description
	IErrorProvider [► 1739]	Provides an interface that defines a method to get the <u>String</u> representation for an error code in a TwinCAT HMI server extension.
	IServerExtension [► 1740]	Provides an interface for a TwinCAT HMI server extension.

2.2.4.6.3.1 IErrorProvider Interface

Provides an interface that defines a method to get the String representation for an error code in a TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.Tools.Management \[► 1739\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface IErrorProvider
```

The IErrorProvider type exposes the following members.

Methods

	Name	Description
	ErrorString [► 1740]	Converts the specified error code to the corresponding <u>String</u> representation.

Reference

[TcHmiSrv.Core.Tools.Management Namespace \[► 1739\]](#)

2.2.4.6.3.1.1 IErrorProvider Methods

The [IErrorProvider \[► 1739\]](#) type exposes the following members.

Methods

	Name	Description
	ErrorString [► 1740]	Converts the specified error code to the corresponding <u>String</u> representation.

Reference

[IErrorProvider Interface \[► 1739\]](#)

[TcHmiSrv.Core.Tools.Management Namespace \[► 1739\]](#)

2.2.4.6.3.1.1 IErrorProvider.ErrorString Method

Converts the specified error code to the corresponding [String](#) representation.

Namespace: [TcHmiSrv.Core.Tools.Management \[► 1739\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
string ErrorString(  
    uint errorCode  
)
```

Parameters

errorCode Type: [System.UInt32](#)
The error code to convert.

Return Value

Type: [String](#)
The [String](#) representation of errorCode.

Reference

[IErrorProvider Interface \[► 1739\]](#)

[TcHmiSrv.Core.Tools.Management Namespace \[► 1739\]](#)

2.2.4.6.3.2 IServerExtension Interface

Provides an interface for a TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.Tools.Management \[► 1739\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public interface IServerExtension
```

The IServerExtension type exposes the following members.

Methods

	Name	Description
	Init [► 1741]	Initializes the TwinCAT HMI server extension.

Reference

[TcHmiSrv.Core.Tools.Management Namespace \[► 1739\]](#)

2.2.4.6.3.2.1 *IServerExtension Methods*

The [IServerExtension](#) [► 1740] type exposes the following members.

Methods

	Name	Description
	Init [► 1741]	Initializes the TwinCAT HMI server extension.

Reference

[IServerExtension Interface](#) [► 1740]

[TcHmiSrv.Core.Tools.Management Namespace](#) [► 1739]

2.2.4.6.3.2.1.1 *IServerExtension.Init Method*

Initializes the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.Tools.Management](#) [► 1739]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
ErrorValue Init()
```

Return Value

Type: [ErrorValue](#) [► 845]

[HMI_SUCCESS](#) [► 845] if the TwinCAT HMI server extension has been successfully initialized; otherwise, another [ErrorValue](#) [► 845] that best describes which error has occurred.

Reference

[IServerExtension Interface](#) [► 1740]

[TcHmiSrv.Core.Tools.Management Namespace](#) [► 1739]

2.2.4.6.4 *TcHmiSrv.Core.Tools.Queries Namespaces*

Contains types to filter and sort collections of [Value](#) [► 952]s.

Namespaces

Namespace	Description
TcHmiSrv.Core.Tools.Queries [► 1742]	Contains types to compare Value [► 952]s and create filters.
TcHmiSrv.Core.Tools.Queries.Extensions [► 1760]	Provides extension methods to sort and filter collections of Value [► 952]s.

2.2.4.6.4.1 TcHmiSrv.Core.Tools.Queries Namespace

Contains types to compare [Value \[▸ 952\]](#)s and create filters.

Classes

	Class	Description
	CreateFilter [▸ 1742]	Creates a filter.
	ValueComparer [▸ 1743]	Provides a Comparer.T . for type Value [▸ 952] .
	ValueEqualityComparer [▸ 1750]	Provides an EqualityComparer.T . for type Value [▸ 952] .

2.2.4.6.4.1.1 CreateFilter Class

Creates a filter.

Inheritance Hierarchy

[System.Object](#)
TcHmiSrv.Core.Tools.Queries.CreateFilter

Namespace: [TcHmiSrv.Core.Tools.Queries \[▸ 1742\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class CreateFilter
```

The CreateFilter type exposes the following members.

Methods

	Name	Description
 	CreateFromFilter [▸ 1743]	Creates a Func.T, TResult . that can be used to filter collections of Value [▸ 952] s.

Reference

[TcHmiSrv.Core.Tools.Queries Namespace \[▸ 1742\]](#)

2.2.4.6.4.1.1.1 CreateFilter Methods

The [CreateFilter \[▸ 1742\]](#) type exposes the following members.

Methods

	Name	Description
 	CreateFromFilter [▸ 1743]	Creates a Func.T, TResult . that can be used to filter collections of Value [▸ 952] s.

Reference

[CreateFilter Class](#) [► 1742]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.1.1 CreateFilter.CreateFromFilter Method

Creates a [Func.T, TResult](#), that can be used to filter collections of [Value](#) [► 952]s.

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Func<Value, bool> CreateFromFilter(  
    Value filters  
)
```

Parameters

filters Type: [TcHmiSrv.Core.Value](#) [► 952]
A [Value](#) [► 952] containing a filter.

Return Value

Type: [Func.Value](#) [► 952], Boolean.

A [Func.T, TResult](#), that can be used to filter collections of [Value](#) [► 952]s.

Reference

[CreateFilter Class](#) [► 1742]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2 ValueComparer Class

Provides a [Comparer.T](#), for type [Value](#) [► 952].

Inheritance Hierarchy

[System.Object](#)

[System.Collections.Generic.Comparer.Value](#) [► 952].

 TcHmiSrv.Core.Tools.Queries.ValueComparer

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class ValueComparer : Comparer<Value>
```

The ValueComparer type exposes the following members.

Constructors

	Name	Description
	ValueComparer [▶ 1746]	Initializes a new instance of the ValueComparer class with Ordinal for instances of type String and Default for instances of type Event [▶ 850], Message [▶ 924] and Alarm [▶ 767].
	ValueComparer(IComparer.String, IComparer.Event, IComparer.Message, IComparer.Alarm.) [▶ 1746]	Initializes a new instance of the ValueComparer class with the specified IComparer.T.s that are used to compare instances of type String , Event [▶ 850], Message [▶ 924] and Alarm [▶ 767].

Properties

	Name	Description
	AlarmComparer [▶ 1747]	Gets the IComparer.T. that is used to compare instances of type Alarm [▶ 767].
 	Default [▶ 1747]	Gets the default Comparer.T. for type Value [▶ 952].
	EventComparer [▶ 1748]	Gets the IComparer.T. that is used to compare instances of type Event [▶ 850].
	MessageComparer [▶ 1748]	Gets the IComparer.T. that is used to compare instances of type Message [▶ 924].
	StringComparer [▶ 1749]	Gets the IComparer.T. that is used to compare instances of type String .

Methods

	Name	Description
	Compare [► 1750]	Performs a comparison of two Value [► 952]s and returns a value indicating whether one Value [► 952] is less than, equal to, or greater than the other. (Overrides Comparer.T..Compare(T, T.) .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object.)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object.)
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetType	Gets the Type of the current instance. (Inherited from Object.)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object.)
	ToString	Returns a string that represents the current object. (Inherited from Object.)

Reference

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.1 ValueComparer Constructor

Overload List

	Name	Description
	ValueComparer. [► 1746]	Initializes a new instance of the ValueComparer [► 1743] class with Ordinal for instances of type String and Default for instances of type Event [► 850], Message [► 924] and Alarm [► 767].
	ValueComparer(IComparer.String., IComparer.Event., IComparer.Message., IComparer.Alarm.) [► 1746]	Initializes a new instance of the ValueComparer [► 1743] class with the specified IComparer.T.s that are used to compare instances of type String , Event [► 850], Message [► 924] and Alarm [► 767].

Reference

[ValueComparer Class](#) [► 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.1.1 ValueComparer Constructor

Initializes a new instance of the [ValueComparer](#) [► 1743] class with [Ordinal](#) for instances of type [String](#) and [Default](#) for instances of type [Event](#) [► 850], [Message](#) [► 924] and [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueComparer()
```

Reference

[ValueComparer Class](#) [► 1743]

[ValueComparer Overload](#) [► 1745]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.1.2 ValueComparer Constructor (IComparer.String., IComparer.Event., IComparer.Message., IComparer.Alarm.)

Initializes a new instance of the [ValueComparer](#) [► 1743] class with the specified [IComparer.T.s](#) that are used to compare instances of type [String](#), [Event](#) [► 850], [Message](#) [► 924] and [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueComparer(
    IComparer<string> stringComparer,
    IComparer<Event> eventComparer,
    IComparer<Message> messageComparer,
    IComparer<Alarm> alarmComparer
)
```

Parameters

stringCompa rer	Type: System.Collections.Generic.IComparer.String . An IComparer.T. that is used to compare instances of type String .
eventCompa rer	Type: System.Collections.Generic.IComparer.Event [► 850]. An IComparer.T. that is used to compare instances of type Event [► 850].
messageCo mparer	Type: System.Collections.Generic.IComparer.Message [► 924]. An IComparer.T. that is used to compare instances of type Message [► 924].
alarmCompa rer	Type: System.Collections.Generic.IComparer.Alarm [► 767]. An IComparer.T. that is used to compare instances of type Alarm [► 767].

Reference

[ValueComparer Class](#) [► 1743]

[ValueComparer Overload](#) [► 1745]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.2 **ValueComparer Properties**

The [ValueComparer](#) [▸ 1743] type exposes the following members.

Properties

	Name	Description
	AlarmComparer [▸ 1747]	Gets the IComparer.T , that is used to compare instances of type Alarm [▸ 767].
 	Default [▸ 1747]	Gets the default Comparer.T , for type Value [▸ 952].
	EventComparer [▸ 1748]	Gets the IComparer.T , that is used to compare instances of type Event [▸ 850].
	MessageComparer [▸ 1748]	Gets the IComparer.T , that is used to compare instances of type Message [▸ 924].
	StringComparer [▸ 1749]	Gets the IComparer.T , that is used to compare instances of type String .

Reference

[ValueComparer Class](#) [▸ 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [▸ 1742]

2.2.4.6.4.1.2.2.1 **ValueComparer.AlarmComparer Property**

Gets the [IComparer.T](#), that is used to compare instances of type [Alarm](#) [▸ 767].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [▸ 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IComparer<Alarm> AlarmComparer { get; }
```

Property Value

Type: [IComparer.Alarm](#) [▸ 767].

Reference

[ValueComparer Class](#) [▸ 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [▸ 1742]

2.2.4.6.4.1.2.2.2 **ValueComparer.Default Property**

Gets the default [Comparer.T](#), for type [Value](#) [▸ 952].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [▸ 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Comparer<Value> Default { get; }
```

Property Value

Type: [Comparer.Value](#) [► 952].

Reference

[ValueComparer Class](#) [► 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.2.3 ValueComparer.EventComparer Property

Gets the [IComparer.T](#), that is used to compare instances of type [Event](#) [► 850].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IComparer<Event> EventComparer { get; }
```

Property Value

Type: [IComparer.Event](#) [► 850].

Reference

[ValueComparer Class](#) [► 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.2.4 ValueComparer.MessageComparer Property

Gets the [IComparer.T](#), that is used to compare instances of type [Message](#) [► 924].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IComparer<Message> MessageComparer { get; }
```

Property Value

Type: [IComparer.Message](#) [► 924].

Reference

[ValueComparer Class](#) [► 1743]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.2.2.5 **ValueComparer.StringComparer Property**

Gets the [IComparer.T](#), that is used to compare instances of type [String](#).

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [[▶ 1742](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public IComparer<string> StringComparer { get; }
```

Property Value

Type: [IComparer.String](#).

Reference

[ValueComparer Class](#) [[▶ 1743](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[▶ 1742](#)]

2.2.4.6.4.1.2.3 **ValueComparer Methods**

The [ValueComparer](#) [[▶ 1743](#)] type exposes the following members.

Methods

	Name	Description
	Compare [▶ 1750]	Performs a comparison of two Value [▶ 952]s and returns a value indicating whether one Value [▶ 952] is less than, equal to, or greater than the other. (Overrides Comparer.T.Compare(T, T) .)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ValueComparer Class](#) [[▶ 1743](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[▶ 1742](#)]

2.2.4.6.4.1.2.3.1 ValueComparer.Compare Method

Performs a comparison of two [Value \[► 952\]](#)s and returns a value indicating whether one [Value \[► 952\]](#) is less than, equal to, or greater than the other.

Namespace: [TcHmiSrv.Core.Tools.Queries \[► 1742\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int Compare(  
    Value x,  
    Value y  
)
```

Parameters

- x** Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The first [Value \[► 952\]](#) to compare.
- y** Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The second [Value \[► 952\]](#) to compare.

Return Value

Type: [Int32](#)

A value that is less than zero if x is less than y, zero if x equals y or greater than zero if x is greater than y.

Implements

[IComparer.T..Compare\(T, T\)](#)

Reference

[ValueComparer Class \[► 1743\]](#)

[TcHmiSrv.Core.Tools.Queries Namespace \[► 1742\]](#)

2.2.4.6.4.1.3 ValueEqualityComparer Class

Provides an [EqualityComparer.T.](#) for type [Value \[► 952\]](#).

Inheritance Hierarchy

[System.Object](#)

[System.Collections.Generic.EqualityComparer.Value \[► 952\]](#).

 TcHmiSrv.Core.Tools.Queries.ValueEqualityComparer

Namespace: [TcHmiSrv.Core.Tools.Queries \[► 1742\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class ValueEqualityComparer : EqualityComparer<Value>
```

The ValueEqualityComparer type exposes the following members.

Constructors

	Name	Description
	ValueEqualityComparer(Boolean) [► 1753]	Initializes a new instance of the ValueEqualityComparer class with a value that indicates whether relaxed ValueType [► 1169] comparison should be used.
	ValueEqualityComparer(Boolean, IEqualityComparer<String>, IEqualityComparer<Event>, IEqualityComparer<Message>, IEqualityComparer<Alarm>) [► 1753]	Initializes a new instance of the ValueEqualityComparer class with a value that indicates whether relaxed ValueType [► 1169] comparison should be used and IEqualityComparer.T.s that are used to compare instances of type String , Event [► 850] , Message [► 924] and Alarm [► 767] .

Properties

	Name	Description
	AlarmComparer [► 1755]	Gets the IEqualityComparer.T. that is used to compare instances of type Alarm [► 767] .
 	Default [► 1755]	Gets the default EqualityComparer.T. for type Value [► 952] with RelaxedTypeComparison [► 1756] set to false.
	EventComparer [► 1755]	Gets the IEqualityComparer.T. that is used to compare instances of type Event [► 850] .
	MessageComparer [► 1756]	Gets the IEqualityComparer.T. that is used to compare instances of type Message [► 924] .
 	Relaxed [► 1756]	Gets an EqualityComparer.T. for type Value [► 952] with RelaxedTypeComparison [► 1756] set to true.
	RelaxedTypeComparison [► 1756]	Gets a value that indicates whether relaxed ValueType [► 1169] comparison is used.
	StringComparer [► 1757]	Gets the IEqualityComparer.T. that is used to compare instances of type String .

Methods

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value, Value) [▶ 1758]	Determines whether two Value [▶ 952]s are equal. (Overrides EqualityComparer.T.Equals(T, T) .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetHashCode(Value) [▶ 1759]	(Overrides EqualityComparer.T.GetHashCode(T) .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[▶ 1742](#)]

2.2.4.6.4.1.3.1 ValueEqualityComparer Constructor

Overload List

	Name	Description
	ValueEqualityComparer(Boolean) [▶ 1753]	Initializes a new instance of the ValueEqualityComparer [▶ 1750] class with a value that indicates whether relaxed ValueType [▶ 1169] comparison should be used.
	ValueEqualityComparer(Boolean, IEqualityComparer.String, IEqualityComparer.Event, IEqualityComparer.Message, IEqualityComparer.Alarm.) [▶ 1753]	Initializes a new instance of the ValueEqualityComparer [▶ 1750] class with a value that indicates whether relaxed ValueType [▶ 1169] comparison should be used and IEqualityComparer.T s that are used to compare instances of type String , Event [▶ 850], Message [▶ 924] and Alarm [▶ 767].

Reference

[ValueEqualityComparer Class \[► 1750\]](#)

[TcHmiSrv.Core.Tools.Queries Namespace \[► 1742\]](#)

2.2.4.6.4.1.3.1.1 ValueEqualityComparer Constructor (Boolean)

Initializes a new instance of the [ValueEqualityComparer \[► 1750\]](#) class with a value that indicates whether relaxed [ValueType \[► 1169\]](#) comparison should be used.

Namespace: [TcHmiSrv.Core.Tools.Queries \[► 1742\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueEqualityComparer(  
    bool relaxedTypeComparison  
)
```

Parameters

relaxedType Type: [System.Boolean](#)

Comparison true to consider [Map \[► 1169\]](#) and [Struct \[► 1169\]](#) equal; otherwise, false.

Reference

[ValueEqualityComparer Class \[► 1750\]](#)

[ValueEqualityComparer Overload \[► 1752\]](#)

[TcHmiSrv.Core.Tools.Queries Namespace \[► 1742\]](#)

2.2.4.6.4.1.3.1.2 ValueEqualityComparer Constructor (Boolean, IEqualityComparer.String., IEqualityComparer.Event., IEqualityComparer.Message., IEqualityComparer.Alarm.)

Initializes a new instance of the [ValueEqualityComparer \[► 1750\]](#) class with a value that indicates whether relaxed [ValueType \[► 1169\]](#) comparison should be used and [IEqualityComparer.T.s](#) that are used to compare instances of type [String \[► 850\]](#), [Message \[► 924\]](#) and [Alarm \[► 767\]](#).

Namespace: [TcHmiSrv.Core.Tools.Queries \[► 1742\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ValueEqualityComparer(  
    bool relaxedTypeComparison,  
    IEqualityComparer<string> stringComparer,  
    IEqualityComparer<Event> eventComparer,  
    IEqualityComparer<Message> messageComparer,  
    IEqualityComparer<Alarm> alarmComparer  
)
```

Parameters

relaxedType	Type: System.Boolean
Comparison	true to consider Map [▸ 1169] and Struct [▸ 1169] equal; otherwise, false.
stringComparer	Type: System.Collections.Generic.IEqualityComparer.String . An IEqualityComparer.T . that is used to compare instances of type String .
eventComparer	Type: System.Collections.Generic.IEqualityComparer.Event [▸ 850] . An IEqualityComparer.T . that is used to compare instances of type Event [▸ 850] .
messageComparer	Type: System.Collections.Generic.IEqualityComparer.Message [▸ 924] . An IEqualityComparer.T . that is used to compare instances of type Message [▸ 924] .
alarmComparer	Type: System.Collections.Generic.IEqualityComparer.Alarm [▸ 767] . An IEqualityComparer.T . that is used to compare instances of type Alarm [▸ 767] .

Reference

[ValueEqualityComparer Class \[▸ 1750\]](#)

[ValueEqualityComparer Overload \[▸ 1752\]](#)

[TcHmiSrv.Core.Tools.Queries Namespace \[▸ 1742\]](#)

2.2.4.6.4.1.3.2 ValueEqualityComparer Properties

The [ValueEqualityComparer \[▸ 1750\]](#) type exposes the following members.

Properties

	Name	Description
	AlarmComparer [▸ 1755]	Gets the IEqualityComparer.T . that is used to compare instances of type Alarm [▸ 767] .
 	Default [▸ 1755]	Gets the default EqualityComparer.T . for type Value [▸ 952] with RelaxedTypeComparison [▸ 1756] set to false.
	EventComparer [▸ 1755]	Gets the IEqualityComparer.T . that is used to compare instances of type Event [▸ 850] .
	MessageComparer [▸ 1756]	Gets the IEqualityComparer.T . that is used to compare instances of type Message [▸ 924] .
 	Relaxed [▸ 1756]	Gets an EqualityComparer.T . for type Value [▸ 952] with RelaxedTypeComparison [▸ 1756] set to true.
	RelaxedTypeComparison [▸ 1756]	Gets a value that indicates whether relaxed ValueType [▸ 1169] comparison is used.
	StringComparer [▸ 1757]	Gets the IEqualityComparer.T . that is used to compare instances of type String .

Reference

[ValueEqualityComparer Class \[▸ 1750\]](#)

[TcHmiSrv.Core.Tools.Queries Namespace \[► 1742\]](#)

2.2.4.6.4.1.3.2.1 ValueEqualityComparer.AlarmComparer Property

Gets the [IEqualityComparer.T](#), that is used to compare instances of type [Alarm](#) [► 767].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IEqualityComparer<Alarm> AlarmComparer { get; }
```

Property Value

Type: [IEqualityComparer.Alarm](#) [► 767].

Reference

[ValueEqualityComparer Class](#) [► 1750]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.3.2.2 ValueEqualityComparer.Default Property

Gets the default [EqualityComparer.T](#), for type [Value](#) [► 952] with [RelaxedTypeComparison](#) [► 1756] set to false.

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static EqualityComparer<Value> Default { get; }
```

Property Value

Type: [EqualityComparer.Value](#) [► 952].

Reference

[ValueEqualityComparer Class](#) [► 1750]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.3.2.3 ValueEqualityComparer.EventComparer Property

Gets the [IEqualityComparer.T](#), that is used to compare instances of type [Event](#) [► 850].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IEqualityComparer<Event> EventComparer { get; }
```

Property Value

Type: [IEqualityComparer.Event](#) [► 850].

Reference

[ValueEqualityComparer Class](#) [► 1750]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.3.2.4 ValueEqualityComparer.MessageComparer Property

Gets the [IEqualityComparer.T](#), that is used to compare instances of type [Message](#) [► 924].

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IEqualityComparer<Message> MessageComparer { get; }
```

Property Value

Type: [IEqualityComparer.Message](#) [► 924].

Reference

[ValueEqualityComparer Class](#) [► 1750]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.3.2.5 ValueEqualityComparer.Relaxed Property

Gets an [EqualityComparer.T](#), for type [Value](#) [► 952] with [RelaxedTypeComparison](#) [► 1756] set to true.

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static EqualityComparer<Value> Relaxed { get; }
```

Property Value

Type: [EqualityComparer.Value](#) [► 952].

Reference

[ValueEqualityComparer Class](#) [► 1750]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [► 1742]

2.2.4.6.4.1.3.2.6 ValueEqualityComparer.RelaxedTypeComparison Property

Gets a value that indicates whether relaxed [ValueType](#) [► 1169] comparison is used.

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [► 1742]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public bool RelaxedTypeComparison { get; }
```

Property Value

Type: [Boolean](#)

Reference

[ValueEqualityComparer Class](#) [[► 1750](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[► 1742](#)]

2.2.4.6.4.1.3.2.7 ValueEqualityComparer.StringComparer Property

Gets the [IEqualityComparer.T](#), that is used to compare instances of type [String](#).

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [[► 1742](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IEqualityComparer<string> StringComparer { get; }
```

Property Value

Type: [IEqualityComparer.String](#).

Reference

[ValueEqualityComparer Class](#) [[► 1750](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[► 1742](#)]

2.2.4.6.4.1.3.3 ValueEqualityComparer Methods

The [ValueEqualityComparer](#) [[► 1750](#)] type exposes the following members.

Methods

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value, Value) [► 1758]	Determines whether two Value [► 952]s are equal. (Overrides EqualityComparer.T.Equals(T, T) .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetHashCode(Value) [► 1759]	(Overrides EqualityComparer.T.GetHashCode(T) .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ValueEqualityComparer Class](#) [[► 1750](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[► 1742](#)]

2.2.4.6.4.1.3.3.1 ValueEqualityComparer.Equals Method**Overload List**

	Name	Description
	Equals(Object)	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Equals(Value, Value) [► 1758]	Determines whether two Value [► 952]s are equal. (Overrides EqualityComparer.T.Equals(T, T) .)

Reference

[ValueEqualityComparer Class](#) [[► 1750](#)]

[TcHmiSrv.Core.Tools.Queries Namespace](#) [[► 1742](#)]

2.2.4.6.4.1.3.3.1.1 ValueEqualityComparer.Equals Method (Value, Value)

Determines whether two [Value](#) [[► 952](#)]s are equal.

Namespace: [TcHmiSrv.Core.Tools.Queries](#) [[► 1742](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool Equals(  
    Value x,  
    Value y  
)
```

Parameters

- x Type: [TcHmiSrv.Core.Value \[▸ 952\]](#)
The first [Value \[▸ 952\]](#) to compare.
- y Type: [TcHmiSrv.Core.Value \[▸ 952\]](#)
The second [Value \[▸ 952\]](#) to compare.

Return Value

Type: [Boolean](#)
true if the specified [Value \[▸ 952\]](#)s are equal; otherwise, false.

Implements

[IEqualityComparer.T..Equals\(T, T\)](#)

Reference

- [ValueEqualityComparer Class \[▸ 1750\]](#)
- [Equals Overload \[▸ 1758\]](#)
- [TcHmiSrv.Core.Tools.Queries Namespace \[▸ 1742\]](#)

2.2.4.6.4.1.3.3.2 **ValueEqualityComparer.GetHashCode Method**

Overload List

	Name	Description
	GetHashCode	Serves as the default hash function. (Inherited from Object.)
	GetHashCode (Value) [▸ 1759]	(Overrides EqualityComparer.T..GetHashCode(T).)

Reference

- [ValueEqualityComparer Class \[▸ 1750\]](#)
- [TcHmiSrv.Core.Tools.Queries Namespace \[▸ 1742\]](#)

2.2.4.6.4.1.3.3.2.1 **ValueEqualityComparer.GetHashCode Method (Value)**

Namespace: [TcHmiSrv.Core.Tools.Queries \[▸ 1742\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override int GetHashCode(  
    Value obj  
)
```

Parameters

obj Type: [TcHmiSrv.Core.Value](#) [\[► 952\]](#)

[Missing <param name="obj"/> documentation for
"M:TcHmiSrv.Core.Tools.Queries.ValueEqualityComparer.GetHashCode(TcHmiSrv.Core.Val
ue)"]

Return Value

Type: [Int32](#)

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Queries.ValueEqualityComparer.GetHashCode(TcHmiSrv.Core.Value)"]

Implements

[IEqualityComparer.T..GetHashCode\(T\)](#)

Reference

- [ValueEqualityComparer Class](#) [\[► 1750\]](#)
- [GetHashCode Overload](#) [\[► 1759\]](#)
- [TcHmiSrv.Core.Tools.Queries Namespace](#) [\[► 1742\]](#)

2.2.4.6.4.2 TcHmiSrv.Core.Tools.Queries.Extensions Namespace

Provides extension methods to sort and filter collections of [Value](#) [\[► 952\]](#)s.

Classes

	Class	Description
	ValueExtensions [► 1760]	Provides extension methods for the Value [► 952] class.

2.2.4.6.4.2.1 ValueExtensions Class

Provides extension methods for the [Value](#) [\[► 952\]](#) class.

Inheritance Hierarchy

[System.Object](#)
 TcHmiSrv.Core.Tools.Queries.Extensions.ValueExtensions
Namespace: [TcHmiSrv.Core.Tools.Queries.Extensions](#) [\[► 1760\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static class ValueExtensions
```

The ValueExtensions type exposes the following members.

Methods

	Name	Description
 	OrderBy [► 1761]	Sorts the Value [► 952] s of a sequence according to the specified String .

Reference

[TcHmiSrv.Core.Tools.Queries.Extensions Namespace \[► 1760\]](#)

2.2.4.6.4.2.1.1 ValueExtensions Methods

The [ValueExtensions \[► 1760\]](#) type exposes the following members.

Methods

	Name	Description
 	OrderBy [► 1761]	Sorts the Value [► 952] s of a sequence according to the specified String .

Reference

[ValueExtensions Class \[► 1760\]](#)

[TcHmiSrv.Core.Tools.Queries.Extensions Namespace \[► 1760\]](#)

2.2.4.6.4.2.1.1.1 ValueExtensions.OrderBy Method

Sorts the [Value \[► 952\]](#)s of a sequence according to the specified [String](#).

Namespace: [TcHmiSrv.Core.Tools.Queries.Extensions \[► 1760\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static IEnumerable<Value> OrderBy(  
    this IEnumerable<Value> collection,  
    string orderBy  
)
```

Parameters

- collection Type: [System.Collections.Generic.IEnumerable.Value \[► 952\]](#).
The sequence of [Value \[► 952\]](#)s to order.
- orderBy Type: [System.String](#)
A [String](#) that describes how to order collection.

Return Value

Type: [IOrderedEnumerable.Value](#) [► 952].

An [IOrderedEnumerable.TElement](#), whose [Value](#) [► 952]s are sorted according to [orderBy](#).

Usage Note

In Visual Basic and C#, you can call this method as an instance method on any object of type [IEnumerable.Value](#) [► 952].. When you use instance method syntax to call this method, omit the first parameter. For more information, see [Extension Methods \(Visual Basic\)](#) or [Extension Methods \(C# Programming Guide\)](#).

Reference

[ValueExtensions Class](#) [► 1760]

[TcHmiSrv.Core.Tools.Queries.Extensions Namespace](#) [► 1760]

2.2.4.6.5 TcHmiSrv.Core.Tools.Resolving Namespaces

Contains types to resolve instances of any type by a specified path.

Namespaces

Namespace	Description
TcHmiSrv.Core.Tools.Resolving [► 1762]	Contains the Converter [► 1763] delegate that represents a method that converts an Object to an instance of the specified Type .
TcHmiSrv.Core.Tools.Resolving.Handlers [► 1763]	Contains types to handle resolving instances of any type by a specified path.
TcHmiSrv.Core.Tools.Resolving.Resolvers [► 1791]	Provides Resolver [► 1814]s to resolve Objects and Value [► 952]s by a specified element.

Remarks

This implementation replaces the [TcHmiSrv.DynamicSymbols.TcHmiResolver](#) and [TcHmiSrv.DynamicSymbols.TcHmiUniversalResolver](#) classes.

Use an instance of a type derived from [ResolveHandler](#) [► 1771] to handle resolving of a specified type. You can implement custom [Resolver](#) [► 1814]s to control resolving or use [ObjectResolver.DefaultResolver](#) [► 1797] and [ValueResolver.DefaultResolver](#) [► 1829].

2.2.4.6.5.1 TcHmiSrv.Core.Tools.Resolving Namespace

Contains the [Converter](#) [► 1763] delegate that represents a method that converts an [Object](#) to an instance of the specified [Type](#).

Delegates

	Delegate	Description
	Converter [► 1763]	Represents a method that converts an Object to an instance of the specified Type .

2.2.4.6.5.1.1 Converter Delegate

Represents a method that converts an [Object](#) to an instance of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving](#) [► 1762]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public delegate Object Converter(  
    Object value,  
    Type conversionType  
)
```

Parameters

value Type: [System.Object](#)
 The [Object](#) to convert.

conversionT Type: [System.Type](#)
ype The [Type](#) of the instance to return.

Return Value

Type: [Object](#)
An [Object](#) of the specified [Type](#).

Reference

[TcHmiSrv.Core.Tools.Resolving Namespace](#) [► 1762]

2.2.4.6.5.2 TcHmiSrv.Core.Tools.Resolving.Handlers Namespace

Contains types to handle resolving instances of any type by a specified path.

Classes

	Class	Description
	RecursiveResolveHandler.T . [► 1764]	Provides methods to handle resolving instances of a specified type. Instances of the specified type consist only of other instances of the specified type, like the Value [► 952] class without Alarm [► 767] s, Event [► 850] s and Message [► 924] s.
	ResolveHandler [► 1771]	Provides methods to handle resolving Objects .
	ResolveHandler.T. [► 1784]	Provides methods to handle resolving instances of a specified type.

2.2.4.6.5.2.1 *RecursiveResolveHandler.T. Class*

Provides methods to handle resolving instances of a specified type.

Instances of the specified type consist only of other instances of the specified type, like the [Value](#) [► 952] class without [Alarm](#) [► 767]s, [Event](#) [► 850]s and [Message](#) [► 924]s.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers.ResolveHandler](#) [► 1784].T.

[TcHmiSrv.Core.Tools.Resolving.Handlers.RecursiveResolveHandler](#).T.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class RecursiveResolveHandler<T> : ResolveHandler<T>
```

Type Parameters

T The type of the instances to resolve.

The RecursiveResolveHandler.T. type exposes the following members.

Constructors

	Name	Description
	RecursiveResolveHandler.T [► 1765]	Initializes a new instance of the RecursiveResolveHandler.T class with the specified RecursiveResolver.T . [► 1802].

Properties

	Name	Description
	CanRead [► 1786]	Gets a value that indicates whether this ResolveHandler.T . [► 1784] can read elements. The default value is true. (Inherited from ResolveHandler.T . [► 1784].)
	CanWrite [► 1787]	Gets a value that indicates whether this ResolveHandler.T . [► 1784] can write elements. The default value is true. (Inherited from ResolveHandler.T . [► 1784].)
	Description [► 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [► 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed. (Inherited from ResolveHandler.T . [► 1784].)
	Resolver [► 1766]	Gets the RecursiveResolver.T . [► 1802] that is used to resolve instances of the specified type.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1768]	Reads the specified element from the current instance. (Overrides ResolveHandler.T..ReadElement(T, String) [► 1788].)
	ReadElements [► 1789]	Reads the specified elements from the current instance. (Inherited from ResolveHandler.T. [► 1784].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1769]	Writes the specified value to the specified element of the current instance. (Overrides ResolveHandler.T..WriteElement(T, String, Object, Converter) [► 1789].)
	WriteElement s(T, Queue.String, T, Boolean) [► 1770]	Writes the specified value at the specified elements to the current instance.
	WriteElement s(T, Queue.String, Object, Converter, Boolean) [► 1790]	Writes the specified value at the specified elements to the current instance. (Inherited from ResolveHandler.T. [► 1784].)

Reference

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.1.1 RecursiveResolveHandler.T. Constructor

Initializes a new instance of the [RecursiveResolveHandler.T.](#) [► 1764] class with the specified [RecursiveResolver.T.](#) [► 1802].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public RecursiveResolveHandler(
    RecursiveResolver<T> resolver
)
```

Parameters

resolver Type: [TcHmiSrv.Core.Tools.Resolving.Resolvers.RecursiveResolver](#) [► 1802].T [► 1764].
The [RecursiveResolver.T.](#) [► 1802] that is used to resolve instances of the specified type.

Reference

[RecursiveResolveHandler.T. Class](#) [► 1764]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.1.2 RecursiveResolveHandler.T. Properties

The [RecursiveResolveHandler.T.](#) [► 1764] generic type exposes the following members.

Properties

	Name	Description
	CanRead [► 1786]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can read elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
	CanWrite [► 1787]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can write elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
	Description [► 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [► 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed. (Inherited from ResolveHandler.T. [► 1784].)
	Resolver [► 1766]	Gets the RecursiveResolver.T. [► 1802] that is used to resolve instances of the specified type.

Reference

[RecursiveResolveHandler.T. Class](#) [► 1764]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.1.2.1 RecursiveResolveHandler.T..Resolver Property

Gets the [RecursiveResolver.T.](#) [► 1802] that is used to resolve instances of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public RecursiveResolver<T> Resolver { get; }
```

Property Value

Type: [RecursiveResolver](#) [[▶ 1802](#)].T [[▶ 1764](#)].

Reference

[RecursiveResolveHandler.T. Class](#) [[▶ 1764](#)]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [[▶ 1763](#)]

2.2.4.6.5.2.1.3 RecursiveResolveHandler.T. Methods

The [RecursiveResolveHandler.T.](#) [[▶ 1764](#)] generic type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1768]	Reads the specified element from the current instance. (Overrides ResolveHandler.T..ReadElement(T, String) [► 1788].)
	ReadElements [► 1789]	Reads the specified elements from the current instance. (Inherited from ResolveHandler.T. [► 1784].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1769]	Writes the specified value to the specified element of the current instance. (Overrides ResolveHandler.T..WriteElement(T, String, Object, Converter) [► 1789].)
	WriteElement s(T, Queue.String, T, Boolean) [► 1770]	Writes the specified value at the specified elements to the current instance.
	WriteElement s(T, Queue.String, Object, Converter, Boolean) [► 1790]	Writes the specified value at the specified elements to the current instance. (Inherited from ResolveHandler.T. [► 1784].)

Reference

[RecursiveResolveHandler.T. Class](#) [► 1764]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.1.3.1 RecursiveResolveHandler.T..ReadElement Method

Reads the specified element from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected override sealed T ReadElement(  
    T current,  
    string element  
)
```

Parameters

current Type: [T](#) [► 1764]
An instance of the specified type to read from.

element Type: [System.String](#)
The name of the element to read.

Return Value

Type: [T](#) [► 1764]
The value of the specified element.

Reference

[RecursiveResolveHandler.T. Class](#) [► 1764]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.1.3.2 RecursiveResolveHandler.T..WriteElement Method

Writes the specified value to the specified element of the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected override sealed T WriteElement(  
    T current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current Type: [T](#) [► 1764]
An instance of the specified type to write to.

element Type: [System.String](#)
The name of the element to write.

value Type: [System.Object](#)
The [Object](#) to be written.

converter Type: [TcHmiSrv.Core.Tools.Resolving.Converter](#) [► 1763]
A [Converter](#) [► 1763] that is used to convert value to an instance of the [Type](#) associated with the specified element.

Return Value

Type: [T](#) [► 1764]
The new value of the specified element.

Reference

[RecursiveResolveHandler.T. Class \[► 1764\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[► 1763\]](#)

2.2.4.6.5.2.1.3.3 RecursiveResolveHandler.T..WriteElements Method

Overload List

	Name	Description
	WriteElement s(T., Queue.String., T, Boolean) [► 1770]	Writes the specified value at the specified elements to the current instance.
	WriteElement s(T., Queue.String., Object, Converter, Boolean) [► 1790]	Writes the specified value at the specified elements to the current instance. (Inherited from ResolveHandler.T. [► 1784].)

Reference

[RecursiveResolveHandler.T. Class \[► 1764\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[► 1763\]](#)

2.2.4.6.5.2.1.3.3.1 RecursiveResolveHandler.T..WriteElements Method (T., Queue.String., T, Boolean)

Writes the specified value at the specified elements to the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers \[► 1763\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public T WriteElements(  
    ref T current,  
    Queue<string> elements,  
    T value,  
    bool throwOnError  
)
```

Parameters

- current

Type: [T \[► 1764\]](#).
An instance of the specified type to write to. If elements are empty, the value is written directly to this parameter.
- elements

Type: [System.Collections.Generic.Queue.String](#).
A [Queue.T](#) that is used to determine the element to write.
- value

Type: [T \[► 1764\]](#)
The [Object](#) to be written.
- throwOnError

Type: [System.Boolean](#)
true to throw an [Exception](#) if writing the specified element failed; otherwise, false to return the value at which writing fails.

Return Value

Type: [T \[► 1764\]](#)
The new value of at the specified elements.

Reference

- [RecursiveResolveHandler.T. Class \[► 1764\]](#)
- [WriteElements Overload \[► 1770\]](#)
- [TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[► 1763\]](#)

2.2.4.6.5.2.2 *ResolveHandler Class*

Provides methods to handle resolving [Objects](#).

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.Core.Tools.Resolving.Handlers.ResolveHandler \[► 1784\].Object](#).
 [TcHmiSrv.Core.Tools.Resolving.Handlers.ResolveHandler](#)
Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers \[► 1763\]](#)
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class ResolveHandler : ResolveHandler<Object>
```

The ResolveHandler type exposes the following members.

Constructors

	Name	Description
	ResolveHandler(IEnumerable<Resolver>) [► 1774]	Initializes a new instance of the ResolveHandler class with the specified Resolver [► 1814] s.
	ResolveHandler(Resolver) [► 1774]	Initializes a new instance of the ResolveHandler class with the specified Resolver [► 1814] s.

Properties

	Name	Description
	CanRead [► 1786]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can read elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
	CanWrite [► 1787]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can write elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
 	DefaultConverter [► 1776]	Gets a default Converter [► 1763] that returns the specified Object regardless of the specified Type .
 	DefaultHandler [► 1777]	Gets a default ResolveHandler that uses DefaultResolver [► 1829] and DefaultResolver [► 1797] to resolve.
	Description [► 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [► 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed. (Inherited from ResolveHandler.T. [► 1784].)
 	JsonConverter [► 1777]	Gets a Converter [► 1763] that converts the specified Object to an instance of the specified Type by calling ToString and passing the result to DeserializeObject(String, Type) .
 	JsonValueConverter [► 1778]	Gets a Converter [► 1763] that converts the specified Object to a Value [► 952] by calling SerializeObject(Object) and passing the result to FromJson(String) [► 1616].
	Resolvers [► 1778]	Gets an IEnumerable.T. of Resolver [► 1814]s that are used by the current ResolveHandler .
 	ValueConverter [► 1778]	Gets a Converter [► 1763] that converts the specified Object to a Value [► 952] by calling the appropriate constructor.
 	ValueJsonConverter [► 1779]	Gets a Converter [► 1763] that converts the specified Value [► 952] to an instance of the specified Type by calling ToJson(Value) [► 1618] and passing the result to DeserializeObject(String, Type) .

Methods

	Name	Description
 	CreateQueue [► 1780]	Creates a Queue.T from the specified path.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	FindReader [► 1781]	Finds a Resolver [► 1814] that can read elements from instances of the specified Type .
	FindWriter [► 1781]	Finds a Resolver [► 1814] that can write elements to instances of the specified Type .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1782]	Reads the specified element from the current instance. (Overrides ResolveHandler.T..ReadElement(T, String) [► 1788] .)
	ReadElements [► 1789]	Reads the specified elements from the current instance. (Inherited from ResolveHandler.T. [► 1784] .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1782]	Writes the specified value to the specified element of the current instance. (Overrides ResolveHandler.T..WriteElement(T, String, Object, Converter) [► 1789] .)
	WriteElements [► 1790]	Writes the specified value at the specified elements to the current instance. (Inherited from ResolveHandler.T. [► 1784] .)
	WriteElementsGeneric.TResult [► 1783]	Writes the specified value at the specified elements to the current instance of the specified type.

Reference

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [\[► 1763\]](#)

2.2.4.6.5.2.2.1 **ResolveHandler Constructor**

Overload List

	Name	Description
	ResolveHandler(IEnumerable<Resolver>) [► 1774]	Initializes a new instance of the ResolveHandler [► 1771] class with the specified Resolver [► 1814]s.
	ResolveHandler(Resolver) [► 1774]	Initializes a new instance of the ResolveHandler [► 1771] class with the specified Resolver [► 1814]s.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.1.1 **ResolveHandler Constructor (IEnumerable.Resolver.)**

Initializes a new instance of the [ResolveHandler](#) [► 1771] class with the specified [Resolver](#) [► 1814]s.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ResolveHandler(  
    IEnumerable<Resolver> resolvers  
)
```

Parameters

resolvers Type: [System.Collections.Generic.IEnumerable.Resolver](#) [► 1814].
An [IEnumerable.T. of Resolver](#) [► 1814]s that can be used.

Reference

[ResolveHandler Class](#) [► 1771]

[ResolveHandler Overload](#) [► 1774]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.1.2 **ResolveHandler Constructor (.Resolver.)**

Initializes a new instance of the [ResolveHandler](#) [► 1771] class with the specified [Resolver](#) [► 1814]s.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ResolveHandler(  
    params Resolver[] resolvers  
)
```

Parameters

resolvers Type: [.TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver \[► 1814\]](#).
An [IEnumerable.T. of Resolver \[► 1814\]](#)s that can be used.

Reference

[ResolveHandler Class \[► 1771\]](#)

[ResolveHandler Overload \[► 1774\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[► 1763\]](#)

2.2.4.6.5.2.2.2 ResolveHandler Properties

The [ResolveHandler \[► 1771\]](#) type exposes the following members.

Properties

	Name	Description
	CanRead [► 1786]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can read elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
	CanWrite [► 1787]	Gets a value that indicates whether this ResolveHandler.T. [► 1784] can write elements. The default value is true. (Inherited from ResolveHandler.T. [► 1784].)
 	DefaultConverter [► 1776]	Gets a default Converter [► 1763] that returns the specified Object regardless of the specified Type .
 	DefaultHandler [► 1777]	Gets a default ResolveHandler [► 1771] that uses DefaultResolver [► 1829] and DefaultResolver [► 1797] to resolve.
	Description [► 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [► 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed. (Inherited from ResolveHandler.T. [► 1784].)
 	JsonConverter [► 1777]	Gets a Converter [► 1763] that converts the specified Object to an instance of the specified Type by calling ToString , and passing the result to DeserializeObject(String, Type) .
 	JsonValueConverter [► 1778]	Gets a Converter [► 1763] that converts the specified Object to a Value [► 952] by calling SerializeObject(Object) and passing the result to FromJson(String) [► 1616] .
	Resolvers [► 1778]	Gets an IEnumerable.T. of Resolver [► 1814] s that are used by the current ResolveHandler [► 1771] .
 	ValueConverter [► 1778]	Gets a Converter [► 1763] that converts the specified Object to a Value [► 952] by calling the appropriate constructor.
 	ValueJsonConverter [► 1779]	Gets a Converter [► 1763] that converts the specified Value [► 952] to an instance of the specified Type by calling ToJson(Value) [► 1618] and passing the result to DeserializeObject(String, Type) .

Reference

[ResolveHandler Class \[► 1771\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[► 1763\]](#)

2.2.4.6.5.2.2.1 ResolveHandler.DefaultConverter Property

Gets a default [Converter \[► 1763\]](#) that returns the specified [Object](#) regardless of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers \[► 1763\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Converter DefaultConverter { get; }
```

Property Value

Type: [Converter](#) [► 1763]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.2 ResolveHandler.DefaultHandler Property

Gets a default [ResolveHandler](#) [► 1771] that uses [DefaultResolver](#) [► 1829] and [DefaultResolver](#) [► 1797] to resolve.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ResolveHandler DefaultHandler { get; }
```

Property Value

Type: [ResolveHandler](#) [► 1771]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3 ResolveHandler.JsonConverter Property

Gets a [Converter](#) [► 1763] that converts the specified [Object](#) to an instance of the specified [Type](#) by calling [ToString](#), and passing the result to [DeserializeObject\(String, Type\)](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Converter JsonConverter { get; }
```

Property Value

Type: [Converter](#) [► 1763]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.4 ResolveHandler.JsonValueConverter Property

Gets a [Converter](#) [► 1763] that converts the specified [Object](#) to a [Value](#) [► 952] by calling [SerializeObject\(Object\)](#) and passing the result to [FromJson\(String\)](#) [► 1616].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Converter JsonValueConverter { get; }
```

Property Value

Type: [Converter](#) [► 1763]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.5 ResolveHandler.Resolvers Property

Gets an [IEnumerable.T](#), of [Resolver](#) [► 1814]s that are used by the current [ResolveHandler](#) [► 1771].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IEnumerable<Resolver> Resolvers { get; }
```

Property Value

Type: [IEnumerable.Resolver](#) [► 1814].

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.6 ResolveHandler.ValueConverter Property

Gets a [Converter](#) [► 1763] that converts the specified [Object](#) to a [Value](#) [► 952] by calling the appropriate constructor.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Converter ValueConverter { get; }
```

Property Value

Type: [Converter](#) [► 1763]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.7 ResolveHandler.ValueJsonConverter Property

Gets a [Converter](#) [► 1763] that converts the specified [Value](#) [► 952] to an instance of the specified [Type](#) by calling [ToJson\(Value\)](#) [► 1618] and passing the result to `DeserializeObject(String, Type)`.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static Converter ValueJsonConverter { get; }
```

Property Value

Type: [Converter](#) [► 1763]

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3 ResolveHandler Methods

The [ResolveHandler](#) [► 1771] type exposes the following members.

Methods

	Name	Description
	CreateQueue [► 1780]	Creates a Queue.T from the specified path.
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	FindReader [► 1781]	Finds a Resolver [► 1814] that can read elements from instances of the specified Type .
	FindWriter [► 1781]	Finds a Resolver [► 1814] that can write elements to instances of the specified Type .
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1782]	Reads the specified element from the current instance. (Overrides ResolveHandler.T..ReadElement(T, String) [► 1788].)
	ReadElements [► 1789]	Reads the specified elements from the current instance. (Inherited from ResolveHandler.T. [► 1784].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1782]	Writes the specified value to the specified element of the current instance. (Overrides ResolveHandler.T..WriteElement(T, String, Object, Converter) [► 1789].)
	WriteElements [► 1790]	Writes the specified value at the specified elements to the current instance. (Inherited from ResolveHandler.T. [► 1784].)
	WriteElementsGeneric.TResult [► 1783]	Writes the specified value at the specified elements to the current instance of the specified type.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3.1 ResolveHandler.CreateQueue Method

Creates a [Queue.T](#) from the specified path.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static Queue<string> CreateQueue(  
    string path  
)
```

Parameters

path Type: [System.String](#)
The path to create a [Queue.T](#). from.

Return Value

Type: [Queue.String](#).
A [Queue.T](#). created from path.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3.2 ResolveHandler.FindReader Method

Finds a [Resolver](#) [► 1814] that can read elements from instances of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected virtual Resolver FindReader(  
    Type type  
)
```

Parameters

type Type: [System.Type](#)
The [Type](#) of the instance to read from.

Return Value

Type: [Resolver](#) [► 1814]
A [Resolver](#) [► 1814] that can read elements from instances of the specified type.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3.3 ResolveHandler.FindWriter Method

Finds a [Resolver](#) [► 1814] that can write elements to instances of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected virtual Resolver FindWriter(  
    Type type  
)
```

Parameters

type Type: [System.Type](#)
The [Type](#) of the instance to write to.

Return Value

Type: [Resolver](#) [[► 1814](#)]
A [Resolver](#) [[► 1814](#)] that can write elements to instances of the specified type.

Reference

[ResolveHandler Class](#) [[► 1771](#)]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [[► 1763](#)]

2.2.4.6.5.2.2.3.4 ResolveHandler.ReadElement Method

Reads the specified element from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [[► 1763](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
protected override Object ReadElement(  
    Object current,  
    string element  
)
```

Parameters

current Type: [System.Object](#)
An instance of the specified type to read from.

element Type: [System.String](#)
The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[ResolveHandler Class](#) [[► 1771](#)]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [[► 1763](#)]

2.2.4.6.5.2.2.3.5 ResolveHandler.WriteElement Method

Writes the specified value to the specified element of the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected override Object WriteElement(  
    Object current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current	Type: System.Object An instance of the specified type to write to.
element	Type: System.String The name of the element to write.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the Type associated with the specified element.

Return Value

Type: [Object](#)
The new value of the specified element.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.2.3.6 ResolveHandler.WriteElementsGeneric.TResult. Method

Writes the specified value at the specified elements to the current instance of the specified type.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Object WriteElementsGeneric<TResult>(   
    ref TResult current,  
    Queue<string> elements,  
    Object value,  
    Converter converter,  
    bool throwOnError  
)
```

Parameters

current	Type: TResult . An instance of the specified type to write to. If elements are empty, the value is written directly to this parameter.
elements	Type: System.Collections.Generic.Queue.String . A Queue.T that is used to determine the element to write.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the Type associated with the element specified by elements.
throwOnError	Type: System.Boolean true to throw an Exception if writing the specified element failed; otherwise, false to return the value at which writing fails.

Type Parameters

TResult	The type of the current instance to write to.

Return Value

Type: [Object](#)
The new value of at the specified elements.

Reference

[ResolveHandler Class](#) [► 1771]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3 *ResolveHandler.T. Class*

Provides methods to handle resolving instances of a specified type.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers.ResolveHandler.T.](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers.RecursiveResolveHandler.T.](#) [► 1764]

[TcHmiSrv.Core.Tools.Resolving.Handlers.ResolveHandler](#) [► 1771]

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax**C#**

```
public abstract class ResolveHandler<T>
```

Type Parameters

T	The type of the instances to resolve.

The [ResolveHandler.T.](#) type exposes the following members.

Constructors

	Name	Description
	ResolveHandler.T. [► 1786]	Initializes a new instance of the ResolveHandler.T. class

Properties

	Name	Description
	CanRead [► 1786]	Gets a value that indicates whether this ResolveHandler.T. can read elements. The default value is true.
	CanWrite [► 1787]	Gets a value that indicates whether this ResolveHandler.T. can write elements. The default value is true.
	Description [► 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [► 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1788]	Reads the specified element from the current instance.
	ReadElements [► 1789]	Reads the specified elements from the current instance.
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1789]	Writes the specified value to the specified element of the current instance.
	WriteElements [► 1790]	Writes the specified value at the specified elements to the current instance.

Reference

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [[► 1763](#)]

2.2.4.6.5.2.3.1 ResolveHandler.T. Constructor

Initializes a new instance of the [ResolveHandler.T. \[▸ 1784\]](#) class

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers \[▸ 1763\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected ResolveHandler()
```

Reference

[ResolveHandler.T. Class \[▸ 1784\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[▸ 1763\]](#)

2.2.4.6.5.2.3.2 ResolveHandler.T. Properties

The [ResolveHandler.T. \[▸ 1784\]](#) generic type exposes the following members.

Properties

	Name	Description
	CanRead [▸ 1786]	Gets a value that indicates whether this ResolveHandler.T. [▸ 1784] can read elements. The default value is true.
	CanWrite [▸ 1787]	Gets a value that indicates whether this ResolveHandler.T. [▸ 1784] can write elements. The default value is true.
	Description [▸ 1787]	Gets a description that is used in Exception messages to display what was tried to resolve. If Description [▸ 1787] is null, the Type of the instance that is actually resolved is displayed. If the instance that is actually resolved is also null, the type of T is displayed.

Reference

[ResolveHandler.T. Class \[▸ 1784\]](#)

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace \[▸ 1763\]](#)

2.2.4.6.5.2.3.2.1 ResolveHandler.T..CanRead Property

Gets a value that indicates whether this [ResolveHandler.T. \[▸ 1784\]](#) can read elements. The default value is true.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers \[▸ 1763\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public virtual bool CanRead { get; }
```

Property Value

Type: [Boolean](#)

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.2.2 ResolveHandler.T..CanWrite Property

Gets a value that indicates whether this [ResolveHandler.T.](#) [► 1784] can write elements.
The default value is true.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public virtual bool CanWrite { get; }
```

Property Value

Type: [Boolean](#)

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.2.3 ResolveHandler.T..Description Property

Gets a description that is used in [Exception](#) messages to display what was tried to resolve.
If Description is null, the [Type](#) of the instance that is actually resolved is displayed.
If the instance that is actually resolved is also null, the type of T is displayed.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected virtual string Description { get; }
```

Property Value

Type: [String](#)

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.3 ResolveHandler.T. Methods

The [ResolveHandler.T.](#) [► 1784] generic type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1788]	Reads the specified element from the current instance.
	ReadElements [► 1789]	Reads the specified elements from the current instance.
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1789]	Writes the specified value to the specified element of the current instance.
	WriteElements [► 1790]	Writes the specified value at the specified elements to the current instance.

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.3.1 ResolveHandler.T..ReadElement Method

Reads the specified element from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected abstract T ReadElement(
    T current,
    string element
)
```


Parameters

current	Type: T [► 1784] An instance of the specified type to read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [T](#) [► 1784]
The value of the specified element.

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.3.2 ResolveHandler.T..ReadElements Method

Reads the specified elements from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public T ReadElements(  
    T current,  
    Queue<string> elements,  
    bool throwOnError  
)
```

Parameters

current	Type: T [► 1784] An instance of the specified type to read from.
elements	Type: System.Collections.Generic.Queue.String . A Queue.T containing the elements to read.
throwOnError	Type: System.Boolean true to throw an Exception if reading the specified elements failed; otherwise, false to return the value at which reading fails.

Return Value

Type: [T](#) [► 1784]
The value at the specified elements.

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.3.3 ResolveHandler.T..WriteElement Method

Writes the specified value to the specified element of the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected abstract T WriteElement(  
    T current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current	Type: T [► 1784] An instance of the specified type to write to.
element	Type: System.String The name of the element to write.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the Type associated with the specified element.

Return Value

Type: [T](#) [► 1784]
The new value of the specified element.

Reference

[ResolveHandler.T. Class](#) [► 1784]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [► 1763]

2.2.4.6.5.2.3.3.4 ResolveHandler.T..WriteElements Method

Writes the specified value at the specified elements to the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Handlers](#) [► 1763]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public T WriteElements(  
    ref T current,  
    Queue<string> elements,  
    Object value,  
    Converter converter,  
    bool throwOnError  
)
```

Parameters

current	Type: T [▶ 1784]. An instance of the specified type to write to. If elements are empty, the value is written directly to this parameter.
elements	Type: System.Collections.Generic.Queue.String . A Queue.T that is used to determine the element to write.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [▶ 1763] A Converter [▶ 1763] that is used to convert value to an instance of the Type associated with the element specified by elements.
throwOnError	Type: System.Boolean true to throw an Exception if writing the specified element failed; otherwise, false to return the value at which writing fails.

Return Value

Type: [T](#) [[▶ 1784](#)]
The new value of at the specified elements.

Reference

[ResolveHandler.T. Class](#) [[▶ 1784](#)]

[TcHmiSrv.Core.Tools.Resolving.Handlers Namespace](#) [[▶ 1763](#)]

2.2.4.6.5.3 TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace

Provides [Resolver](#) [[▶ 1814](#)]s to resolve [Objects](#) and [Value](#) [[▶ 952](#)]s by a specified element.

Classes

	Class	Description
	ObjectResolver [▶ 1793]	Resolves Objects by a specified element using dynamic type conversions and operations from the System.Reflection namespace.
	RecursiveResolver.T [▶ 1802]	Resolves instances of a specified type. Instances of the specified type consist only of other instances of the specified type, like the Value [▶ 952] class without Alarm [▶ 767]s, Event [▶ 850]s and Message [▶ 924]s.
	RecursiveValueResolver [▶ 1809]	Resolves Value [▶ 952]s by a specified element. Value [▶ 952]s containing an Alarm [▶ 767], Event [▶ 850] or Message [▶ 924] cannot be resolved.
	Resolver [▶ 1814]	Resolves Objects by a specified element.
	Resolver.T [▶ 1819]	Resolves instances of a specified type.
	ValueResolver [▶ 1826]	Resolves Value [▶ 952]s by a specified element. Value [▶ 952]s containing an Alarm [▶ 767], Event [▶ 850] or Message [▶ 924] can also be resolved.

Enumerations

	Enumeration	Description
	IncludeFlags [► 1792]	Specifies flags that control which elements can be read and written by an instance of the ObjectResolver [► 1793] class.

2.2.4.6.5.3.1 *IncludeFlags Enumeration*

Specifies flags that control which elements can be read and written by an instance of the [ObjectResolver](#) [\[► 1793\]](#) class.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [\[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
[FlagsAttribute]
public enum IncludeFlags
```

Members

	Member name	Value	Description
	None	0	No elements can be read or written.
	Enumerables	1	Elements of type IEnumerable can be read.
	Arrays	2	Elements of an Array type can be read and written.
	GenericLists	4	Elements of type IList.T , can be read and written.
	NonGenericLists	8	Elements of type IList can be read and written.
	Lists	12	Combines GenericLists and NonGenericLists.
	Collections	15	Combines Enumerables, Arrays and Lists.
	GenericDictionaries	16	Elements of type IDictionary.TKey, TValue , can be read and written.
	NonGenericDictionaries	32	Elements of type IDictionary can be read and written.
	Dictionaries	48	Combines GenericDictionaries and NonGenericDictionaries.
	Properties	64	Properties can be read and written.
	Fields	128	Fields can be read and written.
	Members	192	Combines Properties and Fields.
	All	255	Combines Collections, Dictionaries and Members.

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [\[► 1791\]](#)

2.2.4.6.5.3.2 *ObjectResolver Class*

Resolves Objects by a specified element using dynamic type conversions and operations from the System.Reflection namespace.

Inheritance Hierarchy

System.Object

TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver [[▶ 1814](#)]

 TcHmiSrv.Core.Tools.Resolving.Resolvers.ObjectResolver

Namespace: TcHmiSrv.Core.Tools.Resolving.Resolvers [[▶ 1791](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public class ObjectResolver : Resolver
```

The ObjectResolver type exposes the following members.

Constructors

	Name	Description
	<u>ObjectResolver</u> (<u>BindingFlags</u>) [▶ 1795]	Initializes a new instance of the ObjectResolver class with the specified <u>BindingFlags</u> and <u>All</u> [▶ 1792].
	<u>ObjectResolver</u> (<u>IncludeFlags</u>) [▶ 1796]	Initializes a new instance of the ObjectResolver class with the specified <u>IncludeFlags</u> [▶ 1792] and <u>DefaultLookup</u> [▶ 1801].
	<u>ObjectResolver</u> (<u>IncludeFlags</u> , <u>BindingFlags</u>) [▶ 1796]	Initializes a new instance of the ObjectResolver class with the specified <u>IncludeFlags</u> [▶ 1792] and <u>BindingFlags</u> .

Properties

	Name	Description
	BindingFlags [► 1797]	Gets the BindingFlags that specify how the search of fields and properties is conducted.
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true. (Inherited from Resolver [► 1814].)
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true. (Inherited from Resolver [► 1814].)
 	DefaultResolver [► 1797]	Gets a default ObjectResolver with All [► 1792] and DefaultLookup [► 1801].
	IncludeFlags [► 1798]	Gets the IncludeFlags [► 1792] that specify which elements can be read and written.

Methods

	Name	Description
	CanResolve [► 1799]	Determines whether this Resolver [► 1814] can resolve Objects of the specified Type . (Overrides Resolver.CanResolve(Type) [► 1817].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1800]	Reads the specified element from the current Object . (Overrides Resolver.ReadElement(Object, String) [► 1818].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1800]	Writes the specified Object to the specified element of the current Object . (Overrides Resolver.WriteElement(Object, String, Object, Converter) [► 1818].)

Fields

	Name	Description
 	DefaultLookup [► 1801]	Contains the default BindingFlags for field and property lookup.

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.1 **ObjectResolver Constructor**

Overload List

	Name	Description
	ObjectResolver(BindingFlags) [► 1795]	Initializes a new instance of the ObjectResolver [► 1793] class with the specified BindingFlags and All [► 1792] .
	ObjectResolver(IncludeFlags) [► 1796]	Initializes a new instance of the ObjectResolver [► 1793] class with the specified IncludeFlags [► 1792] and DefaultLookup [► 1801] .
	ObjectResolver(IncludeFlags, BindingFlags) [► 1796]	Initializes a new instance of the ObjectResolver [► 1793] class with the specified IncludeFlags [► 1792] and BindingFlags .

Reference

[ObjectResolver Class \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.1.1 **ObjectResolver Constructor (BindingFlags)**

Initializes a new instance of the [ObjectResolver \[► 1793\]](#) class with the specified [BindingFlags](#) and [All \[► 1792\]](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ObjectResolver(  
    BindingFlags bindingFlags  
)
```

Parameters

bindingFlags Type: [System.Reflection.BindingFlags](#)
A bitmask comprised of one or more [BindingFlags](#) that specify how the search of fields and properties is conducted.

Reference

[ObjectResolver Class \[► 1793\]](#)

[ObjectResolver Overload \[► 1795\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.1.2 ObjectResolver Constructor (IncludeFlags)

Initializes a new instance of the [ObjectResolver](#) [► 1793] class with the specified [IncludeFlags](#) [► 1792] and [DefaultLookup](#) [► 1801].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ObjectResolver(  
    IncludeFlags includeFlags  
)
```

Parameters

includeFlags Type: [TcHmiSrv.Core.Tools.Resolving.Resolvers.IncludeFlags](#) [► 1792]

A bitmask comprised of one or more [IncludeFlags](#) [► 1792] that specify which elements can be read and written.

Reference

[ObjectResolver Class](#) [► 1793]

[ObjectResolver Overload](#) [► 1795]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.2.1.3 ObjectResolver Constructor (IncludeFlags, BindingFlags)

Initializes a new instance of the [ObjectResolver](#) [► 1793] class with the specified [IncludeFlags](#) [► 1792] and [BindingFlags](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public ObjectResolver(  
    IncludeFlags includeFlags,  
    BindingFlags bindingFlags  
)
```

Parameters

includeFlags Type: [TcHmiSrv.Core.Tools.Resolving.Resolvers.IncludeFlags](#) [► 1792]

A bitmask comprised of one or more [IncludeFlags](#) [► 1792] that specify which elements can be read and written.

bindingFlags Type: [System.Reflection.BindingFlags](#)

A bitmask comprised of one or more [BindingFlags](#) that specify how the search of fields and properties is conducted.

Reference

[ObjectResolver Class](#) [► 1793]

[ObjectResolver Overload](#) [► 1795]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.2 **ObjectResolver Properties**

The [ObjectResolver \[► 1793\]](#) type exposes the following members.

Properties

	Name	Description
	BindingFlags [► 1797]	Gets the BindingFlags that specify how the search of fields and properties is conducted.
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true. (Inherited from Resolver [► 1814] .)
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true. (Inherited from Resolver [► 1814] .)
 	DefaultResolver [► 1797]	Gets a default ObjectResolver [► 1793] with All [► 1792] and DefaultLookup [► 1801] .
	IncludeFlags [► 1798]	Gets the IncludeFlags [► 1792] that specify which elements can be read and written.

Reference

[ObjectResolver Class \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.2.1 **ObjectResolver.BindingFlags Property**

Gets the [BindingFlags](#) that specify how the search of fields and properties is conducted.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public BindingFlags BindingFlags { get; }
```

Property Value

Type: [BindingFlags](#)

Reference

[ObjectResolver Class \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.2.2 **ObjectResolver.DefaultResolver Property**

Gets a default [ObjectResolver \[► 1793\]](#) with [All \[► 1792\]](#) and [DefaultLookup \[► 1801\]](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ObjectResolver DefaultResolver { get; }
```

Property Value

Type: [ObjectResolver](#) [► 1793]

Reference

[ObjectResolver Class](#) [► 1793]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.2.2.3 ObjectResolver.IncludeFlags Property

Gets the [IncludeFlags](#) [► 1792] that specify which elements can be read and written.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public IncludeFlags IncludeFlags { get; }
```

Property Value

Type: [IncludeFlags](#) [► 1792]

Reference

[ObjectResolver Class](#) [► 1793]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.2.3 ObjectResolver Methods

The [ObjectResolver](#) [► 1793] type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1799]	Determines whether this Resolver [► 1814] can resolve Objects of the specified Type . (Overrides Resolver.CanResolve(Type) [► 1817].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1800]	Reads the specified element from the current Object . (Overrides Resolver.ReadElement(Object, String) [► 1818].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1800]	Writes the specified Object to the specified element of the current Object . (Overrides Resolver.WriteElement(Object, String, Object, Converter) [► 1818].)

Reference

[ObjectResolver Class](#) [► 1793]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.2.3.1 ObjectResolver.CanResolve Method

Determines whether this [Resolver](#) [► 1814] can resolve [Objects](#) of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override bool CanResolve(
    Type type
)
```

Parameters

type Type: [System.Type](#)
The [Type](#) of the [Object](#) to resolve.

Return Value

Type: [Boolean](#)
Always true.

Reference

[ObjectResolver Class \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.3.2 ObjectResolver.ReadElement Method

Reads the specified element from the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object ReadElement(  
    Object current,  
    string element  
)
```

Parameters

current	Type: System.Object The current Object to read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[ObjectResolver Class \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.2.3.3 ObjectResolver.WriteElement Method

Writes the specified [Object](#) to the specified element of the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object WriteElement(  
    Object current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

- current

Type: [System.Object](#)
The current [Object](#) to write to.
- element

Type: [System.String](#)
The name of the element to write.
If this parameter is null, value should be written directly to current.
- value

Type: [System.Object](#)
The [Object](#) to be written.
- converter

Type: [TcHmiSrv.Core.Tools.Resolving.Converter](#) [[▶ 1763](#)]
A [Converter](#) [[▶ 1763](#)] that is used to convert value to an instance of the [Type](#) associated with the specified element.

Return Value

Type: [Object](#)
The new value of the specified element.

Reference

- [ObjectResolver Class](#) [[▶ 1793](#)]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▶ 1791](#)]

2.2.4.6.5.3.2.4 ObjectResolver Fields

The [ObjectResolver](#) [[▶ 1793](#)] type exposes the following members.

Fields

	Name	Description
	DefaultLookup [▶ 1801]	Contains the default BindingFlags for field and property lookup.

Reference

- [ObjectResolver Class](#) [[▶ 1793](#)]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▶ 1791](#)]

2.2.4.6.5.3.2.4.1 ObjectResolver.DefaultLookup Field

Contains the default [BindingFlags](#) for field and property lookup.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▶ 1791](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public const BindingFlags DefaultLookup = BindingFlags.Instance|BindingFlags.Public|
BindingFlags.Static
```

Field Value

Type: [BindingFlags](#)

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement(T, String) [► 1806]	Reads the specified element from the current Object . (Overrides Resolver.T..ReadElement(Object, String) [► 1823].)
	ReadElement(Object, String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElementRecursive [► 1806]	Reads the specified element from the current instance.
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement(T, String, Object, Converter) [► 1807]	Writes the specified Object to the specified element of the current instance. (Overrides Resolver.T..WriteElement(Object, String, Object, Converter) [► 1825].)
	WriteElement(Object, String, Object, Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElementRecursive [► 1808]	Writes the specified value to the specified element of the current instance.

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.3.1 RecursiveResolver.T. Constructor

Initializes a new instance of the [RecursiveResolver.T. \[▸ 1802\]](#) class

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[▸ 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected RecursiveResolver()
```

Reference

[RecursiveResolver.T. Class \[▸ 1802\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[▸ 1791\]](#)

2.2.4.6.5.3.3.2 RecursiveResolver.T. Properties

The [RecursiveResolver.T. \[▸ 1802\]](#) generic type exposes the following members.

Properties

	Name	Description
	CanRead [▸ 1816]	Gets a value that indicates whether this Resolver [▸ 1814] can read elements. The default value is true. (Inherited from Resolver [▸ 1814].)
	CanWrite [▸ 1816]	Gets a value that indicates whether this Resolver [▸ 1814] can write elements. The default value is true. (Inherited from Resolver [▸ 1814].)

Reference

[RecursiveResolver.T. Class \[▸ 1802\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[▸ 1791\]](#)

2.2.4.6.5.3.3.3 RecursiveResolver.T. Methods

The [RecursiveResolver.T. \[▸ 1802\]](#) generic type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement(T, String) [► 1806]	Reads the specified element from the current Object . (Overrides Resolver.T..ReadElement(Object, String) [► 1823].)
	ReadElement(Object, String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElementRecursive [► 1806]	Reads the specified element from the current instance.
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement(T, String, Object, Converter) [► 1807]	Writes the specified Object to the specified element of the current instance. (Overrides Resolver.T..WriteElement(Object, String, Object, Converter) [► 1825].)
	WriteElement(Object, String, Object, Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElementRecursive [► 1808]	Writes the specified value to the specified element of the current instance.

Reference

[RecursiveResolver.T. Class](#) [► 1802]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.3.1 RecursiveResolver.T..ReadElement Method

Overload List

	Name	Description
	ReadElement(T, String) [▸ 1806]	Reads the specified element from the current Object . (Overrides Resolver.T..ReadElement(Object, String) [▸ 1823].)
	ReadElement(Object, String) [▸ 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [▸ 1819].)

Reference

[RecursiveResolver.T. Class](#) [[▸ 1802](#)]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▸ 1791](#)]

2.2.4.6.5.3.3.1.1 RecursiveResolver.T..ReadElement Method (T, String)

Reads the specified element from the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▸ 1791](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object ReadElement(  
    T current,  
    string element  
)
```

Parameters

current Type: [T](#) [[▸ 1802](#)]
 The current [Object](#) to read from.

element Type: [System.String](#)
 The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[RecursiveResolver.T. Class](#) [[▸ 1802](#)]

[ReadElement Overload](#) [[▸ 1806](#)]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▸ 1791](#)]

2.2.4.6.5.3.3.3.2 RecursiveResolver.T..ReadElementRecursive Method

Reads the specified element from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▸ 1791](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract T ReadElementRecursive(  
    T current,  
    string element  
)
```

Parameters

current Type: [T](#) [[▸ 1802](#)]
 The current instance to read from.

element Type: [System.String](#)
 The name of the element to read.

Return Value

Type: [T](#) [[▸ 1802](#)]
The value of the specified element.

Reference

[RecursiveResolver.T. Class](#) [[▸ 1802](#)]
[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▸ 1791](#)]

2.2.4.6.5.3.3.3.3 **RecursiveResolver.T..WriteElement Method**

Overload List

	Name	Description
	WriteElement (T , String , Object , Converter) [▸ 1807]	Writes the specified Object to the specified element of the current instance. (Overrides Resolver.T..WriteElement(Object, String, Object, Converter) [▸ 1825].)
	WriteElement (Object , String , Object , Converter) [▸ 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [▸ 1819].)

Reference

[RecursiveResolver.T. Class](#) [[▸ 1802](#)]
[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▸ 1791](#)]

2.2.4.6.5.3.3.3.3.1 ***RecursiveResolver.T..WriteElement Method (T, String, Object, Converter)***

Writes the specified [Object](#) to the specified element of the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object WriteElement(  
    T current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current	Type: T [► 1802] The current instance to write to.
element	Type: System.String The name of the element to write. If this parameter is null, value should be written directly to current.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the specified type associated with the specified element.

Return Value

Type: [Object](#)
The new value of the specified element.

Reference

[RecursiveResolver.T. Class](#) [► 1802]

[WriteElement Overload](#) [► 1807]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.3.4 RecursiveResolver.T..WriteElementRecursive Method

Writes the specified value to the specified element of the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract T WriteElementRecursive(  
    T current,  
    string element,  
    T value  
)
```

Parameters

- current

Type: [T](#) [[▶ 1802](#)]
The current instance to write to.
- element

Type: [System.String](#)
The name of the element to write.
If this parameter is null, value should be written directly to current.
- value

Type: [T](#) [[▶ 1802](#)]
The value to be written.

Return Value

Type: [T](#) [[▶ 1802](#)]
The new value of the specified element.

Reference

- [RecursiveResolver.T](#). Class [[▶ 1802](#)]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) Namespace [[▶ 1791](#)]

2.2.4.6.5.3.4 RecursiveValueResolver Class

Resolves [Value](#) [[▶ 952](#)]s by a specified element.
[Value](#) [[▶ 952](#)]s containing an [Alarm](#) [[▶ 767](#)], [Event](#) [[▶ 850](#)] or [Message](#) [[▶ 924](#)] cannot be resolved.

Inheritance Hierarchy

- [System.Object](#)
- [TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver](#) [[▶ 1814](#)]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver](#) [[▶ 1819](#)].[Value](#) [[▶ 952](#)].
- [TcHmiSrv.Core.Tools.Resolving.Resolvers.RecursiveResolver](#) [[▶ 1802](#)].[Value](#) [[▶ 952](#)].
- [TcHmiSrv.Core.Tools.Resolving.Resolvers.RecursiveValueResolver](#)

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▶ 1791](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sealed class RecursiveValueResolver : RecursiveResolver<Value>
```

The RecursiveValueResolver type exposes the following members.

Properties

	Name	Description
	CanRead [▶ 1816]	Gets a value that indicates whether this Resolver [▶ 1814] can read elements. The default value is true. (Inherited from Resolver [▶ 1814].)
	CanWrite [▶ 1816]	Gets a value that indicates whether this Resolver [▶ 1814] can write elements. The default value is true. (Inherited from Resolver [▶ 1814].)
 	DefaultResolver [▶ 1811]	Gets a default RecursiveValueResolver.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ReadElement (T, String) [► 1806]	Reads the specified element from the current Object . (Inherited from RecursiveResolver.T. [► 1802].)
	ReadElement (Object , String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElement Recursive [► 1812]	Reads the specified element from the current Value [► 952]. (Overrides RecursiveResolver.T..ReadElementRecursive(T, String) [► 1806].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement (T, String , Object , Converter) [► 1807]	Writes the specified Object to the specified element of the current instance. (Inherited from RecursiveResolver.T. [► 1802].)
	WriteElement (Object , String , Object , Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElement Recursive [► 1813]	Writes the specified value to the specified element of the current Value [► 952]. (Overrides RecursiveResolver.T..WriteElementRecursive(T, String, T) [► 1808].)

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.4.1 RecursiveValueResolver Properties

The [RecursiveValueResolver](#) [► 1809] type exposes the following members.

Properties

	Name	Description
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true. (Inherited from Resolver [► 1814].)
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true. (Inherited from Resolver [► 1814].)
 	DefaultResolver [► 1811]	Gets a default RecursiveValueResolver [► 1809].

Reference

[RecursiveValueResolver Class](#) [► 1809]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.4.1.1 **RecursiveValueResolver.DefaultResolver Property**

Gets a default [RecursiveValueResolver](#) [► 1809].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static RecursiveValueResolver DefaultResolver { get; }
```

Property Value

Type: [RecursiveValueResolver](#) [► 1809]

Reference

[RecursiveValueResolver Class](#) [► 1809]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.4.2 **RecursiveValueResolver Methods**

The [RecursiveValueResolver](#) [► 1809] type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ReadElement (T, String) [► 1806]	Reads the specified element from the current Object . (Inherited from RecursiveResolver.T. [► 1802].)
	ReadElement (Object , String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElement Recursive [► 1812]	Reads the specified element from the current Value [► 952]. (Overrides RecursiveResolver.T..ReadElementRecursive(T, String) [► 1806].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement (T, String , Object , Converter) [► 1807]	Writes the specified Object to the specified element of the current instance. (Inherited from RecursiveResolver.T. [► 1802].)
	WriteElement (Object , String , Object , Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElement Recursive [► 1813]	Writes the specified value to the specified element of the current Value [► 952]. (Overrides RecursiveResolver.T..WriteElementRecursive(T, String, T) [► 1808].)

Reference

[RecursiveValueResolver Class](#) [► 1809]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.4.2.1 RecursiveValueResolver.ReadElementRecursive Method

Reads the specified element from the current [Value](#) [► 952].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override Value ReadElementRecursive(  
    Value current,  
    string element  
)
```

Parameters

current Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to read from.

element Type: [System.String](#)
The name of the element to read.

Return Value

Type: [Value \[► 952\]](#)
The value of the specified element.

Reference

[RecursiveValueResolver Class \[► 1809\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.4.2.2 RecursiveValueResolver.WriteElementRecursive Method

Writes the specified value to the specified element of the current [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Value WriteElementRecursive(  
    Value current,  
    string element,  
    Value value  
)
```

Parameters

current Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The current [Value \[► 952\]](#) to write to.

element Type: [System.String](#)
The name of the element to write.
If this parameter is null, value should be written directly to current.

value Type: [TcHmiSrv.Core.Value \[► 952\]](#)
The [Value \[► 952\]](#) to be written.

Return Value

Type: [Value \[► 952\]](#)
The new value of the specified element.

Reference

[RecursiveValueResolver Class \[► 1809\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.5 *Resolver Class*

Resolves Objects by a specified element.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers.ObjectResolver \[► 1793\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver.T. \[► 1819\]](#)

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract class Resolver
```

The Resolver type exposes the following members.

Constructors

	Name	Description
	Resolver [► 1815]	Initializes a new instance of the Resolver class

Properties

	Name	Description
	CanRead [► 1816]	Gets a value that indicates whether this Resolver can read elements. The default value is true.
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver can write elements. The default value is true.

Methods

	Name	Description
	CanResolve [► 1817]	Determines whether this Resolver can resolve <u>Objects</u> of the specified <u>Type</u> .
	Equals	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	GetHashCode	Serves as the default hash function. (Inherited from <u>Object</u> .)
	GetType	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	Memberwise Clone	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	ReadElement [► 1818]	Reads the specified element from the current <u>Object</u> .
	ToString	Returns a string that represents the current object. (Inherited from <u>Object</u> .)
	WriteElement [► 1818]	Writes the specified <u>Object</u> to the specified element of the current <u>Object</u> .

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.5.1 Resolver Constructor

Initializes a new instance of the [Resolver](#) [► 1814] class

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
protected Resolver()
```

Reference

[Resolver Class](#) [► 1814]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.5.2 Resolver Properties

The [Resolver](#) [► 1814] type exposes the following members.

Properties

	Name	Description
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true.
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true.

Reference

[Resolver Class](#) [\[► 1814\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [\[► 1791\]](#)

2.2.4.6.5.3.5.2.1 Resolver.CanRead Property

Gets a value that indicates whether this [Resolver](#) [\[► 1814\]](#) can read elements.
The default value is true.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [\[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public virtual bool CanRead { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Resolver Class](#) [\[► 1814\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [\[► 1791\]](#)

2.2.4.6.5.3.5.2.2 Resolver.CanWrite Property

Gets a value that indicates whether this [Resolver](#) [\[► 1814\]](#) can write elements.
The default value is true.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [\[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public virtual bool CanWrite { get; }
```

Property Value

Type: [Boolean](#)

Reference

[Resolver Class](#) [\[► 1814\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.5.3 **Resolver Methods**

The [Resolver \[► 1814\]](#) type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1817]	Determines whether this Resolver [► 1814] can resolve Objects of the specified Type .
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement [► 1818]	Reads the specified element from the current Object .
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement [► 1818]	Writes the specified Object to the specified element of the current Object .

Reference

[Resolver Class \[► 1814\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.5.3.1 **Resolver.CanResolve Method**

Determines whether this [Resolver \[► 1814\]](#) can resolve [Objects](#) of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract bool CanResolve(  
    Type type  
)
```

Parameters

type Type: [System.Type](#)
 The [Type](#) of the [Object](#) to resolve.

Return Value

Type: [Boolean](#)

true if this [Resolver](#) [► 1814] can resolve [Objects](#) of the specified [Type](#); otherwise, false.

Reference

[Resolver Class](#) [► 1814]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.5.3.2 Resolver.ReadElement Method

Reads the specified element from the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public abstract Object ReadElement(  
    Object current,  
    string element  
)
```

Parameters

current	Type: System.Object The current Object to read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [Object](#)

The value of the specified element.

Reference

[Resolver Class](#) [► 1814]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.5.3.3 Resolver.WriteElement Method

Writes the specified [Object](#) to the specified element of the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public abstract Object WriteElement(  
    Object current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

- current

Type: [System.Object](#)
The current [Object](#) to write to.
- element

Type: [System.String](#)
The name of the element to write.
If this parameter is null, value should be written directly to current.
- value

Type: [System.Object](#)
The [Object](#) to be written.
- converter

Type: [TcHmiSrv.Core.Tools.Resolving.Converter](#) [[▸ 1763](#)]
A [Converter](#) [[▸ 1763](#)] that is used to convert value to an instance of the [Type](#) associated with the specified element.

Return Value

Type: [Object](#)
The new value of the specified element.

Reference

- [Resolver Class](#) [[▸ 1814](#)]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▸ 1791](#)]

2.2.4.6.5.3.6 *Resolver.T. Class*

Resolves instances of a specified type.

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver](#) [[▸ 1814](#)]
 [TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver.T.](#)
 [TcHmiSrv.Core.Tools.Resolving.Resolvers.RecursiveResolver.T.](#) [[▸ 1802](#)]
 [TcHmiSrv.Core.Tools.Resolving.Resolvers.ValueResolver](#) [[▸ 1826](#)]
Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▸ 1791](#)]
Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract class Resolver<T> : Resolver
```

Type Parameters

T The type of the instances to resolve.

The [Resolver.T.](#) type exposes the following members.

Constructors

	Name	Description
	Resolver.T. [▸ 1821]	Initializes a new instance of the Resolver.T. class

Properties

	Name	Description
	<u>CanRead</u> [► 1816]	Gets a value that indicates whether this <u>Resolver</u> [► 1814] can read elements. The default value is true. (Inherited from <u>Resolver</u> [► 1814].)
	<u>CanWrite</u> [► 1816]	Gets a value that indicates whether this <u>Resolver</u> [► 1814] can write elements. The default value is true. (Inherited from <u>Resolver</u> [► 1814].)

Methods

	Name	Description
	<u>CanResolve</u> [► 1822]	Determines whether this <u>Resolver</u> [► 1814] can resolve instances of the specified <u>Type</u> . (Overrides <u>Resolver.CanResolve(Type)</u> [► 1817].)
	<u>Equals</u>	Determines whether the specified object is equal to the current object. (Inherited from <u>Object</u> .)
	<u>Finalize</u>	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from <u>Object</u> .)
	<u>GetHashCode</u>	Serves as the default hash function. (Inherited from <u>Object</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>Memberwise Clone</u>	Creates a shallow copy of the current <u>Object</u> . (Inherited from <u>Object</u> .)
	<u>ReadElement</u> (<u>Object</u> , <u>String</u>) [► 1823]	Reads the specified element from the current <u>Object</u> . (Overrides <u>Resolver.ReadElement(Object, String)</u> [► 1818].)
	<u>ReadElement</u> (<u>T</u> , <u>String</u>) [► 1824]	Reads the specified element from the current instance.
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)
	<u>WriteElement</u> (<u>Object</u> , <u>String</u> , <u>Object</u> , <u>Converter</u>) [► 1825]	Writes the specified <u>Object</u> to the specified element of the current <u>Object</u> . (Overrides <u>Resolver.WriteElement(Object, String, Object, Converter)</u> [► 1818].)
	<u>WriteElement</u> (<u>T</u> , <u>String</u> , <u>Object</u> , <u>Converter</u>) [► 1826]	Writes the specified <u>Object</u> to the specified element of the current instance.

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.6.1 Resolver.T. Constructor

Initializes a new instance of the [Resolver.T. \[► 1819\]](#) class

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers \[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected Resolver()
```

Reference

[Resolver.T. Class \[► 1819\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.6.2 Resolver.T. Properties

The [Resolver.T. \[► 1819\]](#) generic type exposes the following members.

Properties

	Name	Description
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true. (Inherited from Resolver [► 1814].)
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true. (Inherited from Resolver [► 1814].)

Reference

[Resolver.T. Class \[► 1819\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace \[► 1791\]](#)

2.2.4.6.5.3.6.3 Resolver.T. Methods

The [Resolver.T. \[► 1819\]](#) generic type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Overrides Resolver.CanResolve(Type) [► 1817].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ReadElement(Object, String) [► 1823]	Reads the specified element from the current Object . (Overrides Resolver.ReadElement(Object, String) [► 1818].)
	ReadElement(T, String) [► 1824]	Reads the specified element from the current instance.
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement(Object, String, Object, Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Overrides Resolver.WriteElement(Object, String, Object, Converter) [► 1818].)
	WriteElement(T, String, Object, Converter) [► 1826]	Writes the specified Object to the specified element of the current instance.

Reference

[Resolver.T](#). Class [► 1819]

[TcHmiSrv.Core.Tools.Resolving.Resolvers](#) Namespace [► 1791]

2.2.4.6.5.3.6.3.1 Resolver.T..CanResolve Method

Determines whether this [Resolver](#) [► 1814] can resolve instances of the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override sealed bool CanResolve(  
    Type type  
)
```

Parameters

type Type: [System.Type](#)
 The [Type](#) of the instances to resolve.

Return Value

Type: [Boolean](#)
true if an instance of type can be assigned to an instance of T (see [IsAssignableFrom\(Type\)](#)); otherwise, false.

Reference

[Resolver.T. Class](#) [[► 1819](#)]
[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[► 1791](#)]

2.2.4.6.5.3.6.3.2 **Resolver.T..ReadElement Method**

Overload List

	Name	Description
	ReadElement(Object, Object, String) [► 1823]	Reads the specified element from the current Object . (Overrides Resolver.ReadElement(Object, Object, String) [► 1818].)
	ReadElement(T, String) [► 1824]	Reads the specified element from the current instance.

Reference

[Resolver.T. Class](#) [[► 1819](#)]
[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[► 1791](#)]

2.2.4.6.5.3.6.3.2.1 **Resolver.T..ReadElement Method (Object, String)**

Reads the specified element from the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[► 1791](#)]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object ReadElement(  
    Object current,  
    string element  
)
```

Parameters

current	Type: System.Object The current Object to read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[Resolver.T. Class](#) [► 1819]

[ReadElement Overload](#) [► 1823]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.6.3.2.2 *Resolver.T..ReadElement Method (T, String)*

Reads the specified element from the current instance.

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract Object ReadElement(  
    T current,  
    string element  
)
```

Parameters

current	Type: T [► 1819] The current instance of the specified type to read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[Resolver.T. Class](#) [► 1819]

[ReadElement Overload](#) [► 1823]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.6.3.3 **Resolver.T..WriteElement Method**

Overload List

	Name	Description
	WriteElement (Object, String, Object, Converter) [▶ 1825]	Writes the specified Object to the specified element of the current Object . (Overrides Resolver.WriteElement(Object, String, Object, Converter) [▶ 1818].)
	WriteElement (T, String, Object, Converter) [▶ 1826]	Writes the specified Object to the specified element of the current instance.

Reference

[Resolver.T. Class](#) [[▶ 1819](#)]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[▶ 1791](#)]

2.2.4.6.5.3.6.3.3.1 ***Resolver.T..WriteElement Method (Object, String, Object, Converter)***

Writes the specified [Object](#) to the specified element of the current [Object](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[▶ 1791](#)]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override sealed Object WriteElement(  
    Object current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current	Type: System.Object The current Object to write to.
element	Type: System.String The name of the element to write. If this parameter is null, value should be written directly to current.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [▶ 1763] A Converter [▶ 1763] that is used to convert value to an instance of the Type associated with the specified element.

Return ValueType: [Object](#)

The new value of the specified element.

Reference[Resolver.T. Class](#) [[► 1819](#)][WriteElement Overload](#) [[► 1825](#)][TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[► 1791](#)]**2.2.4.6.5.3.6.3.3.2 *Resolver.T..WriteElement Method (T, String, Object, Converter)***Writes the specified [Object](#) to the specified element of the current instance.**Namespace:** [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [[► 1791](#)]**Assembly:** [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0**Syntax****C#**

```
public abstract Object WriteElement(
    T current,
    string element,
    Object value,
    Converter converter
)
```

Parameters

current	Type: T [► 1819] The current instance of the specified type to write to.
element	Type: System.String The name of the element to write. If this parameter is null, value should be written directly to current.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the Type associated with the specified element.

Return ValueType: [Object](#)

The new value of the specified element.

Reference[Resolver.T. Class](#) [[► 1819](#)][WriteElement Overload](#) [[► 1825](#)][TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [[► 1791](#)]**2.2.4.6.5.3.7 *ValueResolver Class***Resolves [Value](#) [[► 952](#)]s by a specified element.[Value](#) [[► 952](#)]s containing an [Alarm](#) [[► 767](#)], [Event](#) [[► 850](#)] or [Message](#) [[► 924](#)] can also be resolved.

Inheritance Hierarchy

System.Object

 TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver [▸ 1814]

 TcHmiSrv.Core.Tools.Resolving.Resolvers.Resolver [▸ 1819].Value [▸ 952].

 TcHmiSrv.Core.Tools.Resolving.Resolvers.ValueResolver

Namespace: TcHmiSrv.Core.Tools.Resolving.Resolvers [▸ 1791]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class ValueResolver : Resolver<Value>
```

The ValueResolver type exposes the following members.

Properties

	Name	Description
	<u>CanRead</u> [▸ 1816]	Gets a value that indicates whether this <u>Resolver</u> [▸ 1814] can read elements. The default value is true. (Inherited from <u>Resolver</u> [▸ 1814].)
	<u>CanWrite</u> [▸ 1816]	Gets a value that indicates whether this <u>Resolver</u> [▸ 1814] can write elements. The default value is true. (Inherited from <u>Resolver</u> [▸ 1814].)
 	<u>DefaultResolver</u> [▸ 1829]	Gets a default ValueResolver.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ReadElement (Object , String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElement (Value , String) [► 1831]	Reads the specified element from the current Value [► 952]. (Overrides Resolver.T..ReadElement (T , String) [► 1824].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement (Object , String , Object , Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElement (Value , String , Object , Converter) [► 1832]	Writes the specified Object to the specified element of the current Value [► 952]. (Overrides Resolver.T..WriteElement (T , String , Object , Converter) [► 1826].)

Reference

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.7.1 ValueResolver Properties

The [ValueResolver](#) [► 1826] type exposes the following members.

Properties

	Name	Description
	CanRead [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can read elements. The default value is true. (Inherited from Resolver [► 1814].)
	CanWrite [► 1816]	Gets a value that indicates whether this Resolver [► 1814] can write elements. The default value is true. (Inherited from Resolver [► 1814].)
 	DefaultResolver [► 1829]	Gets a default ValueResolver [► 1826].

Reference

[ValueResolver Class](#) [► 1826]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.7.1.1 **ValueResolver.DefaultResolver Property**

Gets a default [ValueResolver](#) [► 1826].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public static ValueResolver DefaultResolver { get; }
```

Property Value

Type: [ValueResolver](#) [► 1826]

Reference

[ValueResolver Class](#) [► 1826]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.7.2 **ValueResolver Methods**

The [ValueResolver](#) [► 1826] type exposes the following members.

Methods

	Name	Description
	CanResolve [► 1822]	Determines whether this Resolver [► 1814] can resolve instances of the specified Type . (Inherited from Resolver.T. [► 1819].)
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ReadElement (Object , String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819].)
	ReadElement (Value , String) [► 1831]	Reads the specified element from the current Value [► 952]. (Overrides Resolver.T..ReadElement(T, String) [► 1824].)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	WriteElement (Object , String , Object , Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T. [► 1819].)
	WriteElement (Value , String , Object , Converter) [► 1832]	Writes the specified Object to the specified element of the current Value [► 952]. (Overrides Resolver.T..WriteElement(T, String, Object, Converter) [► 1826].)

Reference

[ValueResolver Class](#) [► 1826][TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.7.2.1 **ValueResolver.ReadElement Method**

Overload List

	Name	Description
	ReadElement(Object, String) [► 1823]	Reads the specified element from the current Object . (Inherited from Resolver.T. [► 1819] .)
	ReadElement(Value, String) [► 1831]	Reads the specified element from the current Value [► 952] . (Overrides Resolver.T..ReadElement(T, String) [► 1824] .)

Reference

[ValueResolver Class](#) [\[► 1826\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [\[► 1791\]](#)

2.2.4.6.5.3.7.2.1.1 **ValueResolver.ReadElement Method (Value, String)**

Reads the specified element from the current [Value](#) [\[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [\[► 1791\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public override Object ReadElement(  
    Value current,  
    string element  
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The current Value [► 952] read from.
element	Type: System.String The name of the element to read.

Return Value

Type: [Object](#)
The value of the specified element.

Reference

[ValueResolver Class](#) [\[► 1826\]](#)

[ReadElement Overload](#) [\[► 1831\]](#)

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [\[► 1791\]](#)

2.2.4.6.5.3.7.2.2 **ValueResolver.WriteElement Method**

Overload List

	Name	Description
	WriteElement (Object, String, Object, Converter) [► 1825]	Writes the specified Object to the specified element of the current Object . (Inherited from Resolver.T . [► 1819].)
	WriteElement (Value, String, Object, Converter) [► 1832]	Writes the specified Object to the specified element of the current Value [► 952]. (Overrides Resolver.T..WriteElement(T, String, Object, Converter) [► 1826].)

Reference

[ValueResolver Class](#) [► 1826]

[TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.5.3.7.2.2.1 ***ValueResolver.WriteElement Method (Value, String, Object, Converter)***

Writes the specified [Object](#) to the specified element of the current [Value](#) [► 952].

Namespace: [TcHmiSrv.Core.Tools.Resolving.Resolvers](#) [► 1791]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public override Object WriteElement(  
    Value current,  
    string element,  
    Object value,  
    Converter converter  
)
```

Parameters

current	Type: TcHmiSrv.Core.Value [► 952] The current Value [► 952] to write to.
element	Type: System.String The name of the element to write. If this parameter is null, value should be written directly to current.
value	Type: System.Object The Object to be written.
converter	Type: TcHmiSrv.Core.Tools.Resolving.Converter [► 1763] A Converter [► 1763] that is used to convert value to an instance of the Type associated with the specified element.

Return Value

Type: [Object](#)
The new value of the specified element.

Reference

- [ValueResolver Class](#) [► 1826]
- [WriteElement Overload](#) [► 1832]
- [TcHmiSrv.Core.Tools.Resolving.Resolvers Namespace](#) [► 1791]

2.2.4.6.6 TcHmiSrv.Core.Tools.Settings Namespace

Contains types to generate settings for the configuration of listeners more easily.
The generated settings can be specified when calling [ITcHmiSrvExtHost.RegisterListener\(Context, IListener, Value\)](#) [► 916].

Classes

	Class	Description
	ConfigListenerSettings [► 1833]	Represents the settings that are passed to method RegisterListener(Context, IListener, Value) [► 916] to configure how a ConfigListener [► 1234] is registered. This class cannot be inherited.
	ConfigListenerSettingsFilter [► 1836]	Represents a filter for configuration changes. This class cannot be inherited.
	ListenerSettings [► 1841]	Provides an abstract base class for the settings that are passed to method RegisterListener(Context, IListener, Value) [► 916] to configure how an IListener [► 1251] is registered.

2.2.4.6.6.1 ConfigListenerSettings Class

Represents the settings that are passed to method [RegisterListener\(Context, IListener, Value\)](#) [► 916] to configure how a [ConfigListener](#) [► 1234] is registered. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)
 [TcHmiSrv.Core.Tools.Settings.ListenerSettings](#) [► 1841]
 [TcHmiSrv.Core.Tools.Settings.ConfigListenerSettings](#)
Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]
Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sealed class ConfigListenerSettings : ListenerSettings
```

The [ConfigListenerSettings](#) type exposes the following members.

Constructors

	Name	Description
	ConfigListenerSettings [► 1834]	Initializes a new instance of the ConfigListenerSettings class

Properties

	Name	Description
	Default [► 1835]	Gets the default ConfigListenerSettings with a ConfigListenerSettingsFilter [► 1836] to listen for All [► 832] changes in all paths.
	Filters [► 1835]	Contains the ConfigListenerSettingsFilter [► 1836]s for configuration changes.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	ToValue [► 1843]	Converts ListenerSettings [► 1841] to the appropriate instance of the Value [► 952] class. (Inherited from ListenerSettings [► 1841].)

Reference

[TcHmiSrv.Core.Tools.Settings Namespace](#) [[► 1833](#)]

2.2.4.6.6.1.1 ConfigListenerSettings Constructor

Initializes a new instance of the [ConfigListenerSettings](#) [[► 1833](#)] class

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [[► 1833](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public ConfigListenerSettings()
```

Reference

[ConfigListenerSettings Class](#) [[► 1833](#)]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [[► 1833](#)]

2.2.4.6.6.1.2 **ConfigListenerSettings Properties**

The [ConfigListenerSettings](#) [► 1833] type exposes the following members.

Properties

	Name	Description
	Default [► 1835]	Gets the default ConfigListenerSettings [► 1833] with a ConfigListenerSettingsFilter [► 1836] to listen for All [► 832] changes in all paths.
	Filters [► 1835]	Contains the ConfigListenerSettingsFilter [► 1836]s for configuration changes.

Reference

[ConfigListenerSettings Class](#) [► 1833]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.1.2.1 **ConfigListenerSettings.Default Property**

Gets the default [ConfigListenerSettings](#) [► 1833] with a [ConfigListenerSettingsFilter](#) [► 1836] to listen for [All](#) [► 832] changes in all paths.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static ConfigListenerSettings Default { get; }
```

Property Value

Type: [ConfigListenerSettings](#) [► 1833]

Reference

[ConfigListenerSettings Class](#) [► 1833]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.1.2.2 **ConfigListenerSettings.Filters Property**

Contains the [ConfigListenerSettingsFilter](#) [► 1836]s for configuration changes.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public List<ConfigListenerSettingsFilter> Filters { get; }
```

Property Value

Type: [List.ConfigListenerSettingsFilter](#) [► 1836].

Reference

[ConfigListenerSettings Class \[► 1833\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.1.3 ConfigListenerSettings Methods

The [ConfigListenerSettings \[► 1833\]](#) type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	ToValue [► 1843]	Converts ListenerSettings [► 1841] to the appropriate instance of the Value [► 952] class. (Inherited from ListenerSettings [► 1841] .)

Reference

[ConfigListenerSettings Class \[► 1833\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.2 ConfigListenerSettingsFilter Class

Represents a filter for configuration changes. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Settings.ConfigListenerSettingsFilter](#)

Namespace: [TcHmiSrv.Core.Tools.Settings \[► 1833\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public sealed class ConfigListenerSettingsFilter
```

The [ConfigListenerSettingsFilter](#) type exposes the following members.

Constructors

	Name	Description
	ConfigListenerSettingsFilter [► 1838]	Initializes a new instance of the ConfigListenerSettingsFilter class to listen for All [► 832] changes in all paths.
	ConfigListenerSettingsFilter (ConfigChangeType , IEnumerable<String>) [► 1838]	Initializes a new instance of the ConfigListenerSettingsFilter class with the specified ConfigChangeType [► 832] and paths.

Properties

	Name	Description
	Flags [► 1839]	Gets the ConfigChangeType [► 832] that specifies for which configuration changes an event should be raised.
	Paths [► 1840]	Gets the paths for which an event should be raised if the configuration changes. The elements in the paths must be separated by a double colon.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Tools.Settings Namespace](#) [\[► 1833\]](#)

2.2.4.6.6.2.1 *ConfigListenerSettingsFilter Constructor*

Overload List

	Name	Description
	ConfigListenerSettingsFilter [► 1838]	Initializes a new instance of the ConfigListenerSettingsFilter [► 1836] class to listen for All [► 832] changes in all paths.
	ConfigListenerSettingsFilter (ConfigChangeType, IEnumerable.String.) [► 1838]	Initializes a new instance of the ConfigListenerSettingsFilter [► 1836] class with the specified ConfigChangeType [► 832] and paths.

Reference

[ConfigListenerSettingsFilter Class](#) [\[► 1836\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace](#) [\[► 1833\]](#)

2.2.4.6.6.2.1.1 *ConfigListenerSettingsFilter Constructor*

Initializes a new instance of the [ConfigListenerSettingsFilter](#) [\[► 1836\]](#) class to listen for [All](#) [\[► 832\]](#) changes in all paths.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [\[► 1833\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public ConfigListenerSettingsFilter()
```

Reference

[ConfigListenerSettingsFilter Class](#) [\[► 1836\]](#)

[ConfigListenerSettingsFilter Overload](#) [\[► 1838\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace](#) [\[► 1833\]](#)

2.2.4.6.6.2.1.2 *ConfigListenerSettingsFilter Constructor (ConfigChangeType, IEnumerable.String.)*

Initializes a new instance of the [ConfigListenerSettingsFilter](#) [\[► 1836\]](#) class with the specified [ConfigChangeType](#) [\[► 832\]](#) and paths.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [\[► 1833\]](#)

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public ConfigListenerSettingsFilter(  
    ConfigChangeType flags,  
    IEnumerable<string> paths  
)
```

Parameters

- flags Type: [TcHmiSrv.Core.ConfigChangeType](#) [► 832]
The [ConfigChangeType](#) [► 832] that specifies for which configuration changes an event should be raised.
- paths Type: [System.Collections.Generic.IEnumerable.String](#).
The paths for which an event should be raised if the configuration changes. The elements in the paths must be separated by a double colon.

Reference

[ConfigListenerSettingsFilter Class](#) [► 1836]

[ConfigListenerSettingsFilter Overload](#) [► 1838]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.2.2 **ConfigListenerSettingsFilter Properties**

The [ConfigListenerSettingsFilter](#) [► 1836] type exposes the following members.

Properties

	Name	Description
	Flags [► 1839]	Gets the ConfigChangeType [► 832] that specifies for which configuration changes an event should be raised.
	Paths [► 1840]	Gets the paths for which an event should be raised if the configuration changes. The elements in the paths must be separated by a double colon.

Reference

[ConfigListenerSettingsFilter Class](#) [► 1836]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.2.2.1 **ConfigListenerSettingsFilter.Flags Property**

Gets the [ConfigChangeType](#) [► 832] that specifies for which configuration changes an event should be raised.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public ConfigChangeType Flags { get; set; }
```

Property Value

Type: [ConfigChangeType](#) [► 832]

Reference

[ConfigListenerSettingsFilter Class](#) [► 1836]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.2.2 ConfigListenerSettingsFilter.Paths Property

Gets the paths for which an event should be raised if the configuration changes. The elements in the paths must be separated by a double colon.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public List<string> Paths { get; }
```

Property Value

Type: [List.String](#).

Reference

[ConfigListenerSettingsFilter Class](#) [► 1836]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.2.3 ConfigListenerSettingsFilter Methods

The [ConfigListenerSettingsFilter](#) [► 1836] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[ConfigListenerSettingsFilter Class](#) [► 1836]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.3 ListenerSettings Class

Provides an abstract base class for the settings that are passed to method [RegisterListener\(Context, IListener, Value\)](#) [► 916] to configure how an [IListener](#) [► 1251] is registered.

Inheritance Hierarchy

[System.Object](#)

[TcHmiSrv.Core.Tools.Settings.ListenerSettings](#)

[TcHmiSrv.Core.Tools.Settings.ConfigListenerSettings](#) [► 1833]

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public abstract class ListenerSettings
```

The ListenerSettings type exposes the following members.

Constructors

	Name	Description
	ListenerSettings [► 1842]	Initializes a new instance of the ListenerSettings class

Properties

	Name	Description
	Settings [► 1842]	Gets the ListenerSettings as a Value [► 952].

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	MemberwiseClone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	ToValue [► 1843]	Converts ListenerSettings to the appropriate instance of the Value [► 952] class.

Operators

	Name	Description
	. (ListenerSettings to Value) [► 1844]	Converts ListenerSettings to the appropriate instance of the Value [► 952] class.

Reference

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.3.1 ListenerSettings Constructor

Initializes a new instance of the [ListenerSettings \[► 1841\]](#) class

Namespace: [TcHmiSrv.Core.Tools.Settings \[► 1833\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected ListenerSettings ()
```

Reference

[ListenerSettings Class \[► 1841\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.3.2 ListenerSettings Properties

The [ListenerSettings \[► 1841\]](#) type exposes the following members.

Properties

	Name	Description
	Settings [► 1842]	Gets the ListenerSettings [► 1841] as a Value [► 952] .

Reference

[ListenerSettings Class \[► 1841\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.3.2.1 ListenerSettings.Settings Property

Gets the [ListenerSettings \[► 1841\]](#) as a [Value \[► 952\]](#).

Namespace: [TcHmiSrv.Core.Tools.Settings \[► 1833\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
protected abstract Value Settings { get; }
```

Property Value

Type: [Value](#) [► 952]

Reference

[ListenerSettings Class](#) [► 1841]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.3.3 *ListenerSettings Methods*

The [ListenerSettings](#) [► 1841] type exposes the following members.

Methods

	Name	Description
	Equals	Determines whether the specified object is equal to the current object. (Inherited from Object .)
	Finalize	Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from Object .)
	GetHashCode	Serves as the default hash function. (Inherited from Object .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	Memberwise Clone	Creates a shallow copy of the current Object . (Inherited from Object .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)
	ToValue [► 1843]	Converts ListenerSettings [► 1841] to the appropriate instance of the Value [► 952] class.

Reference

[ListenerSettings Class](#) [► 1841]

[TcHmiSrv.Core.Tools.Settings Namespace](#) [► 1833]

2.2.4.6.6.3.3.1 *ListenerSettings.ToValue Method*

Converts [ListenerSettings](#) [► 1841] to the appropriate instance of the [Value](#) [► 952] class.

Namespace: [TcHmiSrv.Core.Tools.Settings](#) [► 1833]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Value ToValue()
```

Return Value

Type: [Value](#) [► 952]

[Missing <returns> documentation for "M:TcHmiSrv.Core.Tools.Settings.ListenerSettings.ToValue"]

Reference

[ListenerSettings Class \[► 1841\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.3.4 *ListenerSettings Type Conversions*

The [ListenerSettings \[► 1841\]](#) type exposes the following members.

Operators

	Name	Description
 	op_Implicit (ListenerSettings to Value) [► 1844]	Converts ListenerSettings [► 1841] to the appropriate instance of the Value [► 952] class.

Reference

[ListenerSettings Class \[► 1841\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.6.3.4.1 **ListenerSettings . Conversion (ListenerSettings to Value)**

Converts [ListenerSettings \[► 1841\]](#) to the appropriate instance of the [Value \[► 952\]](#) class.

Namespace: [TcHmiSrv.Core.Tools.Settings \[► 1833\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public static implicit operator Value (  
    ListenerSettings value  
)
```

Parameters

value Type: [TcHmiSrv.Core.Tools.Settings.ListenerSettings \[► 1841\]](#)
 The [ListenerSettings \[► 1841\]](#) to convert.

Return Value

Type: [Value \[► 952\]](#)

[Missing <returns> documentation for
"M:TcHmiSrv.Core.Tools.Settings.ListenerSettings.op_Implicit(TcHmiSrv.Core.Tools.Settings.ListenerSetting
s)~TcHmiSrv.Core.Value"]

Reference

[ListenerSettings Class \[► 1841\]](#)

[TcHmiSrv.Core.Tools.Settings Namespace \[► 1833\]](#)

2.2.4.6.7 TcHmiSrv.Core.Tools.TypeAttribute Namespace

Contains the [ServerExtensionTypeAttribute](#) [► 1845] that is used to specify the default [Type](#) of a TwinCAT HMI server extension.

Classes

	Class	Description
	ServerExtensionTypeAttribute [► 1845]	Specifies the default Type of a TwinCAT HMI server extension. This class cannot be inherited.

2.2.4.6.7.1 ServerExtensionTypeAttribute Class

Specifies the default [Type](#) of a TwinCAT HMI server extension. This class cannot be inherited.

Inheritance Hierarchy

[System.Object](#)

[System.Attribute](#)

[TcHmiSrv.Core.Tools.TypeAttribute.ServerExtensionTypeAttribute](#)

Namespace: [TcHmiSrv.Core.Tools.TypeAttribute](#) [► 1845]

Assembly: [TcHmiSrvExtNet.Core](#) (in [TcHmiSrvExtNet.Core.dll](#)) Version: 1.3.0.0

Syntax

C#

```
public sealed class ServerExtensionTypeAttribute : Attribute
```

The [ServerExtensionTypeAttribute](#) type exposes the following members.

Constructors

	Name	Description
	ServerExtensionTypeAttribute [► 1846]	Initializes a new instance of the ServerExtensionTypeAttribute class with the specified Type .

Properties

	Name	Description
	Type [► 1847]	Gets the default Type of the TwinCAT HMI server extension.
	TypeId	When implemented in a derived class, gets a unique identifier for this Attribute . (Inherited from Attribute .)

Methods

	Name	Description
	Equals	Returns a value that indicates whether this instance is equal to a specified object. (Inherited from Attribute .)
	GetHashCode	Returns the hash code for this instance. (Inherited from Attribute .)
	GetType	Gets the Type of the current instance. (Inherited from Object .)
	IsDefaultAttribute	When overridden in a derived class, indicates whether the value of this instance is the default value for the derived class. (Inherited from Attribute .)
	Match	When overridden in a derived class, returns a value that indicates whether this instance equals a specified object. (Inherited from Attribute .)
	ToString	Returns a string that represents the current object. (Inherited from Object .)

Reference

[TcHmiSrv.Core.Tools.TypeAttribute Namespace \[► 1845\]](#)

2.2.4.6.7.1.1 ServerExtensionTypeAttribute Constructor

Initializes a new instance of the [ServerExtensionTypeAttribute \[► 1845\]](#) class with the specified [Type](#).

Namespace: [TcHmiSrv.Core.Tools.TypeAttribute \[► 1845\]](#)

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax**C#**

```
public ServerExtensionTypeAttribute(
    Type type
)
```

Parameters

type Type: [System.Type](#)
The default [Type](#) of the TwinCAT HMI server extension.

Reference

[ServerExtensionTypeAttribute Class \[► 1845\]](#)

[TcHmiSrv.Core.Tools.TypeAttribute Namespace \[► 1845\]](#)

2.2.4.6.7.1.2 ServerExtensionTypeAttribute Properties

The [ServerExtensionTypeAttribute \[► 1845\]](#) type exposes the following members.

Properties

	Name	Description
	Type [► 1847]	Gets the default Type of the TwinCAT HMI server extension.
	TypeId	When implemented in a derived class, gets a unique identifier for this Attribute . (Inherited from Attribute .)

Reference

[ServerExtensionTypeAttribute Class](#) [[► 1845](#)]

[TcHmiSrv.Core.Tools.TypeAttribute Namespace](#) [[► 1845](#)]

2.2.4.6.7.1.2.1 **ServerExtensionTypeAttribute.Type Property**

Gets the default [Type](#) of the TwinCAT HMI server extension.

Namespace: [TcHmiSrv.Core.Tools.TypeAttribute](#) [[► 1845](#)]

Assembly: TcHmiSrvExtNet.Core (in TcHmiSrvExtNet.Core.dll) Version: 1.3.0.0

Syntax

C#

```
public Type Type { get; }
```

Property Value

Type: [Type](#)

Reference

[ServerExtensionTypeAttribute Class](#) [[► 1845](#)]

[TcHmiSrv.Core.Tools.TypeAttribute Namespace](#) [[► 1845](#)]

2.2.4.6.7.1.3 **ServerExtensionTypeAttribute Methods**

The [ServerExtensionTypeAttribute](#) [[► 1845](#)] type exposes the following members.

Methods

	Name	Description
	<u>Equals</u>	Returns a value that indicates whether this instance is equal to a specified object. (Inherited from <u>Attribute</u> .)
	<u>GetHashCode</u>	Returns the hash code for this instance. (Inherited from <u>Attribute</u> .)
	<u>GetType</u>	Gets the <u>Type</u> of the current instance. (Inherited from <u>Object</u> .)
	<u>IsDefaultAttribute</u>	When overridden in a derived class, indicates whether the value of this instance is the default value for the derived class. (Inherited from <u>Attribute</u> .)
	<u>Match</u>	When overridden in a derived class, returns a value that indicates whether this instance equals a specified object. (Inherited from <u>Attribute</u> .)
	<u>ToString</u>	Returns a string that represents the current object. (Inherited from <u>Object</u> .)

Reference

ServerExtensionTypeAttribute Class [► 1845]

TcHmiSrv.Core.Tools.TypeAttribute Namespace [► 1845]

Trademark statements

Beckhoff®, ATRO®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, MX-System®, Safety over EtherCAT®, TC/BSD®, TwinCAT®, TwinCAT/BSD®, TwinSAFE®, XFC®, XPlanar® and XTS® are registered and licensed trademarks of Beckhoff Automation GmbH.

Third-party trademark statements

Microsoft, Microsoft Azure, Microsoft Edge, PowerShell, Visual Studio, Windows and Xbox are trademarks of the Microsoft group of companies.

More Information:
www.beckhoff.com/te2000

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20
33415 Verl
Germany
Phone: +49 5246 9630
info@beckhoff.com
www.beckhoff.com

