Manual

TC3 Remote Manager

TwinCAT 3

Version: 1.0
Date: 2016-12-28

BECKHOFF
## Inhaltsverzeichnis

1. Introduction .................................................. 4  
2. TwinCAT integration ...................................... 5  
3. Applications .................................................. 7  
4. Notes .......................................................... 10
1 Introduction

The maintenance or extension of the control code of machines already located in the field is a central use case that must be provided for by the machine controller development environments. It is particularly important to be able to generate compatible configurations or compatible control code for the respective target system – even after several years. The challenge here lies in the fact that the development environment is usually much newer than the target system.

The TwinCAT3 Remote Manager enables the handling of various versions of the TwinCAT 3 development environment on the same computer.
This section describes the settings that have been specially added for the Remote Manager functionality in TwinCAT.

TwinCAT XAE Remote Manager Toolbar

Use the TwinCAT XAE Remote Manager Toolbar to manually select the TwinCAT version to be used. This lists all installed TwinCAT 3 versions that can be loaded to the opened Visual Studio Shell.

Opening from the target system

To load a project from the target system, use the option "Open Project From Target..." from the menu File->Open. After selecting this menu item, the project is downloaded from the target system, unpacked and subsequently opened in the TwinCAT version with which the project was last activated on the target system.

NOTE! In older TwinCAT 3.1.4020 versions the TwinCAT version of the target is used to open the project.

Setting the TwinCAT default version

So as not to open the wrong version of the TwinCAT 3 development environment by mistake, you can set the entry TwinCAT Version default in the TwinCAT options "TwinCAT -> XAE Environment -> General" to the value that is to be used as standard.
Project setting: Pin Version

To set the version with which a project is to be opened, you can use the option "Pin Version" on the General tab of the TwinCAT project node. If this option is activated, the TwinCAT 3 version set in the project will be used automatically when double-clicking on the project file.
3 Applications

Selection of a TwinCAT 3 version before loading a project

If the TwinCAT version is to be set before loading a project, proceed as follows:

1. Open the Visual Studio Shell.
2. Select the TwinCAT 3 version to be loaded in the TwinCAT XAE Remote Manager Toolbar.

Once the TwinCAT 3 components have been completely loaded, this will be indicated in the TwinCAT XAE Remote Manager Toolbar by the text "Loaded" after the loaded TwinCAT 3 version.

3. Open the project via the dialog File -> Open -> Project folder.

The project is now open in the selected TwinCAT 3 version.

Opening the TwinCAT 3 version with which a project was saved

If a TwinCAT 3 project is to be opened in the version in which it was saved, there are two options.

Case 1: the TwinCAT 3 version is fixed (pinned) in the project.

This means that not only the version with which the project was last edited and saved is stored in the project file, but also a flag indicating that this project should only be edited with precisely that version.

Proceed as follows to open the project:

1. Double-click on the TwinCAT 3 project file.

If the TwinCAT 3 version pinned in the project is installed, the project will be opened with precisely this version.
If the TwinCAT 3 version pinned in the project is not installed, the following dialog appears, offering to open the project with the latest version of the same release.

In this case, a TwinCAT 3 project should be opened in which TwinCAT 3 version 4020.15 is pinned. The TwinCAT 3 versions with the build numbers 4020.14, 4020.26 and 4021.45 are installed on this system. Since version 4020.26 is the latest revision of build 4020, this is offered for opening the project even if a newer version (build 4021) is available.

If the project is to be loaded with a newer TwinCAT 3 version because the version pinned in the project does not exactly correspond to the version installed on the system, please proceed as described in the section Opening a project with a newer TwinCAT 3 version.

Case 2: the TwinCAT 3 version is not pinned in the project.

In this case you must manually determine the TwinCAT version with which the project was last saved. Carry out the following steps to do this:

1. Double-click on the project folder or the TwinCAT 3 project file. Once the project has been opened, you can determine the TwinCAT 3 version with which the project was last saved by double-clicking on the System node in the TwinCAT 3 project tree. It is located behind the Project field in the Version section on the General tab.
2. If the opened version doesn't already match the TwinCAT 3 version with which the project was last saved, please close the Visual Studio Shell.
3. Open the Visual Studio Shell.
4. Select the TwinCAT 3 version to be loaded in the TwinCAT XAE Remote Manager Toolbar.
5. Select the project again with the aid of the option File -> Open -> Working folder/Project.

The project is now open in the selected TwinCAT 3 version.

Open the TwinCAT 3 version of the connected target system

If the TwinCAT 3 version used on the target system is to be loaded, proceed as follows:

1. Open the Visual Studio Shell.
2. Select the option "Choose from Target System..." in the TwinCAT XAE Remote Manager Toolbar.

The loaded TwinCAT 3 version is displayed in the TwinCAT XAE Remote Manager Toolbar with the suffix "Loaded".

Opening a project with a newer TwinCAT 3 version

If a project is to be opened with a newer TwinCAT 3 version (even if the TwinCAT 3 version is pinned in the project), proceed as follows:

1. Open the Visual Studio Shell.
2. Select the TwinCAT 3 version with which the project is to be opened in the TwinCAT XAE Remote Manager Toolbar.
3. Select the project with the aid of the option File -> Open -> Working folder/Project.
4. Confirm the dialog asking whether the project is to be opened with the loaded version.

The project is now open in the selected TwinCAT 3 version.

Creating a project with an older TwinCAT version

If a new TwinCAT 3 project is to be created with an older TwinCAT 3 version, proceed as follows:

1. Open the Visual Studio Shell.
2. Select the TwinCAT 3 version with which the project is to be opened in the TwinCAT XAE Remote Manager Toolbar.
   ⇒ Once the TwinCAT 3 components have been completely loaded, this will be indicated in the TwinCAT XAE Remote Manager Toolbar by the text "Loaded" after the loaded TwinCAT 3 version.
3. Create the new project.

□ NOTE! When selecting an older TwinCAT version, the older library versions will not automatically be used for new projects. If these are to be used they must be explicitly selected.


4 Notes

The following points should be observed when using the TwinCAT 3 Remote Manager:

- The Remote Manager installation must be older than the TwinCAT 3 development environment on which it is installed. The installer for the TwinCAT 3 Remote Manager versions is therefore not made available online until the next TwinCAT 3.1 version is available.

- The Remote Manager version of a TwinCAT 3 version is also always included in the full setup and remains on the computer even if a newer TwinCAT version is installed over it.

- Once selected, a TwinCAT version can no longer be unloaded in an opened instance of the Visual Studio Shell. If you wish to work with a different TwinCAT version, you must open a new instance of the Visual Studio Shell or of TwinCAT.

- Not all installed Remote Manager versions are available in all Visual Studio Shells.

<table>
<thead>
<tr>
<th>TwinCAT 3 version</th>
<th>Supported VS Shells</th>
</tr>
</thead>
<tbody>
<tr>
<td>TwinCAT 3.1.4016</td>
<td>VS 2010 – VS2013</td>
</tr>
<tr>
<td>TwinCAT 3.1.4018</td>
<td>VS 2010 – VS2013</td>
</tr>
<tr>
<td>TwinCAT 3.1.4020</td>
<td>VS 2010 – VS2015</td>
</tr>
</tbody>
</table>