Integrated Building Automation Solutions for System Integrators
Fulfilling all requirements with one system. Providing maximum flexibility.

Safely assuming system responsibility – With Beckhoff Building Automation.

System integrators bear functional responsibility for a building. In addition to installation, commissioning, engineering and granting of warranties, they frequently have to deal with unforeseen changes or enhancements that exceed the predefined budget. Integrators can master these challenges more effectively with Beckhoff Building Automation, since it directly integrates all building systems, can be extended flexibly, and offers maximum simplicity in terms of engineering.

Implement all functions in software – PC-based Building Automation from Beckhoff.

Building Automation from Beckhoff allows system integrators to optimise all implementation processes in one go. The decoupling of individual functions from hardware components simplifies engineering significantly. Last minute change requests can be implemented without significant effort and without exceeding specified costs. Enhancements can be implemented more easily, any planning errors can be smoothed out more efficiently, and all fieldbus systems can be integrated directly, anywhere and anytime.
Scalable control system for all building systems – Free rein for all operating concepts.

Beckhoff Building Automation enables integrated automation of all building systems in functional buildings and infrastructures. Regardless of whether your goal is to implement room control, window control, shading, lighting, HVAC MCI, smoke and heat removal systems, access control, energy monitoring, or process visualisation, PC-based control allows all conceivable operating concepts to be implemented and ensures an assuring level of planning security. This applies equally for new building projects as it does for renovations of existing buildings. The highly scalable performance of PC-based control technology, as well as the comprehensive portfolio of hardware components, provides the certainty of being able to realise all tasks and functions as planned – or even those that were not planned.

Open control architecture – Makes engineering even simpler.

The Beckhoff principle of open control architectures for every application forms the basis for interoperability with any standard product. TwinCAT Building Automation offers a comprehensive software package for automating all technical finishing work on a building. Pre-configured software function blocks enable uniform, vendor-independent engineering.

Building Automation from Beckhoff at a glance:

- Open, PC-based control system
- Consistent software for all building systems
- Recording of all data points in one system
- Simple, fast engineering according to VDI (Verein Deutscher Ingenieure) guidelines
- Highly-scalable performance of software and hardware
- Compliance with common standards ensured via software libraries
- Standardised and open programming languages
- Flexible implementation of modifications and enhancements
- Ideal for all-inclusive offers, as a function of low alteration costs
Miele administration building, Gütersloh, Germany

The four-storey building enables innovative office room utilisation with open workspaces extending over a total floor space of 1,100 m². BACnet, EnOcean and DALI communication ensure excellent flexibility, both in terms of installation and operation of the building. In addition to conventional HVAC system automation, the entire room automation system, including sun protection and lighting, is integrated into the automation system. A CX2020 Embedded PC is available on every office floor as an automation station, connecting building systems such as room climate, lighting and shading. More than 580 Bus Terminals record and process around 15,000 BACnet objects and 620 EnOcean IDs. Visualisation is handled by a 15.6-inch CP2916 multi-touch Control Panel.
dSPACE, Paderborn, Germany

With a total floor space of 13,400 m², the building complex houses the company’s administration, research and development facilities. The PC Control-based building automation solution includes lighting control with DALI, ventilation control of the smoke and heat removal windows, shading, as well as exterior lighting. Media control in the training rooms is likewise incorporated.

The global solution: Building Automation from Beckhoff

Office and residential buildings, hotels and museums, shopping centres and industrial building complexes, rail stations and theatres all around the globe use holistic and scalable building automation solutions from Beckhoff:

- Tower 185, Frankfurt a. M., Germany
- Microsoft Deutschland GmbH, Germany
- Park Hotel Vitznau, Switzerland
- Hotel Aurelio, Lech, Austria
- Dresden City Museum, Germany
- Schauspielhaus Nürnberg, Germany
- Ferry Porsche Congress Centre, Zeil am See, Austria
- Zayed University, Abu Dhabi, UAE
- Basler Nordtangente, Basel, Switzerland
- Metro M2, Lausanne, Switzerland
Integrated PC-based Building Automation — One control platform for all building systems.

Embedded PC
Scalable control technology

Bus Terminals
The complete I/O system

Intelligent modular system ideal for all building automation tasks.

Modular automation solutions from Beckhoff offer direct benefits for system integrators. With centralised, PC-based control of all building systems and a modular range of software and hardware components, projects can be implemented faster, more easily, and more cost-efficiently in every phase, from engineering through to unplanned changes or enhancements. The Beckhoff portfolio offers a wealth of freedom. Powerful Industrial PCs providing operation down to the field level, a comprehensive I/O system with more than 400 terminals for all conventional data points, as well as the engineering software TwinCAT Building Automation with its extensive libraries and tried-and-tested software templates, assure maximum flexibility, custom-fit scalability and reliable functional integrity.

Extremely flexible — All functionalities provided as software modules.

Beckhoff offers a central framework for implementing nearly all automation tasks with TwinCAT Building Automation software. As a modular and flexible engineering tool for all hardware platforms and building systems, TwinCAT provides all functionalities as software modules, optimising engineering efficiency.
Easy engineering for smart buildings – With the eXtendable Room Box.

With the eXtendable Room Box, Beckhoff further minimises engineering effort. Apart from configuring the control system, TwinCAT Building Automation also provides the “Box Configurator” to enable automated configuration of customised and prefabricated hardware assemblies.

As simple as the engineering – Operation via multi-touch panels.

Beckhoff uses TwinCAT to integrate HMI engineering conveniently into the Visual Studio® integrated development environment (IDE), ensuring uniform user interfaces. At the same time, the broad portfolio of multi-touch panels from Beckhoff offers unlimited scope for customer-specific operating concepts.

Beckhoff at a glance:

As a specialist for PC-based control systems, Beckhoff is renowned for universal automation solutions that are used in industrial, energy management and building automation applications worldwide, and help users maximise savings potentials, even exceeding the highest energy efficiency standards.

Facts and figures:
- Owner-managed, medium-sized company
- Corporate headquarters: Verl, Germany
- Innovation leader in PC-based control
- Sales 2014: 510 Mio. Euro
- More than 2,900 employees worldwide
- 34 subsidiary companies
- Represented in more than 75 countries worldwide
Building Automation for System Integrators:
See all information at
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