Press release

BECKHOFF New Automation Technology

Beckhoff at Hannover Messe 2015: Hall 9, Booth F06

Many-core control with Beckhoff
C6670 industrial server powers Industry 4.0

Maximum computing capabilities increase intelligence in the Smart Factory

Smart Factory concepts require more intelligence on machines or the entire production line, placing greater demands on the computing performance of the automation system. More and more functions with ever-shorter cycle times require more powerful centralised control technology. The PC-based control architecture pioneered by Beckhoff is always based on the newest and most powerful IT processors, meaning that the latest generation IT technology will be immediately available for automation applications. In the IT server field, many-core computers are used for particularly complex and demanding computing applications. The new C6670 industrial server generation from Beckhoff now makes this technology available for Industry 4.0 applications, too.

Hannover Messe is the international trade fair with the most comprehensive portfolio of exhibits for Industry 4.0 applications, spanning the entire value chain in the enterprise from industrial automation to the digital factory. This year's motto, "Integrated Industry – Join the Network!", signals that the major challenges of Industry 4.0, such as widely accepted standards for vertical and horizontal communication or data security, can only be mastered by all industrial players joining hands in a shared network. Thus, the ideal way to accomplish this is with an open, PC-based control architecture, which Beckhoff will present to the international audience in an over 1,000 square meter exhibition

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space at the trade fair. The company is exhibiting its complete product range, including innovations in the areas of IPC, I/O, motion control, and automation.

To accommodate the rising demands posed by the Smart Factory, with its highly intelligent machines and production systems, Beckhoff is introducing one of the most powerful controllers in the world with its C6670 industrial server. It features 12, 24, or 36 processor cores and 64 to 2,048 GB of RAM, making the C6670 the ideal hardware platform for the "many-core control" concept, through which Beckhoff consistently pursues its centralised control philosophy. This means that not only PLC, Motion Control, robotics, and CNC functions, but also the Condition Monitoring and energy management functions of a Smart Factory are integrated into a single software system and executed on a single CPU. However, this immense computing power can only be utilised effectively if each core's performance is fully leveraged by the TwinCAT 3.1 automation platform.

At the company's Industry 4.0 Forum, Beckhoff will show in a live demonstration many innovations available today that enable Industry 4.0 concepts. The entire system is governed by a powerful C6670 many-core computer, which performs not only conventional machine control functions, but also controls a linear eXtended Transport System (XTS) and a robot. Measurement technology and Condition Monitoring functions are also integrated into the system. In addition, Beckhoff will demonstrate secure machine communication to the Cloud, and communication with advanced sensors, such as RFID readers.

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Press picture:

Picture caption:

The C6670 industrial server provides the ideal hardware platform for the additional machine or production line intelligence required by Smart Factories and Industry 4.0 concepts.

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http://www.beckhoff.com/english/press/pr0115.htm

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Please send readers' questions regarding "Industry 4.0 Forum 2015" to:

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