

Hall 7, Booth 406

## SPS/IPC/DRIVES 2009

The SPS/IPC/DRIVES 2009, the trade fair for electric automation technology, takes place from November 24–26, 2009 in Nuremberg, Germany. The complete range of Beckhoff products and PC- and EtherCAT-based automation solutions will be shown on more than 1,000 sqm in Hall 7, Booth 406. New products and technologies can be seen in the Beckhoff IPC, I/O, Motion and Automation technology forums. The highlight on the software side is TwinCAT 3. The new version of the Beckhoff automation suite contains many new features, such as the integrated automation workbench for IEC 61131 and C/C++ programmers (see page 5).



### C69xx control cabinet PC series: from Intel® Atom™ to Intel® Core™2 Quad

The IPC and Embedded PC series have been supplemented by CPU versions with Intel® Atom™ and multi-core. The new PCI Express extension provides for modularity in the entire IPC range, from Panel PCs to control cabinet PCs. For example, it can be used to extend a Panel PC from the C62xx series by six Ethernet ports. The focus in the control cabinet PCs is on the extremely compact C69xx series: the IPC family offers a wide range, from the fanless versions with Intel® Atom™ CPU to the Intel® Core™2 Duo version with RAID 1 controller. New is that the C6930 is now optionally available with Intel® Core™2 Quad and integrated PCI Express extension. The CP-Link 3 software, which enables the Ethernet-based connection of multiple monitors to a central computer, is presented in a new version. CP-Link 3 transmits the screen contents to up to 255 Panel PCs (multi desktop) or distributes the desktop to up to nine dis-

plays (extended desktop). In addition, inputs can be made on all connected displays via touch screen or special keys.

### HD Bus Terminal – 16 connection points in 12 mm

The Beckhoff IP 20 I/O systems are supplemented by a new Bus Terminal generation with increased packing density. The 'High Density' Bus Terminals feature 16 digital connection points in the housing of an electronic 12 mm terminal block. This reduces the space required in the control cabinet and significantly lowers the channel price. High-speed Ethernet into the field: the EtherCAT Box opens up new possibilities in the IP 67 world with XFC, high-precision measurement technology and integrated drive functions. The I/O family is supplemented by additional IP 67 modules.

### EtherCAT drives up to 120 kW

The Beckhoff AX51xx Servo Drive series is being systematically expanded. Alongside the new AX5140 with a rated current of 40 A, Servo Drives for 60 A, 72 A, 90 A, 110 A, 143 A and 170 A supplement the range of products for highly dynamic positioning tasks.



### Scientific Automation

Scientific Automation is being continually expanded: TwinCAT enables the integration of robots (Delta and SCARA kinematics) and, thus, interaction and synchronization with the existing Motion Control functions on one CPU. Further Scientific Automation products will be presented both at the SPS/IPC/DRIVES and in this issue of PC Control: Condition Monitoring (page 18) and the TwinCAT Scope 2 software oscilloscope (page 22).



#### The main information at a glance:

- | SPS/IPC/DRIVES 2009,  
Nuremberg Exhibition Center, Germany
- | November 24 – 26, 2009
- | Opening hours:  
Tuesday 9 am – 7 pm  
Wednesday 9 am – 7 pm  
Thursday 9 am – 5 pm

Beckhoff main booth: Hall 7, Booth 406

#### Beckhoff at partner booths:

- ETG: Hall 6, Booth 208
- Microsoft: Hall 7A, Booth 150
- PLCopen: Hall 7, Booth 190
- PNO: Hall 6, Booth 210

[www.beckhoff.com/sps](http://www.beckhoff.com/sps)

[www.mesago.com/sps](http://www.mesago.com/sps)



Integrated automation workbench for  
IEC 61131 and C/C++ programmers



## New standards in automation: TwinCAT 3

Version 3 of TwinCAT, the platform for 'Control and Automation Technology', will be presented for the first time to the professional audience at the SPS/IPC/DRIVES 2009. TwinCAT 3 is more open, flexible, easily extendable and, using multi-core CPUs, faster than current PC-based controllers. In accordance with the all-in-one concept, TwinCAT 3 includes all major programming languages from the automation and IT world and will considerably simplify software engineering.

With a large number of licenses, TwinCAT is the market leader in PC-based controllers. The world of automation technology is being redefined with TwinCAT 3. In addition to classic programming according to IEC 61131, its object-oriented extensions can now also be used along with the programming languages C and C++. The Matlab/Simulink interface is also integrated via the real-time workshop. The advantage for the user lies in the integration of the standard PLC and IT programming environments in a common automation suite.

Besides the use of different programming languages, multi-core and support for 64-bit operating systems in the run-time area represent significant innovations. This contributes to a further increase in performance. TwinCAT 3 is the consistent further development of TwinCAT 2. Existing programs can be converted to the new environment.

[www.beckhoff.com/TwinCAT3](http://www.beckhoff.com/TwinCAT3)