

## NEWS

Page 1  
**SEPRO Robots communicate via POWERLINK**

Page 2  
**Hanover: POWERLINK paving the way for Industry 4.0**

Page 3  
**POWERLINK well-rooted and growing in China**

Page 4  
**Huge success at Nuremberg embedded world show**

## SEPRO robots communicate via POWERLINK

With the development of a new system architecture based on POWERLINK, SEPRO's VISUAL3 control platform provides optimal control performance and accuracy for robots, regardless of their size and payload. SEPRO now has the freedom to implement new and more complex algorithms. The company also has the capability to place a slave module anywhere on the robot without having to worry about wiring. SEPRO also takes advantage of POWERLINK's ability to combine real-time, safety and asynchronous processes on a single bus to simplify the overall solution while lowering its total cost.



Guaranteed high performance and simplicity in robot control for all sizes and payloads is provided by SEPRO's POWERLINK-based Visual 3 controllers.

"In addition to its exceptional performance, one of POWERLINK's biggest strengths is its ability to combine various types of information on the same medium," explains Francis Columeau, R&D manager in charge of electronics and software design at SEPRO. "The open source nature of POWERLINK plays a key role in managing development times and ensuring the quality of results."

By providing compatibility with SEPRO's existing CANopen protocol, POWERLINK allows the company to continue using their existing CANopen libraries. "This feature made the transition quite simple for us," says Francis Columeau, "Efficient support from the EPSG and training on implementing controlled nodes in an FPGA enabled us to efficiently implement the protocol in a very short time."

### Contact:

#### EPSG POWERLINK-OFFICE

Bonsaiweg 6

15370 Fredersdorf · Germany

Phone: +49(0) 33439 539270

Fax: +49(0) 33439 539272

info@ethernet-powerlink.org

www.ethernet-powerlink.org

## NEWS

Page 1  
**SEPRO Robots communicate via POWERLINK**

Page 2  
**Hanover: POWERLINK paving the way for Industry 4.0**

Page 3  
**POWERLINK well-rooted and growing in China**

Page 4  
**Huge success at Nuremberg embedded world show**

## Hanover: POWERLINK paving the way for Industry 4.0

The key to Industry 4.0 is the merging of the IT world with the production landscape. With its uniform horizontal and vertical communication capabilities, the real-time POWERLINK network is the perfect tool for making this happen. The EPSG will be taking advantage of the Hannover Messe (Hall 9 / Booth F25) to demonstrate just how easy it is to implement complete automation solutions with POWERLINK.



The EPSG will be at the Hannover Messe to demonstrate just how easy it is to merge the IT world with the production landscape using POWERLINK.

### Taking the next steps to Smart Factories

"From the very beginning, open standards have been an important part of POWERLINK technology," says Stefan Schönegger, managing director of the EPSG. "It is clear from all of the discussions concerning Industry 4.0 that this is the way of the future. We can therefore safely say that we have already begun taking the next steps in the design and implementation of Smart Factories."

More than 3,000 OEMs rely on POWERLINK. This advanced protocol offers hard real-time characteristics in addition to a high-capacity communication bandwidth, making it possible to design applications for things like synchronizing axes with extremely high precision while transferring camera images over the same physical architecture.

Because this technology is fully compliant with the IEEE 802.3 Ethernet standard, POWERLINK can be used on any Ethernet infrastructure whatsoever. In addition, POWERLINK and the bus-independent safety protocol openSAFETY are 100% vendor-independent. "These technologies will no doubt play an important role in merging the worlds of IT and production," says Schönegger.

#### Contact:

##### EPSG POWERLINK-OFFICE

Bonsaiweg 6

15370 Fredersdorf · Germany

Phone: +49(0) 33439 539270

Fax: +49(0) 33439 539272

info@ethernet-powerlink.org

www.ethernet-powerlink.org

## NEWS

Page 1  
**SEPRO Robots communicate via POWERLINK**

Page 2  
**Hanover: POWERLINK paving the way for Industry 4.0**

Page 3  
**POWERLINK well-rooted and growing in China**

Page 4  
**Huge success at Nuremberg embedded world show**

## POWERLINK well-rooted and growing in China

More than 20 Chinese automation suppliers from Ethernet POWERLINK Association China (EPAC) participated in the Industrial Automation Show (IAS 2013) in Shanghai. The large crowds gathered around the POWERLINK booth bore testament to both the charm of open source and the level of trust POWERLINK has garnered in the Chinese market. By now, more than 100 Chinese product manufacturers have implemented POWERLINK in their products.



Large crowds gather around the EPSC booth.

"The successful establishment of local technical support for POWERLINK has been a key step to providing developers with the easiest possible implementation," explains POWERLINK promotion manager Wang Jinqiu. "This is yet another way that POWERLINK is proving to be the leader in real-time communication in China."

### Numerous products showcased

Among the field-proven POWERLINK-based products showcased at IAS 2013 were implementations from Maxsine, Washing CNC, STEP Electric, Inovance, KONNE Electronic, Han's Laser, Intrustech, CASNUC, CSR Group, Hanru and TED SHANGHAI. Products from ABB, ASCO and SICK as well as the Insight 7000 vision system from Cognex also made an appearance.

One particular highlight, the high-performance master station from Washing CNC, represents the cutting edge of POWERLINK development in China. Independently optimizing POWERLINK's open source stack for their CNC system, Washing CNC was able to achieve an impressive cycle time of only 30  $\mu$ s. At the same time, integration of the Washing CNC system with the Maxsine servo system has helped further maximize CNC performance. Maxsine multi-axis drives also showcased their ability to connect to different masters – including B&R X20 CPUs, Washing CNC masters and ARM-based controllers developed in-house – further demonstrating Maxsine's ability to provide machine builders with highly scalable total solutions.

Servo drives from STEP were also presented in a series of robotics applications. Like Han's Laser, they showed that China's domestic servo systems are a new force to be reckoned with. With POWERLINK, they quickly increase system performance and provide a solid foundation for OEMs seeking an edge on China's booming robotics market.

### Contact:

#### EPSC POWERLINK-OFFICE

Bonsaiweg 6

15370 Fredersdorf · Germany

Phone: +49(0) 33439 539270

Fax: +49(0) 33439 539272

info@ethernet-powerlink.org

www.ethernet-powerlink.org

## NEWS

Page 1  
**SEPRO Robots communicate via POWERLINK**

Page 2  
**Hanover: POWERLINK paving the way for Industry 4.0**

Page 3  
**POWERLINK well-rooted and growing in China**

Page 4  
**Huge success at Nuremberg embedded world show**

Commitment to open source technology  
POWERLINK redundancy has gained recognition from manufactures such as CSR and NARI in the rail, power and DCS industries, where highly reliable systems are essential. They value POWERLINK's high data transfer rates, multiple redundancy solutions and flexible, rapid implementation. Above all, however, these state-owned enterprises – who must maintain independent intellectual property rights – welcome POWERLINK's commitment to open source technology. With POWERLINK, they get state-of-the-art performance along with complete independence.



The POWERLINK booth shows a part of the fast growing line-up of POWERLINK products from China.

In addition, manufacturers such as Hanru, TED SHANGHAI, KW, Infoteam, ALTERA and Avnet have laid the foundation for the promotion of POWERLINK in China. They are helping their customers achieve rapid implementation at low cost by providing direct development support.

## Huge success at Nuremberg embedded world show



Busy with visitors at all times: the EPSG booth in hall 4a of the Nuremberg embedded world show.

In February, the embedded world show in Nuremberg, Germany, a leading platform for technologies for integration on printed circuit boards or at device level, once more endorsed its role as an event of vital interest to the EPSG and its partners. Not only did the EPSG booth see an impressive number of visitors; on their booths, many EPSG members registered an unprecedented high demand for information about POWERLINK and openSAFETY.

### Contact:

**EPSG POWERLINK-OFFICE**  
Bonsaiweg 6  
15370 Fredersdorf · Germany  
Phone: +49(0) 33439 539270  
Fax: +49(0) 33439 539272  
info@ethernet-powerlink.org  
www.ethernet-powerlink.org