Bosch Rexroth's ctrlX World is growing – focus shifts increasingly toward IT/OT convergence

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- More and more companies are adding their automation solutions to the partner world of the ctrlX OS Ecosystem, initiated by Bosch Rexroth
- IT and OT convergence solutions are driving rapid innovation
- New partnerships with SMC, Pepperl+Fuchs, and ServiceNow

SMC, Pepperl+Fuchs and ServiceNow have joined Bosch Rexroth's partner network ctrlX World. (Image source: Bosch Rexroth AG)

Bosch Rexroth's ctrlX World is growing and now unites more than 100 partner companies in the automation world. At a time when the seamless convergence of IT and OT in factories is critical to innovative, efficient, and flexible manufacturing processes, ctrlX World offers solutions to make this interaction as easy as possible. New partnerships with SMC, Pepperl +Fuchs, and ServiceNow bring more added value.

The partner network ctrlX World is expanding the range of solutions for the automation system ctrlX AUTOMATION with software, but also with hardware that is compatible with the Linux-based operating system ctrlX OS.

Users have all kinds of automation solutions available for their specific requirements, enabling them to implement use cases more quickly. The solution portfolio range from apps for robot integration to AI solutions and tools for energy management.

"One special focus in the ctrlX World is on solutions for IT and OT convergence. We want to make it easy for users to connect different systems and technologies, paving the way for the smart factory of the future," explains Steffen Winkler, Senior Vice President Sales Business Unit Automation & Electrification Solutions at Bosch Rexroth. "The basis for openness is the operating system ctrlX OS and its associated ecosystem, of which ctrlX World is a key component. Thanks to the associated variety, users can implement all automation tasks quickly and easily with one single platform and suitable apps, and optimize them for the long term."

Three new partners on board

SMC is the first pneumatics provider in the partner world. The seamless integration of pneumatic and electric automation solutions into ctrlX OS devices such as the control system ctrlX CORE opens up new scope for users. The connection of the valve manifold with EX260 and the JXC controller from SMC directly by EtherCAT to ctrlX OS devices enables simple control of the air flows in and on the machine. Electrical drive functions can also be mapped and integrated in a compact format. The Linux-based operating system ctrlX OS enables seamless integration into the overall machine concept.

The Pepperl+Fuchs sensors and systems designed for interoperability are also ideally suited to ctrlX OS. Intelligent and robust industrial sensors allow for the comprehensive automation of manufacturing processes and provide valuable additional data for IoT solutions. The IO-Link masters from Pepperl+Fuchs act as a link here: they connect the sensors and actuators to higher-level software systems such as ERP or MES and thus pave the way for efficient communication between the production level and office level. Pepperl+Fuchs RFID systems are another driver for the factory of the future. They enable non-contact identification and traceability and thus more transparent manufacturing and logistics processes. All common frequencies from the industrial environment are supported. Protocols such as EtherCAT, IO-Link, OPC UA, and REST API allow easy integration into ctrlX OS-based devices.

ServiceNow, the third new partner, brings its expertise in the automation and optimization of digital workflows to ctrlX World. ServiceNow's cloud-based platform enables organizations to streamline processes and improve operations. It integrates seamlessly into ctrlX OS devices by using well-known standards such as REST API, webhooks, and ETL functions. This gives users the ability to optimize operations, increase productivity, and drive digital transformation on a single platform.

The strengths of different players in the market are bundled in the ctrlX OS Ecosystem and the associated partner network ctrlX World. "Different perspectives, experiences, and technologies are the basis for faster innovation. Users benefit from the latest technological developments and have access to modern hardware, sensors, controls, and cloud-based platforms. They can implement advanced solutions more quickly – for example, through simple IT/OT integration, from the actuator and sensor to the control function, and the integrated service platform," explains Steffen Winkler.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 33,800 associates generated sales revenue of 7.6 billion euros in 2023.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 429,000 associates worldwide (as of December 31, 2023). The company generated sales of 91.6 billion euros in 2023. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH

and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 90,000 associates in research and development, of which nearly 48,000 are software engineers.

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