Softing's "smartGates" support users in integrating different protocols and ensure consistent digital data exchange

The Digital Bridge Builders

The digital transformation in the manufacturing industry is increasingly high on the agenda. For it to work, the OT and IT level must be much more closely interlinked than before. This is not only a technical challenge. openautomation talked to Frank Steinhoff, Managing Director of Softing Industrial Automation GmbH, on this topic.

▪ Author: Roland Heinze
▪ Pictures: Softing Industrial Automation GmbH, Shutterstock.com

Frank Steinhoff is convinced, that "anyone who is in close contact with customers will notice that there is a lot going on at the moment." Large companies set the trend with investments, form multidisciplinary teams and launch digitalization projects. "Medium-sized businesses are still rather cautious when it comes to major investments in digital transformation," confirms the CEO. Not only because of the economic situation, investments are still held back. However, for the Softing manager it is only a matter of time before medium-sized companies — motivated among other things by the activities of large corporations — also start their own projects. He is convinced that suppliers of the lead industries will soon follow with similar requests for IoT projects. Softing is an expert for digital data exchange. "As a connectivity partner, we are involved in many projects," emphasizes F. Steinhoff. Some of these are large projects: one involves over 100 factories. Another concerns the retrofitting of 350 machine tools and the connection to IIoT.

To this day, Softing's industrial sector is known to many to be predominantly positioned at the automation level. Important business areas of the company are troubleshooting and

Frank Steinhoff, Managing Director of Softing Industrial Automation GmbH: "Most of the data is now generated in the factories, mainly by sensors. This also offers great potential for machine learning."

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monitoring of bus systems, the integration of proprietary protocol software for control and device manufacturers in process and factory automation as well as gateways for control and plant asset management tasks. The company has long-standing key relationships with many players in the automation industry, which provide a solid foundation for further developments and solid growth.

Connection of OT and IT

"We are happy to be involved in the innovative, highly exciting topics of digitalization with a great deal of commitment and ‚real-time spirit'," the CEO emphasizes. The new challenges consist above all in connecting the OT level to the IT level. "Softing is in a good position to serve both greenfield and brownfield applications worldwide," he continues. "For example, when it comes to connecting a historically grown machine park to the IT level with controllers from different manufacturers such as Siemens, Rockwell Automation and Beckhoff, a company like Softing is the right partner." According to F. Steinhoff, most of such projects currently involve the company's IT managers as decision-makers. What is required, however, are experts who on the one hand understand the OT world, including the language of the engineers and the shop floor, and on the other hand can connect both worlds. Especially on the production level, the guiding principle very often is: Never touch a running system. At the same time, it is now necessary to provide ever more extensive data from the OT level for company-wide and cross-sectoral optimization tasks. This, however, requires adjustments, extensions and new developments.

Even the large IT companies have realized that a bridge to OT is necessary to bring the IT and OT world together. Besides AWS with Greengrass, he sees Microsoft with Azure in a leading position in the field of IIoT cloud solutions. "For example, we are in close contact with AWS and also maintain key relationships with Microsoft," he adds. It will be interesting when Google

and Alibaba discover this market for themselves. Unfortunately, according to F. Steinhoff, there is a lack of European companies and leaders of truly comparable relevance to meet these future trends. He believes this persistent situation is a cause for concern. "We in Europe care about a lot of things, but hopefully we don't miss out on the trend of actively shaping the future with digital leadership." After all, most data is now generated in the factories, mainly by sensors. This also offers great potential for machine learning. In order to exploit this potential, the data must be transferred from the field to the cloud. The entire IoT sector benefits from gateways as essential ‚tools' for data transmission. For example, with our gateway ‚uaGate 840D', the complete data from Sinumerik 840D machine tools can be made available fast and cost-efficient for cloud applications via OPC UA. Pilot installations can be used live in a few days as proof of concept.

Focus on solutions and customer benefit

In addition, the new projects require the ability to think in terms of solutions. More and more important is the support for applications. "Users today expect technical solutions," continues the Softing manager. "They want to exchange ideas and need suggestions as to how and for which purposes the production data can be used. These are projects that focus, for example, on the recognition of patterns or anomalies, the improvement of quality management and a faster ramp-up. The central focus is always on the core question as to how to achieve excellent and sustainable customer benefits.

For such projects there is no digital switch that can simply be flipped," he continues. "Instead, they require good consulting and cooperation in cross-functional teams in line with trust building, expertise and credibility." The managing director will then bring in the know-how of his network, so that a joint venture of IT and OT competencies can be created. Complex tasks, such as

"uaGate 840D" provides the complete data from Sinumerik 840D machine tools via OPC UA for cloud applications.
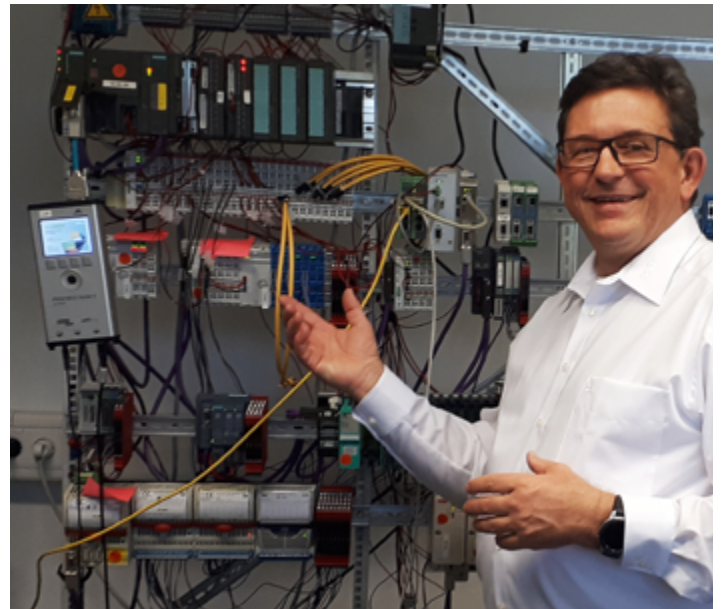
Softing's **"PROFIBUS Tester 5"** is used for troubleshooting and monitoring bus systems.

reducing the reject rate based on extensive data analysis, cannot be mastered alone. A first step would include a joint workshop or a proof of concept in order to delve more deeply into the details of the topic and to design and learn.

Integration and connectivity are becoming increasingly important

The new world also changes the classic structure of the automation pyramid. Already today, it is often the case that the cloud is at the top of the pyramid. "ERP vendors such as SAP, and Microsoft want to address topics further down the pyramid towards the shop floor. The traditionally separate market segments of IT and OT will increasingly combine in the future," explains F. Steinhoff. "A company like Softing comes from the field level and continues to develop upwards, driven by the increasing relevance of consistency and connectivity, both of which have always been core issues at Softing." Thus, in his opinion, the pyramid simply becomes flatter and more seamless.

Undoubtedly, the connection to the field level is crucial: To enable a retrofit, new and additional sensors are often required to provide all necessary data about the machine. "Here, too, Softing is the right partner, not least because of its long-standing relations with the sensor industry," says the former Endress+Hauser manager. Softing is one of the world's leading suppliers of stacks for implementing digital field communication via PROFIBUS or FOUNDATION Fieldbus, but also for PROFINET, EtherNet/IP and OPC UA.

"If large production facilities are to be digitalized today, then no company can do this on their own anymore," says F. Steinhoff. In order to draw the right conclusions in data analysis using Artificial Intelligence, a lot of measured data is needed. "This involves cooperation with innovative sensor manufacturers and IT companies. What is needed is a fair partner community for solutions. Softing is a successful digital bridge builder, not least because of its own independence."

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ABOUT SOFTING INDUSTRIAL

Softing Industrial specializes in implementing digital data exchange and improving data communication in industrial automation applications. Its range includes hardware and software products as well as tailor-made solutions for smooth communication at OT level (field level/operating technologies) and for simple data exchange with the IT level (information technologies). Softing Industrial's products and solutions are geared towards the increasing demand for integrated and secure data communication. They are functionally superior, easy to use and enable the optimization of industrial value-added processes and the increase in efficiency of machines and plants. Further information is available at http://industrial.softing.com