WHAT A MATCH!

Take full advantage of the IIoT
with Automation Builder and ABB zenon.

PHOTOGRAPHY: MATHIAS ERNERT

At the start of 2016, the energy and automation company ABB made the decision to add our zenon software system to its industrial automation portfolio. By doing so, ABB aims to offer enhanced connectivity and more application solutions for discrete manufacturing, general mechanical engineering, and the food and beverage industry. zenon can also be connected to ABB's cloud infrastructure and digital services. ABB is offering zenon in the form of HMI and operations data management software that can be used as a data collector and IoT gateway for frequency converters, soft starters, and PLCs in a heterogeneous environment. In the following interviews, Sönke Kock from ABB and Thomas Punzenberger from COPA-DATA offer insights into the collaboration and explain the benefits of the companies' combined expertise.

DR. SÖNKE KOCK:

Dr. Sönke Kock studied electrical engineering at the Technische Universität Braunschweig, Germany and Georgia Tech in Atlanta, USA. After completing a postgraduate degree at the Royal Melbourne Institute of Technology in Melbourne, Australia, he gained a PhD at the Technische Universität Braunschweig. Dr. Kock has worked at ABB since 2001, where he has had various positions in ABB's research unit (mechatronics and robot automation) and at ABB Automation Products GmbH (automation solutions). He has been a driving force behind digitization as Digital Leader at ABB's Drives business unit since November 2016.

IN CONVERSATION WITH SÖNKE KOCK, DIGITAL LEADER AT ABB'S DRIVES BUSINESS UNIT:

Why has ABB decided to offer zenon as an HMI and plant data management software to its customers?

ABB is the global market leader in the process industry due to its powerful process control systems. In discrete manufacturing and mechanical engineering, zenon – used as an HMI and operational data management software – is an ideal tool for collecting, analyzing, and appropriately forwarding all data accrued in manufacturing, as well as visualization. In addition, line control can be achieved through a wide range of SCADA functions. We were looking for an open solution that is also technically sophisticated. It was important for us to be able to network with our Automation Builder along with having access to cloud functionalities for integrating new services. We did consider developing our own software, but our strategy for the Fourth Industrial Revolution focuses more on collaboration. In terms of digital applications, COPA-DATA's zenon software was the most appealing option. In addition, zenon already has a strong presence in industries such as the food and beverage sector, in which it is highly valued for its functionality. We are now marketing the system under the name "ABB zenon" and have begun tapping into new markets.

Should zenon be seen as a module of ABB's Automation Builder?

zenon is an independent product that is seamlessly and efficiently integrated into our engineering platforms via data interfaces. These platforms include Automation Builder, our engineering hub for the AC500 PLC, drives, robotics, and ECAD systems, plus our MES Enterprise Connectivity Solution, as well as our ABB Cloud, based on Microsoft Azure. As a result, zenon is becoming part of ABB Ability, our comprehensive solution for data and value added services. Ultimately, we want to use zenon to support our customers in engineering, simulation, and plant commissioning. The benefit for them is that these solutions interact perfectly. For example, if the new functions of a packaging machine are simulated with a PLC in Automation Builder, the connection to zenon makes it possible to instantly monitor how the system is interpreting and processing the new data. During engineering, our customers can already see the effects that will take place at higher levels in the manufacturing process – the impact on a factory's OEE data, for example.

Is zenon a tool for the Fourth Industrial Revolution?

zenon is definitely an ideal platform for it. Every day, we have new ideas about what we can offer in the way of apps, services, or data analyses. With zenon, we want to provide a tool that makes it easier for customers to implement new business models in the Fourth Industrial Revolution, while also being able to connect to our cloud services.

Is ABB providing full customer service and support for zenon?

Yes, in the context of our customer applications, we are treating zenon as an ABB product and will be offering full, international customer service and support in the future. We will be our customers' single point of contact for matters ranging from consulting and licensing to support for live use. However, even though the product basis is the same, COPA-DATA and ABB will remain completely independent while COPA-DATA provides product support to us.

ABB will now market our software globally under the name "ABB zenon".

IN CONVERSATION WITH THOMAS PUNZENBERGER, CEO OF COPA-DATA:

How did you have to adapt zenon so that it could be integrated with ABB's Automation Builder?

From a technical point of view, we extended our import and online interface, which we are already using successfully with straton. As a result, bidirectional data exchanges with ABB's Automation Builder are now possible. The changes made to accommodate zenon were straightforward and actually minimal. It was more a matter of getting the right configuration and settings to make the overall system operable for users.

To what extent is ABB influencing zenon's product development and cycles?

ABB will definitely have a strong influence on product development in the future. We are expecting ABB zenon to be widely used. A great deal of expertise and experience across the various applications is being fed back to us and we are incorporating it into the product during our development work. Of course, we will continue to develop zenon beyond ABB's influence, but we welcome all additional input from ABB.

What is COPA-DATA contributing to ABB's international rollout?

In particular, we are contributing a vast amount of expertise, i.e. training people in technical fields. We have already trained ABB engineers through our "Train the Trainer" program so that they can run internal training sessions themselves.

ING. THOMAS PUNZENBERGER:

Thomas Punzenberger is an electrical engineer. He started his professional career at Siemens KWU Sondermesstechnik in Erlangen and Hamburg, Germany, in 1982. He then worked for BMW AG, where he was responsible for test bench automation in the body testing department. In 1987, he decided to found his own company in the automation industry: Ing. Punzenberger COPA-DATA GmbH. Thomas Punzenberger still leads the expanding Salzburg-based company today as its CEO.

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And, of course, we are giving a lot of support to the sales division to make sure ABB zenon is publicized as widely as possible. That includes joint appearances at trade fairs and exhibitions.

In your view, where does the future of zenon lie in terms of products for ABB customers, beyond HMI and plant data collection?

For manufacturing companies, the strength of zenon most definitely lies in energy data management. IoT and Fourth Industrial Revolution applications are also on the table. I can see a lot of potential in layered reporting, KPI determination, and the analysis of this data. Fields such as predictive maintenance will also become more significant in the future. In addition, ABB's technology can be connected very effectively to Microsoft's cloud services due to the seamless compatibility of ABB zenon, which is something that will become increasingly important in the future. As a major producer of machines and equipment, ABB itself could even benefit from this technology.

In your view, how is ABB zenon positioned for the Fourth Industrial Revolution?

The basic principle of the Fourth Industrial Revolution is that communication and the symbiosis of individual, specialized components work effectively to achieve a greater overall result. This is clearly contrary to how closed systems work. With the collaboration between ABB and COPA-DATA, two very successful, high-performing worlds are coming together: ABB with its powerful hardware, for instance, which is undeniably of a very high standard, combined with our IoT software, which is well established and has already achieved a very strong market footing. Looking forward, this collaboration will definitely be more beneficial to customers than running the components separately.

The interview with Sönke Kock was originally conducted in German by CHRISTIAN VILSBECK, Managing Editor at publish-industry; it was first published in the German trade magazine A&D Vorsprung Automation, October 2016.

The interview with Thomas Punzenberger was originally conducted in German by SEBASTIAN BÄSKEN, Public Relations Consultant at COPA-DATA.