

Harro Höfliger has been using zenon from COPA-DATA for ten years

"zenon is best in terms of technology."

Operating for over 30 years, Harro Höfliger is today one of the leading technology companies in the field of production and packaging systems for the pharmaceutical and chemical industry, as well as the food and beverage industry. Harro Höfliger has now been using the HMI/SCADA software zenon for ten years. It seems like a good time to look back over the past years and cast an eye to the future.

Harro Höfliger has developed from a sole trader company to a technological leader for production and packaging systems: the company now generates over 150 million euros of revenue and has offices around the world. With over 800 employees, Harro Höfliger implements very complex projects - including machines and lines for capsule and tablet technology, wallet and blister systems, inhalation products, powder technology, assembly carton packaging and associated automation technology. The customers of the specialist machinery manufacturer include all leading companies in the pharmaceutical industry, as well as the food industry and the consumer goods industry.

COPA-DATA spoke to Volker Scheub, Controls Engineering Director, as well as Hartwig Sauer, Control Engineering Division Leader, both from Harro Höfliger Verpackungsmaschinen GmbH in Allmersbach im Tal, Germany.



Volker Scheub and Hartwig Sauer Harro Höfliger Verpackungsmaschinen GmbH

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You have been working together with COPA-DATA for ten years and use its zenon HMI/SCADA software throughout on all machines that you manufacture. How did the cooperation come about?

VOLKER SCHEUB: Around ten years ago, the issue of FDA 21 CFR Part 11 increased in importance significantly. Companies and suppliers that were active in healthcare and wanted to offer their solutions in the USA had to meet certain requirements when handling electronic data and thus with their software solution. Coherent process documentation in automatically-created audit trails, user administration to manage access authorization and archiving of data must be components of a modern automation solution. Ten years ago, we were using a solution that could not meet these requirements and, therefore, we evaluated different systems and found out in detail precisely the extent of functions that each solution offered and which FDA requirements are met by which solution.

Why did you decide on this solution around ten years ago?

VOLKER SCHEUB: What was decisive was the implementation of the requirements of the FDA 21 CFR Part 11 in zenon. Another decisive reason was that zenon made it possible to set parameters for a large part of the solution – lowering the required programming time for us. The background to this is that our expertise in the company is concentrated on PLC programming and we didn't want to create additional capacity for high-level languages. This made it very easy for us to switch to zenon.

HARTWIG SAUER: A further important criterion for the decision was also COPA-DATA's ability to innovate and the advanced technologies that were implemented in zenon: the network functions, the client-server structure, multi-project administration – these are all functions that zenon has already offered for many years and solutions that other providers still do not offer in some cases. zenon was and still is the best technology.

What are now the most important technologies and parts that zenon offers?

HARTWIG SAUER: zenon is a system that meets all of our requirements. The graphical user interface design, the connection to the database in order to save process data and the possibility of comprehensive logging and documentation are important for us. zenon offers numerous functions as standard tools, but also allows you to create individual functions. However, these expansions are only a small part of our solutions. In our zenonbased solution, we integrated expansions such as format administration and batch logging for our customers in the pharmaceutical industry. Nowadays, we use the Recipegroup Manager in zenon.

VOLKER SCHEUB: In addition to the fact that COPA-DATA's zenon is a product family that is well-developed and innovative, we feel that we are always supported professionally and competently by COPA-DATA Germany and the headquarters in Austria – which is also an important factor for good cooperation.



Why have you stayed loyal to COPA-DATA and zenon over the years?

HARTWIG SAUER: Looking back over the years, we could see that COPA-DATA consistently works with a focus on technology and customers. Platformindependence, scalability, openness and the diversity of communication were and still are important to us and COPA-DATA proves its ability to innovate again and again. The early support for Multi-Touch, for example, is evidence of this.

What roles do standardization and efficiency play in the implementation of customer solutions for Harro Höfliger?

VOLKER SCHEUB: A major role. Whilst we previously had different HMI user interfaces for different machines, with the introduction of zenon we developed a uniform and standardized user interface – with a uniform operating structure, uniform controls and uniform graphics. This was an important point for us. All our 80 programmers and control technicians work on a standardized basis and are in a position to adapt the HMI quickly and efficiently at the request of a customer.

What is the operating philosophy at Harro Höfliger?

VOLKER SCHEUB: In our view, there are three significant operating philosophies. The task-orientated user interface shows the machine user their tasks - depending on what role they have in the company and what tasks they must carry out. The phase-orientated approach is orientated towards the phase of machine use in which the user is at the moment: adjusting settings on the machine, starting up the machine, ongoing production or packaging processes, idling or a test phase. We are pursuing the function-orientated or station-orientated approach. In doing so, the structuring of the information is orientated to the machine functions and processing stations, which allows us, with our various special machines, to

quickly develop a clear user interface that is adapted to the individual machine.

What feedback do you get from your customers? What do customers value in particular with the zenon-based application?

VOLKER SCHEUB: The user interface that we have developed together with specialists and designers, which has since only had minor changes, has proven itself in past years and now has a high degree of acceptance among our customers. We value the hierarchical design, the clear structuring and the direction of user focus to the most important things. This year, we will adapt and optimize the design of our HMI in terms of touch, design and graphics, and incorporate Multi-Touch technology, for example.

What, in your view, are the challenges in the pharmaceutical industry now and in the future? How do you assess the market?

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The audit trails log all processrelated events and provide these in a list, which can be sorted and filtered, in Runtime.

VOLKER SCHEUB: For companies in the pharmaceutical industry, monitoring is the main focus now and in the future monitoring the machines, monitoring the processes and the process parameters in production and packaging, monitoring by means of additional surveillance equipment. All this data that is collected must also be processed, analyzed and prepared. To do this, there is an FDA initiative called "Process Analytical Technology" (PAT), which is taking effect. The objective of this initiative is to create systems to monitor, analyze and ultimately improve processes in the pharmaceutical industry. Well-thought-out monitoring should ensure that product quality is maintained and increased on a lasting basis.

HARTWIG SAUER: Another trend is definitely the fact that many companies in the pharmaceutical industry are now using integrated assembly lines where many individual machines were in use ten years ago. This is why connectivity is increasing in importance. Companies need interfaces to connect their SCADA systems and interfaces to higher-level systems in order to be able to ensure further processing and evaluation of data. In doing so, all data must be logged and archived in full, in a manner that is safe from tampering.

What requirements are your customers requesting for future solutions?

HARTWIG SAUER: Comprehensive collection of data and connection to higher-level systems are certainly the most important issues that customers are currently looking at. The HMI user interface and Multi-Touch are certainly also important points. However, many customers are still in the discovery phase here. For the customer, it is not a matter of what is feasible, but what makes sense and what allows them to achieve their objectives. Another important topic is certainly user identification. Here, the companies from the pharmaceutical industry are considering RFID and biometric chips as well as other security measures and expansions.

What major developments are you currently seeing? What are you working on?

HARTWIG SAUER: We are currently looking closely at the topic of Overall Equipment Effectiveness (OEE) which is defined by the availability, performance and quality of the equipment. We want to use trend displays and charts to give the user feedback on how efficiently their plant is working, and to provide them with – for the respective defined time period – logs and documentation relating to the output of the machines in the plant.