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World leading zenon technology at VIPOLL

When the Slovenian machine manufacturer Vipoll looked for a technology partner for its specialist machine line equipment for the beverage industry, it chose COPA-DATA. By deploying COPA-DATA's zenon software for its equipment control and monitoring, Vipoll now has a great foundation to develop its market share and brand recognition in Europe and worldwide.

To achieve its goal of becoming the most recognized producers of high-quality specialist equipment for the beverage industry requires a great deal of commitment, as Managing Director Mr. Simon Zver explains: "We want our company and our production programmers to gain such recognition that Vipoll will be the first choice for any business interested in buying new filling lines or line sections. This is a challenge that requires a lot of effort and work, but at the same time offers a lot of satisfaction and motivation for further development. For us, cooperation with COPA-DATA was the most obvious way to achieve this."

Vipoll aims to consolidate its market position and break into new markets not only in Slovenia but also internationally. This ambition served as a great impulse for COPA-DATA to begin a flourishing new business partnership with Vipoll.
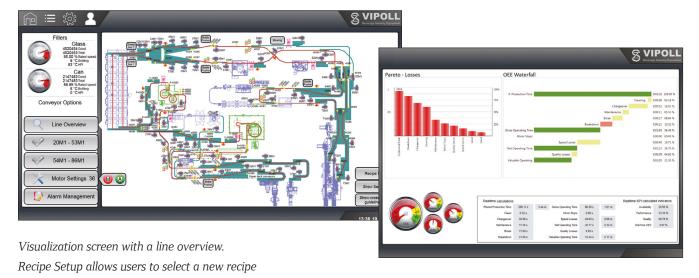
THE INITIAL SITUATION

The partnership began with initial business discussions in 2011. Both sides were excited about the potential of the new cooperation. Over the last few years, Vipoll has seen that the zenon software platform is beginning to flourish in the Food and Beverage industry and has recognised that companies are starting to realize the great benefits of this highly scalable solution.

The first Vipoll implementation using zenon began in 2013. A brewing customer needed to access the entire data from a production line. It was necessary to visualize the whole line and also to collect all its data, record that data transparently and make the data available to business users. The main focus was to grab data according to Weihenstephan standards. The Weihenstephan standards define which production data should be recorded at a filling plant and specifies how that data should be transferred. With these requirements, Vipoll's first line management project using zenon's seamless monitoring and ergonomic control was begun.

ERGONOMIC WORKING WITH ZENON

Mr. Simon Zver says, "Our customer expected to visualize an overview of the filling line perfectly and 100% accurately. zenon had to record everything that happens on each line. Every single movement, fill, or bottle damage has to be recorded so it can be used later for analysis."

Visualization screen with a line overview.
Recipe Setup allows users to select a new recipe
or to disable an existing one.

Waterfall Diagram. The diagram displays the
performance of a machine or line using dynamic
variables in zenon.

zenon offers equipment efficiency built around the individual needs of each user. A tailored workstation is the key to ergonomic and efficient working. zenon makes it easy to adjust projects according to individual user needs, whether in advance or during running operations. Vipoll employees were quickly trained so that zenon's error-free control now ensures effective equipment operations. Mr. Alexandr Jeric, the Vipoll project engineer, says: "Even very difficult project engineering components can be achieved in zenon in a mouse click. For me, as a technical engineer, it was a dream come true! I was happy to see that everything worked just as it should."

For Mr. Jeric, the design and functionalities that zenon delivers and zenon's efficient control of equipment are crucial advantages. It is for these reasons that Vipoll chose to use and standardize on zenon, as Mr. Zver describes: "The main reason to go with zenon is its stable and secure environment. Only a robust technology like zenon can offer such efficiency. Using remote maintenance and 'hot reload' functions, zenon can offer non-disruptive maintenance, and we can control and update processes without the need to restart the Runtime and without an equipment stop." This ensures increased availability and stability whilst providing maximum data security, as Mr. Zver continues to explain: "When we update the processes or make some changes there is no option to stop the line. It is simply not ergonomic to stop production just to make some changes."

As an increasingly international player, Vipoll needed to address security and protection with a very high degree of seriousness. Vipoll's customers include an internationally well-known beverage producer and, without a demonstrably high level of security features, no line management could even be considered. zenon's strong network encryption,

comprehensive user management and unique security mechanisms advance the Vipoll equipment. By deploying zenon, Vipoll equipment runs safely and securely so that customers can feel confident in the solutions and feel at ease.

The Vipoll team created a new recipe status function for its customer, as Mr. Jeric explains: "This new feature was developed in response to a request from the operators. It compares values from the recipe and the actual values because, during production, different factors may be changed, such as turning on or off motors, etc. This functionality enables the operator to visualize all those changes and decide whether to save these changes back to the recipe or discard them."

Mr. Jeric continues: "I enjoy working with zenon due to its amazing usability and excellent high-tech features. zenon's usability reduces training times; it is all about efficient engineering. This is a very big plus for zenon."

For Mr. Jeric, this pilot project was a challenge. He says: "zenon delivers a lot of out-of-the-box functionalities. All components, the project building blocks, were already prepared in zenon. I simply had to take the preconfigured components and assemble them into the complete A-Z project. My job was to adapt it to the machines and create the appropriate visualization."

Mr. Jeric continues: "I learned a lot of zenon know-how and background on my own. There was a very short lead-time for this project and therefore it was necessary to immediately get to work. By using the zenon demo application from COPA-DATA's sales specialists, and by consulting the zenon forum and its COPA-DATA technical specialists, I have got the best grounding in zenon I could ask for."

As the guiding force behind Vipoll, Mr. Zver was eager to ensure that the customer's requirement to minimize the complexity of recipes on the conveyor system was met effectively. However, this was not an easy task, as Mr. Jeric explains: "If we implement the Recipe Group Manager with all the recipes on demand at the PLC system the number of recipes extends to several hundred recipes. Instead, I used the functionality of the zenon Recipe Group to simplify this requirement. I divided recipes by several sections on the PLMS (line diagnosis). This reduced the complexity enormously. Additionally, our customer has flexibility to add a new recipe, as required."

Mr. Jeric adapted zenon for the end customer in this way so that, now, there are several directions through conveyors to transfer the many and various bottles. Mr. Zver says, "Our customer is very satisfied with this action and adaptability. We have met and exceeded our customer's expectations thanks to zenon. This is so amazing. We are very pleased."

ZENON'S FLEXIBILITY FOR VIPOLL

Vipoll had to implement zenon software technology with a pre-existing equipment environment. Thanks to zenon's native functionalities, Vipoll saved engineering time and expense with regards the equipment integration. Over 300 different communication protocols are available from COPA-DATA in order to easily and smoothly integrate existing machinery and systems using zenon. The end-user no longer has information islands thanks to zenon; instead, a continuous data exchange is achieved across systems. This is a major advantage which Vipoll has gained through its use of zenon. Thanks to Mr. Zver's modern vision, Vipoll has updated the equipment to the latest standards in technology, utilizing existing infrastructures to bring the best performance out of machines.

VIPOLL'S ACHIEVEMENTS WITH ZENON TECHNOLOGY

One of the zenon screens that Vipoll created for its customer was an Overall Equipment Effectiveness waterfall diagram. It helps the customer to analyze line performance. This is necessary in order to track any issues such as damages, adjustments or changes and to show them visually. It is important for the customer to be able to track any changes which happen unexpectedly, and to clearly identify which machine is responsible for any slowdown.

A NEW CHALLENGE CALLED 'SMART BEVERAGES': A ZENON CLOUD PILOT PROJECT

Vipoll achieved its vision using zenon very easily. Adapting zenon to its machines was a big success for the company and now it is ready to extend the collaboration with COPA-DATA. Its next goal is clear: to adapt all machines to the Weihenstephan standard.

Vipoll is pleased with COPA-DATA's engagement and is delighted to partner with COPA-DATA in the Slovenian market. It hopes this strategy will help it become an international player in the beverage industry. By deploying its equipment with such efficient and highly-functional software as zenon, Vipoll hopes to secure competitive advantage which will help it to become recognized worldwide.

Mr. Zver concludes: "We are looking forward to growing with zenon and exploring many new possibilities in the Food and Beverage industry. We are excited about zenon's Cloud capabilities. As an effective infrastructure solution, we expect this will also be one of our new projects within a short period. COPA-DATA's great new ideas on how to improve and optimize productivity are always more than welcome."

The zenon Cloud solution is a hot new topic at Vipoll and the team is now preparing to integrate a pilot Cloud project which will put Vipoll at the heart of the 'smart factory'.

VIPOLL ACHIEVED THREE MAIN GOALS WITH ZENON:

- ▶ Flexible industrial control with complete line monitoring
- ▶ Adherence to Weihenstephan standards
- ▶ Real-time supervision of Overall Equipment Effectiveness (OEE)