



Meet the Mr. Miyagi of Batch Control

Peter Bürgin, Owner and Manager
ControlTech Engineering

Specialist knowledge and experience blended with
innovative technologies is the decisive cocktail
which continually drives ControlTech Engineering's (CTE)
optimal customer automation
and IT solutions.



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PETER BÜRGIN, DIPL. ING. ETH / SIA
OWNER AND MANAGER CONTROLTECH ENGINEERING

PETER BÜRGIN, owner and manager of CTE, kindly held a presentation concerning the prosperous relationship between CTE and COPA-DATA at our Global Partner Academy in June 2014, describing the growth in technology and knowledge both companies have experienced since 2010. During the conference, I was able to have a tête-à-tête with Peter Bürgin and we realized that several milestones had passed. For me, this was a good time to look back at this strong collaboration between two passionate innovative companies.

Mr. Bürgin, as always, it is a pleasure to meet with you. Let's start with an introduction about what CTE is and what you do?

PETER BÜRGIN: ControlTech Engineering is an engineering company for industrial automation and IT solutions, mainly in the field of process control. We embrace the whole automation project from engineering concept to commissioning and quality compliance, field to MES, plus the interface to ERP level. Our company consists of innovative employees with many years of experience of plant automation. Six teams cover the wide spectrum of activities we support; three teams focus on 'Automation', one for 'Engineering' the hardware, and two teams for 'IT Solutions' and 'IT Services'.

We have touched on innovation, how do you keep ahead of competitors and push the limits of current solutions?

PETER BÜRGIN: This is what CTE is, our company has structured itself on innovation. This question can be answered in three sections: exposure, outlook, and skills. I'll explain: We are in connection with many different companies. Exposure on this scale allows for technology to be transferred, also the needs of one industry highlight positive opportunities in other areas. Our dedicated teams focus not only on the solution, but to the market and industry trends in their area. Dialogue and communication are natural elements

in our daily activities. Finally youth, young employees mixed with experienced professionals, brings a kind of magic. Currently we employ two IT apprentices, and two Computer Science students from the University DHBW Lörrach.

You have a long history in batch and process control, can you give our readers a short overview?

PETER BÜRGIN: As a young engineer in the mid-80's, I was working at Roche on the first development of a batch system; this was long before the ISA-88 standard was conceived. For this project, we had to create a flexible software automation structure, connecting 4500 I/Os, involving many process units. In 1990 I started the company CTE and continued to develop batch systems in a flexible format. Our current batch control is a PLC system with equipment modules and recipes which are configured off-line. The PLC operates independently, with the batch dataset downloaded from the SCADA platform. A matrix sequencer executes the equipment module control and parameters, to control the process. This structure has worked for the majority of applications we have developed on PLC/SCADA systems. Our CTE batch has influenced the Batch Control module in zenon as the 'Matrix' editor reflects this sequencer behaviour.

How did the collaboration between CTE and COPA-DATA develop?

PETER BÜRGIN: I have known the company 'Satomec', COPA-DATA's distributor in Switzerland, for many years. They introduced zenon to CTE at a time when zenon had really started to grow in the process and pharmaceutical industry. Initial contact with COPA-DATA was at the SPS IPC Drives trade fair in Nuremberg; and we felt a connection, something more than the technology alone. Our batch control collaboration began with one question from Markus Helbok. Markus described the interest to develop a Batch Control system in zenon, and asked if CTE could provide the insight into what a batch system must have due to our



Integrated SCADA displays full farm status

CTE batch project incorporating the Batch Control Matrix editor

long experience we have in the process industry. Several meetings took place, in which we disclosed our batch system mechanics and the demands we face in the process industries. COPA-DATA continued to develop their Batch Control module, and so we at CTE got the SCADA batch system we wanted, and the development benefited both sides.

In 2011, zenon Batch Control was presented to us. It was amazing and impressive to see that in a very short time COPA-DATA could come up with a fully developed new module. We very quickly came to the decision to use zenon as a batch control for any coming project. In December 2012 we had intensive zenon training and in January 2013 we became a Registered Partner in COPA-DATA's Partner Community. Collaboration of this nature is not possible with any other company.

How were your first project experiences with zenon?

PETER BÜRGIN: What we have realized by the different structure of zenon, is that other SCADA products cannot achieve the high level of usability required in projects. Even with large inputs of programmed code the flexibility and connectivity is just not present in other systems. zenon is a flexible solution, nobody offers this flexibility and at a low license cost and low total cost of ownership.

The first project with zenon and the Batch Control module was an installation in a chemical factory with two processing plants consisting of three units, which feeds a storage tank farm with eleven tanks and three filling stations. The system includes 23 equipment modules, five HMI stations, three PLCs, four remote I/O stations, one packaging unit, two weighing scales and collectively about 680 I/Os. This project was a test to discover how zenon can be rolled out. This was naturally a success in

design, commissioning and validation; because of this we have moved into other projects now in the pharmaceutical area. This is where the flexibility and configurability of zenon saves a lot of time and effort for both us as the system integrator and with the end customer. Our pharmaceutical end customer was very impressed during both the FAT (Factory Acceptance Test) and the SAT (Site Acceptance Test) for this first pharmaceutical project, particularly regarding the time to validate the solution and prove regulation compliance.

How is it possible to achieve such fundamental improvements in life-science industries with zenon?

PETER BÜRGIN: Ease of use in a compact way. There are many batch systems on the market which are very complex. zenon with its two batch design environments, Matrix and Process Flow Chart (PFC), dissolves this complexity by its superior usability, and having one installation which gives a complete GMP (Good Manufacturing Practice) solution including reporting. For today's technology and needs, other systems are old and clumber-some in comparison to the newly developed zenon. The direct transfer of the high level mechanism in our CTE batch to zenon batch was a significant selling point to our customers. We were able to use the same structure to handle batch information, equipment module information, and operation by the user. Integrated reporting is also a huge advantage for design and validation. You cannot have a batch system without reporting.

We found that the flexibility of zenon offers big advantages, complete out-of-the-box functionality for GMP projects, self-contained installation, which are 100% configured and not programmed. These advantages cannot

be overlooked. Cooperation with COPA-DATA has been very close over the last couple years. The customer also feels this closeness, and this is an advantage.

Mr. Bürgin, do you have any final comments?

PETER BÜRGIN: We enjoy the relationship we have with COPA-DATA, our experience has been very positive. zenon and its Batch Control is the only solution we will choose in future for SCADA systems and the only system we will choose in future for pharma plants with PLC systems.

Thank you very much Mr. Bürgin for this insight into CTE.

THE INTERVIEW WAS CONDUCTED BY
ROBERT HARRISON, INDUSTRY MANAGER
PHARMACEUTICAL AT COPA-DATA.



<http://kaywa.me/IDrv5>

Batch Control in Pharmaceutical
and Life Science - with zenon:
watch the video!

**CONVINCE CUSTOMERS
THAT ZENON IS THE RIGHT CHOICE**

- Flexibility, connect different PLCs and different processes
- Different system configurations possible (Server, Client-Server, Server-Server)
- Easy system configuration and setup
- Only one tool for the realization of an HMI-SCADA-Batch application
- No separately written code or programs to realize required functions
- Faster and less effort for validation and qualification
- Easy reuse of an application for a further project
- Easy switch into our existing projects with our own CTE equipment modules and batch system

**BENEFITS OF ZENON DIRECTLY
TO US AT CTE**

- Reporting integrated as a module in the zenon system
- Batch Control integrated as a module in the zenon system
- Download of changes during runtime without shutdown the HMI
- Great number of pre-defined functions
- Great number of drivers to connect PLC systems of different manufacturers
- Attractive price, flexible license model (tags, functions)



**CONTROLTECH
ENGINEERING (CTE)**

CTE (ControlTech Engineering AG) leads automation solutions, IT solutions and IT services. Their location in Liestal near Basel, Switzerland was no accident, a hot bed of pharmaceutical, chemical and biotech companies. These industries have been the canvas where CTE has applied its broad and in-depth knowledge, providing optimal solutions for over 24 years. Extensive experience and a working culture which continually learns and pushes limits, proudly offers customers the best solution.

FOR MORE INFORMATION, VISIT WWW.CTE.CH

