

Automation

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EAS

Schaltanlagen GmbH increases quality through standardization

Quality has fueled growth

Successful engineering service providers like EAS Schaltanlagen GmbH must measure up against intense competition. That means being highly productive and cost-effective while employing a great deal of application-specific expertise. EAS Schaltanlagen, located near Würzburg, Germany, has met those tests consistently, allowing it to leverage its extensive in-house capabilities for rapid growth. Since 2004, it has expanded from 40 employees to over 100.

EAS has relied on EPLAN since its founding in 1990. When Ludwig Sinner, together with his partners, founded the company, he already had several years' experience with EPLAN E-CAD software and brought it into the new company. Through the years, the EPLAN Schematic Generator has been an especially valuable productivity tool for EAS designers.

efficient engineering.

RELIED

on EPLAN

from the start

“We take on turnkey projects for our customers, from basic engineering, process control technology and enclosure production to commissioning – everything from one source,” says Klaus Wohlleben, who heads the automation engineering division.



EAS has multiple business segments: automation and power engineering, reactive power technologies and – through a subsidiary, EAS Technischer Brandschutz – fire suppression and prevention systems, like fire protection enclosures. The automation engineering division is a partner for mechanical and system engineering providers. The EAS product portfolio includes process control systems for plants in fields like food processing, water and wastewater treatment. For power engineering, it manufactures low voltage switchgears and distributors up to 5000 A for industrial plants, computer centers and public buildings.

Projects rarely standard

EAS automation engineering projects are almost always custom design jobs, whose schematics can run up to 5,000 pages. Here's where having state of the art E-CAD tools comes into play for the four automation engineering designers and three power distribution engineers working in EPLAN.

In 2004, the company undertook a reorientation of CAD-supported electrical design. “Due to rapid growth, it made sense to restructure processes,” says co-founder and executive manager Ludwig Sinner. Up to that point, whenever a new project was started, engineers first looked for a similar project in the past. From that template, components or parts were then used and varied as needed. “The success of this pragmatic method was highly dependent on the knowledge of the individual – and it was by no means straightforward,” says Sinner. “That's what we wanted to change.”

Goal: Advance standardization

During this period, EPLAN introduced a new version of its Schematic Generator. “We had already used this tool when it was an integral part of EPLAN 5.60 and then as a separate product with the next EPLAN (5.70) release,” says Ludwig Sinner. “We gave a lot of thought as to whether this investment 'computed' and the result was positive. Our goal was for the Schematic Generator to advance content standardization.” (The Schematic Generator converges EPLAN macros and project parameters and variables data to automatically create electrical schematics, a huge time saver).

Mario Rohde was assigned to manage the restructuring of engineering processes, which started an on-going process to introduce standard content into all design work. “We now use all of the generator's modules and benefit from a uniform quality standard for our schematics,” he says. “In cooperation with our customers, production, and commissioning personnel, we have defined and implemented standards in the Schematic Generator.”



ePLAN[®]
*electric***8**

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CUSTOMERS

give schematics
high marks

Produces higher quality outcomes

The standardized schematics are extremely high quality, with considerably fewer errors than in the past. They employ a modular structure, which facilitates the creation of more standardized content. When changes are required, EAS designers retain great flexibility, because all project content – device tags, electrical characteristics, function text, part numbers and cable types – can be variably described and controlled.

Adopting multiple EPLAN products

EAS surveyed customers about the quality of schematics and possible improvements, and they were unanimously positive, says Klaus Wohlleben. Both the engineering service providers and system engineers are under great time pressure and appreciate schematics of such a uniformly high quality.

Two years after EAS began this design restructuring, the database-centric EPLAN Platform succeeded EPLAN 5. EAS looked closely into the new software's possibilities. The EPLAN Platform supports the entire suite of next-generation EPLAN design products, including EPLAN Electric P8. "We asked ourselves, what is the system's potential and just as we had done with the Schematic Generator, we made some suggestions that EPLAN implemented," says Ludwig Sinner. For example, when the designer selects a component, the parts data is displayed, which is helpful in making the right choice. Additionally, EAS often uses the new EPLAN Data Portal to view certified components in major vendors' catalogues and import them directly into projects, another major time-saver.

Linking CAE tools to manufacturing

Besides EPLAN Electric P8, EAS has adopted EPLAN Fluid for fluid engineering. Now, it can profit by the ability to share and cross-reference data between disciplines on the same platform, which increases the quality of the design. EAS connected a new CNC machine directly to the EPLAN Platform to produce sheet metal parts using computer aided manufacturing and is looking at adding EPLAN Cabinet for enclosure design, which would allow it to apply computer aided manufacturing to the production of cables.

“Standardization is labor intensive and as such cannot be implemented overnight, says Mario Rohde, adding. “This goal can only be achieved in the medium or long term and we have adjusted the generator a lot to meet our requirements. But now we have a tool that can clearly improve electrical design processes.”



EPLAN schematics help drive standardization SUMMARY

Since its founding in 1990, engineering services provider EAS Schaltanlagen has built a competitive advantage with the uniformly high quality of its schematics made in EPLAN. This has been achieved in part by maximizing the benefits of employing successive generations of the EPLAN Schematic Generator, a productivity tool used in conjunction with EPLAN design software. The Schematic Generator also is an important vehicle in an ongoing project to increase the standardization of project design content. Today, EAS is using the next generation EPLAN Electric P8 and EPLAN Fluid to realize further design quality and productivity enhancements by more closely synchronizing electrical and hydraulic design, and by using that data to create automated setups for computer aided manufacturing on CNC machines.

Find out more about EAS Schaltanlagen GmbH at www.eas-schaltanlagen.com

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Published in 2010

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