

ePLAN[®]
electric8

ePLAN[®]
cabinet

A-ON
automation

relies on EPLAN for process integration

Designs complete automation systems

Companies in a broad spectrum of industries from food processing to automotive plants rely on Munich, Germany's a-on automation AG for designing and installing process automation solutions, including all electrical control equipment. a-on is responsible not only for the hardware and software engineering, but often also for the design of the PLC and visualization systems, as well as the mounting of electrical equipment and on-site commissioning of installations.

“From initial calculations through electrical design, machining and pre-assembly of conductors, a-on has implemented an integrated process for the planning and production of electrical enclosures on the EPLAN Platform. Initially, its goal in upgrading to the latest EPLAN products was to optimize product quality – which did happen – but it soon discovered projects also took 30% less time to complete.”

efficient engineering.

INTEGRATION

is a competitive advantage
in design and manufacturing



a-on has adopted a unique approach to design based on process integration. An EPLAN user since its founding in 2002, a-on upgraded years later to the new EPLAN Platform because it liked the new system's object-oriented approach to design and anticipated better quality design work, which it has. Unlike legacy CAD products, the EPLAN Platform database in EPLAN Electric P8 supports all EPLAN products. That has helped make end-to-end integration a success at a-on and a strategy that "distinguishes us from others competitors," says a-on chairman Josef Altmann. "Continuous processes are, in our opinion, the prerequisite for high quality and standardization in design."

Link between EPLAN, PPS system vital

a-on has linked EPLAN to its production planning and steering (PPS) system. "Our entire operation is based on our EPLAN CAD software and PPS," says Josef Altmann. "This is why we place such emphasis on the connection between the two systems." The reciprocal exchange of data between CAD and PPS enables the sales staff and engineering departments to collaborate in costing out projects very accurately. "We achieve this by using basic product assemblies, stored in EPLAN. This involves a greater administration effort up front, but definitely pays off later." Calculations are very precise, and when the order is received much of the data assembled for the quotation can be used for the actual design.

Building large EPLAN component library

Special consideration has been given to the utilization of all standardization options offered in EPLAN Electric P8. A comprehensive library of components makes the work of designers much easier. "We have approximately 25,000 parts with part numbers and drawings stored in the system," says project manager Lorenz Huber (Dipl.-Ing). "A lot of them have been imported from the PPS. The data and drawings of other components have been requested or downloaded from the manufacturers and converted to our standard formats." With the advent of the EPLAN Data Portal, a-on designers now can download certified component data directly from major vendors' catalogues.

Seamless data transfers assure quality

The emphasis on process integration is particularly evident in enclosure design and manufacturing. Electrical data generated in EPLAN Electric P8 is transferred seamlessly and automatically to EPLAN Cabinet. The designer, using EPLAN Cabinet's CAD automation tools, generates a professional 3D enclosure layout with optimized placement of components. The necessary cable lengths, as well as cutouts and drilled holes are determined automatically. EPLAN Cabinet processes individual installation requirements as well as minimum spacing and climate control.



ePLAN[®]
electric8

ePLAN[®]
cabinet

AUTOMATING

Enclosure
manufacturing

Automated setups for CNC system

EPLAN Cabinet creates a customized CNC setup that is transmitted digitally to the Steinhauer CNC system for automated, extremely precise machining. Even conductor assemblies are largely automated, based on the EPLAN Cabinet routing data. "All of this automation makes work very easy," says Lorenz Huber. "The wire lengths, as well as their beginning and end descriptions are already defined, and the device tags are generated automatically. The individual labeling of conductors, which is already standard in UL conforming systems, is realized easily. Since the routing data has been specified, the result is a quasi-automatic uniform placement and mounting standard for the components."

Parallel workflows accelerate projects

So far we are still operating on the design level. But the production phase is also integrated into the information flow. The CNC data for a customized production of an enclosure can be sent directly from EPLAN Cabinet into a Steinhauer CNC system. Even conductor assemblies are by and large automated, based on the EPLAN Cabinet routing data. Lorenz Huber: "This automation makes work very easy. The wire lengths, as well as their beginning and end descriptions are already defined, and the device tags are generated automatically. The individual labeling of conductors, which is already standard in UL conform systems, can be realized easily. And since the routing data has been specified, a quasi automatic uniform placement and mounting standard for the components is the result."

“Using the EPLAN Platform, “we assumed that the time needed using this design method was going to be the same, and that the improvement in quality would make all the difference,” says Josef Altmann. “But now we are actually able to produce about 30% faster. Our profits reflect both higher quality and higher productivity... That gives us a competitive edge and more ways to distinguish ourselves from the competition.”



Made a quantum leap
with EPLAN

SUMMARY

a-on automation AG thought the major benefit from upgrading to the EPLAN Platform would be improved product quality, and so it was, but it also found that designing in EPLAN reduced project turnaround times by 30%. EPLAN also made it possible for a-on to pursue its strategy of process integration, seamlessly exchanging data with its PPS systems, and transferring project data from electrical design to enclosure design to enclosure production. Leveraging the latest EPLAN technology has enabled a-on automation to provide the highest quality automation solutions to its customers while improving its own productivity and distinguishing itself from its competitors.

Find out more about a-on on www.a-onag.de/

efficient engineering.



EPLAN Software & Service GmbH & Co. KG · Monheim · Germany
info@eplan.de · www.eplan.de

www.eplan-your-engineering.com