

Building
Automation

ePLAN[®]
electric₈

NEUBERGER

Gebäudeautomation

Masters behind the largest construction site in Germany

40 years of experience

Neuberger looks back on almost 40 years of experience, with its own developments in the fields of hardware and software as well as the EPLAN electrical CAD/CAE software, that the company has been using for more than 20 years, as being important factors in their success. The Franconian company, that has been a member of the Weishaupt Group since 1995, had obtained its largest single order in its history from the New Trade Fair Center in Stuttgart. The contract signed at the end of 2005 encompasses a scope of approximately 8 million Euros.

“In June of 2007 the New Trade Fair Center in Stuttgart opened its gates for the first time to exhibitors and visitors of the MiNaT and Blechexpo shows. The technology for the exhibition halls passed their first major challenge. The specialists of the Neuberger Gebäudeautomation GmbH from Rothenburg ob der Tauber in Germany who were responsible for the central building control systems mastered the high demands placed on them successfully with the help of EPLAN.”

ePLAN your engineering

FRIEDHELM LOH GROUP

SEVEN HALLS

with
a barrier-free area



The largest single order in the company's history

In order to master the instrumentation and control tasks involved in the central building control systems, Neuberger installed about 50,000 data points, around 1,500 km of cable, 500 enclosure fields, 250 frequency converters, 130 automation stations, 50 LON (Local Operating Network) control cabinets as well as 12 master computers to adjust, for example, the ventilation and air conditioning optimally to the respective prevalent conditions. To accomplish this, 2,000 thermostats are used and 120 ventilation systems are installed. The instrumentation and control technology provided by Neuberger controls, regulates and monitors the systems for heating, refrigeration, ventilation, sanitary equipment, electrical equipment, illumination, blinds and sprinklers.

100,000 m² of exhibition area

The overall investment sum for the New Trade Fair Center in Stuttgart amounts to about 800 million Euros, with about 1,000 companies participating in constructing the fair grounds. Even at a distance the gigantic parking garage with its 4,000 parking spaces rising directly over the A8 highway is a striking landmark. Conveniently located just next to the Stuttgart airport, the fair grounds provides 100,000 m² of exhibition area.

Seven halls, each with a floor space of 156 m by 72 m (larger than a soccer field) provide the exhibitors with a barrier-free area that does not have any support columns – a factor that impairs layout and design in traditional exhibition halls. These seven halls have similar but unidentical structures with regard to their instrumentation and control systems. They have different ventilation systems and different locations. Halls 03, 04, 07 and 08 each having an additional storage area as well.

All the supply lines, transfer stations as well as enclosures required were placed in the infrastructure of communications and supply channels that run under the fair grounds. These have an overall length of about 3 km, are 4.5 m wide and up to 6 m high.

LOYAL

to EPLAN
since the mid-80's

Cooperation with the I&C planning provider M+M

The individual instrumentation and control systems were discussed and subsequently the required work was coordinated in close cooperation with the I&C planning provider M+M, represented by the responsible project manager, Mr. Hans Hoffmann. "Our own ProGrafNT central building control system forms the core of the automatic building control system," explains Hans Sindel, responsible for project implementation at Neuberger. "ProGrafNT informs about the current system states, stores consumption logs, provides clear and well-structured graphical displays using a Web browser and enables teleservicing, allowing rapid response to any challenge."

About 20 EPLAN workstations are being used for the fair project

"We have already been using the EPLAN electrical CAD/CAE software for more than 20 years to generate schematics," adds Mr. Gerhard Friedel, who headed the New Trade Fair Center in Stuttgart project at Neuberger GmbH. "We made a decision in the mid-80's in favor of the EPLAN software for the electrical engineering planning work and started off with 10 workstations at the beginning." More than 30 EPLAN 5 licenses are now in use at Neuberger, with about two-thirds of the EPLAN workstations being used for the fair project. At times a total of over 80 Neuberger employees were involved in the fair project which corresponds to about one-third of the entire staff. The site manager, Mr. Wolfgang Franke, has been on site as the contact partner in order to optimize the overall course of work.

"Consequently we are also taking the first steps to realize the change to the new software generation EPLAN Electric P8. This will allow us to carry out uniform project design and data management from the very first entry to the documentation and subsequent maintenance of the systems. Still, only one-time entry is necessary in order to view the data in any mode. The same applies to changes since modifications are updated automatically in all the representation types."

"We supported EPLAN Software & Service from the very beginning in the continued development of the electrical CAD/CAE system," reports Mr. Hans Sindel.



“The new EPLAN Electric P8 software solution allows us to optimize instrumentation and control planning even further, since graphical editing through system layouts is now also possible.”

The changeover to the new EPLAN software generation has begun

SUMMARY

The first Electric P8 installation was carried out at the beginning of 2007. Neuberger is changing over to the new EPLAN software generation on a project basis. Initial experience will be gained through smaller projects, since the ability to continue to use the existing data such as the central macro libraries is a necessity. The Neuberger employees expect further advantages from the MS-Excel® interface of EPLAN Electric P8. This makes it possible, for example, to modify cable lists on a laptop directly on site and transfer them later on to the project revision and system documentation. According to Mr. Gerhard Friedel EPLAN's Schematic Generator opens up further application potentials to be taken advantage of in the future.

Find out more about Neuberger on www.neuberger.net

EPLAN your **e**ngineering



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

Published in 2007

www.eplan-your-engineering.com