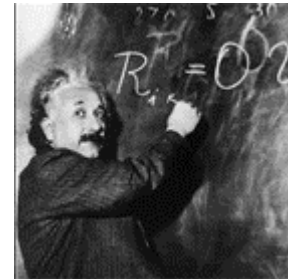


The new system of building and alarm management at the ETH Zürich

Since July, 1st, 2001 a new system of building and alarm management has been used in the divisions "security" and "buildings" at the ETH. (Eidgenössische Technische Hochschule Zürich = Swiss Federal Institute of Technology Zürich)

The Federal Institute of Technology Zürich was founded by the Swiss government in 1854. More than 7500 people work in teaching, research and administration. Current statistics of the ETH show 11700 registered students. Between the former professors and graduates one can find Nobel Prize winners like Wilhelm Konrad Röntgen and Albert Einstein.



Technical facts

The ETH has 5 sites in Zürich, with more than 220 buildings. There are 11 building divisions, 2 alarm centrals, 3 engineering stations and 12 operating stations.

Background

The aim of the project was to create a transparent and a strong basis at a long-term that

- meets the requirements and demands of a modern building automation and security systems in an economical way
- allows an efficient and aim orientated integration of new and renewed installations and buildings
- supports strongly the attainment of energy targets
- allows to improve the comfort in the rooms
- is able to react in a flexible way on changes and extensions in the future



The solution

The chosen SCADA product Wizcon disposes of the following functions required of building management:

- Client/ Server structure
- A great number of interfaces and drivers that can be used for the connection with subsystems (e.g. Sauter Ey2400 and Ey3600, Cerberus)
- Integrated WEB interface, i.e. pictures, diagrams, alarm lists and protocols are completely available on a standard browser

The requirement of a modern alarm management can be met with the integrated extension ALERT:

- Complete integration in "Wizcon", i.e. alarms are generated dynamically
- Triggering of alarms can be configured on a printer, pager or by voice, fax or e-mail
- Tasks can be defined for function groups and user groups
- Alarm treatment is generated automatically corresponding to the on call schedule
- Alarm tables can be generated adapted to the user

ALERT manages more than 25000 alarms in the following 11 building divisions: air-conditioning system, ventilation system, heating system, cooling system, sanitary system, electric system, fire fighting system, lighting system, security system, transport system and measurement.

The new alarm central on the site at Höggerberg disposes of the corresponding ergonomic and functionality that are necessary for an efficient alarm treatment and an alarm controlling and management.

The alarm central Höggerberg is responsible for the alarm management on site, in the city centre location and in the other 3 locations. At Höggerberg, during 24 hours and 365 days a year and in 3 shifts, there is at least one person present in the security division. The main tasks of this staff is the treatment of alarm and defect messages and the telephone service out of office hours. If the site in the city centre (where is located the second alarm central) and the other locations are not manned (at night and during the week-end), ALERT triggers the alarms via the alarm central at Höggerberg to the concerned operators. Thus, they can see the situation clearly and intervene, if required. The ALERT software supports the operators with its defect statistics, automatic intervention mechanisms and its logbook.

Flexibility by open integration of installations and projects after the end of the contract

At the ETH Zürich, installations or complete buildings are renewed and new buildings are constructed regularly. Thus, the engineering of buildings and security has to be integrated in the management of buildings and alarms which is possible with the new system.

The realization of the new building and alarm management system at the ETH Zürich by the companies :

SCADA SOFT AG (www.scada.ch) and SAUTER AG (www.sauter-controls.com) has taken place in co-operation with the ETH computing and communication division.