

Retrofit facility control system

ICS fit[®] PCS

PROJECT STORY

CUSTOMER PROFILE

FFB-Group (Jowa) is part of Migros Industrie, operates regional bakeries and is one of the most important food producers in Switzerland.

STARTING POSITION

The Jowa plant in Ecublens (VD) is being modernized on an ongoing basis. Part of this modernization includes the replacement of the facility control system as well as the partial replacement of some building and HVAC control systems. The previous system collected and processed data from 15 PLCs from different suppliers, which communicated with the central PC via Profibus. A total of approximately 2000 data points were transmitted and processed in the facility control system.

The customer has pushed for a replacement of the described system for the following reasons:

- replacement of obsolete hardware
- new network and IT structure
- visualization of the recorded values, historically
- simplification of operation
- visualization of the captured values
- integration of local stand-alone HMIs via VNC or Smart@ccess
- new PLC substations instead of direct I/O connection
- uniform interfaces for data exchange with substations
- improved support

In addition to the functional requirements, customer independence in expansion was desired. The aim was to design a system that the customer could maintain, configure, and expand autonomously in the future.

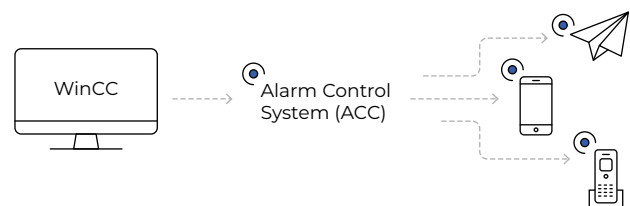
After the retrofit, the customer is able to perform the following expansions:

- integration of additional control systems
- definition of alarm classes
- configuration of alarm rules
- creation of additional trend curves
- alarm suppression for maintenance shutdowns

CONCEPT/SOLUTION

The system is based on Siemens WinCC and has been extended with an Alarm Control Center (ACC):

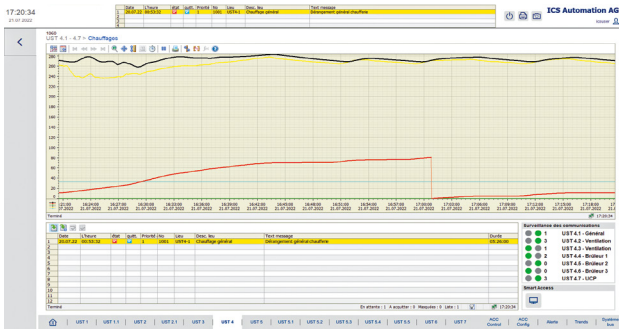
- integration of the various PLC systems
- central storage of curve data
- central storage of alarm data
- integration with the ACC alarm server
- central user management



Information everywhere
and at any time

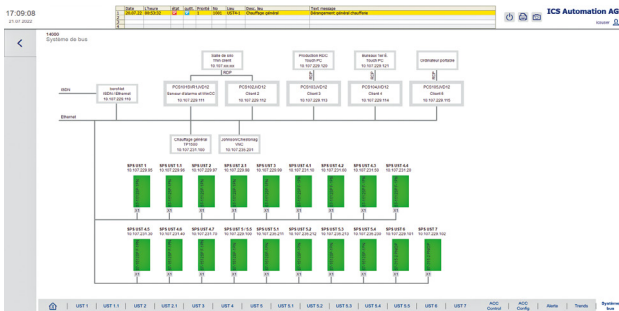
Scope of supply:

- 18 PLC systems (substations)
- 5000 historical data points
- >20 trend-pictures (configurable)
- 5 virtualized clients
- multiple alarm and message groups



The main challenges for the replacement were:

- configurable alarm system
- alarm types via SMS, email, etc.
- integration of various control types
- implementation of an unified interface
- new network topology (Ethernet)
- short time window for project implementation
- short time window for commissioning
- unknown scope at project start



PROJECT PROCEDURE

The project started with a visit on site to record the existing system, the installed hardware as well as the wishes and needs of the operators. True to the philosophy of ICS, the focus of the project was not only on replacing the system, but also on improving and simplifying it.

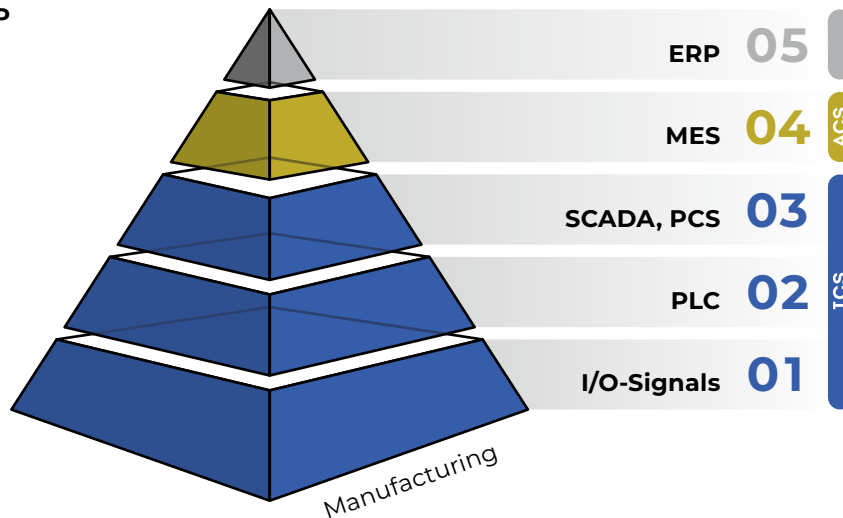
The information gained during this visit allowed us to optimize the system during the specification phase together with the customer. This step was important to bring the different requirements into a scalable and uniform form. This in turn allowed us to develop a system during the engineering phase that is prepared for future expansions. This enables the customer to maintain the system independently and self-sufficiently.

The subsequent commissioning in Ecublens was successfully carried out and completed within a week, thanks to the good preparation and the excellent teamwork of all involved.

CUSTOMER BENEFITS

- modern and innovative facility control system
- freely scalable
- simple and efficient operation
- historical data available
- improved monitoring and system overview
- display of all relevant information
- display of relevant data for maintenance
- 24/7 support for the entire plant

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