

## Retrofit fermenting system

### ICS fit<sup>®</sup> HMI

#### 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

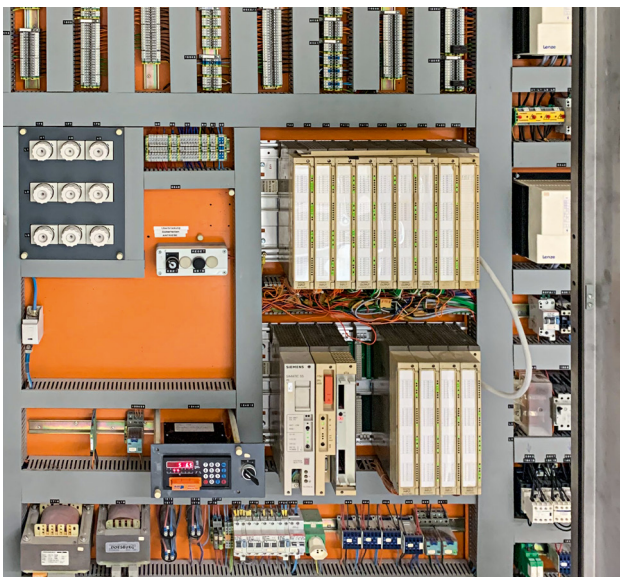
Over the last few years, ICS Automation AG has had the privilege of carrying out retrofit projects for various Jowa locations on their bakery lines. The aim was to replace obsolete control hardware on plant components such as the fermenting systems or oven, to modernize the process and operating concepts or to upgrade certain safety functions.

ICS Automation AG was selected to implement one of these retrofit projects for the Jowa plant in Volketswil. The control system and the electromechanical equipment of the fermenting system of the bakery line L116 were outdated, hardly available anymore and therefore a risk for the production. The discontinued products ranged from Siemens S5 hardware, operator stations with push-buttons and 7-segment displays to hardware PID-controllers, servo motors and drive systems.

#### REQUIREMENTS

In addition to restoring production security, the customer focused on the following requirements:

- adoption of functions, recipes, etc.
- introduction of a uniform and familiar programming and operating concept
- functional and safety-related extensions (interlocks, etc.)
- replacement of the Siemens S5 components by S7-1500 components
- replacement of the main operating system with TP1200
- installation of new safety circuits
- replacement of the frequency converters
- replacement of the servo inverters, motors and cables
- reuse of existing power sections
- refurbishment, installation & commissioning within 7 days
- operator training with production support
- 24/7 support with remote access



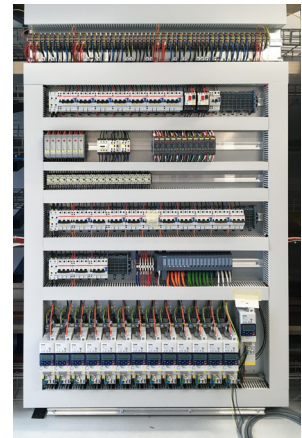
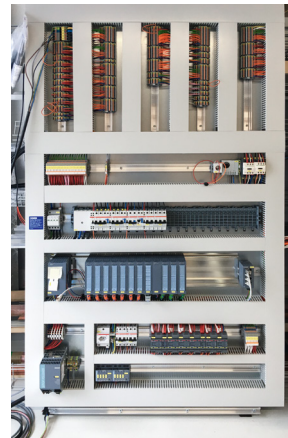
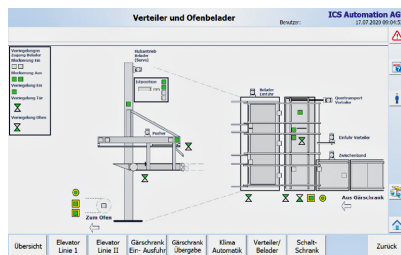
## CONCEPT/SOLUTION

- new control components built into existing cabinets
- new bus system for Siemens PLC S7-1500 and HMI TP1200 Comfort
- new bus system for decentralized I/O nodes ET200SP, servo drives and various devices
- control, operation, user administration, parameter management, etc.
- recording of process parameters and relevant process values
- recipe transfer to other sections of the plant
- user guidance in case of errors
- import/export data interface for recipes, temperatures, etc.
- new PLC software for additional process monitoring
- separate hardware controllers replaced by integrated software controllers
- separated safety circuits brought up to date: 2-channel version, restart safe-guarding
- all equipment relabeled
- electrical schematic newly created on CAD
- remote access via VPN

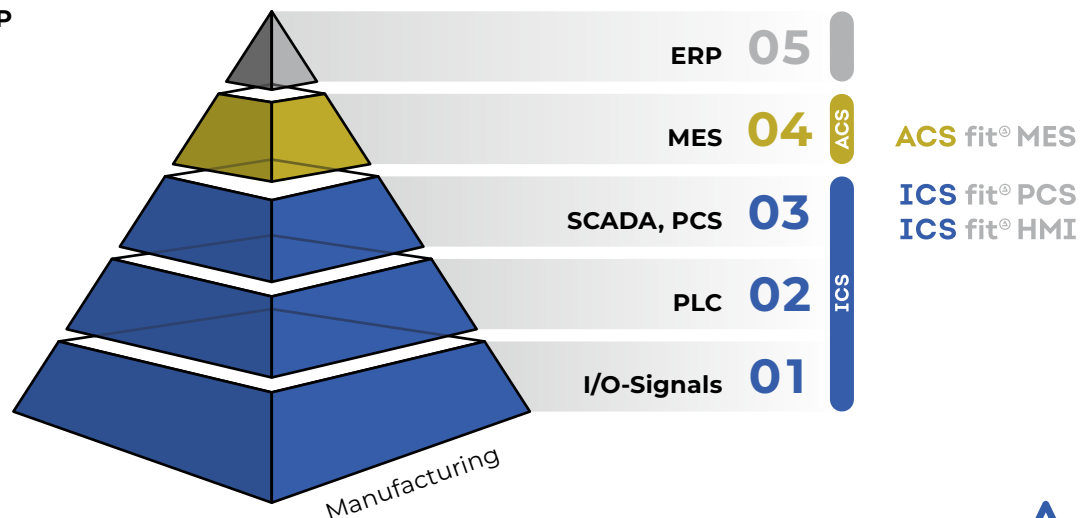
## Process reliability and efficiency

### CUSTOMER BENEFITS

- secure and reliable production
- readiness for delivery ensured
- safe, state of the art plant
- easy operation
- historical production data available
- data transfer to other systems
- more efficient error analysis
- reduced hardware dependency
- smaller stock of spare parts
- simplified maintenance at lower cost



## ONE-STOP-SHOP



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