

## Seamless integration solution

The brewery that is market leader in the global wheat beer sector has a history of success that is continuing to unfold. In addition to concentration on high quality and a clear brand image, Erdinger is investing in intelligent solutions to improve plant efficiency. As a result of continuing cooperation with ProLeiT, upgrades and modernizations are being implemented in the best possible way.

### According to the motto

„Think global-act local“, the Erdinger Weissbräu private brewery is represented in the form of a closely linked sales network and partnerships in just under 60 countries and produces more than 1.4 million hl of beer every year. Erdinger has achieved these positive results by balancing tradition with innovation. An important step is that since 1990, plant control has been implemented using modern, computer-based systems.

### Software for all plant sections

Erdinger Weissbräu fared very well with the OS 155 process control system installed in 1990. Now it became necessary to change over to a more sophisticated platform. The modular brewmaxx Liqu iT system from ProLeiT in Herzogenaurach/Germany, covers all plant sections in an integrated way, from the control layer to the operational layer to the production layer and the ERP (Enterprise Resource Planning). The new version is setting benchmarks in particular in relation to real-time production data acquisition and process management. Linking in of existing systems takes place as standard via Connect iT. There have been successive replacements of automation systems with the modern process control system in Erding. It was possible to upgrade the components based on Simatic S5 to brewmaxx Liqu iT without any problems. Control of the building services management system with the areas of high-bay warehouse, ventilation facilities and CO2 unit were integrated into the new brewmaxx system in a standardized way in close cooperation with the company Wiessner, based in Bayreuth/Germany.

### Cost-effective renewal using migration

When migrating the brewhouse, fermenting room and storage cellar, an emphasis was placed on retaining the existing control software including the TF 55 system software as far as possible in order to avoid a complete reconceptualization of the plants. Linking of the existing Simatic S5 controllers to the new system was realized as in the predecessor project via Sinec H1 and the PLC code was reused. In order to be able to utilize the advantages of the database-based recipe administration and the corresponding standard interfaces of brewmaxx Liqu iT, class handlers were developed for all modules of the technological functions (TF 155), which enabled linking of the existing S5 programs to the new structures of the brewmaxx process control system. In this way it was not necessary to make any changes to the PLC control program. The complete parameterization (including the

**INFO**



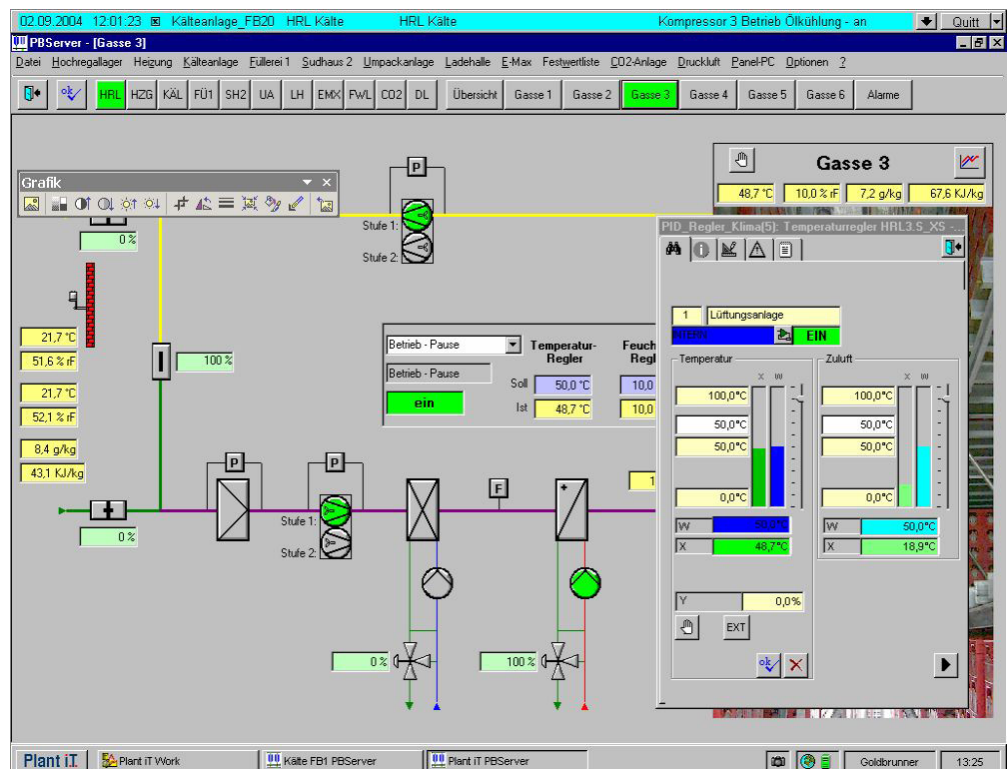
**Company:** Privatbrauerei Erdinger Weißbräu  
Werner Brombach GmbH

**Sector:** Breweries

**Location:** Erding

**Country:** Germany

recipes of the existing system) was transferred. This avoided the problem of a complete restart and saved time and costs.



Wiessner software module, integrated into brewmaxx Plant iT (class PID climate closed-loop controller)

# application profile

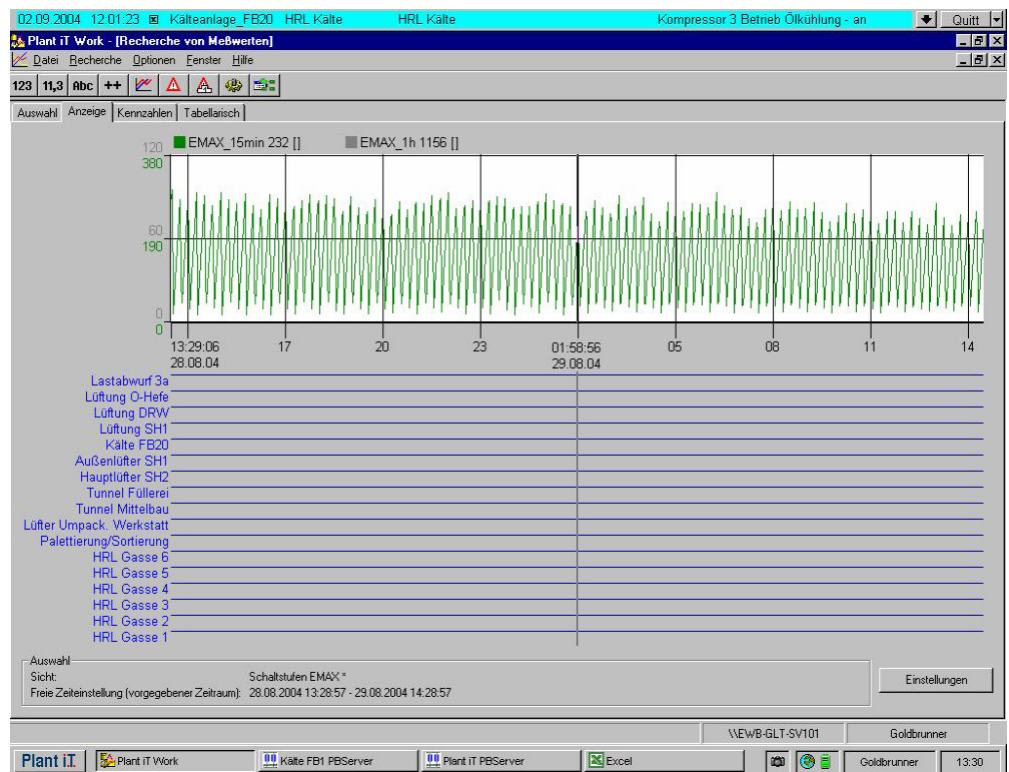
Breweries // Erdinger Weißbräu

## Integration of the building services management system

A new concept for creating synergies in the industrial sector was developed in the course of the close cooperation between ProLeiT and Wiessner (a leading company in the field of climate technology) during the Erdinger project. The idea was very simple: the specialists integrated the installed ventilation and climate technology into the operator control and monitoring interfaces of the brewmaxx process control system as separate modules. It was helpful that the design could be based on a joint system platform with Simatic controllers. By implementing new classes, which optimally cover the requirements of closed-loop functions in the ventilation and climate technology, it was possible to avoid proprietary interfaces to the superimposed process control system. Also, with the sector-specific knowledge of the project partners encapsulated in standardized software modules, it was possible to realize an integrated automation philosophy from production to the auxiliary plants and the building services management system.

## Intelligent peak shaving

As a direct consequence of this bridging, it was possible to incorporate intelligent peak shaving into the process control system, comprising all relevant power consumers of the Erdinger private brewery. In the event of power peaks, there is an automatic load cutoff so that an optimized energy balance is achieved with considerable power cost savings as well as a clear increase in productivity. Assignment of the individual aggregates to different cutoff levels determines in which sequence these are cut off in the event of a rise in power consumption to above a defined maximum value. Manual blocking of individual aggregates ensure that the intelligent power controller does not unintentionally disconnect currently required components. An uncontrolled switching on and switching off of individual machines, as could occur at the threshold in the event of the maximum permissible overall power intake, is avoided after cutoff by means of parameterizable cutoff conditions such as minimum runtime and minimum down-times. The basis for the peak shaving forms an automatic and reliable logging of important data such as power consumption and runtime of an aggregate. All measured values, switching cycles, fault messages and operational messages are displayed and can be evaluated in graphical and tabular form using simple tools.



Graphical processing of consumption data for intelligent peak shaving

## Fit for the future

At Erdinger, this investment is viewed with delight in terms of its positive results and thought is already being given to the next steps. Against the background of upgradeability of the brewmaxx system platform, for example by means of a link to the internal ERP system, this Upper Bavarian wheat beer brewer has the possibility of further options to secure competitive advantages in the future. For it is the integration of the data flow from production to the commercial world in particular that opens up future potential for savings.