

Case Study

WATER TREATMENT PLANT ERLANGEN

Erlangen, Germany

Branch

Energy & Utilities

Project

Modernization of the control room with a WEYTEC work-place and visualization solution



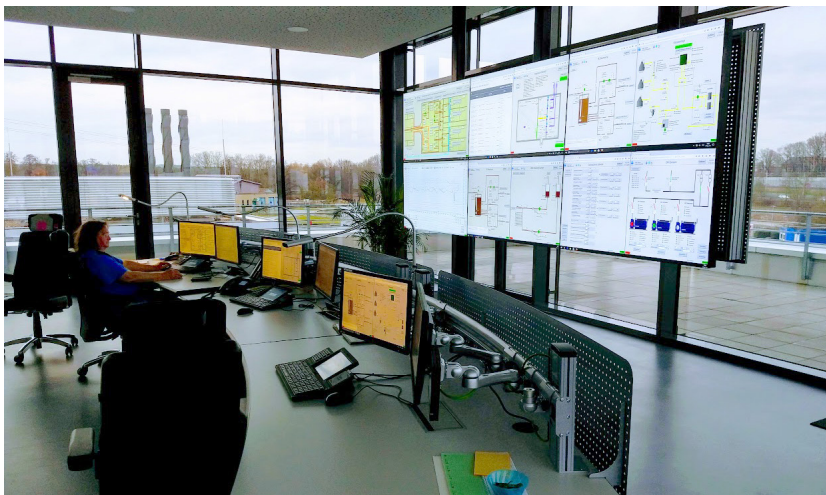
Source: Stadt Erlangen



Client

The city of Erlangen's modern sewage treatment plant (Klärwerk Erlangen - EBE) is located north of the metropolitan area between the Regnitz River in the west and the A73 motorway in the east. In addition to serving the 112,000 inhabitants of the city itself, approximately 50,000 additional people and commercial enterprises in the surrounding area are connected to the Erlangen sewage treatment plant.

The Erlangen plant practices environmental protection by continuously paying careful attention to ecology and sustainability. Ongoing modernization projects have reduced the plant's own electricity requirements and increased the proportion of electricity generated in-house to 95% in 2019.



Control room of the sewage treatment plant in Erlangen

Challenge

Three state-of-the-art workplaces were needed for EBE's control room operators. The customer wanted to remotely house computer systems in a secure technical room in order to protect and cool them efficiently. With the new solution, all workstations should be operated comfortably and securely using a single keyboard and mouse per workplace. The computers' graphic output signals needed to be displayed on workplace monitors as well as a large new video wall.

Solution

Workplace Operations

All six computers, four of which are WEYTEC ultraFLEX miniPCs, that manage the wastewater treatment plant systems are connected to the WEYTEC distributionPLATFORM solution. They are operated via a single multifunctional WEYTEC smartTOUCH keyboard at each operator workplaces in the new control room. Video outputs are switched to any workplace monitor or the large video wall, simply by pressing a key. There is no need to install drivers or make any physical interventions on the computers whatsoever. Three workplaces are each equipped with two FullHD resolution monitors. WEYTEC IP Remote KVM Receivers deployed at the



monitors enable the operation of the connected computers and the flexible display of their graphic signals.

Large Video Wall Visualization

A large video wall with six (3x2 arrangement) 55" LCD large screen monitors in the control room provides a structured visual overview of the wastewater plant's management systems. The graphic controller connects to four WEYTEC IP Remote KVM Receivers and presents eight video streams to the video wall. The images can be displayed simultaneously in freely scalable and positionable windows anywhere on the video wall surface. Multiple predefined video wall scenarios are activated quickly and comfortably using presets on the WEYTEC smartTOUCH keyboards.

Benefits

WEY Technology has provided the Erlangen wastewater treatment plant with a modern and future-proof solution which meets all its operational and visualization requirements from a single source. It was important to EBE that WEYTEC develops all the system components in-house and is fully equipped to respond to customer-specific needs. Operating the WEYTEC distributionPLATFORM solution with WEYTEC smartTOUCH keyboards has significantly simplified operator workflows in the control room. The entire project was realized in close cooperation with Elektro Hofmockel from Rohr.

Facts & Figures

WEYTEC distributionPLATFORM

- 3 operator workplaces
- 6 PC sources
- 6 WEYTEC IP Remote KVM Transmitters
- 1 WDP switching fabric

Small Form Factor Computers

- 4 WEYTEC ultraFLEX miniPCs

Workplace Optimization

- 3 WEYTEC smartTOUCH keyboards

Control of the video wall

- 4 WEYTEC IP Remote KVM Receivers
- 1 WEYTEC I/O RS232 Card

Control of large screen monitors

- 3 WEYTEC IP Remote KVM Receivers