Industrial Raw Water Treatment

Raw Water Treatment Plant BRADLEC

ŠKO-ENERGO is an operating company established in 1995 that supplies energy and a broad range of services such as raw water treatment and waste liquidation for the company ŠKODA AUTO, a.s. ŠKO-ENERGO is also a supplier of heat for 12,000 homes and more than 200 business entities and institutions in the city of Mladá Boleslav in Czech Republic.

In 2013, ŠKO-ENERGO installed a new control system in the water treatment plant in Bradlec incorporating latest trends in the field of operators control.

On the visualization level, the customer required a secure and flexible SCADA system with advanced visualization based on vector graphic providing for flexible scaling as requirements increase. The HMI was installed on operators PCs as well as on iPad that is used as a mobile operator’s panel in field.

To get the maximum use of the plant production data ŠKO-ENERGO required remote 24/7 access, data logging, trends analysis & reporting, complex alarm system and online data acquisition. All these requirements were met by installing one single device – mySCADA Box 3G into the control system.

HARDWARE PARAMETERS
- Dual core 1.0 GHz CPU (Cortex A9 with ULP GeForce GPU)
- 512 MB DDR RAM, 1GB industrial NAND Flash
- up to 3x10/100 Mbit Ethernet interface
- up to 4xRS232 and 2xRS485 serial ports
- micro SD card
- 3G/4G modem with dual SIM option
- 12-48 VDC
- Industrial temperature range on request

mySCADA Box
- advanced HMI interface
- multiple PLC protocols
- data logging up to 28 mio of records
- complex alarm system
- trends, reports, data analysis
- secure user access
- visual programming
- box side scripts
- integrated secure web server
- advanced routing options
- 3 types of VPN tunnels
- remote access
- integrated 3G/4G modem
- CISCO VPN compatible

www.myscada.org
RESULT

The core parts of the new control system are the controller Siemens S7 1200 and mySCADA Box 3G. The plant system visualization created in the software mySCADA Editor runs on mySCADA Box and supports the operating personnel on all levels with clear and panoramic views. The operators PC connect remotely via web-browser, iPAD runs native mySCADA application, which connects directly to S7 1200.

The integrated mySCADA Box 3G met all requirements of the customer. The plant operating personnel is supported by the modern scalable SCADA system enabling effective data processing that is deployed on mobile iPads as well as on operators PCs at a remote office. The required production data can be retrieved on request at any time from anywhere and used to make the right management decisions maximizing production efficiency, saving redundant costs and guaranteeing the water quality criteria.
Energetics – Power Supply

This screen monitors the status of energy circuits and its individual parts.

Views

This screen monitors the status and temperature of water inflow, and the status of T1 and T2 transformers.
OPERATORS’ ACTIONS

All operators actions are logged into mySCADA Box and can be retrieved at any time.

DYNAMIC ALARM LIMITS

On this screen the operator can set the upper and lower bound alarm limit values. Changes are reflected in real-time.