Svendborg International Maritime Academy (SIMAC)

Education

Denmark

SCADA courses using IGSS software

The Academy consists of two faculties. The one faculty is responsible for training marine engineers and navigators. The other faculty is responsible for planning and running specialized courses. These are directed at marine engineers, engineers from technical schools, electricians and similar trades. The Academy uses IGSS when training students in the use of SCADA systems.

Course description

- SCADA terminology
- Network solutions in modern SCADA plants
- Sensors and actuators
- Electrical connections, documentation and functional test
- Controllers (PLCs) and object oriented programming in the SCADA environment
- OPC and the graphical mimic (SCADA and SCADA programs)
- Remote control in a client / server solution
- Alarm handling
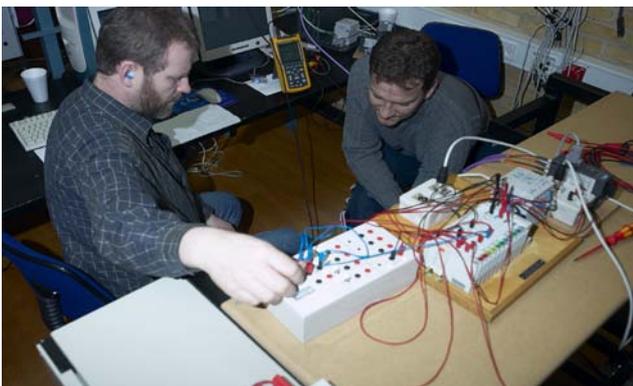
CUSTOMER CASE

Description of knowledge gained by a student

- The SCADA plant's various components are explained from sensors to on-screen display
- Theory and procedures regarding SCADA setup are presented and practical exercises are undertaken afterwards with the addition of various modules.
- Setup is a realistic copy of a plant in which various connections to the PC are used.
- Functional test and troubleshooting in the SCADA plant is somewhat difficult at the beginning, but practice quickly leads to solid routine.
- The entire 3 day course was planned simply and practically and resulted in me gaining a surprising amount of knowledge.
- On the basis of a simulated task from the process at a district heating plant, a script had to be written which controlled a process component.
- The script executed in a module which also handled alarms through a GSM modem and cell phone. The module is called WinPager. I saw how SMS messages automatically were sent with text information selected by the operator himself for each alarm instead of simply sending a code.
- Data security for a SCADA system with remote control via the Internet was carried out to see a practical demonstration of advantages – the individual students took over each others' simulated plant to test remote monitoring and control.

Some of the courses offered at SIMAC:

- The PLC in machine control
- PLC, Profibus and OPC/SCADA
- SCADA plants
- Control in SCADA plants
- SCADA for decision makers

More information is available on SIMAC's website by selecting English version: www.SIMAC.dk
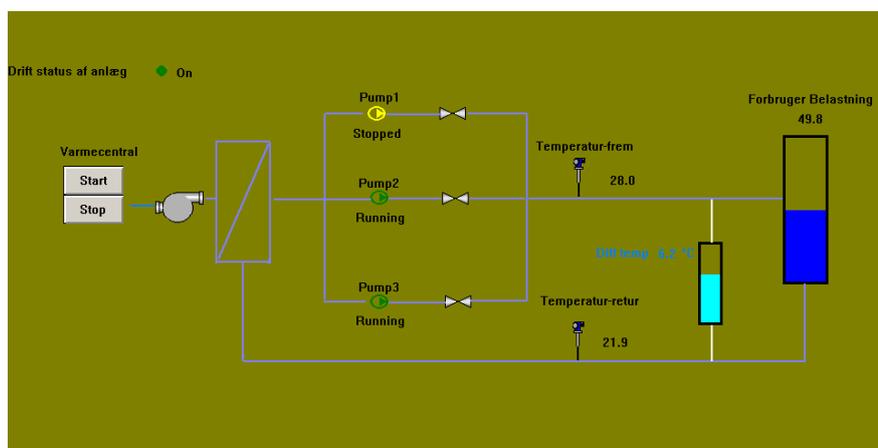
Example of a process screen designed in IGSS during the course