



Completely Integrated Solutions
for the Water Industry

SIWACIS PLAN TRAIN

Computer-Supported Operator
Training for Improving Plant
Reliability and Reducing Operating
Costs

Your Success is Our Goal

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Industrial Solutions and Services

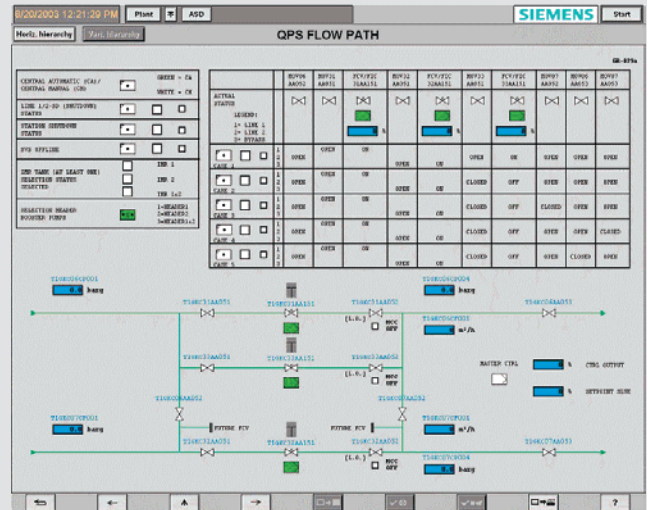
The SIWACIS PLAN TRAIN training simulator prepares the operating personnel of water pipelines and networks for the handling of the most varying thinkable plant states simulating extremely realistic operating conditions. SIWACIS PLAN TRAIN combines the detail-accurate simulation of the SCADA operating interface with a dynamic model of the respective plant's hydraulic and automation.

The challenge

With the SIWACIS PLAN TRAIN training simulator, operators are trained on the operation of the SCADA system (Supervisory Control and Data Acquisition) already before practical application. Within this context, the training process can be carried out in parallel to ongoing operation without any disturbances. New personnel is trained rapidly and effectively and extraordinary operating states can be safely practiced before their actual occurrence.

This way, SIWACIS PLAN TRAIN helps to sustainably safeguard an optimum operating performance under all possible conditions.

SIWACIS PLAN TRAIN combines an operating interface, which has been precisely based on the real SCADA system, with a dynamic model, which both represents the respective plant's hydraulic as well as automation. This way, users of the training simulator can experience using a realistic SCADA system to operate the plant. Within the scope of such training, an extremely realistic simulation of the most varying plant states of daily operation is facilitated offline.



Five good reasons for SIWACIS PLAN TRAIN

- Effective, reality-oriented training of the operating personnel improves the plant's operational safety
- A targeted practicing of predefined fault scenarios improves supply reliability
- Improved plant understanding helps to reduce operating costs
- Advance tests and automation functions facilitate an efficiency-optimized commissioning
- Easy and modular extension option with further SIWACIS products

SIWACIS
Completely Integrated Solutions
for the Water Industry

Industrial Sector Services
Industrial Sector Applications
IT-Applications
Energy, Drives, Automation

Water Quality
Supply and Transportation
Mechanical Treatment
Biological Waste Treatment
Chemical/Physical Treatment
Filtration
Disinfection
Treatment of Sewage Waste

Our solution

The SIWA^{CIS} PLAN TRAIN training simulator very realistically simulates both the hydraulic behavior of the respective drinking water supply plant as well as all essential functions of the applied automation technology. During simulation, the operator can implement all actions just as with a real SCADA system. The realistic simulation of operational control is supported by the use of operating images, which correspond to the real SCADA images. The control of aggregates is realized with the help of faceplates derived from the real system. The pressure and flowrate values are realistically calculated for all aggregates, from pumps, to valves, to pipe segments. Furthermore, the system dynamically simulates tank filling levels. With the reality-oriented implementation of the varying plant states, the simulator offers an optimum preparation of the operating personnel for actual practice requirements. Even critical situations can be better mastered after the simulator training and lead to a decrease of supply reliability impairments.

Configuration support

Beside the option of plant simulation for training purposes, SIWACIS PLAN TRAIN facilitates a project-accompanying engineering of automation solutions. On the basis of this, all functions can be developed, tested and accurately coordinated between the operator and the technology partner before the configuration phase.

SIWA^{CIS} – Completely Integrated Solutions for the Water Industry

As a comprehensive industry-specific solution for the water industry, our SIWA^{CIS} product family integrates all the products and services you need for sustained maximization of your plant's performance.

For each particular task, a solution has been defined that

- **horizontally** improves all production processes – from the preparation of drinking water to environment-friendly wastewater disposal
- **vertically** integrates the company's information flows end-to-end, helping corporate management to make better-founded decisions
- and **chronologically** lowers operating costs and provides lasting security and economic efficiency – for example with the SIWA^{CIS} PLAN water management solutions and our life cycle services.

Due to this unique combination of horizontal, vertical and life cycle dimensions, our solutions all carry the genes of an exhaustive and sustained plant productivity in their very core.

For More Productivity. More Performance. More Power.
Completely Integrated Solutions from Siemens.

The first step is a simple approach which is followed by gradual automation. Within this scope, the logical correlations can be verified and, if required, corrected at all times. It is thereby ensured that all automation functions actually comply with the predefined requirements before initiation of the actual configuration.

SIWA^{CIS} PLAN – the modular water management system

SIWA^{CIS} PLAN is a water management system with modules for the optimization and simulation of drinking and waste water plants. Thanks to its modular design, SIWA^{CIS} PLAN offers individual solutions for drinking and waste water plants.

For example: SIWA^{CIS} PLAN OPTIM calculates the optimum operating plan for all pumps and tanks of a supply system and is perfectly integrated in the SIWA^{CIS} PLAN modular water management system.

It supports operators of water supply systems in sustainably reducing the operating costs of their plants and increasing operational reliability. At the same time, the plant's availability and supply reliability can be considerably increased by helping to plan an efficient maintenance program.

Particularly convenient: Thanks to its modular structure, SIWA^{CIS} PLAN offers the unique possibility of realizing the most varying combinations of comprehensive total solution approaches completely independent of the control and automation technology in use. The system can thus conveniently be adapted to the specific requirements of the respective plant operator at any time.

It is this in particular which makes SIWA^{CIS} PLAN especially efficient and broadly applicable. As existing technologies are integrated into the overall solutions, SIWA^{CIS} PLAN is a profitable investment which safeguards the value of installed technology. With its industry-specific modules, for example for operating personnel training or circuit diagram optimization for schedule administration, SIWA^{CIS} PLAN perfectly covers all important areas of the water industry.

www.siemens.com/water

SIWA^{CIS} is a trademark of Siemens AG
CIS = Completely Integrated Solutions

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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Order No.: E10001-P18-A5-V2-7600
Printed in Germany
Dispo No.: 21617 K No.: 37800
11C6075 C-IPWAT520M04 PA 04052.
Subject to changes

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