ABOUT CONSORTIUM

The consortium "RUBIN-AUTOMATION" consolidates professional experience of key specialists in the field of automated control systems.











SCIENCE AND EXPERTISE



«RUBIN»

a pool of scientists, experts, designers, practical engineers, highly skilled workers as well as specialists in various fields of expertise connected with issues of providing effective control over automation objects.



An engineering centre engaged in a wide range of projects and services from making draft proposals, designing and coordinating the project appraisal to actualizing and maintaining automated systems.



RUBIN-AUTOMATION

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CONSORTIUM RUBIN-AUTOMATION

Professional solutions – basis for development!



Water utilities comprehensive automation



Automation objects

Systems of water intake, water treatment, water supply, water disposal and sewage treatment.

-Goals of introduction

- Creating single computer-aided technology to control all water utilities objects.
- Introducing optimal water supply modes.
- -- Preventing or reducing damage from accidents.
- Accumulating statistic data for planning and forming water utilities operating modes, balancing water consumption and water disposal.
- Saving electric power, heat- and hydroresources.

System functions

- Presenting an electronic model of the water utilities to the operating-dispatching personnel with visual representation of production facilities linked to the locality plan.

- Coordinating joint operation of production facilities and performing optimal accidentfree operations.

- Monitoring and keeping the preset water supply hydraulic mode.

- Visual representation of the technological parameters values on control objects.

- Warning lights and audible warning in case of going beyond the preset parameters values and detecting equipment failures.

- Collecting, statistical processing, archiving and documenting process data and system events.

- Integrated commercial/technical accounting of resources: supplied water resources, consumed electric power, consumed water and heat resources for the company's own needs for all control objects.

 Water quality control at the stages of production, transportation and distribution.

- Automated water balance.

 Calculating engineering and-economic indicators of operating efficiency of production facilities.

- Synchronizing the system time of all system users according to standard time signals (GPS, GLONASS).

- Integration with ERP- and MES-systems of the company.

System features

- Deep integration of used software and hardware facilities results in the system lower aggregate cost, reducing labour costs of introduction, maintenance and repair.

- The system scalable modular architecture allows performing step-by-step automation of production facilities and upgrading the system.

- Cost minimization when expanding and upgrading the system is achieved by solving all tasks in one software hardware complex – 4 in 1 (Accounting + Monitoring + Control + Analysis).

- Using template solutions on production facilities automation significantly reduces the number of probable errors when commissioning new similar objects.

- Integration with any devices and other systems of collecting and processing information when using standard open communication protocols (TCP/IP, OPC, ModBus) and a large drivers library.

- Using wireless communication facilities for water utilities geographically dispersed objects: radio communication and/or GSM. There is an option of a combined method of data exchange when the radio channel is reserved by a GSM channel.

_Components_____

-- The data base servers provide data collection from local Automatic Process Control Systems, interaction of control stations AWSes, integration with enterprise management systems (ERP, MES).

- Automated workstations allow operatingdispatching personnel to visualize, document and archive data, manually enter system settings, perform remote control of production facilities.

- Microprocessor controller

DevLink-C1000 with modules for input/output of analogue and discrete signals.

- Data base servers and automated workstations of control stations are based on SCADA KRUG-2000.

Implemented projects

- - "Saratovvodokanal", Saratov

– - "Kostromagorvodokanal", Kostroma.

-- "City treatment facilities", Samara.

- - "Gorvodokanal", Odintsovo, Moscow obl.

- "Kuban water supply treatment facilities", Mineralniye Vody.

- "Gorvodokanal", Penza.

- "Vodokanal", settlement Matveevo-Kurgan, Rostov oblast.

- "Alexeevskii Saratov irrigation canal", Saratov.