ABOUT CONSORTIUM

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

- INVESTIGATION
- DESIGNING AND INSTALLATION
- MONITORING UTILITIES
- UTILITIES
- SCIENCE AND EXPERTISE
- TRAINING AND PROFESSIONAL DEVELOPMENT

SCIENTIFIC-INDUSTRIAL ENTERPRISE «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.

KRUG SCIENTIFIC PRODUCTION COMPANY

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!

Automatic Process Control System (APCS) for water disposal systems

Control objects

- Sewerage pumping stations (SPS), sewage treatment plants (STP).

Цели внедрения

- Providing accident-free disposal of waste water and rainfall run-off.
- Introducing equipment optimal operating modes.
- Accumulating statistic data for planning and forming STP operating modes.
- Saving electric power and hydroresources.
- Creating a single control centre of the water disposal system.

RUBIN
AUTOMATION

APCS for water disposal systems

RESOURCE-SAVING WATER SUPPLY

System functions

- *Monitoring and control over geographically dispersed water disposal objects.*
- *Collecting, logging and displaying technological operating parameters and process equipment status, sending data to the control station.*
- *Monitoring and keeping the preset hydraulic water disposal mode.*
- *Automated water balance.*
- *Optimizing process equipment operation of sewage treatment plants (STP).*
- *Continuous control of and recording presence of pollutants in treated waste water.*
- *Warning lights and audible warning in case of going beyond preset technological parameters limits.*
- *Subsystem of emergency shutdown devices and blocking.*
- *Providing password access to the control system functions.*
- *Optimizing usage of the equipment life.*
- *Control of pumps using frequency converters.*
- *System continuous self-testing.*

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.*
- *An option of step-by-step automation of production facilities and upgrading the system.*
- *The system users maybe connected via wire (RS232, RS485/422, Ethernet, fiber-optic communication lines, telephone lines) and wireless (GPRS, CSD, radio) communication channels.*
- *Automatic calculation of engineering-and-economic performance indicators: running time of pumping stations equipment in general per hour, per day, per month, etc. It allows timely scheduling and performing routine maintenance, preventing emergencies, increasing the equipment life time, extending time between repairs and maintenance.*
- *Documenting information on technical accounting for accounting periods.*
- *Reducing the number of maintenance staff due to introduction of automatic devices at certain objects.*

Components

- *Programmable logic controllers DevLink®-C1000 located in control cabinets.*
- *Data base servers and an operator's AWS on the basis of SCADA KRUG-2000®.*
- *Dispatcher's console on the basis of commercial furniture of ConsErgo® series.*
- *Radio modems.*
- *Cellular communication terminals.*

Implemented projects

- *"Kostromagorvodokanal", Kostroma.*
- *"Saratovvodokanal", Saratov*
- *Sol-Iletsk Municipal Multi-Activity Production Enterprise of Housing and Public Utilities, Orenburg obl.*
- *"Gorvodokanal", Odintsovo, Moscow obl.*
- *KP Astana Su Arnasy, Kazakhstan.*
- *Municipal Unitary Enterprise TU AHWS&D №2, settlement Fedorovskiy, Khanty-Mansiysk Autonomous District-Yugra*