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!

Automated dispatcher control system for heat supply company's objects (ADCS for heat supply networks)

Objects of dispatching

Control stations, steam and water boiler houses, pumping stations, central and individual heat supply stations, energy supply metering stations.

Goals of introduction

- Creating single automated technology to control modes of generation, transportation and distribution of heat energy and heat carrier.
- Introducing optimal heat supply modes.
- Preventing accidents or decreasing damage due to them.
- Accumulating statistical data to plan and establish modes of operation in a heat supply company.
- Reducing manufacturing as well as nonmanufacturing costs due to “underestimation” and excessive consumption of energy resources.

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AUTOMATION

Automated dispatcher control system for heat supply company's objects (ADCS for heat supply networks)

RESOURCE-SAVING HEAT ENERGY

System-functions

- *Presenting an electronic model of the heat supply system on personnel's automated workstations and a remote viewing display with visual representation of production facilities linked to the site plan.*
- *Visual representation of the technological parameters values (temperature, pressure, consumption, status/position of actuating mechanisms, etc.) on control objects.*
- *Warning lights and audible warning in case of going beyond preset parameters values and detecting equipment failures.*
- *Executing commands of operating-dispatching personnel on control over actuating mechanisms.*
- *Collecting, statistical processing, archiving and documenting process data and system events.*
- *Integrated commercial/technical accounting of all types of energy resources supplied and consumed, process and in-house needs among other things.*
- *Energy resources quality control at the stages of generation, transportation, distribution and consumption of heat energy.*
- *Calculating engineering-and-economic indicators of operating efficiency of production facilities.*
- *Synchronizing the system time of the system users according to standard time signals (GPS, GLONASS).*
- *Integration with ERP- and MES-systems of the heat supply company.*

System-features

- *Deep integration of software and hardware used leads to the system lower aggregate cost, reducing working hours required for introduction, maintenance and repair.*
- *The system scaled modular architecture allows performing step-by-step automation of newly introduced objects and upgrading the existing system components.*
- *Cost minimization when expanding and upgrading the system is achieved by solving all tasks in on software and 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.*
- *Operation with all known communication networks (channels), support of slow and unreliable communication channels provide:*
  - *creation of the company's common information area;*
  - *secure data reception in case of communication failures;*
  - *access to information irrespective of the user's location.*

Components

- *The data base servers provide collecting data from the local automatic process control system, interaction with control stations automated workstations, integration with enterprise management systems (ERP, MES), with the billing system.*
- *The operating-dispatching personnel automated workstations provide visualizing, documenting on-line and archival data, manual input of the system setup variables, generating remote control commands for actuating mechanisms of production facilities.*
- *The remote viewing display shows both generalized and detailed technological data information.*
- *The WEB-server provides a single access point in the Internet/Intranet network to information for the company's corporate users and services.*
- *The universal time server TimeVisor provides synchronizing the system time of the system users according to standard time signals (GPS, GLONASS).*
- *The data base servers, the WEB-server and the control centres automated workstations function on the basis of integrated modular SCADA KRUG-2000.*

Implemented-projects

- *"T Plus Teploset Penza", Penza.*
- *"T Plus SaranskTeploTrans", Saransk.*
- *"Syzran Heat Supply Networks", Samara obl.*
- *"T Plus" Ulyanovsk branch, Ulyanovsk.*
- *"Stimul", Novosibirsk.*
- *Municipal Unitary Enterprise "Pokrovsk-Teplo", Engels, Saratov obl.*
- *"Aquatorium", Krasnogorsk, Moscow obl.*