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

RUBIN-AUTOMATION
2, Baidukova Str.,
440000, Penza, Russia
Tel.: +7 (8412) 20-89-98
E-mail: 1400@npp-rubin.ru
www.automation.npp-rubin.ru

CONSORTIUM RUBIN-AUTOMATION

Professional solutions
– basis for development!

Automated system of holonic record of energy resources (ASHRER) for heating system companies

Objects of recording

- Commercial and technical metering stations recording generated and supplied energy resources (heat energy, power, cold and hot water, electrical energy, natural gas) located in production facilities of a heating system company and on the lines of responsibility with suppliers and consumers of heat energy (boiler houses, pumping stations, central heat supply stations, heat electropower stations, state district power stations, industrial enterprises, etc.).

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Automated system of holonic record of energy resources (ASHRER) for heating system companies

RESOURCE-SAVING HEAT ENERGY

Goals of introduction

- *Transparent mutual settlements of accounts between suppliers and consumers of energy resources due to their unbiased revenue metering.*
- *On-line control of the heating and hydraulic operating modes of heat supply systems.*
- *Monitoring quality of supplied and consumed energy resources.*
- *Reducing substandard consumption (losses, imbalances) of energy resources due to improving accuracy of their measurement, control over rational use of energy resources, timely detection of their excessive consumption.*
- *Eliminating shortcomings connected with manual taking and processing readings of instrument gages (nonsynchronous taking off data, a lot of time required for their processing, the necessity to keep a great number of inspectors taking off data).*

Implemented projects

- *"T Plus Teploset Penza", Penza.*
- *"T Plus SaranskTeploTrans", Saransk.*
- *"T Plus Mariy El and Chuvashia".*
- *Syzran Heat Supply Networks, Samara obl.*
- *"T Plus" Ulyanovsk branch, Ulyanovsk.*
- *"IRMET", Irkutsk, etc.*

System functions

- *Commercial and technical accounting as well as on-line control over all types of generated and supplied energy resources including the ones consumed to meet the company's own (process) needs.*
- *Presenting an electronic model of the heat supply system to the maintenance staff with visual representation of production facilities linked to the site plan as well as the description/certification of these production facilities.*
- *Visual representation of on-line quantitative and qualitative parameters values for each production facility and for the heating system company in general.*
- *Warning lights and audible warning in case of going beyond the preset parameters values and detecting equipment failures.*
- *Collecting, statistical processing, archiving and documenting records and system events.*
- *Automatic synchronizing the system time of the instrument gages included in the system according to standard time signals (GPS, GLONASS).*
- *An option of integration with the enterprise management system and billing systems.*

System features

- *Modularity (modular principle of software structure).*
- *Openness (support of open communications protocols).*
- *Scalability and replication (option to increase the system information capacity without stopping its functioning).*
- *Using specialized fail-safe remotely controlled communication channel for unreliable, slow communication channels.*
- *Arranging servers for collecting and storing data, users' automated workstations on the basis of SCADA KRUG-2000.*
- *A large drivers library for instrument gages (heat meters, gas meters, electricity supply meters).*
- *Implementation of all functions (measurement, recording, control, regulation) on the basis of a single software and hardware complex.*
- *Using certified software and hardware facilities including the ones entered in the State register of gages.*

ASHRER maybe delivered as an independent system or maybe included in the automatic dispatcher control system of the heat supply company as a sub-system.