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!

MONITORING HOUSING LIFE SUPPORT SYSTEMS

Automation objects

- Groups of buildings: shopping centres, warehouses, ports, railway stations, banking houses, large cultural

Goals of introduction

- Improving the equipment reliable performance due to checking test parameters.
- Planning the equipment optimum (economy) operation mode.
- Preventing emergency situations and their containment in case of occurrence.
- Reducing costs connected with energy supply.
- Reducing duty operating personnel.

RUBIN
AUTOMATION

Monitoring housing life support systems

BUILDING AUTOMATION

System functions

- On-line monitoring housing life support sub-systems, checking the building parameters in real time: boiler houses and heat supply stations, heat and cold supply systems, water supply systems (hot, household, fire, reverse water supply), forced and exhaust ventilation, a drainage system, outdoor lighting, etc.
- Warning lights and audible warning in case of failures of housing life support sub-systems.
- Control over fire and burglar alarm.
- Diagnostic troubleshooting of the housing life support sub-systems equipment.
- Remote control of the housing life support equipment from the control centre.
- Logging the events of going beyond alarm limit parameters, dispatcher control commands, facts of commands execution, diagnostic messages, etc.
- Reporting (automatic for a time frame or on request).
- Calculating the equipment running time to choose optimal modes.
- Monitoring energy consumption.
- Assigning rights of access to control over sub-systems to employees of different departments.

System features

- The dispatch system implies creation of the single information centre aggregating all information on housing life support sub-systems, which allows optimizing its operation.
- Control facilities and an option of remote on-line control of the equipment reduce costs connected with energy supply.
- Optimal climatic conditions (temperature, humidity) inside different premises are ensured in accordance with their purpose.
- The equipment reliable performance is improved due to:
  - checking its test parameters (e.g. temperature of pumps electric motors, etc.);
  - even load distribution in ventilation, pumping and other equipment;
  - overhaul planning taking into account the data on the equipment running time;
  - supervising the maintenance staff actions on control of the building equipment.
- The automatic mode of detecting and warning of near miss incidents allows preventing accident conditions promptly.
- Receiving emergency information from sub-systems in proper time serves to quickly contain, stop the spread and mitigate damage from life support equipment failure.
- There is no need to have a great number of duty operating personnel.

Components

- The upper level of the dispatch system is based on SCADA KRUG-2000 and includes a DB server and a monitoring station. There is an option to combine the functions of the DB server and the monitoring station at one dispatcher AWS.
- The second level of the system includes smart devices performing the functions of local automation (e.g. a boiler house ACS, a heat supply station ACS, a ventilation ACS, etc.). The information maybe sent from them directly to the DB server or to special controllers DevLink-C1000. The controllers DevLink-C1000 complete with input-output modules DevLink–A10 may perform functions of local automation when the equipment does not have its own local control system. The controllers maybe connected both via wire and wireless communication channels.
- The control station is equipped with the commercial furniture of the ConsErgo series.

Implemented projects

- Administrative facility No 1 of OJSC “Novoship”, Novorossiysk.
- Penza branch No 8624 of Sberbank of Russia, Penza.
- Aqtau international commercial port, Kazakhstan.
- ADCS of utilities of FSUE building, Novorossiysk, etc.