» Application Story «

Industrial Automation



RTSoft Developed MES System for Bogoslovsky Aluminum Plant

Bogoslovsky Aluminum Plant (BAP), the SUAL pc affiliate, which produces more than 160,000 tons of virgin aluminum from own alumina annually, traditionally pays great attention to implementation of modern information technologies. The plant management continues to determine sources for cost reduction and production quality improving due to automation enhancement in every scope of activity of the enterprise. The operational control system implementation project, realized by RTSoft CJSC, became one of the most significant factors to optimize the production activity of BAP.

The company's engineers with rich experience in automation of similar production at other enterprises carried out the comprehensive pre-project survey of BAP's processes of operational control of alumina production. As a result, the "Program of phased implementation of ASU-GLINOZEM MES system" was developed, according to which the following production processes had to be automated:

» Operational supervisory control;
» Product quality control;
» Electrical power tracking;
» Production assets control;
» Accounting balance system.

The first ASU-GLINOZEM subsystem, the "Automated supervisory control system for alumina production" (ASCS AP), was developed in accordance with non-linear structure, that provided high system flexibility and resilience. ASCS AP subsystems provide the following functions:

» Full site monitoring in the framework of APCS interface from a dispatcher's working place;
» Diagnostics and analysis of the most significant violations (alarms) of production with the help of the video frames group;
» Situational monitoring of production;
» Dynamic situational analysis of temporal values deviations using individual composed group trends and tables of mean hourly parameters;
» Problem monitoring of production, which solves buffer tanks control tasks, technological installations' mode of operation and performance control tasks, load distribution between parallel unit nodes and threads;
» Summary flow analysis, which allows to visualize a control process in the form of tables and diagrams, to evaluate the rhythm of material flows management and to form recommendations to the dispatcher on the alumina production stages performance in order to provide the execution of plan targets;
» Automated preparation of operational reports on a shift activity (reports, returns) and automated TTEI (technological and technical and economic indices) summaries generation;
» General system administration and engineering maintenance.



Figure 1: Thus, Bogoslovsky Aluminum Plant made its first and, perhaps, the most complex steps on the way of ASU-GLONOZEM MES system implementation.

About Kontron

Kontron is a global leader in embedded computing technology. With more than 40% of its employees in research and development, Kontron creates many of the standards that drive the world's embedded computing platforms. Kontron's product longevity, local engineering and support, and value-added services, helps create a sustainable and viable embedded solution for OEMs and system integrators.

Kontron works closely with its customers on their embedded application-ready platforms and custom solutions, enabling them to focus on their core competencies. The result is an accelerated time-to-market, reduced total-cost-of-ownership and an improved overall application with leading-edge, highly-reliable embedded technology.

Kontron is listed on the German TecDAX stock exchanges under the symbol "KBC". For more information, please visit: **www.kontron.com**

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