



Success Story

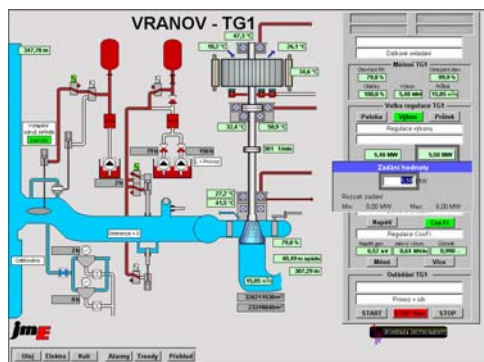
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Electricity Output



Hydro Turbines



Turbine Monitoring Graphic

Industry: Power and Energy Management

Customer: Jihomoravská Energetika a.s. (JME) Czech Republic

JME provides electricity to the South Moravian territory of the Czech Republic. Four hydro power stations are monitored and controlled by a central control station located 25–80 km away. The total output from the complete system is 33 MW. JME is owned by E.ON, a German-based power company.

ICONICS Software Deployed

GENESIS32™ is used in a redundant fashion with multiple operator stations. AlarmWorX™32, GraphWorX™32, TrendWorX™32, and DataWorX™32 are all used to bring this application together. Bohemia Instruments a.s., in Plzen, Czech Republic, was the system integrator in charge of getting the JME project running. Bohemia had their hands full with having to integrate four remote plants and bring all the data to one central command center. The project was completed on time in less than six months.

Key Features

Data are communicated to the central command center via radio modems and direction connections. GENESIS32 works as a data acquisition and data logger for all turbines. At the core of the system are two GENESIS32 servers working in a redundant manner with DataWorX32. OPC servers are used for gathering the data from Merz SAIA PLCs. GENESIS32 is responsible for the monitoring, alarming, and supervisory control for over 5,000 analog and digital points. The custom graphic screens allow operators to monitor all locations and drill into problems that require closer attention quickly and easily. Alarms can be acknowledged and logged, and set-point changes can be made in a secure and accurate manner. The command center is set up with four GENESIS32 operator stations connected to the pair of redundant GENESIS32 application servers.

Tip From the Customer



Power Plant

“This application using GENESIS32 and integrated by Bohemia Instruments created the ability to centrally control our hydro-powered electrical plants, and made production planning and historical data archiving very easy. The new system will reduce the service calls to remote locations, thereby reducing our operating cost.”

- **Stanislav Cupe, Manager of Water Hydro Operating Controls, JME**

Project Summary

DataWorX32 plays a critical role in this application by providing real-time OPC redundancy to keep JME power plants up and running. ICONICS was selected for this project due to its ability to provide this needed level of redundancy. When JME was looking for a solution to replace the Promotic Microsys system, their requirements were data redundancy, real-time alarm notification and superior graphics. JME had a need to centrally monitor and control their remote hydro power plants, and also be able to bring all power generation together.

Details

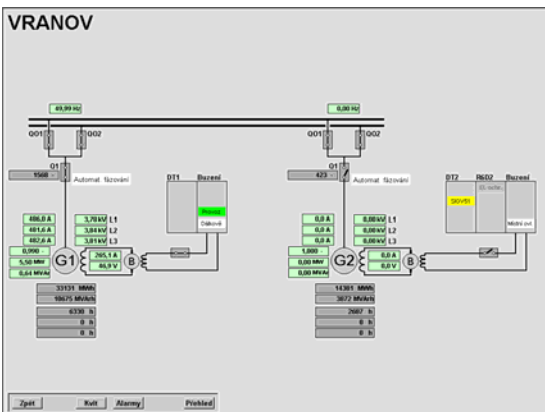
With over 5,000 I/O points to be monitored and logged from multiple locations, GENESIS32 is the perfect fit. JME's output is 33 MW spread over four remote hydro plants throughout the South Moravian territory of the Czech Republic. All turbines are monitored and controlled from the central command center, and data are logged in real-time and are passed to the central command center.

Benefits of the System

JME was able to reduce the number of trips to the remote generation plants, and they were able to have a centralized collection of all data.

Conclusion

ICONICS and Bohemia Instruments have worked closely with JME to make this project a success. JME was able to quickly see the savings, and is able to react to potential problems in real-time.



Vranov Power Plant Overview



Control Center