

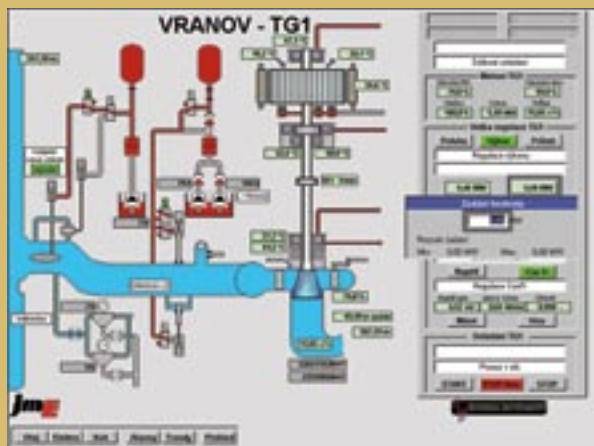


Hydro Turbines at an E.ON Hydro Power Station



Customer Success Story

E.ON Trend s.r.o. České Budějovice, Czech Republic



Turbine Monitoring Screen at E.ON

About E.ON Trend s.r.o.

As a world-wide power and gas company, E.ON is based in Germany with subsidiaries through Europe, Russia and North America.

Within E.ON's energy group in the Czech Republic, E.ON Trend s.r.o. is responsible for electricity generation and heat production and distribution mainly for households. ICONICS provides a visualization and automation solution to six of E.ON's hydro powered electrical plants in the Czech Republic. With a total output of 30 MW, the hydro power stations are monitored and controlled by a central control station up to 100km away.

ICONICS Software Deployed

GENESIS32™ V9 is used in a redundant fashion with multiple operator stations. AlarmWorX™32,

"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 Cupr

Manager of Water Hydro Operating Controls
E.ON Trend s.r.o.

GraphWorX™32, TrendWorX™32, ScriptWorX™32, and DataWorX™32 are all used to bring this application together.

E.ON management takes advantage of native remote access via WebHMI™. SOAP/XML communication protocol was used to meet E.ON's strict IT security policies.

Bohemia Instruments a.s., later Invelt - elektro s.r.o., in Plzen, Czech Republic, were the system integrators at the helm in getting the E.ON project up and running. Invelt integrated the remote plants and brought all data to one central command center in only six months time.

Key Features

Data is communicated to the central command center via E.ON's optical network. GENESIS32 works as a data acquisition and logger for all turbines. At the core of the system, two GENESIS32 servers work redundantly with DataWorX32. OPC servers are used for gathering

the data from 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 requiring 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 was designed with four GENESIS32 operator stations connected to the pair of redundant GENESIS32 application servers.

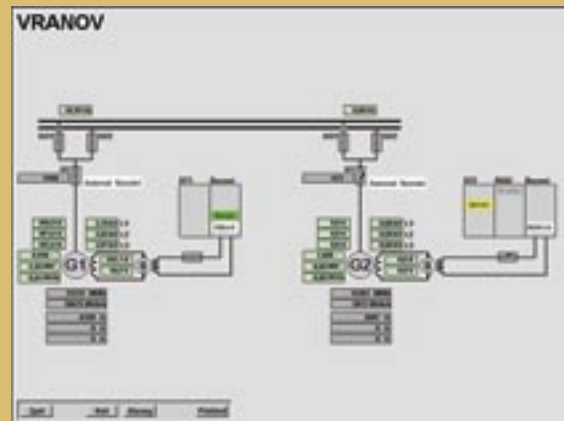
output is 30 MW spread over the remote hydro plants through the Czech Republic. All turbines are monitored and controlled from the central command center, and data are logged in real-time and are passed to the central command center.

Conclusion

ICONICS and Invelt have worked closely with E.ON to make this project a success. E.ON realized savings with the ability to react to potential problems in real-time. With ICONICS, E.ON reduces their trips to remote generation plants, and is enabled with centralized data collection.



An E.ON Hydroelectric Power Plant



GraphWorX32 Screen for Planning E.ON's Energy Production

Project Summary

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

With over 5,000 I/O points monitored and logged from multiple locations, GENESIS32 is the perfect fit. E.ON's

Product Highlight

TrendWorX™32

With **TrendWorX32's** Logger Configurator, users can log data into a database with just a few clicks. Operators can acquire thousands of data points and organize them into groups for very fast and efficient replay of historical information. Using Microsoft ADO/OLEDB technologies, TrendWorX32 Logger Configurator interfaces with Microsoft Access databases, and optionally to Microsoft SQL Server, MSDE, or Oracle.