Interactive Map Showing the City of Enid's Ames Plant
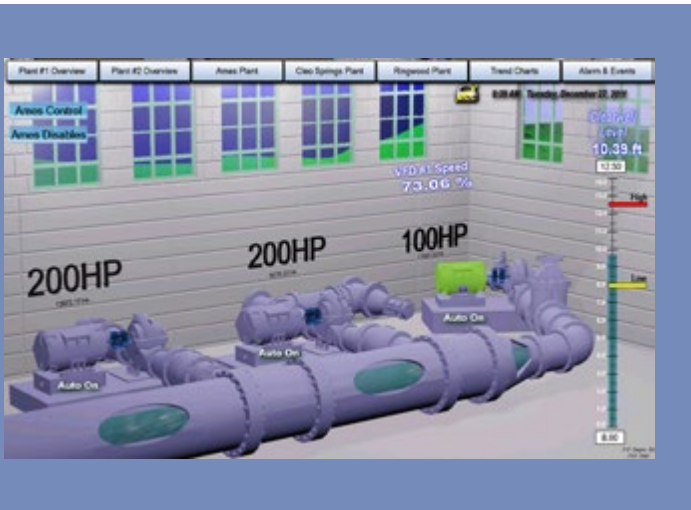
City of Enid
Enid, Oklahoma

A City of Enid Water Production Control Screen Developed Using ICONICS GENESIS64.

"(GENESIS64 is) friendly point and click set-up software with no additional help needed."

Roy Robins
Systems Integrator
City of Enid

140 producing underground water wells with 200 miles of collection lines, 23 million gallons of storage tanks, seven pumping stations and two treatment plants. The department operates seven days a week to produce safe, potable water for residential, commercial and industrial customers.

ICONICS Software Deployed

The City of Enid selected ICONICS GENESIS64™ 64-bit HMI/SCADA software, including GraphWorX™64 vector-based 2D/3D graphic design and WebHMI™ Web-based, real-time automation. In addition, they also selected ICONICS OPC Server Suite (supporting both OPC-UA and OPC-DA connectivity).
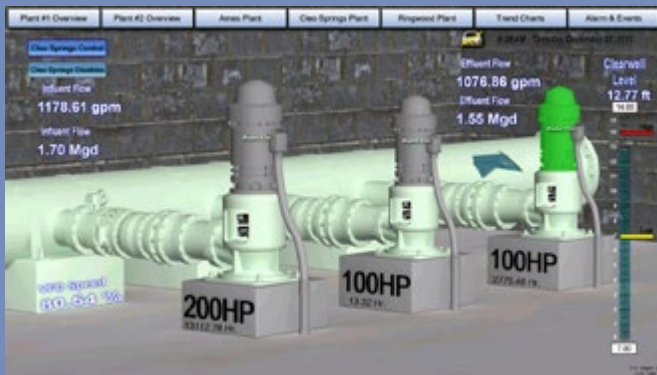
Project Summary

The City of Enid's Water Production department sought to upgrade its control system. Originally consisting of push-button controls, it evolved from an older simple one-line diagram type to ActiveX-based controls. The city considered multiple solutions, including those from several competitors, then decided upon ICONICS GENESIS32™ HMI/SCADA suite and have recently upgraded to GENESIS64.

About City of Enid Water/Wastewater

The City of Enid, Oklahoma is located 70 miles North of Oklahoma City. The city's water management services include production, distribution and reclamation. The Water Production department is responsible for "the maintenance and operation of the water collection system, and treatment plants. The water is treated, tested, metered and monitored to meet the most stringent requirements set down by the State Department of Environmental Quality, the Federal Department of Environmental Quality and the Federal Environmental Protection Agency."

The collection system serves about 50,000 residents, with an average of 11 million gallons daily and peaks of 20 million in the summer. It includes approximately

Following a 60-day development cycle, the department initially used their new ICONICS software to design and implement their new Water Production control system. The goal was to standardize on the selected software and provide an interface with ease of access for all operators. Using GENESIS64 resulted in an exact 3D view of remote stations and pump rooms. The department is also developing a new Wastewater system with their systems integration partner, Integrated Controls, which will also feature GENESIS64.
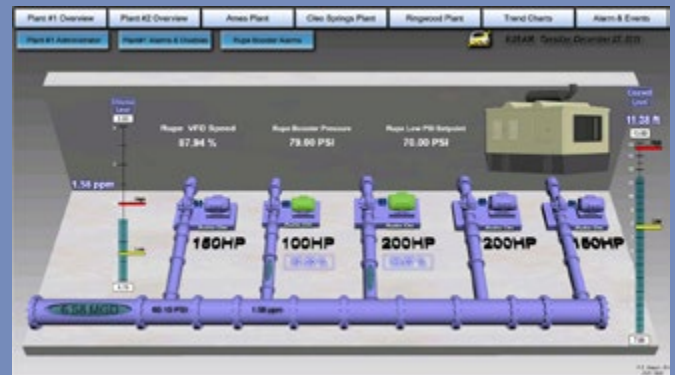
The department's new system handles over 1,400 tags in its Water Production system, which now integrates with their Koyo PLCs. The ICONICS software also

wanted HMI/SCADA software that would allow for ease of programming for their operators, which they found within the Workbench, the centralized Web-based interface that makes it easy for users to open GENESIS64 products and configure components, runtime, and security. Finally, the department wanted a solution that easily integrated with OPC technology and standards, which is handily provided through ICONICS OPC Server suite. An additional benefit comes from ICONICS WebHMI. The water control system is now accessible via a standard Web browser.

The systems integrators for the city have ultimately found ICONICS software to be truly "user-friendly" and

A GENESIS64-built Monitoring/Control Screen for the City of Enid's Cleo Springs Location

An Additional City of Enid Water Plant Control Screen

ties into additional hardware including wireless, serial and networking connections (e.g. UHF, VHF and FSK [Frequency Shift Key]). Among the Microsoft products in use are Windows Server 2008, Security Essentials and SQL Server.

Benefits of the System

The City of Enid's Water Production department saw several benefits in implementing ICONICS software. First, they wanted a solution that would integrate seamlessly with Microsoft SQL Server. Next, they wanted HMI/SCADA software that they considered secure enough for a municipal project. They also

they appreciate being able to easily design their project in-house. Future plans for the department are to expand the Water Production system, as well as integrate more Web and mobile access.

Conclusion

In the end, the City of Enid's Water Production department sought a new system that would "give the operators a smooth, graphical interface and fast, reliable and accurate data". Their upgrade to the latest 64-bit solutions from ICONICS was a fluid transition.