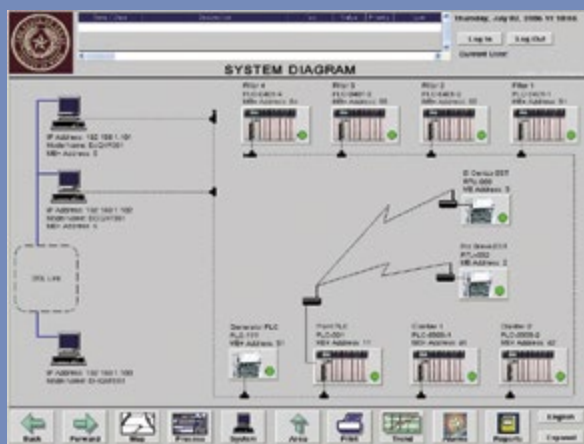




Webb County Water Treatment Rio Bravo, TX



Webb County Water Treatment Plant
in Rio Bravo, Texas



Control Systems Architecture

About Webb County Water Treatment

The Webb County Water Treatment Plant (WTP) in Rio Bravo, Texas is situated near the Rio Grande River, south of San Antonio. In order to meet population growth and to respond to rising water quality requirements, the county planned to construct a new plant and to replace the outdated, high maintenance water treatment facility. The former WTP has no computerized control or SCADA system, and operating the process equipment, water intake, and distribution systems required a great deal of time. Spanish is the native language for most of the plant personnel, and several of them were not fluent in technical English.

ICONICS Software Deployed

ICONICS GENESIS32™ suite of OPC Web-enabled HMI and SCADA applications was selected by the CH2M HILL SCADA project team and Webb County Engineers due to its language switching capabilities. During the design development time, it was the only major HMI package that included this feature, providing operators with the ability to interface with the SCADA system in either language, English or Spanish. The developed software serves to gather WTP process data, as well as monitor, alarm, present, and trend the plant information. Webb County and CH2M HILL also selected ICONICS AlarmWorX32™ MMX alarm notification software and WebHMI™ for secure remote access.

Project Summary

To meet the requirements for stringent water quality, desired water production, and efficient and economical plant operation and maintenance, sophisticated instrumentation and control and SCADA systems were required. However, as the operations and maintenance staff was largely unfamiliar with computerized control systems, the developed SCADA system needed to be based on a user-friendly, graphically enhanced, bilingual (English/Spanish) package. Equipment tags, process descriptions, and other information incorporated in the SCADA system screens needed to be switched between English and Spanish, in the runtime environment, by selecting a single button. This would ease operators' and maintenance personnel's interaction with the WTP systems.

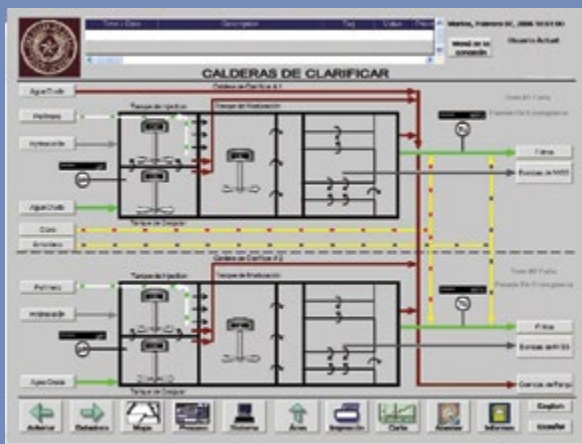
Benefits of the System

The ICONICS-enabled multi-language support is a convenience to most of the operators, maintenance personnel, and Webb County engineering and management staff that are fluent in both languages. It's a necessity for safe water plant operation for those who might not be confident in using one specific language.

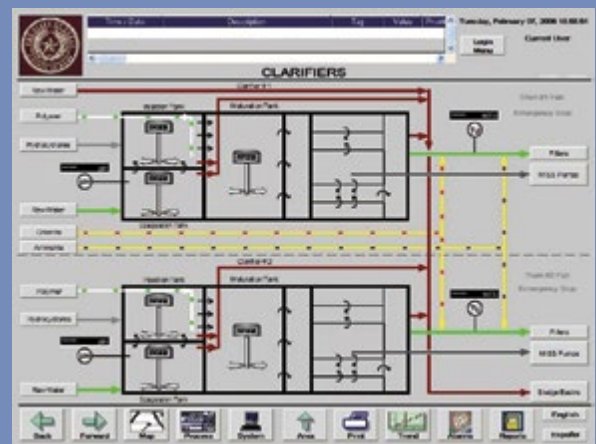
ICONICS GENESIS32 remote alarm notification, real time and historical trending, automated reporting, and secure remote access and monitoring via thin client technology were implemented to allow for ease of monitoring and operation. Webb County worked closely with their engineering partner, CH2M HILL in the

Conclusion

By employing functionality such as reporting systems, remote access to control system data, remote alarm notification, language aliasing, and having the software fully developed and thoroughly tested at the CH2M HILL SCADA lab, Webb County WTP users could quickly see the benefits of the deployed control system. In particular, by implementing the Webb County Water Treatment Plant Control System in both English and Spanish, utilizing the GENESIS 32 software, the operators were able to adapt to a computerized control system quickly and easily.



Process Control Screen at Webb County Water in Spanish



The Same Process Control Screen in English

Austin, Texas office, to ensure the smooth transition in plant operations. The development of, and adherence to, the HMI software design standards resulted in simple and clear control screens.

Case Study Details

While replacing the outdated WTP facility, Webb County Project Engineers sought specific details for the planned HMI/SCADA package including:

- Friendly, intuitive, easy to use HMI/SCADA for WTP personnel and management alike
- Multi-lingual configuration
- Language switching during runtime
- Universal features common to Water/Wastewater industry
- Alarm notification & secure remote Web access

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