



INTEWORX.NET

Application Success Story

Customer Profile

The City of Rock Hill, SC
Estimated Population:
46,218

Application

- Waste Water Treatment Facility Automated Controls

Key Benefits

- Meet Y2K Compliance Requirements
- Reduce Maintenance Costs
- Improve Expandability
- Enable Remote Monitoring

City of Rock Hill Implements New Automated Control System for Wastewater Treatment Facility

Like most of us, the city of Rock Hill in South Carolina faced the technical problems associated with Y2K. They were forced to evaluate all of their facilities and equipment to the finest detail to make them Y2K compliant. In retrospect, it turned out to be a blessing in disguise. This year, they first focused on the city's wastewater treatment facility.

The Problem

At this facility, the old system was difficult to work with and expensive to maintain. Because they were forced to make it Y2K compliant, they decided, after careful deliberation, that it would make more economical sense to replace the old system with something new rather than forcing the old system into compliance. They wanted a control system with greater I/O capacity, that was easy to update, and cheaper to maintain.

Jon White, maintenance superintendent of water and wastewater, said, "We had an existing FoxBoro I/A system and a fixed UNIX operating system that was not Y2K compliant. It also was extremely difficult and

expensive to make changes to the old control system. For example, each time we wanted to add a button to the HMI screen, we had to make a service call, and wait for assistance. In addition to the inconvenience, it would cost anywhere between \$1,500 and \$2,000. Also, we had run out of I/O points to connect new, additional equipment.

"We decided that we wanted a new system with an open architecture and was Windows-based. We really needed something that was flexible and expandable."

White said, "Our greatest challenge to install the new system was time. We really did not have the manpower to get the new system put in. We needed to find qualified people to implement a new system for the wastewater treatment facility that would fit into the overall utility design."

The Solution

To manage the project, the City of Rock Hill hired an integration firm that specializes in remote monitoring. INTEWORX.NET was called in for their recommendations and skills to implement the new controls and monitoring

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Project Team

The City of Rock Hill called upon the following sources to pull the project together:

INTEWORX.NET

- Programmed All Control and SCADA Software
- Designed the Network Architecture

City of Rock Hill

- Maintenance Crews Installed All Hardware

Products Used

Software

- Indusoft Web Studio
- Think & Do Software

Hardware

- AutomationDirect Ethernet I/O Racks
- AutomationDirect WinPLC's

system for the wastewater treatment facility.

Bill Glover, senior engineer for INTEWORX.NET, recommended that they use Think & Do software for the controls, and InduSoft Web Studio to monitor the HMI SCADA part of the new system. He said "These products would allow them the expandability that they needed, and changes would be easy and less expensive to make. Also with these products, they would have the added feature of remote monitoring of their equipment with mobile PDA's."

With the new system, even the utilities director and assistant utilities director can monitor the facilities pump valve controls, speed controls, tank levels and flow, chemical feed equipment, etc., through their PDA's, without physically being at the facility. They can also remotely control and monitor samplers. Now, the people who need to have an overview of their facilities, can check each facility's progress at

any given moment, and receive accurate information and status reports.

According to Glover, "The installation of the new system went smoothly. InduSoft Web Studio was easy to implement. We had only a few simple questions for InduSoft, in which their representatives were well prepared to answer over the phone. We were very pleased with the InduSoft Web Studio's performance."

The Results

White said, "In using the new system, our employees have found it easy to use and understand. There was very little training necessary. They have really taken to it. There have been no questions or complaints.

"The city's Utilities Director Nick Spegal and Assistant Utilities Director Jimmy Bagley plan to continue the system into a city-wide control scheme to include all of the city's utility divisions, including electric and fresh water facilities."

White concluded, "We have been happy with the new system's performance, and appreciate the maintenance savings we will gain over the years to come. We expect the system to meet our needs for quite some time. For example we increased our I/O points dramatically from 1,200 to 6,000. As we use the new control system, it continues to exceed our expectations."



Overview of Rock Hill
Waste Water Treatment Facility