



APPLICATION BRIEF : Large-Scale Wastewater Control

Centralized monitoring, alarming, and control—without the cost of SCADA systems

Utility managers for cities, municipalities, and regional authorities have the unglamorous but essential responsibility of controlling storm run-off and wastewater across wide territories. These operations can be difficult to manage due to the driving time it takes to personally visit all critical equipment locations. While manpower and operating expense can be reduced through automation, many wastewater departments cannot afford computer-based Supervisory Control And Data Acquisition (“SCADA”) systems. The critical challenge - to consistently and reliably monitor wastewater systems when it's impractical or too expensive to always get a technician personally on-site.

Solution Summary

Antix DiaLog Elite serves as a cost-effective central monitoring, alarming, and controlling system for remote water and wastewater facilities. The Elite offers many of the benefits typical of costly computerized SCADA systems without requiring large capital investments in software customization and computer equipment. The Elite delivers easy-to-use fax reports, Internet monitoring, and even voice-based telephone access to all critical controls and readings. And investments in Elite units are preserved for customers upgrading later to SCADA systems.

Solution Benefits

- Supervisors can routinely inspect for normal & safe operation through online reports or daily faxes of current conditions, pump cycles, and totalized flow for each station.
- Telephone, cell-phone, and Internet access provide anywhere-anytime access to current conditions and activity logs.
- The Elite can monitor and alarm on a wide variety of conditions such as intrusion, hazardous gas levels, pump failures, or phase faults.

- Operators need little training — alarm conditions and status are provided through personalized voice commands by phone and easy-to-read front panel display and LEDs.
- When a problem occurs, the right person with the right tools can be dispatched by viewing the Elite's snapshot of current conditions and 1000-point event log of alarms, actions, and readings. Alarms can be delivered to any of 16 different lists of 16 telephone or pager numbers.
- If lightning or construction disables your phone lines, you'll know quickly...the Internet monitoring service is always checking to ensure the system is operational.
- If upgrading to SCADA is in your future, the Elite offers 100% protection of your capital investment. The Elite can be remotely upgraded to serve as a MODBUS-slave, enabling it to communicate with your new SCADA system as if it's a PLC—without needing any other new hardware, rewiring, or retraining.

DELAWARE COUNTY WATER AUTHORITY



"DiaLog Elites give us a powerful means to monitor and control more than four dozen remote facilities. The daily fax reports and Internet snapshots allow our operators to be constantly aware of every piece of equipment while cutting down on unnecessary driving time."

Ed Pisani
Instrumentation Manager
Delaware County Water Authority
Pennsylvania



**DiaLog Elite
in metal enclosure**

Technical Notes

- Elite systems communicate through standard land-line or cellular telephone service.
- Wireless protocols supported include analog, digital, and GSM cellular services as well as radio modems, and radio-based I/O.
- Alarms can be latching or non-latching. Alarms are acknowledged locally through the front panel keypad, or remotely by telephone.
- The system can be configured onsite using the front panel keypad, display, and speaker, or by laptop PC.
- Remote programming can be done by telephone, PC, and over the Internet.
- The system automatically adjusts call lists for nights, weekends, and holidays – ensuring the most appropriate person is always called.
- The nature and location of alarms are precisely described through custom voice and data messages – avoiding the need for dispatchers to look up system codes.
- The Elite is pass-code protected so that only authorized operators can program the system.
- The Elite's modular design allows flexible configuration of up to 48 channels through six I/O cards.
 - Relay outputs—four per expansion card
 - Digital inputs—eight per expansion card
 - Analog inputs—eight per expansion card
- Antx also offers a product tailored to large-scale MODBUS-only systems. The DiaLog Elite PLC200 supports up to 200 MODBUS I/O registers...all with voice messaging.

Field operators travel efficiently because dispatchers know each unit's current station status via phone, fax, or Internet

