



City of Chicago SCADA System

Client: Chicago Water Department

Location: Chicago, IL



System Features

- DYNAC® SCADA Software •
- Dual Redundant Servers •
- Energy Use Monitoring & Projection •
- City-wide Pressure Gradient •
- Real-time Calculations
- WAN •
- 91 Dial-up Pressure Monitoring RTUs •
- Pressure Spike Detection & Recording •

DYNAC®

Due to the geography of Chicago, from the moment raw water is received at the two purification plants until it reaches its customers taps, the water must be pumped uphill.

The Chicago Water Department provides pressure to the water system at an average of thirty-two pounds per square inch throughout the city. This is accomplished via a complex network of underground tunnels and strategically placed pumping stations. High-lift water pumping stations provide an essential element in this complex water delivery system. These pumping stations pressurize the distribution system, which is necessary to deliver the water and maintain the system pressure. Every pump at each pumping station is continually monitored and, with a few keystrokes, an engineer on duty can change pumps, start additional pumps, or take a pump out of service. Without the pumping stations providing consistent, even pressure to the different areas and elevations, the City would be unable to deliver water to its customers, or provide water to the 47,132 fire hydrants located throughout Chicago.

Transdyn provided a SCADA system to manage the City's water distribution system. Redundant DYNAC® SCADA servers located at the Jardine Plant manage remote DYNAC® SCADA servers located at major pump stations throughout the City. Each pump station is equipped with its own stand-alone control system including a local operator interface which communicates with the master system over high-speed direct digital data service communication channels.