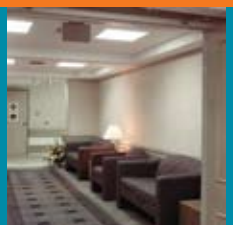

"I can point and click on the SX 8000 workstation screen and find out how our buildings are running right from my office."

—Jim Gerke
Building Engineer,
Allen County

PROJECT AT A GLANCE

Project Type:
Integrated (HVAC, Lighting, Water Usage Monitoring)

Location:
Fort Wayne, Indiana

Number Of Buildings:
6 sites

Square Feet:
390,000 (36,000m²)

Equipment:
- 1 CX 9200 network controller
- 1 CMX 220 network controller w/modem
- 1 SX 8000 workstation
- 6 DCX 250 touch screen displays
- 1 LCX 800
- 39 TCX 851s
- 9 TCX 850s
- 5 TCX 853s
- 2 TCX 870s
- 1 EMX 190

Third-party Equipment and/or Drivers:
Custom SX 8000 interface to Data Talk

Network:
Ethernet TCP/IP over existing fiber optic network

Applications:
- Temperature and humidity control
- Power monitoring
- Lighting control
- Water usage monitoring and billing

Allen County of Indiana Finds Comfort and Control with TAC® Building Automation System

An integrated Andover Infinity™ building control system for HVAC and lighting became a reality in 1995 for Allen County, Indiana. Gene Lowden, Allen County Property Manager, and Jim Gerke, Building Engineer, spearheaded the project, which was in the planning stages for several years. Their hard work finally paid off with the approval of the County Council to automate five major city and county buildings, totaling 390,000 square feet (36,000m²), in downtown Fort Wayne, Indiana. TAC Representative, Havel Bros., was awarded the nearly $200,000 (£118,000) project, which encompassed the following buildings:

FACILITY	USAGE
City County Building	Administrative offices for the City of Fort Wayne and Allen County
Allen County Court House	County courtrooms and County legal departments
Keystone Building	Houses offices for voter registration and prosecuting attorney
Highway Building	Central offices for all City and County building inspectors and County Highway Department
Blacksmith Annex Building	Houses offices for Waste Management and Community Corrections offices

Although spread out over a four-block area in downtown Fort Wayne, Indiana, all five buildings were connected by an existing fiber optics network. Because Infinity supports "open communications," this same network was utilized to communicate with each building, with no disruption to any of the existing data being transmitted daily.

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The Andover system is comprised of a CX 9200 network controller located in the lower level of the City County Building and 65 Infinet™ field bus controllers located throughout the five facilities' mechanical rooms. There are a total of 584 input and output points connected to the Andover system which monitor and provide Direct Digital Control of all the heating and cooling equipment, temperature sensing, and lighting control in the five buildings. The total system is monitored through an Infinity SX 8000 graphical front-end workstation, located in the Maintenance Office in the lower level of the City County Building. From this office, Jim Gerke monitors alarms and makes daily changes to the programs, as needed.

Havel Bros. also integrated a third-party device called Data Talk™ into the system. Data Talk uses a custom SX 8000 software interface to transmit any of 30 priority alarms via a telephone dialer and deliver a voice-synthesized message directly to a voice pager and/or selected home telephone. These alarms can then be queried and/or acknowledged using the touch-tone buttons on a telephone keypad. Overriding of the lighting control may also be done via a remote telephone handset.

At the conclusion of the project, a sixth remote building was added to the Infinity network, via a CMX 220 with modem installed at the site. The County Water Building, located on the north side of Allen County, is an unmanned building that houses a water de-ionizing and softening system and regulates the water flow on one of Allen County's major water lines. The Andover system is monitoring water usage and several local pump alarms.

Mike Barrett, Controls Manager for Havel Bros., explains that Allen County had a unique challenge at the County Water Building that Havel met successfully utilizing Infinity's flexibility in systems integration. The County was dispersing water to several local fire departments, lawn service companies, etc.; yet there was no way to monitor how much water these different companies were using. To track water usage for billing purposes, an Infinity TCX 851 and an EMX 190 Card Access Expansion Module were installed at the site. Now a truck driver can swipe his approved card to activate a water solenoid and dispense water into his truck. The water usage is then calculated, logged, and a bill is generated automatically via the Andover System, and sent to the appropriate company.

Gerke comments on their new building automation system saying, "With Infinity's monitoring and alarming capabilities, we can get a jump start on a problem when we come in at 6:30 am, not at 9:00 am when the city and county employees call us to report a heating or cooling problem in their building. I no longer have to physically go to each of these buildings now to check out the problem. And I don't need to understand a complicated programming language to run the system . . . I can point and click on the SX 8000 workstation screen and find out how our buildings are running right from my office. My workday not only runs much more efficiently now, but I get a lot less after-hours and weekend 'equipment down' calls."

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