



Installation: **Endress & Hauser, Greenwood, Indiana**

Circon Integrator: **Apex Industries, Indianapolis, Indiana**

Building Type: **National headquarters – production, research, warehousing, office**

Physical Description: **3 buildings – 2 storey main headquarters, 2 storey L&P building**

Duration of Project: **October 1996 to August 1998**

THE CLIENT

Endress & Hauser is a world leader in the manufacture of process measurement instrumentation with North American headquarters in Greenwood, IN. The complex is comprised of three buildings, totalling 143,000 sq. ft., with a wide ranges of uses including production, storage, shipping/receiving research, display and office/administration.

THE CHALLENGE

- *Existing proprietary unitary controllers were no longer supported by manufacturer*
- *Expanding company required flexibility and scalability unavailable in a proprietary system*
- *Outdated failing wiring systems required constant repair*
- *Uncomfortable space temperatures led to low productivity levels*
- *Inefficient alarm and reporting produced emergency driven, ineffective and expensive maintenance and repairs*
- *Existing card access system was slow, limited, inefficient and unable to meet US Customs record keeping requirements*

The collapse of support for the existing zone system led Endress & Hauser to a review of their overall building automation system. Both the age and configuration had led to a panic approach to maintenance and repair – by the time they became aware of what the problem was, it had to be fixed immediately. And the card access system was not only slow and unreliable, it didn't allow for the increases in employment the company was experiencing and expecting.

THE SOLUTION

- *Circon's integrated Building Automation System to provide control, flexibility and efficiency throughout the facility*
- *Improved maintenance management through utilization of run-time data, data logging and alarm features*
- *Improved response time to HVAC or Security System alarm conditions via remote paging*
- *Client centered in-house system management and control*
- *Highly efficient and cost effective system monitoring*
- *Unlimited capability for future control function expansion*

Endress & Hauser first chose the Circon system to replace their unsupported existing unitary controllers, primarily because it met their needs of expandability, scalability and integration. Its success led to replacement of the entire HVAC, access and security systems, as well as selection of the Circon system for the new North American Sales Headquarters.

The Circon Building Automation System was chosen because it offered a flexible, non-proprietary answer to the customer's immediate and long term objectives. Circon's programmable controllers and network management software facilitate the integration of all control functions for true peer to peer communications. The complete integrated system of HVAC, access, security, lighting and power monitoring provides unsurpassed levels of comfort, efficiency and security.

The state of the art system is effectively monitored from within the building itself, reducing both the time and cost of management, monitoring and troubleshooting. This includes monitoring of both computer room temperatures and the presence of condensate water under the raised flooring.

THE DETAILS

HVAC AND LIGHTING CONTROLS

- *Reduced energy consumption*
- *Increased comfort*
- *Extended mechanical system life*
- *Circon Scheduler program maintains cost effective efficiency in lighting scheduling in conjunction with security*

Circon controllers operate the gas/electric rooftop units in each of the three buildings, with Circon's BASIC language installed to program the sequence of operations to allow greatest efficiency and load handling capability.

The Circon Scheduler takes its cue from the occupation information provided by the card access system, determining between fully automated operation and necessary light for full occupancy or maintenance crew operations.

SECURITY

- *Fully integrated card access controllers provide full security and data*
- *Doors are interlocked with fire alarm system for override in the event of emergency*
- *Intrusion detection system utilizes motion detection and door status data*
- *Entry and exit readers at each door, as well as computer room access and balconies, provide increased security and employee attendance information*

The security system's full integration allows the data it generates to be utilized with a time card program for payroll processing. The use of multiple zones makes location of security breach relatively simple. Referred to by the US Customs Service as "The most secure facility within the jurisdiction of the Port of Indianapolis."

SYSTEM MANAGEMENT

- *Total, real time monitoring and management of 279 devices across the three buildings from a single site*
- *Increased reaction time to HVAC or security alarm conditions via remote paging capabilities*
- *Circon power monitoring controller provides forecasting tool for power usage requirements*
- *Custom designed user friendly GUI (graphical user interface) with point and click maneuverability*
- *Site management controller intelligently handles all alarms*
- *Diagnostics, troubleshooting and repairs occur before building occupants are aware of a problem*
- *LonWorks® based technology allows unlimited expansion options*

Circon's Building Management software, in Windows® PC format, allows the building supervisor total monitoring control, with the ability to view real time information on all systems, including building conditions, security and mechanical system status as well as to change operating schedules for any or all of the systems and devices.

In the future, the company may expand its facility further, and will be able to receive competitive bids for maintenance, service and system additions because of the installation of the open protocol Circon system.

For more information about this case study, please call us at 1-800-338-1866.

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