

CASE STUDY

WKBD TV / WWJ TV, Dearborn, Michigan

Facility Type: Television Station

Circon Systems Integrator: McKenna Heating and Cooling



THE CLIENT

WKBD's studios are located in the Detroit Metropolitan Area and cover 56,000 square feet, including a 10,000square-foot technical center. The station has been an industry leader for over thirty-five years and has helped launch both the Fox Network and the United Paramount Network (UPN).

THE CHALLENGE

WKBD's primary concern was to upgrade the existing system that was frequently shutting down due to the system front-end computer crashing. With a live broadcast studio they required an extremely reliable system with zero equipment down time. An accurate real time analysis of equipment status was necessary so that redundant cooling systems could be started to protect electronic broadcast hardware.

With a staff of over 200 people, WKBD also required a system that ensured a comfortable working environment with adequate heating and cooling. They were seeking an intuitive system for HVAC control that would allow for monitoring and scheduling in individual areas.

THE SOLUTION

A Circon Building Automation System was chosen because of the ability to integrate systems and to allow for future expansion. The LonWorks network allows for best of breed products from multiple vendors to be monitored on a single control network. The live broadcast studio is controlled and monitored within this system using Visual Integrator software, a graphical user interface, avoiding the possibility a system shutdown.

McKenna Heating and Cooling has installed a system that is a flexible answer to WKBD's immediate and long-term objectives. The open architecture of the Circon system provides the foundation for future control capabilities such as lighting, security and card access. Circon's programmable controllers and network management software facilitates the integration of all control functions for true peer-to-peer communications.

"I wish all of the electronic systems I need for my building could be manufactured by Circon. There has been a 20% reduction in electrical consumption for the first quarter of 2001 from the first quarter of 2000 with increased occupancy." - Steve Juengling, Building Facilities Coordinator, WKBD TV

"The high quality and large selection of products offered by Circon and their partners allowed us to design a reliable control system utilizing customized programming and functions to assure WKBD their station would not be off the air due to HVAC equipment failures." - Jeffrey Brown, Senior Automated Systems Engineer, McKenna Heating & Cooling Inc.

THE DETAILS

HIGHLIGHTS

- Delivered a full featured, open and interoperable Building Automation System
- Implemented individual classroom temperature control with central and web-based control options
- LonWorks network allowing an open, flexible and adaptable design
- A flexible and adaptable design
- Circon Visual Integrator software for complete graphical monitoring and control
- Provided a control system platform that facilitates future expansion and integration
- Multi-vendor control products
- A high level of comfort and functionality

HVAC CONTROLS

- Efficient energy consumption
- Intelligent monitoring and control
- Environmental comfort

Circon programmable and terminal unit controllers effectively operate all HVAC systems. Circon BASIC language is installed to program the sequence of operations allowing greatest efficiency and load handling capability. Circon's Variable Speed Drive LonWorks Communications Card allows for direct communication to the GE Fuji Variable Speed Drives. Circon and complementary products control the studio and surrounding environment for increased energy savings and comfort.

SYSTEM MANAGEMENT

- Total real time monitoring and management
- Custom designed graphical user interface with point and click maneuverability
- Diagnostics, troubleshooting and repairs occur before a system shutdown
- LonWorks based technology allows for unlimited system expansion options

Circon Visual Integrator software allows the facility manager total monitoring control with the ability to graphically browse the facility, view real time information, and change operating schedules for all of the installed equipment. The Site Management Controller allows for the automatic verification of network integrity and remote access to the system in the event of an emergency.

SYSTEM COMPONENTS

- Circon Programmable HVAC Controllers
- Circon Site Management Controller
- Circon Visual Integrator software
- Belimo valves and actuators
- Honeywell Valves and actuators
- Circon Terminal Unit VAV Controllers
- Circon Variable Speed Drive Communications Cards
- BAPI Sensors
- GE Fuji Variable Speed Drives
- MAMAC sensors

If you would like further information on this case study, Efficient Building Automation Corporation (EBAC), or more on our products and services, please refer to the contact information below.

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