



Installation: **WKBD TV / WWJ TV, Dearborn, Michigan**

Circon Integrator: **McKenna Heating and Cooling, Dearborn, Michigan**

Building Type: **Television station**

Physical Description: **56,000 square feet**

Duration of Project: **January 2000 to March 2000**

THE CLIENT

WKBD's studios are located in the Detroit Metropolitan Area and cover 56,000 square feet, including a 10,000 square-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

- *Deficiency in aging proprietary system*
- *Lack of environmental comfort*
- *Absence of area schedules created unpredictable and uncomfortable space temperatures*
- *Frequent mechanical shutdowns due to control system failures*
- *Inability to monitor and schedule for individual zoning*

WKBD's primary concern was to upgrade the existing system that was frequently shutting down due to the front end PC 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

- *Circon hardware and software for an integrated building automation system*
- *Circon Visual Integrator software for complete graphical monitoring and control*
- *LonWorks network allowing an open, flexible and adaptable design*
- *Unlimited capability for future control function expansion*
- *Complementary, best of breed products on a single LonWorks® network*

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. Circon's open architecture 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.

"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

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.

"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

SYSTEM MANAGEMENT

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

Circon's 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 Terminal Unit VAV Controllers

Circon Site Management Controller

Circon Variable Speed Drive Communications Cards for GE Fuji drives

Circon Visual Integrator software

BAPI sensors

Belimo valves and actuators

GE Fuji Variable Speed Drives

Honeywell valves and actuators

MAMAC sensors

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

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