Green Bay Community Church

The GBCC features a fully integrated Crestron solution for lighting, climate, security and A/V control. Premier Electronics, LLC worked with the architect and interior designer to incorporate acoustics, lighting, A/V and automation into the structural design of the space in a way that would not have a negative impact the aesthetics. All lighting, HVAC, A/V control is done via Crestron touchpanels eliminating the 'wall acne' normally associated with conventional switches, dimmers, emergency lighting and thermostats.

"Throughout the entire facility, we tried to address two major 'pains' via automation: ease of use and energy management," said John Ebli, Owner, Premier Electronics, LLC. "Anything that operates on electricity (lighting, audio, video, HVAC, restroom exhaust fans, window treatments, etc.) is controlled by Crestron."

In the Chapel, Premier Electronics programmed a number of different production modes to accommodate various functions that are held here. With the Crestron control solution in place, the end user simply has to tap the "Audio Power" button and select the event on the Crestron touchpanel. The Crestron WiFi touchpanel gives presenters the ability to control all audio, video, computer presentations, lighting and HVAC from the stage or anywhere else in the room.

Occupancy Sensing

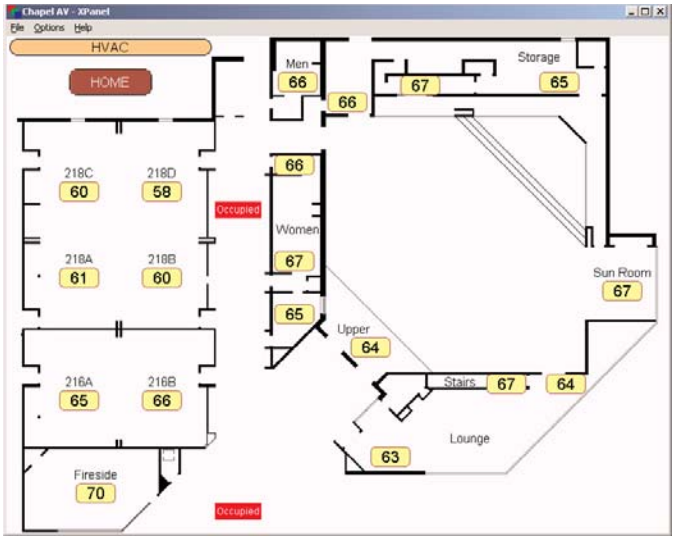
The Crestron system resides on the campus LAN alongside the other processors located in other venues/areas throughout the site. According to Ebli, combining lighting, HVAC and security management on the same control system has many advantages over discreet systems.

"In the GBCC, full control including scheduling, default presets and other functions is available to appropriate office personnel via a secure Crestron XPanel application on their desktop computers. Controls that are necessary and relevant to each area are available via the public accessible keypads and touchpanels."

If there is an event happening in East Wing of the building, the end-user just needs to press the OCCUPIED button on the touchpanel. This will turn on all corridor lighting and set HVAC Heating/Cooling setpoints to preset occupied values. When the event is over, the last person out just presses the UNOCCUPIED button on the touchpanel. This shuts off all lighting in the wing (with a two minute delay on pathway lighting for egress) and all the HVAC temperatures are setback to 'economy' preset values. If an occupancy sensor has detected activity in any area, the touchpanel gives a visual and audible warning that the area is still occupied and lights & pathway to that area will not be affected.

Each area includes a Crestron CNX two-button keypad for controlling lighting in that particular room/space and an occupancy sensor that allows the system to know which areas/rooms are in use. If someone enters an unoccupied area (corridors, rest rooms etc.), pathway lighting is automatically turned on and will remain on until 10 minutes after no motion is detected.

The keypads also have integral temperature sensors which communicate to the Crestron PAC2 to facilitate regulation of climate control in that space, thus eliminating the need for thermostats on the wall.



All of the dimmed and switched lighting loads are home run to centrally located Crestron lighting modules. The GBCC can now quickly and easily provide backup power to selected lighting loads that will automatically illuminate in the event of a power interruption, eliminating the expense and need for unsightly emergency lights throughout the building.

Energy Management

Beyond aesthetics, Ebli recounts another added benefit of having Crestron lighting control. “In the two years since the East Wing was completed and Crestron CLX dimmers were installed to control all lighting, the Green Bay Community Church has yet to experience a single lamp failure in either the house lighting or stage lighting fixtures.”

The Crestron system is constantly monitoring the occupancy sensors so if people vacate the area without shutting off the lights, the system will set the entire wing into unoccupied mode after 90 minutes elapse without motion detected on any sensor in the wing. In this mode, all lighting shuts off and all HVAC is set back, in every room. Since the Crestron PAC2 and the A/V processors are linked together through the LAN, this automatic shutdown also includes a sequenced shutdown of projectors, displays, audio power amplifiers and other controlled devices that may have been left on.

“Think of the savings in electricity, heating fuel and projector bulbs!” concludes Ebli.

Crestron makes life greener™

CRESTRON®

Crestron is dedicated to the “green” initiative, providing the most energy efficient and environmentally safe systems on the planet.

As the global leader in advanced control and automation technology for commercial and residential solutions, Crestron develops products and automation solutions that are RoHS compliant and meet ASHRAE and LEED standards.

The American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) is an international membership organization standards to provide minimum requirements for the energy-efficient design of buildings.

These standards set minimum requirements for the design and construction of new buildings, new portions of buildings, and new systems and equipment in existing buildings. ASHRAE standards apply to several systems and equipment used in conjunction with buildings including HVAC and lighting.

iLux is compliant with Standard 90.1-2004 – Energy Standard for Buildings, and specifically the Mandatory Provisions 9.4.1.1 (b) and (c) regarding the use of an occupant sensor that turns the lights within 30 minutes after leaving the space, and a control system that indicates that an area is unoccupied. iLux also complies with Provision 9.4.1.4, which pertains to the control of display, accent, task and demonstration lighting.

Crestron lighting systems may contribute to LEED certification depending upon system design and implementation.

The U.S. Green Building Council (USGBC) is the nation’s foremost coalition of leaders from every sector of the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to work. More than 6,000 member organizations work together to develop a variety of programs and services, including the LEED (Leadership in Energy and Environmental Design) Green Building Rating System®, which applies to new commercial construction, existing building operations and commercial interior projects.

Within the LEED rating systems, building products contribute to achieving LEED points following performance-based requirements. To meet these requirements, practitioners identify products that have specific attributes. iLux is compliant based on the integral motion sensor that provides substantial energy savings. In addition, by using an inexpensive third-party light sensor, iLux enables daylight harvesting with both lighting and drape control.

At Crestron, we believe that we have a responsibility to our community to be good corporate citizens, and to provide the best products and solutions for our dealers.

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