

# CALDERWOOD CONNECT

Linking you to the Industry

## CALDERWOOD AUTOMATION IS YOUR DEPENDABLE BUILDING AUTOMATION SERVICE PROVIDER

- Systems Design and Integration
- Project Management
- Service and Installation
- Field Commissioning
- Technical Support
- Customer Training
- Consultation

## CALDERWOOD AUTOMATION IS A MEMBER OF:

- Kingston Construction Association (KCA)
- The Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI)



## Industry News

### ecoENERGY Efficiency for Buildings

Last month the Government of Canada announced that they would be investing \$78 million between 2011 and 2013 in the ecoENERGY Efficiency program to maintain and improve energy efficiency in Canada. Fundamentally this initiative helps improve energy efficiency, reduce greenhouse gas emissions, improve air quality, and is financially rewarding. This program establishes standards, regulations, and cost-effective measures to guide businesses toward energy conservation through recognized labeling, training and information sharing tools. Among the many objectives the program calls for a more stringent National Energy Code for Buildings and the implementation of new energy management system standards. Whether you're in the design, construction or occupancy phases, opportunities exist to improve a building's energy performance. Information, tools and training are readily available to further energy efficiency efforts in your buildings – see [www.ecoaction.gc.ca](http://www.ecoaction.gc.ca).

Sources: [www.hrai.ca](http://www.hrai.ca), [www.ecoaction.gc.ca](http://www.ecoaction.gc.ca)



### NOTICE

On July 28, 2011, Honeywell issued a voluntary recall of certain electric baseboard and fan heater thermostats. The thermostat's onboard relay may not function properly, causing the thermostat to overheat. The thermostat's plastic housing can melt, generating smoke, but shouldn't ignite nearby materials. The model numbers included are: CT1950xxxxx, CT1957xxxxx, and T4700xxxxx. The thermostats are identified by their overall rectangular shape; models sold at Retail Outlets have a full cover with four exposed buttons and those sold by HVAC Contractors have a flip down door that covers the four buttons. We would ask that you contact Honeywell Customer Care directly at (888) 235-7363 for additional instructions on how to receive free replacement products.

## New Products



### GreenMAX Relay Control Panels

Lighting controls is a natural extension to Calderwood's offering. We can supply, install, program, and commission Leviton's GreenMAX lighting controls. GreenMAX panels feature a modular design with the industry leading Short Circuit Current Rating (SCCR) of 25,000A at 277VAC. This product includes relay options for dimming, daylight harvesting and smart metering applications. A convenient programming and monitoring Handheld Display Unit (HDU) allows onsite or remote access.

#### Additional features include:

- Robust latching relay modules
- Covers conceal circuit wiring and provide maximum arc flash protection
- Supports native network protocols of BACnet/IP, Ethernet, and LumaCAN
- Accommodates low voltage inputs such as occupancy sensors and photocells.

Please contact us for more information.

## Tech Corner



Automated systems can include photocells that read ambient light levels to maintain acceptable illumination by using as much free natural daylight as possible. Photocells are low voltage sensors used to monitor task or ambient light levels. The photocell will vary its resistance between two terminals based on the amount of photons (light) it receives. The inherent photo-resistor absorbs photons provided it's of a high enough frequency. This process gives bound electrons enough energy to jump into the conduction band. The resulting free electron conducts electricity, which in turn lowers the resistance. Indoor type photocells have a flat Fresnel lens with a 60° cone of reference to measure actual light on the work surface. With lighting accounting for much of the energy consumed in modern buildings, daylight harvesting can significantly lower energy costs by dimming or switching lights off, furthermore lowering cooling loads from electric lighting, and there is strong evidence that it can improve the health, well-being and productivity of occupants.



AUTHORIZED BUILDING  
CONTROLS SPECIALIST



Automation and Control Specialist



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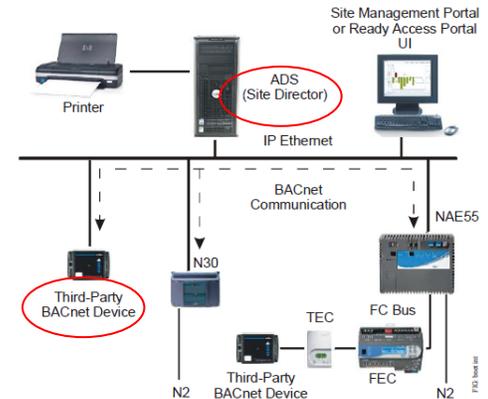
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## Calderwood NEWS

### An Investment Worth Saving

Calderwood provides automation and controls services to a wide range of customers with varying building conditions, HVAC equipment, and personal preferences. We are sensitive to the needs of our customers and diligently work toward a tailored solution to their problem and situation. Recently at a local customer's site with our competitor's building automation system (BAS), the operator workstation PC failed for the second time in 2 years (we'll call the competitor ABC). The customer was suddenly without a way of monitoring their building's conditions, HVAC equipment, etc. The BAS was installed in 2006 and could only be serviced by ABC who is located a few hours from site, also not one of the customer's choice contractors. This could turn out to be another costly service call! Other controls contractors would have probably suggested replacing the entire BAS – quite an expensive solution! Those were two unfavorable options, so our initial approach was to provide a web-enabled supervisory controller and integrate with ABC's field equipment controllers. Due to the field communication trunk being ARCnet that initial attempt would not work. As such, we sourced the necessary device to change ABC's supervisory controller IP address (in order to reside on the customer's local area network), and integrated ABC's system into the customer's preferred Johnson Controls BAS (noted in the figure above as "ADS"). We were able to essentially transfer the available points from ABC's system (noted in the figure above as "Third-Party BACnet Device") using BACnet over IP. Today the customer is able to view their system graphics, trends, and alarms from a single user interface/operator workstation. This was achieved at a fraction of the cost of bringing in an outside contractor or replacing the entire BAS. At the end of the day the outcome is very positive. The customer's need was met and we continue to offer support services and expertise for their BAS.



### Recently Completed Projects:

Sydenham Public Library, Trent Valley Lodge Nursing Home, CFB Petawawa Andover Replacement, Loyalist College Residence Upgrade, Pump House Steam Museum

### Current Projects:

RMC Girouard & Sawyer Renovations, VIA Rail (Belleville), Professional Services Building, Hastings County, Avaya (Belleville) BAS Upgrade, Frontenac Institute Upgrade Air Handler Control, CFB Trenton Mountainview

## Upcoming Events

- 2011 PowerLogic ION User's Conference, [www.langford-assoc.com](http://www.langford-assoc.com)
- 2011 Greenbuild International Conference & Expo, [www.greenbuildexpo.org](http://www.greenbuildexpo.org)
- CMX-CIPHEX 2012 Trade Show, <http://www.cmxciphexshow.com>

## Industry Links

- Johnson Controls, [www.johnsoncontrols.com](http://www.johnsoncontrols.com)
- Honeywell, [www.customer.honeywell.com](http://www.customer.honeywell.com)
- Leviton, [www.leviton.com](http://www.leviton.com)
- HVACR Controls Training, [www.hrai.ca](http://www.hrai.ca)
- BACnet, [www.bacnet.org](http://www.bacnet.org)
- ASHRAE, [www.ashrae.org](http://www.ashrae.org)

### CALDERWOOD AUTOMATION PROUDLY SPONSORS

- Napanee District Minor Hockey, [www.ndmha.ca](http://www.ndmha.ca)
- The Jeanine Perry Memorial Golf Tournament, [www.perrygolftour.com](http://www.perrygolftour.com)
- Lennox & Addington County General Hospital Benefit Golf Tournament
- Annual Loyalist College Golf Tournament



If you have any questions or would like more information, please email us at:

[info@calderwoodautomation.com](mailto:info@calderwoodautomation.com)



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