

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

Skilled Trades Shortage

In a news release by the Canadian Electricity Association "the Conference Board of Canada confirms that investments in electricity generation, transmission, and distribution will have a widespread positive impact on Canada's economy and produce hundreds of thousands of employment opportunities across the country." The economic boost from the energy sector is expected to be unprecedented. A resulting skilled trades deficit is imminent. There is an expectation of a large shortage of electricians, welders, pipefitters, plumbers and carpenters over the next 8 to 10 years. With that in mind, the construction industry is one of Canada's largest industries, employing 1 out of 16 workers. Construction workers install, repair or renovate work worth \$150 billion annually. According to the Construction Sector Council's national summary report, Canada will require about 319,000 new construction workers over the next 8 years to meet expected demand. For Ontario experts are predicting steady growth in construction over the next decade.



Growth is expected to center around Northern and Central Ontario where infrastructure, transportation, nuclear power, and mining lead the charge. This will in turn place a large need on key trades and occupations. It is estimated that 43,000 workers will be required to meet the demand and 77,000 more to replace retirees. In order to facilitate this growth, training institutions are preparing to take on the challenge of meeting the impending demand. As an industry, HRAI's "Career Connections Ambassadors" Program strives to reach students across the country about the exciting career opportunities available in the HVACR industry.

Sources: www.electricity.ca, www.csc-ca.org, www.theglobeandmail.com, www.hrai.ca

New Products

Modicon M168

Schneider Electric is a leading global supplier of complete building solutions. The M168 programmable logic controller has been developed to manage discrete and analog inputs and outputs, and offer multiple options for connection to different Building Management System communication networks. These controllers can be programmed to provide customized applications designed to control: chillers, heat pumps, roof-top units, air handling systems, compressor racks, cooling towers, pumps, etc. The Modicon M168 PLC's web-enabled capabilities allow the end users to monitor energy consumption, shutdowns, and problems remotely. Additional features include: ready-to-use programming for all types of HVAC/R equipment, built-in display, and a network connectivity slot. These controllers are powerful enough to control all building functions. Please contact us for more information.



Tech Corner

Control valves are designed to regulate the flow of hot water, chilled water, or steam in response to the demand of a controller in HVAC systems. Types of controls to consider are:

Proportional Control – the positioning of the controlled device in response to a linear analog signal, i.e. 0-10Vdc, 4-20mA,

Floating Control – a type of modulation based on timing where the actuator is driven either clockwise or counterclockwise for a specific amount of time,

2-Position Control – essentially full open or closed. It's important to make sure control valves are sized correctly with the close-off rating and valve's flow characteristic in mind. These two factors affect the valves controllability within a given system. Equally important is the installation of a control valve. We will continue this topic in our October edition of the Tech Corner.



AUTHORIZED BUILDING
CONTROLS SPECIALIST



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Calderwood NEWS

ANNOUNCING:

New Facility Explorer Packaged Variable Air Volume System

The FX Packaged VAV System provides an integrated VAV box with controls. You get direct, closed-loop control specifically designed to deliver occupant comfort and installation flexibility. This pre-configured system with factory installed FX-PCV Programmable Controllers eliminates the coordination and difficulties associated with field mounting. These terminal units are specifically designed for precise air delivery throughout the entire operating range, regardless of the installed inlet conditions. The integrated FX-PCV controllers feature automatic self-tuning algorithms to deliver optimal control with less wear and tear on the equipment. These controllers include a rich set of embedded and optional features, providing endless flexibility for your application type.



New Wireless Pneumatic Thermostat

We know pneumatics to simply be a means of control using air pressure in conjunction with a mechanical system. Pneumatic thermostats do not allow for remote readings, diagnostics, or set point control. Now there is another option to DDC. Cypress' patent pending Wireless Pneumatic Thermostat offers virtually the same functionality as DDC thermostats. Building operators have the flexibility to retrofit selected zones rather than an entire building all at once. The Wireless Pneumatic Thermostat can operate as a standalone system or can integrate with existing building automation systems such as Johnson Controls and Honeywell via BACnet. Features include: remote wireless set point control and monitoring of temperature & pressure, automatic self-calibration, programmable temperature setbacks, occupancy override, 2+ years of battery life, etc.

Recently Completed Projects:

City of Kingston - Pump House Steam Museum, RMC - Girouard & Sawyer Renovations, Professional Services Building, Hastings County, Avaya (Belleville) BAS Upgrade, Frontenac Institute Upgrade Air Handler Control, Vantage Foods (Belleville), Hydro One Operations Centre (Picton)

Current Projects:

CFB Trenton Mountainview, CFB Trenton Mountainview Water Distribution, CFB Petawawa Andover Replacement Phase 3, Frontenac Institute New Generator, Collins Bay Institution New Generator, Collins Bay Institution CBB11 - Maximum Security Housing Unit, Cornwall Community Hospital Redevelopment, Utilities Kingston Service Garage, RMC Girouard & Sawyer Mods 3, 4, 5

Upcoming Events

- OACETT's AGM 2012, www.oacett.org
- HRAI Annual Meeting & Conference, www.hrai.ca
- Complying with Part 12 of the Ontario Building Code, www.hrai.ca
- BOMA Canada's National Conference & Exhibition, www.bomacanada.ca

Industry Links

- Johnson Controls, www.johnsoncontrols.com
- Honeywell, www.customer.honeywell.com
- Leviton, www.leviton.com
- HVACR Controls Training, www.hrai.ca
- BACnet, www.bacnet.org
- ASHRAE, www.ashrae.org

CALDERWOOD AUTOMATION PROUDLY SPONSORS

- Napanee District Minor Hockey, www.ndmha.ca
- The Jeanine Perry Memorial Golf Tournament, 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:

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