

Control Management, Inc.



SOUTH CAROLINA'S NEWS SOURCE FOR FACILITY MANAGEMENT AND CONTROL SYSTEMS

Did you know?...

In the U.S., electricity plants use more than 900 million short tons of coal to produce 40 percent of America's electricity every year.



HOW DOES
YOUR BUILDING
MEASURE UP?

[Ask about ENERGY STAR](#)

ENERGY STAR JOURNEY AT ST. FRANCIS EASTSIDE HOSPITAL: LESSONS LEARNED

Control Management, Inc. sat down with Jerry Shepard, engineering manager for Bon Secours St. Francis' Eastside Campus in Greenville to see what he has learned on his journey to become the first ENERGY STAR certified hospital in South Carolina.



BON SECOURS
ST. FRANCIS HEALTH SYSTEM

But first, some background information:

St. Francis Eastside is a 212,000 square foot, four story community hospital with 93 staffed beds. In 2006, St. Francis Eastside benchmarked the hospital using the Environmental Protection Agency's ENERGY STAR Portfolio Manager resulting in an ENERGY STAR score of 32 (out of 100) and began to improve their understanding of energy consumption and related costs. In 2010 the engineering department started:

- A retro commissioning program on mechanical systems to ensure that systems were functioning as designed.

- Establishing a documented process to identify and document temporary repairs that had become permanent.
- Establishing a policy to minimize temporary overrides and instead, go out to observe and then repair.
- Correcting failing dampers, actuators, and steam traps. Repair torn and damaged pipe insulation.
- Chiller Optimization program for 3 different chillers matching chiller size to demand.
- Maximizing use of economizer (free cooling) for 2-3 months per year by using wet and dry bulb temperatures.

As a result of these programs, St. Francis has noticed:

- A positive change in their approach to equipment repair and 85% reduction in HVAC related service calls.
- Maintenance has been able to increase the amount of preventative maintenance checks performed.
- Maintenance moving from reactive to proactive.
- A 22% reduction in energy consumption.
- Annual energy cost reduced to \$2.46 /sq. ft.
- Carbon footprint reduced from 5000 to 4100 MtCO2 e/year.

Finally, their energy benchmark score changed from 32 to 83 in 2012, earning them the first ENERGY STAR for a hospital in South Carolina.

View the [ENERGY STAR labeled building profile](#) for St. Francis Eastside

Story continued on page 2

Inside this issue:

Energy Star Journey at St. Francis Eastside Hospital: Lessons Learned	1
Product Announcements	3
New TALON Territories: CMI is Expanding	4
Trivia Contest	4
SimpleSelect Tool from Siemens	5
Training at CMI	6
Engineering Advantage Update	6
Spotlight / CMI Happenings	7

ENERGY STAR JOURNEY AT ST. FRANCIS EASTSIDE HOSPITAL... (continued)

CMI sat down with Jerry Shepard in his office to discuss his ENERGY STAR journey.

CMI: *Why did you decide to pursue ENERGY STAR?*

Jerry Shepard: The original ENERGY STAR audit was done before I was engineering manager, but, I remember seeing it at the time, becoming interested, and got a copy and started reading it. I kept thinking that we could be doing a lot better. At the time the culture was to do “band aid” repairs or just put something in “hand position over-ride” instead of “auto” when there was a problem. We also had an automation system that wasn’t being used correctly. This normally results in wasted energy and labor.

CMI: *So, once you were in charge, what did you do?*

Jerry: First, I wanted to change the culture – it started with cleaning the shop and equipment rooms. We also started a program to clean the construction debris from above the ceilings. It took one guy 3 months, but now it’s a safe environment. We also cleaned all of the supply and return vents. Second, I started asking a lot of questions of how things worked and why we were doing things manually instead of with the automation system. We put everything back in “Auto” and started fixing things that weren’t working. I put down rules - no more setting everything manually, no more temporary fixes. Third – We worked on the culture. We had to actually ban comments like, “it’s always been that way”, or “it can’t be fixed”. There were some behavioral issues that had to be addressed along the way. Your people have to want to do a good job.

Fourth – You have to get real intimate with your building. We started an extensive re-commissioning program. I had an outside HVAC equipment expert and one of CMI’s APOGEE experts work with us as a team to go through every system. First we made sure it was working as originally designed then we thought about how to make it better. We added additional mixed air sensors and other instrumentation and modified operating sequences as needed to really dial in the control. Along the way we found equipment issues, some of which went back to when equipment was installed.

CMI: *What kind of issues did you find?*

Jerry: In one case we found a cleanout screen that was never cleaned after construction and was still full of construction debris - no wonder that coil could never get to temp in the 3 years since it was installed. Another time we stayed late into the night and traced out all of the piping to find out what it was doing and found a large manual butterfly valve that was in partial bypass – going back to construction. Once corrected, it was amazing how things started to operate which we never would have found without our re-commissioning program.

CMI: *Did you do any equipment changes?*

Jerry: Not a lot, I wanted to make all of the major equipment that we have work. We did go through a program to change all of our steam traps to orifice plate that reduced our therms 52% and also stopped some pump failures. Whenever we replace a motor we only use “Super E” motors. If you don’t change your operating culture then new equipment is just a short term fix.

CMI: *What other operational changes did you make?*

Jerry: Control-wise at 56 degrees or below we are controlling mixed air based on wet bulb so we are getting all free cooling and at an outside air over 71 degrees we go out of economizer and to our minimums.

CMI: *How about personnel?*

Jerry: Well, everyone has their own log in and password for the Siemens APOGEE Workstation. Every morning I run a report to see what is in over-ride and I can see who put it in override and find out why and when it will be fixed.

CMI: *In addition to energy savings have there been any other benefits?*

Jerry: Our service calls have been reduced by 85%. Even small things like clean equipment rooms, organized store rooms, and clean workshops have an impact. For example, during our inspections they come in and see spotless equipment rooms and it helps. It also helps you see problems, such as leaks, quickly. All of those leaks are dollar bills just lying on the ground. Just fix it and pick them up. Our ENERGY STAR score continues to rise, for 2013 we are an 85. As we go through each season we keep making it better and fine tuning. Re-commissioning was a 2 year journey and a lot of long hours to get everything working, but, it was also a lot of fun and now you can see, and feel, the results.



Other Resources: <http://www.stfrancishealth.tv/videos/energy-star-hospital>

Product Announcements

SIEMENS MD MODEL ENERGY KITS



Siemens MD Model Digital Energy Meter is a new BTL listed BACnet and Modbus communicating electrical meter.

This meter is compatible with the APOGEE building automation system or any other energy management system (EMS) or building automation system (BAS) that communicates on either the BACnet (MS-TP) or Modbus (RTU) protocols. This meter provides accurate measurement and reporting of energy parameters for monitoring and control of electrical equipment in a building. These measurements facilitate HVAC and lighting control, monitoring and energy management functions.

For ease of installation, unlike many competitor products, the MD Model meter does not require a separate enclosure for installation. It can be mounted inside the electrical panel along with the CTs. Furthermore, the MD Model meter does not require a separate power supply, delivering its power off the measured circuits.



NEW SIEMENS QXA2601 CONDENSATION MONITOR

The QXA2601 Condensation Sensor is used to avoid damage due to condensation on chilled ceilings and in HVAC installations.

It is equipped with an SPDT dry contact capable of switching 1 amp @ 24VAC or 0.5 amp @ 24VDC.

The QXA2601 includes a two-color LED for status indication. All mounting hardware is included for installation on pipes with outside diameters from 0.39 to 3.94 inches (10 to 100 mm).



APOGEE P1 NOW NATIVE IN ALL BT300 HVAC DRIVES

Every BT300 HVAC VFD Drive now includes APOGEE P1 as a protocol selection option. The BT300 HVAC drive is the only new drive in the market that is certified and supported for use with P1. The addition of P1 extends the out-of-the-box capabilities of the drives' already robust, native protocol options which include BACnet (IP/MSTP), and Modbus RTU/TCP. This simply means that whatever your protocol or physical connection needs are (IP or RS-485), the BT300 provides it as standard. No options. No extra cost and no hassles.

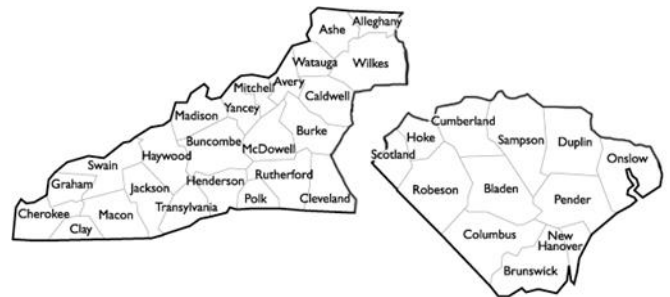
New TALON® Territories: CMI is Expanding

CMI has expanded their TALON® territory coverage to include certain counties in Georgia and North Carolina.



Georgia counties (TALON): Wilkes, Lincoln, Taliaferro, Warren, McDuffie, Columbia, Hancock, Glascock, Richmond, Washington, Jefferson, Burke, Jenkins, Screven.

North Carolina counties (TALON): Scotland, Hoke, Cumberland, Sampson, Duplin, Onslow, Robeson, Bladen, Pender, Columbus, Brunswick, New Hanover, Cherokee, Graham, Clay, Swain, Macon, Jackson, Haywood, Transylvania, Madison, Buncombe, Henderson, Yancey, McDowell, Polk, Rutherford, Mitchell, Burke, Cleveland, Avery, Caldwell, Watauga, Wilkes, Ashe, Alleghany, Madison, Yancey, Mitchell, Avery, Caldwell, Burke, McDowell, Henderson, Rutherford, Polk, Cleveland, Swain, Haywood, Buncombe, Jackson, Transylvania, Macon, Cherokee, Graham, Clay, Robeson, Bladen, Pender, Duplin, Onslow, Sampson, Cumberland, Hoke, Scotland, Columbus, Brunswick, New Hanover.



Our **South Carolina counties** include:
Edgefield, Aiken, Barnwell, Allendale, Hampton, Jasper



In the September issue of the In Control Newsletter, who was featured in the Spotlight section?

Submit your response to: trivia@controlmanagement.com along with:

- Your full name
- Your email address
- Company name
- Mailing address
- Telephone number

Responses must be submitted by November 15, 2013. Submissions without the above information will be disqualified. CMI employees are not eligible.

The first correct response will receive a free 8GB thumb drive! The winner will be notified via email and/or phone and announced in the following issue of our newsletter. Don't have the September issue? Visit our site to download your copy!

SIMPLESELECT™

SIEMENS

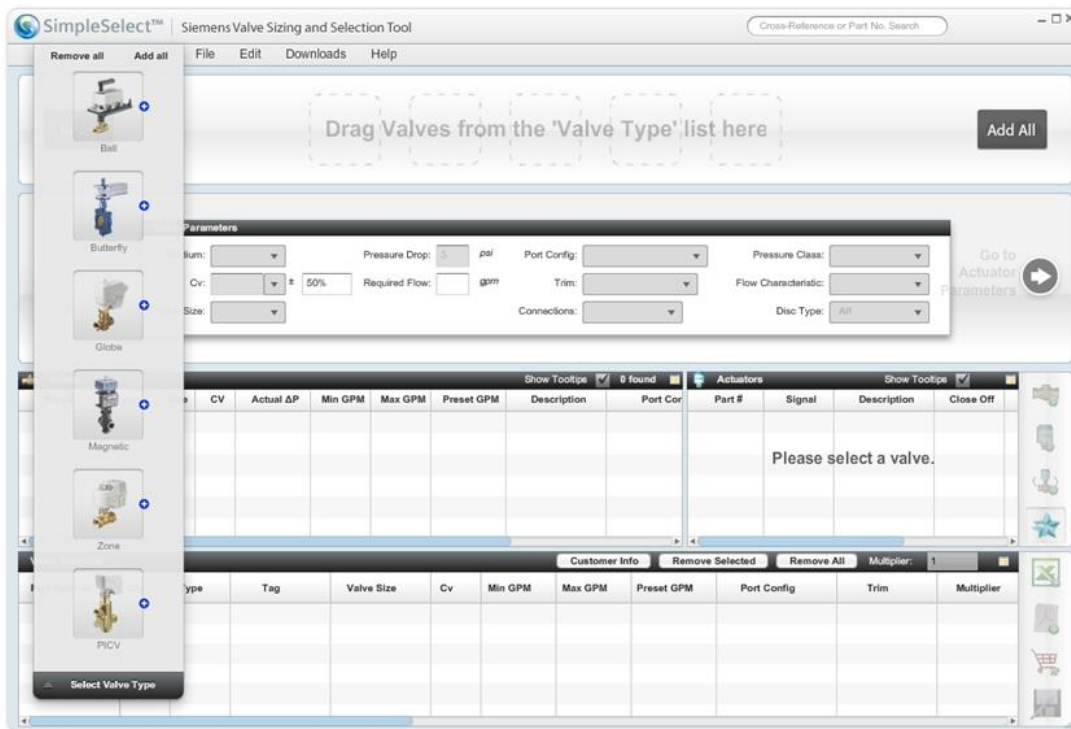
SimpleSelect™ now features more valves and a cross-reference.

SimpleSelect™
Valve Sizing & Selection

SimpleSelect™ tool with new Pressure Independent Control Valves and a Cross-Reference makes it even more valuable!

Quickly build a valve schedule from our complete portfolio of valves & actuators. SimpleSelect now includes Pressure Independent Control Valves (PICVs) and their associated actuators and a comprehensive cross-reference that searches through 8,000 competitive or obsolete Siemens part numbers to find the right replacement.

New cross-reference part number search generates speedy results.



A robust cross-reference search feature quickly and easily finds a Siemens match. It's as simple as typing in a part number of the component you have. SimpleSelect sorts through competitive and discontinued Siemens part numbers and provides a drop down list of replacement options.

[Don't Wait - Download the SimpleSelect™ Tool Here](#)

Training at CMI

In-house Training

A confident, competent staff is essential to get full utilization of your Siemens System. It can make the entire job of operations management easier for everyone involved. Control Management, Inc. offers local in-house Siemens operator training courses to help your staff reach their most productive skill level. Our courses are also an excellent way to get new staff members familiar with your Siemens system. Our affordable courses are based on different skill levels and course topics to meet the needs of your entire staff.

Courses offered are:

- ◆ **AIG-101:** Insight for New Users: Introduction
- ◆ **AIG-202:** Insight for New Users: Reports, Trending & Scheduling
- ◆ **TEC-101:** Insight for New Users: Terminal Equipment Controllers
- ◆ **TM-101:** Terminal Mode for New Users

*Scheduled Class(es):

AIG-202 - November 6, 2013

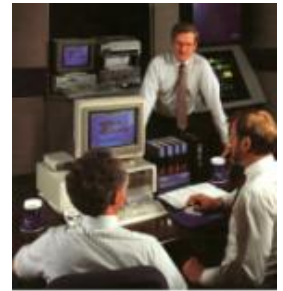
AIG-101 - December 11, 2013

*class dates subject to change

Don't wait to enroll. Classes are limited to 8 students and fill quickly, so please [visit our web-site](#) for class schedules and to reserve your spot.



Ernie Glenn, our Siemens training coordinator, is factory certified and has been teaching classes at CMI since 1996. He also teaches for Siemens.



ENGINEERING ADVANTAGE LUNCH AND LEARN

Engineering Advantage Program helps engineers earn PDH units

CMI has been offering lunch and learn training classes in cooperation with Siemens to help engineers earn PDH units toward their license renewal. Our programs are based in real world experience. We try to balance theory and practical knowledge to help you stay on top of the latest trends and technology to help you drive greater savings and client satisfaction. Educational sessions cover a range of subjects throughout the year, all of which are AIA accredited programs which may qualify for Continuing Education Credits (CEU).

Thanks to the engineering firms who have participated so far:

- ◆ *Buford Goff & Associates, Inc., Columbia, SC*
- ◆ *DWG Inc. Consulting Engineers, Mount Pleasant, SC*
- ◆ *RMF Engineering, Inc., Charleston, SC*

Want more information? [Click here](#), use our online form to [Contact Us](#), or call us at 803-765-9070 .



GETTING FAMILIAR WITH SCHEDULING

Scheduling at your facility is built on the idea of the Zone. Zones are areas of your site, or pieces of equipment, whose occupied and unoccupied times are predictable. The Scheduler is basically a Commander for Zones.

Take a look at your Zones in the Scheduler window. In a later tip we'll talk about overriding a Zone.

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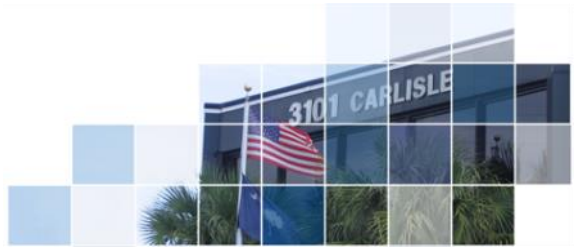
Providing quality energy management & control systems, equipment, and services to South Carolina, and select North Carolina and Georgia territories

Control Management, Inc. designs, installs and maintains facility management and control systems which provide optimum energy consumption while maintaining precise environmental conditions in your facility. We understand that every customer has different criteria in terms of facilities, budgets, personnel, training, and energy consumption. To meet these individual needs, we provide customized facility management solutions. Solutions that guarantee customer satisfaction and system performance while adding value to your facility at a minimal cost.

As an Independent Field Office (IFO) for Siemens Building Technologies, Control Management is able to provide the most advanced system technologies available.

Siemens Building Technologies is an industry leader in providing building management solutions to commercial and other non-residential facilities.

Member



Employee Spotlight:



Michael Talley **Project Manager - Charleston Field Office**

This month the spotlight is on Michael Talley, a project manager in our Charleston field office. Originally from Burlington, NC, Mike has been with CMI for 11 years. Asked about his favorite part about working at CMI, he says, "every day is a new adventure and an opportunity to learn something new."

As a Project Manager in Construction the roles and responsibilities are endless. Some of these include: Engineering design, planning, installation, check-out, operation for the installation of Siemens Building Automation Systems.

Mike has been highly involved with the following customers since being at Control Management Inc.:

- | | | |
|-----------------------------|-------------------|-------------|
| The College of Charleston | Roper Hospital | The Citadel |
| Roper Mt. Pleasant Hospital | Charleston County | VA Hospital |
| Charleston County Schools | | |

In his free time, Mike enjoys traveling, hiking, white tail deer hunting, fishing and playing golf. He also enjoys reading, especially Robert Ruark books. Robert Redford in "The Natural" is his favorite movie. Mike is a graduate of Appalachian State University and a member of Christ Church in Mt. Pleasant.

Mike is an important part of the CMI team and we appreciate all of his hard work and dedication to CMI and our customers!

CMI HAPPENINGS:

The ASHRAE/MCASC joint meeting was hosted by CMI on October 3rd at the Millcreek Hunt Club where there was a roundtable discussion about the Affordable Health Care Act with host speakers Jeff Miller, HUB international, Mark Ackerman and Laurel Suggs, IMG, and Melissa Shealy, BB&T. This has become an annual event for CMI having hosted these meetings for the last 6 years.

Attendance was over 100. Kent Walters served up his ribs as an appetizer and a social dinner followed. Thanks to all who attended...

