

1986 - 2006
20
YEARS OF
EXCELLENCE
Reliable
controls

Reliable
controls

Q3 - 2007

THE **trend**

THE QUARTERLY NEWSLETTER OF RELIABLE CONTROLS CORPORATION



catch the wave of the Next Generation building controller

MACH-ProCom™

MACH-ProCom™



Raising The Bar

BACnet Building Controller

After three years of development, and many hours of rigorous testing, the MACH-ProCom™ BACnet® Building Controller has been released. Units began shipping on Wednesday, June 13, 2007.

The MACH-ProCom™ is a sleek and powerful 32-bit BACnet® device that delivers unprecedented value in a high performance building controller. High speed 10/100 Ethernet, SMART-Net, modular I/O expandable up to 160 points, and multi-protocol support for BACnet®, RCP, SMTP, and Modbus RTU and TCP (both master and slave) make the MACH-ProCom™ an awesome addition to any building.

The first in a series of new devices in the MACH-Pro line, look for the release of the MACH-ProSys™ building controller and MACH-ProPoint™ I/O expansion module in the coming months.

The MACH-Pro™ Series and the entire MACH-System™ is available for purchase through factory-trained Reliable Controls® Authorized Dealers.

Please visit www.reliablecontrols.com to locate a dealer near you.



RC-STUDIO 2.0 UPGRADE

RC-Studio® 2.0 is a powerful and intuitive BACnet® operator workstation application that allows building engineers and operators to think outside of the box and create control programs and interfaces that are limited only by the imagination.

Q3 of 2007 will see a major update release of RC-Studio® 2.0 and will offer end-users a wide array of new and enhanced features to benefit workflow and ease-of-use.

Some of the new RC-Studio® 2.0 features include:

- Support for *Microsoft Vista*
- Support for RC-Archive™ 2.0
- Allows universal time synchronization, for systems that span multiple time zones
- Long filenames supported in Network Status worksheet
- Support for X-Port-2™ and MACH-ProCom™
- Timed override flips manual points to auto
- Manual points have optional colour change and/or hand symbol
- Improved scale-to-fit supports over 70 standard graphic formats

The major focus of the Q3 2007 update is to expand the BACnet® capabilities of RC-Studio® 2.0. A new Graphical User Interface (GUI) for viewing the BACnet Schedule Object and the BACnet Calendar Object is included, as well as an enhanced BACnet Trend Log GUI incorporating support for the new RC-Archive™. This new GUI allows both archived data and the current controller's data to be simultaneously displayed in the same interface, creating a seamless presentation between past and present data.

The image displays two screenshots from the RC-Studio 2.0 software. The top screenshot, titled 'TTL1 BuildingController - AC1-TL1', shows a 'BACnet Trend Log' with a line graph plotting temperature (Temp C) over time from May 17 to June 18, 2007. The bottom screenshot, titled '5000SCHED1 OCCD-SCHED - Schedule', shows a 'BACnet Schedules' calendar view with a grid for days of the week and times from 7:00 to 5:00. A 'Special Events' panel is visible on the right side of the calendar view.



BACnet Schedules

BIG NEW PROJECTS



San Francisco Waldorf High School's new campus will serve as a model for energy efficiency and minimal environmental impact, and will provide the students and teachers with a remarkable learning environment.

The school is registered with the U.S. Green Building Council as a LEED (Leadership in Energy and Environmental Design) Project, and is striving to reach the Gold level of certification. LEED addresses five categories of sustainable design: site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

San Francisco Waldorf High School is committed to academic excellence and guiding students toward meaningful lives. By integrating ethical values with creative exploration into a rigorous college preparatory curriculum, the Waldorf emphasis on ethical values and social responsibility leads students on the path to becoming intelligent, self-confident, and socially responsible individuals.



The remodeled Waldorf campus in San Francisco will be equipped with several large, purpose-built classrooms, a number of smaller instructional spaces, and the administrative and faculty offices. After passing through the front door on the ground floor intermediate level, one enters the main reception area and lobby, beyond which lies a large multi-purpose room built for assemblies, performances, and music classes.

c. 2200-1800 — Latinos settle Tiber River area

700 — Snake Goddess of Knossos

-1400 — Mycenaean Civilization

0 — Terre Hones develop

civilization appears in Italy →

← 493 — Rome forms Latin League

c. 490 — Battle of Marathon

c. 480-400 — Classical Greece →

c. 449 — Publication of the law of twelve tables

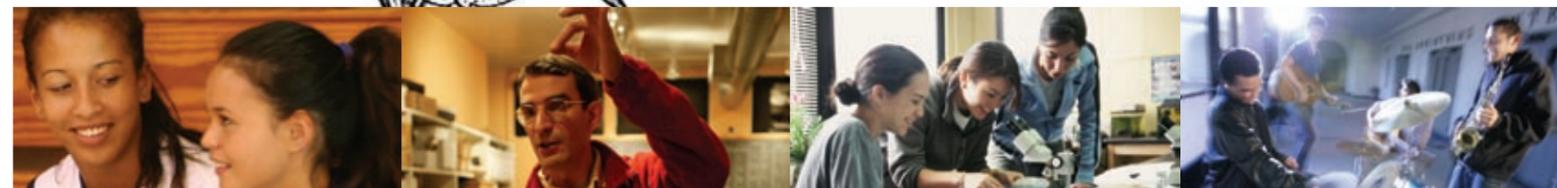
396 — Rome violates agreements with Latin League and annexes its neighbors

390 — Gauls sack Rome but are soon bought off

← c. 365-300 — Euclid in Alexandria

c. 360-270 — Pyrho of Elis

342-297 — Menander



Stairs up from the lobby lead to the second floor, which will contain three large laboratory classrooms for biology, physics, and chemistry, a beautiful library with vertical skylights and ample bookshelves, five faculty/administrative offices, and the faculty lounge. Stairs down from the lobby lead to the first floor, which will house a very large eurythmy room, two large main-lesson classrooms, five small subject classrooms, and three faculty offices.

Natural light abounds in the facility, as the north wall is comprised of huge windows looking out into a eucalyptus grove. Two large arts classrooms are located on the east-end of the building, one on the ground level and the other on the first floor.

LEED certification is a perfect fit for the Waldorf philosophy and its goal of building for the future.



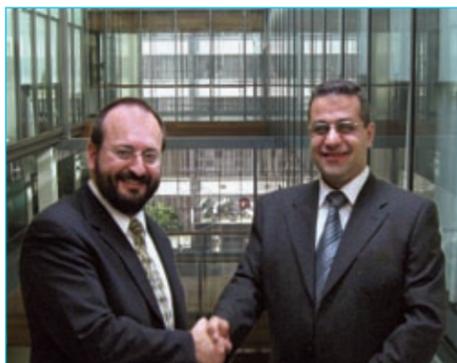
Australia

Big Strides in the City of Villages

Our visit to Sydney, Australia began with a delightful dinner cruise of the harbour on Captain Cook Cruises (www.captaincook.com.au). Clearly, an excellent way to enjoy the night skyline of the city and make new friends.

Known as the *City of Villages*, Sydney is the vibrant capital city of New South Wales and offers a neo-bohemian feel reminiscent of Vancouver, British Columbia. Business suites stride securely alongside didgeridoo buskers and Mohawk topped mavens. The fresh seaside air sweeps through the downtown city streets, and pulls sumptuous aromas of strong coffee and sweet seafood and baked breads. It's easy for North Americans to be cosmopolitan here. British roots are everywhere, and Mediterranean influences are pervasive in much of the cuisine. The only serious challenge is deciding how to order your morning coffee – short, long or flat!

Mr. Ramsey Franjeh, president of Rega HVAC Control Solutions (www.regacontrols.com.au), prides himself on his company's dedication to customer service, quality, and ethical business practice. Rega has garnered an impressive roster of Reliable Controls® projects since becoming an Authorized Dealer in Sydney in 2005.



The Tower Building of the University of Technology, Sydney, Broadway site (www.uts.edu.au) figures prominently on the daily commute into Sydney. It's 28 storeys house a wide variety of spaces used for lecture theatres, laboratories, tutorial rooms, and student cafes and lounges. Facilities Management at the campus enjoys the convenience of Internet access using RC-WebView™ to manage the controls within a number of the campus buildings.

The Westfield Group (www.westfield.com) specializes in retail property development, and recently completed a \$200 million renovation to modernize and expand their Liverpool shopping centre. The entire facility (approximately 93,000 m² or 1,000,000 ft²) uses Reliable Controls®, and marks the second major Westfield project for Rega.

The Koala Park Sanctuary (www.koalaparksanctuary.com.au) was a great way to get acquainted with the wildlife of the land down under.



UTS Tower



sydney



It was a pleasure working the booth at the Air conditioning, Refrigeration and Building Services (ARBS) exhibition in Sydney, alongside our Australian dealers and customers (www.arbs.com.au). The not-for-profit show is held once every two years, alternating between Sydney and Melbourne, and is the exhibition of preference for the Australian HVAC industry. Considerable attention was given to Bill Lambert's 2,500 piece, 1:48 scale, clear plastic replica of the Sydney Opera House. The model, which took seven years to construct, went missing in 1974 after an exhibition in the Washington World Expo. It was found only months before the 2006 ARBS show, and reconstructed, then put on display within steps of our booth. Measuring 4.5 metres long, 3 meters wide and 1.8 meters high, the remarkable model was constructed to help contractors and engineers visualize ventilation and air conditioning problems posed by the unique shape of the opera house architecture.



www.usyd.edu.au/news/84.html?newscategoryId=10&newsstoryid=1207

Of course no visit to Sydney would be complete without taking in an opera. For us, Gilbert and Sullivan's "Pirates of Penzance" was the perfect swan song for our wonderful stay in Sydney. In short, *in matters vegetable, animal and mineral, Sydney is the very model of a modern major capital.*

We wish Ramsey and the great team at Rega Controls continued success in the fantastic harbour-city of Sydney.



GET THE LEAD OUT!

Lead-free production continues to step forward at our head office production facility. To date, lead-free Surface Mount production has been tested and we are moving forward with plans for a completely lead-free production line. Our goal is to be completely lead-free at every level of production by June of 2008. To meet this goal, we have acquired all necessary machinery and are, in fact, ahead of schedule. Our Surface Mount line will likely be producing lead-free product by the end of September, leaving only our Through-Hole production line to transition.



Why are we so hot about lead-free production? We have made a commitment to go green and to use eco-friendly manufacturing processes. It's that simple.

Our supply chain is providing us with lead-free substitutes for all of our parts, and in time, we will completely break free of last century's production model.



RESCHEDULED DATES FINALIZED

BACnet International has finalized the new dates for the BACnet Conference & Expo in Phoenix, Arizona. The new dates are September 24-27, 2007 at the Wyndham Phoenix Hotel. The 8th BACnet Conference & Expo is an educational event for end-users, consultants, and integrators who want to learn more about ASHRAE standard 135-2004. Attendees will have a varied range of experience with BACnet® and there will be presentations geared for each type of attendee. Topics will include: the current state of BACnet®, an introduction to BACnet®, specifying BACnet®, end-user implementations, understanding the device profiles and listings from the BACnet Testing Laboratories (BTL), an introduction to BACnet® Web services, network planning and design, and the future of BACnet®.

DEALER MEETINGS

Reliable Controls® recently hosted the 2007 Western USA Dealer Meeting at the Westin Horton Plaza in San Diego, California and the Eastern USA Dealer Meeting at the Sofitel Philadelphia in Pennsylvania. Both events recognized the achievements of our dealers in 2006, and featured informative presentations, productive discussions, and lively social outings. Thanks to all those who attended.



In the west, the *Entrepreneur of the Year* was awarded to *Essential Building Technologies* of Vancouver, Washington in recognition and appreciation of their sustained new growth in the region.

The *MVP of the Year* was awarded to *Pacific Air Controls* of Bothell, Washington in recognition and appreciation of their excellence achieved in all aspects of business.

The *Top Sales of the Year* was awarded to *Enviromatic Systems* of Grand Prairie, Texas in recognition and appreciation of their highest sales contribution in the region.

WESTERN USA



In the east, the *Entrepreneur of the Year* was awarded to *Intercon Systems* of Boca Raton, Florida in recognition and appreciation of their sustained new growth in the region.

The *MVP of the Year* was awarded to *Digital Network Services* of Newtown, Connecticut in recognition and appreciation of their excellence achieved in all aspects of business.

The *Top Sales of the Year* was awarded to *Building Automation Services* of Newington, Virginia in recognition and appreciation of their highest sales contribution in the region.

EASTERN USA

SERVICE: BEYOND THE BUZZWORD

In today's climate of changing technology and standard protocols, service is more important than ever. With specifications focusing on technology, many in our field are forgetting about the fundamentals of good service. In general, customers do not want techno-babble, or even standard protocols. What customers really want is reliable service. After all, the lack of service is what initiated the drive to standard protocols in the first place. Standard protocols, like BACnet®, will fail if they are not accompanied with good service. This is where Reliable Controls® deviates from our competitors. Our difference is the implementation of the industry standard BACnet® protocol in the most user-friendly Building Automation System backed-up by dedicated service and support.



It's true that adopting BACnet® has not been an easy task for any of the manufacturers in our industry. It is especially difficult to produce a functional easy-to-use system from a complex, detailed, and continually expanding BACnet® standard. However, I want to personally assure you that the Reliable Controls® BACnet® implementation is very well respected as being a *quality* implementation by our peer manufacturers. Reliable Controls® is at the table where the decisions regarding BACnet's future are being made. Reliable Controls® is committed to BACnet®, and we are committed to implement BACnet® in a functional, dependable, and user-friendly way. In this manner, we will serve our customers both now and for the future, because at the end of the day, a company is only as good as its brand's reputation.

Brand reputation is built from the record of *what we do*, not what we say. Our goal at Reliable Controls® is to earn the reputation and brand recognition of having the most satisfied dealers and end-users in our industry.

Providing a high level of service and quality is not easy. It requires hard work and personal sacrifice on the part of the provider. So what motivates people to put forth the extra effort? I believe it comes from having a personal relationship with the customer. I believe it comes from recognizing that you can make a difference. The relationship may only consist of telephone conversations or emails, but, providing a high level of service and quality is all about recognizing another person in need, and that you can provide help.

- Roland Laird, President
Reliable Controls®

BACNET SURVEY RESULTS



Reliable Controls® has completed a new study which clearly illustrates the impact of BACnet® in our industry. The findings of our BACnet® survey were recently unveiled at a Dallas-Fort Worth ASHRAE Chapter luncheon for a group of 75 consulting engineers. 85% of respondents reported an improvement in their ability to win business, 67% reported an improvement in servicing their customers, and 61% reported an improvement in their customer's ability to carry out their job duties. Our survey participants ranged from all sizes and abilities.

BACnet® is clearly making a positive impact by creating choices for customers and allowing standardization to play a key role in maximizing return on investment and reducing energy consumption.



NEW DEALERS



Facility Robotics
28999 Old Towne
Front Street #101
Temecula, CA
92520
www.facilityrobotics.com



Facility Healthcare Services
736 South Poplar Street
Denver, CO
80224-1555
www.fhcare.com



Advanced Comfort Systems
11B Commerce Drive
Ballston Spa, NY
12020
www.advancedcomfortsys.com



Heery International
2102 North Pearl Street,
Suite 106
Tacoma, WA
98406
www.heery.com



Core Controls
5100 Clayton Road B-1, #192
Concord, CA
94521
www.core-controls.com

Project profile

Seattle Municipal Tower



At 62-stories, the Seattle Municipal Tower is Seattle's fourth-tallest tower and is a dominant fixture of the downtown skyline. Completed in 1990 as the Key Tower, the newly-named Seattle Municipal Tower is connected to the Seattle Civic Center in the heart of Seattle's Central Business District. The building is owned by the City of Seattle and is home to many of the city's department offices and other corporate offices. With epic views of Puget Sound and the Olympic Mountains, the Seattle Municipal Tower is one of the premier office buildings in the city.

The original building lighting control system in the Seattle Municipal Tower had failed, resulting in the building's lights continuously operating at great expense to the building owner. An engineering firm contracted by the building owner selected the Reliable Controls® MACH-System as a replacement lighting system because of the ease-of-use and five-year product warranty of the system.

The Reliable Controls® MACH-System also offered the building owners greater flexibility, most notably ambient light sensors for *daylight harvesting* within 15-feet of exterior windows, resulting in energy savings. Also installed throughout the building were 188 SMART-Sensors to provide the tenants with system feedback and after-hours override capabilities.

The Reliable Controls® MACH-System interfaced with the existing Douglas lighting relays by employing Reliable Controls® LID modules, saving the time and expense of replacing lighting relays.

Control and energy savings were immediate as each floor was retrofit and brought online because of the *stand-alone* capabilities of all Reliable Controls® MACH-System controllers.



SMART-Sensor™



MACH-Global™ Controller

CORPORATE

Project Name:

Seattle Municipal Tower

Location:

Seattle, WA, USA

Market Segment:

Corporate

Project Type:

Retrofit

Installation:

Lighting

Installation Areas:

Floors 16–62 and lobby electrical rooms and common areas

Total Area:

93,500 m² (1,000,000 ft²)

Equipment Installed:

- 1 MACH-Global™ controller
- 1 MACH2™ controller
- 47 MACH1™ controllers
- 188 SMART-Sensors™
- 188 LIDs

Network:

Ethernet, EIA-485

Integration:

Douglas Lighting

Total System Points:

2,800 points

Consultant:

Wood Harbinger

Reliable Controls® Dealer:

