



THE **trend**

THE OFFICIAL QUARTERLY NEWSLETTER OF RELIABLE CONTROLS[®] CORPORATION



See The Big Picture

with **RC-Studio[®] 2.0**

RC-STUDIO 2.0: NEW UPDATE

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.

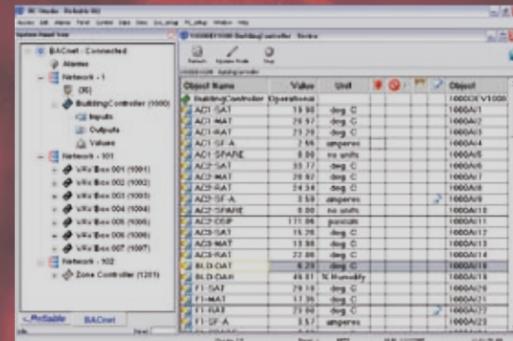
The Q4 2007 release of RC-Studio is a major update release of RC-Studio® 2.0 that offers end-users a wide array of new and enhanced features to benefit workflow and ease-of-use.

Expanded BACnet® capabilities are the major focus of the Q4 2007 RC-Studio® 2.0 update. 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 that incorporates support for the Q4 2007 release of RC-Archive™ 2.0. 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.

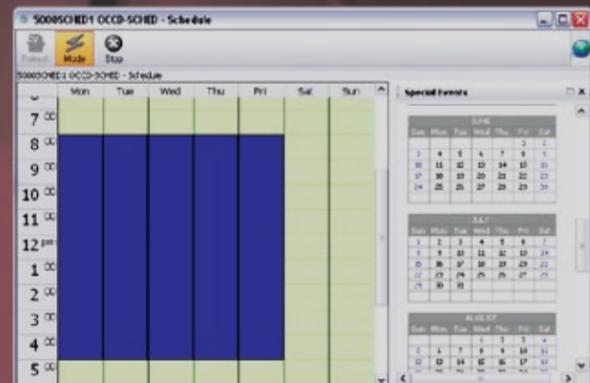
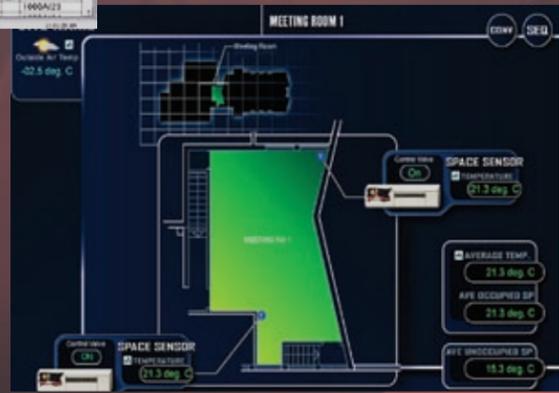
With the added BACnet® capabilities and greater access to RC-Archive™ 2.0 trend logs, you will not only see the big picture, you'll capture it.

New RC-Studio® 2.0 features include support for:

- Microsoft Vista,
- RC-Archive™ 2.0,
- Universal time synchronization,
- Long filenames,
- X-Port-2™ converter,
- MACH-ProCom™ controller,
- Timed override flips *manual* points to *auto*,
- Optional colour change and/or hand symbol for *manual* points, and
- Improved scale-to-fit for over 70 standard graphic formats.



Name	Auto/Man	Value	Unavailable/Value	Controls	Priority	Start Date	End Date	Description
5000SCH01	Auto	010	00004000	NO	Medium	None	None	
5000SCH02	Auto	010	00004000	NO	Medium	None	None	



BIG NEW PROJECTS: 1050 K STREET



In Washington D.C., a new architectural landmark is currently under construction in the city's downtown East End. 1050 K Street is a boutique building that will rise 11 storeys and encompass 136,000 square feet when completed in the Fall of 2008. A hallmark of 1050 K Street will be the elegant transitions throughout the structure between the exterior landscaping and the interior working space to create a seamless harmony of environments. And 1050 K Street will be a LEED Gold project, featuring triple-scrubbed indoor air, wind-power energy, effective use of water resources, and maximized daylight benefits.

Some of the measures and milestones that will determine 1050 K Street's LEED Gold status are:

- EPA Energy Star rated,
- Renewable power will meet 100% of energy requirements,
- Significantly reduced Carbon Footprint of tenants,
- Saves 2 million gallons of water a year,
- Removes 85% of air pollutants,
- Replaces 100% of the air in the building every 55 minutes,
- Recaptures run-off and ground water to use on the rooftop garden and planters,
- Use of non-toxic building materials, and
- Over 60% of building materials are locally sourced.



1050 K Street was awarded to Pritchett Controls, a Washington D.C. area Reliable Controls® Authorized Dealer. To date, 5 ETHER-Link™ portals, 18 MACH1™ controllers, 1 MACH2™ controller, 3 MACH2™ expansion cards, 438 MACH-Air™ controllers, and 445 SPACE-Sensors™ are slated to be installed at 1050 K Street.



LEEDING THE WAY



Leadership in Energy and Environmental Design (LEED) is a North American phenomenon that is influencing building owners and property managers to rethink how buildings are being designed, constructed, operated, and used. At the foundation of the LEED process is a *checklist of points* that guides design engineers into categorizing a facility. The higher the total number of points attained, the higher the LEED ranking. Go to www.reliablecontrols.com/projects and click on the LEED Certified Facilities link at the bottom left corner of the page to view some of the many LEED projects completed by Reliable Controls® Authorized Dealers.

The following table details the *big picture* of how LEED points are organized.

Sustainable Sites – 14 Points		Minimum Energy Performance		Indoor Environmental Quality – 15 Points	
Erosion & Sedimentation Control	*	CFC Reduction in HVAC&R Equipment	*	Minimum IAQ Performance	*
Site Selection	1	Optimize Energy Performance	1-10	Environmental Tobacco Smoke Control	*
Urban Redevelopment	1	Renewable Energy, 5%	1	Carbon Dioxide (CO2) Monitoring	1
Brownfield Redevelopment	1	Renewable Energy, 10%	1	Ventilation Effectiveness	1
Alternative Transportation, Public	1	Renewable Energy, 20%	1	Construction IAQ Mgmt Plan, Construction	1
Alternative Transportation, Bicycle	1	Additional Commissioning	1	Construction IAQ Mgmt Plan, Occupancy	1
Alternative Transportation, Alternative Fuel	1	Ozone Depletion	1	Low-E Materials, Adhesive/Sealant	1
Alternative Transportation, Parking/Carpooling	1	Measurement & Verification	1	Low-E Materials, Paints	1
Reduced Site Disturbance, Open Space	1	Green Power	1	Low-E Materials, Carpet	1
Reduced Site Disturbance, Dev Footprint	1			Low-E Materials, Comp Wood & Agrifiber	1
Stormwater Management, Rate and Quantity	1	Material & Resources – 13 Points		Indoor Chemical & Pollutant Source Control	1
Stormwater Management, Treatment	1	Storage & Collection of Recyclables	*	Controllability of Systems, Perimeter	1
Reduce Heat Islands, Non-Roof	1	Building Reuse, Maintain 75% of Existing Shell	1	Controllability of Systems, Non-Perimeter	1
Reduce Heat Islands, Roof	1	Building Reuse, Maintain 100% of Shell	1	Thermal Comfort, ASHRAE 55-1992	1
Light Pollution Reduction	1	Building Reuse, Maintain 100% Shell 50% Non-Shell	1	Thermal Comfort, Permanent Monitoring	1
		Construction Waste Management, Divert 50%	1	Daylight & Views, Daylight 75% of Spaces	1
Water Efficiency – 5 Points		Construction Waste Management, Divert 75%	1	Daylight & Views, Views for 90% of Spaces	1
Water Efficient Landscaping, Reduce by 50%	1	Resource Reuse, Specify 5%	1		
Water Efficient Landscaping, No Potable/Irrigation	1	Resource Reuse, Specify 10%	1	Innovation & Design Process – 5 Points	
Innovative Wastewater Technologies	1	Recycled Content, Specify 5%	1	Innovation in Design: Provide Specific Title	1
Water Use Reduction, 20% Reduction	1	Recycled Content, Specify 10%	1	Innovation in Design: Provide Specific Title	1
Water Use Reduction, 30% Reduction	1	Local Materials, 20% Manufactured Locally	1	Innovation in Design: Provide Specific Title	1
		Local Materials, 20% Above, 50% Harvested Locally	1	Innovation in Design: Provide Specific Title	1
Energy & Atmosphere – 17 Points		Rapidly Renewable Materials	1	LEED™ Accredited Professional	1
Fundamental Building Systems Commissioning	*	Certified Wood	1		
				* Required	

To be LEED-NC *Certified*, a facility must attain between 26–32 points. For *Silver* certification, a score of 33–38 points must be achieved. For *Gold*, 39–51 points, and for *Platinum*, 52–69 points must be achieved. There is a maximum of 73 points available.

China

shenzhen

Enter the Dragon

Our Pacific Rim tour ends with a whirlwind tour of Hong Kong, Shenzhen, Beijing, and Shanghai. From the dizzying dichotomy of Hong Kong we take the train to Shenzhen into mainland China. Gone are the high fashion Rolex and Burberry boutiques, and in their place flows an ocean of common sense and frugality. The reports of the incredible growth in construction projects throughout China are confirmed as we pass skyscraper after skyscraper. It is estimated that 80 percent of all the construction cranes in the world are located in Asia. And 80 percent of those cranes are located in the rapidly growing People's Republic of China.

Shenzhen, we were told, is the city where Chinese entrepreneurs relocate to start new businesses with foundations rooted in openness and honesty. Since September of 2003, the distribution of Reliable Controls® in mainland China and Hong Kong has been managed in Shenzhen by Mr. Liqun Bian and his wife, Mrs. Annie-Mei. Operating from a small, but practical, office in the beautiful Central Park Garden district of Shenzhen, Liqun and Annie work diligently to recruit and train new dealers and have Reliable Controls® specified in new construction projects.



Long Zhu Hospital, Shenzhen

Ping An Insurance, Shanghai

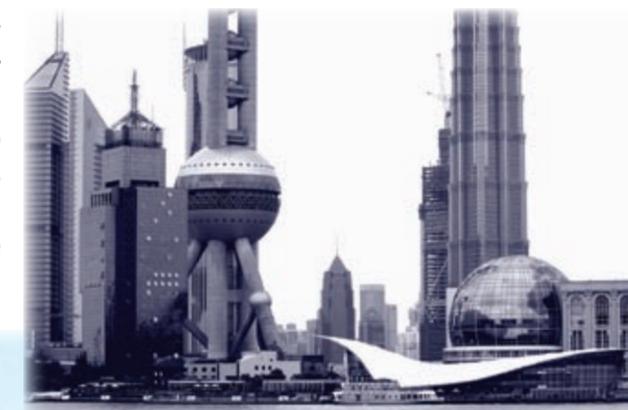


The Central Tower, Shenzhen

The competition for contracts in China is heavy, and the travel schedule is very demanding. Slowly but surely, the hard work pays off, and a roster of prestigious projects are won and completed...a beautiful new building on the Shenzhen University campus...a renovation of the head office of the Industrial and Commercial Bank of China... a landmark project in downtown Shenzhen – The Central Tower, and Long Zhu Hospital, to name a few.

In Shanghai we met with city engineers in their head office at the base of the Oriental Pearl TV Tower, a prominent tower on the city skyline. We are told that many new construction projects could benefit from Reliable Controls®.

Our discussions conclude with a tour of the recently completed first quarter of the Ping An Insurance Center – an impressive French-granite structure encompassing some 200,000 m² (2,152,000 ft²) of partitioned office space. The final point tally in the Ping An complex is planned to exceed 11,000 points of measurement and control. The project signifies a strong salute for future successes for Reliable Controls® in China.



Oriental Pearl TV Tower, Shanghai

shanghai



The Orient Express

Juliana Yu, Vice President of Finance for Reliable Controls®, travelled back to China and Taiwan in September of 2007. Juliana's first port of call was Taipei where she visited our Taiwan dealer, Lucon Automation. After touring projects in Taipei, Chiayi, and Tainan, Juliana travelled to mainland China. Along with Liqun Bian of Shenzhen Reliable Controls, Juliana attended the 2007 Shanghai International Intelligent Building Exhibition for a presentation on Reliable Controls®. After the SIBE trade show, Juliana was off to Hong Kong for a meeting with The Jardine Engineering Corporation, who are big players in the Macao casino business and have 25% of the Hong Kong HVAC market.



NEW DEALERS



Canberra, Australia

Innovative Electrical Solutions
2/8 - 18 Ogilvie Crescent
Queanbeyan, NSW
2620
Australia



Beirut, Lebanon

Electrotrade
Al Naher Road - Saba Center
PO Box 165343
Beirut,
Lebanon



Oceanside, USA

Seaside Heating & Air Conditioning
2942 Industry Street
Oceanside, CA
92054
USA



Perth, Australia

Hexagon Services
184 Raleigh Street Unit 7
Carlisle, WA
Australia
6101



Los Angeles, USA

Keg Technologies
45 W Easy Street, Suite 19
Simi Valley, CA
93065
USA



Johannesburg, South Africa

Redbase Systems
206 Flaming Rock Road
Northlands Business Park
New Market Street
North Riding, South Africa



Austin, USA

YPS Facility Services
112 B FM 672
Dale, TX
78616
USA

ALL ALONG THE PRODUCTION LINE

At Reliable Controls®, we are strengthening our commitment to a green production line by mandating that all of our raw material components will be in full compliance with the Restriction of Hazardous Substances (RoHS) directive. In the near future, all of our purchased raw materials will have the RoHS logo to ensure our production processes comply with the requirements for restricting hazardous materials. The RoHS certified materials can also withstand the higher temperatures necessary for our lead-free soldering process. The first tests for lead-free soldering on our Surface Mount line have been completed and tested successfully. As a result, we are confident that Q4 of 2007 will see some of our products transition to full lead-free production.



As a result, we are confident that Q4 of 2007 will see some of our products transition to full lead-free production.

RoHS is an environmental directive set forth by the European Parliament with the expectation to drive a worldwide movement. In effect since July 1, 2006, the goal of RoHS is to dramatically reduce the use of lead, cadmium, mercury, hexavalent chromium, and both polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants in the production of new electrical and electronic equipment. Manufacturers need to ensure that their products and components comply with the requirements of the RoHS regulations in order to be allowed into the European Union market. While the USA and Canada do not have federal laws on the books to mirror the RoHS directive, some states such as California have passed state laws similar to the RoHS directive.

UPDATED PROJECT PROFILES

Feel free to visit our project profiles on www.reliablecontrols.com. Two new additions include the Seattle Municipal Tower, Seattle's fourth-tallest skyscraper, and The Eye Center in Columbus, Ohio, a unique collection of eye care specialists.



NEW SSL & SST ENCLOSURE COLOUR

The SMART-Sensor™ LCD (SSL) and SPACE-Sensor™ Temperature (SST) will soon have a new enclosure colour option. The new colour option will be matte white. The initial release of the SSL and SST were matte warm grey. The new white enclosures should arrive soon from our supplier and the dealer network will be notified when the new enclosures are available for ordering (add a /W to the order number).



GOOD PRESS

Dockside Green, a 15-acre LEED platinum planned-community in the upper harbour of Victoria, British Columbia, has garnered some high-profile media attention over the last few months, due in large measure to the development's green building credo and pulse of sustainability.

Dockside Green played a prominent role in a recent episode of *The Nature of Things with David Suzuki*, one the longest running series on CBC television. In an episode entitled "Build Green", David Suzuki, world-renowned environmentalist and Canadian icon, travelled across Canada to discover the latest in green housing, and highlighted the low carbon footprint offered at Dockside by fusing renewable initiatives with new technologies, such as the Reliable Controls® MACH-Stat™ controller. *The Nature of Things with David Suzuki* is broadcast in 80 countries around the world.

In the USA, the *New York Times* featured an article on Dockside, entitled "A Smaller Carbon Footprint". In the article, Joe LeRoy, Control Divisions Manager with Houle Electric, promoted the functionality of the MACH-Stat™ controller. As the Reliable Controls® Authorized Dealer in charge of the Dockside controls installation, LeRoy noted that tenants can use the MACH-Stat™ to view their electricity, water, heat usage, and carbon footprint. LeRoy was quoted as saying, "You'll be able to see your consumption for today and yesterday, for this week and last week." The *New York Times* has an average daily circulation of 1.6 million, which ranks third in the US, behind only USA Today and The Wall Street Journal.

LeRoy was also interviewed by *Backbone Magazine* for an article on Dockside entitled, "Not tonight honey, I'm watching my carbon footprint". LeRoy, who programmed the MACH-Stat™ controllers for Dockside Green, was particularly excited in the article about the potential for the MACH-Stat™ to raise people's awareness around their energy consumption in a way that can lead to positive change in their behavior. "People can't fix what they don't know," LeRoy said. "By seeing their impact right up there on the wall; by having a way to measure every day how their behavior impacts their emissions, they can start to set goals and make changes that will have a significant impact, not only on their lives, but on the climate." *Backbone Magazine* has become one of the top four broad-based business magazines in Canada and is emerging as a powerful new brand in Canada's business media.

Dockside Green



Project profile

The Eye Center



Conceived by over thirty ophthalmologists representing more than ten practices, the five-storey Eye Center located in downtown Columbus' Arena District is a regional destination for comprehensive eye care. The Eye Center provides a high-tech Ambulatory Surgery Center, operating theaters, patient recovery suites, laser surgery centers, physician offices, educational and conference areas, an eye bank, medical office spaces, retail space, and underground parking facilities.

"Congratulations, the BAS you installed & programmed at the Eye Center is one of the most informative, easily navigated, and useful I have seen. Nice work."

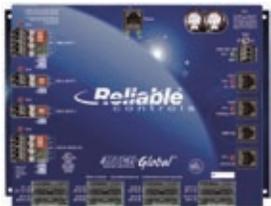
Michael Janssen, AIA, NCARB
Senior VP,
American Medical Building
Development Group

The Reliable Controls® MACH-System is integral to providing 24-hour integrated management of the intricate Eye Center environment. The system provides dependable control, remote access, monitoring, and 24-hour alarm notification. The MACH-Global™ building controller and the ETHER-Link™ portal manage 3 MACH1™ controllers, 40 MACH-Zone™ controllers, and 157 MACH-Air™ VAV controllers on four dedicated BACnet MS/TP networks utilizing a BACnet IP backbone.

The Reliable Controls® MACH System controls a central hydronic heating and chilled water plant, two medium-pressure variable air volume handling units, a single dedicated constant volume air handling unit for the low-pressure surgery center, 40 independent reheat zones, and 157 MACH-Air™ VAV controllers. SMART-Sensors™ are featured throughout the facility for space temperature monitoring as well as simple, local user interface. The superior functionality of the Reliable Controls® MACH-System offers truly reliable and flexible control of all aspects of the Eye Center. Every phase of the installation was completed and operational ahead of schedule and zero tenant comfort complaints were voiced to the developer and construction manager during the first year warranty walk-through.



MACH-Zone™ Controller



MACH-Global™ Controller

Healthcare

Project Name:

The Eye Center

Location:

Columbus, OH, USA

Market Segment:

Healthcare

Project Type:

New Construction

Installation:

HVAC

Total Area:

11,000 m² (120,000 ft²)

Equipment Installed:

- 1 MACH-Global™ controller
- 1 ETHER-Link™ portal
- 3 MACH1™ controllers
- 40 MACH-Zone™ controllers
- 157 MACH-Air™ controllers
- 199 SMART-Sensors™

Network:

EIA-485, BACnet/IP

Integration:

BACnet®

Total System Points:

1,700 points

Consultant:

AMB Development Group

Reliable Controls® Dealer:



...people and technology
you can rely on™