Reliable controls®

. . . people and technology you can rely on™

THE resource

Official NEWSLETTER — SIXTEENTH ISSUE — FALL 2002

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HARDWARE HIGHLIGHTS

What's new

X-Port™ Converter Released

The Reliable Controls™ X-Port™ converter is a convenient communication device which provides an extra EIA-232 port to any MACH controller. The X-Port™ converter connects to the SMART-Net™ network and transfers information between the Reliable Controls™ MACH-System and any Reliable Controls™ software without compromising the existing SMART-Sensors™ on the network. Power is derived from the SMART-Net™ port of the controller. Visual indication of operation is provided by status LEDs.

X-Port™ Features:

SMART-Net™ Connectivity
Either direct or remote
Software Compatability
For ease-of-use
Panel Configuration
For all MACH controllers
Self Powered
For convenience
Visual Feedback
For communication status

BACnet is *Powerful!*

We've made it **EASY.**

Just because you want to enjoy the powerful benefits of the BACnet® protocol doesn't mean you need a PhD in computer science to adjust a room temperature setpoint! At Reliable Controls™ we believe in future-proofing your building automation investment and empowering you with simple, flexible and economical solutions. That is why our approach to implementing BACnet® is unique from any other vendor. We took the power of BACnet® and made it simple and seamless. You didn't need to be fluent with the communication protocols of the past, so why spend time and effort learning the language of BACnet®? *Let the controllers do the talking.* Our MACH-System controllers speak native BACnet® over IP, Ethernet, MS/TP and PTP – the industry standards. And they use BACnet® without complicating or compromising the features and performance of our existing software products. We've engineered our controllers to speak BACnet® fluently, so you don't have to.

BACnet™   BMA   Reliable controls
...people and technology you can rely on™
www.reliable-controls.com

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PLC 10/02

What's new

Hardware (cont.)
MACH-Air™ with Triac Outputs

A new triac version of the MACH-Air™ VAV controller has been produced. The new MACH-Air™ Triac model (MA-T) has a unique output configuration designed to minimize the need to install pilot relays for zone heating/cooling elements.

The new MA-T has 1 universal output, 1 single stage triac output, and 1 dual stage triac output. The universal output can be used to drive a modulating heating or cooling coil. The single stage triac can drive a fan or single stage heat/cool. The dual stage triac can drive heat1/heat2 or cool1/cool2 elements. All triacs are capable of switching 24 VAC @ 1 Ampere.

The new MACH-Air™ Triac will optimize your installation costs by saving you money on installation labour and parts.

TRAINING HIGHLIGHTS

Training Courses

Reliable Controls™ MACH-System training courses for dealers, customers, and consultants are scheduled according to demand. Visit the Training page of the Reliable Controls™ Web site and click on the online registration form to submit your training request today. Contact Jutta Goebel for further details: jgoebel@reliable-controls.com

Visit our Web site and view the online
MACH-Global™ Flash Animation

Reliable® controls
...people and technology you can rely on™

the **ULTIMATE** Building Controller

BACnet MACH-Global™ BUILDING CONTROLLER BMA BACnet MANUFACTURERS ASSOCIATION MEMBER

BACnet B/IP	BACnet PTP-1	BACnet PTP-2	BACnet MS/TP-1	BACnet MS/TP-2	BACnet MS/TP-3
	SMART-Net	AUX EIA-232	AUX EIA-485	128 Universal I/O	

Reliable
c o n t r o l s   *. . . people and technology*
                    you can rely on™

Frost & Sullivan Report - BACnet® Ahead of LonWorks

At the recent BIG-NA "BACnet® Connected" Conference held at Ohio State University, Carolyn Bingham of Alerton Technologies presented an overview of a Frost & sullivan report, which documents shipments of BACnet® based products and LonWorks products in North America. The report - which can be obtained from www.frost.com (report #A143-01-00-00-00), clearly demonstrates that BACnet® has maintained a substantial marketshare advantage over LonWorks since 1998.

BAS Shipments in North America*

Year	BACnet®	LonWorks
1998	110	43
2001	231	61

*Expressed in Millions of Dollars

BACnet® Connected - Plugfest Draws Large Participation

The BACnet® Interest Group of North America (BIG-NA) held its' 5th annual 'plugfest' at Ohio State University this past September 22-24. Plugfests are held annually to showcase various vendors products in a 'live' interoperability demonstration. The number of vendors attending the plugfest has grown over the years (see table below). Reliable Controls™ demonstrated BACnet® over Ethernet and BACnet® over MS/TP using three controllers: MACH-Global™, MACH-Air™, and MACH-Zone™. Being the first plugfest for Reliable Controls™, many of the attendees were surprised to witness how far Reliable had implemented the BACnet® protocol and the ease with which the operator could navigate.

Plugfest Vendor Participation

Year	Vendors
1998	4
1999	6
2000	6
2001	7
2002	10*

* Reliable Controls, Alerton Technologies, Automated Logic, Delta Controls, Siemens, McQuay, Fieldserver Technology, Trane, Lithonia Lighting, Envenergy

Benefits of BACnet®

Steven Bushby - the chair of the BACnet® standard, provided an interesting update of the standards committee progress at the BIG-NA "BACnet® Connected" Conference. Seven working groups are now in progress to enhance and expand the BACnet® protocol:

1. **Applications (AP-WG) -** this workgroup deals with general HVAC applications using the BACnet® standard.

2. **Life Safety & Security (LSS-WG) -** this workgroup is developing the standard to accommodate this aspect of building automation.

3. **Lighting Applications (LA-WG) -** this workgroup deals with accommodating lighting with BACnet®.

4. **Objects and Services (OS-WG) -** this workgroup handles all the low level and miscellaneous aspects of the standard.

5. **Utility Integration (UI-WG) -** this workgroup is investigating how to integrate the BACnet® standards into Utilities.

6. **Network Security (NS-WG) -** this workgroup is addressing any security concerns raised when using the standard.

7. **XML (XML-WG) -** this workgroup is researching how to integrate the eXtensible Markup Language into BACnet®.

Steven noted that aside from being an ASHRAE and ANSI standard, the BACnet® standard is currently a Draft International Standard (ISO/DIS 16484-5) and in December of this year, the ISO will vote to approve BACnet® to become an ISO standard, opening the door for its widespread use in Europe and Asia.

BMA™
BACnet MANUFACTURERS ASSOCIATION
M E M B E R

Reliable Controls™ is a proud member of the BMA
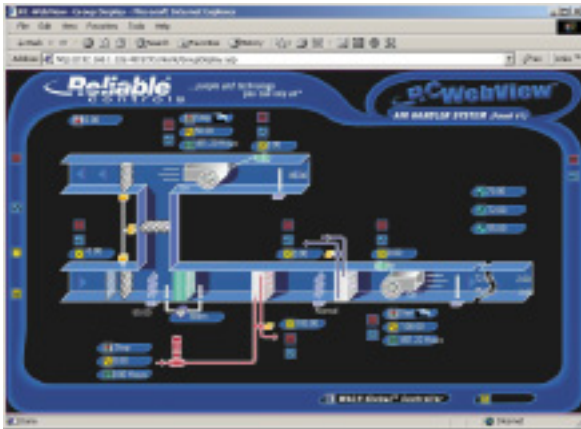
What's new

SOFTWARE HIGHLIGHTS

RC-WebView™

RC-WebView™ is now shipping! RC-WebView™ provides Internet based access to the Reliable Controls™ MACH-System by translating the system groups into an HTML form that can be viewed using Microsoft Internet Explorer 5.0 or higher.
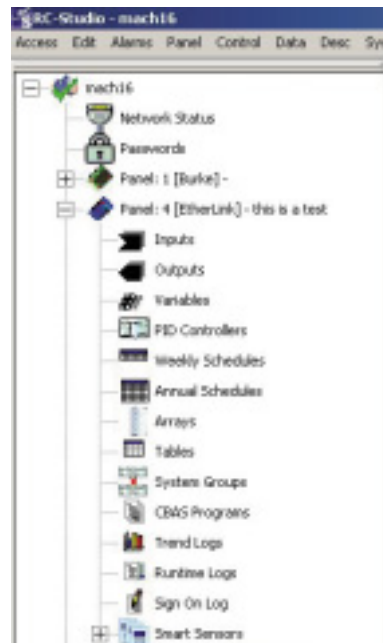
RC-Studio™ Update 1.20

The latter part of June saw the release of a full update version of RC-Studio™. The update incorporates numerous fixes and new features that are detailed in Product Bulletin 4156.

RC-WebView™ resides on a dedicated server and provides operators with the ability to view and manually adjust point values. Operators may also adjust weekly schedules and annual schedules, as well as view any trend logs or runtime logs. Alarms are also accessible and the standard system group keywords are available to provide additional functionality.

Documentation for RC-WebView™ has been completed and is available from the Reliable Controls™ Web site. Download the manual and learn how easy Web access can be!

Foremost amongst the new features is the addition of a tree view pane on the left side of the RC-Studio™ main screen. The tree view provides easy navigation, for those of us who prefer using a mouse, as well as an intuitive visual representation of the hierarchy within any Reliable Controls™ MACH-System. The tree view can be turned on or off as desired by pressing 'CTRL+P' or right clicking in the tree view and choosing 'Hide' from the context menu.

Many users have commented favourably regarding the addition of the tree view to RC-Studio™ and we encourage you to go to the Log-In section of our Web site and download the full update today! New purchases of RC-Studio™ receive the updated version automatically.

Reliable controls ... people and technology you can rely on™

BACnet™ is a registered trademark of ASHRAE

(continued from page 3)
Steven closed his presentation by summarizing the following 9 benefits of ASHRAE Standard 135 (BACnet®):

1. BACnet® is designed specifically for building automation.

2. BACnet® does not depend on current technology - so it will not become obsolete.

3. BACnet® is maintained by ASHRAE - therefore it is truly an open standard.

4. BACnet® has 'global interest'.

5. BACnet® does not impose a 'fixed architecture' so there is flexibility in its application and design.

6. BACnet® can be implemented in any size building or campus.

7. BACnet® contains an 'extendable set of objects' to accommodate future requirements.

8. BACnet® is used in the design of 'many vendors products'.

9. There is no charge for 'using' the standard - just follow the design rules to be compatible.

Get a BA in BAS

Pennsylvania College of Technology and School of Construction and Design Technologies have announced a new major for the fall 2002 semester that will see students obtain a Bachelor of Arts in Building Automation Technology. The purpose of the major is to offer students fundamental knowledge in electrical systems, electronics, electromechanical maintenance, HVAC technology, and building automation and control technology. This includes mechanical systems, control theory, control programming, control networks, control commissioning and energy management. To support the new degree program Reliable Controls™ has donated 12 control systems to the college to equip the student laboratories currently under construction.

For further information about this exciting new course please contact Dr. Phillip Henning, Ph.D., Associate Professor of Pennsylvania College of Technology: Phone: (717) 326-3761 ext 7475, Fax (717) 327-4503 Email: phenning@pct.edu

MARKETING HIGHLIGHTS

On marketing

Upcoming Trade Shows

16th North American Mushroom Conference and Exposition - Banff, Alberta, October 6-9, 2002

AHR EXPO - Chicago, Illinois, January 27-29, 2003
With over 1400 exhibitors, the 2003 AHR EXPO promises to be one of the largest shows ever! Held in the McCormick Place North and South, our booth will be #3741. Come and check out the latest Reliable Controls™ offerings.

Promotional Items

Our stock of golf shirts, t-shirts, pens, screwdrivers, mugs, and STORMTECH™ outerwear has been replenished. All items bear the Reliable Controls™ logo and are great for gift giving.

Movers & shakers

SALES HIGHLIGHTS

Reliable controls®
Authorized Dealer

New Reliable Controls™ Authorized Dealers

United States

Building Automation and Service Company
Morristown, TN
Contact: John Knisley - jknisley@basconline.com

Building Control Solutions
Edwardsville, KS
Contact: Cheryl Morton - cherylm@bcs-kc.com

Gill Plumbing, Heating & Air Conditioning
Burkburnett, TX
Contact: Robert Gill - gillr4897@aol.com

Marion Maner, Inc.
Albany, GA
Contact: Marion Maner - marionmaner@planttel.net

P.E. Control Services Ltd.
Tuckahoe, NY
Contact: Charles Babcock - charlesbabcock@pectrls.com

Sound Energy Systems
Tacoma, WA
Contact: Dan Newton - dan_soundenergy@msn.com

Zeller & Associates
Spokane, WA
Contact: John Zeller - johnzeller@kmcnw.com

International

AUSTEC Building Automation
Nerang, QLD, Australia
Contact: Andy Henderson - austecba@bigpond.com

Have you visited our web site recently? We always encourage your feedback. If there are any items you feel are not covered on the site that should be, we certainly would like to know.

www.reliable-controls.com

Reliable ®
c o n t r o l s   . . . *people and technology*
you can rely on ™

PRODUCTION HIGHLIGHTS

Finished Goods Inventory

Prosemble Electronics Corporation and our testing and final assembly departments are now a well oiled machine that is able to keep pace with the demand for Reliable Controls™ product orders. Delivering the goods is the #1 objective of any organization and at Reliable Controls™ we are committed to shipping your order as quickly as possible. We have increased our finished goods inventory to the extent that we are easily able to meet our 2002 goal of shipping your order within 15 business days. Please provide us with 3 weeks advance notice on orders larger than 100 pieces.

Prosemble
ELECTRONICS CORPORATION

www.prosemble.net

QUALITY   **TURNKEY MANUFACTURING**   **ASSEMBLY**

Accountability Achieved!

Document the performance of your building automation system with **Reliable Controls RC-Archive™**.
New and *easy* to use, this multi-polling application is dedicated to making **historical archives** for *energy analysis* and *comfort management*.

See how effortless proven performance and total accountability can be.

www.reliable-controls.com

WEB SITE HIGHLIGHTS

On line

New Home Page Look

Our webmaster has given the 'Home Page' of the Reliable Controls™ Web site a new look. The bar down the right side features slide out menus to provide access to the 'Log-In' and other areas. The bar also features 'one-click' access to current features of the site.

RC-Archive™ Demonstration

A Flash presentation is now available that showcases the features and benefits of using RC-Archive™ for the creation of long term data archives of trend log information. Click the link from the 'Home Page' to learn more about this exciting Data Acquisition Software.

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