

# THE resource

Official  
NEWSLETTER of

**Reliable**<sup>TM</sup>  
controls

... people and technology  
you can rely on<sup>TM</sup>

What's  
new

## HARDWARE HIGHLIGHTS

Hardware

BACnet

Software

Marketing

Sales

Production

Project Focus



### Building Controller

An exciting new controller to supersede the MACH-Net<sup>TM</sup> controller is slated for release by the end of 2001.

**MACH-Global<sup>TM</sup>** will provide all the capabilities of the existing MACH-Net<sup>TM</sup> controller plus an array of new features including:

- On board 10 Mb Ethernet
- Six times the processing power of the MACH-Net<sup>TM</sup>
- Direct 24V AC/DC power input, with on board power switch
- Flash firmware for online upgrade
- Larger database
- New 12 bit I/O cards, output cards have a separate 24V AC/DC power supply
- HOA switches with position feedback
- LEDs on inputs
- Compatibility with all previous generation products (I/O cards not compatible)
- Auxiliary ports and USB for future expansion



### Rooftop Controller

#### GETS NEW METAL

A newly repackaged MACH-Zone<sup>TM</sup> RT will soon be in production. The MACH-Zone<sup>TM</sup> RT offers two dual stage triac outputs for cool1/cool2 and heat1/heat2, one single stage triac for supply fan, and one universal output for mixing dampers. The new packaging will fit the same footprint as the MACH-Zone<sup>TM</sup> Universal, 3T and 4T models. MACH-Zone<sup>TM</sup> RT is expected to be available in September, 2001, and will be ideal for many rooftop air-conditioning applications.



### SMART-Sensor

#### READS Humidity

Come November 2001, a new version of the SMART-Sensor<sup>TM</sup> will be available that will be packaged with onboard temperature and humidity. Humidity sensor selection and board design are in progress, pricing will be released soon.



## BAClight<sup>TM</sup> Gateway Makes DEBUT

Sierra Controls of Kitchener-Waterloo, Ontario, Canada, completed the inaugural BAClight gateway project for the West-End Community Centre in Guelph, Ontario. The Centre is a large multifunctional complex with a Fire hall, 3 Swimming Pools, Dual Ice Sheets, Library, Gymnasium, Fitness Club, restaurants and community rooms. The lighting system for the project consists of five WRS2224 Douglas Lighting relay scanners. A total of 120 points of status and control are integrated into the MACH-Net Building Automation System<sup>TM</sup> using BACnet and the BAClight<sup>TM</sup> gateway.

# What's new

## HARDWARE HIGHLIGHTS



### Portal Brings *Modbus On Board*



Did you know the MACH-Net Building Automation System™ supports the Modbus protocol? The MODBUS-Link™ portal is a new portal device that allows you to simply and conveniently integrate Modbus devices into the MACH-Net Building Automation System™. To apply the MODBUS-Link™ portal, run one Modbus RTU network to pick up the addressable Modbus devices and connect the network to the MODBUS-Link™. Use the RC-Toolkit™ software to connect to the RS-232 port on the MODBUS-Link™ and assign the appropriate *device profiles* to your Modbus devices. Finally, map the Modbus parameters of your choice to any point in the MACH-Net Building Automation System™ accessible over Ethernet. Supported Modbus devices include: Veris Enercept Power Meters, AC Tech VFDs, Honeywell 5781DM boiler controls, Kohler generators and Liebert SiteLink Modules. If we don't support a particular Modbus device that you need, simply email us the make and model of the device and we'll add the new device profile to the Modbus Setup software posted on the web.

## Reliable Joins



As of May 2001, Reliable Controls became a member of the **BACnet** Manufacturers Association (BMA). This association allows its members to submit product for testing and certification bi-annually. Products that successfully complete the testing and evaluation process are certified to display the **BACnet** Testing Laboratories (BTL) symbol on their packaging.



[www.bacnet.org](http://www.bacnet.org)

## Ethernet Based Products

### *Support Firewalls*

A new firmware release for all Ethernet based products is now in field trial for support of firewalls. Firewalls only permit a single IP address to be passed to internal segments for security reasons. This presented a direct conflict with the Reliable Controls™ protocol as each controller/portal passes it's IP address along with all the other IP addresses that are shared on the network. The new firmware provides "router" functionality to the MACH-Net™ controller, ETHER-Link™ portal and MODBUS-Link™ portal, allowing the operator to access multiple IP addresses behind the firewall while passing only a single IP address outside of the firewall.

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](http://www.reliable-controls.com)



# What's new

## BACnet HIGHLIGHTS



### Controllers Support BACnet



These days we are very active in the area of BACnet development. Our goal is to offer all of our controllers with BACnet networking capabilities. This will enable all controllers to reside on the same physical network and share information with other BACnet products. In addition to supporting the BACnet protocol, our controllers will continue to support Reliable Controls™ Protocol on the RS232 and Ethernet ports (Dual protocol). All controllers will continue to be programmed and operated with RC-Studio™ software. Operating via third party BACnet software will be optional.

Starting with firmware version 6.10 all MACH controllers (except MACH-Air™ and MACH-Zone™) support the Point-to-Point (PTP) implementation of BACnet . The ETHER-Link™ portal is our most advanced BACnet product, supporting BACnet PTP and BACnet over Ethernet. A Protocol Implementation Conformance Statement (PICS) for the ETHER-Link™ portal is attached separately to the newsletter. To date we have completed five projects using BACnet. The table below lists the details.

Project	Location	Manufacturer	System	Network	Components	Completed
RCMP-K	Edmonton, Alberta, Canada	Trane	Chiller	Point-to-point	Summit BCU MACH-Net™	June, 1998
Telus-Viger	Montreal, Quebec, Canada	Liebert	Computer Room	Point-to-point	SiteLink MACH-Net™	May, 2000
Telus - Chomedey	Laval, Quebec, Canada	Liebert	Computer Room	Point-to-point	SiteLink MACH-Net™	April, 2001
West End Community Centre	Guelph, Ontario, Canada	Douglas	Lighting	Point-to-point	BAClight ETHER-Link™	May, 2001
Workers Compensation Board	Richmond, British Columbia, Canada	Carrier	Chiller	Ethernet	BAClink ETHER-Link™	June, 2001
Paducah Community College	Paducah, Kentucky, USA	Alerton	Distributed	Ethernet	LSI and BACTalk ETHER-Link™	July, 2001

## TRAINING SCHEDULED in ONTARIO

Customer Training – September 24-25, 2001, Toronto, Ontario, Canada

Dealer Training – September 26-28, 2001, Toronto, Ontario, Canada

The next set of training courses will be held in Toronto, Ontario at the end of September. Registration forms for the courses have been issued to the dealer network and both courses are filling quickly. If you did not receive a registration form by email, please let us know and we will forward one to you right away.

# What's new

## SOFTWARE HIGHLIGHTS



### RC-Studio™ *Rolls out on CD-ROM*



The new CD-ROM version of RC-Studio™ is out and from all accounts the new version is a hit! Included in the new release is a comprehensive alarm package that permits alarm priority setting, custom alarm display sizing, audio linking and action triggering with alarms and more. The update in the Dealer Log-In is spanned across seven diskettes and includes on-line help and a soft copy of the RC-Studio™ software manual.

*Check out the alarm feature demo on the web site.*



### Device Manager for *RC-Toolkit™*



RC-Toolkit™ now ships on CD-ROM. Updates on the web include a new beta version that contains a new "Device Manager" feature in the Modbus Setup tool. The new Device Manager allows Modbus aficionados to create and modify custom Modbus profiles.



### RC-WebView™ *soon to SURF*

Beta site field trials for RC-WebView are planned for Q4 this year. RC-WebView is a high-level, server-based application that presents html graphic displays of the *System Groups* within RC-Studio. Operators coming to a site through RC-WebView will access the system using MS Internet Explorer (5.0 and higher) System group graphics will be presented and operators will be permitted to view and change the value/state of all dynamic data as well as change schedules and view/print trend log and runtime log data. Point creation, deletion and access to Control-BASIC programs will not be permitted.

### RC-Archive™ *in the FIELD*



The software we've all been waiting for is just around the corner. Beta site field trials have been ongoing since the spring. Release is expected later this year. RC-Archive™ permits automated polling of multiple buildings to download trend-log data into long term historical archive files. This package will be ideal for customers who require on-going energy monitoring and tracking, and reporting from multiple buildings.

# High tech edge

## PRODUCTION HIGHLIGHTS



### Prosemble Posts Web Site

Have you ever wondered how Reliable Controls products are made? Our manufacturing division, Prosemble Electronics Corporation has launched a new web site that will provide some insight into the manufacturing and assembly of high-quality electronic products.



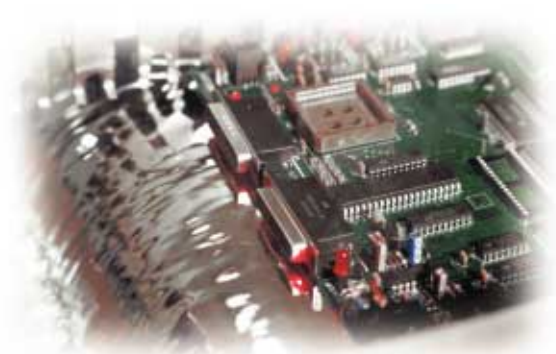
You'll find plenty of photographs of our equipment in action; assembling products for Reliable Controls and other Vancouver Island high tech electronic manufacturers. The function of every device on our ever-expanding production line are explained in detail.

Of course, there's more to Prosemble than just equipment. You'll learn about some of the many services provided by Prosemble. Email links are provided for our key personnel. They'd be happy to answer any questions you may have, even if you're driven by mere curiosity. Visit us today at [www.prosemble.net](http://www.prosemble.net), and check back often, as new features and information are being added continually.



### Equipment for Prosemble

We waved goodbye to Prosemble's original wave solder machine and welcomed in the larger Electrovert Econopac to take its stead. The new machine improves soldering capacity and quality.



## NEW Faces

**M**r. Peter Coward joins the team at Reliable as technical writer. Peter has a background in technical writing and software systems support. We're all looking forward to newly updated releases of our technical literature.

There's a new voice on the end of the telephone when you call Reliable Controls, and that is the voice of **Mrs. Maria Reidy**. Maria takes over the front reception desk for the company and will direct your call to where it needs to go.

In site

**Reliable**™ . . . people and technology  
controls you can rely on™  
MACH-Net Building Automation System™

## MILESTONE Reached

In June 2001 Reliable Controls shipped its'

# 10,000<sup>th</sup> controller.



## PROJECT FOCUS

### U of A Hospital Receives Energized Accolades

The University of Alberta Hospital (U of A) located in Edmonton, Alberta, Canada, is one of Canada's largest full care health centres. The 5 level facility (13 storeys tall) provides over 200,000 square metres (2.2 million square feet) of conditioned space served by an additional 100,000 square metres (1.1 million square feet) of interstitial mechanical plant space. In September 2000 the facility was honoured with two awards from the climate change Voluntary Challenge & Registry (VCR). The first award recognizes **gold level** reporting of energy performance and **Reduced Emissions**. The second award recognizes energy efficient retrofit and new construction projects **nationally**, across all sectors of Canadian business – manufacturing, transportation, health care education, etc. Mr. Doug Dunn, Manager of Building Operations claims *"the Reliable Controls interface and what it can do is quite exciting... it wouldn't be a world-class facility without it. We are very, very proud of the system, it surpassed all our expectations."* And for Serv-All Mechanical Services, the Authorized Dealer responsible for retrofitting the existing field-based system to Reliable Controls, Doug says *"if we didn't have Serv-All doing the installations, we would not have gone far – they were outstanding"*. Reliable Controls Corporation's MACH-Net Building Automation System™ installed at U of A, resides on a fibre-optic thicknet network, and consists of over 6,000 points of measurement and control. Expansion plans currently underway anticipate the MACH-Net Building Automation System™ to double in size over the next three years.



## WANTED USA Sales Managers . . .

**Do you know someone who would make a good sales representative for Reliable Controls?**

We're looking for two regional sales managers in the USA. One to manage and support the wave of new dealers recently signed up in Eastern USA, and another to make new dealer acquisitions for us in Western USA. Ideal candidates would possess excellent verbal and written communications skills in a professional sales capacity, preferably with proven experience in the controls or electronics industry. Promoting our products to the consulting and engineering community at large will be an important aspect of the position. The ability to competently instruct training courses would also be an asset. If you know of any individuals who might be interested in either of these positions, please contact Tom Zaban or Hugh Paterson. We expect to fill the positions by the end of November, 2001.