



INTRODUCING RC-WEBVIEW® 3.12
Now with Program Capabilities

AN HISTORIC MILESTONE
BTL's First Lighting Device



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RUNtime

The Official Quarterly Newsletter of Reliable Controls® Corporation

Q1- 2019

Introducing the World's First
BACnet® Lighting Device (B-LD)
MACH-ProLight™



INTEGRATED ILLUMINATION MACH-ProLight™



The MACH-ProLight lighting controller is the first device in the world to be listed under the BACnet Testing Laboratory's "Lighting Device" (B-LD) profile.

Empower your facility managers to integrate lighting controls into the MACH-System™ using the MACH-ProLight lighting controller, and save energy while achieving OpenADR and Title 24 compliance.

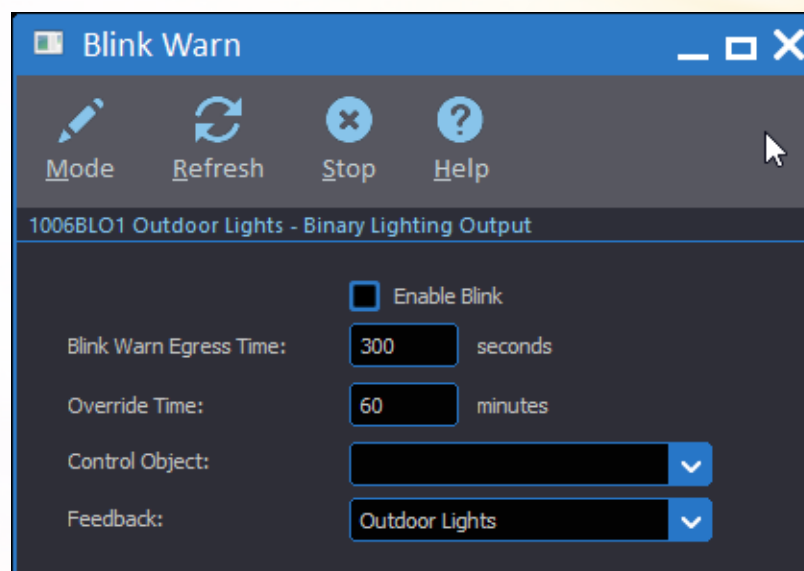


The MACH-ProLight is a freely programmable and scalable BTL-listed device (B-BC, B-LD), providing 0-10 VDC continuous dimming and BACnet® BLO object support. This allows you to implement advanced control strategies such as daylight harvesting, dim-to-off control, vacancy control, plug-load control, and scene/theme control.

Compatible with standard lighting-control relays, low-voltage peripherals, EnOcean® wireless products, and the Reliable Controls SPACE-Sensor™ and SMART-Net™ products, the MACH-ProLight conveniently ships in pre-assembled, UL 508A listed control panels, or as individual components, and will illuminate your building's operational efficiency, today and tomorrow.

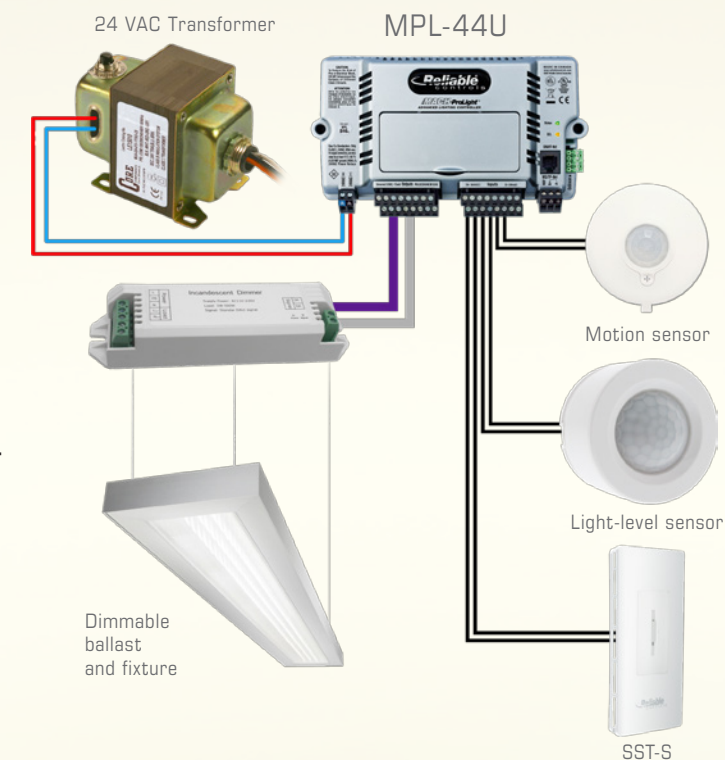
Binary Lighting Output (BLO) Object

The highly advanced MACH-ProLight is a small and durable controller packed with flexibility. The controller supports the BACnet Binary Lighting Output (B-BLO) object, which includes embedded firmware that greatly simplifies the implementation of beneficial lighting control sequences such as blink warn, daylight harvesting, vacancy shut-down, scheduling, and bi-level switching.



Topology for Daylight Harvesting

The MACH-ProLight advanced lighting controller is perfect for implementing daylight harvesting routines. The MACH-ProLight's Universal outputs (-U) allow you to conveniently configure analog, binary or pulse/latching relay outputs. Use the analog outputs to control sinking or sourcing 0-10 VDC dimmable lighting fixtures. With a light-level (lux) sensor connected to an analog input, you can configure a PID loop to drive the dimmable ballast in the lighting fixture, based on the level of available natural light. Add a SMART-Space™ Temperature sensor for manual switching and a motion sensor when vacancy shutdown is required.



Lighting Control Panels:

The MACH-ProLight controller can be ordered as part of a customized, factory-wired lighting control panel. Available in three sizes: MPL-LCP-8 (up to 8 relay outputs), MPL-LCP-32 (up to 32 relay outputs), and MPL-LCP-64 (up to 64 relay outputs).

Each MACH-ProLight Lighting Control Panel is UL 508A listed and includes: relays, transformer, backplate, wiring bays, and a low voltage breakout panel for terminating field devices. The pre-wired lighting enclosures have full separation of Class 1 circuitry and are assembled in Reliable Controls' UL 508A certified facility.



To take advantage of the many benefits of the Binary Lighting Output (BLO) object, you must use RC-Studio version 3.6.0.1 or higher.



Wired Peripherals

A wide range of wired peripheral products are available from Reliable Controls to complement the MACH-ProLight controller, allowing you to create a fully integrated lighting control solution within the MACH-System. In addition to Panasonic and GE latching lighting relays, Reliable Controls offers the SPACE-Sensor Temperature (SST3) series to switch and/or dim lights, as well as relay mounting plates, transformers, and a series of fully configurable MACH-ProLight Lighting Control Panels. Read on to learn more about these wired peripherals.

Convenient Lighting Relays



The MACH-ProLight advanced lighting controller has outputs that are designed to drive Panasonic RE-WR-6161K-84 (single-pole) and RE-WR-6172K-84 (dual-pole) series lighting relays. Panasonic relays have a strong track record in the lighting controls industry, and offer the benefit of reporting the relay status without consuming a controller input. Additionally, one model of the MACH-ProLight (MPL-88GE) is capable of driving the GE RR7 and RR9 series of lighting relays.

As an alternative to the SST3 line, the Douglas Lighting 8700 series can be used. The 8700 series of switches have the advantage of being wired directly to the relay, therefore do not consume a controller input. The 8700 series switches can use standard decora cover plates and they have built-in LED status for On and Off. These are available from Douglas retailers.



Switching and Dimming

The Reliable Controls SPACE-Sensor Temperature (SST3) line can be used to switch and dim lighting in addition to sensing the room temperature. The setpoint slider on -S models has high resolution and is an exceptional manual dimming control input. Models with the -O option work great as a physical light switch with a decora-style, low-profile design. Two-button -UD models can be used for switching of bi-level or multiple lighting circuits. These switches can all be ordered with Passive Infrared Occupancy sensors (-OC models).



Wireless Peripherals

An exciting range of wireless peripheral products are available to complement the MACH-ProLight's onboard EnOcean® port. Once an EnOcean Transceiver is connected to the MACH-ProLight a world of wireless EnOcean compatible devices becomes available, ready to illuminate and optimize your next lighting control application.

EnOcean Port

The MACH-ProLight is the first controller in the MACH-System to ship standard with a dedicated EnOcean port. The EnOcean port provides a high-speed, EIA-232 connection to a single EnOcean Transceiver that can communicate with up to 32 wireless EnOcean devices.



EnOcean Transceiver

The new EnOcean Transceiver makes its debut along with the release of the MACH-ProLight controller. Aesthetically designed to complement any decor, the Reliable Controls EnOcean Transceiver (ET) opens the door for integration of a wide variety of EnOcean wireless sensors and control devices with the MACH-System.



A single EnOcean Transceiver can integrate up to 32 EnOcean devices. Device parameters for each EnOcean product are directly stored as BACnet virtual objects in the connected controller's database. The ET does not require separate power as it takes power from the host controller's EnOcean port. Available in 868 MHz ASK and 902 MHz FSK radio frequencies, the EnOcean Transceiver



is the perfect solution for retrofit projects or locations where the wiring installation is difficult or expensive.



EnOcean Wireless Switches

EnOcean wireless switches can also be used and come in many different shapes from various manufacturers. These switches require no power and can be located or relocated anywhere. Power is electromechanically generated by a button press, which sends a radio transmission to the EnOcean Transceiver.



EnOcean wireless switches

Other EnOcean Devices

There are many devices available from the EnOcean Alliance website, which can all be integrated wirelessly into the MACH-System using the MACH-ProLight advanced lighting controller.

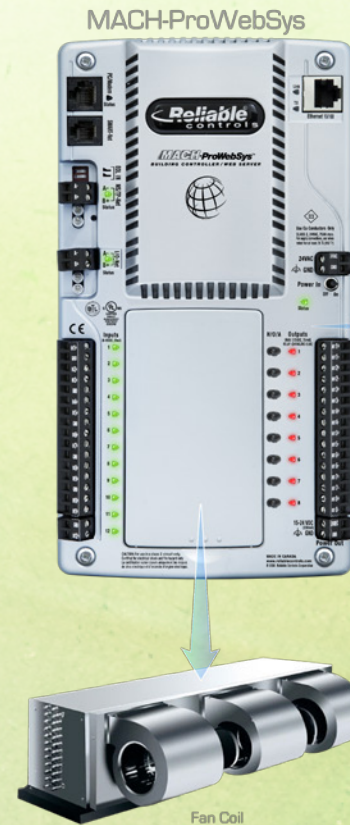


Aside from being OpenADR and Title 24 compliant (California department of energy standard), the MACH-ProLight is also International Energy Conservation Council (IECC) 2015 compliant, meets the National Energy Code for Buildings in Canada (NECB), and is ASHRAE/IES 90.1 compliant - Energy Standard for Buildings Except Low-Rise Residential Buildings.

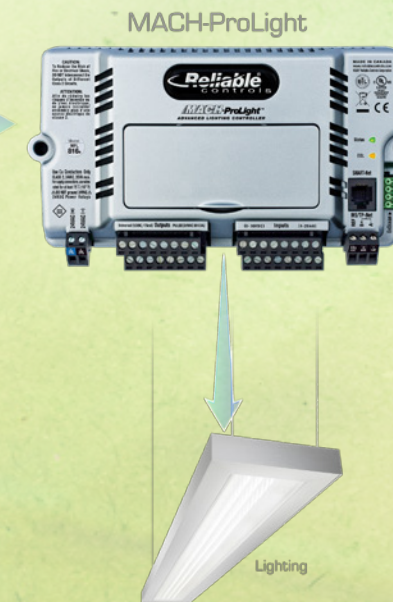
Integrated Intelligent Building

Create an intelligent building by fully integrating the HVAC, lighting, and security systems into a single MACH-System™ using the MACH-ProWebSys™, MACH-ProLight™ and the MACH-CheckPoint™ controllers. With a fully integrated, intelligent building, the lights and HVAC in your space stay off until you present your access credentials at the door.

HVAC



Lighting



Security



Better by design™

INTRODUCING RC-WebVIEW® 3.12

Now with Sequence of Operation Programming Capabilities!

RC-WebView is an easy to use, browser-based building management solution that allows operators and administrators to efficiently manage any BACnet®, Internet-connected building. RC-WebView combines the power of enterprise tools with a simple interface that connects multiple, independent control systems into a single enterprise website. Accessed by a secure Single Sign-On (SSO), RC-WebView empowers operators to have scalable visibility and control at a glance.

The latest version of RC-WebView introduces a number of new features that will help save time and improve productivity. New features include:

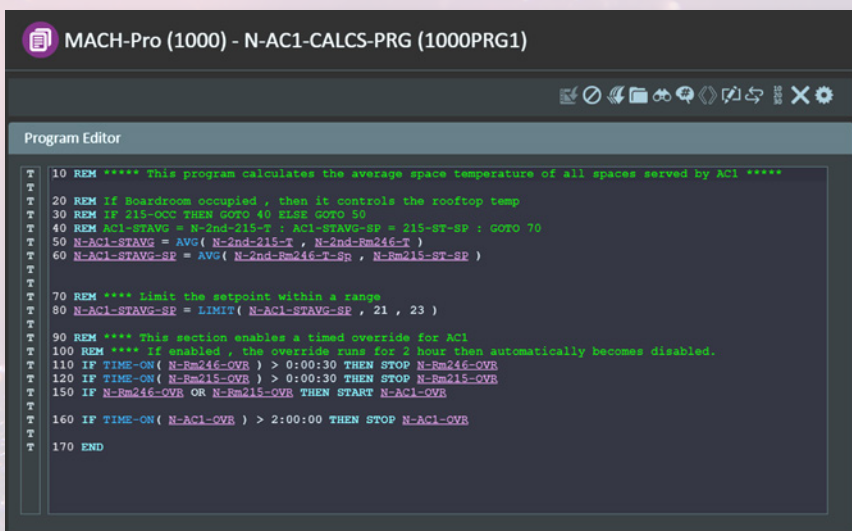
Programs

Save time by empowering users to program their building management systems through a centralized web interface!

This version of RC-WebView includes the capability to program sequences of operation. The Program Editor makes it easy to code, edit, and trouble-shoot programs. This provides an efficient and unified interface to manage logic and send changes to all devices in multiple systems.

Use the Program Editor with RC-WebView connected to a live system to modify the programs stored on the connected MACH-System™ controllers. The Program Editor in RC-WebView includes a new, auto-complete feature and can display all present values inline with the editor, in real time.

The Program Editor menu bar contains the following features:



Program Editor

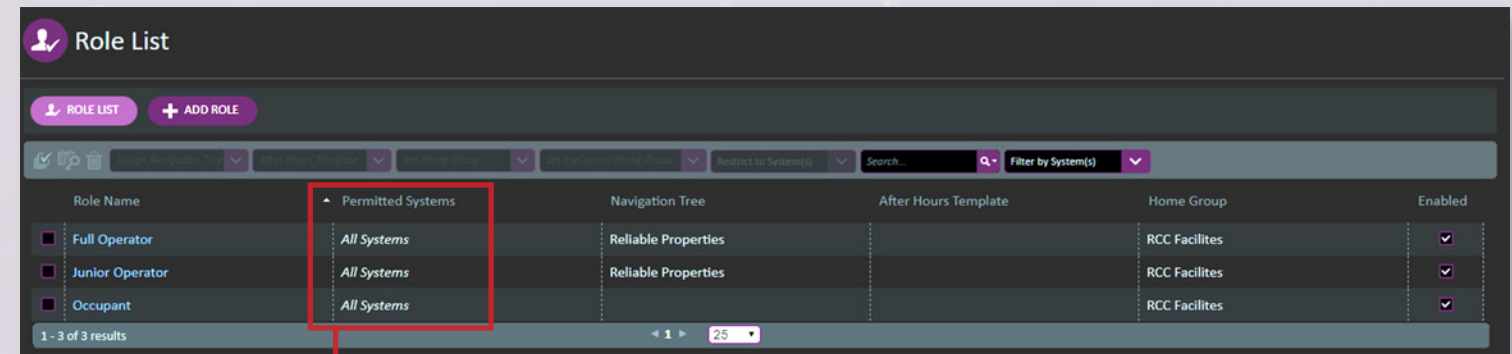


- Send:** Send program edits to one controller
- Cancel:** Cancel edits
- Send Multiple:** Send program edits to multiple controllers
- Files:** Save the program as a *.txt file to be used as a library of code; load saved programs from library into controller
- Watch:** Add points to a "watch" list
- Mnemonic:** Toggle code objects from Name to Mnemonic
- Display Values:** Display object values directly in code
- Disable Auto Complete:** Enable or disable the "Auto Complete" feature
- Replace:** Use the Find/Replace feature to easily change repeating name patterns
- Renumber:** Conveniently renumber code in multiples of 10
- Clear Trace:** Clear the "Trace" flags
- Options:** Customize font, background, and object colorization

Role List Service

Increase efficiency managing a large set of users!

Save time and administrative costs with improved user roles. Instead of assigning similar permissions repeatedly on a user-by-user basis, operators can set up a package of permissions and assign the package to multiple users at the same time. For example, a "janitor" role could be created and applied to all janitorial staff.



Role List Service

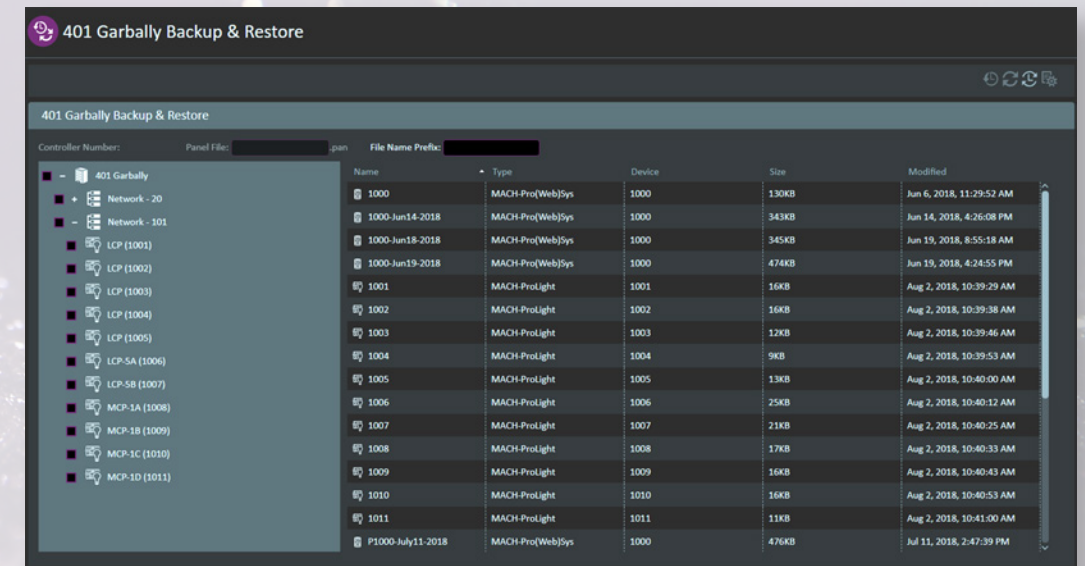
An administrator can now set up permissions for operators to access systems.



Panel File Backup & Restore

Protect your files against emergencies!

RC-WebView now has the ability to back up and restore Panel files. Individual devices, multiple devices, networks, or an entire system may be backed up or restored. Automatic network backups may also be configured via the Auto Network Backup service.



Backup & Restore Service



Better by design™

Create Alarm Email Recipients

Save time while decreasing complexity!

The ability for administrators to configure “emailed alarm notifications” has been added to this latest version of RC-WebView. Emailed alarms will include all the typical information and features existing in workstation notifications, including any associated actions (e.g. #G commands). Actions can be triggered from within an email – clicking a given action will redirect the client to RC-WebView’s action URL service, which will pass the action through the login process should the user not currently have a session in RC-WebView.

Alarm Types	Days	Systems	Recipients	HTML
1 - General	Every Day	All	facilities@reliablecontrol.com	<input checked="" type="checkbox"/>
0 - System	Tue/Thu/Sat/Sun	Headquarters	4 Recipients	<input checked="" type="checkbox"/>
2 -, 3 -, 4 -, 5 -, 6 -, 7 -, 8 -, 9 -, 10 -	Every Day	All	2 Recipients	<input type="checkbox"/>

Alarm Email Distribution Service

Alarm Emails:
Configure Alarm Emails to be distributed by selecting your choice of subject and body.

Alarm Emails
Configure which fields appear in emailed alarms.

<p>Subject</p> <ul style="list-style-type: none"> <input type="checkbox"/> Site Name <input checked="" type="checkbox"/> System Name <input type="checkbox"/> Object Name <input checked="" type="checkbox"/> Message <input checked="" type="checkbox"/> Alarm State <input type="checkbox"/> Alarm Type 	<p>Body</p> <ul style="list-style-type: none"> <input type="checkbox"/> Site Name <input checked="" type="checkbox"/> System Name <input checked="" type="checkbox"/> Source <input type="checkbox"/> Object Name <input checked="" type="checkbox"/> Message <input checked="" type="checkbox"/> Alarm State <input checked="" type="checkbox"/> Alarm Values <input type="checkbox"/> Status Flags <input checked="" type="checkbox"/> Alarm Time <input type="checkbox"/> Alarm Type <input type="checkbox"/> Alarm Priority <input type="checkbox"/> Action
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TRADE SHOWS

Visit Reliable Controls at this Upcoming Trade Show:

ISH
March 11 - 15, 2019
Messe Frankfurt
Frankfurt
Booth #10.3/C70



National Facilities Management Trade Show
March 26 - 28, 2019
Baltimore Convention Center
Baltimore, Maryland, USA
Booth #2313



WELCOME TO NEW DEALERS

New Reliable Controls Authorized Dealers

Archi Solutions
Nagpur, Maharashtra, India



Bangkok Sunshine Co., Ltd.
Chomthong, Bangkok, Thailand



GIS Group Co. Ltd.
Yannawa, Bangkok, Thailand



Integrated Facility Services Inc. - Columbia
Columbia, MO, USA



Ocean Controls, LLC
Jupiter, FL, USA



Shinmacon Engineering Sdn Bhd
Subang Jaya, Selangor Darul Ehsan, Malaysia



ALBANY ENGINEERING COMPOSITES

ROCHESTER, NH, USA; COMMERCY, FRANCE; QUERETARO, MEXICO

MANUFACTURING

OVERVIEW

Albany Engineering Composites improves aircraft performance for Original Equipment Manufacturers (OEMs), including Airbus, Boeing, GE, Lockheed Martin, Rolls-Royce, and Sikorsky. The company develops composite structures for airframes, engines, wings, horizontal and vertical stabilizers, control surfaces, rotor blades, nacelles, and tanks.

PROJECT DETAILS

Reliable Controls Authorized Dealer, W.H. Demmons, Inc., successfully completed this project for Albany Engineering Composites.

Networked hardware for this project includes an EIA-485 network connected to BACnet® chillers. Installed mechanical equipment varied by location: in France, one 150-ton chiller serves a process water loop; in Mexico, two 250-ton chillers serve a process water loop; and in Rochester, one 200-ton cooling tower also serves a process water loop.

With VFD controlled pumps, modulating valves and programming, W.H. Demmons, Inc. was able to modulate the process water loop. This serves the press, where carbon fiber turbine blades are stamped out; depending on the workload, it is possible to use 4 to 40 presses simultaneously and the controls will modulate the loop accordingly.

The main challenge involved in this project was the language barrier between countries; however, W.H. Demmons, Inc. utilized interpreters and had patient contractors to achieve success.

Albany Engineering Composites approached W.H. Demmons, Inc. for engineering support in Rochester, NH, which was the first Reliable Controls project in the Rochester plant. Albany Engineering liked the solutions that were engineered and presented, as well as the Reliable Controls products and as a result, the installations in the France and Mexico plants were completed.

To learn more about projects using Reliable Controls® visit www.reliablecontrols.com/projects/overview



PROJECT TYPE:

New Construction

INSTALLATION TYPE:

Chiller, HVAC, Water Monitoring

TOTAL AREA:

51,096 m² (550,000 ft²)

NETWORK:

BACnet, EIA-485

POINTS:

300

EQUIPMENT INSTALLED:

3 MACH-ProWebSys™

1 MACH-ProWebCom™

15 MACH-ProPoint™

9 MACH-Stat™

RELIABLE CONTROLS® DEALER:

W.H. Demmons, Inc.

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