MACH-ProWebCom™

Web Enabled Controller

Web server. Simplified.

Publish your building automation system to the Web quickly and easily with the Reliable Controls® MACH-ProWebCom™. The first 3-in-1 device of its kind, the MACH-ProWebCom combines a BTL-listed BACnet® Building Controller (B-BC), a BTL-listed BACnet Operator Workstation (B-OWS), and a powerful web server into a single package with an installed footprint of a typical building controller.

Better by design

ISO 9001 14001 QUALITY ENVIRONMENTAL ASSURANCE

Member of BACnet International

LISTED OPEN ENERGY MANAGEMENT EQUIPMENT 69DM

www.reliablecontrols.com/MPWC

MACH-ProWebCom™

Tech Specs

Processor
- 147 MHz, high-performance, 32-bit embedded microcontroller

Memory
- 8 MB operating RAM
- 1 MB non-volatile RAM (trends and dynamic values)
- 256 MB Flash EEPROM operating system, database, JavaScript, graphics, and controller configuration

Supply Voltages
- 24 VAC ±10% 20 VA max. 50/60 Hz
- 24 VDC ±10% 4 W max.

Communications
- IEEE 802.3 Ethernet 10/100 BaseT
- 2 EIA-485 @ 76.8 kbps max.
- 1 EIA-232 @ 115.2 kbps max. PC or modem
- SMART-Net port @ 16 sensors max.

Browser Support
- Chrome, Edge, Firefox, IE 8 or greater, Safari
- JavaScript must be enabled on client
- Flash required for animations and flood fill

Expansion Modules
- Up to 8 MACH-ProPoint expansion modules

Real-Time Clock
- ± 1 second per day

Memory/RTC Backup
- 72 hour backup
- 10 years for database

Wiring Terminals
- 12 to 22AWG (3.31 mm^2 to 0.33 mm^2)
- Stranded or solid core
- Copper conductors only

Dimensions
- 15.2 cm L x 13.7 cm W x 3.9 cm H (5 $^{15}/_{16}$" L x 5 $^{3}/_{8}$" W x 1 $^{1}/_{2}$" H)

Mounting
- #8 clearance holes on 12.7 cm L x 11.0 cm W (5" L x 4 $^{5}/_{16}$" W)
- Screw depth 25 mm (1")

Weight
- 0.25 kg (0.6 lb.)

Ambient Limits
- Operating: -20 °C to 55 °C (-4 °F to 131 °F)
- Shipping: -40 °C to 60 °C (-40 °F to 140 °F)
- Humidity: 10% to 90% RH non-condensing

Features

Protocol
- BACnet®
  - B/IP x 2, Ethernet, MS/TP x 2, and PTP
- DHCP
  - Dynamic Host Configuration Protocol
- HTTP/1.1
  - Hyper Text Transfer Protocol
- Modbus
  - Supports both RTU and TCP communications in slave mode and master mode with up to 128 slave devices
- SMTP
  - Provides standard email communications for broadcasting email alarms
  - Supports TLS/SSL security
- SNMP
  - Simple Network Management Protocol
- SNTP
  - Simple Network Time Protocol

Inputs and Outputs
- Up to 8 MACH-ProPoint expansion modules
- Maximum possible inputs of 192
- Maximum possible outputs of 128

1024 Variables
- Selectable standard and custom ranges,as well as fixed program-driven values

128 PID Loops
- Standard P, PI, or PID controllers for closed loop control

128 Schedules
- 14 On/Off times for each weekday or exception

32 Calendars
- Days of the year designated as holidays

20 Custom Tables
- For creating custom scaling functions

64 System Groups
- Allows related points to be grouped onto one display
- 160 points/group

128 Control-BASIC™ Programs
- User programmable control strategy in a readable, BASIC-like language
- 3200 bytes per program

Trend Logs
- Each Trend Log stores up to 8 points
- Values recorded at user-defined intervals
- Dynamically assigned

Runtime Logs
- Totals the On time and records the On/Off times of every binary point
- Dynamically assigned

128 Variable Arrays
- Up to 128 elements in a one-dimensional array

128 User Passwords
- Protects access to system
- Each user is assigned a user name and an access level

Custom Units
- 8 analog engineering units
- 8 binary units
- 8 multistate units with 8 states, 30 characters each

Graphic Files
- Supports GIF, TIFF, JPG, PNG, and SWF

SMART-Net™ Port
- Networks up to 16 SMART-Sensors™

1536 Network In Points

512 Network Out Points
- The total maximum number of writes and shares to other devices

Real-Time Clock

Warranty
- 5 years

Certification
- BTL Listed (B-OWS)
- BTL Listed (B-BC)
- UL 916 Listed
- FCC CFR 47 Part 15/B
- CE

Ordering

MPW-C
- MACH-ProWebCom™ controller/Web server

Accessories

MP-DINRAIL
- Two-piece adapter kit to mount controller onto 35 mm x 7.5 mm top hat DIN rail. DIN rail not included

MPP-IO
- MACH-ProPoint I/O expansion module with 12 universal input and 8 outputs

MPP-IO-H
- MPP-IO with HOA (Hand/Off/Auto) switches and potentiometer overrides for each output

MPP-IO-U
- MACH-ProPoint I/O expansion module with 12 universal inputs and 8 universal outputs

MPP-IO-U-H
- MPP-IO-U with HOA (Hand/Off/Auto) switches and potentiometer overrides for each output

MPP-IO-DL
- Door label sheet for MP-S, MP-S-H, MPW-S, MPW-S-H, MPP-IO, MPP-IO-H, MPP-IO-U, and MPP-IO-U-H

MPP-I
- MPP Input expansion module with 24 universal inputs

MPP-I-DL
- Door label sheet for MPP-I

MPP-O
- MACH-ProPoint Output expansion module with 16 universal outputs

MPP-O-H
- MPP-O with HOA (Hand/Off/Auto) switches and potentiometer overrides for each output

MPP-O-DL
- Door label sheet for MPP-O

SS-RJ11TB-B, SS-RJ11TB-C
- SMART-Net breakout connector RJ-11 to terminal block

SS-X
- SMART-Sensor Network Expansion Board

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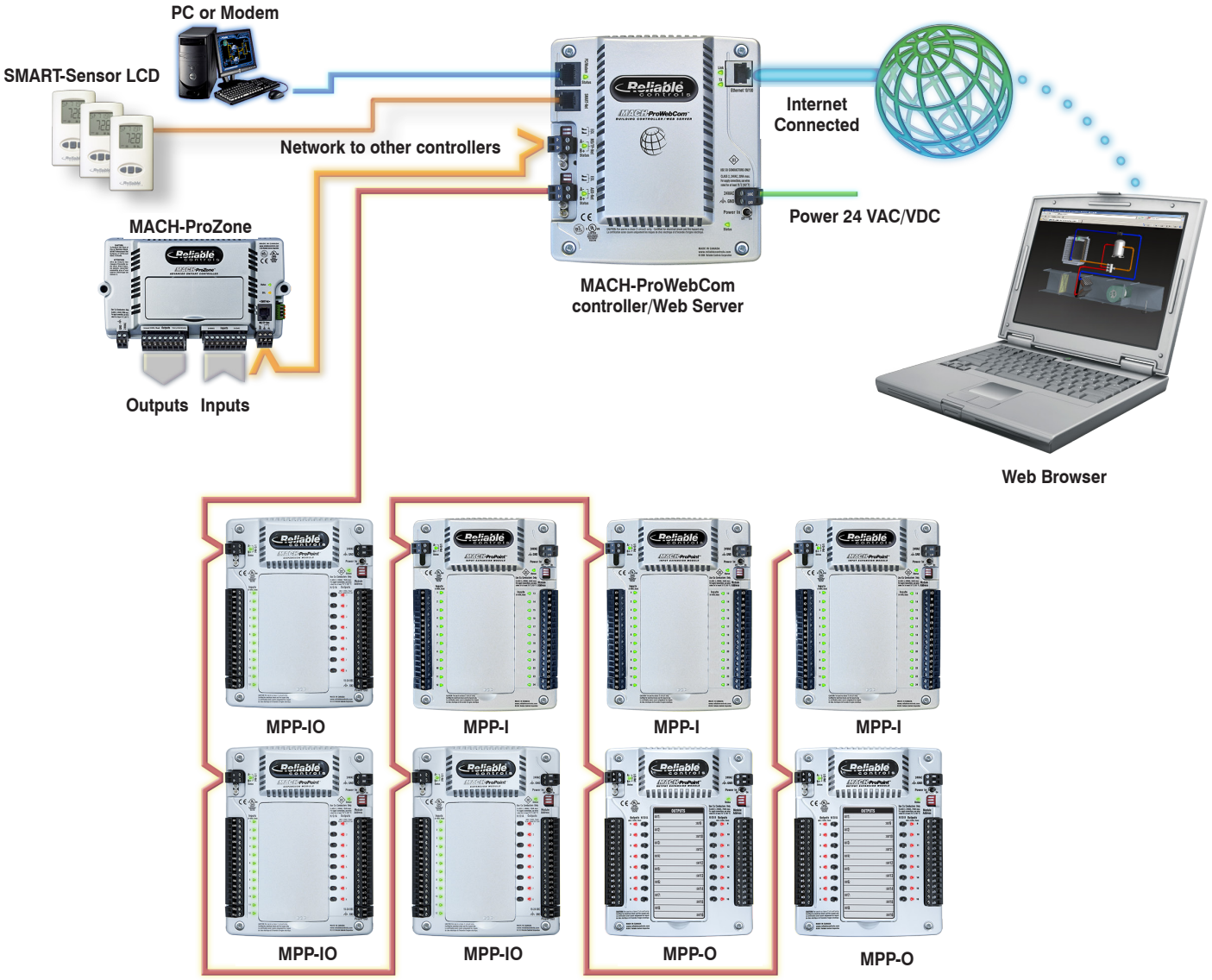
Application Diagram



Connect up to 8 MACH-ProPoint expansion modules of any mix with a maximum input count of 192, and a maximum output count of 128 per controller. Expansion modules are daisy-chained to the AUX-Net port of the controller in any combination.

2011 AHR Expo® INNOVATION AWARDS Value Impact Application Honorable Mention

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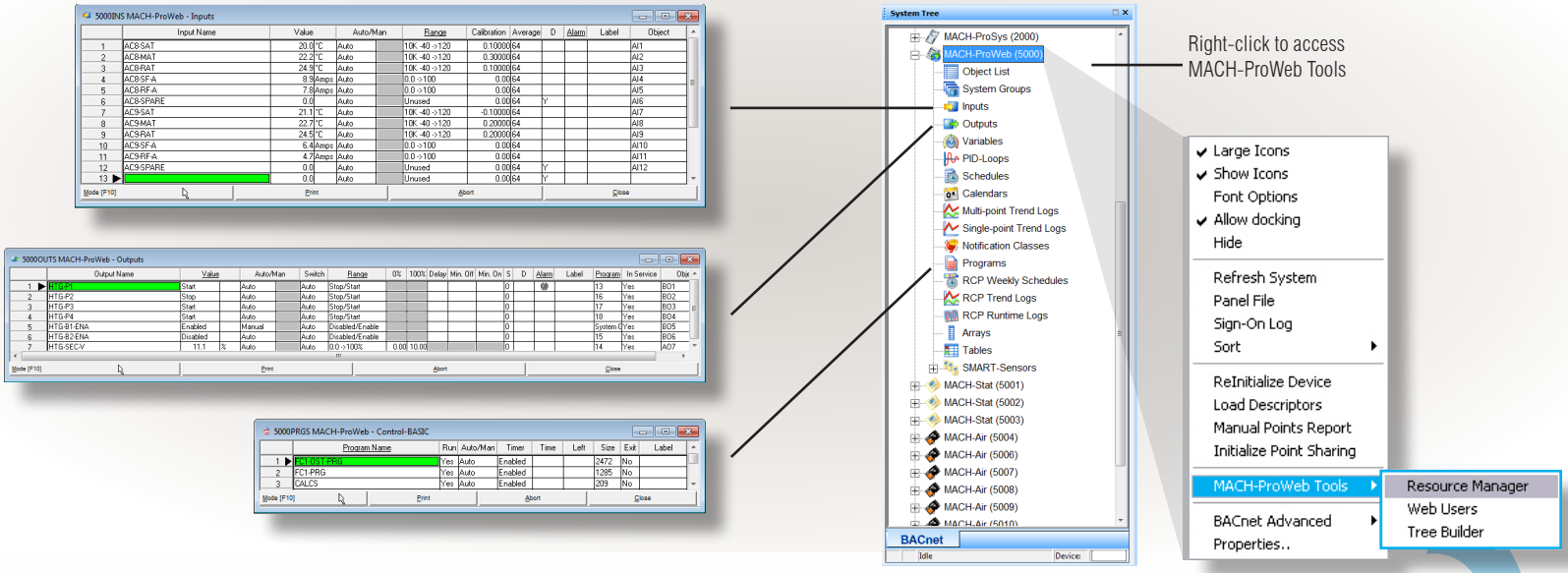
MACH-ProWebCom™

The Reliable Controls® MACH-ProWeb™ combines the field controller, configurable Web server, and browser driven workstation into a single device which is simple to use, flexible to engineer, and highly economical.

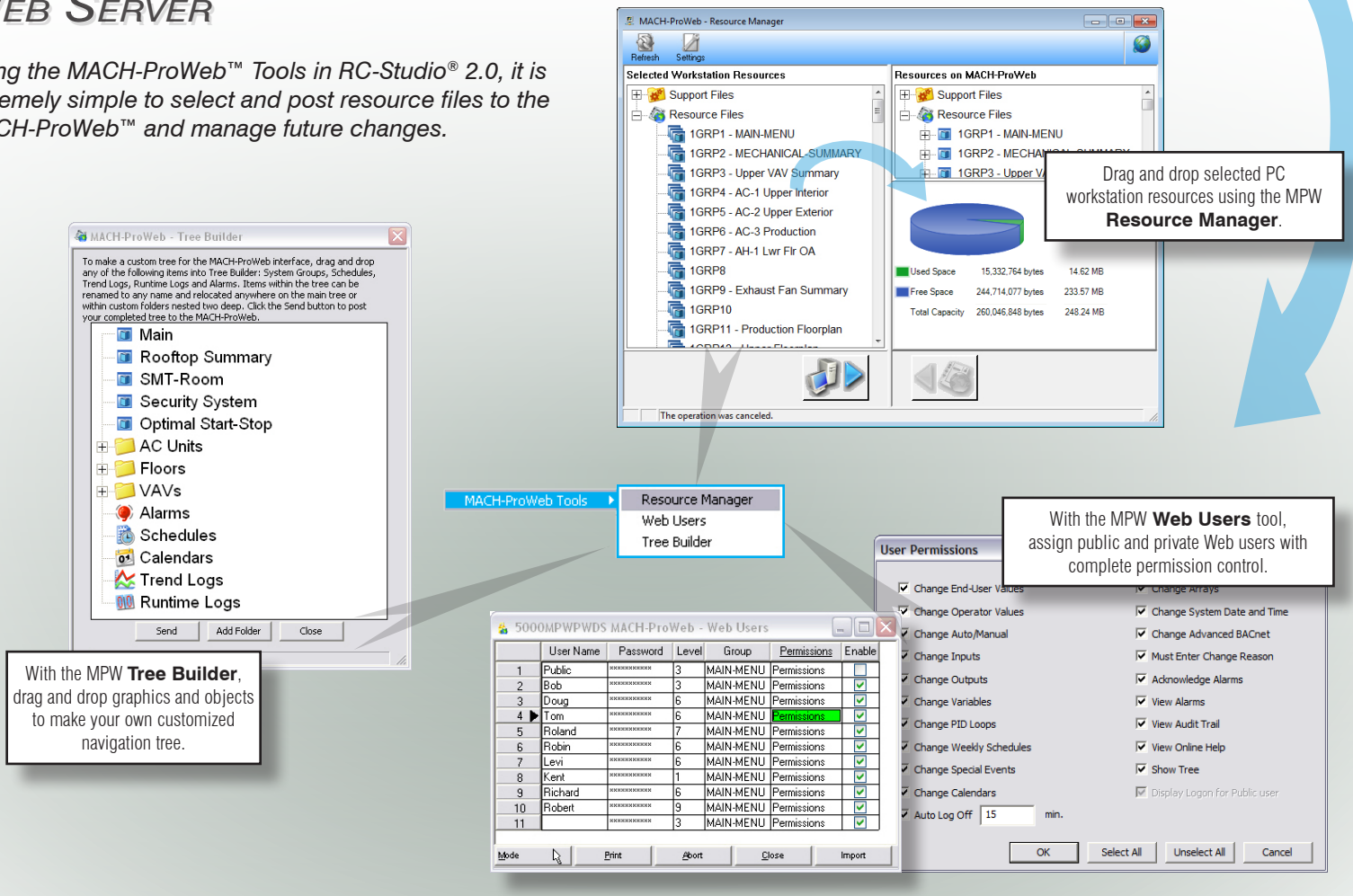
Field Controller

Program the MACH-ProWeb™ point database, Control-BASIC sequence, and graphics just as you would for any other Reliable Controls® product. The MACH-ProWeb™ is a fully functional BACnet Building Controller (B-BC).



Web Server

Using the MACH-ProWeb™ Tools in RC-Studio® 2.0, it is extremely simple to select and post resource files to the MACH-ProWeb™ and manage future changes.



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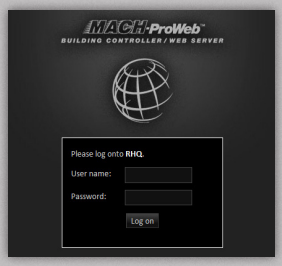
WORKSTATION

The MPW interface provides total functionality required for day-to-day building operations, and is a BTL-listed BACnet Operator Workstation (B-OWS). Using a standard browser (IE 8, Firefox 3, Chrome 5, Safari 5, or greater) on a PC or Mac, enter the URL of the MACH-ProWeb™ and navigate through the system to access and print point values, alarms, schedules, trend logs, runtime logs, and audit trails.



Public users can access the MACH-ProWeb™ URL and associated system graphics assigned for public views.

Private users log in with credentials.

The MACH-ProWeb™ is the first three-in-one device of its kind, combining B-BC, B-OWS, and Web server capabilities into a single package with an installed footprint of a typical building controller.

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Dealer Information:

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