

# ZUM-HUB4 Product Manual Crestron Electronics, Inc.

#### **Original Instructions**

The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

Regulatory Model: M201903003

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at <a href="https://www.crestron.com/How-To-Buy/Find-a-Representative">www.crestron.com/How-To-Buy/Find-a-Representative</a> or by calling 855-263-8754.

Crestron product development software is licensed to Crestron dealers and Crestron Service Providers (CSPs) under a limited nonexclusive, nontransferable Software Development Tools License Agreement. Crestron product operating system software is licensed to Crestron dealers, CSPs, and end-users under a separate End-User License Agreement. Both of these Agreements can be found on the Crestron website at <a href="https://www.crestron.com/legal/software\_license\_agreement">www.crestron.com/legal/software\_license\_agreement</a>.

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed online at www.crestron.com/legal/patents.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

Crestron, the Crestron logo, 4-Series, Cresnet, XiO Cloud, Crestron Toolbox, SIMPL+, and Zūm are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. BACnet is either a trademark or registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. in the United States and/or other countries. Apple and iOS are either trademarks or registered trademarks of Apple Inc. in the United States and/or other countries. Bluetooth is either a trademark or registered trademark of Bluetooth SIG, Inc. in the United states and/or other countries. Android and Google Play are either trademarks or registered trademarks of Google Inc. in the United States and/or other countries. DALI is either a trademark or registered trademark of Digital Illumination Interface Alliance in the United States and/or other countries. Active Directory is either a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries. STEINEL is either a trademark or registered trademark of Steinel Vertrieb GmbH in the United States and/or other countries. UL is either a trademark or registered trademark of UL LLC in the United States and/or other countries. Wi-Fi is either a trademark or registered trademark of Wi-Fi Alliance in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

©2023 Crestron Electronics, Inc.

# **Contents**

Overview	1
Features	2
Zūm Net Wired Technology	2
Web-Based Management	2
Time Clock	2
BACnet™ Communications Protocol	3
Crestron XiO Cloud® Service Integration	3
Zūm Wireless Integration	
Zūm System Integration with Other Crestron Control Systems	3
Physical Description	4
Specifications	6
Product Specifications	6
Dimension Drawings	9
Installation	10
Mount to a Rack	
Place onto a Flat Surface	
Make Connections	10
Configuration	
Zūm App Configuration	
Zūm App Main Screen	
Hub Web Interface	
Web Interface Overview	
Category View, System View, and Settings View	
Global Settings and Actions for the ZUM-HUB4	
Navigation Toggle	
Device Information and Status	
Web Interface Configuration	
Discover Rooms	
Add a Room Category	
Rename a Room Category	
Turn Rooms On or Off	
Set the Bluetooth PIN	
Configure the Demand Response Mode and Level	
Manage Rooms	
Schedule Room Behavior	
Manage Floors	
Manage Devices	
Manage Settings	51

Manage Users	55
Manage External Controls	
Manage Commissioning	60
Review Device Information and Status	63
Reboot ZUM-HUB4	64
Resources	66
Crestron Support and Training	66
Programmer and Developer Resources	66
Product Certificates	66
Related Documentation	66

# **Overview**

The ZUM-HUB4 enables centralized management for Zūm® commercial lighting systems of up to 1,000 rooms with an Ethernet switch (sold separately) across Zūm wired, Zūm wireless, and external spaces. The device provides a web-based user interface for control. A built-in time clock enables room lighting and occupancy and vacancy sensing automation. The ZUM-HUB4 can also be integrated with other Crestron lighting systems and control systems.

The ZUM-HUB4 is featured in three kits.

• ZUML-HUB4-GW: 4-Series<sup>™</sup> Control Processor for Zūm® Lighting Control System with Wireless Gateway and Power Supply

#### Contains:

- o ZUM-HUB4 and PW-2420RU power pack
- ZUMNET-GATEWAY: Zūm® Net Wireless Gateway for Zūm Light Control System
- <u>PW-2407WU</u>: Wall Mount Power Pack, 24VDC, 0.75A, 2.1 mm, Universal For use with the ZUMNET-GATEWAY
- ZUML-HUB4-PAK: Zūm® Lighting Control Processor Panel, Basic

#### Contains:

- o ZUM-HUB4 and PW-2420RU power pack
- CEN-SW-POE-5: 5-Port PoE Switch
- o GLEX-FT-24-HC: Feed-Through Enclosure, 24 Circuits, Hinged Cover
- ZUML-HUB4-CN-PAK: Zūm® Lighting Control Processor Panel, Expanded Contains:
  - o ZUM-HUB4 and PW-2420RU power pack
  - DIN-AP4: 4-Series™ DIN Rail Control System
  - DIN-EN-6X18: Enclosure for DIN Rail Devices, 6 DIN Rails, 18 M Wide
  - ∘ CEN-SW-POE-5 (x2): 5-Port PoE Switch
  - o DIN-HUB (x2): DIN Rail Cresnet Distribution Hub
  - DIN-PWS60 (x2): DIN Rail 60 Watt Cresnet® Power Supply
     For use with the DIN-HUB
- Features
- Physical Description

# **Features**

- Centralized management for Zūm® commercial lighting systems
- Provides web-based user interface for easy configuration, control, scheduling, and monitoring
- Time clock for room lighting automation and sensing behavior
- Daisy-chain up to 20 Zūm Net load controllers (sold separately) via their built-in Zūm Net ports for room-to-room communication
- Use with an Ethernet switch (sold separately) to support multiple Zūm Net daisy-chains up to 1,000 rooms
- Daisy-chain up to 32 Zūm Link devices (sold separately) via their built-in Zūm Link ports for in-room communication
- BACnet<sup>™</sup> communication supports control for up to 9,000 BACnet objects
- Dedicated Control Subnet
- · Gigabit Ethernet networking
- Enterprise-grade security
- Enables integration with other Crestron lighting systems, control systems, touch screens, shading, HVAC, and more
- Single-space rack-mountable
- Universal 100–240V external power supply

# Zūm Net Wired Technology

Zūm Net wired technology offers room-to-room communication. Control a room with one Zūm Net device (ZUMNET-JBOX-DALI, ZUMNET-JBOX-16A-LV, sold separately), and daisy-chain up to 20 Zūm Net devices with CBL-CAT5E-ZUMNET-P cable. For centralized management of a Zūm Wired System, connect the chain directly to a ZUM-HUB4 or multiple chains to an Ethernet switch (sold separately) to support up to 1,000 rooms.

## Web-Based Management

The web browser user interface can manage, monitor, and schedule all of the available rooms on the network. Use a laptop computer (not included) to configure devices to work with the ZUM-HUB4. Active lighting scenes, daylight levels, occupancy detection, and scheduled time clock events are displayed. Errors are shown to facilitate troubleshooting.

### **Time Clock**

A built-in time clock enables automated lighting control based on the time of day. Assign a Room Category (such as Office or Hallway) for consistent control and programming across multiple rooms. The clock allows Day Pattern arrangement for each Room Category, with up to 24 Room

States scheduled over a 24 hour period. Different Day Patterns can be defined and assigned to the calendar, which is pre-populated with typical day patterns and a selection of U.S. holidays.

### BACnet™ Communications Protocol

Communicate with a Building Management System (BMS) to provide control of fire/life safety, lighting, and other building automation systems. The ZUM-HUB4 supports up to 9,000 BACnet objects.

# Crestron XiO Cloud® Service Integration

Use Crestron XiO Cloud functionality for remote commissioning and monitoring of a ZUM-HUB4 control system.

# **Zūm Wireless Integration**

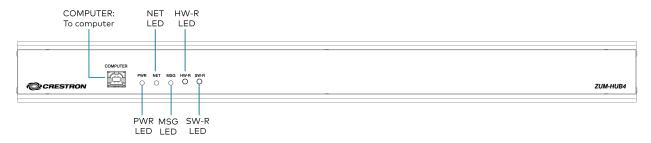
Integration with existing Zūm Wireless installations is achieved with a <u>ZUMNET-GATEWAY</u> (not supplied), which connects to the ZUM-HUB4 via Ethernet.

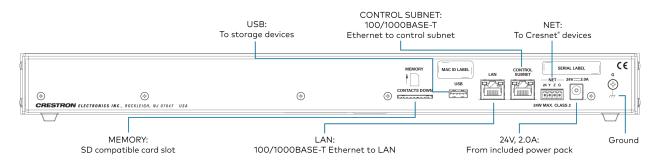
# Zūm System Integration with Other Crestron Control Systems

In addition to managing rooms equipped with Zūm lighting control, the ZUM-HUB4 enables integration with other Crestron systems over an Ethernet connection. Two methods of integration are available:

- External Rooms: A virtual room using legacy or conventional Crestron lighting control can be added to the Zūm network to be monitored, controlled and scheduled.<sup>1,2</sup>
- Mirrored Rooms: An external Crestron system controls and monitors a room equipped with a Zūm system. Mirrored rooms allow for room control with a Crestron touch screen or handheld remote, as well as integration with shading, climate control, AV, and other equipment.<sup>1,2</sup>

# **Physical Description**





#### **Connectors and Card Slots**

MEMORY (1) SD memory card slot;

Accepts one 32 GB SD or SDHC card to enable logging and for troubleshooting

purposes

**USB** (1) USB Type A connector, female;

USB 2.0 host port (not used)

LAN (1) 8-pin RJ-45 connector, female;

10Base-T/100Base-TX/1000Base-T Ethernet port;

Connects to the customer's LAN

CONTROL SUBNET (1) 8-pin RJ-45 connector, female;

10Base-T/100Base-TX/1000Base-T Ethernet port;

Provides a dedicated local network for Zūm Net wireless gateways

**NET** (1) 4-pin 3.5 mm detachable terminal block;

Not used

**24VDC 2.0A** (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

<u>PW-2420RU</u> power pack included; Passes through to NET port

**G** (1) 6-32 screw;

Chassis ground lug

COMPUTER (front) (1) USB Type B connector, female;

USB 2.0 device port for configuration via computer console (cable included)

#### Controls and Indicators

PWR (1) Green LED;

Indicates operating power supplied from the included power pack

**NET** (1) Amber LED;

Not used

MSG (1) Red LED;

Indicates that the ZUM-HUB4 has generated an error message

HW-R (1) Recessed pushbutton for hardware resetSW-R (1) Recessed pushbutton for software reset

**LAN (rear)** (2) Bi-color green/amber LEDs;

Left LED indicates Ethernet link status and connection speed;

Right LED indicates Ethernet activity

CONTROL SUBNET (2) Bi-color green/amber LEDs;

(rear) Left LED indicates Ethernet link status and connection speed;

Right LED indicates Ethernet activity

# **Specifications**

ZUM-HUB4 specifications for device support and time clock, communications, connectors and card slots, controls and indicators, power, environmental, dimensions, weight, and compliance certifications.

- Product Specifications
- Dimension Drawings

# **Product Specifications**

#### **Device Support and Time Clock**

Rooms 1,000 maximum;

Zūm wired, Zūm wireless, and external

External Rooms and Mirrored Rooms Varies by control system based on hardware capabilities and program

complexity of the external processor<sup>1</sup>

Communications

Ethernet 10/100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half

duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1X, SNMP, IPv4 or IPv6, Active Directory® authentication, IIS v.6.0 web

server

Control Subnet 10/100/1000 Mbps Ethernet, auto-switching, auto-negotiating, auto-discovery,

full/half duplex, DHCP server, DNS Server, port forwarding, isolation mode

**USB** Supports computer console via front panel USB 2.0 device port

#### **Connectors and Card Slots**

**MEMORY** (1) SD memory card slot;

Accepts one 32 GB SD or SDHC card to enable logging and for troubleshooting

purposes

**USB** (1) USB Type A connector, female;

USB 2.0 host port; For firmware upgrades

LAN (1) 8-pin RJ-45 connector, female;

10Base-T/100Base-TX/1000Base-T Ethernet port;

Connects to the customer's LAN

CONTROL SUBNET (1) 8-pin RJ-45 connector, female;

10Base-T/100Base-TX/1000Base-T Ethernet port;

Provides a dedicated local network for Zūm Net wireless gateways and wired

rooms

**NET** (1) 4-pin 3.5 mm detachable terminal block;

(24 Y Z G) Connects to a GLS-SIM which facilitate Demand Response when connected to

a nonsystem sensor, such as a GLS-ODT-C-NS;

Not used for power

**24VDC 2.0A** (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2420RU power pack included

**G** (1) 6-32 screw;

Chassis ground lug

**COMPUTER** (1) USB Type B connector, female;

(front) USB 2.0 device port for configuration via computer console (cable included)

#### **Controls & Indicators**

PWR (1) Green LED;

Indicates operating power supplied from the included power pack

NET (1) Amber LED;

Not used

MSG (1) Red LED;

Indicates that the ZUM-HUB4 has generated an error message

HW-R (1) Recessed pushbutton for hardware resetSW-R (1) Recessed pushbutton for software reset

**LAN (rear)** (2) Bi-color green/amber LEDs;

Left LED indicates Ethernet link status and connection speed;

Right LED indicates Ethernet activity

CONTROL SUBNET

(2) Bi-color green/amber LEDs;

(rear)

Left LED indicates Ethernet link status and connection speed;

Right LED indicates Ethernet activity

#### **Power**

Power Pack (included) Input: 100-240VAC, 50/60 Hz;

Output: 2.5A @ 24VDC Model: PW-2420RU

Power Consumption 15 W

#### **Environmental**

**Temperature** 41° to 113°F (5° to 45°C)

**Humidity** 10% to 90% RH (noncondensing)

**Heat Dissipation** 50 BTU/hr

#### **Enclosure**

**Chassis** Metal, black finish

Faceplate Extruded metal, black finish, polycarbonate label overlay

**Mounting** Freestanding or 1 RU 19-inch rack-mountable;

Adhesive feet and rack ears included

#### **Dimensions**

Height 1.70 in. (43 mm) without feet

Width 17.28 in. (439 mm);

19.00 in. (482 mm) with rack ears

**Depth** 6.47 in. (165 mm)

#### Weight

3.1 lb (1.42 kg)

#### Compliance

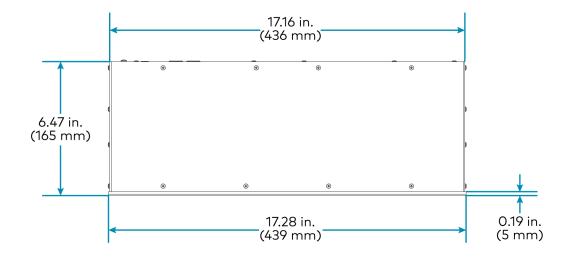
#### Regulatory Model: M201903003

UL® Listed for US & Canada, IC, CE, FCC Part 15 Class B digital device, UL 916, CEC Title 24, ASHRAE 90.1, IECC

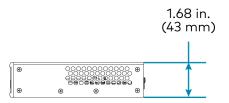
#### **NOTES:**

- SIMPL+® software modules are provided for use in commissioning a Crestron control system to work with the ZUM-HUB4. The software modules run within the control system program and provide virtual connections for all the necessary intersystem control signals. A separate dedicated module is required for each external and mirrored room. Control systems are limited in the number of modules supported, ranging from 0 to 1000 depending on the model. For further assistance, please contact Crestron Commercial Lighting Support via email at <a href="mailto:clclighting@crestron.com">clclighting@crestron.com</a> or by calling 855-644-7643.
- Other Crestron control systems must be commissioned to provide the control logic required to communicate and operate as part of the Zūm network. Once integrated, each external room effectively becomes a part of the Zūm ecosystem.

# **Dimension Drawings**







# Installation

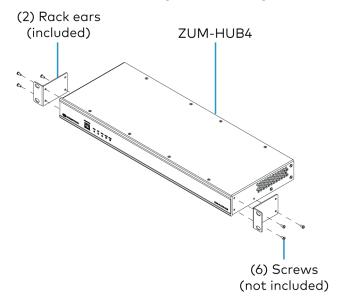
Mount the hub and connect it to the network. The hub can be mounted into a rack or placed onto a flat surface.

# Mount to a Rack

The hub occupies 1U of rack space.

To install the included rack ears:

- 1. Use a #1 or #2 Phillips screwdriver to remove the three screws from each side of the front of the device as shown in the following illustration.
- 2. Use the screwdriver and the screws removed in the previous step to attach the included rack ears to the device.
- 3. Mount the device into the rack using four mounting screws (not included).



# Place onto a Flat Surface

When placing the device onto a flat surface or stacking it with other equipment, attach the included rubber feet near the corners on the underside of the device.

# **Make Connections**

The hub has a dedicated Control Subnet that is used for communication between the control system and Crestron Ethernet devices. This subnet allows for dedicated communication between the control system and Crestron Ethernet devices without interferences from other network

#### traffic on the LAN.

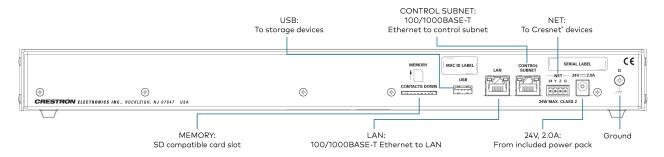
Make the connections, and note the following:

- Use Crestron power supplies for Crestron equipment.
- The included cable(s) cannot be extended.
- Apply power after all connections have been made.

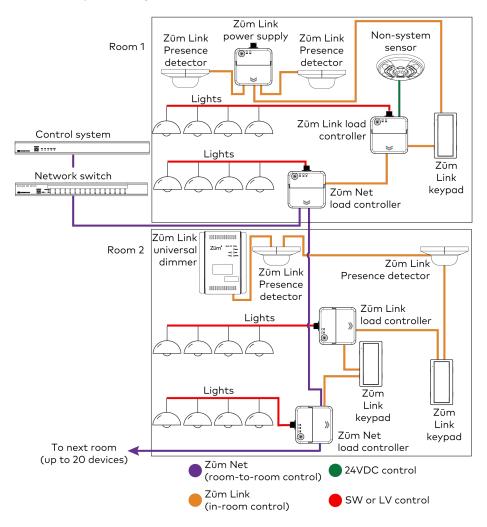
#### **NOTES:**

- Ensure the unit is properly grounded by connecting the chassis ground lug to an earth ground (building steel).
- The hub can be powered with the (included) 24VDC power pack.
- Do not connect the CONTROL SUBNET port to the LAN. The CONTROL SUBNET port must be connected only to Crestron Ethernet devices.

#### Connections



#### Zūm Wired System Diagram



#### **NOTES:**

- Daisy-chain up to 20 Zūm Net devices (up to 328 ft (100 m) between Zūm Net devices) with purple CBL-CAT5E-ZUMNET-P RJ-45 cables (sold separately).
- Do not exceed three network switches between a ZUM-HUB4 and a Zūm Net device.
- System sensors communicate digitally via Zūm Link. Non-system sensors communicate via an analog connection on a Zūm Wired load controller.

# Configuration

Before using a Zūm Wired device, ensure it is updated with the latest firmware. Check for the latest firmware at <a href="https://www.crestron.com/firmware">www.crestron.com/firmware</a>. Load the firmware onto the device using Crestron Toolbox™ software, the ZUM-HUB4 web interface (refer to Version Management on page 52), or the Zūm app (refer to Update Firmware with the Zūm App).

Once all of the devices are installed in the space and using the latest firmware, use the Zūm app to modify default room behavior. Expedite commissioning by copying a room configuration and sending it to a room with identical devices. Save a room configuration template and share it via email, or other methods available on the device. A template can be deployed to any identical room via the Zūm app or the ZUM-HUB4.

**NOTE:** The ZUMLINK-KP Bluetooth® connection is required to configure a Zūm wired space with the Zūm app.

This section provides the following information:

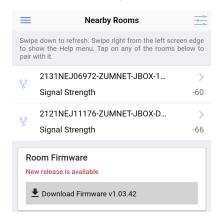
- Zūm App Configuration
- Hub Web Interface
- Web Interface Overview
- Web Interface Configuration

# **Zūm App Configuration**

Download the Zūm app from the  $\underline{\text{Google Play}^{\text{\tiny{M}}}}$  online store or the  $\underline{\text{Apple}^{\text{\tiny{@}}} \text{ App Store}^{\text{\tiny{@}}}}$  online store.

To use the Zūm app:

- 1. Enable Bluetooth wireless connection on your device to communicate with the Zūm space.
- 2. Launch the Zūm app and grant the permissions the app requests. The Zūm app displays a list of available spaces.



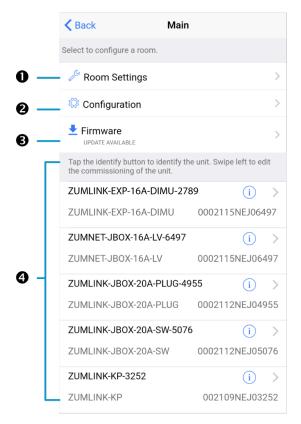
- 3. If new firmware is detected, update the firmware. Refer to Update Firmware with the Zūm App.
- 4. Select the desired space.
- 5. When prompted, enter the PIN. The Zūm app main screen opens.

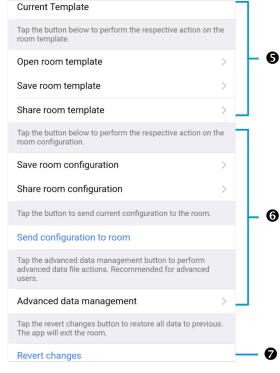
#### **NOTES:**

- For Primary load controllers running firmware 3.6.18 and higher, the default PIN is 246800. For firmware lower than 3.6.18, the default PIN is 2468.
- To change the PIN, navigate to the Room Settings. When changing the PIN, the previous PIN is required.
- The first failed log-in attempt locks the user out of the Zūm space. With subsequent failed attempts, the lockout duration increases up to 60 minutes.
- The lockout duration resets when the correct PIN is entered, the Primary load controller reboots, or when the PIN is changed from the Web-Interface.

### Zūm App Main Screen

From the **Nearby Rooms** screen, tap the desired room to open the **Main** screen. The following sections describe the actions available for each area of the **Main** screen.



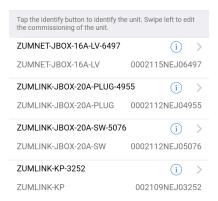


NOTE: The numbers below correspond with the numbers in the Main screen diagram.

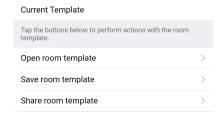
- 1. Room Settings: Edit the Room Name, PIN, Floor ID, Zone ID, and Network information.
- 2. Configuration: Edit the room logic to view the current state of the room.
  - Occupancy Sensors: View details for the connected sensor(s) or edit the sensor name.
  - Photo Sensors: View details for the connected sensor(s) or edit the sensor name.
  - Load Controllers: Identify and view details for the connected load controller(s).
    - ZUMLINK-JBOX-16A-LV and ZUMNET-JBOX-16A-LV load controllers:
      - View Current Scene, Daylighting status, and Output Level.
      - Override: The state of the load when Override is recalled. Click the toggle to turn the load on or off during Override.
      - Assign the occupancy mode (Occupancy menu), vacancy mode (Vacancy menu), vicinity mode (Vicinity menu), and daylight harvesting (Photo menu) to specific load controllers.
      - View Dimming Values
      - Edit the Dimming Curve Configuration or Dimmer Scenes Configuration.
    - ZUMLINK-JBOX-20A-PLUG load controller:
      - Override: The state of the load when Override is recalled. Click the toggle to turn the load on or off during Override.
      - Assign the occupancy mode (Occupancy menu), vacancy mode (Vacancy menu), vicinity mode (Vicinity menu), and daylight harvesting (Photo menu) to specific load controllers.
    - ZUMLINK-JBOX-20A-SW load controller:
      - Closed: Click the toggle to turn the load on or off.
      - Override: The state of the load when Override is recalled. Click the toggle to turn the load on or off during Override.
      - Assign the occupancy mode (Occupancy menu), vacancy mode (Vacancy menu), vicinity mode (Vicinity menu), and daylight harvesting (Photo menu) to specific load controllers.
      - Scenes: Allow keypad access to the scene by selecting or deselecting the checkbox. Determine the state of the load when the scene is recalled by clicking the toggle on or off.

- ZUMLINK-EXP-16A-DIMU load controller:
  - View Current Scene, Daylighting status, and Output Level.
  - Override: The state of the load when Override is recalled. Click the toggle to turn the load on or off during Override.
  - Assign the occupancy mode (Occupancy menu), vacancy mode (Vacancy menu), vicinity mode (Vicinity menu), and daylight harvesting (Photo menu) to specific load controllers.
  - View Dimming Values.
  - Edit the Dimmer Scenes Configuration.
- Scenes: View and edit room scenes: Scene 1 Scene 16. When editing the scene, tap the Identify icon (i) to identify the load controller. The load controller emits a sound and flashes the Link LED. The connected loads also flash.
- Keypads: Identify and view details for the connected keypad(s). Edit the keypad name and assign the button layout.
  - Adjust the Double Tap Speed: Set the amount of time between two button presses to qualify as a double tap.
  - Specify the Button Layout and click on a button to configure button actions.
     Button action options:
    - None
    - Off: Assigned load controllers turn off.
    - On: Assigned loads turn on.
    - Raise: Assigned load controllers raise.
    - Toggle: Switches load controllers between ON and OFF states
    - Lower: Assigned load controllers lower.
    - Recall Scene 1 Scene 16: Assigned load controllers recall the behavior set for the specified scene.
    - Export to Hub: Name and send information to ZUM-HUB4 for macro actions.
- Load Shedding: Set the maximum levels for load shedding.
- Load/Sensor Groups: Create groups within the room.
- DALI Controllers: Address drivers, create DALI groups, assign drivers, and identify drivers.
- Current Scene: Displays the current room scene.
- Occupancy Status: Displays occupied or vacant. If any area of the room is occupied, then the status is Occupied. When all areas of the room are vacant, the status is Vacant.
- 3. Firmware: To update firmware, refer to Update Firmware with the Zūm App..

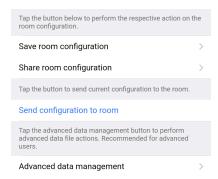
4. Discovered Room Devices: Identify a device and edit the commissioning settings



- Tap the Identify icon i to identify a device. A load controller emits a sound and the Link LED flashes. The connected loads also flash. A keypad flashes its LED.
- Tap the device to edit or review the device details: Edit Name. Review the Model, Serial Number, Status, and edit the device settings.
- 5. Current Template Settings: Choose Open room template, Save room template, or Share room template.



- 6. Configuration Data:
  - Save room configuration: Save the room configuration data in the space.
  - Share room configuration: Share the room configuration data in the space.
  - Send configuration to room: Send room logic changes made in the app to the room.
  - Advanced data management: Review the Map, Logic, and Settings of the data currently loaded. Load, save or share new Map, Logic, or Settings data.



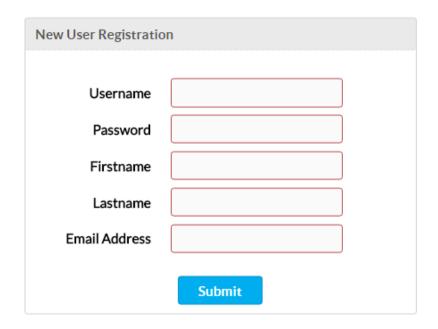
**NOTE:** Changes made in the app are not sent to the room until they are deployed using the Send configuration to room button.

7. Revert changes: Restore all non-deployed changes made since launching the app.



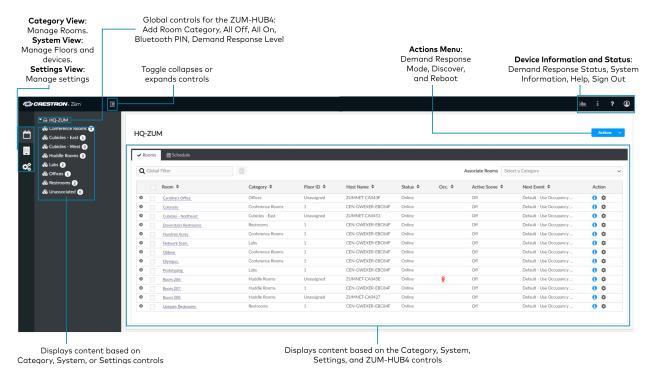
# **Hub Web Interface**

The ZUM-HUB4 is configured using the web interface. Connect to the device by entering the device hostname into a web browser. The hostname is comprised of "ZUM-HUB4-" followed by the entire MAC address (e.g., ZUM-HUB4-00107FCA1112). The **New User Registration** screen is displayed during the first connection. Enter the user's **Username**, **Password**, **Firstname**, **Lastname**, and **Email Address**, and then click **Submit**.



# Web Interface Overview

The web interface gives users the ability to configure room behavior globally across the ZUM-HUB4, by Room Category, by Floor, and by Room.



# Category View, System View, and Settings View

The web interface has three configuration sections: Category View to manage Rooms, System View to manage Floors and devices, and Settings View to manage settings.



#### **Category View**

The Category View lists room categories and rooms (in the **Rooms** tab) that have been discovered by the ZUM-HUB4. Room Categories are intended to be groupings of all rooms that are a similar type (for example, office or conference rooms) to provide easy monitoring and control. Rooms that have not been assigned to a Room Category are kept in the **Unassociated** category. Select the **Schedule** tab to edit default behavior for Day Patterns, Room States and Holidays.

- Manage Rooms on page 33
- Manage Room Categories
- Set the Bluetooth PIN on page 27
- Configure the Demand Response Mode and Level on page 29
- Schedule Room Behavior on page 38

#### System View

The System View lists Floors and rooms (in the **Rooms** tab) that are discovered by the ZUM-HUB4. Use the Hardware Management tab to view and edit device information, such as assigning a device to a floor.

- Manage Floors on page 46
- Set the Bluetooth PIN for a Floor on page 29
- Set the Demand Response Level for a Floor on page 32
- Manage Devices on page 47

#### **Settings View**

The Settings View manages the settings for the ZUM-HUB4, Users, External Control, and Commissioning. The Settings tab is open by default.

- Manage Settings on page 51
- Manage Users on page 55
- Manage External Controls on page 57
- Manage Commissioning on page 60

# Global Settings and Actions for the ZUM-HUB4

Apply settings that effect all devices discovered by the ZUM-HUB4 regardless of the room, room category, or floor the device is assigned.

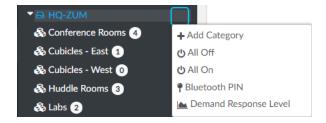
#### ZUM-HUB4 actions:

- Configure Demand Response Mode on page 29
- Discover Rooms on page 24
- Reboot ZUM-HUB4 on page 64



#### ZUM-HUB4 controls:

- Add a Room Category
- Turn On/Off All Discovered Devices on page 26
- Set the Bluetooth PIN for All Discovered Devices on page 27
- Set the Demand Response Level for All Discovered Devices on page 30



# **Navigation Toggle**

Click to collapse or the Category View, System View, Setting Views, and the global ZUM-HUB4 settings.

### **Device Information and Status**

View the Demand Response status, system alerts, help information, or sign out of the web interface. Refer to Review Device Information and Status on page 63.



# Web Interface Configuration

After using the Zūm app to setup Zūm spaces and logging into web interface, configure the ZUM-HUB4:

- Discover Rooms
- Add a Room Category
- Rename a Room Category
- Turn Rooms On or Off
- Set the Bluetooth PIN
- Configure the Demand Response Mode and Level
- Manage Rooms
- Schedule Room Behavior
- Manage Floors
- Manage Devices
- Manage Settings
- Manage Users
- Manage External Controls
- Manage Commissioning

- Review Device Information and Status
- Reboot ZUM-HUB4

#### Related topics:

- Zūm App Configuration on page 13
- Hub Web Interface on page 19

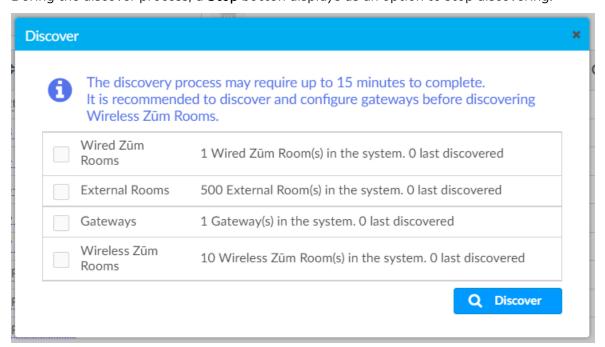
### **Discover Rooms**

#### To discover rooms:

1. Click the **Actions** menu



- 2. Click **Discover**. The Discover window opens.
- 3. Select the type of rooms you want to discover.
- Click **Discover** to Discover rooms or close the window.
   During the discover process, a **Stop** button displays as an option to stop discovering.



# Add a Room Category

To create a room category:

1. Click the menu beside the ZUM-HUB4.



- 2. Click Add Category.
- 3. Type the name of the Room Category.
- 4. Click to save the Room Category or to cancel.



For more information about Room Categories, refer to Manage Room Categories.

# Rename a Room Category

Room Category names can be renamed to provide a clear description of the connected rooms. To rename the Room Category name:

1. Click the menu beside the Room Category name.



- 2. Click Rename.
- 3. Click  $\overline{\phantom{a}}$  to save the Room Category or  $\overline{\phantom{a}}$  to cancel.

For more information about Room Categories, refer to Manage Room Categories.

### Turn Rooms On or Off

Control a room by turning on/off the all rooms, all rooms in a Room Category, all rooms on a Floor, or by choosing a lighting scene for a specific room.

This section provides the following information:

- Turn On/Off All Discovered Devices on page 26
- Turn On/Off a Room Category on page 26
- Turn On/Off a Floor on page 26
- Turn On/Off a Room on page 27

#### Turn On/Off All Discovered Devices

To turn all devices on/off:

- 1. Open the Category View.
- 2. Click the menu beside the ZUM-HUB4.
- 3. Click All Off or All On.



### Turn On/Off a Room Category

To turn all devices on/off in a Room Category:

- 1. Open the Category View.
- 2. Click the menu beside the Room Category name.
- 3. Click All Off or All On.



# Turn On/Off a Floor

To turn all devices on/off on a Floor:

- 1. Open the System View
- 2. Click the menu beside the Floor name.

#### 3. Click All Off or All On.



#### Turn On/Off a Room

You can turn a specific room on/off using the Control Room window, but this option provides more detailed settings. Refer to Control Devices in a Room on page 36.

#### Set the Bluetooth PIN

The Bluetooth PIN enables a mobile device with the Zūm app to connect to the Zūm Wired Keypad or the Zūm Network Bridge. The Bluetooth PIN can be set for all discovered devices, all devices in a Room Category, all devices on a Floor, or all devices in a Room.

#### NOTES:

- Once a Bluetooth PIN is set for a device, it remains until manually changed. For
  example, if a device moves to a different room or floor, the Bluetooth PIN does not
  automatically inherit the PIN set for the new location. The device keeps the PIN
  previously set.
- For Primary load controllers running firmware 3.6.18 and higher, the default PIN is 246800. For firmware lower than 3.6.18, the default PIN is 2468.

This section provides the following information:

- Set the Bluetooth PIN for All Discovered Devices on page 27
- Set the Bluetooth PIN for a Room Category on page 28
- Set the Bluetooth PIN for a Room on page 28
- Set the Bluetooth PIN for a Floor on page 29

#### Set the Bluetooth PIN for All Discovered Devices

To set the Bluetooth PIN for all devices:

- 1. Open the Category View.
- 2. Click the menu beside the ZUM-HUB4.
- 3. Click Bluetooth PIN.
- 4. Set the PIN (0 to 9999).



5. Click **T** to save or **T** to cancel.

### Set the Bluetooth PIN for a Room Category

To set the Bluetooth PIN for devices in a Room Category:

- 1. Open the Category View.
- 2. Click the menu beside the Room Category name.
- 3. Click Bluetooth PIN.
- 4. Set the PIN (0 to 9999).



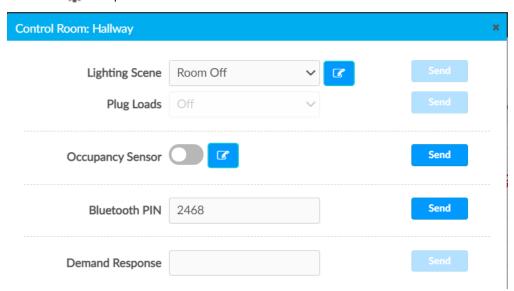
5. Click **T** to save or **t** to cancel.

#### Set the Bluetooth PIN for a Room

To set the Bluetooth PIN for devices in a Room:



- 1. Open the Category View and the Room tab.
- 2. Click the to open the Control Room window.



- 3. For Bluetooth PIN, set the PIN (0 to 9999).
- 4. Click **Send** to send changes to the room, or close the Control Room window to discard unsaved changes.

#### Set the Bluetooth PIN for a Floor

To set the Bluetooth PIN for devices on a floor:

- 1. Open the **System View**.
- 2. Click the menu beside the Floor name.
- 3. Click Bluetooth PIN.
- 4. Set the PIN (0 to 9999).



5. Click **v** to save or **v** to cancel.

# Configure the Demand Response Mode and Level

The Demand Response Level is used in emergency situations to override the current load settings in the room. The load levels reduce when a demand response command is received from the utility company. Demand Response Mode can be manually controlled by accessing the Actions Menu. Demand Response Levels can be set for all discovered devices, all devices in a Room Category, all devices on a Floor, or all devices in a Room.

**NOTE:** Once a Demand Response Level is set for a device, it remains until manually changed. For example, if a device moves to a different room or floor, the Demand Respond Level does not automatically inherit the level set for the new location. The device keeps the level previously set.

This section provides the following information:

- Configure Demand Response Mode on page 29
- Set the Demand Response Level for All Discovered Devices on page 30
- Set the Demand Response Level for a Room Category on page 31
- Set the Demand Response Level for a Room on page 31
- Set the Demand Response Level for a Floor on page 32

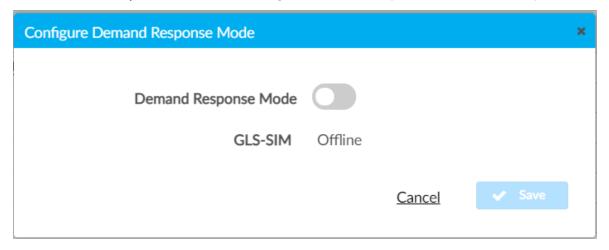
### Configure Demand Response Mode

To manually turn Demand Response Mode on or off:

1. Click the Actions menu.



2. Click **Demand Response Mode**. The Configure Demand Response Mode window opens.



- Click the toggle turn Demand Response Mode on or off.
   If a GLS-SIM has been discovered by the ZUM-HUB4, the GLS-SIM status is represented as Offline or Online.
- 4. Click **Save** to save the settings or **Cancel** to close the window without saving.

#### Set the Demand Response Level for All Discovered Devices

To set the Demand Response Level for all devices:

- 1. Open the Category View.
- 2. Click the menu beside the ZUM-HUB4.
- 3. Click **Demand Response** Level.



4. Set the light level (0 to 100).



5. Click **v** to save or **t** to cancel.

### Set the Demand Response Level for a Room Category

To set the Demand Response Level for devices in a Room Category:

- 1. Open the Category View.
- 2. Click the menu beside the Room Category name.
- 3. Click **Demand Response** Level.



4. Set the light level (0 to 100).



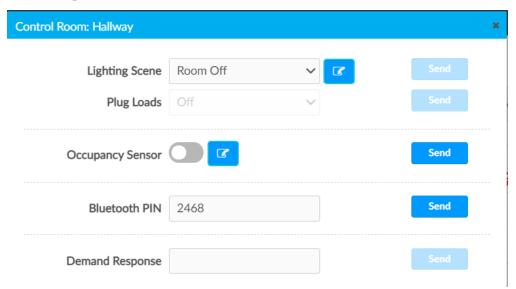
5. Click **v** to save or **t** to cancel.

#### Set the Demand Response Level for a Room

To set the Demand Response Level for devices in a Room:



- 1. Open the Category View and the Room tab.
- 2. Click the 🗱 to open the Control Room window.



- 3. For Demand Response, set the level (0 to 100).
- 4. Click **Send** to send changes to the room, or close the Control Room window to discard unsaved changes.

## Set the Demand Response Level for a Floor

To set the Demand Response Level for devices on a Floor:

- 1. Open the **System View**.
- 2. Click the menu beside the Floor name.
- 3. Click **Demand Response** Level.



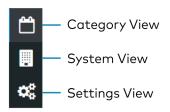
4. Set the light level (0 to 100).



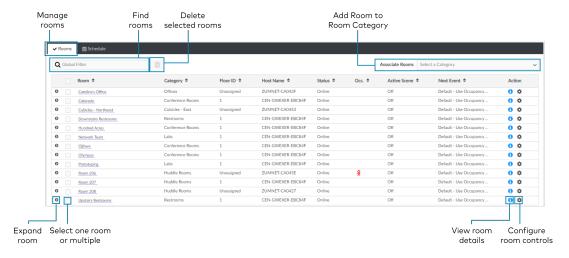
5. Click **v** to save or **v** to cancel.

# Manage Rooms

The **Rooms** tabs lists the Rooms discovered by the ZUM-HUB4 or the rooms assigned to a selected Room Category. Use the **Rooms** tab search for a room, delete rooms, reassign room categories, edit a room name, view room details, or control a room. Access the Rooms tab through either the Category View or the System View tabs.

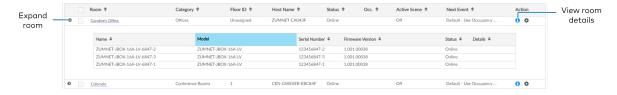


Rooms must be discovered by the ZUM-HUB4 before performing any procedure in this section. Refer to Discover Rooms on page 24.



### Review Rooms

The Room list displays room information including built-in components.



- Room: Displays the room name
- Category: Displays the Room Category
- Floor ID: Displays the Floor ID. The Floor ID can be set in the Hardware Management tab of the Systems View. A Floor ID cannot be assigned to an External Room.
- Host Name: Displays the Host Name of room's main device.
- Status: Displays the room status Online of Offline.

- Occ: Identifies a room with an Occupancy Sensor. The Occupancy sensor symbols (♀) displays when occupancy is detected.
- Active Scene: Displays the current Scene.
- Next Event: Displays the upcoming event.
- Information (1): Displays room details.
  - Hostname: Displays the Hostname.
  - Room Type: Wired, Wireless, or External room
  - ID: Displays the IP ID for a Wired room, the RF ID for a Wireless room, and the Module ID for an External room
  - o Mirror Module: Indicates whether the room is associated with a Mirror Room
  - Occupancy Sensor State: Displays if the Occupancy Sensor is Enabled or Disabled
  - Plug Load State: Displays if the Plug Load is ON or OFF
  - ° Last Scene Changed: Displays the date and time of the last Scene change.
  - Last Online Status Changed: Displays the date and time of the last Online Status change
  - Last Occupancy Status Changed: Displays the date and time of the last Occupancy Status change



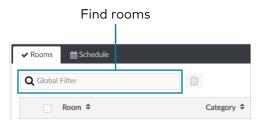
Click to expand the room to display information regarding the components. The Name, Model, Serial Number, Firmware Version, and Status of the devices are defined.



### Find a Room on the ZUM-HUB4

For a ZUM-HUB4 that has a large number of rooms, use the search feature to find a room name. To search for a room:

- 1. Click on the ZUM-HUB4 or on a Room Category.
- 2. Type in the Global Filter search bar. The filter populates results matching content in any of the table fields (Room, Category, Floor ID, Host Name, Status, Occ., Active Scene, or Next Event).



3. Click the desired room name.

### Add a Room to a Room Category

To move a room to a different Room Category:

- 1. Click on the ZUM-HUB4 or on a Room Category.
- 2. Select the desired room or rooms.
- 3. Click the Associate Rooms menu.
- 4. Select the desired Room Category.



5. A confirmation dialog opens. Click **Yes** to add the room(s) the Room Category or **No** to cancel.

### Delete a Room

To delete a room:

- 1. Click on the ZUM-HUB4 or on a Room Category.
- 2. Select the desired room or rooms.
- 3. Click 📋 to delete the room.

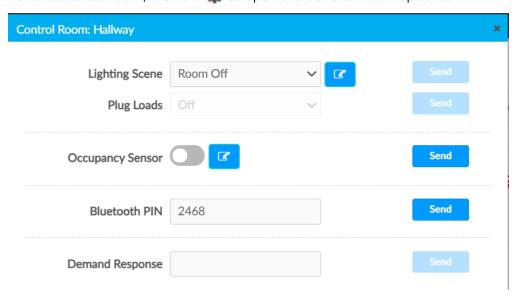


4. A confirmation dialog opens. Click **Yes** to add the room(s) the Room Category or **No** to cancel.

### Control Devices in a Room

Open the Control Room window to select a Lighting Scene, change the state of Plug Loads, enable or disable the occupancy sensor, set the Bluetooth PIN, or set the Demand Response level for a specific room.

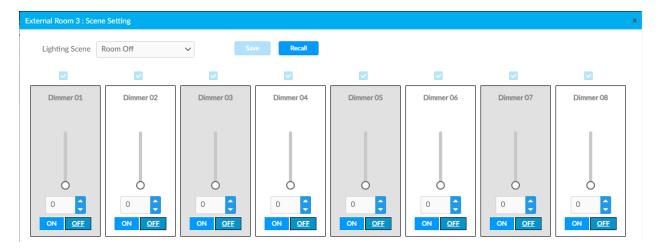
- 1. Click on the ZUM-HUB4 or on a Room Category.
- 2. For the desired room, click the to open the Control Room options.



### Lighting Scene

To select the Lighting Scene set in the Room:

- 1. Select a Lighting Scene from the drop down menu.
- 2. Click to access the devices in the room.
- 3. To edit the light levels, move the slider or use the arrows. For switches, select ON or OFF.
- 4. Click **Send** to send changes to the room, or close the Control Room to discard unsaved changes.



### Plug Loads

This setting is only active for rooms with a Plug Load Controller.

- 1. Select **On** or **Off** from menu to turn the load on or off.
- 2. Click **Send** to send changes to the room, or close the Control Room to discard unsaved changes.

### Occupancy Sensor

To enable or temporarily disable occupancy sensing:

- Click the toggle to enable or temporarily disable occupancy sensing.
   When disabling occupancy sensing, set the amount of time the occupancy sensor is disabled. The sensor may be disabled for up to 1,415 minutes or appropriately 23 hours.
- 2. Click **Send** to send changes to the room, or close the Control Room to discard unsaved changes.

### **Bluetooth PIN**

Set the Bluetooth PIN for Bluetooth devices in a room.

- 1. Set the PIN (0 to 9999)
- 2. Click **Send** to send changes to the room, or close the Control Room to discard unsaved changes.

Refer to Set the Bluetooth PIN on page 27 for more information.

### Demand Response Level

Set the Demand Response Level for devices in a room.

- 1. Set the level (0 to 100).
- 2. Click **Send** to send changes to the room, or close the Control Room to discard unsaved changes.

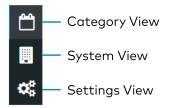
Refer to Configure the Demand Response Mode and Level on page 29 for more information.

## Schedule Room Behavior

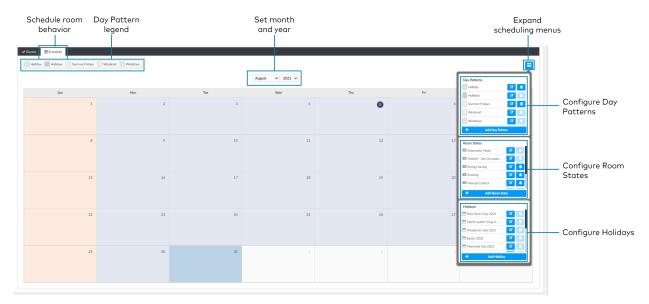
The Schedule tab displays and allows you to edit the device calendar, Day Patterns, Room States, Holidays, and the astronomical clock. The calendar displays a color-coded month view that identifies the Day Pattern that is assigned for each day of the month. The calendar is used to view and change which Day Pattern is set on a given day.

By default, weekdays are assigned the Workday Day Pattern and weekends are assigned the Weekend Day Pattern. Holidays that are enabled in Holidays on page 45 are added to the calendar automatically. Refer to the Day Pattern legend to match the color with the associated Day Pattern. To assign a Day Pattern:

1. Open the Category View.

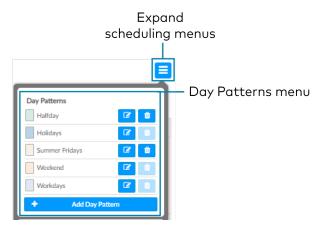


- 2. Click the Schedule tab.
- 3. Click the desired date in the calendar. If necessary, change the month and year using the drop-down menus, and then click the desired date.
  - A menu displays a list of the available Day Patterns.
- 4. Select the desired Day Pattern.



### Day Patterns

A Day Pattern consists of various Room States that are assigned throughout the day. Each category can be assigned a different schedule of room states in a given day pattern. To access the Day Patterns menu, click the Schedule tab and click to expand the scheduling menus.



### Add Day Patterns

Click **Add Day Pattern** and enter the desired Day Pattern name. Click **v** to save the name, click to cancel.

### Delete Day Pattern

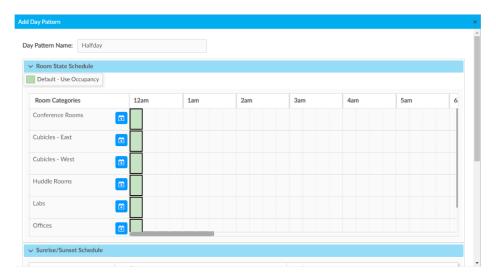
To delete a Day Pattern:

- 1. Click to delete a Day Pattern. A Confirmation window opens.
- 2. Click **Yes** to delete the Day Pattern, or click **No** to keep the Day Pattern.

**NOTE:** A Default Day Pattern (such as Holidays, Weekend, and Workdays) cannot be deleted.

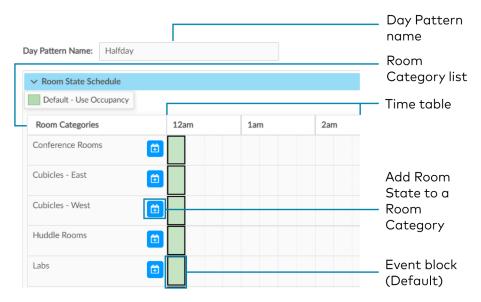
### Configure Day Patterns

After adding a Day Pattern, the **Add Day Pattern** window opens. Alternatively, clicking beside a Day Pattern opens the **Edit Day Pattern** window. These windows display two menus: Room State Schedule and Sunrise/Sunset Schedule. The Room State Schedule opens by default.



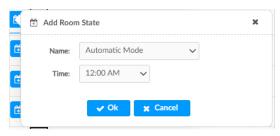
### Room State Schedule

Use the Room State Schedule window to modify the pattern of Room States in each Category for the selected Day Pattern.



To add a Room State to a Room Category:

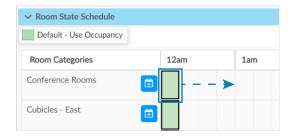
- 1. Click to add a Room State. The Add Room State window opens.
- 2. Select the desired Room State from the Name drop-down menu. The default Room State selections are examples of possible Room State applications and can be edited as needed.
  - Automatic Mode
  - Default Use Occupancy
  - · Energy Saving
  - Manual Control
  - Morning Turn Off
  - Morning Turn On
  - Sweep Off
- 3. Select the desired Room State start time from the Time drop-down menu: 12 AM 11:45 PM.
- 4. Click **Ok** to save the room state or **Cancel** to close the window without saving.



To edit a default or custom event block:

- Change the assigned Room State:
  - 1. Click an event block, and a dialog opens.
  - 2. Click 🕝 and choose a new Room State from the drop-down menu.
  - 3. Click **Ok** to save the changes or **Cancel** to close the window without saving.
- Change the assigned time:

Click and drag the event block to the desired time within the time table.

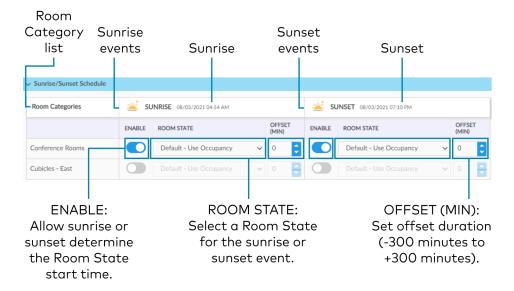


Click and drag the event block to the desired time along the time table.

#### Sunrise/Sunset Schedule

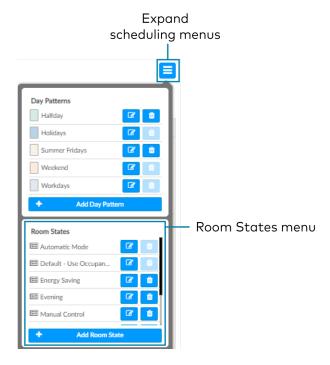
The ZUM-HUB4 determines sunrise and sunset based on the location set in Location on page 53 settings. The Sunrise/Sunset Schedule assigns a Room State to a Room Category based on the Day Pattern and the sunrise or sunset. Only one Sunrise event and one Sunset event can be set for a Room Category per day. To assign Room States based on the sunrise or sunset:

- 1. Expand the Sunrise/Sunset Schedule menu.
- 2. Locate the Room Category.
- 3. Adjust the settings in the Sunrise events column and/or the Sunset events column.
  - ENABLE: Click the ENABLE toggle to allow sunrise or sunset to trigger an event.
  - ROOM STATE: Select the a Room State from the drop-down menu.
  - OFFSET (MIN): If necessary, set an offset duration in minutes. The offset can be
    positive so the Room State occurs after sunrise or sunset or negative so that the
    Room State occurs before sunrise or sunset.



### **Room States**

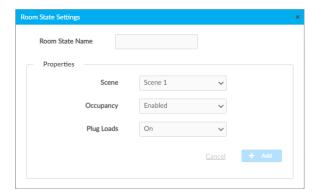
A Room State is both a set of events as well as a set of behaviors for a Room Category. It identifies the lighting scene that is recalled, the functionality of the occupancy sensor and the plug load controllers. To access the Room States menu, click the **Schedule** tab and click to expand the scheduling menus.



### Configure a Room State

Click **Add Room State** to add a new Room state or **to** edit an existing Room State. The **Room State Settings** window opens. To configure a Room State in the **Room State Settings** window:

- 1. Enter or edit the name of the desired Room State in the Room State Name filed.
- 2. Configure the Properties:
  - Scene: Select Scene 1 16, None, or Room Off.
  - Occupancy: Select Enabled to allow occupancy sensing, Disabled to turn occupancy sensing off, or Unaffected to use the setting of the previous event.
  - Plug Loads: Select On to turn on the Plug loads, Off to turn off the Plug Loads, or Unaffected to use the setting of the previous event.
- 3. Click Cancel to close the window without saving, or Add to add the Room State.



### Delete a Room State

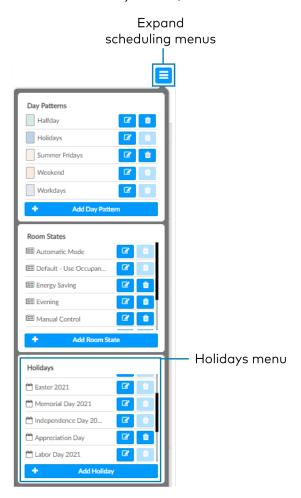
To delete a Room State:

- 1. Click to delete a Room State. A confirmation window opens.
- 2. Click **Yes** to delete the Room State, or click **No** to keep the Day Pattern.

**NOTE:** A Default Room State (such as Automatic Mode and Default - Use Occupancy) cannot be deleted.

## Holidays

The Holidays menu allows you to create a new holiday and to edit the holiday properties. Holidays that are enabled are automatically added to the calendar in the **Schedule** tab. To access the Holidays menu, click the **Schedule** tab and click to expand the scheduling menus.



### Add Holidays

Click **Add Holiday** and type the desired Holiday name. Click  $\checkmark$  to save the name, click  $\checkmark$  to cancel.

### Delete a Holiday

To delete a Holiday:

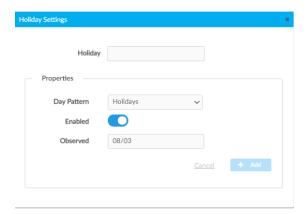
- 1. Click to delete a Holiday. A confirmation window opens.
- 2. Click **Yes** to delete the Holiday, or click **No** to keep the Holiday.

NOTE: A default Holiday cannot be deleted.

### Configure Holidays

After adding a Holiday, the **Holiday Settings** window opens. Alternatively, clicking beside a Holiday opens the **Edit Holiday Settings** window. These windows display the Holiday settings. To configure Holidays in the **Holiday Settings** window:

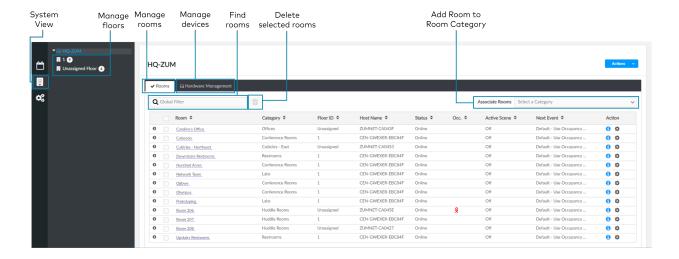
- 1. Enter or edit the name of the desired Holiday in the Holiday field.
- 2. Configure the Properties:
  - Day Pattern: By default, the Holiday Day Pattern is selected
  - **Enabled:** By default, the Enabled toggle is on. Turn the toggle off to prevent the holiday from appearing in the calendar on the **Schedule** tab. When the toggle is off, the default Day Pattern is applied instead.
  - Observed: Select a date to observe the holiday.
- 3. Click **Add** to add the Holiday or **Cancel** to close the window.



# Manage Floors

Rooms must be discovered by the ZUM-HUB4 before performing any procedure in this section. Refer to Discover Rooms on page 24. Access Floors in the System View. To manage a Floor, refer to the following information:

- Turn On/Off a Floor on page 26
- Set the Bluetooth PIN for a Floor on page 29
- Set the Demand Response Level for a Floor on page 32
- Manage Rooms on page 33
- Manage Devices on page 47



# **Manage Devices**

In the System View, manage devices in the Hardware Management tab. Devices are divided into two categories: **Wired** and **Wireless**. Expand the Wireless menu to view and edit wireless devices. Expand the Wired menu to view and edit wired devices.

Rooms must be discovered by the ZUM-HUB4 before performing any procedure in this section. Refer to Discover Rooms on page 24.

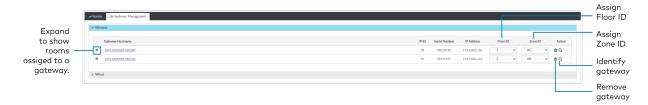


### Wireless Devices

Access wireless gateways in the **Hardware Management** tab and expand the **Wireless** menu. View information about the gateway, assign Floor or Zone IDs, and identify or remove a gateway. To view, move, and delete the rooms assigned to the gateway, refer to Review Rooms Assigned to a Gateway on page 48.

Information about the gateway:

- Gateway Hostname: Displays the gateway's name.
- IP ID: Displays the gateway's IP ID.
- Serial Number: Displays the gateway's serial number.
- IP Address: Displays the gateway's IP address.
- Floor ID: Refer to Assign a Floor ID to a Gateway on page 48.
- Zone ID: Refer to Assign a Floor ID to a Gateway on page 48.
- Action: Refer to Identify a Gateway on page 48 and Remove a Gateway on page 48.



### Assign a Floor ID to a Gateway

Assigning a Floor ID to a gateway helps gateways discover wireless devices with the matching Floor ID. Set a device's Floor ID in the Zūm app before discovering the devices on the ZUM-HUB4. The Floor ID drop-down menu options are numbers -40 to + 200 and Disabled. The Floor ID can be negative to indicate a floor below ground or positive to indicate a level above ground. Disabled categorizes the gateway to Unassigned Floor.



### Assign a Zone ID to a Gateway

To designate different areas of a floor as a zone, assign a gateway a Zone ID. Assigning a Zone ID to a gateway helps gateways discover wireless devices with the matching Zone ID. Set a device's Zone ID in the Zūm app before discovering the devices on the ZUM-HUB4. The Zone ID drop-down menu options are letter groupings AA to AZ and BA to BF.

### Identify a Gateway

To identify a gateway, click Q. The SETUP LED on the gateway flashes.

#### Remove a Gateway

To delete a gateway, click a. A confirmation window opens. Click **Yes** to delete the gateway, or **No** to keep the gateway.

### Review Rooms Assigned to a Gateway

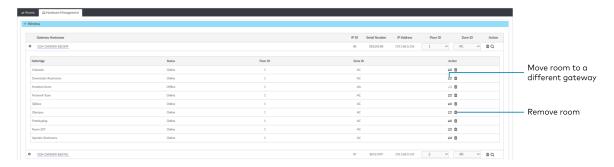
Click next to a gateway to view its assigned rooms:

- Netbridge: Lists assigned rooms.
- Status: Displays Online or Offline to show the device status.
- Floor ID: Inherits the Floor ID assigned to the gateway.
- Zone ID: Inherits the Zone ID assigned to the gateway

- Action: Move a room to a different gateway or remove a room.
  - Click to move a room. The Move window opens.
    - Select the desired gateway from the drop-down menu.
    - Click Move to move the room or Cancel to close the window without moving the room.

**NOTE:** Moving a room to a gateway with different a Floor ID or Zone ID changes the room's Floor ID or Zone ID to match the new gateway.

• Click **t** to remove a room. A confirmation window opens. Click **Yes** to delete the room or **Cancel** to close the window without deleting the room.



### Wired Devices

Access wired Room Access Points in the **Hardware Management** tab and expand the **Wired** menu. A Room Access Point (RAP) is the main device in the room. View information about the RAP, assign Floor or Zone IDs, or remove an RAP. To view devices connected to RAP, refer to Review RAP Components on page 50.

- Room Access Point Hostname: Displays the main device's name.
- IP ID: Displays the main device's IP ID.
- Serial Number: Displays the main device's serial number.
- IP Address: Displays the main device's IP address.
- Floor ID: Refer to Assign a Floor ID to an RAP on page 50.
- Zone ID: Refer to Assign a Zone ID to an RAP on page 50.
- Action: Refer to Remove a RAP on page 50.



### Assign a Floor ID to an RAP

Assigning a Floor ID to a load controller adds a floor to the Floor list. The Floor ID drop-down menu options are numbers -40 to + 200 and Disabled. The Floor ID can be negative to indicate a floor below ground or positive to indicate a level above ground. Disabled categorizes the load controller to Unassigned Floor.



### Assign a Zone ID to an RAP

To designate different areas of a floor as a zone, assign a load controller a Zone ID. The Zone ID drop-down menu options are letter groupings AA to AZ and BA to BF.

#### Remove a RAP

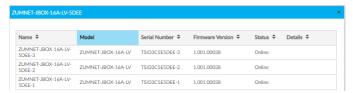
To delete a load controller, click **1**. A confirmation window opens. Click **Yes** to delete the load controller, or **No** to keep the load controller.

### Review RAP Components

Click next to a load controller to view connected devices.

- Device: Displays child devices connected to the parent load controller.
- Status: Displays Online or Offline to show the child device's status.
- Cresnet ID: Displays the child device's Cresnet® control network ID.
- Serial Number: Displays the child device's serial number.
- Version: Displays the child device's current firmware version.

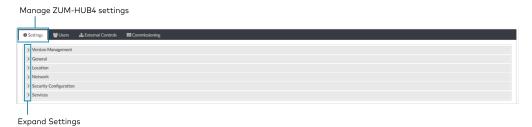
- Components: Click \( \bigcup \) to view the child device components. Components displays the internal functions of a load controller, such as the internal occupancy sensors, photocell, and load controller, as well as other devices connected to the device, such as a keypad.
  - Name: For internal components, the name of the component is the device name plus the suffix "-1," "-2," or "-3."
    - -1: Load Controller component: Controls the connected loads.
    - -2: Occupancy sensor component: Uses occupancy to control the connected loads.
    - -3: Photocell component: Uses ambient light to control the connected loads.
    - Change the component name by using the Zūm App.
  - o Model: Displays the device model.
  - Serial Number: Displays the component's serial number.
  - Firmware Version: Displays the component's firmware version.
  - Status: Displays Online or Offline to show the component's status.





# **Manage Settings**

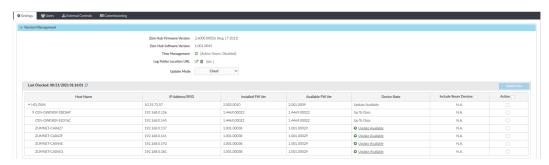
Access Settings in the Settings View. The Settings tab displays and allows you to edit the firmware, system time and location, network configuration, security configuration, and Crestron services.



## Version Management

Allows you to check for firmware updates for the ZUM-HUB4 and connected devices. Firmware updates for battery powered devices may take up to 24 hours. To update firmware:

- 1. Open Settings View.
- 2. Click Settings.
- 3. Click Version Management.
- 4. From Update Method, select Cloud or Removeable Media.
- 5. If using removeable media, insert the device.
- 6. Check the box under Action for the devices whose firmware you want to update.
- 7. Click Update Now.



### General

Displays the date, time, and time zone. To change the date and time:

- 1. Open Settings View.
- 2. Click Settings.
- 3. Click General.
- 4. Enter new values in the fields.
- 5. Click Sove Changes to save the changes or Revert to discard changes.

NOTE: Changing these settings requires an immediate system reboot.

A confirmation windows opens. Click **Yes** to reboot or **No** to close the window.



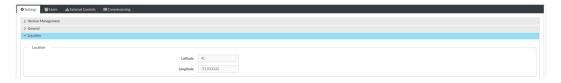
### Location

Displays the location (latitude and longitude). Accurate location ensures the Sunrise/Sunset Schedule displays the correct sunrise and sunset times. To change the location:

- 1. Open Settings View.
- 2. Click Settings.
- 3. Click Location.
- 4. Enter new values in the fields.
- 5. Click save the changes or Revert to discard changes.

**NOTE:** Changing these settings requires an immediate system reboot.

A confirmation windows opens. Click **Yes** to reboot or **No** to close the window.



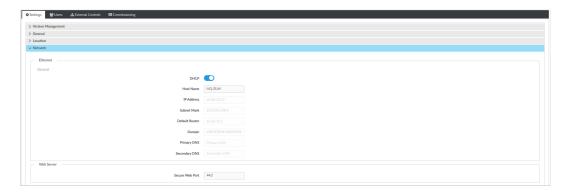
### Network

Displays the Ethernet settings. To change the Ethernet settings:

- 1. Open Settings View.
- 2. Click Settings.
- 3. Click Network.
- 4. Enter new values in the fields. Some fields are not available if DHCP is on.
- 5. Click Sove Changes to save the changes or Severt to discard changes.

NOTE: Changing these settings requires an immediate system reboot.

A confirmation windows opens. Click Yes to reboot or No to close the window.



# **Security Configuration**

Allows the user to change the device service password. To edit the password:

- 1. Open **Settings View**.
- 2. Click Settings.
- 3. Click Security Configuration.
- 4. Click 📝 and to new values in the fields.
- 5. Click save the changes or save the changes.

A confirmation windows opens. Click **Yes** to reboot or **No** to close the window.



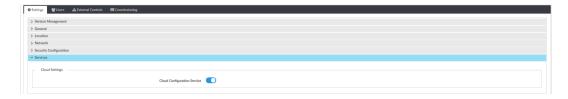
### Services

Displays Cloud Settings. To turn Cloud Configuration Service on or off:

- 1. Open **Settings View**.
- 2. Click Settings.
- 3. Click Services. Cloud Configuration Service is on by default.
- 4. To turn off Cloud Configuration Service, click the toggle.
- 5. Click Sove Changes to save the changes or Severt to discard changes.

NOTE: Changing these settings requires an immediate system reboot.

A confirmation windows opens. Click **Yes** to reboot or **No** to close the window.



# Manage Users

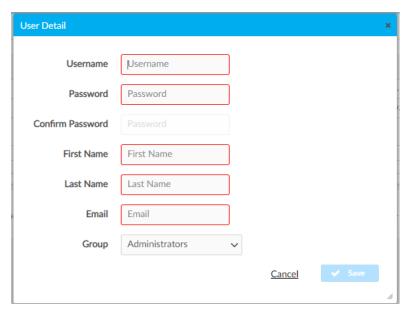
Access Users in the Settings View. The Users tab shows a list of all users and allows you to create new users and modify or delete existing users. The username must be 3 to 15 characters and are permitted to use uppercase letters (A-Z, lowercase letters (a-z), digits (0-9), and special characters (- ( ) + [ ] . \_). The password must be 8 to 12 characters is required to contain at least one uppercase letters (A-Z), lowercase letters (a-z), digits (0-9), and special characters (#?!@\$%^&\*-).



### Create a New User

To create a new User:

- 1. Open Settings View.
- 2. Click Users.
- 3. Click + New User.
- 4. Enter the user details.
- 5. Click **Save** to save the new user or **Cancel** to exit without creating a new user.



### Configure an Existing User

To configure an existing User:

- 1. Open Settings View.
- 2. Click Users.
- 3. Click 📝 next to the user.
- 4. Update the user details.
- 5. Click **Save** to save the changes or **Cancel** to exit without saving the changes.

### Delete an Existing User

To delete an existing User:

- 1. Open **Settings View**.
- 2. Click Users.
- 3. Click next to the user.
- 4. Click **Yes** to delete the user or **No** to cancel without deleting the user.

### **External Users**

For External Rooms to successfully connect, create a User and select **ExternalUser** from the Group drop-down menu. The Username and Password must match the credentials used for the SIMPL+® software module.

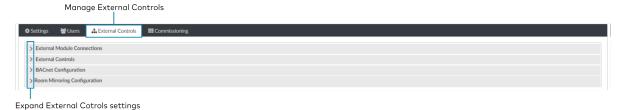
#### **NOTES:**

- SIMPL+® software modules are provided for use in commissioning a Crestron control system to work with the ZUM-HUB4. The software modules run within the control system program and provide virtual connections for all the necessary intersystem control signals. A separate dedicated module is required for each external and mirrored room. Control systems are limited in the number of modules supported, ranging from 0 to 1000 depending on the model. For further assistance, please contact Crestron Commercial Lighting Support via email at <a href="mailto:clclighting@crestron.com">clclighting@crestron.com</a> or by calling 855-644-7643.
- Other Crestron control systems must be commissioned to provide the control logic required to communicate and operate as part of the Zūm network. Once integrated, each external room effectively becomes a part of the Zūm ecosystem.

# **Manage External Controls**

Access External Controls in the Settings View. Use the External Controls tab to manage External Room settings. External Rooms provide the ability to integrate third-party devices into a Zūm lighting control system. To create a User for External Rooms, refer to External Users on page 56.

SIMPL+® software modules are provided for use in commissioning a Crestron control system to work with the ZUM-HUB4. The software modules run within the control system program and provide virtual connections for all the necessary intersystem control signals. A separate dedicated module is required for each external and mirrored room. Control systems are limited in the number of modules supported, ranging from 0 to 1000 depending on the model. For further assistance, please contact Crestron Commercial Lighting Support via email at <a href="mailto:clclighting@crestron.com">clclighting@crestron.com</a> or by calling 855-644-7643.



### **External Module Connections**

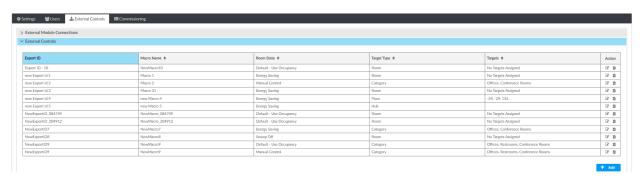
To allow or prevent older versions of module to be used:

- 1. Open Settings View.
- 2. Click the External Controls tab and expand the External Module Connections menu.
- 3. Click the toggle to turn **Allow Legacy Module Connection** on or off.



### **External Controls**

Access External Controls in the Settings View. Use the **External Controls** menu to add, edit, or delete a macro.



### Add Macro

To add a new macro:

- 1. Open Settings View.
- 2. Click the External Controls tab and expand the External Controls menu.
- 3. Click + Add . A new row appears.
- 4. Configure the macros settings:
  - Enter the Export ID.
  - Enter the Macro Name.
  - Select a Room State.
  - Target Type: Room Category, Room Floor, or Hub.
  - Enter Targets.
- 5. Click to save or to cancel.



### **Edit Existing Macro**

To edit an existing macro:

- 1. Open Settings View.
- 2. Click the External Controls tab and expand the External Controls menu.
- 3. Click [7.
- 4. Enter new values in the fields.
- 5. Click to save or to cancel.

### **Delete Existing Macro**

To delete an existing macro:

- 1. Open Settings View.
- 2. Click the External Controls tab and expand the External Controls menu.
- 3. Click a. A confirmation window opens.
- 4. Click **Yes** to delete the macro or **No** to cancel.

# **BACnet Configuration**

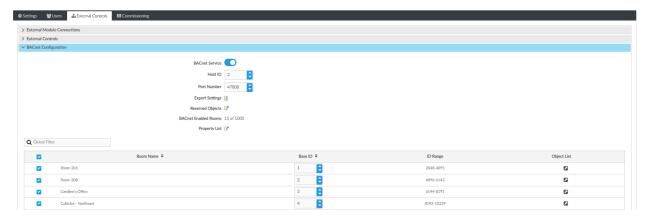
The BACnet tab displays the system settings to establish a connection with the BMS (building management system). To configure BACnet service:

- 1. Open Settings View.
- 2. Click the External Controls tab and expand the BACnet Configuration menu.

3. Configure the BACnet settings:

NOTE: Use the search to find a specific room.

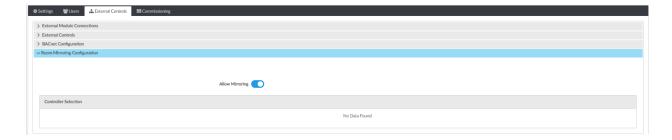
- BACnet Service: Click the toggle to turn the BACnet service on or off.
- Host ID: The ID that the ZUM-HUB4 uses when communicating with the BACnet system.
- Port Number: The port number that is used when communicating with the BACnet system.
- Export Settings: Export the BACnet settings to a CSV (comma separated value) file.
- Reserved Objects: Display objects that send signals to the ZUM-HUB4.
- BACnet Enabled Rooms: The number of rooms with BACnet.
- Property List: Allows users to select which objects are enabled for all rooms.
- Room Name: The name of the room.
- Base ID: Orders the device in the system and assigns the object IDs.
- ID Range: The range of Object IDs that the room can use.
- Object List: Displays a list of all Object IDs, Object Names, and Object Types within the selected room. A blue checkmark indicates objects that are enabled.



# Room Mirroring Configuration

Room Mirroring allows an external processor to send or receive information from an existing Zūm room.

- 1. Open **Settings View**.
- 2. Click the External Controls tab and expand the Room Mirroring Configuration menu.
- 3. Click the toggle to turn **Allow Mirroring** on or off.



# **Manage Commissioning**

Access Commissioning in the Settings View. Use the Commissioning tab to manage, map, and deploy, room templates. To create a new template, use the Zūm app.



## Template Management

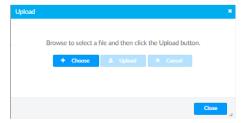
Upload a new template or search, extract, edit, or delete an existing template.



### Add a New Template

To add a new room template:

- 1. Open **Settings View**.
- 2. Click the **Commissioning** tab and expand the **Template Management** menu.
- 3. Click Upload. The Upload window opens.
- 4. Click **Choose** to browse for a new template.
- 5. Select the template.
- 6. Click **Upload** to add the template to the **Template Management** menu, **Cancel** to choose a different template, or **Close** to close the window without adding a new template.



### Edit Template Name

To edit an existing template name:

- 1. Open Settings View.
- 2. Click the Commissioning tab and expand the Template Management menu.
- 3. If necessary, use the **Search** bar to find a room template.
- 4. Click [].
- 5. Type the new name.
- 6. Click **Save** to save the new name or **Cancel** to close the window without saving a new name.

### **Delete Existing Template**

To delete an existing template:

- 1. Open Settings View.
- 2. Click the **Commissioning** tab and expand the **Template Management** menu.
- 3. If necessary, use the **Search** bar to find a room template.
- 4. Click 📆. A confirmation window opens.
- 5. Click **Yes** to delete the template or **Cancel** to close the window.

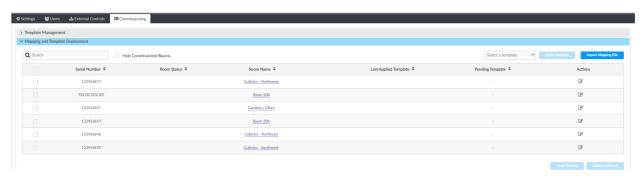
### **Extract Template**

To extract a room template from another room:

- 1. Open Settings View.
- 2. Click the Commissioning tab and expand the Template Management menu.
- 3. If necessary, use the **Search** bar to find a room template.
- 4. Click Extract. The Extract Template window opens.
- 5. Select a room.
- 6. Click **Extract** to extract the template or **Cancel** to close the window.

# Mapping and Template Deployment

Use Mapping and Template Deployment to apply and deploy templates to rooms and to import mapping files.



### Apply and Deploy Templates.

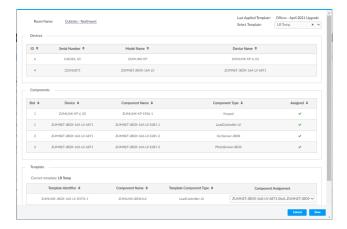
To apply and deploy a template:

- 1. Open Settings View.
- 2. Click the Commissioning tab and expand the Mapping and Template Deployment menu.
- 3. Select a room or multiple rooms. If necessary, use the **Search** bar to find a room.
- 4. From the **Select a template** drop-down menu, choose the desired template.
- 5. Click **Apply Template**. When the template is successfully applied, the template is now pending.
- 6. Click **Deploy Selected** to deploy the template to the rooms or **Clear Pending** to remove the template from the rooms.

### Edit Template Assignment

To edit a template assignment:

- 1. Open Settings View.
- 2. Click the Commissioning tab and expand the Mapping and Template Deployment menu.
- 3. Click beside the desired room. If necessary, use the **Search** bar to find the room. A window opens.
- 4. From the Select Template drop-down menu, choose the desired template.
  The remaining data specifies the room information, the devices and components affected, and the selected template details.
- 5. Click **Save** to reassign the room template or **Cancel** to close the window without saving.



### Import Mapping File

Access Import Mapping File in the Settings View. Open the Commissioning tab and expand the **Mapping and Template Deployment** menu. If a mapping file has been created in an external file, use the **Import Mapping File** button to navigate to the mapping and import the file.

# **Review Device Information and Status**

View the Demand Response status, system alerts, help information, or sign out of the web interface.



### **Demand Response Status**



Demand Response is enabled.

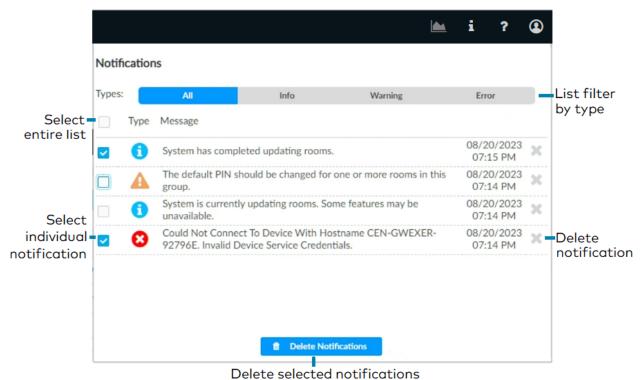


Demand Response is disabled.

# System Information



System notifications are categorized as information, warnings, or errors. Notifications can be viewed all at once or in their respective categories. Each notification is displayed for 24 hours and up to 100 notifications can be viewed at a time. Each notification after 100 will replace the oldest notification. For example, when notification 101 displays, notification 1 is removed. Delete a single notification by clicking the X to the right of the notification. Alternatively, delete one or more notifications by selecting the check box to the left of the notification and clicking **Delete Notifications**.



Delete selected notifice

# Help



Click to view the help file.

## Sign Out



Click to bring up the Sign Out pop-up. Click Sign Out to log out of the ZUM-HUB4.

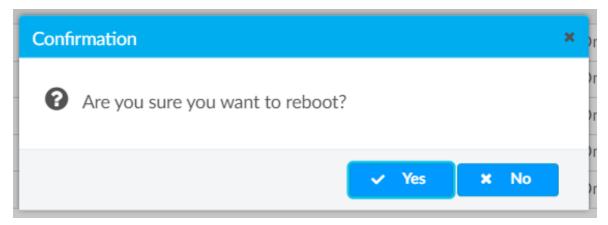
# Reboot ZUM-HUB4

To reboot the ZUM-HUB4:

1. Click the Actions menu



2. Click **Reboot**. The Confirmation window opens.



3. Click **Yes** to Reboot or **No** to close the window without rebooting.

# Resources

Below are resources provided for ZUM-HUB4.

**NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

# **Crestron Support and Training**

- Crestron True Blue Support
- Crestron Resource Library
- <u>Crestron Online Help (OLH)</u>
   <u>Crestron Zum® Lighting Answer Index: Answer ID: 1001872</u>
- Crestron Training Institute (CTI) Portal

# **Programmer and Developer Resources**

- help.crestron.com: Provides help files for Crestron programming tools such as SIMPL,
   SIMPL#, and Crestron Toolbox™ software
- <u>developer.crestron.com</u>: Provides developer documentation for Crestron APIs, SDKs, and other development tools

# **Product Certificates**

To search for product certificates, refer to support.crestron.com/app/certificates.

# **Related Documentation**

Energy standards for Zūm Wired solutions

#### **IECC 2021**

- Education Applications
- Healthcare Applications
- Hospitality Applications
- Office Applications
- Restaurant Applications
- Retail Applications

#### ASHRAE 2019

- Education Applications
- Healthcare Applications
- Hospitality Applications
- Office Applications
- Restaurant Applications
- Retail Applications

#### Title 24 2019

- Education Applications
- Healthcare Applications
- Hospitality Applications
- Office Applications
- Restaurant Applications
- Retail Applications

#### **IECC 2018**

- Education Applications
- Healthcare Applications
- Hospitality Applications
- Office Applications
- Restaurant Applications
- Retail Applications

This page is intentionally left blank.