

SpaceLogic™ HMIs

Operator Display

Reference Guide

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Life Is On

Schneider
Electric

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Introduction

The Introduction part contains information on the purpose of this guide, how this guide is organized, where to find more information, and information on safety.

1

About This Guide

Topics

Purpose of This Guide

How This Guide is Organized

Safety Information

1.1 Purpose of This Guide

This guide provides information about the administration and configuration of SpaceLogic™ Operator Display, and how it is used to provide an easy-to-use interface through which building managers, technicians, janitors, and security guards can locally access the EcoStruxure Building Management systems from a Human Machine Interface (HMI) terminal. This information is intended to help you understand Operator Display so you can perform common and administrative tasks using the Operator Display user interface.

1.2 How This Guide is Organized

This EcoStruxure Building Guide is divided into the following parts:

Introduction

The Introduction part contains information on the purpose of this guide and how this guide is organized.

Reference

The Reference part contains conceptual information, procedures, user interface descriptions and troubleshooting information.

1.3 Safety Information

Read this information carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it.

1.3.1 Important Information

The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

1.3.2 Cybersecurity Safety Notice

<i>NOTICE</i>
<p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none">• Change passwords regularly to help prevent unauthorized access to device settings, controls, and information.• Do not share accounts. Each user must have their own account.• When creating user and display names, it is important to avoid using personal information, and to consider regional privacy policies. Display names will appear in event logs to identify who performed operations on the device.• It is recommended that log files be encrypted before transmission to help with security and privacy.• Disable unused services and default accounts to help minimize pathways for malicious attackers. Factory reset devices when they are decommissioned to help ensure all site, user, and log information is removed.• Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).• Use the recommended cybersecurity safety measures (for example, least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, or interruption of services. <p>Failure to follow these instructions can result in loss of data or unauthorized system access.</p>

Reference

The Reference part contains conceptual information, procedures, user interface descriptions and troubleshooting information. If you want more information, see WebHelp or the other EcoStruxure Building guides.

2

SpaceLogic Operator Display

Topics

Operator Display Overview

User Account Handling

Logging on to Operator Display

Changing Password

Configuration

Hardening Specifics

Configuring the IP Network Communication

Configuring the BACnet/IP Network Communication

Discovering a Device

BACnet Objects

Date and Time Handling

Configuring Date and Time

Configuring Operator Display to be Time Master

Upgrading the Firmware

Recovering Operator Display (Factory Reset)

Erasing All Data

User Account Administration

Creating a User

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- Deleting a User
- Configuring User Settings
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- Adjusting the Backlight
- Alarm Handling
- Acknowledging an Alarm
- Value Editing
- BACnet Command Priorities
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2

Adding a Calculated Date Exception Event

Editing a Single Date Exception Event

Editing a Date Range Exception Event

Editing a Calculated Date Exception Event

Exception Event Priorities

Editing an Event Priority

Schedule Colors

Deleting a Schedule Event

Displaying and Exporting Logs

Displaying About Information

2.1 Operator Display Overview

SpaceLogic™ Operator Display is a touch-screen Human Machine Interface (HMI) for SpaceLogic* controllers and servers, designed for local monitoring of building controllers in small and medium-sized buildings, as well as in large buildings with comprehensive building management systems. Operator Display is specifically designed for equipment rooms and it simplifies operations, service, and troubleshooting for System Integrators and Service Engineers, as well as for non-technical users (notably Facility Managers and Janitors).

* Formerly known as SmartX.



Figure: Operator Display

The simplified user interface and the intuitive touch-screen navigation make it easy to operate and maintain the system. Operator Display communicates quickly over BACnet/IP open protocol with a direct connection to SpaceLogic MP or RP controllers, IP-IO modules, AS-B or AS-P servers. Only one Operator Display is required per cabinet in the equipment room, so there is no need for more displays when a controller is added (up to seven controllers). The operator can view and acknowledge alarms, edit schedules, and adjust setpoint temperatures. Authorized operators can also view and override inputs, outputs, and other virtual points.

2.1.1 User Account Handling

Operator Display authenticate users via user name and password.

For more information, see section 2.2 “User Account Handling” on page 27.

2.1.2 Alarm Handling

When an input, output or value in a connected device is configured to generate an alarm, Operator Display allows you to view and acknowledge the alarm. Inputs, outputs or values can be configured to generate an alarm when it is, for example, out of range or in a fault state.

For more information, see section 2.23 “Alarm Handling” on page 54.

2.1.3 Value Editing

The value of inputs, outputs and values, such as non-calculated setpoints, control mode selectors, and digital override switches can be edited in Operator Display.

For more information, see section 2.25 “Value Editing” on page 58.

2.1.4 Schedule Handling

A schedule is a sequence that determines when essential events occur in a building management system: doors locked or unlocked, temperature raised or lowered, or equipment turned on or off.

For more information, see section 2.34 “Schedule Handling” on page 70.

2.1.5 Date and Time Handling

Operator Display receives date and time from a time master on the BACnet network. In smaller systems where no time master is available, Operator Display can be configured to send its date and time to the connected devices.

For more information, see section 2.11 “Date and Time Handling” on page 39.

2.1.6 Configuration

As an administrator you need to configure Operator Display and make it part of the IP network and the BACnet/IP network so you can discover and add the devices.

For more information, see section 2.5 “Configuration” on page 31.

2.2 User Account Handling

Operator Display authenticate users via user name and password.

The system administrator create a user account with your needed permissions so you can access Operator Display and perform your assigned tasks. For more information, see section 2.3 “Logging on to Operator Display” on page 29.

NOTICE
POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY <ul style="list-style-type: none">• Wipe screen after use to avoid fingerprints from password entry remaining on the screen.• Do not share accounts between multiple users. Failure to follow these instructions can result in loss of data or equipment damage.

There are three different types of users in Operator Display:

Administrator

A building manager who has complete access to the configuration of the Operator Display, including user administration.

Technician

A maintenance person or janitor who uses the Operator Display to interact with devices without being able to modify the configuration.

Viewer

A security guard who can view Operator Display features like alarms, but is not authorized to perform actions.

2.2.1 Passwords

The minimum number of characters and how many lowercase, numeric, and special characters that are required when you create a password depends on how the Operator Display user settings are configured.

When you change your password, the password requirements for the Operator Display are displayed on the Change password screen. For more information, see section 2.4 “Changing Password” on page 30.

The following special characters can be used:

!*#\$%()'*-./:;<=>?@[\\]^_`{|}~

2.2.2 User Administration

As an administrator you add and delete user accounts, and configure user settings, such as password minimum requirements.

For more information, see section 2.17 “User Account Administration” on page 45.

2.3 Logging on to Operator Display

You log on to Operator Display to display and interact with the connected devices.

For more information, see section 2.2 “User Account Handling” on page 27.

NOTICE

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

- Wipe screen after use to avoid fingerprints from password entry remaining on the screen.
- Do not share accounts between multiple users.

Failure to follow these instructions can result in loss of data or equipment damage.


To log on to Operator Display

1. In Operator Display, tap **Start**.
2. In the **User name** box, type a user name.
3. In the **Password** box, type a password.
4. Tap **Login**.

2.4 Changing Password

You change a password to update your access to Operator Display.
For more information, see section 2.2 “User Account Handling” on page 27.

To change a password

1. In Operator Display, tap the menu button .
2. On the menu, tap the user name.
3. On the user profile screen, tap **Change Password**.
4. On the **Change password** screen, in the **Current password** box, type your current password.
5. In the **New password** box, type your new password.
NOTE: The following special characters can be used:
`!*#$%()'*/+./:;<=>?@[^_ '{}~`
6. In the **Confirm password** box, type your new password a second time.
7. Tap **Save**.

2.5 Configuration

As an administrator you need to configure Operator Display and make it part of the IP network and the BACnet/IP network so you can discover and add the devices.

2.5.1 Hardening Specifics

Operator Display communicates via BACnet/IP over ethernet. The following network rules must be followed when networking the device.

For more information, see section 2.6 “Hardening Specifics” on page 32.

2.5.2 BACnet Objects

BACnet objects and devices have a variety of required and optional properties that are used for the purposes of identification, reliability indication, and configuration of the object or device, and for prioritization of write requests.

For more information, see section 2.10 “BACnet Objects ” on page 37.

2.6 Hardening Specifics

Operator Display communicates via BACnet/IP over ethernet. The following network rules must be followed when networking the device.

The device is intended to operate on either:

- A sub-network under an AS-P, or
- A private network, without external connectivity, or protected by security aware device(s).

<i>NOTICE</i>
POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY Do not connect the device to a public network. Failure to follow these instructions can result in unauthorized access to the BACnet network.

2.6.1 Secure Disposal

When decommissioning Operator Display, ensure all data (including users, logs, and configuration) are erased.

<i>NOTICE</i>
POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY Use the Erase all data command accessible from the About screen or perform the Factory Reset procedure when decommissioning Operator Display. Failure to follow these instructions can result in loss of data or equipment damage.

2.6.2 Secure Operations

All systems require maintenance to help ensure they remain secure.

<i>NOTICE</i>
POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY <ul style="list-style-type: none">• Regularly delete or downgrade the role of account users who no longer need access to the device.• Ensure users understand they should never share accounts or passwords.• Retain strong complexity requirements for passwords when configuring user settings. Failure to follow these instructions can result in unauthorized or unintended access to the device.

If all administrator passwords are lost, the device must be factory reset to remove all data and create new users.

NOTICE

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Ensure the administrator password is stored securely.

Failure to follow these instructions can result in unauthorized access to the device, or require recommissioning of the device.

Log files may contain sensitive information like usernames and IP addresses.

NOTICE

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY


Encrypt log files before transmission.

Failure to follow these instructions can result in disclosure of information that may be sensitive or private.

2.7 Configuring the IP Network Communication

You configure the IP network communication to establish the IP network communication between Operator Display and the devices.

To configure the IP network communication

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **Network**.
4. On the **Network Setup** screen, tap **Static IP** to use a static IP address or **DHCP** to use a DHCP server.


NOTE: When you select to use a DHCP server, the rest of the fields are automatically completed by the DHCP server and not editable.

5. In the **IP address** box, type the static IP address for this Operator Display.
6. In the **Subnet mask** box, type the subnet mask for this Operator Display.
7. In the **Gateway** box, type the IP address of the gateway for this Operator Display.
8. Tap **OK**.

2.8 Configuring the BACnet/IP Network Communication

You configure the BACnet/IP network communication to establish the BACnet/IP network communication between Operator Display and the devices.



To configure the BACnet/IP network communication

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **BACnet**.
4. On the **BACnet Setup** screen, in the **Instance number** box, type the instance number for this Operator Display.
5. In the **Port** box, type the communication port number for this Operator Display.
6. Tap **Time master** to configure Operator Display to send date and time to its connected devices.
7. Tap **OK**.

2.9 Discovering a Device

You discover a device to add it to the list of available devices.

To discover a device

1. In Operator Display, on the **Device List** screen, tap the discover button .
2. On the **Device Discovery** screen, tap the search button .
3. On the **Search for device** screen, in the search box, type the name of the device you want to add to the list.
4. Tap **Search**.
5. In the **Results** list, select a device.
TIP: Tap the arrow to see more information on a device.
6. Tap **Add devices**.

2.10 BACnet Objects

BACnet objects and devices have a variety of required and optional properties that are used for the purposes of identification, reliability indication, and configuration of the object or device, and for prioritization of write requests.

The supported BACnet objects in Operator Display are:

- Analog Input Object Type
- Analog Output Object Type
- Analog Value Object Type
- Binary Input Object Type
- Binary Output Object Type
- Binary Value Object Type
- Device Object Type
- Multi-State Input Object Type
- Multi-State Output Object Type
- Multi-State Value Object Type

2.10.1 Analog Object Type Properties

Input	Output	Value
Object_Identifier	Object_Identifier	Object_Identifier
Object_Name	Object_Name	Object_Name
Object_Type	Object_Type	Object_Type
Present_Value	Present_Value	Present_Value
Description	Description	Description
Event_State	Event_State	Event_State
Units	Units	Units
Acked_Transitions	Priority_Array	Priority_Array
Event_Time_Stamps	Relinquish_Default	Relinquish_Default
Event_Message_Texts_Config	Acked_Transitions	Acked_Transitions
	Event_Time_Stamps	Event_Time_Stamps
	Event_Message_Texts_Config	Event_Message_Texts_Config

2.10.2 Binary Object Type Properties

Input	Output	Value
Object_Identifier	Object_Identifier	Object_Identifier
Object_Name	Object_Name	Object_Name
Object_Type	Object_Type	Object_Type
Present_Value	Present_Value	Present_Value
Description	Description	Description
Event_State	Event_State	Event_State
Inactive_Text	Inactive_Text	Inactive_Text
Active_Text	Active_Text	Active_Text
Acked_Transitions	Priority_Array	Priority_Array
Event_Time_Stamps	Relinquish_Default	Relinquish_Default
Event_Message_Texts_Config	Acked_Transitions	Acked_Transitions
	Event_Time_Stamps	Event_Time_Stamps
	Event_Message_Texts_Config	Event_Message_Texts_Config

2.10.3 Multi-State Object Type Properties

Input	Output	Value
Object_Identifier	Object_Identifier	Object_Identifier
Object_Name	Object_Name	Object_Name
Object_Type	Object_Type	Object_Type
Present_Value	Present_Value	Present_Value
Description	Description	Description
Event_State	Event_State	Event_State
Number_of_States	Number_of_States	Number_of_States
State_Text	State_Text	State_Text
Acked_Transitions	Priority_Array	Priority_Array
Event_Time_Stamps	Relinquish_Default	Relinquish_Default
Event_Message_Texts_Config	Acked_Transitions	Acked_Transitions
	Event_Time_Stamps	Event_Time_Stamps
	Event_Message_Texts_Config	Event_Message_Texts_Config

2.11 Date and Time Handling

Operator Display receives date and time from a time master on the BACnet network. In smaller systems where no time master is available, Operator Display can be configured to send its date and time to the connected devices.

Receiving date and time

When Operator Display receives date and time from a time master on the BACnet network, all time stamps in logs are displayed with the date and time received from the BACnet network. Date and time configuration in Operator Display is temporarily applied until the next date and time update from the BACnet network is received.

Alarm time stamps are displayed in Operator Display with the local date and time in the device reporting the alarm.


NOTE: If the device reporting an alarm is in a different time zone, Operator Display does not make time zone adjustments.

Configured as a time master

When Operator Display is configured as a time master, it sends its date and time to the connected devices once an hour. Operator Display also sends its date and time when an offline device goes online again and when the date and time is configured in Operator Display.

All time stamps in logs and alarms are displayed with the date and time configured in Operator Display. For more information, see section 2.12 “Configuring Date and Time” on page 40.

NOTE: Operator Display does not make Daylight Saving Time (DST) adjustments automatically.

On the BACnet Setup screen, an Operator Display time master is indicated by the **Time Master** toggle  being dark gray.

2.11.1 Date and Time Administration

As an administrator you configure if Operator Display is the time master and sends its date and time to the connected devices.

Operator Display receives date and time from the BACnet network via the Local Time Synchronization service. The Local Time Synchronization service is configured in the EcoStruxure Building Operation software.


If Operator Display and the connected devices receive their time from the BACnet network, avoid configuring Operator display as the time master. As the time master, Operator Display ignores the date and time it receives from the BACnet network, but the devices receive date and time from both the BACnet network and Operator Display. The latest date and time they receive is applied. For more information, see section 2.13 “Configuring Operator Display to be Time Master” on page 41.

2.12 Configuring Date and Time

You configure date and time to help ensure that Operator Display displays the correct date and time.

For more information, see section 2.11 “Date and Time Handling” on page 39.

To configure date and time

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **Time**.
4. On the **Date / Time** screen, tap - or + to select the year, month, date, hour, and minutes.
5. Tap **OK**.


NOTE: Operator Display does not make Daylight Saving Time (DST) adjustments automatically.

2.13 Configuring Operator Display to be Time Master

You configure Operator Display to be time master to make Operator Display send date and time to its connected devices.

For more information, see section 2.11 “Date and Time Handling” on page 39.

To configure Operator Display to be time master

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **BACnet**.
4. On the **BACnet Setup** screen, tap **Time master** to configure Operator Display to send date and time to its connected devices.
5. Tap **OK**.

2.14 Upgrading the Firmware

You upgrade the firmware to access the latest Operator Display features and bug fixes.

NOTICE


LOSS OF DATA

Ensure that the Operator Display power supply is not interrupted during the firmware upgrade process.

Failure to follow these instructions can result in loss of data.

IMPORTANT: You need to configure the Operator Display date and time before you update the firmware. The upgrade firmware feature cannot handle the date and time factory setting. For more information, see section 2.12 “Configuring Date and Time” on page 40.

To upgrade the firmware

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**
3. On the **Operator Display Settings** screen, tap **Firmware Update**.
4. Insert a USB key containing the firmware files into the Operator Display USB port.
5. On the **Firmware Update** screen, tap **Re-scan for files**.
6. Tap the firmware file in the list.
7. Tap **Update**.

2.15 Recovering Operator Display (Factory Reset)

You recover Operator Display when a power outage occurred during a firmware upgrade, when all administrator passwords have been lost or when decommissioning Operator Display. This operation clears the device list, logs, and users. The only data remaining will be the firmware version and time setting.

NOTICE

LOSS OF DATA

Recover Operator Display only if it is not accessible or when decommissioning Operator Display.

Failure to follow these instructions can result in loss of data

To recover Operator Display (factory reset)

1. Turn the Operator Display power off.
2. On back of the Operator Display, in port **USB-2**, connect a USB On The Go cable (OTG, USB-Micro-B to USB-A).
3. In port **USB-1**, connect a USB key containing the latest version of the Device Recovery firmware file, unzipped.

NOTE: The USB OTG cable and key are not included in the purchased Operator Display bundle.

4. Turn the Operator Display power on.
5. Wait for the following information to display on the screen:

```
Recovery Mode
Loading nand.img...
Writing KERNEL...
Writing ROOTFS...
Udisk upgrade success! (loud beep)
"Upgrade successful. Wait to reboot!"
```

6. Turn the Operator Display power off.
7. Disconnect the USB key and cable from the device.
8. Turn the Operator Display power on.
9. Check that the correct firmware version is displayed on the screen.

2.16 Erasing All Data

You erase all data from Operator Display to clear the device list, logs, and users. The only data remaining will be the firmware version and time setting.


NOTICE

LOSS OF DATA

- Export the logs you want to keep.
- Consider whether you want to erase all users.

Failure to follow these instructions can result in loss of data.

To erase all data

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **About**.
4. Tap **Erase all data**.

2.17 User Account Administration

As an administrator you add and delete user accounts, and configure user settings, such as password minimum requirements.

NOTICE
<p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none"> • Always select the least privileged role necessary for the user to perform their duties. • Always create a unique account for each individual. • Do not share accounts between multiple people. • Consider regional privacy requirements when creating user and display names, as user names will appear in event logs. • Ensure user names are clearly unique to help ensure clear traceability. For example, avoid creating both “User1” and “User 1”. <p>Failure to follow these instructions can result in unauthorized system access or disclosure of private information.</p>

2.17.1 User Account Creation

When you create a new user you need to fill in a user name, a display name, a role, and a password.

User name

The minimum number of characters for the user name is 3 and no spaces are allowed.

Display name

The minimum number of characters for the display name is 3 and no leading, trailing or consecutive spaces are allowed.

Role

Operator Display supports the management of users under three roles; Administrator, Technician, and Viewer.

Table: Secure Account Management

Tasks	Administrator	Technician	Viewer
View BACnet properties and alarms	Yes	Yes	Yes
Set/force BACnet Points	Yes	Yes	-
Acknowledge BACnet Alarms	Yes	Yes	-

Continued

Tasks	Administrator	Technician	Viewer
View event logs	Yes	Yes	Yes
Export logs to USB	Yes	Yes	-
Change Operator Display configuration	Yes	-	-
Upgrade Operator Display firmware	Yes	-	-
Add/delete users	Yes	-	-

Password

The minimum number of characters and how many lowercase, numeric, and special characters that are required when you create a password depends on how the Operator Display user settings are configured.

For more information, see section 2.18 “Creating a User” on page 48.

2.17.2 User Account Configuration

The following Operator Display user settings are configurable:

Inactivity timeout

The default setting is that the user is logged out after 15 minutes of inactivity. You can configure the timeout to be between 1 and 60 minutes.

Number of failed log in attempts

The default setting is that the user is locked for 10 minutes after 5 failed log in attempts. You can configure the number of failed log in attempts to be between 1 and 10.

User lock time

The default setting is that the user is locked for 10 minutes after 5 failed log in attempts. You can configure the user lock time to be between 1 and 60 minutes.

Minimum number of password characters

The default setting is that the minimum number of password characters is 8. You can configure the minimum number of password characters to be between 4 and 128. The maximum number of password characters is always 128.

Minimum number of lowercase characters

The default setting is that the minimum number of lowercase characters is 1. You can configure the minimum number of lowercase characters to be between 0 and 128.

Minimum number of uppercase characters

The default setting is that no uppercase characters are required (0). You can configure the minimum number of uppercase characters to be between 0 and 128.

Minimum number of numeric characters

The default setting is that the minimum number of numeric characters is 1. You can configure the minimum number of numeric characters to be between 0 and 128.

Minimum number of special characters

The default setting is that the minimum number of special characters is 1. You can configure the minimum number of special characters to be between 0 and 128.

The following special characters can be used:

`!*#$%()'*/+/:;<=>?@[\\]^_`{|}~`

NOTE: Operator Display alerts you if the total number of lowercase, uppercase, numeric, and special characters exceeds 128.

For more information, see section 2.20 “Configuring User Settings” on page 51.



2.18 Creating a User

You create a user to give building management personal access to the Operator Display features.

NOTICE
<p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none">• Always select the least privileged role necessary for the user to perform their duties.• Always create a unique account for each individual.• Do not share accounts between multiple people.• Consider regional privacy requirements when creating user and display names, as user names will appear in event logs.• Ensure user names are clearly unique to help ensure clear traceability. For example, avoid creating both “User1” and “User 1”. <p>Failure to follow these instructions can result in unauthorized system access or disclosure of private information.</p>

For more information, see section 2.17 “User Account Administration” on page 45.

To create a user

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **User Administration**.
4. On the **User Administration** screen, tap the create user button .
5. On the **Create User** screen, in the **User name** box, type a unique user name.

NOTE:

- Minimum number of characters: 3
- No spaces allowed

6. In the **Display name** box, type the name that will be displayed on the screen when the user is logged on to Operator Display.

NOTE:

- Minimum number of characters: 3
- No leading, trailing or consecutive spaces allowed

7. In the **Role** box, select the user role to give the user the required permissions. For more information, see section 2.17 “User Account Administration” on page 45.
8. Tap **Next**.



9. On the **Create password for** screen, in the **Password** box, type a unique password.
10. In the **Confirm password** box, type the password a second time.
11. Tap **Create**.

2.19 Deleting a User

You delete a user to remove it from the list of users who can access this Operator Display.

For more information, see section 2.17 “User Account Administration” on page 45.

To delete a user


1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **User Administration**.
4. On the **User Administration** screen, tap the arrow to select a user.
5. On the user detail screen, tap the button to delete the user .
6. On the **Delete User** screen, tap **Delete**.

2.20 Configuring User Settings

You configure user settings to configure the settings for all users on this Operator Display.

For more information, see section 2.17 “User Account Administration” on page 45.

To configure user settings

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **User Configuration**.
4. On the **User Configuration** screen, tap + or - to edit the value of each user setting.


NOTE: Operator Display alerts you if the total number of lowercase, uppercase, numeric, and special characters exceeds 128.

5. Tap **OK**.

2.21 Configuring the Language

You configure the language to display the Operator Display menus and options in your preferred language.


To configure the language

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **Language**.
4. On the **Language Setting** screen, tap the preferred language.
5. Tap **Update**.

2.22 Adjusting the Backlight

You adjust the backlight to get a comfortable display light level when working in different environments.

To adjust the backlight

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **Display**.
4. On the **Display** screen, drag the **Active backlight** slider to select the preferred light level when you are using Operator Display.
5. Drag the **Inactive backlight** slider to select the preferred light level when you are not using Operator Display.

TIP: Drag the slider all the way to the left to make the backlight turn off when your not using Operator Display.

6. Tap **OK**.






2.23 Alarm Handling

When an input, output or value in a connected device is configured to generate an alarm, Operator Display allows you to view and acknowledge the alarm. Inputs, outputs or values can be configured to generate an alarm when it is, for example, out of range or in a fault state.

On the Alarms screen, active alarms and reset alarms that have not been acknowledged are displayed. On the Alarm screen you also get information such as the alarm state, the name of the input, output or value generating the alarm, and the alarm message. For more information, see section 3.7 “Alarms Screen” on page 114.

2.23.1 Acknowledgement

When you acknowledge an active alarm, you let other users know that you have seen and taken responsibility for the issue causing the alarm. Acknowledging an alarm does not necessarily mean that you are personally solving the cause of the alarm. When you acknowledge an active alarm the color and icon of the alarm in the Alarms pane changes. You also acknowledge reset alarms to remove them from the Alarms screen. For more information, see section 2.24 “Acknowledging an Alarm” on page 57.

Icon	Description
 Alarm State	
 Alarm	Indicates an active alarm in the state Alarm that is not acknowledged.
 Fault	Indicates an active alarm in the state Fault that is not acknowledged.
 Acknowledged	Indicates an active alarm that is acknowledged.
 Reset	Indicates a reset alarm that is not acknowledged.
(no alarm) Normal	When a reset alarm is acknowledged, it is removed from the list.





2.23.2 Alarm States

By viewing the alarm detail screen for an alarm you get more detailed information on the alarm, such as, alarm state, the event state, the event state text, the transition type, and the alarm message. For more information, see section 3.8 “Alarm Detail Screen” on page 116.

The alarm messages can have been customized in the EcoStruxure Building Operation software to display more detailed information on the alarm. If the alarm message is not customized, the event state is displayed.


The table below describes the event states, event state texts, transition types, and alarm messages that are displayed depending on in which alarm state the alarm is.

Table: Alarm Details

Icon Alarm State	Event state	Event state text	Transition Type	Message
 Alarm	Off-Normal ^a High limit ^a Low limit ^a Life safety ^a	Off-Normal	To Off-Normal	Off-Normal ^a High limit ^a Low limit ^a Life safety ^a
 Fault	Fault	Fault	To Fault	Fault
 Acknowledged	Off-Normal ^a High limit ^a Low limit ^a Life safety ^a	Off-Normal	To Off-Normal	Off-Normal ^a High limit ^a Low limit ^a Life safety ^a
 Acknowledged	Fault	Fault	To Fault	Fault
 Reset	Normal	Normal	To Normal	Normal
(no alarm) Normal	(no alarm)	(no alarm)	(no alarm)	(no alarm)

a) Which event state that is displayed depends on the alarm type.

2.23.3 Indications

A red circle on the alarms icon  in the toolbar indicates when there is at least one active alarm that is not acknowledged.

The Operator Display LED indicates when an active alarm is present.

Table: LED Patterns



LED Patterns	Condition
Orange, flashing	Operator Display is starting up.
Green, constant (while running)	There are no active alarms.
Red, flashing (while running)	There is at least one active alarm that is not acknowledged.
Red, constant (while running)	There is at least one active alarm but all alarms are acknowledged.

2.24 Acknowledging an Alarm

You acknowledge an alarm to let other users know that you have seen and taken responsibility for the alarm.

For more information, see section 2.23 “Alarm Handling” on page 54.

To acknowledge an alarm

1. In Operator Display, on the toolbar, tap the alarms button  .
2. On the **Alarms** screen, tap the arrow button  to select the active or reset alarm that you want to acknowledge.
3. On the alarm detail screen, tap **Acknowledge**.

2.25 Value Editing

The value of inputs, outputs and values, such as non-calculated setpoints, control mode selectors, and digital override switches can be edited in Operator Display.

Many inputs, outputs and values receive their value from the system. For example, from a program sequence or a time schedule in the device or server application, or from a connected field device, such as a sensor.

When you edit the value it returns to the value received from the system. For example, if you edit the value of a calculated setpoint it will return back to the calculated setpoint value.

2.25.1 Forced Values

When you force a value you override the value that is received from the system. The forced value is then used to control the system equipment. When you release a forced value, the value returns to the value received from the system again.

You normally do not have to force values. The system is configured so that values intended to be edited, such as non-calculated setpoints, control mode selectors, and digital override switches, are editable without having to be forced.

⚠ WARNING

UNEXPECTED EQUIPMENT OPERATION

Do not force values without knowing the effect.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

2.25.2 BACnet Command Priorities for Forced Values

When you force a value in Operator Display, the BACnet command priority is by default set to priority level 8. This is the suggested priority level for manual operations based on the BACnet Standard. For more information, see section 2.26 “BACnet Command Priorities” on page 60.

As an administrator, you can change the BACnet command priority level for forced values. Be careful when selecting the priority level. If higher priorities are used, it may interfere with higher-priority equipment, such as manual life safety, automatic life safety, or critical equipment control.

⚠ WARNING

UNEXPECTED EQUIPMENT OPERATION



Do not configure the BACnet command priority level for forced values without knowing how the priority level may interfere with higher-priority equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.27 “Configuring the BACnet Command Priority Level for Forced Values” on page 63.

2.25.3 Indications

On the inputs, output and value detail screens, a forced value is indicated by the

Force toggle being dark gray . On the input, output and value screens, a forced value is indicated by an yellow circle  and the text **Forced**.

2.26 BACnet Command Priorities

A building automation system may include objects that are manipulated and written to by other objects, operators, or applications. However, conflicts may arise when these different entities try to write to the same commandable value property of a BACnet object, such as a digital output.

To resolve this problem, a BACnet command priority handles any potential conflicts by prioritizing the write requests in a descending order from 1 (highest) to 16 (lowest). In this way, the system resolves whether a BACnet write request takes effect immediately or is stored in the command priority. Essentially, a command priority manages the actions of multiple operators or applications that use the Value property. For more information, see the *Interface Manager for BACnet – Basic tab* topic on WebHelp.

In the following illustration, a schedule configured to write to priority 10, regulates several fans that circulate the air in a large office area. This schedule writes a value of Off, which turns off the fans during normal operation. A program, configured with an output bound to priority 3, monitors air quality for the same office area. If a sensor monitored by the program detects an increase in the CO² levels, the program overrides the current priority 10 and supersedes the schedule in the command priority. The program sets a value of On, which turns on the fans. The program relinquishes control of priority 3 when the CO² levels return to normal. Then, the output of the schedule, which writes to priority 10, becomes active again.

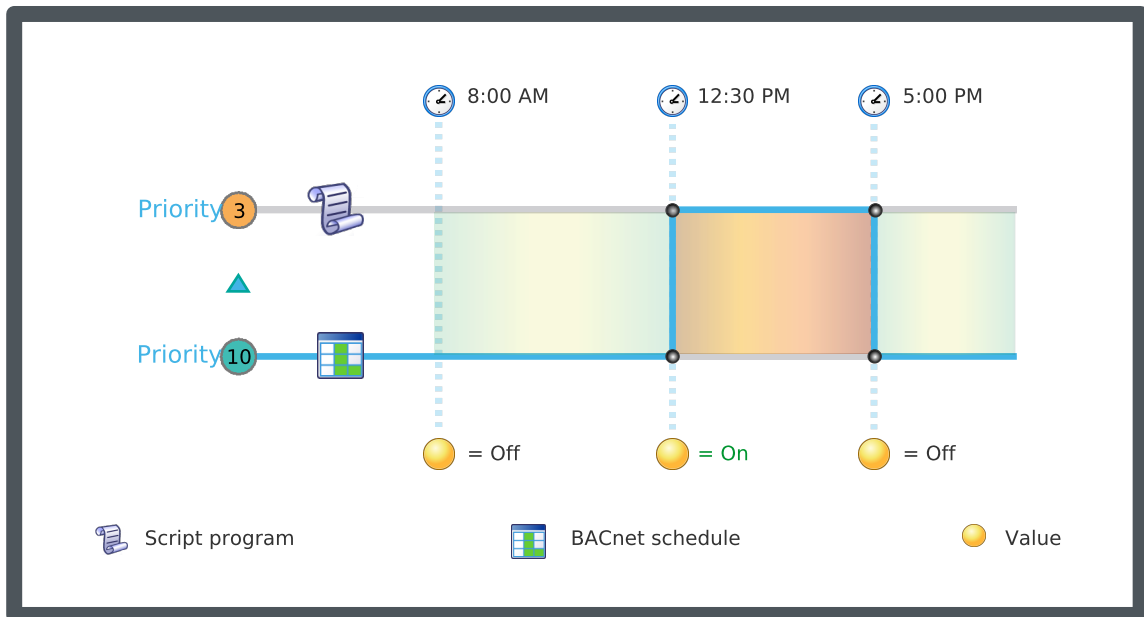


Figure: BACnet Command Priority overview

In a 16-level BACnet priority array, there are different types of levels: available, suggested, and reserved. You can configure these levels according to your specific site requirements.

Priority Level	Description
1	Manual life safety. This is a suggested priority level based on the BACnet Standard.

Continued

Priority Level	Description
2	Automatic life safety. This is a suggested priority level based on the BACnet Standard.
3	Available for use.
4	Available for use.
5	Critical equipment control. This is a suggested priority level based on the BACnet Standard.
6	Minimum on and off. This priority is reserved for timer-based algorithms that are not currently supported. (Read only)
7	Available for use.
8	Manual operator. This is a suggested priority level based on the BACnet Standard.
9	Available for use.
10	Available for use.
11	Available for use.
12	Available for use.
13	Available for use.
14	Available for use.
15	Available for use.
16	Available for use.

Relinquish default

Relinquish default is the value that the system uses for the value if all commandable priority values in the priority array are NULL. For example, you can consider this value as the lowest priority in the system. Relinquishing a priority is the same as writing NULL at that priority. For more information, see the *Interface Manager for BACnet – Basic tab* topic on WebHelp.

2.26.1 Commandable Properties and Objects

In a building automation system, objects, operators, or applications may use different sources to control equipment under certain circumstances. For example, a schedule controls HVAC equipment during normal operation until a Script program overrides the schedule during an emergency. For this reason, the BACnet Standard provides commandable properties that allow multiple sources prioritized access to sources. A commandable property is a property that can be written with a defined priority.

For more information, see the *Commandable Properties and Objects* topic on WebHelp.

2.26.2 Active Command Priority

Active command priority specifies the priority level (1-16) currently controlling the value. The present value is the highest priority with a non-Null value. This property is Null when the entire priority array is Null and the Relinquish default applies.

For more information, see the *Active Command Priority* topic on WebHelp.

2.26.3 Default Priority Level

The Default priority level is the lowest priority level in the system and applies in situations where a user or system engineer does not specify a priority.

For more information, see the *Default Priority Level* topic on WebHelp.

2.26.4 Schedule and Loop Priority for Writing Property

In a building automation system, schedules may interact with multiple BACnet objects that have commandable value properties and, in most cases, act independently of BACnet services. To fine tune the automation, BACnet schedules include a Priority for writing property that defines the priorities of the commandable values for the BACnet objects under their control. Similarly, a BACnet Loop program includes a Priority for writing property that defines the appropriate priority of the program in relation to the commandable value.

For more information, see the *Schedule and Loop Priority for Writing Property* topic on WebHelp.

2.26.5 Command Priority Retain Levels for BACnet Objects

When creating a BACnet point or value, you can configure the warm start and cold start settings for a command priority array.

For more information, see the *Command Priority Retain Levels for BACnet Objects* topic on WebHelp.

2.27 Configuring the BACnet Command Priority Level for Forced Values

You configure the BACnet command priority level for forced values to a higher or lower priority level to make the force command override other system commands, or make other system commands override the force command.

⚠ WARNING


UNEXPECTED EQUIPMENT OPERATION

Do not configure the BACnet command priority level for forced values without knowing how the priority level may interfere with higher-priority equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.26 “BACnet Command Priorities” on page 60.

To configure the BACnet command priority level for forced values

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **BACnet**.
4. On the **BACnet Setup** screen, in the **Force Priority Level** box, tap **+** or **-** to configure the priority level at which the force command will be applied.
5. Tap **OK**.

2.28 Editing an Analog Input, Output, or Value

You edit an analog input, output, or value to change the value of an control variable, such as a non-calculated setpoint.

⚠ WARNING





UNEXPECTED EQUIPMENT OPERATION

Do not force values without knowing the effect.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.25 “Value Editing” on page 58.

To edit an analog input, output, or value





1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the analog input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs**, **Outputs**, or **Values** arrow button .
3. On the **Inputs**, **Outputs**, or **Values** screen, tap the **Analog** arrow button .
4. On the **Inputs**, **Outputs**, or **Values/Analog** screen, tap the arrow button  to select the analog input, output, or value you want to edit.
5. On the inputs, outputs, or values detail screen, tap **+** or **-** to edit the value of the analog input, output, or value.
6. Tap **OK**.

2.29 Editing a Binary Input, Output, or Value

You edit a binary input, output, or value to change the value of a control variable, such as a digital override switch.

For more information, see section 2.25 “Value Editing” on page 58.

To edit a binary input, output, or value

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the binary input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs**, **Outputs**, or **Values** arrow button .
3. On the **Inputs**, **Outputs**, or **Values** screen, tap the **Binary** arrow button .
4. On the **Inputs**, **Outputs**, or **Values/Binary** screen, tap the arrow button  to select the binary input, output, or value you want to edit.
5. On the inputs, outputs, or values detail screen, tap **+** or **-** to edit the value of the binary input, output, or value.
6. Tap **OK**.

2.30 Editing a Multi-State Input, Output, or Value

You edit a multi-state input, output, or value to change the value of a control variable, such as a control mode selector.

⚠ WARNING





UNEXPECTED EQUIPMENT OPERATION

Do not force values without knowing the effect.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.25 “Value Editing” on page 58.

To edit a multi-state input, output, or value

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the multi-state input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs, Outputs, or Values** arrow button .
3. On the **Inputs, Outputs, or Values** screen, tap the **Multi-State** arrow button .
4. On the **Inputs, Outputs, or Values/Multi-State** screen, tap the arrow button  to select the multi-state input, output, or value you want to edit.
5. Tap a value option.
6. Tap **OK**.

2.31 Forcing an Analog Input, Output, or Value

You force an analog input, output, or value to override the value received from the system.

⚠ WARNING





UNEXPECTED EQUIPMENT OPERATION

Do not force values without knowing the effect.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.25 “Value Editing” on page 58.

To force an analog input, output, or value

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the analog input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs**, **Outputs**, or **Values** arrow button .
3. On the **Inputs**, **Outputs**, or **Values** screen, tap the **Analog** arrow button .
4. On the **Inputs**, **Outputs**, or **Values/Analog** screen, tap the arrow button  to select the analog input, output, or value you want to force.
5. On the inputs, outputs, or values detail screen, tap **+** or **-** to edit the value of the analog input, output, or value.
6. Tap **Force** to override the value received from the device.
7. Tap **OK**.





2.32 Forcing a Binary Input, Output, or Value

You force a binary input, output, or value to override a value received from the system.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.25 “Value Editing” on page 58.

To force a binary input, output, or value

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the binary input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs, Outputs, or Values** arrow button .
3. On the **Inputs, Outputs, or Values** screen, tap the **Binary** arrow button .
4. On the **Inputs, Outputs, or Values/Binary** screen, tap the arrow button  to select the binary input, output, or value you want to force.
5. On the inputs, outputs, or values detail screen, tap **+** or **-** to edit the value of the binary input, output, or value.
6. Tap **Force** to override the value received from the device.
7. Tap **OK**.





2.33 Forcing a Multi-State Input, Output, or Value

You force a multi-state input, output, or value to override a value received from the system.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.

For more information, see section 2.25 “Value Editing” on page 58.

To force a multi-state input, output, or value

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the multi-state input, output, or value you want to edit.
2. On the **Device** screen, tap the **Inputs**, **Outputs**, or **Values** arrow button .
3. On the **Inputs**, **Outputs**, or **Values** screen, tap the **Multi-State** arrow button .
4. On the **Inputs**, **Outputs**, or **Values/Multi-State** screen, tap the arrow button  to select the multi-state input, output, or value you want to force.
5. On the inputs, outputs, or values detail screen, tap **Force** to override the value received from the system.
6. Tap a value option.
7. Tap **OK**.

2.34 Schedule Handling

A schedule is a sequence that determines when essential events occur in a building management system: doors locked or unlocked, temperature raised or lowered, or equipment turned on or off.

For example, the lighting in an office building needs to be automated to conserve energy during non-business hours. To regulate the lights from Monday through Friday, you use a weekly event in a schedule that turns the lights on at 07:00 and switches them off at 20:00. If there are any non-routine events, such as holidays, you can use exception events to override the weekly event and turn the lights off.

2.34.1 Schedule Types

You can have three types of different schedules in the building management system: Analog, Digital, Multi-State or Enumerated. An analog schedule is used if the schedule controls a device that gauges the output in real numbers. A digital schedule is used if the schedule needs to control a device with two output states, such as On or Off. A multi-state/enumerated schedule is used if the schedule needs to control a device that has output states based on multiple states, such as low, medium, or high.

For more information, see section 2.35 “Schedule Types ” on page 71.

2.34.2 Schedule Events

A schedule has two types of events: weekly events and exception events. Weekly events occur every week at specified times. Exception events occur when the schedule deviates from the weekly schedule, such as during holidays. Exception events override the weekly events when there is an overlap.

For more information, see section 2.39 “Schedule Events” on page 75.

2.34.3 Time Zones

Schedule times correspond to the local time on the device containing the schedule object.

2.34.4 Priority for Writing

Defines the priority at which the referenced attributes are commanded. The priority defined here corresponds to the Priority parameter of the Write Property service. 1 is the highest priority and 16 is the lowest.

For more information, see section 2.26 “BACnet Command Priorities” on page 60.

2.35 Schedule Types

You can have three types of different schedules in the building management system: Analog, Digital, Multi-State or Enumerated. An analog schedule is used if the schedule controls a device that gauges the output in real numbers. A digital schedule is used if the schedule needs to control a device with two output states, such as On or Off. A multi-state/enumerated schedule is used if the schedule needs to control a device that has output states based on multiple states, such as low, medium, or high.

For more information, see section 2.34 “Schedule Handling” on page 70.

2.35.1 Analog Schedules

An analog schedule controls objects with real numbers. The real numbers include positive or negative numbers, fractions, and decimal values.

For more information, see section 2.36 “Analog Schedules” on page 72.

2.35.2 Digital Schedules

A digital schedule controls objects that have an active and inactive state.

For more information, see section 2.37 “Digital Schedules” on page 73.

2.35.3 Multi-State/Enumerated Schedules

A multi-state or enumerated schedule controls objects that have states based on integers or positive whole numbers including zero.

For more information, see section 2.38 “Multi-State/Enumerated Schedules” on page 74.

2.36 Analog Schedules

An analog schedule controls objects with real numbers. The real numbers include positive or negative numbers, fractions, and decimal values.

For example, an analog schedule regulates a thermostat setpoint in an office area. It controls the temperature from 08:00 to 17:00, to 22 °C (72 °F) when the schedule is active and 16 °C (62 °F) when the schedule is inactive.

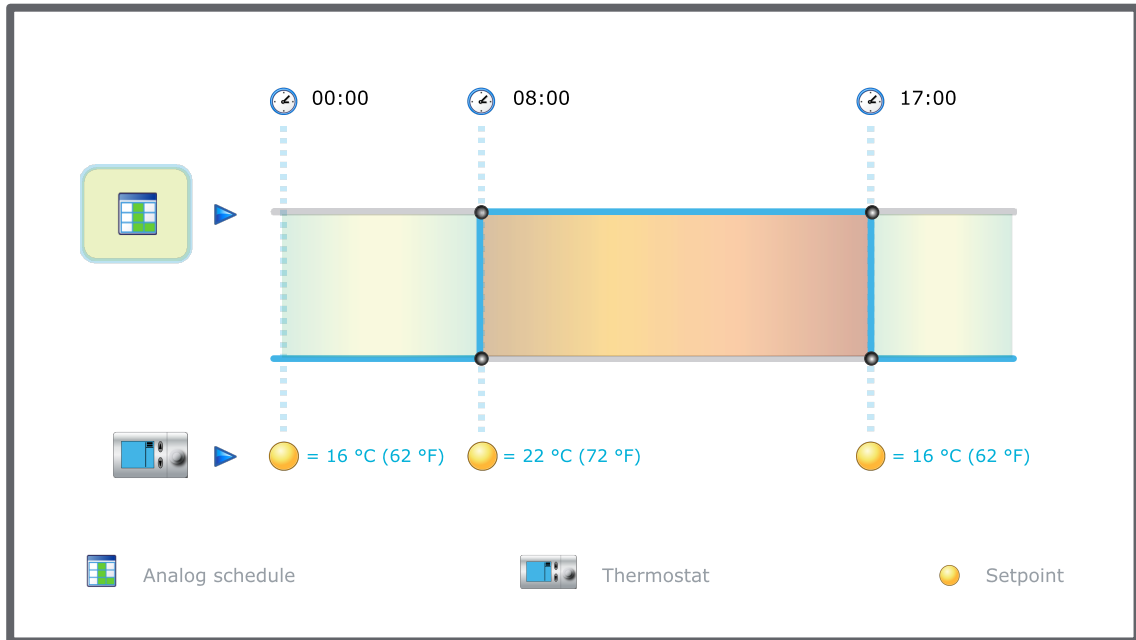


Figure: Analog schedule

2.37 Digital Schedules

A digital schedule controls objects that have an active and inactive state.

For example, a digital weekly schedule is bound to a digital output, such as a light switch. It turns on the lights Monday through Friday from 08:00 to 17:00, when the schedule is active and off when the schedule is inactive.

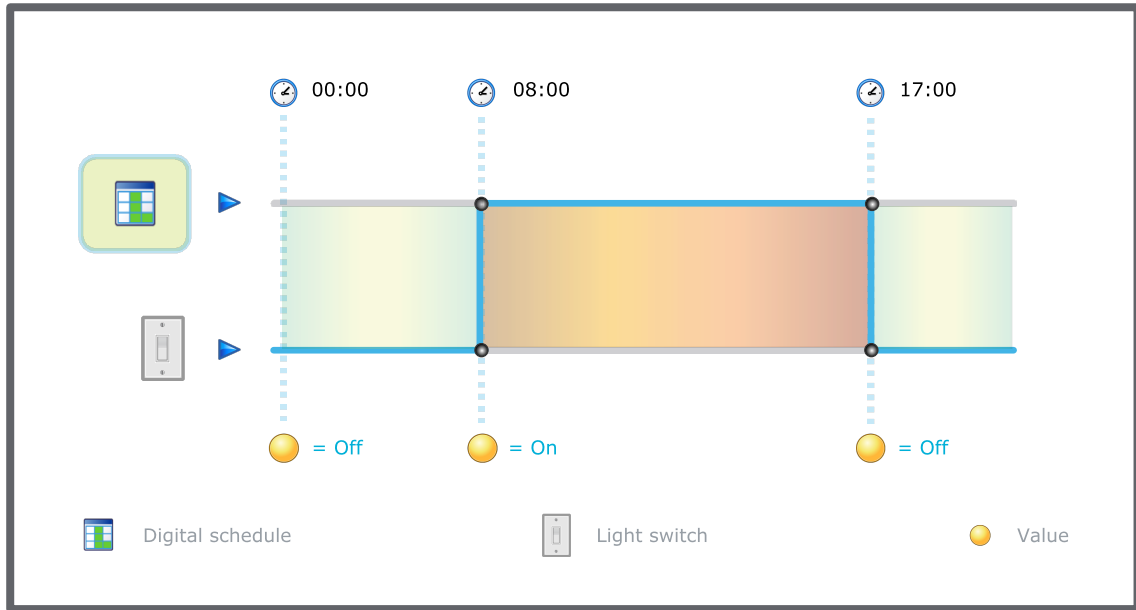


Figure: Digital schedule

2.38 Multi-State/Enumerated Schedules

A multi-state or enumerated schedule controls objects that have states based on integers or positive whole numbers including zero.

For example, a multi-state weekly schedule is bound to a multi-state value that controls an air handling unit in an office building. It regulates the air circulation Monday through Friday from 08:00 to 17:00, to 2 (occupied) when the schedule is active and 1 (unoccupied) when the schedule is inactive.

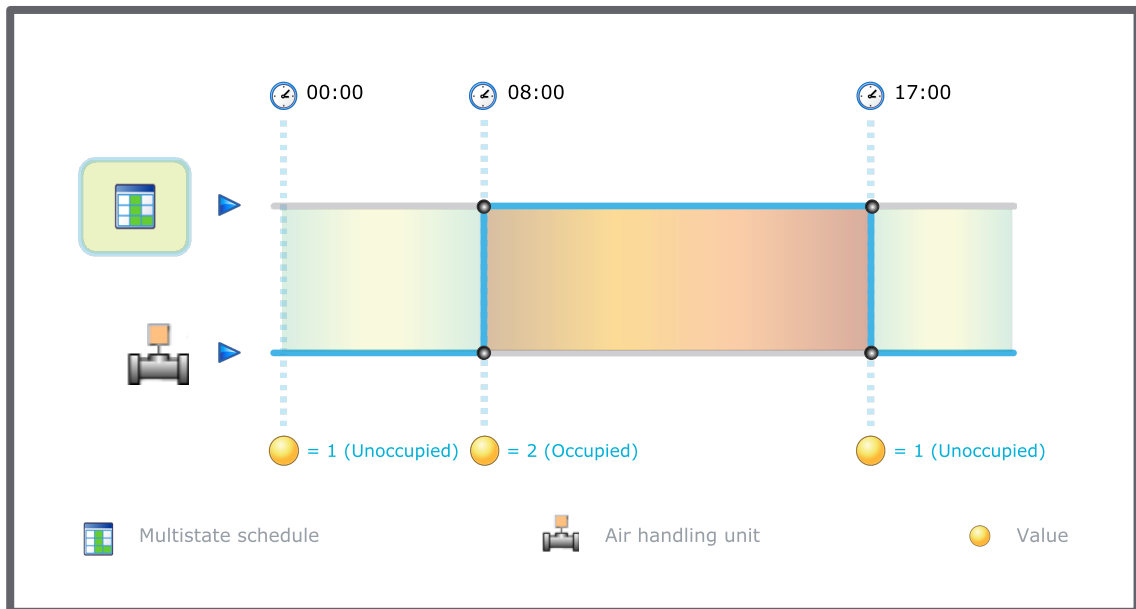


Figure: Multi-state schedule

2.39 Schedule Events

A schedule has two types of events: weekly events and exception events. Weekly events occur every week at specified times. Exception events occur when the schedule deviates from the weekly schedule, such as during holidays. Exception events override the weekly events when there is an overlap.

Each schedule has a default value. The default value goes into effect after the exception events and weekly events are complete or relinquish control. For more information, see section 2.41 “Viewing a Schedule Default Value” on page 77.

For example, the weekly event for a fan ends at 17:00. The fan ran at a value of 3 (high) throughout the event. There are no scheduled events after the weekly event. Because you have assigned 0 as the default value, the fan adjusts to the default value and turns to 0 (off). The value remains at 0 until the next scheduled event.

Events occur in the following order of precedence:

- Exception events
- Weekly events
- Default value

For example, the weekly event for a fan is set to On from '08:00 - 20:00'. An exception event is set to Off from '17:00 - 20:00' for a specific date. The exception event overrides the weekly event so that the fan only runs from 08:00 to 17:00 on the specified date.

2.39.1 Weekly Events

A weekly event occurs every week for an extended period of time. You can schedule more than one weekly event for each day of the week.

For more information, see section 2.40 “Weekly Events” on page 76.

2.39.2 Exception Events

An exception event occurs instead of the scheduled weekly events for a single date, date range, or calculated date.

For more information, see section 2.44 “Exception Events” on page 80.

2.39.3 Schedule Event Colors

A schedule has a color code so you can identify weekly events and exception events at a glance. This color code can assist you when you are modifying your schedule or trying to troubleshoot any problems.

For more information, see section 2.53 “Schedule Colors” on page 95.

2.40 Weekly Events

A weekly event occurs every week for an extended period of time. You can schedule more than one weekly event for each day of the week.

NOTE: While weekly events cannot overlap, exception events can. For more information, see section 2.44 “Exception Events” on page 80.

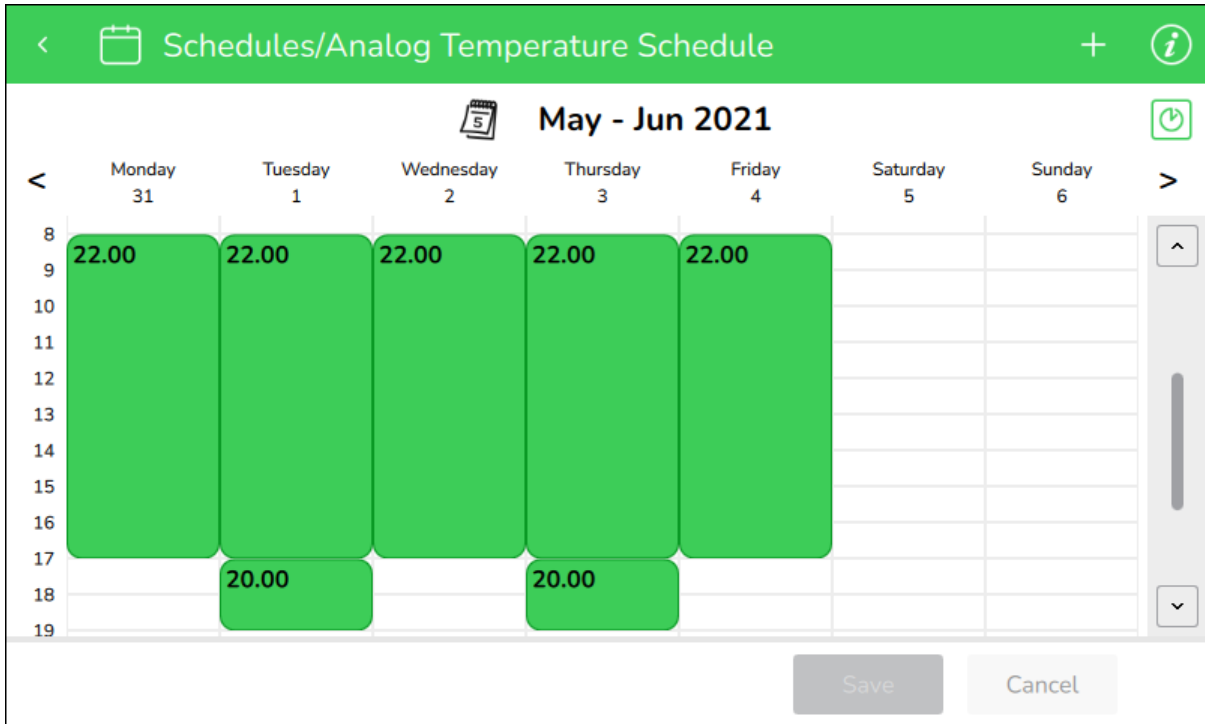


Figure: Weekly events




If there are any non-routine events, such as holidays, you can use exception events to override the weekly events in the schedule. For more information, see section 2.44 “Exception Events” on page 80.

2.41 Viewing a Schedule Default Value

You view a schedule default value to see which value will go into effect after the exception events and weekly events are complete or relinquish control.

For more information, see section 2.26 “BACnet Command Priorities” on page 60.

To view a schedule default value




1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to view the default value.
2. On the **Device** screen, tap the **Schedules** arrow button  .
3. On the **Schedules** screen, tap the schedule for which you want to view the default value.
4. On the schedule view screen, tap the information button  to open the schedule detail screen of the schedule for which you want to view the default value.
5. On the schedule detail screen, in the Default value box, view the schedule default value.

2.42 Adding a Weekly Event

You add a weekly event to a schedule to control the state of an analog, digital or multi-state value.

For more information, see section 2.40 “Weekly Events” on page 76.

To add a weekly event



1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule to which you want to add a weekly event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule to which you want to add a weekly event.
4. On the schedule view screen, tap the add event button .
5. On the **Add schedule event** screen, tap **Weekly**.
6. On the **Add weekly event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap **+** or **-** to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
7. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap **+** or **-** to select the starting and ending times.
8. In the **Days of week** box, tap the day(s) of the week this event is active.
9. Tap **OK**.
10. On the schedule view screen, tap **Save**.

2.43 Editing a Weekly Event

You edit a weekly event to change how the state of a value is controlled by the schedule.

For more information, see section 2.40 “Weekly Events” on page 76.

To edit a weekly event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to edit a weekly event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule for which you want to edit a weekly event.
4. On the schedule view screen, tap the weekly event (green) that you want to edit.

NOTE: If a weekly event was configured as occurring on several days of the week, you must tap on on this event every day to edit or delete it.

5. On the **Edit weekly event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap **+** or **-** to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
6. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap **+** or **-** to select the starting and ending times.
7. In the **Days of week** box, tap the day of the week this event is active.
8. Tap **OK**.
9. On the schedule view screen, tap **Save**.

2.44 Exception Events

An exception event occurs instead of the scheduled weekly events for a single date, date range, or calculated date.

For example, you create an exception event in March for an intense aerobics class in the gym to open an air vent to 100 % from 06:30 to 17:00 every Wednesday in March. This exception event takes precedence over the regularly scheduled weekly Wednesday events.

When scheduling exception events, you can use three exception types to provide flexibility and control in your schedule.

2.44.1 Single Date Exception Events

A single date exception event can occur on a single day, or you can use the options for the event to occur on more than one day. Options such as **Any year** and **Any day** provide flexibility to a single date.

For example, to schedule a single date event to take place every year on October 31, you select the following single date options:

- Year: Any year
- Month: October
- Day of month: 31
- Day of week: Any day

For more information, see section 2.45 “Adding a Single Date Exception Event ” on page 82.

2.44.2 Date Range Exception Events

A date range exception event is an event that lasts over a period of time. In addition to a specific day of month, you can schedule daily exceptions by selecting a **Start time** and **End time** to provide the flexibility to a date range.

For example, to schedule an exception event to occur from the first day of July to the last day of August where the priority is 16, but each day from 08:00 to 17:00 the value is 15.50, select:

- Priority: 16
- Start date: 2021-07-01
- End date: 2021-08-31
- Start time: 08:00
- End time: 17:00
- Value: 15.50

For more information, see section 2.46 “Adding a Date Range Exception Event ” on page 84.

2.44.3 Calculated Exception Events

A calculated date is an exception event that recurs. Other than a specific month and week, you can select **Any month** and **Any week** or **Last week**, to provide flexibility to a calculated date.

For example, to schedule the Monday of the first week of every month for an exception event, select the following options:

- Month: Any month
- Week of month: First week
- Day of week: Monday





For more information, see section 2.47 “Adding a Calculated Date Exception Event” on page 86.

2.45 Adding a Single Date Exception Event

You add a single date exception event to a schedule to make an exception for a specific day in the schedule.

For more information, see section 2.44 “Exception Events” on page 80.

To add a single date exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule to which you want to add a single date exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule to which you want to add a single date exception event.
4. On the schedule view screen, tap the add event button .
5. On the **Add schedule event** screen, tap **Single date exception**.
6. On the **Add single date exception** screen, in the **Priority** box, tap + or - to edit the priority of the event.
NOTE: 1 is the highest priority and 16 is the lowest.
7. In the **Year** box, tap + or - to select a specific year between **2020** and **2100**, or **Any year**.
8. In the **Month** box, tap + or - to select a specific month between **January** and **December**, **Odd months**, **Even months**, or **Any month**.
9. In the **Day of month** box, tap + or - to select a specific day between **1** and **31**, **Last day**, **Odd days**, **Even days**, or **Any day**.
10. In the **Day of week** box, tap + or - to select a specific day between **Mon** and **Sun**, or **Any day**.
11. On the start/end time and value list header, tap the add time span and value button .
12. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap + or - to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
13. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap + or - to select the starting and ending times.
14. Tap **OK**.

TIP: You can add multiple time spans and values to an exception event.




15. On the **Add single date exception** screen, tap **OK**.
16. On the schedule view screen, tap **Save**.

2.46 Adding a Date Range Exception Event




You add a date range exception event to a schedule to make an exception for a specific series of dates in the schedule.

For more information, see section 2.44 “Exception Events” on page 80.

To add a date range exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule to which you want to add a date range exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule to which you want to add a date range exception event.
4. On the schedule view screen, tap the add event button .
5. On the **Add schedule event** screen, tap **Date range exception**.
6. On the **Add date range exception screen**, in the **Priority** box, tap + or - to edit the priority of the event.

NOTE: 1 is the highest priority and 16 is the lowest.

7. In the **Start date** box, tap the calendar button  to select a specific start date or **Now** to select the current date.
8. In the **End date** box, tap the calendar button  to select a specific end date or **Never** to indicate the exception does not have an end date.
9. On the start/end time and value list header, tap the add time span and value button .
10. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap + or - to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
11. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap + or - to select the starting and ending times.
12. Tap **OK**.

TIP: You can add multiple time spans and values to an exception event.
13. On the **Add date range exception** screen, tap **OK**.





14. On the schedule view screen, tap **Save**.

2.47 Adding a Calculated Date Exception Event

You create a calculated date exception to a schedule to make an exception for a recurring event in the schedule.

For more information, see section 2.44 “Exception Events” on page 80.

To add a calculated date exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule to which you want to add a calculated date exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule to which you want to add a calculated date exception event.
4. On the schedule view screen, tap the add event button .
5. On the **Add schedule event** screen, tap **Calculated exception**.
6. On the **Add calculated date exception** screen, in the **Priority** box, tap + or - to edit the priority of the event.
NOTE: 1 is the highest priority and 16 is the lowest.
7. In the **Year** box, tap + or - to select a specific year between **2020** and **2100**, or **Any year**.
8. In the **Month** box, tap + or - to select a specific month between **January** and **December**, **Odd months**, **Even months**, or **Any month**.
9. In the **Week of month** box, tap + or - to select a specific week between **First** and **Fifth**, **Last**, or **Any**.
10. In the **Day of week** box, tap + or - to select a specific day between **Mon** and **Sun**, or **Any day**.
11. On the start/end time and value list header, tap the add time span and value button .
12. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap + or - to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
13. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap + or - to select the starting and ending times.

14. Tap **OK**.

TIP: You can add multiple time spans and values to an exception event.

15. On the **Add calculated date exception** screen, tap **OK**.





16. On the schedule view screen, tap **Save**.

2.48 Editing a Single Date Exception Event

You edit a single date exception event to change how the state of a value is controlled by the schedule on a specific day.

For more information, see section 2.44 “Exception Events” on page 80.

To edit a single date exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to edit a single date exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule for which you want to edit a single date exception event.
4. On the schedule view screen, tap the exception event (blue) that you want to edit.
5. On the **Edit single date exception** screen, in the **Priority** box, tap + or - to edit the priority of the event.
NOTE: 1 is the highest priority and 16 is the lowest.
6. In the **Year** box, tap + or - to select a specific year between **2020** and **2100**, or **Any year**.
7. In the **Month** box, tap + or - to select a specific month between **January** and **December**, **Odd months**, **Even months**, or **Any month**.
8. In the **Day of month** box, tap + or - to select a specific day between **1** and **31**, **Last day**, **Odd days**, **Even days**, or **Any day**.
9. In the **Day of week** box, tap + or - to select a specific day between **Mon** and **Sun**, or **Any day**.
10. Select to add another start/end time and value or edit existing ones:
 - In the start/end time and value list, tap the edit exception button  on the row with the start/end time or value that you want to edit.
 - On the start/end time and value list header, tap the add time span and value button .
11. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap + or - to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
12. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap + or - to select the starting and ending times.



13. Tap **OK**.
14. On the schedule view screen, tap **Save**.

2.49 Editing a Date Range Exception Event



You edit a date range exception event to change how the state of a value is controlled by the schedule for a specific series of dates in the schedule.

For more information, see section 2.44 “Exception Events” on page 80.

To edit a date range exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to edit a date range exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule for which you want to edit a date range exception event.
4. On the schedule view screen, tap the exception event (blue) that you want to edit.
5. On the **Edit date range exception** screen, in the **Priority** box, tap **+** or **-** to edit the priority of the event.

NOTE: 1 is the highest priority and 16 is the lowest.



6. In the **Start date** box, tap the calendar to select a specific start date or **Now** to select the current date.
7. In the **End date** box, tap the calendar to select a specific end date or **Never** to indicate the exception does not have an end date.
8. Select to add another start/end time and value or edit existing ones:
 - In the start/end time and value list, tap the edit exception button  on the row with the start/end time or value that you want to edit.
 - On the start/end time and value list header, tap the add time span and value button .
9. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap **+** or **-** to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).
10. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap **+** or **-** to select the starting and ending times.
11. Tap **OK**.
12. On the schedule view screen, tap **Save**.

2.50 Editing a Calculated Date Exception Event



You edit a calculated date exception event to change how the state of a value is controlled by the schedule for a recurring event in the schedule.

For more information, see section 2.44 “Exception Events” on page 80.

To edit a calculated date exception event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to edit a calculated date exception event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule for which you want to edit a calculated date exception event.
4. On the schedule view screen, tap the exception event (blue) that you want to edit.
5. On the **Edit calculated date exception** screen, in the **Priority** box, tap **+** or **-** to edit the priority of the event.

NOTE: 1 is the highest priority and 16 is the lowest.

6. In the **Year** box, tap **+** or **-** to select a specific year between **2020** and **2100**, or **Any year**.
7. In the **Month** box, tap **+** or **-** to select a specific month between **January** and **December**, **Odd months**, **Even months**, or **Any month**.
8. In the **Week of month** box, tap **+** or **-** to select a specific week between **First** and **Fifth**, **Last**, or **Any**.
9. In the **Day of week** box, tap **+** or **-** to select a specific day between **Mon** and **Sun**, or **Any day**.
10. Select to add another start/end time and value or edit existing ones:
 - In the start/end time and value list, tap the edit exception button  on the row with the start/end time or value that you want to edit.
 - On the start/end time and value list header, tap the add time span and value button .
11. On the **Edit exception event** screen, select the event value:
 - For analog, multi-state and enumerated schedules: In the **Value** box, tap **+** or **-** to specify the value of the event.
 - For digital schedules: Tap **Inactive** or **Active** (Off or On).

12. Select the time span type:
 - Tap **All day** to make the event span 24 hours.
 - In the **From** and **To** boxes: tap **+** or **-** to select the starting and ending times.
13. Tap **OK**.
14. On the schedule view screen, tap **Save**.

2.51 Exception Event Priorities

Priority is a number that corresponds to a preassigned level of importance. When used for exception events, the priority numbers range from 1 to 16. 1 is the most important or highest priority and 16 is the lowest priority.

An exception event occurs instead of the scheduled weekly events for a single date, date range, or calculated date.

Exception events always take precedence over weekly events. When two exception events overlap, priorities can determine which event takes precedence over the other. Generally, priorities resolve the following conflicts:




- Two events with different priorities occur on the same day and time. In this case, the higher priority takes control of the schedule.
For example, a schedule that is set at priority 14 controls a fan in an office area at low speed during normal business hours. A Special Meeting event scheduled at 11:00 is set at priority 12 for medium speed. Therefore, the schedule adjusts the fan from low to medium for the meeting and ignores the priority 14 event until the priority 12 event ends.
- Two events with the same priority level occur on the same day and time. In this case, the position in the Event tree determines which priority takes control of the schedule. The position depends on when exception event was created.
For example, two exception events are set at priority 12. Winter Break was created first followed by Scout Meeting. Therefore, Winter Break takes precedence over Scout meeting because that event was created first.

By default, all exception events are set at priority 16, but you can change priority level. For more information, see section 2.52 “Editing an Event Priority” on page 94.

2.52 Editing an Event Priority

You edit an event priority to change the exception event to a higher or lower priority.

To edit an event priority

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the with the schedule event priority you want to edit.
2. On the **Device** screen, tap the **Schedules** arrow button  .
3. On the **Schedules** screen, tap the schedule type arrow button  .
4. On the schedule view screen, tap the event you want to edit.
5. On the event screen, tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest.
6. Tap **OK**.
7. On the schedule view screen, tap **Save**.

2.53 Schedule Colors

A schedule has a color code so you can identify weekly events and exception events at a glance. This color code can assist you when you are modifying your schedule or trying to troubleshoot any problems.

2.53.1 Basic Schedule View

Weekly events and exception events display in distinct colors to clearly identify them.

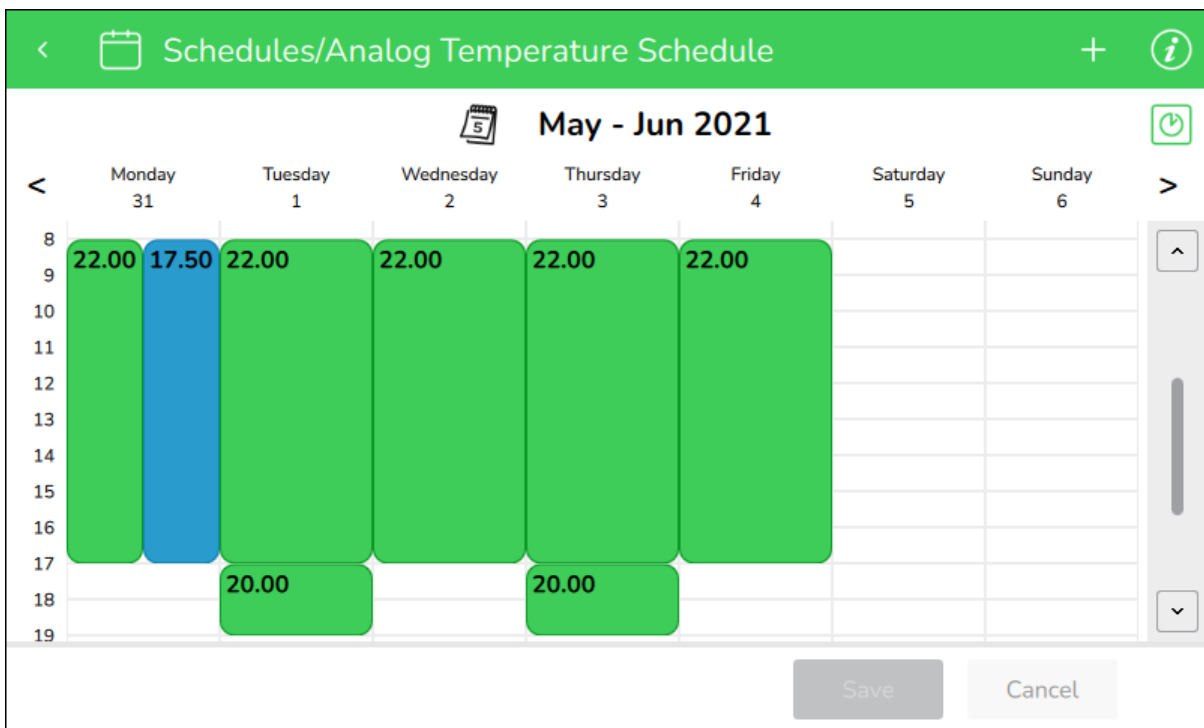


Figure: Basic schedule colors

Table: Basic Schedule Colors

Color	Description
White	Default value
Green	Weekly events
Blue	Exception events

2.53.2 Outside Effective Period View

Weekly events and exception events display in distinct colors to clearly identify them, including events that are outside the defined effective period.

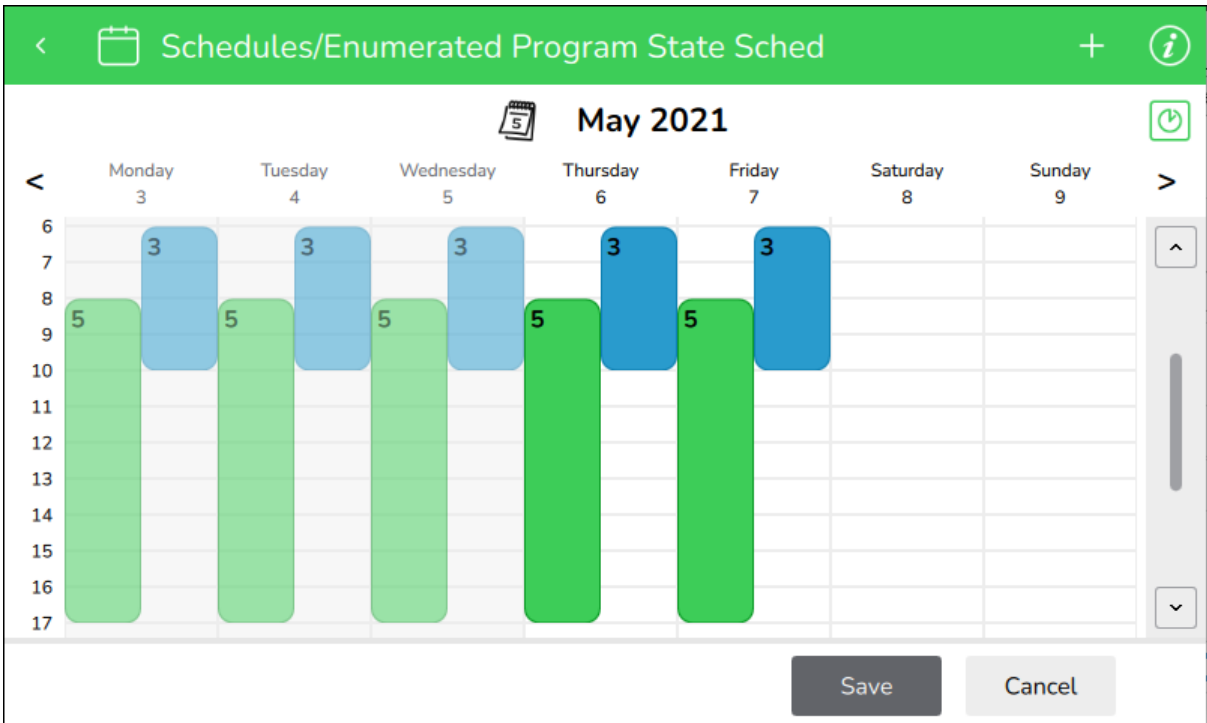


Figure: Outside effective period view

Table: Outside Effective Period View

Color	Description
White	Default value
Green	Weekly events
Blue	Exception events
Light Green (translucent)	Weekly events outside effective period
Light Blue (translucent)	Exception events outside effective period

2.53.3 Too Many Events to Be Displayed

Weekly events and exception events display in distinct colors to clearly identify them. Sometimes there are too many events scheduled in one day and they cannot all be displayed.

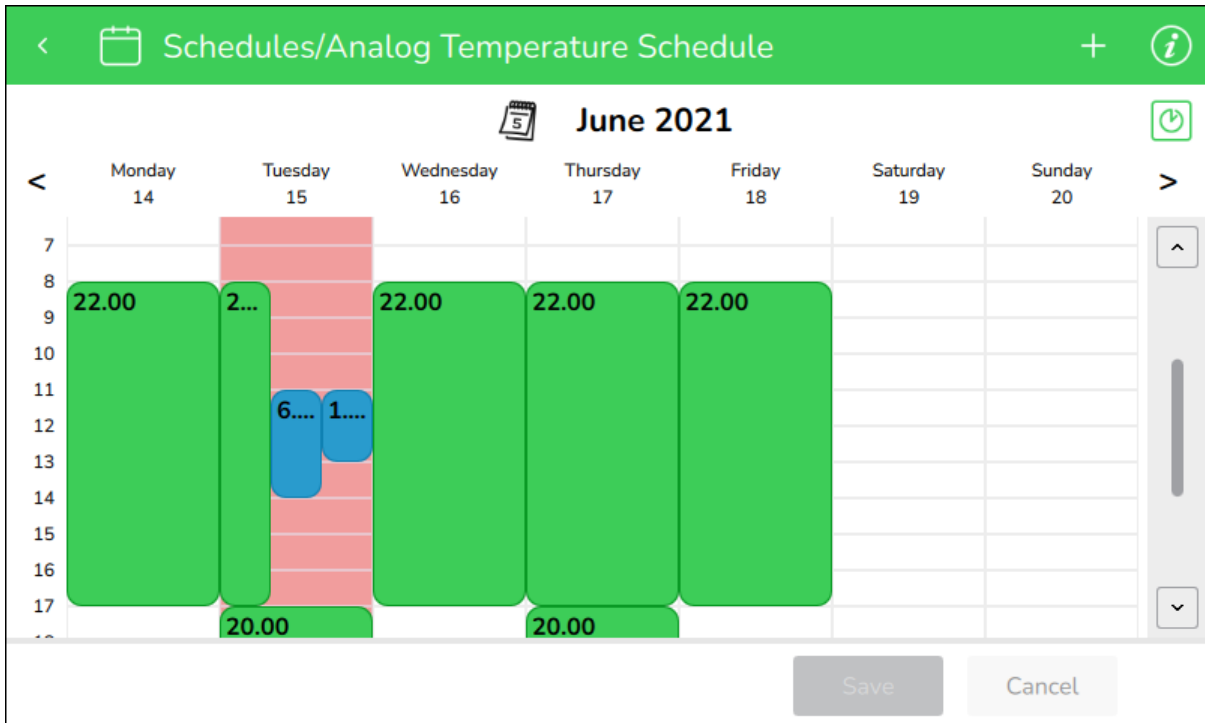


Figure: Too many events to be displayed

Table: Too Many Events to Be Displayed

Color	Description
White	Default value
Green	Weekly events
Blue	Exception events
Red	Days where there are too many events to be displayed or some events last less than 30 minutes, making them too small to select on the screen. Switch to the alternate view of the schedule to see all the events.

2.53.4 Alternate Schedule View

In the alternate view of the schedule, all the events scheduled for the week are the same size to improve visibility. Again, weekly events and exception events display in distinct colors to clearly identify them.

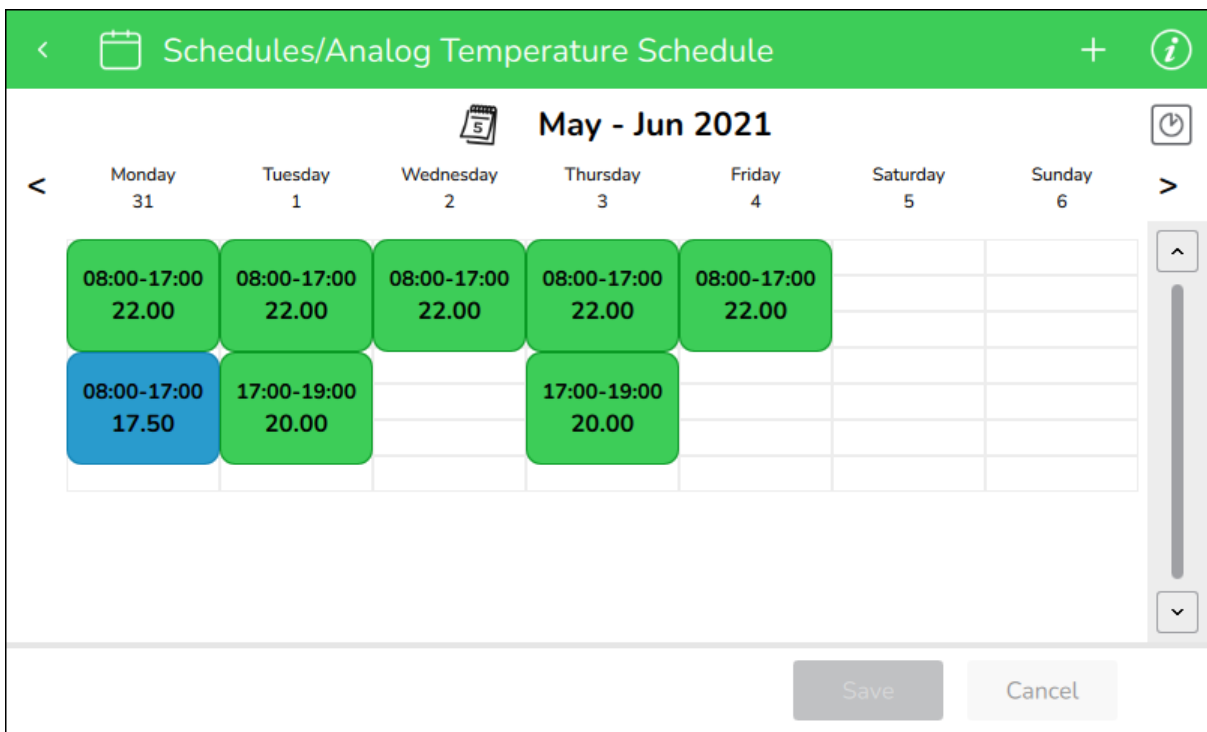


Figure: Alternate schedule colors

Table: Alternate Schedule Colors





Color	Description
White	Default value
Green	Weekly events
Blue	Exception events

2.54 Deleting a Schedule Event

You delete a schedule event to stop controlling the value controlled by the schedule during the time defined in the schedule event.

For more information, see section 2.39 “Schedule Events” on page 75.


To delete a schedule event

1. In Operator Display, on the **Device List** screen, tap the arrow button  to select the device with the schedule for which you want to delete an event.
2. On the **Device** screen, tap the **Schedules** arrow button .
3. On the **Schedules** screen, tap the schedule arrow button .
4. On the schedule view screen, tap a weekly (green) or exception (blue) event.
NOTE: If a weekly event was configured as occurring on several days of the week, you must tap on on this event every day to edit or delete it.
5. On the **Edit weekly event** or **Edit exception event** screen, tap the delete button .
6. Tap **OK**.
7. On the schedule view screen, tap **Save**.

2.55 Displaying and Exporting Logs

You display the recorded activities by users and export the logs to a USB key.


To display and export logs

1. In Operator Display, tap the menu button .
2. On the menu, tap **Logs**.
3. Insert your USB key in the USB port of the Operator Display.
4. On the **Logs** screen, tap **Export**.

2.56 Displaying About Information

You display about information to view more detailed information, such as the Operator Display model type and firmware version.

To displaying about information

1. In Operator Display, tap the menu button .
2. On the menu, tap **Settings**.
3. On the **Operator Display Settings** screen, tap **About**.

3

User Interface

Topics

Home Screen

Login Screen

Toolbar

Menu

User Profile Screen

Change Password Screen

Alarms Screen

Alarm Detail Screen

Device Discovery Screen

Device Discovery Detail Screen

Device List Screen

Device Detail Screen

Device Alarms Screen

Inputs Screen

Inputs/Analog Screen

Inputs/Analog Detail Screen

Inputs/Binary Screen

Inputs/Binary Detail Screen

Inputs/Multi-State Screen

Inputs/Multi-State Detail Screen

3

- Outputs Screen
- Outputs/Analog Screen
- Outputs/Analog Detail Screen
- Outputs/Binary Screen
- Outputs/Binary Detail Screen
- Outputs/Multi-State Screen
- Outputs/Multi-State Detail Screen
- Values Screen
- Values/Analog Screen
- Values/Analog Detail Screen
- Values/Binary Screen
- Values/Binary Detail Screen
- Values/Multi-State Screen
- Values/Multi-State Detail Screen
- Schedules Screen
- Schedule View Screen
- Alternate Schedule View Screen
- Schedule Detail Screen
- Pick a Date Screen
- Add Schedule Event Screen
- Add Weekly Event Screen
- Edit Weekly Event Screen
- Add Single Date Exception Screen
- Add Date Range Exception Screen
- Add Calculated Date Exception Screen
- Edit Single Date Exception Screen
- Edit Date Range Exception Screen
- Edit Calculated Date Exception Screen
- Edit Exception Event Screen

3

Device Info Screen
Logs Screen
Operator Display Settings Screen
Language Setting Screen
Date / Time Screen
Network Setup Screen
BACnet Setup Screen
Firmware Update Screen
Display Screen
User Configuration Screen
User Administration Screen
Create User Screen
Create Password Screen
About Screen

3.1 Home Screen

Use the home screen to access the Login screen.

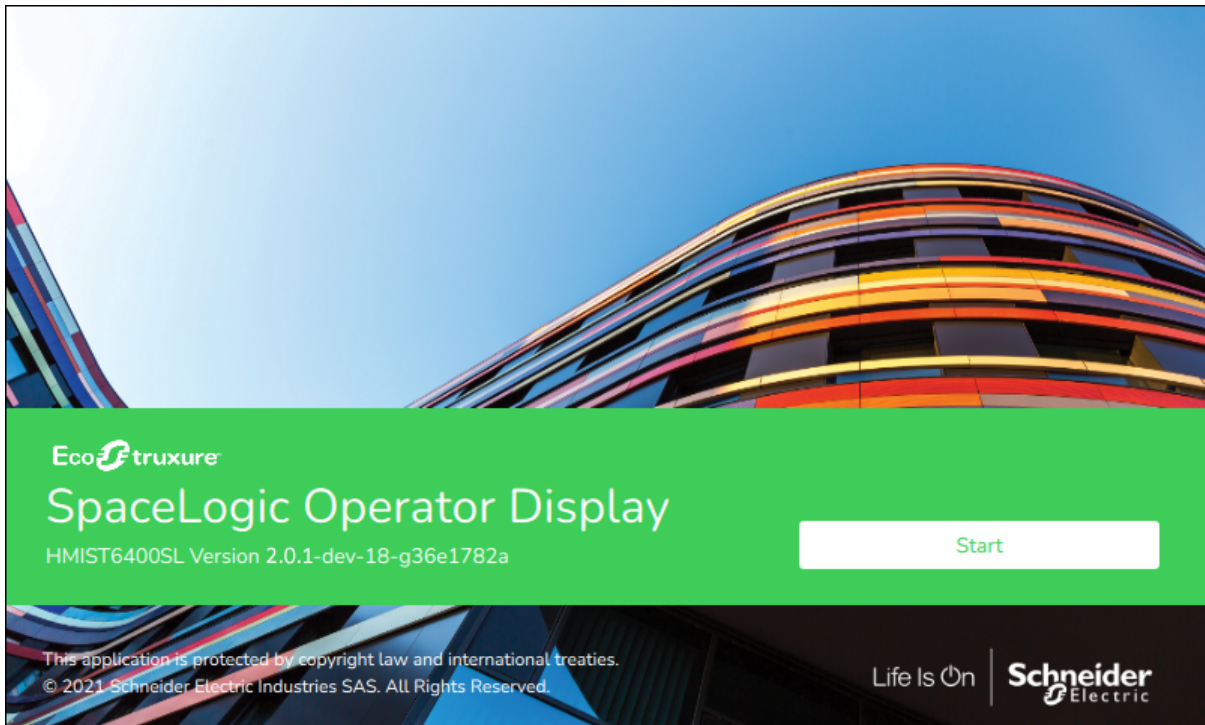


Figure: Home screen

Table: Home Screen

Component	Description
Start	Tap to open the Login screen. For more information, see section 3.2 “Login Screen” on page 108.

3.2 Login Screen

Use the **Login** screen to log on to Operator Display.

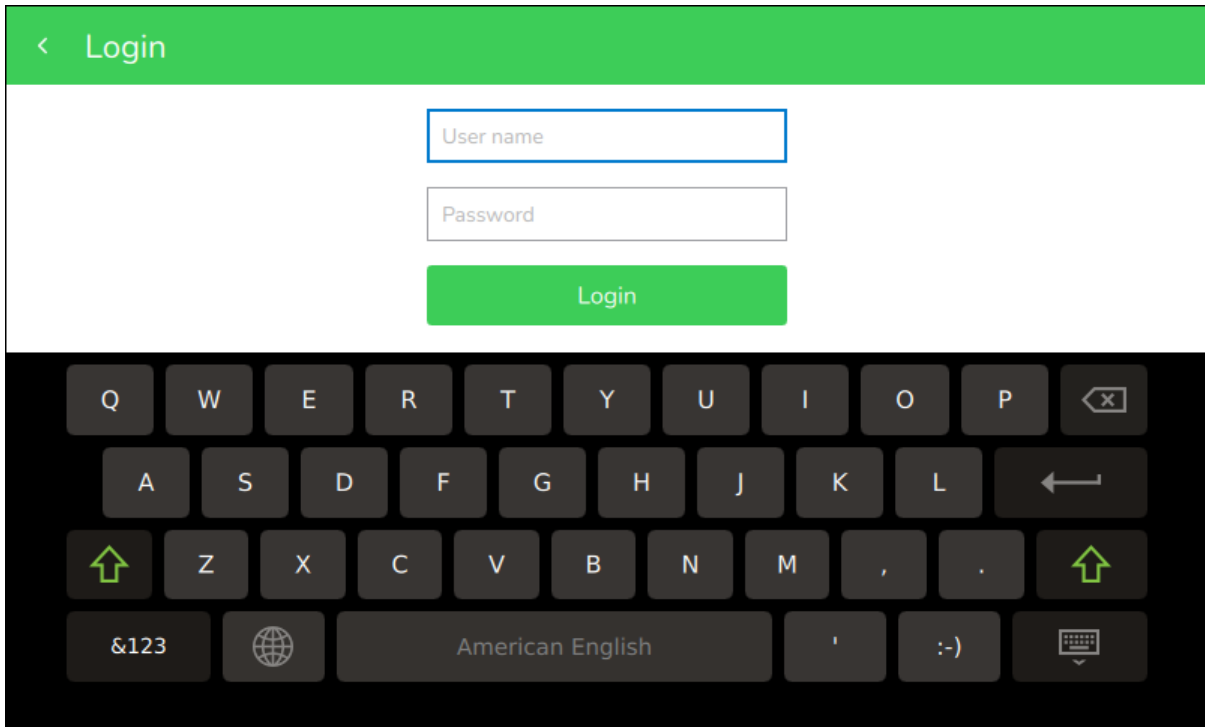


Figure: Login screen










Table: Login Screen

Component	Description
User name	Type a user name.
Password	Type a password.
Login	Tap to log on to Operator Display and open the Device list screen. For more information, see section 3.11 "Device List Screen" on page 120.

3.3 Toolbar

Use the toolbar to access the features available for the screen that is currently being displayed.

Table: Toolbar

Button	Description
	Tap to open the menu, where you access the different features of Operator Display. For more information, see section 3.4 “Menu” on page 110.
	Tap to return to the previous screen.
	Tap to open the Alarms screen, where you view and acknowledge alarms for all the devices available on this Operator Display. For more information, see section 3.7 “Alarms Screen” on page 114.
	Indicates an unacknowledged alarm is present for one of the devices. Tap to open the Alarms screen, where you view and acknowledge alarms for all the devices available on this Operator Display. For more information, see section 3.7 “Alarms Screen” on page 114.
	Indicates a network connection error. The icon disappears once the network is back online.
	Tap to open the Device Discovery screen, where you discover devices on the network and add them to the device list. For more information, see section 3.9 “Device Discovery Screen” on page 118. This task requires administrator permissions.
	Tap to open the Add schedule event screen, where you add new weekly and exception events. For more information, see section 3.40 “Add Schedule Event Screen” on page 153.
	Tap to open the schedule detail screen of an event. For more information, see section 3.38 “Schedule Detail Screen” on page 151.
	Tap to delete a schedule event. For more information, see section 3.42 “Edit Weekly Event Screen” on page 156.

3.4 Menu

Use the menu to access the different features of Operator Display.

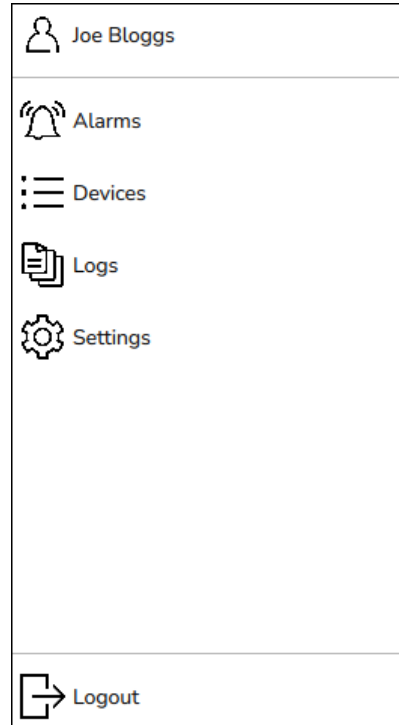


Figure: Menu

Table: Menu

Component	Description
(user name)	Tap to open the user profile screen, where you view user settings and change your password. For more information, see section 3.5 “User Profile Screen” on page 112.
Alarms	Tap to open the Alarms screen, where you view and acknowledge alarms for all the devices available on this Operator Display. For more information, see section 3.7 “Alarms Screen” on page 114.
Devices	Tap to open the Device list screen, where you view and select devices available on this Operator Display. For more information, see section 3.11 “Device List Screen” on page 120.
Logs	Tap to open the Logs screen, where you view and export device activity logs. For more information, see section 3.51 “Logs Screen” on page 172.

Continued

Component	Description
Settings	Tap to open the Operator Display Settings screen, where you configure the device settings and view more information about the device. For more information, see section 3.52 “Operator Display Settings Screen” on page 173.
Log out	Tap to log out of Operator Display.

3.5 User Profile Screen

Use the user profile screen to display and edit the list of user accounts on this Operator Display.

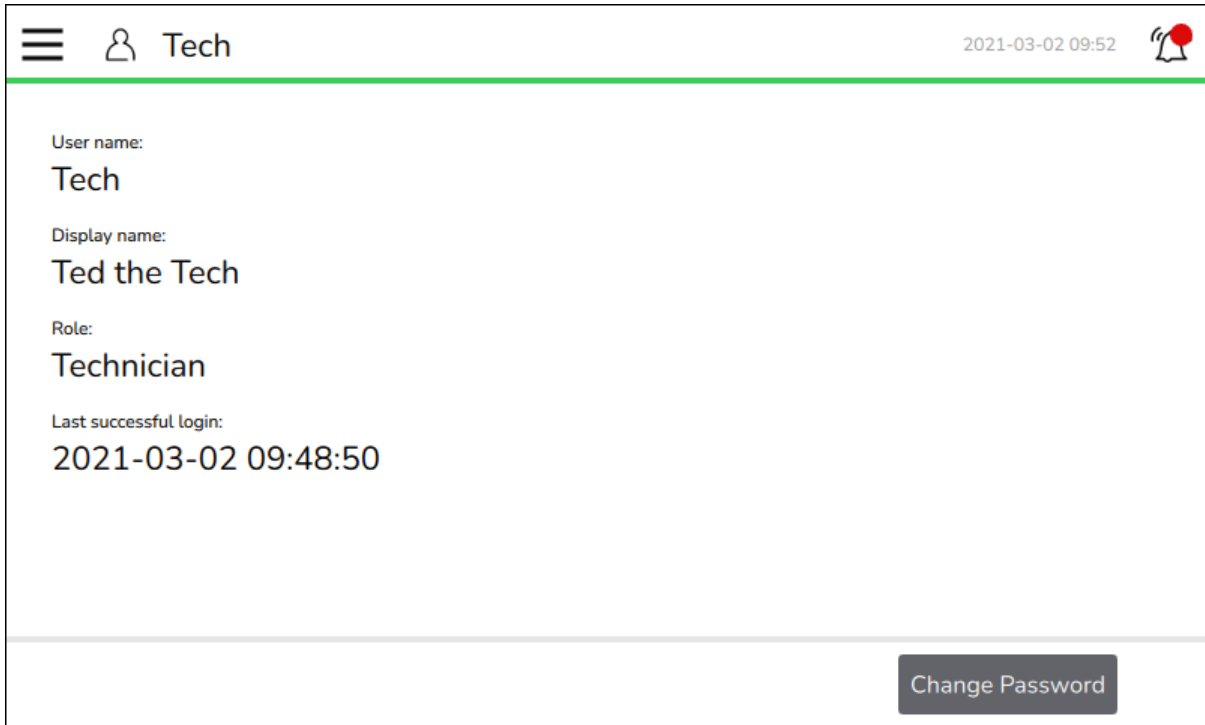


Figure: User profile screen

Table: User Profile Screen

Component	Description
User name	Displays the unique user name.
Display name	Displays the unique display name.
Role	Displays the user role (Administrator, Technician, or Viewer).
Last successful login	Displays the date and time of the last user login.
Change Password	Tap to change the password for this user. For more information, see section 3.6 "Change Password Screen" on page 113.

3.6 Change Password Screen

Use the **Change password** screen to assign a new unique password to this user.

< Change password for: Tech

Current password

New password

Confirm password

Minimum number of characters: 4

Save

Figure: Change password screen

Table: Change Password Screen

Component	Description
Current password	Type the current password for this user. For more information, see section 2.2 “User Account Handling” on page 27.
New password	Type a unique password. For more information, see section 2.2 “User Account Handling” on page 27.
Confirm password	Type the password a second time for validation.


3.7 Alarms Screen

Use the **Alarms** screen to display alarms for all the devices available on this Operator Display.





Alarms						2021-01-22 15:52
Count	Time	Device	Source	Message		
0	2021-01-21 16:16:03	MP-C-15A-2350034	BACnet Analog Value Alarm	Normal	>	
0	2021-01-22 13:41:30	IP-IO-UIO5D0FA4	BACnet Alarm	Fault	>	
0	2021-01-22 13:41:30	IP-IO-UIO5D0FA4	Voltage Output BACnet Alarm	High limit	>	

Figure: Alarms screen

Table: Alarms Screen

Component	Description
Count	Displays the number of times the alarm has been activated before it is acknowledged.
Time	Displays the date and time of the most recent alarm state change.
Device	Displays the name of the device.
Source	Displays the name of the input, output or value that activated the alarm.
Message	Displays the alarm message corresponding to the alarm state. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates an active alarm in the state Alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.

Continued

Component	Description
	<p>Indicates an active alarm in the state Fault that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.</p>
	<p>Indicates an active alarm that is acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.</p>
	<p>Indicates a reset alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.</p>
	<p>Tap to open the alarm detail screen, where you view more information and acknowledge the alarm. For more information, see section 3.8 “Alarm Detail Screen” on page 116.</p>

3.8 Alarm Detail Screen

Use the alarm detail screen to display the alarm details and to acknowledge the alarm.

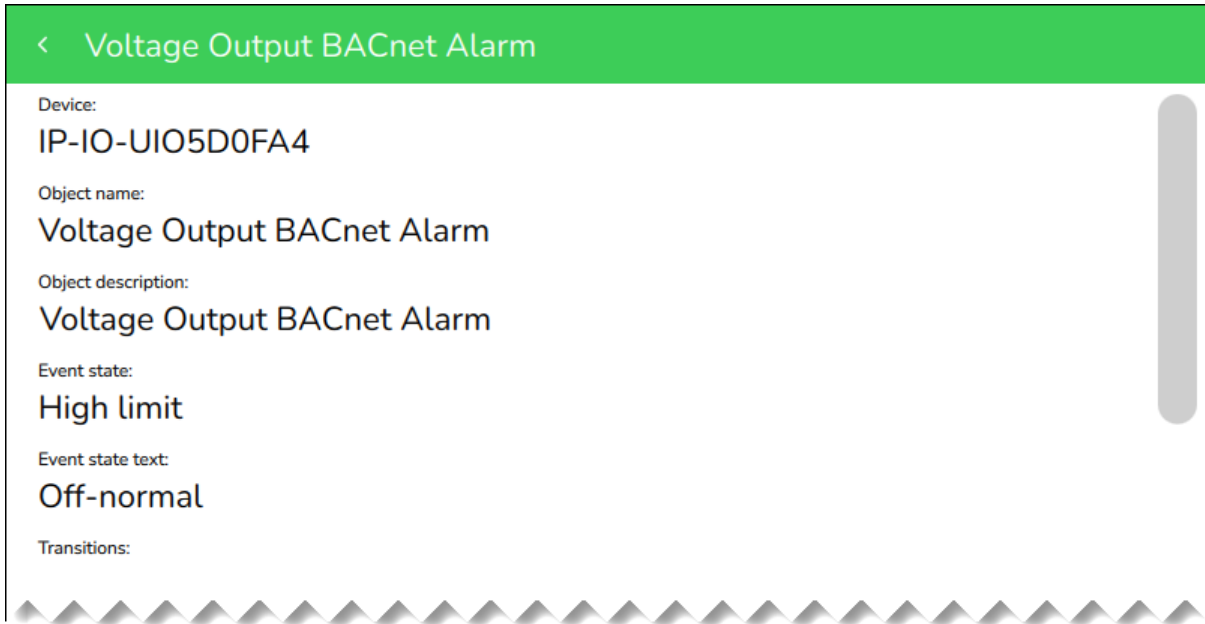






Figure: Alarm detail screen

Table: Alarm Detail Screen

Component	Description
Device	Displays the name of the device.
Object name	Displays the name of the input, output or value that activated the alarm.
Object description	Displays the description of the input, output or value that activated the alarm.
Event state	Displays the event state of the current alarm state. For more information, see section 2.23 “Alarm Handling” on page 54.
Event state text	Displays the event state text corresponding to the alarm state. For more information, see section 2.23 “Alarm Handling” on page 54.
Transitions	Displays a table that lists all the alarm state changes that has occurred.
	Indicates an active alarm that is acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.

Continued

Component	Description
	Indicates an active alarm in the state Fault that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates an active alarm in the state Alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates a reset alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
Transition	Displays the transition type. For more information, see section 2.23 “Alarm Handling” on page 54.
Time	Displays the date and time of the most recent alarm state change.
Message	Displays the alarm message corresponding to the alarm state. For more information, see section 2.23 “Alarm Handling” on page 54.
Acknowledge	Tap to acknowledge the alarm. For more information, see section 2.23 “Alarm Handling” on page 54.

3.9 Device Discovery Screen

Use the **Device Discovery** screen to discover devices on the network and them to the device list.

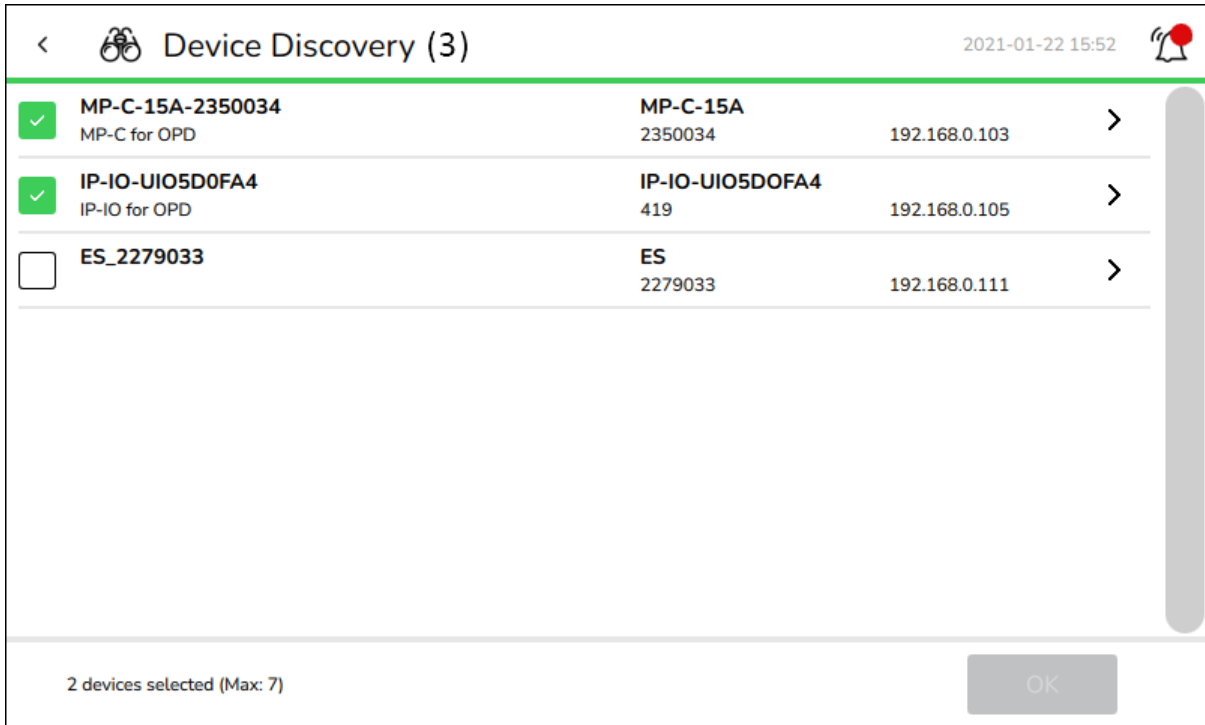


Figure: Device Discovery screen

Table: Device Discovery Screen

Component	Description
<input checked="" type="checkbox"/>	Indicates that a device is already added to the device list or a selected device.
<input type="checkbox"/>	Indicates an available device that is not added to the device list or selected.
>	Tap to select and open the device discovery detail screen, where you view more information on the device. For more information, see section 3.12 "Device Detail Screen" on page 121.

3.10 Device Discovery Detail Screen

Use the device discovery detail screen to display more information on a device.

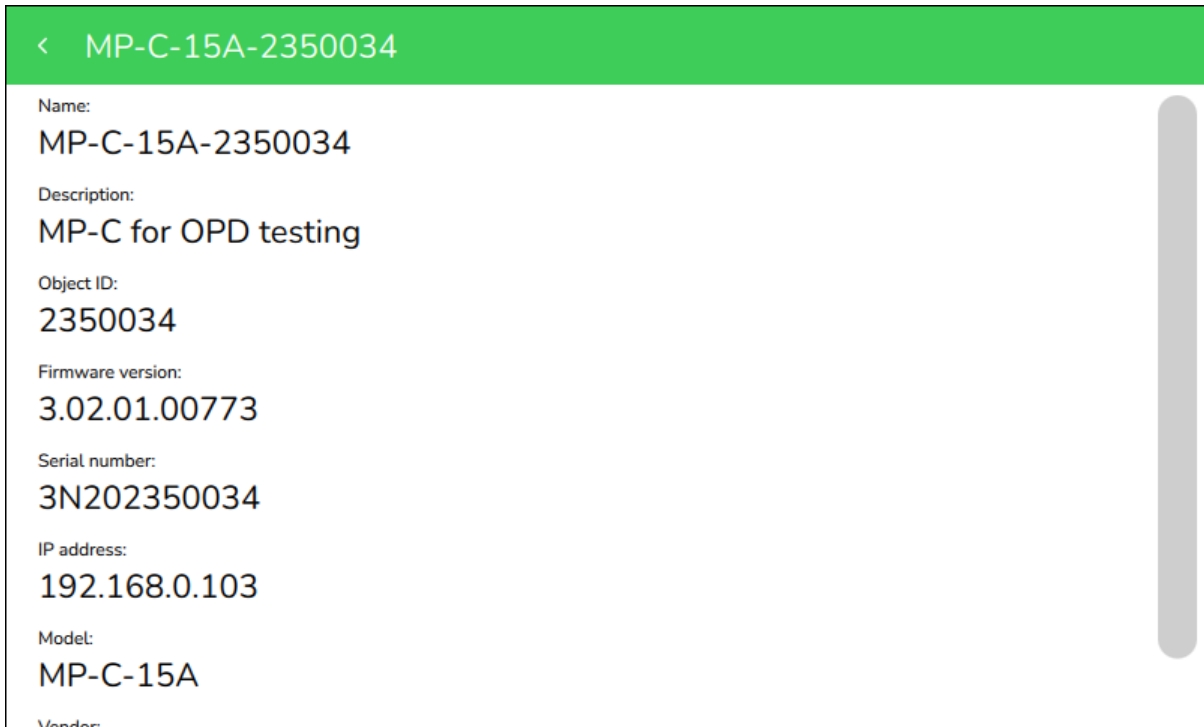


Figure: Device discovery detail screen

Table: Device Discovery Detail Screen

Component	Description
Name	Displays the device name.
Description	Displays the device description.
Object ID	Displays the BACnet device identification number.
Firmware version	Displays the device firmware version number.
Serial number	Displays the device serial number.
IP address	Displays the IP address.
Model	Displays the device model number.
Vendor	Displays the device vendor name.
Vendor ID	Displays the device vendor identification number.

3.11 Device List Screen

Use the **Device List** screen to select a device available on this Operator Display.

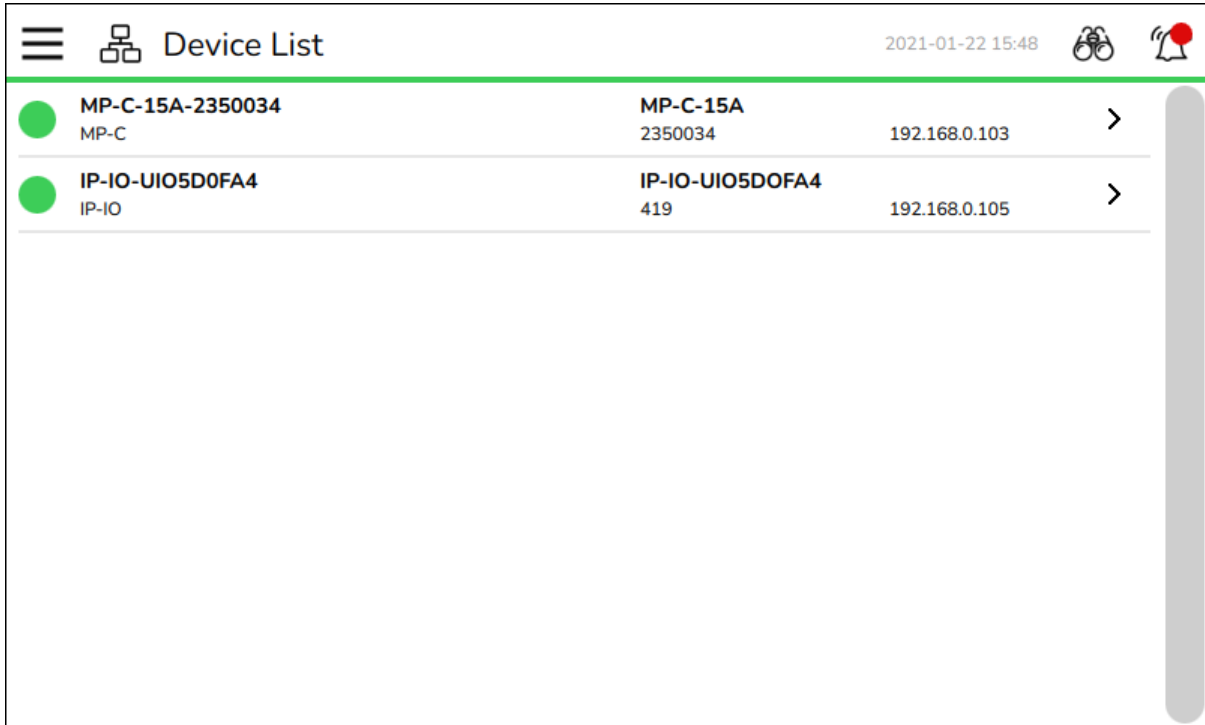





Figure: Device List screen

Table: Device List Screen

Component	Description
	Indicates that a device is online.
	Indicates that a device is offline.
	Tap to open the device detail screen, where you can view and edit the device features. For more information, see section 3.12 “Device Detail Screen” on page 121.

3.12 Device Detail Screen

Use the device detail screen to interact with the device and its features.



Figure: Device detail screen

Table: Device Detail Screen

Component	Description
Alarms	Tap to open the Alarms screen, where you view and acknowledge alarms specific to this device. For more information, see section 3.7 “Alarms Screen” on page 114.
Inputs	Tap to open the Inputs screen, where you view and edit the analog, binary, and multi-state inputs. For more information, see section 3.14 “Inputs Screen” on page 125.
Outputs	Tap to open the Outputs screen, where you view and edit the analog, binary, and multi-state outputs. For more information, see section 3.21 “Outputs Screen” on page 132.
Values	Tap to open the Values screen, where you view and edit the analog, binary, and multi-state values. For more information, see section 3.28 “Values Screen” on page 139.

Continued

Component	Description
Schedules	Tap to open the Schedules screen, where you view and edit schedule events specific to this device. For more information, see section 3.35 “Schedules Screen” on page 146.
Device Info	Tap to open the Device Info screen, where you view more information on the device and rediscover to refresh its inputs, outputs, and values. For more information, see section 3.50 “Device Info Screen” on page 171.



3.13 Device Alarms Screen

Use the device **Alarms** screen to display alarms for the selected device.




Count	Time	Source	Message
0	2021-01-18 12:32:08	BACnet Alarm	Fault
0	2021-01-18 12:32:08	Voltage Output BACnet Alarm	High limit

Figure: Device Alarms screen

Table: Device Alarms Screen

Component	Description
Count	Displays the number of times the alarm has been activated before it is acknowledged.
Time	Displays the date and time of the most recent alarm state change.
Source	Displays the name of the input, output or value that activated the alarm.
Message	Displays the alarm message corresponding to the alarm state. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates an active alarm that is acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates an active alarm in the state Fault that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.

Continued

Component	Description
	Indicates an active alarm in the state Alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
	Indicates a reset alarm that is not acknowledged. For more information, see section 2.23 “Alarm Handling” on page 54.
	Tap to open the alarm detail screen, where you view more information and acknowledge the alarm. For more information, see section 3.8 “Alarm Detail Screen” on page 116.

3.14 Inputs Screen

Use the **Inputs** screen to display and edit the Analog, Binary, and Multi-State inputs of the selected device.

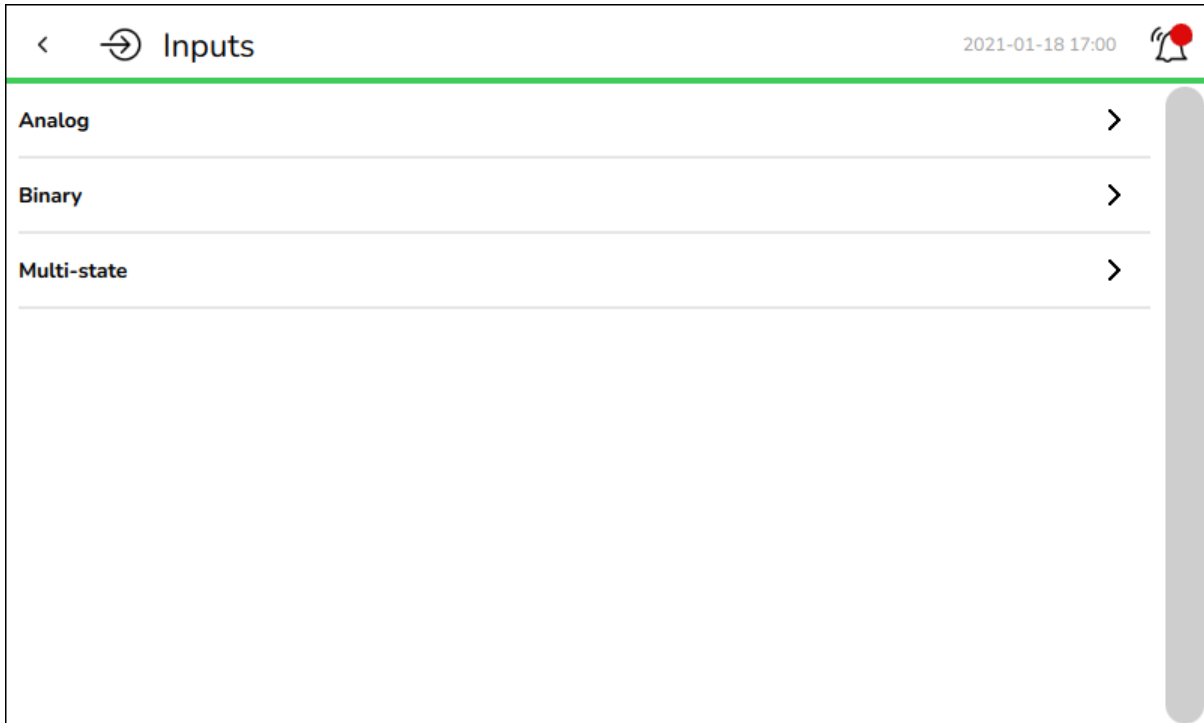


Figure: Inputs screen

Table: Inputs Screen

Component	Description
Analog	Tap to open the Inputs/Analog screen, where you view the available analog inputs on this device. For more information, see section 3.15 “Inputs/Analog Screen” on page 126.
Binary	Tap to open the Inputs/Binary screen, where you view the available binary inputs on this device. For more information, see section 3.17 “Inputs/Binary Screen” on page 128.
Multi-State	Tap to open the Inputs/Multi-State screen, where you view the available multi-state inputs on this device. For more information, see section 3.19 “Inputs/Multi-State Screen” on page 130.

3.15 Inputs/Analog Screen

Use the **Inputs/Analog** screen to display the analog inputs available on the selected device.

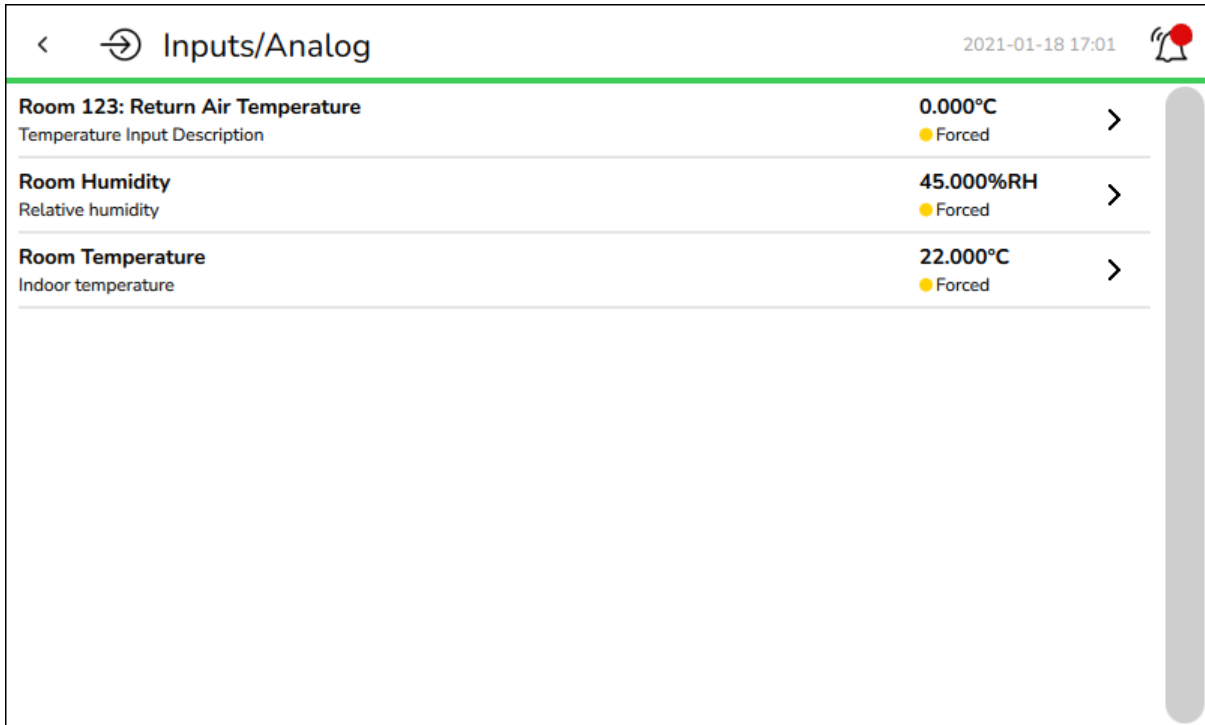


Figure: Inputs/Analog screen

Table: Inputs/Analog Screen

Component	Description
>	Tap to open the Inputs/Analog detail screen, where you view and edit the analog input. For more information, see section 3.16 "Inputs/Analog Detail Screen" on page 127.

3.16 Inputs/Analog Detail Screen

Use the **Inputs/Analog** detail screen to display and edit the selected input.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION
Do not force values without knowing the effect.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

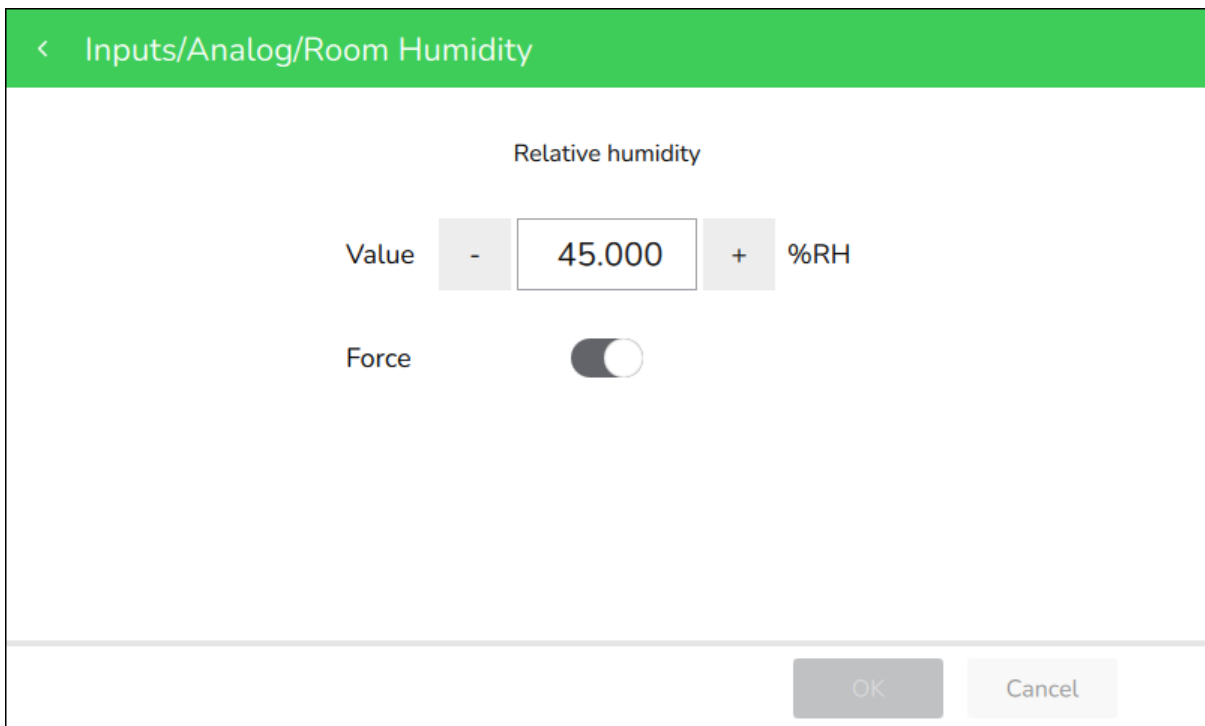


Figure: Inputs/Analog detail screen

Table: Inputs/Analog Detail Screen

Component	Description
Value	Tap - or + to edit the value of the analog input.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.17 Inputs/Binary Screen

Use the **Inputs/Binary** screen to display the binary inputs available on the selected device.

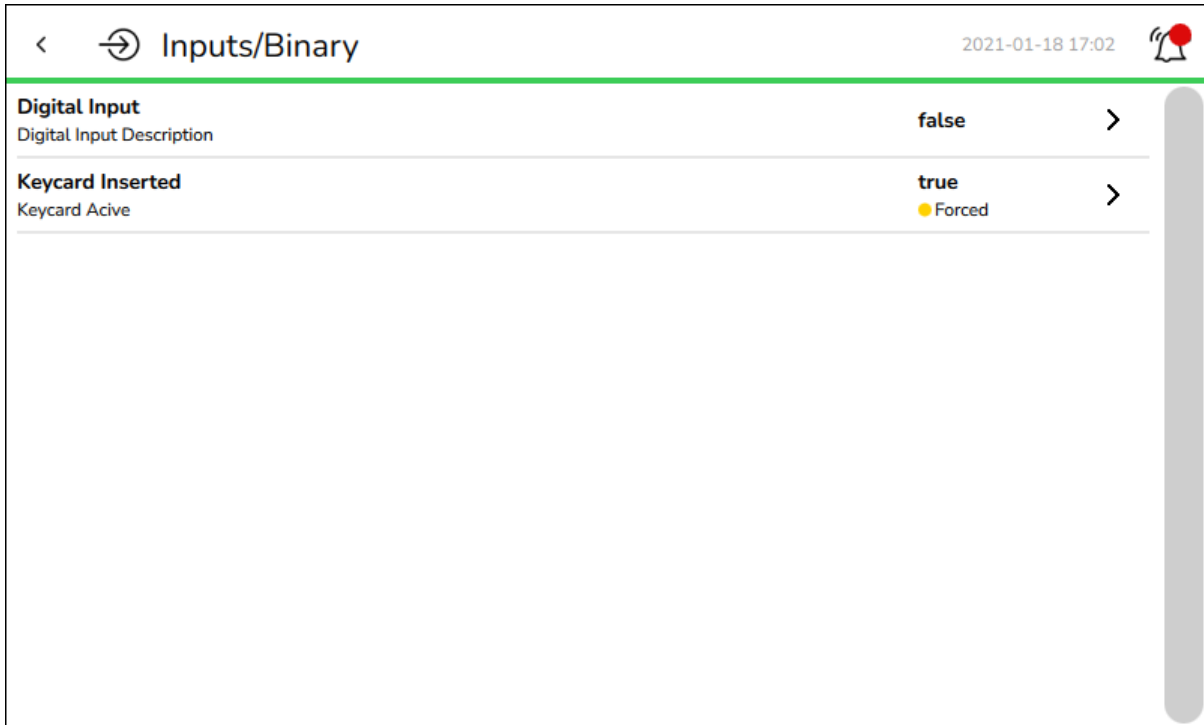


Figure: Inputs/Binary screen

Table: Inputs/Binary Screen

Component	Description
>	Tap to open the Inputs/Binary detail screen, where you view and edit the binary input. For more information, see section 3.18 "Inputs/Binary Detail Screen" on page 129.

3.18 Inputs/Binary Detail Screen

Use the **Inputs/Binary** detail screen to display and edit the available for the selected binary input.

⚠ WARNING
<p>UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>

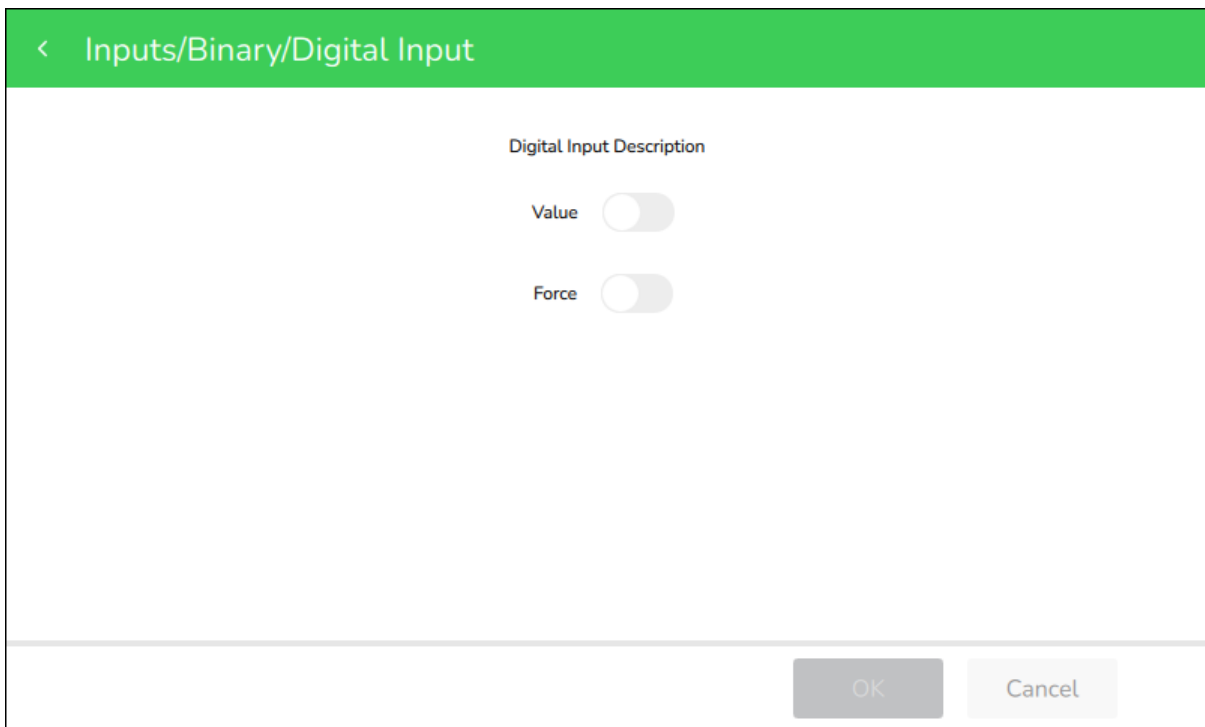


Figure: Inputs/Binary detail screen

Table: Inputs/Binary Detail Screen

Component	Description
Value	Tap Value to enable the binary input.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.19 Inputs/Multi-State Screen

Use the **Inputs/Multi-State** screen to display the multi-state inputs available on the selected device.

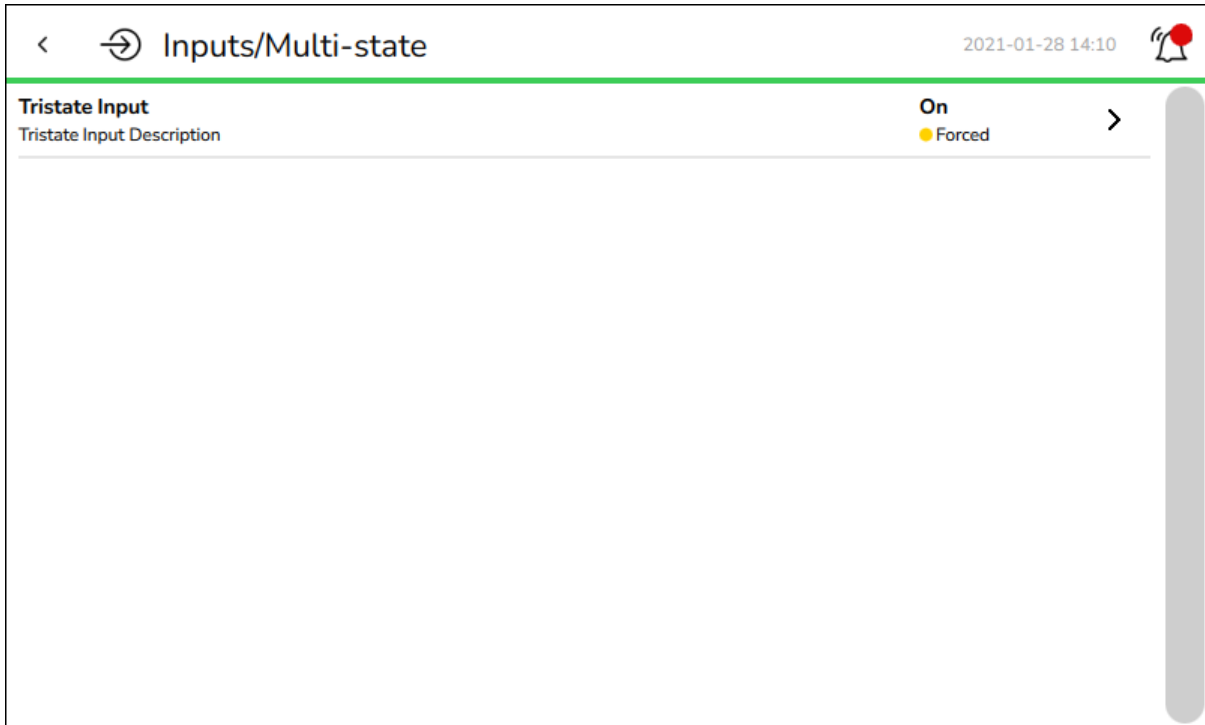


Figure: Inputs/Multi-State screen

Table: Inputs/Multi-State Screen

Component	Description
>	Tap to open the Inputs/Multi-State screen, where you view all the available multi-state inputs on this device. For more information, see section 3.20 "Inputs/Multi-State Detail Screen" on page 131.

3.20 Inputs/Multi-State Detail Screen

Use the **Inputs/Multi-State** detail screen to display and edit the selected multi-state input.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.

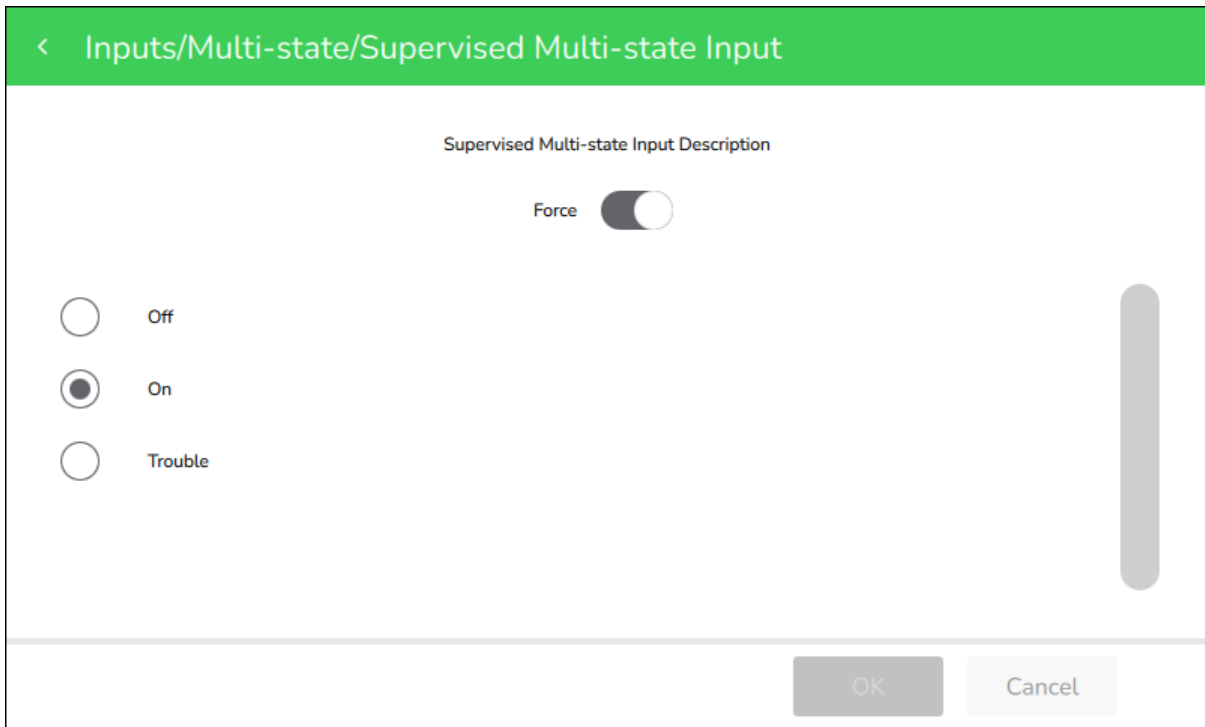



Figure: Inputs/Multi-State detail screen

Table: Inputs/Multi-State Detail Screen

Component	Description
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.
	Tap a value option. The value options differ depending on what the multi-state input is used for in the system.

3.21 Outputs Screen

Use the **Outputs** screen to display and edit the Analog, Binary, and Multi-State outputs of the selected device.

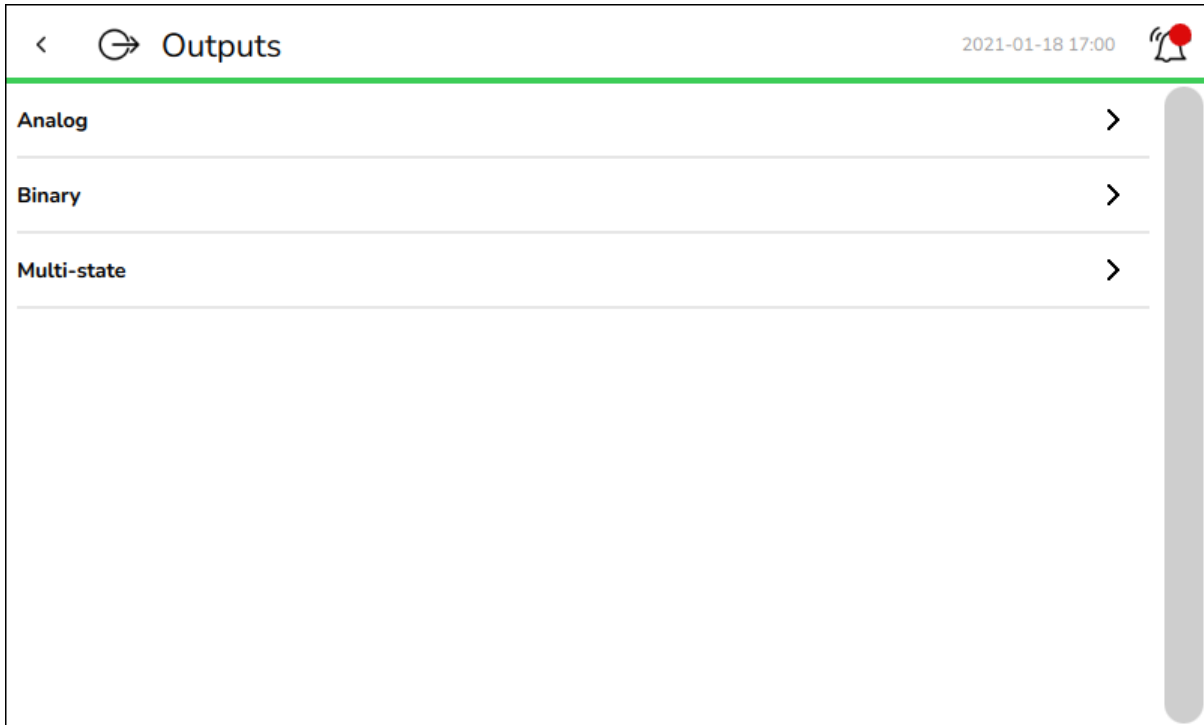


Figure: Outputs screen

Table: Outputs Screen

Component	Description
Analog	Tap to open the Outputs/Analog screen, where you view the available analog outputs on this device. For more information, see section 3.22 "Outputs/Analog Screen" on page 133.
Binary	Tap to open the Outputs/Binary screen, where you view the available binary outputs on this device. For more information, see section 3.24 "Outputs/Binary Screen" on page 135.
Multi-State	Tap to open the Outputs/Multi-State screen, where you view the available multi-state outputs on this device. For more information, see section 3.26 "Outputs/Multi-State Screen" on page 137.

3.22 Outputs/Analog Screen

Use the **Outputs/Analog** screen to display the analog outputs available on the selected device.

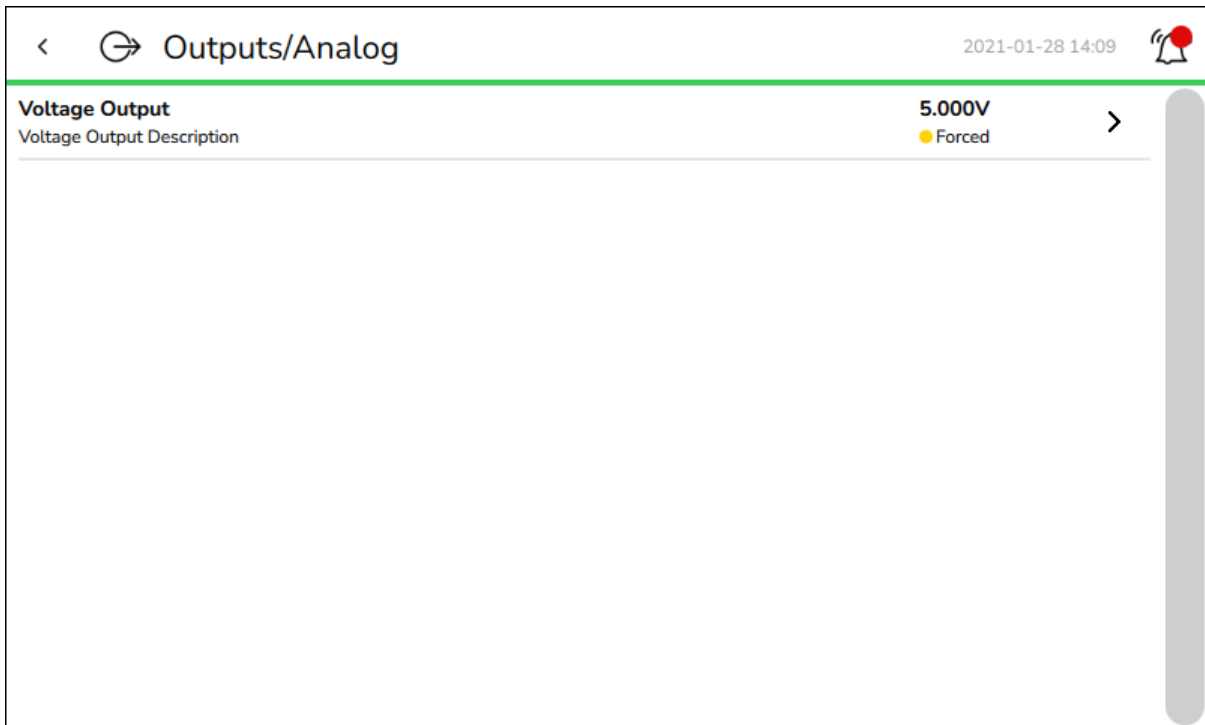


Figure: Outputs/Analog screen

Table: Outputs/Analog Screen

Component	Description
>	Tap to open the Outputs/Analog detail screen, where you view and edit the analog outputs. For more information, see section 3.23 “Outputs/Analog Detail Screen” on page 134.

3.23 Outputs/Analog Detail Screen

Use the **Outputs/Analog** detail screen to display and edit the values available for the selected analog output.

⚠ WARNING
<p>UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>

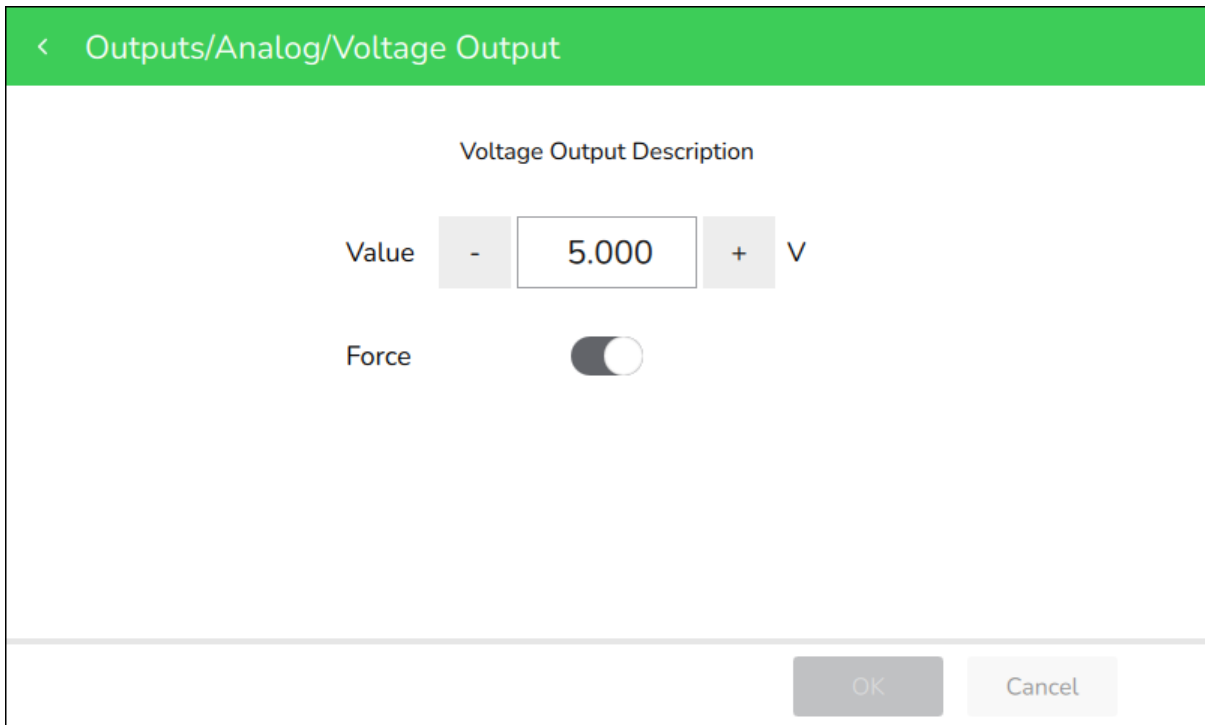


Figure: Outputs/Analog detail screen

Table: Outputs/Analog Detail Screen

Component	Description
Value	Tap - or + to edit the value of the analog output.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.24 Outputs/Binary Screen

Use the **Outputs/Binary** screen to display the binary outputs available on the selected device.

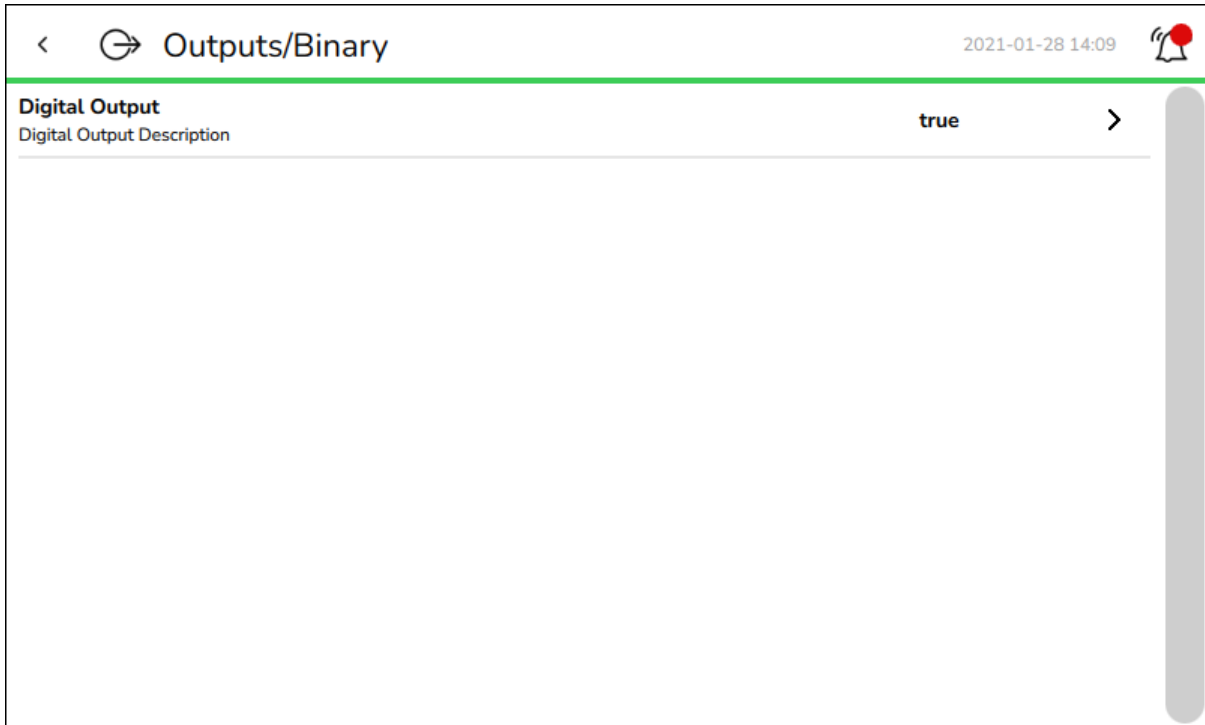


Figure: Outputs/Binary screen

Table: Outputs/Binary Screen

Component	Description
>	Tap to open the Outputs/Binary detail screen, where you view and edit the values for this binary output. For more information, see section 3.25 “Outputs/Binary Detail Screen” on page 136.

3.25 Outputs/Binary Detail Screen

Use the **Outputs/Binary** detail screen to display and edit the selected binary output.

⚠ WARNING

UNEXPECTED EQUIPMENT OPERATION
Do not force values without knowing the effect.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

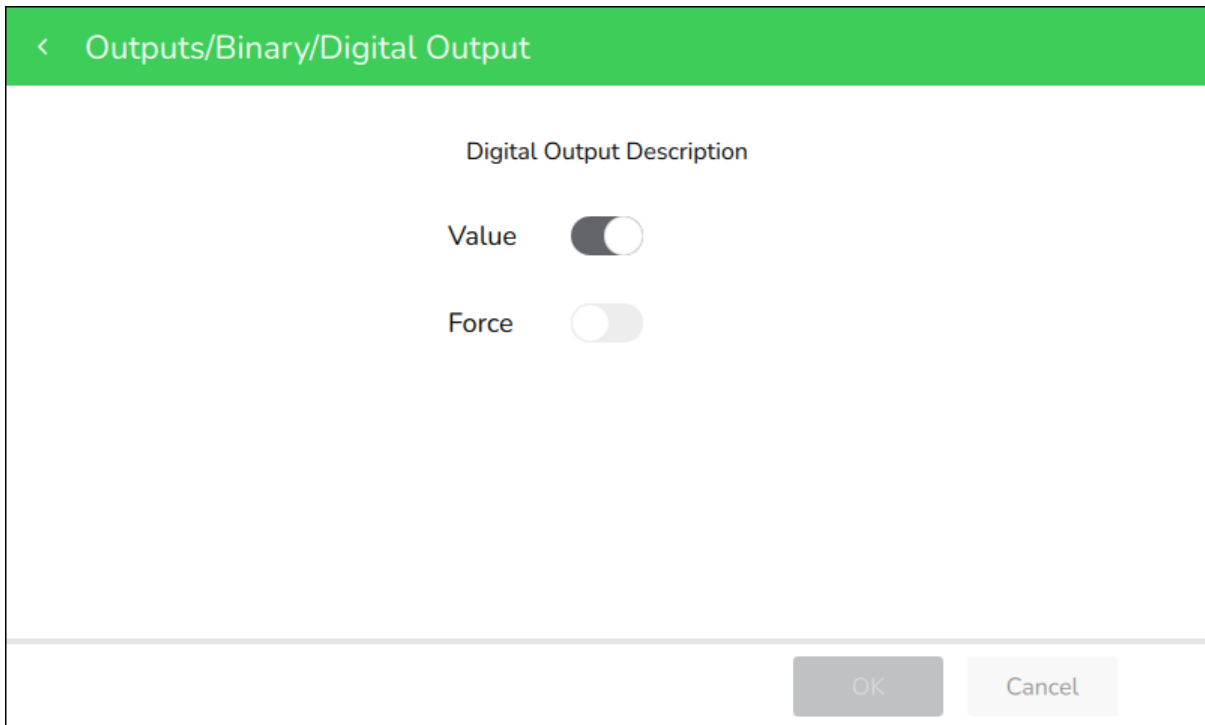


Figure: Outputs/Binary detail screen

Table: Outputs/Binary Detail Screen

Component	Description
Value	Tap Value to enable this output.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.26 Outputs/Multi-State Screen

Use the **Outputs/Multi-State** screen to display the analog outputs available on the selected device.

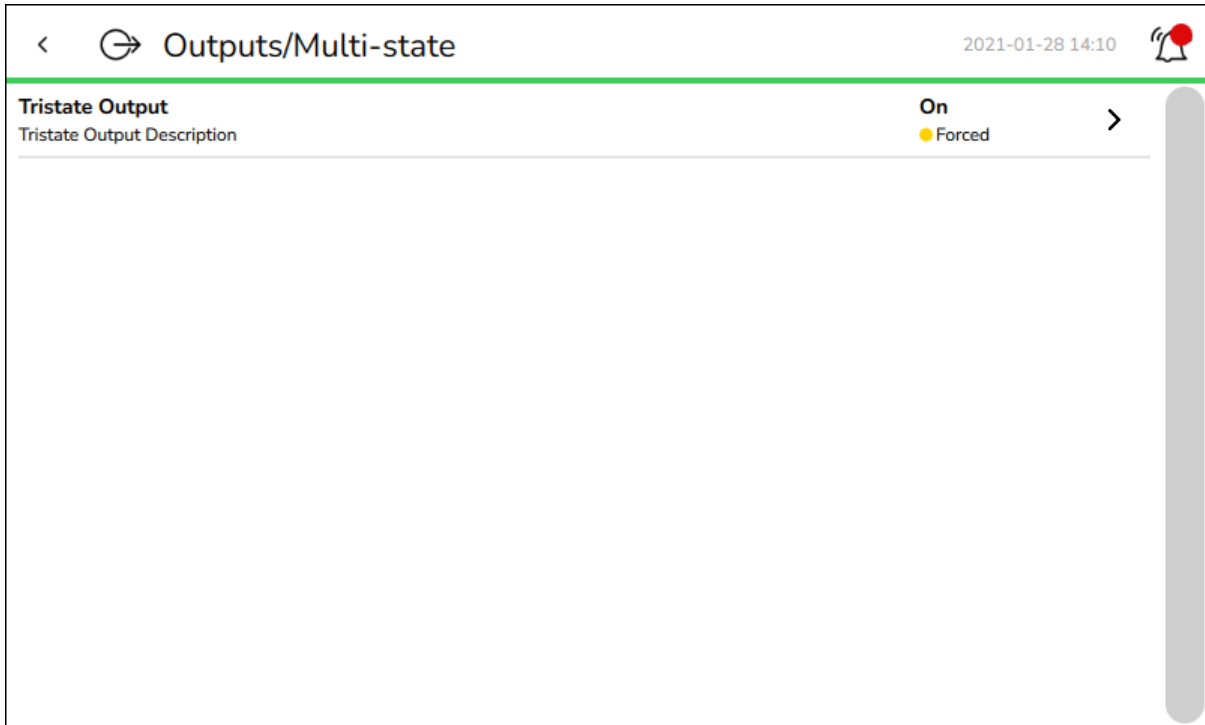


Figure: Outputs/Multi-State screen

Table: Outputs/Multi-State Screen

Component	Description
>	Tap to open the Outputs/Multi-State detail screen, where you can view and edit the multi-state output. For more information, see section 3.27 “Outputs/Multi-State Detail Screen” on page 138.

3.27 Outputs/Multi-State Detail Screen

Use the **Outputs/Multi-State** detail screen to display and edit the values available for the multi-state output.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.

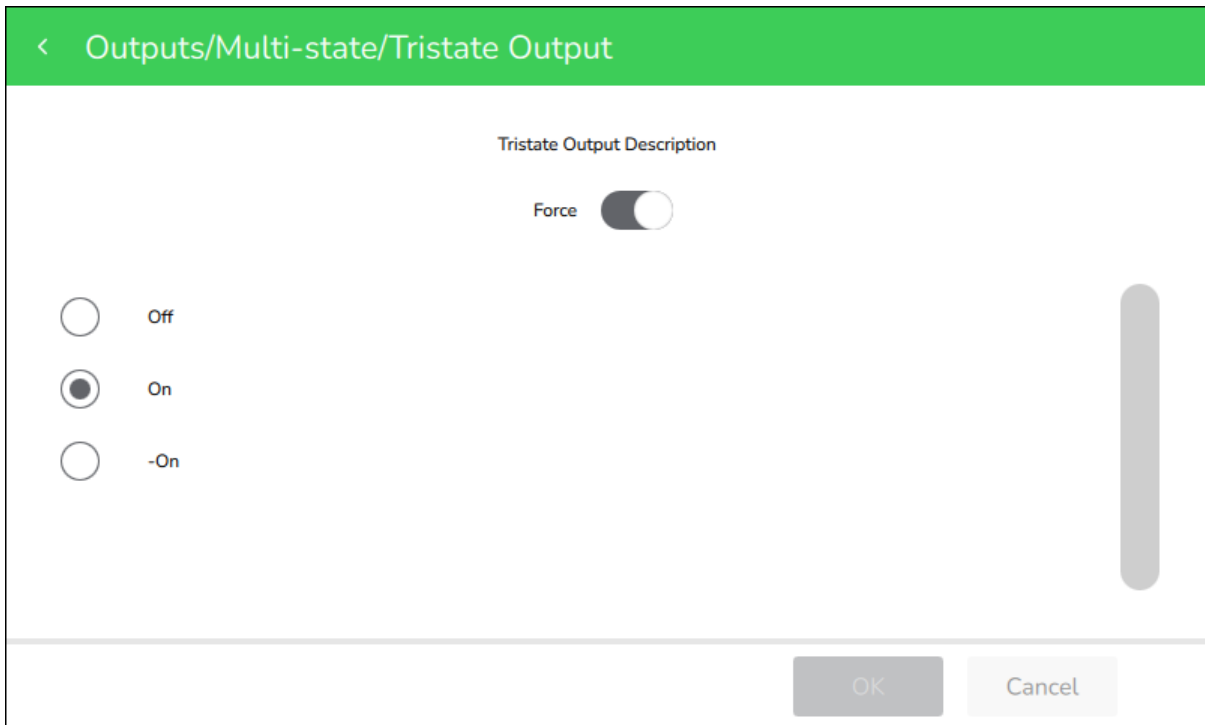



Figure: Outputs/Multi-State detail screen

Table: Outputs/Multi-State Detail Screen

Component	Description
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.
	Tap a value option. The value options differ depending on what the multi-state output is used for in the system.

3.28 Values Screen

Use the **Values** screen to display and edit the Analog, Binary, and Multi-State values of the selected device.

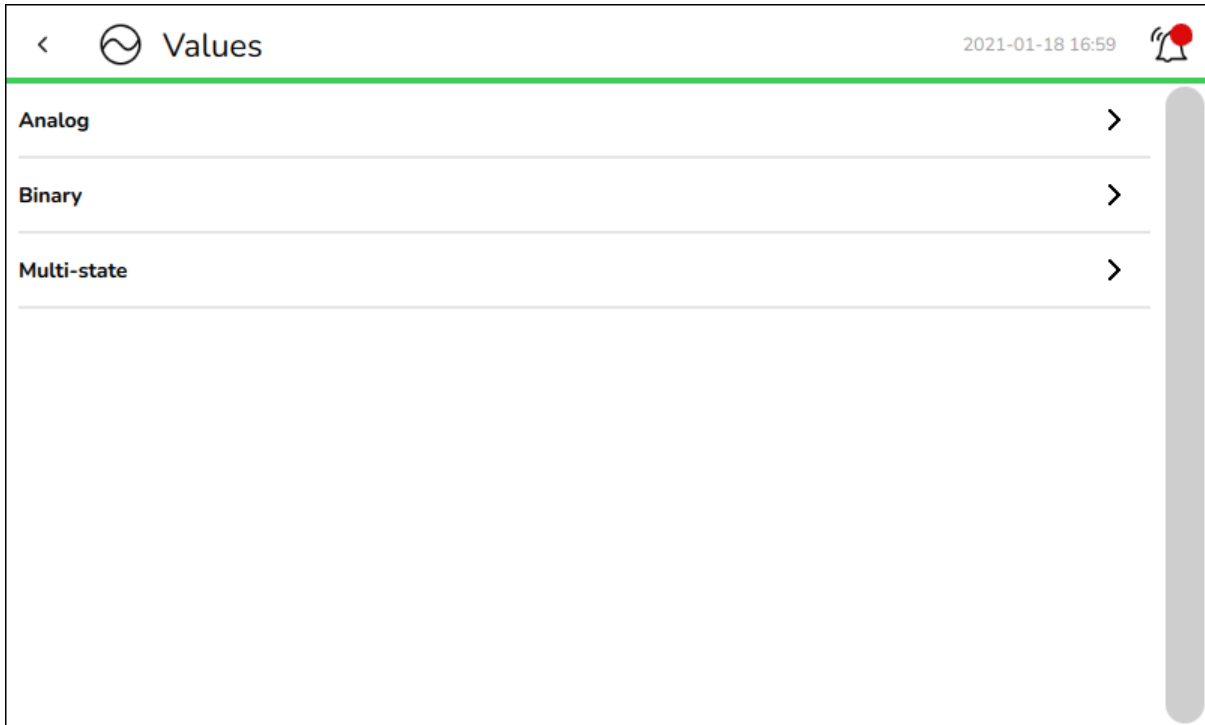


Figure: Values screen

Table: Values Screen

Component	Description
Analog	Tap to open the Values/Analog screen, where you view the available analog values on this device. For more information, see section 3.29 “Values/Analog Screen” on page 140.
Binary	Tap to open the Values/Binary screen, where you view the available binary values on this device. For more information, see section 3.31 “Values/Binary Screen” on page 142.
Multi-State	Tap to open the Values/Multi-State screen, where you view the available multi-state values on this device. For more information, see section 3.33 “Values/Multi-State Screen” on page 144.

3.29 Values/Analog Screen

Use the **Values/Analog** screen to display the analog values available on the selected device.

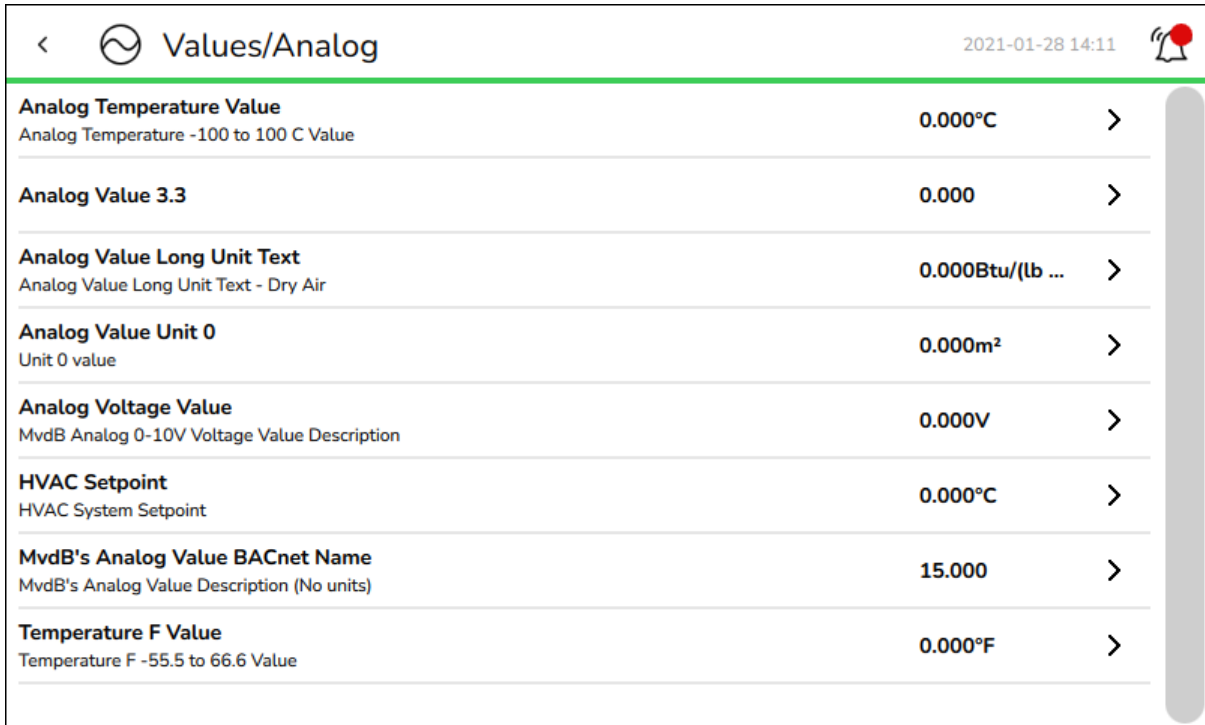


Figure: Values/Analog screen

Table: Outputs/Analog Screen

Component	Description
>	Tap to open the Values/Analog detail screen, where you can view and edit the analog value. For more information, see section 3.30 "Values/Analog Detail Screen" on page 141.

3.30 Values/Analog Detail Screen

Use the **Values/Analog** detail screen to display and edit the selected analog value.

⚠ WARNING

UNEXPECTED EQUIPMENT OPERATION
 Do not force values without knowing the effect.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

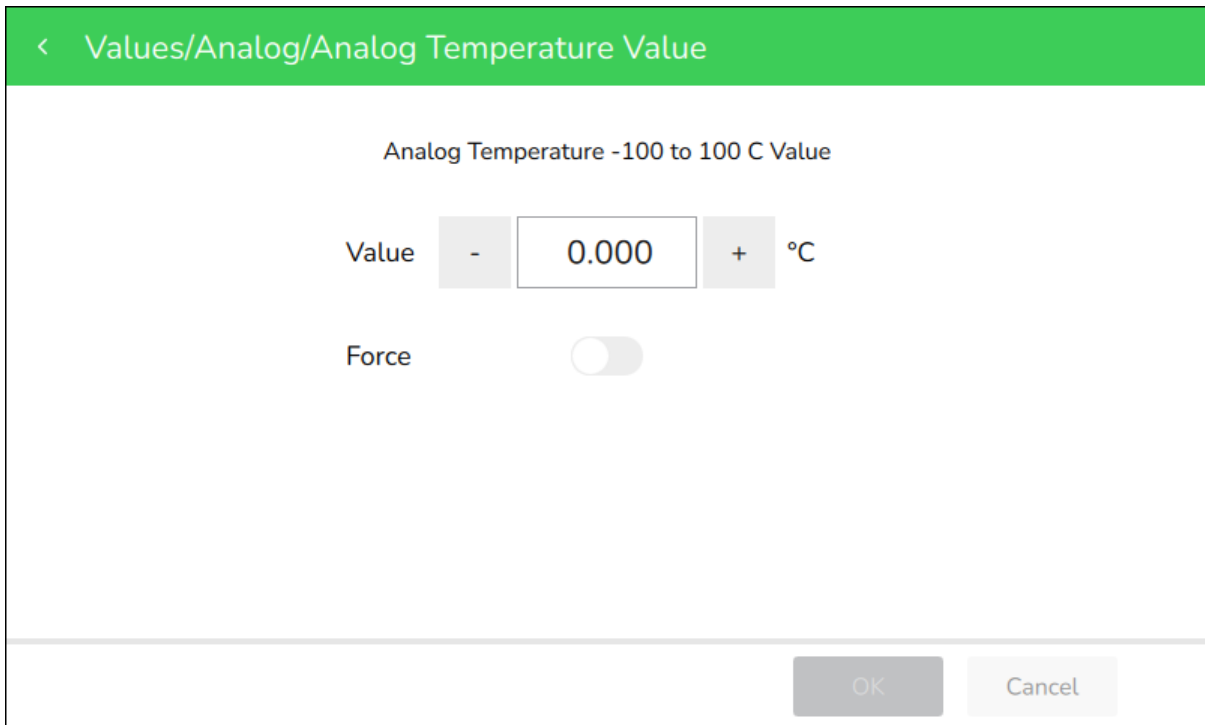


Figure: Values/Analog detail screen

Table: Values/Analog Detail Screen

Component	Description
Value	Tap - or + to edit the analog value.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.31 Values/Binary Screen

Use the **Values/Binary** screen to display the binary values available on the selected device.

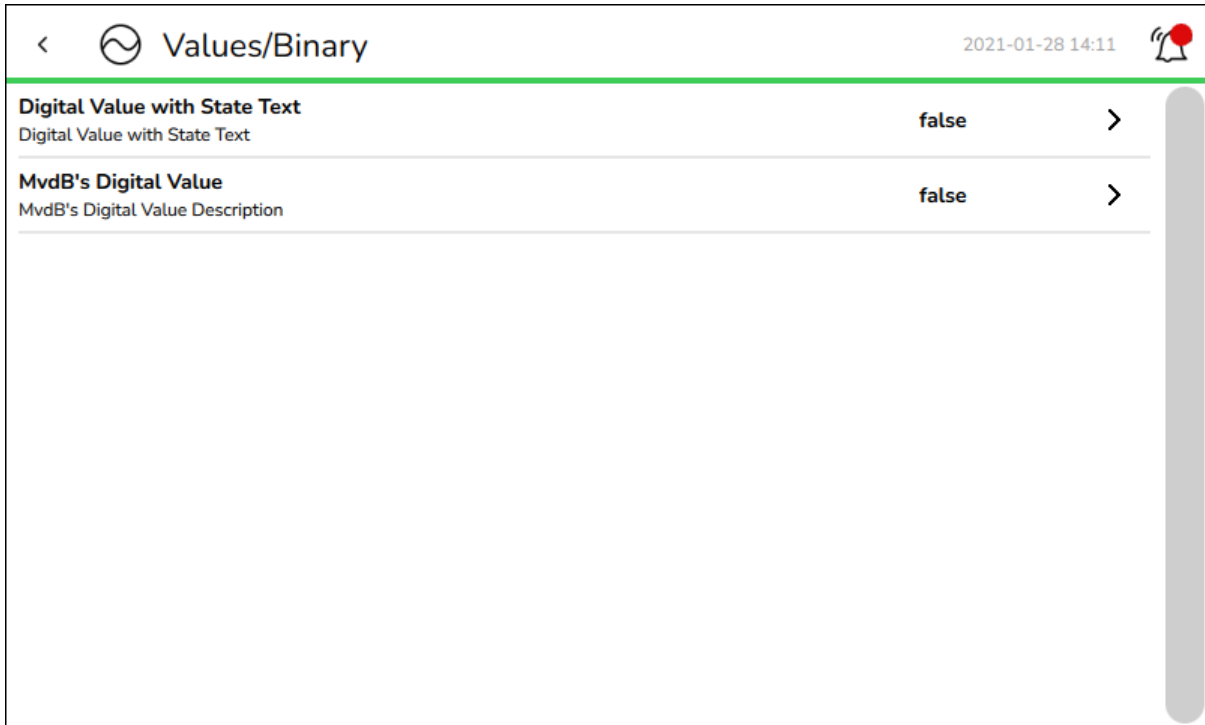


Figure: Values/Binary screen

Table: Values/Binary Screen

Component	Description
>	Tap to open the Values/Binary detail screen, where you view and edit the binary value. For more information, see section 3.32 "Values/Binary Detail Screen" on page 143.

3.32 Values/Binary Detail Screen

Use the **Values/Binary** detail screen to display and edit the selected binary value.

⚠ WARNING

UNEXPECTED EQUIPMENT OPERATION
 Do not force values without knowing the effect.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

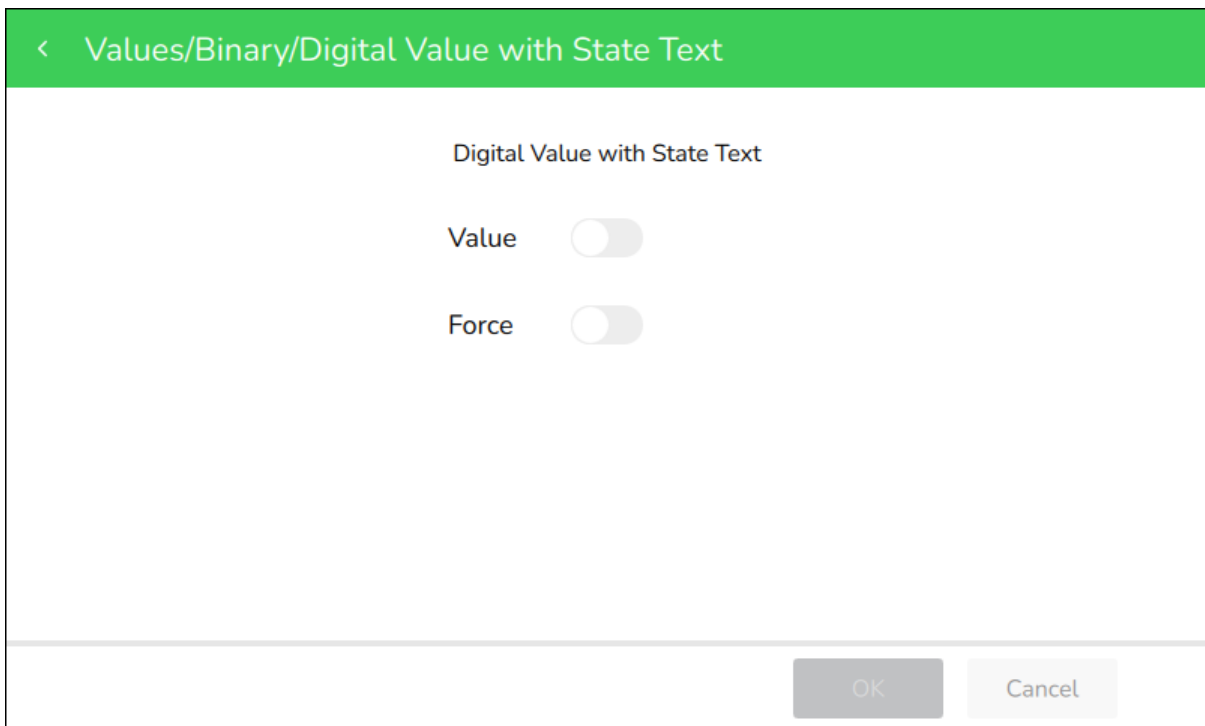


Figure: Values/Binary detail screen

Table: Values/Binary Detail Screen

Component	Description
Value	Tap Value to enable the binary value.
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.

3.33 Values/Multi-State Screen

Use the **Values/Multi-State** screen to display the multi-state values available on the selected device.

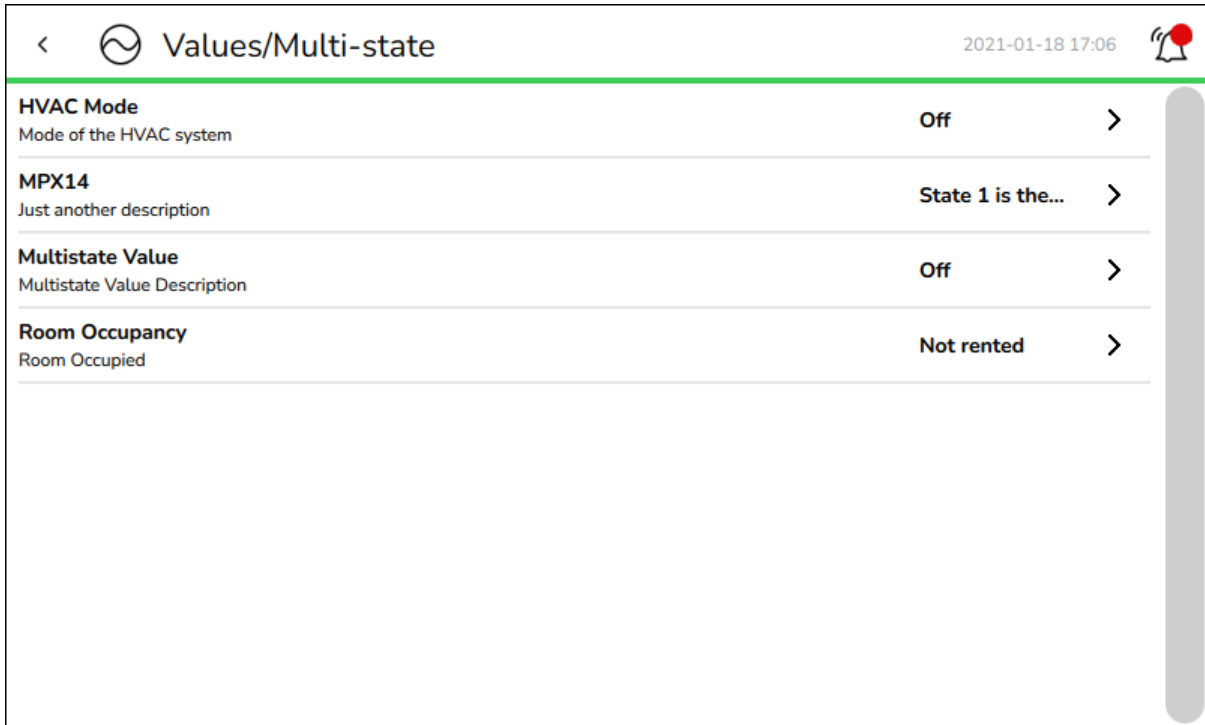



Figure: Values/Multi-State screen

Table: Values/Multi-State Screen

Component	Description
	Tap to open the Values/Multi-State detail screen, where you view and edit the multi-state value. For more information, see section 3.34 "Values/Multi-State Detail Screen" on page 145.

3.34 Values/Multi-State Detail Screen

Use the **Values/Multi-State** detail screen to display and edit the selected multi-state value.

⚠ WARNING
UNEXPECTED EQUIPMENT OPERATION Do not force values without knowing the effect. Failure to follow these instructions can result in death, serious injury, or equipment damage.

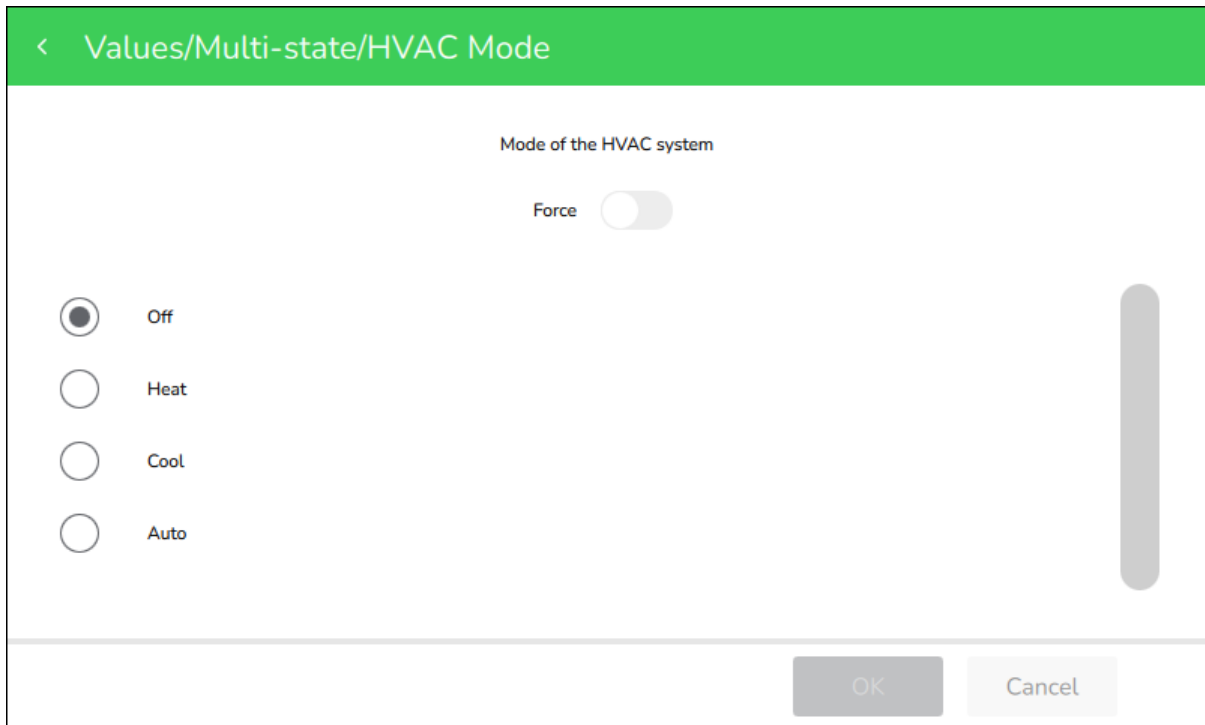


Figure: Values/Multi-State detail screen

Table: Values/Multi-State Detail Screen

Component	Description
Force	Tap Force to override the value received from the device. For more information, see section 2.25 “Value Editing” on page 58.
Value	Tap a value option. The value options differ depending on what the multi-state value is used for in the system.

3.35 Schedules Screen

Use the **Schedules** screen to display schedules for the selected device.

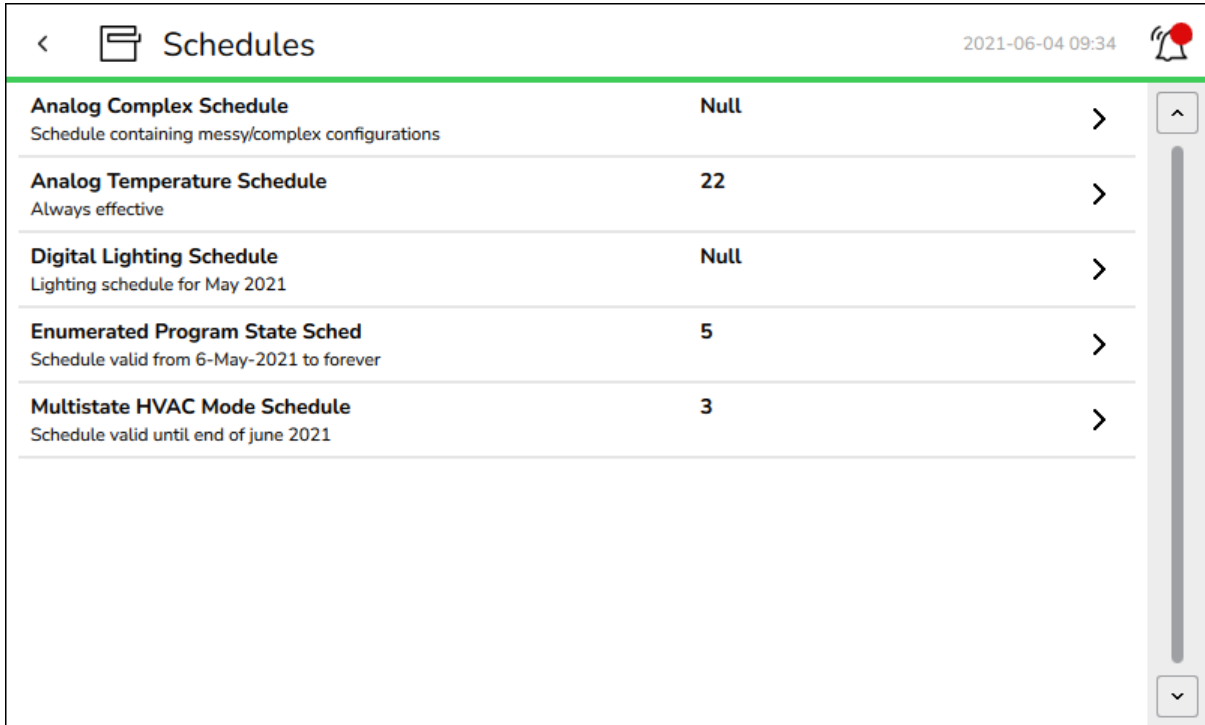


Figure: Schedules screen

Table: Schedules Screen

Component	Description
Name	Displays the name of the schedule.
Description	Displays the description of the schedule.
Present value	Displays the current schedule output value. For more information, see section 2.39 "Schedule Events" on page 75.
>	Tap to open the schedule view screen, where you view the selected schedule. For more information, see section 3.36 "Schedule View Screen" on page 147.

3.36 Schedule View Screen

Use the schedule view screen to display and edit the schedule events.

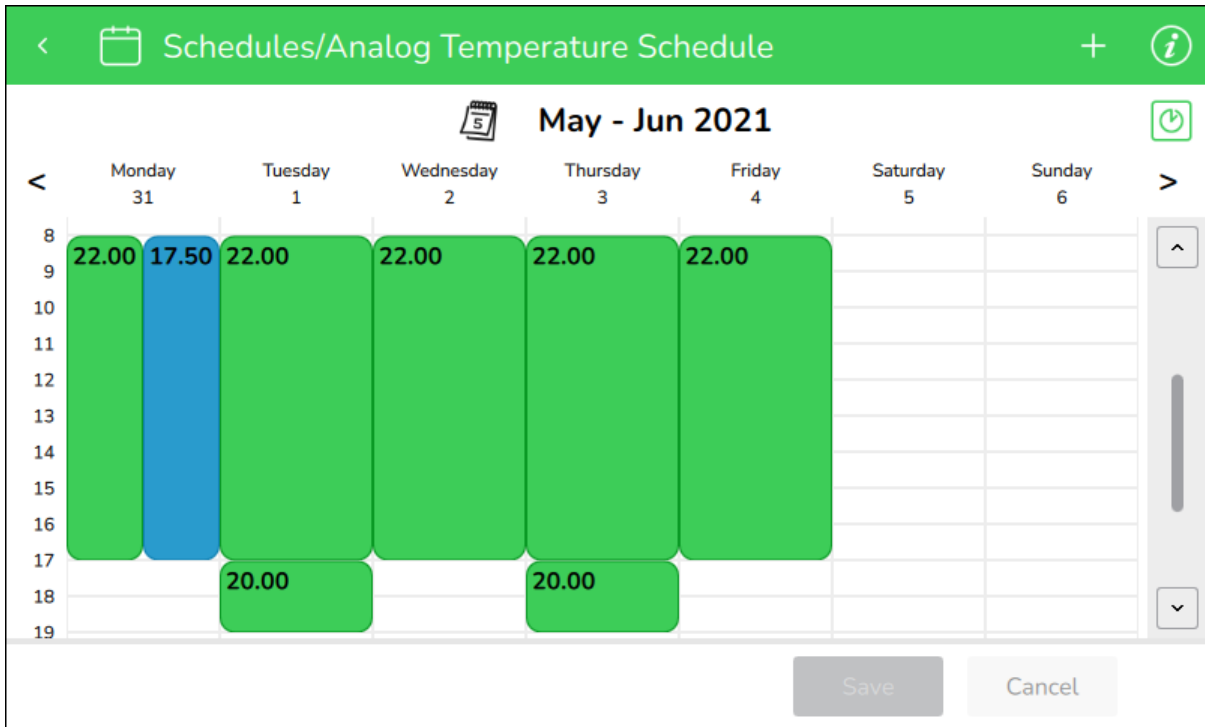




Figure: Schedule view screen

Table: Schedule View Screen

Component	Description
	Tap to open the Pick a Date screen, where you select the week to display on the schedule view screen. For more information, see section 3.39 "Pick a Date Screen" on page 152.
(Date span)	Tap to open the Pick a Date screen, where you select the week to display on the schedule view screen. For more information, see section 3.39 "Pick a Date Screen" on page 152.
	Tap to open the alternate schedule view screen, where all schedule events are the same size to improve visibility. For more information, see section 3.37 "Alternate Schedule View Screen" on page 149.
<	Tap to display the previous week.
>	Tap to display the next week.

Continued

Component	Description
(Green event)	Tap to open the Edit weekly event screen, where you edit the weekly event. For more information, see section 3.42 "Edit Weekly Event Screen" on page 156.
(Blue single date event)	Tap to open the Edit single date exception screen, where you edit the exception event. For more information, see section 3.46 "Edit Single Date Exception Screen" on page 164.
(Blue date range event)	Tap to open the Edit date range exception screen, where you edit the exception event. For more information, see section 3.47 "Edit Date Range Exception Screen" on page 166.
(Blue calculated date event)	Tap to open the Edit calculated exception screen, where you edit the exception event. For more information, see section 3.48 "Edit Calculated Date Exception Screen" on page 168.

3.37 Alternate Schedule View Screen

Use the alternate schedule view screen to display and edit the schedule events. All the listed events are the same size to improve visibility.

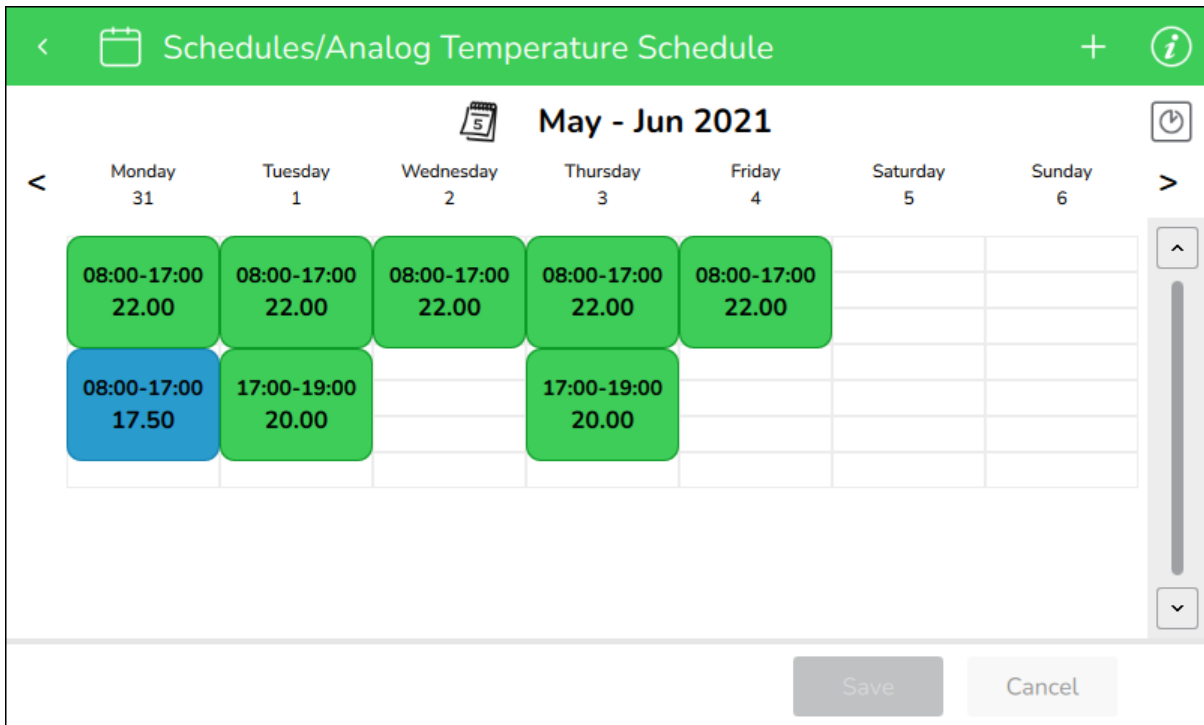




Figure: Alternate schedule view screen

Table: Alternate Schedule View Screen

Component	Description
	Tap to open the Pick a Date screen, where you select the week to display on the schedule view screen. For more information, see section 3.39 "Pick a Date Screen" on page 152.
(Date span)	Tap to open the Pick a Date screen, where you select the week to display on the schedule view screen. For more information, see section 3.39 "Pick a Date Screen" on page 152.
	Tap to open the regular schedule view screen, where all schedule events are illustrated to show how many hours they last in the day. For more information, see section 3.36 "Schedule View Screen" on page 147.
<	Tap to display the previous week.
>	Tap to display the previous week.

Continued

Component	Description
(Green event)	Tap to open the Edit weekly event screen, where you edit the weekly event. For more information, see section 3.42 "Edit Weekly Event Screen" on page 156.
(Blue single date event)	Tap to open the Edit single date exception screen, where you edit the exception event. For more information, see section 3.49 "Edit Exception Event Screen" on page 170.
(Blue date range event)	Tap to open the Edit date range exception screen, where you edit the exception event. For more information, see section 3.47 "Edit Date Range Exception Screen" on page 166.
(Blue calculated date event)	Tap to open the Edit calculated date exception screen, where you edit the exception event. For more information, see section 3.48 "Edit Calculated Date Exception Screen" on page 168.

3.38 Schedule Detail Screen

Use the schedule detail screen to view the detailed properties of the schedule.

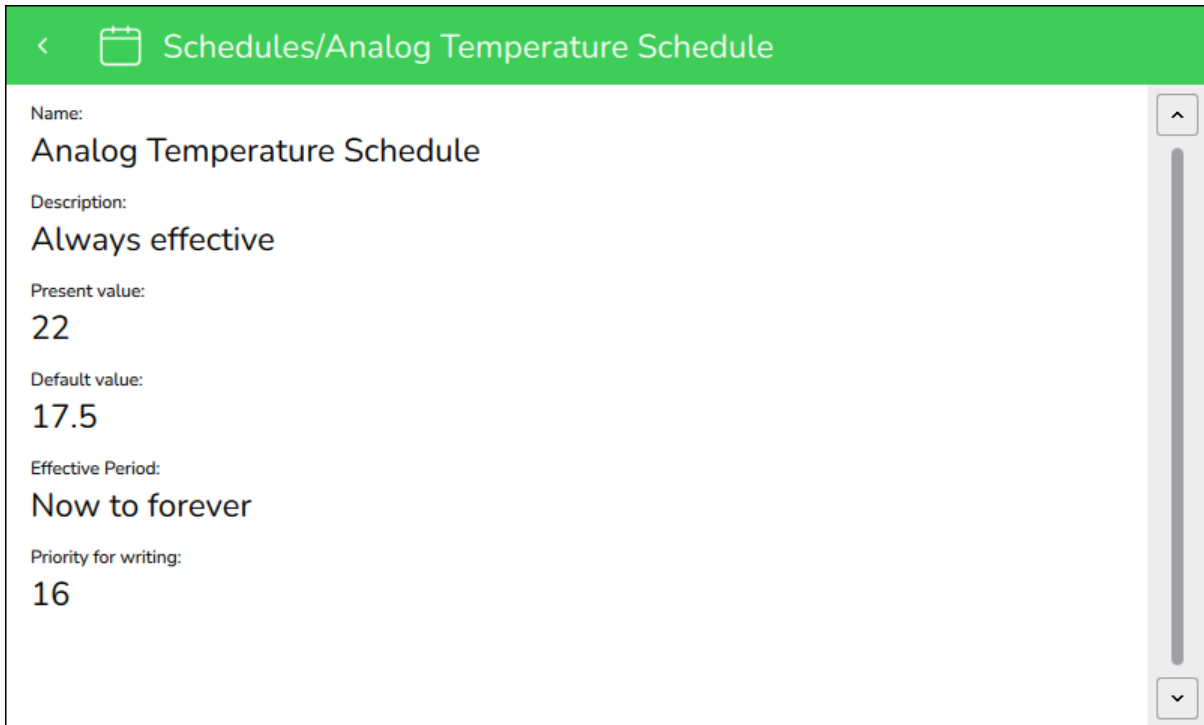


Figure: Schedule detail screen

Table: Schedule Detail Screen

Component	Description
Name	Displays the name of the schedule.
Description	Displays the description of the schedule.
Present value	Displays the current schedule output value. For more information, see section 2.39 "Schedule Events" on page 75.
Default value	Displays the schedule default value. For more information, see section 2.39 "Schedule Events" on page 75.
Effective Period	Displays the range of time the schedule is in service. For more information, see section 2.39 "Schedule Events" on page 75.
Priority for writing	Displays the priority at which the referenced properties are commanded. For more information, see section 2.26 "BACnet Command Priorities" on page 60.

3.39 Pick a Date Screen

Use the **Pick a date** screen to display a specific week in the schedule.

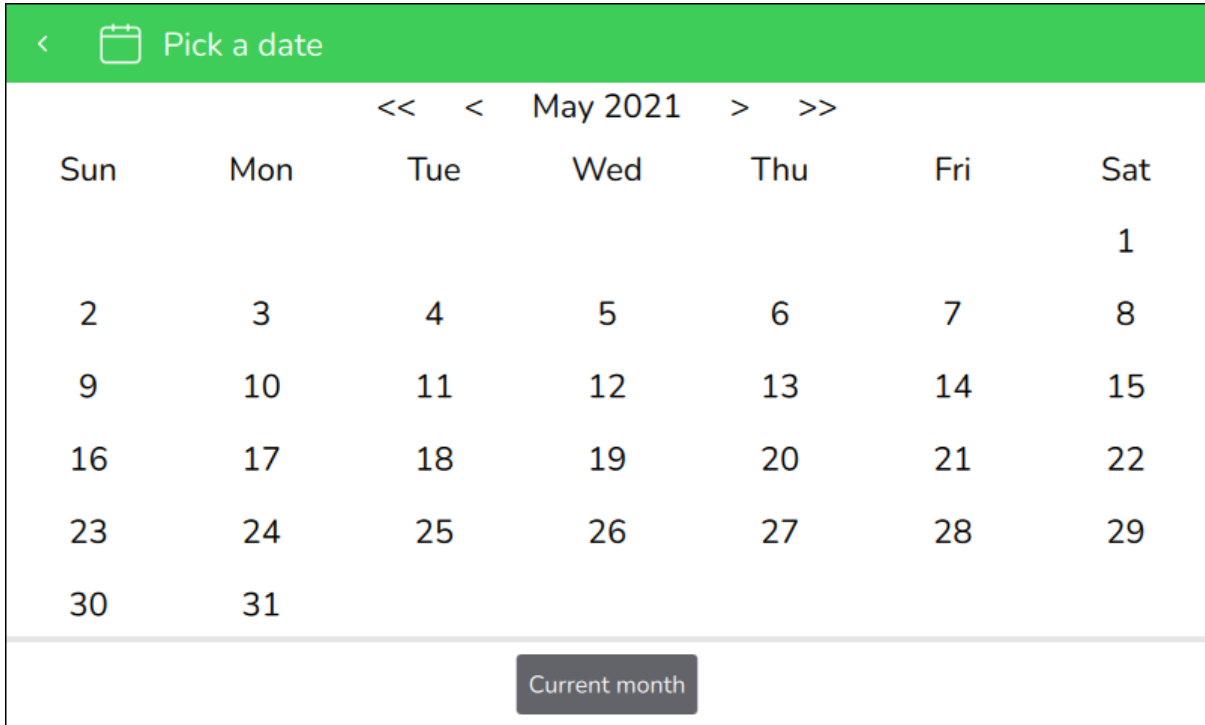


Figure: Pick a date screen

Table: Pick a Date Screen

Component	Description
<<	Tap to display the previous year.
<	Tap to display the previous month.
>	Tap to display the next month.
>>	Tap to display the next year.
Current Month	Tap to display the current month.

3.40 Add Schedule Event Screen

Use the **Add schedule event** screen to select the type of schedule event.

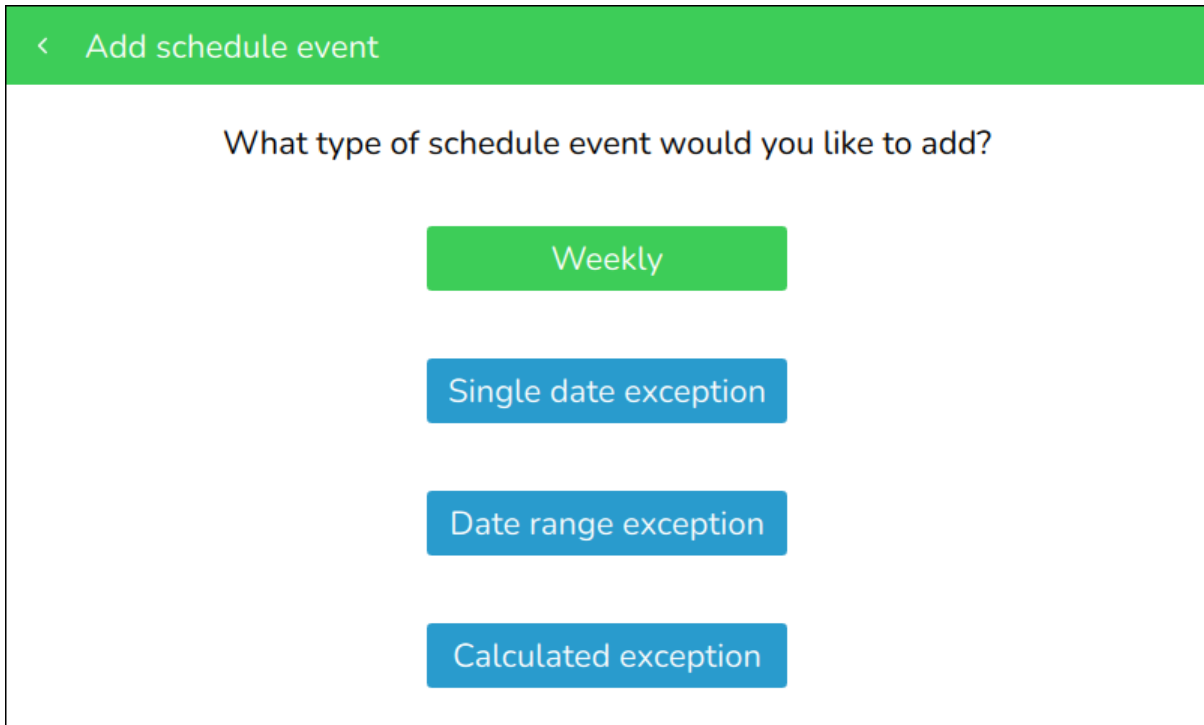


Figure: Add schedule event screen

Table: Add Schedule Event Screen

Component	Description
Weekly	Tap to open the Add weekly event screen, where you add a new weekly event. For more information, see section 3.41 “Add Weekly Event Screen” on page 154.
Single date exception	Tap to open the Add single date exception event screen, where you add a new weekly event. For more information, see section 3.43 “Add Single Date Exception Screen” on page 158.
Date range exception	Tap to open the Add date range exception event screen, where you add a new weekly event. For more information, see section 3.44 “Add Date Range Exception Screen” on page 160.
Calculated exception	Tap to open the Add calculated date exception event screen, where you add a new weekly event. For more information, see section 3.45 “Add Calculated Date Exception Screen” on page 162.

3.41 Add Weekly Event Screen

Use the **Add weekly event** screen to create a new weekly event for a selected analog, digital, multi-state or enumerated schedule.

Figure: Add weekly event screen

Table: Add Weekly Event Screen

Component	Description
Value type	Displays the schedule type the event is added to. For more information, see section 2.35 “Schedule Types ” on page 71.
Value	Tap - or + to edit the schedule output value when this event is active. For more information, see section 2.40 “Weekly Events” on page 76.
Inactive/Active	Tap Inactive or Active (On or Off) to edit the schedule output value when this event is active. For more information, see section 2.40 “Weekly Events” on page 76.
All day	Tap All day to make the event span 24 hours instead of selecting specific hours using From and To .
From	Tap - or + to edit the starting time of the event.
To	Tap - or + to edit the ending time of the event.

Continued

Component	Description
Days of week	Tap to select the day(s) of the week this event is active.

3.42 Edit Weekly Event Screen

Use the **Edit weekly event** screen to delete or change the details of a weekly event.

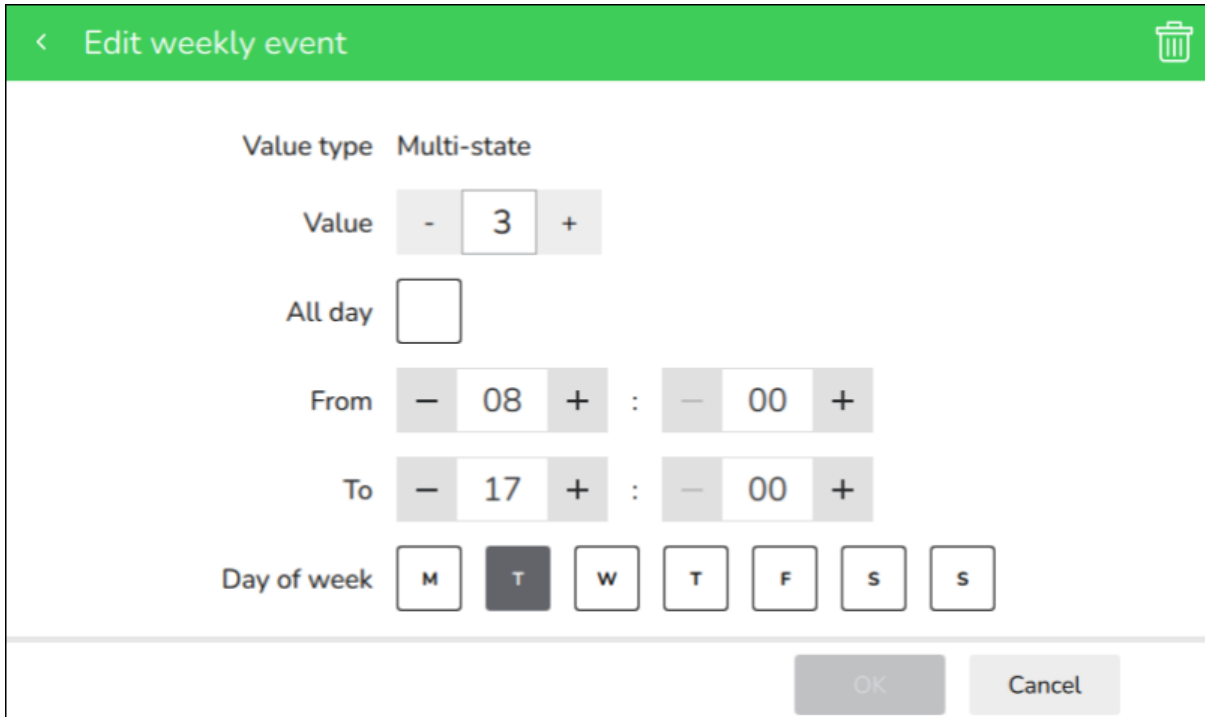


Figure: Edit weekly event screen

Table: Edit Weekly Event Screen

Component	Description
Value type	Displays the schedule type the event is added to. For more information, see section 2.35 “Schedule Types” on page 71.
Value	Tap - or + to edit the schedule output value when this event is active. For more information, see section 2.40 “Weekly Events” on page 76.
Inactive/Active	Tap Inactive or Active (On or Off) to edit the schedule output value when this event is active. For more information, see section 2.40 “Weekly Events” on page 76.
All day	Tap All day to make the event span 24 hours instead of selecting specific hours using From and To .
From	Tap - or + to edit the starting time of the event.
To	Tap - or + to edit the ending time of the event.

Continued

Component	Description
Days of week	Tap to select the day(s) of the week this event is active.

3.43 Add Single Date Exception Screen

Use the **Add single date exception** screen to create new single date exception events for the selected schedule of this device.

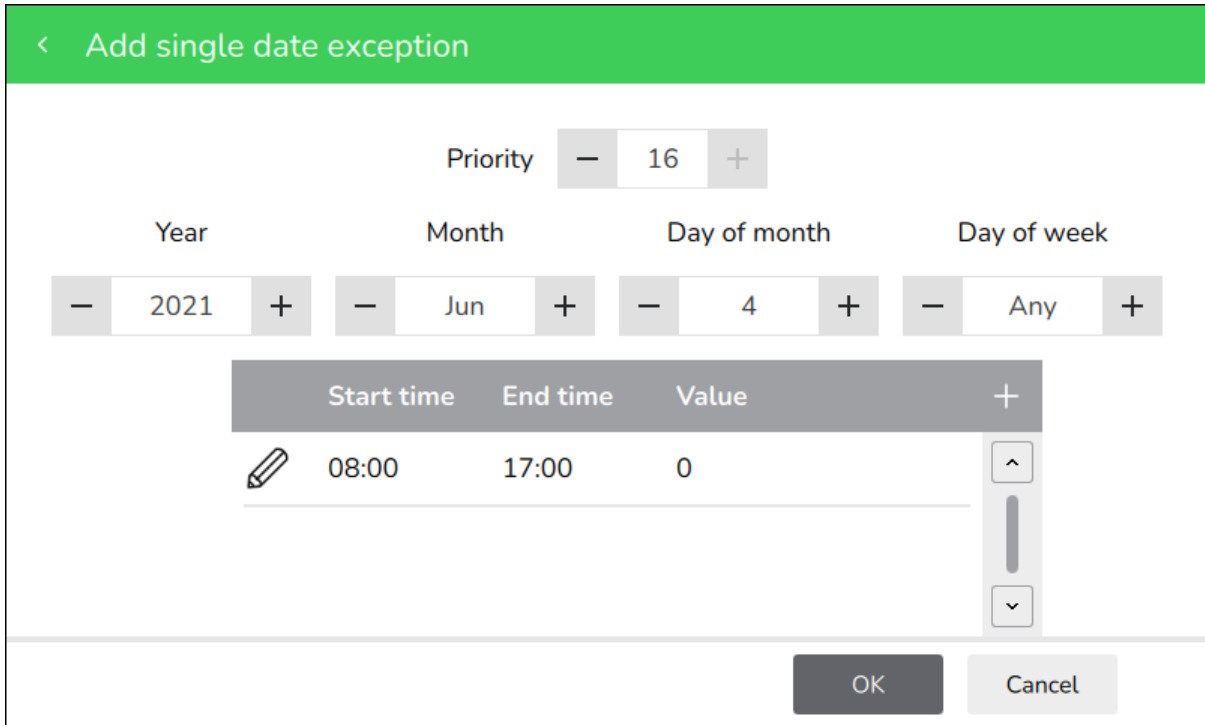




Figure: Add single date exception screen

Table: Add Single Date Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Year	Tap - or + to select a specific year between 2020 and 2100 , or Any year .
Month	Tap - or + to select a specific month between January and December , Odd months , Even months , or Any month .
Day of month	Tap - or + to select a specific day between 1 and 31 , Last day , Odd days , Even days , or Any day .
Day of week	Tap - or + to select a specific day between Monday and Sunday , or Any day .
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.

Continued

Component	Description
Value	Displays the selected value of the event.
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.44 Add Date Range Exception Screen

Use the **Add date range exception** screen to create new date range exception events for the selected schedule of this device.

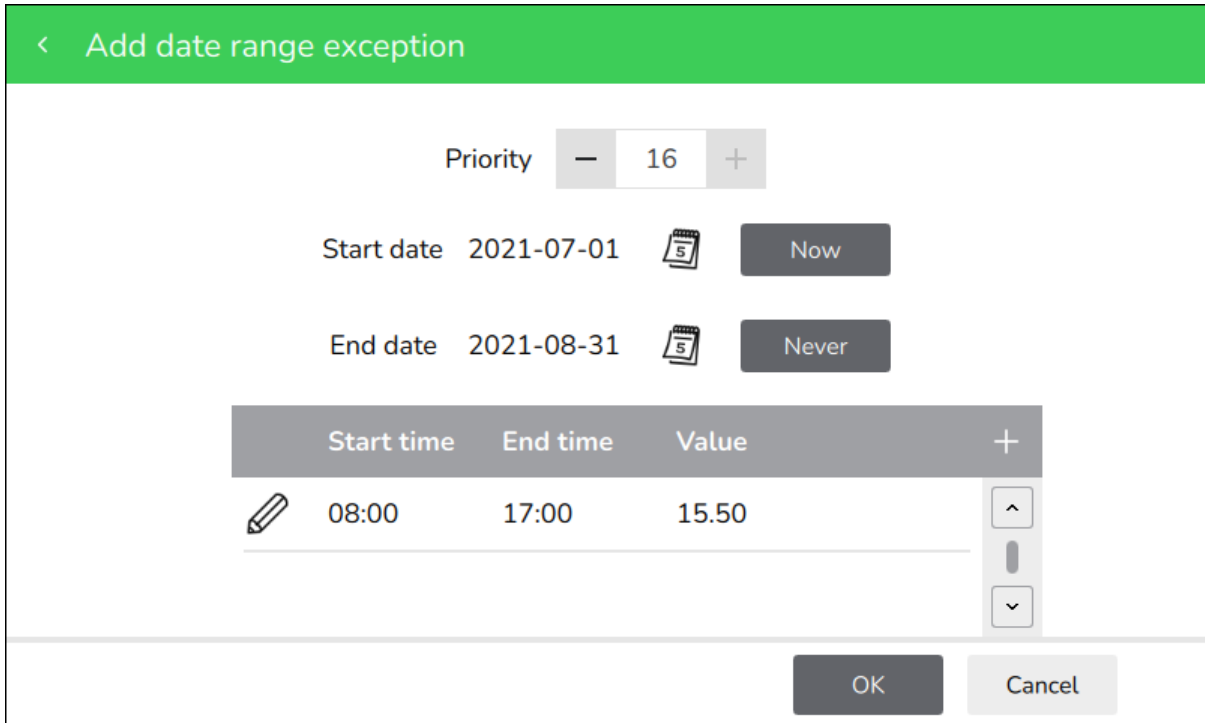






Figure: Add date range exception screen

Table: Add Date Range Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Start date 	Tap to select a specific start date or Now to select the current date.
End date 	Tap to select a specific end date or Never to indicate the exception does not have an end date.
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.
Value	Displays the selected value of the event.

Continued

Component	Description
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.45 Add Calculated Date Exception Screen

Use the **Add calculated date exception** screen to create new calculated date exception events for the selected schedule of this device.

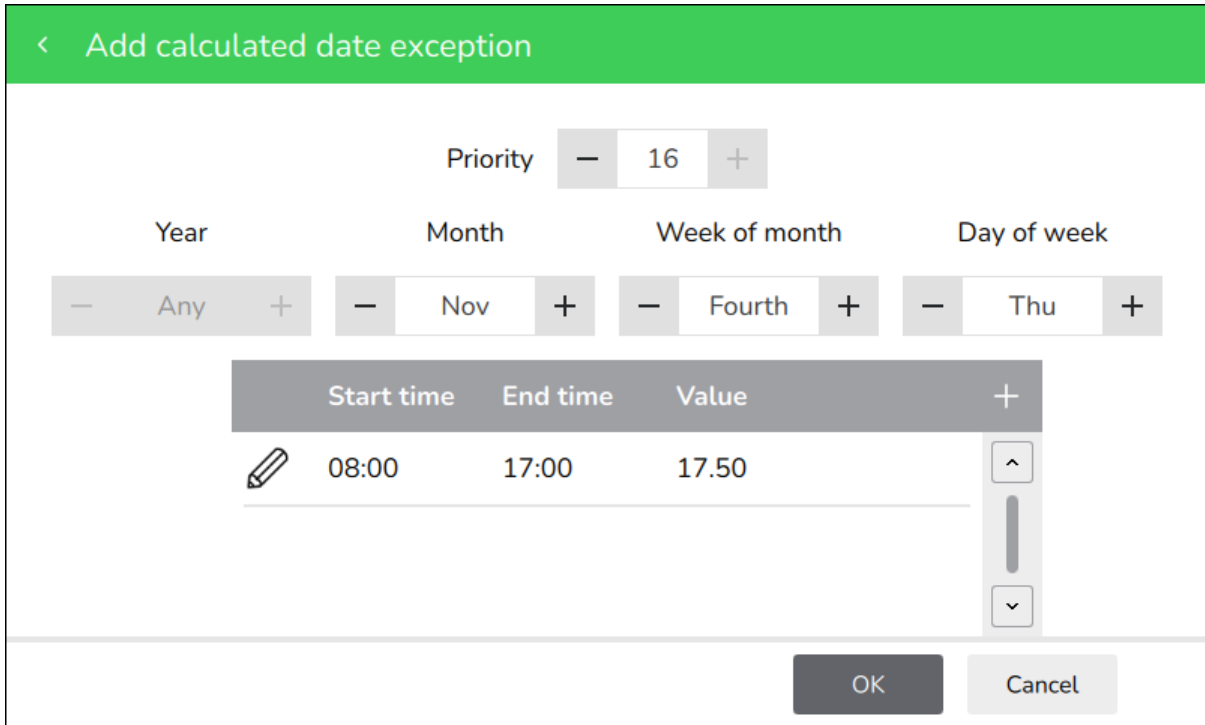




Figure: Add calculated date exception screen

Table: Add Calculated Date Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Year	Tap - or + to select a specific year between 2020 and 2100 , or Any year .
Month	Tap - or + to select a specific month between January and December , Odd months , Even months , or Any month .
Week of month	Tap - or + to select a specific week between First and Fifth , Last , or Any .
Day of week	Tap - or + to select a specific day between Monday and Sunday , or Any day .
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.
Value	Displays the selected value of the event.

Continued

Component	Description
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.46 Edit Single Date Exception Screen

Use the **Edit single date exception** screen to add, edit or delete the time span and the value of a single date exception.

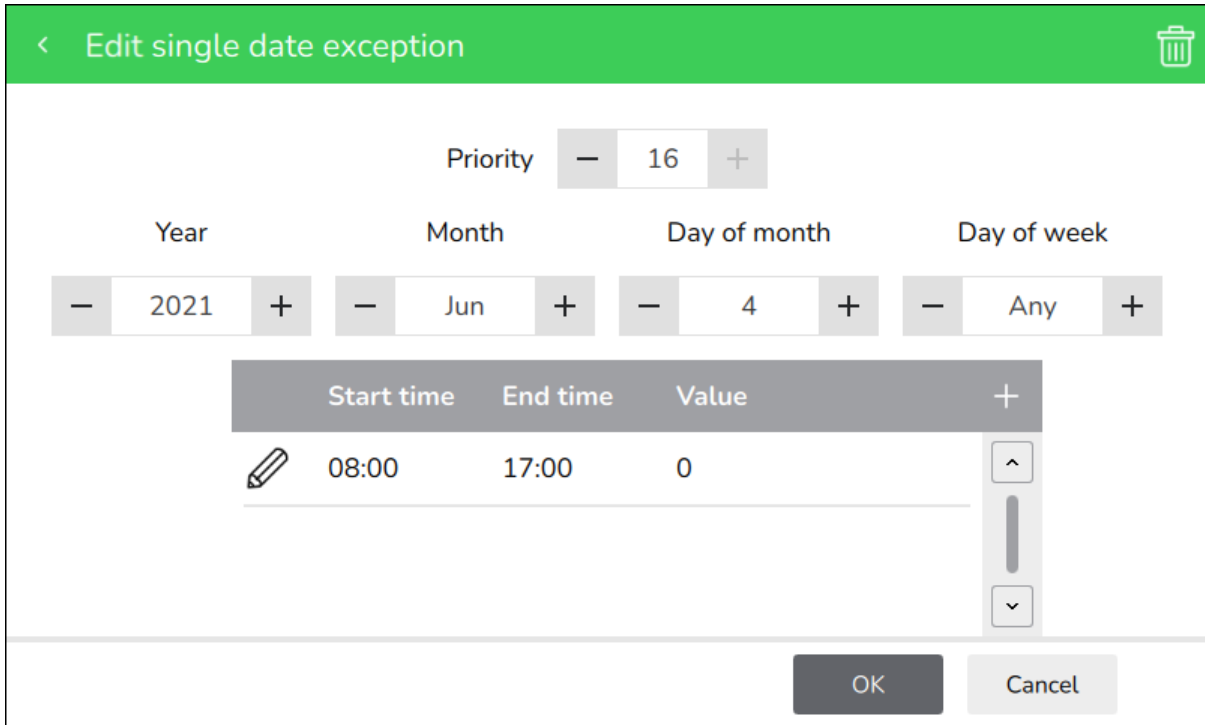




Figure: Edit single date exception screen

Table: Edit Single Date Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Year	Tap - or + to select a specific year between 2020 and 2100 , or Any year .
Month	Tap - or + to select a specific month between January and December , Odd months , Even months , or Any month .
Day of month	Tap - or + to select a specific day between 1 and 31 , Last day , Odd days , Even days , or Any day .
Day of week	Tap - or + to select a specific day between Monday and Sunday , or Any day .
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.

Continued

Component	Description
Value	Displays the selected value of the event.
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.47 Edit Date Range Exception Screen

Use the **Edit date range exception** screen to add, edit or delete the time span and the value of a date range exception.

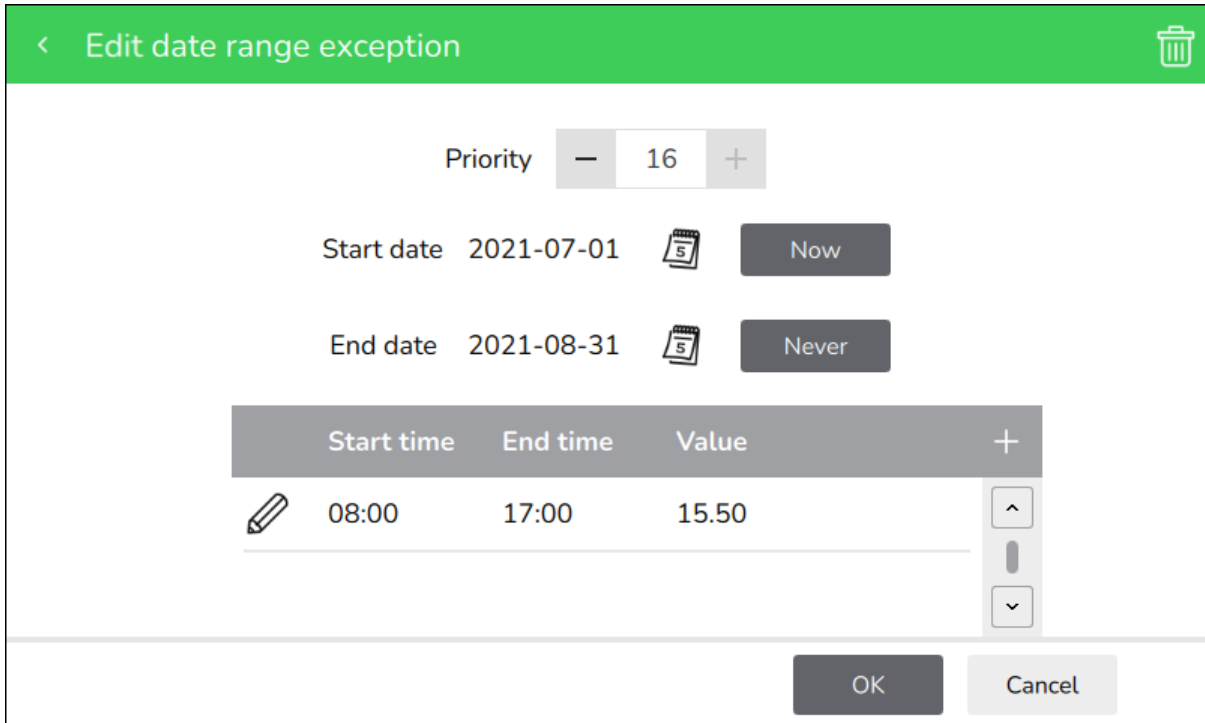






Figure: Edit date range exception screen

Table: Edit Date Range Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Start date 	Tap to select a specific start date or Now to select the current date.
End date 	Tap to select a specific end date or Never to indicate the exception does not have an end date.
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.
Value	Displays the selected value of the event.

Continued

Component	Description
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.48 Edit Calculated Date Exception Screen

Use the **Edit calculated date exception** screen to add, edit or delete the time span and the value of a calculated date exception.

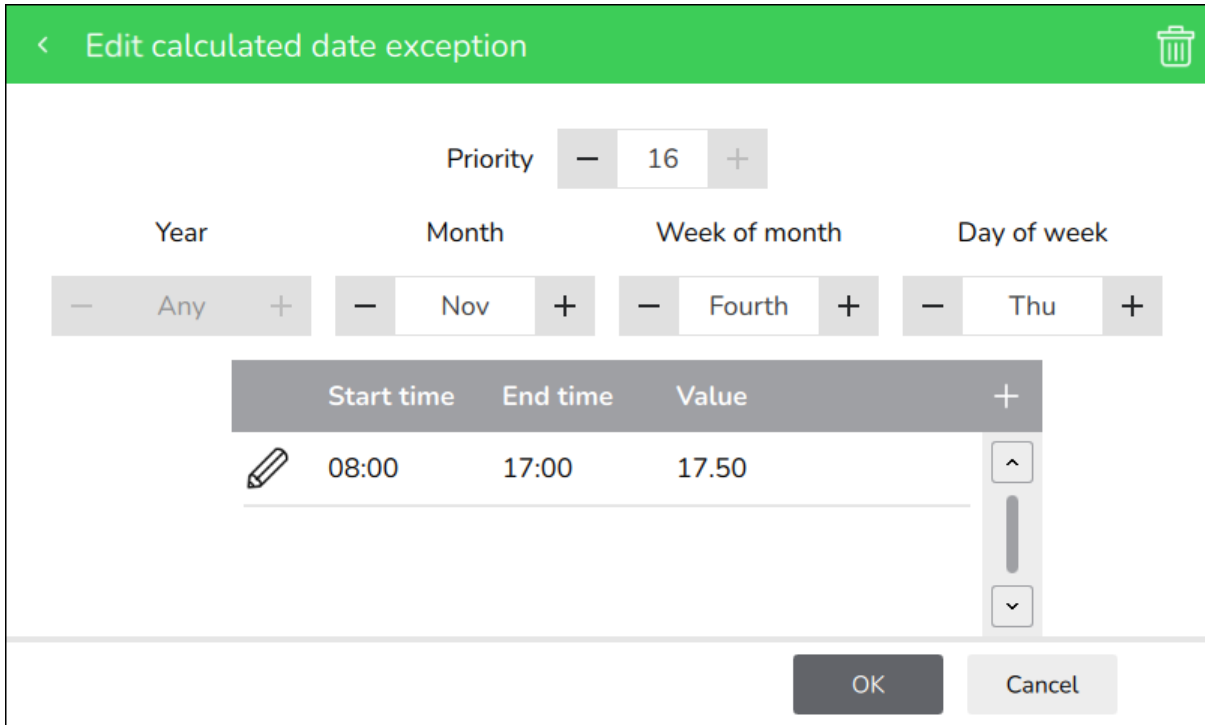




Figure: Edit calculated date exception screen

Table: Edit Calculated Date Exception Screen

Component	Description
Priority	Tap + or - to edit the priority of the event. 1 is the highest priority and 16 is the lowest. For more information, see section 2.51 "Exception Event Priorities" on page 93.
Year	Tap - or + to select a specific year between 2020 and 2100 , or Any year .
Month	Tap - or + to select a specific month between January and December , Odd months , Even months , or Any month .
Week of month	Tap - or + to select a specific week between First and Fifth , Last , or Any .
Day of week	Tap - or + to select a specific day between Monday and Sunday , or Any day .
Start time	Displays the starting time of the event.
End time	Displays the ending time of the event.
Value	Displays the selected value of the event.

Continued

Component	Description
	Tap to open the Edit exception event screen, where you add a time span and a value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.
	Tap to open the Edit exception event screen, where you edit the time span and the value. For more information, see section 3.49 “Edit Exception Event Screen” on page 170.

3.49 Edit Exception Event Screen

Use the **Edit exception event** screen to add, edit or delete the time and value of an exception event.

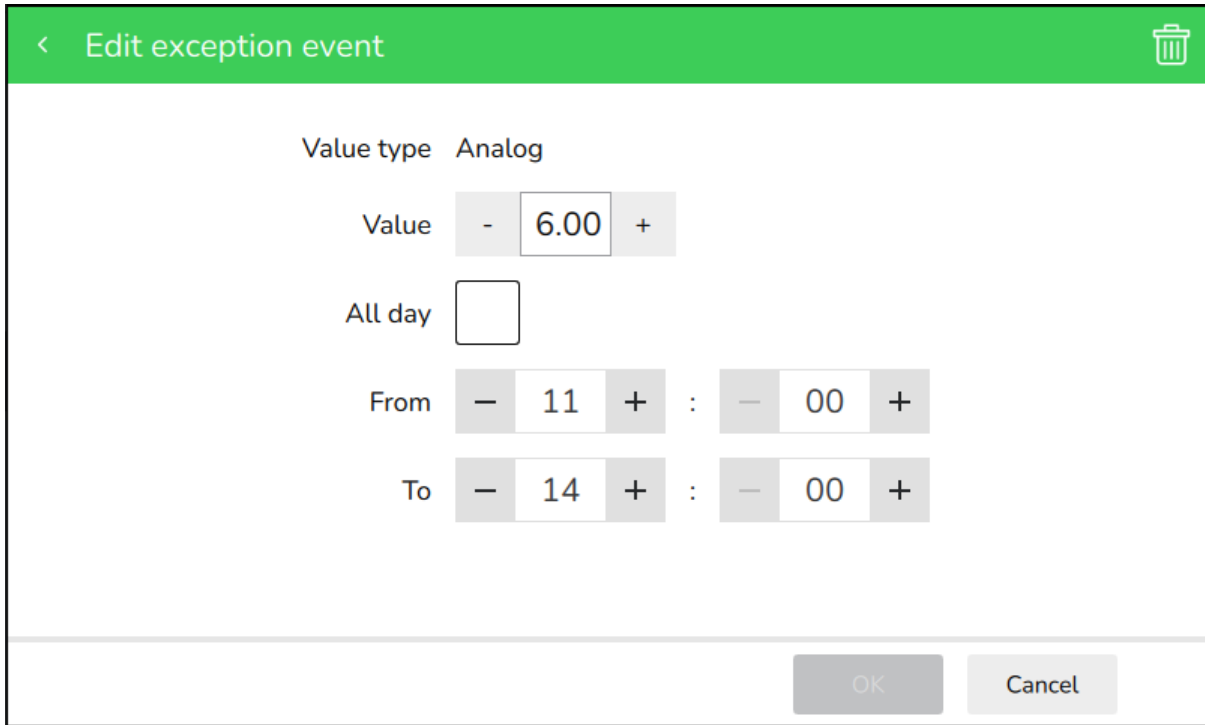


Figure: Edit exception event screen

Table: Edit Exception Event Screen

Component	Description
Value type	Displays the schedule type the event is added to. For more information, see section 2.35 “Schedule Types ” on page 71.
Value	Tap - or + to edit the schedule output value when this event is active. For more information, see section 2.40 “Weekly Events” on page 76. This field will be different if you have selected to edit a digital schedule event.
All day	Tap All day to make the event span 24 hours instead of selecting specific hours using From and To .
From	Tap - or + to edit the starting time of the event.
To	Tap - or + to edit the ending time of the event.

3.50 Device Info Screen

Use the device info screen to view more information on the device and rediscover to refresh its inputs, outputs, and values.

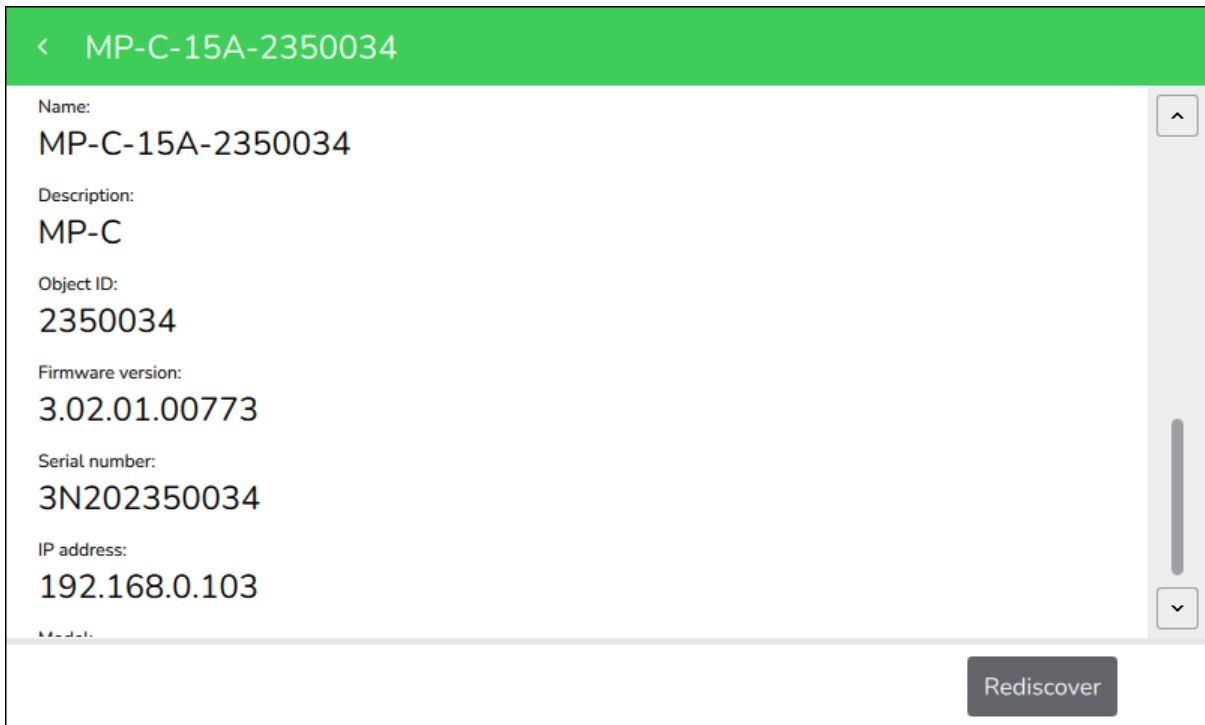


Figure: Device info screen

Table: Device Info Screen

Component	Description
Name	Displays the device name.
Description	Displays the device description.
Object ID	Displays the BACnet device identification number.
Firmware version	Displays the device firmware version number.
Serial number	Displays the device serial number.
IP address	Displays the IP address.
Model	Displays the device model number.
Vendor	Displays the device vendor name.
Vendor ID	Displays the device vendor identification number.
Rediscover	Tap to refresh the device inputs, outputs, and values.

3.51 Logs Screen

Use the **Logs** screen to display the recorded activities by users.

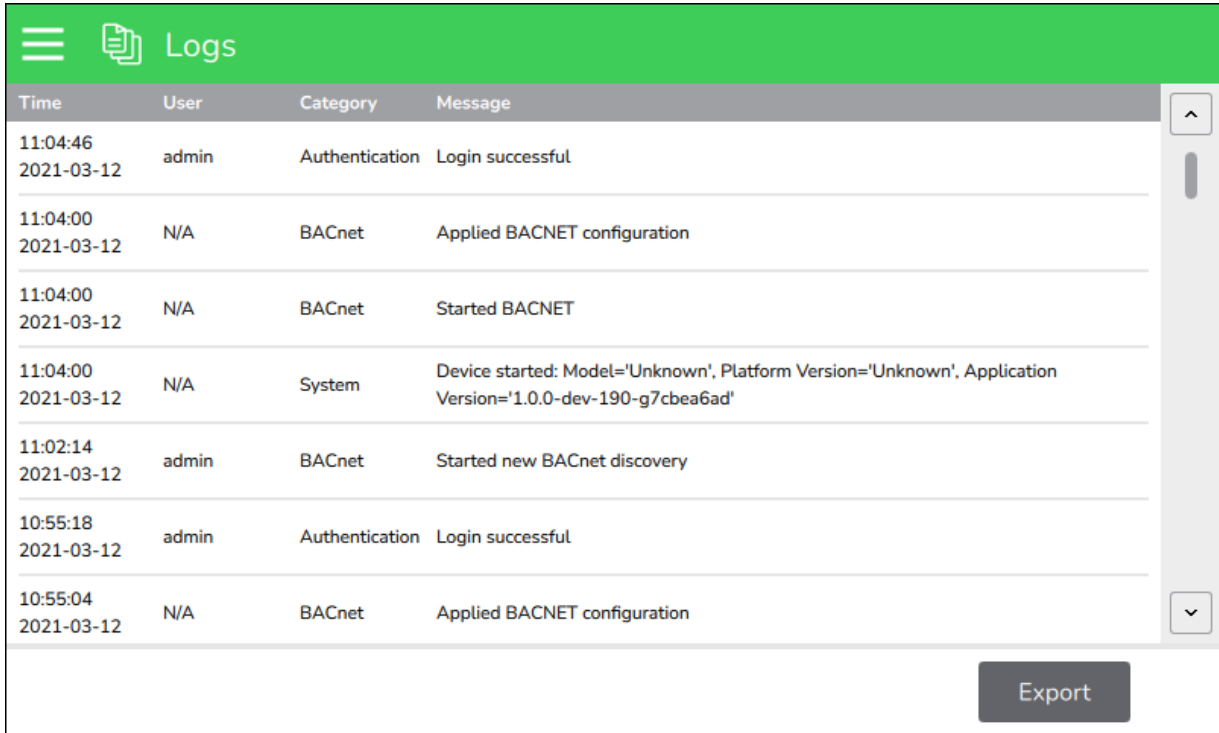


Figure: Logs screen

Table: Logs Screen

Component	Description
Time	Displays the date and time of the logged activity.
User	Displays the user name.
Category	Displays the type of activity.
Message	Displays the result of the activity.
Export	Tap to export the recorded log of activities to a USB key.

3.52 Operator Display Settings Screen

Use the **Operator Display Settings** screen to configure Operator Display and perform administrative tasks.

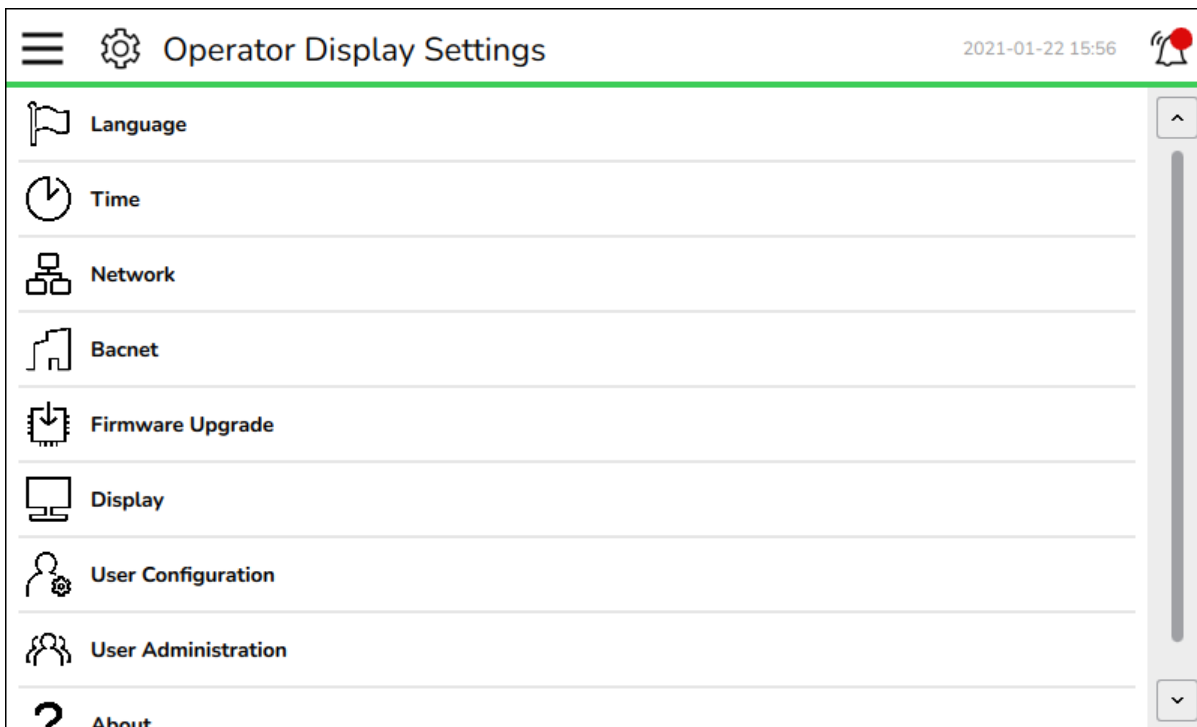


Figure: Operator Display Settings screen

Table: Operator Display Settings Screen

Component	Description
Language	Tap to open the Language settings screen where you select a language for menus and options. For more information, see section 3.53 “Language Setting Screen” on page 175. This task requires administrator permissions.
Time	Tap to open the Date / Time screen where you set the time and date. For more information, see section 3.54 “Date / Time Screen” on page 176.
Network	Tap to open the Network Setup screen where configure the IP network communication. For more information, see section 3.55 “Network Setup Screen” on page 177.

Continued

Component	Description
BACnet	Tap to open the BACnet Setup screen where you configure the BACnet/IP network communication. For more information, see section 3.56 “BACnet Setup Screen” on page 178.
Firmware Upgrade	Tap to open the Firmware Update screen where you upload a new version of the Operator display firmware. For more information, see section 3.57 “Firmware Update Screen” on page 180. This task requires administrator permissions.
Display	Tap to open the Display screen where you configure the backlight settings. For more information, see section 3.58 “Display Screen” on page 181. This task requires administrator permissions.
User Configuration	Tap to open the User Configuration screen where you configure the settings for all users. For more information, see section 3.59 “User Configuration Screen” on page 182. This task requires administrator permissions.
User Administration	Tap to open the User Administration screen where you create and delete users. For more information, see section 3.60 “User Administration Screen” on page 183. This task requires administrator permissions.
About	Tap to open the About screen where you view more information on Operator Display. For more information, see section 3.63 “About Screen” on page 186.

3.53 Language Setting Screen

Use the **Language Setting** screen to display the Operator Display menus and options in the preferred language.

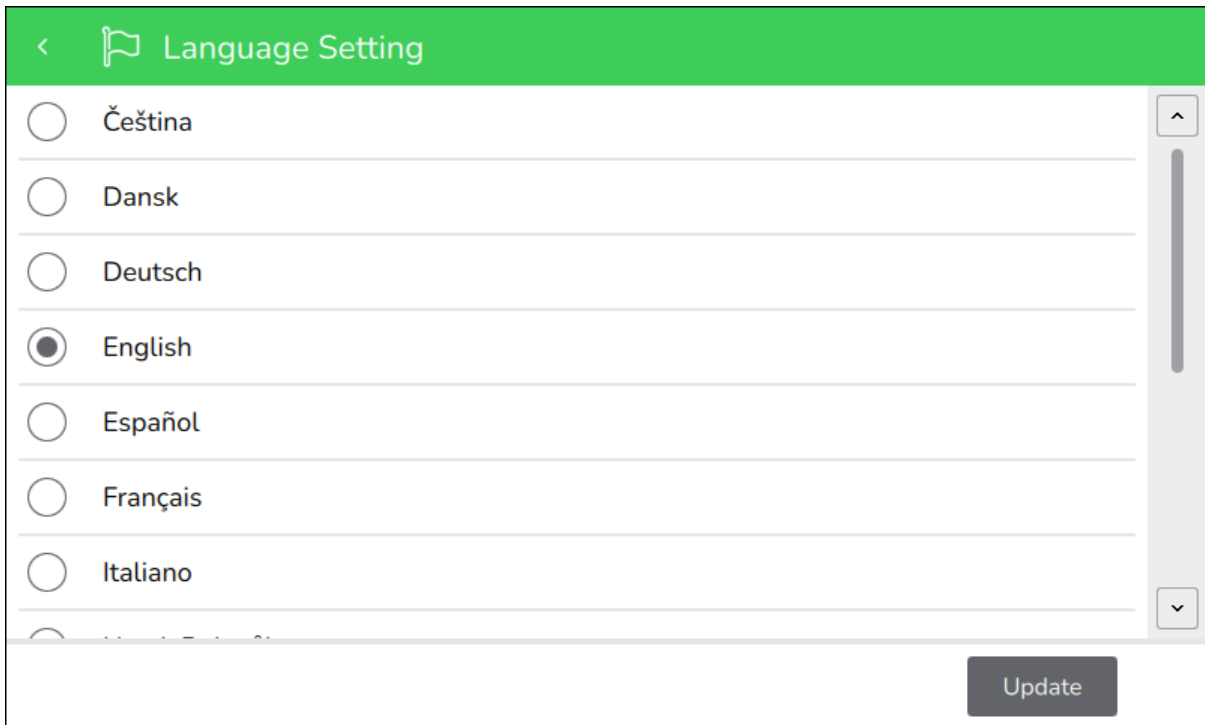



Figure: Language Setting screen

Table: Language Setting Screen

Component	Description
	Tap the radio button next to your preferred language.
Update	Tap to confirm your selection.

3.54 Date / Time Screen

Use the **Date / Time** screen to configure the date and time of Operator Display.

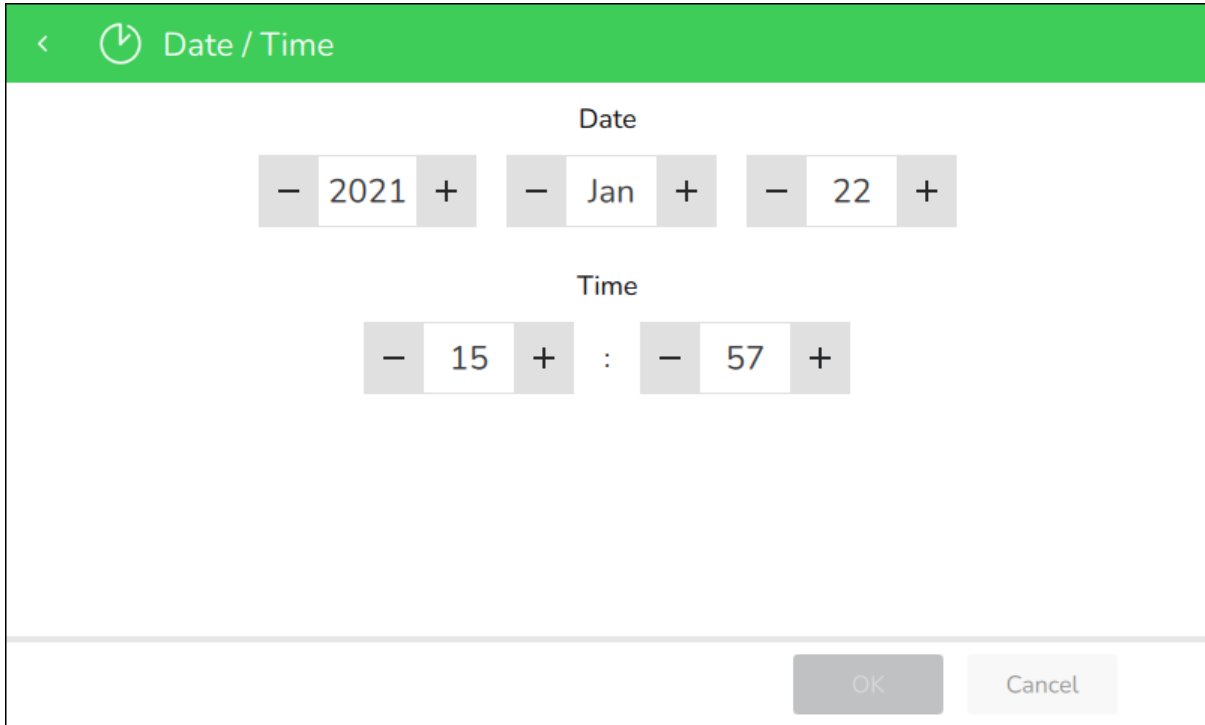


Figure: Date / Time screen

Table: Date / Time Screen

Component	Description
Date	Tap - or + to select the year, month, and date. For more information, see section 2.11 "Date and Time Handling" on page 39.
Time	Tap - or + to select the hour and minutes. For more information, see section 2.11 "Date and Time Handling" on page 39.

3.55 Network Setup Screen

Use the **Network Setup** screen to configure the IP network communication.

Figure: Network Setup screen

Table: Network Setup Screen

Component	Description
Static IP	Tap to use static IP address. This task requires administrator permissions.
DHCP	Tap to use a DHCP server. This task requires administrator permissions.
Connection state	Indicates if the network is online or offline.
IP address	Type the IP address. This task requires administrator permissions.
Subnet mask	Type the subnet mask. This task requires administrator permissions.
Gateway	Type the gateway. This task requires administrator permissions.

3.56 BACnet Setup Screen

Use the **BACnet Setup** screen to configure the BACnet/IP network communication.

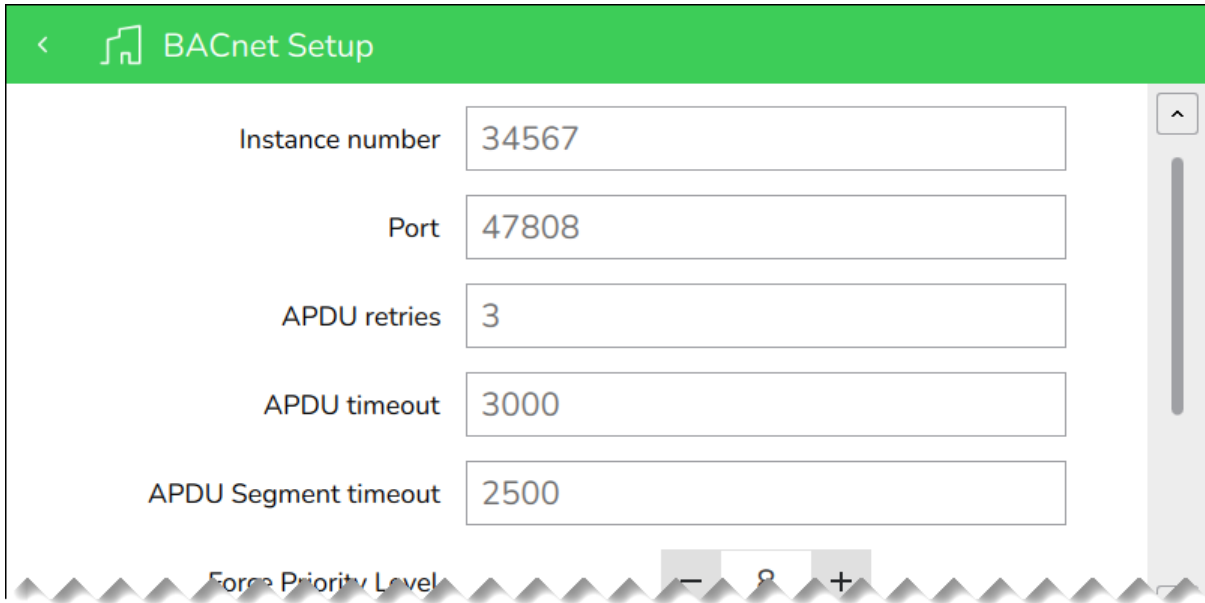


Figure: BACnet Setup screen

Table: BACnet Setup Screen

Component	Description
Instance number	Type the BACnet instance number. This task requires administrator permissions.
Port	Type the communication port number. This task requires administrator permissions.
APDU retries	Type the maximum number of times that an Application Protocol Data Unit shall be retransmitted This task requires administrator permissions.
APDU timeout	Type the time in milliseconds that the driver will wait for a response from a device after sending a request. This task requires administrator permissions.
APDU Segment timeout	Type the amount of time in milliseconds between the retransmission of an Application Protocol Data Unit segment This task requires administrator permissions.

Continued

Component	Description
Force Priority Level	<p>Tap + or - to configure the priority level at which the force actions will be applied. For more information, see section 2.25 “Value Editing” on page 58.</p> <p>This task requires administrator permissions.</p>
Time master	<p>Tap to determine if Operator Display sets the time for all its connected devices.</p> <p>This task requires administrator permissions.</p>
Device name	<p>Type a name unique to this device.</p> <p>This task requires administrator permissions.</p>
Device description	<p>Type a description unique to this device.</p> <p>This task requires administrator permissions.</p>

3.57 Firmware Update Screen

Use the **Firmware Update** screen to upload a new version of the firmware to the Operator Display.

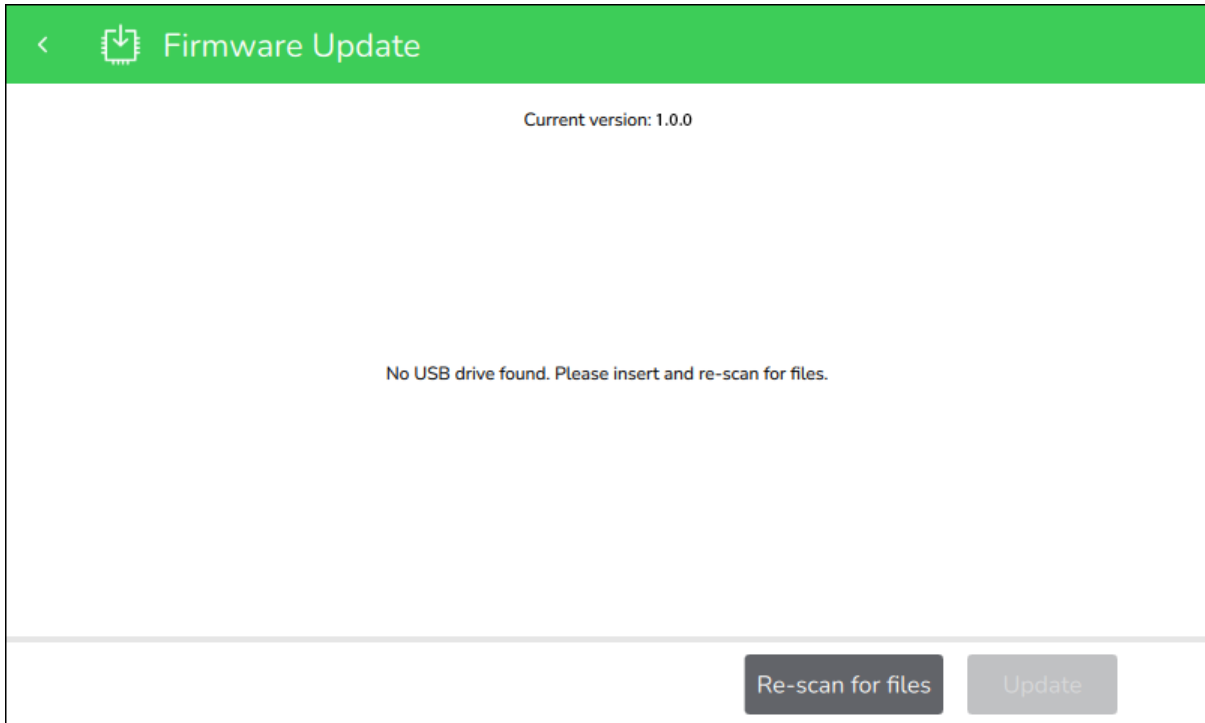


Figure: Firmware Update screen

Table: Firmware Update Screen

Component	Description
Current version	Displays the version of the firmware currently installed on the Operator Display.
Re-scan for files	Tap to start scanning the USB key for valid firmware files.
Update	Tap to install the selected firmware file.

3.58 Display Screen

Use the **Display** screen to configure the backlight settings.

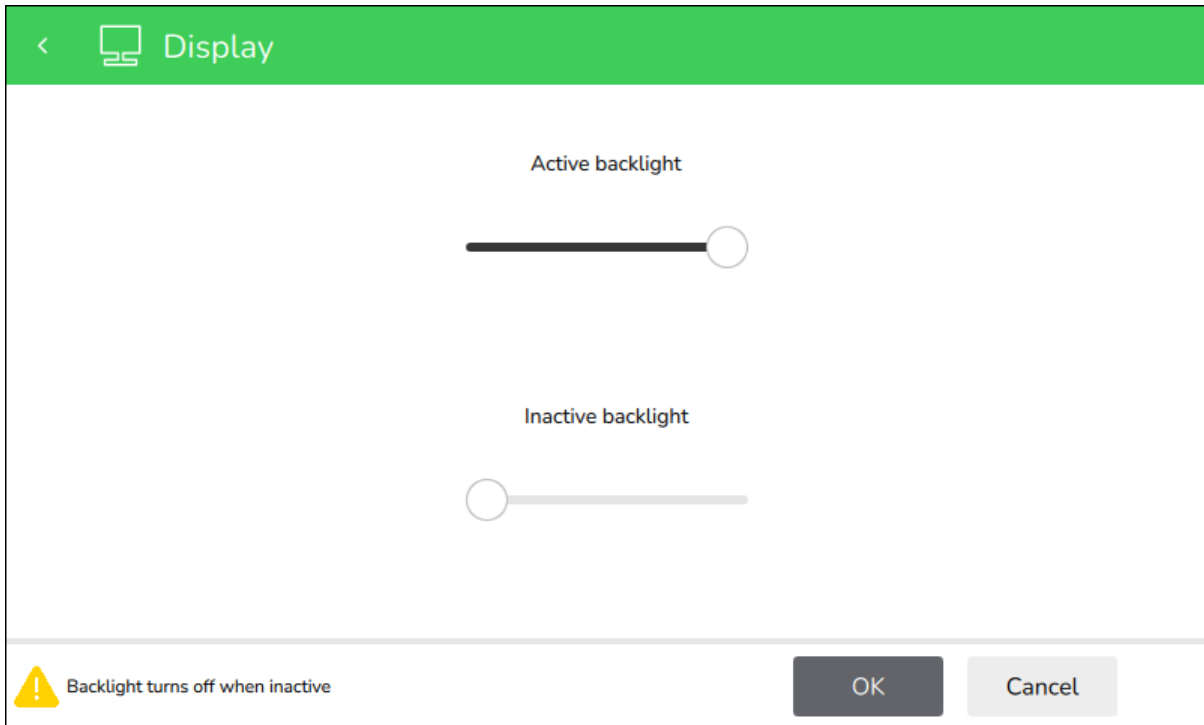


Figure: Display screen

Table: Display Screen

Component	Description
Active backlight	Drag the slider to select the preferred light level when you are using Operator Display.
Inactive backlight	Drag the slider to select the preferred light level when you are not using Operator Display. TIP: Drag the slider all the way to the left to make the backlight turn off when your not using Operator Display.

3.59 User Configuration Screen

Use the **User Configuration** screen to configure the settings for all users on this Operator Display.

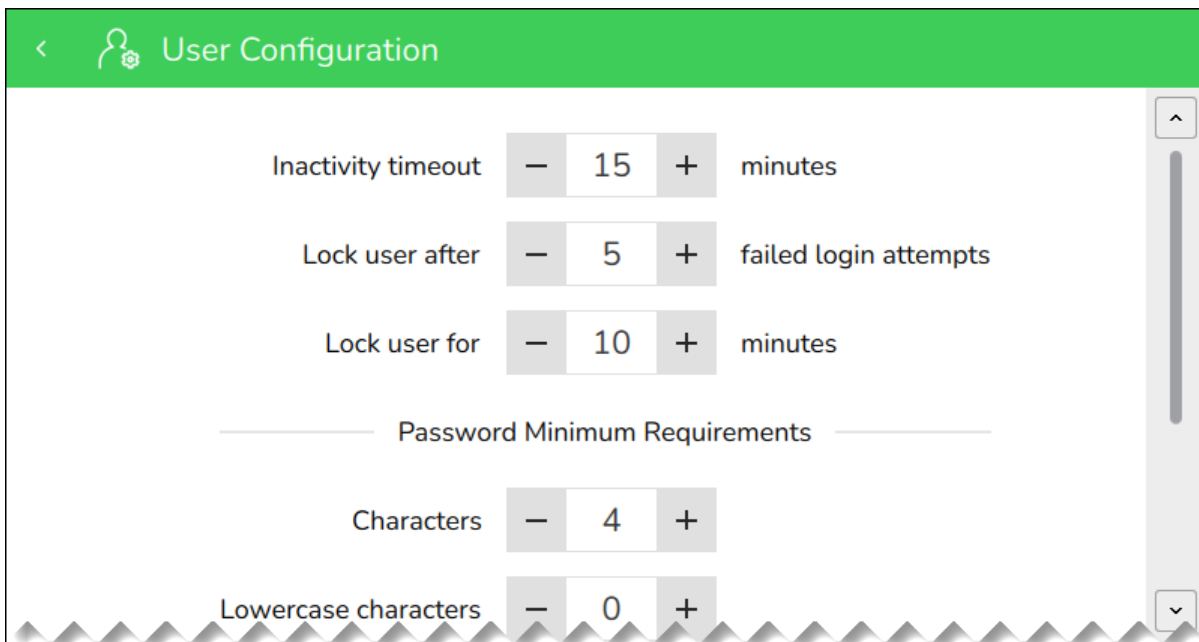


Figure: User Configuration screen

Table: User Configuration Screen

Component	Description
Inactivity timeout	Tap - or + to edit the number of minutes of the inactivity timeout.
Lock user after	Tap - or + to edit the number of failed login attempts before the user is locked.
Lock user for	Tap - or + to edit the number of minutes during which the user is locked.
Characters	Tap - or + to edit the minimum number of characters required in passwords.
Lowercase characters	Tap - or + to edit the minimum number of lowercase characters required in passwords.
Numeric characters	Tap - or + to edit the minimum number of numeric characters required in passwords.
Special characters	Tap - or + to edit the minimum number of special characters required in passwords.

3.60 User Administration Screen

Use the **User Administration** screen to display and edit the list of user accounts on this Operator Display.

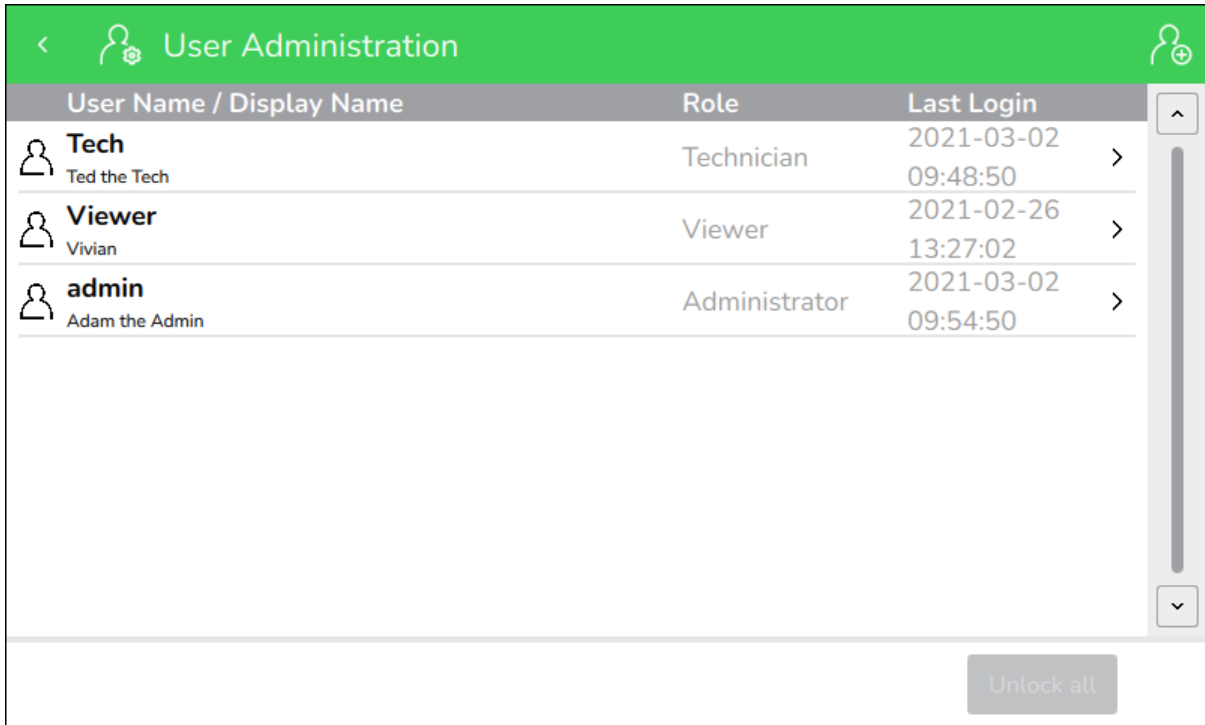



Figure: User Administration screen

Table: User Administration Screen

Component	Description
User Name / Display Name	Displays the unique user and display names.
Role	Displays the user role (Administrator, Technician, or Viewer).
Last Login	Displays the date and time of the last user login.
	Tap to open the Create User screen where you create a new user account. For more information, see section 3.61 "Create User Screen" on page 184.
Unlock all	Tap to unlock all the user accounts on this Operator Display and allow them to interact with devices.

3.61 Create User Screen

Use the **Create User** screen to create a new user account on this Operator Display.

The screenshot shows the 'Create User' screen. It features a green header bar with a back arrow, a user icon, and the text 'Create User'. Below the header, there are three input fields: 'User name', 'Display name', and 'Role'. The 'User name' and 'Display name' fields have red borders and are followed by two yellow warning icons with the text 'Minimum number of characters: 3' and 'No spaces allowed' (for 'User name') or 'No leading, trailing or consecutive spaces allowed' (for 'Display name'). The 'Role' field is a dropdown menu with 'admin' selected and a double arrow icon. At the bottom right, there is a grey 'Next' button.

Figure: Create User screen

Table: Create User Screen

Component	Description
User name	Type a unique user name.
Display name	Type a unique display name.
Role	Tap to select a user role. For more information, see section 2.17 “User Account Administration” on page 45.

3.62 Create Password Screen

Use the **Create password for** screen to assign a unique password to the new user.

Figure: Create password for screen

Table: Create Password for Screen

Component	Description
Password	Type a unique password. For more information, see section 2.2 “User Account Handling” on page 27.
Confirm password	Type the password a second time for validation.

3.63 About Screen

Use the **About** screen to display more information on Operator Display.

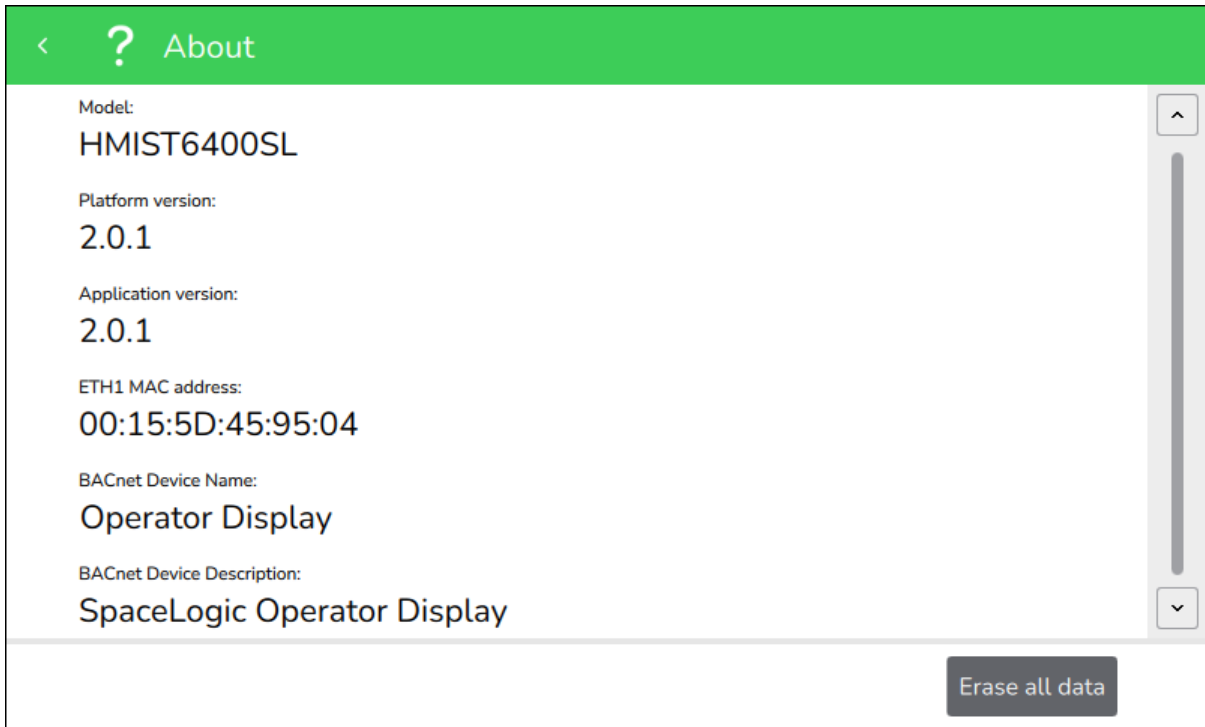


Figure: About screen

Table: About Screen

Component	Description
Model	Displays the Operator Display part number.
Platform version	Displays current platform version number.
Application version	Displays the current firmware version number.
ETH1 MAC address	Displays the MAC address for the Ethernet interface.
BACnet Device Name	Displays the device name defined in the BACnet Setup screen. For more information, see section 2.8 “Configuring the BACnet/IP Network Communication” on page 35.
BACnet Device Description	Displays the device description defined in the BACnet Setup screen. For more information, see section 2.8 “Configuring the BACnet/IP Network Communication” on page 35.

Continued

Component	Description
Erase all data	Tap to erase the device list, logs, and users from the Operator Display. The only data remaining will be the firmware version and time setting. This task requires administrator permissions.

4 Troubleshooting

Topics

All the Administrator Passwords Have Been Lost
Network Unavailable
The Operator Display Is Not Starting
Firmware Upgrade Failure

4.1 All the Administrator Passwords Have Been Lost

All the administrator passwords have been lost on the Operator Display.

4.1.1 Solutions

Recover Operator Display to remove all data and create new users. This operation clears the device list, logs, and users. For more information, see section 2.15 “Recovering Operator Display (Factory Reset)” on page 43.

<i>NOTICE</i>
LOSS OF DATA Export the logs you want to keep. Failure to follow these instructions can result in loss of data.

4.2 Network Unavailable

You are having trouble connecting Operator Display to the network and interacting with devices.

4.2.1 Solution

Ensure that the Ethernet cable is properly connected to the ETH1 port of Operator Display.

If Operator Display is on network but still having trouble interacting with devices:

- Check the Network configuration:
 - If Static make sure the IP, netmask and gateway are correctly configured.
 - The IP are not hidden by other device netmasks.
 - Netmasks are used to help ensure a device only sees network traffic from specific IP ranges.
 - If going through a gateway. make sure it is the right one.
- Check the BACnet configuration:
 - It is using the correct port.
 - Is has a unique ID within the BACnet network.

4.3 The Operator Display Is Not Starting

The Operator Display is not starting. This may be happening because the device lost power during a firmware upgrade.

4.3.1 Solution

Ensure that the proper firmware is installed on the Operator Display by reinstalling the latest firmware version by performing a device recover. For more information, see section 2.15 “Recovering Operator Display (Factory Reset)” on page 43.

<i>NOTICE</i>
LOSS OF DATA Recover Operator Display only if it is not accessible or when decommissioning Operator Display. Failure to follow these instructions can result in loss of data

4.4 Firmware Upgrade Failure

The Operator Display cycles between "Upgrade from Udisk failed! (Err 6)" and "TFTP upgrade failed! Err(9)", and beeps three times on each failure. The USB key contains the wrong files or was not properly formatted.

NOTICE

LOSS OF DATA

Ensure that the Operator Display power supply is not interrupted during the firmware upgrade process.

Failure to follow these instructions can result in loss of data.

4.4.1 Solutions

The solutions are listed in order: the solution most likely to fix the problem is listed first. Work through each solution until the problem is resolved.

- Ensure that the USB key is properly formatted.
- Copy the latest version of the firmware file to the USB key.
- Upgrade the firmware once more. For more information, see section 2.14 "Upgrading the Firmware" on page 42.

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