Equipment Touch App

User Guide



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Important changes are listed in **Document revision history** at the end of this document.

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What is the Equipment Touch App?

The Equipment Touch App allows you to connect an Android or iOS phone or tablet to one of the following controllers to view or change its property values, schedule equipment, view trends and alarms, and more, without having to access the system's server.

Firmware compatibility

- ExecB
- FWEX

Hardware compatibility

- i-Vu® Open Link
- AppController
- Fan Coil Open
- MPC Open XP
- RTU Open
- TruVu controllers[1]
- UC Open
- UC Open XP
- UPC Open
- Unit Vent Open
- VAV Zone Single Duct
- VAV Zone Fan Terminal
- VVT Bypass
- VVT Zone
- WSHP Open
- W2W Open

[1] The iOS version of the App only works with TruVu controllers because they are the only controllers that support a Wi-Fi adapter.

The Equipment Touch App can be downloaded from the Google Play™ store to a tablet or phone with Android v7 or later operating system, or the Apple App Store for iOS versions v14 or later. The app has been tested on the following devices:

Tablets:

- Samsung Galaxy Tab Active 8
- Samsung Galaxy Tab3V
- Nexus 7
- Nexus 9
- Nexus 10
- iPad Pro 12.9-Inch

Phones:

- Samsung Galaxy S5
- Nexus 6
- MotoX-A
- LG – LM G7 ThinQ
- Google Pixel 7 pro
- iPhone 11 Pro max
- iPhone 12 Pro
- iPhone 13
- iPhone 14

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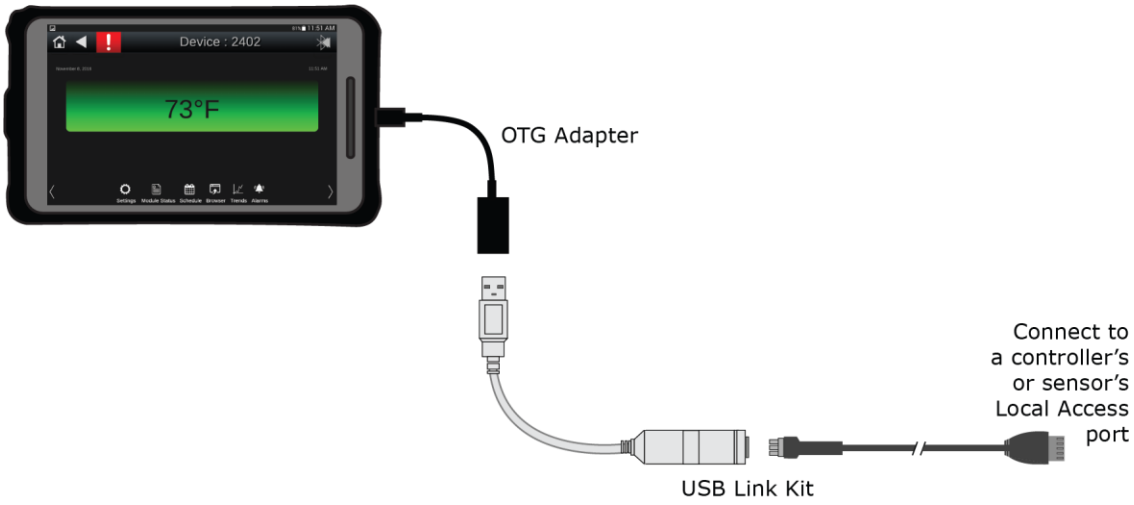
To connect to a controller

PREREQUISITES

- Android tablet or phone
- iPhone or iPad
- Controller Driver
  - ExecB: v6-00-082 or later
  - FWEX: 104 driver or later, 107 or later required for Wi-Fi
- Connect the controller using Rnet, Ethernet, or Wi-Fi.

Communication Method	Compatible Devices	Connector Required
Rnet	Android	OTG Adapter
		USB Link Kit
Ethernet	Android	USB-Ethernet Adapter
	iOS	
Wi-Fi	Android	USB-W Wireless Adapter
	iOS	

Rnet Connection



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Wi-Fi Connection



NOTES

- Carrier recommends that you do not connect the device running the Equipment Touch App to a controller that has an Equipment Touch installed on its Rnet. Connecting both devices could cause communication issues because the two devices have the same address on the Rnet.
- The iOS version of the app is available only with Wi-Fi or Ethernet communication support.

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To start the Equipment Touch App

On your mobile device, tap the **Equipment Touch** icon  to start the app. Then select a connection method to connect to the app.

Rnet

1 Connect your Android device to the Rnet port via a USB link kit.

2 Launch the app and select **USB connection** from the **Device List**.

Ethernet

1 Turn off all other connection types (Wi-Fi, mobile data, Bluetooth) on the mobile device.

2 Connect your mobile device to the Ethernet port via a USB-Ethernet adapter.

3 Launch the mobile app and select **Ethernet connection** from the **Device List**.

NOTES

- To verify your Ethernet connection, ensure the IP of the mobile device is on the same network as the controller (169.254.1.XXX).
- Ethernet may require as long as 15 seconds to establish the connection. During this time, a loader icon appears. If the connections are not successful, the loader tries to connect for 15 seconds, and then stops.

Wi-Fi

1 Plug the USB-W into the USB port on the controller.

2 On your mobile device, navigate to **Settings** > **Wi-Fi Settings** (Android and iOS).

3 Locate and select the network on the label on the top of the USB-W (network SSID).

4 Enter the password on the label on the USB-W.

5 After successful connection, launch the mobile app and select **Wi-Fi** from the **Device List**.

NOTE Wi-Fi connection status may take time to update.

NOTES

- The app is restricted to Landscape mode.
- For troubleshooting the Ethernet or Wi-Fi connection, use the **Device settings** and **Wi-Fi settings** options.
- For large touch files:
  1. Copy the file to the mobile device and select the connection channel (Wi-Fi, Ethernet).
  2. Browse to the touch file and select it for download.

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- On the **Device List** screen, you can touch:
  -  to access the Application Settings without connecting to the controller.
    See *Equipment Touch App screens* (page 6) for information on the Application Settings screen.
  -  to delete all screen files stored in your mobile device's cache.

If you have:

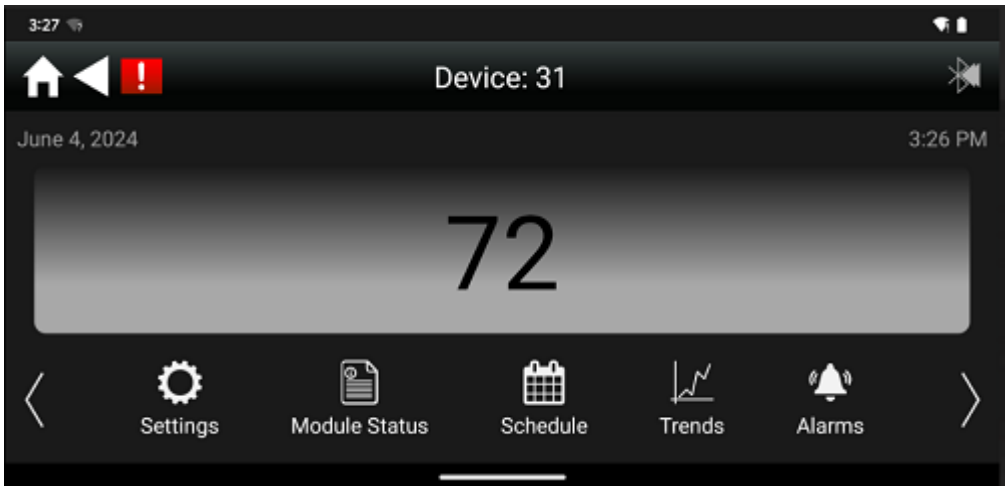
- No custom screens: The **System** screen appears. See *Equipment Touch App screens* (page 6).
- Custom screens: The **Loading** screen appears while the files load. See image below. After loading is complete, the **Home** screen appears.

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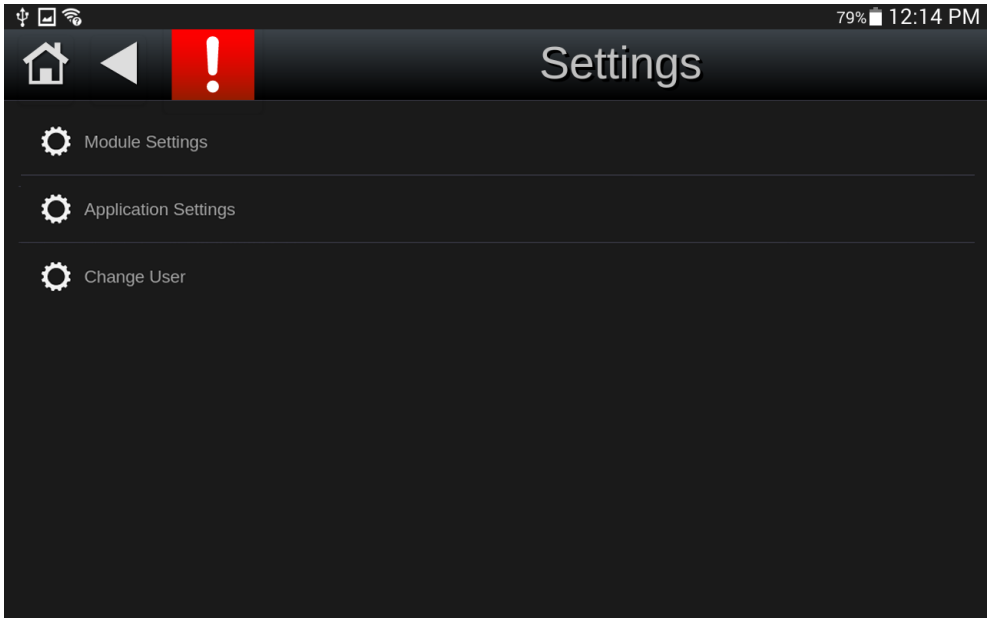
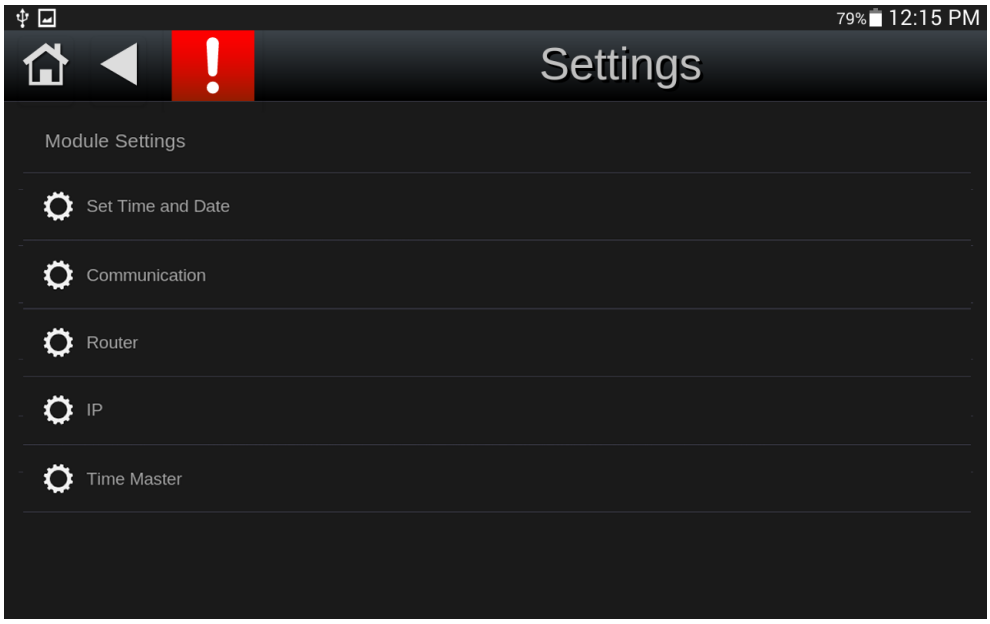
Equipment Touch App screens

The Equipment Touch App will display the system screens below as well as any custom-designed screens. System screens live in the app. To create custom screens you must have ViewBuilder v8.0 or later and the latest cumulative patch.

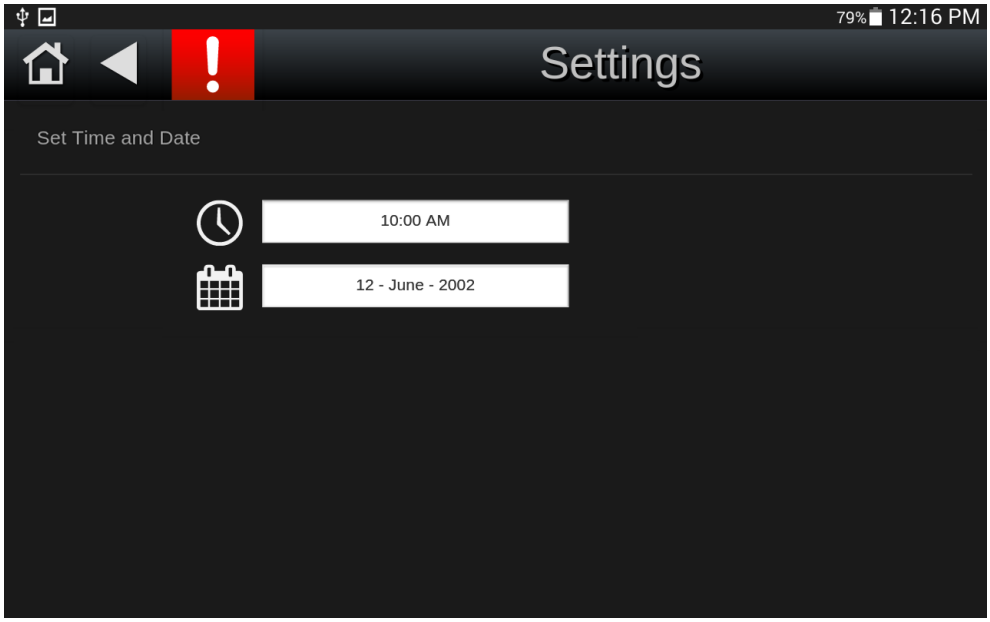
NOTE If you do not have custom screens you will not see any screens or buttons pertaining to module settings, schedules, trends, or alarms, and you will not be able to change the current user.

Screen name	Description
System	 Displays the BACnet device instance number, the controller's date and time, temperature read from the controller's prime variable, and zone color. Touch a button to jump to the **Settings**, **Module Status**, **Schedule**, **Trends**, or **Alarms** screen.
Local Access Browser	**NOTE** To access the Local Access Browser on mobile, launch a mobile web browser and navigate to 169.254.1.1.

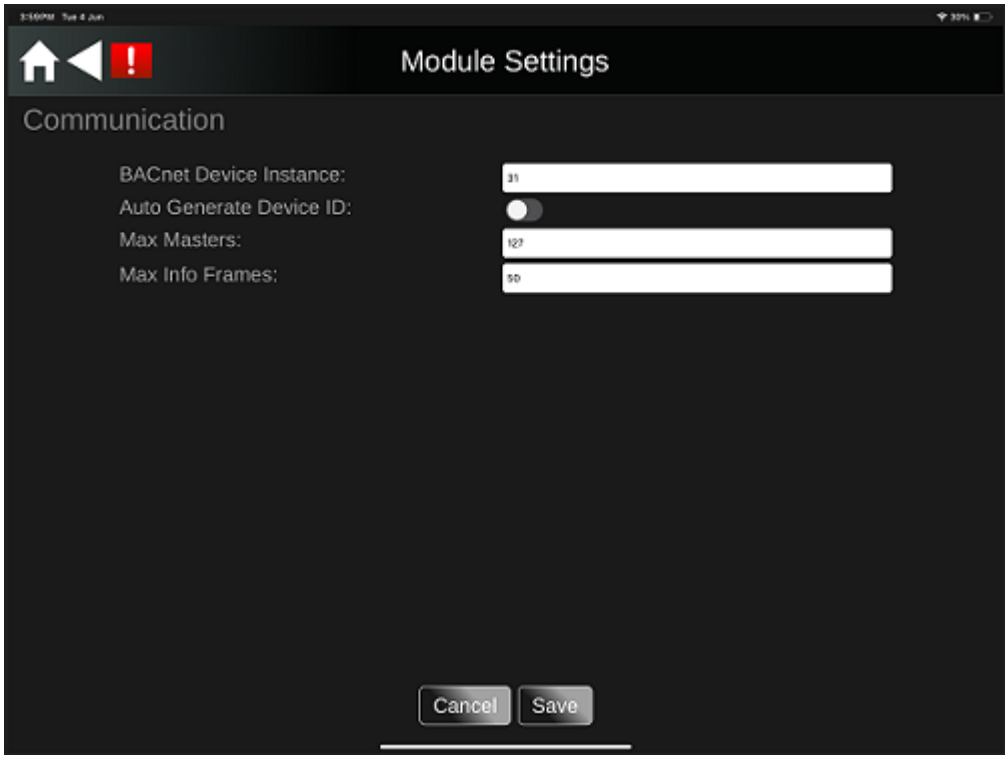
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Screen name	Description
Settings	 Touch an option to jump to **Module Settings**, **Application Settings**, or to change the current user.
Module Settings	 Touch an option to jump to the **Set Time and Date**, **Communication**, **Router**, **IP**, or **Time Master** screen.

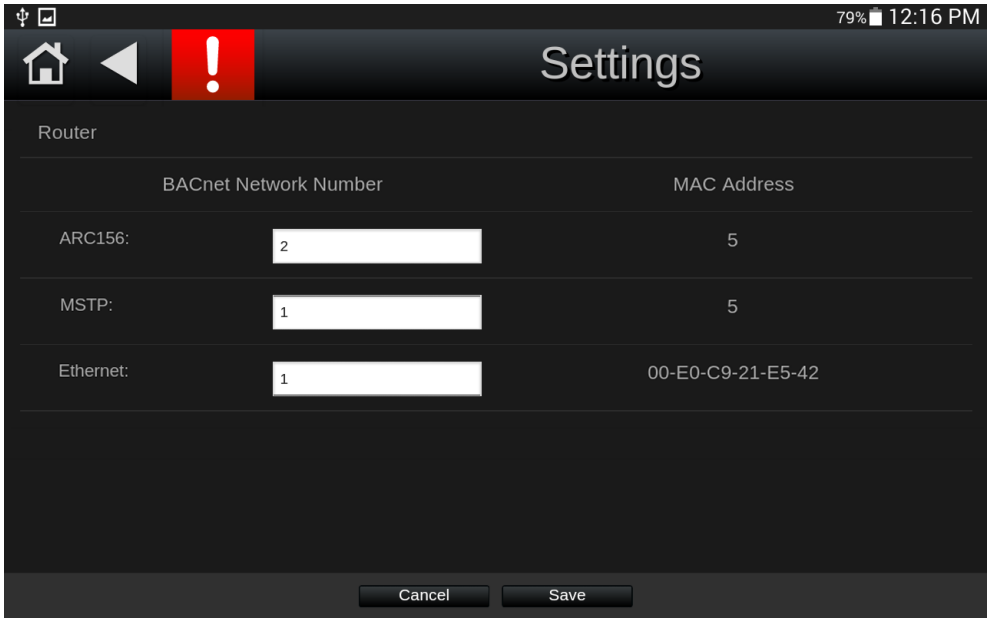
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Screen name	Description
Set Time and Date	 Touch the time or date field to edit it.

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Screen name	Description
Communication	 **NOTE** The example image above is ExecB. Lets you edit the controller's information described below. Touch a field to type in new information. **BACnet Device Instance** number **Auto Generate Device ID** – Turn Off or On. The following fields pertain to the controller's MS/TP network: **Max Masters** - Set this to the highest MAC address (up to 127) on the MS/TP network. If you later add a device with a higher address, you must change this field to that new address. **Max Info Frames** - Specifies the maximum number of information messages a controller may transmit before it must pass the token to the next controller. **CAUTION** Increasing this number allows the controller to transmit more messages while it has the token, but it also increases the overall time it takes for the token to pass through the network. • For a router, set this value to a high number such as 200. • In non-router controllers, use the following formula to calculate this value: [2 - (devices * (.002 + (80/baud))] / [(600/baud) * devices] = Max Info Frames For example, if the network has 15 devices at 19200 baud, Max Info Frames would be 4. **NOTE** You may need to increase the result of the formula for controllers that need to communicate many values to other devices. **NOTE** Communication settings for TruVu™ (FWEX) controllers should be set from the controller service pages. Access through a browser at 169.254.1.1.

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Screen name	Description
Router	

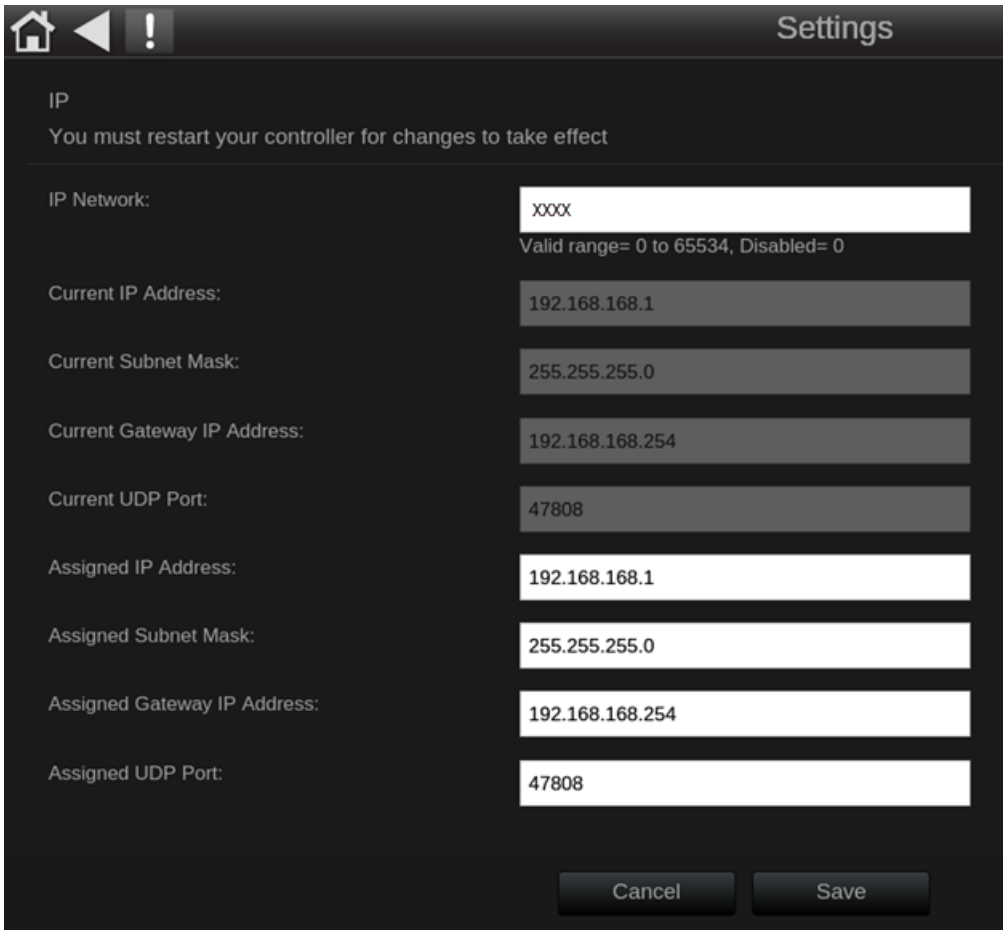
NOTE The example image above is ExecB.

Lets you view or edit the router's ARC156 or MS/TP network number. Touch a field to tap in the new number on the keypad.

NOTES

- BACnet Ethernet network support will be added in a future release.
- Router settings for TruVu™ (FWEX) controllers should be set from the controller service pages. Access through a browser at 169.254.1.1.

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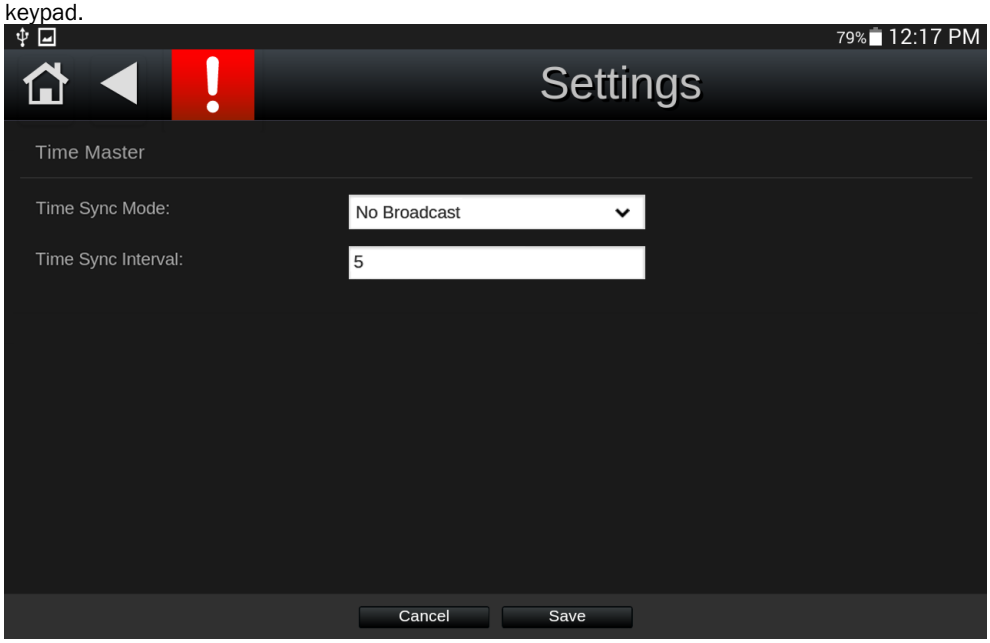
Screen name	Description
IP	Lets you view or edit network addresses and the UDP Port. Touch a field to tap in the new number on the keypad. **NOTE** **IP Network** is typically 1600. **ExecB Controllers** 

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Screen name	Description
	TruVu™ controllers  **NOTE** IP settings for TruVu™ (FWEX) controllers should be set from the controller service pages. Access through a browser at 169.254.1.1.

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Screen name	Description
Time Master	Lets you view or edit network addresses and the UDP Port. Touch a field to tap in the new number on the keypad.



If the system does not have a front-end, you should designate a controller to be the BACnet Time Master. If a controller will be the BACnet Time Master, this screen lets you configure how it sends time synchronization broadcasts.

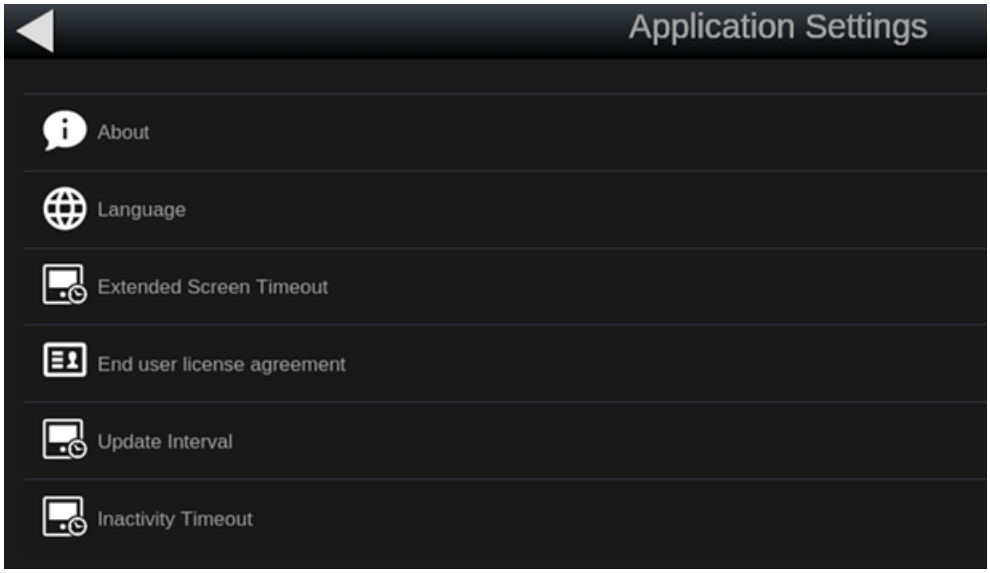
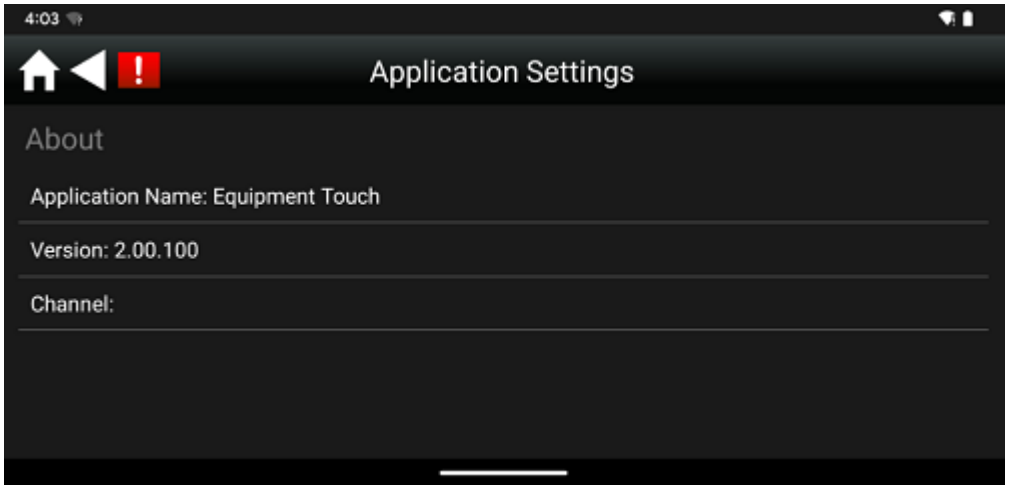
Time Sync Mode - Tap in the number below that represents your selection:

- **0 = No Broadcast** - The controller does not act as Time Master.
- **1 = Local Broadcast** - If it does not already exist, a BACnet address with network number and MAC address length both set to zero is added to the controller's **Time Synchronization Recipients** list found on the driver's **Device** page in the i-Vu® interface. The controller then sends time broadcasts only to controllers on its ARCnet or MS/TP network.
- **2 = Global Broadcast** - If it does not already exist, a global address with network number set to 65535 and MAC address length set to zero is added to the controller's **Time Synchronization Recipients** list found on the driver's **Device** page in the i-Vu® interface. The controller then sends time broadcasts to all its connected networks.

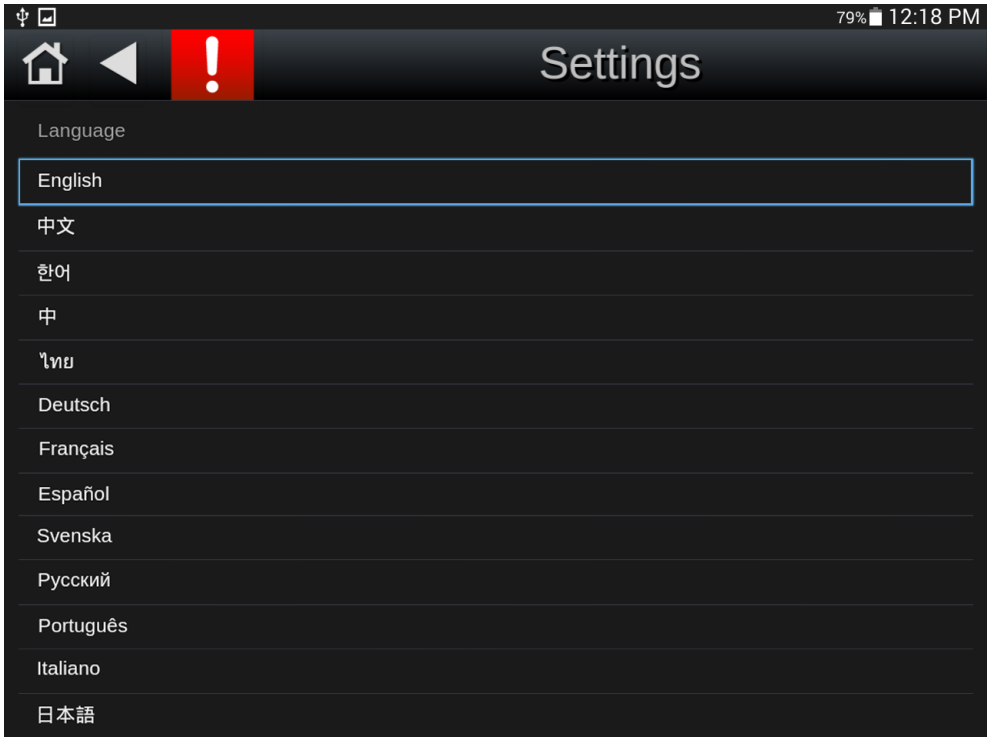
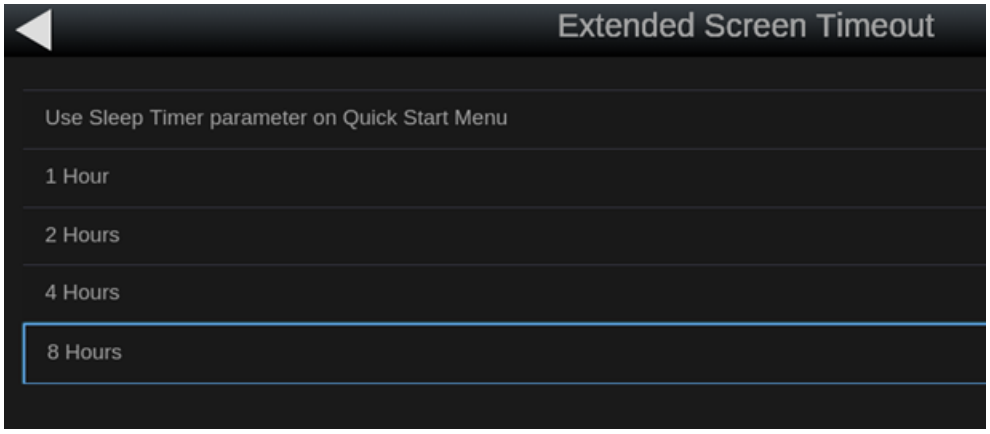
Time Sync Interval - Enter how often local or global time broadcast should be sent (1-9999 minutes). If **Time Sync Interval** is set to zero, no time sync messages are sent.

NOTE If the controller looks through its Time Synchronization Recipient List and finds an entry with MAC address length set to zero and network number set to 65535, the controller's BACnet Time Master mode is set for Global Broadcast. If there is no global broadcast entry in the recipient list, the controller then looks for a local broadcast address (MAC address length set to zero and network number set to zero or to the same network number as the module's). If such an entry is found, the BACnet Time Master mode is set for Local Broadcast. Otherwise, the mode defaults to Disabled/None.

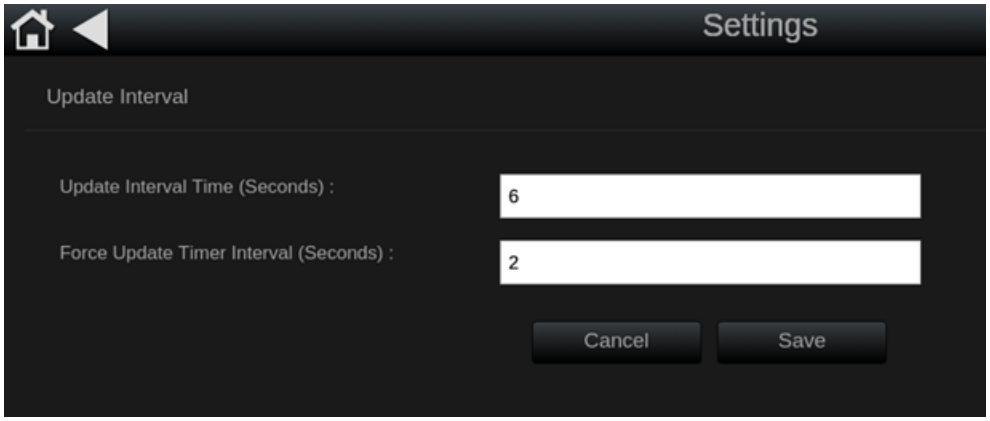
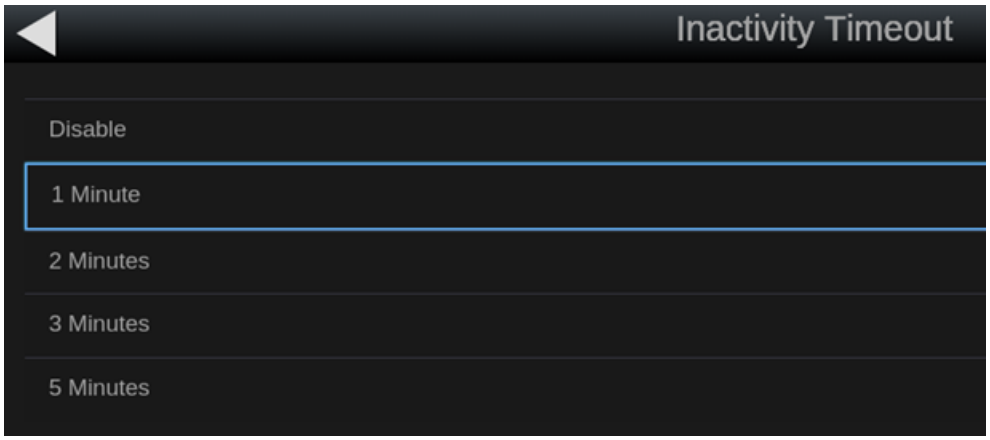
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Screen name	Description
Application Settings	 Lets you access information about the app, turn alarm sounds on or off, and select which language to use for the Equipment Touch App system screens. **NOTE** An alarm generates a sound only if set up in ViewBuilder to do so.
About	 Displays information about the Equipment Touch App.

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Screen name	Description
Language	 English Simplified Chinese Korean Traditional Chinese Thai German French Spanish Swedish Russian Portuguese Italian Japanese If optional languages were defined when the touchscreen file was created, this screen lets you select which language to use for Equipment Touch App system screens. If custom screens were included in the touchscreen file, they will display in the language that they were created in.
Extended Screen Timeout	 Allows you to select the time until the Equipment Touch App screen powers off, and the user is logged out.

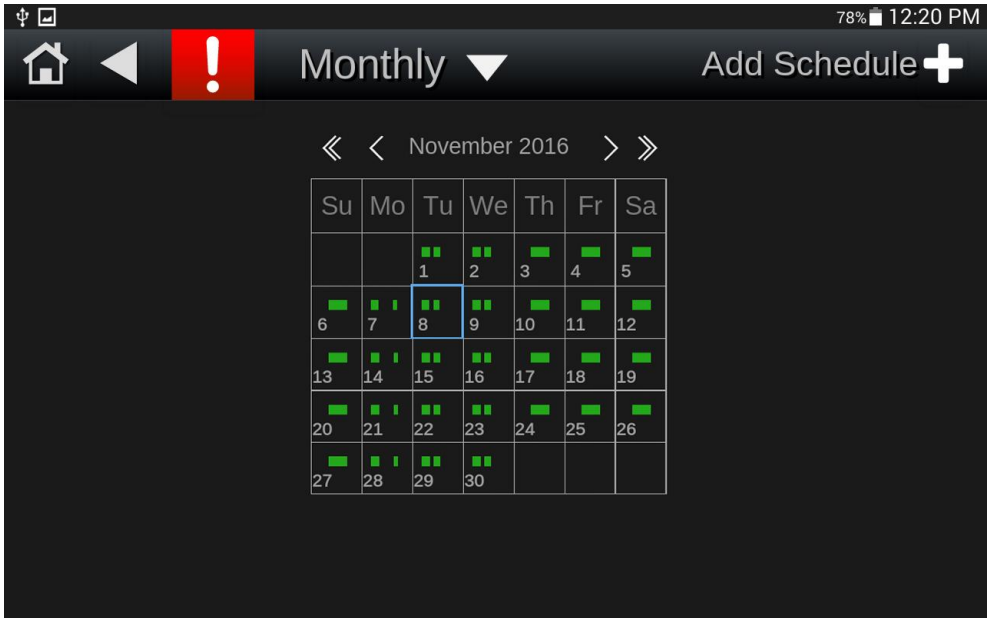
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Screen name	Description
Update Interval	 Automated Logic recommends leaving these values at the default settings that appear in the image above.
Inactivity Timeout	 Allows you to select the number of minutes of inactivity until the Standby screen appears and the user is logged out. If the Equipment Touch App screen is not accessed, the Standby screen remains until Screen Timeout. The Inactivity Timer can also be disabled.

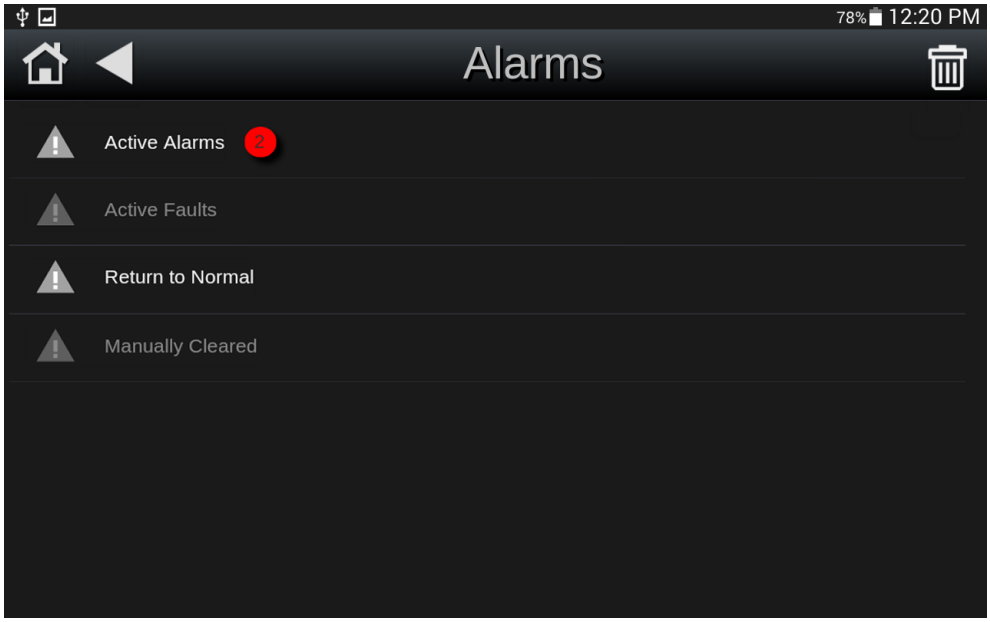
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Screen name	Description
Module Status	 Module Status provides information about the controller, its firmware, and network information and communication status, and error conditions.

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Screen name	Description
Schedule	 Lets you view, add, edit, or delete BACnet schedules in the controller. See *Viewing or creating schedules* (page 24).
Trends	 Lets you view trends for points that have trending enabled. See *Viewing trends* (page 22).

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Screen name	Description
Alarms	 Lets you view alarms from the controller. See *Viewing alarms* (page 20).

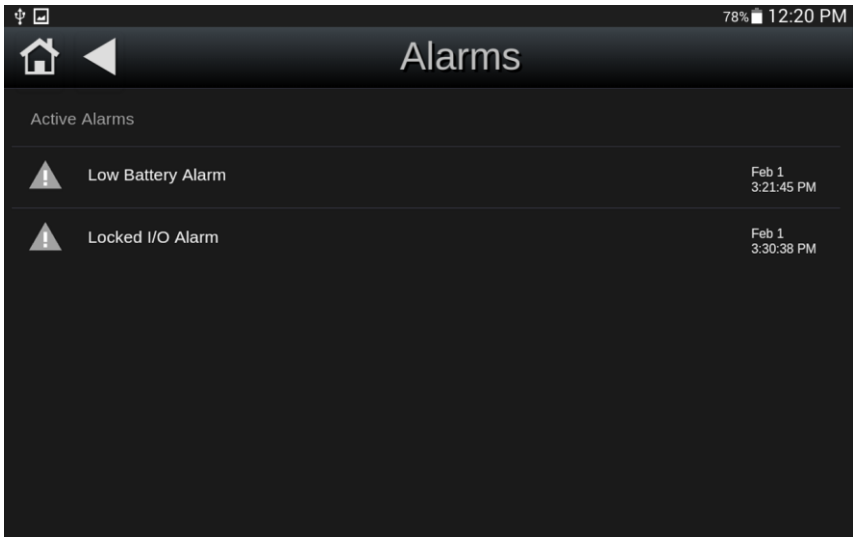
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Viewing alarms

- When the controller generates an alarm, the following actions occur in the Equipment Touch App:  turns red. The button remains red as long as Active Alarms or Active Faults exist.
- The alarm is added to the **Active Alarms** or **Active Faults** screen. See the table in the second bullet below.

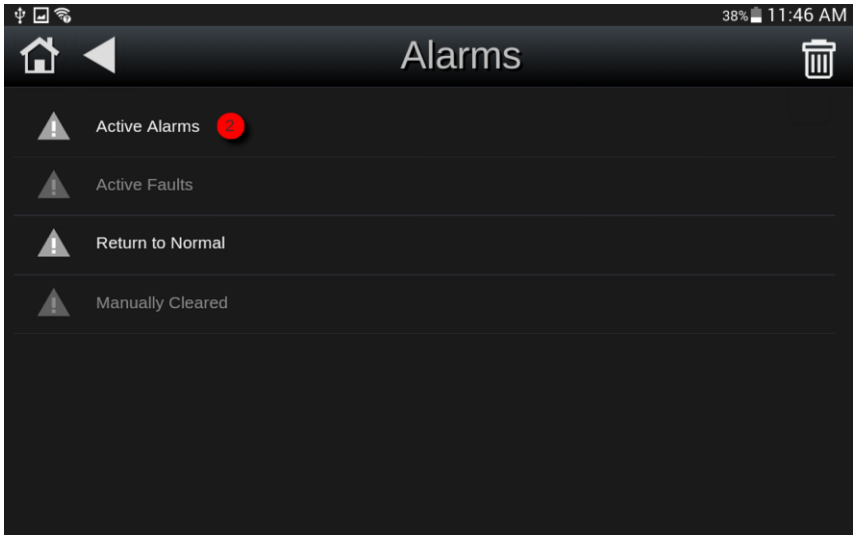
To view alarms:

- Touch  to see **Active Alarms.**



- Touch 

on the **System** screen to see current alarms.



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Touch...	To...
Active Alarms	See all alarms except those that are defined as Faults in the control program.
Active Faults	See alarms that are defined as Faults in the control program.
Return-To-Normal	See alarms that returned to a normal state.
Manually cleared	See alarms that you cleared using the **Clear Active** button.
	Delete all active alarms.

NOTE The Equipment Touch App can hold up to 100 alarms.

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Viewing trends

A controller can read and store point values for any point in the control program that has trending enabled. In the Equipment Touch App, you can view trend data for up to 4 points on a trend graph.

To view trends

Touch 

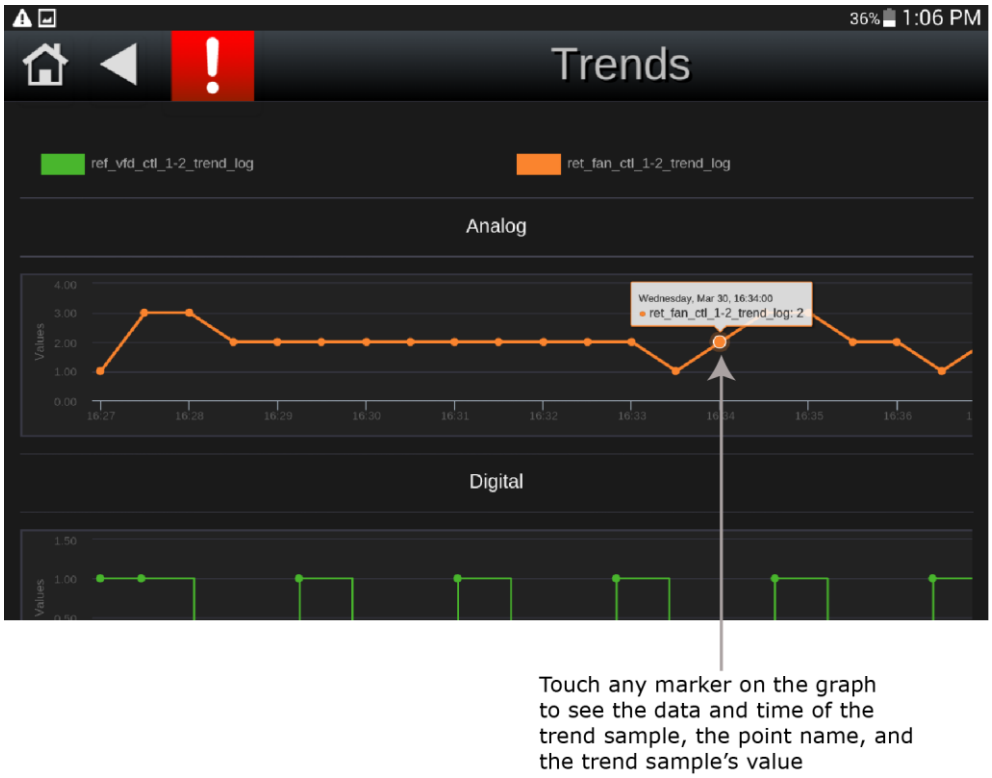
on the **System** screen. This screen shows any points in the control program that have trending enabled.



To view a single trend, touch a trend.

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To view multiple trends on a trend graph, long press on on any trend point to enable multiple selection. Then touch each point you want to see on the graph (up to 4 points) and touch **View Trends**.



Pinch-zoom the graph to zoom in and out. Touch **Reset zoom** to restore the graph to its original state.

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Creating or viewing schedules

To set up scheduling functionality

You can define BACnet schedules for each time clock microblock in the controller's control program(s).

To allow a user to create schedules in the Equipment Touch App:

1 In the i-Vu® or Field Assistant navigation tree, right-click the controller, and then select **Driver Properties**.

2 On the **Settings** tab, scroll down to **TouchScreen Control** and verify that **TouchScreen Schedule Edit Enable** is checked.

CAUTION If scheduling will be done by the Equipment Touch App, you should disable scheduling in the Equipment Touch App so that they do not overwrite each other's schedules. To disable scheduling, uncheck **TouchScreen Schedule Edit Enable**.

To create a schedule

1 Touch 

on the **System** screen.

2 If the controller has multiple control programs that have a time clock microblock, touch the schedule object that you want to add a schedule to.

3 Touch **Add Schedule**.

4 Touch the **Schedule Name** field, and enter a unique name.

5 Touch **Schedule Type**, and select one of the following:

- **ON Schedule** for an occupied period
- **OFF Schedule** for an unoccupied period that is to override an ON schedule. For example, a holiday schedule that is to override a weekly schedule.

6 ON Schedule only–Select one of the following:

- **Normal** for a typical occupied period
- **Override** for a occupied period that is to override an OFF schedule.

7 Select one of the following:

Select...	To use the schedule...
Dated	For a specified period of time between a start and end date. For example, 7:00 am to 7:00 pm every day between July 1st and July 22.
Weekly	Every week on the specified days. For example, every Monday through Friday, 8:00 am to 5:00 pm.
Continuous	Continuously between 2 specified dates/times, For example, a non-stop schedule that starts June 1st at 12:00 am and ends August 31st at 11:50 pm.

8 Touch **Save Schedule** when finished.

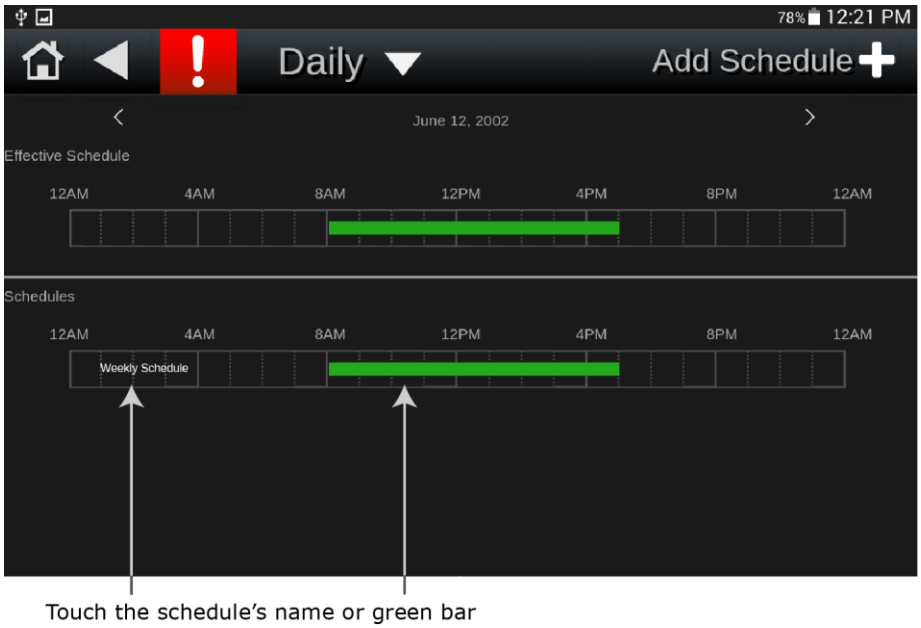
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To add multiple periods to a weekly schedule

A weekly schedule can have multiple periods. For example, the first period could be every Monday through Friday, 8:00 am to 5:00 pm. The second period could be every Monday through Wednesday, 6:00 pm to 8:00 pm.

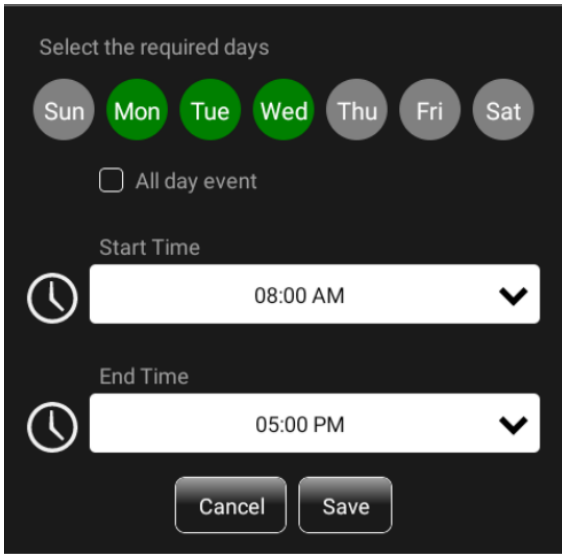
1 Following the instructions above, create a weekly schedule for the first period. The schedule name is saved as **Weekly Schedule**.

2 In the **Daily** view, touch **Weekly Schedule** or the green bar beside it.



3 Touch **Add Period**.

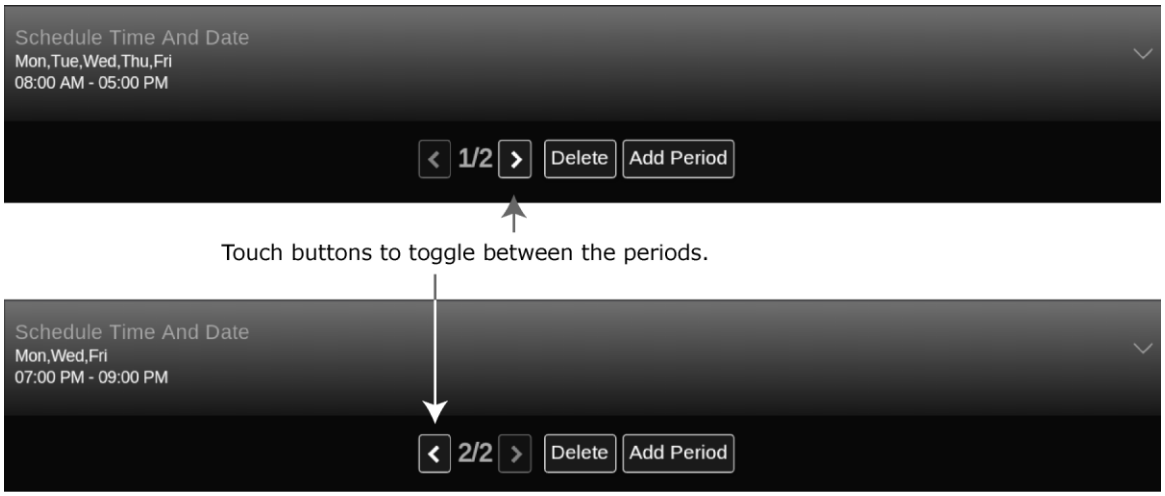
4 Select the criteria for the new period.



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5 Touch **Save**.

You can touch the buttons shown below to toggle between the two schedules.



NOTE You can also add a period to a Weekly Schedule by touching **Add Schedule** and adding another weekly schedule. When you save it, it is appended to the existing weekly schedule as a separate period.

To view schedules

1 Touch 

on the **System** screen.

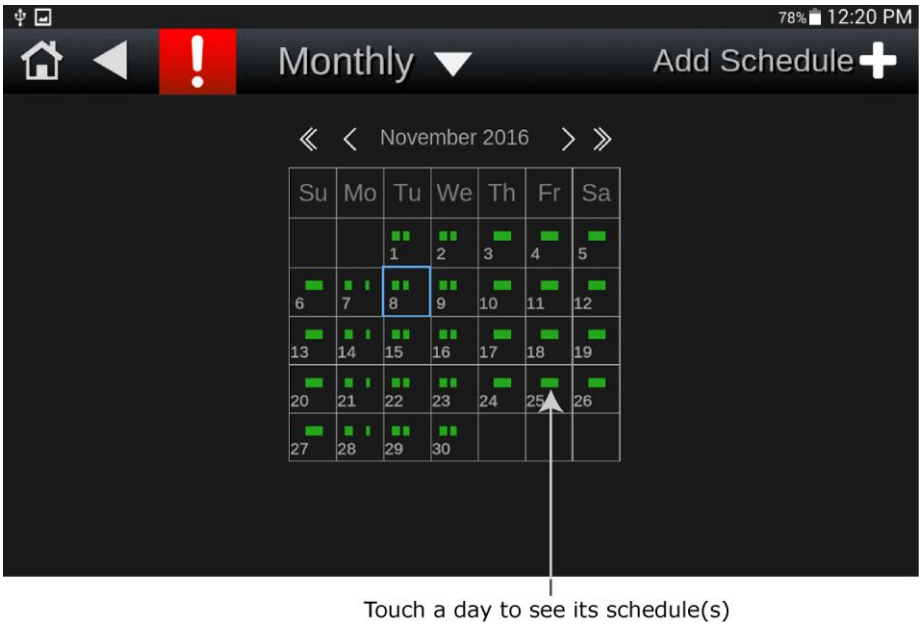
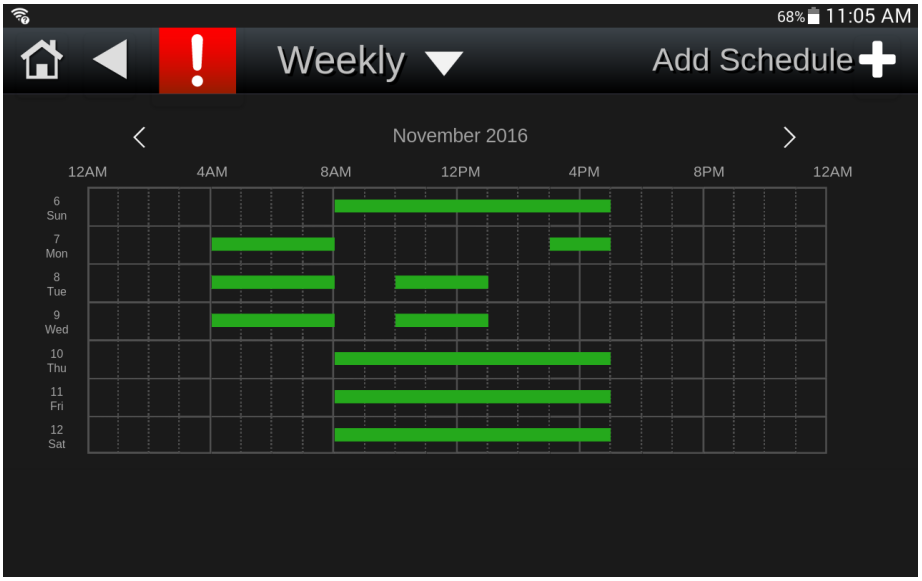
2 If the controller has multiple control programs that have a time clock microblock, touch the schedule object that you want to see.

3 The calendar shows the schedules for the current month. Touch 

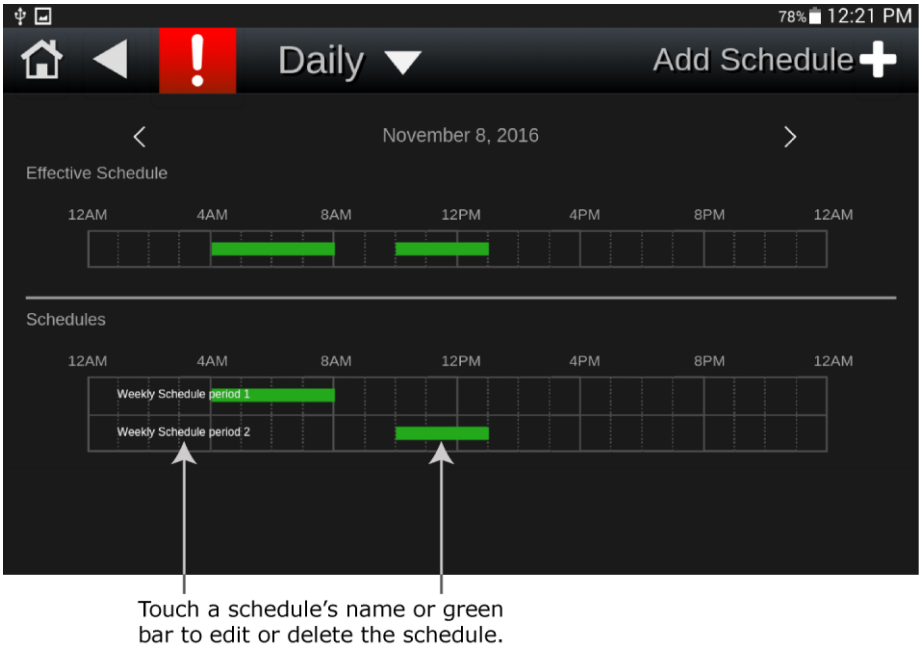
to change the view to **Weekly** or **Daily**.

TIP Quickly tap the screen 3 times with one finger to zoom in.

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Select...	To see...
Monthly (default view)	Which days in the current month have schedules (indicated by green boxes). 
Weekly	Which days of the week shown have schedules (indicated by green bars). 

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Select...	To see...
Daily	The **Effective Schedule** is the combined result of the day's schedule(s).  See *To create a schedule* (page 24) for field descriptions.

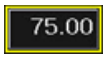
NOTES

- If you see **Schedule editing disabled** at the top of the screen instead of **Add Schedule**, scheduling is being done through another application and is disabled for the Equipment Touch App.
- You cannot edit a schedule's **Type** (Dated, Weekly, Continuous), its **Priority** (Normal or Override), or whether the schedule is an **ON Schedule** or **Off Schedule**. If you need to change any of these settings, delete the schedule and then make a new one.

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Forcing values (CCN points only)

If a point has been set up to allow users to force the value, tap the value on the screen to open a dialog box that allows you to set the value you want. Only points created with CCN microblocks can be set to be forced. A forced point appears surrounded by a yellow border.

Forced	Unforced
	

You can force:

- Numeric values such as temperature

  NOTE When editing a numerical value, **Auto** releases the force back to the systems automatic setting.

- Binary values such as check boxes or text toggles

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Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
9/9/24	To create a trend group	New topic	X-AE-NS-R
	To view trends	Updated procedure for single/multiple trends	
	To add multiple periods to a weekly schedule	Updated image for step 4	
	Equipment Touch app screens	Removed Browser references Updated images Added IP image for TruVu™ controllers Added Extended Screen Timeout Added Update Interval Added Inactivity Timeout	
	To connect to a controller	Removed USB communication method Added iOS as compatible device to Ethernet method	
	What is the Equipment Touch App?	Updated Android requirement to v7	
11/7/23	What is the Equipment Touch App?	Added compatibility notes	C-TS-RD-E-RD
	Multiple	Removed Gen5 support	
	Equipment Touch app screens	Updated requirements for custom designed screens	X-TX-RD-E-RB
	Viewing alarms	Removed Audible Alarms	
	To set up scheduling functionality	Updated scheduling source	
10/18/23	What is the Equipment Touch App?	Added iOS, hardware, firmware compatibility	X-PM-DS-R-DS
	To connect to a controller		
	To start the Equipment Touch App	Added iOS note	
1/20/23	What is the Equipment Touch App?	Added NGZN controller support and additional tested devices.	X-AE-DS-E-DS
	To connect to a controller	Added connections options	
	To start the Equipment Touch App	Additions to the Device List	
	Equipment Touch App screens	Added GEN5 IP screen, Extended Screen Timeout, Update Interval, Inactivity Timeout New image for Application Settings	X-AE-EE-O-EE
	Forcing values	New topic	
3/2/20	Cover	Updated logo	X-D
6/18/19	To connect to a controller	Corrected "USB to USB adapter" to "OTG adapter"	X-T-JG-O-RD
4/24/18	Equipment Touch App Screens	Corrected image of Module Status screen	C-D
10/20/17	Equipment Touch App screens	Changed required patch from latest cumulative to "Patch to enable Custom Equipment Touch screens in VeiwBuilder".	X-D

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