



.AV Framework™ Software for MPC3

Operations Guide

Crestron Electronics, Inc.

Original Instructions

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

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.AV Framework™ Software for MPC3

Introduction

Crestron® .AV Framework™ software is a web-based management solution that is used to deploy scalable Crestron enterprise room solutions without requiring any programming. The .AV Framework configuration utility is accessible from most web browsers and provides the following functions:

- Select sources and displays.
- Configure device control for Blu-ray Disc® players, cable TV boxes, and video servers.
- Add a compatible touch screen to generate the GUI for a single or multiple display systems.
- Add a compatible button panel to control single display systems.
- Add a Cresnet® network occupancy sensor for additional system automation (MPC3-302 only).
- Connect to Crestron Fusion® software to monitor and control basic room data, system power, source selection, and room scheduling.
- Customize the .AV Framework user experience with additional components, custom functionality, and corporate logos.

.AV Framework is compatible with the MPC3 series of 3-Series® media presentation controllers. Connect a supported Crestron A/V auto-switcher device or a virtual switcher device (via a compatible flat panel display or projector) to the MPC3 device for complete configuration and control.

This document provides instructions for setting up the .AV Framework program on the MPC3 device, as well as an overview of the setup screens and functions provided in the .AV Framework configuration utility.

The following supplemental documents are available at www.crestron.com/manuals:

- For more information on installing the MPC3-101 and MPC3-102, refer to the MPC3-101/MPC3-102 Quick Start (Doc. 8424).
- For more information on installing the MPC3-201, refer to the MPC3-201 Quick Start (Doc. 7876).
- For more information on installing the MPC3-302, refer to the MPC3-302 Quick Start (Doc. 8249).

Product Features

Refer to the following chart to determine the devices and product features that are compatible with .AV Framework for the MPC3-101, MPC3-102, MPC3-201 and MPC3-302.

.AV Framework Product Feature Chart

FEATURE CLASS	FEATURE	MPC3-101	MPC3-102	MPC3-201	MPC3-302
AirMedia® Presentation Gateway	AM-100	Yes	Yes	Yes	Yes
	AM-101	Yes	Yes	Yes	Yes
	AM-200	Yes	Yes	Yes	Yes
	AM-300	Yes	Yes	Yes	Yes
Button Panel	MP-B10 (Ethernet)	Yes	Yes	Yes	Yes
	MP-B10 (Cresnet)	Yes	Yes	Yes ¹	Yes
	MP-B20 (Ethernet)	Yes	Yes	Yes	Yes
	MP-B20 (Cresnet)	Yes	Yes	Yes ¹	Yes
Cable Caddy	TT-100 (Cresnet)	Yes	Yes	Yes ¹	Yes
	TT-100 (USB)	Yes	Yes	No	No
	TT2-100 (Cresnet)	Yes	Yes	Yes ¹	Yes
	TT2-100 (USB)	Yes	Yes	No	No
Switcher	HD-MD-510-4K-C-E	Future release	Future release	Future release	Future release
	HD-MD-200-C-E	Yes	Yes	Yes	Yes
	HD-MD-200-C-1G-E	Yes	Yes	Yes	Yes
	HD-MD-300-C-E	Yes	Yes	Yes	Yes
	HD-MD-400-C-E	Yes	Yes	Yes	Yes
	HDI-MD-400-C-2G-E	Yes	Yes	Yes	Yes
	AM-200	Yes	Yes	Yes	Yes
	AM-300	Yes	Yes	Yes	Yes
	Virtual Switcher	Yes	Yes	Yes	Yes
Occupancy Sensor	GLS-OIR-C-CN	Yes	Yes	Yes ¹	Yes
	GLS-ODT-C-CN	Yes	Yes	Yes ¹	Yes
Endpoint	DM-RMC-4K-100-C	No	No	No	No
	DM-RMC-4K-10-C-1G	No	No	No	No
	DM-RMC-200-C	No	No	No	No
	DM-RMC-SCALER-C	No	No	No	No
	DM-RMC-4K-SCALER-C	No	No	No	No
	DM-TX-201-C	No	No	No	No
	DM-TX-401-C	No	No	No	No
	DM-TX-4K-100-C-1G	No	No	No	No
	DM-TX-4K-202-C	No	No	No	No
	DM-TX-4K-302-C	No	No	No	No
	DM-TX-201-C-G	No	No	No	No

(Continued on following page)

.AV Framework Product Feature Chart (continued)

FEATURE CLASS	FEATURE	MPC3-101	MPC3-102	MPC3-201	MPC3-302
Endpoint (continued)	DM-RMC-4KZ-100-C	No	No	No	No
	DM-RMC-4KZ-SCALER-C	No	No	No	No
	DM-TX-4KZ-202-C	No	No	No	No
	DM-TX-4KZ-302-C	No	No	No	No
Room Sign	SSW/SSC-PCB	Yes	Yes	Yes ¹	Yes
Control Modules	DIN-CEN-CN-2	Yes	Yes	Yes	Yes
	C2N-IO	Yes	Yes	Yes ¹	Yes
	CEN-IO-COM-102	Yes	Yes	Yes	Yes
	CEN-IO-IR-104	Yes	Yes	Yes	Yes
	CEN-IO-RY-104	Yes	Yes	Yes	Yes
Touch Screen	TSW-752	Yes	Yes	Yes	Yes
	TSW-1052	Yes	Yes	Yes	Yes
	TSW-760	Yes	Yes	Yes	Yes
	TSW-1060	Yes	Yes	Yes	Yes
	Web XPanel	Yes	Yes	Yes	Yes
Drivers	Display/Projector	Yes ¹	Yes	Yes ¹	Yes
	Cable Box	Yes ¹	Yes	Yes ¹	Yes
	Blu-ray Disc Player	Yes ¹	Yes	Yes ¹	Yes
	Video Server	Yes ¹	Yes	Yes ¹	Yes
	Driver Portal Search	Yes	Yes	Yes	Yes
	Driver Portal Import	Yes	Yes	Yes	Yes
Projector Screen	Relay Control	Yes with CEN-IO-RY-104	Yes with CEN-IO-RY-104	Yes with CEN-IO-RY-104	Yes with CEN-IO-RY-104
Volume Control	DSP	No	No	No	No
	Display/Projector	Yes	Yes	Yes	Yes
Displays	Number of Displays	1	1	1	1
	External Amplifier Support	Yes	Yes	Yes	Yes
Sources	Max Number of Sources	4 (HD-MD) or more	4 (HD-MD) or more	4 (HD-MD) or more	4 (HD-MD) or more
Crestron Fusion	Scheduling	Yes	Yes	Yes	Yes
	Monitoring/Reporting	Yes	Yes	Yes	Yes
Customization	Custom Logo Graphic	Yes	Yes	Yes	Yes
	Screensaver	Yes	Yes	Yes	Yes
	Start Button	Yes	Yes	Yes	Yes
	Custom Start Button Text	Yes	Yes	Yes	Yes
	Help Page Customization	Yes	Yes	Yes	Yes
Video Routing	Manual (from Touch Screen)	Yes	Yes	Yes	Yes
	Automatic (Based on Sync)	No	No	No	No
	Audio Breakaway	No	No	No	No
Authentication	Multiple Login	Yes	Yes	Yes	Yes
Other	Automatic Load/ Update of Touch Screen Project	Yes	Yes	Yes	Yes

¹ Requires an external Crestron control module gateway.

Setup

.AV Framework for MPC3 can be installed and configured using the Firefox®, Internet Explorer®, Microsoft Edge®, Safari® browser, or Chrome® web browsers.

Load the Program Files

The .AV Framework program for MPC3 can be downloaded from the MPC3 device product pages or from the **Software & Firmware** section at <https://www.crestron.com/Support>.

The zipped package file includes the following components:

NOTE: The program and project files must be used as a version-matched pair and cannot be edited or customized.

- The .AV Framework program file (AVFPlugin[Version#].cpz)
- The touch screen project file (AVF_UI_1050_[Version#].vtz)

To load the .AV Framework .cpz file to the MPC3 device:

NOTE: The MPC3 device must be installed and accessible on the network prior to loading the .AV Framework program. Use Crestron Toolbox™ software to access firmware updates and to modify the Ethernet settings and the IP table of the MPC3 device. For more information, refer to the embedded Crestron Toolbox help file.

1. Download and extract the contents of the .AV Framework for MPC3 zipped package file to a location on the network that can be accessed by the device.
2. Use the Device Discovery tool in Crestron Toolbox to discover the MPC3 device and its IP address on the network.
3. Select the MPC3 device from the discovered devices list.
4. Click **Program** on the device settings panel to display the **Program** dialog box.
 - a. Select an empty program slot using the drop-down menu.
 - b. Click **Browse** to locate and select the .cpz file.
 - c. Click **Send** to send the .cpz file to the MPC3 device.

The touch screen project .vtz file can be loaded to a supported touch screen or to XPanel as a custom project. The touch screen project provides a user interface for controlling the .AV Framework system.

- For more information on loading the .vtz file to a supported touch screen, refer to the touch screen documentation at www.crestron.com/manuals.
- For more information on loading the .vtz file to XPanel, refer to "XPanel" on page 57.

Access the Configuration Utility

Configure settings for the .AV Framework system using the web-based configuration utility. The configuration utility is accessible from a web browser.

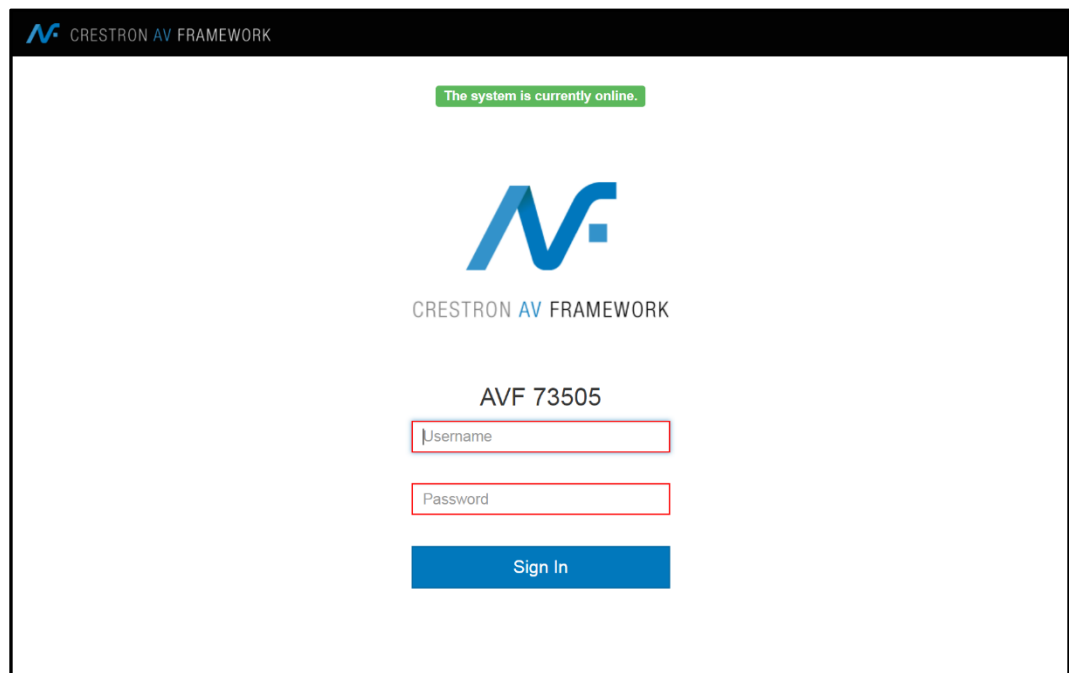
To access the configuration utility for the .AV Framework system:

NOTE: Prior to accessing the configuration utility, ensure that all devices in the .AV Framework system have been updated to their latest firmware versions.

1. Open a supported web browser.
2. Enter the IP address or the hostname of the MPC3 device in the browser URL field, appending ":8008" to the IP address or hostname ("*xxx.xxx.xxx.xxx:8008*").

The .AV Framework login page is displayed.


.AV Framework Login Page

The screenshot shows the login interface for the .AV Framework system. At the top, a black header bar contains the CRESTRON AV FRAMEWORK logo and name. Below the header, a green status message states "The system is currently online." The main content area features the large blue .AV Framework logo, followed by the text "CRESTRON AV FRAMEWORK". Below this, the identifier "AVF 73505" is displayed. There are two input fields: "Username" and "Password", both with red borders. A blue "Sign In" button is positioned below the password field.

3. Enter the default username and password ("admin") in the **Username** and **Password** text fields.
4. Click **Sign In**.

Upon successful login, the **AV Framework Dashboard** page (the utility's default page) is displayed.

AV Framework Dashboard Page

 CRESTRON AV FRAMEWORK Sign Off

The system is currently online.

Status ▾ Configure ▾ Users ▾

AV Framework Dashboard

Ethernet Information

Host Name:	MPC3-3-7F9BC268	IP Address:	172.30.16.54
Subnet Mask:	255.255.255.0	Default Router:	172.30.16.1

[Device Mgmt](#)

Equipment

Name	Model	Status
Panel	TSW-760	Offline
Panel	Webx	Offline

[Dashboard](#) [AVF Log](#)

Add an A/V Switcher

A compatible A/V switcher must be added to the .AV Framework system before any other devices can be added or edited. .AV Framework for MPC3 supports two types of A/V switchers:

- Crestron auto-switcher devices (AM-200, AM-300, HD-MD-200-C-E, HD-MD-200-C-1G-E, HD-MD-300-C-E, HD-MD-400-C-E, and HDI-MD-400-C-2G-E)
- Virtual switchers (via supported flat panel displays or projectors)

NOTE: Only one A/V switcher can be added per MPC3 device.

To add an A/V switcher to the .AV Framework system:

1. Select **Device Management** from the **Configure** drop-down menu. The **Device Management** page is displayed.

Device Management Page

The screenshot shows the 'Device Management' page within the 'CRESTRON AV FRAMEWORK' interface. At the top, there's a status bar with 'The system is currently online.' and a 'Sign Off' button. Below this are navigation tabs: 'Status', 'Configure', and 'Users'. The main content area is titled 'Device Management' and contains a table with the following data:

Name	Type	Model	Communication	Status	Action
Panel	Touch Screen	TSW-760	IP ID: 03	Offline	
Panel	Touch Screen	Webx	IP ID: 04	Offline	

Below the table is an 'Add Device' button. At the bottom of the page, there are four tabs: 'System', 'Device Mgmt', 'A/V Routing', and 'Config Mgmt', with 'Device Mgmt' currently selected.

2. Click **Add Device**. The **Add New Device** dialog box is displayed.

Add New Device Dialog Box

The screenshot shows the 'Add New Device' dialog box. It has a title bar with a close button (X). Inside, there are three input fields: 'Device Type' (a dropdown menu), 'Display Name' (a text field), and 'Model' (a dropdown menu). A 'Save' button is located at the bottom right of the dialog box.

3. Enter the following information for the A/V switcher:
 - a. Select **Switcher** from the **Device Type** drop-down menu.
 - b. Enter a descriptive name for the switcher in the **Display Name** text field.
 - c. Select the switcher model from the **Model** drop-down menu.
 - d. For a Crestron auto-switcher device, enter the IP address of the switcher on the network in the **IP** text field.
4. Click **Save**.

The A/V switcher is added to the list of devices on the **Device Management** page. Other devices can now be added to the room.

Device Management Page (Switcher Added)

The screenshot displays the Crestron AV Framework interface. At the top, a status bar indicates "The system is currently offline, [Activate](#) or [Revert](#) configuration." Below this, there are tabs for "Status", "Configure", and "Users". The main section is titled "Device Management" and contains a table with the following data:

Name	Type	Model	Communication	Status	Action
Panel	Touch Screen	TSW-760	IP ID: 03	Offline	Edit Delete
Panel	Touch Screen	Webx	IP ID: 04	Offline	Edit Delete
AVSwitch	Switcher	HD-MD-300-C-E	IP: 199.199.199.199	N/A	Edit Delete

Below the table is an "Add Device" button. At the bottom of the page, there is a navigation bar with four tabs: "System", "Device Mgmt", "A/V Routing", and "Config Mgmt".

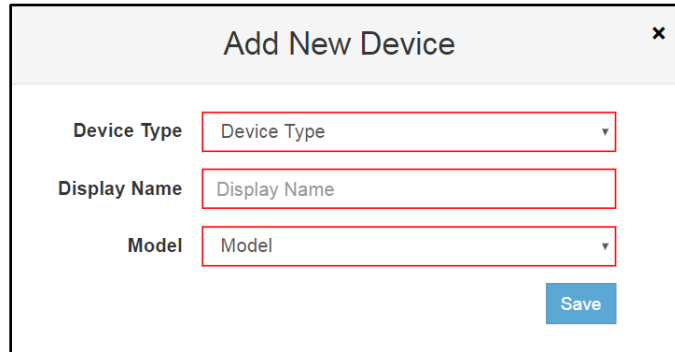
If **Crestron Virtual Switcher** was selected for **Model**, a flat panel display or projector must be added to the room before any other device can be added.

The .AV Framework virtual switcher uses the input and output ports on the selected flat panel display or projector to route sources through the device.

To add a flat panel display or projector to the room:

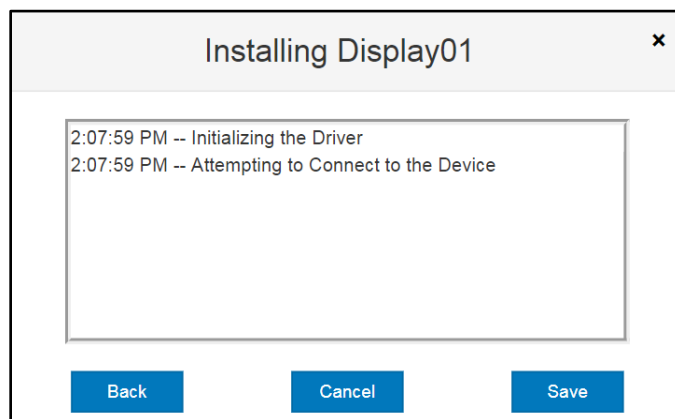
1. Click **Add Device**. The **Add New Device** dialog box is displayed.

Add New Device Dialog Box

A screenshot of the 'Add New Device' dialog box. It has a title bar with the text 'Add New Device' and a close button (X). The dialog contains three input fields: 'Device Type' (a dropdown menu), 'Display Name' (a text field), and 'Model' (a dropdown menu). A blue 'Save' button is located at the bottom right of the dialog.

2. Enter the following information for the flat panel display or projector:
 - a. Select the appropriate device type (**Flat Panel Display** or **Projector**) from the **Device Type** drop-down menu.
 - b. Enter a descriptive name for the device in the **Display Name** text field.
 - c. Select the device model from the **Model** drop-down menu.
 - d. Enter any transport control, warm up/cool down, or authentication settings required for the device. For more information, refer to "Device Management" on page 32.
3. Click **Next**. A dialog box is displayed indicating the device driver installation status and the device connection status.

Installing Display01 Dialog Box

A screenshot of the 'Installing Display01' dialog box. It has a title bar with the text 'Installing Display01' and a close button (X). The dialog contains a text area with the following text: '2:07:59 PM -- Initializing the Driver' and '2:07:59 PM -- Attempting to Connect to the Device'. At the bottom of the dialog, there are three buttons: 'Back', 'Cancel', and 'Save'.

4. Click **Save**.

The flat panel display or projector is added to the list of devices on the **Device Management** page. Other devices can now be added to the room.

Device Management Page (Virtual Switcher Added)

CRESTRON AV FRAMEWORK Sign Off

The system is currently offline. [Activate](#) or [Revert](#) configuration.

Status ▾ Configure ▾ Users ▾

Device Management

Name	Type	Model	Communication	Status	Action
Panel	Touch Screen	TSW-760	IP ID: 03	Offline	
Panel	Touch Screen	Webx	IP ID: 04	Offline	
CVS	Switcher	Crestron Virtual Switcher		N/A	
Display01	Flat Panel Display	NEC MultiSync V	IP: 192.192.192.192 Port: 7142 ID: 5	N/A	

[Add Device](#)

[System](#) [Device Mgmt](#) [A/V Routing](#) [Config Mgmt](#)

NOTE: Drivers for flat panel displays and projectors are generic, and the device inputs provided in .AV Framework may not match the physical inputs on the device. If an unsupported input is selected in the touch screen user interface, the route may not be completed. Therefore, all unsupported inputs should be disabled on the **Inputs/Outputs** page. For more information, refer to "Inputs/Outputs" on page 37.

Add New Devices

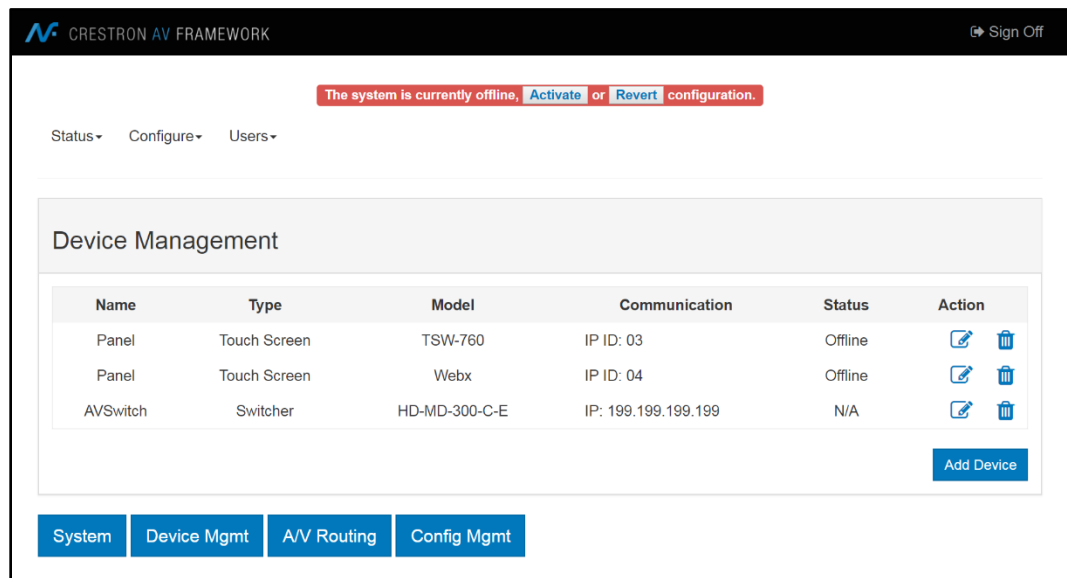
After adding an A/V switcher to the .AV Framework system, additional devices can be added to the system via wired and wireless connections to the A/V switcher and to the MPC3 device. For more information, refer to "Appendix A: Interface Setup" on page 55.

To add devices to the .AV Framework system:

NOTE: All devices must be connected to the A/V switcher and MPC3 device or accessible on the network prior to adding them to the system.

1. Select **Device Management** from the **Configure** drop-down menu. The **Device Management** page is displayed.

Device Management Page (Switcher Added)



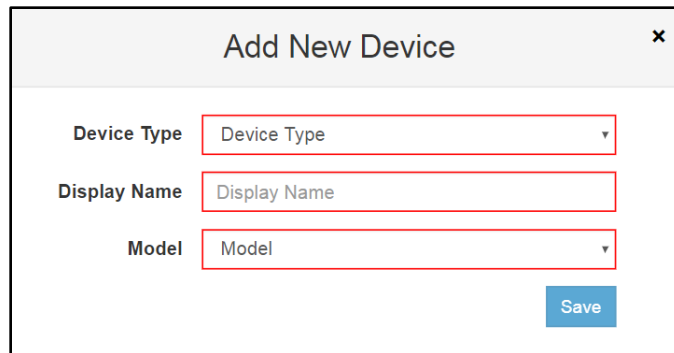
The screenshot shows the 'Device Management' page in the Crestron AV Framework software. At the top, there is a status bar indicating 'The system is currently offline, [Activate](#) or [Revert](#) configuration.' Below this, there are tabs for 'Status', 'Configure', and 'Users'. The 'Configure' tab is selected, and the 'Device Management' section is active. A table lists the following devices:

Name	Type	Model	Communication	Status	Action
Panel	Touch Screen	TSW-760	IP ID: 03	Offline	Edit Delete
Panel	Touch Screen	Webx	IP ID: 04	Offline	Edit Delete
AVSwitch	Switcher	HD-MD-300-C-E	IP: 199.199.199.199	N/A	Edit Delete

Below the table is an 'Add Device' button. At the bottom of the page, there are tabs for 'System', 'Device Mgmt', 'A/V Routing', and 'Config Mgmt', with 'Device Mgmt' currently selected.

2. Click **Add Device**. The **Add New Device** dialog box is displayed.

Add New Device Dialog Box



The screenshot shows the 'Add New Device' dialog box. It has a title bar with a close button (X). Inside, there are three input fields: 'Device Type' (a dropdown menu), 'Display Name' (a text field), and 'Model' (a dropdown menu). A 'Save' button is located at the bottom right of the dialog box.

3. Enter the following information for the device:
 - a. Select the appropriate device type from the **Device Type** drop-down menu.
 - b. Enter a descriptive name for the device in the **Display Name** text field.
 - c. Select the device model from the **Model** drop-down menu.
 - d. Enter any additional settings for the device in the appropriate fields (if required). For more information, refer to "Device Management" on page 32.
4. Click **Save**.

The device is added to the list of devices on the **Device Management** page.

Device Management Page (Device Added)

The screenshot shows the Crestron AV Framework interface. At the top, there's a header with the Crestron logo and "CRESTRON AV FRAMEWORK" text, and a "Sign Off" button. Below the header, a green status bar indicates "The system is currently online." Navigation links for "Status", "Configure", and "Users" are visible. The main section is titled "Device Management" and contains a table with the following data:

Name	Type	Model	Communication	Status	Action
Panel	Touch Screen	TSW-760	IP ID: 03	Offline	
Panel	Touch Screen	Webx	IP ID: 04	Offline	
HD-MD	Switcher	HD-MD-300-C-E	IP: 192.30.11.255	N/A	
AM-101	AirMedia®	AM-101	IP ID: 05	N/A	

Below the table is an "Add Device" button. At the bottom of the page, there are four navigation buttons: "System", "Device Mgmt", "A/V Routing", and "Config Mgmt".

Configuration

Use the configuration utility to configure system settings, to add devices and an A/V switcher to the .AV Framework system, to configure the inputs and outputs of the A/V switcher, and to manage saved configurations. The configuration utility also provides screens that display the system status and an activity log, as well as screens for adding and managing users.

Navigate the Configuration Utility

The **AV Framework Dashboard** page is the default page that is displayed upon logging in, as shown on the following page.

Use the drop-down menus on the top left of the screen to navigate the configuration utility. The menus are always visible on the top left of any of the configuration pages and provide the following selections.

- **Status**
 - **Dashboard**
 - **AVF Log**
- **Configure**
 - **System**
 - **Device Management**
 - **A/V Routing**
 - **Configuration Management**
- **Users**
 - **Manage**

Click **Sign Out** on the top right of any page to sign out of the configuration utility.

Status Menu

The **Status** menu provides selections for viewing the status of the network, the connected A/V switcher, and other connected devices. The **Status** menu also provides access to the activity log.

Navigational controls are also provided on the bottom of each status page:

- Select **Dashboard** to display the **AV Framework Dashboard** page.
- Select **AVF Log** to display the **AVF Log** page.

These menu selections are described in the sections that follow.

AV Framework Dashboard

Navigate to **Status > Dashboard** to display the **AV Framework Dashboard** page.

AVF Dashboard Page

CRESTRON AV FRAMEWORK

Sign Off

The system is currently online.

Status ▾ Configure ▾ Users ▾

AV Framework Dashboard

Ethernet Information

Host Name:	MPC3-3-7F9BC268	IP Address:	172.30.73.26
Subnet Mask:	255.255.252.0	Default Router:	172.30.72.1

Switcher Information

Model: HD-MD-300-C-E

Input Channels

Channel	Name	Type	Status
#1	Sony BDP	HDMI	N/A
#2	Oppo-103	HDMI	N/A
#3	VGA 3	VGA	N/A

Output Channels

Channel	Name	Type	Status
#1	Samsung DM	HDMI	Online

Equipment

Name	Model	Status
Button Panel	MPC3-302	Online
MD-300	HD-MD-300-C-E	Online

Dashboard

AVF Log

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The **AV Framework Dashboard** page provides the following information.

Ethernet Information

The **Ethernet Information** section shows the hostname, the IP address, the subnet mask address, and the default router address of the MPC3 device.

AV Framework Dashboard - Ethernet Information

Ethernet Information			
Host Name:	MPC3-3-7F9BC268	IP Address:	172.30.73.72
Subnet Mask:	255.255.252.0	Default Router:	172.30.72.1

Switcher Information




The **Switcher Information** section shows the name and model of the connected A/V switcher, as well as the channel number and icon, the channel name, the channel type, and the channel status (**Online**, **Offline**, or **N/A**).


NOTE: A compatible A/V switcher must be added to the .AV Framework system before any switcher information is shown. For more information on adding an A/V switcher, refer to "Add an A/V Switcher" on page 7.

AV Framework Dashboard - Switcher Information

Switcher Information

Model:HD-MD-300-C-E

Input Channels			
Channel	Name	Type	Status
#1 	Sony BDP	HDMI	N/A
#2 	Oppo-103	HDMI	N/A
#3 	VGA 3	VGA	N/A

Output Channels			
Channel	Name	Type	Status
#1 	Samsung DM	HDMI	Online

For more information on configuring input and output channels of the switcher device, refer to "Inputs/Outputs" on page 37.

The status for input and output channels indicates the following information:

- **Online**
 - **Input:** The source is sending content.
 - **Output:** The sync is receiving content.
- **Offline**
 - **Input:** The source is not sending content or is not present.
 - **Output:** The sync is not receiving content or is not present.
- **N/A:** The device status is not reported (shown for CEC-controlled displays, non-controlled displays, and IR-controlled devices).

Equipment

The **Equipment** section shows the name, model, and status (**Online**, **Offline**, or **N/A**) of any equipment connected to the .AV Framework system, including the A/V switcher and the MPC3 device.

AV Framework Dashboard - Equipment

Equipment		
Name	Model	Status
Button Panel	MPC3-302	Online
MD-300	HD-MD-300-C-E	Online

For more information on connecting equipment to .AV Framework, refer to "Add New Devices" on page 11.

NOTE: Observe the following points when adding devices:

- A compatible switcher device must be added to the .AV Framework system before any other devices can be added. For more information, refer to "Add an A/V Switcher" on page 14.
 - A TSW-760 touch screen and an XPanel virtual touch screen are added to new .AV Framework systems by default. These devices can be deleted once an A/V switcher is added to the room.
 - The XPanel virtual touch screen can be used to test the touch screen project through the .AV Framework program's built-in web XPanel interface. For more information, refer to "XPanel" on page 57.
-

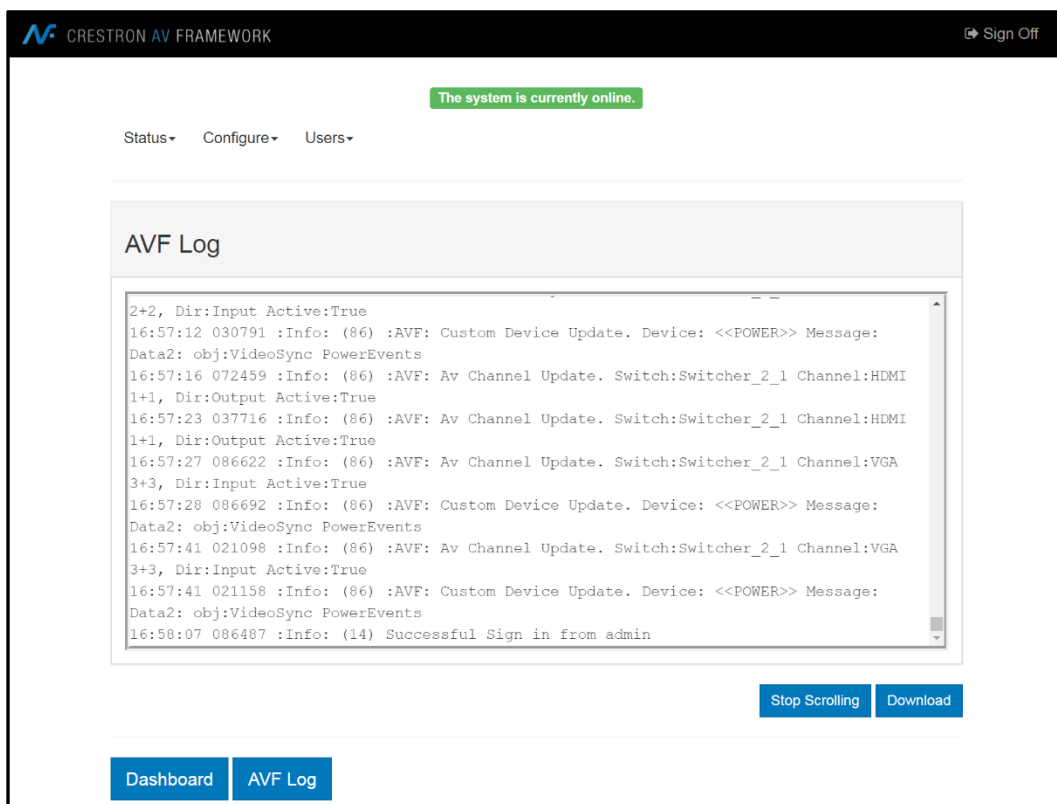
The status for connected equipment indicates the following information:

- **Online:** The device is detected and is providing feedback to .AV Framework.
- **Offline:** The device was detected at one point, but it is no longer detected by .AV Framework.
- **N/A:** The device status is not reported (shown for CEC-controlled displays, non-controlled displays, and IR-controlled devices).

AVF Log

Navigate to **Status > AVF Log** to display the **AVF Log** page.

AVF Log Page



Use the **AVF Log** page to display the event log for .AV Framework. Event logs are recorded at a set interval and can be viewed and downloaded from this page.

- Select **Stop Scrolling** to prevent the activity log from automatically scrolling. Select **Scrolling** to resume scrolling if **Stop Scrolling** is selected.
- Select **Download** to download the activity log to the host computer as a text file.

Configure Menu

The **Configure** menu provides selections for configuring system settings, Crestron Fusion software connection settings, relay behavior settings, custom logos, and device drivers. The **Configure** menu also provides selections for adding devices to the .AV Framework system, for configuring the input and output channels of the connected A/V switcher, and for managing configuration settings.

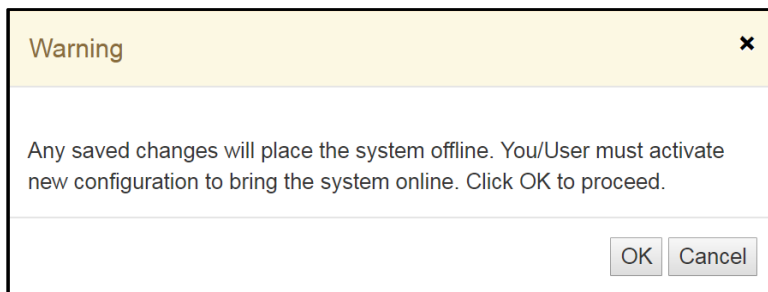
Navigational controls are also provided on the bottom of each configuration page:

- Select **System** to display the **System Setup** page.
- Select **Device Mgmt** to display the **Device Management** page.
- Select **A/V Routing** to display the **Inputs/Outputs** page.
- Select **Config Mgmt** to display the **Manage Configuration** page.

These menu selections are described in the sections that follow.

If any changes are made to the .AV Framework system settings, a warning message is displayed.

Warning Message



Click **OK** to save the changes or **Cancel** to cancel changes. Once changes are saved, the green status bar on the top of the page turns red and shows a "The system is currently offline, activate or revert configuration" message.

System Offline Message



This dialogue is normal, but the .AV Framework configuration must be activated before the system comes back online. Click **Activate** to activate any saved changes or click **Revert** to revert the system back to the previous configuration. For more information, refer to page 38.

System Setup

Navigate to **Configure > System** to display the **System Setup** page.

System Setup Page

The screenshot shows the 'System Setup' page within the 'CRESTRON AV FRAMEWORK' interface. At the top, there is a status bar with the Crestron logo and a 'Sign Off' button. Below this, a green notification box states 'The system is currently online.' Navigation links for 'Status', 'Configure', and 'Users' are visible. The 'System Setup' section has tabs for 'System', 'Crestron Fusion', 'Relay', 'Touch Screen Custom Graphics', and 'Drivers'. The 'System' tab is active, displaying fields for 'Room Name' (6HQ-2511), 'Language' (English (English)), 'Time Format' (12 hour), 'Date Format' (January 15, 2017), 'Enable SNTP' (disabled), 'Time Zone' (empty), 'Date and Time' (2018-05-15 05:05 PM), and 'Enable External Amplifier' (disabled). A 'Save' button is located at the bottom right of the form. At the very bottom, there are four buttons: 'System', 'Device Mgmt', 'A/V Routing', and 'Config Mgmt'.

The system setup page provides tabs for configuring the .AV Framework system settings, Crestron Fusion settings, relay commands, custom graphics, and device drivers.

System

Click the **System** tab to display the System settings.

System Setup - System

System Setup

System | Crestron Fusion | Relay | Touch Screen Custom Graphics | Drivers

Room Name: 6HQ-2511

Language: English (English)

Time Format: 12 hour

Date Format: January 15, 2017

Enable SNTP: ☐

Time Zone:

Date and Time: 2018-05-15 05:05 PM

Enable External Amplifier: ☐

Save

Use the System settings to configure general settings for .AV Framework.

- **Room Name:** Enter a name for the room associated with the system.
- **Language:** Use the drop-down menu to select the language displayed by .AV Framework.
- **Time Format:** Use the drop-down menu to select between 12-hour and 24-hour format for displaying time.
- **Date Format:** Use the drop-down menu to select a format for displaying the date.
- **Enable SNTP:** Toggle the switch to enable or disable using SNTP (Simple Network Time Protocol) to set the date and time.
- **SNTP Server:** If **Enable SNTP** is enabled, enter the URL of the SNTP server used to set the date and time.
- **Time Zone:** Use the drop-down menu to select a time zone.
- **Date and Time:** If **Enable SNTP** is disabled, click within the text field to display pop-up windows for setting the date and time manually.

NOTE: **Enable SNTP**, **SNTP Server**, **Date and Time**, and **Time Zone** are hidden from the System settings if the .AV Framework system is connected to Crestron Fusion, as .AV Framework receives date and time settings from Crestron Fusion in this configuration.

- **Enable External Amplifier:** Toggle the switch to enable or disable using an external audio amplifier that is connected to the system. If enabled, the A/V switcher controls the volume for the external amplifier. If disabled, the A/V switcher controls the volume for a connected display device (if supported).

Click **Save** to save the current settings.

Crestron Fusion

Click the **Crestron Fusion** tab to display the Crestron Fusion settings.

System Setup - Crestron Fusion

System Setup

System | **Crestron Fusion** | Relay | Touch Screen Custom Graphics | Drivers

Crestron Fusion Room Name: MPC-302-KVA IPID: 96

Enable Crestron Fusion Scheduling: ☒

Crestron Fusion Cloud URL: https://fitc-qe-dm.crestronfusion.com **Disable**

Show Broadcast Message On Touch Screen: ☒

Emergency Message Timeout: 90 Minutes

Non-Emergency Message Timeout: 720 Minutes

Save **Disable**

Use the Crestron Fusion settings to set up a connection between a Crestron Fusion account and .AV Framework.

- **Crestron Fusion Room Name:** Enter the room name in Crestron Fusion associated with the .AV Framework system
- **IPID:** Enter the IP ID of the selected Crestron Fusion room.
- **Enable Crestron Fusion Scheduling:** Use the drop-down menu to enable or disable Crestron Fusion scheduling for .AV Framework.
- **Crestron Fusion Cloud URL:** Click **Enable** to display a field for entering the URL of the Crestron Fusion server. If the URL is enabled, click **Disable** to disable the URL.
- **Show Broadcast Message on Touch Screen:** Toggle the switch on or off to enable or disable showing broadcast messages from Crestron Fusion on a connected touch screen.

- **Emergency Message Timeout:** Enter the time, in minutes, it takes for an emergency broadcast from the Crestron Fusion server to time out.
- **Non-Emergency Message Timeout:** Enter the time, in minutes, it takes for a non-emergency broadcast from the Crestron Fusion server to time out.

For more information about connecting .AV Framework to Crestron Fusion, refer to page 62.

NOTE: If .AV Framework is connected to a Crestron Fusion on-premises server, connections are made using either traditional (outbound) or inbound communications. For more information, refer to the Crestron Fusion 10 On-Premises Software Getting Started Guide (Doc. 7685) at www.crestron.com/manuals.

Click **Save** to save the current settings. Click **Enable** to enable a connection to Crestron Fusion. Click **Disable** to disable the connection.

Relay

Click the **Relay** tab to display the Relay settings.

System Setup - Relay

System Setup

System

Crestron Fusion

Relay

Touch Screen Custom Graphics

Drivers

Relay Name	Relay Device & Identifier	Relay Behavior	Timing
Screen 1	Controller_1_2_Relay	Momentary	1 Seconds

Relays are configured in pairs on the selected device.

The first relay in all the relay pairs will bring the SCREEN UP.

The second relay in all the relay pairs will bring the SCREEN DOWN.

Save

Use the Relay settings to select a relay behavior for connected video display sources, such as a projector:

- **Relay Name:** Enter a name for the relay.
- **Relay Device & Identifier:** Use the drop-down menu to select a relay pair from the available configured devices.

NOTE: A specific device relay pair can have only one saved configuration.

- **Relay Behavior:** Use the drop-down menu to select one of the following relay behaviors for the chosen relay pair:
 - **Momentary:** The chosen video source is set (turned on) or reset (turned off) by a relay command and remains in the selected state for the duration specified in the **Timing** field.
 - **Latching:** The chosen video source is set (turned on) or reset (turned off) by a relay command and remains in the selected state until an inverse relay command is sent.
 - **Disable:** Relay behavior is disabled for the chosen video source.
- **Timing:** If **Momentary** is selected for **Relay Behavior**, enter the duration in seconds that the video source remains in a specified state following a relay command.

Click **Save** to save the current settings. Click **Enable** to enable the relay settings. Click **Disable** to disable the relay settings.

Touch Screen Custom Graphics

Click the **Touch Screen Custom Graphics** tab to display the Touch Screen Custom Graphics settings.

System Setup - Touch Screen Custom Graphics

System Setup

[System](#) [Crestron Fusion](#) [Relay](#) [Touch Screen Custom Graphics](#) [Drivers](#)

Enable Custom Logo Graphic ☒

Custom Logo Graphic URL

Optimal logo size is 800 x 600 pixels.
Supported Image Formats: BMP, JPG, PNG.

Enable Touch Screen Screensaver ☒

Enable Start Button ☒

Start Button Text

Enable Custom Screensaver Backgrounds ☒

When enabled at least 1 background is required.

Add Custom Screensaver Background URL

Optimal logo size is 800 x 600 pixels.
Supported Image Formats: BMP, JPG, PNG.

Interval Between Backgrounds Seconds

Touch Screen Screensaver Sleep Time Seconds

Touch Screen Screensaver Start Time

Touch Screen Screensaver End Time

Enable Touch Screen Auto Update ☒

Enable Custom Help Page ☒

Custom Help Page URL

Optimal logo size is 800 x 600 pixels.
Supported Image Formats: BMP, JPG, PNG.

Save

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Use the Touch Screen Custom Graphics settings to enable or disable a custom logo graphic, to enable or disable a custom touch screen screensaver, and to select custom screensaver backgrounds for a connected touch screen:

- **Enable Custom Logo Graphic:** Toggle the switch to enable or disable setting a custom logo graphic for the touch screen project. Custom logo graphics can be set only if .AV Framework is not connected to Crestron Fusion.
- **Custom Logo Graphic URL:** If **Enable Custom Logo Graphic** is selected, enter the URL of the desired custom logo graphic source file.

NOTES:

- .AV Framework allocates an area of 800 x 600 pixels for the custom logo graphic. Custom graphics larger than 800 x 600 pixels are not accepted and must be scaled down manually. Custom graphics smaller than 800 x 600 pixels are not scaled up, so these graphics should be resized for optimal image quality.
- Supported custom graphic file types are BMP, JPG, and PNG.

-
- **Enable Touch Screen Screensaver:** Toggle the switch to enable or disable a touch screen screensaver for the touch screen project.
 - **Enable Start Button:** If **Enable Touch Screen Screensaver** is enabled and if .AV Framework is not connected to a scheduling calendar, toggle the switch to enable or disable adding a **START** button to the touch screen project.

NOTE: The **START** button is used to switch to the system's default route for systems that are not connected to a scheduling calendar. For more information, refer to "Home Screen Overview" on page 44.

- **Start Button Text:** If **Enable Start Button** is enabled, enter the text that is displayed on the **Start** button in the touch screen project.
- **Enable Custom Screensaver Backgrounds:** If **Enable Touch Screen Screensaver** is selected, toggle the switch on or off to enable or disable custom background graphics for the touch screen screensaver.

- **Add Custom Screensaver Background URL:** If **Enable Custom Screensaver Backgrounds** is selected, enter the URL of the desired custom background image source file.

NOTE: Observe the following points when choosing a custom background image source file:

- Up to 15 custom background URLs can be added. Select the plus (+) button next to a text field to add a new background URL once the URL has been entered. Select the minus (-) button next to an existing background URL to delete the URL. At least one background is required if **Enable Custom Screensaver Backgrounds** is enabled.
 - .AV Framework allocates an area of 800 x 600 pixels for the custom screensaver background graphic. Custom graphics larger than 800 x 600 pixels are not accepted and must be scaled down manually. Custom graphics smaller than 800 x 600 pixels are not scaled up, so these graphics should be resized for optimal image quality.
 - Supported custom graphic file types are BMP, JPG, and PNG.
-
- **Interval Between Backgrounds:** Enter the duration in seconds that a background image is displayed on the screensaver before switching to the next image.
 - **Touch Screen Screensaver Sleep Time:** Enter the time in seconds that the touch screen must be idle before the screensaver is activated.
 - **Touch Screen Screensaver Start Time:** Enter the time of day in 24-hour format when the screensaver becomes active.
 - **Touch Screen Screensaver End Time:** Enter the time of day in 24-hour format when the screensaver becomes inactive.
 - **Enable Touch Screen Auto Update:** Toggle the switch to enable or disable automatic updates for the .AV Framework .vtz project file on a supported touch screen. Touch screen automatic updates behave as follows:
 - If an .AV Framework .vtz project file has not been previously loaded to the touch screen, the auto update mechanism downloads the latest .vtz file and loads it to the touch screen. The existing project file on the touch screen is overwritten.
 - If an .AV Framework .vtz project file has been previously loaded to the touch screen, the auto update mechanism updates the project file only if the hash file on the touch screen is different from the hash on the remote server or cloud.
 - **Enable Custom Help Page:** Toggle the switch to enable or disable using a custom help page image in the touch screen project. When enabled, the uploaded custom help page image replaces the default help overlay when the onscreen **Help** button is tapped.

- **Custom Help Page URL:** If **Enable Custom Help Page** is selected, enter the URL of the desired custom help page image source file.

NOTES:

- .AV Framework allocates an area of 800 x 600 pixels for the custom help file graphic. Custom graphics larger than 800 x 600 pixels are not accepted and must be scaled down manually. Custom graphics smaller than 800 x 600 pixels are not scaled up, so these graphics should be resized for optimal image quality.
 - Supported custom graphic file types are BMP, JPG, and PNG.
-

Click **Save** to save the current settings.

Drivers

Click the **Drivers** tab to display the Drivers settings

System Setup - Drivers

System Setup					
System	Creston Fusion	Relay	Touch Screen Custom Graphics	Drivers	
				Search	Import
Manufacturer	Supported Series	Device Type	Communication	Driver Version	Enable Driver
NEC	<ul style="list-style-type: none">NEC MultiSync PNEC MultiSync VNEC MultiSync X	Flat Panel Display	IP	2.01.003.0213	<input checked="" type="checkbox"/>
NEC	<ul style="list-style-type: none">NEC MultiSync PNEC MultiSync VNEC MultiSync X	Flat Panel Display	Serial	2.01.003.0213	<input checked="" type="checkbox"/>
NEC	<ul style="list-style-type: none">Multisync Series	Flat Panel Display	IR	2.01.003.0106	<input checked="" type="checkbox"/>
Panasonic	<ul style="list-style-type: none">Panasonic TH Series	Flat Panel Display	Serial	2.01.003.0213	<input checked="" type="checkbox"/>
Samsung	<ul style="list-style-type: none">Samsung DM Series	Flat Panel Display	IP	2.01.002.0233	<input checked="" type="checkbox"/>
Samsung	<ul style="list-style-type: none">Samsung DM Series	Flat Panel Display	Serial	2.00.010.0152	<input checked="" type="checkbox"/>
Samsung	<ul style="list-style-type: none">DM Series	Flat Panel Display	IR	2.01.003.0106	<input checked="" type="checkbox"/>
Samsung	<ul style="list-style-type: none">Samsung ME Series	Flat Panel Display	Serial	2.00.010.0152	<input checked="" type="checkbox"/>
Sharp	<ul style="list-style-type: none">Sharp LC Series	Flat Panel Display	IP	2.00.010.0152	<input checked="" type="checkbox"/>
Sharp	<ul style="list-style-type: none">Sharp LC Series	Flat Panel Display	Serial	2.00.010.0152	<input checked="" type="checkbox"/>
« 1 2 3 »				10 25 50 100	

Use the Drivers settings to manage and to add device drivers to .AV Framework. Various drivers are added to new .AV Framework systems and are enabled by default.

The image above shows examples of drivers for NEC® MultiSync® displays, Panasonic® displays, Samsung® displays, and Sharp® displays. Device drivers are displayed in table format.

The following information is available for each installed driver:

- **Manufacturer:** The device manufacturer
- **Supported Series:** The model series supported by the driver
- **Device Type:** The device type (such as flat panel display or projector)
- **Communication:** The communication method used by the device (such as IR, CEC, or serial)
- **Driver Version:** The installed driver version

Each driver also has an **Enable Driver** switch that is used to enable or disable the driver in .AV Framework.

The following navigational controls are provided:

- Navigate through the available device drivers by clicking a page number on the bottom left of the page. (Click the left or right carets [« or »] to move forward or backward when there are more than four pages.)
- Click one of the numbers on the bottom right of the page (**10, 25, 50, or 100**) to display up to that number of drivers on a single page.
- Click the **Search** button to open the Crestron Certified Drivers web portal (<https://drivers.crestron.io>) in a new browser window. After logging in, use the **Driver Search** tab to locate and download specific device drivers.

NOTE: New users to the Crestron Certified Drivers web portal must create an account in order to search for and download device drivers.

Additional device drivers can be downloaded from the Crestron Certified Drivers web portal and loaded into .AV Framework to expand the number of compatible third-party devices. New device drivers are added to the Crestron Certified Drivers web portal after they are certified.

NOTE: Custom device drivers can also be created and loaded into .AV Framework. For more information and detailed developer instructions, refer to the Crestron Certified Drivers SDK website at <http://developer.crestron.com>.

To import device drivers into .AV Framework with the web configuration utility:

1. Log in to the Crestron Certified Drivers web portal. The **Driver Search** page is displayed.

Crestron Certified Drivers Portal Driver Search Page

Driver Search

Global Filter Reset

<input type="checkbox"/>	Manufacturer	Type	Communication	Supported Models	Version	
<input type="checkbox"/>	Choose	Choose	Choose			
<input type="checkbox"/>	DirecTV	Cable Box	IR	DirecTV	2.00.009.0011	More
<input type="checkbox"/>	Epson	Projector	Serial	PowerLite 2140W ...	2.00.009.0011	More
<input type="checkbox"/>	LG	Bluray Player	IR	LG BD Series	2.00.009.0011	More
<input type="checkbox"/>	NEC	Flat Panel Display	IP	Multisync V323 ...	2.00.009.0011	More
<input type="checkbox"/>	NEC	Flat Panel Display	Serial	Multisync V323 ...	2.00.009.0011	More
<input type="checkbox"/>	NEC	Flat Panel Display	IR	Multisync	2.00.009.0011	More
<input type="checkbox"/>	Panasonic	Flat Panel Display	Serial	TH42PF30U ...	2.00.009.0011	More
<input type="checkbox"/>	Roku	Video Server	IP	Roku ...	2.00.009.0011	More
<input type="checkbox"/>	Roku	Video Server	IR	Roku	2.00.009.0011	More
<input type="checkbox"/>	Samsung	Bluray Player	IR	Samsung BD Series	2.00.009.0011	More

Download Drivers

1 2 3

2. Use the following options to navigate the Crestron Certified Drivers web portal:
 - Type a manufacturer name, device type, communication method, or supported model in the **Global Filter** text box to filter drivers based on that search term.
 - Type a search term in the text box or use the drop-down menu underneath a column heading to filter drivers by the driver information shown in that column. Use the up and down arrows next to the column header to sort the information in that column in alphabetical or reverse alphabetical order, respectively.
 - Navigate through the available device drivers by clicking a page number or by using the left and right arrows at the bottom of the page.

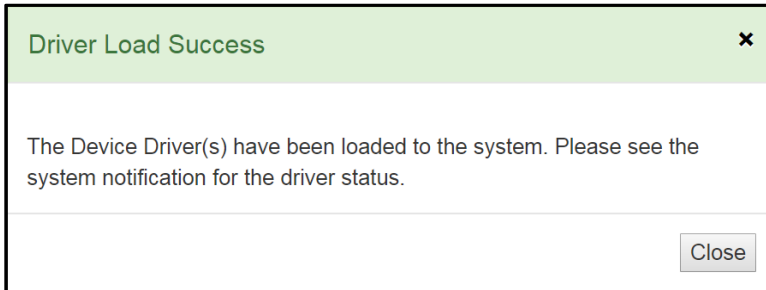
NOTE: Click **More** next to a driver name to view additional information about that driver. Drivers can also be downloaded individually from this page.

3. Select the device driver(s) by clicking the check box to the left of a driver name.
4. Once all drivers have been selected, click **Download Drivers** to download the drivers to the host computer. All selected drivers download as .pkg files within a single zipped file.
5. Navigate to **System > Drivers** in the .AV Framework configuration utility.
6. Click **Import** at the top right of the page.
7. Select the .zip file containing the driver .pkg files and click **Open**.

If the driver(s) are uploaded successfully, a notification is displayed indicating that the installation was successful.

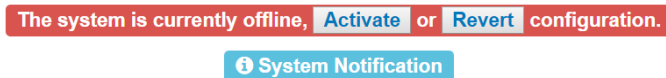
CAUTION: Do not activate the new configuration until the notification is displayed indicating that the drivers were loaded successfully. This notification can take several minutes to display if many drivers are uploaded in the same .zip file.

Driver Load Success Message



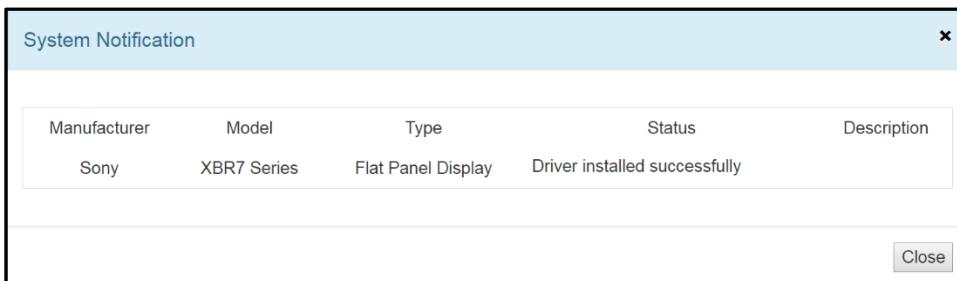
After the upload completes, a **System Notification** icon is displayed under the system status message bar.

System Notification Message



Click the **System Notification** icon to open a dialog box that shows the driver manufacturer, model, type, and installation status. The following image shows the installation status of a Sony® XBR7 Series flat panel display.

System Notification Dialog Box

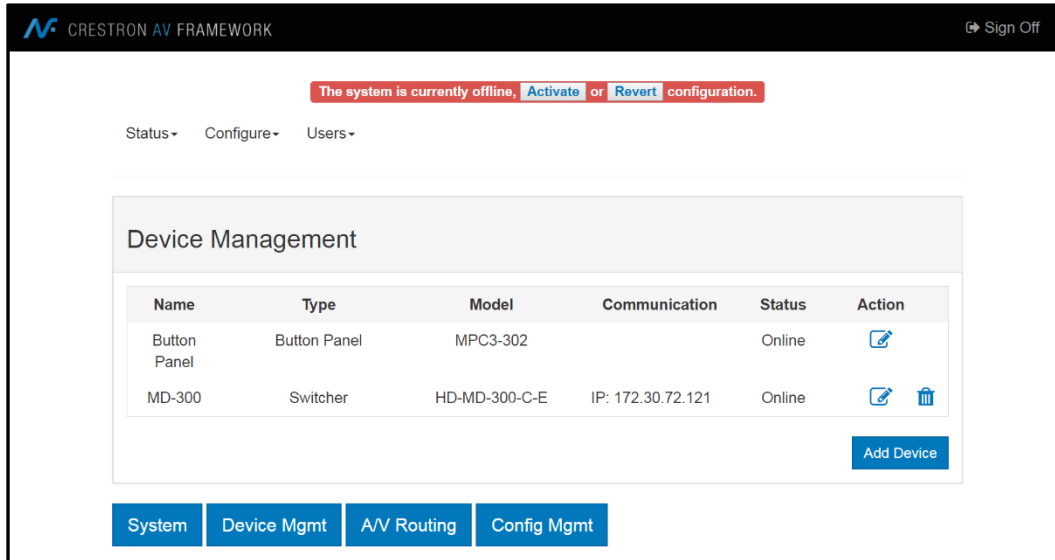


- If the driver upload is successful, the **Status** column shows a "Driver installed successfully" message.
- If the driver fails to upload, the **Status** column shows a "Driver failed to install" message. Ensure that the correct file was selected and that the MPC3 device is functioning properly. If the driver installation continues to fail, contact Crestron customer service for assistance.

Device Management

Navigate to **Configure > Device Management** to display the **Device Management** page.

Device Management Page



Use the **Device Management** page to add a device to the .AV Framework system, to view information about connected devices, and to edit or remove a device.

Observe the following points when managing devices in .AV Framework:

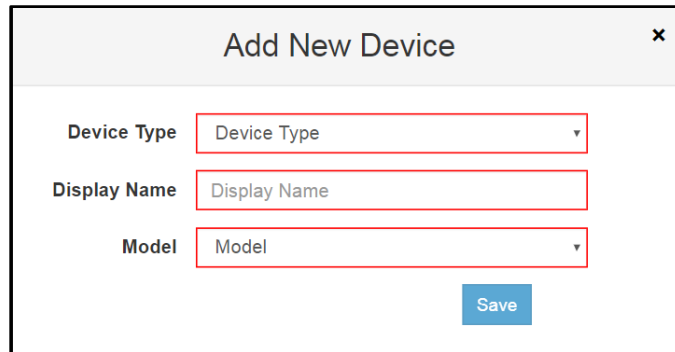
- Certain device classes limit the number of devices that can be added to the system. Once the maximum number of devices have been added to the system, the device class can no longer be selected from the **Device Type** drop-down menu unless one of its devices is deleted.
- Before a device can be added to .AV Framework, the chosen device must be connected to the connected A/V switcher. For more information, refer to "Appendix A: Interface Setup" on page 55.
- Be sure to select the correct device type and model when adding a device via an IP connection, and confirm that the IP ID is assigned to the correct IP device.
- If an AM-300 is selected as the A/V switcher, supported DM® endpoints can be added to the system via an IP ID. Any endpoints should be added prior to adding other devices. Once an endpoint is added, its communication ports are available as additional selections for device transport and control. For a list of supported DM endpoints, refer to "Appendix B: Device Configuration" on page 69.

Add Devices

1. Click **Add Device** to add a new device to the .AV Framework system. The **Add New Device** dialog box opens.

NOTE: For new installations, a compatible switcher device must be added to the system before any other devices can be added. For more information, refer to "Add an A/V Switcher" on page 7.

Add New Device Dialog Box



2. Enter the following information for the chosen device.
 - **Device Type:** Use the drop-down menu to select the device type from the available options.
 - **Display Name:** Enter a name for the device in the text field.
 - **Model:** Use the drop-down menu to select the model of the chosen device from the available options.

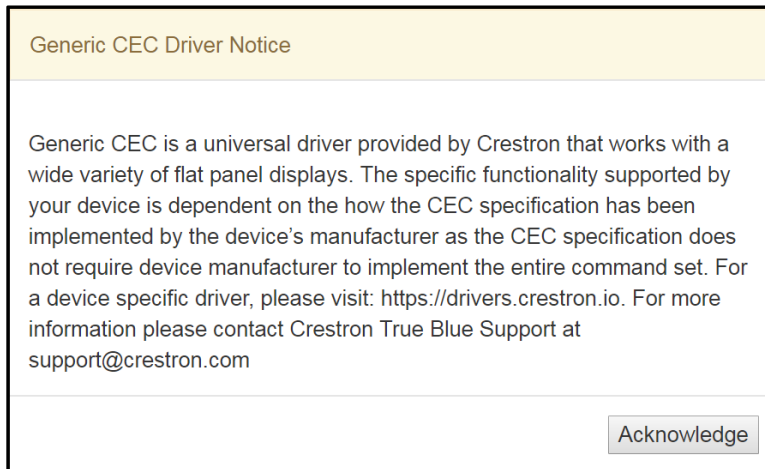
NOTE: Certain device types and models require additional information to be entered (such as setting transport control details). Additional drop-down menus and text fields are provided when these device types and/or models are selected. For a complete list of additional fields, refer to "Appendix B: Device Configuration" on page 69.

3. Once the required device information is entered, click **Save** to add the device or click the **x** button to close the dialog box and to discard any changes.

Adding CEC and Crestron Connected Devices

After a CEC-controlled device or a Crestron Connected® device is added, a notice is displayed. The notice for CEC drivers is shown on the following page as an example.

Generic CEC Driver Notice



Click **Acknowledge** to return to the **Device Management** page.

Adding Flat Panel Displays and Projectors

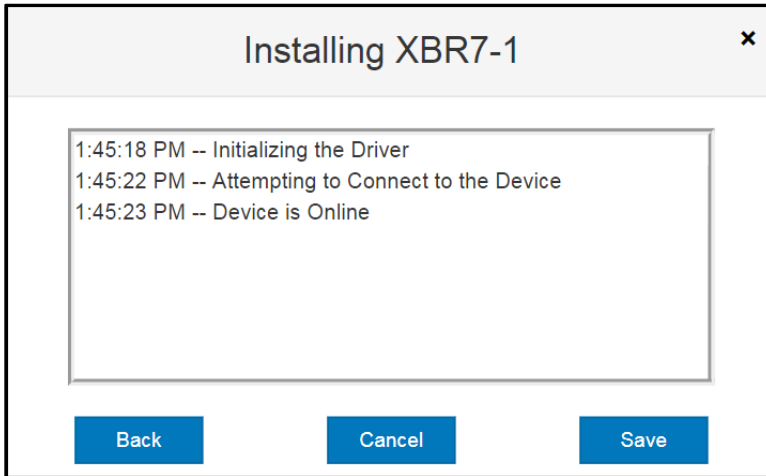
Flat panel displays and projectors require their drivers to be added to .AV Framework before the device can be selected and added to the system. For more information on adding device drivers, refer to "Drivers," starting on page 28.

NOTE: Certain device drivers require a username and password to initiate control communications. Additional **User Name** and **Password** fields are provided in the **Add New Device** dialog box for these devices. These fields are required or optional depending on the device driver.

After the appropriate driver is added to .AV Framework, use the drop-down menus in the **Add New Device** dialog box to select the device. Enter the required information for the device, and then click **Save**.

A dialog box showing the driver installation status is displayed. If the device driver requires a username and password, the dialog box also shows the driver authentication status.


Installing XBR7-1 Dialog Box



Click **Back** to return to the **Add New Device** dialog box. Click **Cancel** to cancel installing the device driver. Click **Save** to save the device and return to the **Device Management** page.

Edit Devices

After a device is added to .AV Framework, it appears in the list of devices on the **Device Management** page. The display name, device type, device model, transport details, and device status are provided for each device.

1. Click the pencil button  next to a device to edit the device. The **Edit Device** dialog box opens.

Devices Page - Edit Device Dialog Box

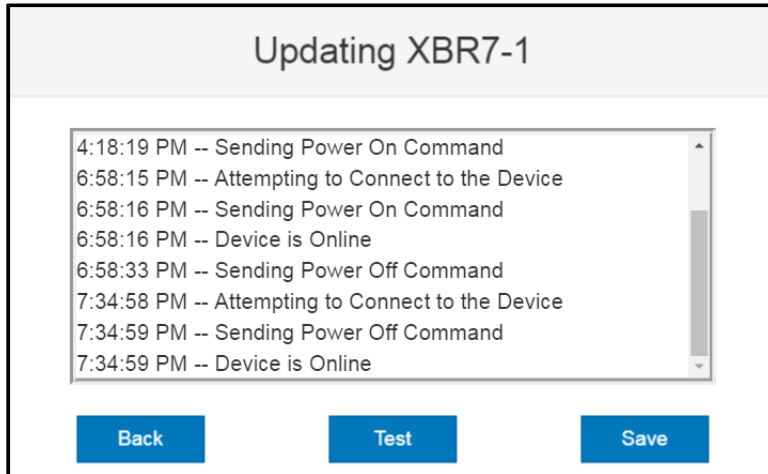
A screenshot of the "Edit Device" dialog box. It has a title bar with "Edit Device" and a close button (x). The main area contains four fields: "Device Type" with the value "Touch Screen", "Model" with the value "TSW-760", "Display Name" with the value "TSW-760-1" (in a text input field), and "IP ID" with the value "07" (in a text input field). A blue "Save" button is located at the bottom right of the dialog.

2. Use the **Edit Device** dialog box to edit the display name, transport details, and any other device settings provided for the chosen device.
3. Click **Save** to save any changes or click the **x** button to close the dialog box and to discard any changes.

Editing Flat Panel Displays and Projectors


For flat panel displays and projectors with installed device drivers, a dialog box showing the updated device status is displayed after changes are saved.

Updating XBR7-1 Dialog Box

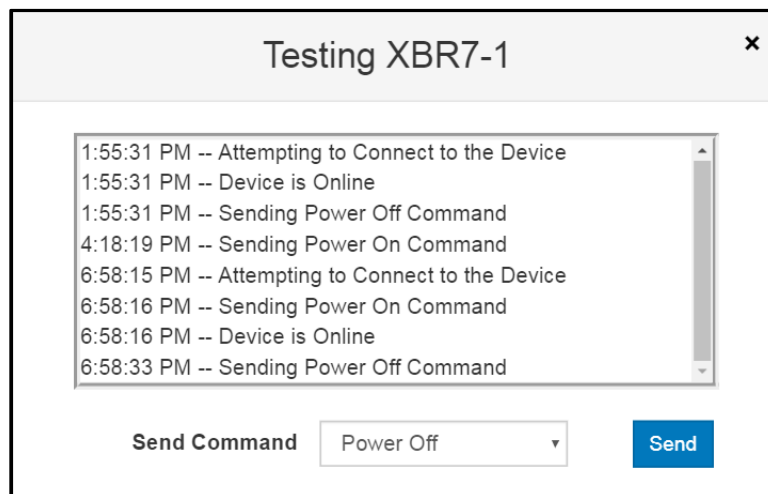


- Click **Back** to return to the **Edit Device** dialog box.
- Click **Test** to display a dialog box for sending test commands to the device. For more information, refer to "Test Devices" below.
- Click **Save** to save the device and return to the **Device Management** page.

Test Devices

1. Click the paper and clipboard button  next to a flat panel display or a projector to send test commands to the device. A dialog box showing the driver test status is displayed.


Testing XBR7-1 Dialog Box



2. To send test commands to the device, select a command from the **Send Command** drop-down menu, and then click **Send**. .AV Framework attempts to send the chosen command to the device.

NOTE: The configuration utility does not provide feedback about whether the command was sent successfully. Verify the command is received on the device.


Delete Devices

1. Click the trash can button  next to a device.
2. A warning message is displayed. Click **OK** to delete the device or **Cancel** to cancel the deletion.

Inputs/Outputs

Navigate to **Configure > A/V Routing** to display the Input/Outputs page.





Inputs/Outputs Page

 CRESTRON AV FRAMEWORK
 Sign Off


The system is currently online.

Status Configure Users

Inputs

Channel	Type	Icon	Enabled	Display Name	Rank	Device
#1	HDMI	 Icon	Yes	AM-101	1	Device
#2	HDMI	 Icon	Yes	Roku3	2	Roku3
#3	HDMI	 Icon	Yes	TiVo	3	TiVo
#4	VGA	 Icon	Yes	VGA 4	4	Device

Outputs

Channel	Type	Icon	Enabled	Display Name
#1	HDMI	 Icon	Yes	NEC IP

Save

System Device Mgmt A/V Routing Config Mgmt

Use the **Inputs/Outputs** page to configure the input and output channels of the connected switcher device. Click **Save** once all changes have been made.

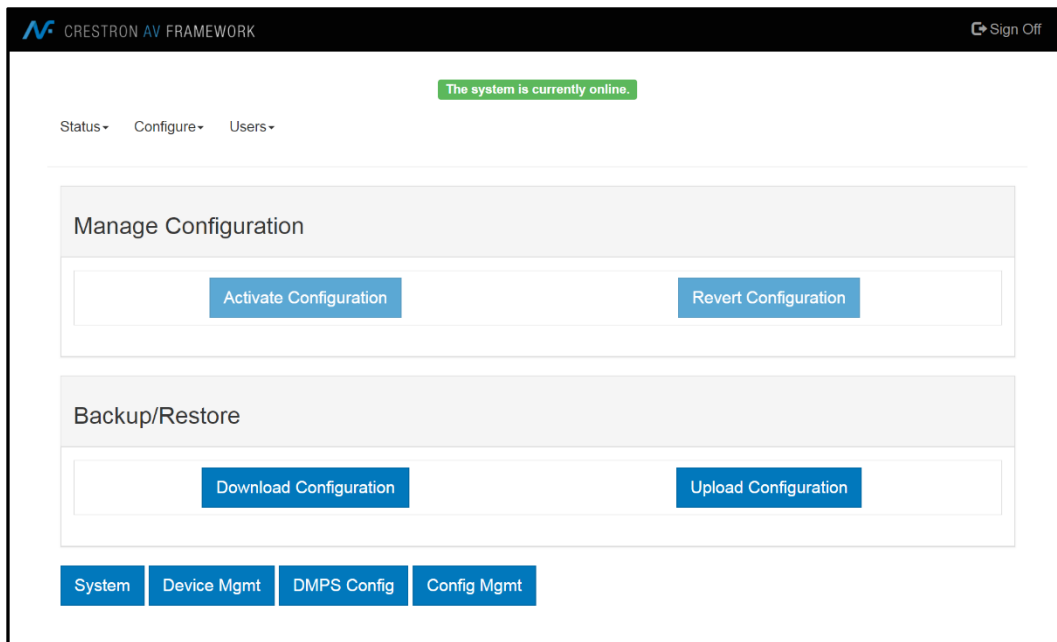
The following information can be viewed and configured for each input and output channel unless otherwise noted.

- **Channel:** This column shows the number of the input or output channel on the switcher device and the chosen icon for that channel.
- **Type:** This column shows the type of input or output channel (such as HDMI® input or VGA).
- **Icon:** Use the drop-down menu to select an icon for the channel.
- **Enabled:** Use the drop-down menu to enable or disable the channel on the .AV Framework system.
- **Display Name:** Enter the display name of the device connected to the channel.
- **Rank (Inputs Only):** Use the drop-down menu to select a number to determine the order that the input displays appear when selecting a source to present from the touch screen user interface.
- **Device (Inputs Only):** Use the drop-down menu to select the device connected to the channel. (For more information on adding devices to .AV Framework, refer to page 33.)

Manage Configuration

Navigate to **Configure > Configuration Management** to display the **Manage Configurations** page.

Manage Configurations Page

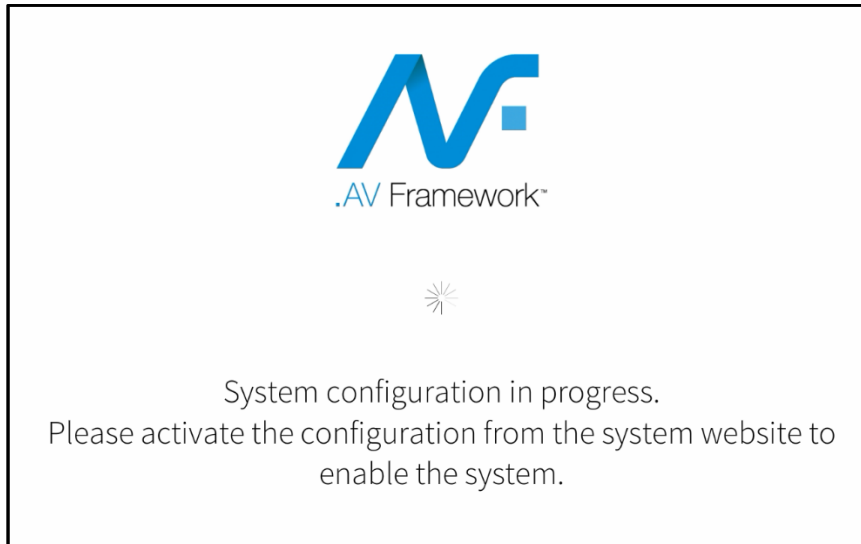


Use the **Manage Configurations** page to activate new configuration settings or to revert to a prior configuration. The **Manage Configurations** page also provides controls to download and upload configuration files.

If saved changes have been made to the configuration, click **Activate Configuration** to activate the new configuration settings or click **Revert Configuration** to revert to the previous configuration.

The touch screen user interface shows a configuration in progress message.

Configuration in Progress Screen



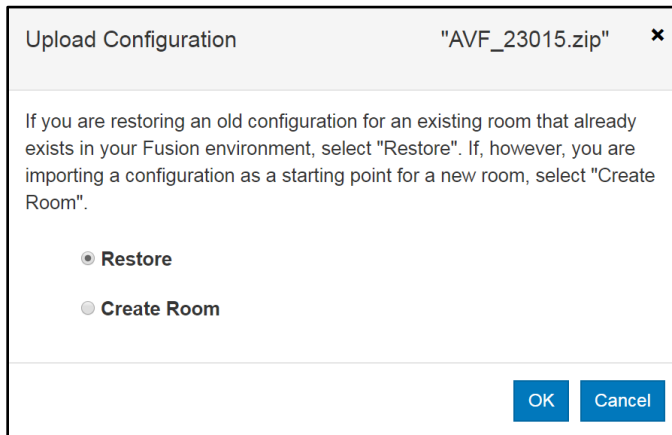
NOTE: If any changes are saved while configuring .AV Framework, the green status bar on the top of the screen turns red and shows a "The system is currently offline, activate or revert configuration" message. Once this message is displayed, any connected devices go offline and cannot be used, and changes must be activated for the devices to go back online. Once the configuration is activated, the status bar turns green and shows a "The system is currently online" message.

Click **Download Configuration** to download the current configuration settings as a .zip file. The downloaded .zip file includes XML files that contain the current configuration settings and any device driver files that are loaded in .AV Framework.

Click **Upload Configuration** to upload saved configuration files to the configuration utility. Saved configuration files can be used to configure similar rooms by uploading the configuration files to the corresponding .AV Framework systems.

An **Upload Configuration** dialog box is displayed.

Upload Configuration Dialog Box



The **Upload Configuration** dialog box provides options for modifying the Crestron Fusion room information that is paired with the configuration:

- Click the **Restore** radio button to restore the Crestron Fusion room settings that exist in the configuration files.
- Click the **Create Room** radio button to create a new Crestron Fusion room using the imported configuration settings. Enter the room name in the **Crestron Fusion Room Name** text field that is displayed.

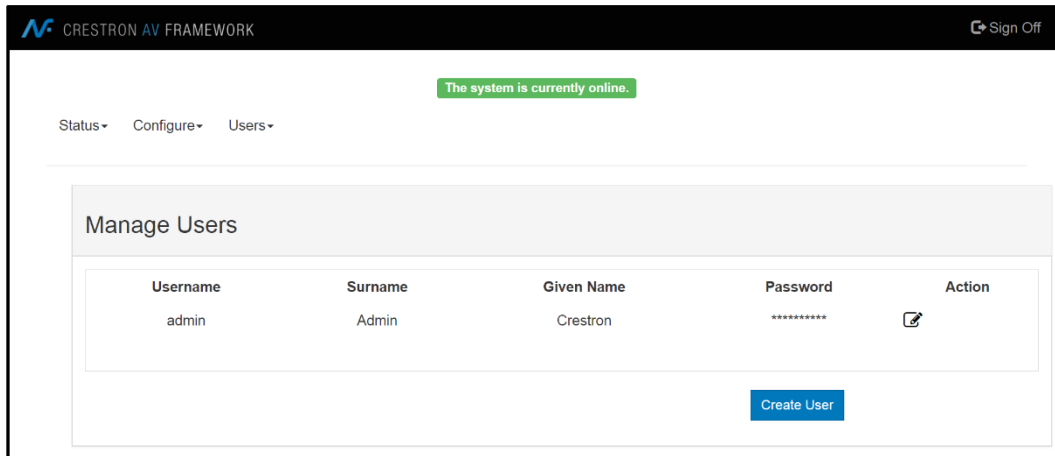
Click **OK** to import the configuration files with the selected Crestron Fusion room settings or click **Cancel** to cancel the import.

Users Menu


The **Users** menu provides a selection for adding, editing, and deleting users in the .AV Framework system.

Navigate to **Users > Manage** to display the **Manage Users** page.

Manage Users Page




The screenshot shows the 'Manage Users' page in the Crestron AV Framework software. At the top, there is a status bar with the Crestron logo and 'CRESTRON AV FRAMEWORK' on the left, and a 'Sign Off' button on the right. Below the status bar, a green notification box states 'The system is currently online.' Below this, there are navigation tabs: 'Status', 'Configure', and 'Users'. The 'Users' tab is selected. The main content area is titled 'Manage Users' and contains a table with the following columns: 'Username', 'Surname', 'Given Name', 'Password', and 'Action'. The table has one row with the following data: 'admin' for Username, 'Admin' for Surname, 'Crestron' for Given Name, and a string of asterisks for Password. The 'Action' column contains an edit icon (a pencil inside a square). Below the table, there is a blue button labeled 'Create User'.

Username	Surname	Given Name	Password	Action
admin	Admin	Crestron	*****	


[Create User](#)

Use the **Manage Users** page to manage, add, and edit .AV Framework users. The following information is provided for each user:


- **Username:** The username created for the user
-
- NOTE:** The administrative account for .AV Framework is specified by the username "admin." This username cannot be changed.
-
- **Surname:** The user's last name
 - **Given Name:** The user's first name
 - **Password:** A string of asterisks indicating that a password has been entered

An action button  is also provided for each user in the **Action** column of the user table. Click this button to edit the username, surname, given name, and password for a user.

To create a new user:

1. Click **Create User** at the bottom right of the dialog box. A new row appears in the users table.
2. Enter the appropriate information for that user in the various text fields.
3. Click the check  button in the **Action** column to save the new user. Click the **x** button at any time during this process to cancel creating a new user.

To delete a user:

1. Click the trashcan button  in the **Action** column for that user. A warning message is displayed.
2. Click **OK** to delete the user or **Cancel** to cancel the deletion.

NOTE: The "admin" account cannot be deleted.

Operation

The .AV Framework touch screen user interface provides a collection of room scheduling and BYOD (bring your own device) presentation capabilities. The various screens that comprise the user interface are described in the sections that follow.

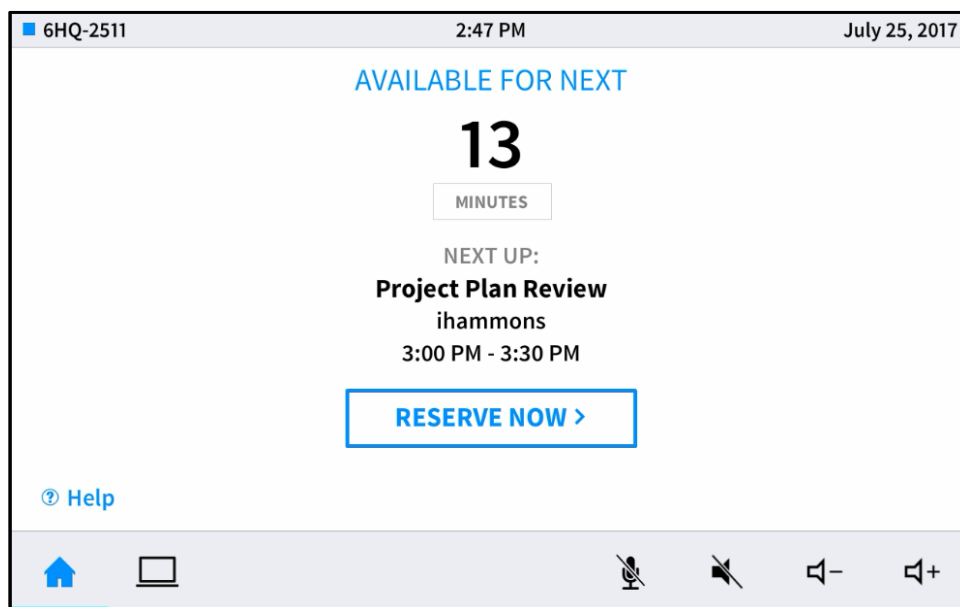
Display Overview

Each screen in the .AV Framework touch screen project provides the following features:

- A status bar that provides the room name and the time and date (set using the web-based configuration utility).
- A square status icon next to the room name that turns red when the room is reserved and blue if the room is available (if room scheduling is enabled).
- A footer bar that provides buttons for navigating and controlling the system volume (if supported by the display device or the external amplifier).



The following image shows a typical home screen (the project's default page) with the status bar and footer bar.

Home Screen (Room Available) - Status and Footer Bars







The footer bar provides the same buttons regardless of which screen is selected. Refer to the following tables for more information on footer button functionality.

Navigation Buttons

	The home button navigates to the home screen.
	The present button navigates to the present screen.

Volume Control Buttons

	The microphone button mutes or unmutes the device microphone.
	The mute button mutes or unmutes the device volume.
	The volume lower button lowers the device volume incrementally.
	The volume raise button raises the device volume incrementally.

NOTE: The volume control buttons and the volume bar are visible only if an external amplifier is enabled and connected to the .AV Framework system (set using the web-based configuration utility) or if the display device output supports volume control. For more information, refer to "System" on page 20.

Home Screen Overview

The home screen is the default screen of the touch screen project. The home screen indicates whether the associated room is either available or reserved for meetings (if .AV Framework is connected to a scheduling calendar):

- If the room is available, the home screen allows an ad hoc meeting to be reserved from the touch screen.
- If the room is reserved, the home screen shows current meeting information and the time remaining in the meeting.

If .AV Framework is not connected to a scheduling calendar, the home screen shows a custom logo (if enabled) or the date and time and provides a button that is used to switch to the system's default route.

The home screen can be accessed at any time by touching the home () button on the footer bar.

No Scheduling Calendar Connected

If .AV Framework is not connected to a scheduling calendar, the home screen provides the following information:

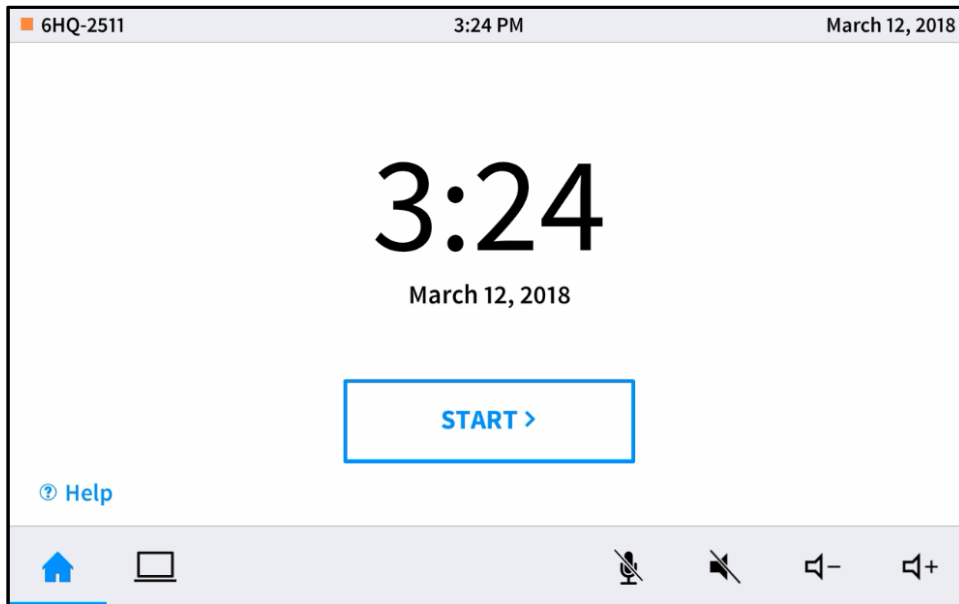
- A custom logo (if enabled through the configuration utility)
- The time and date (if no custom logo is enabled)
- A **START** button that switches to the system's default route automatically (For more information on setting the system's default route, refer to "Inputs/Outputs" on page 37.)

NOTE: The **START** button text can be customized using the configuration utility. For more information, refer to "Touch Screen Custom Graphics" on page 24.

- A **Help** button that provides more information on the functions and controls of this screen

The image on the following page shows a typical home screen when .AV Framework is not connected to a scheduling calendar.

Home Screen (No Scheduling Calendar Connected)



NOTE: If a custom help page image has been configured for the touch screen project, it will be displayed instead of the default help overlay when the **Help** button is tapped. For more information, refer to "Touch Screen Custom Graphics" on page 24.

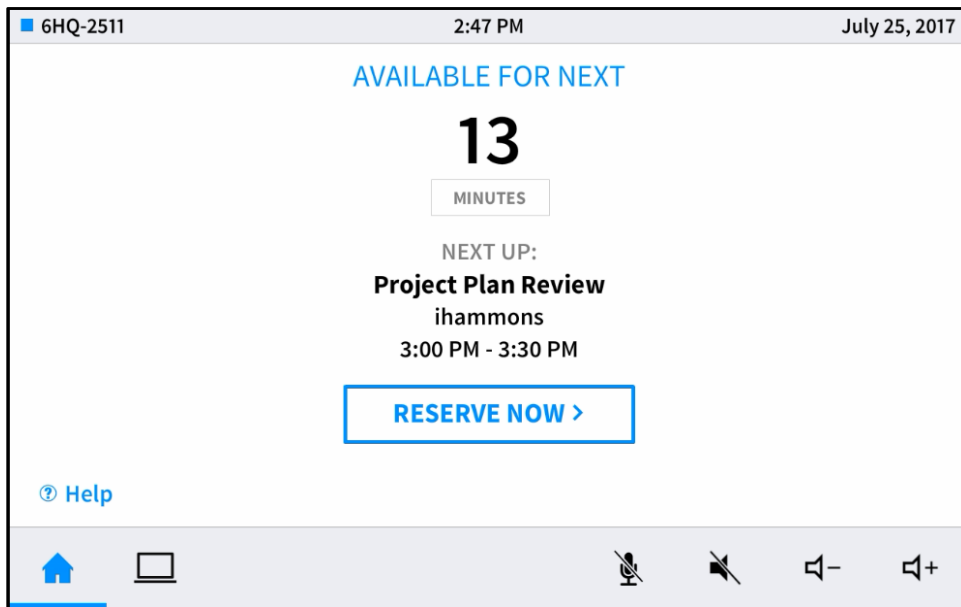
Room Available

If .AV Framework is connected to a scheduling calendar and the room is available, the home screen provides the following information:

- The time remaining (in minutes) until the next scheduled meeting occurs
- The name, organizer, and duration of the next scheduled meeting
- A **RESERVE NOW** button that allows an ad hoc meeting to be scheduled through the touch screen
- A **Help** button that provides more information on the functions of this screen

The image below shows a typical home screen when the room is available.

Home Screen (Room Available)

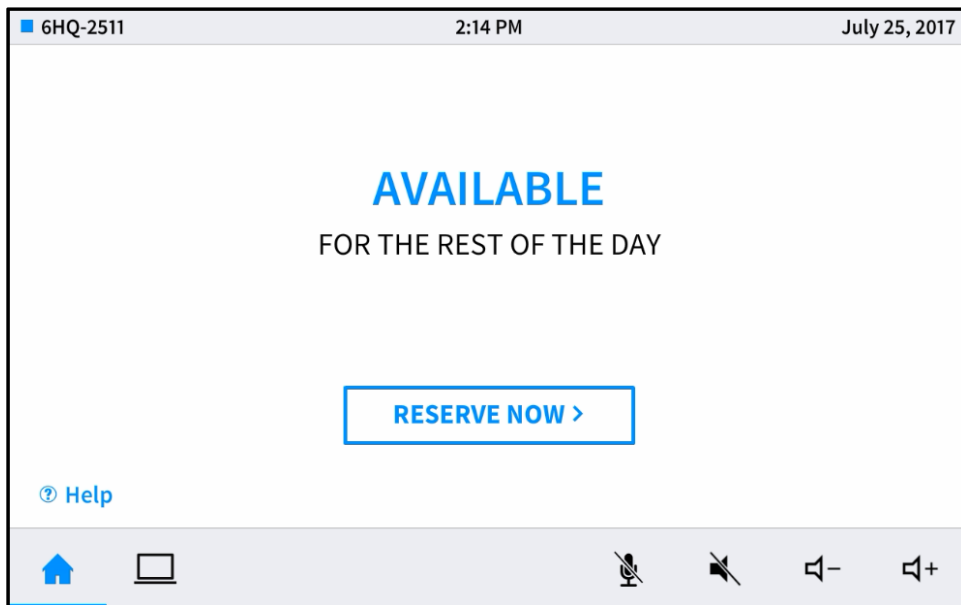


If the room is available for the rest of the day, the home screen provides the following information:

- A **RESERVE NOW** button that allows an ad hoc meeting to be scheduled through the touch screen
- A **Help** button that provides more information on the functions of this screen

The image below shows a typical home screen when the room is available for the rest of the day.

Home Screen (Room Available for the Rest of the Day)



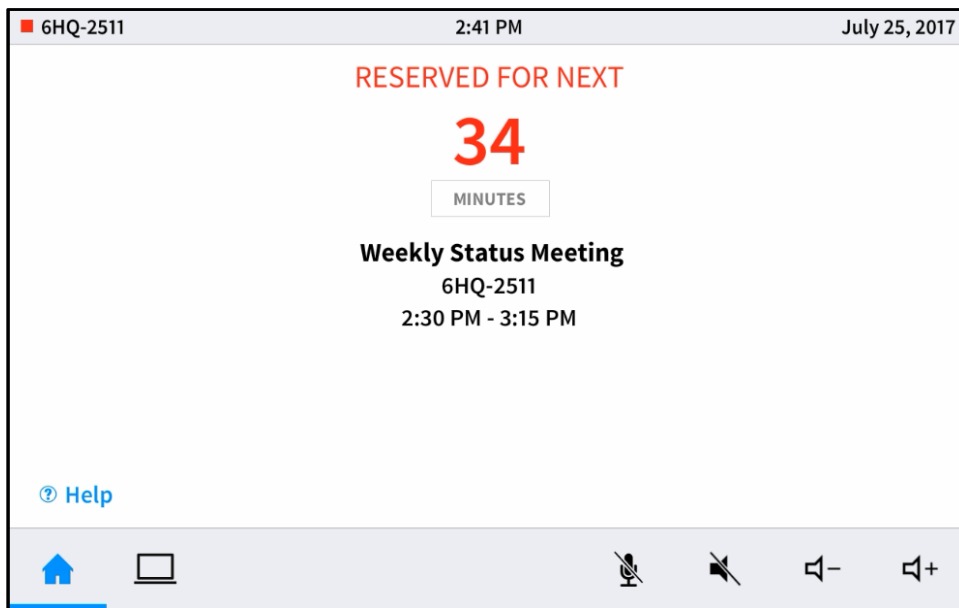
Room Reserved

If the room is not available, the home screen provides the following information:

- The time remaining (in minutes) until the current meeting ends
- The name, organizer, and duration of the current meeting
- The duration and name of the next scheduled meeting
- A **Help** button that provides more information on the functions of this screen

The image on the following page shows a typical home screen when the room is reserved.

Home Screen (Room Reserved)



Reserve a Meeting from the Home Screen

Use the following procedure to reserve an ad hoc meeting from the home screen when the room is available:

1. Tap **RESERVE NOW** on the home screen. The new meeting screen is displayed.

New Meeting Screen

The screenshot shows a 'New Meeting' screen. At the top, there's a header bar with '6HQ-2511' on the left, '2:50 PM' in the center, and 'July 25, 2017' on the right. Below the header, the main area contains a form. The form has a title 'New Meeting' at the top right. Below it, there's a 'Starts' field with '2:50 PM' and an 'Ends' field with '3:30 PM'. There are also two intermediate time slots: '3:15 PM' and '3:45 PM'. At the bottom of the form is a large green button labeled 'RESERVE NOW'. In the bottom left corner of the screen, there's a 'Help' button. In the bottom right corner, there's a close button (X). At the very bottom, there's a navigation bar with icons for home, a laptop, a microphone, a speaker, and volume controls.

2. Tap one of the available meeting end times to set the duration of the meeting. The room can be reserved for up to three lengths:
 - Until the current half hour interval ends (If the current time is 10:17AM, the end time for this option is 10:30AM.)
 - Until the current half hour interval ends plus 30 minutes (If the current time is 10:17AM, the end time for this option is 11:00AM.)
 - Until the current half hour interval ends plus 60 minutes (If the current time is 10:17AM, the end time for this option is 11:30AM.)

NOTE: These options are available only if a meeting is not already scheduled during that timeframe.

3. Tap **RESERVE NOW** to reserve the meeting.

To discard the reservation, tap the **x** button on the top right of the screen.

Access the System Info Screen

To access the **System Info** screen, tap and hold the **Help** button on the home screen for 20 seconds.

The **System Info** screen provides the device IP address, the device hostname, the Crestron Fusion server connection status, the Crestron Fusion room name, and the device MAC address.

System Info Screen



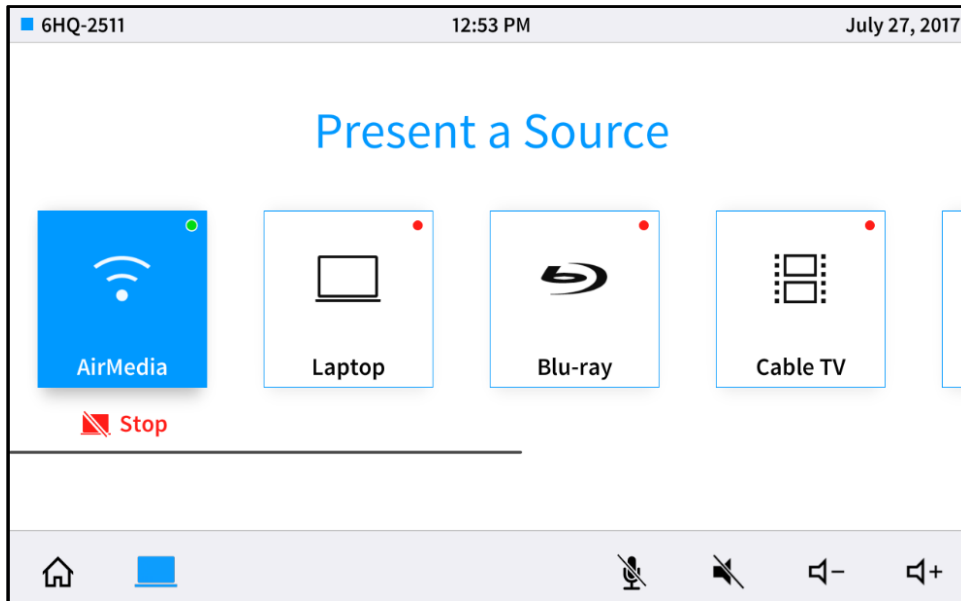
To exit the **System Info** screen and return to the home screen, tap the **x** button on the top right of the screen.

Present a Source Screen Overview

The **Present a Source** screen allows content to be routed from a connected device to the main display in the room.

The **Present a Source** screen appears as shown in the following image.

Present a Source Screen



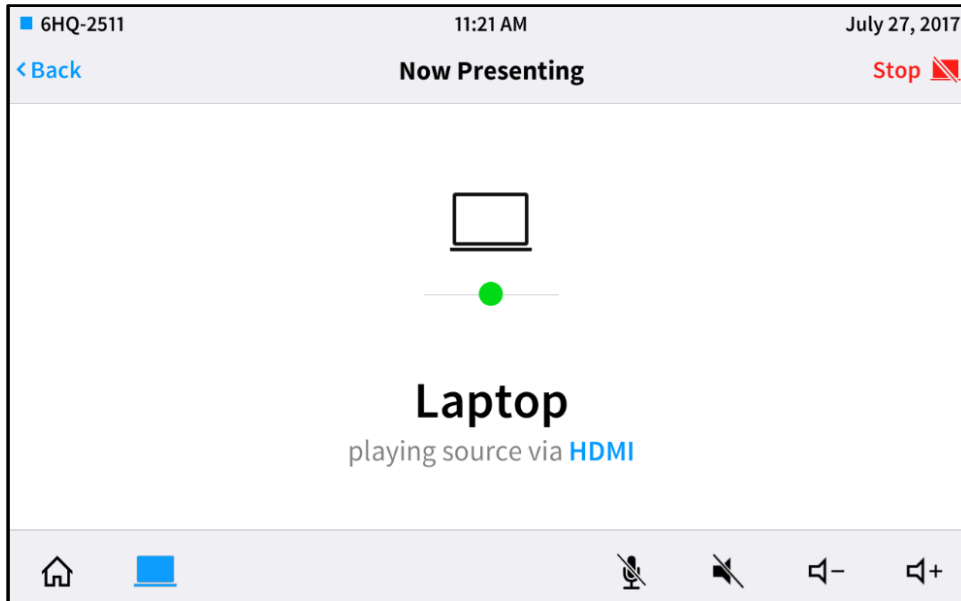
Select one of the available presentation options to route the selected source to the main display. The source is controlled directly through the touch screen project.

- Each available source has a green or red icon in the top right corner of its background tile.
 - A green icon indicates that video signal is present for that source
 - A red icon indicates that video signal is not present.
- If a source is active, the source's background tile turns blue, and a **Stop** button is shown. Tap the **Stop** button to stop routing the source to the display.
- If one source is enabled for presentation, the control page for that source loads automatically when the **Present a Source** screen is accessed.

Now Presenting Screen - HDMI Source

When a source connected by HDMI (such as a laptop) is selected, the following screen is displayed.

Present Screen - HDMI Source



The **Now Presenting** screen for HDMI provides the input name and connection type. The circle icon in the center of the screen turns green if the source is connected and turns red if the source is disconnected.

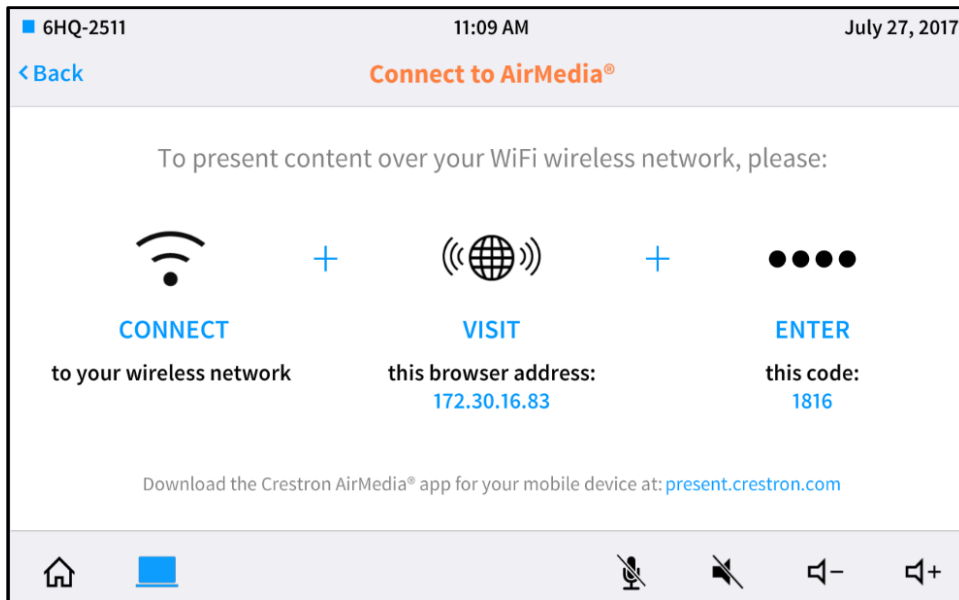
Tap **Stop** on the top right of the screen to disconnect from the HDMI source.

Tap **BACK** to return to the **Present a Source** screen. Pressing **BACK** does not disconnect the source.

Connect to AirMedia Screen

When an AirMedia® presentation gateway source is selected and the wireless connection has not already been established, the following screen is displayed.

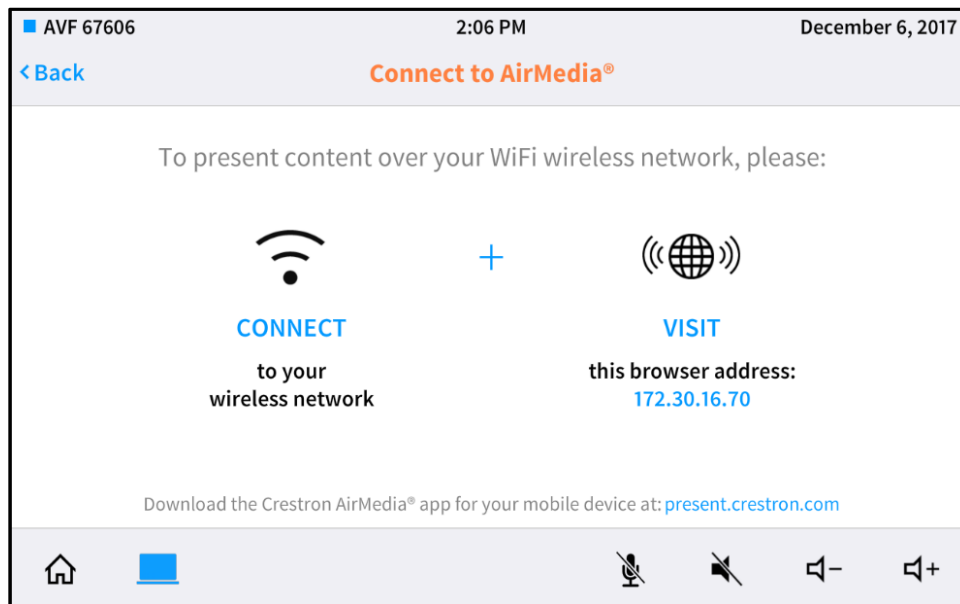
Connect to AirMedia Screen



The **Connect to AirMedia** screen provides instructions for connecting to the AirMedia device over a wireless network. Once this connection has been established, AirMedia can be selected as a presentation source.

If the connection code has been disabled, a version of the **Connect to AirMedia** screen is displayed that omits this step. For more information on disabling the connection code, refer to the AirMedia device's documentation at www.crestron.com/manuals.

Connect to AirMedia Screen - Connection Code Disabled

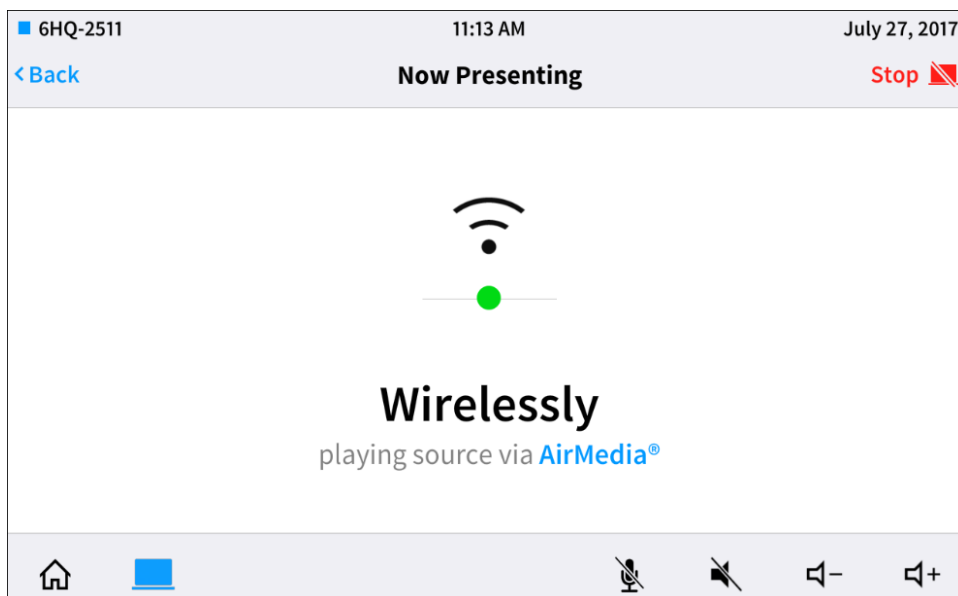


Press **BACK** to return to the **Present a Source** screen.

Now Presenting Screen - AirMedia Source

When an AirMedia source is selected (once a wireless connection has been established), the following screen is displayed.

Present Screen - AirMedia Source



The **Now Presenting** screen for AirMedia shows that the source is connected wirelessly over AirMedia. The circle icon in the center of the screen turns green if the source is connected and turns red if the source is disconnected.

Press **Stop** on the top right of the screen to disconnect from the AirMedia source.

Press **BACK** to return to the **Present a Source** screen. (Pressing **BACK** does not disconnect the source.)

Now Presenting Screen - Other Source Devices

The touch screen project provides custom **Now Presenting** screens for various source devices, such as cable TV receivers and video servers, which include controls that are specific to the device and that are mapped via the device driver.

To view more examples of **Now Presenting** screens for other source devices, refer to the .AV Framework DMPS UI Guide at www.crestron.com/manuals.

Appendix A: Interface Setup

This appendix provides information on how to connect various supported interfaces to the .AV Framework system.

TSW Series Touch Screens

Connect a supported Crestron TSW series touch screen (TSW-752, TSW-1052, TSW-760, or TSW-1060) to the .AV Framework system to control room scheduling and source selection functions from the touch screen.

NOTE: The .AV Framework touch screen project must be loaded on the touch screen prior to operation.

To connect a TSW series touch screen:

NOTE: Ethernet setup screens for the TSW-760 and TSW-1060 are shown for this procedure. Similar screens are used to connect the TSW-752 and TSW-1052.

1. On the **Setup** screen, tap **IP Table Setup** to display the **Ethernet Setup - IP Table** screen.

Ethernet Setup - IP Table Screen

Ethernet Setup - IP Table		Online
Add/Edit	- Add Entry -	<input type="radio"/>
Add/Edit	- Add Entry -	<input type="radio"/>
Add/Edit	- Add Entry -	<input type="radio"/>
Add/Edit	- Add Entry -	<input type="radio"/>

2. Tap **Add/Edit** next to an empty IP table entry. The **Ethernet Setup - Edit IP Table Entry** screen is displayed.

Ethernet Setup - IP Table Screen

< BACK Ethernet Setup - Edit IP Table

Touch a Setting to Edit

CIP ID IP Address / Hostname Port

3 41794

SAVE DELETE

Save & Exit

3. Tap the text field below **CIP ID** to display the **Edit CIP ID** on-screen hex keypad.

Edit CIP ID - On-Screen Hex Keypad

< CANCEL Edit CIP ID

3 X X



1 2 3 4

5 6 7 8

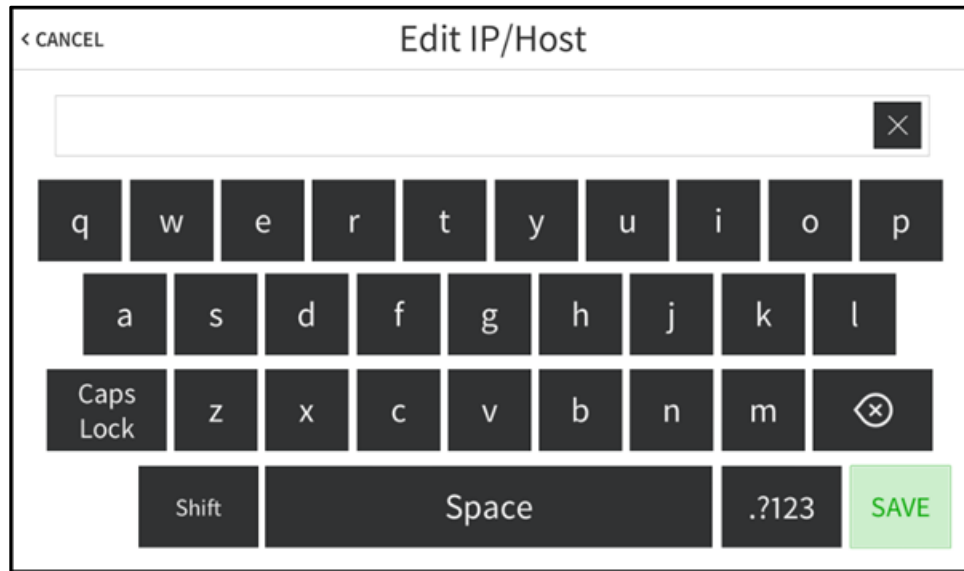
9 A B C

D E F 0

SAVE

4. Use the keypad to enter the IP ID for connecting to the MPC3 device.
 - Tap the clear button  in the text field to clear any previous entry.
 - Tap the delete button  to delete the last digit.
 - Tap **SAVE** to save a new entry or tap **< CANCEL** to discard any changes.
5. Tap the text field below **IP Address / Hostname** to display the **Edit IP/Host** on-screen keyboard.

Edit IP/Host - On-Screen Keyboard



6. Use the keyboard to enter the IP address or hostname of the MPC3 device.
 - Tap the clear button (X) in the text field to clear any previous entry.
 - Tap the delete button (X) to delete the last digit.
 - Tap **SAVE** to save a new entry or tap **CANCEL** to discard any changes. The display returns to the **Ethernet Setup - IP Table** screen.
7. On the **Ethernet Setup - IP Table** screen, tap **SAVE** to save the current entry.

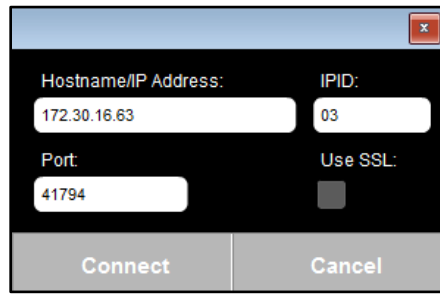
XPanel

Connect to XPanel to configure a virtual touch screen project for testing and control.

To configure a virtual touch screen project with XPanel:

1. Install XPanel by running **Crestron XPanel installer.air** (for Macintosh® systems) or **Crestron XPanel installer.exe** (for Windows® systems). These installer applications can be downloaded from www.crestron.com/software.
2. Load the touch screen project .vtz file in the XPanel application.
3. Open the configuration dialog box by selecting **Options > Host Settings**.
4. Enter the IP address of the MPC3 device running the .AV Framework program.
5. Enter the IP ID for connecting to the MPC3 device.
6. Click **Connect**.

Configuration Dialog Box

A configuration dialog box with a blue header bar and a red close button in the top right corner. It contains four input fields: 'Hostname/IP Address:' with the value '172.30.16.63', 'IPID:' with the value '03', 'Port:' with the value '41794', and 'Use SSL:' with an unchecked checkbox. At the bottom are two buttons: 'Connect' and 'Cancel'.

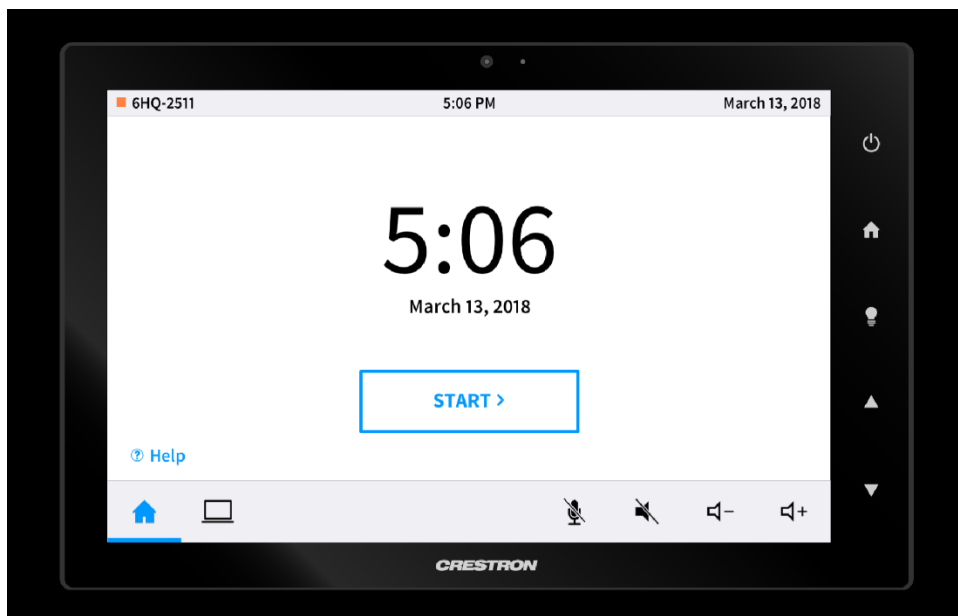
The touch screen project can also be displayed and tested using the .AV Framework program's built-in web XPanel interface.

NOTE: A touch screen device must be added to the .AV Framework system with IP ID 04 to access the web XPanel interface. The "Webx" touch screen device with IP ID 04 is added to new .AV Framework systems by default.

To access the web XPanel interface from a web browser, enter the IP address or the hostname of the MPC3 device in the browser URL field, appending "/avf" to the IP address or hostname ("xxx.xxx.xxx.xxx/avf").

The web XPanel interface is displayed.

Web XPanel Interface



All touch screen project functions and screens can be tested through the web XPanel interface. Additionally, the virtual touch screen hard buttons (except for the center lightbulb button) provide the same functionality as a physical touch screen.

AM-100/AM-101

Connect a Crestron AM-100 or AM-101 AirMedia presentation gateway to the .AV Framework system to present content wirelessly on a display output.

To connect an AM-100 or AM-101:

1. Use a web browser to connect to the AirMedia device IP address.
2. Click **Device Administration** to display the login page.
3. Log in to the configuration utility. The default password is "admin."
4. Select **Crestron Services Setup** from the column on the left side of the page.

Device Administration - Crestron Services Setup

Section	Field	Value
Crestron Control System	IP Address or Host name	dmps3-ih1
	IP ID	10
	Port	41794
	Communication Status	Offline
Fusion Server	IP Address or Host name	
	IP ID	02
	Port	41794
	Communication Status	Offline
Crestron Connected® Device	IP Address or Host name	
	Communication Status	Offline
	Current Source	None
	Source	None
	Automatic Power On	Immediately
	Power Off Time Out	0 minutes
	Power Control	Power On / Power Off
	Power Status	Unknown
	Lamp Hours	0 hours
Device Status	No Error	

5. Enter the IP address of the MPC3 device in the **Crestron Control System** section.
6. Set an IP ID used to connect to the MPC3 device.

7. Set the Port to 41794.
8. Click **Apply**.

MP-B10/MP-B20

Connect a Crestron MP-B10 or MP-B20 media presentation button panel to the .AV Framework system in place of a touch screen for device routing and source control. A button panel can also be connected directly to the switcher device via a direct Cresnet network connection (MPC3-101/MPC3-102/MPC3-302 only) or using a Cresnet gateway.

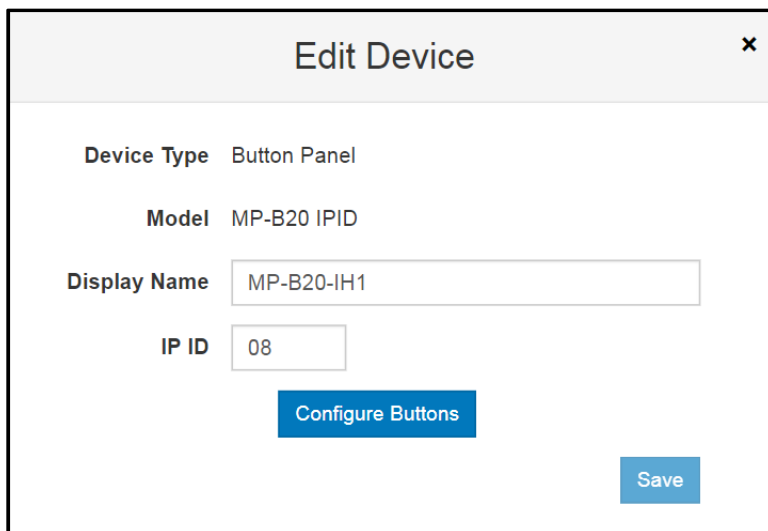
NOTE: Observe the following points when connecting an MP-B10 or MP-B20:

- No more than two button panels can be added to the same configuration.
 - If .AV Framework is powered off from the button panel, power on functionality is disabled until after a 30-second period has elapsed.
 - If .AV Framework is controlled using a button panel and a connected display device requires a warm-up or cool-down period, button panel functions are disabled until the warm-up or cool-down period has completed.
-

The scroll wheel on the MP-B10 adjusts volume level.

The .AV Framework configuration utility also provides screens that can be used to configure each button individually. When adding or editing a button panel, click **Configure Buttons**.

Edit Device Dialog Box - Button Panel

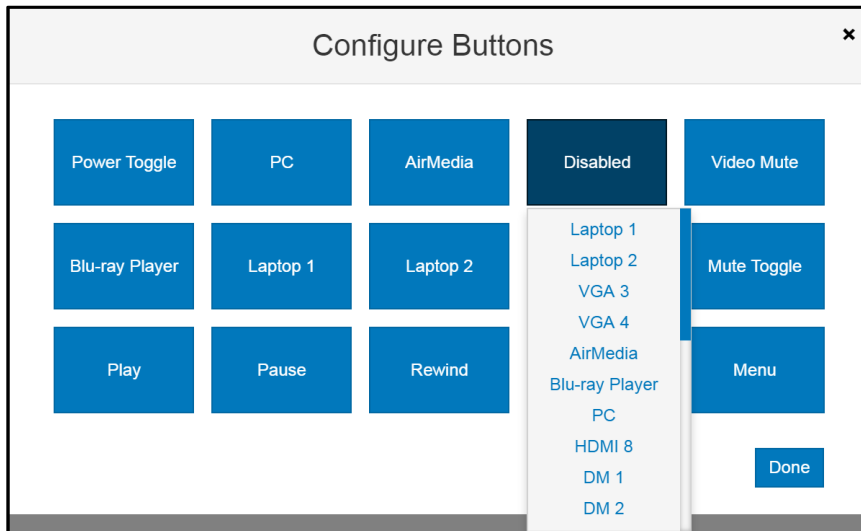


The screenshot shows a dialog box titled "Edit Device" with a close button (X) in the top right corner. The dialog contains the following fields and buttons:

- Device Type:** Button Panel
- Model:** MP-B20 IPID
- Display Name:** MP-B20-IH1
- IP ID:** 08
- Buttons:** "Configure Buttons" (blue) and "Save" (light blue)

The **Configure Buttons** dialog box is displayed.

Configure Buttons Dialog Box - MP-B20



Each button on the button panel can be configured by clicking its respective button in the **Configure Buttons** dialog box. A drop-down menu is displayed when a button is clicked.

Select one of the switcher device input channels from the drop-down menu to map that input to the button or select one of the provided functions to map that function to the button.

NOTE: When using the MP-B20 for source control, the device's 5-way navigation pad is only functional when an appropriate source device input, such as a Blu-ray Disc player or a media server, is selected. Each button on the navigation pad is mapped to the appropriate function on the selected device's menu.

The default input names for the switcher device inputs can be customized in the configuration utility. For more information, refer to "Inputs/Outputs" on page 37.

NOTE: To view illustrations showing button locations on the MP-B10 and MP-B20, refer to the MP-B10/MP-B20 DO Guide (Doc. 7934) at www.crestron.com/manuals.

Click **Done** to save any changes and to exit the **Configure Buttons** dialog box.

GLS-ODT-C-CN/GLS-OIR-C-CN

The Crestron GLS-ODT-C-CN and CLS-OIR-C-CN occupancy sensors connect to .AV Framework over a direct Cresnet connection (MPC3-101/MPC3-102/MPC3-302 only) or using a Cresnet gateway. Use an occupancy sensor for additional system automation in a single-display room.

Device configuration is performed with the web-based setup screens described in the "Device Management" section on page 32.

Crestron Fusion

Connect to Crestron Fusion software to monitor and control basic room data, system power, source selection, and room scheduling.

Connect to Crestron Fusion

To connect with Crestron Fusion, use the following procedure:

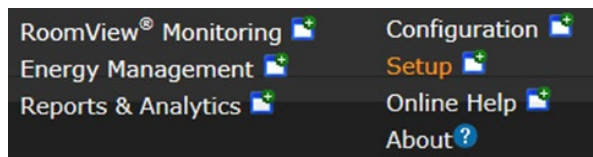
1. Log in to the Crestron Fusion server.
2. From the Crestron Fusion header tab, click **Open**.

Crestron Fusion Cloud Header Tab



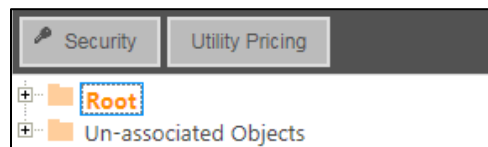
3. From the pull-down tab, click **Setup**.

Pull-Down Tab



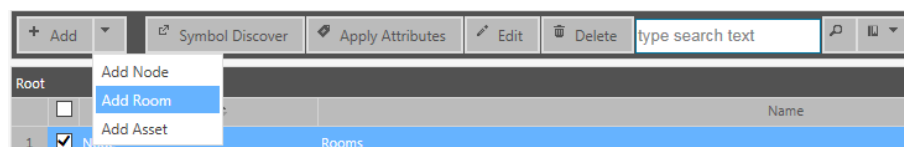
4. Click the + symbol next to **Root** node to expand the tree. Click the **Rooms** node to select the node.

Root Node



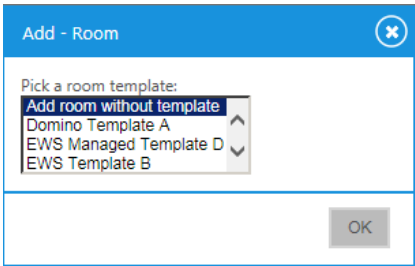
5. Click **Add**. From the drop-down list, click **Add Room**.

Add Drop-Down List



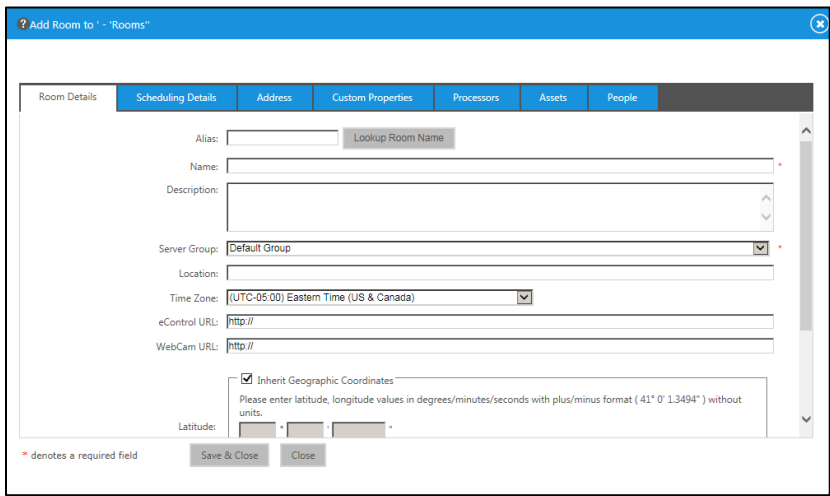
The **Add - Room** dialog box opens.

Add - Room Dialog Box

A dialog box titled "Add - Room" with a close button (X) in the top right corner. Inside, there is a label "Pick a room template:" followed by a dropdown menu. The dropdown menu is open, showing four options: "Add room without template" (highlighted), "Domino Template A", "EWS Managed Template D", and "EWS Template B". Below the dropdown is an "OK" button.

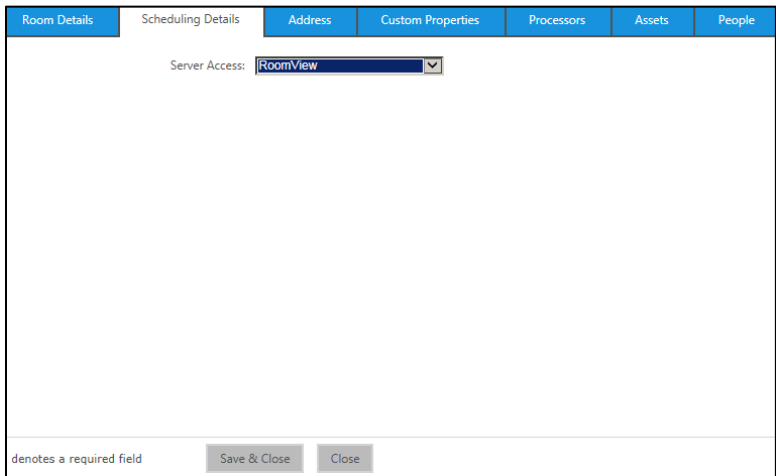
- 6. From the drop-down list, make a selection and then click **OK**. The **Add Room to 'Rooms'** dialog box opens with the **Room Details** tab selected.

Room Details Tab

A screenshot of the "Add Room to 'Rooms'" dialog box. The "Room Details" tab is selected. The form contains several fields: "Alias" (with a "Lookup Room Name" button), "Name" (required), "Description" (optional), "Server Group" (dropdown, set to "Default Group"), "Location" (optional), "Time Zone" (dropdown, set to "(UTC-05:00) Eastern Time (US & Canada)"), "eControl URL" (optional), and "WebCam URL" (optional). There is a checkbox for "Inherit Geographic Coordinates" which is checked. Below it, a note says "Please enter latitude, longitude values in degrees/minutes/seconds with plus/minus format (41° 0' 1.3494\" data-bbox="234 327 742 561"/>

- 7. Enter information into the required fields as indicated by the red asterisks. Enter optional information as desired.
- 8. Click the **Scheduling Details** tab.

Scheduling Details Tab

A screenshot of the "Scheduling Details" tab in the "Add Room to 'Rooms'" dialog box. The "Room Details" tab is also visible. The "Scheduling Details" tab contains a "Server Access" dropdown menu set to "RoomView". At the bottom, there are "Save & Close" and "Close" buttons, and a note that an asterisk denotes a required field.

9. In the **Server Access** field, select the RoomView® scheduling application.

NOTE: The user may change to another scheduling calendar later.

10. Click the **Processors** tab, and then click **Add**.

Processors Tab

The screenshot shows a dialog box titled "Add Room to 'Rooms'" with a blue header bar. Below the header is a tabbed interface with tabs for "Room Details", "Scheduling Details", "Address", "Custom Properties", "Processors", "Assets", and "People". The "Processors" tab is selected. Below the tabs is a text area with the instruction: "Click on Add Processor to add a processor with the room. The symbols on the processor will be associated with the room." Below this text area is a table with columns: "Processor Name", "Host Name", "Location", "Port", "Secure Port", and "Discover Symbols". The "Processor Name" column has a red asterisk next to it. Below the table is a footer with a red asterisk and the text "denotes a required field", and two buttons: "Save & Close" and "Close".

The **Add Processor to 'Room'** dialog box opens.

Add Processor to 'Room' Dialog Box

The screenshot shows a dialog box titled "Add Processor to 'Room'" with a blue header bar. Below the header is a form with the following fields: "Name" (required), "Location:", "IP Address/Hostname:" (required), "MAC Address:", "Connection Direction:" (dropdown menu with "None" selected), "Port:" (required, value 41794), "Secure Port:" (required, value 41796), "Username:", and "Password:". Below the form is a section titled "Discover Symbols" with two checkboxes: "Discover Symbols:" and "Use SSL:". Below the "Discover Symbols" section are two buttons: "Save & Close" and "Close". A red asterisk and the text "denotes a required field" are located at the bottom of the form.

11. Enter the processor information into the required fields as indicated by the red asterisks. Enter optional information as desired.

12. Click the **Discover Symbols** check box.

NOTE: If the **Discover Symbols** check box is selected in the **Add Processor to 'Room'** dialog box and the control program symbol being used is version 7.2 or higher, the Symbol Discover feature automatically imports the symbol information into the Crestron Fusion database.

13. Click the **Use SSL** check box if **Discover Symbols** was selected and if the processor is configured for Secure CTP Toolbox connections only.

NOTE: In the Crestron SystemBuilder™ and D3 Pro® platforms, the Symbol Discover feature is not supported on symbols below version 7.2.

14. Click **Save & Close**.

NOTE: Steps 15 through 21 are not necessary if the **Discover Symbols** check box is selected in the **Add Processor to 'Room'** dialog box.

15. Click the + symbol next to the processor name to add, edit, or delete a symbol.

Add, Edit, or Delete Symbol

<div>+ Add ▽ Edit 🗑 Delete</div>						
<input type="checkbox"/>	Processor Name *	Host Name	Location	Port	Secure Port	Discover Symbols
1 <input type="checkbox"/> +	Test Processor	67.52.47.165		41794	41796	✓

16. Click **Add**. The **Add Symbol to 'New Processor'** dialog box opens with the **Symbol Details** tab selected.

Symbol Details Tab

Symbol Details Analog Attributes Digital Attributes Serial Attributes

Symbol Name

Version:

IPID:

Use SSL: ☐

* denotes a required field

Save & Close

Close

17. In the **Symbol Name** field, enter a name. Enter optional information as desired.
18. Set the **Version** and the **IPID** to match the Crestron Fusion symbol in the program.

NOTE: The version 8 symbol is the same as the Crestron Fusion Room symbol in Crestron SIMPL. If using SystemBuilder or D3 Pro, select the version 6 symbol.

19. Click the **Use SSL** check box if the processor is configured for Secure CIP connections only.

20. Click **Save & Close** to save the symbol; click **Save & Close** again to save the room.

NOTE: To associate the room with a node other than the selected **Rooms** node, click and drag the new room to that node. The room is now associated with the new node.

Room Control and Monitoring

Room monitoring and control in Crestron Fusion use the following attributes.

System Monitors (Read Only)

TYPE	FUNCTION
Serial	Crestron Fusion Error Message
Serial	Crestron Fusion Log Text
Serial	Crestron Fusion Device Usage

Controller (Read Only)

TYPE	FUNCTION
Serial	Name
Serial	Hostname
Serial	IP Address
Serial	Subnet Mask
Serial	Default Router
Digital	Connected

Environment (Read Only)

TYPE	FUNCTION
Analog	System Volume

Environment (Read/Write)

TYPE	FUNCTION
Digital	System Power
Digital	System Mute

Switch (Read Only)

TYPE	FUNCTION
Serial	Display Name
Serial	Model
Serial	Input Channels Enabled
Serial	Output Channels Enabled
Serial	Input 1 Name
Serial	Input 2 Name
Serial	Input 3 Name
Serial	Input 4 Name
Serial	Input 5 Name
Serial	Input 6 Name
Serial	Input 7 Name
Serial	Input 8 Name
Serial	Input 9 Name
Serial	Input 10 Name
Serial	Output 1 Name
Serial	Output 2 Name
Serial	Output 3 Name
Digital	Connected

Monitor the assets connected to the room with the following attributes:

TSW-752/TSW-1052 (Read Only)

TYPE	FUNCTION
Digital	Connected

TSW-760/TSW-1060 (Read Only)

TYPE	FUNCTION
Digital	Connected

Flat Panel Display (Read Only)

TYPE	FUNCTION
Digital	Connected

AM-100/AM-101 (Read Only)

TYPE	FUNCTION
Digital	Connected

AM-200/AM-300 (Read Only)

TYPE	FUNCTION
Digital	Connected

MPB-10/MP-B20 (Read Only)

TYPE	FUNCTION
Digital	Connected

C2N-IO (Read Only)

TYPE	FUNCTION
Digital	Connected

SSC/SSW (Read Only)

TYPE	FUNCTION
Digital	Connected

Cable TV Receiver (Read Only)

TYPE	FUNCTION
Digital	Connected

Projector (Read Only)

TYPE	FUNCTION
Digital	Connected

Video Server (Read Only)

TYPE	FUNCTION
Digital	Connected

Occupancy Sensor (Read Only)

TYPE	FUNCTION
Analog	Online Status
Digital	OccSensorEnabled
Analog	OccSensorTimeout
Serial	Room Occupancy Information
Digital	Room Occupied
Digital	Room Unoccupied

Appendix B: Device Configuration

Each device that is compatible with .AV Framework for the MPC3 has specific fields that must be configured when the device is added to the system.

The tables below provide information about the various configuration fields associated with each device class.

AirMedia

Add New Device Fields - AirMedia

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user defined AirMedia device display name	
Model	The AirMedia device model name	AM-100, AM-101, AM-200, AM-300
Control	The transport method used for device control	IP ID
IP ID	The IP ID used to connect the AirMedia device to the server	

NOTE: The AM-200 and AM-300 can be added to the system as a source device or as an A/V switcher device. To add the AM-200 or AM-300 as an A/V switcher, refer to "Add an A/V Switcher" on page 7.

Blu-ray™ Player

Add New Device Fields - Blu-ray™ Player

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined Blu-ray player display name	
Model	The Blu-ray player model	[Any supported video server]
Control	The transport method used for device control	Serial, IP, IR ²
Communications Port	The device port that controls the Blu-ray player	[Any unused communication port for the selected transport method in the system]
IP²	The Blu-ray player IP address on the network	
Port²	The Blu-ray player web port	

¹ The **IR** control method is compatible only with the MPC3-101, MPC3-101, and MPC3-302.

² This field is provided when an IP-controlled cable TV receiver is selected for **Model**.

Button Panel

Add New Device Fields - Button Panel

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined button panel name	
Model	The button panel model name	MP-B10 Cresnet ¹ , MP-B10 Cresnet Bus ² , MP-B10 IPID, MP-B20 Cresnet ¹ , MP-B20 Cresnet Bus ² , MP-B20 IPID
Control	The transport method used for device control	Cresnet, IP ID, Cresnet Bus
Cresnet ID ³	The Cresnet ID of the button panel	
IP ID ⁴	The IP ID used to connect the button panel to the server	
Gateway Bus ⁵	The bus that the button panel is connected to on the Cresnet gateway	

¹ This value is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This value is provided only when a Cresnet gateway has been added to the system.

³ This field is provided when **MP-B10 Cresnet** or **MP-B20 Cresnet** is selected for **Model**.

⁴ This field is provided when **MP-B10 IPID** or **MP-B20 IPID** is selected for **Model**.

⁵ This field is provided when **MP-B10 Cresnet Bus** or **MP-B20 Cresnet Bus** is selected for **Model**.

NOTE: The **Add New Device** dialog box also provides a **Configure Buttons** selection when **Button Panel** is selected as the device type, which can be used to configure individual buttons on the button panel. For more information, refer to "MP-B10/MP-B20" on page 60.

Cable TV

Add New Device Fields - Cable TV

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined cable TV receiver display name	
Model	The cable TV receiver model name	[Any supported cable TV receiver]
Control	The transport method used for device control	IR ¹ , IP
Communications Port ²		
IP ³	The cable TV receiver IP address on the network	
Port ³	The cable TV receiver web port	

¹ The **IR** control method is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This field is provided when an IR-controlled cable TV receiver is selected for **Model**.

³ This field is provided when an IP-controlled cable TV receiver is selected for **Model**.

Cresnet Gateway

Add New Device Fields - Cresnet Gateway

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user defined Cresnet gateway name	
Model	The Cresnet gateway model name	DIN-CENCN-2
Control	The transport method used for device control	IP ID
IP ID	The IP ID of the Cresnet gateway	

Crestron IO

Add New Device Fields - Crestron IO

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined Crestron IO device name	
Model	The Crestron IO device model name	C2N-IO ¹ , C2N-IO Bus ² , CEN-IO-COM-102, CEN-IO-IR-104, CEN-IO-RY-104
Control	The transport method used for device control	Cresnet, IP ID, Cresnet Bus
Cresnet ID ³	The Cresnet ID of the Crestron IO device	
IP ID ⁴	The IP ID used to connect the Crestron IO device to the server	
Gateway Bus ⁵	The bus that the Crestron IO device is connected to on the Cresnet gateway	

¹ This value is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This value is provided only when a Cresnet gateway has been added to the system.

³ This field is provided when **C2N-IO** is selected for **Model**.

⁴ This field is provided when **CEN-IO-COM-102**, **CEN-IO-IR-104**, or **CEN-IO-RY-104** is selected for **Model**.

⁵ This field is provided when **C2N-IO Bus** is selected for **Model**.

DigitalMedia Transmitter

Add New Device Fields - DigitalMedia Transmitter

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user defined DigitalMedia transmitter name	
Model	The DigitalMedia transmitter model name	DM-TX-201-C ¹ , DM-TX-401-C ¹ , DM-TX-4K-202-C ¹ , DM-TX-4K-302-C ¹
Control	The transport method used for device control	IP ID
IP ID	The IP ID of the DigitalMedia transmitter	

¹ These models are only available if an AM-300 is selected as the A/V switcher for the system.

Flat Panel Display

Add New Device Fields - Flat Panel Display

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined display name of the flat panel display	
Model	The flat panel display model name	[Any supported flat panel display]
Control	The transport method used for device control	CEC, IP ID, IP, Serial, IR ¹
Default Input ²	The default input of the flat panel display in the system	[Any available input of the appropriate type in the system]
Communications Port ^{3, 6, 7}	The device port that controls the flat panel display	[Any unused communication port for the selected transport method in the system]
IP ID ⁴	The IP ID used to connect the flat panel display to the server	
IP ⁵	The IP address of the flat panel display on the network	
Port ⁵	The flat panel display web port	
Channel ^{5, 6}	The flat panel display Wi-Fi® network channel	
Warm Up Time ^{8, 9}	The duration that a "warming up" message is displayed on the .AV Framework user interface after the display is powered on, in seconds	[Minimum value is the default defined by the device driver; maximum value is 300 seconds]
Cool Down Time ^{8, 9}	The duration that a "cooling down" message is displayed on the .AV Framework user interface after the display is powered off, in seconds	[Minimum value is the default defined by the device driver; maximum value is 300 seconds]
User Name ¹⁰	The username (required or optional) for initiating device control communications	
Password ¹⁰	The password (required or optional) for initiating device control communications	

¹ The **IR** control method is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This field is provided when a flat panel display that uses a transport method for device control is selected.

³ This field is provided when a CEC-controlled flat panel display is selected for **Model**.

⁴ This field is provided when a Crestron Connected controlled flat panel display is selected for **Model**.

⁵ Some or all these fields are provided when an IP-controlled flat panel display is selected for **Model** and **IP** is selected for **Control**.

⁶ Some or all these fields are provided when a serial-controlled flat panel display is selected for **Model** and **Serial** is selected for **Control**.

⁷ Some or all these fields are provided when a serial-controlled flat panel display is selected for **Model** and **IR** is selected for **Control**.

⁸ All controls on the user interface are temporarily locked out until the message times out.

⁹ These fields are provided only if the display driver supports this functionality.

¹⁰ These fields are provided when a device driver for a flat panel display requires a username and password to initiate control communications.

Occupancy Sensor

Add New Device Fields - Occupancy Sensor

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined occupancy sensor name	
Model	The occupancy sensor model name	GLS-ODT-C-CN ¹ , GLS-ODT-C-CN Bus ² , GLS-OIR-C-CN ¹ , GLS-OIR-C-CN Bus ²
Control	The transport method used for device control	Cresnet, Cresnet Bus
Cresnet ID³	The Cresnet ID of the occupancy sensor	[Any available input of the appropriate type in the system]
Gateway Bus⁴	The bus that the occupancy sensor is connected to on the Cresnet gateway	
Use Sensor Timeout	Sets whether system timeout is determined by the occupancy sensor device (For example, if Yes is selected, the system times out if no occupancy is detected in a room)	Yes, No
Timeout Minutes⁵	The duration in minutes that it takes for the system to time out if sensor timeout is not used	
Turn System On	Sets whether the .AV Framework system turns on if motion is detected by the occupancy sensor device	Yes, No
Turn System Off	Sets whether the .AV Framework system turns off if no occupancy is detected by the occupancy sensor device	Yes, No
Route Default Video	Sets whether default video is routed when the occupancy sensor turns on the .AV Framework system.	Yes, No

¹ This value is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This value is provided only when a Cresnet gateway has been added to the system.

³ This field is provided when **GLS-ODT-C-CN** or **GLS-OIR-C-CN** is selected for **Model**.

⁴ This field is provided when **GLS-ODT-C-CN Bus** or **GLS-OIR-C-CN Bus** is selected for **Model**.

⁵ This field is provided when **No** is selected for **Use Sensor Timeout**.

Projector

Add New Device Fields - Projector

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined projector display name	
Model	The projector model name	[Any supported projector]
Control	The transport method used for device control	IP, Serial
Default Input	The default input of the projector in the system	[Any available input of the appropriate type in the system]
IP¹	The IP address of the projector on the network	
Port¹	The projector web port	
Communications Port²	The device port that controls the projector	[Any unused communication port for the selected transport method in the system]
Warm Up Time^{3,4}	The duration that a "warming up" message is displayed on the .AV Framework user interface after the projector is powered on, in seconds	[Minimum value is the default defined by the device driver; maximum value is 300 seconds]
Cool Down Time^{3,4}	The duration that a "cooling down" message is displayed on the .AV Framework user interface after the projector is powered off, in seconds	[Minimum value is the default defined by the device driver; maximum value is 300 seconds]
User Name⁵	The username (required or optional) for initiating device control communications	
Password⁵	The password (required or optional) for initiating device control communications	

¹ These fields are provided when **IP** is selected for **Control**.

² This field is provided when **Serial** is selected for **Control**.

³ All controls on the user interface are temporarily locked out until the message times out.

⁴ These fields are provided only if the projector driver supports this functionality.

⁵ These fields are provided when a device driver for a projector requires a username and password to initiate control communications.

NOTE: If the selected projector driver supports video mute, a blank projector screen is outputted to the projector when video mute is enabled.

Room Availability Hallway Sign

Add New Device Fields - Touch Screen

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined room availability sign display name	
Model	The room availability sign model name	SSW/SSC¹, SSW/SCC Bus²
Control	The transport method used for device control	Cresnet, Cresnet Bus
Cresnet ID³	The Cresnet ID of the room availability sign	
Gateway Bus⁴	The bus that the room availability sign is connected to on the Cresnet gateway	

¹ This value is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

¹ This value is provided only when a Cresnet gateway has been added to the system.

² This field is provided when **SSW/SSC** is selected for **Model**.

³ This field is provided when **SSW/SCC Bus** is selected for **Model**.

Touch Screen

Add New Device Fields - Touch Screen

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined touch screen display name	
Model	The touch screen model name	TSW-1052, TSW-1060, TSW-752, TSW-760, Webx
Control	The transport method used for device control	IP ID
IP ID	The IP ID used to connect the touch screen to the server	

NOTE: Select **Webx** using the **Model** drop-down menu when configuring a virtual touch screen project with the .AV Framework program's built-in XPanel interface. For more information, refer to "Xpanel" on page 57.

Video Server

Add New Device Fields - Cable TV

FIELD	DESCRIPTION	SUPPORTED VALUES
Display Name	The user-defined video server device display name	
Model	The video server device model	[Any supported video server]
Control	The transport method used for device control	IR¹, IP, CEC
Communications Port²	The device port that controls the video server device	[Any unused communication port for the selected transport method in the system]
IP³	The video server device IP address on the network	
Port³	The video server device web port	

¹ The **IR** control method is compatible only with the MPC3-101, MPC3-102, and MPC3-302.

² This field is provided when **IR** is selected for **Control**.

³ These fields are provided when **IP** is selected for **Control**.

Appendix C: Delete the .AV Framework Program

If necessary, the .AV Framework program can be deleted from the MPC3 device. Use the following procedure to delete the .AV Framework program:

1. Connect to the MPC3 device in Crestron Toolbox.
2. Select **View > System Info**. The **System Info** window loads.
3. Locate the **Program** section on the top right of the **System Info** window, and then click the ► button. A new dialog box opens.
4. Select the .AV Framework program.
5. Click **Erase**.
6. In the new dialog box that is displayed, click **Erase All Program Files**.
7. When the confirmation dialog box opens, click **Yes**.

A custom user program can also overwrite the .AV Framework program.

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