Software Features of the DM-MD8X1-4K-C and HD-MD8X1-4K

Operations Guide

Crestron Electronics, Inc.

This document was written by the Technical Publications department at Crestron.

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Software Features of the DM-MD8X1-4K-C and HD-MD8X1-4K

Introduction

The Crestron® DM-MD8X1-4K-C 4K and the HD-MD8X1-4K Scaling Presentation Switchers come with built-in software that enables complete system configuration and control.

The latest version of the program and all projects are available in the firmware upgrade zip file. The zipped package file includes the following:

- The program
- The TSW-752 project
- The Xpanel project and installer files for Macintosh® and Windows® operating systems
- The project for iPad® tablets

NOTE: The DM-MD8X1-4K-C and the HD-MD8X1-4K may optionally be controlled by an external control system rather than by the built-in software functionality. When a control system is added to the IP table, the built-in software functionality is disabled.

Many items within this document refer to the DM-MD8X1-4K-C and the HD-MD8X1-4K. For simplicity within this guide, the term “host device” is used except where noted.

Interface Setup

This section provides information on how to connect each interface to the control system.

TSW-752

To connect a TSW-752, use the following procedure:

NOTE: With TSW-752 models other than the TSW-752-B-DMPS3 PAK KIT, the project must be loaded on the touch screen.

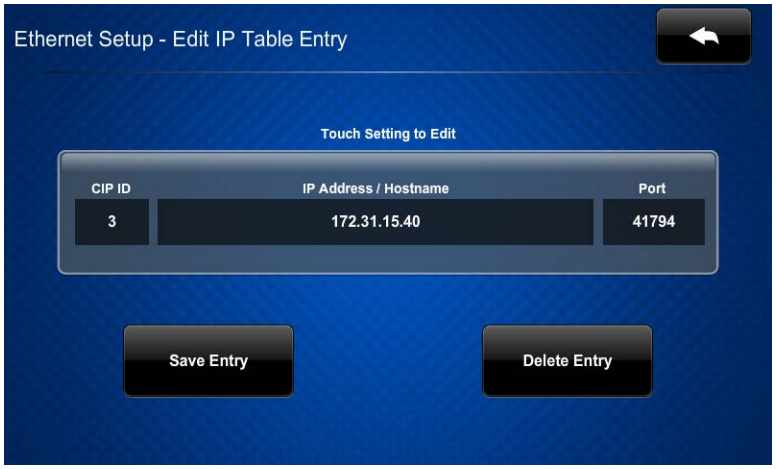
NOTE: The software requires IP ID 03 from the TSW-752. Out of the box, the value should already be set.

1. On the **Setup** screen, tap **IP Table Setup** to display the **Ethernet Setup - IP Table** screen. The **Ethernet Setup - IP Table** screen displays up to four IP table settings, each of which has an **Online** indicator.

   Ethernet Setup - IP Table Screen

2. To add or edit an entry, tap the corresponding **Add/Edit** button. The **Ethernet Setup - Edit IP Table Entry** screen is displayed.

   Ethernet Setup - Edit IP Table Entry Screen



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

Edit CIP ID Screen

4. Use the keypad to make the new entry. Tap **Save** to save the new entry or  to return to the **Ethernet Setup - Edit IP Table Entry** screen.
5. Tap the **IP Address/Hostname** field to display the on-screen keyboard.

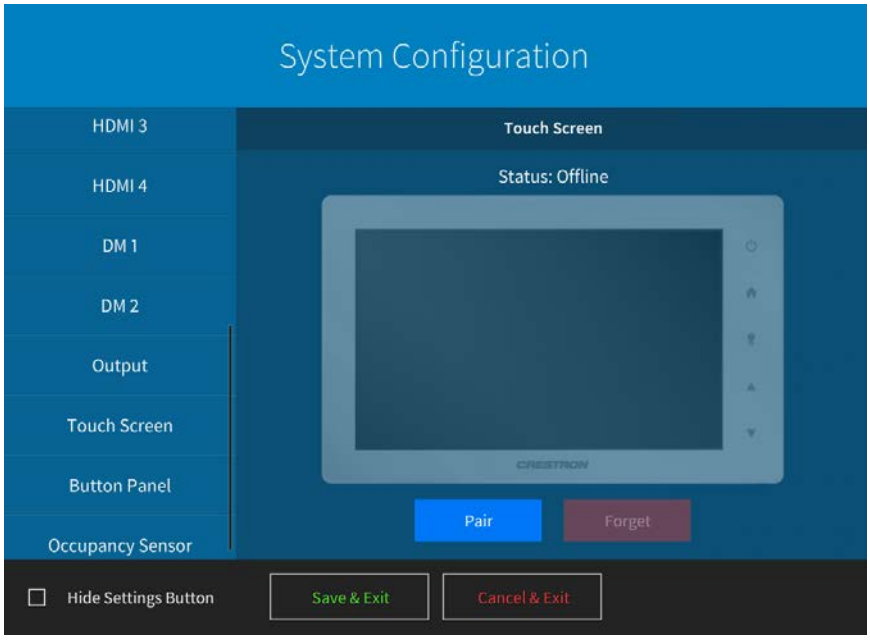
Edit IP/Host Screen

6. Enter the IP address or hostname of your host device using the on-screen keyboard. Tap **Save** to save the new entry and return to the **Ethernet Setup - Edit IP Table Entry** screen. Tap **Cancel** to return to the **Ethernet Setup - Edit IP Table Entry** screen.
7. On the **Ethernet Setup - Edit IP Table Entry** screen, tap **Save Entry** to save the current entry or **Delete Entry** to clear it.

To pair a TSW-752 via the on-screen interface, use the following procedure:

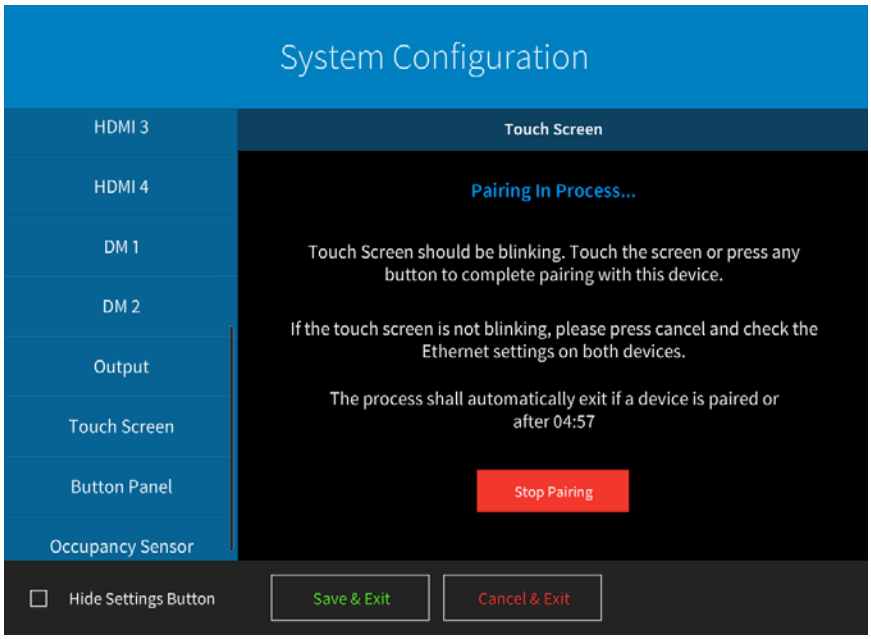
1. Tap the  (gear) icon to display the **System Configuration** screen.

   System Configuration Screen



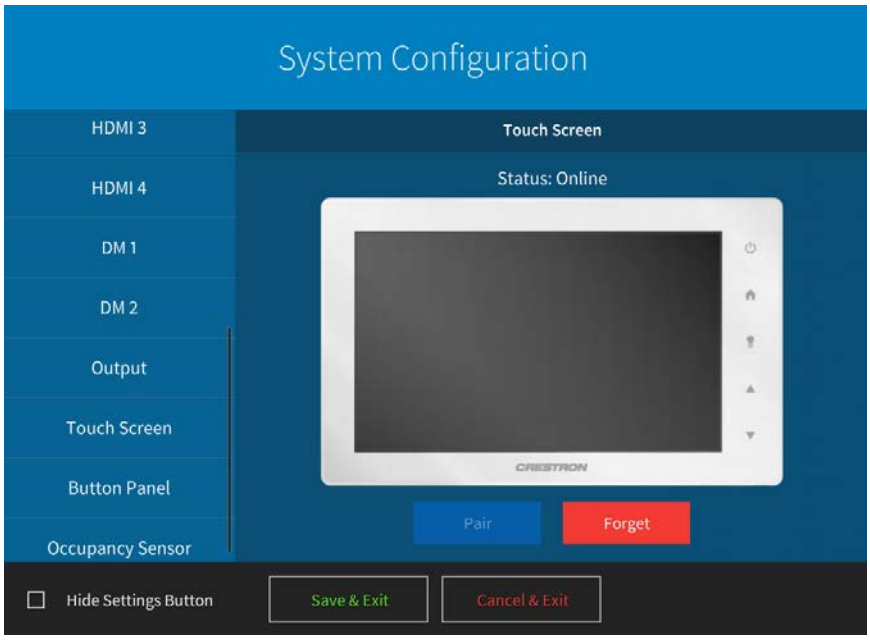
2. Scroll down the list on the left side of the screen and tap **Touch Screen**.
3. Tap **Pair** to begin the pairing process. The screen will display a message saying to touch the screen of the device to be paired. The TSW-752 screen begins to flash.

   Pairing in Process



4. Touch the TSW-752 screen to complete the process.

Pairing Complete



Crestron App for iPad (CRESTRON-APP-PAD)

NOTE: The form at www.crestron.com/crestronmobilesetup should be completed by an authorized Crestron installer if the customer is to configure the device. Upon completion of the form, send the instructions in this guide via e-mail to the customer to provide assistance with the installation and start-up of the app from the device.

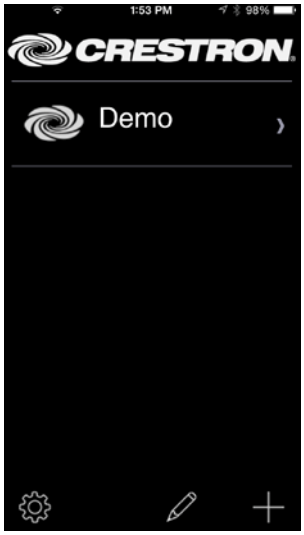
NOTE: The iPad project requires the full paid version of the Crestron App for iPad. It will not work with the free version of the app.

To connect with the Crestron App for iPad, use the following procedure:

NOTE: The software requires IP ID 04 from this app.

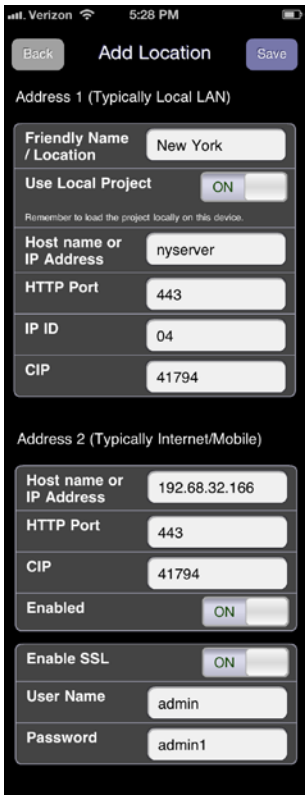
1. On the home screen, tap the Crestron swirl logo to start the app. A list of systems is displayed. When the app is first configured, the screen appears empty.

   Home Screen

2. Tap + to configure a system. The Add Location screen is displayed.

Add Location Screen



3. In the **Address 1 (Typically Local LAN)** section, enter the configuration information for a Wi-Fi® connection.
    - Tap the **Friendly Name / Location** field, and enter the name or location of the host device to be connected. The field is for user reference only and is not a host name.
    - If the iOS® device is to host the project, tap **Use Local Project** until **ON** is displayed. If using the control system to host the project, tap **Use Local Project** until **OFF** is displayed. The host device comes with the iPad project preloaded.
    - Tap the **Host name or IP Address** field, and enter the host name or IP address of the host device.

      NOTE: If using DHCP, enter a host name rather than an IP address, as the DHCP server may change the IP address periodically.

    - Tap the **HTTP Port** field. If SSL is enabled, ensure it is set to 443. If SSL is disabled, ensure it is set to 80.
    - Tap the **IP ID** field and ensure it is set to 04.
    - Tap the **CIP** field and ensure it is set to 41794.
4. Tap **Save**. The setup screen is displayed, listing the control system that has been added.

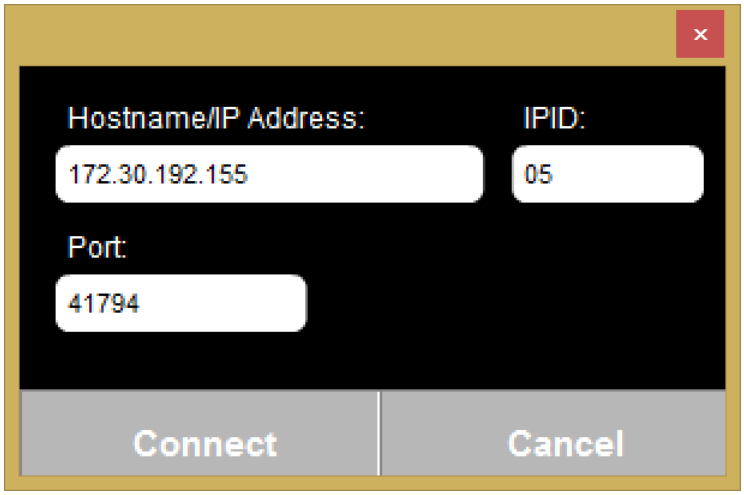
XPanel

To connect with XPanel, use the following procedure:

NOTE: The software requires IP ID 05 from XPanel.

1. Install XPanel by running **Crestron XPanel installer.air** (for Macintosh systems) or **Crestron XPanel installer.exe** (for Windows systems).
2. Launch the XPanel project by double-clicking the program.
3. Access the configuration screen by selecting **Options** > **Host Settings**.
4. Enter the IP address of the control system and set the IP ID to 05.

   Configuration Screen

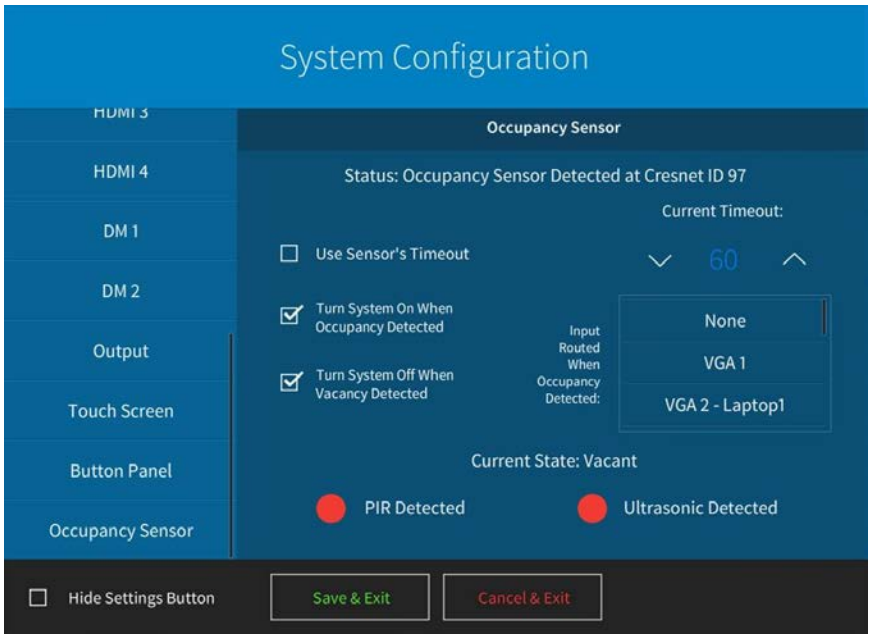


GLS-ODT-C-CN

To connect a GLS-ODT-C-CN Occupancy Sensor, use the following procedure:

1. Tap the (gear) icon to display the **System Configuration** screen.
2. Scroll down the list on the left side of the screen and tap **Occupancy Sensor**.

System Configuration Screen



NOTE: The GLS-ODT-C-CN is detected at Cresnet® network ID 97.

If **Turn system On When Occupancy Detected** is selected, the input will be routed to the destination selected from the list on the right side of the screen.

Crestron Fusion® Cloud

Connect

To connect with the Crestron Fusion Cloud application, use the following procedure:

NOTE: The software requires IP ID F1 from Crestron Fusion.

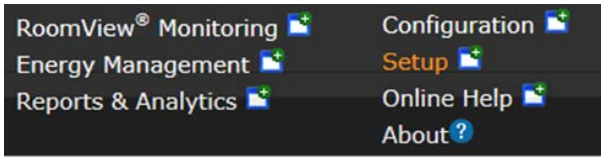
1. Log into the Crestron Fusion Cloud on-premises server.
2. From the Crestron Fusion Cloud header tab, click **Open**.

   Crestron Fusion Cloud Header Tab

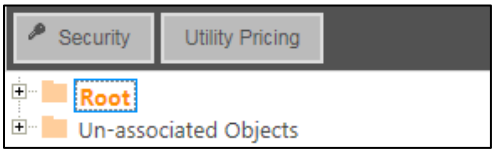
3. From the pull-down tab, click **Setup**.

   Pull-Down Tab

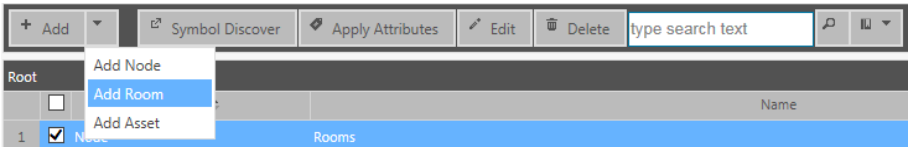
4. Click the + symbol next to **Root** node to expand the tree. Click the **Rooms** node to select the node.

   Root Node

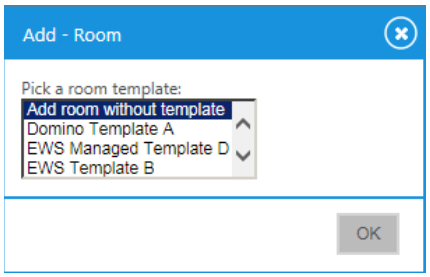
5. Click **Add**. From the drop-down list, click **Add Room**.

   Add Drop-Down List

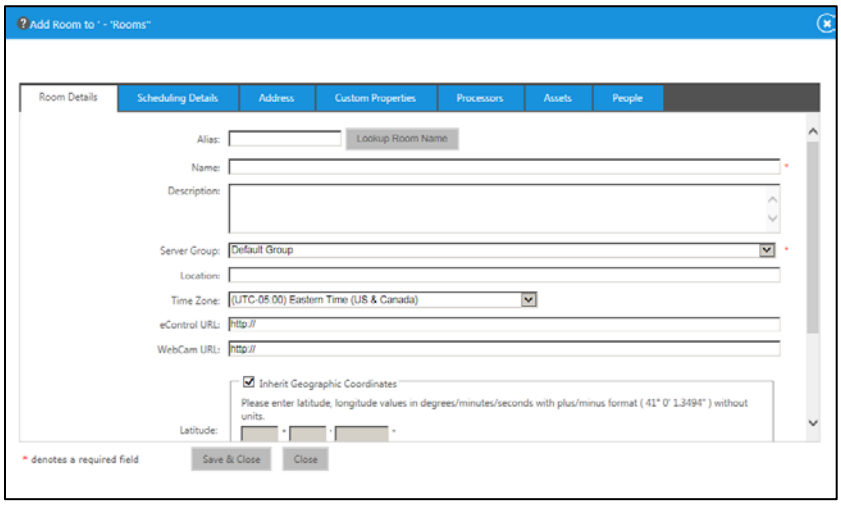
   The **Add – Room** window opens.

Add – Room Window



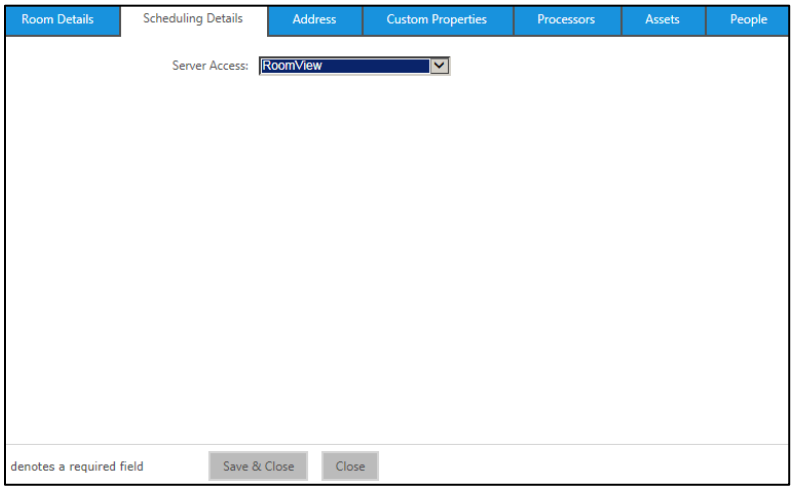
6. From the drop-down list, make a selection and then click **OK**. The **Add Room to '*Rooms*'** window opens with the **Room Details** tab selected.

Room Details Tab



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

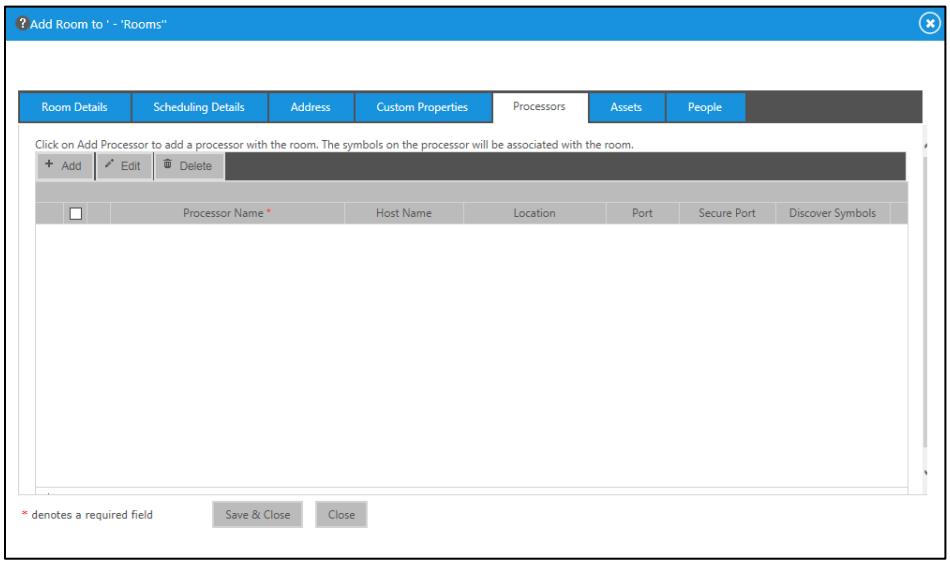


9. In the **Server Access** field, select the RoomView® application from the drop-down list.

NOTE: The user can change to another scheduling calendar at a later time.

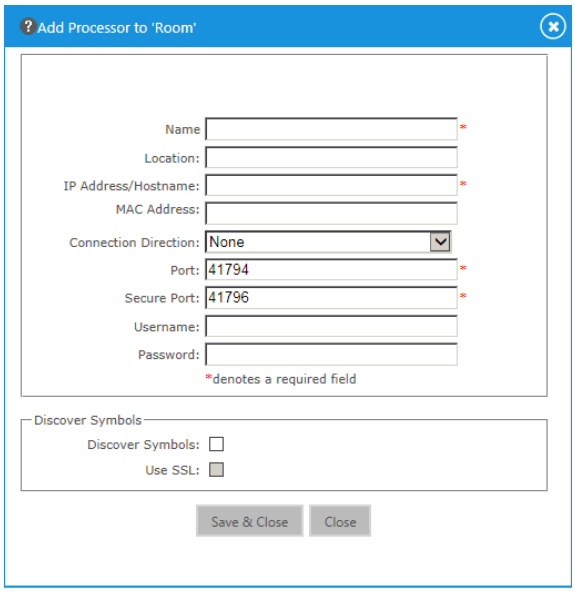
10. Click the **Processors** tab and then click **Add**.

Processors Tab



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

Add Processor to 'Room' Dialog Box



11. Enter 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 Cloud database.

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

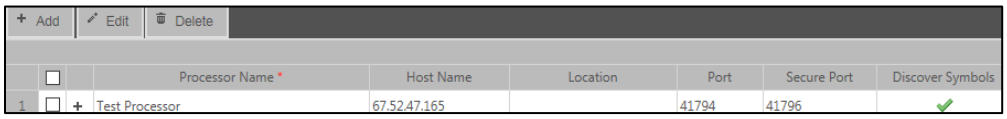
NOTE: In the Crestron SystemBuilder™ and D3 Pro® platforms, the Symbol Discover feature is not supported on symbols below version 7.2.

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.

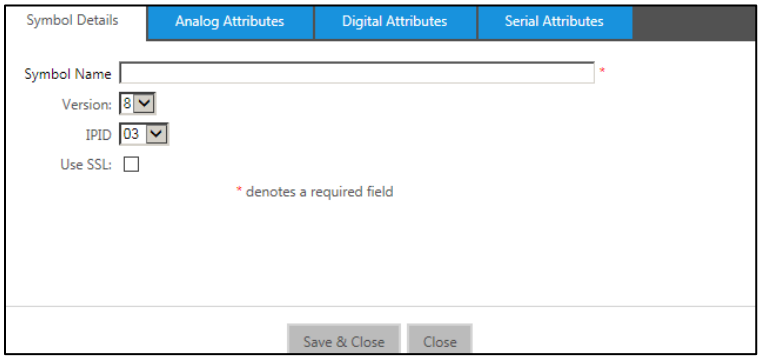
15. Click the **+** symbol next to the processor name to add, edit, or delete a symbol.

Add, Edit, or Delete Symbol



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

Symbol Details Tab



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 Cloud symbol in the program.

NOTE: The version 8 symbol is the same as the Crestron Fusion Cloud 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.
21. 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.

Control and Monitor

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

Controls (Read/Write)

TYPE	FUNCTION
Digital	System On
Digital	System Off
Digital	System Mute Toggle

Monitors (Read Only)

TYPE	FUNCTION
Digital	System Power
Digital	System Muted
Analog	Program Volume Level
Serial	Fusion Error Message
Serial	Fusion Log Text
Serial	Fusion Device Usage
Serial	Input 1 Source Name
Serial	Input 2 Source Name
Serial	Input 3 Source Name
Serial	Input 4 Source Name
Serial	Input 5 Source Name
Serial	Input 6 Source Name
Serial	Input 7 Source Name
Serial	Input 8 Source Name
Serial	Input 9 Source Name
Serial	Input 10 Source Name

Monitor the assets connected to the system using the following attributes:

Displays 1 through 4 (Read Only)

TYPE	FUNCTION
Digital	Display Power
Digital	Display Online
Digital	Display Offline Timeout Alert

TSW-752 (Read Only)

TYPE	FUNCTION
Digital	Connected

iPad (Read Only)

TYPE	FUNCTION
Digital	Connected

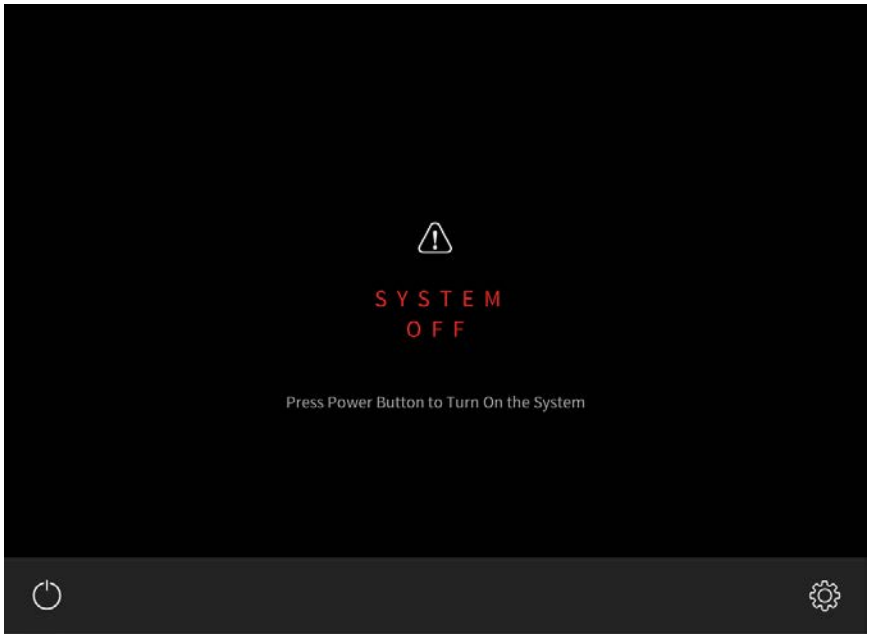
XPanel (Read Only)

TYPE	FUNCTION
Digital	Connected

System Configuration

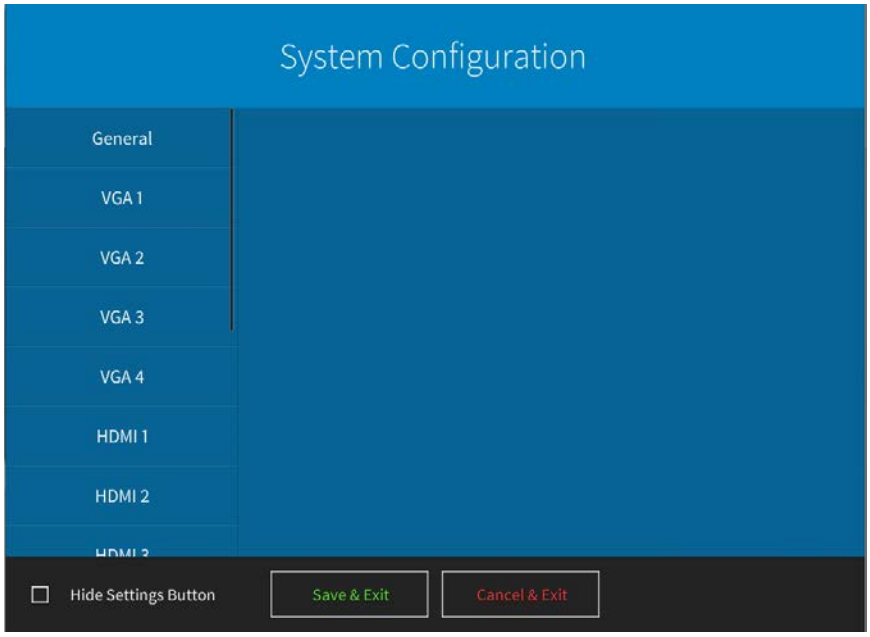
Upon connection to a host device, prior to setup, the initial screen appears as shown.

Initial Screen



Tap the (gear) icon to the right of the (power) button to display the **System Configuration** screen. If the gear icon is not visible on the main screen, touch and hold the bottom right corner of the screen for 10 seconds to display the **System Configuration** screen.

System Configuration Screen



The **System Configuration** screen contains buttons to select specific setup screens. There is a **General** entry, plus an entry for each input and output.

The screen also contains a **Hide Settings Button** check box that, when checked, hides the gear icon in the lower right corner of the main screen.

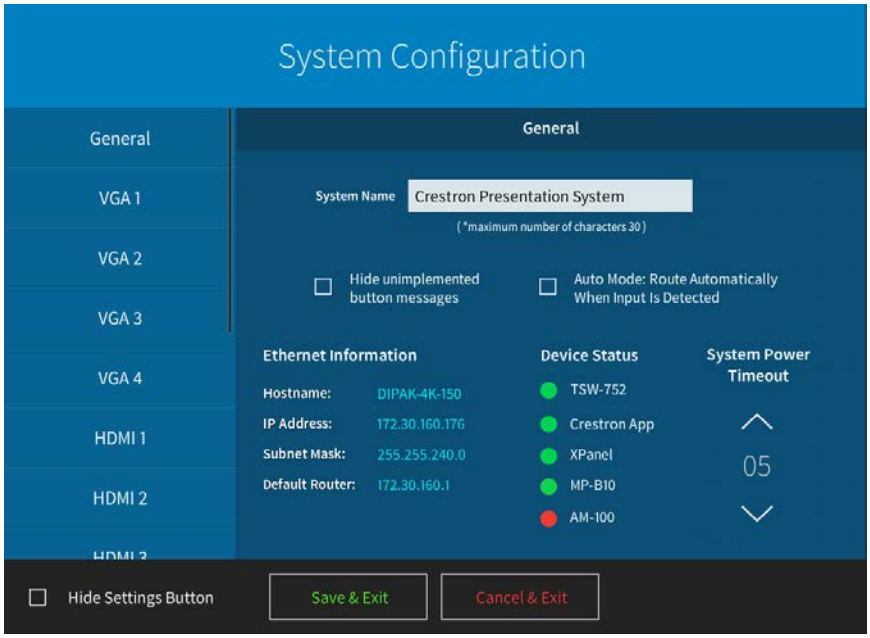
Tap **Cancel & Exit** to return to the main screen without changing any settings. Tap **Save & Exit** to save all changes before returning to the main screen.

General

Tap **General**, and then use the **System Name** text box to enter the system name you want to display on the main screen.

NOTE: When the text box is tapped, an on-screen keyboard appears on the bottom of the screen.

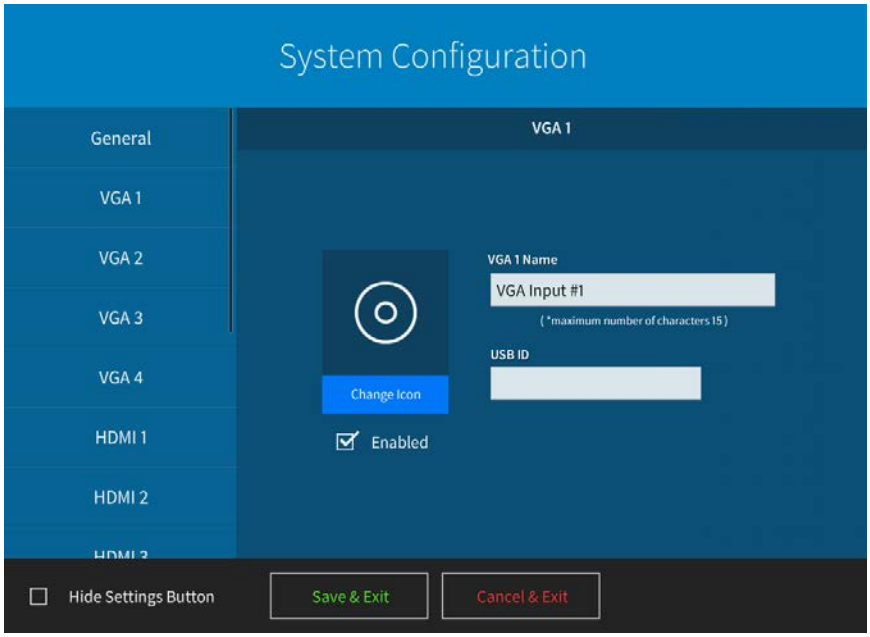
System Configuration - General Screen



Input

Tap one of the input buttons to adjust the input's settings.

System Configuration - VGA Input 1 Screen



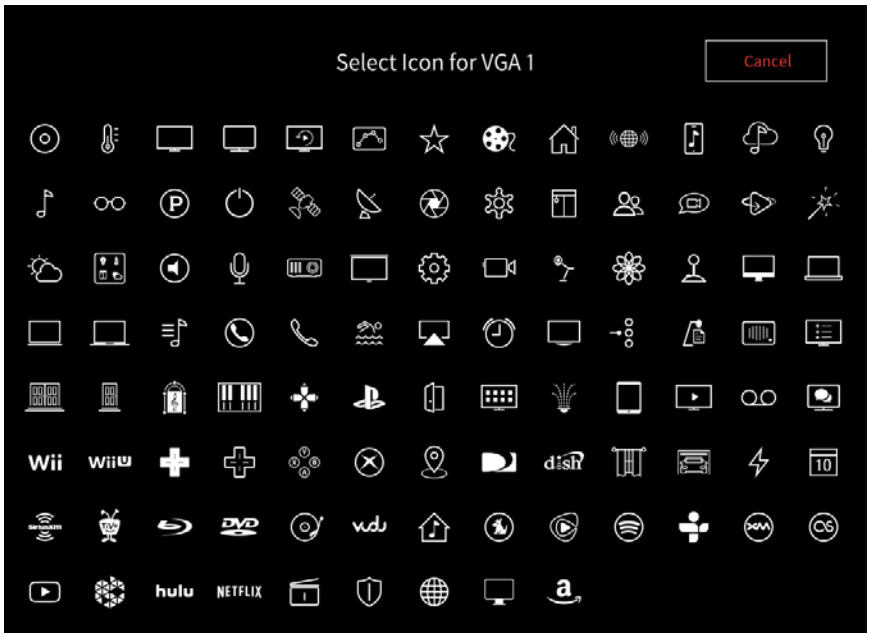
Use the Name text box to enter the input name you want to display on the source selection screen (shown on page 23).

To utilize the USB switching functionality, enter the USB ID of the remote USB-EXT-DM device that is connected to the input. The USB ID of the device is the last six characters of the MAC address, which can be found on a label on the device itself.

The Enabled check box determines whether this input is displayed on the source selection screen. By default, the box is checked to enable the display of this input.

Tap the Change Icon button to display the icon selection screen.

Icon Selection Screen

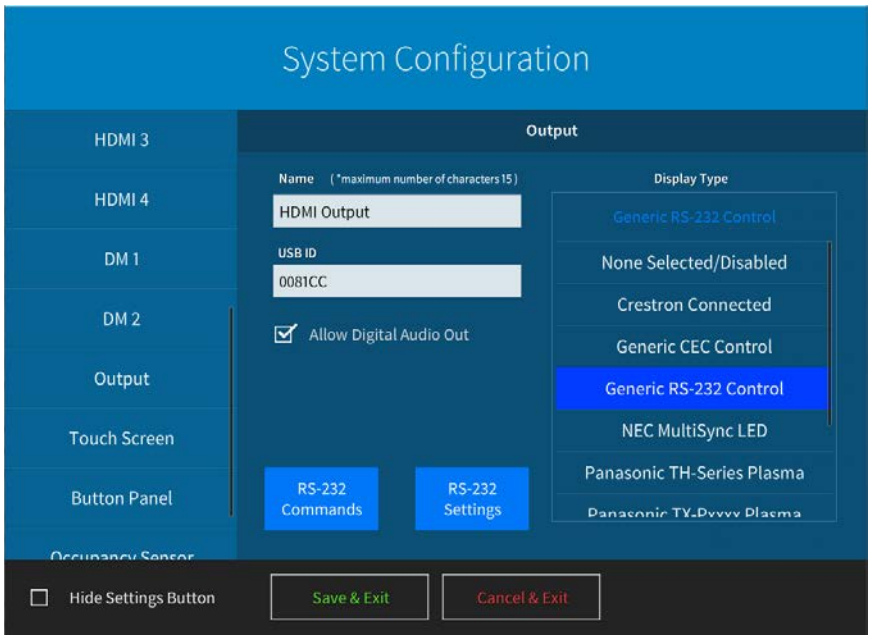


Tap an icon to assign it as the icon for the selected input.

Output

Tap **Output** to adjust the output settings.

System Configuration - Output Screen



Use the **Name** text box to enter the output name you want to display on the main screen.

To utilize the USB switching functionality, enter the USB ID of the local USB-EXT-DM device that is connected to the output. The USB ID of the device is the last six characters of the MAC address, which can be found on a label on the device itself.

The **Allow Digital Audio Out** check box determines whether audio is sent to the display as well as to the analog audio output. By default, the box is not checked, so audio is sent only to the analog audio output.

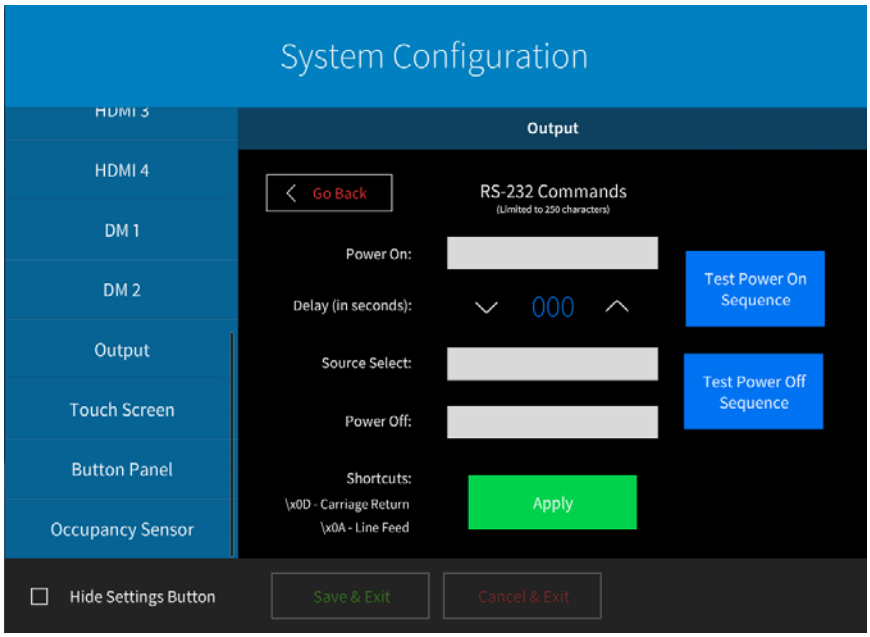
Use **Display Type** to select the type of display being used.

When a display is selected, the host device sends a power command to turn the display on or off with the system. The Display Power On command is sent when a source is selected. The Power Off command is sent after the system shutdown is confirmed.

NOTE: The power commands are sent via RS-232 using either the output of the "DM Roombox" or the COM A port on the host device. Both outputs are active simultaneously, but to prevent feedback loops, connect one at a time.

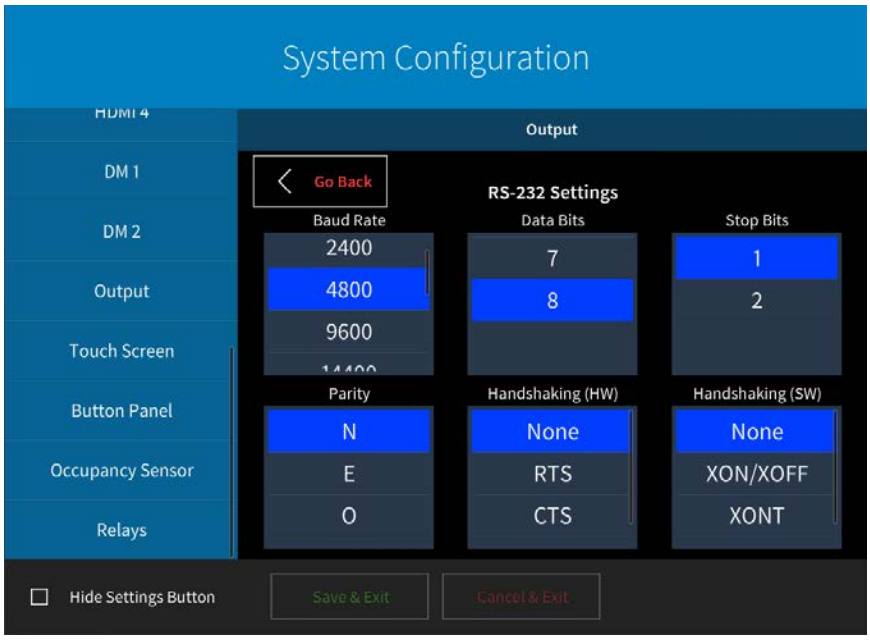
If **Generic RS-232 Control** is selected, tap **RS-232 Commands** to display the command configuration screen.

System Configuration - Output (RS-232 Commands)



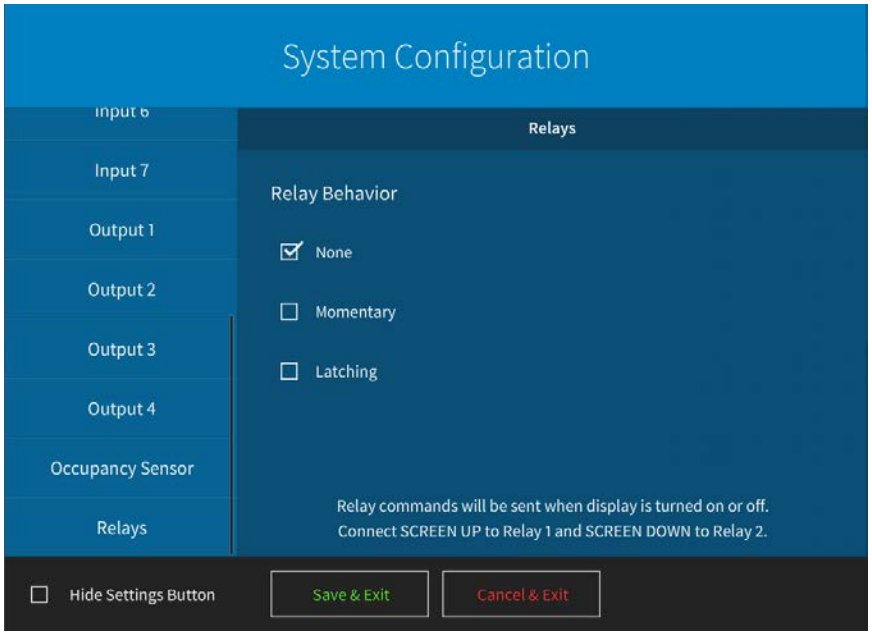
Tap **Go Back** to return to the **Output** screen, and then tap **RS-232 Settings** to display the settings configuration screen.

System Configuration - Output (RS-232 Settings)



Tap **Relays** to display the relays configuration screen.

System Configuration - Relays Screen



Relay commands are sent when the display is turned on or off. Connect SCREEN UP to Relay 1 and SCREEN DOWN to Relay 2.

The **Relay Behavior** check boxes select the relay mode and associated functionality:

- **None** - The relays will not be activated.
- **Momentary** - When the command is triggered, the relays will be closed for 1/2 second.

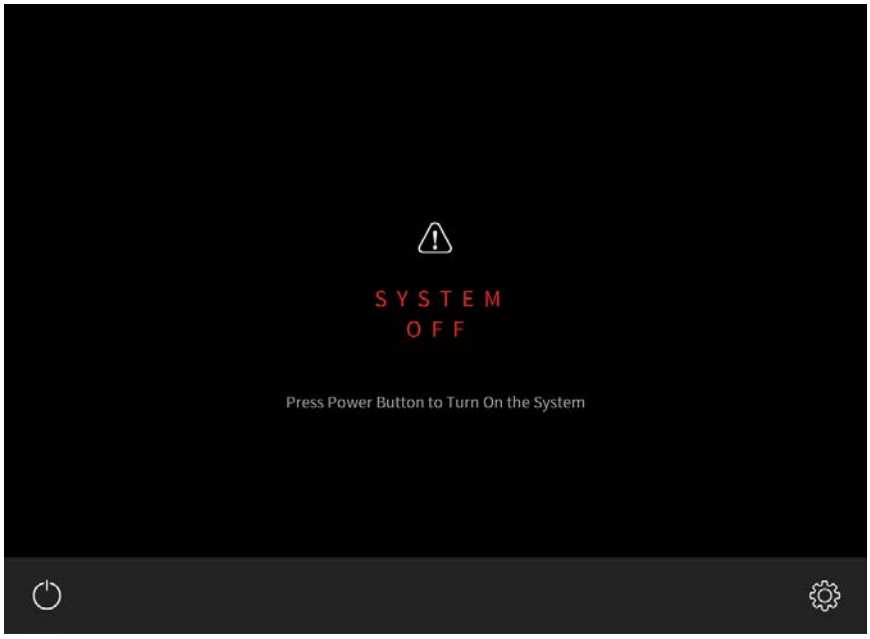
- Latching - When the command is triggered, the relays close and do not reopen until the other screen command is issued. When both relays are open, there should be a 1/2-second delay between relay closings.

Upon system startup, all relays will be in the open position.

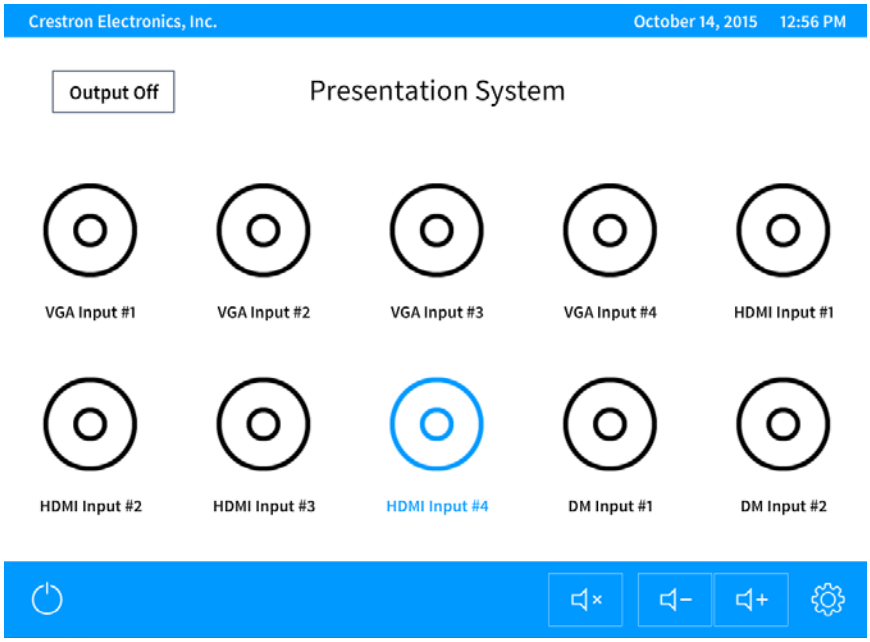
Program Setup

The initial screen is shown below. Tap the (power) button to turn on the host device.

Initial Screen



Source Selection Screen



All enabled inputs are shown on this screen. Tap an input to route it to the output while the associated audio is routed to the analog audio output.

Signal Routing Behavior

Signal routing behavior of the program is as follows:

- If none of the supported peripheral control devices are connected to the system, signals are routed as they are detected by the auto-routing algorithm.
- In any of the above scenarios, the system will shut down using the standby timeout.
- If a TSW-752 is connected to the system, the signal is routed to the input selected on the touch screen. System power is controlled by the power buttons on the touch screen.

Deleting the Program

The software can be deleted from the host device in the same way any other program can be deleted:

1. In the Crestron Toolbox™ application, select Tools > System Info.
2. Connect to the host device.
3. The software will be in Program 01. Click the ▶ button. A new dialog box opens.
4. Click Erase, and another dialog box opens.
5. In the new dialog box, click Erase All Program Files.
6. When the confirmation dialog box opens, click Yes.

The program can also be overwritten by a custom user program.

Program Resource Utilization

The following resources are used by the software and will not be available to other programs:

- COM 01
- IP ID 03 (TSW-752)
- IP ID 04 (Crestron App)
- IP ID 05 (XPanel)
- IP ID 0B (Display connected to the (RoomView application)
- IP ID 0C (RoomView connected display)
- IP ID 0D (RoomView connected display)
- IP ID 0E (RoomView connected display)
- IP ID F1 (Crestron Fusion)

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