Crestron-Cisco Touch 10 Routing and Control

Deployment 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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Introduction

The Crestron and Cisco® Touch 10 Routing and Control Program is an application that allows Crestron® A/V switchers to be integrated into a Cisco room control solution and controlled via the Cisco Touch 10 touch screen. It can also be used to increase the available HDMI® inputs within a room. It requires no custom programming and can be scaled to easily configure thousands of Cisco rooms through the provided user interface.

The application is loaded to the program slot of a Crestron RMC3 or RMC4 control system or any of the 3-Series or 4-Series controllers, or one of ten program slots if Modular Programming Architecture is enabled, allowing up to ten Cisco rooms to be controlled by a single control system. For more information, refer to the RMC3 Quick Start Guide (Doc. 7962) and RMC4 Quick Start Guide (Doc. 8513). Both are available at www.crestron.com.

For information on configuring devices to work with the application, see the following:

- Configure the Switchers (on page 6)
- Configure the Hardware Settings (on page 9)
- Configure the Touch Screen Buttons (on page 11)

Overview

The application was developed to support the RMC3 and RMC4 control processors. However, by using Crestron's SIMPL application, the control processor can be changed to any of the 3-Series or 4-Series controllers.

Supported Crestron Products

The Crestron and Cisco Touch 10 Routing and Control Program supports Crestron A/V switchers at the following pre-defined IP IDs.

Switchers IP IDs

Model	IP ID
HD-MD-200-C-E	35
HD-MD-300-C-E	34
HD-MD-400-C-E	33
HD-MD4x1-4K-E	32
HD-MD4x2-4K-E	31
HD-MD6x2-4K-E	30
HD-RX-4K-210-C-E	22
HD-RX-4K-410-C-E	21
HD-RX-4K-510-C-E	20
HD-MD-4K-400	22
HD-MD-4K-300	22
HD-MD-4K-200	22

NOTE: Crestron switchers need to be configured with HDCP Off to enable working with the Cisco hardware.

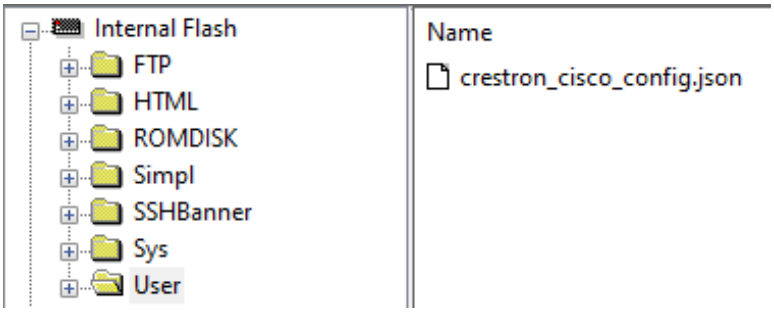
Supported Cisco Products

The Crestron and Cisco Touch 10 Routing and Control Program supports the following Cisco products.

- SX80 Codec
- Webex® Codec Plus
- Webex Codec Pro
- Webex Room 55 Single
- Webex Room 55 Dual
- Webex Room 70
- Webex Room 70 G2
- Webex Room Kit
- Webex Room Kit Mini
- Webex Room Kit Plus
- Webex Room Kit Pro

XPanel

An XPanel web and XPanel.exe project have been developed to configure the system and define how the source selection buttons appear on the Cisco Touch 10 screen. When using the XPanel web or XPanel.exe to make modifications, a configuration file is generated and placed into the control system **Internal Flash** / **User** folder.



The configuration file can be easily extracted by using the File Manager in Crestron Toolbox™ software (**Toolbox** / **File Manager**) or by using any FTP application, for example, Filezilla. The configuration file can be deployed to multiple control systems on the network by using either Toolbox scripting or Microsoft PowerShell. For more information, see Configure the System Using XPanel (on page 8).

Connection Information

The Crestron and Cisco Touch 10 Routing and Control Program has the ability to operate in two modes:

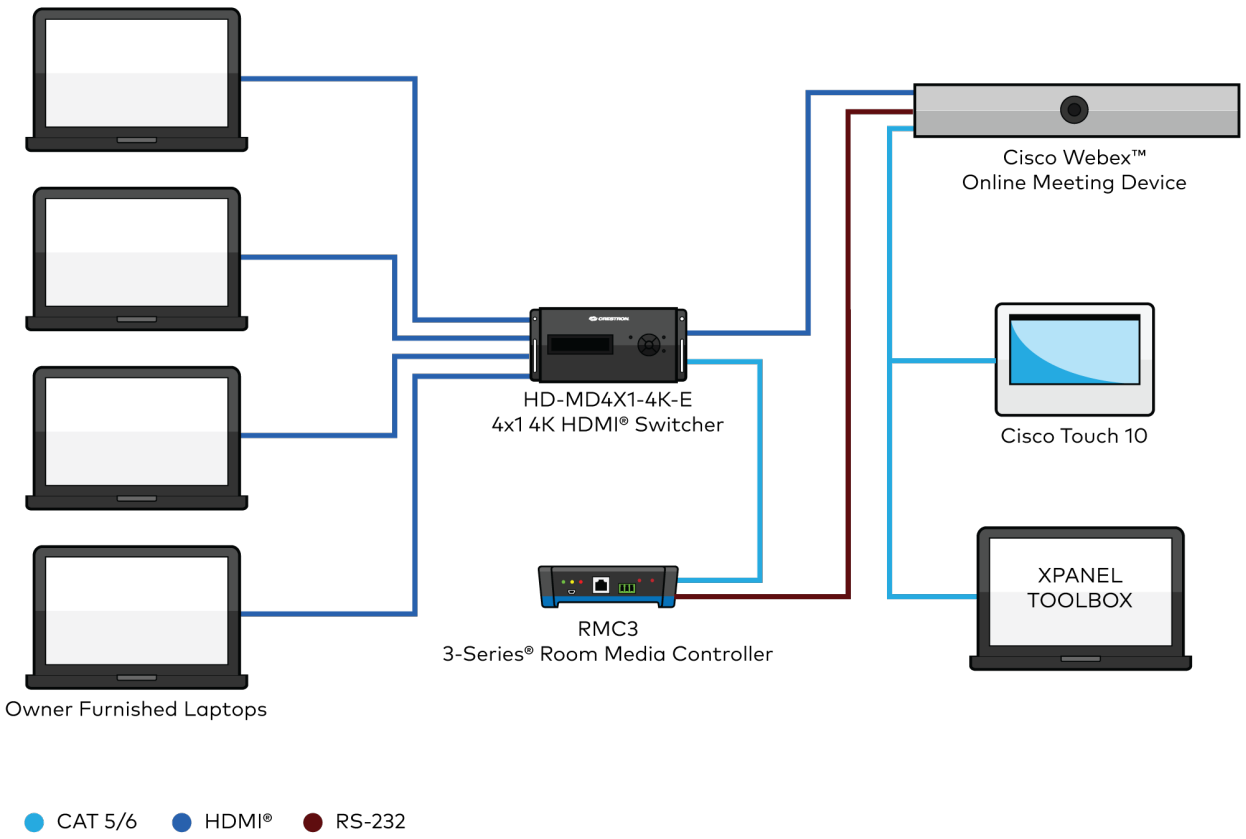
- RS-232 Control
- Ethernet Control

RS-232 Control

In this mode, the RS-232 port of the Crestron control system controls the Cisco hardware. The Ethernet port is used to control the Crestron switcher.

If the Cisco device does not have an RS-232 port, one can be added using a USB-to-Serial adapter. Refer to the Cisco documentation for a list of supported adapters.

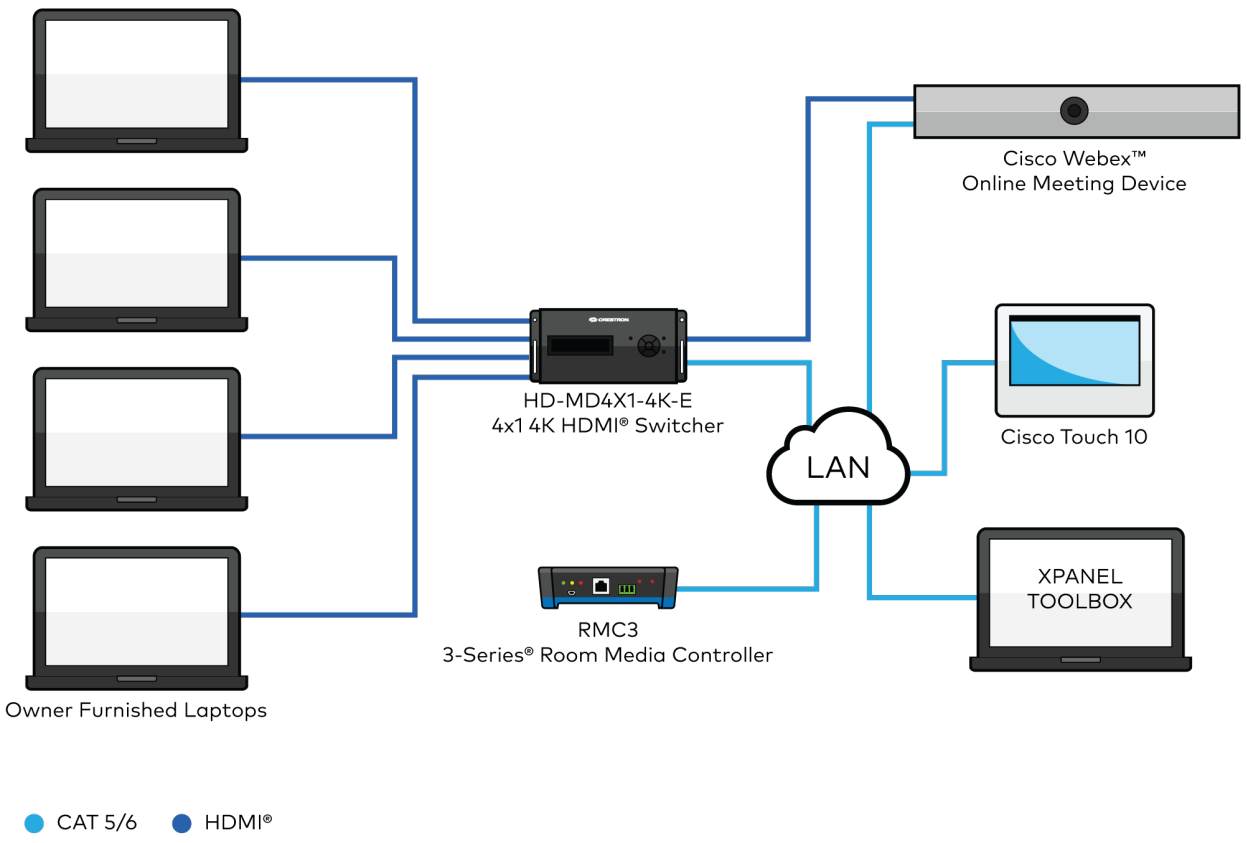
RS-232 Control Connection Diagram



Ethernet Control

In this mode, the Crestron control system controls both the Crestron switcher and Cisco hardware via the Ethernet port.

Ethernet Control Connection Diagram



Configure the Switchers

This section details the steps required to configure the switchers.

Configure the HD-RX-4K-510-C-E, HD-RX-4K-410-C-E, HD-RX-4K-210-C-E, HD-MD-4K-400, HD-MD-4K-300, and HD-MD-4K-200

Use the Device Discovery Tool in Crestron Toolbox to find Crestron hardware on the network, or plug the switcher into a display and press the **Setup** button to obtain the IP address of the device.

To configure the HD-RX-4K-510-C-E, HD-RX-4K-410-C-E, HD-RX-4K-210-C-E, HD-MD-4K-400, HD-MD-4K-300, and HD-MD-4K-200:

1. Log in to the web interface of the switcher. For detailed information, refer to the switcher's Quick Start Guide at www.crestron.com.
2. Click **Device** / **Configure the Control System**.
3. Set the **IPID** as per the table at Overview (on page 2).
4. Enter the **IP address** or **hostname** of the Crestron control system.

Configure the HD-MD6x2-4K-E, HD-MD4x2-4K-E, and HD-MD4x1-4K-E

To configure the HD-MD6x2-4K-E, HD-MD4x2-4K-E, and HD-MD4x1-4K-E:

1. Check the front panel of the device to obtain the IP address.
2. Edit the IP table in the Crestron control system.
3. Edit the **IPID** as per the table at Overview (on page 2)and set it for the **IP address** or **hostname** of the switcher.

NOTE: If the program is reloaded onto the control system, ensure that the IP table is not overwritten.

Configure the HD-MD-400-C-E, HD-MD-300-C-E, and HD-MD-200-C-E

To configure the HD-MD-400-C-E, HD-MD-300-C-E, and HD-MD-200-C-E:

1. To obtain the IP address of the device, plug the switcher into a display and press the **Setup** button. The IP address appears on the screen.
2. Edit the IP table in the Crestron control system.
3. Edit the **IPID** as per the table at Overview (on page 2)and set it for the **IP address** or **hostname** of the switcher.

NOTE: If the program is reloaded onto the control system, ensure that the IP table is not overwritten.

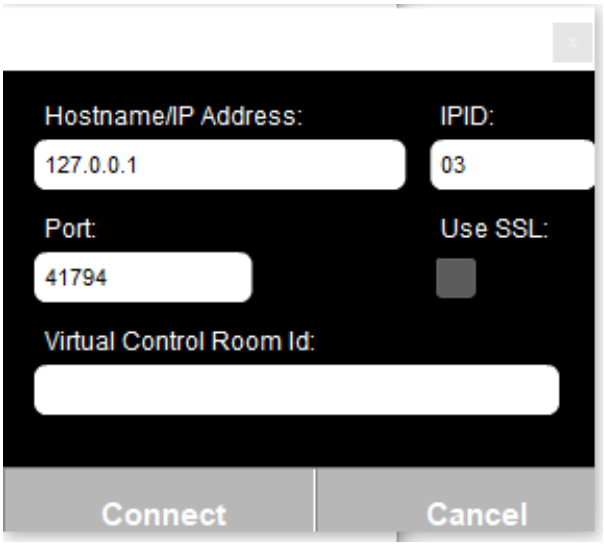
Configure the System Using XPanel

The following two XPanel projects are provided to configure the system.

- Xpanel: Crestron-Cisco_Touch10_Config_v1.0
- Xpanel Web: Crestron-Cisco_Touch10_Config_Web_v1.0

The Crestron-Cisco_Touch_10_Config.c3p file is a desktop application that launches the configuration interface. After the application is launched enter the connection information.

1. Open the configuration dialog box by clicking **Options** / **Host Settings**.



2. Enter the hostname or IP address of the Crestron control system in the **Hostname/IP Address** field.
3. Ensure the **IPID** is set to **03**.
4. Enter one of the following in the **Port** field.

   a. To use a secure port, enter **41796**.

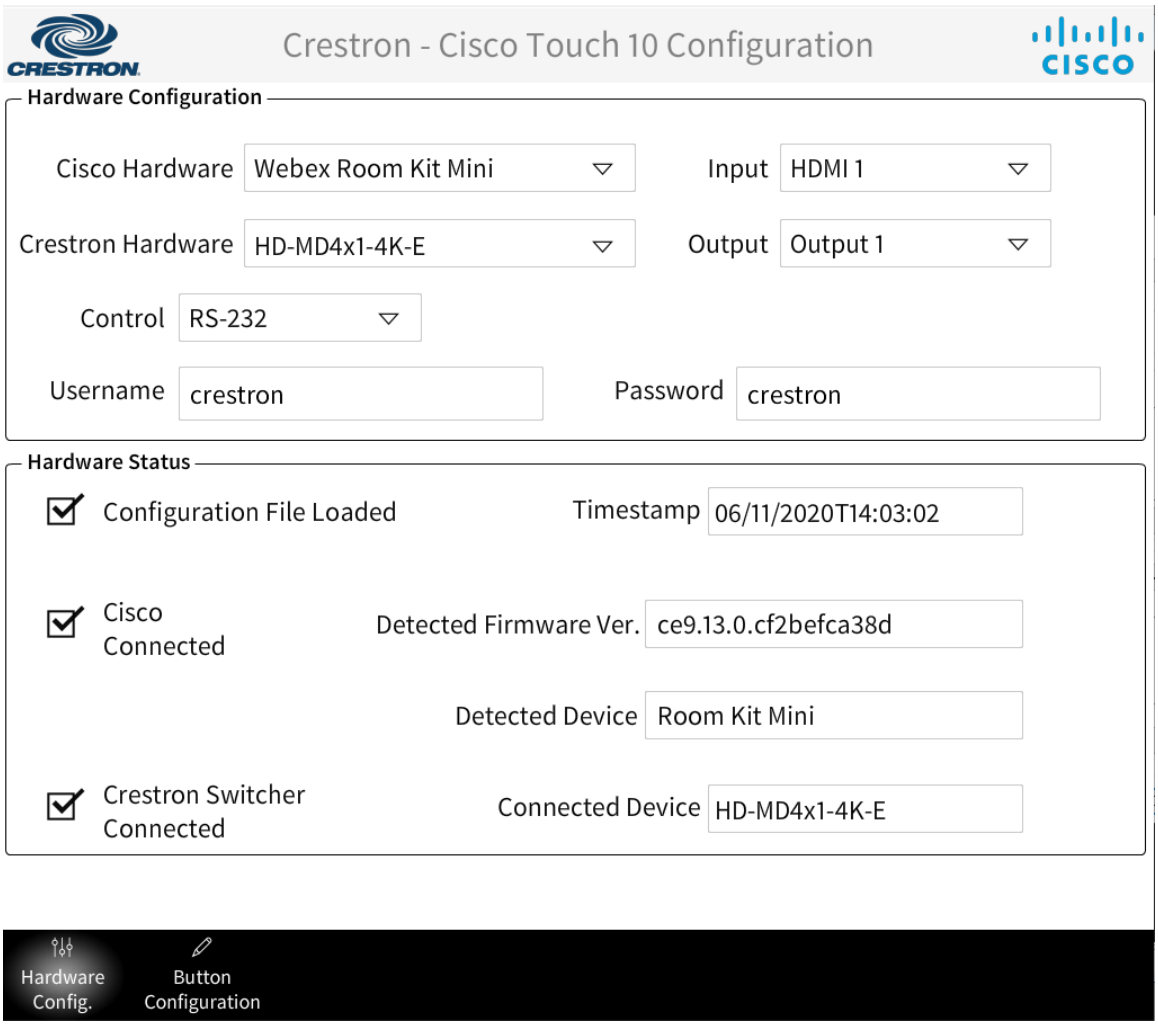
   b. To use an unsecured port, enter **41794**.
5. Click **Connect**.

The Crestron-Cisco_Touch_10_Config_Web project must be loaded onto the control system before it can be used. After the project is loaded, open a web browser and enter the hostname or IP address of the Crestron control system.

Configure the Hardware Settings

Under the Hardware Config. tab, select and configure the hardware settings of the Crestron and Cisco hardware. You can also check the status of the configuration file, Cisco hardware, and Crestron hardware.

1. Click **Hardware Config** tab.



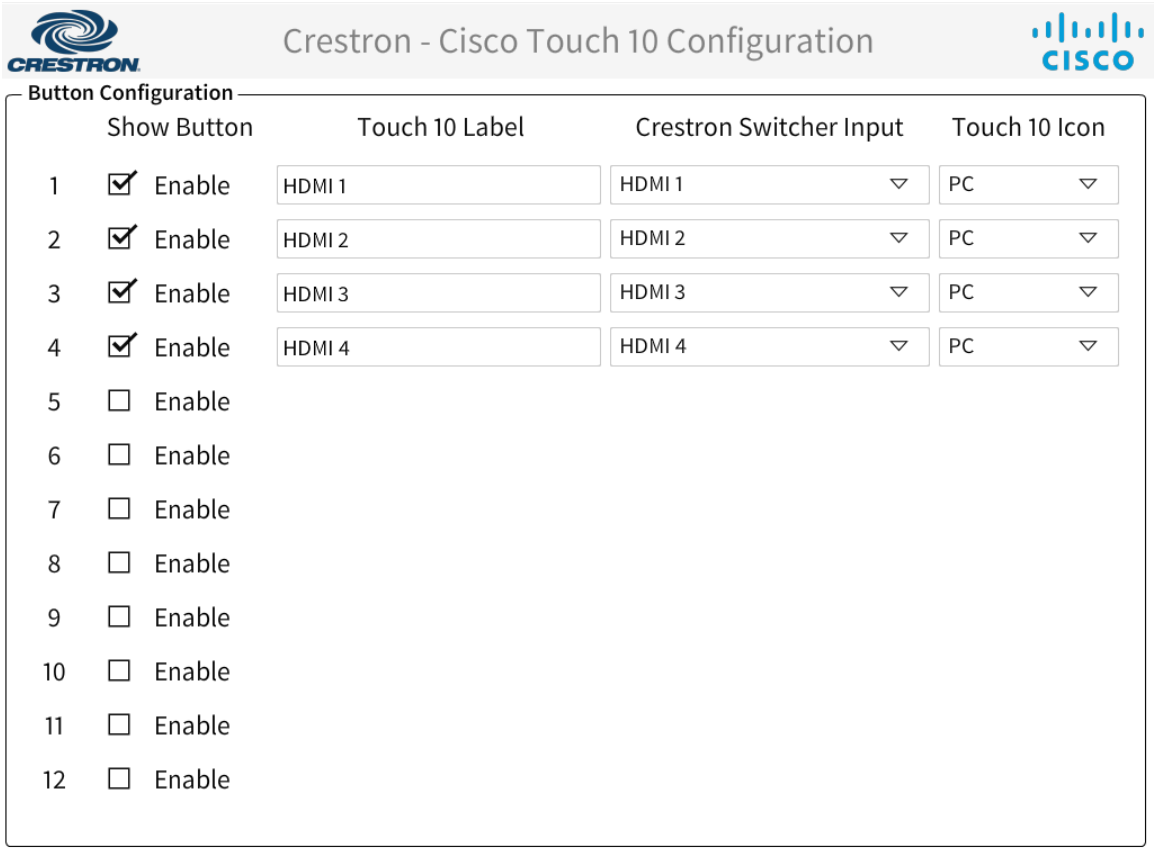
2. Select the Cisco product from the **Cisco Hardware** drop-down menu.
3. Select the Crestron switcher from the **Crestron Hardware** drop-down menu.
4. Select the input port of the Cisco product from the **Input** drop-down menu.
5. Select the output port of the Crestron switcher from the **Output** drop-down menu.
6. Select the control type from the **Control** drop-down menu. The value can be either **RS-232** or **Ethernet**.
7. Enter the username to authenticate the socket connection in the **Username** field.
8. Enter the password in the **Password** field.

9. In the **Hardware Status** panel, verify the following:
    - Configuration file
    - Cisco hardware
    - Crestron switcher
    - Timestamp of the configuration file
    - Detected firmware version of the Cisco product
    - Detected device name of the Cisco product
    - Connected device name of the Crestron switcher
10. To create or update an existing configuration file and reconfigure the Cisco product, click **Save and Connect**. To cancel the changes, click **Revert**.

Configure the Touch Screen Buttons

The Button Configuration tab allows custom source buttons to be added to the Touch 10 screen to control the selected Crestron switcher.

1. Click **Button Configuration** tab.



2. To display the button on the Touch 10 screen, select the **Enable** checkbox.
3. Enter the name of the button in the **Touch 10 Label** field.
4. Select the input port of the Crestron switcher from the **Crestron Switcher Input** drop-down menu.
5. Select the icon for the button from the **Touch 10 Icon** drop-down menu.
6. To create or update an existing configuration file and reconfigure the Cisco product, click **Save and Connect**. To cancel the changes, click **Revert**.

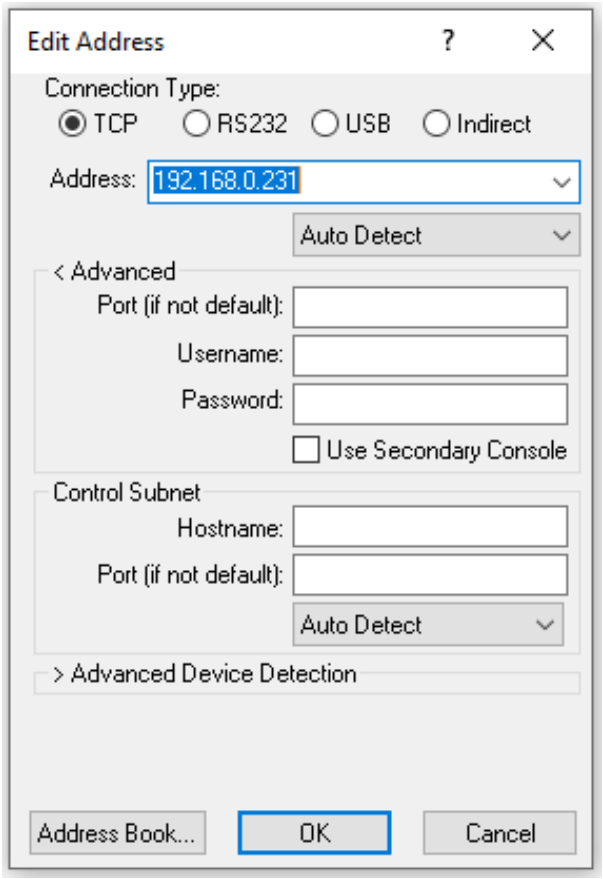
Upload the Configuration File to the Control System

An existing configuration file can be manually transferred to the Crestron control system. It can be done by using the File Manager in Crestron Toolbox software (**Toolbox / File Manager**) or by using any FTP application, for example, Filezilla.

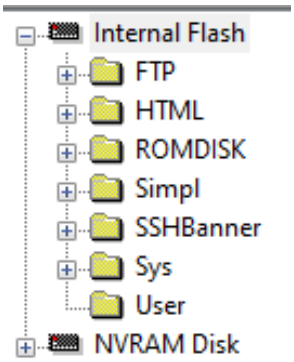
NOTE: The directory is checked every 30 seconds, and if a new configuration file is available, then it will be loaded onto the control system.

To upload a configuration file to the Crestron control system:

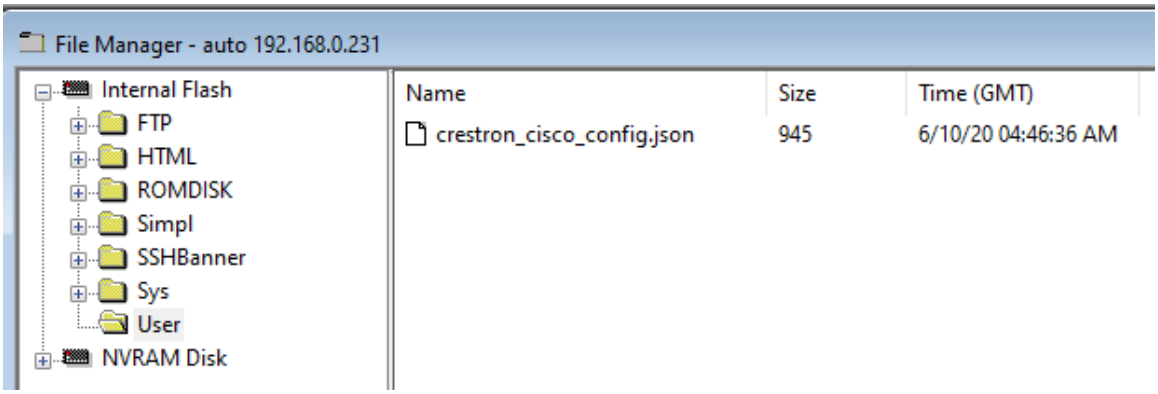
1. Launch **Crestron Toolbox**.
2. Click **Tools / File Manager**. The File Manager appears.
3. Click the  icon to open the connection dialog.



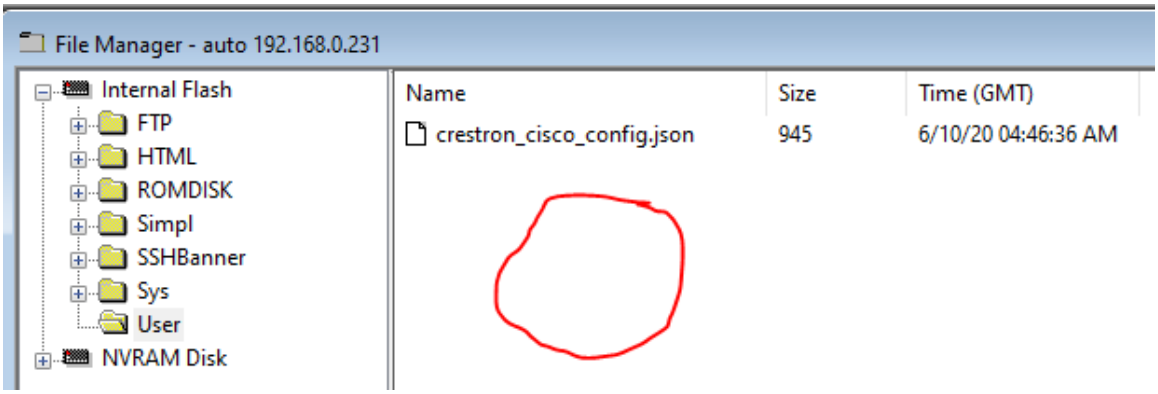
4. Do one of the following:
   a. If the Toolbox connection to the control system is via Ethernet, select **TCP** and then enter the hostname or IP address of the control system in the **Address** field.
   b. If the Toolbox connection to the control system is via USB, select **USB**.
5. Once the connection is established, click **Internal Flash** to expand it.



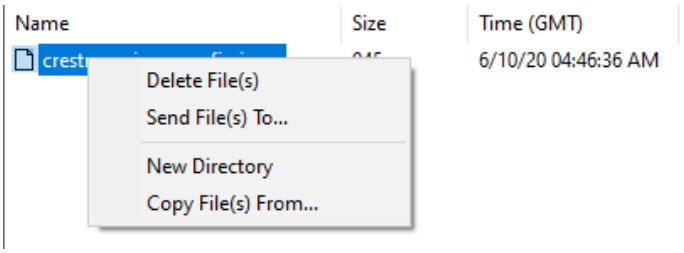
6. Click the **User** folder.



7. To overwrite the existing file or add a new file, drag and drop the configuration file from your machine to the Toolbox File Manager user folder. The control system automatically detects and loads the configuration file.



8. To extract the existing configuration file in the control system and transfer it to your machine, right-click the **crestron_cisco_config.json** file and select **Send File(s) To...**.



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