Crestron Fusion® Cloud On-Premises Software

Enterprise Management Platform

Getting Started

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Crestron Fusion Cloud On-Premises Software: Enterprise Management Platform

Introduction

This document describes how to add devices to the Crestron Fusion Cloud server (installed on-premises) specifying the traditional outbound connection (initiated by the server) versus the new inbound connection (enabled by the latest device firmware). The following procedures assume that the Crestron Fusion Cloud software has been properly installed and configured on-premises.

If further information is required, refer to the Crestron Fusion Cloud On-Premises Software Installation Guide (Doc. 7892) at www.crestron.com/manuals.

Hardware and Firmware Compatibility

The table below shows the current devices and firmware versions that are compatible with inbound communications for the Crestron Fusion Cloud (installed on-premises).

Hardware and Firmware Compatibility Chart

Compatible Cloud-Enabled Device	Minimum Firmware Version
3-Series® processor	Version 1.012.0017
TSW-732 scheduling panel	Version 2.01.08
TSS-752 scheduling panel	Version 2.01.08
AirMedia® presentation gateway device*†	Version 1.2.1
Crestron RL® collaboration system device†	Version 15.14.08

* AirMedia is not recommended for use with Crestron Fusion Cloud service, as there is no SSL encryption available with the device's communication.

† To configure the Crestron RL and AirMedia devices for Crestron Fusion Cloud, refer to the product documentation.

NOTE: All 2-Series, 3-Series, and scheduling panel firmware are compatible with traditional outbound connection.

For more information on supported devices and minimum firmware, refer to the Crestron® True Blue Online Help (Answer ID 5618).

Connectivity Requirements

Devices communicating with Crestron Fusion Cloud require direct connectivity from the device to the server via the following ports:

- HTTPS Port 443: Stateless Control Connection to Crestron Fusion SSL encrypted (inbound only)
- CIP Port 41794: Stateful CIP Protocol Connection unencrypted (outbound only)
- Secure CIP Port 41796: Stateful CIP Protocol Connection SSL encrypted

Ethernet connectivity must be established from the device directly with the Crestron Fusion Cloud server for the above ports, especially if crossing VLANs or routed networks, and the traffic needs to be free and unencumbered by other devices such as proxy servers, LAN/WAN optimizers, firewalls, etc.

In the process of communicating inbound to the server, the Control Connection is initiated by the device and used only during the following transactions:

- Registering the device with the server
- Transferring the RVI file (control processors) for auto-discovery
- Re-registering the device with the server in case of a loss of connection

The CIP Protocol Connection is established with the device as a permanent TCP connection, and does the following:

- Exchanges Attributes (Joins) and other stateful information about the device
- Exchanges the XML schedule (scheduling panels)
- Provides heartbeats to keep the connection alive at all times

NOTE: The Crestron AirMedia device uses only Port 41794 for the CIP Protocol Connection, which is not SSL encrypted.

Add a Device Using Traditional (Outbound) Communications

This section includes instructions on how to add a room using manual entry or Symbol Discover, as well as how to add a scheduling panel asset. Traditional outbound communication is supported by all firmware versions.

Add a Room Using Processor Discovery (Manual Entry)

NOTE: This method of processor discovery is required when a 2-Series processor is used.

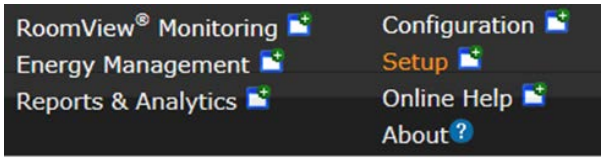
To add a room by initiating discovery of processors using traditional outbound communication for Crestron Fusion Cloud, do the following:

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

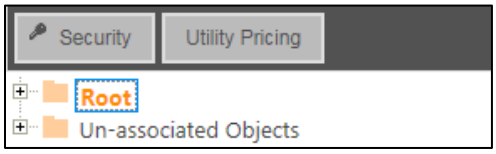
3. From the pull-down tab, click **Setup**.

   Pull-Down Tab

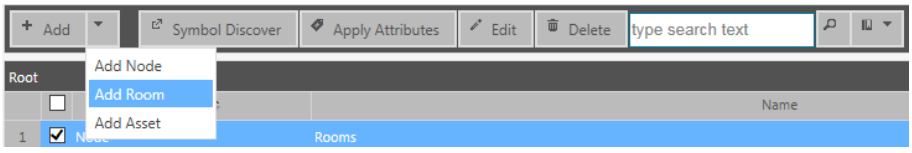
4. Click the + symbol next to **Root** node to expand the tree. Click the **Rooms** node to select the node.

   Root Node

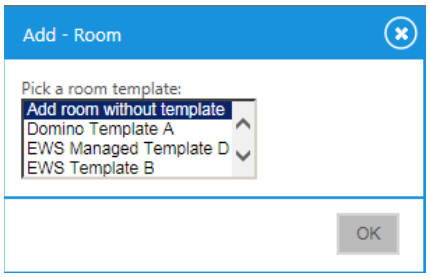
5. Click **Add**. From the drop-down list, click **Add Room**.

   Add Drop-Down List

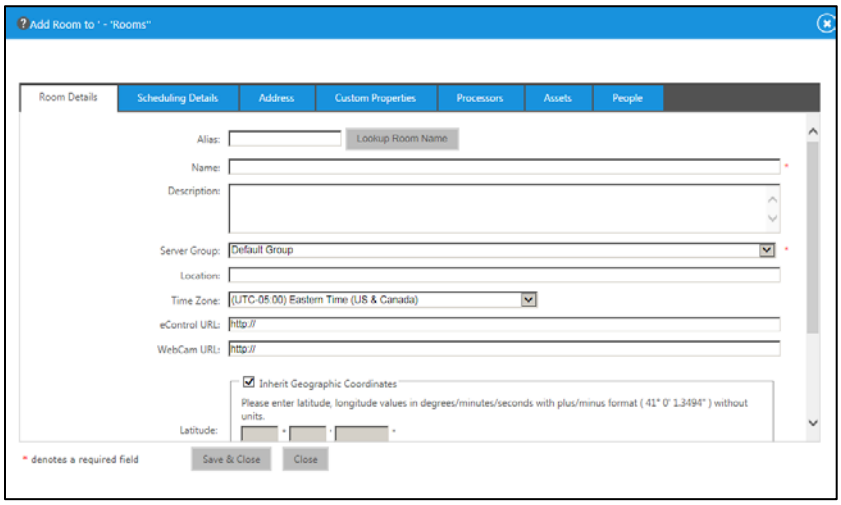
   The **Add – Room** window opens.

Add – Room Window



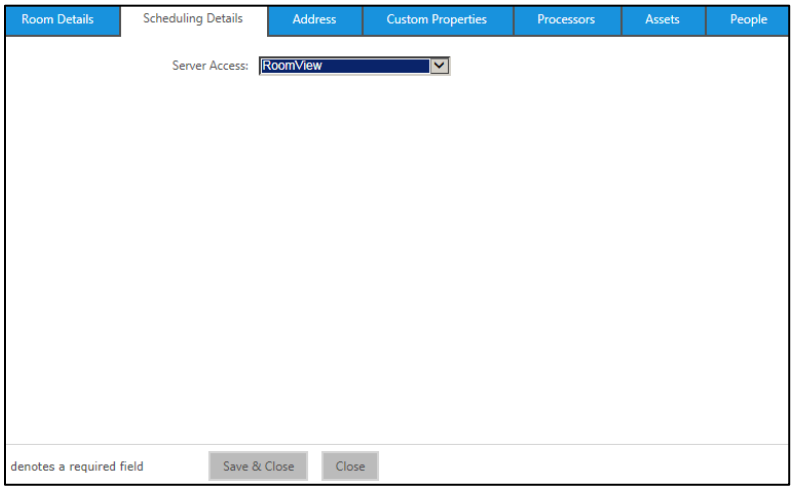
6. From the drop-down list, make a selection and then click **OK**. The **Add Room to '*Rooms*'** window opens with the **Room Details** tab selected.

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

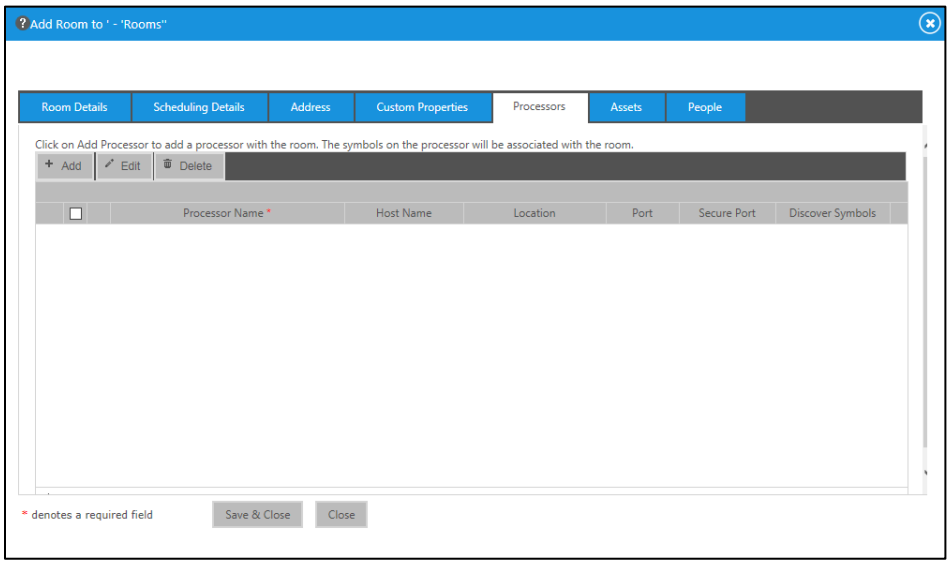


9. In the **Server Access** field, select **RoomView** from the drop-down list.

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

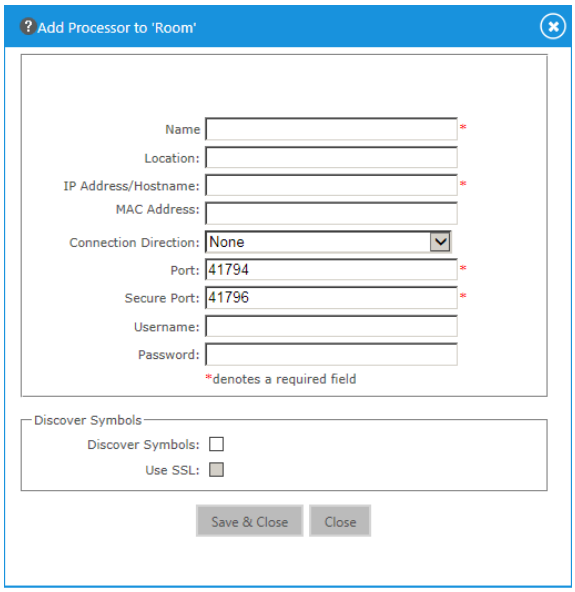
10. Click the **Processors** tab and then click **Add**.

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.

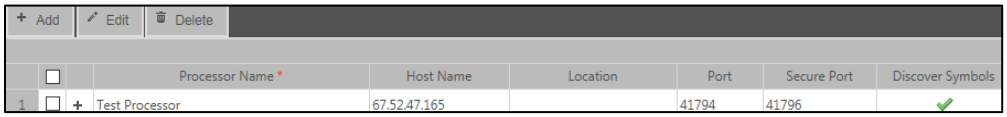
NOTE: In the Crestron SystemBuilder™ and D3 Pro® platforms, the Symbol Discover feature is not supported on symbols below version 7.2.

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.

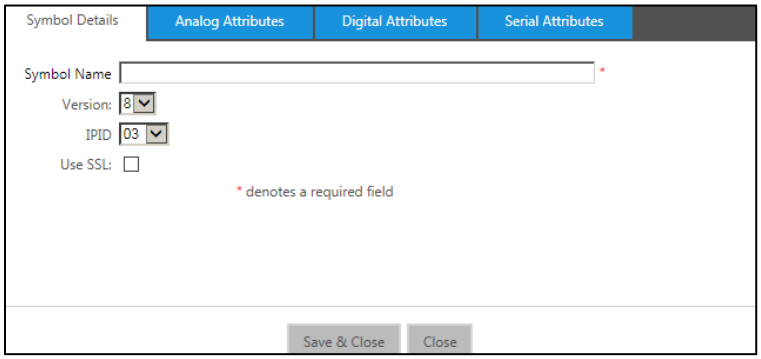
15. Click the **+** symbol next to the processor name to add, edit, or delete a symbol.

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.

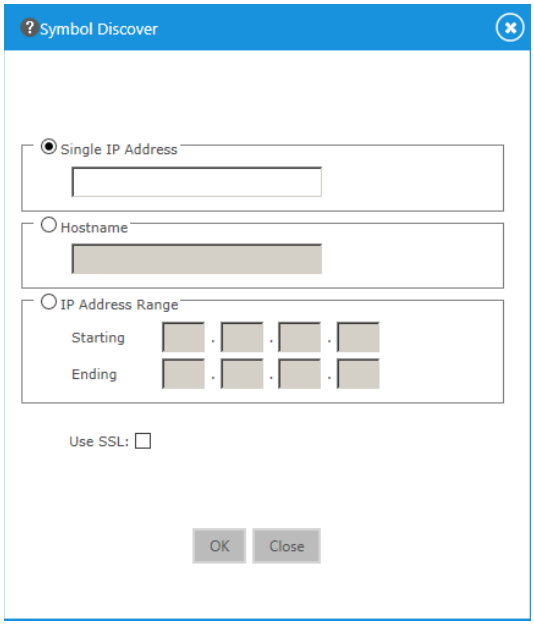
Add a Room Using Symbol Discover

The Symbol Discover feature automatically adds one or more rooms or nodes from one or more processors using traditional outbound communications from Crestron Fusion Cloud. A node is added for every node symbol found in a program, and a room is added for every room symbol found in a program.

To add a room with Symbol Discover using traditional outbound communication for Crestron Fusion Cloud, do the following:

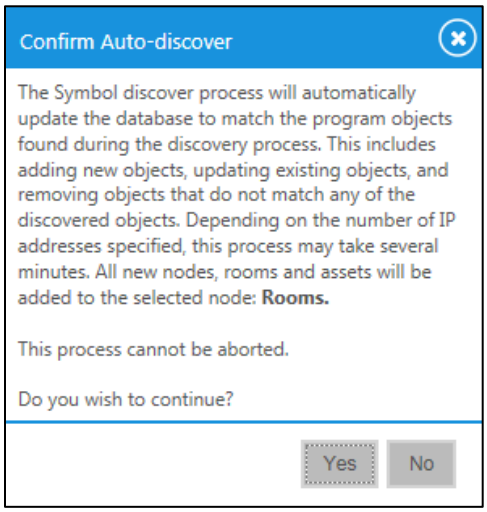
1. Select the node where the discovered rooms and nodes are to be added.
2. Click **Symbol Discover**. The **Symbol Discover** dialog box opens.

   Symbol Discover Dialog Box



3. Click the applicable radio button to specify the discovery method. Enter the required information.
4. Click the **Use SSL**check box if the processor is configured for Secure CTP Toolbox connections only.
5. Click **OK** to run the discovery. The **Confirm Auto-discover** message box opens.

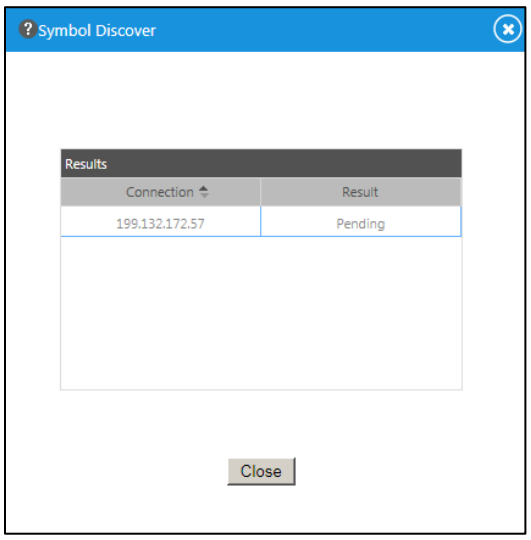
Confirm Auto-discover Message Box



6. Read the information carefully before continuing. Click **Yes** to start the Symbol Discover process.

   Crestron Fusion Cloud starts searching for symbols within the specified discovery method. When the process is complete, the results are displayed.

   Results Window



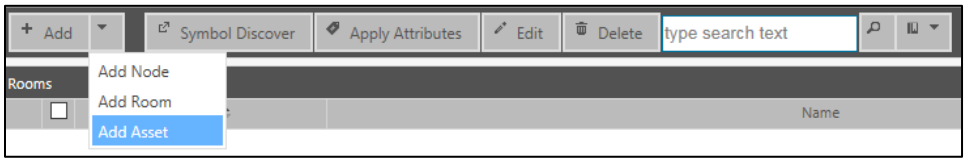
7. Click **Close**. All discovered nodes and rooms appear in the node selected in step 1.

Add a Scheduling Panel Asset

To add a scheduling panel asset using traditional outbound communications for Crestron Fusion Cloud, do the following:

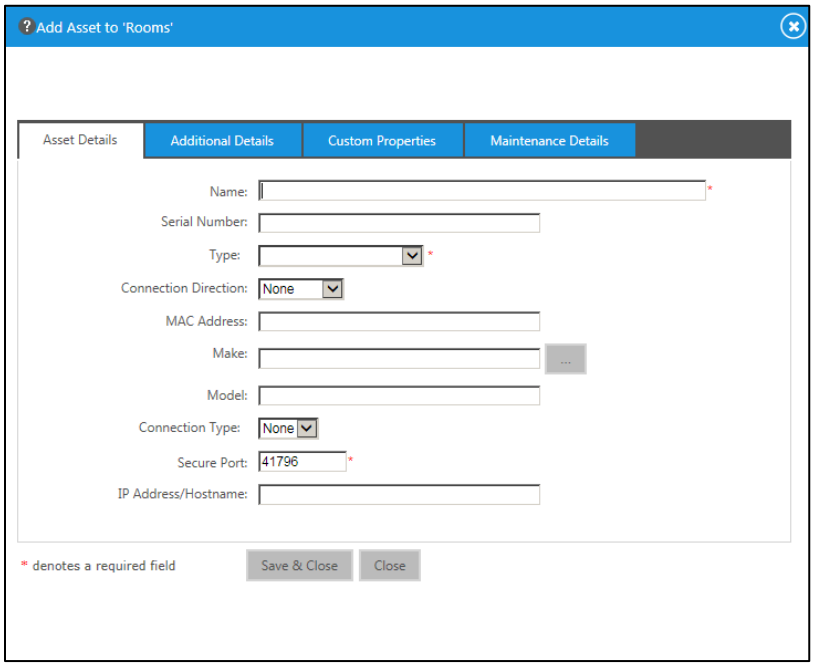
1. Click the + symbol next to **Root** node to expand the tree.
2. Click the + symbol next to **Rooms** node to expand the tree. From the list, select the room that was added in the previous section.
3. Click **Add**. From the drop-down list, click **Add Asset**.

   Add Drop-Down List

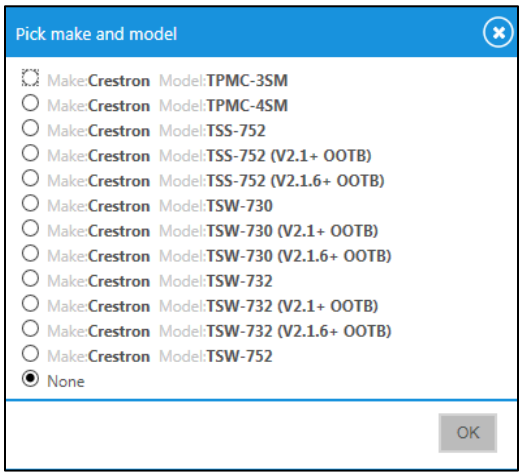
   The **Add Asset to 'Room Name'** window opens with the **Asset Details** tab selected.

   Add Asset to 'Rooms' Window

4. In the **Name** field, enter a name. When entering a name, use the asset name and room name.
5. Click the drop-down arrow next to **Type** and select **Touchpanel**.
6. Click the drop-down arrow next to **Connection Direction** and select **Outbound**.
7. Click the browse button (…) to the right of the **Make** field. **The Pick make and model** dialog box opens.

Pick make and model Dialog Box

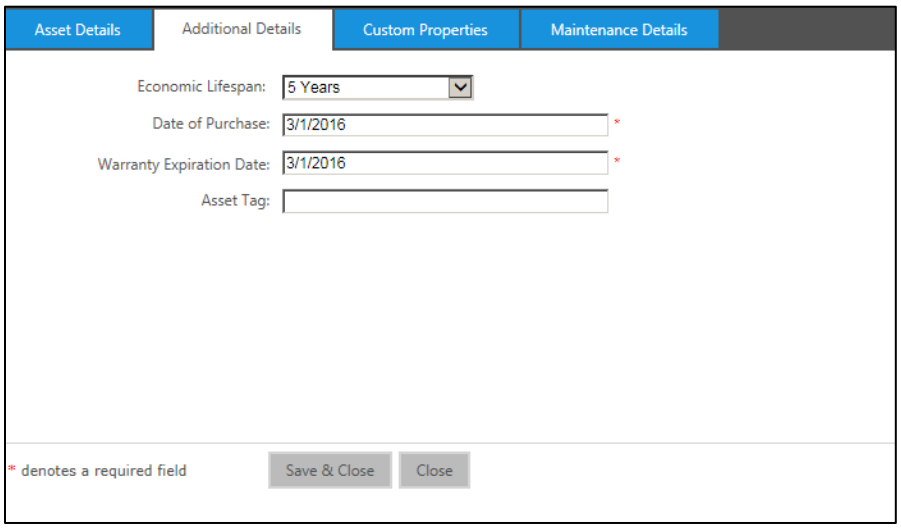


a. Select the latest version of the driver that matches the device.

b. Click **OK**.

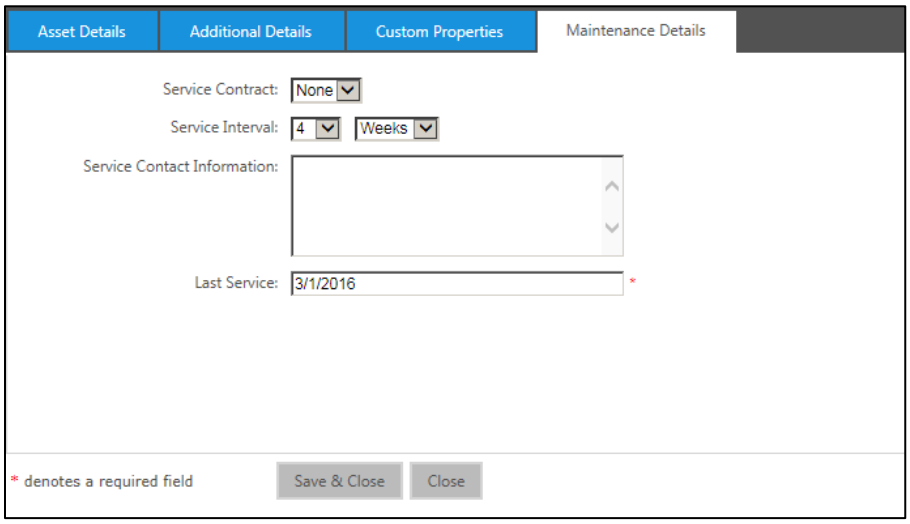
8. Click the drop-down arrow next to **Connection Type** and then select **Network**.
9. In **Secure Port** field, enter the default Secure CIP port as **41796**, or enter a different port if the asset was modified.
10. In the **IP Address/Hostname** field, enter an IP Address and Hostname.
11. Click the **Additional Details** tab.

Additional Details Tab



12. Enter the required information as indicated by the red asterisks. Enter optional information as desired.
13. Click the **Maintenance Details** tab.

Maintenance Details Tab



14. Enter the required information as indicated by the red asterisks. Enter optional information as desired.
15. Click **Save & Close** to save the asset.

NOTE: This procedure does not work for programmed assets.

Add a Device Using Inbound Communications

This section includes instructions on how to add a room with a processor and a scheduling panel asset. When using inbound communication, Crestron Fusion Cloud does all the work by connecting to the processor and auto-discovering rooms.

NOTE: If using Room templates, do not include inbound network-connected assets, scheduling panels, Crestron RL, and AirMedia devices.

Add a Room by Configuring a Processor

To add a room by configuring a processor, do the following:

1. Open the Crestron Toolbox™ software and connect to the control system.
2. Enter a hostname, "HOSTNAME *uniqueHostname*." When entering a hostname, set a *uniqueHostname* for the device that describes its name and room; for example, PRO3Room123.
3. Enter the "CLOUDENABLE ON" command on the Crestron Toolbox console.
4. Enter a URL for the Crestron Fusion Cloud server on-premises, "CLOUDURL https://*serverHostname*/Fusion/DeviceManager/api/DeviceManager." The *serverHostname* is the hostname of the server on-premises. The processor automatically reboots.

   NOTE: DNS resolution must be configured for the device's Ethernet interface, and the device must be able to make an Internet connection via the port.

5. After the device reboots, it automatically connects to the Crestron Fusion Cloud server on-premises.
6. Enter the "CLOUDSTATUS" command to verify the device is registered with the Crestron Fusion Cloud server.
7. Enter the "FITCSTATUS" command to verify the device is connected to the server and online.
8. Confirm that one or more auto-discovered Room Name(s) configured for the processor program(s), appears in the Root Node. If not, click another Node and then go back to the Root Node to refresh the list.
9. Drag the Room to the appropriate Node in the tree to activate communications with the processor.

   If the room was already created before the processor was discovered, the auto-discovered Symbols (from the room in the Root Node) need to be moved into the existing room as follows:

   - Open the Node tree so the target room (created previously) is displayed.
   - Click the auto-discovered Room to display its Symbol(s) to the target, and drag each symbol to the appropriate existing target room.
   - Delete the room from the Room Node, when one or more symbols remain on the auto-discovered room.

Add a Scheduling Panel Asset by Configuring a Processor

To add a scheduling panel asset by configuring a processor, do the following:

1. Open the Crestron Toolbox software and connect to the control system.
2. Enter a hostname, "HOSTNAME *uniqueHostname*." When entering a hostname, set a *uniqueHostname* for the device that describes its name and room for example, TSS752Room123. After the device reboots, the device should connect to the Crestron Fusion Cloud server.
3. Enter a URL for the Crestron Fusion Cloud server on-premises, "CLOUDURLhttps://*serverHostname*/Fusion/DeviceManager/api/DeviceManager." The *serverHostname* is the hostname of the server on-premises.
4. Enter the "CLOUDENABLE ON" command. The device must be rebooted. After the device reboots, it will connect to the Crestron Fusion Cloud server on-premises. The device displays "Retrieving Room Details."

   NOTE: DNS resolution must be configured for the device's Ethernet interface and the device must be able to make an Internet connection via the port.

5. Open the Crestron Fusion Cloud Setup Web client.
6. Confirm that the Scheduling Panel is listed in the Root Node under its *uniqueHostname*. If not, click another Node, and then click the Root Node to refresh the list.
7. Drag the device to the appropriate room to activate communications with the device.

   NOTE: For the scheduling panel to operate properly, the room must be configured with a scheduling provider.

8. Select the Asset, and click **Edit**.
9. Confirm that the driver type, make, and model are the appropriate selections for the Asset and the Out of the Box Functionality (OOTBF) version. Make changes, if necessary.
10. Click **Save & Close** to save changes. Click **Close** if no changes were made.

For More Information

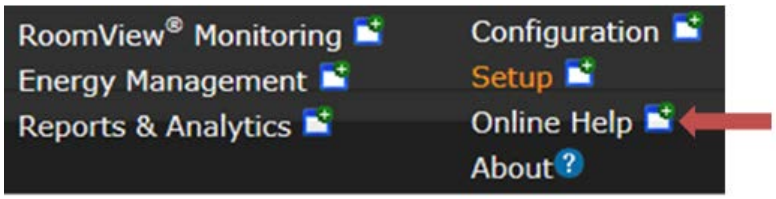
For more information on these and other procedures in Crestron Fusion Cloud, consult the embedded help. Follow the steps below to access the online help.

1. From the Crestron Fusion header tab, click **Open**.

   Crestron Fusion Header Tab

2. From the pull-down tab, click **Online Help** to open the Crestron Fusion Cloud online help.

   Pull-Down Tab

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Online Help at www.crestron.com/onlinehelp. First-time users need to establish a user account to benefit from all features.

For information on Crestron Fusion Cloud, contact the Fusion Support Group (FSG) at 855-754-5962 or e-mail fsg@crestron.com.

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