Crestron Fusion® Software Configuration

Enterprise Management Software

Reference Guide

Crestron Electronics, Inc.

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

Contents

Crestron Fusion Software Configuration: Enterprise Management Software

Introduction

This document provides configuration instructions for using Crestron Fusion.

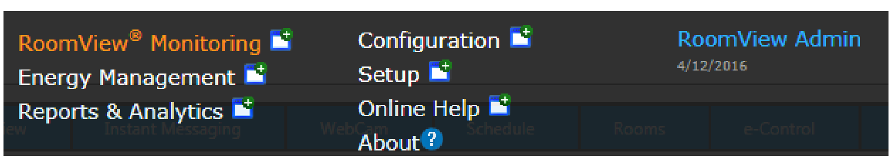
For questions and additional information, contact the Crestron Fusion Deployment Team representative assigned to the project at 855-754-5962 or e-mail fsg@crestron.com.

Crestron Fusion Web Interface

Crestron Fusion is a web-based application and any interaction described in the following document is completed through the Crestron Fusion Web Client. The two main components are the Crestron Fusion application running on a Microsoft® Windows Server® operating system and Microsoft SQL Server® database system where data is collected and stored in a database. Direct interface to the SQL Server database is not necessary or recommended.

The following sections are accessible from the Crestron Fusion Web Client:

Crestron Fusion Web Client



- RoomView® Monitoring software provides feedback coming from programmed rooms. The monitoring section also contains tabs for interaction with the room through the use of Fusion Insite, Assets, Scheduling, Webcam, Xpanel, and Instant Messaging.
- Energy Management shows information about the rooms relating to lighting, HVAC, and other controls which also allow settings to be saved when certain room conditions occur (e.g., occupied/not occupied, meeting/no meeting, etc.). This section contains a calendar for automating events and showing real time energy usage as well as historical energy usage data.
- Reports & Analytics allows for end users to run reports on data that is collected by Crestron Fusion. The reports can be tailored to specific rooms and data.

- **Configuration** contains global settings for the Crestron Fusion server(s) as well as for interaction with other systems (scheduling, SMTP, etc.).
- **Setup** is the main focus of this document and contains the majority of the components for creating the customization of the Crestron Fusion website for the end client.
- **Online Help** opens the context sensitive online help for Crestron Fusion.
- **About** opens a window displaying the current version of Crestron Fusion.

Logging In

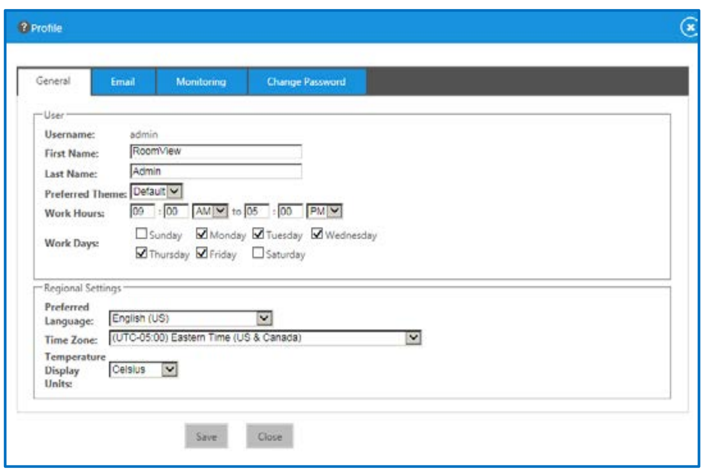
The default website for Crestron Fusion is http://*servername*/fusion/webclient where *servername* is the hostname or IP Address of the server the Crestron Fusion is installed on. The default login for the Crestron Fusion website is “admin” for both the username and password.

Completing a Profile

Complete the profile information before using the Crestron Fusion.

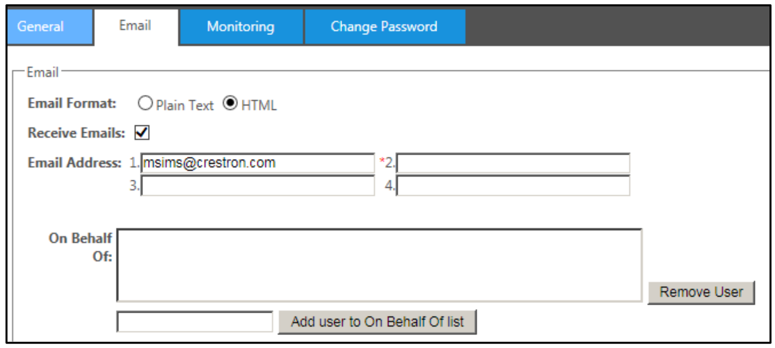
1. Log into Crestron Fusion. The **Profile** dialog box displays. The **Profile** dialog box only displays the first time the user logs into Crestron Fusion or if an e-mail address has not been entered.

   Profile Dialog Box



2. From the **General** tab, enter the user’s time zone.

Email Tab



3. From the **Email** tab, enter the user's e-mail address. This field is required.
4. Click the **Receive Emails** check box to receive e-mails from Crestron Fusion.

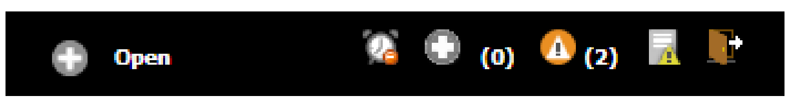
NOTE: The **Profile** dialog box will continue to open upon login until an e-mail address has been entered for the account. Any future changes to the profile can be made by clicking the user's name from the Crestron Fusion header tab.

Navigating the Website

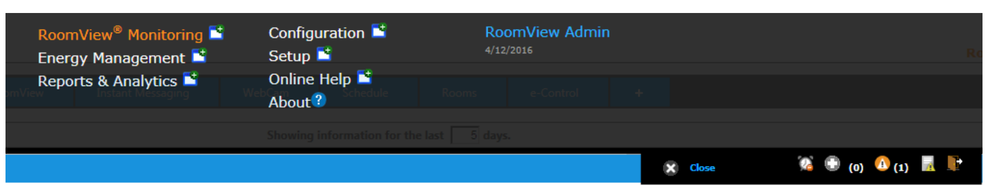
After logging in and completing the profile information, the RoomView Monitoring section loads.

1. From the Crestron Fusion Clod header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

Crestron Fusion Header Tab



Pull-Down Tab



2. Navigate to the different sections by clicking the name.
   - The icons (in the lower right area) show notification information and are visible from all sections.
   - The Logout icon (open door) logs out the current user.

     NOTE: The Logout icon will not be present during Windows® operating system Authentication.

   - Hover the mouse pointer over these icons to view information about the icon.

Using Geographic Regions and Time Zones in Crestron Fusion

The Time Zone and Geographic Regions components impact the design on a global level.

- Time Zone information must align in order for scheduling information to display correctly and for the end user's experience to be accurate. The server may be located in one time zone while the user is in a different time zone and the room itself may be in a different time zone from the server and user.
- Geographic Region information affects additional features of Crestron Fusion, such as Pinpoint™ software and the Outlook® Add-In (OLAI) software. Pinpoint is a mobile app that allows an end user to find and book available rooms and to view personal calendars. It also includes built-in abilities for waypoint navigation and no-touch presentation if these are available in a room. OLAI is plug-in software for Microsoft Outlook, which allows end users to search for available spaces based on regional information and criteria (capacity, AV equipment in space, etc.). It also provides a section to add predefined actions to the beginning or the end of a meeting (e.g., Turn System On and Turn System Off).

Setting the Default Time Zone

To set the default time zone, complete the steps below:

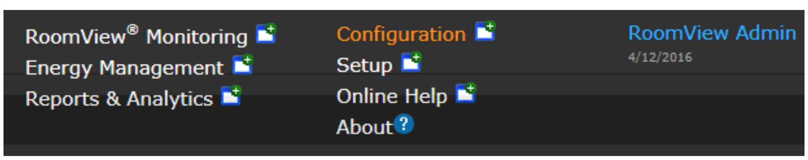
1. From the Crestron Fusion header tab, click the + icon located to the left of the Open link to open the pull-down tab.

   Crestron Fusion Header Tab

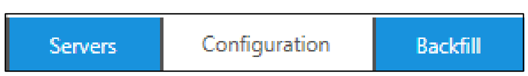
2. Click the Configuration link.

   Configuration Link

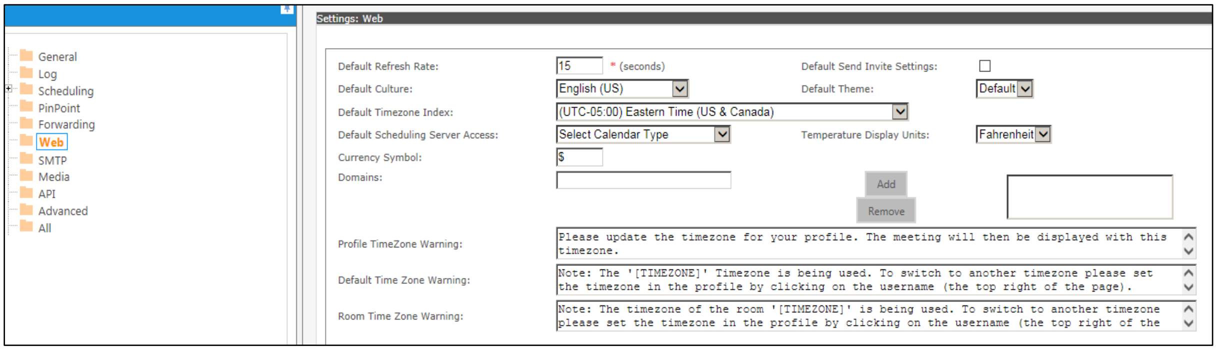
3. Click the Configuration tab located at the bottom left corner.

   Configuration Tab

4. Click Web on the left side of the page. The default time zone is displayed.

Default Time Zone



Creating Geographic Regions

Nodes in Crestron Fusion are equivalent to a folder. Rooms are then added within the nodes similar to adding a file to a folder. For the OLAI or Crestron PinPoint app, it is necessary to create the Geographic Regions hierarchy. Geographic Regions are created in the Crestron Fusion Setup section. These are customizable fields that can be completed for each space and node.

Complete the steps below to create and edit field names.

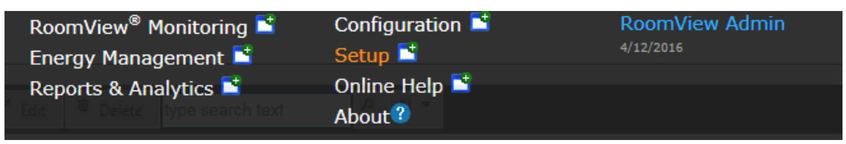
1. From the Crestron Fusion header tab, click the + icon located to the left of the Open link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the Setup link.

   Setup Link

3. Click the Objects tab located at the bottom left corner, and then click Geographic Regions.

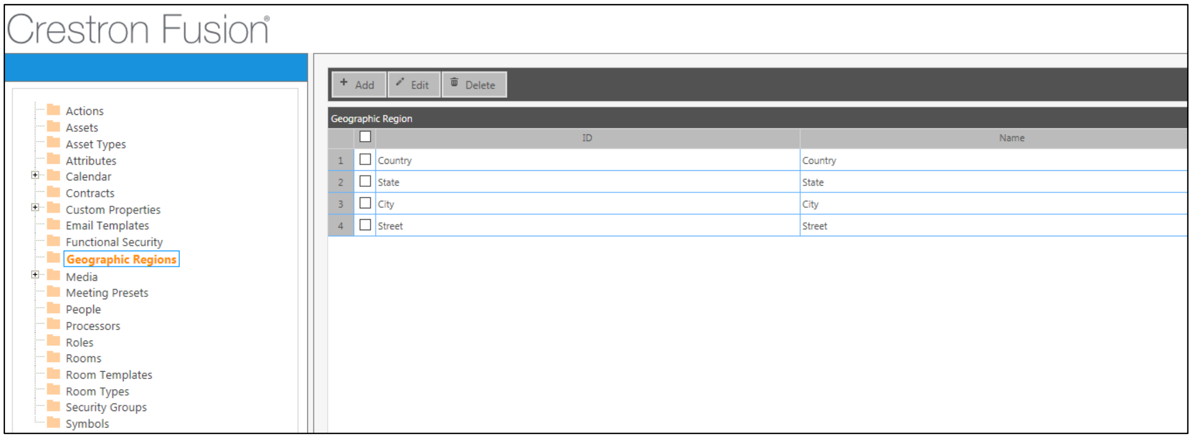
   Objects Tab

   A list of the default regions is displayed on the right window.

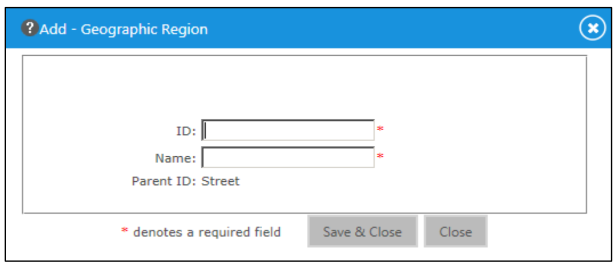
   - Each region has a common name and an ID. The ID cannot contain spaces. To keep information aligned correctly in the database and also create custom regional information, delete all entries and recreate them if the order of the default structure is not suitable (recommended).
   - The order is important. Work down from the broadest regional scope to the smallest regional scope, for example, City, Campus, Building, Floor, etc.

Geographic Regions



4. Click **Add**. The **Add - Geographic Region** dialog box displays.

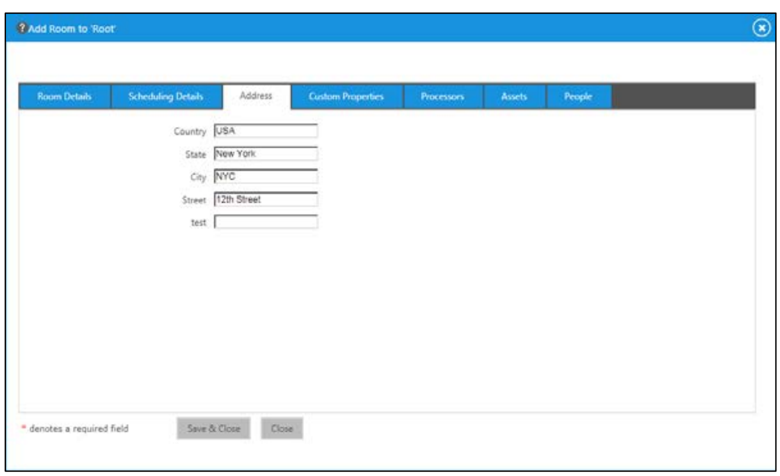
Add - Geographic Region Dialog Box



5. Enter an **ID** and **Name** for the region. The ID is used for database purposes and cannot contain a space. This helps distinguish names if a specific region must be listed twice.
6. Click **Save & Close**.
7. Repeat steps 5 and 6 until the hierarchy of regional information is completed.

NOTE: When a room is added, the Geographical Region information appears on the **Address** tab.

Add Room Dialog Box



Designing the Room Tree (Nodes)

The room tree has two main purposes: organization and security. The room tree is structured to organize similar rooms together and to provide an easier way to find specific rooms when searching. The room tree also serves as a grouping for assigning security permissions to limit what a user can and cannot do to rooms in that particular node. The tree design is very similar to a file and folder structure found on almost all operating systems.

Changing the Root Node Name

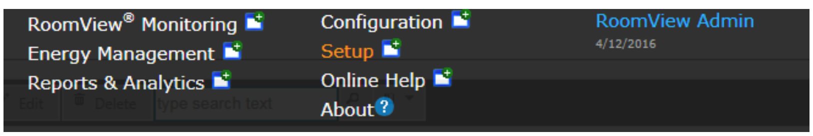
1. Log in to the Crestron Fusion website using the link http://*servername*/fusion/webclient where *servername* is the name of the server.
2. From the Crestron Fusion header tab, click the + icon located to the left of the Open link to open the pull-down tab.

   Crestron Fusion Header Tab

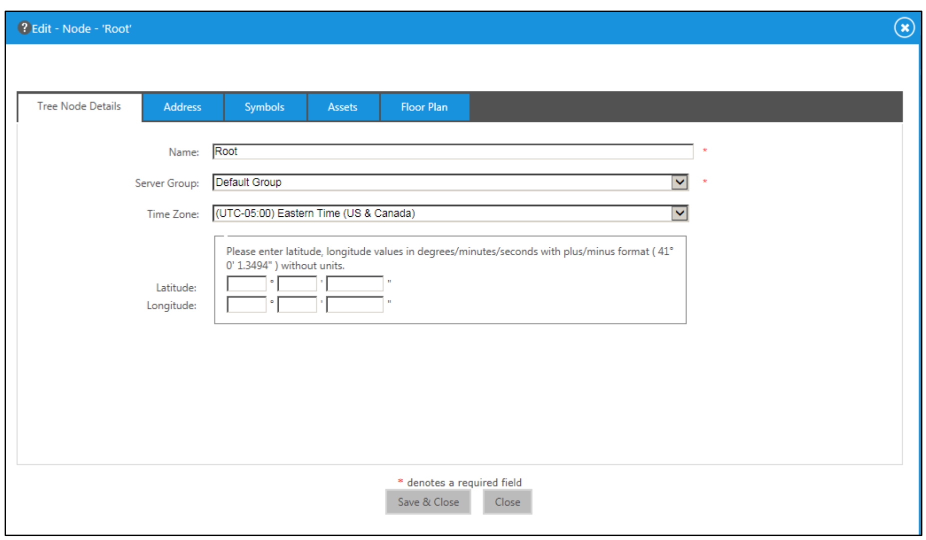
3. Click the Setup link.

   Setup Link

4. Double-click the top level node to open the Edit - Node dialog box.

   Edit - Node Dialog Box

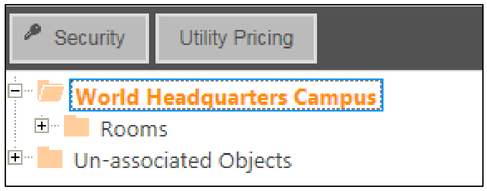
   

5. The default name is Root. Change the name in the Name field.
6. Enter optional information, if desired.
7. Click Save & Close.

Adding a New Node

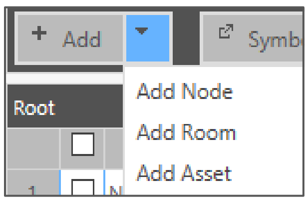
1. In the tree, highlight the existing node to place the new node under. The new node displays under the selected existing node.

Adding a New Node

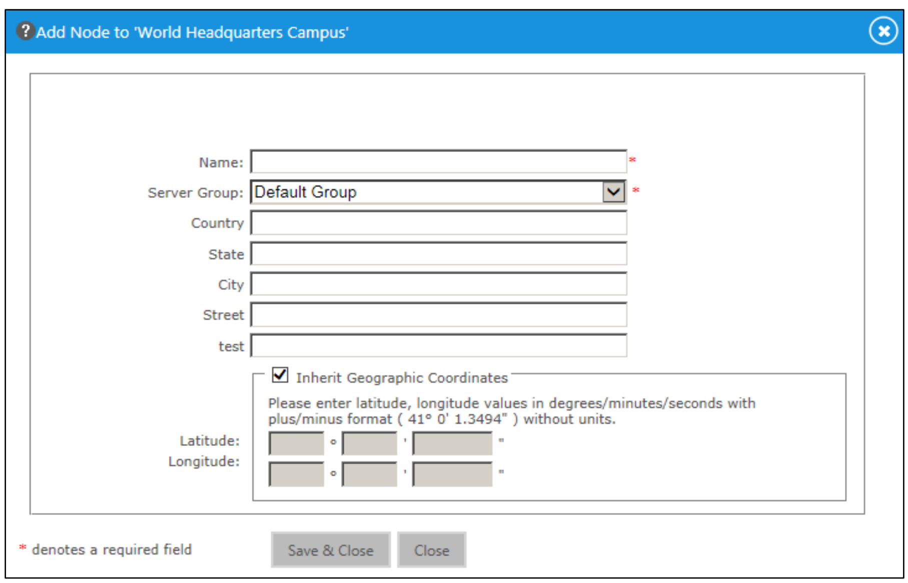


2. Click **Add Node**. The **Add Node** dialog box displays.

Add Drop-Down List



Add Node Dialog Box

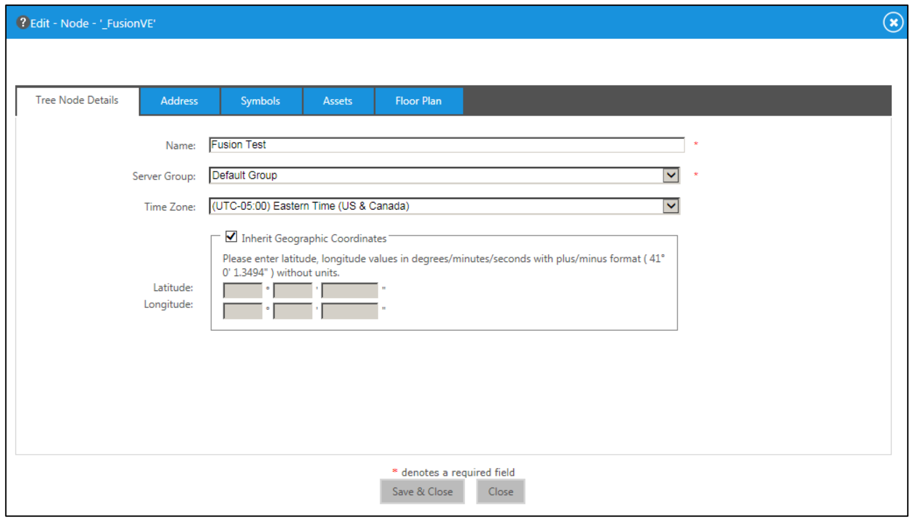


3. Enter a name in the **Name** field.
4. Enter optional information, if desired.
5. Click **Save & Close**.

Changing a Node Name

1. In the room tree, double-click the node name that is to be changed. The **Edit -Node** dialog box displays.

   Edit - Node Dialog Box



2. Enter a new name in the **Name** field.
3. Enter optional information, if desired.
4. Click **Save & Close**.

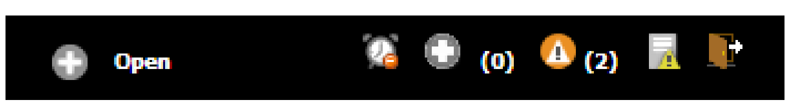
Using Asset Types

Crestron Fusion has the ability to track asset information such as AV warranty expiration, life span deprecation, service intervals, etc. The assets can be grouped together by the Asset Type. The Asset Type might be DVD player, Codec, Switcher, etc. An asset listed in Crestron Fusion is associated with an Asset Type. For example, a Crestron® switcher is listed with Asset Type named "Switcher."

Adding an Asset Type

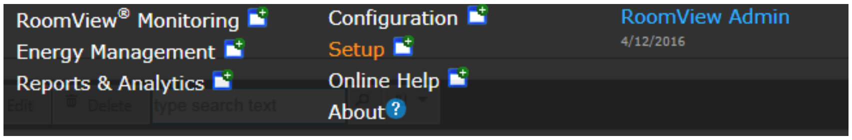
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab



2. Click the **Setup** link.

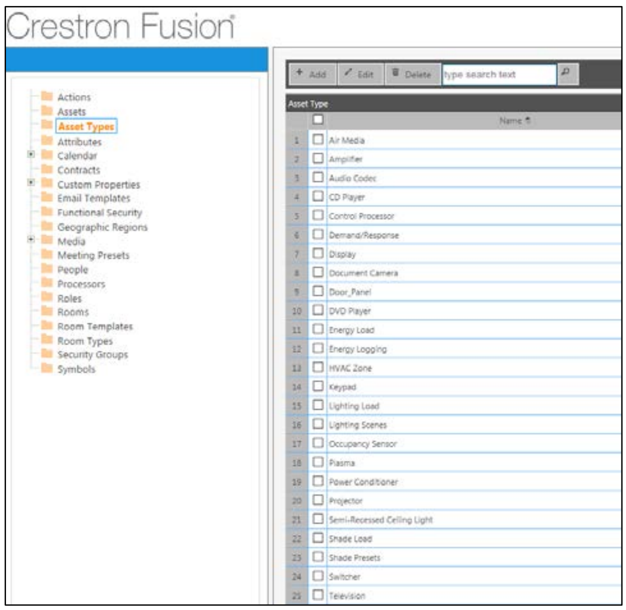
Setup Link



3. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

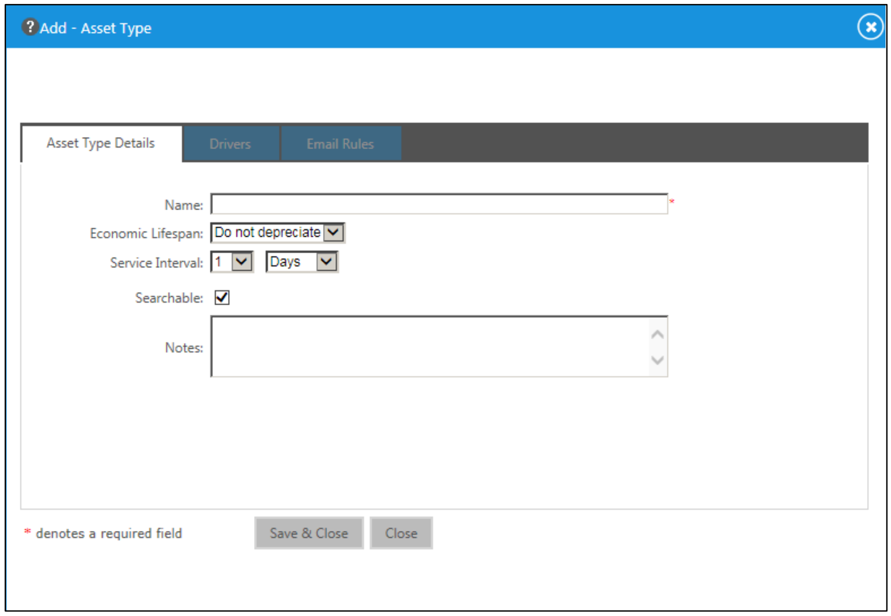
Objects Tab

Asset Types Folder



4. Click **Add**. The **Add - Asset Type** dialog box displays.

Add - Asset Type Dialog Box



5. Complete the following fields as necessary.
   - **Name:** This is the Asset Type name.
   - **Economic Lifespan:** This is the longevity of the Asset Type expressed in years.
   - **Service Interval:** This is how often the Asset Type should be serviced.
   - **Searchable:** This determines if the Asset Type is searchable using the OLAI.
   - **Notes**: This field allows the user to add additional information about the Asset Type.

NOTE: The **Drivers** and **Email Rules** tabs remain gray when an Asset Type is added and clickable when an Asset Type is edited.

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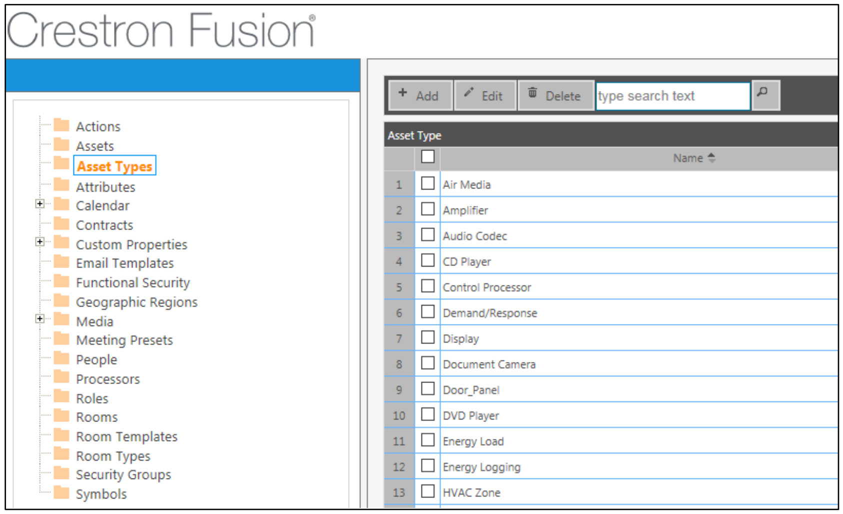
6. Click **Save & Close**.

Editing an Asset Type

1. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

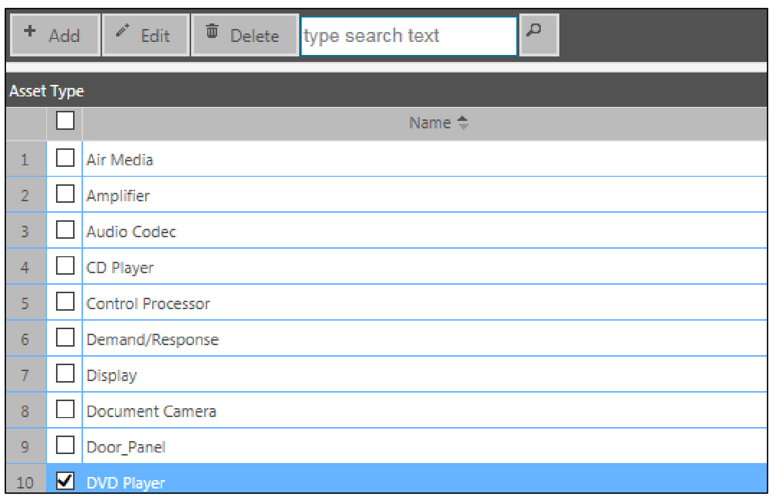
   Objects Tab

Asset Types Folder



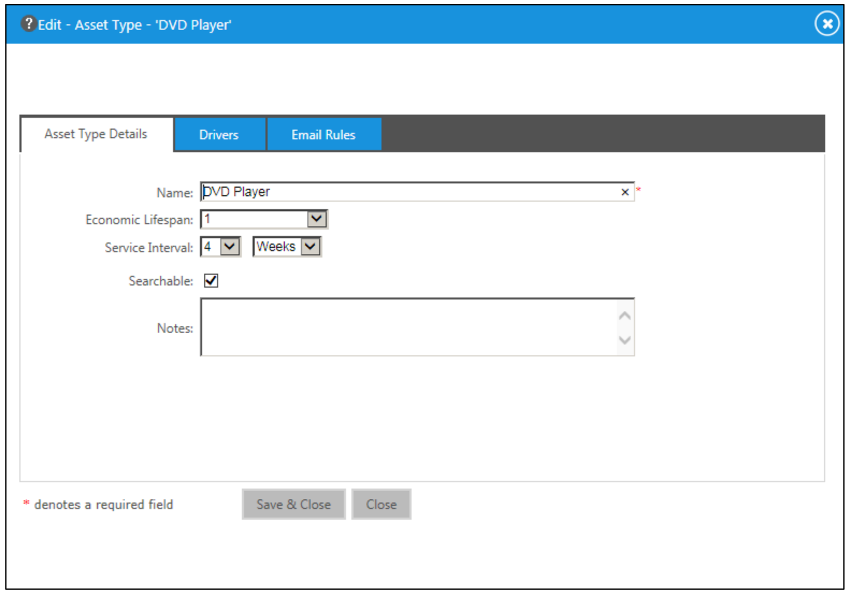
2. Click the **Asset Type** check box to the left of the asset to be edited. To select all assets, click the check box above the list.

Editing an Asset Type



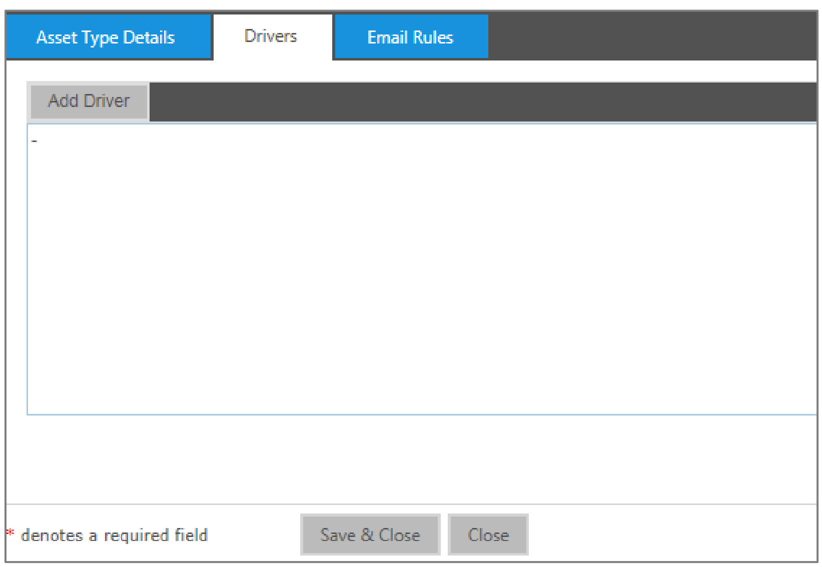
3. Click **Edit**. The **Edit - Asset Type** dialog box displays.

Edit - Asset Type Dialog Box



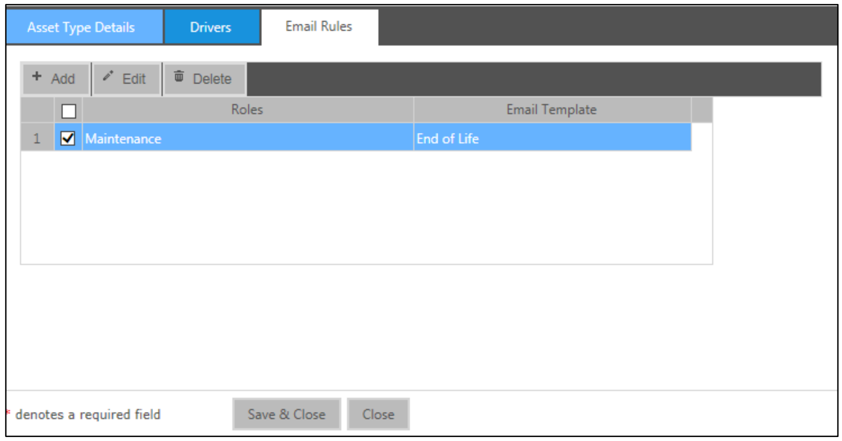
4. From the **Asset Type Details** tab, make the desired changes to the asset.
5. Click **Save & Close**.
6. Click the **Drivers** tab. The **Drivers** tab is used for Crestron Direct Connect devices. Any XML-based drivers used for these devices are listed under **Drivers**.

Drivers Tab



7. Click **Add Driver** to add drivers.
8. Click **Save & Close**.
9. Click the **Email Rules** tab. The **Email Rules** tab is used for configuring e-mail notification when service is due or the economic life span has expired. E-mail rules can be added, edited, or deleted.

Email Rules Tab

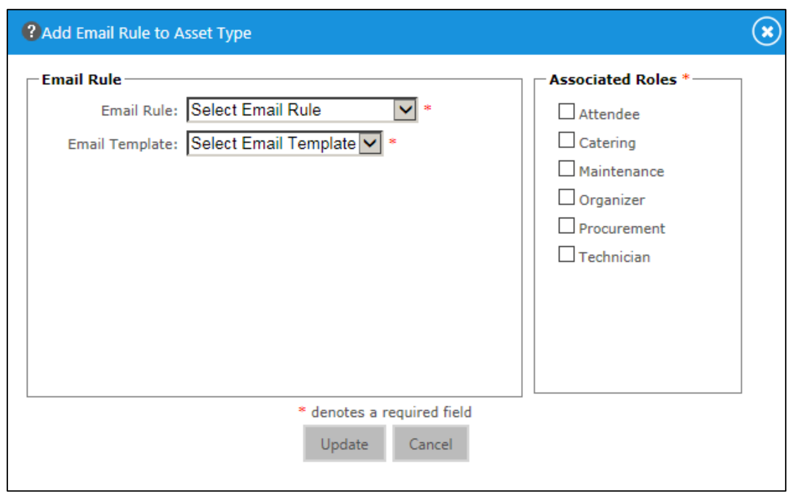


To add an e-mail rule, do the following:

a. Click the **Email Template** to use for this notification.

b. Click **Add**. The **Add Email Rule to Asset Type** dialog box displays.

Add Email Rule to Asset Type Dialog Box



c. Select an **Email Rule**, **Email Template**, and then click the **Associated Roles** that should receive this e-mail for the room.

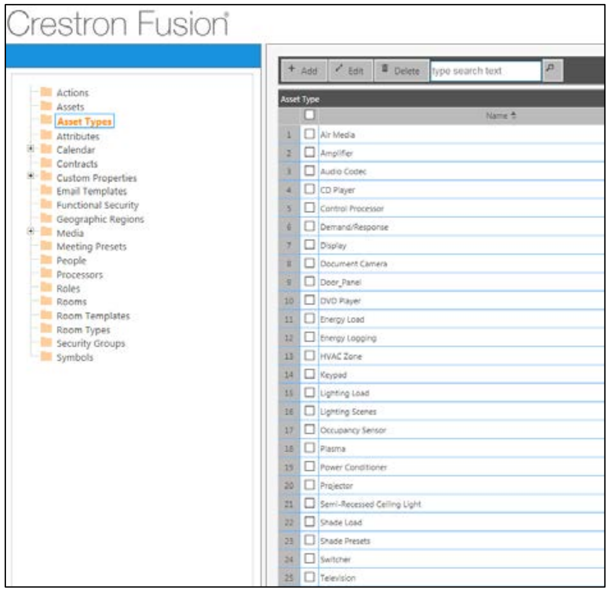
d. Click **Update**.

Deleting an Asset Type

1. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

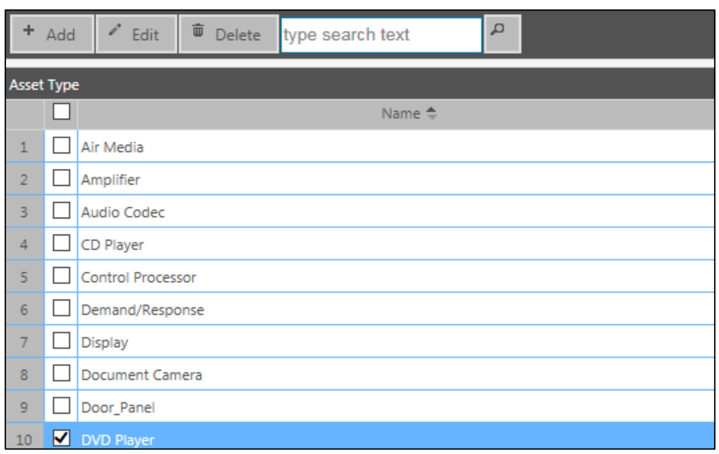
Objects Tab

Asset Types Folder



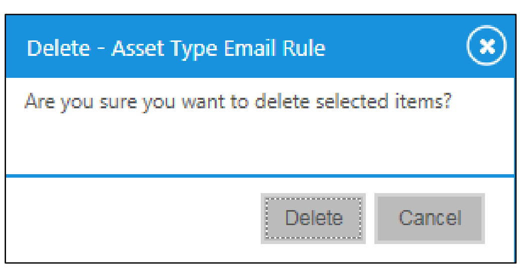
2. Click the **Asset Type** check box to the left of the asset to be deleted, and then click **Delete**.

   Deleting an Asset Type



3. The **Delete - Asset Type Email Rule** message box displays. Verify the item(s) that were selected for deletion, and then click **Delete**.

   Delete - Asset Type Email Rule Message Box



Using Roles in Crestron Fusion

Roles in Crestron Fusion help define how information about the room is sent to People. A user's role determines what e-mail notifications they receive from the system. Roles are a function of the room, and user accounts are assigned to the Roles for that room.

Adding a Role

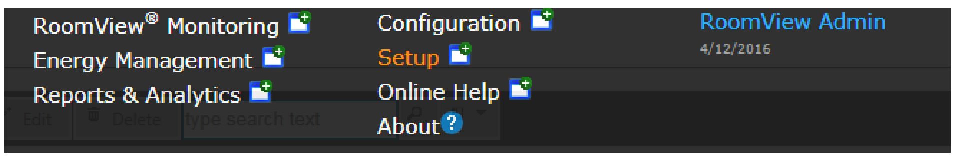
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **Setup** link.

   Setup Link

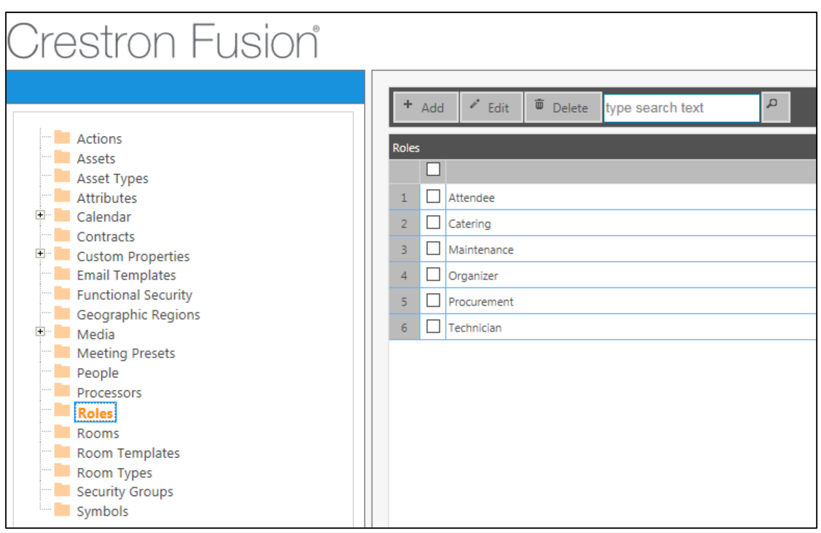
   

3. Click the **Objects** tab, and then click **Roles**. A list of the default roles is displayed.

   Objects Tab

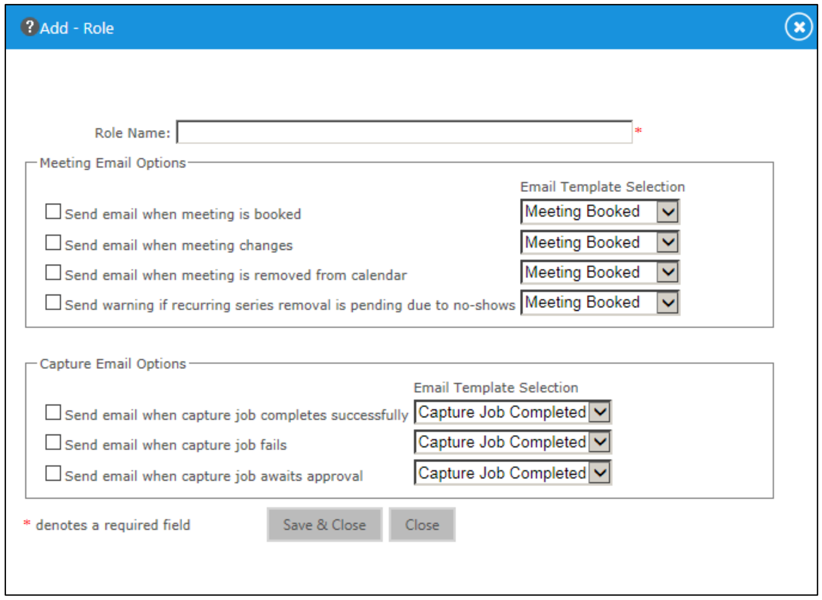
   

   Roles Folder

4. Click **Add**. The **Add - Role** dialog box displays.

Add - Role Dialog Box



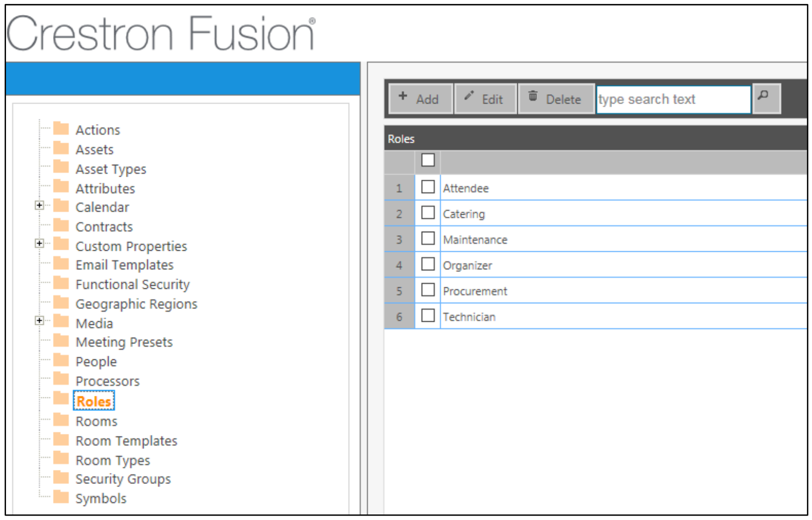
5. Complete the fields as necessary.
   - Role Name: This is the job description.
   - Meeting Email Options: These options enable an e-mail to be sent for the meeting criteria listed in the section. Click the applicable check box next to the desired meeting e-mail notification. Select the e-mail template to be used for the notification.
   - Capture Email Options: These options enable an e-mail to be sent for the meeting criteria listed in the section. Click the applicable check box next to the desired Capture e-mail notification. Select the e-mail template to be used for the notification.
6. Click Save & Close.

Editing a Role

1. Click the Objects tab, and then click Roles. A list of the default roles is displayed.

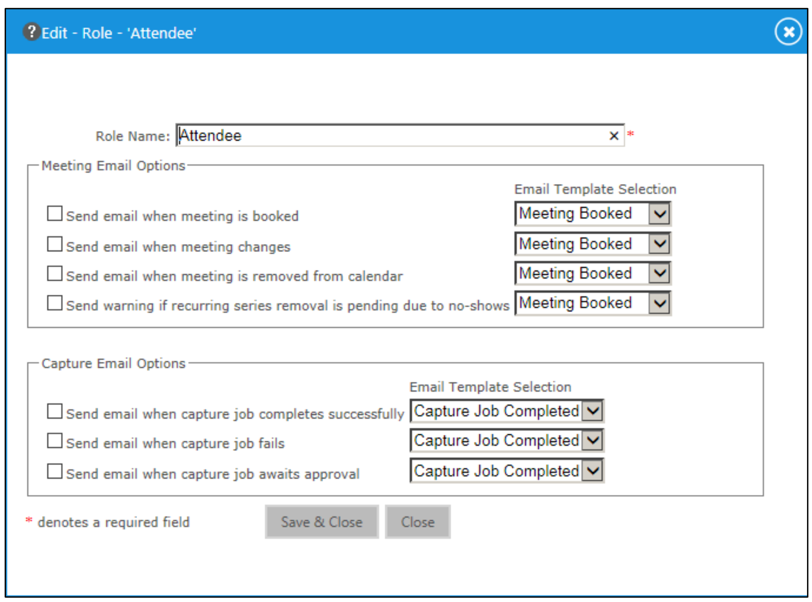
   Objects Tab

Roles Folder



2. Click the check box next to the role to be edited.
3. Click **Edit**. The **Edit - Role** dialog box displays.

Edit - Role Dialog Box



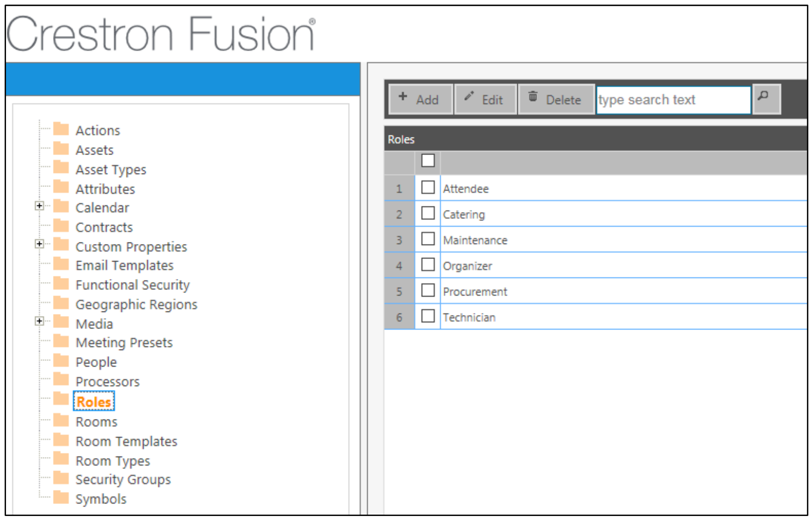
4. Make the desired changes.
5. Click **Save & Close**.

Deleting a Role

1. Click the **Objects** tab, and then click **Roles**. A list of the default roles is displayed.

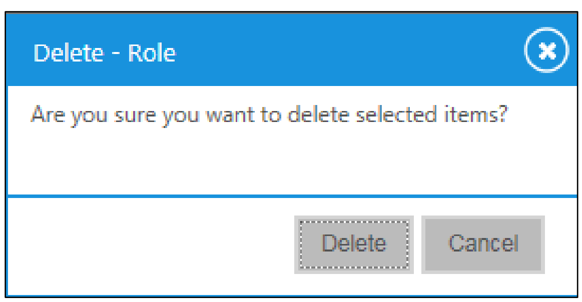
Objects Tab

Roles Folder



2. Click the check box next to the role to be deleted.
3. Click **Delete**. The **Delete - Role** message box displays.

Delete - Role Message Box



4. Verify the items that were selected for deletion, and then click **Delete**.

Managing Users (People) in Crestron Fusion

Crestron Fusion has the ability to allow multiple users (referred to in Crestron Fusion as People) to log in to the website simultaneously. New users can be created and then assigned to security groups to affect rights and views that the user has within the websites.

The two main ways for authenticating users are: Forms Authentication and Windows Authentication.

- Forms Authentication maintains Users and Security Groups within the Crestron Fusion database.
- Windows Authentication allows Crestron Fusion to leverage Active Directory domain users and domain security groups to provide rights and permissions within Crestron Fusion. A Windows domain is a grouping of all registered users, computers, and printers. Active Directory can be defined as the database that these objects are stored in.

NOTE: Crestron Fusion does not support Active Directory Integration.

Adding a User

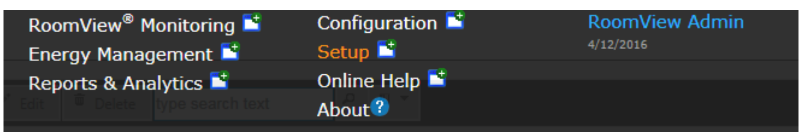
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **Setup** link.

   Setup Link

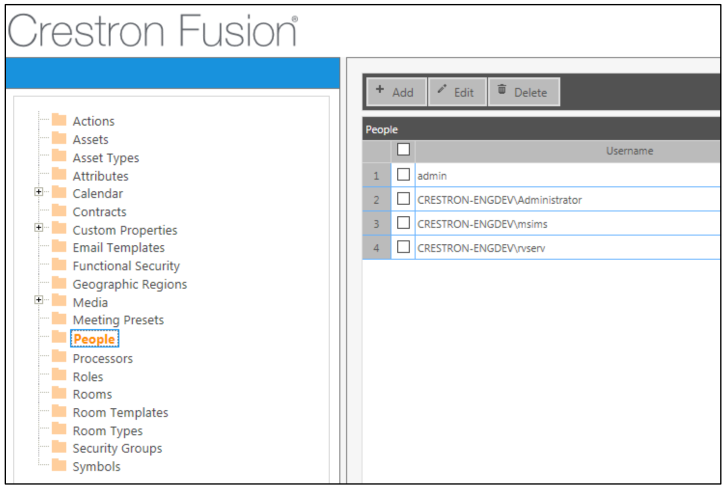
   

3. Click the **Objects** tab, and then click **People**.

   Objects Tab

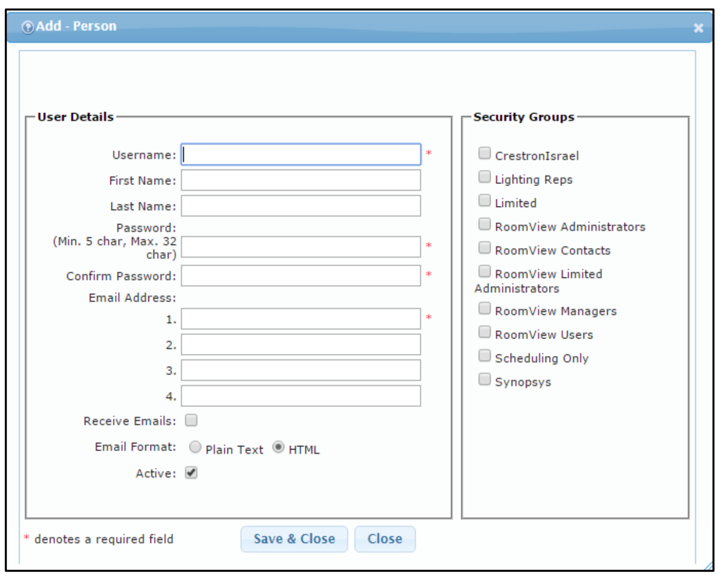
   

People Folder



4. Click Add. The Add - Person dialog box displays.

   Add - Person Dialog Box



5. Complete the fields as necessary.

   - Username: This is the login username given to the end user accessing Crestron Fusion.
   - First Name/Last Name: This is the formal first name and last name of the end user. This displays in the Crestron Fusion header tab.
   - Password/Confirm Password: This is where the end user enters the password. Minimum password length is four characters. This is the only requirement.
   - Email Address: This e-mail address is used for e-mail notifications. There are three additional e-mail fields for adding multiple e-mail addresses for one user.

- **Receive Emails:** This dictates whether or not this account receives e-mails from Crestron Fusion.
- **Email Format**: The e- can be sent to the user in Plain Text or HTML format.
- **Active**: This field defines whether the account is Active or Inactive. An inactive account does not allow the user to log in.
- **Security Groups**: These groups define what access the end user has to Crestron Fusion. Check any boxes that apply for the account.

NOTE: Users should not be placed in multiple security groups, as this creates conflicts when users access the Crestron Fusion website.

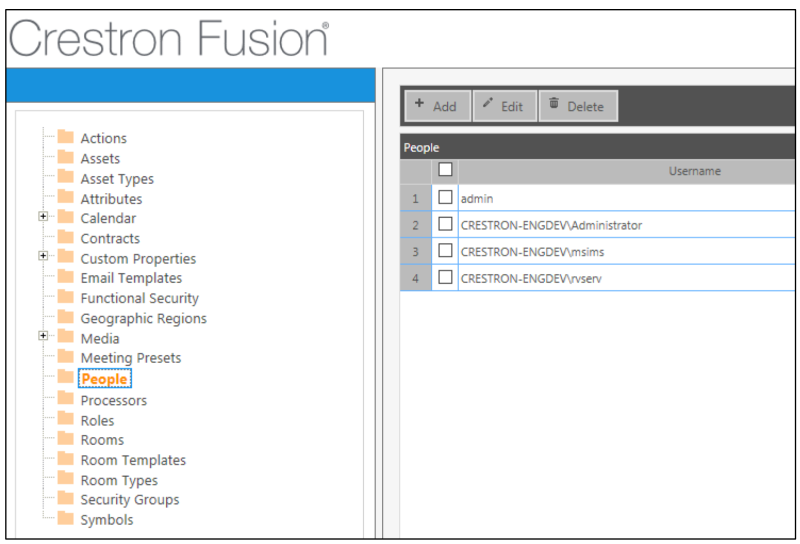
6. Click **Save & Close.**

Editing a User

1. Click the **Objects** tab, and then click **People.**

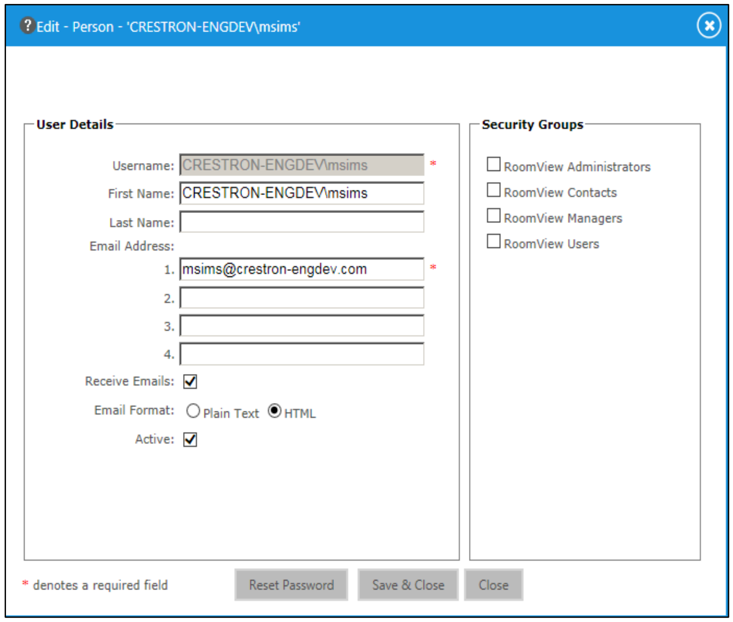
Objects Tab

People Folder



2. Click the check box to the left of the user to be edited.
3. Click **Edit**. The **Edit - Person** dialog box displays.

Edit - Person Dialog Box



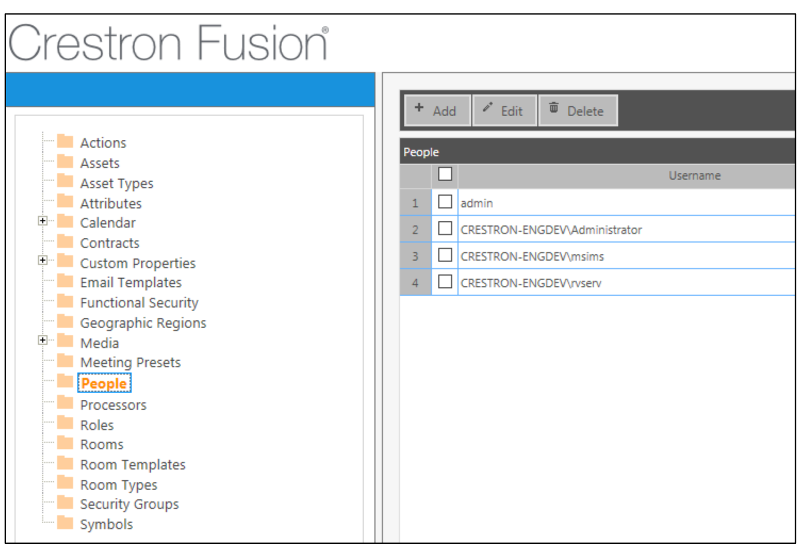
4. Complete the fields as necessary.
5. Click **Save & Close**.

Deleting a User

1. Click the **Objects** tab, and then click **People**.

   Objects Tab

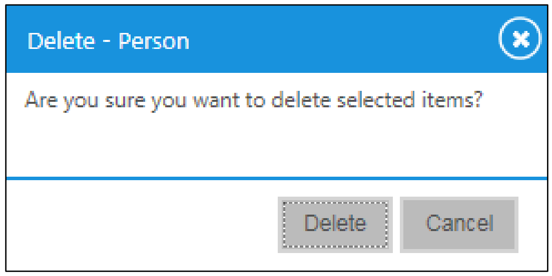
   People Folder



2. Click the **People** check box to the left of the user to be deleted.

3. Click **Delete**.The **Delete - Person** message box displays.

Delete - Person Message Box



4. Verify the user to be deleted, and then click **Delete**.

Things to Know About Users in Crestron Fusion

- All permissions within Crestron Fusion are assigned to Security Groups. Users are added to Security Groups and inherit the permissions.
- If using Windows Authentication, do not create Security Groups and People within the Crestron Fusion interface. Active Directory Groups must be manually added to functional and object security policies.
- In Windows Authentication, access is granted to Active Directory Security Groups, and an Active Directory User account is automatically created at the first login.
- In Forms Authentication and Windows Authentication, individual users cannot be assigned permissions and access directly in Crestron Fusion.
- In Forms Authentication and Windows Authentication, users can be added to a Role for the room and receive notifications for that particular room depending on which Role is selected.

Adding Crestron Connected® Devices

Certain Crestron products have the ability to connect directly to Crestron Fusion via a network without needing a Crestron processor. These devices are added as Assets to the room.

The following table lists devices supported in Crestron Fusion and devices supported in Crestron Fusion (on-premises).

Crestron Connected Device Support

Crestron Fusion	Crestron Fusion (On-Premises)
3-Series® Processor: Firmware version 1.012.0017 or newer	2-Series and 3-Series Processors
TSW-732 Scheduling Panel: Firmware version 2.01.08 or newer	TPMC-3SM, TPMC-4SM, TSS-752, TSW-732, and TSW-730 (Discontinued)
TSS-752 Scheduling Panel: Firmware version 2.01.08 or newer	Crestron Connected Projectors*
AirMedia® presentation gateway software (not recommended, No SSL support): Firmware version 1.2.1 or newer	AirMedia
Crestron RL® system: Firmware version 15.14.08 or newer	Crestron RL
	CaptureLiveHD® system

* A more extensive list of supported manufacturers' displays with the ability to connect directly to Crestron Fusion can be located on the Crestron website at http://www.crestron.com/products/line/crestron-connected.

There are two ways to add Crestron Connected Assets to a room:

- Add the asset and then associate it to a room.
- Add the asset at the time of the room creation.

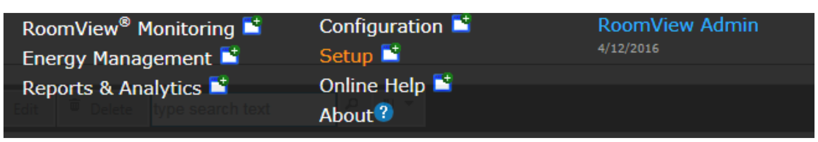
Adding a Crestron Connected Device (On-Premises Only)

1. From the Crestron Fusion header tab, click the + icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **Setup** link.

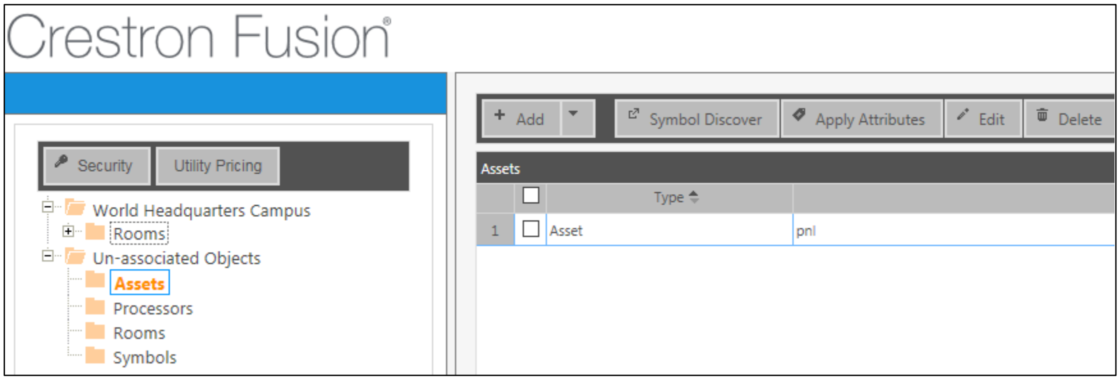
   Setup Link



3. Click the **Rooms** tab, and then click **Assets**. A list of nodes or rooms is displayed.

   Rooms Tab

Assets Folder

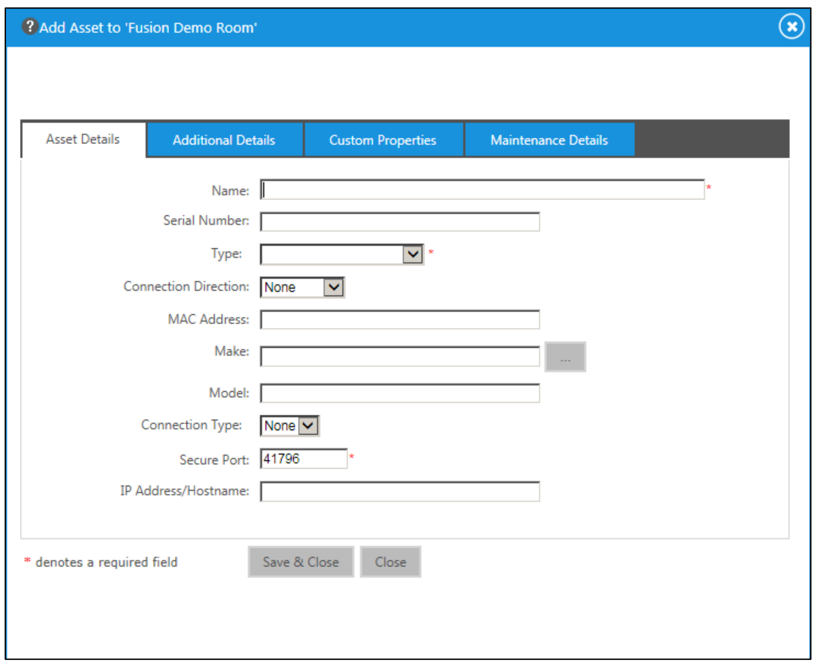


4. Click the Node or Room that the asset needs to be associated with.

NOTE: All Crestron Connected devices must be associated to a room.

5. Click Add, and then click Add Asset. The Add Asset dialog box displays.

Add Asset Dialog Box



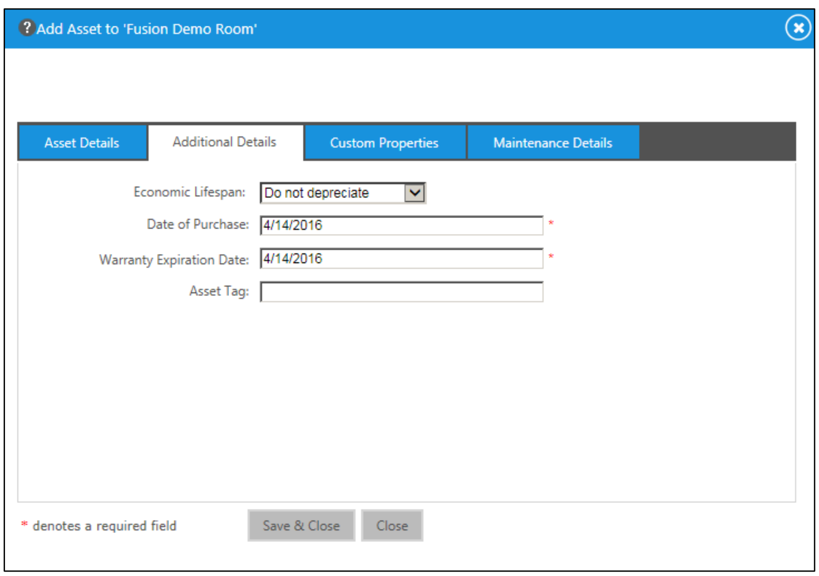
6. Complete the fields as necessary.
   - Name: This is the specific name of the asset.
   - Serial Number: This is the serial number of the asset.
   - Type: This is the Asset Type that defines what group this asset would fall under. There are specific Asset Types for Crestron Connected devices.
     - Touch Panel: This type should be selected for all scheduling panels.
     - Video Conference: This type should be selected for Crestron RL.

- o **Video Capture:** This type should be selected for CaptureHD.
- o **Presentation Gateway:** This type should be selected for AirMedia.
- o **Projector:** This type should be selected for all Crestron Connected manufacturers' displays.

- **Connection Direction:** This is the Connection Direction. Select either **None** or **Outbound**.
- **MAC Address:** This is the asset's MAC Address, if it has one.
- **Make/Model:** For Crestron Connected devices, click the browse ("…") button and then select the appropriate driver for the device.
- **Connection Type**: Set the connection type to **Network**, when using Crestron Connected devices.
- **Secure Port:** Leave as default unless programmed or instructed otherwise.
- **IP Address/Hostname**: This is the IP Address or hostname of the Crestron Connected device. This is how Crestron Fusion connects to the device over TCP/IP.

7. Click **Save & Close**.
8. Click the **Additional Details** tab.

Additional Details Tab

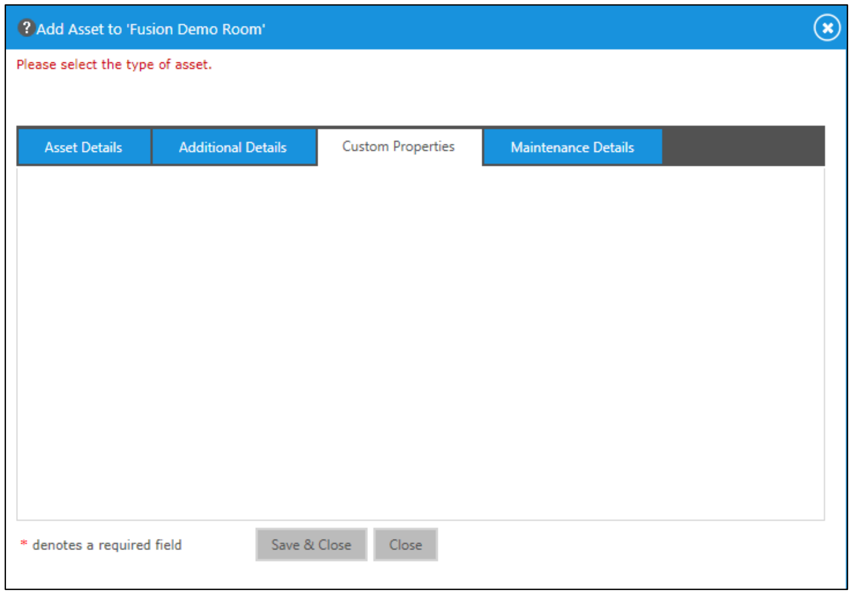


9. Complete the fields as necessary.

- **Economic Lifespan:** This field is intended to mark the end-of-life for this asset.
- **Date of Purchase:** This is the date the device was purchased or delivered.
- **Warranty Expiration Date:** This is the date the device's warranty expires.
- **Asset Tag**: This is used for a custom asset reference and is issued by the end client. The end client may have another asset tracking product that issues these numbers.

10. Click **Save & Close.**
11. Click the **Custom Properties** tab.

Custom Properties Tab

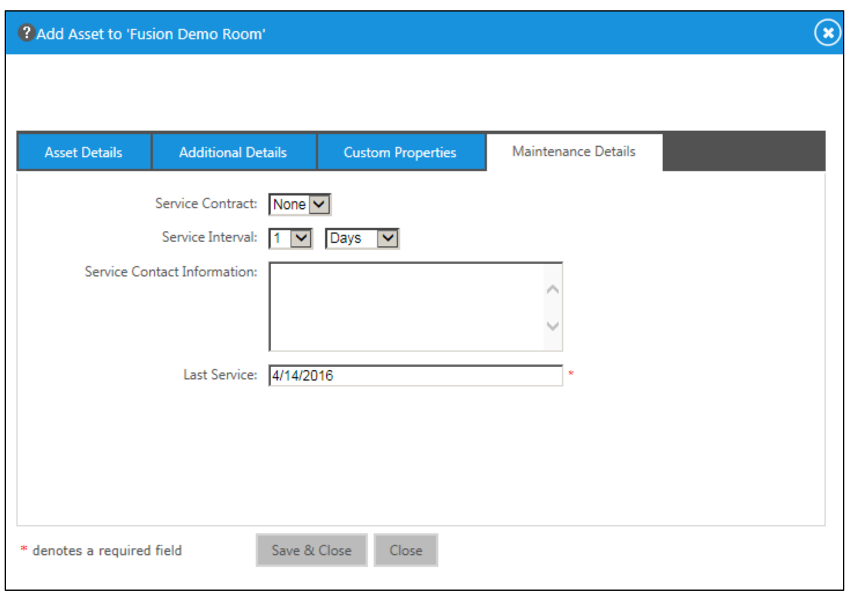


12. Complete the fields as necessary.

NOTE: These custom property fields are created within Crestron Fusion.

13. Click the **Maintenance Details** tab.

Maintenance Details Tab



14. Complete the fields as necessary.

- **Service Contract:** This file (stored in the database) contains service contract information or a digital copy of the contract.

- **Service Interval:** This entry determines how often a notification is invoked for maintenance on the asset.
- **Service Contract Information:** Any additional information for the maintenance of this device should be included here.
- **Last Service:** This field automatically gets updated unless overwritten manually.

15. Click **Save & Close**.

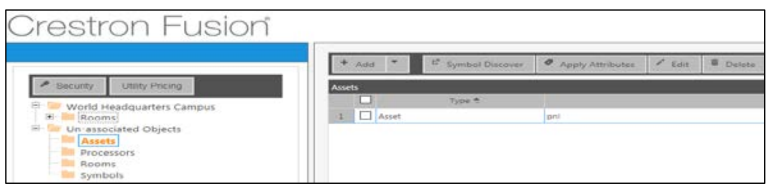
Editing an Asset

1. Click the **Rooms** tab.

   Rooms Tab

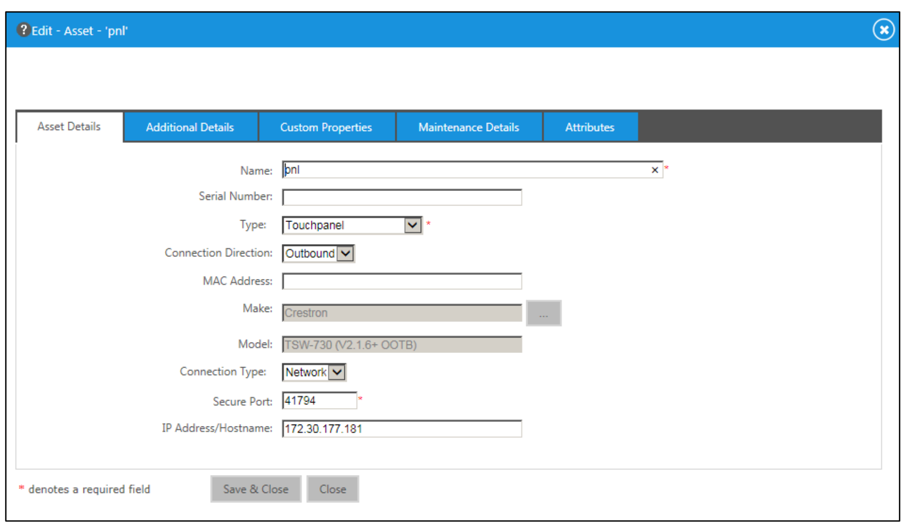
2. From the room tree, click the room in which the asset is located. Associated assets are listed for the room.

   Editing an Asset



3. Click the check box to the left of the asset to be edited, and then click **Edit**. The **Edit - Asset** dialog box displays.

   Edit - Asset Dialog Box



4. Add, delete, or change the asset details as needed.
5. Click **Save & Close**.

Deleting an Asset

1. Click the **Rooms** tab.

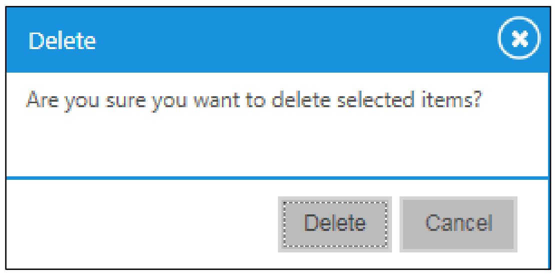
   Rooms Tab

2. From the room tree, click the room where the asset is located. Associated assets are listed for the room.

3. Click the check box to the left of the asset to be deleted, and then click **Delete**. The **Delete** message box displays.

   Delete Message Box

4. Verify the asset to be deleted, and then click **Delete**.

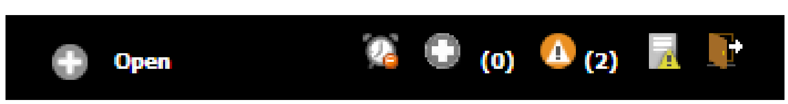
Using Templates to Add Rooms (Crestron Fusion On-Premises Only)

Templates are very helpful when adding rooms into the system. Templates populate information to aid in quick room creation and consistency in naming objects. Templates also allow the user to add a processor, symbol, assets, and custom attributes into Crestron Fusion.

Creating a Template

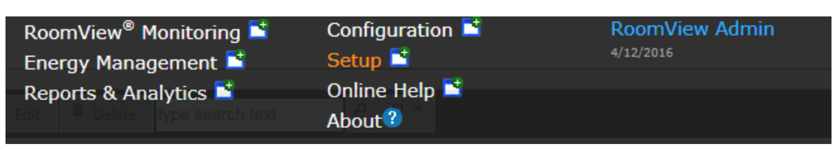
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **Setup** link.

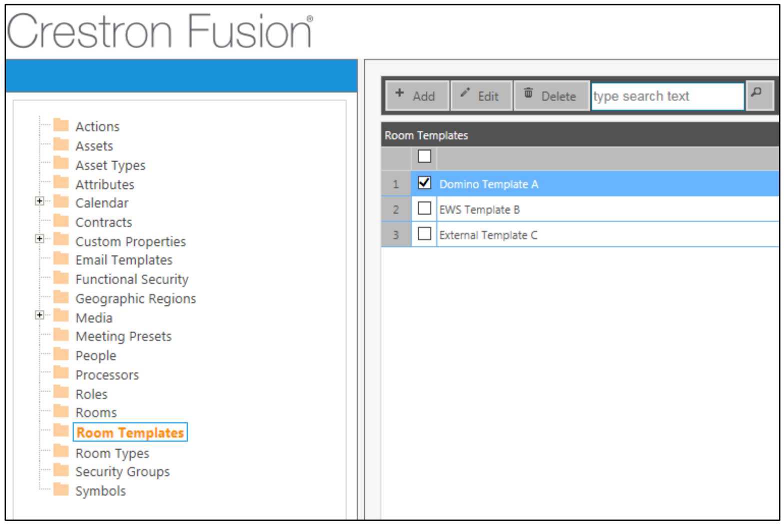
   Setup Link

3. Click the **Objects** tab, and then click **Room Templates**. Any templates that have been previously created are displayed on the right window.

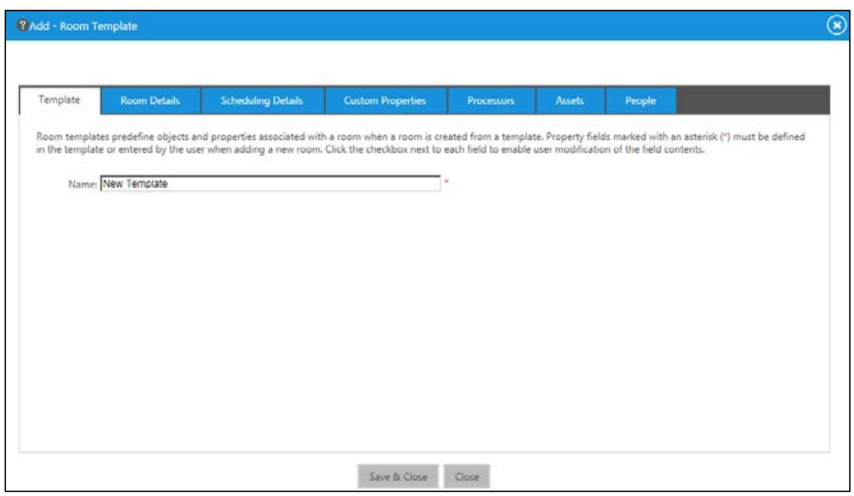
Objects Tab

Room Templates Folder



4. Click **Add**. The **Add - Room Template** window displays.

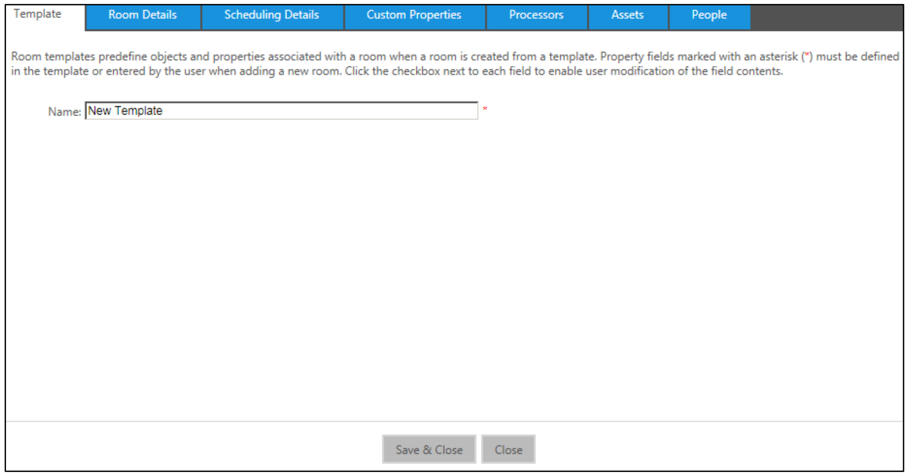
Add - Room Template Window



The following tabs can be accessed from the **Add - Room Template** window: **Template**, **Room Details**, **Scheduling Details**, **Custom Properties**, **Processors**, **Assets**, and **People**.

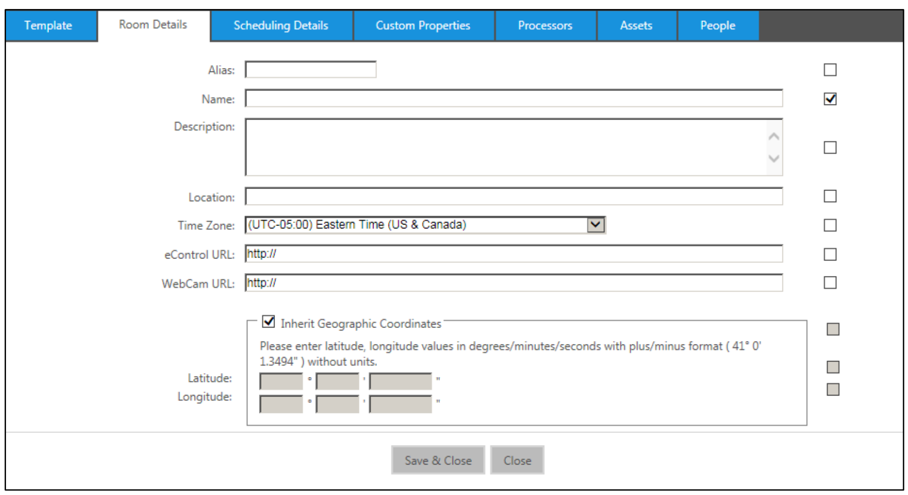
5. Click the **Template** tab.

Template Tab



6. Enter a descriptive name for the template in the **Name** field.
7. Click the Room **Details** tab. The **Room Details** tab contains check boxes at the end of each field indicating whether or not the user can change or edit this value when creating a room based on this template. If the box is unchecked, the value listed cannot be changed and will be grayed out when the user creates a room from the template.

Room Details Tab

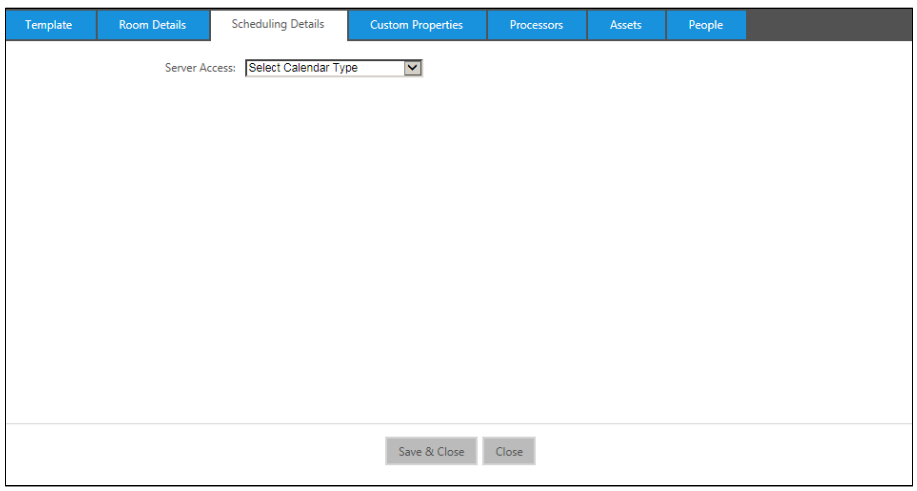


8. Complete the following fields as necessary.
   - **Alias:** This field can be used when LDAP has been configured. LDAP is an enterprise tool that can look up room information based on a partial entry into the field. Two things are required for this to work. Crestron Fusion must be configured to point at a LDAP server; and the room must be listed in Active Directory.
   - **Name:** This field is where the name of the room is entered. If scheduling panels are used, the name entered here displays on the panel.
   - **Description:** This field is where details on the room are provided.

- **Location:** This field provides the location of the room and is used for the Find Available Rooms feature on scheduling panels. The information typed here needs to be consistent. The "first floor" on one room is seen differently than "1st Floor" on another room.
- **Time Zone:** This is set to the time zone where the room is located.
- **eControl URL:** This is the URL for the web-based Xpanel for the room. The desktop executable for Xpanels cannot be used here.
- **WebCam URL:** This is the URL for an IP-based camera for the room.
- **Inherit Geographic Coordinates:** This is where the latitude and longitude values are entered.

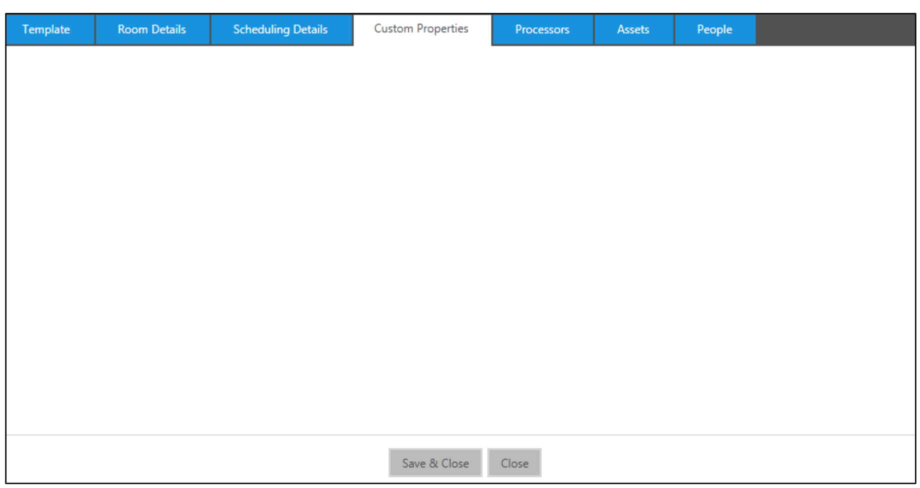
9. Click the **Scheduling Details** tab to specify the scheduling provider for the room.

Scheduling Details Tab



10. Click the **Server Access** drop-down list and select a provider in which Crestron Fusion can integrate.
11. Click the **Custom Properties** tab.

Custom Properties Tab

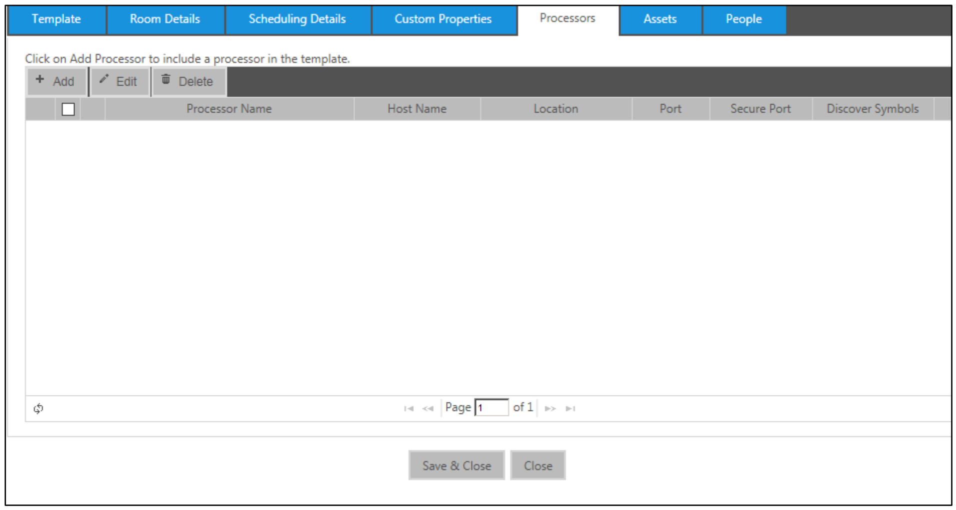


12. Depending on the provider, complete the required fields and test the connectivity.

NOTE: The fields in the **Custom Properties** tab are custom created within the software.

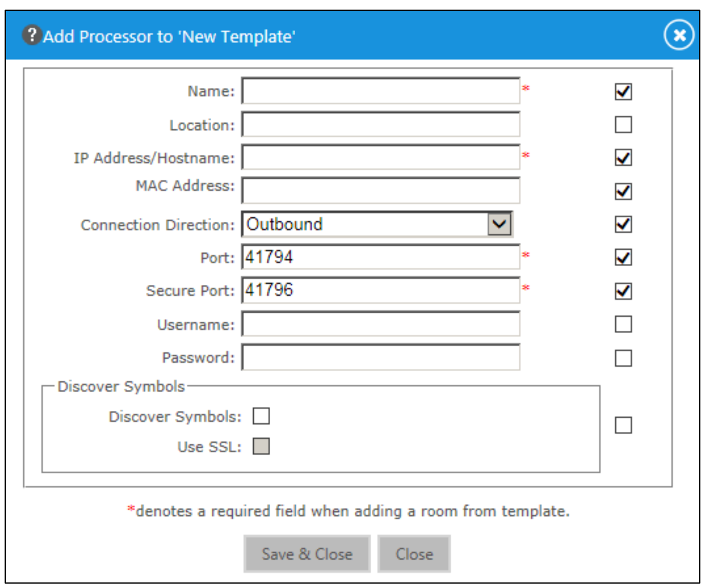
13. Click the **Processors** tab. The **Processors** tab contains all of the connectivity information to connect to the processor and set the room to use Symbol Discovery.

Processors Tab



14. Click **Add** to add a processor to a template. The **Add Processor** dialog box displays.

Add Processor Dialog Box



NOTE: The check boxes at the end of each field indicate whether or not this value can be changed or edited when a room is created with this template. If the box is unchecked, the value listed cannot be changed and is grayed out when creating a room from the template.

15. Complete the following fields as necessary.

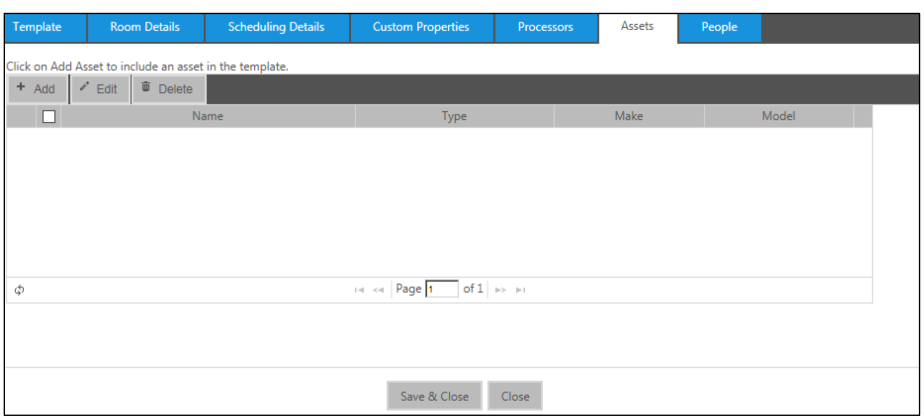
- **Name:** This field is where the name of the room is entered. If scheduling panels are used, the name entered here displays on the panel.
- **Location:** This field provides the location of the room and is used for the Find Available Rooms feature on scheduling panels. The information typed here needs to be consistent. The “first floor” on one room is seen differently than “1st Floor” on another room.
- **IP Address/Hostname:** This is information used by Crestron Fusion to connect to the processor.
- **MAC Address:** This field contains the MAC Address fo the processor.
- **Connection Direction:** This shows the connection direction. The Connection is dependent on the Crestron Fusion solution. If the solution is a Crestron Fusion instance, all connections will be Inbound (processor initiates connection to Crestron Fusion). If the solution is On-Premises, the connection can be set to Inbound or Outbound. Crestron Fusion initiates connection to the processor.

  NOTE: Inbound connections require configuration on the processor. Two commands must be evoked. These commands are cloudenable (On/Off) and cloudurl (a properly formatted Crestron Fusion URL).

- **Port:** This is the default Crestron communications port. Do not change unless instructed.
- **Secure Port:** This is the default port for secure communication. Do not change unless instructed.
- **Username/Password:** These settings are required only if the processor has been set with the login option to access the processor. If a username and password are required for the processor, enter the information here.
- **Discover Symbols:** This allows the user to discover symbols and use SSL. Click the check box if the symbol has been programmed for discovery. If SSL is invoked, click the Use SSL check box.

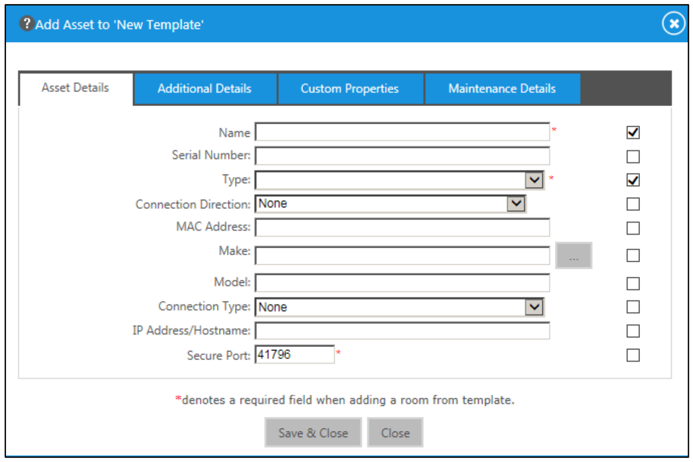
16. Click the **Assets** tab.

    Assets Tab



17. Click **Add** to open the **Add Asset** dialog box. From this dialog box, Crestron Connected assets can be added to the template.

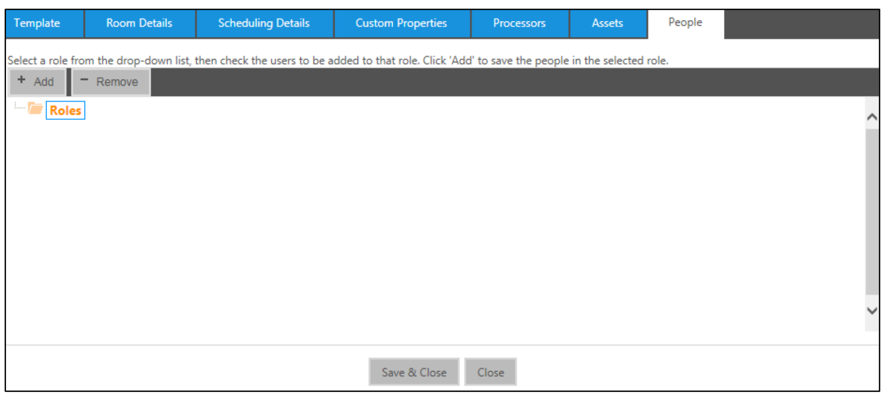
Add Asset Dialog Box



NOTE: Assets for the room or space should have already been added to the programming and will automatically import upon discovery, if Symbol Discovery is used.

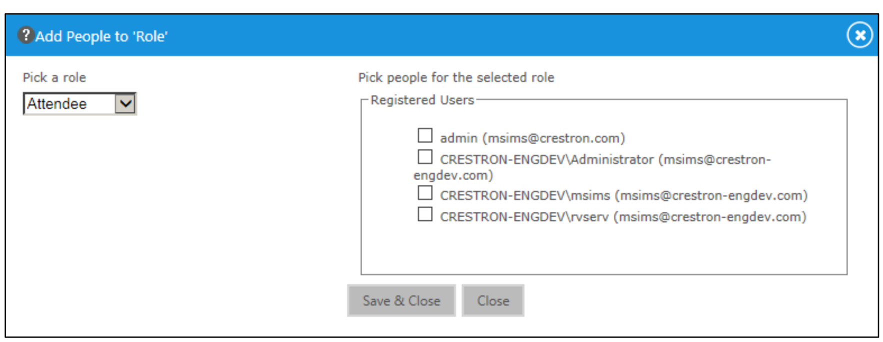
18. Click the **People** tab. The **People** tab is used to add individuals to different Roles for the room.

People Tab



19. Click the **Add** to open the **Add People** dialog box.

Add People Dialog Box



20. Complete the fields as necessary.

- **Pick a Role:** Use this drop-down list to determine which role to assign users to.
- **Pick people for the selected role:** Click the check box for one or more of the users listed to be added to the role for this room.

NOTE: A user account must be created beforehand. If the user account is a Windows account, the user must log in so the account can be created.

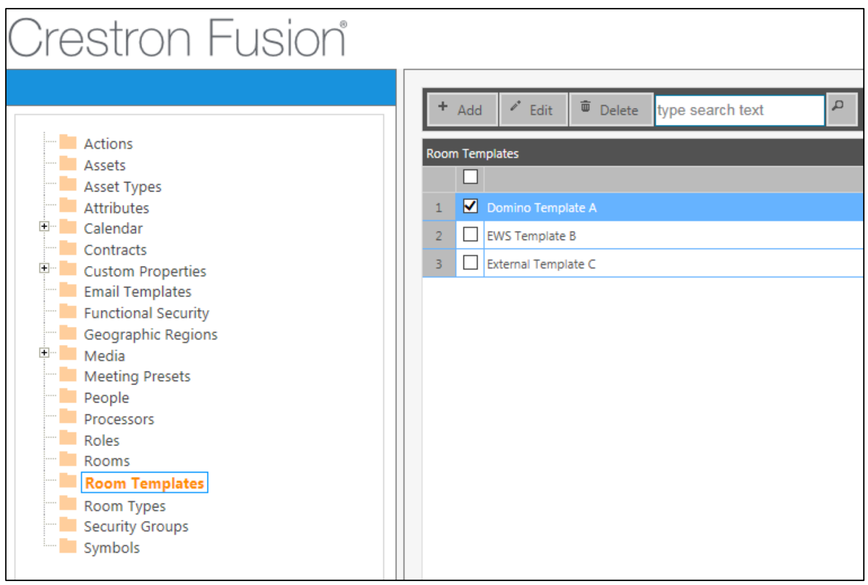
Editing a Template

1. Click the **Objects** tab, and then click **Room Templates**. A list of previously created templates is displayed on the right window.

   Objects Tab

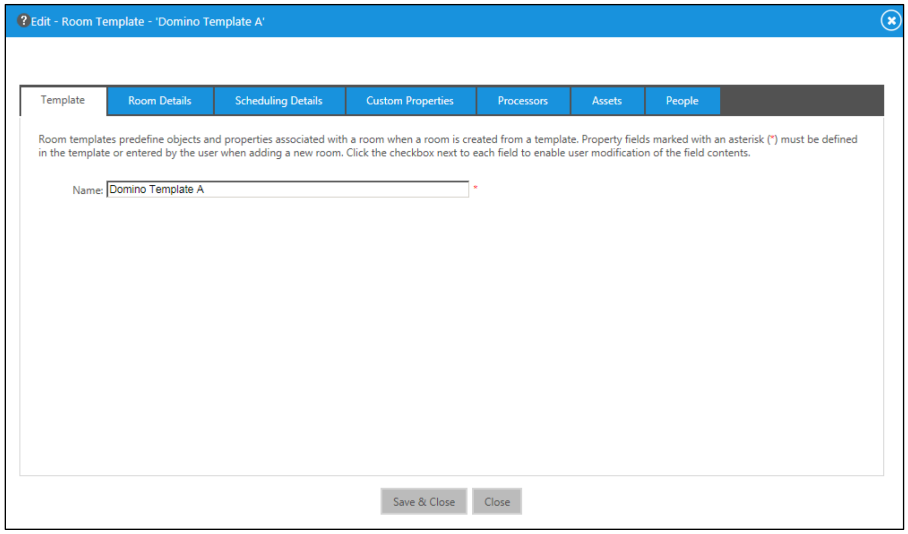
   

   Room Templates Folder

2. Click the check box for the template to be edited, and then click **Edit**.
3. The **Edit - Room Template** dialog box opens for editing the template.

Edit - Room Template Dialog Box



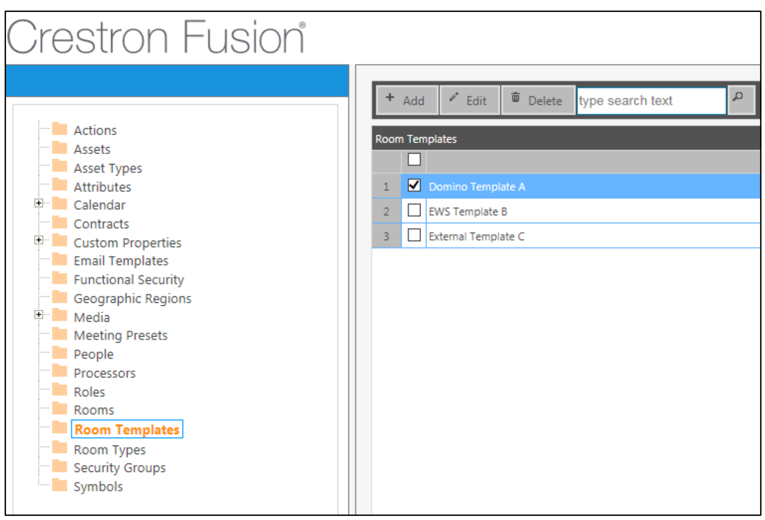
4. Enter a descriptive name for the template in the **Name** field.
5. Click **Save & Close**.

Deleting a Template

1. Click the **Objects** tab, and then click **Room Templates**. A list of previously created templates is displayed on the right window.

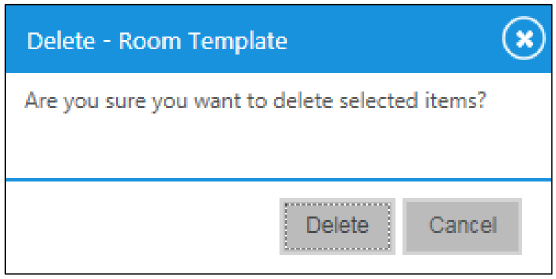
Objects Tab

Room Templates Folder



2. Click the check box for the template to be deleted, and then click **Delete**.
3. The **Delete - Room Template** message box displays. Verify the deletion, and click **Delete**.

Delete - Room Template Message Box



Organizing Attributes

Attributes are one of the cornerstones of Crestron Fusion. Attributes provide feedback and control for specific properties in the room. There are three types of attributes: digital, analog, and serial. Attributes are defined in programming and are then associated to the room within Crestron Fusion. Specific properties for each attribute can be set in the Attribute Details, Log Settings, Email Rules, and Forwarding Rules tabs.

Understanding the Attributes Tab

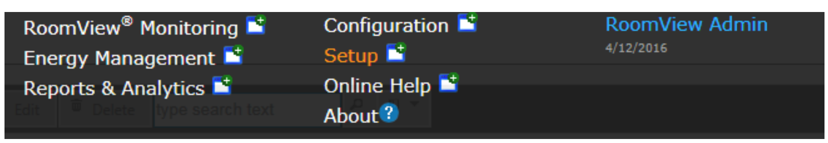
1. From the Crestron Fusion header tab, click the + icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

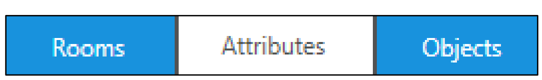
2. Click the **Setup** link.

   Setup Link

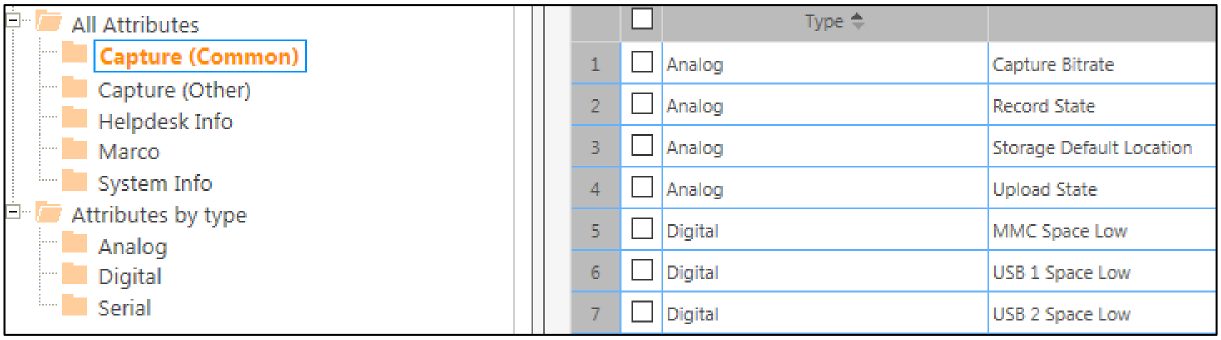
3. Click the **Attributes** tab, and then click **Room Templates**. A list of previously created templates is displayed on the right window.

   Attributes Tab

The following information explains how the Attribute Tree is structured.

Attribute Tree Structure



- Attributes are organized in almost the same way as they are for rooms. The folders in the tree are referred to as nodes. The nodes and attributes are organized similarly to how files and folders are organized in common operating systems.
- There are two default nodes: **All Attributes** and **Attributes by Type**. Every attribute is listed under **Attributes by Type**, but not every attribute has to be listed under the **All Attributes** node.
    - o **All Attributes:** The node represents collections of attributes for organization and creation of views under the **Monitoring** section on the **Rooms** tab. Within these views (Nodes), each attribute is represented as a column where the attribute name is listed at the top.
    - o **Attribute by type:** The attributes are organized by their type (digital, analog, and serial).

4. To associate an attribute to a node, under **All Attributes**, drag and drop the attribute from the window on the right to the specific node on the left.
5. Removing an attribute from a node within **All Attributes** dissociates the attribute but does not delete it permanently.

   To remove an attribute, do the following:

   a. Click the node containing the attribute.

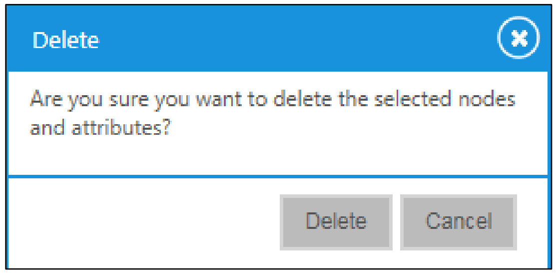
   b. Click the check box to the left of the attribute to be removed, and then click **Remove**.
6. Deleting an attribute completely deletes it from the database.

   To delete an attribute, do the following:

   a. Click the node containing the attribute to be removed.

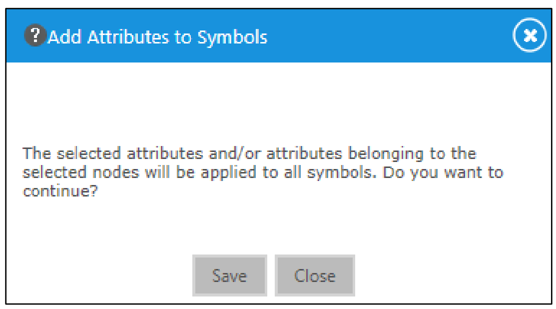
   b. Click the check box to the left of the attribute to be deleted, and then click **Delete**.
7. The **Delete** message box displays. Verify the selected nodes and attributes to be deleted, and then click **Delete**.

Delete Message Box



8. To apply a new attribute to all symbols, click the attribute.
9. Click the **Apply to All Symbols** button. This associates the selected attribute(s) to all symbols in the database.
10. The **Add-Attributes** message box displays. Click **Save**.

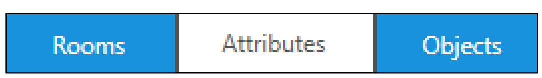
Add Attributes to Symbols



Editing an Attribute

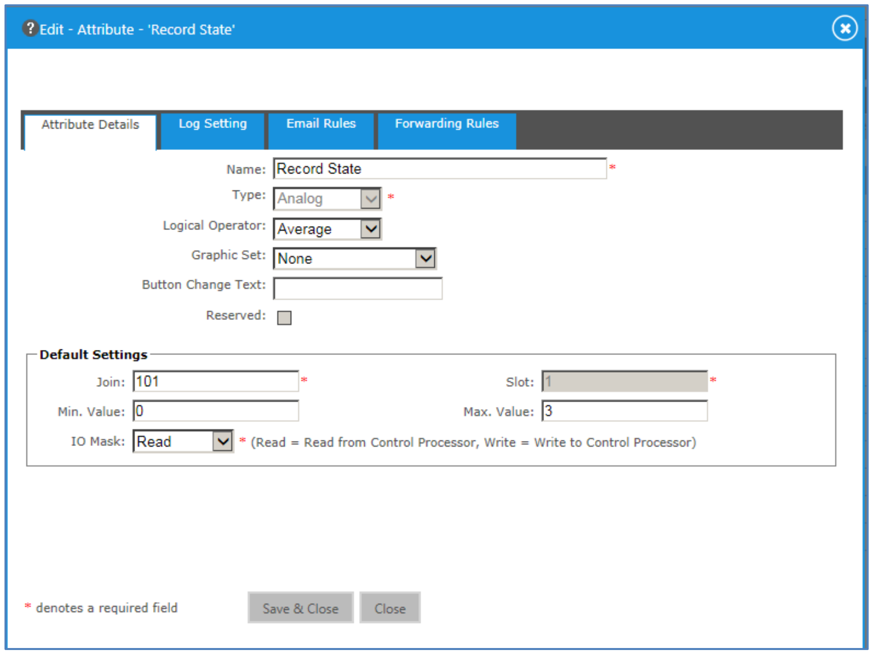
1. Click the **Attributes** tab.

Attributes Tab



2. Click the attribute from either the **All Attributes** node structure or the **Attributes by type** node structure.
3. Click the check box to the left of the attribute to be edited, and then click **Edit**. The **Edit - Attribute** dialog box displays with the **Attribute Details** tab open.

Attribute Details Tab / Edit - Attribute Dialog Box



4. Make the necessary changes.
5. Click **Save & Close**.

Configuring Email Alerts

One of the more popular features of Crestron Fusion is the ability to send e-mails to users based on conditions that may change in the room. Precise notification for the condition changes can be accomplished by creating rules based on the values of the three types of attributes: digital, analog, and serial.

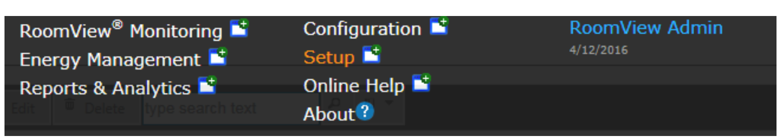
Adding an Email Alert Rule for Digital Attributes

1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **Setup** link.

   Setup Link

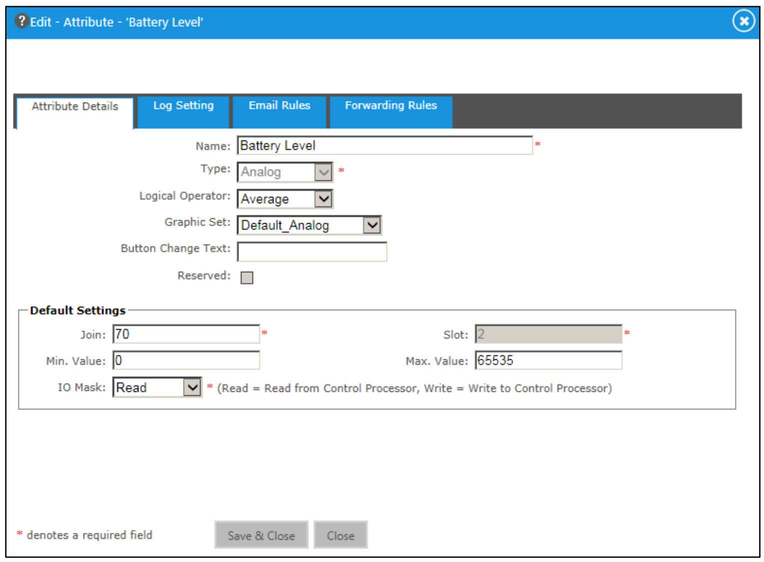


3. Click the **Attributes** tab.

Attributes Tab

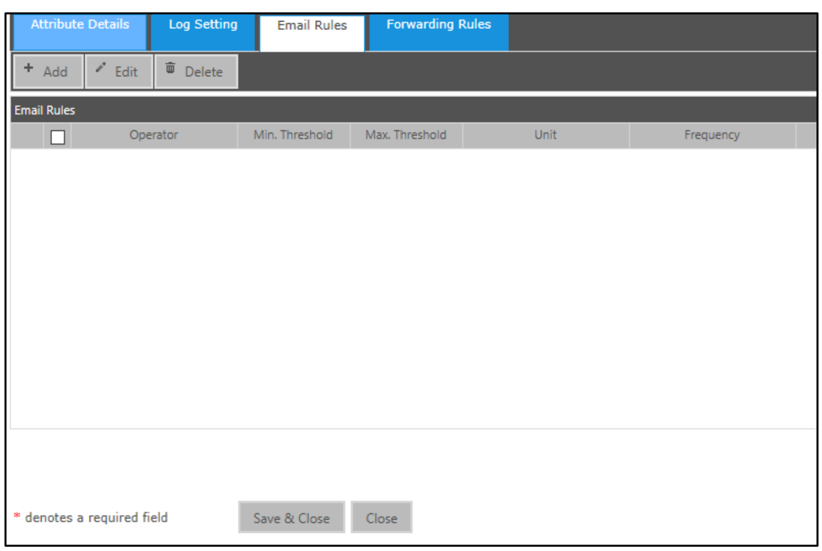
4. Locate the attribute in the **Attributes by type** node (digital, analog, or serial).
5. Click the check box to the left of the attribute, and then click **Edit**. The **Edit - Attribute** dialog box displays.

Edit - Attribute Dialog Box



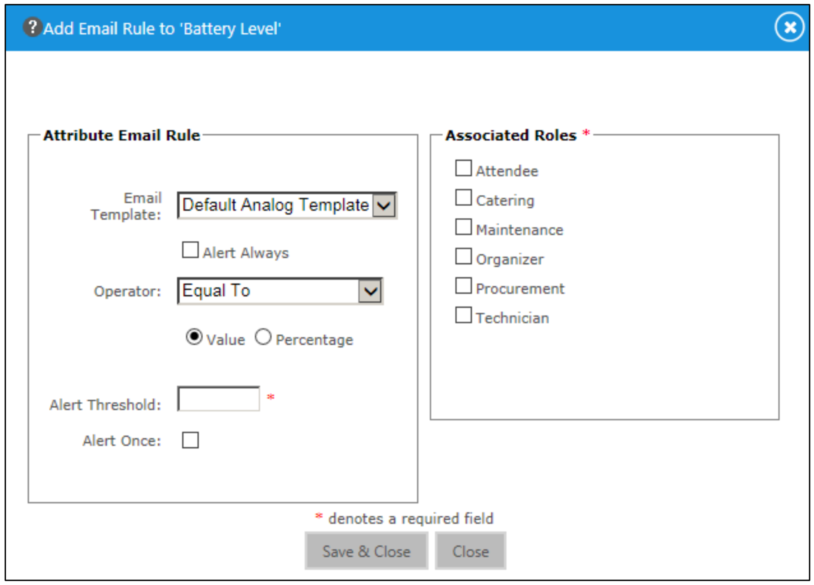
6. Click the **Email Rules** tab.

Email Rules Tab



7. Click **Add** to add a new rule. The **Add Email Rule** dialog box displays.

Add Email Rule Dialog Box



8. Complete the fields according to how the notification should trigger.

    - Email Template: This field identifies what template should be used when the e-mail notification is triggered.
    - Alert Always: Any time the value changes for this attribute, an e-mail is sent. If the check box is checked, the rest of the settings are grayed out.
    - Operator: For serial attributes the choices are as follows:
        - Equal To: This sends notification for an exact serial string value match of the Alert Threshold.
        - Not Equal: This sends notification for each serial string value not matching the Alert Threshold.
        - Regular Expression: This sends notification when specific elements of the serial string match based on the Alert Threshold. A regular expression is a sequence of characters that define a search pattern, mainly for use in pattern matching with strings, or string matching.
    - Alert Threshold: This defines the actual value that the logical operator calculation depends on.
    - Alert Once: A single e-mail notification is sent when the logical operation calculation is true.
    - Associated Roles: This defines which associated role for the room receives the e-mail notification. Users are added to the role for the room under the room settings.

9. Click Save & Close.

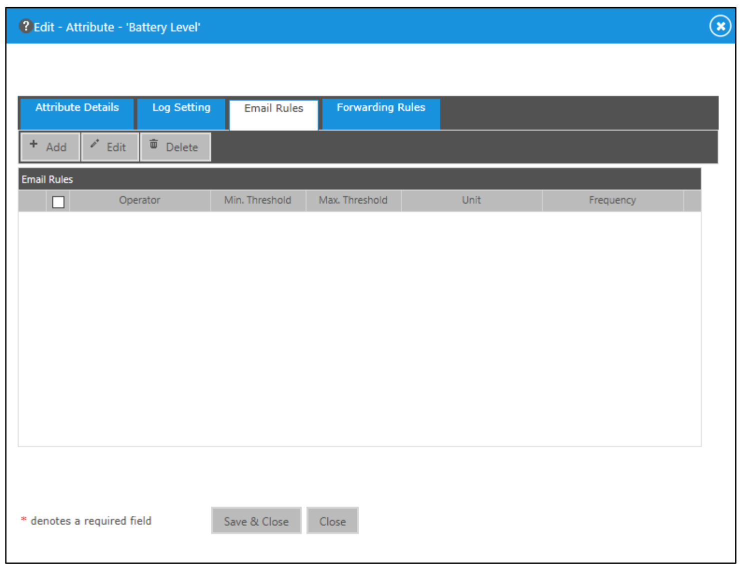
Adding an Email Alert Rule for Analog Attributes

1. Click the **Attributes** tab.

   Attributes Tab

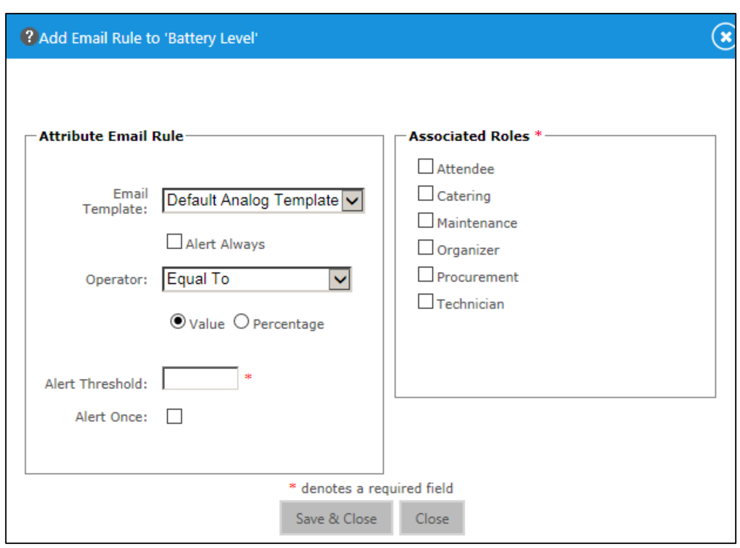
2. Locate the attribute in the **Attributes by type** node (digital, analog, or serial).
3. From the right side of the screen, click the check box to the left of the attribute type, and then click **Edit**.
4. The **Edit - Attribute** dialog box displays. Click the **Email Rules** tab.

   Edit - Attribute Dialog Box



5. Click **Add** to add a new rule. The **Add Email Rule** dialog box displays.

   Add Email Rule Dialog Box

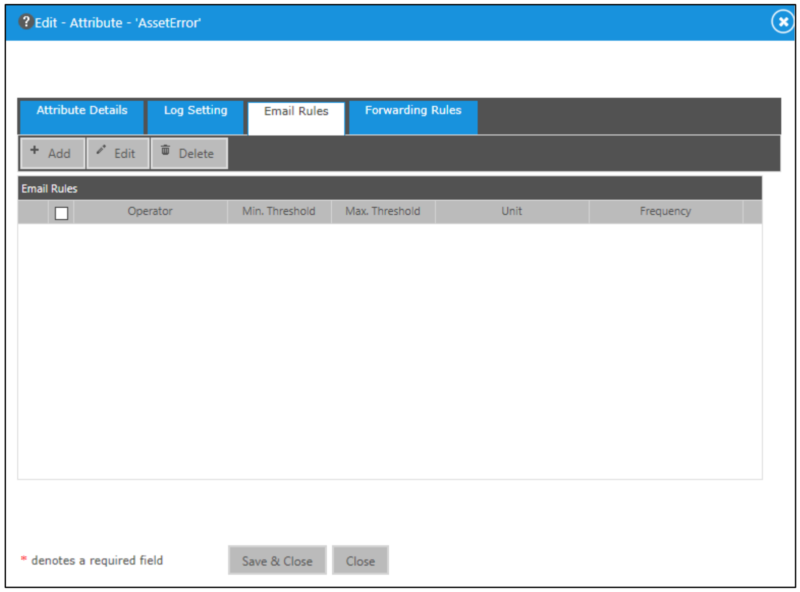


6. Complete the fields according to how the notification should apply.
   - **Email Template:** This field identifies what template should be used when the e-mail notification is triggered.
   - **Alert Always:** This sends an e-mail any time the value changes for this attribute. If the check box is checked, the rest of the settings are grayed out.
   - **Operator**: The choices for serial expressions are Equal To, Not Equal To, and Regular Expression.
     - **Equal To:** This sends notification for an exact serial string value match of the Alert Threshold.
     - **Not Equal To:** This sends notification for each serial string value not matching the Alert Threshold.
     - **Regular Expression:** This sends notification when specific elements of the serial string match, based on the Alert Threshold. A regular expression is a sequence of characters that defines a search pattern, mainly for use in pattern matching with strings, or string matching.
   - **Value or Percentage:** This defines whether the threshold is a specific value or a percentage of the attribute range (analog is 0-65535).
   - **Alert Threshold:** This defines the actual value that the logical operator calculation depends on.
   - **Alert Once:** A single e-mail notification is sent when the logical operation calculation is true.
   - **Associated Roles**: This defines which associated role for the room receives the e-mail notification. Users are added to the role for the room under the room settings.
7. Click **Save & Close**.

Adding an Email Alert Rule for Serial Attributes

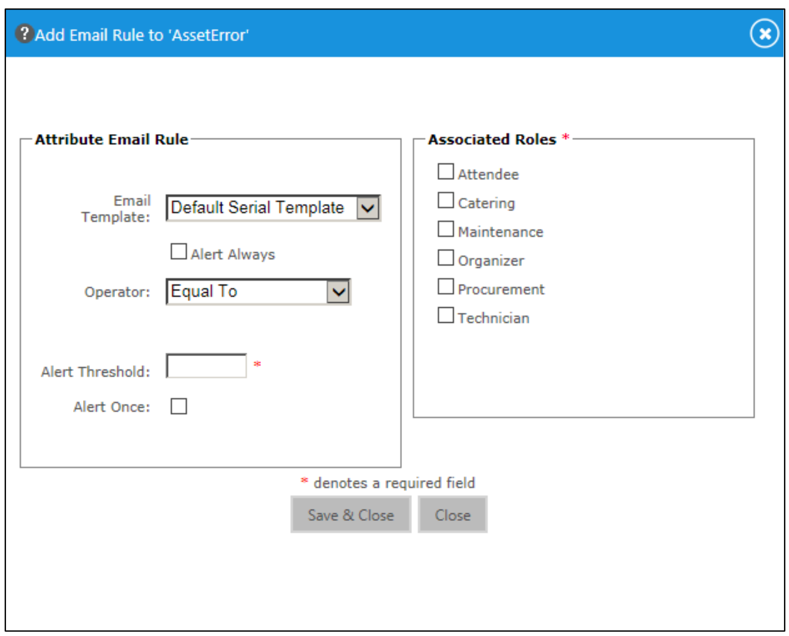
1. Click the **Attributes** tab.
2. Locate the attribute in the **Attributes by type** node (digital, analog, or serial). From the right side of the screen, click the check box to the left of the attribute, and then click **Edit**.
3. The **Edit - Attribute** dialog box displays. Click the **Email Rules** tab.

Email Rules Tab



4. Click **Add** to add a new rule. The **Add Email Rule** dialog box displays.

Add Email Rule Dialog Box



5. Complete the fields according to how the notification should apply.

   - **Email Template:** This field identifies what template should be used when the e-mail notification is triggered.
   - **Alert Always:** When the value changes for this attribute an e-mail is sent. If this is checked, the rest of the settings are grayed out.
   - **Operator**: The choices for analog expressions are Equal To, Not Equal To, and Regular Expression.

- o **Equal To:** This sends notification for an exact serial string value match of the Alert Threshold.
- o **Not Equal To:** This sends notification for each serial string value not matching the Alert Threshold.
- o **Regular Expression:** This sends notification when specific elements of the serial string match, based on the Alert Threshold. A regular expression is a sequence of characters that defines a search pattern, mainly for use in pattern matching with strings, or string matching.

- **Alert Threshold:** This defines the actual value that the logical operator calculation depends on.
- **Alert Once:** One e-mail notification is sent when the logical operation calculation is true.
- **Associated Roles**: This defines which associated role for the room receives the e-mail notification. Users are added to the role for the room under the room settings.

6. Click **Save & Close**.

Using Actions in Crestron Fusion

Actions in Crestron Fusion are used to trigger a single attribute value or multiple attribute values to one or more rooms. Actions can be sent manually or can be added to scheduling events or meetings for automation.

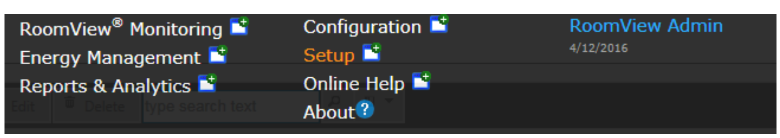
Creating an Action in Crestron Fusion

1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

Crestron Fusion Header Tab

2. Click the **Setup** link.

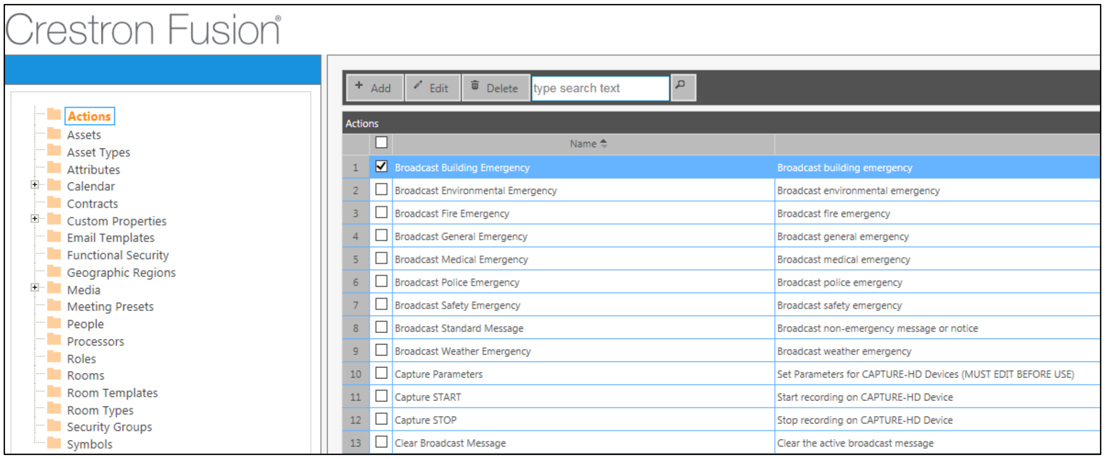
Setup Link



3. Click the **Objects** tab, and then click **Actions**. A list of default actions is displayed on the right window.

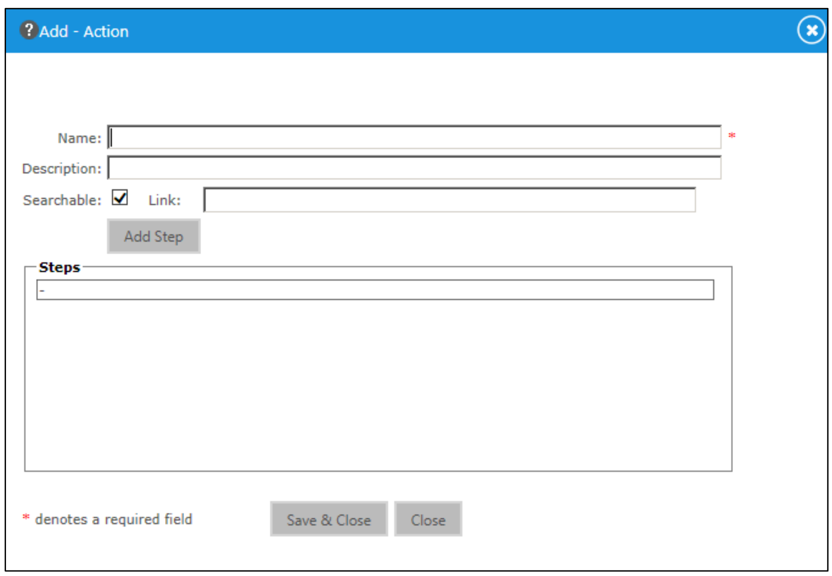
Objects Tab

Default Actions



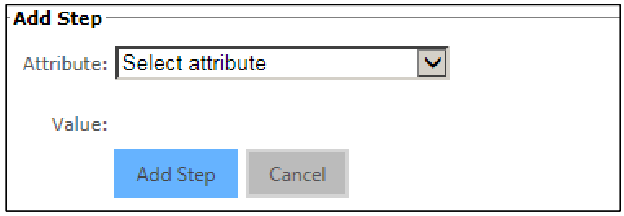
4. Click **Add**. The **Add - Action** dialog box displays.

Add - Action Dialog Box



5. Complete the fields as necessary.
   - **Name:** This is where a descriptive name to define this action is added.
   - **Description**: This is where additional information about the asset is added.
   - **Searchable**: This check box defines whether the action displays as an option under the OLAI.
   - **Link**: This is where a URL link is added.
   - **Add Step**: This opens the **Add Step** dialog box to add steps to set one or more attribute values.

Add Step Dialog Box



- o From the **Attribute** drop-down list, click the attribute and define the value to be sent.
- o Repeat this process until all steps have been added.
- o When complete, click **Add Step**. The **Add - Action** dialog box displays.

6. Click **Save & Close**.

Sending an Action in Crestron Fusion for the Room Tree

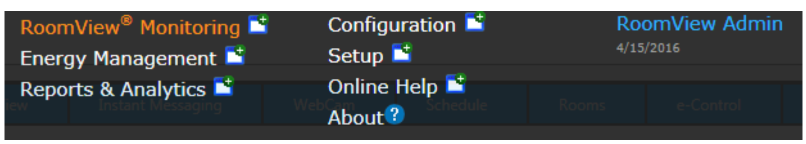
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **RoomView® Monitoring** link.

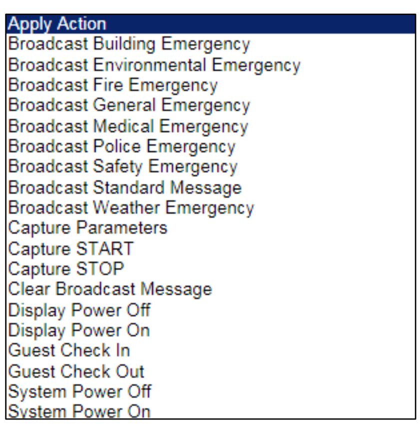
   RoomView® Monitoring Link

3. Select the room or node to apply the action. All rooms in a selected node receive the action.

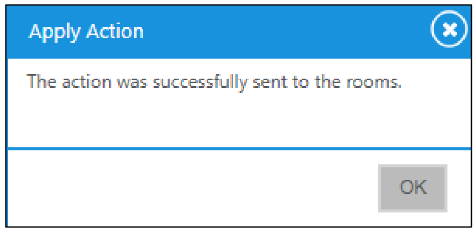
4. Click the **Apply Action** drop-down list, and then select the **Action** to send.

   Add Action Drop-Down LIst

5. The **Apply Action** message box displays. Review the information, and then click **OK**.

Apply Action Message Box

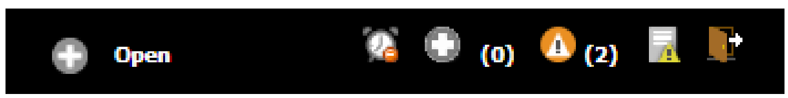


NOTE: These actions are applied to the room immediately. Be careful to select the appropriate rooms and nodes so as not to inadvertently send actions to the wrong rooms and possibly disrupt business activities.

Scheduling an Action in Crestron Fusion

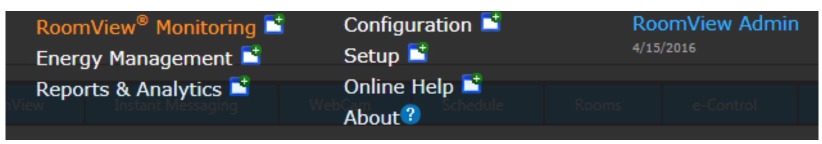
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

Crestron Fusion Header Tab



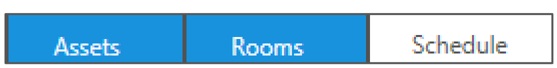
2. Click the **RoomView® Monitoring** link.

RoomView Monitoring Link



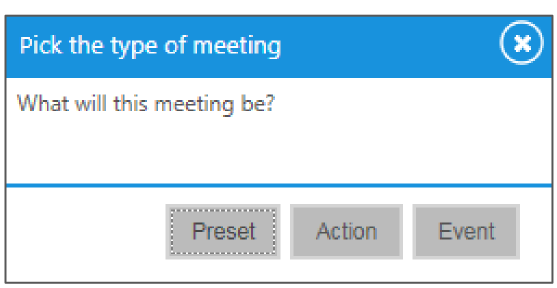
3. From the tree, click the room where the action is to be scheduled.
4. Click the **Schedule** tab and locate the time and date the action is to occur.

Schedule Tab



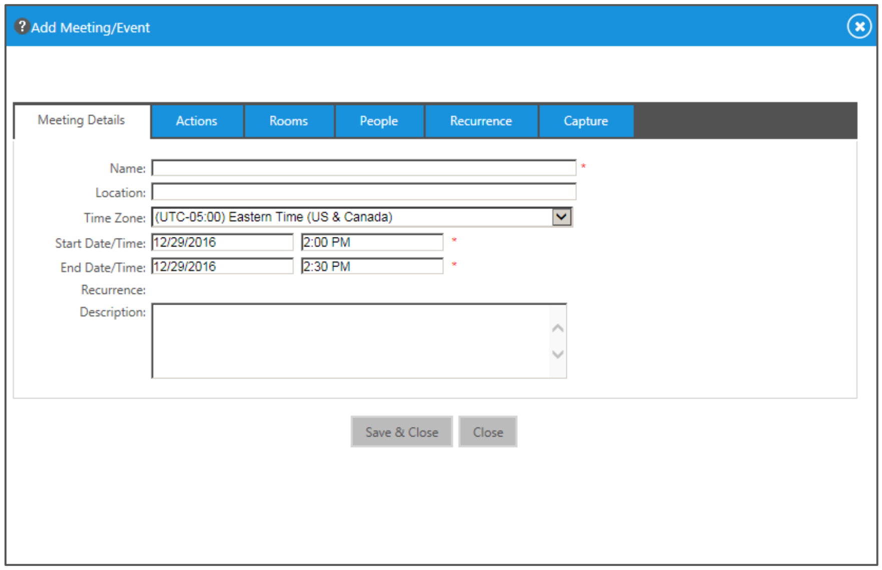
5. Double-click the time slot. The **Pick the type of meeting** dialog box displays.

Pick the type of meeting Dialog Box



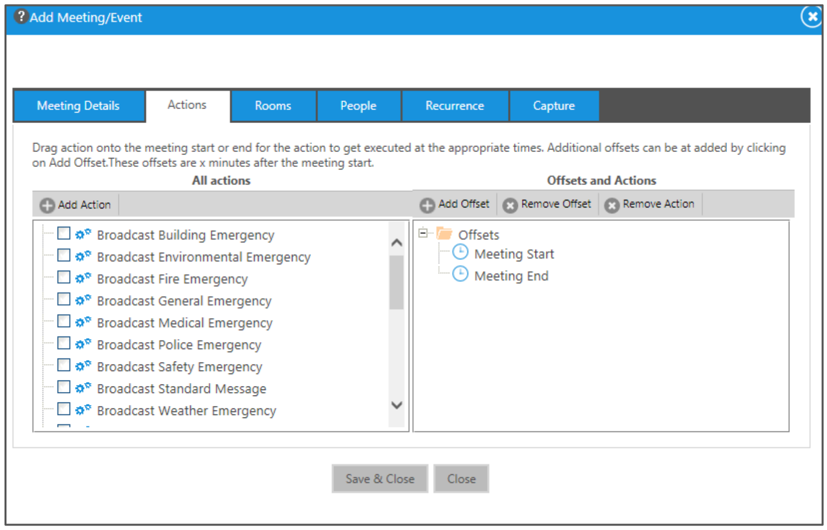
6. Click the type of meeting and the **Add Meeting/Event** dialog box displays with the **Meeting Details** tab selected.

Add Meeting/Event Dialog Box



7. Complete the fields as necessary.
   - **Name:** This the subject of the meeting or event.
   - **Location**: This is where to fill in the meeting location, if required.
   - **Time Zone**: This is the time zone for the room by default (unless otherwise specified).
   - **Start Date/Time**: This defines the start date and start time of the meeting. If this is an event, only the Start Date/Time is displayed.
   - **End Date/Time**: This defines the end date and end time of the meeting.
   - **Recurrence**: This field displays only after a meeting is saved.
   - **Description**: This field is where a short description of the meeting can be added.
8. Click the **Actions** tab.

Actions Tab



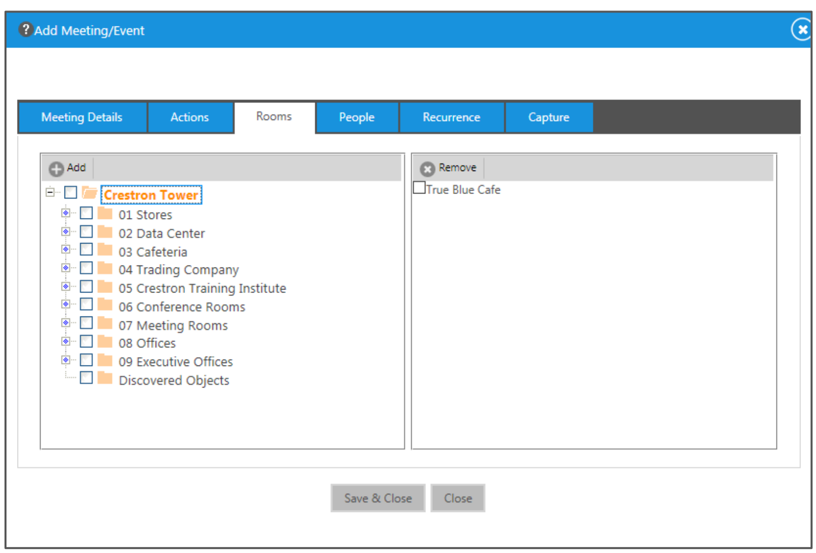
9. Drag and drop the desired action to the **Meeting Start** or **Meeting End** field so that the action gets executed at the appropriate times.

   Another way to add an action is to highlight **Meeting Start** or **Meeting End**, click the check box for the desired action, and then click **Add Action**. To delete an action, click **Remove Action**.

10. Click **Add Offset** to add a delayed predetermined time from the start of a meeting for the action.

11. Click the **Rooms** tab.

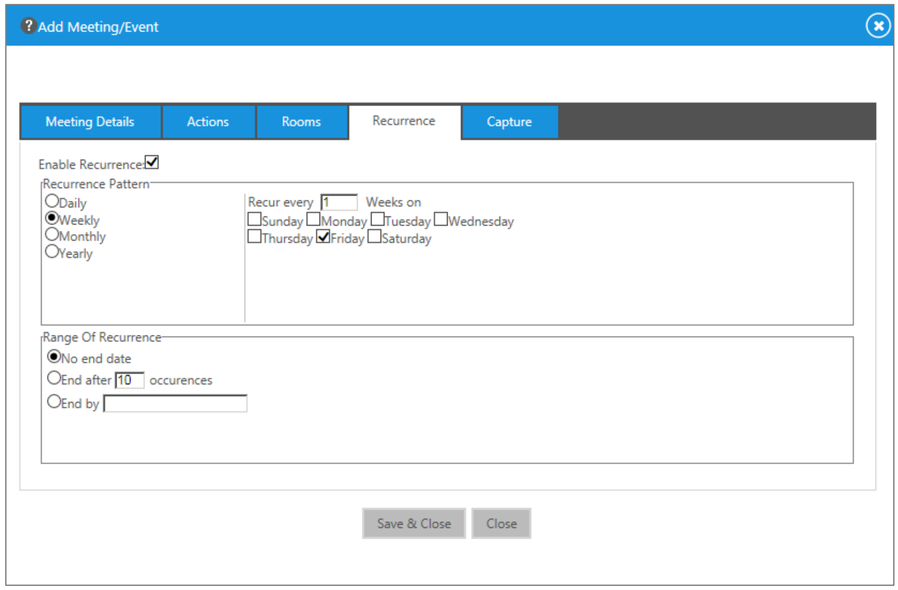
Rooms Tab



12. Click the Room Tree to add additional rooms for the scheduled action, and then click **Add**.

13. Click the **Recurrence** tab to set the pattern for a recurring meeting.

Recurrence Tab



14. Complete the fields as necessary.
15. Click **Save & Close**.

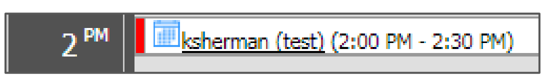
NOTE: The **Capture** tab is available only when a Capture HD® device is assigned to a room.

Deleting a Meeting

To delete a meeting after saving and closing the **Add Meeting/Event** dialog box, complete the following steps:

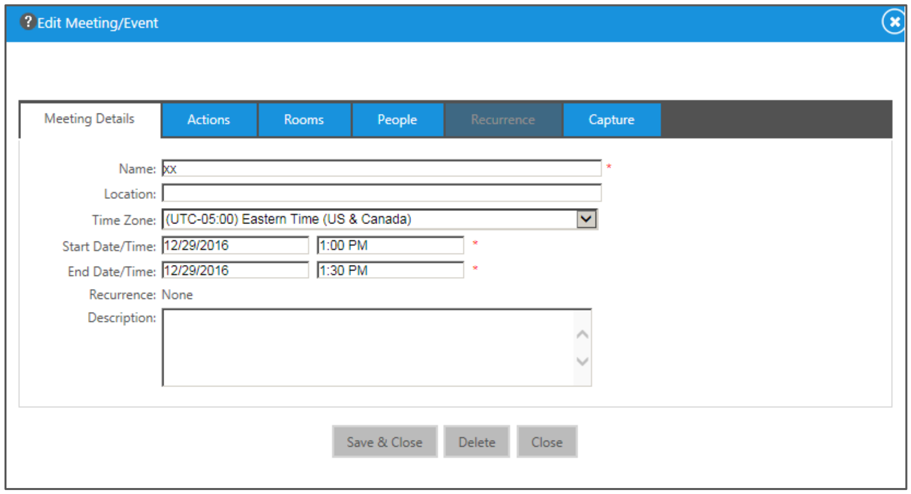
1. Click the meeting displayed on the calendar.

Delete a Meeting

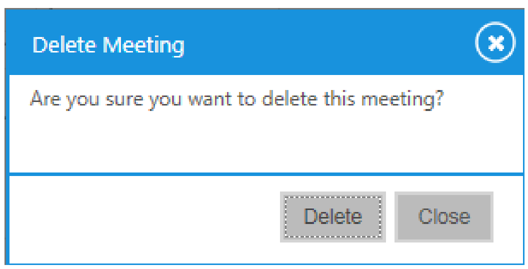


2. The **Edit Meeting/Event** dialog box displays, click **Delete**. The **Delete Meeting** dialog box displays.

Edit Meeting/Event Dialog Box



Delete Meeting Dialog Box



3. Click **Delete**. The meeting will be removed from the calendar.

Managing Help Requests

Help Request messaging allows the staff utilizing a room to send a message to request help (using a touch panel in the room) to Crestron Fusion. Typically, these are predefined messages sent from the program based on a button press. The message is sent to Crestron Fusion, where it is posted to the website. Audible and visible alerts can be seen and heard from the website along with an e-mail notification if configured.

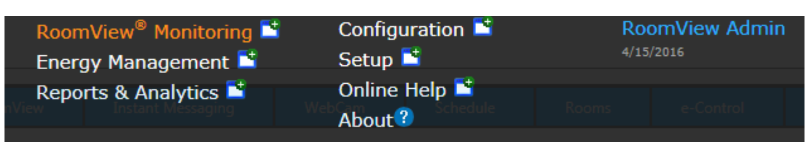
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

2. Click the **RoomView Monitoring** link.

   RoomView Monitoring Link

3. Click the **My RoomView** tab. The help requests appear at the bottom of the window.

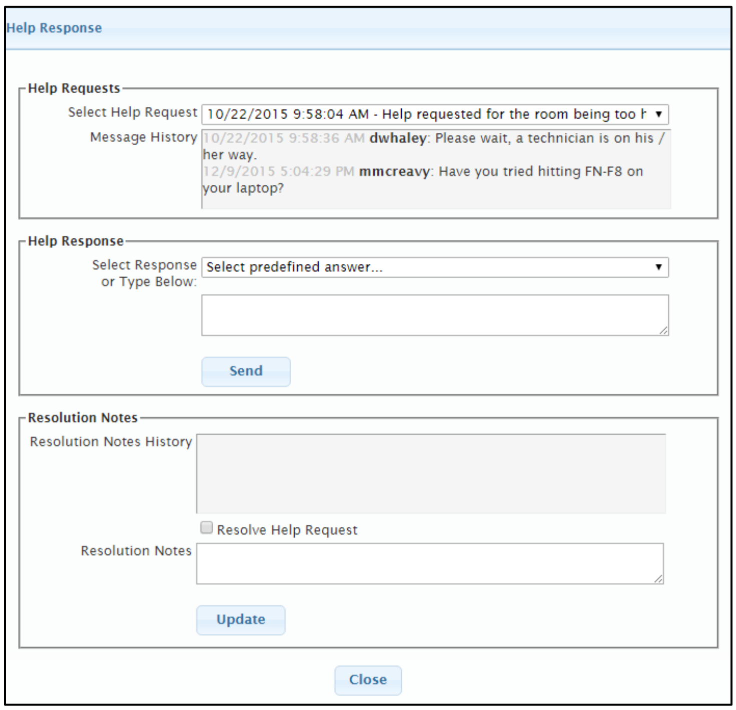
   Help Requests List

Help Request

Severity	Date	Room	Message
1	10/22/2015 9:58:04 AM	0482 - Hudson River	Help requested for
1	10/21/2015 2:16:53 PM	0452 - Hangzhou	Help requested for
1	12/8/2015 2:21:00 AM	0452 - Hangzhou	Help requested wit
1	11/10/2015 6:13:12 PM	0452 - Hangzhou	Help requested wit
1	10/29/2015 4:10:56 PM	0437 - Seoul	Help requested wit
1	10/30/2015 10:05:58 AM	0426 - Hudson Crossing	Help requested wit

4. To open a help request, double-click a help request row.
5. The **Help Response** dialog box displays. Respond and add notes as necessary.

   Help Response Dialog Box



6. Complete the fields as necessary.
   - **Select Help Request:** The currently selected Help Request appears here.
   - **Message History**: The touch panel in the room can be programmed to send and receive messages. An interaction between the two parties as it relates to this message is tracked here.
   - **Select Response or Type Below**: The drop-down menu contains generic responses to be sent back to the room. The field directly underneath allows a custom message to be sent back to the room. This message displays on the touch panel through programming.
   - **Send**: Click this button to send the help response.

- **Resolution Notes History**: The history of the Help Request and Help Responses are shown here.
- **Resolve Help Request**: Once the Help Request is completed, click the check box. The help request will be closed and removed from the **My RoomView** tab.
- **Resolution Notes**: After clicking the **Resolve Help Request** check box, enter notes in this field to describe what the issue was and how it was resolved.
- **Update**: Click this button to clear help requests.

7. When complete, click **Close** to close the window.

Monitoring Rooms

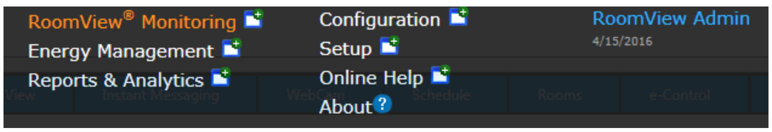
The Crestron Fusion Monitoring web client contains all of the live feedback, control options, and views for rooms across the facility. This information is dependent upon the selection made on the room tree. Either a single room or an entire node can be viewed at once.

1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

Crestron Fusion Header Tab

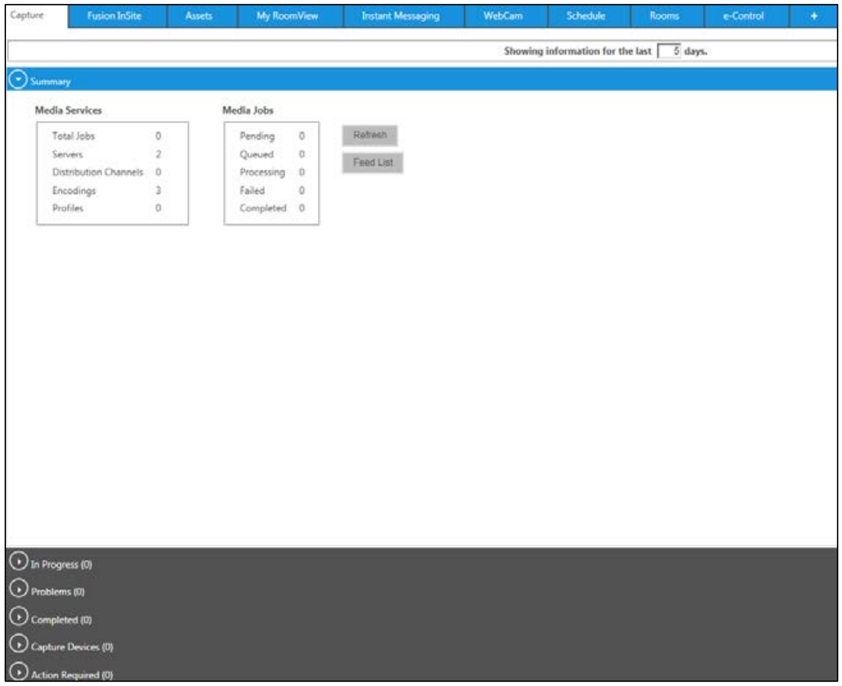
2. Click the **RoomView® Monitoring** link.

RoomView Montroring Link



3. Click the **Capture** tab. This displays all of the information for using CaptureLiveHD.

Capture Tab

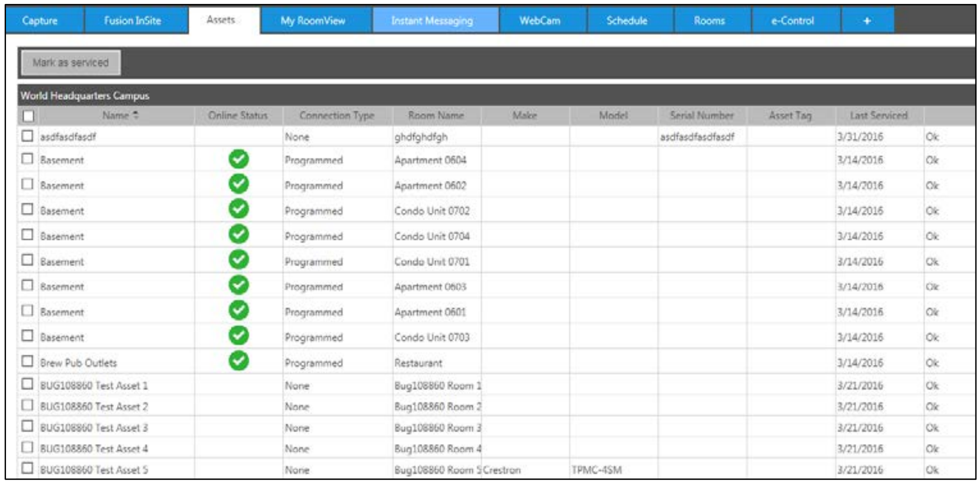


4. There are several views, as follows:

   - Summary: This shows the total jobs that are processed and distributed. The Feed List launches the RSS Feed for all processed jobs.
   - In Progress: This shows the current jobs that are being processed by Crestron Fusion.
   - Problems: This shows transcoding error issues.
   - Completed: This is a list of successfully completed transcodes.
   - Capture Devices: This shows all Capture HD units associated with the Crestron Fusion software. This view provides live feedback and information on the hardware.
   - Action Required: This shows any jobs that require additional information or need to be processed.

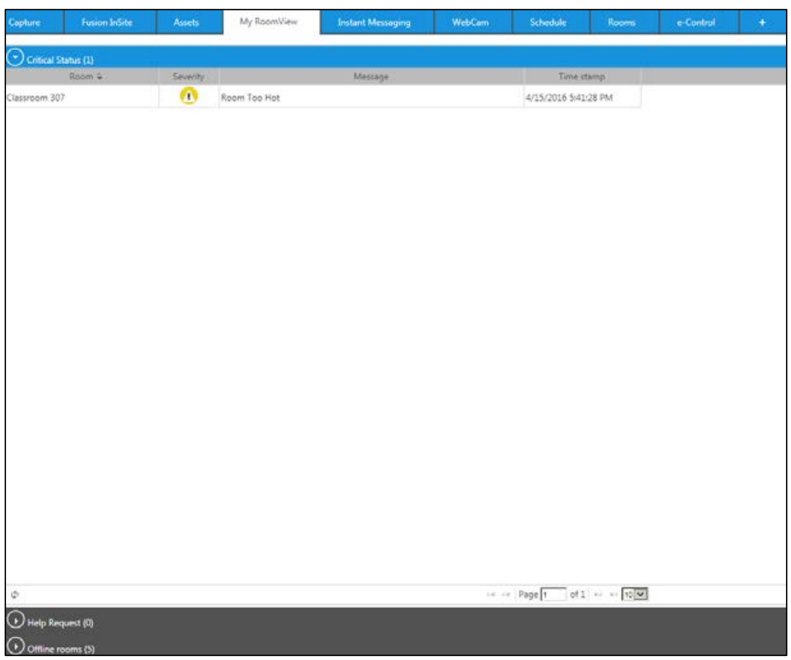
5. Click the Assets tab. The Assets tab shows all Assets that are associated with the room or node that has been selected.

Assets Tab



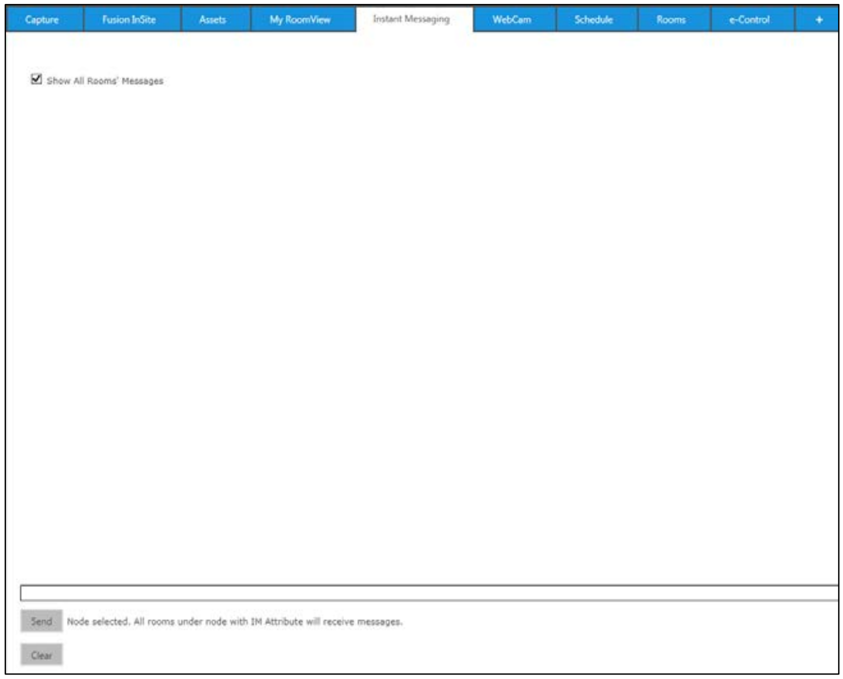
6. Click the **My RoomView** tab. This tab shows all critical status messages and help requests.

   My RoomView Tab



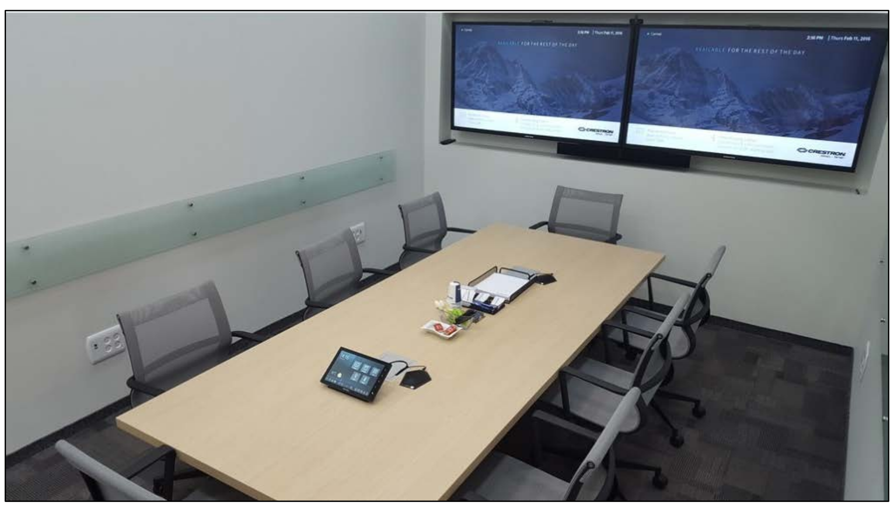
7. Click the **Instant Messaging** tab. This provides the ability to message back and forth with the selected room.

Instant Messaging Tab



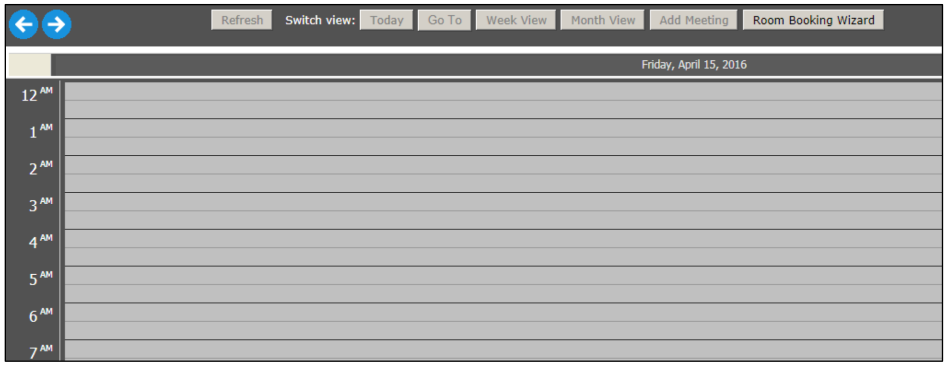
8. Click the **WebCam** tab. This loads a video image from an IP camera. The URL for the stream is entered when the room is created under **Setup**.

WebCam Video Image



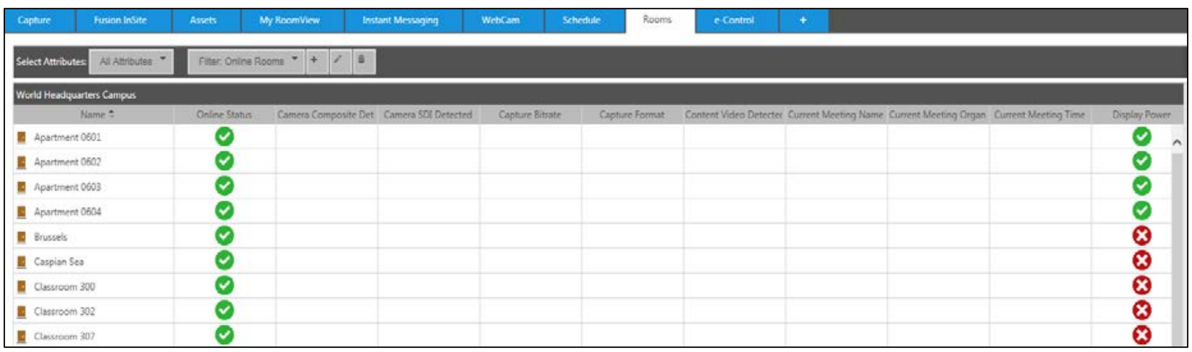
9. Click the **Schedule** tab. The **Schedule** tab shows the schedule for the room. Scheduling data is accessed from the internal scheduler or an integrated scheduling provider.

Schedule Tab



10. A single room must be selected in order to see the schedule. Double-click an open time slot to allow for meeting creation.
11. Click the **Rooms** tab. This is the main view for feedback on attributes in Crestron Fusion. Feedback is displayed based on the room or node selected.

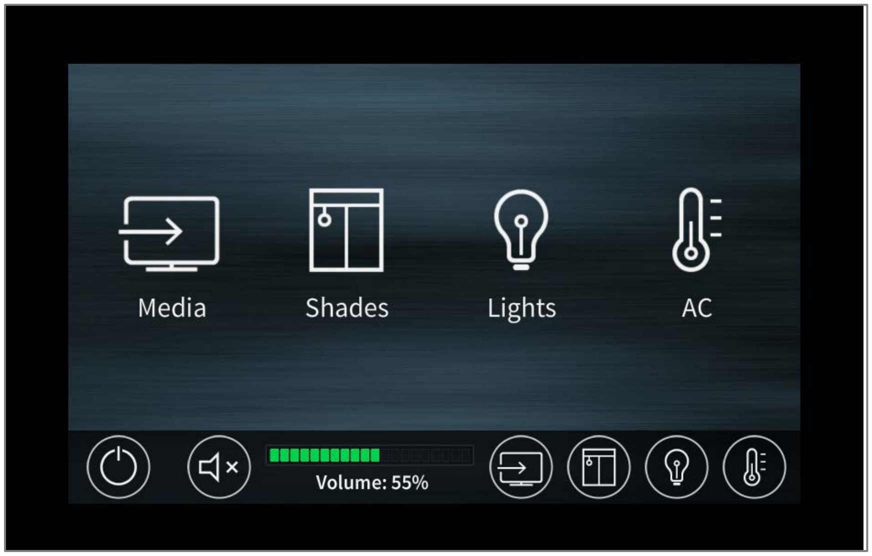
Rooms Tab

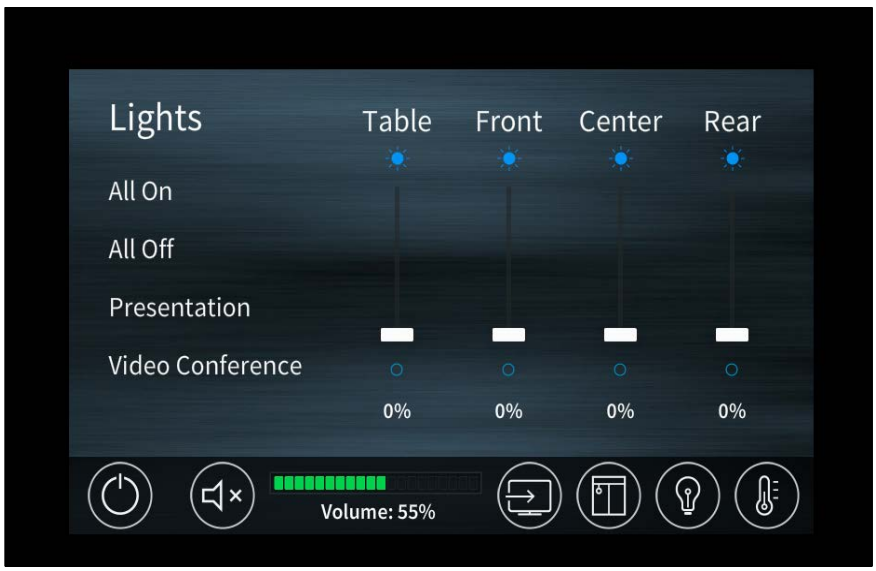


- **Select Attributes:** The drop-down menu reflects the nodes populated on the **Attributes** tab under the Setup section of the website. Selecting an entry from this drop-down menu shows a different set of attributes, sometimes referred to as a view.
- **Filter:** Filters can be created to qualify the data presented on the page. For instance, a filter can be created to show only rooms whose projectors show more than 1500 hours.

12. Click the **e-Control** tab. This loads a web-based Xpanel that allows for direct control of the room. Either the Xpanel is embedded into the web page or a secondary browser window is launched to load and display the Xpanel.

e-Control Examples





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