Crestron Fusion® 10 Software Configuration

Enterprise Management Software

Reference Guide

Crestron Electronics, Inc.

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Crestron Fusion 10 Software Configuration: Enterprise Management Software

Introduction

This document provides detailed Crestron Fusion 10 software configuration instructions. It is important to follow the instructions in each section in order.

Understanding the Crestron Fusion Web Interface

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

There are five sections within the Crestron Fusion website that are accessible from the Crestron Fusion header tab as follows:

- The Monitoring section provides feedback from Crestron Fusion 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.
- The Setup section 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.
- The Configuration section contains global settings for the Crestron Fusion server(s) as well as for interaction with other systems (scheduling, SMTP, etc.).
- The Reports and Analytics section allows for end users to run reports on data that is collected by the Crestron Fusion software. The reports can be tailored to specific rooms and data.

- The Energy Management section 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.
- The About link opens a window displaying the current version of Crestron Fusion.

Logging In

The default website for Crestron Fusion software is http://*servername*/fusion/webclient where *servername* is the hostname or IP Address of the server where the Crestron Fusion software is installed on the Crestron Fusion application server.

The default login for the Crestron Fusion website is “admin” and the password is “admin”.

Completing a Profile

After logging in for the first time, a dialog box opens to allow the user to enter profile settings.

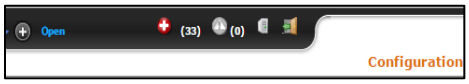
Complete the profile information with the user’s local time zone, e-mail address, and select the option to receive e-mails. If this is not completed, the profile dialog box opens each time the user logs in or switches between sections.

Navigating the Website

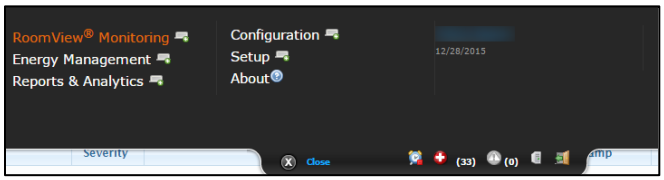
After logging in and completing the profile information, the RoomView® Monitoring section loads.

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

   Pull-Down Tab

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

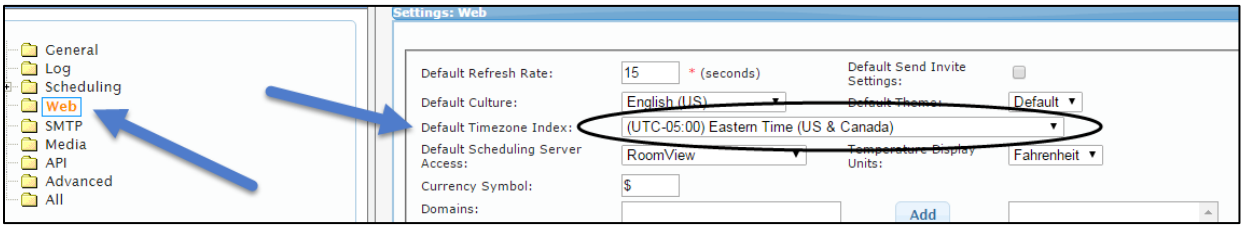
   Crestron Fusion Header Tab

2. Click the Configuration link.

   Configuration Link

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

   Default Time Zone

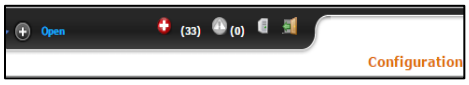
Creating Geographic Regions

Nodes in Crestron Fusion are equivalent to a folder. Rooms are then added within the nodes similar to adding a file to a folder. When using the OLAI or PinPoint, creating the hierarchy for Geographic Regions is necessary. 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

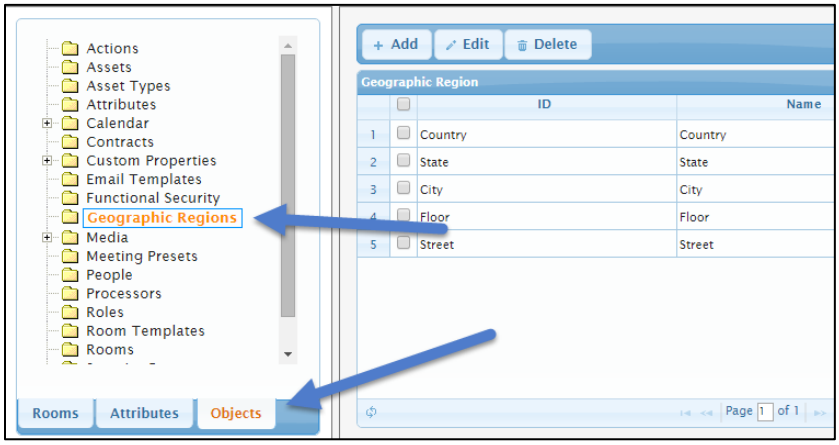
2. Click the **Setup** link.

   Setup Link

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

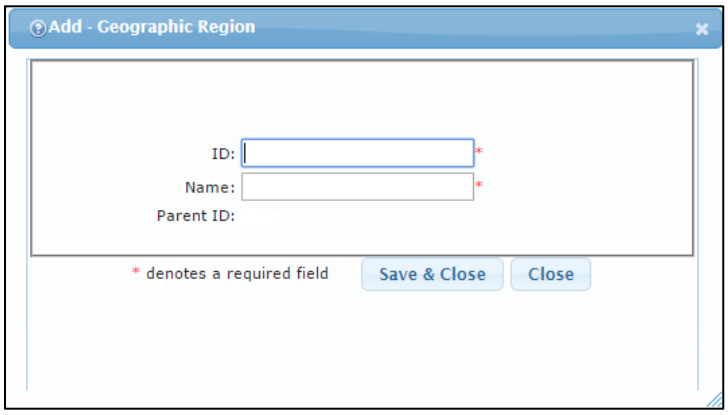
   - Each region has a common name and an ID. The ID cannot contain spaces. In order to keep information aligned correctly in the database and also create custom regional information, it is recommended to delete all entries and recreate them if the order of the default structure is not suitable.
   - The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

   Objects Tab and Geographic Regions

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

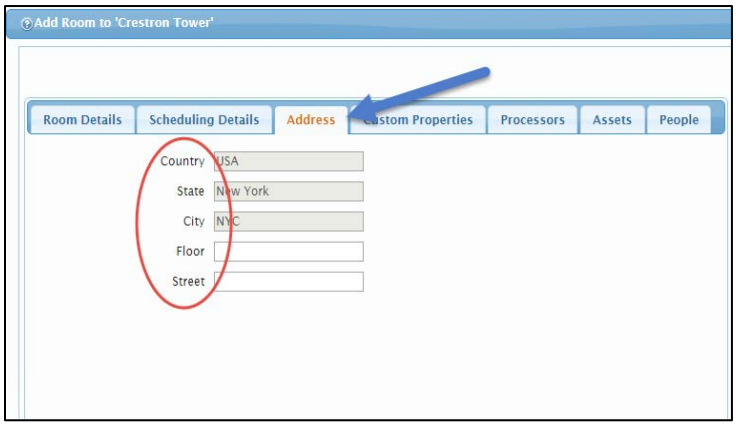
Add - Geographic Region Dialog Box



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



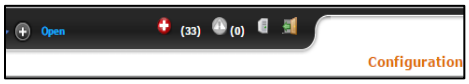
Designing the Room Tree (Nodes)

The room tree has two main purposes: organization and security. The room tree is structured to organize similar rooms together using nodes (similar to a folder) and provides an easy way to search for specific rooms. The room tree (made up of nodes and rooms within those nodes) 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 similar to a file and folder structure found on 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 Crestron Fusion server.
2. From the Crestron Fusion header tab, click the + icon to open the pull-down tab.

   Crestron Fusion Header Tab

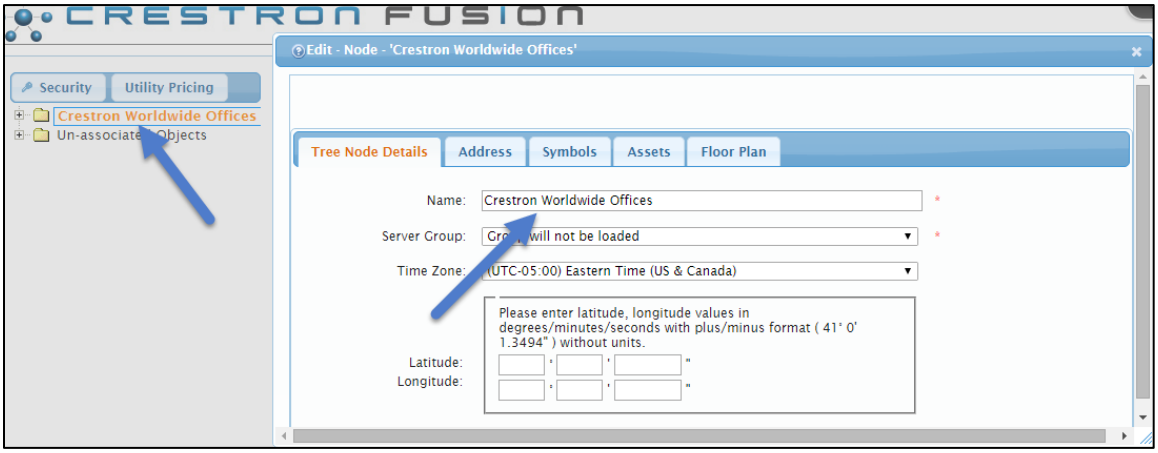


3. Click the **Setup** link.

   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. Enter optional information, if desired.
6. Click **Save & Close**.

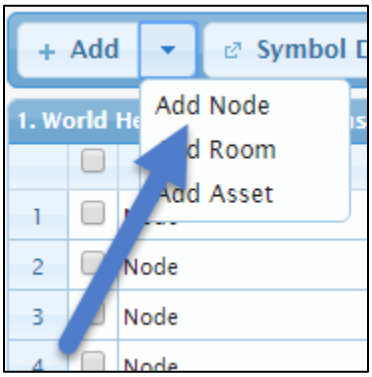
Adding a New Node

1. Highlight the existing node in the room tree where the new node will be located. When the new node is saved, it will be displayed under the existing node that was selected.

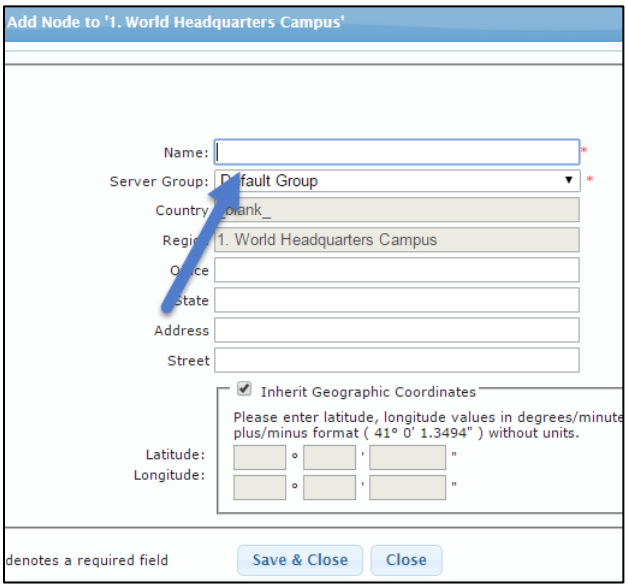
Adding a New Node

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

Add Drop-Down List



Add Node Dialog Box

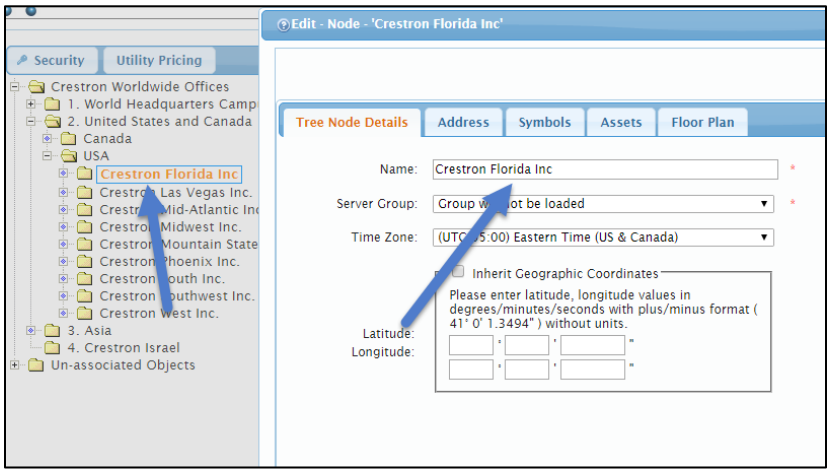


3. Enter a name in the **Name** field. Enter optional information, if desired.
4. Click **Save & Close**.

Changing a Node Name

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

Edit - Node Dialog Box



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

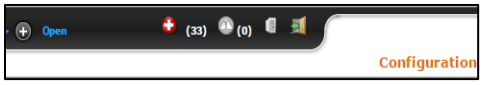
Using Asset Types

Crestron Fusion has the ability to track audio and video asset information, such as 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, Audio Codec, Switcher, etc. An asset listed in Crestron Fusion is associated with an Asset Type. For example, a Crestron DigitalMedia™ 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

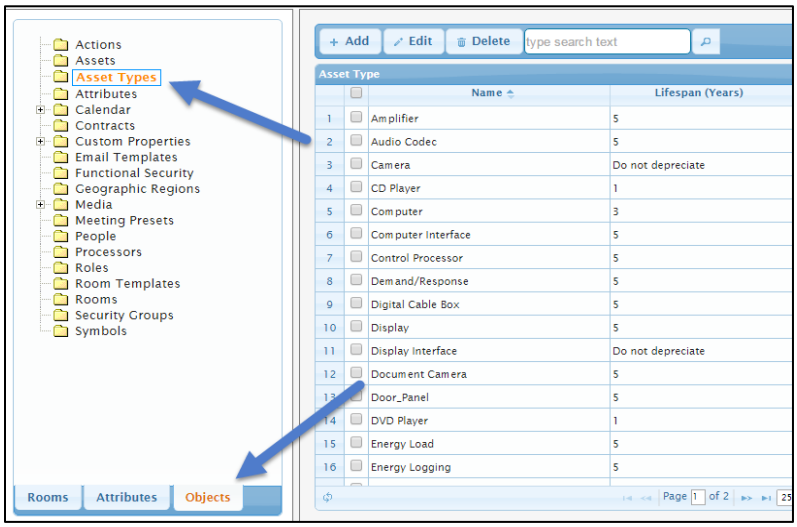
   

2. Click the **Setup** link.

   Setup Link

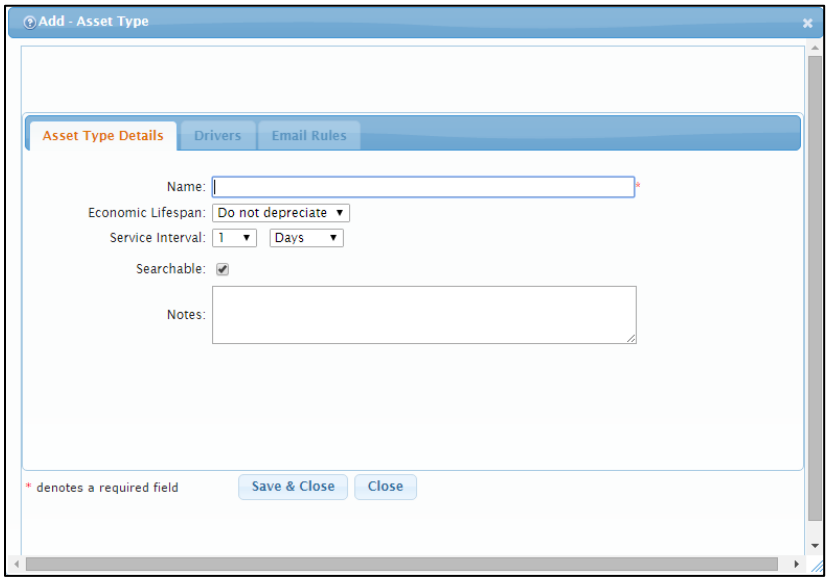
3. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

Objects Tab and Asset Types



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

Add - Asset Type Dialog Box



5. Complete the 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.

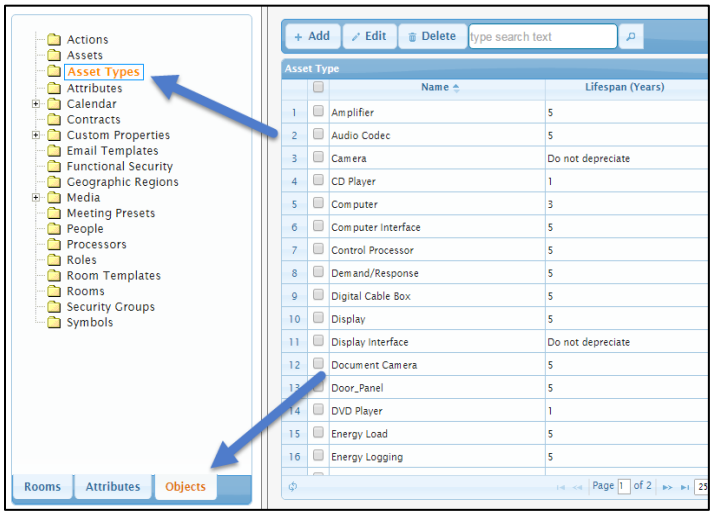
NOTE: The **Drivers** and **Email Rules** tabs remain gray when an Asset Type is added and clickable when an Asset Type is edited.

6. Click **Save & Close**.

Editing an Asset Type

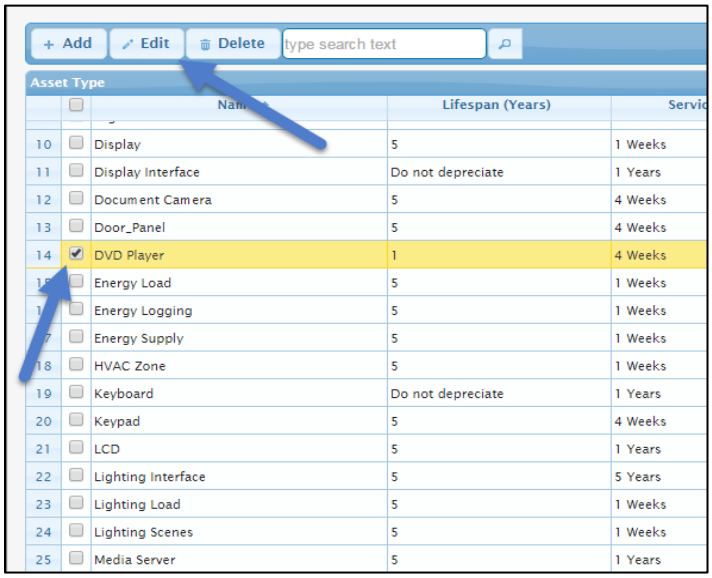
1. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

Objects Tab and Asset Types



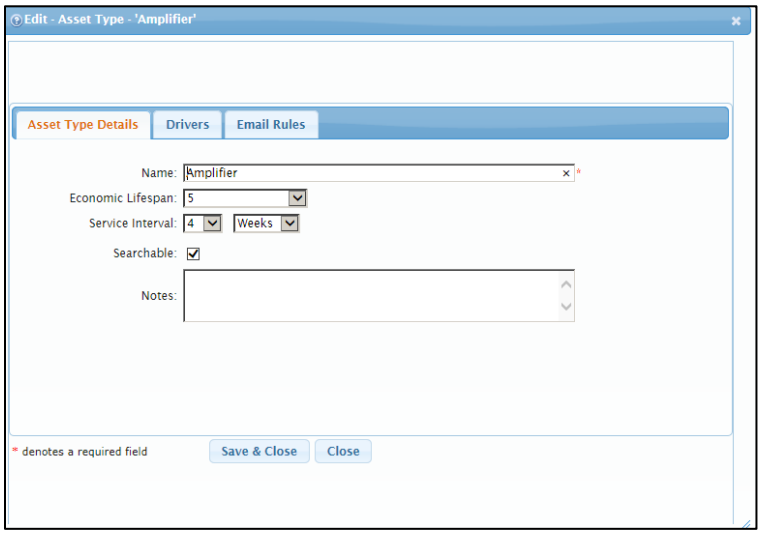
2. Click the **Asset Type** check box to the left of the asset to be edited. To select all assets, click the check box above the list.

Editing an Asset



3. Click **Edit**, the **Edit - Asset Type** dialog box opens.

Edit - Asset Type Dialog Box



4. From the Asset Type Details window, make the desired changes to the asset.
5. Click **Save & Close**.

Drivers Tab

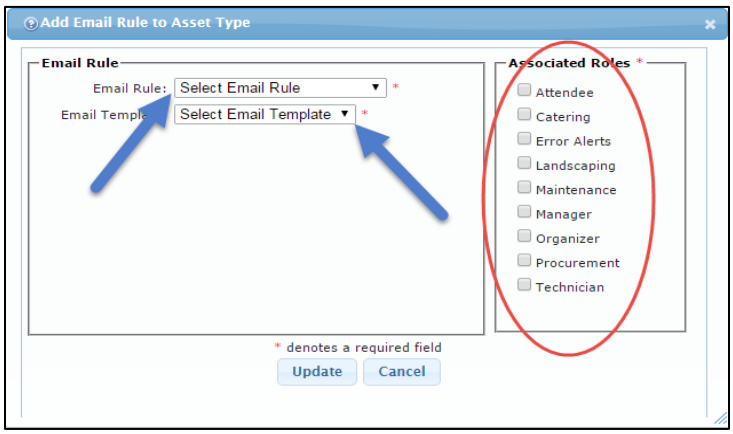
The **Drivers** tab is used for Crestron Direct Connect devices. Any XML-based drivers used for these devices are listed under Drivers.

Email Rules Tab

The **Email Rules** tab is used for configuring e-mail notification when service is due or the economic lifespan has expired. E-mail rules can be added, edited, or deleted.

1. Click the **Email Rules** tab.
2. Click the **Email Template** to use for this notification.
3. Click **Add**. The **Add Email Rule to Asset Type** dialog box opens.

Add Email Rule to Asset Type Dialog Box



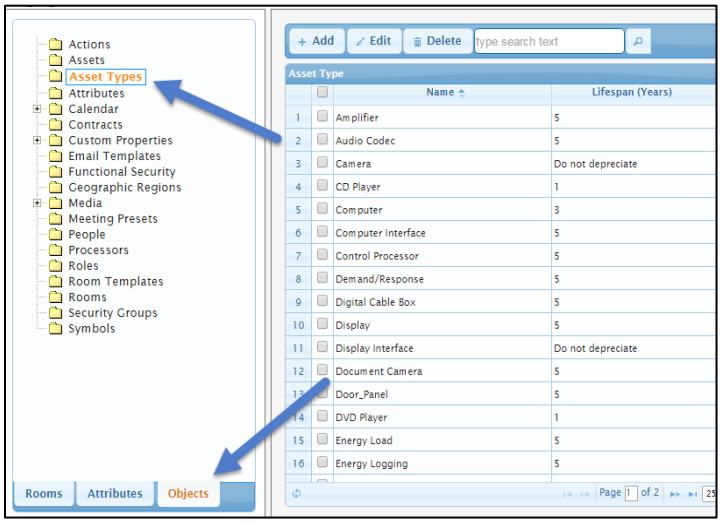
4. Select an **Email Rule**, **Email Template**, and then click the **Associated Roles** that should receive this e-mail for the room.

5. Click **Update**.

Deleting an Asset Type

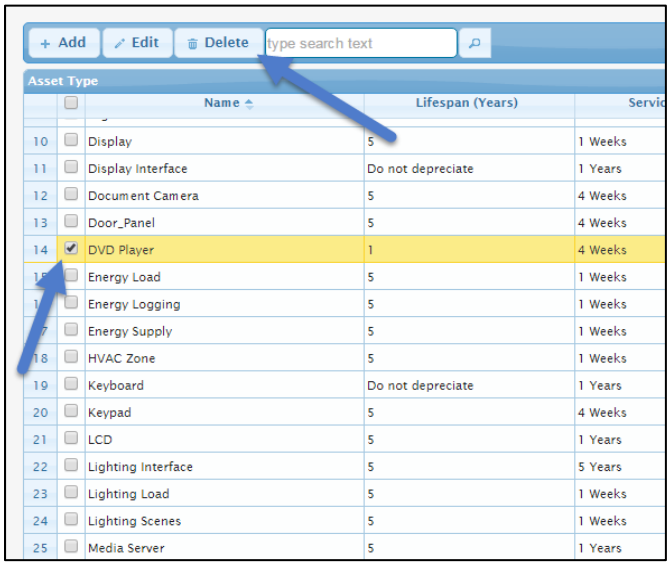
1. Click the **Objects** tab, and then click **Asset Types**. A list of the default asset types is displayed.

   Objects Tab and Asset Types



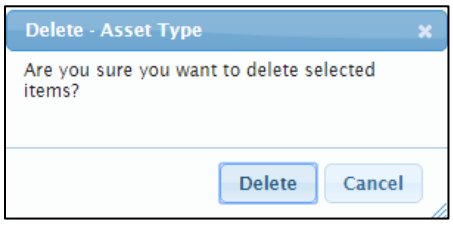
2. Click the **Asset Type** check box to the left of the asset to be deleted, and then click **Delete**.

   Deleting an Asset Type



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

Delete - Asset Type Message Box



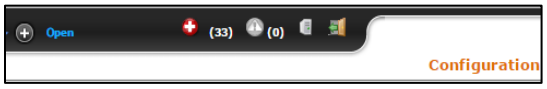
Using Roles in Crestron Fusion

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

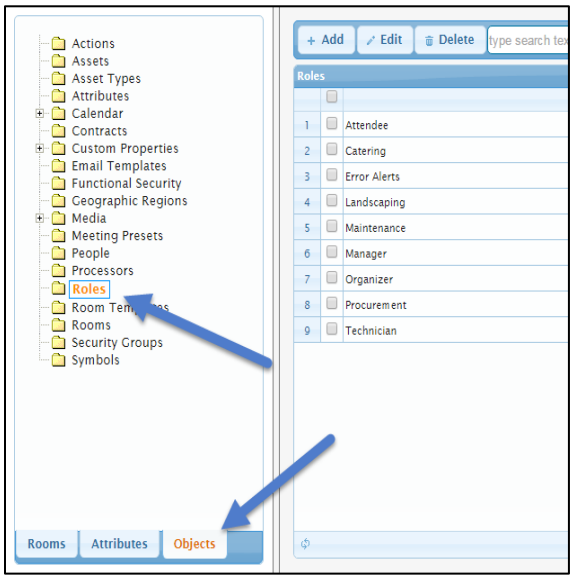
   

2. Click the Setup link.

   Setup Link

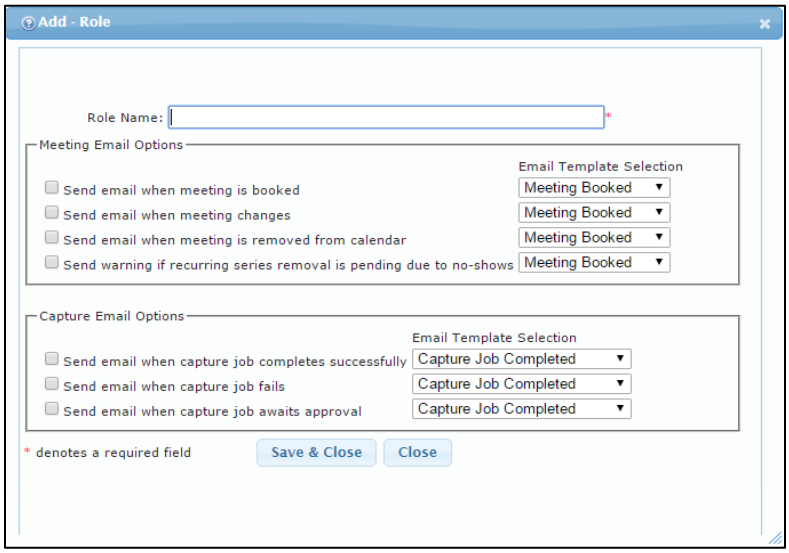
3. Click the Objects tab, and then click Roles. A list of the default roles is displayed.

Objects Tab and Roles



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

Add - Role Dialog Box

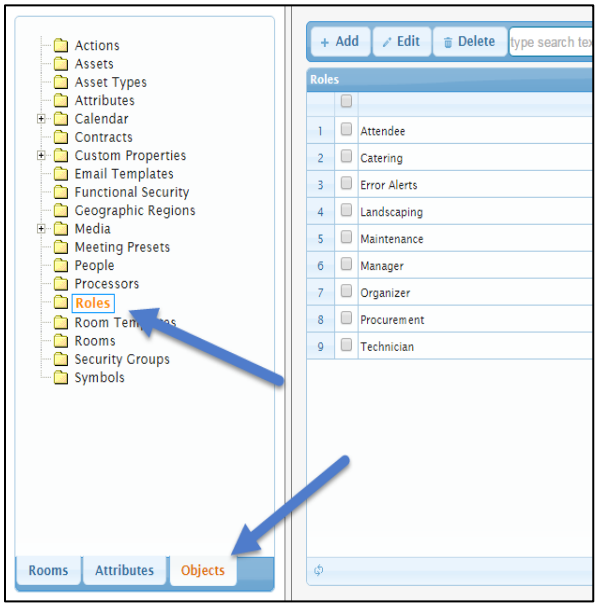


5. Complete the fields as necessary.
   - **Role Name:** This is the job description.
   - **Meeting Email Options:** These options enable an e-mail to be sent for the meeting criteria listed in the section. Click the applicable check box next to the desired meeting e-mail notification. Select the e-mail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

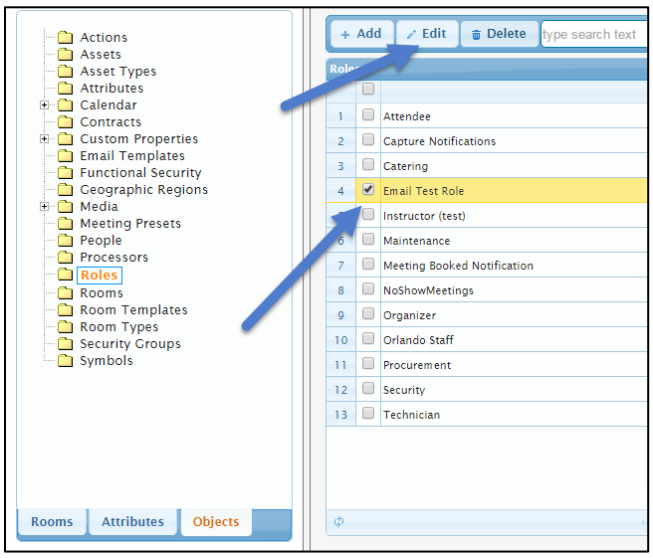
1. Click the **Objects** tab, and then click **Roles**. A list of the default roles is displayed.

   Objects Tab and Roles

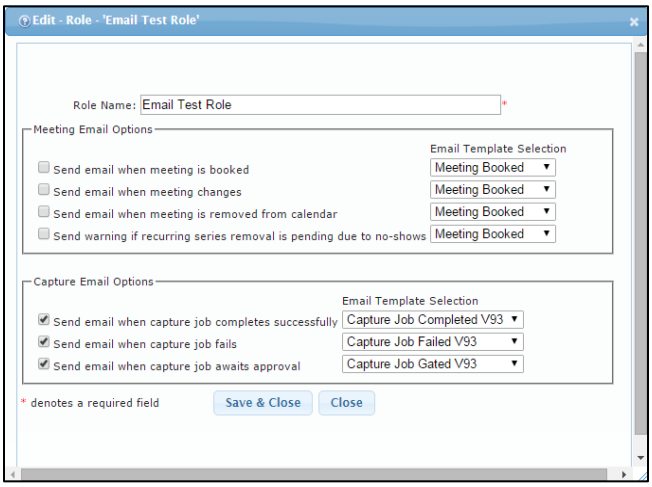


2. Click the check box to the left of the role to be edited.
3. Click **Edit.** The **Edit - Role** dialog box opens.

   Editing a Role



Edit - Role Dialog Box

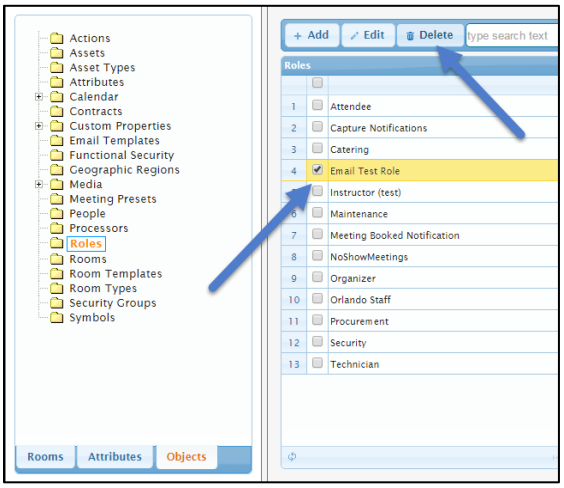


4. Make the desired selections, and then click **Save & Close**.

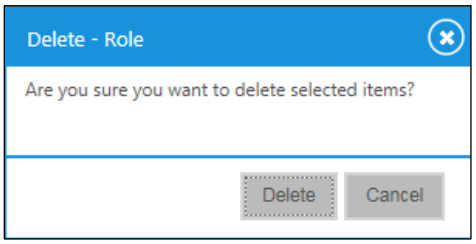
Deleting a Role

1. Click the **Objects** tab, and then click **Roles**. A list of the default roles is displayed.
2. Click the check box to the left of the role(s) to be deleted, and then click **Delete**. The **Delete - Role** message box opens.

Deleting a Role



Delete - Role Message Box



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

Managing Users (People) in Crestron Fusion

The Crestron Fusion software has the ability to allow multiple users (referred to in Crestron Fusion as People) to log into 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. There are two main ways for authenticating users: Forms Authentication and Windows® Authentication.

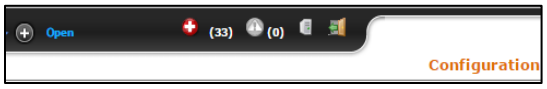
The method described below is called Forms Authentication, where Users and Security Groups are maintained within the Crestron Fusion database.

The second method that can be used is Windows Authentication, which 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 loosely defined as the database that these objects are stored in.

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

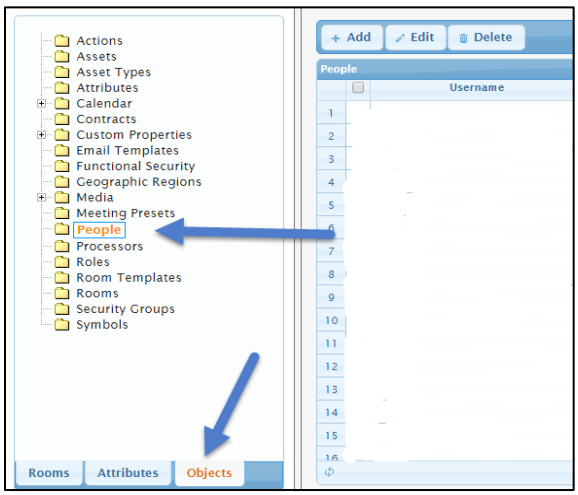
   

2. Click the **Setup** link.

   Setup Link

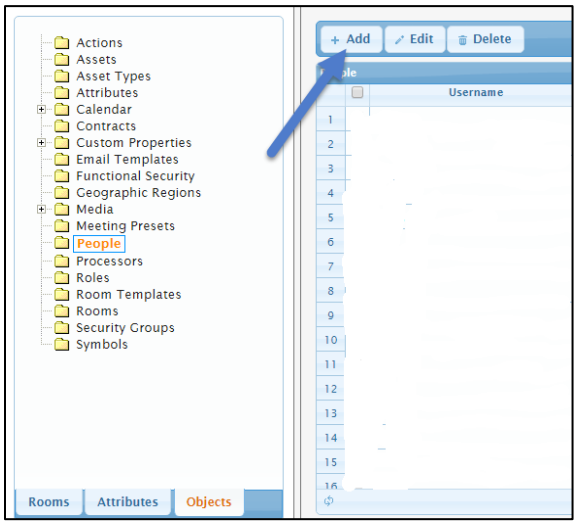
3. Click the **Objects** tab, and then click **People**.

   Objects Tab and People

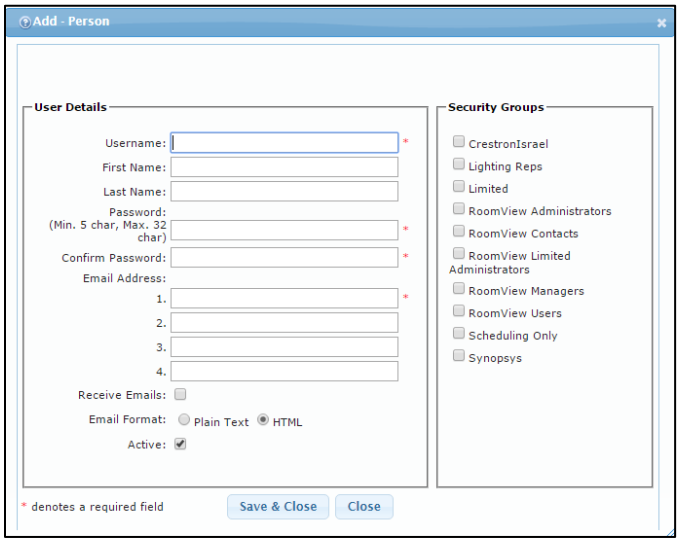
   

4. Click **Add**. The **Add** - **Person** dialog box opens.

Adding People



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 4 characters. This is the only requirement.
   - **Email Address:** This is a required field. The 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 the Crestron Fusion software.
- **Email Format**: The format of the e-mail can be sent to this user either by Plain Text or HTML.
- **Active**: This field defines if the account is Active or Inactive. An inactive account does not allow the user to login.
- **Security Groups**: These groups define what access the end user has to Crestron Fusion. Click the check boxes that apply for the account.

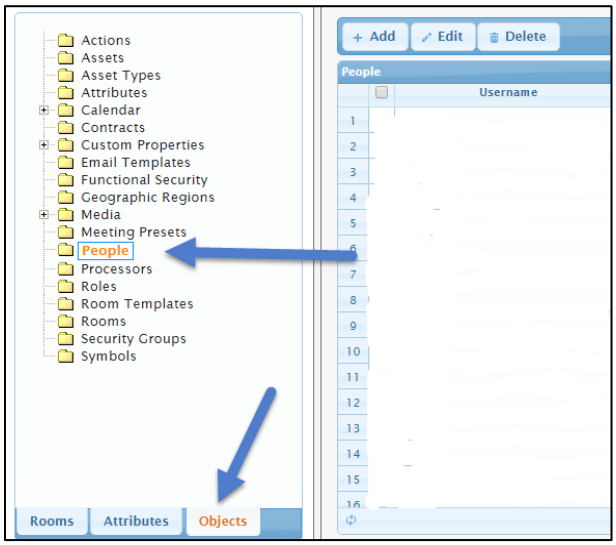
NOTE: Users should not be placed in multiple security groups as this creates conflicts when users access the Crestron Fusion website.

6. Click **Save & Close**.

Editing a User

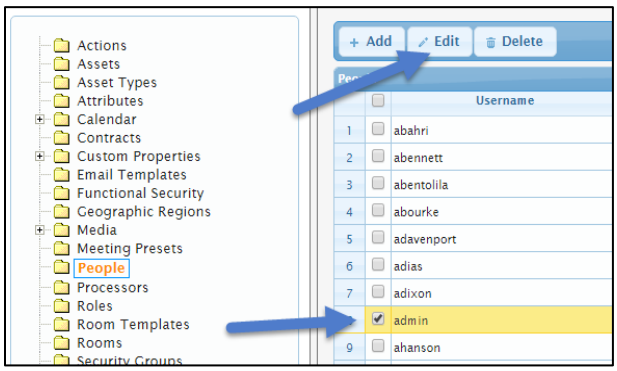
1. Click the **Objects** tab, and then click **People**.

Objects Tab and People

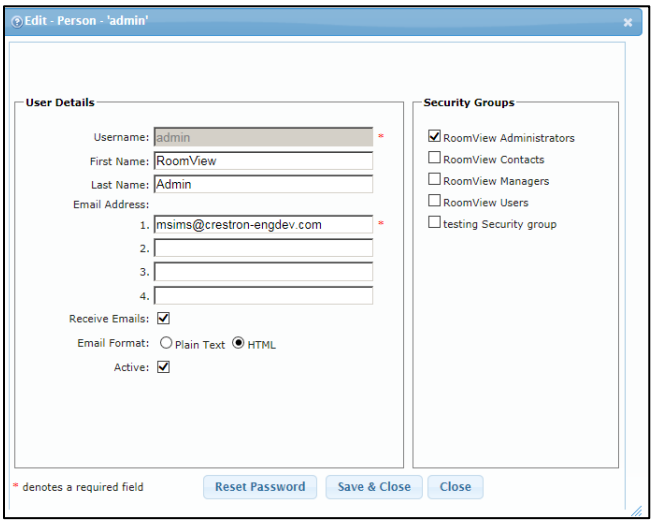


2. Click the **People** check box to the left of the user to be edited, and then click **Edit**. The **Edit - Person** dialog box opens.

Editing People



Edit - Person Dialog Box

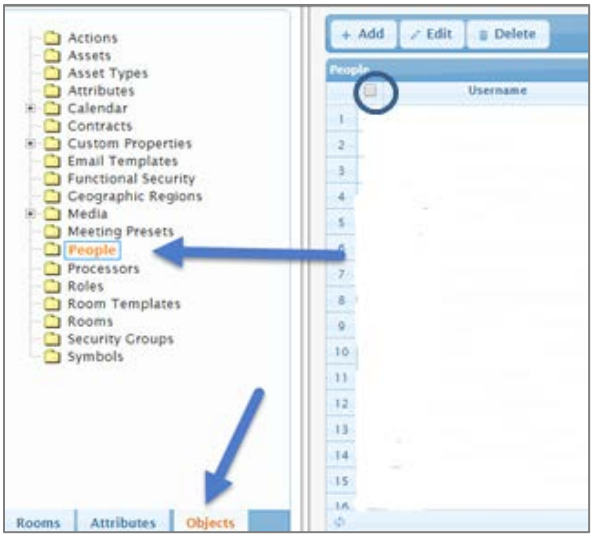


3. Edit the settings, as necessary.
4. Click **Save & Close**.

Deleting a User

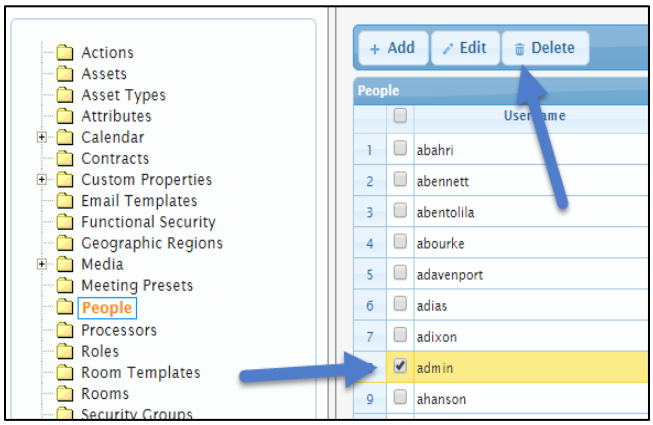
1. Click the **Objects** tab, and then click **People**.

   Objects Tab and People Folder



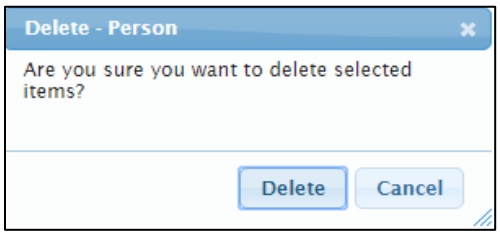
2. Click the **People** check box to the left of the user to be deleted.

Deleting a User



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

Delete - Person Message Box



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

Things to Know About Users in Crestron Fusion

- 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 Users (People) automatically and an account is created the first time that they log in.
- An Authenticated Windows user automatically has rights assigned based on their group membership and the security policies applied to their groups.
- Individual domain accounts 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

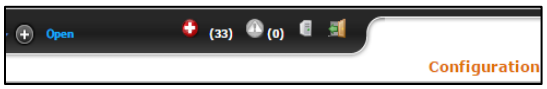
Certain Crestron products have the ability to connect directly to Crestron Fusion via a network without needing a Crestron processor. These devices are added as assets to the room. The following devices have the ability to connect directly to Crestron Fusion: Scheduling Panels (TPMC-4SM, TPMC-3SM, TSW-732, and TSS-752), Crestron RL® system (Lync® codec), Capture HD® recorder, and the AirMedia® presentation gateway. An extensive list of manufacturer's displays also has the ability to connect directly to Crestron Fusion. This list is located on the Crestron website at http://www.crestron.com/products/line/crestron-connected.

Adding an Asset

There are two ways to add Crestron Connected assets to a room, add the asset and then associate it to a room or add the asset at the time of the room creation.

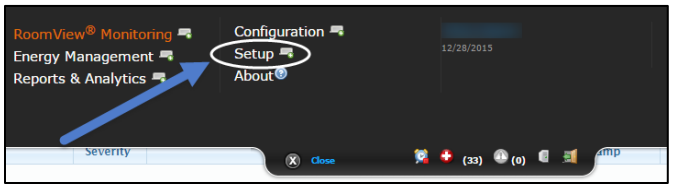
1. From the Crestron Fusion header tab, click the + icon located to the left of the Open link to open the pull-down tab.

   Crestron Fusion Header Tab

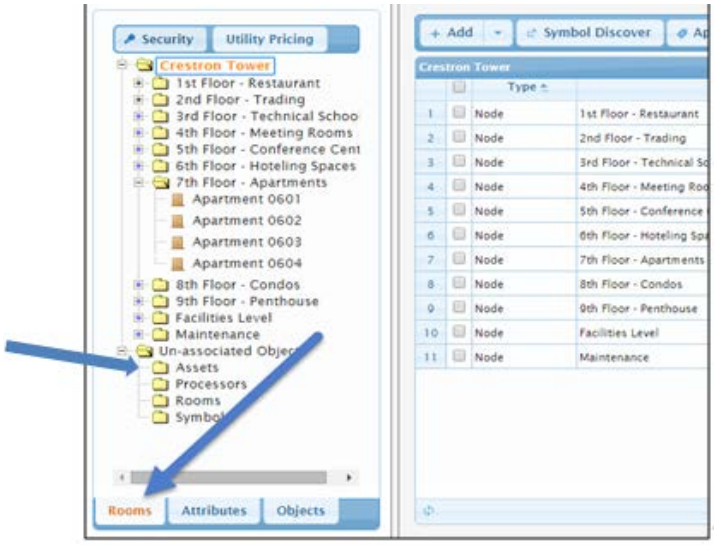
2. Click the Setup link.

   Setup Link

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

   Rooms Tab and Assets

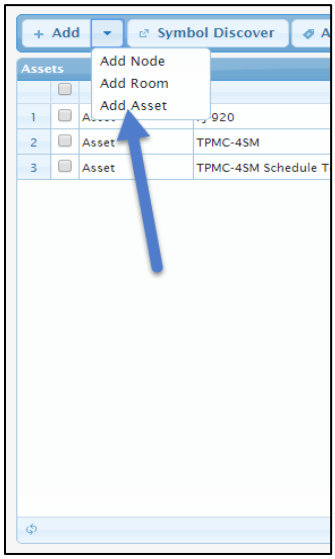
   

4. Click the **Node** or **Room** that the asset needs to be associated with.

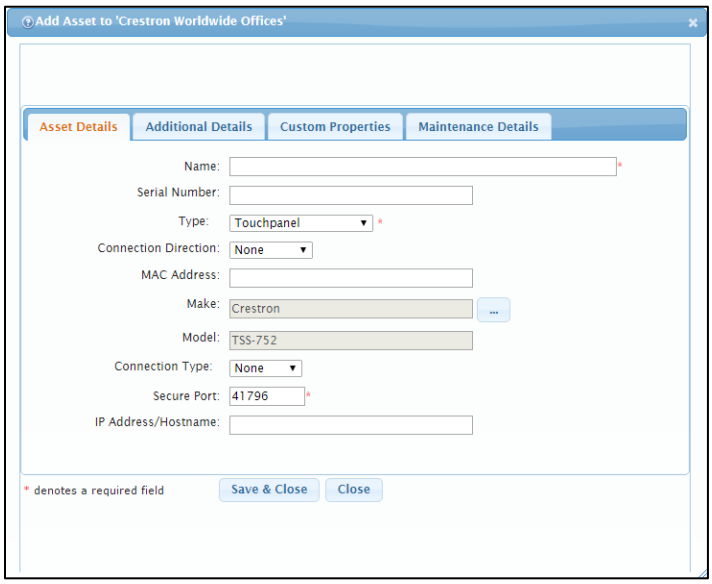
NOTE: All Crestron Connected devices must be associated to a room.

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

Adding a Crestron Connected Device



Add Asset Dialog Box

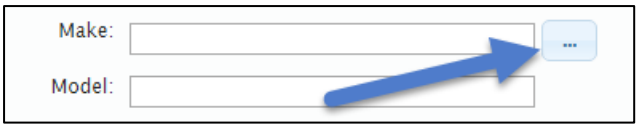


6. Complete the fields as necessary.
   - **Name:** This is the specific name of the asset.
   - **Serial Number:** This is the serial number of the asset.
   - **Type:** The Asset Type defines what group this asset would fall under. There are specific Asset Types for Crestron Connected devices, listed below.

- **Touchpanel:** This type should be selected for all scheduling panels.
- **Video Conference:** This type should be selected for Crestron RL.
- **Video Capture:** This type should be selected for Capture HD.
- **Presentation Gateway:** This type should be selected for AirMedia.
- **Projector:** This type should be selected for all Crestron Connected manufacturers' displays.

- **Connection Direction**: This is the Connection Direction. Select **None** or **Outbound**.
- **MAC Address:** This is the MAC Address of the asset, if it has one.
- **Make/Model:** For Crestron Connected devices, click the browse ("…") button and select the appropriate driver for the device.

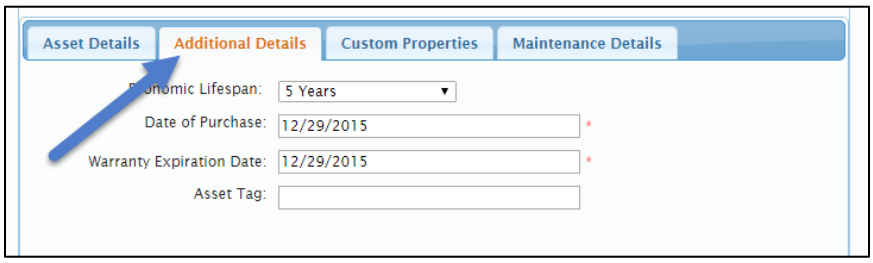
  Make and Model Selection Box



- **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.

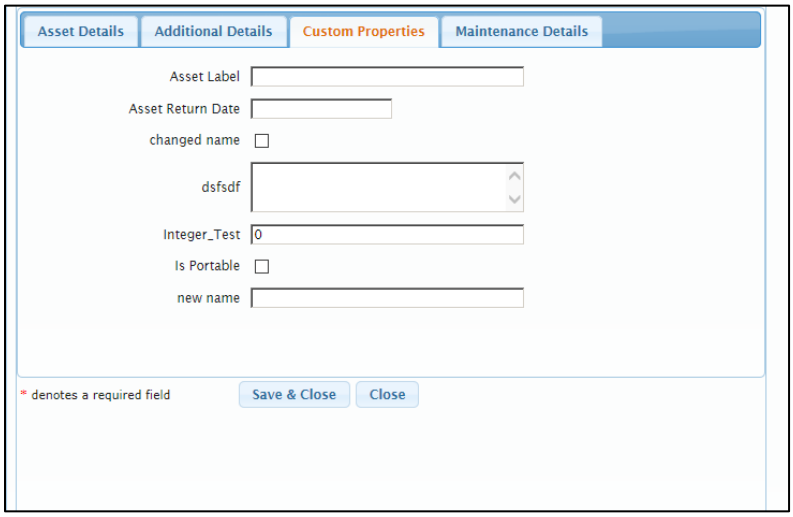
   Additional Details Tab



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

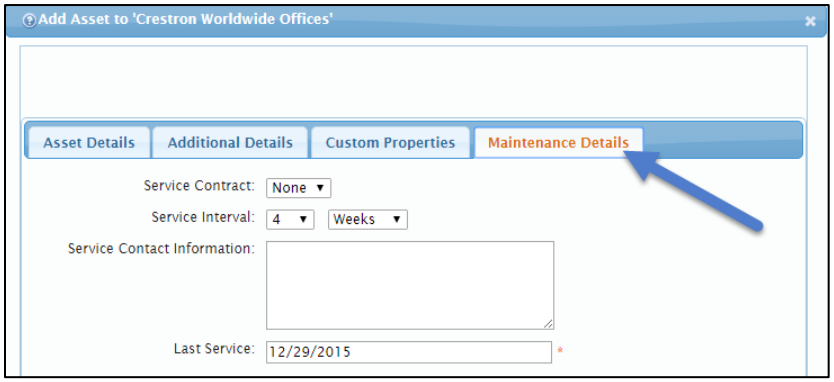


12. Complete the fields as necessary.

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

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

Maintenance Details Tab

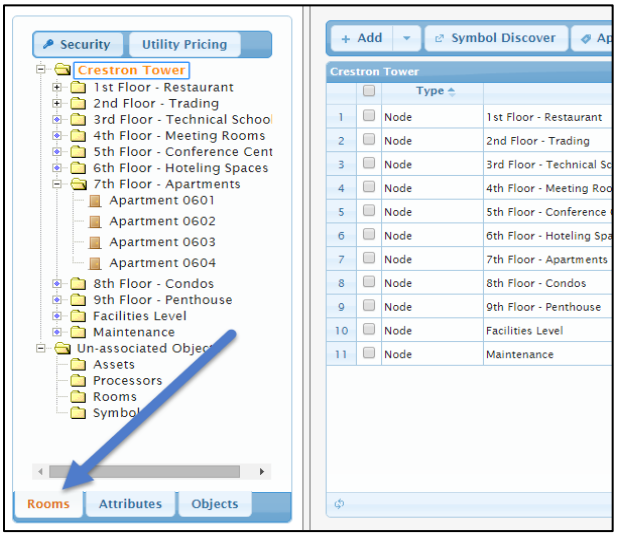


14. Complete the fields as necessary.
    - **Service Contract:** This file (stored in the database) contains the service contract information or a digital copy of the contract.
    - **Service Interval:** This entry determines how often a notification is invoked for maintenance on the asset.
    - **Service 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

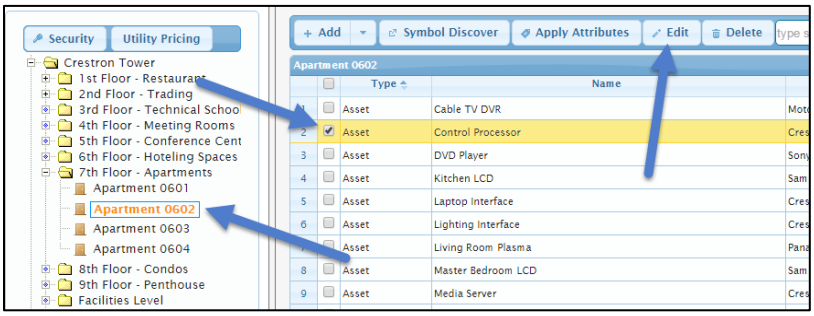
1. Click the **Rooms** tab.

   Rooms Tab



2. From the room tree, click the room in which the asset is located. Associated assets are listed for the room.
3. Click the check box to the left of the asset to be edited, and then click **Edit**.

   Editing an Asset

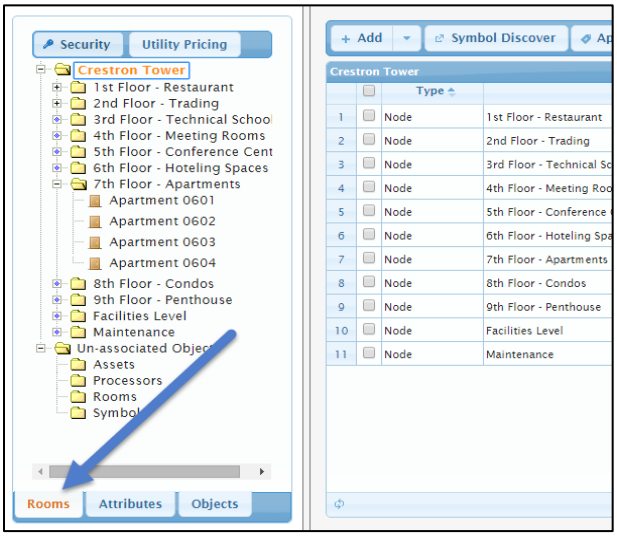


4. The **Edit - Asset** dialog box opens for editing the asset. Add, delete, or change the settings as needed.
5. Click **Save & Close**.

Deleting an Asset

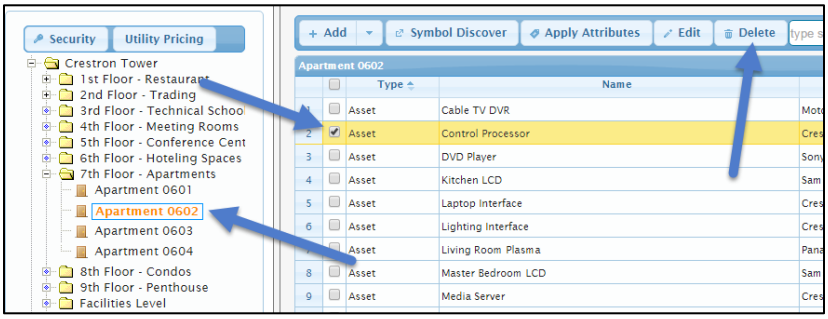
1. Click the **Rooms** tab.

   Rooms Tab



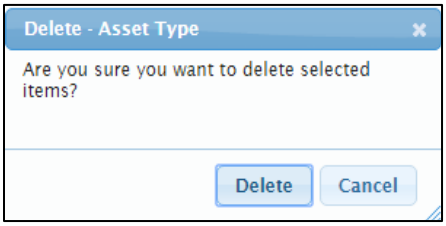
2. From the room tree, click the room in which the asset is located.
3. Click the check box to the left of the asset to be deleted, and then click **Delete**.

   Deleting an Asset



4. The **Delete - Asset Type** message box opens. Verify the asset to be deleted, and then click **Delete**.

   Delete - Asset Type Message Box



5. Click **Save & Close**.

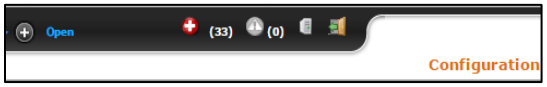
Using Templates to Add Rooms

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

Creating a Template

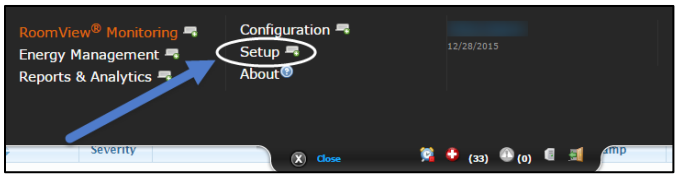
1. From the Crestron Fusion header tab, click the + icon located to the left of the Open link to open the pull-down tab.

   Crestron Fusion Header Tab

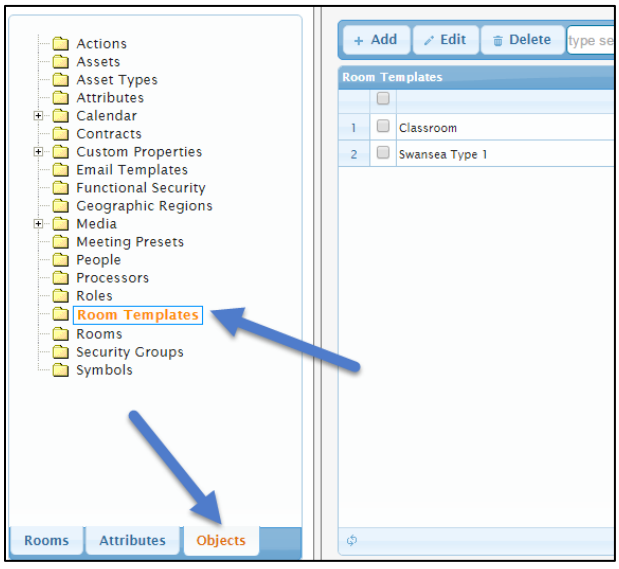
2. Click the Setup link.

   Setup Link

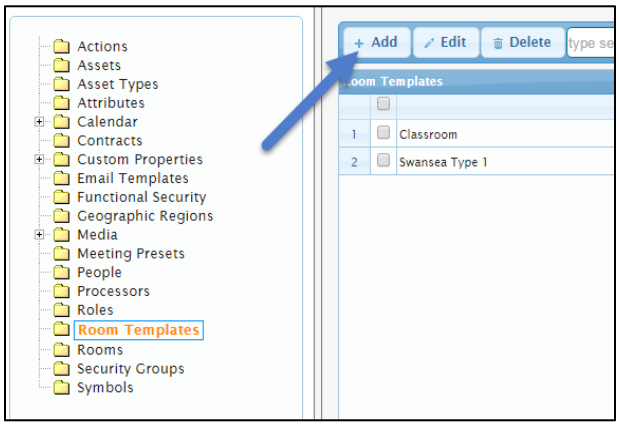
3. Click the Objects tab, and then click Room Templates. A list of templates is displayed on the right window if any were previously created.

   Objects Tab and Room Templates

4. Click Add. The Add - Room Template window opens.

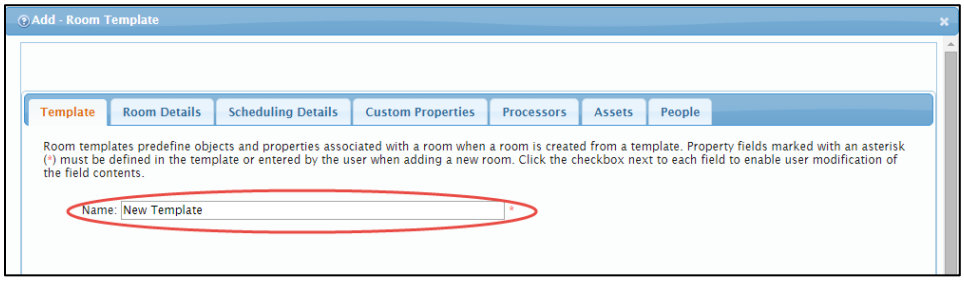
Add - Room Template Window



There are seven tabs available from the **Add - Room Template** window: **Template**, **Room Details**, **Scheduling Details**, **Custom Properties**, **Processors**, **Assets**, and **People**.

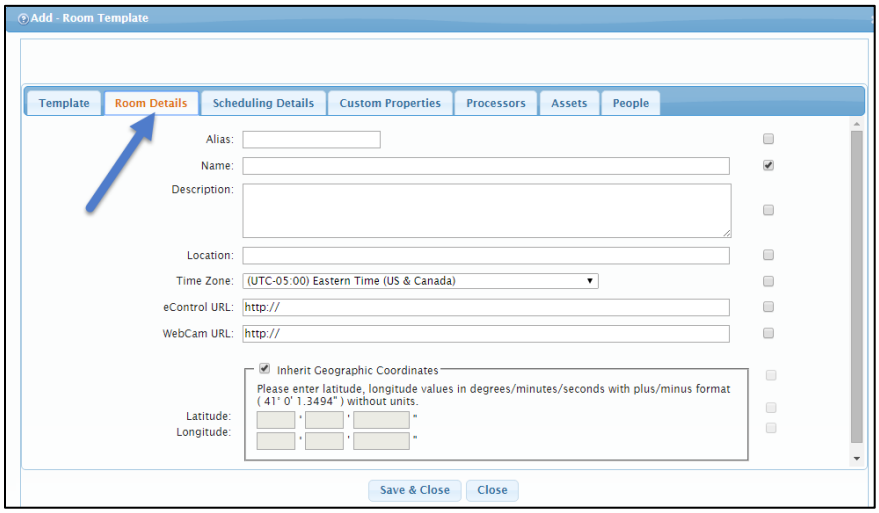
5. Click the **Template** tab.

Template Tab



6. Enter a descriptive name for the template.
7. Click the **Room Details** tab.

Room Details Tab

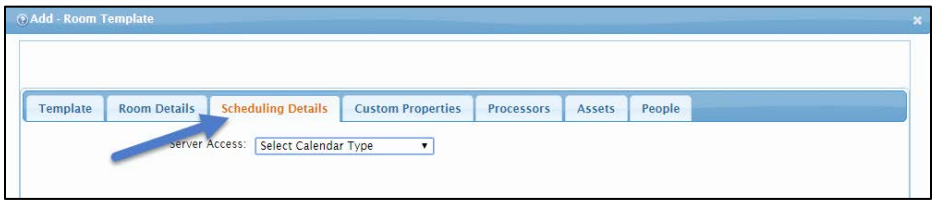


The **Room Details** tab contains check boxes at the end of each field indicating whether or not the user can change or edit this value when creating a room based on this template. If the box is unchecked, the value listed cannot be changed and will be grayed out when the user creates a room from the template. The **Room Details** tab contains the following fields:

- **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.

8. Click the **Scheduling Details** tab.

Scheduling Details Tab

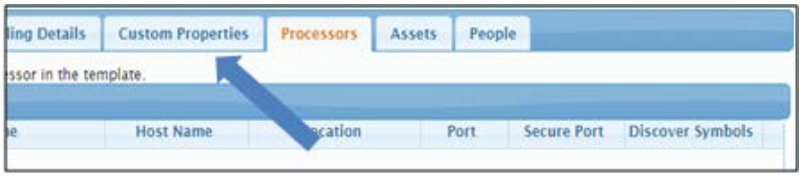


The **Scheduling Details** tab is used for specifying the scheduling provider for the room. From the drop-down menu, select the type of scheduling connection to use. Depending on the provider, complete the required fields and test connectivity. The Scheduling Details tab contains the following field:

- **Server Access**: This is a drop-down list containing a list of the different providers in which Crestron Fusion can integrate.

9. Click the **Custom Properties** tab.

Custom Properties Tab

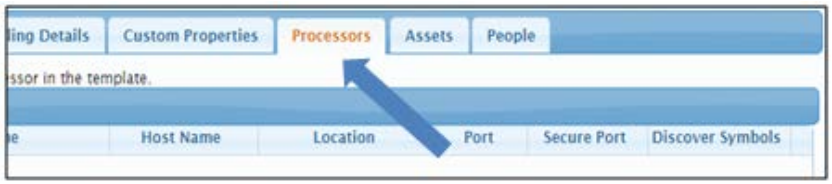


10. Depending on the provider, complete the required fields and test the connectivity.

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

11. Click the **Processors** tab.

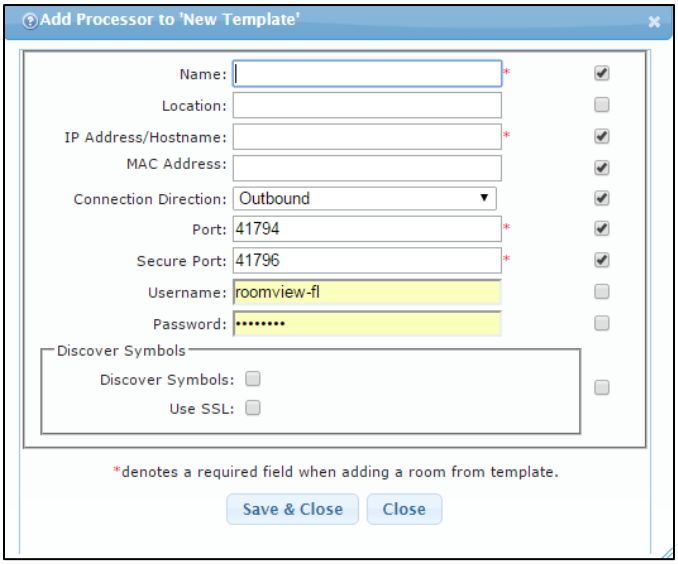
Processors Tab



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

12. Click **Add** to add a processor to a template. The **Add Processor** dialog box opens.

Add Processor Dialog Box



13. Complete the fields as necessary.

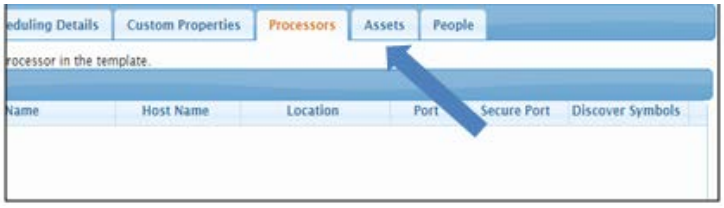
NOTE: The check boxes at the end of each field indicate whether or not this value can be changed or edited when creating a room with this template. If the box is unchecked, the value listed cannot be changed and is grayed out when creating a room from the template.

- **Name:** This is the name of the processor, for example Processor: Roomname.
- **Location:** This field contains information concerning where the processor is located.
- **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 field shows the connection direction. The default is set to outbound. If it is not set to outbound, change it to outbound. Do not change to inbound unless instructed.
- **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:** This is the processor, which requires a username and password to connect to it. Enter the information here. Otherwise, do not complete unless instructed.
- **Discover Symbols:** If the symbol has been programmed for discovery, then check the box. If SSL is invoked, check the Use SSL box also.

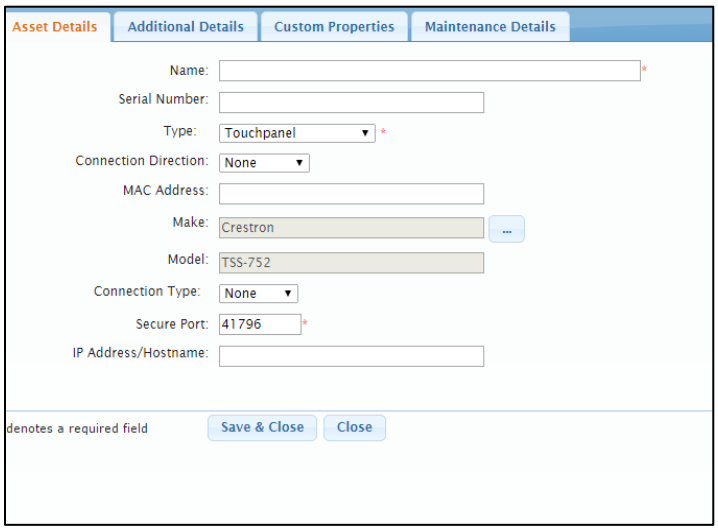
14. Click the **Assets** tab.

Assets Tab



15. To add Crestron Connected assets, click **Add**. The **Asset Details** dialog box opens.

Asset Details Dialog Box

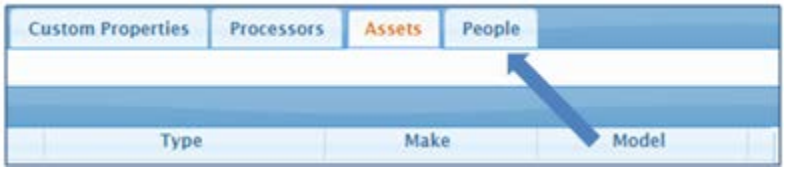


From this dialog box, Crestron Connected assets can be added to the template.

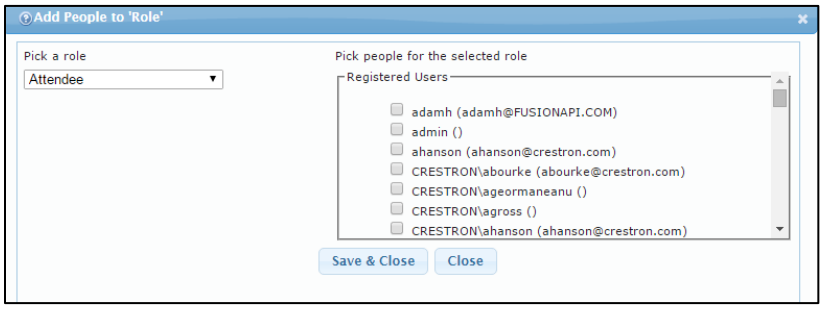
NOTE: Assets for the room or space should have already been added to the programming and will automatically import upon discovery, if Symbol Discovery is used.

16. Click the **People** tab. The **Add People** dialog box opens.

People Tab



Add People Dialog Box



The **Add People** dialog box is used to add individuals to different roles for this room. Complete the fields as necessary.

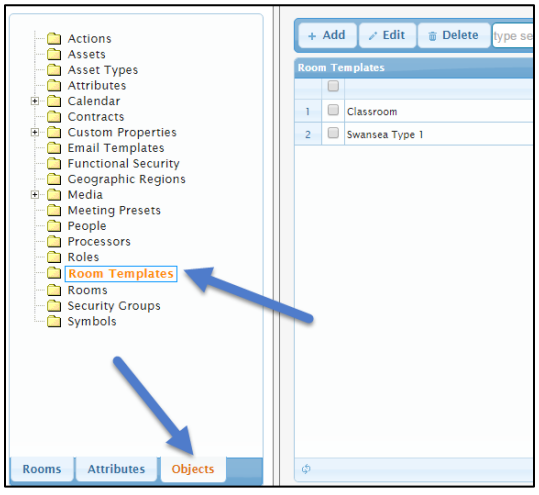
- **Pick a Role:** Use this drop-down list to determine a user's role assignment.
- **Pick people for the selected role:** Check the box for one or more users to be added to the role for this room.

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

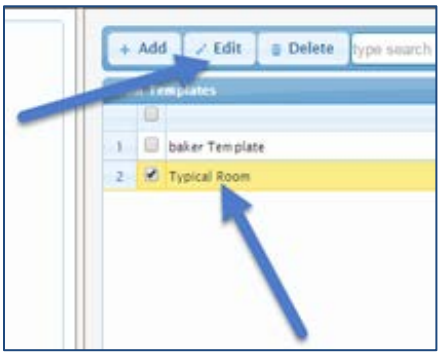
1. Click the **Objects** tab, and then click **Room Templates**.

Objects Tab and Room Templates



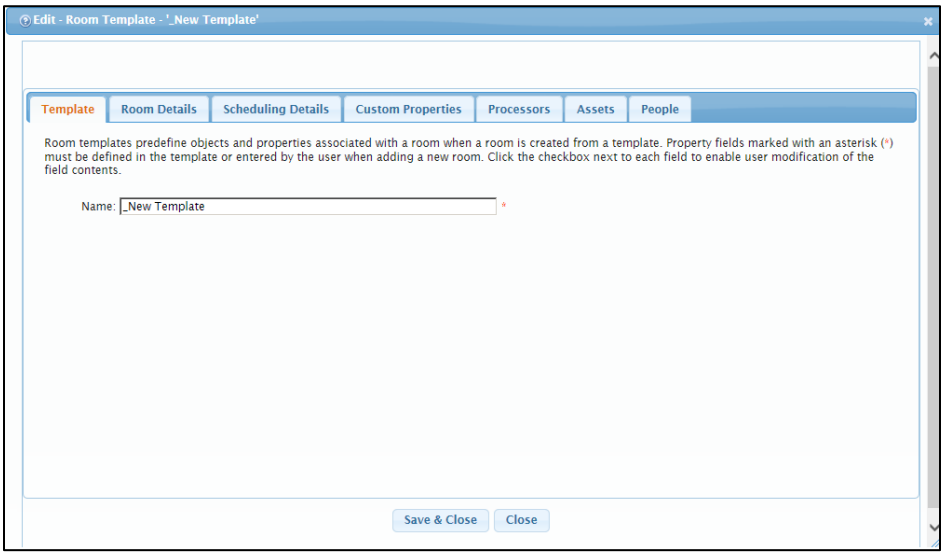
2. Under **Room Templates**, click the check box for the template to be edited, and then click **Edit**.

Editing a Template



3. The **Edit - Room Template** dialog box opens for editing the template. Make the necessary changes to the fields in the tabs.

Edit - Room Template Dialog Box

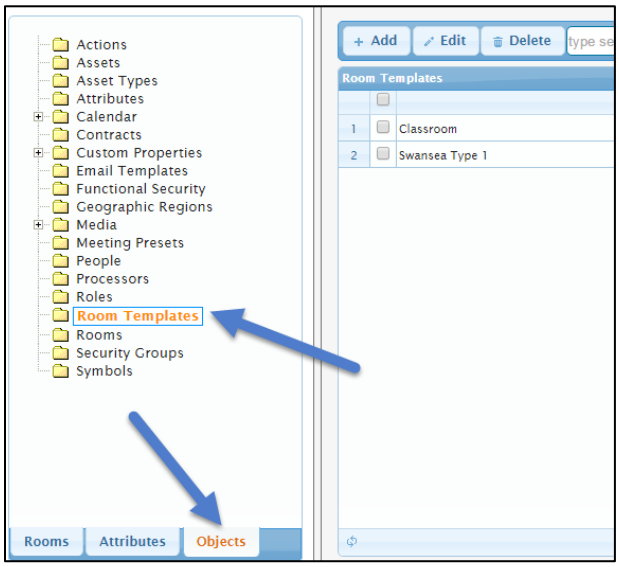


4. Click **Save & Close**.

Deleting a Template

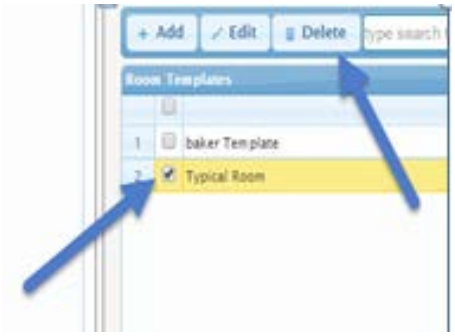
1. Click the **Objects** tab, and then click **Room Templates**. A list of previously created templates is displayed in the right window.

Objects Tab and Room Templates



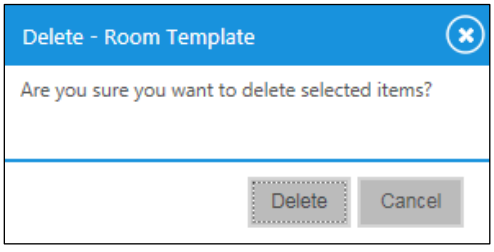
2. Under **Room Templates**, click the check box for the template to be deleted, and then click **Delete**.

Deleting a Template



3. The **Delete - Room Template** message box opens. Verify the deletion, and click **Delete**.

Delete - Room Template Message Box



4. Click **Save & Close**.

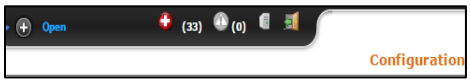
Organizing Attributes in Crestron Fusion

Attributes are one of the cornerstones of the Crestron Fusion software. 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. Attributes are then associated to the room within the Crestron Fusion software. In order for the user to organize these attributes, a tab has been created to handle different views for attributes as well as specific properties for each attribute, such as Email Rules, Logging Rules, and general connection and display properties.

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

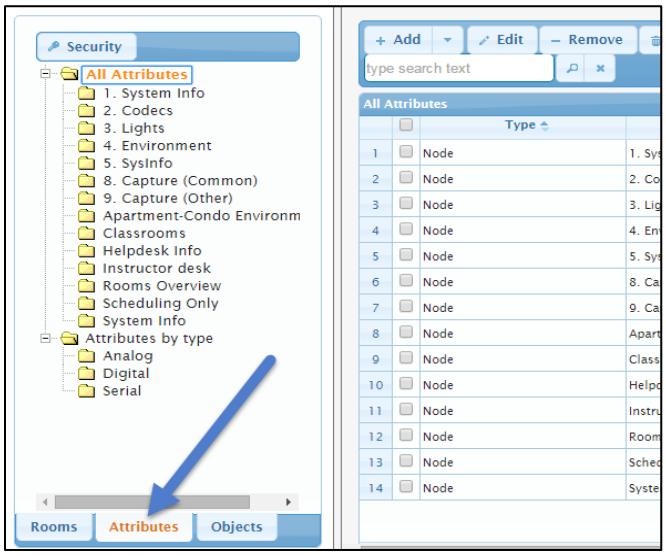
   

2. Click the **Setup** link.

   Setup Link

3. Click the **Attributes** tab.

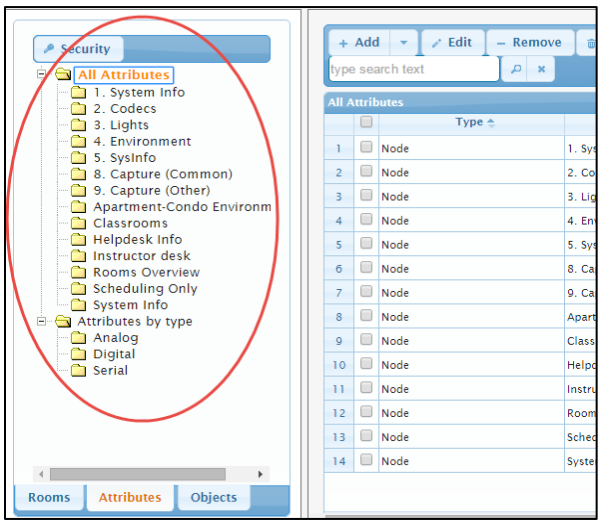
   Attributes Tab

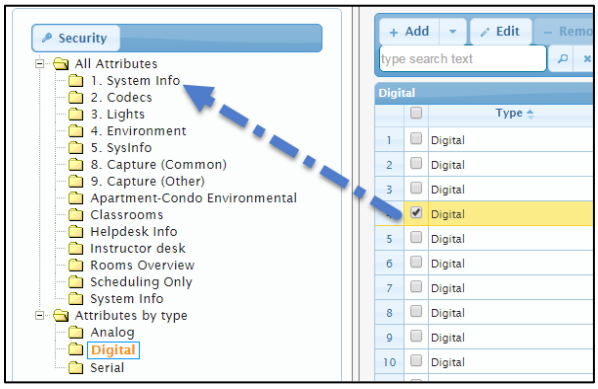
The following information explains how the Attribute Tree is structured.

- Attributes in this view 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 much like 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.
    - **All Attributes:** The tree of nodes and subnodes represents the organization of attributes into different views that are selectable from the Monitoring section on the **Rooms** tab.
    - **Attribute by type:** The attributes are organized by their type digital, analog, and serial.

All Attributes



Attributes by Type

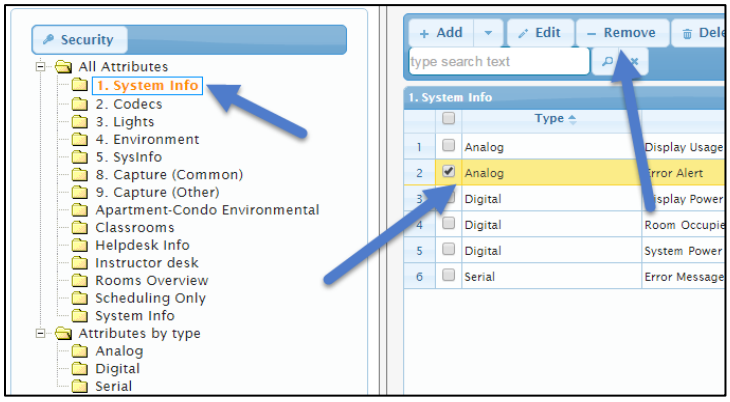


4. To associate an attribute to a node, under **All Attributes**, drag and drop the attribute from the window pane on the right to the specific node on the left to be visible.
5. Removing an attribute from a node within **All Attributes** unassociates the attribute but does not delete it permanently. To remove 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 removed, and then click **Remove**.

Removing Attributes

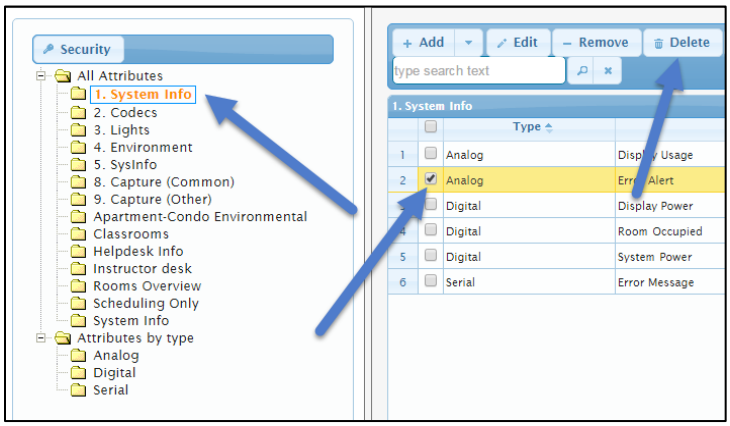


6. Deleting an attribute completely deletes it from the database. To delete an attribute, do the following:

a. Select the node containing the attribute to be deleted.

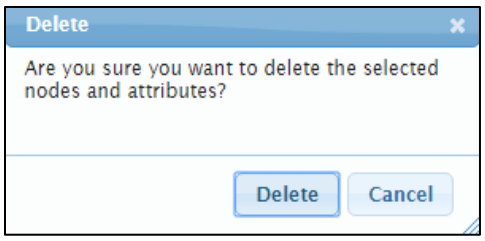
b. Click the check box to the left of the attribute to be deleted, and then click **Delete**.

Deleting Attributes



The **Delete** message box opens.

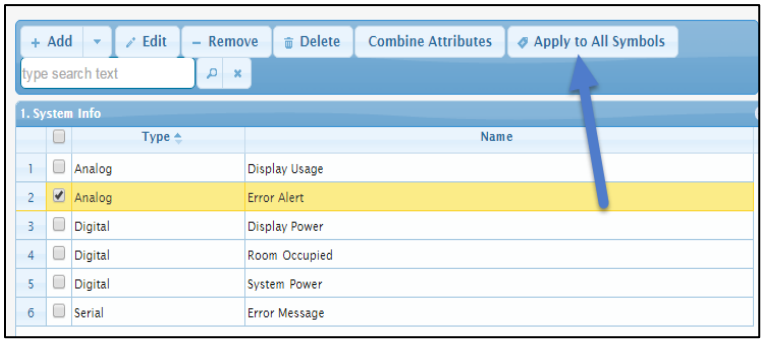
Delete Message Box



7. Verify the selection, and then click **Delete**.

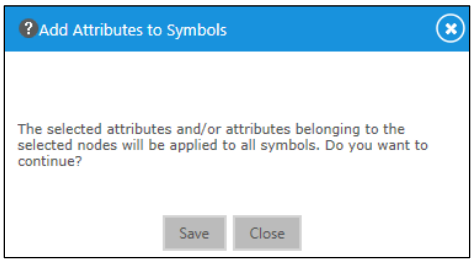
8. To apply a new attribute to all symbols, select the attribute.
9. Click the **Apply to All Symbols** button. This associates the selected attribute(s) to all symbols in the database.

   Applying an Attribute to All Symbols



10. The **Add-Attributes to Symbols** message box opens. Click **Save**.

    Add Attributes to Symbols Message Box

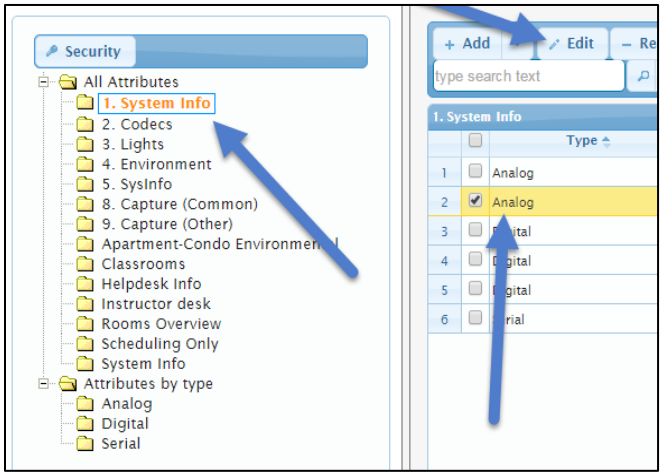


11. Click **Save & Close**.

Editing an Attribute

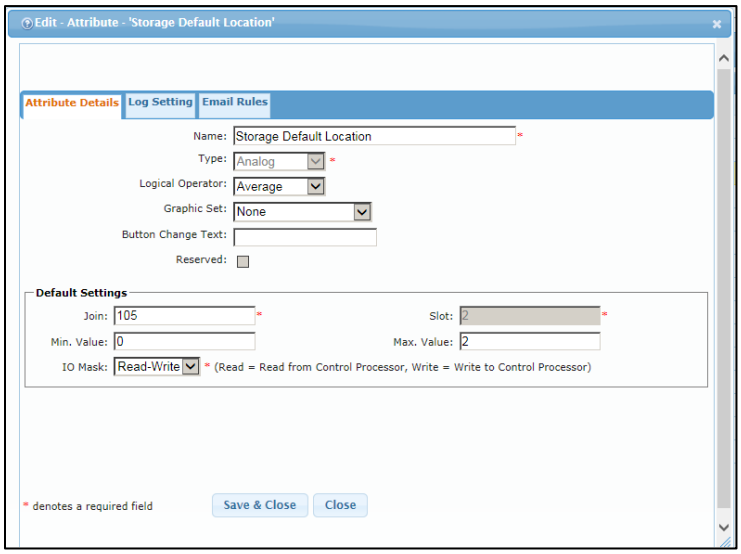
1. Click the **Attributes** tab.
2. Click the attribute to edit from either the **All Attributes** node structure or the **Attributes by type** node structure.
3. Click the check box to the left of the attribute to be edited, and then click **Edit**.

Editing an Attribute



4. The **Edit - Attribute** dialog box opens with the **Attribute Details** tab displayed.

Edit - Attribute Dialog Box



5. Make the necessary changes to the settings.
6. Click *Save* & Close.

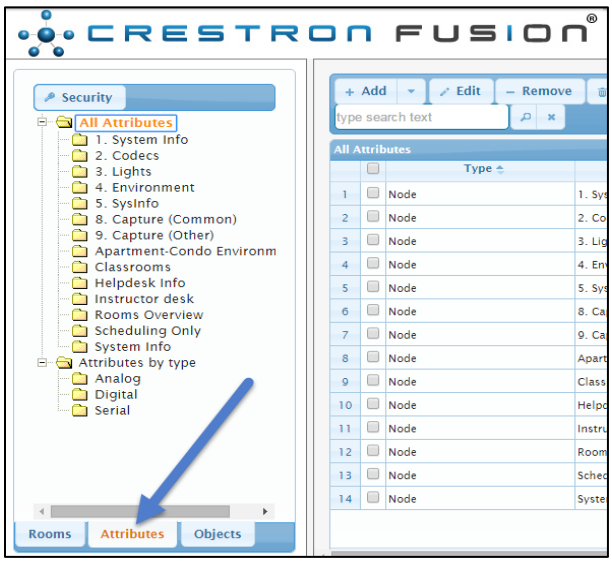
Configuring E-mail Alerts

One of the more popular features of Crestron Fusion is the ability to send e-mails to users based on conditions changing 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 E-mail Alert Rule - Analog Attributes

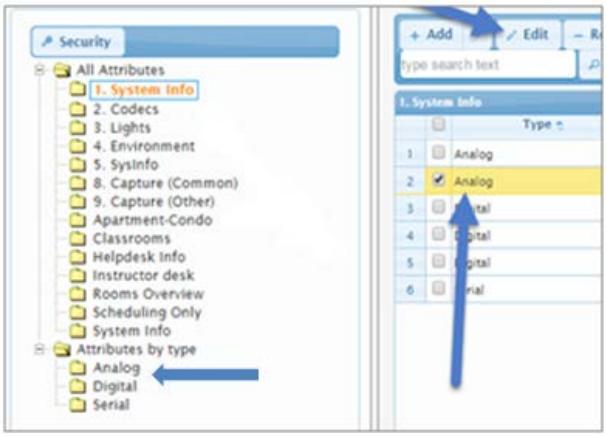
1. Click the **Attributes** tab.

   Attributes Tab

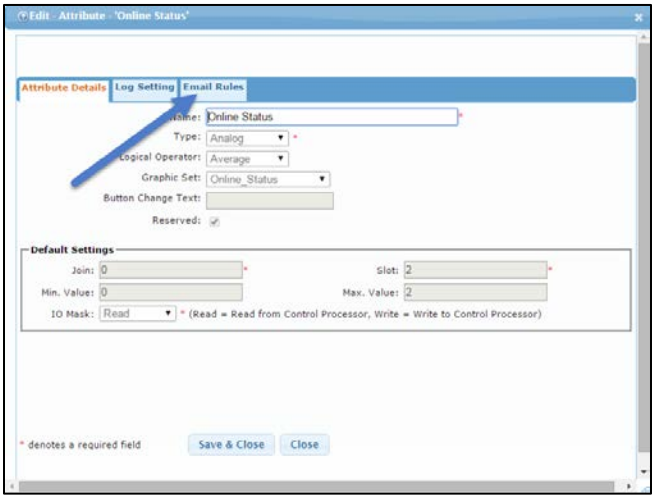
2. Under **Attributes by type**, click **Analog**.
3. From the right side of the screen, click the check box to the left of the attribute type, and then click **Edit**.

   Analog Attributes

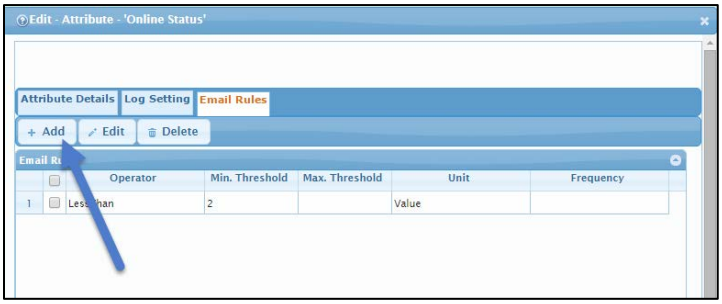
4. The **Edit - Attribute** dialog box opens. Select the **Email Rules** tab.

Edit - Attribute Dialog Box

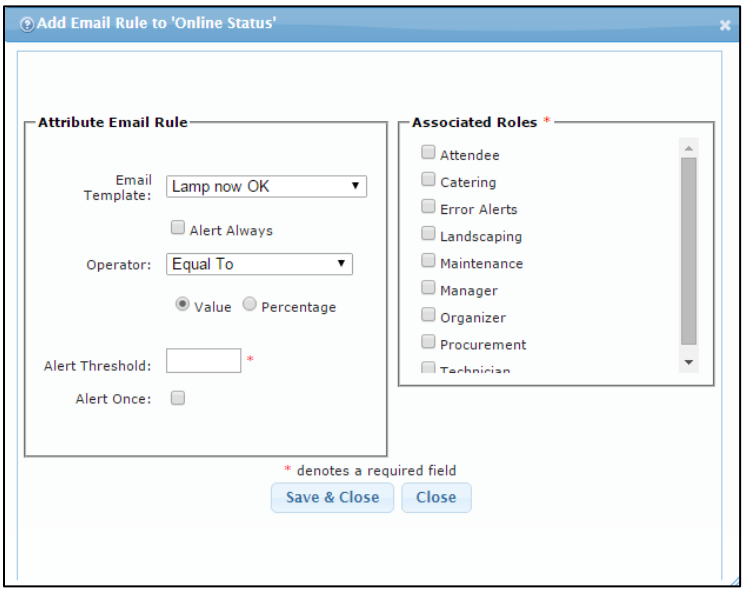


5. Click **Add** to add a new rule. The **Add Email Rule** dialog box opens.

Adding an Email Rule



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:** Any time the value changes for this attribute an e-mail is sent. If this is checked, the rest of the settings are grayed out.
- **Operator:** For serial attributes, the string received for the attribute is evaluated and based on certain words in the string and triggers the e-mail to be sent.
    - **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.
- **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 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**.

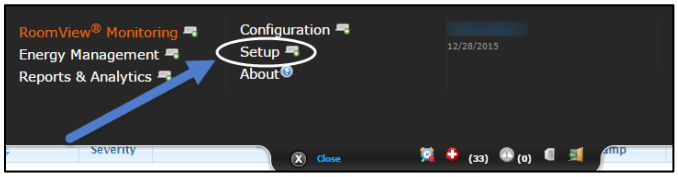
Adding an E-mail Alert Rule - Digital Attributes

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

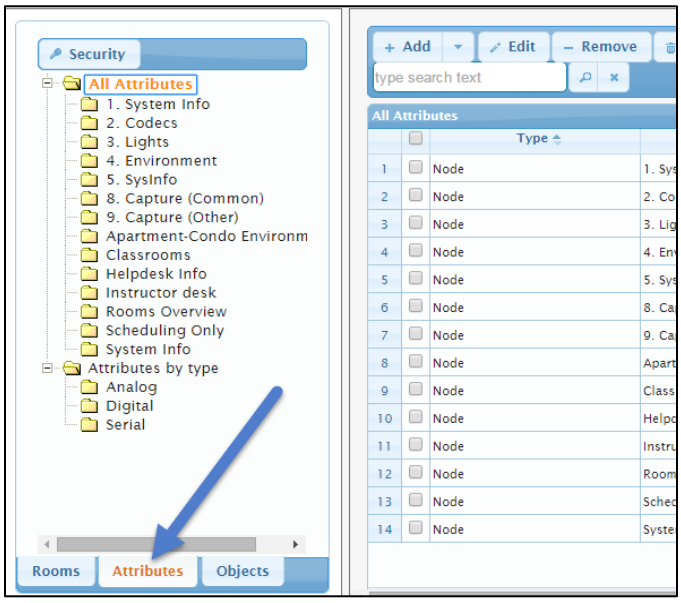
2. Click the **Setup** link.

   Setup Link

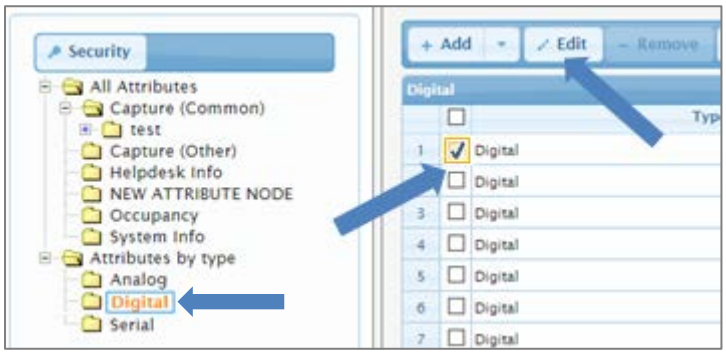
3. Click the **Attributes** tab.

Attributes Tab



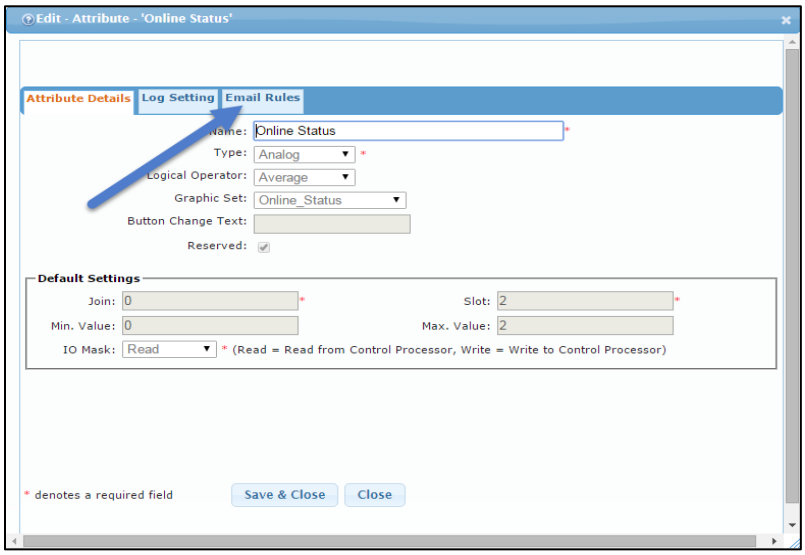
4. Under **Attributes by type**, click **Digital**.
5. Click the check box to the left of the attribute, and then click **Edit**.

Digital Attributes



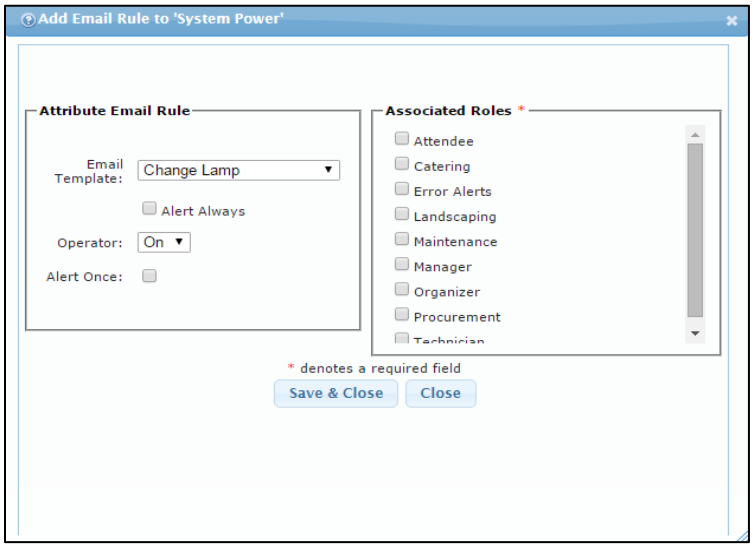
6. The **Edit - Attribute** dialog box opens. Click the **Email Rules** tab.

Edit - Attribute Dialog Box



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

Add Email Rule Dialog Box



8. 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:** 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 digital attributes the only choices are On and Off. Therefore if On is selected, an e-mail is sent only when the attribute goes On or high. If Off is selected, an e-mail is sent only when the attribute goes Off or low.
   - **Alert Once**: A single e-mail notification is sent on the corresponding change.

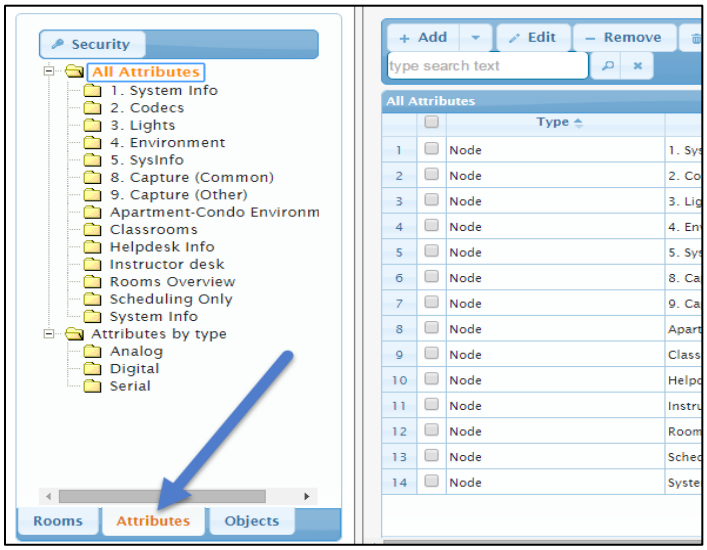
- **Associated Roles:** This defines what role for the room receives the e-mail notification. Users are added to the role for the room under the room settings.

9. Click **Save & Close**.

Adding an E-mail Alert Rule - Serial Attributes

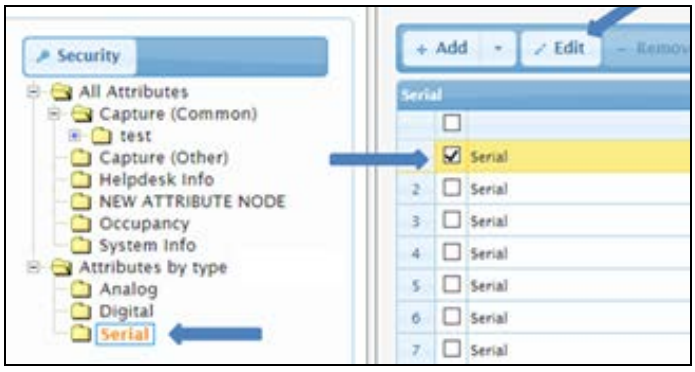
1. Click the **Attributes** tab.

   Attributes Tab



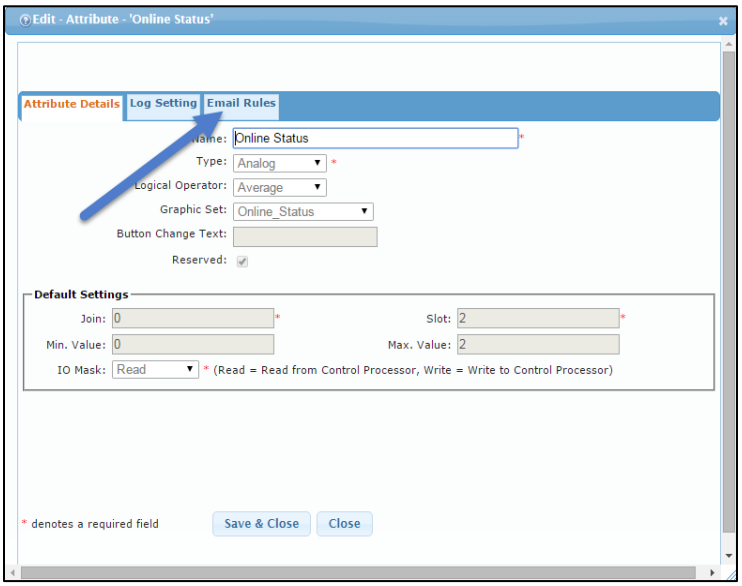
2. Under **Attributes by type**, click **Serial**.
3. From the right side of the screen, click the check box to the left of the attribute, and then click **Edit**.

   Serial Attributes



4. The **Edit - Attribute** dialog box opens. Click the **Email Rules** tab.

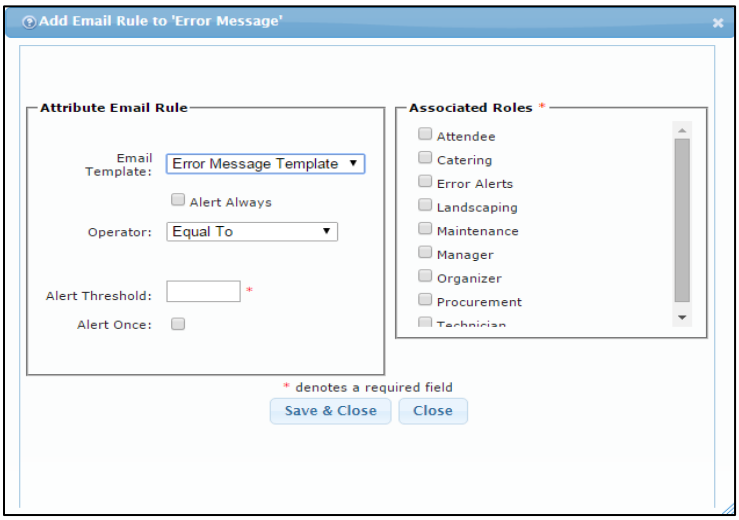
Email Rules Tab



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

Adding an Email Rule

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:** Any time the value changes for this attribute an e-mail is sent. If this is checked, the rest of the settings are grayed out.
    - **Operator:** For serial attributes, the string received for the attribute is evaluated and based on certain words in the string. The string triggers the e-mail to be sent.
        - **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 defines a search pattern, mainly for use in pattern matching with strings, or string matching.
    - **Alert Threshold:** 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**: Defines what 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**.

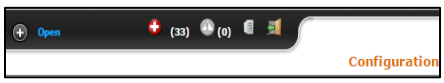
Using Actions in Crestron Fusion

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

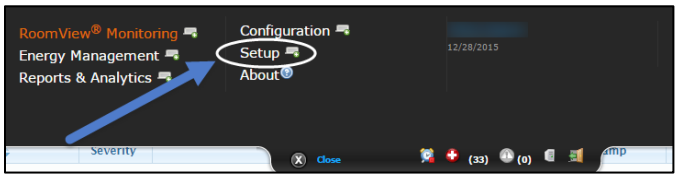
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

    Crestron Fusion Header Tab

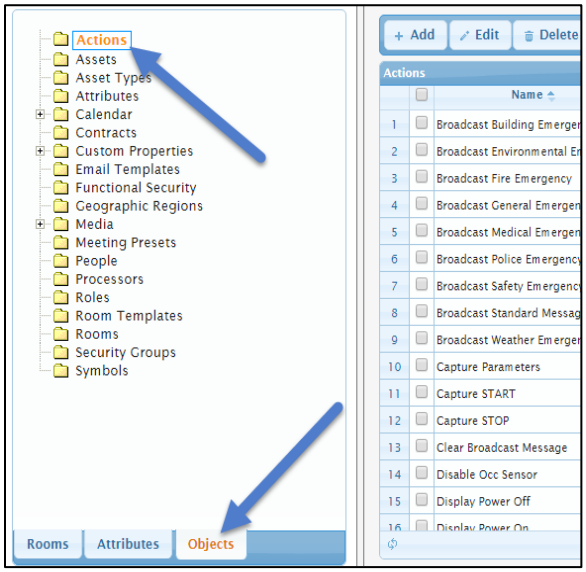
2. Click the **Setup** link.

Setup Link



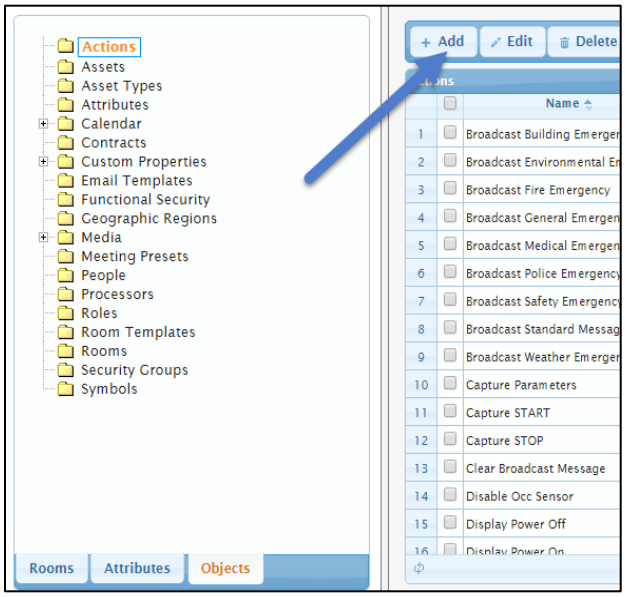
3. Click the **Objects** tab, and then select **Actions**. A list of default actions is displayed on the right window.

Creating an Action

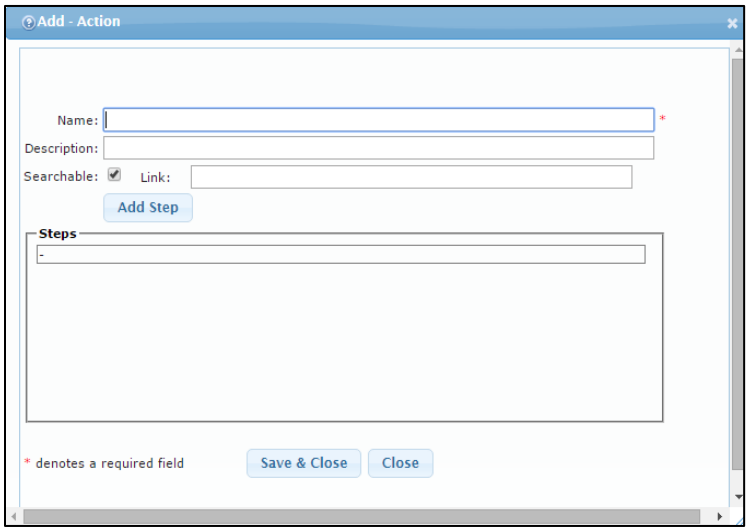


4. Click **Add**. The **Add - Action** dialog box opens.

Adding an Action

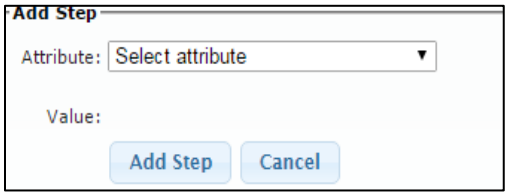


Add - Action Dialog Box



5. Complete the fields as necessary.
   - **Name:** This is a descriptive name to define what the action does.
   - **Description**: This is where additional information can be added.
   - **Searchable**: This check box defines whether this Action dislays as an option under the OLAI.
   - **Add Step**: Click this button to open the **Add Step** dialog box where steps can be added to set one or more attribute values.

     Add Step Dialog Box

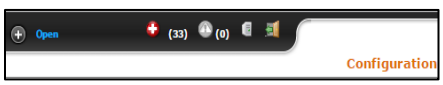
     

     - From the drop-down list, select the attribute and define the value to be sent.
     - Repeat this process until all steps have been added.
     - When complete, click **Add Step**. The **Add - Action** dialog box opens.
6. Click **Save & Close.**

Sending an Action in Crestron Fusion for the Room Tree

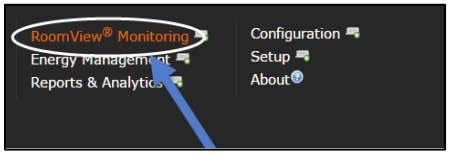
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

   Crestron Fusion Header Tab

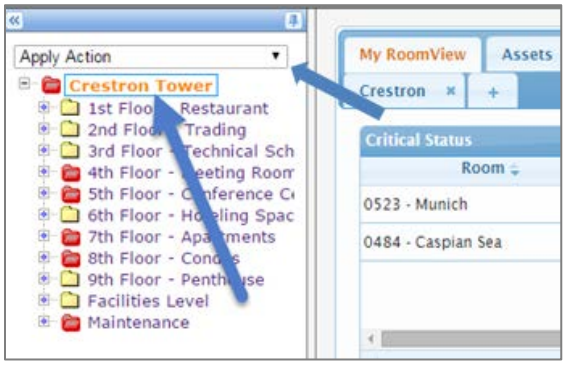
2. Click the **RoomView® Monitoring** link.

RoomView® Monitoring Link



3. Click 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.

Select a Room or Node



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

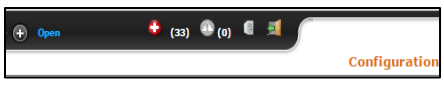
Apply Action Message Box

NOTE: These actions are applied to the room immediately. Be very 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

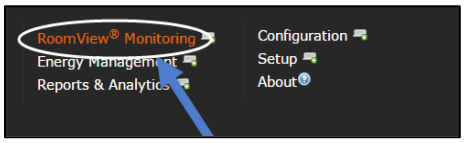
1. From the Crestron Fusion header tab, click the **+** icon located to the left of the **Open** link to open the pull-down tab.

Crestron Fusion Header Tab



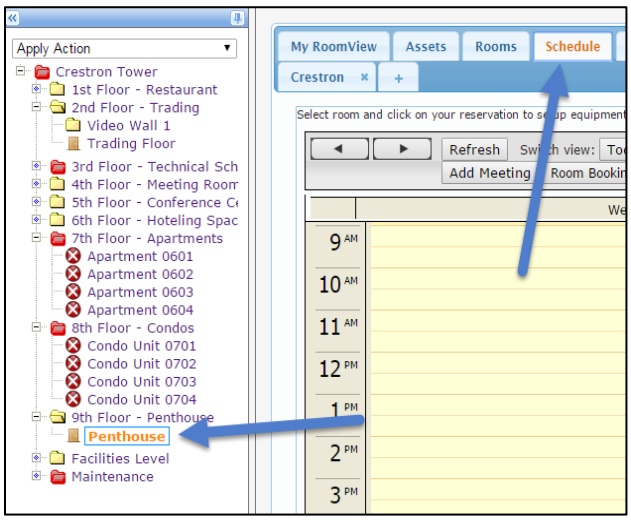
2. Click the **RoomView® Monitoring** link.

RoomView® Monitoring Link



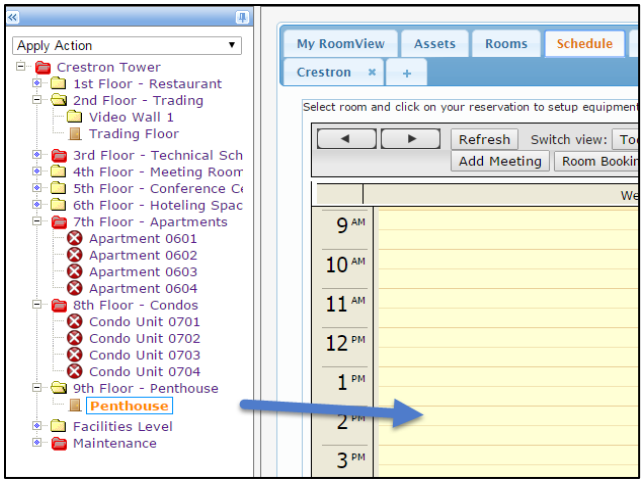
3. Click the room from the tree where the Action is to be scheduled.
4. Click the **Schedule** tab and locate the time and date the Action is to occur.

Schedule Tab

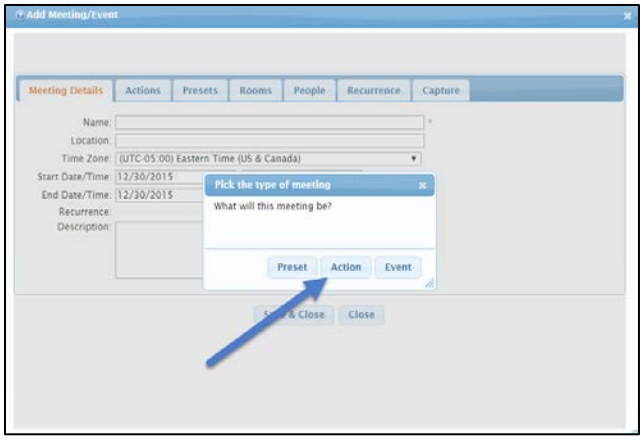


5. Double-click the time slot. The **Add Meeting/Event** dialog box opens.

Picking a Time Slot

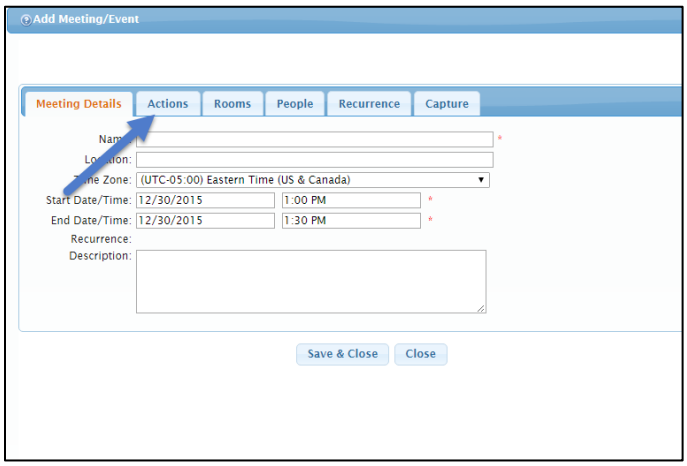


Add Meeting/Event Dialog Box



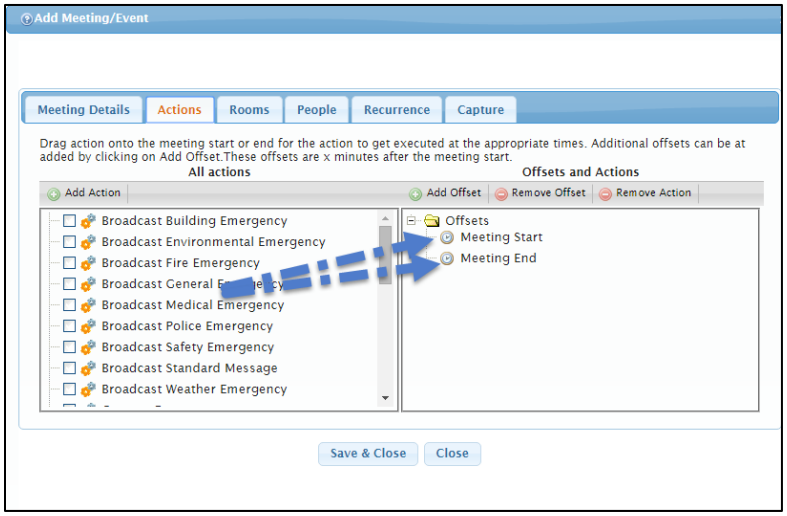
6. From the **Pick the type of meeting** dialog box, click **Action**.
7. Click **Save & Close**.
8. Click the **Actions** tab.

Actions Tab



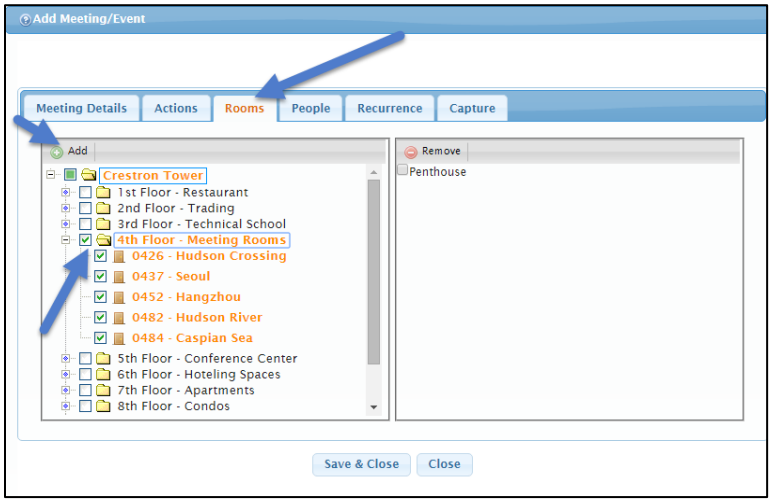
9. Complete the fields as necessary.
    - **Name:** This is the subject of the meeting or event.
    - **Location**: Fill in the meeting location, if required.
    - **Time Zone**: Use the default unless otherwise specified. This is the time zone for the room by default.
    - **Start Date/Time, End Date/Time**: This field defines the start and end times of the meeting. If this is an event, only the **Start Date/Time** is shown.
    - **Recurrence Description**: The user can enter details about the recurrence here.
10. Drag and drop the desired action to the Meeting Start and Meeting End fields. Alternately, highlight Meeting Start or End, click the check box for the desired Action, and click **Add Action**.

Meeting Start and Meeting End



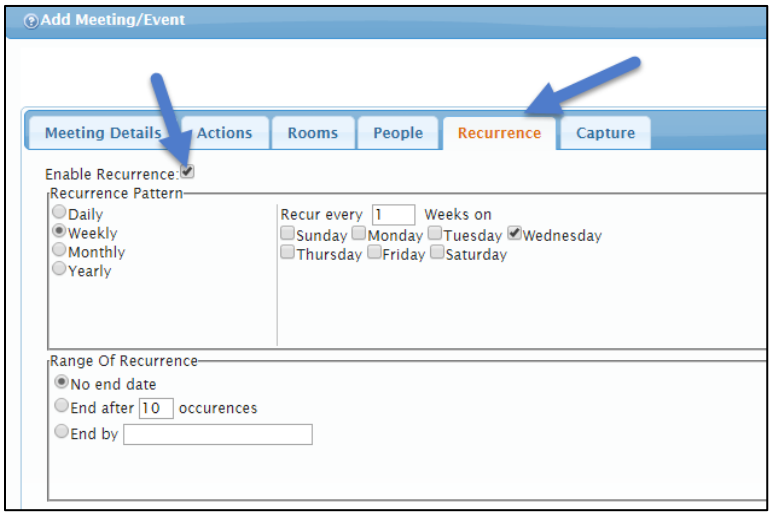
11. Click **Add Offset** to add a delayed predetermined time from the start of a meeting for the Action.
12. To add additional rooms for this scheduled Action, click the **Rooms** tab, and then click additional rooms from the Room Tree. Click **Add**.

Add Additional Rooms for Schedule Action



13. If this is a recurring meeting, click the **Recurrence** tab to set the pattern for the recurrence.
14. Click the **Enable Recurrence** check box and then enter **Recurrence Pattern** and **Range Of Recurrence** information, as necessary.

Recurrence Tab



15. Click **Save & Close**.

Managing Help Requests

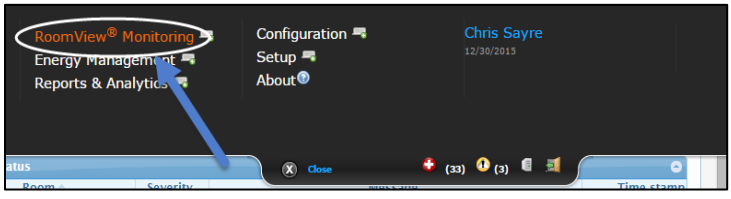
Help Request messaging allows the staff utilizing a room to send a message to Crestron Fusion from a touch panel in the room to request help. Typically, these are predefined messages being sent from the program based on a button press on the panel. The message is sent to Crestron Fusion, where it is 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

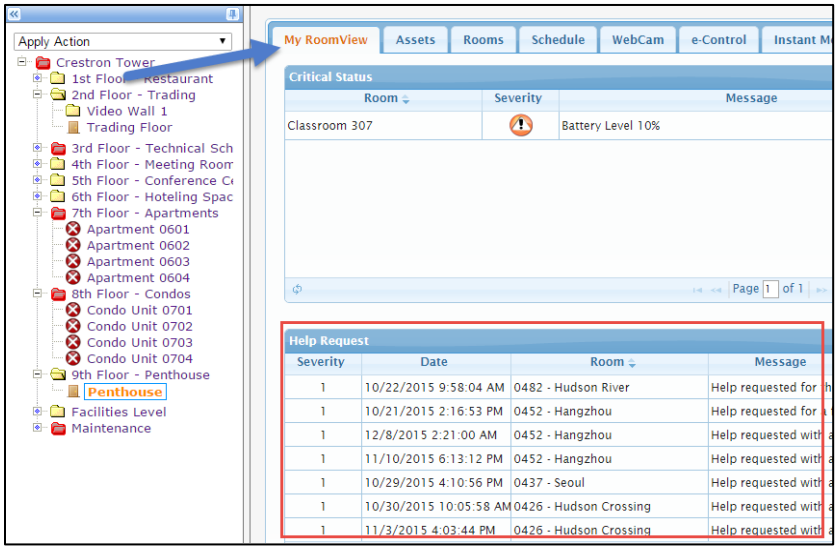
2. Click the **RoomView®Monitoring** link.

   RoomView® Monitoring Link

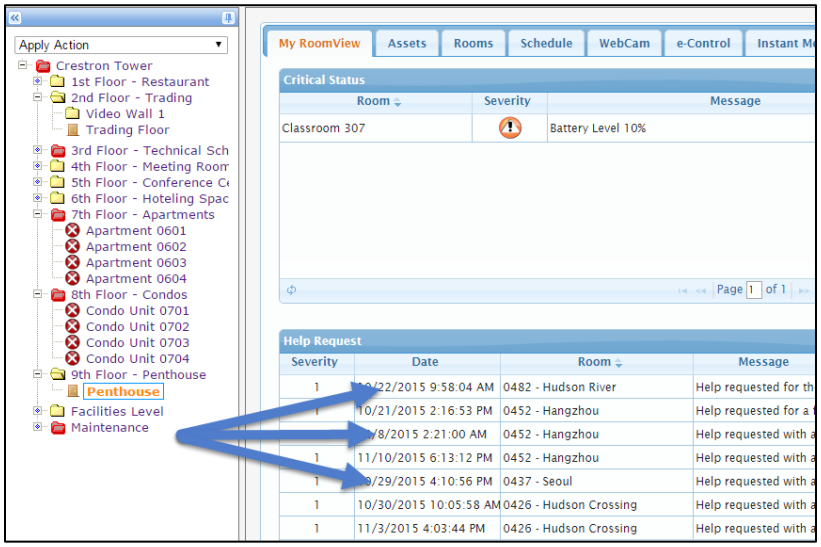
3. Select the **My RoomView** tab. The help requests appear in the bottom section labeled **Help Request**.

Help Requests List

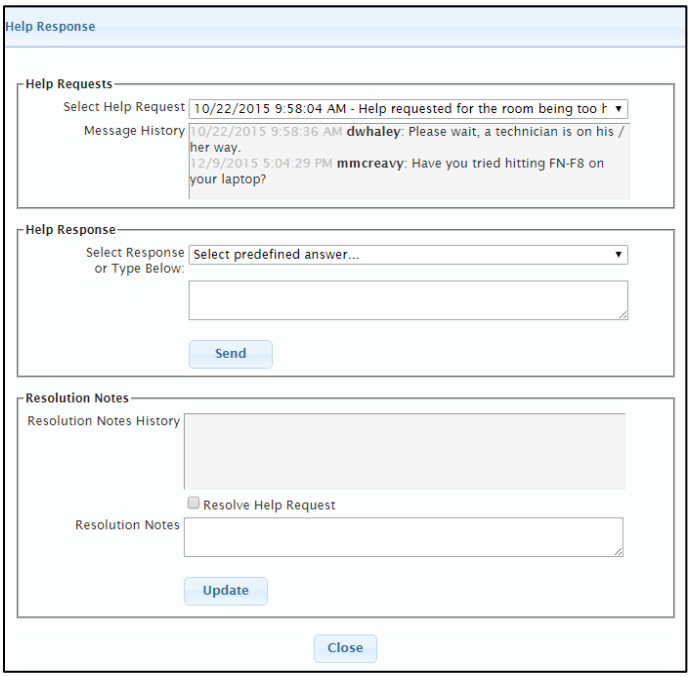


4. To open a help request, double-click one of the help request rows. The **Help Response** dialog box opens.

Opening a Help Request



Help Response Dialog Box



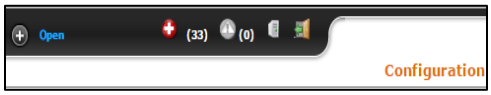
5. Respond and add notes as necessary.
    - **Select Help Request:** The currently selected Help Request appears here.
    - **Message History**: The touch panel in the room can be programmed to send and receive messages. An interaction between the two parties as it relates to this message is tracked 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 for a custom message to be sent back to the room. This message displays on the touch panel through programming.
    - **Resolution Notes History**: Enter notes in this field to describe what the issue was and how it was resolved.
    - **Resolve Help Request**: Once the Help Request is completed, click the check box. This closes out the help request and removes it from the **My RoomView** tab.
    - **Update**: Click this button to update all changes.
6. When complete, click **Close**.

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

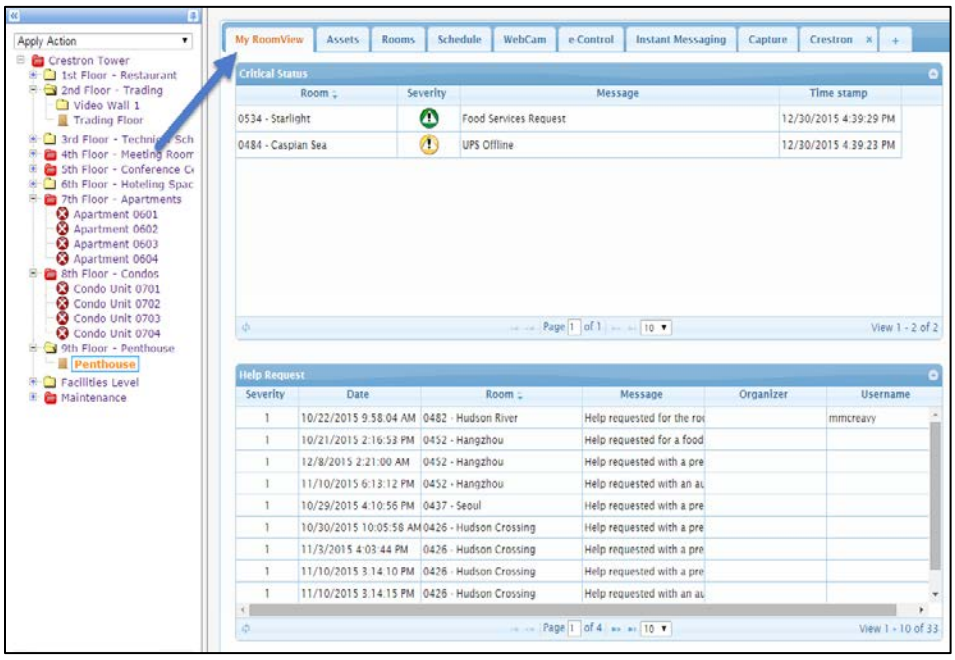
   

2. Click the RoomView®Monitoring link.

   RoomView® Monitoring Link

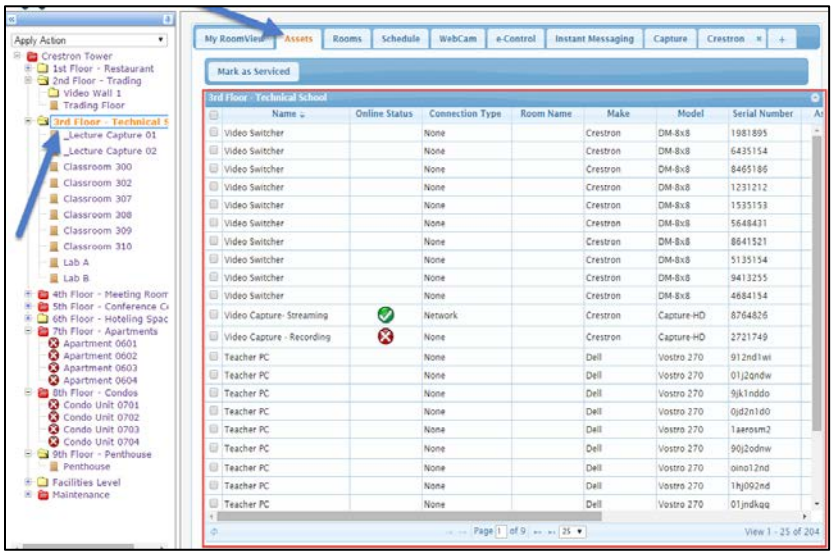
3. Select the My RoomView tab. This tab shows all critical status messages and help requests.

   My RoomView Tab

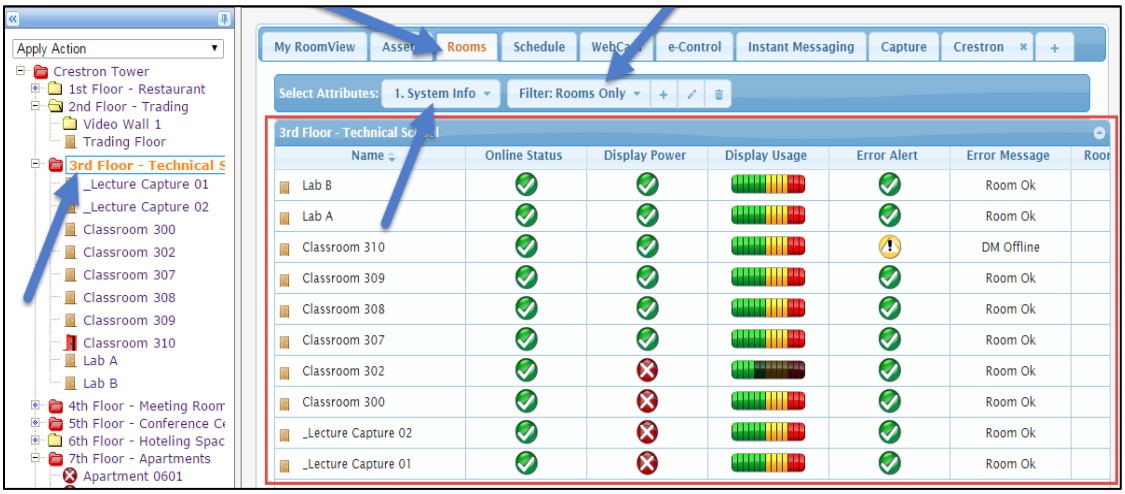
4. Click the Assets tab. This tab shows all assets that are associated to the room or node that has been selected.

Assets Tab



5. Click the **Rooms** tab. This is the main view for feedback on attributes in Crestron Fusion. The feedback is displayed based on the room or node selected.

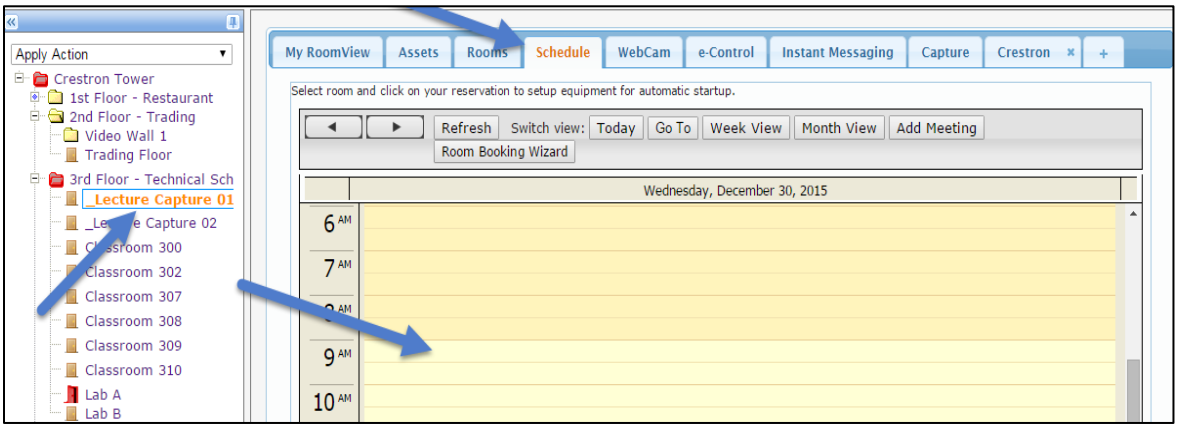
Rooms Tab



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

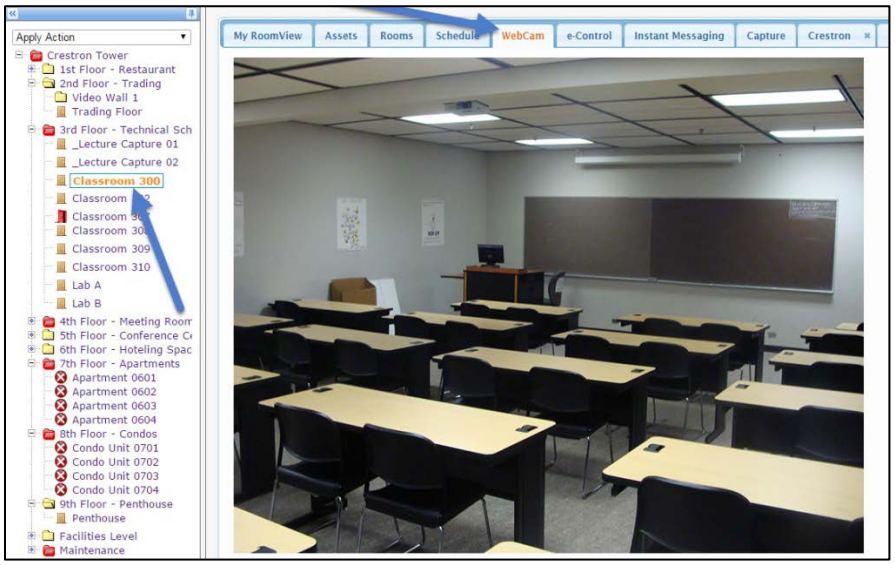
6. Click the **Schedule** tab. This tab shows the schedule for the room. Scheduling data can come from the internal scheduler or an integrated scheduling provider. A single room must be selected in order to see the schedule. Double-click an open time slot to allow for meeting creation.

Schedule Tab



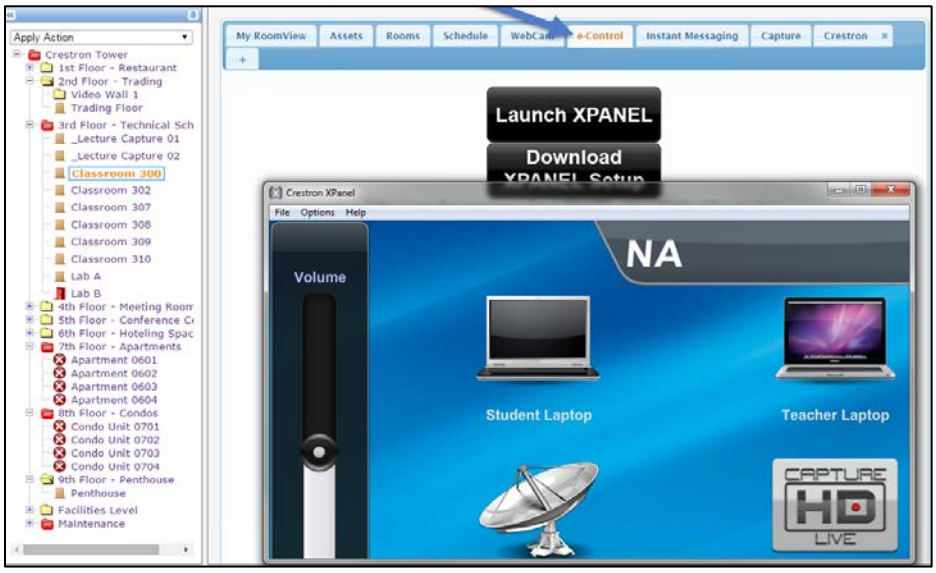
7. Click the **WebCam** tab. This loads a video image from an IP camera. The URL for the stream is entered when a room is created under the setup website.

WebCam Tab



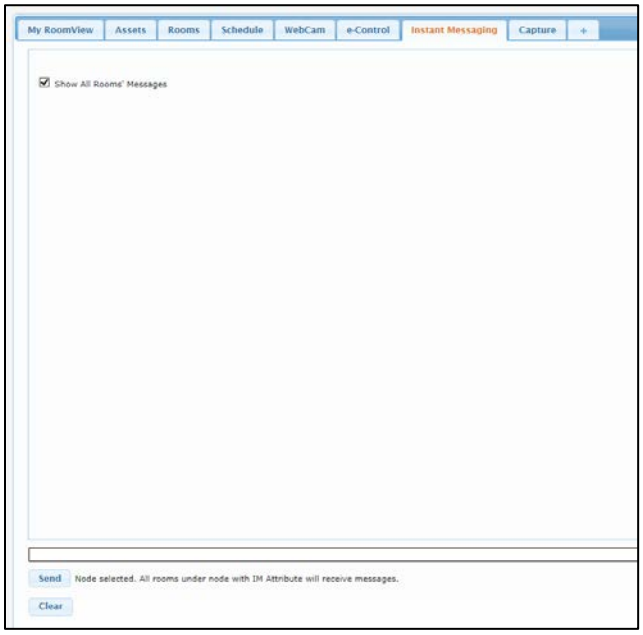
8. Click the **e-Control** tab. This loads a web-based Xpanel that allows for direct control of the room. Either the Xpanel is embedded into the web page or a secondary browser window is launched to load and display the Xpanel.

e-Control Tab



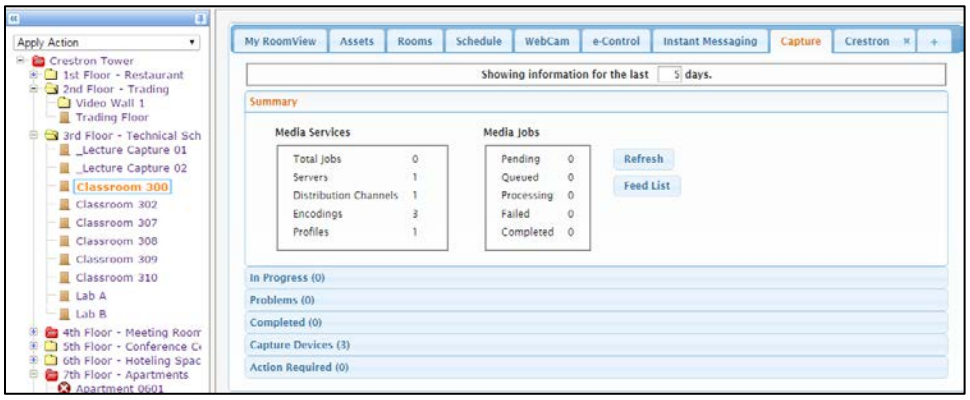
9. Click the Instant **Instant Messaging** tab. This window provides the ability to message back and forth with the selected room.

Instant Messaging Tab



10. Click the **Capture** tab. This tab displays all of the information for using a CaptureLiveHD® system.

Capture Tab



11. There are several views, as follows:

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

Glossary of Terms

Crestron Connected Display: This is the display manufacturers that are partnered with Crestron that have implemented technology on their display chipsets to interface directly to Crestron Fusion without the need of a Crestron processor.

Fusion Room Device Definition: This definition is the base programming module that is added as a device under the equipment view in SIMPL or as a Fusion Room in Crestron Studio® software. All communication to the Crestron Fusion server (inbound and outbound) flows through this definition.

Fusion SSI Display Usage Module: This module is tied directly to the Fusion Room Device Definition. All other Crestron Fusion modules feed through this module to the Fusion Room Device Definition to then send the information to the Crestron Fusion server (database).

Fusion SSI Module: This module is linked to all of the programming signals and is then tied directly to the Fusion Room Device Definition.

Static Asset: This is a Crestron Fusion asset that does not have maintained data exchange with Crestron Fusion and the Crestron Fusion database. This is mainly used as an automatic way to add assets into the database through programming.

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