Avigilon™ View User Guide

Legal Notices

Disclaimer

This manual has been compiled and published covering the latest product descriptions and specifications. The contents of this manual and the specifications of this product are subject to change without notice. Avigilon reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

Avigilon Corporation

http://www.avigilon.com

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Installation

System Requirements

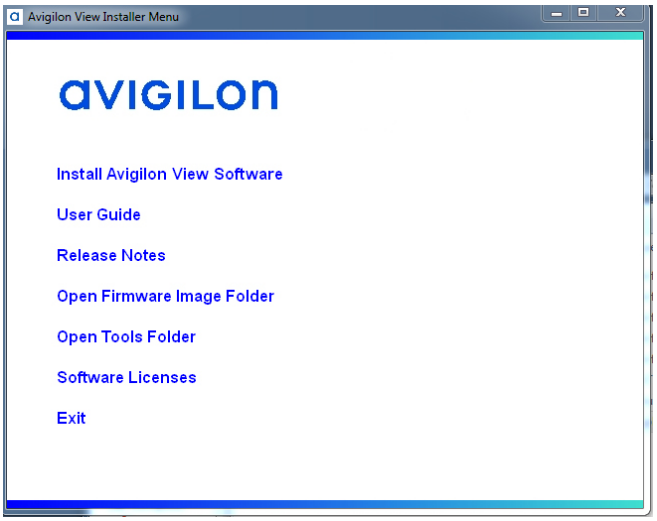
To run the Avigilon™ View software you will need:

- Windows 8, Windows 7, or Windows XP (with Service Pack 3 or higher)
- Core-2 Duo 2.0 GHz processor or better
- At least 2 GB of RAM
- Connection to the local area network (LAN)
- At least 20GB of disk space to store downloaded video clips.
- Monitor with a minimum of 900 pixels vertical display resolution.

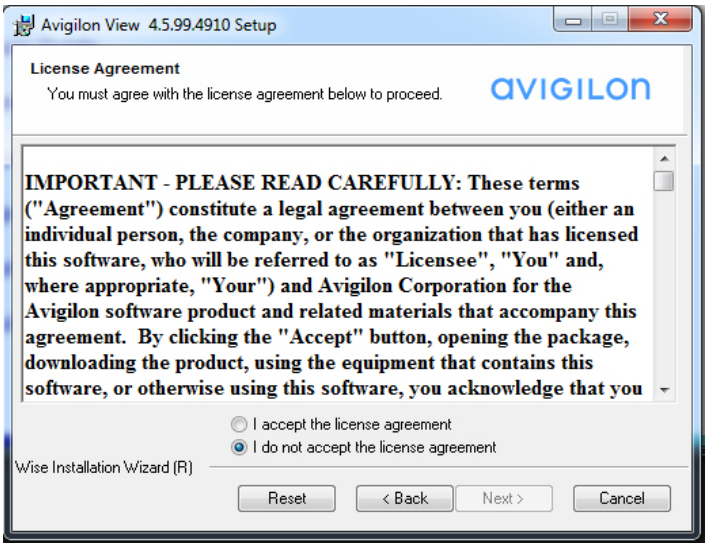
Installing the Avigilon™ View Software

NOTE: When installing the View software, you must have administrator privileges.

1. Run `AvigilonViewInstaller.exe`
2. When the installer window appears, click **Install Avigilon View Software**.

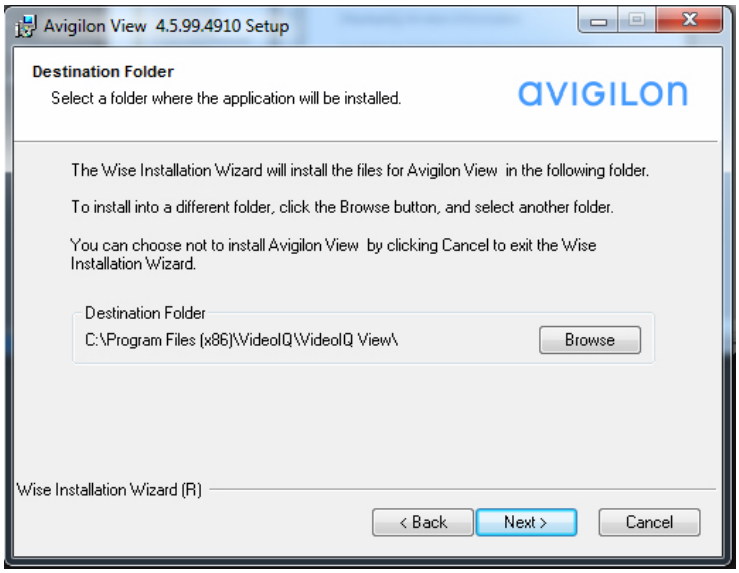


3. Review the License Agreement and accept. If you do not accept the license agreement, the installation is canceled.

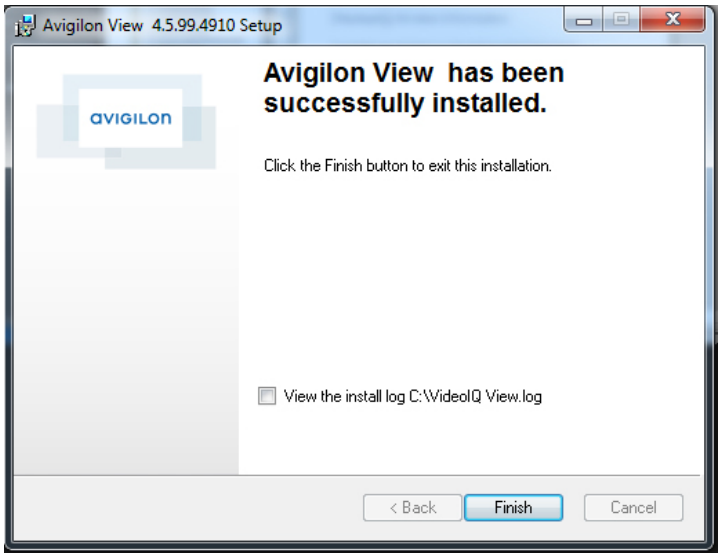


4. Select a new destination folder or keep the default folder and click **Next**.

   NOTE: The View software must be installed on a local drive, not on a network drive.



5. When the View software has correctly installed, click **Finish**.


Avigilon View 4.5.99.4910 Setup
AVIGILON
Avigilon View has been successfully installed.
Click the Finish button to exit this installation.
View the install log C:\VideoIQ View.log
< Back
Finish
Cancel

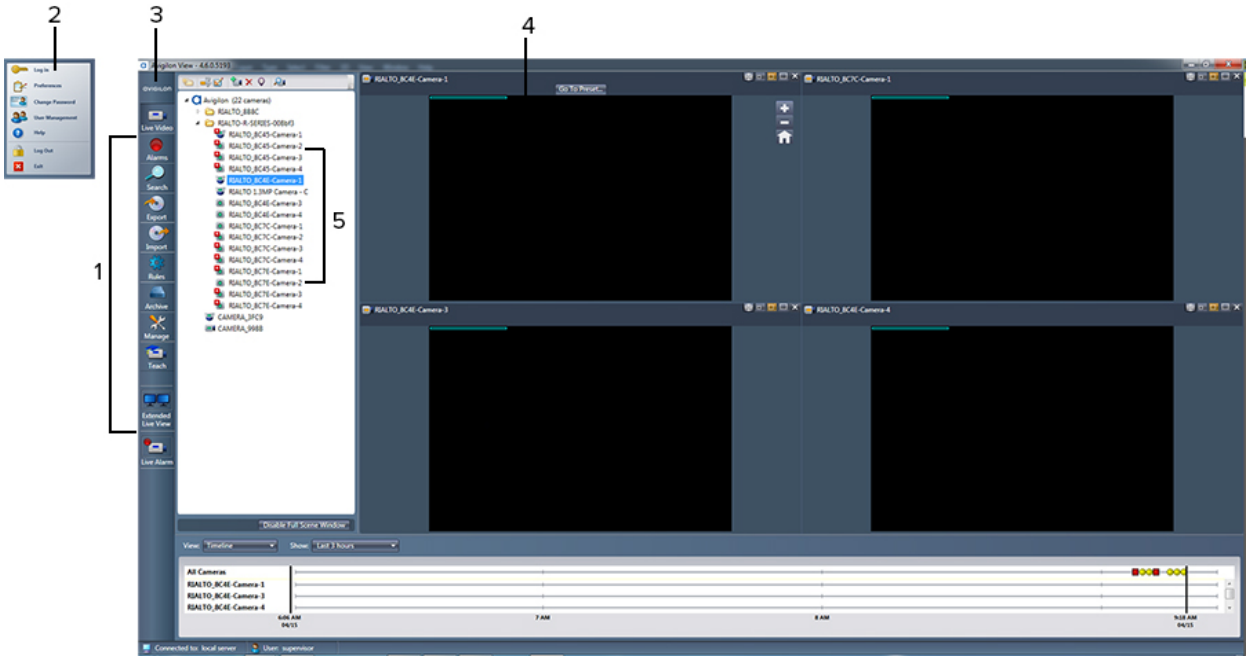
Daily Operations

Users can perform day-to-day operations in the Avigilon™ View software such as acknowledging alarm events and viewing live video.

NOTE: Some features may not be accessible to all accounts. If you cannot access one or more of the following features, then your account does not have permission to do so.

Getting Started

Navigation

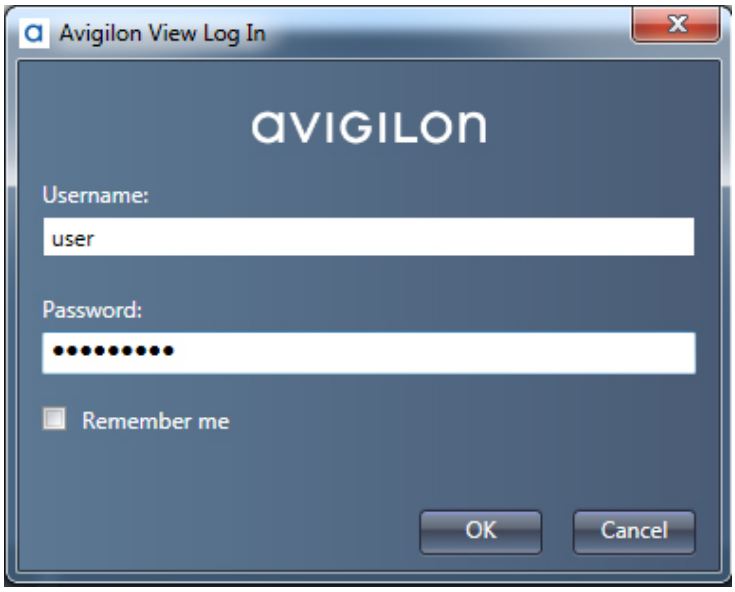


#	Feature	Description
1	Toolbar	Allows you to manage your analytic appliances.
2	View menu	Allows you to manage accounts and software preferences.
3	Menu button	Allows you to access the View menu.
4	Camera window	Displays live video image from a camera.
5	Camera tree	Lists all attached cameras.

Logging In

Before logging in, ensure you have a valid user account with a username and password. If you do not have one, contact your supervisor.

1. Run the Avigilon™ View software.
2. Enter your username and password.



3. If you want the View software to log you in automatically the next time, check the **Remember Me** box.
4. Click **OK**.

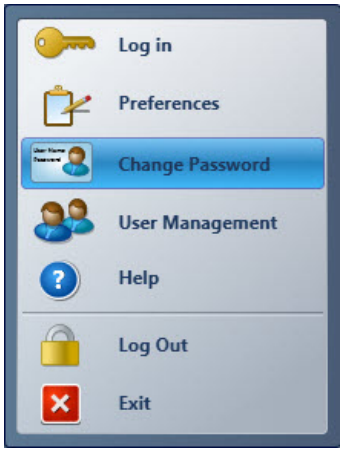
NOTE: When logging in for the first time, the View software will automatically discover and add all attached analytic appliances. If the View software doesn't automatically discover and add all analytic appliances, you must manually activate auto-discovery. To do so, complete the steps in *Manually Activating Auto-Discovery* on page 37.

Changing Your Account Password

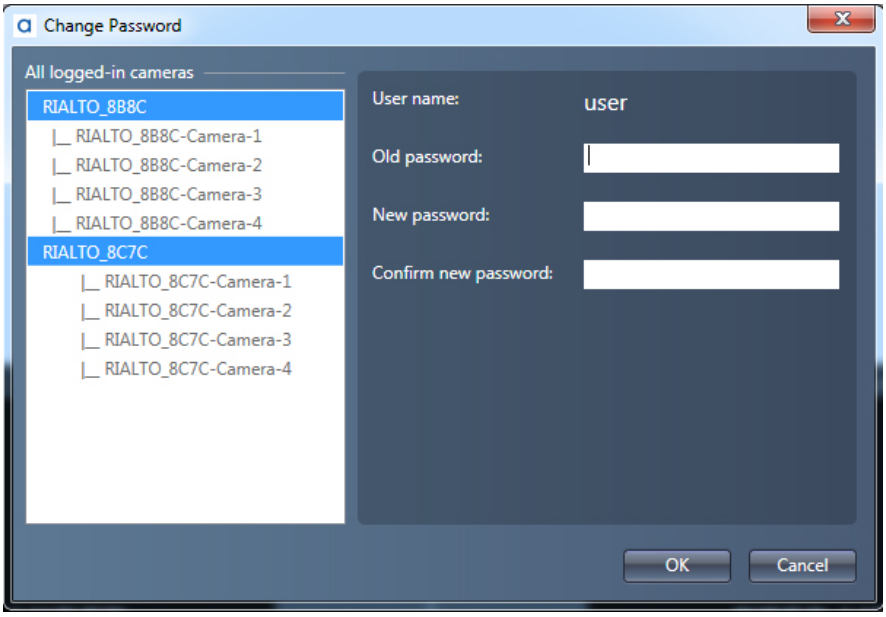
Once you have logged into your account, you can change your password. You cannot change your username.

NOTE: Each password is connected to a particular analytic appliance. If you change a password for your account on a single analytic appliance, you can access that analytic appliance only by logging into your account using that password. A single account can have multiple passwords, each used to access a specific analytic appliance.

1. Open the View menu and select **Change Password**.



2. Select the analytic appliance where you to want to change the password. Hold **Ctrl** to select multiple analytic appliances.



3. Enter your old password.
4. Enter your new password.

   NOTE: Password must be a minimum of 4 characters and is case sensitive.

5. Enter your new password again to confirm it.
6. Click **OK**.

Live Video

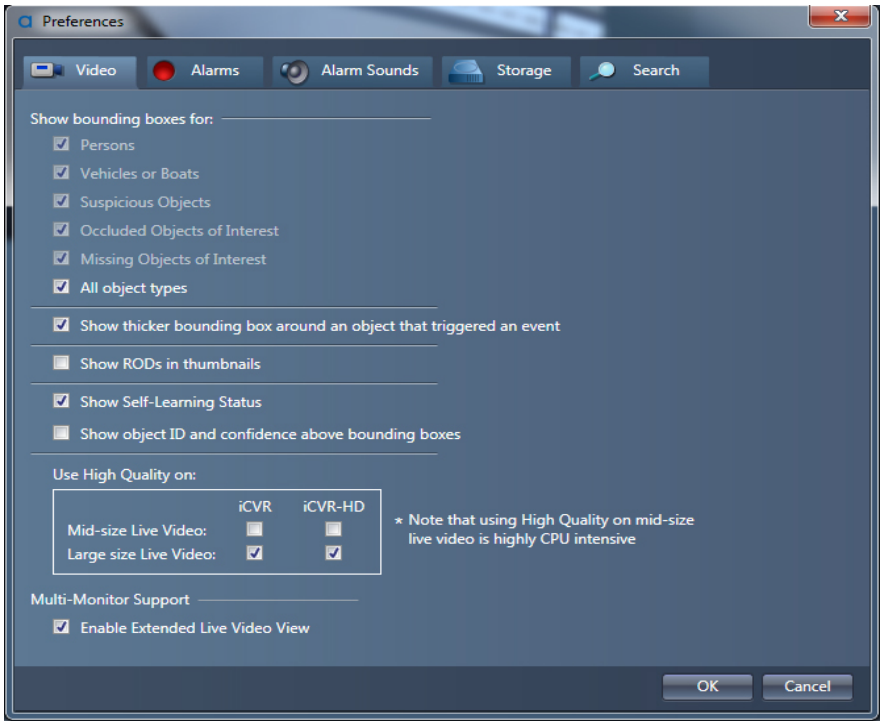
The Live Video area is where you can view live video from your cameras. You can add and display a single camera window at full resolution, up to 4 medium-sized camera windows, or up to 16 small-sized camera windows in the Live Video area. Each live video can be zoomed in or out.

Setting Video Quality

By default, the View software will stream video image at a lower resolution and bandwidth in the medium and small windows, and at a higher resolution and bandwidth for the large window. If you want to use the highest quality video stream in all windows or the lower resolution stream in the large window, you can set the View software to do so.

NOTE: You can only enable high quality video stream for medium-sized and large-sized camera windows, not small-sized camera windows.

1. Open the View menu and select **Preferences**.
2. Click the Video tab.

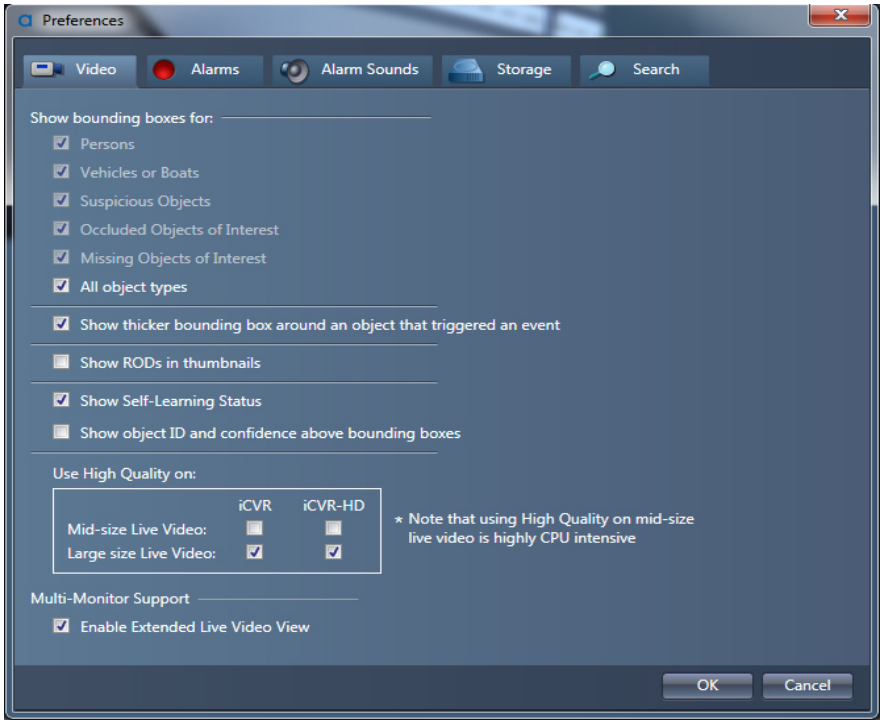


3. Perform one of the following options:
   - To enable high quality for all windows, check the **Mid-size Live Video** and **Large size Live Video** boxes.
   - To enable low bandwidth for large windows, uncheck the **Large size Live Video** box.
4. Click **OK**.

Enabling Multi-Monitor Support

You can set the View software to support 2 monitors in order to view live video from up to 32 cameras.

1. Open the View menu and select **Preferences**.
2. Click the Video tab.



3. Under Multi-Monitor Support, check the **Enable Extended Live Video View** box.
4. Click **OK**.
5. Click the **Extended Live Video** tool to begin viewing Live Video on 2 monitors.

Viewing Live Video

1. Click the **Live Video** tool.
2. To add a camera window to the Live Video area, perform one of the following actions:
   - Double-click a camera in the camera tree.
   - Drag a camera from the camera tree into the Live Video area.
3. You can adjust the camera windows in the following ways:
   - To change the size of a camera window, click the **Small**, **Medium**, or **Large** icons in the upper right corner of the window.
   - To rearrange camera windows, drag each window into different positions in the Live Video area.

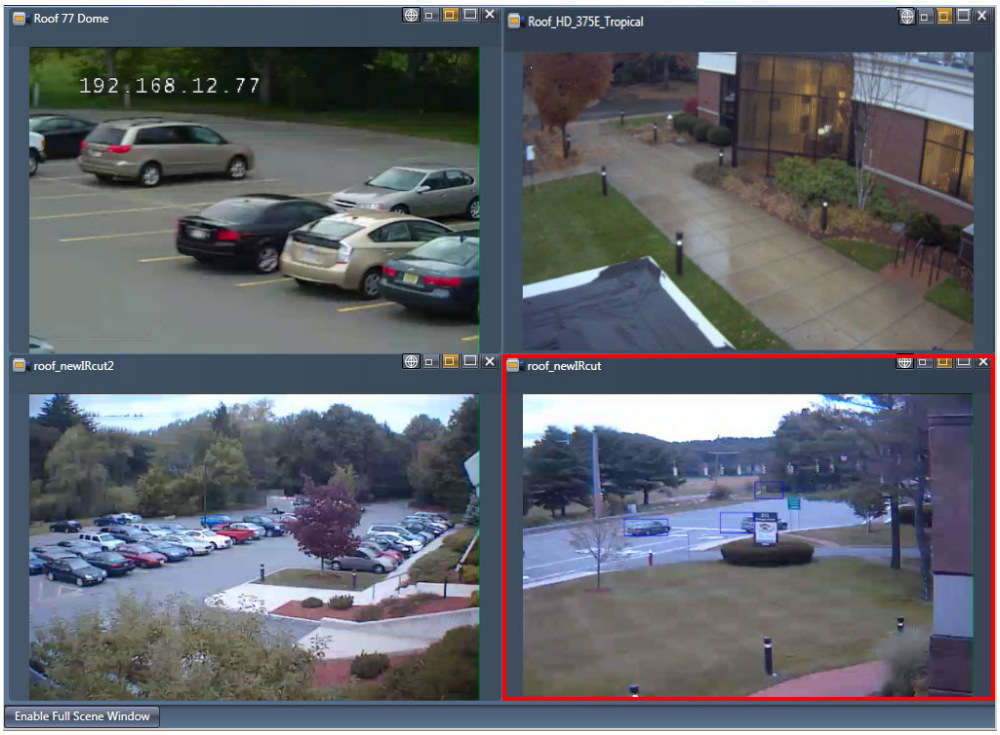
NOTE: While viewing video, colored bounding boxes indicating different object types will display on the screen. You can choose to show or hide these bounding boxes. To do so, complete the steps in *Show or Hide Bounding Boxes* on the next page.

Viewing Live Video Across Two Monitors

You can view live video across 2 monitors using the **Extended Live Video** tool.

NOTE: If you cannot see the **Extended Live Video** tool on the toolbar, make sure that you have the View software set to support multiple monitors. See *Enabling Multi-Monitor Support* on the previous page.

1. Click the **Extended Live View** tool.
2. Select the analytic appliances or camera groups you want to add and drag them to the Extended Live Video window.



NOTE: A video window cannot display on both the main View software window and on the Extended Live Video window.

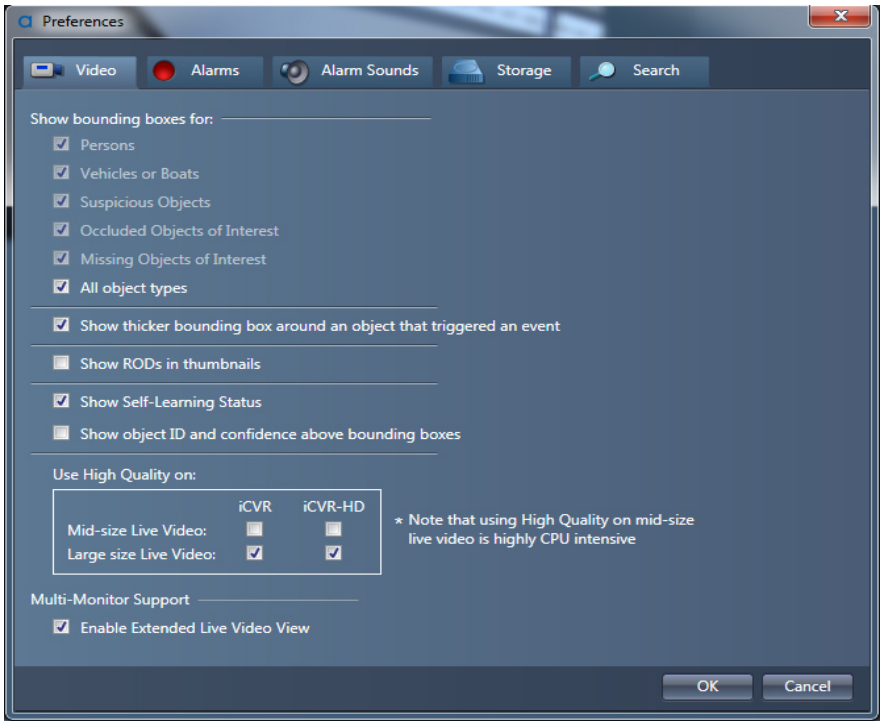
Show or Hide Bounding Boxes

Bounding boxes are colored box outlines that help you see the objects detected in your videos. Different color outlines indicate different types of objects.

- Red outlines designate humans.
- Blue outlines designate vehicles or boats.
- Yellow outlines designate suspicious objects (unclassified objects that look similar to a person or vehicle).

To change the settings for bounding boxes:

1. Open the View menu and select **Preferences**.
2. Click the Video tab.



3. Perform one of the following actions:
    - To show bounding boxes for individual object types, check each object type box.
    - To show bounding boxes for all object types, check the **All object types** box.
    - To hide bounding boxes, uncheck the box for each object type you do not want bounding boxes to show.
4. To highlight the bounding box around an object that triggered an alarm, check **Show thicker bounding box around an object that triggered an event**.
5. To display an object's ID number and its classification confidence, check the **Show object ID and confidence above bounding box** box.
6. Click **OK**.

Zooming In on an Object or Area

Use the zoom controls to quickly zoom in or out on an object or area in a camera window.

NOTE: If you are not using a PTZ camera, the zoom function is a digital zoom that only affects the live video displayed in the View software. If you are using a PTZ camera, the zoom functional will mechanically zoom the camera lens.

1. Hover your cursor over the Live Video camera window to activate the zoom controls.

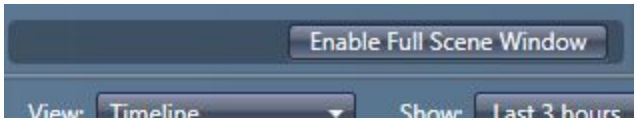
2. Perform one the following actions:

   - To zoom in or out, click and hold the **Zoom In** or **Zoom Out** buttons, or use the scroll wheel on your mouse.
   - To zoom in on a specific point in the window, double-click the area you want to zoom in on.
   - To return the window to its original magnification, click the **Home** button.
   - To pan to another area while zoomed in, click and drag inside the Live Video camera window.
   - To focus the zoom function on a specific point, click once on the area in the window you want to focus on.

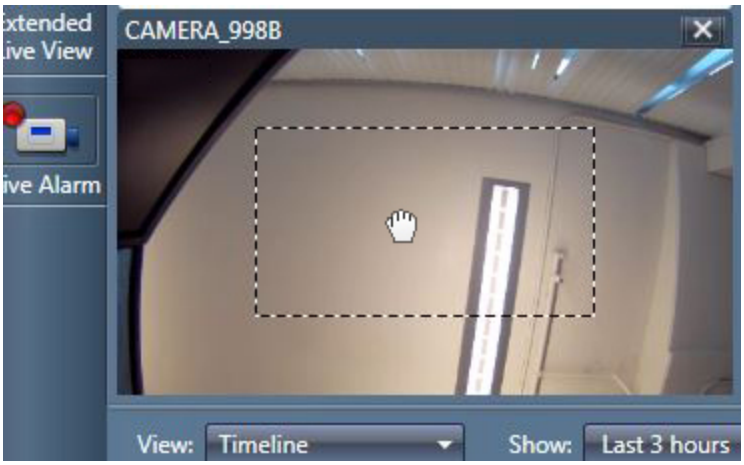
Using Full Scene Window

As you zoom in or out on a Live Video camera window, you can view the original full display as a smaller window using Full Scene Window.

1. At the bottom of the camera tree, click **Enable Full Scene Window**.



2. Zoom in on the camera window to activate Full Scene Window display.
3. Use the crop rectangle in Full Scene Window to pan to another area in the Live Video camera window.



The crop rectangle corresponds to the zoom area in the camera window.

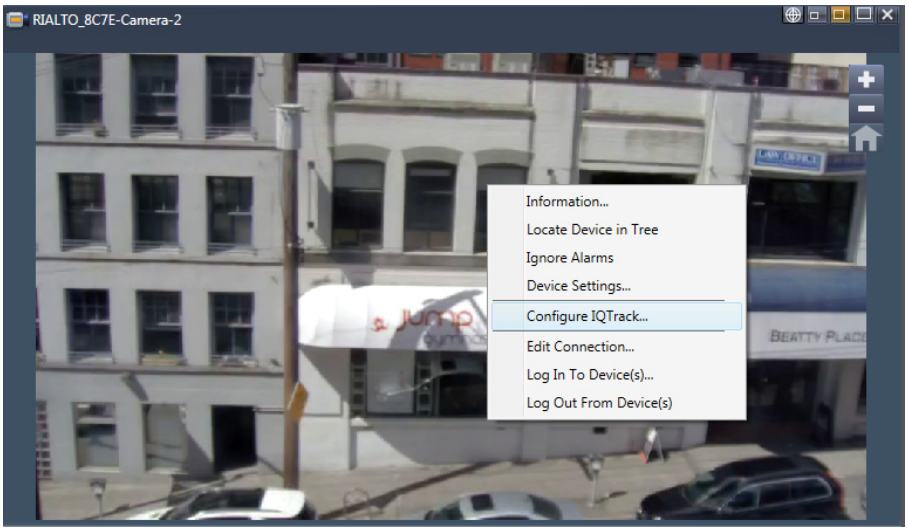
4. To close the Full Scene Window, click the **Home** button in the camera window.
5. To prevent Full Scene Window from displaying, click the **Home** button, then click **Disable Full Scene Window**.

IQTrack

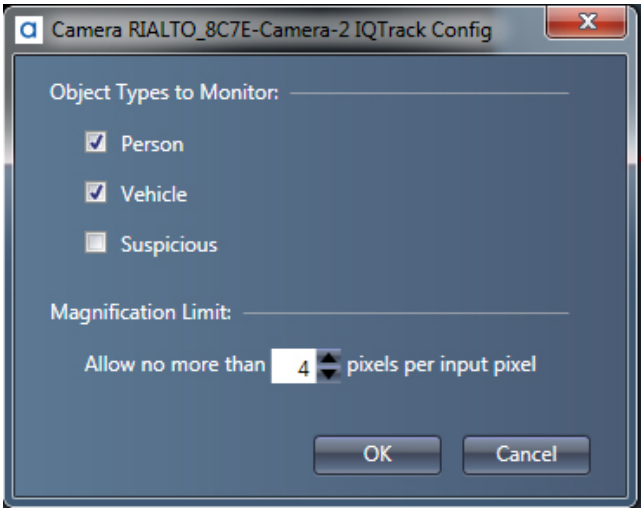
IQTrack allows you to automatically zoom in on and follow an object type in a live video camera window until it leaves the camera's field of view. You can set which object types you would like IQTrack to monitor: vehicle, person, suspicious objects, or all three.

Setting Up IQTrack

1. Right-click on the camera window and select Configure IQTrack.



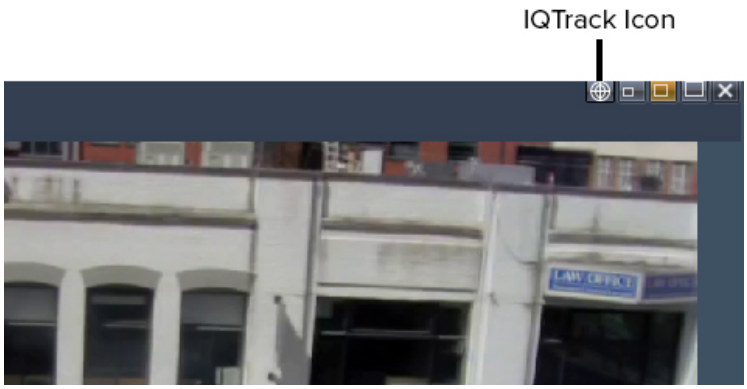
2. Check the box for each object type you would like to monitor.



3. Set the magnification limit to specify how much the camera will zoom in on the object type.
4. Click **OK**.

Using IQTrack

Before you begin using IQTrack, you must choose which object types you would like IQTrack to monitor. To do so, complete the steps in *Setting Up IQTrack* on the previous page

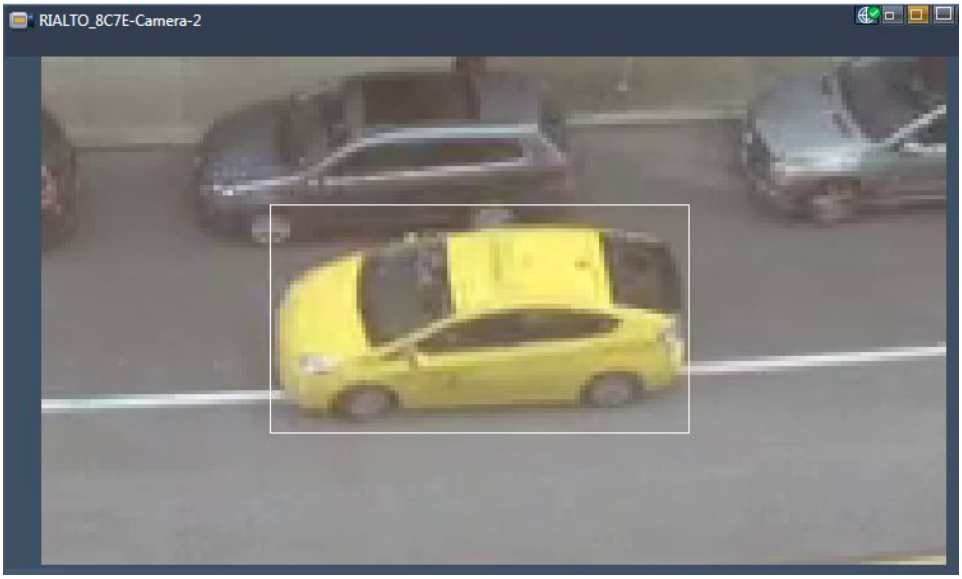
1. Ensure the camera window is set to medium size or large size.
2. Click the IQTrack  icon in the camera window. The IQTrack icon will not show in small-sized camera windows.
3. 

4. The camera will automatically zoom in on the object until it leaves the camera's field of view.
5. To turn off IQTrack, click the IQTrack icon again.

NOTE: If more than one object of an object type moves into the camera's field of view, all objects will be tracked until you choose a specific target to track.

Monitoring a Specific Target with IQTrack

1. Ensure IQTrack has been configured and is enabled.
2. Move your cursor towards the specific target until the bounding box turns orange.
3. Click on the target to select it and begin monitoring.



4. To deselect the target, click anywhere outside of the bounding box.

Rules

What are Rules?

Rules can be set for each camera. They are used to define:

- The types of objects the camera should monitor.
- The regions, objects, and directions of travel the camera should monitor.
- The actions a camera should take when a rule is triggered.

When a rule is triggered, it results in an alarm event. You can view the rules on each camera and their details, such as the name of the rule, whether or not the rule is enabled, and the action taken when the rule is triggered.

NOTE: Unless your account has been granted permission, you cannot create, edit, or delete rules.

Regions of Interest, Regions of Disinterest, and Beams

A rule can use Regions of Interest (ROI), Regions of Disinterest (ROD), and Beams to determine what will cause an alarm event to trigger.

- **Regions of Interest**: The areas of a scene where activity is detected.
- **Regions of Disinterest**: Used to mark areas within an ROI where false alarms occur frequently. Areas marked as a ROD will not trigger an alarm when the activity detected in the ROI normally would.
- **Beams**: Virtual lines used to detect when an object crosses a specified beam, such as a person walking through a gate.

If a rule contains an ROI or Beam, it will be marked on the camera window thumbnail in the rule summary. To access a rule summary, complete the steps in *Viewing Rules* below.

NOTE: Regions of Disinterest will not be marked unless it is enabled in Preferences. To do so, complete the steps in *Enabling Regions of Disinterest (ROD) in Thumbnails* on page 27.

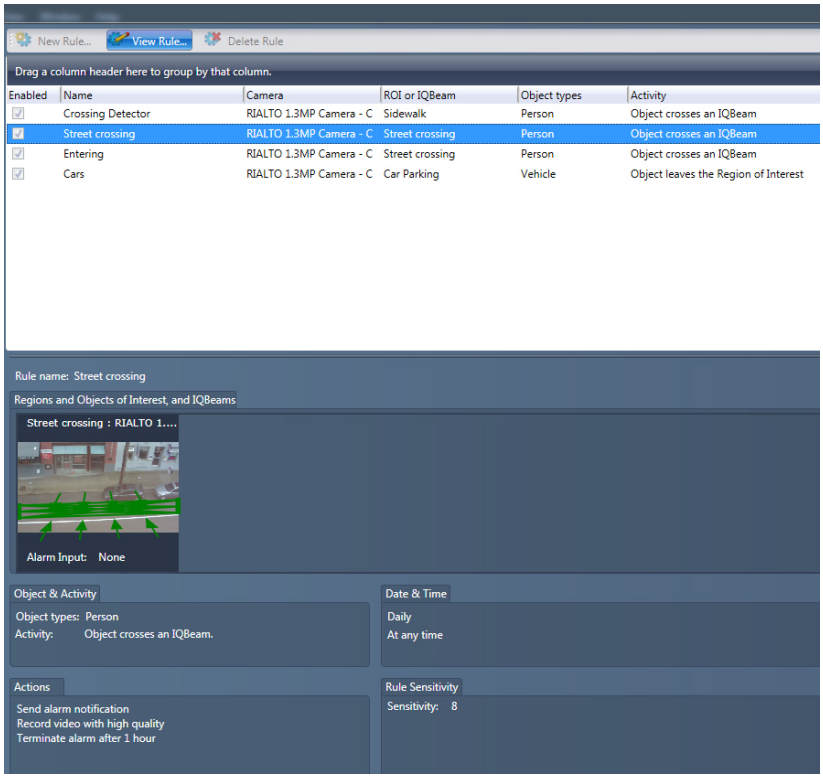
Viewing Rules

Each camera has one or more rules defined in order for an alarm event to trigger when the rule is violated. You can view the rules set for each camera, as well as the details for that particular rule.

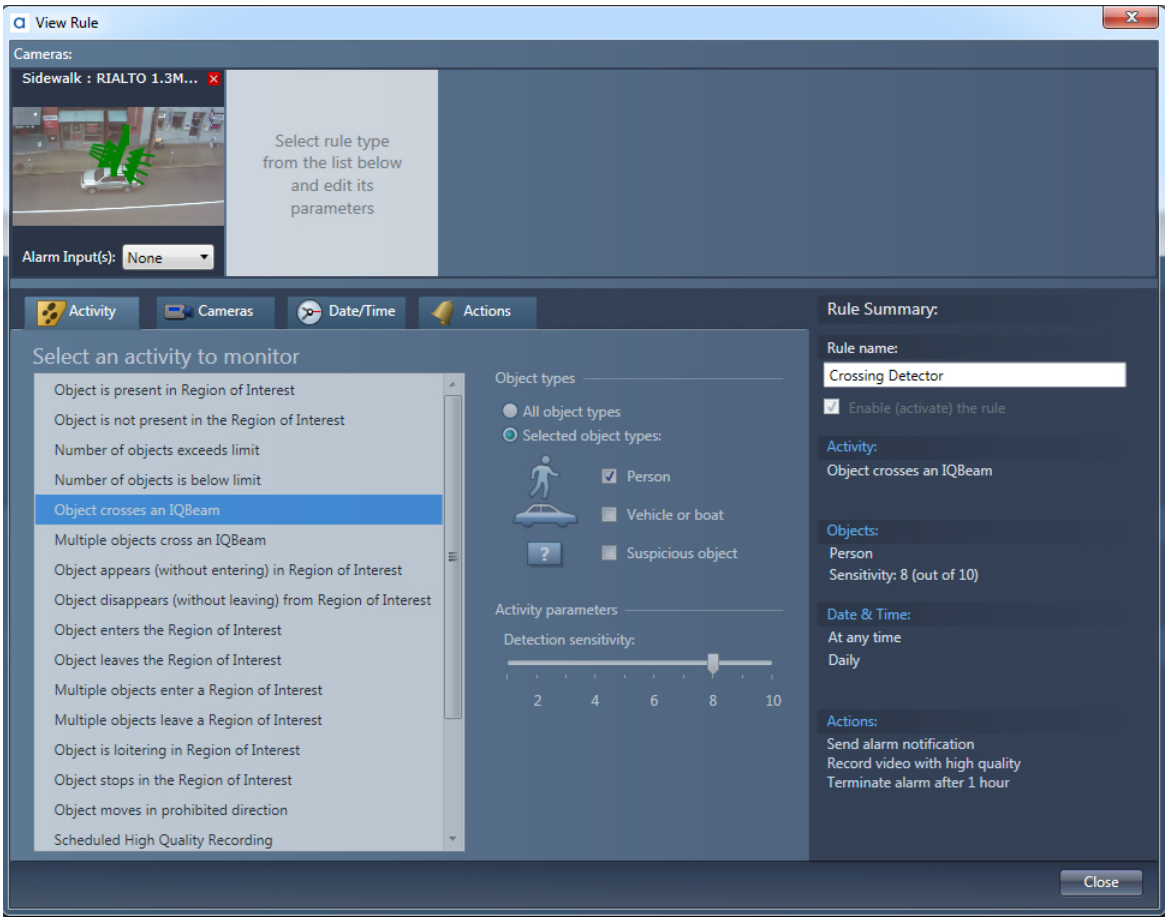
1. Click the **Rules** tool.
2. Select a camera from the camera tree to view a list of the rules set for that camera.
3. Select a rule from the list to access a summary of the rule that informs you:
    - The name of the rule.
    - What Region of Interest, Region of Disinterest, Object of Interest, or Beams have been configured.

NOTE: You must enable show ROD in thumbnails to see any RODs configured. To do so, complete the steps in *Enabling Regions of Disinterest (ROD) in Thumbnails* on the facing page.

- The object type and activity set for detection.
- What day and time the rule is active.
- What action is initiated when the rule is violated and an alarm event is triggered.



4. To view the rule in further detail, click **View Rule...**.
5. In the View Rule window, you can:
   - Explore what settings are configured in the Activity, Cameras, Date/Time, and Actions tab.
   - Access the rule summary similar to the version available in the main Rules window.

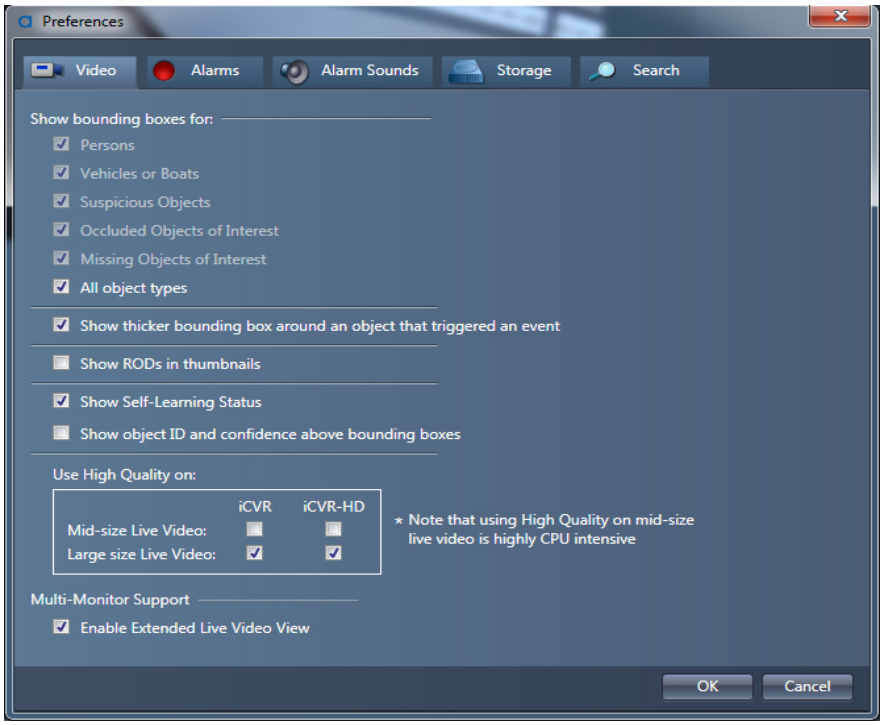


NOTE: You cannot edit any settings in the View Rule window, including enabling or disabling a rule. You can only view the settings that have already been configured.

Enabling Regions of Disinterest (ROD) in Thumbnails

Regions of Disinterest indicate areas within a Region of Interest where activity will not trigger an alarm. By default, RODs are not marked on the camera window thumbnail in the rule summary. You must enable RODs to show to see them on the thumbnail.

1. Open the View menu and select **Preferences**.
2. Click the Video tab.



3. Check the **Show RODs in thumbnails** box.
4. Click **OK**.

Alarm Events

Alarm events occur when a rule is triggered. When an alarm event occurs, you can access the alarm clip to review it and acknowledge the alarm event.

Reviewing and Acknowledging Alarm Events

You must review an alarm event in the playback window before you can acknowledge it. In the playback window, you can also comment, save, and email the alarm event.

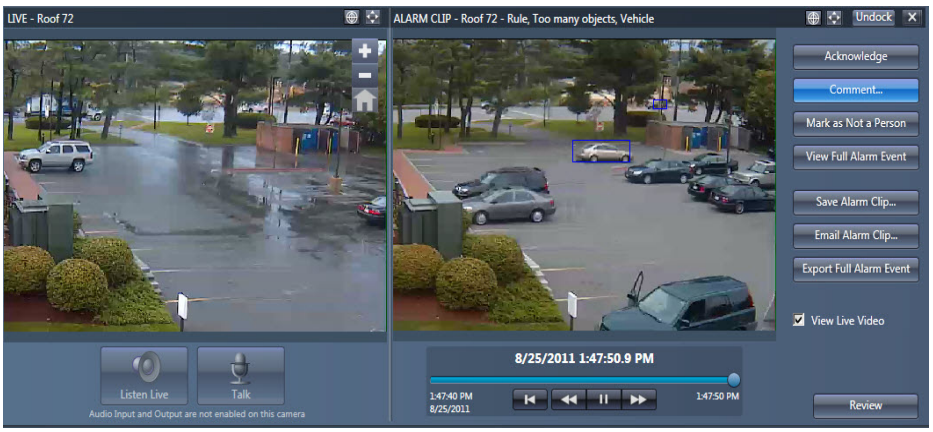
Acknowledging an alarm will make the alarm sound stop. Acknowledged alarms will change their display icon from a red square to a green square with a check mark.

NOTE: If two or more users are logged into the same analytic appliance, the alarm event will display as acknowledged as soon as one user acknowledges the alarm.

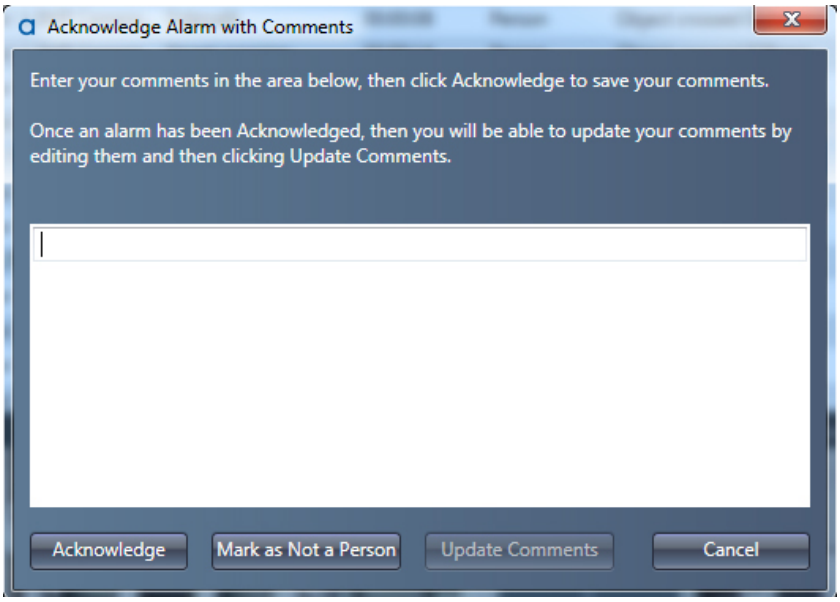
Adding a Comment to an Alarm Event

While marking an alarm event as false or acknowledging an alarm event, you can also add comments.

1. Select and open an event from the alarm list.
2. Click **Comment**.



3. Enter your comment.

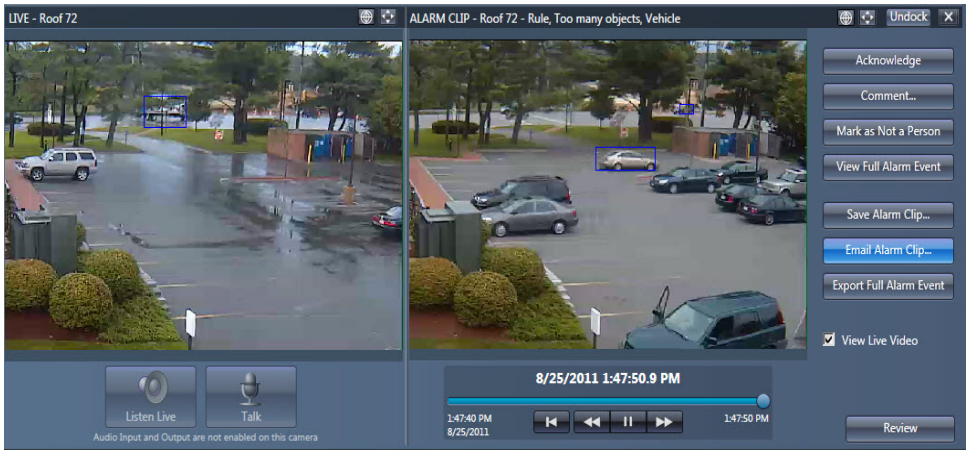


4. Save your comment with one of the following procedures:
    - Click **Acknowledge** to acknowledge the alarm and save the comment.
    - Click **Update Comment** if the alarm has already been acknowledged.

Emailing Alarm Clips

You can email an alarm clip directly from the Avigilon™ View software. Make sure that the recipient has a video player application that can play .mp4 files.

1. Open your email application.
2. Select and open an event from the alarm list.
3. Click **Email Alarm Clip**.



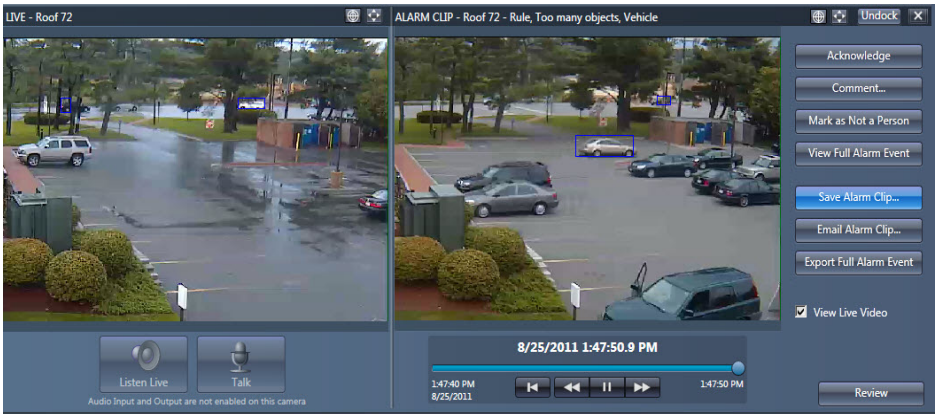
4. In your email application, enter the email address of the person receiving the alarm clip and send the message. The clip will be automatically added as an .mp4 attachment to the email message.

NOTE: Bounding boxes will not show in alarm clips viewed outside of the View software unless the Media Components plug-in is installed. You can download the plug-in from the Avigilon support website.

Saving Alarm Clips to a Hard Drive

You can save alarm clips to a location outside of the analytic appliance.

1. Select and open an event from the alarm list.
2. Click **Save Alarm Clip**.



3. Navigate to the directory where you want to save your clips.
4. Click **Save**.

NOTE: You can also set the View software to download all alarm events that occur. To do so, complete the steps in *Automatically Download Alarm Video Clips* on page 34.

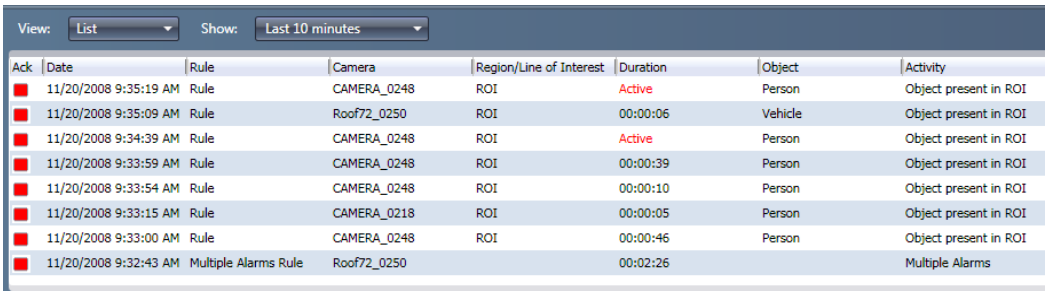
Viewing Alarm Events While Using Live Video

You can also see alarm events while in the Live Video area. Alarm events are displayed in timeline, a list, or in the alarming cameras view. From here, you can review each alarm event and manage it through the playback window.

List View

In List view, alarms are displayed as a list in chronological order.

1. At the bottom of the Live Video window, use the View drop-down menu and select List.
2. Use the Show drop-down menu to specify the time period of events to display.



3. Select an alarm event in the list and double click to show the video clip.

Alarming Cameras View

In the Alarming Cameras view, alarm event windows are added and displayed in a panel. Up to four alarm event windows can be displayed at one time.

NOTE: To access Alarming Cameras from the View drop-down menu, you must first enable Live Alarms. See *Enable Live Video Pop-up Upon an Alarm Event* on page 34.

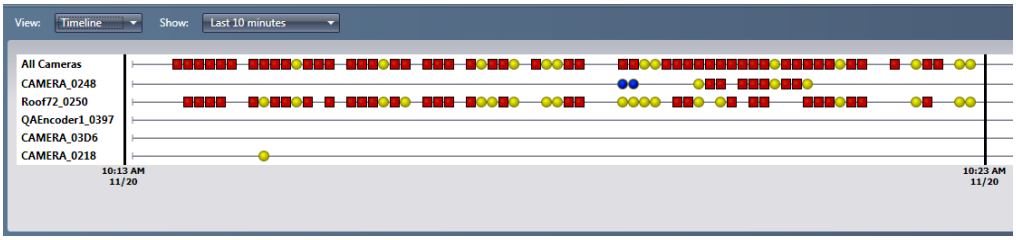
1. At the bottom of the Live Video window, use the View drop-down menu and select Alarming Cameras.

2. As each new alarm event occurs, a window of the previous event is added to the panel.
    - To immediately add a Live Alarm Pop-up window to the panel, click the Close button.
    - To open an alarm event as a Live Alarm Pop-up window, click the Maximize button.

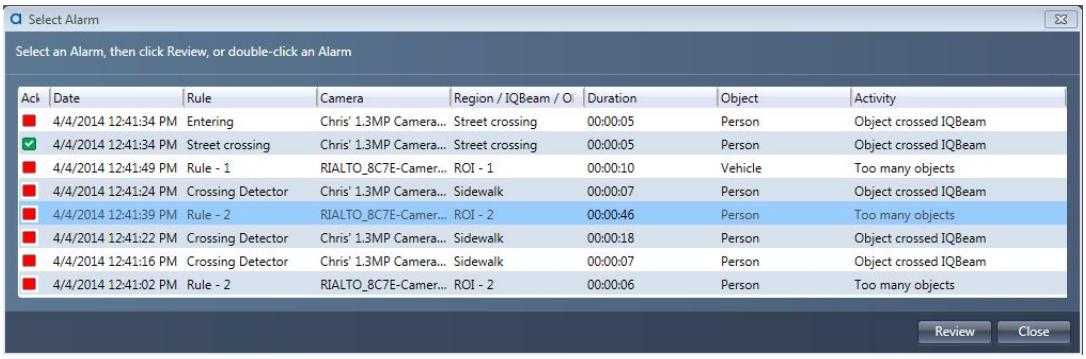
Timeline View

In Timeline view, alarms are displayed using icons to indicate the type of event. See *In the Timeline view, the status of each alarm event is indicated by the following symbols:* on the facing page.

1. At the bottom of the Live Video window, use the View drop-down menu and select Timeline.
2. Use the Show drop-down menu to specify the time period of events to display.



3. Click on the icon of the alarm event you wish to view.
4. If you click a multiple alarms event, find the specific alarm event you wish to view in the Select Alarm window.



5. Highlight the alarm event and click **Review**.

Understanding the Timeline View

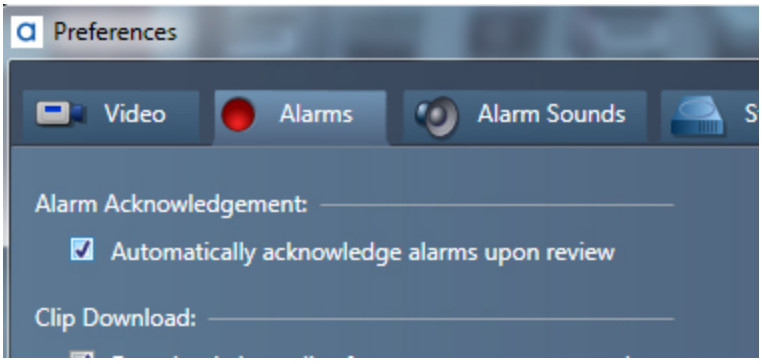
In the Timeline view, the status of each alarm event is indicated by the following symbols:

Alarm Icon	Description
	Indicates a single alarm event.
	Indicates multiple alarm events.
	Indicates a system event.
	Indicates a camera has been disconnected.

Automatically Acknowledge Alarms

You can set alarms to be automatically acknowledged as soon as you review the alarm event.

1. Open the View menu and select **Preferences**.
2. Click the Alarms tab.
2. Check the **Automatically acknowledge alarms upon review** box.

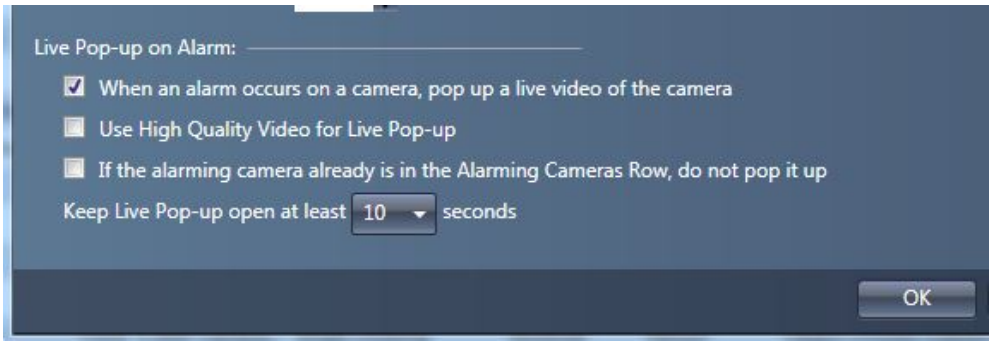


3. Click **OK**.

Enable Live Video Pop-up Upon an Alarm Event

You can set the View software to pop up a live video of the camera when an alarm event happens.

1. Open the View menu and select **Preferences**.
2. Click the Alarms tab.
2. Check the box for live-video pop up when an alarm occurs.

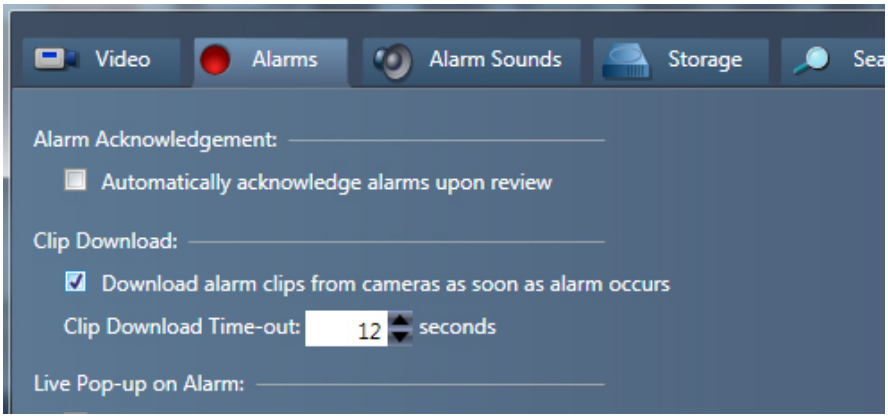


3. Set the number of seconds you want to keep the Live Alarm Pop-up window open.
4. Click **OK**.
5. In the toolbar, click the **Live Alarm** tool to enable the feature.

Automatically Download Alarm Video Clips

You can automatically download alarm video clips as soon as an alarm event occurs.

1. Open the View menu and select **Preferences**.
2. Click the Alarms tab.
2. Under Clip Download, check the **Download alarm clips** box.

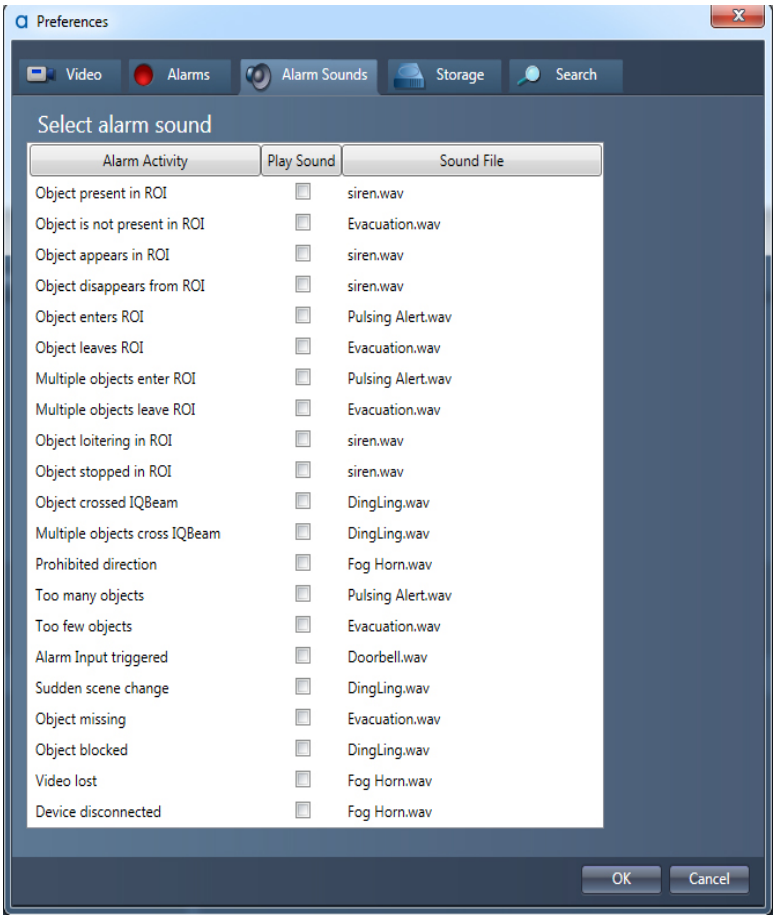


3. Set the number of seconds before the video clip stops downloading.
4. Click **OK**.

Enabling Alarm Sounds

By default, alarm sounds are disabled. You can enable an alarm sound to play for each type of rule.

1. Open the View menu and select **Preferences**.
2. Click the Alarm Sounds tab.



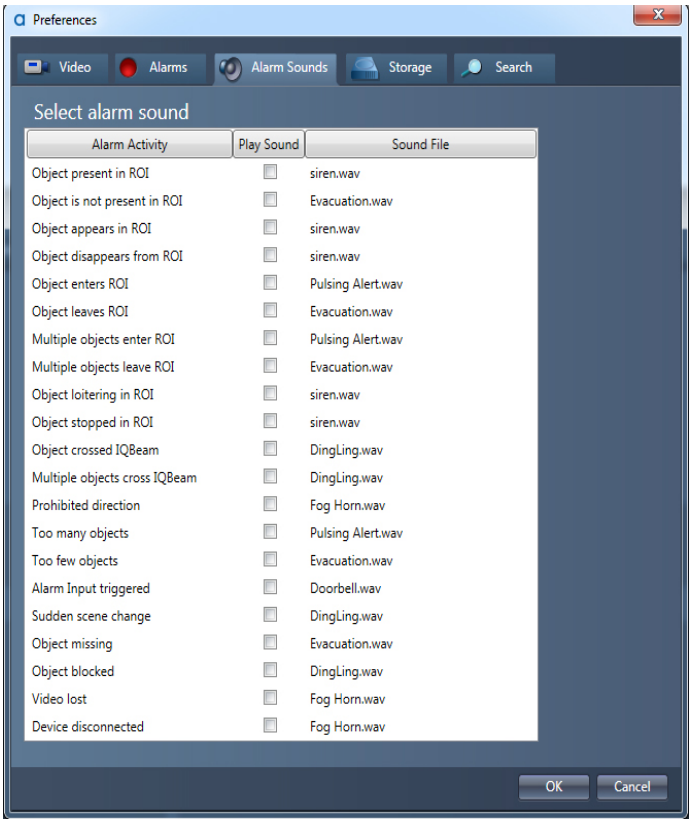
3. Check the **Play Sound** box beside the rule type (Alarm Activity) that you want to play a sound.
4. Click **OK**.

Customizing Alarm Sounds

You can change the default sound that plays for each alarm activity by uploading your own sound files.

NOTE: Only .WAV files are supported as sound files.

1. Open the View menu and select **Preferences**.
2. Click the Alarm Sounds tab.



3. Select the alarm activity with the sound you want to change.
4. Click **Browse**.
5. Select a new sound file and click **Open**.
6. Click **OK**.

Camera Trees

All Rialto™ analytic appliances and attached cameras are displayed in the camera tree once they have been added by the Avigilon™ View software.

Analytic appliances display as a folder in the tree. You can see what cameras are attached to the analytic appliance by expanding the folder.

NOTE: Analytic appliances are automatically added to the View software upon logging in. If they are not added upon logging in, you must activate the auto-discovery manually. To do so, complete the steps in *Manually Activating Auto-Discovery* below

Manually Activating Auto-Discovery

If not all analytic appliances have been discovered and added to the camera tree, you can activate the auto-discovery feature manually.

NOTE: Automatic discovery can only find analytic appliances attached to the same local area network (LAN) as your monitoring workstation. If you want to add an analytic appliance on a different or remote network, you must do so manually using the analytic appliance's IP address and port information.

1. Click the  button in the camera tree toolbar.
2. The View software will automatically find the cameras and analytic appliances, and add them to the tree.

Understanding Camera Tree Icons

The state of the camera is shown using the icons below:

Icon	Description
	Camera is connected.
	Camera is not accessible
	PTZ camera is connected.
	PTZ camera is disconnected and is not accessible
	Camera is disconnected.

Icon	Description
	Camera is online, but cannot accept more connections.
	Incorrect login.
	Camera firmware needs update.
	A rule has been violated.
	Encoder signal is lost.
	System alarm.
	Camera is still starting up or upgrading. May also mean a hard disk failure.
	Sub-camera is connected.
	Sub-camera is not accessible.
	Folder in camera tree.
	Open folder in camera tree.
	Firmware too new for camera.

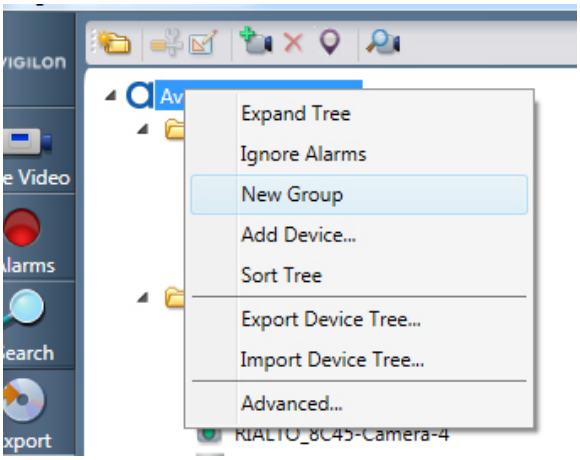
Camera Groups

You can create camera groups to organize your cameras or to easily apply the same settings to all cameras in the group. You can create as many camera groups as you like.

NOTE: Moving a camera into a camera group does not detach it from the analytic appliance. Camera groups only visually organize your cameras.

Creating a Camera Group

1. Select the topmost level in the camera tree.
2. Right-click and select New Group or click the  button.



3. Enter the name of the new camera group.
4. Add cameras to the new camera group by dragging and dropping cameras in the tree into the camera group folder.

NOTE: A camera can belong to only one camera group.

Renaming a Camera Group

NOTE: You can only rename a camera group you created. Camera groups you didn't create can only be renamed if you have permission to do so.

1. Right-click on the camera or camera group and select **Rename**.
2. Enter the new name for your camera or camera group.
3. Press Enter to accept the new name.

Deleting a Camera Group

NOTE: Deleting a camera group only removes the group folder. It does not delete the cameras from the camera tree.

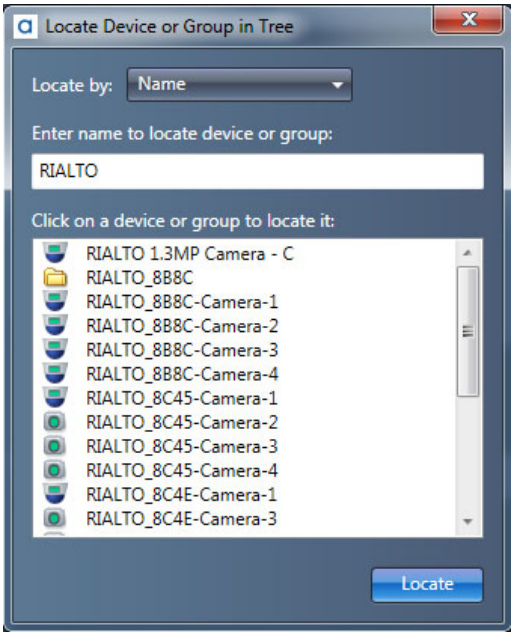
1. Select the camera group folder you want to delete.
2. Right-click on the camera group and select **Delete**.

Finding Cameras or Camera Groups in the Camera Tree

You can quickly find a camera or camera group in the camera tree using the Locate Device tool.

1. Click the  button.
2. In the Locate by drop-down menu, select whether you want to locate by Name, IP Address, or MAC Address.

3. Enter the name of the camera or camera group you're searching for.

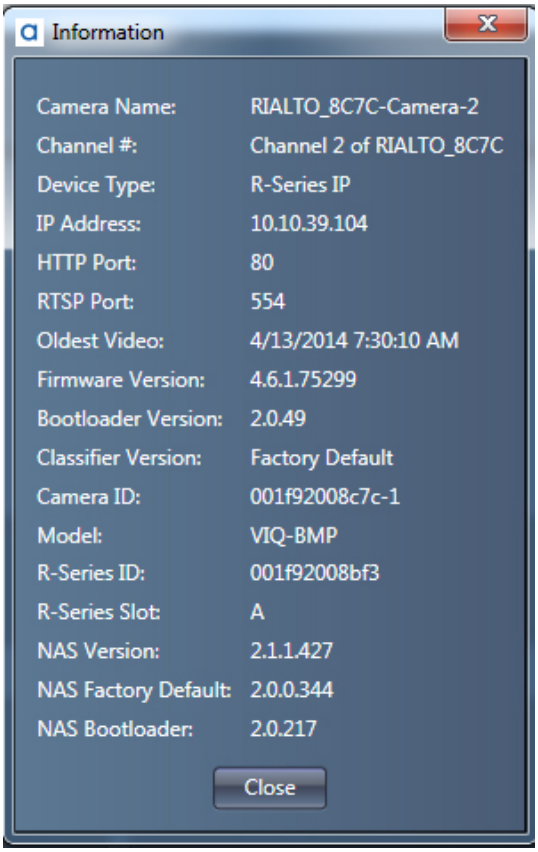


4. Click **Locate** to show your search results.
5. Click on the camera or camera group you want to locate to show its position in the camera tree. The camera or camera group will blink green and yellow.

Displaying Camera Information

You can see a camera's information details, including camera name, device type, IP address, port settings, and firmware version.

1. Right-click the camera in the camera tree and select **Information...**.



2. Click **Close** when you are finished reviewing the information.

Advanced Settings and Operations

If you have a supervisor-level account or you're an operator with the proper permissions enabled, you can access advanced settings and operations in the Avigilon™ View software such as creating and editing rules, managing other user accounts, and configuring settings for analytic appliances.

NOTE: Supervisor-level accounts have all permissions enabled by default and can access all features in the View software.

You can access the following advanced settings and operations:

Account Management

You can manage both your own account and other user accounts, such as changing user passwords and editing permissions that the user account has.

Logging In for the First Time

If you are logging in for the first time for setup, each analytic appliance has two default accounts. Use the supervisor account if you will be setting up the Avigilon™ View software and analytic appliances.

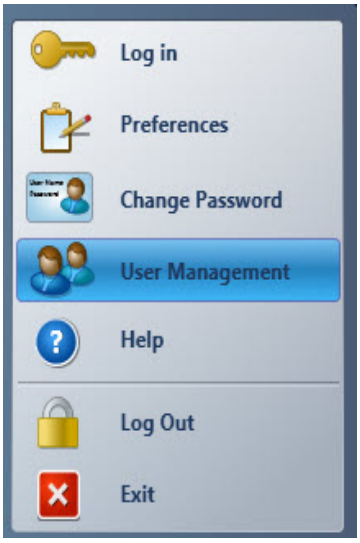
Username	Password
supervisor	supervisor
operator	operator

NOTE: The default supervisor account should not be used for day-to-day activities. Users with supervisor-level accounts should have their own username and password so that history logs will identify who made changes to the system.

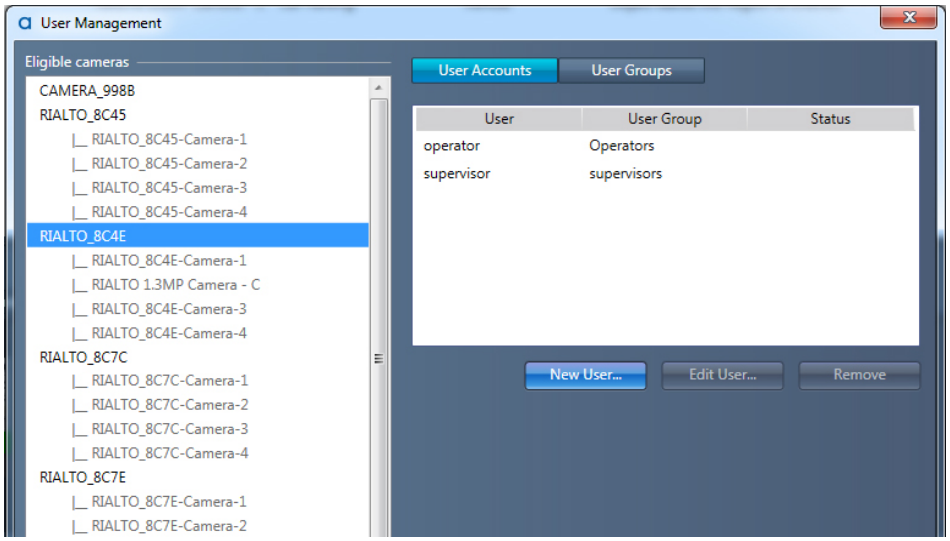
Adding a User Account

You can add as many user accounts as you like to an analytic appliance.

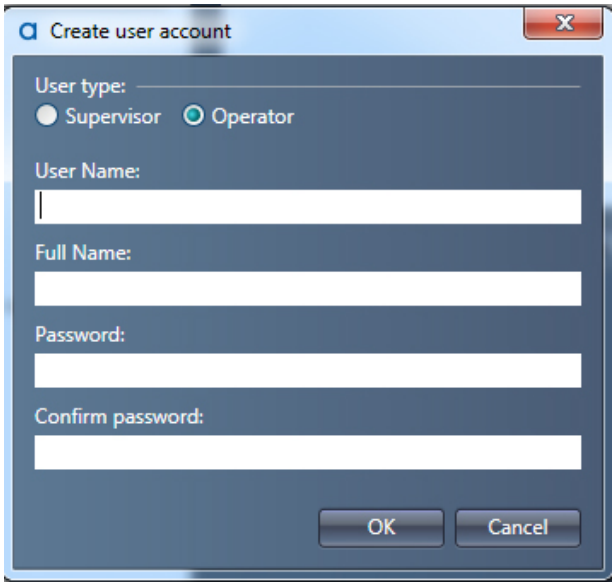
1. Open the View menu and select **User Management**.



2. Enter your password and click **OK** to confirm your credentials.
3. Select the analytic appliance to which you want to add a user account.
4. Click **New User...**.



5. Set the account type as **Supervisor** or **Operator**.



6. Enter a username and the user's full name.
7. Enter a password for the user account.

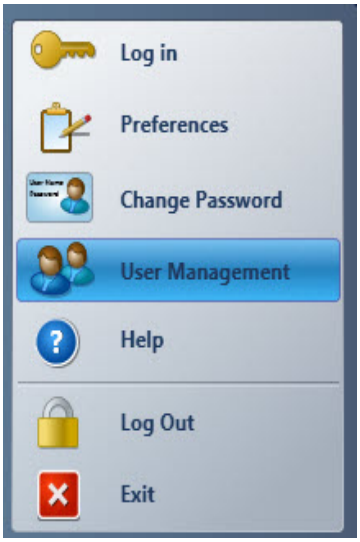
   NOTE: Password must be a minimum of 4 characters and is case sensitive.

8. Enter the password again to confirm it.
9. Click **OK**.

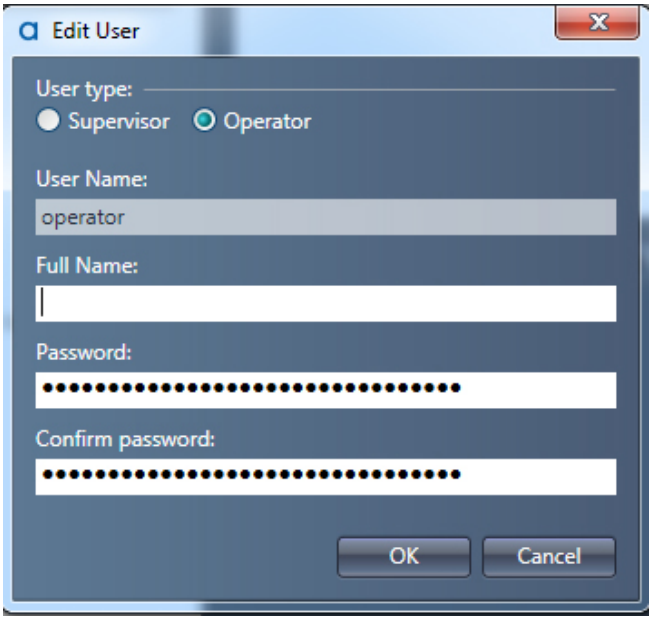
Editing a User Account

You can change the password and user type of an account once it is created.

1. Open the View menu and select **User Management**.



2. Enter your password and click **OK** to confirm your credentials.
3. Select a user and click the **Edit User** button.
4. Change the User Type, Full name, or Password.



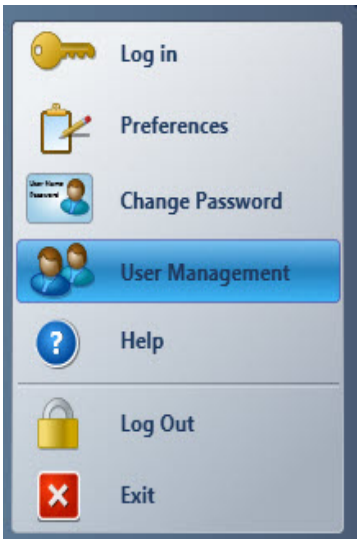
5. Click **OK**.

Setting User Permissions

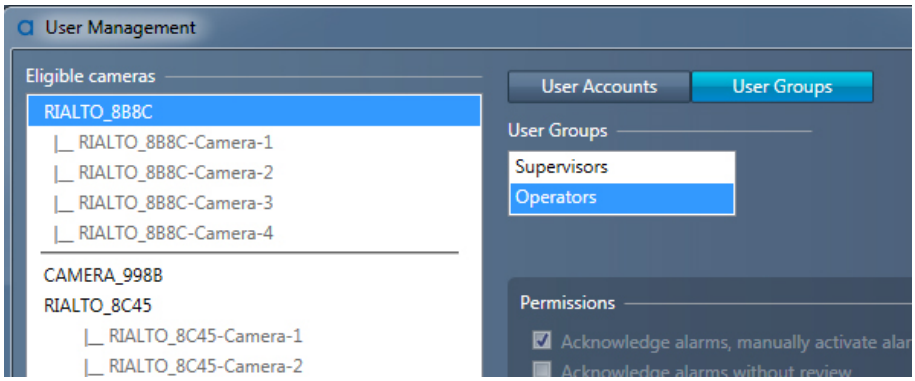
You can change the permissions for all operator-level user accounts. When you make a change, it applies to all users on the selected analytic appliance with the operator rule.

NOTE: Permissions can only be set for operator-level accounts. Supervisor-level accounts are granted access to all features in the View software by default.

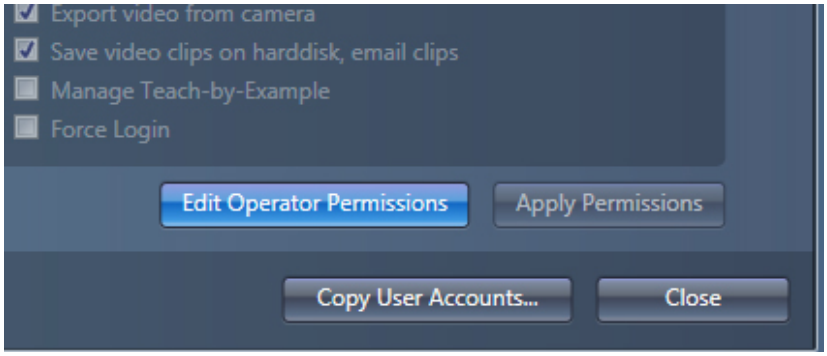
1. Open the View menu and select **User Management**.



2. Enter your password and click **OK** to confirm your credentials.
3. Click **User Groups** and select Operators.
4. Select the analytic appliance that has the permissions you want to change.



5. Click **Edit Operator Permissions**.

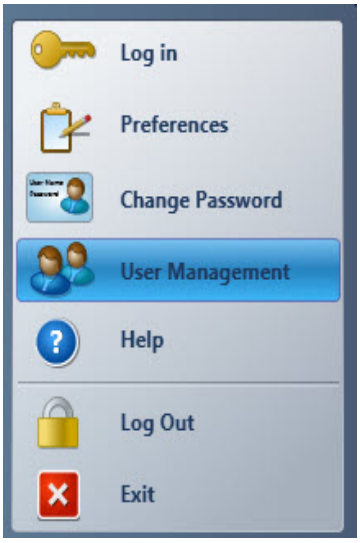


6. Check the boxes beside the permissions you want to enable. For a list of permissions and their descriptions, consult *Available User Permissions* on page 125.
7. Click **Apply Permssions**.

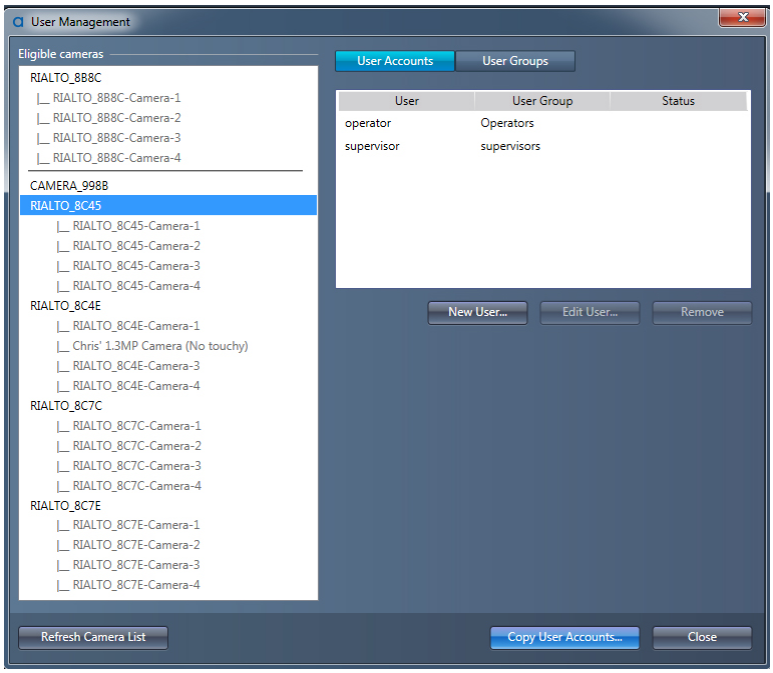
Copying Account Settings and Permissions

You can copy the user account settings and permissions from one analytic appliance to another.

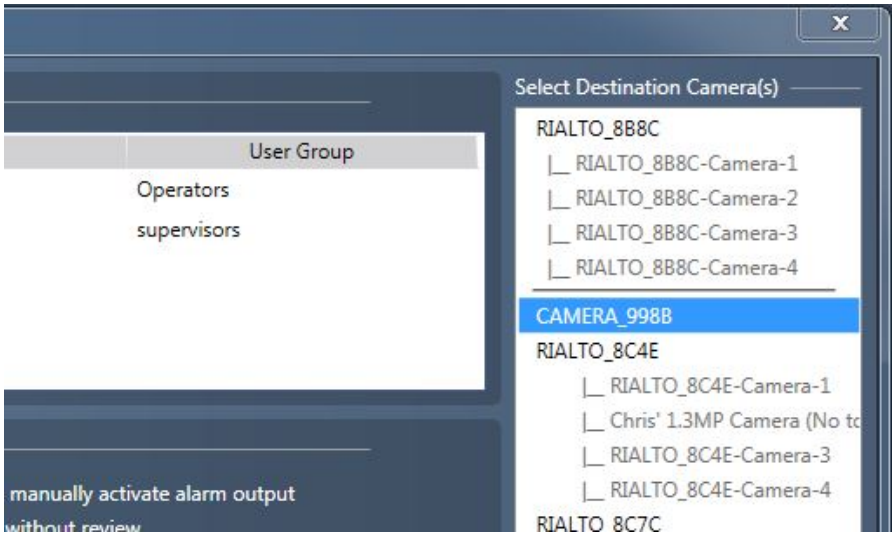
1. Open the View menu and select **User Management**.



2. Enter your password and click **OK** to confirm your credentials.
3. Select the analytic appliance that has the accounts you want to copy, then click **Copy User Accounts...**.



4. Select one or more analytic appliances that you want to copy the accounts to.



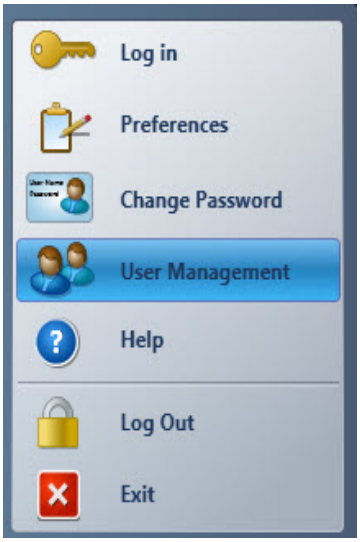
5. Choose whether you want to overwrite the old accounts or merge new accounts while keeping the old accounts and click one of the following:
   - **Copy Users**: Copies only the usernames and passwords.
   - **Copy Permissions**: Copies only the user account's permissions.
   - **Copy All**: Copies usernames, passwords, and permissions.

6. Click **Done.**

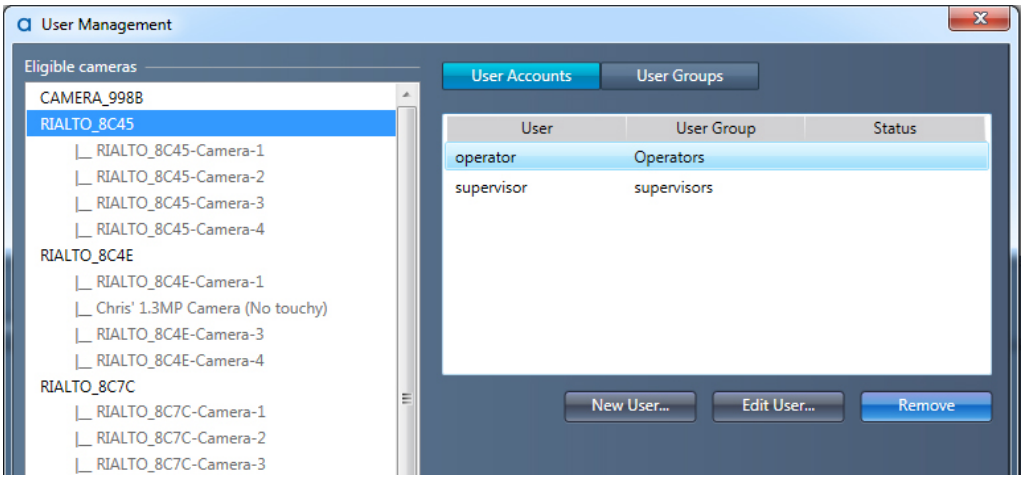
Deleting a User Account

You can delete any user account, except for the default supervisor account.

1. Open the View menu and select **User Management**.



2. Enter your password and click **OK** to confirm your credentials.
3. Select the analytic appliance you want to delete the user account from.
4. In the User Management window, select the user you want to delete.
5. Click **Remove**.

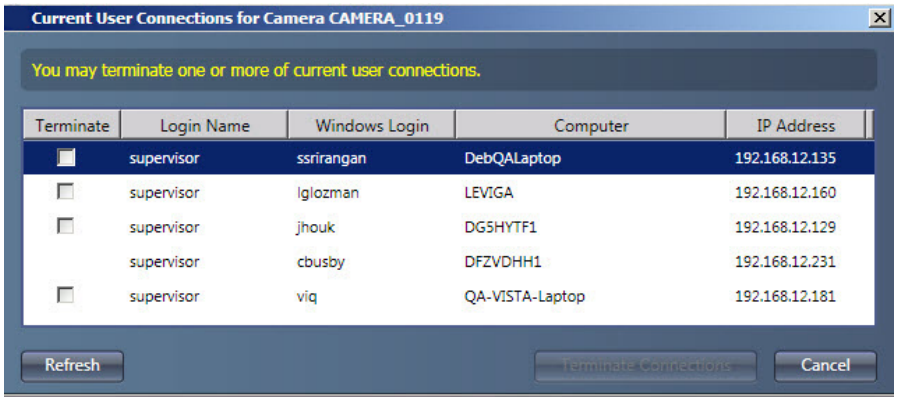


NOTE: You won't be prompted to confirm the deletion. Make sure you're certain you want to delete the account before clicking **Remove**.

Viewing Logged In Users

You can see which users are currently logged into an analytic appliance.

1. Right-click on the analytic appliance in the camera tree and select **Review User Connections...**.
2. In the Current User Connections window, you can see the list of users connected to the analytic appliance.



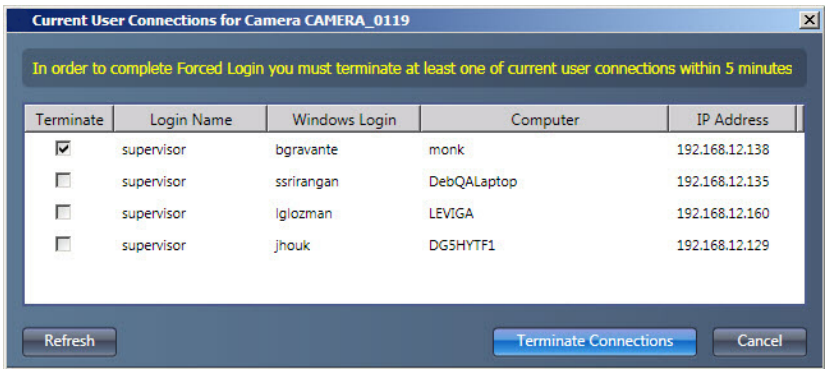
3. From this window, you can perform the following actions:
    - To refresh the list, click **Refresh**.
    - To disconnect one or more users:
        a. Check the box under Terminate to the left of the login name you want to disconnect.
        b. Click **Terminate Connections**.

Force Login

If the login limit has been reached on an analytic appliance, you can log in with Force Login and disconnect one or more users.

NOTE: Supervisor-level accounts and operator-level accounts with the relevant permissions enabled can use Force Login.

1. Right-click on the analytic appliance in the camera tree and choose **Force Login...**.
2. Check the box next to the user(s) you want to disconnect.



3. Click **Terminate Connections**.

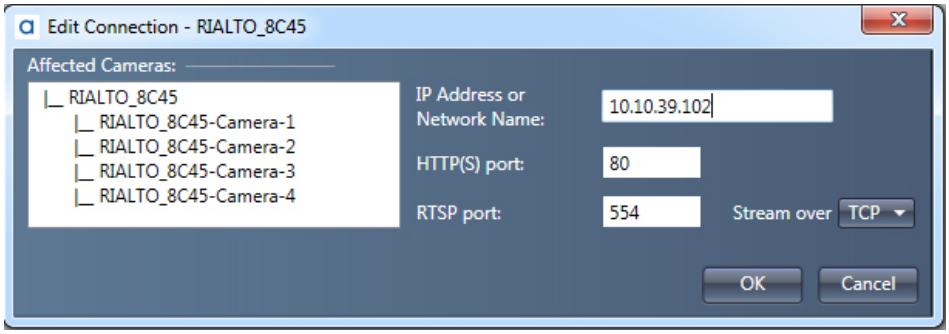
Managing Rialto™ Analytic Appliances

Editing Analytic Appliance Connections

You can edit the IP address or Network name, port numbers, and stream type for an analytic appliance.

NOTE: Editing a connection for the analytic appliance affects all attached sub-cameras.

1. Select the analytic appliance in the camera tree.
2. Right-click on the analytic appliance and select **Edit Connection...**.



3. Make your changes and click **OK**.

Renaming an Analytic Appliance or Camera

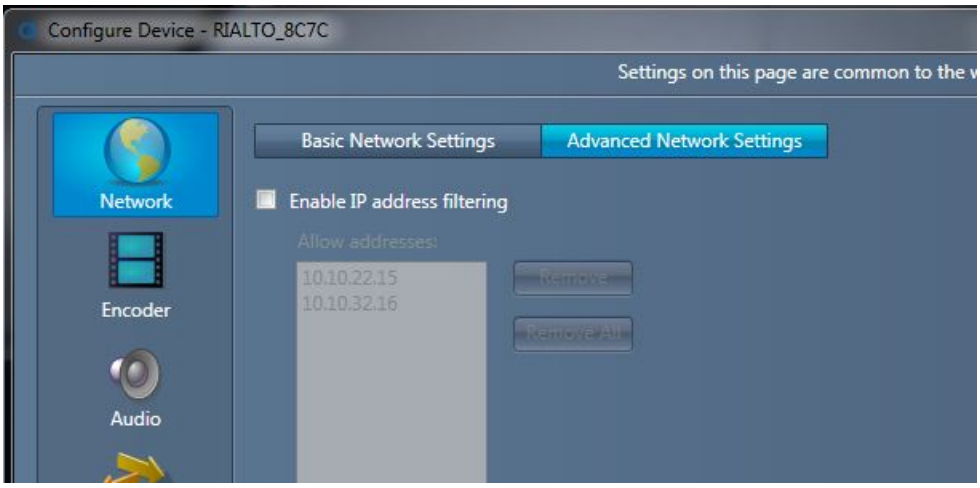
You can rename an analytic appliance or any of its attached sub-cameras.

1. Right-click the analytic appliance or camera you want to rename and select **Rename**.
2. Enter a new name for the analytic appliance or camera.
3. Press **Enter** to accept the new name.

Filtering IP Address Communication

You can control what IP addresses can communicate with an analytic appliance.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Network**.



3. Click **Advanced Network Settings**.
4. Check the **Enable IP address filtering** box.
5. In the Allow addresses field, enter the IP address you would like to allow communication with the analytic appliance.
6. Click **Apply**.

   The analytic appliance will now communicate only with the IP addresses entered.

Deleting an Analytic Appliance from the Camera Tree

You can delete an analytic appliance from the camera tree. Deleting an analytic appliance will delete all attached sub-cameras.

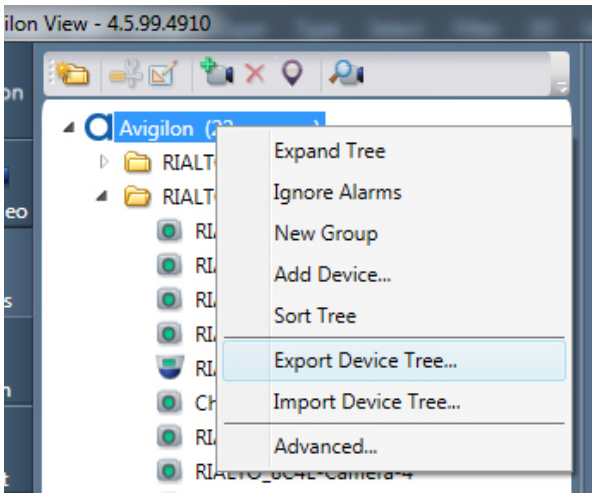
NOTE: Deleting an analytic appliance only removes it from the camera tree. It does not detach it. Once you've deleted an analytic appliance, it won't be available again until you add it or it's automatically discovered.

1. Right-click on the analytic appliance you want to delete and select **Delete**
2. Click **OK** to confirm the deletion.

Exporting the Camera Tree

When you have more than one computer running the View software, you can export the camera tree from one computer to another. Exporting a tree saves the analytic appliance, camera groups, and all connection information into a file.

1. At the top of the camera tree, right-click on Avigilon.
2. Select **Export Camera Tree...**

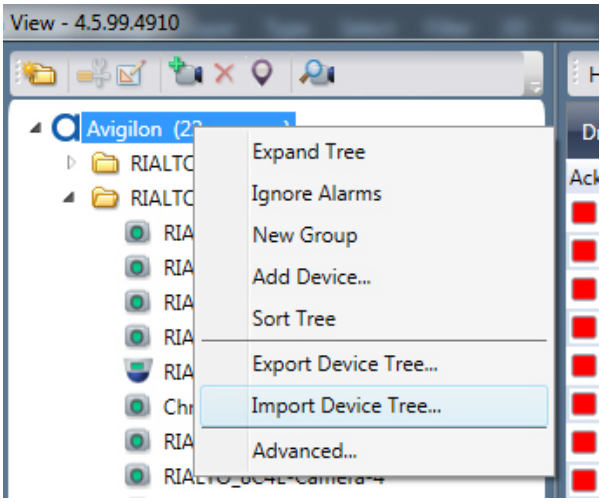


3. Navigate to where you want to store the file and save it to begin exporting.

Importing the Camera Tree

If you have a saved file of the exported camera tree, you can use it to import the tree's analytic appliances, camera groups, and connection information to another computer running the View software. To export a camera tree, see *Exporting the Camera Tree* on the previous page.

1. At the top of the camera tree, right-click on Avigilon and select **Import Camera Tree...**



2. Select the saved exported file and open the file.
3. Read the warning dialogue box. Click **Yes** to continue with the import.

   Once the camera tree has been imported, all analytic appliances will automatically reconnect.

Creating and Editing Rules

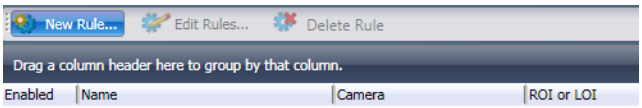
When you receive your analytic appliance, it is configured with two default rules. These rules trigger an alarm that will record the event in high quality. The two default rules are:

- When any people, vehicles or boats are detected entering the camera's full field of view.
- Sudden scene changes.

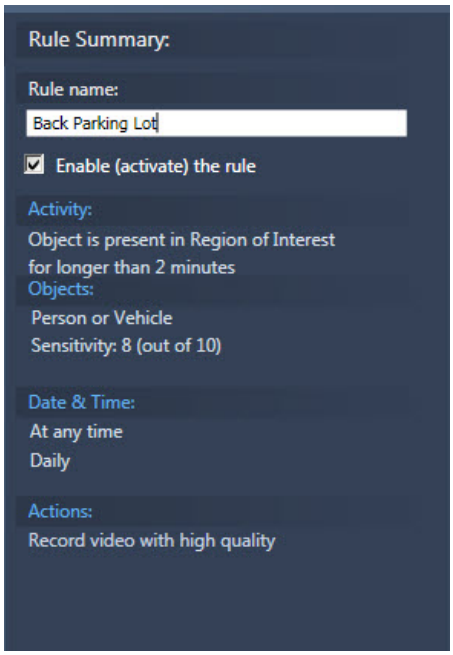
Rules work together with Regions of Interest (ROI), Regions of Disinterest (ROD), and Beams to detect activity.
See *Regions of Interest, Regions of Disinterest, and Beams* on page 25

Creating a New Rule

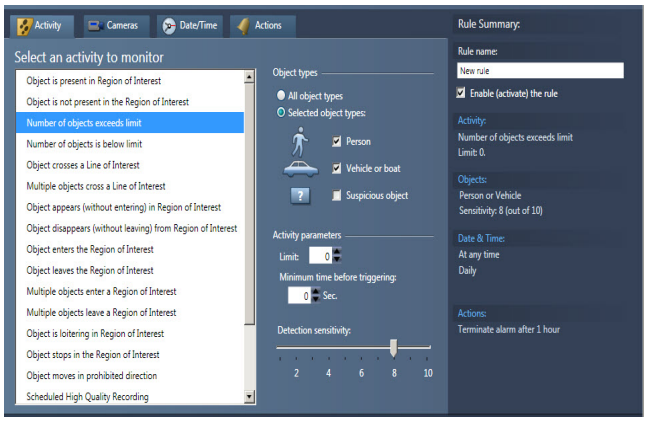
1. Click the **Rules** tool.
2. Click **New Rule...**



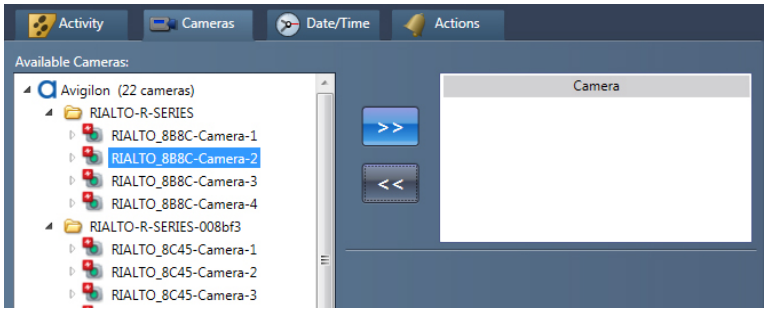
3. Enter a name in for the new rule.



4. Ensure the **Enable (activate) the rule** box is checked to make the rule active upon creation.
5. Select the type of activity you want to create a rule for. Depending on the rule selected, you may be prompted to enter one or more activity parameters.

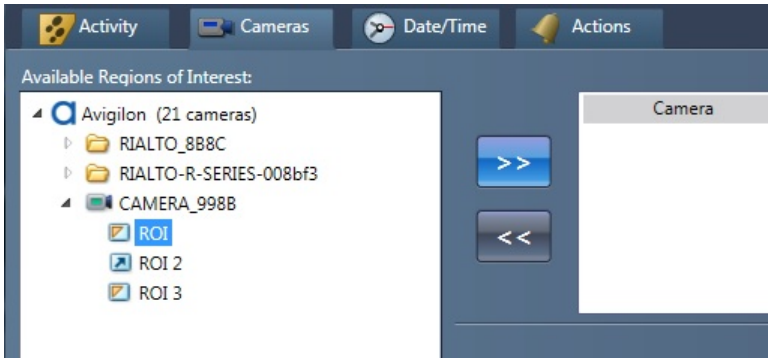


6. Click the Cameras tab and select the camera(s) or camera group(s) that will be using the new rule.



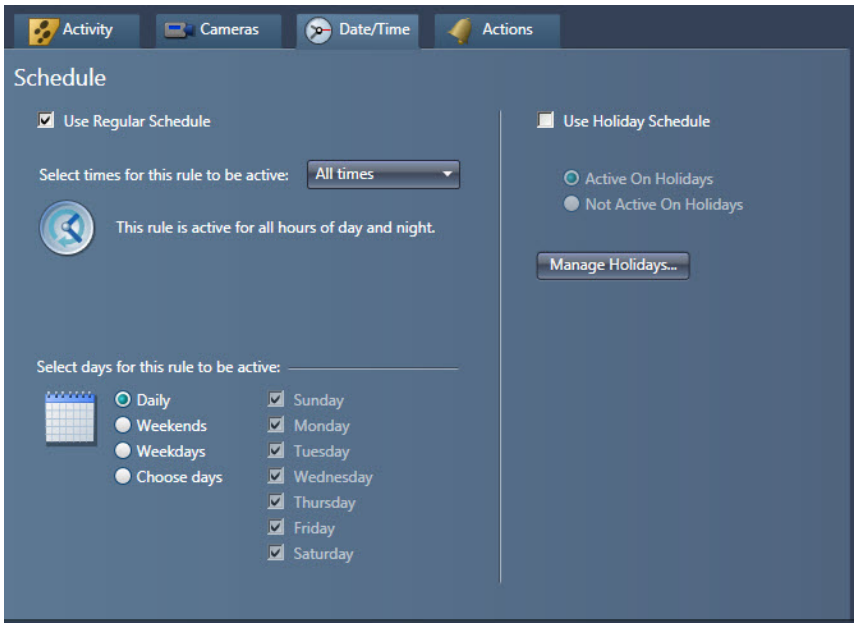
NOTE: Not all activities are available on all cameras. If your camera does not support a specific activity, the camera will be grayed out in the camera tree and you will not be able to select it.

7. Perform one of the following procedures:
   - If the rule requires a Region of Interest or Beam, select the ROI or Beam to be associated with the camera. Ensure the camera tree is fully expanded if the list of available options is not visible.
     - If there are no options to use, you need to set up a new ROI or Beam. To do so, complete the steps in *Creating Regions of Interest and Beams* on page 58.
   - If the rule does not require a Region of Interest or Beam, select the camera you want to use the rule.
8. Click the >> button to add the selections.

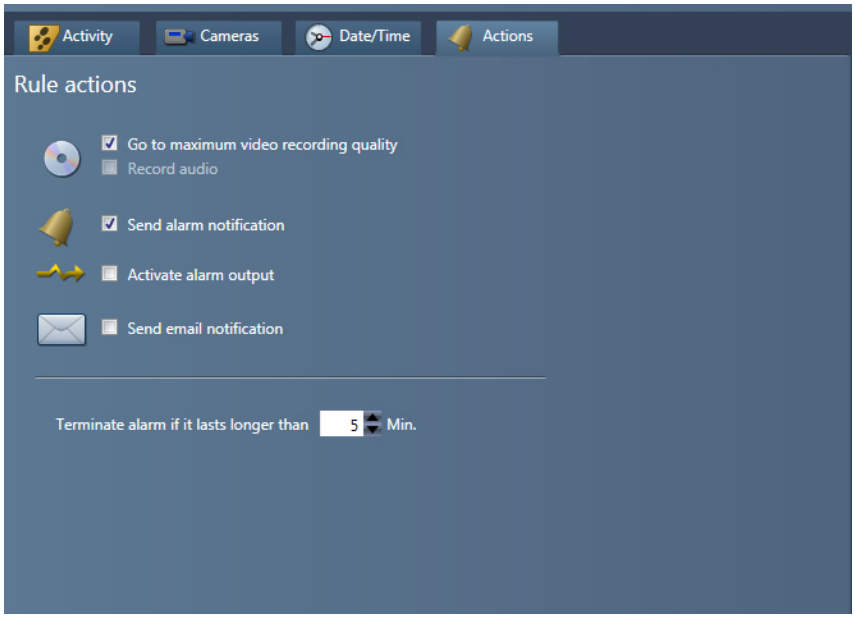


9. Check the **Requires active Alarm input** box to activate the selected rule only when the alarm input is triggered. When used with the Alarm Input Only rule, this box is automatically checked. See *Alarm Inputs and Outputs* on page 71.

10. To specify the days and times that the rule is active, click the Date/Time tab and set the date and time. To create a rule specific to a holiday, complete the steps in *Holiday Schedule* on page 66.



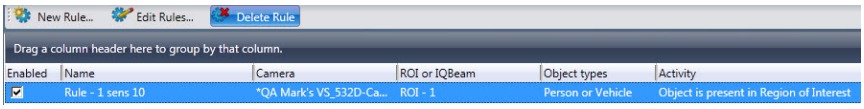
11. Click the Actions tab and specify what the system should do if the rule is triggered, such as alarm notifications and email notifications. To set up email notifications, complete the steps in *Setting Up Email Notification Service* on page 63.
12. Set the maximum duration of an alarm before the system's current response action stops.



13. Click **OK** to finish creating the new rule.

Deleting or Editing a Rule

1. Click the **Rules** tool.
2. Select the rule you want to edit or delete.



3. To edit a rule, click **Edit Rules...** and make the desired changes.
4. To permanently delete a rule, click **Delete Rule**.

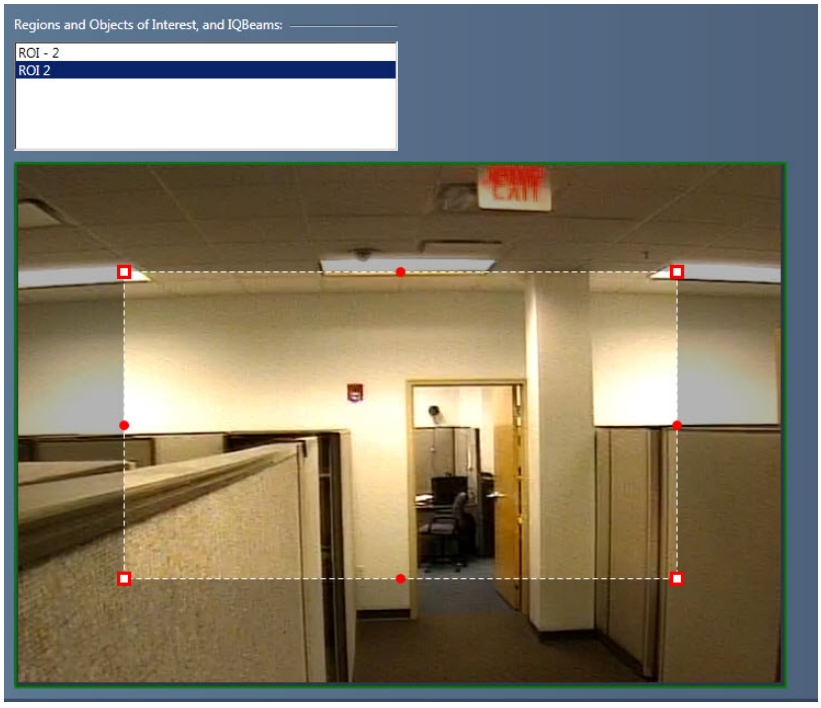
Creating Regions of Interest and Beams

Adding a Region of Interest

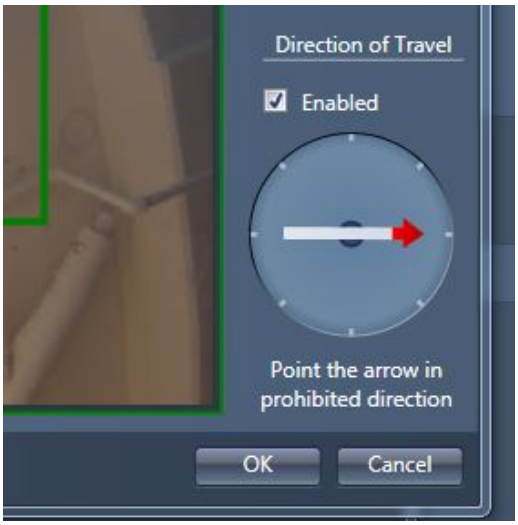
A Region of Interest can be thought of as a virtual rug. When you want to cover an area, you only need to outline your ROI on the area you want to protect.

NOTE: The entirety of an object does not need to enter the ROI for an alarm to trigger. Only the bottom of an object's bounding box must enter the ROI.

1. Create a rule involving a Region of Interest as described in *Creating a New Rule* on page 54.
2. Click **New Region**.
3. Adjust the shape of the region using the handles located around the border. The default shape of the ROI is a rectangle. You can create a polygonal shape by clicking and moving a midpoint handle on the shape, which will add new points along the shape for you to adjust.
4. Adjust the placement of the region by dragging the shape to your desired location.



5. If you are using a rule type that prohibits object movement in a certain direction:
    - Check the **Enabled** box under Direction of Travel.
    - Use the direction wheel to specify the direction that a moving object will generate an alarm.



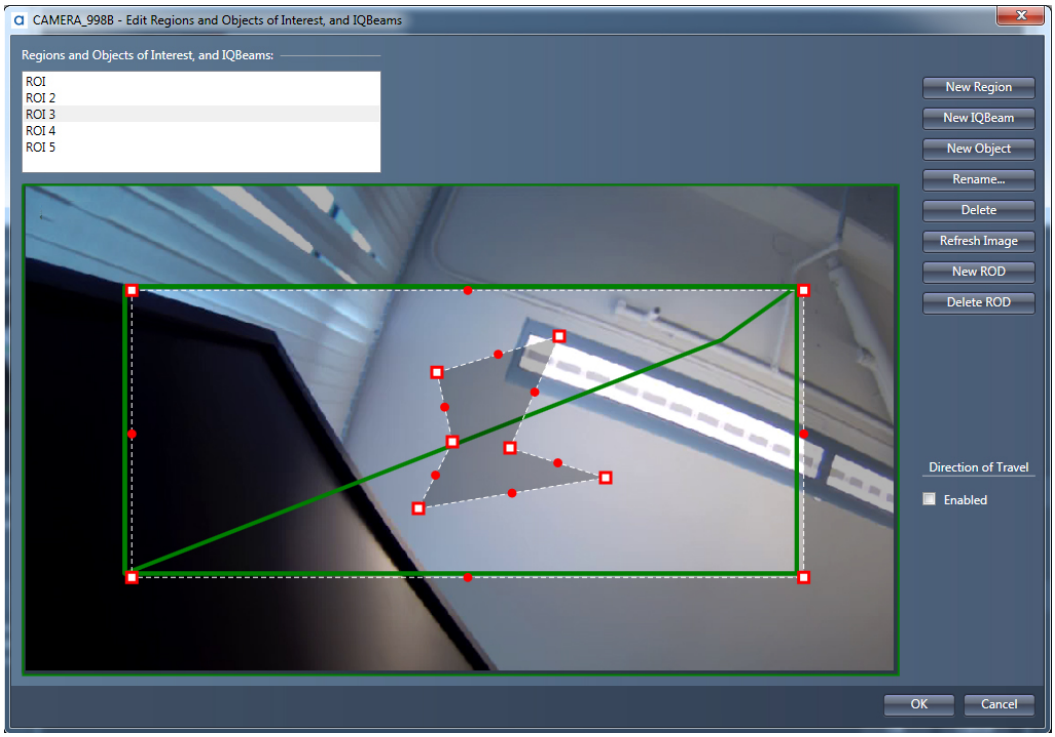
6. Click **OK**.

Adding a Region of Disinterest

Once you have created a rule with a Region of Interest, you can add a Region of Disinterest (ROD). A ROD can be created if false alarms are occurring frequently on your ROI and altering the shape of the ROI is not ideal. Activity occurring within the ROD will not trigger any alarms.

NOTE: A ROD cannot be created outside an ROI. The ROD must be added within the ROI.

1. Select a rule and click **Edit Rules...**
2. Select the ROI you want to add an ROD to and click **Edit Region...**
3. Click **New ROD**.
4. Adjust the shape of the region using the handles located around the border.
5. Adjust the placement of the region by dragging the shape to your desired location.



6. Click **OK**.

Deleting a Region of Disinterest

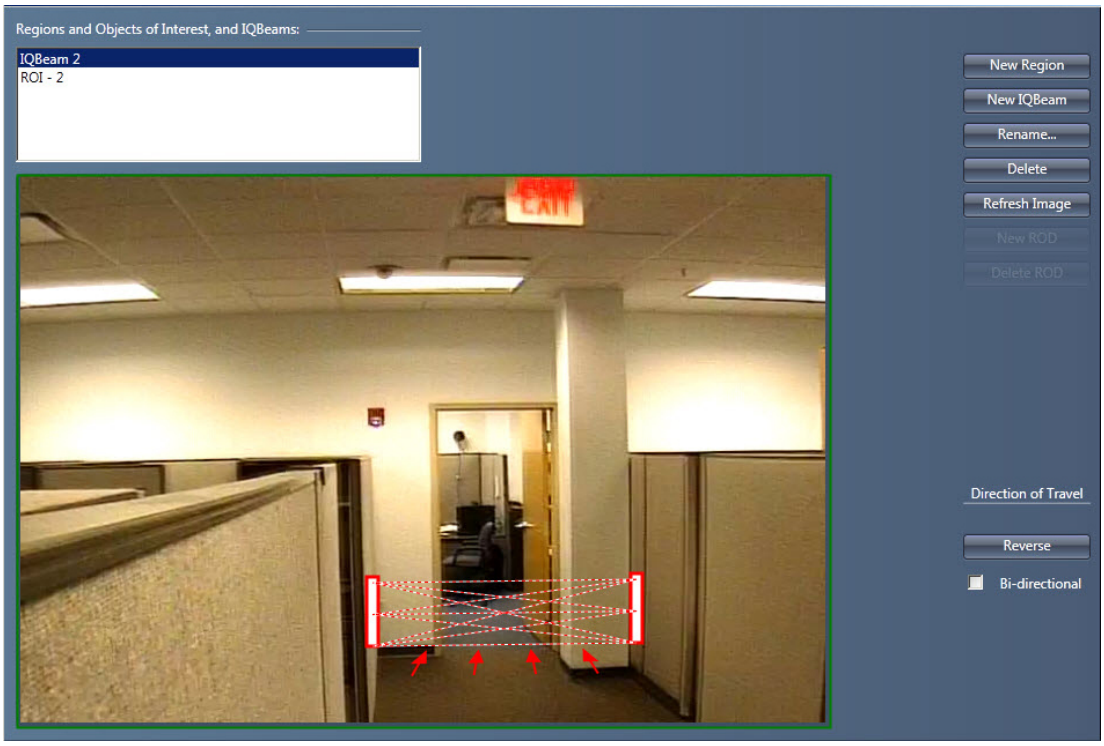
1. Select the ROD shape inside the ROI area.
2. Click **Delete ROD**.

Adding a Beam

Beams, or IQBeams, are virtual lines used to detect when an object crosses the line. For a Beam to work properly, the object must be clearly visible before, during, and after it crosses the Beam.

NOTE: When you need to detect movement at the edge of a field of view, you should create an ROI instead of a Beam.

1. Create a rule involving a Beam as described in *Creating a New Rule* on page 54.
2. Click **New IQBeam**.
3. Create an **Object crosses an IQBeam** rule.
4. Set the direction that a moving object crossing the Beam will generate an alarm:
    - Click **Reverse** to change the direction.
    - Check the **Bi-directional** box to trigger the alarm if the Beam is crossed in either direction.



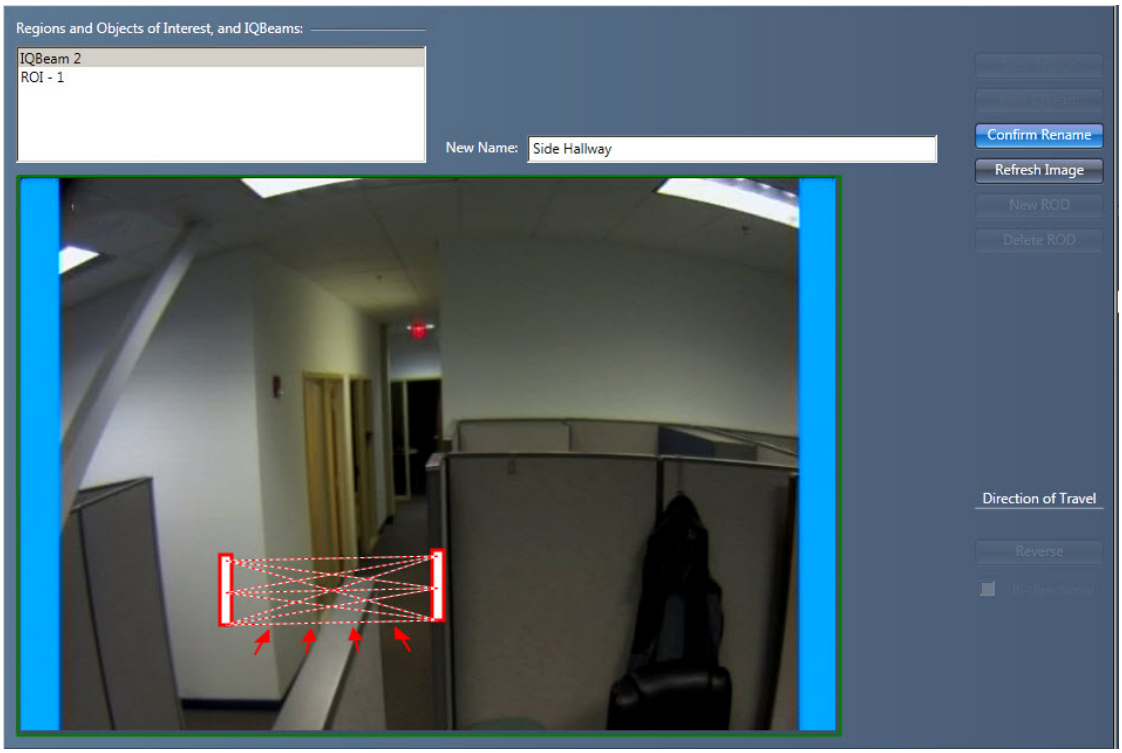
5. Position the Beam by dragging its endpoints to the correct location.
6. Click **OK**.

Renaming a Region of Interest or Beam

ROIs and Beams are assigned a default name upon creation. Renaming your ROIs and Beams will help you organize them.

NOTE: A Region of Disinterest is connected to the ROI it was created inside and cannot be renamed.

1. In the Regions and Objects of Interest, and IQBeams window, select the ROI or Beam you want to rename.
2. Click **Rename...** and enter the new name.
3. Click **Confirm Name**.



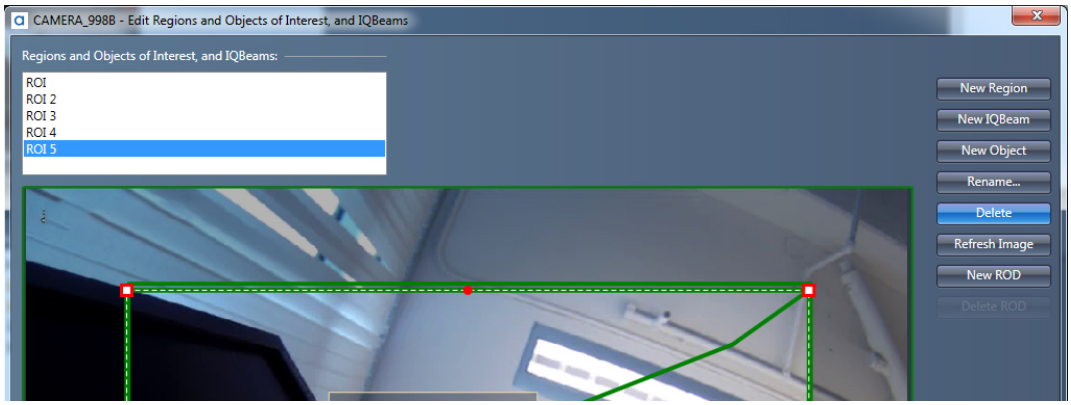
4. To rename another ROI or Beam, select it from the list and repeat steps 1-3.
5. When you're done, click **OK**.

Deleting a Region of Interest or Beam

You can delete any regions and objects of interest, or Beams you configured.

NOTE: If the ROI or Beam is being used by an existing rule, you must delete the rule first.

1. Select a rule and click **Edit Rules...**
2. Click the Cameras tab and select the camera containing the ROI or Beam you want to delete.
3. Select the ROI or Beam you want to rename. Ensure the camera tree is fully expanded if the list of available options is not visible.
4. Click **Edit Region...**
5. Click **Delete**.



6. To delete another, select the ROI or Beam from the list and click **Delete**.
7. When you're done, click **OK**.

Email Notifications

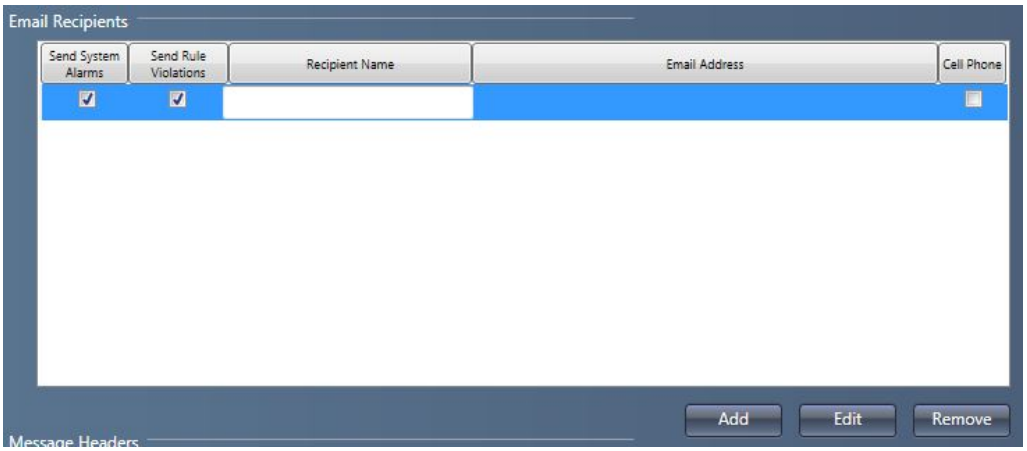
When not logged into the View software, you can receive email notifications of system alerts or when a rule is triggered. Each notification lists the camera name, the triggered rule that caused the alarm event, and links to the video alarm clip as well as live video.

NOTE: To receive notifications when a rule is triggered, you must enable the feature for each individual rule. See *Enabling Email Notifications* on the next page.

Setting Up Email Notification Service

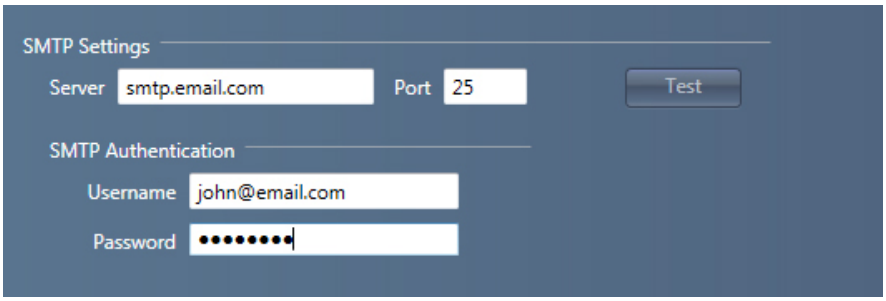
NOTE: Before setting up email notification service, ensure that the system has a valid default gateway and DNS server in Network Settings.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Email**.
3. Make sure that the **Enable Email Notification Service** box is checked.
4. Click **Add** to enter the name and email address of the person receiving alerts. You can enter multiple recipients.



5. Choose the type of alert to email:
   - Check the **Send System Alarms** box to receive notification for system alerts.
   - Check the **Send Rule Violations** box to receive notification when a rule has been violated and an alarm event triggers.
   - Check the **Cell Phone** box to send a text-only message to the recipient's cell phone.
6. Under Message Headers, enter the email address for the person sending the notifications and the text that will appear at the beginning of each email subject line.

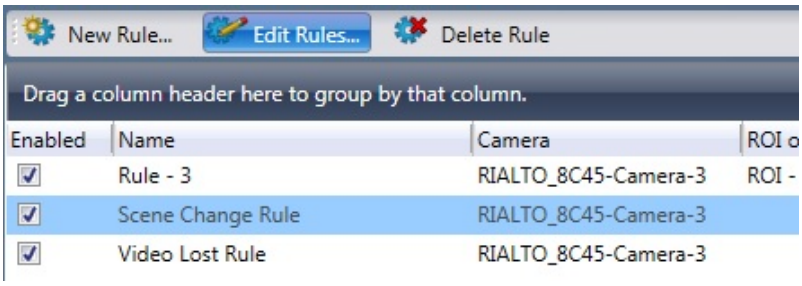
7. Enter the name or IP address of the SMTP server. Enter port information when using a non-standard port.
8. Enter the address and password for the email you chose in step 6.



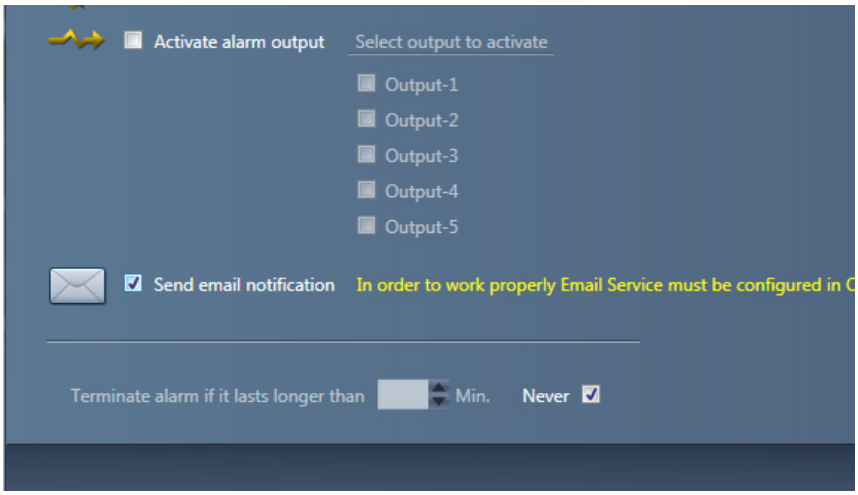
9. If the analytic appliance is behind a firewall or router, enter the analytic appliance's external IP address and HTTP(S) port.
10. Click **Apply**.
11. Once you've finished setting up the email service, click **Test** to verify the settings. If the settings are correct, you will receive a test email message.
12. If your settings are correct, click **OK**.

Enabling Email Notifications

1. Click the **Rules** tool in the View toolbar.
2. Select the rule you want to enable email notifications for and click **Edit Rules...**



3. Click the **Actions** tab.
4. Check the **Send email notification** box.


Activate alarm output
Select output to activate
Output-1
Output-2
Output-3
Output-4
Output-5
Send email notification
In order to work properly Email Service must be configured in C
Terminate alarm if it lasts longer than
Min.
Never

5. Click **OK**.

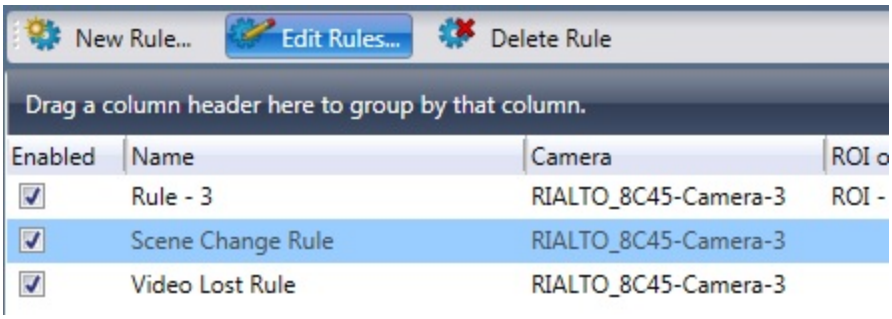
Holiday Schedule

A holiday schedule allows you to set your rule to be active only on certain dates and times throughout the calendar year.

NOTE: The holiday schedule applies all of the dates contained within it to the rule using the schedule. You can make and use only one holiday schedule.

Creating or Editing a Holiday

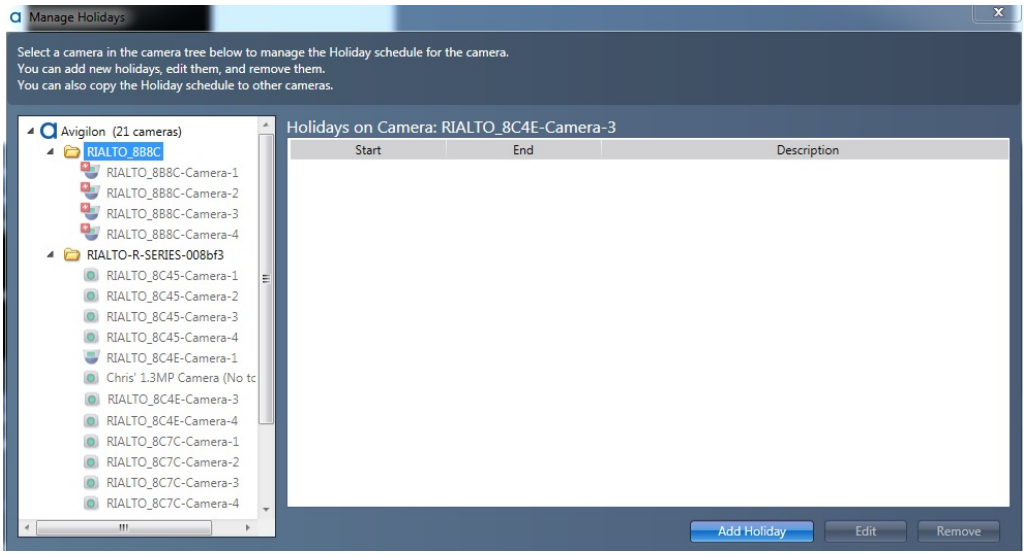
1. Click the **Rules** tool.
2. Select the camera in the camera tree with the rule that you want to apply or edit a holiday.
3. Select the appropriate rule and click **Edit Rules...**



4. Click the **Date/Time** tab.
5. Click **Mange Holidays...**.
6. Ensure that the camera named under Holidays on Camera is where you want to add holidays.

   Cameras attached to an analytic appliance cannot be selected from the camera tree in the Manage Holidays window. You must select it from the camera tree in the main window in step 2.

7. Click one of the following:
   - **Add Holiday** to create a new holiday
   - **Edit** to modify an existing holiday.



8. Perform one of the following procedures:
    - To set the rule to apply for a whole day:
        - Ensure the **Whole Day** box is checked and set the date.
    - To set start and end dates for when the rule will apply:
        - Uncheck the **Whole Day** box.
        - Set the start date and time.
        - Set the end date and time.

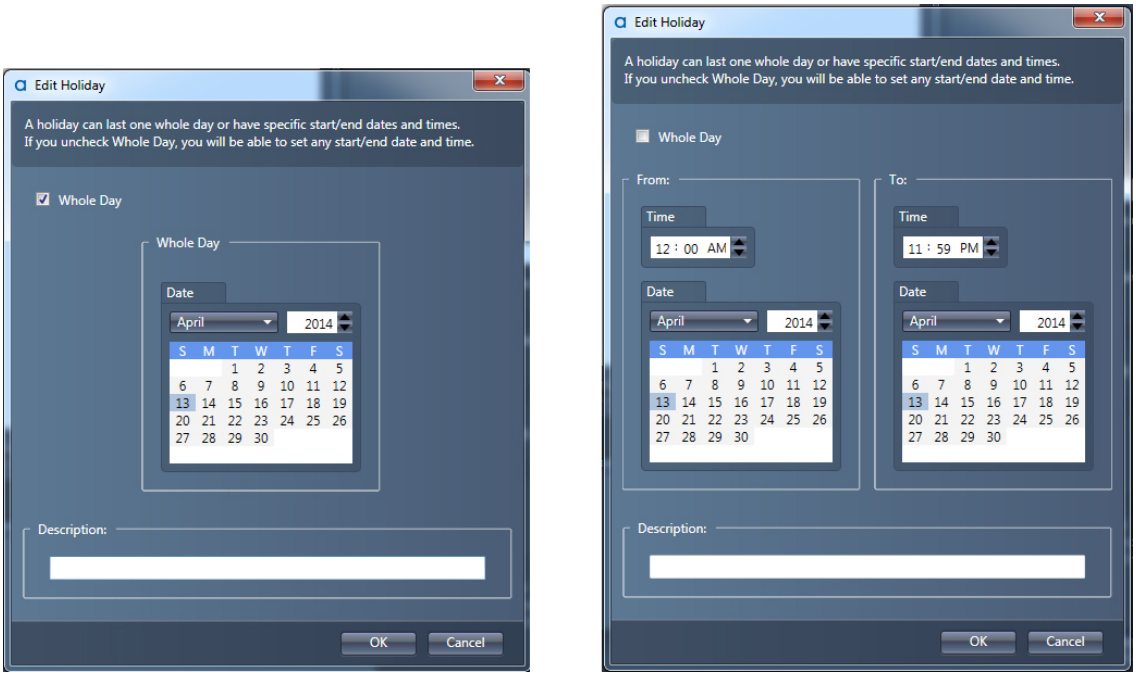


Figure: (Left) Edit Holiday dialog box for a whole day. (Right) Edit Holiday dialog box with start and end dates and times.

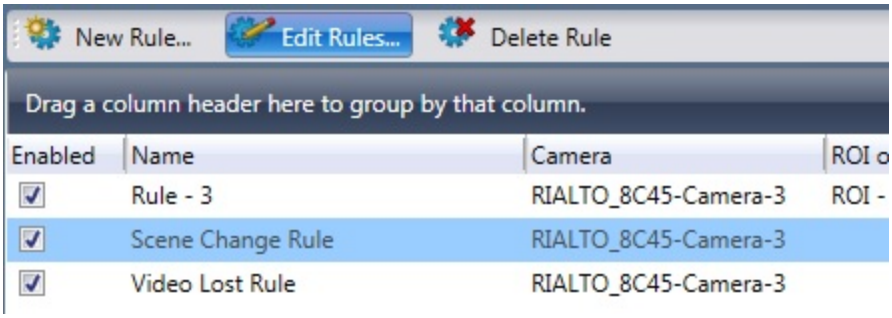
9. Enter a description for the holiday.

10. Click **OK**.

Activating the Holiday Schedule

You can set a rule to activate only during specific dates. To manage or create holidays, complete the steps in *Holiday Schedule* on page 66.

1. Click the **Rules** tool in the View toolbar.
2. Select the camera with the rule you want to activate the holiday schedule for.
3. Select the rule from the list and click **Edit Rules...**



4. Click the **Date/Time** tab.
5. Check the **Use Holiday Schedule** box and choose **Active On Holidays**.
6. Click **OK**.

Exporting and Importing a Holiday Schedule

You can copy holiday schedules between analytic appliances on different networks.

NOTE: If your analytic appliances are on the same network, you can simply make a direct copy. To do so, complete the steps in *Copying a Holiday Schedule Between Analytic Appliances* on the facing page.

1. In the Edit Rules window, click the **Date/Time** tab.
2. Click **Manage Holidays**.

To export a schedule:

1. Select the analytic appliance with the schedule you want to export.
2. Click **Export** and choose the directory where you want to save your file.
3. Click **Save**.

To import a schedule:

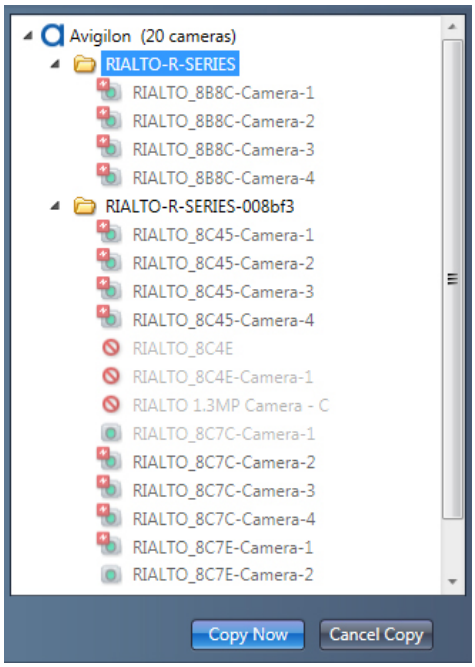
1. Select the analytic appliance where you want to import the schedule to.
2. Locate the exported holiday schedule and click **Open**.
3. Click **OK**.

Copying a Holiday Schedule Between Analytic Appliances

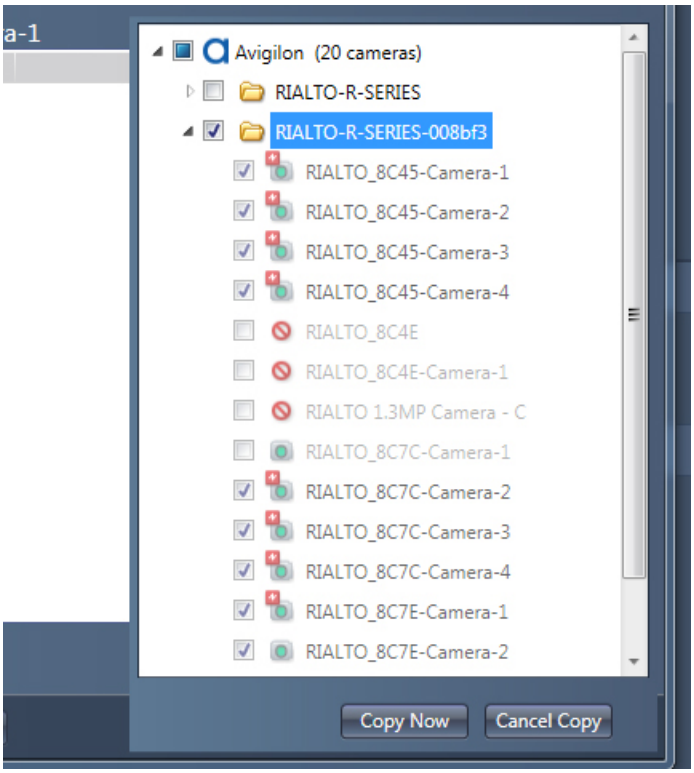
You can copy a holiday schedule between analytic appliances on the same network. Copying a holiday schedule applies to all cameras attached to the analytic appliance.

NOTE: This feature will not work for between analytic appliances on different networks. To copy a schedule between analytic appliances on different networks, follow the steps in *Exporting and Importing a Holiday Schedule* on the previous page.

1. In the Edit Rules window, click the **Date/Time** tab and click **Mange Holidays**.
2. Click **Copy From...**
3. Select the analytic appliance with the holiday schedule you want to copy and click **Copy Now** to make a copy of the schedule.



4. Click **Copy To Other Camera(s)...** and check the box beside each analytic appliance where you want to transfer the copied holiday schedule.



5. Click **Copy Now**.
6. When you are finished copying your schedule, click **OK**.

Alarms

Alarm Settings

Alarm Inputs and Outputs

A Rialto™ analytic appliance provides up to 4 alarm inputs, 4 open collector alarm outputs, and an alarm relay closure output.

The alarm inputs are TTL compatible, with a maximum 6V DC input voltage. They can be used to sense a contact closure or a TTL compatible low and high value.

The open collector alarm outputs can drive a maximum of 20 mAmps and can be used to drive low current devices or control external relays. The relay closure output can drive a current up to 500 mAmps.

NOTE: These settings apply to all cameras connected to an analytic appliance.

Accessing Alarm Input and Output Settings

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Input/Output**.

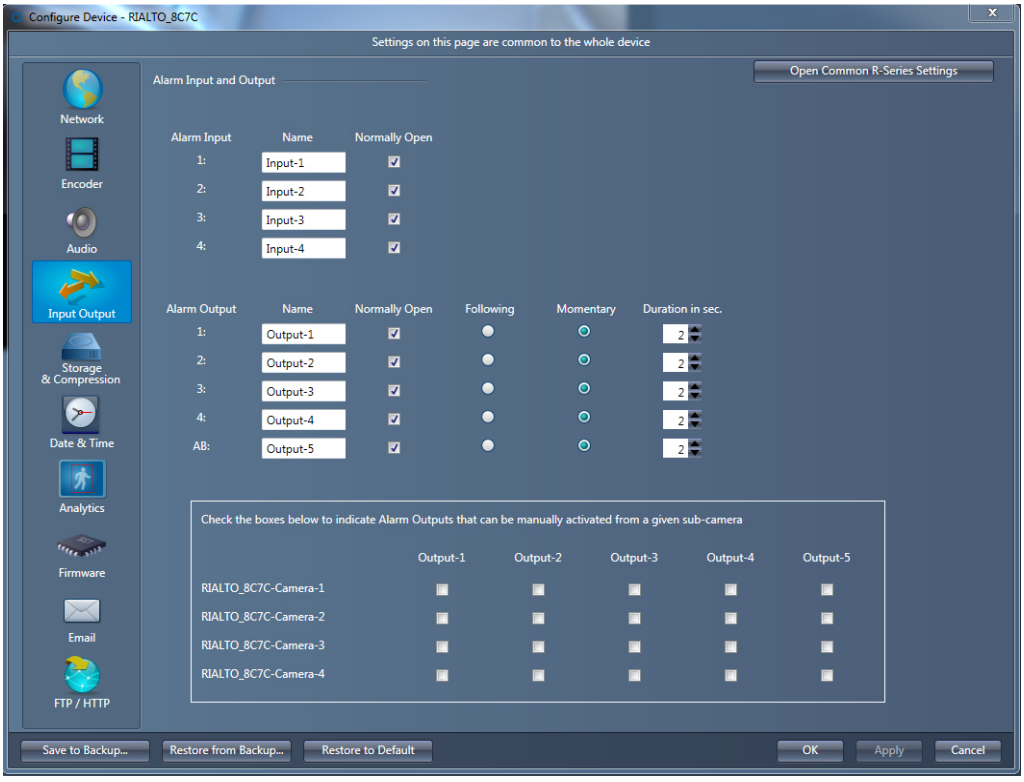


Figure: Alarm Input and Output page for an analytic appliance with attached sub-cameras.

Setting Alarm Inputs

1. Enter the name of your alarm input (up to 8 characters).
2. To set the alarm to trigger upon contact closure or a TTL low signal, check the **Normally Open** box.
3. Click **Apply**.

Setting Alarm Outputs

1. Enter the name of your alarm output (up to 8 characters).
2. If you want the open collector or a TTL high and Relay Contact (AB) to close when an alarm triggers, check the **Normally Open** box.
3. Set one of the following options:
   - To set the alarm output to be active for the entire duration of an alarm event, choose **Following**.
   - To set a certain amount of seconds that the alarm output will be active following an event, choose **Momentary** and input the duration.
4. Check the box for each camera that you want an operator to be able to manually activate an alarm output.
5. Click **Apply**.

Setting Pre-Alarm Recording

You can specify the number of seconds prior to an alarm being triggered that are recorded for full alarm events or an alarm clip.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Storage & Compression**.
3. Input the number of seconds of video to be recorded for full alarm events.
4. Input the number of seconds of video to be recorded in alarm clips.
5. Click **OK**.

Alarm Events

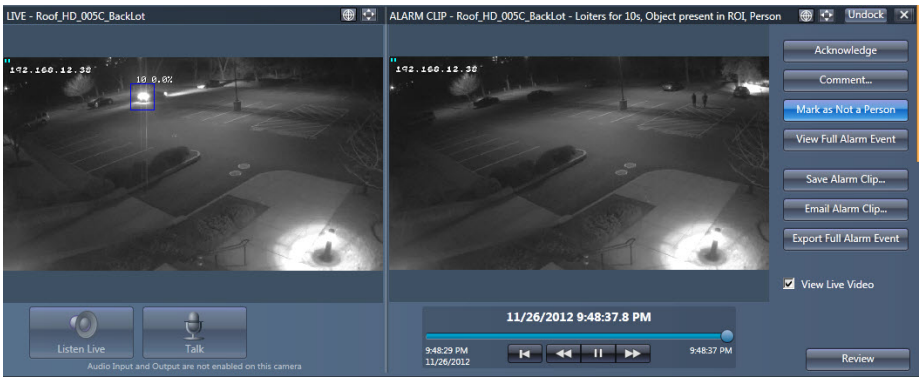
Marking an Alarm Event as False

In addition to acknowledging an alarm, you can mark an alarm event as false in order to train the analytics through Teach By Example. To learn more about Teach By Example, consult *What is Teach By Example?* on page 77.

Alarms marked as false will change their display icon from a red square to a green square with an x.

NOTE: If two or more users are logged into the same analytic appliance, the alarm event will display as false as soon as one user marks the alarm as false.

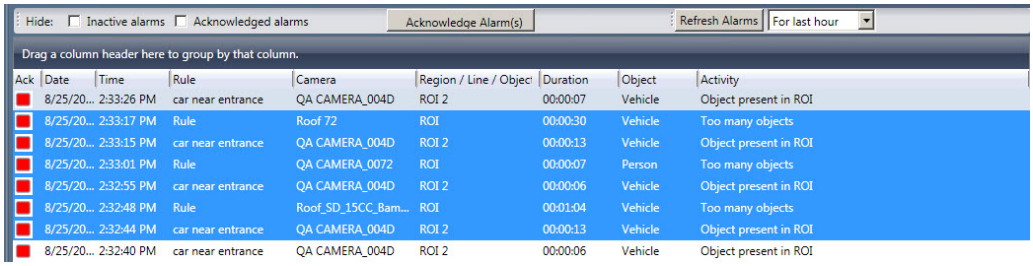
1. Select an alarm event from the alarm list and double-click it or click **Review** to open the event clip.
2. Click **Mark as Not a Person** or **Mark as Not a Vehicle**.



3. To revert the false alarm and mark the event as true, open the alarm event again and click **Mark as a True Person** or **Mark as a True Vehicle**.

Acknowledging an Alarm Event without Review

1. Click the **Alarms** tool.
2. Select an entry in the alarm list.
    - To select multiple alarms, hold the **Ctrl** key while selecting each alarm you want to include.



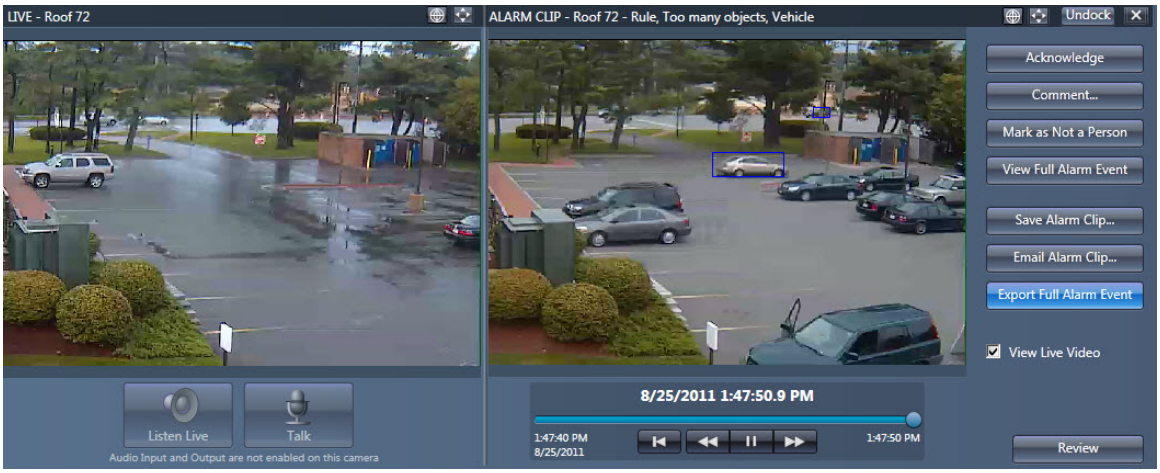
3. Click **Acknowledge Alarm(s)**.

Exporting and Importing Alarm Events

You can export and import alarm events, as well as email your exported files. You can see and manage all the alarm events you have exported by clicking the **Export** tool.

Exporting Alarm Events

1. Select the alarm event you want to export from the alarm list.
2. Double-click the event or click **Review**.
3. In the playback window, click **Export Full Alarm Event**.

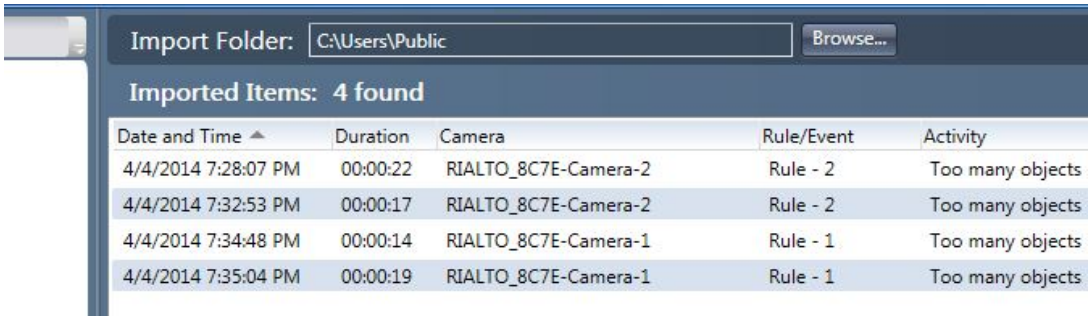


4. Repeat steps 1-4 for all alarm events you want to export.

Importing and Playing Alarm Events

If you have downloaded exported alarm event files, you can import those files into View and play them inside the View software.

1. Click the **Import** tool.
2. In the Import window, click **Browse**.
3. Navigate to the folder where your exported event files are stored.
4. Select the folder and click **OK**.



5. Double-click on the alarm event you want to view to play them in the playback window.

Emailing Exported Alarm Events

You can email single or multiple exported alarm events using the View software.

1. Click the **Export** tool.
    - To email all events in the list, click **Email All**.
    - To email specific events, select the event(s) you want to email from the list and click **Email Selected**.

2. In your email application, fill in the recipient's address and send the message. The alarm event files will be automatically added as a .zip attachment.

NOTE: Before sending large attachments, check with your company and the email recipient to verify the company policy for email attachment size limits.

Copying Exported Alarm Events

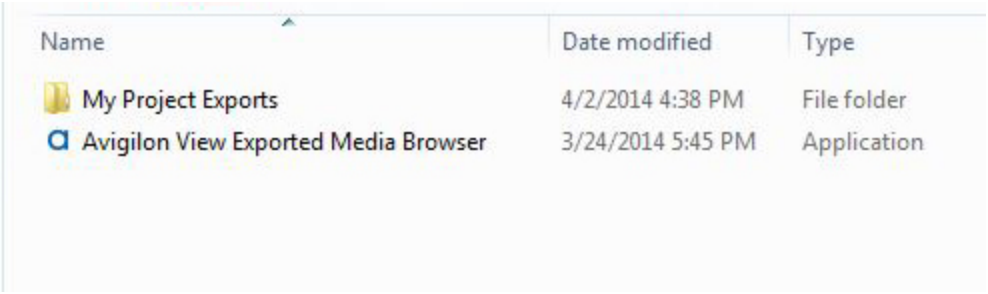
You can copy selected exported alarm events to a specified location on your hard drive.

1. Open the **Export** tool.

2. Select the events you want to copy and click **Copy Selected To...**
3. Click **Browse** and select your desired destination for the copied files.
4. Click **OK**.

Playing an Exported Alarm Event

1. Open the directory on your local drive where the exported files are stored.
2. Double-click and run **Avigilon View Exported Media Browser**.



3. In the Avigilon™ View Exported MediaViewer, double-click the alarm event you want to play.

Removing Exported Alarm Events

You can remove the alarm events you exported.

1. Click the **Export** tool.
2. Clear the alarm events:
    1. To clear the entire list, click **Clear All**.
    2. To clear certain alarm events, select the event you want to remove and click **Clear Selected**.

Teach By Example

What is Teach By Example?

Teach by Example (TBE) allows you to provide feedback about the accuracy of the alarm events generated by a camera. This feedback is used to train the analytic appliance and increases the accuracy of the alarm events. This is known as teaching, or training the camera's analytics.

When to Use Teach By Example

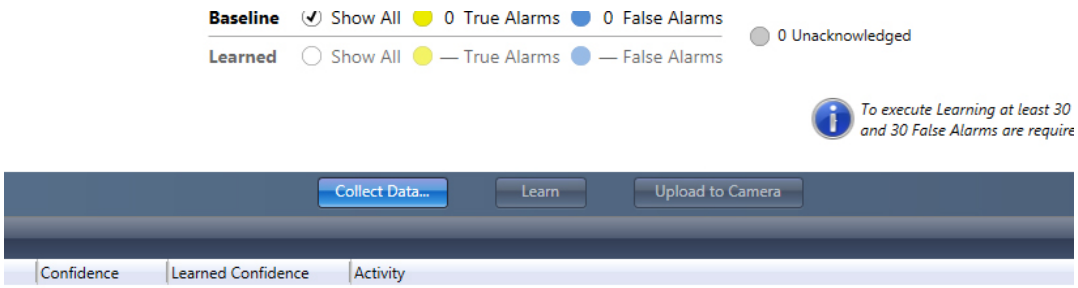
Here are some common scenarios for using Teach By Example:

- When there is a vertical object, such as trees or tree branches, in a field of view that causes false alarms.
- When there is an area where you normally expect humans, but false alarms are generated by dogs or rabbits moving through the field of view.
- When you see a common pattern in your false alarms, such as the reflection of a car's headlights on a window.

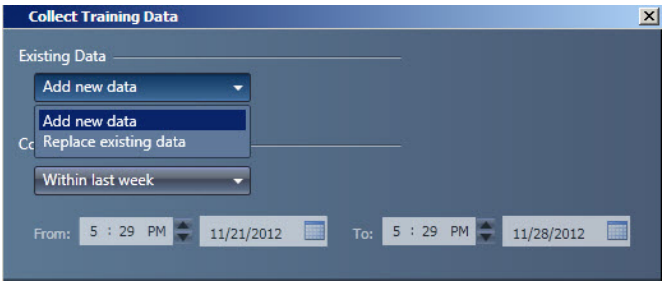
Collecting Training Data

You can collect data from an analytic appliance that has been trained.

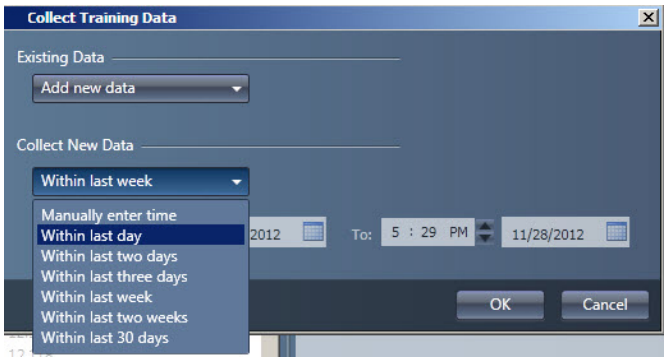
1. Click the **Teach** tool.
2. Select the camera from the camera tree that you want to collect data from.
3. Click **Collect Data...**.



4. From the Existing Data drop-down menu, select one of the following options.
   - **Add New Data** to add alarm events to the existing collection of events.
   - **Replace Existing Data** to delete the existing collection of events and start a new set of alarms to review.

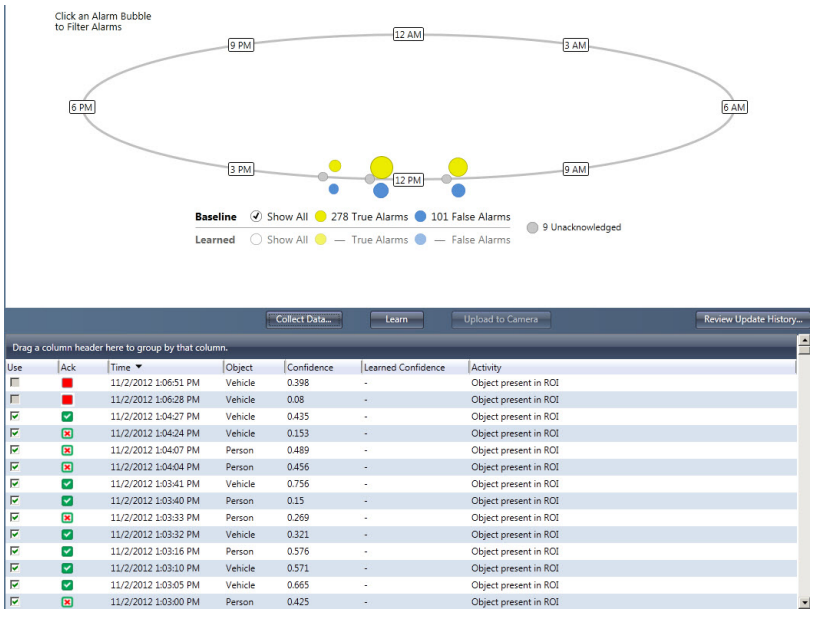


5. Set the period of time you want to collect data from.



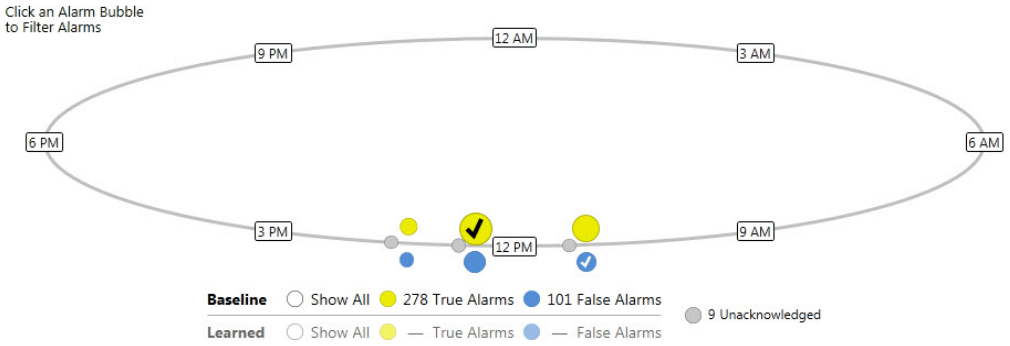
6. Click **OK**.

Interpreting Training Data



The alarm events from the collected data display in the lower pane of the window.

The diagram in the upper pane is a graphical representation of the alarms that were collected. The colored circles represent how many true alarms, false alarms and unacknowledged alarms were collected, and what period of time the alarms correspond to.

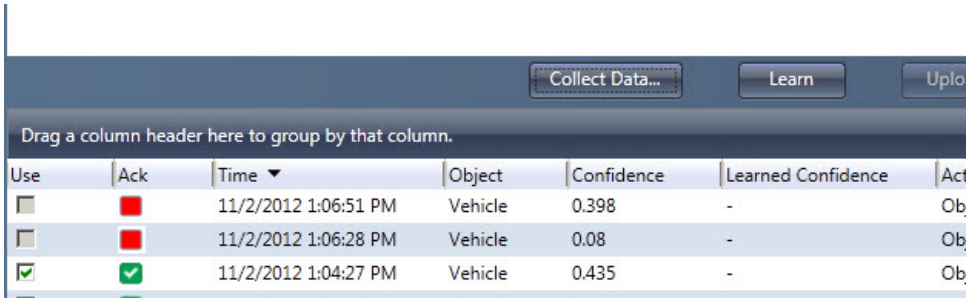


- **Baseline**: Shows the number of alarms collected, and how those alarms are distributed. To show the alarms associated with a period time, click on a circle in the graphic display.
- **Learned**: Once a set of learning results have been collected, Learned will show the number of alarms the camera would generate if the learning results were uploaded to that camera.

Excluding an Alarm Event from Training Data

Alarm events can't be deleted from the collected data. However, you can choose to exclude one or more alarm events.

1. Click the **Teach** tool.
2. Under Use, uncheck the box beside the alarm event you want to exclude.



Learned Results

Once you have collected training data, you can have the analytic appliance learn from this data. The results of the data can be uploaded to the camera. The more data you collect and use to teach, the more accurate the analytics become. It is also important to have a balance of both true alarms and false alarms.

You must mark a minimum of 30 true alarm events and 30 false alarm events for a camera before you can create a learning file.

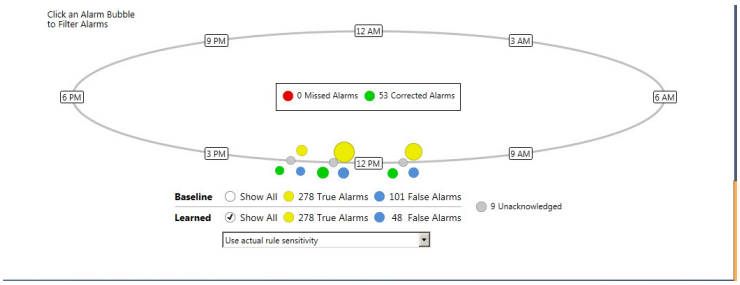
NOTE: When the camera is moved and its field of view changes, the learning results can no longer be used as they can no longer accurately identify objects. You should either delete the learning results and create a new set of results, or use the Factory Default settings. To do so, complete the procedures in *Teach By Example History* on the facing page.

Learning From Collected Training Data

Once you have collected training data, you can have the analytic appliance learn from this data, and the results of the data can be uploaded to the camera. The more data you collect and use to teach, the more accurate the analytics become. It is also important to have a balance of both true alarms and false alarms.

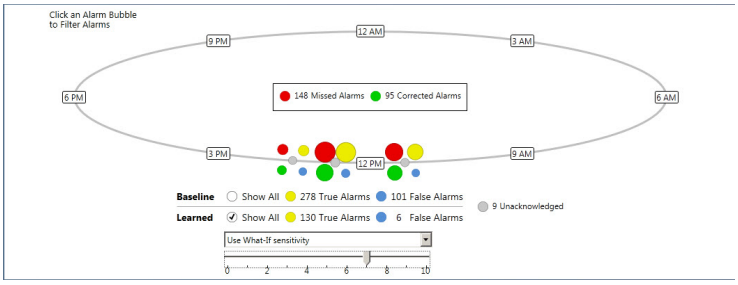
NOTE: You must mark a minimum of 30 true alarm events and 30 false alarm events for a camera before you can create a learning file.

1. Click the **Teach** tool.
2. Click **Learn**.
3. Once the learning results have been created, the graphic display of alarm events will change to show the difference in missed and corrected alarms if you uploaded the learning results to a camera.



4. Use the drop-down menu to see the impact of changing the sensitivity of your rules:
   - **Use actual rule sensitivity**: shows the status of the alarms if no rule sensitivity changes are made.
   - **Use What-If sensitivity**: shows how the number and status of alarms change if the sensitivity for all rules violated in a set of alarm events is increased or decreased.

     Increasing or decreasing sensitivity with the **Use What-if sensitivity** does not change the sensitivity of a rule. You must do this manually for each rule.

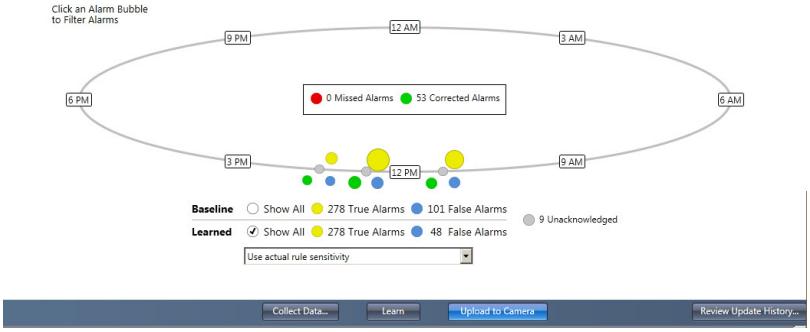


Uploading Learning Results to a Camera

After the learning results have been created you can upload them to the camera.

NOTE: When uploading learning results to a camera connected to an analytic appliance, the set of results are used only on the camera channel where the results were uploaded, not on all channels.

1. Click the **Teach** tool.
2. Click **Upload to Camera**.



Teach By Example History

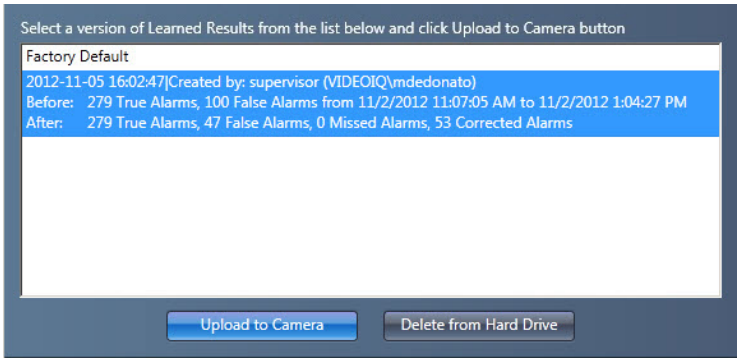
You can review the Learned Results for a camera in the Teach By Example history. You can also upload the results listed, restore Factory Default settings, or delete learned results.

Accessing Teach By Example History

1. Click the **Teach** tool.
2. Select the camera with the Teach By Example history you want to review.
3. Click **Review Update History**.

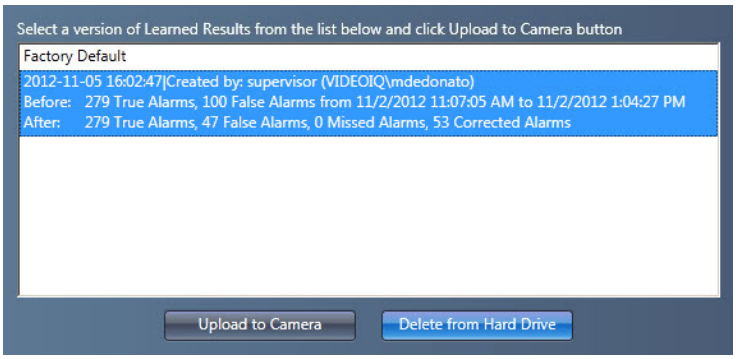
Uploading Learned Results in Teach By Example History

1. Select the Learned Results you want to upload.
2. Click **Upload to Camera**



Deleting Learned Results

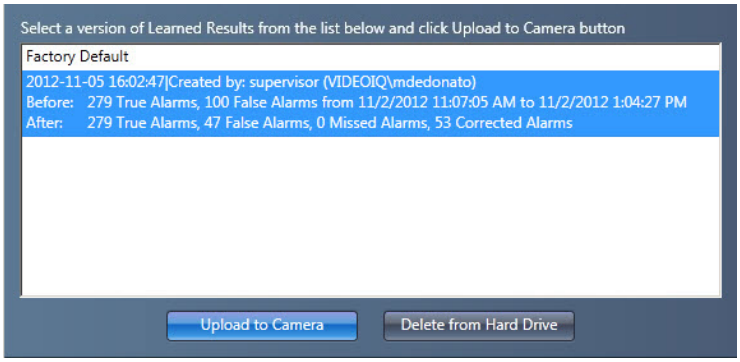
1. Select the Learned Results you want to delete.
2. Click **Delete from Hard Drive**.



Restoring Factory Default Settings

If you no longer want a camera to use the Learned Results you uploaded, you can restore its settings to Factory Default.

1. Select Factory Default in the Learned Results list.
2. Click **Upload to Camera**.



Archiving

Archiving gives you the ability to archive event video files, continuous non-event video files, or both types of files on your local or network drive. Archiving runs in the background even when the View software is not open. At set times, it makes a copy of the video from the camera and stores it on your local or network drive. The original video on the camera is untouched.

NOTE: Only users with a supervisor-level account can access this feature.

Before Setting Up Video Archiving

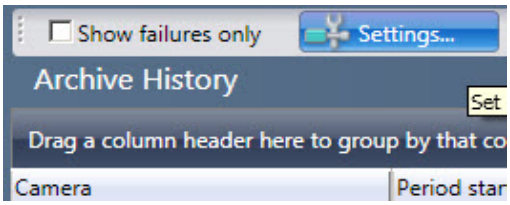
Before configuring archive settings, you will need to create a user with the role of operator and give that user the "View Historic Video" permission. This account will let your workstation securely log onto the camera and archive the video files.

- To create a user, complete the steps in *Adding a User Account* on page 43.
- To give a user permissions, complete the steps in *Setting User Permissions* on page 45.

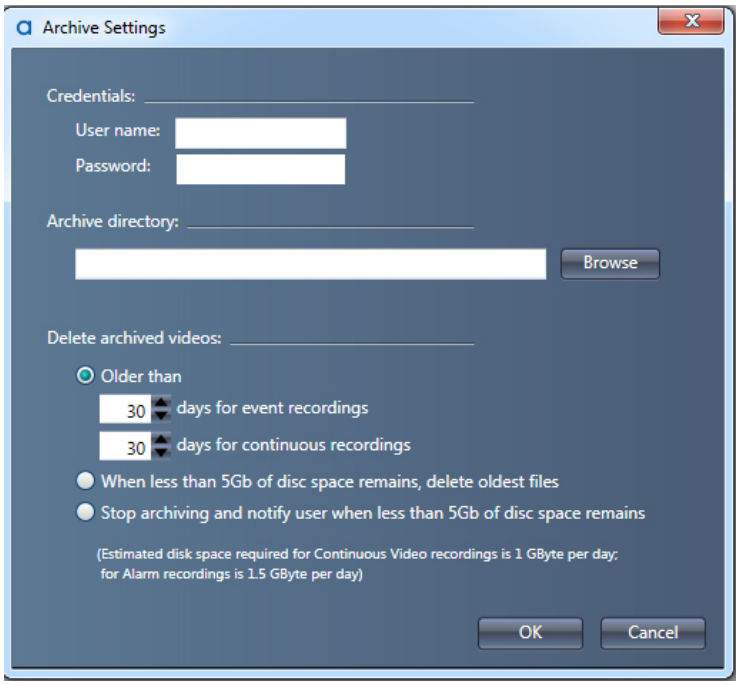
The user you create should have an account on all cameras or camera groups where archiving will be configured.

Setting Up Video Archiving

1. Click the **Archive** tool.
2. Click **Settings...**.



3. Enter the login credentials for the user created in *Before Setting Up Video Archiving* above. The credentials used should be valid on all cameras where archiving will occur.



4. Click **Browse** and navigate to a directory on your local or network drive.
5. Choose to have your files deleted:
    - based on a set number of days.
    - by available disk space.
6. Click **OK**.

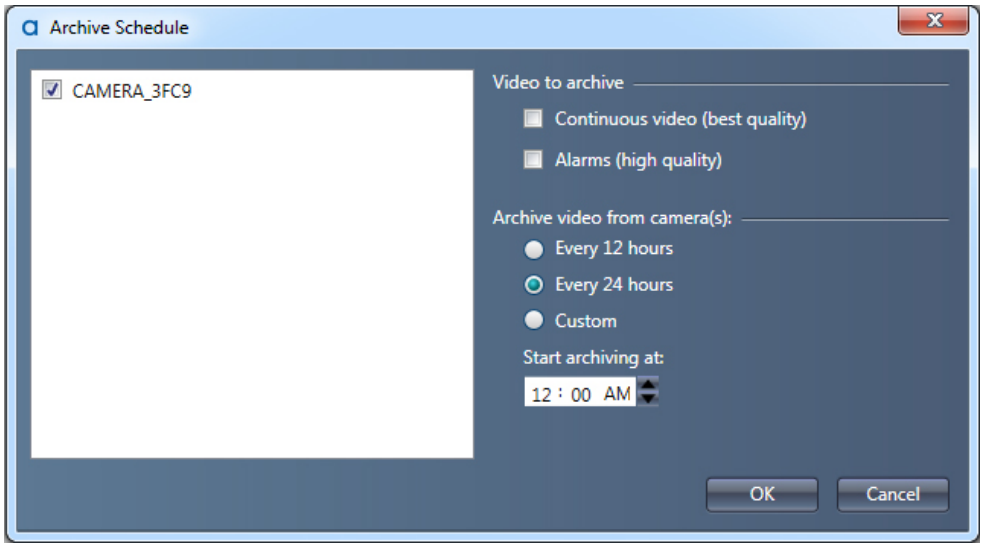
NOTE: If your local or network drive does not have enough space to store files for the number of days indicated in the Settings box, the oldest files will be automatically deleted when no more space is available.

Creating an Archive Schedule

Once you've set up video archiving, you will need to create an archive schedule.

NOTE: If connection to the network is disconnected or not on during the scheduled archive time, videos will not be archived. Once connection is reestablished, the View software will check to see if any downloads are necessary for the previous two time periods.

1. Select one or more cameras or camera groups from the camera tree.
2. Click the **Archive** tool in the View toolbar.
3. Click **Schedule...**.
4. Check the box for the type of video you would like to archive:
    - **Continuous video (best quality)**
    - **Alarms (high quality)**



5. Choose to archive video:
    - **Every 12 hours**
    - **Every 24 hours**
    - **Custom** to select more options from the drop-down menu.
6. Enter a time to begin archiving video. When archiving a large number of cameras, you may want to stagger start times so that not all cameras are archiving at once.

    NOTE: The time to start archiving video is based on the local time of your operating system, not the time on the camera.
7. Click **OK**.

Canceling An Archive Schedule

1. Select the device or camera group with the schedule you want to cancel.
2. Click the **Schedule...** button.
3. Uncheck both the **Continuous video** box and **Alarms** box.
4. Click **OK**.

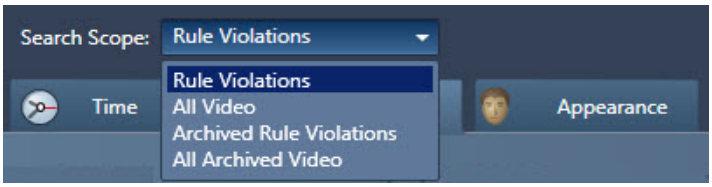
Performing a Search

You can perform a search for people, vehicles or suspicious objects across the cameras on your network. You can also narrow your search using the object's appearance, such as a specific vehicle or person.

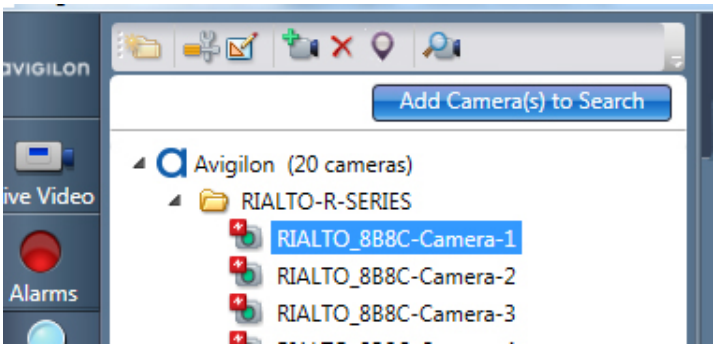
Performing a Search Across Cameras

As you select criteria for your search they are added to the Search Summary, which displays on the right side of the screen. The results of your search display at the bottom of the screen, and can be viewed in thumbnail or list format.

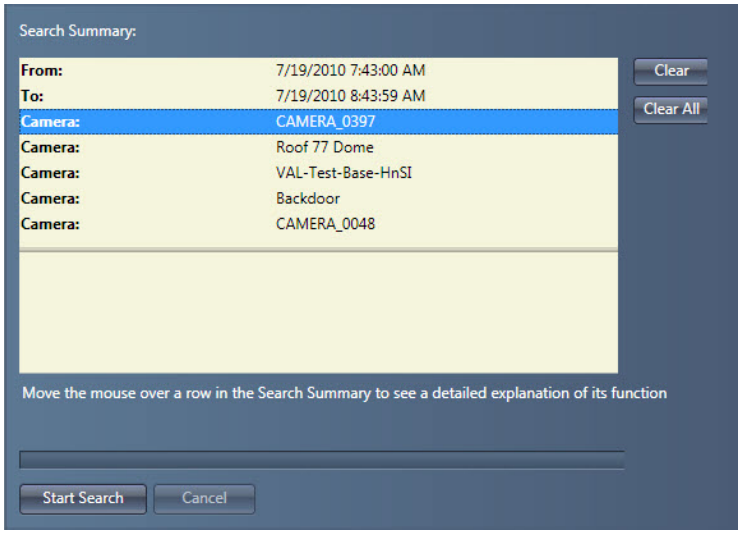
1. Click the **Search** tool.
2. Use the **Search Scope** drop-down menu to select the type of recorded video you want to search:



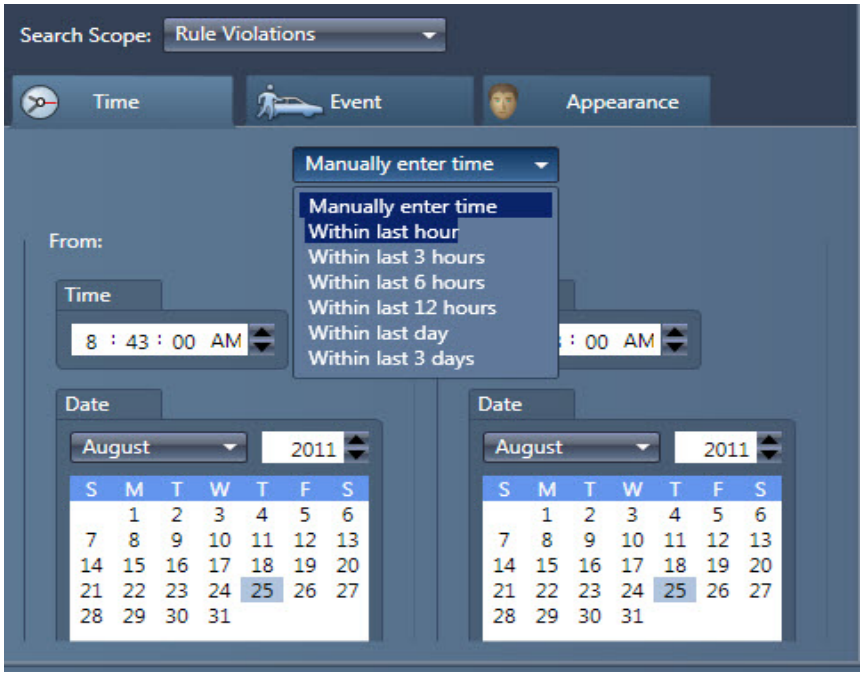
   - **Rule Violations** - Searches only (high quality) video that was recorded as a result of a defined rule being violated.
   - **All Video** - Searches only (low quality) video that was recorded continuously.
   - **Archived Rule Violations** - Searches only (high quality) video that was archived from the analytic appliance, and was recorded as a result of a rule violation.
   - **All Archived Video** - Searches only (low quality) video that was archived from the analytic appliance.
3. Select the camera(s) from the camera tree and click **Add Camera(s) to Search** to add it to the Search Summary list.



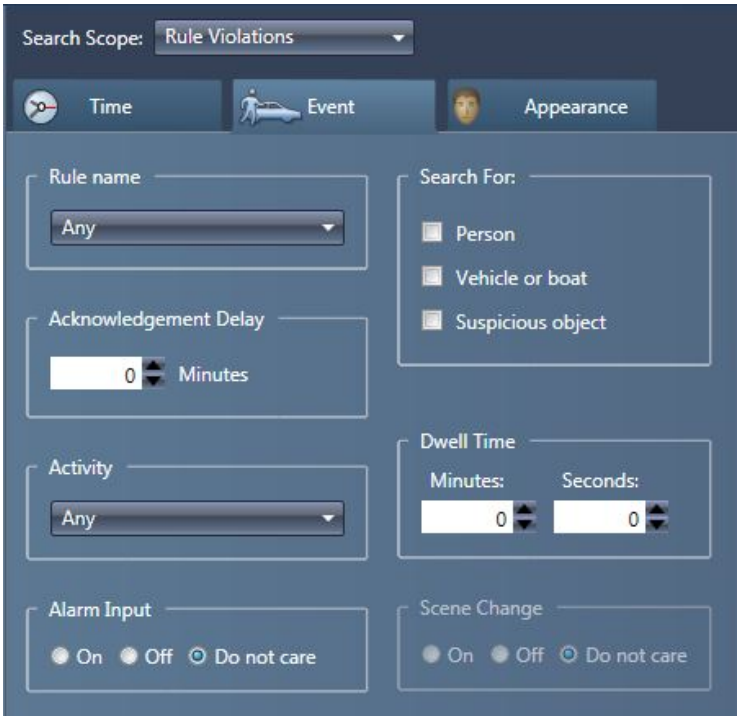
   To remove a camera from the list, select the camera in the Search Summary list and click **Clear**.



4. In the Time tab, specify the time period to search. You can search video from the last *n* hours or days or manually enter a time range by selecting Manually enter time from the drop-down menu.

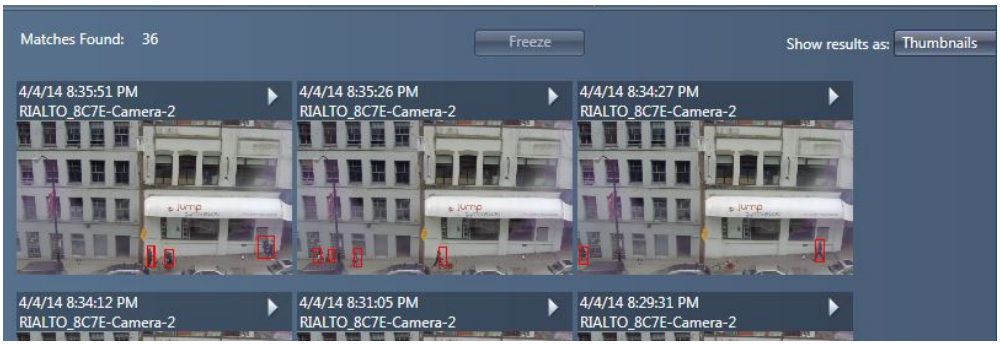


5. In the Event tab, specify the name of the rule violated, the type of activity, or the type of object for which you want to search, such as where a person was detected.



- **Rule name** - Select the name of the rule you created or Any.
- **Acknowledgement Delay** - Specify the number of minutes after the alarm event occurred that it was acknowledged by an operator
- **Activity** - Select the type activity you want to search for.
- **Search for** - Determine the object type(s) you want to search for and check the appropriate box.
- **Dwell Time** - Specify the dwell time of the person or object you're searching for.
- **Alarm Input**: Choose whether you want to search alarm clips generated when the alarm input state was on, off, or if you do not care.
- **Scene Change**: Choose whether you want clips returned where there is a sudden scene change.

6. If you have appearance criteria to add to your search, click the Appearance tab and click **Add >>**. See*Performing an Appearance Search* below.
7. Click **Start Search**.
8. Once your results are generated in the Matches Found window, you can browse and play the clips, and select whether you want Thumbnails or List view from the drop-down menu.



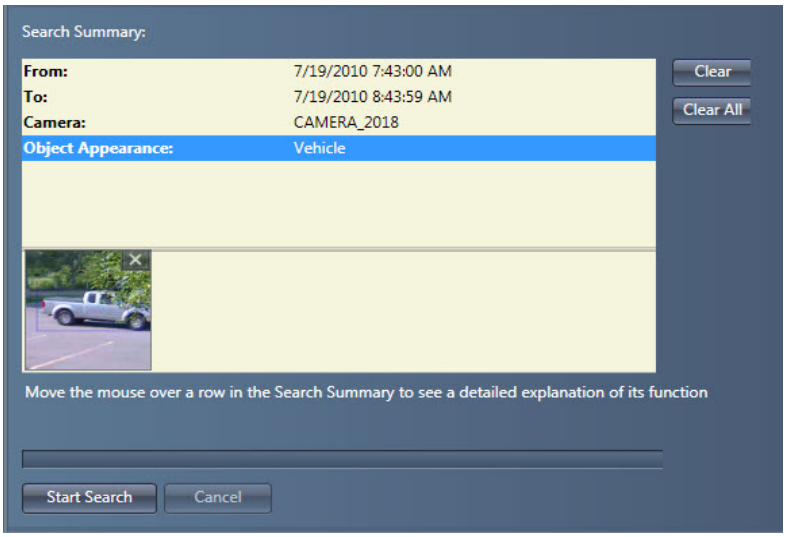
Performing an Appearance Search

You can narrow down your search to look for a specific person, vehicle, boat or suspicious object.

NOTE: To perform an appearance search, you must first perform a device search. See *Performing a Search Across Cameras* on page 85.

1. If you're currently viewing search results as a list, select Thumbnail from the drop-down menu.
2. Find a video clip from your search results that contains the object for which you want to search.
3. Play the alarm event clip.
4. When you find the object you want to search for, pause the video and click the **Pick Appearance**  tool.

5. Click inside the bounding box to add the object to your appearance search criteria.



6. Click **Start Search** again to search for alarm event clips that contain that object or items that look like that object. The clips are displayed with the highest confidence matching showing first.
    - To remove appearance criteria, close the object image(s) displayed in the Search Summary.
    - To add removed appearance criteria, select the object image in the Appearance tab and click **Add >>**.

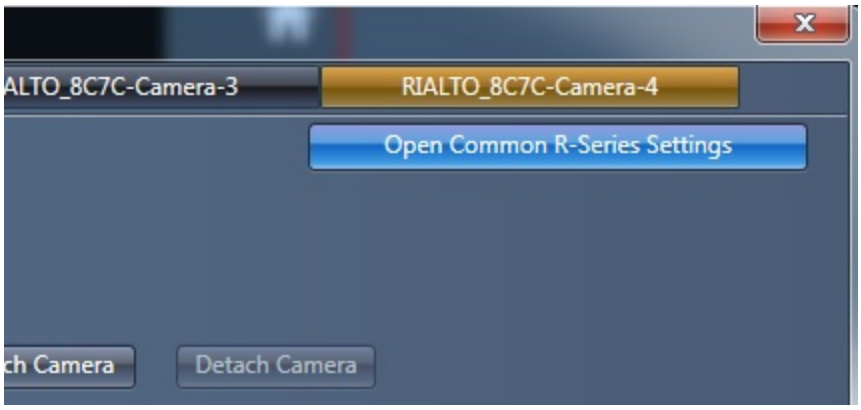
Configuring Settings for a Rialto™ Analytic Appliance

Accessing Common R-Series Settings

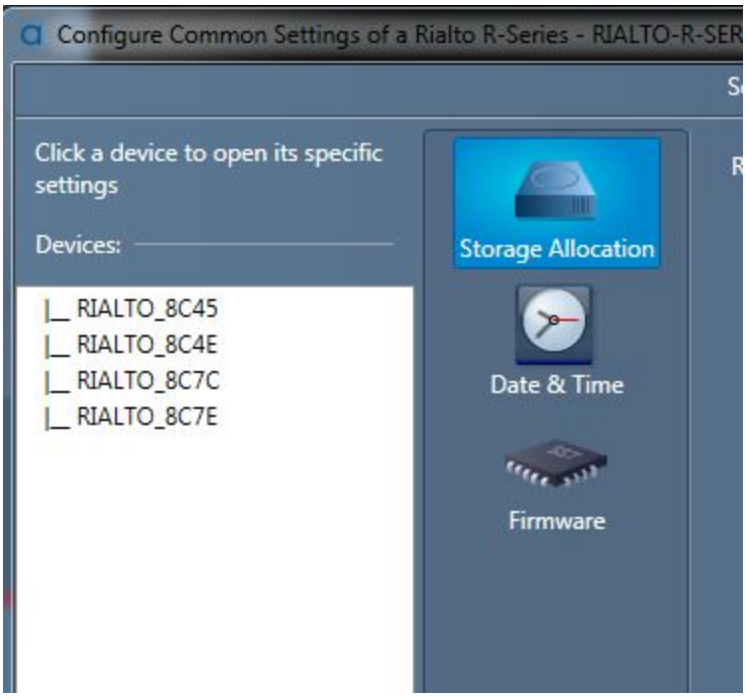
You can access storage, date and time, and firmware settings used by the cameras attached to an analytic appliance.

NOTE: You must set the date and time through Common R-Series Settings. To set the date and time, complete the steps in *Setting the Date and Time* on the facing page.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. Click **Open Common R-Series Settings**.



3. You can change the amount of storage space, set the date and time, and view firmware versions or upgrade firmware for all cameras attached to the analytic appliance.
4. To go to the Configure Device window for a particular camera, select it from the list in the Devices pane.

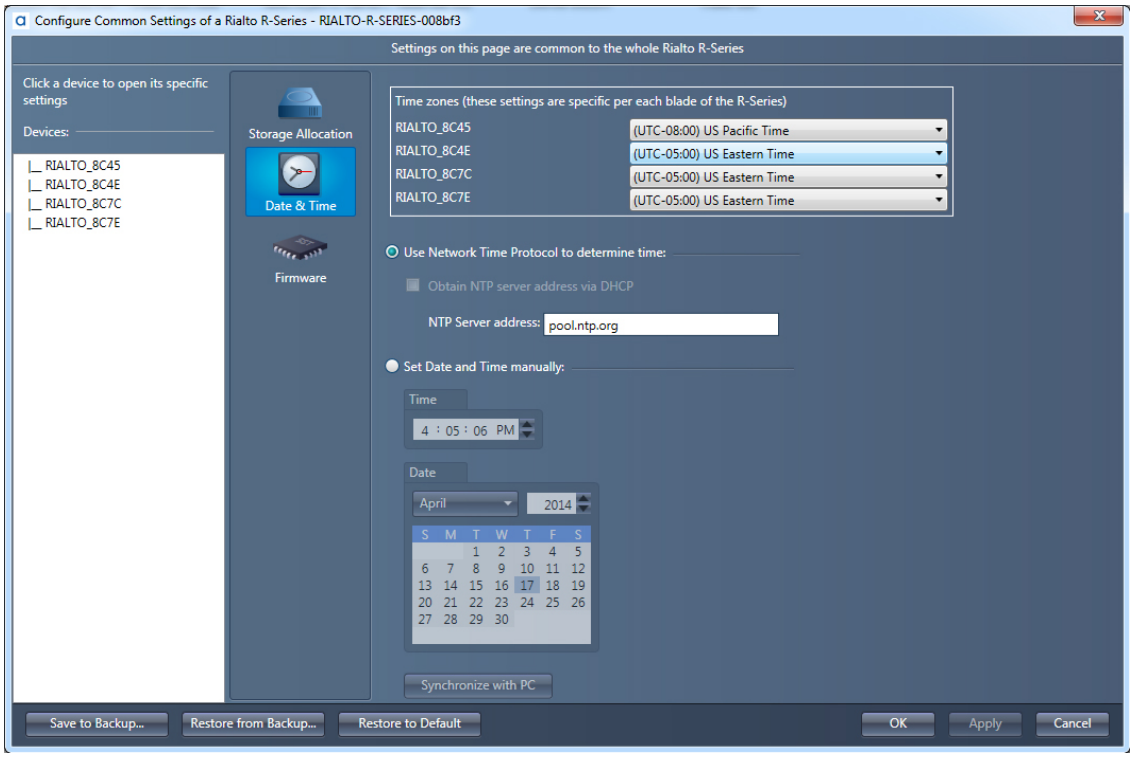


5. When you are done with your settings, click **OK**.

Setting the Date and Time

You must set the date, time, and timezone for an analytic appliance using Common R-Series Settings. To access these settings, complete the steps in *Accessing Common R-Series Settings* on the previous page

1. In Common R-Series Settings, click **Date & Time**.
2. Select the timezone that the analytic appliance is installed in.

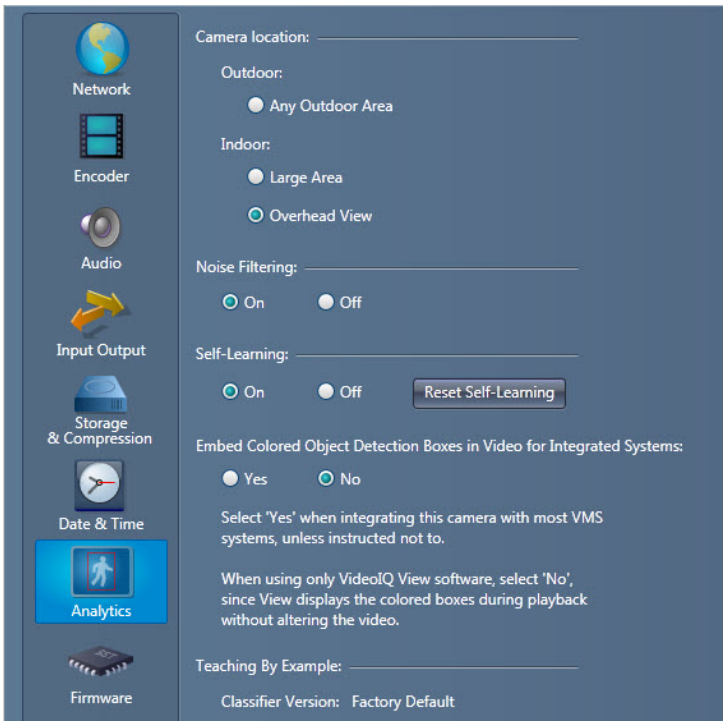


3. Perform one of the following actions:
    - If Network Time Protocol is available:
        - Choose **Use Network Protocol to determine time** to synchronize the analytic appliance.
        - Check the **Obtain NTP server address via DHCP** box or manually enter the NTP server.
    - If Network Time Protocol is not available:
        - Choose **Set Date and Time manually**.
        - Specify the current date and time.
4. Click **OK**.

NOTE: Analytic appliances and cameras do not contain a battery backup for a real-time clock. It is recommended that you set the analytic appliance to get its time through an NTP server when possible, which allows it to always have accurate time.

Configuring Analytics

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Analytics**.



3. Choose where the camera is located:
    - **Any Outdoor Area**: all objects are detected in outdoor scenarios.
    - **Large Area**: for when the area monitored is between 1.5-15+ meters (5-50+ feet).
    - **Overhead View**: for when the camera is placed overhead looking straight down.

    NOTE: Indoor modes will only detect people, not vehicles.
4. Turn Noise Filtering **On**. Noise filtering should be left on unless instructed by support to disable it.
5. Turn Self-Learning: **On** or **Off**
    - To restart the self-learning process, click **Reset Self-Learning**.
6. Choose whether you want bounding boxes to show in your video clips.
    - If you use the View software to watch and review video clips, choose **No**.
    - If your analytic appliance is integrated with a VMS system, choose **Yes**.
7. Click **OK**.

Setting Video Stream Quality for Analytic Appliances

The Rialto™ R-Series analytic appliance offers Triple Stream Encoding, which provides three separate video stream types for 4 video channels:

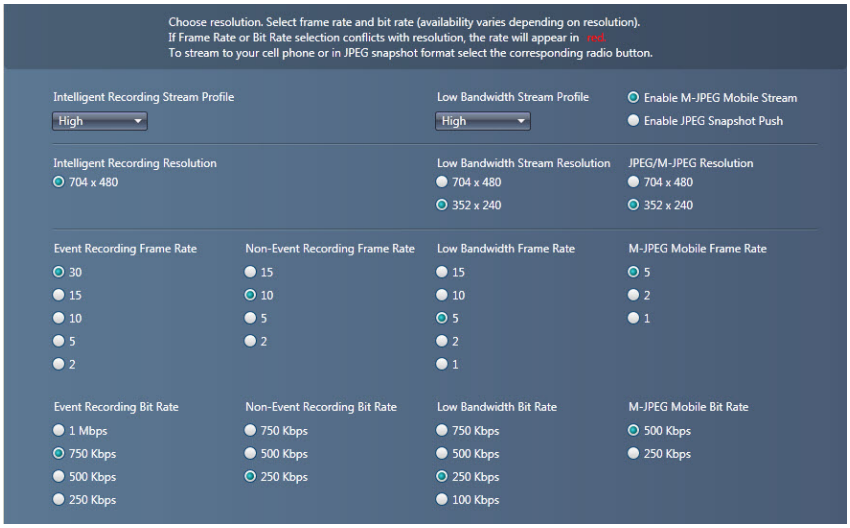
- **Intelligent recording stream:** The video quality is managed based on whether or not the video contains an event that you're interested in. This allows all video to be stored while saving disk space and maintaining the quality of important video content.

- **Low bandwidth network stream:** Allows you to view live video across low bandwidth networks. You can independently record video at a much higher quality on the analytic appliance at the same time.
- **Mobile MJPEG stream:** Easily decodes and displays on mobile devices.

NOTE: If you select **Enable JPEG Snapshot Push**, you must have an FTP or HTTP server set up to receive JPEG images.

To change the video compression settings:

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Storage & Compression**.
3. Click **Modify...**.
4. Change the stream resolution, frame rate, and bit rate for each type of video stream. You can also set the resolution, frame period and snapshot quality for JPEG snapshots for non-video appliances such as cell phones.

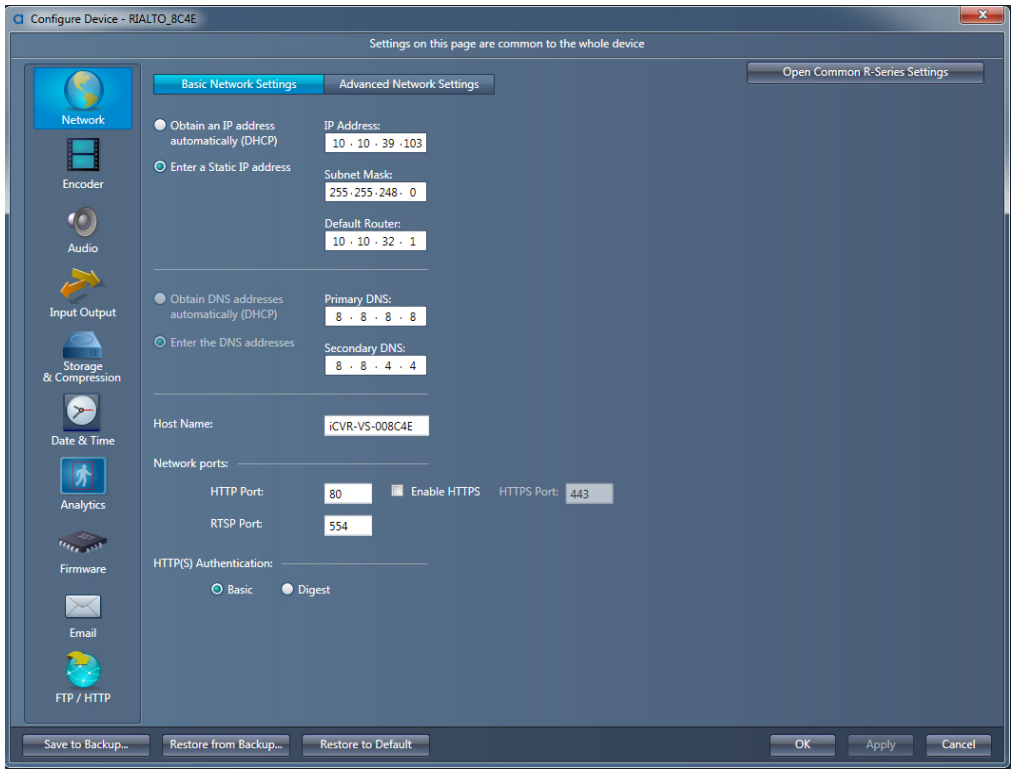


5. Click **OK** to accept the new settings.
6. Click **Apply**.
7. Use the Preview drop-down men to review the image quality of your video based on the current bit rate and storage compression settings.
8. Once you are done with your settings, click **OK**.

Manually Configuring Network Settings

Rialto™ analytic appliances will automatically obtain network settings through DHCP for easy setup. It is recommended you give the analytic appliance a static IP on the LAN. This ensures the analytic appliance maintains the same IP address even after a reboot.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Network**.



3. Specify how the analytic appliance should get its IP address.
    - If you want the analytic appliance to get its IP address from a DHCP server, choose **Obtain an IP address automatically (DHCP)**.
    - If you want to specify the IP address for the analytic appliance manually, choose **Enter a Static IP address** and specify the IP address, subnet mask, and default router.
4. Specify how the analytic appliance should get its domain name system (DNS) information.
    - If you want the analytic appliance to get the addresses for its DNS servers automatically, choose **Obtain DNS addresses automatically (DHCP)**.
    - If you want to specify addresses of your DNS servers manually, choose **Enter the DNS addresses** and specify the IP addresses of your primary and secondary DNS servers.
5. Specify how the analytic appliance should acquire its host name information.
    - If you want the analytic appliance to get its host name automatically, click **Obtain a hostname automatically**.
    - If you want to specify the host name for your analytic appliance, click **Use the following hostname** and specify the host name.
6. If you don't want to use the default network ports for communication between the analytic appliance and the local server, enter the new port information under Network Ports.
7. Specify the type of HTTP(S) Authentication to be used.
    - **Basic:** Usernames and passwords are sent unprotected through an unencrypted connection.
    - **Digest:** Usernames and password are protected before being sent through the unencrypted connection.
8. Click **OK**.

Camera Setup

If you need to manually set up or perform additional configuration on your analytic appliances and cameras, complete the steps for the relevant procedures below.

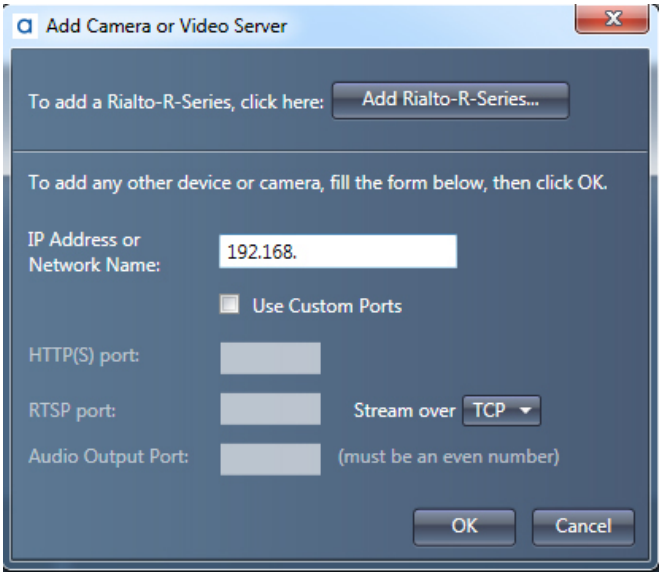
NOTE: Only supervisor-level accounts or operator-level accounts with relevant permissions enabled can access these settings.

- *Adding a Rialto™ Analytic Appliance Manually* on the facing page
- *Configuring a PTZ Camera* on page 101
- *Configuring Audio Settings* on page 106

Adding a Rialto™ Analytic Appliance Manually

If View cannot automatically discover the analytic appliance, you will need to add it manually.

1. Click the **Add a device**  button.
2. Enter the IP Address or Network Name of the analytic appliance.



   If you are adding a Rialto™ R-Series analytic appliance, click **Add Rialto-R-Series...** and enter the proper ports for each module (blade).

3. Select a stream type from the **Stream Over** drop-down menu. If you are not sure which type to select, consult *Choosing Your Stream Type* below.
4. Check the **Use Custom Ports** box and enter the port numbers for each port field if you are using port mapping on a router with an externally accessible IP address.
5. Click **OK**.

Choosing Your Stream Type

UDP: This protocol uses the least bandwidth. However, it may not pass through all firewalls. If you're having trouble seeing live streaming video, select either TCP or HTTP(S).

TCP: If your firewall will not pass UDP traffic, select this protocol.

HTTP(S): This protocol uses the most bandwidth. If you use this protocol, you do not need separate ports for RTSP and audio.

Setting Up IP and Analog Cameras

The Rialto™ R-series analytic appliance allows connection of up to 16 IP and analog cameras.

Connecting an IP Camera

IP cameras must support streaming video using the RTSP protocol, and the video stream must be h.264 compliant.

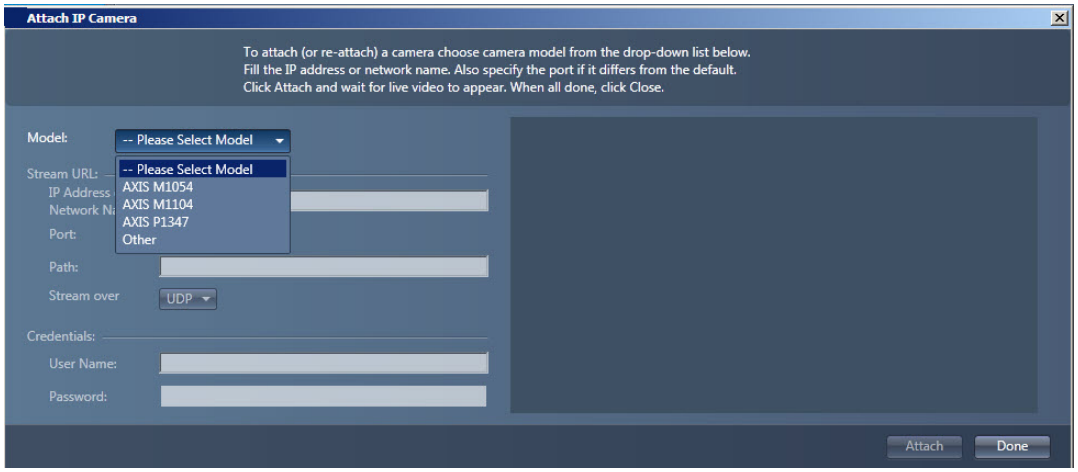
The I4 analytic appliance supports the following combinations of cameras:

- Up to 4 standard definition cameras.
- Up to 3 intermediate definition cameras.
- Up to 2 high definition cameras.
- A mixed configuration of the above such as 1 HD and up to 2 SD.

NOTE: If you are using an IP PTZ camera, you must configure additional settings after connecting it. To do so, see *Configuring a PTZ Camera* on page 101.

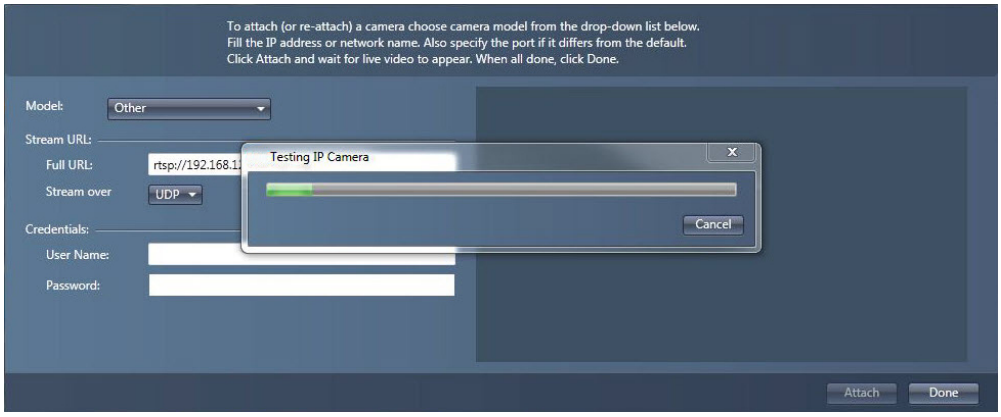
To connect an IP camera:

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Encoder**.
3. Click **Attach Camera**.
4. Use the drop-down menu to select a model, or choose Other if your model isn't listed.

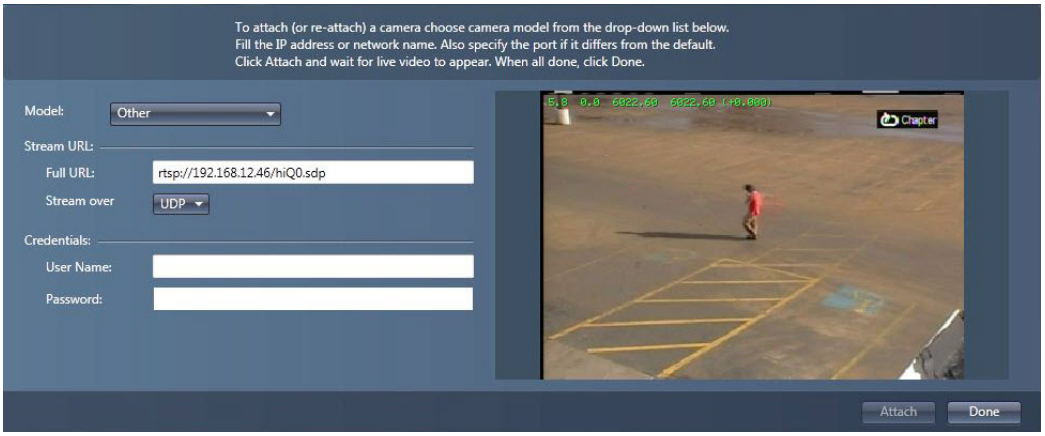


5. Fill in the IP Address or Network Name, Port, and Path fields. Depending on the model selected the Path field may be pre-populated.
6. Refer to your camera's user manual to locate the path for the RTSP stream for your camera.
7. Select if you want to stream over TCP, UDP, or HTTP(S).

8. If your camera requires a User Name and Password for the RTSP stream, enter that information
9. Click **Attach**.



10. Once live video appears in the window, click **Done**.



11. If you're replacing one IP camera with another you will have the option to delete all resources files connected to the camera or to preserve those resources. Read the prompt carefully, then click **Yes** or **No**.

Disconnecting an IP Camera

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Encoder**.
3. Click **Detach Camera**.

Setting Up an Analog Camera

If you have attached an analog camera, you must configure additional settings for the camera to function.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Encoder**.

3. Choose your camera type:
    - For a thermal or infrared camera, choose **B/W**.
    - For a Day/Night camera, choose **Day/Night**.
    - For a color camera, choose **Color**.
    - If you have connected an analog PTZ camera, complete the instructions for *Configuring a PTZ Camera* on the facing page .
4. Click **OK**.

Configuring a PTZ Camera

If you've connected an analog or IP PTZ camera, you will need to configure further settings. You can also use the View software to set the camera's home position and assign preset positions.

Before you can configure PTZ settings, you must connect and set up the camera:

- If you have an analog PTZ, complete the steps in *Setting Up an Analog Camera* on page 99.
- If you have an IP PTZ, complete the steps in *Connecting an IP Camera* on page 98.

NOTE: Feature sets of PTZ cameras vary by manufacturer. Some of these features may not be available to you without performing additional steps outlined in your camera manual.

Initial PTZ Settings

1. In the Configure Device window, check the **PTZ** box.
2. Choose your camera type:
    - For a thermal or infrared camera, choose **B/W**.
    - For a Day/Night camera, choose **Day/Night**.
    - For a color camera, choose **Color**.
3. Click **PTZ Settings**.
4. Choose the PTZ camera's protocol:
    - For analog PTZ, choose **Pelco D** or **Pelco P**.
    - For IP PTZ, choose **VAPIX** or **ONVIF**.

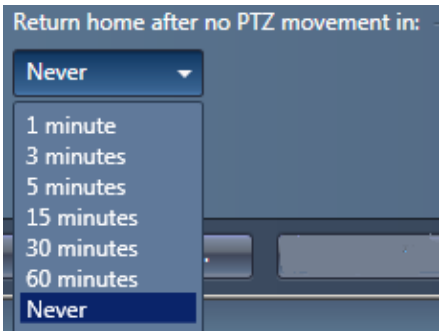
Setting the Home Position

A PTZ camera must have a default Home position. Analytics will be operational only when the camera is in the Home position.

1. Position the camera in the home position you want.
2. Click **Set Home Position**.

    NOTE: On some cameras, clicking **Set Home Position** may bring up the on-screen camera menu. If you see this behavior, consult your camera manual to determine what additional steps are needed to set the Home position.

3. In the **Return home after no PTZ movement** drop-down menu, perform one of the following procedures:
    - Select the number of minutes before the camera automatically returns to its Home position after manual PTZ control has stopped.
    - Select **Never** if you don't want the camera to return to its Home position automatically.



4. Click **Apply**.

NOTE: You can set up to 7 additional position presets. To do so, complete the steps in *Using Position Presets* below

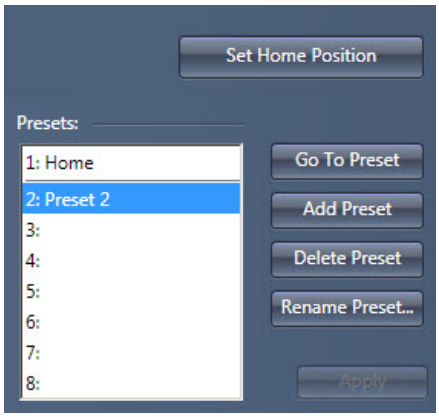
Using Position Presets

Each PTZ camera can have up to 7 position presets, in addition to the default Home position.

NOTE: Analytics operates only when the camera is in the Home position. Once the camera has left this position, analytics will not be active until the camera has returned to the Home position.

Adding a Preset Position

1. Position the camera in the preset position you want.
2. Click **Add Preset.**



3. To add another preset, simply reposition the camera and click **Add Preset** again.

Renaming a Preset Position

You can rename your preset positions for easier identification. You cannot rename the Home preset.

1. Select the preset you want to rename.
2. Click **Rename Preset...**

3. Enter a new name for the preset.

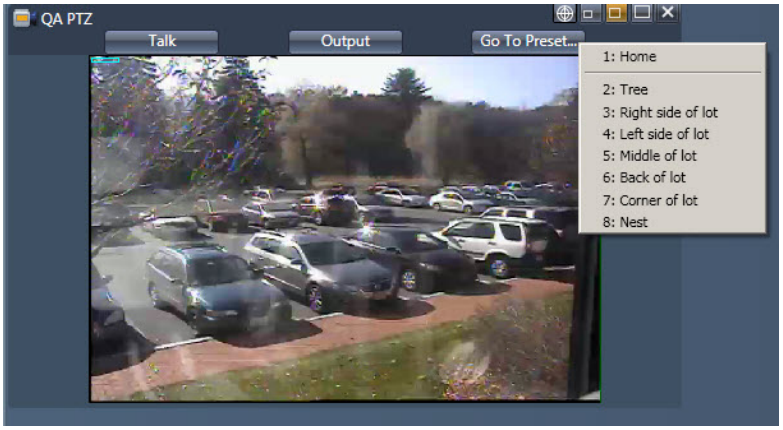
Deleting a Preset Position

1. Select the preset you want to delete.
2. Click **Delete Preset**.

Using a Position Preset on a Live Video Window

Once one or more presets have been configured for a camera, you can access these presets at any time from the Live Video window.

1. Click **Go to Presets...** at the top of the Live Video window.



2. Select the preset you want to use.
3. Click the **Home** icon to return the device back to its original position.

Adjusting the Focus of your PTZ Device

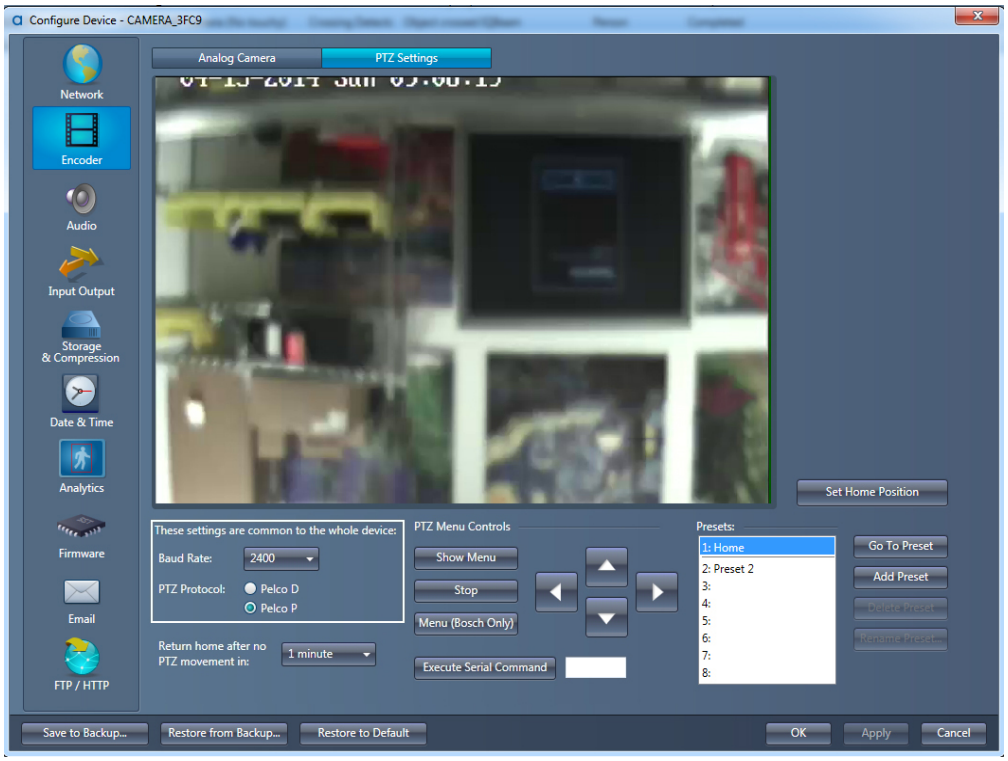
1. In the PTZ Settings tab, hover your mouse over the device video window to activate the Focus control tools.
2. To adjust the focus of the camera, use the **Focus** 

tool and **Iris** 

tool.
3. Click **Apply**.

Setting the Analog PTZ Camera's Baud Rate

1. Click **PTZ Settings** to open the PTZ Settings tab.



2. Select the baud rate from the drop-down menu that corresponds to the serial configuration of the PTZ camera. If you're uncertain what the baud rate is, consult your camera manual.
3. Click **OK**.

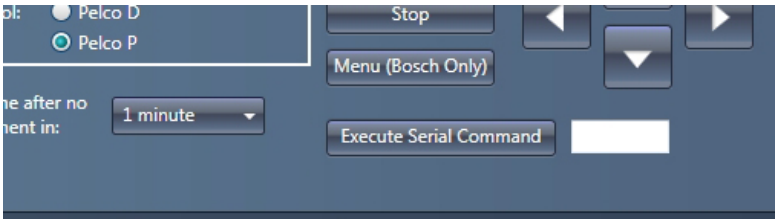
NOTE: Some PTZ cameras do not allow you to set a baud rate. If you have this type of camera, select your baud rate, then press and hold the **Stop** button until the PTZ autobaud function is completed.

Sending Commands to an Analog PTZ Camera

You can send commands to an analog PTZ camera, such as a certain motion control. For a list of available commands, consult your camera manual.

NOTE: Execute Serial Command is only available if you are using an analog PTZ camera attached to an analytic appliance.

1. Enter a command of up to 8 characters. The following characters are allowed: 0123456789ABCDEFabcdef



2. Click **Execute Serial Command**.

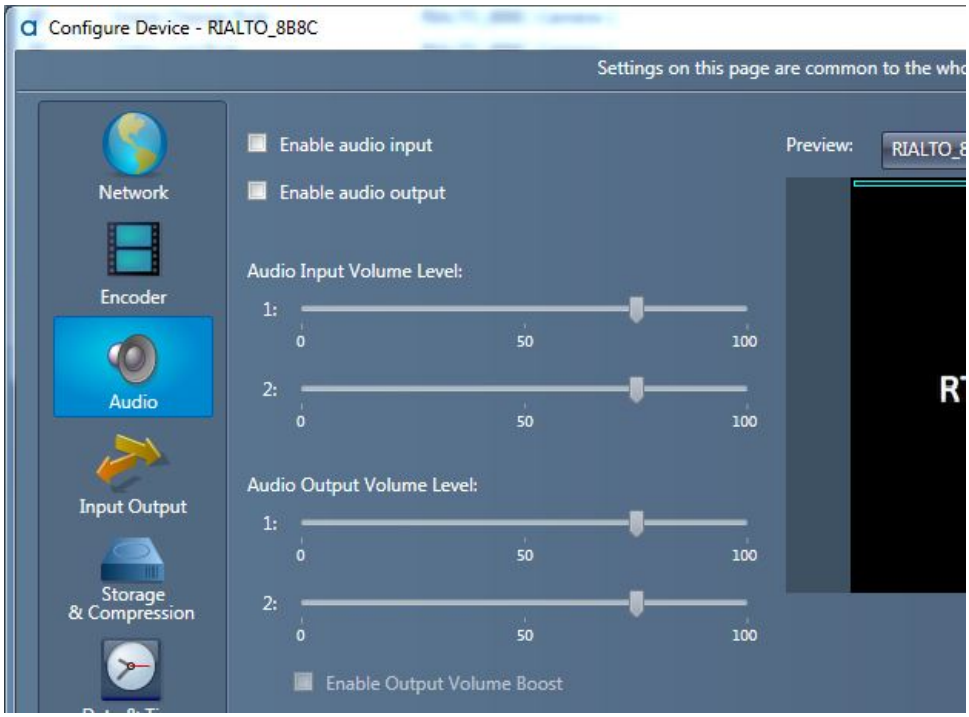
Configuring Audio Settings

Before configuring audio settings in the Avigilon™ View software, you must connect a microphone and an amplified speaker to the analytic appliance with an audio splitter cable.

Configuring Audio Input

When audio input is active, the speaker icon appears on the camera live video window and alarm review panel.

1. Ensure you have a microphone connected to the Audio In port on the analytic appliance.
2. Right-click a camera in the camera tree and select **Device Settings...**
3. In the Configure Device window, click **Audio**.

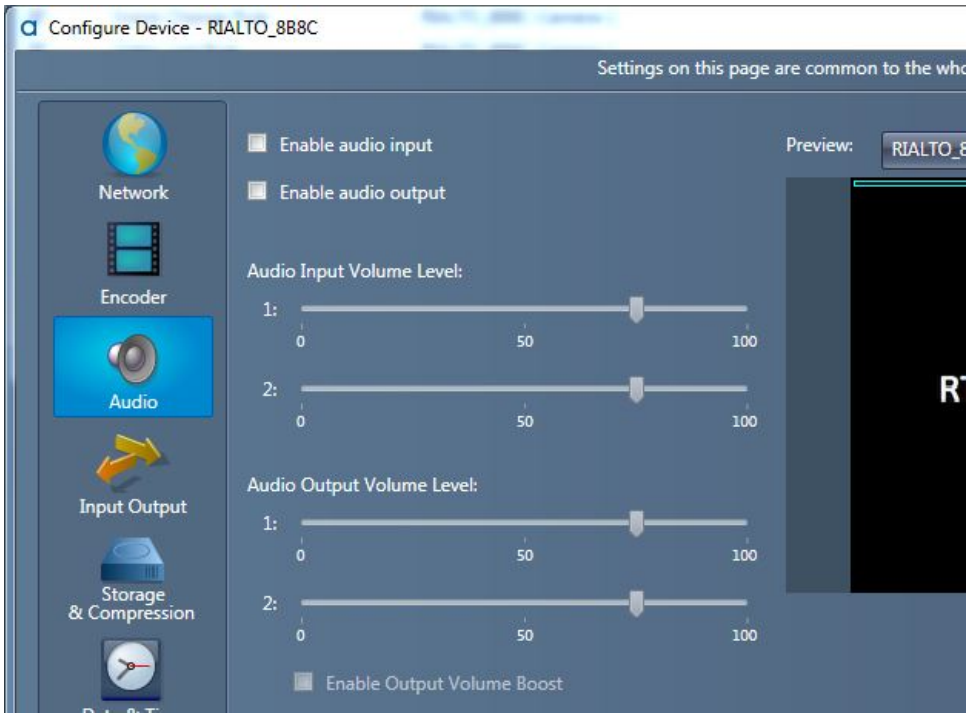


4. Check the **Enable audio input** box that should be used by the analytic appliance.
5. Read and accept the privacy warning.

6. Use the **Audio Input Volume Level** slider to adjust the volume level of the audio input.
7. Click **Apply**.

Setting Audio Output

1. Ensure you have an amplifier and speaker, or a self-amplified speaker, connected to the Audio Out port on the analytic appliance.
2. Right-click a camera in the camera tree and select **Device Settings...**
3. In the Configure Device window, click **Audio**.



4. Check the **Enable audio output** box that should be used by the analytic appliance.
5. Click **Start** to begin playing a test audio file.

6. Use the slider under Audio Output Volume Level to adjust the volume level.
7. When you are done adjusting the volume, click **Stop**.
8. Click **Apply**.

Browser Access

You can view live video and alarm clips, configure preferences, upgrade firmware or reboot a Rialto™ analytic appliance through a web browser. It is recommended you use Internet Explorer 7 or higher, or the equivalent.

Accessing an analytic appliance through a web browser does not count towards the total number of user connections for a camera.

NOTE: In order to view live video and play video clips through a web browser, you must have the Media Components plug-in installed. The plug-in will download automatically upon accessing the web browser. If your browser warns you about installing the ActiveX control, allow the installation.

Logging in to the Rialto™ Analytic Appliance

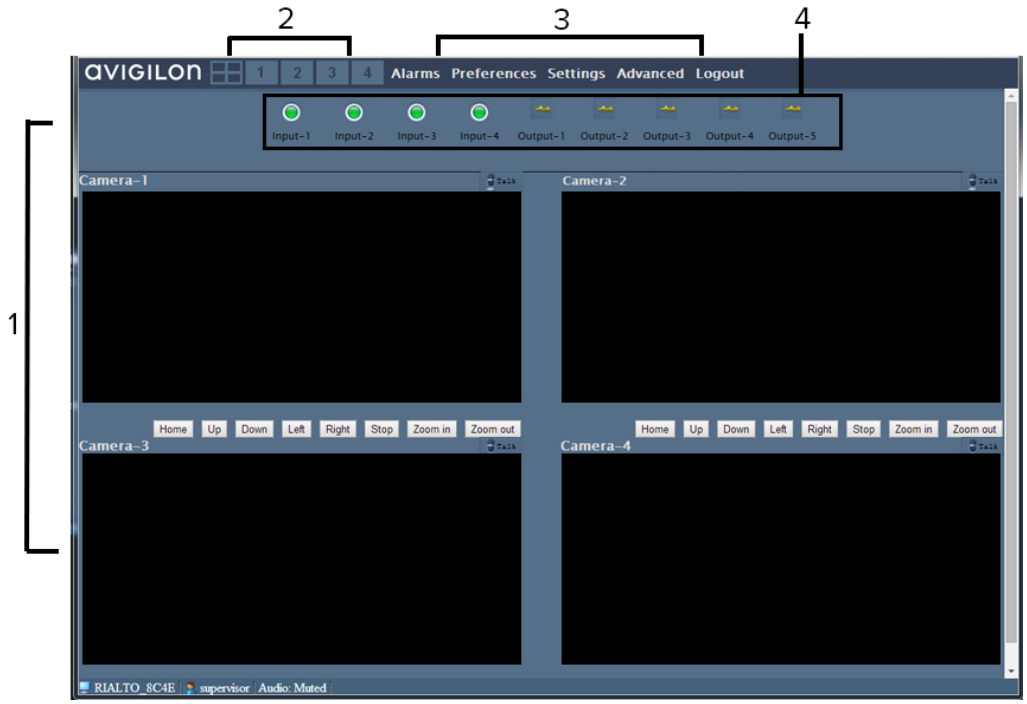
Before you can access the analytic appliance through a web browser, you must know its IP address. You can find the IP address by viewing the analytic appliance's information. To do so, complete the steps in *Displaying Camera Information* on page 40.

NOTE: Account permissions are maintained when accessing an analytic appliances through a web browser.

1. Open a web browser.
2. Enter the analytic appliance's IP address in the browser's URL field and press the **Enter** key.
   - If your analytic appliance is configured for HTTPS, enter `https://<IP address of camera>:<port>`.
   - If your analytic appliance is not configured for HTTPS, enter `http://<IP address of camera>:<port>`.
3. Enter your user name and password into the login dialog box, and click Login.

NOTE: If your browser window is idle for 30 minutes, you will be automatically logged out of the analytic appliance.

Navigation



#	Feature	Description
1	Camera windows	Displays live video image from a camera.
2	Toolbar	Allows you to switch between camera windows or see all four.
3	Menu	Allows you to access preferences and settings.
4	Alarm I/O toolbar	When an alarm is triggered, the green circle above the input turns red and a sound is played. This toolbar must be enabled in Preferences to display.

Viewing Live Video

Similar to the View software, you can view live video from the cameras attached to the analytic appliance.

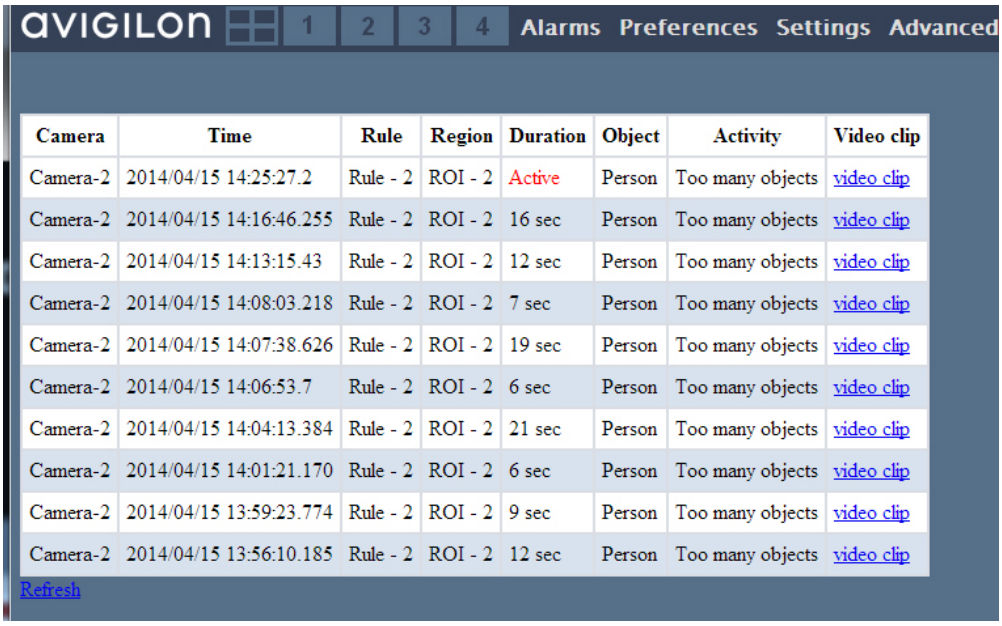
By default, the Live Video area displays all camera windows:

- To access individual camera windows, click the number in the toolbar corresponding to the camera number.
- To return to multi-camera view, click the multi-camera icon  .

Viewing Recent Alarms

You can only view 10 of the most recent alarm events when using browser access.

1. Click **Alarms** to view the 10 most recent alarms.
2. From here, you can perform the following actions:
   - To view the alarm clip, click the **video clip** link.
   - To refresh the recent alarms list, click the **Refresh** link.



Camera	Time	Rule	Region	Duration	Object	Activity	Video clip
Camera-2	2014/04/15 14:25:27.2	Rule - 2	ROI - 2	Active	Person	Too many objects	video clip
Camera-2	2014/04/15 14:16:46.255	Rule - 2	ROI - 2	16 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:13:15.43	Rule - 2	ROI - 2	12 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:08:03.218	Rule - 2	ROI - 2	7 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:07:38.626	Rule - 2	ROI - 2	19 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:06:53.7	Rule - 2	ROI - 2	6 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:04:13.384	Rule - 2	ROI - 2	21 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 14:01:21.170	Rule - 2	ROI - 2	6 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 13:59:23.774	Rule - 2	ROI - 2	9 sec	Person	Too many objects	video clip
Camera-2	2014/04/15 13:56:10.185	Rule - 2	ROI - 2	12 sec	Person	Too many objects	video clip

Refresh

Alarm I/O Toolbar

The Alarm I/O toolbar displays on each page of the browser access window. If an alarm input is triggered, the green circle above the input turns red and a sound is played.

Enabling the Alarm I/O Toolbar

1. Click **Preferences**.
2. Under Visual, check the **Show Alarm I/O toolbar** box.
3. Click **Submit**.

Responding to an Alarm

To use alarm inputs and outputs, you must configure settings in the Avigilon™ View software. To do so, complete the steps in*Alarm Input and Output page for an analytic appliance with attached sub-cameras.* on page 71 .

Once you have configured your settings, you can respond to an alarm using the Alarm I/O toolbar in the following ways:

- If you have a speaker and microphone set up, click and hold the **Talk** 

button on the camera window to respond immediately to the alarm event. Release the **Talk** 

button to end audio output.
- If you have attached an alarm output device such as a door release or a siren, click and hold the relevant Output button to activate the device.

Video Settings for Browser Access

You can configure video settings for browser access.

1. Click **Preferences**.
2. Set your video and audio connections:
    - If you are using a non-default port for video streaming, enter the RTSP port number.
    - If you are using a non-default port for audio, enter the Audio port number.
    - Select your stream type. If you are not sure which type to select, consult *Choosing Your Stream Type* on page 97.
3. Set the quality of your video stream:
    - For high quality videos with higher bandwidth use, choose **High Quality Video Stream**.
    - For lower bandwidth use, choose **Low Bandwidth Video Stream**.
4. Click **Submit**.

Enabling Bounding Boxes

Similar to the View software, bounding boxes in browser access are colored box outlines that help you see the objects detected in your videos. Different color outlines indicate different types of objects.

- Red outlines show humans.
- Blue outlines show vehicles or boats.
- Yellow outlines show suspicious objects.

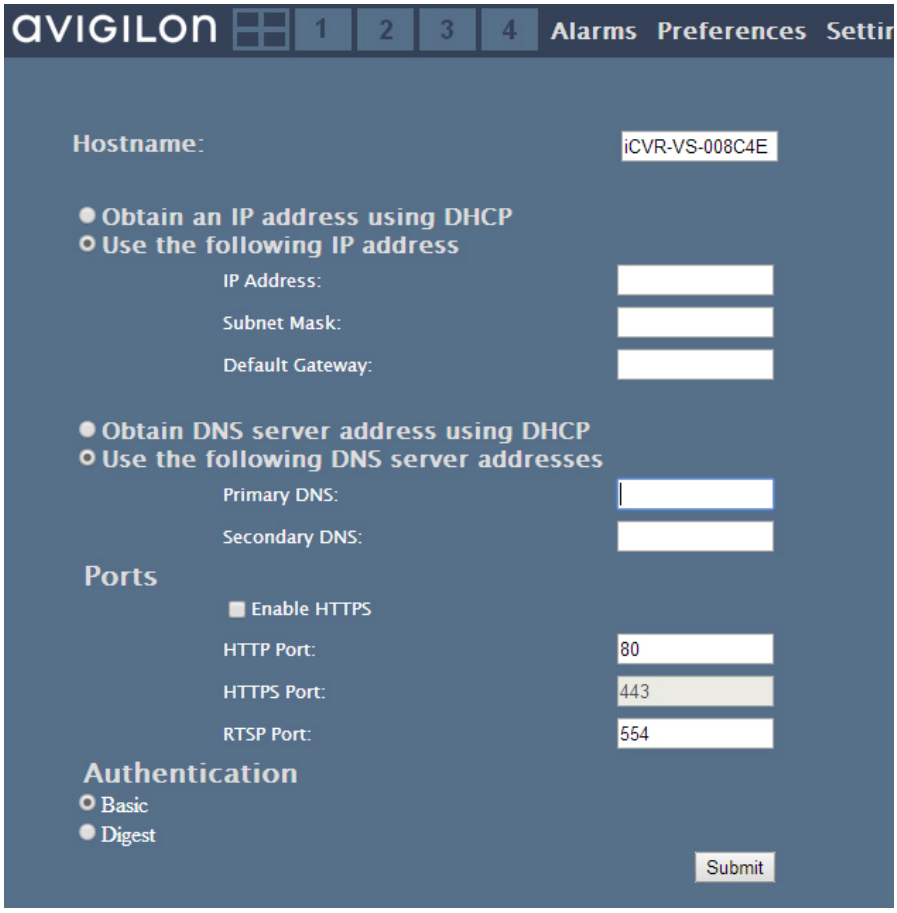
You can turn on bounding boxes when viewing live video stream through a web browser.

1. Click **Preferences**.
2. Under streaming, check the **Show bounding boxes** box.
3. Click **Submit**.

Setting the Network

Network settings for the analytic appliance should already be correctly configured. However, you can still configure network settings through the web browser.

1. Click **Settings**.



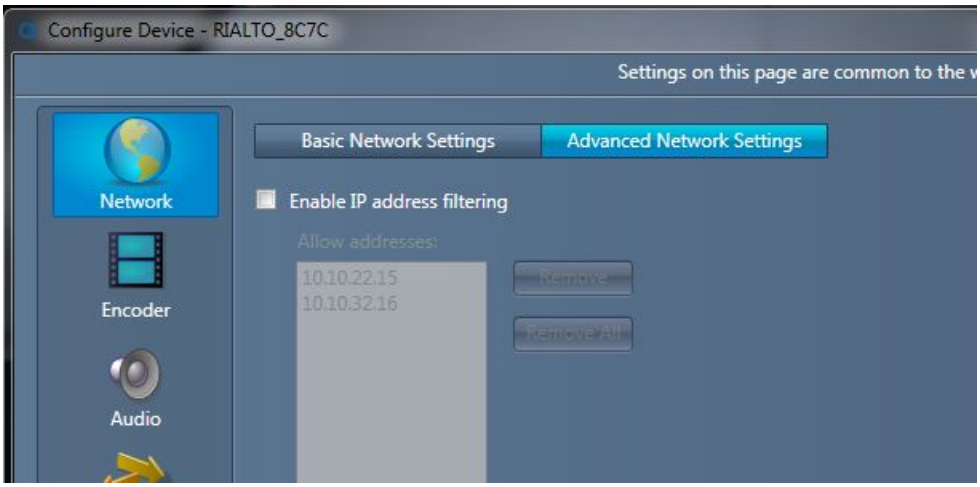
2. Specify how the analytic appliance should get its IP address.
   - If you want the analytic appliance to get its IP address from a DHCP server, choose **Obtain an IP address automatically (DHCP)**.
   - If you want to specify the IP address for the analytic appliance manually, choose **Enter a Static IP address** and specify the IP address, subnet mask, and default gateway.
3. Specify how the analytic appliance should get its domain name system (DNS) information.
   - If you want the analytic appliance to get the addresses for its DNS servers automatically, choose **Obtain DNS addresses automatically (DHCP)**.
   - If you want to specify addresses of your DNS servers manually, choose **Enter the DNS addresses** and specify the IP addresses of your primary and secondary DNS servers.
4. To enable HTTPS, check the **Enable HTTPS** box.
5. If you don't want to use the default network ports for communication between the analytic appliance and the local server, enter the new port information under Ports.
6. Specify the type of HTTP(S) Authentication to be used.
   - **Basic:** Usernames and passwords are sent unprotected through an unencrypted connection.
   - **Digest:** Usernames and password are protected before being sent through the unencrypted connection.
7. Click **OK**.

Enabling Anonymous Access

You can give users anonymous browser access to an analytic appliance. You must do this through the View software.

NOTE: Giving anonymous access to your analytic appliances is not recommended.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Network**.



3. Click **Advanced Network Settings**.
4. Check the **Allow Anonymous Access to Web UI Pages** box.
5. Check the boxes for the pages you want to allow anonymous access to.
6. Click **Apply**.

Maintenance Tasks

You can upgrade firmware, collect log files, and reboot the analytic appliance when using browser access.

Upgrading Firmware

You must first download the upgrade file needed to upgrade the firmware. Contact Avigilon Technical Support to download this file.

1. Click **Advanced**.
2. Click **Browse** and locate the upgrade file.
3. Click **Upgrade**.
   Once the upgrade is complete, the analytic appliance will reboot.

Rebooting the Analytic Appliance

1. Click **Advanced**.
2. Click **Reboot**.

Maintenance and Troubleshooting

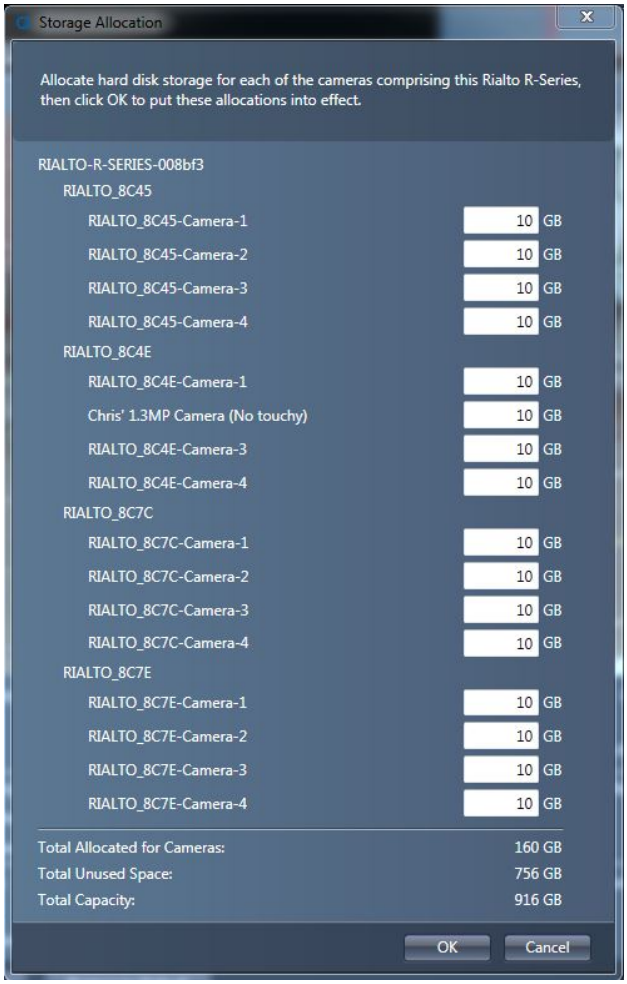
Managing Disk and Storage Space

You can manage the storage space on both your local drive and the Rialto™ analytic appliance.

Managing Storage Space

You can review the current storage space of each camera attached to an analytic appliance.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Storage & Compression** to review the storage space and estimated days of storage for that particular camera.
3. To view or change storage space for all attached cameras, click **Review Storage Allocation**.



4. Change the amount of storage space per attached camera if needed.
5. Click **OK**.
6. Click **OK** again.

Setting Disk Clean-up Options

The Disk Clean-up option allows you to decide which files are deleted when the camera's storage space is filled.

NOTE: This will affect video clips stored on the camera.

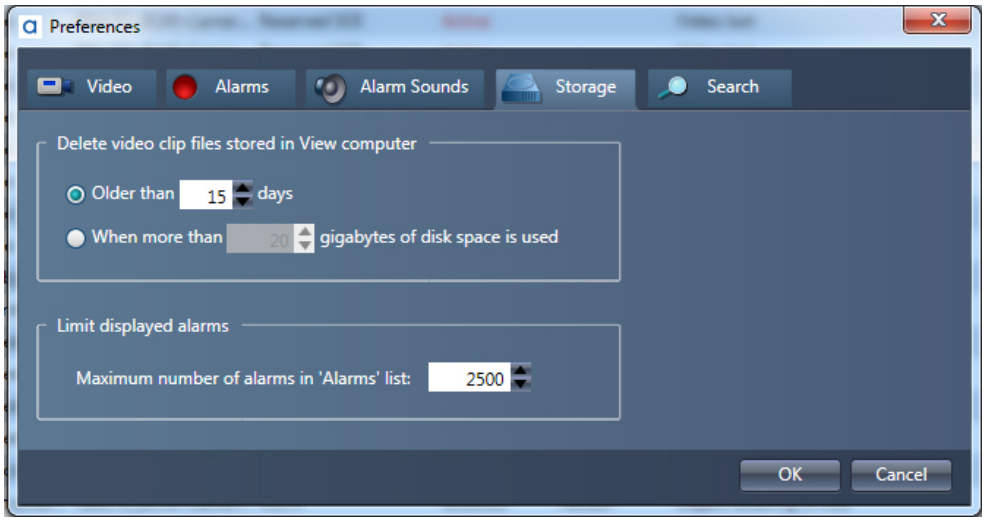
1. Right-click a camera in the camera tree and select **Device Settings...**
2. In the Configure Device window, click **Storage & Compression**.
    - To keep alarm files over continuous recording files, choose **Delete non-alarm files first**.
    - To delete the oldest files first, choose **Delete any files based on age**.
    - To delete video files after a certain amount of days, check the **Retain no longer than** box and set the number of days.
3. Click **OK**.

Setting Clip File Storage Space

You can automatically delete video clips stored on your local drive after a certain amount of time has passed or a certain amount of disk space has been used.

NOTE: This will not affect video storage on the analytic appliance. This will delete video clips from your local drive only.

1. Open the View menu and select **Preferences**.
2. Click the Storage tab.



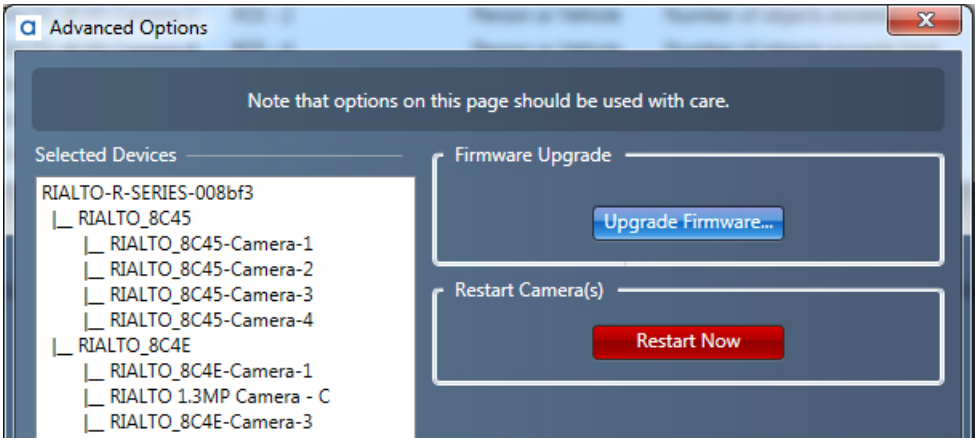
3. To delete clip files after a certain amount of time:
    - Choose **Older than**
    - Enter the amount of days files can be stored before deletion.
4. To delete clip files after a certain amount of disk space is used:
    - Choose **When more than**
    - Enter the amount of disk space you would like to keep for storing clip files.
5. Click **OK**.

Upgrading Firmware

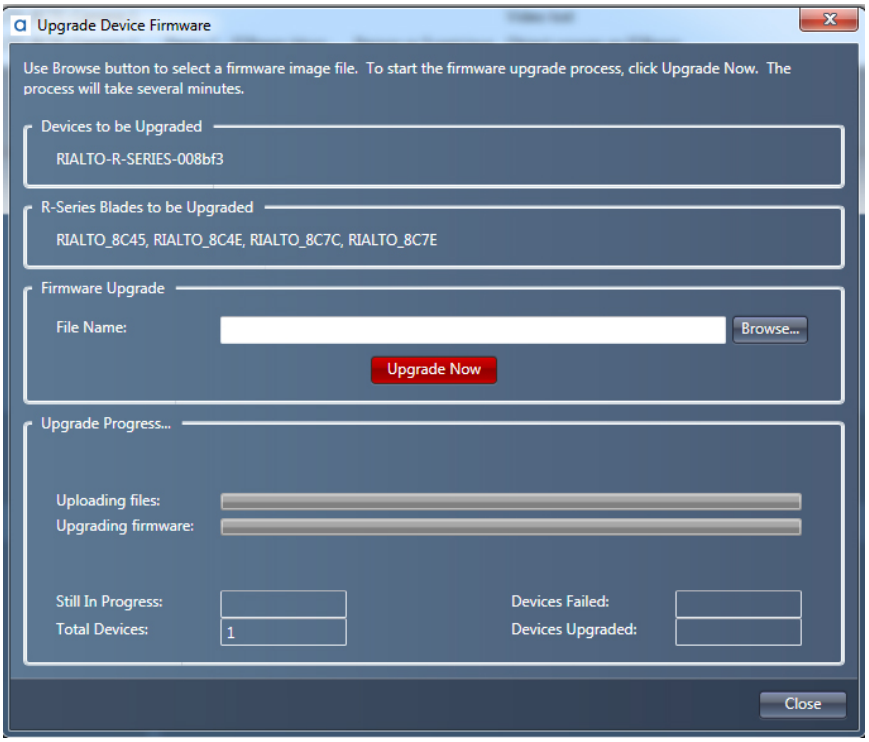
Before you upgrade the analytic appliance's firmware, ensure that the firmware file is saved on your local drive. If you don't have the latest firmware, visit the Avigilon website or contact Avigilon technical support.

NOTE: Only advanced users should perform a firmware upgrade.

1. Right-click the analytic appliance in the camera tree and select **Advanced...**
2. Review the list of cameras and analytic appliances that will be affected by the upgrade.
3. Click **Upgrade Firmware...** and confirm the upgrade.



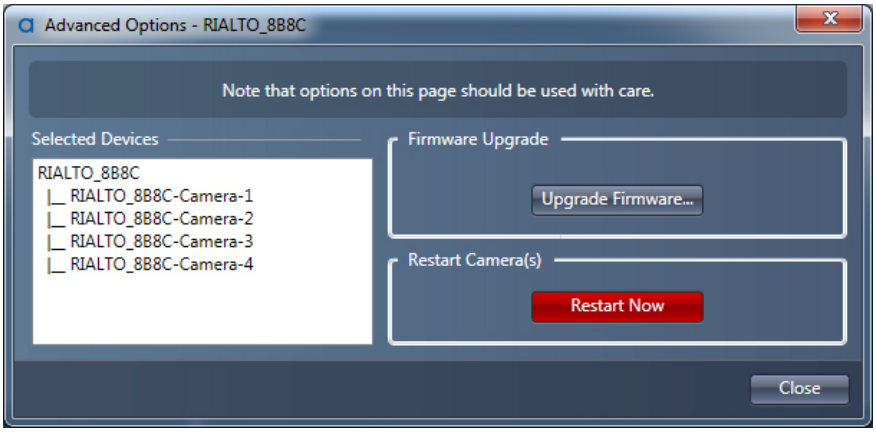
4. Click **Browse...** and locate the firmware file on your local drive.
5. Click **Upgrade Now**.



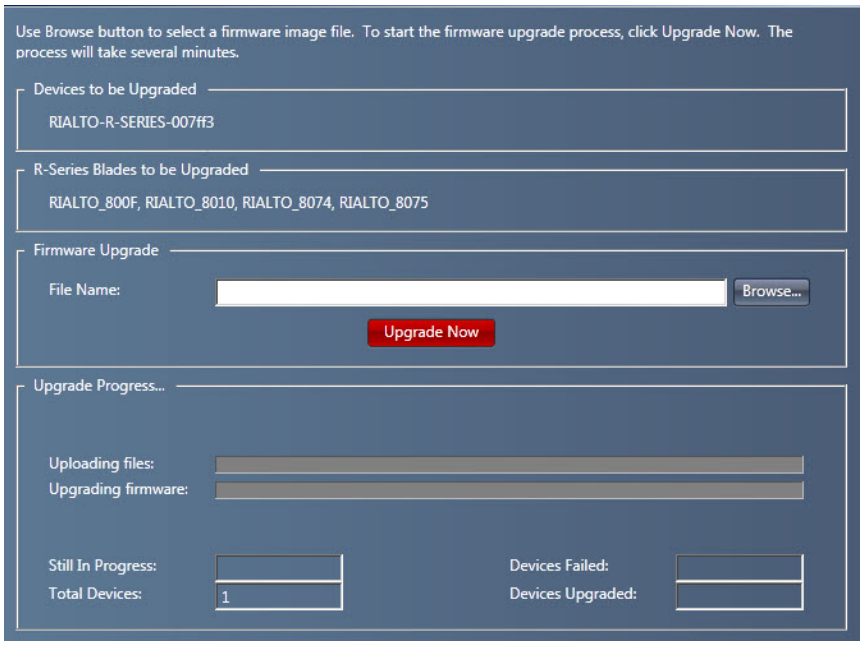
Upgrading Multiple Analytic Appliances

You can upgrade multiple analytic appliances at once.

1. To select multiple analytic appliances:
   - If the analytic appliances are all in the same group, select any analytic appliance within the group.
   - If the analytic appliances are in separate groups, hold **Ctrl** and select all analytic appliances you want to upgrade.
2. Right-click on your selected analytic appliances and select **Advanced...**.
3. Click **Upgrade Firmware**.



4. Click **Browse** and locate the directory where the upgrade file is stored.

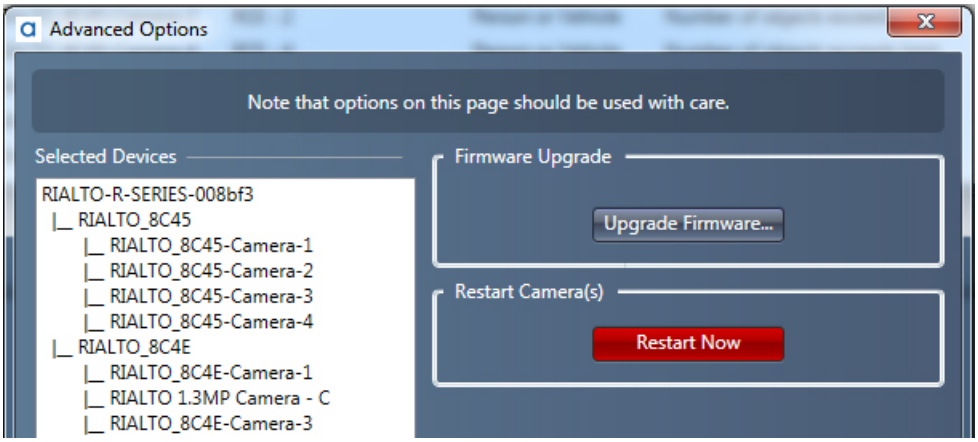


5. Click **Upgrade Now**.

Restarting an Analytic Appliance

NOTE: Restarting an analytic appliance will cause all attached sub-cameras to disconnect. It will take several minutes to reestablish a connection.

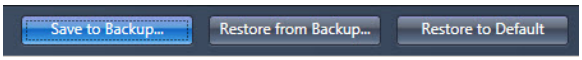
1. Right-click the analytic appliance in the camera tree and select **Advanced...**
2. Review the list of cameras and analytic appliances that will be affected by the restart.
3. Click **Restart Now** and confirm the restart.



Backing Up Camera Settings

After you have made the proper settings to your camera, you can save them to a backup file.

1. Right-click on the camera from the camera tree and select **Device Settings...**.
2. Click **Save to Backup...** at the bottom of the Configure Device window.

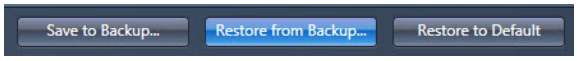


3. Choose the destination directory and enter a name for the backup file.
4. Click **Save**.

Restoring Camera Settings from Backup

If you make a mistake in the camera settings, you can restore the settings for a camera from a backup file. To create a backup file, complete the steps in *Backing Up Camera Settings* above.

1. Right-click a camera in the camera tree and select **Device Settings...**
2. Click **Restore from Backup...** at the bottom of the Configure Device window.



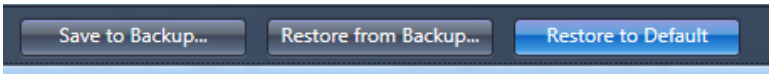
3. Locate where you stored the backup file and select the file you want to use.
4. Open the file.

NOTE: Restoring device settings will cause the camera to automatically disconnect and reboot.

Restoring Factory Default Settings

You can restore the settings on your analytic appliance back to factory default. This will erase all settings you have configured.

1. Right-click on the camera from the camera tree and select **Device Settings...**.
2. Click **Restore to Default** at the bottom of the Configure Device window.



3. Click **Yes** to confirm the operation.

Formatting a Hard Drive

If you've installed a new hard drive into the Rialto™ R-Series analytic appliance, you may need to format your hard drives. Formatting the hard drives through the View software will affect both hard drives.

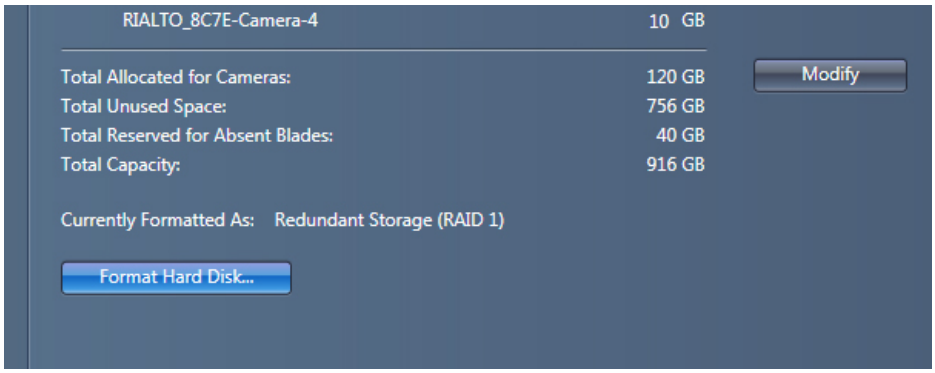
Important: If you have replaced a hard drive on an analytic appliance using Redundant Storage, you do not need to format your hard drive. Data from the remaining drive will be automatically mirrored onto the new hard drive. Only format your hard drives if:

- You were using an Extended Storage (RAID 0).
- Both your hard drives have failed and no data has been preserved.

You can check what your hard drives are currently formatted as by accessing Common R-Series Settings.

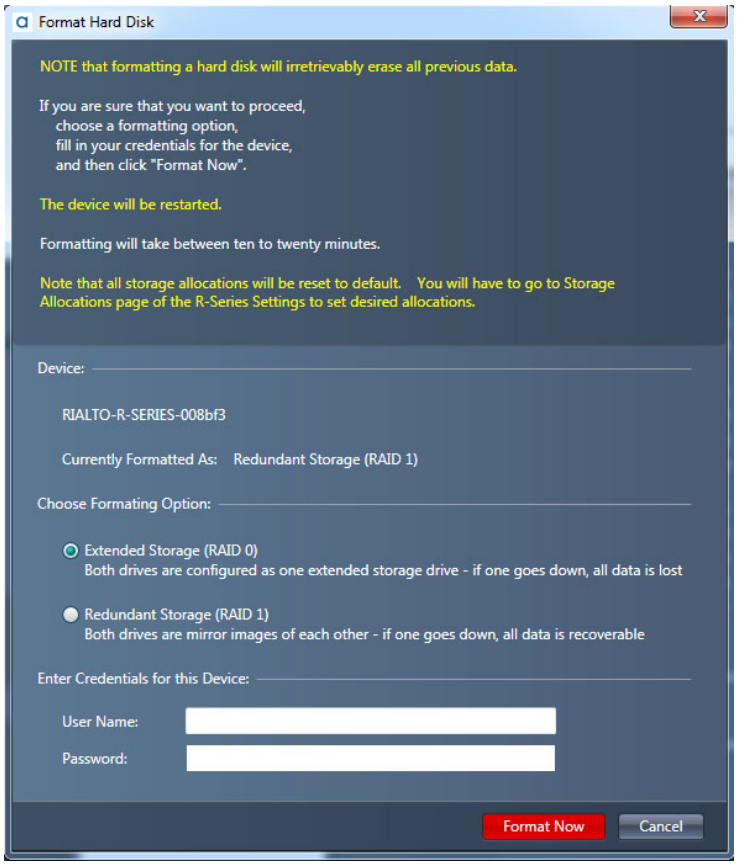
To format your hard drive:

1. In the camera tree, right-click any camera connected to the R-Series analytic appliance and select **Device Settings...**
2. Click **Open Common R-Series Settings**.
3. Click **Storage Allocation**.
4. Click **Format Hard Disk...**.



5. Choose one of the following:
   - To create drives that mirror the other's data, choose **Redundant Storage (RAID 1)**.
   - To create one extended storage drive, choose **Extended Storage (RAID 0)**.

   NOTE: If an Extended Storage hard drive fails, all data is lost. It is recommended you use Redundant Storage in order to have backup data in case a hard drive fails.



6. Enter your username and password to verify your credentials.
7. Click **Format Now**.

Special Technical Options Window

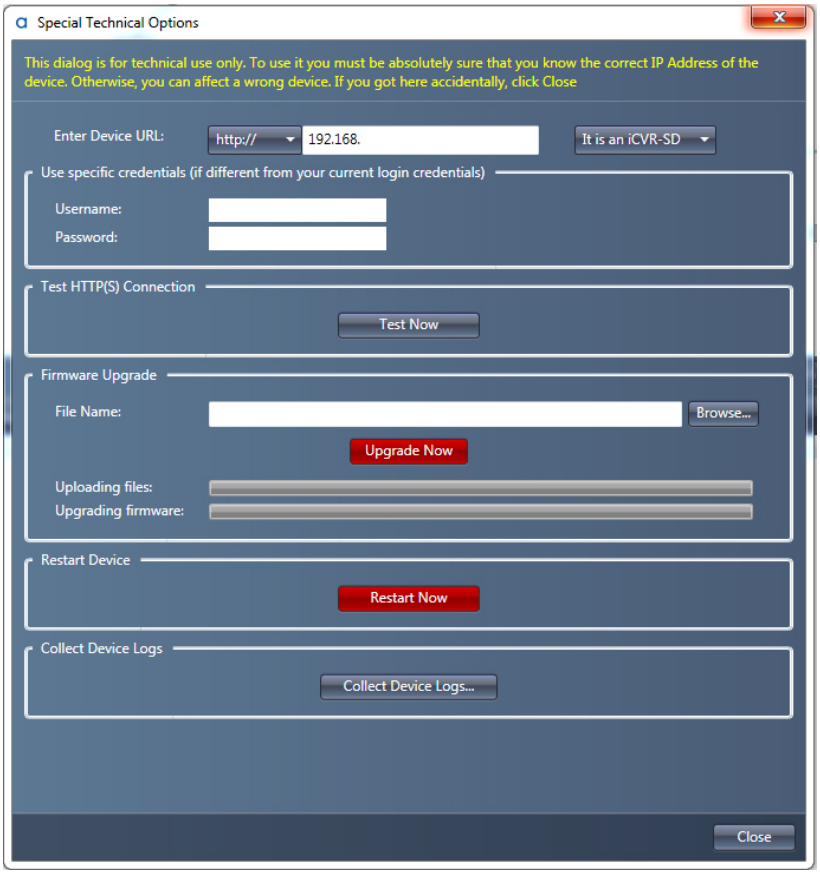
You can perform maintenance tasks through the Special Technical Options window using only the Rialto™ analytic appliance's IP address.

Important: To use this feature, you must know the correct IP address or you may affect the wrong analytic appliance. You can find an analytic appliance's IP address by viewing the analytic appliance's information. To do so, complete the steps in *Displaying Camera Information* on page 40.

NOTE: Only users with a supervisor-level account can use this feature. This feature is for advanced users only.

Accessing the Special Technical Options Window

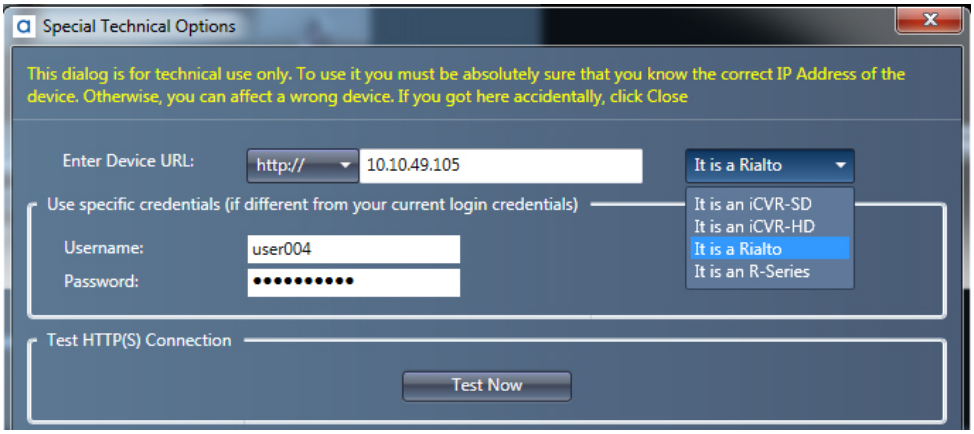
1. Ensure all windows within the View software are closed.
2. Hold down **Ctrl+Shift+Tab**.



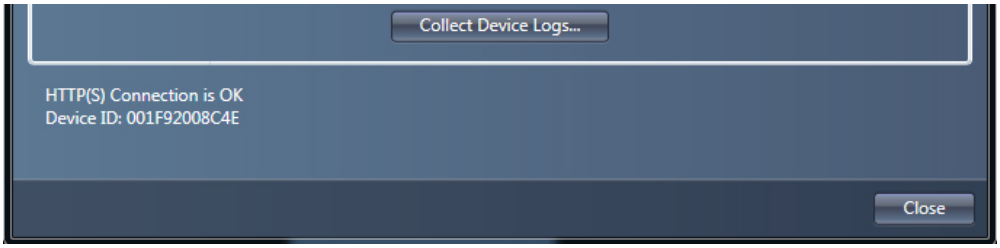
Testing the HTTPS Connection

You can test the HTTPS connection that allows the View software to communicate with your analytic appliance.

1. Select **HTTPS://** or **http://** and enter the IP address or network name.
2. Select the type of analytic appliance from the drop-down menu.
3. If the analytic appliance has different login credentials than your current account, enter the username and password specific for that analytic appliance.



4. Click **Test Now** to test the connection. The status of the connection will show at the bottom of the Special Technical Options window.



Saving Log Files using Special Technical Options

If you can't resolve a problem with an analytic appliance, you may need to collect and send the log files to Avigilon Technical Support for review.

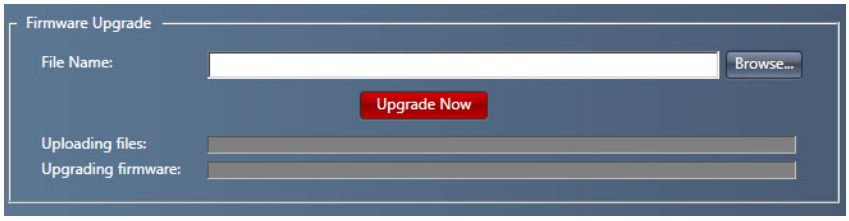
1. Enter the IP address or network name.
2. Select the destination folder where you want to save the log files.
3. Check the **Collect all camera logs** box to collect all logs on the analytic appliance.
4. Once a copy of the log files has been saved, zip the files and email them to support@avigilon.com.

Upgrading Firmware using Special Technical Options

You can also upgrade firmware through the Special Technical Options window. Ensure that the firmware file is saved on your local drive. If you don't have the latest firmware, visit the Avigilon website or contact Avigilon technical support.

1. Enter the IP address or network name for the analytic appliance you want to upgrade.
2. Click **Browse** and navigate to where the firmware file is saved.

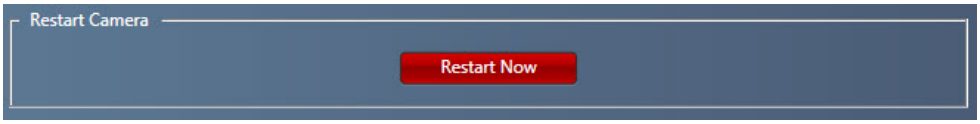
3. Click **Upgrade Now**and confirm that you want to upgrade.



Restarting an Analytic Appliance using Special Technical Options

NOTE: While the analytic appliance is restarting it will not be available in View.

1. Enter the analytic appliance's IP address or network name.
2. Click **Restart Now**.



Appendix

Available User Permissions

Permission	Description
Acknowledge alarms, manually activate alarm output	Allows the user to acknowledge alarms and use the Alarm Output button when enabled.
Acknowledge alarms without review	Allows the user to acknowledge alarms without first reviewing the alarm event.
Mark alarms as false	Allows the user to mark an alarm event as false.
View historic video	Allows the user to view archived video after performing a search.
Audio - listen	When a microphone is attached to the analytic appliance, allows the user to listen to streamed audio.
Audio - talk	When a microphone is attached to the computer, allows the user to press **Talk** and speak to respond to an alarm event.
Modify device settings	Allows the user to configure all settings for analytic appliances and attached cameras.
Update device firmware, reboot, export/import its configuration	Allow the user to update the firmware on, reboot, and export and import settings on the analytic appliance.
Rename device	Allows the user to rename the analytic appliance and attached cameras.
Search	Allows the user to perform a search for archived video across analytic appliances.
Read rules	Allows the user to read the rules that have been created. Does not allow the user to edit rules.
Configure rules	Allows the user to create new rules and edit rules.
Access device Web Interface	Allows the user to access the analytic appliance through a web browser.
Export video from camera.	Allows the user to export a video clip from a camera.
Save video clips on harddisk, email clips	Allows the user to save video clips and email the clips.
Manage Teach-By-Example	Allows the user to access all functions of the Teach By Example feature.
Force Login	Allows the user to use force login.

List of Activities for Rules

Activity	Description
Object is present in a Region of Interest	When an object is present in the set Region of Interest, an alarm will trigger. • Set **Minimum time before triggering** to be alerted only after the object is present for a certain amount of time.
Object is not present in the Region of Interest	An object is not present in the set Region of Interest, an alarm will trigger. • Set **Minimum time before triggering** to be alerted only after the object is not present for a certain amount of time.
Number of objects exceeds limit	When the number of objects in a set Region of Interest is more than a specified number, an alarm will trigger. • Set **Limit** to specify the maximum number of objects allowed. • Set **Minimum time before triggering** to be alerted only after the number of objects exceeds the limit for a certain amount of time.
Number of objects is below limit	When the number of objects in a set Region of Interest is fewer than a specified number, an alarm will trigger. • Set **Limit** to specify the minimum number of objects required. • Set **Minimum time before triggering** to be alerted only after the number of objects is below the limit for a certain amount of time.
Object crosses an IQBeam	When an object crosses a set IQBeam, an alarm will trigger.
Multiple objects cross an IQBeam	When a set number of objects crosses a set IQBeam, an alarm will trigger.
Object appears (without entering) in Region of Interest	When an object appears in a Region of Interest without first entering the ROI perimeter, an alarm will trigger. • Example: When a person is the object selected to trigger the alarm and a car drives into the ROI, if a person gets out of the car, an alarm will be triggered
Object disappears (without leaving) from Region of Interest	When an object disappears from a Region of Interest without first leaving the ROI perimeter, an alarm will trigger. • Example: When a person is the object selected to trigger the alarm and a car is parked in the ROI, if a person gets into the car, an alarm will be triggered.
Object enters the Region of Interest	When an object enters a Region of Interest, an alarm will trigger.
Object leaves the Region of Interest	When an object leaves a Region of Interest, an alarm will trigger.
Multiple objects enter a Region of	When a set number of objects enters a Region of Interest, an alarm

Interest	will trigger.
Multiple objects leave a Region of Interest	When a set number of objects leaves a Region of Interest, an alarm will trigger.
Object is loitering in Region of Interest	When an object remains in a Region of Interest for a set amount of time, an alarm will trigger. Object does not have to be stationary as long as they remain within the ROI.
Object stops in the Region of Interest	When an object remains stationary in a Region of Interest. • Set **Minimum time before triggering** to be alerted only after the object is stationary for a set amount of time.
Object moves in prohibited direction	When an object moves in a specified direction in a Region of Interest, an alarm will trigger.
Scheduled High Quality Recording	Set the camera to record continuous high-quality video during a certain time of day.
Alarm Input only	When the camera's alarm input pins are active, receive an alert.
Monitored object(s) missing	When a monitored item is removed or blocked by a vehicle or person, an alarm will trigger. **NOTE:** This feature is not available for Rialto™ analytic appliances.
Sudden scene change detected	When the camera's field of view is dramatically changed, an alarm will trigger. • Example: If something is put in front of the camera to obstruct its field of view or if the camera is suddenly pointed in a different direction.
Video lost	When the analytic appliance stops receiving video from a camera connected to it, an alarm will trigger.