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Introduction

This manual outlines the installation and operation of the Pelco Connect Milestone Plugin for both Analytics Configuration and Forensic Search.

Version Information

Integration Component Version

#	Component Name	Version	Description
1.	Pelco cameras	Latest	Pelco ONVIF Profile M compliant cameras that generate metadata are required for Forensic Search.

Milestone Version

#	Component Name	Version	Description
1.	XProtect Management Client		Milestone XProtect Management Client version 2023 R1 or greater is required.

Overview

The Pelco Connect plugin is used in conjunction with the XProtect Video Management System by Milestone. Pelco Connect provides users ability to take advantage of the advanced features of Pelco cameras for Forensic Search and Configuration of Edge Analytics.

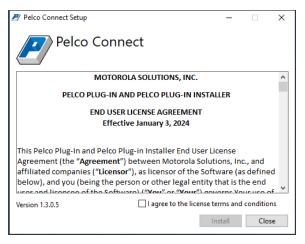
The Forensic Search plugin is a powerful and efficient tool within the Milestone system developed by Pelco. The plugin adds a search component to the Milestone XProtect Smart Client which provides a search interface to display results of a search based on camera metadata. It is designed to enhance the search and filtering capabilities of surveillance and security applications. This plugin enables users to filter their search results based on various object facets, including but not limited to object type, color, confidence level, and direction. Using these search parameters, users can quickly pinpoint relevant video footage amidst vast data sets, optimizing investigative processes and facilitating precise retrieval of crucial information for forensic analysis and decision-making.

The Analytic Configuration plugin, also developed by Pelco, installs a component into the Milestone XProtect Management Client that allows configuration of analytics rules on cameras. This is used to configure advanced analytics on Pelco cameras using the Milestone XProtect Management Client. For information on analytic behavior, see *Designing a Site with Pelco Smart Analytics*.

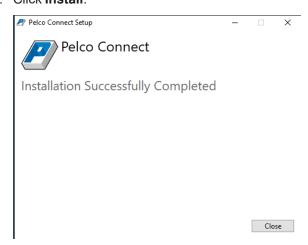
Installation

The Pelco Connect plugin installer includes all necessary software prerequisites as well as the plugin itself. The installation normally takes under one minute.

- 1. Select one of the following links to find the Pelco Connect Plugin:
 - https://www.pelco.com/partners/technical-partners/pelco-camera-integrations/milestone/
 - https://www.milestonesys.com/technology-partner-finder/pelco-inc/pelco-analytic-configuration-plugin/
- 2. Follow the instructions to download the .exe plugin file to the XProtect Management Client server.
- 3. Launch the installer.



4. Click Install.



5. After the installation is complete, click **Close**.

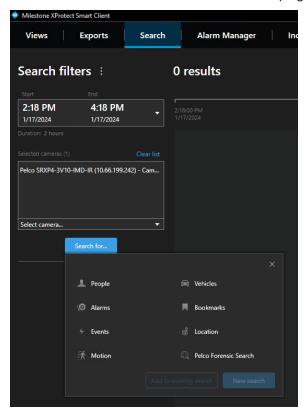
Once the plugins are installed, the updated features will appear in the XProtect Smart Client and XProtect Management Client.

Operation

Forensic Search

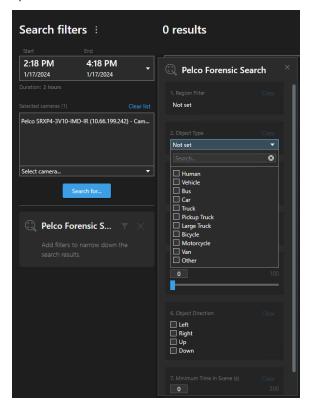
After you install the plugin, you must find it in the Milestone XProtect Smart Client before you can use it.

- 1. To find the Forensic Search plugin, click the **Search** tab in the Smart Client.
- 2. Click the Search for... button.
- 3. Click the Pelco Forensic Search button. The plugin will begin to load.



4. Once the plugin loads, you can use the Forensic Search to search and filter results based on

specific cameras and time frames.



Forensic Search Filters

The Forensic Search Plugin groups object metadata by attribute such as type, color, direction, etc. Search filters are applied such that they will return results when any condition within a attribute group is met. Those results are then combined with other attribute groups to further refine the search results.

For example, if the search filters are set as follows:

- · Object Type:
 - Human = Checked
 - Vehicle = Checked
- · Color:
 - Blue = Checked

The results will show matches for Object type is (Human or Vehicle) AND Color is (Blue). Thus a Human wearing Blue or Blue Vehicle will generate a match.

Conversely, if the search filters are set:

- Object Type:
 - Human = Checked
 - Vehicle = checked
- · Color:

- Blue = Checked
- Red = Checked

The results will show matches for Object type is (Human or Vehicle) AND Color is (Blue or Red). Thus a Human wearing Blue or Red or a Red Vehicle or Blue Vehicle will generate a match.



Using the Forensic Search Filters

1. To filter by Object Type, select the relevant object types from the list to include them in the search results.



Note:If you select multiple object types, the search includes results with either object type. When filtering based on Object Type, selecting multiple object directions will display results with either of the object directions. However, when you select an object direction and then adjust the confidence level, the search will exclude results that don't meet both criteria: the object direction and the minimum confidence level.

- 2. To set the Object Type Minimum Confidence, adjust the slider from 0 to 100.
- 3. To filter by Object Color, select the object's color to include them in the search results.
- 4. To set the Object Color Minimum Confidence, adjust the slider from 0 to 100.

5. To filter by Object Direction, select the relevant object directions from the list to include them in the search results.

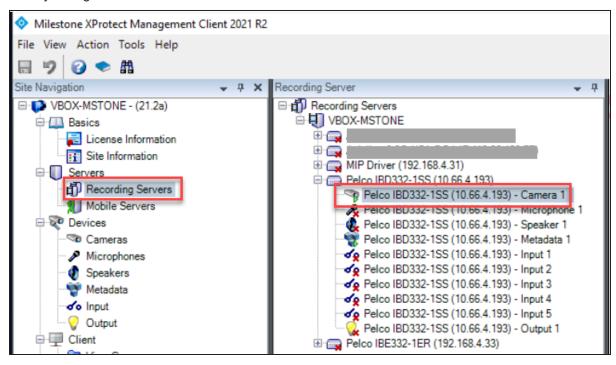


Note: If you select multiple object directions, the search includes results with either object direction. When filtering based on Object Direction, selecting multiple object directions will display results with either of the object directions. However, when you select an object direction and then adjust the confidence level, the search will exclude results that don't meet both criteria: the object direction and the minimum confidence level.

6. To set the Object Direction Minimum Confidence, adjust the slider from 0 to 100.

Analytics Configuration

- 1. Launch the XProtect Management Client.
- 2. Enter your login credentials.



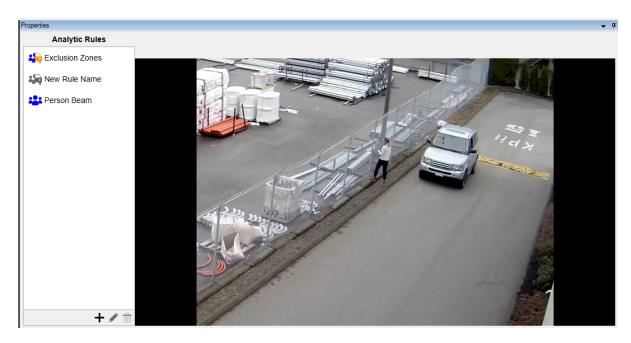
- 3. Click Connect.
- 4. In the Site Navigation area on the left, select **Servers > Recording Servers**, then select a camera that supports advanced analytics.

If the camera supports advanced analytics, the Analytics tab appears at the bottom of the screen.



5. Click the **Analytics** tab.

The Analytics tab loads all existing rules on the Analytics Rules page. Rules that are enabled will display a colored icon while rules that are disabled will display in grayscale. The icon displays a people image if the rule applies to people, displays a car image if the rule applies to vehicles, or displays both images if the rule is monitoring both people and cars (also referred to as class types).

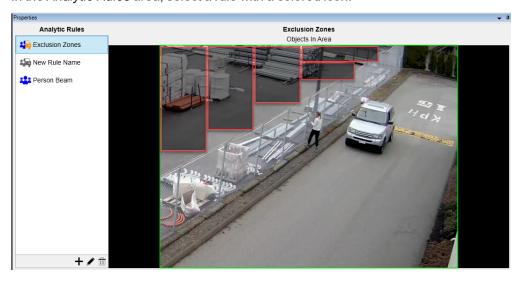


Using Analytic Rules

An analytic rule is a set of conditions that occur in the camera's field of view. Each rule will trigger analytic events and alarms in the system. You can view, modify, add, and delete analytic rules.

Viewing a Rule

In the Analytic Rules area, select a rule with a colored icon.



An overlay (defined by a green outline) appears over the image representing the camera's field of view and the area affected by the rule. The red geometric shapes on the above image represent exclusion zones that will not detect analytic events. Only some rules use exclusion zones such as the Objects in Area rule. You can move a geometric shape to another part of the image, change the geometry of a shape by reducing or enlarging the shape, and modify settings.

Modifying a Rule

- 1. In the Analytic Rules area, select a rule.
- 2. Click the button.

The Rule Settings area appears on the right of the screen.



- 3. Change any of the settings, as needed.
 - If the rule uses exclusion zones, you can add or delete an exclusion zone.
- 4. To:
 - Add an exclusion zone, click **Add Exclusion Zone**, and move the red shape to the required location, then resize as needed.
 - Delete an exclusion zone, right-click a red shape, and select **Delete Zone**.
- 5. Click **Save** to update the changes.

Adding a Rule

- 1. In the *Analytic Rules* area, click the + button.
- 2. In the Select Rule area, select a rule from the list of available rules. Settings for the selected rule appear in the Rule Settings area.

3. In the Rule Name area, enter a unique name.





Note: The Save button is grayed out if the rule name already exists in the list of rules.

- 4. Click the Rule is Enabled check box to enable the rule at this time.
- 5. In the *Rule Settings* area, select or adjust any of the settings.



Note: Pelco cameras are designed to detect moving objects that are in the field of view for at least 2 seconds. Objects that enter the field of view from behind the camera may take up to 4 seconds to be detected.

The rule you selected may display a diagonal line with directional arrows on the camera's field of view. If the line is directional, the analytics will detect objects traveling across the line in one direction. If the *Is directional* check box is not selected, the line changes to 2 arrows pointing in both directions. You can select the lines or arrows to move or rotate, as needed.

The rule you selected may use exclusion zones on the camera's field of view.

- 6. To add an exclusion zone:
 - a. Click Add Exclusion Zone.
 - b. Move the red shape to the required location.
 - c. Resize the shape, as needed.

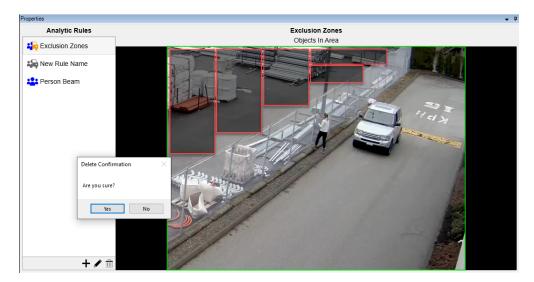
Right-clicking a shape allows you to delete a zone or to *Send to Back* in the case of two overlapping shapes: one large inclusion zone and a smaller exclusion zone. You can send one shape to back to access the other zone.

7. Click Save.

The main page appears with the new rule shown in the Analytic Rules area.

Deleting a Rule

- 1. In the Analytic Rules area, select a rule.
- 2. Click iii.



3. Click **Yes** to confirm that you want to delete the rule.

Troubleshooting

Logs from the plugin are in this directory: C:\ProgramData\Pelco\Broker.

To change the log level of the plugin:

- 1. Stop XProtect Smart Client.
- 2. Open C:\Program Files\Milestone\MIPPlugins\Pelco\ForensicSearch\Broker.Common.dll.config.
- 3. Modify LogLevel to one of the available log levels.
- 4. Start the XProtect Smart Client.

Technical Support

Pelco Support Information

Contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international).

Milestone Support Information

Contact Milestone Support at milestonesys.com/support/contact-us/contact-us.

