

Operating Instructions

i-PRO Active Guard for XProtect



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1. INTRODUCTION

1.1. FEATURES

1.1.A Terms of use

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1.1.D Abbreviations

These are descriptions of the basic terms used in these operating instructions.

Microsoft® Windows® are described as Windows.

Milestone® XProtect® are described as XProtect.

1.1.E Disclaimer of warranty

This product is designed to search/verify a specified face from a database that stores face information and thumbnail images created based on faces captured by network cameras and display statistical information by operation using a client terminal or system compatible with this product. This product by itself is not designed for crime prevention. Our company accepts no responsibility for the following under any circumstances.

(1) ANY DAMAGE AND LOSS, INCLUDING WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, CONSEQUENTIAL OR EXEMPLARY, ARISING OUT OF OR RELATING TO THE PRODUCT;

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- (5) ANY CLAIM OR ACTION FOR DAMAGES BROUGHT BY ANY PERSON OR ORGANIZATION AS A PHOTOGRAPHED SUBJECT DUE TO VIOLATION OF PRIVACY CONCERNING A SURVEILLANCE CAMERA'S PICTURE OR SAVED DATA, FOR SOME REASON (INCLUDING USE WHEN USER AUTHENTICATION ON THE AUTHENTICATION SETTING SCREEN IS SET TO OFF), BECOMING PUBLIC OR BEING USED FOR ANY PURPOSE;
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- (7) ANY PROBLEM, DAMAGE OR COMPLAINT CAUSED BY THE OPERATION BY A MALICIOUS THIRD PARTY.

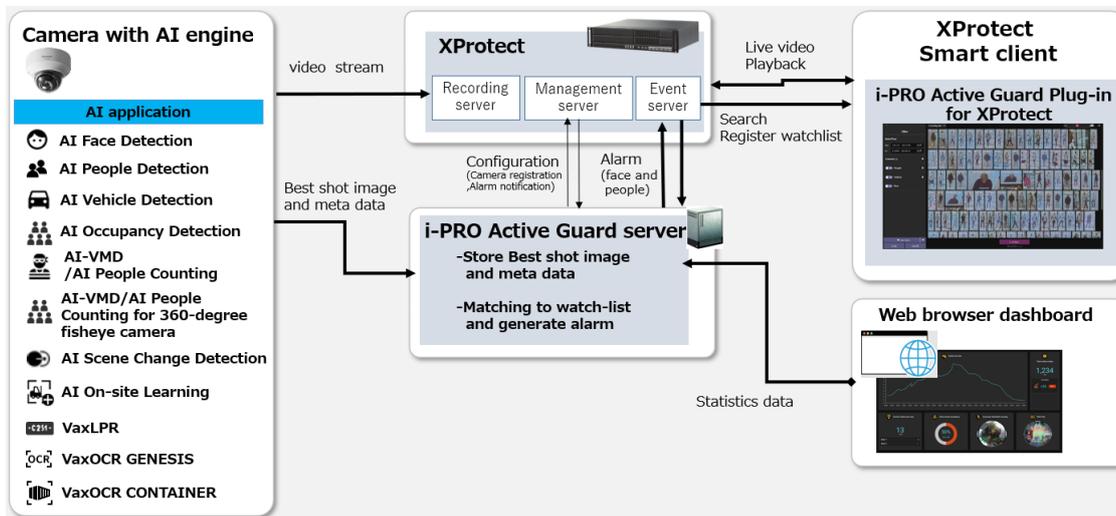
1.2. PREFACE

Setup is required before using the plug-in. Please refer to the i-PRO Active Guard Setup Instructions for XProtect.

This operating manual is for the dashboard function of i-PRO Active Guard for XProtect.

Regarding the operation of the dashboard for i-PRO Active Guard server, please refer to i-PRO Active Guard server dashboard Operating Instructions.

1.3. SYSTEM OVERVIEW



The AI application or AI function on i-PRO cameras transmit the video stream to XProtect and separately transmit Best shot images and metadata to the i-PRO Active Guard server.

i-PRO Active Guard server stores this data and generates alarms when a face or a person is matched to a watchlist.

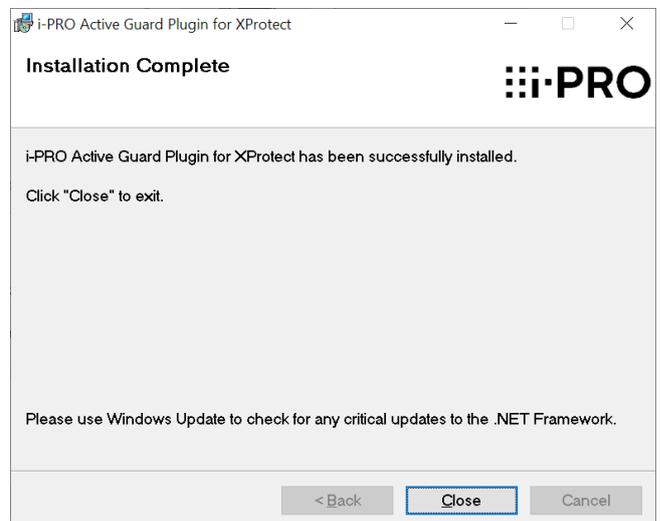
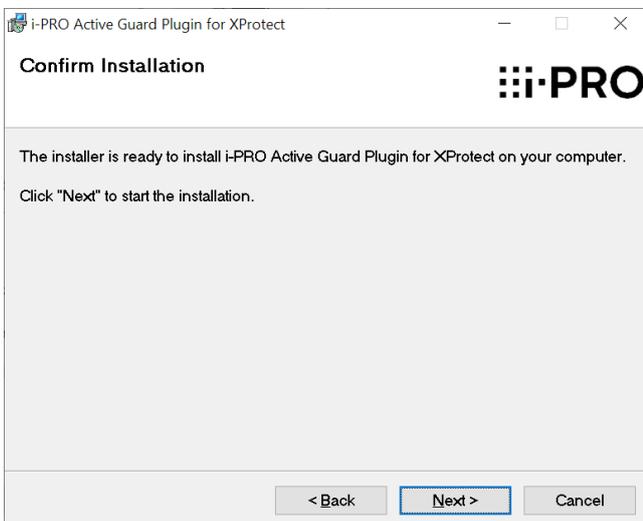
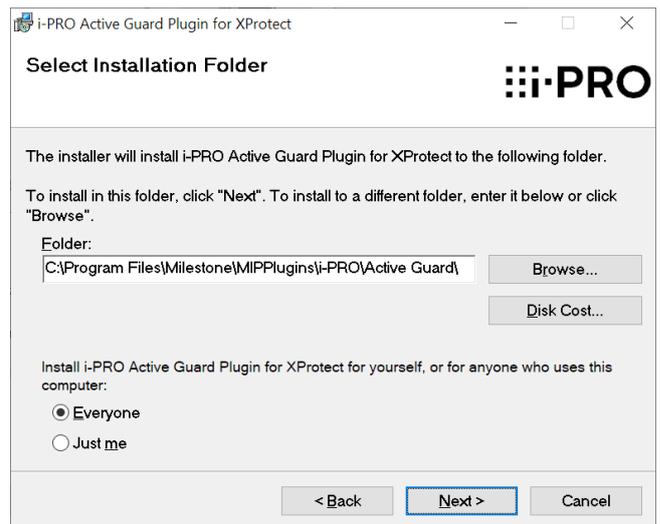
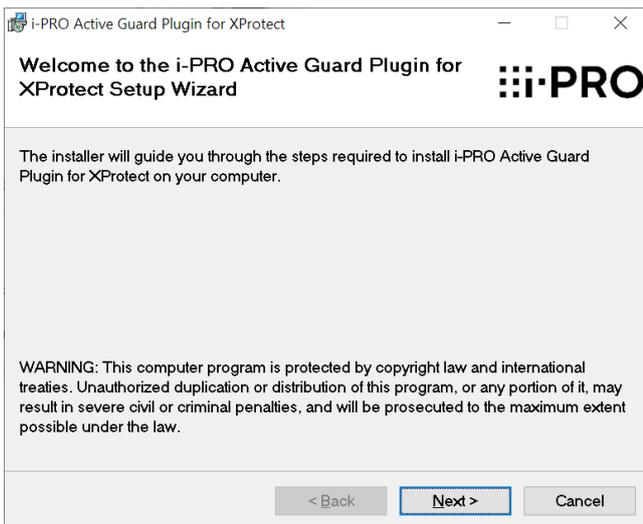
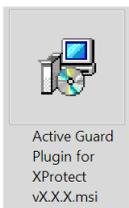
i-PRO Active Guard is the plug-in software for XProtect, this allows an operator to search Best shot images, register watchlist, show live video, recorded video, and alarm.

Bringing the ability to visualise statistics data from the i-PRO Active Guard server for added video management system functionality and business intelligence.

2. INSTALL / SETUP OF PLUG-IN FOR XPROTECT

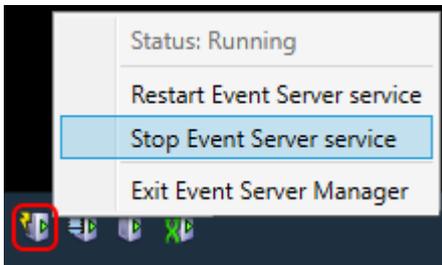
2.1. INSTALL OF PLUG-IN FOR XPROTECT

Run the i-PRO Active Guard Plugin for XProtect installer on the Windows machine with the XProtect Event service installed. Install as required on a Windows machine with the XProtect Management Client for i-PRO Active Guard settings or the XProtect Smart Client to access i-PRO Active Guard search. When prompted restart the XProtect Event service when request.



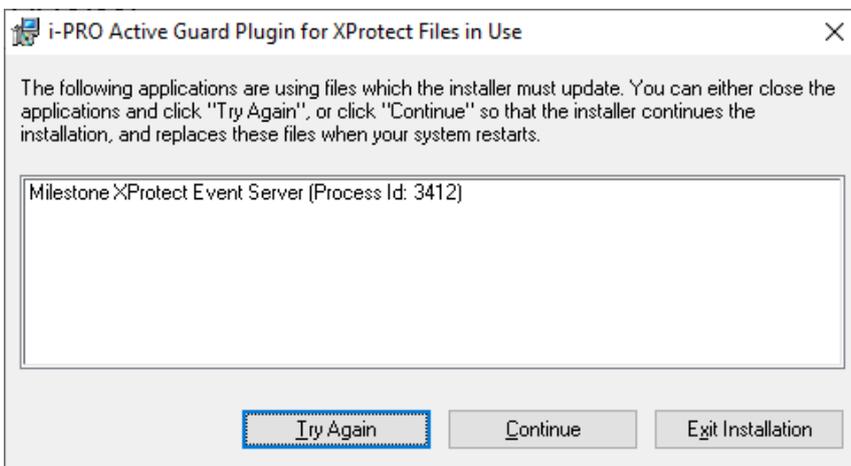
2.2. INSTALL WHEN REPLACING OLD PLUG-IN

Before installing it is recommended to stop the XProtect Event service, as files that will be replaced will be in use otherwise.

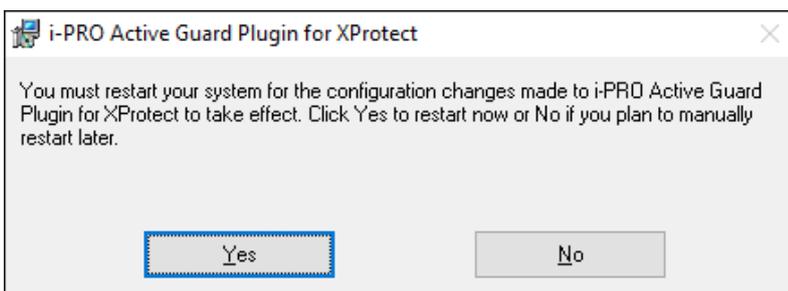


Run the i-PRO Active Guard Plugin for XProtect installer on the Windows machine with the XProtect Event.

If the XProtect Event service has not been stopped, you will receive this error. In this case press [Continue]. At the end of installation as per steps in section 2.1 you will need to restart the system



If the XProtect Event service was stopped, the installation will complete as per the steps in [section 2.1](#). After installation, you will be requested to restart your system.



Note:

- After updating the plugin, you need to launch the Management client once to use the plugin in SmartClient.
-

2.2.1. CONNECTION TO i-PRO ACTIVE GUARD SERVER

Open the XProtect Management Application.

1. Select [i-PRO Plugins], [i-PRO Active Guard Settings]
2. Input i-PRO Active Guard server details
3. Click [Save] in the top left corner

This updated method of adding i-PRO Active Guard servers now allows for multiple servers, as before only a single server could be added.

3.

2.

1.

Note:

If the connection fails, please check if the credentials are correct. Try to access the i-PRO Active Guard web dashboard from the XProtect Management Server.

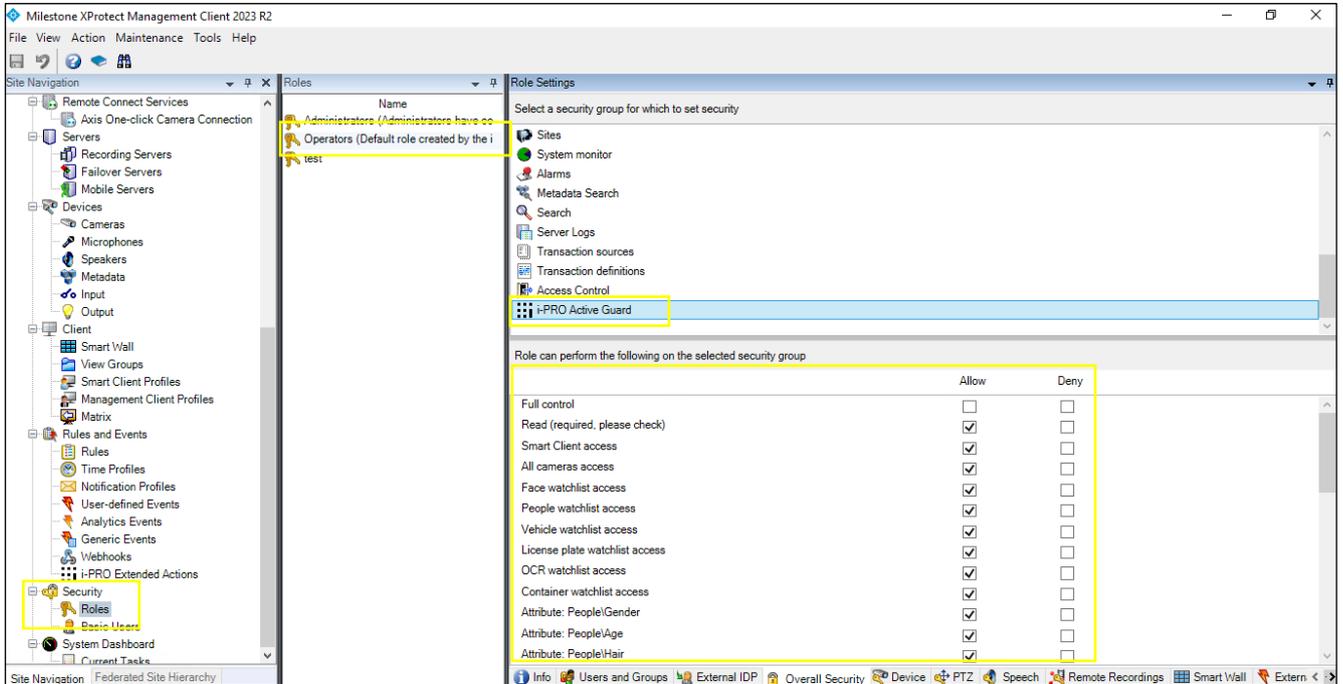
Use [Add Server] to add additional i-PRO Active Guard servers to the XProtect system.

Refresh List		Add Server		Remove Server	
Name	Version	Server Address	HTTP / HTTPS	Number of cameras	
i-PRO Active Guard server	1.6.0.14	192.168.0.15:8090	HTTP	2	
i-PRO Active Guard server 2		:8090	HTTP		

2.2.2. ROLES CONFIGURATION (optional)

Manage XProtect Smart Client user access to the i-PRO Active Guard from within XProtect roles. From the XProtect Management Client select Security > Roles then select or create a group.

In Overall Security scroll down to i-PRO Active Guard in the Role Settings.



As default for Administrators and existing Role Groups these options are enabled. For new Roles these options will be disabled.

To enable the plugin in the XProtect Smart Client the below options need to be checked. Alternatively Full Control checked.

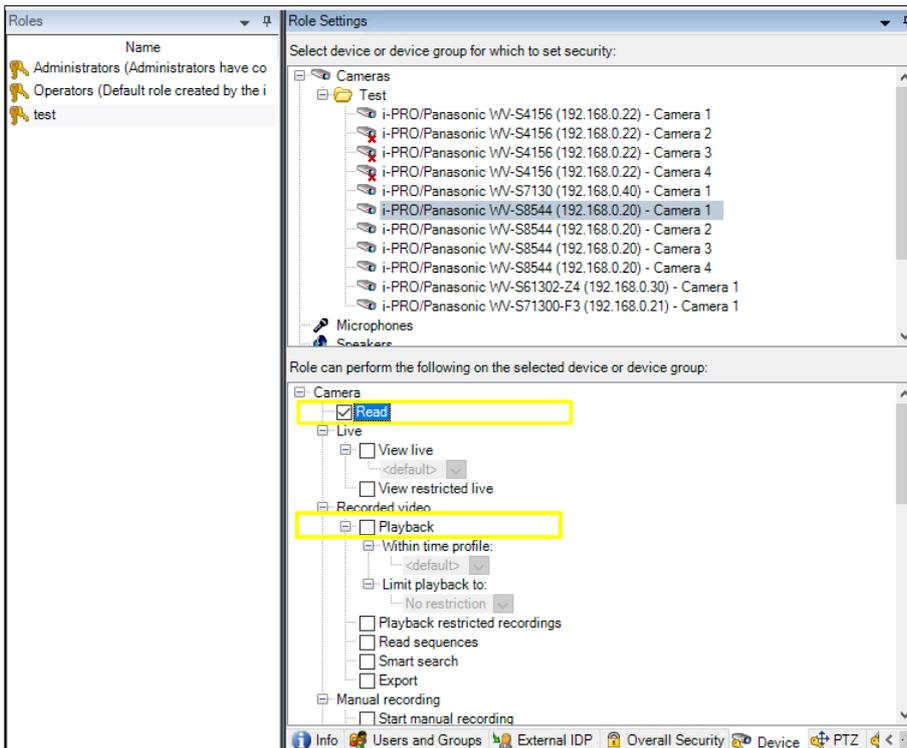
Read (required, please check)	<input checked="" type="checkbox"/>
Smart Client access	<input checked="" type="checkbox"/>
All cameras access	<input checked="" type="checkbox"/>

Read – Required for access.

Smart Client access – Provides the tab for i-PRO Active Guard

All cameras access – When ticked provides access to all cameras within the XProtect system. When unticked only cameras with “Read” and “Playback” permission (on Device tab) can be used in i-PRO Active Guard plug-in.

Read and Playback Permission shown on camera device.



[New for v2.0.0]

The following options are the permissions for each watchlist.

Face watchlist access

People watchlist access

Vehicle watchlist access

License plate watchlist access

OCR watchlist access.

Container watchlist access

The following options determine whether each attribute will appear in the search filter:

Attributes: People\Gender

Attributes: People\Age

Attributes: People\Hair

Attributes: People\Top

Attributes: People\Bottom

Attributes: People\Sunglasses

Attributes: People\Beard

Attributes: People\Mask

Attributes: People\Bag

Attributes: People\Shoes

Attributes: People\Moving direction

Attributes: Vehicle\Type

Attributes: Vehicle\Color

Attributes: Vehicle\Moving direction

Attributes: Face\Gender

Attributes: Face\Age

Attributes: License Plate\Vehicle Type

Attributes: License Plate\Vehicle Color

Attributes: License Plate\Vehicle Brand

Attributes: License Plate\Vehicle Model

Attributes: License Plate\Moving direction

Attributes: License Plate\Owner

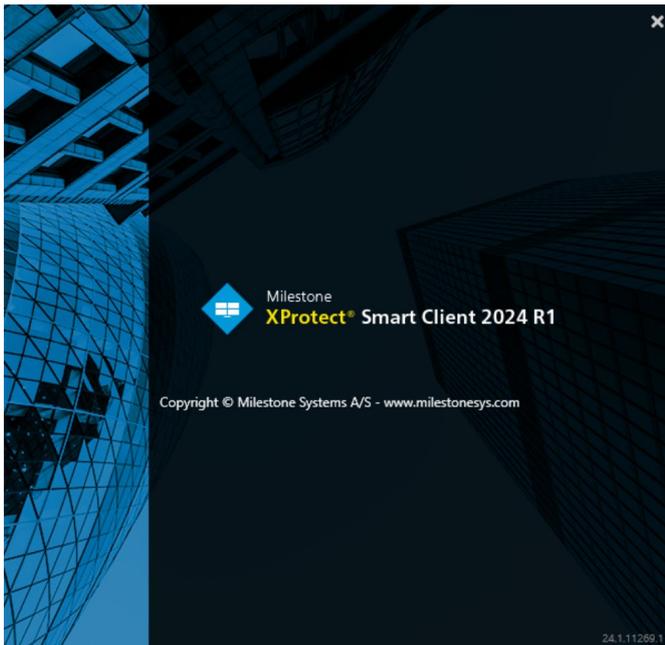
Attributes: License Plate\Country

2.3. START UP AND TERMINATE PLUG-IN

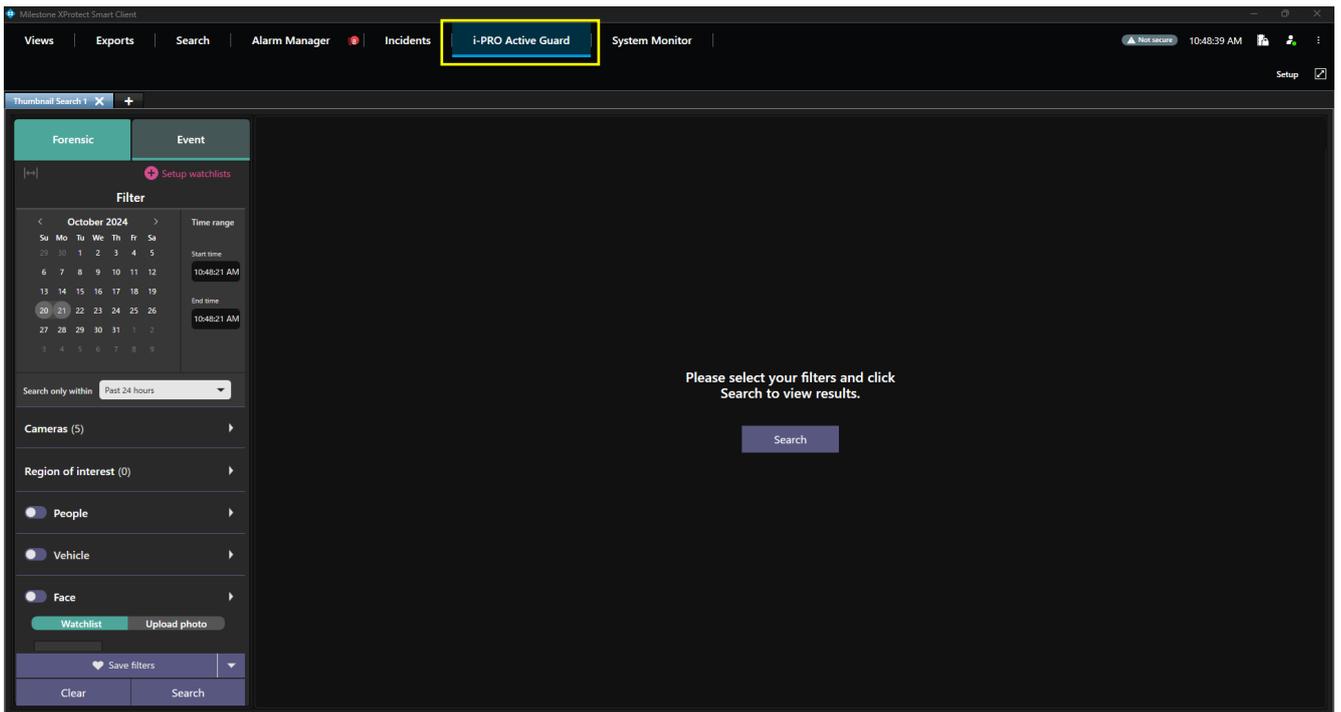
2.3.1. START UP PLUG-IN

To open plug-in, start-up the XProtect Smart Client and first login.

For more detail about the XProtect Smart Client, refer to the XProtect Smart Client user manual.

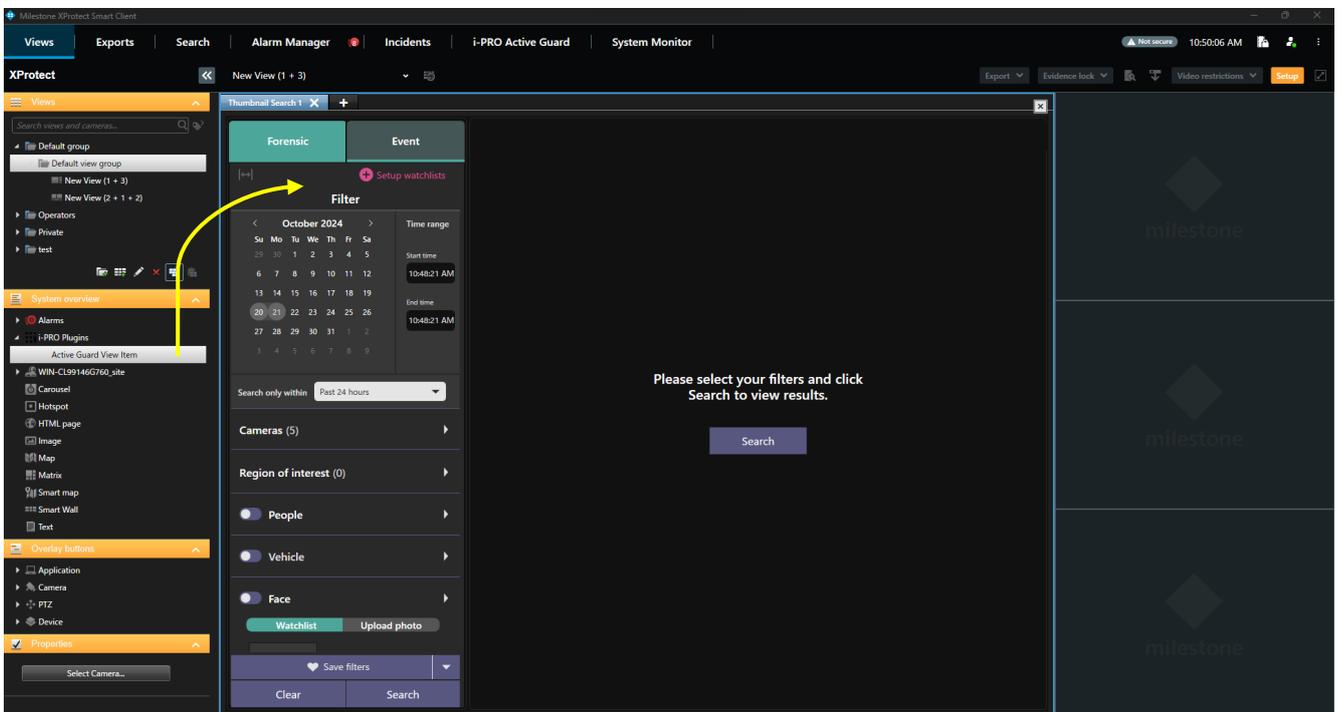


With the i-PRO Active Guard Plug-in installed on the XProtect Smart Client machine, you can find the application plug-in [i-PRO Active Guard Plug-in] by selecting the tab as shown below.



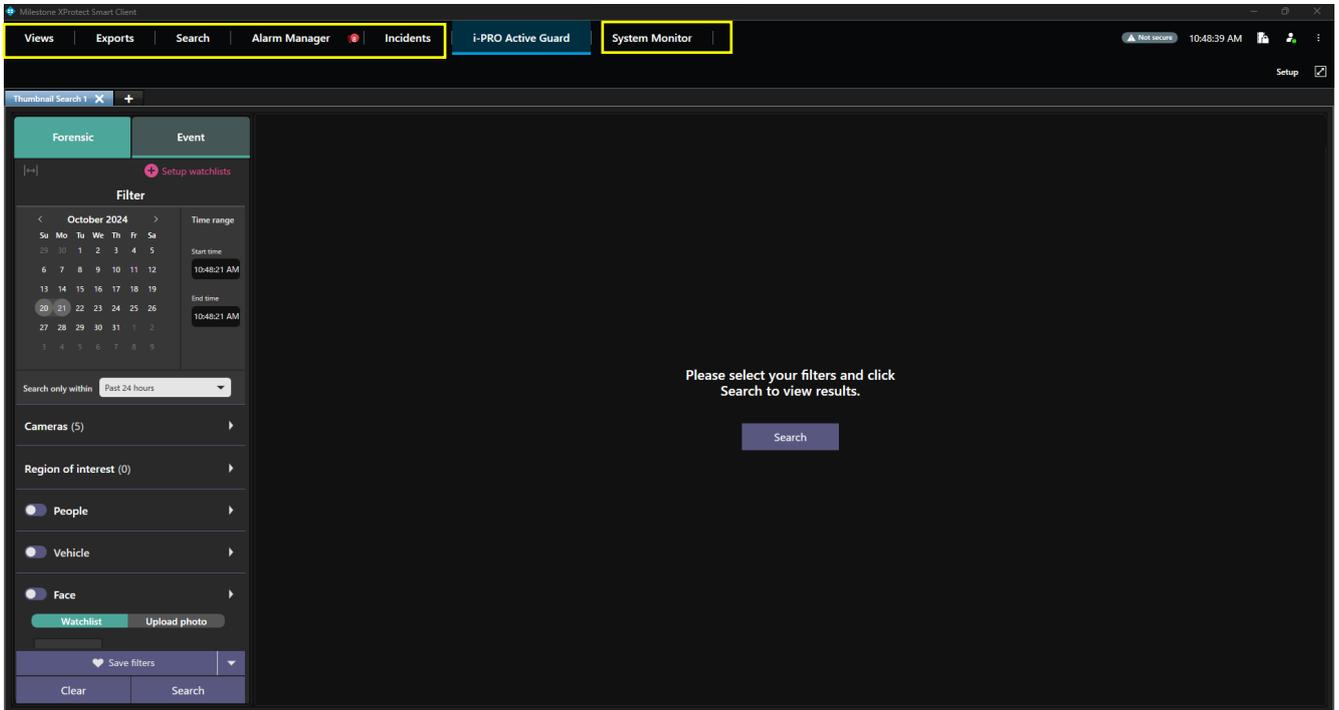
Alternatively, i-PRO Active Guard can be added to a viewing tile from the Live tab. This allows both live camera views and the additional i-PRO Active Guard search functionality within the same window.

While in Setup mode, drag from i-PRO Plugins, [Active Guard View item] into an empty tile.



2.3.2. TERMINATE PLUG-IN

To terminate the i-PRO Active Guard Plug-in, select another XProtect Smart Client tab (Live, Playback, Exports, Search, Alarm Manager, System Monitor). The last search query and search tabs will remain for when you return to this tab within the same session.



2.4. SEARCH DETECTED OBJECTS

Using Forensic tab, you can quickly find thumbnails of AI Camera detected objects including persons, vehicles, faces and so on.



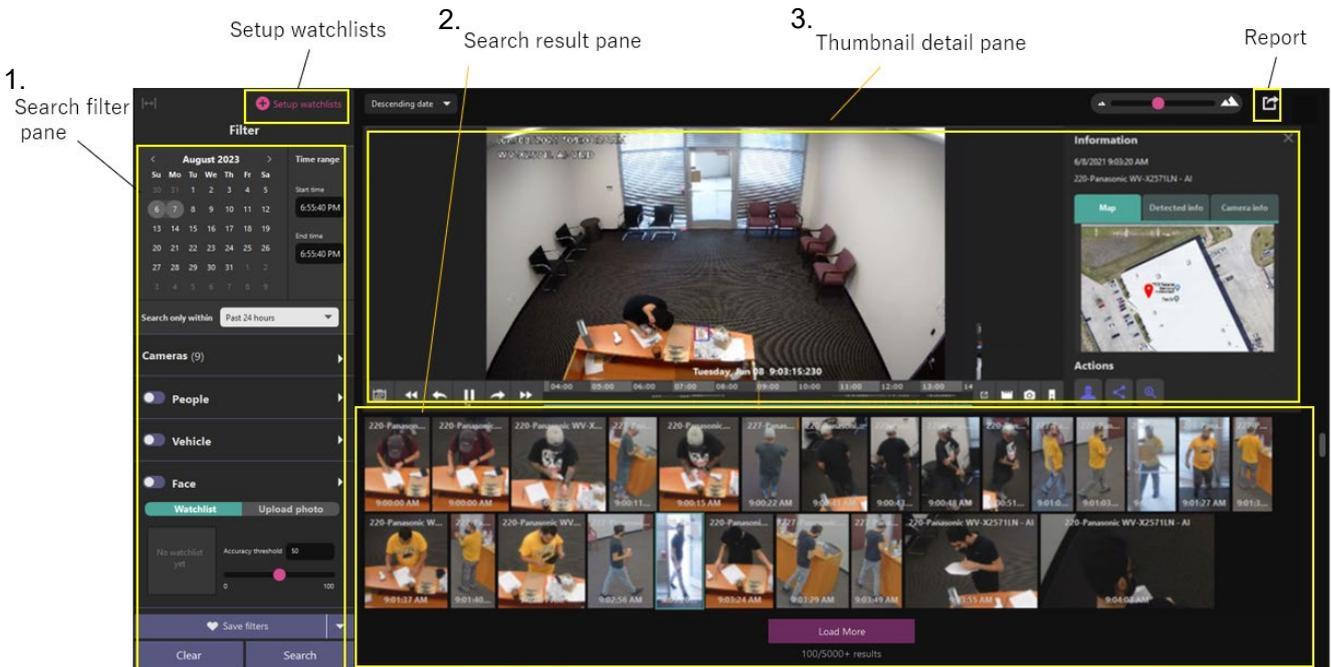
2.4.1. UI Component

i-PRO Active Guard Search has three main parts,

1. Search filter pane,
2. Search result pane and
3. Thumbnail detail pane, also has search watchlists.

2.4.2. Overview

This section describes the elements that compose the recording search.



Search filter pane	Setup watchlist	Add new search watchlist.
	Date/Time filter	Start time and end time for search objects.
	Search only within	Select from Past 24 hours/Past week/Past month/None. - When select other than None, Date/Time filter are ignored. - When specify Date/Time filter, this setting will automatically become None.
	Accuracy threshold	0 to 100

	Cameras filter	Specify AI Cameras for search objects.
	Region of interest	[New for v2.0.0] Specify areas for search object. * Only Faces, People, and Vehicles support combined searches.
	Face filter	Show face thumbnails.
	People filter	Specify personal features such as gender, age, hair color, etc.
	Vehicle filter	Specify vehicle features such as type, color, etc.
	LPR filter	Specify license plate features.
	OCR filter	[New for v2.0.0] Specify OCR Code.
	Container filter	[New for v2.0.0] Specify Container code, Size code and features such as Owner country, etc. of Container.
	Save filters	Save filter settings with name (up to 12).
	Clear	Clear filter settings.
	Search	Start thumbnail search.
Search result panes	Sort	Sort search results by descending, ascending and analysis score.
	Zoom in/out	Zoom in and out thumbnail results area.
	Detected thumbnail	Click and open the thumbnail detail pane. Right-click and save the thumbnail as a picture or video clip.
	Results count	Show the thumbnail search results count.
Thumbnail detail pane	Thumbnail detail pane	Video control, information such as camera location, analysis score and camera information. Refer to About thumbnail detail pane for detail.
Report	Export	Provides a HTML export of the current results.
Set up watchlists	Face watchlist	Setup face watchlist.
	People watchlist	Setup a people watchlist.
	Vehicle watchlist	Setup a vehicle watchlist.
	LPR watchlist	Setup a LPR watchlist.
	OCR watchlist	[New for v2.0.0] Setup OCR watchlist.
	Container watchlist	[New for v2.0.0] Setup Container watchlist.

2.4.3. About search filters

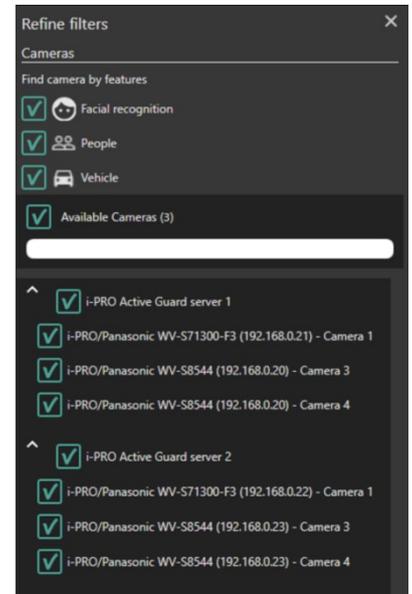
This section describes search filters that can narrow the search results down.

A. Camera filter

Select the cameras to be searched from the available camera list.

Using Find camera by features, you can select only cameras which have specific AI capabilities.

Users can select cameras from multiple servers at the same time.



B. Region of interest filter (new for v2.0.0)

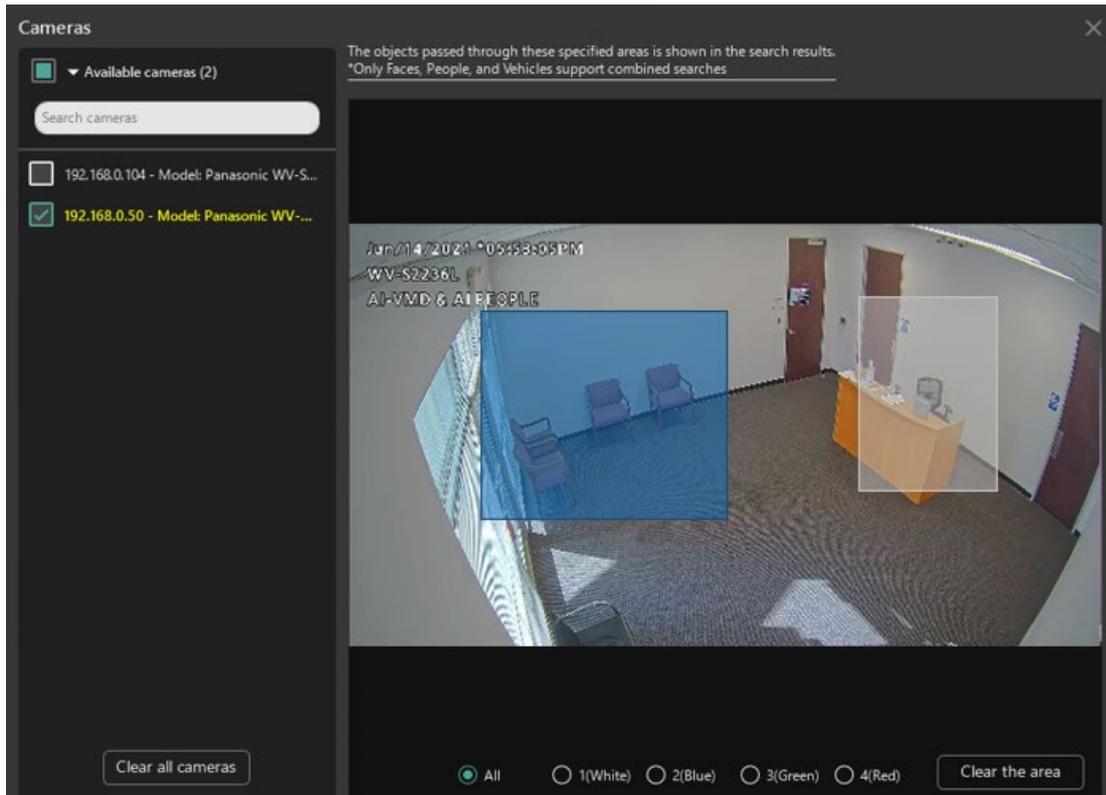
With the Region of interest filter enabled, only thumbnails of the specified area will be displayed.

* Only Faces, People, and Vehicles support combined searches.

Select the camera to search from the list of available cameras and specify the area by mouse drag on the displayed image.

Up to 4 areas can be specified for each camera.

To delete the area, press the “Clear the area” button.



Note:

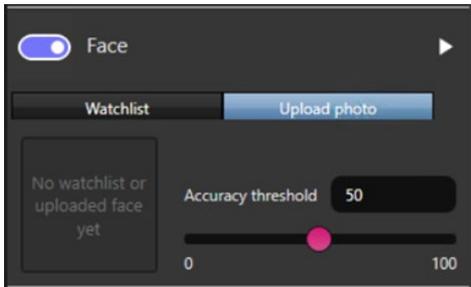
- The thumbnail of the search result is the clearest image of the detection target while he is moving in the view angle. They may not be images within the area specified in this setting.



- If you change resolution of the camera used in this filter, re-set the region of interest.

C. Face filter

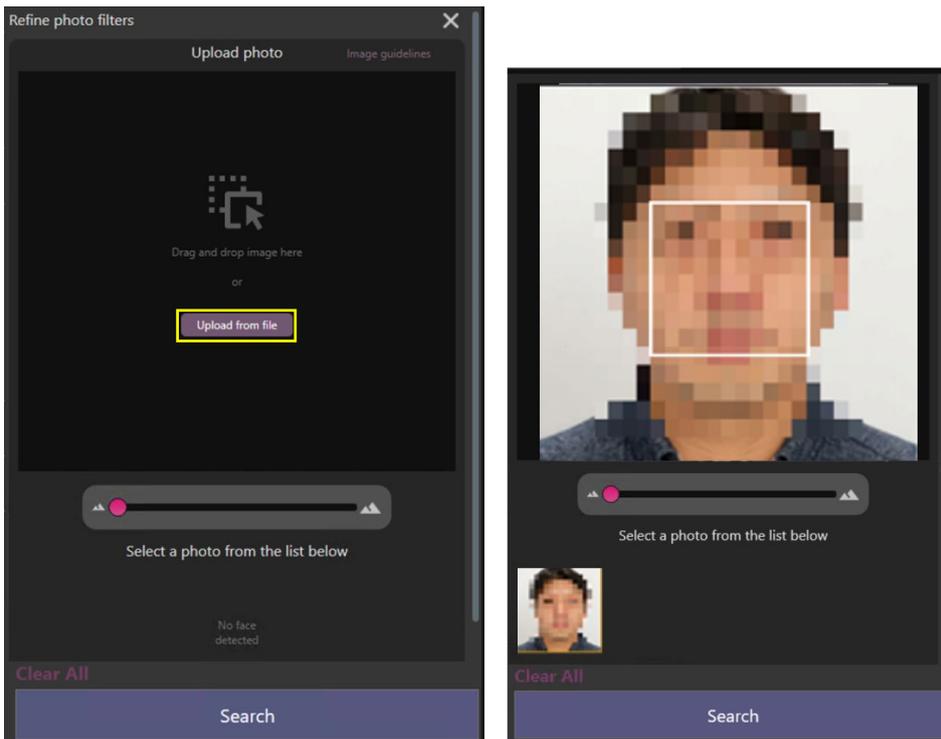
With the Face filter enabled, only the thumbnails are shown from AI Cameras with the face detection application enabled and where a face is detected.



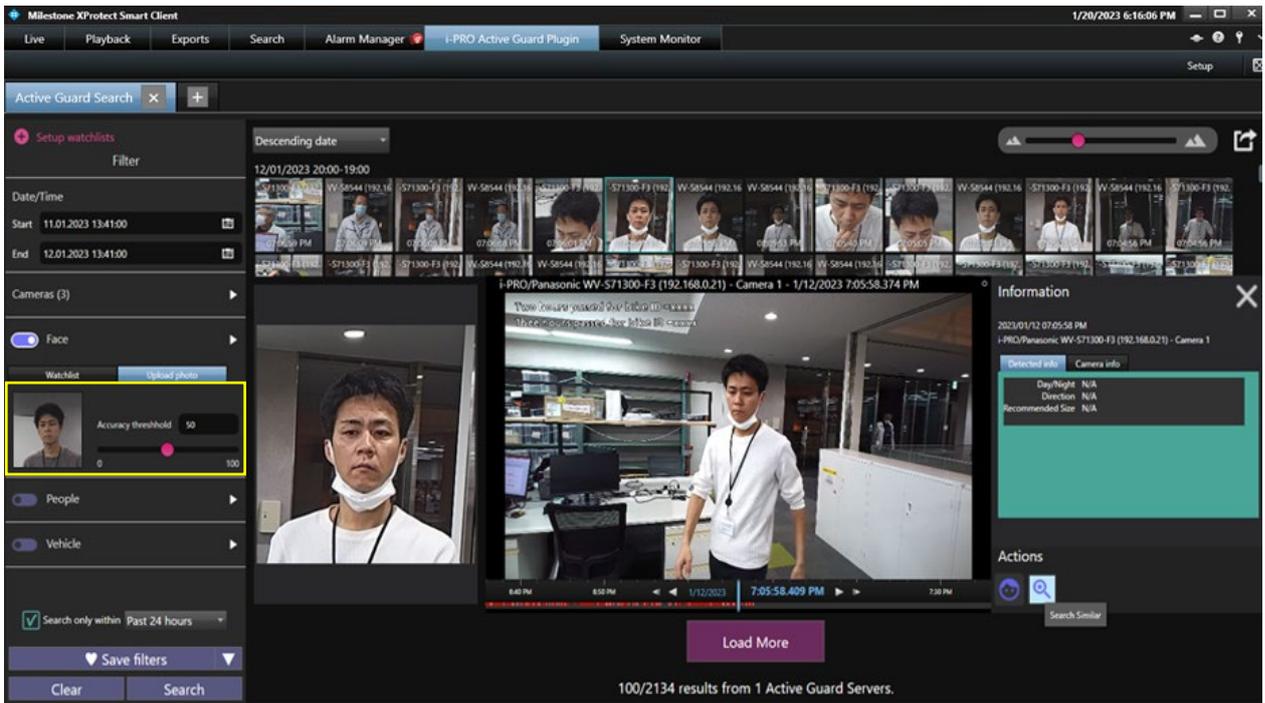
This option now allows for a picture to be uploaded to find the same or similar faces. When [Upload photo] is selected, a new window is shown to the left.

Drag and drop a photo into this window or select [Upload from file] to navigate and select the photo from the computer. Supported image types are PNG or JPG/JPEG.

With a photo uploaded, if a face is detected it will be shown within a white box. Select the image you wish to use when multiple faces are detected and press [Search].

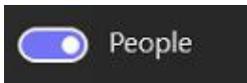


Search results will be shown, and the face search tile will update with the selected face being used. Adjust the [Accuracy threshold] for more or less results based on the Accuracy score.



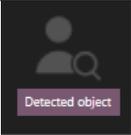
D. People filter

With the People filter enabled, only the thumbnails are shown from AI Cameras with the people detection application enabled.



Using the filter pane, you can apply additional search conditions.



Features and controls	Description
	Uploading people picture If picture is uploaded, features are automatically detected.
Gender	Male, Female
Age	Child (0~10), Young Adult (11~20), Adult (21~60), Senior (61+)
Hair type	Long-hair, Short-hair, Hat

Hair color	Black, Gray, White, Brown, Gold
Top type	Short-sleeves, Long-sleeves
Top color	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
Bottom type	Long, Short
Bottom color	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
Sunglasses	Sunglasses, No Glasses
Beard	Beard, No Beard
Mask	Mask, No Mask
Bag	Bag, No Bag
Bag color	Black, White, Brown, Orange, Yellow, Green Blue, Purple, Pink, Red
Shoes color	Black, White, Brown, Yellow, Green, Blue, Red
Moving Direction	Up, Up right, Right, Down right, Down, Down left, Left, Up left
Others	Recognizable face only Color image only Note: Black & white images may show in the search results even if only Color image only is specified.
Threshold	Low, Medium and High
Exclude selected color	If this is selected, the color will be excluded from the search results.
Include similar color	If this selected, the color similar to the specified color will be automatically selected.

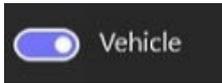
Note:

If the specified color does not appear in the search results, it may be displayed in the search results by selecting and searching for the following similar colors together.

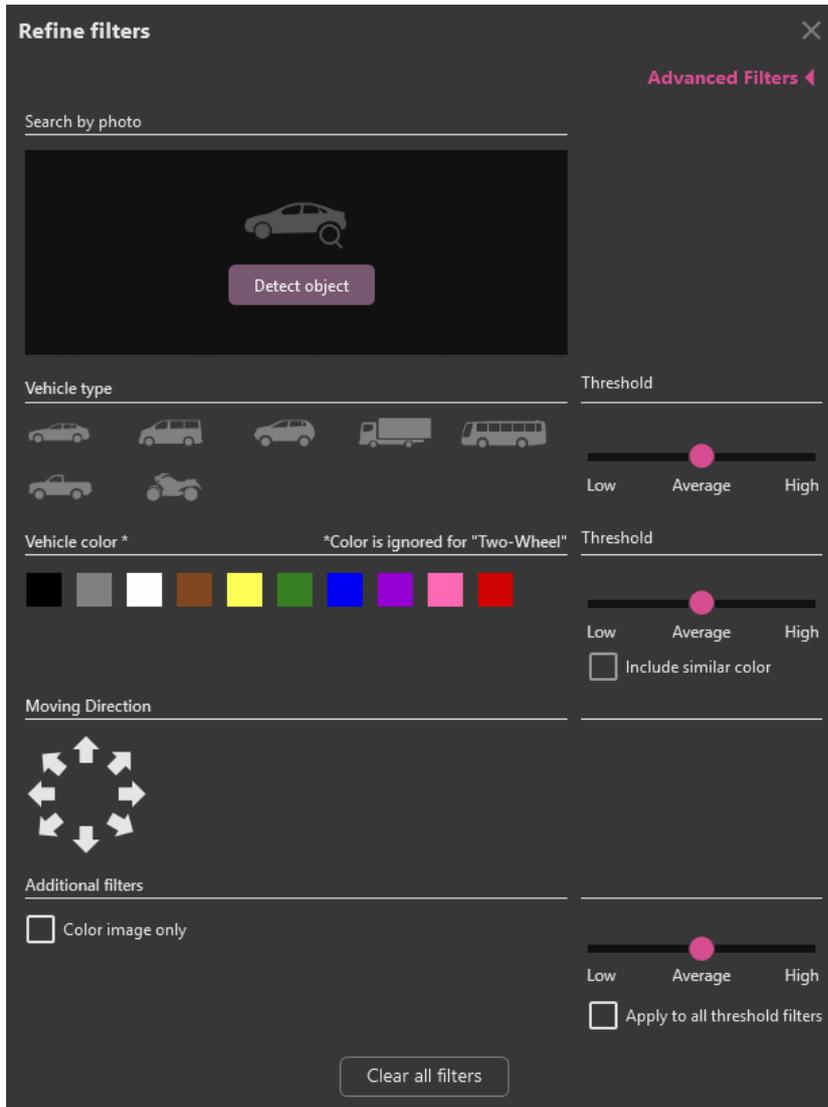
<u>Color to be searched</u>	<u>Similar color</u> (The order is similar to the left)
Black	Gray
Brown	Orange, White, Gray
White	Gray, Blue, Brown, Yellow, Orange
Gray	Black, White, Blue
Green	Blue, Black, Yellow
Red	Orange, Pink
Blue	Green, Black, Purple
Yellow	Green, White, Brown, Orange
Orange	Red, Brown, Yellow
Purple	Pink, Blue, Black
Pink	Red, Purple

E. Vehicle filter

With the Vehicle filter enabled, only the thumbnails are shown from AI Cameras with the vehicle detection application enabled.



Using the filter pane, you can apply additional search conditions.



Features and controls	Description
	Uploading vehicle picture If picture is uploaded, features are automatically detected.
Type	Sedan, Van, SUV, Truck, Bus, Pickup Truck, Two-Wheel
Color	Black, Grey, White, Brown, Yellow, Green, Blue, Purple, Pink, Red
Moving Direction	Up, Up right, Right, Down right, Down, Down left, Left, Up left
Others	Color image only

	Note) Black & white images may show in the search results even if only Color image only is specified.
Threshold	Low, Medium, High
Include similar color	If this selected, the color similar to the specified color will be automatically selected.

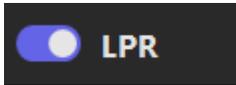
Note:

If the specified color does not appear in the search results, it may be displayed in the search results by selecting and searching for the following similar colors together.

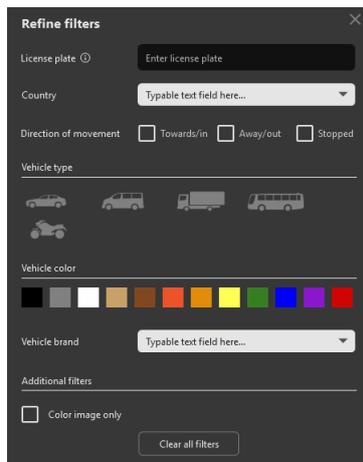
<u>Color to be searched</u>	<u>Similar color</u> (The order is similar to the left)
Black	Gray
Brown	White, Gray
White	Gray, Blue, Brown, Yellow
Gray	Black, White, Blue
Green	Blue, Black, Yellow
Red	Pink
Blue	Green, Black, Purple
Yellow	Green, White, Brown
Purple	Pink, Blue, Black
Pink	Red, Purple

F. LPR filter

With the LPR filter enabled, only the thumbnails are shown which license plate detection app detected.



Also using filter panel, you can apply the search condition.



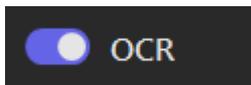
Features and controls	Description
License plate	Specify a License plate number. Note: Use '%' for wild card search (example: for plates starting with 'A,' enter 'A%.')
Country	Specify the country
State *1	Specify the state
Moving Direction	Towards/in, Away/out, Stopped
Type	Car, Van, Truck, Bus, Motorcycle, (New for v2.00)Mini-Van, SUV, Pickup
Color	Black, Gray, White, Beige, Brown, Orange, Golden, Yellow, Green, Blue, Purple, Red
Brand	Specify the brand
Model *2	Specify the model
Additional filters	Color image only Note: Black & white images may show in the search results even if only Color image only is specified.

*1 : State is displayed when Country is set to "United States" or "Australia".

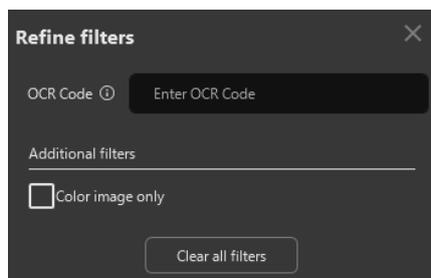
*2 : Model is displayed after setting Brand.

G. OCR filter (new for v2.0.0)

With the OCR filter enabled, only the thumbnails are shown which VaxOCR GENESIS app detected.



Also using filter panel, you can apply the search condition.



Features and controls	Description
OCR Code	Specify OCR Code. Note) Use '%' for wild card search (Example: for OCR Code starting with 'A,' enter 'A%.')
Additional filters	Color image only Note) Black & white images may show in the search results even if only Color image only is specified.

H. Container filter (new for v2.0.0)

With the Container filter enabled, only the thumbnails are shown which VaxOCR CONTAINER app detected.



Also using filter panel, you can apply the search condition.

Features and controls	Description
Container code	Specify Container code. Note) Use '%' for wild card search (Example: for container code starting with 'A,' enter 'A%.')
Size code	Specify the size code. Note) Use '%' for wild card search (Example: for size code starting with 'A,' enter 'A%.')
Owner country	Specify the owner country.
Owner city	Specify the owner city.
Owner company	Specify the owner company.
Additional filters	Color image only Note) Black & white images may show in the search results even if only Color image only is specified.

2.4.4. About thumbnail detail pane

Selecting one of the thumbnails in the search results, you can take various actions such as the playback of video, check detection info and register a thumbnail to a watchlist. For additional information about playback controls, please refer to [2.6. PLAYBACK VIDEO CONTROL](#).



- Information

You can see more detailed information such as detected place, the analysis information, and camera information.

A. Selected snapshot

The selected snapshot will be shown on the left-hand side.



B. Playback of event

Playback will as default start 5 seconds before the event and will continue to playback for the selected camera.

See i-PRO Active Guard Preferences for additional playback settings.

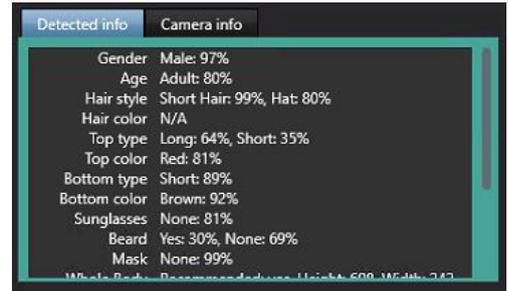
Note:

Right click the camera tile to switch between playback and live for the selected camera.



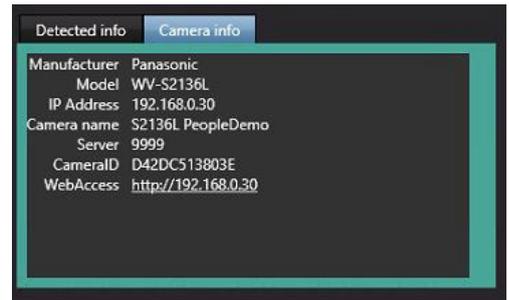
C. Detected info

Analysis score information for each detection type is displayed here.



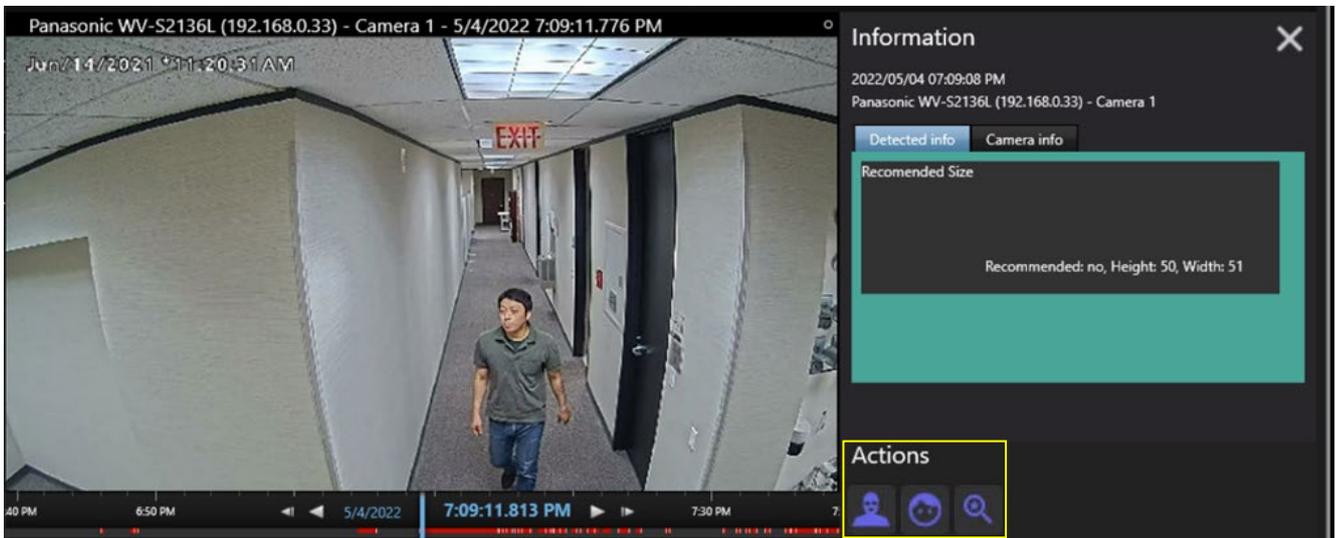
D. Camera info

Camera information is displayed here.



- Action buttons

This allows users quick user operation of tasks. One-click to access, register watchlists, save facial features and search for similar characteristics.



A. Search for similar characteristics

Quick search is provided to allow for an instant search using the same detection features with high scores.

- [Search for exactly similar characteristics (less false results)] – Similar search with high accuracy
- [Search for similar characteristics (fewer missing results)] – Similar search with lower accuracy
- [Search for similar face] – Face only search results where face is detected in image
- [Search for license plate number] - Selectable when license plate number in LPR image is detected.

-

[New for v2.0.0]

- [Search for OCR code] – Selectable when OCR code in OCR detection image is recognized.
- [Search for Container code] - Search for similar images by searching for cameras that OCR detection is installed.

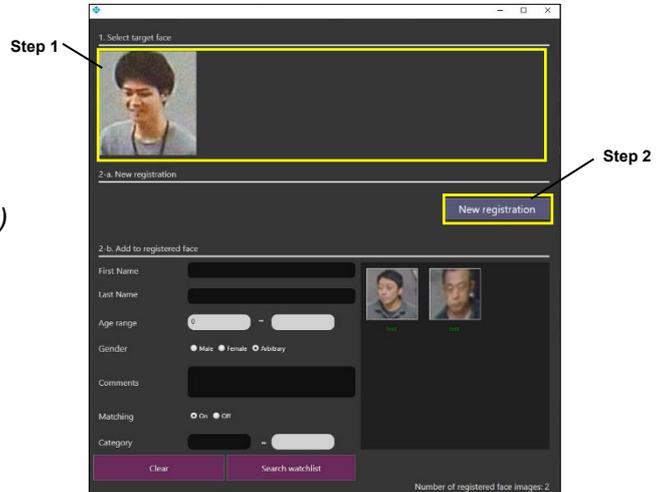
If you want to go back to previous search results and use the Latest search condition in Saved filters.

B. Save facial features to Registered facial detection

Register face image to watchlist. There are options to either register a newly detected face or add a detected face thumbnail to an existing face watchlist.

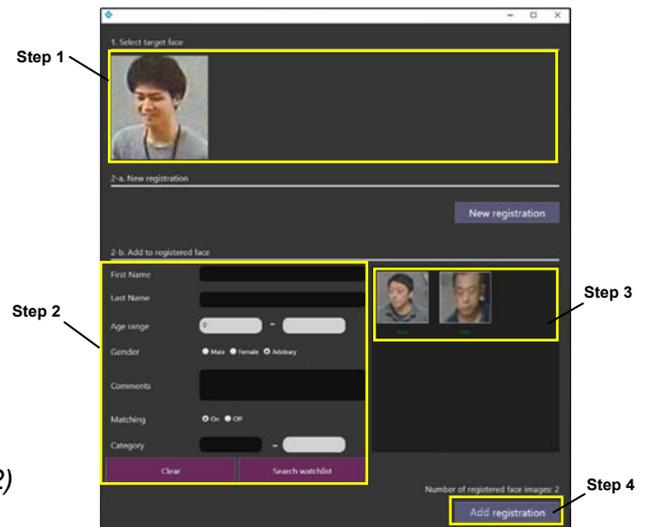
In the case of registering as a new face:

- Step 1.** Select one of the detected faces.
- Step 2.** Click the New registration button.
- Step 3.** Please follow to **2.6.1 Face Watchlist (Step2)**



In case of adding to existing registered face:

- Step 1.** Select one of the detected faces.
- Step 2.** Search existing registered faces by using filters.
If no filters are specified, all registered faces are displayed.
- Step 3.** Select one of the searched faces.
- Step 4.** Click Add registration button.
- Step 5.** Please follow to **2.6.1 Face Watchlist (Step 2)**



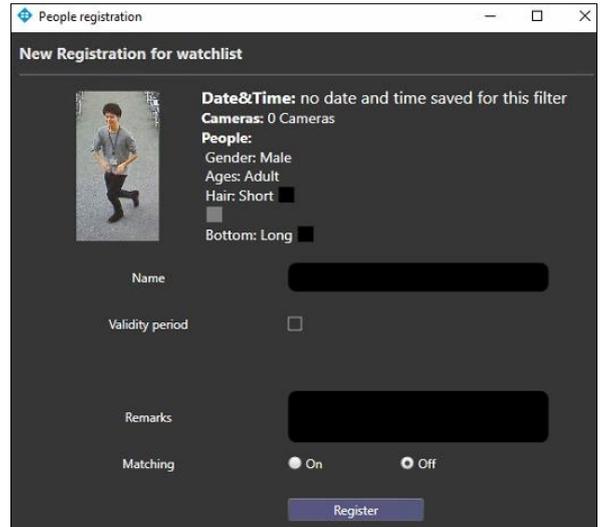
Note:

- Face can be registered up to 30,000 (new for v2.0.0). Up to 1,000 faces can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
- Recommended width of face for registration is more than 75 pixel. When the selected face is under the value, message is shown.

C.  Save person's characteristics to Registered Person detection

Register personal features to a watchlist. The high scoring items are registered.

Some basic information can be entered from here.

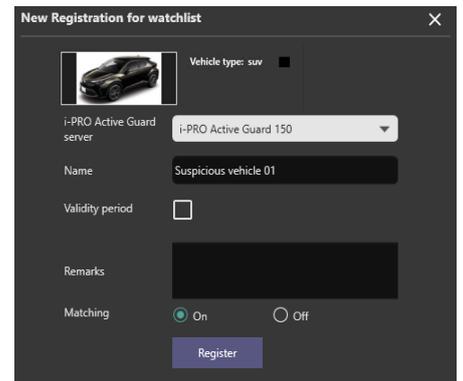


The screenshot shows a 'New Registration for watchlist' dialog box for person detection. It includes a thumbnail image of a person, a 'Date&Time' field with a warning 'no date and time saved for this filter', and a 'Cameras' field showing '0 Cameras'. Under the 'People' section, there are fields for 'Gender: Male', 'Ages: Adult', 'Hair: Short', and 'Bottom: Long'. Below these are input fields for 'Name', 'Validity period' (checkbox), and 'Remarks'. At the bottom, there is a 'Matching' section with 'On' and 'Off' radio buttons, and a 'Register' button.

D.  Save vehicle's characteristics to Registered Vehicle detection

Register vehicle features to watchlist. High score items are registered.

Some basic information can be entered from here.

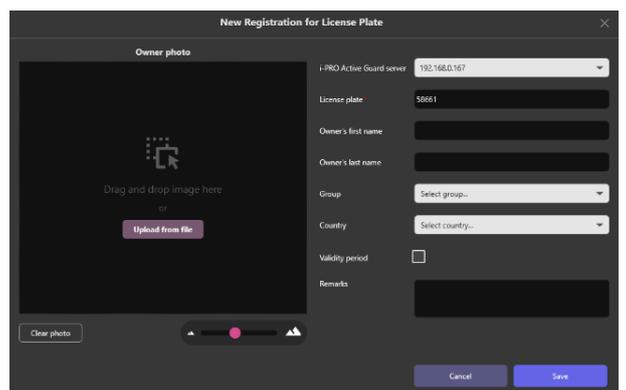


The screenshot shows a 'New Registration for watchlist' dialog box for vehicle detection. It features a thumbnail image of a car, a 'Vehicle type: suv' dropdown, and an 'i-PRO Active Guard server' dropdown set to 'i-PRO Active Guard 150'. The 'Name' field contains 'Suspicious vehicle 01'. There are fields for 'Validity period' (checkbox), 'Remarks', and 'Matching' (radio buttons for 'On' and 'Off'). A 'Register' button is at the bottom.

E.  Save license plate number to LPR detection

Register license plate, country, state are registered.

Some basic information can be entered from here.

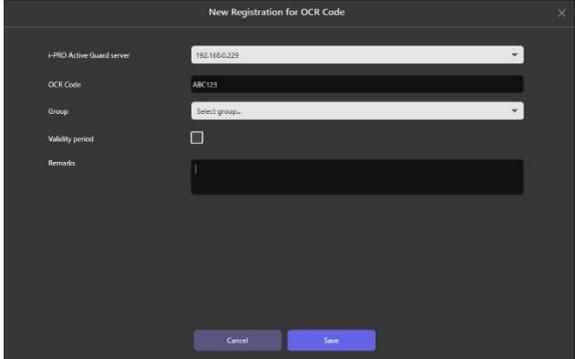


The screenshot shows a 'New Registration for License Plate' dialog box. It has an 'Owner photo' section with a 'Drag and drop image here' area and an 'Upload from file' button. The right side contains fields for 'i-PRO Active Guard server' (192.168.0.167), 'License plate' (50661), 'Owner's first name', 'Owner's last name', 'Group' (dropdown), 'Country' (dropdown), 'Validity period' (checkbox), and 'Remarks'. There are 'Clear photo', 'Cancel', and 'Save' buttons at the bottom.

F.  Save OCR Code to OCR detection (new for v2.0.0)

Register OCR Code to watchlist.

Some basic information can be entered from here.



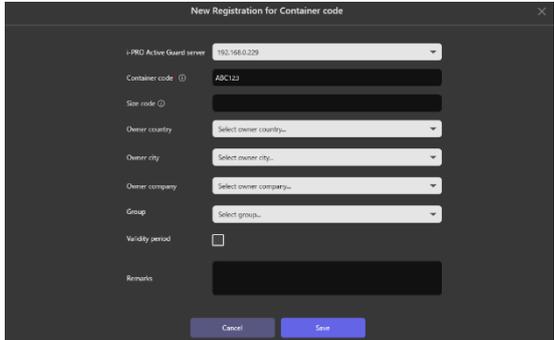
The screenshot shows a dialog box titled "New Registration for OCR Code". It contains the following fields: "I-PRO Active Guard server" with a dropdown menu showing "192.168.0.229"; "OCR Code" with a text input field containing "ABC123"; "Group" with a dropdown menu showing "Select group..."; "Validity period" with a checkbox that is currently unchecked; and "Remarks" with a large text area. At the bottom, there are "Cancel" and "Save" buttons.

G.  Save container code to Container detection (new for v2.0.0)

Register Container features to watchlist.

Container code, Size code, Owner country, Owner city, Owner company are registered.

Some basic information can be entered from here.



The screenshot shows a dialog box titled "New Registration for Container code". It contains the following fields: "I-PRO Active Guard server" with a dropdown menu showing "192.168.0.229"; "Container code" with a text input field containing "ABC123"; "Size code" with a text input field; "Owner country" with a dropdown menu showing "Select owner country..."; "Owner city" with a dropdown menu showing "Select owner city..."; "Owner company" with a dropdown menu showing "Select owner company..."; "Group" with a dropdown menu showing "Select group..."; "Validity period" with a checkbox that is currently unchecked; and "Remarks" with a large text area. At the bottom, there are "Cancel" and "Save" buttons.

Action buttons can be utilized depending on the type of object.

	Search for similar characteristics 	Save facial features to Registered facial detection 	Save person's characteristics to Registered Person detection 	Save vehicle's characteristics to Registered vehicle detection 	
Face filter	Yes	Yes	No	No	
People filter	Yes	Yes	Yes	No	
Vehicle filter	Yes	No	No	Yes	
LPR filter	Yes	No	No	No	
OCR filter	Yes	No	No	No	
Container filter	Yes	No	No	No	

	Save license plate number to LPR detection *1 	Save OCR Code to OCR detection 	Save Container code to Container detection 		
Face filter	No	No	No		
People filter	No	No	No		
Vehicle filter	No	No	No		
LPR filter	Yes	No	No		
OCR filter	No	Yes	No		
Container filter	No	No	Yes		

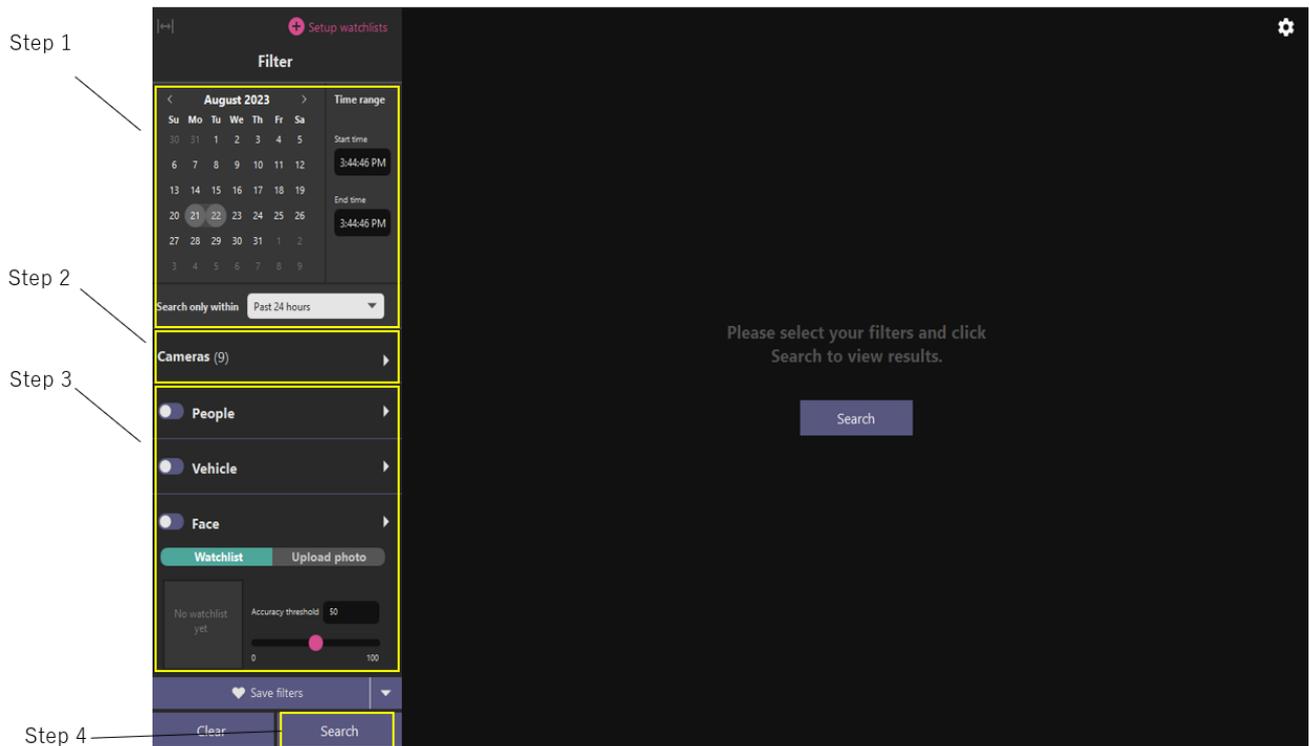
*1 In case of the thumbnail doesn't have license plate number information, button does not display.

Ex) In i-PRO Active Guard Sever settings,

[Configure System] - [Database] – [Storing data] “License plate number” is unchecked case.

2.4.5. Thumbnail search

The following steps provide the basic operation of the thumbnail search feature. The search filter can find objects using search filters from the recorded thumbnails. You will be able to follow with actions such as video playback, saving snapshots, registering to a watchlist, etc.



Step 1

Specify the start time and end time for search objects.

Step 2

Select AI Cameras to be used from any i-PRO Active Guard servers connected to XProtect.

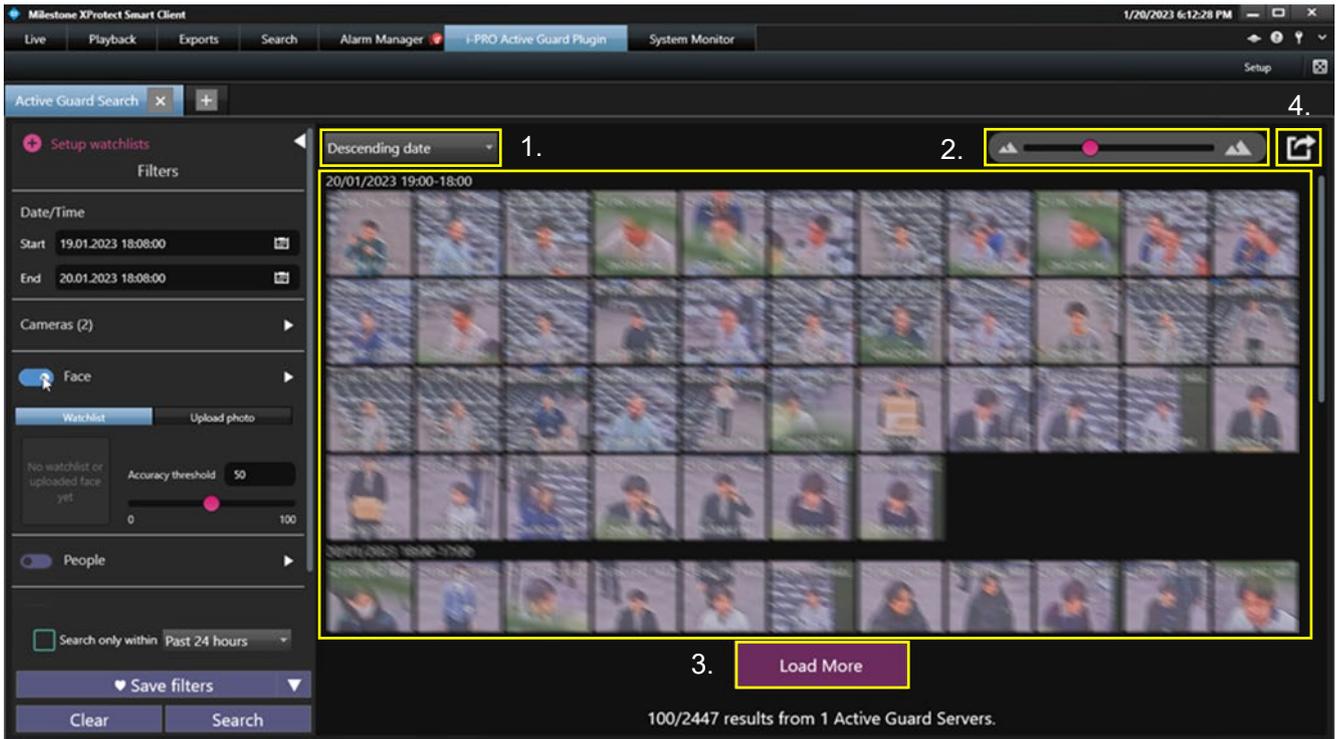
Step 3

Set up search filters, Face, People or Vehicles. If no filters are selected, all objects detected by AI Cameras will be displayed.

Step 4

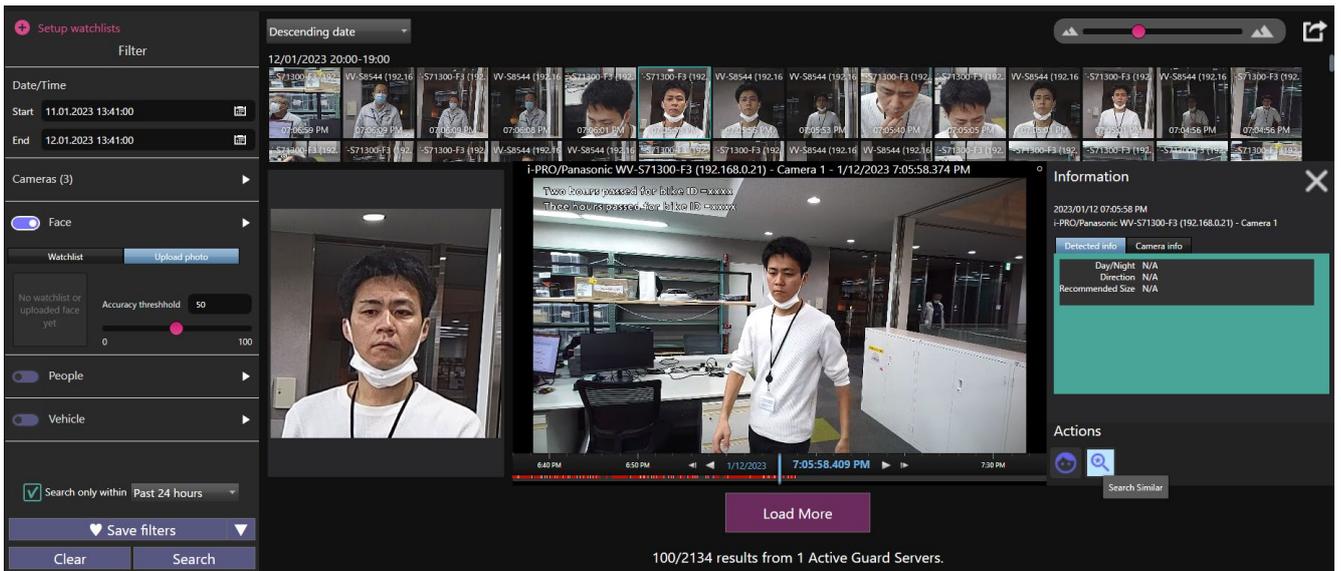
Click "Search".

Search results will be displayed in the center tile.



1. Change the [Sort order], default Descending date (new to old) or Ascending date (old to new).
2. Use the [Zoom-out - Zoom-in] slider to display more results smaller or less results larger.
3. [Load More], selecting this button will load up to another 100 results.
4. [Export] See section 3.2.6 Thumbnail Export

When a tile is selected Playback and further capture information is made available in the side panel.



Note:

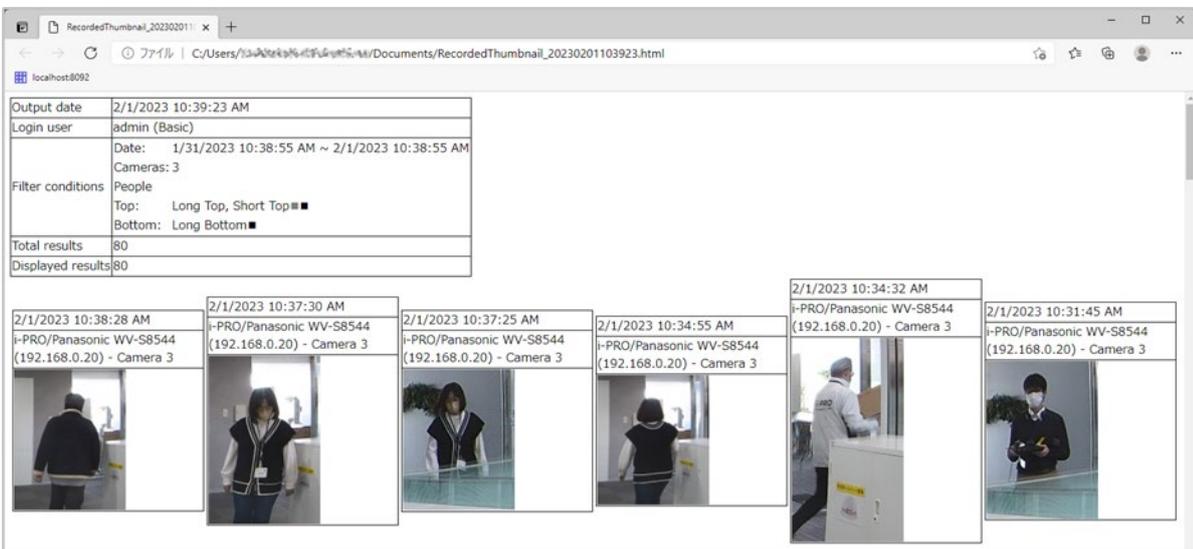
Right click the camera tile to switch between playback and live for the selected camera.

2.4.6. Thumbnail export

Select the [Export] button at the top right of the thumbnail result window.



You will be asked to save a web page file. Open this file to view the results from the search window.



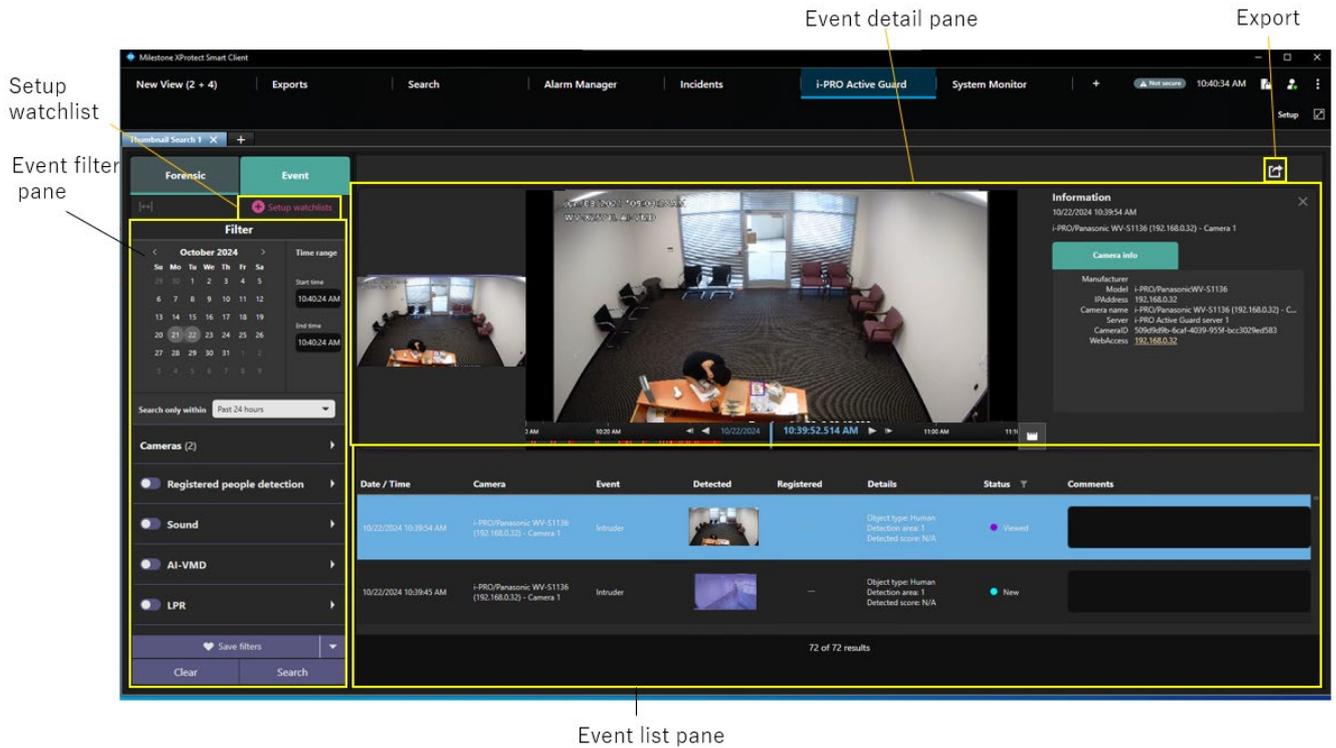
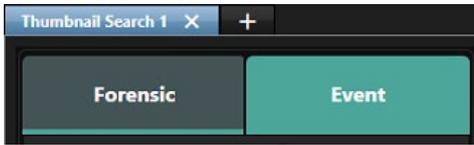
Note:

- The results shown in the web page export only relate to the results displayed in the search window. Where results are more than 100 only the first 100 will be exported. This can be updated by selecting [Load More] another 100 results will be included in the display window; these will now be included with the export. If there are more than 100 results in your search it may be best to update the search criteria to further limit results before exporting.

2.5. PAST EVENT SEARCH (new for v2.0.0)

2.5.1. Overview

Using Event tab, you can find past events whatever you want to search



Event filter pane	Date/Time	Start time and end time for search.
	Search only within	Select from Past 24 hours/Past week/Past month/None. - When select other than None, Date/Time filter are ignored. - When specify Date/Time filter, this setting will automatically become None.
	Cameras	Specify AI Cameras displaying events.
	Registered Face detection	Show face matching events.
	Registered People detection	Show personal features matching events.
	Registered Vehicle detection	Show vehicle features matching events.
	Sound	Show sound detection events.
	AI-VMD	Show AI VMD detection events.
	AI Scene change	Show AI Scene change detection events.
	Occupancy	Show Occupancy detection events.
LPR	Show below events. *1	

		<ul style="list-style-type: none"> - License plate detection events. - Registered license plate detection events. - Unregistered license plate detection events. - Registered advanced vehicle detection events.
	OCR	<p>Show below events. *2</p> <ul style="list-style-type: none"> - Code detection events. - Registered code detection events. - Unregistered code detection events.
	Container	<p>Show below events. *3</p> <ul style="list-style-type: none"> - Container detection events. - Registered container detection events. - Unregistered container detection events. - Registered advanced container detection events.
	Save filters	Save filter settings with name up to 12.
	Clear	Clear filter settings.
	Apply	Activate filter settings.
Events list pane	Date/Time column	Detected date and time which is setup at camera.
	Camera column	Camera name.
	Event name column	Event type.
	Detected column	Detected thumbnail which is captured by camera. Click and open event detail pane. Right click and save the thumbnail as picture.
	Registered column	Registered images or names in watchlist. Registered column is only for matching event.
	Details column	Object type, detected area, detected score, etc. Displayed information depends on event type.
	Status column	Status for each event. New (Default)/Viewed/Dismissed Status can be changed by right click. You can select multiple events using "ctrl" or "shift." Up to 50 events can be changed at the same time.
	Comments column	Any comment up to 64 characters can be input.
	Result count	Show the events search results count.
	Load More	Load next 100 events.
Event detail pane		Video control pane, information such as analysis score and camera information.
Export		Export event list as CSV or HTML.
Set up watchlists	Faces watchlist	Setup Faces watchlist.
	People watchlist	Setup People watchlist.
	Vehicles watchlist	Setup Vehicles watchlist.
	LPR watchlist	Setup LPR watchlist.
	OCR watchlist	Setup OCR watchlist.
	Container watchlist	Setup Container watchlist.

*1 LPR events summary

- License plate detection

Notifies all detected license plates received by the i-PRO Active Guard server.

Set "Notify all detected objects - License plates" on "Register VMS" in WEB setting is required.

- Registered license plate detection

Notification when the license plate number registered in the LPR watch list matches.

The following settings are required on "LPR watchlist setup."

- Set "Detect by vehicle appearance only" to "Off."
- Set "Trigger" to "When license plates in the selected group was detected".

- Unregistered license plate detection

Notification when the license plate number unregistered in the LPR watchlist detected.

The following settings are required on "LPR watchlist setup."

- Set "Detect by vehicle appearance only" to "Off."
- Set "Trigger" is set to "When other than license plates in the selected group was detected".

- Registered advanced vehicle detection

Notification when the vehicle appearance in the LPR watch list matches.

The following settings are required on "LPR watchlist setup."

- Set "Detect by vehicle appearance only" to "On."

*2 OCR events summary

- Code detection

Notifies all detected code received by the i-PRO Active Guard server.

Set "Notify all detected objects - Code" on "Register VMS" in WEB setting is required.

- Registered code detection

You will be notified when you set OCR watchlist to below settings on i-PRO Active Guard plug-in.

Set "Trigger" to "When OCR Code in the selected group was detected."

- Unregistered code detection

You will be notified when you set OCR watchlist to below settings on i-PRO Active Guard plug-in.

Set "Trigger" to "When other OCR Code which is not in the selected group was detected."

*3 Container events summary

- Container detection

Notifies all detected container received by the i-PRO Active Guard server.

Set "Notify all detected objects - Container" on "Register VMS" in WEB setting is required.

- Registered container detection

Notification when the container registered in the Container watchlist matches.

The following settings are required on "Container watchlist setup."

- Set "Detect by container details" to "Off."
- Set "Trigger" to "When Container in the selected group was detected".

- Unregistered container detection

Notification when the container unregistered in the Container watchlist detected.

The following settings are required on "Container watchlist setup."

- Set "Detect by container details" to "Off."
- Set "Trigger" is set to "When other container which is not in the selected group was detected".

- Registered advanced container detection

Notification when the container details in the Container watchlist matches.

The following settings are required on "Container watchlist setup."

- Set "Detect by container details" to "On."

2.5.2. About Event filter

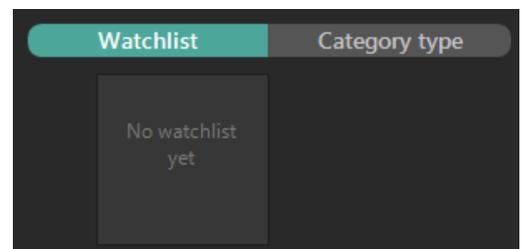
A. Registered Face detection

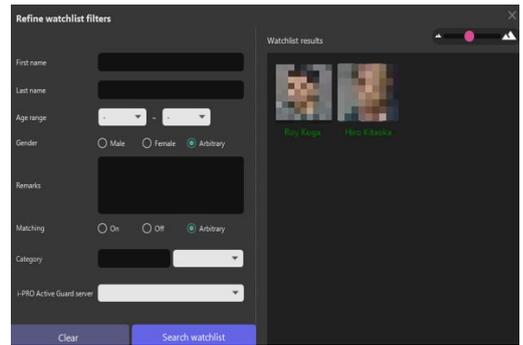
Being this filter enabled, the matching faces with Face watchlist are shown.



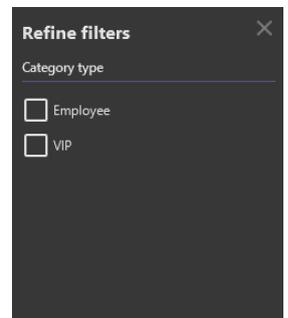
If you want to display a specific face, you can use Watchlist filter. Search registered faces by specifying search conditions then select one of results.

If you want to clear after setting, right click on the face image in the left panel then select Clear.





It is also possible to display by category registered in Watchlist.

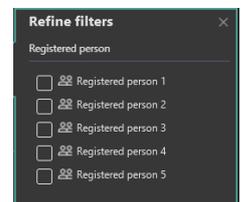


B. Registered People detection

With this filter enabled, all the matching people with People watchlist are shown.



Also using filter panel, you can select specific registered items from people watchlist.

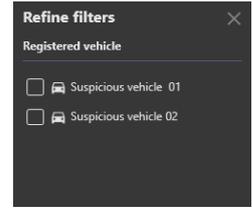


C. Registered Vehicle detection

With this filter enabled, all the matching vehicle with vehicle watchlist are shown.



Also using filter panel, you can select specific registered items from vehicle watchlist.

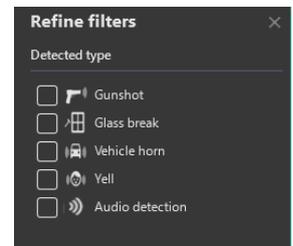


D. Sound

With this filter enabled, all the detected sound events are shown.



Also using filter panel, you can select specific sound events to show.



E. AI-VMD

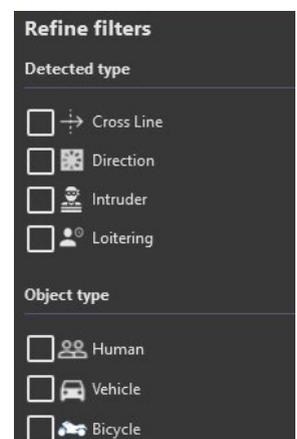
With this filter enabled, all the detected AI-VMD events are shown.



Also using filter panel, you can select specific Detected type and Object type to show.

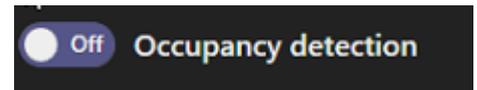
By using On-site Learning application, you can increase any Object type.

Please refer to the manual for details about On-site Learning application.



F. Occupancy

With this filter enabled, all the detected occupancy detection events are shown.



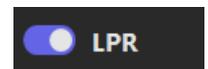
G. AI Scene change

With this filter enabled, all the detected scenes change detection events are shown.



H. LPR

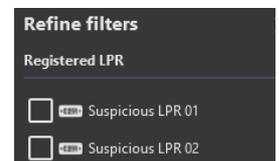
With this filter enabled, all the matching License plate with LPR watchlist and all detected license plates are shown.



i-PRO Active Guard Server configuration is required to display all detected license plates see "i-PRO Active Guard Setup Instructions"

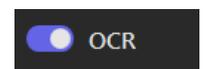
- 4.3.6 Notification to VMS Server(optional)

Also using filter panel, you can select specific registered items from LPR watchlist



I. OCR

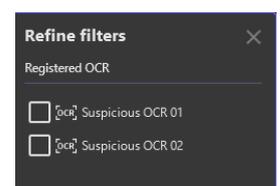
With this filter enabled, all the matching code with OCR watchlist and all detected code are shown.



i-PRO Active Guard Server configuration is required to display all detected codes see "i-PRO Active Guard Setup Instructions"

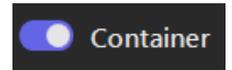
- 4.3.6 Notification to VMS Server(optional)

Also using filter panel, you can select specific registered items from OCR watchlist



J. Container

With this filter enabled, all the matching container code with Container watchlist and all detected containers are shown.



i-PRO Active Guard Server configuration is required to display all detected containers.

see “i-PRO Active Guard Setup Instructions”

- 4.3.6 Notification to VMS Server(optional)

Also using filter panel, you can select specific registered items from Container watchlist



2.5.3. About event detail pane

By selecting one of the events from the list, you can take various actions such as playback video, open live camera, and register the thumbnail to watchlist and so on. Please refer to the section of 2.4.4 About thumbnail detail pane regarding of each function.

Details for playback control, please refer to 2.6 PLAYBACK VIDEO CONTROL.

Action buttons can be utilized depending on type of events.

	Search for similar characteristics	Save facial features to Registered facial detection	Save person's characteristics to Registered Person detection	Save vehicle's characteristics to Registered vehicle detection
				
Registered face detection filter	Yes	Yes	No	No
Registered people detection filter	Yes	No	No	No
Registered vehicle detection filter	Yes	No	No	No
AI-VMD	No	No	No	No
Sound	No	No	No	No
LPR	Yes	No	No	No
OCR	Yes	No	No	No
Container	Yes	No	No	No
AI Scene change	No	No	No	No

	Save license plate number to LPR detection *1	Save OCR Code to OCR detection	Save Container code to Container detection	
				
Registered face detection filter	No	No	No	
Registered people detection filter	No	No	No	
Registered vehicle detection filter	No	No	No	
AI-VMD	No	No	No	
Sound	No	No	No	
LPR	Yes	No	No	
OCR	No	Yes	No	
Container	No	No	Yes	
AI Scene change	No	No	No	

*1 In case of the thumbnail doesn't have license plate number information, button does not display.

Ex) In i-PRO Active Guard Sever settings,

[Configure System] - [Database] – [Storing data] “License plate number” is unchecked case.

2.6. PLAYBACK VIDEO CONTROL

When viewing a video from a thumbnail in the event detail pane, the following XProtect video controls appear.

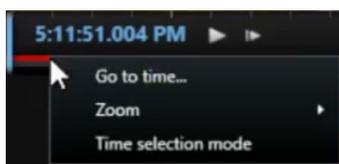


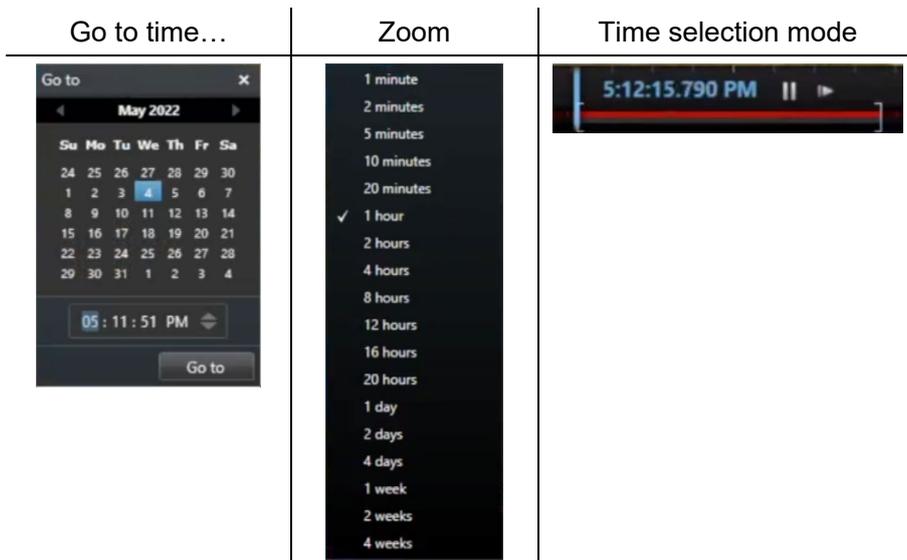
The video operation controls are described below.

	In pause mode, forward and backward navigation through each frame on the timeline.
	Play, forward and backward navigation through related footage.
	Pause mode
	Add to Export list (new for v2.0.0)

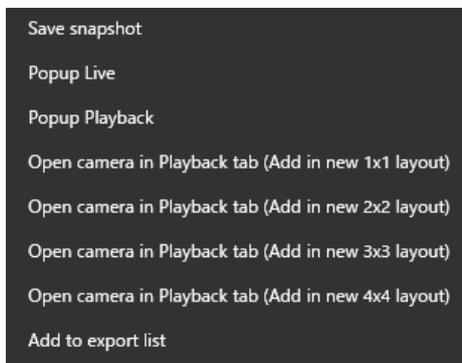
Right-click the middle of the camera tile to access Live video from the selected camera. Right click again to return to the recording playback.

Additional controls of the timeline can be found by right clicking the playback timeline.



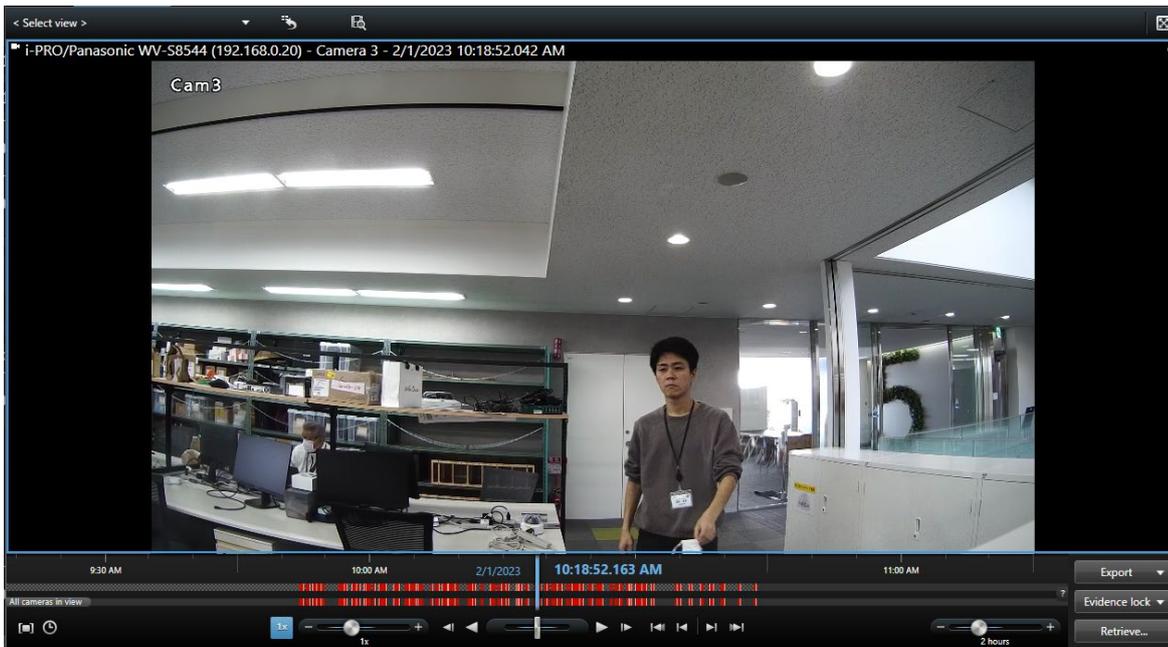


Additional controls can be found by right-clicking a search thumbnail.



[Popup Live] automatically sends the camera device related to the thumbnail to a single tile popup Live view.

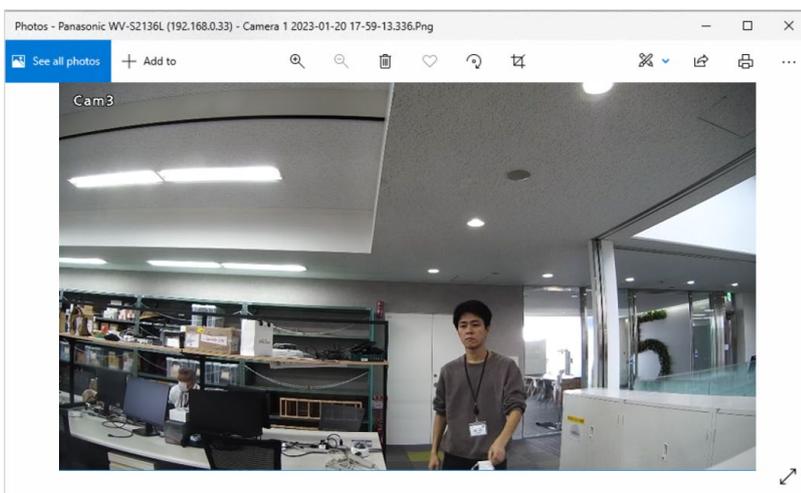
[Popup Playback] automatically sends the camera device related to the thumbnail to a single tile popup Playback view. This option provides access to XProtect export features at the playback time of the event.



From here you gain access to XProtect features [Snapshot], [Print], [Bookmarks], [Export] ect...

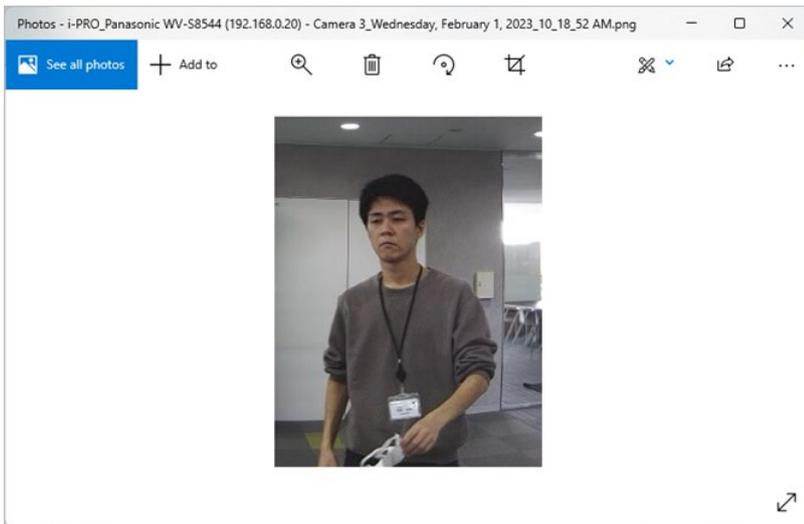
Standard Snapshots are sent to the default directory or user defined location (C:\Snapshots).

These images show the complete image from the selected camera.



When selecting [Save Snapshot] you will be asked where to save the image.

This snapshot is taken directly from the i-PRO Active Guard server, provided as the Best Shot image. This image is cropped based on the capture object.



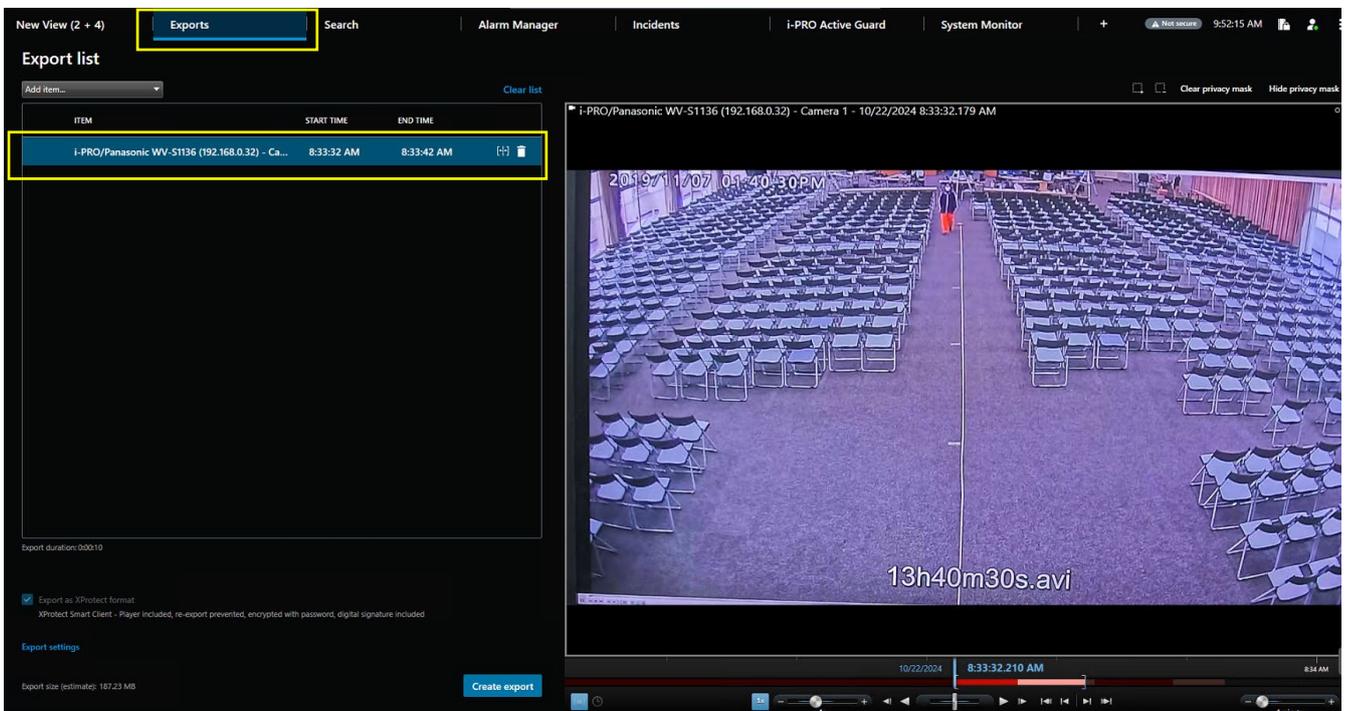
When selecting [Open camera in Playback (Add in new {n} x {n} layout)] you will be presented with four layout options. This way you can define additional cameras to be included manually in your Playback/Export selection.

[New for v2.0.0]

[Add to export list] Add the camera, time information of selected image into Exports tab.

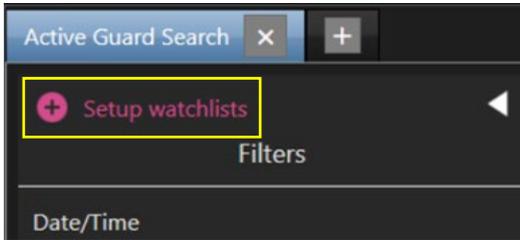
START TIME and END TIME depends on the 2.8 plug-in configuration, *Start playback* and *End playback*.

You can also adjust the time on Exports tab.



2.7. SETUP WATCHLISTS

This section describes how to manage the watchlists and preferences. To open these settings, click [\[Setup watchlists\]](#) button for Face watchlists or People watchlists.



2.7.1. Face Watchlist

This section describes the operation of add, edit and delete. If you don't have permission to access the watchlist or if your camera configuration has no AI-Cameras with an installed face detection application, then this function is not available.

- **Add Registration**

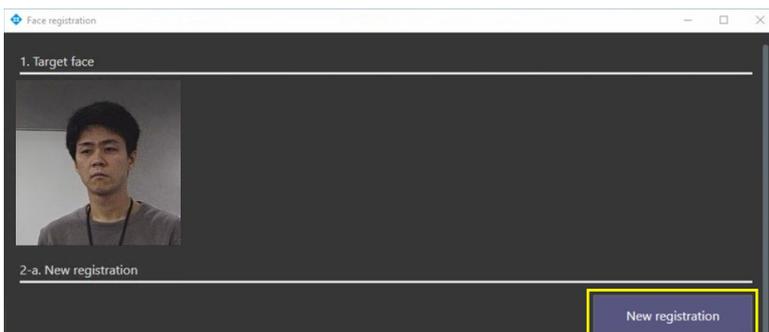
Step 1

From the Search pane, select the relevant face to be added. From the playback window, click the Save person's characteristics action button.



Step 2

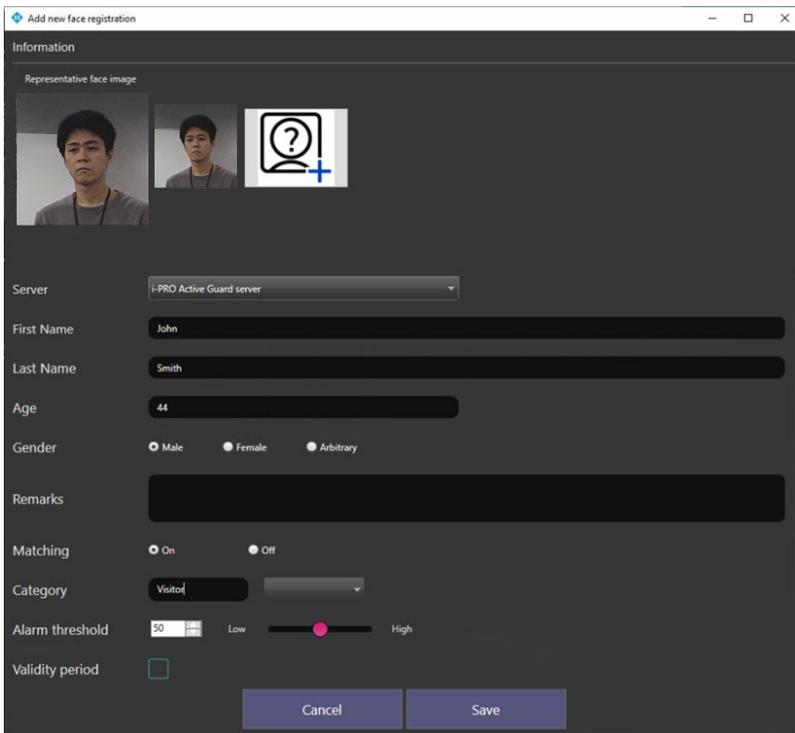
In the window that follows, click the [New Registration](#) button.



Step 3

One face image must be added to complete the registration.

Input other information then click Save. The First Name and Last Name fields are required.



Note:

- When Matching is enabled [On], this starts the matching process. See **Watchlist Matching** for more details.
 - When the Alarm threshold is low, face detection will be missed less, but false alarms may increase. If the Alarm threshold is raised too high, face detection is likely to be missed more frequently, but false alarms may be reduced. This can be set for each individual face watchlist profile. Please adjust according to your environment and registered face image.
 - In the Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this face watchlist.
-

- **Edit Registration**

Step 1

First click Setup watchlists from the main window and click Face watchlist.

Find the registered face you want to edit; these can be searched with filtered results.

The screenshot shows the 'Face watchlists' tab in a software interface. It features several search filters: 'First Name' and 'Last Name' text boxes, 'Age range' with two input fields and a tilde separator, 'Gender' with radio buttons for 'Male', 'Female', and 'Arbitrary', 'Comments' text box, 'Matching' with 'On' and 'Off' radio buttons, and 'Category' with two input fields and a tilde separator. At the bottom left are 'Clear' and 'Search watchlist' buttons, with the latter highlighted by a yellow box. At the bottom right, it says 'Number of registered face images: 0' and a 'Change' button.

Step 2

Select one of the faces from search results, then click the Change button.

This screenshot shows the same 'Face watchlists' interface, but now with search results. Two small face images are displayed in the top right area, each with a green checkmark below it. The 'Search watchlist' button is no longer highlighted. The 'Number of registered face images' at the bottom right is now '2'. The 'Change' button at the bottom right is highlighted with a yellow box.

Step 3

Edit any information then click Save.

Information

Representative face image

First Name

Last Name

Age

Gender

Remarks

Matching

Category

Alarm threshold

Validity period

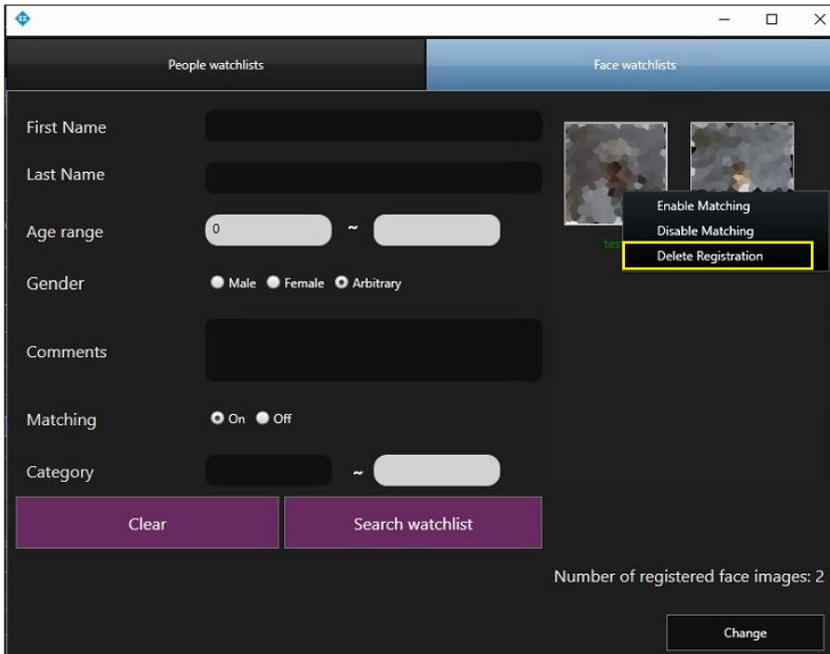
Cancel Save

Note:

- When Matching is enabled [On], this starts the matching process. See **Watchlist Matching** for more details.
 - When the Alarm threshold is low, face detection will be missed less, but false alarms may increase. If the Alarm threshold is raised too high, face detection is likely to be missed more frequently, but false alarms may be reduced. This can be set for each individual face watchlist profile. Please adjust according to your environment and registered face image.
 - In the Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this face watchlist.
-

- **Delete Registration**

To delete a registered face, right-click registered face then click Delete. Other controls are available here Enable Matching and Disable Matching.



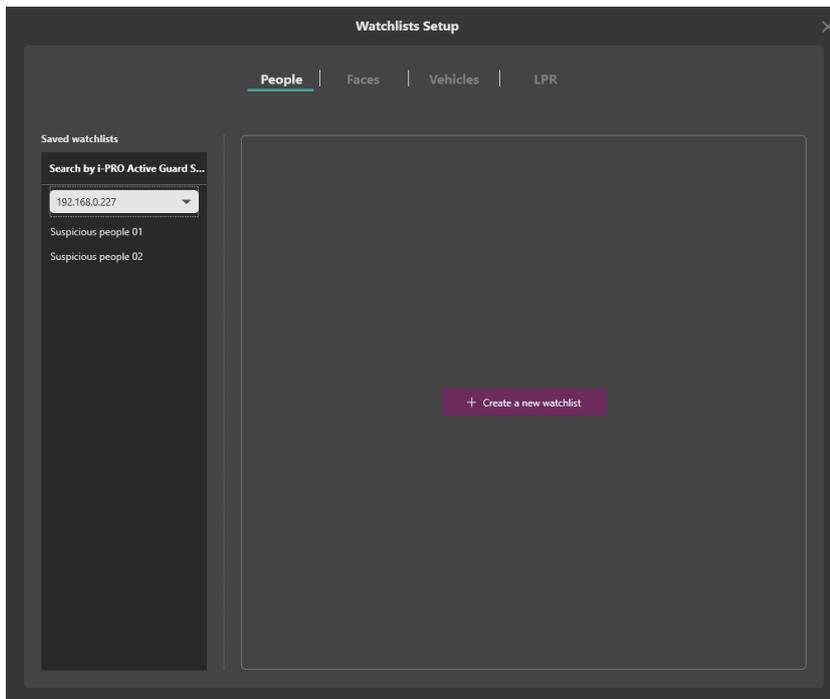
2.7.2. People Watchlist

This section describes the operations of a People watchlist and how to add, edit, and delete.

If you don't have permission to access the watchlist or if your camera configuration has no AI-Cameras with an installed people detection application, then this function is not available.

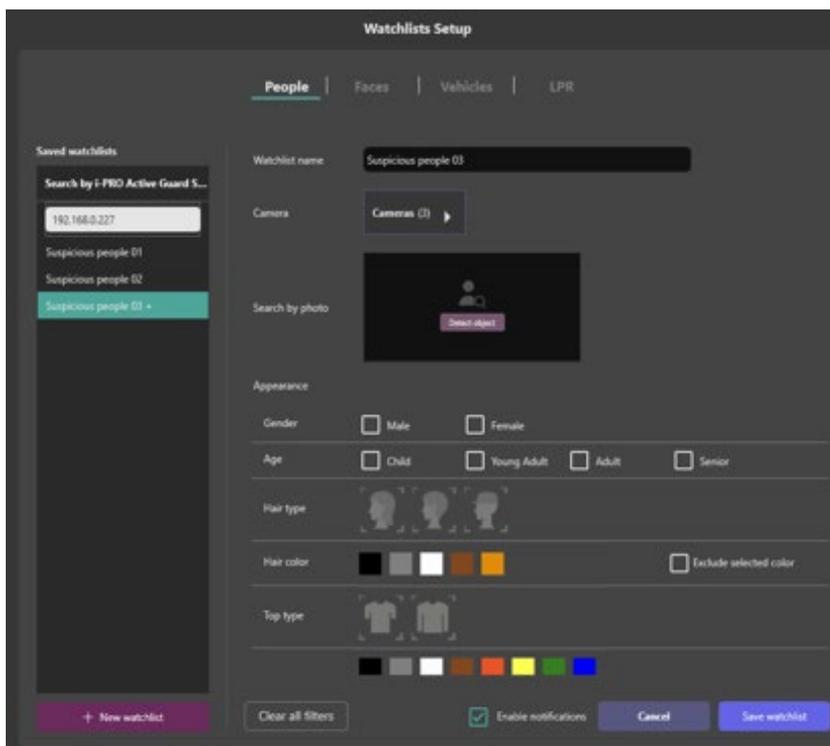
- **Add Registration**

To register a person's appearance to the watchlist, navigate to Set up watchlists button > People tab.



Registered items are listed on the left side, or it uploads the people picture.

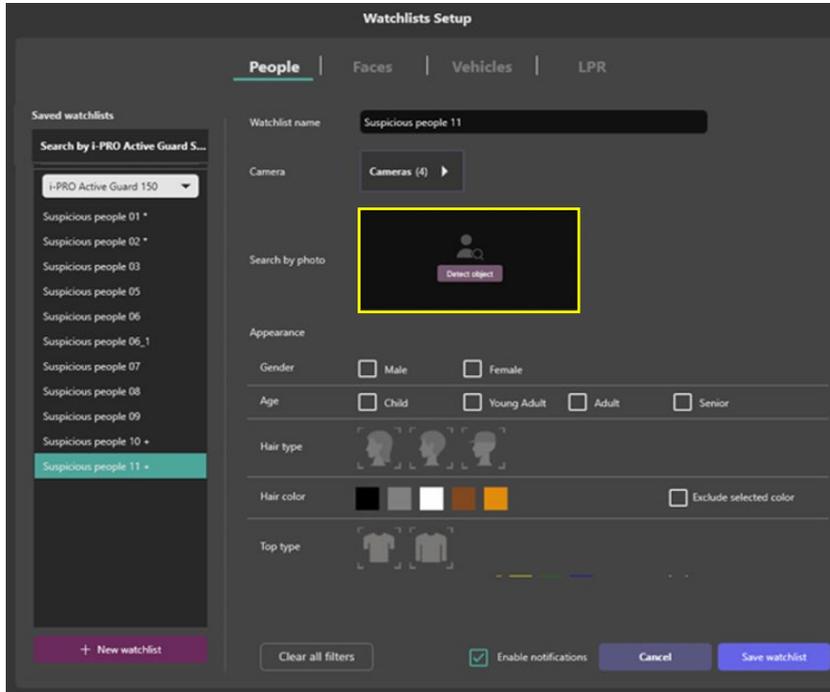
To add new item, click "+ Create a new watchlist" button then select appearance items.



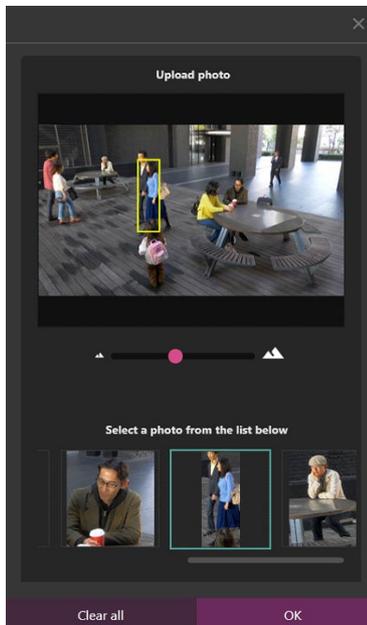
- **Add Registration (To select attributes from an image)**

This procedure automatically selects and registers attributes from an image.

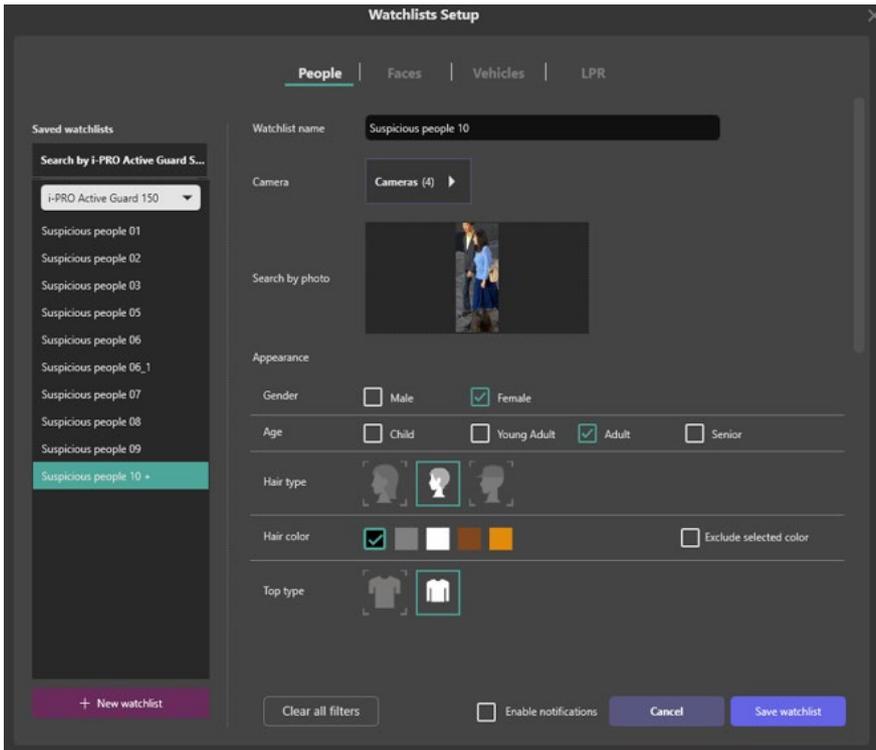
To select attributes from a people image, select the image to be registered from  icon.



Select the people you want to register from the detected list.



Make sure the attribute is automatically selected, and then click "Save".

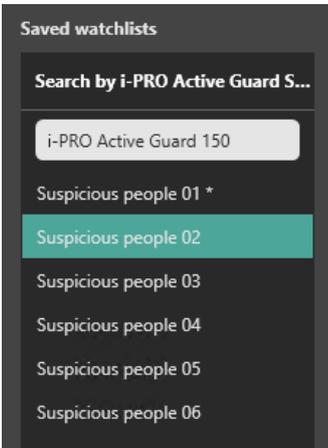


Note:

- Basically, only one item can be selected from each category. This is because many items register would affect false positives.
 - **[New for v1.8.1]** Color specification except for bag color allows specifying multiple items. When Validity Period is selected, two expiration dates can be set.
Disable matching: After the expiration date, this person will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this person.
-

- **Edit Registration**

To edit a registered person's appearance, select one of the listed registered items then change the selected appearance for this item.



- **Delete Registration**

To delete a registered person's appearance, right click one of registered item.



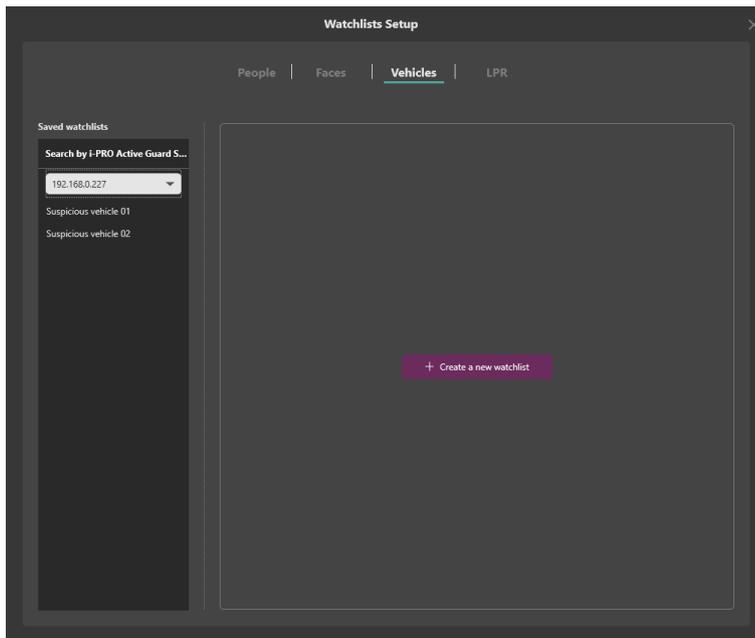
2.7.3. Vehicle Watchlist

This section describes the operation of add, edit, and delete.

If you don't have a permission to access the watchlist or your camera configuration has no AI-Camera which installed vehicle detection application, then this function is not available.

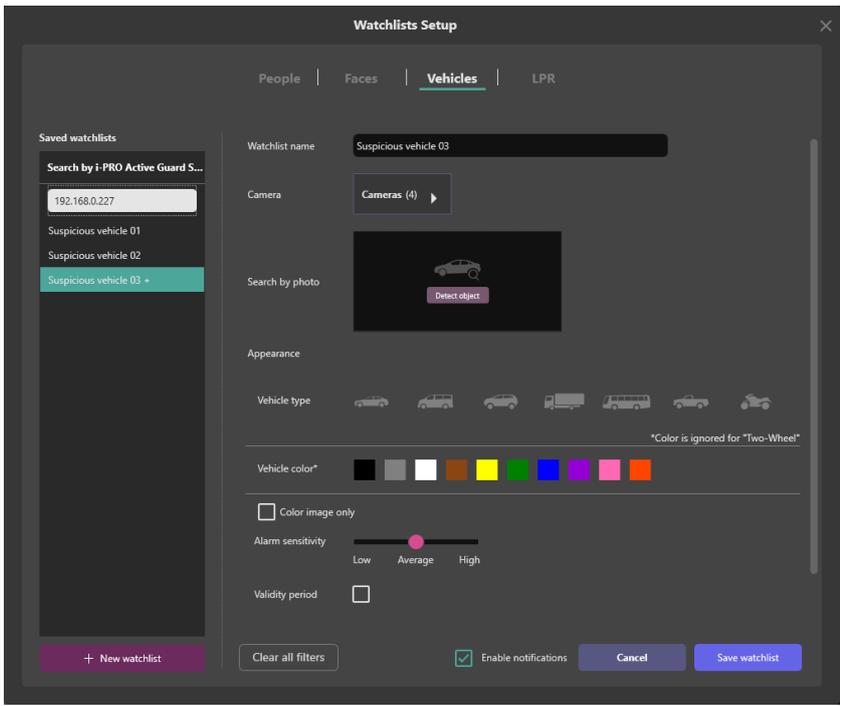
- **Add Registration (To manually select attributes)**

To register a vehicle's appearance to the watchlist, navigate to Set up watchlists button > Vehicle tab.



Registered items are listed on the left side, or it uploads the vehicle's picture.

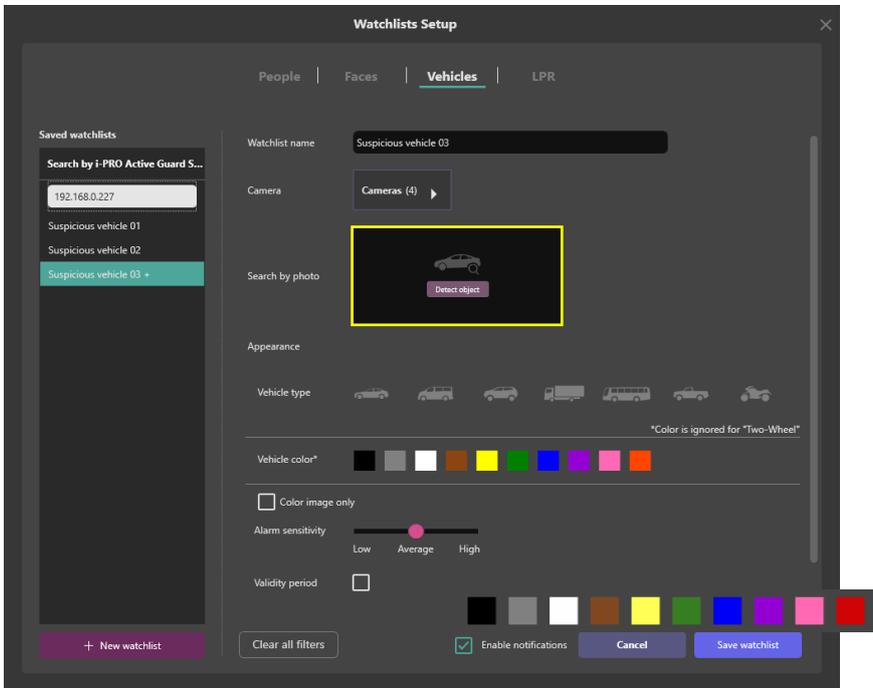
To add new item, click "+ Create a new watchlist" button then select appearance items.



- **Add Registration (To select attributes from an image)**

This procedure automatically selects and registers attributes from an image.

To select attributes from a vehicle image, select the image to be registered from  icon.



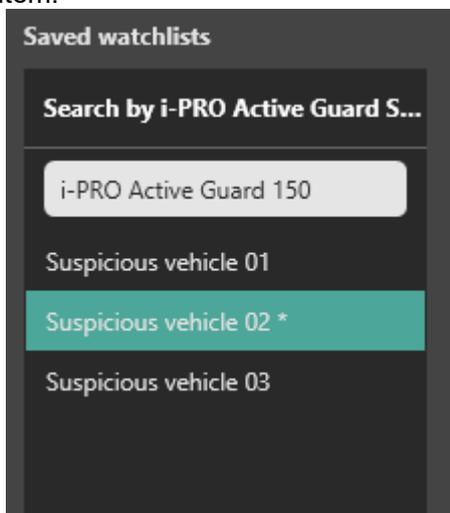
The following procedure is the same as when registering people watchlists.

Note:

- Up to 12 vehicle watchlist can be registered.
 - Only one item can be selected from each category. This is because many items register would affect false positives.
 - In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this vehicle.
 - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

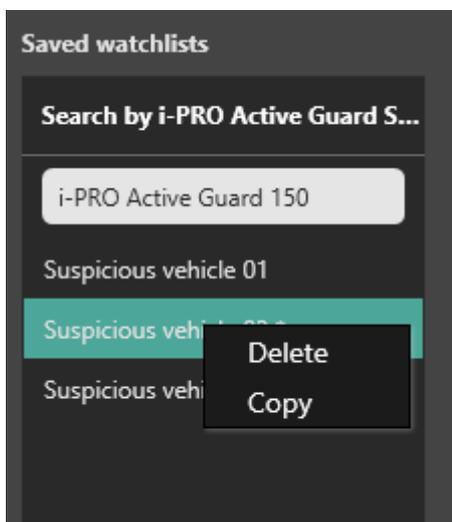
● **Edit Registration**

To edit a registered vehicle appearance, select one of registered item then change selected appearance item.



● **Delete Registration**

To delete a registered vehicle appearance, right click one of registered item.



2.7.4. LPR Watchlist

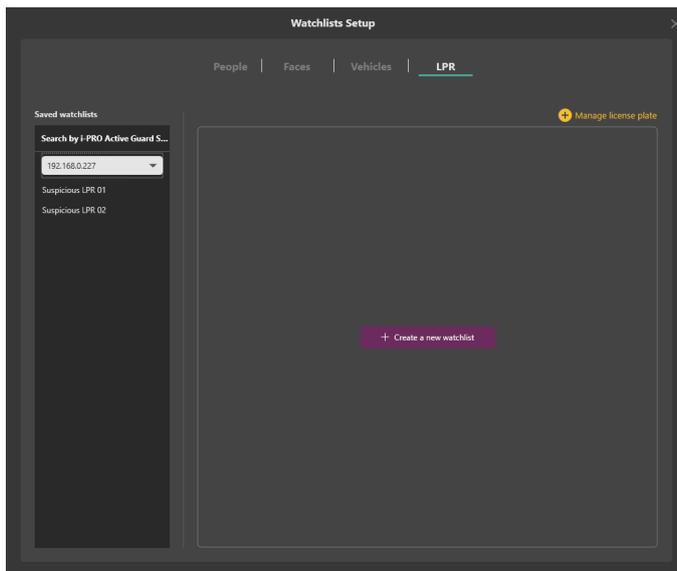
This section describes the operation of add, edit, and delete.

If you don't have a permission to access the watchlist or your camera configuration has no AI-Camera which installed VaxALPR application, then this function is not available.

- **Add Registration**

To register a vehicle's appearance or License plate to the watchlist, navigate to

Set up watchlists button > LPR tab.

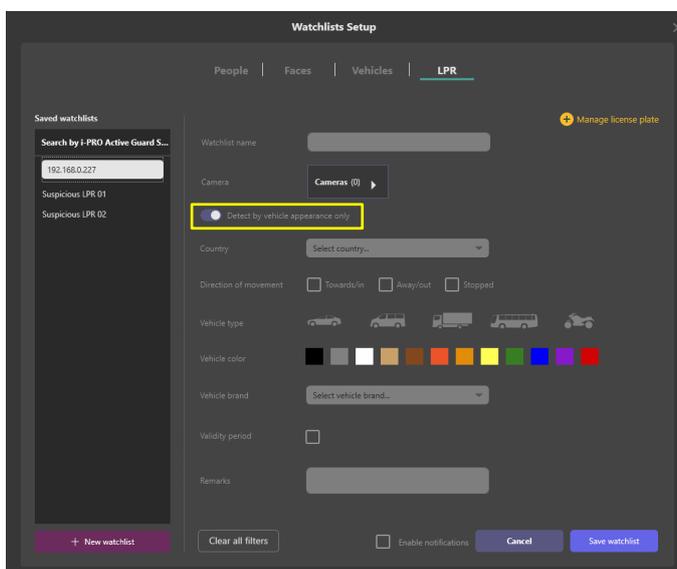


Registered items are listed on the left side, or it uploads the vehicle's picture.

To add new item, click "+ Create a new watchlist" button.

- **Add Registration (vehicle appearance)**

Set "Detect by vehicle appearance only" to "On," then select appearance items.



- **Add Registration (License Plate Group)**

Set “Detect by vehicle appearance only” to “Off,” then select license plate group and Trigger.

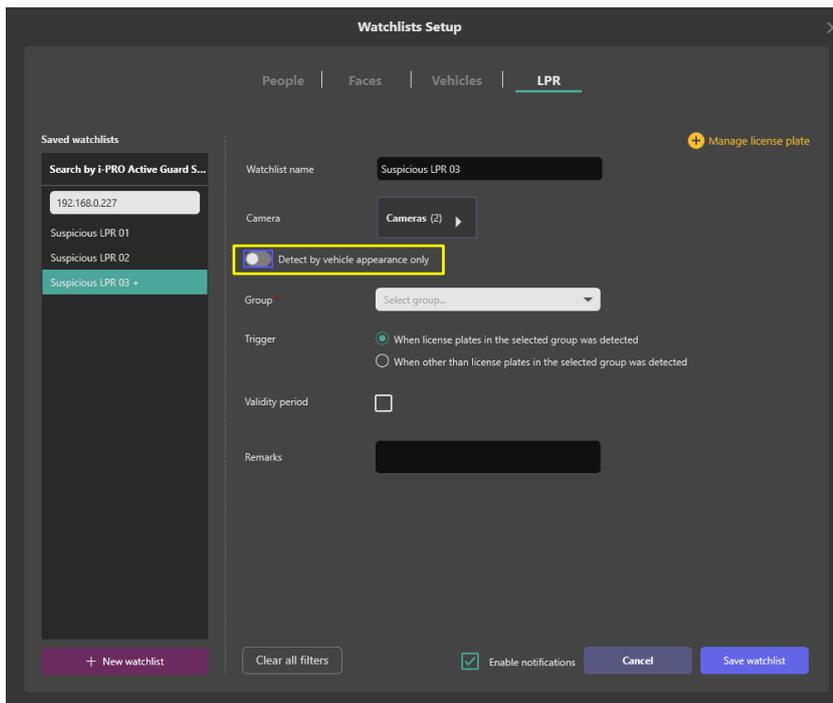
Note:

License plate numbers cannot be set directly in the watchlist.

Please register the license plate to license plate group.

About license plate group, please see 2.6.4.1.

About license plate, please see 2.6.4.2.



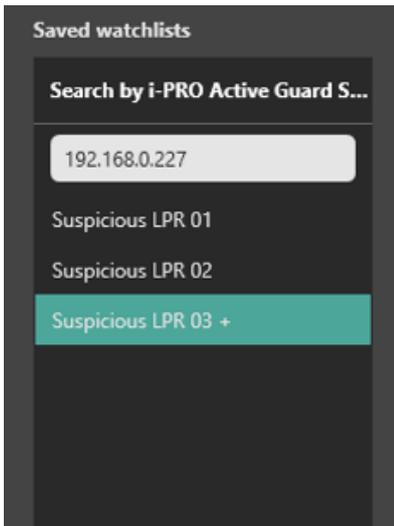
The following procedure is the same as when registering people watchlists.

Note:

- There is no limitation to the number of license plates and license plate group (*depending on the system design).
 - Up to 12 LPR watchlists can be registered.
 - Only one item can be selected from each category. This is because many items register would affect false positives.
 - In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person’s face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this vehicle.
 - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

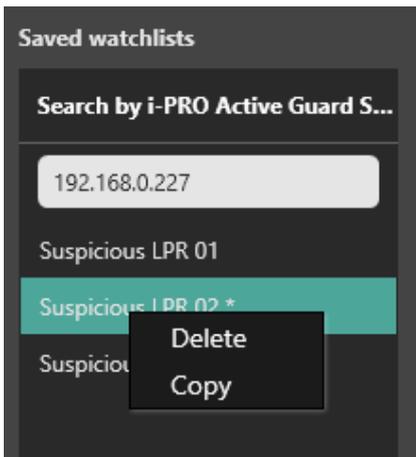
- **Edit Registration**

To edit a registered watchlist, select one of registered item then change selected item.



- **Delete Registration**

To delete a registered vehicle appearance, right click one of registered item.

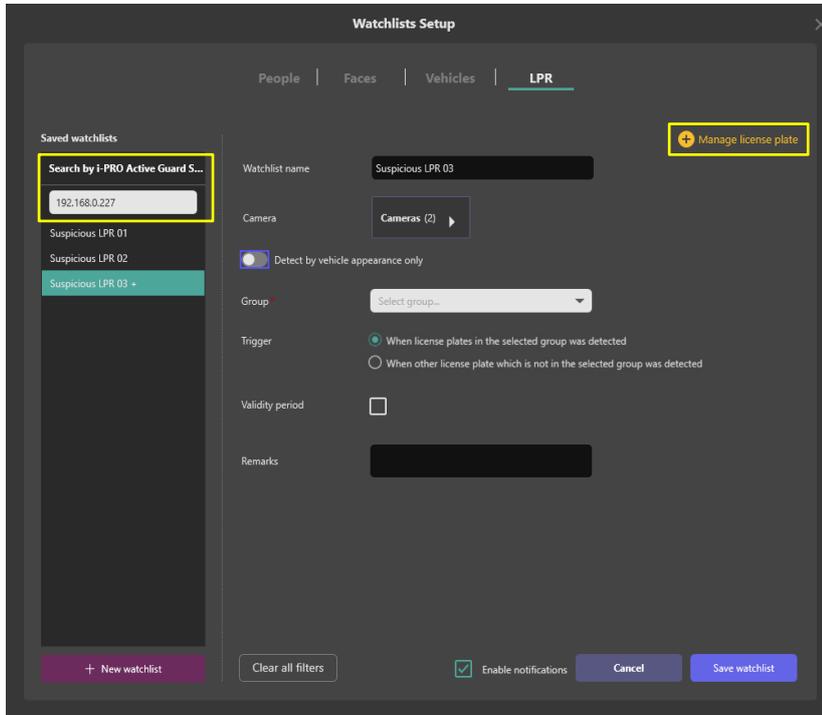


2.7.4.1. Manage License plate group

- **Add Registration**

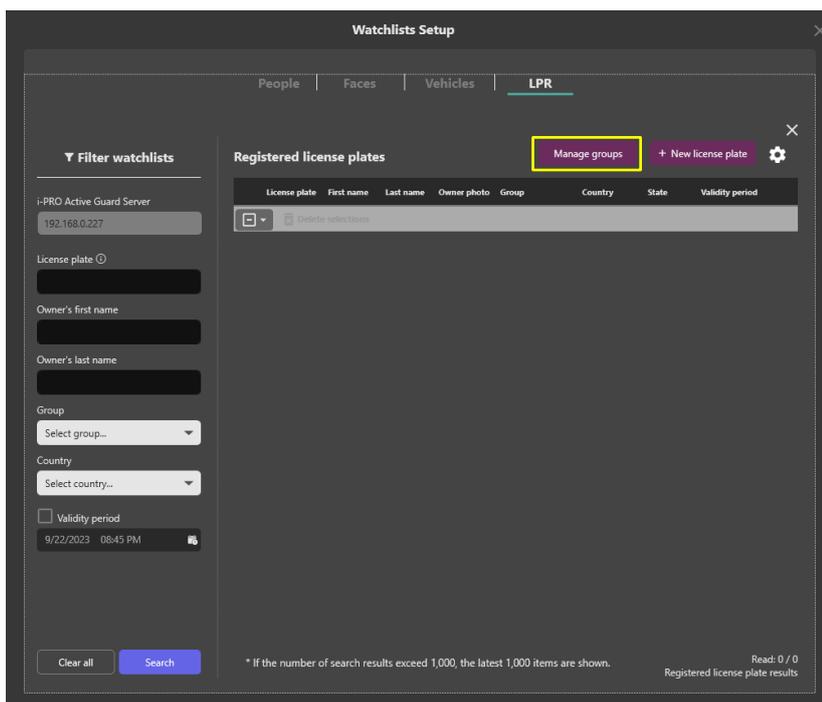
Step 1

In LPR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “(+) Manage license plate.”



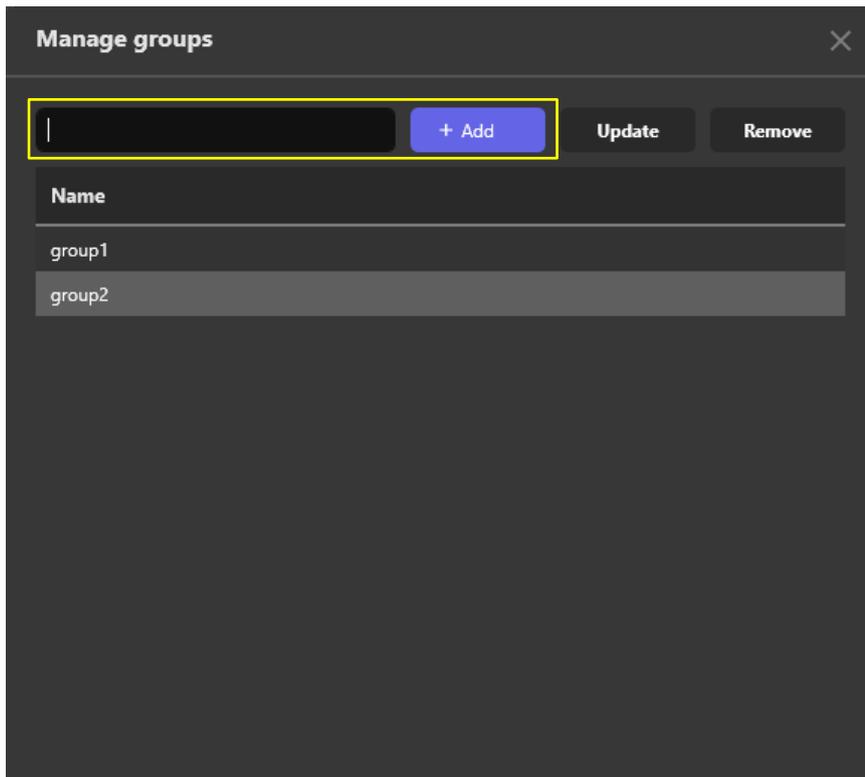
Step 2

Click “Manage groups”



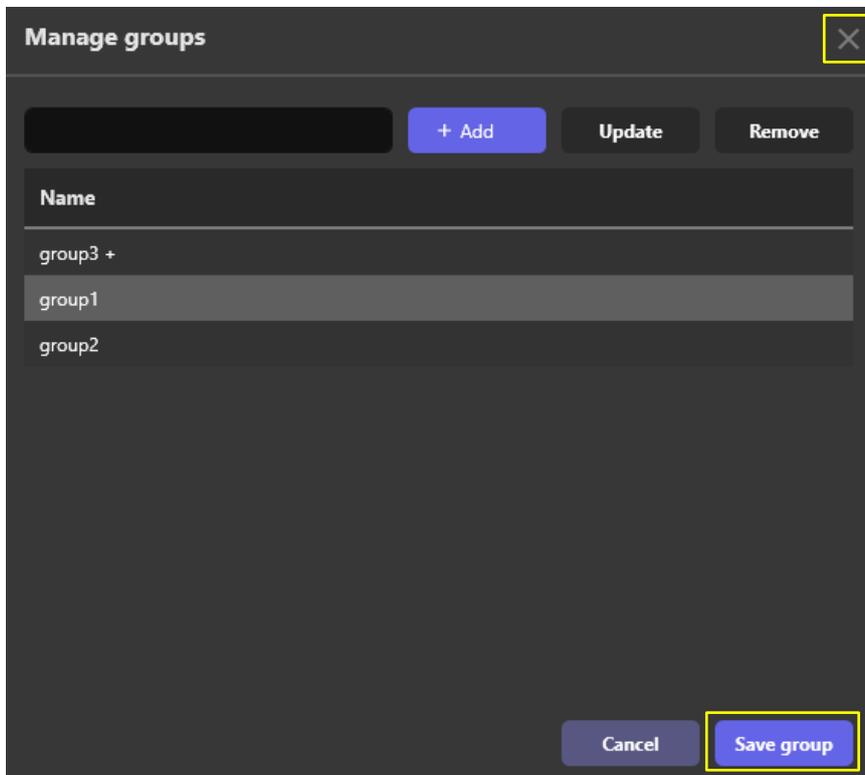
Step 3

Input group name, and "+ Add" button.



Step 4

Click Save group button.



After setting, please close from the top right "X".

- **Edit Registration**

Step 1

Select one of group name from list, then edit group name and click Update button.

Step 2

Click Save group button.

- **Delete Registration**

Step 1

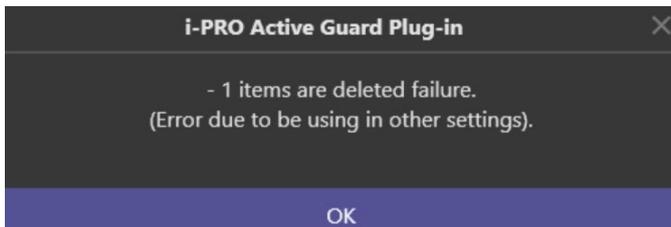
Select one of group name from list, then click Remove button.

Step 2

Click Save group button.

Note

If delete or edit a group is fail, make sure the target group is not in your LPR watchlists.

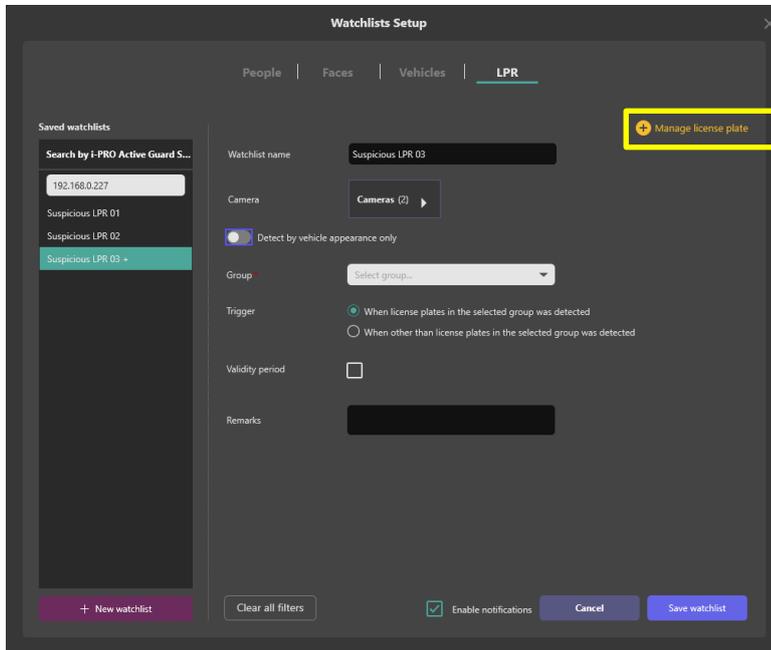


2.7.4.2. Manage License plate

- **Get registered list**

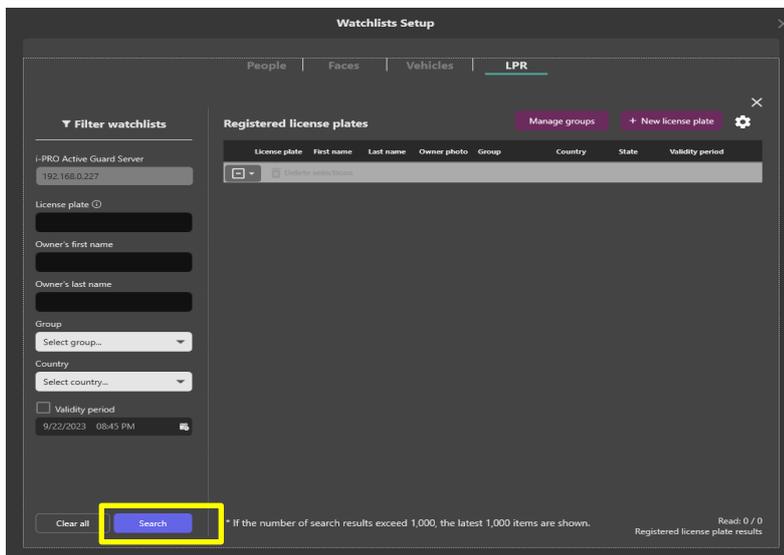
Step 1

In LPR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage license plate.”



Step 2

Click “Search” button by using filter.



Note:

- Up to 1,000 License plates can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

● Add Registration

Step 1

In LPR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage license plate.”

The screenshot shows the 'Watchlists Setup' interface with the 'LPR' tab selected. On the left, under 'Saved watchlists', there is a search bar for 'i-PRO Active Guard S...' and a list of watchlists including 'Suspicious LPR 01', 'Suspicious LPR 02', and 'Suspicious LPR 03 +'. The main area shows configuration for 'Suspicious LPR 03', including camera selection, detection settings, and trigger options. A yellow box highlights the '+ Manage license plate' button in the top right corner.

Step 2

Click “+ New License plate.”

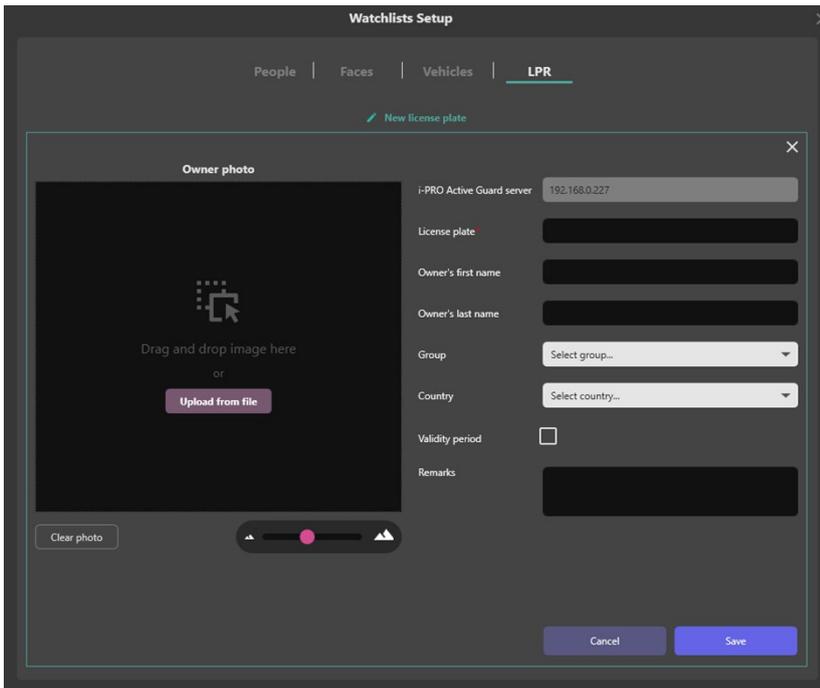
The screenshot shows the 'Registered license plates' section of the 'Watchlists Setup' interface. On the left, there is a 'Filter watchlists' section with various search criteria. The main area displays a table of registered license plates with columns for license plate, first name, last name, owner photo, group, country, state, and validity period. A yellow box highlights the '+ New license plate' button in the top right corner. At the bottom, there is a search bar and a 'Clear all' button.

Step 3

Click “+ New License plate.”

Step 4

Input information then click Save. "License plate" is required.



The screenshot shows the 'Watchlists Setup' dialog box with the 'LPR' tab selected. The dialog has a dark theme and contains the following elements:

- Navigation tabs: People, Faces, Vehicles, LPR (selected).
- A green link: 'New license plate'.
- An 'Owner photo' section with a large dark area containing a 'Drag and drop image here' instruction, an 'or' text, and an 'Upload from file' button. Below this is a 'Clear photo' button and a zoom slider.
- Form fields on the right:
 - 'i-PRO Active Guard server' with the value '192.168.0.227'.
 - 'License plate' (required field, indicated by a red asterisk).
 - 'Owner's first name'.
 - 'Owner's last name'.
 - 'Group' with a dropdown menu showing 'Select group...'.
 - 'Country' with a dropdown menu showing 'Select country...'.
 - 'Validity period' with an unchecked checkbox.
 - 'Remarks' with a text input field.
- 'Cancel' and 'Save' buttons at the bottom right.

Note:

- In Validity Period, two expiration dates can be set.
 - Disable matching: After the expiration date, this person's face will not be detected.
 - Delete registration: After the expiration date, we will delete the registration itself of this person.
-

Edit Registration

Step 1

First, find registered license plate you want to edit the information.

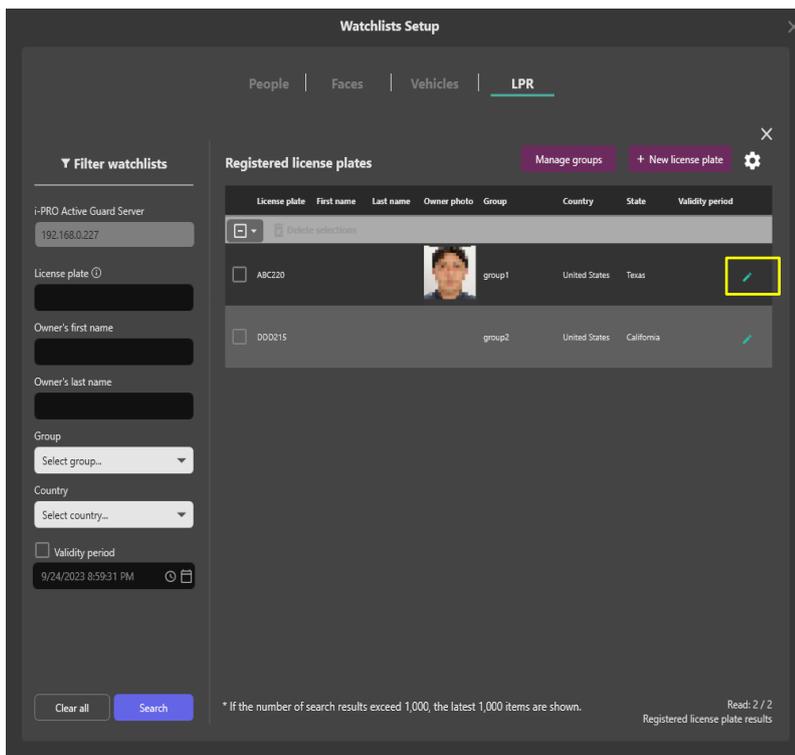
Registered license plate can be searched by using filter.

Note:

- Up to 1,000 License plates can be shown at the same time.
 - If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
-

Step 2

Select one of license plate from search results, then click  button.



The screenshot shows the 'Watchlists Setup' window with the 'LPR' tab selected. On the left, there is a 'Filter watchlists' sidebar with fields for IP address, license plate, owner's name, group, country, and validity period. The main area displays a table of 'Registered license plates' with columns for license plate, first name, last name, owner photo, group, country, state, and validity period. Two rows are visible: one for 'ABC220' (group1, United States, Texas) and one for 'D00215' (group2, United States, California). A yellow box highlights the edit icon (pencil) in the 'Validity period' column for the 'ABC220' row.

License plate	First name	Last name	Owner photo	Group	Country	State	Validity period
ABC220				group1	United States	Texas	
D00215				group2	United States	California	

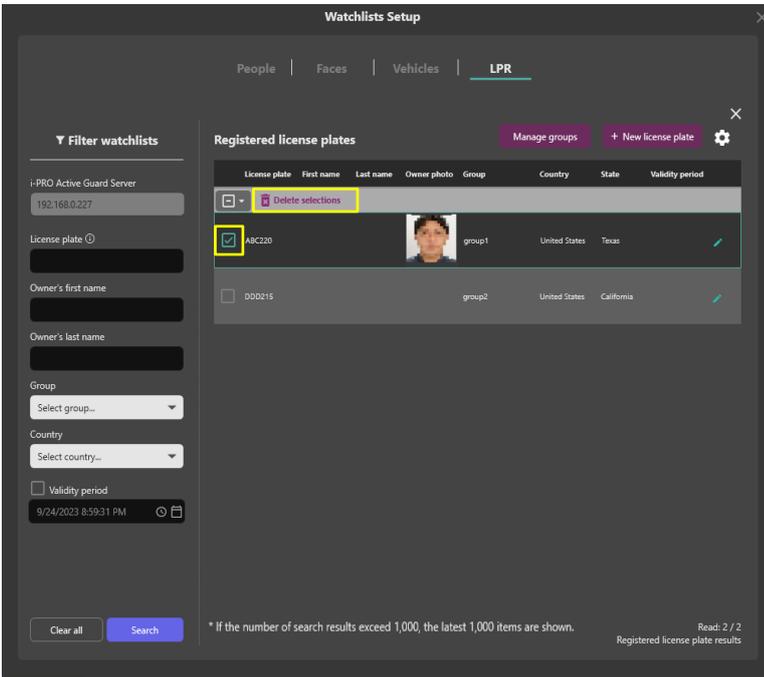
Step 3

Edit any information then click Save.

- **Delete Registration**

Step 1

Select check box of license plate from list, then click Delete selections button.



2.7.4.3. Export CSV of License plate

Registered License plate can be exported to CSV.

Export the following items:

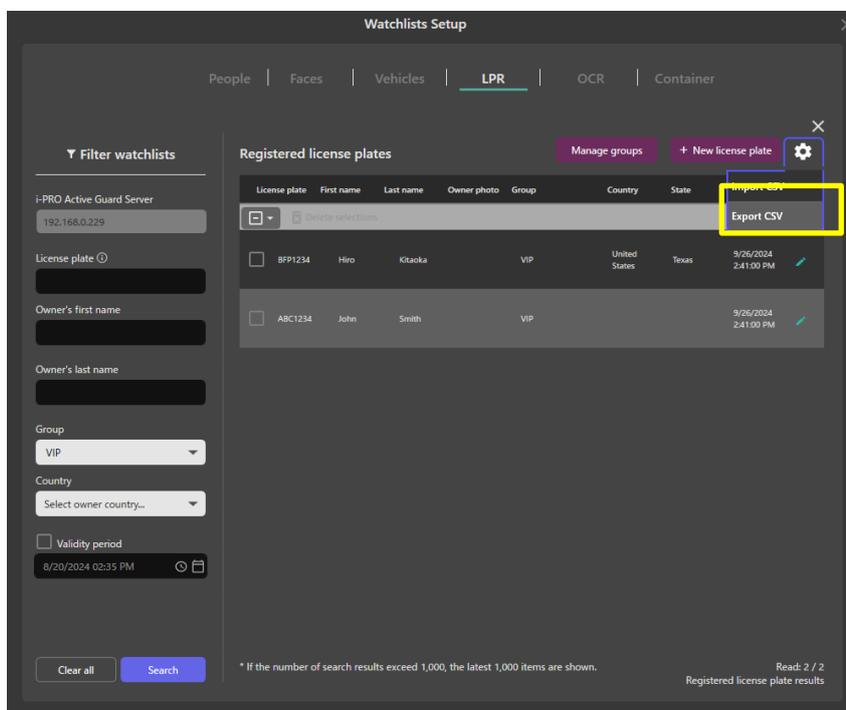
- License plate
- Country
- State
- First name
- Last name

Step 1

Search “Registered license plate” you want to export by using Filter watchlists.

Step 2

Click  , then click Export CSV.



Note:

- Up to 1,000 items can be exported to a CSV file.
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
- Export all search results to CSV, regardless of the checkboxes for each item.

Step 3

Specify the output destination for the CSV file and save it.

2.7.4.4. Import CSV of License plate

Register using Import the CSV file export by this Plug-in or VI LPR plug-in.

For CSV exported by VI LPR plug-in,

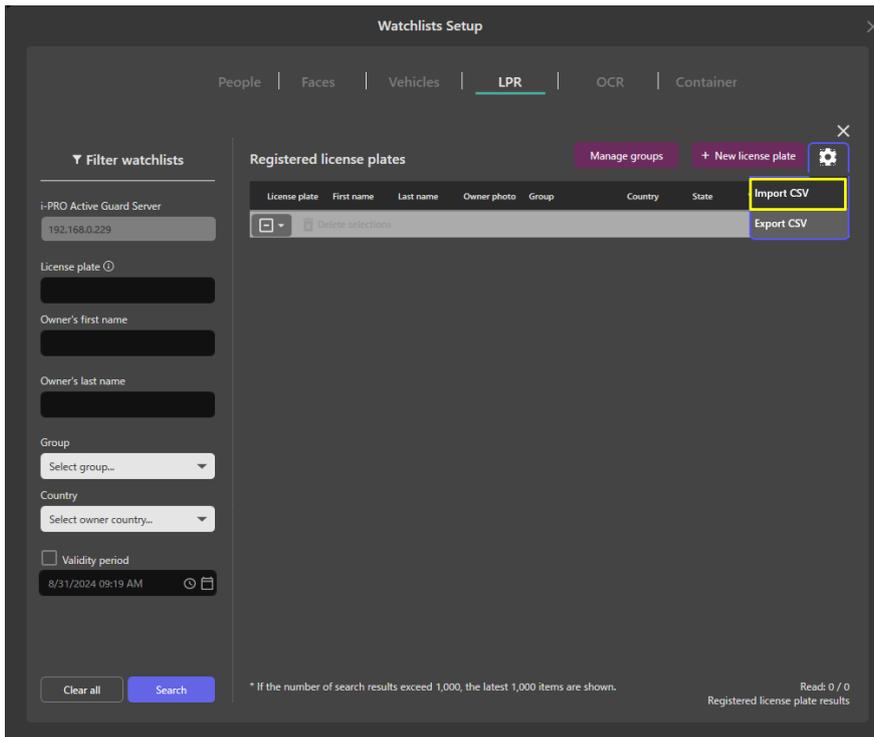
License Plate, First Name and Last Name are registered.

For CSV exported by this plugin,

License Plate, Country, State, First Name and Last Name are registered.

Step 1

Click  , then click Import CSV.



Step 2

Select the CSV file, then click Open.

- CSV format of i-PRO Active Guard Plug-in is as follows.

License_plate_number	country	issuing_entity	owner_first_name	owner_last_name
Max.32 characters	(ISO 3166 two-letter code (alpha-2)) *1	(Copy the string from plug-in's setting screen) *1 *2	Max.256 characters	- Max.256 characters

*1 : If the value is invalid, it will be registered as blank when imported.

*2 : If the string contains commas, enclose it in double quotes.

- CSV format of VI LPR plug-in is as follows.

License Plate	Country /State	Year	Make	Model	Color	First Name	Last Name	Threat Level
Max.32 characters	-	-	-	-	-	Max.32 characters	Max.32 characters	-

*When VI LPR plug-in, only License Plate, First Name and Last Name are registered for i-PRO Active Guard Server.

Example)

License Plate, Country/State, Year, Make, Model, Color, First Name, Last Name, Threat Level
BFP8526, USA-TX, 2020, Honda, Accord, Blue, Hiro, Kitaoka, None123
ABC1234, , , , , , John, Smith,

Note:

- Up to 1,000 items can be imported from a CSV file.
-

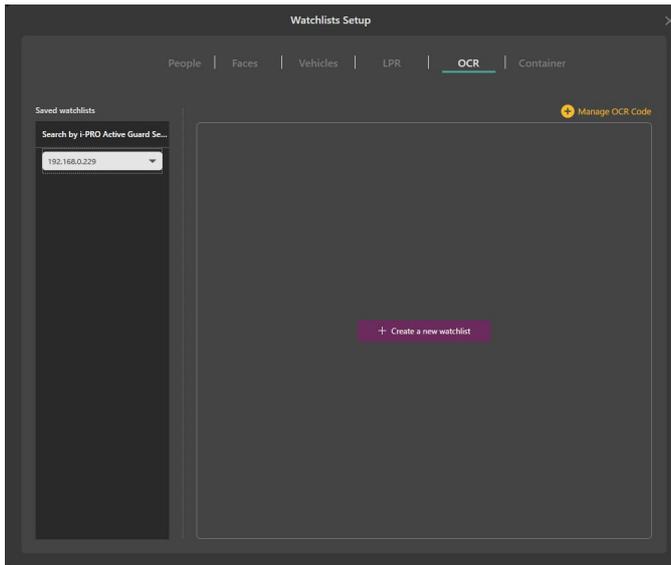
2.7.5. OCR Watchlist (new for v2.0.0)

This section describes the operation of add, edit, and delete.

If you don't have a permission to access the watchlist or your camera configuration has no AI-Camera which installed VaxOCR GENESIS application, then this function is not available.

- **Add Registration**

To register OCR code to the watchlist, navigate to Set up watchlists button > OCR tab.



Registered items are listed on the left side.

To add new item, click "+ Create a new watchlist" button.

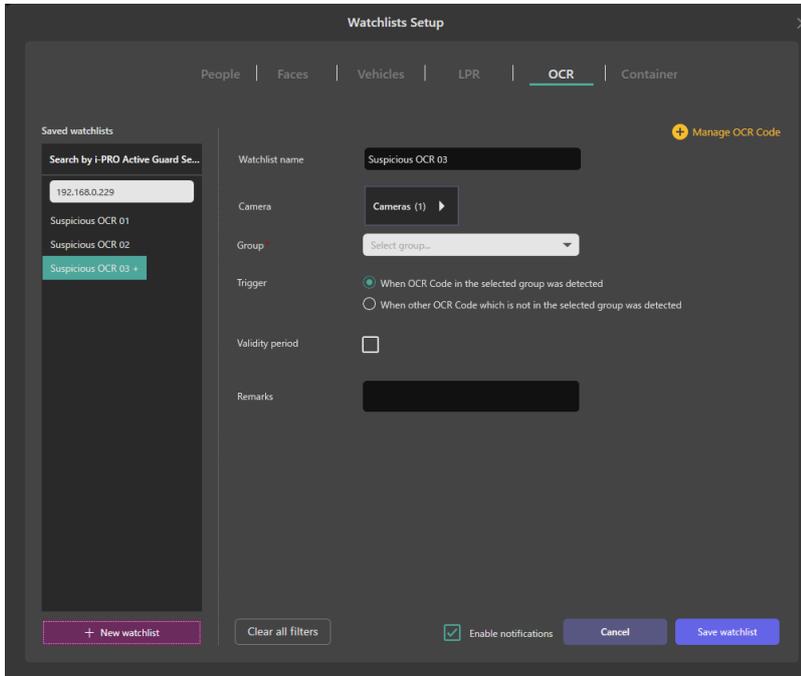
(Note)

OCR Code cannot be set directly in the watchlist.

Please register the OCR Code to OCR Code group.

About OCR Code group, please see 2.5.5.1.

About OCR Code, please see 2.5.5.2.



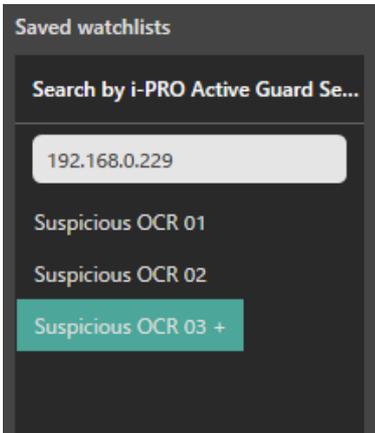
The following procedure is the same as when registering people watchlists, see 2.5.2.

Note:

- There is no limitation to the number of OCR and group (*depending on the system design). Up to 12 OCR watchlist can be registered.
 - Only one item can be selected from each category. This is because many items register would affect false positives.
 - In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this OCR watchlist will not be detected.
Delete registration: After the expiration date, this OCR watchlist will be deleted.
 - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

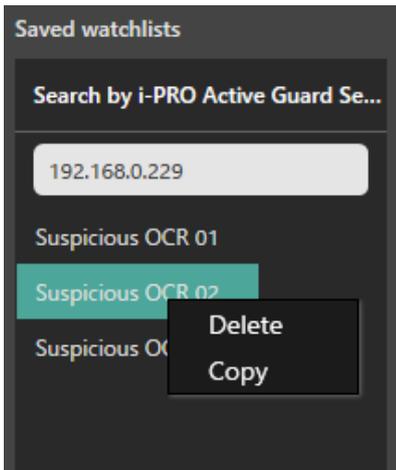
- **Edit Registration**

To edit a registered watchlist, select one of registered item then change selected item.



- **Delete Registration**

To delete a registered watchlist, right click one of registered item.

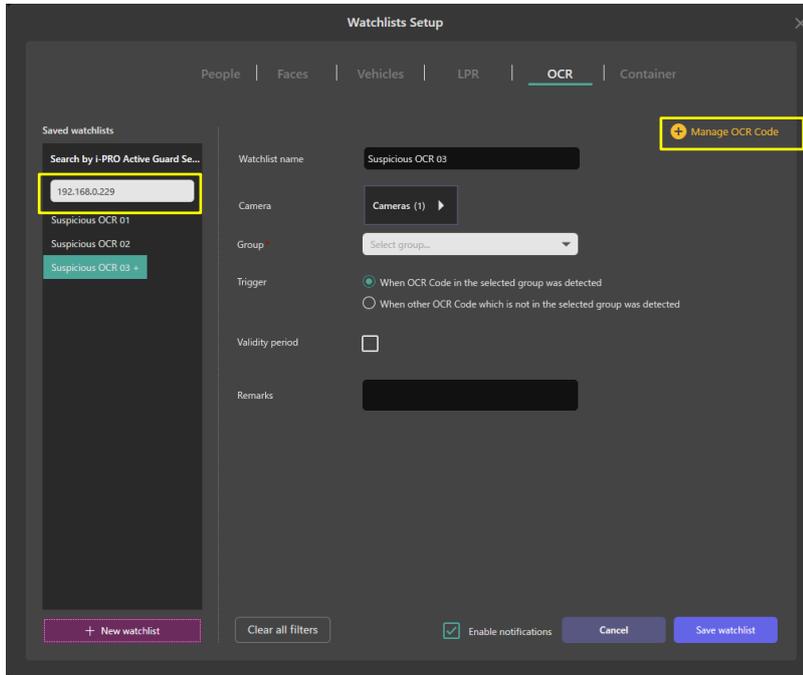


2.7.5.1. Manage OCR Code group

- **Add Registration**

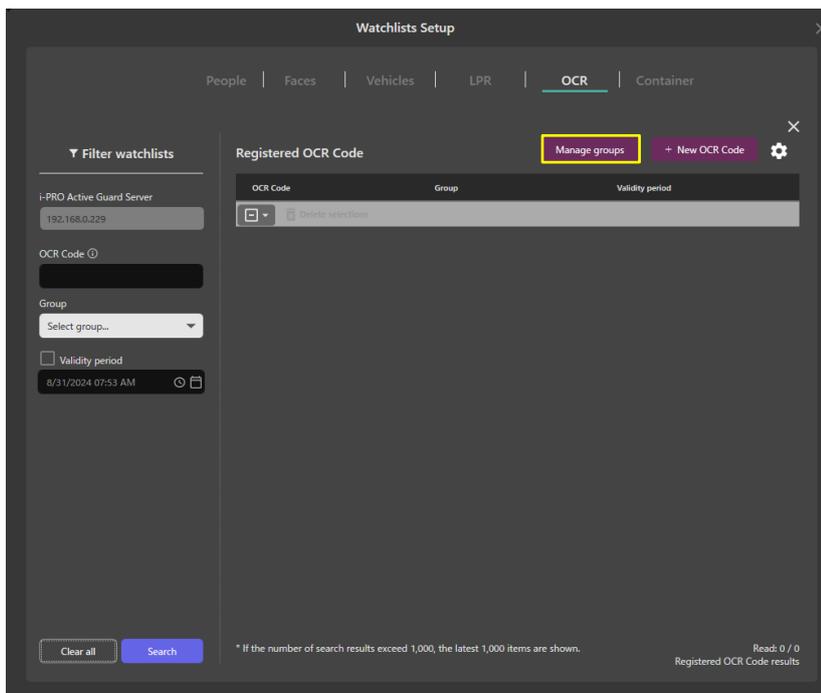
Step 1

In OCR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage OCR Code.”



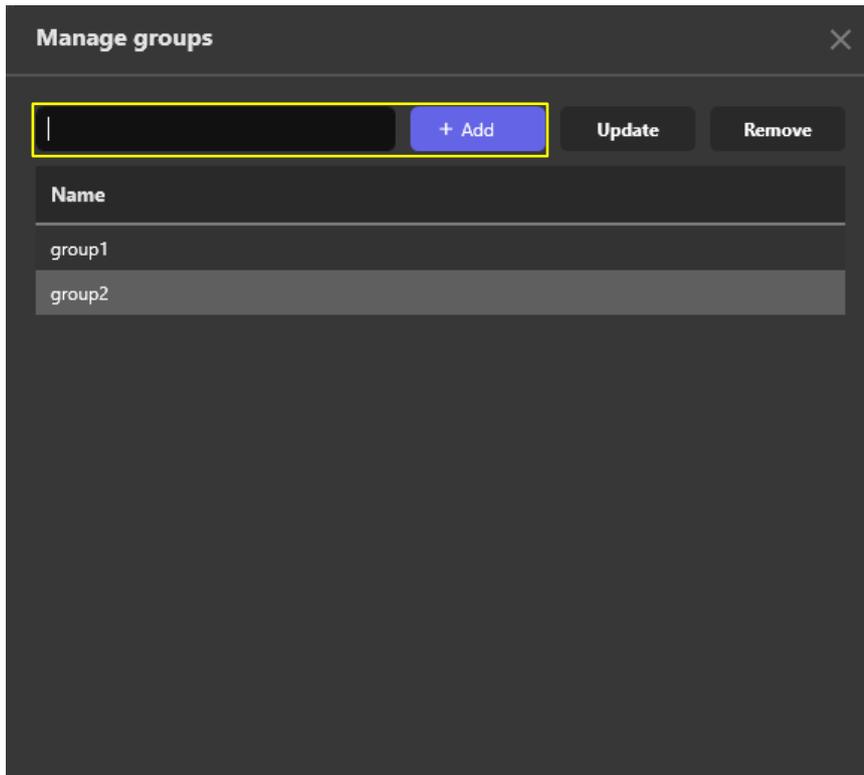
Step 2

Click “Manage groups.”



Step 3

Input group name, and "+ Add" button.

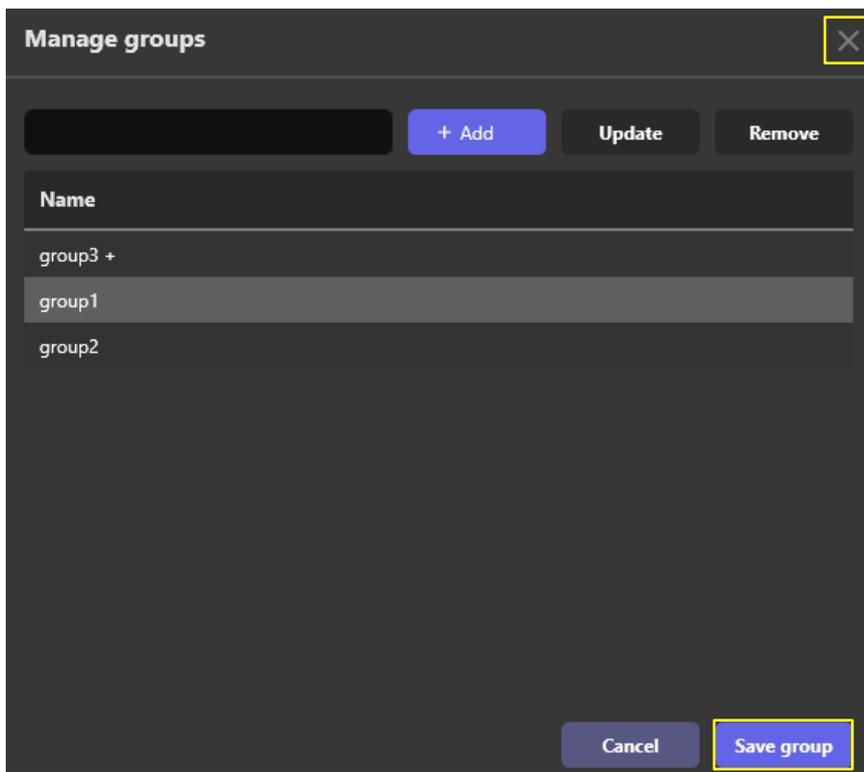


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field with a vertical cursor, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a list with the header "Name". The list contains two items: "group1" and "group2", with "group2" highlighted in grey.

Step 4

Click Save group button.

After setting, please close with "X".



The screenshot shows the "Manage groups" dialog box with a yellow box around the close button (X) in the top right corner. The text input field now contains "group3 +". The list items are "group3 +", "group1", and "group2", with "group1" highlighted. At the bottom of the dialog, there are two buttons: "Cancel" and "Save group", with a yellow box around the "Save group" button.

- **Edit Registration**

Step 1

Select one of group name from list, then edit group name and click Update button.

Step 2

Click Save group button.

- **Delete Registration**

Step 1

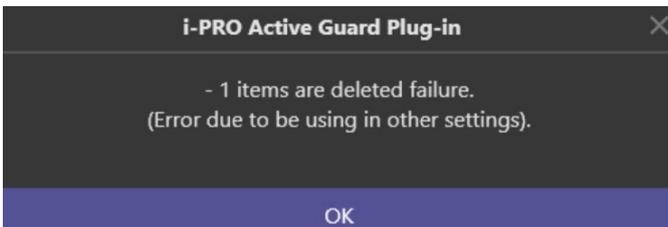
Select one of group name from list, then click Remove button.

Step 2

Click Save group button.

Note)

If delete or edit a group is fail, make sure the target group is not in your OCR watchlists.

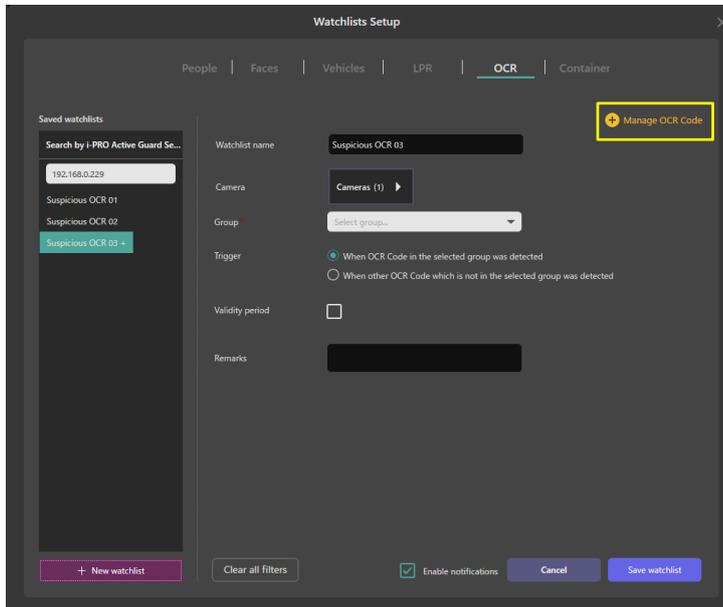


2.7.5.2. Manage OCR Code

- **Get registered list**

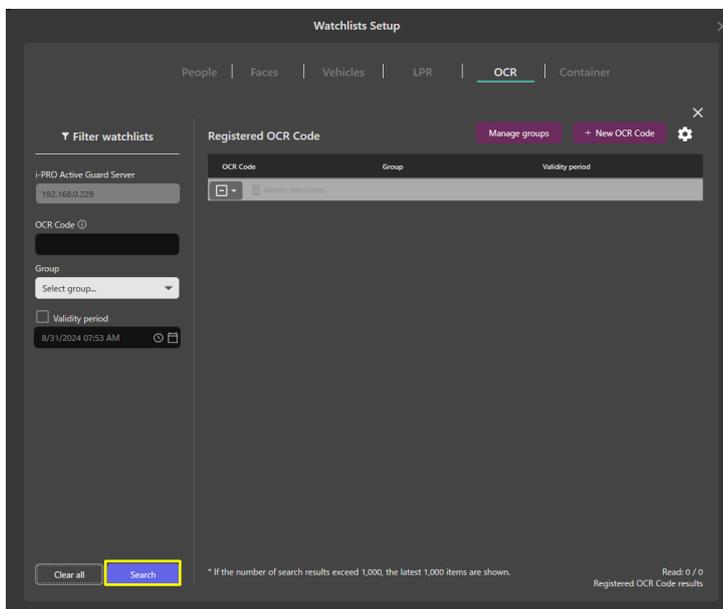
Step 1

In OCR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage OCR Code.”



Step 2

Click “Search” button by using filter.



Note:

- Up to 1,000 OCR Code can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

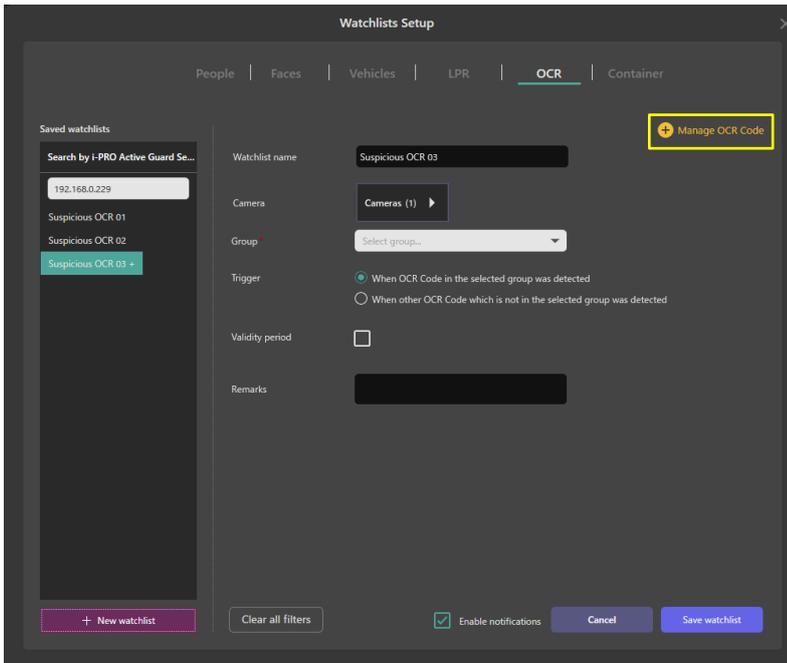
- **Add Registration**

OCR code can be registered via the Action button or the Watchlist Setup screen.

For Action button, see 2.2.1.3.

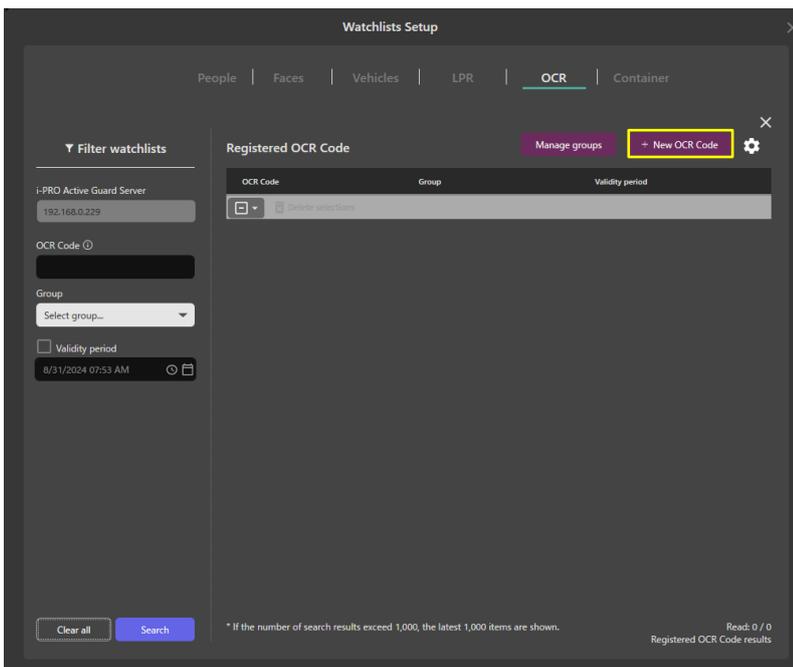
Step 1

In OCR Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage OCR Code.”



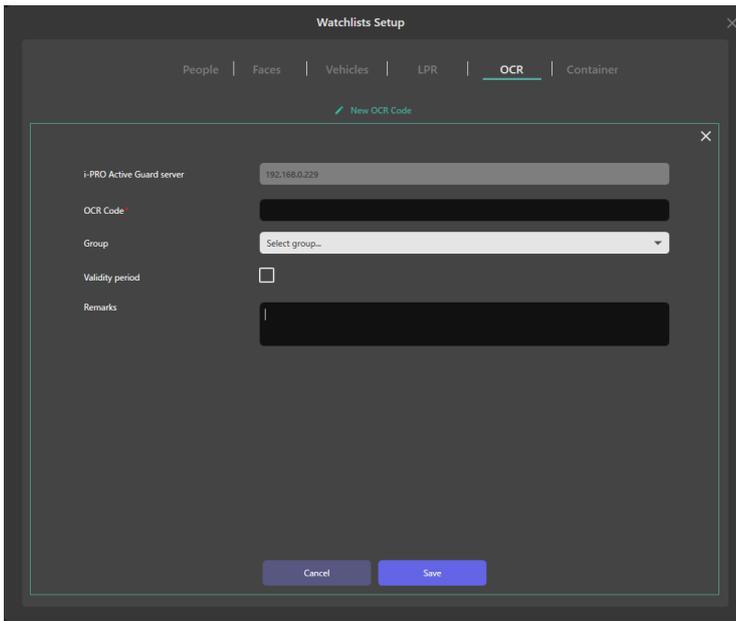
Step 2

Click “+ New OCR Code”.



Step 3

Input information then click Save. "OCR Code" is required.



The screenshot shows a software interface titled "Watchlists Setup" with a dark theme. At the top, there are navigation tabs: "People", "Faces", "Vehicles", "LPR", "OCR" (which is selected and underlined), and "Container". Below the tabs, there is a green checkmark icon and the text "New OCR Code". The main area contains a form with the following fields:

- i-PRO Active Guard server:** A text input field containing the IP address "192.168.0.229".
- OCR Code:** A text input field that is currently empty.
- Group:** A dropdown menu with the text "Select group..." and a downward arrow.
- Validity period:** A checkbox that is currently unchecked.
- Remarks:** A text input field that is currently empty.

At the bottom of the form, there are two buttons: "Cancel" and "Save".

Note:

- In Validity Period, two expiration dates can be set.
 - Disable matching: After the expiration date, this OCR Code will not be detected.
 - Delete registration: After the expiration date, this OCR Code will be deleted.
-

● Edit Registration

Step 1

First, find registered OCR Code you want to edit the information.

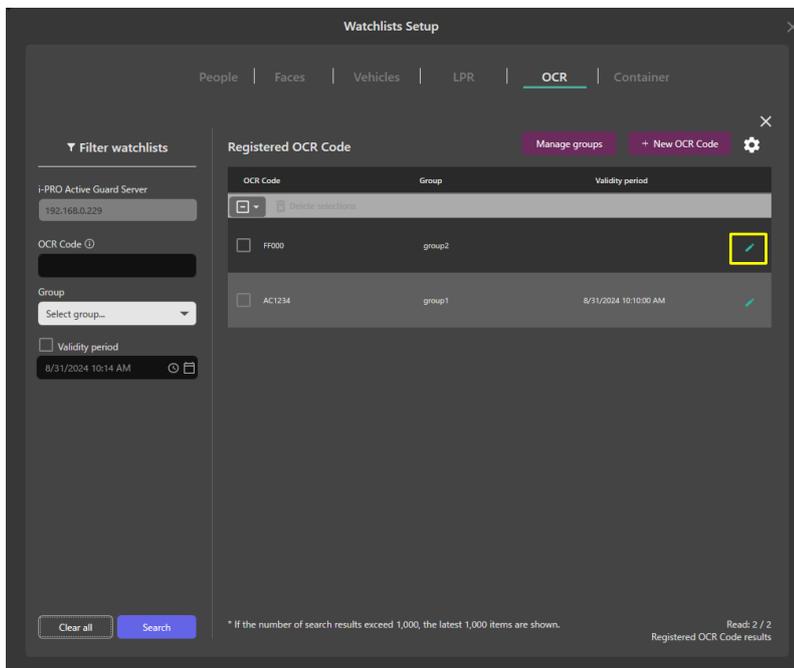
Registered OCX Code can be searched by using filter.

Note:

- Up to 1,000 OCR Code can be shown at the same time.
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
-

Step 2

Select one of license plate from search results, then click  button.



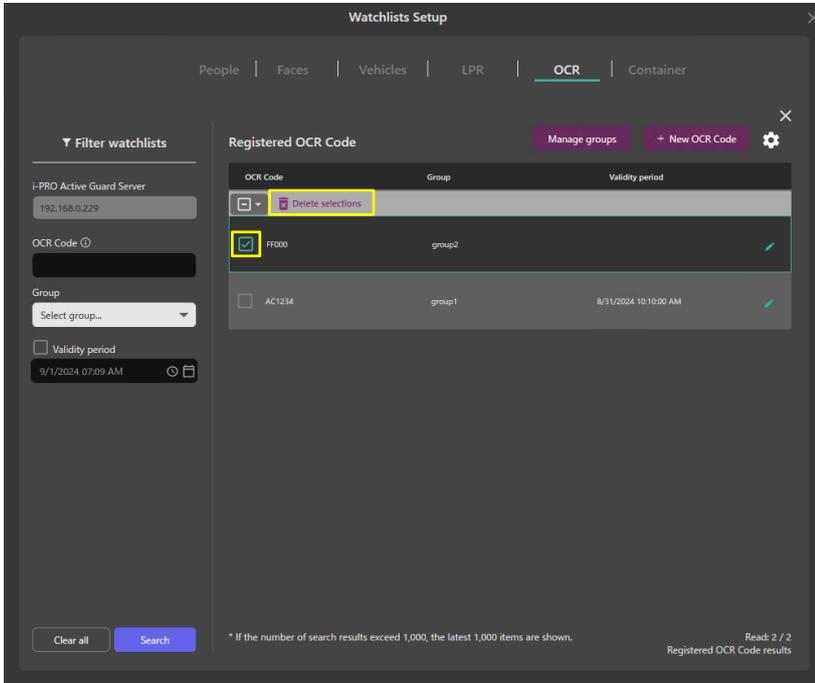
Step 3

Edit any information then click Save.

- **Delete Registration**

Step 1

Select check box of OCR Code from list, then click Delete selections button.



2.7.5.3. Export CSV of OCR code

Registered OCR codes can be exported to CSV.

Export the following items:

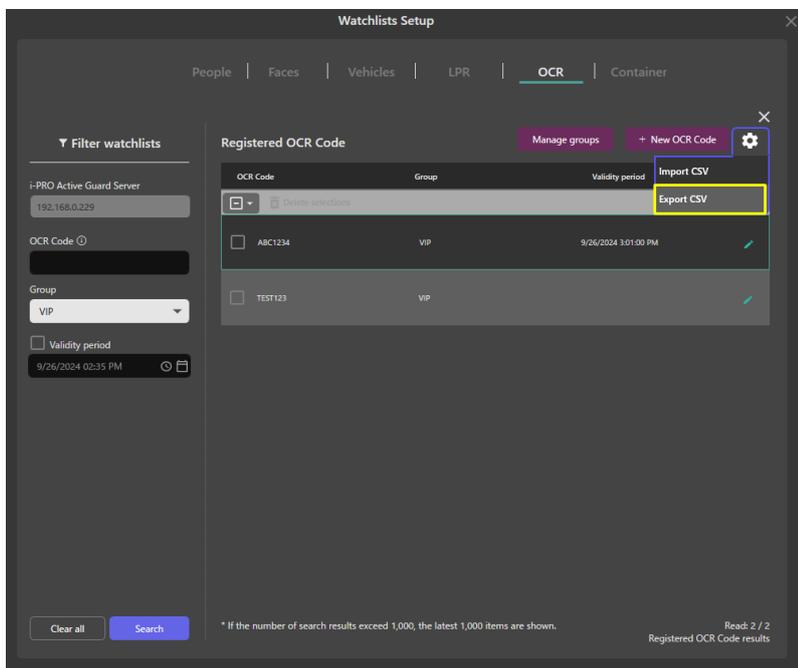
- OCR code

Step 1

Search “Registered OCR Code” you want to export by using Filter watchlists.

Step 2

Click  , then click Export CSV.



Note:

- Up to 1,000 items can be exported to a CSV file. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
- Export all search results to CSV, regardless of the checkboxes for each item.

Step 3

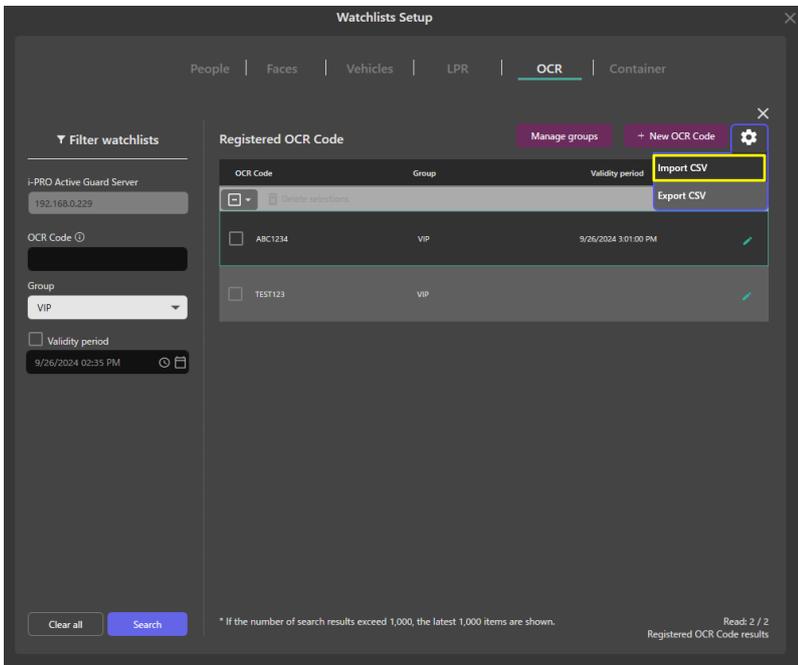
Specify the output destination for the CSV file and save it.

2.7.5.4. Import CSV of OCR code

Register OCR code using Import the CSV file export by this plug-in.
OCR code of CSV information is registered.

Step 1

Click  , then click Import CSV.



Step 2

Select the CSV file, then click Open.

Note)

The CSV format that can be imported is as follows.

ocr_code
Max.32 characters

Note:

- Up to 1,000 items can be imported from a CSV file.
-

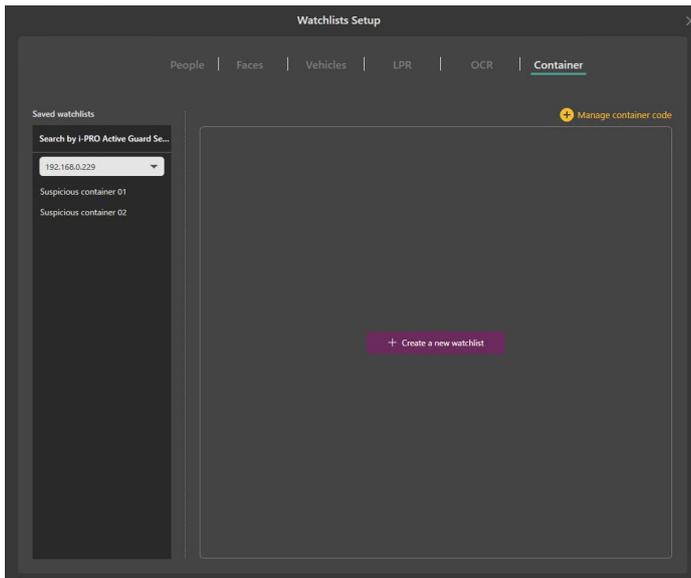
2.7.6. Container Watchlist (new for v2.0.0)

This section describes the operation of add, edit, and delete.

If you don't have a permission to access the watchlist or your camera configuration has no AI-Camera which installed VaxOCR CONTAINER application, then this function is not available.

- **Add Registration**

To register a container's details or container code to the watchlist, navigate to set up watchlists button > Container tab.

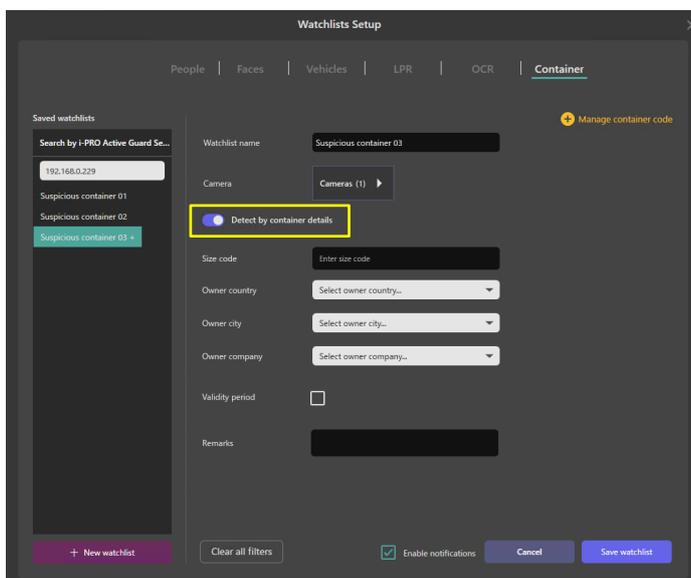


Registered items are listed on the left side.

To add new item, click “+ Create a new watchlist” button.

- **Add Registration (Detect by container details)**

Set “Detect by container details” to “On,” then select items.



- **Add Registration (Container Group)**

Set “Detect by container details” to “Off,” then select container group and Trigger.

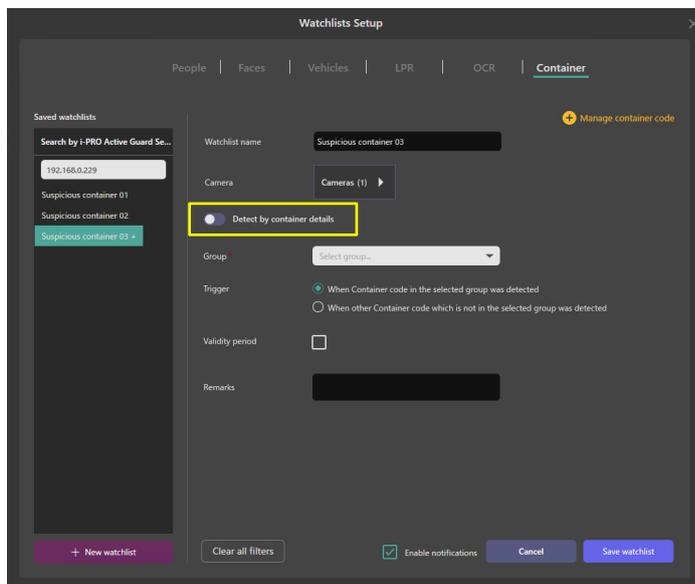
Note)

Container code cannot be set directly in the watchlist.

Please register the container code to container group.

About container group, please see 2.5.6.1.

About container code, please see 2.5.6.2.



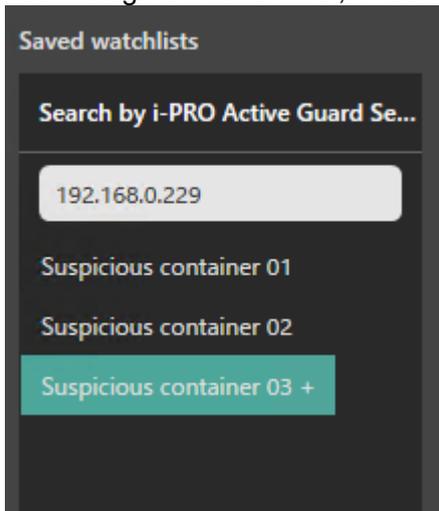
The following procedure is the same as when registering people watchlists, see 2.5.2.

Note:

- There is no limitation to the number of container code and container group (*depending on the system design).
Up to 12 Container watchlist can be registered.
 - Only one item can be selected from each category. This is because many items register would affect false positives.
 - In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this container watchlist will not be detected.
Delete registration: After the expiration date, this container watchlist will be deleted.
 - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

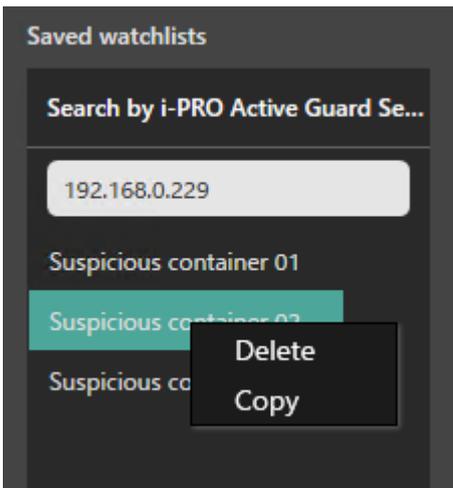
- **Edit Registration**

To edit a registered watchlist, select one of registered item then change selected item.



- **Delete Registration**

To delete a registered vehicle appearance, right click one of registered item.



2.7.6.1. Manage Container group

- **Add Registration**

Step 1

In Container Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage container code.”

Watchlists Setup

People | Faces | Vehicles | LPR | OCR | **Container**

Saved watchlists

Search by i-PRO Active Guard Server
192.168.0.229

Suspicious container 01
Suspicious container 02
Suspicious container 03 +

+ New watchlist

Watchlist name: Suspicious container 03

Camera: Cameras (1)

Detect by container details

Size code: Enter size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Validity period:

Remarks:

+ Manage container code

Clear all filters Enable notifications Cancel Save watchlist

Step 2

Click “Manage groups.”

Watchlists Setup

People | Faces | Vehicles | LPR | OCR | **Container**

Filter watchlists

i-PRO Active Guard Server
192.168.0.229

Container code

Size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Group: Select group...

Validity period: 9/1/2024 06:29 AM

Clear all Search

Registered container code

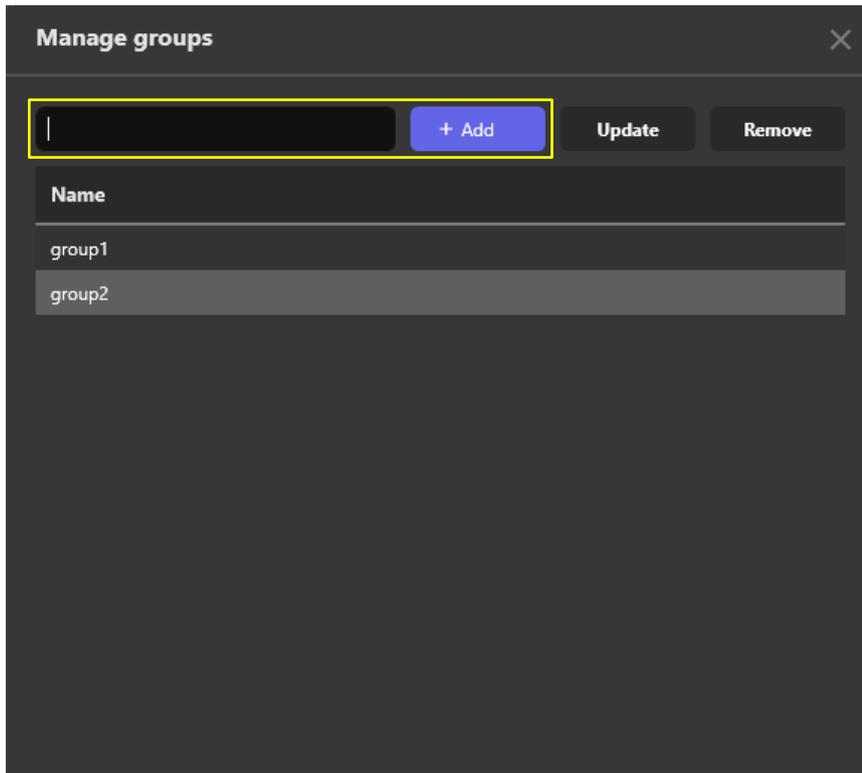
Manage groups + New container code

Container code	Size code	Owner country	Owner city	Owner company	Group	Validity period

* If the number of search results exceed 1,000, the latest 1,000 items are shown. Read: 0 / 0 Registered container code results

Step 3

Input group name, and "+ Add" button.

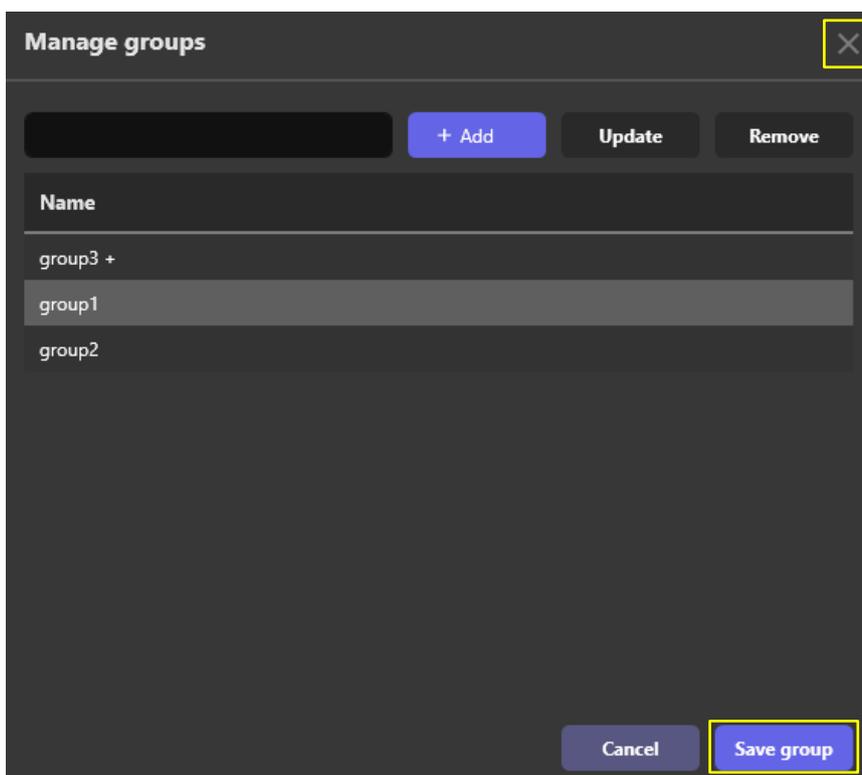


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field containing a vertical bar, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a section titled "Name" with a list of items: "group1" and "group2". The "group2" item is highlighted with a grey background.

Step 4

Click Save group button.

After setting, please close with "X".



The screenshot shows the same "Manage groups" dialog box. The close button (X) in the top right corner is highlighted with a yellow box. The text input field now contains "group3 +". The list of items includes "group3 +", "group1", and "group2", with "group1" highlighted. At the bottom of the dialog, there are two buttons: "Cancel" and "Save group", with the "Save group" button highlighted by a yellow box.

- **Edit Registration**

Step 1

Select one of group name from list, then edit group name and click Update button.

Step 2

Click Save group button.

- **Delete Registration**

Step 1

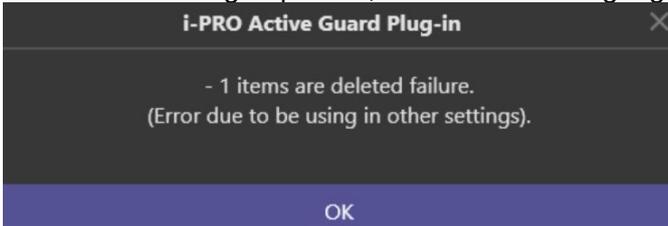
Select one of group name from list, then click Remove button.

Step 2

Click Save group button.

Note)

If delete or edit a group is fail, make sure the target group is not in your Container watchlists.

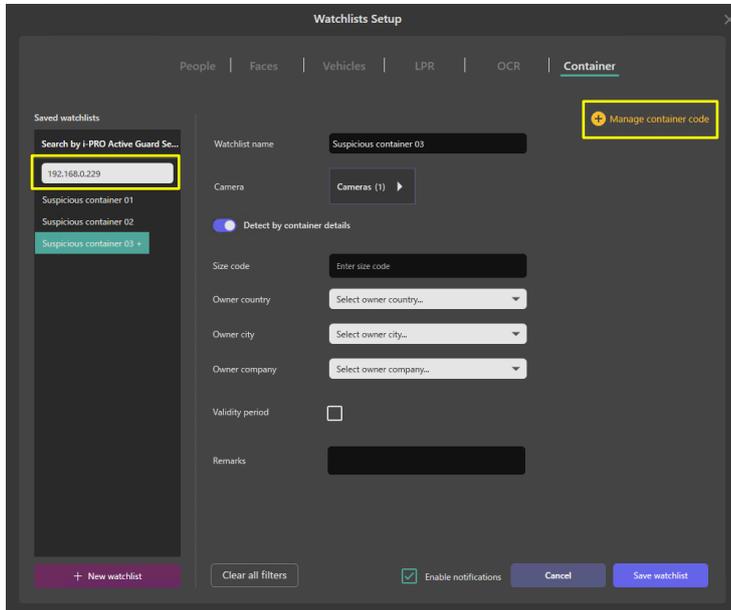


2.7.6.2. Manage Container code

- Get registered list

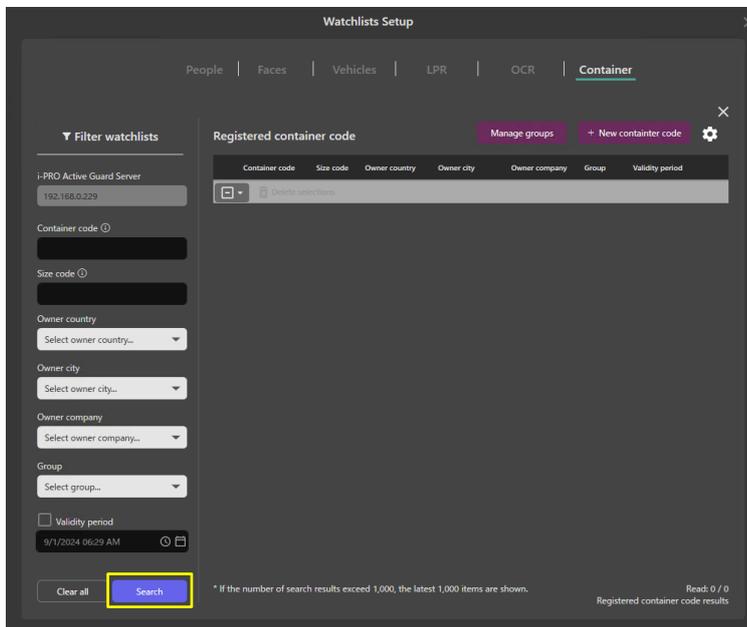
Step 1

In Container Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage container code.”



Step 2

Click “Search”



Note:

- Up to 1,000 container code can be shown at the same time.
- If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

● Add Registration

Container code can be registered via the Action button or the Watchlist Setup screen.

For Action button, see 2.2.1.3.

Step 1

In Container Watchlist Setup screen, select server from “Search by i-PRO Active Guard Server.” Click “+ Manage container code.”

Watchlists Setup

People | Faces | Vehicles | LPR | OCR | Container

Saved watchlists

Search by i-PRO Active Guard Server

192.168.0.229

Suspicious container 01

Suspicious container 02

Suspicious container 03 +

+ New watchlist

Clear all filters

Enable notifications

Cancel

Save watchlist

Watchlist name: Suspicious container 03

Camera: Cameras (1)

Detect by container details

Size code: Enter size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Validity period:

Remarks:

Step 2

Click “+ New container code.”

Watchlists Setup

People | Faces | Vehicles | LPR | OCR | Container

Filter watchlists

i-PRO Active Guard Server

192.168.0.229

Container code

Size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Group: Select group...

Validity period

9/1/2024 06:29 AM

Clear all

Search

* If the number of search results exceed 1,000, the latest 1,000 items are shown.

Read: 0 / 0

Registered container code results

Registered container code

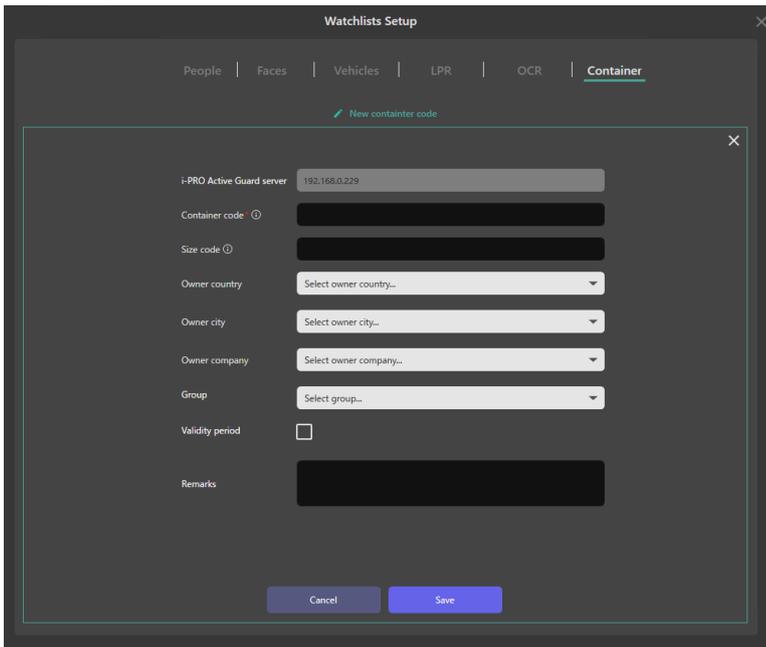
Manage groups

+ New container code

Container code	Size code	Owner country	Owner city	Owner company	Group	Validity period
Delete selections						

Step 3

Input information then click Save. "Container code" is required.



The screenshot shows a software window titled "Watchlists Setup" with a tabbed interface. The "Container" tab is selected. A sub-window titled "New container code" is open, containing the following fields:

- i-PRO Active Guard server: 192.168.0.229
- Container code: [Redacted]
- Size code: [Redacted]
- Owner country: Select owner country...
- Owner city: Select owner city...
- Owner company: Select owner company...
- Group: Select group...
- Validity period:
- Remarks: [Redacted]

At the bottom of the sub-window are "Cancel" and "Save" buttons.

Note:

- In Validity Period, two expiration dates can be set.
 - Disable matching: After the expiration date, this container code will not be detected.
 - Delete registration: After the expiration date, this container code will be deleted.
-

● Edit Registration

Step 1

First, find registered container code you want to edit the information.

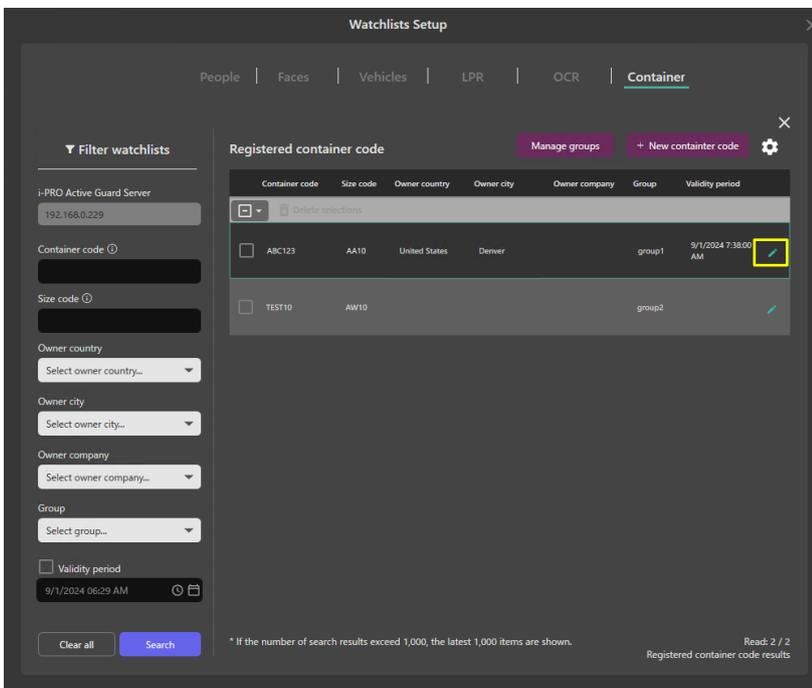
Registered container code can be searched by using filter.

Note:

- Up to 1,000 container code can be shown at the same time.
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
-

Step 2

Select one of license plate from search results, then click  button.



The screenshot shows the 'Watchlists Setup' window with the 'Container' tab selected. On the left, there is a 'Filter watchlists' sidebar with various search criteria like 'Container code', 'Size code', 'Owner country', etc. The main area displays a table of 'Registered container code' results. The table has columns: Container code, Size code, Owner country, Owner city, Owner company, Group, and Validity period. Two rows are shown: one with container code 'ABC123' and another with 'TEST10'. The edit icon (pencil) in the 'Validity period' column of the first row is highlighted with a yellow box.

Container code	Size code	Owner country	Owner city	Owner company	Group	Validity period
ABC123	AA10	United States	Denver		group1	9/1/2024 7:38:00 AM
TEST10	AW10				group2	

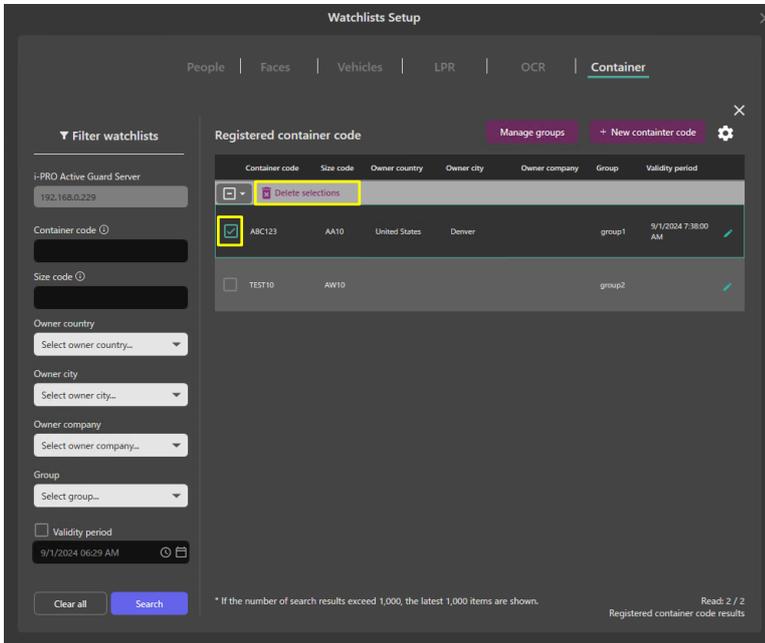
Step 3

Edit any information then click Save.

- **Delete Registration**

Step 1

Select check box of license plate from list, then click Delete selections button.



2.7.6.3. Export CSV of Container code

Registered container code can be exported to CSV.

Export the following items:

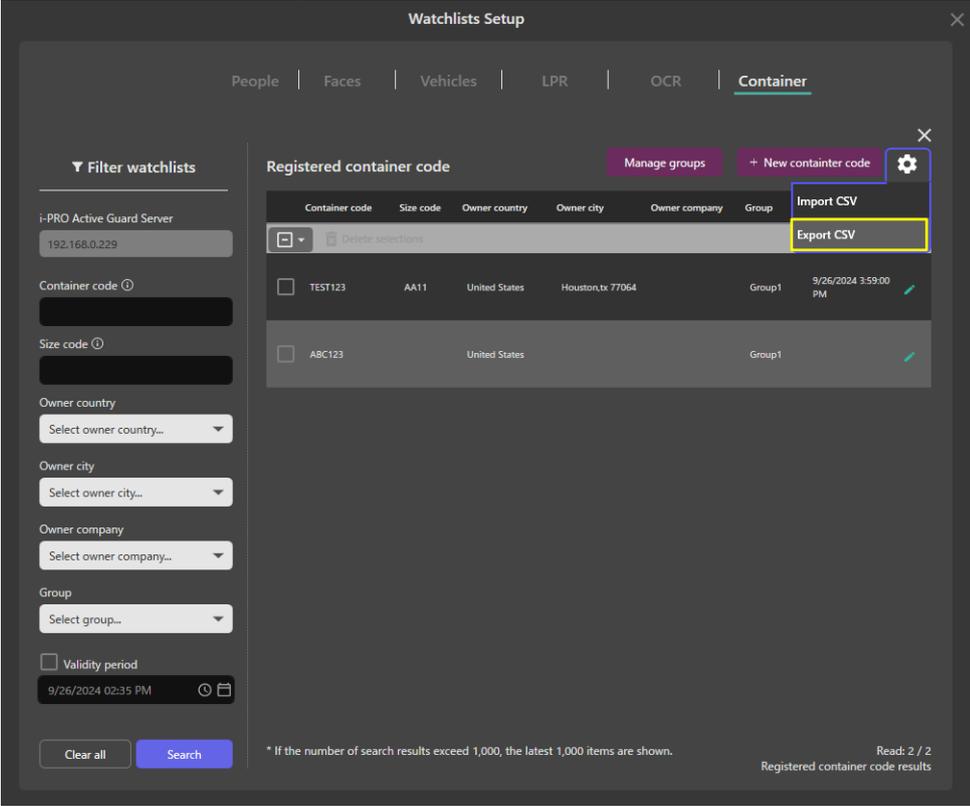
- Container code
- Size code
- Owner country
- Owner company

Step 1

Search “Registered container code” you want to export by using Filter watchlists.

Step 2

Click  , then click Export CSV.



The screenshot shows the 'Watchlists Setup' window with the 'Container' tab selected. On the left, there is a 'Filter watchlists' section with various search filters. The main area displays a table of 'Registered container code' results. The table has columns for Container code, Size code, Owner country, Owner city, Owner company, Group, and a date/time column. Two rows are visible: one with 'TEST123' and another with 'ABC123'. In the top right corner of the table area, there are buttons for 'Import CSV' and 'Export CSV', with the 'Export CSV' button highlighted by a yellow box. A gear icon is also visible in the top right corner of the table area.

Container code	Size code	Owner country	Owner city	Owner company	Group	
<input type="checkbox"/>	TEST123	AA11	United States	Houston,tx 77064	Group1	9/26/2024 3:59:00 PM
<input type="checkbox"/>	ABC123		United States		Group1	

Note:

- Up to 1,000 items can be exported to a CSV file. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
- Export all search results to CSV, regardless of the checkboxes for each item.

Step 3

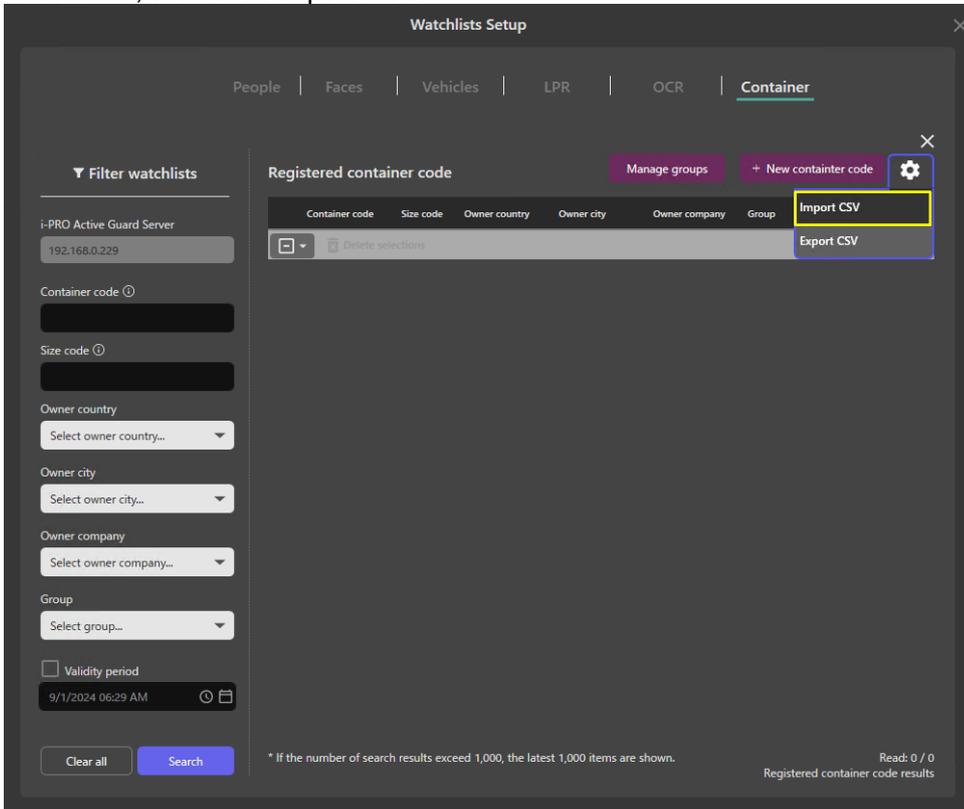
Specify the output destination for the CSV file and save it.

2.7.6.4. Import CSV of Container code

Register Container code using Import the CSV file export by this plug-in.
Container code, Size code, Owner country and Owner company of CSV information are registered.

Step 1

Click , then click Import CSV.



Step 2

Select the CSV file, then click Open.

Note)

The CSV format that can be imported is as follows.

container_code	size_code	country	owner_city	owner_company
Max.11 characters	Max.4 characters	(ISO 3166 two-letter code (alpha-2)) *1	(Copy the string from plug-in's setting screen) *1 *2	(Copy the string from plug-in's setting screen) *1 *2

*1 : If the value is invalid, it will be registered as blank when imported.

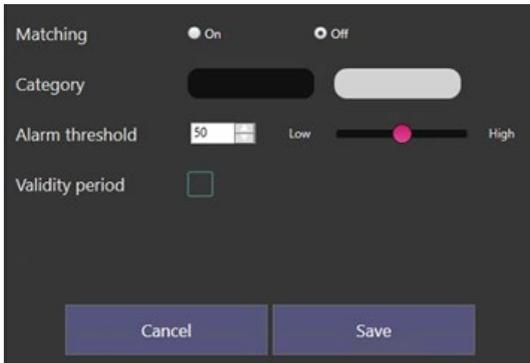
*2 : If the string contains commas, enclose it in double quotes.

Note:

- Up to 1,000 items can be imported from a CSV file.

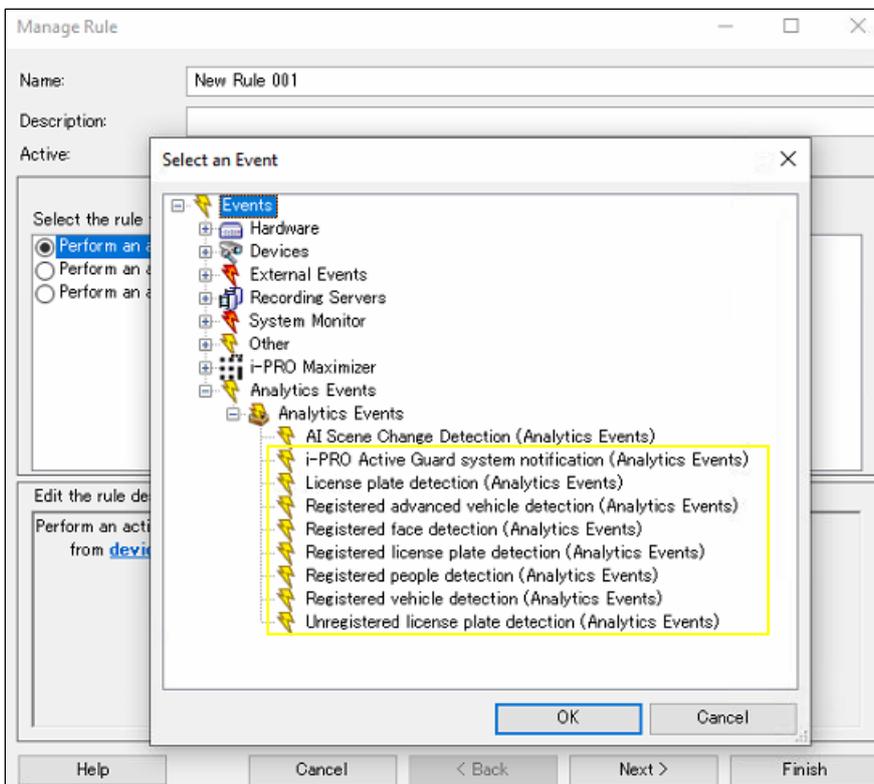
2.7.7. Watchlist Matching

This section describes how alerts are generated within XProtect for watchlists.



- Matching set to on enables the matching process.
- Alarm threshold can be set between Low and High (This can be set for each individual face or person watchlist profile. Please adjust according to your environment)
- When Validity Period is selected, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this person.

Within the XProtect Management Client generate a new Rule or Alarm definition with one of the below triggers.

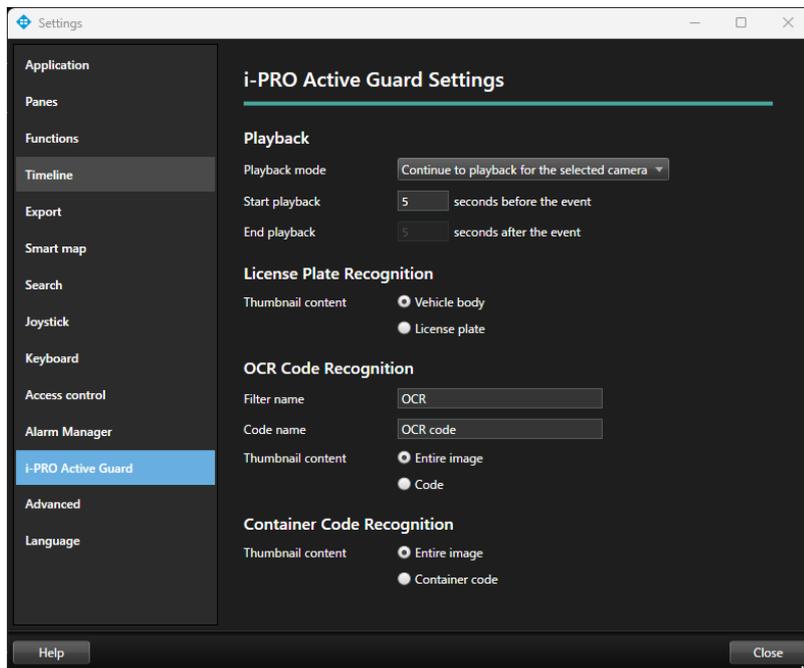


Note:

- This system requires the XProtect API Gateway to trigger this event. Older versions of XProtect do not support the API so this function may not work for all systems.
 - Currently this is a generic event that will only trigger an event within XProtect to confirm a hit on the watchlist. The event will need to be manually verified within the i-PRO Active Guard XProtect plugin.
-

2.8. PLUGIN CONFIGURATION

Settings in XProtect Smart Client – [i-PRO Active Guard Settings Panel]



[Playback]

Playback mode - [Continue to playback for the selected camera], [Repeat playback for the selected camera]

Start playback - seconds after event (5s default)

End playback - seconds after event (5s default)

[License Plate Recognition]

Thumbnail content - You can set whether to show the entire vehicle including the license plate or only the license plate in the search results.

[OCR Code Recognition] (new for v2.0.0)

Filter name - You can change the display name of OCR filter.

Code name - You can change the display name of OCR Code.

Thumbnail content - You can set whether to show the entire including the OCR Code or only the OCR Code in the search results.

[Container Code Recognition] (new for v2.0.0)

Thumbnail content - You can set whether to show the entire including the Container Code or only the Container Code in the search results.

3. DOWNLOAD LINKS

Please update other related software to the latest version.

[i-PRO Active Guard Plug-in v2.0.0 \(DIRECT DOWNLOAD\)](#)

[i-PRO Active Guard Plug-in for XProtect \(orbnetssystem.com\)](#)

[i-PRO Active Guard Plug-in v2.0.0 \(Milestone Technology Partner Finder\)](#)

[i-PRO Active Guard Plug-in for XProtect \(milestonesystem.com\)](#)

[i-PRO Active Guard server software and related software](#)

https://i-pro.com/products_and_solutions/en/surveillance/learning-and-support/knowledge-base/product-tips/active-guard-links

3.1. CHANGE LOG

<https://github.com/ORBNETSYS/i-PRO-Active-Guard-Public>

4. TROUBLESHOOTING

Before requesting additional support, please check for symptoms in the following table. Contact your dealer first if a problem cannot be solved, after checking and trying the solution in the table or if the problem is not described below.

Symptom	Cause/solution
<p>Face, People or Vehicle images cannot be searched (The number of search results is 0).</p>	<ul style="list-style-type: none"> ▪ Check if a schedule is applied in the setting of the camera and that the extension software is enabled. ▪ Receiving status from each camera can be confirmed from the i-PRO Active Guard configuration (see camera Setup instruction manual). ▪ Lower accuracy threshold
<p>False detection (Non-face, people or vehicle object is shown in searched items)</p>	<ul style="list-style-type: none"> ▪ To avoid false detection, configure the mask area using iCT (i-PRO Configuration Tool).
<p>Playback time is incorrect</p>	<ul style="list-style-type: none"> ▪ Check if the PC time of the i-PRO Active Guard server and VMS server are synchronized. ▪ The i-PRO Active Guard server may be installed on a dedicated server. Check that the time zone setting of the VMS server and VMS client software is the same.
<p>Plug-in does not work after upgrading</p>	<ul style="list-style-type: none"> ▪ If XProtect Event Server service is stopped after updating, start manually from Windows Task bar. ▪ Please try to uninstall and install again.