



Operating Instructions
i-PRO Active Guard Plug-in for Genetec



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1. INTRODUCTION

1.1. FEATURES

1.1.A. Terms in use

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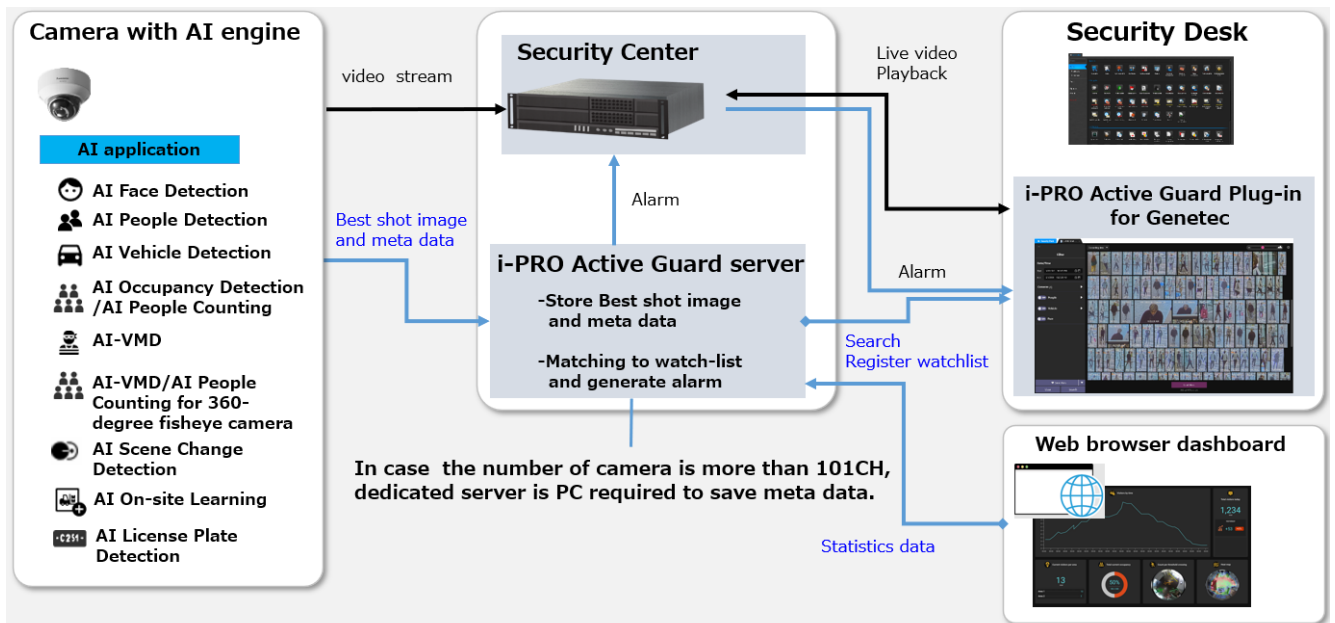
1.2. PREFACE

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

This operating manual is for dashboard function of i-PRO Active Guard Plug-in.

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

1.3. SYSTEM OVERVIEW



AI application or AI function on cameras transmit video stream to Security Center and transmit Best shot images and meta data to i-PRO Active Guard server.

i-PRO Active Guard server stores those data and also generate alarm when face or people is matched to watchlist.

i-PRO Active Guard Plug-in (hereinafter referred to as "Plug-in") which is the plug-in software for Security Desk can search Best shot images, register watchlist, show live video, recorded video, and alarm.

By visualizing statistical data from AI application on the web browser, it can also be used for business intelligence.

2. i-PRO ACTIVE GUARD PLUG-IN

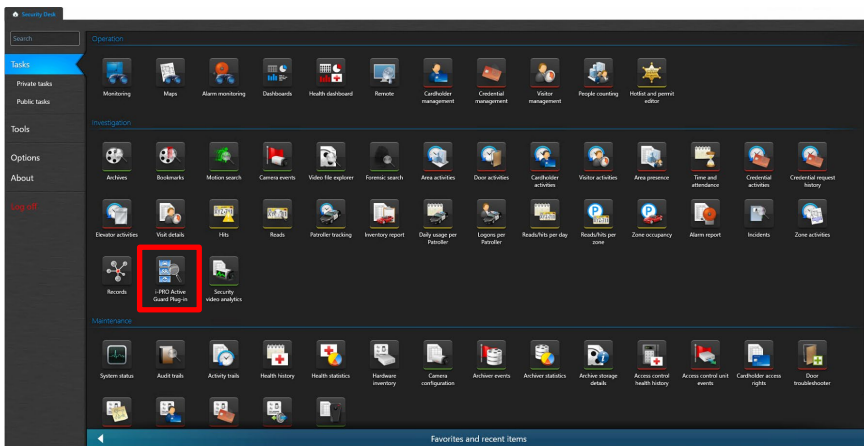
2.1. START-UP AND TERMINATE PLUG-IN

2.1.1. Start-up Plug-in

To open Plug-in, start-up Security Desk and log in first.
For more detail about Security Desk, refer to the Genetec user manual.



If you completed installation for Plug-in, you can find the application Plug-in as below.

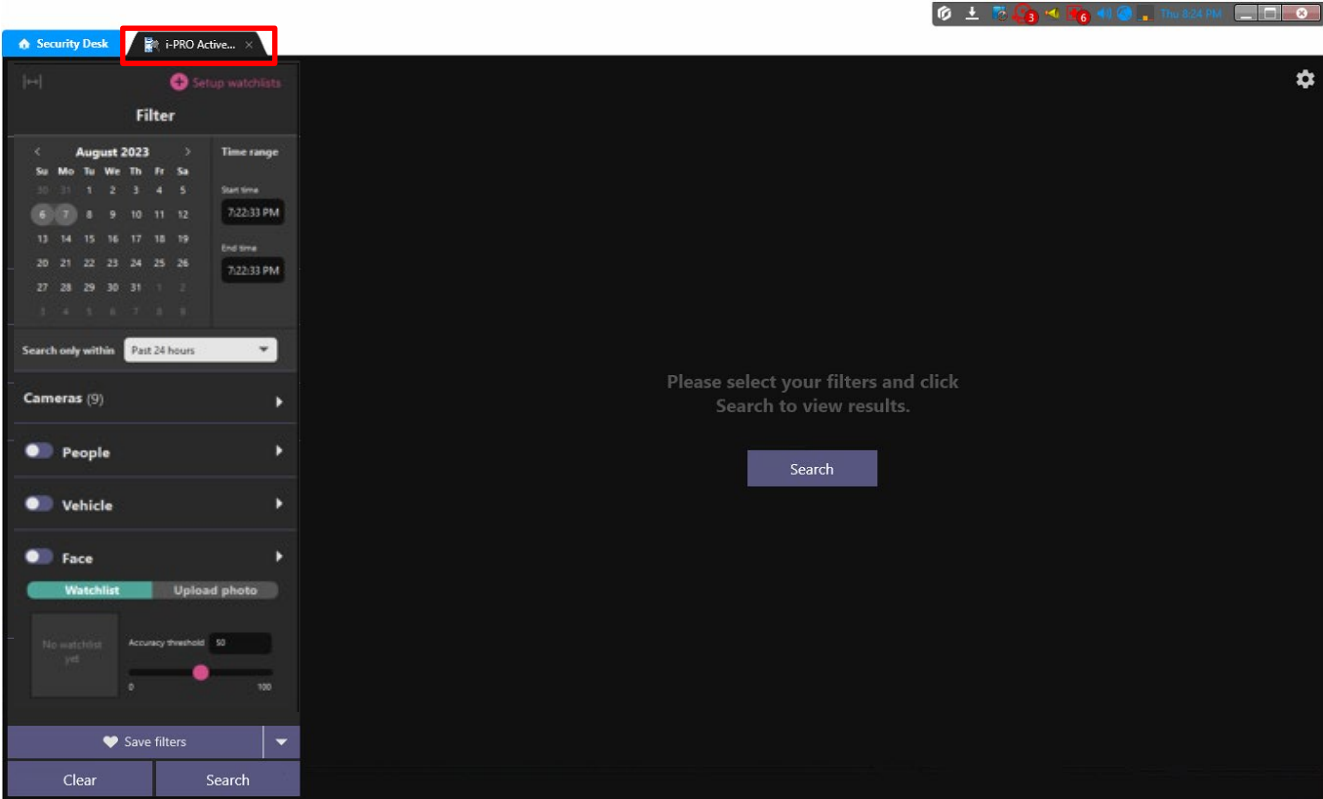


To start-up Plug-in, click the plug-in icon.



2.1.2. Terminate plug-in

To terminate i-PRO Active Guard Plug-in, just close the workspace.



2.2. SEARCH DETECTED OBJECTS

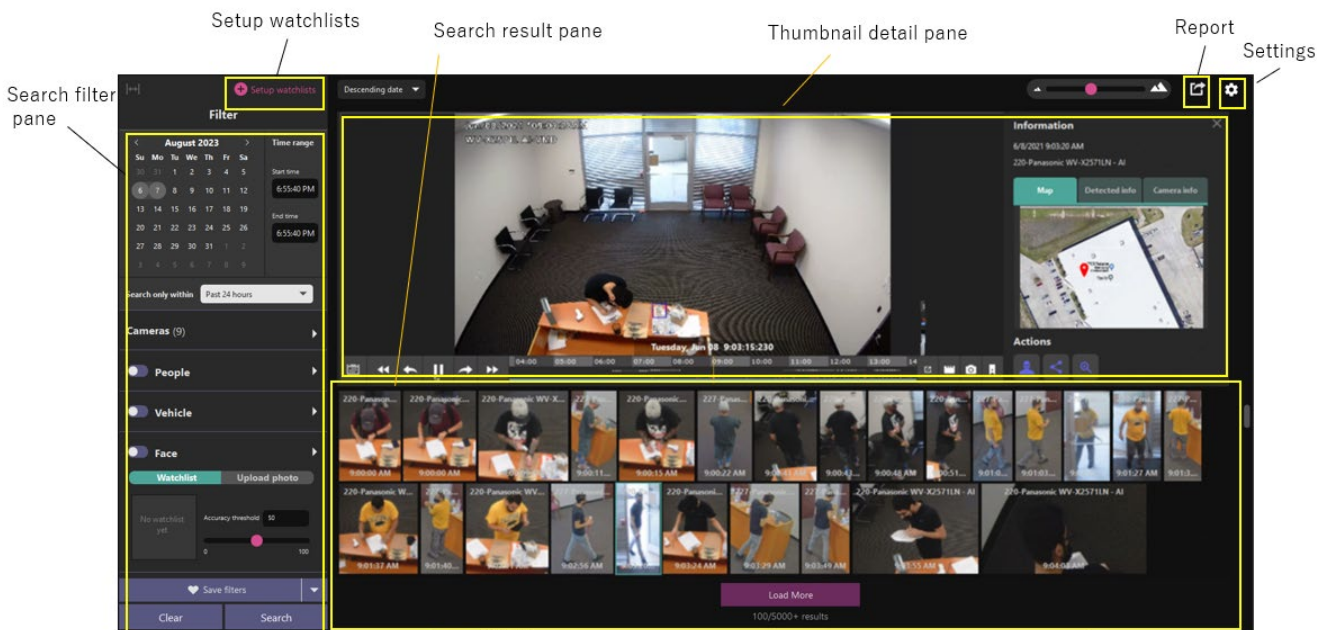
Using i-PRO Active Guard Search, you can quickly find thumbnails of AI Camera detected objects including: person, vehicle and face.

2.2.1. UI Component

i-PRO Active Guard Search has three main parts such as search filter pane, search result pane and thumbnail detail pane, also has watchlists menu and other settings.

2.2.1.1. Overview

In this section, it describes the elements that compose the recording search.



Search filter pane	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.
	Cameras filter	Specify AI Cameras for search objects.
	People filter	Specify personal features such as gender, age, hair color, etc.
	Vehicle filter	Specify vehicle features such as type, color, etc.
	Face filter	Specify face image from watchlist or upload photo.
	LPR filter	Specify license plate features such as type, color, and license plate, etc.
	Save filters	Save filter settings with name up to 12.
Search result pane	Clear	Clear filter settings.
	Search	Start thumbnail search.
	Sort	Sort search results by descending, ascending and analysis score.
	Zoom in/out	Zoom in and out thumbnail results area.

	Export	Export search result as HTML.
	Detected thumbnail	Click and open thumbnail detail pane. Right click and save the thumbnail as 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 2.2.1.3 for detail.
Set up watchlists	Face watchlist	Setup face watchlist.
	People watchlist	Setup people watchlist.
	Vehicle watchlist	Setup vehicle watchlist.
	LPR watchlist	Setup lpr watchlist.
Report	Export HTML	Export search result as HTML.
Settings	Preferences	Setup some environments for playback.
	Software update	A notification and pop-up will appear when the i-PRO Active Guard Server or plug-in are available for updates. *Only when i-PRO Active Guard servers and Plug-in can connect to the Internet.
	Attribute Settings	Setup visibility of attributes in filter and watchlist.

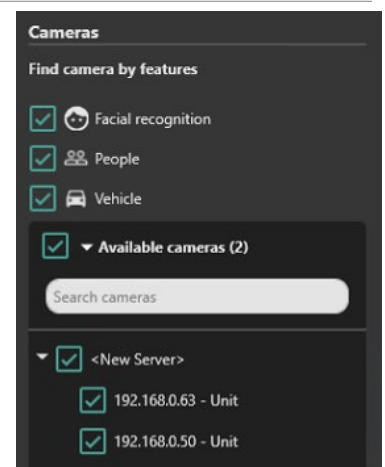
2.2.1.2. About search filters

In this section, it describes search filters that can narrow the search results down.

Please refer to the documentation below regarding setup of cameras and map.
i-PRO Active Guard Setup Instruction for Genetec.pdf

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.



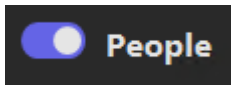
Cameras also can be selected from map. Select target maps then select camera icons. The map is optional, setup is required prior to using this function.

When you register or change the map on VMS, terminate plug-in and start again.



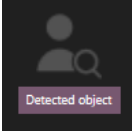
B. People filter

With the People filter enabled, only the thumbnails are shown which AI Camera with people detection app detected.



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



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	Sun Glasses, 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
Additional filters	Recognizable face can only show person thumbnails with clarify face. Color image only (Note) Black & white images may show in the search results even if only Color image only is specified.
Threshold	There are Low, Average and High.
Exclude searched color	If this is selected, the color will exclude from search results.
Include similar color	If this selected, the color similar to the specified color will be automatically selected.

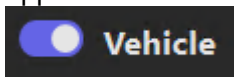
Note)

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.

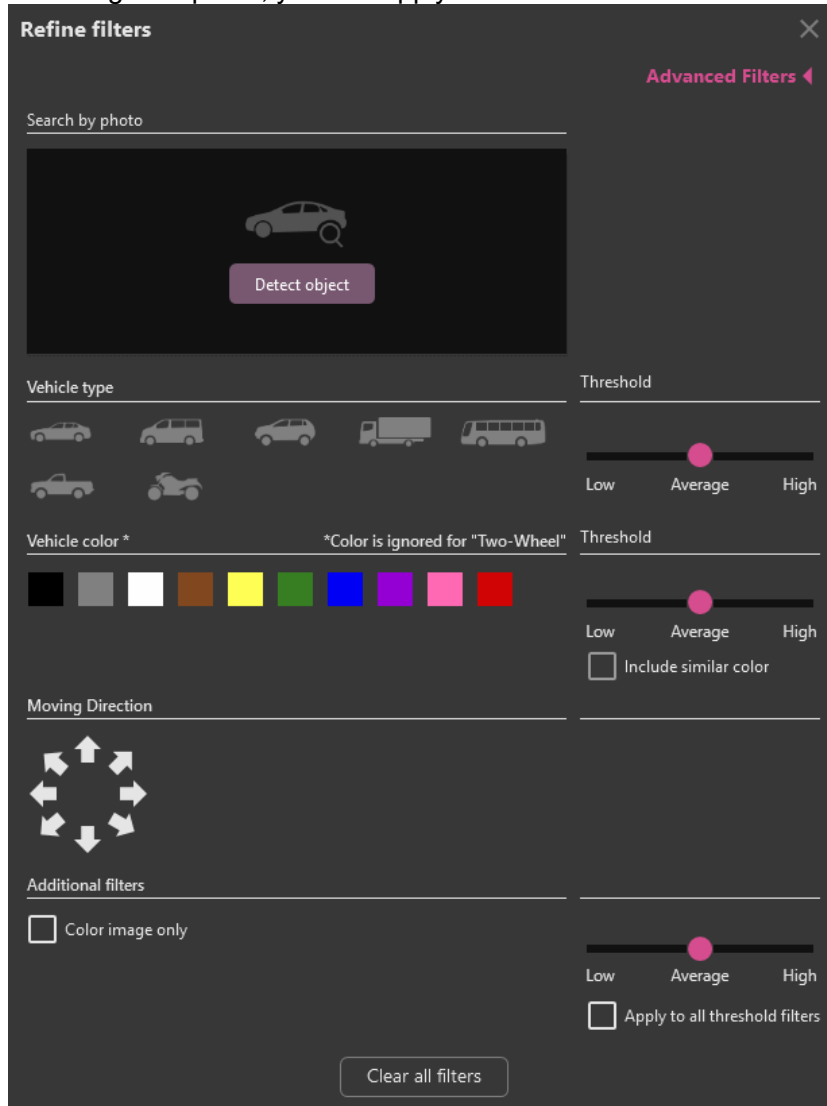
Color to be searched	Similar color (The order is similar from the left)
Black	Gray
Brown	White, Yellow, Orange
White	Gray, Blue, Brown, Yellow, Orange
Gray	Black, White, Blue
Green	Blue, Black, Yellow
Red	Orange, Pink
Blue	Green, Black, Purple
Yellow	Green, White, Brown, Orange
Orange	Red, Brown, Yellow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

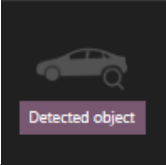
C. Vehicle filter

With the Vehicle filter enabled, only the thumbnails are shown which AI Camera with vehicle detection app detected.



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



Features and controls	Description
	Uploading vehicle picture If picture is uploaded, features are automatically detected.
Type	Truck, Bus, SUV, Van, Sedan, Pickup Truck, Two-Wheel
Color	Black, Brown, White, Gray, Red, Blue, Yellow, Green, Purple, Pink
Moving Direction	Up, Up right, Right, Down right, Down, Down left, Left, Up left
Additional filters	Color image only Note) Black & white images may show in the search results even if only Color image only is specified.

Threshold	There are Low, Average and High.
Include similar color	If this selected, the color similar to the specified color will be automatically selected.

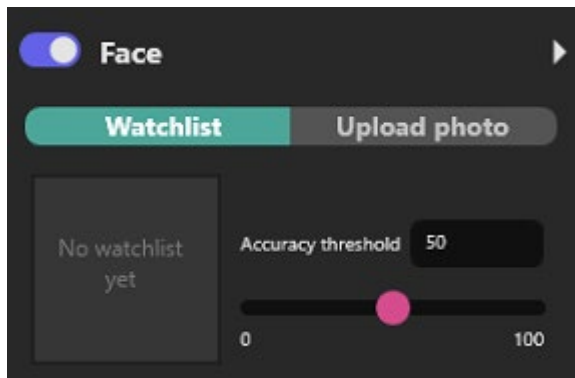
Note)

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.

Color to be searched	Similar color (The order is similar from the left)
Black	Gray
Brown	Gray, White
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

D. Face filter

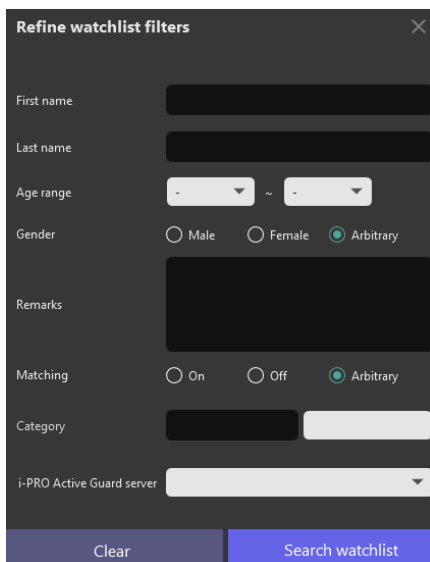
With the Face filter enabled, only the thumbnails are shown which AI Camera with face detection app detected. Also using filter panel, you can apply the search condition.



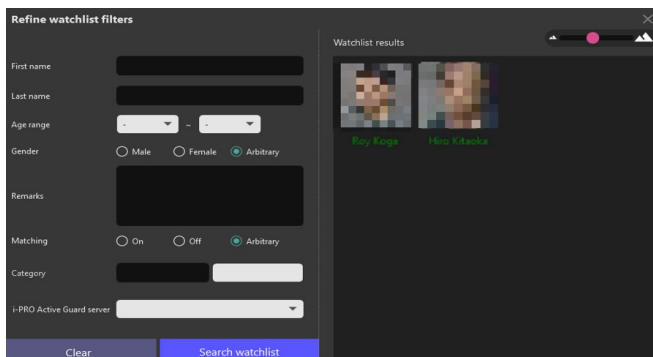
Watchlist

Select face from watchlist and search similar face.

Click [Search watchlist] with search conditions.



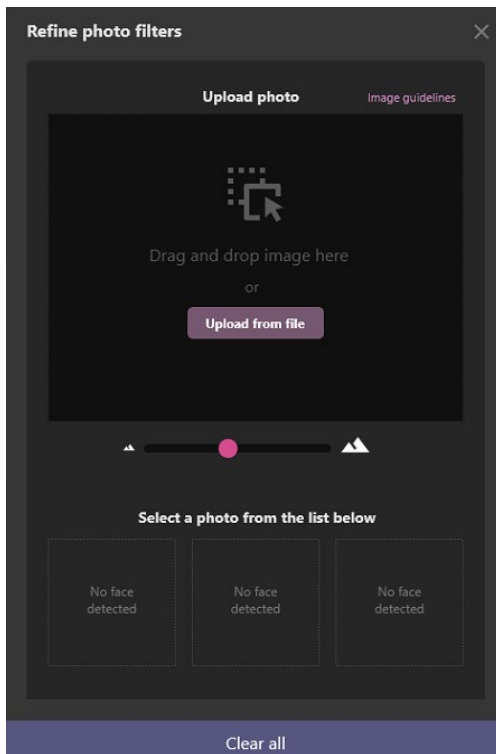
Select face from search result.



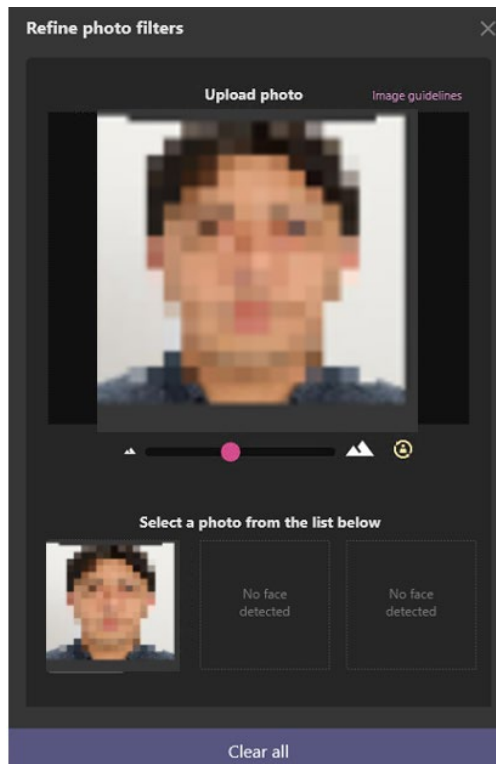
Upload photo

Upload image file that includes face and search similar faces.

Click icon or drag and drop the image file.

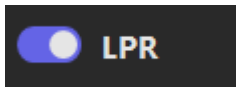


When face is detected from the image, selecte face and click OK.

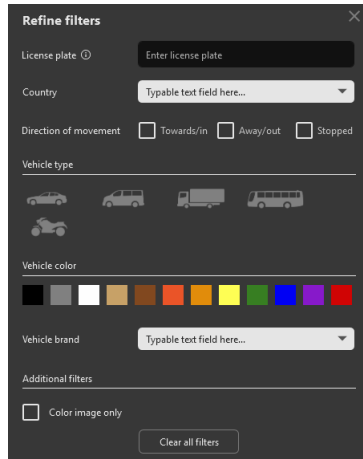


E. LPR filter

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
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."

*2 : Model is displayed after setting Brand.

2.2.1.3. About thumbnail detail pane

Selecting one of thumbnail search results, you can take various actions such as playback video, check analysis result and register the thumbnail to watchlist and so on. For additional information about playback controls, please refer to 2.3 PLAYBACK VIDEO CONTROL.



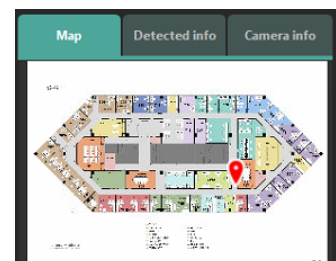
- Information

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

- A. Map

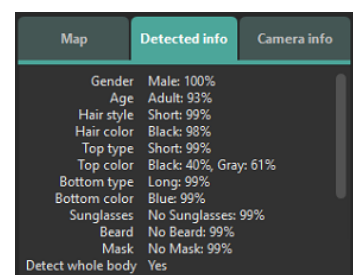
The camera which sent the thumbnail is displayed with map. You can see the camera location on map.

When you register or change the map on VMS, terminate plug-in and start again.



- B. Detected info

Analysis score information for each feature are displayed.



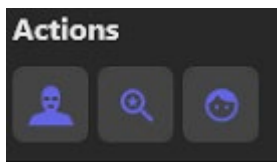
C. Camera info

Camera information is displayed.

Map	Detected info	Camera info
		Manufacturer: Panasonic
		Model: Panasonic WV-S2236L
		IPAddress: 192.168.0.31
		Camera name: Corridor3
		Server: Dev Meeting
		CameraID: 157441743
		WebAccess: 192.168.0.31

- Action buttons

This allows user quick operation such as search for similar characteristics by one click, register watchlists, and sharing other devices.



A. Search for similar characteristics

Quick search is provided to allow for an instant search to detect high score features, which is available for person or vehicle thumbnails.

Search for exactly similar characteristics (less false result)

Selectable when upper body in people image is recognized.

Search for similar images by searching for cameras that AI People detection is installed.

Search for exactly similar characteristics (less missing result)

In case of people, selectable when whole body in people image is recognized.

Search for similar images by searching for cameras that AI People detection is installed.

This is also applied for vehicle images.

Search for similar images by searching for cameras that AI Vehicle detection is installed.

Search for similar face

Selectable when face in people images is recognized.

This is also applied for face image.

Search for similar images by searching for cameras that AI Face detection is installed.

Search for license plate number


Selectable when license plate number in LPR image is recognized.

Search for similar images by searching for cameras that AI License plate detection is installed.

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

Note:

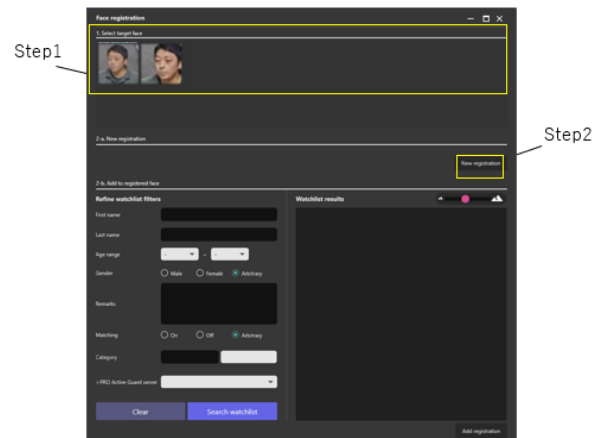
- Similar Search is not applied the Latest search condition in Saved filters.
-

B.  Save facial features to Registered facial detection

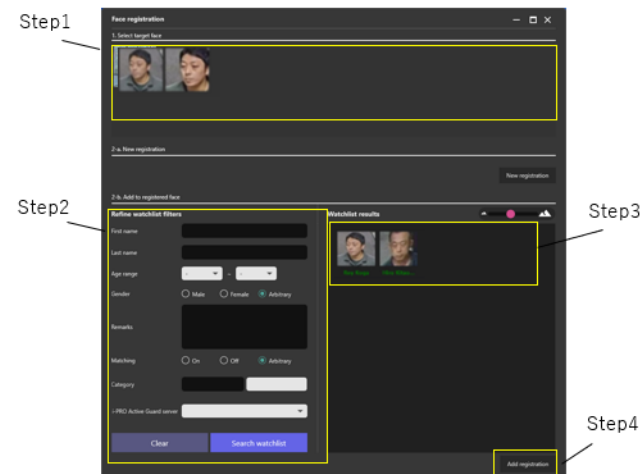
Register face image to watchlist. There are options either register detected face newly or add detected face to existing registered face.

In case of register as new face:

- Step1. Select one of detected faces.
- Step2. Click New registration button.
- Step3. Please follow to 2.4.1 Face Watchlist (Step2)


**In case of adding to existing registered face:**

- Step 1. Select one of detected faces.
- Step 2. Search existing registered faces by using filters. If not specify any filters, all registered faces are displayed.
- Step 3. Select one of searched faces.
- Step 4. Click Add registration button.
- Step 5. Please follow to 2.4.1 Face Watchlist (Step2)



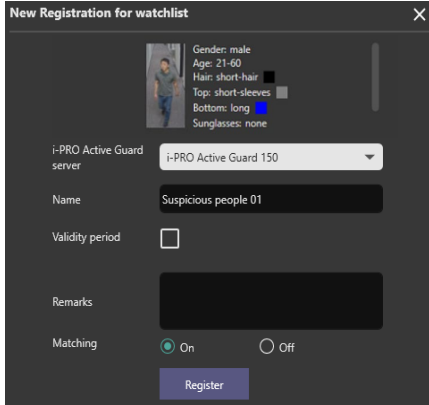
Note:

- Face can be registered up to 1,000.
 - Recommended with 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 watchlist. High score items are registered.

Some basic information can be entered from here.

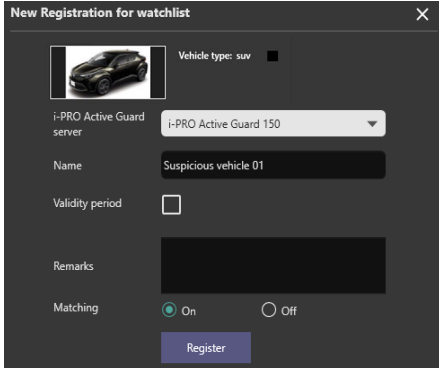


The screenshot shows a 'New Registration for watchlist' form for a person. It includes a profile picture, a list of characteristics (Gender: male, Age: 21-60, Hair: short-hair, Top: short-sleeves, Bottom: long, Sunglasses: none), a dropdown menu for 'i-PRO Active Guard server' set to 'i-PRO Active Guard 150', a text field for 'Name' with 'Suspicious people 01', a checkbox for 'Validity period', a text area for 'Remarks', and radio buttons for 'Matching' set to 'On'. A 'Register' button is at the bottom.

D.  Save vehicle's characteristics to Registered Vehicle detection

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

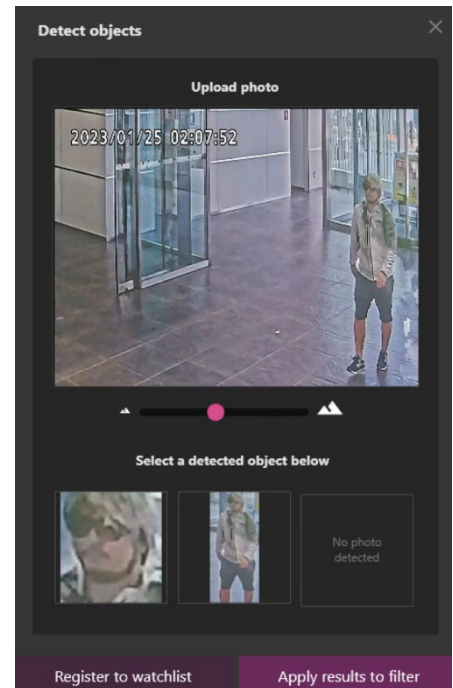
Some basic information can be entered from here.



The screenshot shows a 'New Registration for watchlist' form for a vehicle. It includes a vehicle image, a dropdown menu for 'Vehicle type' set to 'suv', a dropdown menu for 'i-PRO Active Guard server' set to 'i-PRO Active Guard 150', a text field for 'Name' with 'Suspicious vehicle 01', a checkbox for 'Validity period', a text area for 'Remarks', and radio buttons for 'Matching' set to 'On'. A 'Register' button is at the bottom.

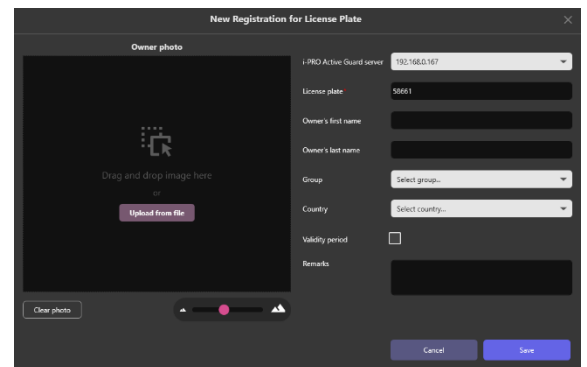
E.  Analysis

Detects faces, people, and vehicles from playback video. From the detected objects, you can register it to the watchlists or apply results to filter.









F.  Save license plate number to LPR detection

Register license plate, country, state are registered. Some basic information can be entered from here.



Action buttons can be utilized depending on type of objects.

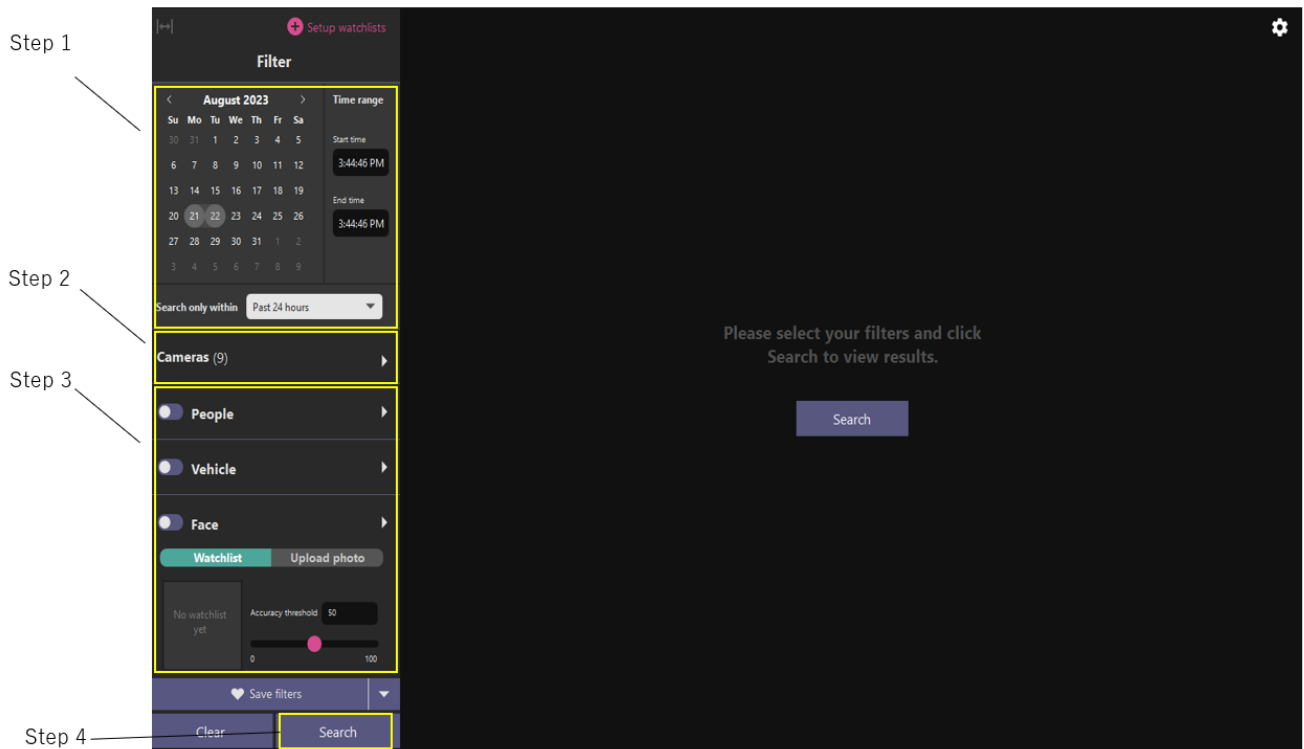
	Search for similar characteristics 	Save facial features to Registered facial detection 	Save person's characteristics to Registered Person detection 	Save vehicle's characteristics to Registered vehicle detection 	Save license plate number to LPR detection 	Detecting objects from video 
Face filter	Yes	Yes	No	No	No	Yes
People filter	Yes	Yes	Yes	No	No	Yes
Vehicle filter	Yes	No	No	Yes	No	Yes
LPR filter	Yes	No	No	No	Yes	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.

2.2.2. Thumbnail search

The following steps provide basic operation for using the thumbnail search. The search filter can find objects that you want to find out from a lot of recorded thumbnails. Then you can take next action such as playback the video, save the picture, and register to watchlist, etc.



Step 1

Specify the start time and end time for search objects.

Step 2

Select AI Cameras.

Step 3

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

Step 4










Click "Search."

2.3. PLAYBACK VIDEO CONTROL

When viewing video on a thumbnail/event detail pane, the following a set of video controls appear.



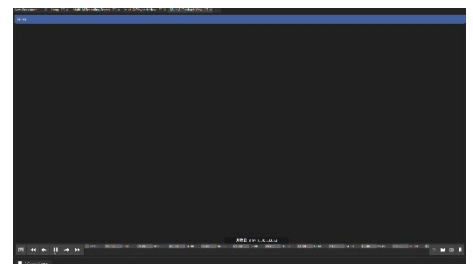
The video operation controls are described below.

		In pause mode, forward and backward navigation through each frame on the timeline.
		Fast playback or fast rewind the video recording.
		Play or pause the video recording.
		Open new workspace to playback video.
		Export video from selected the thumbnail.
		Take a snapshot and save as file or clipboard.

Digital zoom is possible by moving the mouse wheel on the image.

 View in New Workspace

It displays 1 camera view



2.4. SETTINGS

This section describes how to manage the watchlist and preferences.

To open these settings, click Set up watchlists button for Face watchlist, People watchlist, Vehicle watchlist, LPR watchlist or click settings icon for Preferences or Attribute Settings.



2.4.1. Face Watchlist

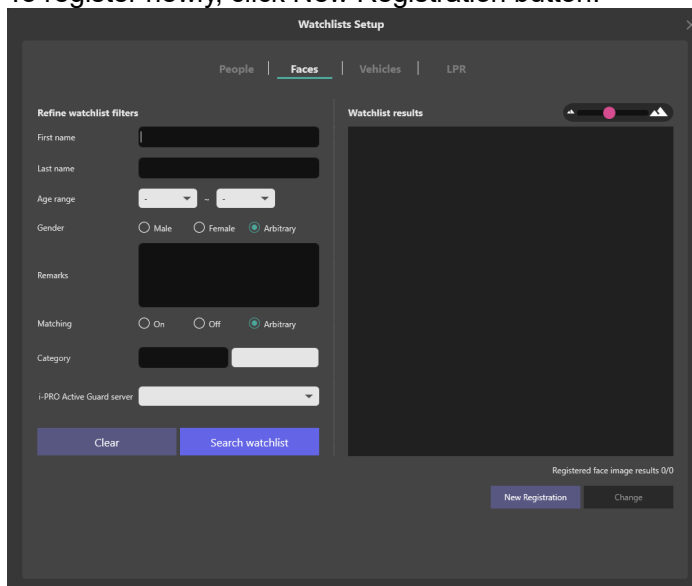
This section describes the operation of add, edit and delete.

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

- **Add Registration**


Step 1

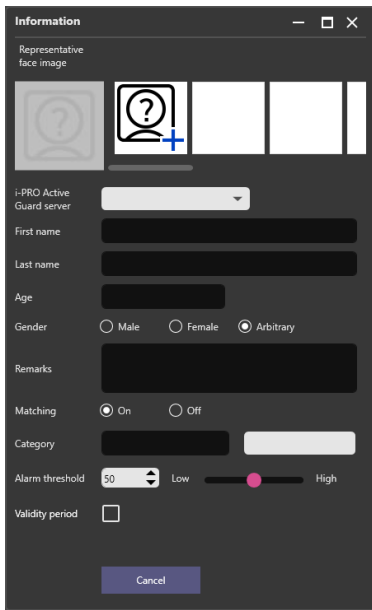
To register newly, click New Registration button.



Step 2

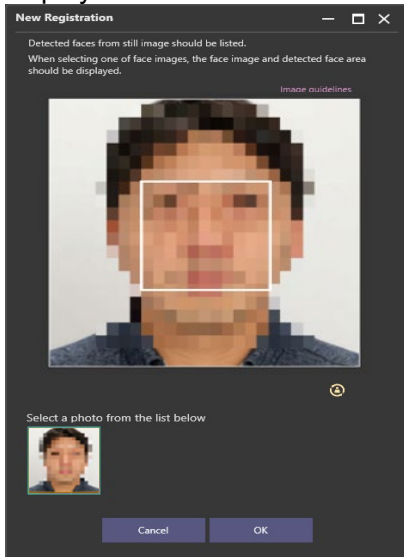
One face image must be registered at least.

Click  icon then select the file you want to use.

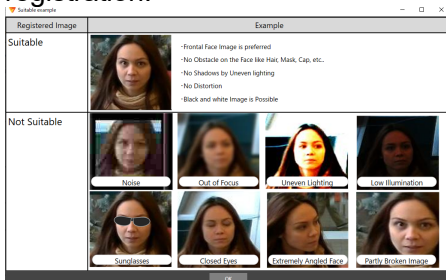


Step 3

Then analysing will begin and the detected faces are displayed. If there are some people on the file, all detected faces are displayed. Select a face (yellow area in below) then white frame will be displayed around the detected face.



By pressing the “Image guidelines” button, you can see a sample of face image quality suitable for registration.



Recommended width of face for registration is more than 75 pixel. When the selected face is under the value, message is shown.

Step 4

Input other information then click Save. i-PRO Active Guard server and First Name or Last Name is required.

The screenshot shows a dark-themed 'Information' dialog box with the following fields and controls:

- Representative face image:** A row of four images. The first two are face photos, the third is a question mark icon, and the fourth is a plus sign icon.
- i-PRO Active Guard server:** A dropdown menu.
- First name:** A text input field.
- Last name:** A text input field.
- Age:** A text input field.
- Gender:** Radio buttons for Male, Female, and Arbitrary (selected).
- Remarks:** A text input field.
- Matching:** Radio buttons for On (selected) and Off.
- Category:** Two text input fields.
- Alarm threshold:** A slider set to 50, with 'Low' and 'High' labels.
- Validity period:** A checkbox.
- Cancel:** A button at the bottom.

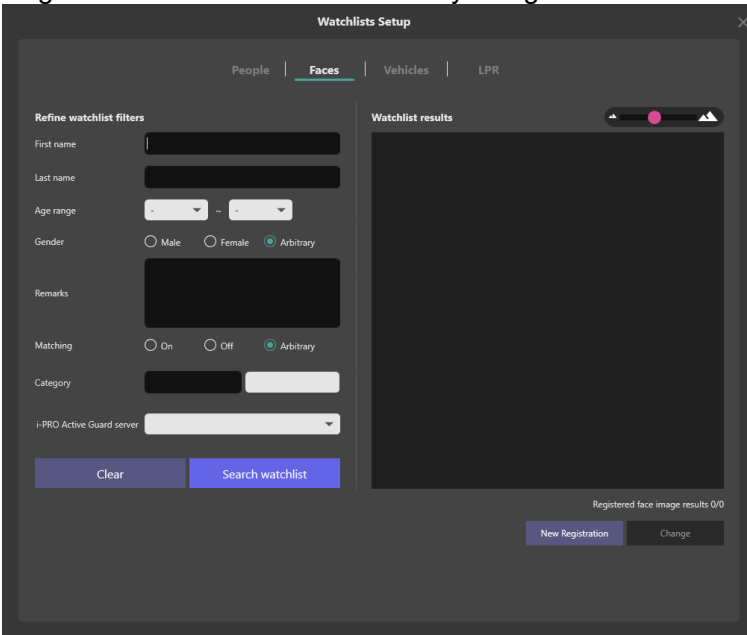
Note:

- The Matching enabled starts matching process.
 - The Alarm threshold low means missing faces will be decreased but false alarm may be increase. High means false alarm will be decreased but missing faces may be increased. It can be set for individual person. Please adjust according to your environment and registered face image.
 - 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**

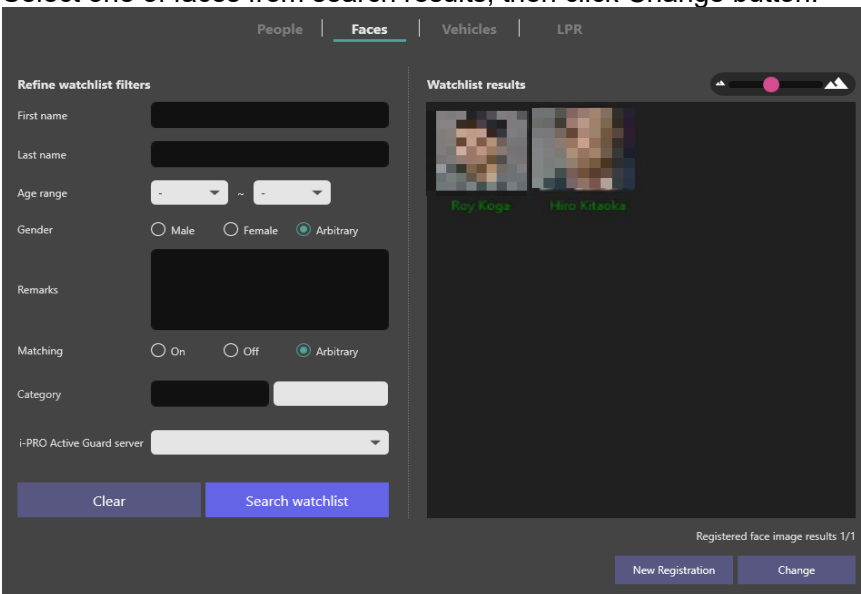
Step 1

First, find registered face you want to edit the information.
Registered faces can be searched by using filter.



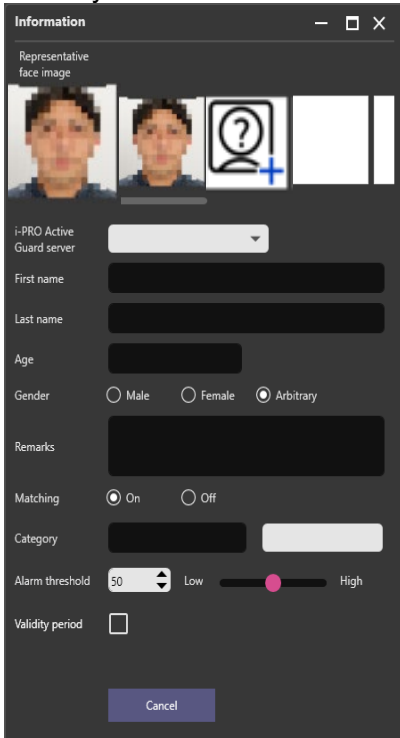
Step 2

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



Step 3

Edit any information then click Save.



The screenshot shows a dark-themed 'Information' dialog box with the following fields and controls:

- Representative face image:** A row of four images. The first two show a person's face, the third is a question mark icon, and the fourth is a plus sign icon.
- i-PRO Active Guard server:** A dropdown menu.
- First name:** A text input field.
- Last name:** A text input field.
- Age:** A text input field.
- Gender:** Radio buttons for Male, Female, and Arbitrary (selected).
- Remarks:** A text area.
- Matching:** Radio buttons for On (selected) and Off.
- Category:** Two text input fields.
- Alarm threshold:** A slider set to 50, with 'Low' and 'High' labels.
- Validity period:** A checkbox.
- Cancel:** A button at the bottom.

Note:

- The Matching enabled starts matching process.
 - The Alarm threshold low means missing faces will be decreased but false alarm may be increase. High means false alarm will be decreased but missing faces may be increased. It can be set for individual person. Please adjust according to your environment and registered face image.
 - 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.
-

● Delete Registration

To delete registered face, right click registered face then click Delete.

People | **Faces** | Vehicles | LPR

Refine watchlist filters

First name

Last name

Age range ~

Gender Male Female Arbitrary

Remarks

Matching On Off Arbitrary

Category

i-PRO Active Guard server

Watchlist results

Registered face image results 1/1

Enable matching
Disable matching
Delete

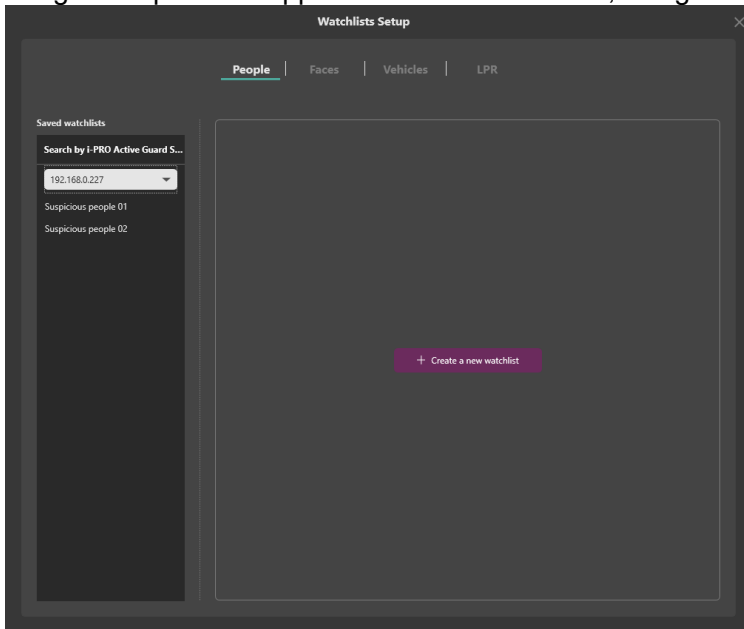
2.4.2. People Watchlist

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 people detection application then this function is not available.

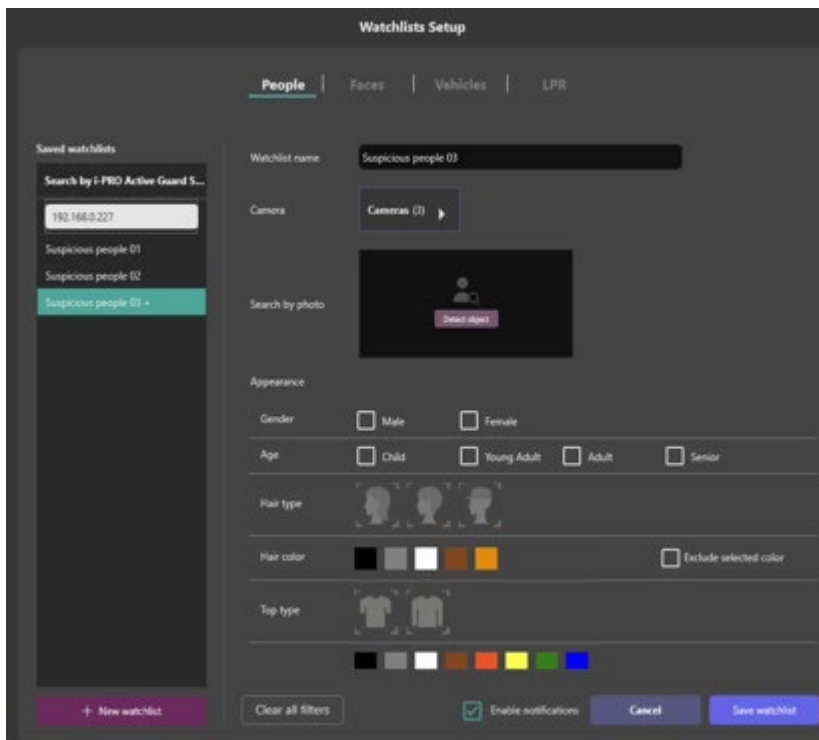
- **Add Registration(To manually select attributes)**

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.

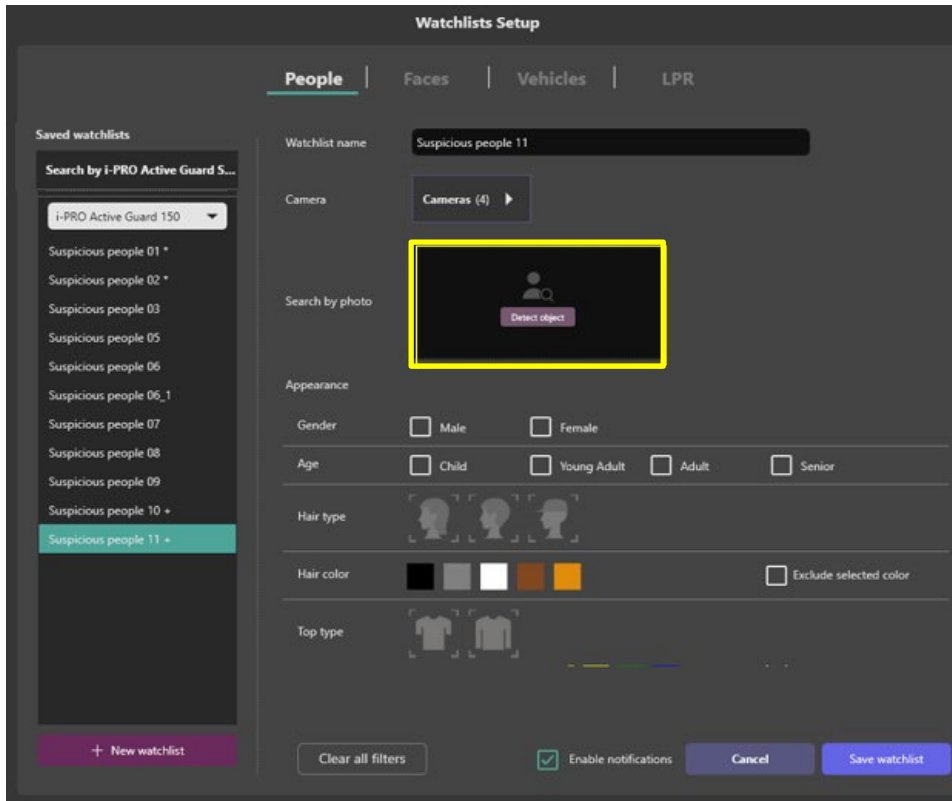
To add new item, click "+ Create a new watchlist" button then select appearance items.



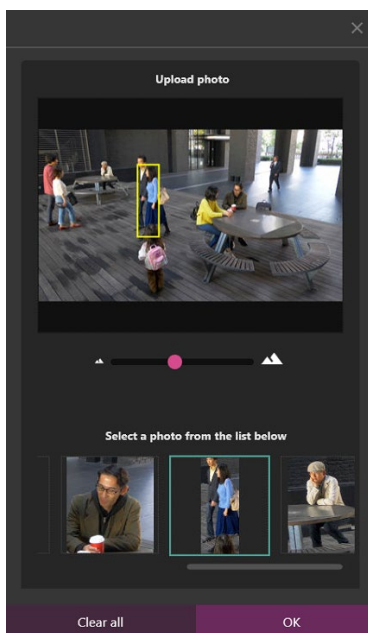
- **Add Registration(To select attributes from an image)**

This procedure automatically selects and registers attributes from an image.

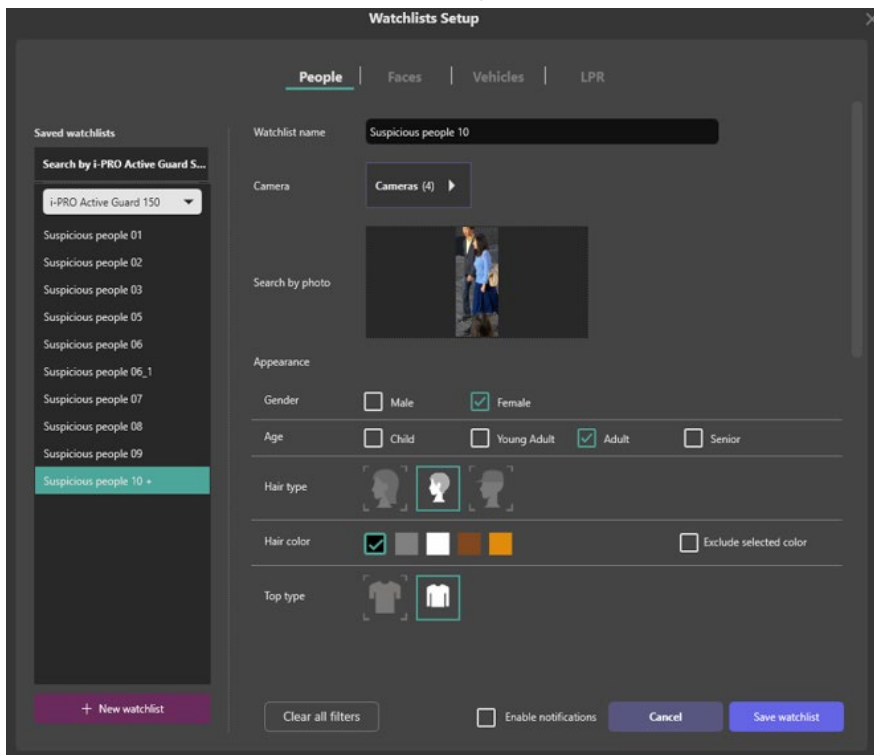
To select attributes from a people image, select the image to be registered from  icon.



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



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

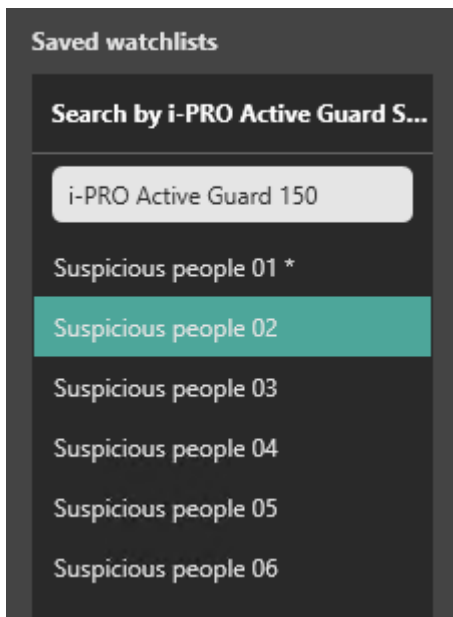


Note:

- Up to 12 people watchlist can be registered.
 - Basically, only one item can be selected from each category. This is because many items register would affect false positives.
Color specification except for bag color allows specifying multiple items.
 - 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.
 - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

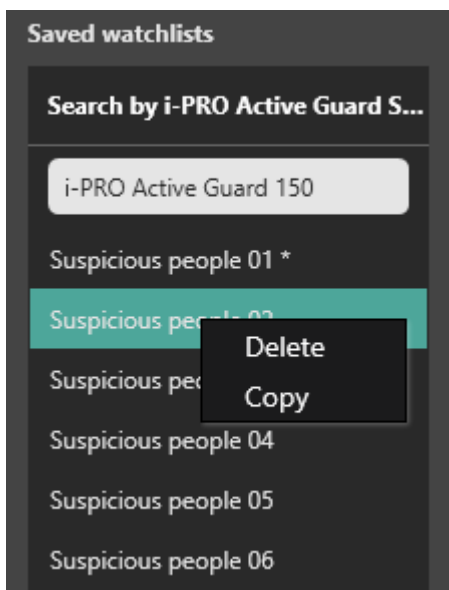
● Edit Registration

To edit a registered person's appearance, select one of registered item then change selected appearance item.



- **Delete Registration**

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



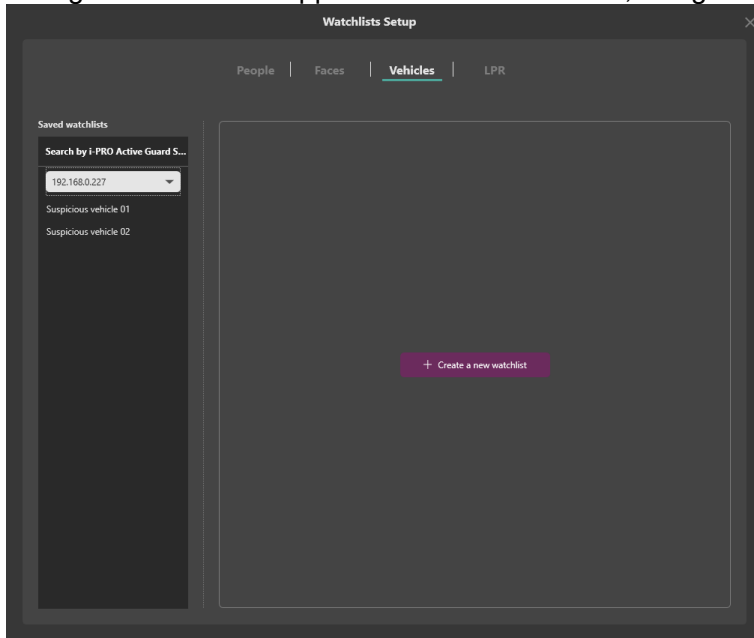
2.4.3. Vehicle Watchlist

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.

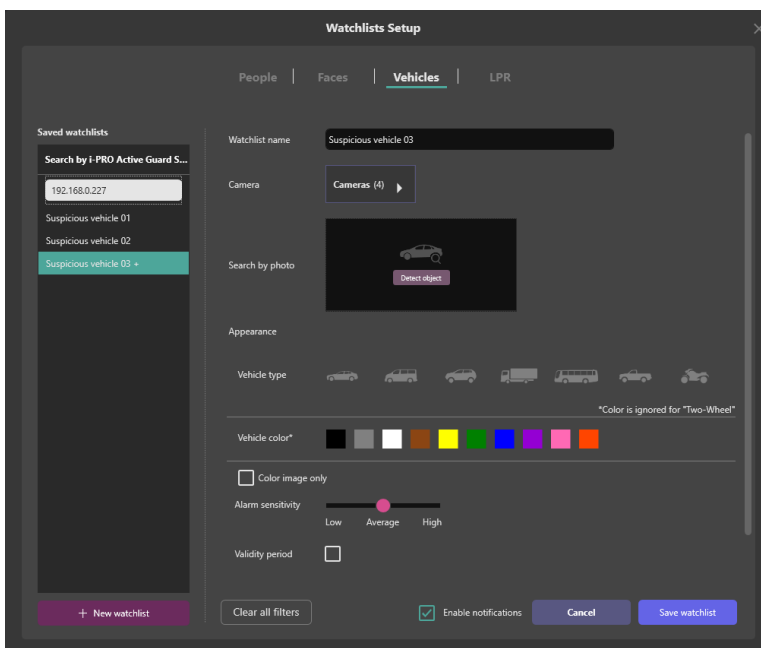
- **Add Registration(To manually select attributes)**

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.

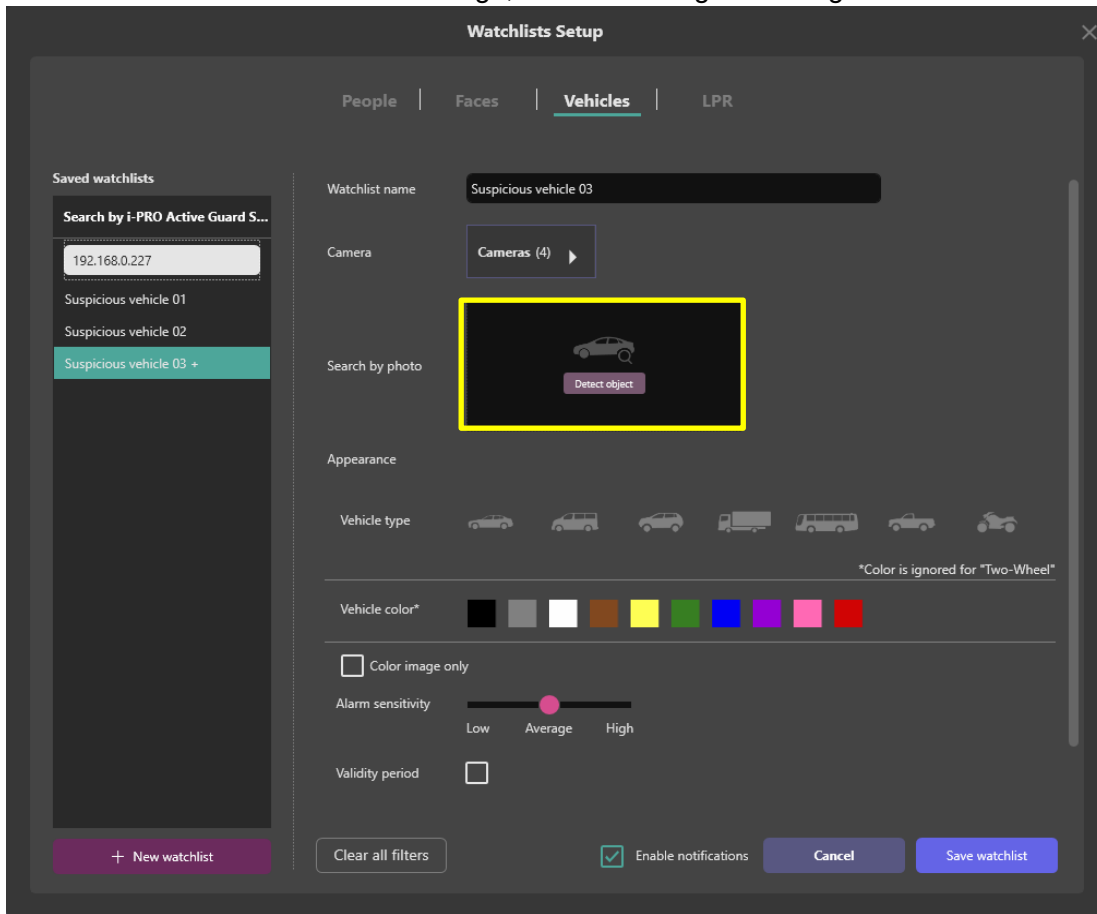
To add new item, click "+ Create a new watchlist" button then select appearance items.



- **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.



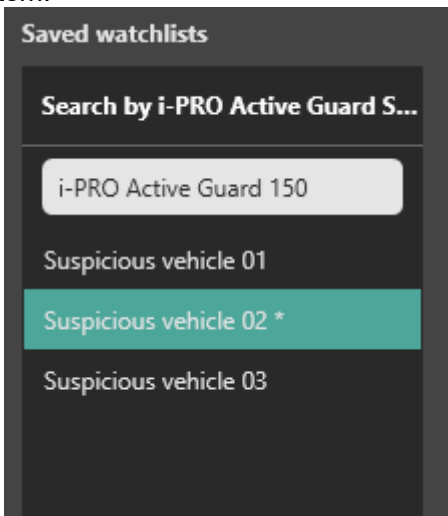
The following procedure is the same as when registering people watchlists, see 2.5.2.

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.
-

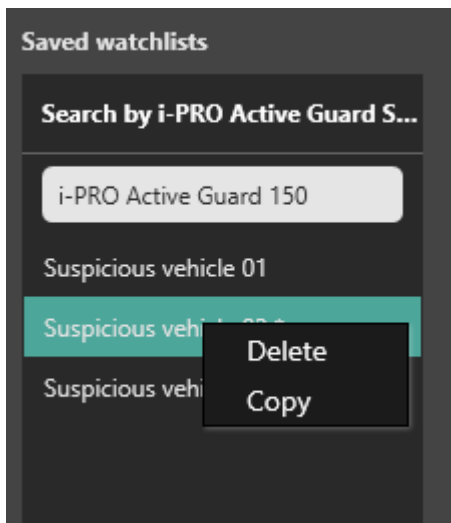
- **Edit Registration**

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.



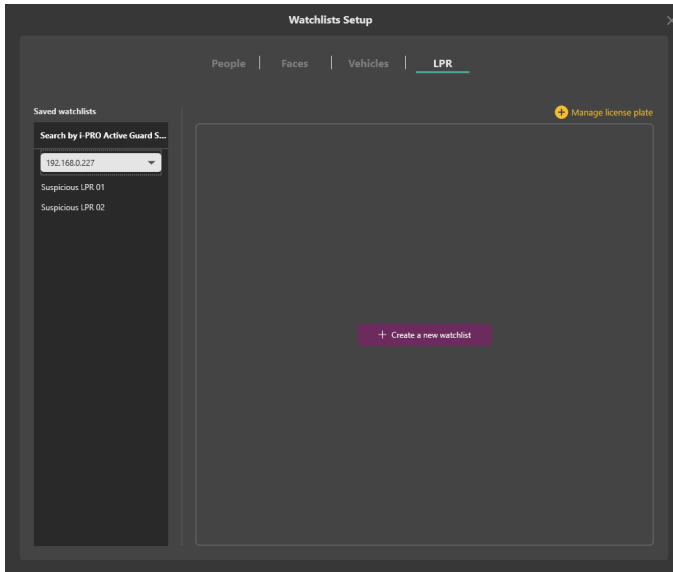
2.4.4. LPR Watchlist

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.

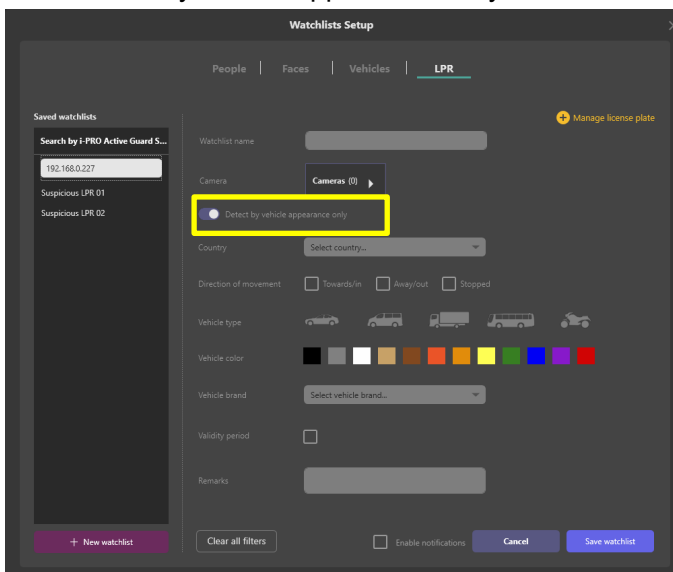


Registered items are listed on the left side or it uploads the vehicle's picture.

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.

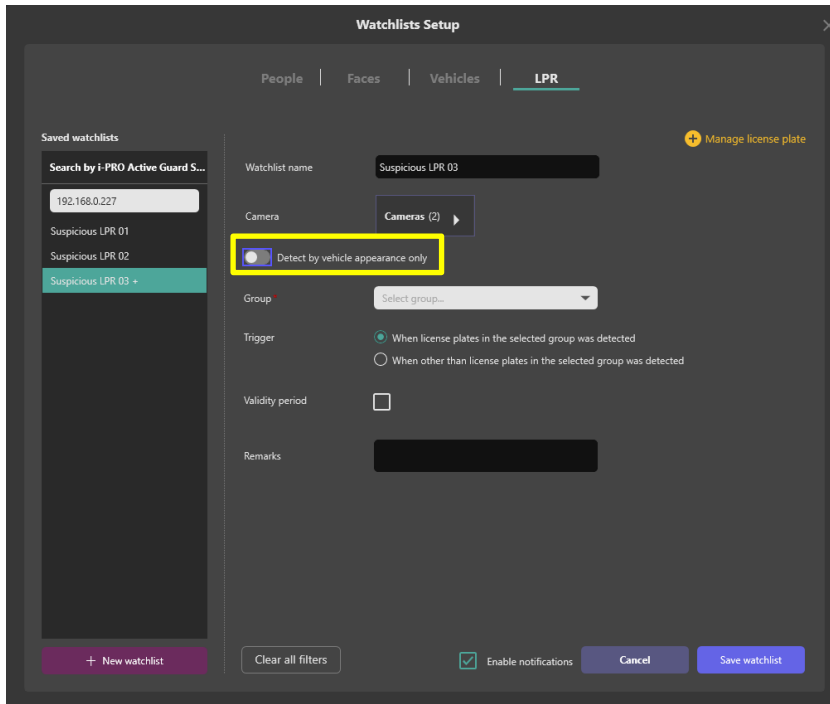
Note)

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 2.4.4.1.

About license plate, please see 2.4.4.2.



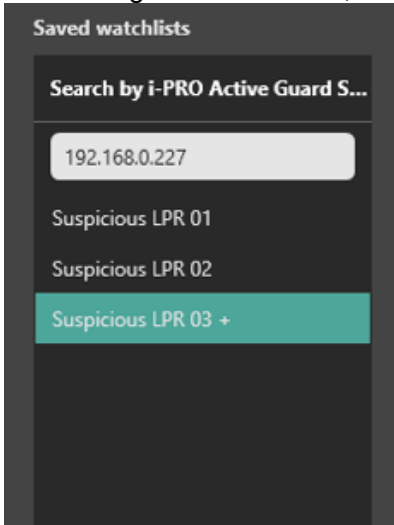
The following procedure is the same as when registering people watchlists, see 2.4.2.

Note:

- There is no limitation to the number of license plate and license plate group (*depending on the system design).
Up to 12 LPR 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.
-

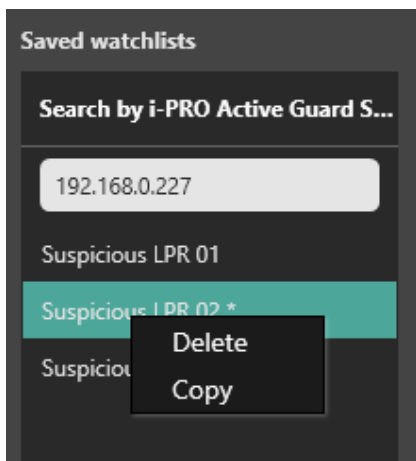
- **Edit Registration**

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



- **Delete Registration**

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

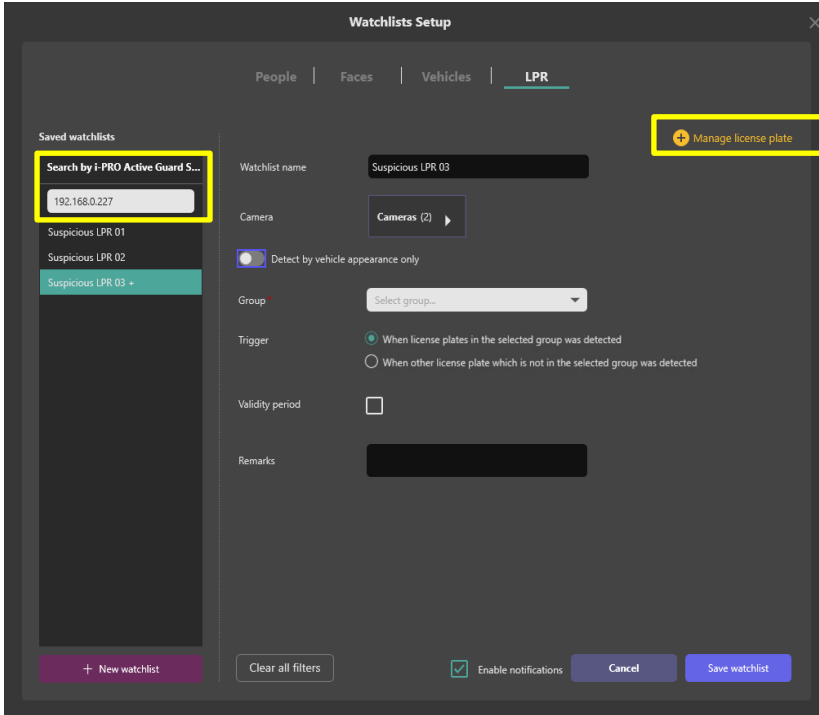


2.4.4.1. Manage License plate group

- **Add Registration**

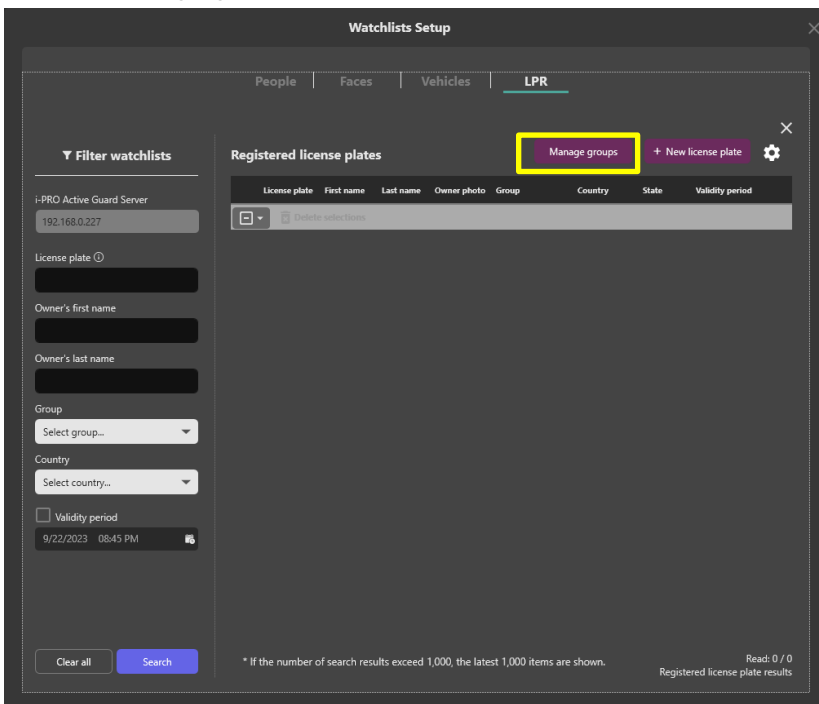
Step 1

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



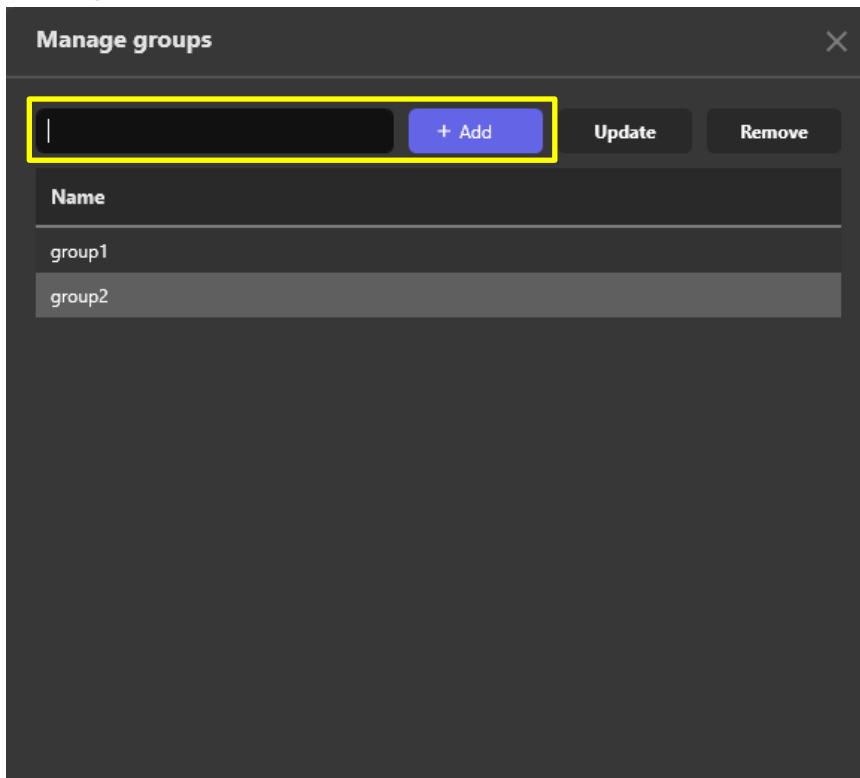
Step 2

Click “ Manage groups”



Step 3

Input group name, and "+ Add" button.

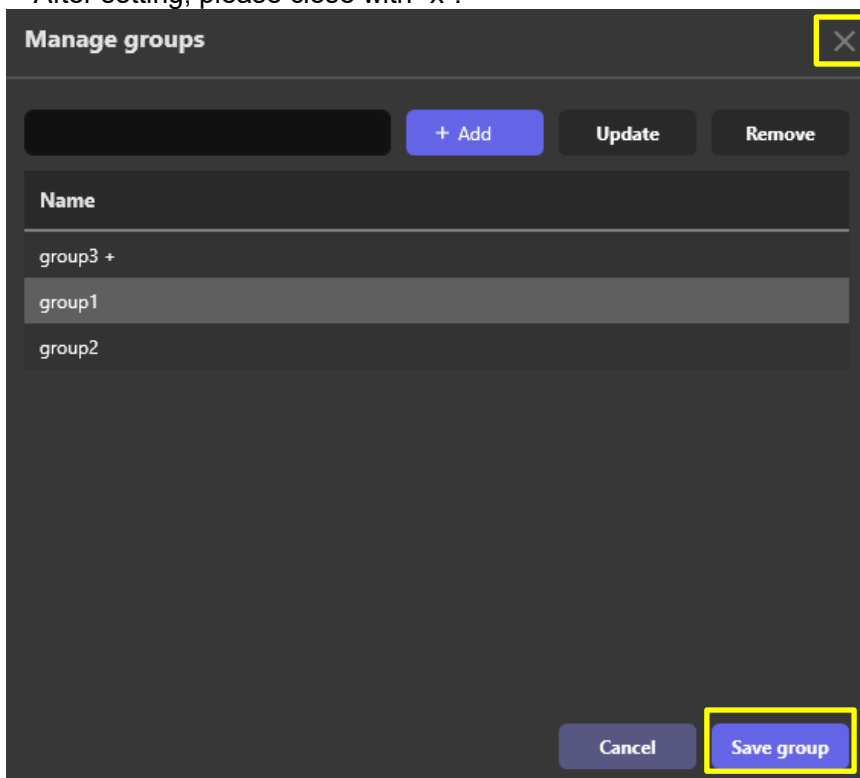


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field containing a vertical bar, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a section titled "Name" with 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 text input field now contains "group3 +". The "group1" item in the list is highlighted. At the bottom of the dialog, there are two buttons: "Cancel" and "Save group". The "Save group" button is highlighted with a yellow box. The close button (X) in the top right corner is also highlighted with 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

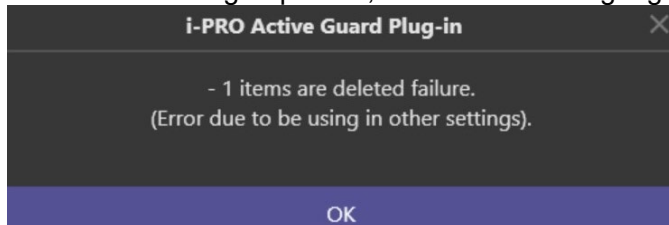
Select one of group name from list, then click Remove button.

Step 2

Click Save group button.

Note)

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



2.4.4.2. Manage License plate

- Add Registration(manual 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 and a list of watchlists: '192.168.0.227', 'Suspicious LPR 01', 'Suspicious LPR 02', and 'Suspicious LPR 03 +'. The 'Suspicious LPR 03 +' watchlist is selected. The main area shows the configuration for this watchlist: 'Watchlist name' is 'Suspicious LPR 03', 'Camera' is 'Cameras (2)', and 'Detect by vehicle appearance only' is checked. The 'Trigger' is set to 'When license plates in the selected group was detected'. At the bottom right, the '+ Manage license plate' button is highlighted with a yellow box.

Step 2

Click “+ New License plate.”

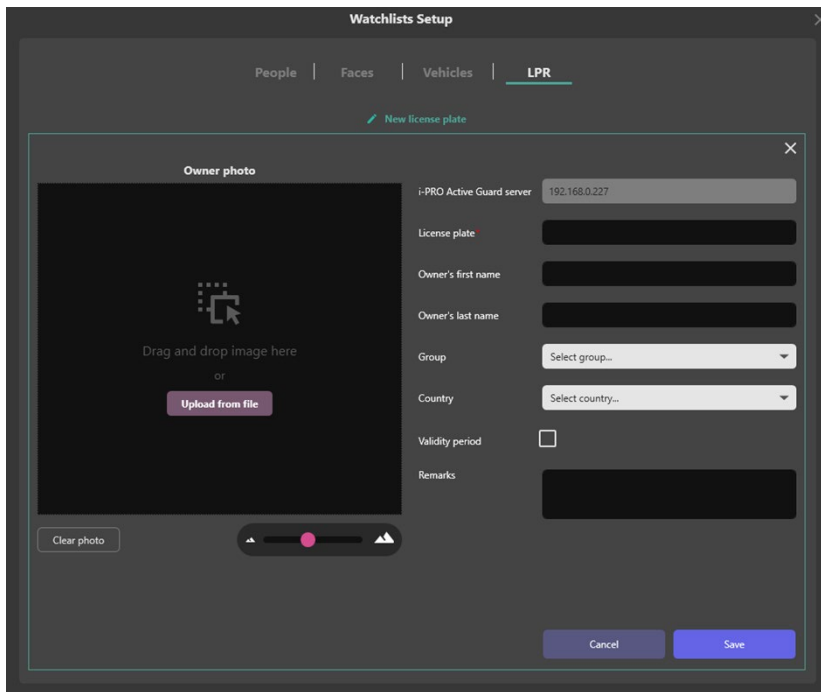
The screenshot shows the 'Watchlists Setup' interface with the 'LPR' tab selected. The 'Registered license plates' section is active, showing a table with columns: License plate, First name, Last name, Owner photo, Group, Country, State, and Validity period. The table is currently empty. On the left, there is a 'Filter watchlists' section with a search bar and a list of servers: 'i-PRO Active Guard Server' and '192.168.0.227'. Below this, there are input fields for 'License plate', 'Owner's first name', 'Owner's last name', 'Group', 'Country', and 'Validity period'. At the bottom right, the '+ New license plate' button is highlighted with a yellow box.

Step 3

Click “+ New License plate.”

Step 4

Input information then click Save. “License plate” is required.



The screenshot displays the 'Watchlists Setup' application window, specifically the 'LPR' (License Plate Recognition) configuration section. The interface is dark-themed and includes a navigation bar at the top with tabs for 'People', 'Faces', 'Vehicles', and 'LPR'. A green checkmark and the text 'New license plate' are visible above the main form area. The form is titled 'Owner photo' and contains several input fields: 'i-PRO Active Guard server' (with the value '192.168.0.227'), 'License plate' (a required field, indicated by a red asterisk), 'Owner's first name', 'Owner's last name', 'Group' (a dropdown menu with 'Select group...' selected), 'Country' (a dropdown menu with 'Select country...' selected), 'Validity period' (a checkbox that is currently unchecked), and 'Remarks'. Below the photo upload area, there is a 'Clear photo' button and a slider control. At the bottom right of the form, there are 'Cancel' and 'Save' buttons.


Note:

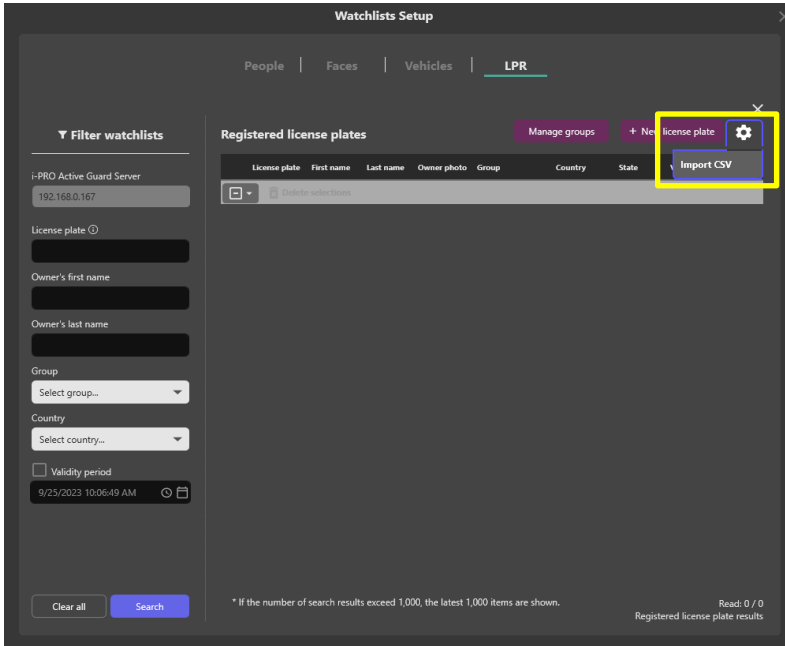
- In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this person.
-

- **Add Registration (CSV import)**

Register using Import the CSV file output by VI LPR plug-in.
License Plate, First Name and Last Name 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.

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

※Only License Plate, First Name and Last Name are registered for i-PRO Active Guard Server.

● Edit Registration

Step 1

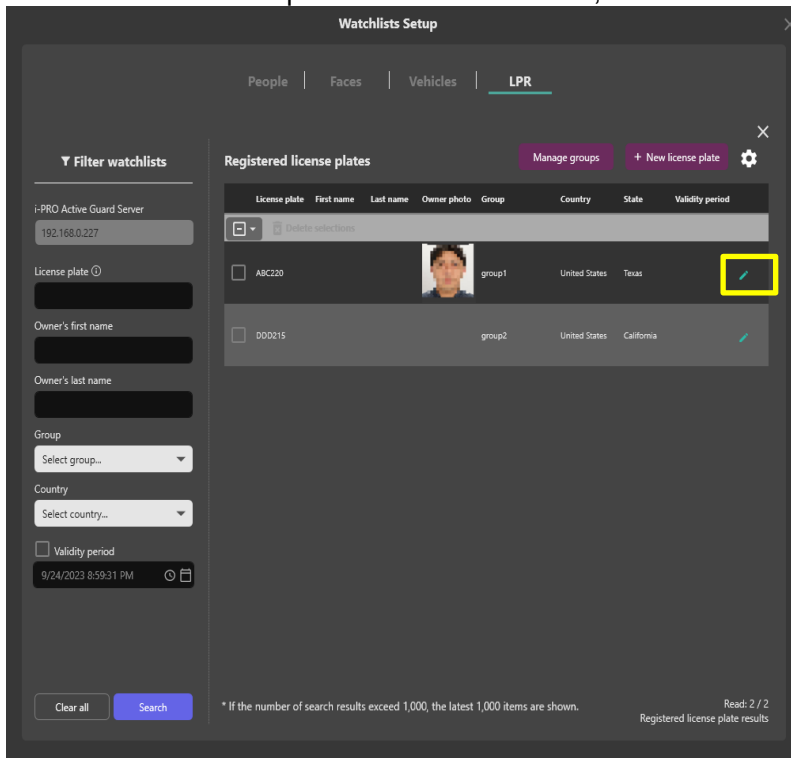
First, find registered license plate you want to edit the information. Registered license plate can be searched by using filter.

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. The left sidebar contains filter options for 'i-PRO Active Guard Server', 'License plate', 'Owner's first name', 'Owner's last 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 license plate ABC220 (Texas) and one for D00215 (California). A yellow box highlights the pencil icon next to 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	

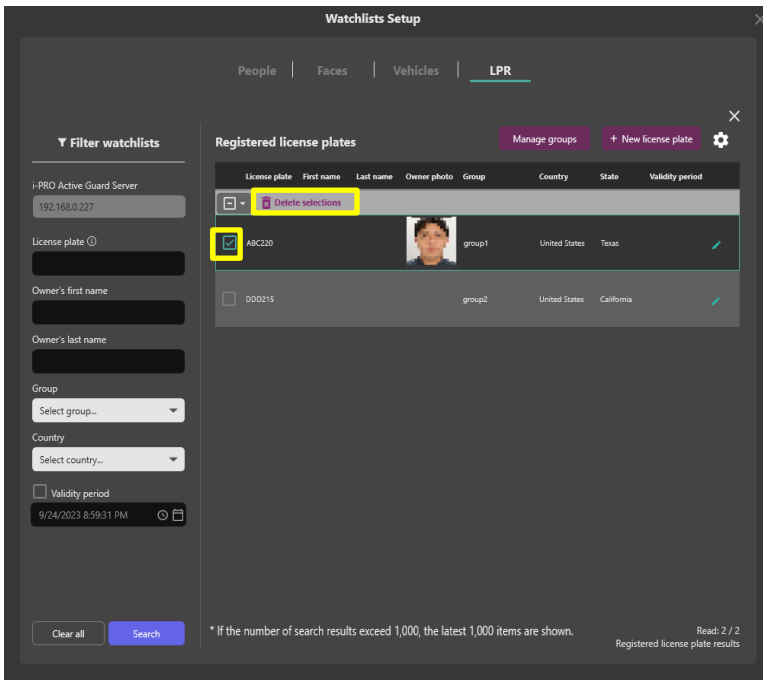
Step 3

Edit any information then click Save.

- **Delete Registration**

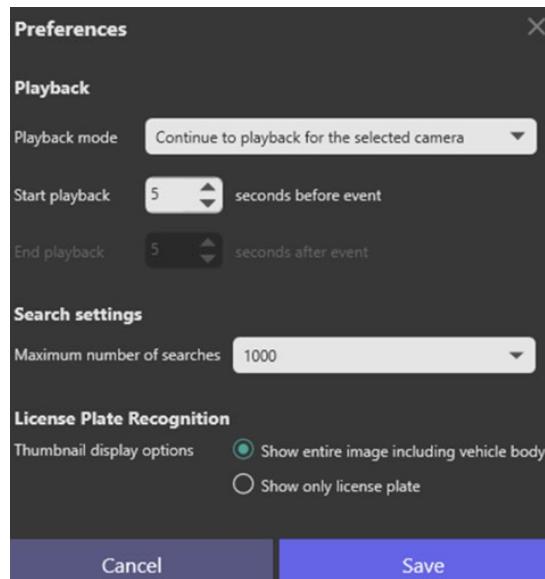
Step 1

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



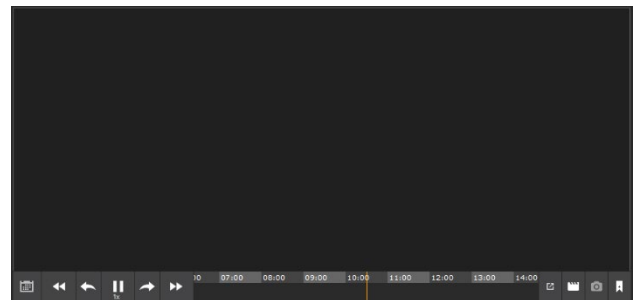
2.4.5. Preferences

Preferences provides some option settings such as playback video mode and so on.



A. Playback

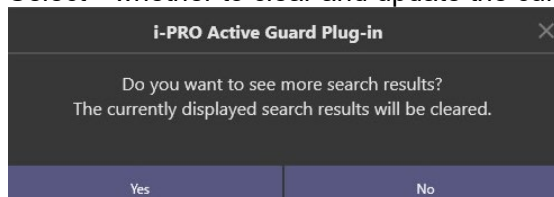
You can select continue to playback mode or repeat playback mode. When using repeat playback mode, it needs to set up Start playback and End playback.



B. Search setting

You can select maximum number of searches from 1000 to 5000.

After the maximum number is reached, below message will be displayed. Select whether to clear and update the currently displayed search results or keep current display.



C. License Plate Recognition

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

2.4.6. Attribute Settings

Attribute Settings provide settings to visibility of attributes.

Unchecked attributes will be hidden in filter and watchlist settings.

Attribute Settings

People

- Gender
- Age
- Hair
- Top
- Bottom
- Sunglasses
- Beard
- Mask
- Bag
- Shoes
- Moving Direction

Faces

- Age
- Gender

Vehicles

- Vehicle type
- Vehicle color
- Moving Direction

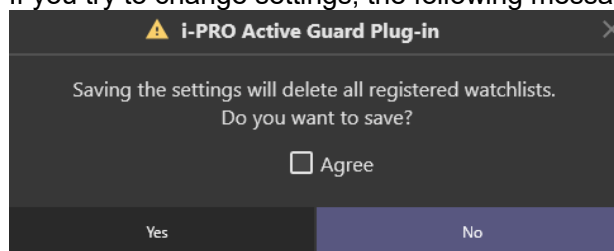
LPR

- Country/State
- Moving Direction
- Vehicle type
- Vehicle color
- Brand/Model
- Owner's name/photo

Default settings Cancel Save

Note:

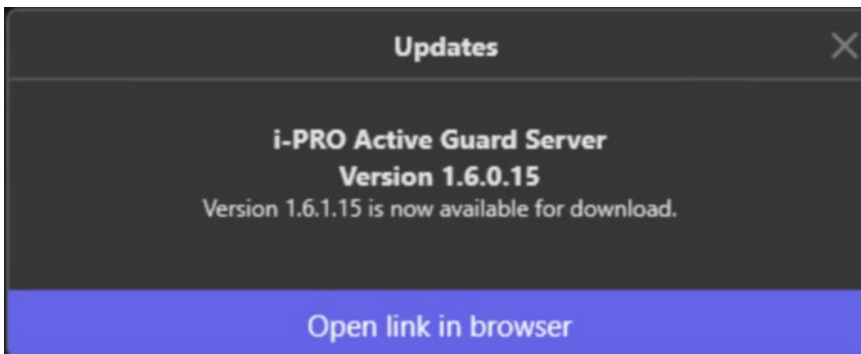
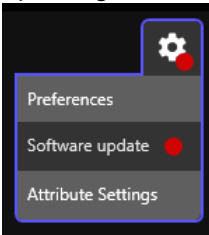
- Other than faces setting cannot be changed if watchlists is already registered. If you try to change settings, the following message.



When multiple i-PRO Active Guard servers are registered in Plug-in, watchlists will be deleted from all registered servers.

2.4.7. Software updates

A notification and pop-up will appear as follows when the currently used Sever or Plug-in is available for updating.



Note:

- [Software update] will not appear in environments without an Internet connection.
-

3. TROUBLESHOOTING

Before asking for repairs, check the symptoms with the following table.

Contact your dealer if a problem cannot be solved even after checking and trying the solution in the table or a problem is not described below.

Symptom	Cause/solution
Face, People or Vehicle images cannot be searched (the number of search result is 0).	Check if schedule setting on camera side for extension software is on. Receiving status from each cameras can be confirmed from i-PRO Active Guard configuration (see Setup instruction manual).
False detection (Not face, people or vehicle is searched)	To avoid false detection, configure mask area using iCT (i-PRO Configuration Tool).
Playback time is incorrect.	Check if PC time of i-PRO Active Guard server and VMS server are synchronized when i-PRO Active Guard server is installed to dedicated server. Also check if time zone setting of VMS server and VMS client are the same.
Detected thumbnail is not attached with alarm.	Detected image will be shown when 1920x1080 or smaller resolution is set for JPEG (2) on camera setting. When higher resolution is set or JPEG (2) is not available, detected image may not be shown.
Failed to register Face	If there are no margin around face image, it may increase encountering failure.
Displaying video is being corrupted.	If you use 4K or more resolution display, change display resolution to 1920 x 1080.
When access the Web setting page after a certain period of time, "A timeout has occurred." is displayed.	For security protection, if you do not operate for a while with the WEB setting page, a timeout will occur and you will not be able to change the settings. In such a case, close the web browser, access it again, and enter the authentication information.
False alarm of face matching.	Please adjust "Alarm threshold" according to your environment and registered face image.
Saved filters don't work correctly after upgrade	Please reset your filters, After upgrading from V1.60 or earlier to V1.70 or later, "Color image only" of the saved filters may not work correctly.
Edit or delete license plate group is fail	Please make sure the target group is not in your LPR watchlists.
The display of Web setting page is misaligned.	Please try clearing the cache in your web browser, and close the web browser, access it again.

4. Appendices

4.1. Specifications

Please refer to the following URL for details on specifications.

https://i-pro.com/products_and_solutions/en/surveillance/documentation-database/i-pro-ai-applications-spec-sheet-us

5. OPEN-SOURCE SOFTWARE

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[Newtonsoft.Json]

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