



# **Operating Instructions**

## **i-PRO Active Guard Plug-in for Video Insight**



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# **1. INTRODUCTION**

## **1.1. FEATURES**

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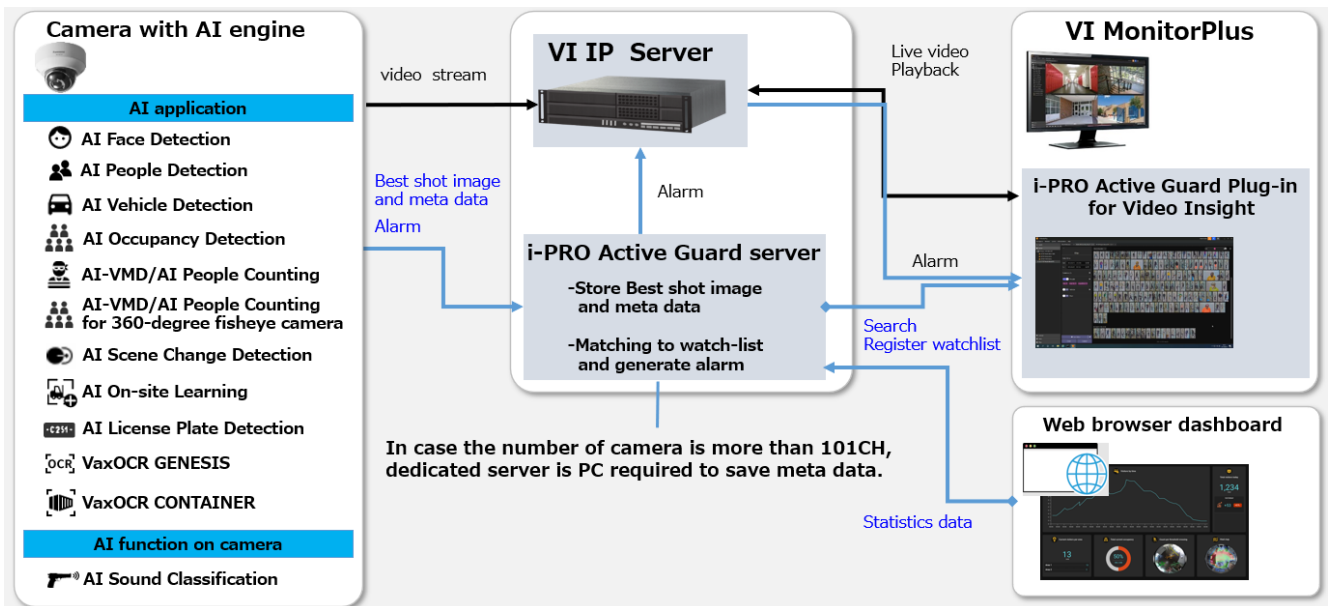
## 1.2. PREFACE

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

This operating manual is for 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 VI IP server and transmit Best shot images and meta data to i-PRO Active Guard server.

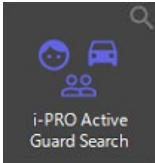
i-PRO Active Guard server stores those data and also generate alarm when face, people, vehicle, license plate, code or container code is matched to watchlist.

i-PRO Active Guard Plug-in (hereinafter referred to as "Plug-in") which is the plug-in software for VI MonitorPlus 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

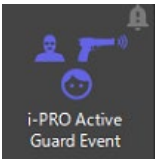
## 2.1. STARTUP AND TERMINATE PLUG-IN

Plug-in has two functions as below.



### i-PRO Active Guard Search

By using various features, enables to search Best shots of objects such as people, face, and vehicle that AI camera recognize.



### i-PRO Active Guard Event

Enable to monitor live events that AI cameras recognize. Detected past events can be searched.

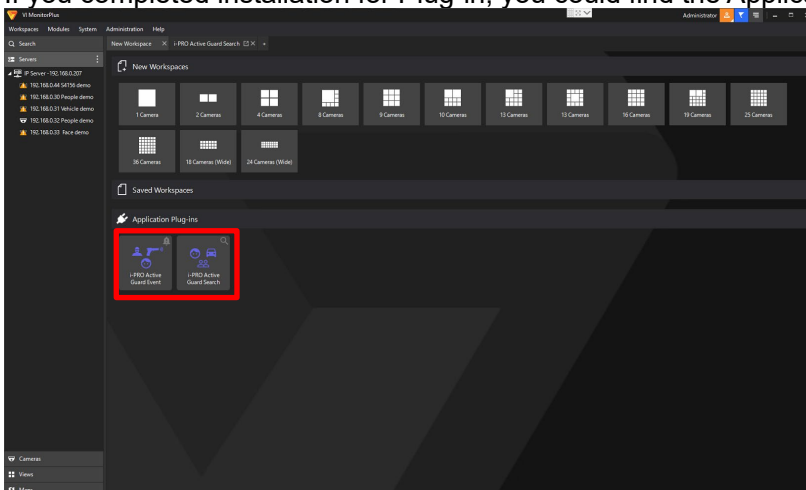
### 2.1.1. Start-up plug-in

To open plug-in, start-up VI MonitorPlus and log in first.

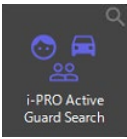
For more detail about VI MonitorPlus, refer to the VI MonitorPlus user manual.



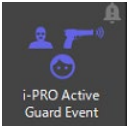
If you completed installation for Plug-in, you could find the Application Plug-ins as below.



To start-up i-PRO Active Guard Search, click the plug-in icon.

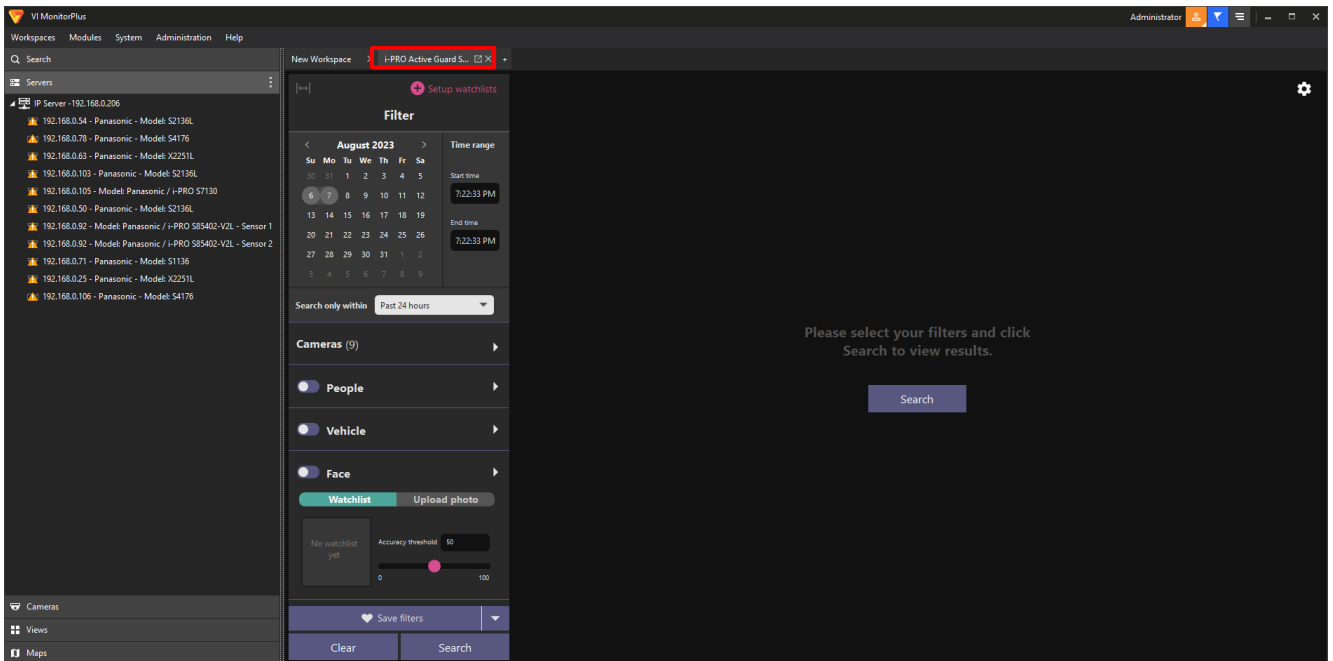


To start-up i-PRO Active Guard Event, click the plug-in icon.



## 2.1.2. Terminate plug-in

To terminate i-PRO Active Guard Search or i-PRO Active Guard Event, just close the workspace.



## 2.2. SEARCH DETECTED OBJECTS

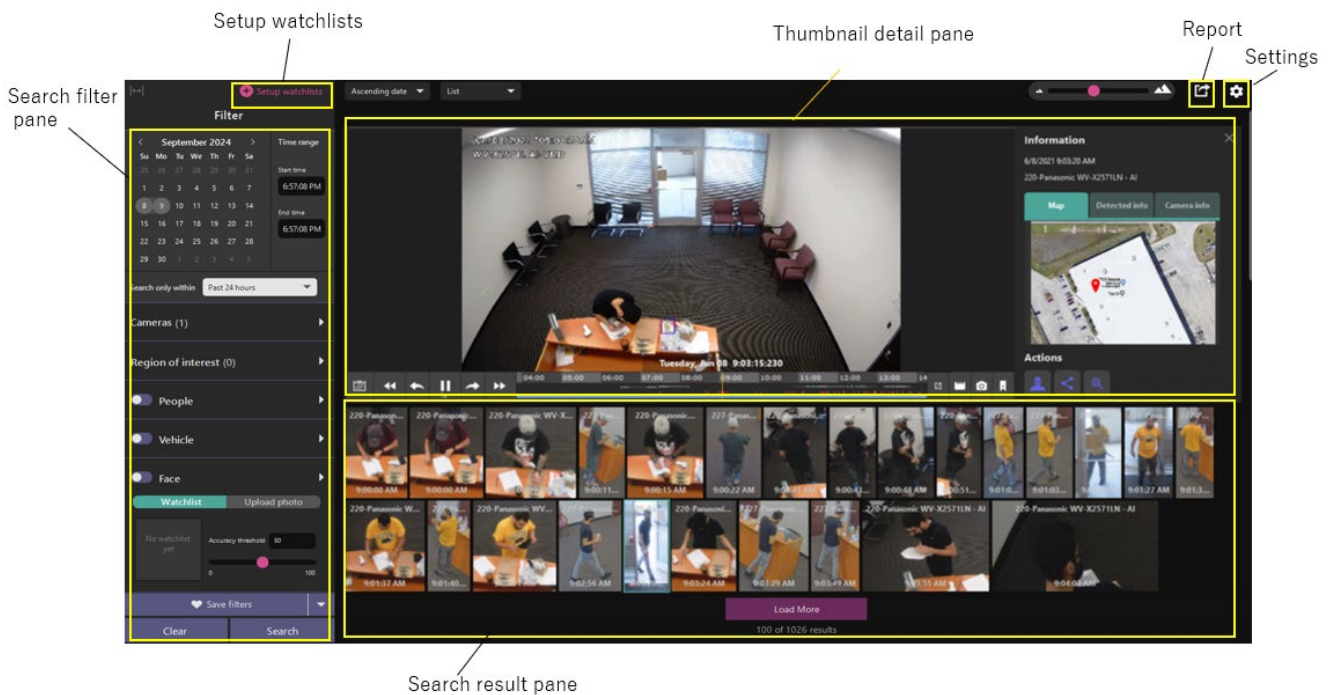
Using i-PRO Active Guard Search, you can quickly find thumbnails of AI Camera detected objects including person, vehicle, and face.

### 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.
	Region of interest	Specify areas for search object. * Only Faces, People, and Vehicles support combined searches.
	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 and features such as type, color, etc. of license plate.
	OCR filter	Specify OCR Code.
	Container filter	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 pane	Sort	Sort search results by descending, ascending and analysis score.
	Display mode	List or Timeline can be changed for result. * Timelines are supported only if there is one type of search filter.
	Zoom in/out	Zoom in and out thumbnail results area.
	Detected thumbnail	Click and open thumbnail detail pane. Right click and save the thumbnail as picture or video clip. Up to 10 thumbnails can be selectable at the same time by using "Ctrl" or "Shift."
	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	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.
Report	Export HTML	Export search result as HTML.
Settings	Preferences	Setup some environments for playback, event monitor etc.
	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.

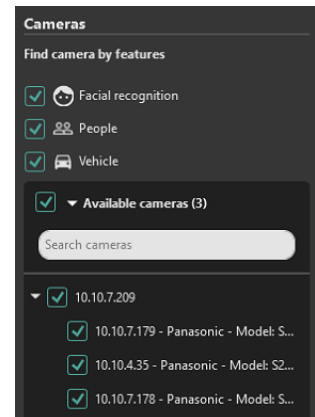
## 2.2.1.2. About search filters

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 Instructions for Video Insight.pdf*

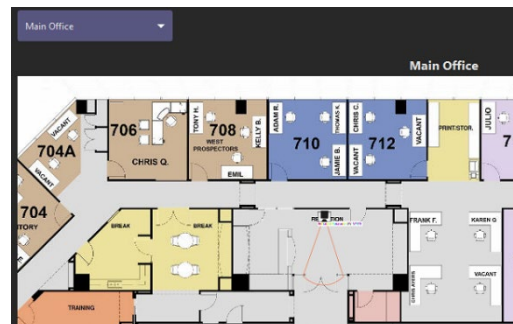
### A. Camera filter

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 or encircle cameras by dragging your mouse. 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.

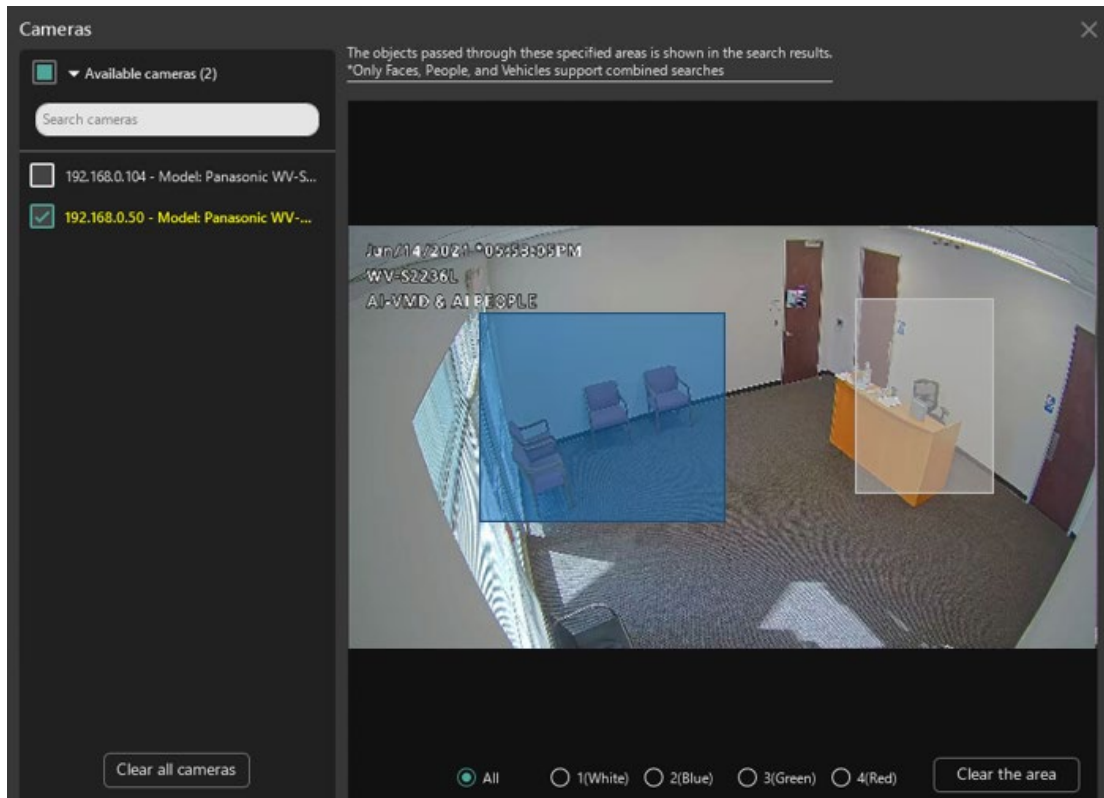


## B. Region of interest filter

With the Region of interest filter enabled, only thumbnails of the specified area will be displayed.  
\* Only Faces, People, and Vehicles support combined searches.

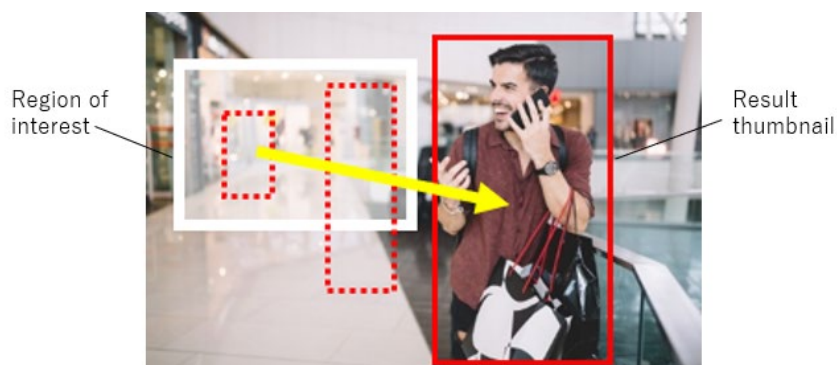
Select the camera to search from the list of available cameras and specify the area by mouse drag on the displayed image.

Up to 4 areas can be specified for each camera.  
To delete the area, press the "Clear the area" button.



### Note:

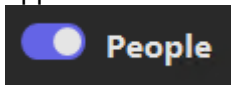
- The thumbnail of the search result is the clearest image of the detection target while he is moving in the view angle. They may not be images within the area specified in this setting.



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

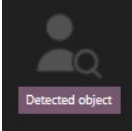
## C. People filter

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.



<b>Features and controls</b>	<b>Description</b>
	Uploading people picture If picture is uploaded, features are automatically detected.
<b>Gender</b>	Male, Female
<b>Age</b>	Child (0~10), Young Adult (11~20), Adult (21~60), Senior (61+)
<b>Hair type</b>	Long-hair, Short-hair, Hat
<b>Hair color</b>	Black, Gray, White, Brown, Gold
<b>Top type</b>	Short-sleeves, Long-sleeves
<b>Top color</b>	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
<b>Bottom type</b>	Long, Short
<b>Bottom color</b>	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
<b>Sunglasses</b>	Sunglasses, No Glasses
<b>Beard</b>	Beard, No Beard
<b>Mask</b>	Mask, No Mask
<b>Bag</b>	Bag, No Bag
<b>Bag color</b>	Black, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
<b>Shoes color</b>	Black, White, Brown, Yellow, Green, Blue, Red
<b>Moving Direction</b>	Up, Up right, Right, Down right, Down, Down left, Left, Up left
<b>Additional filters</b>	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.
<b>Threshold</b>	There are Low, Average and High.
<b>Exclude searched color</b>	If this is selected, the color will exclude from search results.
<b>Include similar color</b>	If this selected, the color similar to the specified color will be automatically selected.

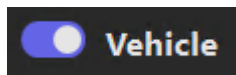
Note)

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.

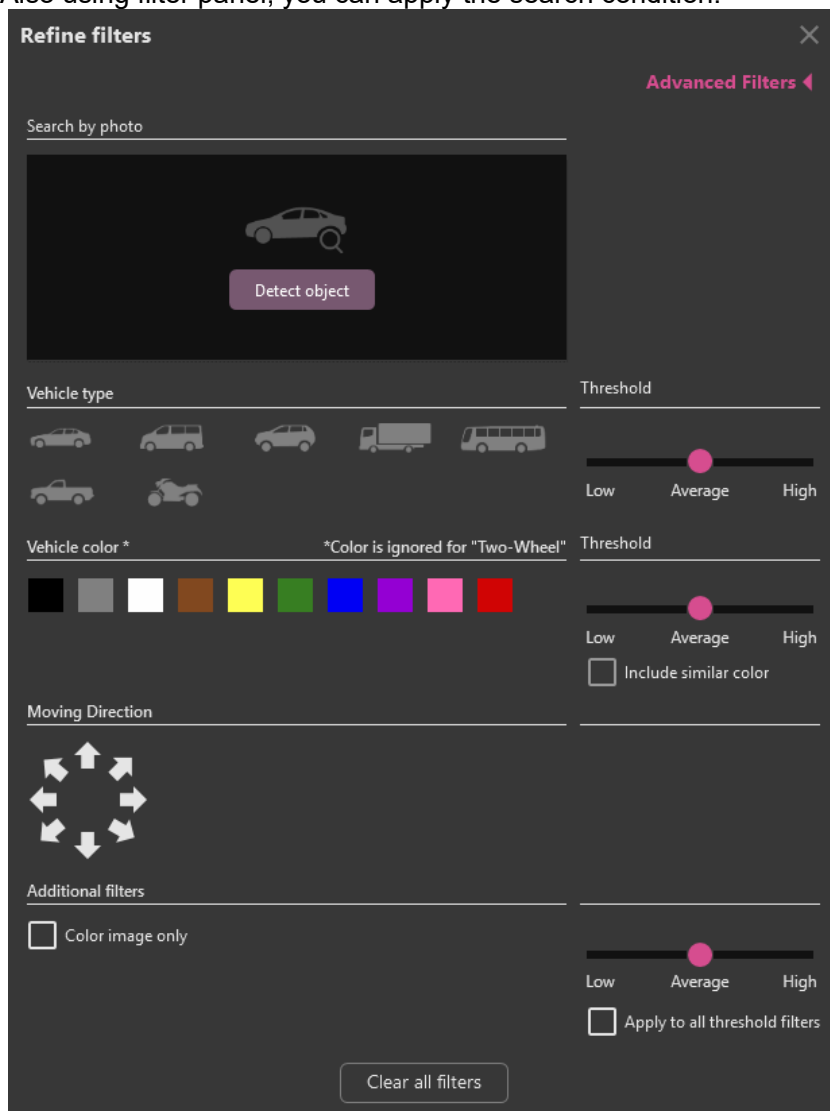
<b>Color to be searched</b>	<b>Similar color (The order is similar from the left)</b>
<b>Black</b>	Gray
<b>Brown</b>	White, Yellow, Orange
<b>White</b>	Gray, Blue, Brown, Yellow, Orange
<b>Gray</b>	Black, White, Blue
<b>Green</b>	Blue, Black, Yellow
<b>Red</b>	Orange, Pink
<b>Blue</b>	Green, Black, Purple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

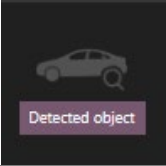
## D. Vehicle filter

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.
<b>Type</b>	Truck, Bus, SUV, Van, Sedan, Pickup Truck, Two-Wheel
<b>Color</b>	Black, Brown, White, Gray, Red, Blue, Yellow, Green, Purple, Pink
<b>Moving Direction</b>	Up, Up right, Right, Down right, Down, Down left, Left, Up left

<b>Additional filters</b>	Color image only Note) Black & white images may show in the search results even if only Color image only is specified.
<b>Threshold</b>	There are Low, Average and High.
<b>Include similar color</b>	If this selected, the color similar to the specified color will be automatically selected.

Note)

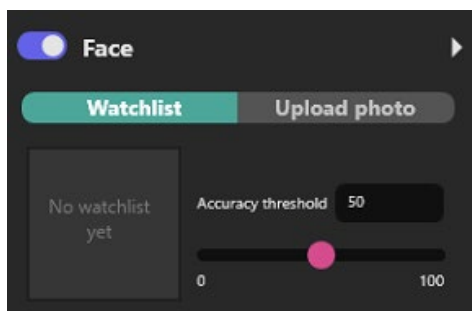
If the specified color does not appear in the search results, it may be displayed in the search results by selecting and searching for the following similar colors together.

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

## E. Face filter

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

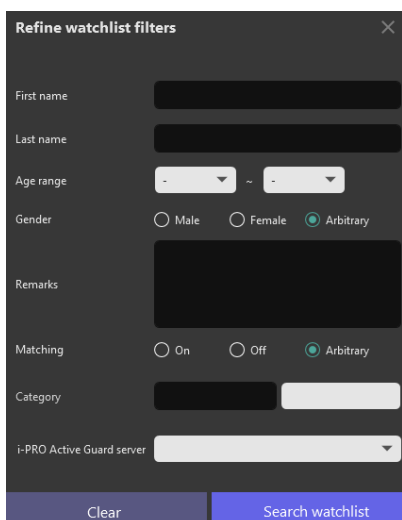
Also using filter panel, you can apply the search condition.



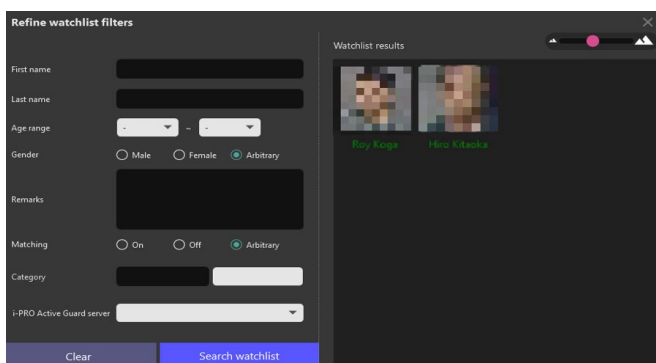
### **Watchlist**

Select face from watchlist and search similar face.

Click [Search watchlist] with search conditions.



Select face from search result.



---

### **Note:**

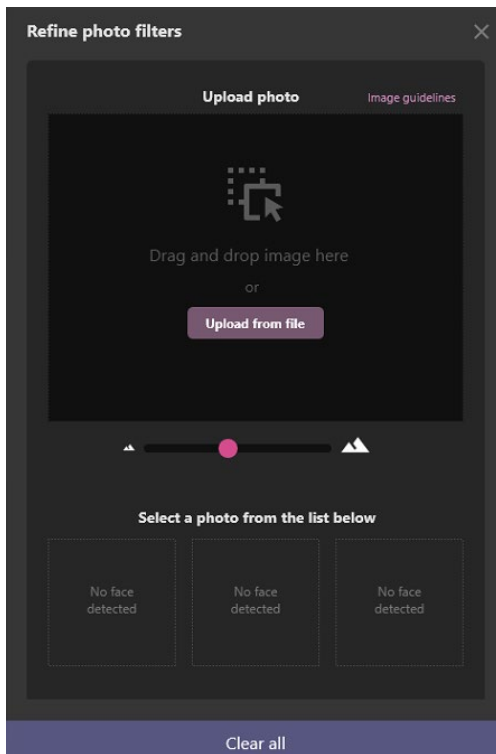
- Up to 1,000 watchlists can be shown at the same time.  
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
-



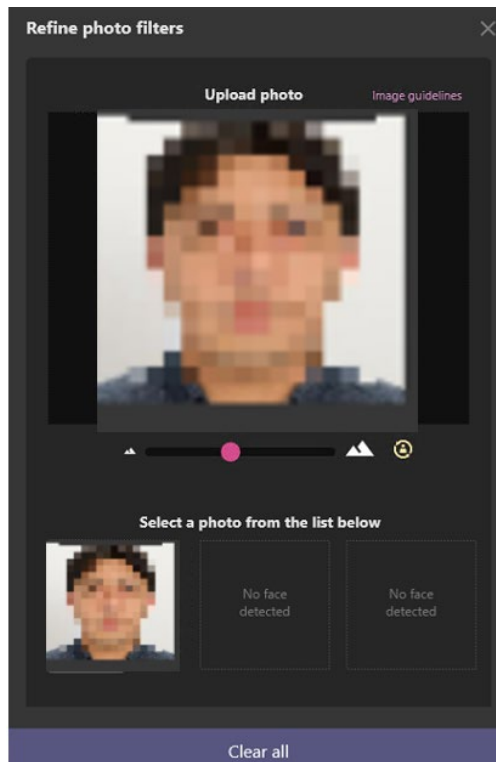
## Upload photo

Upload image file that includes face and search similar faces.

Click icon or drag and drop the image file.

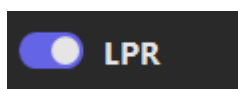


When face is detected from the image, select face and click OK.

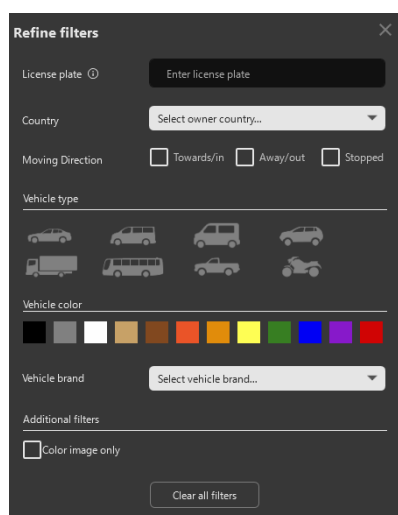


## F. LPR Filter

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
<b>License plate</b>	Specify a License plate number. Note) Use '%' for wild card search (Example: for plates starting with 'A,' enter 'A%.')
<b>Country</b>	Specify the country or ADR.
<b>State *1</b>	Specify the state.
<b>Moving Direction</b>	Towards/in, Away/out, Stopped.
<b>Type</b>	Car, Van, Mini-Van, SUV, Truck, Bus, Pickup Truck, Motorcycle.
<b>Color</b>	Black, Gray, White, Beige, Brown, Orange, Golden, Yellow, Green, Blue, Purple, Red.
<b>Brand</b>	Specify the Brand.
<b>Model *2</b>	Specify the model.
<b>Additional filters</b>	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".

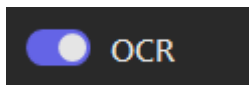
\*2 : Model is displayed after setting Brand.

### Note:

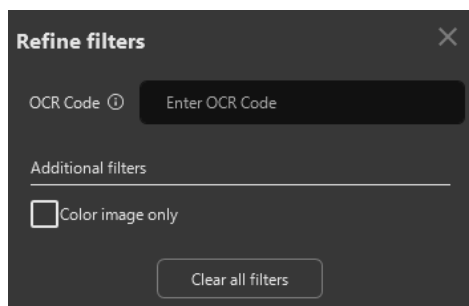
- LPR setting items differ between V1.60 or earlier and V1.70 or later. If upgrade to V1.70 or later, the previous functions will no longer be available.

## G. OCR Filter

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



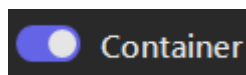
Also using filter panel, you can apply the search condition.



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

## H. Container Filter

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.

**Refine filters** [X]

Container code ⓘ | Enter container code

Size code ⓘ | Enter size code

Owner country | Select owner country... [v]

Owner city | Select owner city... [v]

Owner company | Select owner company... [v]

Additional filters

Color image only

Clear all filters

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

## 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. The additional information about playback controls, please refer to 2.4 PLAYBACK VIDEO CONTROL.



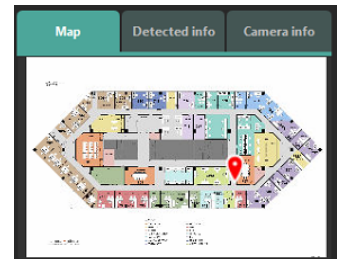
- **Information**

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

A. **Map**

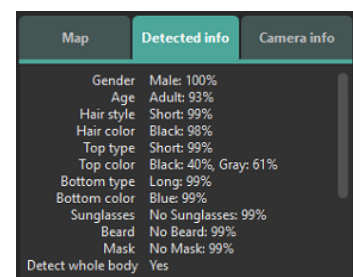
The camera which sent the thumbnail is displayed with map. You can see the camera location on map.

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



B. **Detected info**

Analysis score information for each feature is displayed.



### C. Camera info

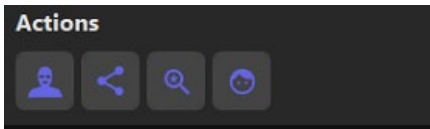
---


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	<a href="http://192.168.0.31">192.168.0.31</a>	

- 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.

**Search for OCR code**

Selectable when OCR code in OCR detection image is recognized.

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

**Search for Container code**

Selectable when Container code in Container detection image is recognized.

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

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

---

**Note:**

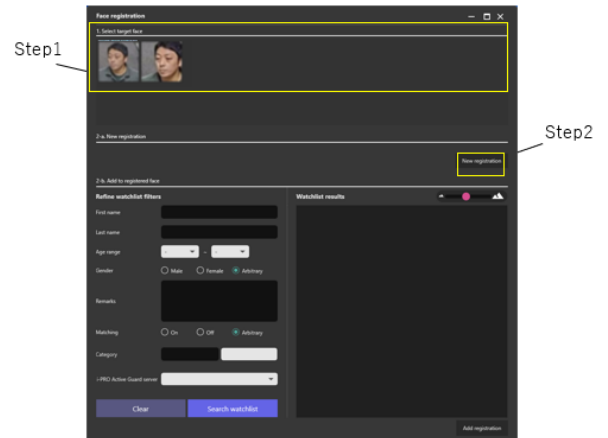
- Similar Search is not applied the Latest search condition in Saved filters.
-

## 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.

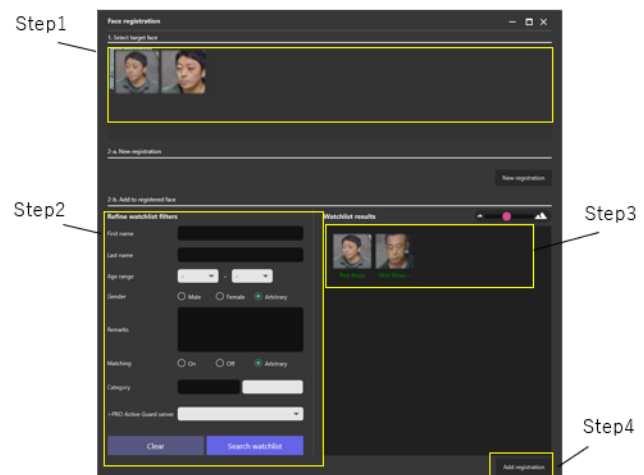
### In case of register as new face:

- Step1. Select one of detected faces.
- Step2. Click New registration button.
- Step3. Please follow to 2.5.1. *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 2.5.1. *Face Watchlist (Step2)*



### Note:

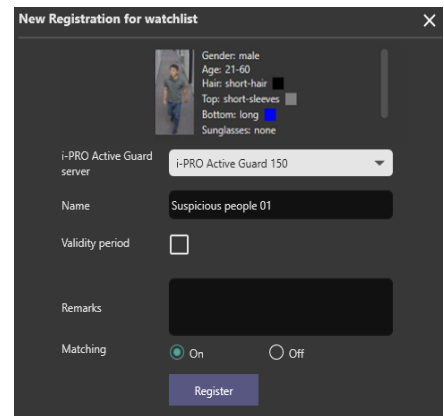
- Face can be registered up to 30,000.  
Up to 1,000 faces can be shown at the same time.  
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.
- Recommended width of face for registration is more than 75 pixels. When the selected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



**New Registration for watchlist**

Gender: male  
Age: 21-60  
Hair: short-hair  
Top: short-sleeves  
Bottom: long  
Sunglasses: none

i-PRO Active Guard server: i-PRO Active Guard 150


Name: Suspicious people 01

Validity period:

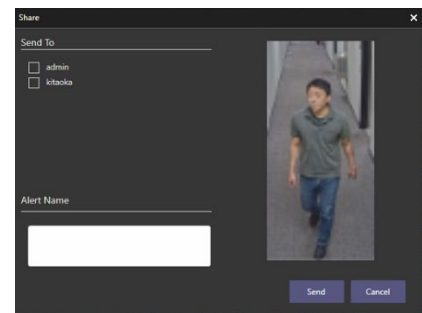
Remarks:

Matching:  On  Off

Register

D.  Share information

Share thumbnail to registered smart devices. To send thumbnail to smart devices, select one of devices then click OK.



**Share**

Send to:


- admin
- ktacka

Alert Name:

Send Cancel

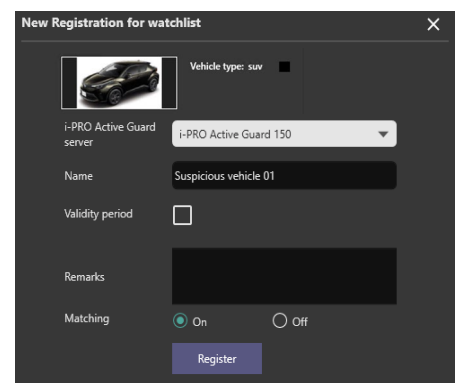
**Note:**

- To use this function, install VI Guard (Android/iOS application) to smart device.

E.  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.



**New Registration for watchlist**

Vehicle type: suv

i-PRO Active Guard server: i-PRO Active Guard 150

Name: Suspicious vehicle 01

Validity period:

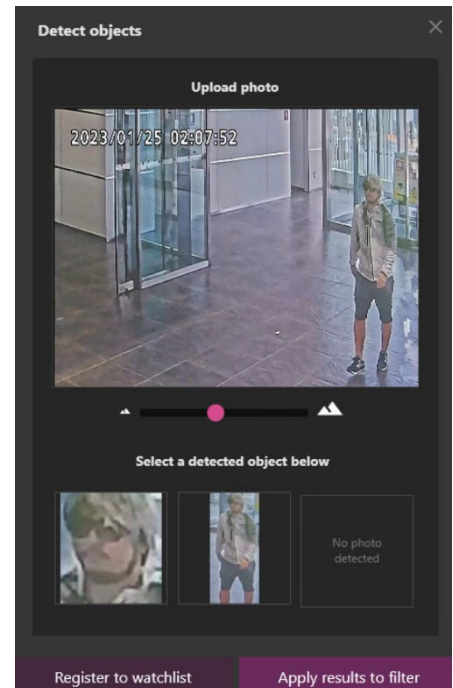
Remarks:

Matching:  On  Off

Register

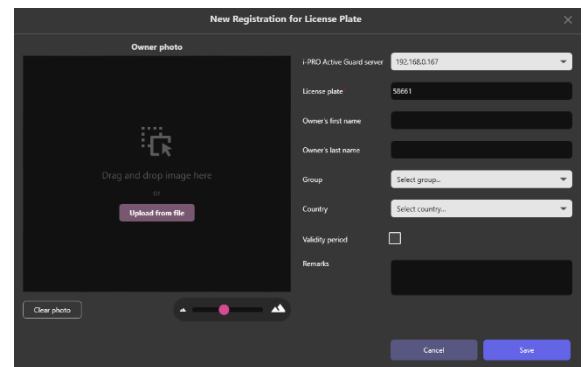
F.  Analysis

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



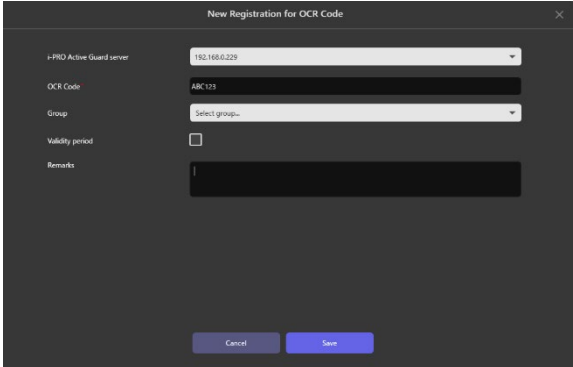
G.  Save license plate number to LPR detection

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




H.  Save OCR Code to OCR detection

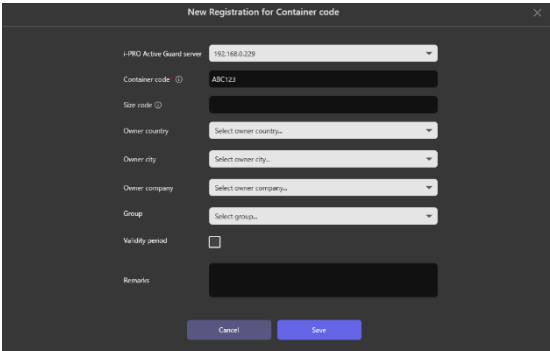
Register OCR Code to watchlist.  
Some basic information can be entered from here.



The screenshot shows a dark-themed dialog box titled "New Registration for OCR Code". It contains the following fields: "H-PRO Active Guard server" (dropdown menu with "192.168.0.229" selected), "OCR Code" (text input with "ABC123"), "Group" (dropdown menu with "Select group..."), "Validity period" (checkbox), and "Remarks" (text area). At the bottom, there are "Cancel" and "Save" buttons.






I.  Save container code to Container detection





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 dark-themed dialog box titled "New Registration for Container code". It contains the following fields: "H-PRO Active Guard server" (dropdown menu with "192.168.0.229" selected), "Container code" (text input with "ABC123"), "Size code" (text input), "Owner country" (dropdown menu with "Select owner country..."), "Owner city" (dropdown menu with "Select owner city..."), "Owner company" (dropdown menu with "Select owner company..."), "Group" (dropdown menu with "Select group..."), "Validity period" (checkbox), and "Remarks" (text area). At the bottom, there are "Cancel" and "Save" buttons.

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 	Share thumbnails to saved mobile phone number 	Save vehicle's characteristics to Registered vehicle detection 
Face filter	Yes	Yes	No	Yes	No
People filter	Yes	Yes	Yes	Yes	No
Vehicle filter	Yes	No	No	Yes	Yes
LPR filter	Yes	No	No	Yes	No
OCR filter	Yes	No	No	Yes	No
Container filter	Yes	No	No	Yes	No

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

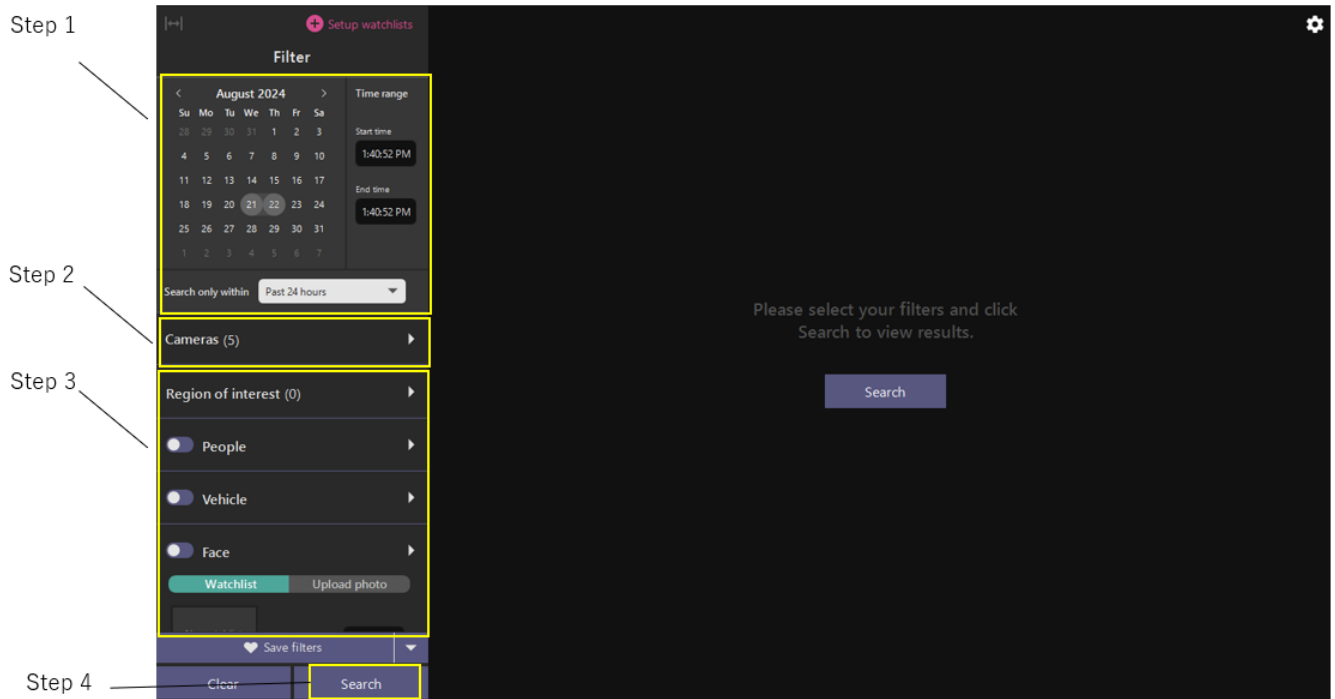
\*1 In case of the thumbnail doesn't have license plate number information, button does not display.

Ex) In i-PRO Active Guard Sever settings,

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

## 2.2.2. 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. Select the Available Cameras option to search for a specific camera by name.

### 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. MONITOR VARIOUS EVENTS

Using i-PRO Active Guard Event, you can watch what events occurred in the real time and also can find past events whatever you want to search.

### 2.3.1. UI Component

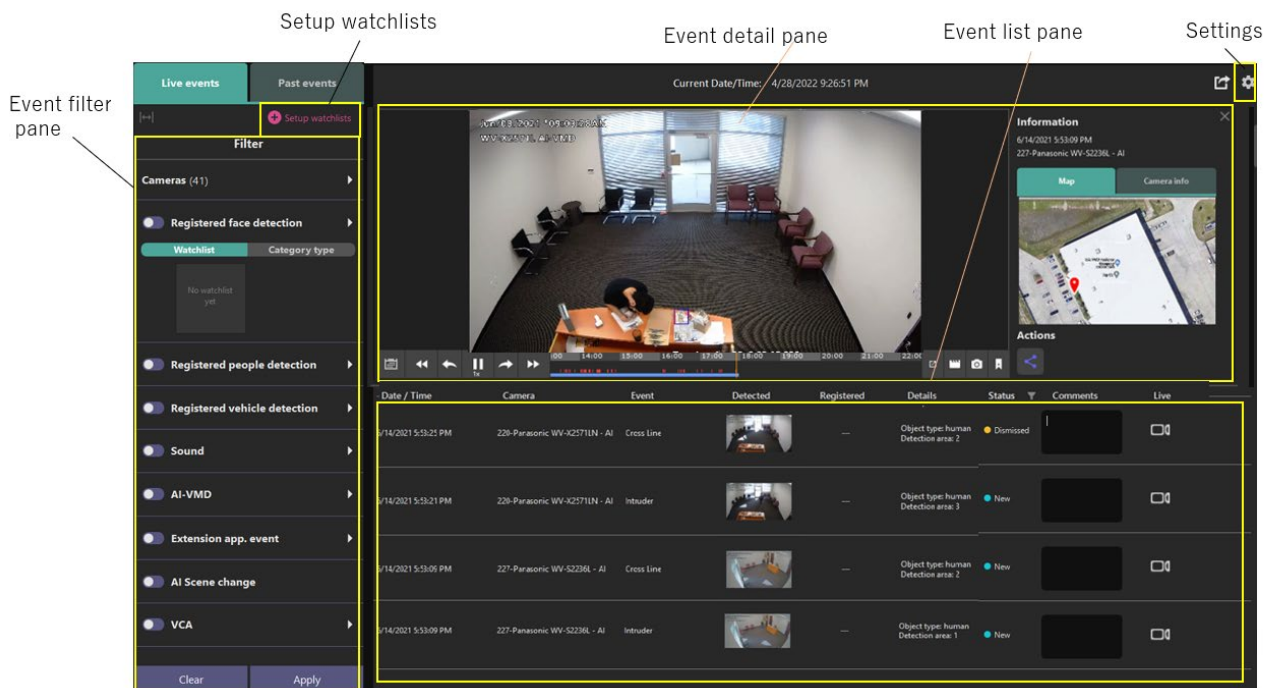
i-PRO Active Guard Event as two tabs that are Live events tab and Past events tab.

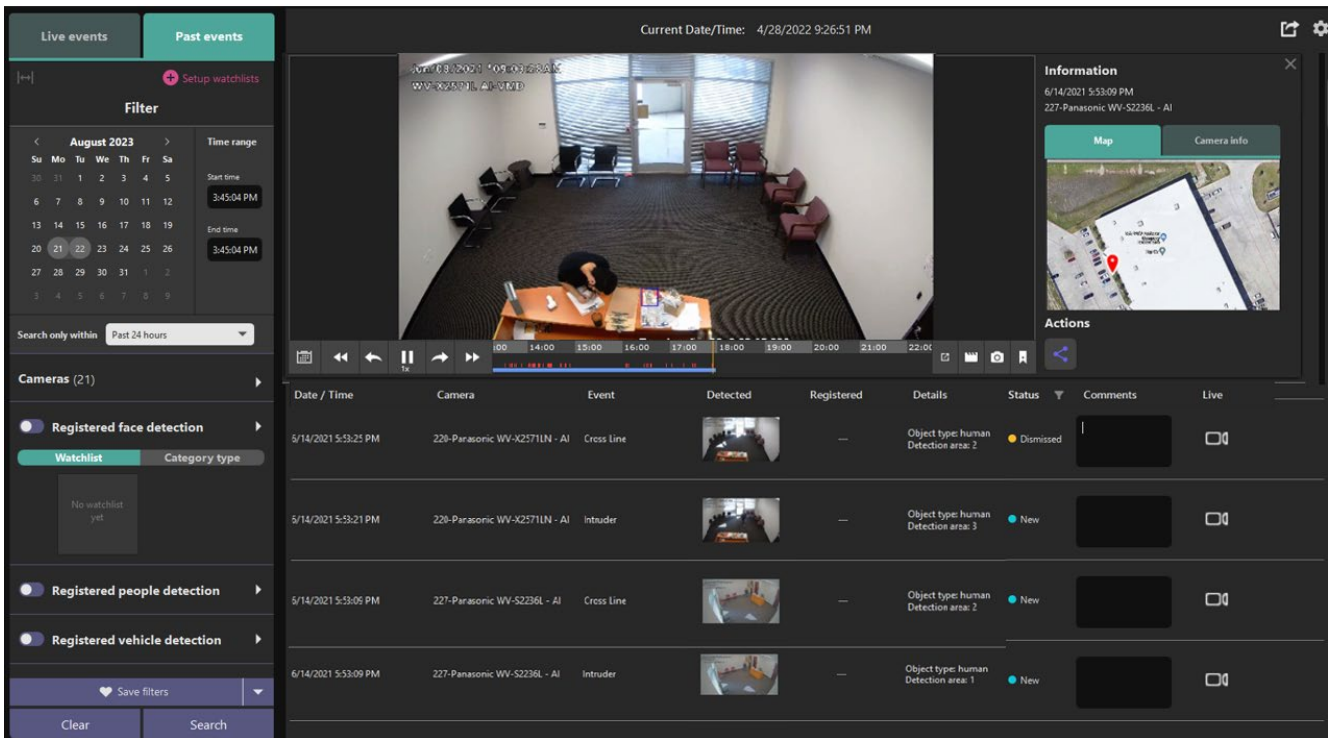
#### 2.3.1.1. Overview

Live events tab and Past events tab are made from almost same UI components.

In this section, it describes the elements that compose the Live events tab and Past events tab.

Each tab is composed 4 main parts such as event filter pane, event list pane, event detail pane and settings.





Past events tab

Event filter pane	Switch tab (Live/Past events tab)	Switch views between monitoring events mode or search events in the past mode.
	Date/Time (Past events tab)	Start time and end time for search objects. This is used for only Past events tab.
	Search only within (Past events tab)	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 (Live/Past events tab)	Specify AI Cameras displaying events.
	Registered Face detection (Live/Past events tab)	Show face matching events.
	Registered People detection (Live/Past events tab)	Show personal features matching events.
	Registered Vehicle detection (Live/Past events tab)	Show vehicle features matching events.
	Sound (Live/Past events tab)	Show sound detection events.
	AI-VMD (Live/Past events tab)	Show AI VMD detection events.
	VCA (Live/Past events tab)	Show Video Content Analytics (VCA) events.
	Access Control (Live/Past events tab)	Show access control door events.
	AI Scene change	Show AI Scene change detection events.

(Live/Past events tab)	
LPR	Show below events. *1
(Live/Past events tab)	- License plate detection events. - Registered license plate detection events. - Unregistered license plate detection events. - Registered advanced vehicle detection events.
OCR	Show below events. *2
(Live/Past events tab)	- Code detection events. - Registered code detection events. - Unregistered code detection events.
Container	Show below events. *3
(Live/Past events tab)	- 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.
(Past events tab)	
Clear	Clear filter settings.
Apply	Activate filter settings.

Events list  
pane

**Note:**

- In Live events tab, while opening this view, the list is automatically updated if any event happens.
- In Past events tab, the results of search from recorded events are listed.

Current Date/Time	Current date and time which is setting on PC.
(Live events tab)	
Export	Export event list as CSV or HTML.
(Live/Past events tab)	
Date/Time column	Detected date and time which is setup at camera.
(Live/Past events tab)	
Camera column	Camera name.
(Live/Past events tab)	
Event column	Event type.
(Live/Past events tab)	
Detected column	Detected thumbnail which is captured by camera.
(Live/Past events tab)	
Registered column	Registered images or names in watchlist. Registered column is only for matching event.
(Live/Past events tab)	
Similarity column	Detected score.
Details column	Object type, detected area, detected score, etc. Displayed information depends on event type.
(Live/Past events tab)	
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.
(Live/Past events tab)	
Comments column	Any comment up to 64 characters can be input.
(Live/Past events tab)	
Live column	Open live camera window.
(Live/Past events tab)	
Detected thumbnail	Click and open event detail pane. Right click and save the



	(Live/Past events tab)	thumbnail as picture or video clip.
	Result count	Show the events search results count.
	(Past events tab)	
	Load More	Load next 100 events.
	(Past events tab)	
Event detail pane	Thumbnail detail pane	Video control pane, information such as camera location, analysis score and camera information.
	(Live/Past events tab)	
Set up watchlists	Faces watchlist	Setup Faces watchlist.
	(Live/Past events tab)	
	People watchlist	Setup People watchlist.
	(Live/Past events tab)	
	Vehicles watchlist	Setup Vehicles watchlist.
	(Live/Past events tab)	
	LPR watchlist	Setup LPR watchlist.
	(Live/Past events tab)	
	OCR watchlist	Setup OCR watchlist.
	(Live/Past events tab)	
	Container watchlist	Setup Container watchlist.
	(Live/Past events tab)	
Display mode	Display mode	List or Timeline can be changed for result.
	(Past events tab)	* Timelines are supported only if there is one type of search filter.
Settings	Preferences	Setup some environments about playback, event monitor etc.
	Attribute Settings	Setup visibility of attributes in filter and 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."

## 2.3.1.2. About Event filter

In this section, it describes about each events filter. For more information about the Camera filter, please refer to 2.2.1.2.

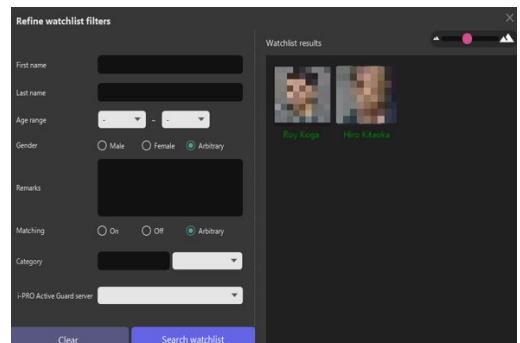
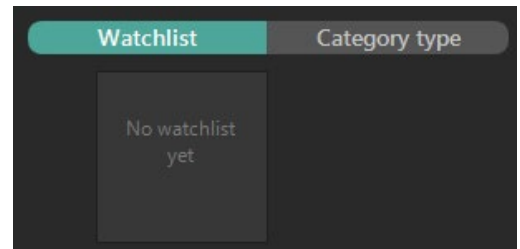
### A. Registered Face detection

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

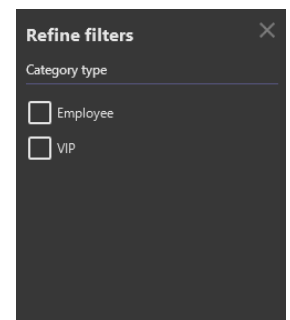


If you want to display a specific face, you can use Watchlist filter. Search registered faces by specifying search conditions then select one of results.

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

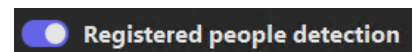


It is also possible to display by category registered in Watchlist.

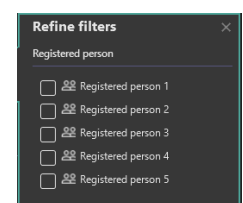


### B. Registered People detection

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

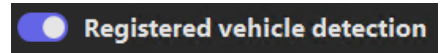


Also using filter panel, you can select specific registered items from people watchlist.

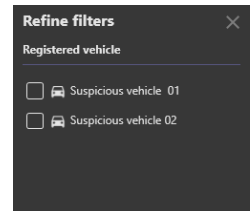


### C. Registered Vehicle detection

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

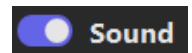


Also using filter panel, you can select specific registered items from vehicle watchlist.

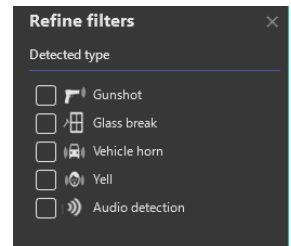


### D. Sound

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

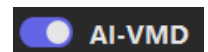


Also using filter panel, you can select specific sound events to show.



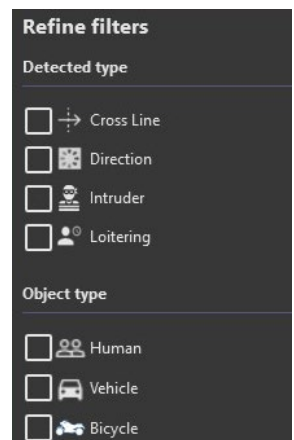
### E. AI-VMD

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



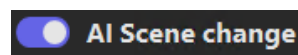
Also using filter panel, you can select specific Detected type and Object type to show.

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. AI Scene change

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



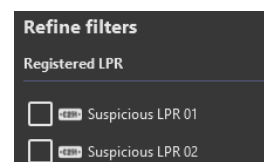
## G. LPR

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



### Note:

- LPR setting items differ between V1.60 or earlier and V1.70 or later. If upgrade to V1.70 or later, the previous functions will no longer be available.

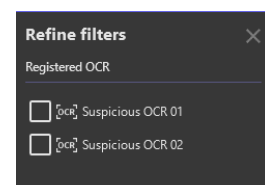
## H. OCR

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)

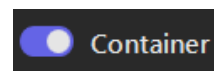
Also using filter panel, you can select specific registered items from OCR watchlist



## I. 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)

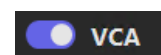
Also using filter panel, you can select specific registered items from Container watchlist



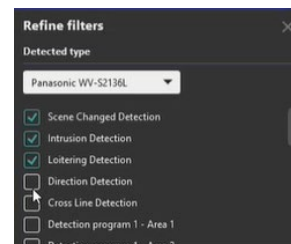
## J. VCA

---

With this filter enabled, all the VCA events are shown.



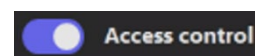
Also using the filter panel, you can select a specific camera, then the analytics available to that camera model.



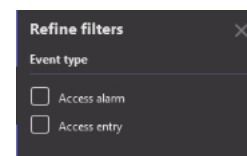
## K. Access Control

---

With this filter enabled, all door Access Control events are shown.



Also using the filter panel, you can select between Access alarms and door Access entry.








## 2.3.1.3. 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 2.2.1.3. About thumbnail detail pane regarding of each function.

Details for playback control, please refer to 2.4. 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 	Share thumbnails to saved mobile phone number 	Save vehicle's characteristics to Registered vehicle detection 
Registered face detection filter	Yes	Yes	No	Yes	No
Registered people detection filter	Yes	No	No	Yes	No
Registered vehicle detection filter	Yes	No	No	Yes	No
AI-VMD	No	No	No	Yes	No
Sound	No	No	No	Yes	No
LPR	Yes	No	No	Yes	No
OCR	Yes	No	No	Yes	No
Container	Yes	No	No	Yes	No
VCA	Yes	No	No	Yes	No
Access Control	Yes	No	No	Yes	No
AI Scene change	Yes	No	No	Yes	No

(Continued on next page)

	Detecting objects from video 	Save license plate number to LPR detection *1 	Save OCR Code to OCR detection 	Save Container code to Container detection 	
Registered face detection filter	Yes	No	No	No	
Registered people detection filter	Yes	No	No	No	
Registered vehicle detection filter	Yes	No	No	No	
AI-VMD	Yes	No	No	No	
Sound	Yes	No	No	No	
LPR	Yes	Yes	No	No	
OCR	Yes	No	Yes	No	
Container	Yes	No	No	Yes	
VCA	Yes	No	No	No	
Access Control	Yes	No	No	No	
AI Scene change	Yes	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.

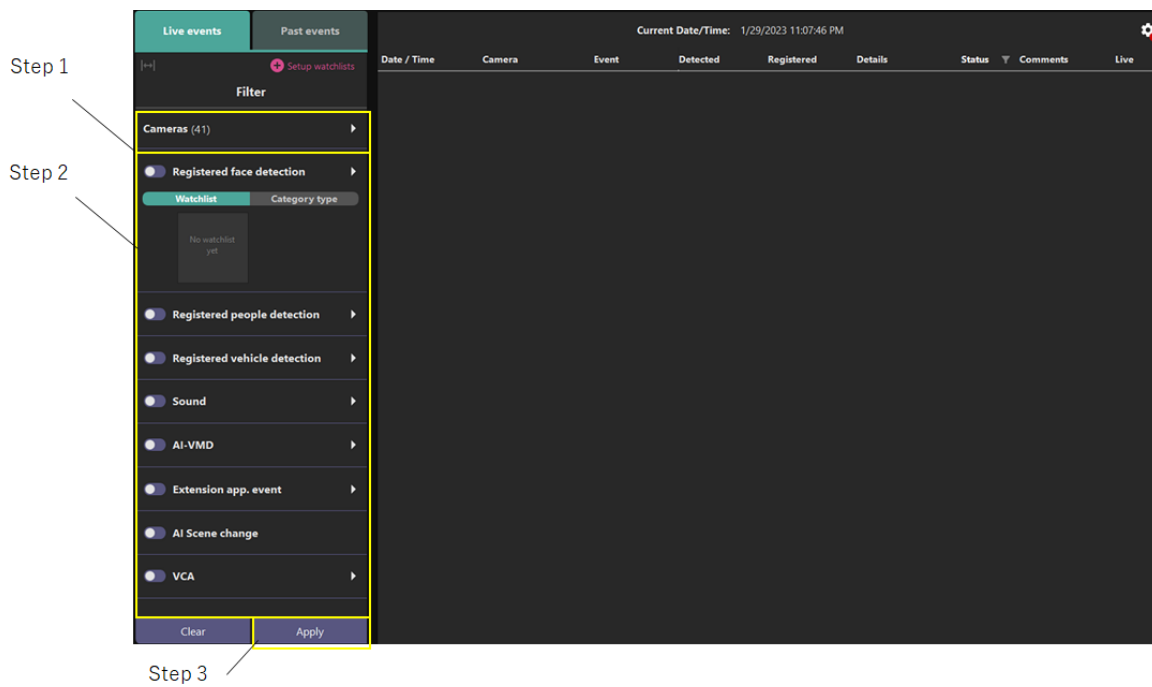


Information pane can be utilized depending on type of events.

	Map	Detected info (Only Past event)	Camera info
Registered face detection filter	Yes	Yes	Yes
Registered people detection filter	Yes	Yes	Yes
Registered vehicle detection filter	Yes	Yes	Yes
AI-VMD	Yes	No	Yes
Sound	Yes	No	Yes
LPR	Yes	Yes	Yes
OCR	Yes	Yes	Yes
Container	Yes	Yes	Yes
VCA	Yes	No	Yes
Access Control	Yes	No	Yes
AI Scene change	Yes	No	Yes

## 2.3.2. Monitor live events

The following steps provide basic operations for monitoring events basic operations for monitor events.



### Step 1

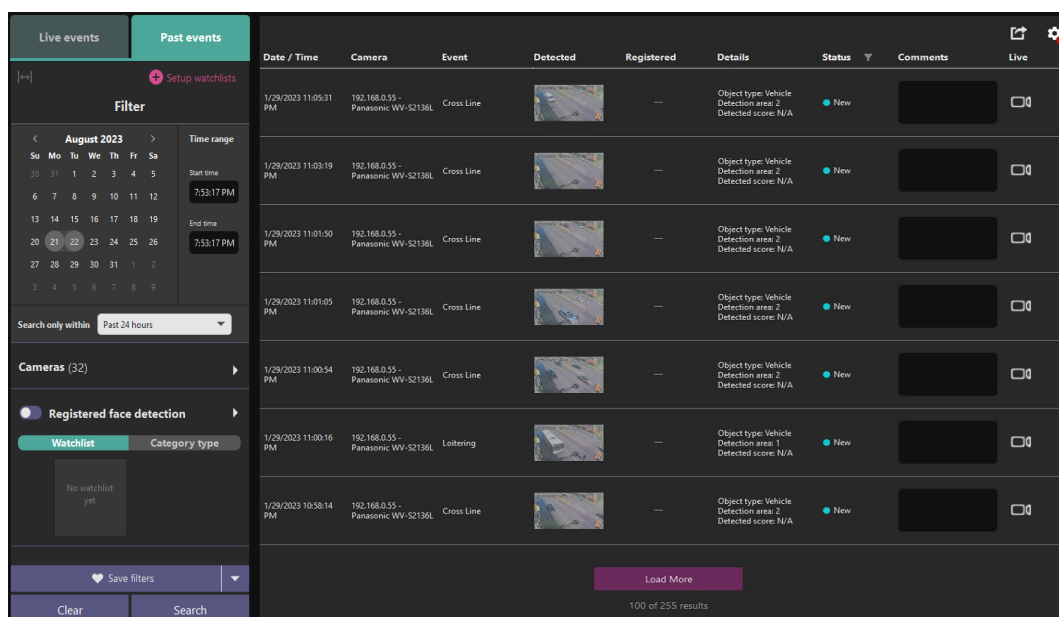
All cameras are selected as default. If you want to specify cameras, you can use camera filter.

### Step 2

Set up event filters. You can specify type of event by using event filters. Not using any filters displays all detected events.

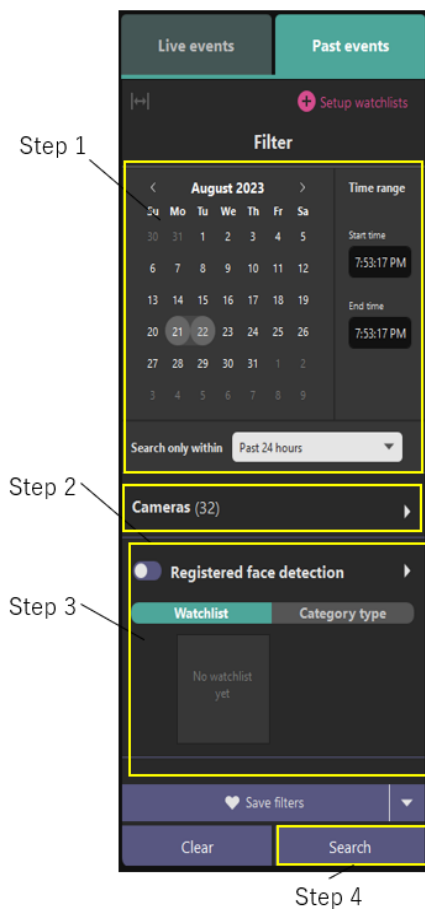
### Step 3

Click Apply.



## 2.3.3. Search past events

The following steps provide basic operations for searching past events.



### Step 1

Specify the start time and end time.

### Step 2

Select AI Cameras. All AI Cameras are selected as default.

### Step 3

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

- Registered face detection
- Registered people detection
- Registered vehicle detection
- Sound
- AI-VMD
- AI Scene change
- LPR
- OCR
- Container
- VCA
- Access Control

### Step 4

Click Search. Results are displayed as shown below.

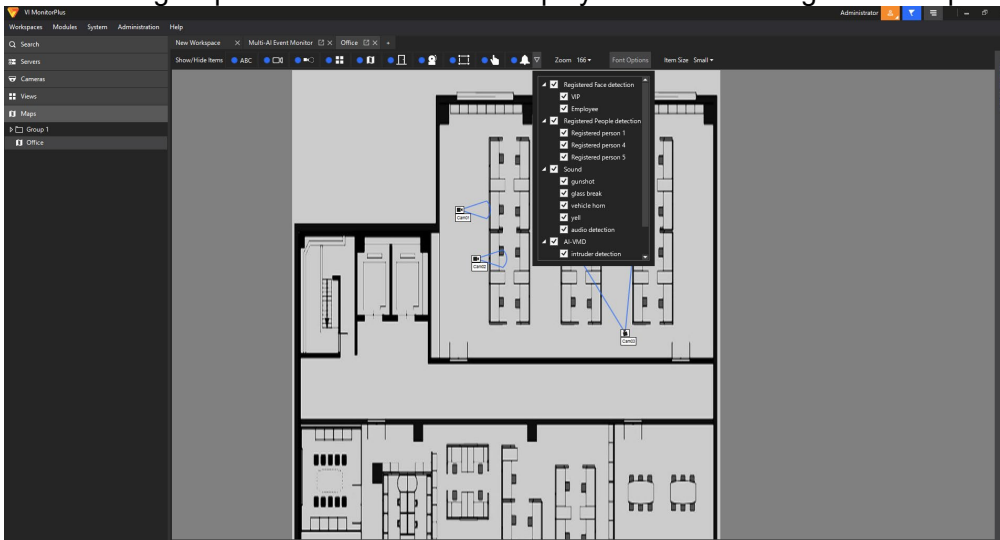
The image shows the search results page. The left sidebar is identical to the previous screenshot. The main area displays a table of search results. The table has the following columns: Date / Time, Camera, Event, Detected, Registered, Details, Status, Comments, and Live. The results show several vehicle detections from the 'Cross Line' camera on 1/29/2023. The 'Registered' column shows a dash for all results. The 'Status' column shows 'New' for all results. The 'Live' column has a camera icon for each result. At the bottom of the table, there is a 'Load More' button and a '100 of 255 results' indicator.

Date / Time	Camera	Event	Detected	Registered	Details	Status	Comments	Live
1/29/2023 11:05:31 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		
1/29/2023 11:03:19 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		
1/29/2023 11:01:50 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		
1/29/2023 11:01:05 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		
1/29/2023 11:00:54 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		
1/29/2023 11:00:16 PM	192.168.0.55 - Panasonic WV-S2136L	Loitering		—	Object type: Vehicle Detection area: 1 Detected score: N/A	New		
1/29/2023 10:58:14 PM	192.168.0.55 - Panasonic WV-S2136L	Cross Line		—	Object type: Vehicle Detection area: 2 Detected score: N/A	New		

## 2.3.4. Overlay events on VMS map

Getting events can be overlay by using VI VMS Maps.

The following steps demonstrate how to display events on the registered map.



### Step 1

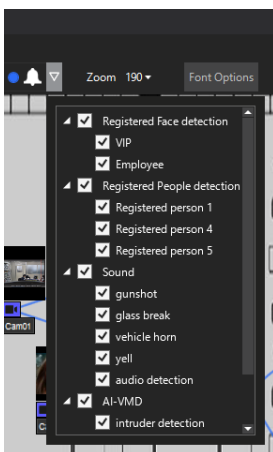
Navigate Maps and select registered map.

### Step 2

Click AI Alarm icon then enable AI Alarm.

### Step 3

Select events that you want to show.

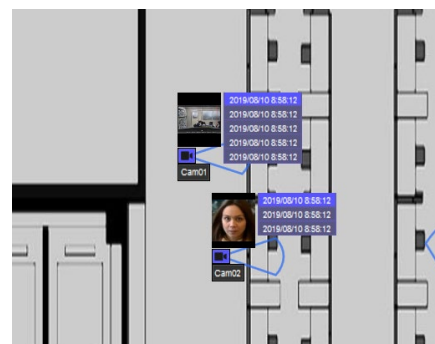


### Step 4

If any events happen, it appears like below.

Events are listed up to five per camera from the most recent.

Live window opens by double click a list.



## 2.4. PLAYBACK VIDEO CONTROL

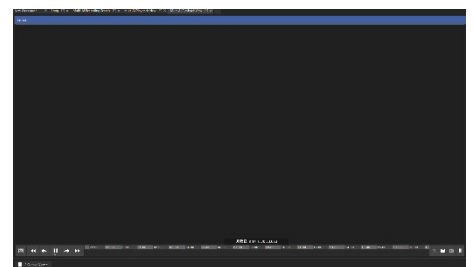
When viewing video on a thumbnail/event detail pane, the following a set of video controls appear.



The video operation controls are described below.

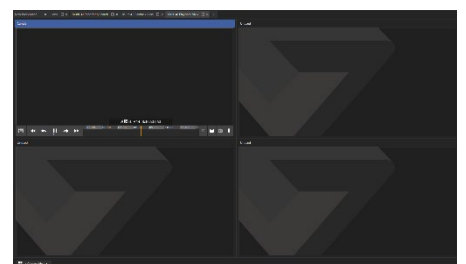
		In pause mode, forward and backward navigation through each frame on the timeline.
		Fast playback or fast rewind the video recording.
		Play or pause the video recording.
		In play mode, navigate previous and next motion events on the timeline.
		Open new workspace to playback video.
		Export video from selected the thumbnail.
		Take a snapshot and save as file or clipboard.
		Add video to bookmark or open bookmark manager.
		View in New Window

It displays 1 camera view and also can switch to 4 cameras view. To switch these views, select view mode from left at bottom menu.



In 4 cameras view mode, the left on the top view is fixed view as original. It can't be changed.

In the other views, you can drag and drop cameras from the cameras list on the left side panel. These views start video from the time of timestamp of original thumbnail.



## 2.5. SETTINGS

This section describes how to manage the watchlist and preferences.

To open these settings, click Set up watchlists button for Faces watchlist, People watchlist, Vehicles watchlist, LPR watchlist, OCR watchlist, Container watchlist, or click settings icon for Preferences or Attribute Settings.



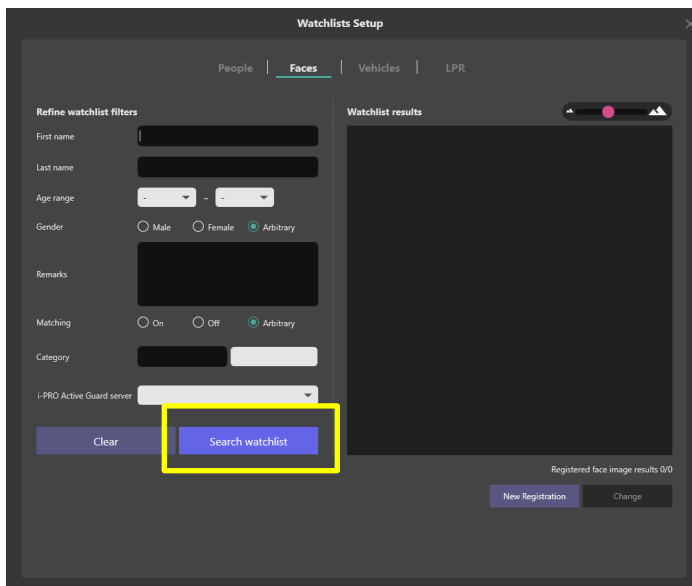
### 2.5.1. Face Watchlist

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.

- **Get registered watchlist**

To get registered faces watchlist, click "Search watchlist" button by using filter.



---

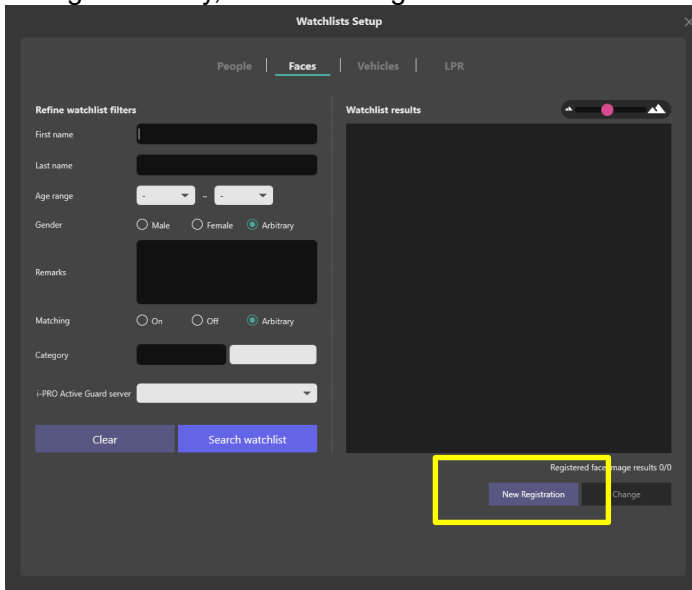
#### Note:

- Face can be registered up to 30,000.  
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.
-

## ● Add Registration

### Step 1

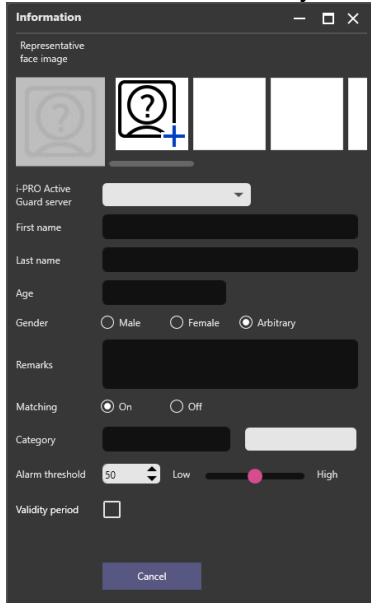
To register newly, click New Registration button.



### Step 2

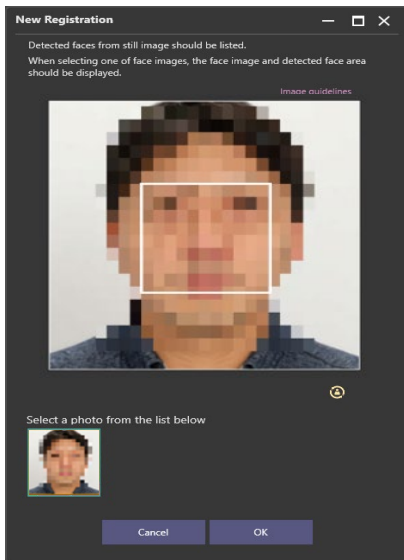
One face image must be registered at least.

Click  icon then select the file you want to use.

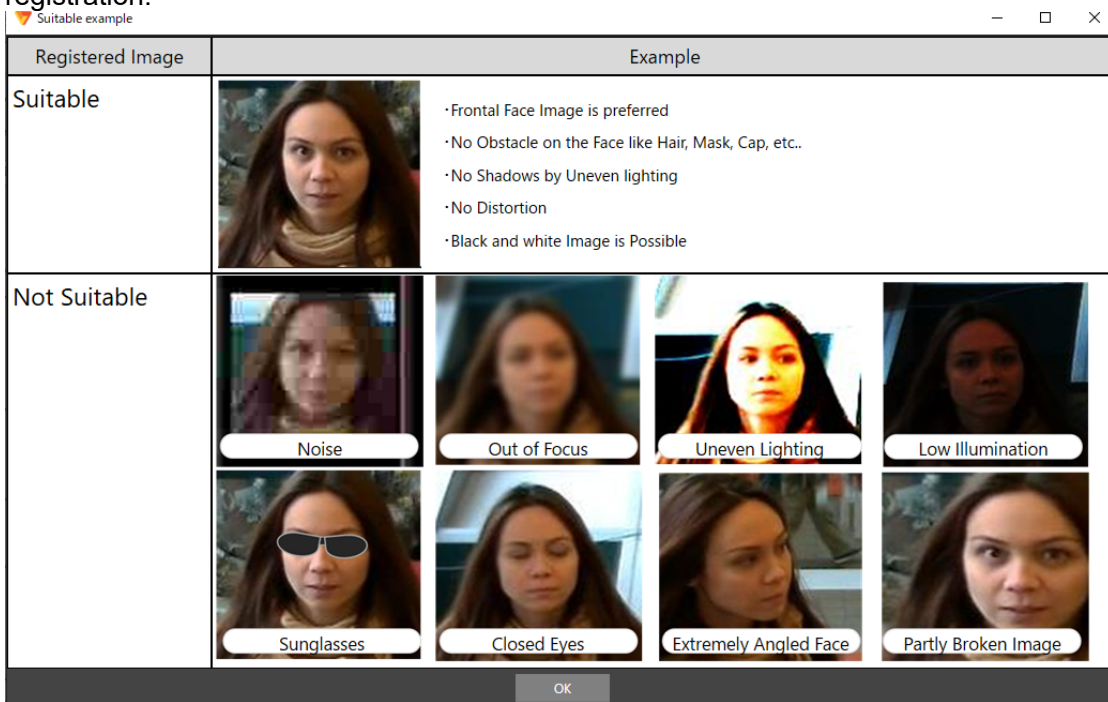


### Step 3

Then analyzing 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 pixels. 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. At the top, it says 'Information' with standard window controls. Below that is the label 'Representative face image' followed by four image slots. The first two contain face images, the third has a question mark icon, and the fourth is empty. Below the images is a dropdown menu for 'i-PRO Active Guard server'. The form includes text input fields for 'First name', 'Last name', and 'Age'. The 'Gender' section has three radio buttons: 'Male', 'Female', and 'Arbitrary', with 'Arbitrary' selected. There is a 'Remarks' text area. The 'Matching' section has two radio buttons: 'On' (selected) and 'Off'. The 'Category' section has two text input fields. The 'Alarm threshold' section has a slider set to 50, with 'Low' and 'High' labels. The 'Validity period' section has a checkbox. A 'Cancel' button is 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.
-

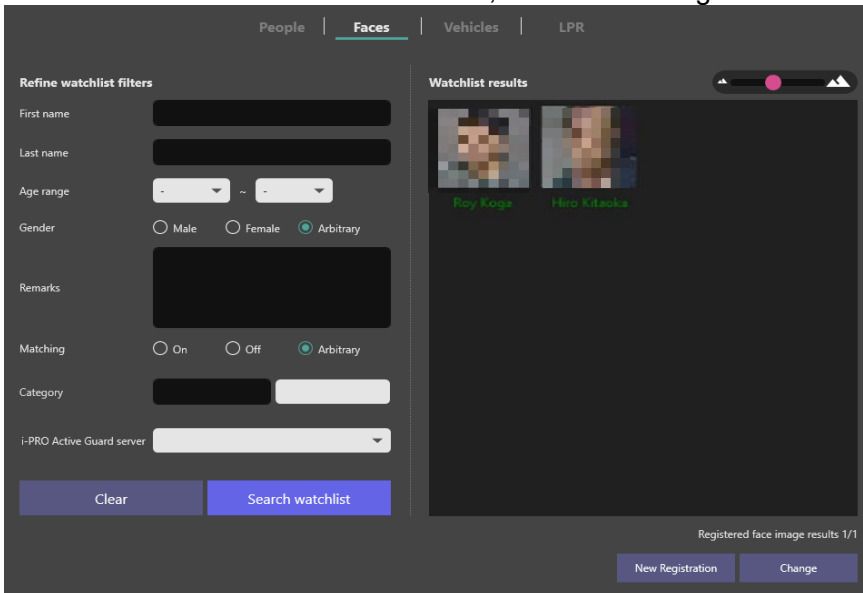
- **Edit Registration**

**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.

Information

Representative face image

i-PRO Active Guard server

First name

Last name

Age

Gender  Male  Female  Arbitrary

Remarks

Matching  On  Off

Category

Alarm threshold 50 Low High

Validity period

Cancel

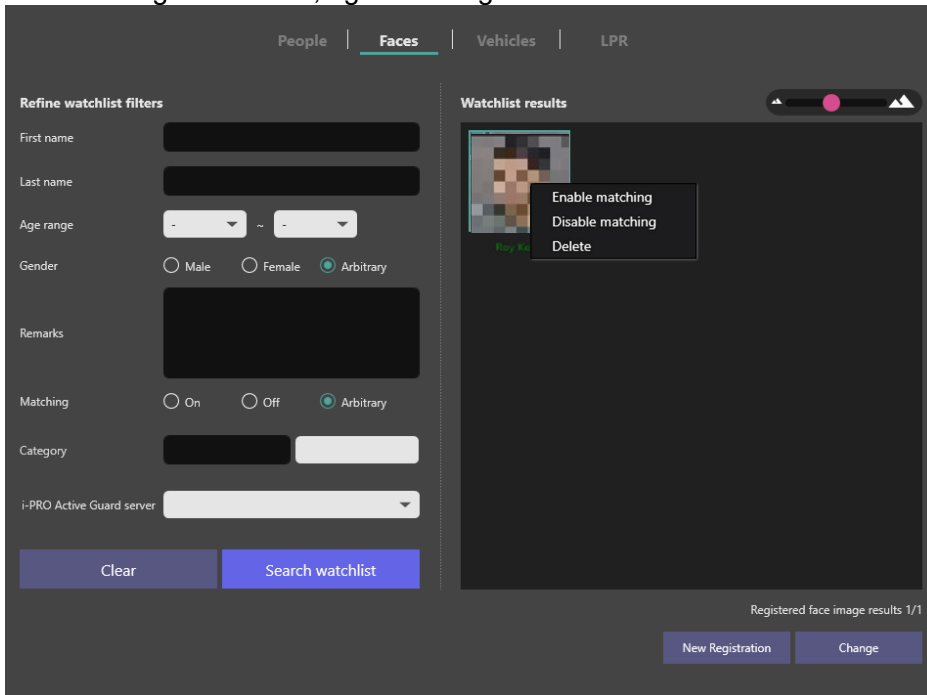
---

#### 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.



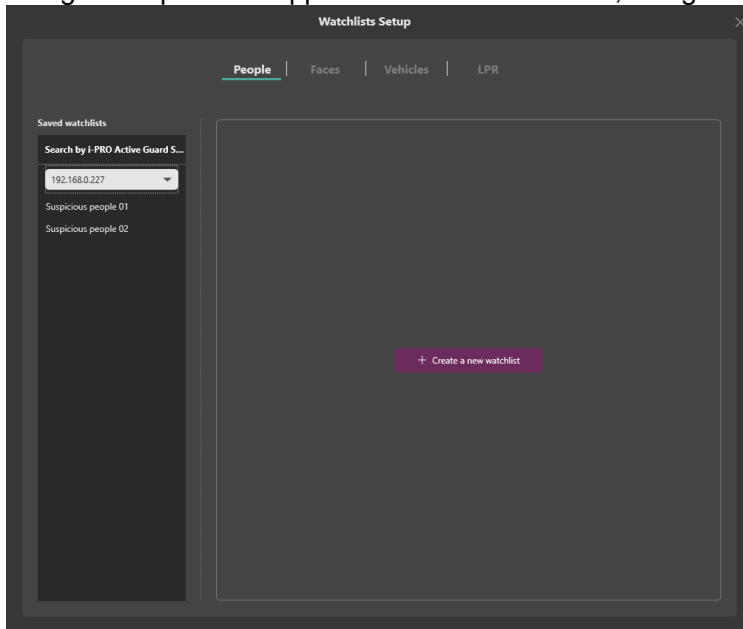
## 2.5.2. People Watchlist

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.

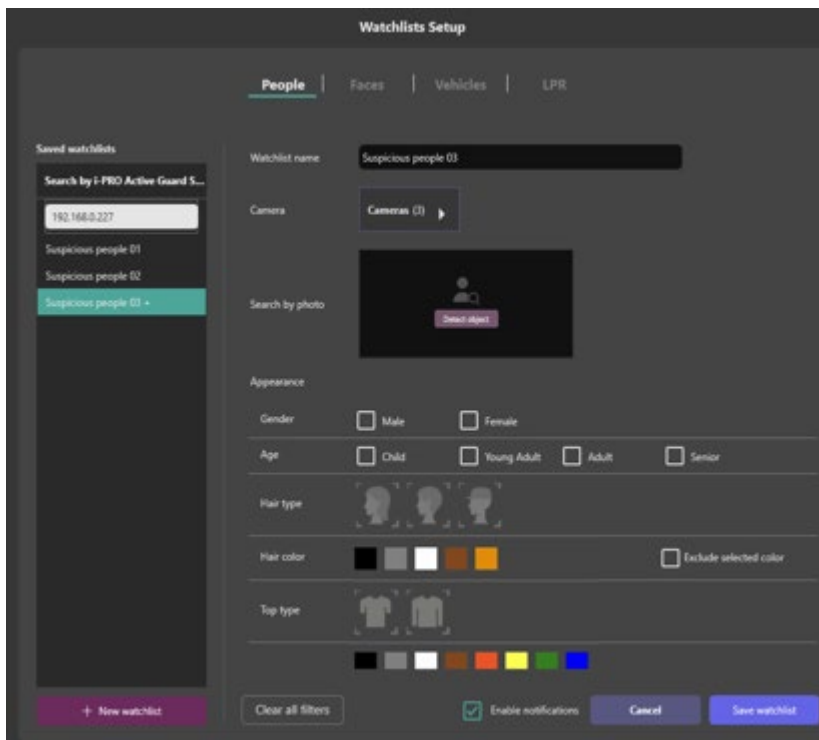
- **Add Registration (To manually select attributes)**

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.

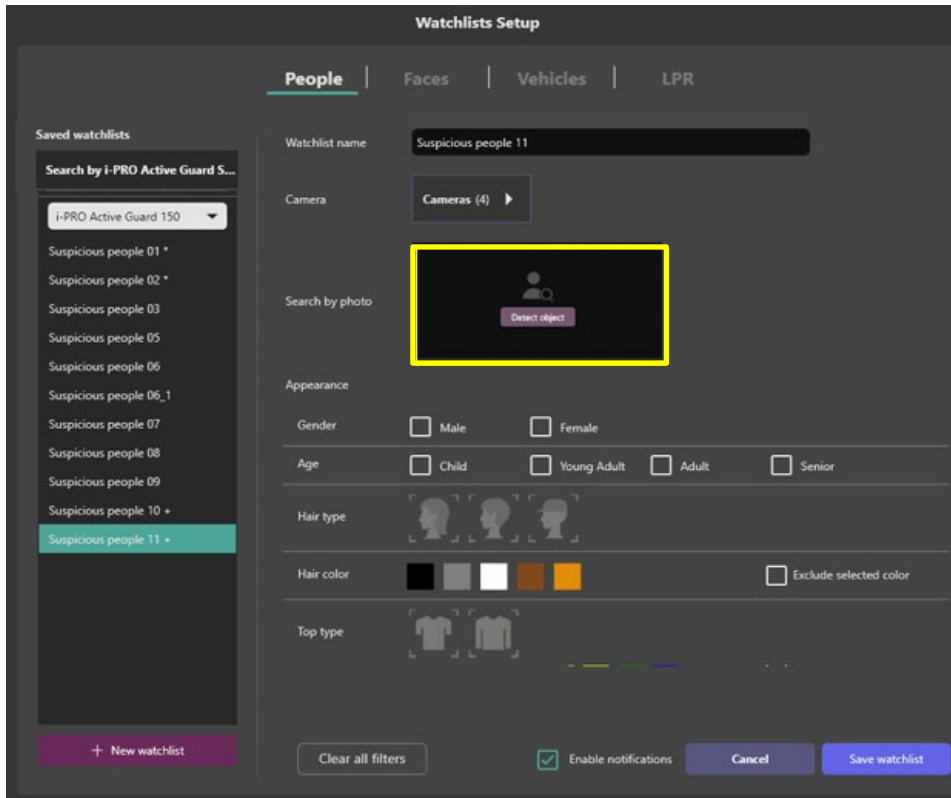
To add new item, click "+ Create a new watchlist" button then select appearance items.



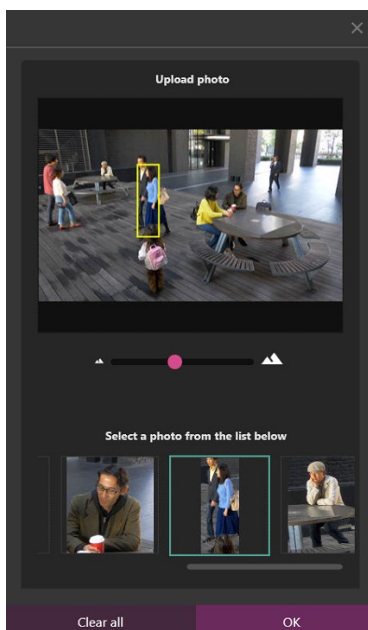
- **Add Registration (To select attributes from an image)**

This procedure automatically selects and registers attributes from an image.

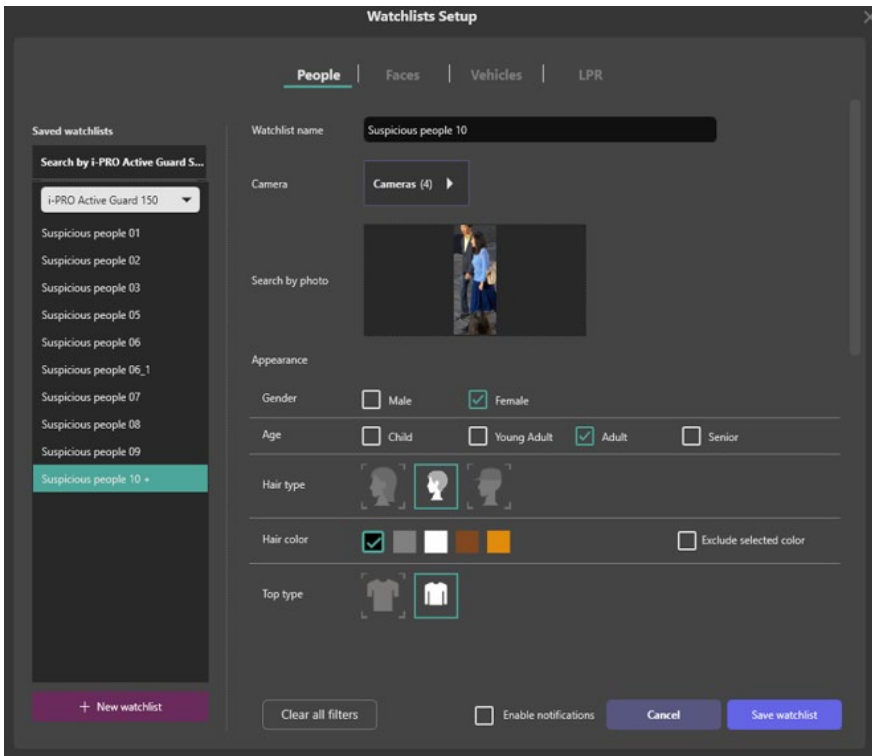
To select attributes from a people image, select the image to be registered from  icon.



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



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



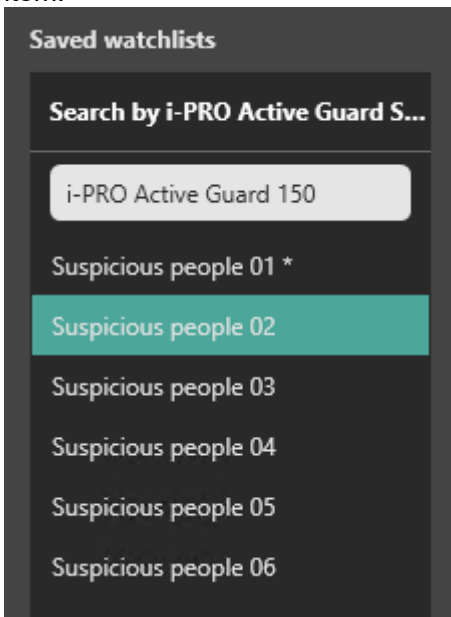
---

**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.
-

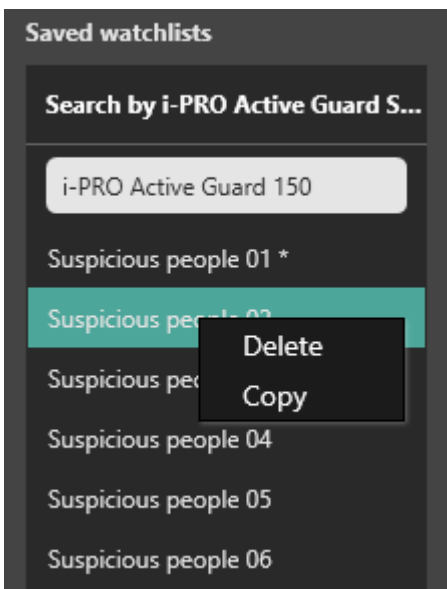
- **Edit Registration**

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.





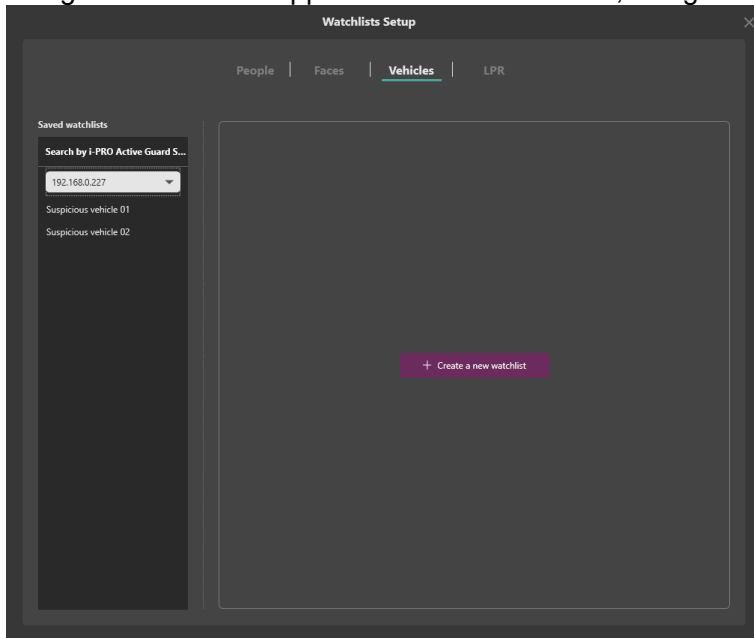
## 2.5.3. Vehicle Watchlist

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.

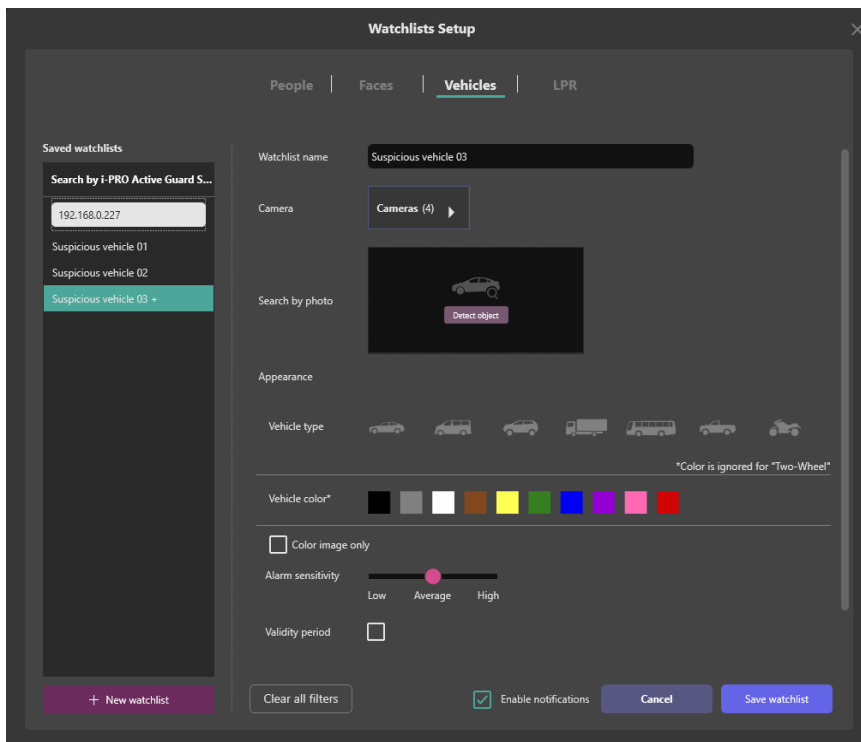
- **Add Registration (To manually select attributes)**

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.

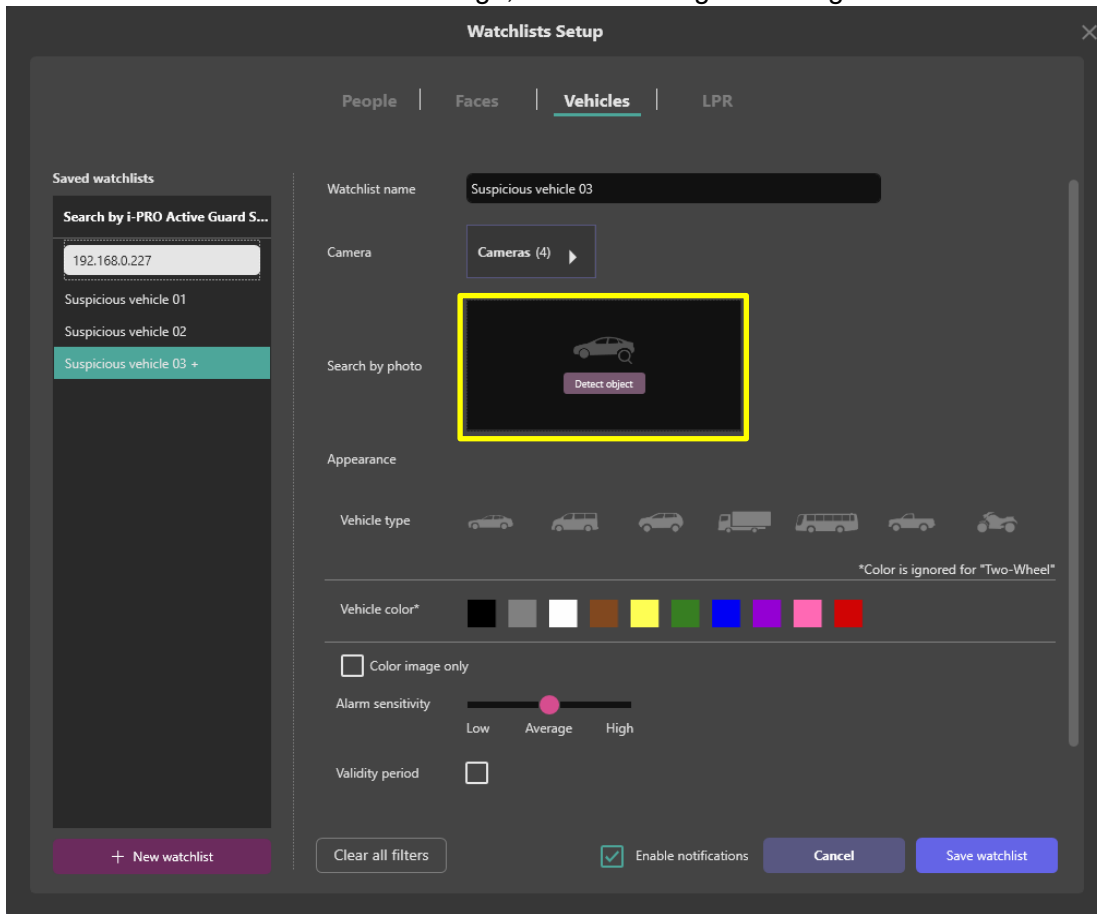
To add new item, click "+ Create a new watchlist" button then select appearance items.



- **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.

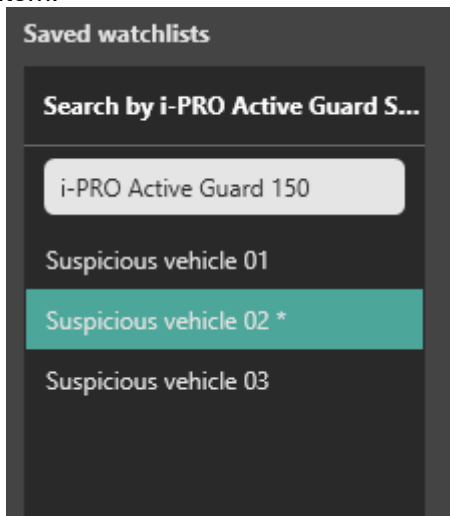
---

**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.
-

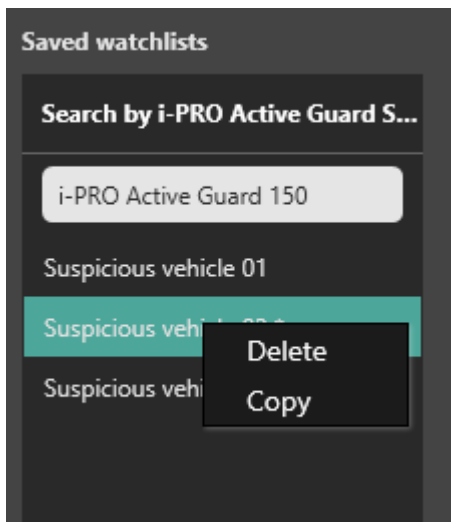
- **Edit Registration**

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.



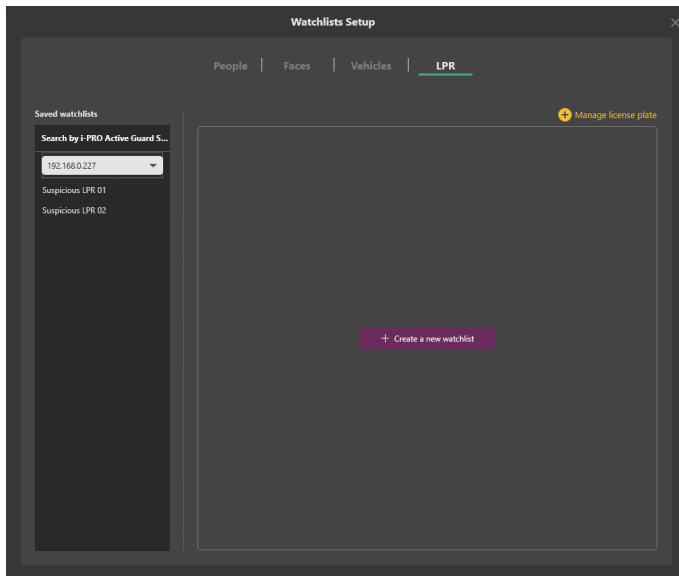
## 2.5.4. LPR Watchlist

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 License plate detect 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.

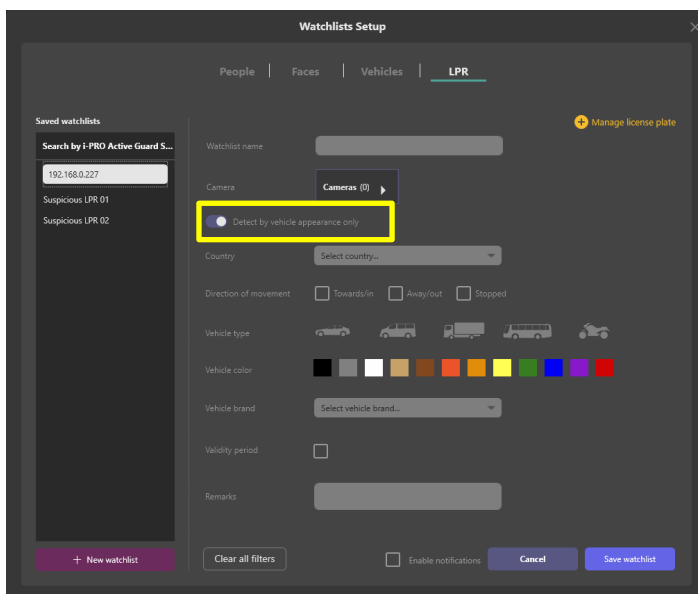


Registered items are listed on the left side.

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.

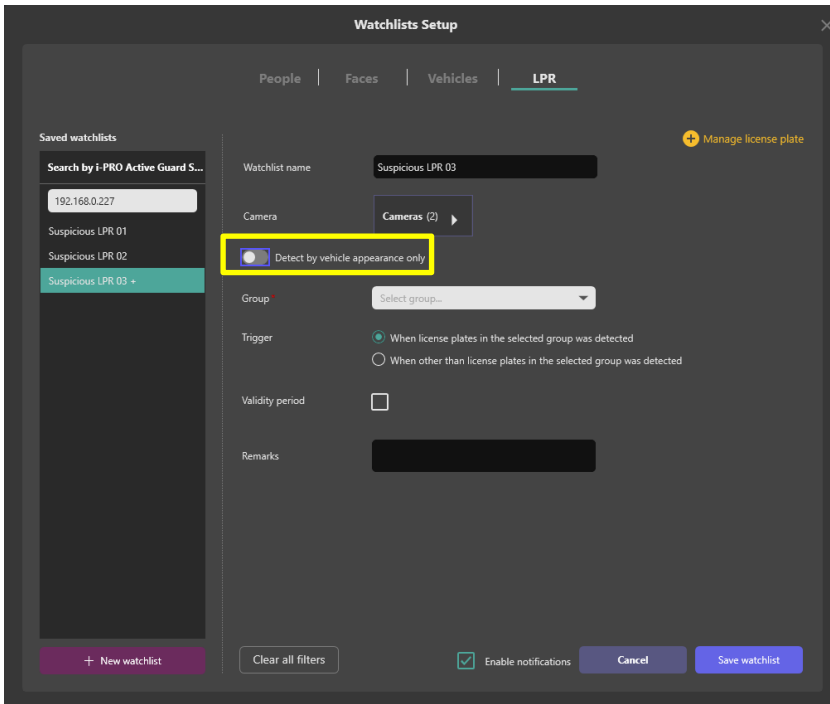
Note)

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 2.5.4.1.

About license plate, please see 2.5.4.2.



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

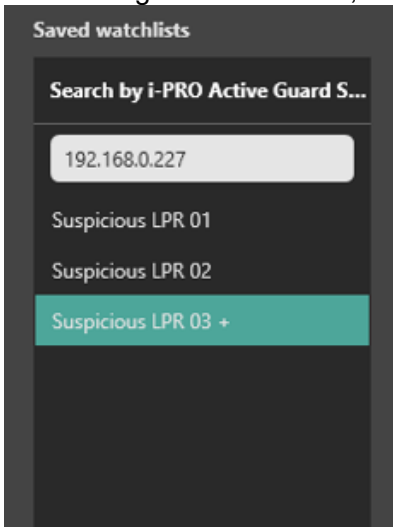
---

**Note:**

- There is no limitation to the number of 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 LPR watchlist will not be detected.  
Delete registration: After the expiration date, this LPR watchlist will be deleted.
  - It is impossible to register to multiple i-PRO Active Guard server at the same time.
-

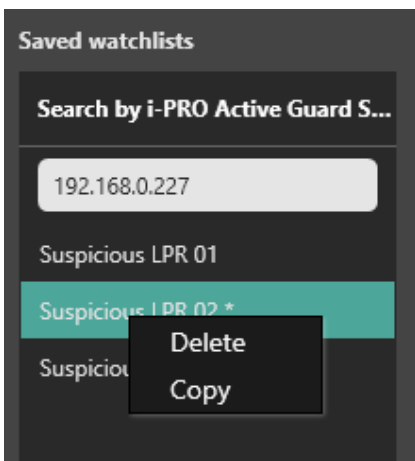
- **Edit Registration**

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.

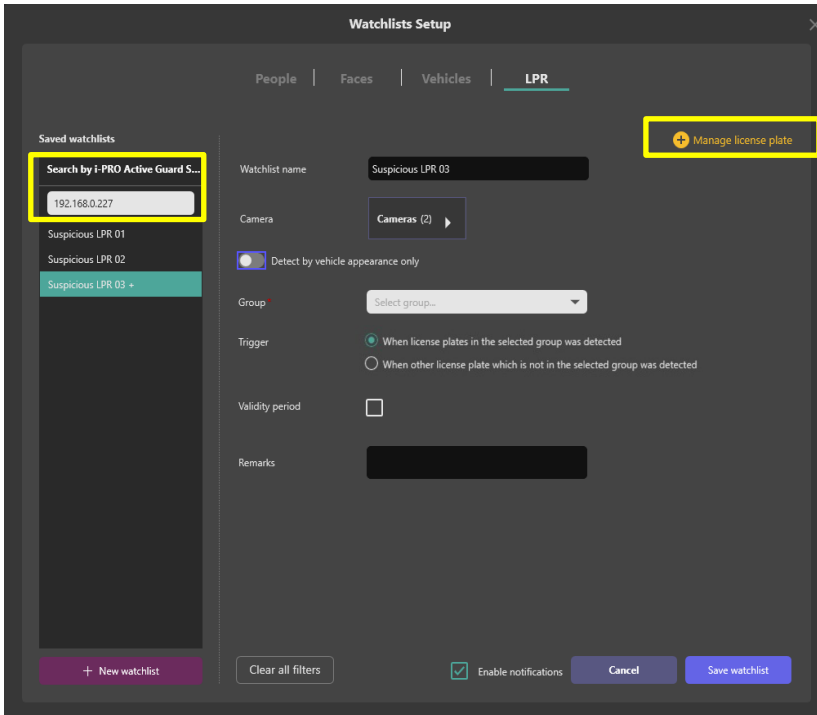


## 2.5.4.1. Manage License plate group

- **Add Registration**

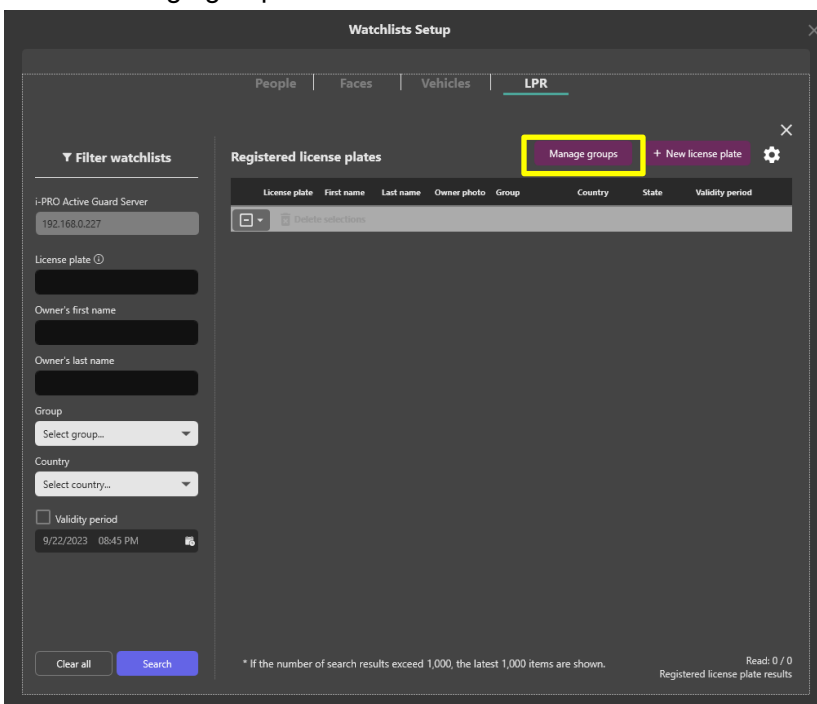
### Step 1

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



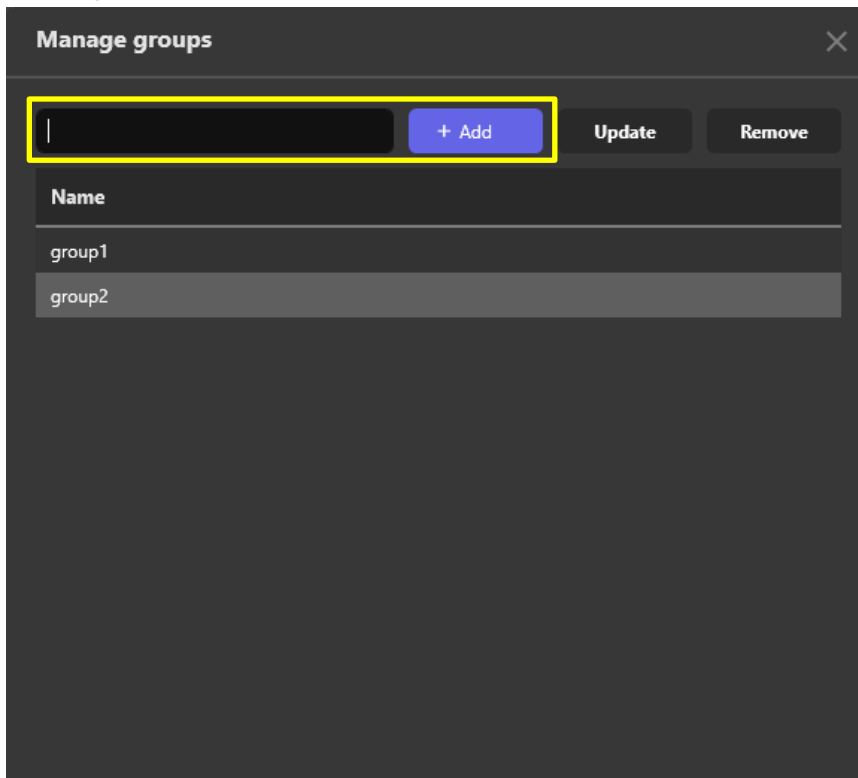
### Step 2

Click “Manage groups.”



### Step 3

Input group name, and "+ Add" button.

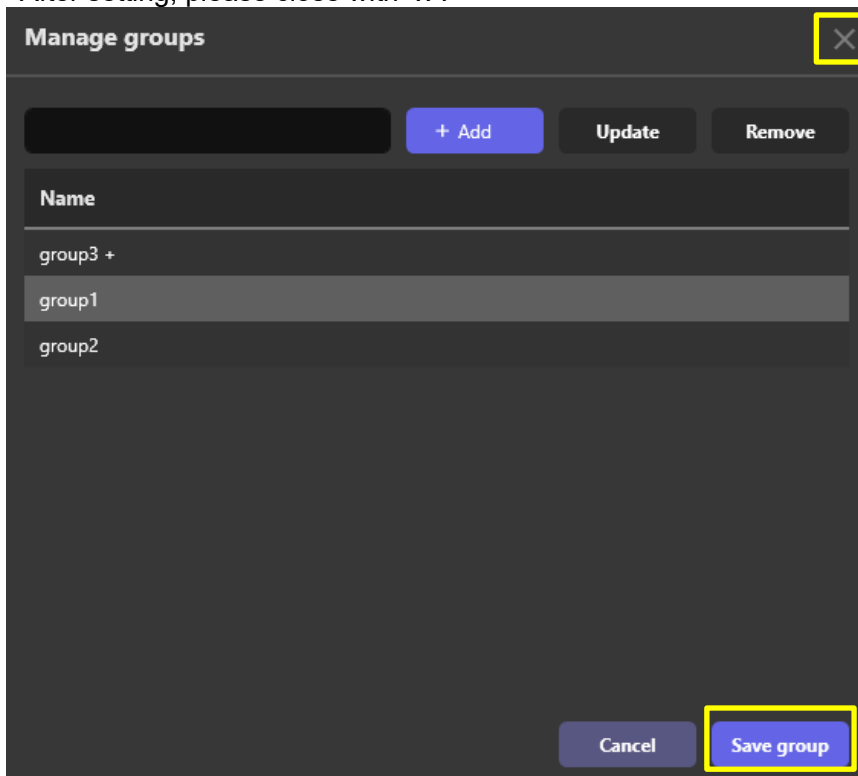


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field with a vertical cursor, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a list with the header "Name".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

### 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 list items are "group3 +", "group1" (highlighted), and "group2". The close button (X) in the top right corner is highlighted with a yellow box. 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**

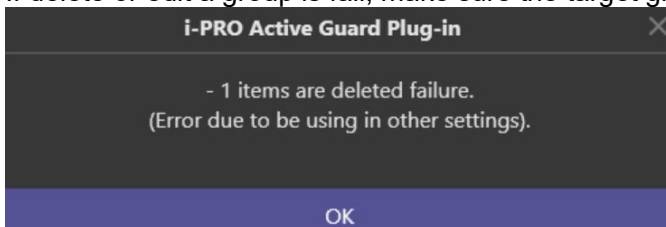
Select one of group name from list, then click Remove button.

**Step 2**

Click Save group button.

Note)

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

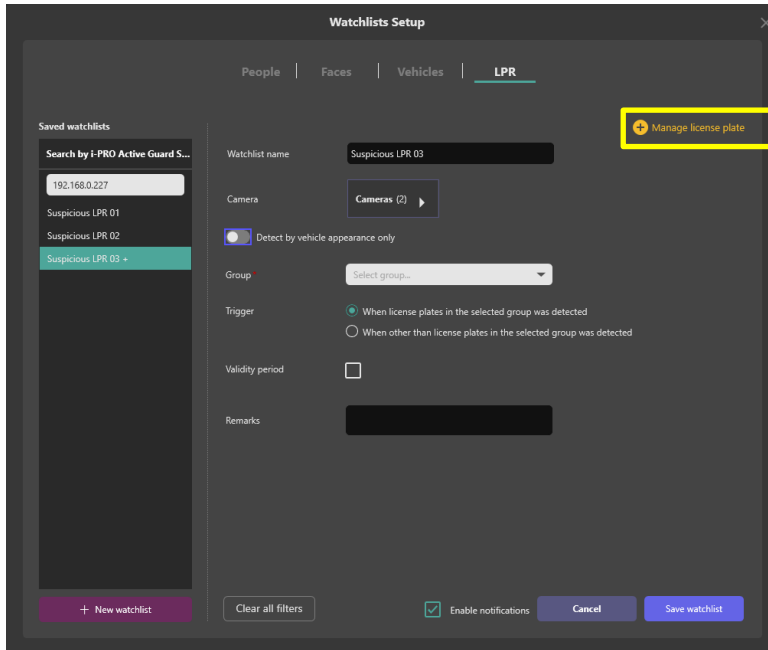


## 2.5.4.2. Manage License plate

- **Get registered list**

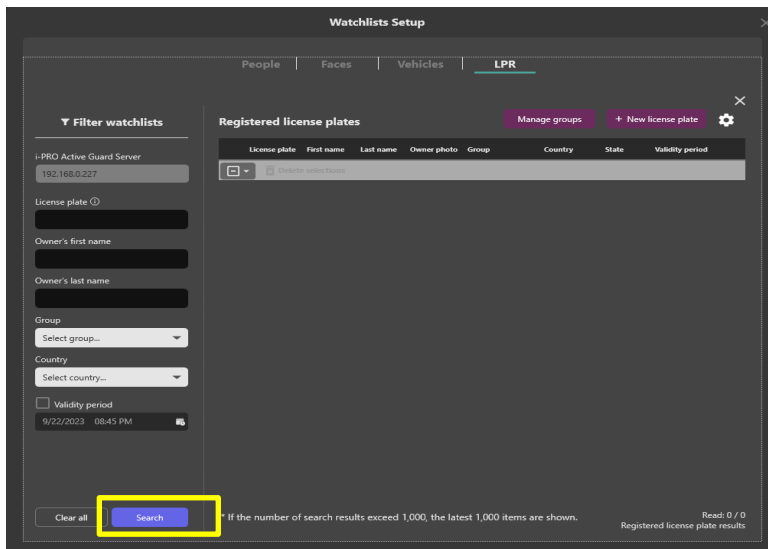
### Step 1

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:

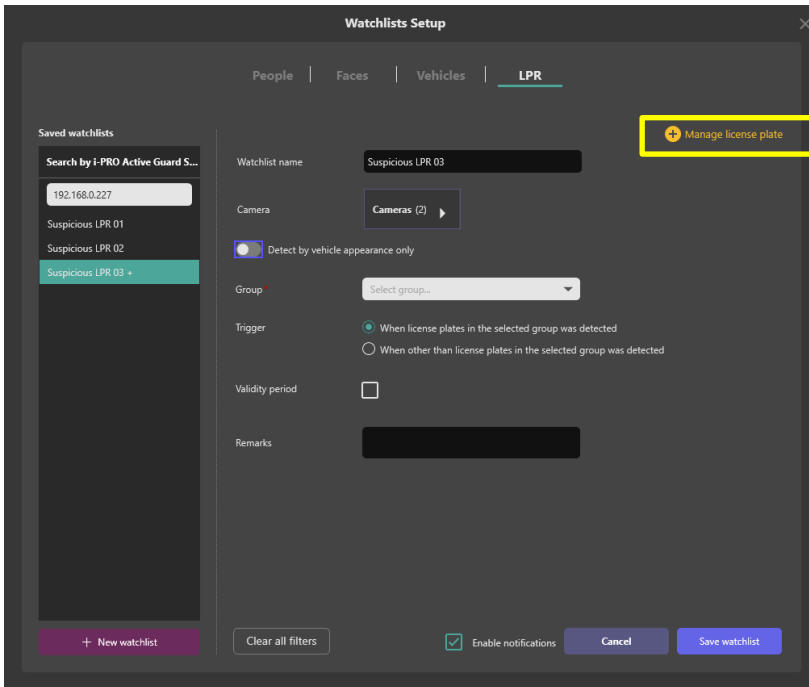
- Up to 1,000 License plates can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

- **Add Registration**

License plate can be registered via the Action button or the Watchlist Setup screen.  
For Action button, see 2.2.1.3.

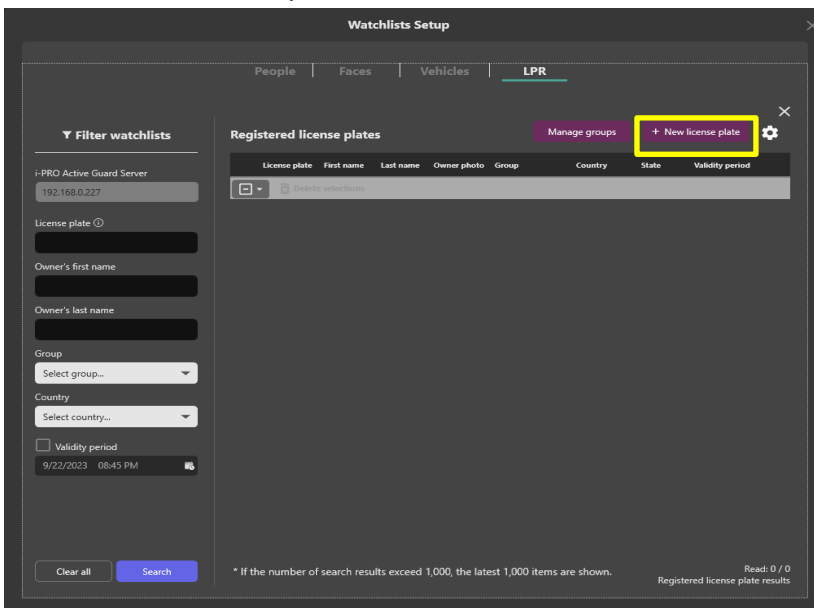
**Step 1**

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



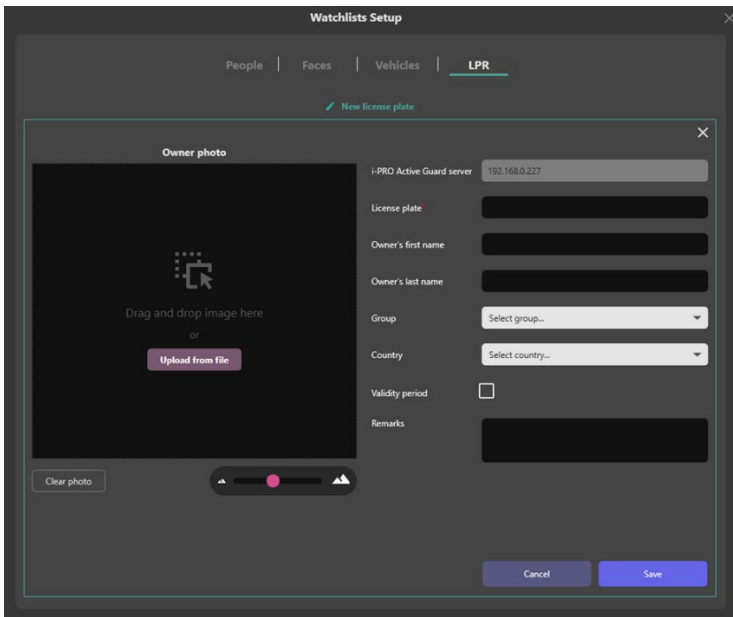
**Step 2**

Click “+ New License plate.”



**Step 3**

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



---

**Note:**

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

## ● Edit Registration


### Step 1

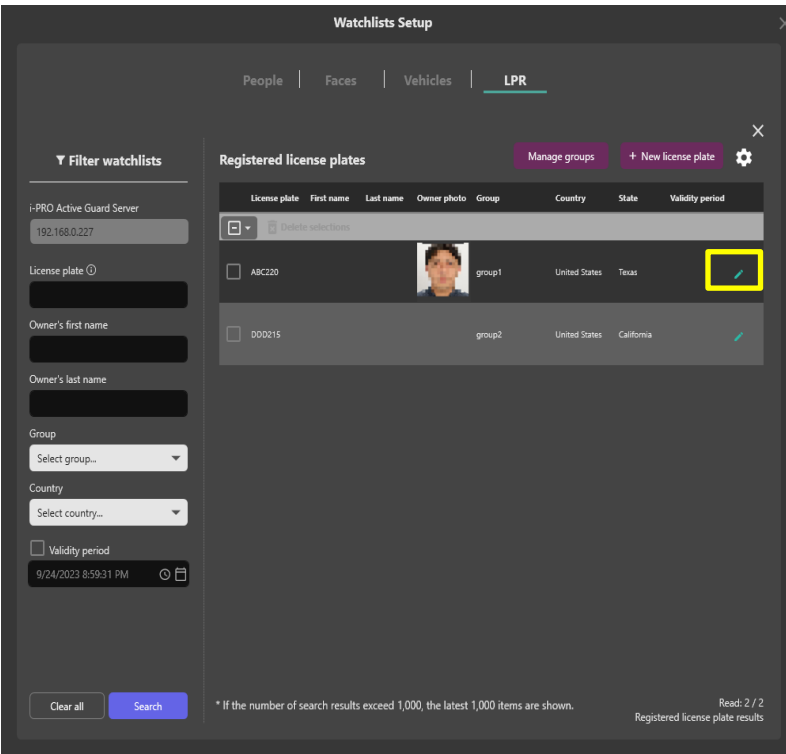
First, find registered license plate you want to edit the information. Registered license plate can be searched by using Filter watchlist.

#### 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' 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. Two rows are visible: one for 'ABC230' (Texas) and one for 'DDD215' (California). The 'Edit' icon (pencil) for the first row is highlighted with a yellow box.

License plate	First name	Last name	Owner photo	Group	Country	State	Validity period
ABC230				group1	United States	Texas	
DDD215				group2	United States	California	

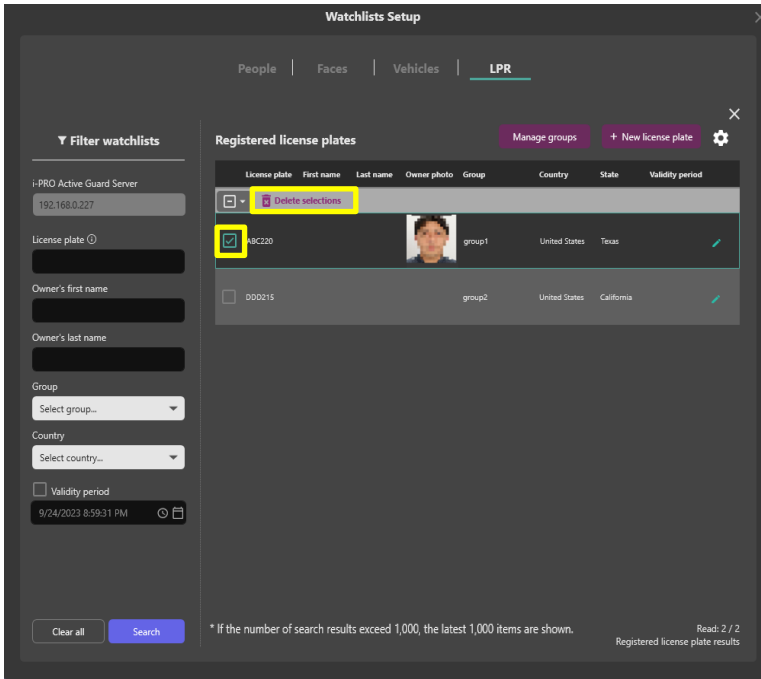
### Step 3

Edit any information then click Save.

- **Delete Registration**

**Step 1**

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



## 2.5.4.3. Export CSV of License plate

Registered License plate can be exported to CSV.


Export the following items:

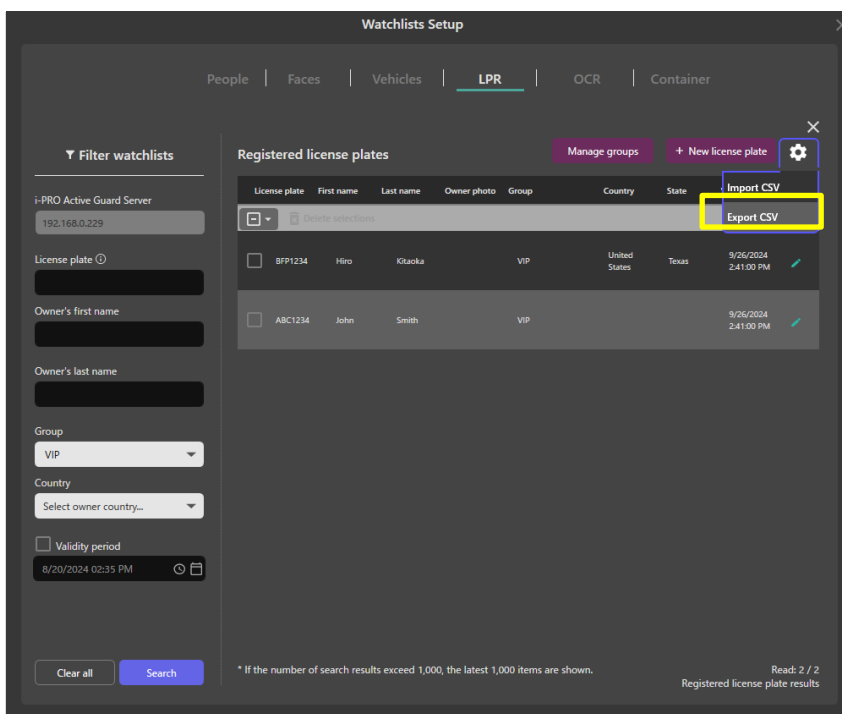
- License plate
- Country
- State
- First name
- Last name

### 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.

## 2.5.4.4. 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,

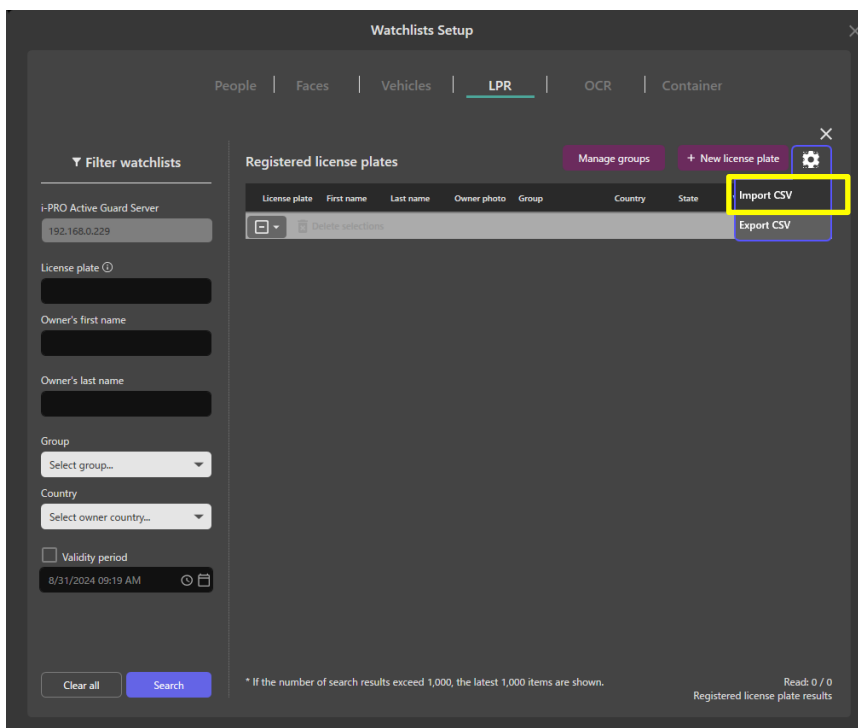
License Plate, First Name and Last Name are registered.

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, 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.
-

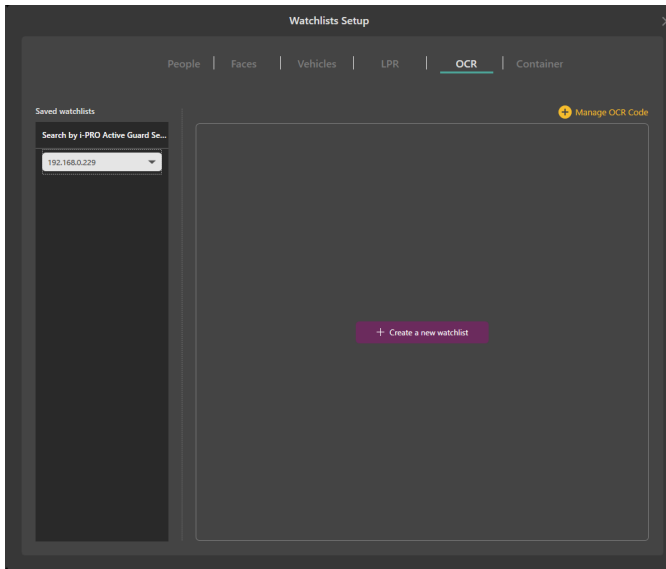
## 2.5.5. OCR Watchlist

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 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.

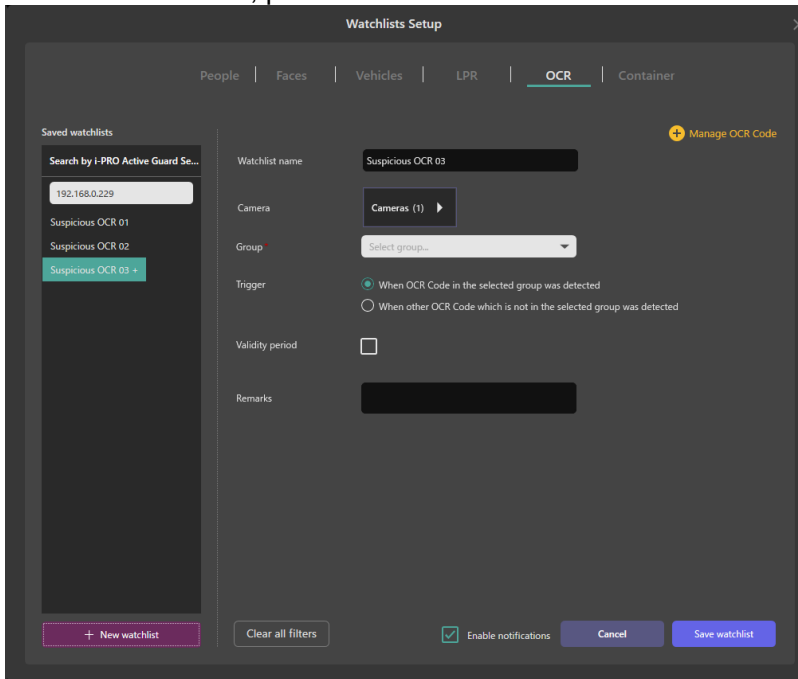


Registered items are listed on the left side.

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.

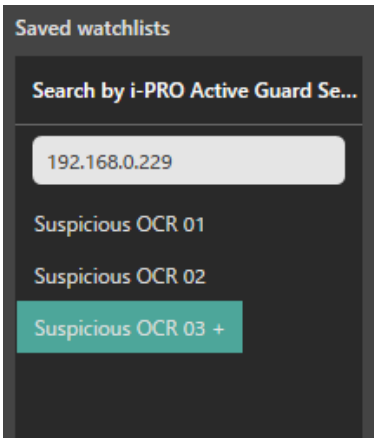
---

**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.
-

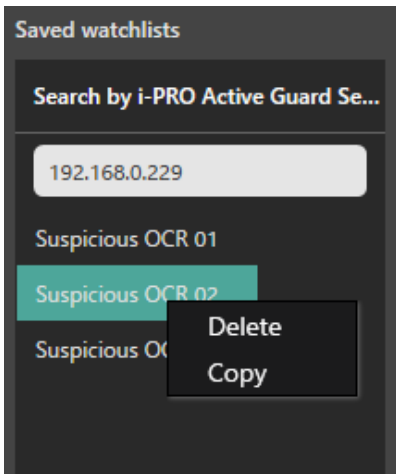
- **Edit Registration**

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.

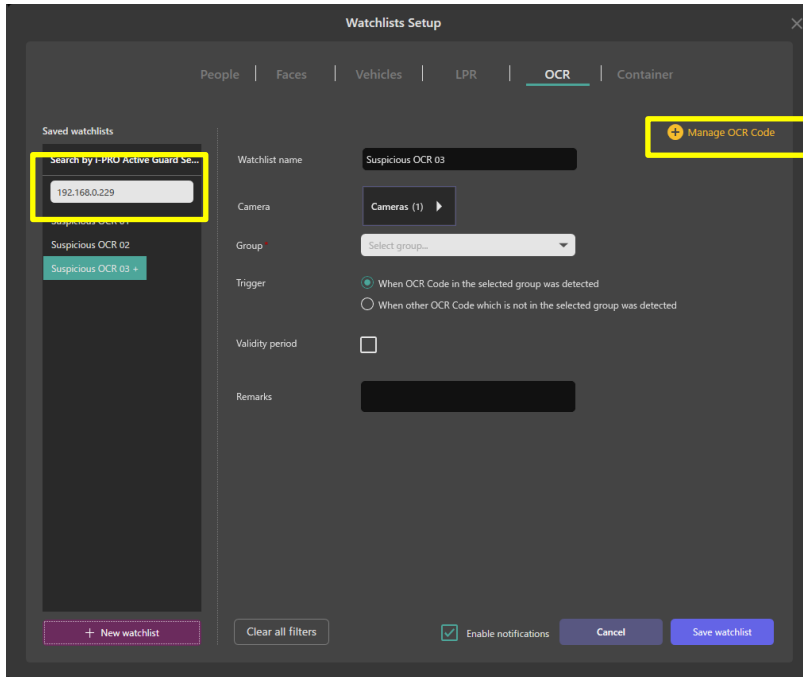


## 2.5.5.1. Manage OCR Code group

- **Add Registration**

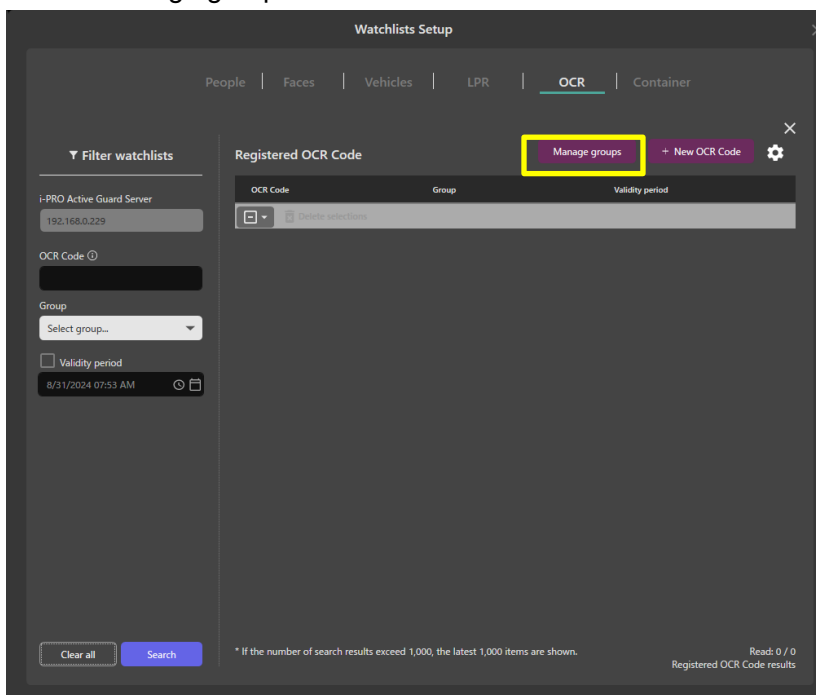
### Step 1

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



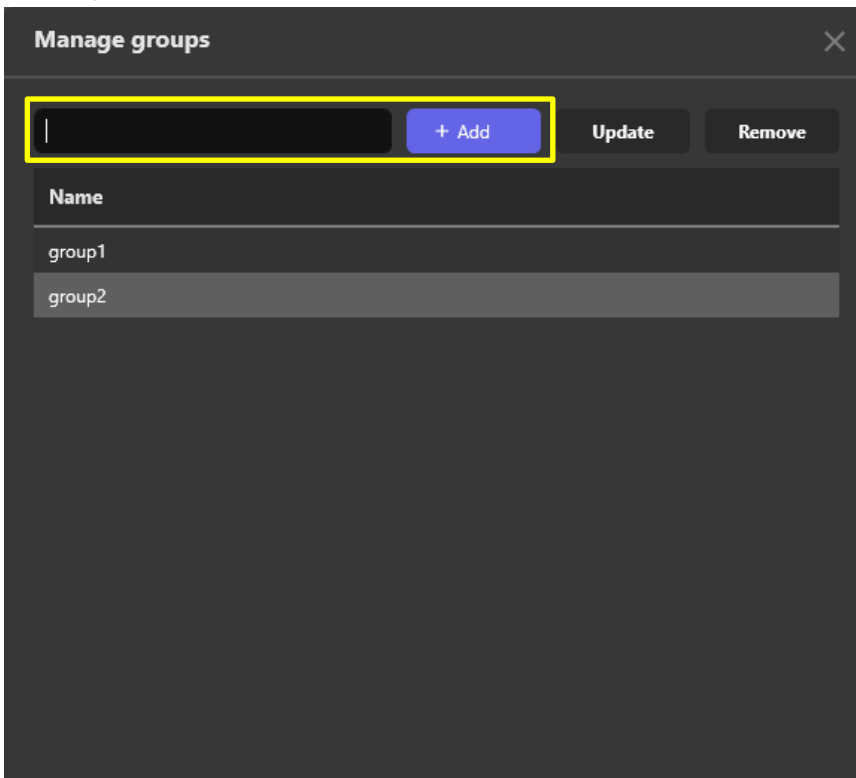
### Step 2

Click “Manage groups.”



### Step 3

Input group name, and "+ Add" button.

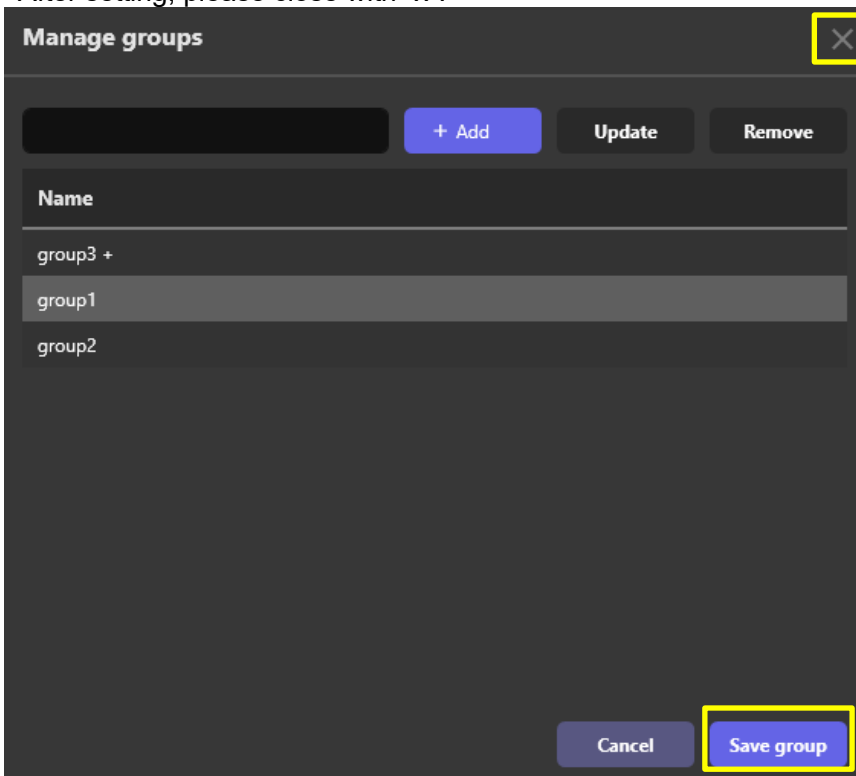


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field with a vertical cursor, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a list with the header "Name".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

### 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 list items are "group3 +", "group1" (highlighted), and "group2". The close button (X) in the top right corner is highlighted with a yellow border. At the bottom of the dialog, there are two buttons: "Cancel" and "Save group", with the "Save group" button highlighted by a yellow border.

- **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**

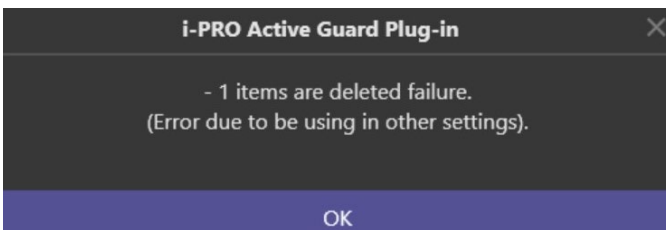
Select one of group name from list, then click Remove button.

**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.

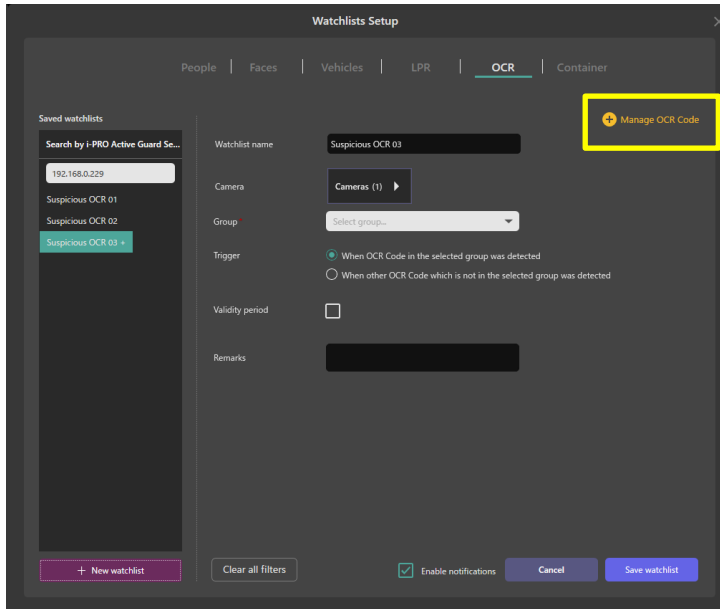


## 2.5.5.2. Manage OCR Code

- **Get registered list**

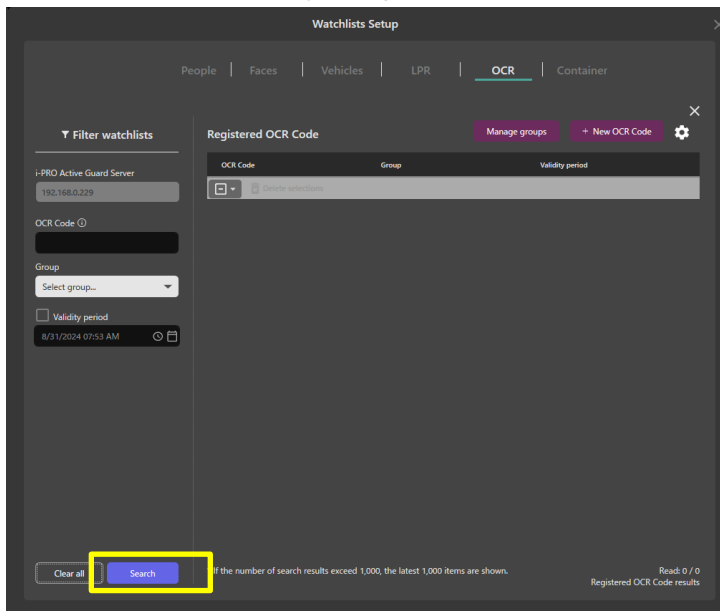
### Step 1

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.

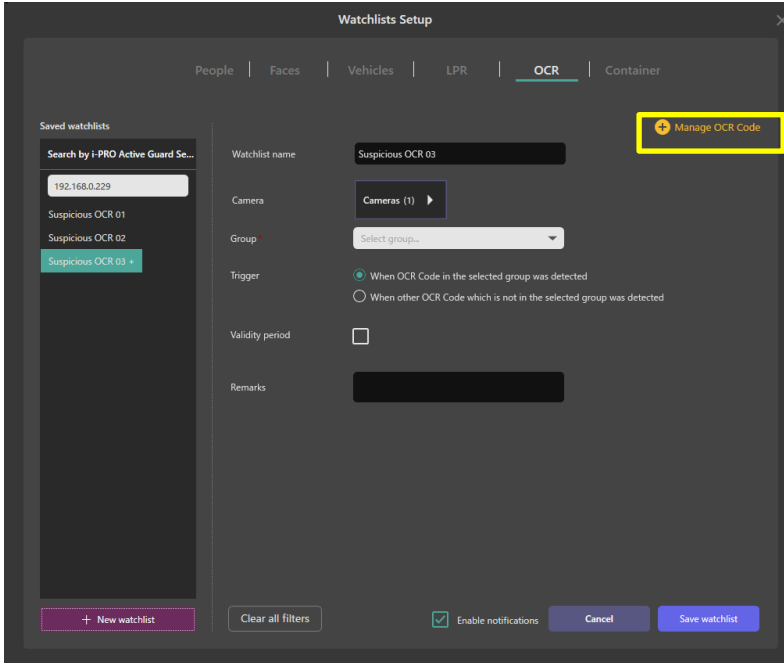


- **Add Registration**

OCR code can be registered via the Action button or the Watchlist Setup screen.  
For Action button, see 2.2.1.3.

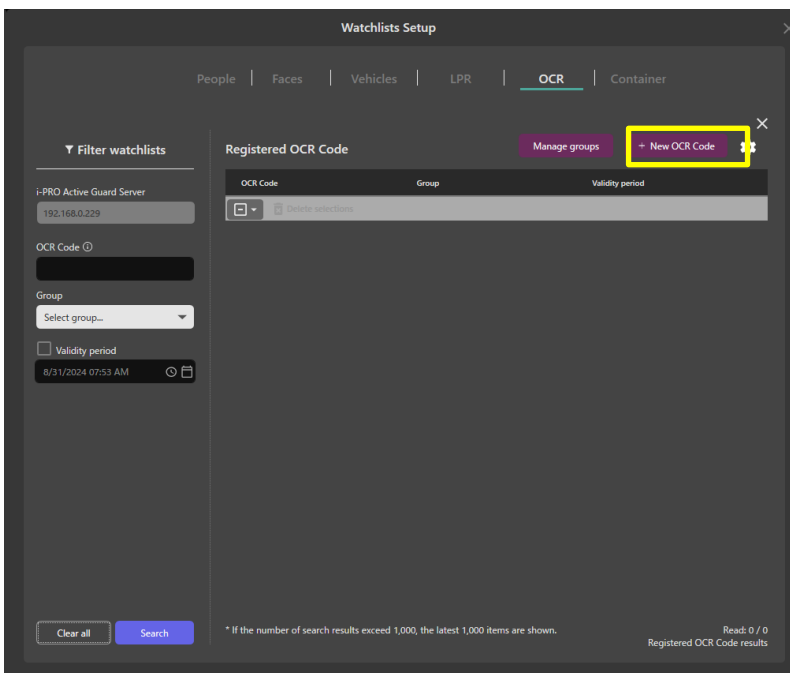
**Step 1**

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 'Watchlists Setup' window with a tabbed interface. The 'OCR' tab is selected. Inside the window, there is a 'New OCR Code' sub-dialog. The sub-dialog contains the following fields:

- i-PRO Active Guard server: 192.168.0.229
- OCR Code: [Redacted]
- Group: Select group... (dropdown menu)
- Validity period:
- Remarks: [Redacted]

At the bottom of the sub-dialog are 'Cancel' and 'Save' buttons.

---

**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

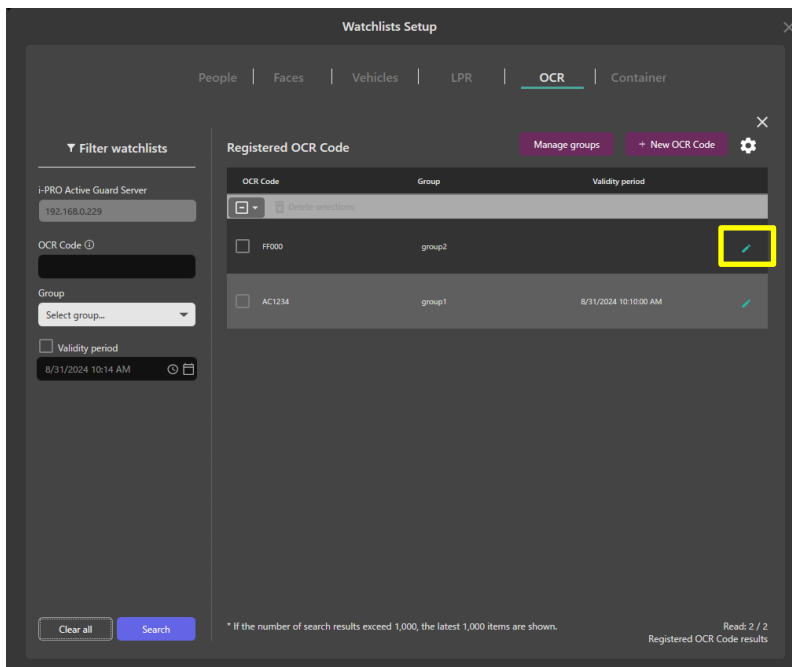
First, find registered OCR Code you want to edit the information.  
Registered OCX Code can be searched by using filter.

#### 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.



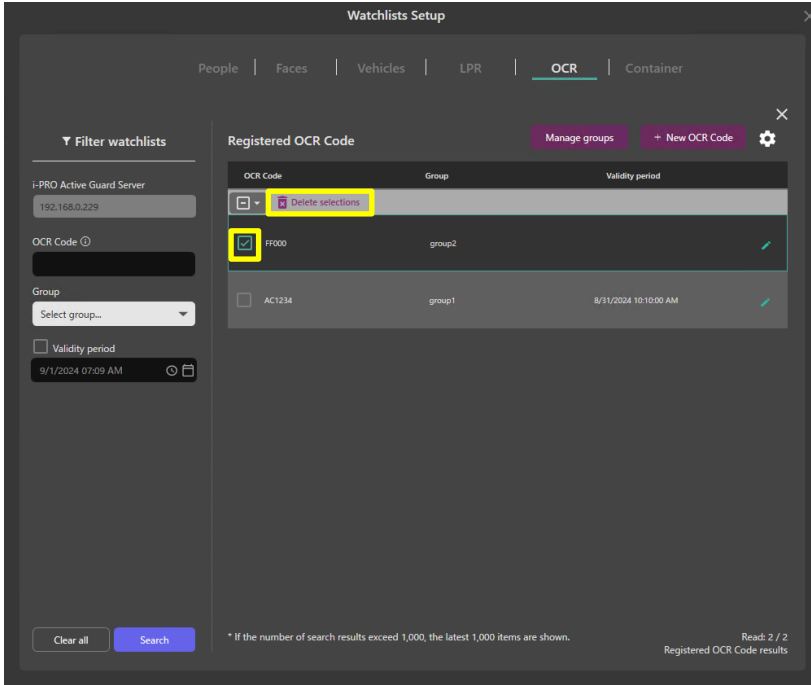
### Step 3

Edit any information then click Save.

- **Delete Registration**

**Step 1**

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



## 2.5.5.3. Export CSV of OCR code

Registered OCR codes can be exported to CSV.


Export the following items:

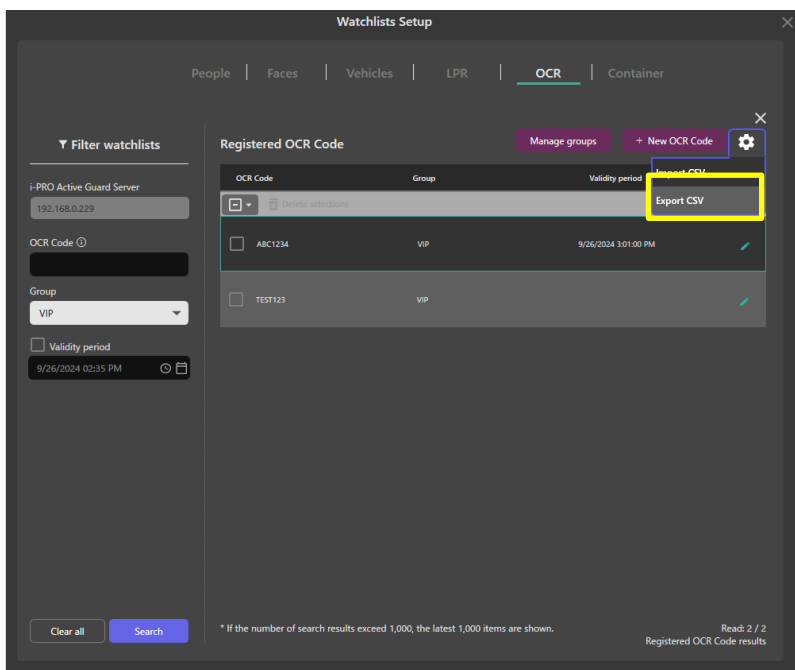
- OCR code

### 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

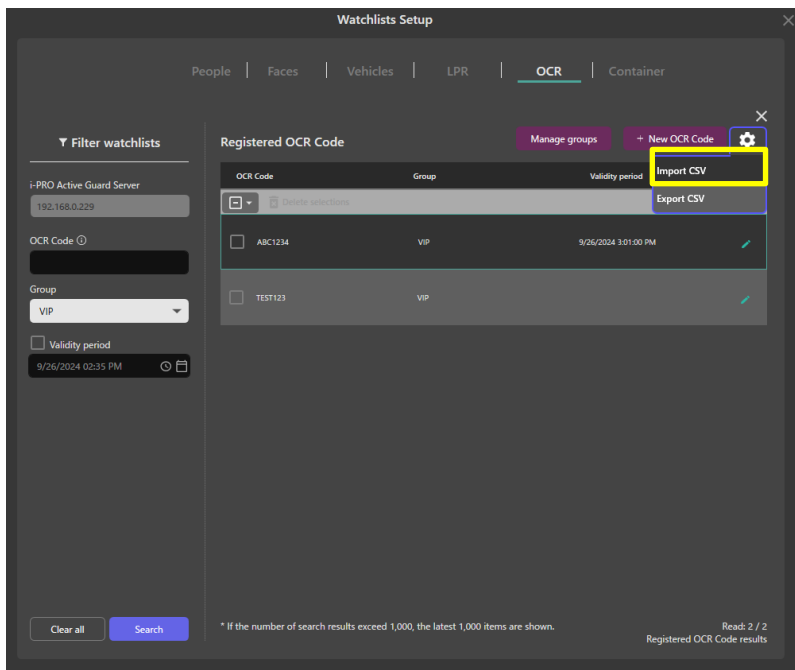
Specify the output destination for the CSV file and save it.

## 2.5.5.4. 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.
-

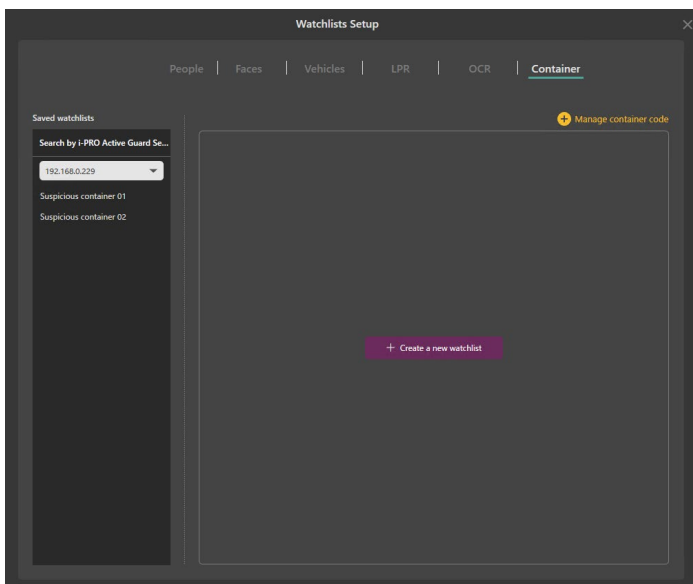
## 2.5.6. Container Watchlist

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 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.

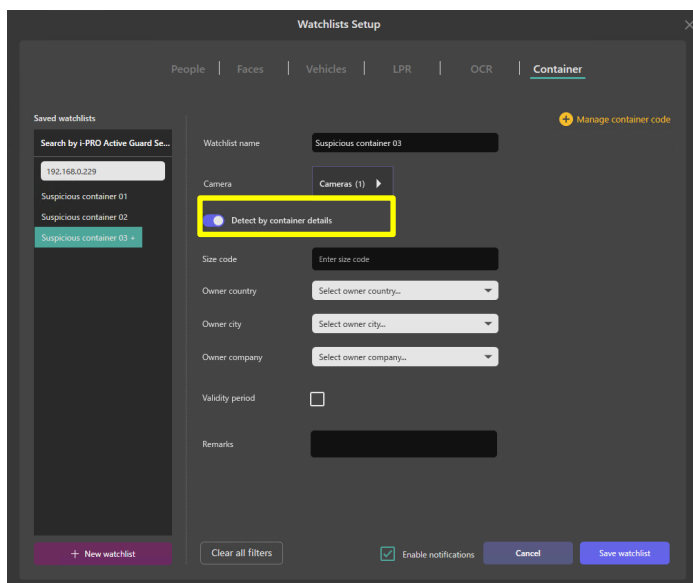


Registered items are listed on the left side.

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.

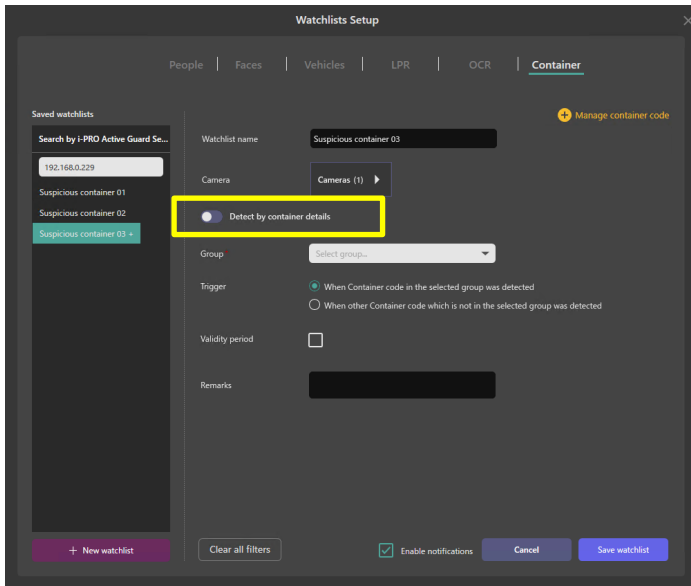


- **Add Registration (Container Group)**

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.

---

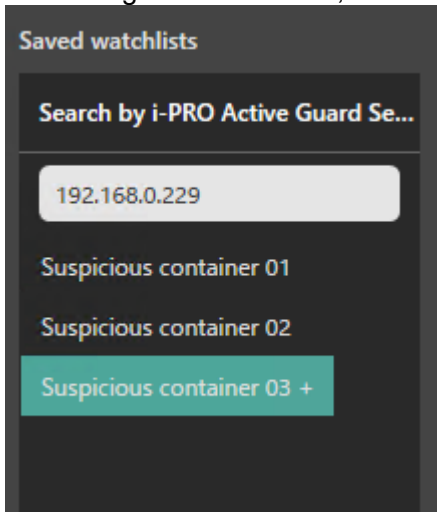
**Note:**

- 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.
-



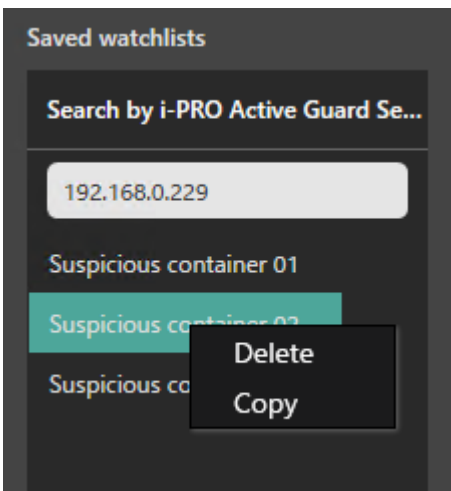
- **Edit Registration**

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.

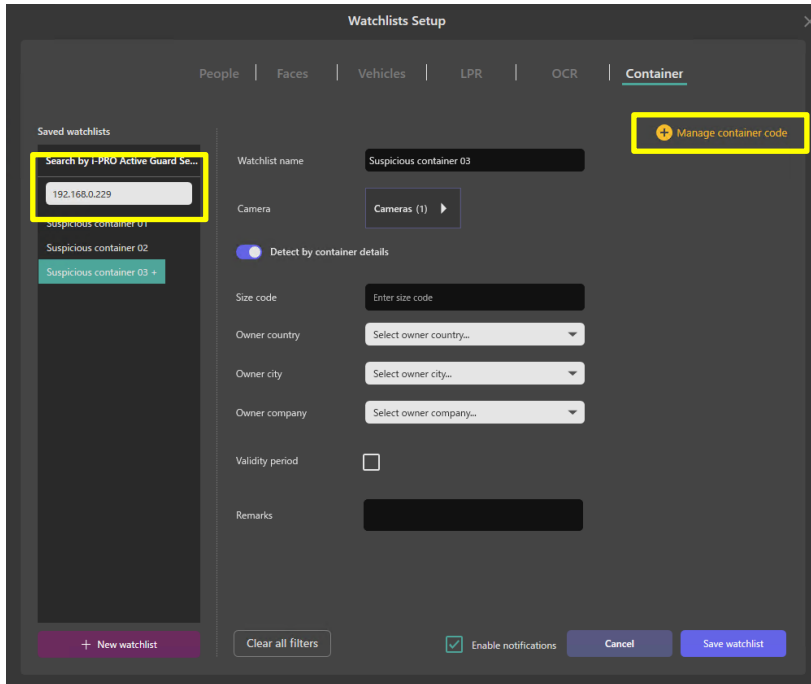


## 2.5.6.1. Manage Container group

- **Add Registration**

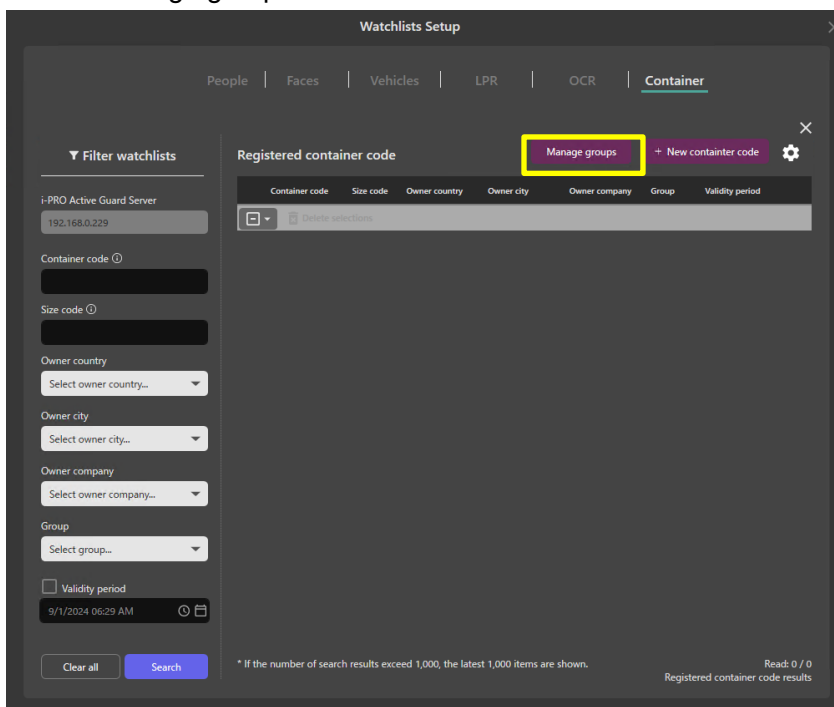
### Step 1

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



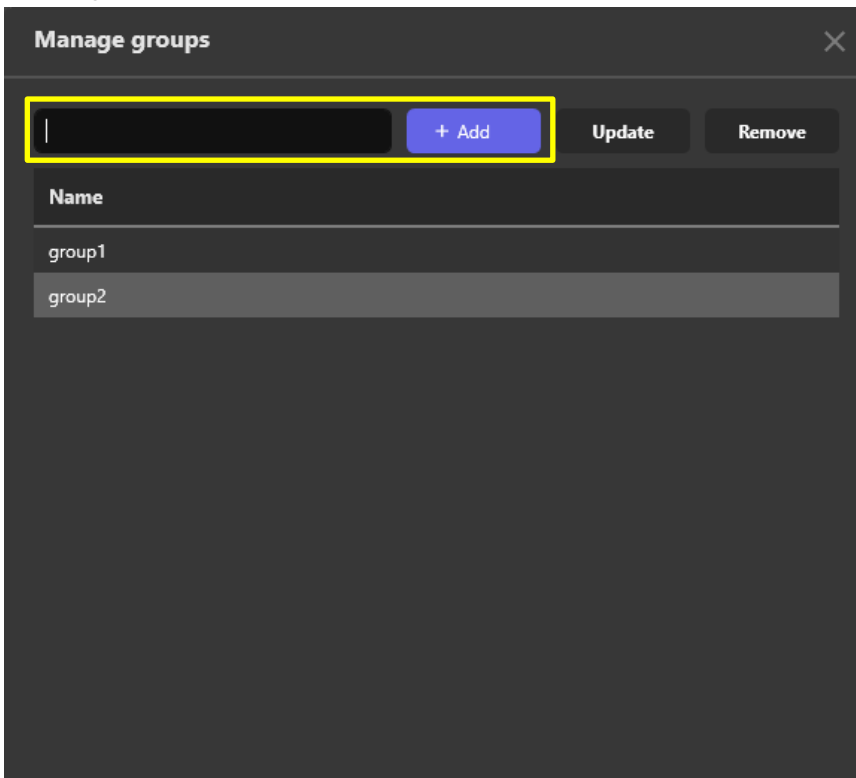
### Step 2

Click “Manage groups.”



### Step 3

Input group name, and "+ Add" button.

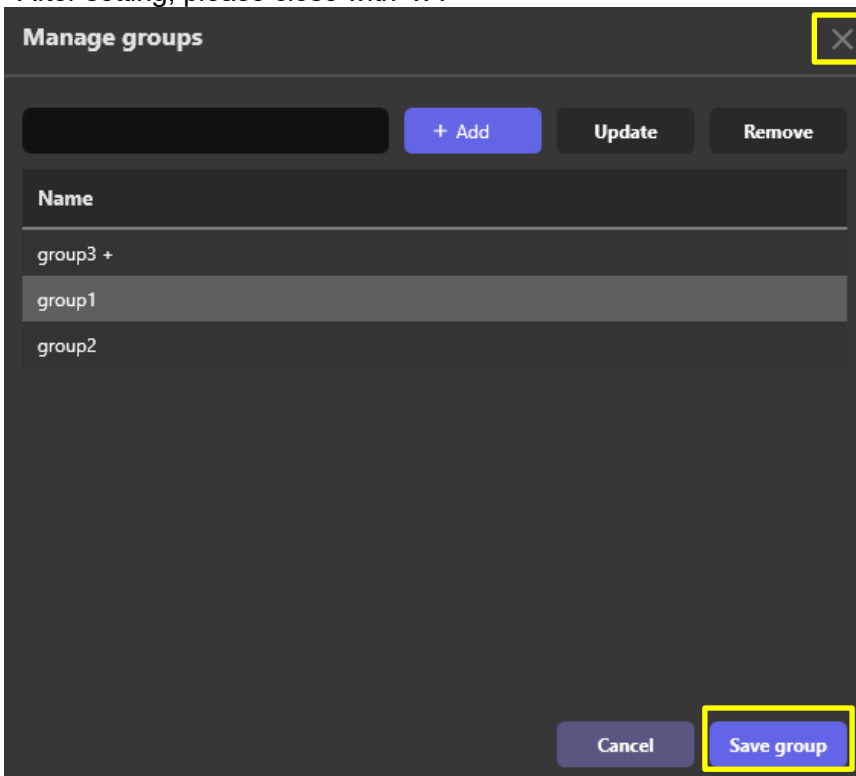


The screenshot shows a dark-themed dialog box titled "Manage groups" with a close button (X) in the top right corner. At the top, there is a text input field with a vertical cursor, a blue "+ Add" button, and two grey buttons labeled "Update" and "Remove". Below this is a list with the header "Name".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

### 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 list items are "group3 +", "group1" (highlighted), and "group2". At the bottom of the dialog, there are two buttons: "Cancel" and "Save group", with the "Save group" button highlighted by a yellow box. The close button (X) in the top right corner is also 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**

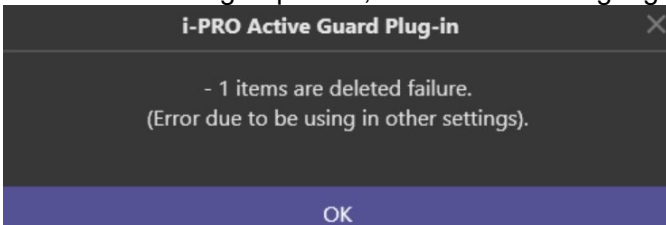
Select one of group name from list, then click Remove button.

**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.

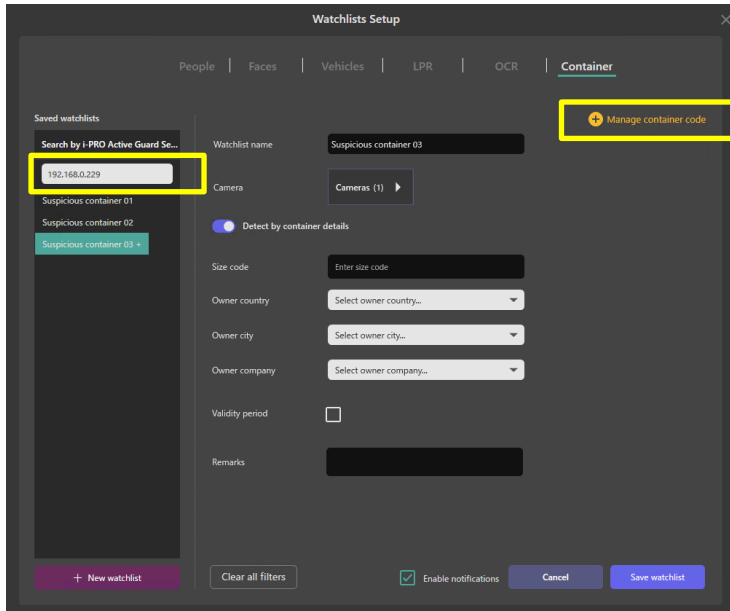


## 2.5.6.2. Manage Container code

- **Get registered list**

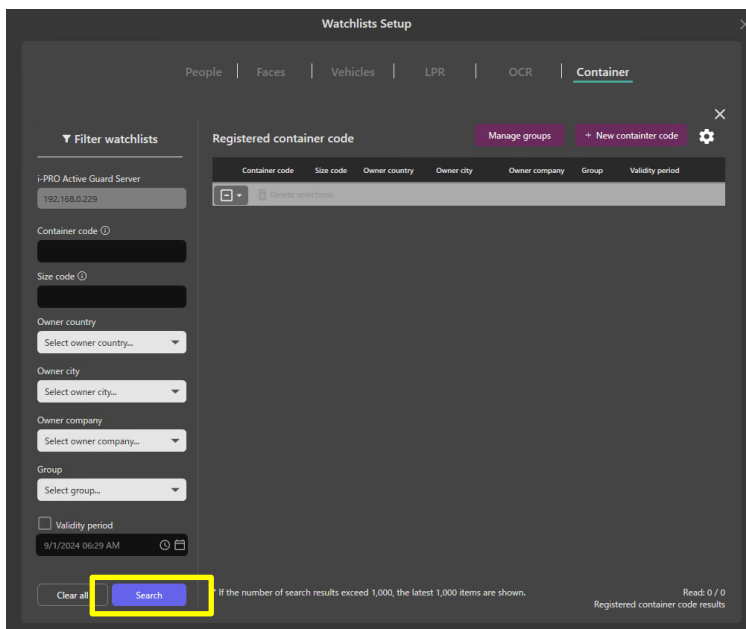
### Step 1

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



### Step 2

Click “Search”



### Note:

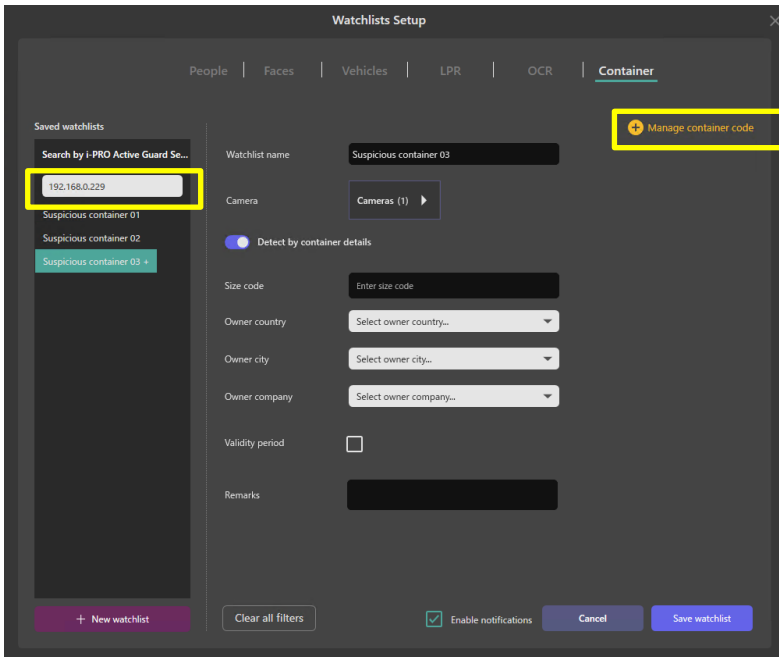
- Up to 1,000 container code can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

- **Add Registration**

Container code can be registered via the Action button or the Watchlist Setup screen.  
For Action button, see 2.2.1.3.

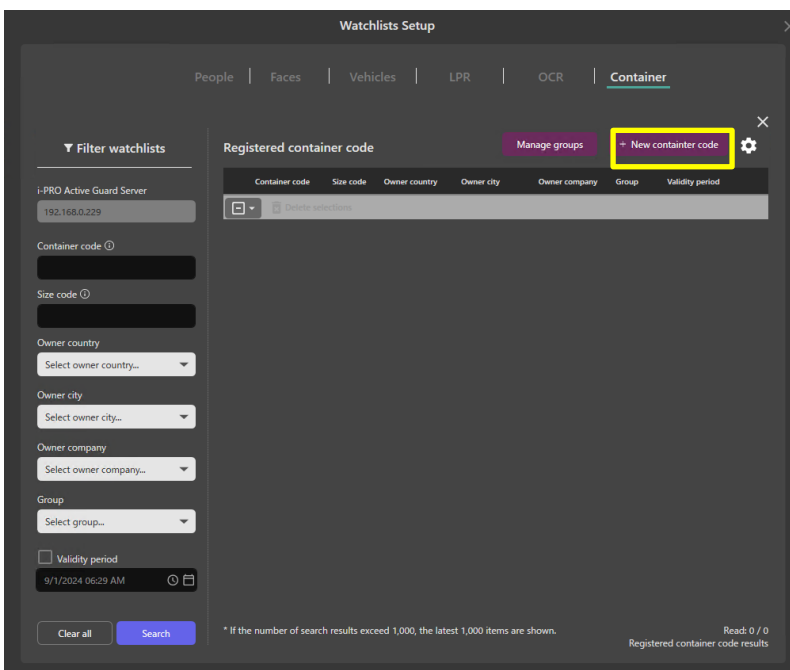
**Step 1**

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



**Step 2**

Click “+ New container code.”



**Step 3**

Input information then click Save. “Container code” is required.

Watchlists Setup

People | Faces | Vehicles | LPR | OCR | Container

New container code

i-PRO Active Guard server 192.168.0.229

Container code

Size code

Owner country

Owner city

Owner company

Group

Validity period

Remarks

Cancel Save

---

**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

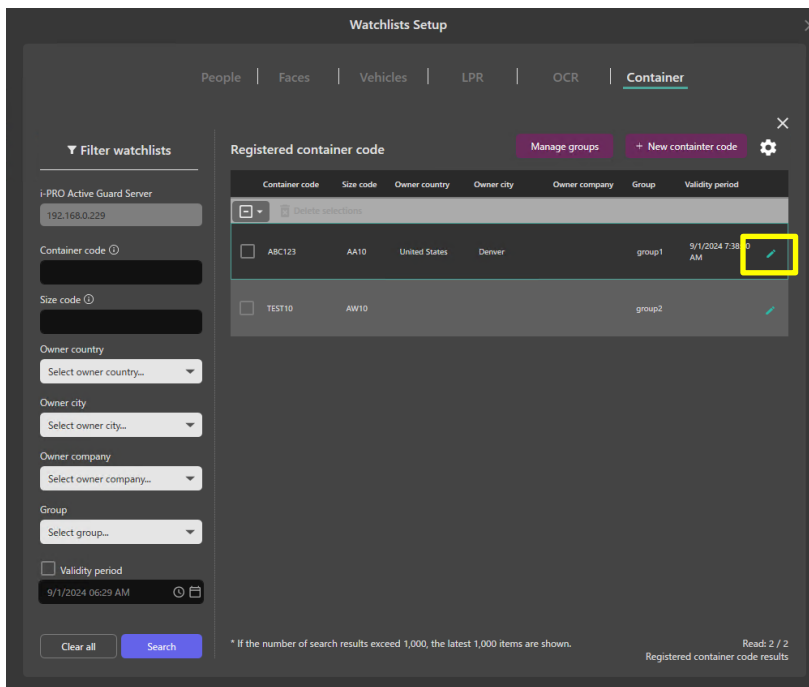
First, find registered container code you want to edit the information. Registered container code can be searched by using filter.

#### 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 are filter options for 'Filter watchlists' including 'i-PRO Active Guard Server' (192.168.0.229), 'Container code', 'Size code', 'Owner country', 'Owner city', 'Owner company', 'Group', and 'Validity period'. The main area displays a table of 'Registered container code' with columns: Container code, Size code, Owner country, Owner city, Owner company, Group, and Validity period. Two rows are visible: one with container code 'ABC123' and another with 'TEST10'. A yellow box highlights the edit icon (a pencil) in the first row. At the bottom, there are 'Clear all' and 'Search' buttons, and a footer note: '\* If the number of search results exceed 1,000, the latest 1,000 items are shown.' and 'Read: 2 / 2 Registered container code results'.

### Step 3

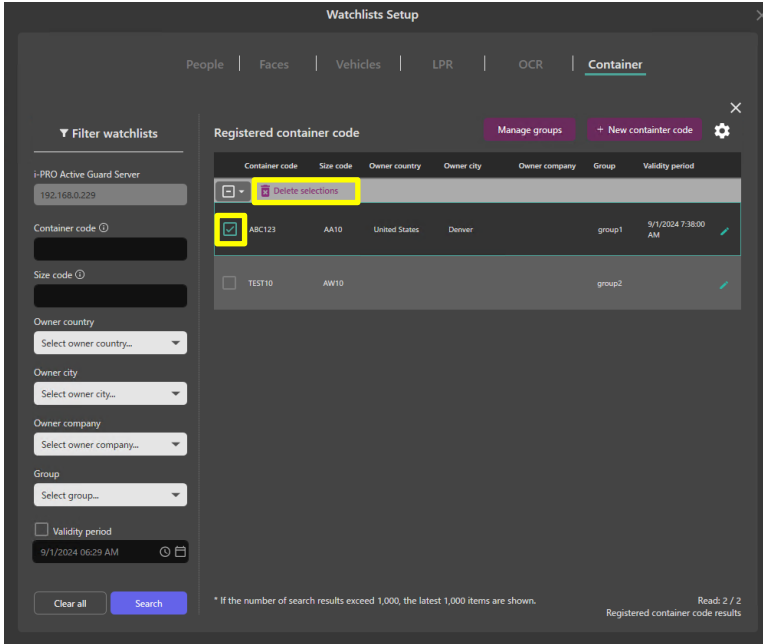
Edit any information then click Save.



- **Delete Registration**

**Step 1**

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



## 2.5.6.3. Export CSV of Container code

Registered container code can be exported to CSV.


Export the following items:

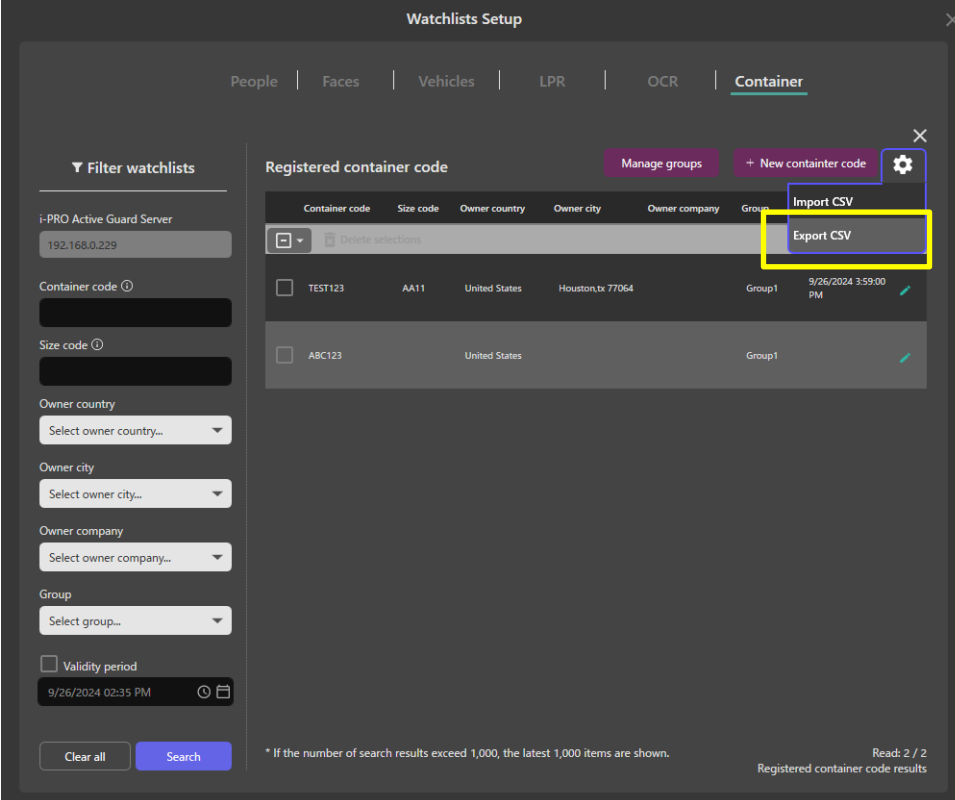
- Container code
- Size code
- Owner country
- Owner company

### 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' interface 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' with columns for Container code, Size code, Owner country, Owner city, Owner company, and Group. Two rows are visible: TEST123 and ABC123. A yellow box highlights the 'Export CSV' button in the top right corner of the table area. The interface also includes a 'Search' button at the bottom left and a 'Read: 2 / 2' indicator at the bottom right.

### 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

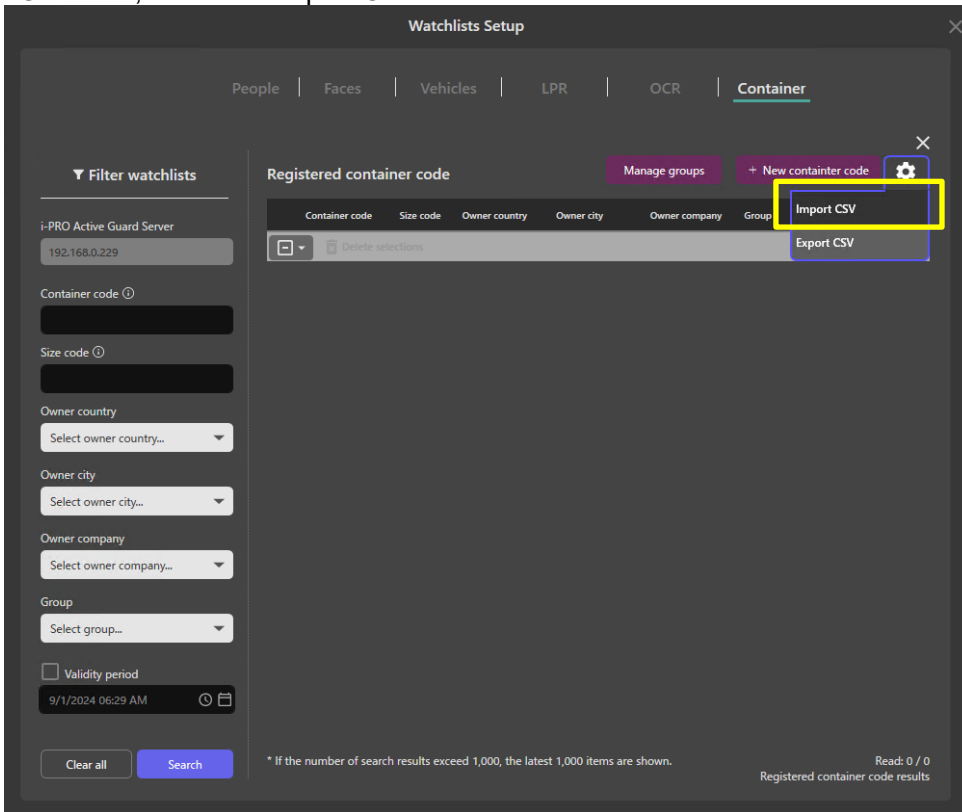
Specify the output destination for the CSV file and save it.

## 2.5.6.4. 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.

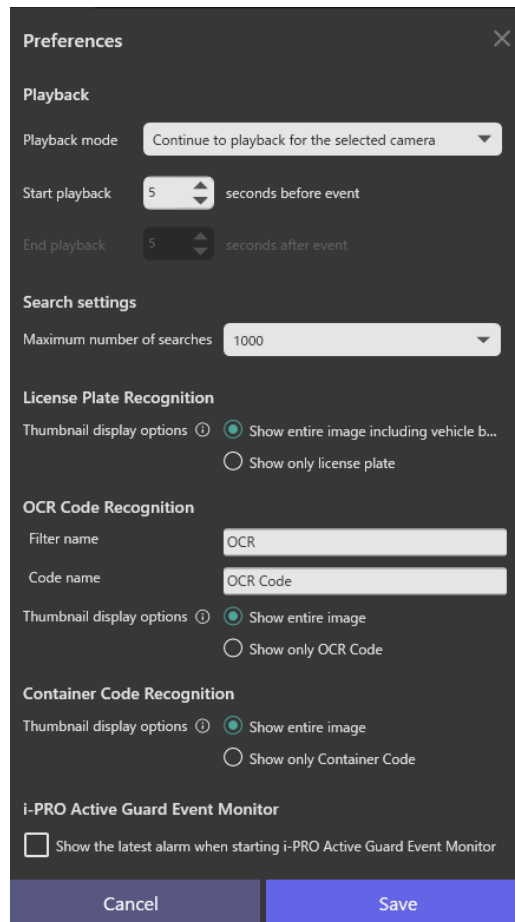
\*2 : If the string contains commas, enclose it in double quotes.

#### Note:

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

## 2.5.7. Preferences

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

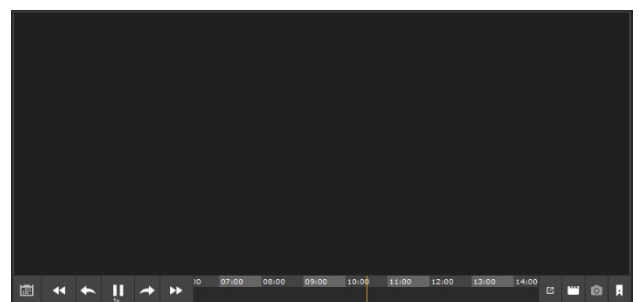


### A. Playback

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.

This setting is available both of i-PRO Active Guard Search and i-PRO Active Guard Event.



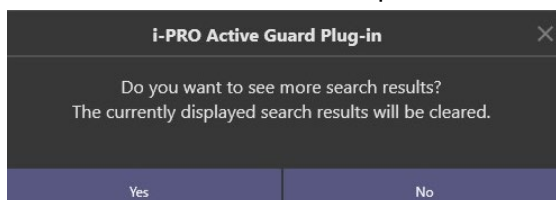
## B. Search setting

---

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

---

### - Thumbnail display options

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

## D. OCR Code Recognition

---

### - Filter name

You can change the display name of OCR filter.

### - Code name

You can change the display name of OCR Code.

### - Thumbnail display options

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

## E. Container Code Recognition

---

### - Thumbnail display options

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

F. Show the latest alarm when starting event monitor

When you start-up i-PRO Active Guard Event, the latest detected events are loaded automatically to prevent from overlook important events.

The screenshot shows the i-PRO Active Guard Event monitor interface. On the left, there is a 'Filter' panel with options for 'Camera ID', 'Registered Face detection', 'Registered people detection', 'AI VMD', and 'Sound'. The main area displays a table of events with columns for Date/Time, Camera, Event, Detected, Registered, Details, and a close button. The 'Current Duty/Time' is shown as 201/204052145277.

Date/Time	Camera	Event	Detected	Registered	Details	Close
2024/11/17 18:13:08	Cam01	Active detection	Missed detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	NF	Missed detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	Unusual	Unusual detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:01	Cam02	Abuse	Unusual detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	Open door	Open door detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	Fire alarm	Unusual detection	-	Object type: Person Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	Whistle	Unusual detection	-	Event ID: 202401010101	✕
2024/11/19 21:11:02	Cam02	Whistle	Unusual detection	-	Object type: Person Event ID: 202401010101	✕
2024/11/17 14:45:21	Cam02	NF	Missed detection	-	Event ID: 202401010101	✕

## 2.5.8. 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**

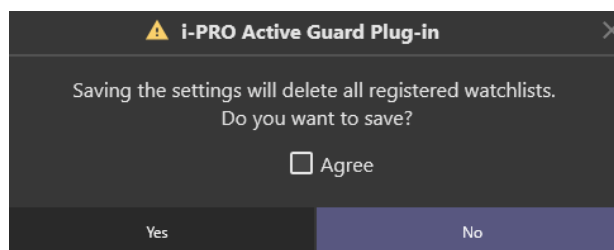
- Country/State
- Moving Direction
- Vehicle type
- Vehicle color
- Brand/Model
- Owner's name/photo

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.

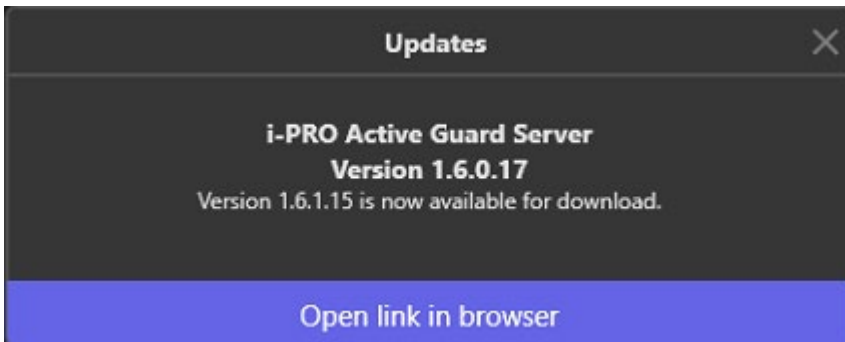
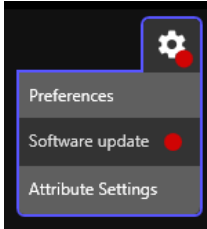


When multiple i-PRO Active Guard servers are registered in Plug-in, watchlists will be deleted from all registered servers.

- OCR and Container are not supported.
-

## 2.5.9. 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, Vehicle, etc. 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 camera 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 shows 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.
Object type like human or vehicle is not shown on Details of Event monitor for AI-VMD alarm.	Check AI-VMD setting on camera side. "With detection object information (alarm frame information)" or "With detection object information (AI frame information)" should be configured for "Additional information type."
Failed to register Face.	If there are no margin around face image, it may increase encountering failure.
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, OCR group, Container group is failed.	Please make sure the target group is not in your LPR, OCR, Container 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.
Slow response to searches, settings, etc.	Response may be slow depending on your environment. SQL instances on the network, especially when using FCI, tend to be slower. Please wait a while until the process is completed. To improve the situation, please reduce the server load (reduce the number of searches) or review the network configuration and try 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](https://i-pro.com/products_and_solutions/en/surveillance/documentation-database/i-pro-ai-applications-spec-sheet-us)

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