



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



CONTENTS

1. INTRODUCTION	2
1.1. FEATURES	2
1.2. PREFACE	4
1.3. SYSTEM OVERVIEW	4
2. i-PRO ACTIVE GUARD PLUG-IN	5
2.1. START-UP AND TERMINATE PLUG-IN	5
2.2. SEARCH DETECTED OBJECTS	7
2.3. MONITOR VARIOUS EVENTS	38
2.4. PLAYBACK VIDEO CONTROL	46
2.5. SETTINGS	47
3. TROUBLESHOOTING	108
4. Appendices	110
4.1. Specifications	110
5. OPEN-SOURCE SOFTWARE	111

1. INTRODUCTION

1.1. FEATURES

1.1.A. Terms in use

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This product is designed to search/verify a specified face from database that stores face information and thumbnail images created based on faces captured by network cameras and display statistical information by operation using a client terminal or system compatible with this product. This product by itself is not designed for crime prevention. This product must not be used for any purpose that is unlawful or prohibited by any law or regulation. We are not responsible for such unlawful or infringing use of our products. In addition, our company accepts no responsibility for the following under any circumstances.

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- (6) LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE (INCLUDING INITIALIZATION OF THE PRODUCT DUE TO FORGOTTEN AUTHENTICATION INFORMATION SUCH AS A USERNAME AND PASSWORD).
- (7) ANY PROBLEM, DAMAGE OR COMPLAINT CAUSED BY THE OPERATION BY A MALICIOUS THIRD PARTY.

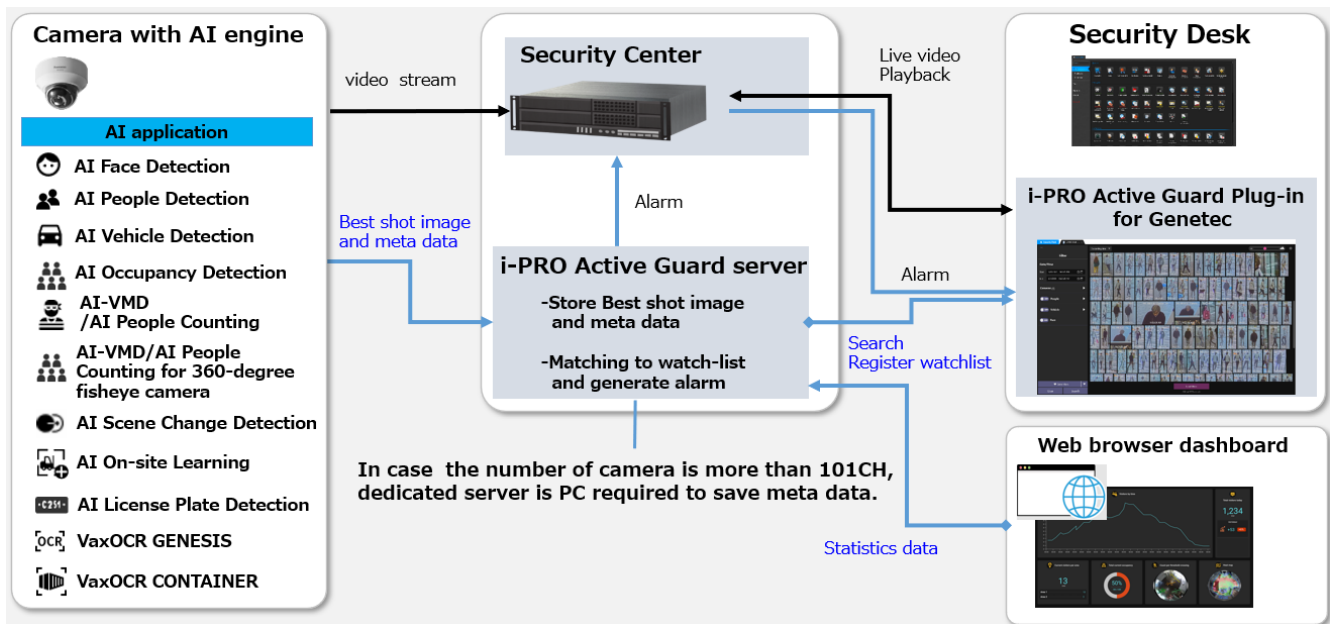
1.2. PREFACE

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

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 Security Center and transmit Best shot images and meta data to i-PRO Active Guard server.

i-PRO Active Guard server stores those data and also generates alarm when face or 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 Security Desk can search Best shot images, register watchlist, show live video, recorded video, and alarm.

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

2. i-PRO ACTIVE GUARD PLUG-IN

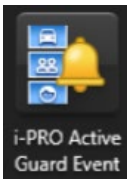
2.1. START-UP AND TERMINATE PLUG-IN

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.



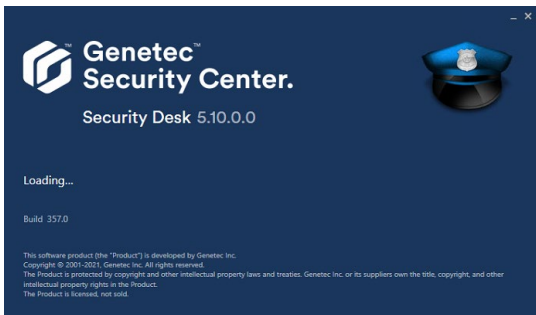
i-PRO Active Guard Event

Enable to detected past events that AI cameras recognize can be searched.

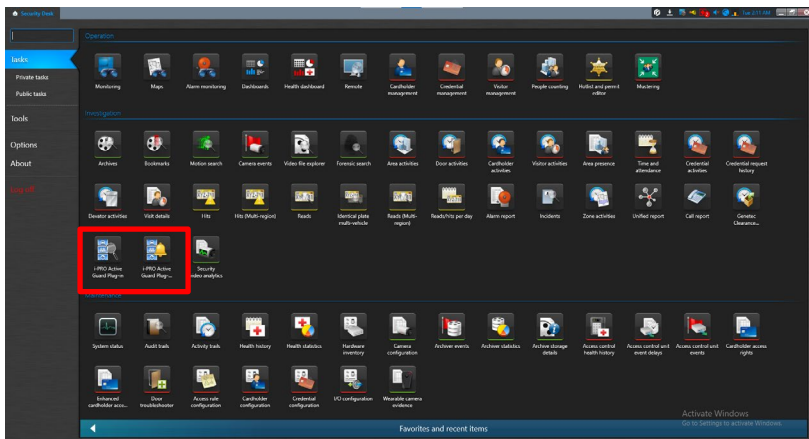
2.1.1. Start-up Plug-in

To open Plug-in, start-up Security Desk and log in first.

For more detail about Security Desk, refer to the Genetec user manual.



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



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



Note:

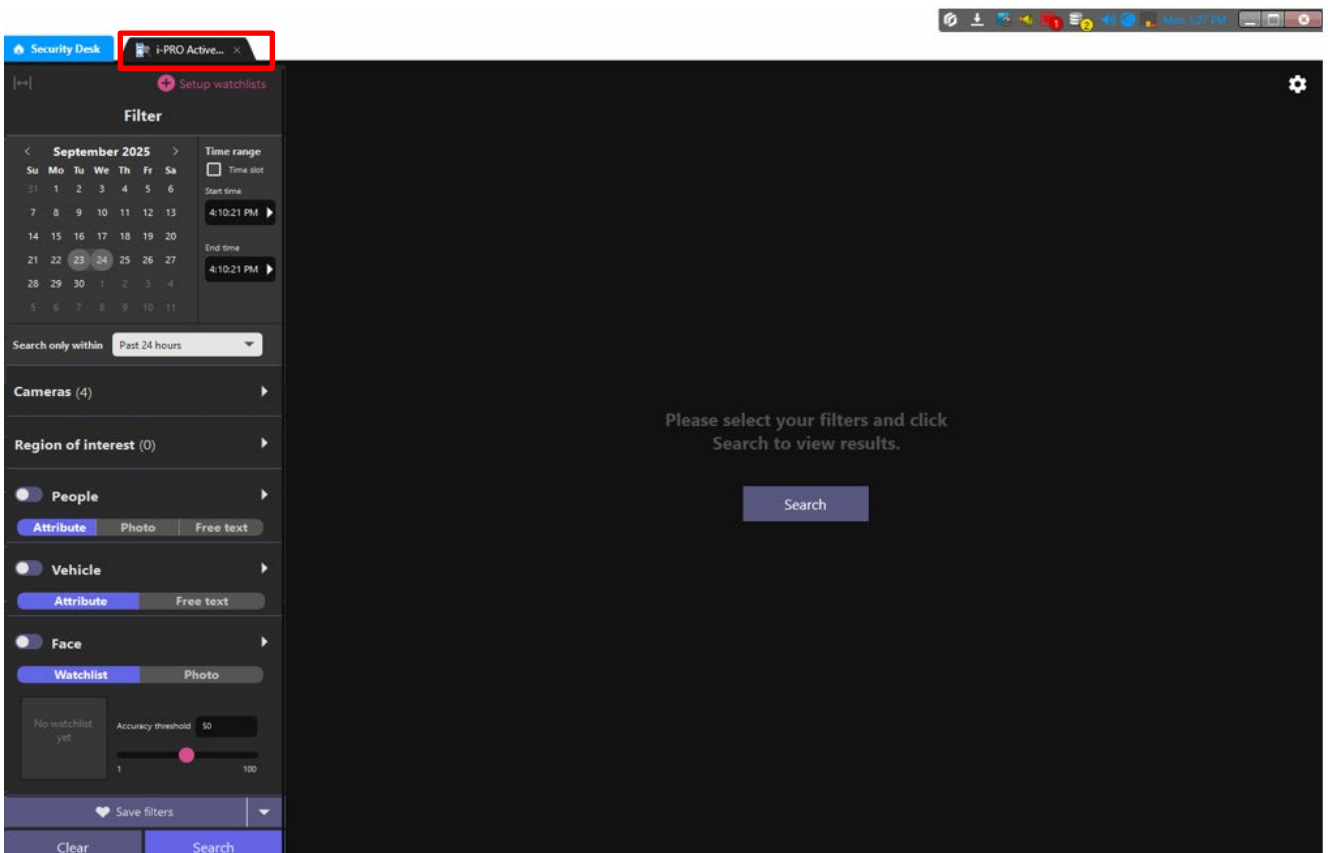
- Microsoft Visual C++ 2015–2022 Redistributable version 14.44 or later is not installed, an installation screen will appear. Please follow the instructions to install it. After installation, a PC restart may be required. If the runtime is not installed, “Free text search” will not function.

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 Plug-in, just close the workspace.



2.2. SEARCH DETECTED OBJECTS

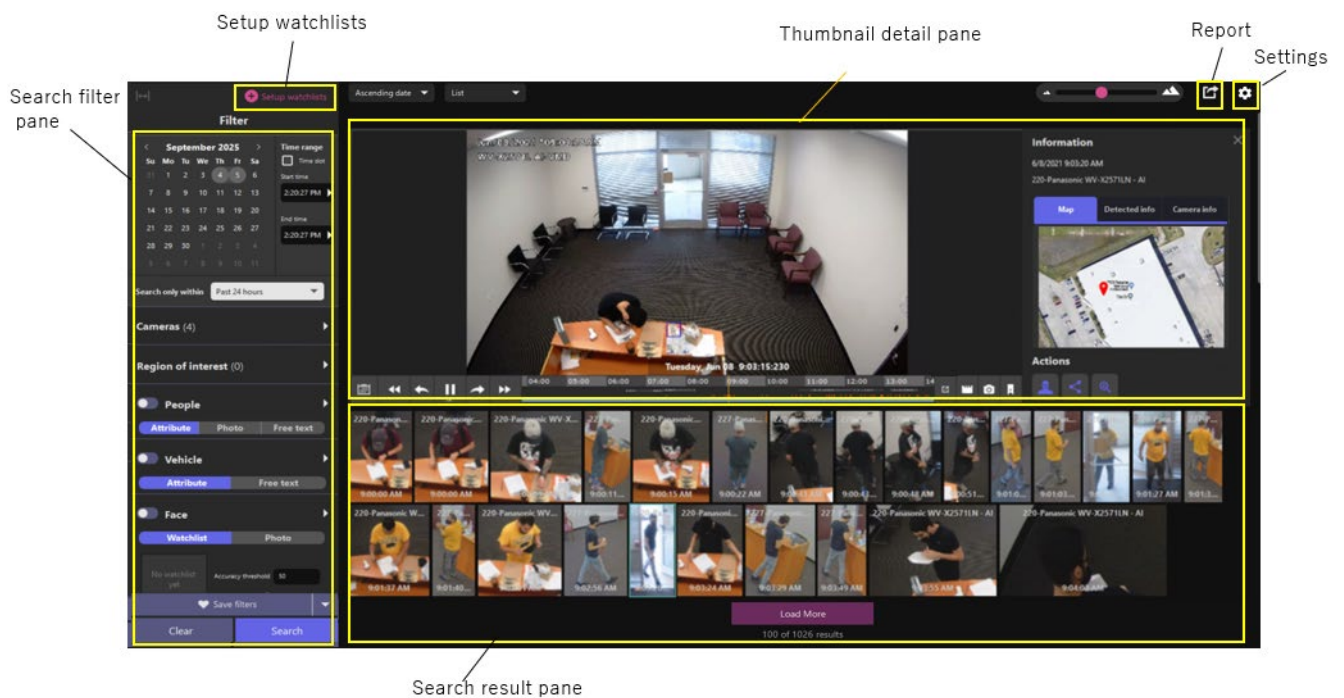
Using i-PRO Active Guard Search, you can quickly find thumbnails of AI Camera detected objects including: person, vehicle and face.

2.2.1. UI Component

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

2.2.1.1. Overview

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



Search filter pane	Date/Time filter	Start time and end time for search objects.
		If Time slot is checked, only the time slot from Start time to End time is searched.
		Ex) date 3/10 – 3/14 Start time : 8:00 AM End time : 8:00 PM
		-Time slot is not checked: 3/10 8:00 AM – 3/14 8:00 PM
		-Time slot is checked : 3/10 8:00 AM – 3/10 8:00 PM 3/11 8:00 AM – 3/11 8:00 PM 3/12 8:00 AM – 3/12 8:00 PM 3/13 8:00 AM – 3/13 8:00 PM 3/14 8:00 AM – 3/14 8:00 PM

	Search only within	Select from Past 24 hours/Past week/Past month/None. - When selecting 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 objects. * Only Faces, People, and Vehicles support combined searches.
	People filter	Specify personal features using one of the following: - Attributes (e.g., gender, age, hair color, etc.) - Photo - Free text
	Vehicle filter	Specify vehicle features using one of the following: - Attributes (e.g., type, color etc.) - Free text
	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	Search results are sorted as follows. - Descending date - Ascending date - Only high relevance
	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.
	Export	Export search result as HTML.
	Detected thumbnail	Click and open thumbnail detail pane. Right click to perform the following operations. - Save the image. - Save the whole image. - Export video clip. - Same operation as Action buttons. For Action buttons, see 2.2.1.3. * Up to 10 images and videos can be saved simultaneously by selecting multiple thumbnails using the “Ctrl” or “Shift” keys. Action button operation is only possible when only one thumbnail is selected.
	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	Setup Vehicles watchlist.

	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 etc.
	Software update	A notification will appear when the i-PRO Active Guard Server or plug-in are available for updates. *Only when i-PRO Active Guard servers and Plug-in can connect to the Internet.
	Attribute Settings	Setup visibility of attributes in filter and watchlist.

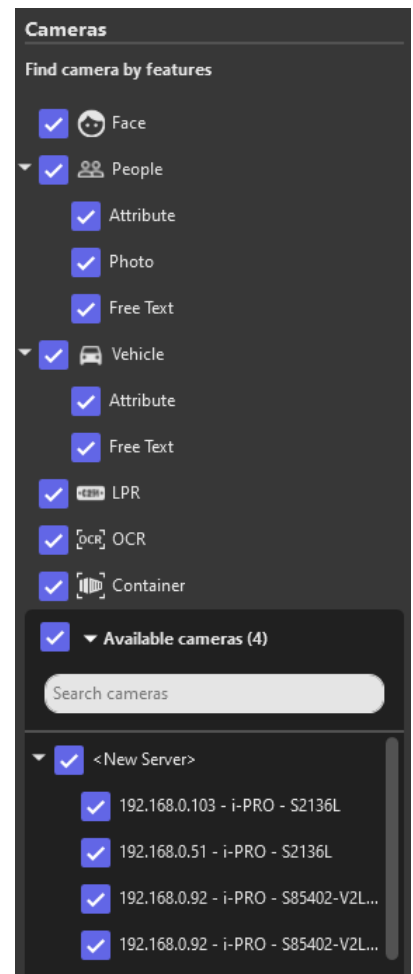
2.2.1.2. About search filters

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

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

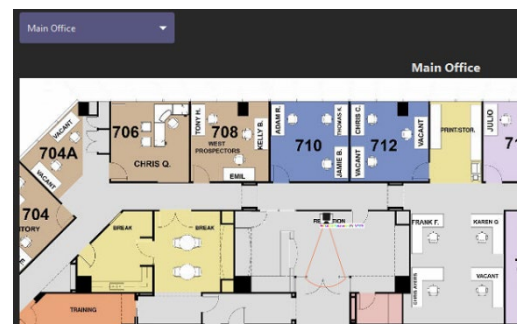
A. Camera filter

Select the cameras to be searched from the available camera list.
Using “Find camera by features”, you can select only cameras which have specific AI capabilities and search methods.



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

When you register or change the map on VMS, terminate Security Desk and start again.

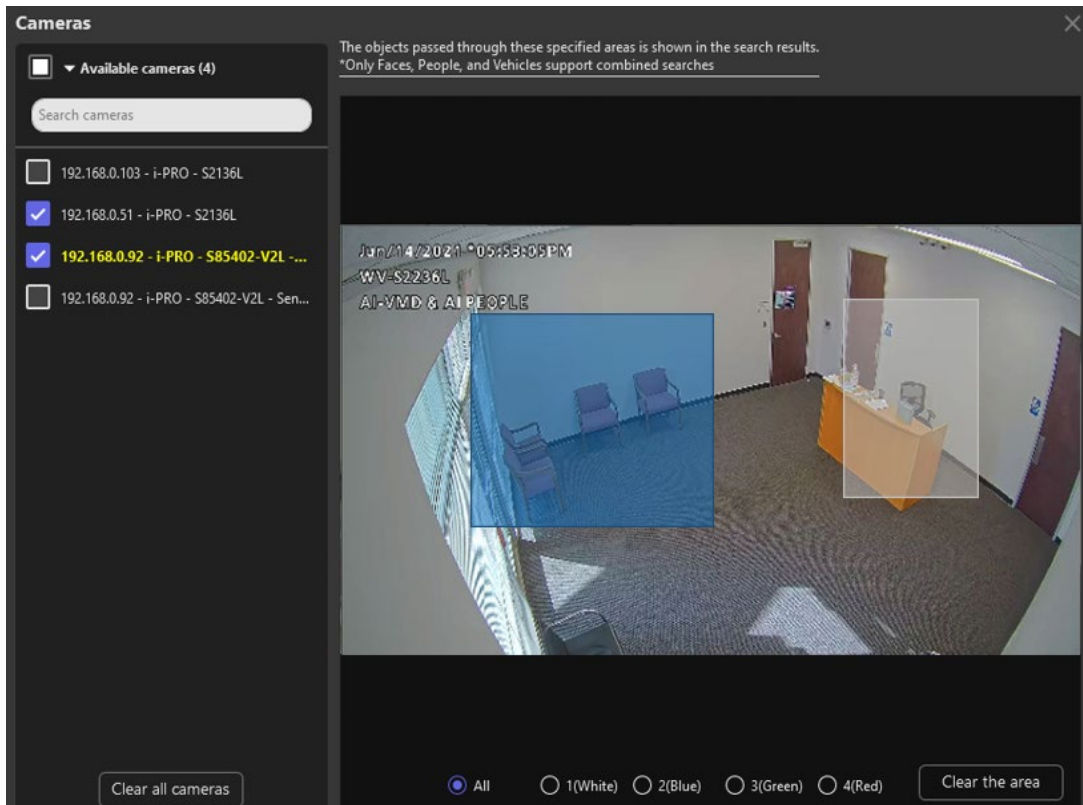


B. Region of interest filter

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

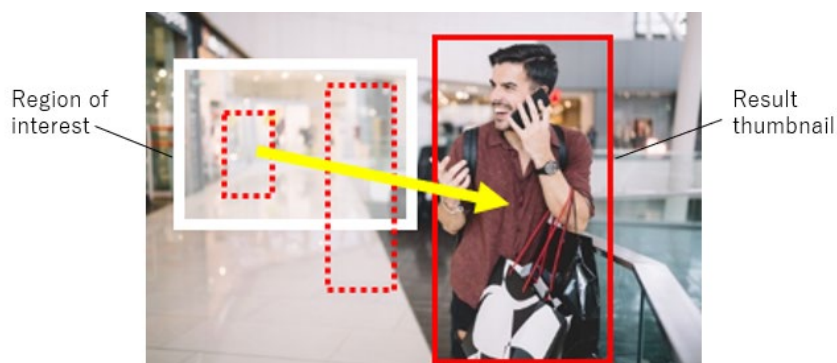
Select the camera to search from the list of available cameras and specify the area by mouse drag on the displayed image.

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



Note:

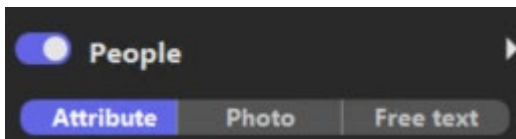
- The thumbnail of the search result is the clearest image of the detection target while he is moving in the view angle. They may not be images within the area specified in this setting.



- 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.

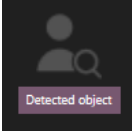


Also using Attributes, Photo, or Free text, you can apply the search condition.

Attribute

Using filter panel's attributes, you can apply the search condition.



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

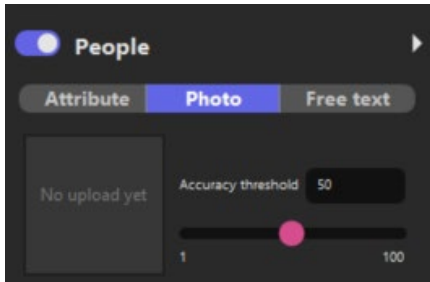
Note:

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

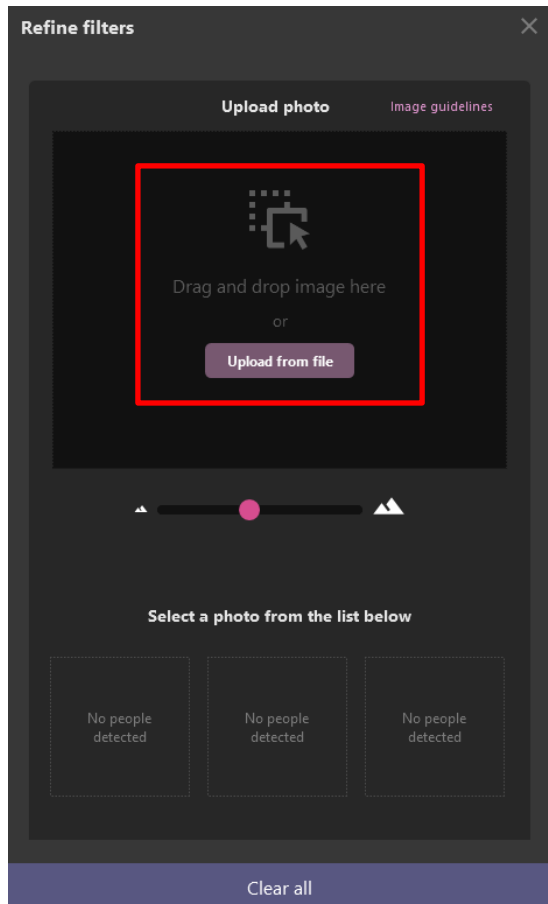
Color to be searched	Similar color (The order is similar from the left)
Black	Gray
Brown	White, Yellow, Orange
White	Gray, Blue, Brown, Yellow, Orange
Gray	Black, White, Blue
Green	Blue, Black, Yellow
Red	Orange, Pink
Blue	Green, Black, Purple
Yellow	Green, White, Brown, Orange
Orange	Red, Brown, Yellow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

Photo

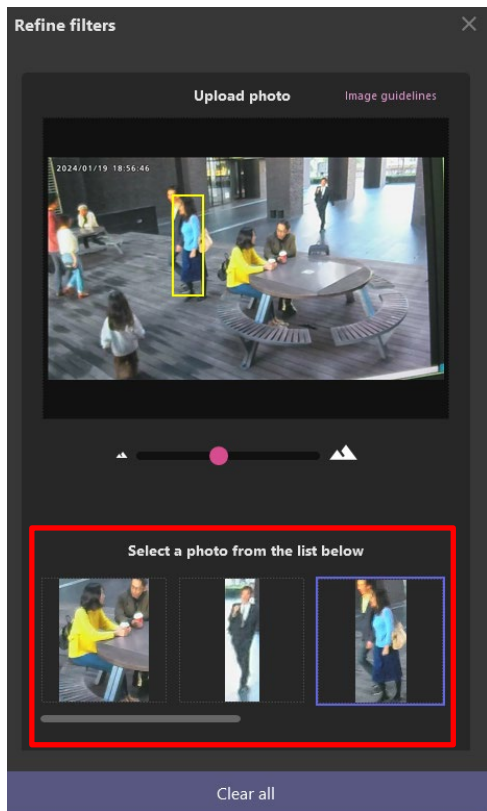
Upload image file that includes person and search for similar people.



Click icon or drag and drop the image file.

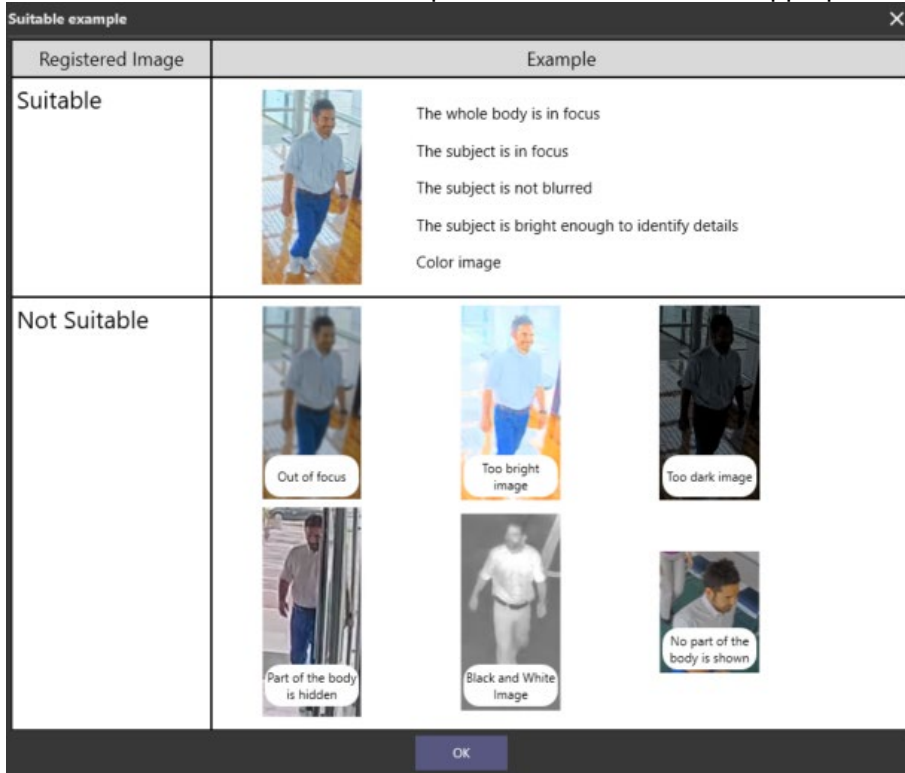


When person is detected from the image, select person and click OK.



Note:

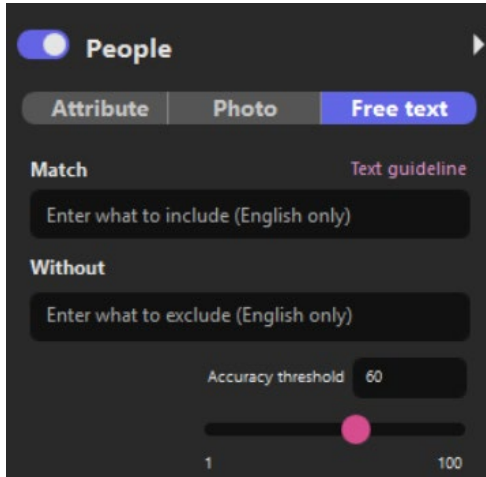
- Recommended width of people for registration is more than 100 pixels.
- Please refer to the “Suitable examples” below and select an appropriate image.



Free text

Enter a free text description of a person's attributes to search for similar people.

- Match (required): Enter what to include (English only)
- Without (optional): Enter what to exclude (English only)

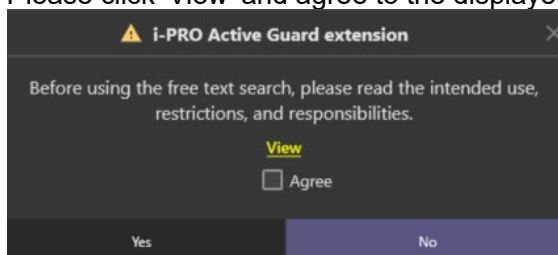


For detailed input instructions, please refer to “Text Guideline”.

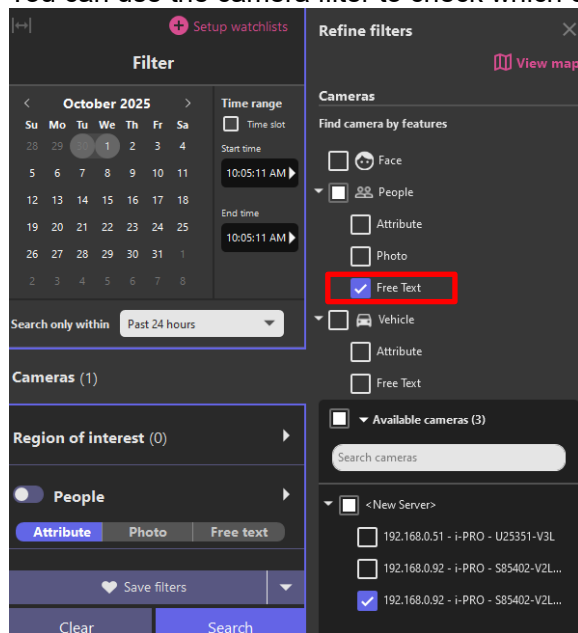
Text Guideline		
	Text suitable for search	Text unsuitable for search
Characteristics	<ul style="list-style-type: none">- Easy to understand by appearance- Large objects- Non-technical words- Presence or absence of an object- Specific appearance state- Colors that are unlikely to change depending on the environment- Famous proper noun- Category of objects- Displayed textetc.	<ul style="list-style-type: none">- Not obvious by appearance- Object is too small- Ambiguous expression- Emotion- Size relationship (high, low, cheap, small, big, etc.)- Indicating the location of the subject (where precise distinction is difficult)- Situations where movement cannot be determined from a single thumbnail- Excessively long sentence (Scores tend to decrease when the word count exceeds around 15 words)etc.
Example	<ul style="list-style-type: none">• Person with helmet• Person with wheelchair• Construction worker• Person with suitcase• Person lying• Person wearing yellow clothes• USPS car• Mixer track• Car with 'POLICE'	<ul style="list-style-type: none">• Criminal• Key• Suspicious• Surprising• Wearing cheap clothes• Wearing a helmet on the head• Waving hands from side to side

Note:

- When launching “Free text” for the first time, a message will be displayed. Please click 'View' and agree to the displayed terms in order to use this feature.



- To use free text search feature, you must configure it in addition to registering cameras on the i-PRO Active Guard server. For details, refer to “i-PRO Active Guard Setup Instructions”. You can use the camera filter to check which cameras are already configured.



- “Match” and “Without” inputs are limited to 128 characters. If the input contains more than 74 tokens within that limit, only the first 74 tokens will be used for the search; the rest will be discarded.
- Do not enter the same attribute in both Match and Without fields.

D. Vehicle filter

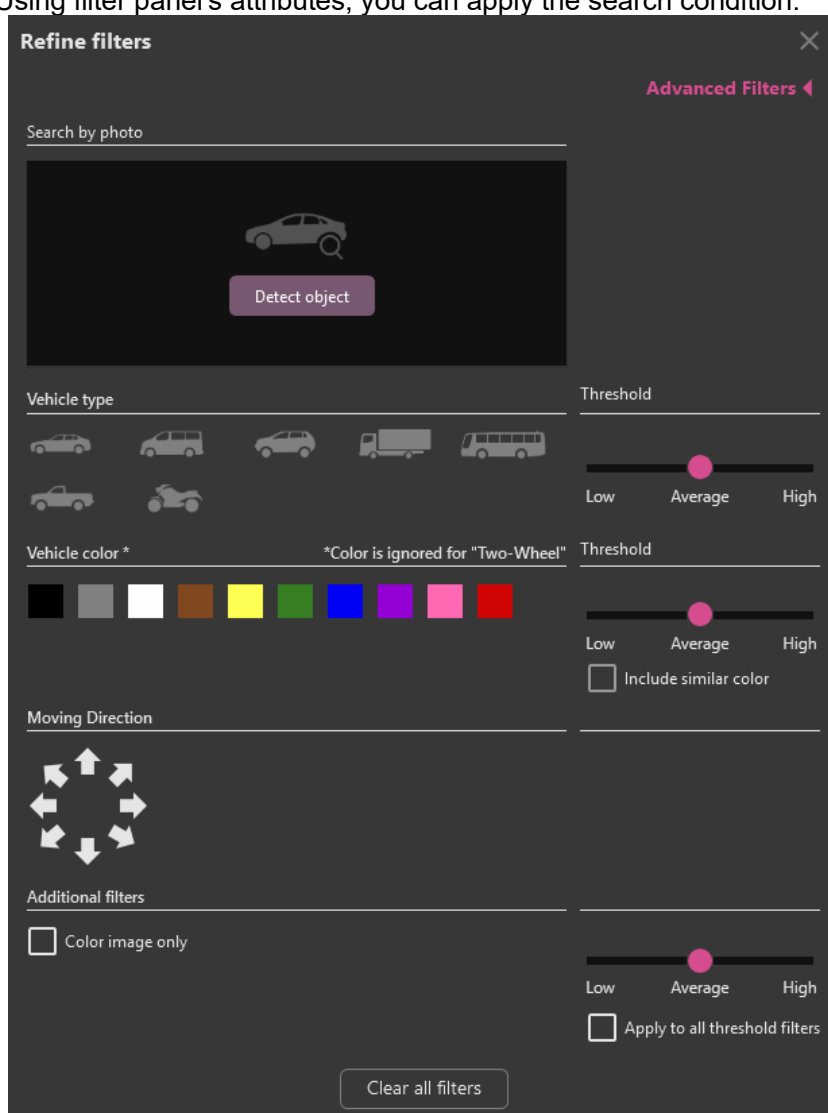
With the Vehicle filter enabled, only the thumbnails are shown which AI Camera with vehicle detection app detected.

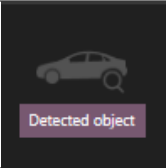


Also using Attributes, or Free text, you can apply the search condition.

Attribute

Using filter panel's attributes, you can apply the search condition.



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

Note:

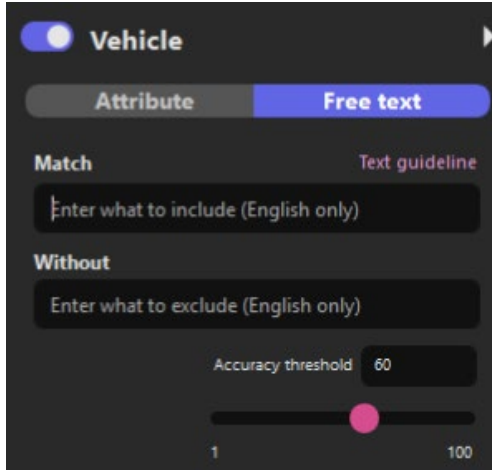
- If the specified color does not appear in the search results, it may be displayed in the search results by selecting and searching for the following similar colors together.

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

Free text

Enter a free text description of a vehicle's attributes to search for similar vehicles.

- Match (required): Enter attributes to include (English only)
- Without (optional): Enter attributes to exclude (English only)

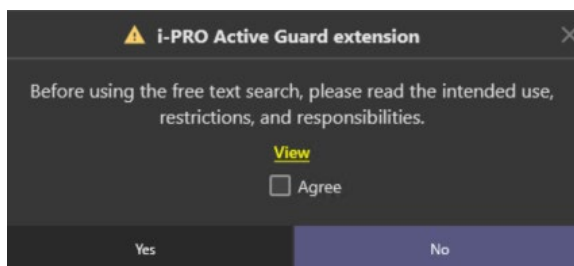


For detailed input instructions, please refer to “Text Guideline”

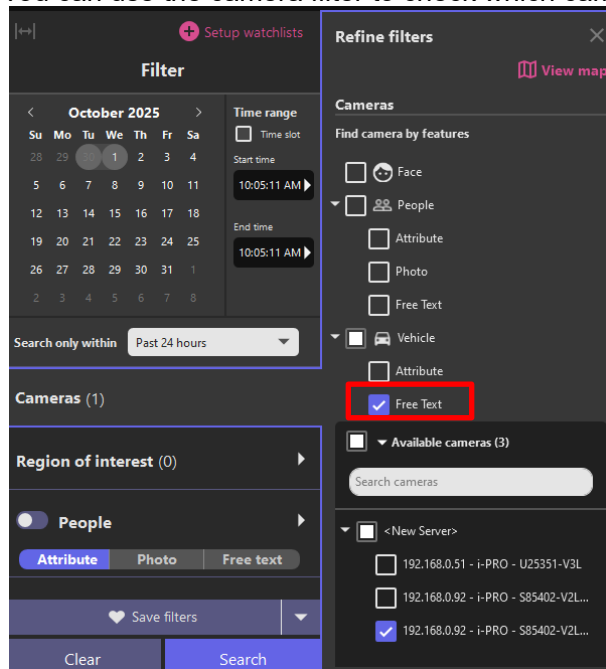
Text suitable for search		Text unsuitable for search
Characteristics	<ul style="list-style-type: none">- Easy to understand by appearance- Large objects- Non-technical words- Presence or absence of an object- Specific appearance state- Colors that are unlikely to change depending on the environment- Famous proper noun- Category of objects- Displayed textetc.	<ul style="list-style-type: none">- Not obvious by appearance- Object is too small- Ambiguous expression- Emotion- Size relationship (high, low, cheap, small, big, etc.)- Indicating the location of the subject (where precise distinction is difficult)- Situations where movement cannot be determined from a single thumbnail- Excessively long sentence (Scores tend to decrease when the word count exceeds around 15 words)etc.
Example	<ul style="list-style-type: none">• Person with helmet• Person with wheelchair• Construction worker• Person with suitcase• Person lying• Person wearing yellow clothes• USPS car• Mixer track• Car with 'POLICE'	<ul style="list-style-type: none">• Criminal• Key• Suspicious• Surprising• Wearing cheap clothes• Wearing a helmet on the head• Waving hands from side to side

Note:

- When launching “Free text” for the first time, a message will be displayed. Please click 'View' and agree to the displayed terms in order to use this feature.



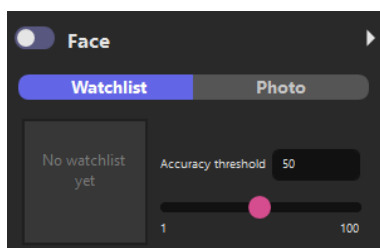
- To use free text search feature, you must configure it in addition to registering cameras on the i-PRO Active Guard server. For details, refer to “i-PRO Active Guard Setup Instructions”. You can use the camera filter to check which cameras are already configured.



- “Match” and “Without” inputs are limited to 128 characters. If the input contains more than 74 tokens within that limit, only the first 74 tokens will be used for the search; the rest will be discarded.
- Do not enter the same attribute in both Match and Without fields.

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.

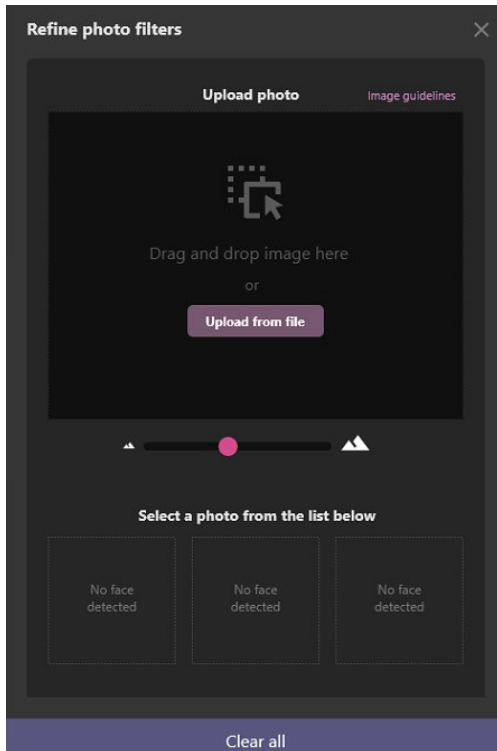
Note:

- Up to 1,000 watchlists can be shown at the same time.

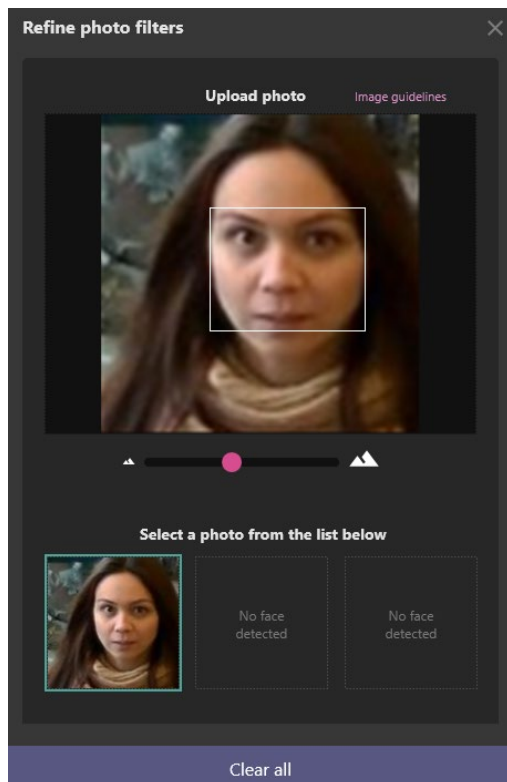
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

Upload photo

Upload image file that includes face and search for similar faces.
Click icon or drag and drop the image file.




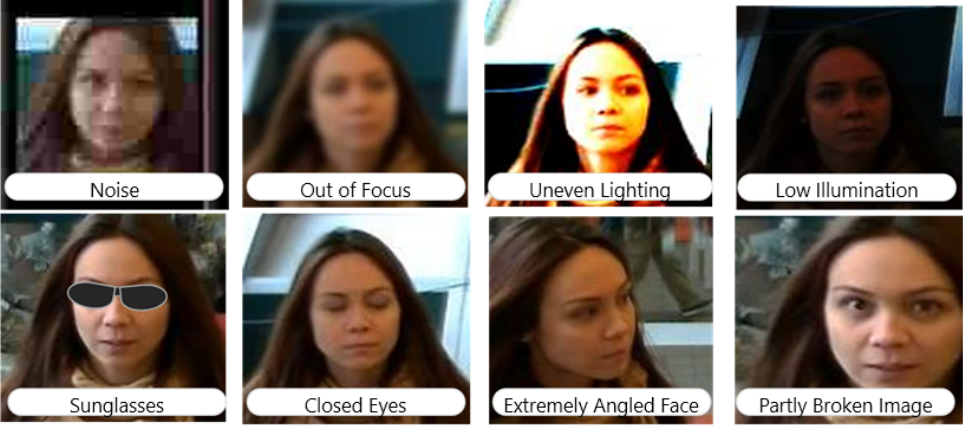
When face is detected from the image, select face and click OK.



Note:

- Recommended width of face for registration is more than 75 pixels. When the selected face is under the value, message is shown.
- Please refer to the “Suitable examples” below and select an appropriate image.

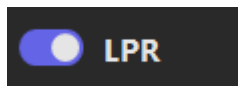
Suitable example

Registered Image	Example
Suitable	 <ul style="list-style-type: none">· Frontal Face Image is preferred· No Obstacle on the Face like Hair, Mask, Cap, etc..· No Shadows by Uneven lighting· No Distortion· Black and white Image is Possible
Not Suitable	 <ul style="list-style-type: none">NoiseOut of FocusUneven LightingLow IlluminationSunglassesClosed EyesExtremely Angled FacePartly Broken Image

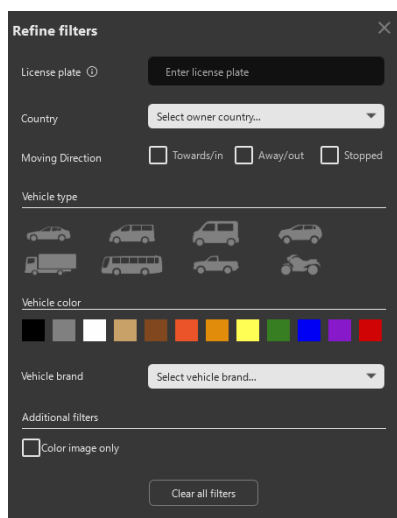
OK

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.



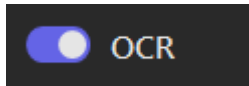
Features and controls	Description
License plate	Specify a License plate number. Note: - Use '%' for wild card search (Example: for plates starting with 'A,' enter 'A%.')
Country	Specify the country or ADR.
State *1	Specify the state
Moving Direction	Towards/in, Away/out, Stopped
Type	Car, Van, Mini-Van,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

*1 : State is displayed when Country is set to "United States" or "Australia", "Thailand", "Germany", "Egypt", "Kazakhstan", or "UAE".

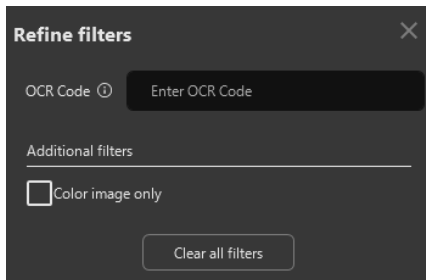
*2 : Model is displayed after setting Brand.

G. OCR filter

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



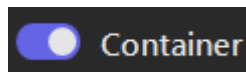
Also using filter panel, you can apply the search condition.



Features and controls	Description
OCR Code	Specify OCR Code. <hr/> Note: <ul style="list-style-type: none">- Use '%' for wild card search (Example: for OCR Code starting with 'A,' enter 'A%.')
Additional filters	Color image only <hr/> Note: <ul style="list-style-type: none">- 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.

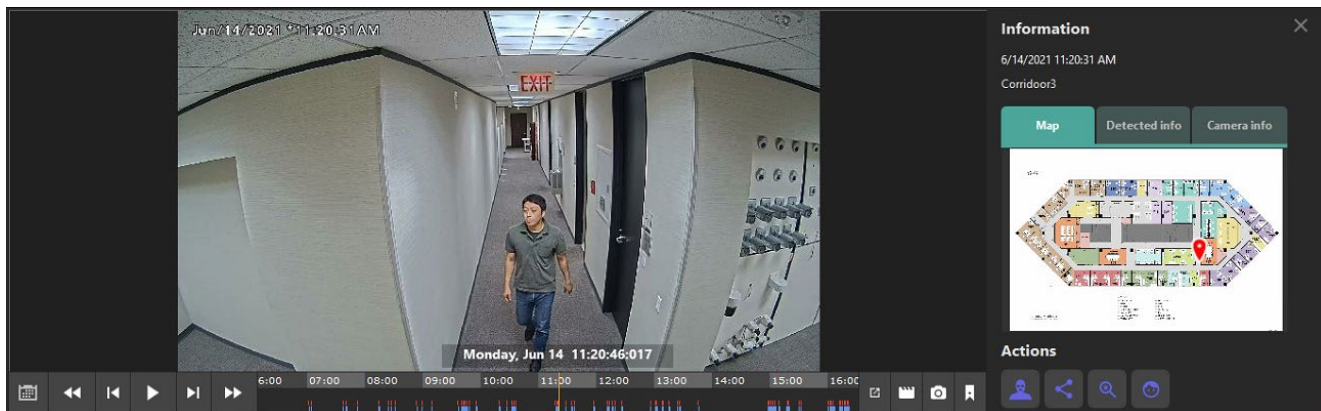


Also using filter panel, you can apply the search condition.

Features and controls	Description
Container code	Specify Container code. <hr/> Note: <ul style="list-style-type: none">- Use '%' for wild card search (Example: for container code starting with 'A,' enter 'A%.')
Size code	Specify the size code. <hr/> Note: <ul style="list-style-type: none">- Use '%' for wild card search (Example: for container code starting with 'A,' enter 'A%.')
Owner country	Specify the owner country.
Owner city	Specify the owner city.
Owner company	Specify the owner company.
Additional filters	Color image only <hr/> Note: <ul style="list-style-type: none">- 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. For additional information about playback controls, please refer to 2.4 PLAYBACK VIDEO CONTROL.



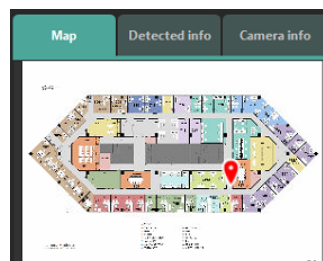
- **Information**

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

- A. **Map**

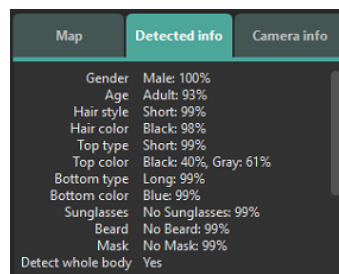
The camera which sent the thumbnail is displayed with map. You can see the camera location on map.

When you register or change the map on VMS, terminate Security Desk and start again.



- B. **Detected info**

Analysis score information for each feature is displayed.



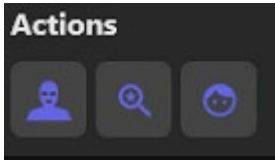
C. Camera info


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	192.168.0.31	

- Action buttons

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



A.  Search for similar characteristics

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

Person thumbnails

- Search for similar persons precisely (less false result)

Selectable when the whole body in people's image is recognized.

People Photo Search by the following conditions.

- Cameras: Camera in which AI People detection is installed.
- Threshold: 55

- Search for similar persons broadly (less missing result)

Selectable when the whole body in people's image is recognized.

People Photo Search by the following conditions.

- Cameras: Camera in which AI People detection is installed.
- Threshold: 44

- Search for persons with similar characteristics

(for search using AI People Detection V2.11 or earlier)

Selectable when upper body in people image is recognized.

Search by the following conditions.

- Cameras: Camera in which AI People detection is installed.
- Features : Only the features with the high score in "Detected info" of the image are used among the target features.
Target features : Gender, Age, Hair type, Hair color, Hat/Helmet, Top type, Top color, Bottom type, Bottom color, Sunglasses, Beard, Mask, Bag, Bag color, Shoes color
- Threshold: Average.

- Search for similar face

Selectable when face in people images is recognized.

Face Photo Search by the following conditions.

- Cameras: Camera in which AI Face detection is installed.
- Threshold: 50

Vehicle thumbnails

- Search for similar characteristics

Vehicle Attribute Search by the following conditions.

- Cameras: Camera in which AI Vehicle detection is installed.
- Features: Only the features with the high score in “Detected info” of the image are used among the target features.
Target features: Type, Color
- Threshold: Middle.

Face thumbnails

- 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.

LPR thumbnails

- Search for license plate number

Selectable when license plate number in LPR image is recognized.

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

OCR Code thumbnails

- 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.

Container Code thumbnails

- 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:

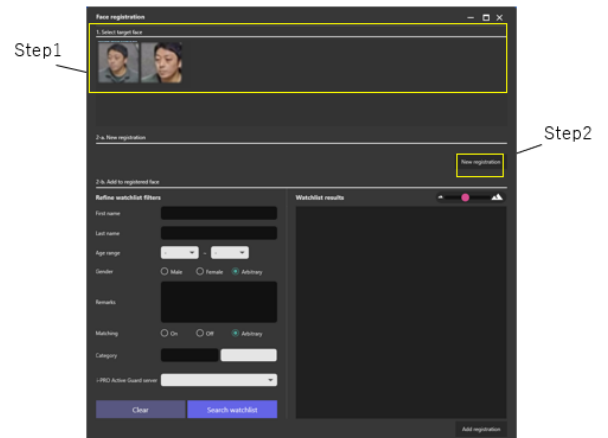
- Similar Search is not applied the Latest search condition in Saved filters.
-

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.

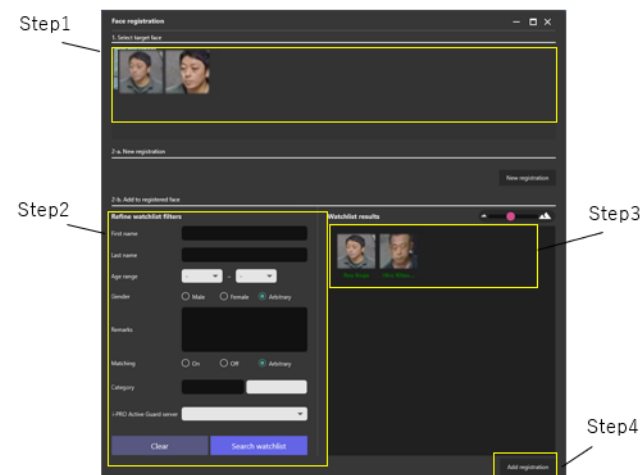
In case of register as new face:

- 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:

- Step1. Select one of detected faces.
- Step2. Search existing registered faces by using filters. If not specify any filters, all registered faces are displayed.
- Step3. Select one of searched faces.
- Step4. Click Add registration button.
- Step5. Please follow to 2.5.1 Face Watchlist (Step2)



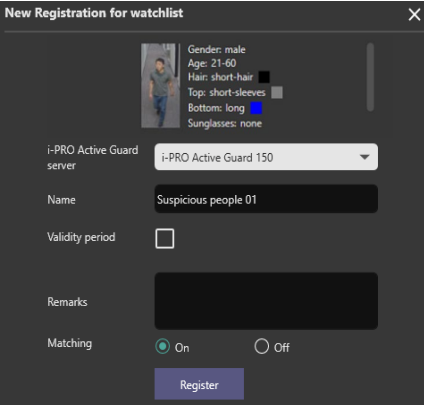
Note:

- 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 with 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.

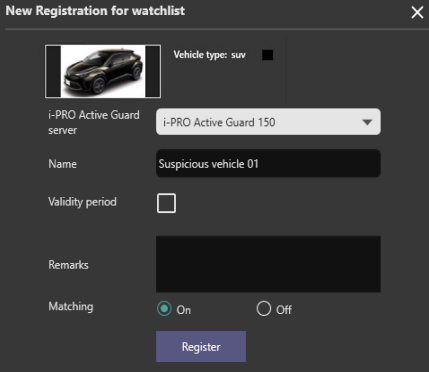


The screenshot shows a 'New Registration for watchlist' form for a person. It includes a profile picture, a list of characteristics (Gender: male, Age: 21-60, Hair: short-hair, Top: short-sleeves, Bottom: long, Sunglasses: none), a dropdown menu for 'i-PRO Active Guard server' set to 'i-PRO Active Guard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

D.  Save vehicle's characteristics to Registered Vehicle detection

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

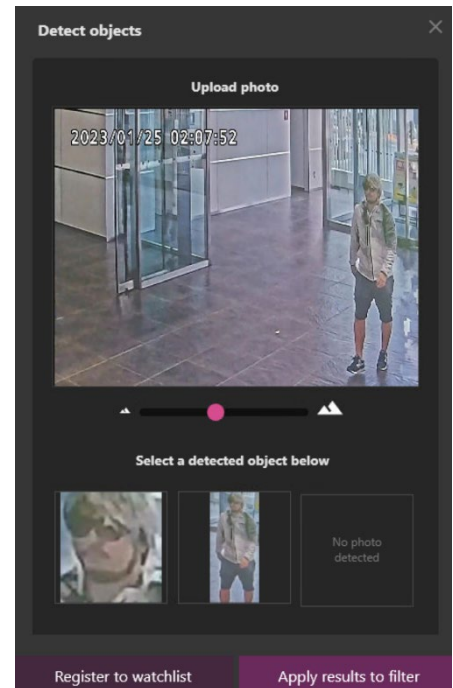
Some basic information can be entered from here.




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

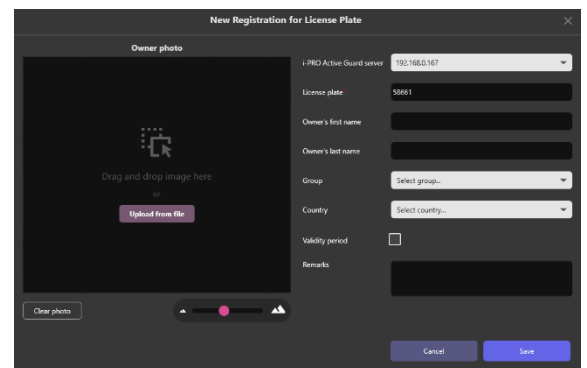
E.  Analysis

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



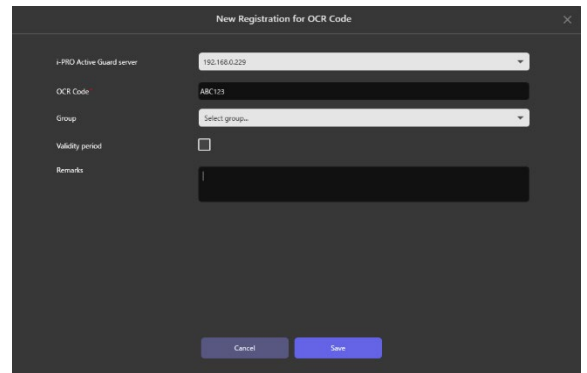
F.  Save license plate number to LPR detection

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



G.  Save OCR Code to OCR detection


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



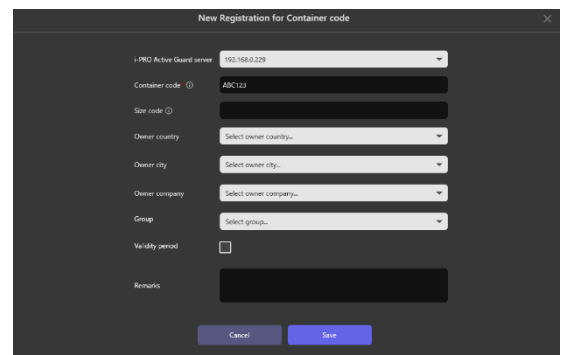
The screenshot shows a dialog box titled "New Registration for OCR Code". It contains the following fields:

- IPRO Active Guard server: 192.168.0.229
- OCR Code: ABC123
- Group: Select group...
- Validity period:
- Remarks: (empty text area)

Buttons: Cancel, Save

H.  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 dialog box titled "New Registration for Container code". It contains the following fields:

- IPRO Active Guard server: 192.168.0.229
- Container code: ABC123
- Size code: (empty text field)
- Owner country: Select owner country...
- Owner city: Select owner city...
- Owner company: Select owner company...
- Group: Select group...
- Validity period:
- Remarks: (empty text area)

Buttons: Cancel, Save

Action buttons can be utilized depending on type of objects.

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

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

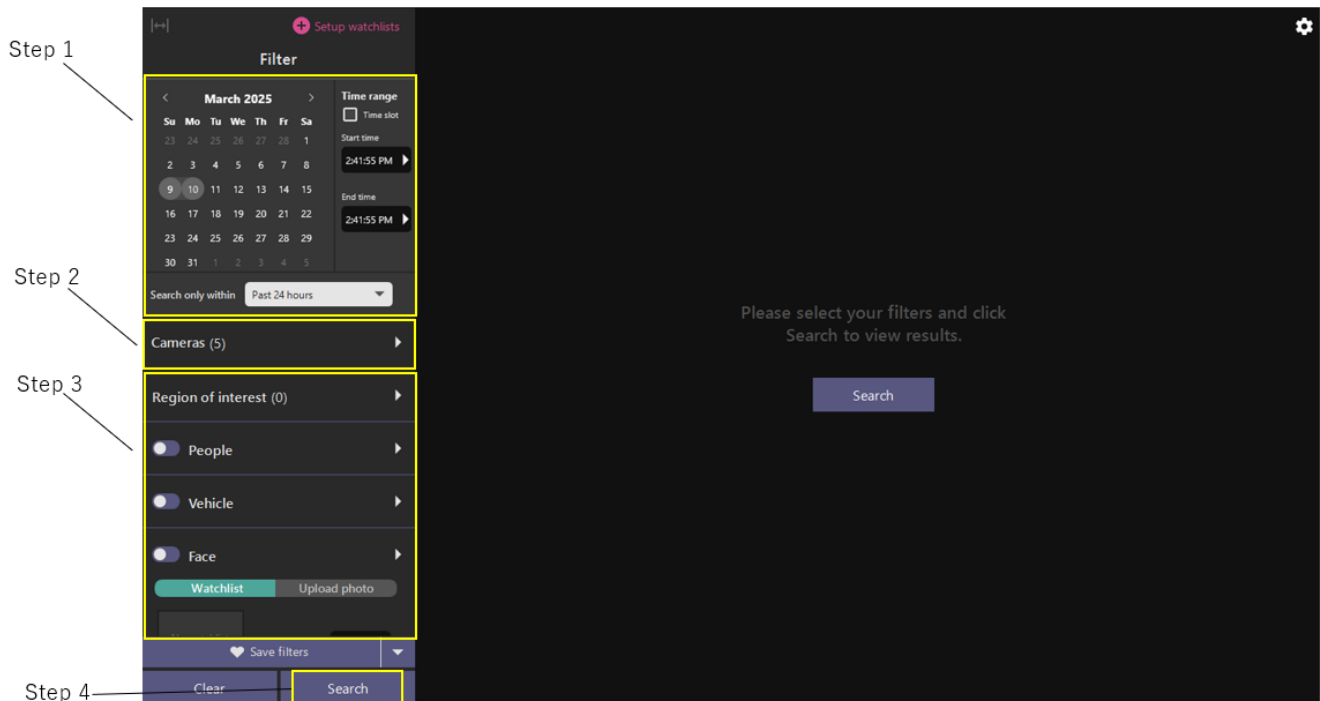
*1 In case of the thumbnail doesn't have license plate number information, button does not display.

Ex) In i-PRO Active Guard Sever settings,

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

2.2.2. Thumbnail search

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



Step 1

Specify the start time and end time for search objects.

Step 2

Select AI Cameras.

Step 3

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

Step 4

Click "Search."

2.3. MONITOR VARIOUS EVENTS

Using i-PRO Active Guard Event, you can find past events whatever you want to search.

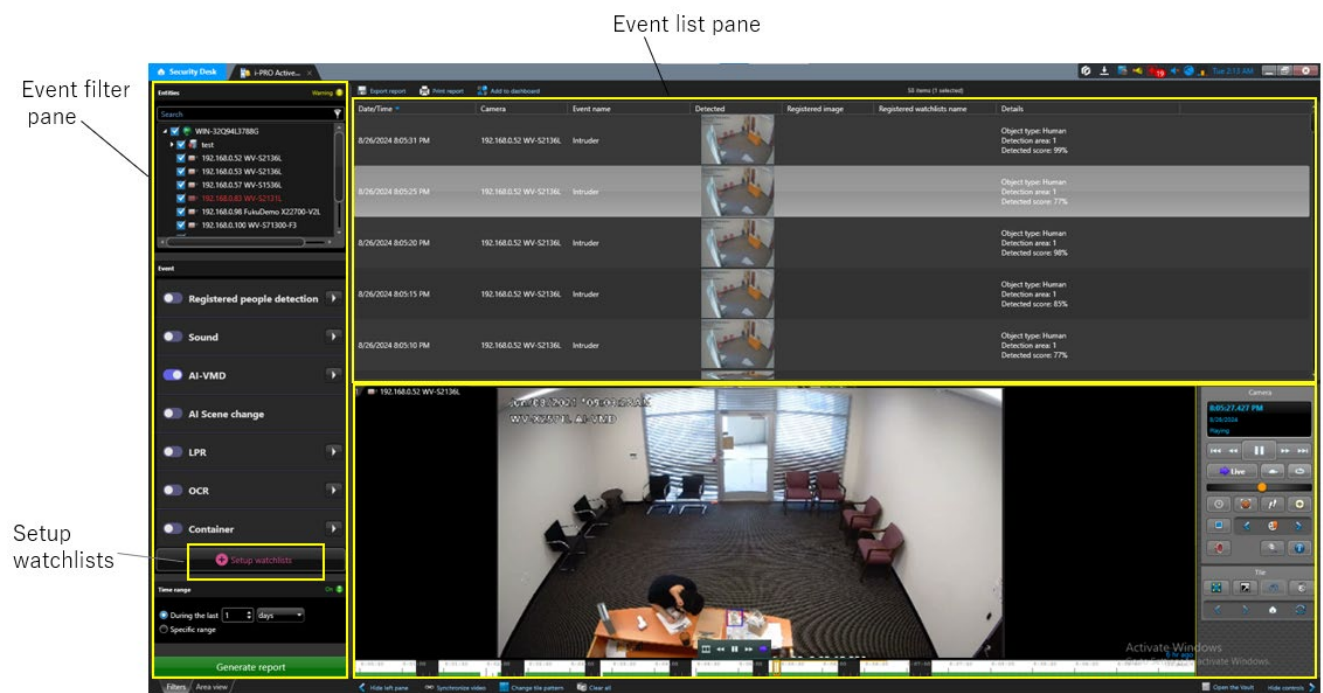
2.3.1. UI Component

In this section, it describes the elements that compose the i-PRO Active Guard Event.

2.3.1.1. Overview

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

This tab is composed 3 main parts such as event filter pane, event list pane and playback pane.



Event filter pane	Entities	Select AI Cameras displaying events. All cameras registered with Genetec (even those not managed by i-PRO Active Guard Server) are displayed in camera list. Select the camera managed by i-PRO Active Guard Server.
	Registered Face detection	Show face matching events.
	Registered People detection	Show personal features matching events.
	Registered Vehicle detection	Show vehicle features matching events.
	Sound	Show sound detection events.
	AI-VMD	Show AI VMD detection events.
	AI Scene change	Show AI Scene change detection events.
	Occupancy	Show Occupancy detection events.

	LPR	Show below events. *1 - License plate detection events. - Registered license plate detection events. - Unregistered license plate detection events. - Registered advanced vehicle detection events.
	OCR	Show below events. *2 - Code detection events. - Registered code detection events. - Unregistered code detection events.
	Container	Show below events. *3 - Container detection events. - Registered container detection events. - Unregistered container detection events. - Registered advanced container detection events.
	Time range	Time range for search objects.
	Generate report	Searches for events and displays results in the event list
Events list pane		<hr/> <p>Note:</p> <ul style="list-style-type: none"> The results of search from recorded events are listed. <hr/>
	Date/Time column	Detected date and time which is setup at camera.
	Camera column	Camera name.
	Event name column	Event type.
	Detected column	Detected thumbnail which is captured by camera.
	Registered image column	Registered images. Registered column is only for matching event. Only for events in Registered Face detection.
	Registered watchlist name column	Registered names and images in watchlist. Registered column is only for matching event.
	Details column	Object type, detected area, detected score, etc. Displayed information depends on event type.
Playback pane	Playback pane	Video playback and control pane. Double-click on a search result to playback.
Set up watchlists	Faces watchlist	Setup Faces watchlist.
	People watchlist	Setup People watchlist.
	Vehicles watchlist	Setup Vehicles watchlist.
	LPR watchlist	Setup LPR watchlist.
	OCR watchlist	Setup OCR watchlist.
	Container watchlist	Setup Container watchlist.

*1 LPR events summary

- License plate detection

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

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

- Registered license plate detection

Notification when the license plate number registered in the lpr watch list matches.
The following settings are required on "LPR watchlist setup."

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

- Unregistered license plate detection

Notification when the license plate number unregistered in the lpr watchlist detected.
The following settings are required on "LPR watchlist setup."

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

- Registered advanced vehicle detection

Notification when the vehicle appearance in the lpr watch list matches.
The following settings are required on "LPR watchlist setup."

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

*2 OCR events summary

- Code detection

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

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

- Registered code detection

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

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

- Unregistered code detection

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

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

*3 Container events summary

- Container detection

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

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

- Registered container detection

Notification when the container registered in the Container watchlist matches.

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

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

- Unregistered container detection

Notification when the container unregistered in the Container watchlist detected.

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

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

- Registered advanced container detection

Notification when the container details in the Container watchlist matches.

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

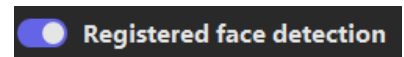
- Set "Detect by container details" to "On."

2.3.1.2. About Event filter

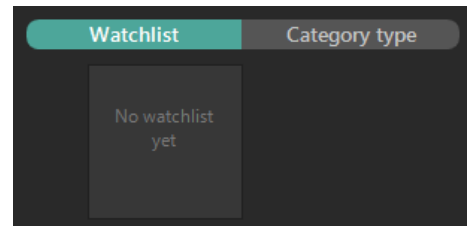
In this section, it describes about events filter. For more information about the Camera filter, please refer to 2.2.1.2.

A. Registered Face detection

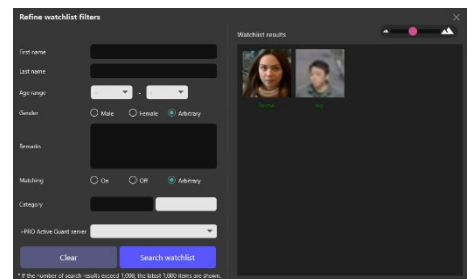
Being this filter enabled, the matching faces with Face watchlist are shown.



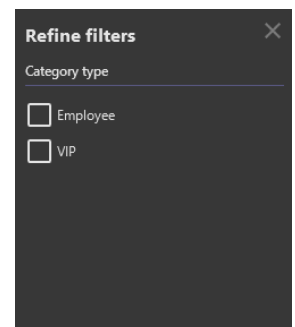
If you want to display a specific face, you can use Watchlist filter. Search registered faces by specifying search conditions then select one of results.



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

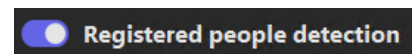


It is also possible to display by category registered in Watchlist.

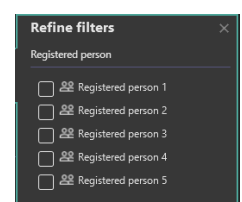


B. Registered People detection

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

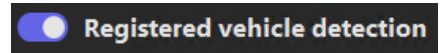


Also using filter panel, you can select specific registered items from people watchlist.

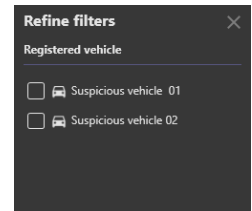


C. Registered Vehicle detection

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

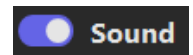


Also using filter panel, you can select specific registered items from vehicle watchlist.

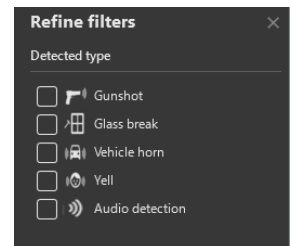


D. Sound

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

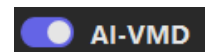


Also using filter panel, you can select specific sound events to show.



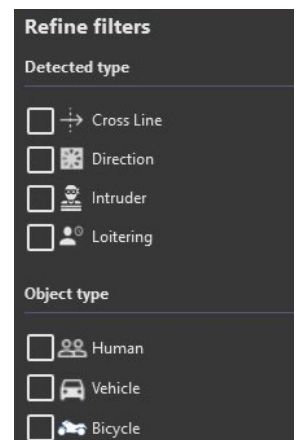
E. AI-VMD

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



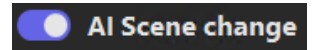
Also using filter panel, you can select specific Detected type and Object type to show.

By using On-site Learning application, you can increase any Object type. Please refer to the manual for details about On-site Learning application.



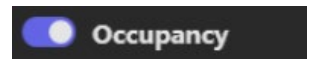
F. AI Scene change

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



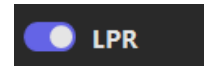
G. Occupancy

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



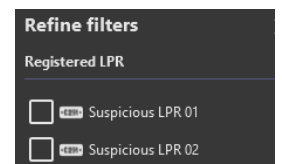
H. LPR

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



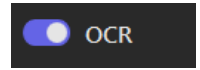
i-PRO Active Guard Server configuration is required to display all detected license plates see "i-PRO Active Guard Setup Instructions"
- 4.3.6 Notification to VMS Server(optional)

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



I. OCR

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



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

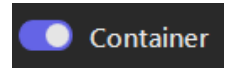
- 4.3.6 Notification to VMS Server(optional)

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



J. Container

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



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

- 4.3.6 Notification to VMS Server(optional)

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



2.3.2. Search past events

The following steps provide basic operations for searching past events.



Step 1

Specify the time range.

Step 2

Select AI cameras. All cameras are selected as default.

All cameras registered with Genetec (even those not managed by i-PRO Active Guard Server) are displayed in camera list. Select the camera managed by i-PRO Active Guard Server.

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
- Occupancy
- LPR
- OCR
- Container

Step 4

Click Generate report. Results are displayed.

All cameras registered with Genetec (even those not managed by i-PRO Active Guard) are displayed in camera list.










2.4. PLAYBACK VIDEO CONTROL

In i-PRO Active Guard Search, when viewing video on a thumbnail/event detail pane, the following a set of video controls appear.

In i-PRO Active Guard Event, See Security Center User Guide for video control.



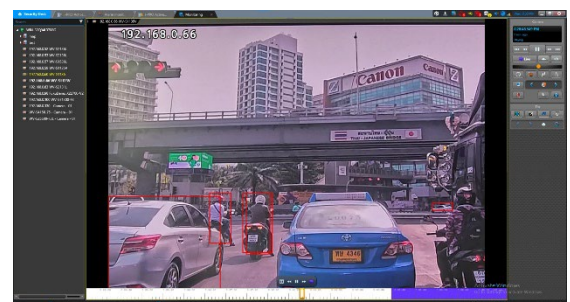
The video operation controls are described below.

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

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

 View in New Workspace

It displays Monitoring task.



2.5. SETTINGS

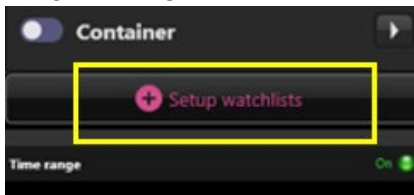
This section describes how to manage the watchlist and preferences.

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

i-PRO Active Guard Search Screen



i-PRO Active Guard Event Screen



* There is no setting icon(⚙️) on the event screen

2.5.1. Face Watchlist

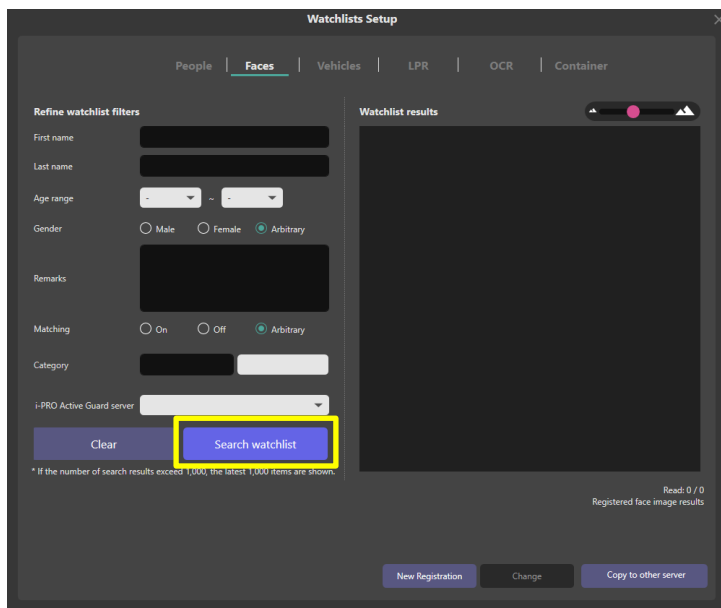
This section describes the operation of add, edit and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

- **Get registered watchlist**

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



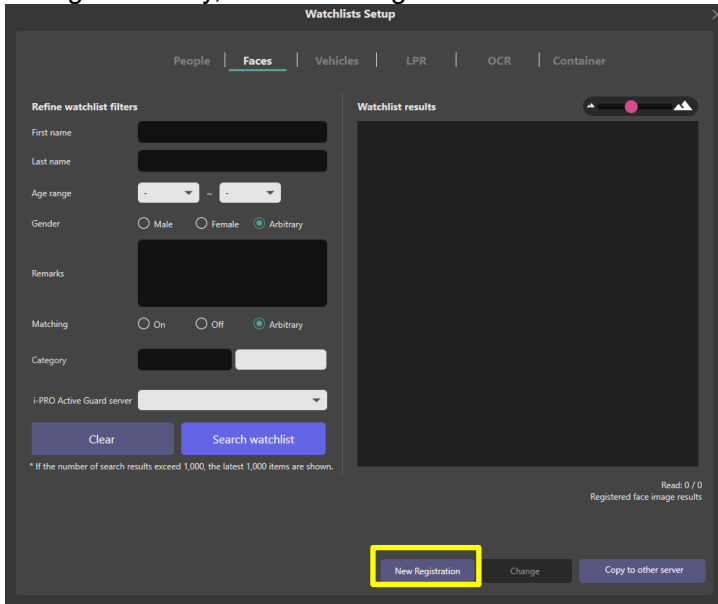
Note:

- 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

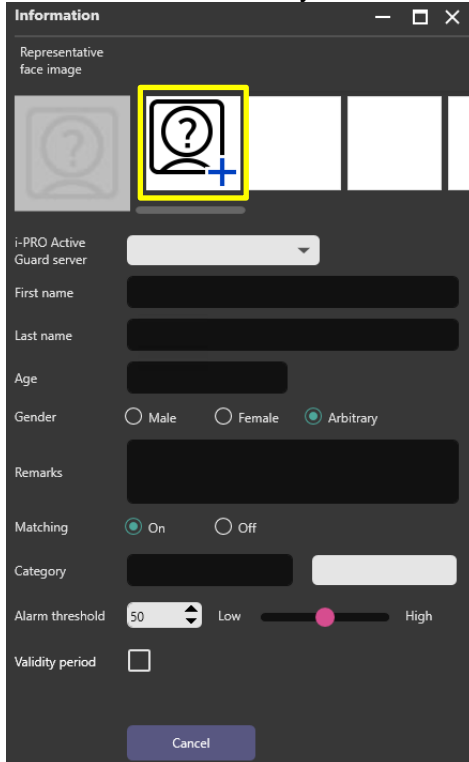
To register newly, click New Registration button.



Step 2

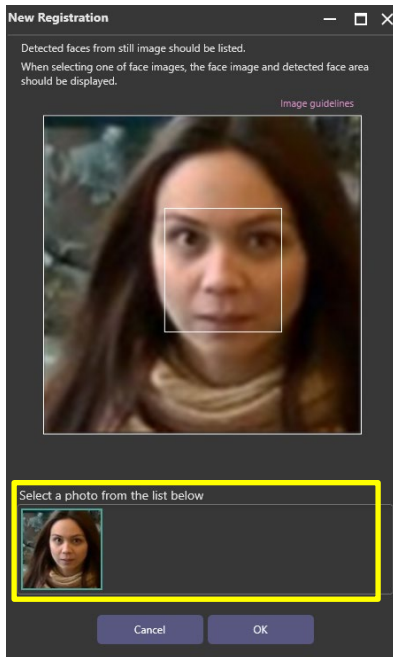
One face image must be registered at least.

Click  icon then select the file you want to use.

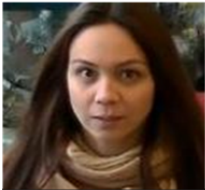
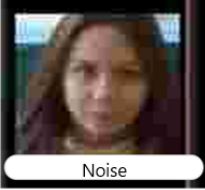
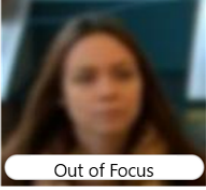



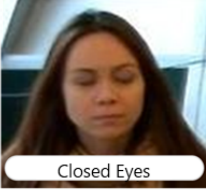




Step 3

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



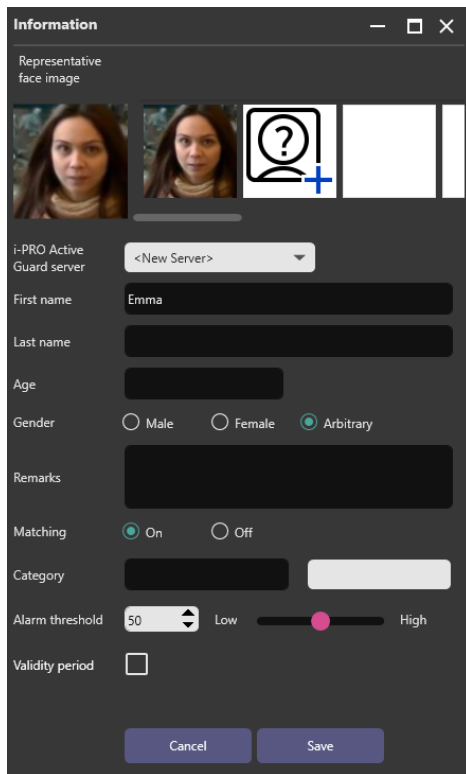
By pressing the “Image guidelines” button, you can see a sample of face image quality suitable for registration.

Registered Image	Example			
Suitable		<ul style="list-style-type: none"> · Frontal Face Image is preferred · No Obstacle on the Face like Hair, Mask, Cap, etc.. · No Shadows by Uneven lighting · No Distortion · Black and white Image is Possible 		
Not Suitable	 Noise	 Out of Focus	 Uneven Lighting	 Low Illumination
	 Sunglasses	 Closed Eyes	 Extremely Angled Face	 Partly Broken Image

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 with the following fields and controls:

- Representative face image:** A row of four images. The first two show a woman's face. The third is a question mark icon with a plus sign. The fourth is a blank white box.
- i-PRO Active Guard server:** A dropdown menu currently showing '<New Server>'. Below it is a small '+' icon.
- First name:** A text input field containing 'Emma'.
- Last name:** A text input field that is currently empty.
- Age:** A text input field that is currently empty.
- Gender:** Three radio buttons: 'Male' (unselected), 'Female' (unselected), and 'Arbitrary' (selected).
- Remarks:** A text area that is currently empty.
- Matching:** Two radio buttons: 'On' (selected) and 'Off' (unselected).
- Category:** Two text input fields, one of which is currently empty.
- Alarm threshold:** A slider control with a dropdown menu set to '50'. The slider has 'Low' on the left and 'High' on the right, with a pink dot indicating the current position.
- Validity period:** A checkbox that is currently unchecked.
- Buttons:** 'Cancel' and 'Save' buttons at the bottom.

Note:

- The Matching enabled starts matching process.
 - The Alarm threshold low means missing faces will be decreased but false alarm may be increase. High means false alarm will be decreased but missing faces may be increased. It can be set for individual person. Please adjust according to your environment and registered face image.
 - In Validity Period, two expiration dates can be set.
Disable matching: After the expiration date, this person's face will not be detected.
Delete registration: After the expiration date, we will delete the registration itself of this person.
-

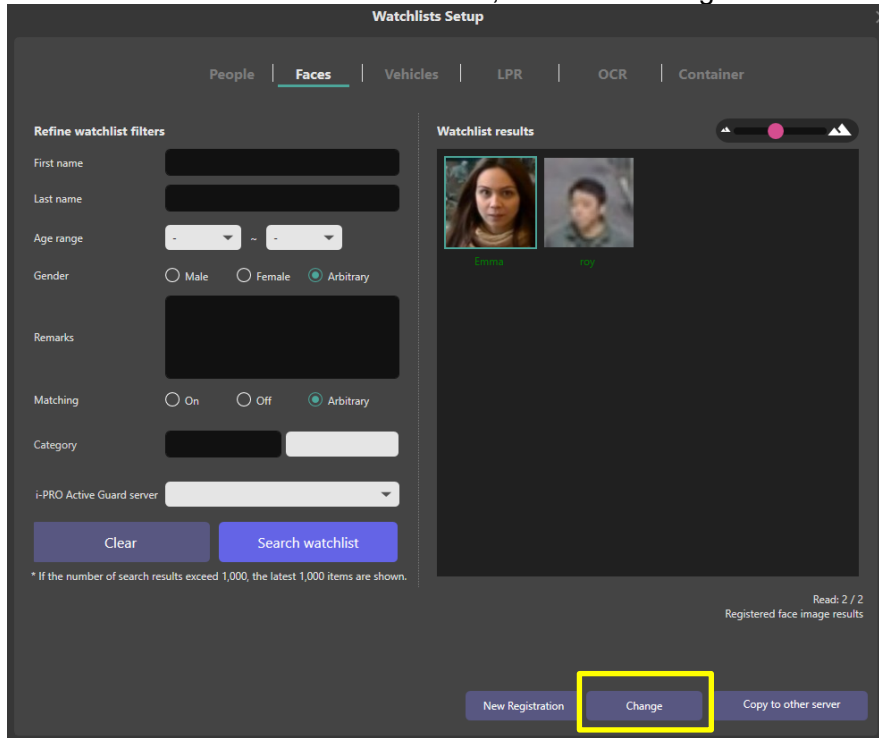
- **Edit Registration**

Step 1

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

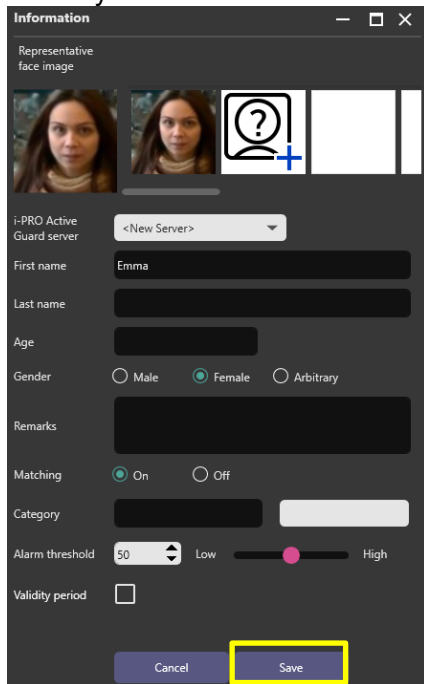
Step 2

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



Step 3

Edit any information then click Save.



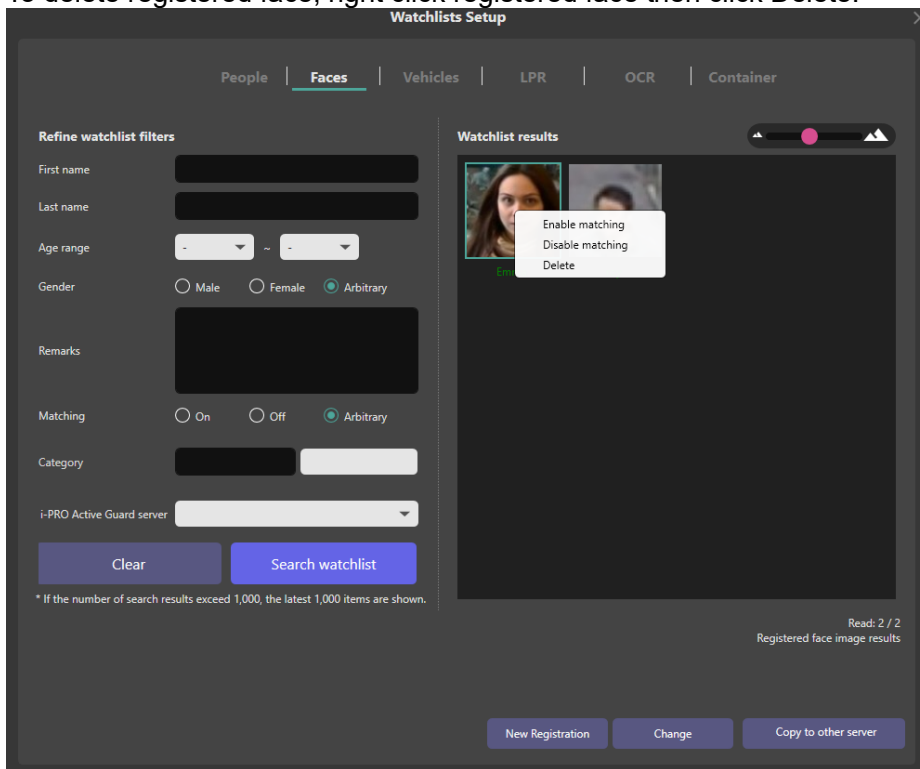
The screenshot shows a dark-themed 'Information' dialog box. At the top, it says 'Representative face image' and shows two face images of a woman, with a third icon containing a question mark and a plus sign. Below this, there are several fields: 'i-PRO Active Guard server' with a dropdown menu showing '<New Server>', 'First name' with the text 'Emma', 'Last name', 'Age', 'Gender' with radio buttons for 'Male', 'Female' (selected), and 'Arbitrary', 'Remarks', 'Matching' with radio buttons for 'On' (selected) and 'Off', 'Category' with two input fields, 'Alarm threshold' with a slider set to 50 between 'Low' and 'High', and 'Validity period' with a checkbox. At the bottom, there are 'Cancel' and 'Save' buttons, with the 'Save' button highlighted by a yellow rectangle.

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.

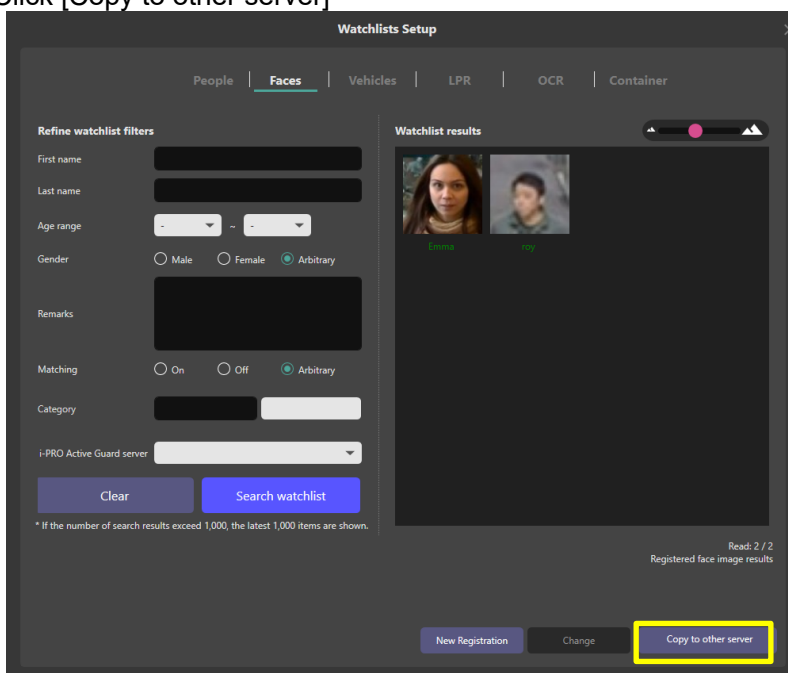


- **Copy watchlists to other server**

All registered face watchlists in i-PRO Active Guard server can be copied to another server. The copy source server and the copy destination server must be registered in Plug-in in advance.

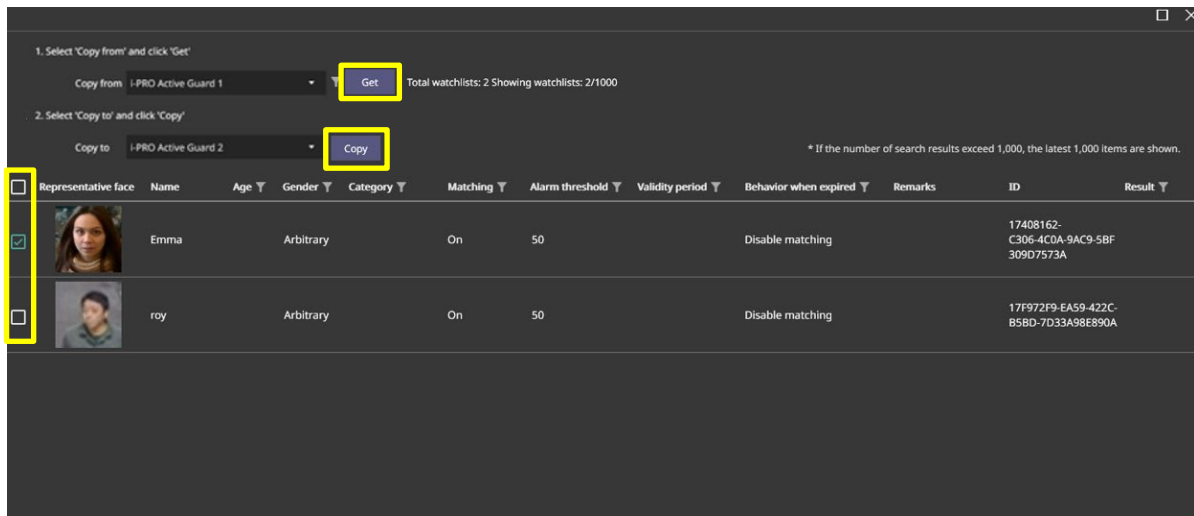
Step 1

Click [Copy to other server]



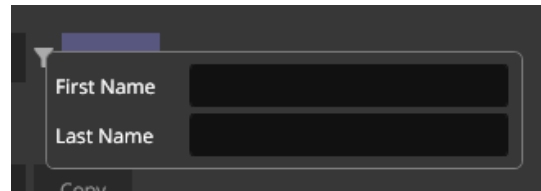
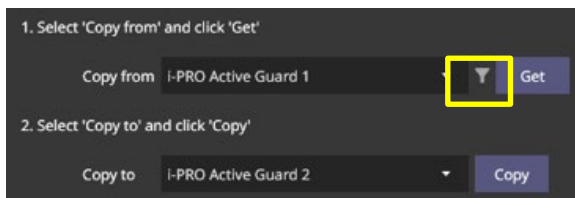
Step 2

Select Copy from and click [Get] button, select the face image you want to copy from the registered face images, specify the copy destination server, and click the [Copy] button.



Note:

- You can set filters and click the [Get] button to narrow down getting results.
- The maximum number of face images that can be retrieved and copied at one time is 1000; if the number exceeds 1000, please use filters to narrow down your search.



Step 3

When the copy is completed, the face image will be registered in the copy destination server.

Note:

- If the upper limit of 30,000 is already registered for the face image in the copy destination, copying will not be performed.
If the copy destination has the same ID, the face image will be skipped.

2.5.2. People Watchlist

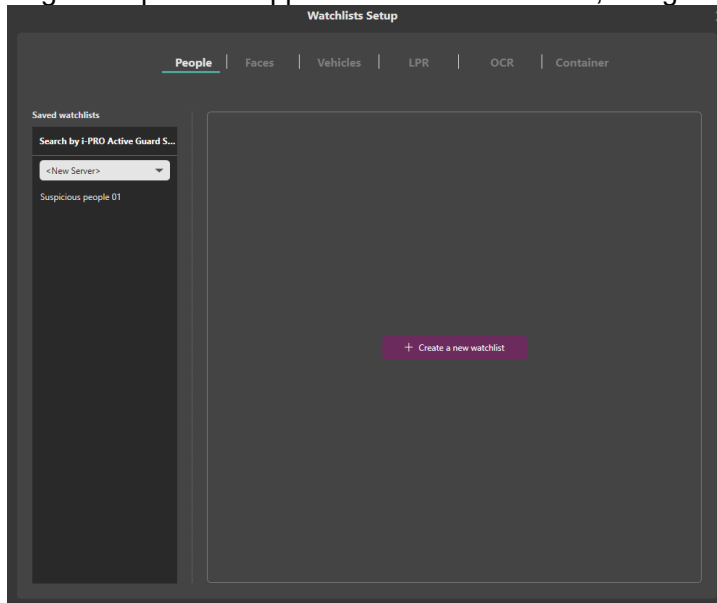
This section describes the operation of add, edit and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

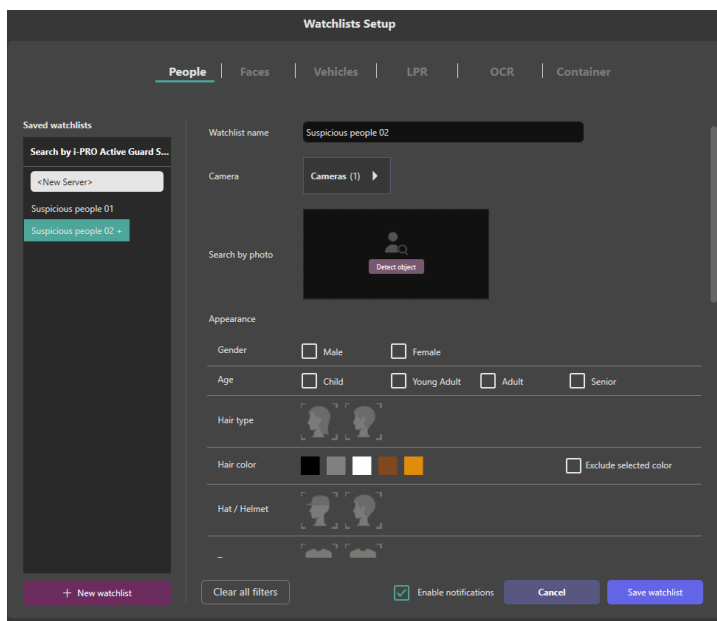
- **Add Registration (To manually select attributes)**

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.

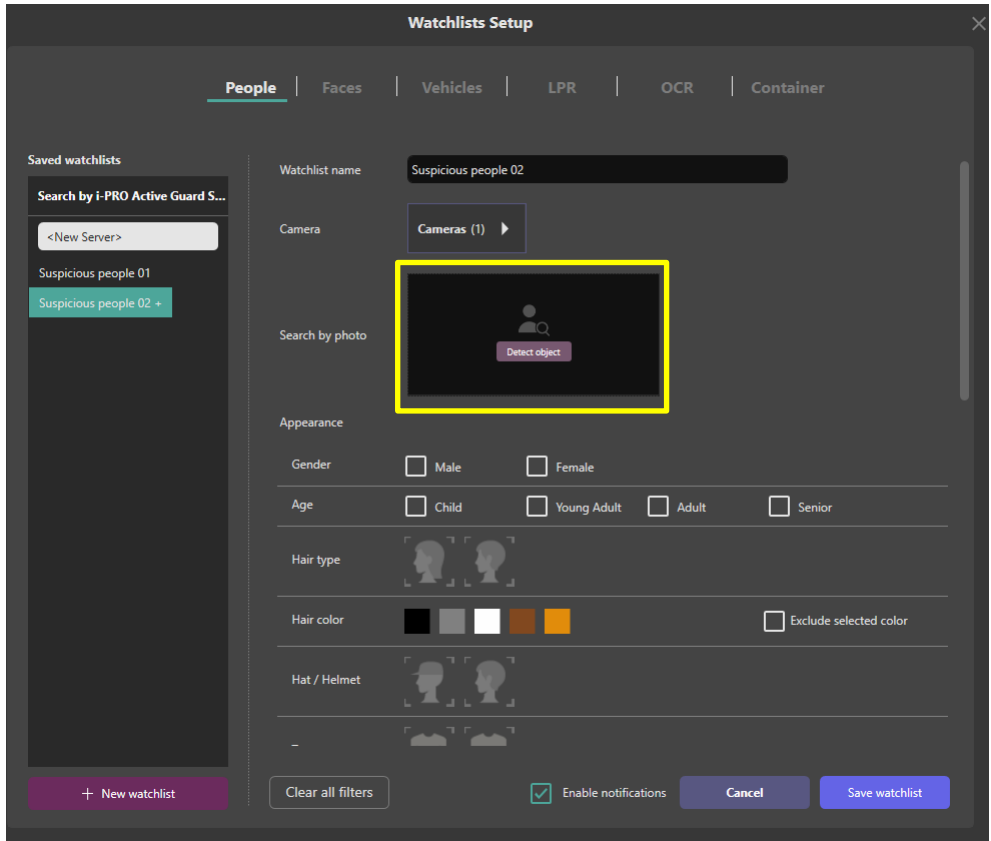
To add new item, click "+ Create a new watchlist" button then select appearance items.



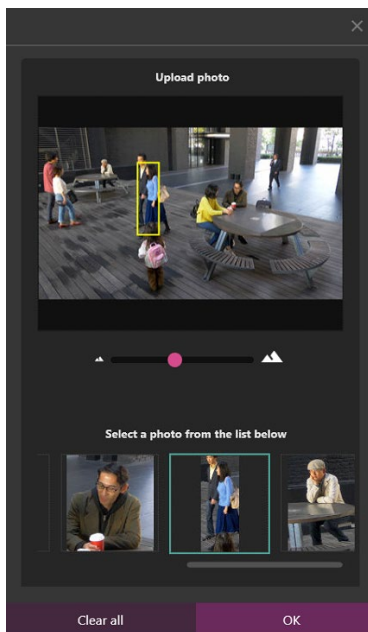
- **Add Registration(To select attributes from an image)**

This procedure automatically selects and registers attributes from an image.

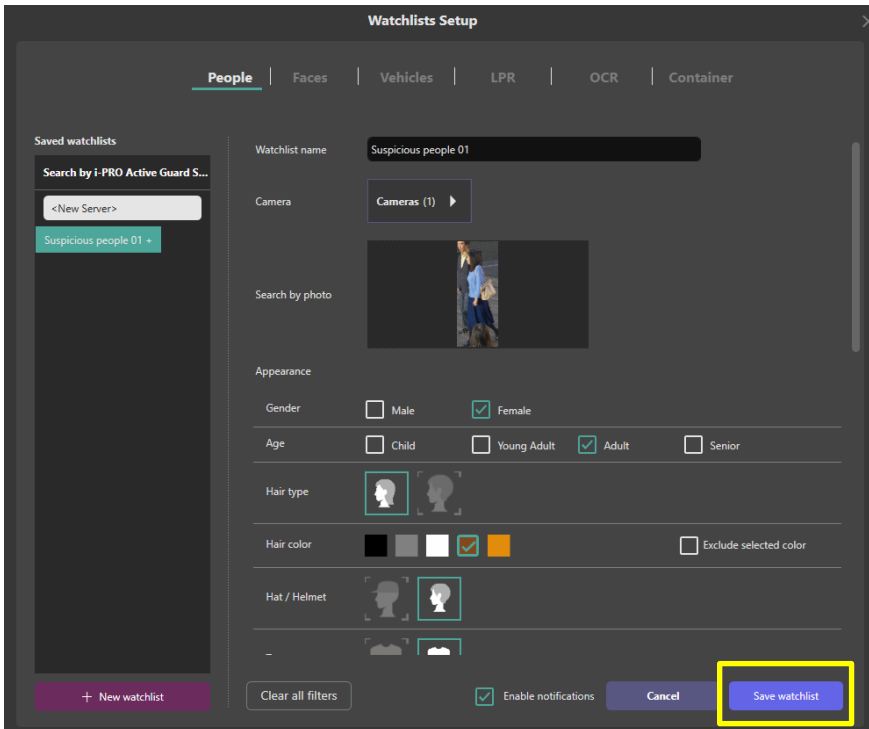
To select attributes from a people image, select the image to be registered from  icon.



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



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

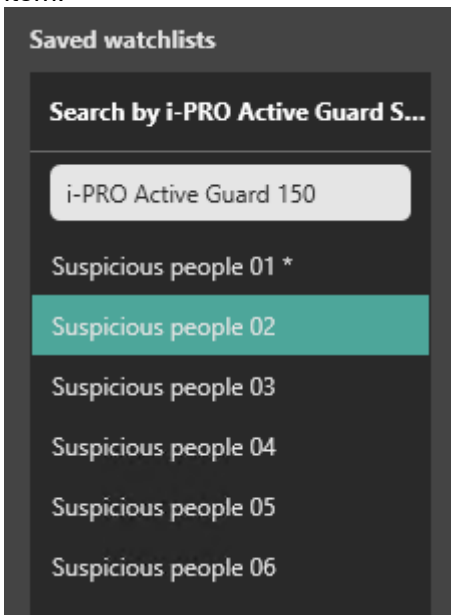


Note:

- 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.

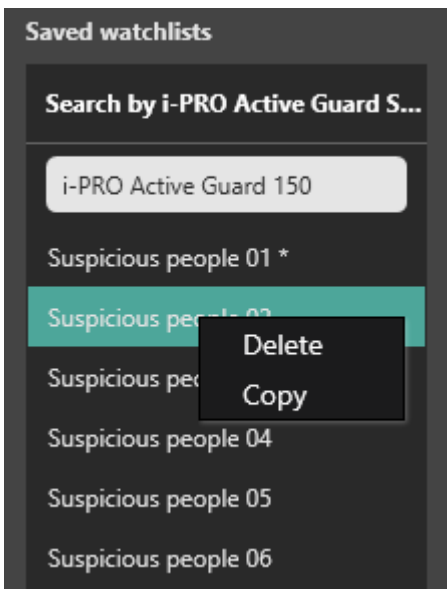
- **Edit Registration**

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

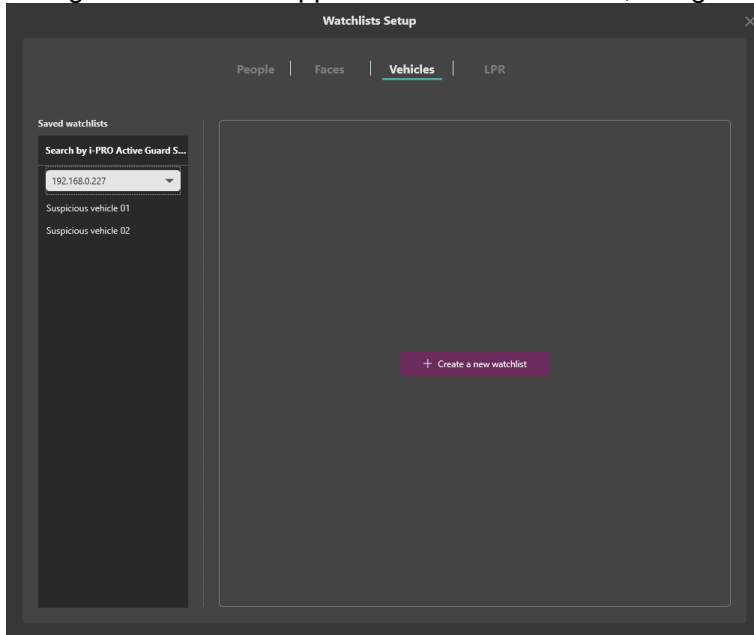
This section describes the operation of add, edit, and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

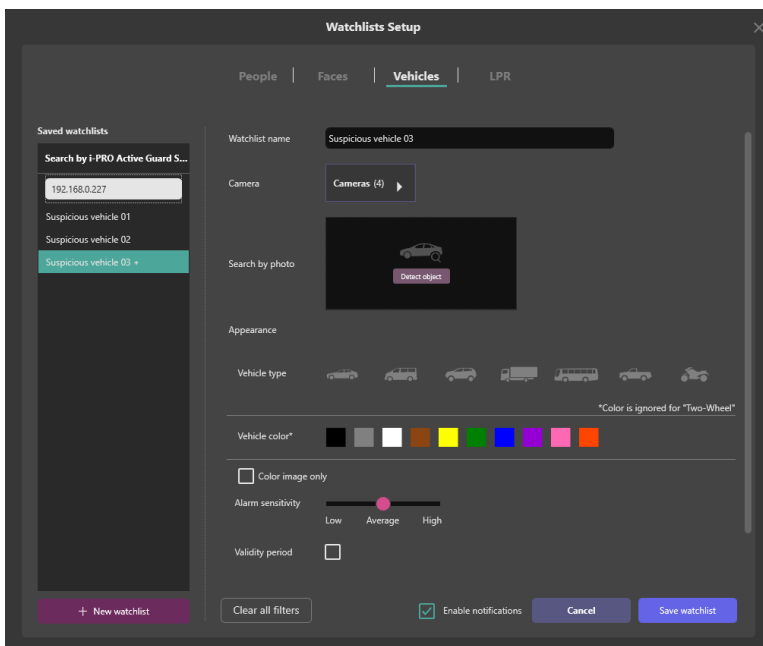
- **Add Registration (To manually select attributes)**

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.

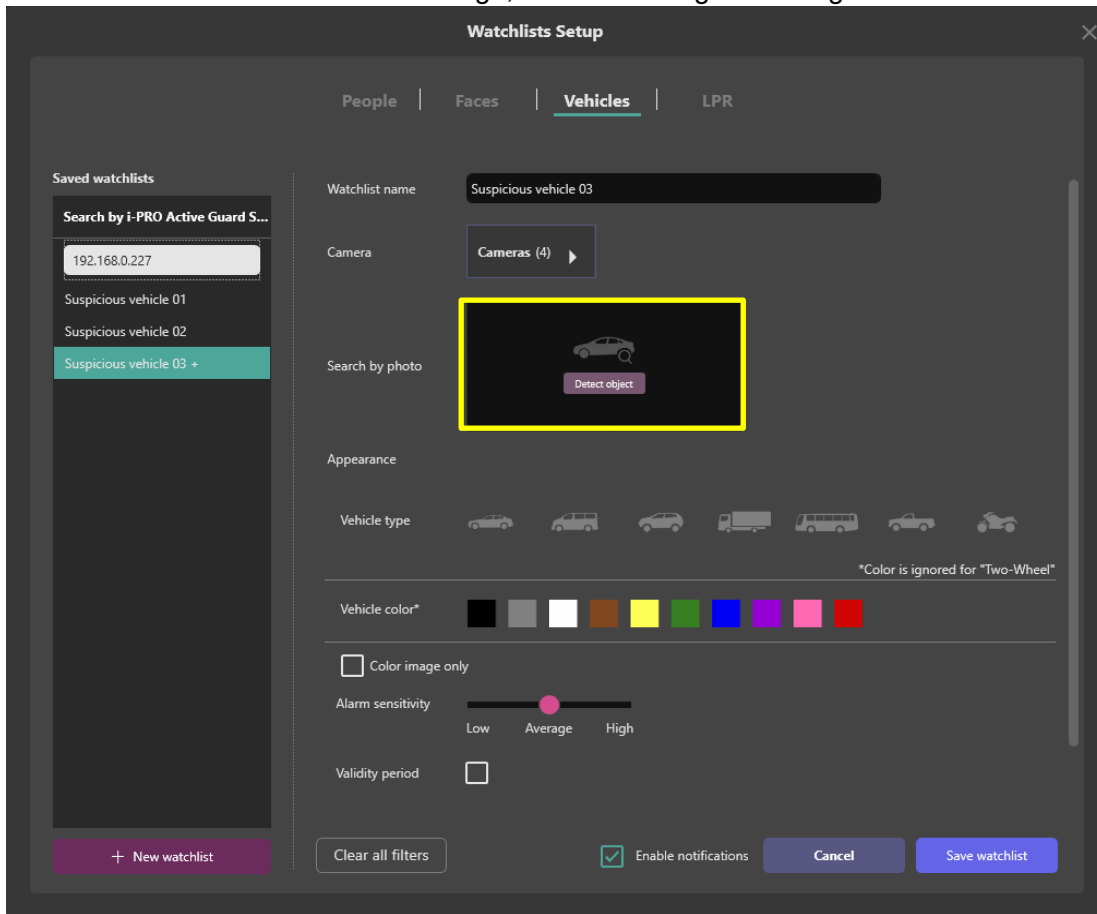
To add new item, click "+ Create a new watchlist" button then select appearance items.



- **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.



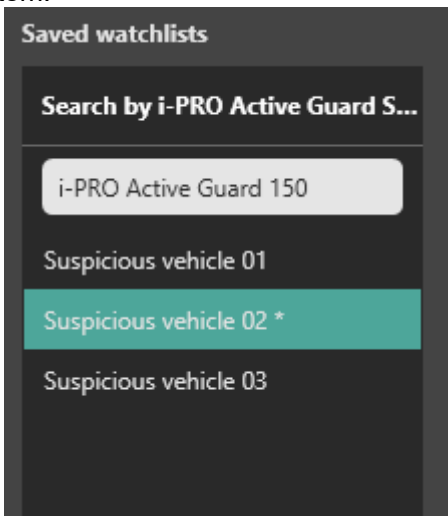
The following procedure is the same as when registering people watchlists, see 2.5.2.

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.
-

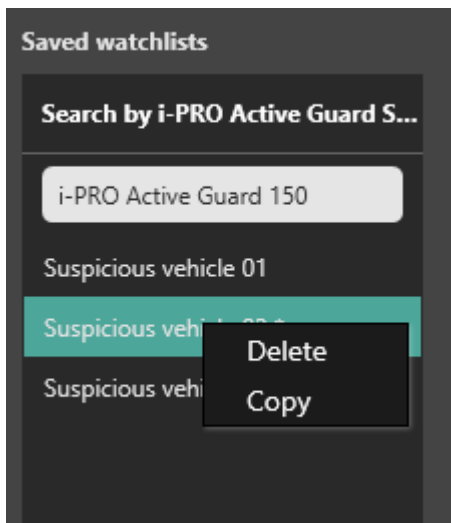
- **Edit Registration**

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

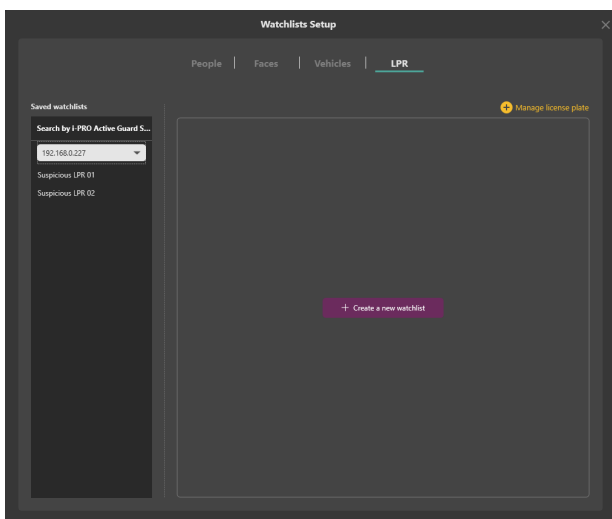
This section describes the operation of add, edit, and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

- **Add Registration**

To register a vehicle's appearance or License plate to the watchlist, navigate to Set up watchlists button > LPR tab.

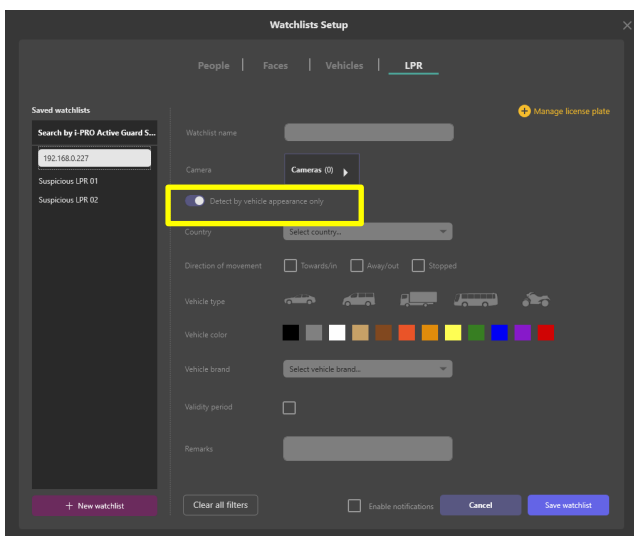


Registered items are listed on the left side.

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.

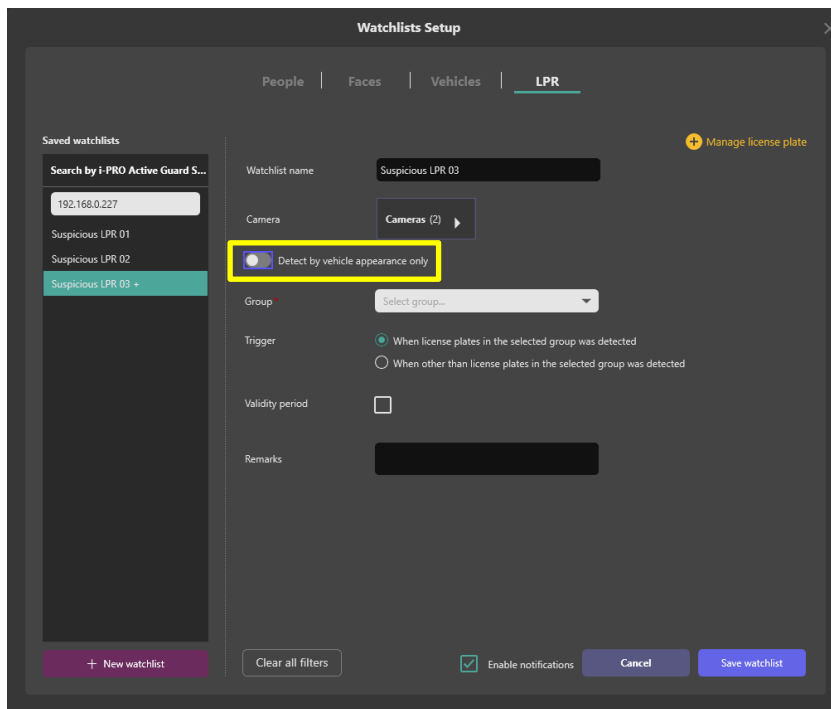


- **Add Registration (License Plate Group)**

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 2.4.4.1. About license plate, please see 2.4.4.2.
-



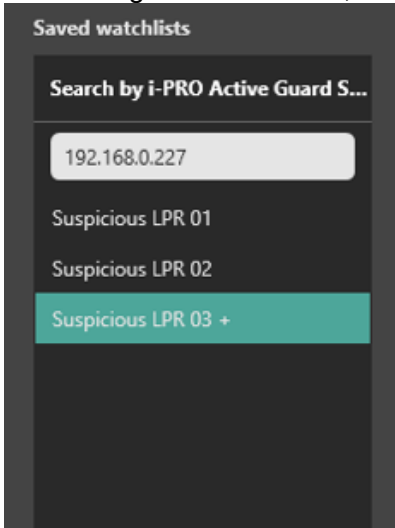
The following procedure is the same as when registering people watchlists, see 2.4.2.

Note:

- There is no limitation to the number of license plate and license plate group (*depending on the system design). Up to 12 LPR watchlist can be registered.
 - Only one item can be selected from each category. This is because many items register would affect false positives.
 - In Validity Period, two expiration dates can be set. Disable matching: After the expiration date, this 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.
-

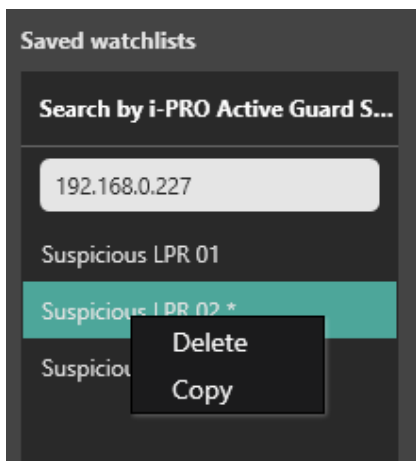
- **Edit Registration**

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



- **Delete Registration**

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

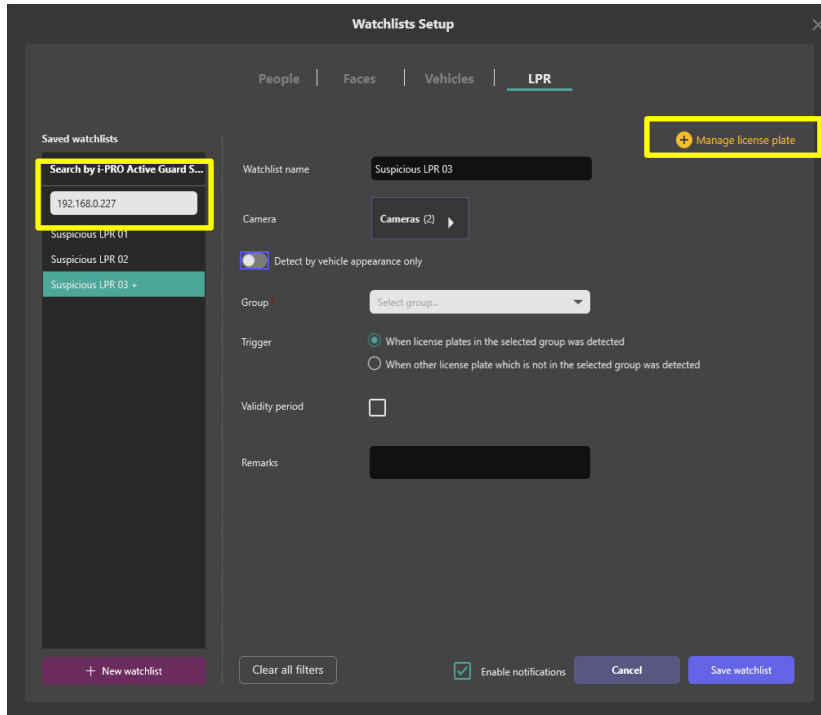


2.5.4.1. Manage License plate group

- **Add Registration**

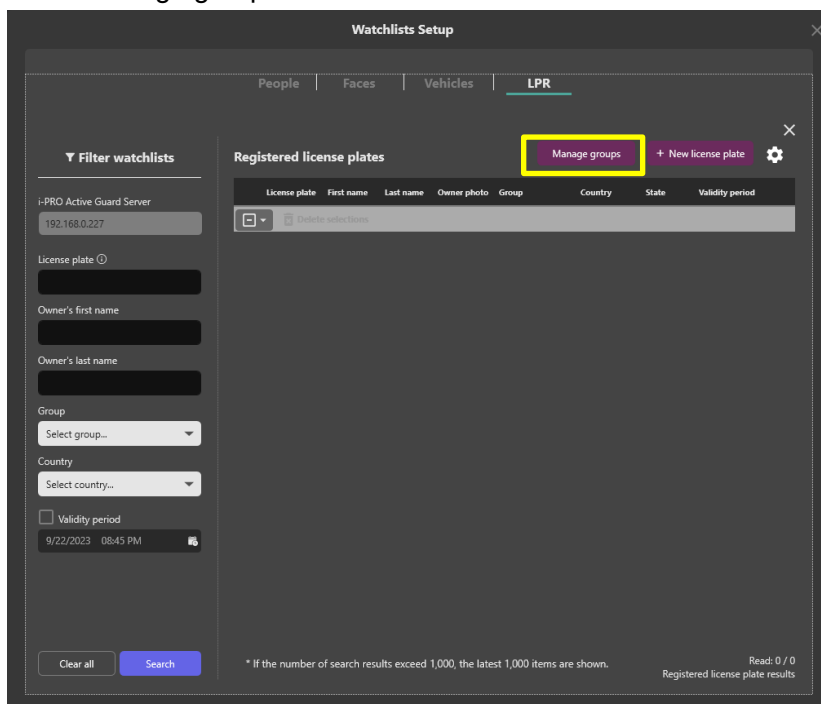
Step 1

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



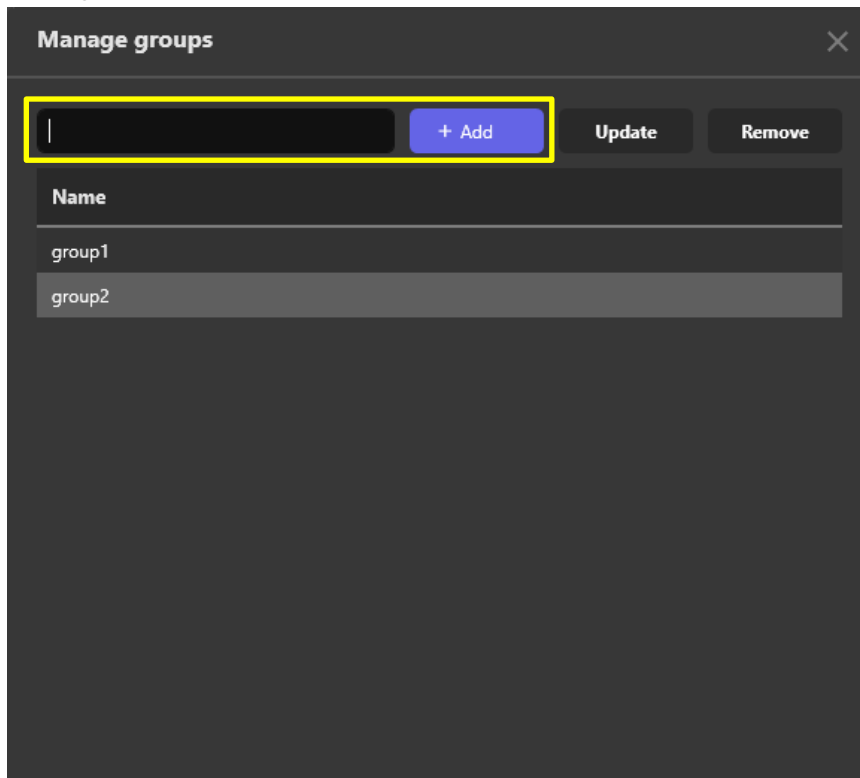
Step 2

Click “Manage groups”



Step 3

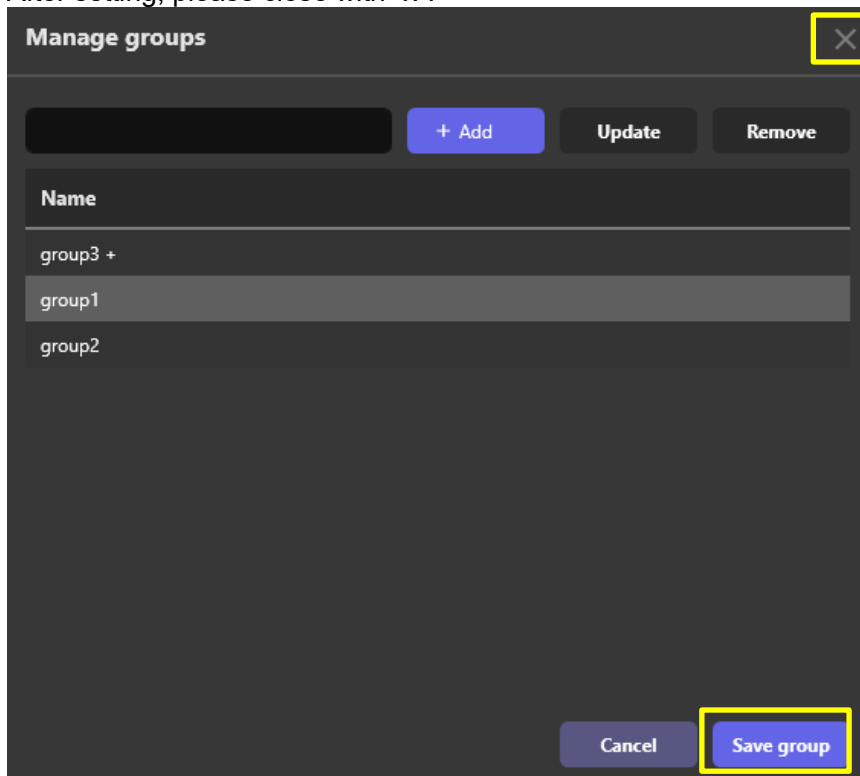
Input group name, and "+ Add" button.



Step 4

Click "Save group" button.

After setting, please close with "x".



- **Edit Registration**

Step 1

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

Step 2

Click “Save group” button.

- **Delete Registration**

Step 1

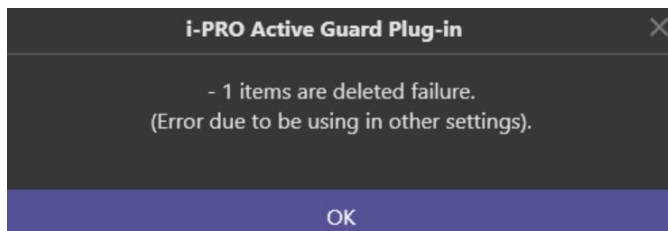
Select one of group name from list, then click Remove button.

Step 2

Click “Save group” button.

Note:

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

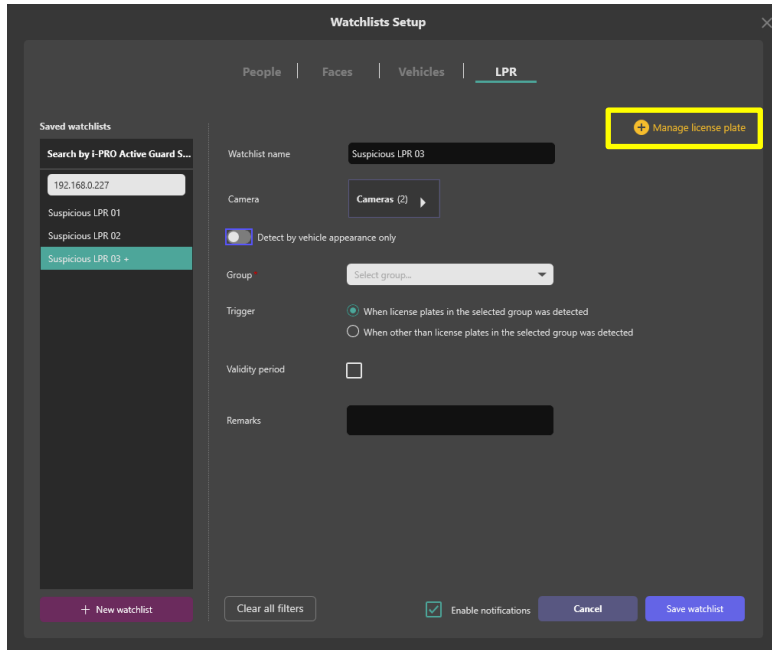


2.5.4.2. Manage License plate

- **Get registered list**

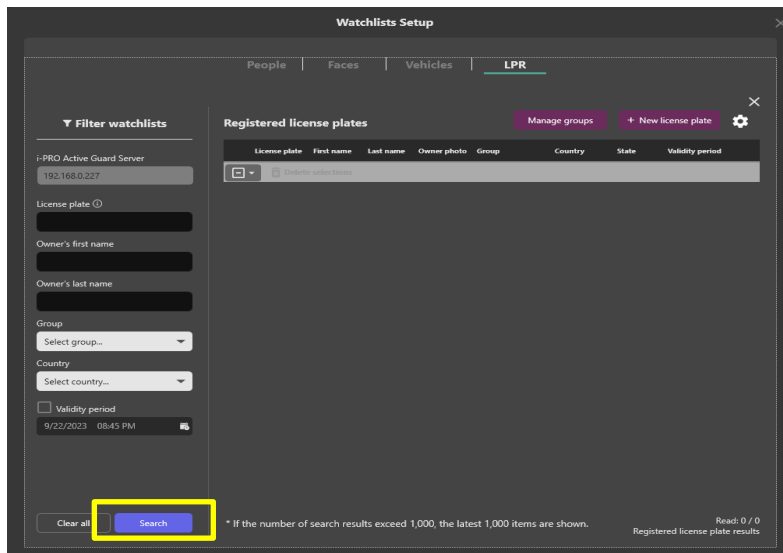
Step 1

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:

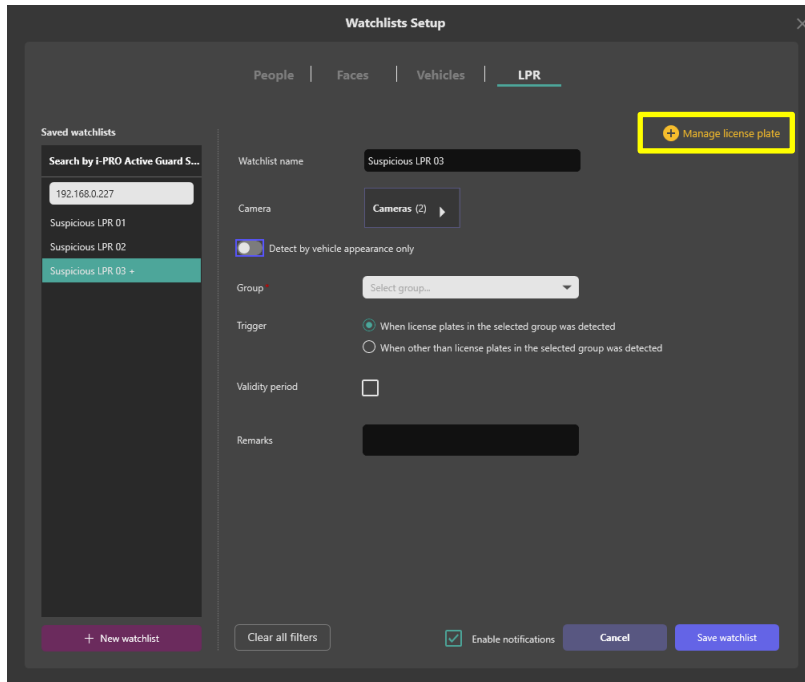
- Up to 1,000 License plates can be shown at the same time.
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

- **Add Registration**

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

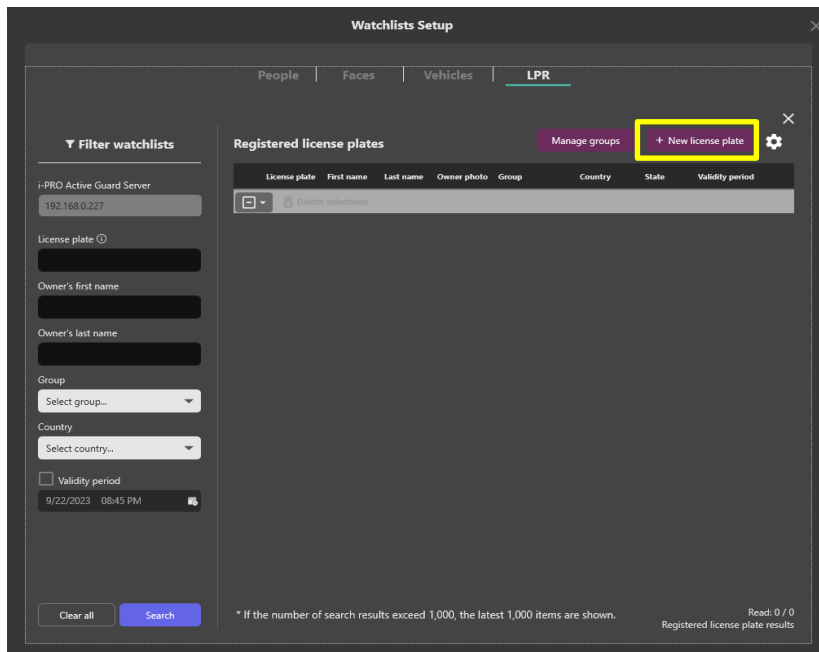
Step 1

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



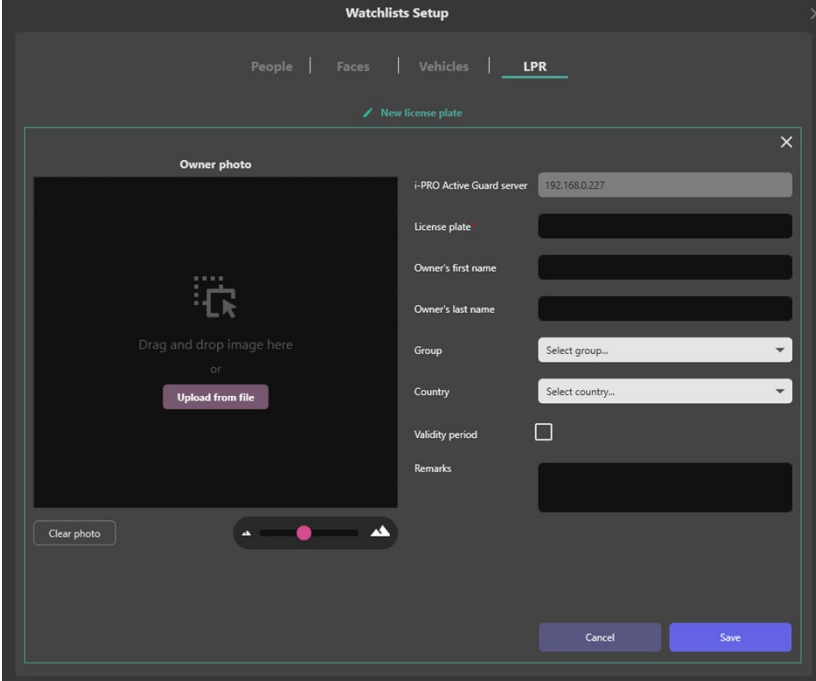
Step 2

Click “+ New License plate.”



Step 3

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



The screenshot shows the "Watchlists Setup" dialog box with the "LPR" tab selected. The "New license plate" section is active. On the left, there is an "Owner photo" area with a "Drag and drop image here" instruction, an "Upload from file" button, and a "Clear photo" button. On the right, there are several input fields: "I-PRO Active Guard server" (192.168.0.227), "License plate" (required), "Owner's first name", "Owner's last name", "Group" (dropdown menu), "Country" (dropdown menu), "Validity period" (checkbox), and "Remarks". At the bottom right, there are "Cancel" and "Save" buttons.

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

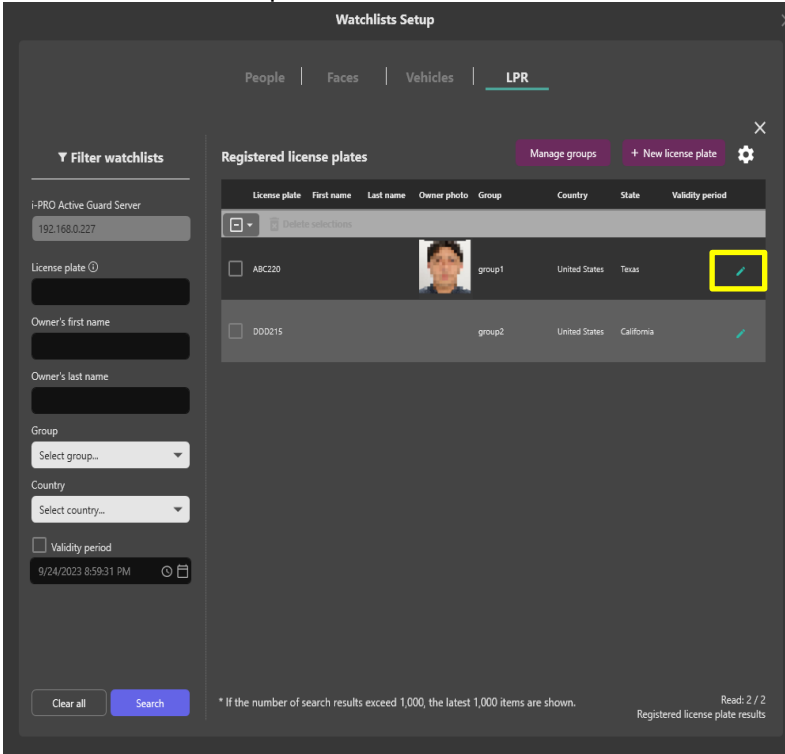
First, find registered license plate you want to edit the information.
Registered license plate can be searched by using filter.

Note:

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

Step 2

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



The screenshot shows the 'Watchlists Setup' window with the 'LPR' tab selected. The left sidebar contains filter options for 'Filter watchlists', including 'I-PRO Active Guard Server', 'License plate', 'Owner's first name', 'Owner's last name', 'Group', 'Country', and 'Validity period'. The main area displays a table of 'Registered license plates' with columns for 'License plate', 'First name', 'Last name', 'Owner photo', 'Group', 'Country', 'State', and 'Validity period'. Two rows are visible: one for 'ABC220' (group1, United States, Texas) and one for '000215' (group2, United States, California). A yellow box highlights the edit icon (pencil) next to the 'ABC220' row. At the bottom, there are 'Clear all' and 'Search' buttons, and a note: '* If the number of search results exceed 1,000, the latest 1,000 items are shown.' The status bar at the bottom right indicates 'Read: 2 / 2 Registered license plate results'.

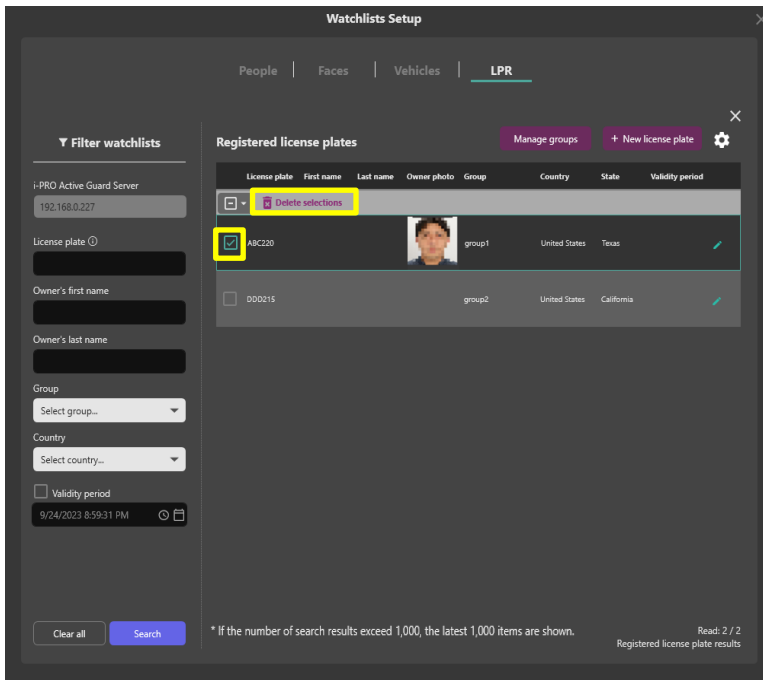
Step 3

Edit any information then click Save.

- **Delete Registration**

Step 1

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



2.5.4.3. Export CSV of License plate

Registered License plate can be exported to CSV.


Export the following items:

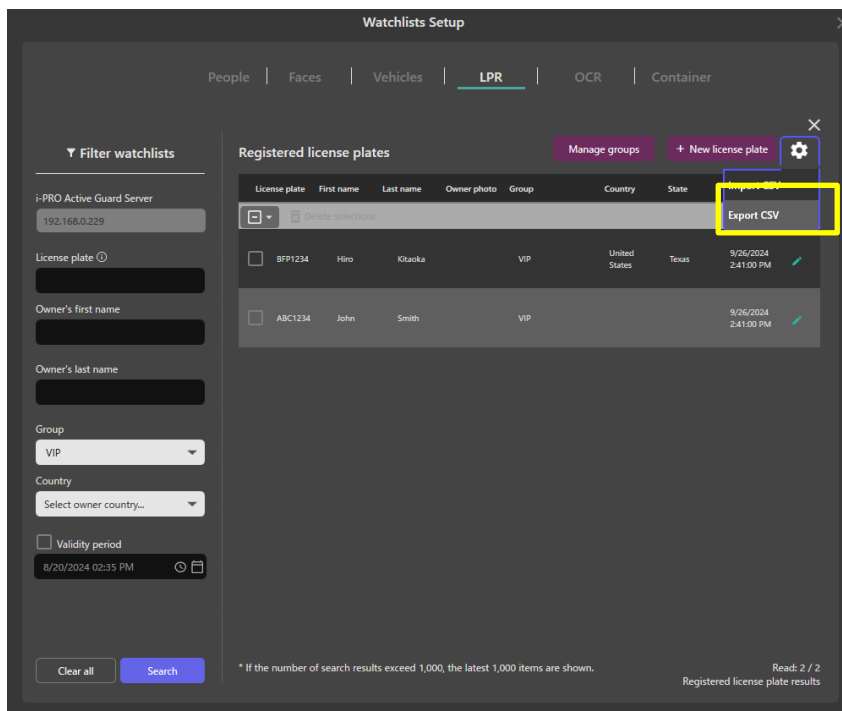
- License plate
- Country
- State
- First name
- Last name

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,

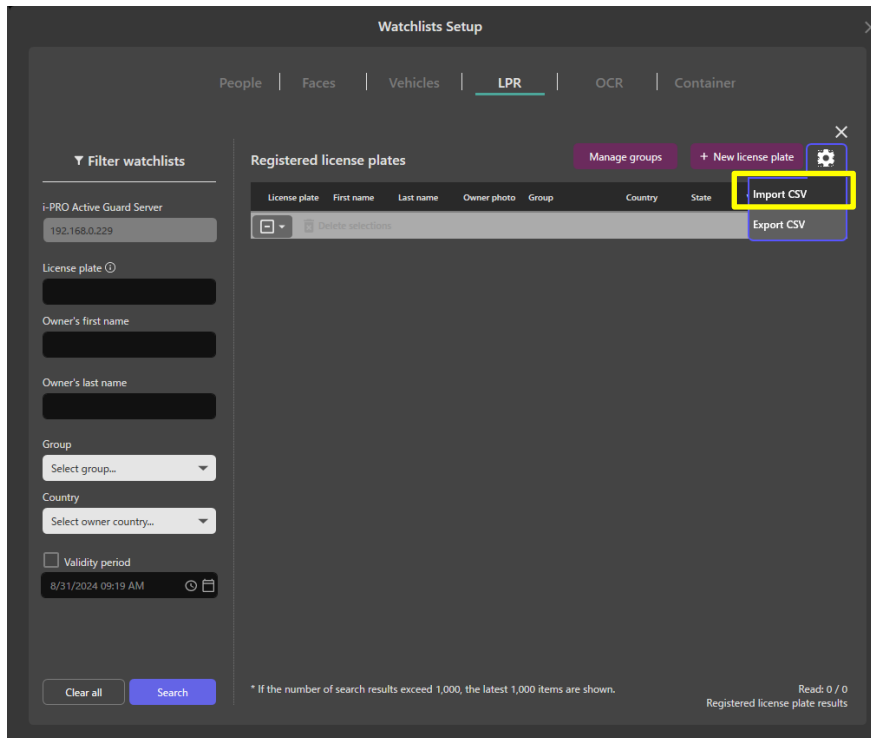
License Plate, First Name and Last Name are registered.

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 file, then click Open.

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

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

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

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

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

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

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

Example)

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

Note:

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

2.5.5. OCR Watchlist

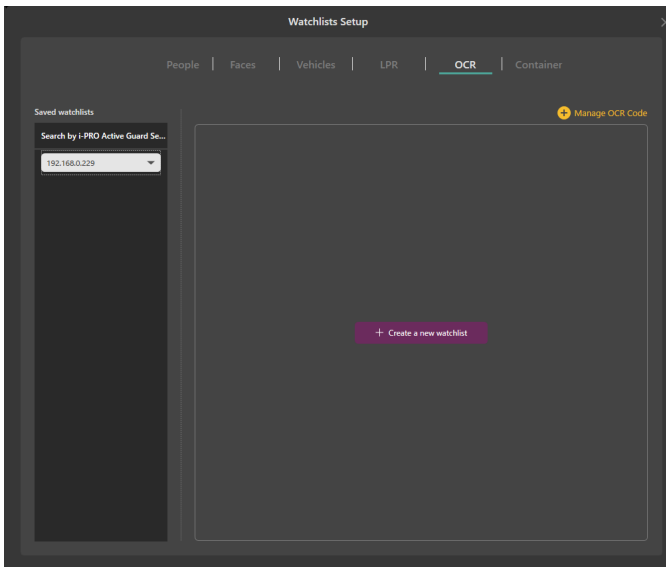
This section describes the operation of add, edit, and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

- **Add Registration**

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

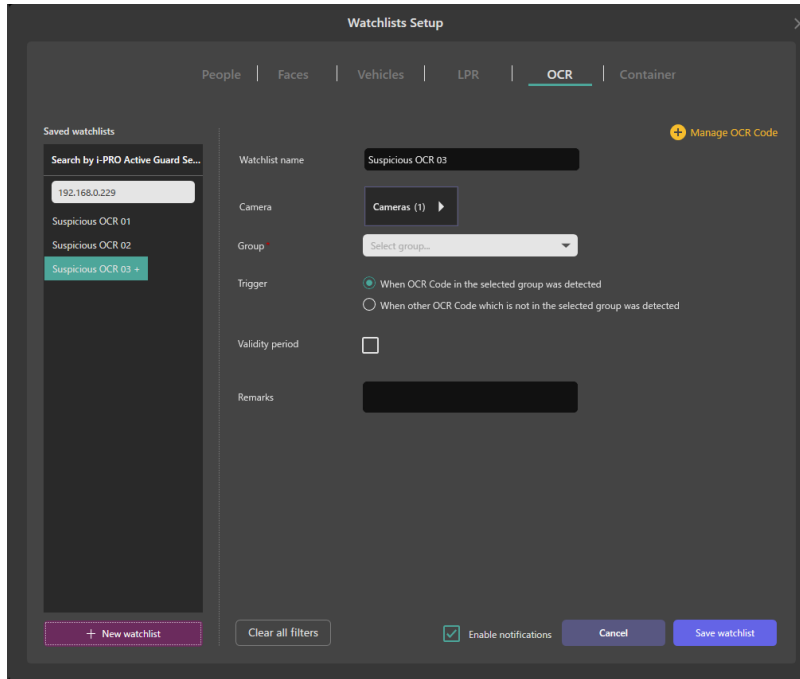


Registered items are listed on the left side.

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.
-



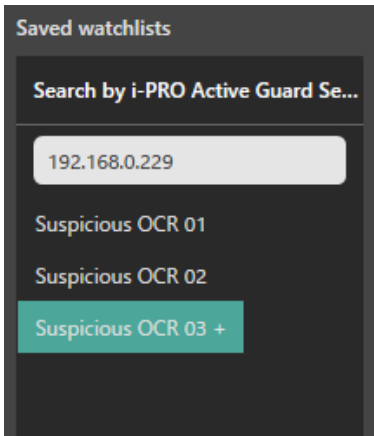
The following procedure is the same as when registering people watchlists, see 2.5.2.

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.
-

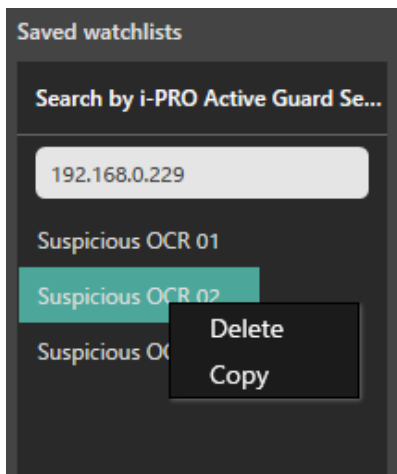
- **Edit Registration**

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.

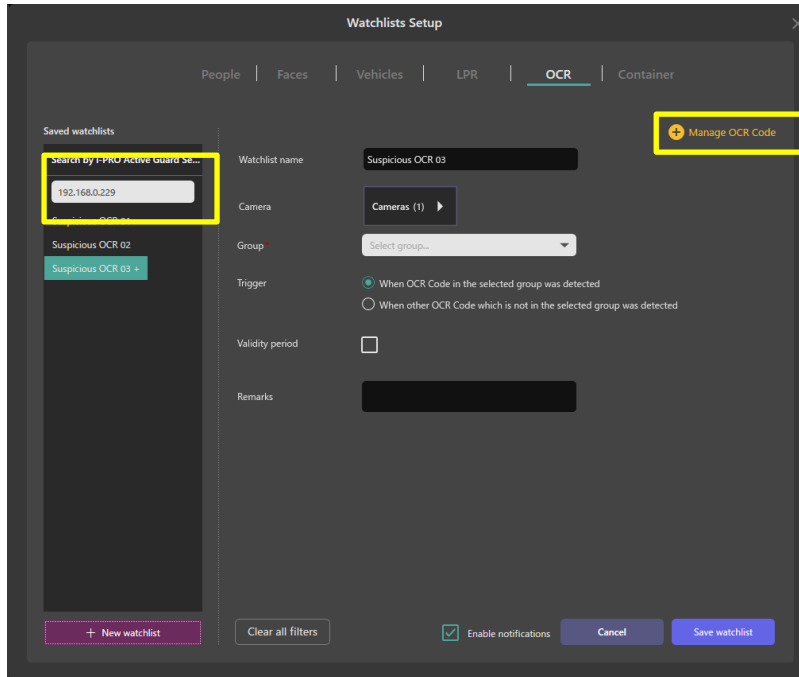


2.5.5.1. Manage OCR group

- **Add Registration**

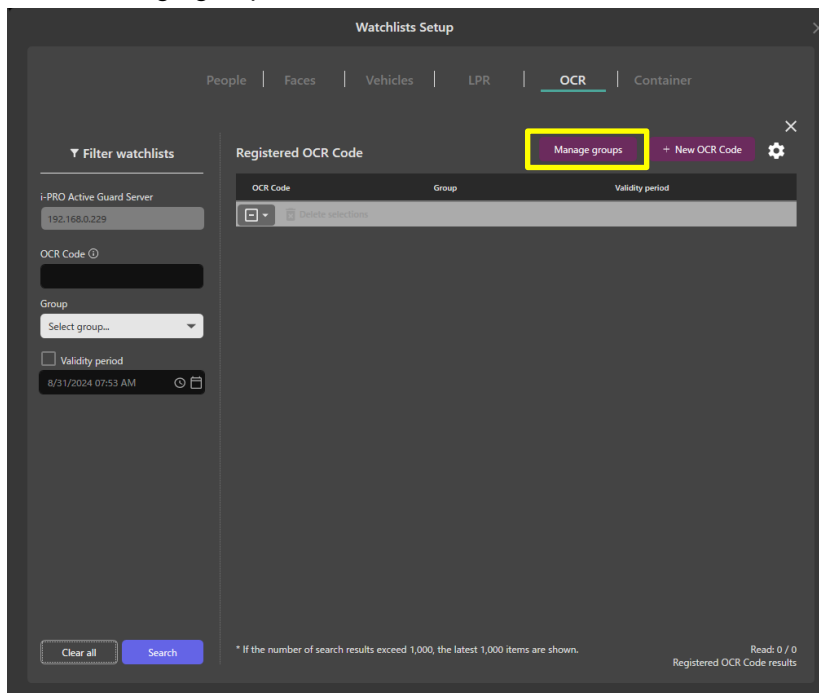
Step 1

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



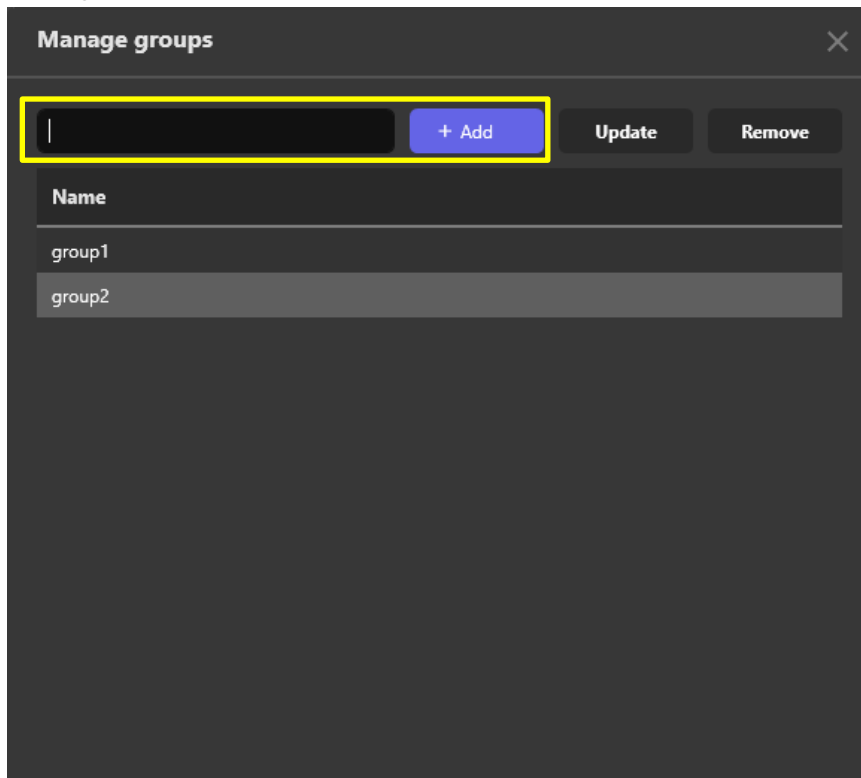
Step 2

Click “Manage groups”



Step 3

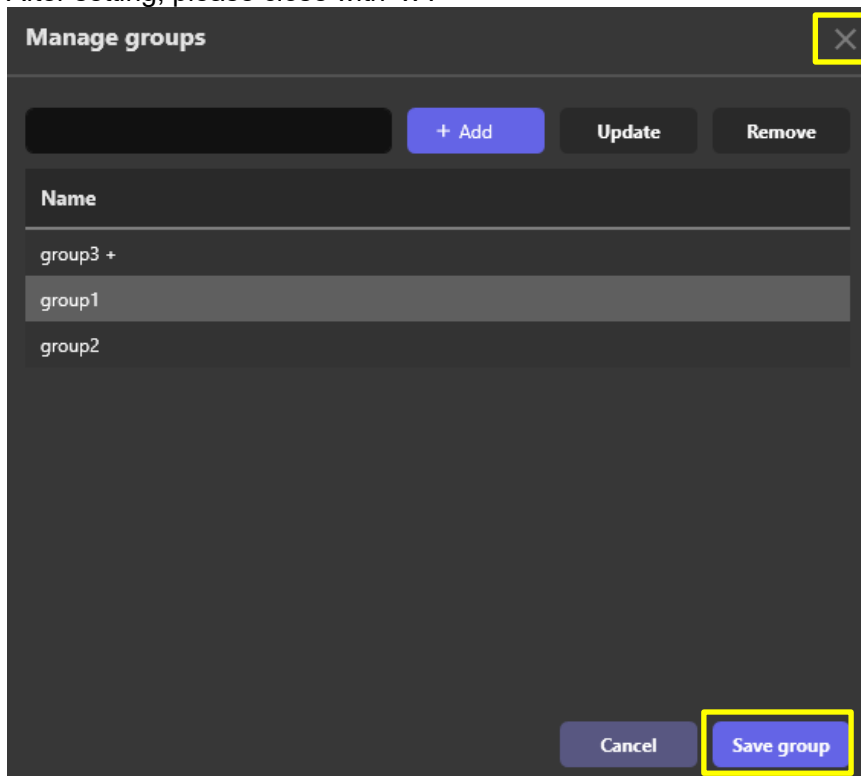
Input group name, and "+ Add" button.



Step 4

Click "Save group" button.

After setting, please close with "x".



- **Edit Registration**

Step 1

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

Step 2

Click "Save group" button.

- **Delete Registration**

Step 1

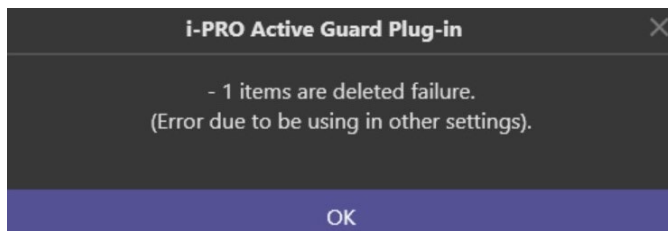
Select one of group name from list, then click Remove button.

Step 2

Click "Save group" button.

Note:

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

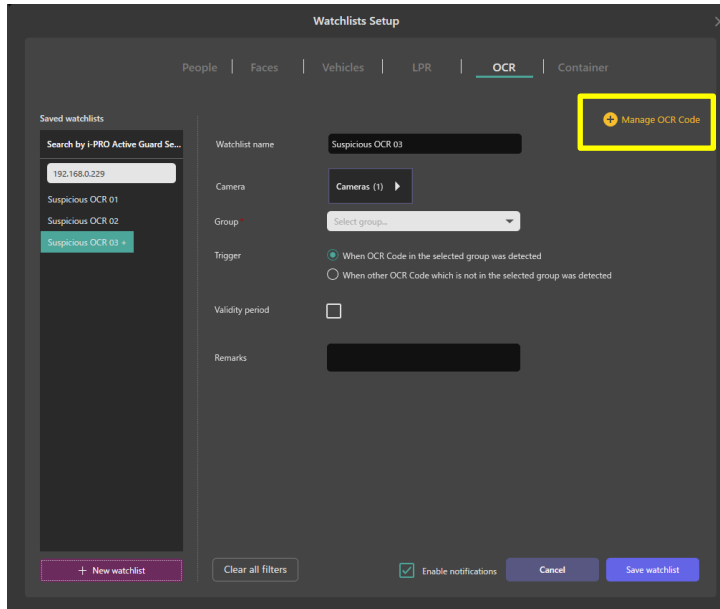


2.5.5.2. Manage OCR Code

- **Get registered list**

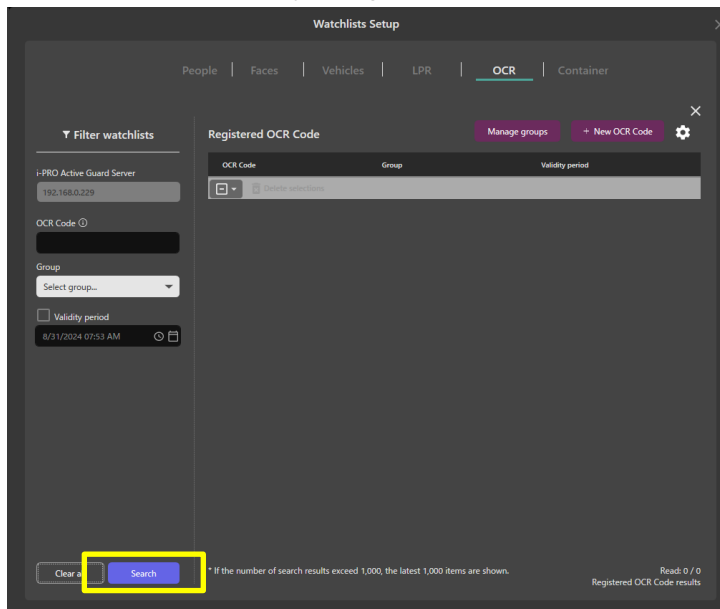
Step 1

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:

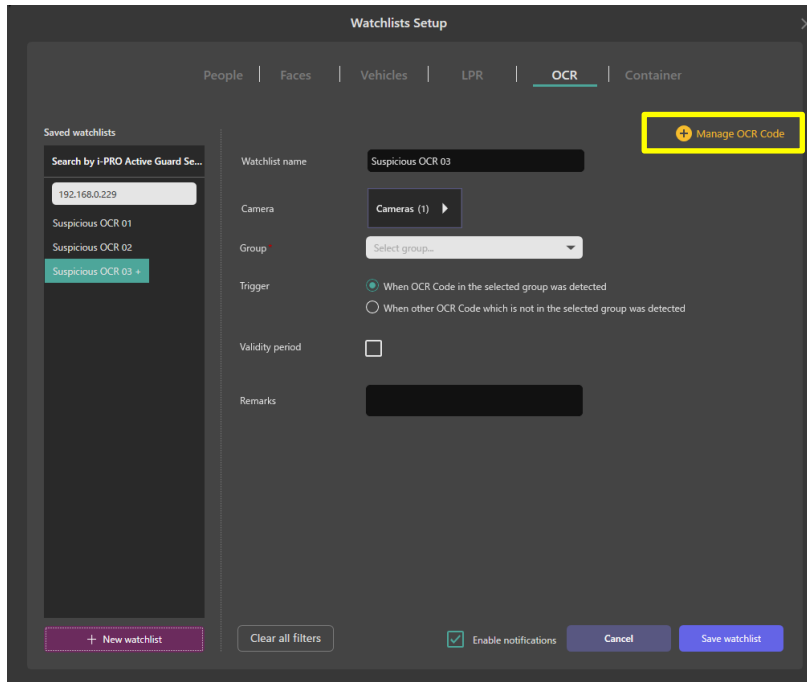
- Up to 1,000 OCR Code can be shown at the same time. If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

- **Add Registration(manual registration)**

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

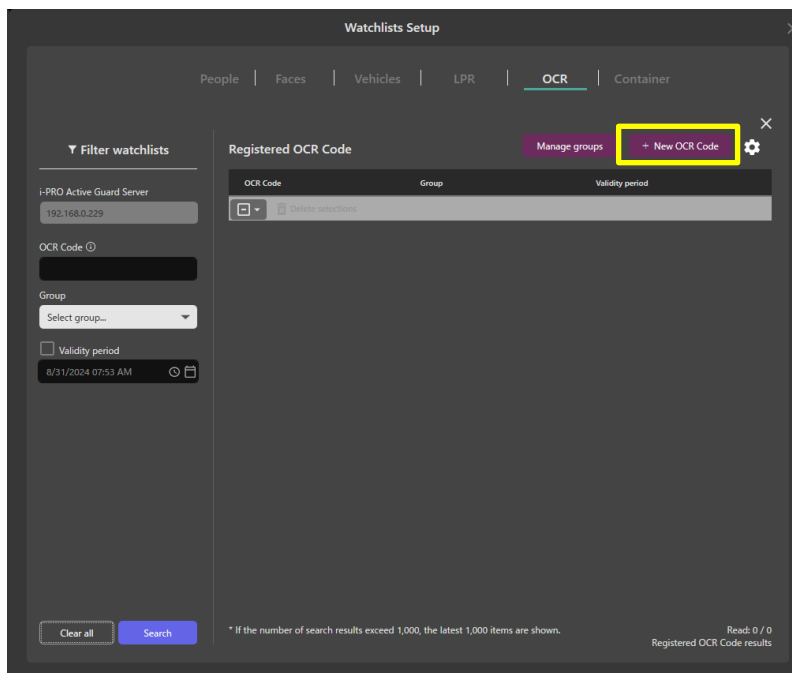
Step 1

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 the 'Watchlists Setup' window with the 'LPR' tab selected. On the left, there is a 'Filter watchlists' section with a server IP address '192.168.0.167'. Below this are input fields for 'License plate', 'Owner's first name', and 'Owner's last name'. There are also dropdown menus for 'Group' and 'Country', and a 'Validity period' section with a date-time picker set to '9/25/2023 10:06:49 AM'. At the bottom left are 'Clear all' and 'Search' buttons. The main area is titled 'Registered license plates' and contains a table with columns: 'License plate', 'First name', 'Last name', 'Owner photo', 'Group', 'Country', and 'State'. Above the table are buttons for 'Manage groups', '+ New license plate', and 'Import CSV'. A 'Delete selections' button is located below the table header. At the bottom right, it shows 'Read: 0 / 0' and 'Registered license plate results'.

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 not be deleted.
-

● Edit Registration

Step 1

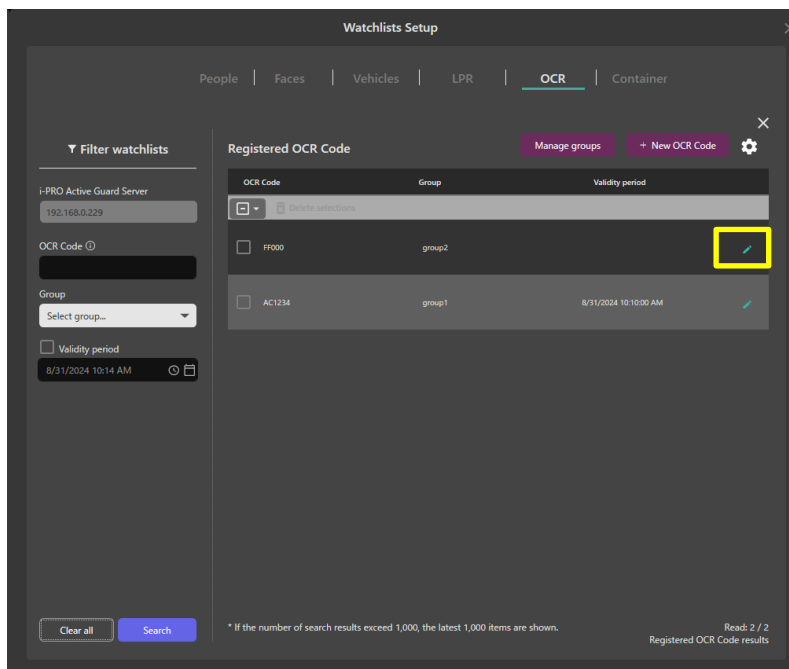
First, find registered OCR Code you want to edit the information.
Registered OCR Code can be searched by using filter.

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 OCR Code from search results, then click  button.



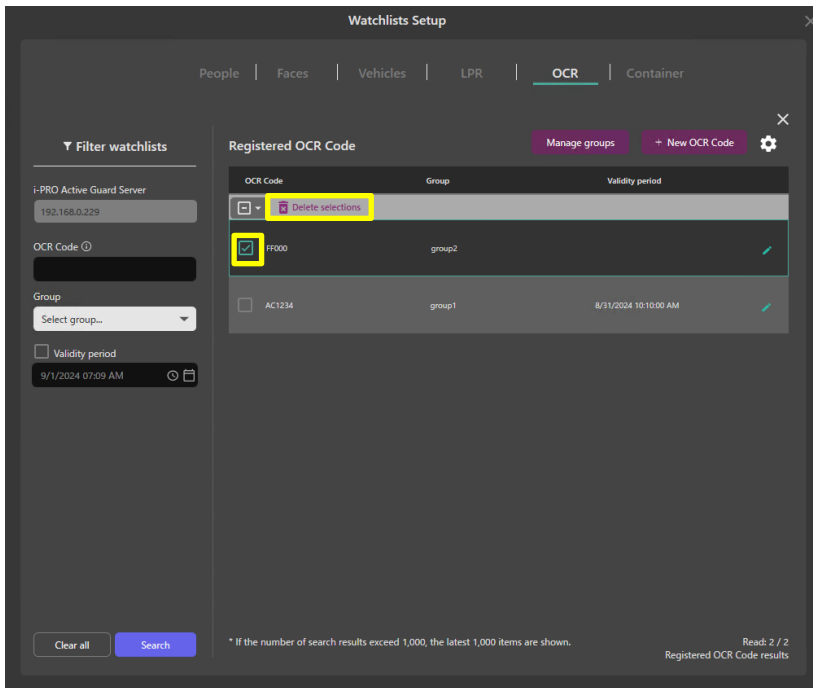
Step 3

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:

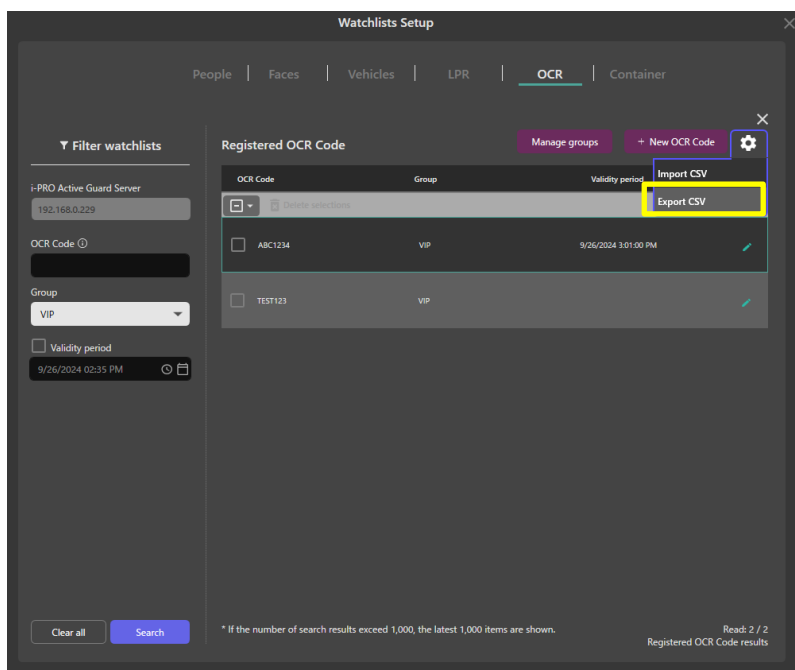
- OCR code

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

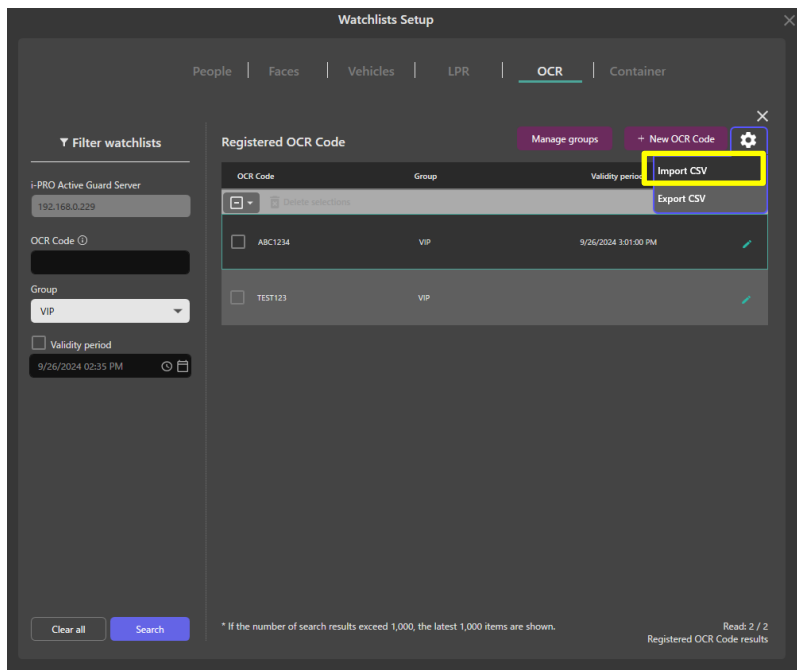
Specify the output destination for the CSV file and save it.

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.

- CSV format 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

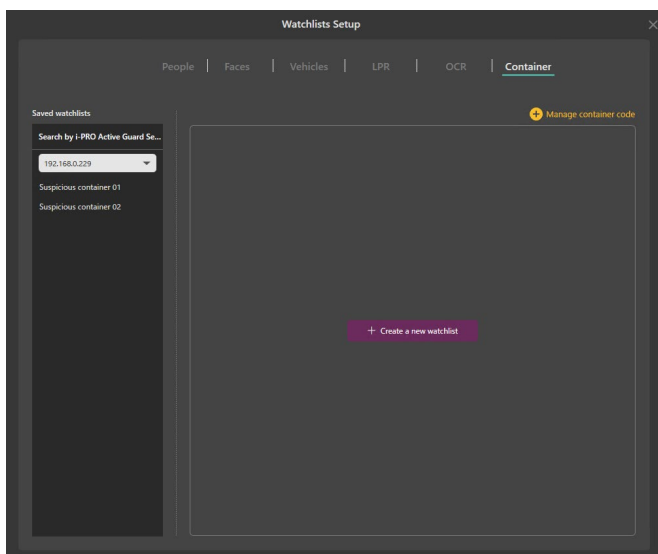
This section describes the operation of add, edit, and delete.

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.

If you change watchlist settings, please reopen i-PRO Active Guard Event to apply this change.

● Add Registration

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

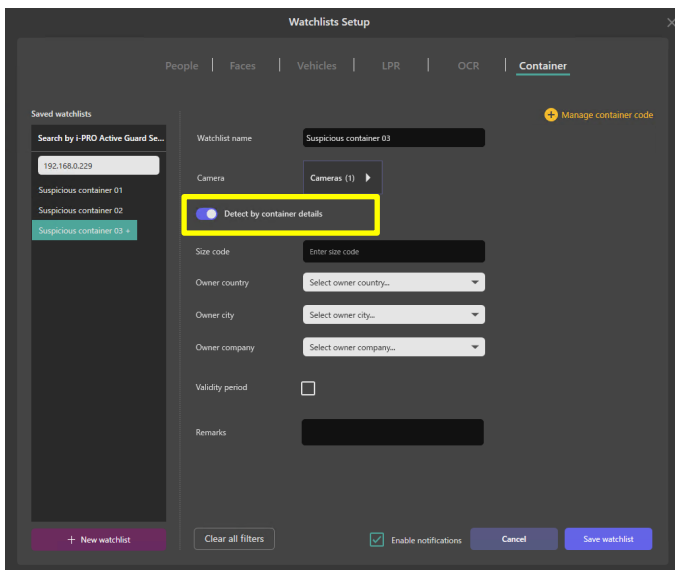


Registered items are listed on the left side.

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.

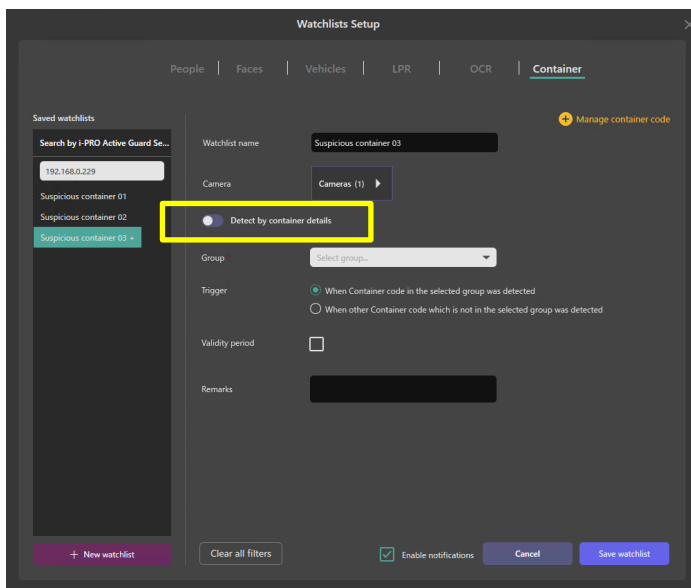


- **Add Registration (Container Group)**

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..
-



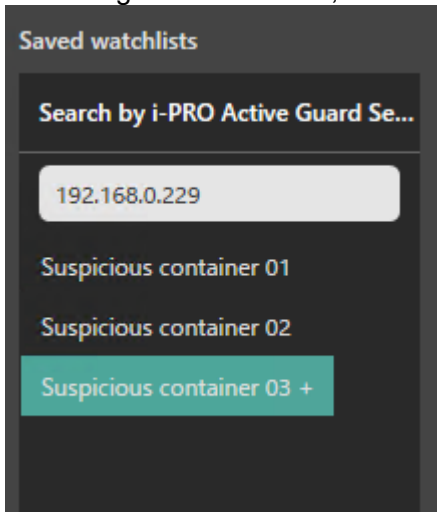
The following procedure is the same as when registering people watchlists, see 2.5.2.

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.
-

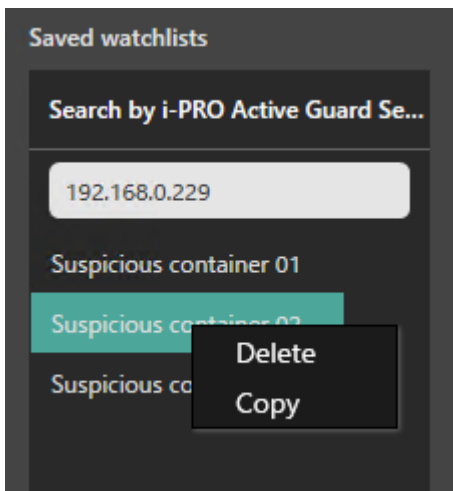
- **Edit Registration**

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



- **Delete Registration**

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

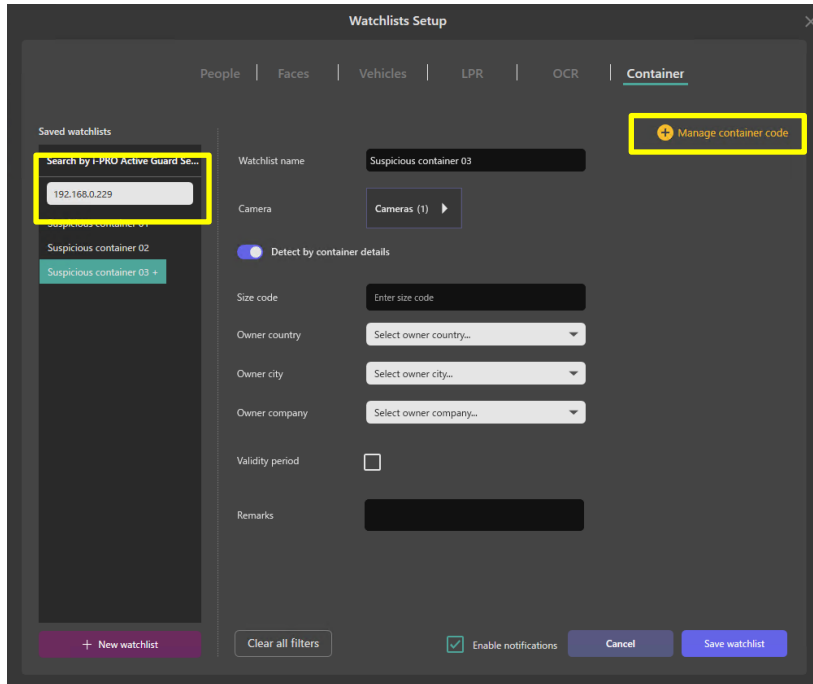


2.5.6.1. Manage Container group

- **Add Registration**

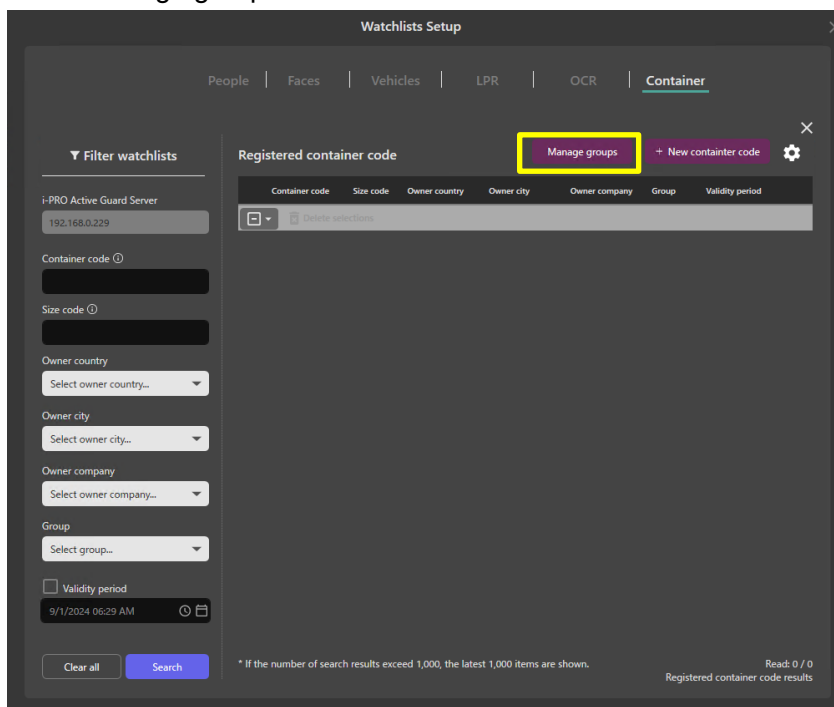
Step 1

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



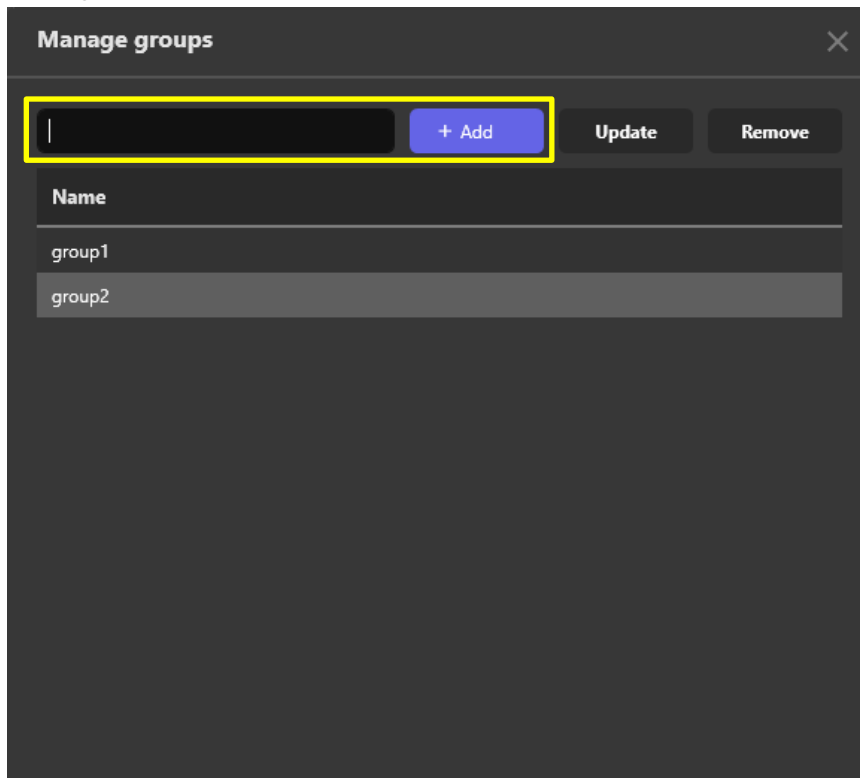
Step 2

Click “Manage groups”



Step 3

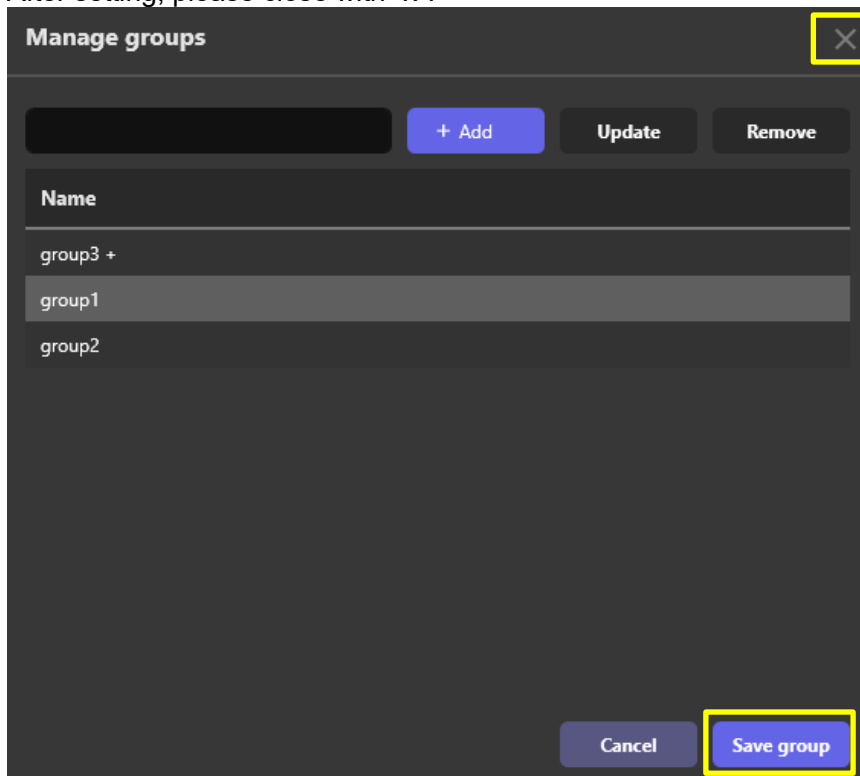
Input group name, and "+ Add" button.



Step 4

Click "Save group" button.

After setting, please close with "x".



- **Edit Registration**

Step 1

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

Step 2

Click “Save group” button.

- **Delete Registration**

Step 1

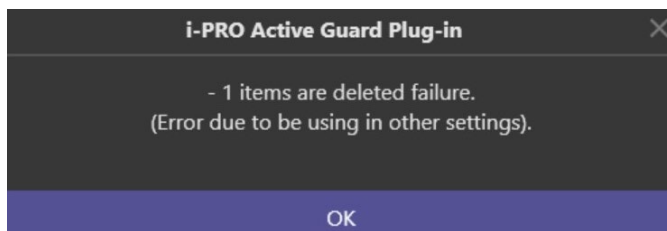
Select one of group name from list, then click Remove button.

Step 2

Click “Save group” button.

Note:

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

Watchlists Setup

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

Saved watchlists

Search by i-PRO Active Guard Se...
192.168.0.229

Suspicious container 01
Suspicious container 02
Suspicious container 03 +

+ New watchlist

Watchlist name: Suspicious container 03

Camera: Cameras (1)

Detect by container details

Size code: Enter size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Validity period:

Remarks:

Clear all filters Enable notifications Cancel Save watchlist

+ Manage container code

Step 2

Click “Search”

Watchlists Setup

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

Filter watchlists

i-PRO Active Guard Server
192.168.0.229

Container code

Size code

Owner country: Select owner country...

Owner city: Select owner city...

Owner company: Select owner company...

Group: Select group...

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

Clear Search

Registered container code

Manage groups + New container code

Container code	Size code	Owner country	Owner city	Owner company	Group	Validity period
[Empty table]						

Read: 0 / 0
Registered container code results

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

Note:

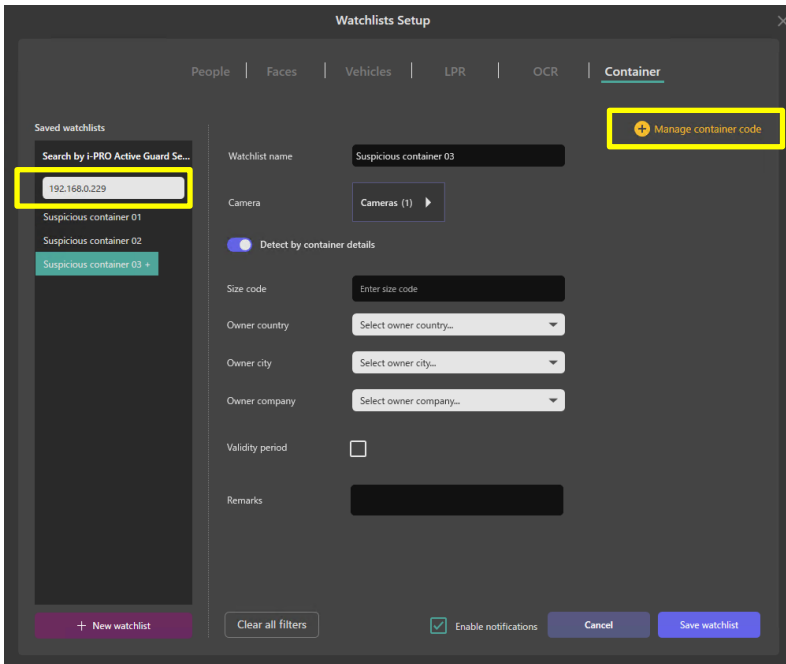
- Up to 1,000 container code can be shown at the same time.
If your search results exceed 1000 results, please set the search filter so that the search results are less than 1000 results.

- **Add Registration**

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

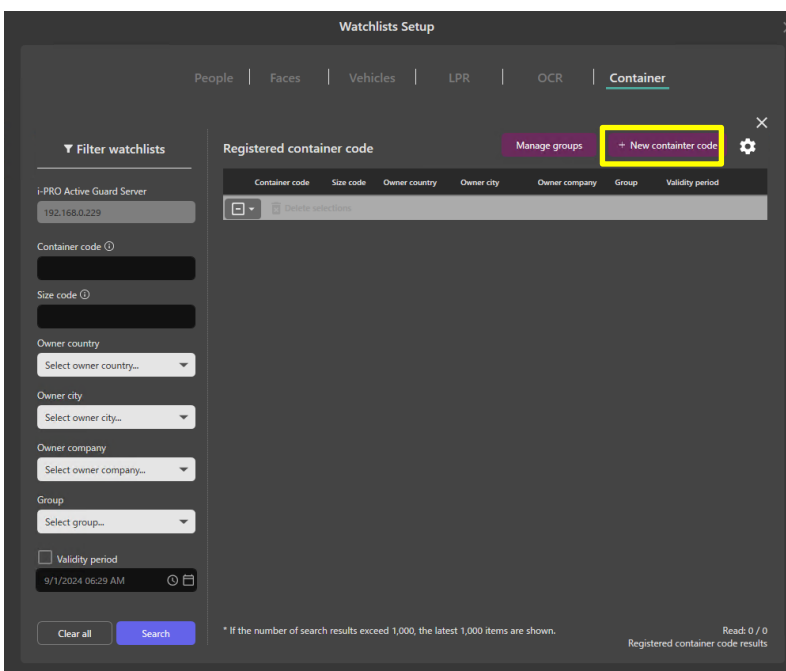
Step 1

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



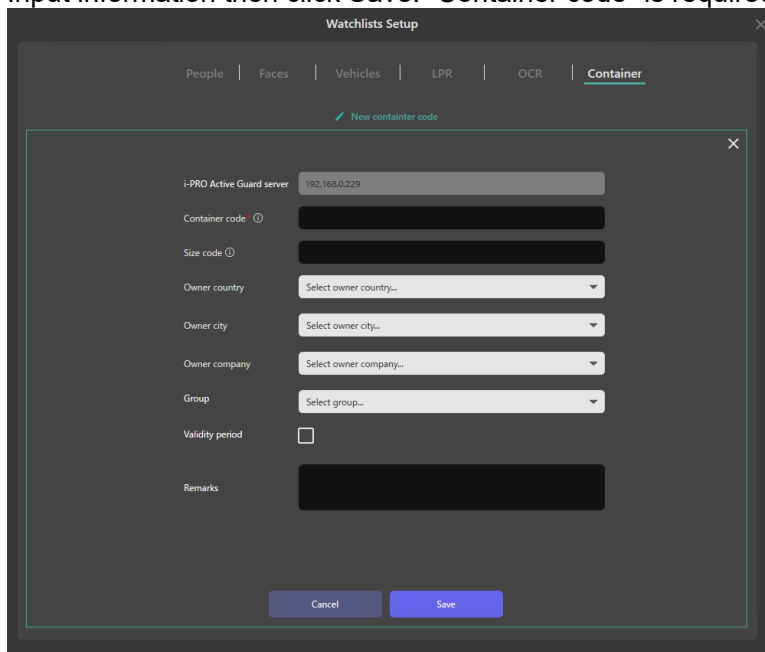
Step 2

Click “+ New container code.”



Step 3

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



The screenshot shows the 'Watchlists Setup' dialog box with the 'Container' tab selected. The dialog has a dark background and a light-colored border. At the top, there are navigation tabs: 'People', 'Faces', 'Vehicles', 'LPR', 'OCR', and 'Container'. Below the tabs, there is a green checkmark icon and the text 'New container code'. The main area contains several input fields and dropdown menus:

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

At the bottom of the dialog, there are two buttons: 'Cancel' and '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

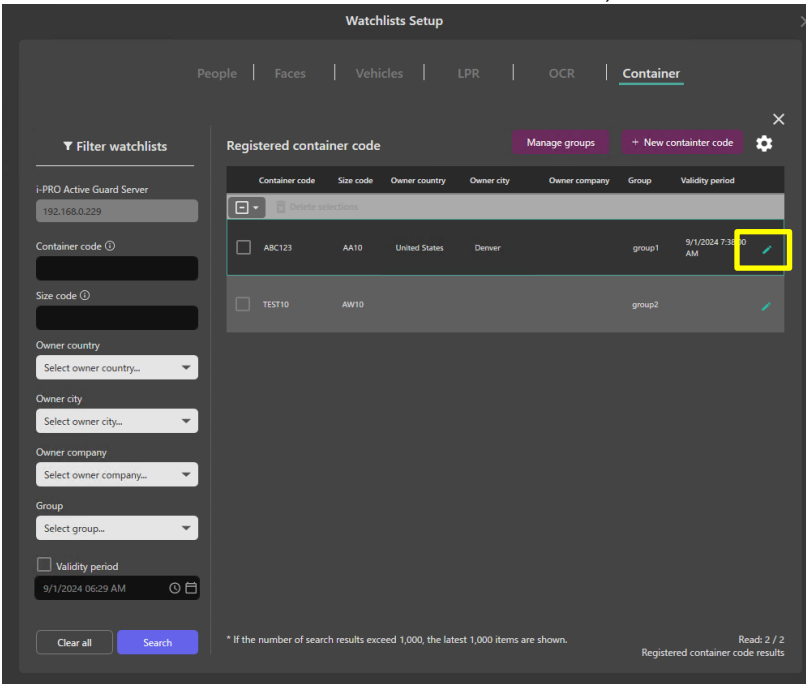
First, find registered container code you want to edit the information.
Registered container code can be searched by using filter.

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 container code from search results, then click  button.



The screenshot shows the 'Watchlists Setup' window with the 'Container' tab selected. The left sidebar contains filters for 'i-PRO Active Guard Server' (IP address: 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 pencil icon in the 'Validity period' column of the first row.

Container code	Size code	Owner country	Owner city	Owner company	Group	Validity period
ABC123	AA10	United States	Denver		group1	9/1/2024 7:35:10 AM
TEST10	AW10				group2	

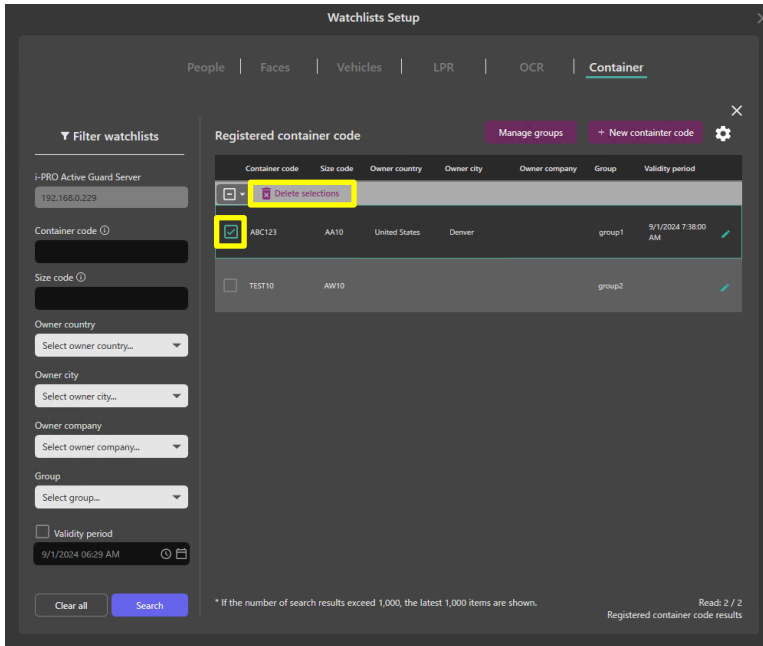
Step 3

Edit any information then click Save.

- **Delete Registration**

Step 1

Select check box of container code 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:

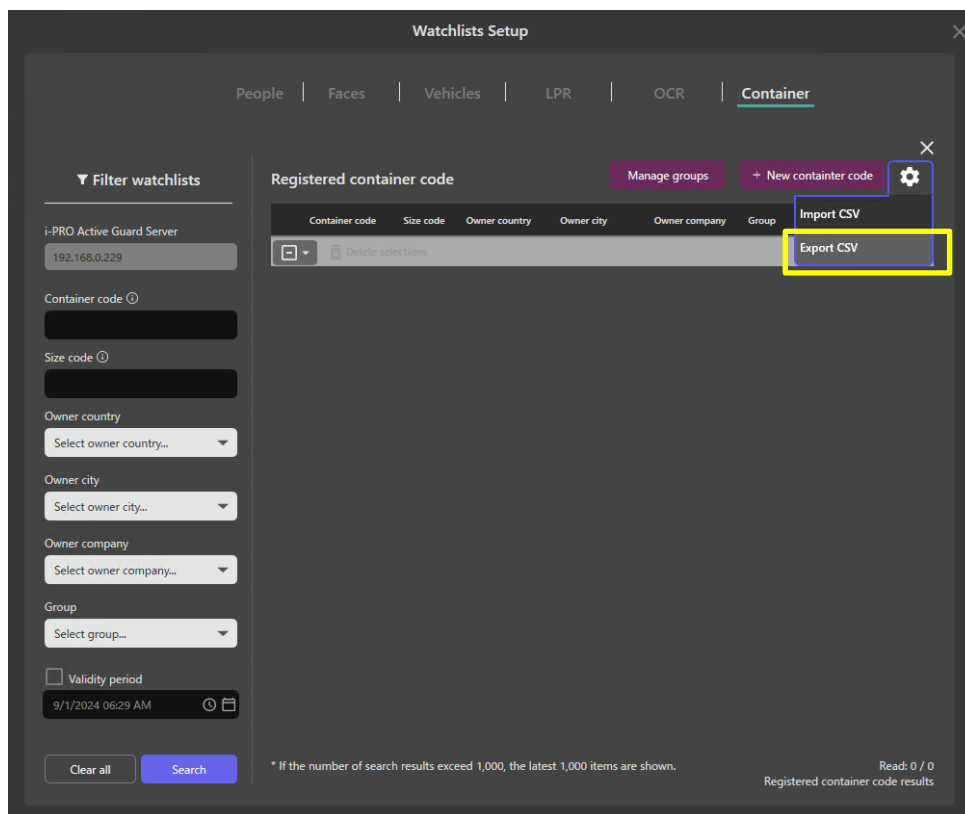
- Container code
- Size code
- Owner country
- Owner company

Step 1

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

Step 2

Click  , then click Export CSV.



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

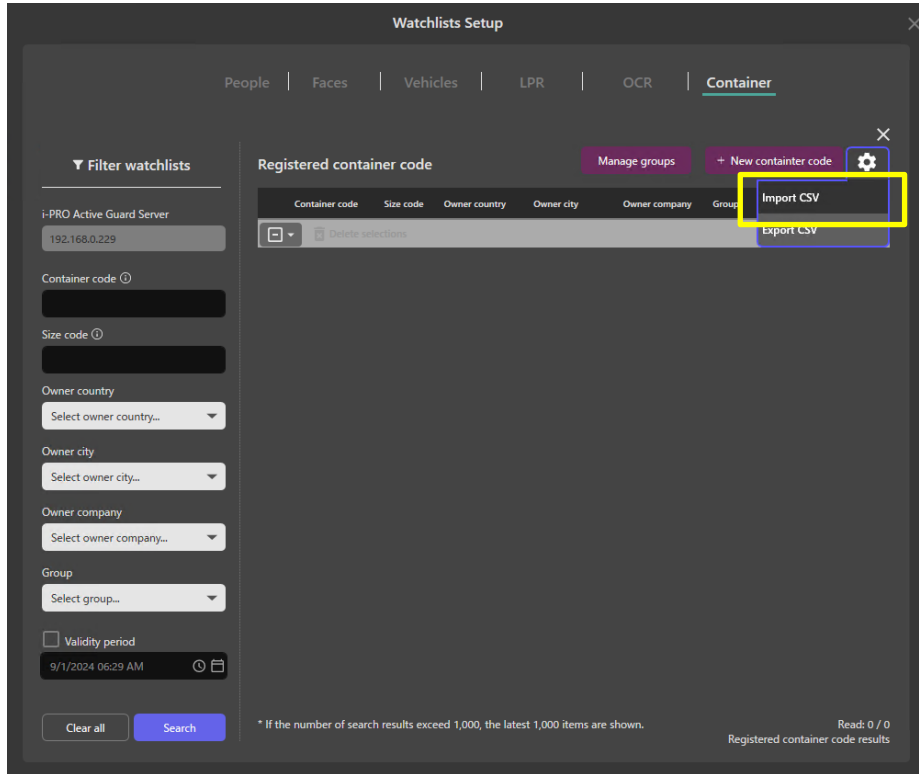
Specify the output destination for the CSV file and save it.

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.

- CSV format 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.

If you change these settings, please reopen i-PRO Active Guard Event Monitor and Search Monitor to apply the changes.

Preferences

Playback

Playback mode: Continue to playback for the selected camera

Start playback: 5 seconds before event

End playback: 5 seconds after event

Search settings

Maximum number of searches: 1000

Timeout interval for searches: 60 seconds

Display settings on Search Monitor

Camera name/ Date time: On Off

Display position: Top Bottom

License Plate Recognition

Thumbnail display options: Show entire image including vehicle b... Show only license plate

OCR Code Recognition

Filter name: OCR

Code name: OCR Code

Thumbnail display options: Show entire image Show only OCR Code

Container Code Recognition

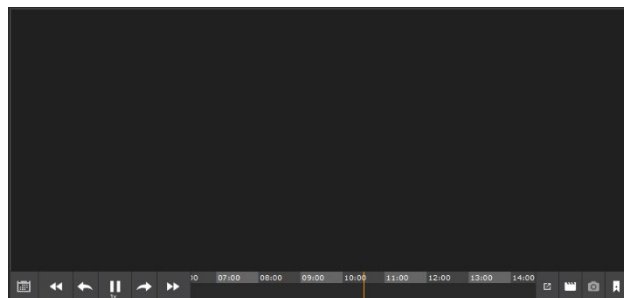
Thumbnail display options: Show entire image Show only Container Code

Cancel Save

A. Playback

You can select continue to playback mode or repeat playback mode.

When using repeat playback mode, it needs to set up Start playback and End playback.



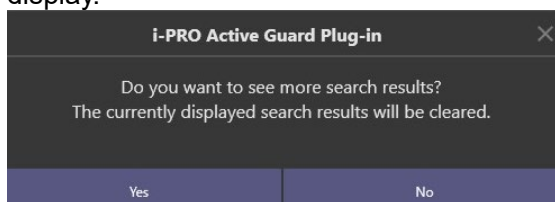
B. Search setting

- Maximum number of searches

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

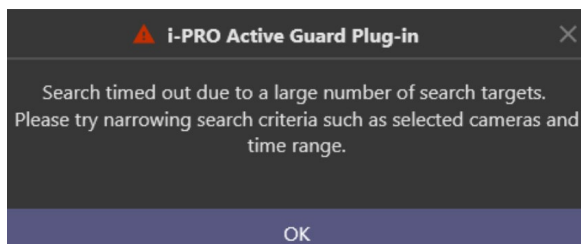
After the maximum number is reached, below message will be displayed.

Select whether to clear and update the currently displayed search results or keep current display.



- Timeout interval for searches

You can select timeout interval for searches from 20 to 3600 seconds.



If a timeout occurs during the search, please extend the timeout value.

C. Display settings on Search Monitor

- Camera name/ Date time

You can set whether to show camera name/ date time in the search results.

- Display position

You can set the display position of the camera name/date time.

Note:

- This setting also applies to the similarity scores.
 - Camera name/ Date time: Similarity score display is linked to this setting.
 - Display position : The similarity score appears on the opposite side of the specified position.
-

D. 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.

E. 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.

F. 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.

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
- Hat / Helmet
- Top
- Bottom
- Sunglasses
- Beard
- Mask
- Bag
- Shoes
- Moving Direction

Faces

- Age
- Gender

Vehicles

- Vehicle type
- Vehicle color
- Moving Direction

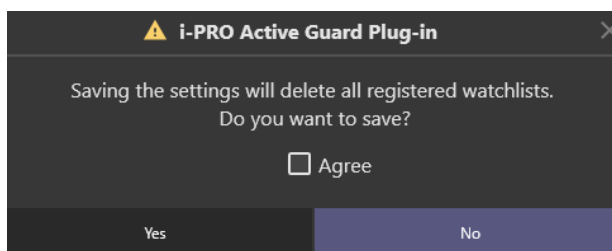
LPR

- 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 are already registered. If you try to change settings, the following message.

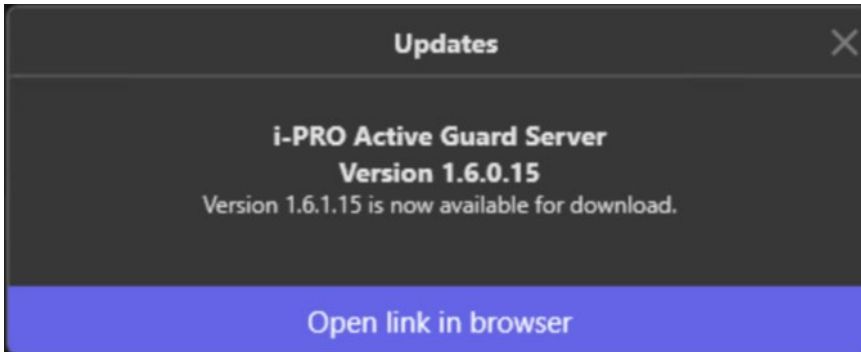
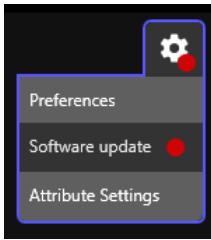


When multiple i-PRO Active Guard servers are registered in Plug-in, watchlists will be deleted from all registered servers.

- OCR and Container are not supported.
-

2.5.9. Software updates

A notification 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 will be shown when 1920x1080 or smaller resolution is set for JPEG (2) on camera setting. When higher resolution is set or JPEG (2) is not available, detected image may not be shown.
Failed to register Face.	If there are no margin around face image, it may increase encountering failure.
Displaying video is being corrupted.	If you use 4K or more resolution display, change display resolution to 1920 x 1080.
When access the Web setting page after a certain period of time, "A timeout has occurred." is displayed.	For security protection, if you do not operate for a while with the WEB setting page, a timeout will occur and you will not be able to change the settings. In such a case, close the web browser, access it again, and enter the authentication information.
False alarm of face matching.	Please adjust "Alarm threshold" according to your environment and registered face image.
Saved filters don't work correctly after upgrade.	Please reset your filters, After upgrading from V1.60 or earlier to V1.70 or later, "Color image only" of the saved filters may not work correctly.
Edit or delete license plate group, 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.

Symptom	Cause/solution
Abnormal display of plug-in	If the display is abnormal, please try closing all tabs of Security Desk, save and restart Security Desk.
CSV import does not finish	Error dialog may appear behind the screen. Click to close the dialog. If the dialog cannot be displayed, right-click on the taskbar or use the Task Manager to close the dialog.

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

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