Video Management
Server Client Software

User Manual

V2.07

Contents

1 Notice

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

1. **Notice**

   Important:
   The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password of no less than eight characters comprising at least three elements of the following four: digits, upper case letters, lower case letters and special characters. For security reasons, access from Internet with a weak password will be denied until it is changed to a strong one.

2.
   - The contents of this document are subject to change without prior notice. Updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.
   - Best effort has been made to verify the integrity and correctness of the contents in this document, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual.
   - The illustrations in this manual are for reference only and may vary depending on the version or model. So please see the actual display on your device.
   - This manual is a guide for multiple product models and so it is not intended for any specific product.
   - Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.
   - Use of this document and the subsequent results shall be entirely on the user's own responsibility.

3. **Symbols**
   The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

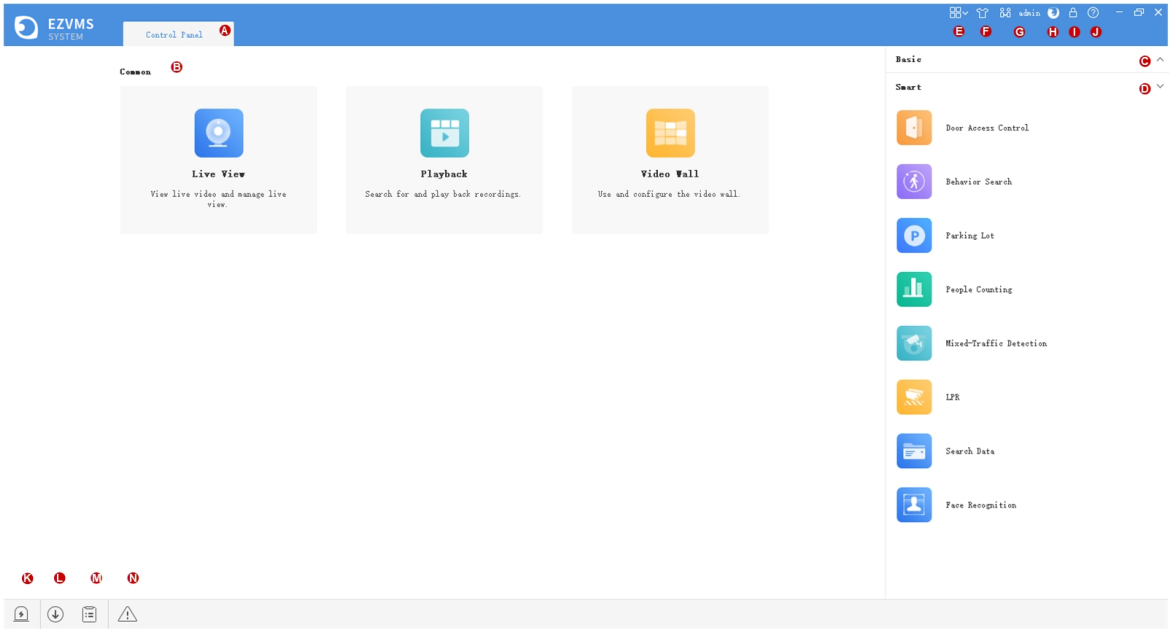
Symbol	Description
WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
NOTE!	Means useful or supplemental information about the use of product.

2 Overview

This manual describes how to use the local software client (EZVMS). If you are using the software client on a PC, please refer to Use PC Software Client for more information.

3 GUI Introduction

The main page is displayed after your first login. The main page consists of the **Control Panel**, shortcut menu and some functional buttons.



No.	Description
A	The control panel lists icons of functional modules of the software client. Click an icon to open the corresponding page.
B	Common function area. You may drag an icon to switch position with another icon, or drag it to the basic function area.
C	Basic: A module provides some basic functions. You can drag the module or its icons to change the position (e.g., drag an icon to the common function module).
D	Smart: A module provides some smart functions. You can drag the module or its icons to change the position (e.g., drag an icon to the common function module).
E	Menu. Click an icon on the menu to access the corresponding module. **Note**: The menu items may vary with the roles the user is assigned.
F	Change appearance. You can choose the light or the dark theme color for the client.
G	Current username, for example, admin. To switch account and log in as a different username, click the icon.
H	Click to open the Web client.
I	Click to lock. To unlock, enter the password.
J	Help button. Click to open the user manual for the client software. A PDF reader tool is required.
K	**Alarm Live View** button. Click to open the **Alarm-triggered View** window.
L	Search for recordings and download.
M	**Task Management** button. Click to view recording download tasks, including file name, recording start time and end time, download progress. The **Operation** column includes icons that you may click to stop download, open folder or delete download tasks. To stop a download task, select the task and then click  . To clear completed tasks, click  .
N	**Latest Alarm** button with the number of unacknowledged alarms. Click this button to open the **Latest Alarm** tab, on which information including alarm time, alarm source, alarm type, and alarm level is displayed. To turn on or off alarm sound, click the alarm sound icon. To enable or disable alarm-triggered live video, select or clear the **Display Link Video** check box.

Note:

- The functional modules on **Control Panel** may vary with the device and software client version.
- The functional modules, organizations and resources displayed and the operations allowed on the software client depends on the role(s) a user is assigned. Roles are configured under **Basic** > **User** > **Role** on the Web client.

4 Live View

View live videos of the scene remotely from cameras in client windows or monitors. Live view resources include video channels, resources in favorites, recent live videos, views, sequence resources, and view sequence.

4.1 Glossary

- Live view: View live video.
- Video channel: Camera.
- View: A combination of screen layout (such as 4-window) and video service (live view or sequence). By saving a view, you can quickly restore video service in the set layout by clicking the **Play** button. See View.
- Layout: How many windows to display on the **Live View** page. Up to 64 windows are allowed.
- Fisheye camera: Cameras with super-wide-angle lens.
- History: Last cameras that have been played for live video. Up to 30 cameras are listed.
- Sequence resource: A sequence resource consists of several cameras that you want to play for live view on the client in sequence at a set time interval.
- View sequence: Sequence views by a set time interval or a 24H plan.

4.2 Play Live Video

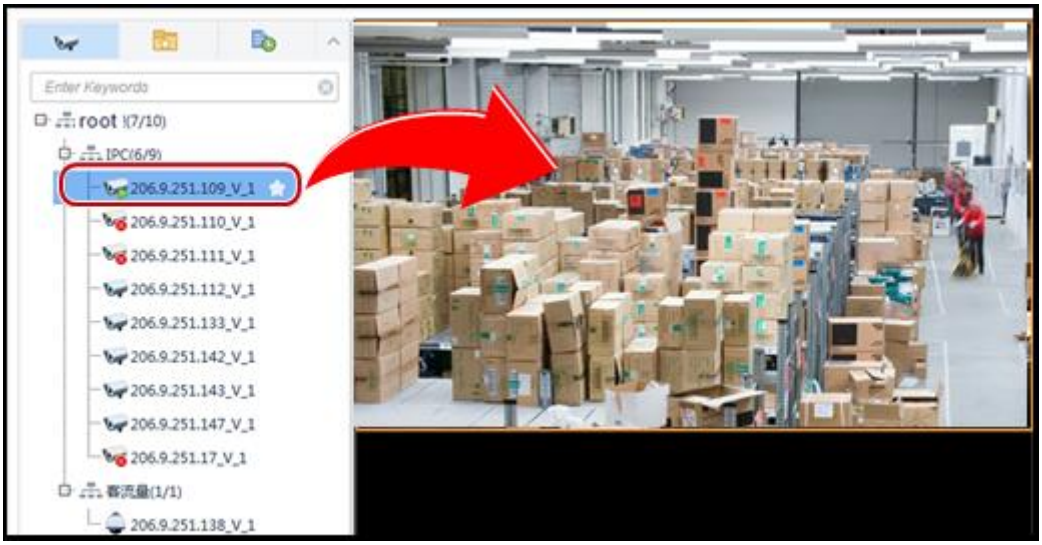
Play live video from online cameras.

- Online: 206.9.252.2_V_11
- Offline: 206.9.252.2_V_12

Note:
The organization tree shows the number of online cameras and the total number of cameras (e.g., 7/10 in the figure below).

4.2.1 Play Live Video from a Camera

Double-click the camera or drag it to a window.



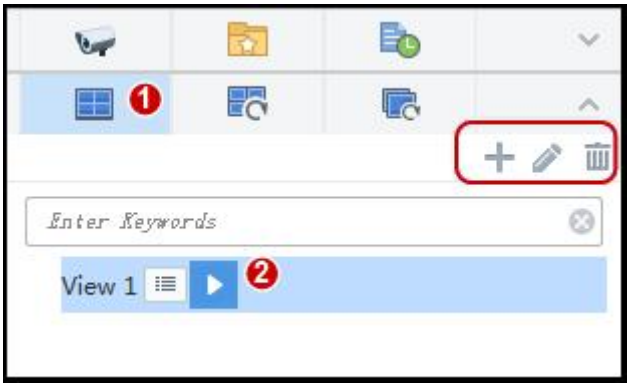
To stop live video, click in the window's upper right corner. Clicking in the toolbar stops live video in all windows.

4.2.2 Play Live Video from Multiple Cameras

For example, to play live video from all the cameras under an NVR, double-click the NVR or drag it to a window.

4.2.3 Play a View

A view is a combination of screen layout (e.g., 4-window display) and service (live view or sequence). Complete view configuration first (see View), and then click the **Play** button to start live video and sequence in the corresponding windows.



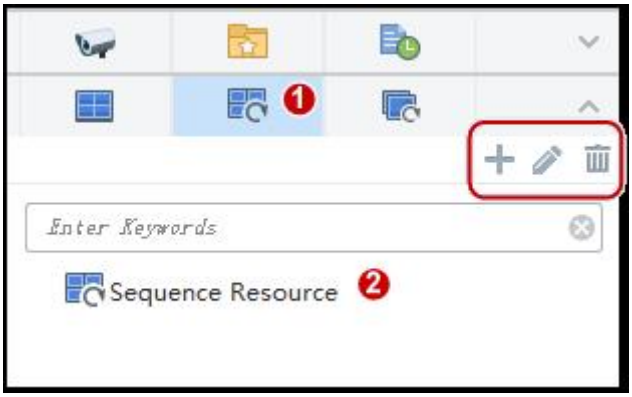
Click the **View** tab ( ).

Click the **Play** button ( ) for the view you want to play.

Click , , to add, edit or delete a view.

4.2.4 Play a Sequence Resource

Play live video from multiple cameras in one window in sequence. The cameras switch automatically in the set order at the set time interval. The sequence resource must be configured first (see Sequence Resource).



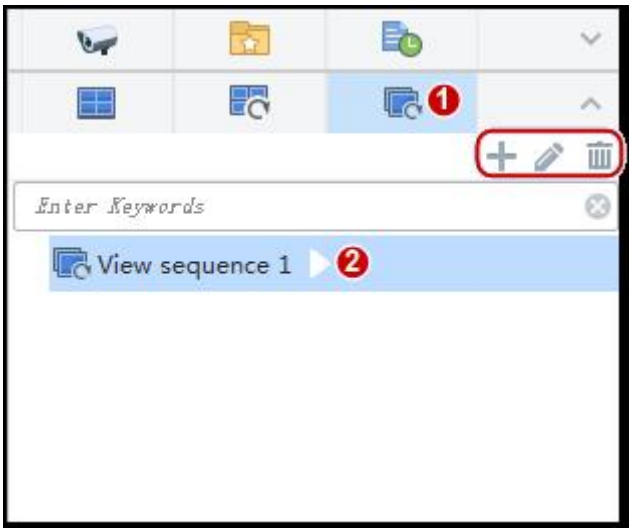
Click the **Sequence Resource** tab ( ).

Double-click the sequence resource or drag it to a window.

Click , , to add, edit or delete a view.

4.2.5 Play a View Sequence

Sequence views by a set time interval or a 24H plan. The View Sequence must be configured first.



Click the **View Sequence** tab ( ).

Click the **Play** button ( ) for the view sequence you want to play.

Click , , to add, edit or delete a view sequence.

4.3 Live View Operations

Use the live view toolbar, window toolbar, shortcut menu during live view.

Note:
Please connect a USB storage device or an e-SATA disk before you record video or take snapshots.

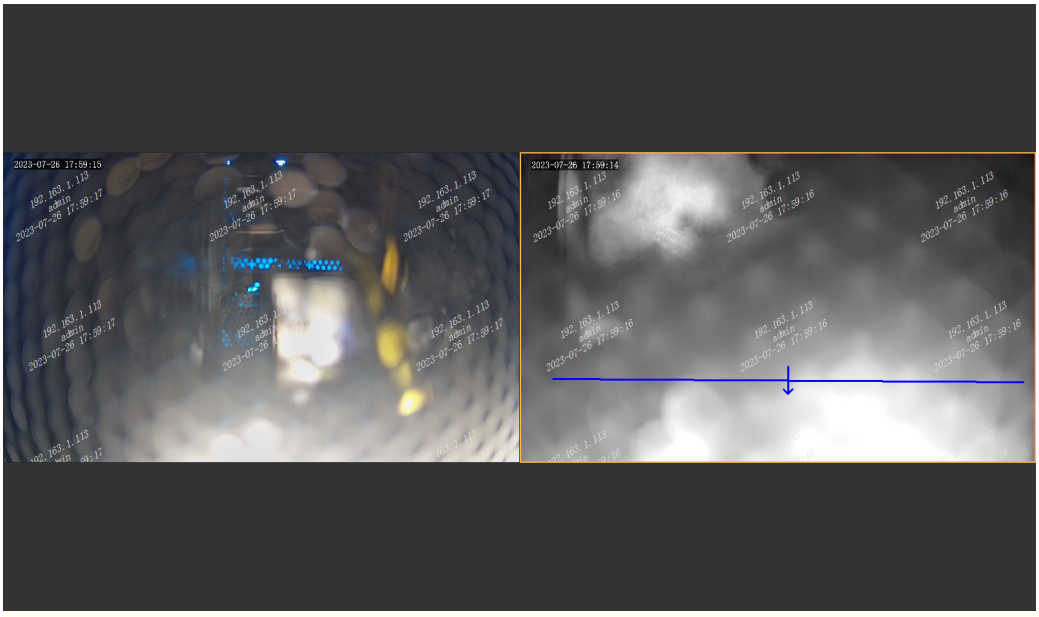
4.3.1 Live View Toolbar

The live view toolbar is located at the bottom of the **Live View** page.

No.	Description
A	Click to set screen layout or customize one. Up to 64 windows are allowed.
B	Click to save the current view or save as another view.
C	Close video in all windows.
D	Take a snapshot in all windows. The snapshot mode and storage path are configurable in client configuration.
E	Play the previous camera in a sequence resource.
F	Pause/resume sequence.
G	Play the next camera in a sequence resource.
H	Play in full screen or exit. You may also press <**Esc**> to exit full screen.

4.3.2 Window Toolbar

A window toolbar appears when the pointer rests on the window. The toolbar is effective to the current window only. Buttons on the toolbar may vary with camera. For example, button 2 (PTZ control button) in the toolbar below appears only for a PTZ camera.

No.	Description
1	Take a snapshot. The snapshot mode and storage path are configurable in client configuration. A snapshot taken with digital zoom enabled is a composite image of the original image (display on left) and the zoomed-in image (display on right).
2	Click to start local recording. Click to stop. **Note:** The storage path is configurable in client configuration.
3	Click to open the PTZ control panel (see PTZ Control). The fisheye icon appears on the toolbar for a fisheye camera only. Clicking the icon will open the fisheye control panel (see Fisheye Control).
4	Click to enable digital zoom. Drag on the image to draw an area to zoom in on, and then use the scroll wheel to zoom in or out. Click to disable.
5	Instant playback (play video of the last 5 minutes and 30 seconds). • Click to pause, click to resume. • To stop playback and resume live video, click . • To stop playback without resuming live video, click the close button in the upper right corner.
6	Alarm output control: click to trigger the linked alarm output, and click to clear. The linked alarm output is configured at **Basic** > **Device** > **Link Resource** on the Web Manager.
7	Click to set video settings, including image brightness, saturation, contrast and sharpness. Click **Reset** to restore default settings.
8	The button appears only when the live video is from a multi-lens camera. Click to enable multi-sensor mode, and then you can view live video from all the channels of the camera (including channels of a multi-lens camera connected to an NVR). Click the button again to exit.  **Note:** The multi-sensor mode is available when the multi-lens camera or the connected NVR is added to the platform via the private or Onvif protocol.
9	Current bit rate and resolution (example).

Note:

- The **Enable Tracking Mode** and **Disable Tracking Mode** buttons (/) appear on the window toolbar when you play the main stream of a multi-lens camera for which a smart function (e.g., cross line detection) has been enabled. When tracking mode is enabled, the window is split into multiple windows: one big window showing the panoramic image, and multiple small windows showing PTZ images. The boxes on the panoramic image match the PTZ images. When you drag a box or scroll the mouse wheel on a box, you will see the image changes in the corresponding PTZ window.
- Enabling tracking mode will disable digital zoom.

Note:
Box-Dome Linkage means the dome camera can automatically track an object that triggers a detection rule in the detection area on the live view image of the box camera. The following icons can be found on the live view window toolbar of the box camera if box-dome linkage is configured.

- Auto Track ( ): (Default icon) Mouse operations are not effective on the live view images of the box and dome cameras.
- Track ( ): The dome camera starts tracking a target (e.g., an intruder) when you click the target in the red box on the live view image of the box camera.
- Drag to Zoom ( ): Dragging on the live view image of the box camera will zoom in accordingly on the corresponding area on the live view image of the dome camera.
- Link ( ): The dome camera automatically rotates to a position when you click it on the live view image of the box camera. You can also use the shortcut menu to use the above features. Box-dome linkage and digital zoom cannot work simultaneously. Enabling one will disable the other.

4.3.3 Shortcut Menu

A shortcut menu appears when you right-click a window playing live video (menu items may vary depending on camera, version, user permissions). Some menus have the same functions as the window toolbar (see Window Toolbar).

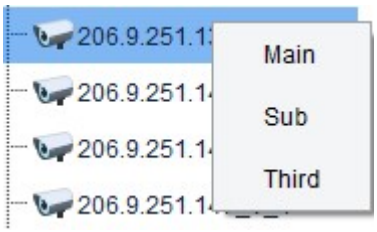
Menu Item	Description
Close	Close video in the current window.
Close All	Close video in all windows.
Display Ratio	Play by scale or stretch.
Maximize	Maximize the current window to the entire display area.
Full Screen	Display in full screen.
Digital Zoom	Enable/disable digital zoom. See on the window toolbar.
Instant Playback	Start/stop instant playback. See on the window toolbar.
Stream Type	Choose a stream type to play (main, sub, third). **Note:** The stream type available may vary with camera.
Snapshot	Click to take a snapshot. See on the window toolbar.
Continuous Snapshot	Click to take multiple snapshots. The snapshot mode and storage path are configurable in client configuration.
Snapshot All	Click to take a snapshot in all windows. See on the live view toolbar.
Local Recording	Start/stop local recording . See on the window toolbar.
Central Recording	Start/stop central recording (to VMS). Closing the window or logout will also stop central recording.

Menu Item	Description
	Video recorded by central recording is saved on the VMS, so choose **Center** to play back.
Alarm Output Control	See  on the window toolbar.
PTZ Control	Click to open the PTZ control panel for a PTZ camera. See  on the window toolbar.
Video Settings	Click to set video settings, including image brightness, saturation, contrast and sharpness. See  on the window toolbar.
Camera Info	View info such as frame rate, resolution, bit rate, video compression (e.g., H.265) or packet loss rate of the current camera. You can click to reset the current information.
Client Configuration	Open the client configuration window. See Client Configuration.

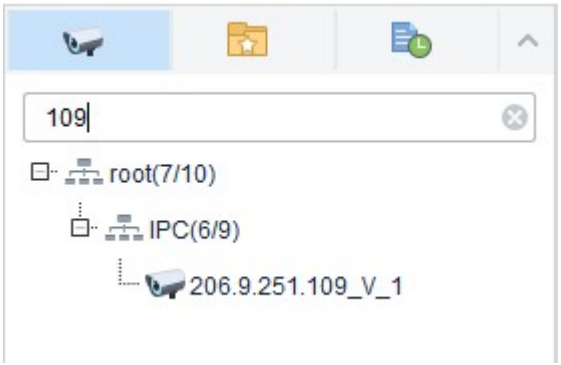
4.3.4 Other Operations

The following introduces some useful operations during live view.

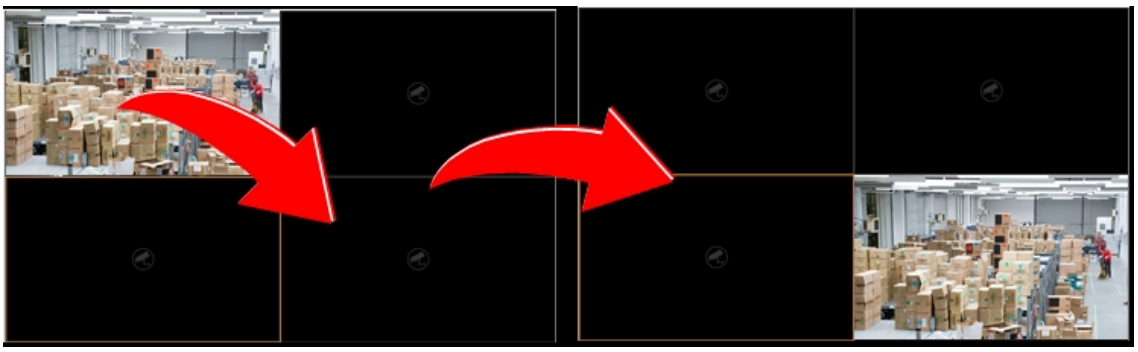
- Right-click a camera to select a stream type (main, sub, third). The stream type available may vary with camera. An unsupported stream type (e.g., MJPEG video stream) is not displayed.



- Search with keyword. Enter a keyword in the  field, e.g., 109.

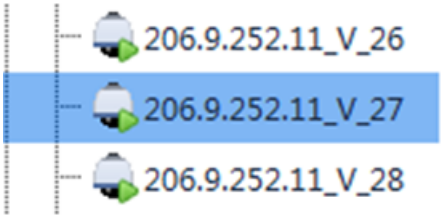


- Drag image to switch windows, for example, drag image from window 1 to window 4. If window 4 is also playing, then window 1 will play the image in window 4.



- Double-click a window to maximize. Double-click again to restore.

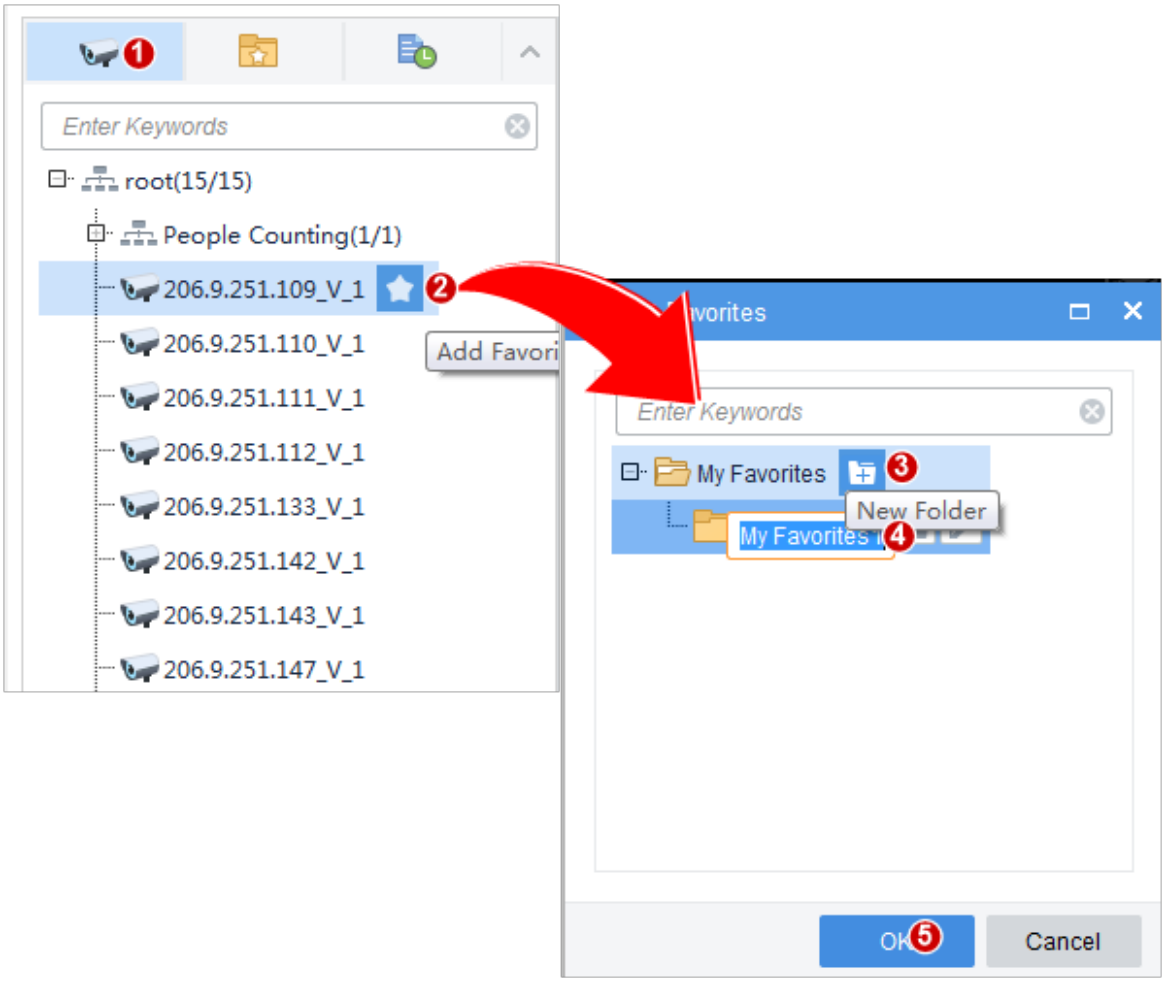
- View the name of the camera that is playing in a window: hover the pointer on the window and the camera name appears.
- Click a window, and the corresponding camera is highlighted on the camera list.



4.3.5 Favorites

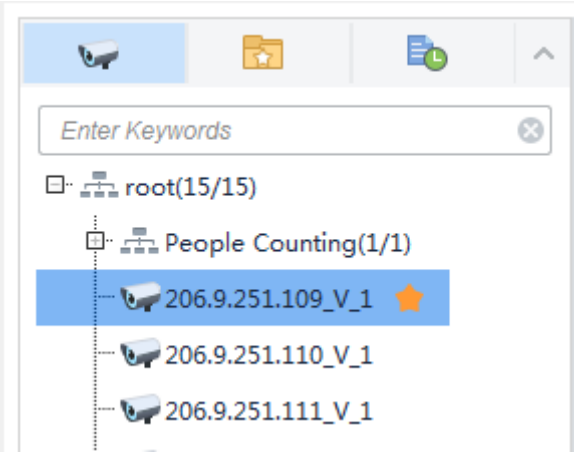
Put cameras to Favorites folders. A camera may belong to one Favorites folder only.

4.3.5.1 Add Favorites

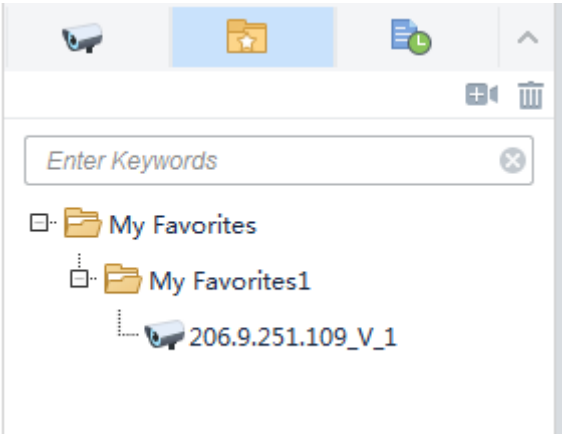


1. Click the **Video Channel** tab ( ).
2. Click the **Add Favorites** button ( ). To add to **My Favorites**, click to select the **My Favorites** folder and then click **OK**.
3. To create a Favorites folder, click the **New Folder** button.
4. Enter a folder name.
5. Click **OK**.

After a camera is added to a Favorites folder, you will see when the mouse pointer is hovering over the camera.

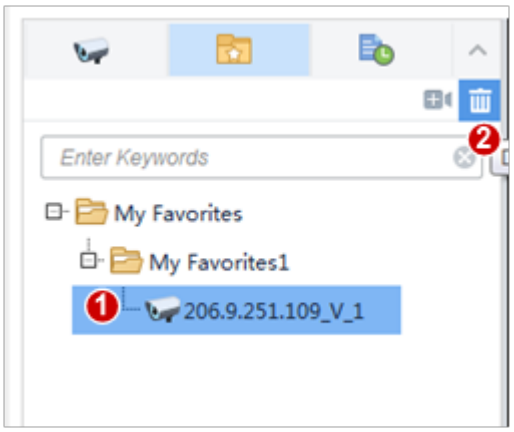


You will also find the new Favorites folder with the camera in it on the **Favorites** tab.



4.3.5.2 Delete Favorite

To delete a camera from a Favorites folder:

- On the **Video Channel** tab, click **Delete Favorite** button ( ).
- On the **Favorites** tab, click to select the camera, and then click the **Delete** button ( ).
- 

4.3.5.3 View Live Video

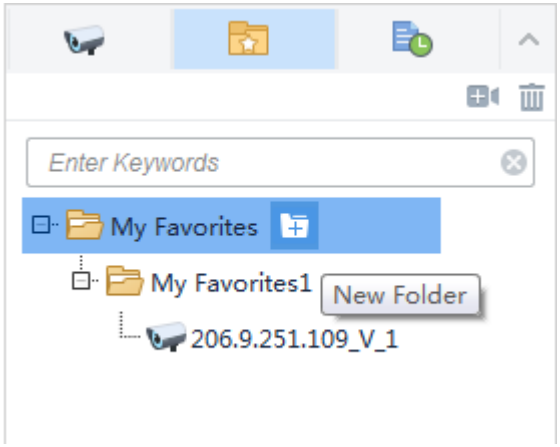
To view live video from a camera in a Favorites folder:

- Double-click the camera or drag it to a window.
- Double-click the Favorites folder to play all the cameras in the folder.

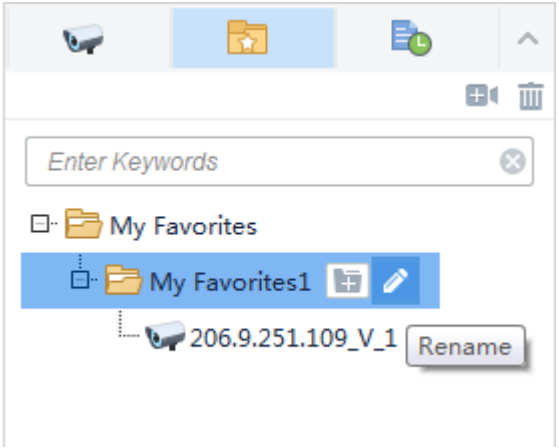
4.3.5.4 Manage Favorites Folder

Manage Favorites folders and cameras on the **Favorites** tab: create, delete, rename Favorites folders, add or delete cameras.

- To create a Favorites folder: Click the **New Folder** button ( ).

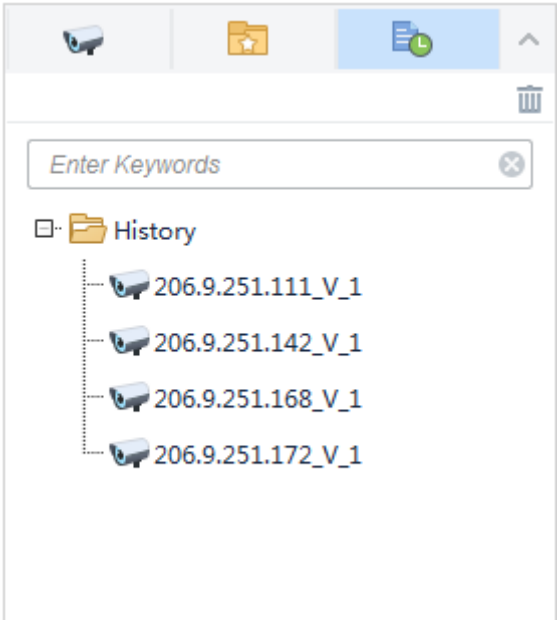


- To delete a Favorites folder: Click to select the Favorites folder and then click the **Delete** button ( ). Deleting a Favorites folder also deletes all the cameras in it.
- To rename a Favorites folder: Click to select the Favorites folder and then click the **Rename** button ( ). The root folder (My Favorites) cannot be renamed.



4.3.6 History

Click the **History** tab ( ) to view the last cameras (up to 30) played for live view (not including view and sequence).



Double-clicking a camera or dragging it to a window will start live video from it. Clicking the **Clear History** button ( ) will clear the history.

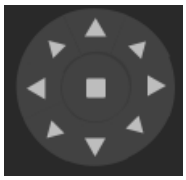
4.3.7 PTZ Control

Control the surveillance direction, focus and zoom of PTZ cameras.

Note:

- PTZ control is applicable to PTZ cameras only and may vary depending on the functions and protocols supported by the PTZ cameras. Please complete the settings before using PTZ control.
- PTZ cameras that are accessed via VSS protocol do not support light and snow removal.

Click on the window toolbar to open the PTZ control panel. The panel expands and collapses with a click on the arrow at the bottom. Some PTZ control functions are described in the table below.

Button	Description
	Lock/unlock PTZ. When PTZ is locked, only admin can operate the PTZ; other users cannot operate the PTZ. **Note:** This function is only available to admin.
	Control rotation directions or stop rotation. **Note:** You may also use the mouse to change the surveillance direction in the live view window: move the pointer toward the side of the window you want to view; Click the mouse button to move, or press and hold the mouse button to keep moving. The camera will rotate in that direction. Release the button to stop.
	Adjust focus to achieve the desired effects.
	Adjust the zoom to zoom in or out. **Note:** You may also click anywhere on the image and then use the scroll wheel to zoom in or out.
	Adjust the iris of the PTZ camera.
	When 3D positioning is enabled, click anywhere in the live view window to rotate the PTZ camera to that direction. Click and hold the mouse button, and then drag from top down (draw a rectangle) to specify an area. Dragging reversely (from down top) will zoom out.
	Adjust rotation speed.
	Set a preset. • Click to add a preset, and the current direction will be added to the preset list. • Click to go to the selected preset. • Click to delete a preset. **Note:** Select a preset number not in use when adding a preset, otherwise the existing preset may be replaced.
	Set a patrol, including preset patrol and recorded patrol. • Preset patrol: The PTZ camera patrols automatically by presets in the specified order at the set interval. Click to add a patrol route. In the **Add Patrol** window, click **Add** to select a preset from the drop-down list

Button	Description
	(or create one by clicking **New Preset**), and then set the duration that the camera stays at the preset. Repeat the above steps to add all presets, and then adjust the sequence of these presets. Click to edit the created preset patrol. • Recorded patrol: The PTZ camera patrols by a recorded patrol route. To record a patrol route, click to start recording, and steer the camera to the desired directions and stay for a certain time. Click to finish recording. To start patrol, select a route from the drop-down list and click . **Note:** • Up to 32 presets in a patrol route are allowed, and up to 15 patrol routes are allowed for a PTZ camera. • Currently only one recorded patrol route is allowed.
	Set auto guard. When **Auto Guard** is enabled and configured, the PTZ camera automatically operates as configured if no operation is performed during a certain time period, such as going to a preset or starting patrol.
	Turn on or off the light.
	Turn on or off the wiper.
	Turn on or off IR.
	Turn on or off the heater.
	Turn on or off snow removal.

4.3.8 Fisheye Control

A fisheye control icon ( ) appears on the window toolbar when the camera is a fisheye. Click the icon or use the shortcut menu to open the fisheye control panel.

Choose the correct mounting mode for the fisheye camera: ceiling, wall or desktop, and then display modes appear, e.g., 360° Panoramic, 180° Panoramic, Fisheye, PTZ (appears when the pointer rests on it). Display modes and operations supported vary with mounting mode.

On a PTZ image, you may drag the mouse to rotate the image or use the scroll wheel to zoom in or out. A block appears on fisheye or panoramic image as the image rotates, and as you drag the box or move the scroll wheel on the fisheye image, the corresponding PTZ image rotates or zooms in or out as well.

5 Playback

Play back videos saved on an SD card, NVR, or VMS to review an event. The various playback modes and color-differentiated recording types on the playback progress bar enable user to quickly find the target contents from

a large volume of videos. Playback modes include normal recording playback, tag recording playback, locked recording playback, event recording playback, and VCA recording playback.

Note:
The actual user interface displayed may vary depending on the server model. VMS 10A1 only supports certain playback modes.

5.1 Glossary

- Video channel: Camera.
- Recording source: Indicates where a recording is saved. Three types of recording sources: center, device, and backup.
- Center: Means recordings are saved on the VMS.
- Device: Means recordings are saved on an NVR or IPC.
- Backup: Recordings that are automatically replicated from NVR to the VMS by schedule.
- Playback types: See Playback Modes.
- Lock: A feature that enables you to lock important recordings to prevent them from being overwritten when storage space is used up.
- Tag: A feature that allows you to tag events when reviewing a recording and locate the events through the tags afterwards.
- Play to Video Wall: Play recordings on the video wall.
- Calendar: A feature that uses different colors to indicate whether recordings exist on a day and the recording type. Blue means normal recording, red means event recording, and white means no recording.

5.2 Playback Modes

The software client offers multiple playback modes for you to choose from the top-left drop-down list.

The playback mode supported, functions available, and operations allowed may vary depending on the recording source. For example, backup recording only supports normal recording playback.

Mode	Description
Normal recording playback	Search results in this mode include all recording types (scheduled, manual, event).
Tagged recording playback	Search and play tagged videos. Only available to center recordings (recordings saved on the VMS). **Note:** For VMS B180, before you use the central recording function, you need to go to the Web client and configure a network disk first. The network disk will be used to store central recordings for VMS B180.
Locked recording playback	Search and play locked videos. Only available to center recordings (recordings saved on the VMS).
Smart recording playback	Smart recording playback searches recordings with custom criteria (search area and sensitivity) for video of interest (video with changed images) and plays back in an efficient way: video of interest plays at normal speed; other irrelevant videos play at a high speed.
Event recording playback	Search and play recordings triggered by an event (such as motion detection, alarm input and video loss).
VCA recording playback	Audio detection, face detection, cross line detection, intrusion detection, defocus detection, scene change, elevator entrance detection, auto tracking, object left behind, object removed, human body detection, high-rise littering. Center and device recordings support VCA recording playback.

5.3 Playback Page

The page displayed, functions and operations may vary with playback mode. Take normal playback as an example. Take normal playback as an example.

Figure 5-1: VMS B180

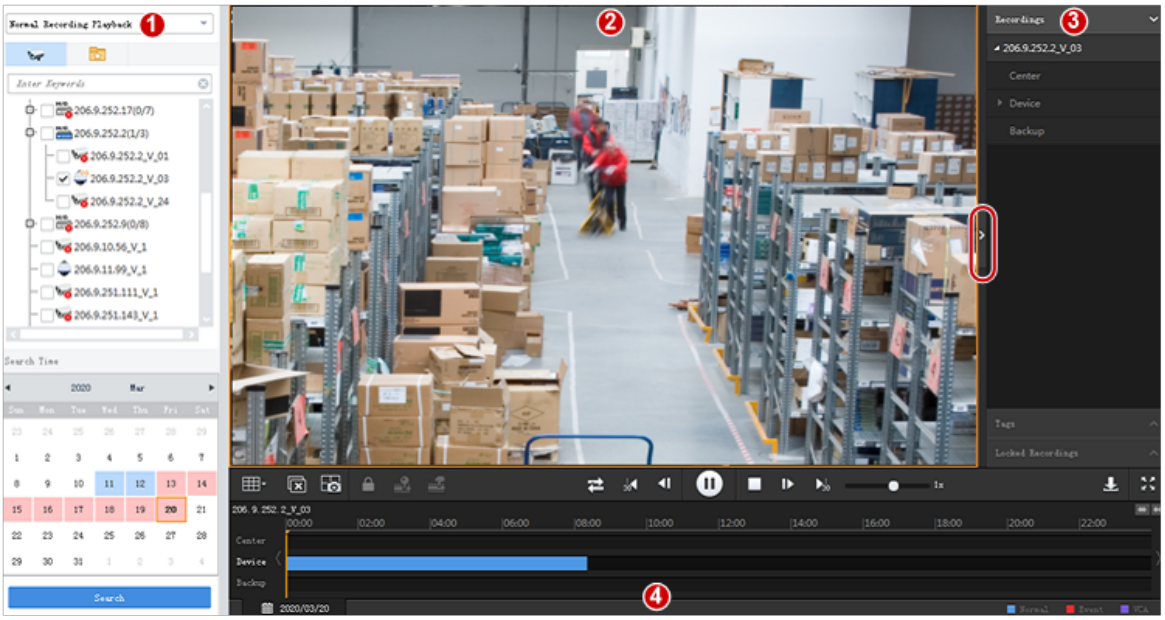
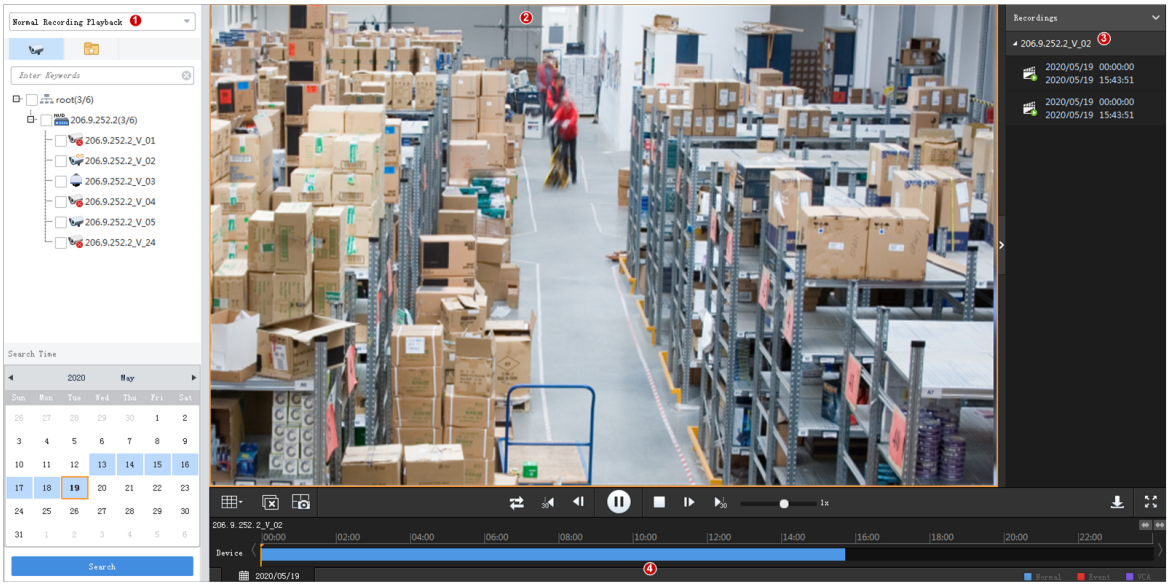


Figure 5-2: VMS 10A1



The page is divided into 4 areas:

- Search area (1): You can set search criteria in this area, including playback mode, organization/camera, and search date/time.
- Play area (2): You can set the window layout in this area. You may drag the left border to adjust the width of this area.
- List area (3): This area displays search results. You may hide this area by clicking the arrow.
- Control area (4): This area includes toolbars and timeline.

5.4 Search for Recordings

Search and playback operations may vary with the playback mode you choose. The general steps are similar:

1. Choose the playback mode from the top left drop-down list.

2. Choose organizations or cameras.
3. Set a search date or period.
   In normal and smart playback modes, you may use the calendar to tell whether recordings exist on a day and the recording type.
4. Click **Search**.

Note:

- The software searches all recording sources and shows search results on the timeline and the list.
- Smart recording playback will be described separately in Smart Recording Playback.
- Event recording playback includes multiple sub-types. See Event Recording Playback.
- VCA recording playback includes multiple sub-types. See VCA Recording Playback.

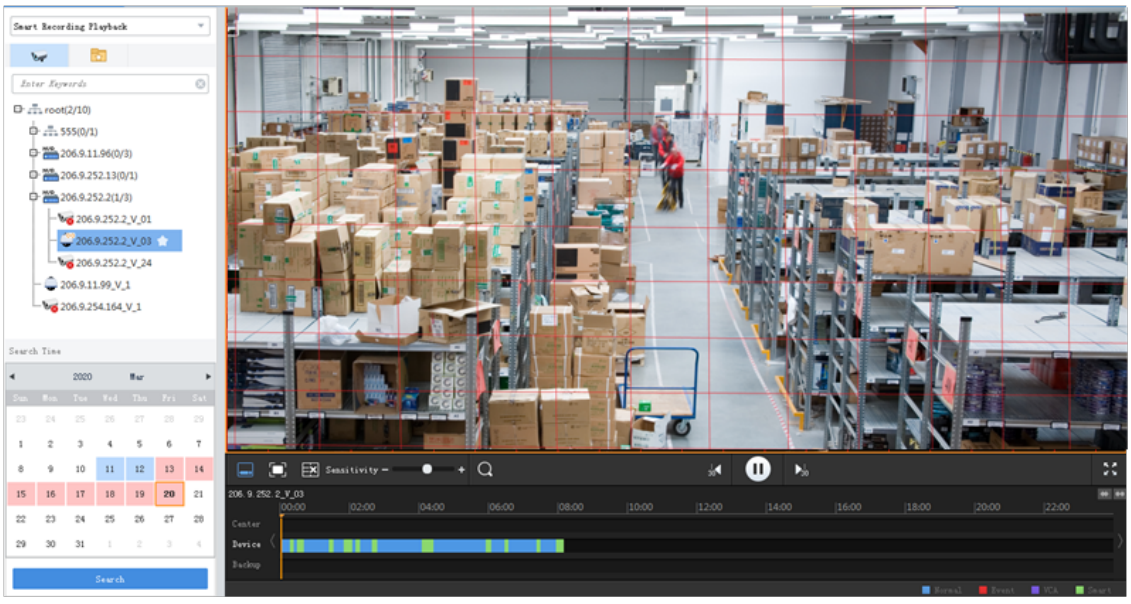
5.5 Smart Recording Playback

Smart recording playback searches for recordings of interest (videos with changed images) based on the custom criteria including sensitivity and search area. The search results will be marked with specific colors on the timeline and you can view the recordings at different speeds. This function helps users filter irrelevant recordings and view recordings of interest efficiently.

Note:

- This function is available only to the IPC/NVRs accessed via private protocol, and the IPC must support the smart recording function.
- For device recordings (video stored on NVR), this function is only available to certain NVR versions.

1. Select **SmartRecording Playback**.
2. Select a camera.
3. Choose a date with recordings based on the search results on the calendar (cross-day search is not supported).
4. Click **Search**. Search results appear on the timeline. Green means video of interest (video with changed images).



5. Click to zoom in on the time line scale so you can have a better view of details and click on the timeline to start playback from that point.
6. To edit the search area (covered with red grid): click , click to edit or press and hold the left button to draw. Click to clear all; click to restore the search area to full screen. Click to finish drawing. The red grids on the screen disappear.
7. Adjust search sensitivity. The higher the sensitivity, the more likely that tiny motion activity will be detected.

8. Once completed, click to search recordings by the modified criteria. Search results will be automatically updated on the timeline. Recordings of interest play at normal speed; other irrelevant recordings play at a faster speed to save time.

Note:

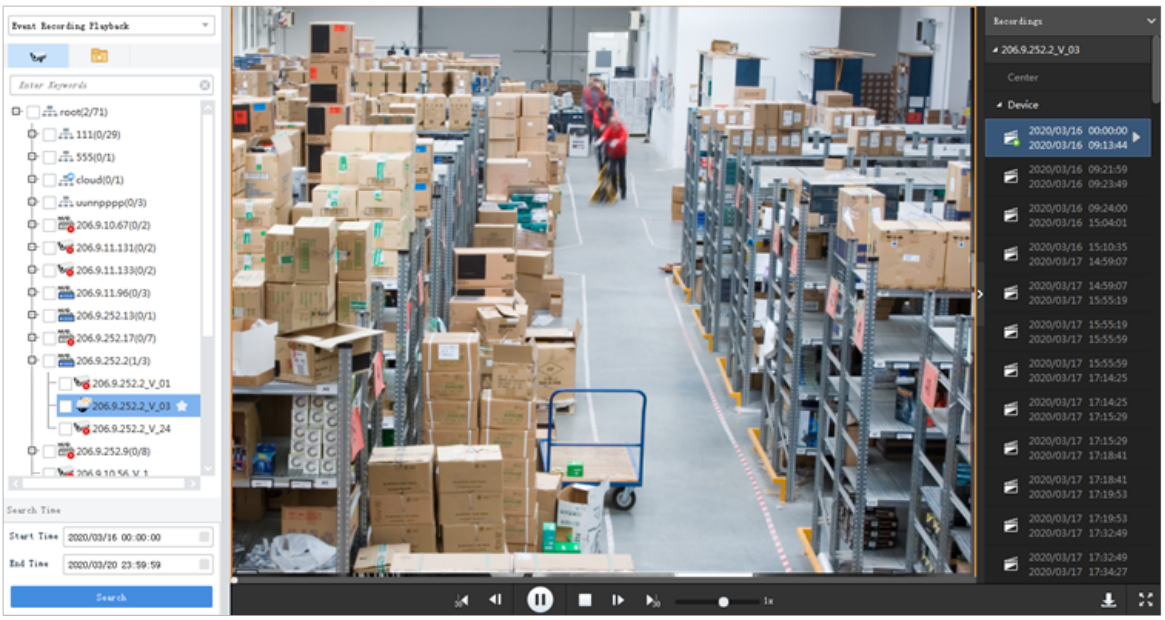
- The changed settings (search area and sensitivity) will be saved and applied to other cameras; but the smart search area automatically restores to full screen after you close the **Playback** page or log out of the system.
- If smart playback is performed on different clients at the same time, the last performed operation overrides the previous, and other clients may see inconsistent smart search results and playback speed.

5.6 Event Recording Playback

Event recording playback has three sub-types: motion detection, alarm input and video loss. You may search a specific type of event recording or choose **Event Recording Playback** to search all.

- Motion detection: Recording triggered by a motion detection alarm.
- Alarm input: Recording triggered by an alarm input.
- Video loss: Recording triggered by a video loss alarm.

The search and playback operations for these sub-types are the same.



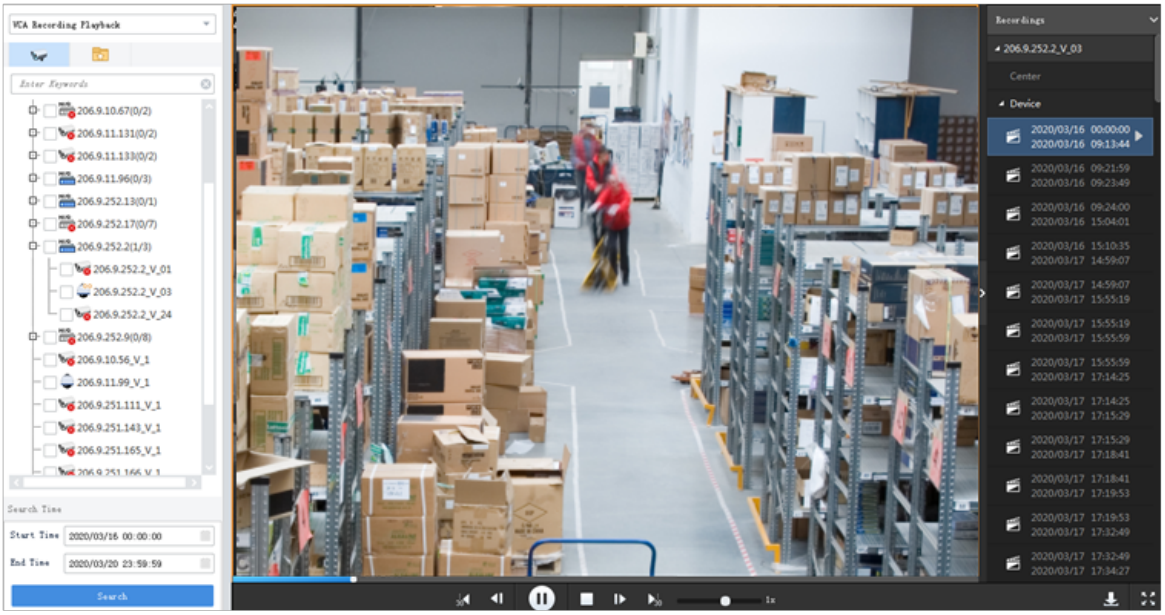
5.7 VCA Recording Playback

Select VCA Recording Playback to search all VCA recordings, or select a sub-type to search. The sub-types include:

- Audio detection: Recording triggered by an audio detection alarm (for example, when a loud sound is detected).
- Face detection: Recording triggered by a face detection alarm (when a face is detected).
- Cross line detection: Recording triggered by a cross line detection alarm (for example, when someone crossing fences is detected).
- Intrusion detection: Recording triggered by an intrusion detection alarm (for example, when an intruder entering a restricted area is detected).
- Defocus detection: Recording triggered by a defocus alarm (when the camera is defocused).
- Scene change: Recording triggered by a scene change alarm (for example, when the surveillance area is changed abnormally).
- Elevator entrance detection: Recording triggered by a elevator entrance detection alarm (for example, when a non-motor vehicle entering an elevator is detected).

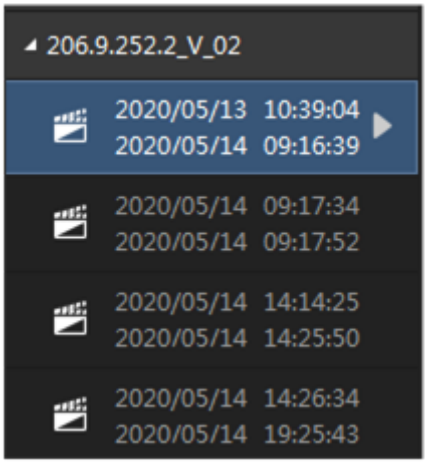
- Auto tracking: Recording triggered by an automatic tracking alarm (for example, when a object in a specified area is detected).
- Object left behind: Recording triggered by an object left behind alarm (for example, when baggage is left behind by a guest).
- Object removed: Recording triggered by an object removed alarm (for example, when an item on an exhibition is missing).
- Human body detection: Recording triggered by a human body detection alarm (when a human is detected).
- High-rise littering: Recording triggered by a high-rise littering alarm (when a high-rise littering object is detected).
- Ultra Motion Detection: Recording triggered by an ultra motion detection alarm (when a moving motor-vehicle, non-motor vehicle, or pedestrian is detected).

The search and play operations are the same for different event types.



5.8 Start Playback

Playback starts automatically in some playback modes. In other modes, you need to double-click the file or click the **Play** button to start playback.



5.9 Playback Control

Use the playback toolbar, window toolbar, timeline, shortcut menu to control playback.

Note:
Please connect a USB storage device or an e-SATA disk before you download video or take snapshots.

5.9.1 Playback Toolbar

The playback toolbar is at the bottom of the playing area. When multiple windows are playing, playback control is effective to the selected window only. The toolbar may vary with playback mode. Here we take the toolbar in normal recording playback as an example.

No.	Description
A	Set screen layout.
B	Close all windows.
C	Take a snapshot in all windows. The snapshot mode, format and storage path are configurable in Client Configuration.
D	Lock recording (center recordings only).
E/F	Create tags (center recordings only), including default tag and custom tag.
G	Normal playback or synchronous playback. • Normal playback: Video plays in the windows independently, and actions (such as pause/resume, stop or adjust time) to one window do not affect other windows. • Synchronous playback: Video play in all windows in a synchronous manner; and actions (such as pause/resume, stop, adjust playback time) are effective to all windows.
H/M	Rewind or forward 30s
I/L	Rewind by frame and forward by frame. Click repeatedly to view the last/next frame of images. **Note:** • The buttons are grayed out in synchronous playback mode. • The **Play** button is in pause status when you are playing by frame. Click the **Play** button to resume normal playback.
J/K	Pause/resume, stop.
N	Adjust playback speed. Multiple options are available. + means playing forward, - means playing backward.
O	Download recording (see Download Recordings).
P	Switch to or exit full screen. You may also press **<Esc>** to exit full screen.

5.9.2 Window Toolbar

The window toolbar appears when the mouse pointer rests anywhere on the window during playback. The window toolbar is effective to the window only.

No.	Description
1	Take a snapshot. The snapshot mode and storage path are configurable in client configuration. A snapshot taken with digital zoom enabled is a composite image of the original image (display on left) and the zoomed-in image (display on right).
2	Digital zoom. Click to enable, drag the mouse to draw an area on the image to zoom in on, and then use the scroll wheel to zoom in or out. Click  to disable digital zoom.

No.	Description
3	Clip video to download: Click  to specify the start point, and click  to specify the end point. Edit the start and end times in the dialog box if necessary. **Note:** You may click on the timeline to locate the end of the video to download.
4	Current bit rate and resolution.

Note:

- The fisheye icon  appears for a fisheye camera only. Clicking the icon will open the fisheye control panel (see Fisheye Control).
- You may set the stream transmission protocol in accordance with network performance to improve image quality. See Stream Transmission Protocol in Client Configuration.

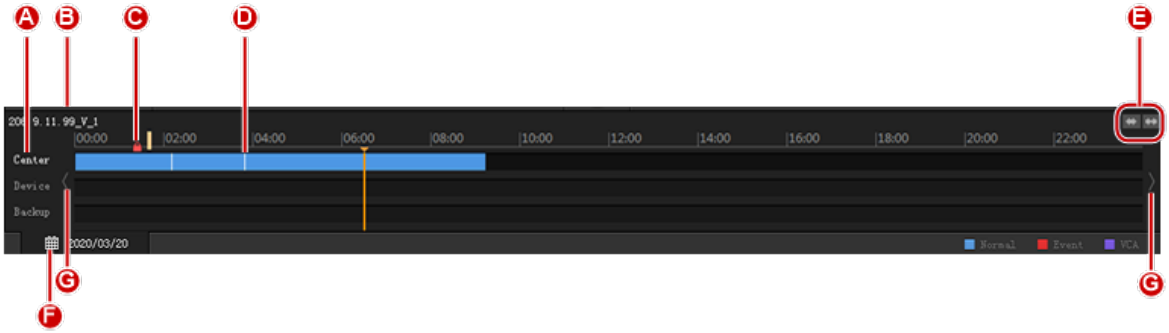
5.9.3 Shortcut Menu

After playback starts, a shortcut menu appears when you right-click on the window.

Menu Item	Description
Close	Close video in the current window.
Close All	Close video in all windows.
Display Ratio	Play by scale or stretch.
Maximize	Maximize the window to the entire play area.
Full Screen	Display the current window layout in full screen mode. Uncheck the menu or press <**Esc**> to exit.
Digital Zoom	Enable/disable digital zoom. See  on the window toolbar.
Play To Video Wall	See Play Recording on Video Wall .
Snapshot	Click to take a snapshot. See  on the window toolbar.
Continuous Snapshot	Click to take multiple snapshots. The snapshot mode and storage path are configurable in Client Configuration.
Snapshot All	Click to take a snapshot in all windows. See  on the playback toolbar.
Start Clipping/Stop Clipping	Clip video to download. See  on the window toolbar.
Download	Download recordings (see Download Recordings).
Camera Info	View frame rate, resolution, compression format (e.g., H.264), bit rate, and packet loss rate of the video playing in the window. To clear the data, click **Reset**.

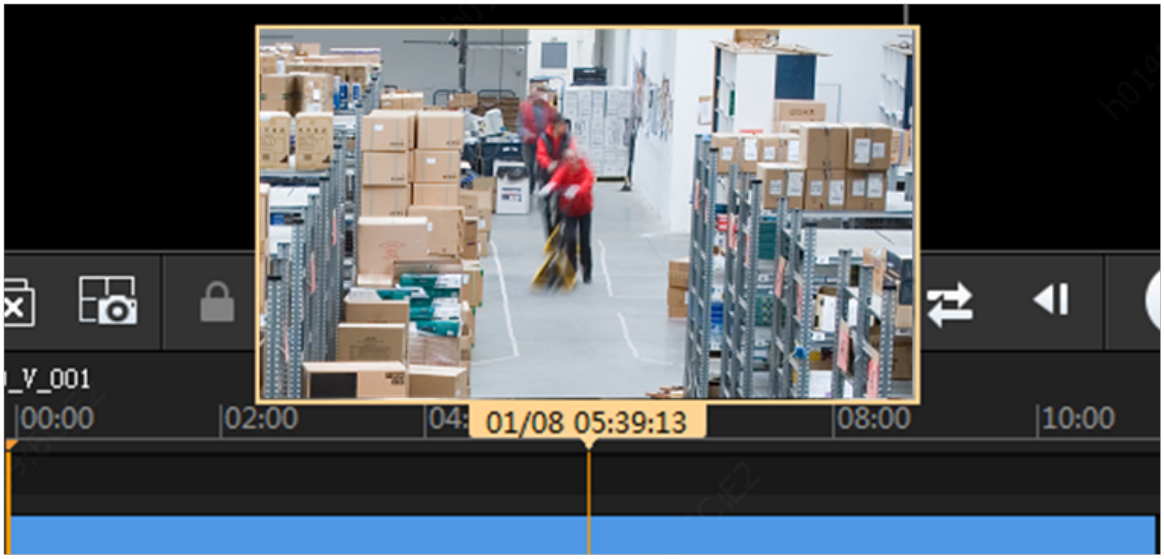
5.9.4 Timeline

The timeline appears in normal and smart recording playback modes. The blue part on the timeline means normal recording, the red means event recording (alarm), and purple means VCA recording. Use the timeline to switch the recording source (center, device or backup), view recording type (normal or event), and perform search and play operations.



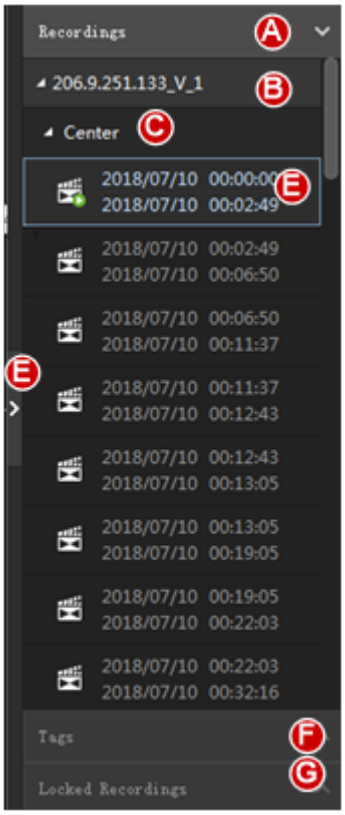
- A: Source of recording. Click a timeline to switch the source.
- B: Channel name.
- C: Lock symbol (if video is locked)
- D: Tag symbol (if video is tagged)
- E: Zoom in/out on the timeline. You can see the details better when the timeline zooms in.
- F: Search date. Click to search other dates in the pop-up calendar.
- G: Search forward/backward.

Note:
You can rest the mouse pointer on the timeline or progress bar to preview the image at this point.



5.9.5 Search Result List

Search results are sorted by channel and recording source in the list on the right. Contents on the list may vary with playback mode. Take normal recording playback as an example.Double-click an item or click the **Play** button to play.

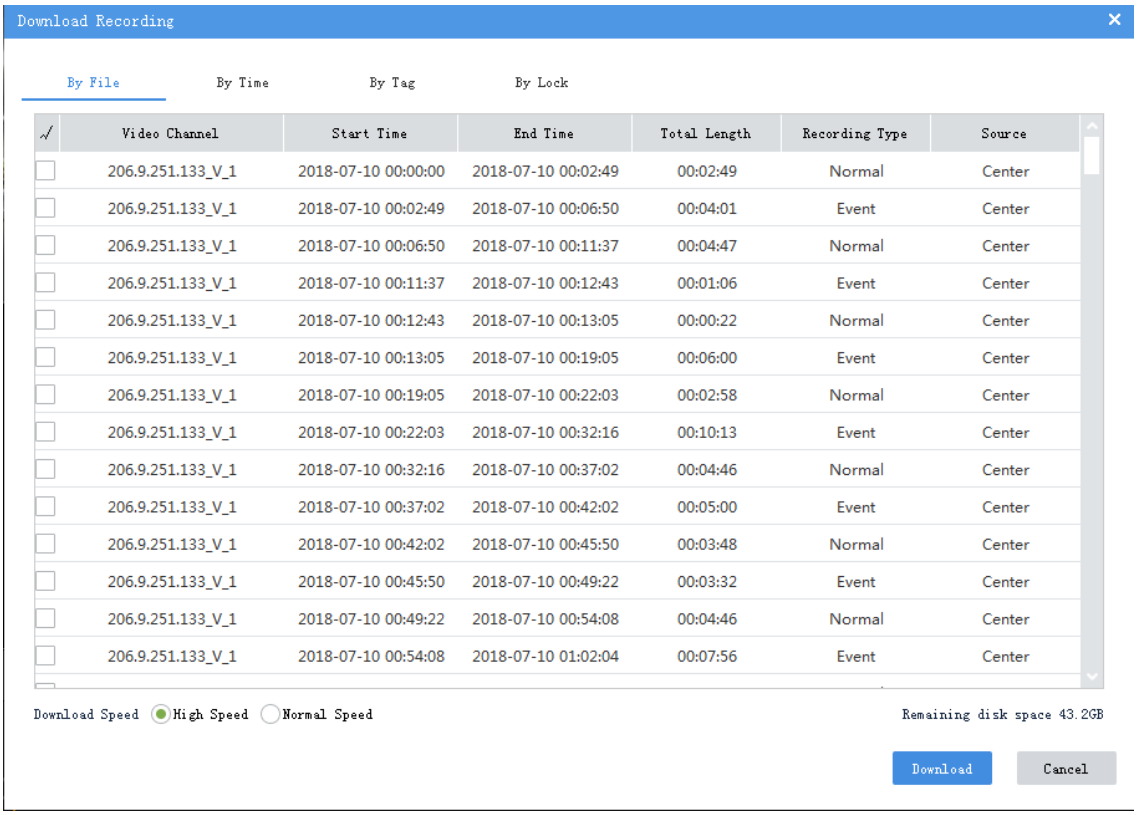
Illustration	Description
	A: Recording list B: Channel name C: Recording source D: Search results. Double-click a file to play (or click the **Play** button). E: Click to hide the list. F: Click to view tagged recordings. G: Click to view locked recordings.

5.10 Recording Download

Note:
Please insert a USB storage device or an e-SATA disk before you download recordings.

5.10.1 Download Recordings

- **Option 1**: After completing a search, click the download button ( ) on the playback toolbar. Select items to download and then click **Download**. To select all the items displayed, click √.



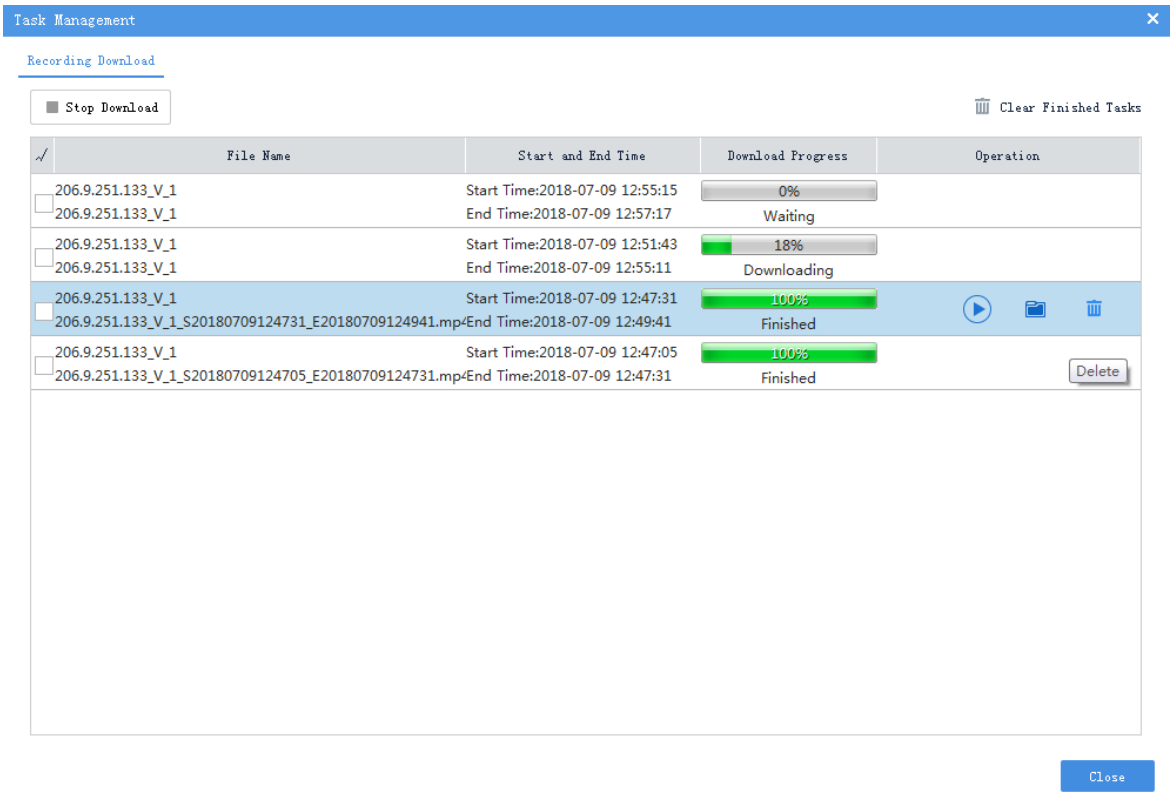
Click the tabs to switch the download method:

- By Time: You can set a precise time period, or create tasks to download video of a future period from a specified source.
- By Tag: Download tagged videos.
- By Lock: Download locked videos.

- **Option 2**: During playback, use  and  on the window toolbar or **Start Clipping** and **Stop Clipping** on the shortcut menu.
- **Option 3**: During playback, right-click the window and click **Download** on the menu.
- **Option 4**: Click the **Recording Download** button () in the left corner.

5.10.2 Download Task Management

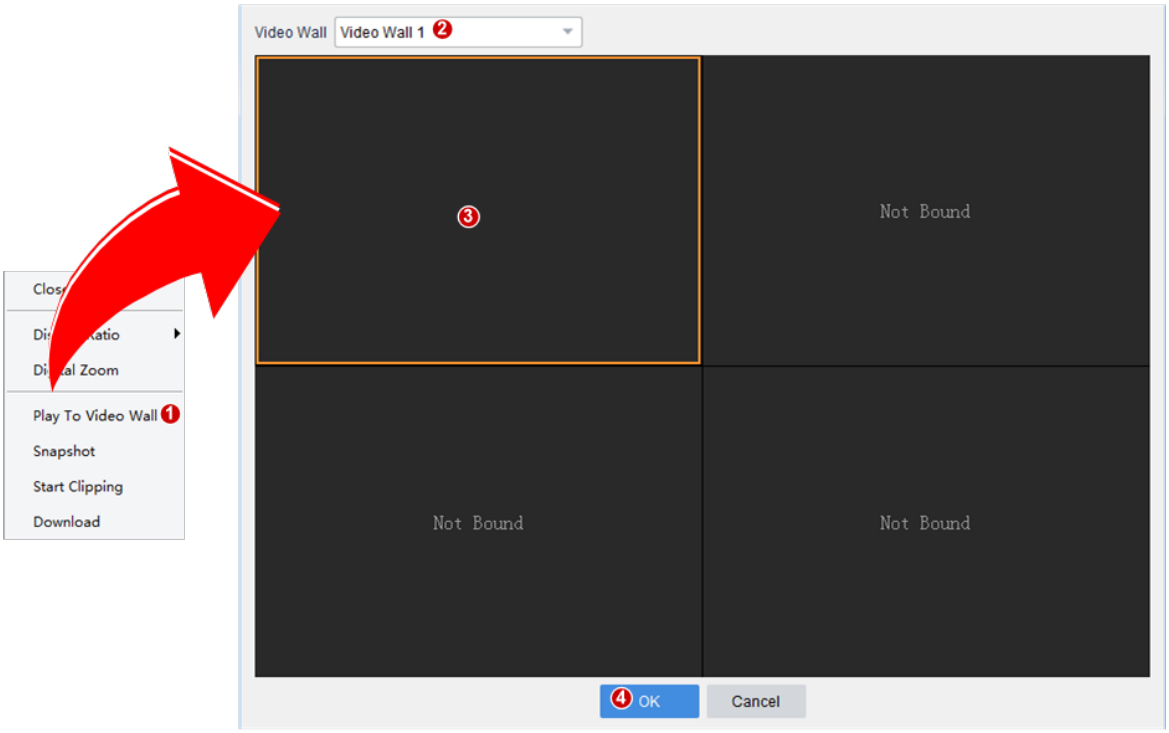
Click the **Task Management** button  (see GUI Introduction) to view download progress, stop download, play a downloaded recording, open the folder where the downloaded recordings are saved, or to delete a download task. Deleting a download task does not delete the recording that has been downloaded; and closing the **Task Management** dialog box does not affect download tasks.



5.11 Other Operations

5.11.1 Play Recording on Video Wall

Use the shortcut menu to play recordings on a video wall. You need to create a video wall first.



5.11.2 Favorite

Put cameras to Favorites folders. See Favorites.

5.11.3 Tag

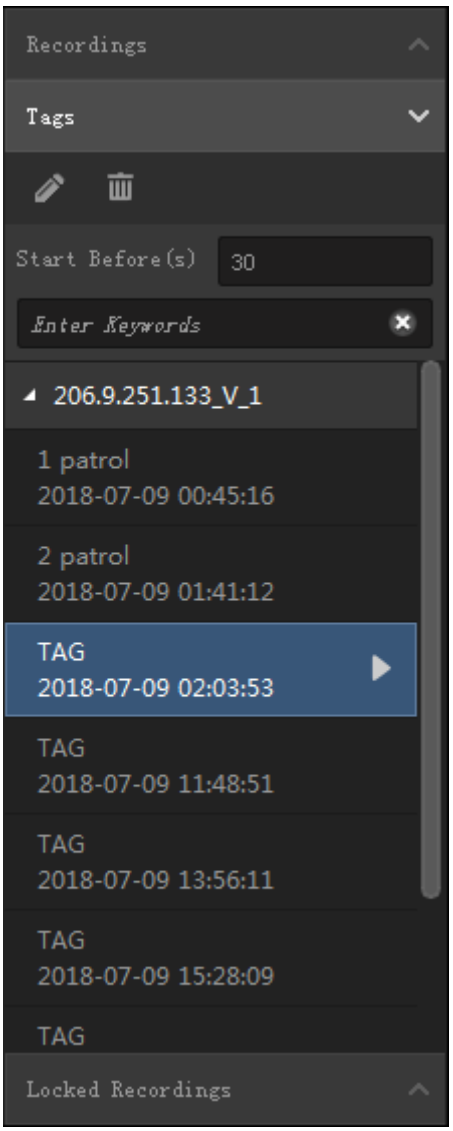
Use tags to mark events in video images and then use tagged recording playback to locate these events afterwards.

You may create tags in normal playback mode only, and only center recordings can be tagged.

Create tags

- To create a tag quickly without pausing playback, click . Tags created in this way are all named TAG. You may rename tags on the **Tags** tab.
- To create a tag with a custom name, click . Playback pauses when you click this button, and resumes when the tag is created.

The tags appear on the **Tags** tab. To play a tagged recording, double-click it or click the **Play** button ( ).



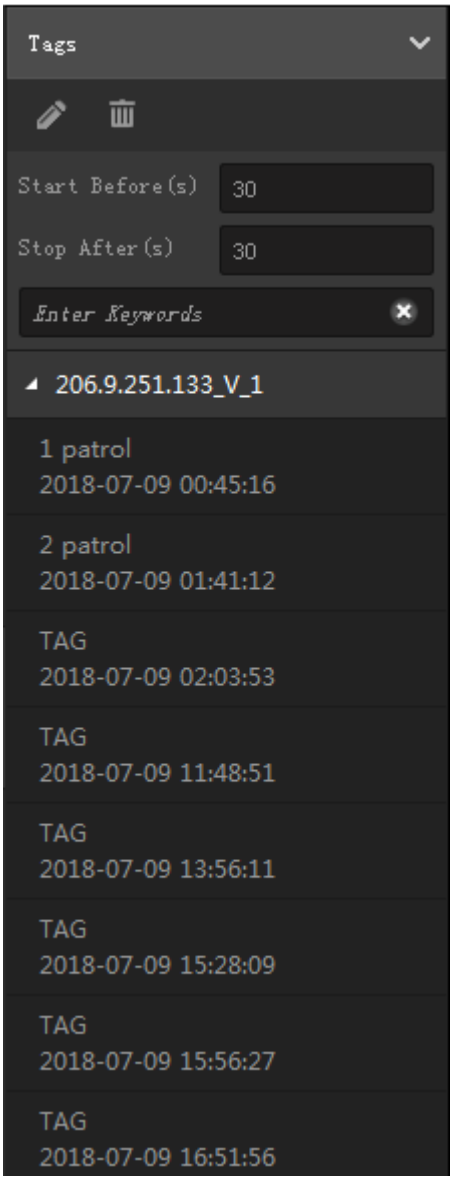
Note:
A custom tag created during synchronous playback is created for all the recordings that are playing.

Tagged recording playback

Search and play tagged recordings.

1. See Search for Recordings for the search steps. Choose **Tagged Recording Playback** from the drop-down list.
2. On the **Tags** tab, double-click an item or click the **Play** button ( ) to play.
3. Click to rename a tag; click to delete a tag.

4. The default length of a tagged recording is 1 minute (30 seconds before and after the tag time). You may edit **Start Before** and **Stop After** to change the length.



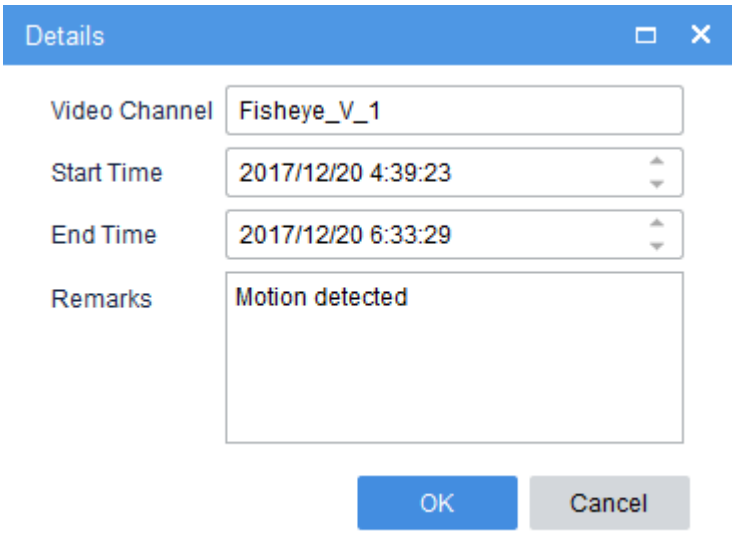
5.11.4 Lock

Lock important recordings to prevent overwriting them when storage space is used up. Use locked recording playback to search and play locked videos.

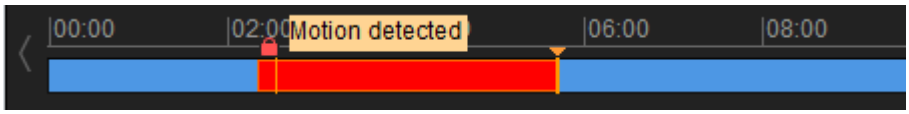
You can lock recordings in normal playback mode only, and only center recordings can be locked.

Lock recording

1. During playback, click to specify the start point, and click to specify the end point. Edit the start and end times and enter remarks (e.g., reason for locking) as needed. Video between the start and end times are locked.



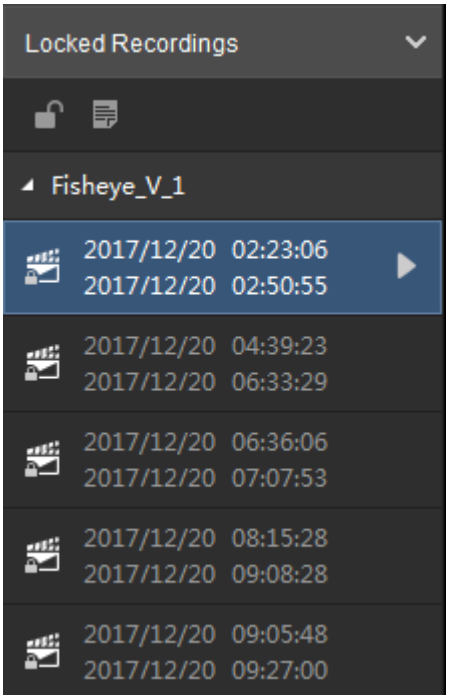
2. The locked recording has a lock icon on the timeline. Click the icon to highlight the locked video on the timeline and on the **Locked** tab. To view the remarks you have entered for the lock, place the pointer on the lock icon.



Locked recording playback

Search and play locked recordings.

1. See Search for Recordings for the search steps. Choose **Locked Recording Playback** from the drop-down list.
2. On the **Locked Recordings** tab, double-click an item or click the **Play** button ( ) to play.
3. Click to unlock a recording. The recording is not protected from being overwritten; click to view details about a locked recording, including the start and end times and remarks.



5.11.5 Double-click a window to maximize

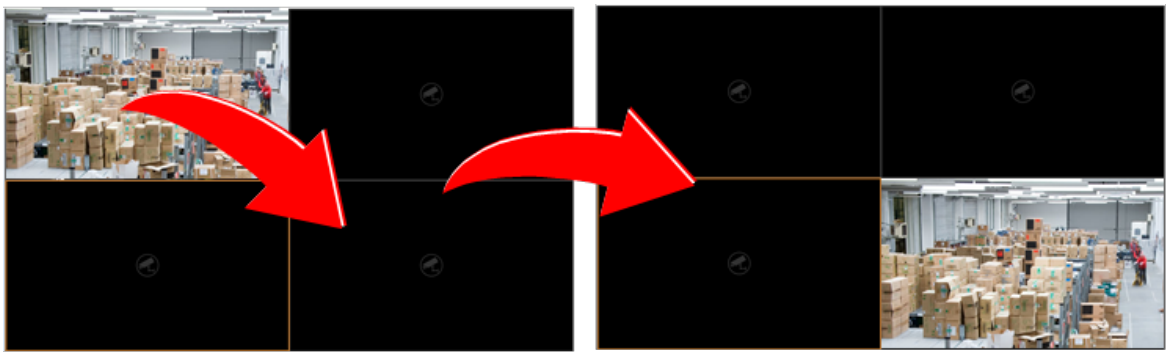
Double-click a window to maximize it to the entire play area. Double-click again to restore.

5.11.6 View Image Playing in the Neighboring Window

After maximizing a window in a multi-window layout, you can click  or  to view the video playing in the previous or next window.

5.11.7 Drag Image to Switch Window

See the figure below: drag the image from window 1 to window 4. If window 4 is also playing, then window 1 will play the image in window 4.



6 E-map

E-map allows user to import map images to the system and add various types of resources (camera, alarm input, access control) on the map to gain an intuitive view of the location of the monitoring points. Users can view videos and alarm information on the map and acknowledge alarms. This function supports e-map, hot spot, and hot zone configuration.

6.1 Glossary

- Hot spot: A hot spot is a video channel (camera) or alarm input that is added on the map. A hot spot is displayed as an icon on the map.
- Hot zone: A hot zone is a map on a map. A hot zone is displayed as an icon on the map. You may double-click to open a hot zone and add hot spots on it. Up to 7 layers of maps are allowed.
- Map resources: including maps, hot zones and hot spots.

6.2 Map Configuration

Before you use e-map, you need to complete configurations on the **Edit Map** tab first. You can:

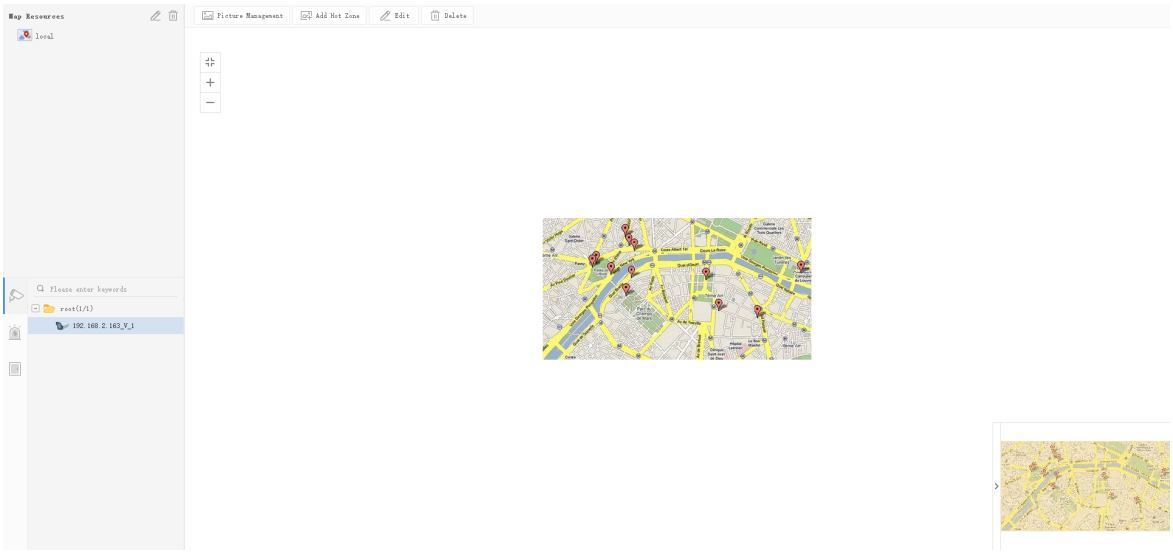
- Click **Picture Management** to add or delete pictures and customize icons. See Add a Map.
- Add hot spots. See Add a Hot Spot.
- Add hot zones. See Add a Hot Zone.

6.2.1 Add a Map

Note:

This section describes how to add an image map. The local client does not support online map. To use an online map on the PC client, you need to complete configurations on the Web client at **System** > **Map Config**.

For first time use, click + Add Map to add pictures, up to 7 layers of maps are allowed.; or click Picture Management to add or delete images and customize icons.

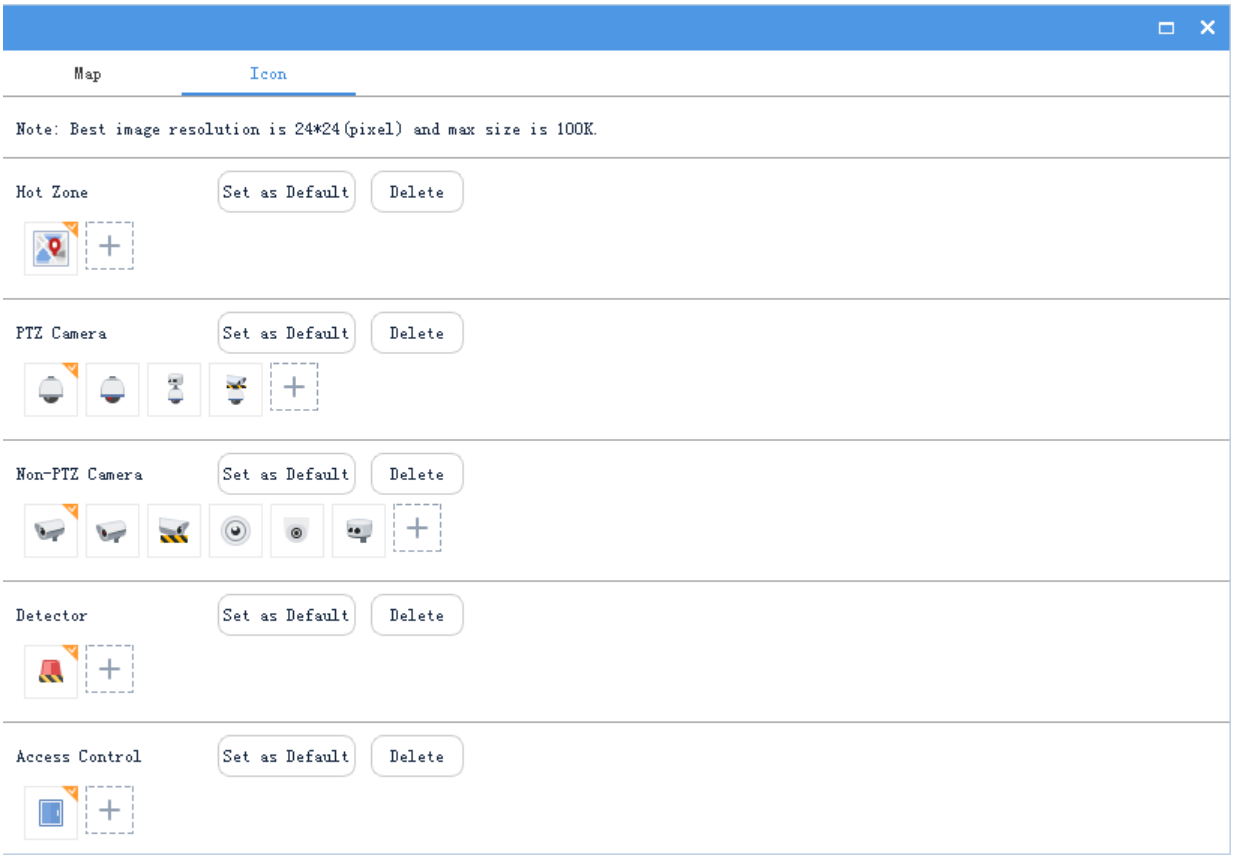


6.2.2 Picture Management

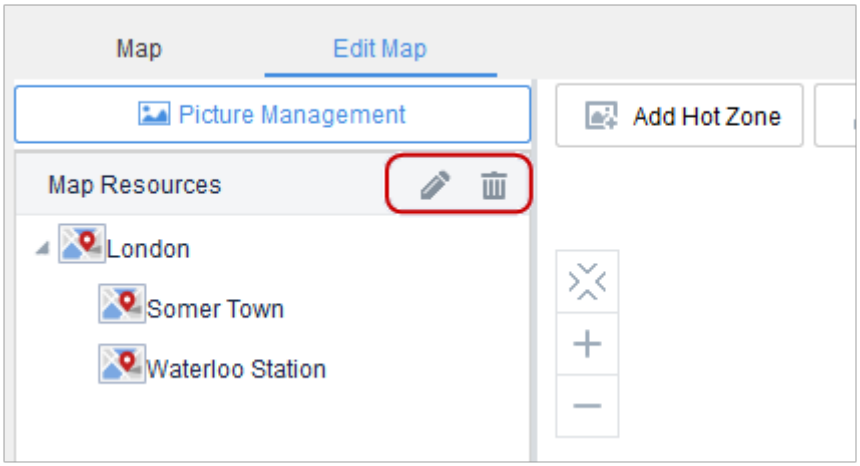
On the **Map Config** tab, click Picture Management .

Click the **Map** tab to add or delete pictures. The added pictures are uploaded to the server for later use when you add hot zones.

Click the **Icon** tab to set default icons for hot zones and hot spots. Select an existing icon, or click + to upload a custom icon, and then click **Set as Default**. The selected icon will be used when you add a new item. Click **Delete** to delete unneeded icons. Only custom icons can be deleted.



Click the buttons to edit or delete map resources as needed.



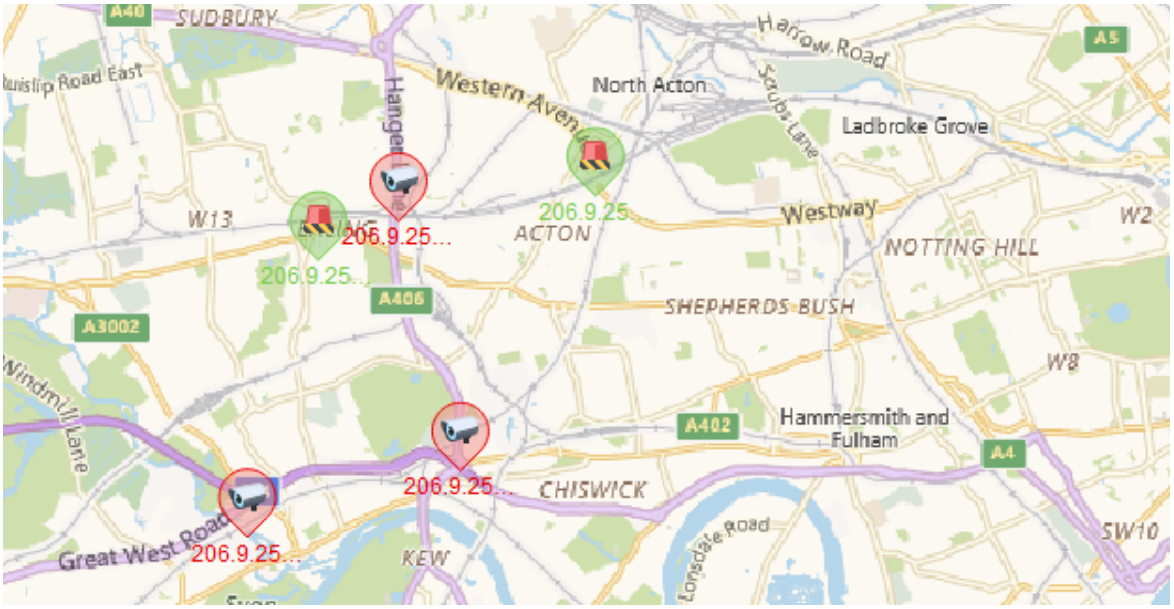
Note:

- Pictures added under **Picture Management** > **Map** are all uploaded to the server for use when you add hot zones. Only pictures being used by hot zones are displayed as map resources in this list.
- JPG, PNG, and BMP images are supported.

6.2.3 Add a Hot Spot

Add hot spots (such as cameras) so you can quickly locate them on the map when any event occurs. This section takes camera as an example to describe how to add a hot spot. The steps to add other hot spot types are the same.

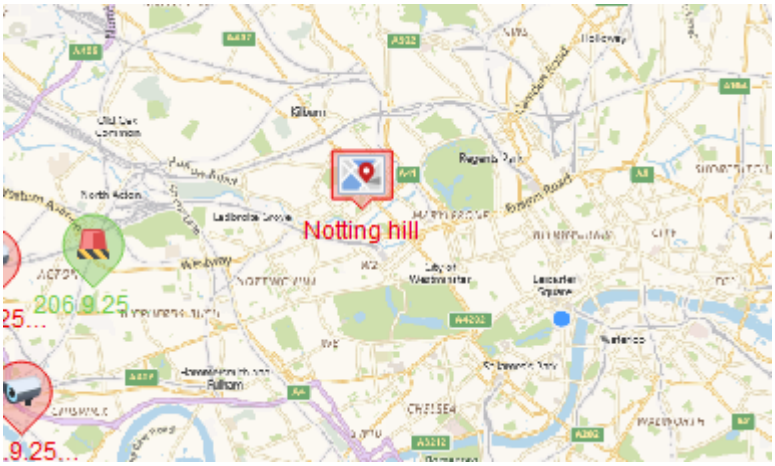
1. Click the **Video** tab ( ). To add a hot spot of other types, click the corresponding tabs.
2. Drag the camera to the intended location on the map.
3. (Optional) Right-click the icon to change its name, icon and icon color.
4. Click the **Map** tab to view the added hot spots.



6.2.4 Add a Hot Zone

Add a map on the map as a hot zone. The hot zone is displayed as an icon on the map and opens when you double-click it.

1. Click Add Hot Zone. A dialog box appears.
2. Enter a name for the hot zone, and choose the desired icon and icon color.
3. Select a picture for the hot zone (or click **Add Picture** to add one), click the **Add** button.
4. The hot zone appears on the map and the **Map Resources** list on the left.
5. Drag the hot zone icon to the intended location on the map.
6. To edit the hot zone, right-click the icon and then click **Edit** (or click the **Edit** button on the top).
7. To delete the hot zone, right-click the icon and then click **Delete (**or click the **Delete** button on the top**)**.

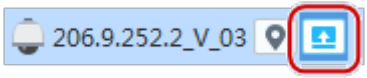


6.3 Map Operations

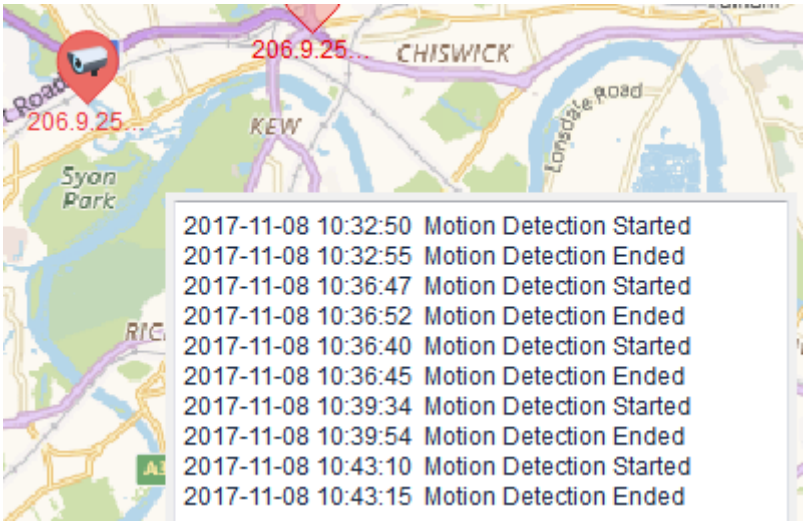
Perform the following operations on the **Map** tab after operations are completed on the **Edit** tab:

- Live view: View live video from a camera by double-clicking the camera icon on the map. Up to four cameras can be played at the same time. You may also right-click the icon and select **Live View** from the shortcut menu.

  Note: For fisheye camera, click on the window toolbar to open the fisheye control panel to operate the live view.

- Playback: Search and play recorded video of a camera. Right-click the hot spot icon and select **Playback**.
- Play live video to video wall: Right-click a video channel on the map and select **Play to Video Wall**. Select the video wall, stream type, window or screen, and then click **Play to Video Wall**. You may also click the button (

) in the **Map Resources** list.
- View alarm info: The hot spot flashes on the map when an alarm occurs. Right-click the icon and select **Show Alarm Info** to view alarm information.



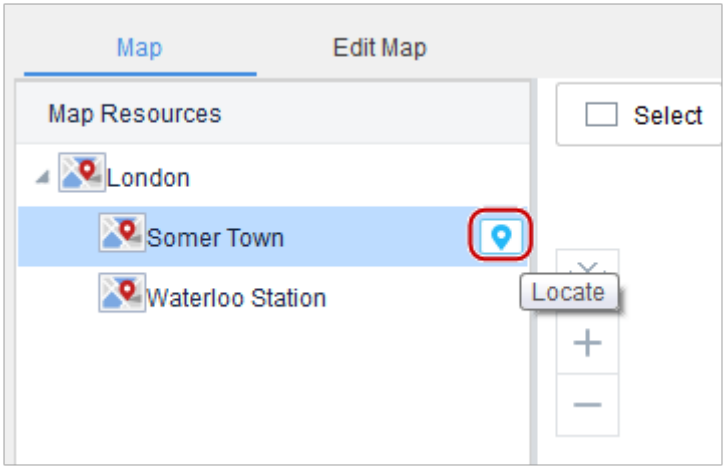
- Clear alarm: Right-click the icon and select **Clear Alarm**.
- Filter hot spots: Select the desired types of hot spots (for example, 

) on the top to show certain type(s) of hot spots on the map.
- Select hot spots or hot zones: Click 

 and then drag the mouse to specify an area on the map.

  A dialog box appears, listing all the hot spots and hot zones in the area. Click **Play to Video Wall**, **Live View** or **Playback** as needed.
- Zoom in or out on the map: Click  or (or use scroll wheel) to zoom in or out. Click  to restore the original size. When the map is zoomed in, you may drag the highlighted area in the small window (in the lower right corner) to locate on the main map.

- Locate a hot spot or a hot zone on map: click . The hot spot or hot zone icon is located on the map highlighted.



7 Video Wall

Video wall refers to a large physical display wall consisting of multiple monitors or display devices.

You can play videos to a video wall to view events intuitively on the wall, and turn on/off the screen automatically at a set time or manually. It can be widely used in various scenarios such as park monitoring center and command center.

The available video resources include video channels, signal sources, scenes, sequence resources, scene sequence, and resources in favorites.

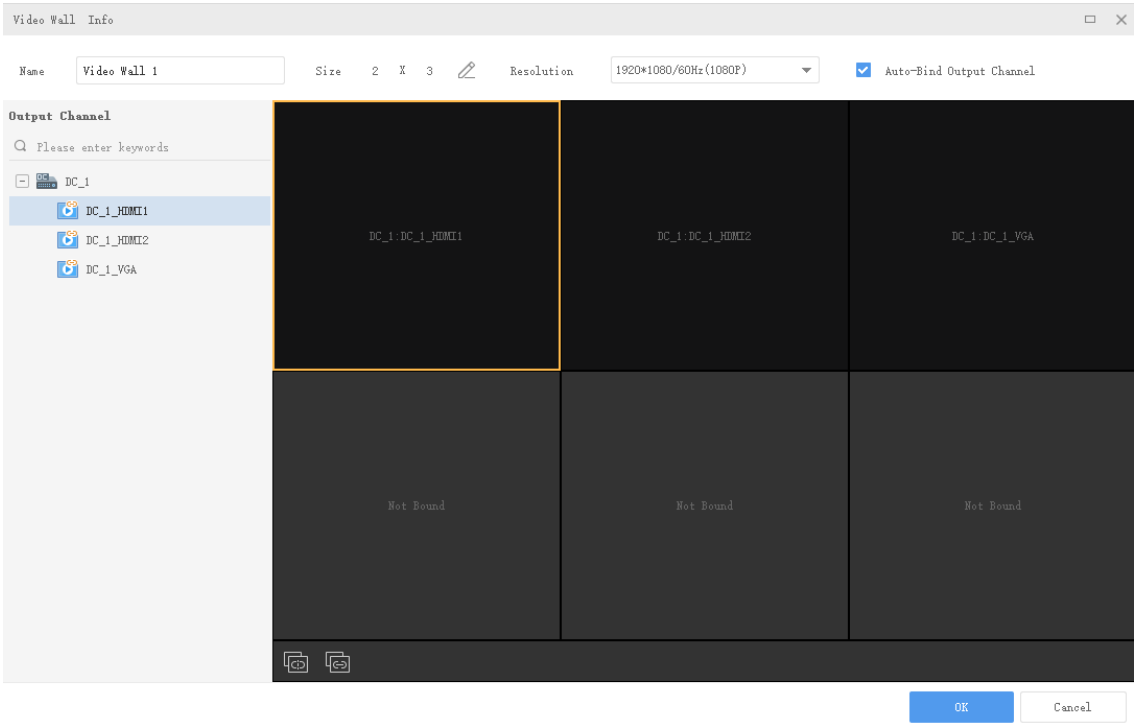
7.1 Glossary

- Video wall: Also known as video display wall, refers to a multi-monitor setup that consists of multiple computer monitors or display devices (e.g., LCD panel) tiled together to form one large screen to display a single continuous image. By binding video wall screens to decoding channels, digital signals from encoding devices are converted into analog signals and displayed on video wall screens.
- Decoding channel: Output port of a decoding device.
- Video channel: Camera.
- Bind: Link a video wall screen to a decoding channel.
- Screen: A physical screen on the video wall, which corresponds to a window on the client software. For easier understanding, window is also referred to as screen in this chapter. A screen can be split into multiple screens (or windows). The number of screens configured on the client must match that on the physical video wall.
- Play on Screen: Play video or sequence resource on a specified video wall screen.
- Play on Wall: Play video or sequence resource on video wall screens.
- Splice: Merge multiple video wall screens to one bigger screen.
- Virtual LED: Static or dynamic text displayed on top of video images on the video wall.
- Scene: Saved video wall settings including screen layout, window, and video service (live view or sequence). The scene allows you to recall the video wall settings with just one click of a button without repeating the configuration.
- Signal source: Some decoding devices have DVI-D and VGA video interfaces, and signals from these video interfaces are known as signal sources.
- Window: Some DX video walls require you to open windows on the client software and specify the size, shape, position of the windows, so as to play videos on the corresponding areas on the physical video wall.
- Roam: A feature that allows you to drag a window to the desired position on the video wall along with the video image playing in this window.
- Small pixel pitch LED: A feature designed for small pixel pitch LED screens.

- Auto-bind channel: A feature that automatically binds decoding channels to screens when you create a new video wall.
- Open window: A feature that allows you to open multiple windows at a time by just clicking the **Open Window** button. You may choose a preset window layout or customize one.
- Preview: Live view on the client, and use the shortcut menu to adjust display ratio, enable/disable digital zoom, snapshot, record video, alarm output control, change stream type and video settings, and open the PTZ control panel.
- Screen control: Turn on/off all screens of a video wall on the software client.

7.2 Add a Video Wall

1. For first time use, click + Video Wall and then choose a video wall type. If a video wall already exists, click  right to the video wall name to add a video wall. The following figure takes the DC video wall as an example.



2. Complete the basic settings including video wall name and size. Make sure the video wall size is consistent with the physical video wall.

   Note:
   If you are using small pixel pitch LED screens, enable and complete small pixel pitch LED settings properly. The special LED width refers to the width of the last column of the video wall, and the special LED height refers to the height of the last row. The unit is pixel.

3. By default **Auto-Bind Channel** is selected, and the software automatically binds decoding channels to screens based on the resolution you set. You can edit the binding by dragging a decoding channel to the intended screen.

   Note:

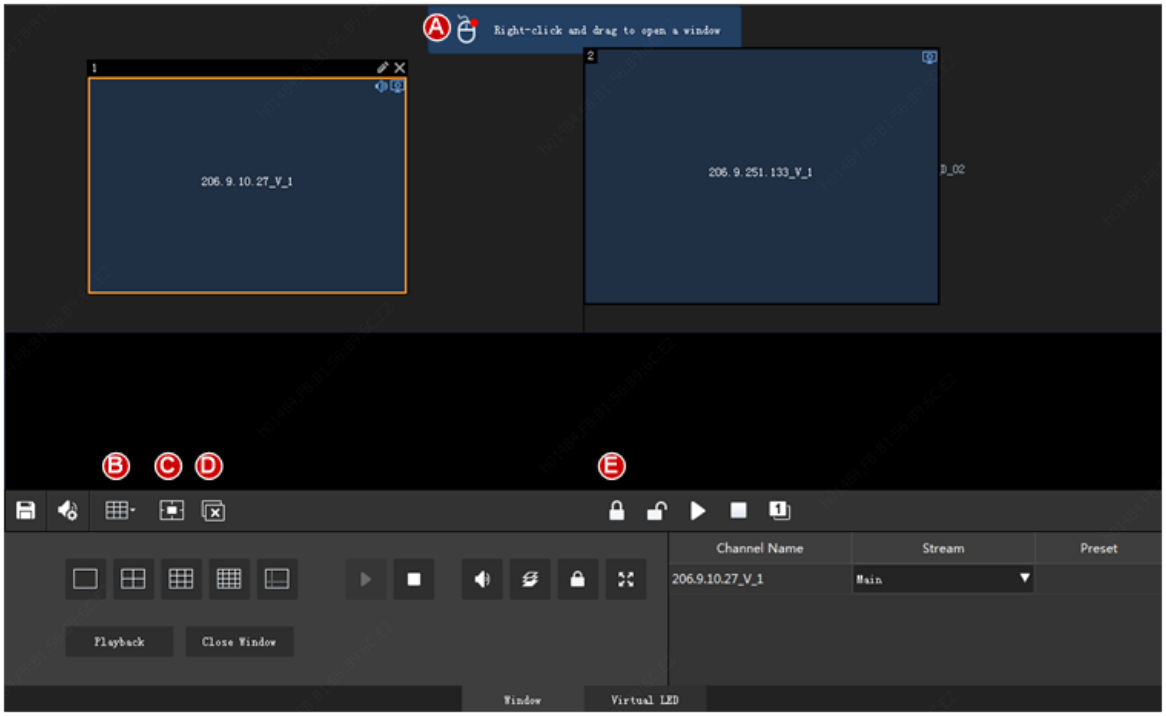
   - When a decoding channel is bound to a screen, appears on the decoding channel list, and the decoding channel name appears at the screen center. To cancel a binding, click the close button in the screen's top right corner. To cancel all bindings, click . Click to bind all.
   - You can drag a screen to switch decoding channel with another screen.

4. For DX video walls, if the Xware device supports the output positioning function, you can enable this function to display the channel name (format: Device IP_Channel Type_Channel No.) on the physical video walls to help you configure them intuitively.

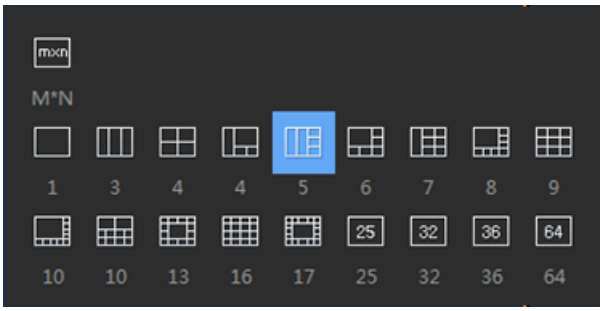
5. Click **OK**.

7.3 Open Windows

Some DX video walls require you to open window(s) first before you can play live video or sequence resource on the video wall. You may open a window by dragging a camera, sequence resource or signal source to the video wall; alternatively, use the following methods.



- A: Follow the on-screen tip: hold down the right button and drag to open a window.
- B: Click the **Open Window** button, and then choose a layout or customize one (M*N).



- C: Open window by coordinates. Set the start point of the window (top left corner) and the size (unit: pixel).

After opening a window, you may:

- Drag it on the screen.
- Drag its borders to adjust size.
- Close it by clicking the close button in its top right corner; or click the **Close All Windows** (D) to close all windows.
- Click **Lock All Windows** (E) to lock all windows. When a window is locked, you cannot change its position and shape.

7.4 Video Wall Operations

Note:

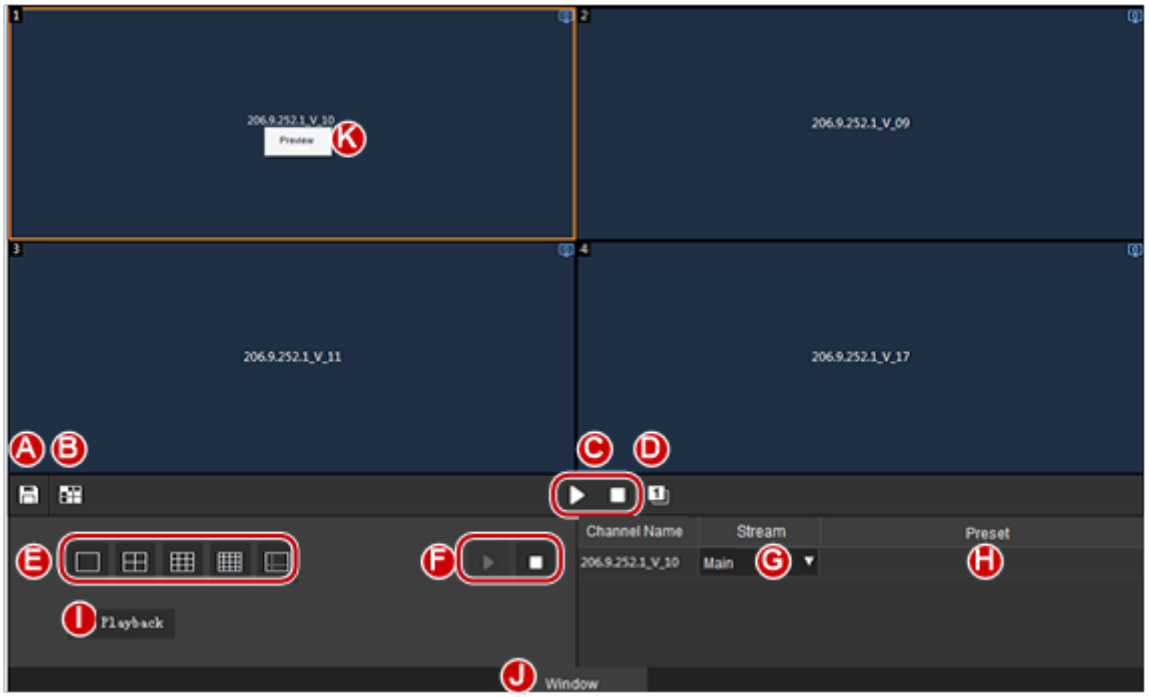
- The following descriptions are not intended for a specific video wall type.
- The actual operations allowed and functions available may vary depending on the decoding device.

7.4.1 Play Live Video on Video Wall

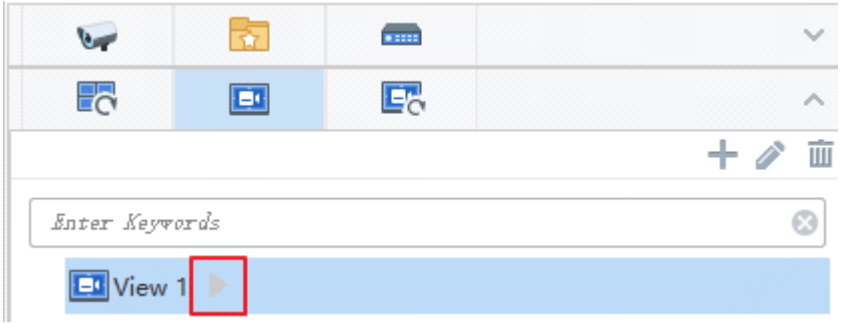
Drag cameras to intended windows one by one; or select multiple cameras and drag at a time.

Note:

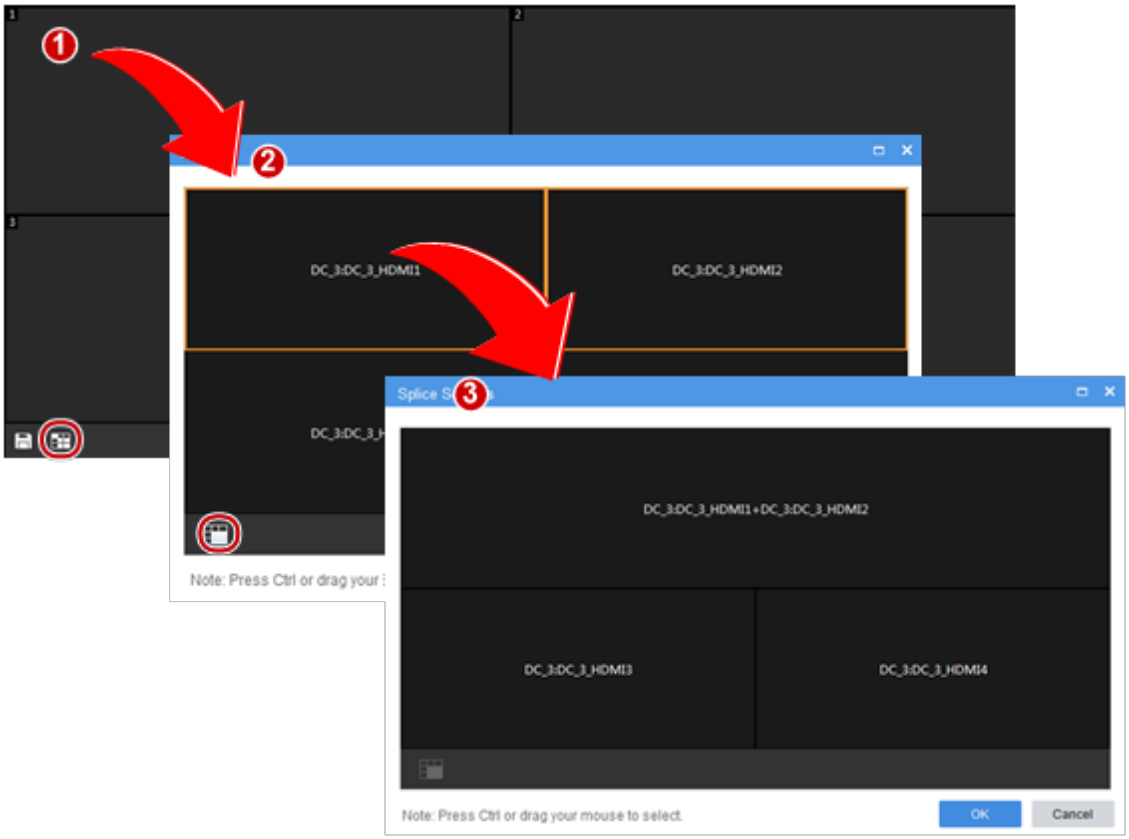
When live video starts on the video wall, the screen color changes,  appears in the screen's top right corner, and the camera name appears at the screen center.



- A: Save current video wall settings including screen layout, window, and video service (live view or sequence) as a scene. To recall the settings, click  for the scene in the scene list.



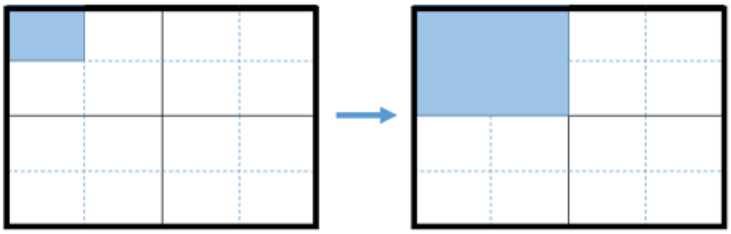
- B: Splice screens. Drag to select screens (or click while pressing the **Ctrl** key). The screens you select must form a rectangular. Steps for cancellation are the same.



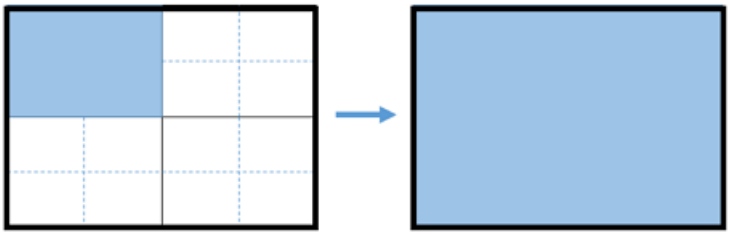
- C: Start/stop decoding on all screens.
- D: Click to automatically renumber all the screens in top-to-down and left-to-right order.
- E: Set screen layout (for example, 4 screens).
- F: Start/stop decoding on a selected screen.
- G: View and change the stream type.
- H: Choose a preset (applicable to PTZ cameras configured with presets).
- I: Search and playback (see Playback for details).
- J: Hide the toolbar area.
- K: Right-click and preview live video from the binding camera.

The following features may also be available on a DX video wall:

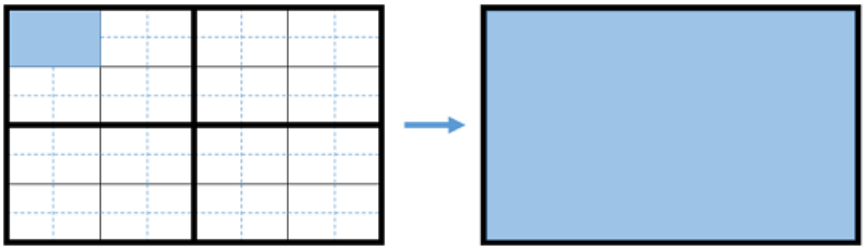
- Always display a window at bottom: When multiple windows overlap, the selected window appears on the top by default. To set a window to display at the bottom, click (or right-click the window and then choose from the shortcut menu).
- Lock/unlock a window: Click to lock the position and size of a window (or right-click the window and choose from the shortcut menu). Click to unlock.
- View window info: Right-click a window or screen and choose **Window Info** to view information such as window ID, split screen ID, stream status, etc.
- Zoom in on a window: Select a single window and click (or double-click the window, or right-click the window and choose **Full Screen** from the shortcut menu) to magnify the window to the full screen. Click or double-click the window again to restore the window to the original size.
  - If there are multiple split windows, you can magnify the split window to the entire window.



- If the zoom mode in decoder's Web interface is set to **Normal Mode**, this operation can magnify a single window to the full screen of its physical screen.

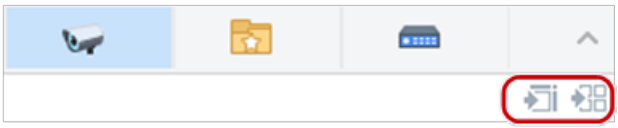


- If the zoom mode in decoder's Web interface is set to **Full Screen Mode**, this operation can magnify a single window to the full screen of whole splicing screen.



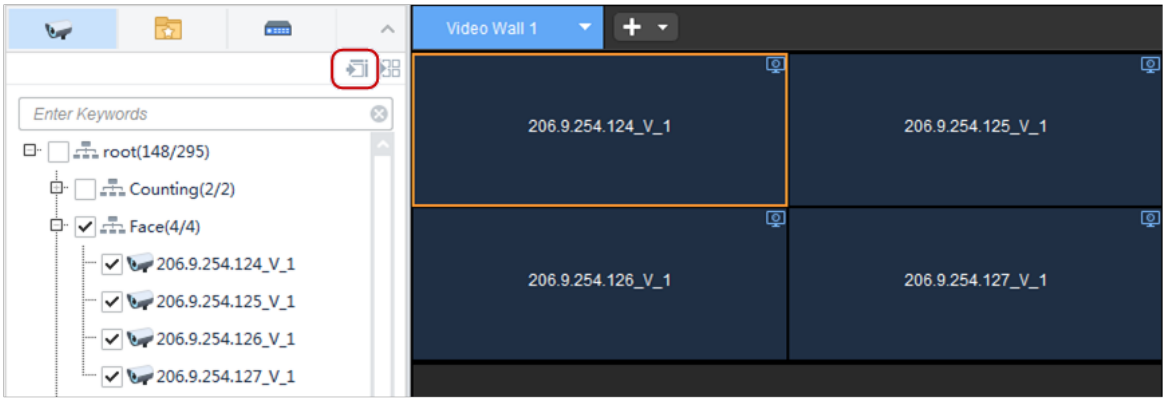
7.4.2 Play Video of Multiple Cameras on Video Wall

By **Play on Screen** and **Play on Wall**, you can play videos from selected cameras on a specified screen or multiple screens of a video wall. Before you start, you need to complete the configuration of a video wall.



Play on Screen

Play video of multiple cameras on a screen. In this example, we split a screen (e.g., screen 1) into 4 (window 1, 2, 3, 4) to play video of four cameras.

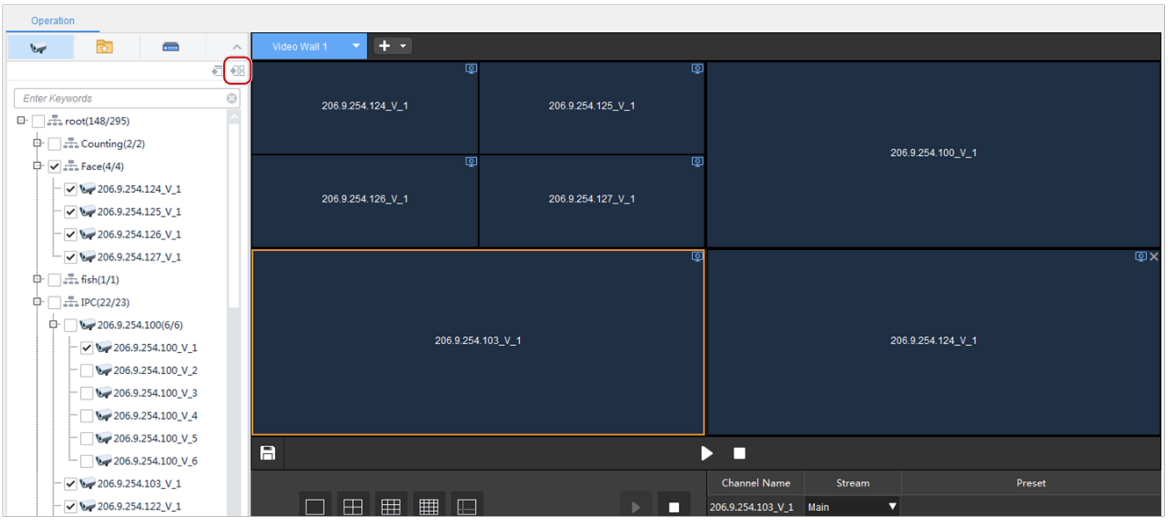


1. Click to select window 1 on screen 1.
2. Select cameras on the left.
3. Click  .
4. Select a stream type.
5. Click **OK**. Video from the four cameras are playing in window 1, 2, 3 and 4 on screen 1 respectively.

Play on Wall

Play video of multiple cameras on multiple screens on a video wall.

Play video of 7 cameras on a video wall with 4 screens, among which, screen 1 is split into 4 windows.



1. Click to select window 1 on screen 1.
2. Select cameras on the left.
3. Click  .
4. Select the stream type.
5. Click **OK**. Video from the first 4 cameras are playing on screen 1, and video from the other 3 cameras are playing on screen 2, 3 and 4 respectively.

7.4.3 Play a Sequence Resource

Sequence resource consists of a group of cameras used to play live video on video wall screen(s) in sequence at a set time interval. You need to configure sequence resource first (see Sequence Resource).

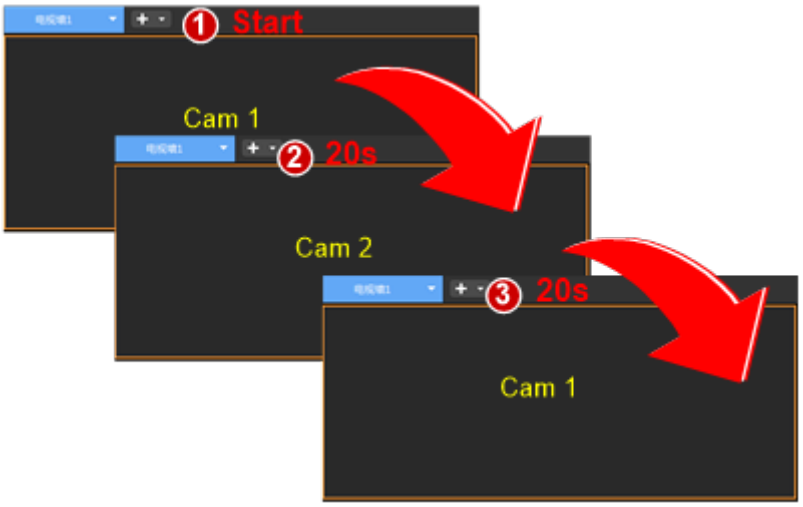
Steps

1. Click the **Sequence Resource** tab ().
2. Select the sequence resource to play.
3. Click to select a window or a screen. Video will start from the selected window or screen.
4. Click  to start sequence on the selected screen.
5. Or click  to start sequence on all the screens that are bound to decoding channels. After sequence starts, click  /  to pause/resume, or click  to stop.

Examples

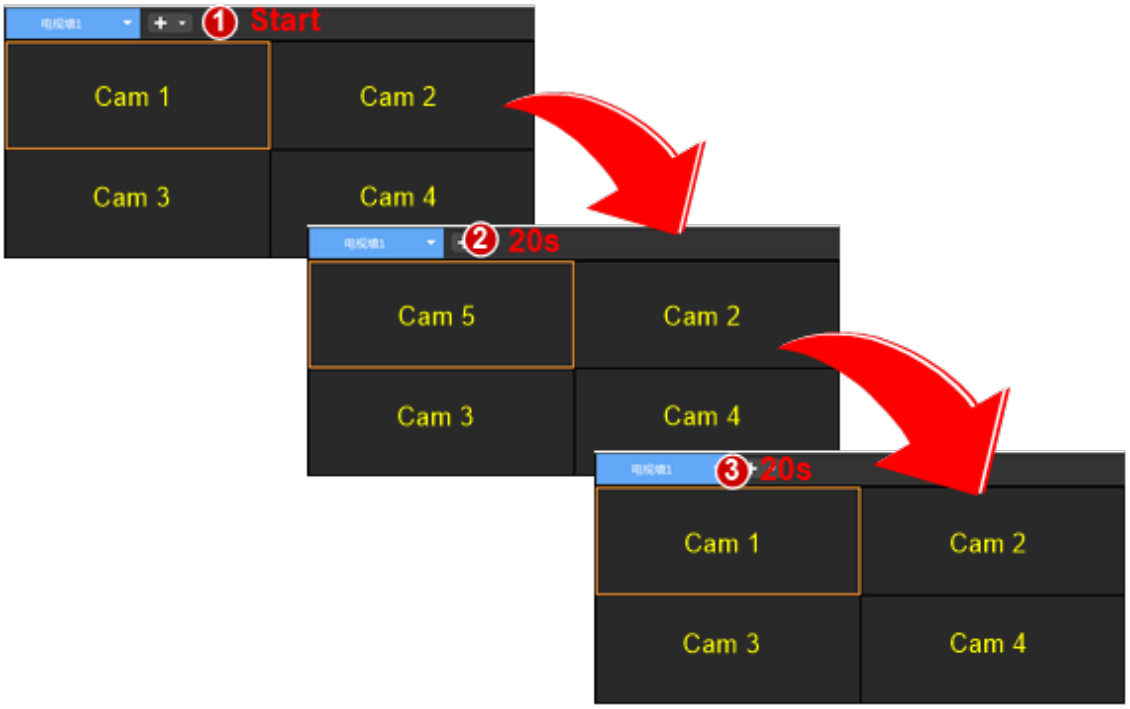
The following examples show how to play sequence resources on a video wall. Assume the time interval is set to 20 seconds for all the sequence resources.

- Example 1: Sequence 2 cameras (Cam 1 and Cam 2) on one screen



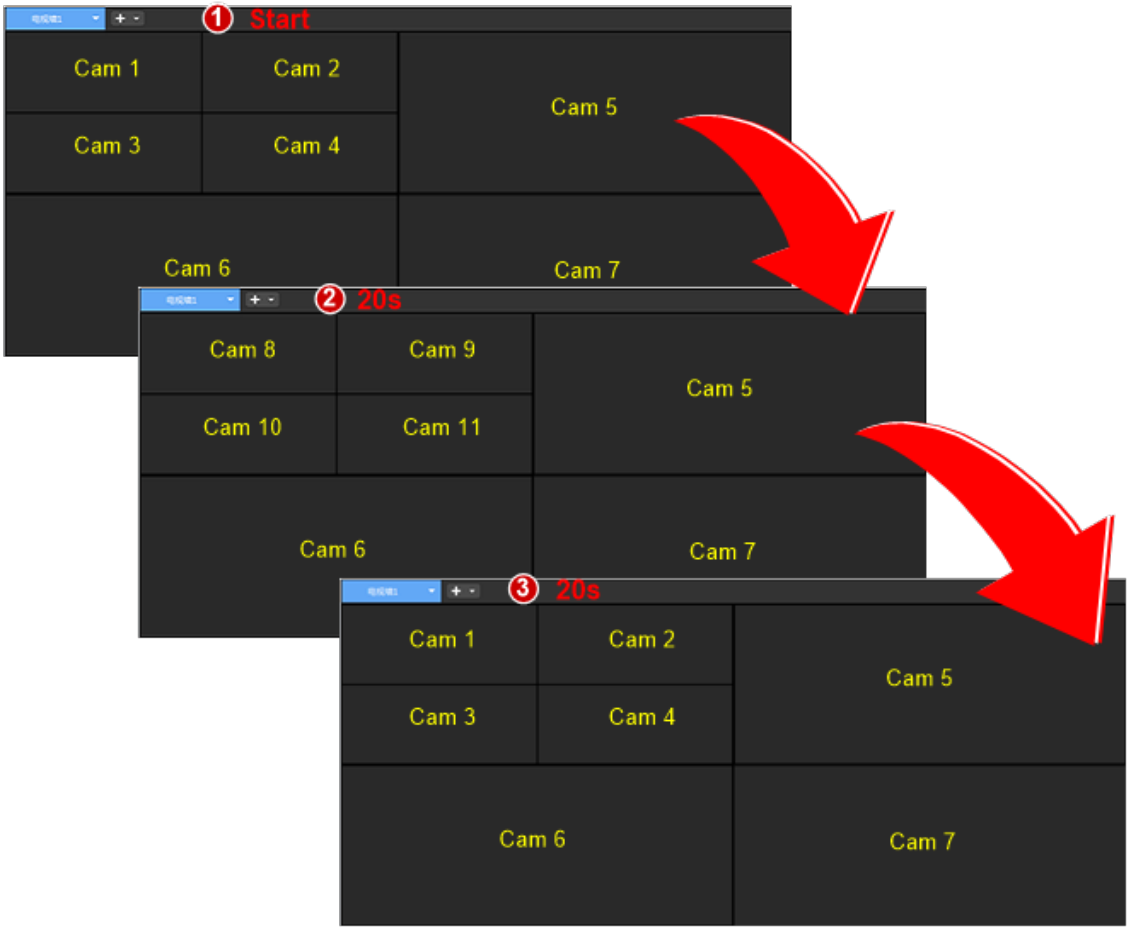
1. Sequence starts: play the 1st camera (Cam 1).
2. Switch in 20 seconds: play the 2nd camera (Cam 2).
3. Complete a round and start again: play the 1st camera (Cam 1).
4. Repeat the above process.

- Example 2: Sequence 5 cameras (Cam 1, 2 … 5) on a 4-window screen



1. Sequence starts: play the first 4 cameras (Cam 1, 2, 3, 4).
2. Switch in 20 seconds to play the last camera: play Cam 5 on Win 1; other windows do not switch.
3. Complete a round and start again: play the first 4 cameras (Cam 1, 2, 3, 4).
4. Repeat the above process.

- Example 3: Sequence 11 cameras (Cam 1, 2, 3 … 11) on a video wall (screen layout as follows)

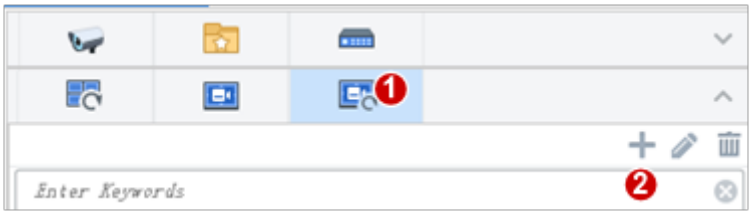


1. Sequence starts: play the first 7 cameras (Cam 1, 2, 3, … 7).
2. Switch in 20 seconds to play the next 4 cameras (Cam 8, 9, 10, 11).
3. Complete a round in 20 seconds and start again: play the first 7 cameras (Cam 1, 2, 3, … 7).
4. Repeat the above process.

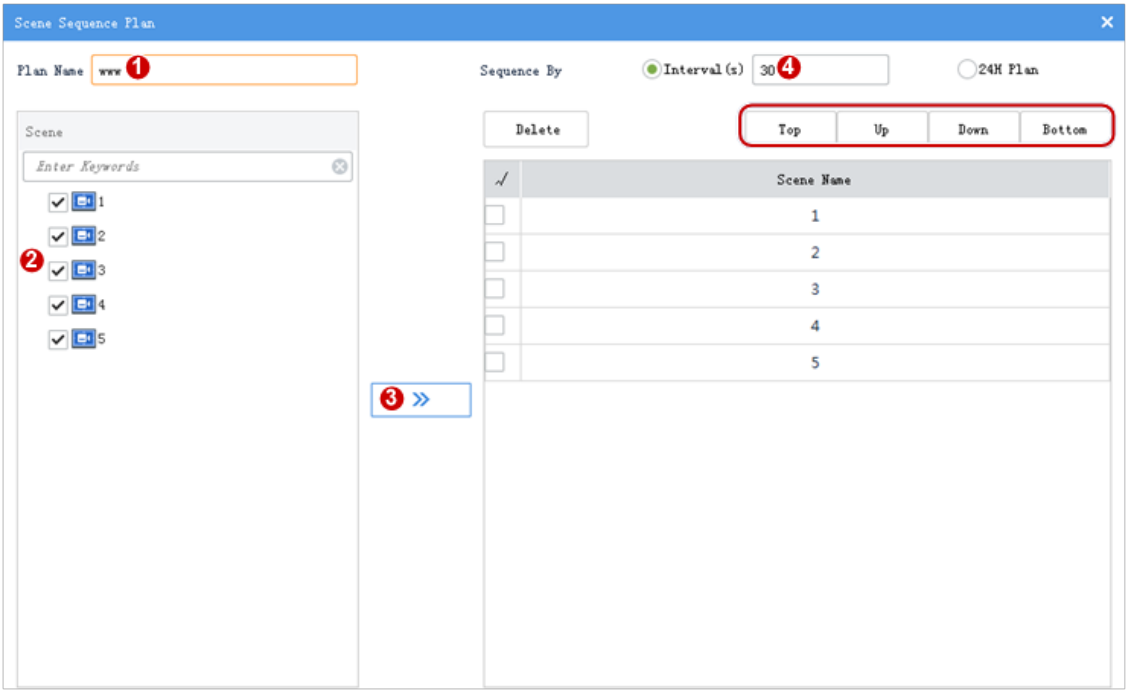
7.4.4 Play a Scene Sequence

Sequence scenes by a set time interval or a 24H plan. Complete the creation of scenes before you start the following steps.

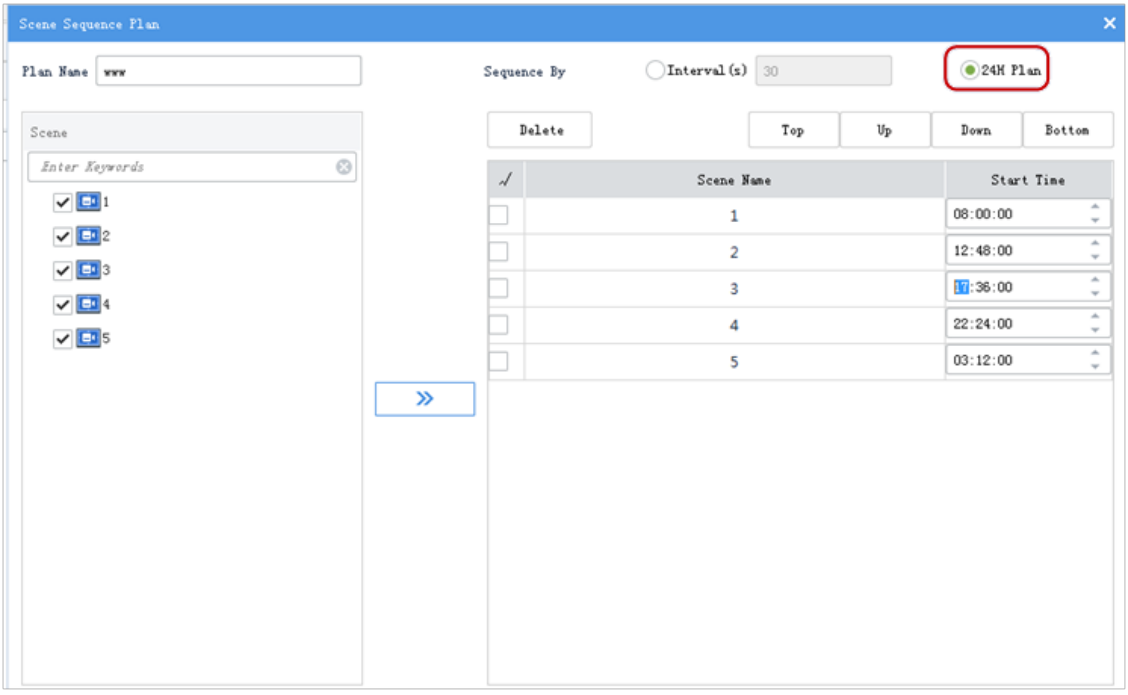
1. Click to create a scene sequence plan under the **Scene Sequence** tab.



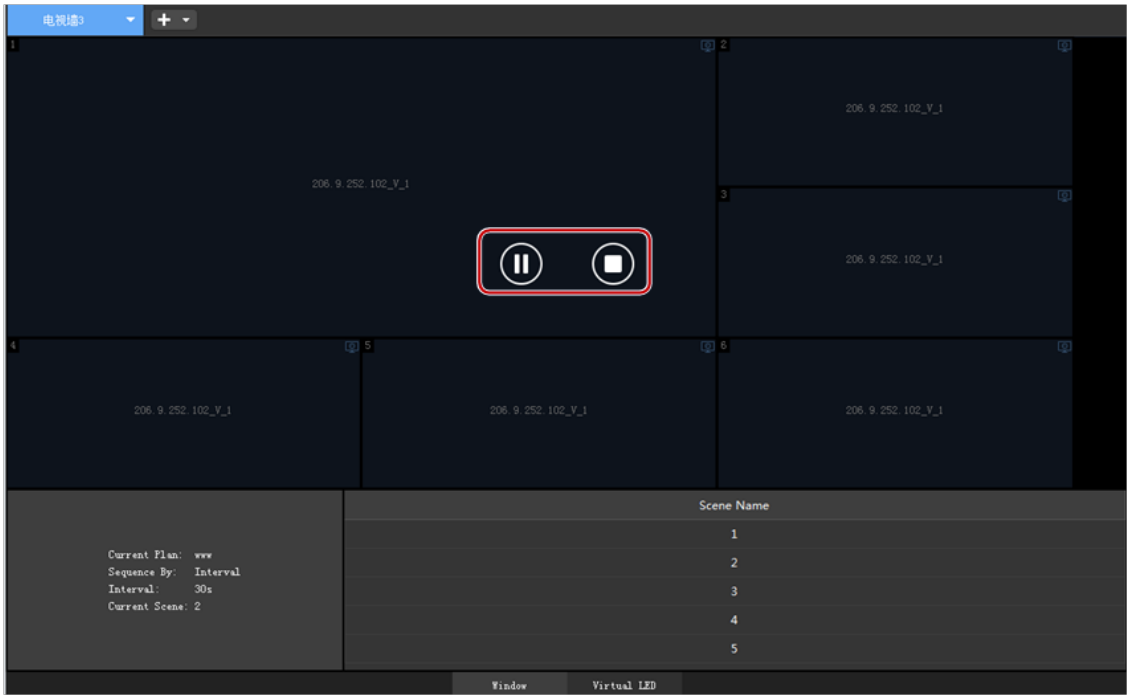
2. Set a plan name, and add scenes to the plan. You can adjust the time interval when using the default mode. Set the sequence of scenes as needed.



3. You can specify one or more time periods for each scene when using the 24H sequence mode.



4. Click **OK** to save the settings. The plan appears on the **Scene Sequence** tab. Click **Start** to start the plan. Info about the sequence plan (such as plan name and the current scene) is displayed in the lower left corner.



5. You can click the buttons at the center to pause or stop the plan.

7.4.5 Play Signal Source

Play signals from a DVI-D or VGA interface of the decoding device on the video wall.

1. Create a DX video wall.
2. Click the **Signal Source** tab .
3. Drag the signal source to the intended screen. When live video starts on the video wall, the screen color changes, appears in the screen's top right corner, and the signal source name appears at the screen center.

Other operations

- Preview: You can right-click in the signal source window and then choose **Preview**, or hover your mouse on the signal source on the left-side signal source list, and then click to preview images from the signal source.
- Rename a channel: Click for a signal source, and then click **Edit Channel Name** to set a channel name that is easy to recognize.

7.4.6 Virtual LED

Virtual LED refers to the texts or times displayed on video images. The Virtual LED is only available on DX video walls that are created using an ADU device.

1. Click the **Virtual LED** tab on the bottom, and then click **+** or follow the instructions displayed on the top to create a virtual LED.
2. Configure the LED.

   Please refer to the table below for the complete configuration options for the virtual LED. Some settings are only applicable to text or time LEDs.

Item	Description
LED Type	• Text • Time
X Coordinate(px)	The coordinates of the virtual LED on the video wall.

Item	Description
Y Coordinate(px)	The coordinates of the virtual LED on the video wall.
Width	Width of the virtual LED.
Height	Height of the virtual LED.
Content	Text to be displayed on video images.
Time Format	Time format to be displayed.
Date Format	Date format to be displayed.
Display Style	• Single row • Multiple rows
Font	Font to be displayed on video images.
Font Size	• Auto • Custom
Font Spacing	• Auto • 1-10x: 1x represents a spacing of 0, 2x represents a spacing of 0.5 characters, and so on. The character size is according to the font size set.
Font Alignment	The alignment of the font in the horizontal and vertical directions.
Font Color	The font color displayed on video images.
Background Color	The background color of the virtual LED.
Transparent	The transparency of the background color of the virtual LED. • Yes: Do not show the background color of the virtual LED. • No: Show the background color of the virtual LED.
Scrolling Speed	The scrolling speed of the text content on video images.
Scrolling Mode	The scrolling mode of the text content on video images

3. The virtual LED is created. The following shows an example.

Other operations

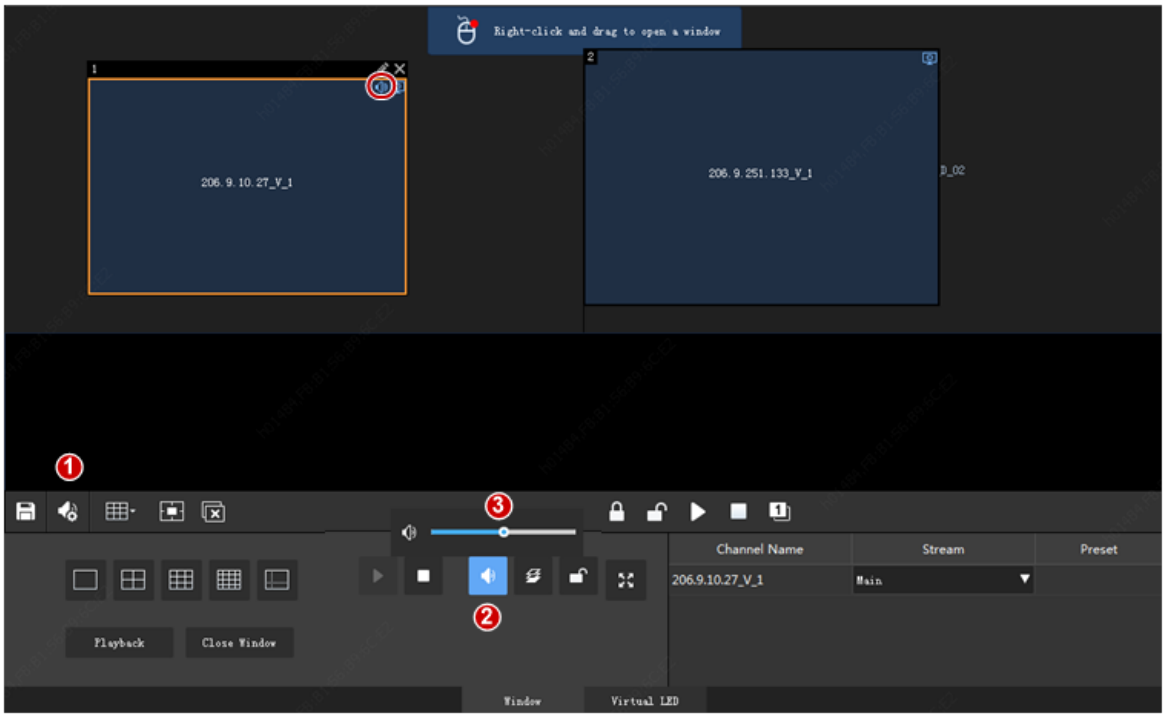
Other allowed operations to the virtual LED:

- Drag the virtual LED to change its position.
- Place the mouse cursor on the border of the virtual LED, and when the cursor shape changes, drag the border to resize it.

- Place the mouse on the virtual LED, and then click in the top right corner to enable/disable, edit, or delete the current virtual LED.
- Click in the toolbar to delete all the virtual LEDs.
- Click in the toolbar to enable all the virtual LEDs, or click to disable all the virtual LEDs.

7.4.7 Output Audio

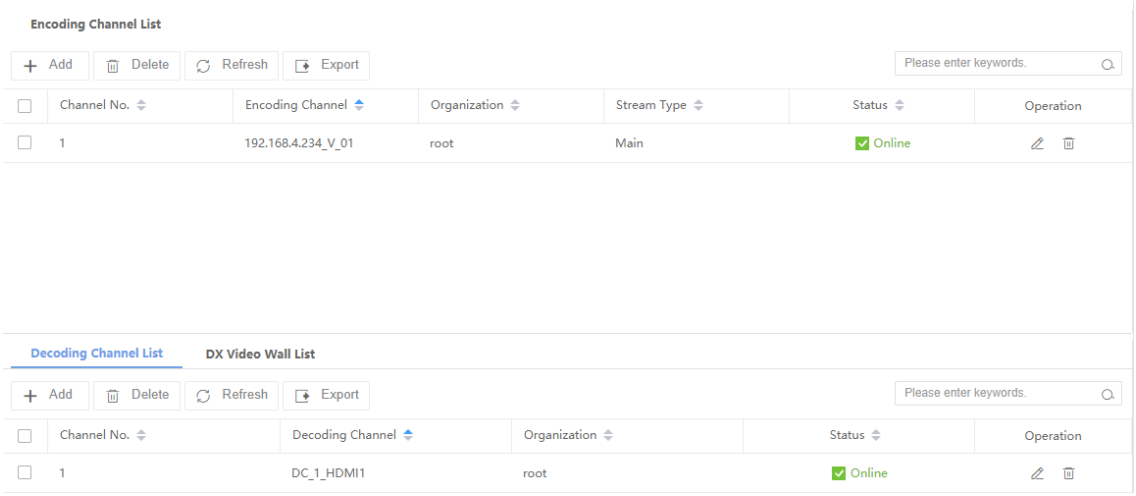
Use the audio output channel of a DX device to output audio of a camera playing in a window or a screen. Only DX video wall created using certain DX device models supports this feature.



1. Click (1), and then select the audio channel.
2. Click a window/screen, and then click (2); or right-click and then select **Audio.** An icon appears in the top right corner, which means the audio channel is outputting the IPC's audio in the window/screen.
3. Adjust output volume or mute the sound as needed.

7.4.8 Network Keyboard

1. Enter the IP address and port number of the VMS on the keyboard to register the keyboard to the platform. Complete other basic keyboard configurations by referring to Network Keyboard User Manual.
2. Log in to the Web page, go to **Basic** > **Device** > **Network Keyboard** to configure and remember the parameters that need to be controlled by a network keyboard, including video channel, decoding channel or video wall number.

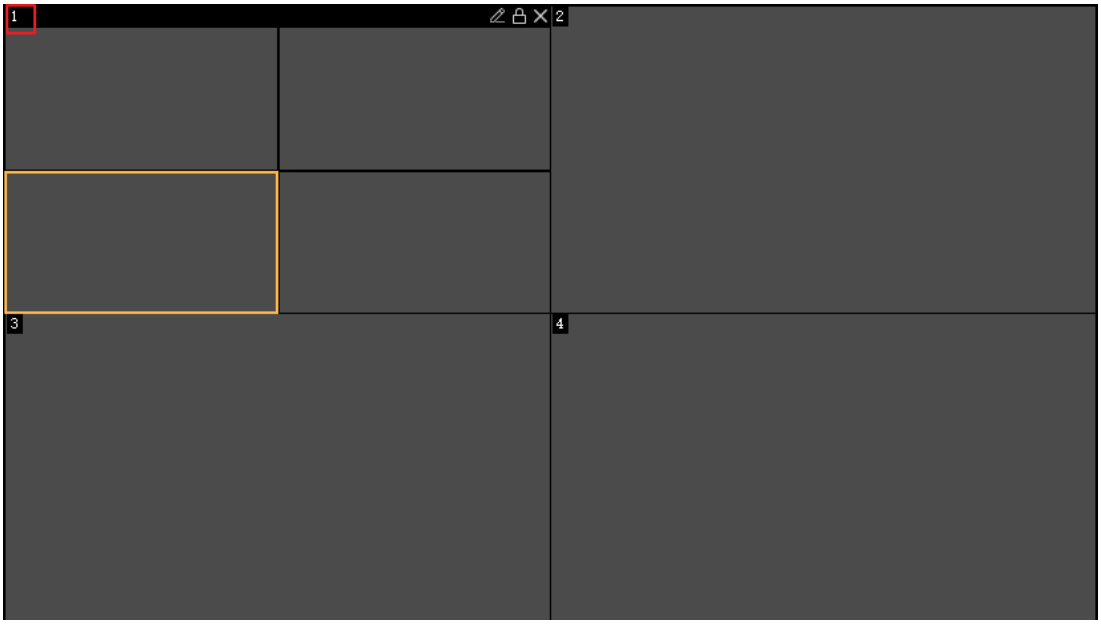


3. Play live view on a video wall.

   (1) Select a video wall: Enter a video wall number/decoding channel number on the keyboard and press AUX4.

   (2) Select a window: Enter the number in the upper left corner of the selected window on the keyboard (taking "1" in the figure below as an example) and press MON.

   (3) Select a window ID to split: Enter a split ID on the keyboard (split ID is 3 in the figure below) or enter 1 if no split, and then press WIN.



   (4) Select a desired camera: Enter the encoding channel number on the keyboard and press CAM.

   (5) Press ENTER to play live view on the video wall.

4. You can use the keyboard to control a PTZ camera after playing the live video to a video wall. Repeat 3.b-3.d to select the desired camera and window.

   - Control PTZ direction: Use the joystick to control the PTZ rotation direction.
   - Joystick amplitude: The amplitude of the joystick controls the rotation speed of the PTZ camera. The greater the amplitude, the faster the speed.
   - Zoom: Use the joystick or press ZOOM+/ZOOM- on the keyboard to adjust the zoom.
   - Focus: Press FOCUS+/FOCUS- on the keyboard to control focus.
   - Iris: Press IRIS+/IRIS- on the keyboard to adjust iris.

5. You can switch to playback by the network keyboard after playing the live video to a video wall.

   (1) Press  .

(2) Set the playback start time.

(3) Press the button on the joystick or press Enter.

See Network Keyboard User Manual for other specific operations.

7.5 Screen Control

Click the **Screen Control** tab and turn on/off all screens of a video wall on the software client.

- Select a serial port: COM 1: RS232; COM2: RS485.
- Select a serial port protocol: UA, UA-A or MODBUS.
- Control screens:
  - Turn on/off screens at set times: select the check boxes and then set times. All screens will turn on/off at the set times.
  - Click **Turn On Screen** to turn on screens immediately.
  - Click **Turn Off Screen** to turn off screens immediately. If a delay is set, the screens will turn off automatically when the set time is over.

8 Alarm Configuration

Create an alarm plan so that the VMS can trigger the preset action(s) when an alarm occurs. The linkage actions include live view, calling a preset, alarm output, and alarm to video wall.

Click the **Alarm Configuration** icon on **Control Panel**. The **Alarm Configuration** page is displayed. Create alarm plans so that the linked object(s) will perform triggered action(s) when an alarm occurs during a certain period. A plan mainly specifies the time template, alarm source(s), alarm type(s), linked object(s), and action(s) to trigger.

Triggered actions include:

- Live view: Display live video from the linked camera(s) in a pop-up window.
- Goto preset: The linked PTZ camera rotates to a preset position (preset for short).
- Alarm output: Output an alarm to external device.
- Alarm to video wall: Play video from the linked camera on the video wall.

Note:

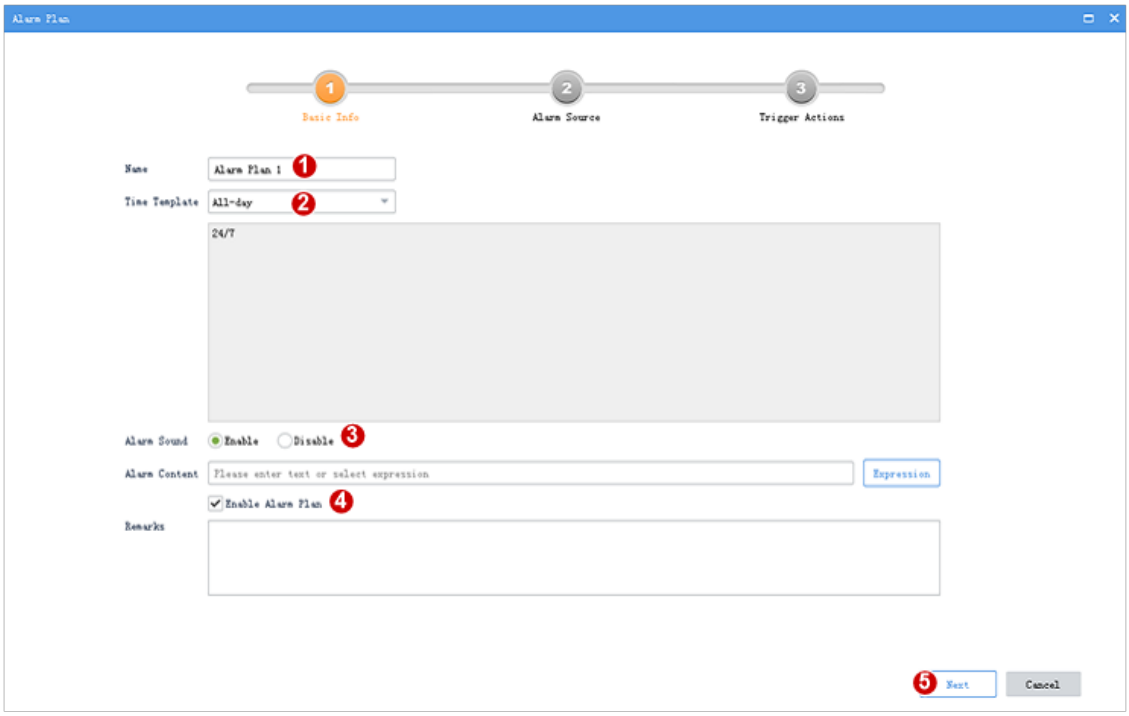
- The time template to be used in an alarm plan needs to be configured beforehand under **Alarm Configuration** > **Time Template** on the Web Managerclient.
- Only alarms that occur within the time period(s) specified in the configured time template will trigger actions.
- You may configure multiple alarm sources in an alarm plan, and specify multiple actions to trigger for an alarm source.
- After you finish the configuration of alarm-triggered actions for an alarm source, you can copy and apply the same trigger actions to other alarm sources without repeating the configuration for each alarm source one by one. See Copy Trigger Action Configuration.
- New alarm plans are enabled by default and can be deleted or disabled as needed.

8.1 Create an Alarm Plan to Trigger Live Video

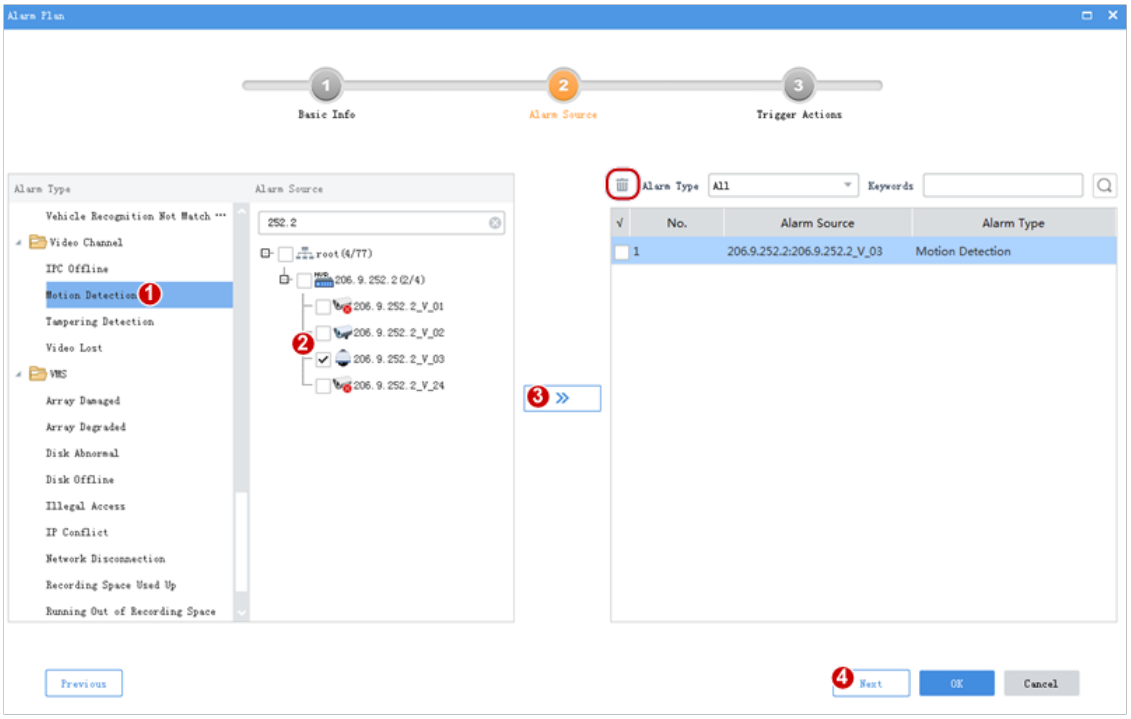
Create an alarm plan so that a window pops up playing live video from linked camera(s) when an alarm occurs.

First click  in the lower left corner and select **Display Link Video** on the top of the page to enable alarm-triggered live view. And then click **Alarm Configuration** > **Alarm Plan,** click **Add**, and follow these steps:

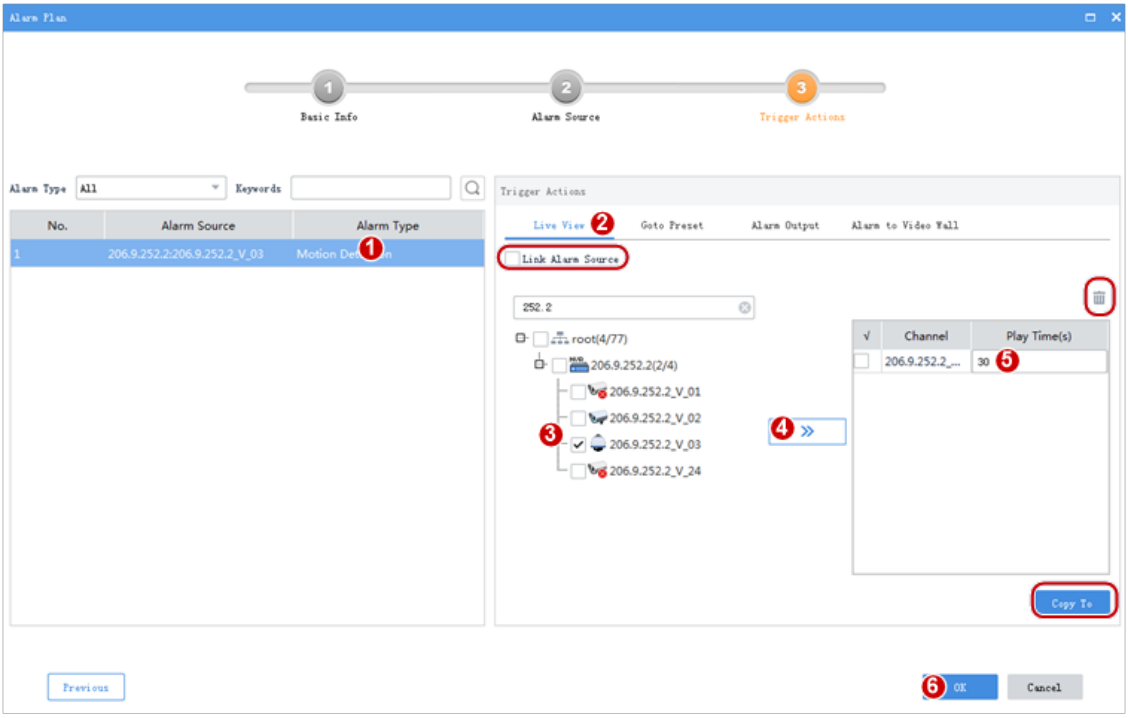
1. Complete the basic information for the alarm plan. The plan name must be unique. The time template is configured on the Web Manager. New alarm plans are enabled by default. Enable alarm sound as needed (see Alarm Sound).



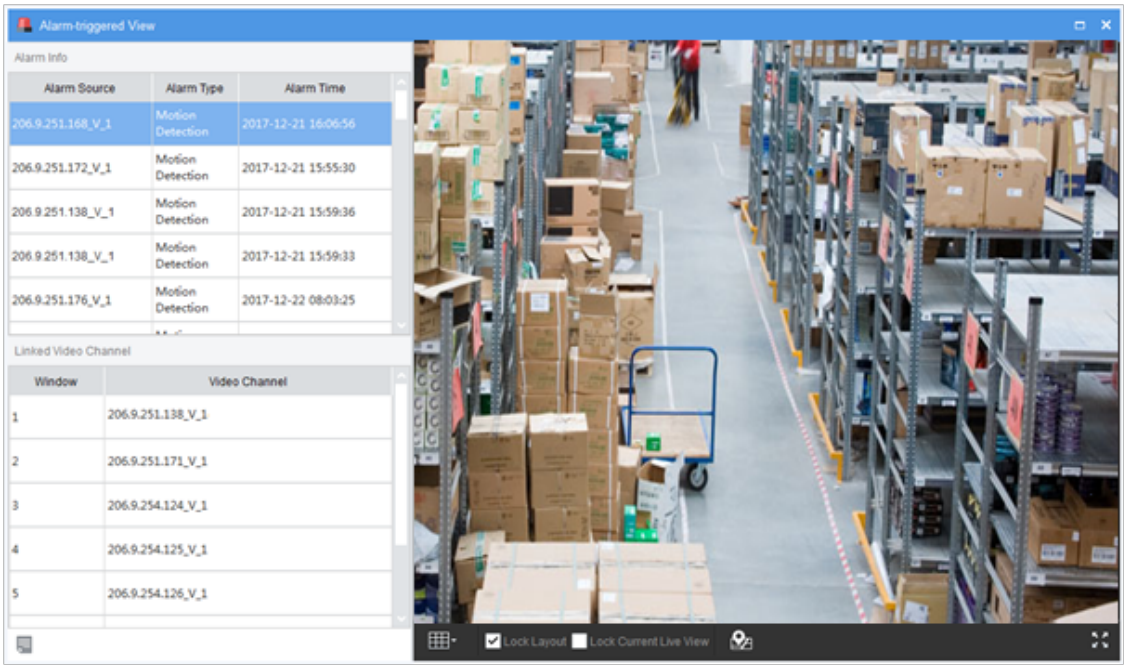
2. Set one or more alarm sources and the corresponding alarm types. Use keywords to filter alarm sources. Click to delete unneeded alarm sources. Take motion detection as an example.



3. Set one or more linked objects. If the object to link is the alarm source itself, select **Link Alarm Source**. **Play Time** means the duration of live video to play. Click to delete unneeded actions, or click **Copy To** to copy trigger actions and apply them to other alarm sources (see Copy Trigger Action Configuration).



4. The configured alarm plan appears in the list. You can edit, delete or disable an alarm plan as needed.
5. When live video is triggered by an alarm, the window pops up displaying live video and related alarm and camera information.



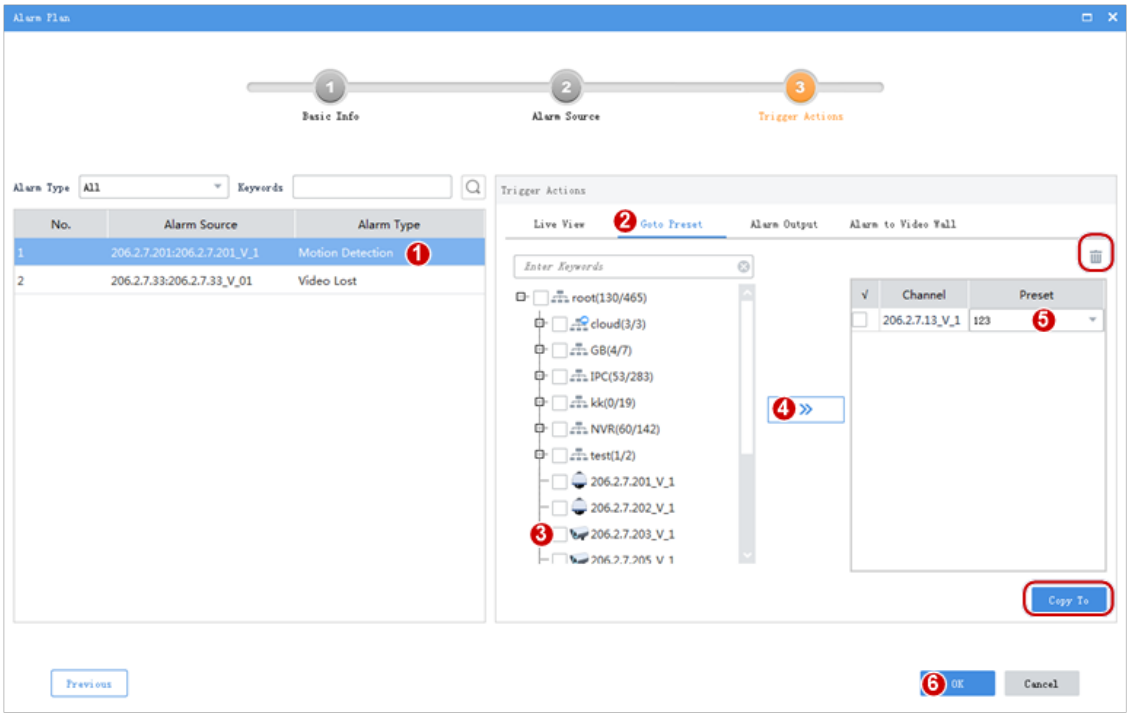
- Click  to set the screen layout (e.g., 1 window).
- Lock layout: By default the check box is not selected, and the layout adapts to the number of cameras automatically. Select the check box as needed so the layout does not change when new alarms occur.
- Lock Current Live View: By default the check box is not selected, and the current live video will be replaced by new alarm-triggered live video. Select the check box as needed so the current live video will not be replaced, and it will not stop automatically when the set play time is over.
- If the alarm source is a camera for which a hot spot has been created on the map, you may click  to open the map and locate the alarm source on the map (see E-map).
- Click  in the lower left corner (see GUI Introduction) to open the **Alarm Records** page and view alarm records.

- Other live view operations (see Window Toolbar).

8.2 Create an Alarm Plan to Trigger Preset

Create an alarm plan so that the linked PTZ camera goes to a preset position (preset for short) when an alarm occurs. The preset should be configured beforehand.

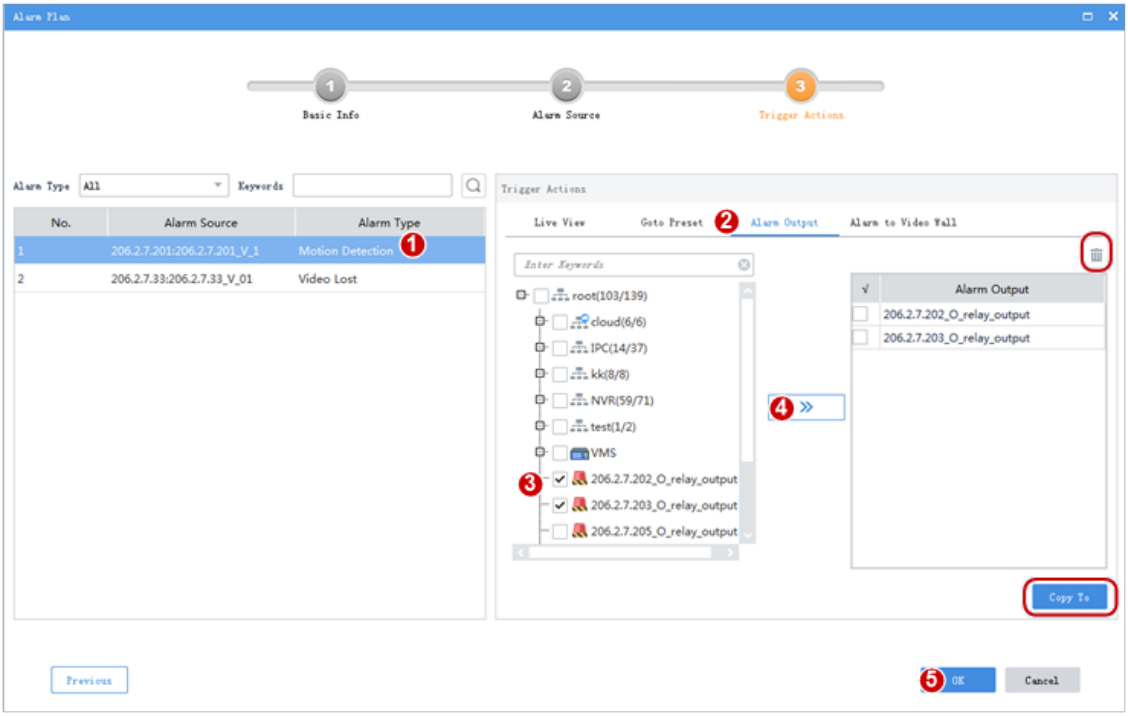
1. Complete the basic information for the alarm plan. Set alarm sources and alarm types. See Step 1 and 2 in Create an Alarm Plan to Trigger Live Video for details.
2. Set one or more objects to link and select the preset. Click to delete unneeded actions, or click **Copy To** to copy trigger actions and apply them to other alarm sources (see Copy Trigger Action Configuration).



8.3 Create an Alarm Plan to Trigger Alarm Output

Create an alarm plan so that the linked object outputs an alarm when an alarm occurs.

1. Complete the basic information. Set alarm type(s) and source(s). See Step 1 and 2 in Create an Alarm Plan to Trigger Live Video for details.
2. Set one or more objects (alarm output) to link. Click to delete unneeded objects, or click **Copy To** to copy trigger actions and apply them to other alarm sources (see Copy Trigger Action Configuration).



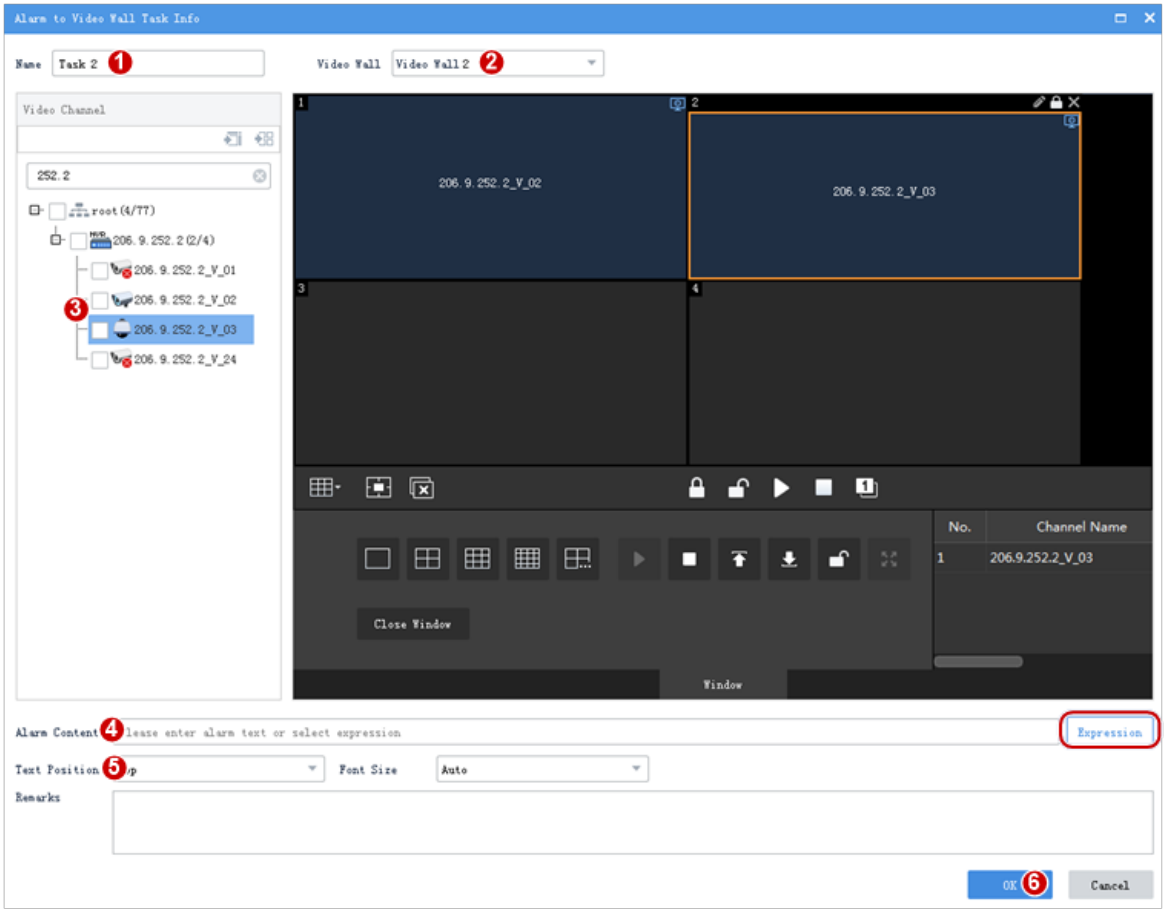
8.4 Create an Alarm Plan to Trigger Alarm on Video Wall

Create an alarm plan so that the video wall starts playing live video from the linked camera when an alarm occurs.

8.4.1 Create an Alarm to Video Wall Task

Note:
Configure video wall first (see Add a Video Wall).

Click **Alarm Configuration** > **Alarm to Video Wall Task**, click **Add** to add an alarm to video wall task. The video wall displayed may vary with the decoding device you are using. The figure below is an example.

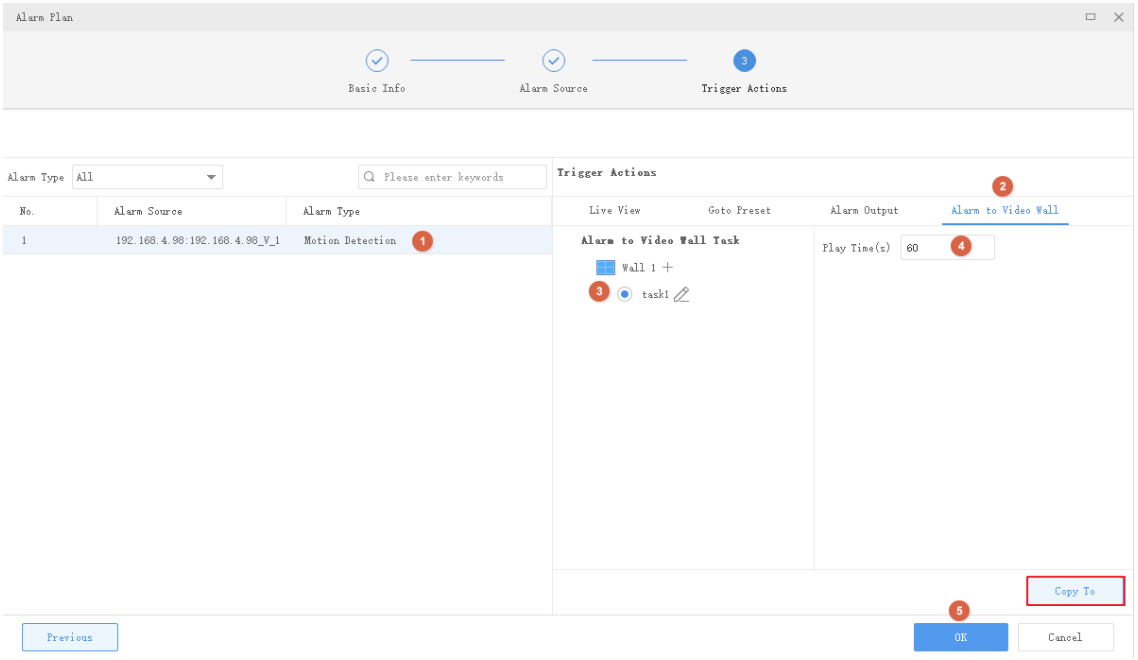


Note:

- Step 2 specifies a video wall. For video wall operations, see Video Wall.
- Step 3 specifies the linked video channel and window or split window on the video wall.
- Step 4 sets alarm contents. You can enter contents in the text box, or click **Expression** and then set a contents template.

8.4.2 Configure Alarm to Video Wall

1. Complete the basic information for the alarm plan. Set one or more alarm sources and the corresponding alarm types. See Step 1 and 2 in Create an Alarm Plan to Trigger Live Video for details.
2. Configure alarm to video wall.



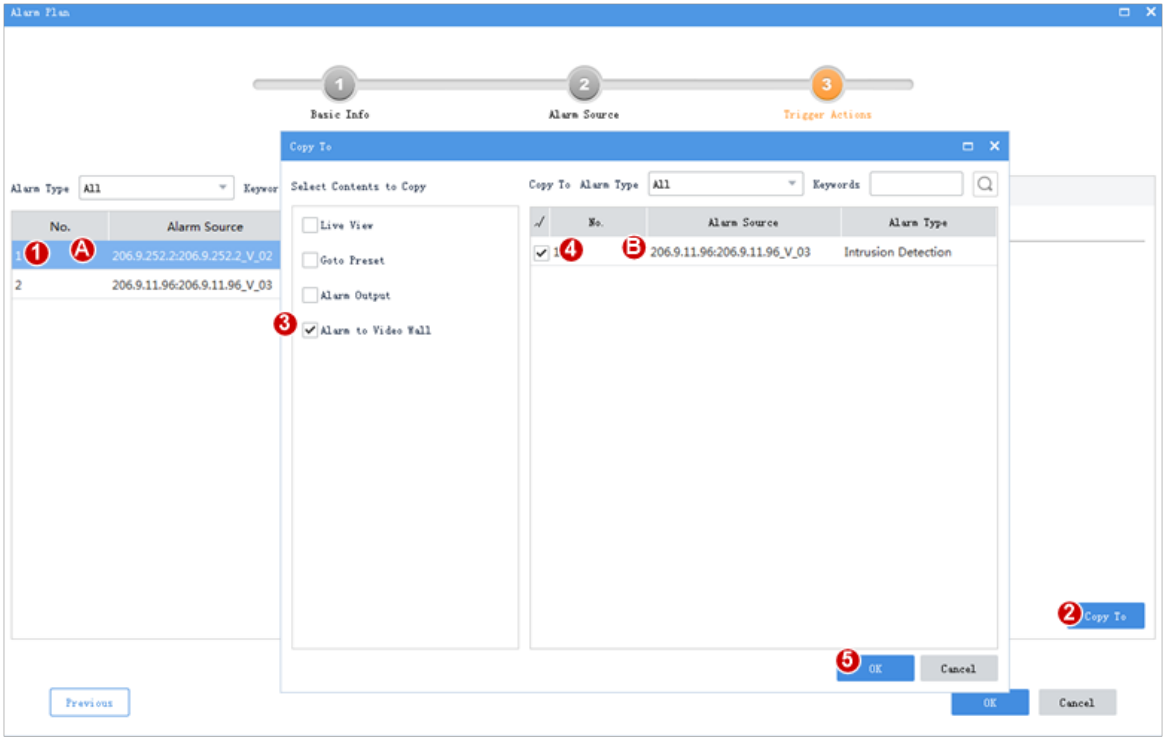
Note:

- Step 3 specifies the task.
- If an alarm occurs when video is playing on a video wall, the video will be replaced by the alarm video and resumes when the set play time is over.
- Click **Copy To** to copy trigger actions and apply them to other alarm sources (see Copy Trigger Action Configuration).
- If a video wall is used by several alarm-to-video-wall tasks, the succeeding alarm video replaces the preceding, and the play time resumes from 0 when the succeeding video starts on the video wall.
- Closing the client software does not affect alarm video playing on the video wall.
- Alarm video playing on the video wall can be replaced by live or recorded video played manually.
- When the alarm type is one of the following: Video Lost, Motion Detection, Tampering Detection, Audio Detection, Defocus Detection, Auto Tracking, High Temperature, Low Temperature, Fan Failure, LED Distribution Box High Temperature, LED Distribution Box Smoke, Elevator Entrance Detection, Alarm Input, Crowd Density Minor/Major/Critical Alarm, the set Play Time is the length of time that video plays after the alarm is ended. For example, the Play Time is set to 20s for a video lost alarm. When a video lost alarm is reported, alarm video starts to play on the video wall, and it stops 20s after the video lost alarm is ended.

8.5 Copy Trigger Action Configuration

After you finish the configuration of alarm-triggered actions (also known as trigger actions) for an alarm source, you can copy these trigger actions and apply them to other alarm sources without repeating configuration for each alarm source one by one.

For example: Copy the Alarm to Video Wall action configured for alarm source A to alarm source B.



9 Alarm Center

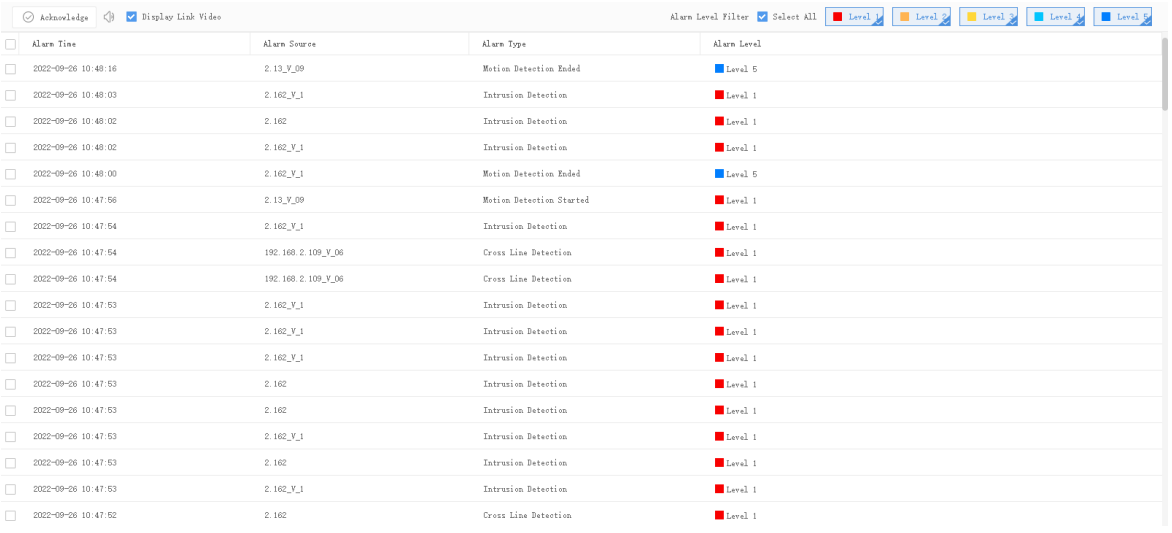
Alarm center supports centralized management of alarms from all the monitoring devices and third-party alarm controllers connected to the VMS, allowing you to view exceptions of monitoring devices, VMS, and events detected in videos.

This function includes the latest alarms, device history alarms, and server history alarms.

9.1 Latest Alarms

View the latest alarms on the **Latest Alarm** tab. Alarms refresh automatically. Select alarms (or click to select all) and then click **Acknowledge** to acknowledge the selected alarms. Acknowledged alarms disappear from the list and can be retrieved on the **Device History Alarm** tab.

Select alarm level(s) to display alarms of certain levels only.



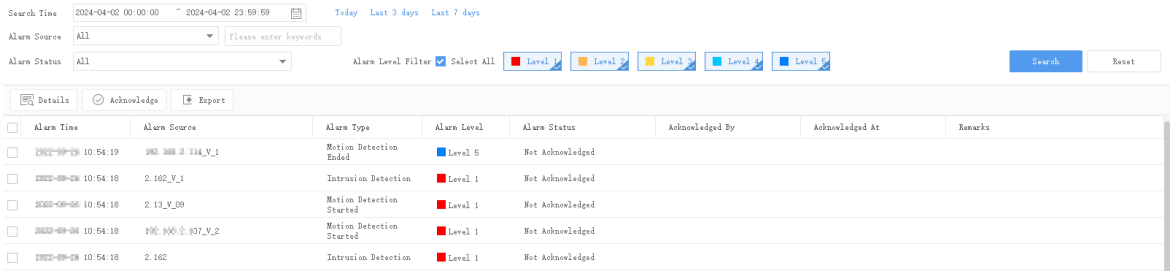
You may also click (**Latest Alarm** button) in the lower left corner to view latest alarms. And enable or disable **Display Link Video** as needed.

9.2 Device History Alarm

Search history alarms of devices on the **Device History Alarm** tab. You can view alarm details, acknowledge alarms, or export search results.

Note:
For **Alarm Source**, when selecting **All**, you can search for alarm sources by keywords (supports fuzzy matching); when selecting a specific type, you can specify the alarm source and select the alarm type.

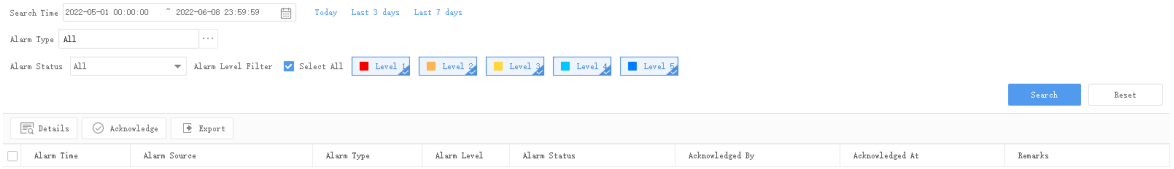
All device alarms can be retrieved but not necessarily in real time.



9.3 System History Alarm

Search history alarms of the VMS on the **System History Alarm** tab. You can view alarm details, acknowledge alarms, or export search results.

All VMS alarms can be retrieved but not necessarily in real time.



10 Resource Management

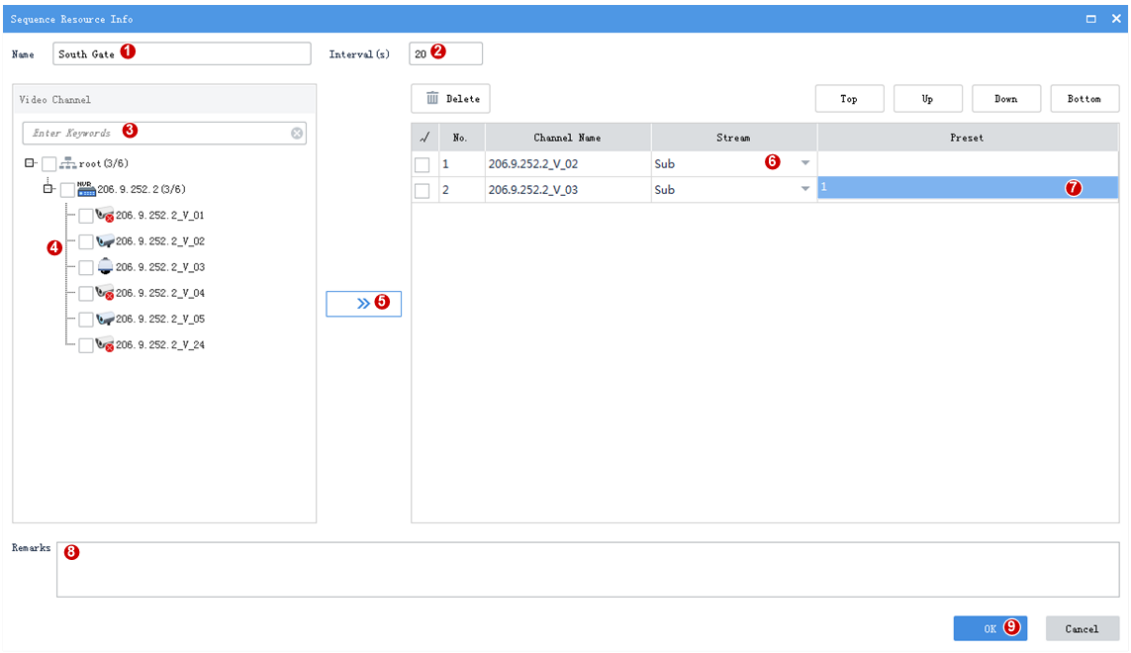
Manage sequence resources, views, and view sequences. You can configure sequence resources, views, and view sequence in advance so that they are ready when you need them.

For example, if you create a view in advance to be played on a large screen at night, you can play it with one-click at night without repeated confirmation. It can be widely used in various scenarios such as park monitoring centers and enterprise display screens.

10.1 Sequence Resource

Select and arrange cameras in certain order as a group for use in live view and video wall.

1. Click the **Sequence Resource** tab, click **Add**, and then follow the steps to create a sequence resource.



2. Enter the resource name.
3. Set the time interval at which a cameras switches to the next.
4. (Optional) Enter keywords to filter cameras.
5. Select cameras.
6. Click » . The selected cameras are added to the list. Click **Top**, **Up**, **Down** or **Bottom** buttons to adjust the order.
7. Select a stream type. The stream type available may vary with camera. An unsupported stream type (e.g., MJPEG video stream) is not displayed.
8. Select presets (only applicable to PTZ cameras with configured presets).
9. (Optional) Enter a description of the sequence resource.
10. Click **OK**.

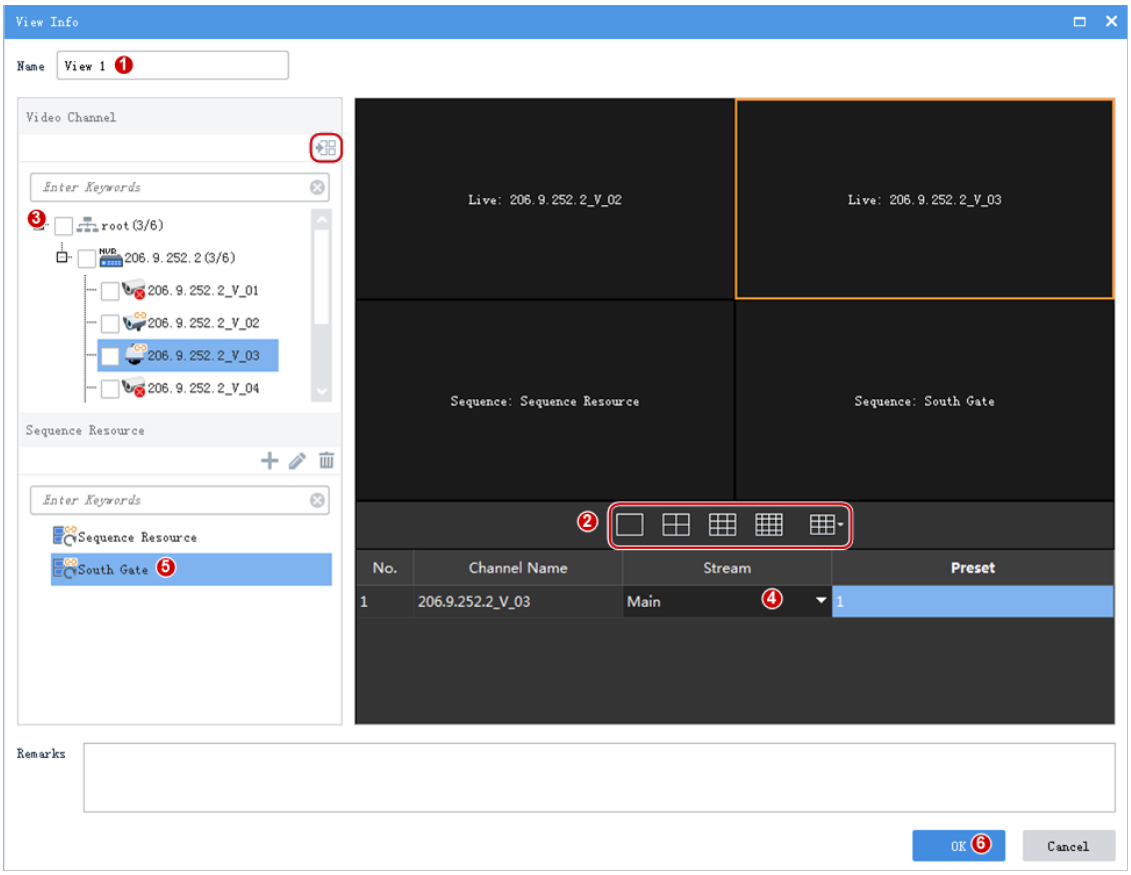
Note:
New sequence resources are enabled by default and displayed in the View and Video Wall modules. For more information about how to use sequence resource, see View and Video Wall.

10.2 View

Manage views, including the screen layout (how many windows and how they display) and binding cameras or sequence resources. The created view appears on the **View** list on the **Live View** page. You can start live view and sequence by clicking the **Play** button.

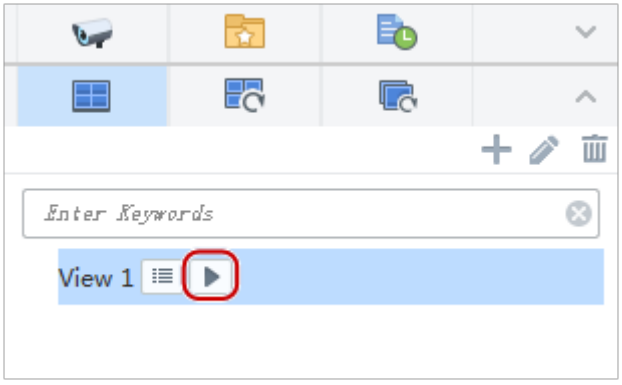
Note:
If the view you want to create will use a sequence resource, you need to configure the sequence resource first (see Sequence Resource).

1. Click the **View** tab, click **Add**, and then follow the steps to create a view.



2. Enter the view name.
3. Choose a screen layout.
4. Drag cameras to intended windows one by one to complete binding; or click to specify a window, select the cameras, and then click . If binding is successful, the service name (e.g., Live) and camera name appears at the window center, and a link flag appears on the camera name on the left.
5. Select a stream type. The stream type available may vary with camera. An unsupported stream type (e.g., MJPEG video stream) is not displayed. Select a preset (only application to PTZ cameras with configured presets).
6. Drag sequence resources to intended windows to complete binding. If binding is successful, the service name (Sequence) and sequence resource name appears at the window center, and a link flag appears on the sequence resource name on the left.
7. (Optional) Enter a description of the view.
8. Click **OK**.

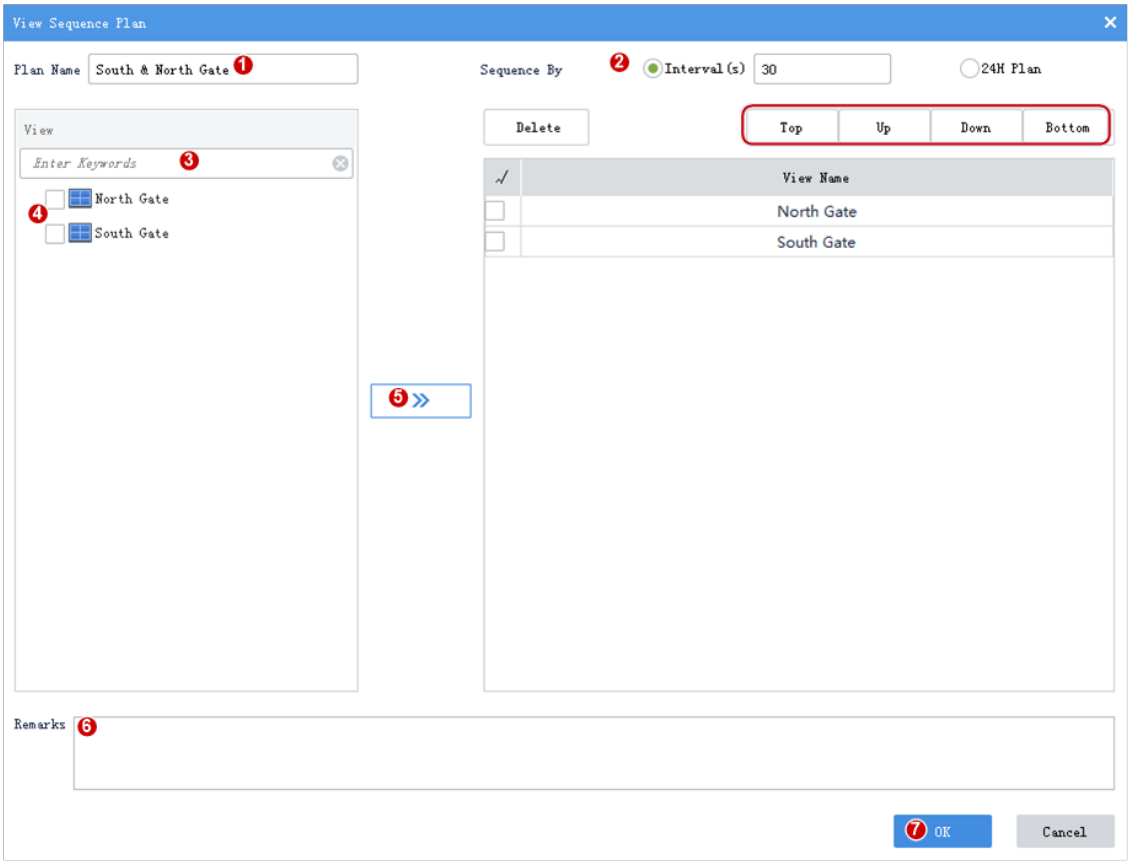
The created view appears on the **View** tab on the **Live View** page. Click the **Play** button ( ) to start the view.



10.3 View Sequence

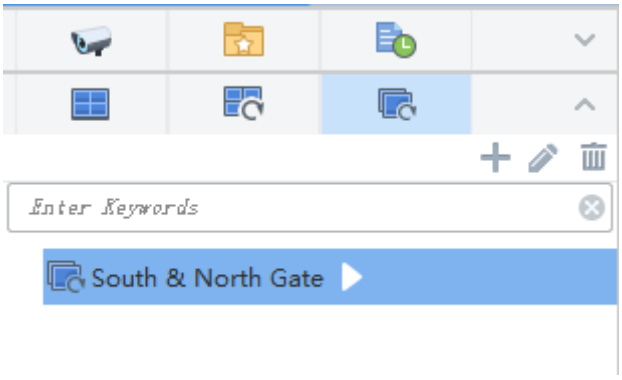
Select and arrange views in certain order as a group for use in live view and video wall.

1. Click the **View Sequence** tab, click **Add**, and then follow the stepsto create a view sequence.



2. Enter the plan name.
3. Set to sequence by a set interval or a 24H plan. For a 24H plan, you need to set a start time for each view.
4. (Optional) Enter keywords to filter views.
5. Select views.
6. Click » . The selected views are added to the list. Click **Top**, **Up**, **Down** or **Bottom** buttons to adjust the order.
7. (Optional) Enter a description of the view sequence.
8. Click **OK**.

The created view sequence appears on the **View Sequence** tab on the **Live View** page. Click the **Play** button ( ) to start the view sequence.



11 People Counting

This function can count the number of people entered/left/present, recognize the direction, monitor crowd density in real time, and export report. It provides data support for the relevant managers to make scientific decisions, such as evacuation measures.

The function includes realtime statistics (people flow counting and crowd density monitoring) and report statistics (people flow counting).

Note:
The IPC should support people counting, or be connected via an NVR that supports people counting to the VMS.

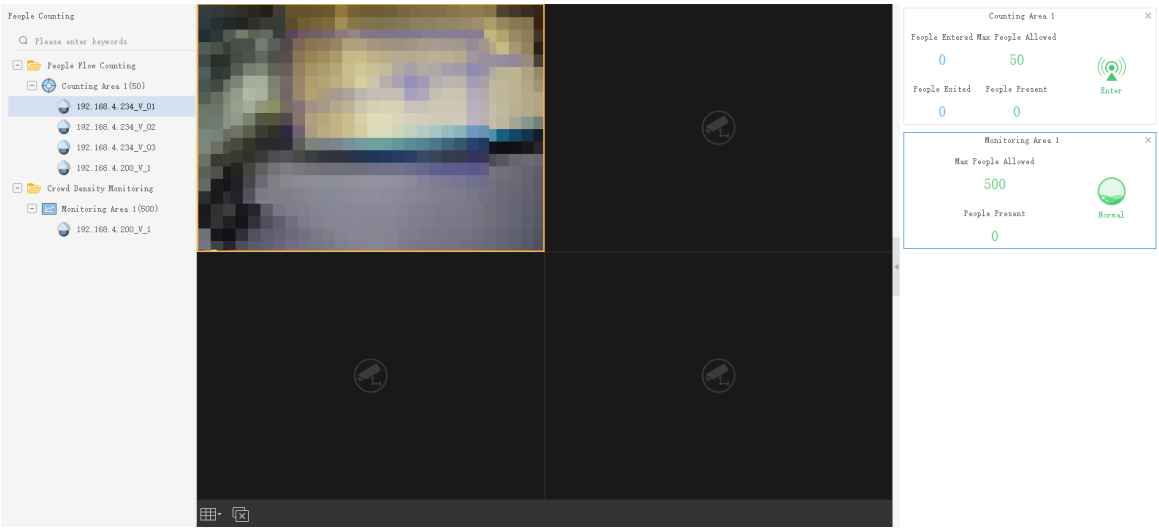
- **Realtime Statistics**: Display counting results in real time for selected areas and update statistics.
- **Report Statistics**: Display statistics according to query conditions in the form of bar chart or line chart and export report. This feature is only available for people flow counting.

11.1 Realtime Statistics

Click **People Counting** on **Control Panel**. On the **Realtime Statistics** tab, double-click a camera to start the live video.

Statistics include:

- People flow counting: You can choose several channels to form a counting area. Counting results include the numbers of people come in to, out from, and remain in the specified detection area. You need to enable people flow counting and configure the detection area on the NVR or IPC in advance.
- Crowd density monitoring: Count the number of people in the current area, and count each channel separately. You need to enable crowd density monitoring and configure the detection area on the IPC in advance. This feature is not supported if the IPC has been connected to an NVR.



Place your mouse pointer next to the People Flow Counting folder or the People Density Monitoring folder on the left-side tree. Click + to add a detection area, select a channel and set an alarm threshold.

Hover the mouse cursor on the counting area:

- Click to start people flow counting/crowd density monitoring, and then the results appear on the right side.
- Click to modify the area name, alarm threshold, and channel.
- Click to delete the area.

Note:
Live view and realtime statistics stop automatically when you close the **People Counting** page or log out of the system.

11.2 Report Statistics

Click the **Report Statistics** tab. Select camera(s) and then click Today Last 7 days Last 30 days ; or set conditions first:

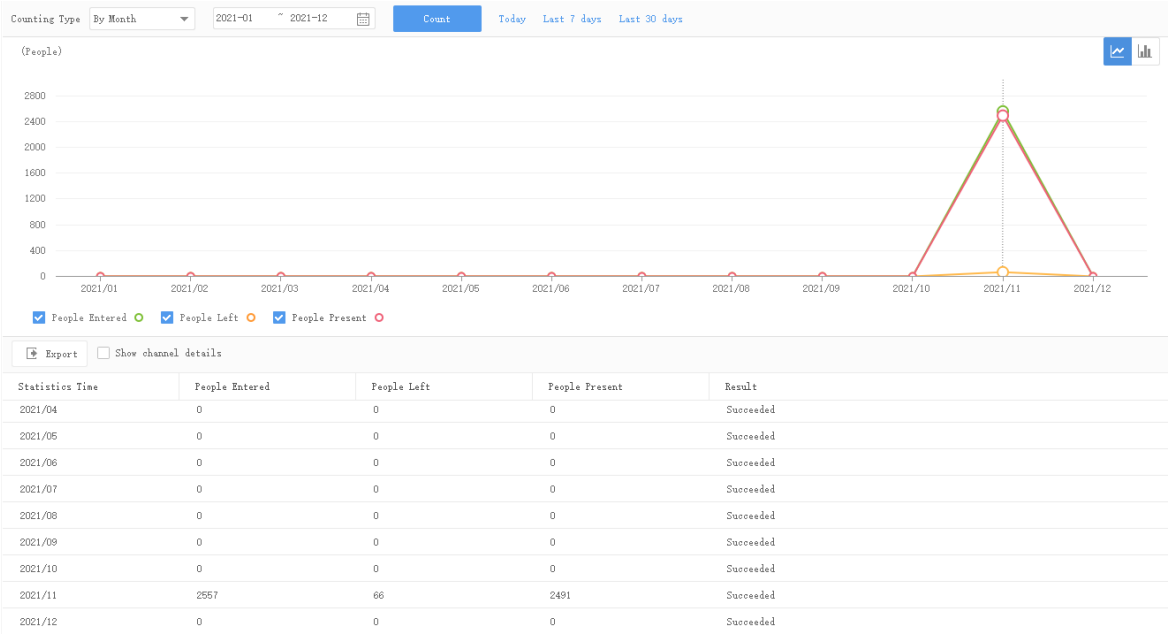
- Counting type, e.g., counting by hour.
- Set a time period by selecting on the calendar or typing manually.
- Count people entered and/or left by selecting

  People Entered People Left People Present .
- Display results with a line chart or a bar chart by clicking .

Note:

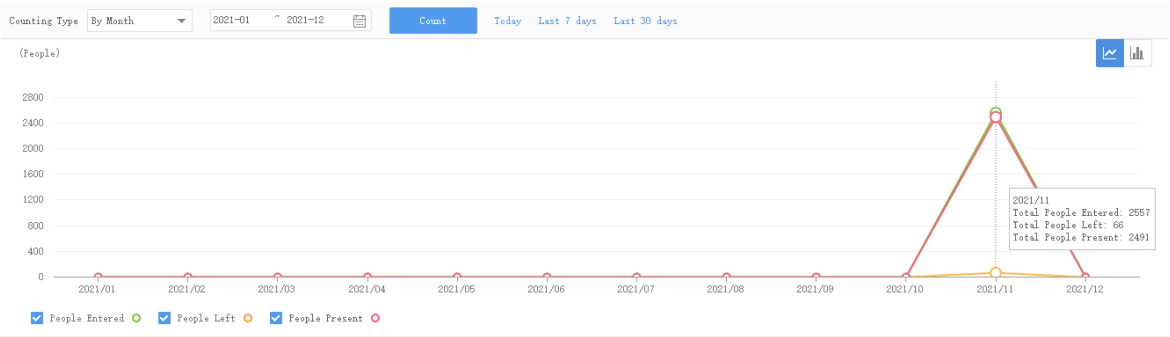
- The maximum time period is 60 time units depending on the counting type you choose; for example, 60 months when counting by month, and 60 days when counting by day, etc.
- This feature is only available for people flow counting.

Click **Count**. Results are displayed. For example:



Statistics Time	People Entered	People Left	People Present	Result
2021/04	0	0	0	Succeeded
2021/05	0	0	0	Succeeded
2021/06	0	0	0	Succeeded
2021/07	0	0	0	Succeeded
2021/08	0	0	0	Succeeded
2021/09	0	0	0	Succeeded
2021/10	0	0	0	Succeeded
2021/11	2557	66	2491	Succeeded
2021/12	0	0	0	Succeeded

You may view statistics of a certain time point by hovering the mouse pointer on the chart.



Click **Export** to export statistics to a USB storage device.

12 Alarm Control Panel

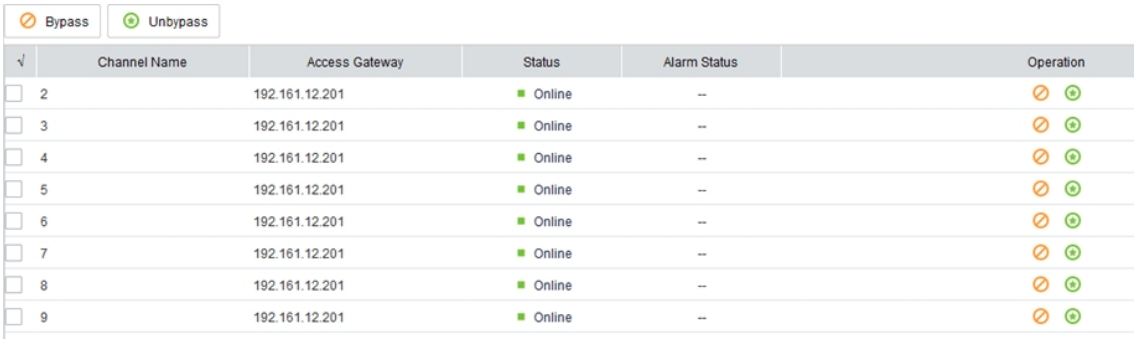
Third-party alarm control panels can be connected and report alarms to the VMS.

You can receive and manage alarms from third-party alarm control panels and perform operations for third-party devices, such as arming/disarming a partition and bypassing a zone. It avoids repeated switching between multiple platforms, improving efficiency.

Click **Alarm Control Panel** on **Control Panel**. The **Alarm Control Panel** page is displayed with two tabs: **Partition** and **Zone**.

- Partition: Arm or disarm partitions. When a detector is triggered in armed status, the alarm control panel will alarm and display it in the **Alarm Status** column.
- Zone: Bypass or unbypass zones under an alarm control panel. Bypassed zones are not protected.

1. To arm or disarm a partition, click the **Partition** tab, select partition(s) and then click **Arm** or **Disarm**.
2. To bypass or unbypass a zone, click the **Zone** tab, select zone(s) and then click **Bypass** or **Unbypass**.



13 Access Control

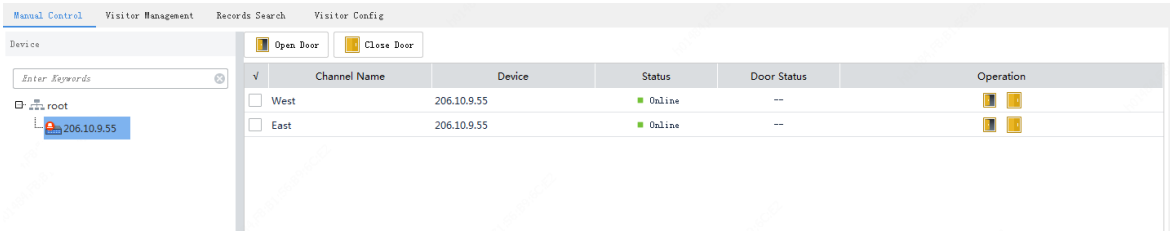
Manage the added access control devices and assign access permissions to specific persons. This function can authenticate personal identity, record visitors' basic information and access records, and staff attendance data. You can also add restricted persons to realize accurate access control.

In addition, you can open doors manually, manage visitors and monitoring tasks, and search access records.

13.1 Manual Control

Open or close doors on the software client.

Click an access controller or access control device. The doors are listed. Click the **Open Door** or **Close Door** button in the **Operation** column to open or close a door; or select multiple doors and then click the **Open Door** or **Close Door** button on the top to open or close doors in batches.



13.2 Visitor Management

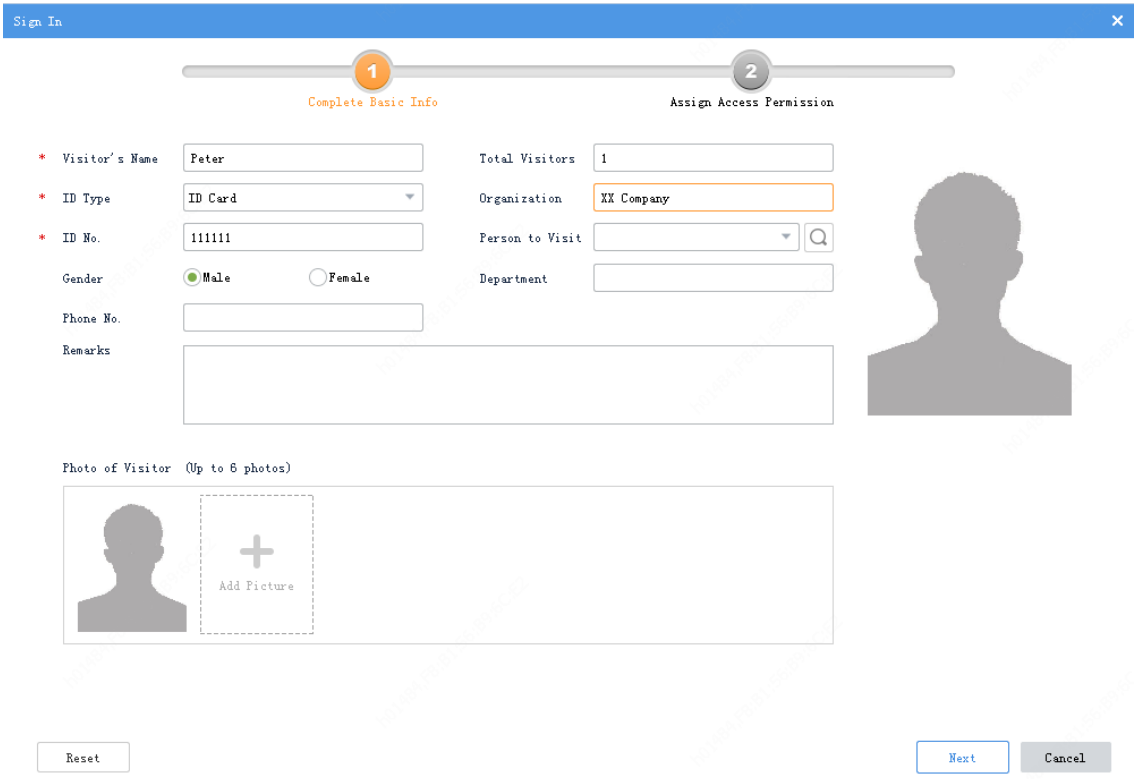
13.2.1 Visitor Information

Sign in or sign out visitors on the **Visitor Management** > **Visitor Information** tab.

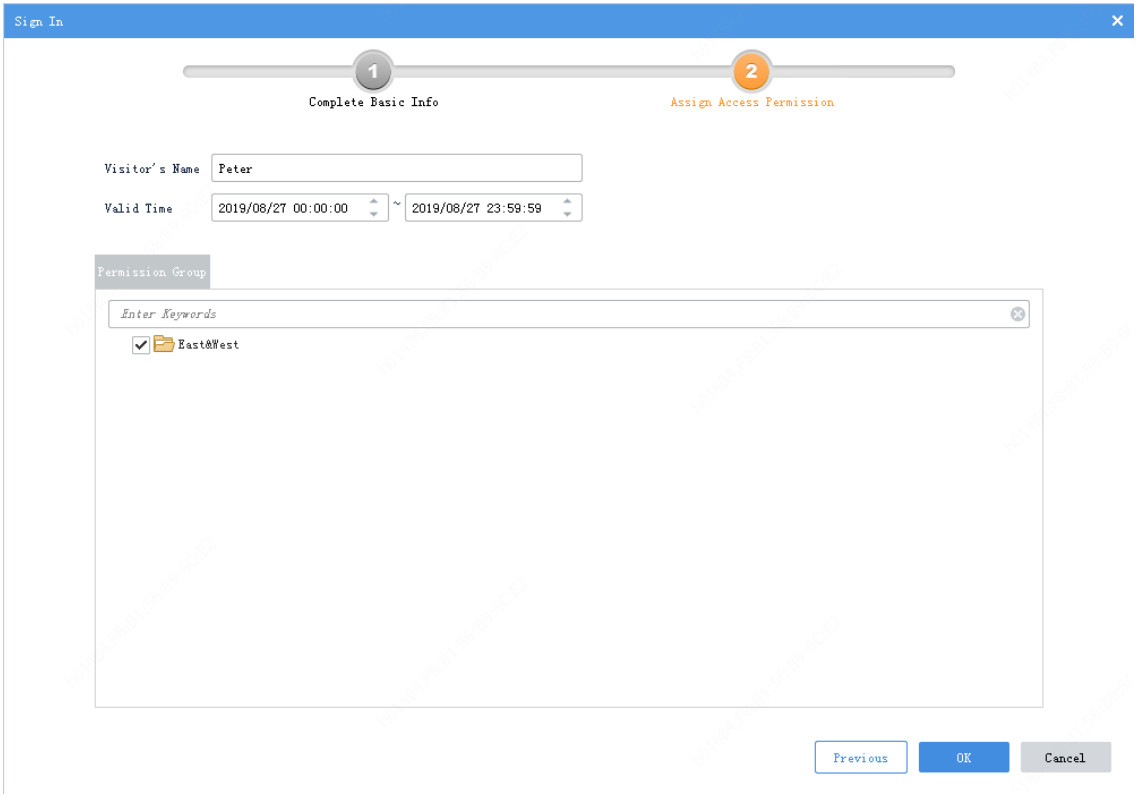
Sign In a Visitor

Register visitor information, assign access permission.

1. Click the **Sign In** button. Complete the required information.



2. Assign permissions to the visitor, including specifying a valid period and a permission group. The permission group can be configured in visitor permissions beforehand or by clicking **Add** in the top right corner. The valid period means when the assigned access permissions are effective. The actual effective time are determined together by the valid time set here and the time template applied. It is the intersection of the both.



3. Click **OK** to complete sign-in.
4. Click in the **Operation** column to check whether permissions are assigned successfully.

Sign Out a Visitor

Sign out a visitor after the visit completes. The visitor has no access permissions after being signed out.

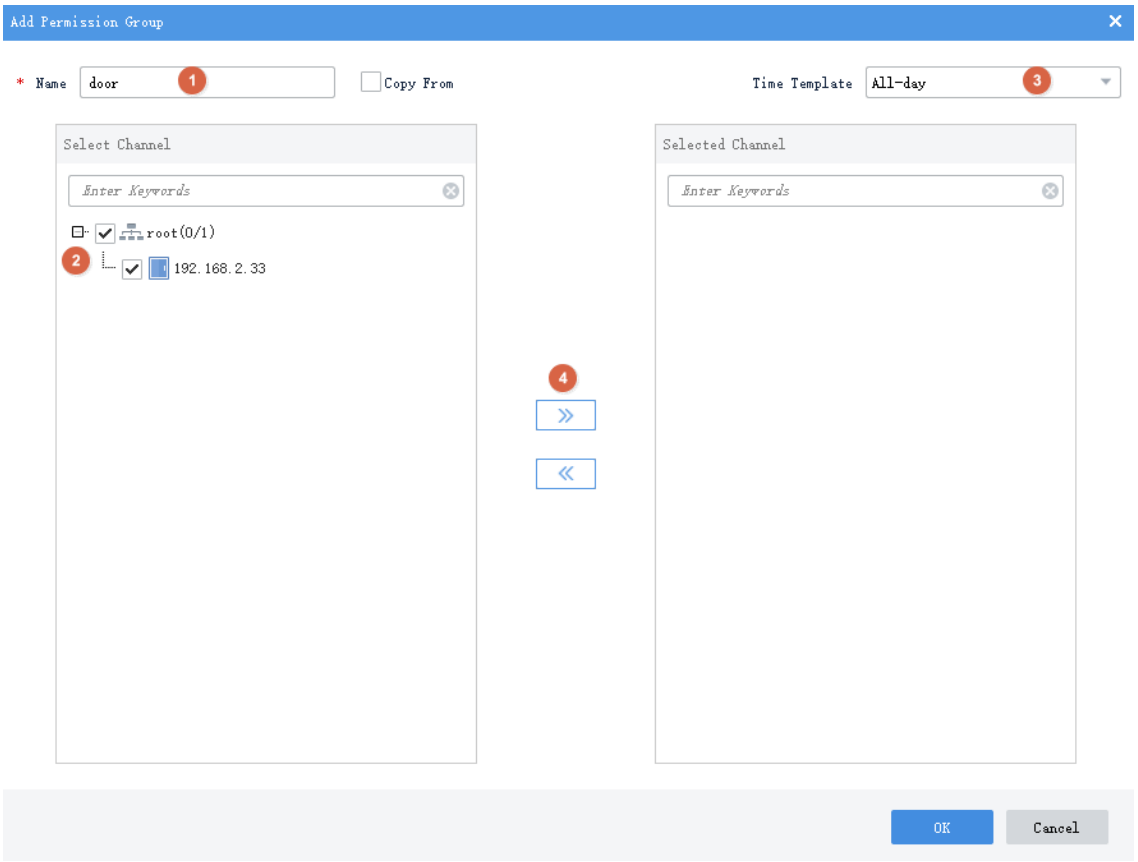
1. Search the visitor you want to sign out. Clicking **Search** without setting any conditions will list all visitors.
2. Select the visitor to sign out and then click **Sign Out**.

13.2.2 Visitor Permissions

Access Control > **Visitor Management** > **Visitor Permissions**

Add a permission group to be assigned to visitors.

1. Click **Add**. A page as shown in the figure below appears.
2. Enter the group name, select doors that you want to grant access, and select a time template.



Note:

- The time template needs to be created beforehand at the Web client under **Access Control** > **Permissions** > **Time Template**.
- Visitors have access permission only within the time period allowed by the time template.
- You can also create the new permission group based on an existing one by selecting the **Copy From** check box. Configurations will be copied from the existing permission group that you specify to the new permission group.

13.2.3 Restricted Person

Access Contro > **Visitor Management** > **Restricted Person**

Add restricted persons by inputting their ID information into the system.

1. Click **Add**. A page as shown in the figure below appears.
2. Select an ID type, enter the ID number.
3. Click **OK**.

13.3 Monitoring Management

Configure a blocklist and then add it to a monitoring task to deny access of visitors that are unwelcome.

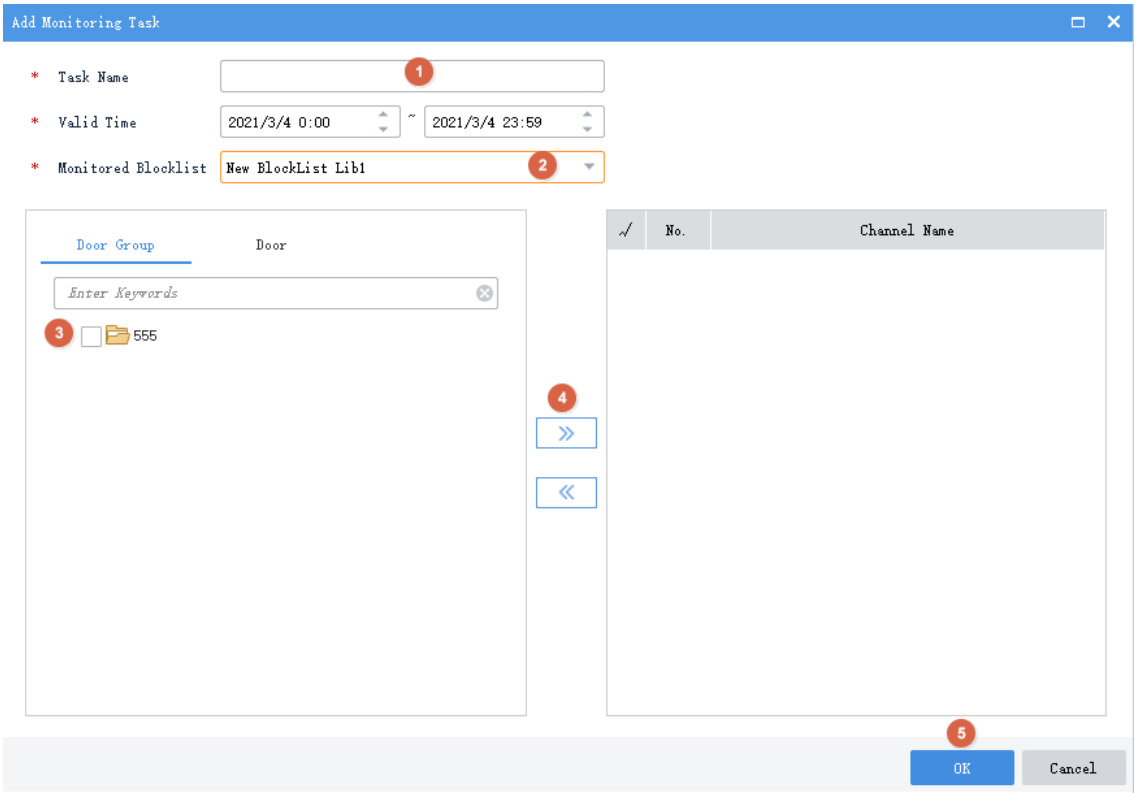
Add a Visitor to a Blocklist

Click **Monitoring Management** > **Blocklist**, choose a blocklist from in the list, enter the required information such as name, ID number to add the person to the blocklist. You also need to add the blocklist to a monitoring task in order to block persons on the blocklist.

Note:
Operations to add, delete or modify a blocklist library at **Door Access Control** > **Monitoring Management** > **Blocklist** will be synchronized to **Face Recognition** > **Face Library Management**.

Configure a Monitoring Task

1. Click **Add**.



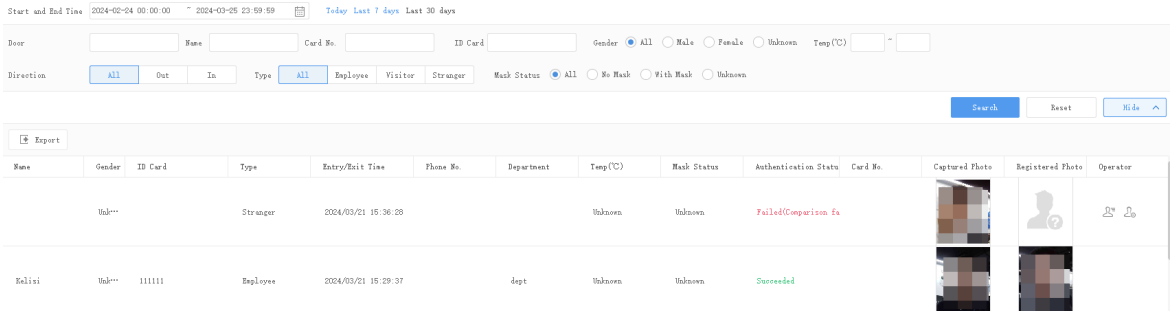
2. Enter the task name, set a valid period and monitored blocklist. The blocklist is configured in Add a Visitor to a Blocklist.
3. Set a permission group or specify doors separately.
4. Click **OK**.

13.4 Search Records

Search and export entry/exit records, search attendance statistics and blocklist alarm records on the **Records Search** tab.

Search Entry/Exit Records

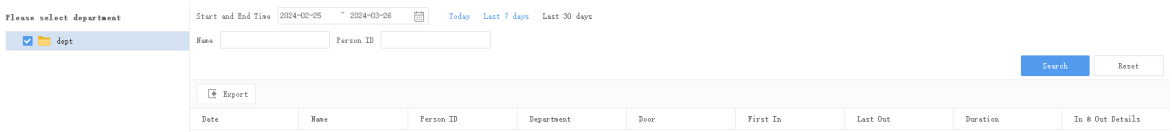
Search entry/exit records of a specified door during a certain period.



- Set a person as a visitor: Click in the **Operation** column, enter the required information such as name and ID number.
- Add a person to a blocklist: Click in the **Operation** column, choose the blocklist library, enter the required information such as name and ID number.
- Export Entry/Exit Records: Select the records to export, click Export , choose **Export Text** or **Text & Pic**. Search results will be exported to a CSV file.

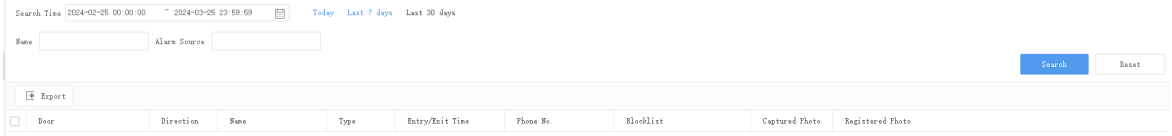
Search Attendance Statistics

Search a person's attendance records during a specified period.



Search Blocklist Alarm Records

Search blocklist alarm records generated during a specified period.



14 Face Recognition

The function compares the captured face snapshots with the face images added on the VMS. If the similarity reaches the set threshold, face is match, otherwise, face not match. The face match and not match alarms can be reported to the VMS and trigger actions.

You can use face library to manage different types of faces, and create monitoring tasks. For example, you can set match alarms for VIPs, the elderly, or children who need special attention or extra care; or set not match alarms for strangers. This function can also be used for identity authentication, attendance management, suspect identification, and so on.

You can also view realtime monitoring, alarm records, and pass-thru records.

Note:
Operation will fail when adding, modifying or deleting face libraries or monitoring tasks from different clients at the same time.

14.1 Face Library Management

Face library consists of face images and other face related information. By customizing face libraries, you can manage faces in different categories to meet different monitoring needs. First you create face libraries and then add face data to the libraries. Up to 125 custom libraries are allowed.

Create Face Library

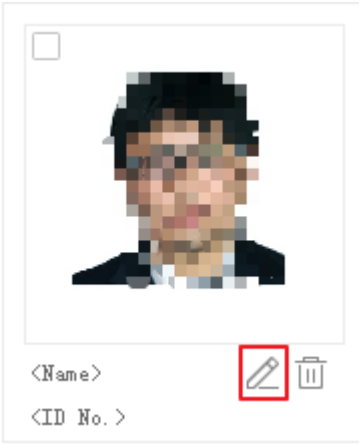
Click the add sign (+) in the face library tree on the left. To rename a library, click **Edit**.

Add Face Data

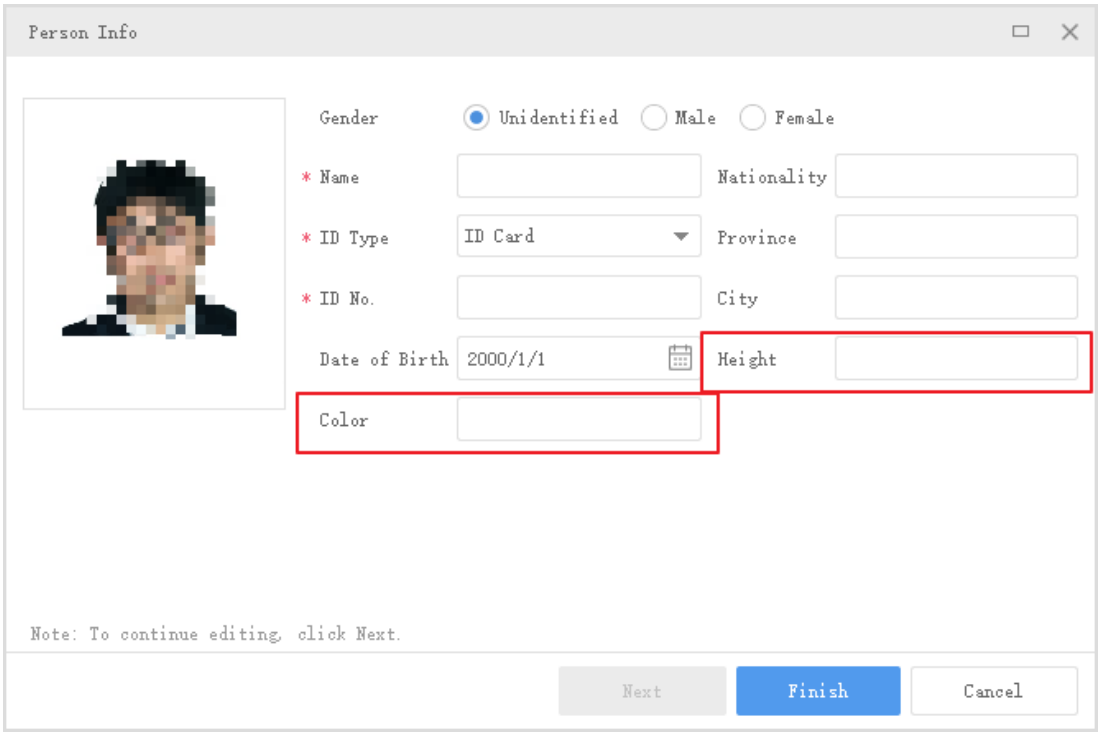
Add face data to a face library. There are many ways to add face data.

- **Option 1: Use Batch Add**

  1. Click the target face library on the left, and then click **Batch Add** on the right. The images to select must be JPG files and each must not be greater than 500KB.



  2. Click the edit button to enter person information. You can customize attributes such as height and color (see Customize Attributes).



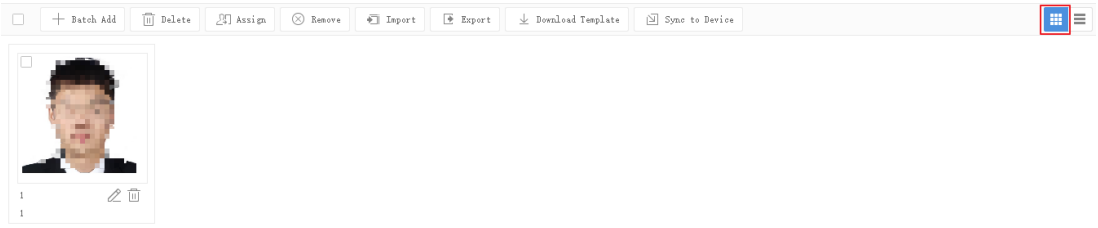
  3. Click **Next** to save and continue to the next, or click **Finish**.
  4. Click **OK** when you complete information for all the faces.

- **Option 2: Import a file containing face data**

Use this method if you have a file that contains the necessary face data. The file and its content must conform to the format, and each image must not be greater than 500KB.

Important:
If an ID number in the imported file already exists in the system, then the corresponding information in the system will be overwritten by the imported file.

1. Click **Import** and then select the file. The imported data appear in the list. You can click the button in the list's upper right corner to switch display mode.



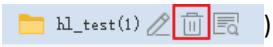
2. Edit or delete face data; click Export to save the face data in the current library to a CSV file.

Assign Faces

Assign faces to custom libraries that you specify. One face may belong to multiple face libraries at the same time.

- **Assign**
  Click a face library on the left, select face(s) on the right, click **Assign**, and then select one or multiple face libraries to assign the selected face(s) to. This operation is allowed in all the face libraries except the root library.
- **Remove**
  "Remove" is the reverse operation of "assign" and only works for faces that have already been assigned. This operation is allowed in custom libraries only.

Delete a Face Library

Click the delete button (e.g., 

). A prompt message appears. If the library you want to delete contains data, a second message appears, asking whether you also want to delete the data with the library. Choosing **Yes** will delete all the data with the library; choosing **No** will only delete the library and keep all the data in it. The default system library cannot be deleted. A library that is being used by a monitoring task cannot be deleted in this way.

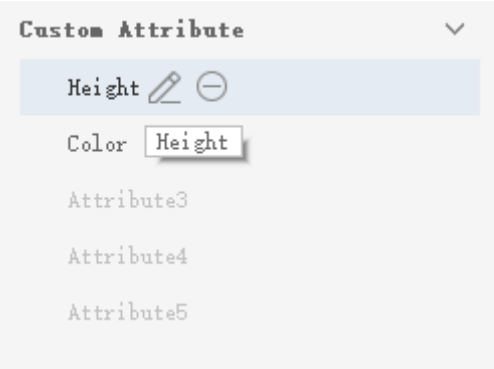
Sync to Devices

For smart devices that are connected to the VMS via the private protocol, you must sync images in a face library from the VMS to the devices before these images can be used for monitoring.

Select a face library on the left, click **Sync to Device**, select smart device(s), click **OK**. Face images in the face library will be synced to the smart device(s).

Customize Attributes

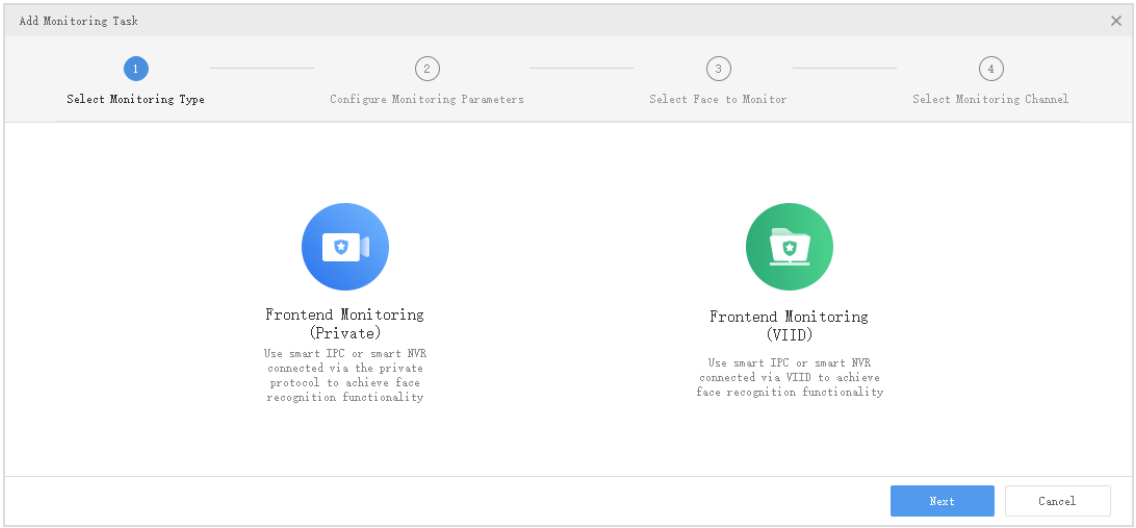
Customize face data attributes such as **Height**, **Color**. You need to enable the attribute(s) before they appear in person information.



14.2 Monitoring Task

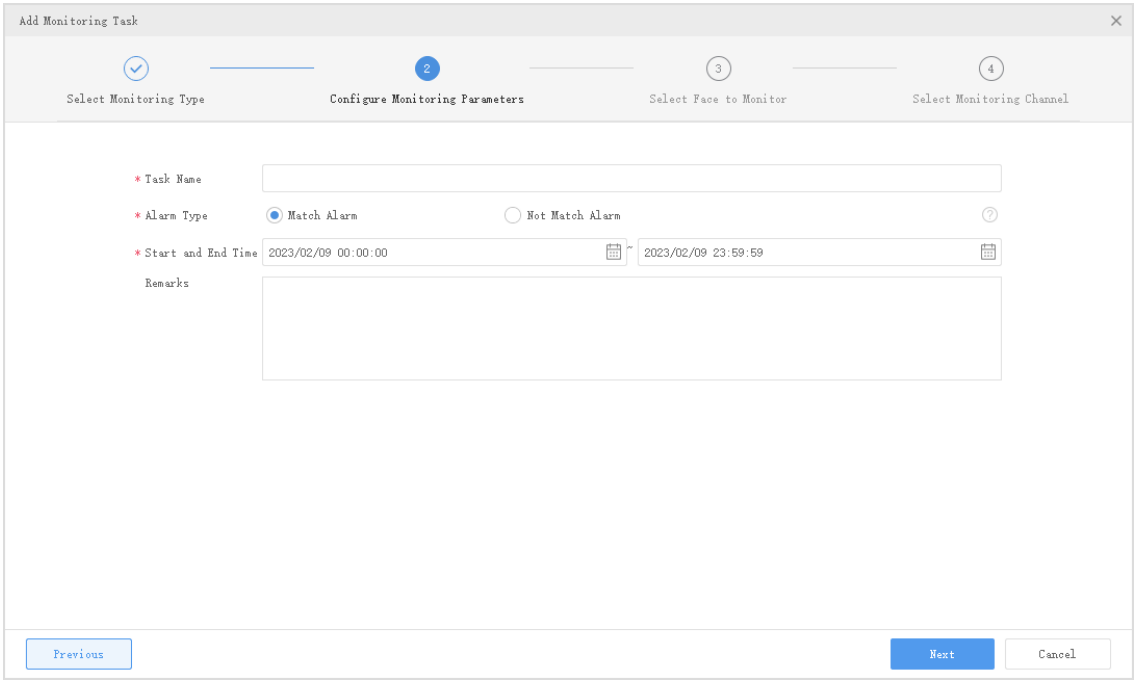
Use the created face libraries or imported faces for monitoring. The system compares the captured faces with the faces used for monitoring, analyzes, and reports alarms based on the monitoring type you set.

1. Click **Add** to create a monitoring task.
2. Choose a monitoring type according to the on-screen instructions

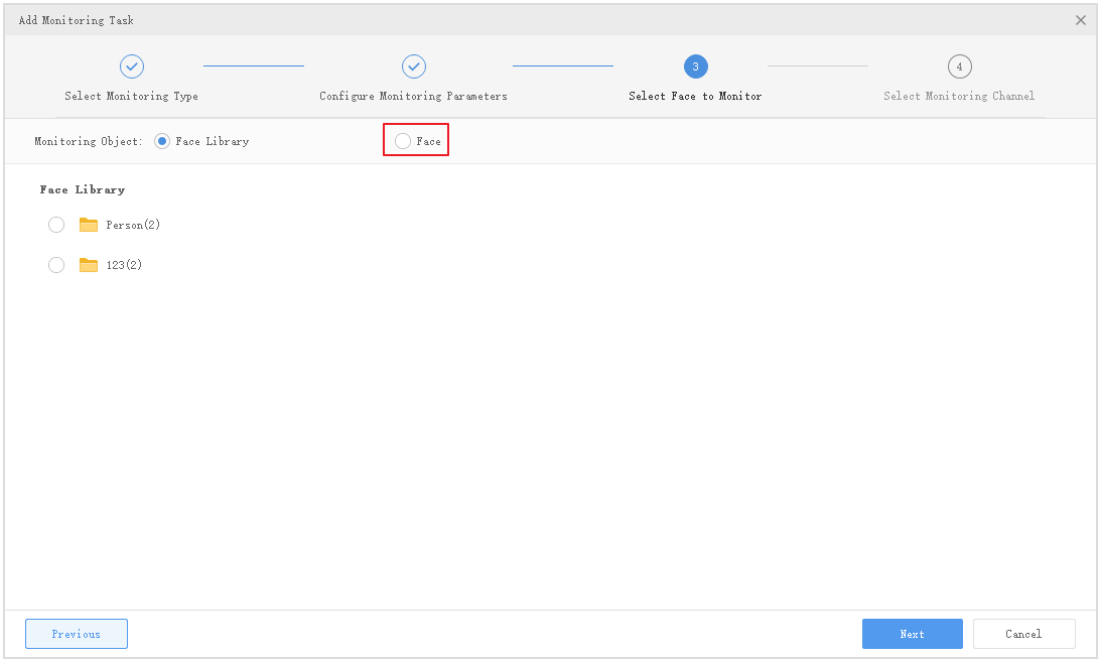


Note:
The configuration steps for frontend monitoring (Private or VIID) are similar. Here we take Frontend Monitoring (VIID) as an example.

3. Set task details.



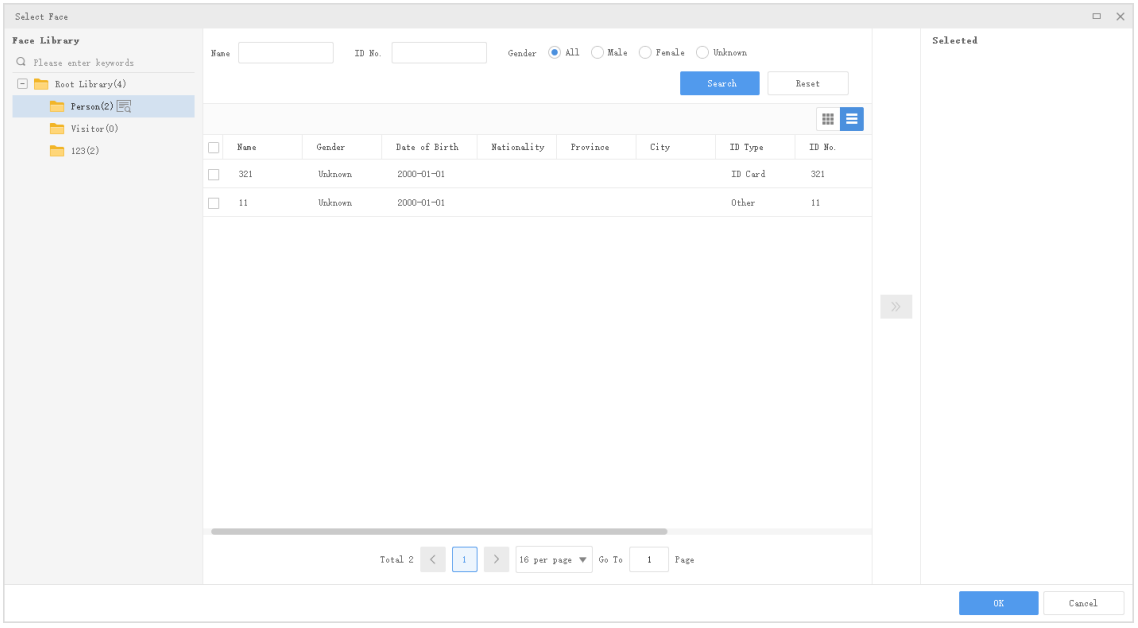
- Match Alarm: The system reports such an alarm when it finds a match in the library or among the selected faces with a captured face; for example, when the system identifies a VIP guest.
- Not Match alarm: The system reports such an alarm when it fails to find any match in the library or among the selected faces for a captured face, for example, when the system detects a stranger.
- Monitoring Object: Choose **Face Library** or **Face**. The selected face library or faces will be used for comparison with the faces captured by cameras. If you choose **Face Library**, one face library can be selected; if you choose **Face**, you can select up to 32 faces for this monitoring task. Take Face for example.



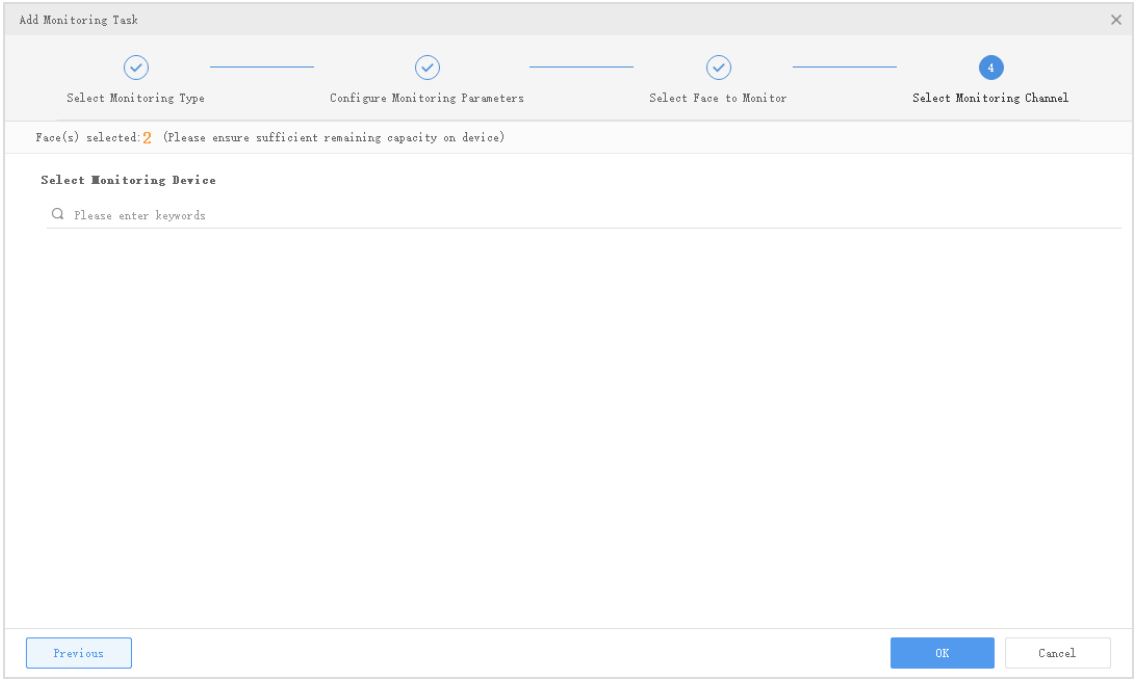
Note:

- For frontend monitoring (private), you can only choose a face library as the monitoring type.
- For frontend monitoring, you must sync the face library to the device(s) before the face library can be used for monitoring. See Sync to Device for details.

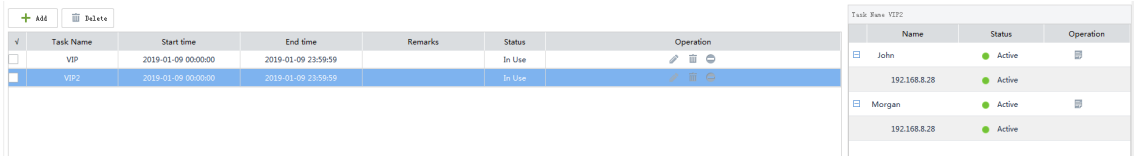
4. Select faces for the monitoring task. You may select from different libraries.



5. Select device(s) to be used for monitoring. Make sure the device(s) have sufficient capacity for this task; otherwise, the task will fail.



6. Click **OK**.
7. The newly created task appears in the list. You may click to view details.



14.3 Realtime Monitoring

View live images and snapshots of faces captured by specified cameras. View alarm records, including personal information, captured faces (snapshots) and faces saved in the system for monitoring. Filter alarm records by choosing **Current Camera(s)** from the drop-down list. Only alarm records related to the cameras you are playing will be displayed. In the **Snapshots** area on the right or on the **Not Match Alarm** tab on the bottom, place the mouse cursor on a snapshot. Click  , and then enter information including name and ID number. Click **Next**, select a face library and add the face to the face library.

15 LPR

LPR cameras can monitor passing-thru vehicles at road checkpoints in real time, record vehicle entry/exits, and automatically identify license plate number, vehicle color and so on.

Use this function to manage vehicle libraries, create monitoring tasks, and trigger vehicle match/not match alarms. For example, set match alarm for specific vehicles such as violation vehicles and suspect vehicles, and set not match alarm for unknown vehicles. It is widely applicable to toll stations, security checkpoints, and so on.

You can manage vehicle libraries, create monitoring tasks, and monitor the incoming and outgoing vehicles in real time.

Note:
Choose a type for monitoring.

- Front-end monitoring (private protocol): IPC-NVR-(private protocol)-VMS. Monitor by NVR.
- Front-end monitoring (VIID protocol): ① IPC-(VIID protocol)-VMS; ② IPC-NVR-(VIID protocol)-VMS. Monitor by VMS.

15.1 Vehicle Library Management

Vehicle library consists of vehicle images and other vehicle related information. By customizing vehicle libraries, you can manage vehicles in different categories to meet different monitoring tasks. First you create vehicle libraries and then add vehicle data to the libraries. Up to 15 custom libraries are allowed.

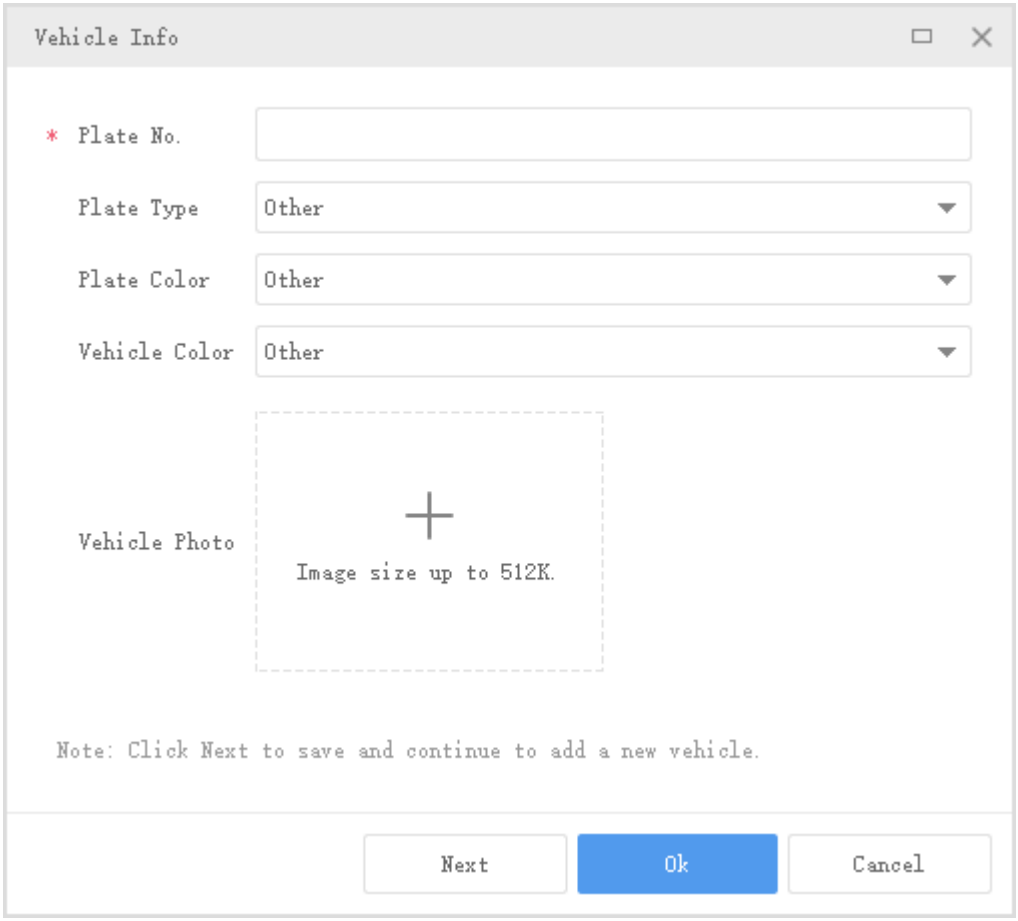
Create Vehicle Library

Click + in the vehicle library tree on the left. To rename a library, click **Edit**.

Add Data

Add vehicle data to a vehicle library. There are many ways to add vehicle data.

- **Option 1: Use Batch Add**
  Click the target vehicle library on the left, and then click **Batch Add** on the right. The vehicle photo is used to compare with vehicle snapshots. The images to select must be JPG files and each must not be greater than 512KB.



- **Option 2: Import a file containing vehicle data**
  Use this method if you have a file that contains the necessary vehicle data. The file and its content must conform to the format, and each image must not be greater than 512KB.
  Click **Import** and then select the file. The imported data appear in the list.

Assign Vehicles

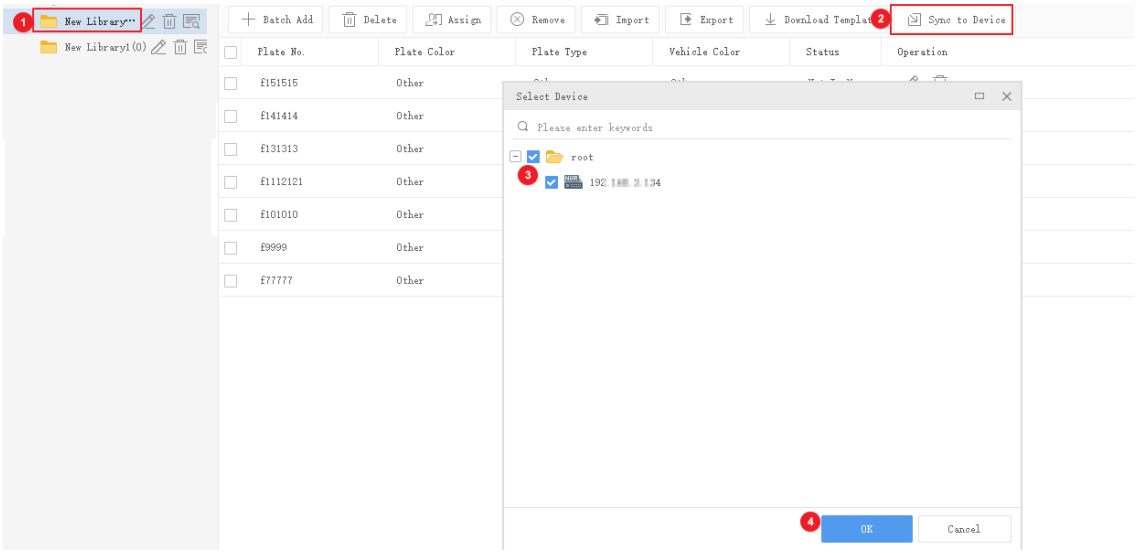
Assign vehicles from the root library to a library or libraries that you have created (known as custom libraries). One vehicle may belong to multiple vehicle libraries. The assign operation can only be done under the root library, and vehicles can only be assigned to libraries that are not in use for monitoring. To reassign a vehicle that has already been assigned to a custom library, you need to remove the vehicle from the custom library first.

- **Assign**
  Click the root library on the left, select the vehicle(s) on the right, and then click **Assign**. You can select one or more vehicle libraries.
- **Remove**
  "Remove" is the reverse operation of "assign" and only works for vehicles that have already been assigned. After being removed from custom libraries, the vehicles belong to the root library only and then can be reassigned.

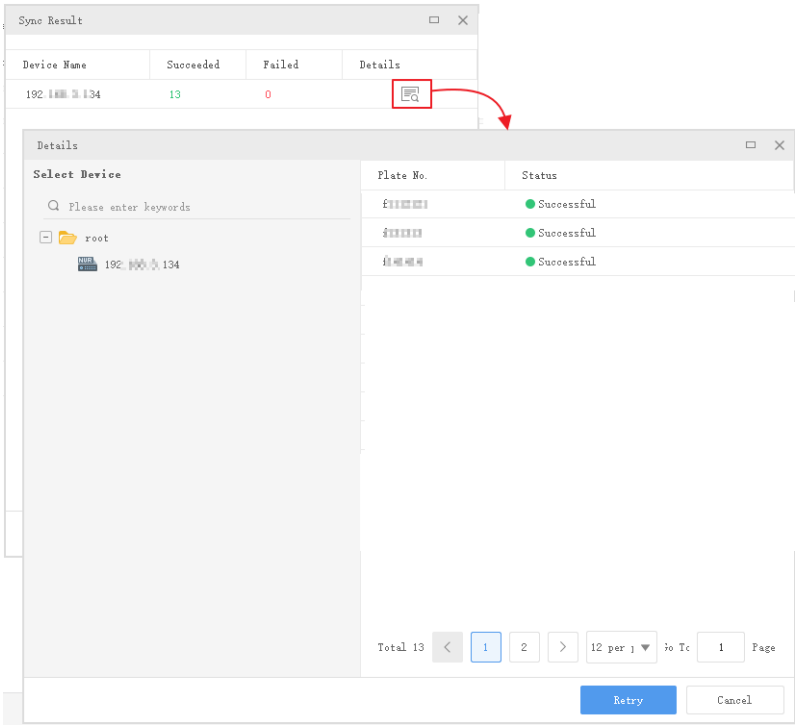
Sync to Device

Sync vehicle information to the NVR so that the NVR can perform monitoring tasks.

1. Select a vehicle library on the left, and click **Sync to Device**.



2. Select a target NVR.
3. Click **OK** to start syncing. The sync results will be displayed after the sync is completed.
4. On the **Sync Result** page, click to view the sync results. Click **Retry** to resync.



Delete a Vehicle Library

Click the delete button (e.g., 

). A prompt message appears. If the library you want to delete contains data, a second message appears, asking whether you also want to delete the data with the library. Choosing **Yes** will delete all the data with the library; choosing **No** will only delete the library and keep all the data in it. The default system library cannot be deleted. A library that is being used by a monitoring task cannot be deleted in this way.

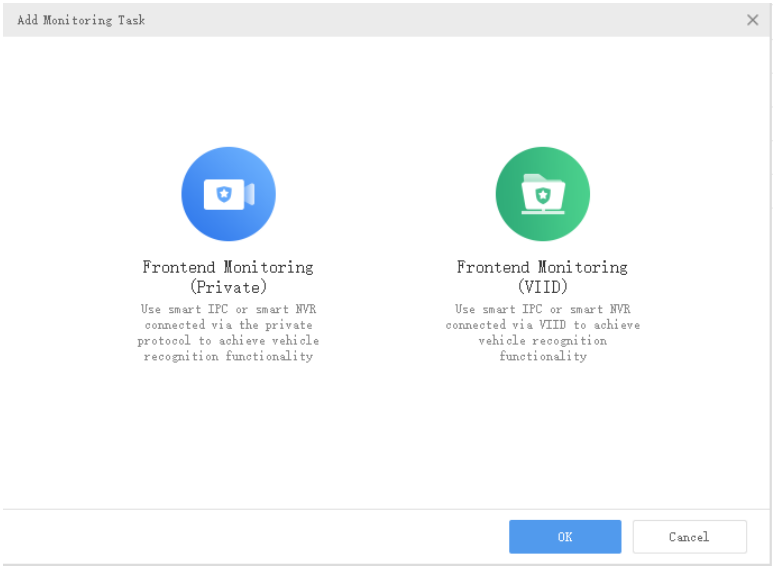
15.2 Monitoring Task

Use the created vehicle libraries or imported vehicles for monitoring. During the monitoring time, the system compares vehicle snapshots with the vehicles used for monitoring, analyzes, and reports alarms based on the monitoring type you set.

Note: See references in Monitoring Type。

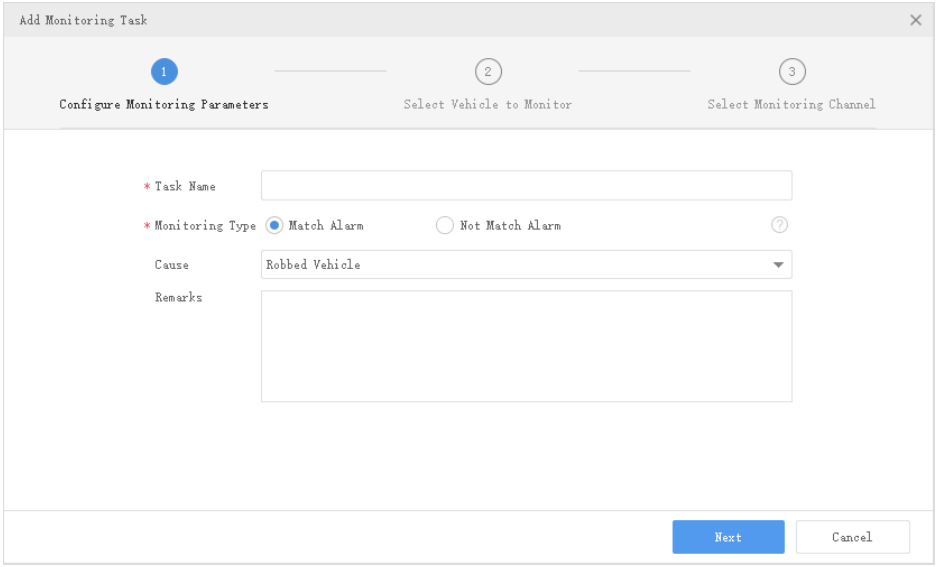
Add Monitoring Task

1. Click **Add** to create a monitoring task.
2. Choose a monitoring type according to the on-screen instructions.



Note:
The settings of the monitoring via the VIID protocol are similar to those via the private protocol. The following takes the front-end monitoring (private protocol) as an example.

3. Configure the monitoring task parameters.



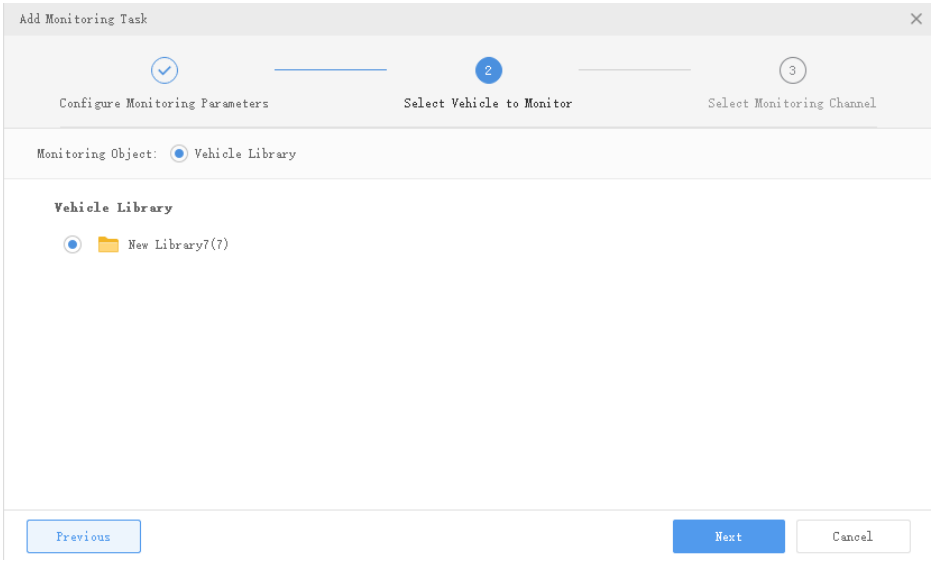
- Match Alarm: The system reports such an alarm when it finds a match in the library or among the selected vehicles for a captured vehicle; for example, when the system detects a vehicle on the wanted list.
- Not Match Alarm: The system reports such an alarm when it fails to find any match in the library or among the selected vehicles for a captured vehicle; for example, when the system detects an unknown vehicle.

4. Select the vehicle(s) to be monitored.

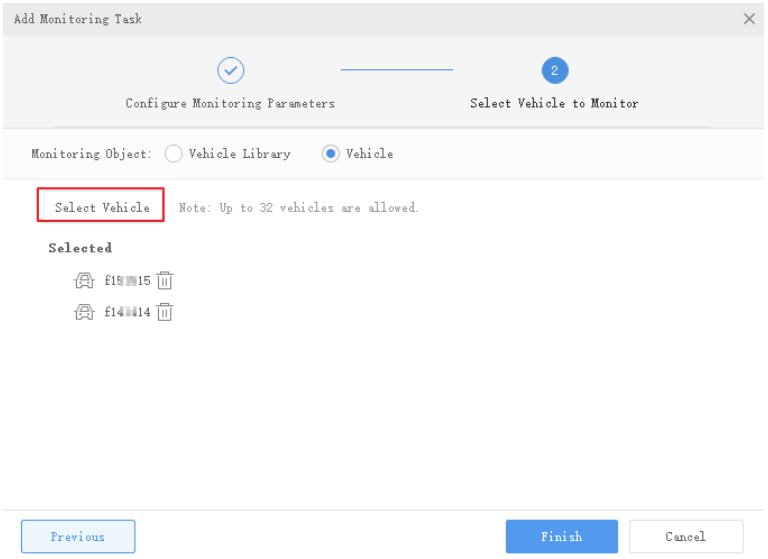
Note:

- The VIID protocol monitoring supports selecting a vehicle library or certain vehicles for monitoring; the private protocol only supports selecting an vehicle library for monitoring.
- Only the vehicle libraries that have been synced to device can be selected for the private protocol monitoring.

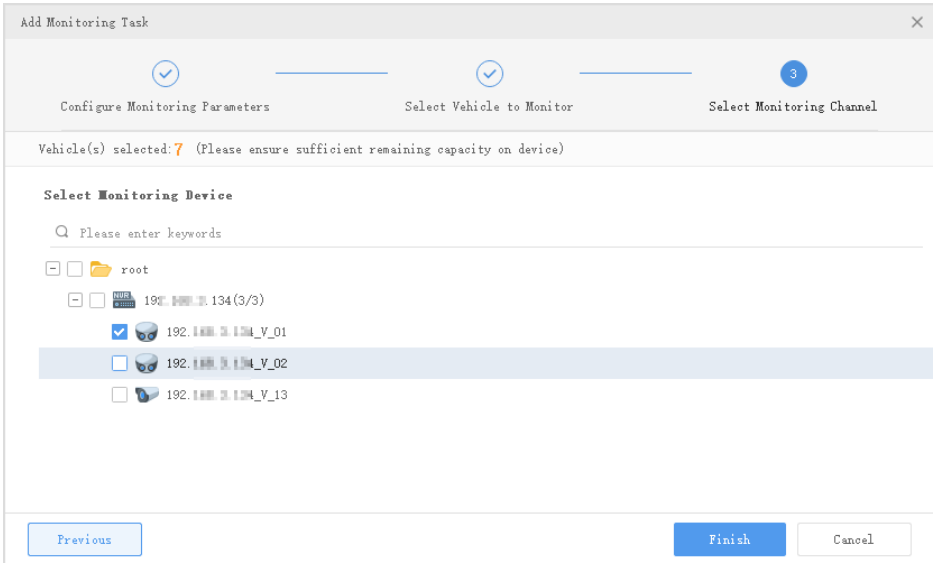
- Monitor by vehicle library: Select a vehicle library for monitoring.



- (For VIID protocol) Monitor by vehicle: Select the vehicle(s) to be monitored. Up to 32 vehicles are allowed.



5. (For private protocol) Select the monitoring channel. Make sure the number of device monitoring tasks does not reach the maximum limit. Otherwise, the monitoring may fail.



6. Click **Finish**, and the newly added task will be displayed in the monitoring task list.

Manage Monitoring Task

- Enable/disable: Click ▷/⊖ for the monitoring task to enable or disable it.
- Edit: Click ✎ for the monitoring task to edit the monitoring parameters.
- Delete: Select the monitoring task(s) to be deleted, and click **Delete**, or click 🗑 for the monitoring task.

15.3 Realtime Monitoring

You can view the real-time images and alarm records of the monitoring points.

Note:
The monitoring points include the LPR cameras and video channels of NVR.

1. Select a window, and then double-click a video channel on the left to view the live video of that channel in the window.
2. The real-time snapshot records are displayed on the left, including the vehicle pass-thru snapshots and vehicle plate images.
3. The match alarm/not match alarm result is displayed at the bottom of the page. You may also filter alarms by selecting **All Cameras** or **Current Camera(s)** from the drop-down box in the top right corner. When **Current Camera(s)** is selected, only the alarm records of the camera(s) that is currently playing the live video will be displayed.

16 Behavior Search

Behavior search uses the VMS or NVR to analyze moving objects such as pedestrians and vehicles in videos captured by cameras. Using search criteria such as alarm type, time, and object type, you can search alarm snapshots or alarm videos before and after an event and view attributes of the captured objects.

It supports central search (from VMS) and device search (from NVR).

Click **Behavior Search** on **Control Panel**. The behavior search page is displayed with two tabs:

- Center: Search the VMS for alarm data reported from NVR or IPC. Only smart devices connected via the private protocol can be displayed.
- Device: Search the NVR for the reported alarm data. Only encoding devices connected via the private protocol can be displayed.

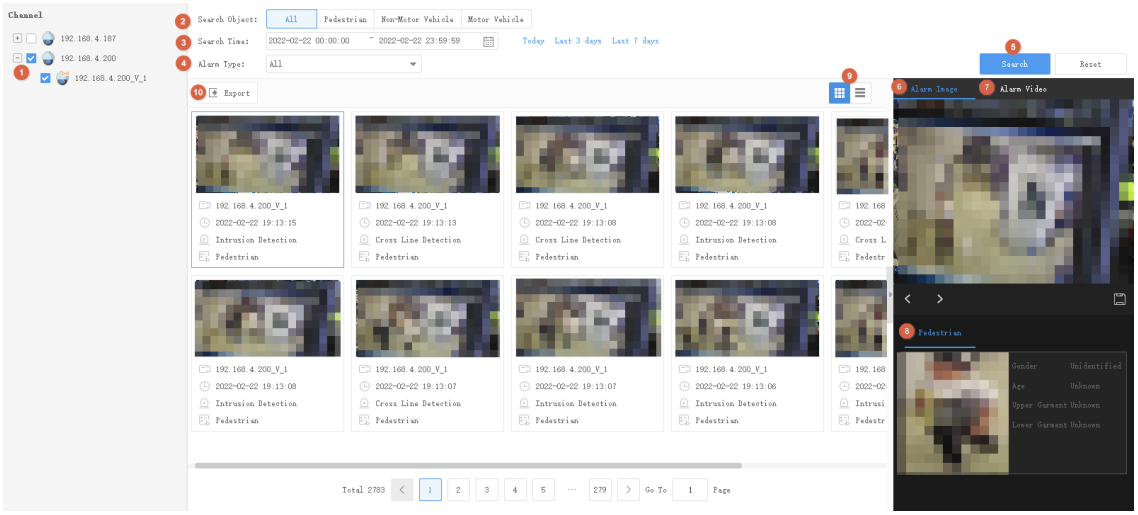
Note:

- Behavior search is only available on certain NVR/IPC devices, and perimeter protection should be configured before using this fearure. Please refer to the device's user manual for specific configuration.
- Make sure a hard disk is inserted in slot 1 of the VMS before searching alarm data from center.

16.1 Search on the Center

Search the VMS for alarm data reported from NVR or IPC. This feature supports five alarm types, including cross line detection, intrusion detection, enter area detection, leave area detection, and ultra motion detection.

1. Follow the steps as illustrated on the image.



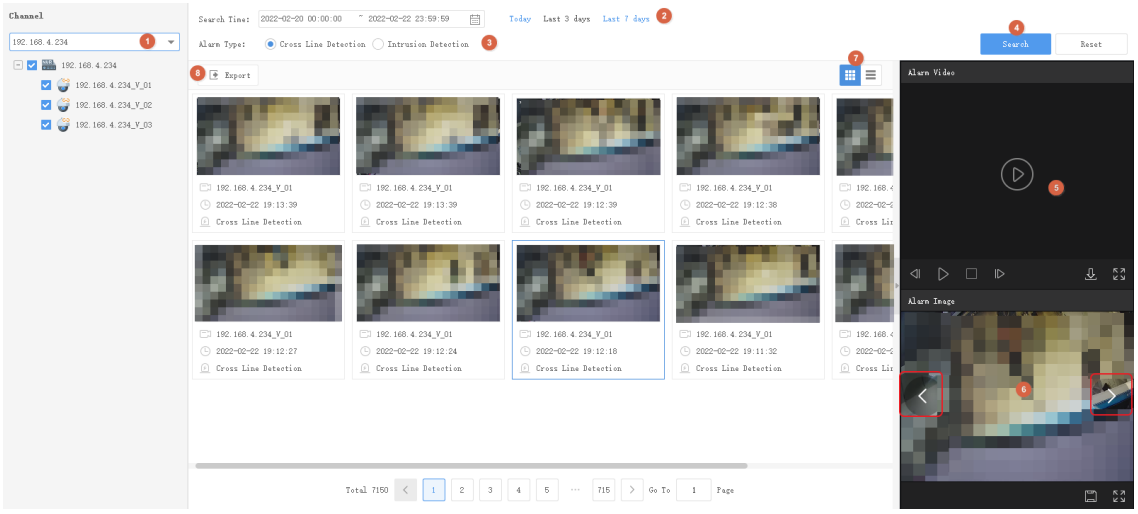
2. Perform the following operations as needed.
   - Click in the lower right corner to view an alarm image (6) in full screen. Click the left or right arrow to view the previous or next image.
   - Play or download the alarm video (7) in the right. The alarm video is 10 seconds long (5s before and 5s after the alarm time).
   - View or save the alarm image (6) in the right.
   - Click (9) to switch to list mode.
   - Click (10) to export search results.

16.2 Search on Devices

Search the NVR for the reported alarm data. Only encoding devices connected via the private protocol can be displayed.

Note:
This feature is available on certain NVR devices/versions. Currently this feature only supports cross line detection and intrusion detection.

1. Follow the steps as illustrated on the image.



2. Perform the following operations as needed.
   - Double-click an image in the list to view it in full screen.
   - Play or download the alarm video (5). The alarm video is 10 seconds long (5s before and 5s after the alarm time).
   - View or save the alarm image (6). Click the left or right arrow to view the previous or next image.
   - Click (7) to switch to list mode.

- Click (8) to export search results.

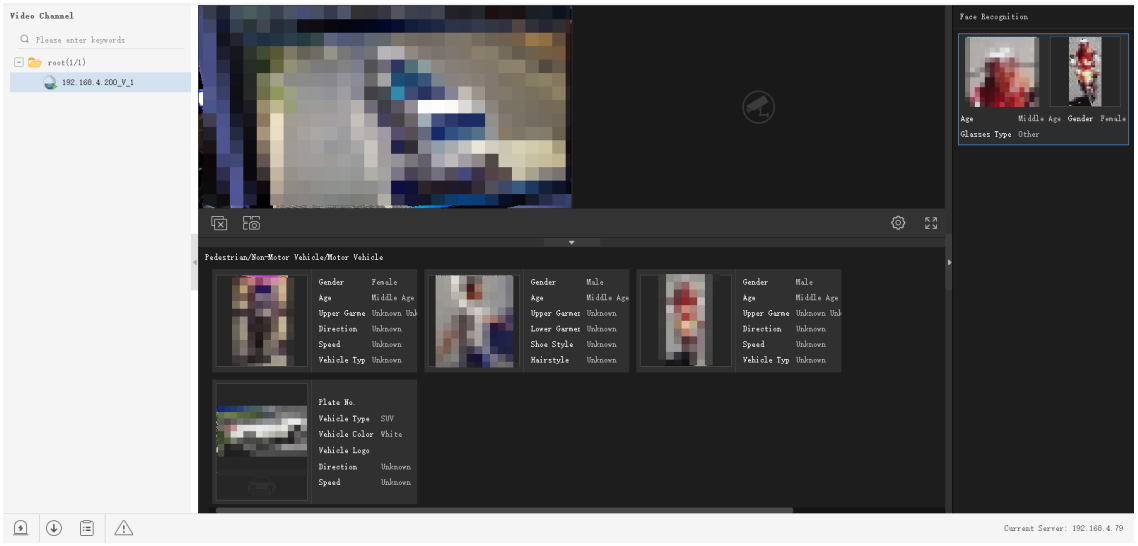
17 Mixed Traffic Detection

Mixed traffic detection can recognize and capture objects including pedestrians, motor vehicles, and non-motor vehicles, as well as analyze attributes of the captured objects including faces, human bodies, motor vehicles, and non-motor vehicles.

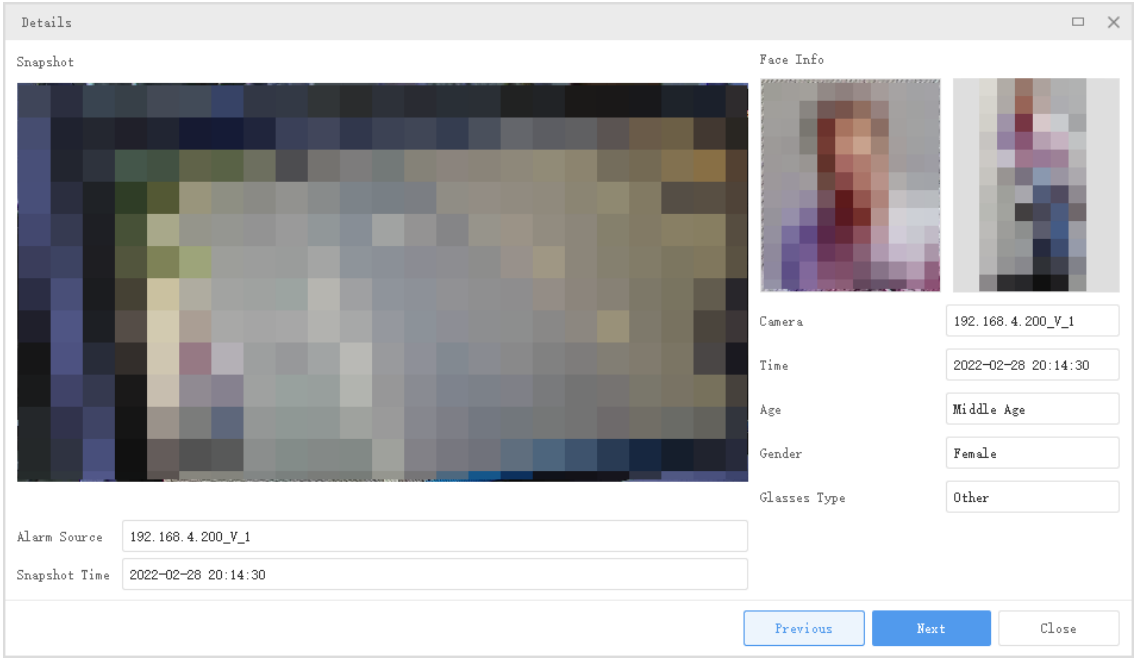
It can be widely used in various mixed-traffic roads, and meet different management needs for pedestrians, motor vehicles, non-motor vehicles, and drivers in the park.

17.1 Realtime Monitoring

1. Double-click a camera to start live video and view face recognition or traffic detection data. Two cameras are allowed.
2. Live view operations are allowed when you are monitoring (see Live View Operations).



3. Click a record to view its details.



4. Double-click the snapshot to view it in full screen.

18 Parking Lot

Cameras at the entrance and exits of parking lots can identify and capture vehicles. You can use custom vehicle libraries to manage different types of vehicles, for example, allow registered vehicles to directly pass through and block unknown vehicles; view live video from cameras, lift the barrier manually when necessary, and view entry/exit records.

The function allows you to manage vehicle libraries, view realtime monitoring, and pass-thru records.

18.1 Vehicle Library Management

By customizing vehicle libraries, you can manage vehicles in different categories to meet different monitoring tasks. Vehicle libraries contain vehicle information. Only vehicles that added to libraries and synced to devices can pass through directly, otherwise, it requires the admin to open gates manually.

Create vehicle libraries first and then add vehicle data to the libraries. Up to 15 custom libraries are allowed.

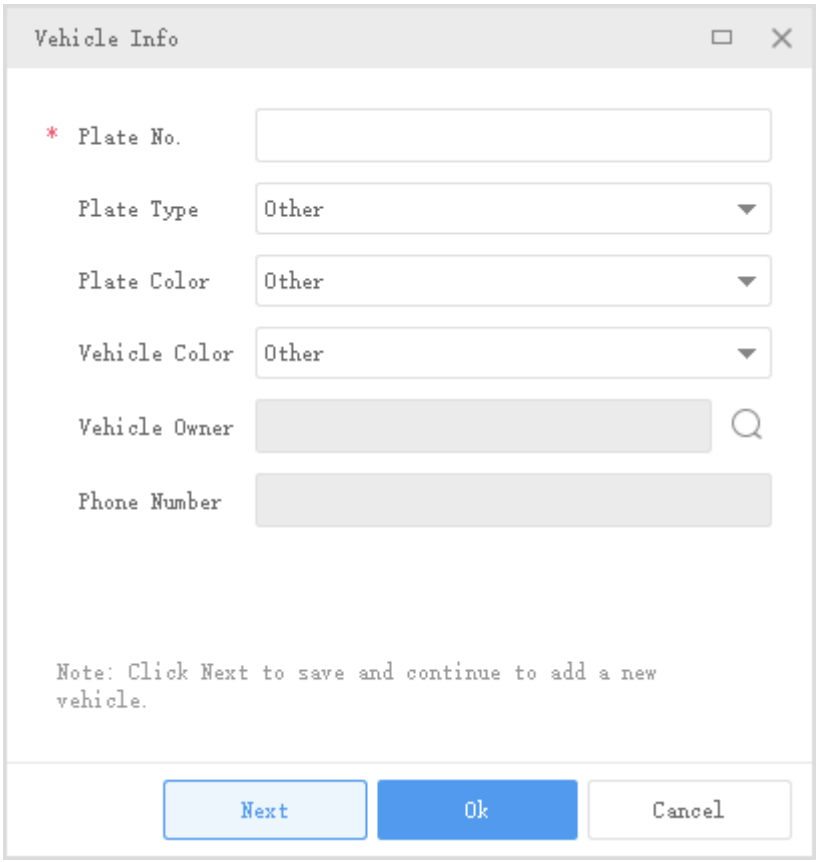
Create Vehicle Library

To create a vehicle library, click + in the root library tree on the left. To rename a library, click .

Add Data

Choose one way to add vehicle data to a vehicle library.

- **Batch Add**
  1. Click the target vehicle library on the left, and then click **Batch Add** on the right.



  2. Enter vehicle information in the pop-up window. Click to search the owner. Owners need to be added in advance from **Personnel Management** on the Web client or in Add Face Data.

- **Import a file containing vehicle data**
  Use this method if you have a file that contains the necessary vehicle data. The file and its content must conform to the format.
  Click **Import** and then select the file. The imported data appear in the list.

Assign Vehicles

Assign vehicles to a library or libraries that you have created (known as custom libraries). One vehicle may belong to multiple vehicle libraries.

- **Assign**

  Click a vehicle library on the left, select the vehicle(s) on the right, and then click Assign . You can select one or more vehicle libraries.

- **Remove**

  Click a vehicle library on the left, select the vehicle(s) on the right, and then click Remove . "Remove" is the reverse operation of "assign" and only works for vehicles that have already been assigned. After being removed from custom libraries, the vehicles belong to the root library only and then can be reassigned.

Delete a Vehicle Library

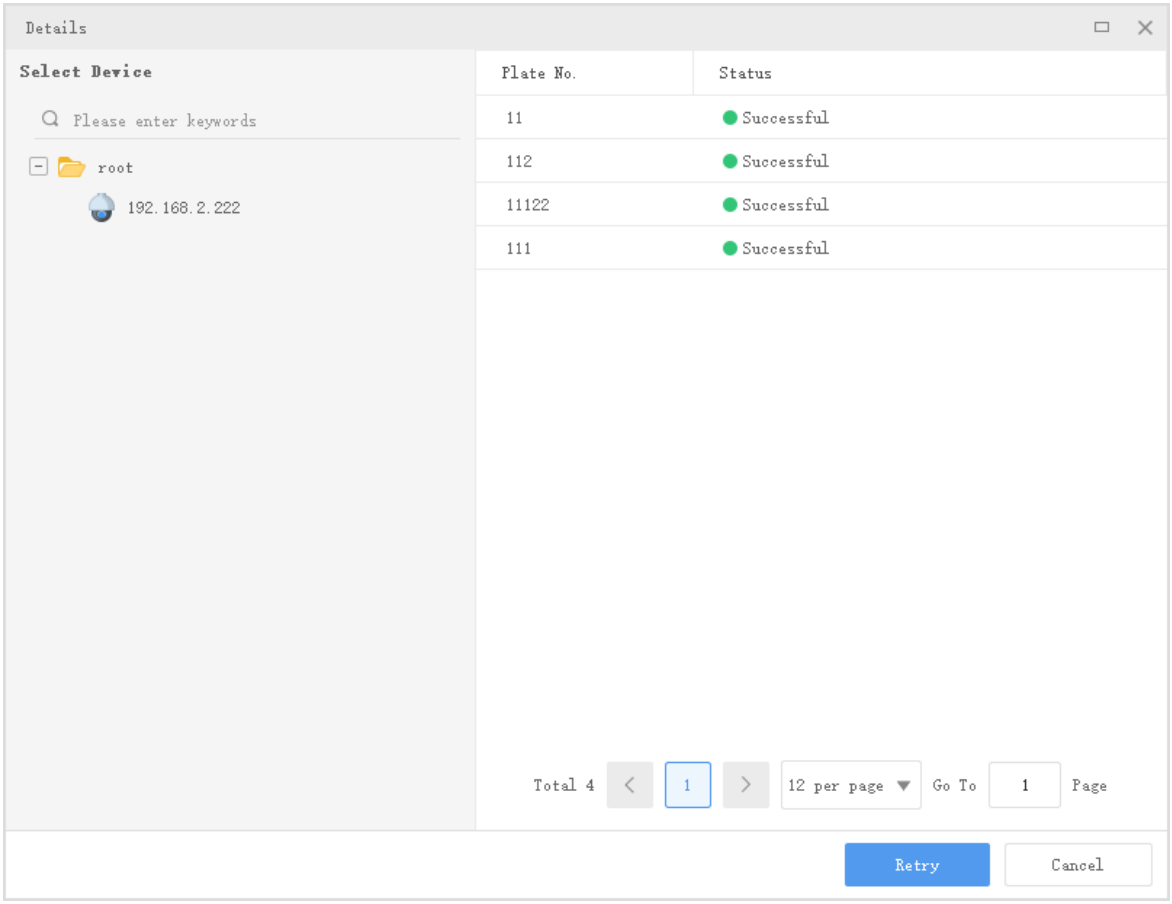
Click the delete button (e.g.,). A prompt message appears. If the library you want to delete contains data, a second message appears, asking whether you also want to delete the data with the library. Choosing **Yes** will delete all the data with the library; choosing **No** will only delete the library and keep all the data in it. The default system library cannot be deleted.

Sync to Device

When vehicle data is synced to the device side, the device can recognize the vehicles and open the gate automatically.

1. Click a vehicle library on the left, select the vehicle(s) on the right, and then click Sync to Device .
2. Select the desired device(s) in the pop-up window, click **OK** to sync the vehicle information to the device(s).

Click on the right side of vehicle library to view the sync details.



18.2 Realtime Monitoring

View live videos from entrance & exit cameras. Double-click a camera in the organization tree on the left, or drag the camera to any window to play the live video.

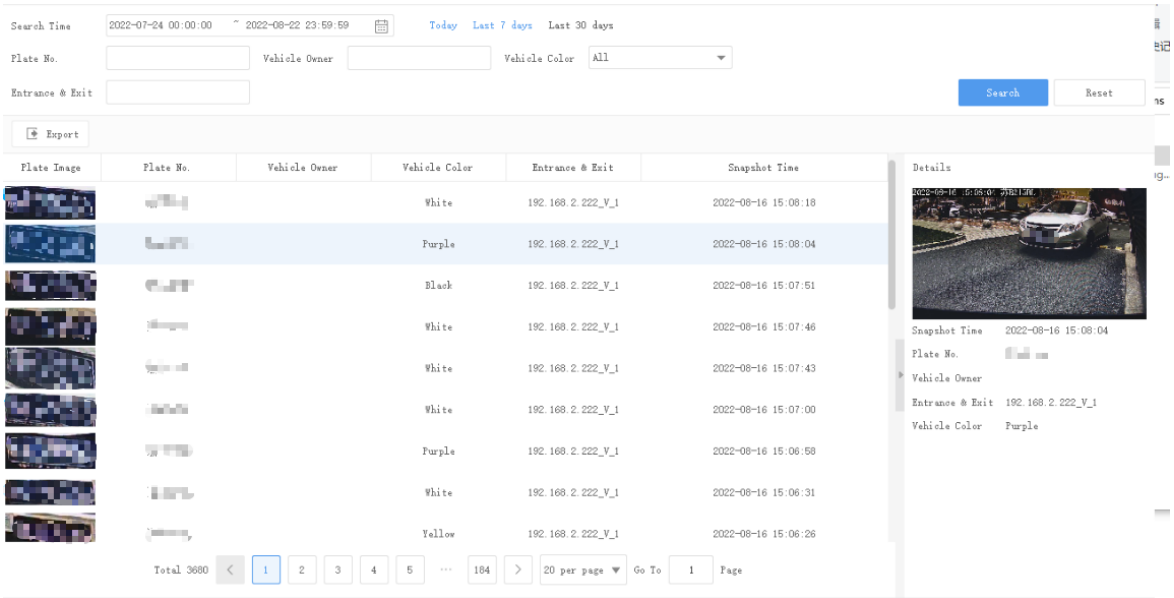
Note:
Cameras need to be added in advance from **Basic** > **Device** > **Entrance & Exit Device** on the Web client.

To open gate manually, place the mouse on the camera, and click , or click on the window toolbar.

For more details about other buttons on the window toolbar, see Window Toolbar.

18.3 Pass-Through Records

Search for records of vehicles that passing through cameras at the entrances and exits during a certain period. You can filter pass-through records by plate number, vehicle owner, vehicle color, and entrance & exit.



- Click a record in the list to view details on the right.
- Click **Export** to save search results as a CSV file. You may open the file with Microsoft Excel.

19 Search Data

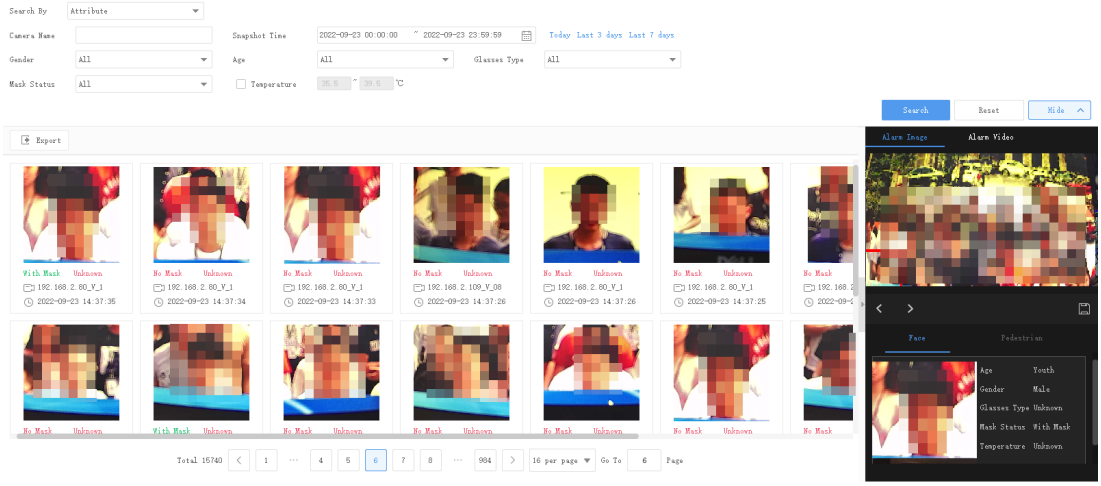
Search faces, pedestrians, non-motor vehicles, and motor vehicles from the smart devices connected to the VMS. For example, you can search a pedestrian from the data collected by cameras using criteria such as gender, clothing color, hair style, and snapshot time so as to track and locate the pedestrian.

19.1 Search Face

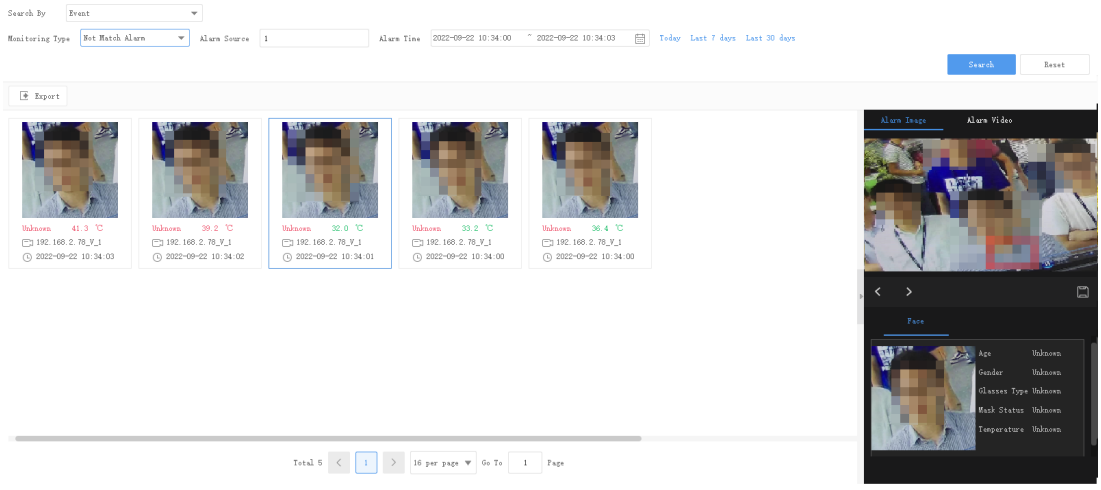
Search people pass-through records by criteria to view the person access records, or search people pass-through records or face library based on an image to identify people or view access records.

19.1.1 Search by Criteria

1. Select the search type.
   - By attribute: Set the camera name (support fuzzy search), snapshot time, gender, age, glass type, mask status, and body temperature range, then click **Search** to find the access records.



   - By event: Set the monitoring type, alarm source (support fuzzy search), alarm time, then click **Search** to find the target evens. When **Match Alarm** is selected in **Monitoring Type**, you can also set the name, ID number, gender, mask status, and body temperature range.



Note:
To search by mask status and body temperature range, you need to enable mask detection and body temperature detection first in Client Configuration.

2. Search results are displayed. Click a record to view the alarm image, alarm video (5s before and 5s after the alarm time), and face attributes on the right.

Other Operations

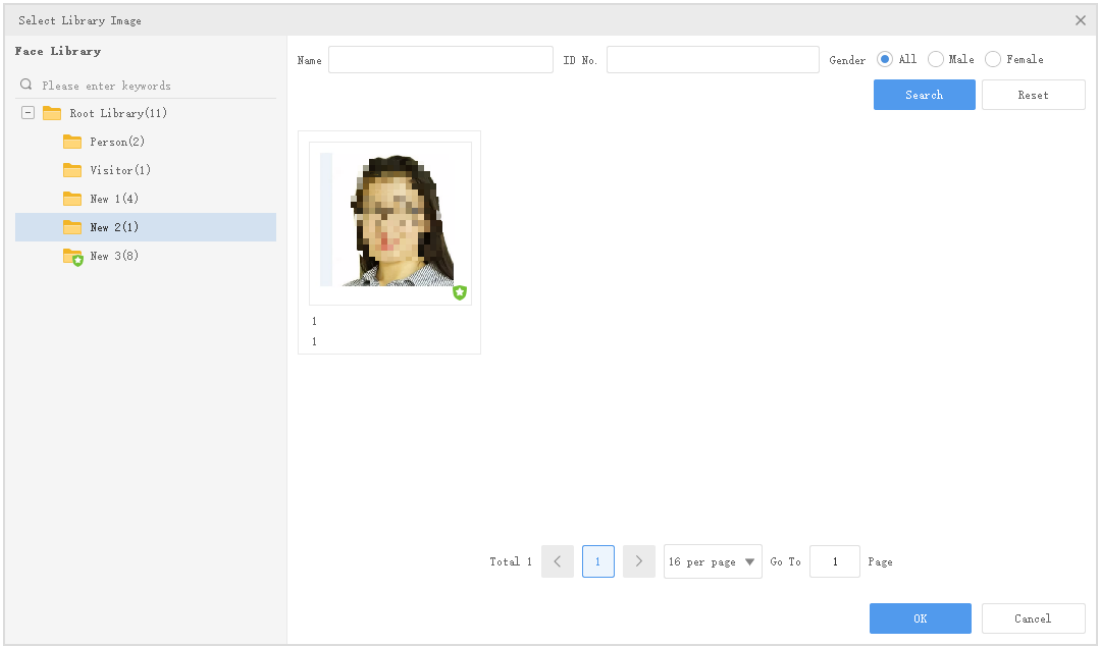
Perform the following operations as needed.

- Export: Click **Export** to export search results to a USB device. You can use Microsoft Office Excel to open the file on your PC.
- Add to face library:
  1. For strangers, you can strangers to a face library by hovering over the search result and clicking .
  2. Select the target face library, enter the person information, and click **Next**.
  3. (Optional) Select **Assign** to add the face image to other face libraries. That is, add the face image to the face libraries selected in this step and in the 2 step. Then click **OK**.
- Search by image: Hover over the result searched by attribute, and click .
- Download alarm image or video: Click under the **Alarm Image** tab to save the image. If alarm video is available, click under the **Alarm Video** tab to download the video.

19.1.2 Search by Image

Search similar face images from face libraries or pass-thru records based on an image.

1. Select **Image** from the **Search By** drop-down list.
2. Upload an image to search.
   - Upload library image: Click **Upload Library Image**, select the target library in the pop-up window, select the face image, then click **OK**. You can search the face image by entering the person name, ID number, and gender.



   - Upload local image: Click **Upload Local Image**, and select the image in the pop-up window. Then click **Open**.

     Note:
     Please insert a USB storage device in advance.
3. Select search in face library or pass-through records.
   - Face library: The system compares the uploaded image with face library images.
   - Pass-thru records: The system compares the uploaded image with the image in the pass-through records.
4. (Optional) Set the search criteria.
   - Start and end time: When you select search in pass-through records, you can set the start and end time.

- Data source: Select the source of the data to search.
- Match: Set the face match value, and the system will search face images that are greater than the set similarity.

5. Click **Search** to view the similar images.

Figure 19-1: Search Pass-Thru Records

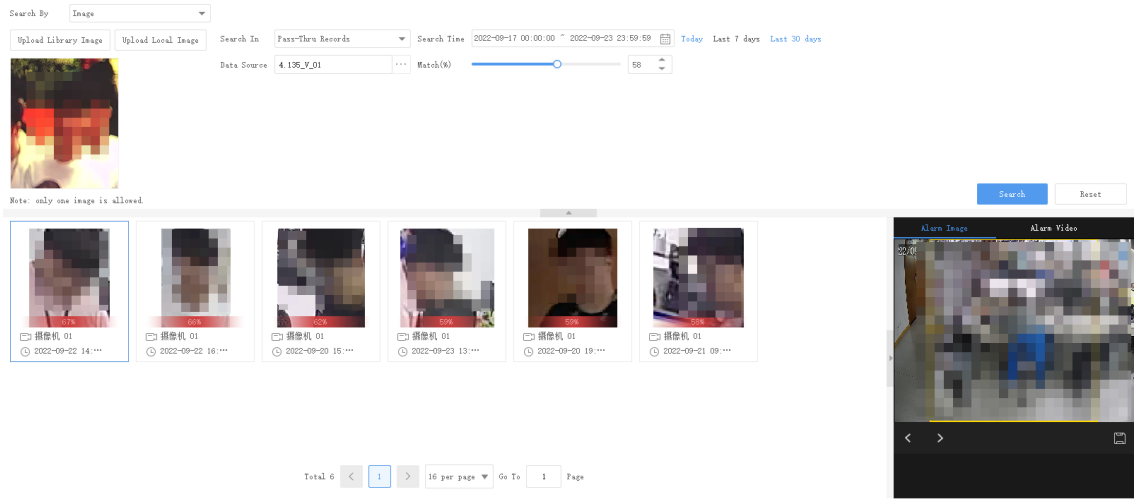
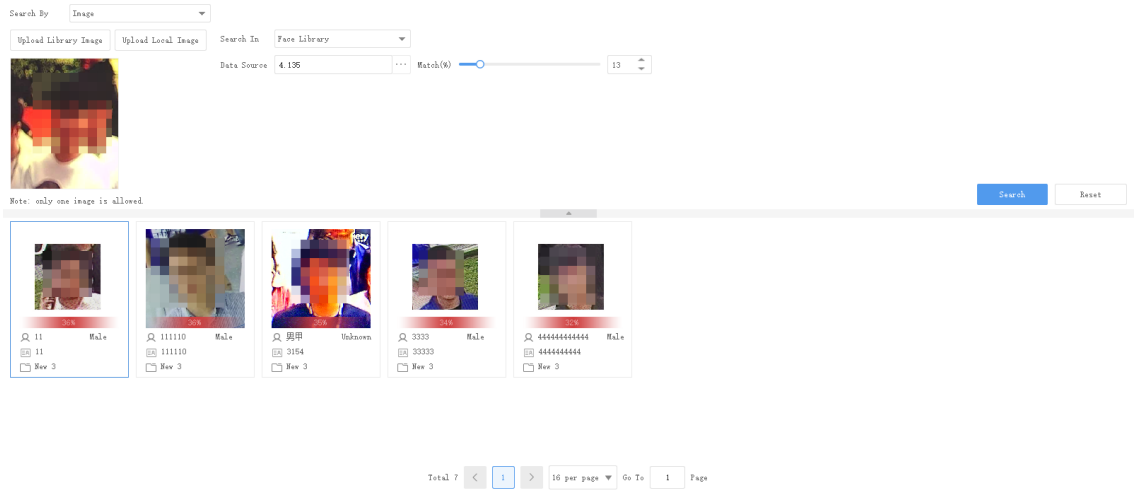


Figure 19-2: Search Face Library



Other Operations

When you select search in pass-through records, you can perform the following operations as needed.

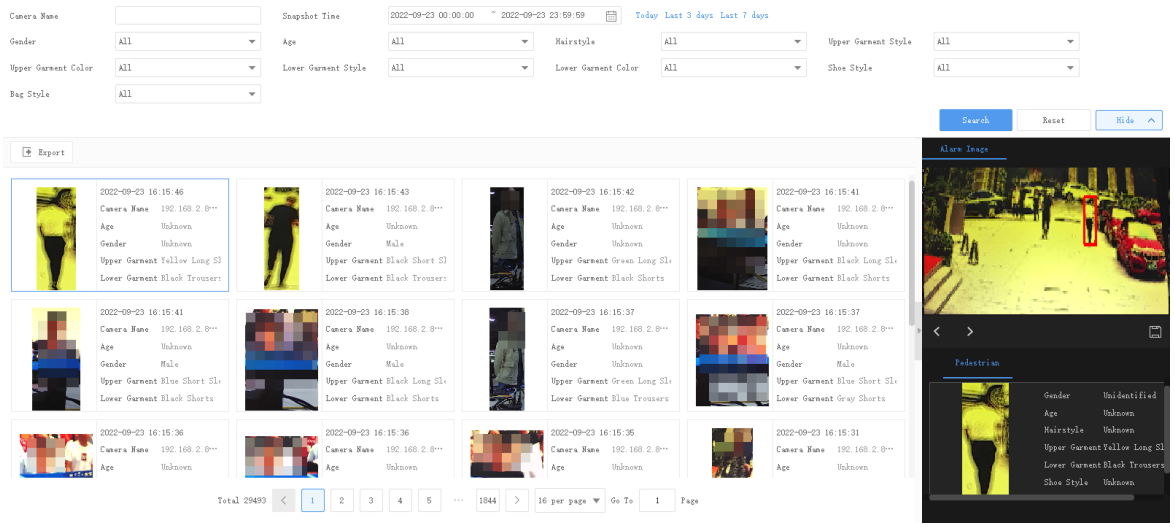
- Add to face library:

  1. For strangers, you can strangers to a face library by hovering over the search result and clicking  .
  2. Select the target face library, enter the person information, and click **Next**.
  3. (Optional) Select **Assign** to add the face image to other face libraries. That is, add the face image to the face libraries selected in this step and in the 2 step. Then click **OK**.

- Download alarm image or video: Click  under the **Alarm Image** tab to save the image. If alarm video is available, click  under the **Alarm Video** tab to download the video.

19.2 Search Pedestrian

Search pedestrian records by criteria, including camera name, snapshot time, gender, age, hairstyle, garment style, etc. Search results are displayed below. Click a record to view the alarm image and face attributes on the right.



Other Operations

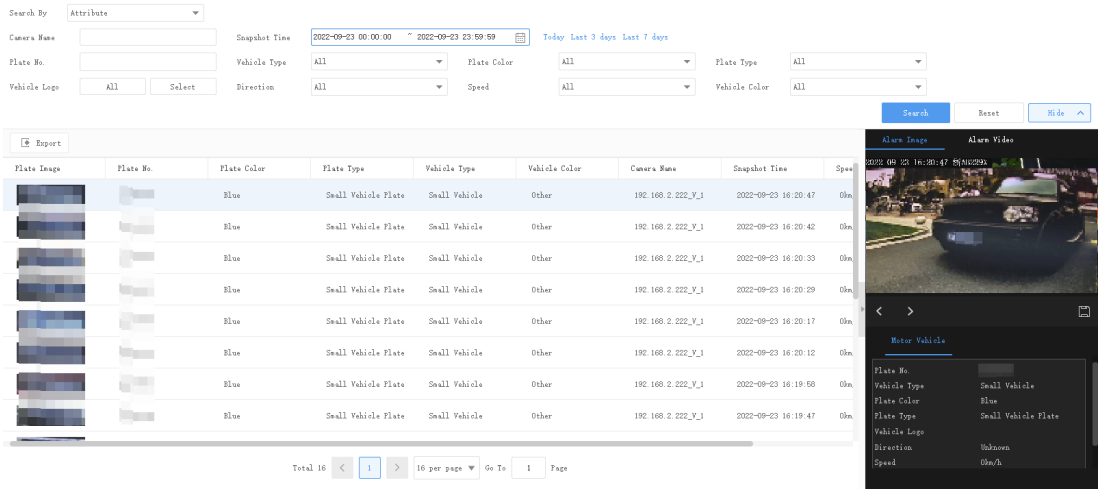
Perform the following operations as needed.

- Export: Click **Export** to export search results to a USB device. You can use Microsoft Office Excel to open the file on your PC.
- Download alarm image: Click  under the **Alarm Image** tab to save the image.

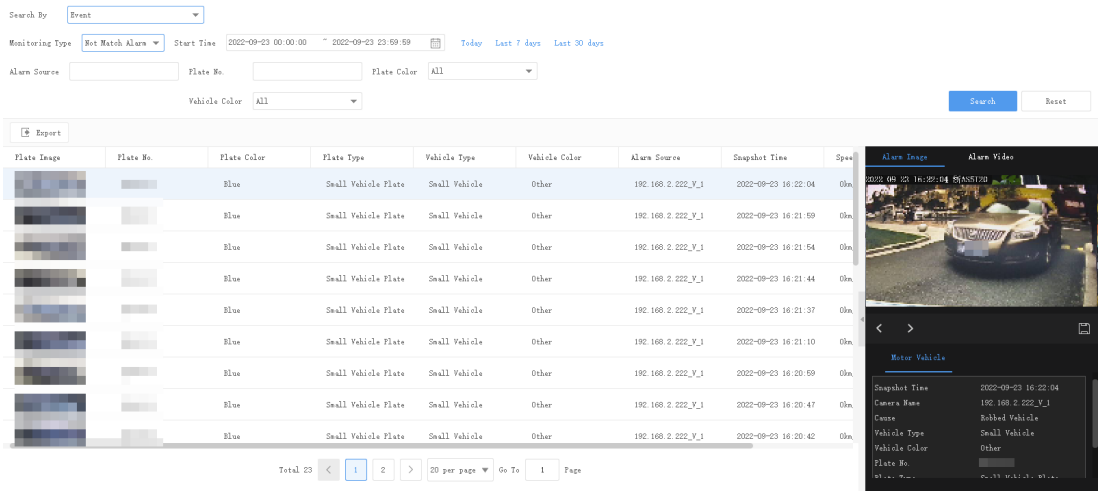
19.3 Search Motor Vehicle

Support querying the motor vehicle records reported from the LPR cameras or video channels of NVR.

1. Select search by attribute or event.
   - By attribute: Set the camera name (support fuzzy search), snapshot time, plate number, vehicle type, vehicle color, plate type, vehicle logo, direction, plate color, and speed, then click **Search** to find the target records.



   - By event: Set the monitoring type, alarm source (support fuzzy search), start time, plate number, plate color, vehicle color. When **Match Alarm** is selected in the **Monitoring Type**, you can set the monitoring cause.



2. Search results are displayed. Click a record to view the alarm image, alarm video (5s before and 5s after the alarm time), and motor vehicle attributes on the right.

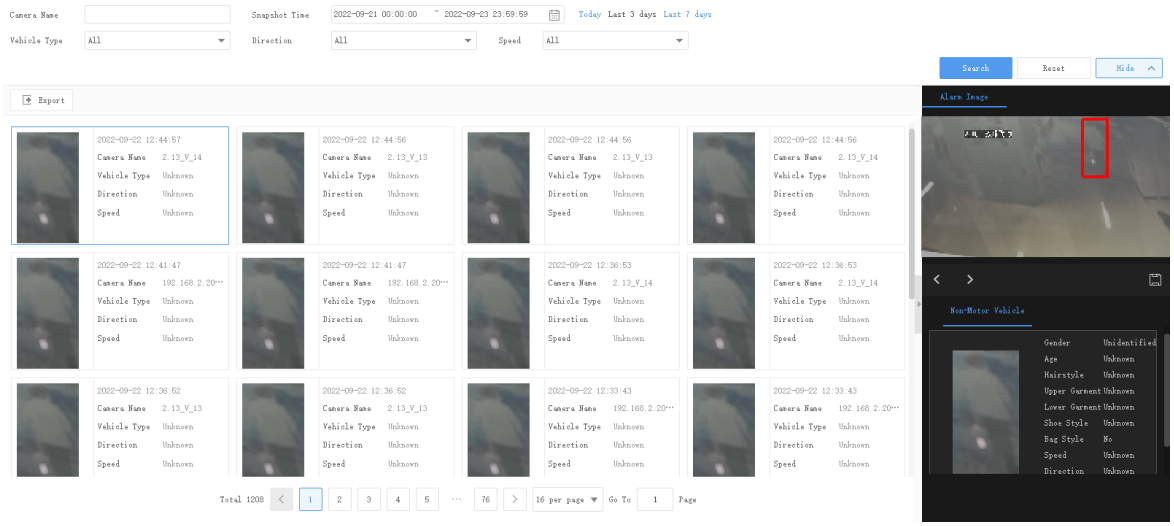
Other Operations

Perform the following operations as needed.

- Export: Click **Export** to export search results to a USB device. You can use Microsoft Office Excel to open the file on your PC.
- Download alarm image or video: Click  under the **Alarm Image** tab to save the image. If alarm video is available, click  under the **Alarm Video** tab to download the video.

19.4 Search Non-Motor Vehicle

Search non-motor vehicle records by criteria, including camera name, snapshot time, vehicle type, direction, and speed. Search results are displayed below. Click a record to view the alarm image and non-motor vehicle attributes on the right.



Other Operations

Perform the following operations as needed.

- Export: Click **Export** to export search results to a USB device. You can use Microsoft Office Excel to open the file on your PC.
- Download alarm image: Click  under the **Alarm Image** tab to save the image.

20 Client Configuration

Set the local parameters for the client computer to achieve the related functions.

Click **Client Configuration** on **Control Panel**, or click  in the top right corner. The **Client Configuration** dialog box appears. Some parameters are described in the table below.

Parameter		Description
Video	Play Mode	• Min. Delay: No delay or the shortest delay though video quality may not be satisfactory. • Balanced: Balance between the video latency and fluency. • Fluent: Video fluency is better though video delay may occur when network is poor.

	Stream Type	• Adapt to Screen Layout: When selected, the client chooses a stream type according to the screen layout:
		  • More than 9 windows: Sub stream
		  • 9 windows or less: Main stream
		• Use Default Stream Type: Main, Sub, Third

	Stream Transmission Protocol	Protocol used to transfer video streams from frontend devices to your client computer. **Note:** • TCP is recommended in poor network conditions. After switching from UDP to TCP, you need to restart live view to apply the changed setting. • Make sure the software is not blocked by firewall if you choose UDP.
	Stream Transmission Policy	• Forwarding First: The devices send media streams to the client software via the VMS. • Direct Connection First: The devices first try sending media streams to the client directly; if it fails, the devices send media streams via the VMS.
	Display Ratio	• Full: The video covers the entire window. • Original: The video is displayed in the original ratio.
	Play Main Stream in Maximized Live View Window	• Selected: When you maximize a live view window by a double-click or using the shortcut menu, the system automatically switches to the main stream (if it is not the current stream type); and when the window restores, the system switches back to the previous stream type. • Not selected: The system does not change switch type automatically when you maximize a live view window. By default this option is not selected.
	Enable GPU Mode	Uses GPU to improve the client's decoding capability. This feature requires the client computer's support. When selected, the supported encoding format (e.g., H.264, H.265) will be displayed. The changed setting takes effect after the program restarts. **Note:** This feature is available to use the software client on a PC.

Parameter		Description
Snapshot	Snapshot Mode	• Auto: Save snapshot(s) in the specified format to the specified path. • Manual: In this mode, user can select the snapshot(s) to save, set the path and format, and enter remarks (for JPEG only).
	Continuous Snapshot Interval	Time interval between two continuous snapshots.
	Continuous Snapshots	Number of snapshots to take every time.
	Snapshot Format	Choose a snapshot format for automatic snapshot mode. • BMP: Save snapshots without compression. It takes more space than JPEG. • JPEG: Snapshots are compressed to save space at the expense of reduced image quality. **Note:** JPEG is recommended. You can choose BMP if the image quality does not meet your needs.
	Image Save Path	Set the path to save snapshots.
Recording	• Local Recording Format • Downloaded Recording Format • Local Recording Path • Downloaded Recording Path	Set file format and storage path for local recordings and downloaded recordings.
Watermark	Watermark	After enabling this feature, you can choose watermark content below, including: username, PC IP, and PC time. The selected contents will be displayed on live and playback videos on the screen. **Note:** This feature is available to use the software client on a PC.
Startup	Enable Auto Login to EZVMS	When enabled, the client software runs automatically after you log in to your Windows system, and you will log in to the most recently accessed server address without entering the username and password.
	Enable Auto Login to Windows	This feature is available to the Windows version. When enabled, your computer will automatically log in to Windows after startup. You need to enter the username and password for your Windows system. **Note:** This feature is available to use the software client on a PC.
Security	Auto-lock client if no mouse or keyboard action after	To enable this function, select the checkbox and set a lock time. If there is no mouse or keyboard operation on the software client within the set time, the software client will automatically lock.
Epidemic Control	Temperature Unit	The temperature unit can be set to Celsius or Fahrenheit.

Parameter		Description
	• Mask Detection • Abnormal Temperature Detection • Alarm Sound • Pop-up Alarm Window	Enable mask detection and temperature detection as needed. After enabling temperature detection, you will need to set the threshold for abnormal body temperature. When enabled, alarm sound or a pop-up alarm window will be triggered (depending on the configuration) when a mask detection alarm or abnormal temperature alarm occurs.
VCA	Intelligent Mark	When enabled, bounding boxes will be displayed to highlight targets of the specified type(s) in mixed traffic detection in live video images.
	Mark Target	When enabled, the software will automatically mark targets of the specified type in the image.
	Show Attributes	When enabled, the images will show attributes of the target, such as gender, upper garment color, etc.
Fire Temperature Measurement	Fire Mark	When enabled, fire points will be marked in the image.
	Temperature Mark	When enabled, fire point temperature will be marked in the image.
	Hot&Cold Spot Tracking	When enabled, you can track the hottest and coldest areas in the image.
	• Alarm Sound • Pop-up Alarm Window	When enabled, alarm sound or a pop-up alarm window will be triggered (depending on the configuration) when a fire detection alarm occurs.

21 Use PC Software Client

This chapter provides additional information about using the software client on a PC.

21.1 System Requirements

The PC that hosts the client software shall meet performance requirements. The requirements may vary, depending on how you use the software. For example, live view at high resolution in multiple windows requires higher PC system performance.

Software Version	System Requirements
64-bit	OS: Microsoft Windows 7/8/10 (64-bit) CPU: Intel Core i5 3.1 GHz or higher Memory: 4 GB or higher
32-bit	OS: Microsoft Windows 7/8/10 (32-bit or 64-bit) CPU: Intel Pentium IV 3.0 GHZ or higher (4 Core, 3.0 GHz recommended) Memory: 2 GB or higher Note: The 64-bit Windows shall be able to host 32-bit software.

Note:
The 64-bit OS and client software are recommended. Live view and playback consumes RAM, and the 32-bit client software has a relatively small RAM. When RAM is running low, the client software will be unable to play more channels of live or recorded videos, and it will display a message indicating insufficient RAM.

21.2 Download

Windows OS users can download the setup file (.exe) on the login page of the VMS' Web manager. Using a 32-bit Web browser downloads the Win32 version, and using a 64-bit Web browser downloads the Win64 version.

Open a Web browser and then enter the VMS' IP address in the address bar, e.g., 192.168.1.60. The login page is displayed.

Click the **EZVMS Client** icon to download and install.

Note:

- The downloaded software matches the VMS device version.
- When accessing the VMS using a lower version client software, you need to upgrade the client software before you can access the VMS. Click **Download** to download and install automatically.
- When you access the VMS using a higher version client software, the functions available on the client software depend on server functionality and user permissions. You can choose to download a lower version client software that matches the VMS device version, or ignore the prompt and continue to log in, but compatibility issues may occur.

21.3 Install

Double-click the setup file to start installation. Click **Next** and follow the wizardto complete the installation.

21.4 Login

The client software provides two login methods:

- Login by IP/Domain: You need to enter the IP address (or domain name), port number, username and password to log in.
- Login by cloud: Log in to a cloud account. You need to sign up for a cloud account at the cloud website and add the VMS to cloud first. No VMS username and password is needed if you log in using this method.

21.4.1 Login by IP/Domain

Enter the IP address (or domain name), port number, username and password of the VMS and then click **Login**.

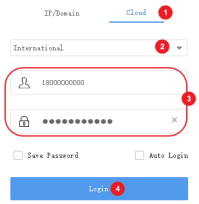
Note:

- The default username/password is admin/123456.
- The default port number is 80. Enter the actual port number to log in if it has been changed on the VMS.
- If you log in with **Save Password** selected, the username and password you entered will be remembered and filled in automatically at your next login.
- If you log in with **Auto Login** selected, you will skip the login step at your next login.
- The IP addresses of the VMS that you have successfully logged in are remembered and listed.
- If the VMS has configured with AD domain and domain users are imported, the domain username/password can be used to access the VMS.

21.4.2 Login by Cloud

Note:
You need to sign up for a cloud account at https://en.ezcloud.uniview.com and add the VMS first. For the detailed steps to sign up for a cloud account, click **Help** in the upper right corner of the web page.

After you have signed up for a cloud account and added the VMS to cloud, follow the steps to log in by cloud:



1. Click **Cloud**.
2. The service area is **International** for users outside China.
3. Enter your cloud account username and password.
4. Click **Login**.
5. When logged in successfully, a dialog box appears, showing your cloud account name and lists the VMS you have added.
6. Select a VMS and then click **OK**.

21.5 View Version Info

Log in, click in the upper left corner, and then select **About EZVMS** from the drop-down menu.

Double-click the version number to view the detailed version info, including internal version and build date.

Note:

- The client software downloaded from the login page of the Web Manager matches the VMS device version.
- When accessing the VMS using a lower version client software, you need to upgrade the client software before you can access the VMS. Click **Download** to download and install automatically.
- When you access the VMS using a higher version client software, the functions available on the client software depend on server functionality and user permissions. You can choose to download a lower version client software that matches the VMS device version, or ignore the prompt and continue to log in, but compatibility issues may occur.

21.6 Upgrade

To install a newer version in the directory where the current version is installed, run the setup file of the new version directly. The setup will automatically uninstall the current version and then install the new version.

Note:
An upgrade or a reinstall does not restore the admin password to 123456 (default password).

21.7 Uninstall

Use the following methods to uninstall:

- Use the uninstall function provided in the control panel of the Windows operating system.
- Double-click the setup file. A dialog box appears. Click **Next**, and then choose the delete option.

21.8 Data Dashboard

Data dashboard is a visual display of data in the form of charts, graphs, and other visual elements. It supports the aggregation and visualization of data on personnel, vehicles, devices, alarms, and more, in the form of dynamic reports. By creating a visual data dashboard, data information is presented intuitively, diverse information is summarized, and the overall situation is clearly perceived. The data is displayed on a large screen using visual charts, allowing users to easily view the dynamic data of the system in one place.

Clicking in the lower right corner will enlarge the data dashboard to full-screen. After entering full-screen mode, the current PC time and dashboard name will be displayed in the upper left corner. The layout and name of the dashboard can be customized on the Web client, and after setting it, you can restart the software client

to view the latest dashboard. For instructions on how to use the web client, please refer to the "Customize Comprehensive Management Dashboard" section in the *Web Manager User Manual*.

21.9 Others

21.9.1 Audio

Play audio or have communication with a camera or an NVR. Two-way audio is bidirectional audio communication between a client and a camera. Broadcast is one-way audio broadcast from the client to cameras.

21.9.1.1 Two-way Audio

Click the **Two-way Audio** tab. You can:

- Have two-way audio communication with a camera and meanwhile view live video from it.
- Have two-way audio communication with an NVR.

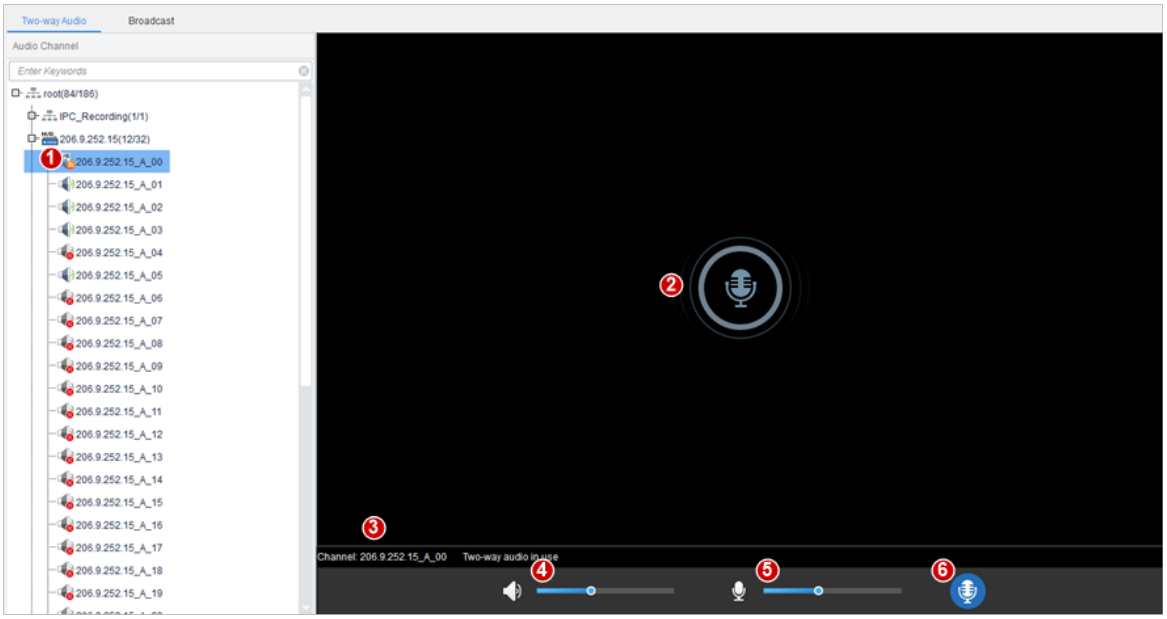
Note:

- Devices that are connected via the VSS do not support two-way audio.
- Two-way audio requires a speaker and a microphone plugged in to the VMS device. If you are using a PC client, connect a speaker and a microphone to your PC before starting two-way audio.
- The client software can establish two-way audio with one camera or one NVR at a time.

21.9.1.2 Two-way Audio with an NVR

Double-click an NVR audio channel or drag it to the window on the right. When two-way audio is started, the audio channel symbol changes (1), the two-way audio symbol appears at the window center (2), and a hint appears (3) indicating two-way audio is in use.

During two-way audio, you can adjust the local output sound volume (4) and input sound volume (5), or stop two-way audio (6).



21.9.1.3 Two-way Audio with a Camera

Double-click the camera or drag it to the window on the right. When two-way audio is started, the audio channel symbol changes (1), the two-way audio symbol flashes in the window's upper right corner (2), and a hint appears indicating two-way audio is in use (3).

During two-way audio, you can adjust the local output sound volume (4) and the input sound volume (5), or stop two-way audio (6).

Note:
You may also start two-way audio with a camera (camera only) by clicking in a live view window (see Window Toolbar in Live View).

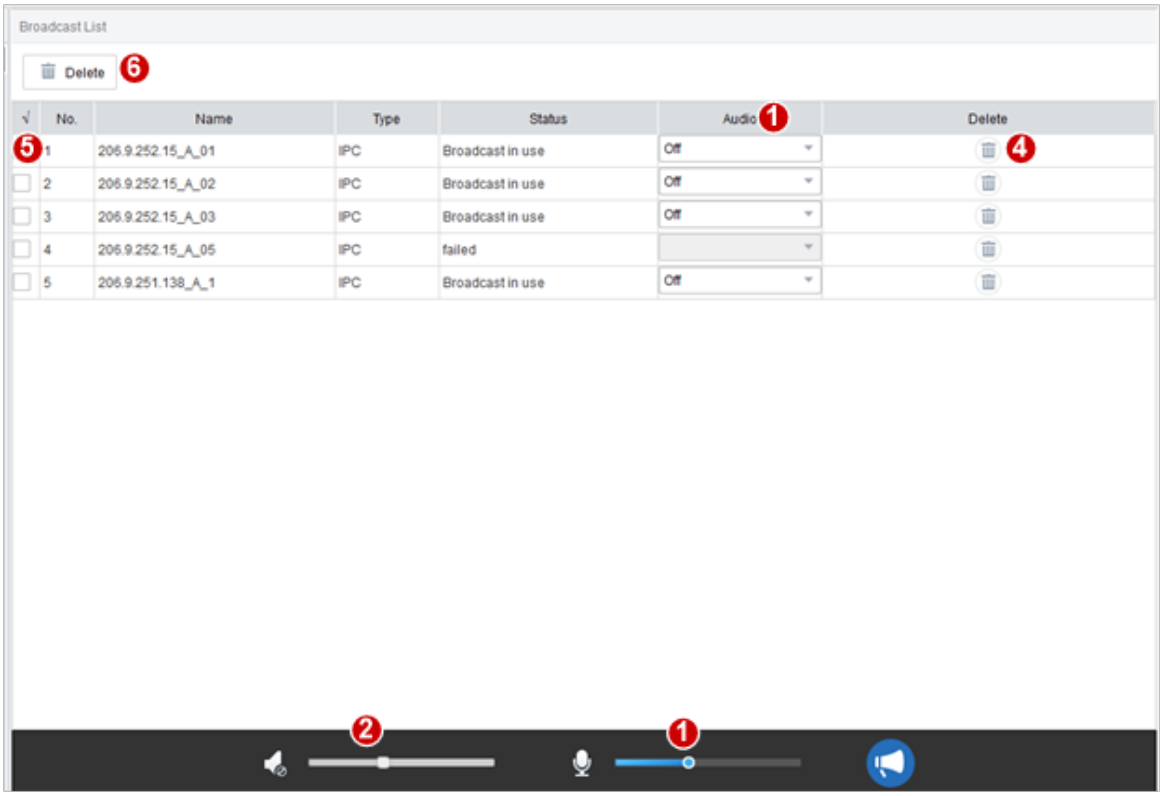
21.9.1.4 Broadcast

Broadcast is one way, from the VMS to other devices.

Click the **Broadcast** tab. Select audio channels in the list on the left. You can:

- Select audio channels one by one.
- Select an NVR or an organization to select all audio channels under it.
- Enter keywords to filter.

Click **Add** to add the selected audio channels to the broadcast list. Click to start broadcast. changes to , and the **Status** column shows current status of the audio channels.



During broadcast, you can:

- Add more audio channels: Select from the list and then click **Add**. Broadcast starts automatically for these channels.
- Adjust microphone sound volume (1), or click to turn off microphone.
- Adjust speaker sound volume (2) or turn off speaker: this operation can be performed when audio is turned on for only one camera audio channel (3); otherwise, the button is grayed out. Audio cannot be turned on for an NVR audio channel.
- Delete audio channels from the broadcast list: click (4) to delete one by one; or select the check box (5) and then click Delete to delete in batch. Clicking will select all channels in the broadcast list.
- End broadcast: click or close the **Audio** page.

Note:

- Broadcast and two-way audio cannot be used simultaneously.
- Broadcast supports a maximum of 128 audio channels.

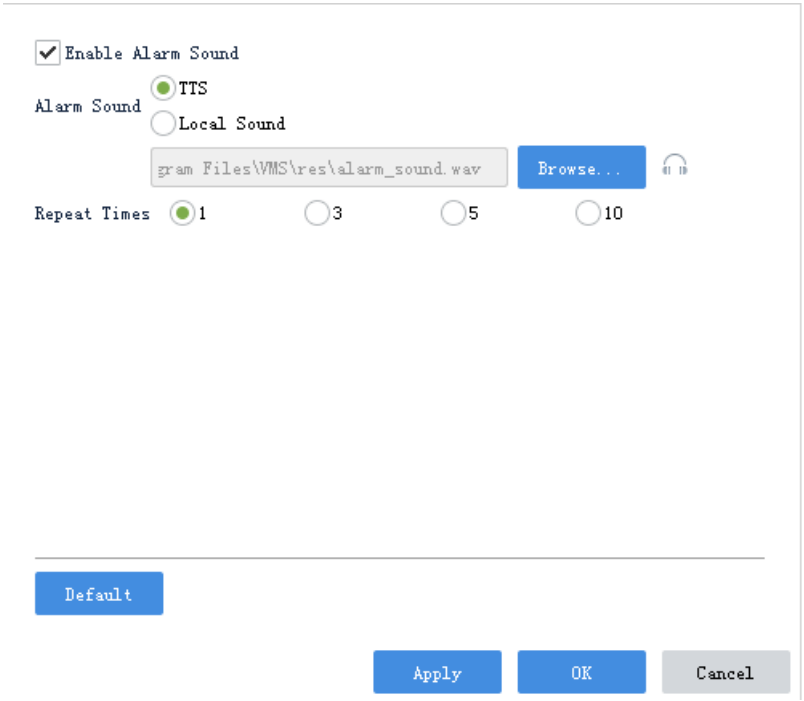
21.9.2 Alarm Sound

Set alarm sound, so the client plays an audio file or uses TTS to make sound alerts in the set format when an alarm occurs on a specified device.

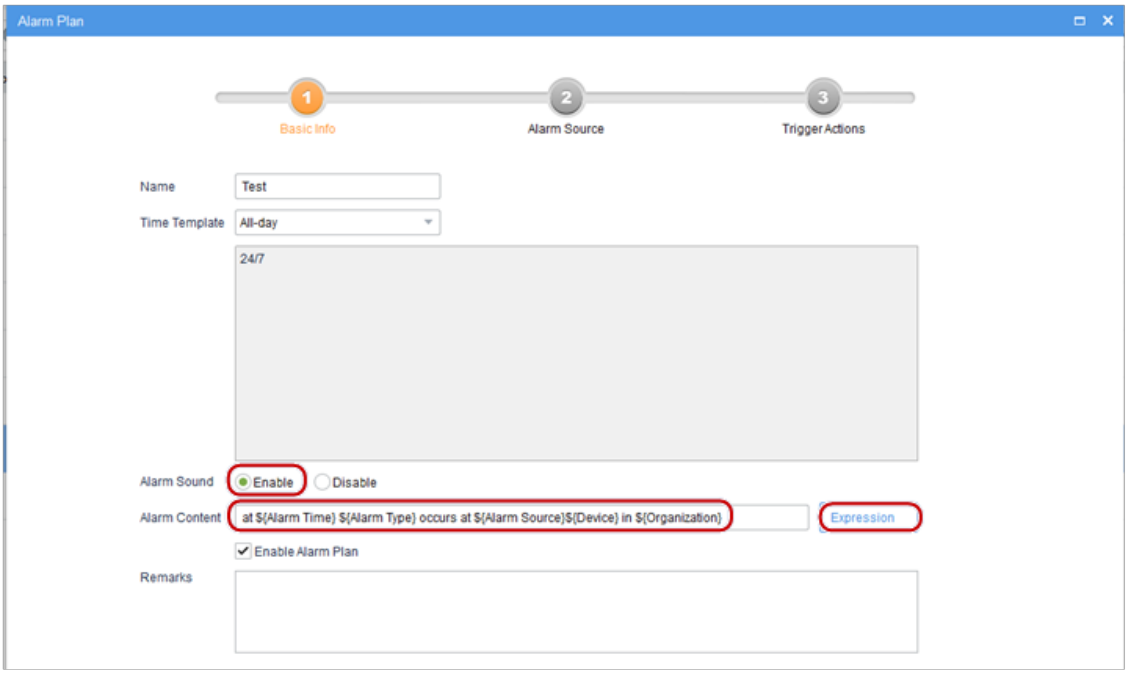
21.9.2.1 Use TTS

To play alarm sound using the Text-To-Speech (TTS) engine:

1. Click **Client Configuration** on **Control Panel**.
2. Enable alarm sound and then select **TTS**. Set repeat times as needed.



3. Enable alarm sound and set alarm content for the corresponding alarm plan in alarm configuration. You may enter text in the field, or click the **Expression** button and choose options in certain order. The expression includes organization, device, alarm source, alarm time and alarm type. Each option can be chosen once only.

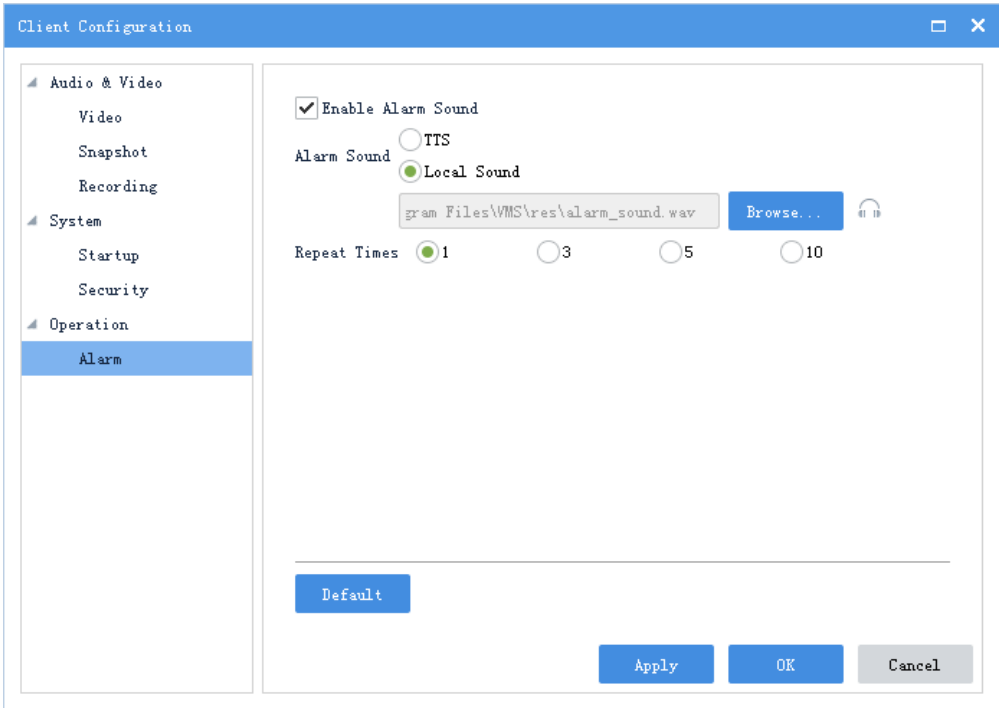


Note:
You may edit TTS settings in the control panel of the Windows operating system of your client computer, including language and voice speed. Normally there is no need to change the default settings.

21.9.2.2 Use a Local Audio File

To play alarm sound using an audio file saved on your client computer:

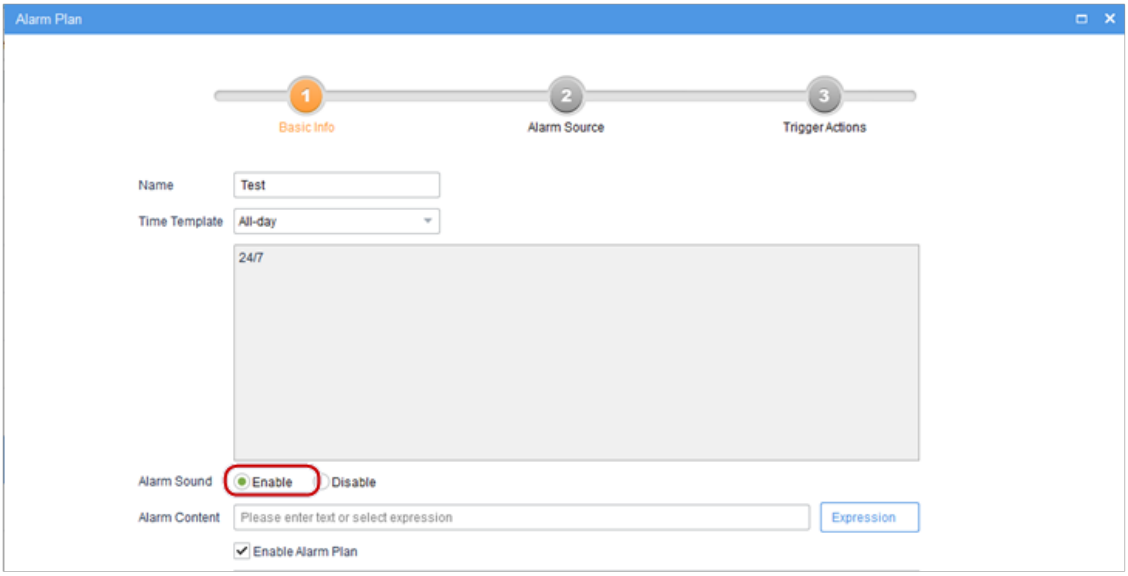
1. Click **Client Configuration** on **Control Panel**.
2. Enable alarm sound, select **Local Sound**, and select an audio file (.WAV) from your client computer. Set repeat times as needed.



Note:

You may also click ⚠ in the lower left corner (see GUI Introduction) and then click 🔊 to turn on or off alarm sound on the client.

3. Enable alarm sound for the corresponding alarm plan in alarm configuration.



21.9.3 GPU Mode

The PC software client provides the **Enable GPU Mode** option in client configuration. GPU mode can improve decoding performance if your computer supports GPU. The supported encoding format (e.g., H.264, H.265) appears when you select the **Enable GPU Mode** check box in client configuration. If you change the setting, the new setting takes effect after the program restarts.

21.9.4 Local File

Local files are videos or images saved from the VMS to your PC. You can quickly search local files by device, file type, and storage time.

1. Select the target device(s) in the **Video Channel** or Favorites tab.
2. Click 📅 to set the date and time.

3. Select the search type, including recording and snapshot.
4. Click **Search**. The results appear on the right side by time, and the latest video or snapshot is displayed in the middle.

Toolbar

Some buttons are described as follows. See Playback Toolbar for more details.

-  : Click to close the current video and clear it from the list. This button only appears when you search recordings.
-  : Click to open the local folder. You can also select the file format, and the available file format is determined by the search type selected in step 3.