

SmartPSS Lite Monitor Solution

User's Manual



V1.0.1






Foreword

General

This manual introduces the functions and operations of the monitor solution of the SmartPSS Lite (hereinafter referred to as "the Platform"). Read carefully before using the platform, and keep the manual safe for future reference.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.1	Updated the live view and playback functions.	January 2024
V1.0.0	First release.	April 2022

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited to: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.

- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
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- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

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1 Overview

The monitor solution cooperates the camera with the platform. You can live view the real-time monitoring screen through the platform. You can also play back the snapshots and the videos of the camera.

2 Live View Page

2.1 Preparation

Make sure the cameras have been added to the platform.

Figure 2-1 Live view page

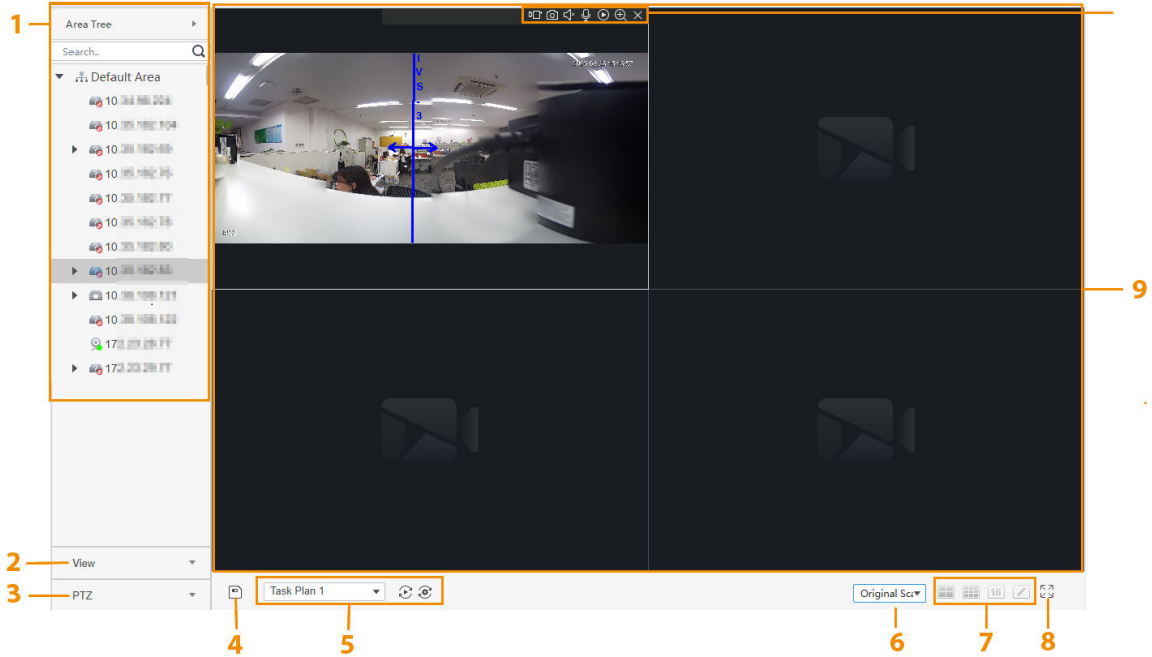


Table 2-1 Description of live view parameters

No.	Parameter	Description
1	Area/ Organization Tree	<ul style="list-style-type: none"> If you select > System > Monitoring Setting, and select Organization Tree (By device) from default device tree, the devices will be displayed as nodes in the organizations. If you select > System > Monitoring Setting, and select Area Tree (By channel) from default device tree, the channels will be displayed as nodes in the organizations.
2	View	Displays list view. It supports two-level directories, the first level is group, the second level is the saved views. The view records real-time video window split and the playback. You can save these parameters as live view plan. If you need those parameters later, you can quickly adopt them.
3	PTZ	Configure the PTZ function.
4	Save View	Click the icon to save the current view plan.
5	Tour Live View	Configure tour plan.
6	Window scale	The scale of the live video window.
7	Window split mode	Configure the split mode of the live view window.

No.	Parameter	Description
8	Full Screen	Switch the video window to full screen mode. If you want to exit full screen mode, press Esc or right-click the video window, and then select Exit Full Screen .
9	Video window	Displays the live view window.
10	Live view shortcuts	Displays shortcut menu.

Figure 2-2 Device right-click menu functions

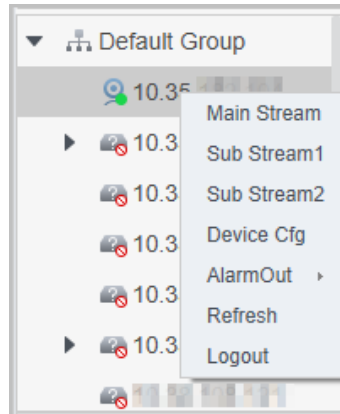


Table 2-2 Description of device right-click menu functions

Parameter	Description
<ul style="list-style-type: none"> ● Main Stream ● Sub Stream1 ● Sub Stream2 	Configure the stream type of the live view.
Device Configuration	Go to the web page of the device, and then configure device parameters on the web page.
Alarm out	<p>Open or close the alarm linkage action of an external alarm device (such as a smoke alarm) connected to the device.</p> <ul style="list-style-type: none"> ● : The alarm linkage action of an external alarm device is disabled. ● : The alarm linkage action of an external alarm device is enabled.
Refresh	Refresh channel information.
Logout	Log out the device.

2.2 Live View

You can live view the monitoring screen through three methods.

- Live view through video channels. Drag the video channel to the corresponding window to view the monitoring screen.
- Configure tour plans, and then live view through tour plans.
- Save the current live view screen as views, and then live view through views.

2.2.1 Viewing Live Videos

Procedure

Step 1 Select **Live View** on the home page.

Step 2 Live view the real-time monitoring screen.

You can live view the monitoring screen through two methods.

- Select the channel in the organization tree, and then double-click the channel or drag the channel to the corresponding window.
- Double-click the device in the organization tree to open all the channels of the device.







If the device is on a tour, please close the tour before live viewing.




Step 3 Hover over a live video, and then the video player control bar is displayed.

Figure 2-3 Window shortcut keys



Table 2-3 Parameters description

Parameters	Description
	Click the icon, and then the platform starts recording the video. Click again to stop recording and save the recording file to your computer. If you want to change the storage path, go to System > File Path .
	Takes a snapshot of the current video and save it to your computer. If you want to change the storage path, go to System > File Path .
	Enable or disable the audio of the video.
	If this function is enabled, you can talk to people through the camera.

Parameters	Description
	Play back the video for a define time. If you want to change the playback time, go to System > Monitor Settings .
	Scroll the mouse wheel to zoom in and out the live video.
	Close the live video.

Step 4 Right-click the live view window to view the right-click menu functions.



Different devices support different video window right-click menu functions.

Figure 2-4 Video window right-click menu functions

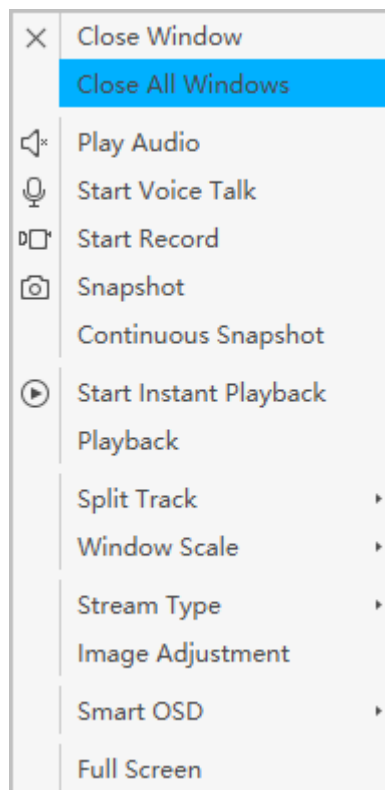


Table 2-4 Description of shortcut menu functions

Parameter	Description
Close Window	Close the current live view window.
Close All Windows	Close all live view windows.
Play Audio	Enable or disable the audio of the video.
Start Voice Talk	If this function is turned on, you can talk to people through the camera.
Start Record	The platform starts recording the video. Click the recording icon again to stop recording and save the recording file to your computer. The default storage path is ".../Data/User/Record". If you want to change the storage path, go to System > File Path .

Parameter	Description
Snapshot	Takes a snapshot of the current video and save it to your computer. If you want to change the storage path, go to System > File Path .
Continuous Snapshot	Takes snapshots of the current video continuously and save it to your computer. If you want to change the storage path, go to System Settings > Local Path .
Start Instant Playback	Play back the video for a define time. If you want to change the playback time, go to System > Monitor Setting .
Playback	Click Playback to turn to the playback page.
Split Track	The current video will be divided into multiple preview panes. One pane is used to play the whole live video, and the others plays parts of the video. You can zoom in or zoom out on the video.
Window Scale	Set the scale of the live video. Only when the split track is in normal mode, window scale function is available.
Stream Type	Select a stream type for the current video.
Image Adjustment	Adjust brightness, contrast, hue and more
Smart OSD	The AI rule and the Analytic bounding boxes will be displayed over the video being viewed.
Full Screen	Goes to the full screen mode. If you want to exit the full screen mode, press Esc or right-click the video window, and then select Exit Full Screen .

2.2.2 Configuring Tours

Tours allow the platform automatically monitor live videos between different video channels at a set order.

Procedure

Step 1 Select **Live View**.

Step 2 Add a tour plan.


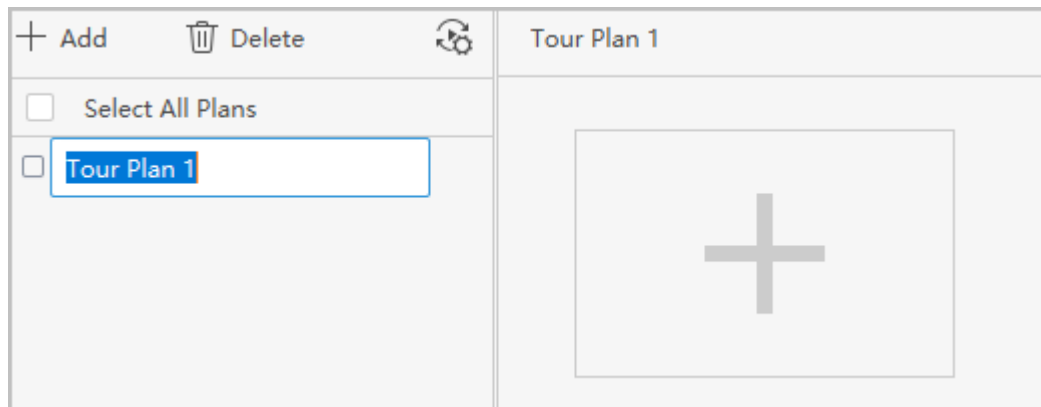
1. Click  at the bottom of the screen.

Figure 2-5 Add tour plan (1)



2. Click **Add**, and then enter the name of the tour plan.

Figure 2-6 Add tour plan (2)




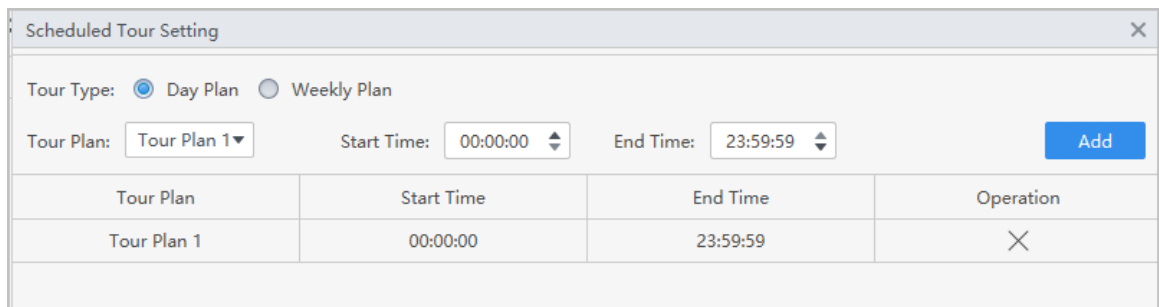
- Step 3** Click  to configure the schedule of the task plan.
1. Select **Day Plan** or **Week Plan** to configure a daily schedules or a weekly schedule.
 2. Select a task plan, and then set the start time and the end time.
You can schedule multiple day plans , but the time cannot overlap.
 3. Click **Add**.
 4. Click **Save**.

Figure 2-7 Schedule of the task plan




- Step 4** Select a task plan, and then click .
- Step 5** Drag video channels to preview windows.
- Step 6** Configure tour parameters.

Figure 2-8 Add tour tasks

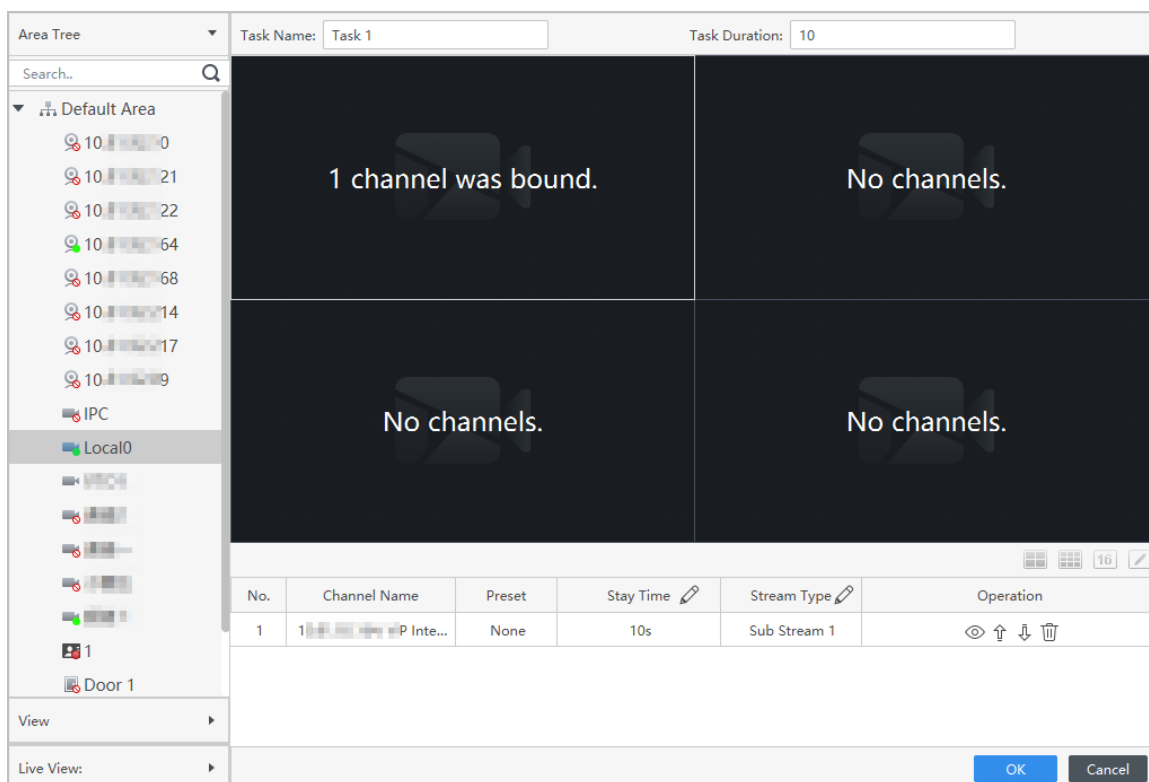


Table 2-5 Parameters description

Parameters/icon	Description
Task Time	Add the duration of each occurrence of the task. Tasks repeat until they are manually stopped.
Preset	If the camera supports PTZ function, you can select a preset point, and then the PTZ camera will go to the defined preset. For how to configure presets. see "2.3.1 Configuring Presets".
Stay Time	Enter the amount of time you want to the preview window stays at this video channel for video monitoring. You can drag and drop multiple video channels to the same preview window, and the accumulated stay time of all channel must not exceed the task time.
Stream Type	Select a stream time for the video channel.
Operation	<ul style="list-style-type: none"> Click to preview the video on the left side of the page. Click to move up the channel. Click to move down the channel. Click to delete the channel.
	Customize window layouts.

Step 7 Select a tour task plan, and then click .


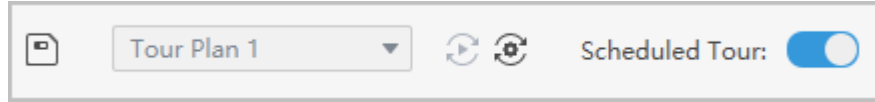
The tour runs immediately, and tours will repeat until manually be stopped by clicking  again. You can also enable **Schedule Tour**, the tour task will perform at the scheduled time.

Figure 2-9 Start a plan



2.2.3 Configuring View Groups

If you have a lot of views, it can be difficult to find the view you're looking for. You can customize a view for your preference, and then it can be opened for quick access in the **View** drop-down list.


Procedure

Step 1 Select **Live View**.

Step 2 Create a new group.

1. Click **View**.
2. Click **New Group**, and then enter the name of the group.
3. Click **Save**.

Step 3 Create a preview window.

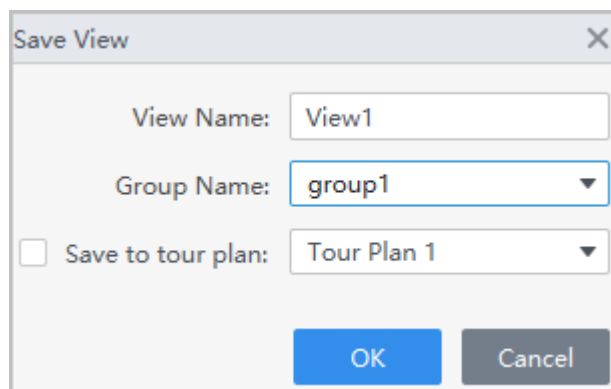
1. Drag and drop video channels to the video windows, and then click  at the bottom of page.
2. Enter the name of the view, and then select a group.
3. (Optional) Select **Save to Monitor Plan**.

After saving to monitor group, the video channel corresponding to the view will automatically add to the task plan.

4. Click **OK**.

A new view is added to the group.

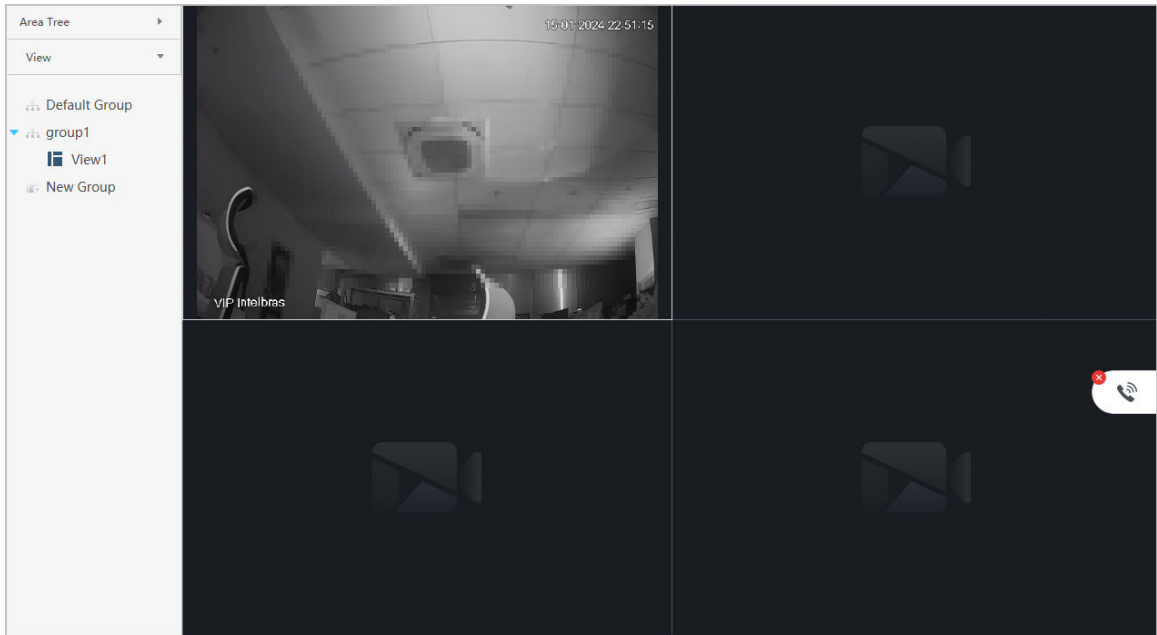
Figure 2-10 Create a view



Results

Double click a pre-defined view, all video channels associated with the view will be opened.

Figure 2-11 View group



2.3 PTZ Configuration

If the added camera has PTZ function, you can control the camera through the PTZ control panel of the platform.

2.3.1 Configuring Presets

You can control PTZ camera movement by directing the camera to move to preset positions. You can also manage your presets by creating and deleting them.

Procedure


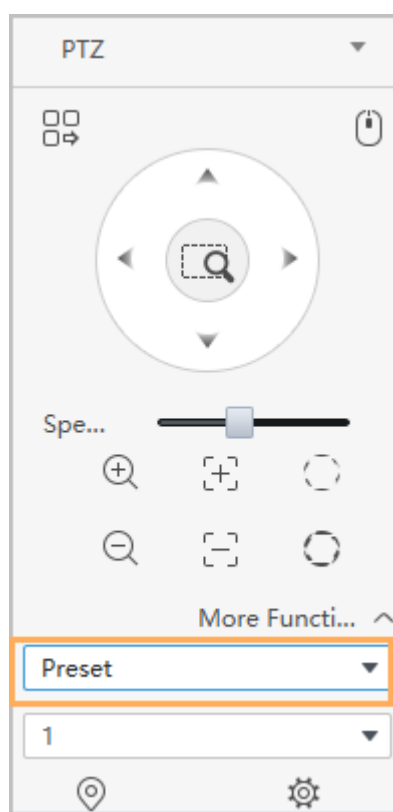

- Step 1 Select **Live View**.
- Step 2 Select a device with PTZ function.
- Step 3 Click PTZ tab, and then add preset points.
 1. On the PTZ control panel, select **Preset**.
 2. Click PTZ direction buttons to move the camera's field of view into a desired position.
 3. Select a preset point, click , and then enter the name of the preset point.

Figure 2-12 Add presets



4. Click .

Step 4 Call presets. Select a preset point from the drop-down list. Click , and then the camera goes to the preset.

2.3.2 Configuring Tour

A tour is a series of presets that can be called to set up an endless loop to monitor different areas.

Prerequisites

At least 2 preset points were added. For details, see "2.3.1 Configuring Presets".

Procedure

Step 1 Select **Live View**.

Step 2 Select the device with PTZ function.

Step 3 Add tour.


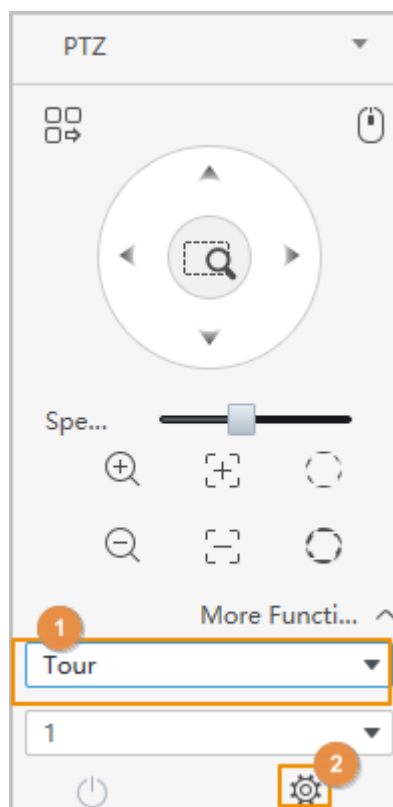
1. select **Tour**, and then click .

Figure 2-13 Add a tour

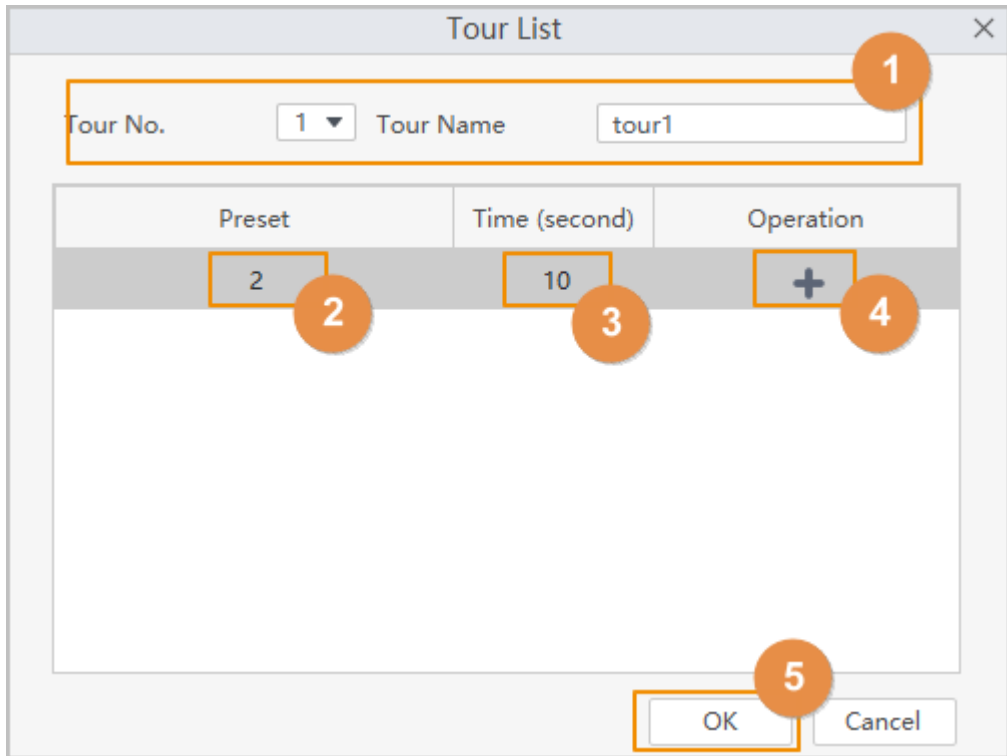


2. Select the **Tour ID**, and then enter the **Tour Name**.
3. Select a preset point, and set the stay time.


The camera will pause at each preset for a specific amount of time for video monitoring.

4. Click **+** to add more presets.
5. Click **OK**.

Figure 2-14 Configure the tour



Step 4 Start the tour.

1. Select **Tour** on the PTZ control panel, and then select a tour.
2. Click , and then the camera starts tour between the configured preset points.

2.3.3 Configuring Pan

A pan moves the PTZ 360° at a set speed.

Procedure

Step 1 Select **Live View**.

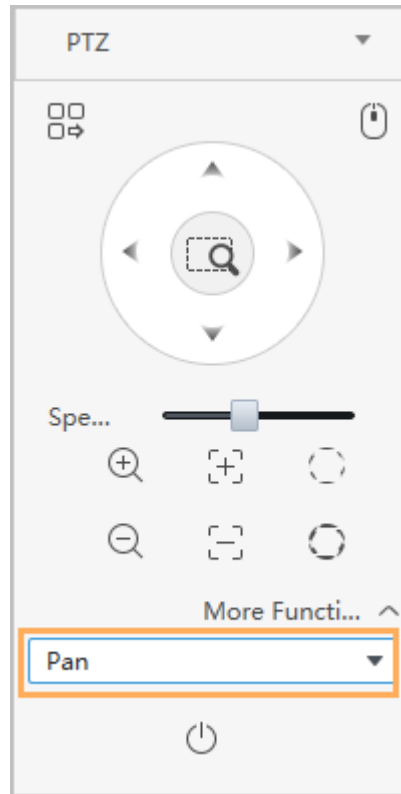
Step 2 Select the device with PTZ function.

Step 3 On the PTZ control panel, select **Pan**.

Step 4 Click .

The camera starts rotating. Click  again, the camera stops rotating.

Figure 2-15 Configure pan



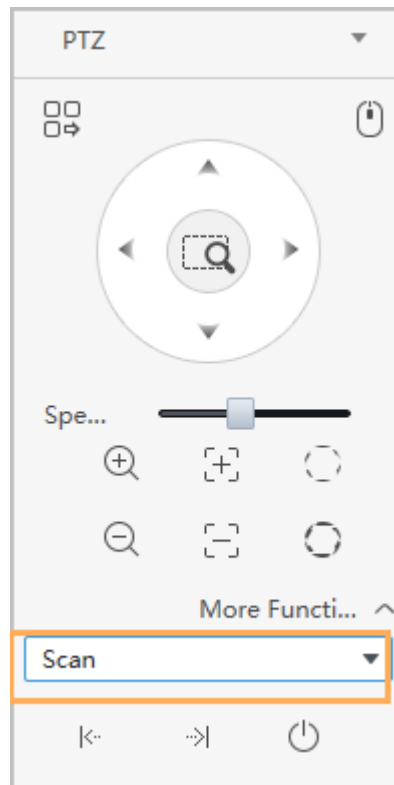
2.3.4 Configuring Scan





The PTZ moves left and right between set boundaries at a set speed.

Procedure

- Step 1 Select **Live View**.
- Step 2 Select the device with PTZ function.
- Step 3 On the PTZ control panel, select **Scan**.

Figure 2-16 Configure scan



- Step 4** Use the PTZ controls to set the camera to where you want the left limit to be, and then click  to set the left boundary.
- Step 5** Use the PTZ controls to set the camera to where you want the right limit to be, and then click  to set the right boundary.
- Step 6** Click  to start scanning, and then the camera moves between the two boundaries.
You can click  again to stop scanning.

2.3.5 Configuring Pattern

Use the PTZ controls to move the camera and create a pattern. Click to stop recording the pattern. The camera can automatically move following the preset movement pattern.

Procedure



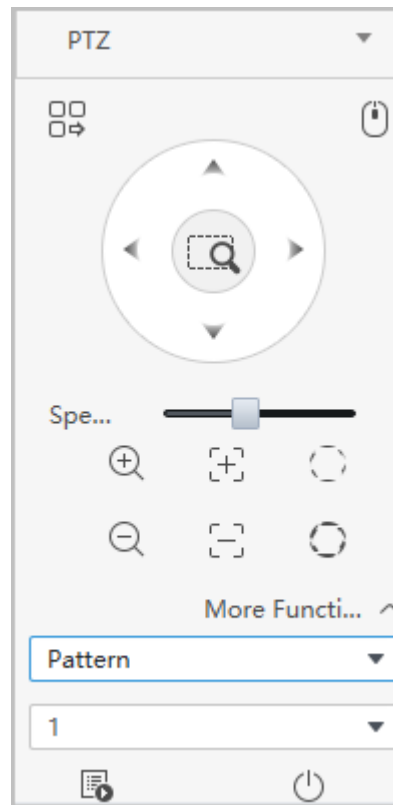

- Step 1** Select **Live View**.
- Step 2** Select the device with PTZ function.
- Step 3** Add a pattern.
1. On the PTZ control panel, select **Pattern**.
 2. Select a pattern number and click .
 3. Use the PTZ controls to move the camera and create the pattern.
 4. Click  to stop recording the pattern.

Figure 2-17 Add a pattern



- Step 4** Select a pattern, and then click .
- The camera automatically moves following the pattern.

2.3.6 Configuring Wiper

The PTZ equipped with a wiper can clear moisture from the lens.

Procedure


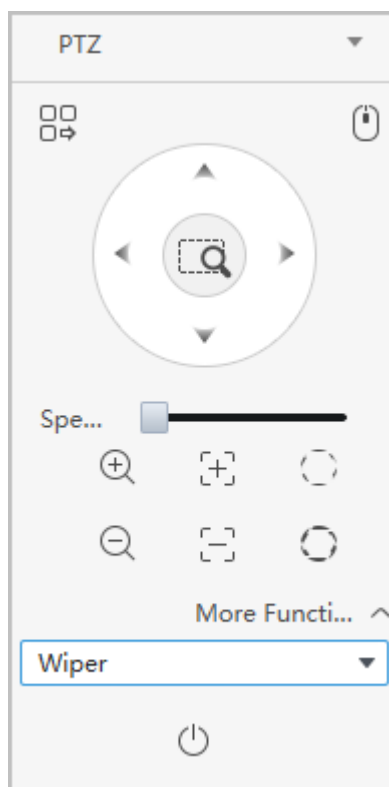
- Step 1** Select **Live View**.
- Step 2** Select the device with the PTZ function.
- Step 3** Select **Wiper** on the PTZ control panel.
- Step 4** Click  to enable wiper function.

Figure 2-18 Wiper function



3 Playback Page

Search and play back the videos saved on the computer and device.

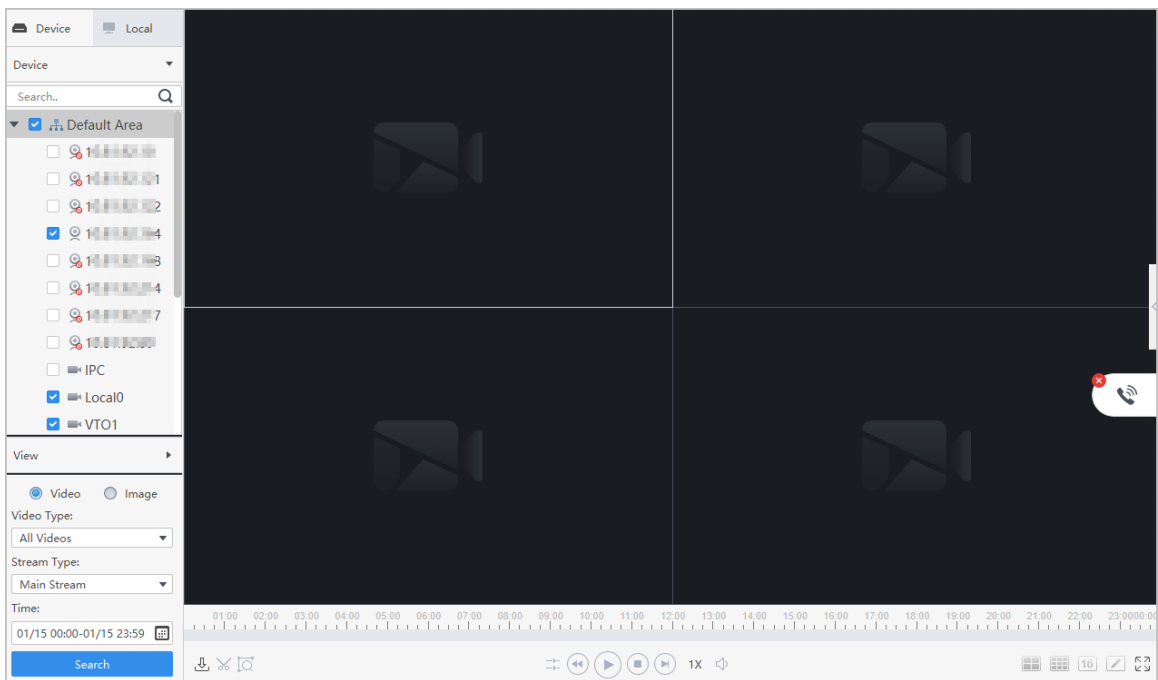
3.1 Playback Videos

3.1.1 Playback Videos on the Device

Procedure




- Step 1** On the home page, select **Playback**.
- Step 2** Select a video channel.
- Step 3** Select **Video**, and then configure the video type and the stream type.
- Step 4** Set a time range.
- Step 5** Click **Search**.








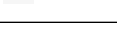



Figure 3-1 Search for recorded videos



- Step 6** Click  to play back the video.


Table 3-1 Description of playback

Icon	Parameter	Description
	Export Progress	View the video export progress.
	Time Clip	Clip and download a video of a certain period.
	Smart Search	Dynamic detection analysis of a certain region of the monitoring screen. Only videos with dynamic images in the detection region can be played back.

Icon	Parameter	Description
	Sync	Synchronize video playback in different windows.
	Backward/Playback	Backward/Playback the video.
	Stop/Pause	Stop/pause the video.
	Play	Play the video.
	Frame by Frame Forward	Play the video frame.
	Normal Playback Speed	Accelerate/decelerate video playback speed.
	Voice	Adjust the voice of the video.
	Timeline	Display the time period of the video. During video playback, you can drag the timeline to playback the video at the corresponding time point.
	Split window	Split into multiple windows.
	Custom Split	Custom window split.
	Full Screen	Goes to the full screen mode.

3.1.2 Playback Videos on the Computer

Procedure

- Step 1** On the home page, select **Playback**.
- Step 2** select **Playback > Local > Video**.
- Step 3** You can play back videos on the computer through 2 methods.
- Method 1: Double-click the video in the record list.
 - Method 2: Select the video in the record list, and then click .

3.2 Viewing Snapshots

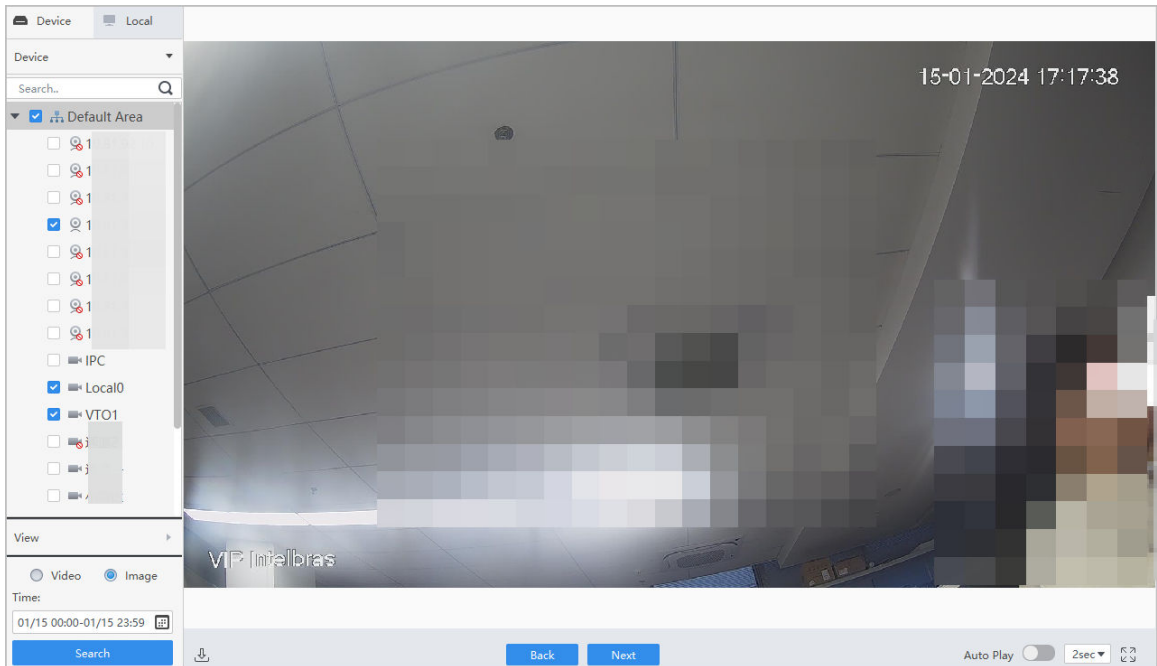
View snapshots on the device and computer.

3.2.1 Viewing Snapshots on the Device

Procedure

- Step 1** On the home page, select **Playback > Device**.
- Step 2** Select device channels.
- Step 3** Set the time range, select **Image**, and then click **Search**.
- The snapshots are displayed.

Figure 3-2 View snapshots on the device

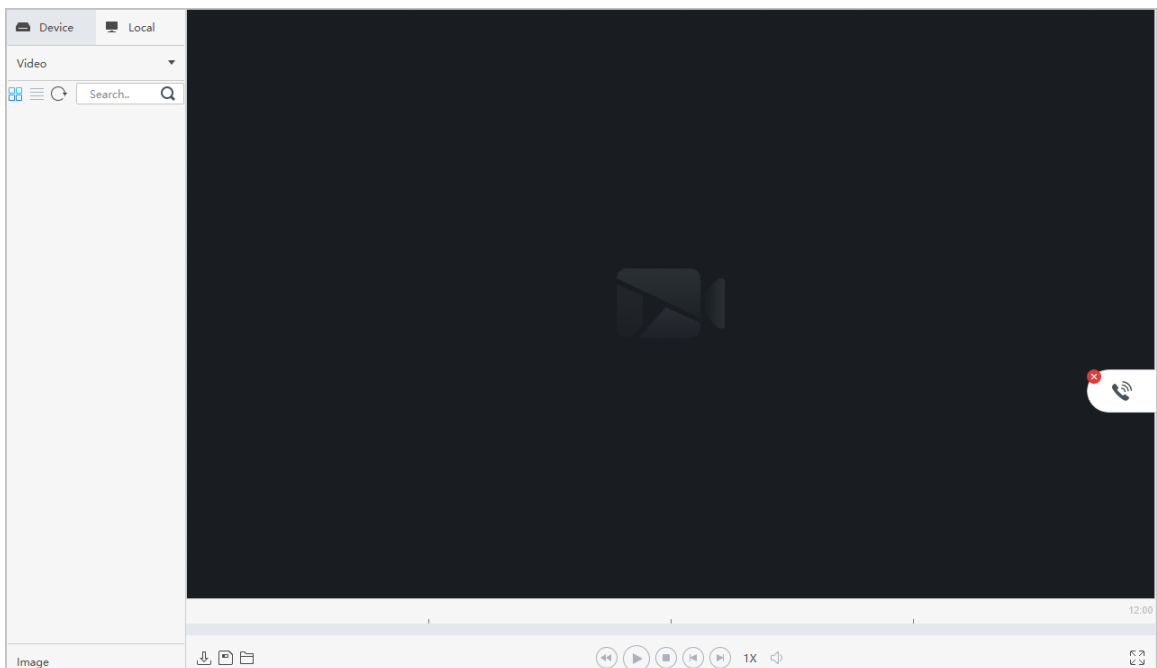


3.2.2 Viewing Snapshots on the Computer

Procedure

- Step 1** On the home page, select **Playback**.
- Step 2** Click **Local**, and then click **Image**.
- Step 3** Select a snapshot in the list, and then the snapshot will be displayed in the window.

Figure 3-3 View snapshots on the computer



3.3 Other Operations

3.3.1 Clipping and Downloading Videos

Procedure


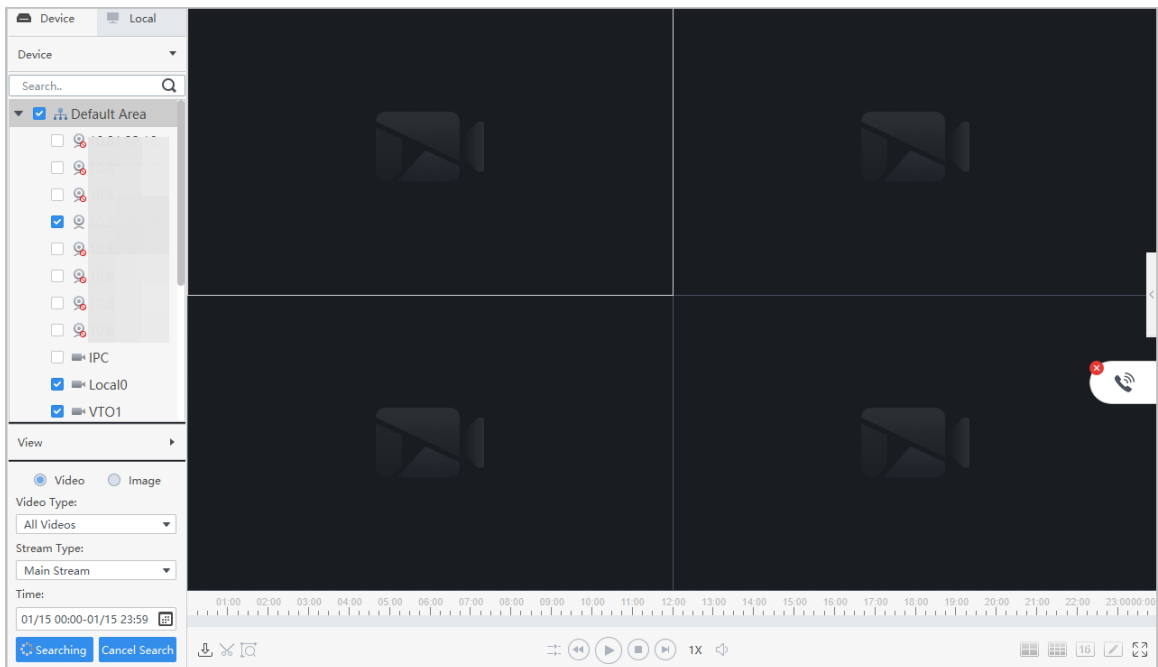




- Step 1** Select **Playback > Device**.
- Step 2** Play back the videos on the device.
- Step 3** Click the window that you need to clip and download the video, and then click  on the lower-left of the page.
- Step 4** Click and drag the left red square on the timeline to set the start time, click and drag the right red square to set the end time.

Figure 3-4 Clip video



- Step 5** Click  again, and then set the export path and export format in the pop-up dialog box.
- Step 6** Click **OK**.
- Step 7** Click  to view the file download list.



- Click  to select all the files.
- Click  to download the selected file.

Related Operations


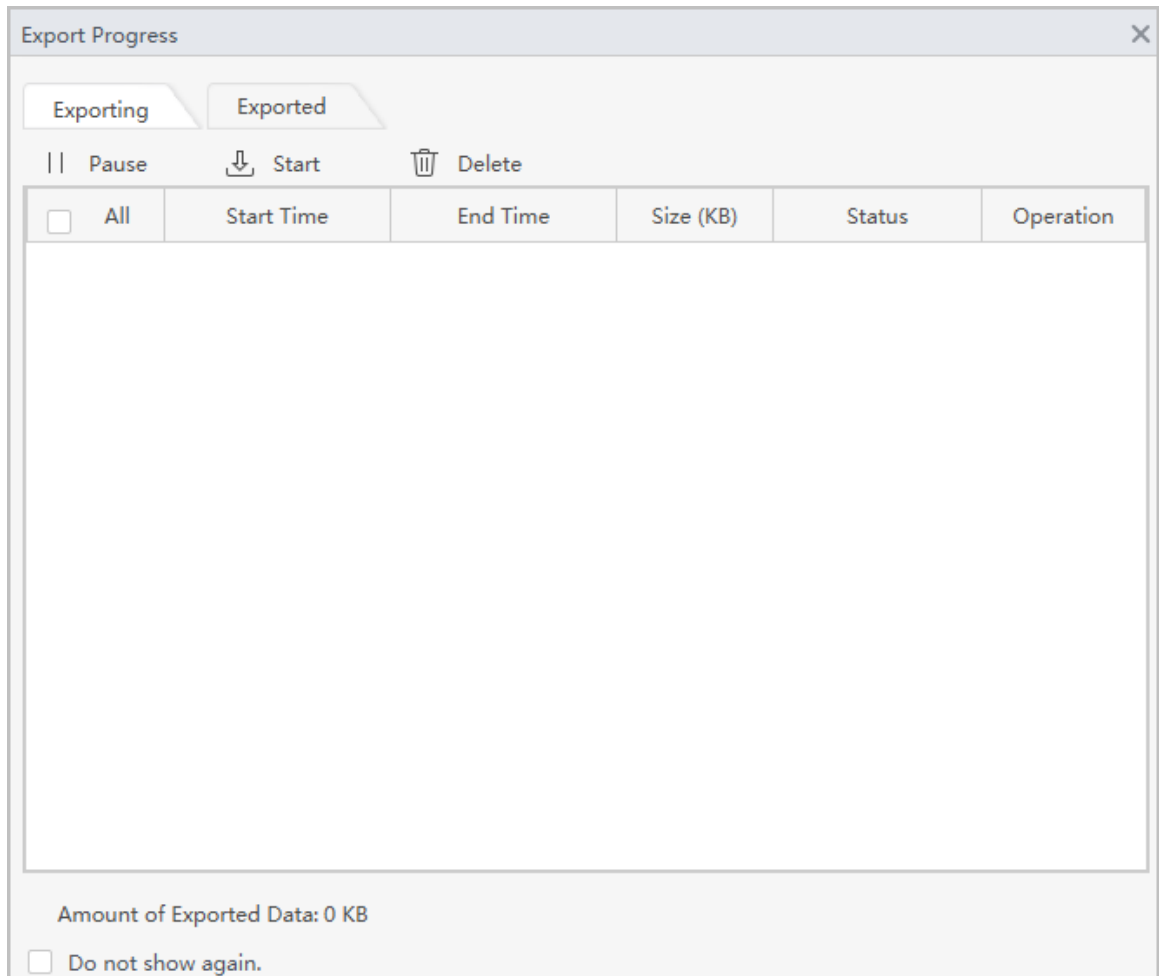
You can view the export progress in the pop-up dialog box or click  at the bottom of the window.

Figure 3-5 Export progress



3.3.2 Smart Search

Smart search is the dynamic detection analysis of a certain area on the monitoring screen. Only the video with dynamic images in the detection area can be played back. You need to add a device that supports smart search function in advance. Otherwise, the result will be empty.

Procedure

Step 1 Select **Playback > Device**.


Step 2 Play back the videos on the device.

Step 3 Click .


Step 4 Click the small square to select the detection area. You can select multiple squares at one time. You can also drag the mouse button on the screen to draw the detection area.




Click the square again to cancel the selection.

Step 5 Click  again to start smart search analysis.

- If there are search results, dynamic frames are displayed in purple on the timeline.
- If there is no search result or the selected area does not support smart search, the platform will indicate that the smart search result is empty.

Step 6 Click  to play back the dynamic frames.

Step 7 Click  to exit smart search.

3.3.3 Synchronizing Playback Multiple Videos

You can set multiple videos to play at the same time.

Prerequisites

Please make sure that each device has a video at the time point of synchronous playback.



Procedure

Step 1 Select **Playback > Device > Device**.

Step 2 Search the video.

1. Select the device you need to play back in the **Device** list, and then click **Record**. Set the video filter conditions, and then click **Search**.

The video window with searched video is displayed with .

2. Click the video window displaying with , and then click  at the bottom. The platform starts to play the video of the device channel selected in the organization tree.

Step 3 Click .

The system automatically plays videos from other channels at the same time point.

Appendix 1 Cybersecurity Recommendations

The necessary measures to ensure the basic cyber security of the platform:

1. Use Strong Passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters.
- Include at least two types of characters; character types include upper and lower case letters, numbers and symbols.
- Do not contain the account name or the account name in reverse order.
- Do not use continuous characters, such as 123, abc, etc.
- Do not use overlapped characters, such as 111, aaa, etc.

2. Customize the Answer to the Security Question

The security question setting should ensure the difference of answers, choose different questions and customize different answers (all questions are prohibited from being set to the same answer) to reduce the risk of security question being guessed or cracked.

Recommendation measures to enhance platform cyber security:

1. Enable Account Binding IP/MAC

It is recommended to enable the account binding IP/MAC mechanism, and configure the IP/MAC of the terminal where the commonly used client is located as an allowlist to further improve access security.

2. Change Passwords Regularly

We suggest that you change passwords regularly to reduce the risk of being guessed or cracked.

3. Turn On Account Lock Mechanism

The account lock function is enabled by default at the factory, and it is recommended to keep it on to protect the security of your account. After the attacker has failed multiple password attempts, the corresponding account and source IP will be locked.

4. Reasonable Allocation of Accounts and Permissions

According to business and management needs, reasonably add new users, and reasonably allocate a minimum set of permissions for them.

5. Close Non-essential Services and Restrict the Open Form of Essential Services

If not needed, it is recommended to turn off NetBIOS (port 137, 138, 139), SMB (port 445), remote desktop (port 3389) and other services under Windows, and Telnet (port 23) and SSH (port 22) under Linux. At the same time, close the database port to the outside or only open to a specific IP address, such as MySQL (port 3306), to reduce the risks faced by the platform.

6. Patch the Operating System/Third Party Components

It is recommended to regularly detect security vulnerabilities in the operating system and third-party components, and apply official patches in time.

7. Security Audit

- Check online users: It is recommended to check online users irregularly to identify whether there are illegal users logging in.
- View the platform log: By viewing the log, you can get the IP information of the attempt to log in to the platform and the key operation information of the logged-in user.

8. The Establishment of a Secure Network Environment

In order to better protect the security of the platform and reduce cyber security risks, it is recommended that:

- Follow the principle of minimization, restrict the ports that the platform maps externally by firewalls or routers, and only map ports that are necessary for services.

- Based on actual network requirements, separate networks: if there is no communication requirement between the two subnets, it is recommended to use VLAN, gatekeeper, etc. to divide the network to achieve the effect of network isolation.