

iVMS-4200 VS Client Software

User Manual

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Port List

For more details about port list, enter Hikvision official website.		

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
<u> </u>	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
iNote	Provides additional information to emphasize or supplement important points of the main text.

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Chapter 1 Overview

1.1 Introduction

iVMS-4200 VS Client Software is a versatile security management software for the DVRs, NVRs, IP cameras, encoders, decoders, etc.

The software provides multiple functionalities, including real-time live view, video recording, remote search and playback, file backup, alarm receiving, etc., for the connected devices to meet the needs of monitoring task. With the flexible distributed structure and easy-to-use operations, the client software is widely applied to the surveillance projects of medium or small scale.

This user manual describes the functions, configurations and operation steps of the client software. To ensure the properness of usage and stability of the software, refer to the contents below and read the manual carefully before installation and operation.

1.2 Summary of Changes

The followings are the key changes between this version and the previous version.

- Newly added cylinder mode for fisheye expansion. For details, refer to **Perform Live View in Fisheye Mode** and **Fisheye Camera's Video Playback**.
- During live view, supports switching stream type in multiple ways. For details, refer to *More Functions*.
- Newly added thumbnails during playback. For details, refer to *Play Video Files* .
- Optimized the report display in Report module. For details, refer to *Statistics* .
- Newly added searching by features of human bodies and faces in Data Retrieval module. For details, refer to Face Picture Retrieval and Human Body Retrieval.
- Newly added rarely appeared person search. For details, refer to Search Rarely Appeared
 Person .
- Newly added searching attendance logs recorded by facial recognition. For details, refer to Facial Recognition Check-in.
- Newly added viewing target person's moving pattern on the map. For details, refer to View Person's Moving Pattern.

Chapter 2 Service Management

iVMS-4200 VS Service is mainly applicable for data storage, data management, and data calculation. With continuous running and processing, it can manage the data, such as event records, received by the iVMS-4200 VS Client Software. iVMS-4200 VS Service also provides management for user permissions, devices, groups, logs, etc.

You can view the module running status and edit its ports, including HTTP port and ISUP port. You need to restart the iVMS-4200 VS Service to take effect.

Check **Auto-Launch** to enable launching the iVMS-4200 VS Service automatically after the PC started up.

The iVMS-4200 VS Service will not show after running it. Enter the system tray and click to open the service management window. Click **Edit Port** to open the Edit Port window. Enter the ISUP port number configured on the router, so that you will be able to add ISUP devices to the client for management.

$\prod_{\mathbf{i}}$ Note

- After closing the service window, the client will log out and return to the login page. You need to run the service and then log in again.
- The client can be run by no more than one operating system user at the same time on the same computer.
- The Service should run on the same computer with the client.

Chapter 3 Device Management

The client supports various types of devices including network camera, DVR (Digital Video Recorder), NVR (Network Video Recorder), etc.

Example

You can view live view or playback after adding encoding devices to the client; you can arm or disarm zones of a security control panel, receive alarm notifications after adding a security control panel to the client.

3.1 Activate Devices

For the inactive devices, you are required to create a password to activate them before they can be added to the software and work properly.

Before You Start

Make sure the device to be activated is connected to the network and is in the same subnet with the PC running the client.

Steps



This function should be supported by the device.

- 1. Enter the Device Management page.
- 2. Click **Device** tab on the top of the right panel.
- **3.** Click **Online Device** to show the online device area at the bottom of the page.

The searched online devices are displayed in the list.

4. Check the device status (shown on **Security Level** column) and select an inactive device.



Figure 3-1 Online Inactive Device

- 5. Click Activate to open the Activation dialog.
- **6.** Create a password in the password field, and confirm the password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least

three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- **7. Optional:** For the NVR device connecting with inactive network camera(s), create a password in **Network Cameras' Default Password** field and enter the confirm password for activating the network camera(s) via NVR.
- **8. Optional:** Enable Cloud P2P service when activating the device if the device supports.
 - 1) Check Enable Cloud P2P to open the Note dialog.
 - 2) Create a verification code.
 - 3) Confirm the verification code.
 - 4) Click **Terms of Service** and **Privacy Policy** to read the requirements.
 - 5) Click **OK** to enable the Cloud P2P service.
- 9. Click OK to activate the device.

3.2 Add Device

The client provides various device adding modes including IP/domain, IP segment, cloud P2P, and HiDDNS. The client also supports importing multiple devices in a batch when there are large amount of devices to be added.

3.2.1 Add Online Device

The active online devices in the same local subnet with the client software will be displayed on the **Online Device** area. You can click **Refresh Every 60s** to refresh the information of the online devices.

Add a Detected Online Device

You can select a detected online device displayed in the online device list and add it to the client.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device** tab on the top of the right panel.
- 3. Click Online Device to show the online device area.

The searched online devices are displayed in the list.

4. Select an online device in the **Online Device** area, and click **Add** to open the device adding window.



For the inactive device, you need to create the password for it before you can add the device properly. For detailed steps, refer to *Activate Devices* .

5. Enter the required information.

Name

Enter a descriptive name for the device.

IP Address

Enter the device's IP address. The IP address of the device is obtained automatically in this adding mode.

Port

You can customize the port number. The port number of the device is obtained automatically in this adding mode.

User Name

By default, the user name is **admin**.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

6. Optional: Check **Transmission Encryption (TLS)** to enable transmission encryption using TLS (Transport Layer Security) protocol for security purpose.



- This function should be supported by the device.
- If you have enabled Certificate Verification, you should click Open Certificate Directory to
 open the default folder, and copy the certificate file exported from the device to this default
 directory to strengthen the security. See Certificate Verification for Transmission Encryption
 for details about enabling certificate verification.
- You can log into the device to get the certificate file by web browser.
- **7.** Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.

8. Optional: Check **Import to Group** to create a group by the device name, and import all the channels of the device to this group.

Example

For encoding device, its encoding channels and alarm inputs/outputs will be imported to this group.

- 9. Click Add.
- 10. Optional: Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.
	Note
	See the user manual of the device for details.
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.
Edit Device Information	Click \blacksquare on Operation column to edit the device information, such as IP address, user name, and password.
Check Online User	Click on Operation column to check the online users who access the device, such as user name, user type, user's IP address, and login time.
Refresh	Click on Operation column to get the latest device information.
Delete Device	Select one or multiple devices and click Delete to delete the selected device(s) from the client.

Add Multiple Detected Online Devices

For detected online devices sharing the same user name and password, you can add them to the client in a batch.

Before You Start

Make sure the to-be-added devices are online.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device** tab on the top of the right panel.
- **3.** Click **Online Device** to show the online device area at the bottom of the page. The searched online devices are displayed in the list.
- 4. Select multiple devices.



For the inactive device, you need to create the password for it before you can add the device properly. For details, refer to *Activate Devices* .

- 5. Click Add to open the device adding window.
- **6.** Enter the required information.

User Name

By default, the user name is admin.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- **7. Optional:** Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
- **8. Optional:** Check **Import to Group** to create a group by the device name, and import all the channels of the device to this group.

Example

For encoding device, its encoding channels and alarm inputs/outputs will be imported to this group.

- 9. Click Add to add the devices.
- **10. Optional:** Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.
	Note
	See the user manual of the device for details.
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.
Edit Device Information	Click on Operation column to edit the device information, such as IP address, user name, and password.

Check Online User Click on Operation column to check the online users who access

the device, such as user name, user type, user's IP address, and

login time.

Refresh Click on Operation column to get the latest device information.

Delete Device Select one or multiple devices and click **Delete** to delete the

selected device(s) from the client.

3.2.2 Add Device by IP Address or Domain Name

If you know the IP address or domain name of the device to add, you can add devices to the client by specifying the IP address (or domain name), user name, password, etc.

Steps

1. Enter Device Management module.

2. Click **Device** tab on the top of the right panel.

The added devices are displayed on the right panel.

- 3. Click Add to open the Add window, and then select IP/Domain as the adding mode.
- 4. Enter the required information.

Name

Create a descriptive name for the device. For example, you can use a nickname that can show the location or feature of the device.

Address

The IP address or domain name of the device.

Port

The devices to add share the same port number. The default value is **8000**.

User Name

Enter the device user name. By default, the user name is *admin*.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- 5. Optional: Add the offline devices.
 - 1) Check Add Offline Device.
 - 2) Enter the required information, including the device channel number and alarm input number.



After adding the offline device to the client, the device network status will be displayed as "Offline"; When the device comes online, the device network status will turn to "Online", and the client will connect it automatically.

6. Optional: Check **Transmission Encryption (TLS)** to enable transmission encryption using TLS (Transport Layer Security) protocol for security purpose.

Note

- This function should be supported by the device.
- If you have enabled Certificate Verification, you should click Open Certificate Directory to
 open the default folder, and copy the certificate file exported from the device to this default
 directory to strengthen the security. See Certificate Verification for Transmission Encryption
 for details about enabling certificate verification.
- You can log into the device to get the certificate file by web browser.
- **7.** Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
- **8. Optional:** Check **Import to Group** to create a group by the device name, and import all the channels of the device to this group.

Example

For encoding device, its encoding channels and alarm inputs/outputs will be imported to this group.

- **9.** Finish adding the device.
 - Click Add to add the device and back to the device list page.
 - Click **Add and New** to save the settings and continue to add other device.
- **10. Optional:** Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.
	iNote
	For detail operation steps for the remote configuration, see the user manual of the device.
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.

Edit Device Click on Operation column to edit the device information, such

Information as IP address, user name, and password.

Check Online User Click on Operation column to check the online users who access

the device, such as user name, user type, user's IP address, and

login time.

Refresh Click on Operation column to get the latest device information.

Delete Device Select one or multiple devices and click **Delete** to delete the

selected device(s) from the client.

3.2.3 Add Devices by IP Segment

If the devices share the same port No., user name and password, and their IP addresses ranges in the same IP segment, you can add them to the client by specifying the start IP address and the end IP address, port No., user name, password, etc of the devices.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device** tab on the top of the right panel.

The added devices are displayed on the right panel.

- 3. Click Add to open the Add window.
- 4. Select IP Segment as the adding mode.
- **5.** Enter the required information.

Start IP

Enter a start IP address.

End IP

Enter an end IP address in the same network segment with the start IP.

Port

Enter the device port No. The default value is 8000.

User Name

By default, the user name is admin.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers,

and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- 6. Optional: Add the offline devices.
 - 1) Check Add Offline Device.
 - 2) Enter the required information, including the device channel number and alarm input number.



After adding the offline device to the client, the device network status will be displayed as "Offline"; When the device comes online, the device network status will turn to "Online", and the client will connect it automatically.

7. Optional: Check **Transmission Encryption (TLS)** to enable transmission encryption using TLS (Transport Layer Security) protocol for security purpose.



- This function should be supported by the device.
- If you have enabled Certificate Verification, you should click **Open Certificate Folder** to open the default folder, and copy the certificate file exported from the device to this default directory to strengthen the security. See *Certificate Verification for Transmission Encryption* for details about enabling certificate verification.
- You can log into the device to get the certificate file by web browser.
- **8.** Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
- **9. Optional:** Check **Import to Group** to create a group by the device name, and import all the channels of the device to the group.
- 10. Finish adding the device.
 - Click **Add** to add the device and back to the device list page.
 - Click **Add and New** to save the settings and continue to add other device.
- 11. Optional: Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.
	Note
	For detail operation steps for the remote configuration, see the user manual of the device.
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.

Edit Device Click on Operation column to edit the device information, such

Information as IP address, user name, and password.

Check Online User Click on Operation column to check the online users who access

the device, such as user name, user type, user's IP address, and

login time.

Refresh Click on Operation column to get the latest device information.

Delete Device Select one or multiple devices and click **Delete** to delete the

selected device(s) from the client.

3.2.4 Add Device by Cloud P2P

If the device supports Cloud P2P and its Cloud P2P function has been enabled, you can add it to both the client and Cloud P2P account by Cloud P2P mode; for devices already added to the Cloud P2P account, you can add them to the client after logging into the Cloud P2P account.

Before You Start

Make sure you have registered and logged into a Cloud P2P account first.

Steps

1. Enter Device Management module.

The added devices are displayed on the right panel.

- 2. Click **Device** tab on the top of the right panel.
- 3. Click Add to open the Add window.
- 4. Select Cloud P2P as the adding mode.
 - For the first time, you will be required to log into the Cloud P2P account.
 - The logged-in Cloud P2P account is displayed.
- **5.** Select a region to login in the drop-down list of **Select the Region to Login** and then log into the Cloud P2P account, or enter the device serial number.
 - Enter the serial number which you can find on the device label.
 - If the IP address of the device is in the same local subnet with the client, click **Online Device** and select an online device to get its serial number automatically.
- 6. Enter the verification code of the device.

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	_	Note
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You can create the verification code when activating the device and enabling the Cloud P2P service, and is the same with the verification code created when enabling stream encryption. You can also create it on the device configuration page.

7. Optional: Enable DDNS to access the device by Cloud P2P Domain.

Device Domain Name

Customize the device domain name, which is used to get the IP address and port of the device registered on Cloud P2P server.

UPnP Mode

Auto

Select Auto as the UPnP Mode to get the port number of the device automatically.

Manual

Select **Manual** as the UPnP Mode, and you need to input the port number of the device manually.

User Name

Enter the device user name. By default, the user name is *admin*.

Password

Enter the device password, which is created when you activate the device.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

Note

If DDNS function is disabled, you cannot do some operations for the added device through client, such as viewing the device status, downloading the video files during remote playback, generating QR codes of devices, etc.

- **8. Optional:** Check **Import to Group** to create a group by the Cloud P2P account name, and import all the channels of the device to the group.
- 9. Add device to the client software and Cloud P2P account.
 - Click Add to add the device and return to the device list.
 - Click **Add and New** to add the device and continue to add the next device.
- **10. Optional:** Perform the following operation(s).

Remote Configuration

Click on Operation column to set remote configuration of the corresponding device.



For detail operation steps for the remote configuration, see the user manual of the device.

Edit Device Click **t** to edit the device details.

Information

Delete Device Select one or multiple devices and click **Delete** to delete the

selected device(s) from the client.

3.2.5 Add Device by HiDDNS

HiDDNS is a free-charging DNS server of Hikvision. If you have no enough IP addresses for the devices, you can add devices to the client by HiDDNS mode after registering the devices to HiDDNS server. The HiDDNS will parse the domain name as IP addresses of the devices for a good-quality connection to network.

Steps

1. Enter Device Management module.

The added devices are displayed on the right panel.

- 2. Click **Device** tab on the top of the right panel.
- **3.** Click **Add** to open the Add window.
- **4.** Select **HiDDNS** as the adding mode.
- 5. Enter the required information.

Server Address

www.hik-online.com

Domain

Enter the device's domain name registered on HiDDNS server.

User Name

Enter the device user name.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- **6. Optional:** Add the offline devices.
 - 1) Check Add Offline Device.

2) Enter the required information, including the device channel number and alarm input number.

Note

After adding the offline device to the client, the device network status will be displayed as "Offline"; When the device comes online, the device network status will turn to "Online", and the client will connect it automatically.

- **7. Optional:** Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
- **8. Optional:** Check **Import to Group** to create a group by the device name, and import all the channels of the device to the group.
- 9. Finish adding the device.
 - Click **Add** to add the device and back to the device list page.
 - Click **Add and New** to save the settings and continue to add other device.
- **10. Optional:** Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.	
	i Note	
	For detail operation steps for the remote configuration, see the user manual of the device.	
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.	
Edit Device Information	Click $\overline{\mathbb{Z}}$ on Operation column to edit the device information, such as IP address, user name, and password.	
Check Online User	Click on Operation column to check the online users who access the device, such as user name, user type, user's IP address, and login time.	
Refresh	Click on Operation column to get the latest device information.	
Delete Device	Select one or multiple devices and click Delete to delete the selected device(s) from the client.	

3.2.6 Import Devices in a Batch

You can add multiple devices to the client in a batch by entering the device parameters in a predefined CSV file.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device** tab on the top of the right panel.

- 3. Click Add to open the Add window, and then select Batch Import as the adding mode.
- 4. Click Export Template and then save the pre-defined template (CSV file) on your PC.
- **5.** Open the exported template file and enter the required information of the devices to be added on the corresponding column.



For detailed description of the required fields, refer to the introductions in the template.

Adding Mode

Enter **0** or **1** or **2**.

Address

Edit the address of the device.

Port

Enter the device port number. The default port number is 8000.

User Name

Enter the device user name. By default, the user name is *admin*.

Password

Enter the device password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

Add Offline Device

Enter 1 to enable adding an offline device.

After adding the offline device to the client, the device network status will be displayed as "Offline"; When the device comes online, the device network status will turn to "Online", and the client will connect it automatically. Enter **0** to disable adding an offline device.

Import to Group

Enter **1** to create a group by the device name. All the channels of the device will be imported to the corresponding group by default. Enter **0** to disable this function.

Channel Number

If you enable **Add Offline Device**, enter the channel number of the device. If you disable **Add Offline Device**, this field is not required.

Alarm Input Number

If you enable **Add Offline Device**, enter the alarm input number of the device. If you disable **Add Offline Device**, this field is not required.

- **6.** Click and select the template file.
- 7. Click Add to import the devices.
- **8. Optional:** Perform the following operation(s).

Remote Configuration	Click on Operation column to set remote configuration of the corresponding device.
	i Note
	For detail operation steps for the remote configuration, see the user manual of the device.
Device Status	Click on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.
Edit Device Information	Click $\overline{\square}$ on Operation column to edit the device information, such as IP address, user name, and password.
Check Online User	Click on Operation column to check the online users who access the device, such as user name, user type, user's IP address, and login time.
Refresh	Click 🗃 on Operation column to get the latest device information.
Delete Device	Select one or multiple devices and click Delete to delete the selected device(s) from the client.

3.3 Edit Device's Network Information

After activating device, you can edit the network information (including IP address, port number, gateway, etc.) for the online device.

Before You Start

Activate the device if the device status is inactivated.

Steps

- 1. Enter Device Management page.
- 2. Click **Device** tab on the top of the right panel.
- 3. Click Online Device to show the online device area.

All the online devices sharing the same subnet will be displayed in the list.

- 4. Select an activated device in Online Device area.
- 5. Click on the Operation column to open the Modify Network Parameter window.

Note

This function is only available on the **Online Device** area.

- **6. Optional:** Change the device IP address to the same subnet with your computer if you need to add the device to the client.
 - Edit the IP address manually.
 - Check **DHCP** to set the IP address as a static IP address.
- **7.** Enter the password created when you activate the device.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

8. Click **OK** to complete the network settings.

3.4 Restore/Reset Device Password

If you forgot the password of the detected online devices, you can restore the device's default password or reset the device's password through the client.

3.4.1 Reset Device Password

If you forgot the password of the detected online devices, you can reset the device password via the client.

Steps

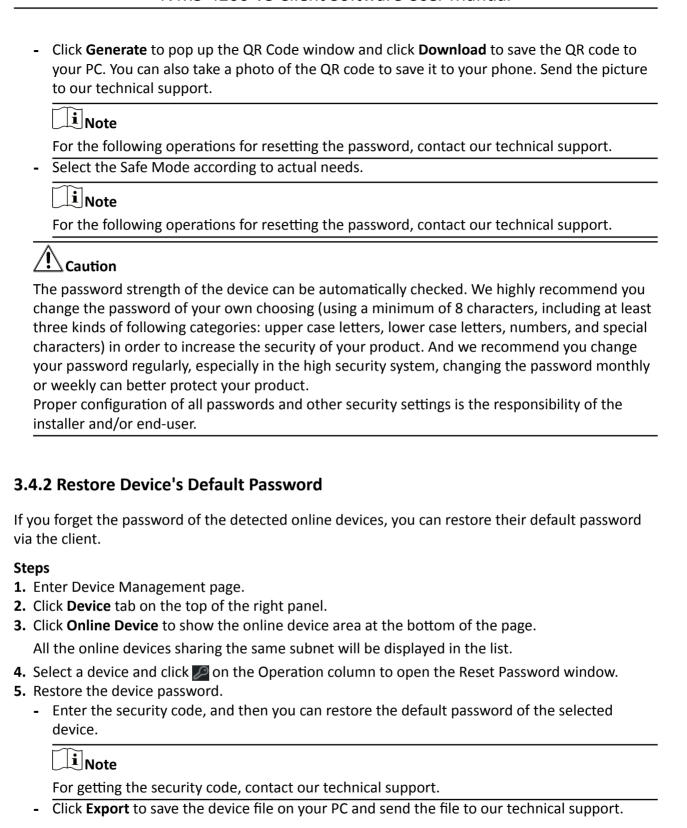
- 1. Enter Device Management page.
- 2. Click **Device** tab on the top of the right panel.
- 3. Click Online Device to show the online device area.

All the online devices sharing the same subnet will be displayed in the list.

- **4.** Select the device from the list and click **2** on the Operation column.
- **5.** Reset the device password.
 - Click **Export** to save the device file on your PC and then send the file to our technical support.



For the following operations for resetting the password, contact our technical support.





For the following operations for resetting the password, contact our technical support.

What to do next

The default password (12345) for the admin account is for first-time login purposes only. You must change this default password to better protect against security risks, such as the unauthorized access by others to the product that may prevent the product from functioning properly and/or lead to other undesirable consequences.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

3.5 Check Device's QR Code

The client can generate a QR code of the added device(s). You can add the device(s) to your mobile client after scanning the QR code.

Steps

Note

- Devices added via Cloud P2P with **DDNS** enabled do not support this function.
- 1. Enter Device Management module.
- **2.** Click **Device** tab on the top of the right panel.

The added devices are displayed in the list.

3. Select one or more device and click QR Code to open the QR Code window.

What to do next

Add the device to mobile client after scanning the QR code. For details, see user manual of the mobile client.

3.6 Upgrade Device Firmware Version

When there is a new firmware version available for the added device, you can upgrade its firmware version via the client.

Note

- The device should support this function.
- You can configure upgrading mode in System Configuration. See Set General Parameters for details.

Enter the Device Management module, and then click **Device** tab to show the device list. Perform the following operations according to different upgrading modes.

Disable

On the Device for Management panel, if there is a new firmware version available, the status in the Firmware Upgrade column of the device will turn to **Upgradeable**.

Select the upgradeable device and click **Upgrade** to start upgrading the device firmware.



The upgrade progress will show. When the upgrade is completed, the status in the Firmware Upgrade column of the device will turn to **Upgraded**.

Prompt Me If Download and Upgrade

If there is a new firmware version available, a prompt window will pop up. Click **Upgrade All** to start downloading and upgrading.

Download and Prompt Me If Upgrade

A dialog will pop up for selecting whether to upgrade after downloading package of new version. Click **Upgrade All** to start upgrading the device firmware.

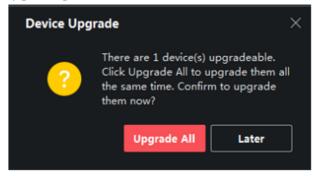


Figure 3-2 Device Upgrade Prompt



After clicking **Upgrade All**, a prompt will pop up for viewing details. If you are not in Device Management page, click **View Details** to jump to Device Management page; if you are in Device Management page, close the prompt.

Download and Update Automatically

After the client detects the new version of the devices, it will download the new version and upgrade the new version without noticing the user.

On the device management page, the following updating status will be shown in the Firmware Update column.

No Available Version

No new firmware version available.

Upgradeable

A new firmware version available.



Move the cursor on **(7)** to view the current version, latest version, and upgrade content of the firmware version.

Waiting

The device is waiting for upgrade.

Downloading

The client is downloading the package of the new firmware version.

Upgrading

The upgrading of the device firmware is going on.

Upgraded

Hover the cursor on **Upgraded** to show the version after upgrading.

Upgrading Failed

When the upgrade fails, a prompt will pop up for viewing details. If you are not in Device Management page, click **View Details** to jump to Device Management page; if you are in Device Management page, close the prompt. Hover the cursor on **Upgrading Failed** to show the error details, and click **Upgrade Again** to try again.

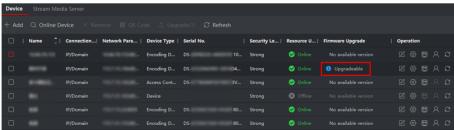


Figure 3-3 Firmware Upgrade

Chapter 4 Group Management

The client provides groups to manage the added resources in different groups. You can group the resources into different groups according to the resources' locations.

Example

For example, on the 1st floor, there mounted 64 cameras, 64 alarm inputs, and 16 alarm outputs. You can organize these resources into one group (named 1st Floor) for convenient management. You can get the live view, play back the video files, and do some other operations of the devices after managing the resources by groups.

4.1 Add Group

You can add group to organize the added device for convenient management.

Steps

- 1. Enter the Device Management module.
- **2.** Click **Device Management** → **Group** to enter the group management page.
- 3. Create a group.
 - Click **Add Group** and enter a group name as you want.
 - Click **Create Group by Device Name** and select an added device to create a new group by the name of the selected device.



The resources (such as encoding channels, alarm inputs/outputs, etc.) of this device will be imported to the group by default.

4.2 Import Resources to Group

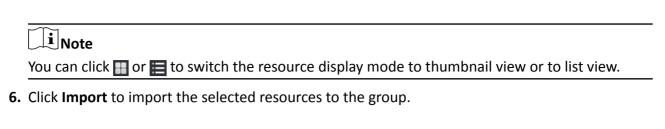
You can import the device resources (such as encoding channels, alarm inputs/outputs, etc.) to the added group in a batch.

Before You Start

Add a group for managing devices. Refer to Add Group.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device Management** → **Group** to enter the group management page.
- **3.** Select a group from the group list and select the resource type as **Encoding Channel**, **Alarm Input**, **Alarm Output**, **Zone**, etc.
- 4. Click Import.
- 5. Select the thumbnails/names of the resources in the thumbnail/list view.



4.3 Edit Resource Parameters

After importing the resources to the group, you can edit the resource parameters. For encoding channel, you can edit the channel name, stream type, protocol type, etc. For alarm input, you can edit the alarm input name. Here we take encoding channel as an example.

Before You Start

Import the resources to group. Refer to Import Resources to Group.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device Management** → **Group** to enter the group management page.

All the added groups are displayed on the left.

3. Select a group on the group list and click **Encoding Channel**.

The encoding channels imported to the group will display.

- **4.** Click **1** in the Operation column to open the Edit Resource window.
- **5.** Edit the camera information, including the camera name, the stream type, etc.

Video Stream

Select the stream type for live view of the camera as desired.



You should start live view again to take effect.

Playback Stream Type

Select the stream type for playback of the camera as desired.



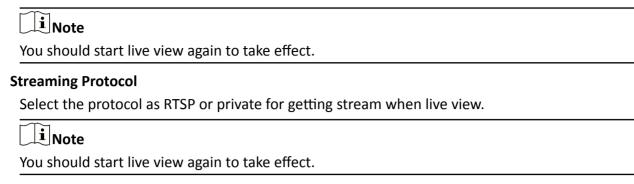
- This field will display if the device supports dual-stream.
- You should start live view again to take effect.

Rotation Type

Select the rotate type for the live view or playback of the camera as desired.

Protocol Type

Select the transmission protocol for the camera.



Stream Media Server

Get stream of the camera via stream media server. You can select and manage the available stream media server.

Copy to...

Copy the configured parameters to other camera(s).

Refresh

Get a new captured picture for the live view of the camera.

6. Click **OK** to save the new settings.

4.4 Remove Resources from Group

You can remove the added resources from the group.

Steps

- 1. Enter the Device Management module.
- 2. Click **Device Management** → **Group** to enter the group management page.

All the added groups are displayed on the left.

- 3. Click a group to show the resources added to this group.
- **4.** Select the resource(s) and click **Delete** to remove the resource(s) from the group.

Chapter 5 Cloud P2P

The client software also supports to register a Cloud P2P account, log into your Cloud P2P account and manage the devices which support the Cloud P2P service.

5.1 Register a Cloud P2P Account

The client supports registering a Cloud P2P account to manage devices which supports Cloud P2P service.

Steps

- 1. Enter the login page of Cloud P2P.
 - Click Log in in the upper-right corner of the client.
 - a. Click **Device Management** → **Device** to enter the Device Management page.
 - b. Click **Add** to open the Add Device panel.
 - c. Select Cloud P2P as the adding mode.
 - d. Click Login.

The Login window pops up.

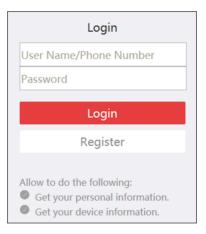


Figure 5-1 Login Window

- 2. Click Register to open the Register Account window.
- **3.** Enter the required information, including user name, password, confirm password, and phone number/email address.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change

your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

4. Click **Send Message** to get a verification code.

The system will send verification code to your phone or email.

- 5. Enter the received verification code in the Verification Code text field.
- 6. Check I have read and agreed Terms of Service Privacy Policy.
- 7. Click **Register** to finish the registration.

5.2 Log into Cloud P2P Account

You can log into Cloud P2P account via the client, so as to operate devices managed by Cloud P2P account.

Before You Start

Register a Cloud P2P account.



For details, refer to Register a Cloud P2P Account .

Steps

- 1. Enter the login page of Cloud P2P.
 - Click **Log in** in the upper-right corner of the client.
 - a. Click **Device Management** → **Device** to enter the Device Management page.
 - b. Click **Add** to open the Add Device panel.
 - c. Select Cloud P2P as the adding mode.
 - d. Click Login.

The Login window pops up.

- 2. Enter user name/phone number, and password.
- 3. Click Log in to log into your account.

Log in will turn to Logged in.

4. Optional: Click **Logged in** → **Log out** to log out of your account.



- Devices added by Cloud P2P will be hidden after logging out the Cloud P2P.
- Alarm-related pictures saved in Cloud P2P will be valid for 2 hours.

Chapter 6 Live View

For the surveillance task, you can view the live video of the added network cameras and video encoders on the Main View page. And some basic operations are supported, including picture capturing, manual recording, window division, PTZ control, Auto-Switch in live view, etc.

6.1 Start Live View

You can start live view after adding device(s) to the client, to know the monitored area well. You can start the live view of one camera or all cameras in a group. You can also start the live view in custom view mode.



If the device supports stream encryption, and the stream of its live view is encrypted, you are required to enter a stream key for double verification.

6.1.1 Start Live View for One Camera

You can start the live view of only one camera.

Before You Start

A camera group is required to be defined for live view.

Steps

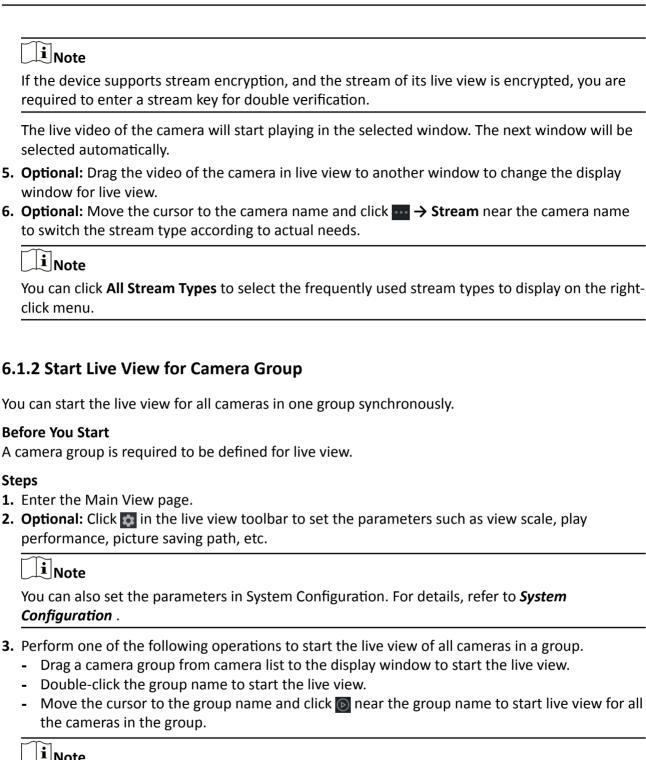
- 1. Enter the Main View page.
- 2. Optional: Click III in live view toolbar to select a window division mode for live view.
- **3. Optional:** Click in the live view toolbar to set the parameters such as view scale, play performance, picture saving path, etc.

1 Note

You can also set the parameters in System Configuration. For details, refer to **System Configuration** .

- **4.** Do one of the following operations to start the live view of one camera.
 - Drag a camera in the group from resource list to a display window to start the live view.
 - Double-click the camera name after selecting a display window to start the live view.
 - Move the cursor to the camera name and click near the camera name to start live view after selecting a display window.

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iNote

- The display window number is self-adaptive to the number of cameras in the group.
- If the device supports stream encryption, and the stream of its live view is encrypted, you are required to enter a stream key for double verification.

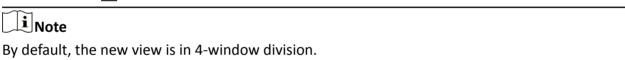
4.	Optional: Move the cursor to the group name and click \longrightarrow Stream near the group name to switch the stream type for the cameras in the group according to actual needs.
	Note
	Before switching to the sixth, seventh, eighth, ninth, and tenth stream, you should set these stream type in the device's web configuration page. For details, refer to the user manual of the device.

6.1.3 Add Custom View

A view is a window division with cameras configured to each window; View mode enables you to save the window division and the correspondence between cameras and windows as favorite to quickly access the related cameras later. For example, you can link camera 1, camera 2, and camera 3 located in your office to display windows and save them as a view called office. Besides the predefined default views, you can customize views for further operations.

Steps

- 1. Enter the Main View page.
- 2. Move the cursor to the Custom View in the View panel and click **t** to create a new view.
- 3. Enter a name for the view.
- **4. Optional:** Click in the live view toolbar to set window division mode for the new view.



- **5.** Start live view for specified camera in specified window according to actual needs.
- **6.** Click to save the current view or save it as a new view.
- 7. Optional: Perform the following operations after adding the custom view.

Edit View Name Move the cursor over the new view and click

to edit the view name.

Delete View Move the cursor over the new view and click

to delete the view.

What to do next

Click ## again to select the custom window division.

6.1.4 Start Live View in Custom View Mode

After adding a custom view, you can start live view for the cameras in the custom view.

Before You Start

Customize a view which containing information such as window division, camera and correspondence between cameras and windows. See *Add Custom View* for details.

Steps

- 1. Enter the Main View page.
- **2. Optional:** Click in the live view toolbar to set the parameters such as view scale, play performance, picture saving path, etc.

i Note

You can also set the parameters in System Configuration. For details, refer to **System Configuration** .

- 3. Click to expand the custom view list in the View panel.
- 4. Click a custom view to start live view.

The video of the added cameras in the selected view displays.

5. Optional: Perform the following operation(s) after starting live view in custom view mode.

Start Instant

Playback

Move the cursor over the new view and click to start instant

playback for the cameras in the view. See *Instant Playback* for details.

Start Auto-Switch

of All Custom

Move the cursor over Custom View and click to start switching all

views in the custom view list automatically. See details in *Auto-Switch*

Views in Live View.

6.2 Auto-Switch in Live View

You can display live view of cameras or display the custom views in turn, which is called "auto-switch". If you want to perform live view of a large amount of cameras, you can auto-switch the selected cameras, which means the client will automatically switch live view of the cameras in the display window. You can also auto-switch multiple views.

When auto-switching in live view, three modes are available:

- Auto-Switch All Cameras in Default View
- Auto-Switch Cameras in a Group
- Auto-Switch Custom Views

6.2.1 Auto-Switch Cameras in a Group

The video stream of the cameras from the same group can switch automatically in a selected display window. For example, if you start auto-switch of a group containing 5 cameras, the live view of the 5 cameras will be displayed in turn with an interval which can be configured. You can also switch to playback and perform other operations on the display window.

Steps

- 1. Enter the Main View page.
- 2. Click Auto-Switch → Single Window Auto-Switch on the left panel to show the groups.
- **3.** Select a display window on the right panel.

4. Hover the cursor on a group name and click **(** ...).

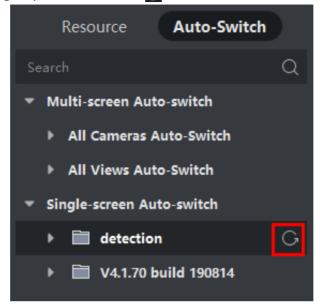


Figure 6-1 Start Auto-Switch of Cameras in a Group

The cameras in the selected group starts auto-switch in the display window.



The audio is off by default after auto-switch starts.

5. Optional: Perform the following operations.

Operation	Description
Pause/Resume Auto-Switch	Click or to pause/resume auto-switch.
Go to Previous/ Next Page	Click or to display cameras of the previous/next group.
Set Dwell Time	After stopping the current auto-switch, click or to decrease/increase auto-switch dwell time, or click 20s at the bottom of the page to change the auto-switch dwell time. You can also click Custom Dwell Time to set the dwell time according to your need. For example, if you set the interval as 10 seconds, the image of each group will be displayed for 10 seconds and then switch to next group.

6.2.2 Auto-Switch All Cameras

The video of all the cameras in the camera list can switch automatically in a self-adaptive mode. If you start auto-switch of all cameras, the live view of all cameras can be displayed quickly, which is an effective way for live view. The auto-switch is performed with an interval which can be

configured. You can also switch to playback and perform other operations on the auto-switch window.

Steps

- 1. Enter the Main View page.
- 2. Click Auto-Switch → Multi-Window Auto-Switch on the left panel.
- 3. Hover the cursor on Auto-Switch All Cameras, and then click .

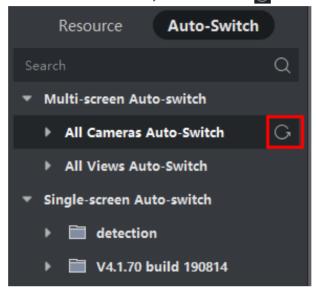


Figure 6-2 Start Auto-Switch of All Cameras

All cameras in the camera list start auto-switching in a self-adaptive mode.

4. Optional: Perform the following operations.

Operation	Description
Pause/Resume Auto-Switch	Click or to pause/resume auto-switch.
Go to Previous/ Next Page	Click or to display cameras on the previous/next page.
Set Dwell Time	After stopping the current auto-switch, click or to decrease/increase auto-switch dwell time, or click 20s at the bottom of the page to change the auto-switch dwell time. You can also click Custom Dwell Time to set the dwell time according to your need. For example, if you set the interval as 10 seconds, the image of each camera will be displayed for 10 seconds and then switch to next camera.

6.2.3 Auto-Switch Custom Views

A view is a window division with resource channels (e.g., cameras) linked to each window. View mode enables you to save the window division and the correspondence between cameras and windows as favorite so that you can quickly access these channels later. If you save a view containing all cameras on a floor, you save a custom view, and you can view the live view of all the cameras on the floor in turn by a one-click operation. In this way, you do not have to search these cameras in the camera list every time you login. The auto-switch performs with an interval which can be configured manually.

Before You Start

Add the custom views. See Add Custom View for details.

Steps

- 1. Enter the Main View page.
- 2. Click Resource → Multi-Window Auto-Switch on the left panel.
- 3. Hover the cursor on Auto-Switch All Views and click .

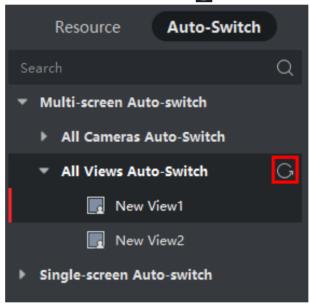


Figure 6-3 Auto-Switch a Custom View

All custom views starts auto-switching.

4. Optional: Perform the following operations.

Operation	Description
Pause/Resume Auto-Switch	Click or to pause/resume auto-switch.
Go to Previous/ Next Page	Click or to display the previous/next view.

Set Dwell Time

After stopping the current auto-switch, click or to decrease/increase auto-switch dwell time, or click **20s** at the bottom of the page to change the auto-switch dwell time. You can also click **Custom Dwell Time** to set the dwell time according to your need. For example, if you set the interval as 10 seconds, the image of each view will be displayed for 10 seconds and then switch to next view.

6.3 PTZ Control

The software provides PTZ control for cameras with pan/tilt/zoom functionality. During the PTZ control, you can set preset, patrol, and pattern, and you can also open a new window for controlling the PTZ.



Cloud P2P device only supports the PTZ movements to the directions of up, down, left, and right.

Enter the Main View module, and select PTZ Control to open the PTZ control panel.

The following icons are available on the PTZ control panel.

Table 6-1 Icons on PTZ Control Panel

Icon	Name	Description
ਹ	Direction Buttons	Click or hold the left mouse button to turn the PTZ around.
		Click to turn around the PTZ horizontally and continuously; click again to stop turning.
-	Speed Control	Drag the slider to adjust the PTZ moving speed.
a a	Zoom in/out	Zoom in to view close image for details; zoom out to view a panoramic image.
₽ Ø	Focus +/-	Click Focus + move the focal point forward, and click Focus - to move the focal point backward.
* \$	Iris +/-	Used for adjusting the luminance of the image. The larger the iris is, the more the light enters, and the brighter the image will be.
@	3D Positioning	Use the left key of mouse to click on the desired position in the video image and drag a rectangle area in the lower right direction, then the dome system will move the position

Icon	Name	Description
		to the center and allow the rectangle area to zoom in. Use the left key of mouse to drag a rectangle area in the upper left direction to move the position to the center and allow the rectangle area to zoom out.
38	Auxiliary Focus	Click to focus automatically.
	Lens Initialization	Initialize the lens and focus again for a clear image.
•	Light	Click to fill light.
		Note
		This function needs to be supported by the device.
•	Wiper	Use the wiper to clear the dust on the camera lens.
. इच्य	Manual Tracking	For speed dome with auto-tracking function, enable the auto-tracking (via right-click menu) for it and click the icon to manually track the target by clicking on the video.
=	Menu	For analog speed dome, click the icon to display its local menu. For detailed operation of the menu, refer to user manual of the speed dome.
<u>හ</u>	One-Touch Patrol	For speed dome with one-touch patrol function, click the icon and the speed dome starts patrol from the predefined preset No.1 to preset No.32 in order after a period of inactivity (park time). For setting the park time, refer to user manual of the speed dome.
	One-Touch Park	For the speed dome with one-touch park function, click the icon and the speed dome saves the current view to the preset No.32. The device starts to park at preset No. 32 automatically after a period of inactivity (park time). For setting the park time, refer to user manual of the speed dome.

Icon	Name	Description
<u>m</u>	Enable Manual De-Icing Heater	Enable this function to ensure the camera performance in environment under 0°C.
	Manual Face Capture	Click this button, and hold the left mouse button to select a face in the image to capture it. The picture will be uploaded to the server for viewing.
8	Synchronize FOV	For thermal cameras. Click to synchronize the optical channel's field of view with that of the thermal channel.
्र	Regional Exposure	For speed domes, click the icon and draw a rectangle on the image to optimize the exposure effect in this region.
×	Regional Focus	For speed domes, click the icon and draw a rectangle on the image to optimize the focus effect in this region.

6.3.1 Configure Preset

A preset is a predefined image position which contains information of pan, tilt, focus and other parameters. After setting preset, you can quickly locate the desired camera's position by calling the preset.

Steps

- 1. Open the Main View page and start the live view of the PTZ camera.
- 2. Click PTZ Control on the left to expand the PTZ Control panel.
- **3.** Unfold the PTZ control panel in the lower-left corner of the page.



Figure 6-4 PTZ Control Panel

- 4. Select one PTZ window from the main view windows.
- **5. Optional:** On the PTZ control panel, click the preset name (e.g. Preset 1) to edit the preset name.
- **6.** On the PTZ control panel, click the direction button and function button on the PTZ control panel, to adjust the scene to the place you want to mark as a preset.
- 7. Click me to save the preset settings.
- **8. Optional:** Perform the following operation(s) after setting the preset.

Call Preset Select the preset and click to call the preset. You can also press the number key (e.g., 4) on keyboard to call the preset 1 to 9, and press [, number keys (e.g., 124), and] on keyboard to call the other preset.

Edit Preset Adjust the direction, position and view of the PTZ camera, and then and click

left to save the preset again. The old preset settings will be replaced.

Delete Select the configured preset from the list and click

to delete it.

Preset

6.3.2 Configure Patrol

A patrol is a scanning track specified by a group of user-defined presets, with the scanning speed between two presets and the dwell time at the preset separately programmable.

Before You Start

Add two or more presets for one PTZ camera.

Steps



For Cloud P2P device, patrol is not supported.

- 1. Open the Main View page and start the live view of PTZ camera.
- 2. Click PTZ Control on the left to expand the PTZ Control panel.
- 3. Click stab to enter the PTZ patrol configuration panel.
- 4. Select a path No. from the drop-down list.
- 5. Click to open Add Patrol No. dialog.
- **6.** Select a preset from the dropdown list and set the dwell time and patrol speed for the preset in the dialog.
- 7. Click OK.
- 8. Repeat step 5, 6, and 7 to add other presets to the patrol.
- 9. Optional: Perform the following operation(s) after setting the patrol.

Call Patrol Click (to call the patrol.

Stop Calling Patrol Click to stop calling the patrol.

Edit Preset in Patrol Select a preset in the patrol path and click **m** to edit the preset.

Remove Preset from Select a preset in the patrol path and click **▼** to remove the

Patrol preset from the patrol.

6.3.3 Configure Pattern

A pattern is a memorized, repeating series of pan, tilt, zoom, and preset functions.

Steps



For Cloud P2P device, pattern is not supported.

- 1. Open the Main View page and start the live view of the PTZ camera.
- 2. Click PTZ Control on the left to expand the PTZ Control panel.
- 3. Click tab to enter the PTZ pattern configuration panel.
- **4.** Click **(a)** to start the recording of this pattern path.
- **5.** Use the direction buttons to control the PTZ movement.
- **6.** Click **(a)** to stop recording and save the recorded pattern.
- **7. Optional:** Perform the following operation(s) after setting the pattern.

Call Pattern Click **(S)** to call the pattern.

Stop Calling Pattern Click to stop calling the pattern.

Delete Pattern Select one pattern and click \mathbb{X} to delete the pattern.

Delete All Patterns Click **m** to delete all the patterns.

6.4 Customize Window Division

The client software provides multiple kinds of predefined window divisions. You can also set custom the window division as desired.

Steps



Up to 5 window divisions can be customized.

- 1. Open the Main View or Remote Playback page.
- 2. Click on the live view or playback toolbar to open the window division panel.
- 3. Click Add to open the Add Custom Window Division dialog.
- **4.** Enter the window numbers in both horizontal and vertical dimension in the Dimension field, and then press **Enter** on your keyboard.



For remote playback, up to 16 windows can be played at the same time, so the custom window division with more than 16 windows is invalid.

- **5. Optional:** Drag your mouse to select the adjacent windows, and click **Joint** to joint them as a whole window.
- **6. Optional:** Select the joint window and click **Restore** to cancel the joint.
- 7. Click Save.
- **8. Optional:** Click or drag a division mode to the displaying window to apply the mode for displaying.
- 9. Optional: Edit a customized window division mode.
 - 1) Click 🗐 on the live view or playback toolbar to open the window division panel.
 - 2) Click Edit to open the Add Custom Window Division.
 - 3) Select a customized division mode and perform operations including renaming, setting dimension, jointing/undo jointing windows.

6.5 Manually Record and Capture

During live view, you can record videos and capture pictures manually, and then view the recorded video files and captured pictures in the local PC.

6.5.1 Manually Record Video

Manual recording function allows to record the live video on the Main View page manually, and you can store the video files in the local PC.

Steps



Manual recording is not supported by Cloud P2P device during live view.

- 1. Open the Main View page.
- 2. Start the live view.
- **3.** Perform one of the following operations to start manual recording.
 - Move the cursor to the display window in live view to show the toolbar and click on the toolbar
 - Right-click on the display window and click **Start Recording** on the right-click menu.

The icon oturns to o. An indicator open appears in the upper-right corner of the display window.

4. Click **a** to stop the manual recording.

The recorded video file is automatically saved to the local PC, and a small window with the saving path information appears in the lower-right corner of desktop.



The saving path of the recorded video files can be set on the System Configuration page. See **Set File Saving Path** for details.

6.5.2 View Local Videos

You can view the recorded video files stored in your local PC.

Before You Start

Record the live video.

Steps

- 1. Click $\blacksquare \rightarrow$ File \rightarrow Open Video File in the upper-right corner to open the Video Files page.
- 2. Select the camera to search the recorded video files from the Camera Group list.
- 3. Specify the start time and end time in the lower-left corner for the searching.
- 4. Click Search.

The video files recorded between the start time and end time displays in thumbnail format on the page.

5. Optional: Perform the following operation(s) after the search.

Delete Video

Select the video file, and click **Delete** to delete the video file.

File

Send Email Select the video file, and click **Email** to send an email notification with the

selected video file attached.

	Note
	To send an email notification, the email settings need to be configured before proceeding. For details, refer to Set Email Parameters .
Save Local Video	Select the video file, and click Save as to save a new copy of the video file.
Playback	Double-click the video file to start the local playback.

6.5.3 Capture Pictures

You can capture pictures during the live view.

Perform this task when you need to capture pictures during the live view.

Steps

- 1. Open Main View page and start the live view of a camera.
- 2. Perform one of the following operations to capture pictures.
 - Move the cursor to the display window in live view to show the toolbar and click on the toolbar.
 - Right-click the display window and click **Capture** on the right-click menu.

The captured picture is automatically saved to the local PC, and a small window with the picture preview and saving path information appears in the lower-right corner of desktop.



The saving path of the captured pictures can be set on the System Configuration page. For details, refer to **Set File Saving Path** .

6.5.4 View Captured Pictures

The pictures captured in the live view are stored in the PC running the software. You can view the captured pictures if needed.

Before You Start

Capture pictures in the live view.

Steps

- 1. Click → File → Open Captured Picture in the upper-right corner to open the Captured Picture page.
- 2. Select the camera to search the captured pictures from the Camera Group list.
- 3. Specify the start time and end time in the lower-left corner for the searching.
- 4. Click Search.

The pictures captured between the start time and end time display in thumbnail format on the page.

5. Optional: Perform the following operation(s) after the search.

Enlarge Picture Double-click the picture thumbnail to enlarge it for a better view.

Print Picture Select the captured picture, and click **Print** to print the selected picture.

Delete Picture Select the captured picture, and click **Delete** to delete the selected picture.

Send Email Select the captured picture, and click **Email** to send an email notification

with the selected picture attached.

Save Picture Select the captured picture, and click **Save as** to save a new copy of the

selected picture.

6.6 Instant Playback

Instant playback shows a piece of the video which is remarkable, or which is unclear on the first sight. So you can play the video files instantly on the Main View page and get an immediate review if needed.

Before You Start

Record the video files and store them on the storage devices, such as the SD/SDHC cards and HDDs on the DVRs, NVRs, network cameras, etc., or on the storage servers.

Steps

- 1. Open Main View page and start the live view.
- 2. Perform one of the following operations to show the pre-play durations' list of instant playback.
 - Move the cursor to the display window to show the toolbar and click .
 - Right-click the display window and select **Switch to Instant Playback** on the right-click menu.
 - Move the cursor to default view or custom view node on the View panel and click 🛐 .

A list with pre-play durations of 30s, 1 min, 3 min, 5 min, 8 min, and 10 min displays.

3. Select a time period from the appeared list to start the instant playback.

Example

If you select 3 min, and the current time of the live view is 09:30:00, then the instant playback will start from 09:27:00.

During the instant playback, an indicator appears in the upper-right corner of the display window.

4. Optional: Click **5** again to stop the instant playback and go back for the live view.

6.7 Live View for Fisheye Camera

For fisheye cameras, you can start the live view in fisheye mode, set presets and patrols, and perform PTZ control.

6.7.1 Perform Live View in Fisheye Mode

During live view of fisheye cameras, the whole wide-angle distorted view will be displayed. But you may have difficulty to view some details. To solve this problem, you can play the live videos in fisheye expansion mode. Fisheye expansion can expand images in various modes: 180° panorama, 360° panorama, PTZ, half sphere, etc. So that you can view the image clearly.

Steps

- 1. Open the Main View page and start the live view of fisheye camera.
- 2. Enter the Fisheye Expansion mode.
 - Right-click on the video and select **Fisheye Expansion**.
 - Click on the toolbar. See **Set Icons Shown on Toolbar** for details about setting the toolbar.
 - turns to
- **3.** Click in the lower-left corner of the displaying window to open the Mounting Type & Expanding Mode Selection panel.
- **4.** Select the mounting type of the fisheye camera according to its actual mounting position.
- **5.** Select the expanding mode for live view as desired.

Fisheye

In the Fisheye view mode, the whole wide-angle view of the camera is displayed. This view mode is called Fisheye because it approximates the vision of a fish's convex eye. The lens produce curvilinear images of a large area, while distort the perspective and angles of objects in the image.

Panorama

In the Panorama view mode, the distorted fisheye image is transformed to normal perspective image by some calibration methods.

PTZ

The PTZ view is the close-up view of some defined area in the Fisheye view or Panorama view, and it supports the electronic PTZ function, which is also called e-PTZ.



Each PTZ view is marked on the Fisheye view and Panorama view with a specific navigation box. You can drag the navigation box on the Fisheye view or Panorama view to adjust the PTZ view, or drag the PTZ view to adjust the view to the desired angle.

Half Sphere

By the half sphere mode, you can drag the image and rotate it centering on the diameter, in order to adjust the view to the desired angle.

AR Half Sphere

AR half sphere mode overlaps images far and near, so that you can view a dimensional image in a wide angle.

Cylinder

In Cylinder mode, the image is formed into a cylinder page.

6. Optional: Perform the following operation(s) after starting live view in fisheye mode.

Capture Right-click on the window and select **Capture** to capture the picture in the

live view process.

Enter Full Right-click on a playing window and switch the selected window to full-

Screen screen mode.

6.7.2 PTZ Control in Fisheye Mode

In fisheye mode, you can control the PTZ to adjust the PTZ window.



The PTZ panel varies according to different devices.

The following functions are available on the PTZ control panel.

- Select a PTZ window, and click the direction buttons to adjust view angle. Or drag the No. label in the fisheye or panorama window to change the view angle of the PTZ window.
- Select a PTZ window, click to start auto-scan (the camera rotates in a horizontal direction), and click it again to stop auto-scan.
- Drag the slider on ______ to adjust the speed for PTZ movement.
- Click a , or scroll the mouse wheel to zoom in or zoom out the selected PTZ window.

Configure Preset

In fisheye mode, you can configure the preset which is a user-defined monitor position/point and simply call the preset No. to change the monitor scene to the defined position.

Steps



Only the specific fisheye cameras support configuring the preset, and up to 256 presets can be configured in fisheye mode.

- 1. Open Main View page and start the live view of fisheye camera.
- 2. Right-click on the video and select **Fisheye Expansion** to enter the Fisheye Expansion window.

3. Unfold the PTZ control panel in the lower-left corner of the page.

Figure 6-5 PTZ Control Panel

- 4. Select one PTZ window from the main view windows.
- **5. Optional:** On the PTZ control panel, click the preset name (e.g. Preset 1) to edit the preset name.
- **6.** On the PTZ control panel, click the direction button and function button on the PTZ control panel, to adjust the scene to the place you want to mark as a preset.
- **7.** Click **(a)** to save the preset settings.
- **8. Optional:** Perform the following operation(s) after setting the preset.

Call Preset	Select the preset and click to call the preset. You can also press the number key (e.g., 4) on keyboard to call the preset 1 to 9, and press [, number keys (e.g., 124), and] on keyboard to call the other preset.
Edit Preset	Adjust the direction, position and view of the PTZ camera, and then and click to save the preset again. The old preset settings will be replaced.
Delete Preset	Select the configured preset from the list and click \boxtimes to delete it.

Configure Patrol

In fisheye mode, you can configure the patrol, which is a scanning track specified by a group of user-defined presets, with the scanning speed between two presets and the dwell time at the preset separately programmable.

Before You Start

Configure two or more presets.

Steps



Only the specific fisheye cameras support configuring the patrol, and up to 32 patrols can be configured in fisheye mode.

- 1. Open Main View page and start the live view of fisheye camera.
- 2. Right-click on the video and select Fisheye Expansion to enter the Fisheye Expansion window.
- 3. Click stab to enter the patrol configuration panel.
- 4. Select a path No. from the drop-down list.
- 5. Click to open Add Patrol No. window.
- 6. Click OK.
- 7. Repeat step 5, 6, and 7 to add other presets to the patrol.
- **8. Optional:** Perform the following operation(s) after configuring the patrol.

Edit Preset in Patrol Select a preset in the patrol path and click **(17)** to edit the preset.

Remove Preset from Select a preset in the patrol path and click **m** to remove the

Patrol preset from the patrol.

Call Patrol Click **(b**) to call the patrol.

Stop Calling Patrol Click **⋈** to stop calling the patrol.

6.8 Perform Master-Slave Linkage

The box or bullet camera which supports master-slave tracking function can locate or track the target according to your demand.



- This function in only supported by the specific box or bullet camera.
- A speed dome with the auto-tracking function is required to be installed near the box or bullet camera.

6.8.1 Configure Master-Slave Tracking Rule

Before performing master-slave tracking during live view, you should configure the master-slave tracking rules for the box or bullet camera, including setting VCA detection rule, linking to a speed dome, and calibrating camera and speed dome.

Set Intrusion Detection Rule

You should set the VCA detection rule for the bullet or box camera, and when the VCA event is triggered, the client can trigger speed dome to track the target. Here we take intrusion detection as an example.

Steps

- 1. Open Device Management page and select a box or bullet camera.
- 2. Click → Advanced Configuration → VCA Config → Rule → Rule Settings to enter rule settings page.
- 3. Click Add in Rule List panel to add a rule.
- **4.** Select **Intrusion** as the event type.
- **5.** Click to draw a detection region on the live video.
- 6. Click Save.

Link Speed Dome

When configuring the master-slave tracking for the box or bullet camera, you can link the camera to a speed dome and set the PTZ position for the speed dome for tracking.

Perform this task to link the box or bullet camera to a speed dome for master-slave tracking.

Steps

- 1. Open Device Management page and select a box or bullet camera.
- 2. Click → Advanced Configuration → Master-Slave Tracking to enter master-slave tracking settings page.
- 3. Click **Login** on the display window to open the speed dome login window.
- **4.** Input the speed dome's IP address, port No., user name, and password.
- **5.** Click **Login** to log in to the speed dome.
- **6.** Click **PTZ** and use the direction arrows to adjust the speed dome to a horizontal position.

What to do next

Calibrate the box or bullet camera and the linked speed dome, see *Calibrate Camera and Speed Dome Automatically* or *Calibrate Camera and Speed Dome Manually* for details.

Calibrate Camera and Speed Dome Automatically

When setting the bullet or box camera's master-slave tracking rule, you should calibrate the camera and the speed dome. Two calibration modes, including auto and manual, are available, here we introduce the auto calibration.

Before You Start

Link the camera to a speed dome, see *Link Speed Dome* for details.

Steps

- 1. Open Device Management page and select a box or bullet camera.
- 2. Click → Advanced Configuration → Master-Slave Tracking to enter master-slave tracking settings page.
- 3. Select the calibration mode as **Auto Calibrating** in the lower-right corner of Calibration panel.
- **4.** Move and zoom in/out the view of speed dome to make sure the live views of dome and camera are mostly same.
- 5. Click Save.

Calibrate Camera and Speed Dome Manually

When setting the bullet or box camera's master-slave tracking rule, you should calibrate the camera and the speed dome. Two calibration modes, including auto and manual, are available, here we introduce the manual calibration.

Before You Start

Link the camera to a speed dome. See *Link Speed Dome* for details.

Steps

- 1. Open Device Management page and select a box or bullet camera.
- 2. Click → Advanced Configuration → Master-Slave Tracking to enter master-slave tracking settings page.
- 3. Select the calibration mode as Manual Calibrating in the lower-right corner of Calibration panel.
- **4.** Select site No. 1 from the list and click **.** .
 - A blue cross appears in the center of the live view page, and the digital zoom view of the selected site appears on the right.
- 5. Repeat step 4 to add other manual calibration sites.
- **6.** Adjust the distances among the four calibration sites evenly in the live view page.
- 7. Select the calibration site No. 1.
 - The digital zoom view of site No. 1 appears at the right.
- **8.** Move and zoom in or out the view of speed dome to make sure the live views of speed dome and the digital zoom view of selected site are mostly same.
- **9.** Click 铅 to save the current site position information.
- **10.** Repeat step 7, 8, and 9 to set other sites' position.
- 11. Click Save.

6.8.2 Enable Master-Slave Tracking

During live view, you can enable the master-slave tracking to locate or track the target appeared in the view of bullet or box camera with a speed dome.

Before You Start

Configure the master-slave tracking rules for the box or bullet camera.

Perform this task when you need to enable the master-slave tracking for box or bullet camera.

Steps

- 1. Enter the Main View page and start the live view of box or bullet camera.
- **2.** Right-click on the live view window and click **Enable Master-Slave Tracking**. When the configured VCA rule is triggered by target, the linked speed dome performs the automatic master-slave tracking and the target frame turns from green into red.

6.9 Live View for Thermal Camera

For thermal camera, you can view the fire source information and temperature during live view. You can also measure the temperature manually to get temperature information in the live view image.

6.9.1 View Fire Source Information during Live View

During the live view, you can view the detected fire source information.

Before You Start

Configure the alarm rules for the thermal device, see the user manual of the device for details.

Steps

1.	Enter Main View page and start the live view of a thermal camera.
	Note
	For starting and stopping live view, refer to Start Live View for One Camera and .

2. Right-click on the live view image and select **File Source Information** in the right-click menu to show the list of information types.

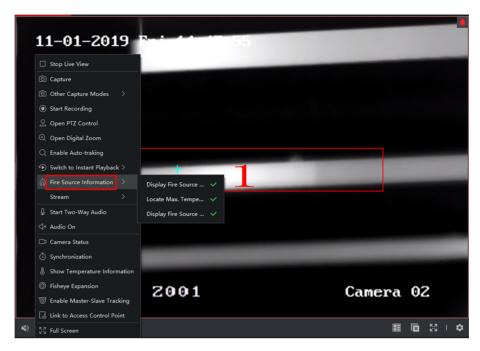


Figure 6-6 View Fire Source Information

3. Select a information type in the list to display the information.

Display Fire Source Region

The region in which the temperature is higher than the configured alarm threshold.

Locate Max. Temperature Region

Mark the region in which the temperature is highest in the fire source region. It is marked in green.

Display Fire Source Target

The distance between the device and fire source.

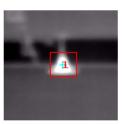


Figure 6-7 Fire Source Information on Live View Image

6.9.2 Show Temperature Information on Live View Image

You can show or hide the real-time temperature information of the monitoring scene when viewing the live video.

Before You Start

- Switch the device VCA source type as **Temperature Measurement + Behavior Analysis**.
- Enable the device temperature measurement function and set the temperature measurement rules, see the user manual of the device for details.

Perform this task when you need to show the temperature information on the live view image.

Steps

1. Enter Main View page and start the live view of a thermal camera.



For starting live view, refer to Start Live View for One Camera.

- 2. Adjust the scene to the area configured with temperature measurement rule.
- **3.** Right-click on the live view image and select **Show Temperature Information** in the right-click menu.

The temperature displays on the live view image.

4. Click on the image to view the detailed temperature information.

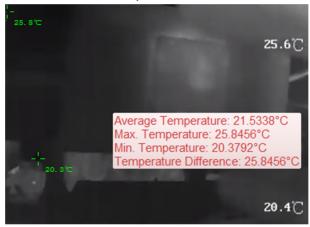


Figure 6-8 Temperature Information on Live View Image

5. Optional: Right-click on the live view image and select **Hide Temperature Information** to hide the temperature information.

6.9.3 Manually Measure Temperature

During the live view of thermal camera, you can click anywhere on the live view image to show the temperature of different points to locate the fire resource quickly.

Steps



- The measured temperature will be displayed on the image for 5 seconds.
- Only one point's temperature can be displayed.
- When multiple clients are getting the live video of one camera, if one client adds or deletes the measurement points, other clients' live view will be affected as well. The measurement points will be cleared if all users stop live view of the camera.
- 1. Enter Main View page and start the live view of a thermal camera.

 $\bigcap_{\mathbf{i}}$ Note

For starting and stopping live view, refer to Start Live View for One Camera and .

- **2.** Right-click on the live view image and select **Show Temperature Information**.
- **3.** Click on the live view image to show the temperature of this position.

The temperature of the clicked points is shown on the image.

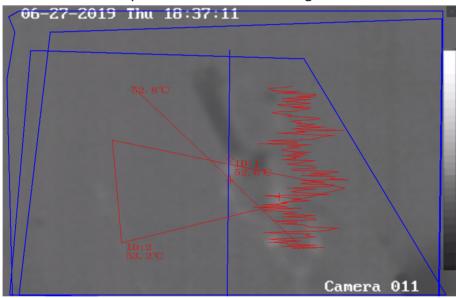


Figure 6-9 Manually Measure Temperature on Points

4. Optional: Right-click on the live view image and select **Hide Temperature Information** on the menu.

6.10 Live View in Low Bandwidth

In situation of low network bandwidth, the speed of video streaming might be much slower due to the bandwidth limit. To provide normal quality in less streaming speed for low bandwidth users, the client provides live view in low bandwidth mode. Before that, you need to set the streaming protocol and perform other operations first.

For details about the settings, refer to **How to get better performance of live view and playback** when network bandwidth is low?

6.11 More Functions

There are some more functions supported in the live view, including auxiliary screen preview, digital zoom, channel-zero, two-way audio, camera status, and synchronization.

Auxiliary Screen Preview

Display the live video on different auxiliary screens for the convenient preview of multiple monitoring scenes.



Up to 3 auxiliary screens are supported.

Digital Zoom

Drag the mouse to draw a rectangle area in the lower-right/upper-left direction to zoom in or out the drawn area. Or use the mouse wheel to zoom in or out the view in digital zoom mode.

Channel-Zero

For the channel-zero of the device, hold the **Ctrl** key and double-click to display the specific channel. Hold the **Ctrl** key and double-click again to restore.

Two-Way Audio

Two-way audio function enables the voice talk of the camera. You can get not only the live video but also the real-time audio from the camera. If the device has multiple two-way audio channels, you can select a channel to start two-way audio.



- The two-way audio can be used for only one camera at one time.
- Cloud P2P device doesn't support selecting channel during two-way audio.

Camera Status

The camera status, such as recording status, signal status, connection number, etc., can be detected and displayed for checking. The status information refreshes every 10 seconds.

Synchronization

The synchronization function provides a way to synchronize the device clock with the PC which runs the client software.

Set Stream Type

Auto-Change Stream Type

Camera selects stream type according to its display window size. When the window division number is smaller than 9, the stream type will be main stream, otherwise sub stream.

Three ways are provided for setting stream type:

- In the resource list, hover the cursor on a camera's name and click → Stream to select a stream type, or click Auto-Change Stream Type. Or you can perform this operation for a device group to set stream type for all devices in this group.
- Click sin the live view tool bar and select a stream type. See **Set Icons Shown on Toolbar** for details about editing tool bar.
- Right-click a live view window and click **Stream** to select a stream type for the camera.

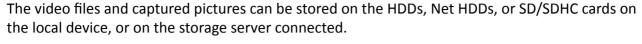


This function needs to be supported by device.

Lock Client in Full Screen Mode

Press **Ctrl** and **L** on your keyboard to lock the client after entering the full screen mode. After locking the client, you will be unable to operate the client including the other windows in the current window division mode. Click **Unlock** on the top and enter the login password for the client and click **Unlock** to unlock the client.

Chapter 7 Remote Storage Configuration





This function should be supported by the device.

7.1 Store Picture and Video on DVR, NVR, or Network Camera

Some local devices, including the DVRs, NVRs, and Network Cameras, provide storage devices such as the HDDs, Net HDDs and SD/SDHC cards for video and picture files. You can set a recording schedule or capture schedule for the channels of the local devices.

Before You Start

Make sure the newly installed storage devices have be formatted. Refer to *Format Storage Server's HDD* for details.

Perform this task when you need to store the picture and video files on the encoding device such as DVR, NVR, or network camera.

Steps



The pictures captured through the capture schedule are stored on the local device and can be searched on the remote configuration page of the device.

- 1. Enter the Storage Schedule module.
- 2. Select the camera in the Camera Group list.
- 3. Set Recording Schedule switch or Capture Schedule switch to ON on Storage on Encoding Device area to enable device local recording or capture.
- 4. Select the recording or capture schedule template from the drop-down list.

All-day Template

All-day continuous recording.

Weekday Template

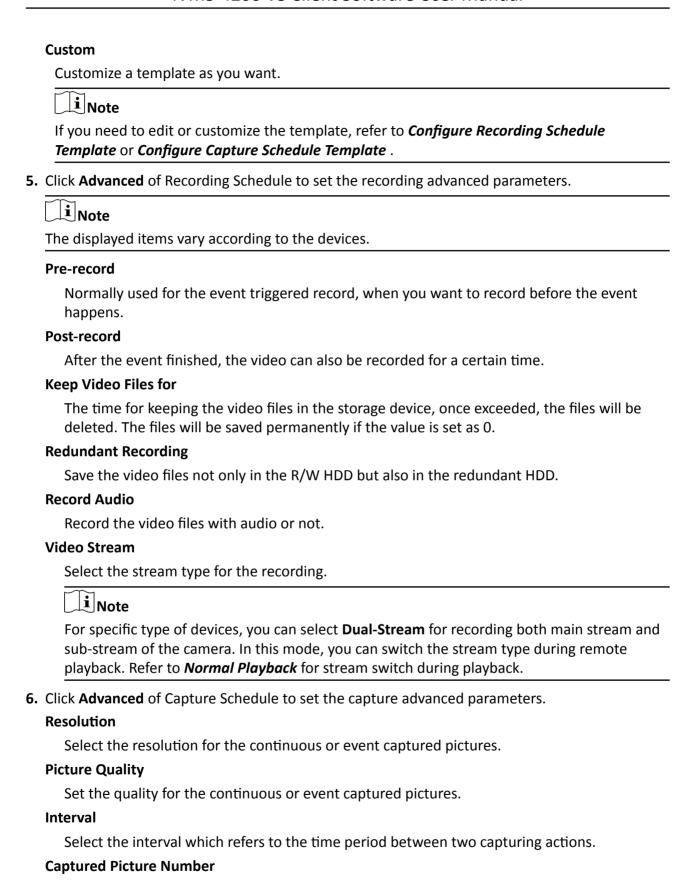
Working-hours continuous recording from 8:00 AM to 8:00 PM.

Event Template

All-day event triggered recording.

Template 01 to 08

Fixed templates for specific schedules. You can edit the templates if needed.



Set the picture number for event capture.

- **7. Optional:** Click **Copy to...** to copy the recording schedule settings to other channels.
- 8. Click Save to save the settings.

7.2 Store Video on Storage Device

You can store the video footage recorded by the added encoding devices on the storage devices managed in the client.

You can add storage device to the client for storing the video files of the added encoding devices and you can search the files for remote playback. The storage device can be iVMS-4200 Storage Server, CVR (Center Video Recorder), or other NVR.

Here we take the settings of iVMS-4200 Storage Server as an example.

7.2.1 Activate Storage Server

If it is the first running the iVMS-4200 Storage Server, you are required to active the storage server. Perform this task when you need to activate storage server.

Steps

1. Click **R** on the desktop to run the iVMS-4200 Storage Server.



- If the storage server port (value: 8000) is occupied by other service, a dialog will pop up. You should change the port No. to other value to ensure the proper running of the storage server.
- You can also record the video files on the iVMS-4200 Storage Server installed on another PC.
- 2. Enter the New Password and Confirm Password.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

3. Click **OK** to change the password.

After changing the password, the storage server will run automatically.

7.2.2 Add Storage Server to Client

You can add storage server to the client for storing the video files of the added encoding devices.

Steps

- 1. Enter the Device Management module.
- 2. Click Device tab.

The added devices are displayed in the list.

- 3. Add iVMS-4200 Storage Server.
 - You can add online storage server. For details, refer to Add a Detected Online Device .
 - You can add storage server via IP address or domain name. For details, refer to Add Device by IP Address or Domain Name

7.2.3 Format Storage Server's HDD

You should format the HDDs of the storage server for the video file storage.

Perform this task to format storage server's HDD.

Steps



Formatting the HDDs is to pre-allocate the disk space for storage and the original data of the formatted HDDs will not be deleted.

- 1. Enter the Device Management module.
- 2. Click Device tab.

The added devices are displayed in the list.

- **3.** Select the added storage server from the list.
- 4. Click 🔯 .
- 5. Click Storage → General to enter the HDD Formatting window.
- 6. Select the HDD from the list and click Format.

You can check the formatting process from the process bar and the status of the formatted HDD changes from **Unformatted** to **Normal Status**.

7.2.4 Configure Storage Settings

When the storage server is available, you can set the recording schedule for the cameras.

Before You Start

The newly installed storage devices need to be formatted.

Steps

1. Enter Storage Schedule module.

Select the camera in the Camera Group list.
 Select a storage server from the Storage Server drop-down list.
 Set Recording Schedule switch to ON to enable storing the video files.
 Select the schedule template for recording from the drop-down list.
 Note
 If you need to edit or customize the template, refer to Configure Recording Schedule Template .

 Optional: For Recording Schedule, click Advanced to set the pre-record time, post-record time, video stream, and other parameters.
 Note
 The iVMS-4200 Storage Server only supports main-stream.

7.3 Store Picture and Additional Information on Local PC

You can store the pictures and the additional information, such as the heat map, people counting data, and road traffic data, to the local PC.

Perform this task when you need to store pictures and additional information on local PC.

Steps

1. Enter Storage Schedule module.

7. Click Save to save the settings.

2. Select the camera in the Camera Group list.

 \bigcap i Note

This function should be supported by the device.

3. Select storage content.

Picture Storage

Store the alarm pictures of the camera when event occurs. You can click **System Configuration** \rightarrow **File** to modify the saving path of pictures.

Additional Information Storage

Store the additional information (e.g., heat map, people counting data, etc.) on local PC.

4. Click **Save** to save the settings.

7.4 Configure Recording Schedule Template

You can edit the recording schedule template, or customize a recording schedule template.

Steps

1. Enter the Storage Schedule module.

- 2. Open the template settings window.
 - Select Template 01 to Template 08 from the drop-down list and click Edit.
 - Select **Custom** from the drop-down list.
- **3.** Drag on the time-line to set the time periods for the selected template when the cursor turns to \mathbb{Z} .

Continuous

Normal and continuous recording. The schedule time bar is marked with

Event Recording

The recording is triggered by event. The schedule time bar is marked with ______.

Command

The recording triggered by command. The schedule time bar is marked with



Command triggered recording is only available for the ATM transactions when the ATM DVR is added to the client.



Up to 8 time periods can be set for each day in the recording schedule.

4. Optional: After setting the time periods, you can do one or more of the following:

Move Drag a time period to move it when the cursors turns to [7].

Lengthen or Select a time period and then lengthen or shorten it when the cursor

Shorten turns to 🚓 .

Set Accurate Click a time period to set the accurate start time and end time of the

Time period.

Delete Select the configured schedule time period and click **▼** to delete it.

Delete All Click **t** to delete all the configured time periods.

Copy to Select one date and click **1** to copy the date's time period settings to

the other dates.

- 5. Optional: For template 01 to 08, you can edit the template name as you want.
- **6.** Click **OK** to save the settings.



If you select **Custom** to customize a template, you can click **Save as Schedule Template**, and then the custom template can be saved as template 01 to 08.

7.5 Configure Capture Schedule Template

You can edit the capture schedule template, or customize a capture schedule template.

Steps

- 1. Enter the Storage Schedule module.
- 2. Open the template settings window.
 - Select **Template 01** to **Template 08** from the drop-down list and click **Edit**.
 - Select **Custom** from the drop-down list.
- **3.** Drag on the time-line to set time periods for the selected template when the cursor turns to ${\color{red} {\mathbb Z}}$.

Continuous Capture

Normal and continuous capture. The schedule time bar is marked with

Event Capture

The capture is triggered by event. The schedule time bar is marked with

4. Optional: After setting the time period, you can do one or more of the followings

Move When the cursor turns to M, you can move the time period you just

edited. You can also edit the displayed time point to set the accurate time

period.

Lengthen or When the cursor turns to , you can lengthen or shorten the

Shorten selected time period.

Delete Select a time period and click x to delete it.

Delete All Click to delete all the configured time periods.

Copy to Select one date and click to copy the date's time period settings to the

other dates.

- **5. Optional:** For template 01 to 08, you can edit the template name as you want.
- **6.** Click **OK** to save the settings.



If you select **Custom** to customize a template, you can click **Save as Schedule Template**, and then the custom template can be saved as template 01 to 08.

Chapter 8 Remote Playback

The device records the video according to the recording schedule. You can view the video files stored in the storage server and the local device, to restore the event occurrence process for postmortem analysis and make the further judgment. Storing the valued video footage can provide basic materials for video analysis and video proof. The client supports multiple playback modes, such as: VCA playback, event playback, etc.

- Before starting remote playback, make sure the recording schedule has be configured and the there are video files. For details, refer to *Remote Storage Configuration* .
- There are two remote playback modes: one is the instant playback on the Main View module (refer to *Instant Playback* for details), another one is searching video files and play the video files on the Remote Playback module. In this capture, we only introduce the playback on the Remote Playback module.
- If there are video files both in the local device and storage server, you can set to select the source of video files. If the video files have intersections, you can set to play back the video files stored in the storage server. For details, refer to **Set Live View and Playback Parameters**.

8.1 Normal Playback

You can search video files by camera or group for normal playback and download found video files to local PC. You can also add a tag to mark important video footage, and so on.

You can right-click the playback window to select the required operations from the shortcut menu. Some are listed as follows:

Name	Description
Show/Hide Temperature Information	Show/Hide Temperature Information Note
	The temperature information overlay is only supported by thermal camera.
Tag Control	Add default (the default tag name is TAG) or custom tag (the tag name is customized) for the video file to mark the important

Name	Description
	video point. You can also edit the tag or go to the tag position conveniently.
Other Capture Modes	 Print Captured Picture: Capture a picture and print it. Send Email: Capture the current picture and then send an Email notification to one or more receivers. The captured picture can be attached. Custom Capture: Capture the current picture. You can edit its name and then save it.



- The Cloud P2P device only supports normal playback and it also does not support the functions of reverse playback, slow forward or fast forward, and adding tag.
- For NVR which is added to the client by device's other user name (except admin), if **Double Verification** is enabled on this NVR, when playing back videos on the client, you are required to enter the user name and password created for double verification. For details about double verification, refer to the user manual of the NVR.

8.1.1 Search Video Files

You can search the video files by date, and you can also enter keyword to filter the matched results for normal playback.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Camera Playback page.
- **3. Optional:** Click **m** to set the start date and end date of searching time period.

\bigcap i Note

In the calendar, the date which has video files recorded by schedule will be marked with \angle , and the date which has video files recorded based on event will be marked with \angle .

4. Start the playback of camera (s) to search the video files of the selected camera (s). You can do one of the followings to start the playback.

$\bigcap_{\mathbf{i}}$ Note

Up to 16 cameras can be searched simultaneously.

- Drag the camera or group to a display window.
- Select a display window and double-click the camera or group to start playback in the selected window.

- Double-click the cameras in turn to select the display window automatically and start playback in the windows.

8.1.2 Play Video Files

After searching the video files for the normal playback, you can play the video via time line.

Steps

- 1. Enter the Remote Playback module.
- 2. Search the video files.
- 3. Play video via time line.

The video files will play automatically. You can click on the time line to position the desired video segment of specified time for normal playback.

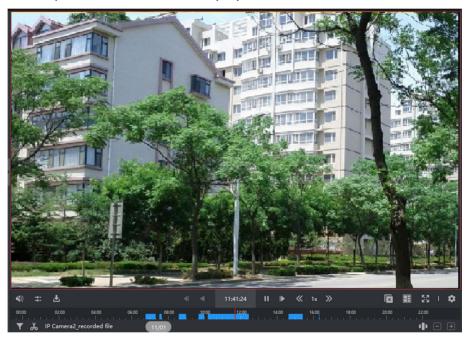


Figure 8-1 Playback of Video Files

\bigcap i Note

- The time line indicates the time duration for the video files, and the video files of different types are color coded.
- You can use mouse wheel or click 🔣 / 🖃 to scale up or scale down the time line bar.
- **4. Optional:** Perform the following operations on the toolbar to control the playback.

Single Frame Click or scroll down the mouse wheel to play the video files frame by frame (reversely).

Audio Control Click or to turn off/on the sound. You can also adjust the volume

when turning on.

Download for Click I to download video files of multiple cameras at the same time. **Multiple Cameras i** Note For more details, refer to **Download for Multiple Cameras**. Click I to download the video files of the camera by date and store **Download Video** Files by Date them to local PC. **Accurate** Click 2018/10/19 08:56:11 to set the accurate time point to play the video file. **Positioning** Jump to the Image Click in the lower-right corner to enable thumbnail function, and of a Thumbnail put the cursor on the timeline to show the thumbnail of the point. Click the thumbnail to jump to the image of it.



Figure 8-2 Playback Thumbnail

i Note

This function needs to be supported by devices.

8.2 Alarm Input Playback

When the alarm input is triggered and the linked video can be searched for alarm input playback. This function requires the support of the connected device.

For the description of the alarm input playback toolbar and right-click menu of display window, refer to **Normal Playback** .

 $\square_{\mathbf{i}}$ Note

Some icons may be not available for alarm input playback.

8.2.1 Search Video Files

You can search the video files by date, and you can also enter keyword to filter the matched results for alarm input playback.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Event Playback page.
- 3. Select an alarm input channel at the left.

- **4. Optional:** Click **m** to set the start date and end date of searching time period.
- 5. Select Alarm Input from the drop-down list as the event type.
- 6. Click Search to start the search.

The matched video files of the selected alarm input will display on the right page in chronological order. And by default, the first video file will play automatically.

7. Optional: Enter keyword in the Search field to filter the results.

8.2.2 Play Video Files

After searching the video files for the alarm input playback, you can play the video via file list or timeline.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Event Playback page.
- **3.** Search the video files of the alarm input.



See Search Video Files for details about searching video files of the alarm input.

- 4. Play video via file list or timeline.
 - Double-click the video file to play the video in the playback display window.
 - Click on the timeline to positioning the desired video segment of specified time for alarm input playback.



- The timeline indicates the time duration for the video files, and the video files of different types are color coded.
- You can use mouse wheel or click 4 / 2 to scale up or scale down the timeline bar.

8.3 Event Playback

The recorded video files triggered by event, such as motion detection, VCA detection, or behavior analysis, can be searched for event playback. This function requires the support of the connected device.

For the description of the event playback toolbar and right-click menu of display window, refer to **Normal Playback** .



Some icons may be not available for event playback.

8.3.1 Search Video Files

You can search the video files by date and by event type. And you can also enter keyword to filter the matched results for event playback.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Event Playback page.
- 3. Select the camera at the left.
- **4. Optional:** Click **m** to set the start date and end date of searching time period.



In the calendar, the date which has video files recorded by schedule will be marked with \angle , and the date which has video files recorded based on event will be marked with \angle .

- **5.** Select an event type from the drop-down list.
- 6. Click Search to start the search.

The matched video files will display on the right page in chronological order. And by default, the first video file will play automatically.

7. Optional: Enter keyword in the Search field to filter the results.

8.3.2 Play Video Files

After searching the video files for the event playback, you can play the video via file list or timeline.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Event Playback page.
- 3. Search the video files recorded based on event.
- 4. Play the video file.
 - Double-click the video file to play the video in the playback display window.
 - Click on the timeline to positioning the desired video segment of specified time for event playback.

 $\bigcap_{\mathbf{i}}$ Note

- The timeline indicates the time duration for the video files, and the video files of different types are color coded.
- You can use mouse wheel or click **!** / **!** to scale up or scale down the timeline bar.

8.4 ATM Playback

You can search the video files of ATM DVR for ATM playback. This function requires the support of the connected device which is configured with transaction rule.

For the description of the ATM playback toolbar and right-click menu of display window, refer to **Normal Playback** .



Some icons may be not available for ATM playback.

8.4.1 Search Video Files

You can search the video files of ATM DVR by card number, by transaction type, by transaction amount, by file type, or by date. And you can also enter keyword to filter the matched results for ATM playback.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the ATM Playback page.
- 3. Select the camera of ATM DVR at the left.
- **4. Optional:** Click **iii** to set the start date and end date of searching time period.
- 5. Set the search conditions.

by Card Number

Enter the card number contained in the ATM information.

Search by Transaction Type

Select transaction type for search, and enter the related transaction amount.

File Type

Select the type of video files for search.

6. Click **Search** to start searching.

The matched video files of selected ATM DVR will display on the right of the Remote Playback page in chronological order. By default, the first video file will play automatically.

7. Optional: Enter keyword in the **Search** field to filter the results.

8.4.2 Play Video Files

After searching the video files of the cameras connected with ATM DVR, you can play the video via file list or timeline.

Steps

1. Enter the Remote Playback module.

- 2. Click on the left to enter the ATM Playback page.
- 3. Search the video files of cameras connected with ATM DVR.
- 4. Play the video file.
 - Double-click the video file to play the video in the playback display window.
 - Click on the timeline to positioning the desired video segment of specified time for ATM playback.

Note

- The timeline indicates the time duration for the video files, and the video files of different types are color coded.
- You can use mouse wheel or click **!** / **!** to scale up or scale down the timeline bar.

8.5 POS Playback

You can search the video files which contain POS information for POS playback. This function requires the support of the connected device which is configured with POS text overlay.

For the description of the POS playback toolbar and right-click menu of display window, refer to *Normal Playback* .

Note

Some icons may be not available for POS playback.

8.5.1 Search Video Files

You can search the video files which contain POS information by keywords or by date.

Steps

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the POS Playback page.
- 3. Select the camera at the left.
- **4. Optional:** Click **m** to set the start date and end date of searching time period.
- **5.** Set the search conditions.

Keywords

Enter the card number contained in the ATM information.

Note

Up to three keywords can be entered for once. And each two keywords should be separated with a comma.

Combination Mode

For more than one keyword, you can select "or (|)" to search the POS information containing any of the keywords, or select "and(&)" to search the POS information containing all of the keywords.

Case Sensitive

Check Case Sensitive to search the POS information by case-sensitive keywords.

6. Click Search to start searching.

The video files contain POS information will display on the right of the POS Playback page in chronological order. And by default, the first video file will play automatically.

7. Optional: Enter keyword in the Search field to filter the results.

8.5.2 Play Video Files

After searching the video files which contain POS information, you can play the video via file list or timeline.

Before You Start

Start the normal playback of cameras configured with POS information overlay.

Steps

- **1.** Enter the Remote Playback module.
- 2. Click on the left to enter the POS Playback page.
- 3. Search the video files which contain POS information.
- 4. Play video via file list or timeline.
 - Double-click the video file to play the video in the playback display window.
 - Click on the timeline to positioning the desired video segment of specified time for POS playback.



- The timeline indicates the time duration for the video files, and the video files of different types are color coded.
- You can use mouse wheel or click **!** / **!** to scale up or scale down the timeline bar.

8.6 VCA Playback

For the searched video files, you can set VCA rule to find the video footage that VCA event occurs, such as motion detection, line crossing detection, and intrusion detection. This function helps to search out the video that you may be more concerned and mark it with red color.

Before You Start

Make sure the device with VCA function has been installed.

Steps



VCA playback is only supported in a single window, synchronous and asynchronous playback are not supported.

- 1. Enter the Remote Playback module.
- 2. Click on the left to enter the Camera Playback page.
- **3.** Select the camera and start the camera's video playback.
- 4. Enter the VCA Search menu.
 - Right-click the playback window to pop up the shortcut menu, and then click **VCA Search**.
 - Click on the lower-right corner of the playback window.
- 5. Enable the VCA type, draw the detection region and set the sensitivity.

Motion Detection

When the view of the video changes (such as a person passes, the lens is moved), the video footage will be marked as red color on the time line, which is used for the automatic alarm scene or no-guard scene.

Line Crossing Detection

You can draw a virtual line on the video, and the video footage will be marked as red color on the time line when the client bi-directionally detects people, vehicles and other moving objects that cross the virtual line.

Intrusion Detection

You can draw a virtual region on the video, and the video footage will be marked as red color on the time line when there are people, vehicles and other moving objects intruding into the pre-defined region.

VCA Settings

Set the sensitivity and filter the searched video files by setting the target characters, such as the gender and age of the human and whether he/she wears glasses. The video footage will be marked as red color on the time line when a person (whose attributes match the setting attributes) occurs in the video.



The higher the sensitivity, the more accurate the matched person is.

- **6. Optional:** Click **to** set the start date and end date of searching time period.
- 7. Start the VCA playback.

The VCA events occurred in the defined area will be red marked on the timeline.

Note

- By default, the playback speed of concerned video will be 1X, and the playback speed of unconcerned video will be 8X.
- You can set to skip the unconcerned video during VCA playback in System Configuration and the unconcerned video won't be played during VCA playback. Refer to Set Live View and Playback Parameters for details.
- If you need to disable VCA playback, right-click the VCA playback window and click VCA
 Search to disable VCA playback.

8.7 Synchronous Playback

Be default, the client play the video files of multiple cameras in asynchronous playback mode: the playback time of different video files might be different. In synchronous playback, the video files can be played back in synchronization.

Steps

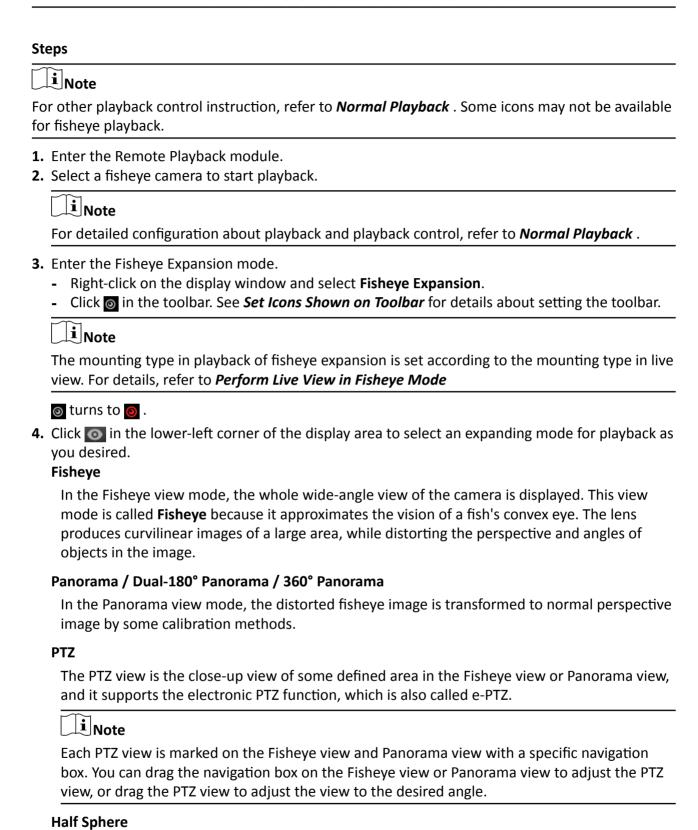


- Video files from up to 16 cameras can be played back simultaneously.
- Synchronous and asynchronous playback are not supported in ATM video playback and VCA playback mode.
- Event video playback and POS video playback only support synchronous playback. To link
 multiple cameras, enter Maintenance and Management → Event Management , enable the
 linked camera according to event type.
- 1. Enter the Remote Playback module.
- 2. Start playback of at least two cameras.
- 3. Click in the toolbar to enable the synchronous playback.

 The camera under playback will start synchronous playback.
- **4.** Click **t** to disable the synchronous playback.

8.8 Fisheye Camera's Video Playback

When playing back the fisheye camera's video, there might be distortion in the view. To observe the details better, you can enable the fisheye expansion function, to rectify the view as an undistorted view. The client supports multiple fisheye expansion modes, such as: panorama, half sphere, PTZ, fisheye+PTZ mode.



By the half sphere mode, you can drag the image and rotate it centering on the diameter, in order to adjust the view to the desired angle.

AR Half Sphere

AR half sphere mode overlaps images far and near, so that you can view a dimensional image in a wide angle.

Cylinder

In Cylinder mode, the image is formed into a cylinder page, and you can drag the image to any direction flexibly to view everywhere of the detection area.

5. Optional: Right-click on a playing window in the Fisheye view mode and you can switch the selected window to full-screen mode.
 Note
 You can right-click on the window and select Quit Full Screen to exit the full-screen mode.

8.9 Playback in Low Bandwidth

In situation of low network bandwidth, the speed of video streaming might be much slower due to the bandwidth limit. To provide normal quality in less streaming speed for low bandwidth users, the client provides playback in low bandwidth mode. Before that, you need to set the streaming protocol and perform other operations first.

For details about the settings, refer to **How to get better performance of live view and playback** when network bandwidth is low?

Chapter 9 Download Video Footage

Du PC	uring playback, you can download the video files of one camera or multiple cameras to the local					
$\overline{}$	i Note					
•	 You cannot download the video files of Cloud P2P device. For NVR which is added to the client by device's other user name (except admin), if Double Verification is enabled on this NVR, when playing back videos on the client, you are required to enter the user name and password created for double verification. For details about double verification, refer to the user manual of the NVR. 					
9.	1 Download Video Footage by Date					
Dι	ring playback, you can download the video footage of the camera and save in the local PC.					
	e ps Enter Remote Playback page and select a camera to start playback.					
	Note For details about starting playback, refer to <i>Remote Playback</i> .					
3. 4.	Right click on the image and click Download . Set the start and end time of the video footage to download. Enter a name for the video footage. Click OK to start downloading the video footage to the local PC.					
9.	2 Download for Multiple Cameras					
	rring the playback of multiple cameras, you can download the video files of multiple cameras by te simultaneously.					
	eps Enter Remote Playback page and select multiple cameras to start playback.					
	Note					
	For details about starting playback, refer to Remote Playback .					
2.	Click L to open the Download for Multiple Cameras window.					
	All the cameras in playback will be displayed.					
3.	Select the cameras you want to download video files for.					

4. Set the start time and end time of video duration for each camera.

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- 5. Optional: Check Download Player to download the player.
- **6.** Click **Download** to start downloading the video files of the configured duration(s) to the local PC.

The progress bar shows the downloading process of each camera's video files.

7. Optional: Click **Stop** to stop downloading manually.

Note	
Up to 16 cameras' video files can be downloaded simultaneously.	

Chapter 10 Event Configuration

Event is used to notify security personnel of the particular situation which helps handle the situation promptly. Event can trigger a series of linkage actions (e.g., audible warning and sending email) for notification and event handling. You can enable the event and set linkage action(s) for the resources added to the client. If the selected events happen, the client will receive event notifications in real-time and you can check the details and handle the events accordingly.

Video Event

The video events refer to the special events triggered by video exception, monitoring area's exception, alarm input, encoding device's exception, etc. For more details, refer to *Configure Event for Camera*, *Configure Event for Alarm Input*, and *Configure Event for Encoding Device*.

10.1 Configure Event for Camera

The event for camera refers to the video exception or the events detected in the monitoring area of the camera, such as motion detection, video loss, line crossing, and so on. You can enable an event for the cameras in the client. When the event is triggered on the camera, the client can receive and record event for checking and trigger a series of linkage actions (e.g., sending email) for notification.

Steps

1. Click Event Configuration → Video Event → Camera .



Figure 10-1 Display Camera Resource

2. Unfold the group and select a camera as event source.



All the event types supported by the selected camera will appear.

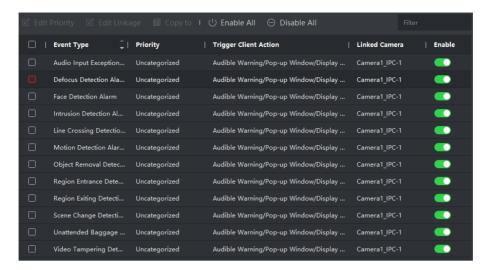


Figure 10-2 Configure Events for Camera

- 3. Optional: Enter keywords in Filter field to locate the desired event guickly.
- **4. Optional:** Turn on the switch on the Enable column to enable the event type, or click **Enable All** to enable all the event types of this camera.

i Note

After enabled, the event can be received by the client and trigger the linkage action(s). You can also disable an event type or disable all event types.

5. Optional: Select the event(s), and then perform the following operations.

Edit Click Edit Priority to set the priority of the event(s).

Priority Priority represents the emergency degree of the event.

Edit Event Click Edit Event Linkage to set the linkage action(s) of the event(s).

Linkage Audible Warning

Trigger the client's audible warning when the event is triggered.

You can select the audio file on the drop-down list, or click **Add** to add new audio file (in WAV format).

You can click to make an audition of the selected audio file.

Send Email

Send an email notification of the alarm information to one or more receivers.

For details about setting email parameters, refer to **Set Email Parameters**.

Pop-up Window

Pop-up window to display the event related information (including event details, live video of the source camera, captured pictures of the linked

camera) on the client when the event is triggered. You can also enter remarks about how to the handle the event.

Display on Map

When the event source is added as a hot spot on the map, the hot spot will be displayed with <u>lat</u> twinkling aside when the event is triggered, which helps security personnel view the location of the event.

You can also click the hot spot to view the event details and the live video of the linked camera.

Linked Camera

Link the selected camera to capture picture or record video when the event is triggered.

Copy Event Settings

Click **Copy to** to copy the event settings of this camera to other camera(s).



You can only copy the event settings to the resource(s) of the same type.

What to do next

You need to arm the device which the camera belongs to, otherwise the client cannot receive the configured events. For details, see *Enable Receiving Event from Devices* .

10.2 Configure Event for Alarm Input

The event for alarm input refers to the event triggered by alarm input. You can enable an event for the alarm inputs in the client. When the alarm input is triggered, the client can receive and record event for checking and trigger a series of linkage actions (e.g., sending email) for notification.

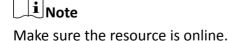
Steps

1. Click Event Configuration → Video Event → Alarm Input.



Figure 10-3 Display Alarm Input Resource

2. Unfold the group and select an alarm input as event source.



All the event types supported by the selected alarm input will appear.

3. Optional: Enter keywords in Filter field to locate the desired event quickly.

4. Optional: Turn on the switch on the Enable column to enable the event type, or click **Enable All** to enable all the event types of this alarm input.

 \bigcap i Note

After enabled, the event can be received by the client and trigger the linkage action(s). You can also disable an event type or disable all event types.

5. Optional: Select the event(s), and then perform the following operations.

Edit Click Edit Priority to set the priority of the event(s).

Priority Priority represents the emergency degree of the event.

Edit Event Linkage Click Edit Event Linkage to set the linkage action(s) of the event(s).

Audible Warning

Trigger the client's audible warning when the event is triggered.

You can select the audio file on the drop-down list, or click **Add** to add new audio file (in WAV format).

You can click to make an audition of the selected audio file.

Send Email

Send an email notification of the alarm information to one or more receivers.

For details about setting email parameters, refer to Set Email Parameters .

Pop-up Window

Pop-up window to display the event related information (including event details, live video of the source camera, captured pictures of the linked camera) on the client when the event is triggered. You can also enter remarks about how to the handle the event.

Display on Map

When the event source is added as a hot spot on the map, the hot spot will be displayed with **L** twinkling aside when the event is triggered, which helps security personnel view the location of the event.

You can also click the hot spot to view the event details and the live video of the linked camera.

Linked Camera

Link the selected camera to capture picture or record video when the event is triggered.

Copy Event Settings

Click **Copy to** to copy the event settings of this alarm input to other alarm input(s).

i Note

You can only copy the event settings to the resource(s) of the same type.

What to do next

You need to arm the device which the alarm input belongs to, otherwise the client cannot receive the configured events. For details, see *Enable Receiving Event from Devices*.

10.3 Configure Event for Encoding Device

The event for encoding device refers to encoding device's exception, such as device offline. You can enable an event for the encoding devices added in the client. When the event is triggered on the device, the client can receive and record event for checking and trigger a series of linkage actions (e.g., sending email) for notification.

Steps

1. Click Event Configuration → Video Event → Device .

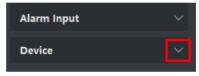


Figure 10-4 Display Device Resource

2. Select a device as event source.

i Note

Make sure the resource is online.

All the event types supported by the selected device will appear.

- 3. Optional: Enter keywords in Filter field to locate the desired event quickly.
- **4. Optional:** Turn on the switch on the Enable column to enable the event type, or click **Enable All** to enable all the event types of this device.

i Note

After enabled, the event can be received by the client and trigger the linkage action(s). You can also disable an event type or disable all event types.

5. Optional: Select the event(s), and then perform the following operations.

Edit Click Edit Priority to set the priority of the event(s).

Priority Priority represents the emergency degree of the event.

Edit Event Click **Edit Event Linkage** to set the linkage action(s) of the event(s).

Linkage Audible Warning

Trigger the client's audible warning when the event is triggered.

You can select the audio file on the drop-down list, or click **Add** to add new audio file (in WAV format).

You can click on to make an audition of the selected audio file.

Send Email

Send an email notification of the alarm information to one or more receivers.

For details about setting email parameters, refer to **Set Email Parameters**.

Copy Event Settings

Click **Copy to** to copy the event settings of this device to other device(s).

 $\square_{\mathbf{i}}$ Note

You can only copy the event settings to the resource(s) of the same type.

What to do next

You need to arm this device, otherwise the client cannot receive the configured events. For details, see *Enable Receiving Event from Devices* .

Chapter 11 Event Center

The event information (for example, device offline) received by the client displays. In the Event Center, you can check the detailed information of the real-time and historical events, view the event linked video, handle the events, and so on.

Before the client can receive the event information from the device, you need to enable the events of the resource and arm the device first. For details, refer to *Event Configuration* and *Enable Receiving Event from Devices* .

Before the you can view the pop-up alarm information, you need to enable event triggered pop-up image in the event center. For details, refer to **View Pop-up Event Information**.

11.1 Enable Receiving Event from Devices

Before the client software can receive event notifications from the device, you need to arm the device first.

Steps

- Click → Tool → Device Arming Control to open Device Arming Control page.
 All the added devices appear on this page.
- 2. In the Auto-Arming column, turn on the switch to enable auto-arming.

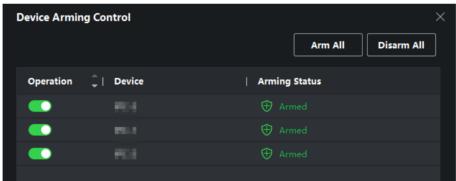


Figure 11-1 Arm Device

After turned on, the device(s) will be armed. And notifications about the events triggered by the armed device(s) will be automatically sent to the client software in real-time.

11.2 View Real-Time Events

The real-time event information received by the client of the connected resources are displayed. You can check the real-time event information, including event source, event time, priority, etc.

Before You Start

Enable receiving events from devices before the client can receive event from the device, see **Enable Receiving Event from Devices** for details.

Steps

1. Click Event Center → Real-time Event to enter the real-time event page and you can view the real-time events received by the client.

Event Time

For encoding device, event time is the client time when it receives the event. For other device types, event time is the time when the event is triggered.

Priority

Priority represents the emergency degree of the event.

2. Filter the events.

Filter by Device Type and (or) Select device type(s) and (or) priorities to filter events.

Filter by Keywords Enter the keywords to filter the events.

- **3. Optional:** Right-click the table header of the event list to customize the event related items to be displayed in the event list.
- 4. View the event details.
 - 1) Select an event in the event list.
 - 2) Click **Expand** in the right-lower corner of the page.
 - 3) View the related picture, detail description and handing records of the event.
 - 4) **Optional:** Hover the cursor on the related picture, and then click the downloading icon on the upper-right corner of the picture to download it to the local PC. You can set the saving path manually.
- **5. Optional:** Perform the following operations if necessary.

Handle Single Event	Click Handle to enter the processing suggestion, and then click Commit .	
	Note	
	After an event is handled, the Handle button will become Add Remark . Click Add Remark to add more remarks for this handled event.	
Handle Events in a Batch	Select events that need to be processed, and then click Handle in Batch . Enter the processing suggestion, and then click Commit .	
Enable/Disable Alarm Audio	Click Enable Audio/Disable Audio to enable/disable the audio of the event.	
Select the Latest Event Automatically	Check Auto-Select Latest Event to select the latest event automatically and the event information details is displayed.	

Clear Events Click **Clear** to clear the all the events in the event list.

Send Email Select an event and then click Send Email, and the information

details of this event will be sent by email.

iNote

You should configure the email parameters first, see Set Email

Parameters for details.

11.3 Search Historical Events

In the Event Search module of the event center page, you can search the historical events via time, device type, and other conditions according to the specified device type, and then process the events.

Before You Start

Enable receiving events from devices before the client can receive event information from the device, see *Enable Receiving Event from Devices* for details.

Steps

- 1. Click Event Center → Event Search to enter the event search page.
- 2. Set the filter conditions to display the required events only.

Time

The time when the event starts.

Search by

Device

Search the events by device or the device's resource channels. If searched by device, you need to set the followings:

- Include Sub-Node: Search the events of the device and all resource channels.
- **Device Type**: The device type which events you want to search.

Group

Search the events by resource channels in the group.

Priority

The priority including low, medium, high and uncategorized which indicates the emergency degree of the event.

Status

The handling status of the event.

- **3.** Click **Search** to search the events according the conditions you set.
- **4. Optional:** Right-click the table header of the event list to customize the event related items to be displayed in the event list.

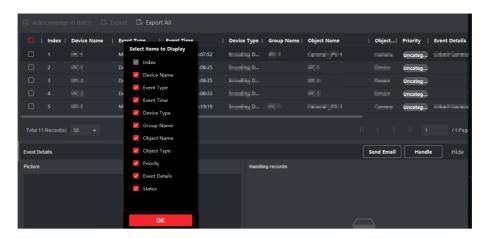


Figure 11-2 Customize Event Related Items to Display

5. Optional: Perform one of the following operations.

Handle a Single Handle single event: Select one event that need to be processed, and **Event** then click **Handle** in the event information details page, and enter the processing suggestion. i Note After an event is handled, the Handle button will become Add Remark, click Add Remark to add more remarks for this handled event. **Batch Handle** Handle events in a batch: Select the events which need to be processed, **Events** and then click **Handle in Batch**, and enter the processing suggestion. i⊓Note After an event is handled, the **Handle** button will become **Add Remark**, click Add Remark to add more remarks for this handled event. **Send Email** Select an event and then click **Send Email**, and the information details of this event will be sent by email. i Note You should configure the email parameters first, see Set Email Parameters for details. **Export Event** Click **Export** to export the event log or event pictures to the local PC in Information CSV format. You can set the saving path manually. **Download Event** Hover the cursor on the related picture, and then click the download **Related Picture** icon on the upper-right corner of the picture to download it to the local

PC. You can set the saving path manually.

11.4 View Pop-up Event Information

If you have enabled event notification and set Event Triggered Pop-up Image as its linkage action, a window will pop up when the event happens, showing the event information, related pictures, and related videos

Go to Event Center → Real-Time Event , and then click Enable Alarm Triggered Pop-up Image to enable the function.

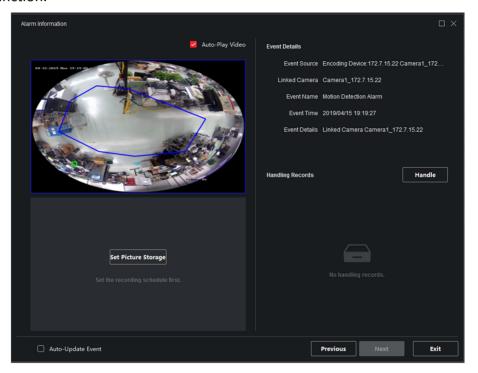


Figure 11-3 The Pop-up Event Information

You can view the event related video footage (from 30 s before the event to the end of the event), the picture captured when the event happens, as well as the event details such as event source, linked camera, event type, etc.



- When the window is not closed, you should click **Next** to view the new event information if a new event is triggered.
- If you haven't clear the event information, you can click **Previous** to view the previous event information.

You can check **Auto-Update Event** to enable the window to automatically switch to the latest event information when a new event is triggered.

Chapter 12 Map Management

The E-map function gives a visual overview of the locations and distributions of the installed cameras and alarm input devices. You can get the live view of the cameras on the map, and you will get a notification message from the map when alarm is triggered.

E-map is a static image (it do not have to be geographical maps, although they often are. Depending on your organization's needs, photos and other kinds of image files can also be used as e-maps) which gives you a visual overview of the locations and distributions of the hot spots (resources (e.g., camera, alarm input) placed on the map are called hot spots). You can see the physical locations of the cameras and alarm inputs, and in what direction the cameras are pointing. With the function of hot region, e-maps can be organized into hierarchies to navigate from large perspectives to detailed perspectives, e.g., from floor level to room level.

12.1 Add Map

Zoom in/out

Adjust Map

Area

You should add a map as the parent map for the hot spots and hot regions.

Steps i Note Only one map can be added to one group. 1. Open the E-map page. 2. Select a group for which you want to add a map. i Note For details about setting the group, refer to Group Management. 3. Click Add Map to open the map adding window. 4. Enter a descriptive name of the added map. 5. Select a map picture from the local path. i Note The picture format of the map can only be PNG, JPEG or BMP. 6. Click OK. 7. Optional: Perform the following tasks after adding the map.

buttons and zoom bar to adjust the map area for view.

Use the mouse wheel or click + or - to zoom in or zoom out on the map.

Drag the yellow window in the lower-right corner or use the direction

12.2 Edit Map Scale

The scale of a map is the ratio of a distance on the map to the corresponding distance on the ground. The client can calculate two locations' distance on the map according to the distance on the ground. An accurate map scale is essential for defining radar's monitoring range.

Before You Start

Make sure you have added a map. See Add Map for details.

Perform this task if you need to add a security radar to the map.

Steps

- 1. Enter the E-map module.
- 2. Click Edit on the E-map toolbar to enter the map editing mode.
- 3. Click Edit Scale to select two locations on the map.

The cursor will turn to + if you hover it on the map.

4. Click on the map to select two locations.

The Edit Scale window pops up.

5. Enter the ground distance between the two locations, and then click **OK**.

The client will calculate the map scale automatically.

12.3 Manage Hot Spot

The devices added to the map are called hot spots. The hot spots show the locations of the devices, and you can also get the live view or alarm information of the surveillance scenarios through the hot spots.

12.3.1 Add Camera as Hot Spot

You can add cameras to the map as hot spots.

Before You Start

Make sure you have added an e-map and a camera to the client. See **Add Map** and **Device Management** for details.

Steps

- 1. Enter the E-map page.
- 2. Click **Edit** in the upper-right corner to enter the map editing mode.
- 3. Click Add Hot Spot → Camera Hot Spot to open the Add Hot Spot window.

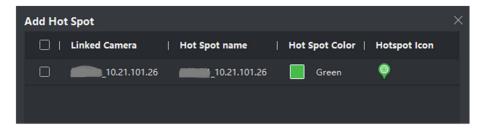


Figure 12-1 Add Hot Spot Panel

- **4.** Select the cameras to be added to the map.
- **5. Optional:** Edit the hot spot name, select the name color and select the hot spot icon.
- **6.** Click **OK** to save the settings.

iNote

You can also drag the camera icons from the group list to the map directly to add the hot spots.



Figure 12-2 Camera on the Map

The camera icons are added on the map as hot spots and the icons of the added cameras in the group list change from on to consider the camera's field of view.

7. Perform the following operation(s).

Move the Hot Spot Drag the hot spot to move it to a certain position.

Change the FOV Angle Drag of / and revolve to change the camera's field of view.

Change the FOV Size Drag

onumber to change the FOV size.

12.3.2 Add Alarm Input as Hot Spot

You can add the alarm inputs to the map as hot spots.

Steps

- 1. Enter the E-map module.
- 2. Click Edit in the upper-right corner to enter the map editing mode.
- 3. Click Add Hot Spot → Alarm Input Hot Spot to open the Add Hot Spot window.
- **4.** Select the alarm inputs to be added to the map.
- **5. Optional:** Edit hot spot name, select the name color and select the hot spot icon by double-clicking the corresponding field.
- 6. Click OK.

$\bigcap_{\mathbf{i}}$ Note

You can also drag the alarm input icons from the group list to the map directly to add the hot spot.

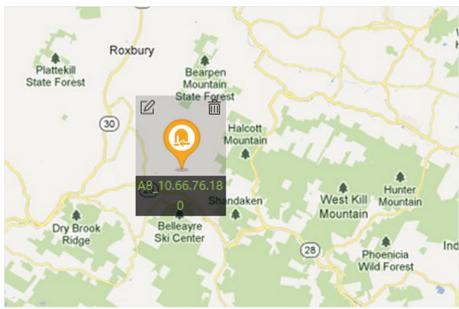


Figure 12-3 Alarm Input on the Map

The alarm input icons are added to the map as hot spots and the icons of the added alarm inputs in the group list change from \mathbb{Z} to \mathbb{Q} .

7. Optional: Drag the hot spot to move it to a certain position.

12.3.3 Add Alarm Output as Hot Spot

You can add alarm outputs to the map as hot spots for management. After that, you can enable or disable it in a quick manner. If you enable an alarm output on the map, the security control devices (e.g. sirens, bells) connected to it will alarm for attention.

Before You Start

Make sure you have added an e-map and alarm output to the client. See *Add Map* and *Device Management* for details.

Steps

- 1. Enter the E-map module.
- 2. Click Edit on the E-map toolbar to enter the map editing mode.
- 3. Click Add Hot Spot → Alarm Output Hot Spot to open the Add Hot Spot panel.

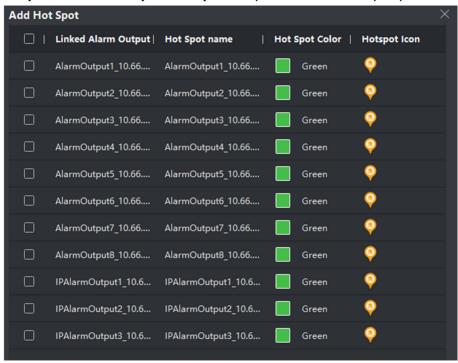


Figure 12-4 Add Hot Spot Panel

- **4.** Select the alarm output to be added to the map.
- **5. Optional:** Edit the hot spot name, select the name color, and select the hot spot icon.
- 6. Click OK.

i

You can also drag an alarm output icon from the alarm output list to the map to add the hot spot.

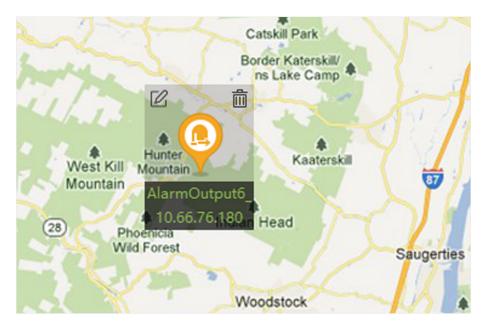


Figure 12-5 Alarm Output on the Map

The alarm output is added to the map as a hot spot and its icon in the group list changes from to .

7. Optional: Drag the alarm output to move it to a certain position.

12.3.4 Edit Hot Spot

You can edit the information of the added hot spots on the map, including the name, the color, the icon, etc.

Steps

- 1. Enter the E-map module.
- 2. Click Edit in the upper-right corner to enter the map editing mode.
- 3. Select the hot spot icon on the map and then click do open the Edit Hot Spot window.
- **4.** Edit the hot spot name in the text field, select the hot spot name's color and hot spot icon shown on the map.
- 5. Check Apply to Other Camera Hot Spots/Apply to Other Alarm Input Hot Spots/Apply to Other Alarm Output Hot Spots/Apply to Other Zone Hot Spots to apply the color and icon settings to other hot spots.
- 6. Click OK.
- 7. Optional: Select the hot spot icon and click in to delete the hot spot.

12.3.5 Preview Hot Spot

After adding hot spots (including camera, alarm input/output, zone, security radar, and zone) to the map, you can view the live view of the camera hot spot and the triggered alarm information of all the types of hot spots on the map.

Before You Start

Make sure you have added hot spots to the map. See *Manage Hot Spot* for details.



	eps Enter the E-map module.				
	Note If you are in the preview mode.	you are in the editing map mode, click Exit on the upper-right corner to enter the map			
2.	Click Display to	lick Display to show the hot spots on the map.			
	Note Hot spot type with will be shown on the map.				
3.	Click a hot spot to perform the following operation(s).				
	Hot Spot Type	Operations			
	Camera	Live View: Click o to pop up the live view window of the camera.			
		 Note When an alarm is triggered during live view, the client will play a video file of 30 s first. You can capture, start recording and instant playback during live view. 			
	Alarm	Click an alarm output, and select Open/Close .			
	Output	iNote			
		The security control channels managed by the alarm output will also be opened/closed.			
	Access Point	View door status: the current door status of the access point is displayed on the icon. Click the icon to switch the door status. Open Door			
		When the door is locked, unlock it and it will be open for once. After the open duration, the door will be closed and locked again automatically.			
		Close Door			

When the door is unlocked, lock it and it will be closed. The person who has the access authorization can access the door with credentials.

Remain Open

The door will be unlocked (no matter closed or open). All the persons can access the door with no credentials required.

Remain Closed

The door will be closed and locked. No person can access the door even if he/she has the authorized credentials, except the super users.

Security Radar

Arm/Disarm zones in the monitoring field of the radar: After exiting editing, click the icon of a security radar, and then select **Arm/Disarm**.

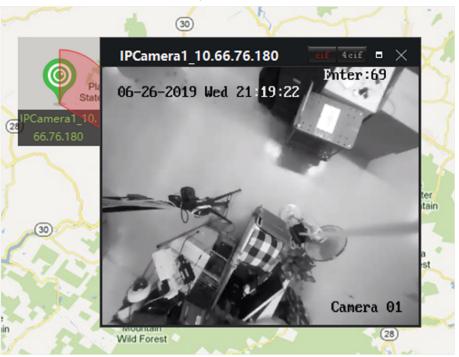


Figure 12-6 Live View of Camera on the Map

4. Optional: Perform the following operation(s).

View Alarm Information Click the alarm number on a hot spot icon to open the alarm information page to view the alarm type and triggering time.

Clear Alarm

Click **Clear Alarm** on the top of the map to mark all the alarms of the hot spot as read.

View Multiple Cameras' Live View on the Map

- a. Click **Live View** to show 4 small windows on the bottom of the client.
- b. Drag a camera from the device list to a window to start the live view.



Up to 4 cameras' live view is supported at the same time.

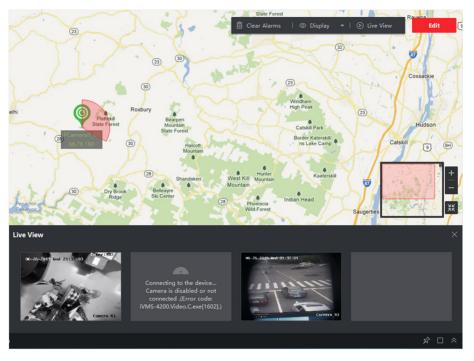


Figure 12-7 Preview Camera Hot Spot

12.4 Manage Hot Region

The hot region function links a map to another map. When you add a map to another map as a hot region, an icon of the link to the added map is shown on the main map. The added map is called child map while the map to which you add the hot region is the parent map.

After linking a child map to a parent map, a hot region icon will display on the parent map. You can click it to enter the child map to view the resources on the child map for convenience.

With the function of hot region, e-maps can be organized into hierarchies to navigate from large perspectives to detailed perspectives, e.g., from floor level to room level.

12.4.1 Add Hot Region

You can add a map to another map as a hot region and an icon of the link to the added map is shown on the main map. The added map is called child map while the map to which you add the hot region is the parent map.

Before You Start

At least two maps should be added. Refer to **Add Map** for details about adding maps.

Steps



A map can only be added as the hot region for once.

- 1. Enter the E-map page.
- 2. Click Edit on the upper-right corner to enter the map editing mode.
- 3. Select an added map as the parent map.
- 4. Click Add Hot Region to open the Add Hot Region window.
- **5.** Select the child map.
- **6. Optional:** Edit the hot region name, and select the hot region color and icon by double-clicking the corresponding field.
- 7. Click OK.

The child map icons are added on the parent map as the hot regions.

12.4.2 Edit Hot Region

You can edit the information of the hot regions on the parent map, including name, color, icon, etc.

Steps

- 1. Enter the E-map module.
- 2. Click Edit on the upper-right corner to enter the map editing mode.
- 3. Select a hot region icon on the parent map and click \(\mathbb{Z} \) to open the Edit Hot Region window.
- **4.** Edit the hot region name in the text field, select the hot region name's color and hot region icon.
- **5.** Check **Apply to Other Hot Regions** to apply the color and icon settings to other hot regions.
- 6. Click OK.

12.4.3 Preview Hot Region

After adding a hot region, you can click the hot region icon on the parent map to enter the child map. You can view the resources and alarms on the child map.

Steps

1. Enter the E-map page.



If you are in the editing map mode, click **Exit** on the upper-right corner to enter the map preview mode.

- 2. Click the hot region icon on the parent map to enter the linked child map.
 - You can view the resources on the child map. If there is any alarm triggered on the child map, you can view the alarm details.
- 3. Optional: Click Back to Parent Map on the upper-left corner to go back to the parent map.

4. Optional: Click Clear Alarm Info. on the upper-right corner to clear the alarm information triggered by the resources on the current map.

12.5 View Person's Moving Pattern

With the help of facial recognition devices, you can view the target person's moving pattern on the map, which is generated by several cameras' locations. E-map allows you to search and view the moving pattern of an individual (such as a suspect, a missing child, etc.) on the map to help finding him/her.

Before You Start

Make sure you have added a map for a group and added the cameras in the group to the map. See Add Map and Add Camera as Hot Spot for details.

Steps

- 1. Enter the E-map module.
- 2. Click a group name in the resource list on the left column.
 - The group's map and resources on the map appear in the display area.
- 3. Optional: Click Add Map to add a map for the group and add cameras in the group to the map.
- 4. Click Moving Pattern on the top of the map to open the Search Moving Pattern page.
- **5.** Click to set a time period for searching moving pattern.
- **6.** Check face picture analysis device in the list. $\mathbf{\tilde{i}}_{\mathsf{Note}}$ The picture you upload in Step 7 will be compared with pictures stored in the checked devices.
- 7. Click **Select Picture** to select a face picture to upload or drag a picture to the picture area.
- $\widetilde{\mathbf{I}}_{\mathsf{Note}}$ You can upload a picture containing multiple face pictures from which you need to select one for comparison.
- 8. Drag the slider or enter a number to select a similarity.
 - i Note The client will search face pictures stored in the selected face picture analysis devices whose similarity with the uploaded picture is higher than the configured similarity, and then display

the moving pattern of the matched person on the map.

9. Click Search.

Moving pattern of the person who is similar to the uploaded picture is displayed on the map, the cameras captured pictures will be numbered showing the person's arriving order, and the capture records will be displayed on the left with the captured picture thumbnail displayed also.

10. Optional: Perform the following operation(s) after searching moving pattern.

Operation Description

Filter Capture Records

Click and check **Show Last Record** to show the last record of every camera through the moving pattern.

View Person Related Videos and Pictures Click a captured picture thumbnail to open the Capture Details window and you can view the detailed information of the picture you clicked. All pictures of the person captured by the camera will be displayed on the right. Select a captured picture to show its related video of 10 seconds on the left, including the 5 seconds before the capturing time and the 5 seconds after the capturing time. Click to start displaying the video.

Disable Pattern

Click on the top of the record list or **Disable Pattern** to exit moving pattern mode.

Chapter 13 Forward Video Stream through Stream Media Server

There is always a limit of the device remote access number. When there are many users wanting to get remote access to the device to get the live view, you can add the stream media server and get the video data stream from the stream media server, thus to lower the load of the device.



The stream media server application software needs to be installed and it is packed in the client installation package. After running the installation package, check **Stream Media Server** to enable the installation of stream media server.

13.1 Import Certificate to Stream Media Server

Before adding the stream media server to the client, you should import the client's security certificate to the stream media server first to perform security authentication and ensure data security.

Perform the following steps to import the security certificate to the stream media server.

Steps

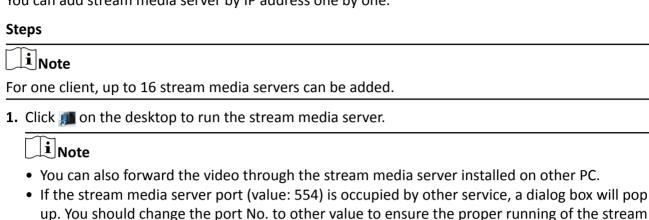
- 1. Export the certificate from the client.
 - 1) Open client service.
 - 2) Click Export.
- 2. Copy the certificate to the PC which has installed with stream media server.
- 3. Click **1** on the desktop of the PC installed with stream media server to run it.
- **4.** Import the certificate to the stream media server.
 - 1) Right click **III** on the task bar and click **Display**.
 - 2) Click **Configuration** to enter the Configuration window.
 - 3) In the security certificate field, click **Import** and select the certificate file you export from client in Step 1.
 - 4) Click OK.
- **5.** Restart the stream media server to take effect.



If the client's security certificate is updated, you should export the new certificate from the client and import it to the stream media server again to update.

13.2 Add Stream Media Server by IP Address

You can add stream media server by IP address one by one.



- 2. In the client software, enter the Device Management page.
- 3. Enter Device → Stream Media Server
- 4. Click Add to open the Add window.
- 5. Select IP Address as the adding mode.
- 6. Enter the nickname and IP address of the stream media server.



media server.

The default port value is 554.

- 7. Finish adding the stream media server.
 - Click **Add** to add the server and back to the list page.
 - Click **Add and Continue** to save the settings and continue to add other server.



If the added Stream Media Server's security certificate doesn't match with the client's, it will prompt you. You can view exception message and follow the provided steps to keep certificates consistent.

13.3 Add Cameras to Stream Media Server to Forward Video Stream

To get the video stream of a camera via stream media server, you need to connect the camera to the stream media server.

Steps

- 1. Enter the Device Management module.
- 2. Enter Device → Stream Media Server

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- 3. Select a server and click on Operation column to open Stream Media Server Settings window.
- **4.** Select the cameras of which the video stream is to be forwarded via the stream media server.
- 5. Click OK.
- 6. Go the Main View page and start the live view of the cameras again.

On the stream media server control panel, check the channel number of the video stream forwarded through or sent from the stream media server.

Note

- For one stream media server, up to 64 channels of video stream can be forwarded through it and up to 200 channels of video stream can be sent to clients from it.
- If the camera is offline, the client can still get the live video via the stream media server.

Chapter 14 Statistics

Reports, created for a specified period, are essential documents, which are used to check whether a business runs smoothly and effectively. In this software, reports can be generated daily, weekly, monthly, annually, and by custom time period. You can use reports as basis in creating decisions, addressing problems, checking tendency and comparison, etc.

14.1 People Counting Report

People counting statistics is to calculate the number of line crossing people in a specific area and a certain time period by the people counting camera(s), which can help the storekeeper to analyze the customers flow and number in different time, and the storekeeper can flexibly do some business adjustment according to the report. You can view the people counting statistics in a line chart or histogram, and generate reports for exporting the detailed data to local storage.

Before You Start

Add a people counting device to the software and properly configure the corresponding area. The added device should have been configured with people counting rule. Refer to *Add Device* for details about adding people counting device.

Steps

- 1. Click Report → People Counting to enter People Counting page.
- **2.** Select daily report, weekly report, monthly report, or annual report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the number of people in each hour of one day.

Weekly Report, Monthly Report and Annual Report

As compared to daily report, weekly report, monthly report and annual report can be less-time consuming, since they are not to be submitted every day. The system will calculate the number of people in each day of one week, in each day of one month, in each month of one year.

Custom Report

Users can customize the days in the report to analyze the number of people in each day or month of the custom time interval.

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You can select no more than 31 days on the calendar.

3. Select the statistics time type and click at to set the time.

One Period

Generate the statistics in one time period.

Multiple Periods

Generate the statistics in two time periods, which can help you to compare the people flow and number in two time periods.

For example, if you set the report type as month report, and set the March and April as the statistic time, the people counting results in March and April will be displayed in a same chart with different color, and you can compare the data in different day of each month.

4. Select Display by Device or Display by Camera.

Display by Device

Display the report by device.

For example, if you select one NVR (with 4 people counting cameras), the report will display the total number of people summed by the 4 people counting cameras.

Display by Camera

Display the report by camera.

For example, if you select one NVR (with 4 people counting cameras), the report will display the each camera's statistics respectively, namely display the statistics in 4/8 colors (each/2 color represent one camera).

- **5.** Select the people counting camera(s) to be displayed.
- **6.** Select the direction for statistics.

Entered

The people entered will be counted.

Exited

The people exited will be counted.

Passed

Both people entered and exited will be counted.

7. Check **Children Only** to generate report of recognized children.



- The client counts detected people shorter than a predefined height which can be configured on device's remote configuration page. See the device user manual for details about configuring height threshold.
- This function needs to be supported by the device.
- **8.** Click **Search** to get the people counting statistics and detailed data for each hour, day, or month.

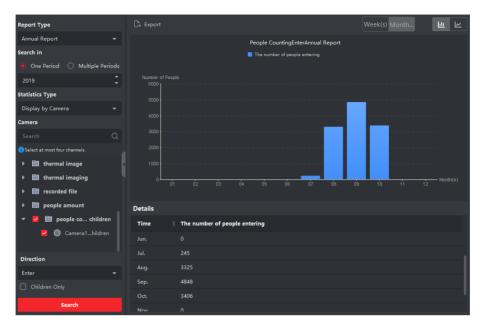


Figure 14-1 Display by Camera

By default, the statistics are shown in histogram form.

9. Optional: Perform the following operations after search.

Switch to Line Chart Click Let to switch it to line chart.

i Note

By default, the statistics are shown in bar chart.

Switch to Bar Chart

Click to switch it to bar chart.

Save to Local PC

Click **Export** to save the detailed data of people counting to your PC.

14.2 View People Counting in Intersections Report

Intersection analysis is used to monitor people flow and number in an intersection-like scene. The arrows in the image refer to different directions. By selecting one direction (e.g. A) as the entrance, the other directions will be set as the exits by default, so that multiple paths are generated (e.g., A to A, A to B, A to C, and A to D). You can view the people counting who passed by each path, respectively, which can help the shopkeeper to analyze the people flow in different door. The statistics result can show in daily, weekly, monthly, and annual report.

Before You Start

Make sure a fisheye camera which supports intersection analysis function has been configured properly and be added to the software. Refer to *Add Device* for details about adding the device.

Steps



Up to 10 intersections can be analyzed.

- 1. Click Report → Intersection Analysis to enter the intersection analysis module.
- **2.** Select daily report, weekly report, monthly report, or annual report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the number of people in intersection report in a each hour of one day.

Weekly Report, Monthly Report and Annual Report

As compared to daily report, weekly report, monthly report and annual report can be less-time consuming, since they are not to be submitted every day. The system will calculate the number of people in intersection report in each day of one week, in each day of one month, in each month of one year.

- **3.** Set the start time for the report.
- **4.** Select the camera for generating the report.
- **5.** Select one direction as the entrance from the drop-down list in the **Flow in** filed.
- **6.** Click **Search** to get the statistics result.

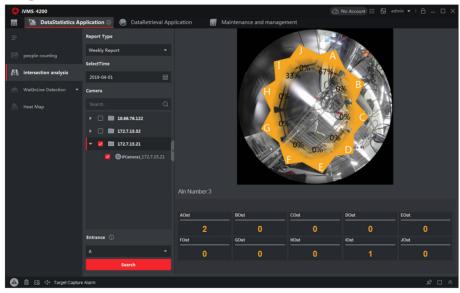


Figure 14-2 Results

The people number for each path will show on the right.

14.3 Queue Management

Queue management supports data analysis and report output from multiple dimensions.

Commonly Used Data Analysis

- To see queuing-up people number of a certain waiting time level in a queue/region, use queuing-up time analysis, check a target region and set a waiting time level.
- To compare queuing-up people number of a certain waiting time level in multiple queues/ regions, use queuing-up time analysis, check target regions and set a waiting time level.
- To compare queuing-up people number of different waiting time levels in multiple queues/ regions, use queuing-up time analysis, check target regions and set waiting time levels.
- To see the time and duration that a queue stays a certain length in a queue/region, use queue status analysis, check a target region and set a queue length level.
- To compare the time and duration that a queue stays a certain length in multiple queues/ regions, use queue status analysis, check target regions and set a queue length level.
- To compare the time and duration that a queue stays at different length in multiple queues/ regions, use queue status analysis, check target regions and set queue length levels.

14.3.1 Queuing-Up Time Analysis

Queuing-Up Time Analysis calculates people number of different waiting time levels. Regional comparison and multiple waiting time level comparison are supported.

Compare Queuing-up People Amount for Different Regions

With cameras for queuing-up people amount counting, you can search the queuing-up people amount during time period of certain length in different regions, helping the storekeeper to find areas where customers tend to go. For example, the regions with larger people amount are more popular than the regions with lower people amount, so that you can put goods in these regions to sell more of them.

Before You Start

- Add the device to the software and properly configure the corresponding settings. See Add
 Device for details about adding the device.
- Make sure you have configured no more than 3 regions in the detection area of a camera on device remote configuration page. See device user manual for details about configuring regions.

Steps



This function should be supported by the connected device.

- 1. Click Report → Queue Management → People Amount in Region .
- 2. Select Daily Report/Weekly Report/Monthly Report/Custom Report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the queuing-up duration for different regions in a each hour of one day.

Weekly Report, Monthly Report

As compared to daily report, weekly report and monthly report can be less-time consuming, since they are not to be submitted every day. The system will calculate the queuing-up duration for different regions in each day of one week, in each day of one month.

Custom Report

Users can customize the days in the report to analyze the number of people on each day or month of the custom time interval.



You can select no more than 31 days on the calendar.

- **3.** Click **(iii)** to set time period for searching.
- 4. Select cameras and no more than 3 regions for every camera in the Region list.
- 5. Select Regional Comparison as the statistics type.
- **6.** Select a waiting time level based on which the report is generated.
- 7. Click **Search** to generate the statistics result.

The line chart of the calculated people amount in the specified waiting time will show on the result area. The lines with different colors indicate the people from the selected regions.

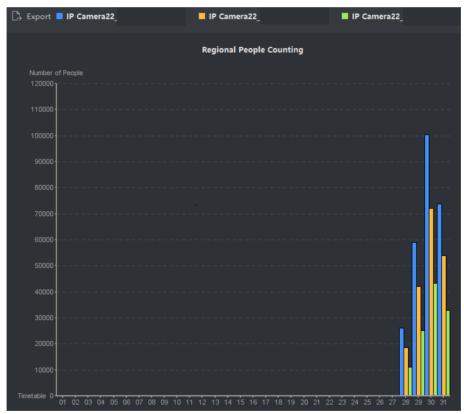


Figure 14-3 Result

8. Optional: Click Export to export the data in Excel file.

Compare Queuing-up People Amount for Different Waiting Time Levels

With cameras for queuing-up people amount counting, you can search the queuing-up people amount during time periods of different length in a certain region, helping analyzing perception of crowding in different regions to make it easy to know when and how to change service window amount, staff amount, and whether to set a guider for people, etc.

Before You Start

- Add the device to the software and properly configure the corresponding settings. See Add
 Device for details about adding the device.
- Make sure you have configured no more than 3 regions in the detection area of a camera on device remote configuration page. See device user manual for details about configuring regions.

Steps



This function should be supported by the connected device.

- 1. Click Report → Queue Management → Regional People Counting .
- 2. Select Daily Report/Weekly Report/Monthly Report/Custom Report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the queuing-up duration for different regions in a each hour of one day.

Weekly Report, Monthly Report

As compared to daily report, weekly report and monthly report can be less-time consuming, since they are not to be submitted every day. The system will calculate the queuing-up duration for different regions in each day of one week, in each day of one month.

Custom Report

Users can customize the days in the report to analyze the number of people on each day or month of the custom time interval.



You can select no more than 31 days on the calendar.

- **3.** Click to set time period for searching.
- 4. Select cameras and no more than 3 regions in the Region list.
- **5.** Select **Multi-Level Comparison** as the statistics type.
- **6.** Select the waiting time level and enter the seconds for calculating people amount waiting for the specified time period.
- **7.** Click **Search** to generate the statistics result.

The line chart of the calculated people amount in the same region will show on the result area. The lines with different colors match the waiting time levels.

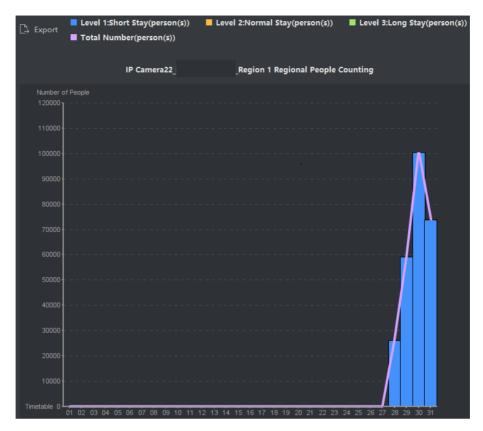


Figure 14-4 Result

8. Optional: Click Export to export the data in Excel file.

14.3.2 Queue Status Analysis

Queue Status Analysis calculates the time and duration that a queue stays with a certain length. Regional comparison and multiple queue length level comparison are supported.

Compare Queuing-up Duration for Different Regions

With cameras for queuing-up duration counting, you can search and compare the queuing-up durations in different regions during the same time period, helping analyzing perception of crowding in different regions to make it easy to know when and how to change service window amount, staff amount, and whether to set a guider for people, etc.

Before You Start

- Add the device to the software and properly configure the corresponding settings. See Add
 Device for details about adding the device.
- Make sure you have configured no more than 3 regions in the detection area of a camera on device remote configuration page. See device user manual for details about configuring regions.

Steps



This function should be supported by the connected device.

- 1. Click Report → Queue Management → Waiting Duration .
- 2. Select Daily Report/Weekly Report/Monthly Report/Custom Report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the queuing-up duration for different regions in a each hour of one day.

Weekly Report, Monthly Report

As compared to daily report, weekly report and monthly report can be less-time consuming, since they are not to be submitted every day. The system will calculate the queuing-up duration for different regions in each day of one week, in each day of one month.

Custom Report

Users can customize the days in the report to analyze the queuing-up duration on each day or month of the custom time interval.



You can select no more than 31 days on the calendar.

- **3.** Click **(a)** to set time period for searching.
- 4. Select cameras and no more than 3 regions for every camera in the Region list.
- **5.** Select **Regional Comparison** as the statistics type.
- **6.** Set the length of queue based on which the report is generated.
- **7.** Click **Search** to generate the statistics result.

The line chart of the calculated duration for staying the specified queue length will show on the result area. The lines with different colors match the selected regions.



Figure 14-5 Result

8. Optional: Click Export to export the data in Excel file.

Compare Queuing-up Duration for Different Queue Length Levels

With cameras for queuing-up duration counting, you can search and compare the queuing-up durations of queues of different length during the same time period, helping analyzing perception of crowding in different regions to make it easy to know when and how to change service window amount, staff amount, and whether to set a guider for people, etc.

Before You Start

Add the device to the software and properly configure the corresponding settings. See *Add Device* for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Report → Queue Management → Waiting Duration .
- Select Daily Report/Weekly Report/Monthly Report/Custom Report as the report type.Daily Report

Daily report shows data on a daily basis. The system will calculate the queuing-up duration for different regions in a each hour of one day.

Weekly Report, Monthly Report

As compared to daily report, weekly report and monthly report can be less-time consuming, since they are not to be submitted every day. The system will calculate the queuing-up duration for different regions in each day of one week, in each day of one month.

Custom Report

Users can customize the days in the report to analyze the queuing-up duration on each day or month of the custom time interval.



You can select no more than 31 days on the calendar.

- **3.** Click **(iii)** to set time period for searching.
- 4. Select cameras and no more than 3 regions in the Region list.
- 5. Select Multi-Level Comparison as the statistics type.
- 6. Set the length of queue based on which the report is generated.
- 7. Click **Search** to generate the statistics result.

The line chart of the calculated duration in the same region will show on the result area. The lines with different colors match the queue length levels.



Figure 14-6 Result

8. Optional: Click Export to export the data in Excel file.

14.4 Heat Map Report

Heat map is a graphical representation of data represented by colors and the heat map data can be displayed in line chart. You can use the heat map function of the camera to analyze the visit times and dwell time of customers in a configured area, which can help the storekeeper analyze the customers' interested area and make the arrangement of goods.

Before You Start

Add a heat map network camera to the software and properly configure the corresponding area. The added camera should have been configured with heat map rule. See *Add Device* for details about adding heat map network camera.

Steps

- 1. Click **Report** → **Heat Map** to enter the heat map page.
- 2. Select Daily Report/Weekly Report/Monthly Report/Annual Report/Custom Report as the report type.

Daily Report

Daily report shows data on a daily basis. The system will calculate the data of heat map in a each hour of one day.

Weekly Report, Monthly Report and Annual Report

As compared to daily report, weekly report, monthly report and annual report can be lesstime consuming, since they are not to be submitted every day. The system will calculate the data of heat map in each day of one week, in each day of one month, in each month of one year.

Custom Report

You can customize the days in the report to analyze the dwell time or crowd trend on each day or month of the custom time interval.



The time period in the custom report should be no more than 31 days.

3. Select By Dwell Time or By Crowd Trend as the statistics type.

By Dwell Time

The system calculates the heat map value (the ordinate value in the line chart or the color in pictures) according to the people's dwell time.

By Crowd Trend

The system calculates the heat map value (the ordinate value in the line chart or the color in pictures) according to the number of detected people.

- **4.** Set the time period for searching.
- **5.** Select a heat map camera in the camera list.

6. Click Generate Heat Map to show the heat map of the camera.

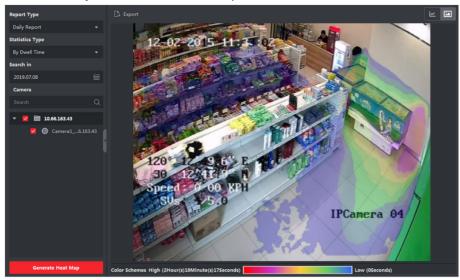


Figure 14-7 Results

7. Optional: After generating heat map report, you can perform the following operations.

Display in Line Chart Click **to** display the statistics in line chart.

Display in Picture Click **to** display the statistics in picture mode.

Mode The red color block (255, 0, 0) indicates the most welcome area, and

blue color block (0, 0, 255) indicates the less-popular area.

Save Statistics Data Click **Export** to save the detailed data of heat map to your PC.

Chapter 15 Data Retrieval

In the Data Retrieval module, you can search the face pictures captured by the face recognition camera, search the human body pictures captured by DeepinMind device, view behavior analysis related pictures and videos, search the vehicle pictures captured by DeepinMind device, search the frequently appeared person pictures captured by DeepinMind device, and search the not wearing hard hat pictures.

15.1 Face Picture Retrieval

When the connected device (e.g. NVR or HDVR) supports face search, you can search the related picture and play the picture related video file.

15.1.1 Search Face by Uploaded Picture

You can upload a face picture from your PC and compare the uploaded picture with the captured face pictures.

Before You Start

Add the device to the software and properly configure the corresponding settings. Refer to **Add Device** for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Face Picture Retrieval to enter the face picture retrieval page.
- 2. Click to set the start time and end time for searching the captured face pictures or video files.
- **3.** Select device(s) in the camera panel.
- 4. Select **Picture** from the drop-down list to search by picture.
- **5.** Select a face picture for search.
 - 1) Click **Select Picture** to upload the pictures from your PC.
 - 2) Select a detected face from uploaded picture for matching the captured face pictures.



- The resolution of the picture should be smaller than 4096×4080.
- Only JPG and JPEG formats are supported.
- **6.** Set the similarity level.

Example

If you set the similarity as 40, the captured pictures have no less than 40% similarity with the uploaded face picture will list.

- **7.** Set the maximum number of displayed results.
- 8. Click Search to start searching.

The search results of the pictures are displayed in list.

9. Export the pictures and save them in your PC.

Export Picture

Select the pictures to be exported and save them in local PC.

Export Current Page

Export all the pictures in the current page.

Export Segment

You can download the pictures by packages. Each package contains up to 1,000 pictures.

- 10. Optional: Perform secondary search based on the search result.
 - 1) Move to the searched picture and click Q

All the faces in this picture will be analyzed and displayed.

- 2) Select a face you want to do secondary search.
- 3)Set the similarity and time period.
- 4) Click Search.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

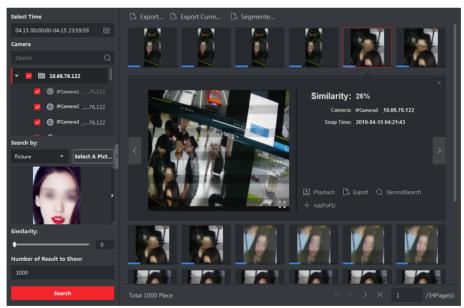


Figure 15-1 Result

11. Optional: After searching, you can do one or more the following operations.

View Details

Click on a picture from the list to view details. You can also click to show the large picture, and click to restore.

Play Related Videos

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.

 $\prod_{\mathbf{i}}$ Note

- You can click \blacksquare to show the large video, and click \blacksquare to restore.
- You can click 1x to adjust the play speed of the playback, click to play back the video files frame by frame, click to enable audio, double-click the playback window to maximize the window.

Save Pictures to PC

Click **Export Picture** and select the pictures as desired to export to local PC.

15.1.2 Search Face by Event Type

You can search the device's captured face pictures by filtering different event types.

Before You Start

Add the device to the software and properly configure the corresponding settings. Refer to **Add Device** for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Face Search to enter the face picture retrieval page.
- 2. Click to set the start time and end time for searching the captured face pictures or video files.
- **3.** Select device(s) in the camera panel.
- 4. Select Event Type from drop-down list to search by event type.
- **5.** Select event type.

No Limit

Search all captured face pictures.

Matched Face

Search the captured pictures the face in which matched with the face in face library.

Mismatched Face

Search the captured pictures the face in which mismatched with the face in face library.

Stranger Detection Alarm

Search the pictures captured when the stranger detection alarm is triggered.

- 6. Set the maximum number of displayed results.
- 7. Click Search to start searching.

The search results of the pictures are displayed in list.

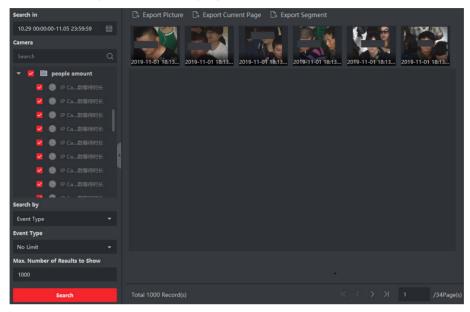


Figure 15-2 Search Result

8. Export the pictures and save them in your PC.

Export Picture

Select the pictures to be exported and save them in local PC.

Export Current Page

Export all the pictures in the current page.

Export Segment

You can download the pictures by packages. Each package contains up to 1,000 pictures.

- 9. Optional: Perform secondary search based on the search result
 - 1) Move to the searched picture and click Q

All the faces in this picture will be analyzed and displayed.

- 2) Select a face you want to do secondary search.
- 3) Set the similarity and time period.
- 4) Click Search.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

10. Optional: After searching, you can do one or more the following operations.

View Details Click on a picture from the list to view details. You can also click

show the large picture, and click

to restore.

Play Related Videos

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.



- You can click H to show the large video, and click H to restore.
- You can click 1x to adjust the play speed of the playback, click to play back the video files frame by frame, click to enable audio, double-click the playback window to maximize the window.

Save Pictures to PC

Click **Export Picture** and select the pictures as desired to export to local PC.

15.1.3 Search Face by Person Name

You can search the device's captured face pictures by person name.

Before You Start

Add the device to the software and properly configure the corresponding settings. Refer to **Add Device** for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Face Search to enter the face picture retrieval page.
- 2. Select device(s) in the camera panel.
- **3.** Select **Name** from the drop-down list to search by person name.
- **4.** Click to set the start time and end time for searching the captured face pictures or video files.
- **5.** Enter a keyword for the person name.
- **6.** Set the maximum number of displayed results.
- 7. Click Search to start searching.

All the persons whose name match the search condition (fuzzy match is supported) will be displayed.

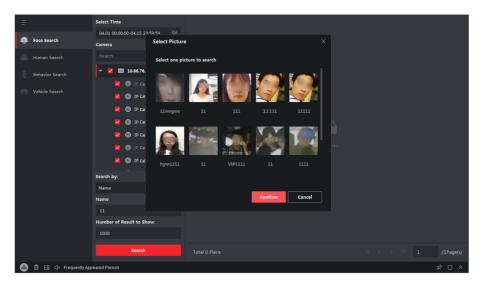


Figure 15-3 Results

8. Select one picture to search, and then click Confirm.



Figure 15-4 Results

The search results of the pictures are displayed in list.

9. Export the pictures and save them in your PC.

Export Picture

Select the pictures to be exported and save them in local PC.

Export Current Page

Export all the pictures in the current page.

Export Segment

You can download the pictures by packages. Each package contains up to 1,000 pictures.

- **10.** Perform secondary search based on the search result.
 - 1)Move to the searched picture and click Q

All the faces in this picture will be analyzed and displayed.

- 2) Select a face you want to do secondary search.
- 3) Set the similarity and time period.
- 4) Click Search.

The search results of the pictures are displayed in list.

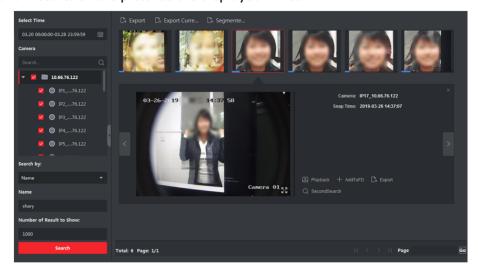


Figure 15-5 Search Result

11. After searching, you can do one or more the following operations.

View Details

Click on a picture from the list to view details. You can also click to show the large picture, and click to restore.

Play Related Videos

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.



- You can click III to show the large video, and click III to restore.
- You can click 1x to adjust the play speed of the playback, click to play back the video files frame by frame, click to enable audio, double-click the playback window to maximize the window.

Save Pictures to PC Click **Export Picture** and select the pictures as desired to export to local PC.

15.1.4 Search Face by Facial Features

The client supports searching detected face pictures by facial features such as gender, glasses wearing, etc.

Steps

- 1. Click Data Retrieval → Face Picture Retrieval .
- **2.** Select a time period for searching.
- 3. Select a camera in the camera list.
- **4.** Select **Facial Features** as the searching type.
- **5.** Configure facial features to be searched.
- 6. Enter the maximum number of results to show.
- 7. Click Search.

The searched face pictures are displayed on the right.

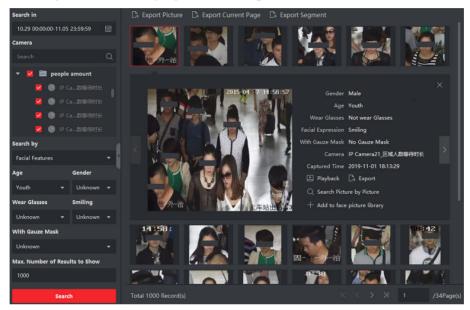


Figure 15-6 Result

- **8. Optional:** Select a face picture to show the captured picture and person information.
- 9. Optional: Perform the following operations.

Operation	Description
Export Picture	Click Export Picture and check pictures to save them in your computer.
Export Current Page	Click Export Current Page to save the alarm information in the computer as an Excel file including alarm type, camera, alarm time, etc.
Export Segment	Click Export Segment and enter a number no more than 1000. For example, you enter 10 to save the firs 10 pictures in your computer.

15.2 Human Body Retrieval

For the DeepinMind device, you can search the captured human body pictures by setting search conditions including uploading a picture from local PC and setting features, and view related videos of the picture.

15.2.1 Search Human Body by Uploaded Picture

For the DeepinMind device, you can upload a human body picture from local PC and compare the uploaded picture with the device's captured human body pictures, or search all the human body pictures captured by the specific camera(s) during a specific time.

Before You Start

Add the device to the software and properly configure the corresponding settings. Refer to **Add Device** for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Human Body Retrieval to enter the human body retrieval page.
- 2. Click to set the start time and end time for searching the captured human body pictures or video files.
- 3. Select device(s) in the camera panel.
- **4.** Select the search condition in the Search by field.

Picture

Upload a picture to compare the uploaded picture with the device's captured human body pictures. All the human bodies in this picture will be analyzed and displayed.

a. Click **Select Picture** to select a picture for comparison from the computer.



- The picture should be smaller than 4 MB.
- The resolution of the picture should be smaller than 4096*4080.
- Only JPG and JPEG formats are supported.
- b. Set the similarity level. For example, if you set the similarity as 40, the captured pictures have no less than 40% similarity with the uploaded human body picture will list.

ΑII

Search all the pictures captured by the selected camera(s) during the time duration.

5. Set the maximum number of displayed results.



If the number of pictures captured by the selected cameras(s) during the selected time duration exceeds the number of maximum number to be displayed, only the lasted pictures will be displayed.

For example, if the number of pictures captured by the selected cameras during the selected time duration is 2000, and the maximum number to be displayed is 1000, only the lasted 1000 pictures will be displayed.

6. Click Search to start searching.

The search results of the pictures are displayed in list.

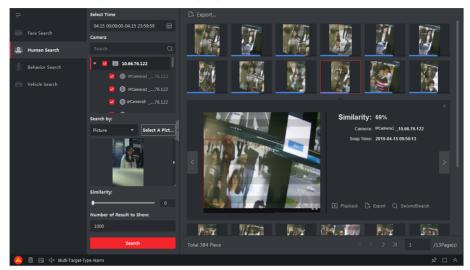


Figure 15-7 Search Result

- 7. Optional: Perform secondary search based on the search result
 - 1) Move to the searched picture and click \(\omega\)
 All the human bodies in this picture will be analyzed and displayed.
 - 2) Select a human body you want to do secondary search.
 - 3) Set the similarity and time period.
 - 4) Click Search.

The client will search and compare the human bodies in the captured pictures based on the human body picture you selected.

8. Optional: After searching human body, you can do one or more the following operations.

View Details

Click on a picture from the list to view details. You can also click **\textstyle to show** the large picture, and click **\textstyle to restore**.

Play Related Videos

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.



- You can click to show the large video, and click to restore.
- You can click 1x to adjust the play speed of the playback, click to play back the video files frame by frame, click to enable audio, double-click the playback window to maximize the window.

Save Pictures to PC

Click **Export Picture** and select the pictures as desired to export to local PC.

15.2.2 Search Human Body by Personnel Features

You can search the device's captured human body pictures by setting the personnel features as the search conditions, such as age group, gender, clothes, etc.

Before You Start

Add the device to the software and properly configure the corresponding settings. Refer to **Add Device** for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Human Body Retrieval to enter the human body retrieval page.
- 2. Click to set the start time and end time for searching the captured human body pictures or video files.
- 3. Select device(s) in the camera panel.
- 4. Select Features as the search mode.
- 5. Set the person features such as age group, gender, top's color, wearing glasses or not, etc.
- **6.** Select the event type of the human body pictures you want to search.
- 7. Set the maximum number of displayed results.
- 8. Click Search to start searching.

The search results of the pictures are displayed in list.

- 9. Optional: Perform secondary search based on the search result
 - 1) Move to the searched picture and click

All the human bodies in this picture will be analyzed and displayed.

- 2) Select a human body you want to do secondary search.
- 3) Set the similarity and time period.
- 4) Click Search.

The client will search and compare the human bodies in the captured pictures based on the human body picture you selected.

10. Optional: After searching, you can do one or more the following operations.

View Details Click on a picture from the list to view details. You can also click

to

show the large picture, and click **x** to restore.

Play Related Click **▶** to play the picture's related video file in the view window on the

Videos bottom right.

iNote

- You can click
 to show the large video, and click
 to restore.
- You can click
 1x to adjust the play speed of the playback, click
 1x to play back the video files frame by frame, click a to enable the audio, double-click the playback window to maximize the window.

Save Pictures to PC

Click Export Picture and select the pictures as desired to export to local PC.

15.3 View Behavior Analysis Related Pictures and Videos

When the connected device supports behavior search (e.g., line crossing, people gathering and loitering), you can search the related picture and view the related pictures and video files.

Before You Start

Add the device to the software and properly configure the corresponding settings. See **Add Device** for details about adding the camera.

Steps

- 1. Click Data Retrieval → Behavior Analysis to enter the behavior analysis page.
- 2. Click into set the start time and end time for searching the matched pictures.
- 3. Select a camera in the camera list.

 $\mathbf{i}_{\mathsf{Note}}$

This function should be supported by the connected device (NVR or DVR).

4. Optional: Check False Alarm Deduction to remove the false alarms from the results.

Example

The camera might sometimes take tree-shaking as a motion detection alarm or take an animal as a person triggering line crossing alarm probably for high sensitivity, which will be taken as false alarms by an NVR or DVR.

- **5.** Select event type for behavior analysis report.
- 6. Click Search to start searching.
- 7. Optional: After searching the behavior, you can perform the following operations.

View Details Click on a picture from the list to view details. You can also click 🔣 to show the large picture, and click **x** to restore.

Play Related Videos

Click Playback to play the picture's related video file (5s before and 5s after

the capture) in the view window on the bottom right.

i Note • You can click 1x to adjust the play speed of the playback, click 1x to play back the video files frame by frame, click wo enable audio, double-click the playback window to maximize the window.

Save Pictures to PC

Click **Export Picture** and select the pictures as desired to export to local PC.

15.4 Vehicle Retrieval

For the DeepinMind device, you can search the device's captured vehicle pictures by setting the search conditions, such as plate number, captured time, etc.

Before You Start

Add the device to the software and properly configure the corresponding settings. See Add Device for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Click Data Retrieval → Vehicle Retrieval to enter the vehicle retrieval page.
- 2. Click into set the start time and end time for searching the captured vehicle pictures or video files.
- 3. Select the search type.

Vehicle

Search and display the captured vehicle pictures by entering the vehicles' license plate number.

Plate

Search and display the captured license plate number pictures by entering the vehicles' license plate number.

Mix-traffic Detection

Search and display the mix-traffic detection related pictures of the specific vehicle by entering the vehicle's license plate number.

 $oldsymbol{\widetilde{i}}$ Note

The camera should support mix-traffic detection.

Traffic Violations

Search and display the traffic violation related pictures of the specific vehicle by entering the vehicle's license plate number.

 $\bigcap_{\mathbf{i}}$ Note

The camera should support traffic violation.

- 4. Select device(s) in the camera panel.
- 5. Enter the keyboard of license plate number for search.
- 6. Set the maximum number of displayed results.
- 7. Click Search to start searching.

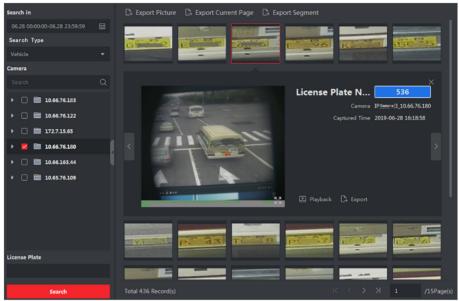


Figure 15-9 Results

The search results of the pictures are displayed in list.

- **8. Optional:** Click the picture to view the whole captured picture, the captured time, etc.
- **9. Optional:** Export the picture(s) to the local PC.
 - Click **Export Picture**, and then select the picture to be exported, and then click **Export**.
 - Click **Export Current Page** to export all the pictures and information on the current page.
 - Click **Export Segment** to download the pictures and capturing information by packages. Each package contains up to 1000 pictures.
- **10. Optional:** Perform the following operations if needed.

Add to Face Picture Library	Click Add to face picture library to add current face picture to the library.
View Detailed Information	Click View to view the historical captured pictures of this person, the captured time.
Playback	Click Playback to play back the video of 5-seconds before and after the capturing time.

Export Click the picture to be exported, and then click **Export** to export

this picture.

15.5 Hard Hat Retrieval

After adding the hard hat detection device to the client, when the device detects a person who doesn't wear a hard hat, it will trigger an event and capture some pictures to notify the managers. You can search the alarm pictures in which the detected person doesn't wear a hard hat. By this way, you can remind the builders to wear hard hat, thus to improve builders' safety awareness.

Before You Start

Add the device(s) with hard hat detection function to the client.

1. Click Data Retrieval → Hard Hat Search to enter the hard hat search page.

- **2.** Set the start time and end time for searching.
- **3.** Select the camera for searching.
- 4. Click Search.

The captured pictures for hard hat alarm is displayed on the right panel. Up to 30 pictures can be displayed in one page.

5. Perform the following operations if needed.

Export Picture a. Click **Export Picture**.

b. Select one or more picture(s), or check **Select All** on the page below.

c. Click **Export** on the page below to export the selected picture(s).

View the Click a picture, and then the whole picture and captured time be displayed

Whole Picture in the middle of the page.

Play Back Click a picture, and then click **Playback** to play back the video of 5-seconds

before and after the capturing time.

Video

15.6 People Frequency Search

People frequency refers to the appearance frequency of a person happened in the detection area during a certain period of time. Frequently appeared person refers to a person whose appearance frequency exceeds the predefined threshold, while rarely appeared person refers to a person whose appearance frequency is lower than the predefined threshold. The client supports searching frequently appeared people to protect places requiring high security and rarely appeared people who may be in trouble if they rarely appear during a certain time period.

15.6.1 Search Frequently Appeared Person

The person's captured face picture can be compared with the face pictures in the face picture library. If mismatched, he/she will be judged as frequently appeared person, and trigger an event to notify the security person. For example, in some high-safety demanded scene (e.g. bank), if a stranger appears frequently, the event can be triggered to notify the security personnel or related person. If matched, he/she will be judged as a person in white list and will not trigger frequently appeared person alarm. You can search the event information in a certain time, such as the captured pictures, captured time, and you can view the detailed pictures and play back the related video.

Before You Start

- Make sure the frequently appeared person alarm has been configured on the device.
- Make sure the device has been armed.

Steps

- 1. Click Data Retrieval → People Frequency Search → Frequently Appeared Person .
- 2. Set the start time and end time for searching.
- 3. Select the device(s) for searching.
- 4. Click Search.

The frequently appeared person alarm related pictures will be displayed on the right panel.

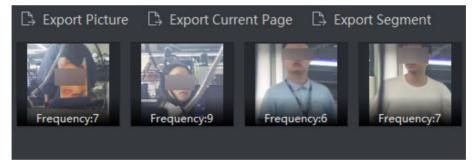


Figure 15-10 Results

- **5. Optional:** Click the picture to view the whole captured picture, the captured time, etc.
- 6. Optional: Export the picture(s) to the local PC.
 - Click **Export Picture**, and then select the picture to be exported, and then click **Export**.
 - Click **Export Current Page** to export all the pictures and information on the current page.
 - Click **Export Segment** to download the pictures and capturing information by packages. Each package contains up to 1,000 pictures.
- 7. Optional: Perform the following operations if needed.

Add to Face Picture Library	Click Add to face picture library to add current face picture to the library .
View Detailed	Click View to view the historical captured pictures of this person,
Information	the captured time.

Playback Click **Playback** to play back the video of 5-seconds before and after

the capturing time.

Export Click the picture to be exported, and then click **Export** to export this

picture.

15.6.2 Search Rarely Appeared Person

The device will send rarely appeared person report to the client regularly giving information including who did not appear for enough times so that security persons will know on time and go to check the person. This function is often used for seniors living alone and prisoners. If they have not appear for a period of time, security persons need to find them and confirm they are not in trouble or escaped.

Before You Start

- Make sure the frequently appeared person alarm has been configured on the device.
- Make sure the device has been armed.
- Make sure you have configured detecting time, statistic period, frequency threshold, and face picture library on the device remote configuration page.

Steps

- 1. Click Data Retrieval → People Frequency Search → Rarely Appeared Person .
- 2. Set the start time and end time for searching.
- **3.** Select the device(s) for searching.
- 4. Click Search.

The rarely appeared person reports will be displayed on the right panel.

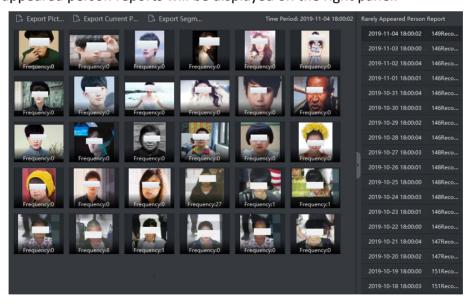


Figure 15-11 Result

5. Double-click a report to show the rarely appeared persons.

- **6. Optional:** Click the picture to view the captured picture's details.
- 7. Optional: Export the picture(s) to the local PC.
 - Click **Export Picture**, and then select the picture to be exported, and then click **Export**.
 - Click **Export Current Page** to export all the pictures and information on the current page.
 - Click **Export Segment** to download the pictures and capturing information by packages. Each package contains up to 1,000 pictures.

15.7 Facial Recognition Check-in

You can search for the attendance records of the persons who checked in by facial recognition during the specified period and export the data to the local PC. Moreover, you can view a person's attendance number, late attendance number, early leave number, etc.

Before You Start

Add the device to the software and properly configure the corresponding settings. See *Add Device* for details about adding the device.

Steps



This function should be supported by the connected device.

- 1. Enter Data Retrieval → Face Recognition Check-in .
- 2. Click to set the start time and end time for searching.
- 3. Set the Check-In Period.
- 4. Check cameras used for face recognition check-in.
- **5.** Check one or multiple face picture libraries to search the persons attendance in the selected library.
- 6. Enter the maximum number of the results to show.
- 7. Click **Search** to start searching.

The searched results show the attendance records including the face picture, face library, name, and check-in counts.



Figure 15-12 Result

8. Optional: Click Export All in the upper right corner to export the data to local PC.

Chapter 16 AI Dashboard

The client provides AI Dashboard module through which you can experience the advanced functions of the devices with AI features, such as face comparison and linked capture of fixed camera and panoramic camera.

16.1 Face Application

For some devices, such as DeepinMind series, DeepinView series, and dual-lens camera, Face Application function provides showing face comparison alarm for the persons in the blacklist, VIP or regular costumers during live view. If the detected face pictures are matched with the persons in the blacklist or VIP face picture library, the security center will receive relative alarms to take appropriate actions quickly and effectively. It can also help you to evaluate the regular costumers, which is widely used in the hospital, supermarket, shopping mall and so on.

16.1.1 Set List Types for Face Picture Libraries

You can configure list type for each face picture library of the device(s), so that the software can check whether the persons detected during live view are in the blacklist, very important person, or the regular costumers.

Click **AI Dashboard** → **Face Application**, and then click in the upper-right corner to select the list type for each face picture library on the devices.

Blacklist

If the alarm type is set to **Blacklist**, AI dashboard will show the blacklist alarm once the captured pictures are matched with the ones in the face picture library.

VIP

If the face picture library is set to **VIP**, Al dashboard will show the VIP alarm once the captured pictures are matched with the ones in the face picture library.

Normal

The face pictures libraries which belong to neither the blacklist nor the VIP can be set to **Normal**. All dashboard will not show any alarms when the captured face pictures are matched with the ones in the face picture library.



This function should be supported by the device and the face picture library need be configured in the device firstly.

16.1.2 Set Cameras for Showing AI Information

You can specify the displaying camera(s) or other cameras in the camera list to show AI information during live view. For example, if you select a camera (not in live view in the displaying window) for showing VIP information, this camera will perform static detection in the background and show the AI information about VIP.

Click **AI Dashboard** → **Face Application**, and then click **i** in the upper-right corner to select cameras for showing the AI information in real-time.

Select the alarm type to be displayed for different cameras: Blacklist Alarm, VIP Alarm or Regular Customer Alarm.

All Cameras in Live View

If check **All Cameras in Live View**, only the Al information of the camera(s) in live view in the displaying window can be shown.

Custom Cameras

If check **Custom Cameras** and select the desired cameras, the AI information of the selected camera(s) can be shown, whether the cameras are in live view or not.

16.1.3 Show Al Information

After setting the cameras for showing AI information and list type for face picture libraries, you can view the AI information.

Click AI Dashboard → Face Application , and then select the camera(s) from the camera list to start live view and show AI information.



This function should be supported by the device.

Camera List

The camera list on the left panel shows all the resources added to the client software, and you can select the appropriate window division and desired camera(s) to show AI information.

Note

The channels for live view at the same time are limited by the performance of the PC running the client.

Right-click the camera in the camera list, you can switch stream type between main stream and sub-stream.

Display Intelligent Information on Live View

You can view the real-time video of the selected camera(s).

Click in the global toolbar of the live view area and select the window to enable the desired intelligent display. For example, if the line crossing detection is enabled for all live view windows, the recognized targets will be marked dynamically on the images of all windows. You can also click at the bottom of each window to enable the intelligent display for the camera in this window.

Face Comparison

If you set **Face Comparison** switch to ON, when detecting blacklist person, VIP, or regular customer, the related alarm notification with corresponding colors will list on the right panel. You can view the alarm time, camera, and other details of the alarm.

Historical Captured Picture

You can view the historical captured pictures at the bottom of the page.



Figure 16-1 Show AI Information

Enable Alarm Triggered Pop-up Window

Click to enable alarm triggered pop-up window, and after that, a window will be pop up when the blacklist alarm is triggered, including the captured pictures and alarm details information.

16.2 Multi-Target-Type Detection

Multi-Target-Type Detection refers to a function that recognizing and capturing multiple types of detection targets including faces, human bodies, motor vehicles, and non-motor vehicles. When the device detects targets, you can view live view, captured pictures, and target features. Alarms can be triggered for high similarity between captured face/human body picture and the one in picture library, or high/low appearing frequency of a person/vehicle, or an appearance of a vehicle in the black list, etc. It is often used in places such as crossroad and train station where there are large amount of people and vehicles showing and places requiring strong security.

16.2.1 Set Target Detection Parameters

The client supports customizing the display layout of detected targets and their details, selecting which feature to display with the detected targets, and selecting cameras of which alarms will be displayed.

Set Display Mode

You can customize the display layout and select information to display according to your needs.

Steps

- 1. Click AI Dashboard → Multi-Target-Type Detection .
- 2. Click on the upper-right corner to open the Configure window.
- 3. Click Basic Settings tab.
- 4. Select a live view mode.
 - Select **Single Channel** to display one live view window.
 - Select **Dual Channels** to display two live view windows.
- **5.** Check information to be displayed in the corresponding positions.

The checked information will be displayed in the following window.

- **6. Optional:** Enable **Save Picture** so that all the captured pictures will be saved in a specified folder and then click the saving path to change it.
- **7.** Click **Save** to save the settings.

Set Capture Parameters

For captured pictures, the device will analyze the features of the captured targets. You can select features to be displayed according to your needs. Take face detection as an example, you can select features such as age, gender, wear glasses to display with the picture.

Steps

- 1. Click AI Dashboard → Multi-Target-Type Detection .
- 2. Click on the upper-right corner to open the Configure window.
- 3. Click Capture Parameters tab.
- 4. Enable Display Features.
- 5. Enable Features in Face Detection/Features in Motor Vehicle Detection/Features in Human Body Detection/Features in Non Motor Vehicle Detection and check corresponding features.

Note	
No more than 6 features of each function can be selected.	

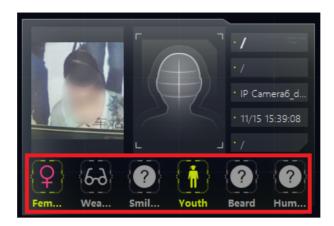


Figure 16-2 Displayed Features

6. Click **Save** to save the settings.

Set Cameras Receiving Alarm

For cameras configured with detection alarm, you can select cameras to display their alarms on the right panel with detailed alarm information provided.

Before You Start

Make sure you have configured alarms for the cameras whose alarms you select to display.

Steps

- 1. Click AI Dashboard → Multi-Target-Type Detection .
- 2. Click on the upper-right corner to open the Configure window.
- 3. Click Receiving Alarm Settings tab.
- 4. Check cameras whose alarms will be displayed on the right panel.

Note

Alarms of checked cameras will be displayed on the right panel with detailed alarm information.

5. Click Save to save the settings.

16.2.2 Display Multi-Target-Type Detection

Multi-Target-Type Detection supports displaying detected information (including live view of capture cameras, captured pictures, target details, target amount, and alarm details) after configuring corresponding parameters.

iNote

This function needs to be supported by device.

Live View



Figure 16-3 Multi-Target Detection Display

Supports displaying live view in single channel mode or dual-channel mode. You can capture a picture or start recording quickly with tool bar in the live view window when something important happens. You can also perform PTZ control or 3D position by a right-clicking for a panoramic detailed view.

Human Body/Non Motor Vehicle

Captured human body/non motor vehicle pictures will be displayed in this area with a highlight box on the target. Meanwhile, features of the captured target will be displayed with the pictures.

Captured Face Analysis

Display captured face pictures with face features (such as age group, gender, glasses wearing, etc.) displayed.

Motor Vehicle

Display captured motor vehicle picture with vehicle features (such as plate No., vehicle color, vehicle type, etc.) displayed.

Facial Recognition/Frequently/Rarely Appeared Person

Display facial comparison results, captured face pictures of strangers, human body with captured face picture, and appearing frequency.

- Display captured face picture and the similar face picture in face picture library if the two faces match.
- Display captured face pictures that mismatched with that in the face picture library.



For a device supporting stranger recognition, the captured faces will be compared with pictures in face picture library. The person will be recognized as a stranger if her/his face matches with no faces in the face picture library.

- For captured human body pictures, the face picture of the person will also be displayed.
- Appearing Frequency: Frequently Appeared People will be displayed whose appeared times is larger than the threshold, while Rarely Appeared People will be displayed whose appearance amount is less than the threshold.



Person information including the last captured face picture, appearance amount, and alarm time will show after clicking the alarm information. You can add the detected person to face picture library.

16.3 Linked Capture Alarm

This function allows the users to view two different channels (one fixed channel and one PTZ channel) of a device simultaneously. Therefore, you can view the panoramic image and captured details at the same time when an alarm is triggered.



This function needs to be supported by the device.

16.3.1 Set Basic Parameters

The capture saving function can be enabled or disabled manually, and you can also set the saving path of the captured picture, so that you can view the captured pictures in your PC.

Steps

- 1. Enter the AI Dashboard module.
- 2. Select Linked Capture Alarm to open the Linked Capture Alarm window.
- 3. Click to open the setting window.

The introduction of the displayed content shows.

- 4. Switch Save Picture on to enable picture saving function.
- **5.** Click the **Saving Path** to select a saving path of the captured pictures.
- 6. Click Save to save the settings.

The pictures captured when events and alarms are triggered will be saved in the configured path.

16.3.2 View Live View and Alarms

When fixed camera triggers an alarm, the fixed camera will capture a panoramic picture related to the alarm, which will be displayed in the panoramic linked alarm window; and the linked PTZ camera will capture a picture with details about the alarm, and the picture will be displayed in the linked channel alarm window. In this way, the user views the panoramic image with details displayed simultaneously.

Generally speaking, Panoramic Channel Live View window is used to display the live view of fixed camera, while Linked Channel Live View window is used to display the live view of PTZ camera connected to the fixed camera.

- 1. Enter the **AI Dashboard** and select **Linked Capture Alarm** to open the Linked Capture Alarm window.
- 2. Click to expand the device list.
- 3. Select a window and double-click a camera to start live view, or drag a camera from the device list to a window, or hover the cursor on a camera name and then click ...

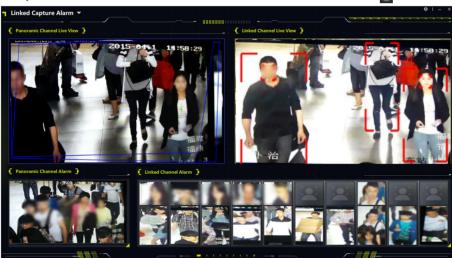
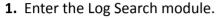


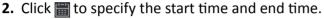
Figure 16-4 View Live View and Alarms

Chapter 17 Log Search

Two log types are provided: operation log and system log. The operation logs refer to the normal operations that the user did on the client, such as adding device, resetting password, starting live view, etc.; and the system logs record the system information, such as login, logout, locking and unlocking, etc. You can search the log files and view the log details, including time, user, etc.

Steps







You can search the logs within one month.

- **3.** Select a user to search the log files which are generated when this user operate on the client.
- **4.** Select **Operation Log** or **System Log** as log type.
- 5. Click Search.

The log files between the start time and end time will be displayed on the list. You can check the operation time, type and other information of the logs.

6. Optional: Perform the following operations if there are too many log files.

Filer Click on each table header and select to filter the logs.

Sort Click the table header to sort the logs by the time or letter sequence.

Chapter 18 User Management

To improve the system security, the administrator should create different account for different user, and assign different permissions to the user. To avoid different people sharing the same user account, we recommend you manage the user accounts periodically.

18.1 Add User

The super user and administrator can add new users, and assign different permissions for different users if needed.

Perform this task to add an user account.

Steps



The user account you registered to log in the software is set as the super user.

- 1. Enter the User Management module.
- 2. Click Add User to show user information area.
- **3.** Select the user type from the drop-down list.

Administrator

The administrator account has all permissions by default, and can modify the passwords and permissions of all operators and its own.

Operator

The operator account has no permission by default and you can assign the permissions manually. An operator can only change the passwords of its own account and the accounts which are added by it.

4. Enter the user name, password, and confirm password as desired.



The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- **5.** Check the checkboxes to assign the permissions to the created user.
- 6. Optional: Click Default Value to restore the default permissions of this user.

_					
/.	7. Click Save.				
	Note				
	Up to 50 user acc	counts can be added for the client software.			
	After created use Account Manage	er account successfully, the user account is added to the user list on the ment page.			
8.	Optional: Perform	m the following operations after the user account is created.			
	Edit User	Click a user from the list to edit the user information.			
		Note			
		Only the password of the super user can be edited.			
	Delete User	Select the user from the list and click Delete User .			
	iNote				
	You cannot delete the super user.				
18	3.2 Change U	ser's Password			
The administrator can change normal user's password without entering the old password, while the administrator should enter the old password when changing the password of itself.					
Before You Start Add user to the software client.					
1. 2.	 Steps Enter the User Management module. Select the user need to be change password, click Change. Optional: Enter the old password. 				
	iNote				
	When changing the administrator's password, you need to enter the old password first.				
4	Enter the new password and confirm the password				

5. Click OK.

Chapter 19 System Configuration

19.1 Set General Parameters

You can configure the frequently-used parameters, including log expired time, network performance, etc.

Steps

- 1. Enter the System Configuration module.
- 2. Click General tab to enter the General Settings page.
- **3.** Configure the general parameters.

Log Expiry Date

The time for keeping the log files. Once exceeded, the files will be deleted.

Maximum Mode

Select **Maximize** or **Full Screen** as the maximum mode. **Maximize** mode can maximize the display and show the taskbar. **Full Screen** mode can display the client in full-screen mode.

Network Performance

Set the network conditions to Normal, Better or Best.

Enable Keyboard and Joystick

Enable the keyboard or joystick. After enabled, you can set the shortcuts for the keyboard and joystick.



For details, refer to Set Keyboard and Joystick Shortcuts.

Detect New Software Version

After enabled, the client can automatically detect the new software version and remind the user to upgrade the software.

Automatic Time Synchronization

Automatically synchronize the time of the added devices with the time of the PC running the client at a specified time point.

Auto-Upgrade Device

Set the upgrading mode after the new version of device are detected.

Disable

After enabled, the client will not download the firmware package and upgrade even if the client detects a new version of the client.

Prompt Me If Download and Upgrade

After the client detects a new version of the device, it will prompt the user whether to download the firmware package and upgrade.

Download and Prompt Me If Upgrade

After the client detects the new version of the device, it will download the firmware package automatically, and prompt the user whether to upgrade.

Download and Prompt Automatically

After the client detects the new version of the devices, it will download the firmware package and upgrade the new version automatically.

You need to set a schedule in the **Upgrade Time** field, during which the client upgrades the new version automatically.

Cloud P2P Region

Select the server's region for cloud P2P, you can select the region you belong to or the nearest region around.

4. Click Save.

19.2 Set Live View and Playback Parameters

You can set the parameters for live view and playback, including picture format, pre-play duration, etc.

Steps

- 1. Enter the System Configuration module.
- 2. Click Live View and Playback tab.
- **3.** Configure the live view and playback parameters.

Picture Format

Select **JPEG** or **BMP** as the image format for storing pictures.



If **Display Temperature on Captured Pictures** switch is set to ON, JPEG is selected as the image format by default and cannot be changed.

Video Format

Select MP4/AVI as the format of recorded videos.

Merge Downloaded Video Files

Set the maximum size of merged video file for downloading the video file by date.

Search Video Files Stored in

Search the video files stored in the local device, in the storage server, or both in the storage server and local device for playback.

Pre-play for

Set the pre-play time for event playback. By default, it is 30s.

Prioritize Playback of Video Files on Storage Server

Play back the video files recorded on the storage server preferentially. Otherwise, play back the video files recorded on the local device.

Resume Latest Live View Status After Restart

Resume the latest live view status after you log into the client again.

Disconnect Background Videos in Single Live View

In multiple-window division mode, double-click a live video to display it in 1-window division mode, and the other live videos will be stopped for saving the resource.

Enable Wheel for Zoom

Use the mouse wheel for zoom in or out of the video in PTZ mode, or for zoom in or restoring of the video in digital zoom mode. In this way, you can directly zoom in or out (or restore) the live video by scrolling the mouse.

Skip Unconcerned Video during VCA Playback

Skip the unconcerned video during VCA playback and the unconcerned video will not be played during VCA playback.

4. Click Save.

19.3 Set Image Parameters

The image parameters of the client can be configured, such as view scale, play performance, etc.

Steps

- 1. Open the System Configuration page.
- 2. Click Image tab to enter the Image Settings interface.
- **3.** Configure the image parameters.

View Scale

The view scale of the video in live view or playback. It can be set as **Full Screen**, **4:3**, **16:9**, or **Original Resolution**.



You can also set the view scale in Live View module. For details, refer to *Live View*.

Play Performance

The play performance of the live video. It can be set as **Shortest Delay**, **Balanced**, or **Fluency**. You can also select **Custom** and specify the frames according to actual needs.

Hardware Decoding Preferred

Set to enable decoding by hardware for live view and playback. Hardware Decoding can provide better decoding performance and lower CPU usage when playing the HD videos during live view or playback.

Enable Highlight

Mark the detected objects with green rectangles in live view and playback.

Display Transaction Information

Display the transaction information on the live view image.

VCA Rule

Display the VCA rule in the live view.

Enable Frame Extracting for High-speed Playback

When play back the video in high-speed (8x speed and above), you can disable this function to make the image of playback more fluent to view the details.

Display Target's Pattern

After enabled, you can view the target person's motion track on the view window.

The device should support this function.

Overlay Rules on Captured Picture

For the thermal device, set to display the temperature information and fire source information on the captured pictures.



After enabled this function, the Picture Format in **System Configuration** → **Live View and Playback** will change to JPEG and is not editable.

4. Click Save.

19.4 Set Picture Storage

The captured pictures triggered by the events on the devices, can be saved in the PC running the iVMS-4200 VS Service. You can set the picture storage location here manually.

Steps

- **1.** Enter the System Configuration module.
- 2. Click Event Picture Storage.
- **3.** Set the **Store Pictures in Server** switch to on.

All the disks of the PC running the iVMS-4200 VS service will show.

4. Select the disk to save the pictures.

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The default saving path is: Disk/iVMS-4200 VSalarmPicture

5. Click Save.

19.5 Set Alarm Sound

When the event is triggered, the client can give an audible warning to notify the security personnel. You can set the sound of the audible warning in this section.

Steps

- 1. Open the System Configuration page.
- 2. Click Alarm Sound tab to enter the Alarm Sound Settings page.
- **3. Optional:** Click and select the audio files from the local path for different events.
- 4. Optional: Add customized alarm sound.
 - 1) Click Add to add customized alarm sound.
 - 2) Double click the **Type** field to customize the alarm sound name as desired.
 - 3) Click and select the audio files from the local path for different alarms.
- **5. Optional:** Click (1) for a testing of the audio file.
- **6. Optional:** Click **▼** in the Operation column to delete the custom sound.
- 7. Click Save.

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The format of the audio file can only be WAV.

19.6 Set File Saving Path

The video footage (manually recorded during live view and clipped during playback) and captured pictures are stored on the local PC. The saving path of these files can be set.

Steps

- 1. Open the System Configuration page.
- 2. Click File tab to enter the File Saving Path Settings page.
- 3. Click and select a local path for the files.
- 4. Click Save.

19.7 Set Icons Shown on Toolbar

The icons and the order on the toolbar in the live view and playback window can be customized. You can set to display what icons and set the icon order.

Perform the following task when you need to set icons shown on Toolbar.

Steps

- 1. Enter the System Configuration module.
- 2. Click Toolbar tab to enter the Toolbar Settings page.

- **3.** Set **Enable Screen Toolbar Display** switch to ON to enable displaying the toolbar on in the live view and playback window.
- **4.** Click the required icon to display on the toolbar.
- 5. Optional: Drag the icon to set the icon order when displaying on the toolbar.

Table 19-1 Icons on Live View Toolbar

	Stop Live View	Stop the live view in the display window.
0	Capture	Capture the picture in the live view process. The capture picture is stored in the PC.
0	Record	Start manual recording. The video file is stored in the PC.
<u>•</u>	PTZ Control	Start PTZ mode for speed dome. Click and drag in the view to perform the PTZ control.
T	Two-way Audio	Start the two-way audio with the device in live view.
Q	Digital Zoom	Enable the digital zoom function. Click again to disable the function.
Ð	Instant Playback	Switch to the instant playback mode.
‡	Remote Configuration	Open the remote configuration page of the camera in live view.

Table 19-2 Icons on Playback Toolbar

0	Capture	Capture the picture in the live view process. The capture picture is stored in the PC.
0	Record	Start manual recording. The video file is stored in the PC.
Q	Digital Zoom	Enable the digital zoom function. Click again to disable the function.
.	Download	Download the video files of the camera and the video files are stored in the PC.
Ω	VCA Playback	Set the VCA rules. For more details, refer to VCA Playback .
	Tag Control	Add default or custom tag for the video files to mark the important video point. You can also edit the tag.

6. Click Save.

19.8 Set Keyboard and Joystick Shortcuts

The keyboard can be connected to the client and be used to control the PTZ cameras. You can set the shortcuts for keyboard and joystick to get quick and convenient access to the commonly used actions.

Perform this task when you need to set keyboard and joystick shortcuts.

Steps



This configuration page will display after enabling keyboard and joystick in General Settings. For details, refer to **Set General Parameters** .

- 1. Enter the System Configuration module.
- 2. Click **Keyboard and Joystick** to show the Keyboard and Joystick Shortcut Settings area.
- **3.** Select the COM port from the drop-down list for keyboard if the keyboard is connected to the PC installed with the client.



You can enter the Device Manger of the PC to check the COM port, which the keyboard is connected to.

- 4. Set shortcuts for keyboard and joystick.
 - 1) Select a certain function name on Function column.
 - 2) Double-click the item field under the PC Keyboard, USB Joystick or USB Keyboard column.
 - 3) Select the compound keys operation or number from the drop-down list to set it as the shortcuts for the function of the keyboard or USB joystick.
- 5. Click Save.

Example

For the **Focus (+)** function, if you set **Home**, **1**, and **F1** as the shortcuts of the PC Keyboard, USB Joystick and USB Keyboard, you can press the Home key on PC keyboard, control the joystick to the 1 direction, or press F1 key on USB keyboard to zoom in.

19.9 Set Email Parameters

When an event is triggered, if you can set **Send Email** as linkage action for this event, the client will an email to the recipients for notification. You need to set the email settings and specify target recipients in this section.

Steps

- 1. Enter the System Configuration module.
- 2. Click Email tab to enter the Email Settings interface.
- **3.** Enter the required information.

STMP Server

The STMP server IP address of host name (e.g., smtp.263xmail.com)

Encryption Type

You can check the radio to select Non-Encrypted, SSL, or STARTTLS.

Port

Enter the communication port used for SMTP. The port is 25 by default.

Sender Address

The email address of the sender.

Security Certificate (Optional)

If your email server requires authentication, check this checkbox to use authentication to log into the server and enter the login user name and password of your email account.

User Name

Enter the user name of the sender email address if **Server Authentication** is checked.

Password

Enter the password of the sender Email address if **Server Authentication** is checked.

Receiver 1 to 3

Enter the email address of the receiver. Up to 3 receivers can be set.

- 4. Optional: Click Send Test Email to send an email to the receiver for test.
- 5. Click Save.

19.10 Manage Security Authentication

For the data security purpose, the security certificate of clients and added servers (stream media server) should be same. You can set the verify certificate is required or not when enabling transmission encryption using TLS (Transport Layer Security) protocol.

Before adding the stream media server to the client, you should export the service certificate from the client service, and import it to the stream media server. If multiple clients use the same server, you should make the security certificates of the clients and the server same with each other.

19.10.1 Export Certificate from Service Management

You can export the security certificate from the current client service and import the exported certificate file to the stream media server or other clients.

Steps

- 1. Enter the Service Management.
- 2. Click **Export** to save the certificate file in the local PC.



What to do next

After exporting the certificate, you can copy the certificate to the PC installed with the client and import it to the stream media server, or to other clients.

For importing to the stream media server, refer to *Import Certificate to Stream Media Server*.

19.10.2 Import Certificate to Client

If there are multiple clients accessing the same steam media server, you should import the same certificate to the clients and server.

Before You Start

Make sure you have exported the security certificate from one of the client service.



For details, refer to Export Certificate from Service Management.

Steps

- 1. Copy the certificate file exported from other client to the local PC.
- 2. Enter the System Configuration module.
- 3. Click **Security Authentication** tab to enter the security authentication setting interface.
- 4. Click Import.
- **5.** Select the certificate file from your local PC and click **Open**.

Note	
Please restart the client to take effect.	

19.10.3 Certificate Verification for Transmission Encryption

On the Security Authentication page, you can set the device certificate verification is required or not for transmission encryption.

Click **System Configuration** → **Security Authentication** to enter the security authentication interface. Select the Verify Certificate as **Yes** or **No**.

Yes

You must put the device certificate to the designed directory if you enable transmission encryption when adding device. And the device will be added with transmission encryption and the certificate will be verified, which improves the security level.

No

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The device certificate is not required if you enable transmission encryption when adding device And the device will be added with transmission encryption.			

Chapter 20 Operation and Maintenance

You can perform maintaining operations in the menu to ensure a smooth and convenient usage of the client.

Click in the upper-right corner, and then click **File/System/Tool** to perform the following operations.

Open Log File

You can open a log file saved in your local PC or log files of the client.

Import/Export Configuration File

You can import configuration files from local PC to the client if needed, and vice versa.

Auto Backup

Select day and time to backup configuration files and data in database, or restore the backed up data.

Skin

Change the skin of the client, including bright-color series and black-color series.

Batch Time Sync

Synchronize selected devices' time with your PC time.

Message Queue

After configuring email linkage, the triggered event(s) will be displayed here. Select an event and cancel sending the an email to the receiver.

Appendix A. Troubleshooting

Here are some common symptoms when operating the client software. We provide the possible causes and corresponding solutions to solve the problems.

A.1 Failed to get the live view of a certain device.

Problem

Failed to get the live view of a certain device.

Possible Reasons

- Unstable network or the network performance is not good enough.
- The device is offline.
- Too many accesses to the remote device cause the load of the device too high.
- The current user has no permission for live view.
- The version of the client software is below the needed version.

Solutions

- Check network status and disable other not in use process on your PC.
- Check the device network status.
- Restart the device or disable other remote access to the device.
- Log in with the admin user and try again.
- Download the client software of the latest version.

A.2 Local recording and remote recording are confused.

Problem

Local recording and remote recording are confused.

Solutions

- The local recording in this manual refers to the recording which stores the video files on the HDDs, SD/SDHC cards of the local device.
- The remote recording refers to the recording action commanded by the client on the remote device side.

A.3 Failed to download the video files or the downloading speed is too slow.

Problem

Failed to download the video files or the downloading speed is too slow.

Possible Reasons

- Unstable network or the network performance is not good enough.
- The NIC type is not compatible.
- Too many accesses to the remote device.
- The current user has no permission for playback.
- The version of the client software is below the required version.

Solutions

- Check network status and disable other not in use process on your PC.
- Directly connect the PC running the client to device to check the compatibility of the NIC card.
- Restart the device or disable other remote access to the device.
- Log in with the admin user and try again.
- Download the client software of the latest version.

Appendix B. FAQ (Frequently Asked Questions)

Here are some frequently asked questions when operating the client software. We provide the corresponding answers to help the users to solve the problems.

B.1 During live view, why an error message with error code 91 prompts?

Question

During live view, why an error message with error code 91 prompts?

Answer

For live view of multiple windows, the channel may not support sub stream. You should disable the function of **Auto-change Stream Type** in **System Configuration** → **Image**, and select the appropriate steam type for live view.

B.2 During live view, why the image is blurred or not fluent?

Question

During live view, why the image is blurred or not fluent?

Answer

Check the driver of video card. We highly recommend you update the driver of video card to the latest version.

B.3 Why the memory leaked and the client crashed after running for a while?

Question

Why the memory leak and the client crashed after running for a while?

Answer

In the installation directory of the client software, open the **Setup.xml** file with Notepad and modify the value of **EnableNetandJoystickCheck** to **false**. Restart the client, and if the problem is still not solved, contact our technique support.

B.4 During live view, when getting stream via the Stream Media Server, why an error message with error code 17 prompts?

Question

During live view, when getting stream via the Stream Media Server, why an error message with error code 17 prompts?

Answer

Check the port mapping of Stream Media Server, especially RTSP port.

B.5 How to get better performance of live view and playback when network bandwidth is low?

Question

If the network bandwidth is low, how to get better performance of live view and playback?

Answer

This function should be supported by the device. You can perform the following operations to realize live view in low bandwidth:

- Firstly, after adding the encoding devices to the client, you need to set the camera's streaming protocol.
 - 1. Enter Device Management → Group
 - 2. Select the camera in the Encoding Channel list and click ...
 - 3. In the Edit Camera window, set the **Protocol Type** (for live view) and **Playback Protocol Type** (for playback) as **Adaptive UDP**.

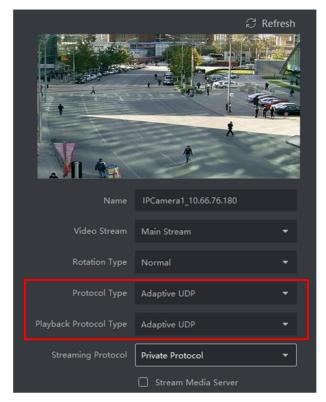


Figure B-1 Set Protocol Type

- 4. Click **OK** to save the settings.
- Then you need to disable the Auto-change Stream Type function.
 - 1. Enter System Configuration → Image .
 - 2. Disable the switch of **Auto-change Stream Type** function.
- Select stream type for live view.
 - 1. Enter Main View module.
 - 2. In the device list on the left, move the cursor to the camera name and click → Stream .



Figure B-2 Select Stream Type

- 3. For network camera, set the stream type as **Third Stream**. For DVRs or NVRs, set the stream type as **Virtual Stream**.
- 4. Start live view.

Appendix C. Error Code

Code	Error Name	Description		
	iVMS-4200			
317	No videos.	It will be prompted when the user has no permission to play back.		
		HCNetSDK.dll		
1	Invalid user name or password.			
2	No permission.	The user in the device has no enough permission.		
4	Invalid channel number.	It will be prompted in the live view of remote screen control.		
5	No more devices can be connected.			
7	Failed to connect the device.			
23	Not supported.			
29	Operation failed.			
43	No buffer.	It will be prompted when adding a device and the device port is occupied by a web server.		
55	Invalid IP address.			
56	Invalid MAC address.			
91	The channel does not support the operation.	It will be prompted when failed to get the sub stream.		
96	The device is not registered on the DDNS.			
153	The user is locked.			
250	The device is not activated.			
404	Channel No. error or the device does not support the sub stream.	It will be prompted when failed to get the sub stream or the sub stream does not exist.		
424	Failed to receive the data for RTSP SETUP.	It will be prompted when adding the live view for the software DVS via external network.		
800	No more bandwidth can be used.			
		Playctrl.dll		

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Code	Error Name	Description		
2		The stream is not a Video & Audio stream.		
6		The playback window turns black when adopting H.265 in the 64-bit operating system.		
	SMS			
3		The connection problem between the software and the stream media server.		
17		The streaming problem between the stream media server and the device.		

