iVMS-4200 VS Client Software

User Manual

Legal Information

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About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (***https://www.hikvision.com/***).
Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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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
Danger	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.
Note	Provides additional information to emphasize or supplement important points of the main text.

Contents

Chapter 1 Overview

1.1 Introduction

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

- Supports displaying or hiding waste gas information during live view. For more details, refer to ***Live View Toolbar*** .
- Supports downloading searched video files during event playback. For more details, refer to ***View Video Footage/Picture*** .
- Supports terrain learning when setting smart linkage for radar. For more details, refer to ***Terrain Learning*** .
- Supports adding false track area in radar's detection area. For more details, refer to ***Add False Track Area*** .

Chapter 2 Service Management

iVMS-4200 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 Client Software. iVMS-4200 Service also provides management for user permissions, devices, groups, logs, etc.

You can view the module running status, and click **Edit Port** to edit its ports. You need to restart the iVMS-4200 Service to take effect.

Check **WAN Address**, and enter the **IP Address** for port mapping, or edit **Event Uploading Port (ISUP 4.0)**, **Event Uploading Port (ISUP 5.0)**, and **Picture Storage Server Port**.

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

The iVMS-4200 Service will not show after running it. Enter the system tray and click to open the service management window.

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

Note
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.

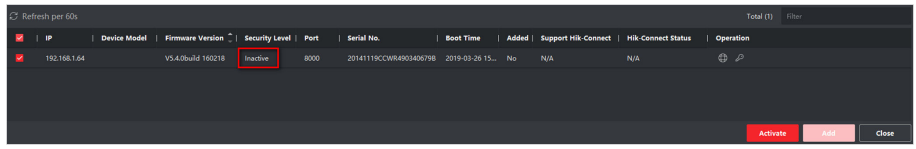


Figure 3-1 Online Inactive Device

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

Caution
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.
10. **Optional:** Click on the Operation column to edit the network information (including IP address, port number, gateway, etc.) for the online 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 Single or Multiple Online Devices

The client can detect online devices which are in the same network as the PC running the client. You can select a detected online device displayed in the online device list and add it to the client. For detected online devices sharing the same user name and password, you can add them to the client in a batch.

Before You Start

- The device(s) to be added are in the same network as the PC running the client.
- The device(s) to be added have been activated.

Steps

1. Click **Device Management → Device → Device** 。
2. Click **Online Device** to show the online device area.
   The searched online devices are displayed in the list.

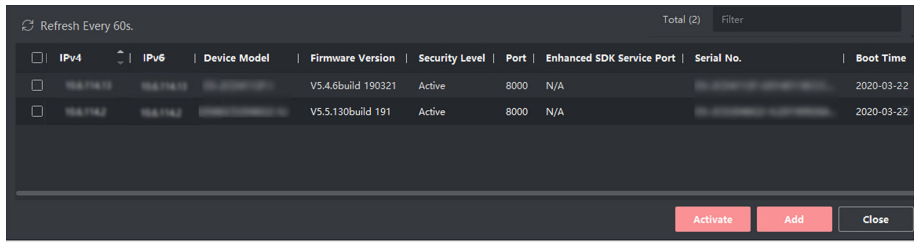


Figure 3-2 Online Device

3. In the **Online Device** area, check one or more online device(s), and click **Add** to open the device adding window.

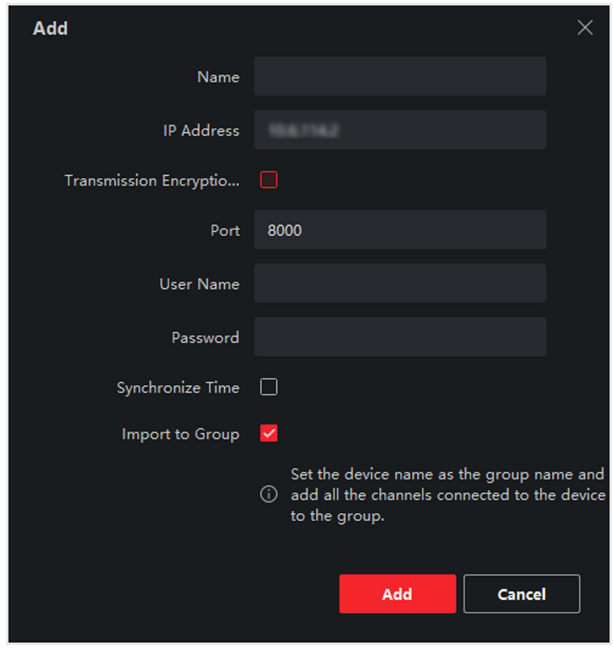


Figure 3-3 Add Single Online Device

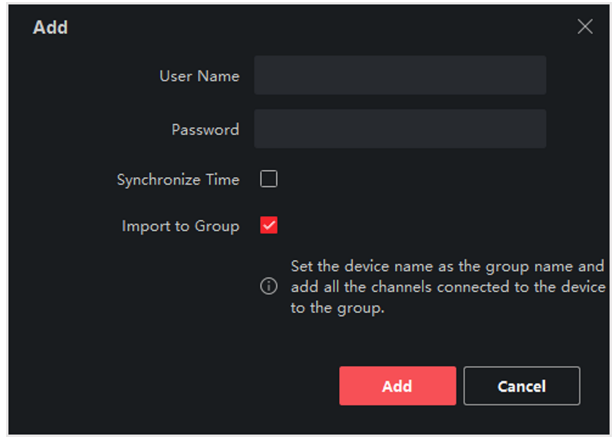


Figure 3-4 Add Multiple Online Devices

4. 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.

Caution

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:** 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.

6. Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
7. **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.

8. Click **Add**.

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.

   Caution

   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.

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.

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. **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 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.

3.2.3 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.

   Caution

   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 **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 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 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.

3.2.4 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.

   Note

   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.

Caution

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.
	Note For detail operation steps for the remote configuration, see the user manual of the device.
Edit Device Information	Click to edit the device details.
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.

   Caution

   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. **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 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 pre-defined 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.

Note

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.

Caution

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. **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 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 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.

3.3.1 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 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.

Note

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

- Click **Generate** to pop up the QR Code window and click **Download** to save the QR code to your PC. You can also take a photo of the QR code to save it to your phone. Send the picture to our technical support.

Note

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

- Select the Safe Mode according to actual needs.

Note

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

Caution

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.

3.3.2 Restore Device's Default Password

If you forget the password of the detected online devices, you can restore their default 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 at the bottom of the page.

   All the online devices sharing the same subnet will be displayed in the list.
4. Select a device and click on the Operation column to open the Reset Password window.
5. Restore the device password.
   - Enter the security code, and then you can restore the default password of the selected device.

Note

For getting the security code, contact our technical support.

- Click **Export** to save the device file on your PC and send the file to our technical support.

Note

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.

Caution

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.

3.4 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.

Note

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.

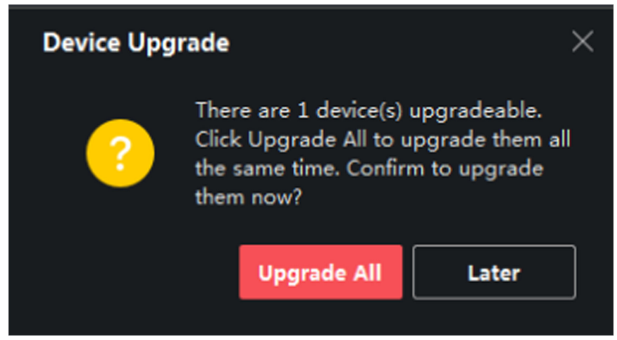


Figure 3-5 Device Upgrade Prompt

Note

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.

Note

Move the cursor on 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.

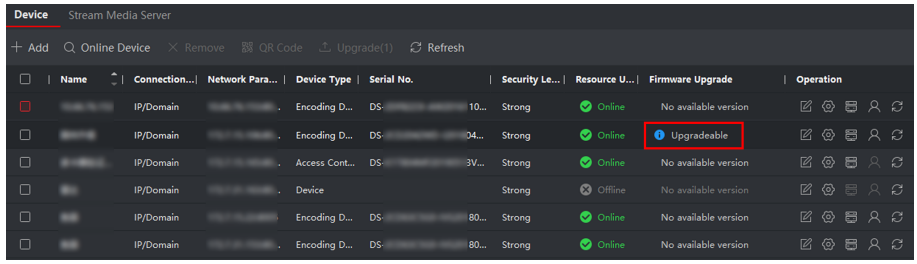


Figure 3-6 Firmware Upgrade

3.5 Manage Added Devices

After adding devices to device list, you can manage the added devices including editing device parameters, remote configuration, viewing device status, etc.

Table 3-1 Manage Added Devices

Edit Device	Click to edit device information including device name, address, user name, password, etc.
Delete Device	Check one or more devices, and click **Delete** to delete the selected devices.
Remote Configuration	Click to set remote configuration of the corresponding device. For details, refer to the user manual of device.

View Device Status	Click to view device status, including cameras, recording status, signal status, hardware status, etc. **Note** For different devices, you will view different information about device status.
View Online User	Click to view the details of online user who access the device, including user name, user type, IP address and login time.
Refresh Device Information	Click to refresh and get the latest device information.
Generate QR Code	Check one or more devices, and click **QR Code** to generate a QR code of the added device(s). You can add device(s) to the mobile client via scanning the QR code.
Upgrade Device	View device status on Firmware Upgrade column, check one or more upgradable devices, and click **Upgrade Device Firmware** to upgrade the selected devices. For details, refer to ***Upgrade Device Firmware Version*** .

3.6 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.

3.6.1 Group Resources

The client provides two methods of adding a group: customizing a group or creating a group by device name. After customizing a group, you need to import resources into this group manually. After creating a group by the device name, the resources of the device will be imported into the group automatically. You can choose one method to group your resources according to actual needs.

Steps
1. In the Maintenance and Management area, click **Device Management → Group** to enter the group management page.
2. Add a group.
   - **Customize a Group:** Click **Add Group** and create a name for the new group.

- **Create a Group by Device Name:** Click **Create Group by Device Name** and select an added device to create a new group by the name of the selected device. After creating a group by the device name, the resources (such as encoding channels, alarm inputs, alarm outputs, and access points) of the device will be automatically imported to the group.

Note

- Up to 256 groups can be added.
- You can select multiple groups by pressing and holding Shift or Ctrl key on the keyboard.

3. After adding a group, you need to import resources into the group.

Note

For one resource, it can be added to different groups.

1) Select the type of resources to be imported, and click **Import**.
2) Select the resources to be imported, and click **Import** to import all the selected resources into this group.

4. **Optional:** After adding a group, perform one of the following operations if needed.

Expand or Fold Resource List	Click ▶ / ▼ to expand or fold the resource list in the group.
Search Resource	Enter the keyword and click 🔍 to search target resources.
Remove Resource from Group	Select resource(s) and click **Delete** to remove the selected resource(s) from the group.
Update Resource Name	You can update all the recourse names in a group or in a channel. • Select a group, and click **Update Resource Name** to update all the recourse names in the selected group. • Select a channel in one group, and update all the resource names in this channel. For example, click **Encoding Channels → Update Camera Name** to update all the camera names in encoding channels. **Note** This function should be supported by the device.

3.6.2 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.

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 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.

Note

You should start live view again to take effect.

Playback Stream Type

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

Note

- 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.

Note

You should start live view again to take effect.

Streaming Protocol

Select the protocol as RTSP or private for getting stream when live view.

Note

You should start live view again to take effect.

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.

Chapter 4 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.

4.1 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.

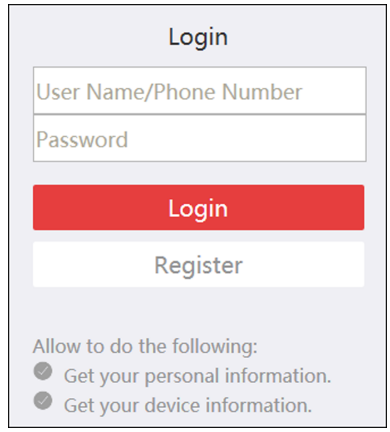


Figure 4-1 Login Window

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.

Caution

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.

4.2 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.

Note

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.

   Note

   - 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 5 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.

5.1 Live View Toolbar

The live-view toolbar can help you operate and manage the live-view window more convenient and quick. For example, you can capture picture, record the audio, adjust the volume, split the window by the one-click of the tools on the toolbar.

Table 5-1 Descriptions of Toolbar

Icon	Function Name	Function Description and Operation
	Save View	Save the view you create currently, which is convenient for quick viewing the required cameras. Click to pop up the window of saving view. Select **Create View** or **Current View**, and name for the view.
	Stop Live View	Stop the all the live view cameras.
/	Mute/Cancel Mute	Click to pop up the volume bar， click to cancel the mute and you can adjust the volume. Click to pop up the volume bar, click again to set the live-view cameras as mute.
	Window Division	Select the different window division mode for live view. Click to select one window division mode (e.g. 9 window division). You can also click **Add** to customize a window division mode.
	Full Screen	Display the live view in full screen. Press ***Esc*** key to exit full screen mode.
	Configuration	Enter the live view parameters setting mode, configure for live view and playback, image, files and toolbar.

Table 5-2 Description of Icons on Live View Window

Icon	Function Name	Function Description and Operation
	Capture	Manually capture the pictures for the live view window.
/	Start Recording/ Stop Recording	Click the first time to start recording and click again to stop recording, and automatically save the recording files to the path you have set.
	Switch to Instant Playback	On the current time, you can select to play back the video in previous 30 s, 1 min, 3 min, 5 min, 8 min, 10 min.

5.2 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.

Steps

1. Enter the Main View page.
2. Click **Resource** tab.
3. Move the cursor to the Custom View in the resource panel and click to create a new view.

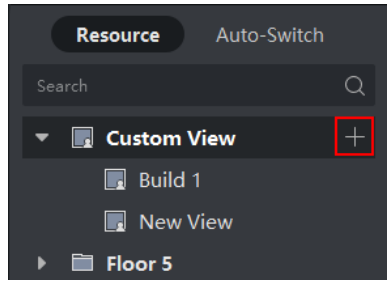


Figure 5-1 Add Custom View

4. Enter a name for the view.
5. **Optional:** Click in the live view toolbar to set window division mode for the new view.
6. Start live view for specified camera in specified window according to actual needs.
7. Click to save the current view or save it as a new view.

Note

Up to 16 custom views are allowed to add to the client.

8. **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.

5.3 Start Live View

You can start live view after adding device(s) to the client so that you can get 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.

Click **Main View → Resource** to enter Main View page. On the left resource list, select resource(s) and start live view by the following ways.

Available Ways	Description	Operation
Start Live View for One Camera	Start the live view of only one camera in a group.	• Select a camera and drag it to the window. • Double-click the camera in a group. • Move your cursor over the camera name, and click ▶ .
Start Live View for Camera Group	Start the live view of all cameras in one group synchronously.	• Select a group and drag it to the window. • Double-click the group. • Move your cursor over the group name, and click ▶ , or click ••• → **View All Cameras in Group** .
Start Live View in Custom View Mode	Start the live view of the cameras in the custom view.	• Select a custom view and drag it to the window. • Double-click the custom view. **Note** Customize a view which containing information such as window division, camera and correspondence between cameras and windows. See ***Add Custom View*** for details.

Note
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.

Figure 5-2 Start Live View

During live view, you can view the bitrate, frame rate and resolution information on the image.

5.4 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

5.4.1 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 .

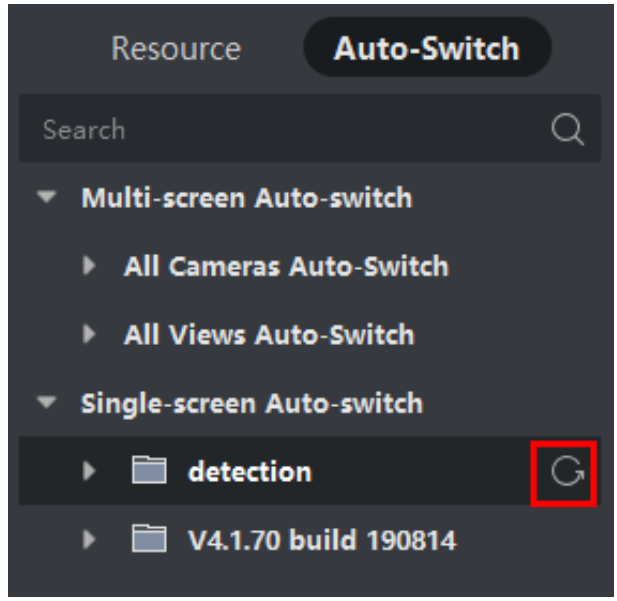


Figure 5-3 Start Auto-Switch of Cameras in a Group

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

Note

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.

5.4.2 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 .

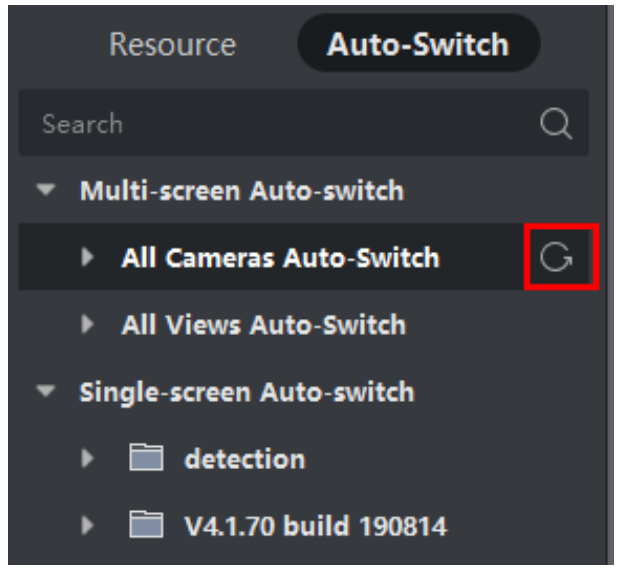


Figure 5-4 Start Auto-Switch of All Cameras

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.

5.4.3 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 .

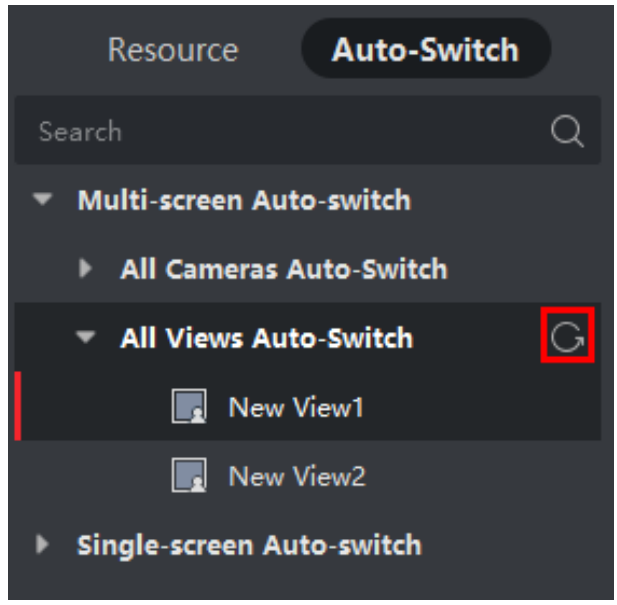


Figure 5-5 Auto-Switch a Custom View

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.

5.5 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.

Caution

- Some functions should be supported by the device.

5.5.1 PTZ Control Panel

The software provides PTZ control operations via control panel, such as detection, speed, zoom in, zoom out, etc. You can also open a new window for controlling the PTZ.

Note

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 5-3 Icons on PTZ Control Panel

Icon	Name	Description
	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.
	Zoom in/out	Zoom in to view close image for details; zoom out to view a panoramic image.

Icon	Name	Description
	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 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.
	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.
	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.
	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

Icon	Name	Description
		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.
	Enable Manual Lens De-Icing Heater	Enable this function to ensure the camera performance by heating. **Note** We suggest you enable this function when the environment temperature is under 0 °C, otherwise the high temperature may affect the camera work.
	Enable Manual PT De-Icing	Enable this function to ensure the camera performance by wiping off the ice adhered on the PTZ camera.
	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.
	Synchronize FOV	For thermal cameras, click the icon to synchronize the optical channel's field of view with that of the thermal channel.
	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.
	Arming and Tracking	For cameras support arming and tracking, click the icon and select the target (person or vehicle) in the live view to arm and track this target.

5.5.2 Set Preset, Patrol, and Pattern

PTZ control supports setting and calling a preset, patrol, and pattern.

On the Home Page, click **Main View → PTZ Control** to show the PTZ Control panel.

Task	Definition	Operation
Preset	A preset links the key regions to mobile PTZ position and status. Monitoring people uses it to positioning to key regions rapidly. By sending setting preset command, mobile PTZ records the position and status of zoom, focus, and iris. When executing calling preset command, mobile PTZ rapidly rolls to the set position and resume to set status.	How to Set: select a preset from the preset list→turn the camera to a desired position→click 。
		How to Call: click 。
Pattern	By recording pattern, the movement path and the dwell time in a certain position can be recorded preciously. By calling pattern, mobile PTZ starts move totally according to the recorded path.	How to Set: click to start recording a pattern→click the direction buttons to shape the pattern→click .
		How to Call: click 。
Patrol	Patrol is the function that users specify a scan track with a group of defined presets. The patrol between two presets is performed with the set speed and time.	How to Set: click →select presets, and set speed and time→click **OK**.
		How to Call: click .

Note

You should set at least two presets beforehand.

5.6 Customize Window Division

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

Steps

Note

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.

   Note

   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.

5.7 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.

5.7.1 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

Note

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 turns to . An indicator appears in the upper-right corner of the display window.
4. Click 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.

Note

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

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

5.7.3 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.

Note

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

5.7.4 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.

5.8 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 again to stop the instant playback and go back for the live view.

5.9 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.

5.9.1 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.

Before You Start

Make sure you have installed Microsoft DirectX component.

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 in 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.

   Note

   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 Screen	Right-click on a playing window and switch the selected window to full-screen mode.

5.9.2 PTZ Control in Fisheye Mode

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

Note

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 , or scroll the mouse wheel to zoom in or zoom out the selected PTZ window.

5.9.3 Set a Preset and Patrol

PTZ supports configuring and calling a preset and patrol.

Enter the **Main View** page, and select **Fisheye Expansion** after right-clicking a camera.

Task	Definition	Operation
Preset	A preset links the key regions to mobile PTZ position and status. Monitoring people uses it to positioning to key regions rapidly. By sending setting preset command, mobile PTZ records the position and status of zoom, focus, and iris. When executing calling preset command, mobile PTZ rapidly rolls to the set position and resume to set status.	How to Set: select a preset from the preset list→turn the camera to a desired position→click .
		How to Call: click .
Patrol	Patrol is the function that users specify a scan track with a	How to Set: click →select presets, and set speed and time→click **OK**.

Task	Definition	Operation
	group of defined presets. The patrol between two presets is performed with the set speed and time.	How to Call: click .

5.10 Perform Smart Linkage

The box or bullet camera which supports smart linkage function can locate or track the target according to your demand.

Note

- 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.

5.10.1 Configure Smart Linkage Rule

Before performing smart linkage during live view, you should configure the smart linkage 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 smart linkage 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 smart linkage.

Steps

1. Open Device Management page and select a box or bullet camera.
2. Click → **Advanced Configuration** → **Smart Linkage** to enter smart linkage 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 smart linkage 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** → **Smart Linkage** to enter smart linkage 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 smart linkage 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** → **Smart Linkage** to enter smart linkage 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 to save the current site position information.
10. Repeat step 7, 8, and 9 to set other sites' position.
11. Click **Save**.

5.10.2 Enable Smart Linkage

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

Before You Start

Configure the smart linkage rules for the box or bullet camera.

Perform this task when you need to enable the smart linkage 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 Smart Linkage**.

   When the configured VCA rule is triggered by target, the linked speed dome performs the automatic smart linkage and the target frame turns from green into red.

5.11 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.

5.11.1 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 live view, refer to ***Start Live View*** .

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.

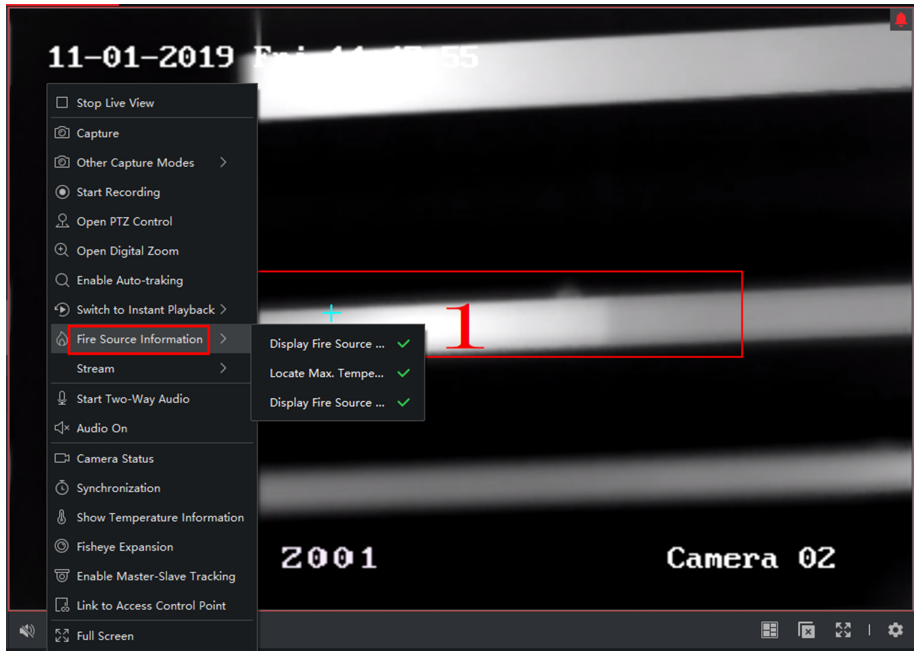


Figure 5-6 View Fire Source Information

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.

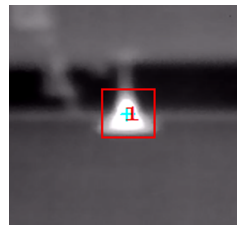


Figure 5-7 Fire Source Information on Live View Image

5.11.2 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.

   Note

   For starting live view, refer to ***Start Live View*** .

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.

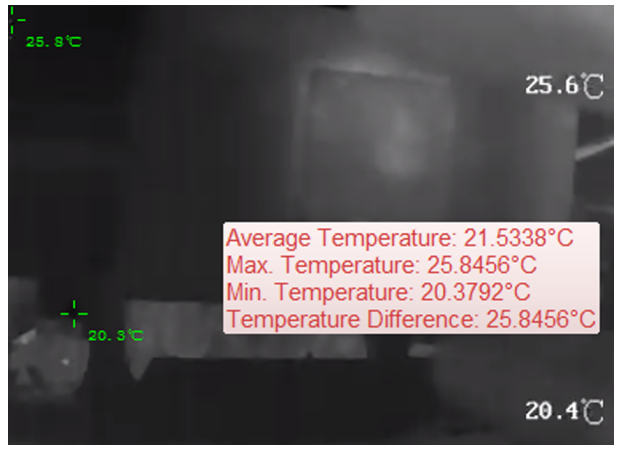


Figure 5-8 Temperature Information on Live View Image

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

5.11.3 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

Note

- 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.

   Note

   For starting live view, refer to ***Start Live View*** .

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.

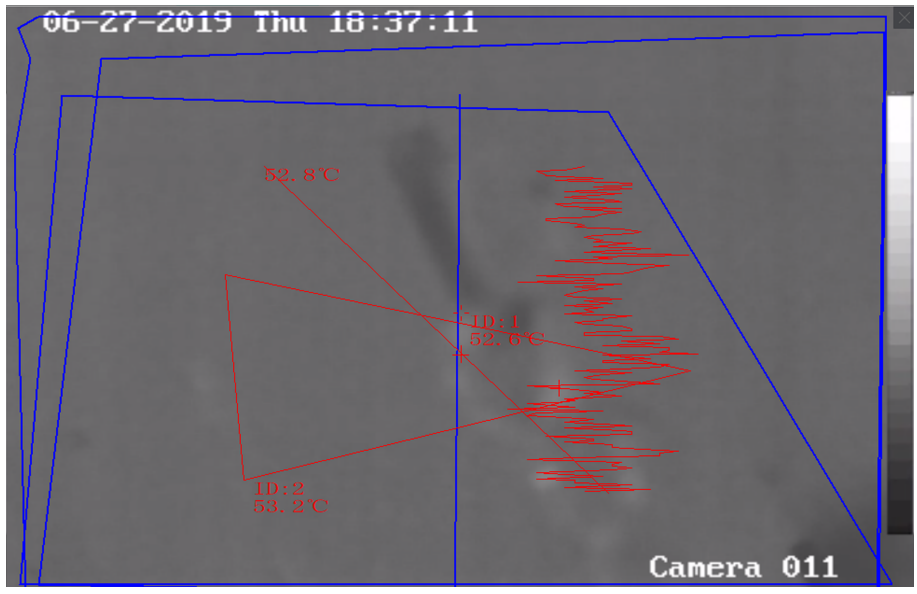


Figure 5-9 Manually Measure Temperature on Points

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

5.11.4 Display Fire Source Detection Shield Area

Fire source detection shield area is a predefined area that can be shielded from being detected in fire source detection. During live view, you can display the area on the image.

Right-click a live view image and select **Display Shield Area**. The shield area will be displayed on the thermal image of the camera.

Note

- This function needs to be supported by device.
- Make sure you have enabled and configured Fire Source Detection Shield function for the device. See the device user manual for details.

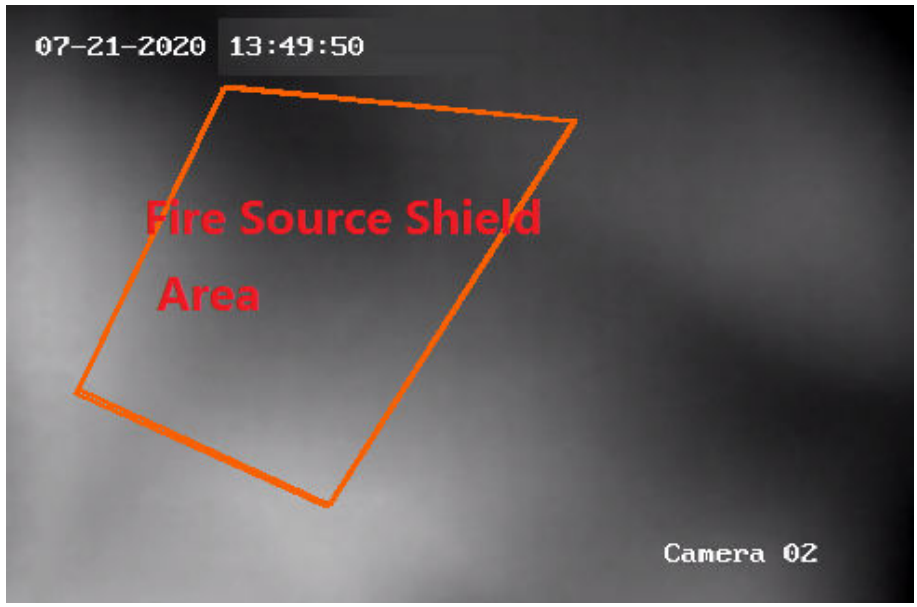


Figure 5-10 Fire Source Shield Area

5.11.5 Display Waste Gas Information

For the device supports waste gas information detection, you can enable this function to display the waste gas information during live view.

In the live view window, right-click the view to select to display waste gas information during live view.

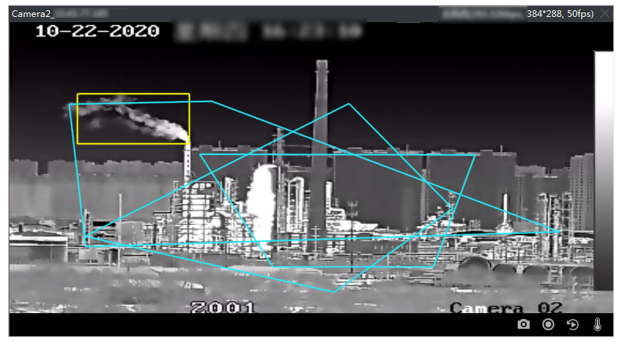


Figure 5-11 Display Waste Gas Information

5.12 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?*** .

5.13 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.

Note

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.

Note

- 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 in 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.

Note

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 6 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.

Note

There are two playback modes: one is the instant playback in the Main View module (refer to ***Instant Playback*** for details), another one is searching video files and play the video files in the Remote Playback module. In this chapter, we only introduce the playback in the Remote Playback module.

6.1 Flow Chart

Please follow the steps in the following flow chart for playback.

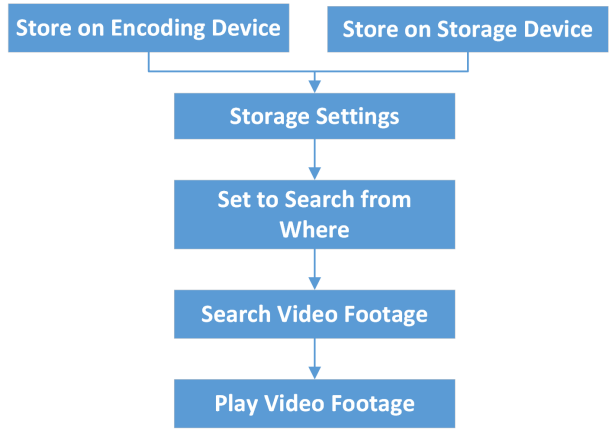


Figure 6-1 Flow Chart of Playback

- **Storage Settings:** Set recording schedule to define when the cameras start recording and where the video footage are stored. For details, refer to ***Remote Storage Configuration*** .
- **Set to Search from Where:** Set to play back the video stored on the storage server or on the encoding device preferentially. For details, refer to ***Set Live View and Playback Parameters*** .
- **Search and Play Video Footage:** Start playback. For details, refer to the contents in this chapter.

6.2 Remote Storage Configuration

The video files and captured pictures can be stored on the HDDs, Net HDDs, or SD/SDHC cards on the local device, or on the storage server connected.

Note

This function should be supported by the device.

6.2.1 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

Note

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.

   Custom

Customize a template as you want.

Note

If you need to edit or customize the template, refer to ***Configure Recording Schedule Template*** or ***Configure Capture Schedule Template*** .

5. Click **Advanced** of Recording Schedule to set the recording advanced parameters.

Note

The displayed items vary according to the devices.

Pre-record

Normally used for the event triggered record, when you want to record before the event happens.

Post-record

After the event finished, the video can also be recorded for a certain time.

Keep Video Files for

The time for keeping the video files in the storage device, once exceeded, the files will be deleted. The files will be saved permanently if the value is set as 0.

Redundant Recording

Save the video files not only in the R/W HDD but also in the redundant HDD.

Record Audio

Record the video files with audio or not.

Video Stream

Select the stream type for the recording.

Note

For specific type of devices, you can select **Dual-Stream** for recording both main stream and sub-stream of the camera. In this mode, you can switch the stream type during remote playback. Refer to ***Normal Playback*** for stream switch during playback.

6. Click **Advanced** of Capture Schedule to set the capture advanced parameters.

Resolution

Select the resolution for the continuous or event captured pictures.

Picture Quality

Set the quality for the continuous or event captured pictures.

Interval

Select the interval which refers to the time period between two capturing actions.

Captured Picture Number

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.

6.2.2 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.

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  on the desktop to run the iVMS-4200 Storage Server.

   Note

   - 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**.

   Caution

   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.

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 Single or Multiple Online Devices*** .
   - You can add storage server via IP address or domain name. For details, refer to ***Add Device by IP Address or Domain Name***

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

Note

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**.

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.
2. Select the camera in the Camera Group list.
3. Select a storage server from the **Storage Server** drop-down list.
4. Set **Recording Schedule** switch to ON to enable storing the video files.
5. 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*** .

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

6.2.3 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.
2. Select the camera in the Camera Group list.

   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 → 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.

6.2.4 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  .

   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  .

   Note

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

   Note

   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  .
Lengthen or Shorten	Select a time period and then lengthen or shorten it when the cursor turns to  .
Set Accurate Time	Click a time period to set the accurate start time and end time of the period.
Delete	Select the configured schedule time period and click  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.

   Note

   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.

6.2.5 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 .

   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 , 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 Shorten	When the cursor turns to , you can lengthen or shorten the selected time period.
Delete	Select a time period and click 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.

Note

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.

6.3 Toolbar for Playback

When playing back video on the Remote Playback module, you can operate the tools in the toolbar to implement different functions.

Note

The tools in different playback modes might be different. In this section, you will introduce the tools in the Camera Playback module.

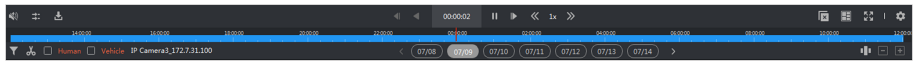


Figure 6-2 Toolbar for Playback

Table 6-1 Toolbar for Playback

Icon	Icon Name	Descriptions
	Reverse Playback	Play back the video file(s) reversely.
/	Pause/Play	Pause/play the video file(s).
	Close All	Close all the playing video file(s).
	Single Frame(Reverse)	Play the video file(s) by frame reversely.
	Single Frame	Play the video file(s) by frame.
/	Slow Forward/ Fast Forward	Set the rate of playing, and play back the video file(s) slowly or fast according to the rate.
	Volume	Click this icon to open/close the audio and adjust the volume.
	Clip	Set the start and end time for clipping and download the clipped video file to the local disk.
	Download for Multiple Cameras	Set the start time and end time for multiple cameras and download the video files of multiple cameras simultaneously.
	Window Division	Set the window division.
	Full Screen	Play back video file(s) in full screen. Press ***ESC*** to exit.
/	Asynchronous Playback/ Synchronous Playback	Switch to asynchronous/synchronous playback mode. **Note** For details, refer to ***Synchronous Playback*** .
	Settings	Enter the Video Parameters Settings module, configure the parameters for live view and playback, image, files and toolbar.
	Filter	Filter the video files by the recording type.

Icon	Icon Name	Descriptions
	Accurate Positioning	Set the accurate time to play back video file(s).
	Video Date	The date of the playing video file(s) currently. You can switch to play back the video file(s) on the other date quickly. For example, if you switch the date to 07/30, the video will be automatically displayed from 00:00 on July 30 (if there is video at this time).
	Filter Human or Vehicle Related Video	Check **Human** or **Vehicle** to filter the video with human body detected or vehicle detected. The human or vehicle related video will be remarked in orange on the time bar, and you can quickly locate the video on the time bar. **Note** This function should be supported by the device, otherwise the **Human** or **Vehicle** is gray and can not be checked.

6.4 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.

Note

- 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.

6.4.1 Search Video Footage

You can search the video footage 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 to set the start date and end date of searching time period.

   Note

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

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

   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.

6.4.2 Play Video Footage

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

Steps

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

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

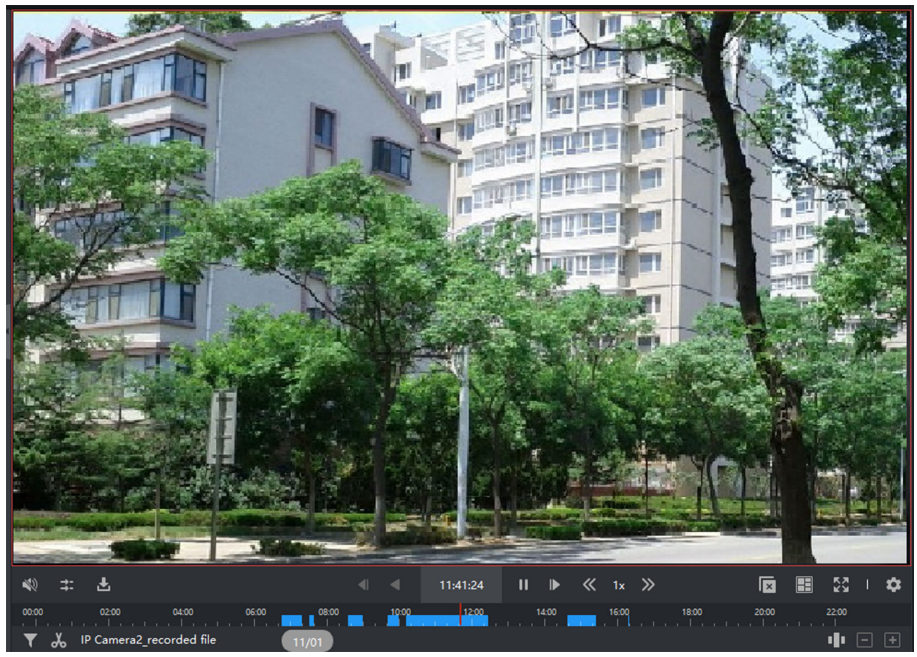


Figure 6-3 Playback of Video Footage

Note

- The time line indicates the time duration for the video footage, and the video footage of different types are color coded. During playback, you can view the bitrate, frame rate and resolution information on the image.
- 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 (Reverse)	Click or scroll down the mouse wheel to play the video footage 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 Multiple Cameras	Click to download video footage of multiple cameras at the same time.

Note

For more details, refer to ***Download for Multiple Cameras*** .

Download Video Files by Date	Click to download the video footage of the camera by date and time, and store them to local PC. The downloading progress is displayed on the right-upper corner of the page, and you can manually pause downloading.
Accurate Positioning	Click 2018/10/19 08:56:11 to set the accurate time point to play the video file.
Jump to the Image of a Thumbnail	Click in the lower-right corner to enable thumbnail function, and put the cursor on the timeline to show the thumbnail of the point. Click the thumbnail to jump to the image of it.

Figure 6-4 Playback Thumbnail

Note

This function needs to be supported by devices.

6.5 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*** .

Note

Some icons may be not available for alarm input playback.

6.5.1 Search Video Footage

You can search the video footage 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 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 footage of the selected alarm input will display on the right page in chronological order. And by default, the first video will play automatically.
7. **Optional:** Enter keyword in the **Search** field to filter the results.

6.5.2 Play Video Footage

After searching the video footage 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 footage of the alarm input.

   Note

   See ***Search Video Footage*** for details about searching video footage of the alarm input.
4. Play video via file list or timeline.
   - Double-click the video footage 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.

   Note

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

6.6 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*** .

Note

Some icons may be not available for event playback.

6.6.1 Search Video Footage/Picture

You can search event videos/pictures by date and event type.

Steps

1. Enter the Remote Playback module.
2. Click on the left to enter the Event Playback page.
3. Click to set the start date and end date of searching.

   Note

   In the calendar, the date which has video footage recorded by schedule will be marked with , and the date which has video footage recorded based on event will be marked with .
4. Select **Video** or **Picture** as the content to search for.
5. Select a camera from the resource list.
6. Select an event type from the **Event Type** drop-down list.
7. Click **Search**.
   - If you select **Video** as the searched content, the matched video footage will display on the right page in chronological order. And by default, the first video file will play automatically.
   - If you select **Picture** as the searched content, the matched pictures will be automatically displayed on the right page.

6.6.2 View Video Footage/Picture

When the camera detects events (such as line crossing, motion detection, behavior analysis) happening or the outdoor station performs video talk, it will trigger the linked camera's recording video or capturing pictures. You can search the video footage or pictures and play the videos via file list or timeline and view the pictures in turn.

Steps

Note

For the outdoor station, only DS-KV8123-M supports the following operations.

1. Enter the Remote Playback module.
2. Click on the left to enter the Event Playback page.
3. Search the video footage or pictures recorded/captured based on event.
4. View video footage or picture.
   - Double-click the video footage to play the video in the playback display window.
   - Searched pictures will be automatically played.

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.

5. **Optional:** Perform the following operations if you need.

Play Footage of Certain Time	Click on the timeline to display video segment of specified time for event playback.
Display Footage with Human and/or Vehicle	Under the timeline, check **Human** and/or **Vehicle** to display footage contains humans or vehicles.
Switch Pictures	Click or to turn to previous or next picture.
Set Picture Displaying Interval	Click to set the interval of picture display.
Display Pictures in Full Screen	Click to display pictures in full screen mode.
Display Pictures in List Mode	Click to display pictures in list mode. Click to switch to thumbnail mode.
Download Pictures	Click and check pictures and click **Export** to download the selected pictures to your PC.
Download Videos	Click besides the video file to download this video file to your PC.

6.7 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*** .

Note

Some icons may be not available for ATM playback.

6.7.1 Search Video Footage

You can search the video footage 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 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 footage of selected ATM DVR will display on the right of the Remote Playback page in chronological order. By default, the first video will play automatically.
7. **Optional:** Enter keyword in the **Search** field to filter the results.

6.7.2 Play Video Footage

After searching the video footage 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 footage of cameras connected with ATM DVR.
4. Play the video footage.
   - Double-click the video footage 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.

6.8 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.

6.8.1 Search Video Footage

You can search the video footage 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 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 footage 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.

6.8.2 Play Video Footage

After searching the video footage 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 footage which contain POS information.
4. Play video via file list or timeline.
   - Double-click the video footage 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.

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.

6.9 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

Note

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.

   Note

   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.

6.10 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

Note

- 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 to disable the synchronous playback.

6.11 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.

Before You Start

Make sure you have installed Microsoft DirectX component.

Steps

Note

For other playback control instruction, refer to ***Normal Playback*** . Some icons may not be available for fisheye playback.

1. Enter the Remote Playback module.
2. Select a fisheye camera to start playback.

   Note

   For detailed configuration about playback and playback control, refer to ***Normal Playback*** .

3. Enter the Fisheye Expansion mode.
   - Right-click on the display window and select **Fisheye Expansion**.
   - Click in the toolbar. See ***Set Icons Shown on Toolbar*** for details about setting the toolbar.

Note

The mounting type in playback of fisheye expansion is set according to the mounting type in live view. For details, refer to ***Perform Live View in Fisheye Mode***

turns to .

4. Click in the lower-left corner of the display area to select an expanding mode for playback as you 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 produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.

Panorama / Dual-180° Panorama / 360° 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.

Note

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, 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.

6.12 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?*** .

6.13 Download Video Footage

During playback, you can download the video files of one camera or multiple cameras to the local PC.

Note

- You can download the video files of the devices added by Cloud P2P.
- 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.

6.13.1 Download Video Footage by Date

During playback, you can download the video footage of the camera and save in the local PC.

Steps

1. Enter Remote Playback page and select a camera to start playback.

   Note

   For details about starting playback, refer to ***Remote Playback*** .

2. Right click on the image and click **Download**.
3. Set the start and end time of the video footage to download.
4. Enter a name for the video footage.
5. Click **OK** to start downloading the video footage to the local PC.

6.13.2 Download for Multiple Cameras

During the playback of multiple cameras, you can download the video files of multiple cameras by date simultaneously.

Steps

1. Enter Remote Playback page and select multiple cameras to start playback.

   Note

   For details about starting playback, refer to ***Remote Playback*** .

2. Click 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.
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 7 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*** .

7.1 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** .

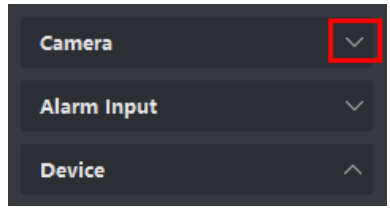


Figure 7-1 Display Camera Resource

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

Note

Make sure the resource is online.

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

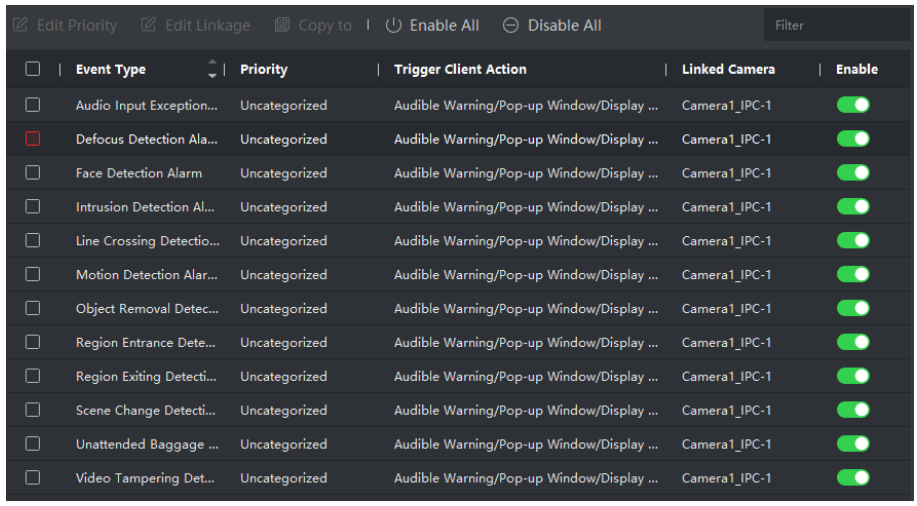


Figure 7-2 Configure Events for Camera

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 camera.

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 Priority

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

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 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.

Note

Up to 4 cameras can be selected.

Copy Event Settings

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

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

7.2 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** .

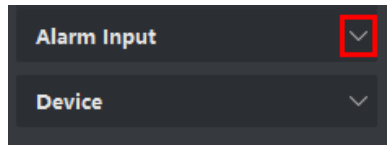


Figure 7-3 Display Alarm Input Resource

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

Note

Make sure the resource is online.

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.

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 Priority

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

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 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.

Note

Up to 4 cameras can be selected.

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

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*** .

7.3 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** .

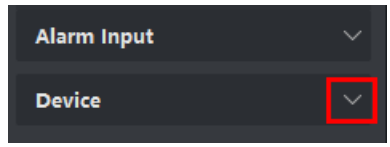


Figure 7-4 Display Device Resource

2. Select a device as event source.

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.

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 Priority	Click **Edit Priority** to set the priority of the event(s). 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*** .
Copy Event Settings	Click **Copy to** to copy the event settings of this device to other device(s). **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 8 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*** .

8.1 Enable Receiving Event from Devices

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

Steps

1. Click → **Tool** → **Device Arming Control** to open Device Arming Control page.

   All the added devices appear on this page.

2. **Optional:** If there are to many devices, enter the key words in Filter filed to filter the device(s) you want.

   Note

   For the filtered devices, you can click **Arm All** or **Disarm All** to enable receiving event of these devices.

3. In the Auto-Arming column, turn on the switch to enable auto-arming.

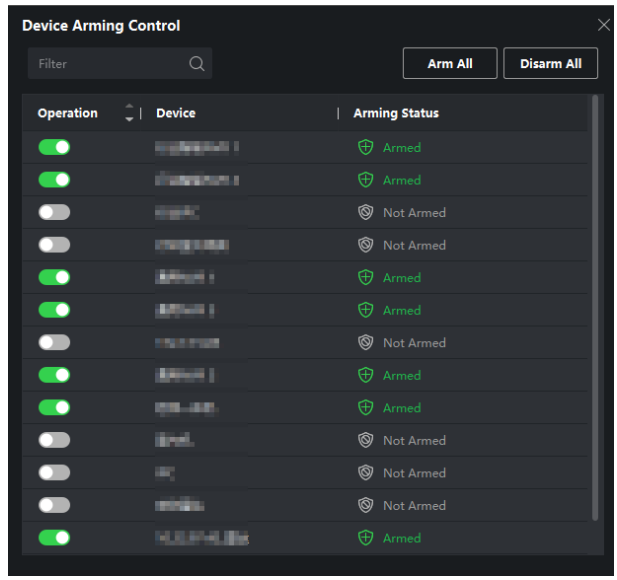


Figure 8-1 Arm Device

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.

8.2 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) Priority	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. Select an event in the event list to view the event details.

Note

- The event details include the captured picture(s), video (recorded video triggered by the event or live view of the device), and other event descriptions.
- To view the recorded video triggered by the event, you should link camera(s) with the device in event configuration. For details, refer to ***Event Configuration*** .
- To view the captured picture(s), you need to configure picture storage in storage schedule.

5. **Optional:** Perform the following operations if necessary.

Handle Single Event	Click **Handle** to enter the processing suggestion, and then click **OK**. **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 **OK**.
Enable/Disable Alarm Audio	Click **Audio On**/**Mute** 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. **Note** You should configure the email parameters first, see ***Set Email Parameters*** for details.
Auto-Play Video	Check **Auto-Play Video** to automatically play video when displaying event details.
Enlarge Video or Picture	• Double click the video image to view video in a larger window. • Put the cursor on the picture, and click to view picture in a larger window.
Download Captured Picture	Hover the cursor on the captured picture, and click the download icon on the lower right corner of the picture to download it to the local PC.

Download Event Triggered Video	Hover the cursor on the recorded video, click to download the video (30s before the event happens) triggered by the event.

8.3 Search Historical Events

You can search and view historical events by setting search conditions such as time, device type, and priority in the client. For the searched events, you can handle and export them.

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**: Select the device from which you want to search events.

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.

Event Type

Select one or more event types to be searched from the drop-down list.

Note

You can enter a key word (supports fuzzy search) in the search box to search the target event type(s).

Status

The handling status of the event.

Search by Keyword

Enter a key word (supports fuzzy search) to quickly search the target historical event(s). For example, you can enter a person's name to search the events related with this person.

3. Click **Search** to search the events according the conditions you set.

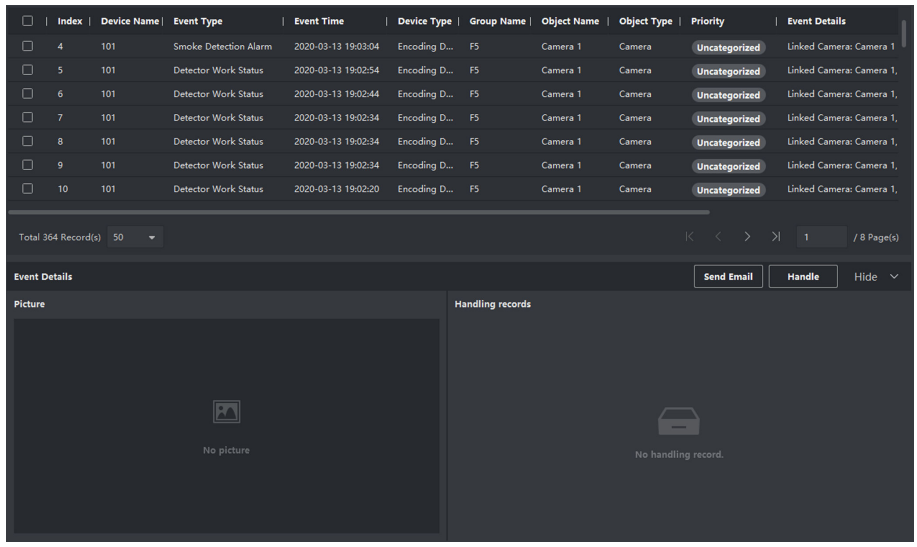


Figure 8-2 Search Historical Events

4. **Optional:** Right click the table header of the event list to customize the event related items to be displayed in the event list.
5. Select an event in the event list to view the event details.

Note

- The event details include the captured picture(s), video (recorded video triggered by the event or live view of the device), and other event descriptions.
- To view the recorded video triggered by the event, you should link camera(s) with the device in event configuration. For details, refer to ***Event Configuration*** .
- To view the captured picture(s), you need to configure picture storage in storage schedule.

6. **Optional:** Perform one of the following operations.

Handle Single Event

Handle single event: Select one event that needs to be handled, and then click **Handle** in the event information details page, and enter the handling suggestion.

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 Events

Handle events in a batch: Select the events which need to be handled, and then click **Handle in Batch**, and enter the handling suggestion.

Note

After an event is handled, the **Handle** button will become **Add Remark**, click **Add Remark** to add more remarks for this handled event.

Auto-Play Video	Check **Auto-Play Video** to automatically play video when displaying event details.
Enlarge Video or Picture	• Double click the video image to view video in a larger window. • Put the cursor on the picture, and click to view picture in a larger window.
Send Email	Select an event and then click **Send Email**, and the information details of this event will be sent by email. **Note** You should configure the email parameters first, see ***Set Email Parameters*** for details.
Export Event Information	Click **Export** to export the event log or event pictures to the local PC in CSV/Excel file. You can set the saving path manually.
Download Captured Picture	Hover the cursor on the captured picture, and click the download icon on the lower right corner of the picture to download it to the local PC.
Download Event Triggered Video	Hover the cursor on the recorded video, click to download the video (30s before the event happens) triggered by the event.

8.4 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.

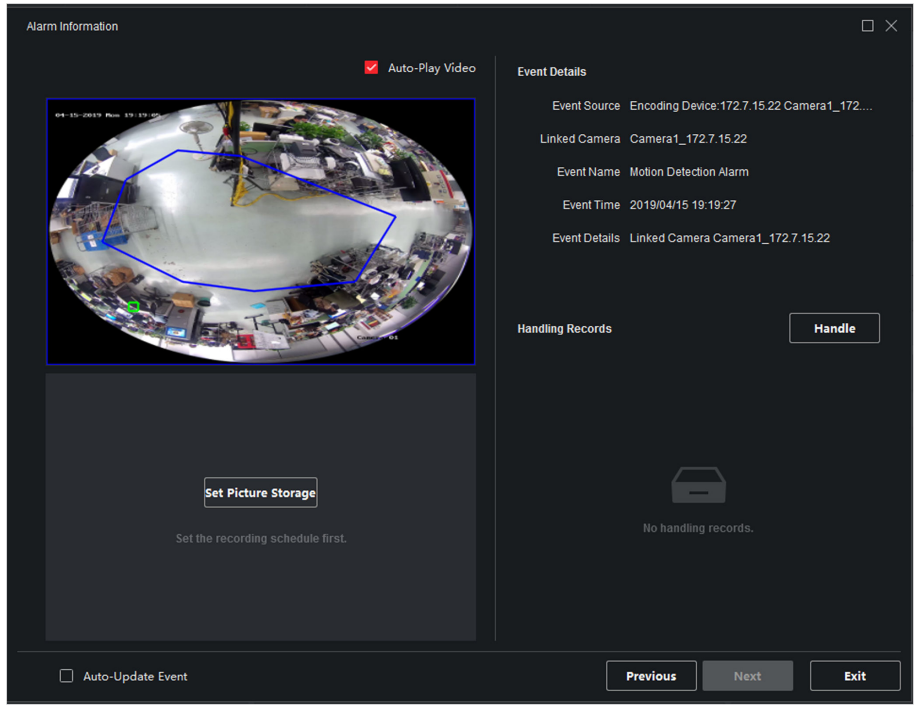


Figure 8-3 The Pop-up Event Information

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.

Note

- 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 9 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.

9.1 Add Map

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

Steps

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.

   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.

   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.

Zoom in/out	Use the mouse wheel or click + or - to zoom in or zoom out on the map.
Adjust Map Area	Drag the yellow window in the lower-right corner or use the direction buttons and zoom bar to adjust the map area for view.

9.2 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.

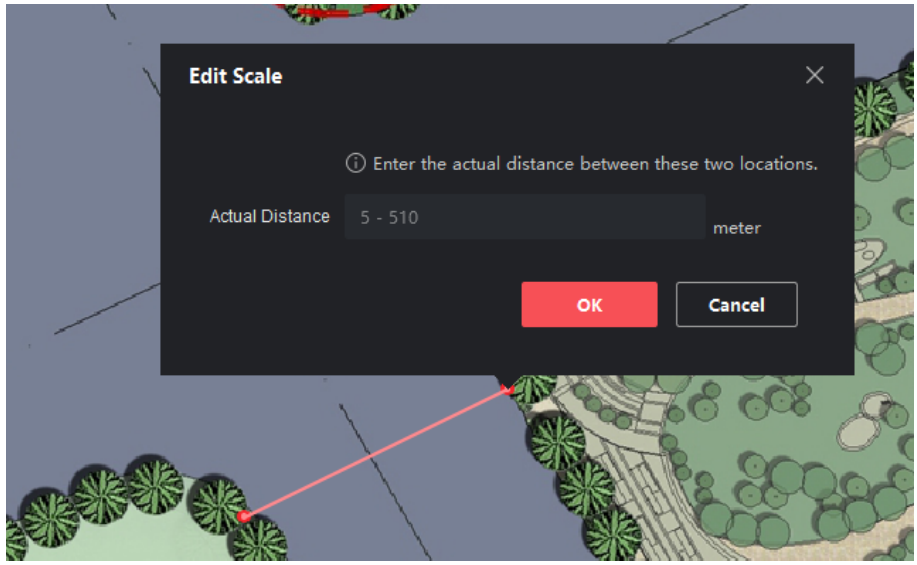


Figure 9-1 Edit Map Scale

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.

9.3 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.

9.3.1 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.

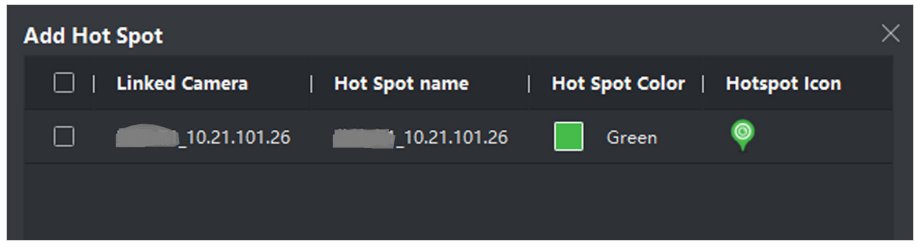


Figure 9-2 Add Hot Spot Panel

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.

Note

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

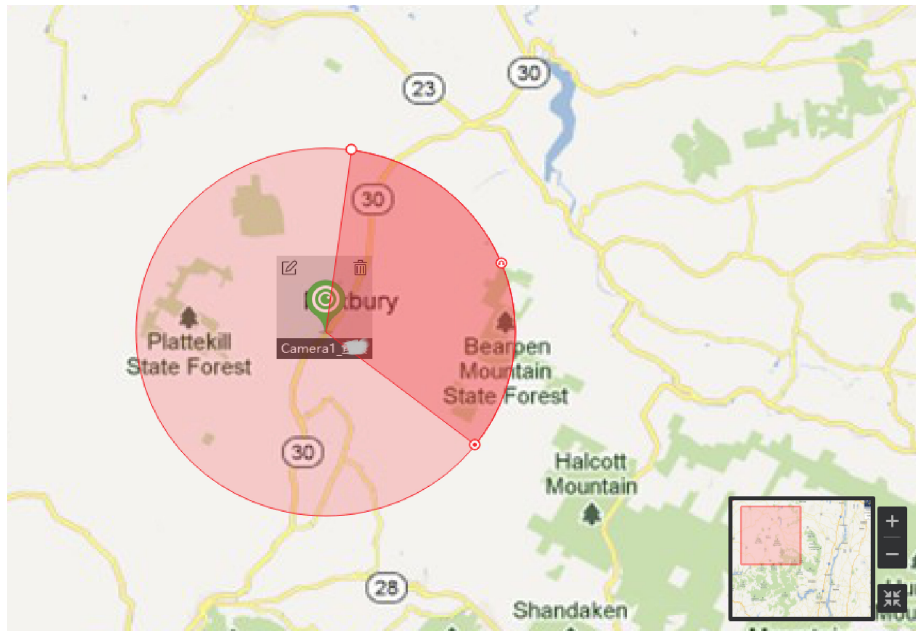


Figure 9-3 Camera on the Map

The camera icons are added on the map as hot spots and the icons of the added cameras in the group list change from to . The sector indicates 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 / and revolve to change the camera's field of view.
Change the FOV Size	Drag to change the FOV size.

9.3.2 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**.

Note

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

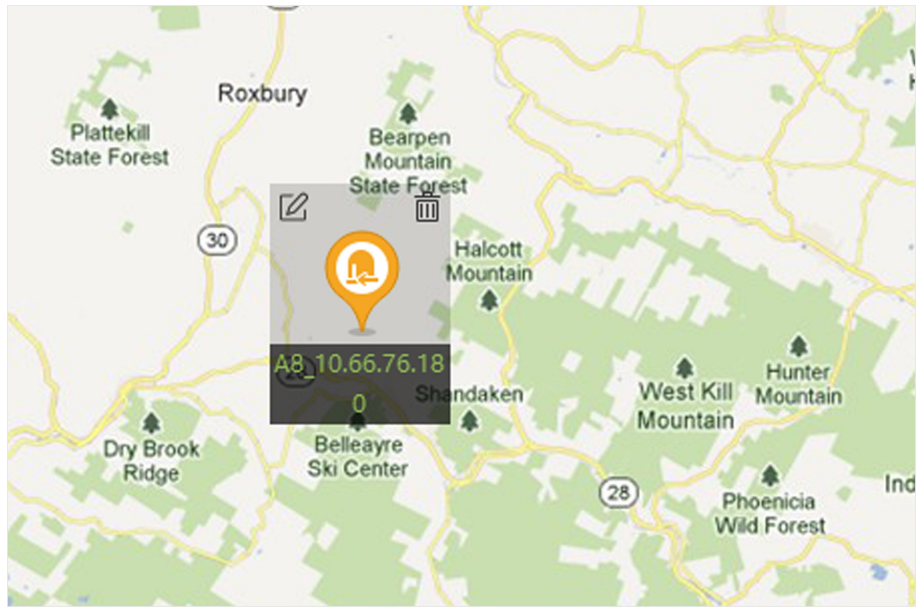


Figure 9-4 Alarm Input on the Map

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 to .

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

9.3.3 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 9-5 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**.

Note

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

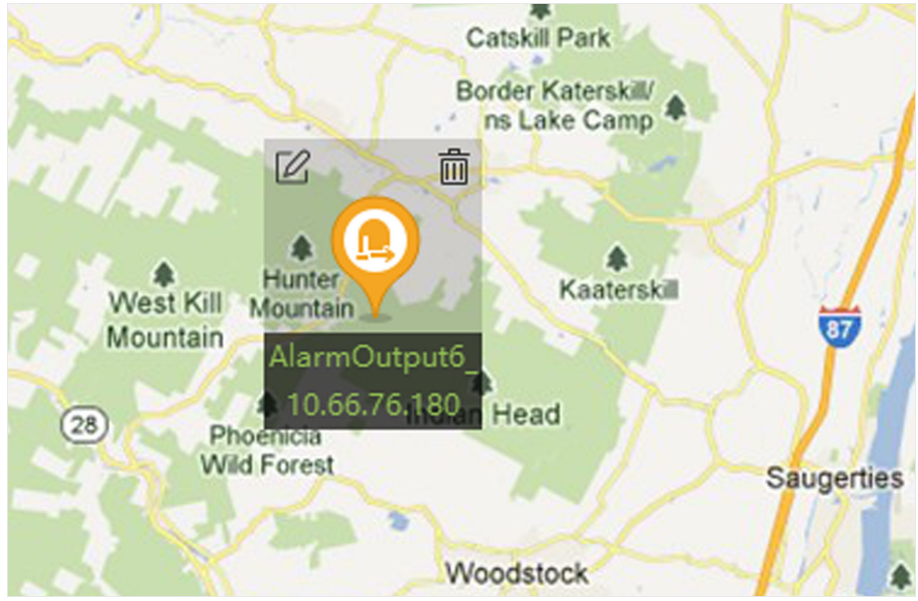


Figure 9-6 Alarm Output on the Map

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.

9.3.4 Add Zone as Hot Spot

You can add zones to the map so that you can quickly locate the zone when an alarm is triggered.

Before You Start

Make sure you have added a map and zone to the client. See ***Add Map*** and ***Add Device*** 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 → Zone Hot Spot** to open the Add Hot Spot panel.

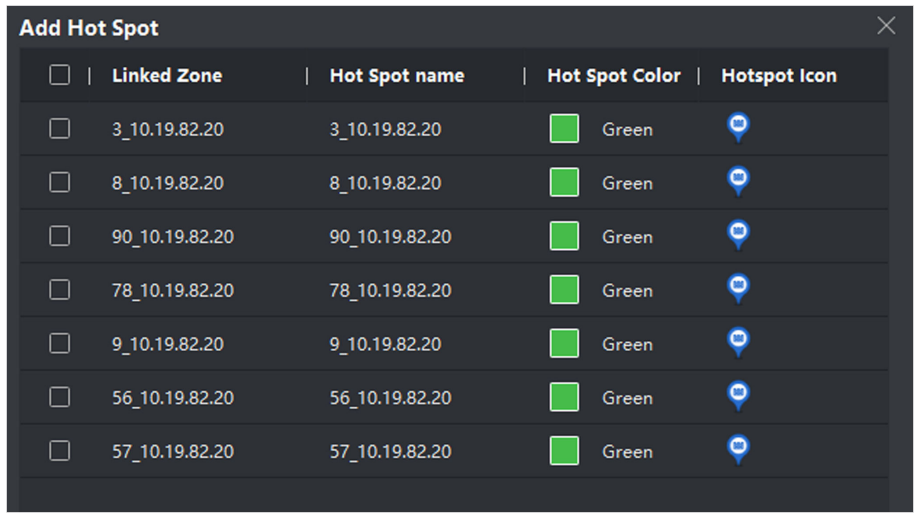


Figure 9-7 Add Hot Spot Panel

4. Select the zone(s) 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**.

Note

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

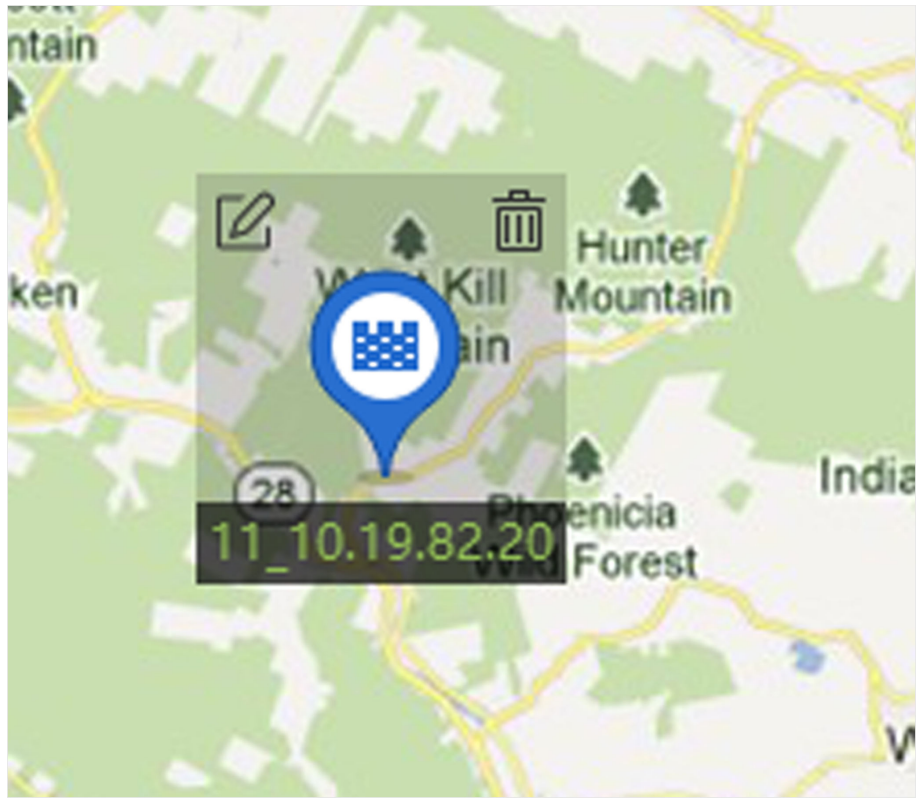


Figure 9-8 Zone on the Map

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

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

   When alarms are triggered, the number of the newest alarms will be displayed on the zone's icon. You can click the number to see the alarms details.

   Note

   No more than 10 newest alarms can be displayed.

8. **Optional:** Click **Clear Alarms** to mark the alarms of the zones on the current map as read.

9.3.5 Configure Security Radar Hot Spot

The client supports adding a security radar to the map to work as a hot spot. After that, you can configure parameters (including drawing zones and trigger lines, setting master-slave tracking, map calibration, etc.) for the radar and the parameters you set will take effect on the device. In this way, an intelligent monitoring in the radar's detection area can be realized by the client.

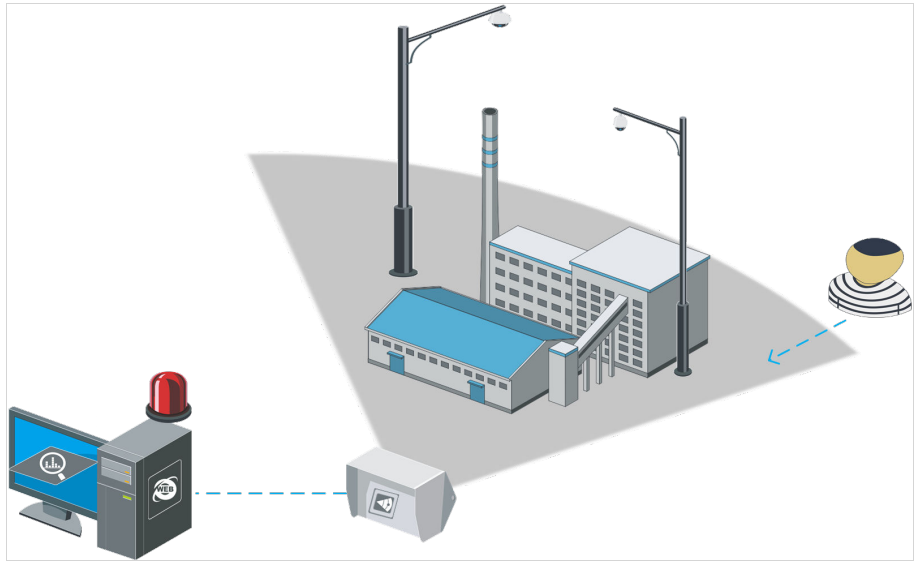


Figure 9-9 Scenario of Radar

Draw a Zone

Zone is a basic concept in the security control system. It refers to a protection area in a radar's detection area, and is regarded as the maximum recognizable unit to distinguish the alarm event, determining whether to trigger an alarm according to the zone type and radar's arming status. You can see the target's location on the map the minute an alarm is triggered so as to take quick actions accordingly.

Before You Start

Make sure you have disarmed the radar: click **Finish**, and select **Disarm** after clicking the radar's icon.

Steps

1. Enter the E-Map module, and click **Edit** on the top right to enter the Edit mode.
2. **Optional:** Enable **Field Assistance** on the top left of the map. The target track will appear on the radar detection area. You can draw a zone with reference to the track.
3. Click **Radar Settings → Draw Zone Manually** on the top of the map, and click the mouse to draw a zone on the radar detection area.

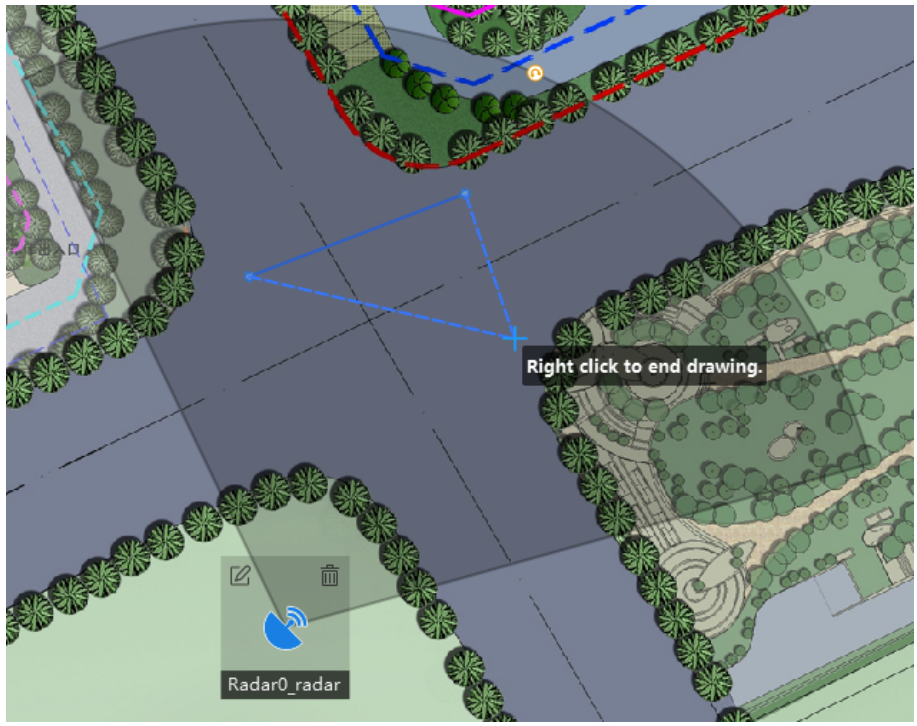


Figure 9-10 Draw a Zone

4. Right-click to complete drawing, and a window will pop up. Enter the zone name, and select **Early Warning Zone**, **Warning Zone**, or **Disabled Zone** as the zone type.
5. Click **OK**.

   Early Warning Zone

   The early warning zone will identify target that has potential risks in advance and trigger an alarm, but will not store alarm track. The early warning zone is green.

   Warning Zone

   The warning zone will identify the targets entering the area and trigger alarm. The warning zone is orange.

   Disabled Zone

   The disabled zone will block the target track in the area. The disabled zone is black.

Note

- Adding zones is a batch operation. If you plan to add zones for only one radar, you need to right-click on the remaining radar detection area to cancel drawing a zone in detection area of other radars after drawing the desired zone.
- Zones can overlap, the priority of the effective overlapping zone is: Disabled Zone>Warning Zone>Early Warning Zone. That is, Early Warning Zone can contain Warning Zone and Disabled Zone, and Warning Zone can contain Disabled Zone.
- You can zoom in/out to adjust the size of the displayed radar area.

6. Click **Finish** on the top right of the map.

7. **Optional:** Edit or delete the zone after disarming the radar.
   1) Double click the zone to enter the zone editing mode.
   2) Hover the cursor on the line of the zone and it will change to a cross, and then click to add a marker.

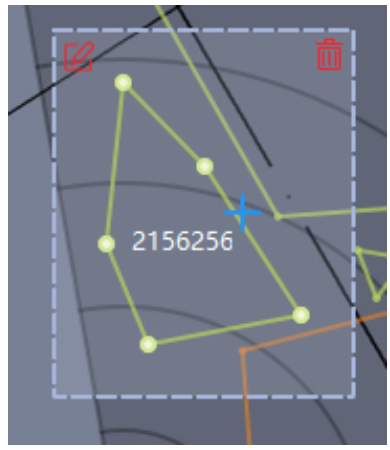


Figure 9-11 Add a Marker

   3) Drag the marker to change the shape of the zone.

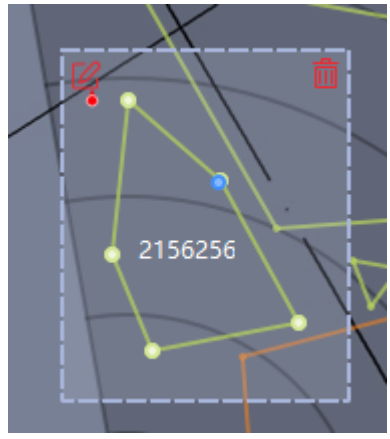


Figure 9-12 Drag a Marker

   4) Hold to move the zone.

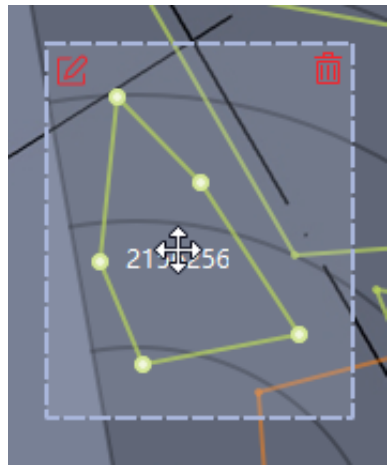


Figure 9-13 Move the Zone

5) Click outside the zone to exit the zone editing mode.
6) Delete or edit the zone after entering the zone editing mode by double-clicking the zone.

Delete Zone Click .

Edit Zone Click to edit zone name and type.

Draw Trigger Line

A trigger line refers to a virtual line drawn in a radar's detection area on the map. An alarm will be triggered when someone crosses it in its pre-defined direction.

Before You Start

The radar is added to the map. Click **Finish** on the top right to exit the editing mode. Click on the radar icon and select **Disarm** to disarm the radar.

Steps

1. On the E-map page, click **Edit** to enter the editing mode.
2. Click **Radar Settings → Draw Trigger Line** , and select **Trigger Line** or **Dual-Trigger Line**.

Note

Drawing a dual-trigger line that is too tortuous will cause a failure.

3. Draw trigger line.
   1) Click on the radar detection area to draw a trigger line.
   2) Select **Left -> Right**, **Left <- Right** or **Left <-> Right** in the pop-up window.
   3) **Optional:** Enter the distance between two lines. (Only for dual-trigger line)

Note

- Alarm rules: A single arrow  indicates that the target triggers an alarm when it crosses the trigger line in the direction of the arrow; a double arrow  indicates that the target triggers an alarm when it crosses the trigger line in any direction.
- The alarm can be triggered by crossing the Trigger Line according to the alarm rule; the alarm can be triggered only after crossing double lines of Dual-trigger Line according to the alarm rule.
- Direction determination: suppose you stand at the penultimate marker facing the last marker, the area on your left indicates the Left, while the area on your right indicates the Right.
- Up to 4 trigger lines can be drawn.
- Up to 1 dual-trigger line can be drawn.
- The trigger line cannot cross each other.

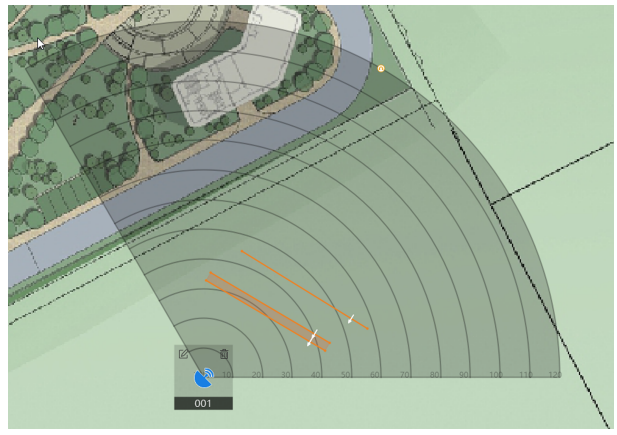


Figure 9-14 Draw Trigger Line

4. Click **OK**.
5. **Optional:** Click on the trigger line will appear different options: **Edit**, **Delete** and Move. You can edit the trigger line by clicking on it.
   - Add a Marker: Click on the line to add a marker.
   - Drag a Marker: Drag a marker on the trigger line to move it.
   - Move the Trigger Line: Hold the editing area to move the trigger line.
   - Edit: Click to edit the trigger line name, trigger line rule and distance (only for Dual-trigger Line).
   - Delete: Click to delete the trigger line.

Add False Track Area

False track area is an area in radar's detection area. When an object enters the false track area, alarms will not be triggered, and the object's moving pattern will not be uploaded to the client.

This function is applicable for places with plenty of disturbing factors (such as trees) that may cause wrong alarms.

Before You Start

Make sure you have added a radar to map and have disarmed the radar. See for details.

Steps

Note

- This function should be supported by the device.
- Up to 32 false track areas are supported.
- The size of false track area depends on device capability.

1. On the top right of the map, click **Edit** to enter the editing mode of the map.
2. Click **Radar Settings → False Track Area → Add False Track Area** .
3. On the map, hold the mouse and drag to set the semi-diameter of the false track area. Right-click to end drawing.

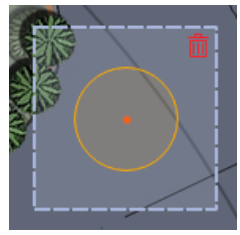


Figure 9-15 False Track Area

4. **Optional:** Perform the following operations.

Edit False Track Area	Double-click the false track area, hover the cursor on the border. When the cursor turns to a blue +, hold the mouse and drag to adjust the area.
Move False Track Area	Double-click the false track area, and drag it to move it.
Display/Hide False Track Area	Click **Radar Settings → False Track Area → Display/Hide False Track Area** to display or hide the false track area on/from the map.
Delete False Track Area	Double-click the false track area, and click .

Set Smart Linkage

Smart linkage works based on the calibration points you adds to the radar's detection area. That is the calibration points can tell the PTZ camera linked to the radar which direction to turn to when a target is detected so as to get the live view and track of the target by the client.

Note

Make sure you have performed the following operations before calibration:

- You need to disarm the radar before calibration: click **Finish** on the top right to exit the editing mode. Click the radar icon and select **Disarm** to disarm the radar.
- You need to link the PTZ camera to the zone before calibration, and set the PTZ camera initial position. See the PTZ camera user manual for details about how to set the PTZ camera initial position.
- Import the PTZ camera linked to the radar to the radar's group. See ***Group Resources*** for details.
- The installation height of the linked PTZ camera should be higher than 3 meters.
- Only PTZ camera supports this function.

According to the relative installation position of the radar and the camera, it is necessary to select a schedule (One-Point Calibration or Multi-Point Calibration) for the calibration point selection.

One-Point Calibration

Applicable to the scenario where the radar and the camera are installed on the same pole or the camera is installed within a radar-centered range of 2 meters (regardless of the altitude difference between the camera and the radar).

Figure 9-16 Scenario of One-Point Calibration

Multi-Point Calibration

The scenario which is not applicable to the one-point calibration needs to adopt the multi-point calibration.

Figure 9-17 Scenario of Multi-Point Calibration

One-Point Calibration

One-point calibration is applicable to the scene where the radar and the camera are installed on the same pole or the camera is installed within a radar-centered range of 2 meters (regardless of the altitude difference between the camera and the radar).

Before You Start

To perform this function, a cooperation between two persons is required. Person A enters the detection area so that person B (the operator of the client) can see A's track on the client. And then B sets calibration points by the client according to A's track.

Steps

1. Click **Edit** on the top right of the map.
2. Click **Radar Settings → Smart Linkage Settings** .
3. On the Smart Linkage Settings page, select a radar from the drop-down list on the top left.
4. Click a live view window at the bottom and select a camera in the **Linked Camera** list. The live view window displays the camera's live view.
5. Double-click the camera's live view window to enlarge it.

   Note

   You can click **+** or **-** to zoom in/out the map.

6. Select **One-Point Calibration** as the calibration mode.
7. Select the track of person A. Ask person A to move into the radar detection area. By comparing the moving object in the live view window of the camera and the track in the radar detection area, person B needs to select the track of person A and click it. The color of the selected track will turn from red to white.

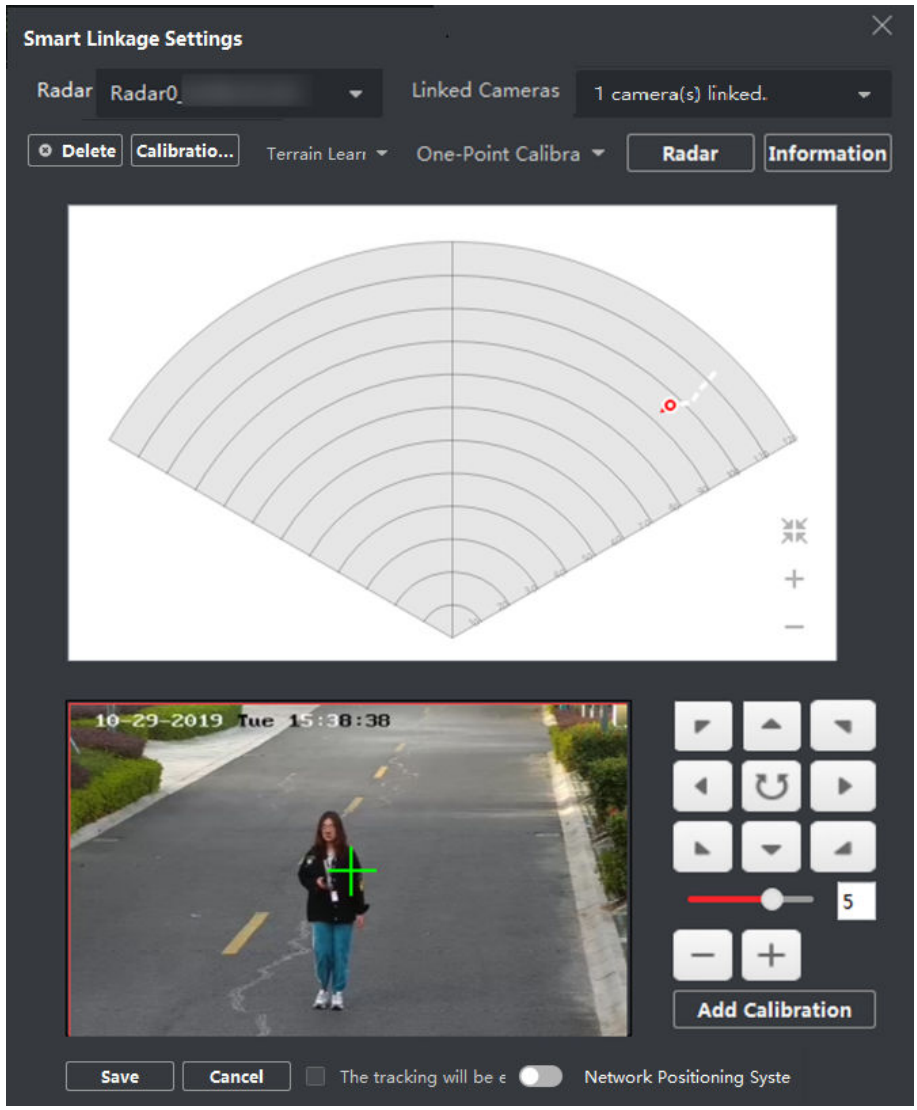


Figure 9-18 Select the Track

8. Ask person A to move to the calibration point within 20 to 40 m directly in front of the radar, and then stand at the calibration point.
9. Adjust the PTZ buttons in the live view window to get the PTZ position: Click + and - to adjust the altitude of person A to two-thirds of the altitude of the window, and click the direction buttons to align the central sign with person A (For precise alignment, click on the center of the object and the screen will adjust automatically).
10. Click **Add Calibration** to add a calibration point. The PTZ position and the radar position of person A will be shown in the **Information** list. The option **The smart linkage will be enabled after completing the settings.** will be checked automatically.

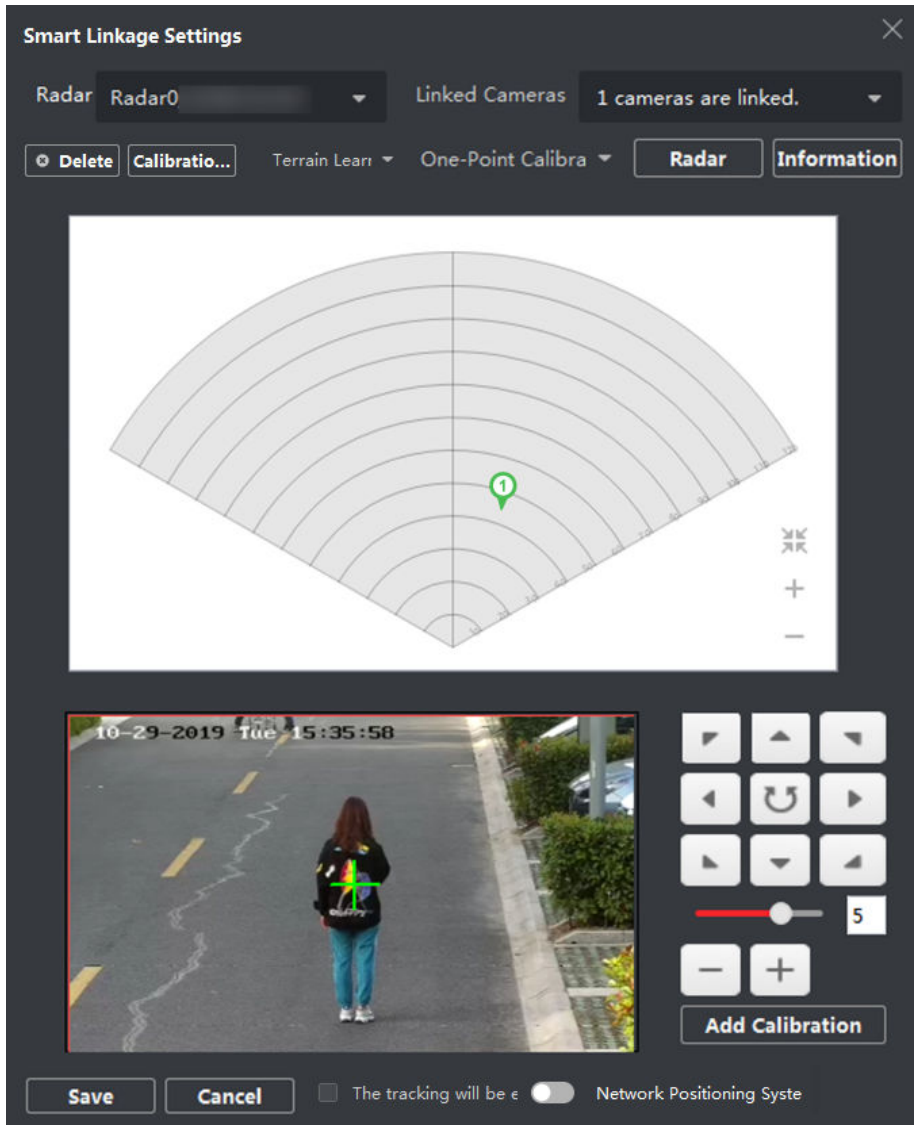


Figure 9-19 Add a Calibration

11. Click **Save**.

Multi-Point Calibration

Multi-point calibration is applicable to the scenario where the distance of the radar and the cameras linked to it is more than 2 meters.

Before You Start

This function needs the cooperation between 2 persons. Person A enters the detection area so that person B (the operator of the client) can see A's track according to which B set the calibration points by the client.

Steps

1. On the Smart Linkage Settings page, select**Multi-Point Calibration** as the calibration mode.
2. Select calibration points (equally distributed) on the center line of the radar's detection area, you can refer to the following figure to select points.

Figure 9-20 Multi-Point Distribution Instance

Note

At least 4 calibration points are required.

3. According to the calibration points, person A moves to a calibration point, and refer to step 2 to step 5 in One Point Calibration to calibrate the calibration point.
4. When the first calibration point is set, let person A move to the next calibration point after the yellow track disappears. And then refer to step 2 to step 5 in One Point Calibration to set the next calibration point. Follow this process to set all other calibration points in turn.

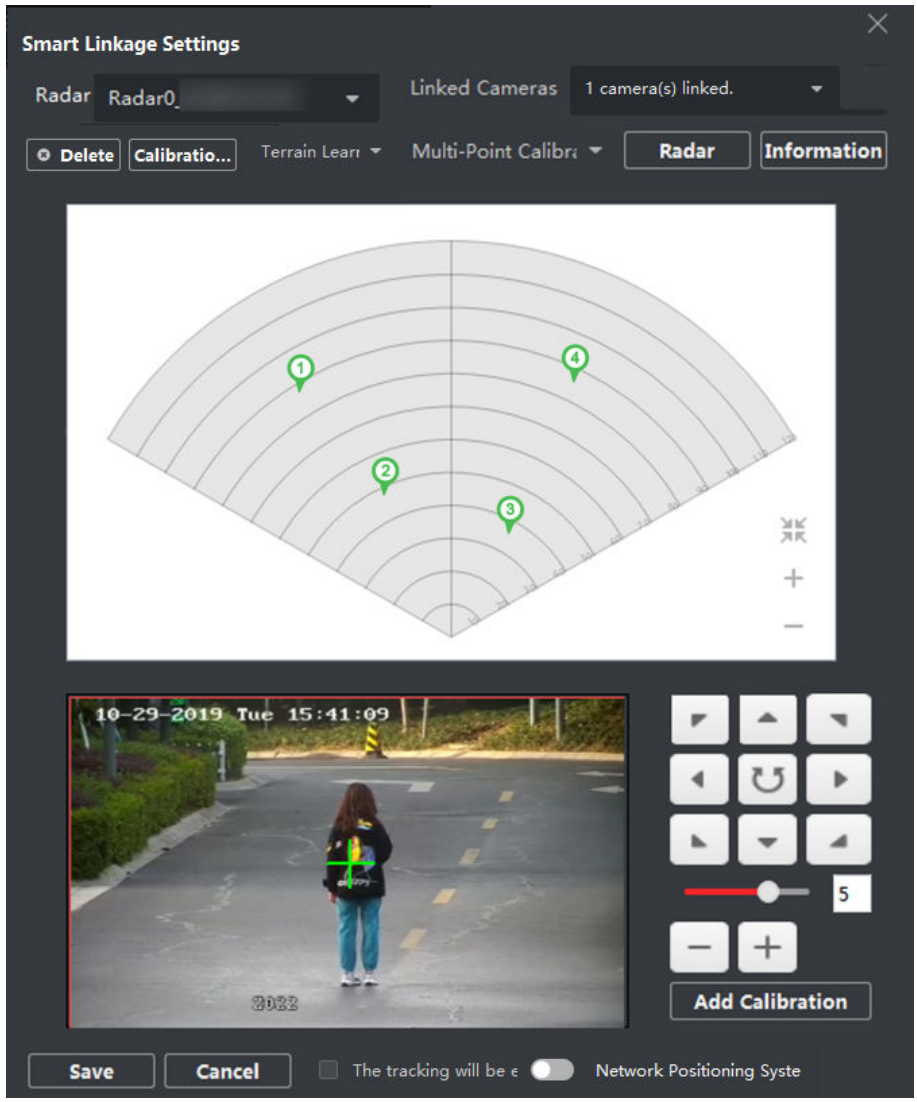


Figure 9-21 Multi-Point Calibration Radar Page

Note

Click **Delete** to delete a calibration point after selecting the calibration point in the Information list.

5. Click **Save** after all calibration points are set.

Note

You can save the calibration information successfully only if there are 4 calibration points, otherwise you cannot save it.

GPS Calibration

GPS Calibration refers to calibrating by device longitudes and latitudes, radar's orientation, and linked PTZ camera's position angle.

Before You Start

- Record the radar's longitude, latitude, and orientation.
- Record the linked PTZ camera's longitude, latitude, and position angle.

Steps

1. On the Smart Linkage Settings page, click **Set Longitude and Latitude** to open the Set Longitude and Latitude window.
2. Enable **Enable GPS Calibration**.
3. Enter **Radar Longitude** and **Radar Latitude**, and **Radar Orientation**.

   Note

   See radar user manual for details about setting radar orientation.

4. Enable **Network Positioning System**.

   Note

   You can also enable or disable this function on the Smart Linkage Settings page.

5. Enter **Camera Longitude**, **Camera Latitude**, and **Position Angle**.

   Note

   See PTZ camera user manual for details about setting position angle.

6. Click **OK**.

Terrain Learning

By terrain learning, the radar can get the terrain of its detection area and make more accurate smart linkage.

Before You Start

Make sure you have completed calibration. See ***One-Point Calibration*** and ***Multi-Point Calibration*** for details.

Steps

Note

- This function should be supported by the device.
- To use this function, a cooperation between two persons is needed. Person A enters the radar's detection area, while person B operates the PTZ camera linked with the radar and display person A in the live view of the PTZ camera on the Smart Linkage Settings panel.

1. On the Smart Linkage Settings panel, click **Terrain Learning → Start Terrain Learning** .
2. In the radar's detection area, select person A's moving pattern.
3. Control the PTZ camera to keep person A in the center of the live view page by the buttons on the right.

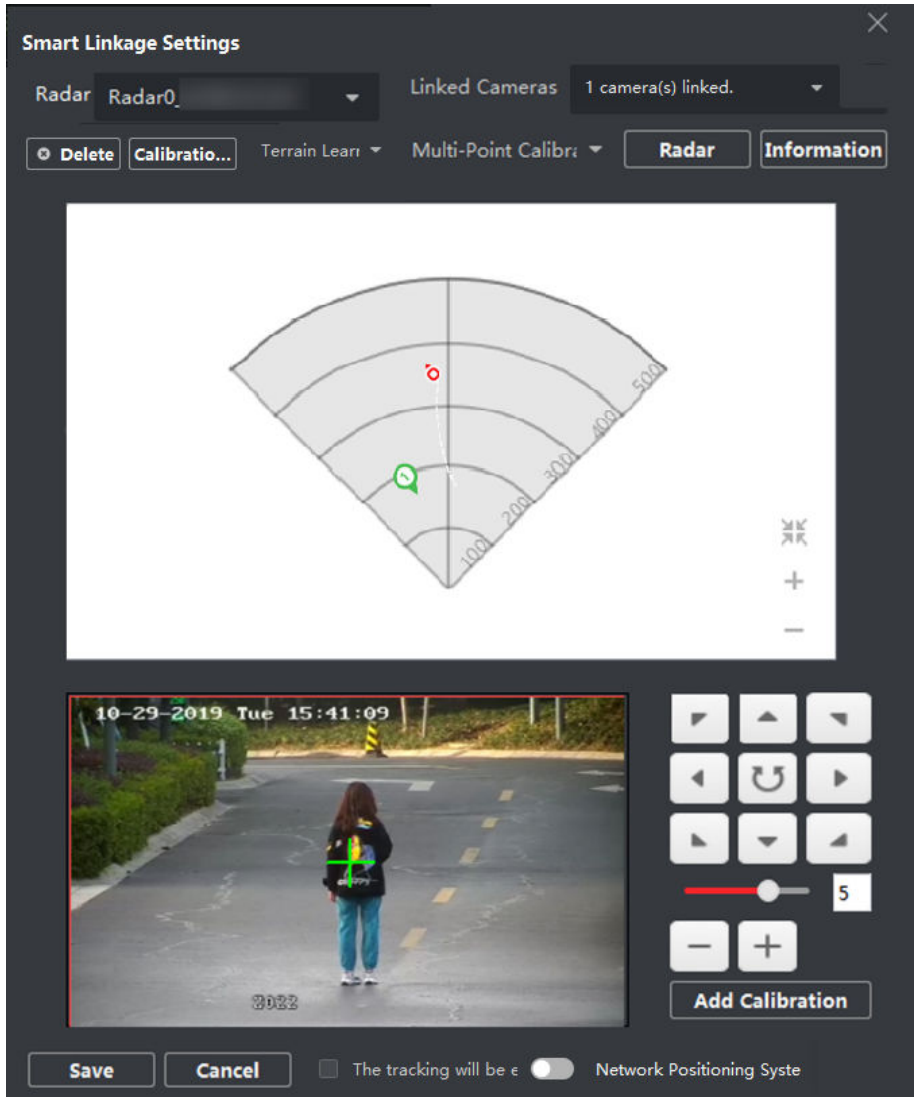


Figure 9-22 Terrain Learning

4. Click **Terrain Learning → Finish Terrain Learning** to end terrain learning.

Note

Old terrain learning results will be overwritten by new results.

5. **Optional:** Click **Terrain Learning → Clear Terrain Learning** to clear existing terrain learning results.

Calibration Compensation

Calibration Compensation makes calibration more accurate by adjusting Pan, Tilt, and Zoom of radar-linked PTZ camera.

Before You Start

Make sure you have finished a calibration.

Steps

1. On the Smart Linkage Settings page, click **Calibration Compensation** to open the Calibration Compensation window.
2. Select a camera from the Camera list.

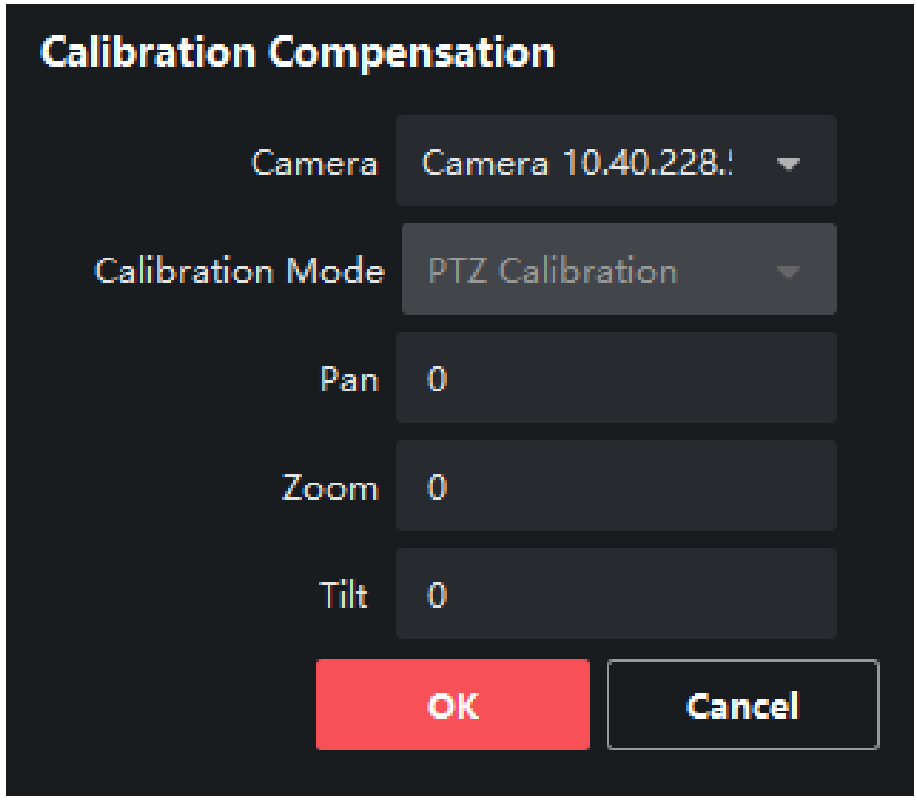


Figure 9-23 Calibration Compensation

3. Select a **Calibration Mode**.

GPS Calibration

If you had conducted GPS calibration before, select this mode.

PTZ Calibration

If you had conducted one-point calibration or multi-point calibration before, select this mode.

4. Enter the **Pan**, **Tilt**, and **Zoom**.

Note

The **Pan**, **Tilt**, and **Zoom** you entered here will be added to the former **Pan**, **Tilt**, and **Zoom**.

5. Click **OK**.

Set Parking Points for Linked Camera

After enabling the radar parking mode, the radar will control the linked camera to turn to the predefined parking point when no target detected within 10s in the radar detection area.

Before You Start

- Add the radar to the map.
- Link the camera to the radar, and add the camera to the client.
- Calibrate the camera and enable camera smart linkage.
- You need to disarm the radar before the operation. Click **Finish** on the E-map page to exit the editing mode. Click the radar icon and select **Disarm** to disarm the radar.

Steps

Note

This function is only applicable for cameras with PTZ control function.

1. Click **Edit** on the top right of the map to enter editing mode.
2. Click **Radar Settings → Set Parking Point** .
3. Select a radar from the **Radar** drop-down list.
4. Select a linked camera from the following list.
5. Use buttons on the right to adjust the camera screen center position (cross icon position) to the watch point. You can click on the screen and the screen will automatically adjust to the clicked center. You can also click the image to make the position you clicked the center.

Adjust the rotation speed of the camera. 1 is the slowest and 7 is the fastest.

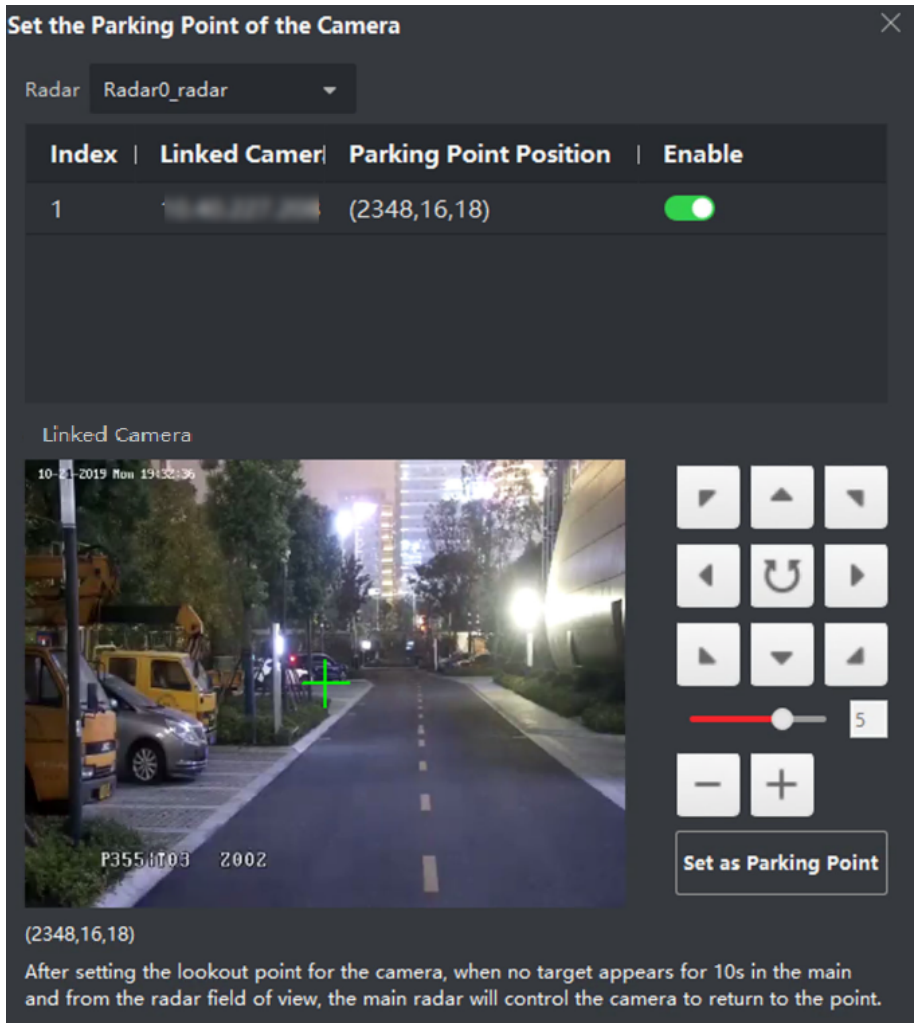


Figure 9-24 Set Parking Point

6. Click **Set as Parking Point**.

Map Calibration

Map calibration is used to get the accurate scale of the map by the cooperation of three persons.

Before You Start

Make sure you have added the radar (when adding the device, check **Import to Group**) to the client and the map, and have set a scale for the map.

Steps

1. Click **Edit** to enter the editing mode.
2. Click **Radar Settings → Map Calibration** .
3. To perform this operation, an cooperation between three persons is needed. Person A and person B move into the radar's detection area. Person C selects their tracks by the client. A and B stop at the calibration points and the system will generate 2 markers at the terminal of tracks.

Click **OK** on the pop-up window to confirm the terminal of the track or click **Delete** to select a new track.

Figure 9-25 Confirm Terminals

4. Click on the map to confirm the actual locations of marker 1 and marker 2.

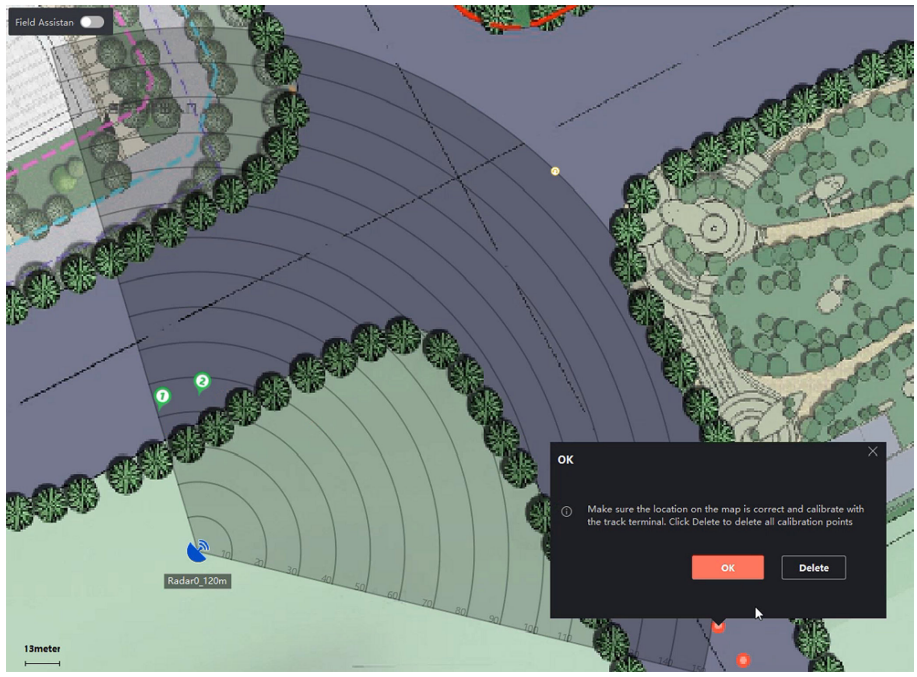


Figure 9-26 Confirm Actual Locations

5. A window pops up saying *Make sure the location on the map is correct and calibrate with the track terminal?* Click **Delete** to delete all calibration points. Click **OK** on pop-up window. The system will automatically match the markers to the actual locations.

Figure 9-27 Finish Map Calibration

Other Functions

When using the radar, you can perform some auxiliary functions such as arming/disarming, refreshing radar parameters, displaying OSD and PTZ camera's FOV (field of view), and enabling alarm output to meet different needs.

Note

Make sure you have exited the map editing mode before using the following functions.

Arm/Disarm All Radars

Click **Arm Radar → Arm All Radars/Disarm All Radars** to arm or disarm all radars on the map.

Arm/Disarm Single Radar

After exiting the editing mode, click the radar's icon to show its operation menu.

Arm a Radar

Arm the radar's detection area. A question will pop up saying *There are targets in the zone, enable mandatory arming?* if you arm the radar when a target exists in the warning zone. You can click **OK** to arm the radar mandatorily.

Note

The radar cannot be edited if it is armed.

Disarm a Radar

Disarm the radar's detection area.

Event

Search alarms triggered by certain cameras during certain time range, and view the alarm related videos. See ***Preview Hot Spot*** for details.

Enable Alarm Output

An alarm output refers to sirens linked to a radar. It flashes or generates alarm sound when an alarm or pre-alarm is triggered if you enable it.
Operation: click **Radar Settings → Alarm Output** after entering editing mode. Select a relay, and switch on in the Operation column; or click **Enable All** to enable all the relays in the list.

Display OSD

On the top of the map, click **Radar Settings → Display OSD** to display the detected target's moving speed and the distance between the target and radar.

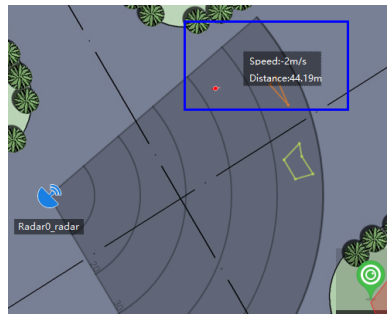


Figure 9-28 OSD on the Map

Display PTZ Camera's FOV

On the top of the map, click **Radar Settings → Camera FOV** to display the linked PTZ camera's filed of view (FOV) and camera's IP address on the map.

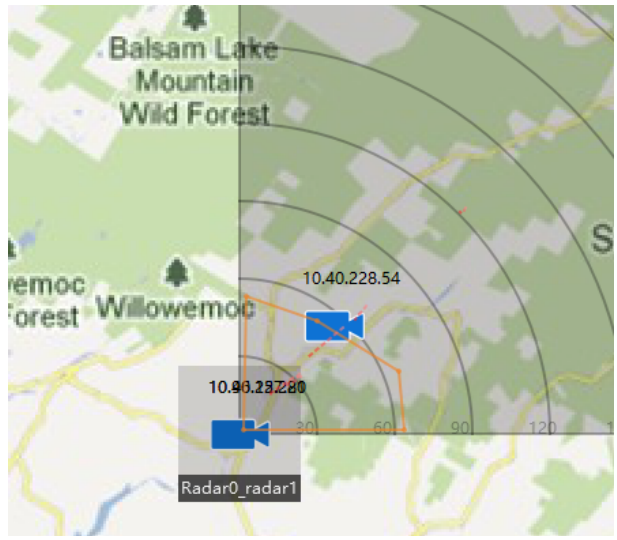


Figure 9-29 PTZ Camera's Field of View

Refresh

Click **Radar Settings → Refresh** on the top of the map to refresh the radar's newest detection angle, detection distance, trigger lines, and arming status.

9.3.6 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 to 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 to delete the hot spot.

9.3.7 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.

Steps
1. Enter the E-map module.

   Note

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

2. Click **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 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 Output	Click an alarm output, and select **Open**/**Close**.

Note

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**; or click **Event** to search events triggered during certain time range.

Note

- You can still arm the radar even if there is a target in the radar's detection area.
- The warning zone and early warning zone will be armed after arming the radar, which means an alarm will be triggered and reported to the Event Center once a target enters the warning zone and early warning zone.

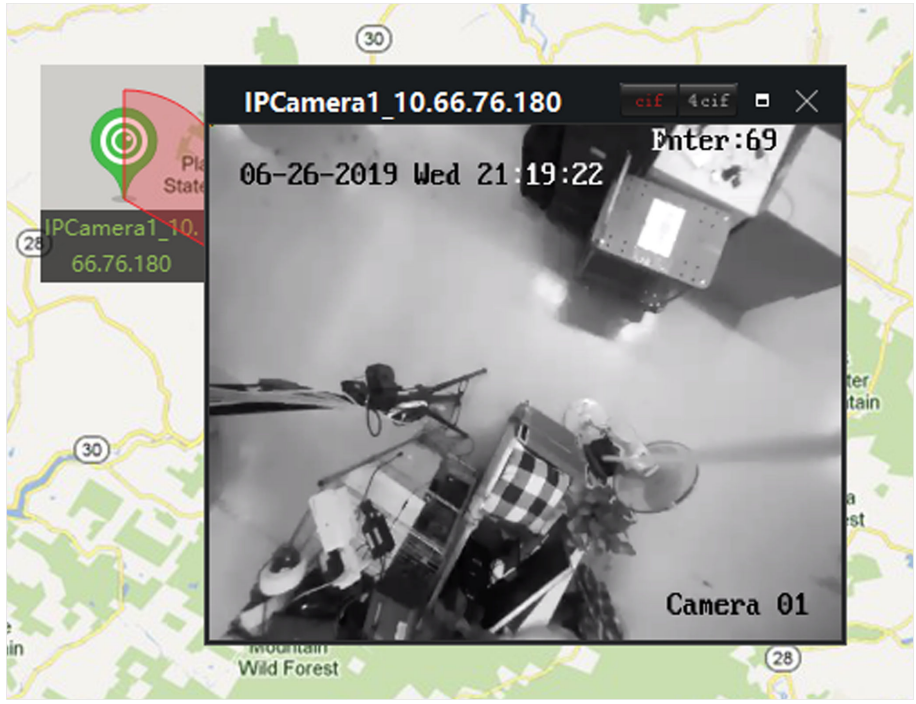


Figure 9-30 Live View of Camera on the Map

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

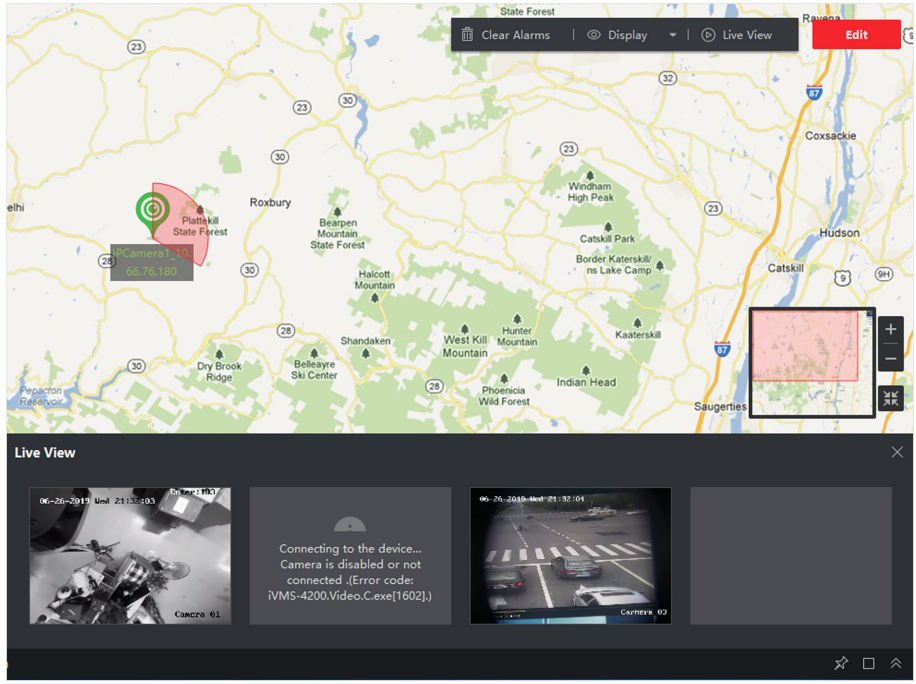


Figure 9-31 Preview Camera Hot Spot

9.4 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.

9.4.1 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

Note

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.

9.4.2 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 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**.

9.4.3 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.

   Note

   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.

9.5 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.

   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.

   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.

   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 10 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.

Note

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.

10.1 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 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 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.

   Note

   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.

10.2 Add Stream Media Server by IP Address

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

Steps

Note

For one client, up to 16 stream media servers can be added.

1. Click on the desktop to run the stream media server.

   Note

   - You can also forward the video through the stream media server installed on other PC.
   - If the stream media server port (value: 554) is occupied by other service, a dialog box will pop up. You should change the port No. to other value to ensure the proper running of the stream media server.

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.

   Note

   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.

   Note

   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.

10.3 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**

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 11 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.

11.1 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) or behavior analysis server(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.

11.1.1 People Counting Report by Encoding Device

People counting report by encoding device displays people counting data collected by encoding devices. You can search the people counting data in different dimensions.

Before You Start

Add an encoding device with people counting function to the software and properly configure the corresponding area and 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 **Encoding Device** as the **Device Type**.
3. 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.

Note

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

4. Select the statistics time type and click 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.

5. Select **Statistics Type**.

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 one or two colors representing one camera).

6. Select filtering mode.

Channel

Display people counting data collected by channels of an encoding device.

Region

Display number of people in selected regions of a camera.

Note

You need to configure regions for the camera beforehand. See user manual of the device for details.

7. Select camera(s) or region(s) from the **Camera** list.
8. Set the content to be displayed.

Direction

Calculate the number of people in different directions, such as enter, exit, or enter and exit.

Enter

The people entered will be counted.

Exit

The people exited will be counted.

Enter and Exit

Both people entered and exited will be counted.

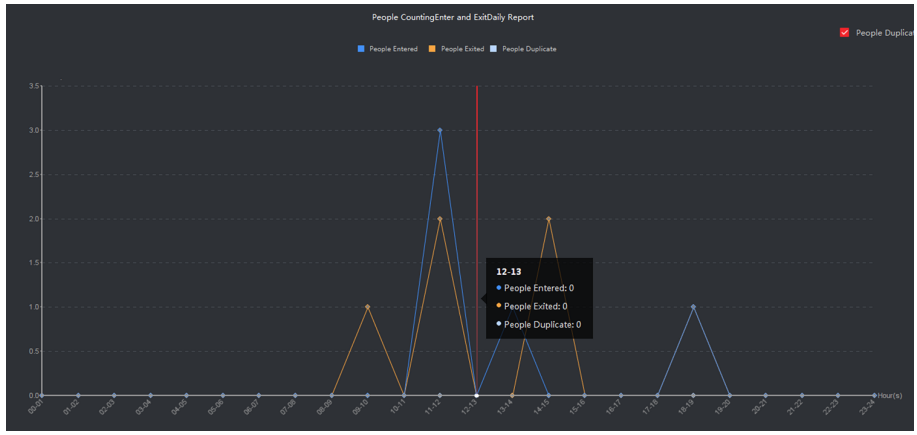


Figure 11-1 People Counting by Direction

Facial Features

Generate the report based on the facial feature, such as **Gender**,**Age Group**, **Age Group**.

For example, if you select **Age Group** as the facial feature, the client will calculate the number of people in different age group.

Figure 11-2 People Counting by Facial Features

9. **Optional:** Check **Children Only** to generate report of recognized children.

Note

- 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.

10. Click **Search** to get the people counting statistics and detailed data for each hour, day, or month.

    By default, the statistics are shown in histogram form.

11. **Optional:** For the report by direction, you can check **People Duplicate** on the right-upper corner of the report page to display the number of duplicate people.

    Note

    The number of duplicate people is calculated by the device. If the same face is recognized more than once, he/she will be calculated as duplicate person.
    For example, if a cashier enter or exit the supermarket more than once, he/she will be calculated as duplicate person. In this way, the supermarket can get the actual number of people shopping.

12. **Optional:** Perform the following operations after search.

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

11.1.2 View People Counting Report by DeepinMind Server

People counting data by DeepinMind server are data counted based on predefined calculation rules. Data not conformed to the calculation rules will be omitted in the people counting report. This gives you more accurate people counting data.

Before You Start

Add a DeepinMind server to the software and properly configure a calculation rule. See ***Add Device*** for details about adding a DeepinMind server. See the device user manual about configuring calculation rule.

Steps

1. Click **Report → People Counting** .

2. Select **DeepinMind Server** as the device type.
3. Select hourly report, daily report, monthly report, or annual report as the report type.

   Hourly Report

   Hourly Report can be used for analyzing people counting data generated during peak time.

   Daily Report

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

   Monthly Report and Annual Report

   Compared with daily report, monthly report and annual report can be less time consuming, since they are not submitted every day. The system will calculate the number of people in each day of one month and in each month of one year.
4. Click to select time.
5. Select a calculation rule.
6. Select the content to be displayed.

   Direction

   Calculate the number of people moving in different directions, including enter, exit, and enter & exit.

   Enter

   The number of people entered will be displayed.

   Exit

   The number of people exited will be displayed.

   Enter and Exit

   The number of people entered and exited will be displayed.
7. Click **Search** to get the people counting data of each minute, hour, day, or month.

Note

By default, the report will be shown in a line chart.

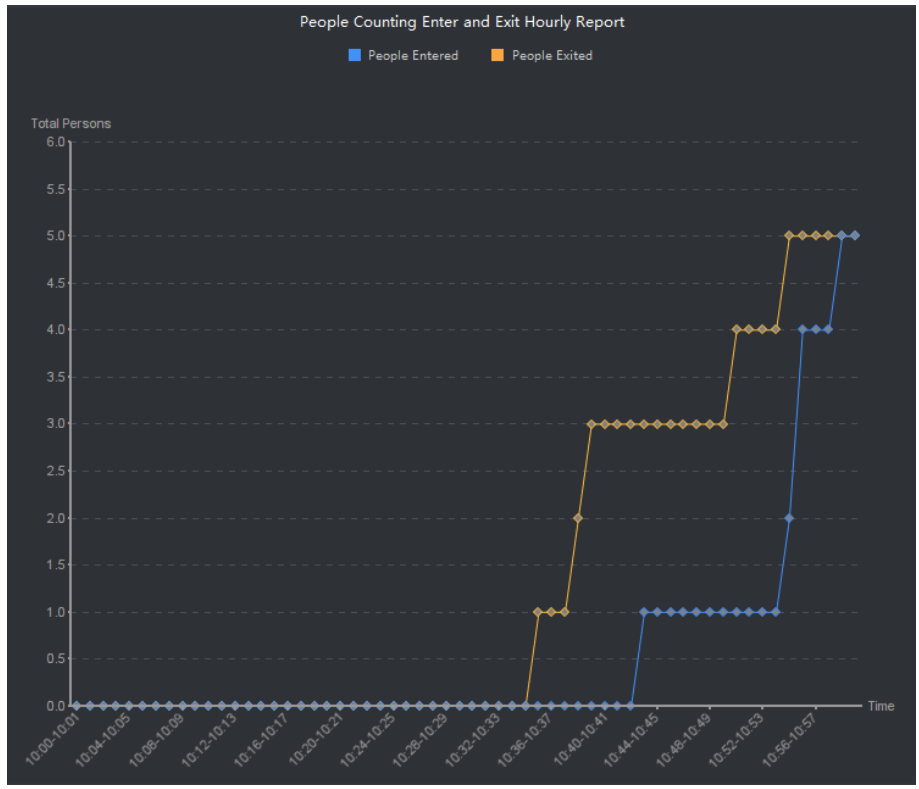


Figure 11-3 People Counting Report by DeepinMind Server

8. **Optional:** Click **Export** to save the report to your PC.

11.2 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

Note

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.

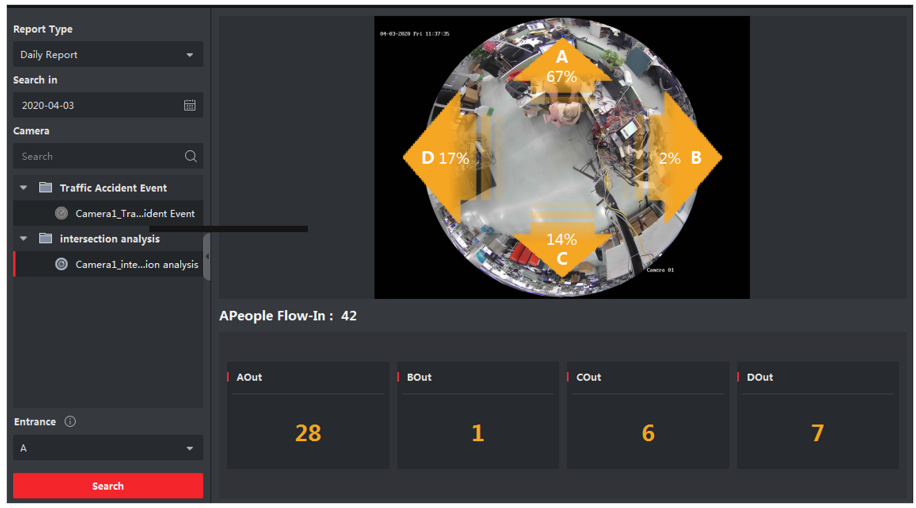


Figure 11-4 Results

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

11.3 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.

11.3.1 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

Note

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.

Note

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 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.

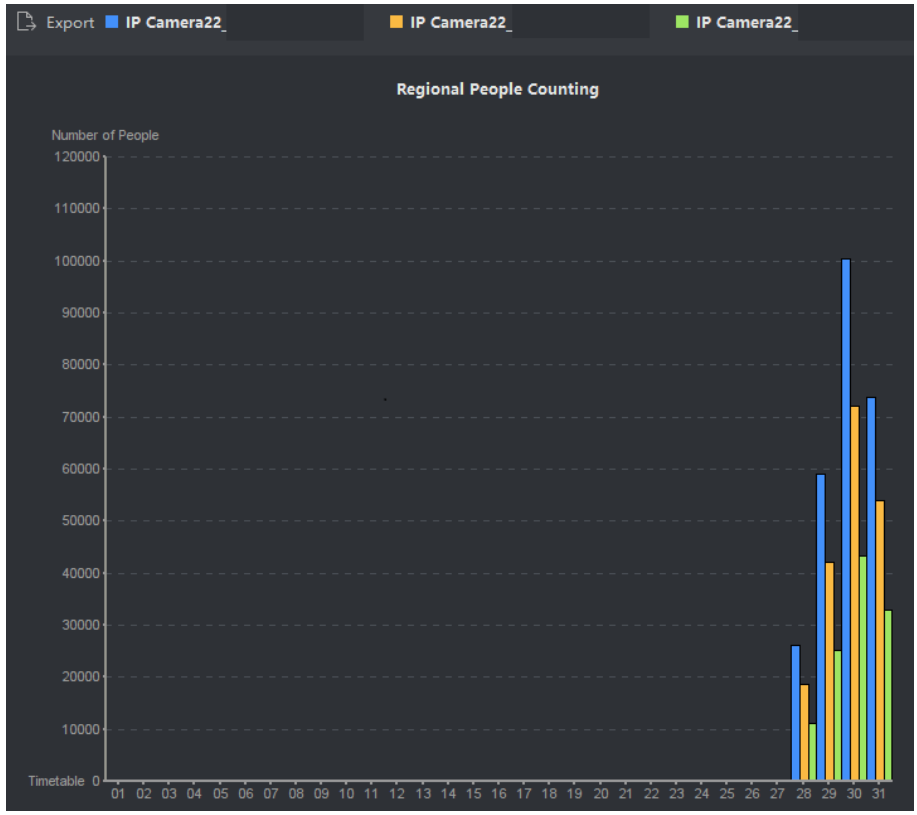


Figure 11-5 Result

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

Note

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.

   Note

   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.

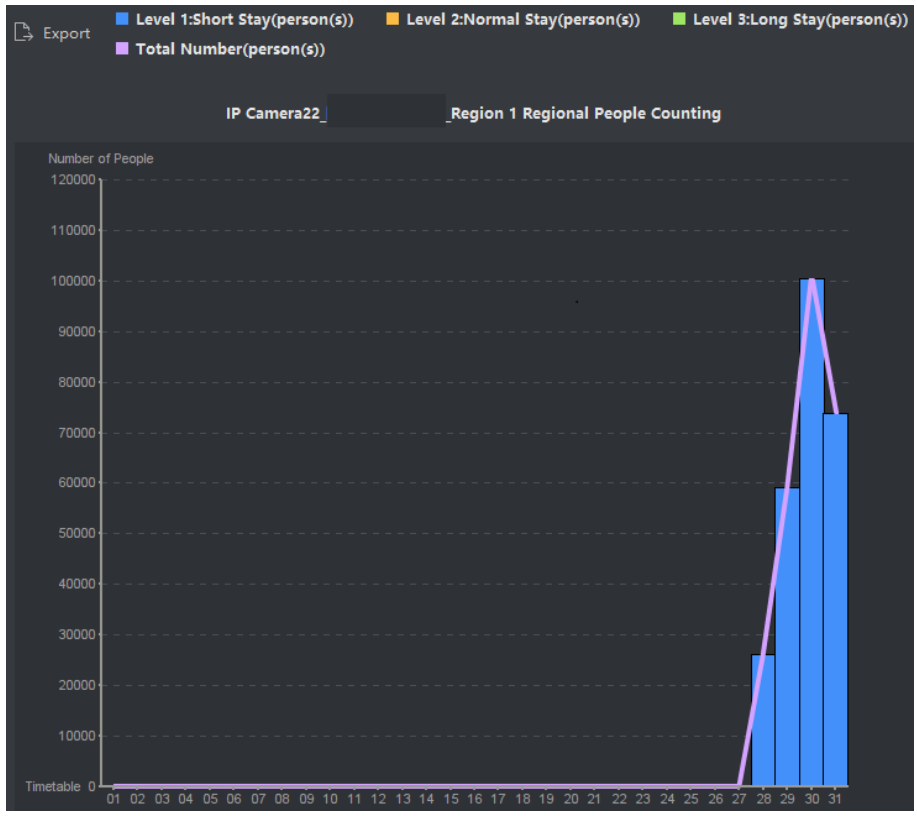


Figure 11-6 Result

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

11.3.2 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

Note

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.

   Note

   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 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.

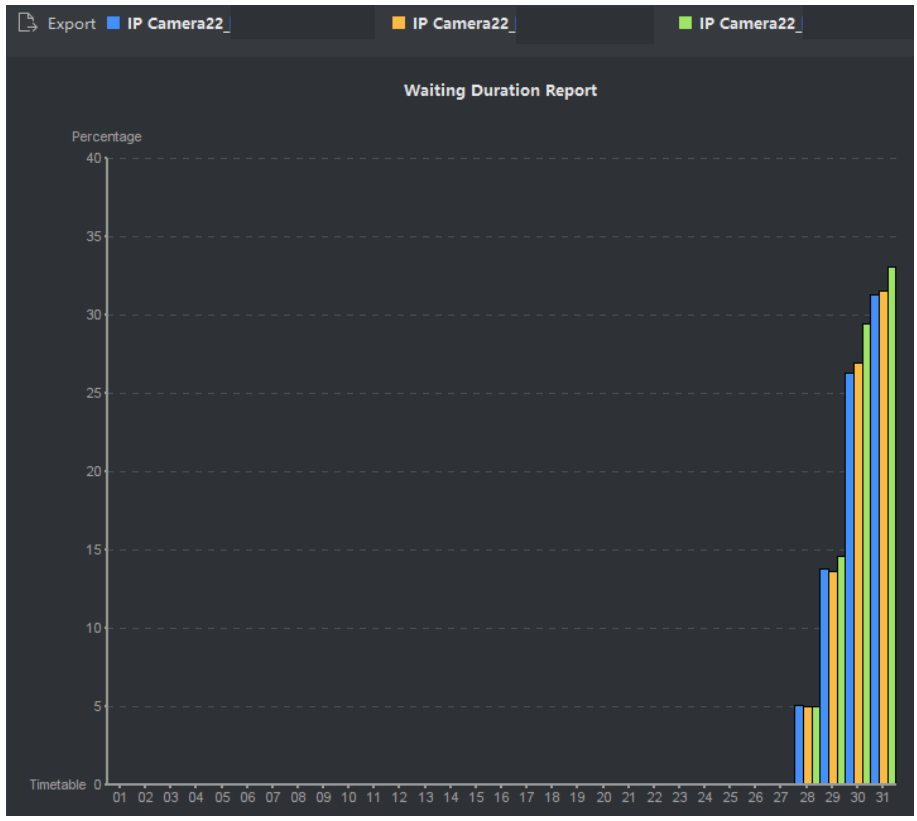


Figure 11-7 Result

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

Note

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.

Note

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. 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.

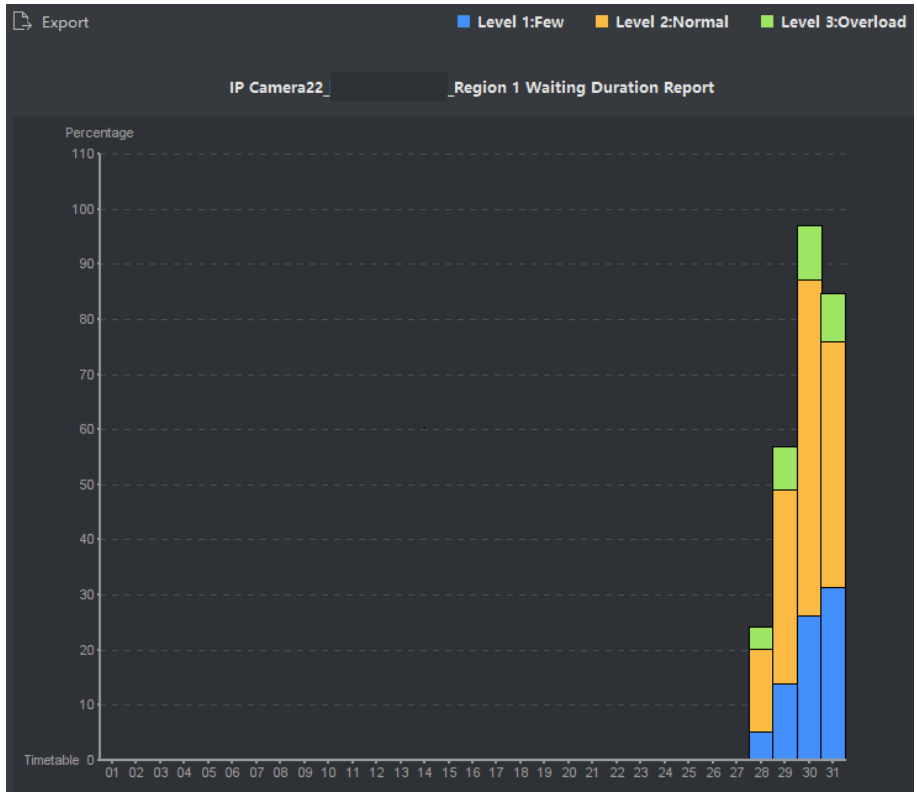


Figure 11-8 Result

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

11.4 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 less-time 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.

   Note

   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.

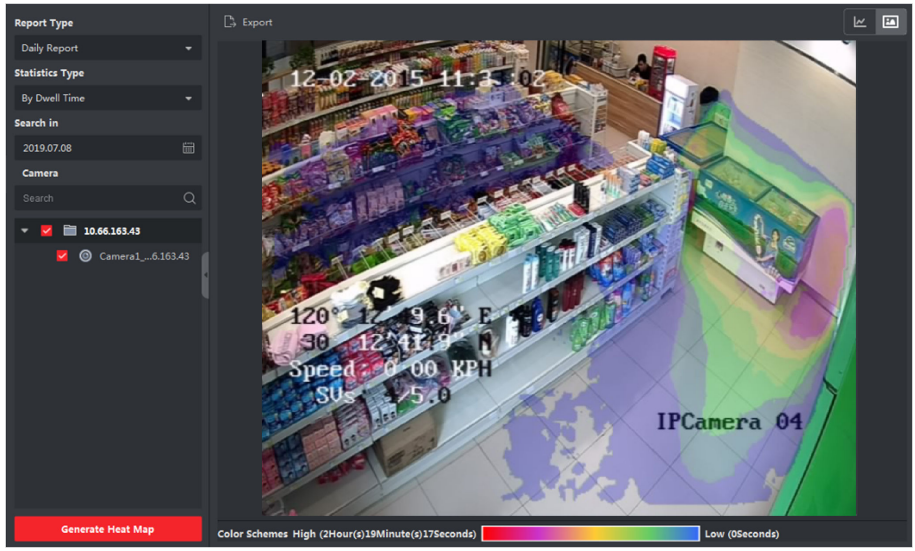


Figure 11-9 Results

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 Mode	Click to display the statistics in picture 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.

11.5 Report of Skin-Surface Temperature Statistics

The system can calculate the total number of people, the number of people whose skin-surface temperature is abnormal and the number of people who do not wear mask. The system provides the statistics report per day, per week and per month, to help you judge the trend of the number of people whose skin-surface temperature is abnormal and the number of people who do not wear mask.

Before You Start

Add the devices which support skin-temperature measurement, such as the intelligent device with face skin-temperature measurement function.

Steps

1. Select **Report → Skin-Surface Temperature**.
2. Select the report type by the drop-down list, including **Daily Report**, **Weekly Report**,**Monthly Report** or **Annual Report**.
3. Click to select the time range.
4. Select a camera, device or group.

5. Click **Search**.

   Display the report in histogram on the right area.

Note

The **All**、**Abnormal**、**No Mask** and **Normal Skin-Surface Temperature** is displayed on the upper area of the report, you can select the detection attribute(s) to be displayed.

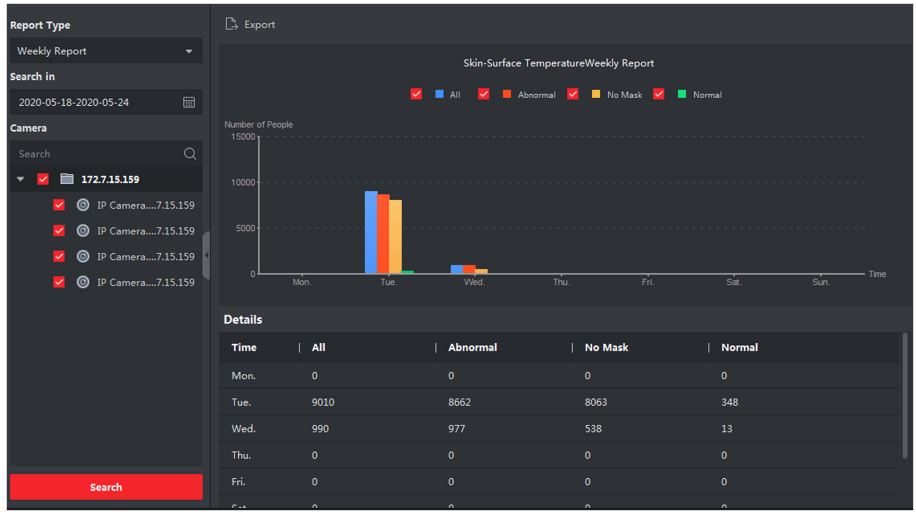


Figure 11-10 Report of Skin-Surface Temperature Statistics

6. **Optional:** Click **Export** to save the data in local by CSV format.

11.6 Real-Time Density and People Counting

Real-time density and people counting supports generating people density analysis report and real-time people counting report.

Before You Start

Add a DeepinMind server to the software and properly configure a calculation rule. See ***Add Device*** for details about adding a DeepinMind server. See the device user manual about configuring calculation rule.

Steps

1. Click **Report → Real-Time Density and People Counting** .
2. Select hourly report, daily report, monthly report, or annual report as the report type.

   Hourly Report

   Hourly Report can be used for analyzing data generated during peak time.

   Daily Report

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

Monthly Report and Annual Report

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

3. Click to select time.
4. Select event type.

People Density Analysis

The density of people in an area at different times.

Real-Time People Counting

The numbers of people in an area at different times.

5. Select a calculation rule.
6. Click **Search**.

Note

By default, the report will be shown in a line chart.

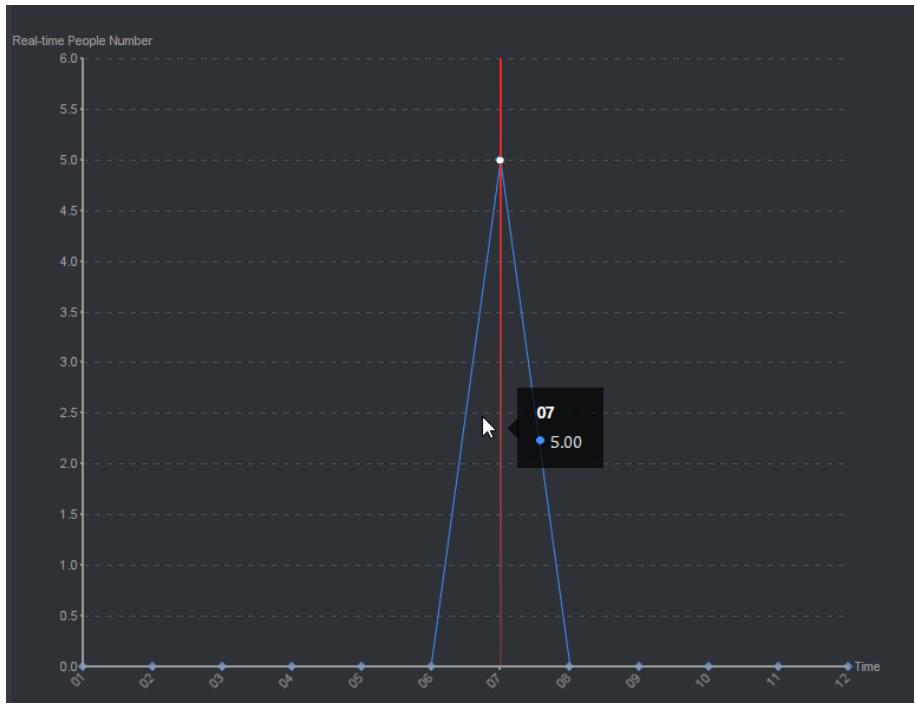


Figure 11-11 People Density Analysis Report

7. **Optional:** Click **Export** to save the report to your PC.

Chapter 12 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.

12.1 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.

12.1.1 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

Note

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.

   Note

   - 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 on the right.
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. Select a searched face picture to show the captured picture and person information.

Figure 12-1 Result

11. **Optional:** After searching, you can do one or more the following operations.

View Details	View the captured face picture, and the person information (similarity, gender, temperature status, captured time, etc.) on the page. You can also click to show the large picture, and click to restore.
Play Related Videos	Click to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.

Note

- You can click to show the large video, and click to restore.
- You can click 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.
- You can click to view the captured picture.

Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, or capture details of single record to local PC.
Add Picture to Face Picture Library	Click to add the captured picture to the face picture library. **Note** You can select the face picture library and enter the person information for the captured picture, such as person name, mobile phone, gender, etc.

12. Optional: Perform secondary search based on the search result.

1) In the person information page, click .

All the faces in this picture will be analyzed and displayed.

2) In the pop-up window, move the red frame to select a face you want to do secondary search.

Note

If there are multiple faces in the picture, the window will pop up for selecting.
If there is only one face in the picture, skip this step.

3) Click **OK**.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

12.1.2 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

Note

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 on the right.
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. Select a searched face picture to show the captured picture and person information.

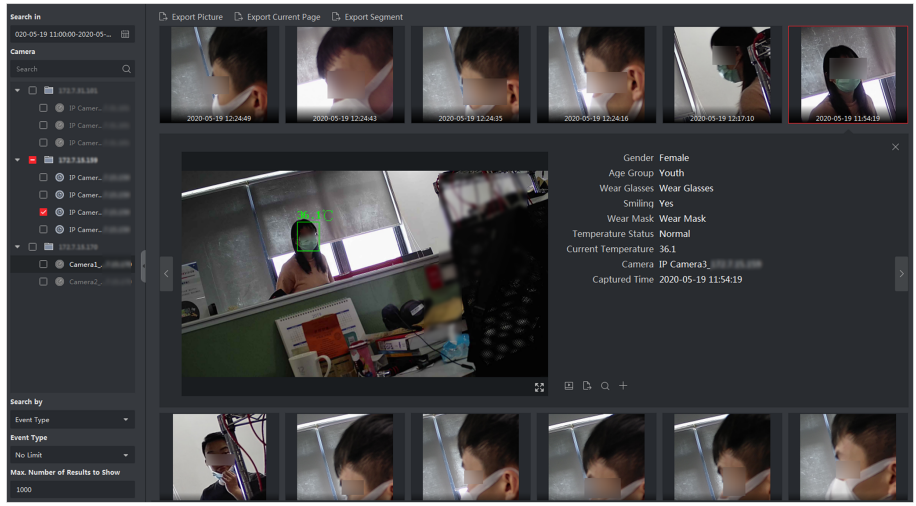


Figure 12-2 Result

10. Optional: After searching, you can do one or more the following operations.

View Details	View the captured face picture, and the person information (similarity, gender, temperature status, captured time, etc.) on the page. You can also click to show the large picture, and click to restore.
Play Related Videos	Click to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right. **Note** • You can click to show the large video, and click to restore. • You can click 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. • You can click to view the captured picture.
Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, or capture details of single record to local PC.
Add Picture to Face Picture Library	Click to add the captured picture to the face picture library. **Note** You can select the face picture library and enter the person information for the captured picture, such as person name, mobile phone, gender, etc.

11. Optional: Perform secondary search based on the search result.

1)In the person information page, click .

All the faces in this picture will be analyzed and displayed.

2)In the pop-up window, move the red frame to select a face you want to do secondary search.

Note

If there are multiple faces in the picture, the window will pop up for selecting.
If there is only one face in the picture, skip this step.

3)Click **OK**.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

12.1.3 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

Note

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.

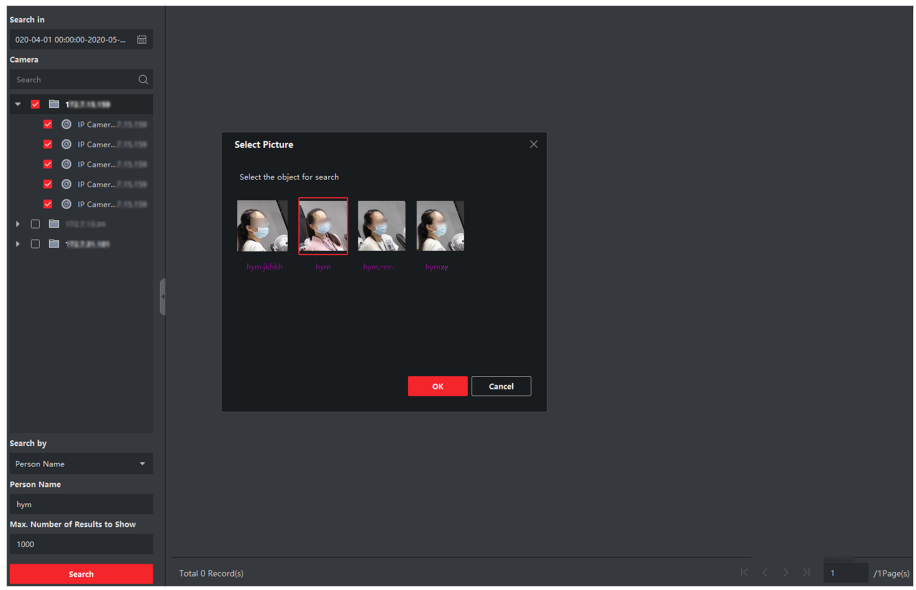


Figure 12-3 Results

8. Select one picture to search, and then click **Confirm**.

   The search results of the pictures are displayed on the right.
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. Select a searched face picture to show the captured picture and person information.

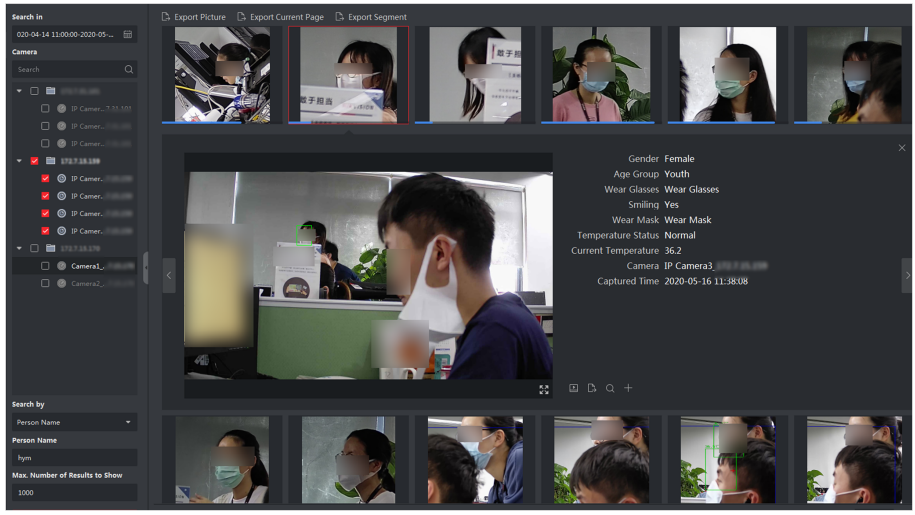


Figure 12-4 Results

11. Optional: After searching, you can do one or more the following operations.

View Details
View the captured face picture, and the person information (similarity, gender, temperature status, captured time, etc.) on the page.
You can also click to show the large picture, and click to restore.

Play Related Videos
Click to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right.

Note

- You can click to show the large video, and click to restore.
- You can click 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.
- You can click to view the captured picture.

Export Single Record
In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, or capture details of single record to local PC.

Add Picture to Face Picture Library
Click to add the captured picture to the face picture library.

Note

You can select the face picture library and enter the person information for the captured picture, such as person name, mobile phone, gender, etc.

12. Optional: Perform secondary search based on the search result.

1)In the person information page, click .

All the faces in this picture will be analyzed and displayed.

2) In the pop-up window, move the red frame to select a face you want to do secondary search.

Note

If there are multiple faces in the picture, the window will pop up for selecting.
If there is only one face in the picture, skip this step.

3) Click **OK**.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

12.1.4 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, including age group, gender, wear glasses, smiling and wear mask.
6. Enter the maximum number of results to show.
7. Click **Search**.

   The searched face pictures are displayed on the right.
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:** Select a searched face picture to show the captured picture and person information.

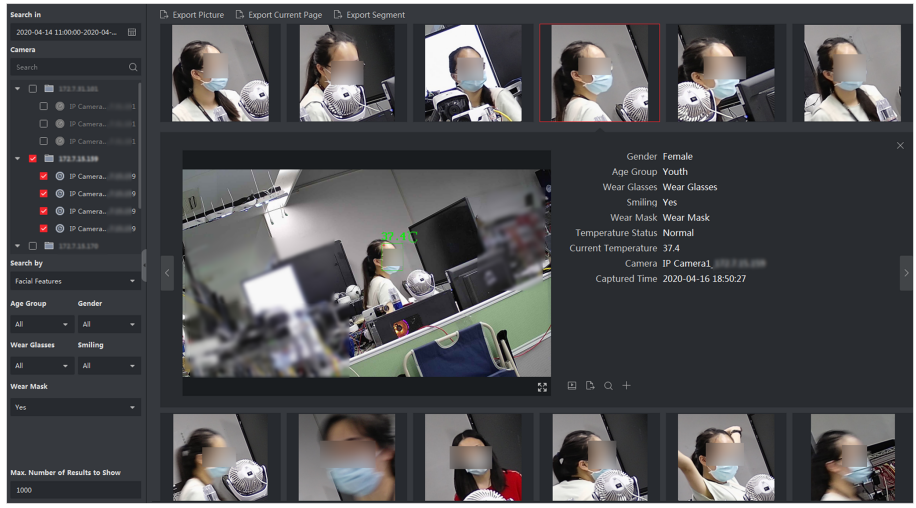


Figure 12-5 Result

10. Optional: After searching, you can do one or more the following operations.

View Details	View the captured face picture, and the person information (similarity, gender, temperature status, captured time, etc.) on the page. You can also click to show the large picture, and click to restore.
Play Related Videos	Click to play the picture's related video file (5s before and 5s after the capture) in the view window on the bottom right. **Note** • You can click to show the large video, and click to restore. • You can click 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. • You can click to view the captured picture.
Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, or capture details of single record to local PC.
Add Picture to Face Picture Library	Click to add the captured picture to the face picture library. **Note** You can select the face picture library and enter the person information for the captured picture, such as person name, mobile phone, gender, etc.

11. Optional: Perform secondary search based on the search result.

1)In the person information page, click .

All the faces in this picture will be analyzed and displayed.

2)In the pop-up window, move the red frame to select a face you want to do secondary search.

Note

If there are multiple faces in the picture, the window will pop up for selecting.
If there is only one face in the picture, skip this step.

3) Click **OK**.

The client will search and compare the faces in the captured pictures based on the face picture you selected.

12.2 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.

12.2.1 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

Note

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.

Note

- 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.

All

Search all the pictures captured by the selected camera(s) during the time duration.

5. Set the maximum number of displayed results.

Note

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.

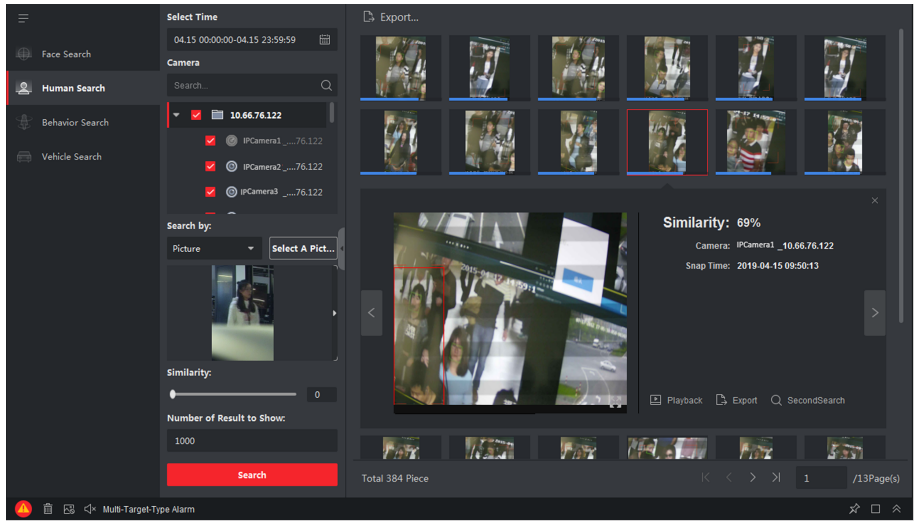


Figure 12-6 Search Result

7. **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.

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 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. **Note** • You can click to show the large video, and click to restore. • You can click 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.
Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, and capture details of single record to local PC.

12.2.2 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

Note

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 to restore.
Play Related Videos	Click to play the picture's related video file in the view window on the bottom right. **Note** • You can click to show the large video, and click to restore. • You can click to adjust the play speed of the playback, click to play back the video files frame by frame, click to enable the audio, double-click the playback window to maximize the window.
Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, or capture details of single record to local PC.

12.3 View Behavior Analysis Related Pictures and Videos

After adding the device that supports behavior analysis, you can search the related events such as line crossing, people gathering and loitering in the client. You can view the event details including the captured pictures and related videos.

Before You Start

Add the device that supports behavior analysis to the client and properly configure the corresponding settings. See ***Add Device*** for details about adding the device.

Steps

1. Click **Data Retrieval → Behavior Analysis** to enter the behavior analysis page.
2. Click to set the start time and end time for search.
3. Select the search type as camera, task or rule from the drop-down list.

   Camera

   Search and display behavior analysis related information detected by the camera.

   Task

Search and display the results according to the tasks you have added for the behavior analysis server.

Rule

Search and display the results according to the rules you have configured for a task of the behavior analysis server.

Note

Searching by task and rule should be supported by the device. You should have added tasks to the behavior analysis server and configure related rules for the tasks. For each task, you can configure multiple rules such as line crossing and region entrance.

4. Select a search method.
   - When selecting **Camera** as the search type, select a camera from the camera list.
   - When selecting **Task** as the search type, select a task or a behavior analysis server from the task list.
   - When selecting **Rule** as the search type, select a rule from the rule list.

Note

You can enter a key word in the search box (supports fuzzy search) to quickly find the target camera, task, or rule.

5. **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.

6. **Optional:** Select one or more event types from the drop-down list for search.

Note

You can skip this step if you select **Rule** in step 3.

7. Click **Search** to start searching.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.

8. **Optional:** For the searched pictures, you can perform the following operations.

Export Picture	You can export one or more searched pictures. a. Click **Export Picture**. b. Check one or more picture(s), or check **Select All** on the page below. c. Click **Export** to export the selected picture(s) to local PC.
View Capture Details	Click a picture to view its capture details such as captured time and camera name.

Note

You can click to view an enlarged picture.

Play Related Video

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window.

Note

- You can click to view the video in a larger window.
- You can click 1x to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.

12.4 Vehicle Retrieval

For devices that support vehicle retrieval, you can search the related vehicle pictures and videos by setting the search conditions such as plate number and captured time.

Before You Start

Add the device that supports vehicle retrieval to the client and properly configure the corresponding settings. See ***Add Device*** for details about adding the device.

Steps

1. Click **Data Retrieval → Vehicle Retrieval** to enter the vehicle retrieval page.
2. Click to set the start time and end time for search.
3. Select the search type.

   Vehicle

   Search and display the captured vehicle 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.

   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.

   Note

   The camera should support traffic violation.

4. Select a device from the camera list.

Note

You can enter a key word (supports fuzzy search) in the search box to quickly search the target device.

5. **Optional:** Check **Vehicle Features** and select the related vehicle features such as brand and color from drop-down list to search vehicles with specific features.

Note

This function should be supported by the device. For different devices, you can search different vehicle features.

6. **Optional:** Enter the license plate number (support fuzzy search) for search.
7. **Optional:** Set the maximum number of searched results to be displayed.
8. Click **Search** to start searching.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.
9. **Optional:** Perform the following operations if needed.

Export Picture	You can export one or more searched pictures. a. Click **Export Picture**. b. Check one or more picture(s), or check **Select All** on the page below. c. Click **Export** to export the selected picture(s) to local PC.
View Capture Details	Click a picture to view its capture details such as captured time and camera name. **Note** You can click to view an enlarged picture.
Play Related Video	Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window. **Note** • You can click to view the video in a larger window. • You can click 1X to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.
Export Single Record	In the enlarged picture page, click and then click **Export Picture**, **Export Video File** or **Export Details** to export the picture, video file, and capture details of single record to local PC.

12.5 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 hats, and thus to improve builders' safety awareness.

Before You Start

Add the device(s) with hard hat detection function to the client. See ***Add Device*** for details about adding the device.

Steps

1. Click **Data Retrieval → Hard Hat Search** to enter the hard hat search page.
2. Click to set the start time and end time for search.
3. Select the camera for search.

   Note

   You can enter a key word (support fuzzy search) in the search box to quickly search the target camera(s).

4. **Optional:** Enter the person name (supports fuzzy search) for search.

   Note

   This function should be supported by the device.

5. **Optional:** Check one or more face picture libraries for search.

   Note

   This function should be supported by the device.

6. **Optional:** Set the maximum number of searched results to be displayed.
7. Click **Search**.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.

8. **Optional:** Perform the following operations if needed.

Export Picture	You can export one or more searched pictures. 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 Capture Details	Click a picture to view its capture details such as captured time and camera name.

Note

You can click to view an enlarged picture.

Play Related Video

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.

Note

- You can click to view the video in a larger window.
- You can click to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.

12.6 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.

12.6.1 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 allowlist 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.

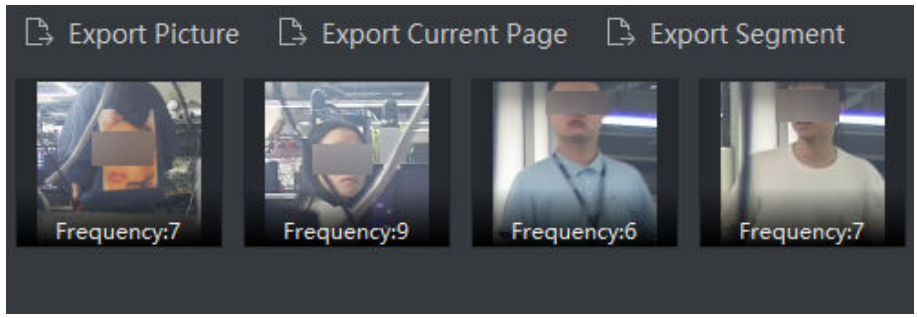


Figure 12-8 Results

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 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.

12.6.2 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.

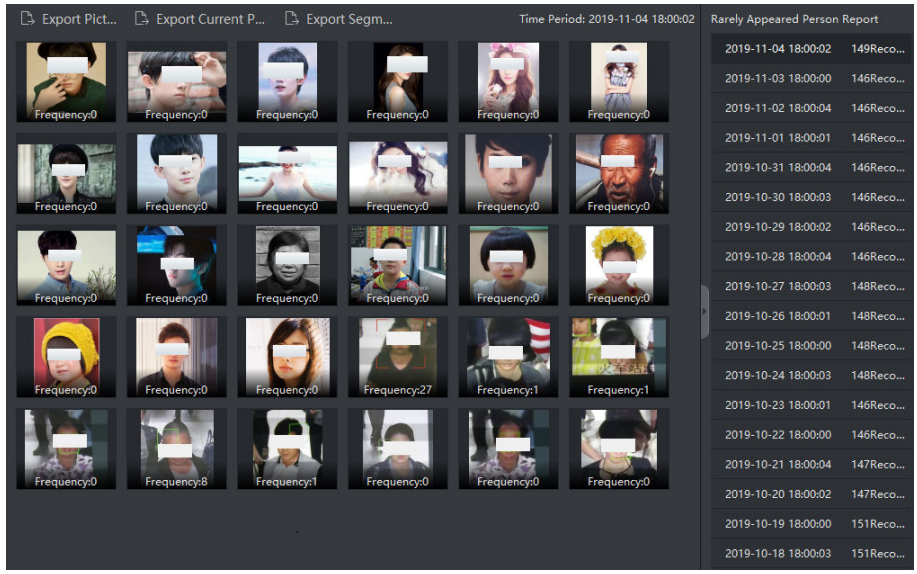


Figure 12-9 Result

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.

12.7 AI Dashboard Retrieval

You can search result for video and captured picture task and imported picture task, to view the detailed information of the task.

Note

The video analysis task is only configured on web client, while picture analysis task can be configured on web client or control client.

12.7.1 Search Analysis Result for Video and Captured Picture Task

You can search result for video and captured picture analysis task, to view the related video and pictures.

Before You Start

Add the device that support AI Dashboard Platform to the platform.

Steps

1. Enter **Data Retrieval** module.
2. Select **AI Dashboard Retrieval**.
3. Click to set the time range for task searching.
4. Select **Video & Capture Analysis Task** as task type.
5. Select the device that has been configured with task.
6. Click **Search**, and the task list will be displayed on the right area.

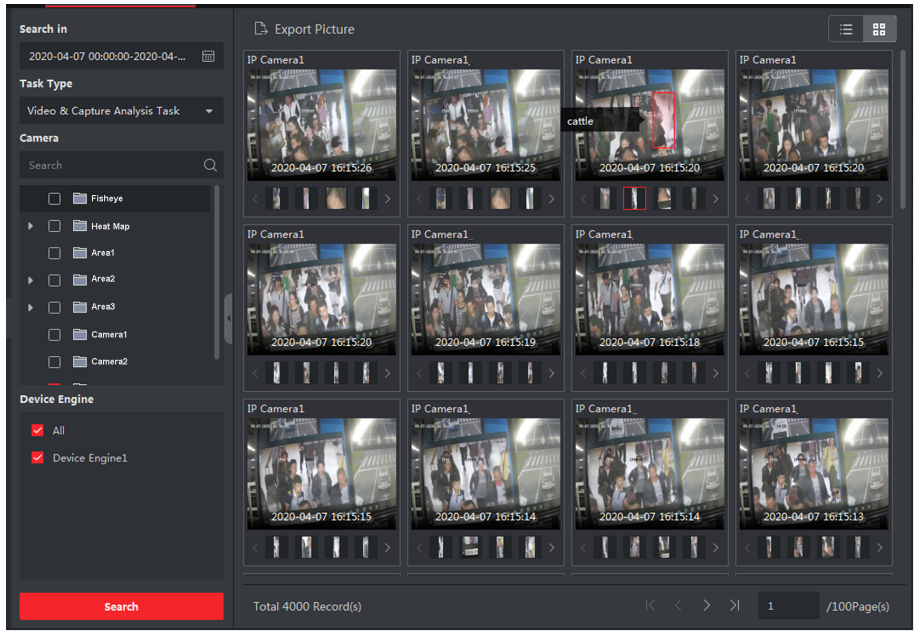


Figure 12-10 Search Analysis Result for Video and Captured Picture Task

Note

If the device has been configured combined rule alarm, the combined rule will displayed on the result.

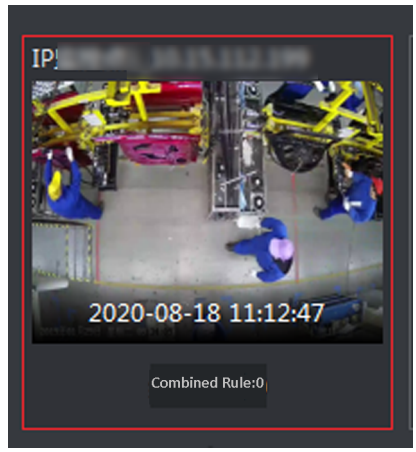


Figure 12-11 Combine Rule Alarm

7. **Optional:** Perform the following operations according to actual requirement.

Export Picture	Select the picture or information record on the right area and then click**Export Picture** to save the picture to the designed path.
View Details	Select one picture or information record and then click it to view the alarm information or video footage.

Note

The video is recorded 5 seconds before or after the capture time. Supports playing, pausing, single frame playing and volume adjusting.

Display Mode	Click or to display the task by thumbnails or by list.

12.7.2 Search Analysis Result for Imported Picture Task

You can search result for imported picture analysis task, to view the related picture files and picture information.

Before You Start

Add the device that support AI Dashboard Platform to the platform.

Steps

1. Enter **Data Retrieval** module.
2. Select **AI Dashboard Retrieval**.
3. Click to set the time range for task searching.
4. Select **Picture Importing Analysis Task** as task type.
5. Select the device that has been configured with task.
6. Click **Search**.

   The task list is displayed on the right area.

7. **Optional:** Perform the following operations according to actual requirement.

Export Picture	Select the picture or information record on the right area and then click**Export Picture** to save the picture to the designed path.
View Picture Details	Select one picture or information record, click it to amplify the picture or tag information (such as vehicle).
Display Mode	Click or to display the task by thumbnails or by list.

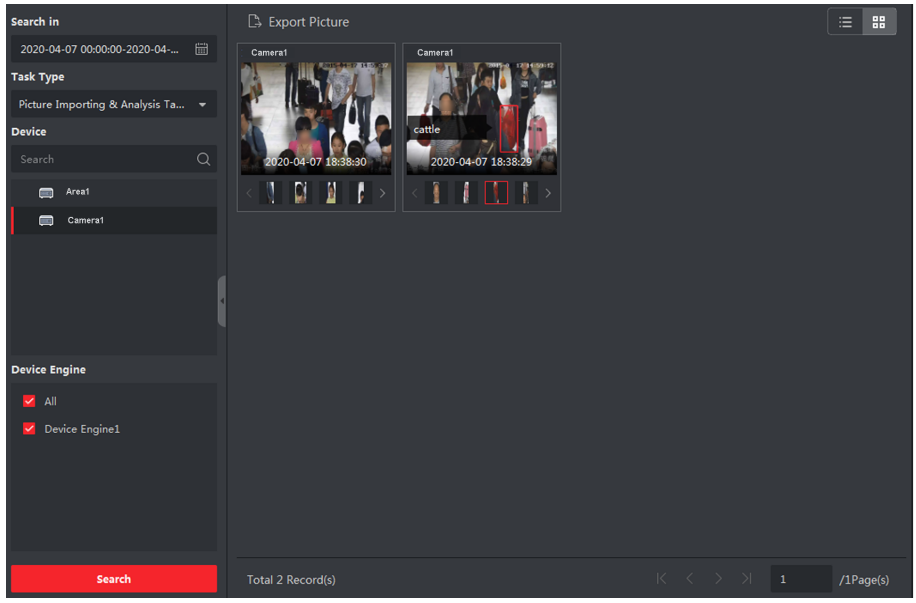


Figure 12-12 Search Analysis Result for Imported Picture Task

12.8 Facial Recognition Check-in

For the device that supports facial recognition, the person can check in on the device by facial recognition. By comparing the recognized face with the face picture library, if matched, the system will record it as a successful face comparison record. If the successful face comparison record is during the check-in period, it will be regarded as a check-in record. Further more, the attendance records can also be calculated based on the successful face comparison records.

According to your requirement, you can search facial recognition check-in records or facial recognition attendance records.

12.8.1 Search Facial Recognition Check-in Records

You can search for the check-in records of the persons who checked in by facial recognition during the specified period and export the data to the local PC.

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

Note

This function should be supported by the connected device.

1. Enter **Data Retrieval → Face Recognition Check-in → Check-In Search** .
2. Click to set the start time and end time for searching.

   Example

   If you need to search the check-in records in march, you can set the time as 2020-03-01--2020-03-31.
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.

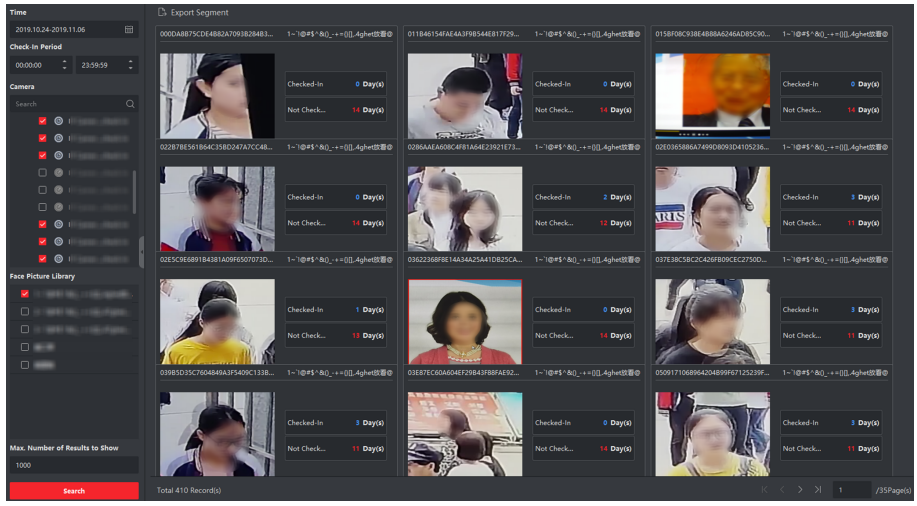


Figure 12-13 Result

8. **Optional:** Click **Export All** in the upper right corner to export the data to local PC.

12.8.2 Search Facial Recognition Attendance Records

You can search the attendance records of the persons who checked in by facial recognition. You can search the daily, monthly, yearly attendance records of the persons who checked in successfully on the face picture library to help you know the attendance status (normal, late, leave early or absent) of the staffs. Attendance status is the result calculated by comparing the check-in period on the search condition with the successful face comparison records (earliest and latest). You can export the attendance records to view the attendance data of the staffs.

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

1. Select **Data Retrieval → Facial Recognition Check-in → Attendance Search** .
2. Set time range of records for searching.

   Example

   If you need to search the attendance records of march, you can set the time as 2020-03-01 - 2020-03-31.
3. Set the **Check-In Period**.

   Example

   If the **Check-in Period** is set as 08:00 - 17:00, the check-in earlier than 08:00 and check-out later than 17:00 will be regarded as normal attendance.
4. Select **Attendance Period** according to the work day.

   Example

   If the weekend is for rest, you can select Monday, Tuesday, Wednesday, Thursday and Friday as **Attendance Period**.
5. Select the camera for facial recognition check-in.

   Note

   You can only select the camera(s) in the same NVR.
6. Select the **Face Picture Library**.

   After selecting the face picture library, only the attendance records of the persons in the library will be searched. You configure the face picture library on the remote configure page of device, or log into the device to configure.
7. Set the Max. Number of Results to show.
8. Click **Search**.

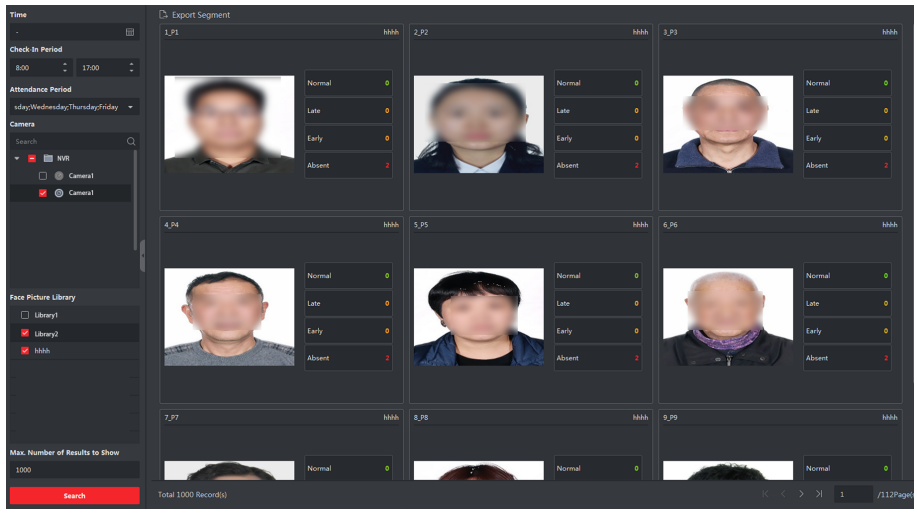


Figure 12-14 Face Recognition Attendance Search

Normal

The earliest check-in record (the earliest facial recognition comparison successful record) should not be later than the check-in start time, while the latest check-out record (the latest facial recognition comparison successful record) should not be earlier than the check-in end time.

For example, if the **Check-in Period** is set as 08:00 - 17:00, the check-in earlier than 08:00 and check-out later than 17:00 will be regarded as normal attendance.

Late

The check-in record (the earliest facial recognition comparison successful record) is later than the check-in start time.

If you set the **Check-in Period** as 08:00- 17:00, the check-in between 08:00-17:00 and check-out later than 17:00 will be regarded as late.

Leave Early

The check-out record (the latest facial recognition comparison successful record) is earlier than the check-in end time.

If you set the **Check-in Period** as 08:00- 17:00, the check-in earlier than 08:00 and check-out between08:00- 17:00 will be regarded as late.

Absent

If no facial recognition comparison successful record is found during the check-in period, the attendance record will be regarded as absent.

The searched results show the attendance records including face picture, face library, name and check-in counts.

9. **Optional:** Click **Export by Segment**, to export the attendance records to the local PC.

12.9 Community Inspection

For the added device that supports community inspection, you can search the captured pictures and the related video file for community related events, including fire engine access detection, elevator detection, and urban management event.

12.9.1 Detect Fire Engine Access

When the added device detects a place (such as the stairway and passage) where the fire engine access is occupied, an event will be triggered, and the device will capture pictures and videos. You can search and view the device's captured pictures and related videos via the client. This can help to remove the objects that occupy the fire engine access and perform rescue operations when a fire happens.

Before You Start
You should have added the device to the client and properly configure the corresponding settings. See ***Add Device*** for details about adding the device.

Steps
1. Click **Data Retrieval → Fire Engine Access Detection** to enter the fire engine access detection page.
2. Click to set the start time and end time for search.
3. Select a camera in the camera list.

   Note

   You can enter a key word (supports fuzzy search) in the search box to quickly find the target camera(s).

4. **Optional:** Set the maximum number of searched results to be displayed.
5. Click **Search** to start searching.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.
6. **Optional:** For the searched pictures, you can perform the following operations.

Export Picture	You can export one or more searched pictures. a. Click **Export Picture**. b. Check one or more picture(s), or check **Select All** on the page below. c. Click **Export** to export the selected picture(s) to local PC.
View Capture Details	Click a picture to view its capture details such as captured time and camera name.

Note

You can click to view an enlarged picture.

Play Related Video

Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window.

Note

- You can click to view the video in a larger window.
- You can click to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.

12.9.2 Detect Elevator

When the added device detects an electric moped entering the elevator, an event will be triggered, and the device will capture pictures and videos. You can view the device's captured pictures and the related video in the client. This can help to ease the loading burden of elevators.

Before You Start

You should have added the device to the client and properly configure the corresponding settings. See ***Add Device*** for details about adding the device.

Steps

1. Click **Data Retrieval → Elevator Detection** to enter the elevator detection page.
2. Click to set the start time and end time for search.
3. Select a camera in the camera list.

   Note

   You can enter a key word (supports fuzzy search) in the search box to quickly find the target camera(s).

4. **Optional:** Set the maximum number of searched results to be displayed.
5. Click **Search** to start searching.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.

6. **Optional:** For the searched pictures, you can perform the following operations.

   Export Picture

   You can export one or more searched pictures.

   a. Click **Export Picture**.
   b. Check one or more picture(s), or check **Select All** on the page below.
   c. Click **Export** to export the selected picture(s) to local PC.

View Capture Details	Click a picture to view its capture details such as captured time and camera name. **Note** You can click to view an enlarged picture.
Play Related Video	Click **Playback** to play the picture's related video file (5s before and 5s after the capture) in the view window. **Note** • You can click to view the video in a larger window. • You can click to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.

12.9.3 Retrieve Urban Management Event

After adding the device that supports urban management analysis, you can search the related events such as unregistered street vendor and packed package in the client. The event details include the captured picture and related video file. It is an intelligent way to help the urban management department to manage environment and improve the overall living quality of the city.

Before You Start

You should have added the device to the client and properly configure the corresponding settings. See ***Add Device*** for details about adding the device.

Steps

1. Click **Data Retrieval → Urban Management Event Retrieval** to enter urban management event retrieval page.
2. Click to set the start time and end time for search.
3. Select a camera in the camera list.

   Note

   You can enter a key word (supports fuzzy search) in the search box to quickly find the target camera(s).

4. Select an event type such as unregistered street vendor and packed package from the drop-down list for search.
5. **Optional:** Set the maximum number of searched results to be displayed.
6. Click **Search** to start searching.

   The captured pictures which meet the search conditions are displayed on the right panel. Up to 30 pictures can be displayed on one page.

7. **Optional:** For the searched pictures, you can perform the following operations.

Export Picture

You can export one or more searched pictures.

a. Click **Export Picture**.
b. Check one or more picture(s), or check **Select All** on the page below.
c. Click **Export** to export the selected picture(s) to local PC.

View Capture Details

Click a picture to view its capture details such as captured time and camera name.

Note

You can click to view an enlarged picture.

Play Related Video

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.

Note

- You can click to view the video in a larger window.
- You can click 1x to adjust the play speed of the playback, click to play back the video file frame by frame, and click to enable audio.

Chapter 13 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, traffic accident alarm, AI open platform to access to third-party applications.

13.1 Face Application

For some devices, such as DeepinMind NVRs, DeepinView cameras, and dual-lens camera, Face Application function provides showing face comparison alarm for the persons in the blocklist, VIP or regular costumers during live view. If the detected face pictures are matched with the persons in the blocklist 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.

13.1.1 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 blocklist, 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.

Blocklist

If the alarm type is set to **Blocklist**, AI dashboard will show the blocklist 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** , AI 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 blocklist nor the VIP can be set to **Normal**. AI dashboard will not show any alarms when the captured face pictures are matched with the ones in the face picture library.

Note

This function should be supported by the device and the face picture library need be configured in the device firstly.

13.1.2 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 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: Blocklist Alarm, VIP Alarm or Regular Customer Alarm.

All Cameras in Live View

If check **All Cameras in Live View**, only the AI 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.

13.1.3 Show AI 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.

Note

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 blocklist alarm 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 blocklist 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 13-1 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 blocklist alarm is triggered, including the captured pictures and alarm details information.

13.2 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.

13.2.1 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.
   - Select **Channel 4** to display four live view windows.
5. Check information to be displayed in the corresponding positions.

Note

- The **Face Arming** function should be supported by the device.
- Up to 2 items can be selected to be displayed on the bottom of the page.

The checked information will be displayed in the following window.

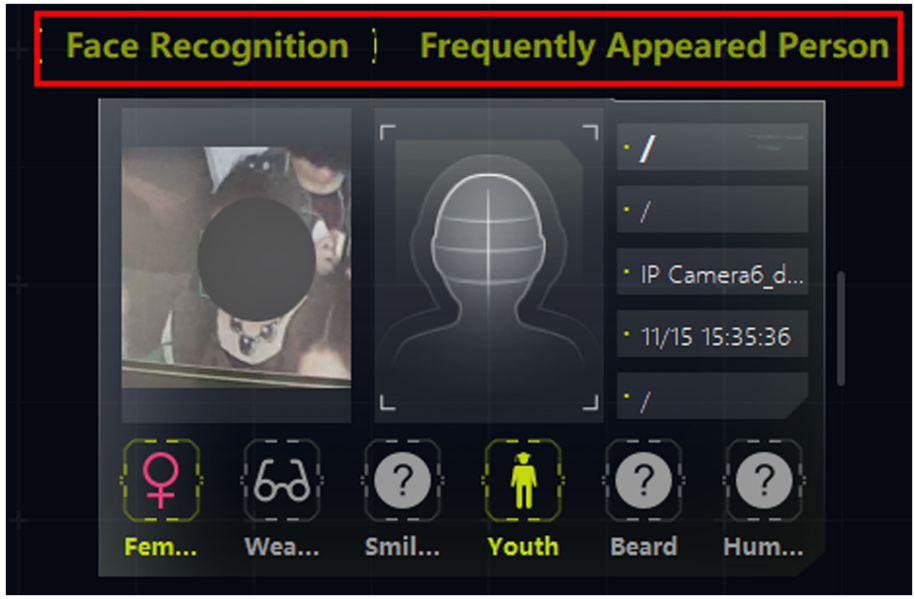


Figure 13-2 Display on Right

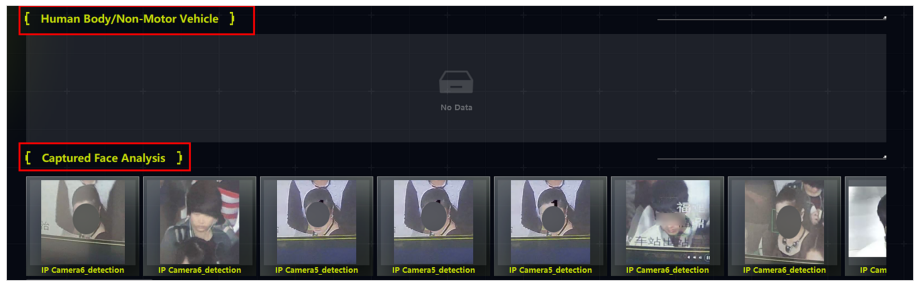


Figure 13-3 Display on Bottom

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.

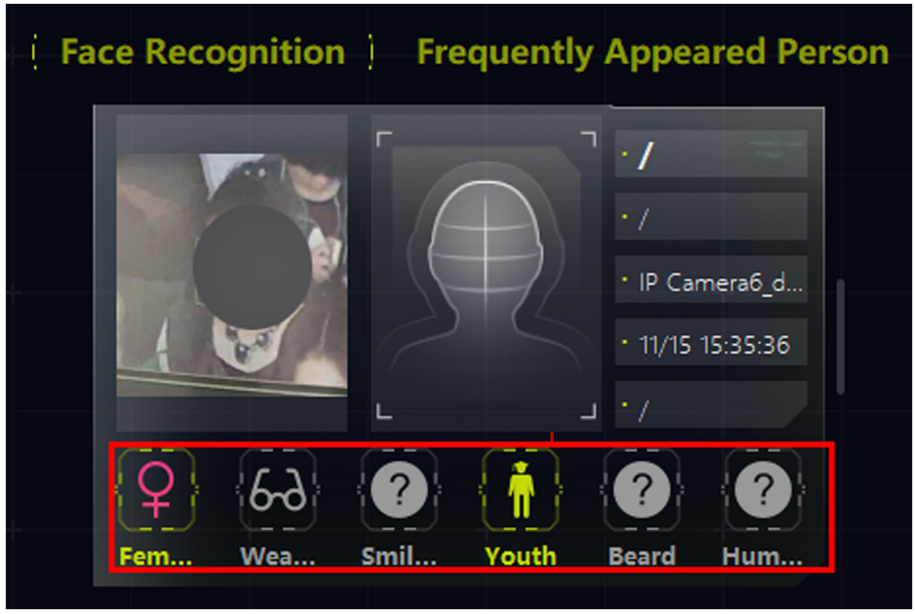


Figure 13-4 Displayed Features

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.

13.2.2 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.

Note

This function needs to be supported by device.

Live View

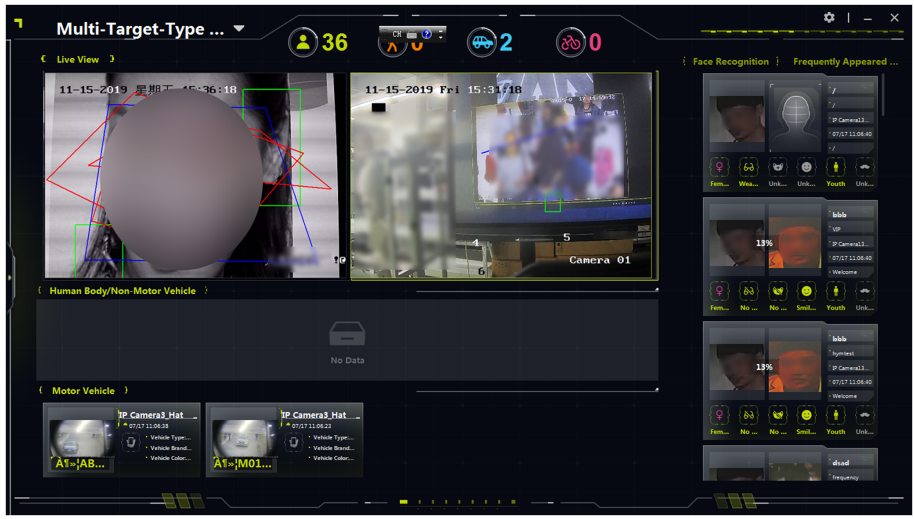


Figure 13-5 Multi-Target Detection Display

Supports displaying live view in single channel mode, dual-channel mode, or 4-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 or face arming 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.

Note

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.

Note

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.

- Display the human features of the detected persons. For example, the person who wears glasses is marked in highlight icon ( ), and the person who does not wear glasses is marked in highlight icon with diagonal ( ), and the undetected feature is marked in gray icon ( ).

13.3 AI Open Platform

AI Open Platform is a software platform that can be accessed to third-party software application, algorithm, etc. By this way, different intelligent objects can be connected by network, and more software developer can work efficiently on this platform.

13.3.1 Configure Platform Parameters

You can add intelligent devices to the client for displaying on the AI Open Platform. On the AI Open Platform, you can get model package, select the cameras to be displayed, set the saving path for picture storage and set the storage mode.

Configure Local Storage

You can select to save the alarm information and pictures to the local path, and set the saving path and storage mode.

Steps

1. Click **AI Dashboard**, and then select **AI Open Platform**.
2. Click on the right-upper corner to open the Local Storage Settings window.
3. Set **Local Storage** to ON.
4. Click the entering box of **Saving Path** to select the saving path.

Note

Make sure the storage space is larger than 2 G, otherwise the pictures can not be stored.

5. Select the **Storage Mode**.

   Overlap Earliest Alarm(Max. 10000 Alarms for Each Channel)

   In this mode, up to 10000 alarms (including pictures) can be stored for each channel, and if the storage space is full, the new alarm and pictures will overlap the earliest alarm.

   Do Not Overlap

   In this mode, up to 10000 alarms (including pictures) can be stored for each channel, and if the storage space is full, the new alarm and picture will not be saved.

6. Click **OK**.

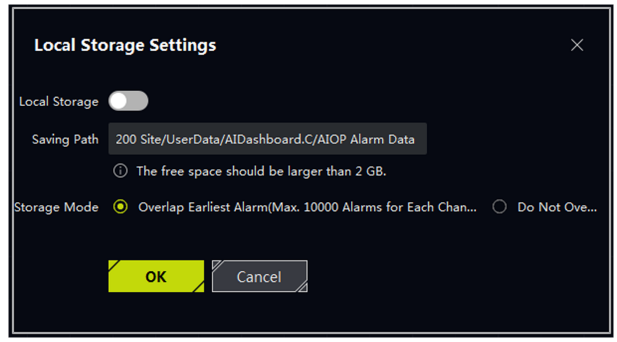


Figure 13-6 Configure Local Storage

Get Model Package

Model package is like a data memory pool, which set the rule and algorithm for the camera to learn and analyze data, to make the alarm information more accurate. The model package can be built by the device. If the model package is modified by the device, you can synchronize the model package from the device, to make the data information accordant.

Steps

1. Click **AI Dashboard**, and then select **AI Open Platform**.
2. Click on the right-upper corner to open the model package selecting window.
3. Check the cameras to get model package from the cameras.
4. Click **OK**.

Set Cameras to Be Displayed

By default, the AI Open Platform receives alarm information from all the cameras. You can set to filter camera(s) for alarm receiving.

Steps

1. Click on the right-upper corner to open the camera(s) selecting window.
2. Check the camera(s) for alarm displaying.
3. Click **OK**.

13.3.2 Analyze Picture Task

AI Open Platform can analyze and recognize objects in the picture(s). The client can obtain the offline picture(s) from the designed path to assign an unique ID for each picture, and apply the picture(s) to the device. The device will analyze the picture(s) and feedback the results(e.g. object classification, attribute) to the client for displaying.

Steps

1. Enter the AI Dashboard.
2. Select AI Open Platform.
3. Click in the right-upper corner of the page.

   The Offline Picture Analysis window is popped up.
4. Set the folder path for storing the offline pictures.

   Note

   Make sure the picture is JPG format, and each picture should be less than 2 MB with high definition (the definition is 64 × 64 or above).
5. Select the **Device** to analyze the offline picture(s).

   Note

   Only the device supporting offline picture analysis function will be displayed in the drop-down list.
6. Select **Device Engine**, which is used for analyzing the model package.
7. **Optional:** Check **Display Alarm Target Frame** to display the frame on the target which is recognized.

   Note

   If you select the **Device Engine** as OCR model package, the **Display Alarm Target Frame** function is gray, and you can not check this function.
8. **Optional:** Set the detection frame for the target to be analyzed, thus to improve the accuracy rate.

   Note

   When the device engine type is a single classification (e.g. engine only for vehicle detection), you can set the detection frame.
9. Click **Start**.

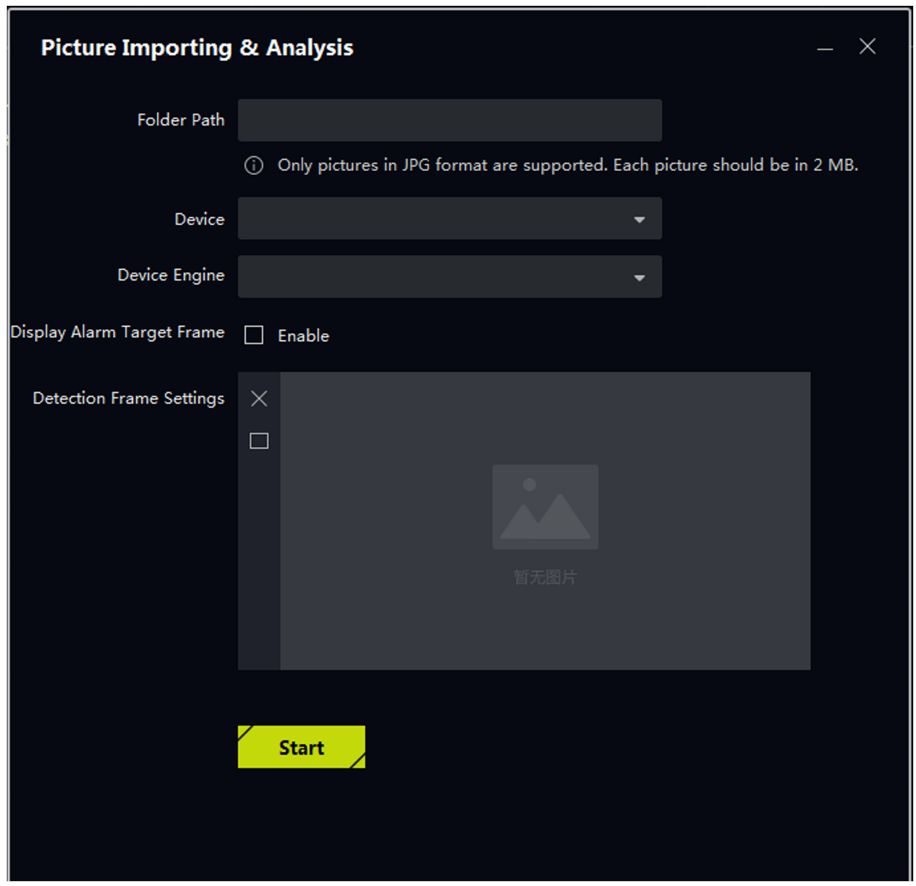


Figure 13-7 Picture Importing and Analysis

13.3.3 AI Platform Real-Time Display

The AI Platform can display the live video of the camera, and display the uploaded pictures and alarm information from the device.

Matched Results Display

On the AI Platform, the surveillance scene is compared with the scene learned by model to generate the result. In the **Matched Results** area, the results are displayed, including alarm pictures, camera information, alarm time, category and detection result. When the object is recognized, you can move the cursor to the object to view the category or detection result, and click the alarm picture to view the details.

Figure 13-8 Matched Results Display

Note

The alarms in the figure above is OCR alarm, which are uploaded to the client when the devices recognize characters in the video. If there are more than 3 characters recognized, only 3 characters are displayed, and you can click to view more character(s) in the next page.

Live View

In the lower-left corner of the page, the live video of the camera is displayed.

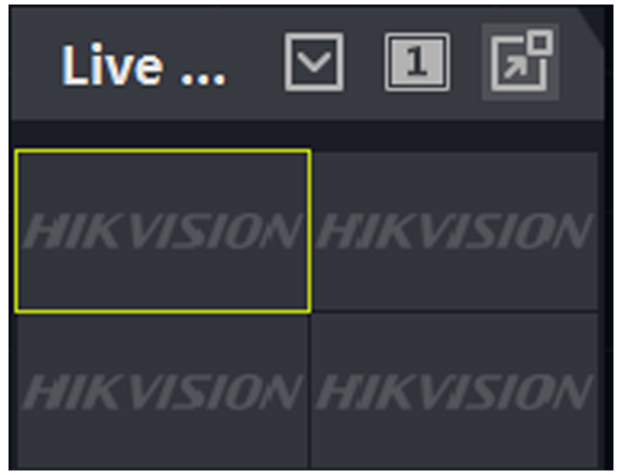


Figure 13-9 Live View in AI Open Platform

Click to switch the window division to 1 window or 4 window.
Click to hide the live view window.
Click to pop up the live view window. After the window is popped up, you can click to display the window in full screen.

13.4 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.

Note

This function needs to be supported by the device.

13.4.1 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.

13.4.2 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 .

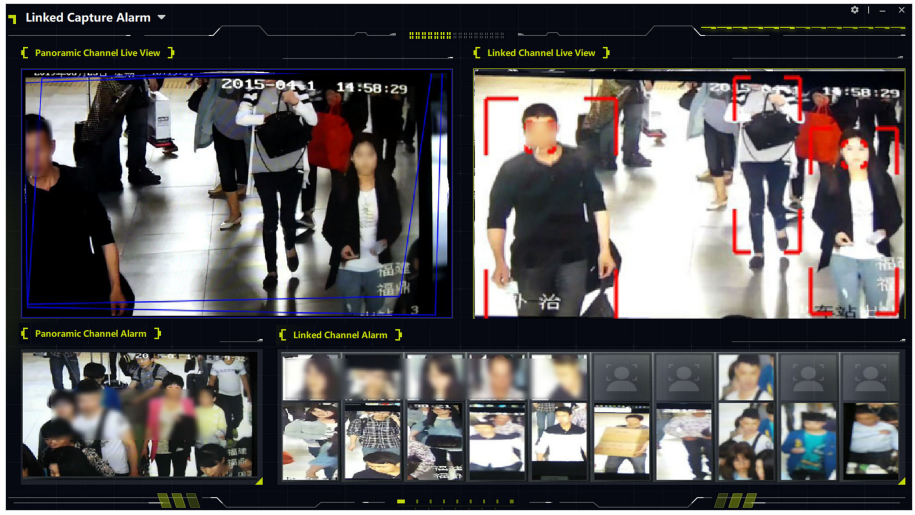


Figure 13-10 View Live View and Alarms

13.5 Traffic Accident Alarm

The intelligent traffic device (e.g. traffic speed dome) can be added to the client for real-time live view of the traffic violations or abnormal traffic events happened on the road. When the camera detects the accident, the camera will capture the picture and upload the picture and accident alarm to the client, which is convenient for the enforcement. The client can display the enforcement alarm, traffic accident alarm and road traffic alarm.

13.5.1 Configure Display Parameter

You can configure the displaying parameters of traffic accident event, which will be displayed on the right panel of the live-view window. If the Save Picture function is enabled, you can double-click the picture to show the original picture. If the Save Picture function is not enabled, you can double-click the picture to show the traffic accident event alarm. Make sure you can configure the traffic accident alarm rule for the traffic device added to the client.

Before You Start

Make sure you can configure the traffic accident alarm rule for the traffic device added to the client.

Steps

1. Select **AI Dashboard → Traffic Accident Alarm** to enter the traffic accident alarm page.
2. Click on the right-upper corner of the page to enter the parameter configuration page.

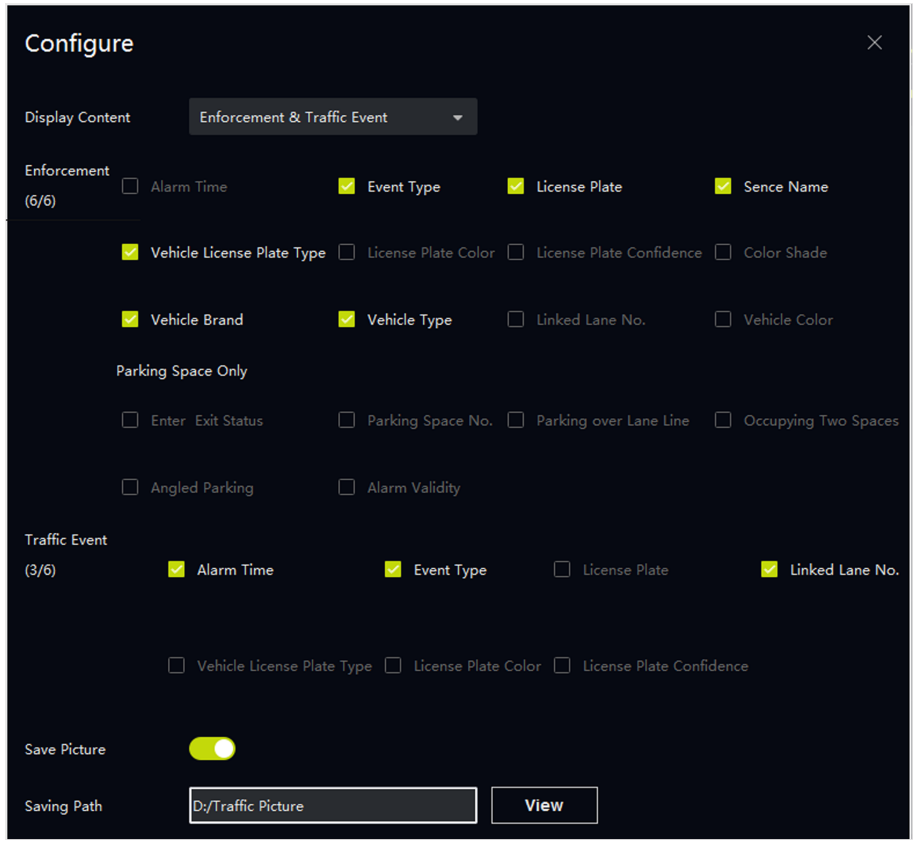


Figure 13-11 Parameter Configuration Page

3. Click the drop-down list, select the **Display Content**, such as Enforcement&Traffic Event.
4. Configure the parameters of the display content.

   Example

   For example, you can select parking over lane line, angled parking for enforcement.

   Note

   Up to 6 items can be selected for displaying.

5. **Optional:** Enable **Save Picture** and set the saving path.
6. Click **Save**.

13.5.2 View Traffic Accident Alarm

On the Traffic Accident Alarm Module, you can view the real-time traffic surveillance view, and receive the alarm information triggered by the traffic device. You can view the surveillance video by 1 channel or 2 channels, and display the enforcement alarms, traffic accident alarms or road alarms from the corresponding camera(s).

Select **AI Dashboard Traffic → Accident Event** to enter the Traffic Accident Event page.

Click on the left of the page to select the cameras for live view.

Live View Window

The live view window display the real-time traffic surveillance video. Click 1 or 2 on the right-lower corner to set the window division. Up to 2 cameras can be viewed simultaneously.

Note

Display live video of 1 or 2 cameras in main stream mode. Stream switch is not supported.

Click or on the right-lower corner of the live window, to manually record the video or capture picture of the camera.

Display Traffic Event

Display the parameters information of traffic event, enforcement or road traffic event information in real-time. Up to 6 parameters can be displayed for each event, such as alarm time, vehicle type, event type, etc.

13.6 Arming and Tracking

For the devices that support arming and tracking, the devices can be configured in a designed order to detect and track the target (human or vehicle), and display the video or captured picture of the target on the client. This is suitable for the situation that the target (human or vehicle) should be continuously tracked. For example, the vehicle with traffic violation can be armed, and then it will be tracked and monitored by multiple cameras.

13.6.1 Vehicle Arming and Control

For the devices that support vehicle arming and control, the vehicle can be armed by license plate number on the device or on the client, and the devices can be installed and configured in a

designed order to detect the armed vehicle and track this vehicle. When the first camera detects this vehicle (the recognized license plate number matches the armed one), the vehicle will be continuously tracked by the other cameras in the designed order, and the related videos and recognized license plate number will be displayed on the client to track this vehicle continuously.

Before You Start

Make sure the devices support vehicle arming and control.

Steps

1. Enter the AI Dashboard module, and then select **Arming and Control** to enter the Arming and Control module.
2. Click to switch to **Vehicle**.
3. Click to open the Configure window.
4. Click **Add Device** to add the devices to be armed.
5. Click / in the Operation column to adjust the order of the devices to be armed.
6. **Optional:** Click **Add License Plate** in the License Plate sheet to add the license plate number of the vehicle(s) to be armed.

   Note

   - The vehicle can be armed both on the device and on the client. Only the vehicle that is not armed on the device should be armed here on the client.
   - Up to 100 license plate number can be added for arming.
   - Only the license plate number added in the latest time will be armed and take effect.

7. **Optional:** For the license plate number that do not need to be armed, click in the Operation column to delete it.
8. Click to arm the devices.

   The videos of the detected vehicle will be displayed.

   The license plate number of the detected vehicle is displayed in the right-upper corner of the middle window.

Figure 13-13 Vehicle Arming and Control

Note

- The video of the camera which detects the vehicle recently is always displayed in the middle window of the page. The previous video will be switched to the left by one window.
- For example, when camera1 recognizes the vehicle for the first time, the video of camera1 is displayed in the middle window. When camera2 recognizes the vehicle, the video of camera2 is displayed in the middle window, and the video of camera1 will be switched to the left window. When camera3 recognizes the vehicle, the video of camera3 is displayed in the middle window, the video of camera2 will be switched to the left window, the video of camera1 will be switched to the right window.

9. **Optional:** Click to switch the view to the following video.
10. **Optional:** Click to switch the view to the previous video.
11. **Optional:** If you want to disarm the device, click to disarm the device.

13.6.2 Face/Human Body Arming and Control

For the devices that support face/human body arming and control, the person can be armed on the devices and the devices can be installed and configured in a designed order to detect the person and track the person. When the first camera detects this person (the facial picture or human body picture captured by the device matches the armed one), the person will be continuously tracked by the other cameras in the designed order, and the related videos and comparison result (captured picture and armed picture) will be displayed on the client to track this person continuously.

Before You Start

Make sure the devices support arming and control, and the related face picture or human body picture are correctly armed on the device. For details, refer to the user manual of the device.

Steps

1. Enter the AI Dashboard module, and then select **Arming and Control** to enter the Arming and Control module.
2. Click to switch to **Face/Human Body**.
3. Click to open the Configure window.
4. Click **Add Device** to add the devices to be armed.
5. Click / in the Operation column to adjust the order of the devices to be armed.

   The videos of the detected person will be displayed on the middle window and right window.

   The comparison result (the captured facial picture, the armed picture and similarity) will be displayed on the left window.

Figure 13-14 Face/Human Body Arming and Control

Note

The video of the camera which detect the person recently is always displayed in the middle window of the page. The previous video will be switched to the right window.

6. **Optional:** Click to switch the view to the following video.
7. **Optional:** Click to switch the view to the previous video.

13.7 Skin-Surface Temperature

In some special scene, you can supervise the human body's skin-surface temperature. When the Client receives alarm information of abnormal skin-surface temperature or no mask, it will trigger the linkage of alarm audio or pop-up window. This is suitable for the scene that requires people wearing mask and skin-temperature measurement.

Note

The function should be supported by the devices.

13.7.1 Display Skin-Surface Temperature

In the Skin-Surface Temperature page, you can view the persons in the live view, and get the statistic number of the persons whose temperature are abnormal, normal and the persons do not wear mask. You can also view the alarm information of the face picture comparison, temperature measurement picture, face capture alarm, and the historical captured face pictures.

Click **AI Dashboard → Skin-Surface Temperature** to enter the Skin-Surface Temperature page. Start live view in the Skin-Surface Temperature page.

- Click on the left panel and double-click the camera to display the live video of the camera.
- Click on the left panel, and then click on the right side of the camera to display the live video of the camera.

Figure 13-15 Skin-Surface Temperature Page

13.7.2 Skin-Surface Temperature Information Display

In the Skin-Surface Temperature page, you can select the alarm types (face comparison alarm, temperature measurement picture and face capture alarm) to be displayed on the right area. The statistic number of persons are displayed on the top of the page. The captured face pictures are displayed on the bottom of the page. You can set the audio linkage file for received alarms.

Enable Information Display

You can select the alarm types (face comparison alarm, temperature measurement picture and face capture alarm) to be displayed on the Client. The alarm types are distinguished by different color.

1. In the Skin-Surface Temperature page, click to select the alarm type(s) to be displayed.

   Face Comparison Alarm

After enabled, the captured face picture and the comparison picture in the face picture library will be displayed, as well as the related classification (e.g. person name, stranger or unrecognized) in the library. Click **View Details** to view the detailed person information, including person name, gender, ID No., etc.

Temperature Measurement Picture

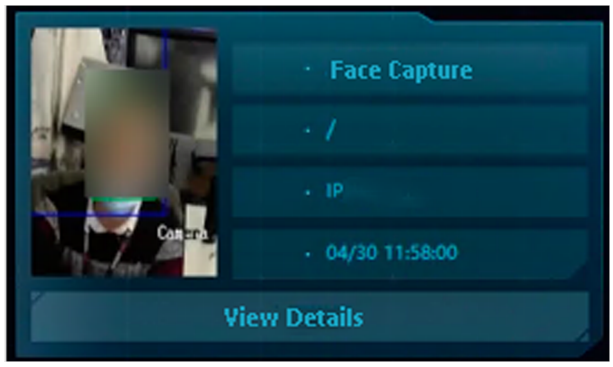
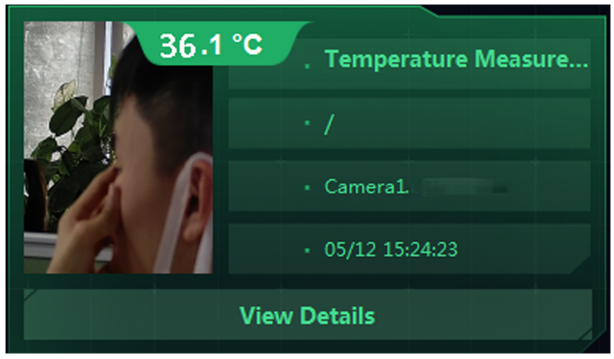
After enabled, the measured temperature will be displayed on the captured face picture, and the alarm is distinguished as normal or abnormal by different color.

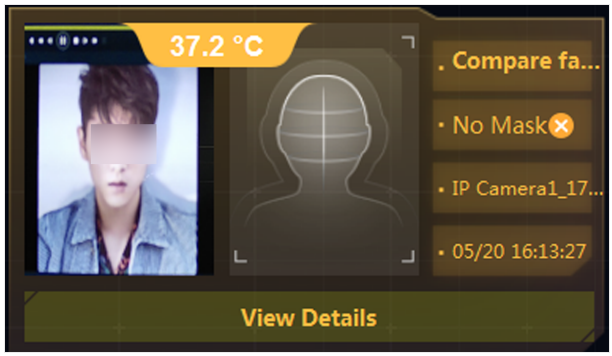
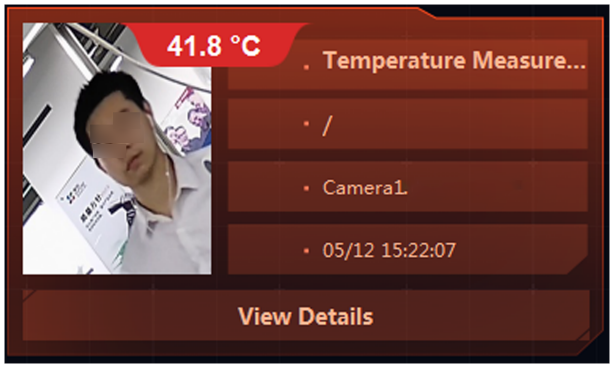
Face Picture Alarm

Display the captured face picture detected in the detection area.

2. Set **Display** switch to ON to display the event information in the right area.

Table 13-1 Descriptions of Different Color

Picture	Description
	Blue indicates no temperature information. Blue is displayed in the following cases: - No skin-surface temperature information + wear mask - No skin-surface temperature information + the mask attribute is not detected by the device
	Green indicates the person is normal temperature. Green is displayed in the following cases: - Normal skin-surface temperature + wear mask - Normal skin-surface temperature + the mask attribute is not detected by the device

Picture	Description
	Yellow indicates the person does not wear mask. Yellow is displayed in the following cases: - No mask + normal skin-surface temperature - No mask + the device does not support temperature measurement function.
	Red indicates the person's skin-surface temperature is abnormal. Red is displayed in the following cases: - Abnormal skin-surface temperature + wear mask - Abnormal skin-surface temperature + no mask - Abnormal skin-surface temperature + the mask attribute is not detected by the device **Note** The threshold of the skin-surface temperature abnormal can be set on the device.

Statistic Number of Persons

In the Skin-Surface Temperature page, the Client calculate the number of persons based on the received alarms, to get the number of passing persons, the number of persons whose skin-temperature are abnormal and the number of persons who do not wear mask.

Note

Turn the **Display** switch to ON to get the real-time statistic number of persons.

- All: the total number of alarms received in the Skin-Surface Temperature page.
- Abnormal: the number of persons whose skin-temperature are abnormal. When a camera detects a person whose skin-temperature is abnormal, it will trigger the alarm of abnormal temperature, and the number of Abnormal and All will be added by 1.

- No Mask: the number of persons in the live view who do not wear mask. When a camera detects a person who does not wear mask, it will trigger the alarm of no mask, and the number of No Mask and All will be added by 1.
- Normal: the number of persons in the live view whose skin-temperature is normal. When a camera detects a person whose skin-temperature is normal, it will trigger the alarm of normal temperature, and the number of Normal and All will be added by 1.

Captured Face Pictures Display

On the bottom of the Skin-Surface Temperature page, the captured face pictures can be displayed in real-time.

Note

- Turn the **Display** switch to ON to receive and display the captured face pictures in real-time.
- The displayed pictures are the captured face pictures for the face comparison alarm, temperature measurement alarm or face capture alarm. Make sure at least one alarm is selected by clicking .

Drag the slider under the captured face pictures to view the previous captured face pictures.
On the bottom of the captured face picture, click to add the face picture to the face picture library and enter the person information.

Audio Linkage Settings

You can set audio linkage file(s) for the received alarms.

1. Click on the upper-right corner of the Skin-Surface Temperature page.
2. Set the switch(es) to ON to enable audio linkage for different alarms.

   Note

   By default, audio linkages of all the alarms (no mask, normal temperature, abnormal temperature) are enabled.
3. Click to select the audio file in .wav format to modify the audio file.

   Note

   Upload the audio file to the designed path of the Client. In **Audio Configuration** window, click to view the designed path of the Client.

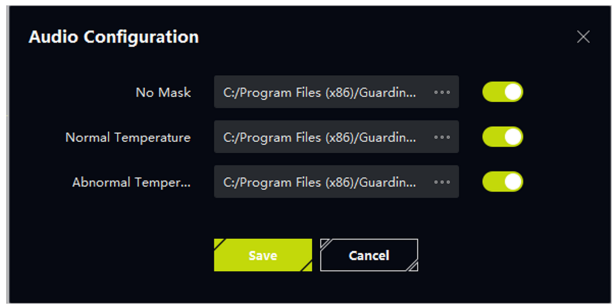


Figure 13-16 Audio Configuration

13.7.3 View Alarm Information

When the devices detect alarm of abnormal skin-surface temperature or no mask, it will trigger alarm pop-up window to display the alarm information. Besides, the duration of window pop-up can be set, which can help you to flexibly control the duration of viewing the alarm information.

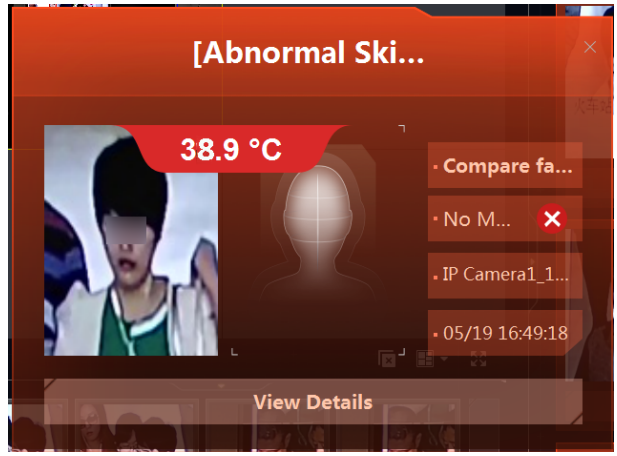


Figure 13-17 Alarm Pop-up Window

No Mask

The alarm window pops up to show the captured face picture of the person who does not wear mask.

Abnormal Temperature

The alarm window pops up to show the captured face picture of the person whose skin-surface temperature is abnormal.

Note

The priority of abnormal temperature alarm is higher than the priority of no mask alarm. If No Mask and Abnormal Temperature are both enabled, when the client receives the alarm of no

mask and abnormal temperature, the abnormal temperature alarm window will pop up and the audio of abnormal temperature (if enabled. Refer to for details.) will be played.

Note

- Before viewing alarm information, make sure enabling receiving alarm information. For details, refer to ***Enable Receiving Event from Devices*** .
- Before receiving alarm window pop-up, make sure enabling alarm pop-up window.
  In the skin-surface temperature page, click on the upper-right corner to pop up the window of **Alarm Pop-up Window** to set the configuration.

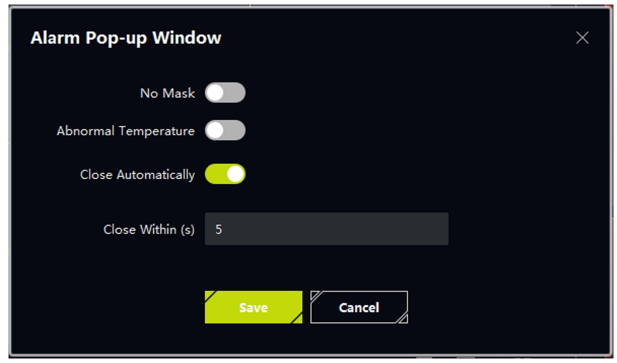


Figure 13-18 Alarm Pop-up Window Configuration

13.8 Behavior Analysis

The behavior analysis server can be added to the client to display the analysis results of multiple analysis tasks. The following analysis tasks are supported: perimeter prevention related alarms (e.g. line crossing detection, intrusion detection, parking detection), street behavior related alarms (e.g. , getting up detection, climbing alarm), indoor behavior related alarms (e.g. in-toliet overtime, absence detection), and people density analysis, etc. The analysis results (alarms) will be displayed.

Enter the AI Dashboard module, and then select **Behavior Analysis** to enter the Behavior Analysis page. In the task list, double-click the task, or select and drag the task to the live view window, and the video of the task will be displayed in the live view window.

The people density analysis results are displayed by 3 parts in the same window. The live video is displayed in the upper-left part of the window. The heat map of the video is displayed in the upper-right part of the window. The number of people is displayed in the bottom part of the window in real time.

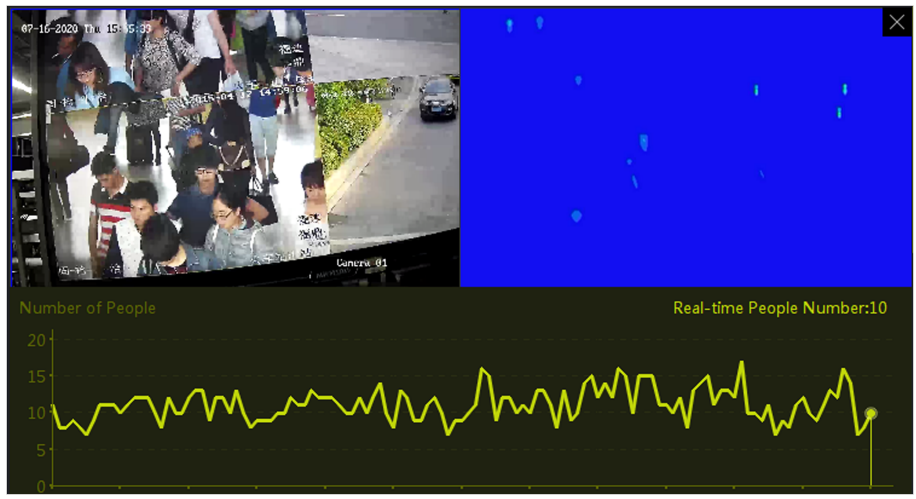


Figure 13-19 People Density Analysis Task Display

For the other tasks (not people density analysis task), only the task related video is displayed in the window.

Figure 13-20 Other Analysis Task Display

- Click the view and then click **Capture** to capture the picture of current video.
- Click the view and then click **Start Recording** to record the video.

Note

The video is saved in the path that is configured in the System Settings module. For details about setting the path to save video, refer to ***Set File Saving Path*** .

- Click to end the live view of the video.
- Click to change the window division of the video. Up to 6 windows are supported to be viewed simultaneously.
- Click to view the video in full screen.

13.9 Behavior Analysis Overview

When the behavior analysis server detects events, the client can receive the events from the server. The client can calculate the number of different events, the event time distribution and risk assessment (the total number of events and frequently-occurred events of different tasks), and display the statistic data in the same page, to help you get a overview of the behavior events. For example, if one event was mainly detected in a certain time period, you can investigate the reason in that time period and adopt measures to solve the problem.

Set Filter Conditions

Enter the AI Dashboard module, and then select **Event Dashboard** to enter the Event Dashboard module. Click to set the filter condition as follows:

Device

Select the behavior analysis server to display its events statistic data.

Note

Only the behavior analysis server can be selected here.

Event Type

Select the event(s) to be calculated and displayed.

Statistic Time

Display the statistic data of the events in last 7 days or last 31 days.

Refresh Frequency

Get the statistic data of the events from the devices every 0.5 hour or 1 hour.

Behavior Analysis Overview

Figure 13-21 Behavior Analysis Overview

Event Counting

In the bar chart, display the number of different events in bar chart. You can view the event that happened a lot and mainly investigate the reason that caused this event.

Event Time

In the line chart, display the time distribution of different events in last 7 days or 31 days. You can view the date that the events happened a lot and mainly investigate the reason that caused the events in this date.

Risk Assessment

In the list, display the total number of events and frequently occurred events of different tasks.

Chapter 14 Security Control Panel

The Security Control Panel module provides remote control and configuration of the partitions and zones via the client software.

Note

For the users with security control panel permissions, they can enter the Security Control Panel module to manage the security control panel and real-time alarm. For setting the user permission of Security Control Panel module, refer to ***Add User*** .

14.1 Flow Chart

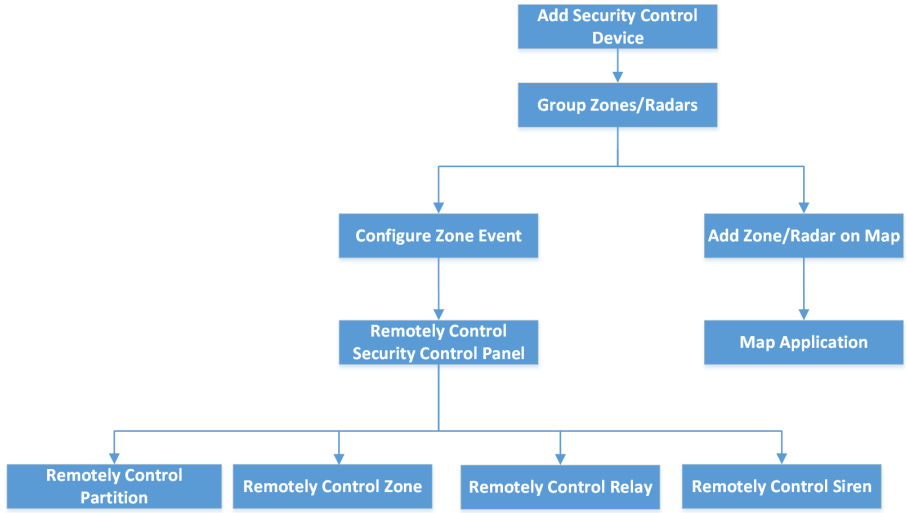


Figure 14-1 Flow Chart of Security Control Panel

- **Add Security Control Device**: You can add security control devices on the client. For more details, refer to ***Add Device*** .
- **Group Zones/Radars**: You can group the added zones/radars into groups for convenient management. For more details, refer to ***Group Management*** .
- **Configure Zone Event**: By configuring linked actions of zone event on the client, you will be notified once the event is triggered. For more details, refer to ***Configure Client Linkage for Zone Event*** .
- **Remotely Control Security Panel**: You can remotely security control panel, including partition, zone, relay, and siren. For more details, refer to ***Remotely Control Security Control Panel*** .
- **Add Zone/Radar on Map**: You can add zone/radar to the map as hotspots. For more details, refer to ***Add Zone as Hot Spot*** and .
- **Map Application**: You can locate the resources, view alarm information and perform related control. Refer to ***Map Management*** .

14.2 Configure Security Control Panel Remotely

After adding security control panel to the client, you can go to the remote configuration page to configure related parameters of the device via the client. For the device added by Cloud P2P, if the second verification is enabled, you need to enter the user name and password of the device for remote configuration. It is widely used for the batch device maintenance scenario. For example, the installer can log in via Cloud P2P account and remotely maintain the devices of the end user.

Steps

1. Select **Device Management → Device → Device** .
2. Select the added security control panel, and click on Operation column.
3. **Optional:** For the device with the second verification enabled, enter the user name and password of the device, and click **OK**.

Result

The remote configuration page will be displayed.

14.3 Configure Client Linkage for Zone Event

Even if you are far away from a zone, you can still know what happens and how urgent the event is in a zone by configuring linked actions of zone event on the client. You will be notified on the client once an event is triggered, so that you can response to the event instantly. You can also configure client actions of multiple zones in a batch at a time.

Before You Start

- Make sure you have added a security control panel.
- Make sure zones have been defined beforehand.
- Make sure events have been configured beforehand.

Steps

1. Click **Event Configuration → Alarm Event** .
2. Expand the zone list of a security control panel, and then select a zone from the list.
3. Check one or more event.
4. Click **Edit Linkage** to configure client actions.

   Audible Warning

   The client software gives an audible warning when an event is triggered. You can select the alarm sound for audible warning.

   Note

   Click **Add** to enter the alarm sound name and select a sound in your PC. For details, refer to ***Set Alarm Sound*** .

   Send Email

Send an email 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, captured pictures of the linked camera, process record, and process field) on the software client when the event is triggered.

Display on Map

When the event source is added as a hot spot on the map, the hot spot will be displayed with red number (indicates the number of events, and the maximum number is 10) aside when the event is triggered, which helps the security guard to 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 (s).

Linked Camera

Link the selected camera(s) to capture picture when the zone event is triggered.

Select the camera(s) in the drop-down list.

Note

Up to 4 cameras can be selected as the linked cameras for a zone event.

5. **Optional:** Click **Edit Priority** to set event priority as Uncatergorized/Low/Medium/High.
6. **Optional:** Click **Copy to...** to copy the event settings (including event priority, triggered client actions, and enabling/disabling the event) to other zones.
7. Configure linkage camera and linkage PTZ.

Note

- The linked camera will turn to the selected preset or perform the selected patrol or pattern when an alarm is triggered in the radar's detection area.
- This function needs to be supported by the device.

1) Check cameras in the linked camera list.
2) Switch the **Linkage PTZ** on to enable the function.

   The cameras linked to the radar displayed below.
3) Select a camera and select **Preset**/**Patrol**/**Pattern** from the drop-down list on the right.

   The **Preset**/**Patrol**/**Pattern** list is displayed.

   Note

   Make sure you have configured presets, patrols, or patterns for the camera.
4) Select a preset, patrol, or pattern.

8. Click **OK**.
9. **Optional:** Enable or disable client actions for zone event.
   - Click **Enable All** or **Disable All** to enable or disable client actions of all zone events.

- Switch **Enable** to ON/OFF to enable or disable client actions of one zone event.

Enable Client Actions

When client actions are enabled, client actions will be triggered when client receives zone event.

Disable Client Actions

When client actions are disabled, client actions will not work and actions will not be triggered when client receives zone event.

10. Click **Save**.

14.4 Remotely Control Security Control Panel

After adding the security control panel to the client, you can remotely control the partitions, zones, relays, and sirens of security control panel via the client software. For instance, you can arm, disarm, bypass, group bypass, etc. for both partitions and zones, and you can enable or disable relays.

Note

- The displayed interface is subject to the types of added security control panels.
- By default, axiom hub device uses HTTP port, and it does not support private ports.

14.4.1 Remotely Control Partitions

You can perform operations remotely on security control panel's partitions using the client such as away arming, stay arming, instant arming, disarming, clearing alarm, group bypass, and recovering group bypass.

Steps

Note

- The supported functions are subject to the added devices.
- If a zone of a partition does not work, you should bypass it before arming/disarming the partition, and then recover bypass when the zone works.

1. Enter **Security Control Panel** module.

2. Select a security control panel and click **Partition**.

The name, status, arming status and linked zone of the partitions will be displayed in the list.

3. Select one or multiple partitions and click the following button(s).

Away Arming

An arming mode that works when all persons are absent from the monitored region. When away arming is enabled, all zones of the partition work properly.

Stay Arming

An arming mode that works when persons stay in the monitored region. When stay arming is enabled, zones inside of the region are armed while zones outside of the region will be bypassed where you can move in the zones without triggering any event.

Instant Arming

After arming a partition, its zone will alarm instantly when an event is triggered.

Disarming

All the zones (except 24-hour zones) in the partitions does not work any more after clicking, so that no event will be triggered in the disarmed zones.

Note

24-hour zones (e.g. 24-hour annunciating zones, 24-hour silent alarm zone, etc.) still can detect events and then alarm even if the partition is disarmed.

Clear Alarm

Stop the alarming of alarming devices.

Group Bypass

Bypass all the zones in one or more partition so that no event will be triggered in the bypassed zones before group bypass recovery.

Note

You should disarm the partition before bypassing it.

Group Bypass Recovery

Recover a group bypass to make all the zones in a partition work, so that you can arm the group.

14.4.2 Remotely Control Zones

You can use the client to remotely control the security control panel's zones including bypassing and recovering bypass.

Steps

1. Enter **Security Control Panel** module.
2. Select a security control panel and click **Partition**.

   The name, status, arming status and linked zone of the partitions will be displayed in the list .
3. Click to open the Zone Operation panel.

   The zones linked with the partition, zone No., zone name, zone status, zone alarm status, battery will be displayed.

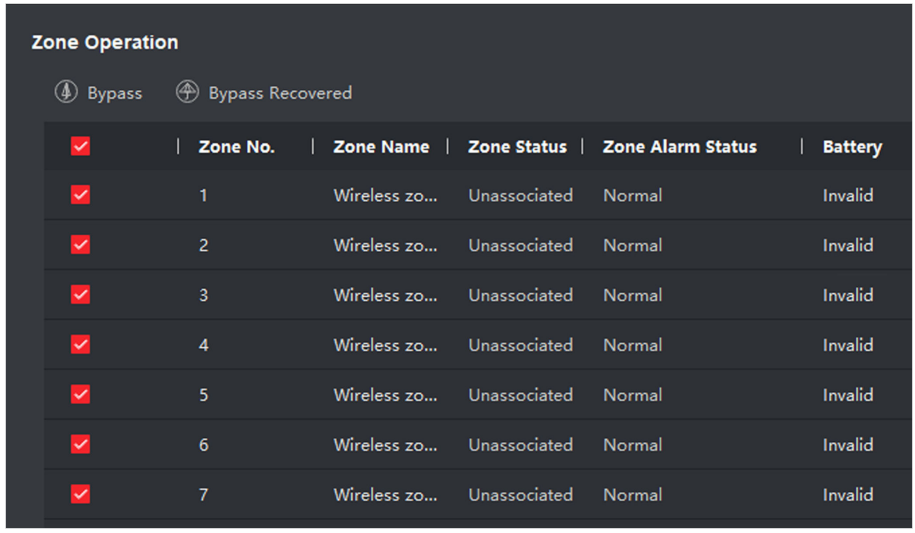


Figure 14-2 Zone Operation

Zone Status

Zone status can be unassociated, armed, disarmed, fault, shield, tamper-proof, etc.

Battery

The power of a zone's detector.

4. Check one or more zone in the list and click the following buttons.

Bypass

When a zone is bypassed, no event will be triggered in the zone, and you are not allowed to arm or disarm the zone, while other zones can be armed or disarmed.

Note

You should disarm the zone before bypassing it.

Bypass Recovery

After recovering bypass for a zone, you can arm it.

14.4.3 Remotely Control Relay

You can use the client to remotely change the on/off status of relay, and view the linked event of the relay.

Steps

1. Enter **Security Control Panel** module.
2. Select a security control panel, and then click **Relay**.

   The name, status, and linked event of the relay will be displayed.
3. Check one or multiple relays and click **Open** or **Close**.

Note

For Axiom Hub, you should set the **Relay Associated Event** as **Manual Control** in Device Management module.

14.4.4 Remotely Control Siren

You can control the siren status via the client remotely, including open and close. When the status of the siren is open, the detected alarm will trigger the alarm sound on the siren.

Enter **Security Control Panel** module, select a security control panel , and click **Siren** tab. Select one or multiple sirens, click **Open** or **Close** to open or close the sirens.

Chapter 15 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

1. Enter the Log Search module.
2. Click to specify the start time and end time.

   Note

   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 16 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.

16.1 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

Note

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.

   Caution

   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 accounts can be added for the client software.

After created user account successfully, the user account is added to the user list on the Account Management page.

8. **Optional:** Perform 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**.

Note

You cannot delete the super user.

16.2 Change User'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.

Steps

1. Enter the User Management module.
2. Select the user need to be change password, click **Change**.
3. **Optional:** Enter the old password.

Note

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 17 System Configuration

17.1 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.

Date Format / Time Format

The display style of date and time on related pages.

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.

Note

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**.

17.2 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.

Note

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**.

17.3 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**.

Note

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

Select **D3D9** or **D3D11** 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.

Note

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**.

17.4 Set Picture Storage

The captured pictures triggered by the events on the devices, can be saved in the PC running the iVMS-4200 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 service will show.
4. Select the disk to save the pictures.

Note

The default saving path is: Disk/iVMS-4200alarmPicture

5. Click **Save**.

17.5 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 for a testing of the audio file.
6. **Optional:** Click in the Operation column to delete the custom sound.
7. Click **Save**.

Note

The format of the audio file can only be WAV.

17.6 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**.

17.7 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 17-1 Icons on Live View Toolbar

	Stop Live View	Stop the live view in the display window.
	Capture	Capture the picture in the live view process. The capture picture is stored in the PC.
	Record	Start manual recording. The video file is stored in the PC.
	PTZ Control	Start PTZ mode for speed dome. Click and drag in the view to perform the PTZ control.
	Two-way Audio	Start the two-way audio with the device in live view.
	Digital Zoom	Enable the digital zoom function. Click again to disable the function.
	Instant Playback	Switch to the instant playback mode.
	Remote Configuration	Open the remote configuration page of the camera in live view.

Table 17-2 Icons on Playback Toolbar

	Capture	Capture the picture in the live view process. The capture picture is stored in the PC.
	Record	Start manual recording. The video file is stored in the PC.
	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.
	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**.

17.8 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

Note

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.

   Note

   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.

17.9 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**.

17.10 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.

17.10.1 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.

Note

The certificate file is in XML format.

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*** .

17.10.2 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.

Note

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.

17.10.3 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

The device certificate is not required if you enable transmission encryption when adding device. And the device will be added with transmission encryption.

Chapter 18 Operation and Maintenance

You can perform maintaining operations in the menu to ensure a smooth and convenient usage of the client.

In the upper-right corner of the client, click → **File** → **System** → **Tool** , and 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.

Broadcast

Check one or more devices to enable the broadcast function of the devices.

Batch Wiper Control

Batch turn on/off the wiper.

1 VS 1 Face Comparison

Select two face pictures from the local PC for comparison. The similarity between the two pictures will be shown.

Note

This function can be used for identity verification and should be supported by the DeepinMind device.

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:

Note

You should disable **Auto-Change Stream Type** beforehand.

- 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**.

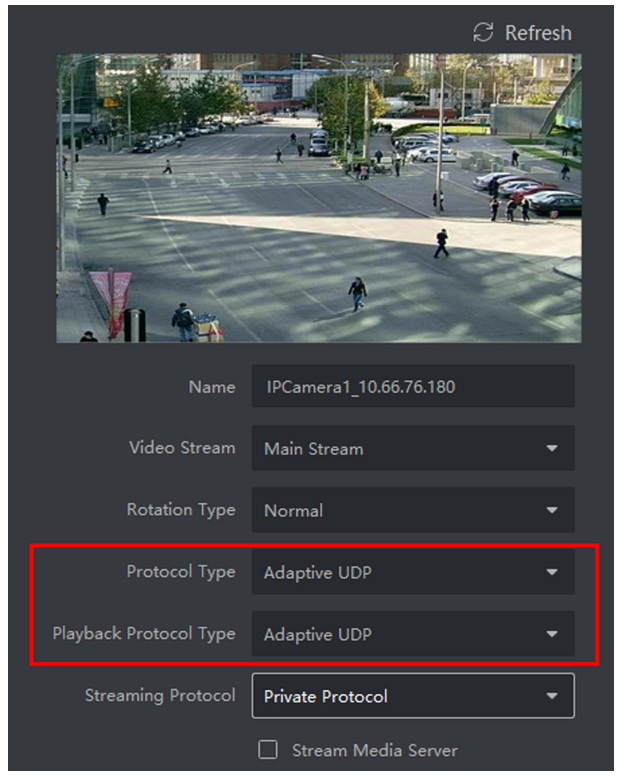


Figure B-1 Set Protocol Type

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

- 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** .

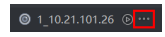


Figure B-2 Select Stream Type

  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		

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.


See Far, Go Further