

# **AI Network Camera**

## **Web Operation Guide**

**ISSUE**

**V 1.1**

**DATE**

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# About This Document

## Purpose

This document describes how to use the web management system, including network access, network configuration, and troubleshooting.






## Intended Audience

This document is intended for:

- Technical support engineers
- Maintenance engineers
- IP camera operators

## Symbol Conventions

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

Symbol	Description
 <b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 <b>NOTICE</b>	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.
 <b>NOTE</b>	Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environmental deterioration.

## Update Version

Version	Update Time	Description
V1.0	02/2023	Support Local Server and no plugin to play live video.

Version	Update Time	Description
V1.1	02/2024	Add home setting. Add multi-camera settings Add fisheye settings Add heat map settings Updated the description

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# 1 Quick Start

## 1.1 Login and Logout



### CAUTION

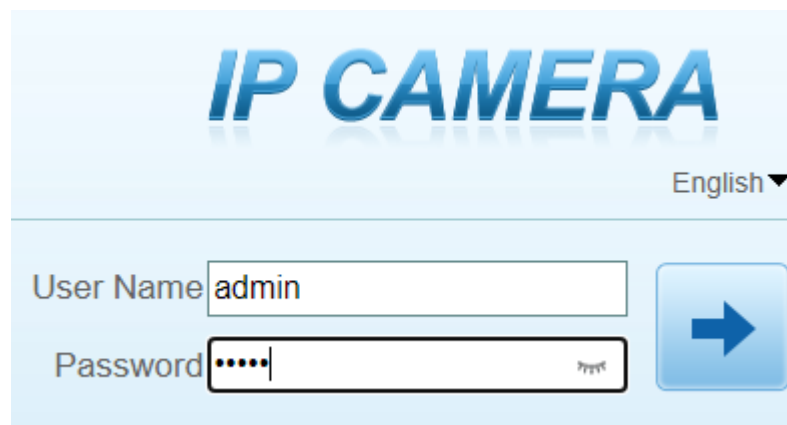
To access the web interface through Microsoft Edge, Chrome or Firefox browser; Otherwise some functions may be unavailable.

### Login

Step 1 Open Chrome browser, enter the IP address of the IP camera (default value: 192.168.0.120) in the address box, and click on the **Enter** button.

The login page is displayed, as shown in Figure 1-1.

Figure 1-1 Login page



Step 2 Enter the user name and password.



### NOTE

The default name and password are both admin. Modify the password when you login the system for first time to ensure system security.

After modifying password, you need to wait at least three minutes then power off to make sure modify it successfully. Or login the Web again to test the new password.


You can change the system display language on the login page.

Step 3 Click  to enter the interface.

The homepage is displayed.

---End

### Logout

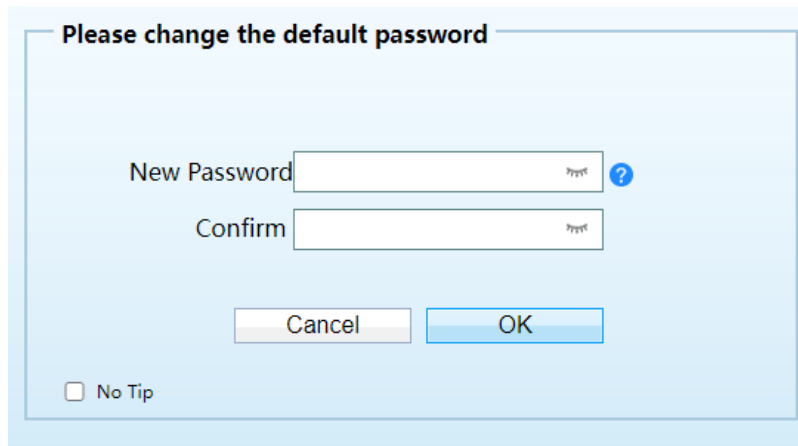
Click  in the upper right to return to login page.

## 1.2 Change the Password

### Description

For the first login, prompt interface to change password is as shown in Figure 1-2.

Figure 1-2 Change the default password page



The dialog box has a light blue background and a title bar that reads "Please change the default password". It contains two text input fields: "New Password" and "Confirm". Both fields have a small eye icon to the right, indicating they are hidden. A blue question mark icon is positioned to the right of the "New Password" field. Below the input fields are two buttons: "Cancel" and "OK". At the bottom left, there is a checkbox labeled "No Tip".


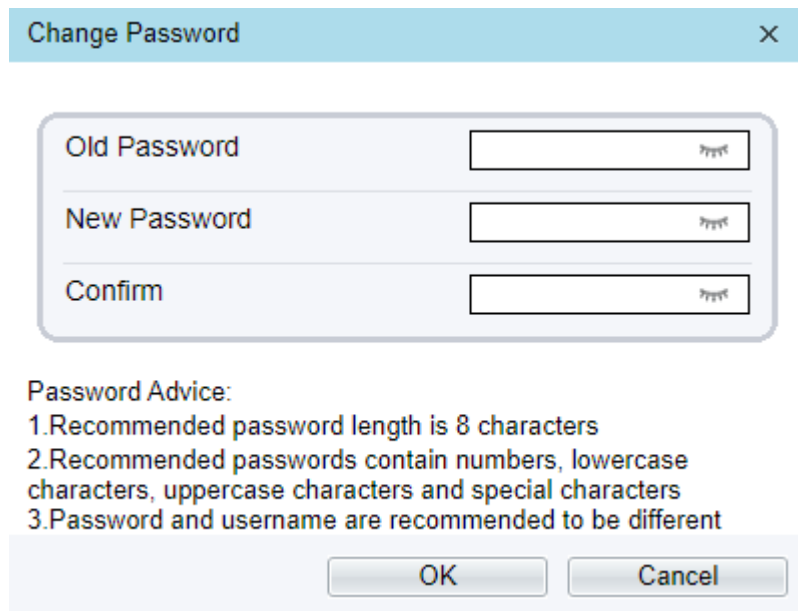
Or click  to change the password to login the system, as show in Figure 1-3.

Figure 1-3 Change password dialog box



The dialog box has a light blue title bar with the text "Change Password" and a close button (X). It contains three text input fields: "Old Password", "New Password", and "Confirm". Each field has a small eye icon to the right, indicating they are hidden. Below the input fields is a section titled "Password Advice:" with three numbered items:  
1. Recommended password length is 8 characters  
2. Recommended passwords contain numbers, lowercase characters, uppercase characters and special characters  
3. Password and username are recommended to be different  
At the bottom are two buttons: "OK" and "Cancel".

### Procedure

Step 1 Input the old password, new password, and confirm password.

Step 2 Click **OK**.

If the message " Change your password success!" pops up, the password is successfully changed. If the password fails to be changed, there will be some tips for changing password. (For example, the new password length couldn't be less than eight.).

It is advised to restart the device three minutes later after modifying password.

Step 3 Click **OK**.

The login page is displayed.

## 1.3 Browse Real-Time Videos

### Download IPC Local Server

If you want to play H.265 encoded video, you should download the latest IPC Local Server, as shown in Figure 1-4, when you login to the web management system for the first time.

Figure 1-4 Download the plugin page

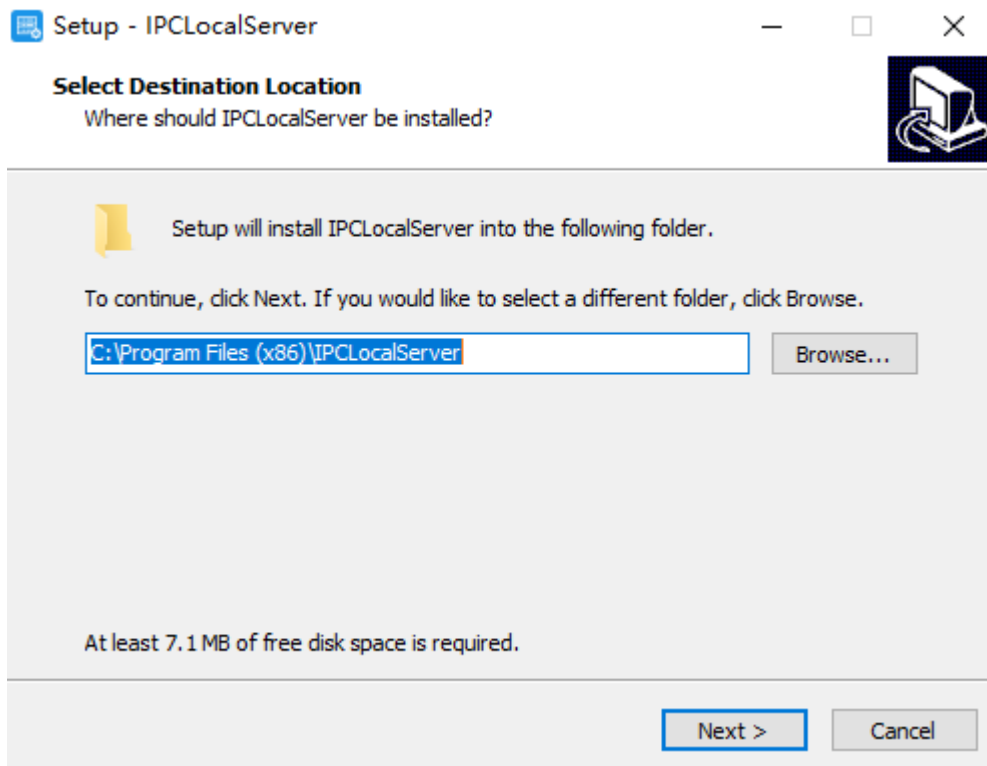


Step 2 Click “ Please download the latest plugin”, download the IPC Local Server plugin.

Step 3 Open the download file to complete installation.

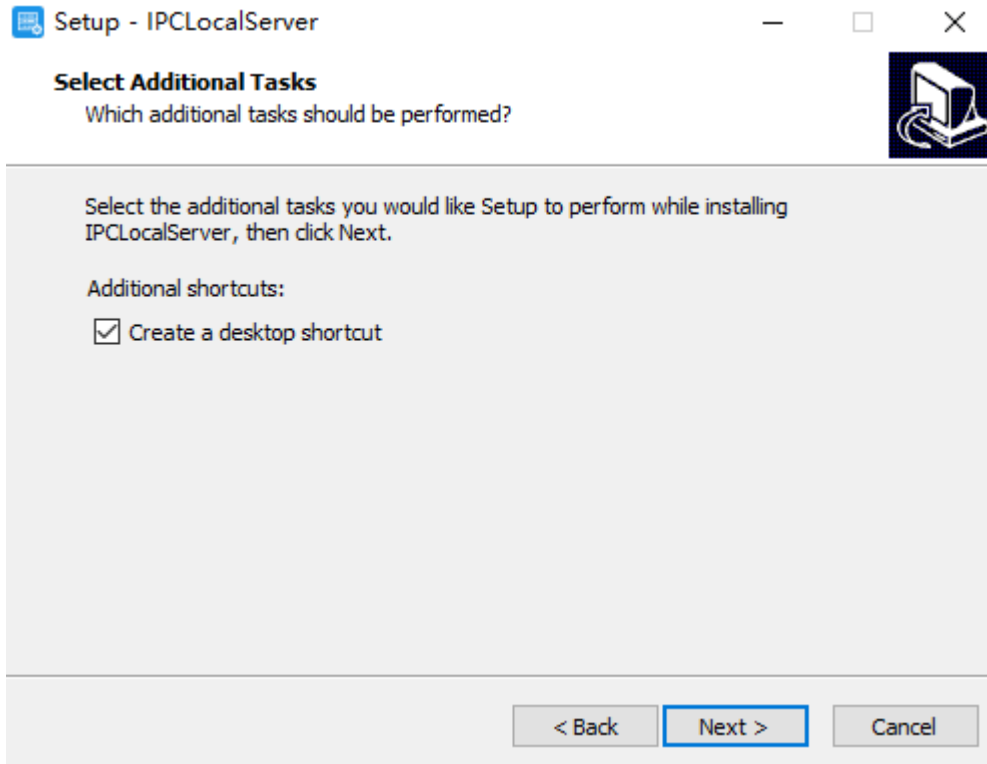
Step 4 Click “Run”, select destination location as shown in Figure 1-5.

Figure 1-5 Select destination location



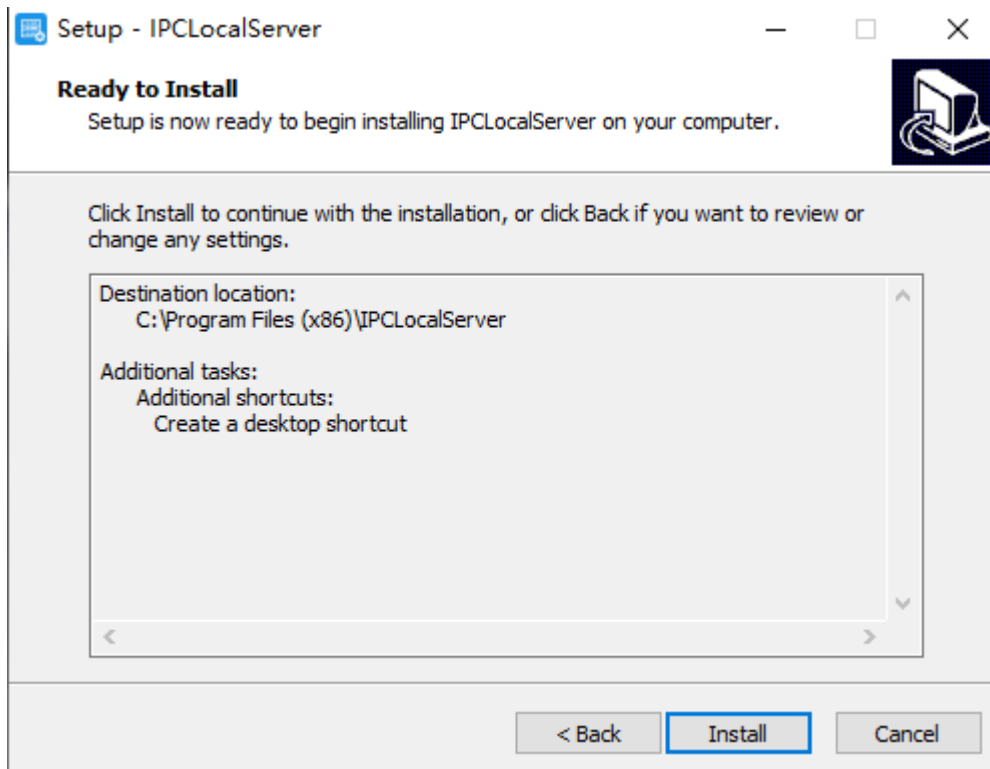
Step 5 Click “Next”, ready to install the plugin, as shown in Figure 1-6.

Figure 1-6 Select additional tasks



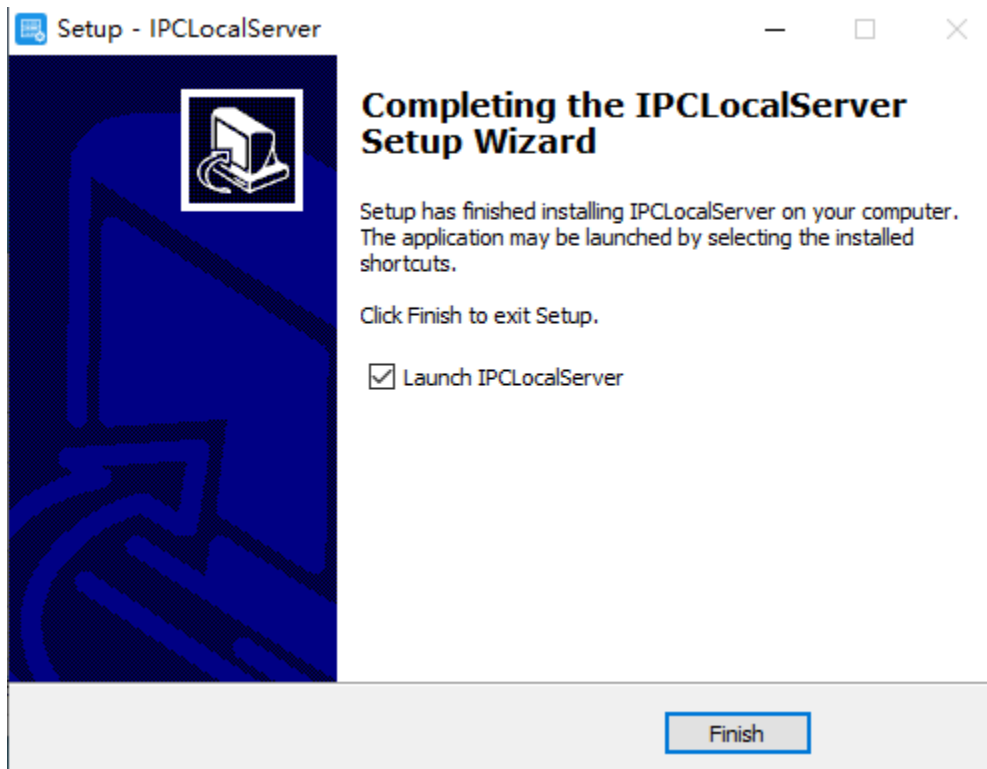
Step 6 Tick “Create a desktop shortcut”, Click “Next” to install the plugin, as shown in Figure 1-7.

Figure 1-7 Installing



Step 7 Click “Finish” , complete plugin installation, as shown in Figure 1-8.

Figure 1-8 Complete to install the plugin



Step 8 Reopen the browser after installing.

 **NOTE**

If the repair tips displayed when installing the control, please ignore the prompt, and continue the installation.

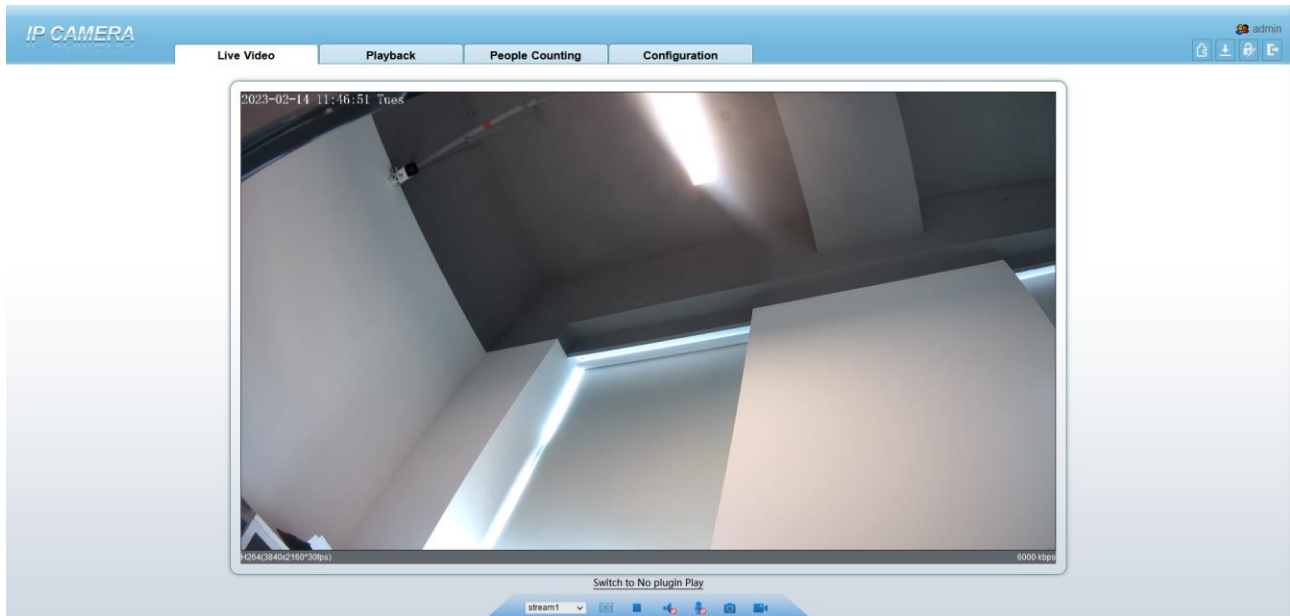
During the plugin installing, the browser should be closed.

----End

## Description


To browse real-time videos, click **Live Video**. The **Live Video** page is displayed, as shown in Figure 1-9.

Figure 1-9 Live video page



On the **Live Video** page, you can perform the following operations:

Click  to stop playing a video.


Click  to play a video.


Double-click in the video area to enter the full-screen mode, and double-click again to exit.

Configure the PTZ. For details, see [Configure the PTZ](#).

Control the PTZ. For details, see [Controlling the PTZ](#).

Switch between three modes. For more details about how to configure streams, see [3.2 Video and Audio Stream](#).

Click  to snapshot and save the photos.

Click  to enable the local record.

#### **NOTE**

AI interface is supplied for some models.

## 1.4 Homepage Layout

On the homepage, you can view real-time videos, receive alarm and fault notifications, set parameters, change the password, and log out of the system. Figure 1-10 shows the homepage layout. Table 1-1 describes the elements on the homepage.

Figure 1-10 Homepage layout

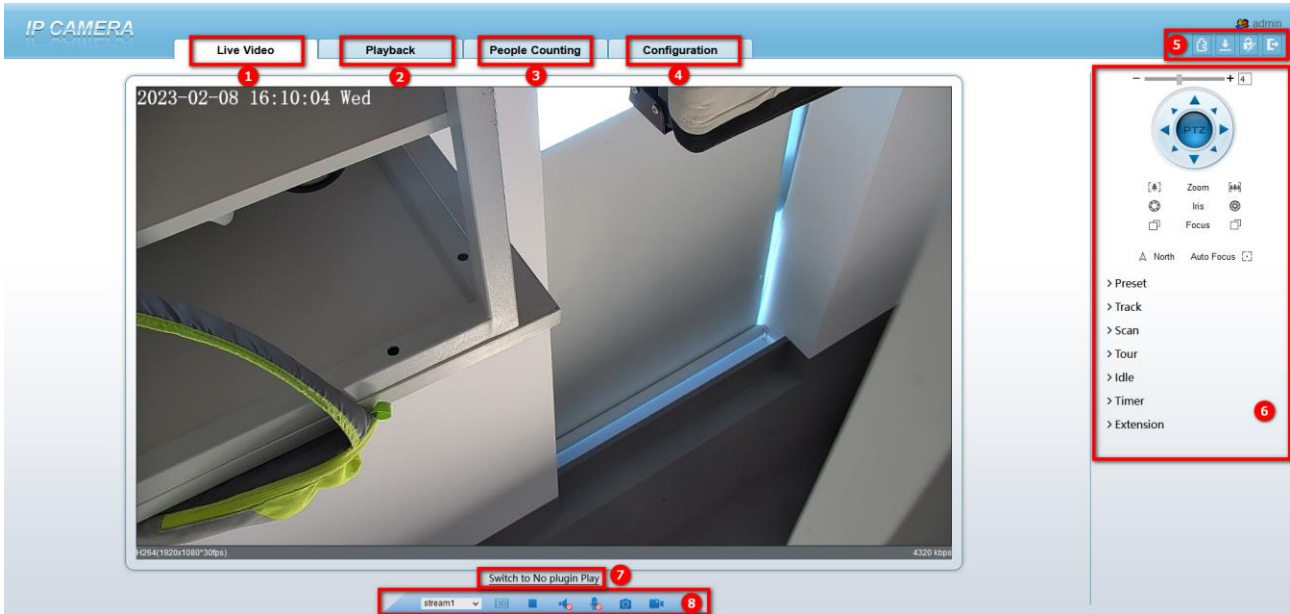







Table 1-1 Elements on the homepage

No.	Element	Description
1	Live Video	Real-time videos are played in this page.
2	Playback	You can query the playback videos in this area. NOTE Only when the SD card or NAS has videos can you query the playback videos.
3	People Counting	Set the query condition to query the personnel count, the statistical can be shown in different types, such as line chart, histogram, list, for more detail information please refer to chapter 1.6 . Only for Some Models.
4	Configuration	You can choose a menu to set device parameters, including the device information, audio and video streams, alarm setting, privacy mask function and so on.
5		When the device accepts an alarm signal, the alarm icon will display within 10s in the web management system. The alarm icon  is displayed. You can click  to view the alarm information.
		Help of intercom <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"><p>About the intercom function: <span style="float: right;">×</span></p><p>Description: Configure only Chrome browser in the HTTP environment, compatible with all browsers in HTTPS environments</p><p>HTTP Environment Chrome Opens the intercom step:</p><ol style="list-style-type: none"><li>1.Chrome Enter 'chrome://flags/#unsafely-treat-insecure-origin-as-secure' in the address bar</li><li>2.Set 'INSECURE Origins Treated as Secure' to 'Enabled'</li><li>3.Fill in the device domain name in the input box, multiple devices named ',' separation; example 'http://192.168.0.123, http://192.168.0.123: 8045'</li></ol></div>
		Download the latest plugin IPC Local Server.



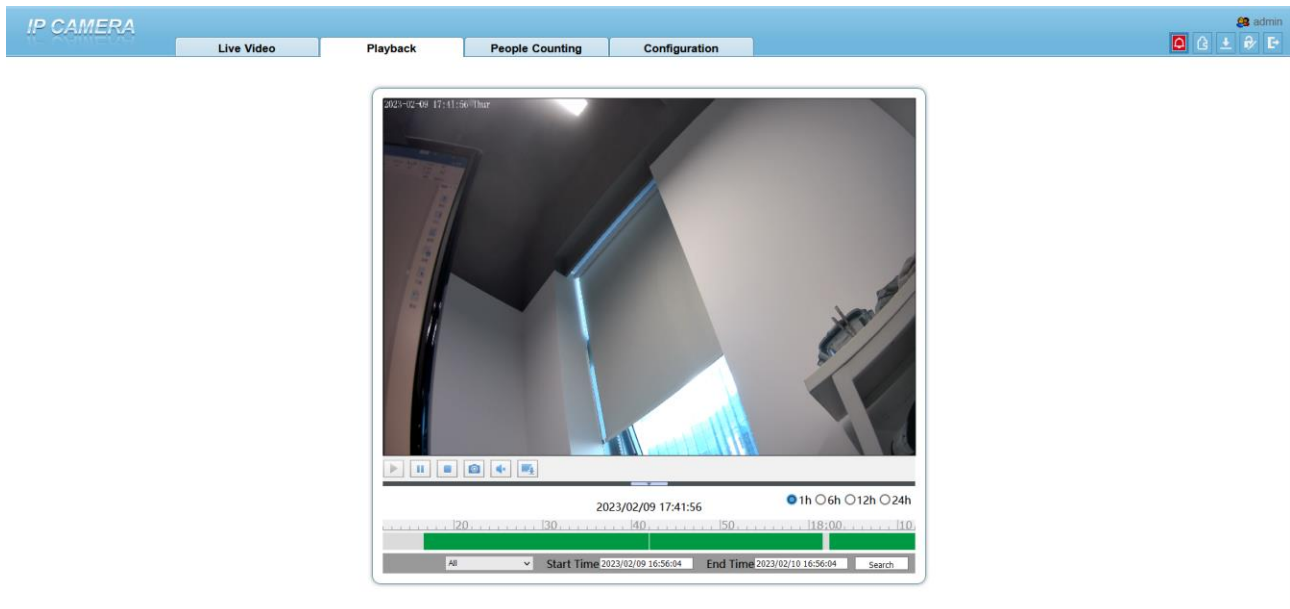
The face frame will show the snapshot of human face.


The plate frame will show the snapshot of license plate.

## 1.5 Playback

Click “Playback” at web interface, if users install SD card, and there are videos in SD card, click “Playback” and the playback video will show as in Figure 1-12.



Figure 1-12 Playback page










: Play, click “speaker” to switch sound on or off.

: Pause.

: Stop.

 : Frame back / Frame play.

      : Fast forward, user can choose the different speed to play.

: Snapshot, click the icon to snapshot current interface


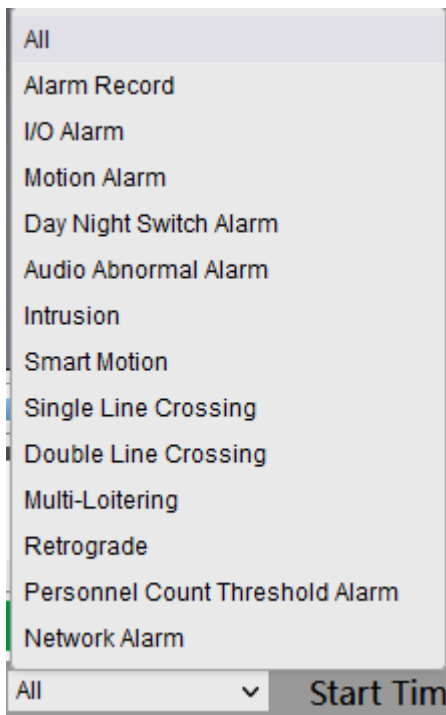
: Backup, click the icon to start backup, drag the bar to download recording quickly, click the icon again to end up. The pop-up window of tip as shown in Figure 1-13, click the save to save the video. Click **Cancel** to abandon.

Figure 1-13 Record backup tip

**Tip**

Media Type	Mp4
Start Time	<input type="text" value="2023/02/09 17:44:29"/>
End Time	<input type="text" value="2023/02/09 17:45:16"/>



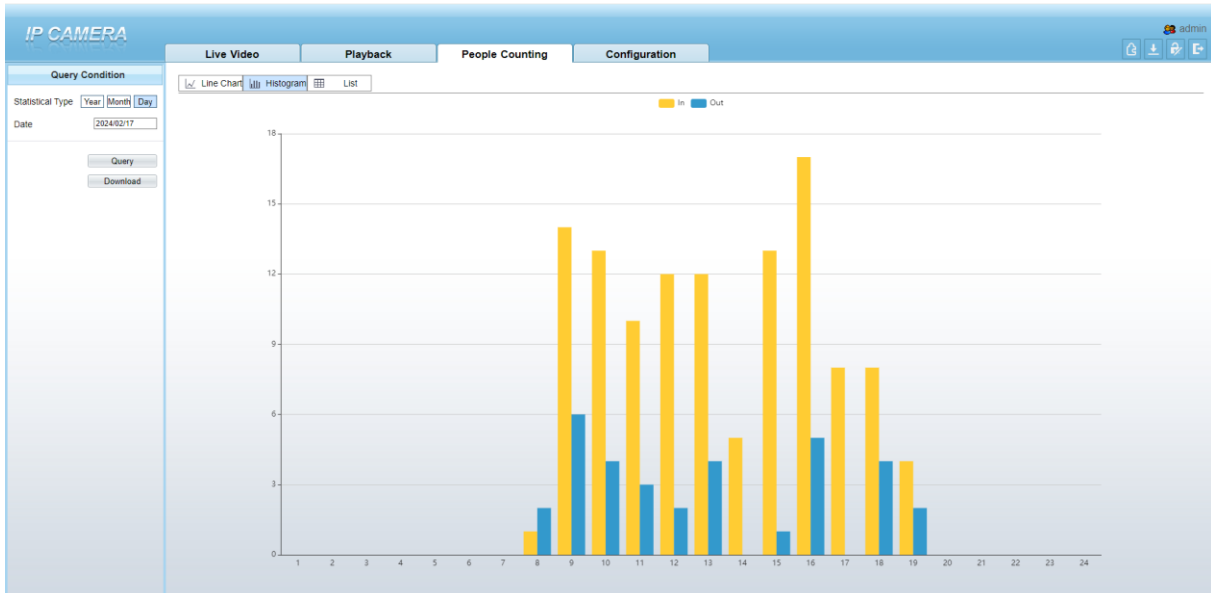
Choose the type of alarm, set the start time and end time to search alarm record quickly.

## 1.6 People Counting (Only for Some Models)

At **people counting** interface, you can view the data of people counting through setting query condition (choose the detail time at date's pop-up window).

There are three modes to show the data, such as line chart, histogram, and list, as shown in Figure 1-14

Figure 1-14 People counting page



Click “Download” to download the query result.

Choose the mode of showing result, such as line chart, histogram and list.

Click “Query” to query the data of people counting.

The data result can be saved to local folder.

---End

## 2 Parameters of PTZ

### 2.1 Control and Configure the PTZ (Only for Some Models)

#### Description

All PTZ functions are only available for high speed network dome, PTZ cameras and device connected to an external PTZ. The focus and zoom actions can be used for motorized cameras. The real functions please refer to the actual product.

#### Controlling the PTZ

When browsing real-time videos shot of a dome camera or a camera connected to an external PTZ, you can control the PTZ to view videos shot in different directions.


Click **PTZ** below the **Live Video** page to open the **PTZ Control** page as shown in Figure 2-1, you can click the eight arrow keys to move the PTZ in eight directions. You can also zoom the lens and adjust the focal length.



Figure 2-1 PTZ control area





In the PTZ control area, you can perform the following operations:


Slide the slider left or right beyond the PTZ rotation keys, you can adjust the PTZ rotation speed.


Click the arrows on the  to move the PTZ in eight directions.


Click  or  to adjust the focal length.

Click  or  to adjust the aperture.

Click  or  to focus.

Click  to set due north direction. You can define any direction as due north as the reference point of the PTZ rotation.

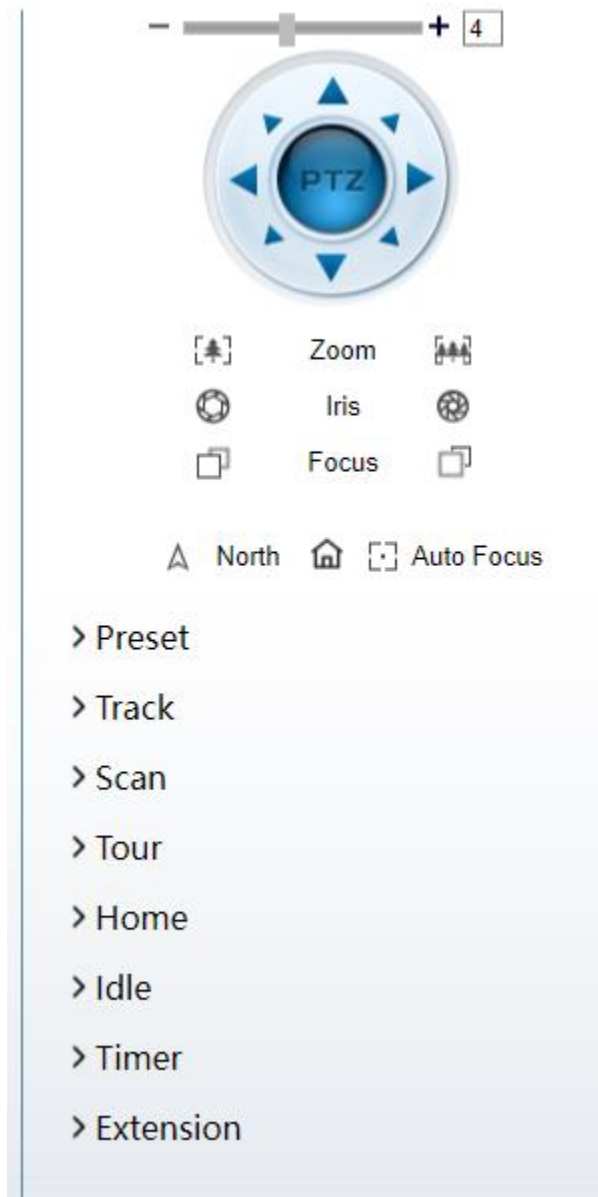
Click  to go home position.

Click  to enable automatic focus.

## Configure the PTZ

It is available for the cameras with PTZ or connected to PTZ. **PTZ Configure** interface is as shown in Figure 2-2.

Figure 2-2 PTZ configure area



In the PTZ configure area, you can perform the following operations:

Add, delete, and invoke preset positions.

Add, delete, and invoke tracks.

Add, delete, and invoke scans.

Add, delete, and invoke tours.

Set the home.

Set the idle.

Set the timer.

Set the extension. Set Light On/Off and Brush function.


Brush is used to clean the lens. Light On/Off is used to control the infrared camera shields on and off.

 **NOTE**

**Brush** is available only for a camera with a brush or a camera shield.

**Light On/Off** is available only for specific camera shields.

## 3D Positioning

Click  below the Live Video page to configure the 3D positioning function.

The 3D positioning function quickly rotates the PTZ and changes the focal length in specific scenarios. You can also change the focus by drawing rectangle frames.

 **NOTE**

The default value of 3D Positioning is ON.

## 2.2 Configure and Invoke Preset Positions

You can configure preset positions and quickly rotate the camera to a preset position by invoking the preset position.

The procedure is as follows:


Step 1 Configure a preset position.

1. Choose the preset ID.

Figure 2-3 Add preset




2. Adjust the direction of PTZ to finish the preset position setting.

3. Click  to save, click to rename.

4. Click  to delete the current preset.

Step 2 Invoke a preset position.

Select a preset position from the **Preset** list to invoke the preset position. Click  icon to invoke.

#### NOTE

The special presets: Set No.64 preset, the PTZ functions restore to factory settings .

Invoke No.92 preset, set the start point of scan.

Invoke No.93 preset, set the end point of scan.

Invoke No.97 preset, it will invoke the SCAN 1.

Set No.97 preset, view the version of MCU and chip.

Invoke No.99 preset, scan by rotating 360°.

Invoke No.250 preset, enable the MCU temperature.

Invoke No.251 preset, disable the MCU temperature.

Set No.252 preset, the PTZ parameters will be restore to factory settings.

Invoke 103 preset, the brush works once, this function is only for PTZ cameras with brush.

---End

## 2.3 Configure and Invoke Tracks

You can record a track to allow the camera to repeatedly rotate based on the preset track.

Step 1 Configure a track.



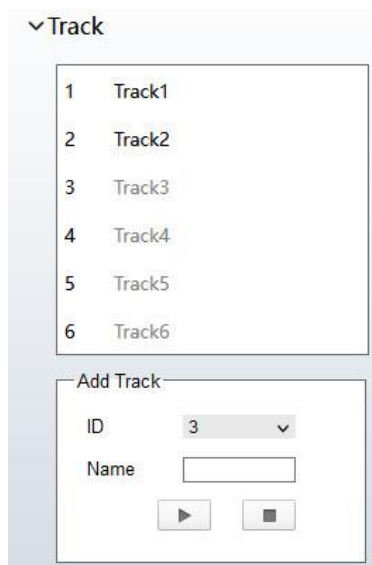
1. Set the track ID and name.
2. Click  to set the starting position of the track.
3. Use arrow keys in the **PTZ Control** area to set a required a track.
4. Click  to finish the track setting.

Figure 2-4 Track configuration



The screenshot shows a web interface for track configuration. At the top, there is a dropdown menu labeled 'Track' with a downward arrow. Below it is a list of six tracks, numbered 1 to 6, with names 'Track1' through 'Track6'. Below the list is an 'Add Track' section. This section contains two input fields: 'ID' with a dropdown menu showing '3' and a downward arrow, and 'Name' with an empty text box. At the bottom of the 'Add Track' section are two buttons: a play button (triangle pointing right) and a stop button (square).

Step 2 Invoke a track.

Select a track name from the **Track** list, click  to invoke the track.

Click  to delete the current track.

 **NOTE**

A maximum of six tracks can be configured.

---End

## 2.4 Configure and Invoke Scans

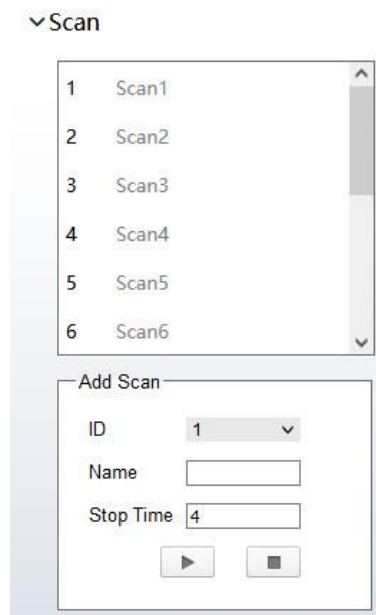
You can configure a starting point and end point to allow the camera to repeatedly rotate from the starting point to end point.

Step 1 Configure a scan.

1. Click **Scan**.

The **Scan Add** page is displayed as shown in Figure 2-5.


Figure 2-5 Scan configuration




2. Set the scan ID and name.

3. Click .

4. Use arrow keys in the **PTZ Control** area to set a start point and an end point.

5. Click  to finish the scan setting.

Step 2 Invoke a scan.

Select a scan value from the **Scan** list box, click  to invoke the scan.

Click  to delete the current scan.

 **NOTE**

A maximum of twelve scans can be configured.

---End

## 2.5 Configure and Invoke Tours

You can configure a tour to allow the camera to repeatedly rotate based the tours. Each tour includes presets and wait time should be set.


Step 1 Configure a tour.


1. Click **Tour**.

The **Tour Add** page is displayed as shown in Figure 2-6.


Figure 2-6 Tour configuration

2. Set the tour ID and name.


3. Select a preset and set the wait time and click .

4. Continue to select a preset and set the wait time and click .

5. Repeat the step 3 and step 4 to add more presets.

6. Click  to finish the tour setting.

Step 2 Invoke a tour.

Select a tour value from the **tour** list box, click  to invoke the tour.


Click  to delete the current tour.

### **NOTE**

A maximum of twelve tours can be configured.

----End

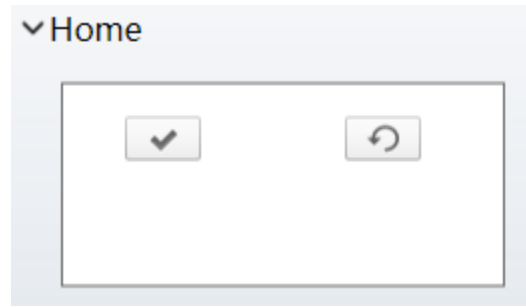
## 2.6 Configure Home

You can set one any point as home, the default Home is the 0.00/90.0/1X coordinate. Click  to go home position directly.

Step 1 Click **Home**.

The Home page is displayed as shown in Figure 2-7.

Figure 2-7 Home configuration



Step 2 Adjust the PTZ keyboard to operate the lens.

Step 3 Click  to set home. Click  to restore the default home.

Step 4 Click  invoke home.

---End

## 2.7 Configure Idles

You can enable idle to allow the camera to run the preset, track, scan and tour automatically after the waiting time (1 minute ~ 240 minutes).

Step 1 Click **Idle**.

The **Idle Add** page is displayed as shown in Figure 2-8.

Figure 2-8 Idle configuration



Step 2 Enable the Idle button.

Step 3 Set the idle type and name from list.

Step 4 Set the wait time(1 min ~240 min ).

Step 5 Click  to finish the idle setting.

---End

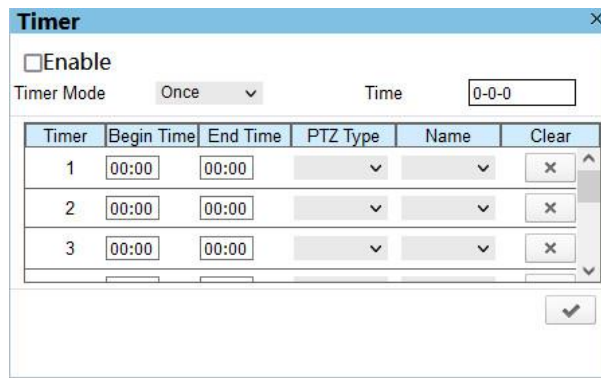
## 2.8 Configure Timer

You can set the PTZ timer to allow the camera to invoke the preset, track, scan and tour automatically in the setting time and the camera will restore to the operation and location after the end time.

Step 1 Click **Timer**.

The **Set the PTZ Timer** page is displayed and click , the **Timer** page is displayed as shown in Figure 2-9.

Figure 2-9 Timer configuration



Timer	Begin Time	End Time	PTZ Type	Name	Clear
1	00:00	00:00	▼	▼	✕
2	00:00	00:00	▼	▼	✕
3	00:00	00:00	▼	▼	✕

Step 2 Enable Timer.

Step 3 Set the Timer Mode. Timer mode includes Everyday and Once. You should set the time when once mode is selected.

Step 4 Choose Once, click Time to choose day from the pop-up calendar.


Step 5 Set Timers.

Select the begin time, end time, PTZ type and name from the drop-down list box.

### NOTE

A maximum of eight timers can be configured.

Click Clear to delete the setting.

Step 6 Click  to finish the timer setting.

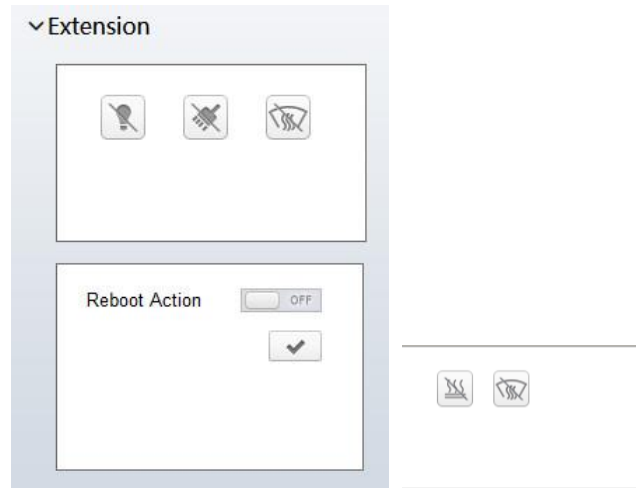
---End

## 2.9 Configure Extension


You can set light On/Off, brush function and reboot action in extension page. There are heating and defogging applicable for some special cameras.

Click Extension, the **Extension** page is displayed as shown in Figure 2-10.

Figure 2-10 Extension




### Light function

Click  to enable the light.

Light On/Off is used to control the infrared camera shields on and off.

### Brush function

Click  to enable brush.

Brush is used to clean the lens.


### NOTE

**Brush** is available only to a camera with a brush or a camera shield.

**Light On/Off** is available only to specific camera shields.

### Reboot Action

The camera will perform the selected PTZ type and name when the camera reboots and the reboot action is enabling.

- Click the reboot action button to enable reboot action.
- Set the PTZ Type and name from the drop-down list box.
- Click  to finish the reboot setting.

----End

---

## 3 Device Information and Stream

---

### 3.1 Device Information

#### Description

The device information includes:

Device ID, name, type, model, manufacturer name and MAC address.

Hardware and software versions.

Number of video channels, number of alarm input channels, number of alarm output channels, and number of serial ports, network cards.

 **NOTE**

You can modify the device name. All other parameters can only be viewed.


When the device is upgraded, the device information is updated automatically.

#### Procedure

Step 1 Click **Configuration > Device Info**.

The **Device Info** page is displayed, as shown in Figure 3-1.

Figure 3-1 Device info page

 **Device Info**

---

Device ID	547577
Device Name	<input type="text"/> ✓
MAC Address	00:1C:27:54:75:77

---

Camera Type	AI_MULTIOBJECT
Product Model	SN-IPV8080EFAR-B2.8-23
Manufacturer Name	IPCamera

---

Hardware Version	V220014_5
Firmware Version	v3.6.1603.1004.3.0.11.1.0.D01
Uboot Version	v1.2
Kernel Version	v2.1_PDTJul




---

Channel Quantity	1
Alarm Input Quantity	1
Alarm Output Quantity	1
Serial Port Quantity	0
Network Card Quantity	1

[Refresh](#)

Figure 3-2 Device info page 2

 **Device Info**

Device ID	001241
QR Code	C011003AFGE03AY19 
P2P	<input checked="" type="checkbox"/> ON 
P2P Status	Online
Device Name	<input type="text" value="192.168.32.191"/> 
MAC Address	00:1C:27:00:12:41

Camera Type	AI_MULTIOBJECT
Product Model	SN-IPP8085QAS-B2.8-23
Manufacturer Name	IPCamera

Hardware Version	V330014_1
Firmware Version	t3.6.1621.1006.3.0.2.1.0
Uboot Version	v6.4
Kernel Version	v6.3_20230927

Channel Quantity	1
Alarm Input Quantity	1
Alarm Output Quantity	1
Serial Port Quantity	0
Network Card Quantity	1

Step 2 View the device information, set the device name according to Table 3-1.

Table 3-1 Parameters of device

Parameter	Description	Setting
Device ID	Unique device identifier used by the platform to distinguish the devices.	[Setting method] The parameter cannot be modified.
QR Code	The code and code characters. NOTE It is applied for some models.	Click the icon to enlarge the code.

Parameter	Description	Setting
P2P	Enable P2P, If the P2P status of device is online, users can manage this camera by APP. NOTE It is applied for some models.	[Setting method] Enable
Device Name	Name of the device. NOTE The device name cannot exceed 32 bytes or 10 simplified characters; otherwise, the modification fails.	[Setting method] Enter a value manually.
MAC Address	It shows the performance of camera	[Setting method] These parameters cannot be modified.
Camera Type		
Product Model		
Manufacturer Name		
Hardware Version		
Firmware Version		
Uboot version		
Kernel version		
Video Channel(s)		
Channel Quantity		
Alarm Input Quantity		
Alarm Output Quantity		
Serial Port Quantity		
Network card Quantity		

Step 3 Click .

If the message "Apply success!" is displayed, click **OK**. The system saves the settings.

If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see 15.1 Configure a User.

----**End**

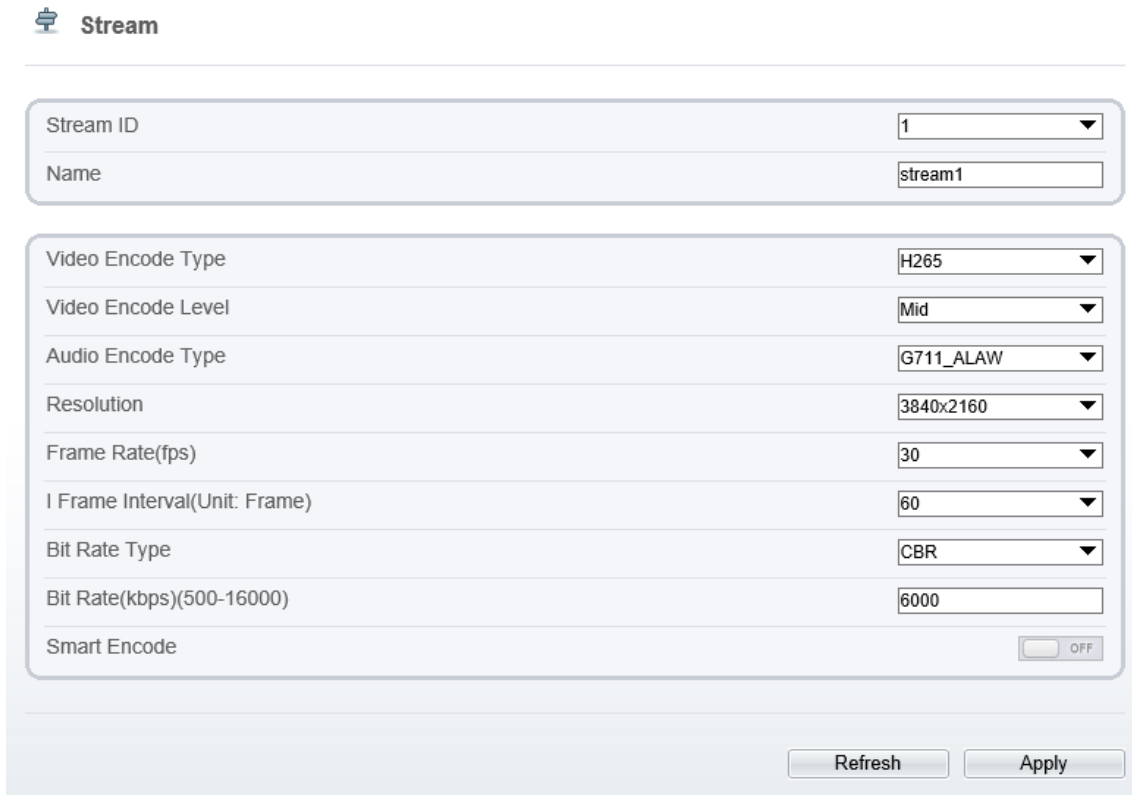
## 3.2 Video and Audio Stream

### Procedure

Step 1 Click **Configuration > Stream > Base Stream**.

The **Stream Configuration** page is displayed, as shown in Figure 3-3.

Figure 3-3 Stream configuration page (CBR)



The screenshot shows the 'Stream Configuration' page for a CBR stream. The page has a title bar with a refresh icon and the word 'Stream'. Below the title bar, there are two main configuration sections. The first section contains 'Stream ID' (a dropdown menu set to '1') and 'Name' (a text input field containing 'stream1'). The second section contains various encoding parameters: 'Video Encode Type' (dropdown: H265), 'Video Encode Level' (dropdown: Mid), 'Audio Encode Type' (dropdown: G711\_ALAW), 'Resolution' (dropdown: 3840x2160), 'Frame Rate(fps)' (dropdown: 30), 'I Frame Interval(Unit: Frame)' (dropdown: 60), 'Bit Rate Type' (dropdown: CBR), and 'Bit Rate(kbps)(500-16000)' (text input: 6000). At the bottom of this section is a 'Smart Encode' toggle switch, which is currently turned off. At the very bottom of the page are two buttons: 'Refresh' and 'Apply'.

Field	Value
Stream ID	1
Name	stream1
Video Encode Type	H265
Video Encode Level	Mid
Audio Encode Type	G711_ALAW
Resolution	3840x2160
Frame Rate(fps)	30
I Frame Interval(Unit: Frame)	60
Bit Rate Type	CBR
Bit Rate(kbps)(500-16000)	6000
Smart Encode	OFF

Figure 3-4 Stream configuration page (VBR)

The screenshot shows a web interface for stream configuration. At the top left, there is a 'Stream' icon and the title 'Stream'. Below this, there are two main configuration sections. The first section contains 'Stream ID' (set to 1) and 'Name' (set to stream1). The second section contains various encoding parameters: 'Video Encode Type' (H265), 'Video Encode Level' (Mid), 'Audio Encode Type' (G711\_ALAW), 'Resolution' (1920x1080), 'Frame Rate(fps)' (30), 'I Frame Interval(Unit: Frame)' (60), 'Bit Rate Type' (VBR), 'Max Bitrate(kbps)(500-12000)' (4096), 'Image Quality' (Mid), and 'Smart Encode' (ON). At the bottom right of the configuration area, there are 'Refresh' and 'Apply' buttons.

Step 2 Set the parameters according to Table 3-2.

Table 3-2 Parameters of stream configuration

Parameter	Description	Setting
Stream ID	The device supports at most three main streams. Streams 1 and 2 adopt H.264 code. The maximum resolution can be set for streams 1. Only a low resolution can be set for stream 2. Stream 3 is the lowest resolution. Stream 4 is the sub stream.	[Setting method] Select a value from the drop-down list box.
Name	Stream name. NOTE The stream name consists of character, number, character and underline.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes. [Default value] Stream 1

Parameter	Description	Setting
Video Encode Type	<p>The video codec determines the image quality and network bandwidth required by a video. Currently, the following codec standards are supported:</p> <p><b>MJPEG</b></p> <p>MJPEG is a standard intra-frame compression codec. The compressed image quality is good. No mosaic is displayed on motion images. MJPEG does not support proportional compression and requires large storage space. Recording and network transmission occupy large hard disk space and bandwidth. MJPEG is not applicable to continuous recording for a long period of time or network transmission of videos. It can be used to send alarm images.</p> <p><b>H.264</b></p> <p>H.264 consists of H.264 low Profile, H.264 Main Profile and H.264 High profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate codec based on the decoding performance of the device.</p> <p>H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements for the hardware performance.</p> <p><b>H.265</b></p> <p>H.265 is the advanced video encoding standard. It's the improvement standard from H.264. H.265 improves the streams, encoding quality and algorithm complexity to make configuration optimization.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p> <p>[Default value]</p> <p>H.264 High Profile</p> <p>NOTE</p> <p>The H.264 High Profile codec means high requirements on the hardware. If the hard-decoding capability is low, use H.264 Main Profile or H.264 Base Profile.</p> <p>When users choose the MJPEG for Stream 1, some functions will be error, such as the videos of FTP upload may not be play correctly.</p>
Audio Encode Type	<p>The following audio codec standards are supported:</p> <p><b>G711_ULAW</b>: mainly used in North America and Japan.</p> <p><b>G711_ALAW</b>: mainly used in Europe and other areas.</p> <p><b>RAW_PCM</b>: codec of the original audio data. This codec is often used for platform data.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Resolution	<p>A higher resolution means better image quality.</p> <p>NOTE</p> <p>IP cameras support different resolutions based on the model.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>

Parameter	Description	Setting
Frame Rate(fps)	<p>Frame rate is the number of images, shots, or frames that a camera can take per second. The frames per second determine the smoothness of a video. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes.</p> <p>Frame rates for different frequencies are as follows:</p> <p>50 Hz: 1–25 f/s</p> <p>60 Hz: 1–30 f/s</p> <p>NOTE</p> <p>The frequency is set on the <b>Device Configuration</b> &gt; <b>Camera</b> page. The biggest MJPEG coding format frame rate is 12 frames per second.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list</p>
I Frame Interval(f)	<p>I frame do not require other frames to decode. A smaller I frame interval means better video quality but higher bandwidth.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list</p>
Bit Rate Type	<p>The bit rate is the number of bits transmitted per unit of time.</p> <p>The following bit rate types are supported:</p> <p>Constant bit rate (CBR)</p> <p>The compression speed is fast; however, improper bit rate may cause vague motion images.</p> <p>Variable bit rate (VBR)</p> <p>The bit rate changes according to the image complexity. The encoding efficiency is high and the definition of motion images can be ensured.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Max Bitrate (500-12000)	<p>Indicates the maximal value of the bit rate. the different models may have different ranges, please refer to actual product.</p>	<p>[Setting method]</p> <p>Enter a value manually.</p>
Image Quality	<p>The video quality the camera output.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Smart Encode	<p>Smart Encode.</p> <p>Smart encode includes H.264 &amp; H.265.</p> <p>The storage space will be reduced fifty percent when smart encode is enabled.</p> <p>Only main stream supports smart encode.</p>	<p>[Setting method]</p> <p>Click the button on to enable <b>Smart Encode</b>.</p>

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see 15.1 Configure a User.

If a message indicating that the bit rate invalid is displayed, enter a new bit rate value.

---End

## 3.3 ROI Parameter

### Procedure

Step 1 Click **Configuration > Stream > ROI**.

The **ROI** page is displayed, as shown in Figure 3-5.

Figure 3-5 ROI configuration page

Channel 1

Stream 1

Enable ON

Area ID 1

Level 5

Area Name 2515

Note: Max size 50%; Right click to remove the zones drawn

2021-02-14 17:06:55 Tue

Draw Clear

Refresh Apply

Step 2 Set the parameters according to Table 3-3.

Table 3-3 Parameters of ROI

Parameter	Description	Setting
Channel	For general cameras, the default is channel 1. For bi-spectrum cameras, 1 is optical channel, 2 is thermal channel.	[Setting method] Select a value from the drop-down list box. [Default value] Stream 1
Stream	Stream ID.	[Setting method] Select a value from the drop-down list box. [Default value] Stream 1
Enable	Enable the ROI	[Setting method] Click the button. [Default value] OFF
Area ID	ROI area ID	[Setting method] Select a value from the drop-down list box. [Default value] 1
Level	The visual effect of ROI. The higher the level is, the clearer the area is; the more blurred outside the area.	[Setting method] Select a value from the drop-down list box. [Default value] 5
Area Name	The marked name used for areas.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes.

Step 3 Click **Draw** to show the red frame, drag the four corners of rectangle to adjust the position.

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

## 3.4 Snapshot

### Procedure

Step 1 Click **Configuration > Stream > Snapshot**.

The **Snapshot** page is displayed, as shown in Figure 3-6.

Figure 3-6 Snapshot configuration page

The screenshot shows a configuration page for 'Snapshot'. It features two dropdown menus: 'Snapshot Resolution' with the value '1280x720' and 'Snapshot Quality' with the value 'Mid'. Below these are two buttons: 'Refresh' and 'Apply'.

Step 2 Set the parameters according to Table 3-4.

Table 3-4 Parameters of snapshot configuration

Parameter	Description	Setting
Snapshot Resolution	Choose resolution of snapshot.	[Setting method] Select a value from the drop-down list box. [Default value] <b>1280*720</b>
Snapshot Quality	Choose the quality of snapshot.	[Setting method] Click the button. [Default value] <b>Mid</b>

----End

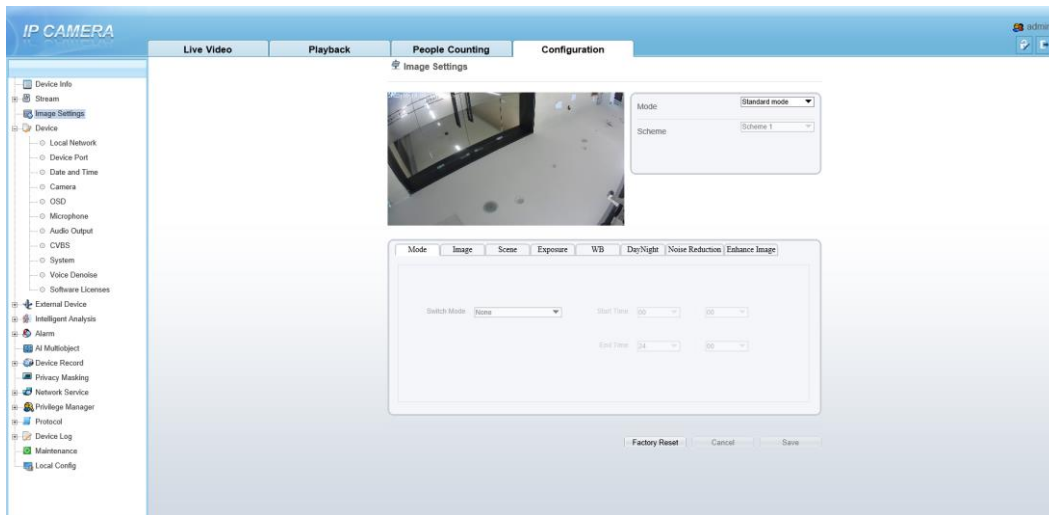
# 4 Image Settings

## 4.1 Access the Image Settings Interface

### Operation Procedure:

Step 1 On the web interface, enter **Configuration > Image Settings** interface.

Figure 4-1 Image settings page



Step 2 Choose **Debug Mode** on Mode item to set the parameters. You can set four schemes.

#### NOTE

- All image settings can be modified at debug mode. Click **Standard** on interface and choose **Debug Mode**.
- Factory Reset: All parameters will be restore to the factory settings.
- Cancel: the settings will be recover to the last settings.

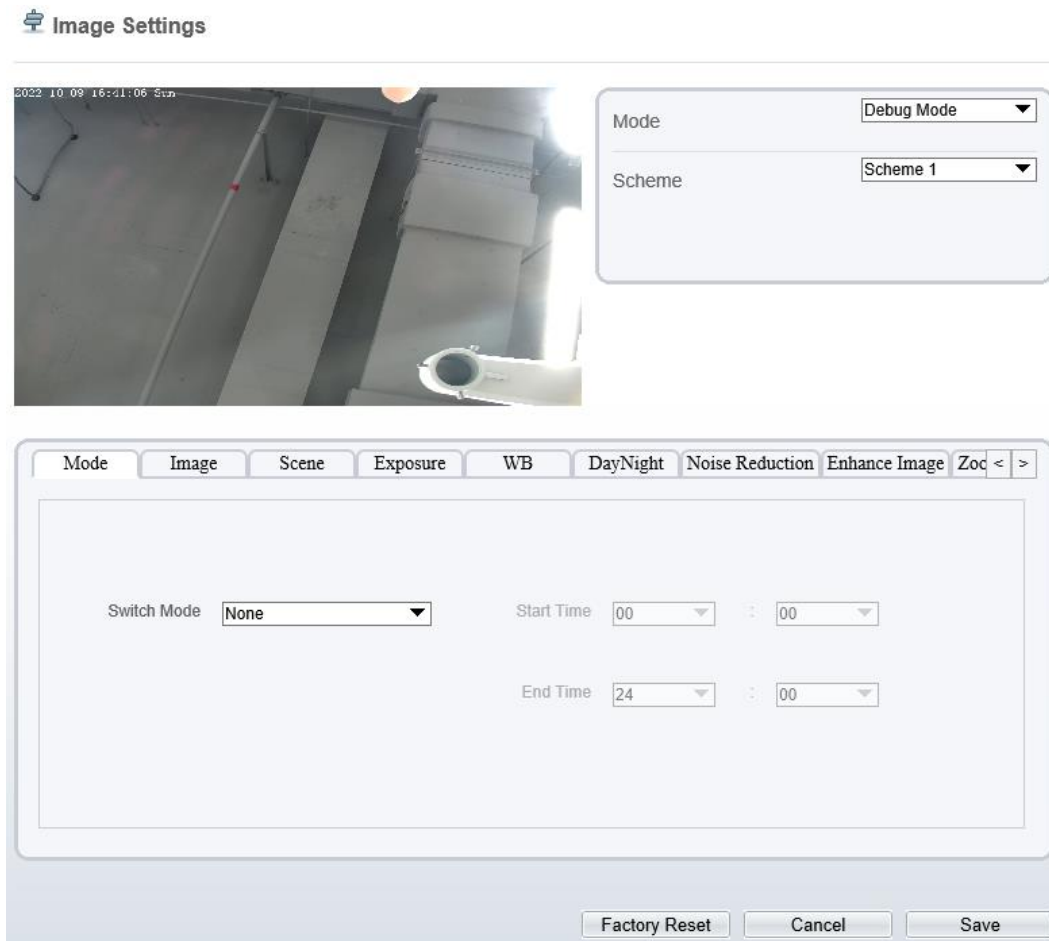
----End

## 4.2 Mode

### Operation procedure:

Step 1 Click **Mode** tag on image settings interface, the Mode page is displayed, as shown in Figure 4-2.

Figure 4-2 Mode page



Step 2 Choose **Debug Model** in the middle left corner to activate the image settings page.

Step 3 Tick the **Enable**, then set the start time and end time.

Step 4 Click **Save** to save the setting.

## 4.3 Image Setting

Figure 4-3 shows the image setting interface.

Figure 4-3 Image setting page

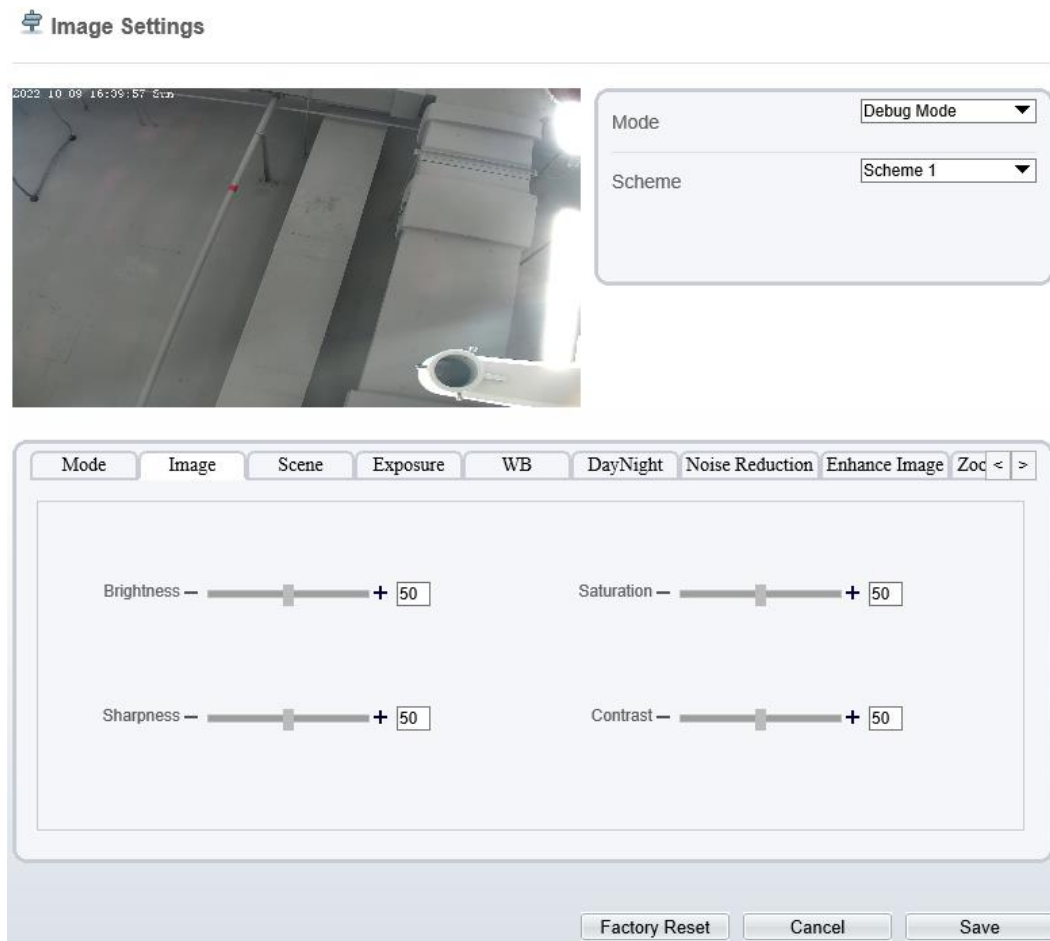


Table 4-1 describes the **image setting** parameters.

Table 4-1 Parameters of image settings parameters

Parameter	Description	Configuration Method
<b>Brightness</b>	It indicates the total brightness of an image. As the value increases, the image becomes brighter.	[Setting method] Drag the slider. [Default value] <b>50</b>
<b>Saturation</b>	It indicates the color saturation of an image. As the value increases, the image becomes more colorful.	[Setting method] Drag the slider. [Default value] <b>50</b>
<b>Sharpness</b>	It indicates the definition of an image. As the value increases, the image becomes more definitional.	[Setting method] Drag the slider. [Default value] <b>50</b>

Parameter	Description	Configuration Method
<b>Contrast</b>	It indicates the contrast between the bright part and the dark part of an image. As the value increases, the contrast increases.	[Setting method] Drag the slider. [Default value] <b>50</b>

## 4.4 Scene Mode

Figure 4-4 shows the **scene mode** interface.

Figure 4-4 Scene mode page

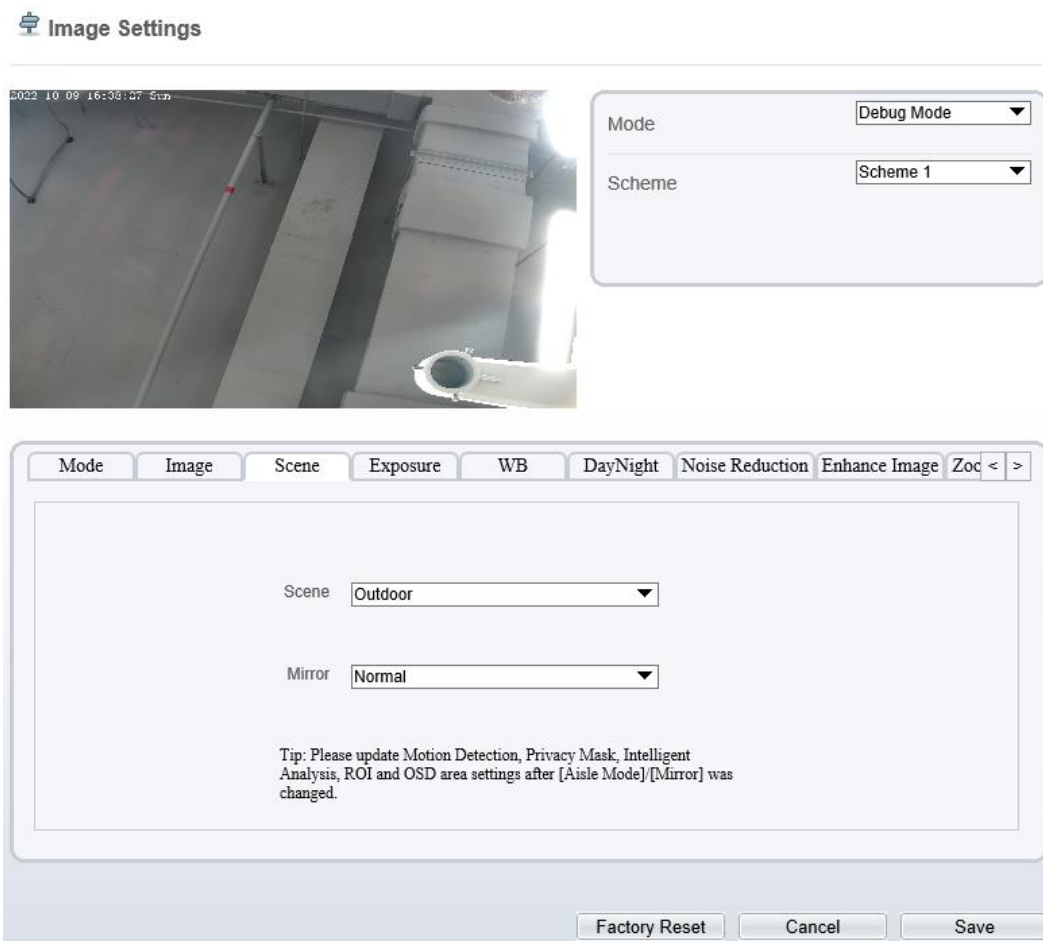


Table 4-2 describes the FFC mode parameters.

Table 4-2 Parameters of FFC

Parameter	Description	Configuration Method
<b>Scene</b>	It indicates the working mode of a camera. Outdoor: It applies to outdoor scenarios. Indoor: It applies to indoor scenarios.	[Configuration method] Select from the drop-down list [Default value] <b>Outdoor</b>
<b>Mirror</b>	It is used to select the pixel location of an image. Normal: The image does not flip. Horizontal: The image flips to the left and right. Vertical: The image flips up and down. Horizontal and vertical: The image rotates at 180 degrees.	[Setting method] Select a value from the drop-down list. [Default value] <b>Normal</b>
<b>Aisle Mode</b>	The image rotates 90 degrees clockwise when aisle mode is enabled. For some models, when you choose stream 2 / 3, H.265 or H.264 video encode type, resolution chosen CIF or QVGA, it maybe not to play the live video. Only apply for some models.	[Setting method] Tick the Aisle mode. [Default value] Disable

## 4.5 Exposure

Figure 4-5 and Figure 4-6 shows the **Exposure** interface.

Figure 4-5 Exposure interface for IP camera

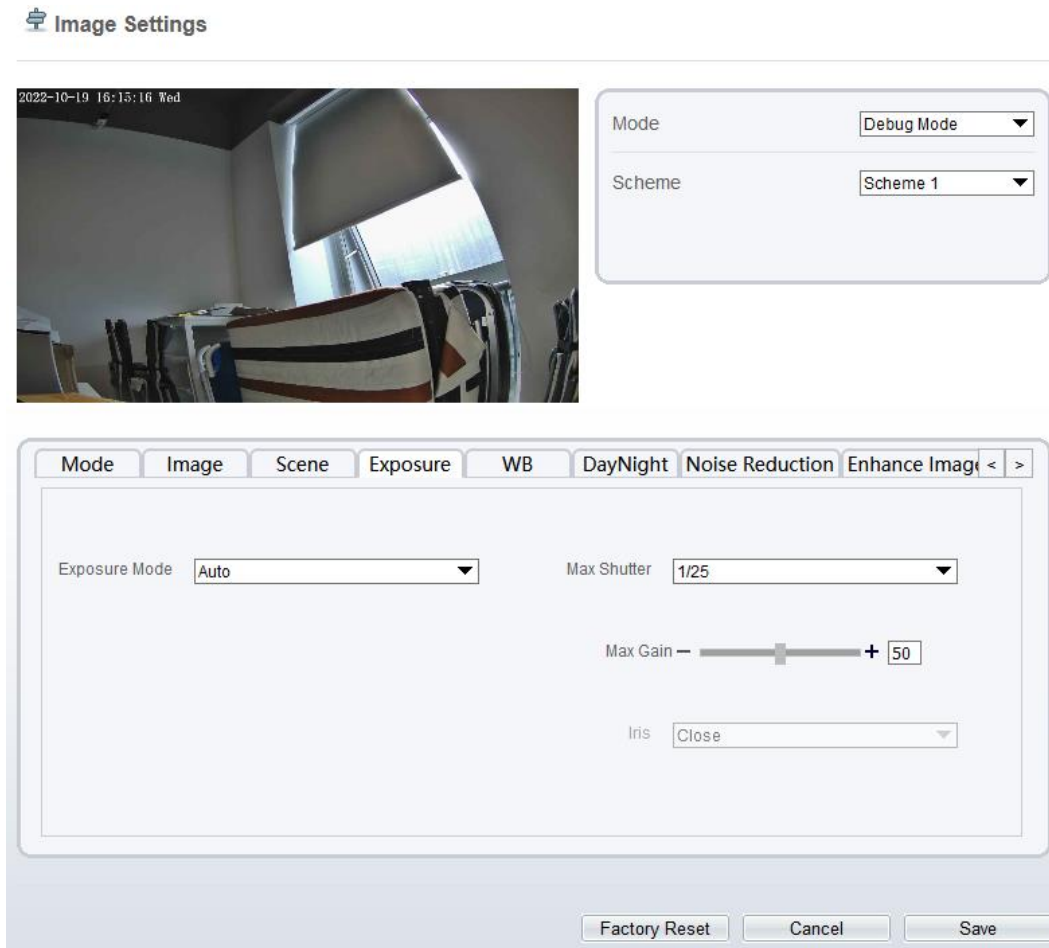


Figure 4-6 Exposure Interface for high-speed home

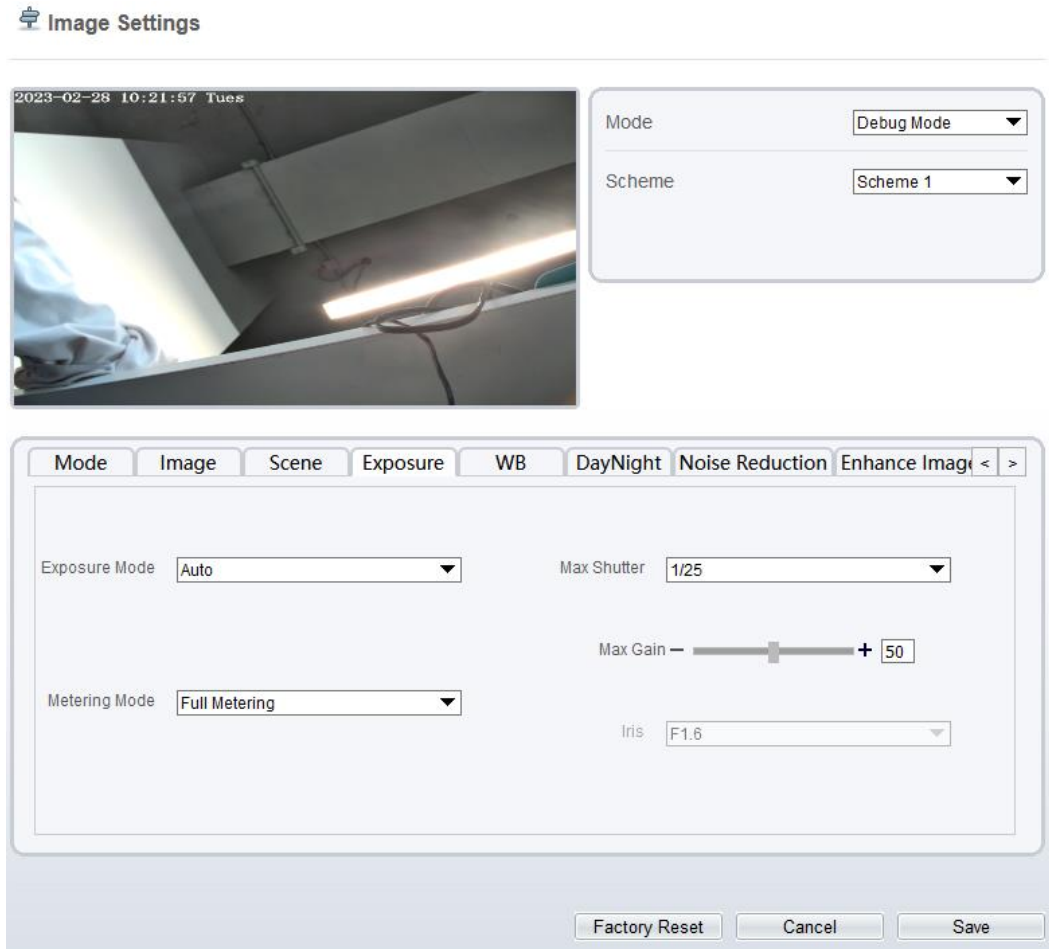



Table 4-3 describes Exposure parameters.

Table 4-3 Parameters of exposure

Parameter	Meaning	Configuration Method
Exposure Mode	<p>The exposure modes include:</p> <p><b>Auto:</b> The system performs auto exposure based on the monitoring environment.</p> <p><b>Manual:</b> You can adjust the brightness of an image by setting the following three items: <b>Shutter Setting</b>, <b>Iris Setting</b> and <b>Gain Setting</b>.</p> <p><b>Shutter Priority:</b> You can set <b>Shutter Setting</b> to fixed values. The iris and gain are automatically adjusted by the system.</p> <p><b>Iris Priority (for high-speed dome):</b> You can set Iris Setting to fixed values. The shutter and gain are automatically adjusted by the system.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list.</p> <p>[Default value]</p> <p><b>Auto</b></p>

Parameter	Meaning	Configuration Method
<b>Meter Mode</b>	<p>It is used to select the metering area.</p> <p><b>Fulling Metering:</b> During metering, all areas of an image have equal weight, that is, all areas are involved in the metering.</p> <p><b>Spot Metering:</b> During metering, the central spot of an image has the highest weight.</p> <p><b>Partial Metering:</b> During metering, the middle area (1/2 of the total area) of an image has the highest weight, and other areas have the lowest weight.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>Whole</b></p>
<b>Max Shutter</b>	<p>The device automatically adjusts the shutter time based on the ambient brightness. The shutter time is less than or equal to the value of this parameter.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>1/25</b></p>
<b>Max Gain</b>	<p>The device automatically adjusts the gain based on the external light. The gain is less than or equal to the value of this parameter.</p>	<p>[Setting method] Drag the slider. [Default value] <b>50</b></p>
<b>Iris (for high speed dome)</b>	<p>It is valid in manual mode and iris priority mode. You can adjust the brightness of an image by setting the iris. As the value increases, the brightness increases (when the shutter and gain remain the same). However, the camera movement automatically adjusts the shutter and gain in this mode. Therefore, the brightness of an image may not increase when you increase the iris.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>F1.6</b></p>
<b>Iris (for IP camera)</b>	<p>It is used to control the light admitted to the lens.</p> <p>The auto iris can be set to either of the following states:</p> <p><b>Auto</b> The iris is automatically adjusted to control the light admitted to the lens.</p> <p><b>Open fully</b> The iris is fully open.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>Auto</b></p>
<b>Iris Speed</b>	<p>It indicates the auto adjustment speed of the iris. As the value increases, the speed increases. Excessive speed may cause instability.</p> <p> <b>NOTE</b> This parameter is valid when the auto iris is enabled.</p>	<p>[Setting method] Drag the slider. [Default value] <b>50</b></p>

Parameter	Meaning	Configuration Method
<b>Fixed Gain</b>	When the exposure Mode is Manual, you can set the fixed gain.	[Setting method] Drag the slider. [Default value] <b>50</b>

## 4.6 WB Setting

Figure 4-7 shows the **WB Setting** interface.

Figure 4-7 WB settings page

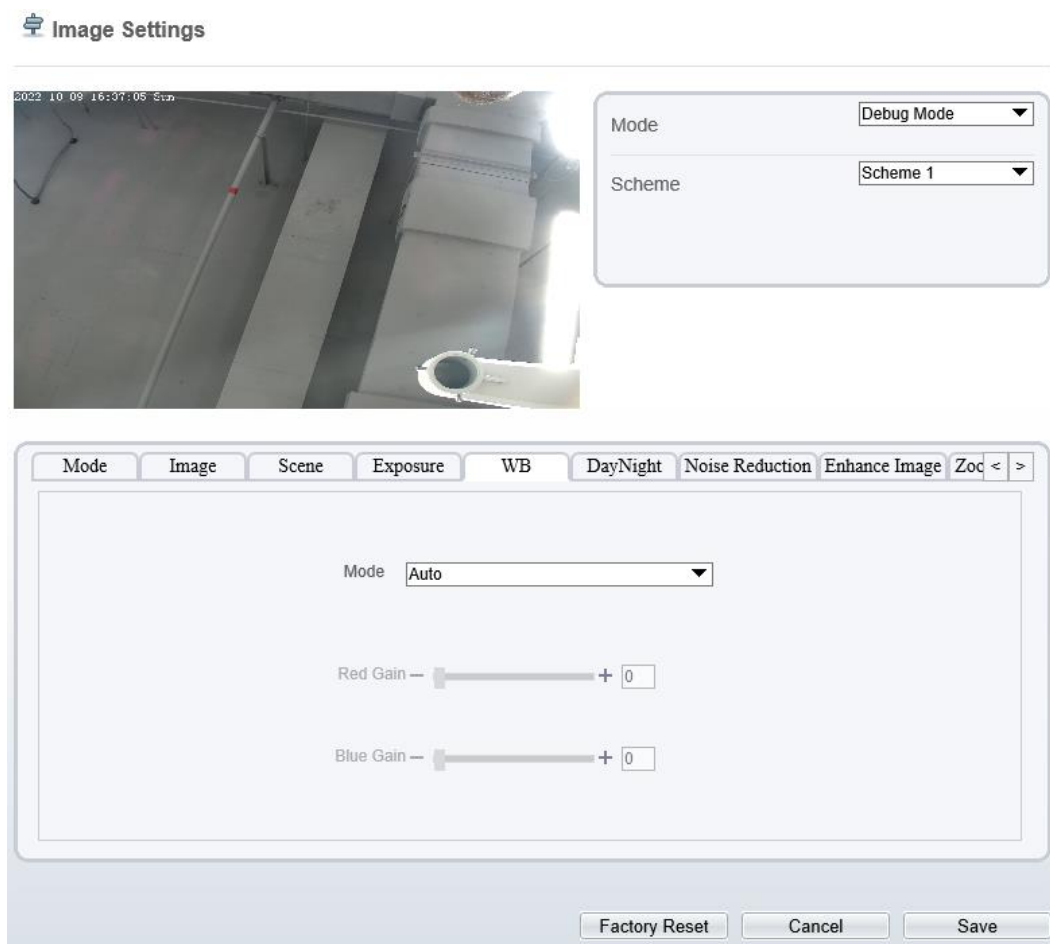




Table 4-4 describes **WB Setting** parameters.

Table 4-4 Parameters of WB setting

Parameter	Meaning	Configuration Method
<b>Mode</b>	<p>Select WB mode according to different scenes for better image color reproduction.</p> <p><b>Auto:</b> In automatic white balance (WB) mode, the system automatically performs white balance based on the monitoring environment.</p> <p><b>Tungsten</b></p> <p><b>Fluorescent</b></p> <p><b>Daylight</b></p> <p><b>Shadow</b></p> <p><b>Manual:</b> In manual WB mode, you can manually select a WB mode based on the monitoring environment.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list.</p> <p>[Default value]</p> <p><b>Auto</b></p>
<b>Red Gain</b>	<p>It indicates the gain applied to red channels. As the value increases, the color temperature becomes lower.</p> <p> <b>NOTE</b></p> <p>This parameter is valid when <b>Manual Mode</b> is set to <b>Customized</b>.</p>	<p>[Setting method]</p> <p>Drag the slider.</p> <p>[Default value]</p> <p><b>0</b></p>
<b>Blue Gain</b>	<p>It indicates the gain applied to blue channels. As the value increases, the color temperature becomes higher.</p> <p> <b>NOTE</b></p> <p>This parameter is valid when <b>Manual Mode</b> is set to <b>Customized</b>.</p>	<p>[Setting method]</p> <p>Drag the slider.</p> <p>[Default value]</p> <p><b>0</b></p>

## 4.7 Day/Night

The day night mode settings vary based on device models. For details, see the following sections.

Figure 4-8 shows the **Day/Night Mode** interface.

Figure 4-8 Day/Night mode page (timing)

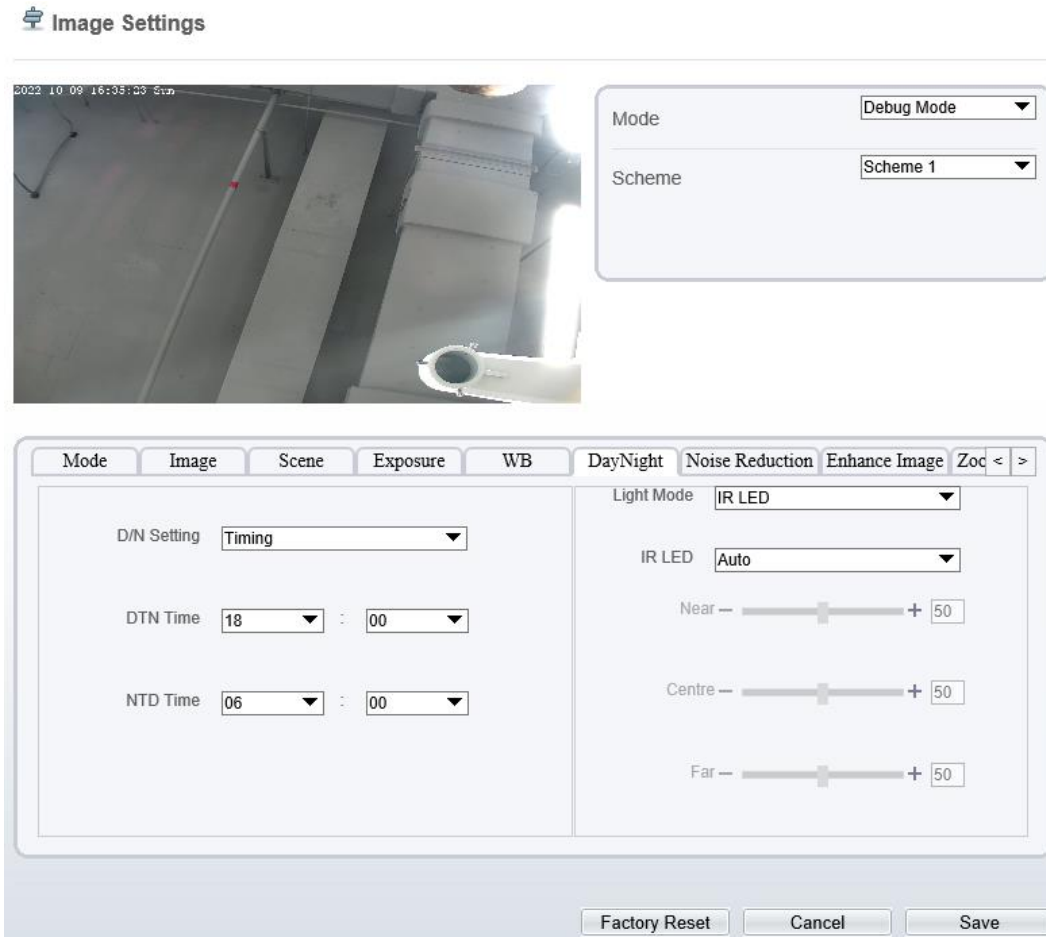


Figure 4-9 Day/Night mode page (auto)

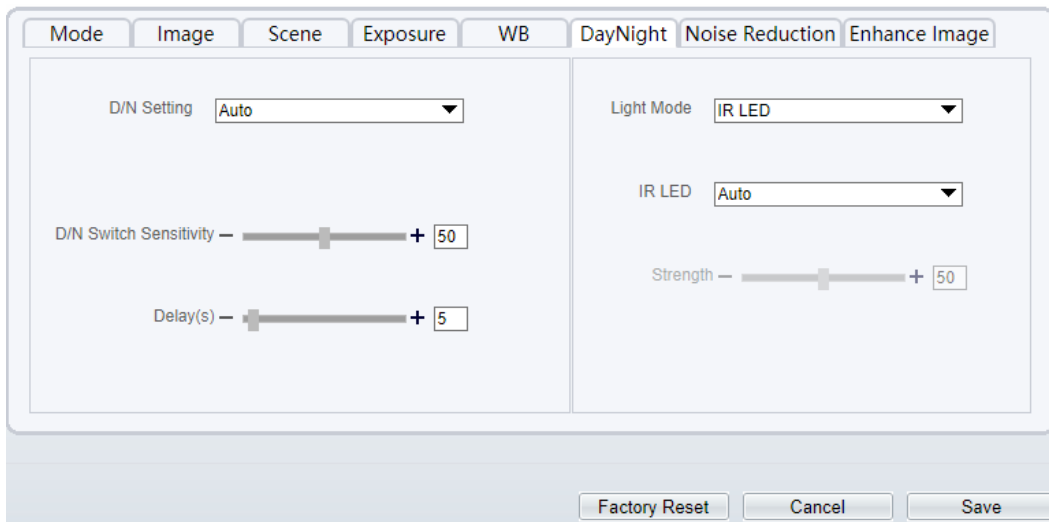





Table 4-5 describes **DayNight Mode** parameters.

Table 4-5 Parameters of Day/Night

Parameter	Meaning	Configuration Method
<b>D/N Setting Mode</b>	<p>It can be set to <b>Auto</b>, <b>Day</b>, <b>Night</b> or <b>Timing</b>.</p> <p><b>Auto mode</b> The image color and filter status are automatically switched based on the ambient brightness. The filter keeps infrared light from reaching the sensor during the day; The filter allows all light to reach the sensor at night.</p> <p><b>Day mode</b> The image is colored, and the filter is in the day state, preventing infrared light from entering the sensor.</p> <p><b>Night mode</b> The image is black and white, and the filter is in the night state, allowing infrared light to enter the sensor.</p> <p><b>Timing</b> Switching between day mode and night mode according to the set time.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>Auto</b></p>
<b>D/N Switch Sensitivity</b>	<p>The sensitivity of switching day and night. The higher value of sensitivity, and the lower light intensity will switch to day.</p> <p> <b>NOTE</b> This parameter is valid in auto mode.</p>	<p>[Setting method] Drag the slider. [Default value] <b>50</b></p>
<b>Delay(s)</b>	<p>The delay time of day to night or night to day.</p> <p> <b>NOTE</b> This parameter is valid in auto mode.</p>	<p>[Setting method] Drag the slider. [Default value] <b>0</b></p>
<b>Light Mode</b>	<p>For different models, you can choose the light modes, such as IR LED, White LED, Intelligent dual light (there are two lights in camera, IR LED and white LED), and none. It depends on performance of cameras.</p>	<p>[Setting method] Select a value from the drop-down list.</p>
<b>IR LED</b>	<p><b>Auto</b>: The infrared lamp is enabled or disabled based on the external environment identified by the light dependent resistor (LDR). <b>ON</b>: The system enters the night mode forcibly. <b>OFF</b>: The infrared lamp is disabled. The filter and image color are switched based on the external environment identified by the LDR.</p> <p> <b>NOTE</b> This parameter is valid in auto mode.</p>	<p>[Setting method] Select a value from the drop-down list. [Default value] <b>Auto</b></p>
<b>Strength</b>	<p>Strength of IR LED, as the value increases, the image becomes brighter.</p>	<p>[Setting method] Drag the slider. [Default value] <b>50</b></p>

Parameter	Meaning	Configuration Method
<b>DTN Time</b>	Time of day to night.	[Setting method] Select a value from the drop-down list. [Default value] <b>18:00</b>
<b>NTD Time</b>	Time of night to day.	[Setting method] Select a value from the drop-down list. [Default value] <b>6:00</b>

### Fill light settings

The camera fill light has four modes, there is intelligent dual light (the current fill light will switch to warm light after an alarm is triggered, and switch back to the original fill light for fill light 30s after the alert is released.), warm light, infrared lamp and close (Choose to close the fill light and the color of image will stay in the previous mode).

Different cameras can be set in different fill light modes, please set them according to the actual scene.

Day mode: It can be used in the scene with sufficient ambient light for 24 hours, do not turn on the fill light, and the image is in color.

Night mode: it can be used in a scene where there is insufficient ambient light for 24 hours, turn on the fill light (it can be selected according to the four modes of the fill light).

Auto mode: Automatically switch the set fill light mode according to the brightness of the environment.

Timing mode: Set the start and end time of the day, this time period is in day mode.

The brightness of the fill light can be selected between automatic and manual, automatic mode is meaning it can be adjusted automatically according to the current environment; manual mode, you can scroll to check or set the value to control.

## 4.8 Noise Reduction

Figure 4-10 shows the Noise Reduction interface.

Figure 4-10 Noise reduction page (auto)

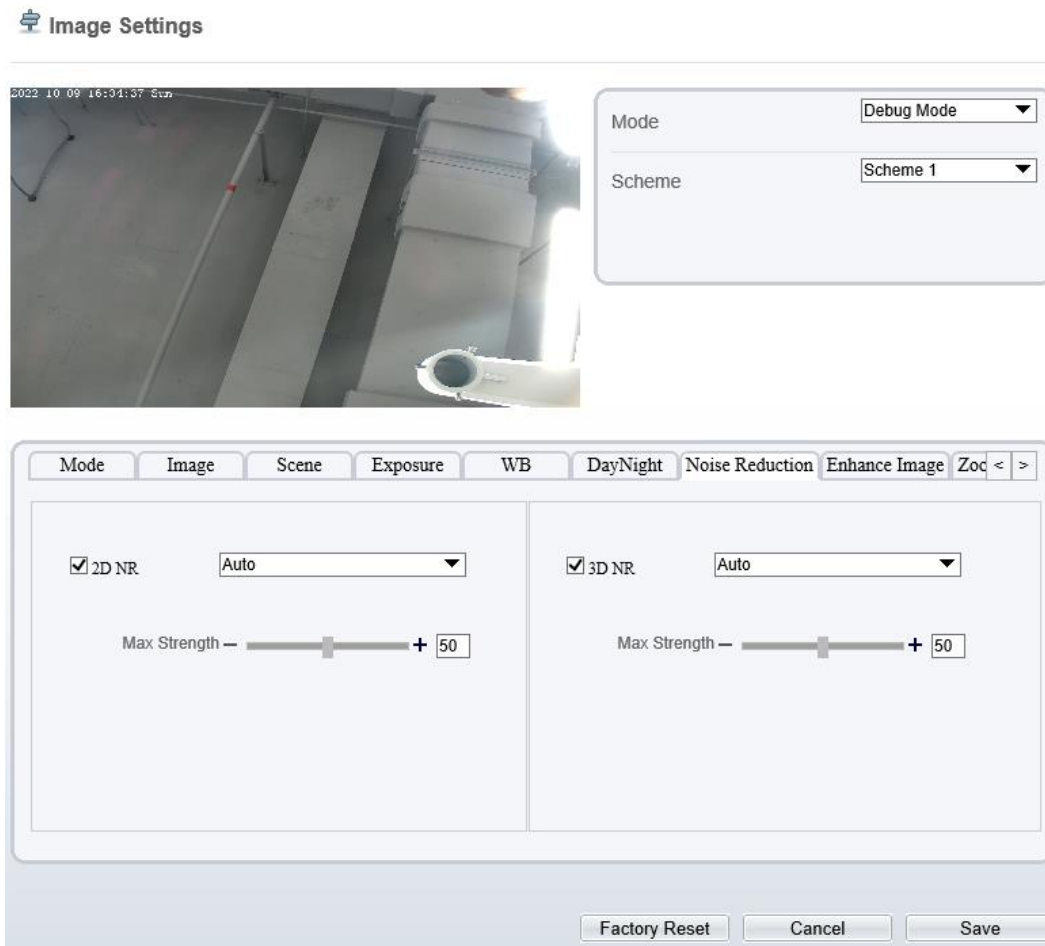


Figure 4-11 Noise reduction page (manual)

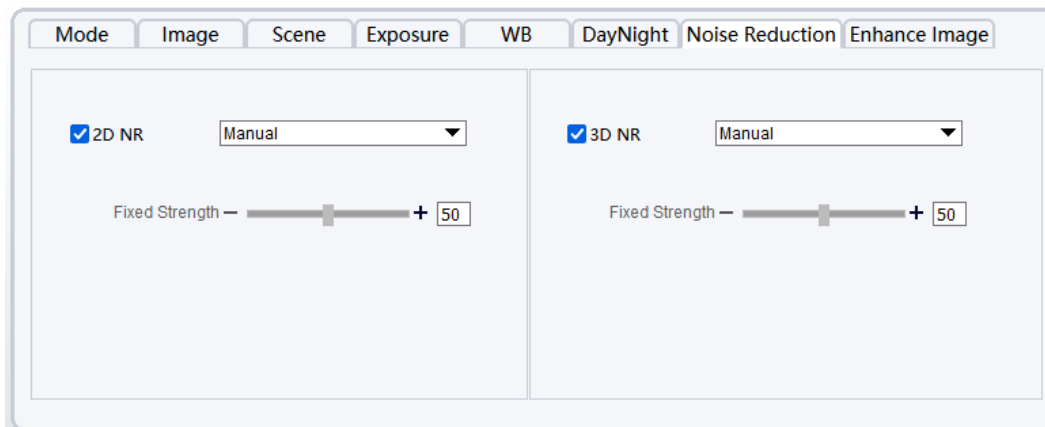


Table 4-6 describes Noise Reduction parameters.

Table 4-6 Parameters of Noise reduction

Parameter	Meaning	Configuration Method
2D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] <b>Auto</b>

Parameter	Meaning	Configuration Method
3D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] <b>Auto</b>
Max Strength	It is valid in auto noise filter mode. When the parameter value is <b>0</b> , the noise filter is disabled. When the parameter value is greater than <b>0</b> , the noise filter is enabled, and the system automatically adjusts the noise filter level based on the ambient brightness without exceeding the value of this parameter.	[Setting method] Drag the slider. [Default value] <b>50</b>
Fixed Strength	It is valid in a manual noise filter mode.	[Setting method] Drag the slider. [Default value] <b>50</b>

## 4.9 Enhance Image

Figure 4-12 shows the enhance image interface and Table 4-7 shows the enhance image parameters.

Figure 4-12 Enhance image page

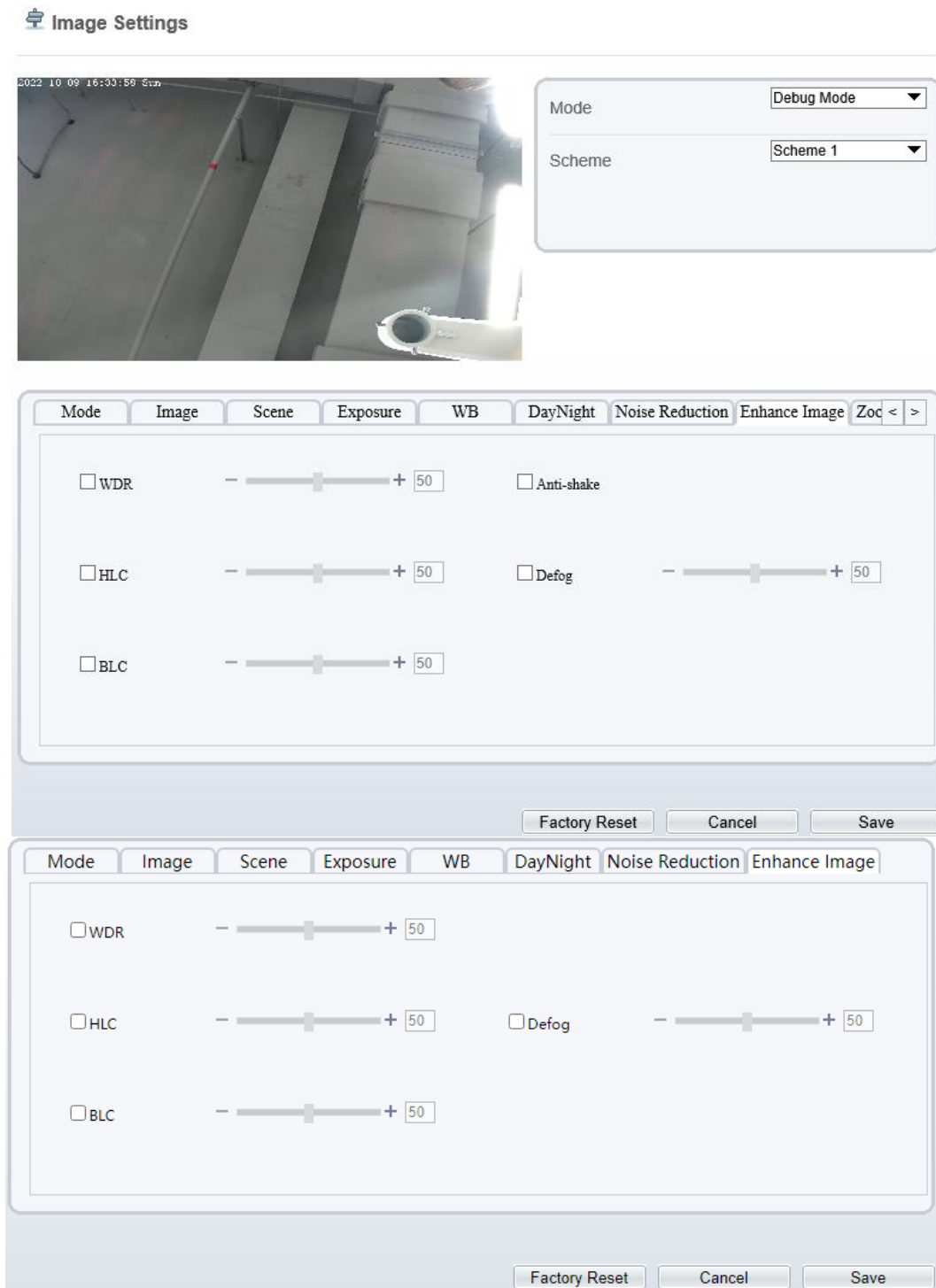


Table 4-7 Parameters of enhance image

Parameter	Meaning	Configuration Method
WDR	It is used to display the foreground and background at the same time in the environment with a large brightness difference. When the brightness difference is larger, you can increase the WDR level to obtain better image effect.	[Setting method] Tick the WDR mode and drag the slider. [Default value] <b>50</b>

Parameter	Meaning	Configuration Method
HLC	It provides a clearer view of an image in the highlight environment. When HLC is enabled, the total brightness of an image is reduced, allowing you to view objects in front of the highlight.	[Setting method] Tick the HLC mode and drag the slider. [Default value] <b>50</b>
BLC	It provides a clearer view of an image in the backlight environment. When BLC is enabled, the total brightness of an image increases, allowing you to view objects in front of the backlight. Meanwhile, the objects behind the backlight are exposed excessively.	[Setting method] Tick the BLC mode and drag the slider. [Default value] <b>50</b>
Anti-shake	The shakes and visual angle of image will reduce when the camera shakes slightly and the anti-shake is enable.	[Setting method] Tick the Anti-shake mode.
DeFog	It provides a clearer view of an image in the fogged environment when DeFog is enabled. As the value increases, the image becomes clearer. Only apply for some models.	[Setting method] Tick the Defog mode and drag the slider. [Default value] <b>50</b>

## 4.10 Zoom Focus (Only for Some Models)

Figure 4-13 and Figure 4-15 shows the zoom focus interface and Table 4-7 shows the zoom focus parameters.

Figure 4-13 Zoom focus page for IP camera 1

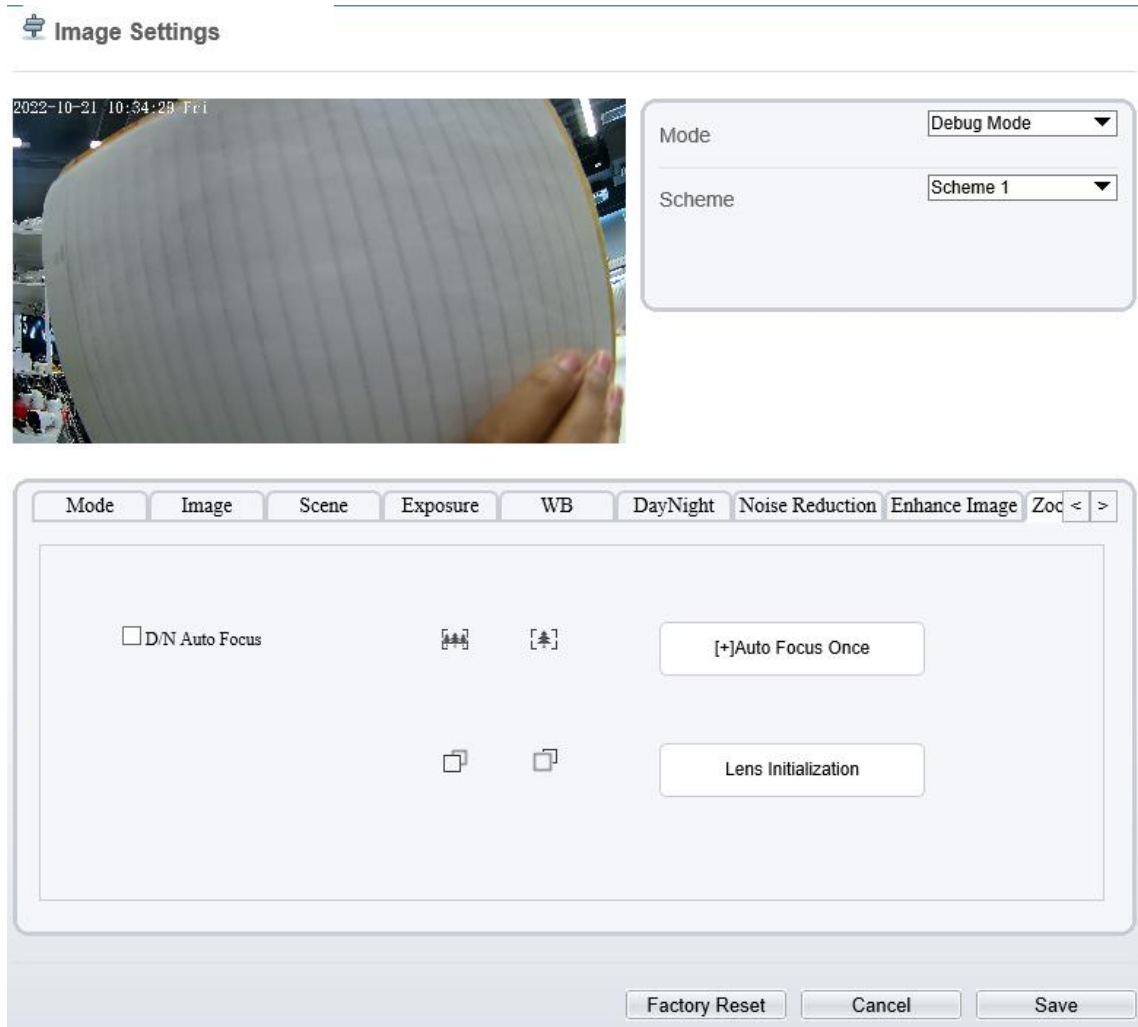


Figure 4-14 Zoom focus page for IP camera 2

### Image Settings



Mode Debug Mode ▼

Scheme Scheme 1 ▼

Mode Image Scene Exposure WB DayNight Noise Reduction Enhance Image Zoc < >

Digital Zoom

Focus Mode Auto ▼

Auto Focus Sensitivity -- 54 +

the least focus distance 6m ▼

Factory Reset Cancel Save

Figure 4-15 Zoom focus interface for high speed dome

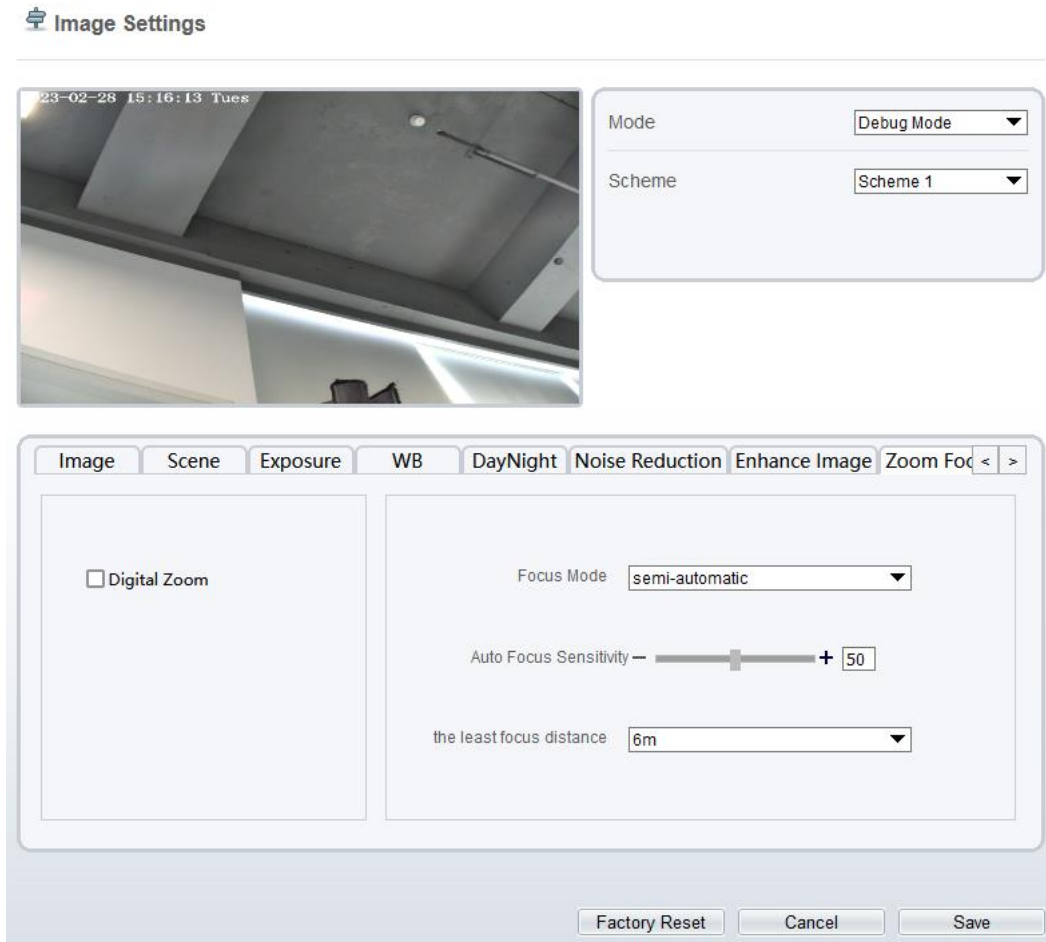



Table 4-8 Parameters of zoom focus

Parameter	Meaning	Configuration Method
D/N Auto Focus	It is used to trigger auto focus when day to night or night to day.	[Setting method] Tick the Auto focus.
Auto Focus Once	Click to trigger once auto focus.	[Setting method] Click the button.
Initial	The lens of camera returns to the initial position.	[Setting method] Click the button.
Digital	This function enables digital zoom after an image is zoomed in by 37 times in optical mode.	[Setting method] Tick the Digital.

Parameter	Meaning	Configuration Method
Focus Mode	<p>It can be set to the auto, manual or semi-automatic mode.</p> <p>Auto focus mode: The system automatically triggers focus based on application scenarios.</p> <p>Manual focus mode: You can trigger focus by using the buttons on the client.</p> <p>Semi-automatic focus mode: The system only automatically trigger focus once when the PTZ move or zoom in a scene.</p>	<p>[Configuration method]</p> <p>Select from the drop-down list</p> <p>[Default value]</p> <p><b>Semi-automatic</b></p>
Auto Focus Sensitivity	<p>It indicates the sensitivity of auto focus. When the sensitivity is high, the camera movement is more likely to focus again at slight changes of an image.</p>	<p>[Setting method]</p> <p>Drag the slider.</p> <p>[Default value]</p> <p><b>50</b></p>
The Least Focus Distance	<p>It indicates the minimum focus distance. A camera does not focus when the distance is smaller than this value. For example, if the minimum focus distance is set to 1.5 m, a camera focuses only on objects more than 1.5 m away, and the changes of objects less than 1.5 m away do not affect the focusing.</p> <p> <b>NOTE</b></p> <p>This parameter applies only to visible light.</p>	<p>[Configuration method]</p> <p>Select from the drop-down list</p> <p>[Default value]</p> <p><b>3 m</b></p>

---End

# 5 Device

## 5.1 Local Network

### Description

Local network parameters include:

- IP protocol
- IP address
- Subnet mask
- Default gateway
- Dynamic Host Configuration Protocol (DHCP)
- Preferred Domain Name System (DNS) server
- Alternate DNS server
- MTU

### Procedure

Step 1 Choose **Configuration > Device > Local Network**.

The **Local Network** page is displayed, as shown in Figure 5-1.

Figure 5-1 Local network page

**Local Network**

Network Card ID	1
IP Protocol	IPv4
DHCP	<input checked="" type="checkbox"/> ON
DHCP IP	192.168.0.120
Preferred DNS Server	192.168.0.1
Alternate DNS Server	192.168.0.2
MTU(1280-1500)	1500

Refresh Apply

**Local Network**

---

Network Card ID 1 ▾

IP Protocol IPv4 ▾

---

DHCP  OFF

IP Address 192.168.0.180

Subnet Mask 255.255.255.0

Default Gateway 192.168.0.1

---

Preferred DNS Server 192.168.0.1

Alternate DNS Server 192.168.0.2

MTU(1280-1500) 1500

---

Refresh Apply

Step 2 Set the parameters according to Table 5-1.

Table 5-1 Local network parameters

Parameter	Description	Setting
Network Card ID	--	[Default value] 1
IP Protocol	IPv4 is the IP protocol that uses an address length of 32 bits. IPv6 is the IP protocol that uses an address length of 64 bits.	[Setting method] Select a value from the drop-down list box. [Default value] IPv4
DHCP	Enable DHCP, and the device automatically obtains the IP address from the DHCP server.	[Setting method] Click the button on to enable <b>DHCP</b> . NOTE To query the current IP address of the device, you must query it on the platform based on the device name.
DHCP IP	IP address that the DHCP server assigned to the device.	N/A
IP Address	Device IP address that can be set as required.	[Setting method] Enter a value manually. [Default value] 192.168.0.120

Parameter	Description	Setting
Subnet Mask	Subnet mask of the network adapter.	[Setting method] Enter a value manually. [Default value] 255.255.255.0
Default Gateway	This parameter must be set if the client accesses the device through a gateway.	[Setting method] Enter a value manually. [Default value] 192.168.0.1
Preferred DNS Server	IP address of a DNS server.	[Setting method] Enter a value manually. [Default value] 192.168.0.1
Alternate DNS Server	IP address of a domain server. If the preferred DNS server is faulty, the device uses the alternate DNS server to resolve domain names.	[Setting method] Enter a value manually. [Default value] 192.168.0.2
MTU	Set the maximum value of network transmission data packets.	[Setting method] Enter a value manually. NOTE The MTU value is range from 1280 to 1500, the default value is 1500, Please do not change it arbitrarily.

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings. The message "Set network parameter success, Please login system again" is displayed. Use the new IP address to login to the web management system.

If the message "Parameter is Invalid " is displayed, please set the parameters correctly.

----End

## 5.2 Device Port

### Description


You must configure the HTTP port, control port, RTSP (Real-Time Streaming Protocol) port and SSL Control port for device route mapping in a LAN.

### Procedure


Step 1 Choose **Configuration > Device > Device Port**.

The **Device Port** page is displayed, as shown in Figure 5-2.

Figure 5-2 Device port page

 **Device Port**

Control Port	<input type="text" value="30001"/>
Http Port	<input type="text" value="80"/>
RTSP Port	<input type="text" value="554"/>
HTTPS Port	<input type="text" value="443"/>
SSL Control Port	<input type="text" value="20001"/>

 **Device Port**

Control Port(1025-65535)	<input type="text" value="30001"/>
HTTP Port(1-65535)	<input type="text" value="80"/>
RTSP Port(1-65535)	<input type="text" value="554"/>
HTTPS Port(1-65535)	<input type="text" value="443"/>

Step 2 Set the parameters according to Table 5-2.

Table 5-2 Parameters of device port

Parameter	Description	Setting
Control Port	Port used for audio and video transfer and signaling interaction.	[Setting method] Enter a value manually. [Default value] 30001
HTTP Port	Port used in web access. Modify the port to 86, you should input “ <a href="http://192.168.0.120:86/">http://192.168.0.120:86/</a> ” to access the web.	[Setting method] Enter a value manually. [Default value] 80
RTSP Port	RTSP protocol port. The rule can refer to “ Configuration > Protocol > Protocol Info”. Input the “ rtsp://192.168.0.120:554/sn1/live/1/1” at VLC player to view the live video.	[Setting method] Enter a value manually. [Default value] 554

Parameter	Description	Setting
HTTPS Port	Hyper Text Transfer Protocol over Secure Socket Layer. At “Configuration > Device > System ” set Web Mode to HTTPS. Input “ <a href="https://192.168.0.120:443">https://192.168.0.120:443</a> ” to access the web.	[Setting method] Enter a value manually. [Default value] 443
SSL Control Port	Secure socket layer control port. Only for Some Models.	[Setting method] Enter a value manually. [Default value] 20001

 **NOTE**

It's not recommended to modify the control port, for details about the value ranges of the control port, HTTP port and SSL Control port, see the communication matrix.

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If the message "Port invalid, please check it" is displayed, enter correct port numbers.

----End

## 5.3 Date and Time

### Description

On the **Date and Time** page, you can modify the date and time. Parameters that can be set include:

- Time zone and daylight-saving time (DST)
- Date and time
- Network Time Protocol (NTP) server

### Procedure

Step 1 Choose **Configuration > Device > Date and Time**.

The **Date and Time** page is displayed, as shown in Figure 5-3. Table 5-3 describes the parameters.

Figure 5-3 Date and time page

**Date and Time**

Time Zone [(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London ▼]

Daylight Savings Time  ON

Begin Time Mar ▼ 5th ▼ Sun ▼ 1:00 ▼

End Time Oct ▼ 5th ▼ Sun ▼ 2:00 ▼

✓

Device Time 02/27/2019 15:14:08

Current PC Time 02/27/2019 15:11:08 ✓

Set Manually 02/27/2019 15:13:24 ✓

NTP  ON

NTP Server Addr

NTP Port 123

Check the time interval(greater than 10s) 3600

✓

Table 5-3 Parameters of date and time

Parameter	Description	Setting
Time Zone	N/A	[Setting method] Select a value from the drop-down list box. [Default value] Greenwich mean time
Daylight Saving Time	When the DST start time arrives, the device time automatically goes forward one hour. When the DST end time arrives, the device time automatically goes backward one hour.  NOTE DST is the practice of advancing clocks so that evenings have more daylight and mornings have less. Currently, about 110 countries in the world use DST. Different countries have different DST provisions. Since March 27, 2011, Russia has started to use permanent DST.	[Setting method] Click the button on to enable <b>Daylight Saving Time</b> .

Parameter	Description	Setting
Device Time	Device display time.	[Setting method] Synchronize the time from the PC. Enter a value manually.
Current PC Time	Time on the current PC.	N/A
Set Manually	Enables you to manually set the device time.	[Setting method] Click <b>Set Manually</b> and set the date and time in the format <i>YYYY-MM-DD HH:MM:SS</i> .
NTP	IP address or domain name of the NTP server.	[Setting method] Click the button on to enable <b>NTP</b> and enter a value manually.
NTP Server Address	The NTP server IP.	[Setting method] Enter a value manually.
NTP Port	Port number of the NTP server.	[Setting method] Enter a value manually. [Default value] <b>123</b>
Check the time interval (at least 10 s)	Set time interval to check if the device time synchronizes with the NTP server time.	[Setting method] Enter a value manually. [Default value] <b>3600</b>

Step 2 Select a time zone from the **Time Zone** drop-down list box.

Step 3 (Optional) Click the button on to enable **Daylight Saving Time** and specify the DST start time and end time.

Step 4 Modify the device time.

Synchronizing time from the PC

Click **Current PC Time**.

Manually setting the device time

- Click Set Manually.
- A time setting control is displayed.
- Set the date and time.

Step 5 Configure the NTP.

1. Click the button on to enable **NTP**.
2. Enter the IP address or domain name of the NTP server, the port number and the time interval.

Step 6 Click .

The message "Apply success!" is displayed and the system saves the settings.

----End

## 5.4 Camera

### Procedure

Step 1 Choose **Configuration > Device > Camera**.

The **Camera** page is displayed, as shown in Figure 5-4. Table 5-4 describes the parameters.

Figure 5-4 Camera page

Table 5-4 Parameters of camera

Parameter	Description	Setting
Video System	The options are as follows: PAL: Used in Europe and China mainland, India, Pakistan, etc. NTSC: Used in USA, Japan, South Korea, and Taiwan Province of China, etc.	[Setting method] Select a value from the drop-down list box. [Default value] PAL NOTE Whether the video system can be changed depends on the device model.
Video Refresh Frequency	The options are as follows: 50 Hz: corresponds to the PAL system. 60 Hz: corresponds to NTSC system.	[Setting method] Follow the video standard.

Step 2 Enter a channel name.

#### NOTE

The channel name must be within the length of 0 to 32 bytes, it is combined with digital and character (except for some special character, such as < > % & \',=+).

Step 3 Click .

The message "Apply success!" is displayed.

#### NOTE

If the video system is modified, the message "The device will be restart, are you sure to modify?" is displayed, and the system automatically saves the settings. The settings take effect after the device restarts.

---End

## 5.5 OSD

### Description

The on-screen display (OSD) function allows you to display the device name, channel ID and name, time, and other customized contents on videos. You can drag the OSD frames to anywhere you want to put.

When the resolution is D1 and CIF, the OSD customized in web interface can show at most 22 words normally.

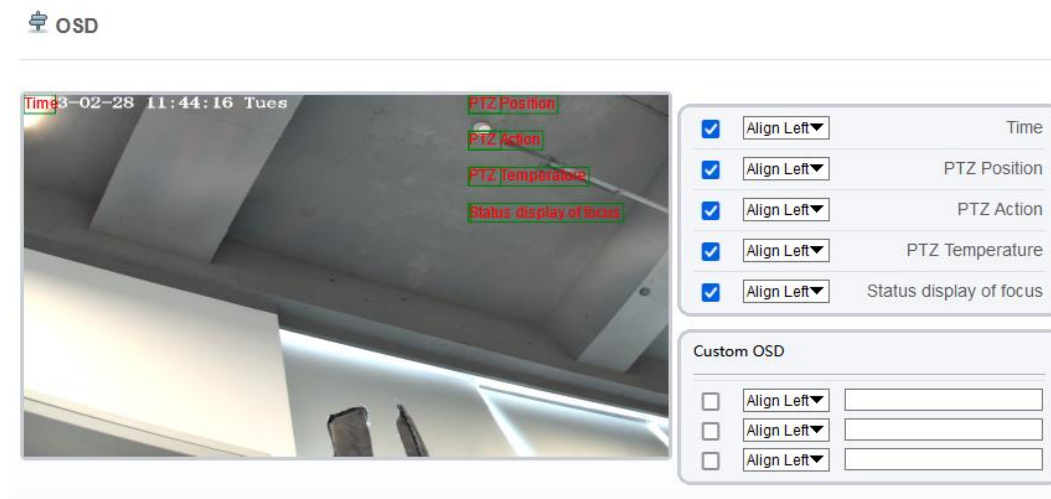
The OSD support simplified Chinese, English, digital and some special character only.

### Procedure

Step 1 Choose **Configuration > Device > OSD**.

The **OSD** page is displayed, as shown in Figure 5-5.

Figure 5-5 PTZ OSD page



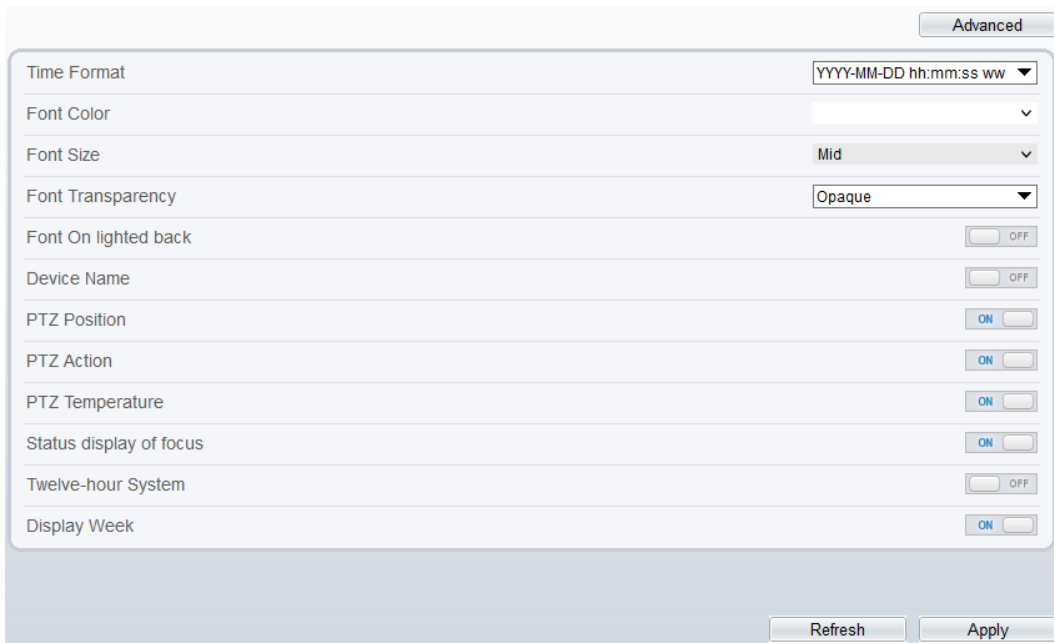
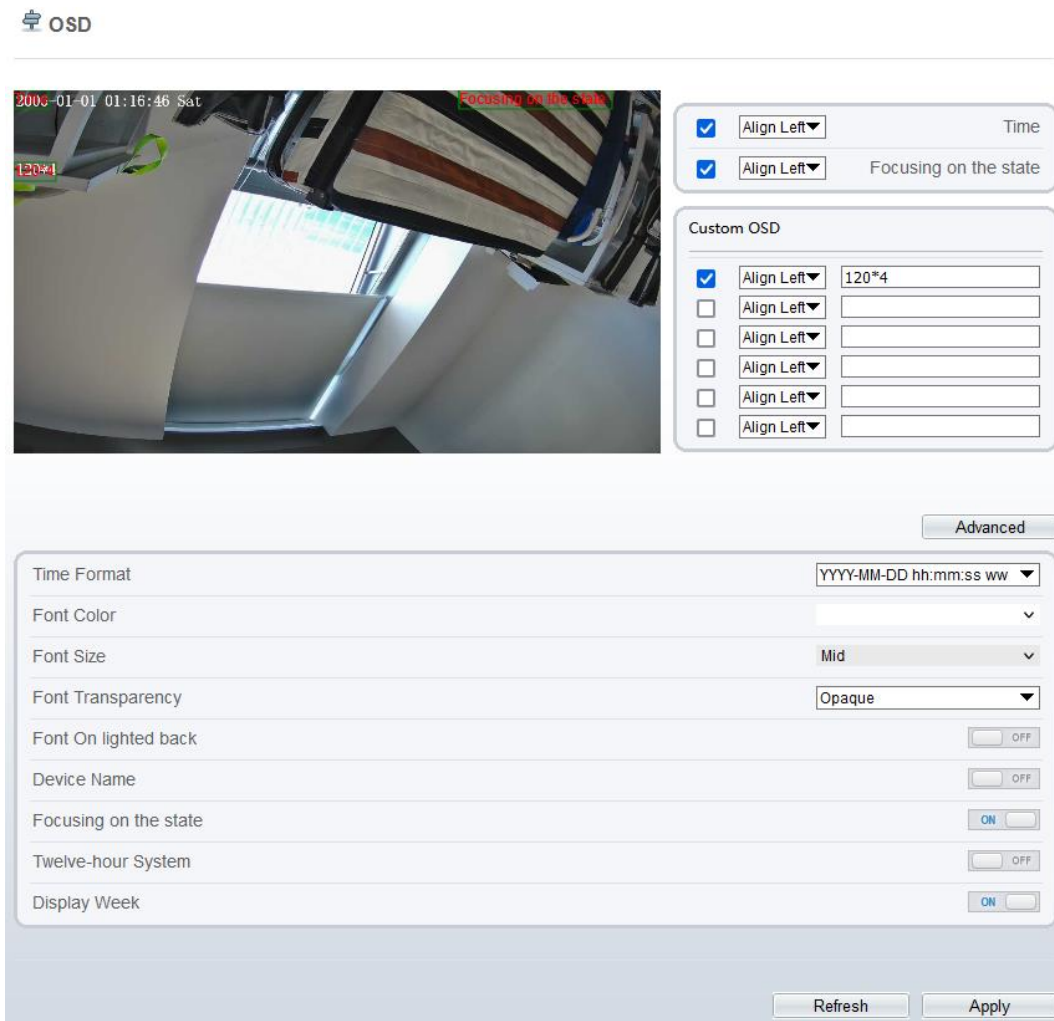


Figure 5-6 OSD (general camera)




Step 2 Set the parameters according to Table 5-5.

**NOTE**

There are no more than seven OSD display areas.

Table 5-5 Parameters of OSD

Parameter	Description	Setting
Time	Indicates whether to display the time.	[Setting method] Tick the time.
Focusing on the State	Displays the state of focusing on. NOTE: Only Supplied for camera of auto focusing lens.	[Setting method] Tick the Focusing on the state.
Custom OSD	Enables you to enter a line of characters.	[Setting method] 1. Tick the custom OSD list. 2. Enter the characters. Click  to save the value.
Time Format	Format in which the time is displayed.	[Setting method] Select a value from the drop-down list box. [Default value] YYYY-MM-DD hh:mm:ss ww
Font Color	Set the font color.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Font Size	Set the font size.	[Setting method] Select a value from the drop-down list box. [Default value] Mid
Font Transparency	Set the font transparency.	[Setting method] Select a value from the drop-down list box. [Default value] Opaque
Font on Lighted Back	Enable the font on lighted back.	[Setting method] Click the button on to enable <b>Font on lighted back</b> .
Device Name	Indicates whether to display the device name.	[Setting method] Click the button on to enable <b>Device Name</b>
PTZ Position	Only used for PTZ cameras	[Setting method] Click the button on to enable

Parameter	Description	Setting
PTZ Action		[Setting method] Click the button on to enable
PTZ Temperature		[Setting method] Click the button on to enable
Status Display of Focus	The status of focusing will be showing on live video.	[Setting method] Click the button on to enable
Twelve-hour System	The time format shows at twelve-hour system.	[Setting method] Click the button on to enable
Display Week	The week will show.	[Setting method] Click the button on to enable

Step 3 Click **Advanced**, set the parameter of “ Time Format”, “Font Color”, “Font Transparency”, “Font on lighted back”, and so on.

Step 4 Click **Apply**.

The message "Apply success!" is displayed And the system saves the settings.

----End

## 5.6 Audio Input (Only for Some Models)

### Description

On the **Audio Input** page, you can set the audio input mode and volume.

### Procedure

Step 1 Choose **Configuration > Device > Audio Input**.

The **Audio Input** page is displayed, as shown in Figure 5-7. Table 5-6 describes the parameters.

Figure 5-7 Audio input page

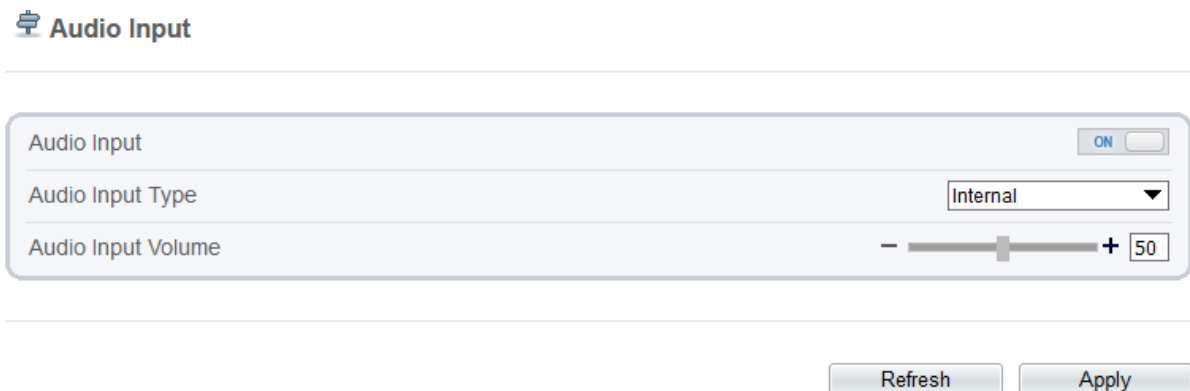


Table 5-6 Parameters of audio input

Parameter	Description	Setting
Enable Audio Input	Indicates whether to enable the audio input function.	[Setting method] Click the button on to enable audio input.
Audio Input Type	Audio input types include: Line In / Internal An active audio input is required.	[Setting method] Select a value from the drop-down list box.
Audio Input Volume	Allows you to adjust the audio input volume.	[Setting method] Slide the slider left or right. [Default value] 50 NOTE The value ranges from 0 to 100.

Step 2 Click **Apply**.

The message "Apply success!" is displayed. And the system saves the settings.

---End

## 5.7 Audio Output (Only for Some Models)

### Description


On the Audio Output page, you can set the audio input mode and volume.

### Procedure

Step 1 Choose **Configuration > Device > Audio Output**.

The **Audio Output** page is displayed, as shown in Figure 5-8. Table 5-7 describes the parameters.

Figure 5-8 Audio output Page

 **Audio Output**

---

Audio Output ON

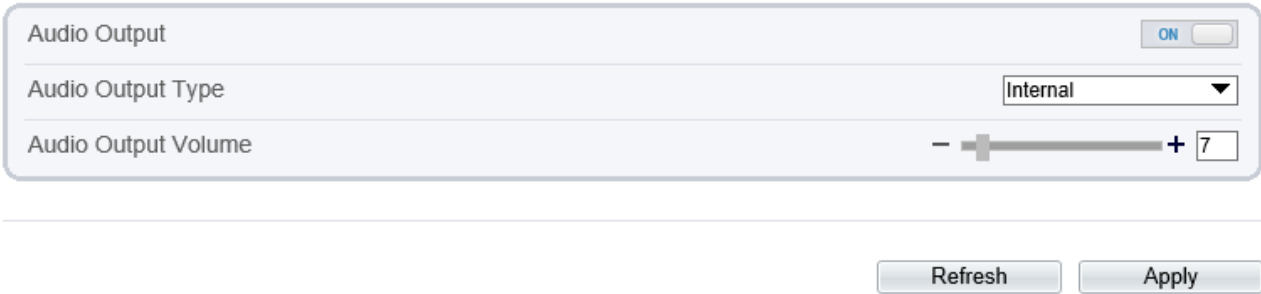
Audio Output Type External ▼

Audio Output Volume —  + 100

---

Refresh
Apply

## Audio Output



Audio Output ON

Audio Output Type Internal ▼

Audio Output Volume -  + 7

Refresh Apply

Table 5-7 Parameters of Audio output

Parameter	Description	Setting
Enable Audio Output	Indicates whether to enable the audio output function.	[Setting method] Click the button on to enable audio output.
Audio Output Type	Microphone types include: External An active audio output is required. Internal means the camera own speaker.	[Setting method] Select a value from the drop-down list box.
Audio output Volume	Allows you to adjust the audio output volume.	[Setting method] Slide the slider left or right. [Default value] 50 NOTE The value ranges from 0 to 100.

Step 2 Click **Apply**.

The message "Apply success!" is displayed. And the system saves the settings.

----End

## 5.8 Dome PTZ (Only for Some Models)

### Description

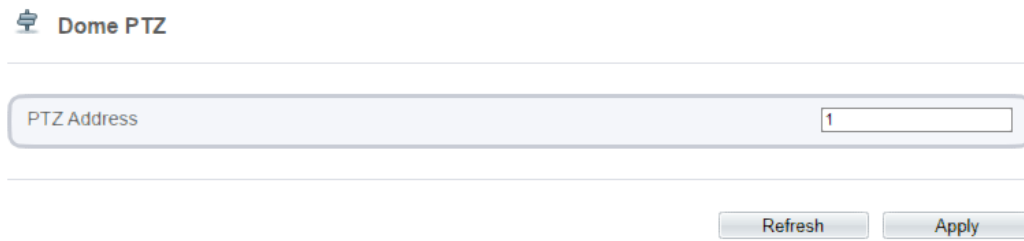
The high speed dome cameras are connected to 485 keyboards, users can use the keyboard to control the cameras' PTZ menu.

### Procedure

Step 1 Choose **Configuration > Device > Dome PTZ**.

The **Dome PTZ** page is displayed, as shown in Figure 5-9.

Figure 5-9 Dome PTZ page



Dome PTZ

PTZ Address 1

Refresh Apply

Step 2 Input the PTZ address, the default is 1.

Step 3 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

## 5.9 CVBS Function (Only for Some Models)

### Preparation

Connect a display device to the VIDEO OUT port.

### Description

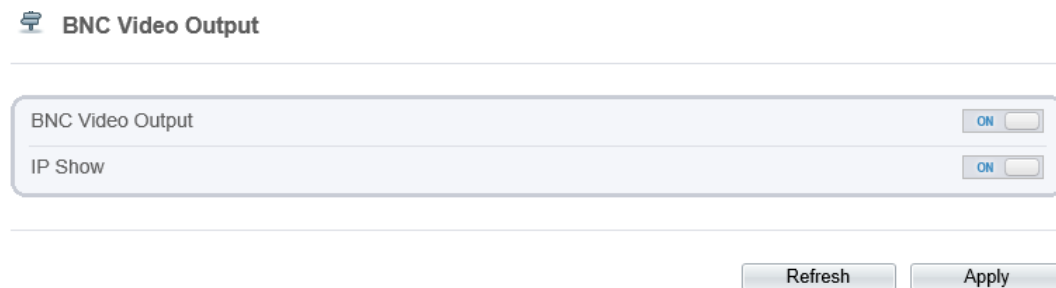
When the analog output function is enabled, the IP camera can send analog signals to a video server or display device through the VIDEO OUT port.

### Procedure

Step 1 Choose **Configuration > Device > CVBS**.

The **BNC Video Output** page is displayed, as shown in Figure 5-10.

Figure 5-10 BNC video output page



BNC Video Output

BNC Video Output ON

IP Show ON

Refresh Apply

Step 2 Click the button on to enable **BNC Video Output**.

Step 3 Click **Apply**.

The message "Apply success!" is displayed. And the system saves the settings.

----End

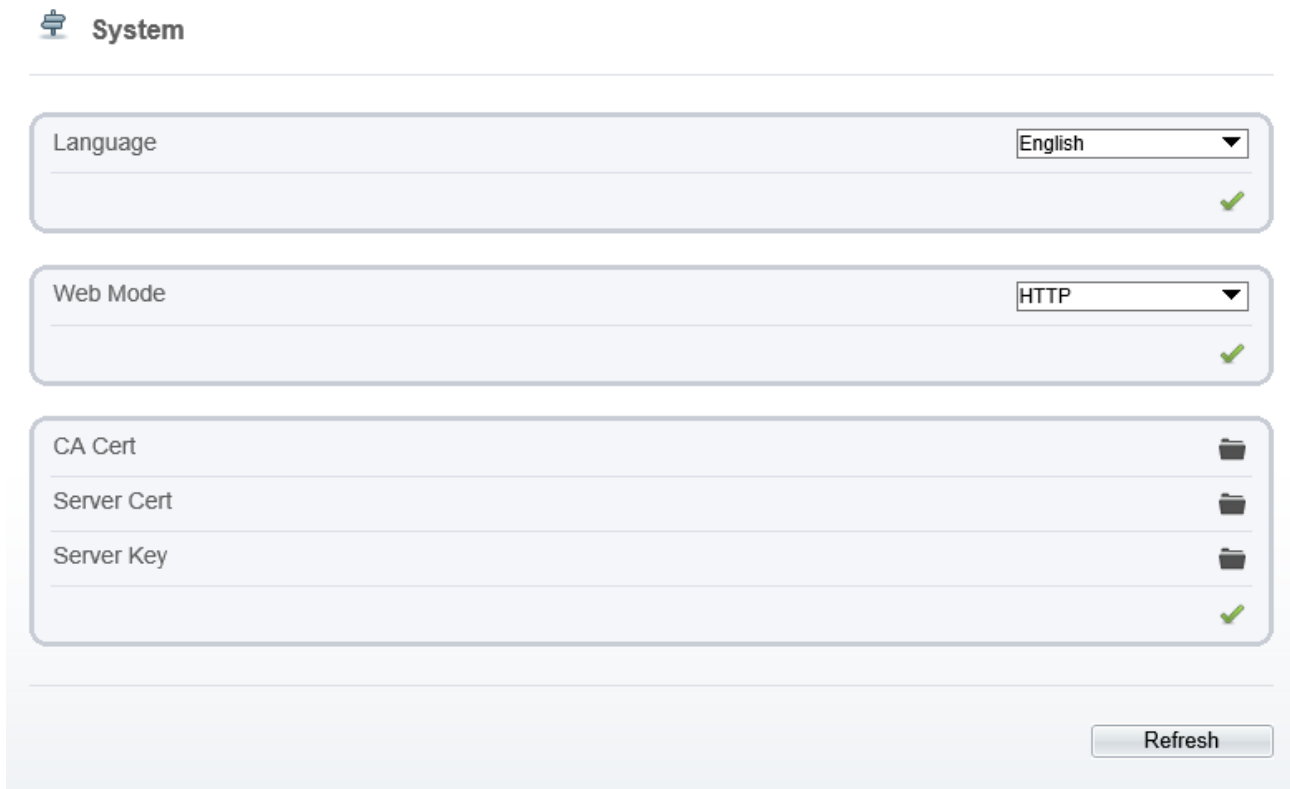
## 5.10 System Service

### Procedure

Step 1 Choose **Configuration > Device > System**.


The **System** page is displayed, as shown in Figure 5-11.

Figure 5-11 System service page




The screenshot shows the 'System' configuration page. At the top left, there is a 'System' header with a gear icon. Below it, there are three main configuration sections, each with a green checkmark icon on the right side. The first section is 'Language' with a dropdown menu set to 'English'. The second section is 'Web Mode' with a dropdown menu set to 'HTTP'. The third section is 'CA Cert', 'Server Cert', and 'Server Key', each with a folder icon on the right. At the bottom right of the page, there is a 'Refresh' button.

Step 2 Select an language from the **Language** drop-down list box.

Step 3 Click , the message "Apply success" is displayed.


Step 4 Click **OK**, the system saves the settings.

Step 5 Select a Web Mode from the **Web Mode** drop-down list box.

Step 6 Click , the message "This operation will lead to the device to restart, continue?" is displayed.

Step 7 Click **OK**, the device restarts and saves the settings automatically.

Step 8 Choose the CA cert, server cert, server cert, server key from the local folder,

Step 9 Click  to update the certificate.

----End

## 5.11 Fisheye (Only for Some Models)

### Procedure

Step 1 Click **Configuration > Device > Fisheye**.

The Fisheye page is displayed, as shown in Figure 5-12.

Figure 5-12 Fisheye page

#### Fish eye

Video	One-Channel ▼
Mount type	Ceiling ▼
Fisheye type	Fisheye ▼

When the fisheye device switches to non fisheye mode, the intelligent function cannot be used.

Refresh

Apply

Step 2 Choose the video mode, one-channel (for 4 PTZ fisheye type, the real-time video will be shown quad image) or multi-channels (for 4 PTZ fisheye type, the real-time video will be shown one image). Switch the video mode, the device will be reset.

Step 3 Choose the mount type. There are three types, Wall, Ceiling and Table.

Step 4 Choose the fisheye type.

One-channel fisheye types include:

- Fish eye: Original 360°, surround image; the intelligent analysis function is only used at this type.
- Double panorama: Double 180° panoramic image;
- 4PTZ: De-warping quad image;
- Single panorama: Single 180° panoramic image;
- Fisheye+3PTZ: 360° surround+3 De-warping images.

Multi -channel fisheye types include: 4PTZ and Fisheye+3PTZ.

Step 5 Click **Apply**. The message "Apply success!" is displayed, the system saves the settings.

---End

## 5.12 Voice Denoise (Only for Some Models)

### Description

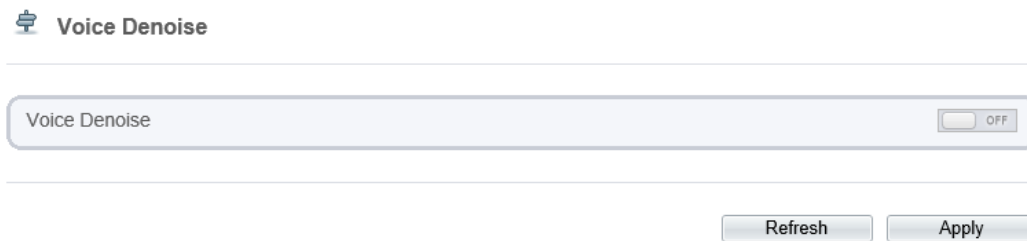
On the **Voice Denoise** page, you can enable the Voice Denoise to reduce the effect of external environmental noise on the built-in MIC.

### Procedure

Step 1 Choose **Configuration > Device > Voice Denoise**

The **Voice Denoise** page is displayed, as shown in Figure 5-13.

Figure 5-13 Voice denoise page



Step 2 Click the **Voice Denoise** button to enable the Voice Denoise.

Step 3 Click **Apply**. The message "Apply success" is displayed, the system saves the setting.

----End

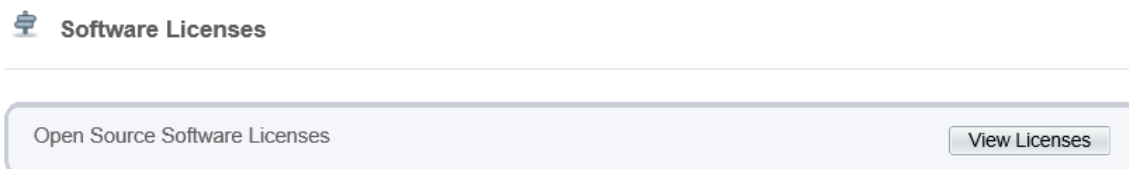
## 5.13 Software Licenses

### Procedure

Step 1 Click **Configuration > Device > Software Licenses**.

The **Software Licenses** page is displayed, as shown in Figure 5-14.

Figure 5-14 Software licenses page



Step 2 Click **View Licenses**, you can view the open source software licenses.

----End

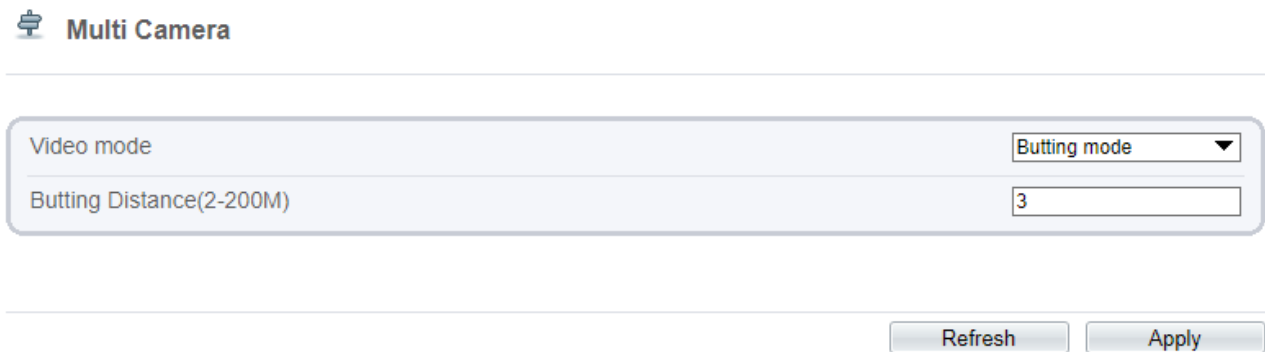
## 5.14 Multi-Channel (Only for Some Models)

## Procedure

Step 1 Click **Configuration > Device > Multi-Channel**.

The **Multi-Channel** page is displayed, as shown in Figure 5-14.

Figure 5-15 Multi-channel page



**Multi Camera**

Video mode Butting mode

Butting Distance(2-200M) 3

Refresh Apply

Step 2 Choose the video mode, butting mode or multi channels.

Butting mode indicates the real-time video is the butting image of two lens;

Multi channels indicate that there are two channels for camera, the two lenses image are independence.

Step 3 Set the butting distance, it indicates the images of two lens will mix together naturally at this distance position.

Step 4 Click **Apply**. The message "Apply success" is displayed, the system saves the setting.

---End

## 6 Configure External Devices

The external PTZ is only supply for some models.

### Description

When the IP camera is connected to an external PTZ, you can set external PTZ parameters, such as **PTZ Protocol**, **PTZ Address**, **Baud Rate**, and **Data Bits**.



#### CAUTION

This function is available only for a camera connected to an external PTZ. The PTZ address must be set to the address of the external PTZ; otherwise, the external PTZ cannot be used.

### Procedure

Step 1 Choose **Configuration > External Device > PTZ**.

The **PTZ** page is displayed, as shown in Figure 6-1.

Figure 6-1 PTZ page

PTZ

Camera 1

PTZ  ON

PTZ Protocol PELCO\_D

PTZ Address 0

Serial Port COM1

Baud Rate 9600

Data Bits 8

Stop Bits 1

Parity Verification None

Refresh Apply

Step 2 Set the parameters according to Table 6-1.

Table 6-1 Parameters of PTZ

Parameter	Description	Setting
PTZ	Enable this function if the device connects to an external PTZ.  NOTE This check box is dimmed for an IP dome camera.	[Setting method] Click the button on to enable PTZ configuration.
PTZ Protocol	Protocol used by the external PTZ, such as PELCO_D and PELCO_P.	[Setting method] Select a value from the drop-down list box.  NOTE When external PTZ parameters are configured, these parameters must match the settings on the external PTZ.
PTZ Address	Address of the external PTZ.	
Serial Port	The default value is <b>COM1</b> .	
Baud Rate	Baud rate used by the external PTZ. The value ranges from 300 bit/s to 115200 bit/s. The default value is <b>4800</b> bit/s.	
Data Bits	The value must match the setting used by the external PTZ. It can be set to a value ranging from 4 to 8. Generally, the value is 8.	
Stop Bits	N/A	
Parity Verification	N/A	

Step 3 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

# 7 Advanced Intelligent Analysis

## 7.1 Smoke and Flame Detection (Only for Some Models)

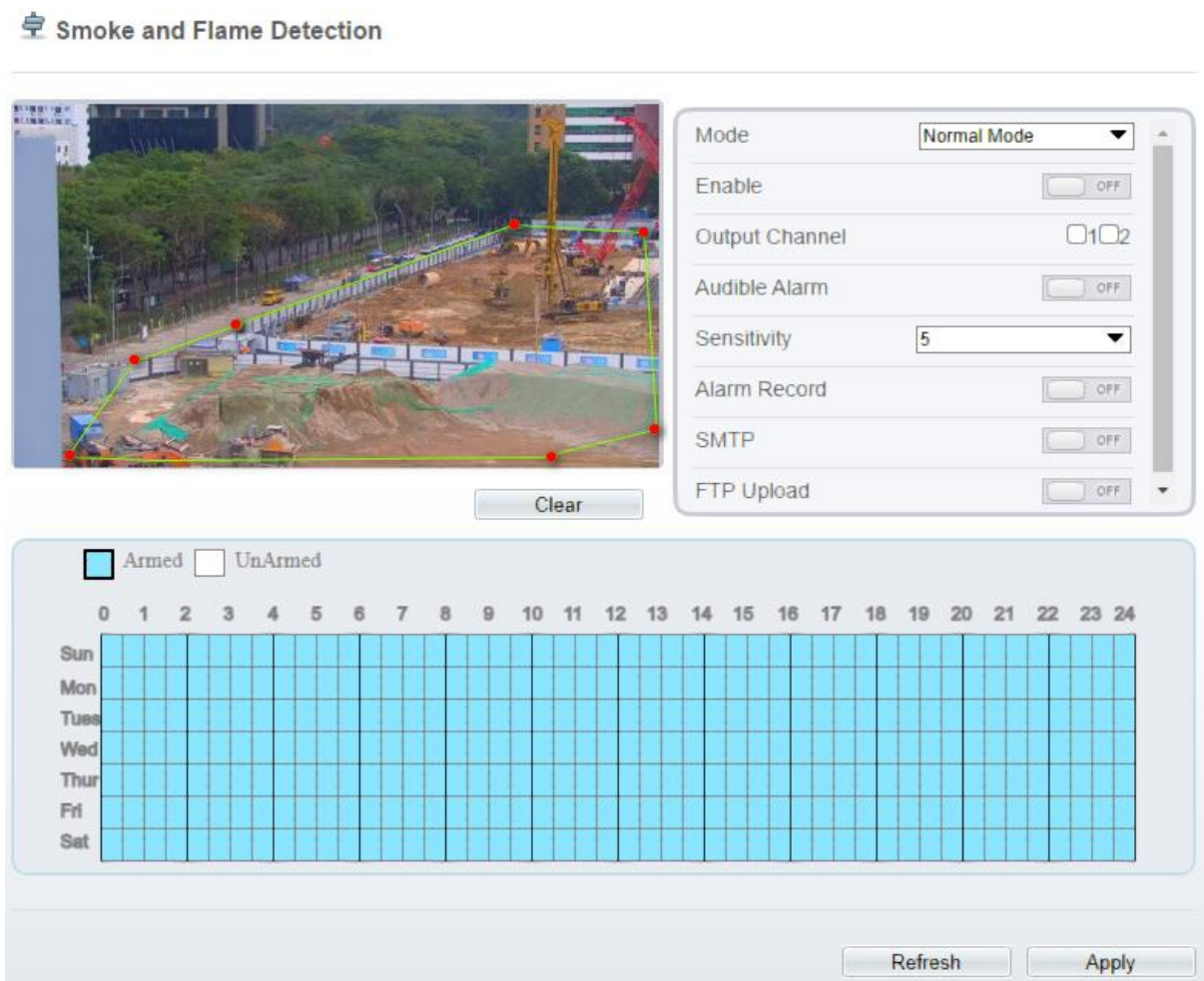
### Description

The smoke flame detection function refers to that an alarm is generated when someone is smoking or generating flame at the deployment area.

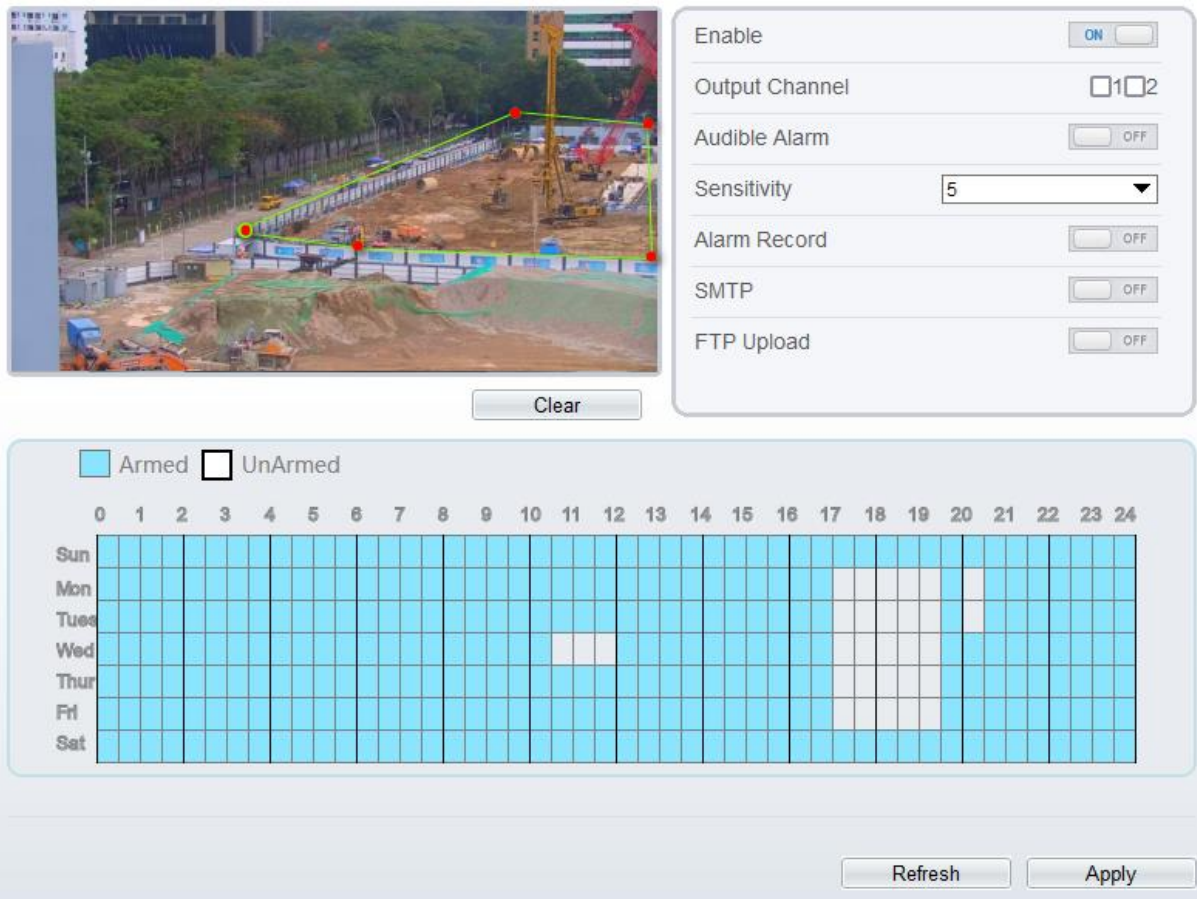
### Procedure

Step 1 Select **Configuration > Advanced Intelligent Analysis > Smoke and Flame Detection** to access the Smoke and Flame Detection interface, as shown in Figure 7-1.

Figure 7-1 Smoke and flame detection page



 Smoke and Flame Detection



Step 2 Set all parameters for smoke and flame detection. Table 7-1 describes the specific parameters.

Table 7-1 Smoke and flame detection description

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode.	[How to set] Choose from the drop-down list [Default value] <b>Normal mode</b>
Preset Point	When you choose the preset point mode, please choose one which is set in advanced.	---
Enable	At thermal channel, Enable the button to enable the alarm.	[How to set] Click Enable to enable. [Default value] <b>OFF</b>
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click to select an ID.

Parameter	Description	Setting
Audible Alarm	Enable, when happen the alarm, it will be play audio to alarm. Choose the sound alarm file (set at the “ <b>Configuration &gt; Alarm &gt; Audible Alarm Output</b> ”).	[How to set] Click to enable Audible alarm [Default value] <b>OFF</b>
Sensitivity	The sensitivity of detecting smoker, when the value is high, the alarm can be triggered easily, but the accuracy will be lower.	[How to set] Choose from the drop-down list [Default value] <b>5</b>
Alarm Record	When users install SD card to camera; enable that when happen the alarm, it will be recording the alarm.	[How to set] Click to enable alarm record. [Default value] <b>OFF</b>
SMTP	Enable the button to enable SMTP serve.	[How to set] Click to enable SMTP. [Default value] <b>OFF</b>
FTP Upload	Enable the button to enable File Transfer Protocol.	[How to set] Click to enable FTP Upload. [Default value] <b>OFF</b>
White Light Alarm	The camera should have white light or dual lights. When it alarms, the device will flicker the white light.	[Setting method] Click to enable White Light Alarm [Default value] <b>OFF</b>
Red and Blue Light Alarm	The camera should have red and blue light. When it alarms, the device will flicker alternating red light and blue light.	[Setting method] Enable Red and Blue Light Alarm [Default value] <b>OFF</b>

Step 3 Set a deployment area. Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

 **NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is up to 8.

Step 4 Set deployment time.

Click the armed icon  Armed to set the arming time. Click the Unarmed icon  UnArmed to set the unarming time.

**Method 1:** Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday.

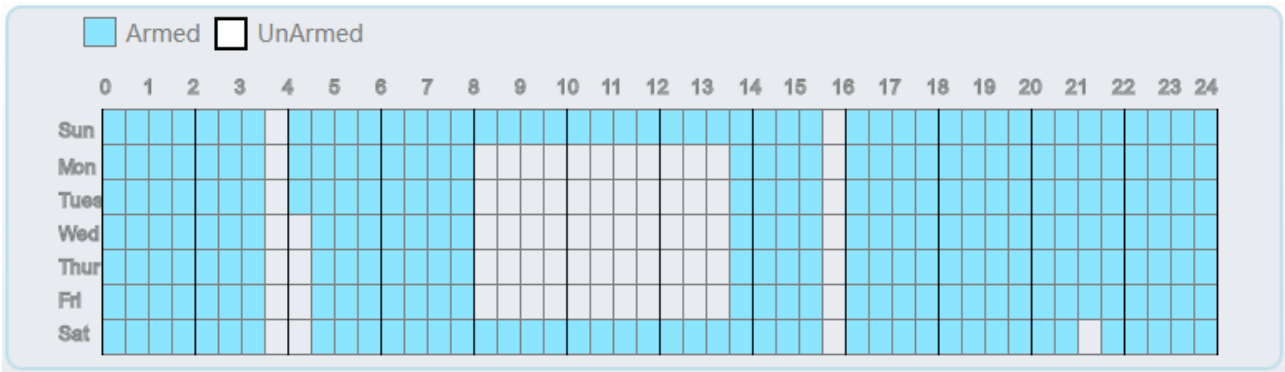
**Method 2:** Hold down the left mouse button, drag and release mouse to select the deployment time within 0:00-24:00 from Monday to Sunday.

**Deleting deployment time:** Click  UnArmed to delete the selected deployment time. The methods are same as set deployment time.

 **NOTE**

- When you select time by dragging the cursor, the cursor cannot be moved out of the time area. Otherwise, no time can be selected.

Figure 7-2 Deployment time setting page



Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

# 8 Configure Intelligent Analysis

## 8.1 Intrusion

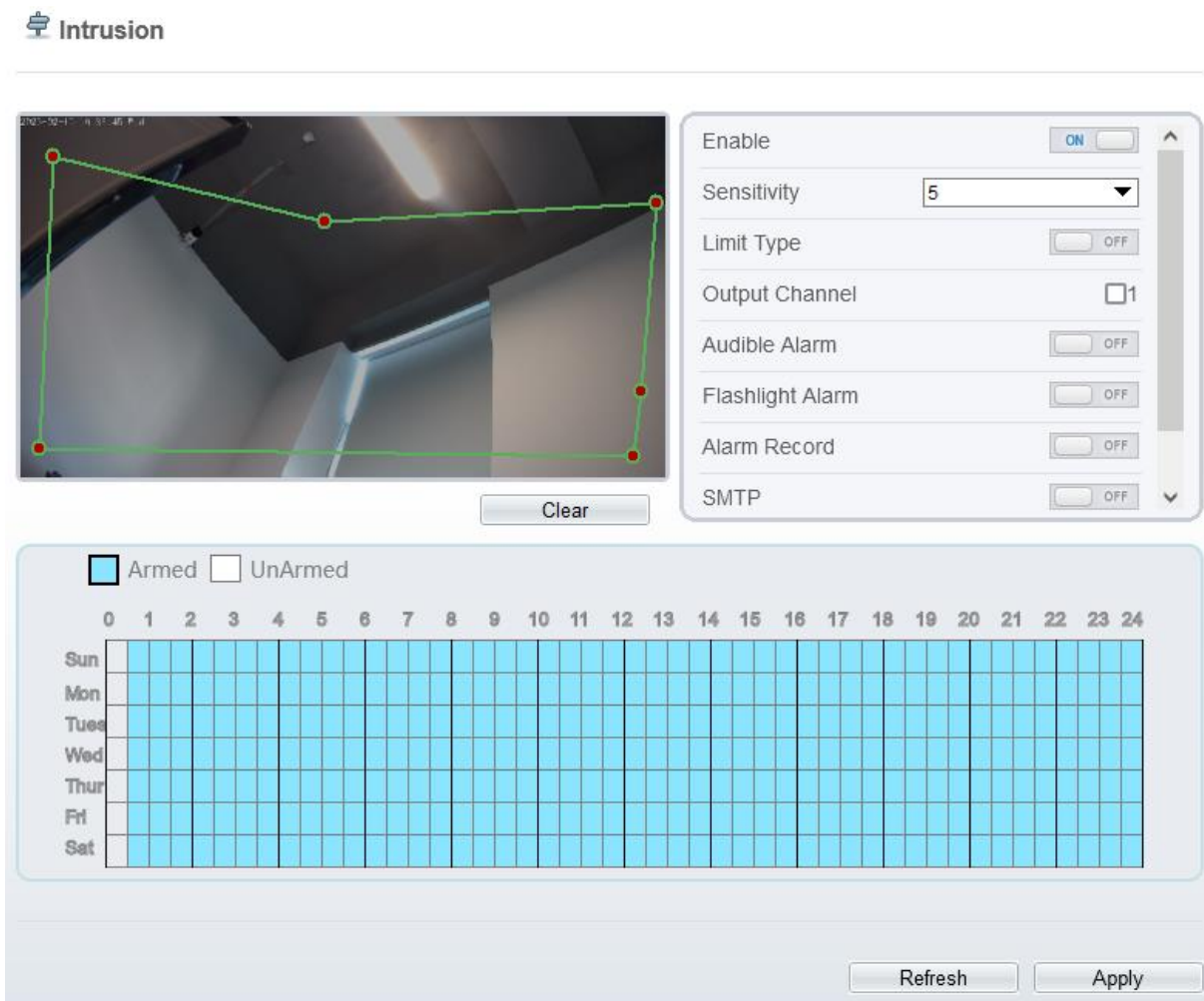
### Description

The intrusion function refers to that an alarm is generated when target objects (such as person, car, and both person and car) enter the deployment area.

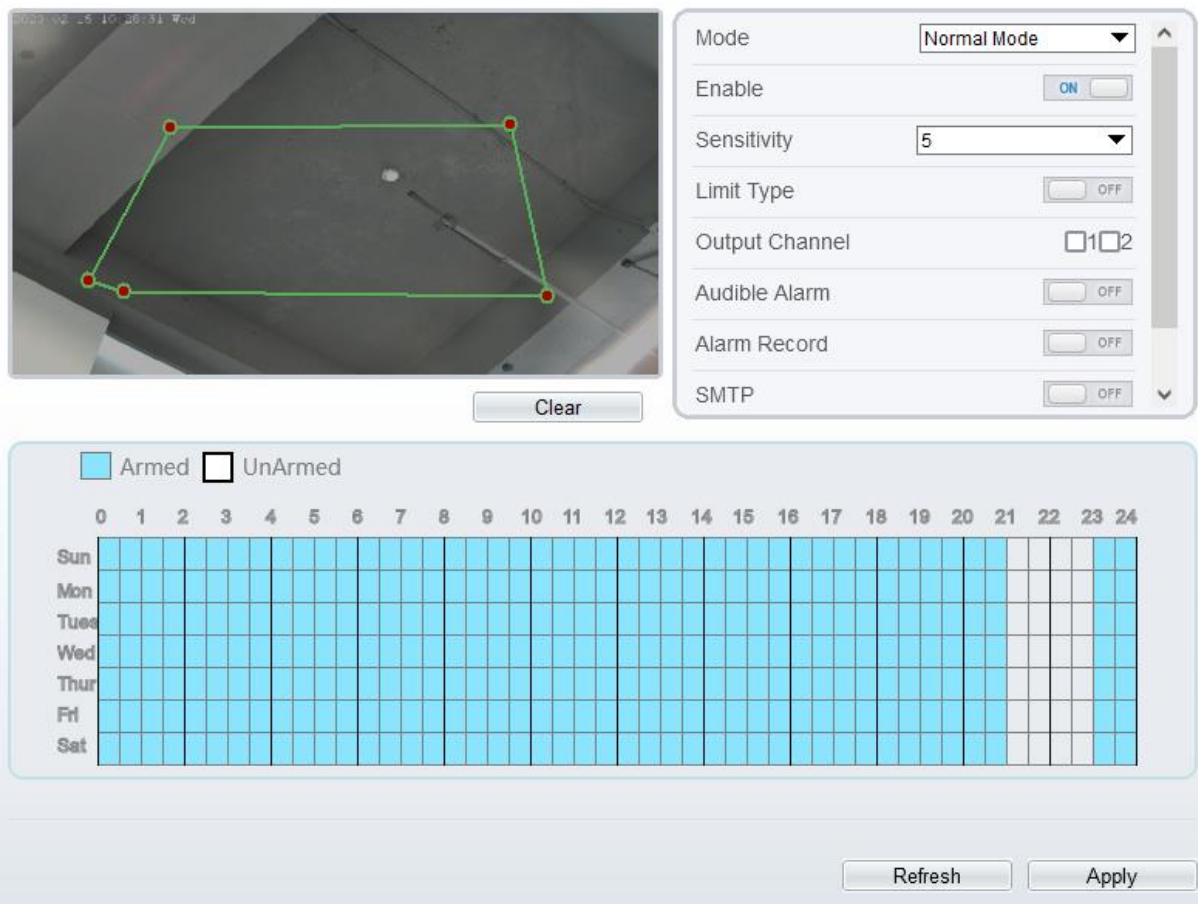
### Procedure

Step 1 Select **Intelligent Analysis > Intrusion** to access the **Intrusion** interface, as shown in Figure 8-1

Figure 8-1 Intrusion settings page



 Intrusion



Step 2 Set all parameters of intrusion. Table 8-1 describes the specific parameters.

Table 8-1 Intrusion parameter description

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] <b>Normal mode</b>
Enable	Enable the button to enable the alarm.	[How to set] Click the button on. [Default value] <b>OFF</b>
Sensitivity	The sensitivity of detecting the target, when the value is high, the target can be detected easily, but the accuracy will be lower.	[How to set] Choose from the drop-down list [Default value] <b>5</b>

Parameter	Description	Setting
Limit Type	Enable to choose the limit type (person or car / person / car) from type drop-down list.	[How to set] Click the button on. [Default value] <b>OFF</b>
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for Some Models.	[How to set] Click to select an ID.
Audible alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the “ <b>Configuration &gt; Alarm &gt; Audible Alarm Output</b> ”).	[How to set] Click to enable Audio Detection Alarm [Default value] <b>OFF</b>
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] <b>OFF</b>
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] <b>OFF</b>
SMTP	Enable the button to enable SMTP sever. More details please refer to chapter 14.5	[How to set] Click to enable SMTP. [Default value] <b>OFF</b>
FTP Upload	Enable the button to enable File Transfer Protocol. More details please refer to chapter 14.6 .	[How to set] Click to enable FTP Upload. [Default value] <b>OFF</b>
White light Alarm	When the <b>DayNight</b> mode is chosen <b>Night</b> mode, and the light is <b>IR LED</b> or <b>NONE</b> , this linkage action is valid. Enable to white light alarm when it triggers the alarm, the white light will be on. Only for Some Models.	[How to set] Click the button on. [Default value] <b>OFF</b>
White Light Alarm	The camera should have white light or dual lights. When it alarms, the device will flicker the white light.	[Setting method] Click to enable White Light Alarm [Default value] <b>OFF</b>

Parameter	Description	Setting
Red and Blue Light Alarm	The camera should have red and blue light. When it alarms, the device will flicker alternating red light and blue light.	[Setting method] Enable Red and Blue Light Alarm [Default value] <b>OFF</b>

### Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, as shown in Figure 8-2.

Figure 8-2 Deployment area setting page



#### NOTE

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 8 sides at most can be drawn.
- The quantity of deployment areas is up to 8.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.2 Single Line Crossing

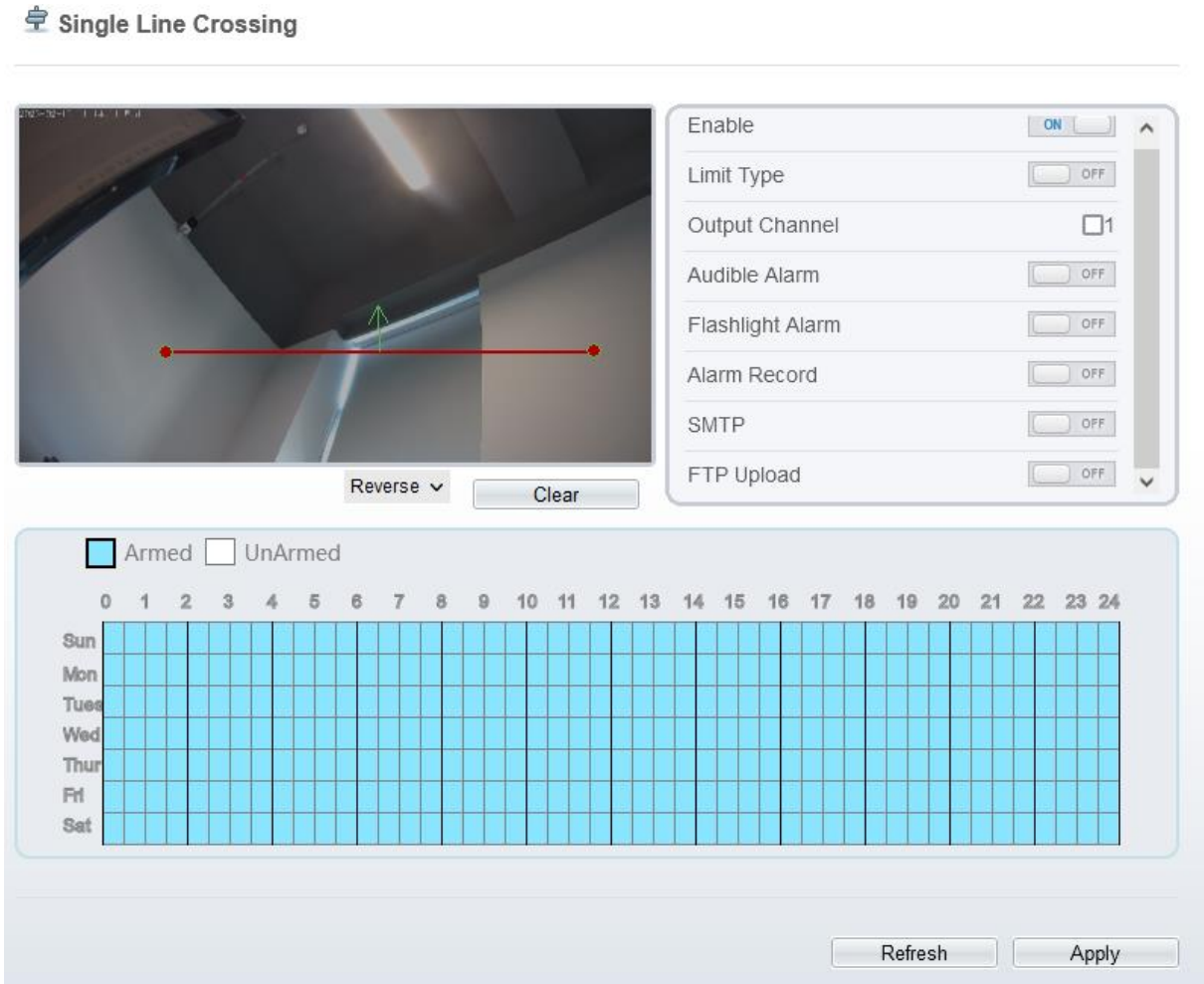
### Description

A single line crossing is a line that is set at a concerned position within the monitored field of view and specifies the forbidden travel direction, an alarm is generated when target objects (such as person or car) cross this line.

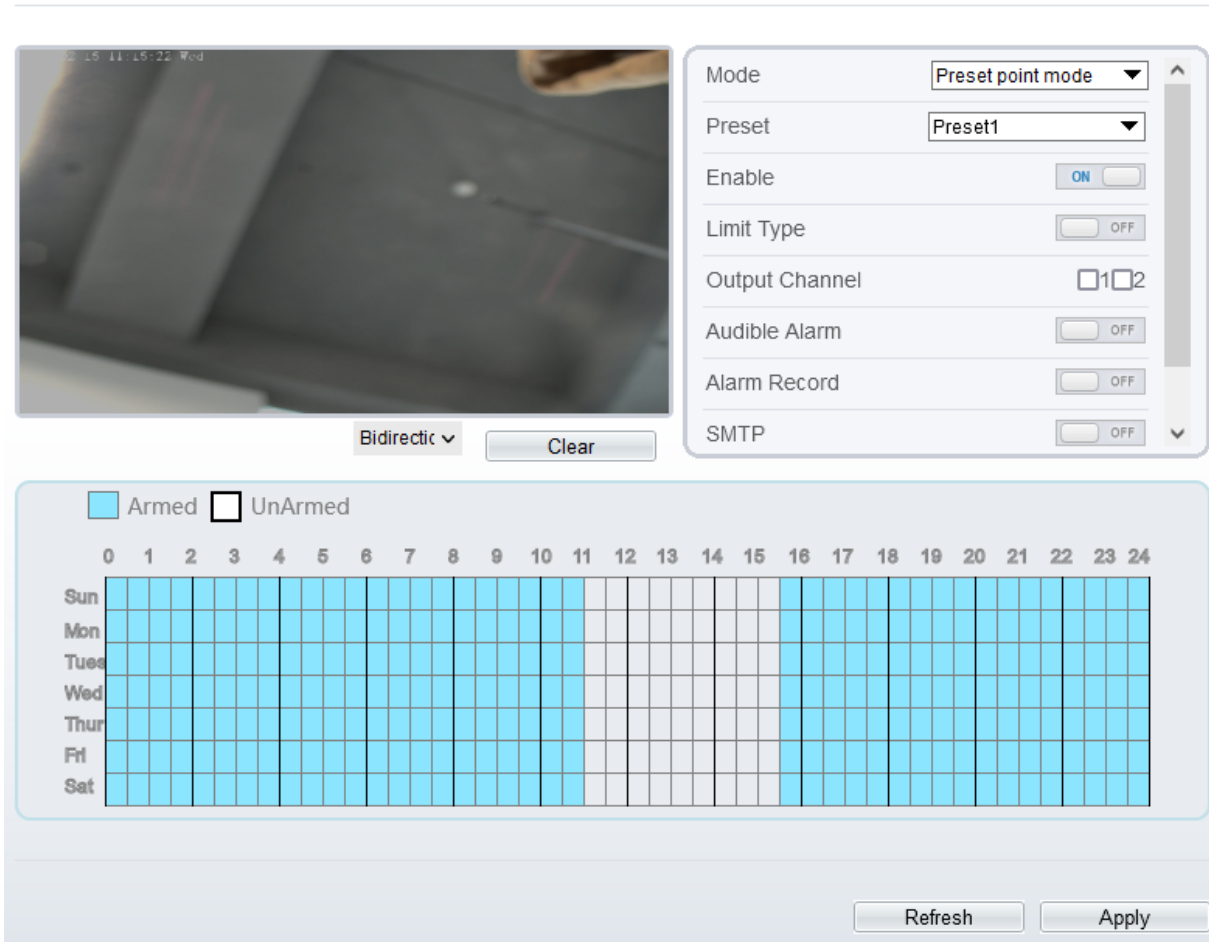
### Procedure

Step 1 Select **Intelligent Analysis > Single Line Crossing** to access the **Single Line Crossing** setting interface, as shown in Figure 8-3.

Figure 8-3 Single line crossing setting interface



## Single Line Crossing



The interface shows a video feed on the left with a timestamp '11:15:22 Wed'. Below the video are 'Bidirectic' and 'Clear' buttons. To the right is a settings panel with the following options:

- Mode: Preset point mode
- Preset: Preset1
- Enable:  ON
- Limit Type:  OFF
- Output Channel:  1  2
- Audible Alarm:  OFF
- Alarm Record:  OFF
- SMTP:  OFF

Below the settings is a calendar grid for the week of Sun to Sat. The grid shows the status of the alarm for each hour (0-24). A legend indicates that blue squares represent 'Armed' and white squares represent 'UnArmed'. The grid shows that the alarm is armed from 00:00 to 11:00 on all days, and from 16:00 to 24:00 on Sun, Mon, Tue, and Wed. It is unarmored from 12:00 to 15:00 on all days.

At the bottom right of the calendar are 'Refresh' and 'Apply' buttons.

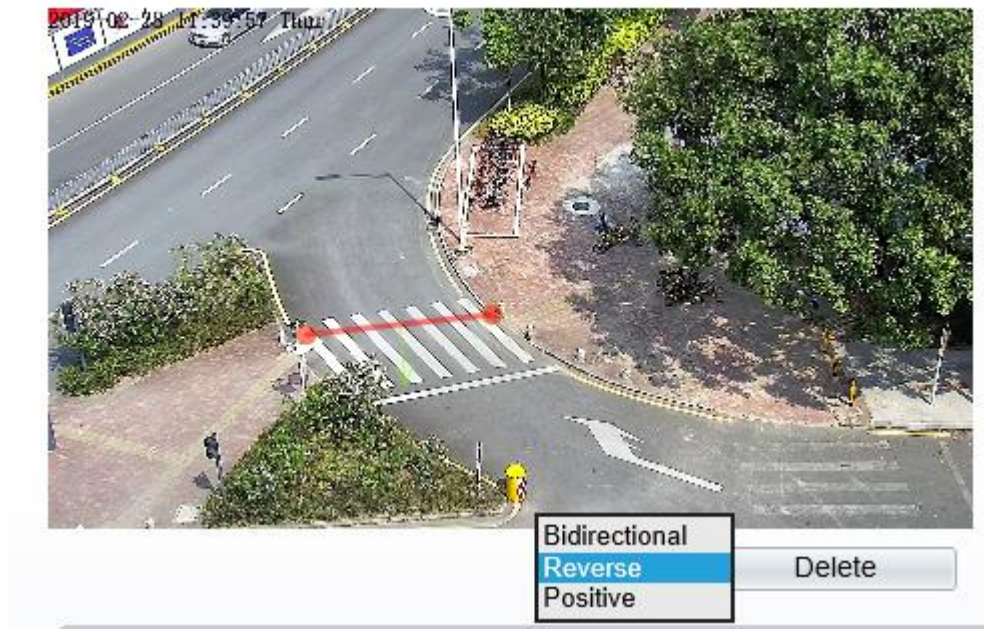
Step 2 Set all parameters of the single line crossing, please refer to *7.1 Step 2*.

Step 3 Set a deployment area

**Drawing a line:** Move the cursor to the drawing interface, hold down the left mouse button, and move the cursor to draw a line. When you release the left mouse button, a single line crossing is generated.

**Setting a single line crossing:** Click a line (and the trip line turns red) to select the single line crossing and set its direction as **positive**, **reverse** or **bidirectional**, or **delete the selected** line. You can also press and hold left mouse button at the endpoint of a single line crossing and move the mouse to modify the position and length of this single line crossing. You can right-click to delete the single line crossing, as shown in Figure 8-4.

Figure 8-4 Deployment area setting page



#### NOTE

Try to draw the single line crossing in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the single line crossing.

The single line crossing which detects person foot as the recognition target cannot be too short, because a short single line crossing tends to miss targets.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

----End

## 8.3 Double Line Crossing

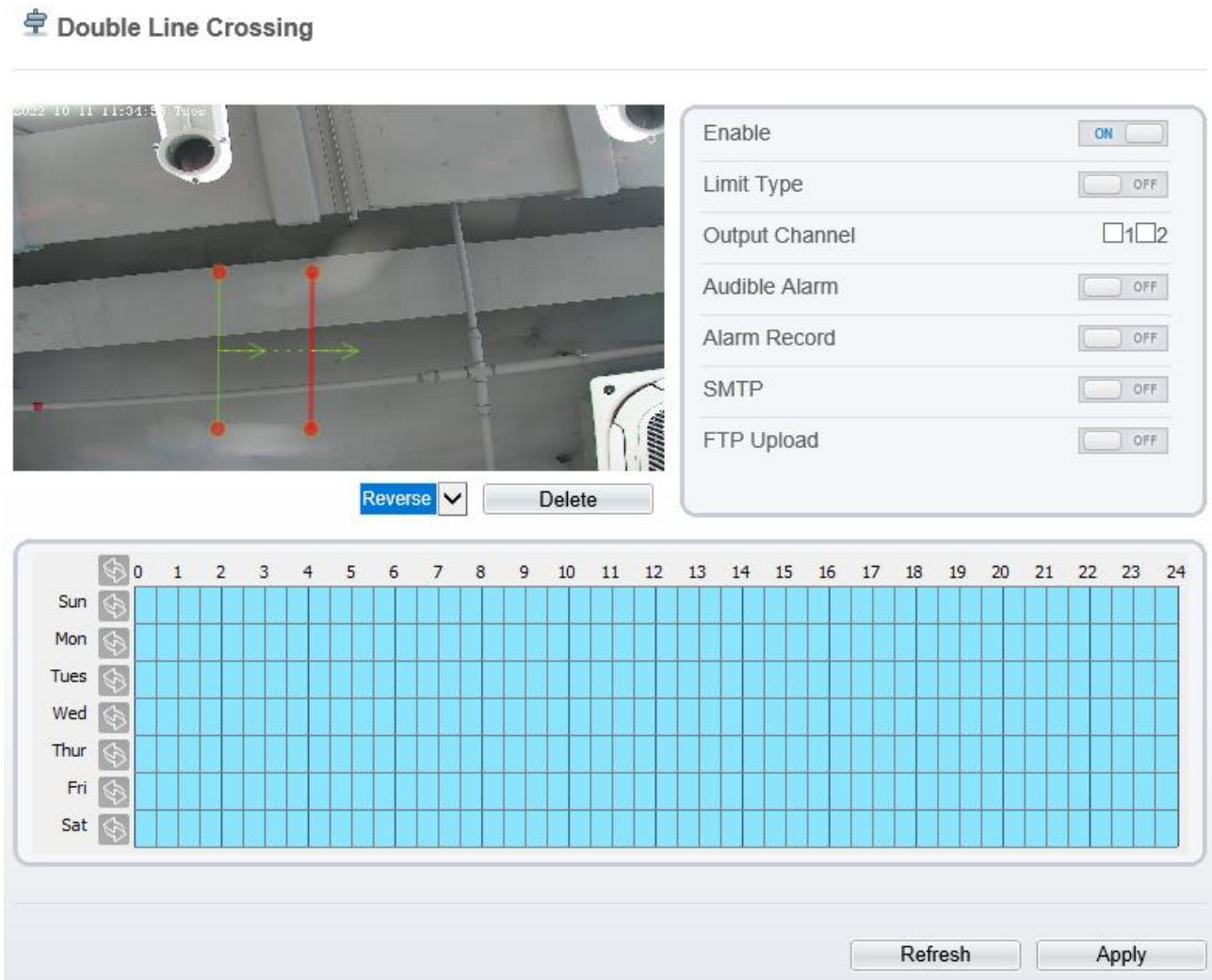
### Description

Double line crossing refer to two lines that are set at a concerned special position within the field of view and specify the forbidden travel direction. when target objects (such as person or car) move along the set travel direction and cross these lines in a certain order (line 1 followed by line 2) in pass max time, an alarm is generated.

### Procedure

Step 1 Select **Intelligent Analysis > Double Line Crossing** to access the **Double Line Crossing** setting interface, as shown in Figure 8-5.

Figure 8-5 Double line crossing settings interface



Step 2 Set all parameters of the double line crossing, please refer to 7.1 Step 2.

Step 3 Set a deployment area.

**Drawing a line:** Move the cursor to the drawing interface, hold down the left mouse button, and move the cursor to draw two lines. When you release the left mouse button, two numbered virtual fences are generated. Choose either of the double line crossing to set the direction to Positive or Reverse.

**Setting double line crossing:** Click one of the double line crossing (and the virtual fence turns red) to select this virtual fence and set the direction to **Positive** or **Reverse**, or delete the selected line. You can also press and hold left mouse button at the endpoint of a virtual fence and move the mouse to modify the position and length of this virtual fence. You can right-click to delete the double line crossing, as shown in Figure 8-6.

Figure 8-6 Deployment area settings page

**NOTE**

The two virtual fences are in sequential order. An alarm is generated only when a target crosses virtual fence 1 and then virtual fence 2 within the set maximum passing time.

Try to draw double line crossing in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the double line crossing.

The double line crossing which detect person foot as the recognition target cannot be too short, because short double line crossing tend to miss targets.

The double line crossing is not supported to modify the direction manually, you can change the direction by choosing **Reverse**.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.4 Multi-Loitering

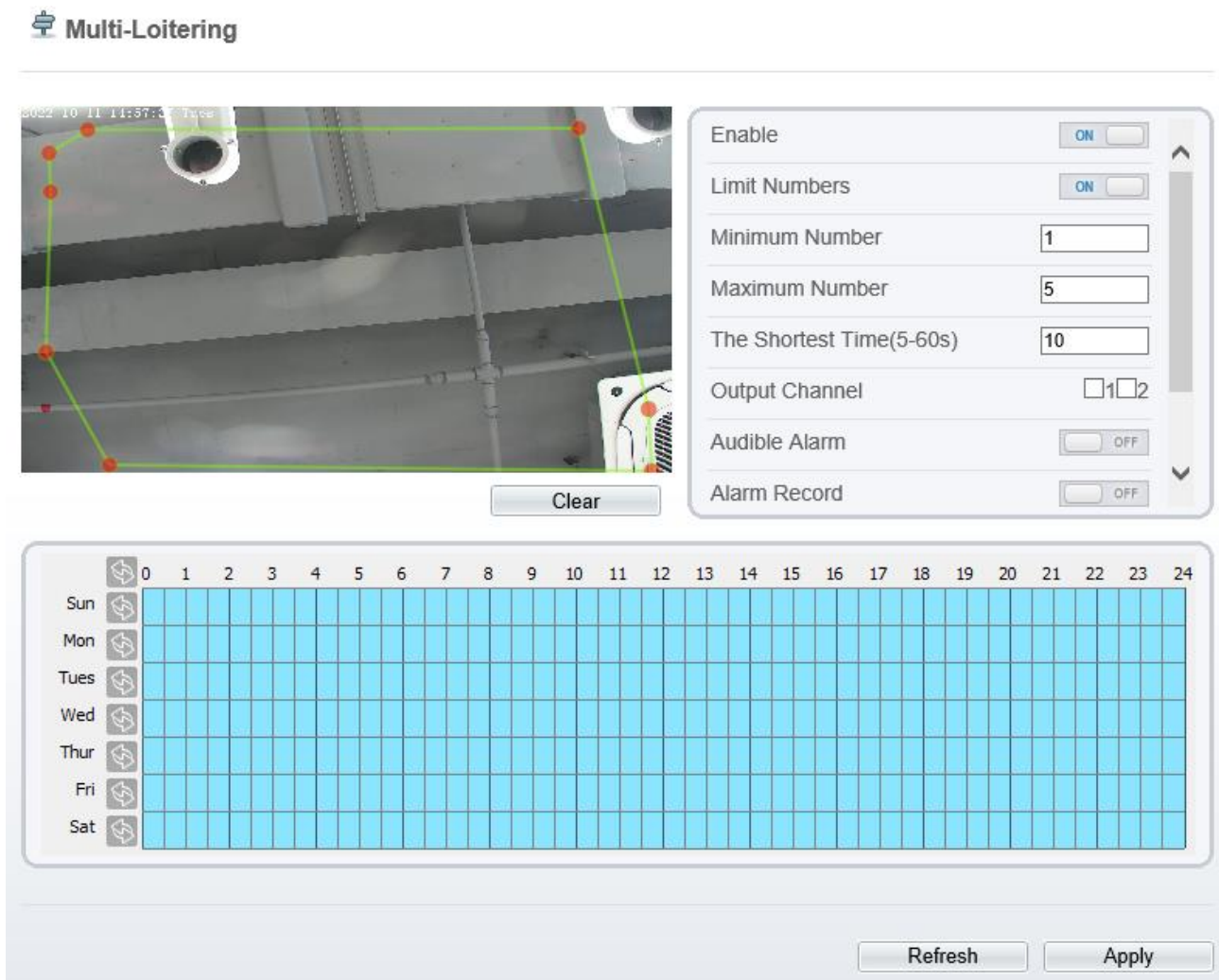
### Description

Multi-Loitering allows setting the shortest loitering time for multiple targets of specified type (such as person or car) within the deployment area in the field of view. When the loitering time of the multiple targets within this area meets the set shortest loitering time, an alarm is generated.

### Procedure

Step 1 Select **Intelligent Analysis > Multi-Loitering** to access the **Multi-Loitering** setting interface, as shown in Figure 8-7.

Figure 8-7 Multi-Loitering setting page



Step 2 Set all parameters of multi-loitering, please refer to 7.1 Step 2.

Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, as shown in Figure 8-8.

Figure 8-8 Deployment area settings page



 **NOTE**

A drawn line cannot cross another one, or the line drawing fails.

Any shape with 8 sides at most can be drawn .

The quantity of deployment areas is up to 8.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.5 Retrograde

### Description

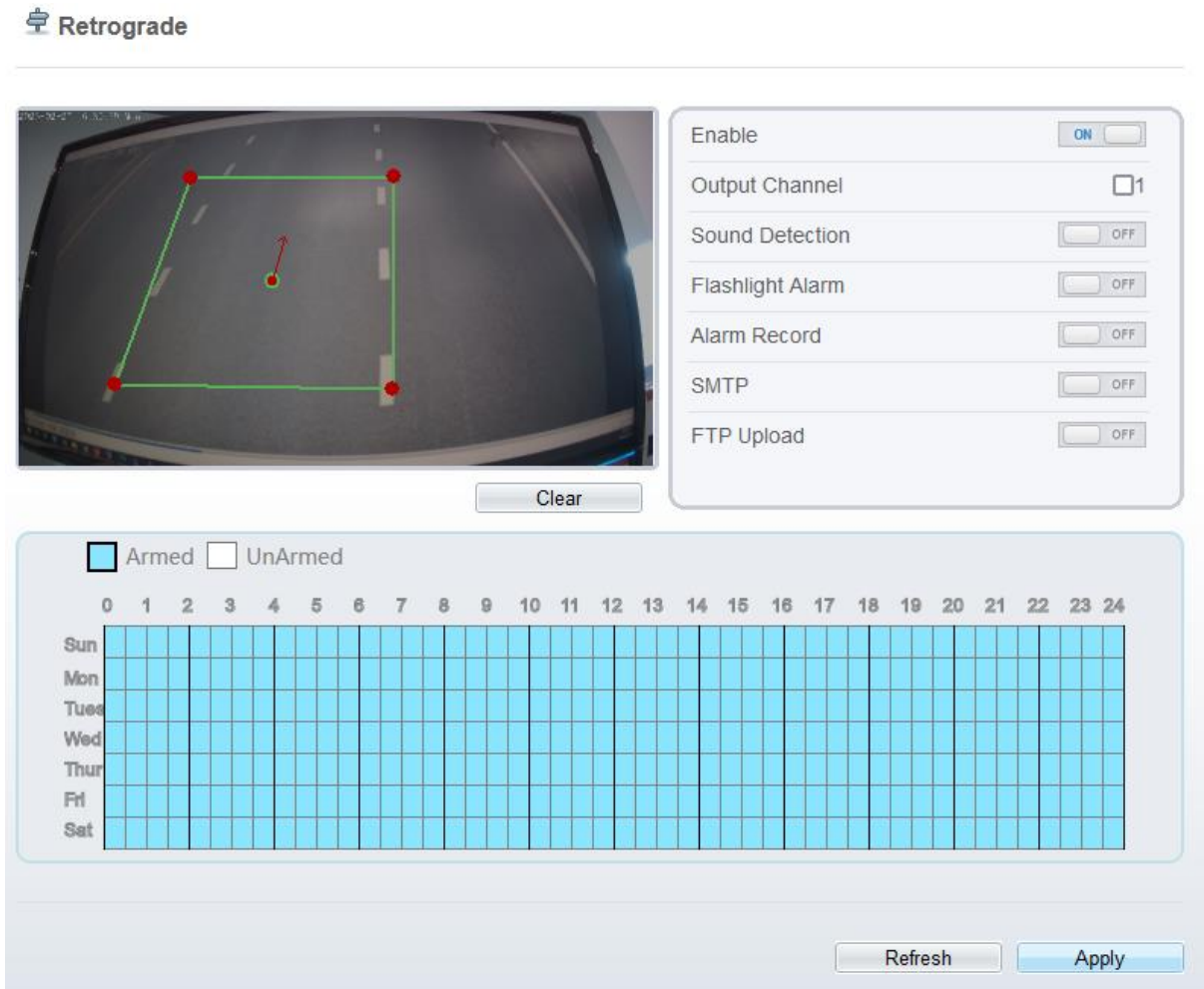
Retrograde allows setting the travel direction criteria for a target within an area on the video screen.

When a target of specified type (such as people or car) within this area moves in the set travel direction, an alarm is generated.

### Procedure

Step 1 Select **Intelligent Analysis > Retrograde** to access the **Retrograde** setting interface, as shown in Figure 8-9.

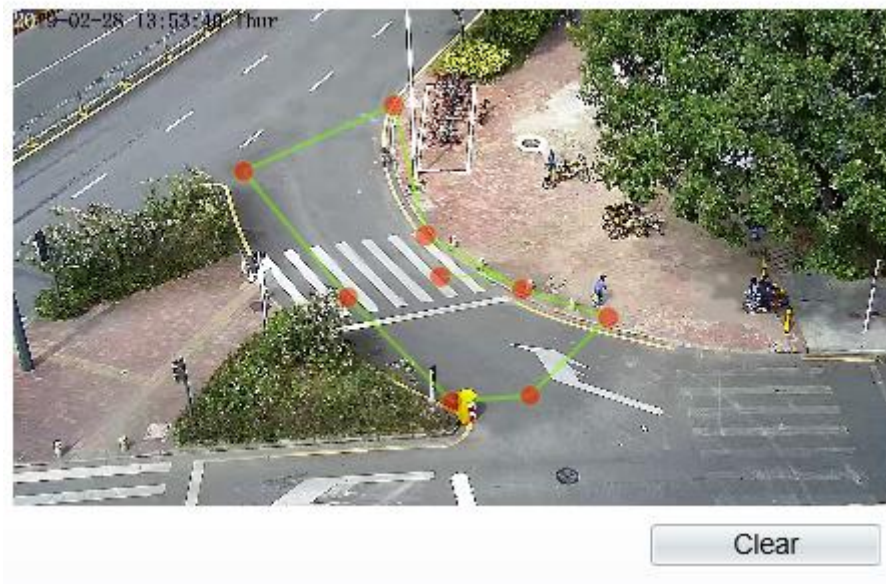
Figure 8-9 Retrograde settings page



Step 2 Set all parameters of Retrograde, please refer to 7.1 Step 2. Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, move the arrow in the field can set the direction of converse. as shown in Figure 8-10.

Figure 8-10 Deployment area setting interface

**NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 8 sides at most can be drawn .
- The quantity of deployment areas is up to 8.

Step 3 Set deployment time. The details please refer to *7.1 Step 4*

Step 4 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.6 Illegal Parking (Only for Some Models)

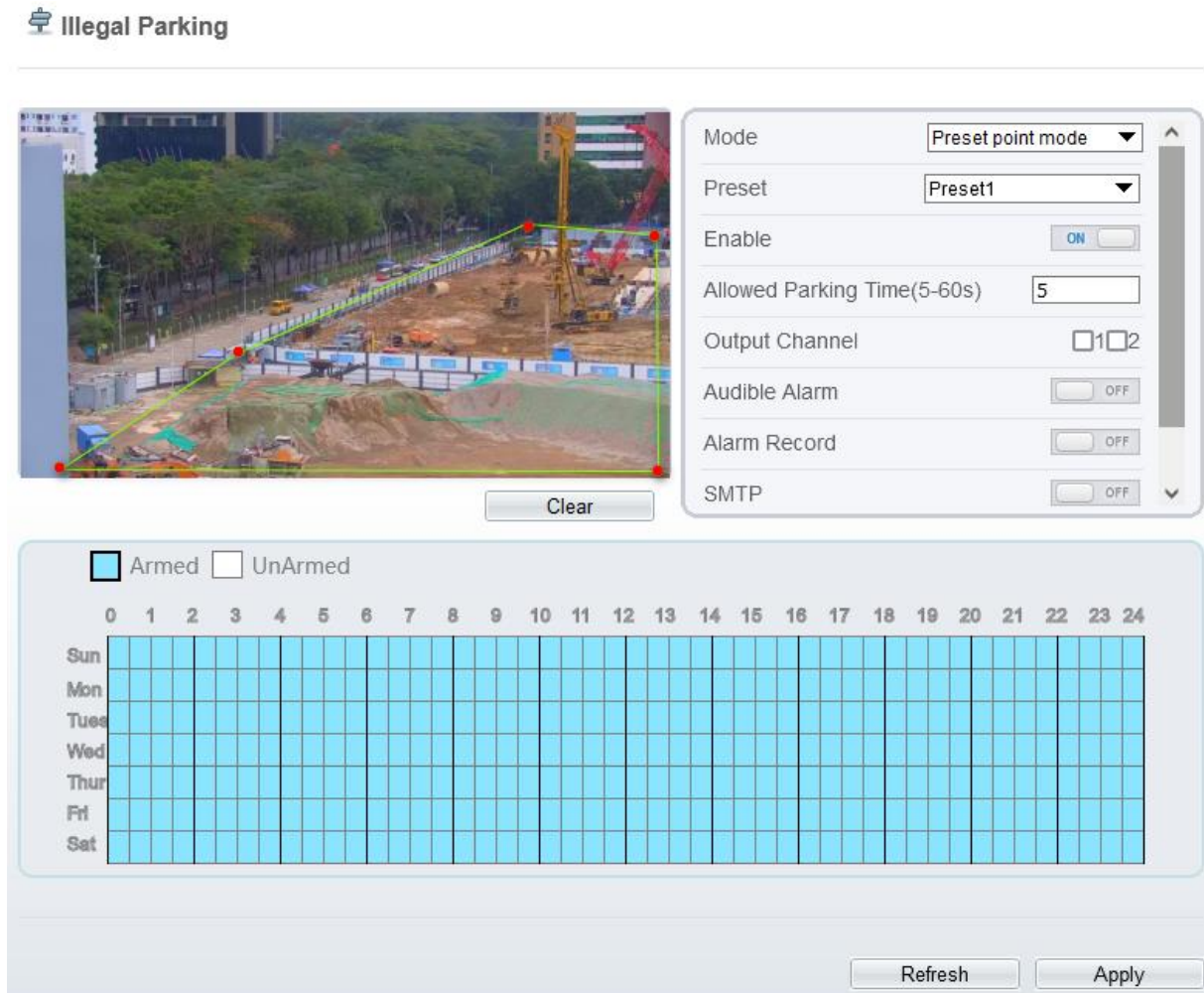
### Description

Illegal parking allows setting the dwelling time criteria for a target within the deployment area on the video screen. When the dwelling time of a target of specified type (car) within this area meets the set allowed parking time, an alarm is generated.

### Procedure

Step 1 Select **Intelligent Analysis > Illegal Parking** to access the **Illegal Parking** setting interface, as shown in Figure 8-11.

Figure 8-11 Illegal parking settings page



Step 2 Set all parameters for illegal parking, please refer to 7.1 Step 2.

Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, as shown in Figure 8-12

Figure 8-12 Deployment area setting interface

**NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 8 sides at most can be drawn .
- The quantity of deployment areas is up to 8.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.7 People Counting (Only for Some Models)


User can draw line to count the number of people at the special area.

### Procedure

Step 1 Select **Intelligent Analysis > People Counting** to access the **People Counting** setting interface, as shown in Figure 8-13.

Figure 8-13 People counting page

### People Counting



2022-10-11 16:43:31 Tue

Clear

Enable  ON

OSD Enable  ON

Counting Clear Interval

Area Type

A->B

B->A

Set Correction Value  OFF

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tues																									
Wed																									
Thur																									
Fri																									
Sat																									

Over People Number Alarm  OFF

Alarm Threshold

Output Channel  1

Audible Alarm  OFF

Alarm Record  OFF

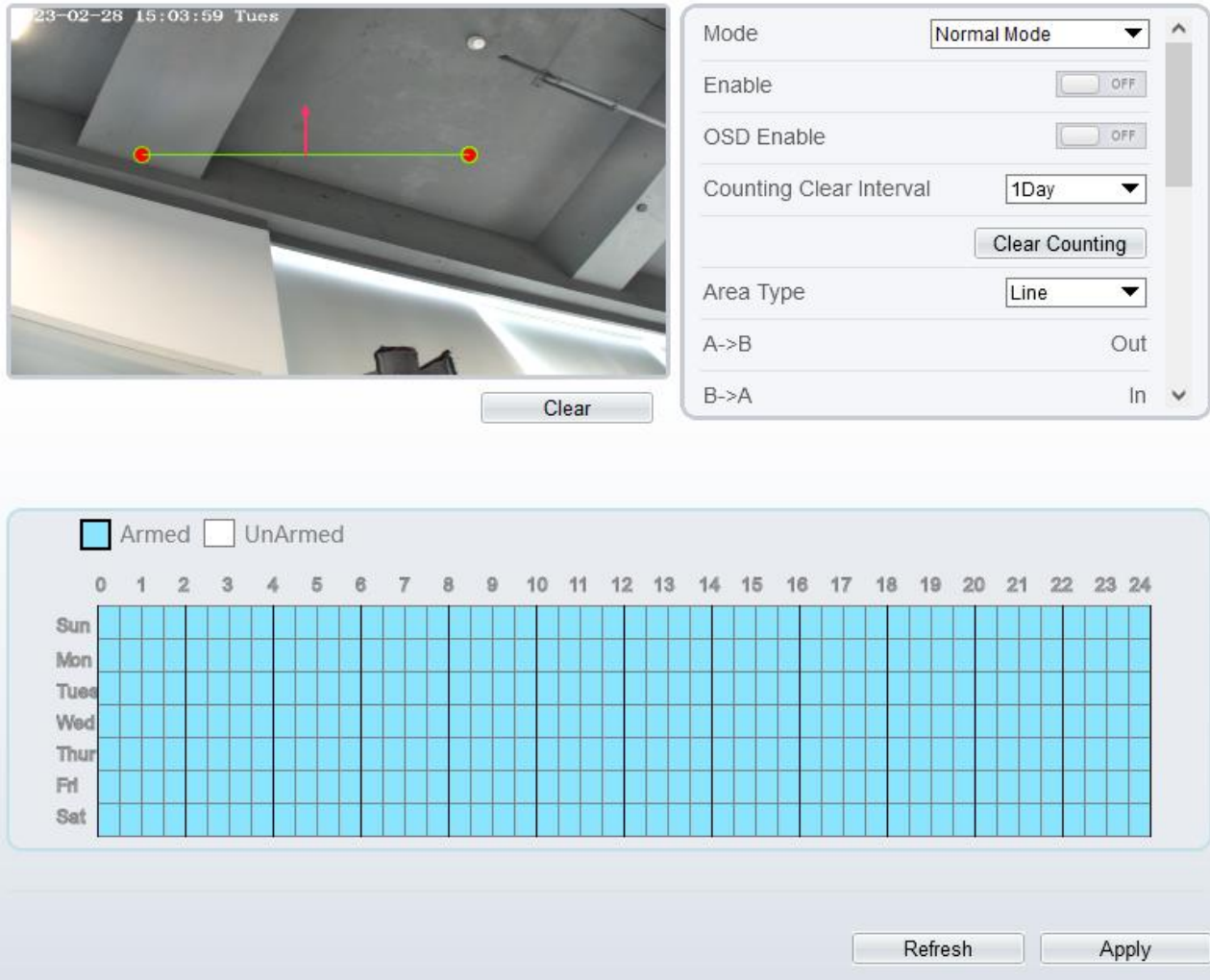
SMTP  OFF

FTP Upload  OFF

Whitelight Alarm  OFF

Figure 8-14 People counting for PTZ cameras.

 People Counting



Step 2 Set all parameters of illegal parking. Table 8-2 describes the specific parameters.

Table 8-2 Parameters of people counting

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] <b>Normal mode</b>
Enable	Enable the button to enable the alarm.	[How to set] Click the button on. [Default value] <b>OFF</b>

Parameter	Description	Setting
OSD Enable	Enable the OSD, the count data will show on live video screen.	[How to set] Click the button on. [Default value] <b>OFF</b>
Counting Clear Interval	The camera will clear counting data at the setting interval. 10 min /half-hour /1 hour /2 hours /12 hours /1 day /custom time(hh : mm) Click the “Clear Counting”, clearing the data immediately.	[How to set] Choose from drop-down list. [Default value] <b>12 hours</b>
Area Type	Draw a line on live video screen. The label of A and B indicate out and in.	[How to set] Choose from drop-down list. [Default value] <b>Line</b>
Set Correction Value	Enable, set the count correction value, it can be positive or negative. For example, if there are 30 people enter the area before counting, input 30 to correct. If 30 people go out the area, input -30.	[How to set] Enable /Input a value in the area box. [Default value] <b>0</b>
Over People Number Alarm	Enable, if the counting number is over the threshold, it will alarm.	[How to set] Click the button on. [Default value] <b>OFF</b>
Alarm Threshold	The threshold of activating alarm.	[How to set] Enable /Input a value in the area box. [Default value] <b>1000</b>
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for Some Models.	[How to set] Click to select an ID.
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for Some Models.	[How to set] Click the button on. [Default value] <b>OFF</b>
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the “ <b>Configuration &gt; Alarm &gt; Audible Alarm Output</b> ”). Only for some models.	[How to set] Click the button on. [Default value] <b>OFF</b>

Parameter	Description	Setting
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] <b>OFF</b>
SMTP	Enable the button to enable SMTP sever. The parameters of SMTP can be set at <b>Configuration &gt; Network Service &gt; SMTP</b> interface.	[How to set] Click to enable SMTP. [Default value] <b>OFF</b>
FTP Upload	Enable the button to enable File Transfer Protocol. The parameters of FTP can be set at <b>Configuration &gt; Network Service &gt; FTP</b> interface.	[How to set] Click to enable FTP Upload. [Default value] <b>OFF</b>
White light Alarm	When the <b>DayNight</b> mode is chosen <b>Night</b> mode, and the light is <b>IR LED</b> or <b>NONE</b> , this linkage action is valid. Enable to white light alarm when it triggers the alarm, the white light will be on. Only for Some Models.	[How to set] Click the button on. [Default value] <b>OFF</b>

### Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

Step 4 Set deployment time. The details please refer to *7.1 Step 4*.

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.8 Smart Motion

### Description

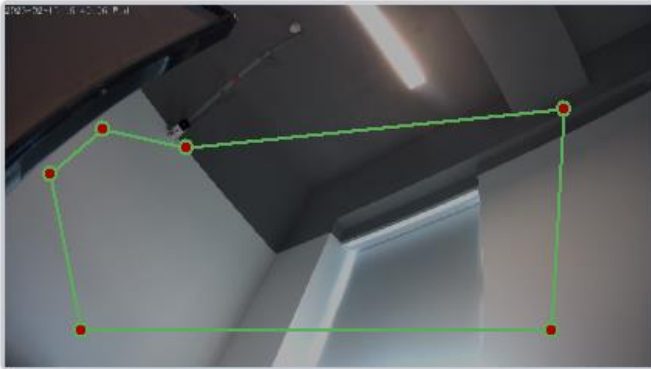
The smart motion function refers to that an alarm is generated when target objects (such as person, car, and both person and car) move at the deployment area.

### Procedure

Step 1 Select **Intelligent Analysis > Smart Motion**, as shown in Figure 8-15.

Figure 8-15 Smart motion settings page

### Smart Motion



Clear

Enable  ON

Sensitivity

Limit Type  OFF

Output Channel  1

Audible Alarm  OFF

Flashlight Alarm  OFF

Alarm Record  OFF

SMTP  OFF

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tue																									
Wed																									
Thur																									
Fri																									
Sat																									

Refresh Apply

## Smart Motion

Step 2 Set all parameters of smart motion, please refer to 7.1 Step 2.

Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

### NOTE

A drawn line cannot cross another one, or the line drawing fails.

Any shape with 8 sides at most can be drawn.

The quantity of deployment areas is up to 8.

Step 4 Set deployment time. The details please refer to 7.1 Step 4.

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

----End

## 8.9 Advanced

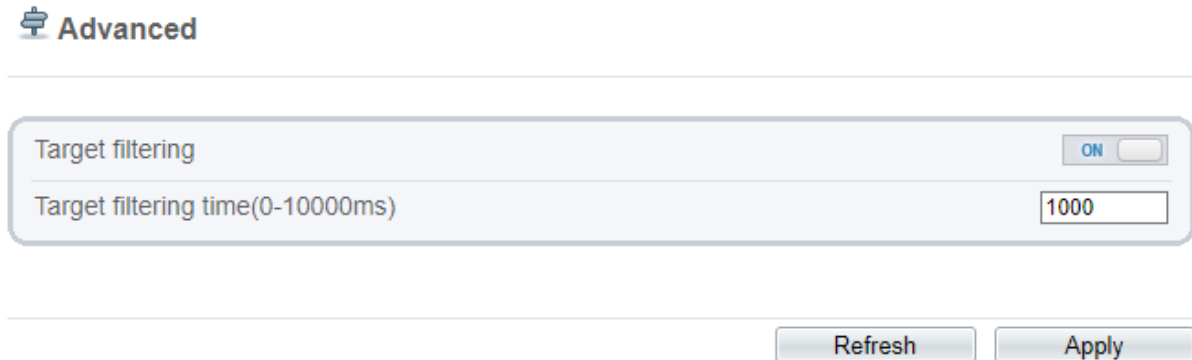
### Description

At advanced page, users can set target filtering to filter the target(people or cars) at the setting filtering time, when target occurs the alarm area, it will not trigger the alarms of intelligent analysis.

## Procedure

Step 1 Select **Intelligent Analysis > Advanced** to access the advanced setting interface, as shown in .

Figure 8-16 Advanced page



**Advanced**

Target filtering  ON

Target filtering time(0-10000ms)

Step 2 Enable target filtering.

Step 3 Set the target filtering time.

Step 4 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 8.10 Heat Map Set (Only for Some Models)

Heat map is a method of data analysis, statistics, and intuitive display, displaying customers' regions, targets, and geographical locations in a specially highlighted form.

After the camera enables the heat map, it will automatically detect and count the flow of personnel in the detection area, and identify the relative frequency of flow activities through different colors.

### NOTE

The setting and export of heat map is only applied for some models.

Step 1 Choose **Configuration > Intelligent Analysis > Heat map set** interface, as shown in Figure 8-17.

Figure 8-17 Heat map set page

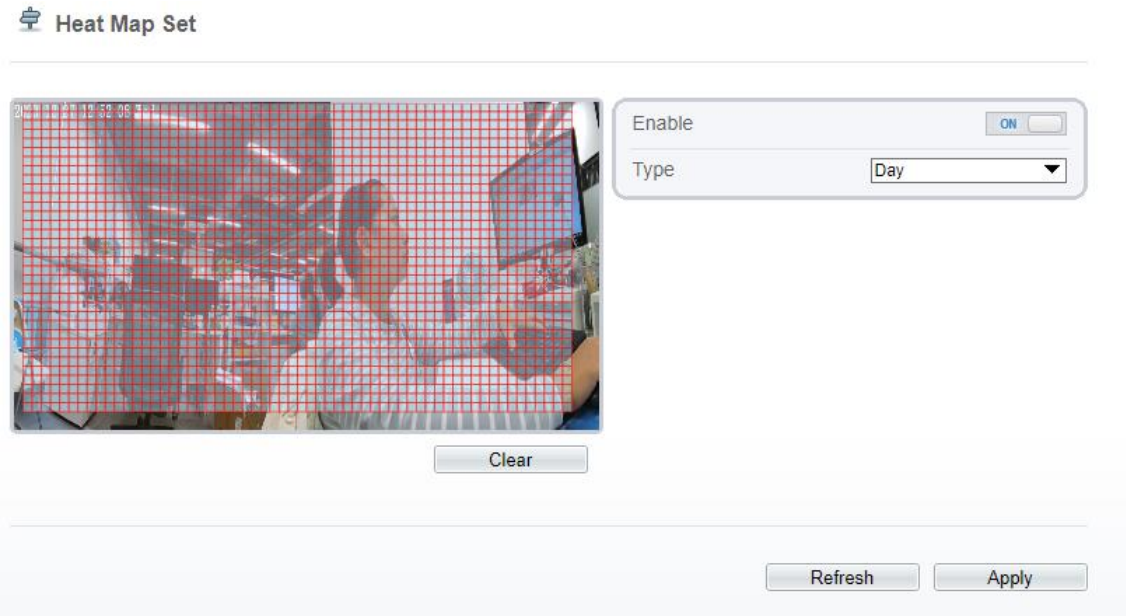
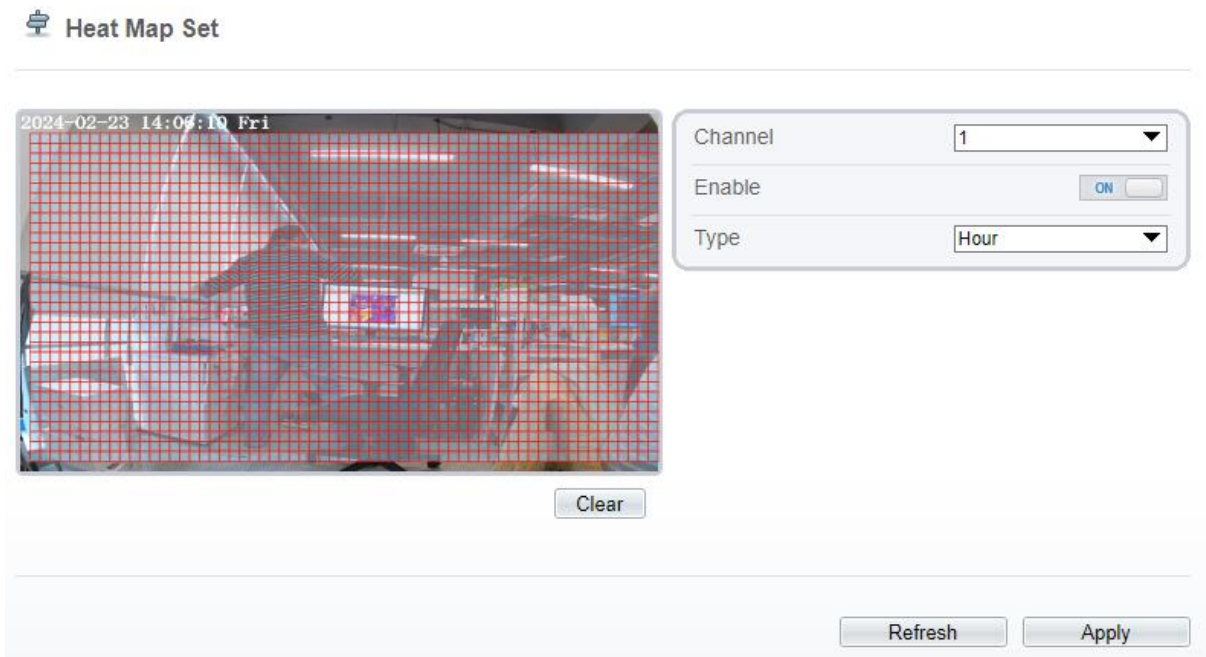


Figure 8-18 Heat map page (multi-channel mode for multi- channel)



Step 2 Enable the heat map function. This function is disabled by default and needs to be manually enabled.

Step 3 Set the type, it is statistical type, Hour (there are 24 pieces of data per day) or Day (there is 1 piece of data per day); The original data will be cleared when the type is switched. Please operate with caution.

Step 4 Click “Apply”. The message "Apply success!" is displayed, and the system saves the settings.

----End

## 8.11 Heat Map (Only for Some Models)

Choose **Configuration > Intelligent Analysis > Heat Map**, the page as shown in Figure 8-19.

Figure 8-19 Heat map page

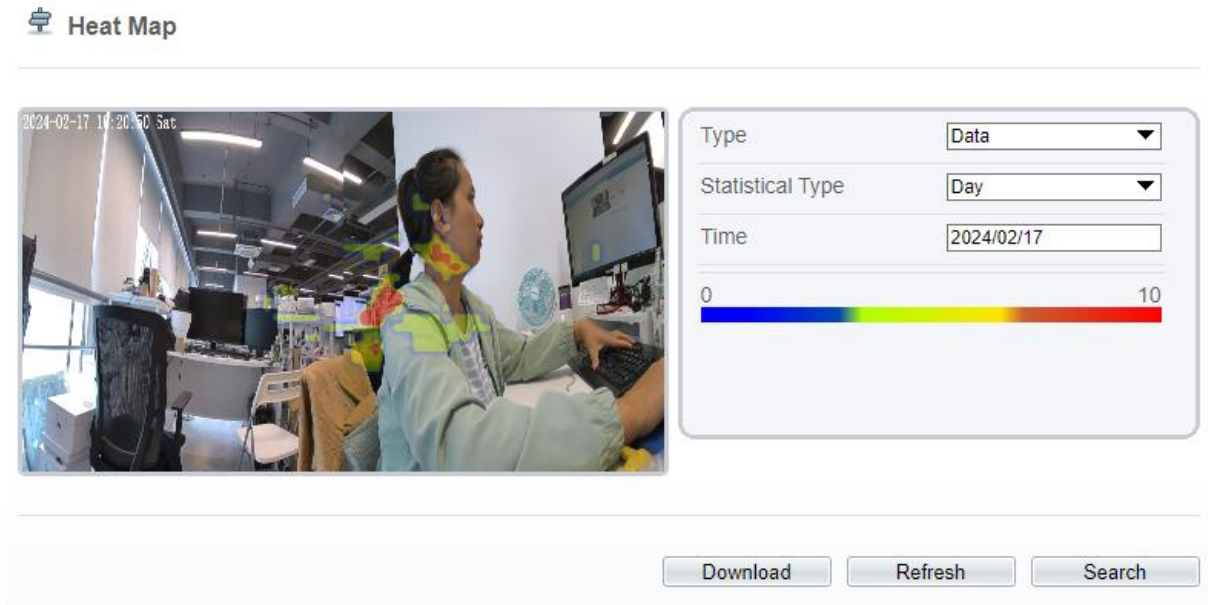


Figure 8-20 Heat map page (multi-channel mode for multi-channel)

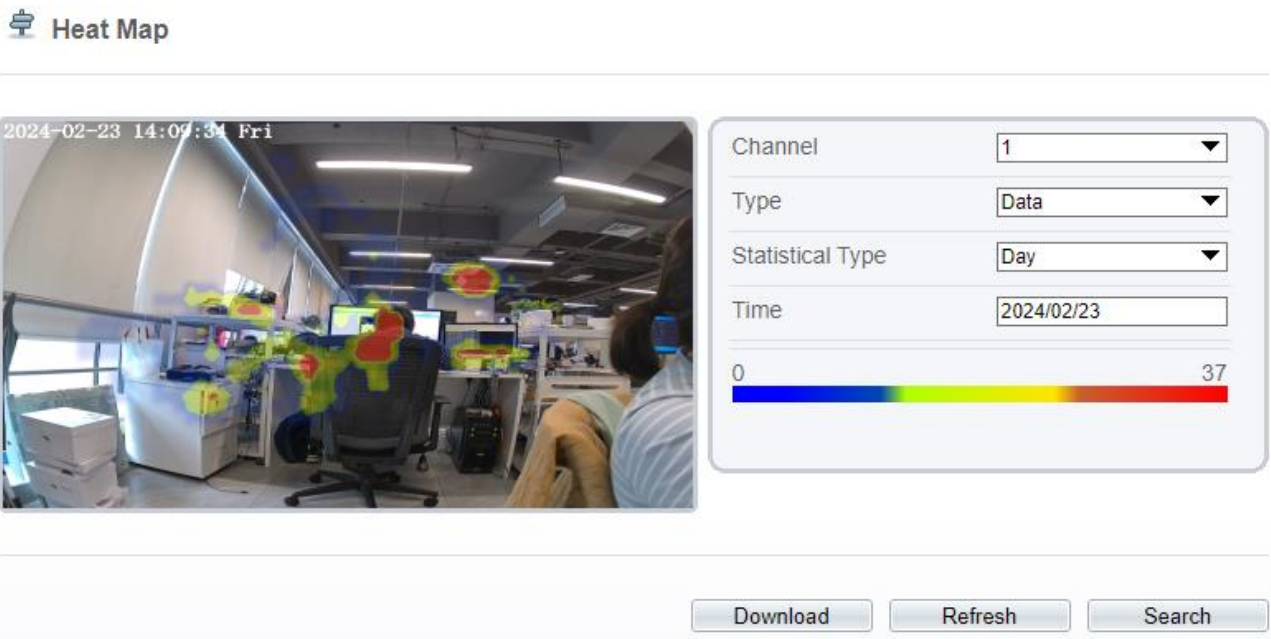


Table 8-3 Parameters of heat map

Parameter	Description	Setting
Type	Choose Data or Picture. Data is presented in numerical form to download; The picture is displayed in different areas with different colors on the downloaded picture.	[How to set] Choose from the drop-down list [Default value] <b>Normal mode</b>
Statistics type	Year/ Month/ Day/ Hour can be chosen.	[How to set] Click the button on. [Default value] <b>OFF</b>

Parameter	Description	Setting
Time	Select a retail time to search or download heat map data.	[How to set] Choose from the drop-down list [Default value] <b>5</b>
Heat map bar	Distinguish different degrees by different colors.  The maximum value is maximum data of single area in the heat map at the current set time.	Null

---End

## 8.12 Heat Map Export (Only for Some Models)

Choose "Configuration > Intelligent Analysis > Heat Map Export" interface, set the chart type (Line chart or Histogram), statistical type (Hour, Day, Month, Year), start time and end time (set detailed time according to the statistical method), "Search" or "Export" the relevant heat map statistic. The result as shown in Figure 8-21.

Figure 8-21 Heat map export

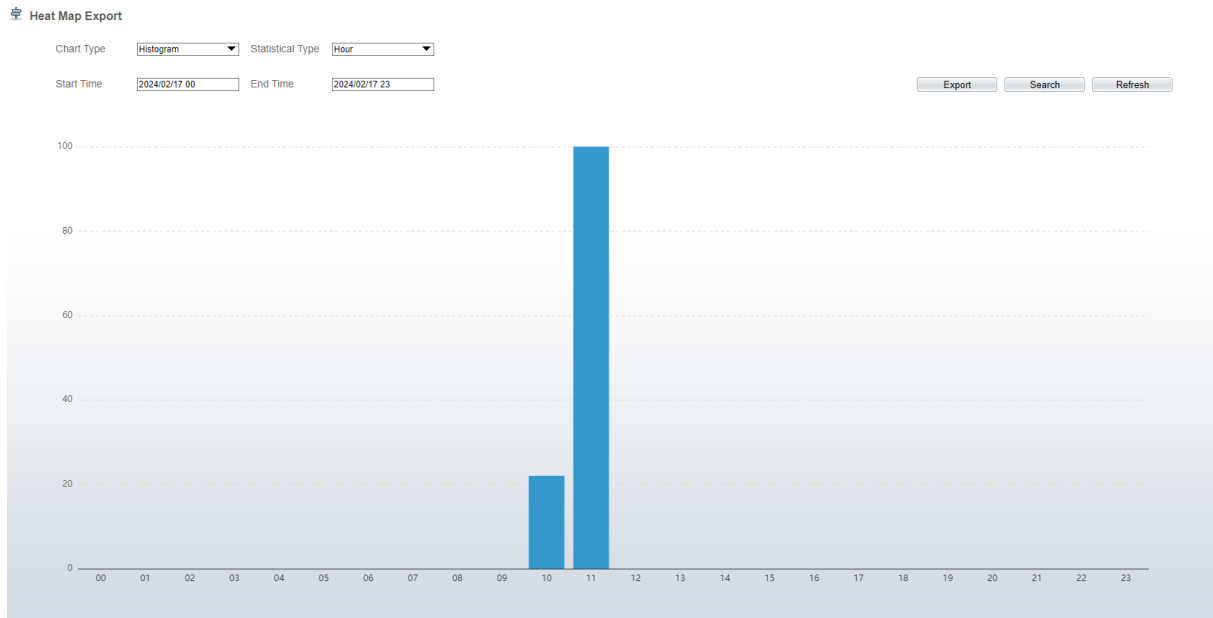


Figure 8-22 Heat map export (multi-channel mode for multi-channel)



After setting relevant parameters, you can click "Search" to view directly, or click "Export" to download the data in CSV format(the type is chosen Data) or picture format(the type is chosen Picture) to a local folder

---End

# 9 Configure Intelligent Tracking

The intelligent tracking is only for PTZ cameras.

## Description

This function is only used for high speed dome.

Intelligent tracking is able to recognize the basic features such as the position, shape, contour and color of the target with a special algorithm. After comparing and matching with images for each frame, the positions of the target in each frame of the video image are generated, and the motion track of the target is generated. The method performs a real-time monitoring of targets and automatically controls the gimbal to track moving objects. The automatic target tracking function is that the dome camera can continuously track the moving target of the pre-made scene, and automatically adjusts the camera zoom focus according to a moving target distance, and the dome automatically returns to the preset scene when the moving target disappears.

## Procedure

Step 1 Select **Configuration > Intelligent Tracking** to access the Intelligent Tracking setting interface, as shown in Figure 9-1.

Figure 9-1 Intelligent tracking page

Step 2 Set all parameters for intelligent tracking. Table 9-1 describes the specific parameters.

Table 9-1 Parameters of intelligent tracking

Parameter	Description	Setting
Enable	Click the button on to enable the intelligent tracking	[How to set] Click the button on. [Default value] OFF

Calibration Coefficient	It is equivalent to a control coefficient, and real-time tracking doubling rate nonlinear positive correlation; Usually the higher the installation height, the greater the calibration coefficient value; it ranges from 1 to 30.	[Setting method] Drag the slider. [Default value] <b>1</b>
Trace Magnify	It is the value of lens zoom, which has a large influence on the real-time tracking magnification; it ranges from 0 to 30.	[Setting method] Drag the slider. [Default value] <b>7</b>
Time of Duration (sec.)	The maximum time of a tracking period, it ranges from 0 to 300 s.	[Setting method] Drag the slider. [Default value] <b>120</b>
Start Point	Start point of the tracking, you can choose the preset or none. The preset should be set in advanced.	[Setting method] Choose from drop-down list. [Default value] <b>None</b>
Tracking Type	Choose the tracking type, person or car.	[Setting method] Choose from drop-down list. [Default value] <b>Person</b>

Step 3 Click “Apply”. The message "Apply success!" is displayed, and the system saves the settings.

---End

# 10 Configure the Alarm Function

Different cameras may have different alarm linkage actions. It depends on the performance of cameras, please refer to actual products.

## 10.1 Alarm Output (Only for Some Models)

### Procedure

Step 1 Choose **Configuration > Alarm > Alarm Output**.

The **Alarm Output** page is displayed, as shown in Figure 10-1.

Figure 10-1 Alarm output page

**Alarm Output**

Alarm Output: 1

Name:

Valid Signal: Close

Alarm Output Mode: Switch Mode

Alarm Time(ms)(0:Continuous): 0

Timing Alarm Output:  OFF

Manual control:

Step 2 Set the parameters according to Table 10-1.

Table 10-1 Parameters of alarm output

Parameter	Description	Setting
Alarm Output	ID of the alarm output channel. NOTE The number of alarm output channels depends on the device model.	[Setting method] Select a value from the drop-down list box. [Default value] 1
Name	Alarm output channel name.	[Value range] 0 to 32 bytes

Parameter	Description	Setting
Valid Signal	The options are as follows: <b>Close:</b> An alarm is generated when an external alarm signal is received. <b>Open:</b> An alarm is generated when no external alarm signal is received.	[Setting method] Select a value from the drop-down list box. [Default value] Close
Alarm Output Mode	When the device receives I/O alarm signals, the device sends the alarm information to an external alarm device in the mode specified by this parameter. The options include the switch mode and pulse mode.  NOTE If the switch mode is used, the alarm frequency of the device must be the same as that of the external alarm device. If the pulse mode is used, the alarm frequency of the external alarm device can be configured.	[Setting method] Select a value from the drop-down list box. [Default value] Switch Mode
Alarm Time (ms) (0: Continuous)	Alarm output duration. The value <b>0</b> indicates that the alarm remains valid.	[Setting method] Enter a value manually. [Default value] 0 [Value range] 0 to 86400 seconds
Timing Alarm Output	Enable timing alarm output, set the schedule to time alarm.  NOTE If there are two alarm outputs, this setting is only valid for Alarm output 1.	[Setting method] Enable [Default value] OFF
Manual Control	Control the alarm output.	N/A

Step 3 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

---End

## 10.2 Disk Alarm

### Procedure

Step 1 Choose **Configuration > Alarm > Disk Alarm**.

The **Disk Alarm** page is displayed, as shown in Figure 10-2.

Figure 10-2 Disk alarm page

 **Disk Alarm**

---

Disk Full Alarm  OFF

Alarm Interval(10-86400S)

Output Channel  1

---

Refresh
Apply

Step 2 Click the button on to enable disk alarm.

Step 3 Configure the **Alarm Interval** parameters.

Step 4 Select **Out Channel** number (Please refer to the actual product).

Step 5 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End


## 10.3 Network Alarm

### Procedure

Step 1 Choose **Configuration > Alarm > Network Alarm**.

The **Network Alarm** page is displayed, as shown in Figure 10-3.

Figure 10-3 Network alarm page

 **Network Alarm**

---

Network Card ID

---

Abnormal Alarm  ON

Alarm Interval(10-86400S)

Output Channel  1

Alarm Record  OFF

---

Refresh
Apply

Step 2 Click the button on to enable Abnormal alarm.

Step 3 Configure the network alarm interval.

Step 4 Select **Output Channel** number. You can enable alarm record when you install SD card in advance.

Step 5 Click **Apply**.

The message "Apply success!" is displayed, the system saves the settings.

---End

## 10.4 Day/Night Switch Alarm

### Description


At the setting time, enable the day night switch alarm, when it happens day night switched, it will send alarm signal.

### Procedure

Step 1 Choose **Configuration > Alarm > Day/Night Switch Alarm**.

The **Day Night Switch Alarm** page is displayed, as shown in Figure 10-4.

Figure 10-4 Day/Night switch alarm

 **Day Night Switch Alarm**

---

Enable	<input checked="" type="checkbox"/> ON <input type="checkbox"/>
Output Channel	<input type="checkbox"/> 1 <input type="checkbox"/> 2
Alarm Record	<input type="checkbox"/> OFF
SMTP	<input type="checkbox"/> OFF
FTP Upload	<input type="checkbox"/> OFF

<input checked="" type="checkbox"/> Armed <input type="checkbox"/> UnArmed
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Sun
Mon
Tue
Wed
Thur
Fri
Sat

Step 2 Click the button to enable day night switch alarm.

Step 3 Configure the day night switch alarm schedule.

Step 4 Click the button on to enable Alarm Record.

Step 5 Click the button on to enable SMTP.

Step 6 Click the button on to enable FTP Upload.

Step 7 Click **Apply**.

The message "Apply success!" is displayed, the system saves the settings.

---End

## 10.5 I/O Alarm Linkage (Only for Some Models)

### Description

Alarm linkage refers to linkage alarm output. When receiving an alarm from the alarm input port, the camera performs linkage alarm output, and operate based on the linkage policy.

On the **I/O Alarm Linkage** page, you can perform the following operations:

- Enable the I/O alarm function.

- Configure the I/O alarm schedule.

- Configure the alarm output channel.

### Procedure

Step 1 Choose **Configuration > Alarm > I/O Alarm Linkage**.

The **I/O Alarm Linkage** page is displayed, as shown in Figure 10-5.



Parameter	Description	Setting
Alarm input	When the device receives I/O alarm signals, the device sends the alarm information to an external alarm device.	[Setting method] Enable [Default value] OFF
Output channel	Linkage the output channel alarm device to send alarm information.	[Setting method] Tick
PTZ Linkage	The device has PTZ, when it alarm, linkage the PTZ type to show alarm information. PTZ type includes: preset, scan, track, tour. The type should be set in advanced. Value: choose the setting type.	[Setting method] Enable [Default value] OFF
Alarm Record	When it alarms, the device will be recording.	[Setting method] Enable [Default value] OFF
SMTP	When it alarms, the device will send mail. The mail parameters should be set unadvanced.	[Setting method] Enable [Default value] OFF
FTP Upload	When it alarms, the device will send alarm information to FTP server. The FTP parameters should be set unadvanced.	[Setting method] Enable [Default value] OFF
IR Cut	The camera should have IR light. When it alarms, the device will open the IR light to send alarm information.	[Setting method] Enable [Default value] OFF
White Light Alarm	The camera should have white light or dual lights. When it alarms, the device will flicker the white light.	[Setting method] Enable [Default value] OFF
Red and Blue Light Alarm	The camera should have red and blue light. When it alarms, the device will flicker alternating red light and blue light.	[Setting method] Enable [Default value] OFF

Step 3 Click the armed icon  Armed to set the arming time. Click the Unarmed icon  UnArmed to set the unarming time.

**Method 1:** Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday.

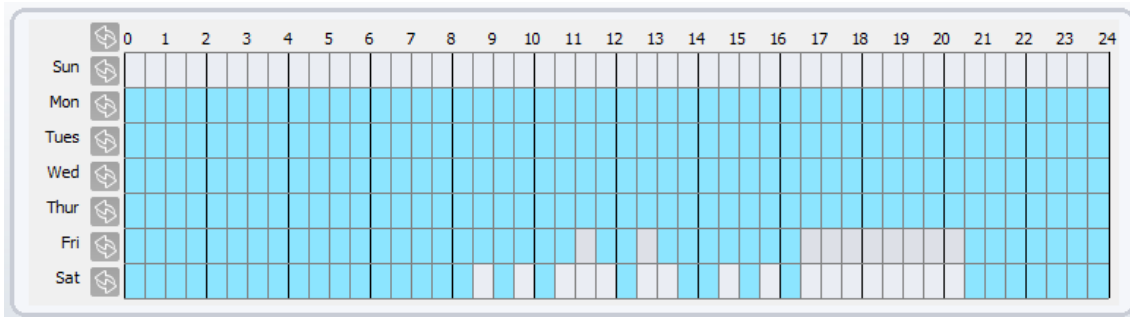
**Method 2:** Hold down the left mouse button, drag and release mouse to select the deployment time within 0:00-24:00 from Monday to Sunday.

**Deleting deployment time:** Click  UnArmed to delete the selected deployment time. The methods are same as set deployment time.

#### NOTE

When you select time by dragging the cursor, the cursor cannot be moved out of the time area. Otherwise, no time can be selected.

Figure 10-6 Schedule setting Page



Step 4 Click **Apply**.

The message "Apply succeed!" is displayed, and the system saves the settings.

---End

## 10.6 Motion Alarm Linkage

### Description

On the **Motion Alarm** page, you can perform the following operations:

- Enable the motion detection function.
- Set the motion detection alarming time.
- Set the motion detection area.
- Configure the motion alarm output channel.


When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm and triggers linkage alarm output.

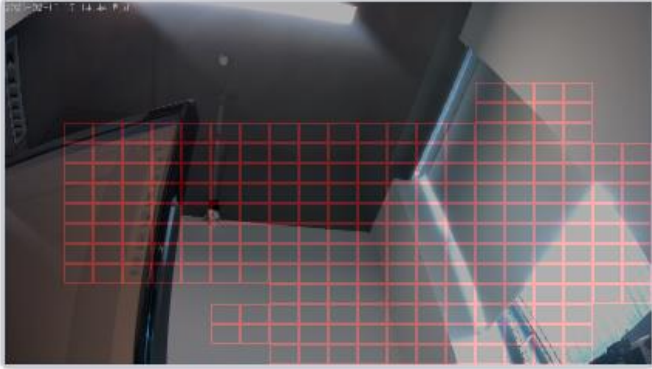
### Procedure

Step 1 Choose **Configuration > Alarm > Motion Alarm**.

The **Motion Alarm** page is displayed, as shown in Figure 10-7.

Figure 10-7 Motion alarm page

 Motion Alarm



Enable  ON

Alarm Interval(1-1800S)

Sensitivity

Output Channel  1

Audible Alarm  OFF

Flashlight Alarm  OFF

Alarm Record  OFF

SMTP  OFF

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tue																									
Wed																									
Thur																									
Fri																									
Sat																									

Step 2 Set all parameters, please refer to 7.1 Step 2

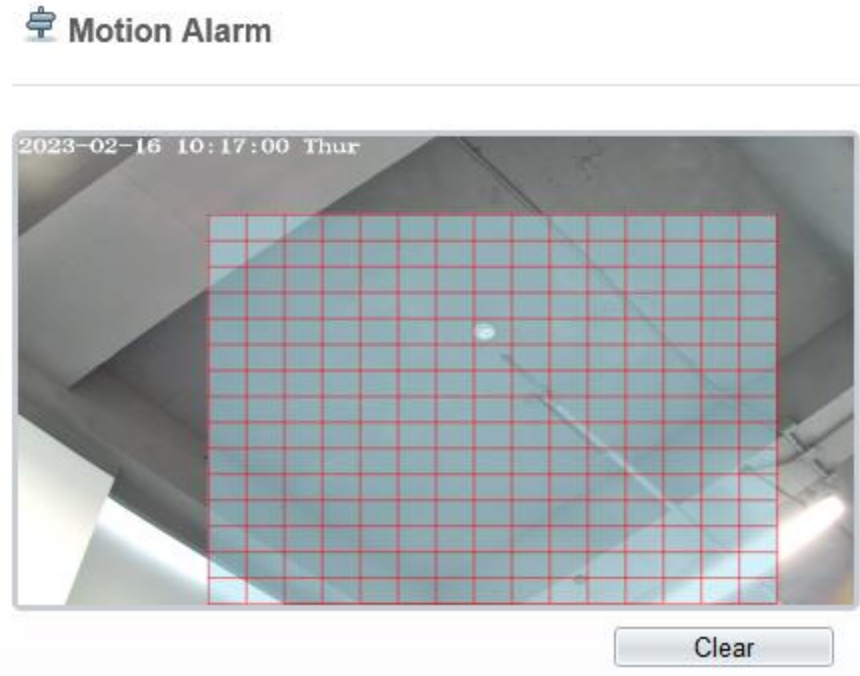
Step 3 .Enable **Motion Detect Stream**, when camera detects the motion, it will show tracking of object.

Step 4 Configure the schedule time setting, please refer to 7.1 Step 4.

Step 5 Configure the detection area.

1. Press and hold the left mouse button, and drag in the video area to draw a detection area, as shown in Figure 10-8.

Figure 10-8 Motion area setting page



2. Press and hold the left mouse button, and drag in the video area to draw a detection area.

**NOTE**

Click **Clear** to delete a detection area. Click the red block to disarm this area.

----End

## 10.7 Push Message

### Description

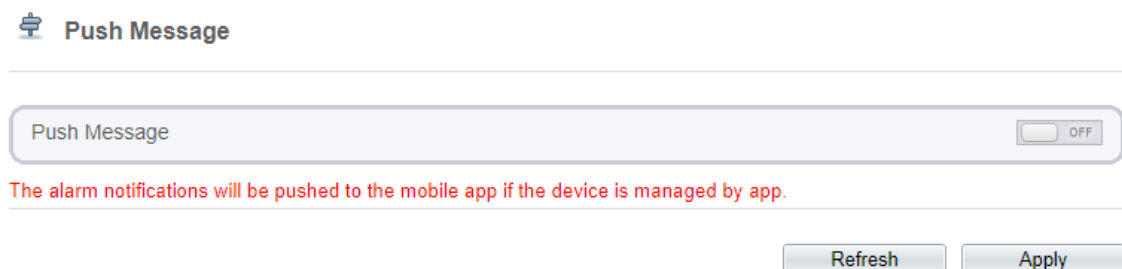
The alarm notification will be pushed to the mobile app if the devices are managed by app.

### Procedure

Step 1 Choose **Configuration > Alarm > Push Message**.

The **Push Message** page is displayed, as shown in Figure 10-9.

Figure 10-9 Push message page



Step 2 Click **Apply**.

The message "Apply succeed!" is displayed, and the system saves the settings.



























---End

## 10.8 Audible Alarm Output (Only for Some Models)

Step 1 At **Configuration > Alarm > Audible Alarm Output** interface, set the audio detect alarm, as shown in Figure 10-10. The volume can be set at **Configuration > Device > Audio Output** interface, as shown in Figure 5-8.

Figure 10-10 Audible alarm output page


### Audible Alarm Output

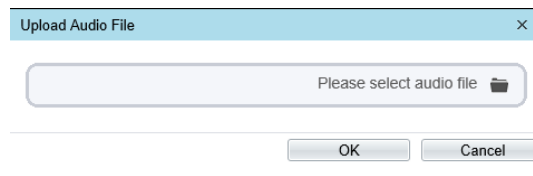
ID	FileName	Cycle Number	Listen Test	Operate
0	Dangerous area. Keep away.wav	1		
1	Deep water. pay attention to safety.wav	1		
2	Do not touch valuables.wav	1		
3	Hello Welcome.wav	1		
4	High altitude. No climbing.wav	1		
5	High-temperature ignition point found. Please dispose immediately.wav	1		
6	No parking in this area.wav	1		
7	Private area. No Entry.wav	1		
8	Public area. No smoking.wav	1		
9	Smoking is prohibited in this area.wav	1		
10	Warning area. Please leave as soon as possible..wav	1		
11	You have entered a monitoring area.wav	1		
12	You have entered a warning area. Please leave as soon as possible.wav	1		


  

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tue																									
Wed																									
Thur																									
Fri																									
Sat																									

There are 13 default files, users can set the cycle number, click  to test listen.



Step 2 Click  to upload a new audio.

The type should be WAV, size must be less than 250 Kb, the bit rate should be 128 kbps.

Step 3 Click “Apply” to save the settings.

----End

## 10.9 Abnormal Sound Detection (Only for Some Models)

### Description

The camera has mic or support the line in. On the **Audio Abnormal Detection** page, you can perform the following operations:

- Enable the Audio Abnormal Detection function.

- Set the Audio Abnormal Detection alarming time.

- Configure the Audio Abnormal Detection output channel.


  - When the alarm output function is enabled and the camera detects abnormal audio (sudden rise or sudden drop) within the schedule time, the camera generates an alarm and triggers linkage alarm output.

### Procedure

Step 1 Choose **Configuration > Alarm > Audio Abnormal Detection**.

The **Audio Abnormal Detection** page is displayed, as shown in Figure 10-11.

Figure 10-11 Audio abnormal detection page

 **Abnormal Sound Detection**

---

Enable	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF
Sudden Rise	<input type="checkbox"/> OFF
Sudden Drop	<input type="checkbox"/> OFF
Output Channel	<input type="checkbox"/> 1 <input type="checkbox"/> 2
Alarm Record	<input type="checkbox"/> OFF
SMTP	<input type="checkbox"/> OFF
FTP Upload	<input type="checkbox"/> OFF

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tue	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Thur	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fri	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Step 2 Click the button on to enable audio abnormal detection.

Step 3 Enable Sudden Rise, and Sudden Drop.

Step 4 Select the Output Channel.

Step 5 Click the button on to enable **Alarm Record**.

Step 6 Click the button on to enable **SMTP**.

Step 7 Click the button on to enable **FTP Upload**.

Step 8 Configure the schedule time setting.


For details about how to set **Schedule**, please refer to *7.1 Step 4*.

---End

## 10.10 Flashlight Alarm Output (Only for Some Models)

Step 1 At **Configuration > Alarm > Flashlight Alarm Output** interface, set the schedule to enable flashlight alarm, as shown in Figure 10-12.

Figure 10-12 Flashlight alarm page

 **Flashlight Alarm Output**

---

Alarm Time(10-60s)

Flicker Interval(100-10000MS)

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tue																									
Wed																									
Thur																									
Fri																									
Sat																									

Step 2 Set the alarm time and flicker interval.

Step 3 Configure the schedule time setting.

Step 4 Click “Apply” to save the settings.

----End


## 10.11 White Light Alarm Output (Only for Some Models)

The **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NONE**, Which is the Prerequisite, so that this linkage action is valid.

Enable to white light alarm when it triggers the alarm, the white light will be on.

Step 1 At **Configuration > Alarm > White light Alarm Output** interface, set the duration of alarm, as shown in Figure 10-13.

Figure 10-13 White light alarm page

 **Whitelight Alarm Output**

---

Alarm Duration(1-60s)

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Mon	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Tue	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Thur	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Fri	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sat	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Step 2 Set the alarm duration, it determines the duration of the white light on.

Step 3 Configure the schedule time setting.

Step 4 Click “Apply” to save the settings.


----End

## 10.12 Red and Blue light Alarm Output (Only for Some Models)

Enable to red and blue light alarm when it triggers the alarm, red and blue lights will be flashing.

Step 1 At **Configuration > Alarm > Red and Blue light Alarm Output** interface, set the duration of alarm, as shown in Figure 10-13.

Figure 10-14 Red and blue light alarm output page

 Red and blue light alarm output

Alarm Time(10-60s)

Flicker frequency

Manual control duration (S)

Manual control

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Mon	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Tues	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Wed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Thur	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Fri	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Sat	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed

Step 2 Set the alarm time, it determines the duration of the light on.

Step 3 Set the flicker frequency (high, mid, low).

Step 4 Set manual control duration, click “Start”, the alarm will be running for setting time. You can click “Stop” to end the manual alarm.

Step 5 Configure the schedule time setting.

Step 6 Click “Apply” to save the settings.

---End

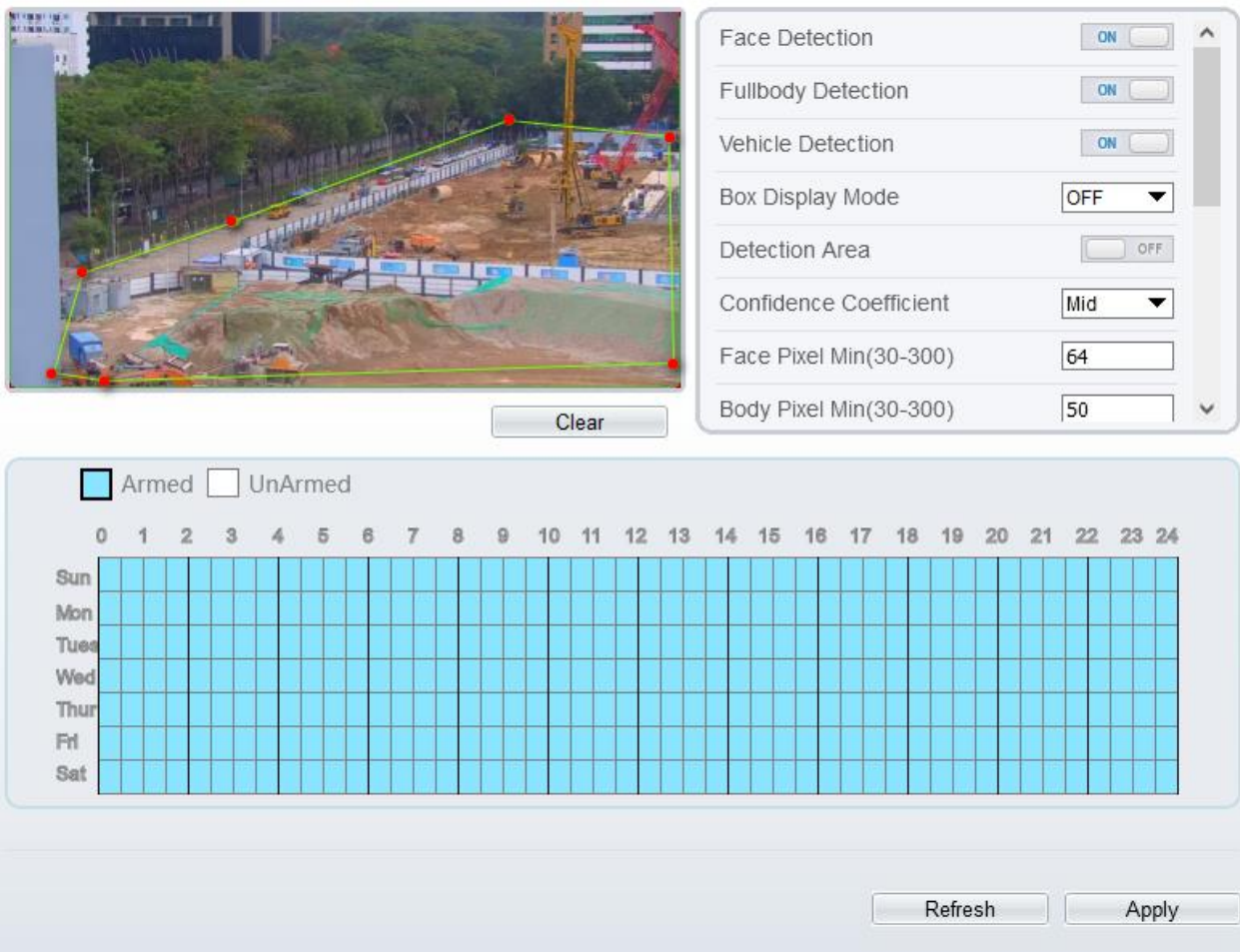
# 11 AI Multiobject

## 11.1 AI Configuration

Choose **Configuration > AI Multiobject** to set parameter of detected face, and vehicle plate.

Figure 11-1 AI Multiobject page

### AI Multiobject



Face Detection  ON

Fullbody Detection  ON

Vehicle Detection  ON

Box Display Mode OFF

Detection Area  OFF

Confidence Coefficient Mid

Face Pixel Min(30-300) 64

Body Pixel Min(30-300) 50

Clear

Armed  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Mon	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Tue	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Wed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Thur	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Fri	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed
Sat	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed	Armed

Refresh Apply

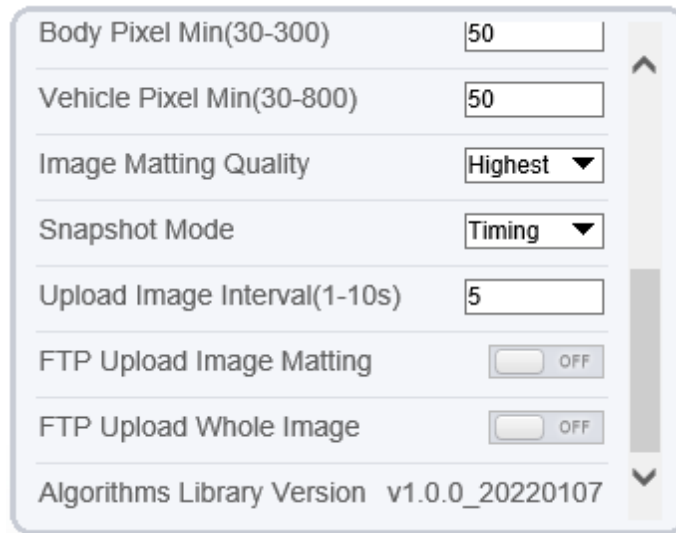




Table 11-1 lists the AI multiobject parameters.

Table 11-1 Parameters of AI multiobject

Parameter	Description	How to set
Face Detection	The camera will snap the face when someone appears in live video.	Enable
Full body Detection	The camera will snap the whole body when someone appears in live video.	Enable
Vehicle Detection	The camera will snap the vehicle when the vehicle appears in live video.	Enable
Box Display Mode	Choose one to a trace box will show at live video. There three mode can be chosen. Mode 1:  Mode 2:  Mode 3 is Moosic. Users can choose OFF to close the box on showing.	Choose from drop list.
Detection Area	Enable to show the detection area on live video.	
Confidence Coefficient	The range of snap image, there are three types, such as high, mid and low. The higher the confidence, the better the snap quality and the fewer snapshots.	Choose from drop list.
Face Pixel Min (30-300)	30-300 pixels, the smaller the pixel be set, the more face will be captured, but it may be mistaken.	Input a value ranges 30 to 300
Body Pixel Min (30-300)	30-300 pixels, the smaller the pixel be set, the more body will be captured, but it may be mistaken.	Input a value range 30 to 300
Vehicle Pixel Min (30-300)	30-300 pixels, the smaller the pixel be set, the more face will be captured, but it may be	Input a value ranges 30 to

Parameter	Description	How to set
	mistaken.	300
Image Matting Quality	The quality of snap image, There are three mode can be chosen, such as low, mid and high.	Choose from drop list.
Snapshot Mode	There are three mode can be chosen, such as timing, and optimal.	Choose from drop list.
Upload Image Interval (1-10 s)	At timing mode, set the interval of upload image.	Input a value ranges 1 to 10
FTP Upload Image Matting	<b>Configuration &gt; Network Service &gt; FTP</b> , set FTP related parameters, the captured picture will be sent to the set FTP location	Enable
FTP Upload Whole Image	Capture a picture and send a whole image.	Enable

# 12 Configure the Recording Function

**NOTE**

Some models may not support SD card, and the recording function is disable, please refer to actual product.

## 12.1 Record Policy

You can configure the scheduled recording function, alarm recording function, recording quality, and recording rules.

### Procedure

Step 1 Choose **Configuration > Device Record > Record Policy**.

The **Record Policy** page is displayed, as shown in Figure 12-1.

Figure 12-1 Record policy page

**Record Policy**

Schedule Record
 ON  OFF

---

Alarm Post Record(0-86400s)

---

Record Audio
 OFF

---

Record Rule

---

Stream Name

Armed
  UnArmed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Mon	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Tue	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Thur	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Fri	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sat	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Step 2 Set the parameters according to Table 12-1.

Table 12-1 Parameters of recording policy

Parameter	Description	Setting
Schedule Record	Enables schedule record that you can configure the time policy.	[Setting method] Click the button on to enable schedule record. [Default value] OFF
Alarm Post Record (0-86400s)	Recording duration (in seconds) after an alarm is generated.	[Setting method] Enter a value manually.
Record Audio	Indicates whether to record audios together with videos.	[Setting method] Click the button on to enable record audio.
Record Rule	Rule for saving recordings. The options are as follows: <b>Cycle Store:</b> Saves recordings in cycles. <b>Save Days:</b> Duration (in days) for saving a recording. The duration can be a maximum of 99999 days. NOTE The value <b>0</b> indicates that recordings are not overwritten.	[Setting method] Select a value from the drop-down list box.
Stream Name	Name of the stream.	[Setting method] Select a value from the drop-down list box.

Step 3 Configure a recording plan.

You can configure the system to record videos around the clock or in schedule.

For details about how to set **Schedule**, see please refer to *7.1 Step 4*.

Step 4 Click Apply.

If the message "Apply success!" is displayed, the system saves the settings.

If other information is displayed, set the parameters correctly.

-----End

## 12.2 Record Directory

### Description

Recordings can be stored in an SD card, FTP, or NSA.

## Procedure

Step 1 Choose **Configuration > Device Record > Record Directory**.

The **Record Directory** page is displayed, there are three types to action disk, such as SD card, FTP, and NAS, as shown in Figure 12-2.

Figure 12-2 Record directory page

### Record Directory

Disk Type	Disk ID	Group ID	Enable	Total Space(MB)	Free Space (MB)	Alarm Threshold(%)	Status
SD Card	1	1	Yes	0	0	100	N/A
FTP	2	1	No	0	0	100	N/A
NAS	3	1	No	0	0	100	N/A

Step 2 Set the parameters according to Table 12-2.

Table 12-2 Parameters of Record directory

Parameter	Description	Setting
Disk Type	Recording directory type, which can be an SD card.	[Setting method] The parameter cannot be set manually.
Disk ID	Indicates the Disk ID.	
Group ID	Indicates the group HID.	
Enable	Indicates whether to enable the recording directory.	
Total Space (MB)	Total disk space.	
Free Space (MB)	Maximum disk space read automatically.	

Parameter	Description	Setting
Alarm Threshold (%)	The camera will alarm when used Space achieves the alarm threshold.	
Status	Status of the connection between the current camera and recording directory detected automatically.	

Step 3 Click **Modify** to modify the parameters of recording path.

Figure 12-3 Record path modify

The screenshot shows a 'Record Path Modify' dialog box. It features a title bar with the text 'Record Path Modify' and a close button (X). The main content area is divided into sections. The first section is 'SD Card' with a toggle switch set to 'ON'. Below this, there are three rows of information: 'Disk ID' with the value '1', 'Total Space(MB)' with the value '30144', and 'Alarm Threshold(1-100)' with the value '100'. At the bottom of the dialog, there are two buttons: 'Modify' and 'Format'.

----End

## 12.2.1 Configure the SD Card

### Procedure

Step 1 Choose Configuration > Device Record > Record Directory.

Step 2 Choose SD Card, click **Modify**.

The SD card **Record Path Modify** page is displayed, as shown in Figure 12-4.

Figure 12-4 SD card record path modify page

The screenshot shows a 'Record Path Modify' dialog box with the following fields and controls:

- SD Card:** A toggle switch currently set to 'ON'.
- Disk Id:** A text field containing the value '1'.
- Total Space(MB):** A text field containing the value '58880'.
- Alarm Threshold(1-100):** A text field containing the value '100'.
- Buttons:** A 'Modify' button is located below the 'Alarm Threshold' field, and a 'Format' button is located at the bottom of the dialog.

Step 3 Set the parameters according to Table 12-3.

Table 12-3 Parameters of SD card recording

Parameter	Description	Setting
SD Card	Enable SD card to enable record.	[Setting method] Click button to enable SD card.
Disk ID	ID of SD card.	N/A
Total Space(MB)	Total disk space read automatically.	[Setting method] The parameter cannot be set manually.
Alarm Threshold (1-100)	The camera will alarm when used Space achieves the alarm threshold.	[Setting method] Enter a value from 1-100.

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

-----End

## 12.2.2 Configure the FTP

### Procedure

Step 1 Choose Configuration > Device Record > Record Directory.

Step 2 Choose FTP, click **Modify**.

The FTP **Record Path Modify** page is displayed, as shown in Figure 12-5.

Figure 12-5 FTP record path modify page

Step 3 Set the parameters according to Table 12-4.

Table 12-4 Parameters of FTP recording

Parameter	Description	Setting
FTP	Enable to use FTP (File Transfer Protocol) to record the video.	[Setting method] Enable
IP Address	IP address of FTP server.	[Setting method] Enter a value manually.
Port	Port of FTP server.	[Setting method] Enter a value manually.
Path	FTP Path to save the recording.	[Setting method] Enter a value manually.
User Name	FTP server account.	[Setting method] Enter a value manually.
Password	FTP server password.	[Setting method] Enter a value manually.
Confirm	Confirm the password.	[Setting method] Enter a value manually.
Free Space (MB)	The free space of FTP server	[Setting method] Enter a value.
FTP over SSL / TLS (FTPS)	Transfer the recording by encryption.	[Setting method] Tick

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

-----End

## 12.2.3 Configure the NAS

### Procedure

Step 1 Choose Configuration > Device Record > Record Directory.

Step 2 Choose NAS, click **Modify**.

The NAS **Record Path Modify** page is displayed, as shown in Figure 12-6.

Figure 12-6 NAS record path modify page

Step 3 Set the parameters according to Table 12-5.

Table 12-5 Parameters of NAS recording

Parameter	Description	Setting
NAS	Enable to use NAS (Network Attached Storage) to record the video.	[Setting method] Enable
IP Address	IP address of NAS server.	[Setting method] Enter a value manually.
Path	IP address of NAS device.	[Setting method] Enter a value manually.
User Name	NAS device account.	[Setting method] Enter a value manually.
Password	NAS device Password.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Confirm	Confirm the password.	[Setting method] Enter a value manually.
File System	There are two types can be chosen, cifs and nfs	[Setting method] Choose from drop-down list. [Default value] <b>cifs</b>

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

-----**End**

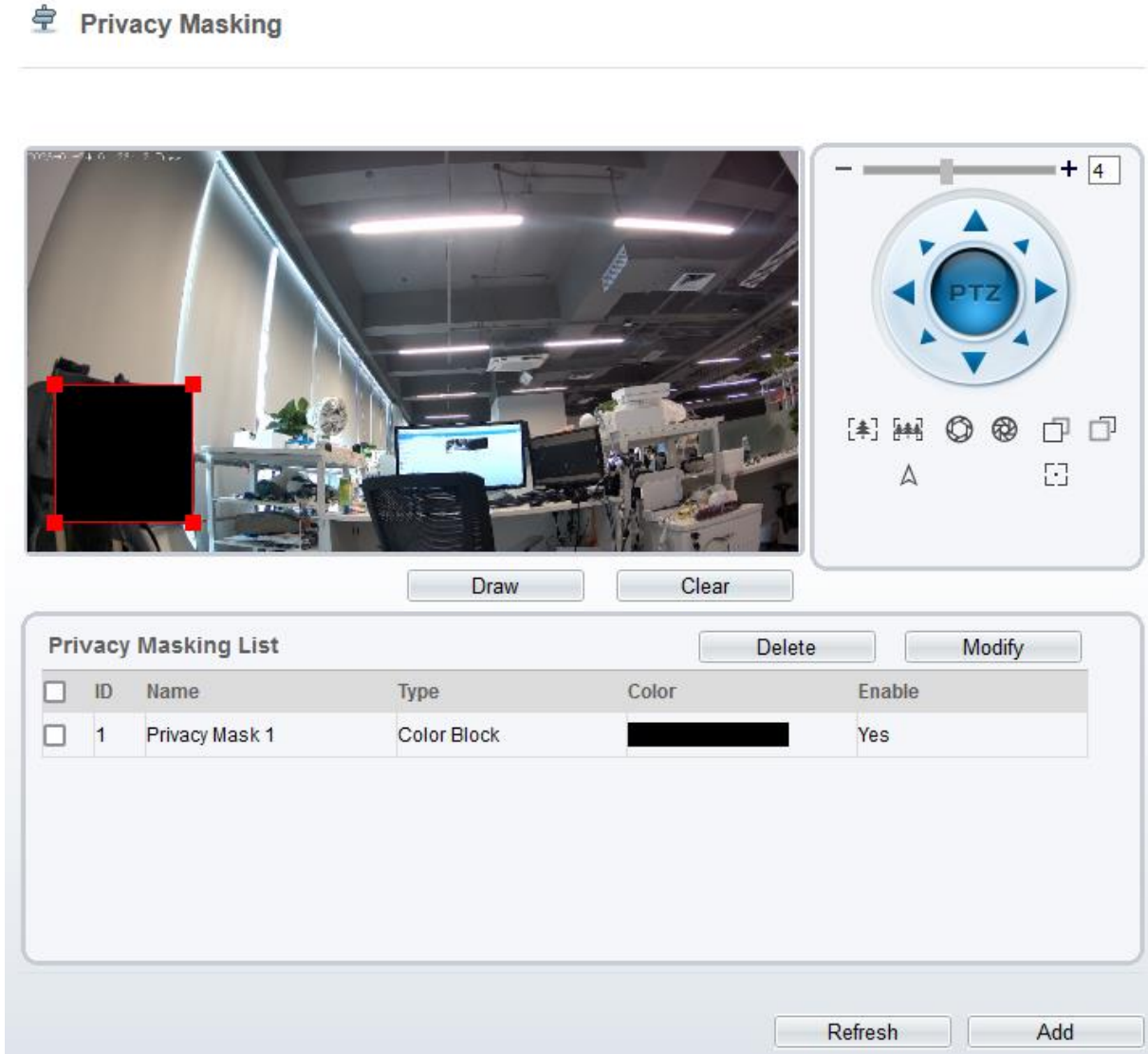
# 13 Configure the Privacy Mask Function

## Procedure

Step 1 Choose **Configuration > Privacy Masking**.

The **Privacy Masking** page is displayed, as shown in Figure 13-1.

Figure 13-1 Privacy masking page



Step 2 Click **Draw** to show the red frame, drag the four corners of rectangle to adjust the position.

Step 3 Click **Clear** to delete the chosen frame.

### NOTE

The maximum percentage of an image that can be masked depends on the device model. Read the tip displayed on the page.

A maximum of four areas can be masked.

Tick the ID of mask area and click Delete to delete the masking.

Step 4 Set the parameters according to Table 13-1.

Table 13-1 Parameters of privacy masking

Parameter	Description	Setting
ID	ID of Privacy Masking.	N/A
Name	Name of privacy Masking.	[Setting method] Click the name and enter a value manually. [Default value] <b>Blank</b>
Type	Type of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] <b>Color Block</b>
Color	Color of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] <b>Black</b>
Enable	Indicates whether to enable the privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] <b>Yes</b>
Delete	Delete a privacy masking.	[Setting method] 1. Select a privacy masking from the Privacy Masking List. 2. Click <b>Delete</b> , the privacy masking is deleted successfully
Modify	Modify a privacy masking.	[Setting method] 3. Select a privacy masking from the Privacy Masking List. 4. Click a parameter and modify it. 5. Click <b>Modify</b> , the privacy masking is modified successfully

Step 5 Click **Add** to add privacy masking.

----**End**

# 14 Configure the Network Service

## 14.1 802.1x

### Preparation

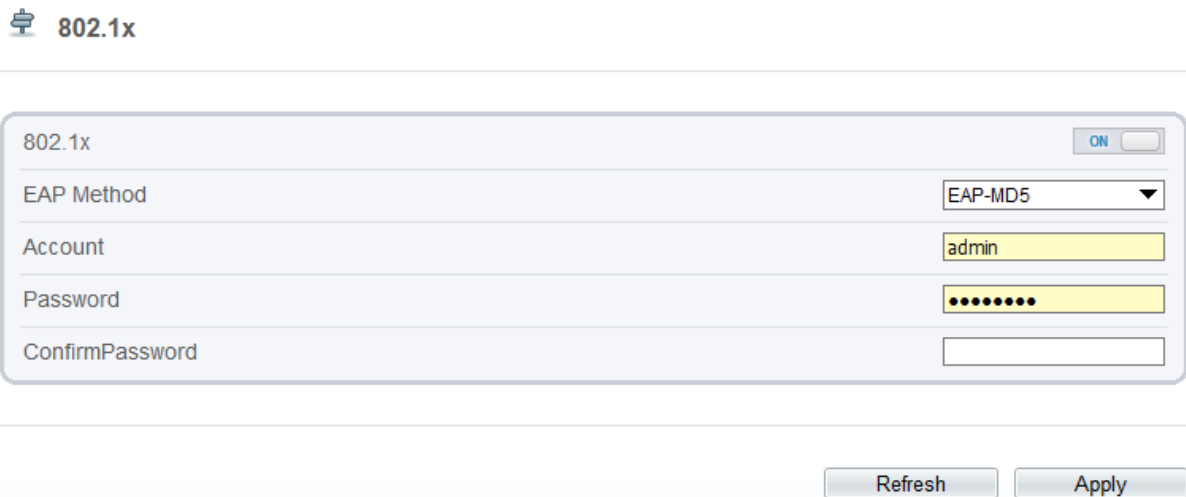
802.1x authentication must be configured on the access port, which controls to access network resources for the connected users' devices on the port.

### Procedure

Step 1 Choose **Configuration > Network Service > 802.1x**.

The **802.1x** page is displayed, as shown in Figure 14-1.

Figure 14-1 802.1x page



802.1x ON

EAP Method	EAP-MD5
Account	admin
Password	••••••••
ConfirmPassword	

Refresh Apply

Step 2 Click the button on to enable **802.1x**.

Step 3 Choose the **EAP Method** (Extensible Authentication Protocol ) from drop-down list. **EAP-MD5** and **EAP-TLS** can be chosen.

Step 4 Enter the account name.

Step 5 Enter the password and confirm password.

Step 6 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

---End

## 14.2 DDNS

### Preparation

Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

## Procedure

Step 1 Choose **Configuration > Network Service > DDNS**.

The **DDNS** page is displayed, as shown in Figure 14-2.

Figure 14-2 DDNS page

DDNS ON

Provider 3322\_ddns ▼

Network Card Name eth0 ▼

Host Name

Account

Password

Step 2 Click the button on to enable **DDNS**.

Step 3 Set the parameters according to Table 14-1.

Table 14-1 Parameters of DDNS

Parameter	Description	Setting
DDNS	Indicates whether to enable the DDNS service.	[Setting method] Click the button on to enable DDNS. [Default value] OFF
Provider	DDNS service provider. Currently, only 3322 and dyndns are supported.	[Setting method] Select a value from the drop-down list box. [Default value] 3322 NOTE Set this parameter based on the site requirements.
Network Card Name	Name of network card	[Setting method] Select a value from the drop-down list box. [Default value] Eth0

Parameter	Description	Setting
Host Name	Host name is customized by a user.	[Setting method] Enter a value manually. [Default value] Blank
Accounts	User name for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank
Password	Password for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank

Step 4 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If other information is displayed, set the parameters correctly.

----End

## 14.3 PPPoE

### Preparation

Obtain the PPPoE user name and password from the network carrier.

### Description

If a PPPoE connection is used, you need to enter the user name and password on the **PPPoE** page. After you restart the device, the PPPoE settings take effect and the device obtains a public IP address.

### Procedure

Step 1 Choose **Configuration > Network Service > PPPoE**.

The **PPPoE** page is displayed, as shown in Figure 14-3.

Figure 14-3 PPPoE page

PPPoE  ON

Account

Password

IP Address

Refresh Apply

Step 2 Click the button on to enable **PPPoE**.

Step 3 Set the parameters according to Table 14-2.

Table 14-2 Parameters of PPPoE

Parameter	Description	Setting
PPPoE	Click to enable PPPoE dialing.	[Setting method] Click the button on. [Default value] OFF
Accounts	User name of PPPoE provided by the network carrier.	[Setting method] Enter a value manually.
Password	Password of PPPoE provided by the network carrier.	[Setting method] Enter a value manually.

Step 4 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If other information is displayed, set the parameters correctly.

---End

## 14.4 Port Mapping

### Description

Port mapping helps establish a mapping relationship between the private network and the external network. Port mapping allows outside computers to access intranet devices so that the network works efficiently.

### Procedure

Step 1 Choose **Configuration > Network Service > Port Mapping**.

The **Port Mapping** page is displayed, as shown in Figure 14-4.

Figure 14-4 Port mapping page 1

**Port Mapping**

Port Mapping  ON

Map Mode Auto ▼

Auto Port Mapping

Enable	PortType	OutsidePort	OutsideIP Address	State
<input checked="" type="checkbox"/>	SSLCONTROL	20001	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	HTTP	80	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	RTSP	554	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	CONTROL	30001	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	HTTPS	443	0.0.0.0	Ineffective

Figure 14-5 Port mapping page 2

**Port Mapping**

Port Mapping  ON

Map Mode Auto ▼

Auto Port Mapping

Enable	PortType	OutsidePort	OutsideIP Address	Status
<input checked="" type="checkbox"/>	HTTP	80	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	RTSP	554	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	CONTROL	30001	0.0.0.0	Ineffective
<input checked="" type="checkbox"/>	HTTPS	443	0.0.0.0	Ineffective

Step 2 Click the button on to enable **Port Mapping**.

Step 3 Set the parameters according to Table 14-3.

Table 14-3 Parameters of port mapping

Parameter	Description	Setting
Port Mapping	Indicates whether to enable the Port	[Setting method]

Parameter	Description	Setting
	Mapping service.	Click the button on. [Default value] OFF
Map Mode	Mode of port mapping, includes auto and manual.	[[Setting method] Select a value from the drop-down list box. [Default value] Auto
Port Type	Port Type includes: SSLCONTROL HTTP, RTSP, Control and HTTPS.	N/A
Outside Port	Port of outside network.	[Setting method] Enter a value manually in map mode.
Outside IP Address	IP address of outside network.	N/A
State	Mapping status	N/A

Step 4 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If other information is displayed, set the parameters correctly.

---End

## 14.5 SMTP

### Description

If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device automatically sends JPG images and alarm information to specified email addresses when an alarm is generated.

### Procedure

Step 1 Choose **Configuration > Network Service > SMTP**.

The **SMTP** page is displayed, as shown in Figure 14-6.

Figure 14-6 SMTP page

The screenshot shows the SMTP configuration interface. It includes the following fields and controls:

- SMTP Server Address**: Input field with a red asterisk (\*) indicating it is mandatory.
- SMTP Server Port**: Input field with a red asterisk (\*) and the value "25" entered.
- User Name**: Input field with a red asterisk (\*) indicating it is mandatory.
- Password**: Input field with a red asterisk (\*) indicating it is mandatory.
- Sender E-mail Address**: Input field with a red asterisk (\*) indicating it is mandatory.
- Recipient\_E-mail\_Address1**: Input field with a red asterisk (\*) indicating it is mandatory.
- Recipient\_E-mail\_Address2**: Input field.
- Recipient\_E-mail\_Address3**: Input field.
- Recipient\_E-mail\_Address4**: Input field.
- Recipient\_E-mail\_Address5**: Input field.
- Attachment Image Quality**: Dropdown menu with "Mid" selected.
- Transport Mode**: Dropdown menu with "No Encrypt" selected.
- Email Test**: Button.
- Refresh** and **Apply**: Buttons at the bottom right.

Step 2 Set the parameters according to Table 14-4.

**NOTE**

Parameters marked with are mandatory.

Table 14-4 Parameters of SMTP

Parameter	Description	Setting
SMTP Server Address	IP address of the SMTP server.	[Setting method] Enter a value manually.
SMTP Server Port	Port number of the SMTP server.	[Setting method] Enter a value manually. [Default value] 25
User Name	User name of the mailbox for sending emails.	[Setting method] Enter a value manually.
Password	Password of the mailbox for sending emails.	[Setting method] Enter a value manually.
Sender E-mail Address	Mailbox for sending emails.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 1	(Mandatory) Email address of recipient 1.	[Setting method]

Parameter	Description	Setting
Recipient_Email_Address 2	(Optional) Email address of recipient 2.	Enter a value manually.
Recipient_Email_Address3	(Optional) Email address of recipient 3.	
Recipient_Email_Address 4	(Optional) Email address of recipient 4.	
Recipient_Email_Address 5	(Optional) Email address of recipient 5.	
Attachment Image Quality	A higher-quality image means more storage space. Set this parameter based on the site requirement.	N/A
Transport Mode	Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server.	[Setting method] Select a value from the drop-down list box. [Default value] No Encrypted

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

If other information is displayed, set the parameters correctly.

---End

## 14.6 FTP

### Description


If the File Transfer Protocol (FTP) button is enabled, the device automatically sends the snapped alarm JPG images to specified FTP server.

### Procedure

Step 1 Choose **Configuration > Network Service > FTP**.

The **FTP** page is displayed, as shown in Figure 14-7.

Figure 14-7 FTP page

 **FTP**

FTP Upload
ON

---

FTP Address

---

FTP Port

---

Account

---

Password

---

FTP Path

---

Media Type

---

FTP over SSL/TLS(FTPS)

Step 2 Click the button on to enable **FTP**.

Step 3 Set the parameters according to Table 14-5.

Table 14-5 Parameters of FTP

Parameter	Description	Setting
FTP Upload	Indicates whether to enable the FTP service.	[Setting method] Click the button on. [Default value] OFF
FTP Address	IP address of FTP server.	[Setting method] Enter a value manually.
FTP Port	Port of FTP server.	[Setting method] N/A [Default value] 21
Account	FTP server account.	[Setting method] Enter a value manually.
Password	FTP server password.	[Setting method] Enter a value manually.
FTP Path	FTP Path to save the JPG image.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Media Type	The media type of sending to FTP, snapshot or video clip.	[Setting method] Select a value from the drop-down list box. [Default value] Snapshot
FTP over SSL/TLS (FTPS)	Encrypt the files by SSL/TLS when they are be transferred.	[Setting method] Tick

Step 4 Click Test FTP to verify the parameter, shows “ Test succeed ”, the parameters are right. If it shows “ Test failed”, you need modify the information correctly.

Step 5 Click **Apply**.

If the message "Apply success!" is displayed, the system will save the settings.

If other information is displayed, set the parameters correctly.

----End

## 14.7 IP Filter

### Description

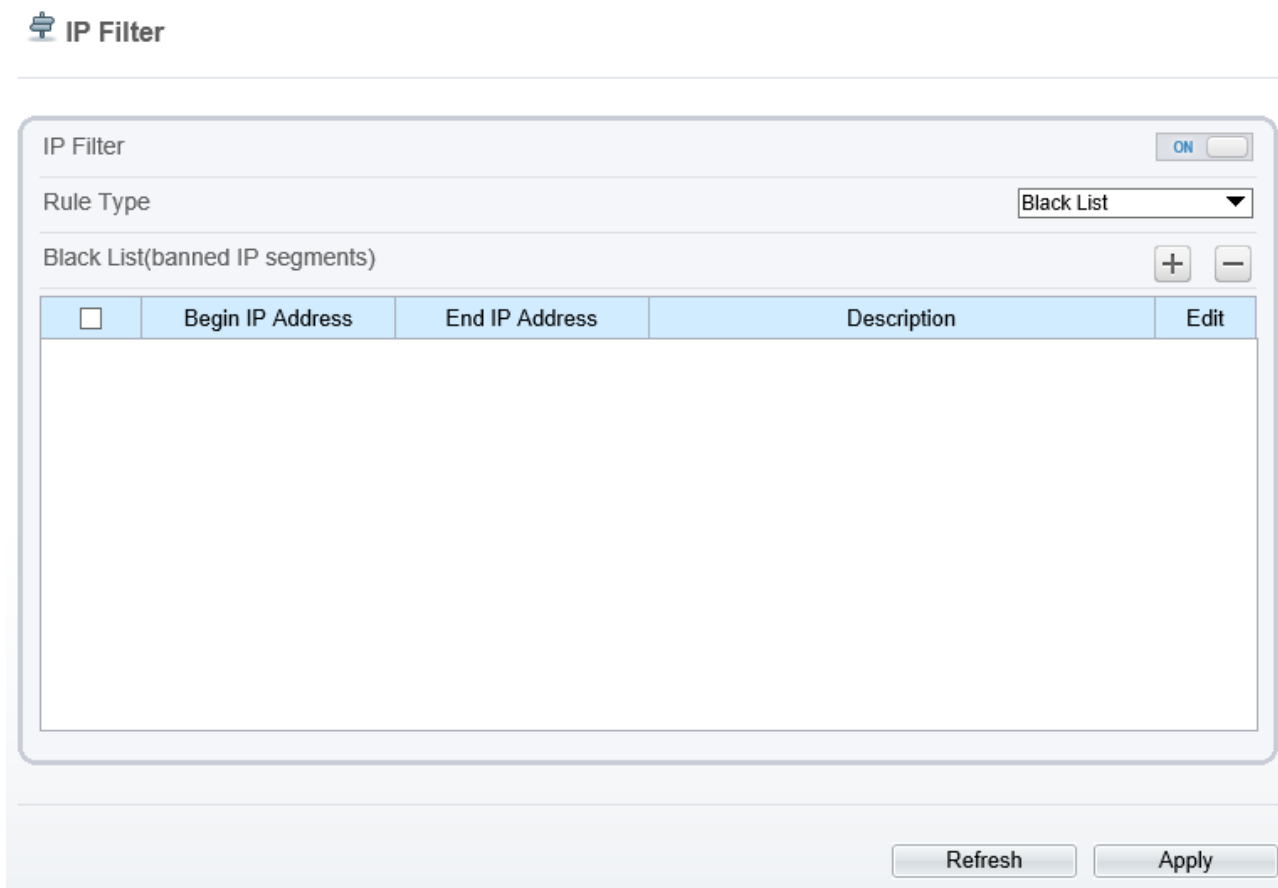
Set the IP address in specified network segment to allow access or prohibit access.

### Procedure

Step 1 Choose **Configuration > Network Service > IP Filter**.

The **IP Filter** page is displayed, as shown in Figure 14-8.

Figure 14-8 IP filter page



Step 2 Click the button on to enable **IP Filter**.

Step 3 Set the parameters according to Table 14-6

Table 14-6 Parameters of IP filter

Parameter	Description	Setting
IP Filter	Indicates whether to enable the IP Filter.	[Setting method] Click the button on. [Default value] OFF
Rule Type	IP filter type, includes black list and white list.	[Setting method] Select a value from the drop-down list box. [Default value] Black List





Parameter	Description	Setting
Black List	Specified network segment should be banned.	[Setting method] 6. Click  to enter the add black/white list page, as shown in Figure 14-9 7. Enter Begin IP Address. 8. Enter End IP Address. 9. Enter Description. 10. Click OK, the black list added successfully.
White List	Allow specified network segment to access.	[Setting method] 1. Click  to enter the add black/white list page, as shown in Figure 14-9. 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Description. 5. Click OK, add the white list successfully.

Figure 14-9 Add IP filter page



 **NOTE**

- Click  to modify the parameters of setting black list or white.
- Click  to delete the setting black list or white.

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

## 14.8 CGI Alarm Service Center

### Description

Device will push the alarm message by CGI with Start URL and End URL, and send to data to CGI Server by HTTP protocol. CGI alarm message is the head of User-Agent of HTTP. Use HTTP protocol

get and send to CGI Server. When need to integrate the CGI alarm message, need to resolve the HTTP Head "User-Agent" to get the data of CGI alarm message.

## Procedure

Step 1 Choose **Configuration > Network Service > CGI Alarm Service Center**.

The **CGI Alarm Service Center** page is displayed, as shown in Figure 14-10.

Figure 14-10 CGI alarm service center page

**CGI Alarm Service Center**

CGI Alarm  ON

Alarm Type: All

Name:

Type: HTTP

URL Start:

URL End:

Proxy Setting  ON

Address:

Port:

Platform User Name:

Platform Password:

Test the connection to the specified HTTP server

Step 2 Click the button on to enable **CGI Alarm**.

Step 3 Set the parameters according to Table 14-7.

Table 14-7 Parameters of CGI Alarm service center

Parameter	Description	Setting
CGI Alarm	Indicates whether to enable the CGI Alarm.	[Setting method] Click the button on. [Default value] OFF

Parameter	Description	Setting
Alarm Type	All alarm types can be chosen, users can choose one to alarm, or choose all.	[Setting method] Select a value from the drop-down list box. [Default value] All
Name	Name of CGI Alarm.	[Setting method] Enter a value manually.
Type	Type of CGI Alarm.	[Setting method] Select a value from the drop-down list box. [Default value] HTTP
URL Start	Push the alarm message by CGI with start URL	[Setting method] Enter a value manually. For example: http://192.168.35.74:80/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description
URL End	Push the alarm message by CGI with end URL	[Setting method] Enter a value manually. For example: http://192.168.35.74:80/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description
Proxy Setting	Indicates whether to enable the Proxy. Forwarder server of CGI alarm to forward the CGI alarm.	[Setting method] Click the button on. [Default value] OFF
Address	IP address of Forwarder server.	[Setting method] Enter a value manually.
Port	Port of Forwarder server.	[Setting method] Enter a value manually.
Platform User Name	User name of forwarder server.	[Setting method] Enter a value manually.
Platform Password	Password of forwarder server.	[Setting method] Enter a value manually.
Test the connection to the specified HTTP server	Test if the device connects to the proxy successfully.	[Setting method] Click Test, if the device connects to the proxy successfully, the message "Test CGI alarm success" is displayed.

**Step 4 Click Apply.**

The message "Apply success!" is displayed, and the system saves the settings. If the message is "Parameter is invalid", you should check if the parameters are correct.

----End

## 14.9 SNMP

### Description


Simple Network Management Protocol (SNMP) is an Internet Standard protocol, supports SNMP v1, SNMPv2c and SNMPv3 network protocol. Choose the proper SNMP protocol version and set the SNMP protocol parameter to collect and organize information about managed devices on IP networks.

### Procedure

Step 1 Choose **Configuration > Network Service > SNMP**.

The **SNMP** page is displayed, as shown in Figure 14-11.

Figure 14-11 SNMP page

 **SNMP**

---

SNMPv1  ON

SNMPv2c  ON

Write Community

Read Community

Trap Address

Trap Port

Trap Community

SNMPv3  ON

Read Security Name

Security Level

Auth Algorithm

Auth Password

Encry Algorithm

Encry Password

Write Security Name

Security Level

Auth Algorithm

Auth Password

Encry Algorithm

Encry Password

SNMP Port

Step 2 Click the button on to enable **SNMPv1**, **SNMPv2C** and **SNMPv3**.

Set the parameters according to Table 14-8.

Table 14-8 Parameters of SNMP

Parameter	Description	Setting
SNMPv1	Version of SNMP.	[Setting method] Click the button on.
SNMPv2c	SNMPv1 and SNMPv2c use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap.	[Default value] OFF
Write Community	Name of write community. The write community only can modify data.	[Setting method] Enter a value manually.
Read Community	Name of read community. The write community only can read data.	
Trap Address	IP address of the trap.	
Trap Port	Management port of accepting message from trap.	
Trap Community	community string of trap. The trap community string allows the manager to receive asynchronous information from the agent.	
SNMPv3	Version of SNMP. SNMPv3 uses community strings, but allows for secure authentication and communication between SNMP manager and agent.	[Setting method] Click the button on. [Default value] OFF
Read Security Name	Name of read security.	[Setting method] Enter a value manually.
Write Security Name	Name of write security.	
Security Level	Security Level between SNMP manager and agent, includes three levels: No auth: No authentication and no encryption Auth: Authentication but no encryption Priv: Authentication and encryption	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Auth Algorithm	Authentication Algorithm, includes MD5 and SHA.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Auth Password	Authentication password.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Encrypt Algorithm	Encryption Algorithm, includes DES and AES.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Encrypt Password	Encryption password.	[Setting method] Enter a value manually.
SNMP Port	Port of SNMP.	[Setting method] Enter a value manually. [Default value] 161

Step 3 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

## 14.10 QOS

### Description

If the device is connected to a router or switch with a QOS function, and the priority rule of the corresponding mark is configured on the network device, the network device will preferentially pass the data packet of the corresponding mark.

### Procedure

Step 1 Choose **Configuration > Network Service > QOS**.

The **QOS** page is displayed, as shown in Figure 14-12.

Figure 14-12 QOS page

The screenshot shows a configuration panel for QoS settings. It contains three rows of input fields:

Audio/Video Dscp(0-63)	<input type="text" value="52"/>
Alarm Dscp(0-63)	<input type="text" value="0"/>
Command Dscp(0-63)	<input type="text" value="0"/>

At the bottom right of the panel are two buttons: "Refresh" and "Apply".

Step 2 Input the value range from 0 to 63( audio/video dscp, alarm dscp and command dscp).

Step 3 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

---End

## 14.11 Platform Access

### Description

If the device and platform system are not at the same local network, you can connect device and platform system to the external server. You should build a server for platform in advance, platform's remote IP/Port and IP camera are mapping port to external network.

### Procedure

Step 1 Choose **Configuration > Network Service > Platform Access**.

The **Platform Access** page is displayed, as shown in Figure 14-13

Figure 14-13 Platform access page

The screenshot shows the "Platform Access" configuration page. It features a title bar with a lock icon and the text "Platform Access". Below the title bar is a form with the following fields:

- Platform Access**: A toggle switch set to "ON".
- Host Name**: An empty text input field.
- Port**: A text input field containing the value "0".
- User Name**: An empty text input field.
- Password**: An empty text input field.
- Encrypt**: A toggle switch set to "OFF".

At the bottom right of the form are two buttons: "Refresh" and "Apply".

Step 2 Input the parameters. The host name and port are same as the platform, as shown in figure. It is the IP or domain of external network server. The user name and password are same as platform login.

Basic Information				Refresh	Back	Restore	Edit	Delete
Server Name :	CMU_127.0.0.1	Type :	CMU	IP:Port :	127.0.0.1 : 10086	Start-up Time :	2022-04-11 15:15:51	
Running State :	Online	Version :	V1.7.1.0.1.0.0_20220331	Remote IP:Port :		Online Time :	4Hrs 15Min 56Sec	
Log Type :	Error	P2P status :	Offline	Device registration port :	17888	SSL port :	15680	
Domain :	Default Domain	P2P UUID :		Remote device registration port :				

Step 3 Add the IPC to platform, you should input the following information

- 1: IP/ID/Domain name is device ID of IPC.
- 2: The connection mode should be chosen **Device active registration**.

+ AddDevice
×

Device Name

Device Type

Protocol

IP/ID/ domain name

Port

Group

Advanced setting

Connection mode

IAU

MDU

Save and New
Test
Add
Cancel

#### Device Info

Device ID	158888
Device Name	<input type="text" value=""/> ✓
MAC Address	00:1C:27:15:88:88

Step 4 If you want to encrypt the access, you can enable the Encrypt.

Step 5 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

# 15 Privilege Manager

## 15.1 Configure a User

### Description

You can add, modify, and delete a user in privilege manager page.

### Procedure

Step 1 Choose **Configuration > Privilege Manager > User**.

The **User** page is displayed, as shown in Figure 15-1. Table 15-1 describes the parameters.

Figure 15-1 User page

ID	User Name	Groups	Notes	Operate
0	admin	SuperAdmin	admin	

Step 2 Add, modify, or delete a user as required.

Table 15-1 Parameters of user

Parameter	Description	Setting
ID	User ID	N/A
User Name	User name for logging in to the camera.	[Setting method] Select a value from the drop-down list box.

Parameter	Description	Setting
Groups	<p>Permission group where a user belongs. The default permission groups are <b>Super Admin</b>, <b>Administrators</b>, <b>Operator</b>, and <b>Media user</b>. Their permissions are described as follows:</p> <p>Super Admin: Includes all privileges.</p> <p>Administrators: Live Video, Video Control, PTZ control, Audio, Playback, Backup, Record Policy, Disk Configure, Privilege Manage, Parameter Configure, System Maintenance and Log,</p> <p>Operator: System Maintenance, Parameter Configure, playback, Live Video and Video Control.</p> <p>Media user: Live Video</p>	<p>[Setting method]</p> <p>Click <b>Add</b>, then select a value from the drop-down list box.</p>
Notes	Notes of the User.	<p>[Setting method]</p> <p>Click <b>Add</b>, then enter a value manually.</p>
Operate	<p>The operation of the user, includes view user, modify user and delete user.</p> <p>NOTE</p> <p>Super Admin can be viewed only.</p>	<p>[Setting method]</p> <p>Click the icon as required.</p>

Step 3 Add, modify, or delete a user as required.

Table 15-2 are specific operations.

Table 15-2 Operation description

Function	Procedure	Description
Add	<ol style="list-style-type: none"> <li>1. Click <b>Add</b>. The <b>Add User</b> page is displayed, as shown in Figure 15-2.</li> <li>2. Enter a user name, password, confirm password.</li> <li>3. Select a group from the drop-down list box.</li> <li>4. Enter the notes (Optional).</li> <li>5. Check the privilege.</li> <li>6. Click <b>OK</b>. The user is added successfully.</li> </ol>	<p>Add an administrator or a common user as shown in Figure 15-2.</p>



Function	Procedure	Description
Modify	<ol style="list-style-type: none"> <li>Click .</li> </ol> <p>The <b>Modify User</b> page is displayed.</p> <ol style="list-style-type: none"> <li>Modify the user name, password, group or privilege.</li> <li>Click <b>OK</b>.</li> </ol> <p>The user is modified successfully. The <b>User</b> page is displayed.</p>	Modify the user name, password, group or privilege.
Delete	<p>Select the user from the User list. Click , the message “Confirm to delete?” is displayed, click <b>OK</b>, then the group is deleted successfully.</p>	Delete a user.

Figure 15-2 Add user page

Add User
×

User Name

Password

ConfirmPassword

Group Administrators ▼

Notes

Privilege
<input checked="" type="checkbox"/> Live Video
<input checked="" type="checkbox"/> Video Control
<input checked="" type="checkbox"/> PTZ Control
<input checked="" type="checkbox"/> Audio
<input checked="" type="checkbox"/> Playback
<input checked="" type="checkbox"/> Backup
<input checked="" type="checkbox"/> Record Policy
<input checked="" type="checkbox"/> Disk Config

Privilege Description
Live view and stream switch.

 **NOTE**

Click the privilege to view the detailed description of function.

----End

# 16 Configure Protocol Parameters

## 16.1 Protocol Information

### Description

You can view the existing protocol name and version number of the current device on the **Configuration > Protocol > Protocol Info** page, as shown in Figure 16-1. Table 16-1 describes the protocol-related parameters.

Figure 16-1 Protocol info page

The screenshot shows the 'Protocol Info' page with the following parameters:

- Protocol Name: ONVIF
- Protocol Version: v22.06
- Protocol Software Version: v22.06\_build000440
- RTSP Format: rtsp://ip:port/sn/live/cameraid/streamid
- RTSP Example: rtsp://192.168.32.36:554/sn/live/1/1
- Onvif UUID: 7b675f10-6dbe-11ee-95ff

A 'Refresh' button is located at the bottom right of the page.

Table 16-1 Parameters of protocol-related

Parameter	Description
Protocol Name	Type of the access protocol.
Protocol Version	Version number of the access protocol.
Protocol Software Version	Software version number of the access protocol.
RTSP Format	URL rule of Real Time Streaming Protocol.
RTSP Example	URL example of Real Time Streaming Protocol.
Onvif UUID	Universally Unique Identifier.

## 16.2 Security Authentication

### Description

When an ONVIF-compliant device connects to the platform, you must authenticate the user name and password to ensure the connection security.

### Procedure

Step 1 Choose **Configuration > Protocol > Security**.

The **Security** page is displayed as shown in Figure 16-2. Table 16-2 describes the parameters on the **Security** page.

Figure 16-2 Security page



Table 16-2 Parameters description

Parameter	Description	Setting
User Verification	<p>When you select the <b>User Verification</b> check box, the user name and password must be the same as those for logging in to the device web page.</p> <p>NOTE The default user name is <b>admin</b>, and the default password is <b>admin</b>.</p>	<p>[Setting method]</p> <p>Click the button on to enable <b>User Verification</b>.</p>

Step 2 Click **Apply**.

A dialog box is displayed, indicating the parameter configuration success. To make the configuration take effect, click **Confirm** to restart the device.


----End

## 16.3 Onvif Configuration

### Description

You can view the existing protocol name and version number of the current device on the **Configuration > Protocol > Onvif Configuration** page, as shown in Figure 16-3. Table 16-3 describes the protocol-related parameters.

Figure 16-3 Onvif configuration page

 **Onvif Configuration**

---

Protocol Name	ONVIF
Protocol Version	v22.06
Protocol Software Version	v17.06_build000392

Onvif	<input checked="" type="checkbox"/> ON
Profile G	<input type="checkbox"/> OFF
Media2	<input type="checkbox"/> OFF
Image Event	<input type="checkbox"/> OFF
Intelligent Analysis Switch	<input type="checkbox"/> OFF
Onvif Only Https	<input type="checkbox"/> OFF
Stream Only Https	<input type="checkbox"/> OFF

Table 16-3 Parameters of protocol-related

Parameter	Description
Protocol Name	Type of the access protocol.
Protocol Version	Version number of the access protocol.
Protocol Software Version	Software version number of the access protocol.
Profile G	Enable ONVFI profile G
Intelligent Analysis Switch	Enable intelligent analysis switch
Media 2	Enable media 2
Image Event	Enable image event
Intelligent Analysis Switch	Enable active onvif
Onvif only Https	Onvif can use a more secure HTTPS mode for connection, command interaction and video data transmission, which are transmitted in an encrypted way to enhance network security.
Stream only https	

## 16.4 Multicast Parameters

### Description

You can set multicast stream ID, video port, audio port and source port in multicast parameter page.

### Procedure

Step 1 Choose **Configuration > Protocol > Multicast Param**.

The **Multicast Param** page is displayed as shown in Figure 16-4. Table 16-4 describes the parameters on the **Multicast Param** page.

Figure 16-4 Multicast param page

The figure displays two screenshots of the 'Multicast Param' configuration page. The top screenshot shows a form with the following fields and values: Stream ID (1), Video Port (25330), Video Address (238.255.255.255), Audio Port (25430), Audio Address (238.255.255.255), Source Port (25530), and Source Address (238.255.255.255). The bottom screenshot shows a similar form with the following fields and values: Stream ID (1), IP (238.255.255.255), Video Port (25330), Audio Port (25430), and Source Port (25530). Both screenshots include 'Refresh' and 'Apply' buttons at the bottom right.

Table 16-4 Parameter description

Parameter	Description	Setting
Stream ID	ID of stream.	[Setting method] Select a value from the drop-list box. [Default value] 1

Parameter	Description	Setting
Video address	IP address that receive multicast data.	[Setting method] Enter a value manually. [Default value] 238.255.255.255
Video Port	Port that receive video data.	[Setting method] Enter a value manually. [Default value] 25330
Audio Port	Port that receive audio data.	[Setting method] Enter a value manually. [Default value] 25430
Source Port	Port that receive source data.	[Setting method] Enter a value manually. [Default value] 25530

Step 2 Click **Apply**.

It shows that parameters are set successfully and take effect after restarting., the system will save the settings.

----**End**

# 17 Query Device Logs

## 17.1 Query Operation Logs

### Description


Operation logs record user operations and scheduled task commands during the running of the device. Operation logs can be classified into the following types: privilege manager, system maintenance, device, recording operation, video control, and live video.

### Procedure

Step 1 Choose **Configuration > Device Log > Operation Log**.

The **Operation Log** page is displayed, as shown in Figure 17-1.

Figure 17-1 Operation log page

 **Operation Log**

---

Operation Log All Type ▼

Begin Time 16/02/2024 17:47:53

End Time 17/02/2024 17:47:53

Download Query

Time	User Name	Log Info
2024-02-17 14:59:53	admin	Stop video
2024-02-17 14:54:52	admin	Start video
2024-02-17 14:54:52	admin	Configure privacy masking param
2024-02-17 14:54:50	admin	Stop video
2024-02-17 14:54:47	admin	Start video
2024-02-17 14:54:46	admin	Stop video
2024-02-17 14:54:13	admin	Start video
2024-02-17 14:54:12	admin	Configure privacy masking param
2024-02-17 14:48:34	admin	Stop video
2024-02-17 14:48:00	admin	Start video

⏪ ⏩ 1 ⏪ ⏩

Step 2 Set the search criteria.

1. Select the type of operation logs to be queried from the **System Log** drop-down list box.
2. Click the **Begin Time** and **End Time** text boxes respectively.
  - A time setting control is displayed.
3. Set the start time and end time as required.

4. Enter the corresponding user name that is registered with the device from the **User Name** drop-down list box.

Step 3 Click **Query**.

The operation logs related to the specified users are displayed.

Step 4 Download the operation logs.

1. Set the start time, end time and log type.
2. Click **Download** on the right of the page.
3. Click **Download** on the right of the page.
4. The excel file will be saved to the default download path of browser.

----End

## 17.2 Query Alarm Logs

### Description


An alarm log records information about an alarm generated on a device, including the security alarm, disk alarm, recording alarms and intelligent analyze alarm.

### Procedure

Step 1 Choose **Configuration > Device Log > Alarm Log**.

The **Alarm Log** page is displayed, as shown in Figure 17-2.

Figure 17-2 Alarm log page

 **Alarm Log**

---

Alarm Type All ▼

Begin Time 16/02/2024 17:50:30

End Time 17/02/2024 17:50:30

Alarm Begin Time	Alarm End Time	Log Info	Source ID
2024-02-17 17:49:14	2024-02-17 17:49:24	Motion Detect Alarm	1
2024-02-17 17:44:13	2024-02-17 17:44:49	Motion Detect Alarm	1
2024-02-17 17:39:07	2024-02-17 17:40:02	Motion Detect Alarm	1
2024-02-17 17:35:03	2024-02-17 17:36:41	Motion Detect Alarm	1
2024-02-17 17:27:38	2024-02-17 17:28:34	Motion Detect Alarm	1
2024-02-17 17:22:36	2024-02-17 17:25:34	Motion Detect Alarm	1
2024-02-17 17:17:59	2024-02-17 17:19:38	Motion Detect Alarm	1
2024-02-17 17:15:16	2024-02-17 17:15:55	Motion Detect Alarm	1
2024-02-17 17:08:46	2024-02-17 17:12:12	Motion Detect Alarm	1
2024-02-17 17:07:25	2024-02-17 17:07:45	Motion Detect Alarm	1

< >
1 ▼
> >

Step 2 Set the search criteria.

1. Click the **Begin Time** and **End Time** text boxes respectively.  
A time setting control is displayed.
2. Set the start time and end time as required.
3. Select the type of the alarm logs to be queried from the **Alarm Type** drop-down list box.

Step 3 Click **Query**.

The alarm logs of the specified type are displayed.

Step 4 Download the alarm logs.

1. Set the start time and end time.
2. Select a log type.
3. Click **Download** on the right of the page.
4. The excel file will be saved to the default download path of browser.

---End

## 17.3 Collect All Logs

### Description

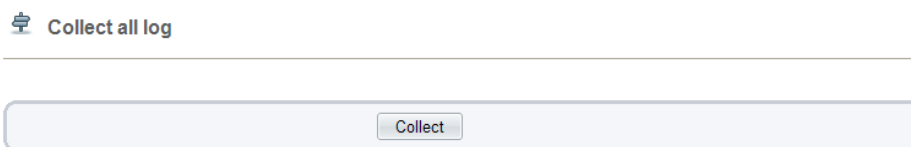
You can collect logs about a device, which help you analyze and solve possible problems occurring on the device. The logs include overview information, key parameters, operation logs, alarm logs, upgrade logs, and debugging logs.

### Procedure

Step 1 Choose **Configuration > Device Log > Collect all Log**.

The **Collect all log** page is displayed, as shown in Figure 17-3.

Figure 17-3 Collect log page



Step 2 Collect logs with one click.

1. Click **Collect**, the download page is displayed.
2. Select the path to save the logs.

---End

# 18 Maintain the Device

## 18.1 Restart a Device

### Description

Restart a device including but not limited to the following situations:

The device parameters are set incorrectly, and the device cannot work properly.

A user needs to reset device parameters and make it to take effect.

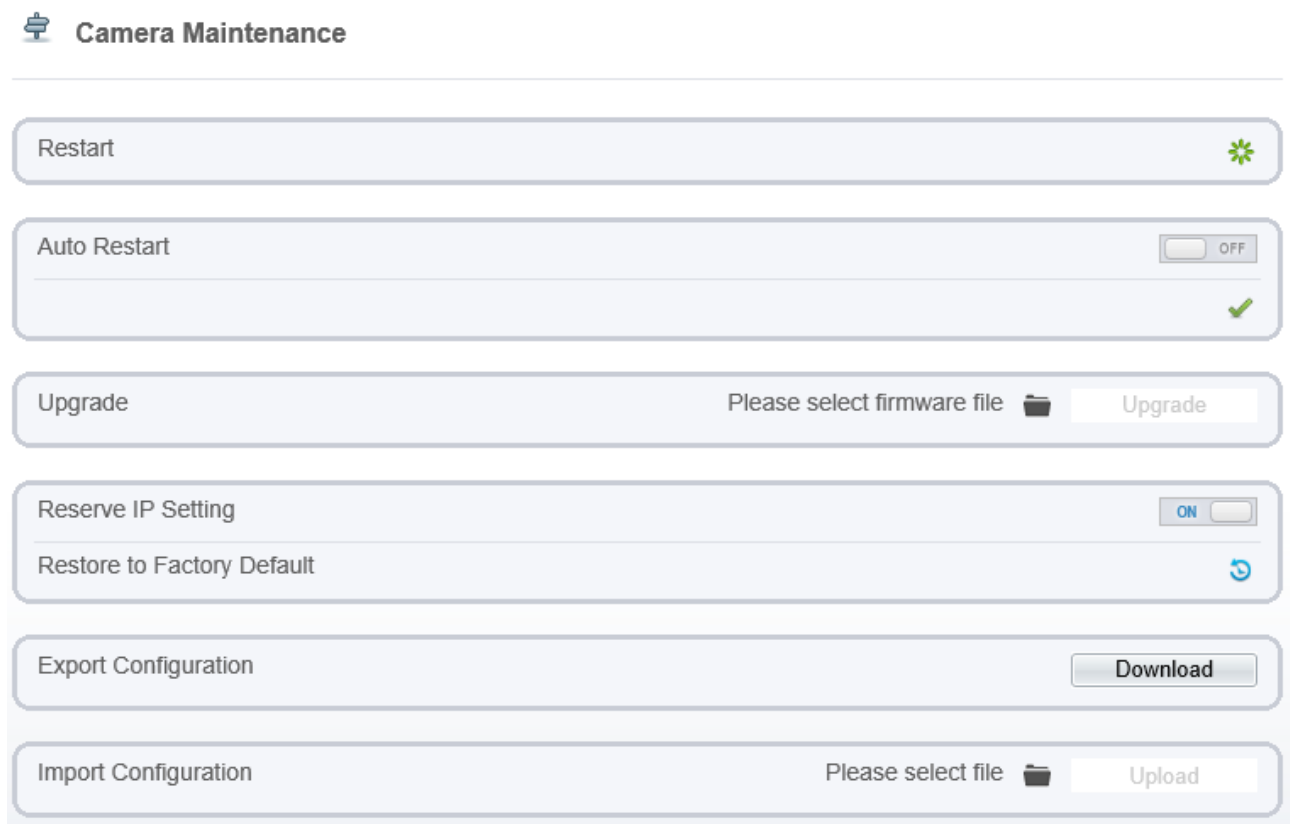
A device needs to be restarted remotely.

### Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Camera Maintenance** page is as shown in Figure 18-1.

Figure 18-1 Camera restart page



Step 2 Click .

The message "Are you sure to restart?" is displayed.

Step 3 Click **OK**.

The device is restarted successfully five minutes later.

----**End**

## 18.2 Auto Restart

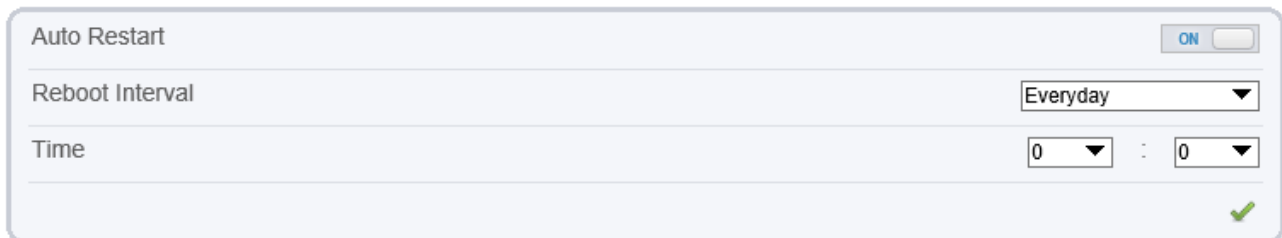
Step 1 Choose **Configuration > Maintenance**.

The **Camera Maintenance** page is displayed, as shown in Figure 18-1.

Step 2 Enable the auto restart, choose the reboot interval from drop-down list.

There are three option, every day/every week/every month.

Figure 18-2 Camera auto restart



Auto Restart	ON
Reboot Interval	Everyday
Time	0 : 0

Step 3 Click **OK**.

The device is restarted successfully five minutes later.

----End

## 18.3 Upgrade the Software Package


### Description

You can upgrade the software package from web.

### Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Device Maintenance** page is displayed.

Step 2 Click  to select the upgrade file.

Step 3 Click **Update**.

If the message "Upgrade success! The device is rebooting, please login later!" is displayed, the program updated successfully and the device is rebooted.

If other information is displayed, select the upgrade package correctly.



Don't lose power during the upgrade, if the power off, the camera maybe malfunction.

---

----End

## 18.4 Restore Device to Factory Settings

### Description


You can restore a device to factory settings including but not limited to the following situations:

The device parameters are set incorrectly, and the device cannot work properly.

A user needs to reset device parameters.

All parameters must be restored to the factory settings.



After you clicking , all parameters (you can choose whether to reserve the IP address) will be restored to the factory settings. Use this function carefully.

---

### Procedure

Step 1 Choose Maintenance.

The **Device Maintenance** page is displayed.

Step 2 Click .

The message "Are you sure to restore?" is displayed.

Step 3 Click **OK**.

The device is restored to the factory settings.

---End

## 18.5 Export / Inport Configuration

### Description

You can export configuration to local hard driver, when you configurate the same model cameras or the current camera, import the configuration file (config.bin) directly

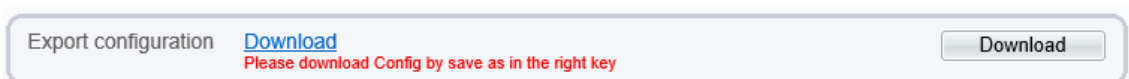
### Procedure

Step 1 Choose Maintenance.

The **Device Maintenance** page is displayed.

Step 2 Click **Download** to download the configuration file.

Save the file to local hard driver follow the prompts.



Step 3 Import configuration: choose the file on local hard driver, click **Upload** to upload file.

The tip will show after the configuration file uploading finish.

**Tip**

Upload config file succeeded, The device is  
rebooting, please login later!

A rectangular button with a dashed border and the text "OK" inside.

Step 4 Click OK to finish.

**---End**

# 19 Local Configuration

## Description

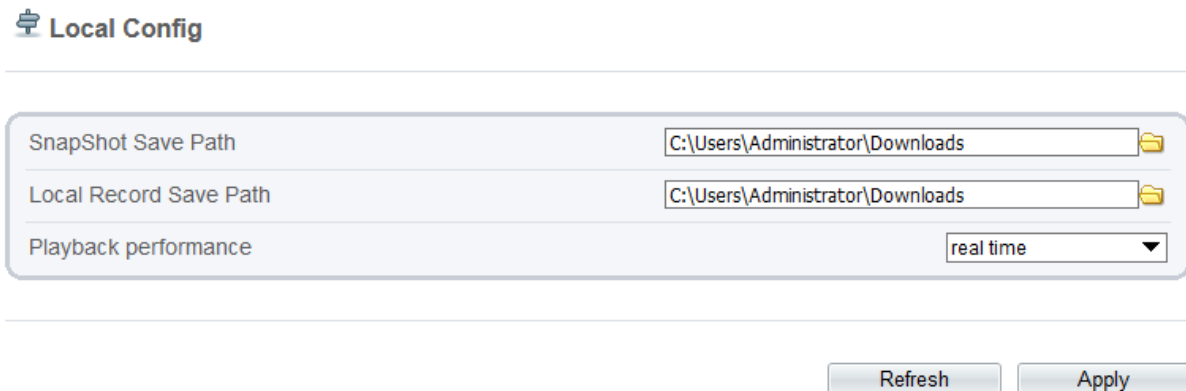
When users download the latest IPC Local Sever, you can set folder to save the snapshots and records to local. If users use no plugin version, this function is invalid.

## Procedure

Step 1 Choose **Configuration > Local Config**.

The **Local Config** page is displayed, as shown in Figure 19-1.

Figure 19-1 Local config page



The screenshot shows the 'Local Config' page with the following configuration options:

SnapShot Save Path	<input type="text" value="C:\Users\Administrator\Downloads"/>
Local Record Save Path	<input type="text" value="C:\Users\Administrator\Downloads"/>
Playback performance	<input type="text" value="real time"/>

At the bottom right, there are two buttons: 'Refresh' and 'Apply'.

Step 2 Set snapshot save path.

Step 3 Set local record save path

Step 4 Choose the playback performance, real time or fluent.

Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system saves the settings.

----End

# Troubleshooting

Table 19-1 describes the common faults and solutions.

Table 19-1 Common faults and solutions

Common Fault	Possible Cause	Solution
When you enter the device IP address in the address box of Internet Explorer and press <b>Enter</b> , the message "There is a problem with this website's security certificate." is displayed.	The certificate is not installed.	Click <b>Continue to this website (not recommended)</b> .
The web management system cannot be accessed.	The network is disconnected.	Connect the PC directly to the camera, and verify that the web management system can be accessed.  Run the <b>ping</b> command to verify that the camera is reachable.
	The IP address is used by another device.	Connect the PC directly to the camera and configure the IP address of the camera.
	The IP addresses of the PC and IP camera are on different networks.	Check the IP address, subnet mask, and gateway settings on the IP camera, and change the settings as required.
The PTZ or dome cannot be controlled.	The protocol, baud rate, or address is incorrect.	Change the protocol, baud rate, and address in the web management system to those used by the PTZ or dome.
	The signal cable is not properly connected.	Check the signal strength and connect the signal cable properly.
After the IP camera is upgraded, the web management system cannot be accessed.	The browser cache is not deleted.	To delete the browser cache, proceed as follows: 1. Open browser. 2. <b>Press Ctrl + Shift +Delete</b> . The <b>Delete Browsing History</b> dialog box is displayed. 3. Select all check boxes. 4. Click <b>Delete</b> . Login to the web management system again.
The IP camera cannot be upgraded.	The network is disconnected.  The network settings are incorrect.	Confirm that the upgrade network is connected. Check the network settings.
	The upgrade package is incorrect.	Obtain the correct upgrade package and upgrade the IP camera again.

---

# A Acronyms and Abbreviations

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**A**

ADSL Asymmetric Digital Subscriber Line

**C**

CBR Constant Bit Rate

CGI Common Gateway Interface

CMS Central Management System

**D**

DHCP Dynamic Host Configuration Protocol

DNS Domain Name Server

DDNS Dynamic Domain Name Server

**E**

EAP Extensible Authentication Protocol

**F**

FTP File Transfer Protocol

**G**

GAMA Graphics Assisted Management Application

**H**

HTTP Hyper Text Transfer Protocol

HTTPS Hypertext Transfer Protocol Secure

**I**

ID Identity

ISO International Standard Organization

IP Internet Protocol

IPC Internet Protocol Camera

**L**

LPS Limited Power Source

**M**

MJPEG Motion Joint Photographic Experts Group

MAC Media Access Control

MTU Media Transmission Unit

**N**

NAS Network Attached Storage

NTP Network Time Protocol

NTSC National Television Standards Committee

**O**

OSD	On Screen Display
<b>P</b>	
PAL	Phase Alteration Line
PoE	Power over Ethernet
PPPoE	Point-to-Point Protocol over Ethernet
PTZ	Pan/Tilt/Zoom
<b>R</b>	
ROI	Region of Interest
RSTP	Rapid Spanning Tree Protocol
<b>S</b>	
SMTP	Simple Mail Transfer Protocol
SSL	Secure Sockets Layer
<b>V</b>	
VBR	Variable Bit Rate