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IP Equipment WEB

Web Operation Guide

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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
 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 NOTICE	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.
 NOTE	Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

Contents

1 Quick Start

1.1 Login and Logout

CAUTION

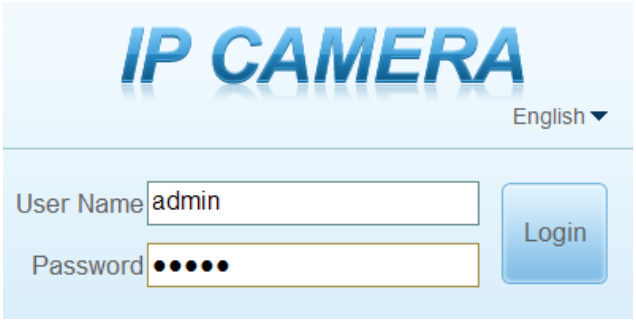
You must use Internet Explorer 8, and more to access the web management system; otherwise, some functions may be unavailable.

Login

Step 1 Open Internet Explorer, enter the IP address of the IP camera (default value: 192.168.0.120) in the address box, and press **Enter**.

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 user name is **admin**. The default password is **admin**.
- Please change the password to ensure system security at the first login.
- You can change the system display language on the login page.

Step 3 Click Login to enter the interface.

The main page is displayed.

----End

Logout

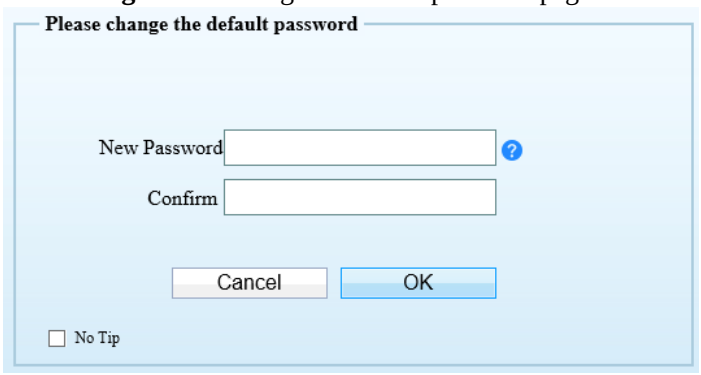
To log out of the system, click  in the upper right corner of the main page. The login page is displayed after you log out of the system.

1.2 Change the Password

Description

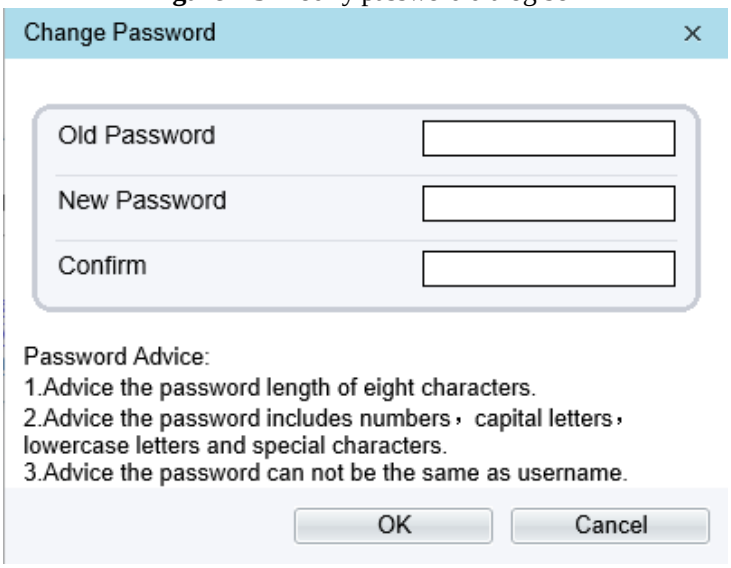
The change default password page will be displayed as shown in Figure 1-2, when you login the system for the first time.

Figure 1-2 Change the default password page



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

Figure 1-3 Modify password dialog box



Procedure

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

Step 2 Click **OK**.

If the message "Change own password success" is displayed, the password is successfully changed. If the password fails to be changed, the cause is displayed. (For example, the new password length couldn't be less than eight.)

Step 3 Click **OK**.

The login page is displayed.

1.3 Main Page Layout

On the main page, you can view real-time videos, receive alarm and fault notifications, set parameters, change the password, and log out of the system. Figure 1-4 shows the main page layout. Table 1-1 describes the elements on the main page.

Figure 1-4 Main page layout

Table 1-1 Elements on the main page

No.	Element	Description
1	Real-time video area	Real-time videos are played in this area. You can also set sensor parameters, right click on the real-time video display.
2	Playback	You can query the playback videos in this area. NOTE Only when the SD card or NAS has videos that you can query the playback videos.
3	Device configuration	You can choose a menu to set device parameters, including the device information, audio and video streams, alarm setting, and privacy mask function.
4	Change password	You can click  to change the password.
5	Sign Out	You can click  to return to the login page.
6	Stream	Choose stream mode from drop-list.
7	PTZ	Only used for dome cameras, set parameters.
8	3D	Only used for dome cameras, locate the exact location on the live video screen.
9	Pause/play	Pause the live video or play the video.
10	Live/smooth	Switch the resolution of live video automatically.
11	Audio	Open/close the audio.
12	Microphone	Open/close the microphone.
13	Sensor	Set the sensor parameters.
14	Snapshot	Click the icon to snapshot the video and save the images to the specified location.
15	Local record	Record the video and save the file to the specified location.
16	Mode	Only used for fisheye camera, click the icon to choose mode to play video.
17	Intelligent analysis	Open/close the intelligent analysis.

NOTE

- 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.
- When the device encounters an exception, the fault icon  is displayed. You can click  to view the information.

----End

2 Browse Videos

2.1 Browse Real-Time Videos

You can browse real-time videos in the web management system.

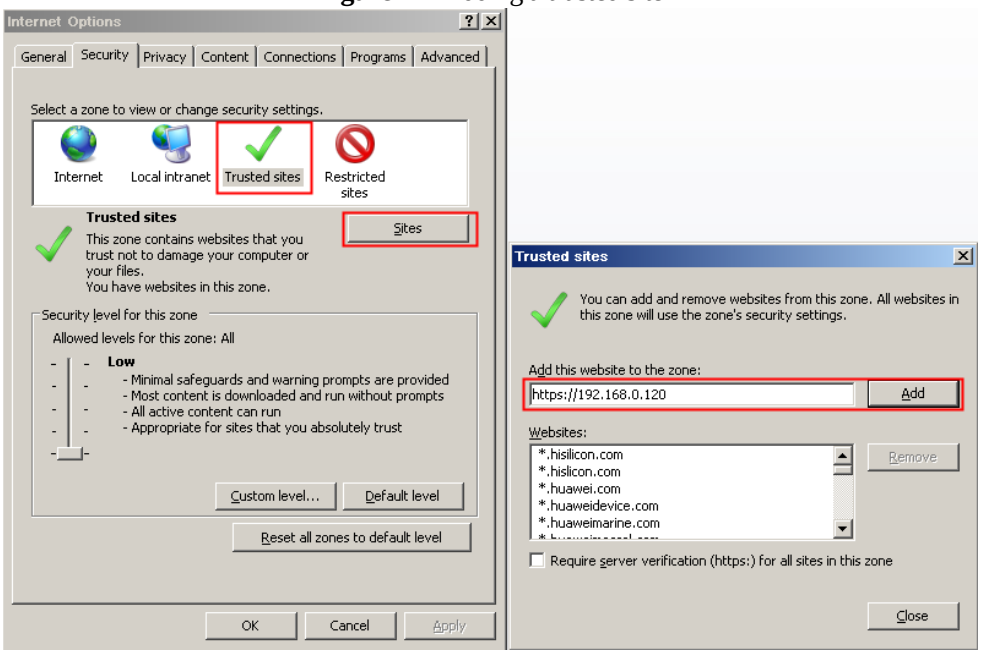
Preparation

To ensure that real-time videos can be played properly, you must perform the following operations when you login to the web management system for the first time:

Step 1 Open Internet Explorer. Choose **Tools** > **Internet Options** > **Security** > **Trusted sites** > **Sites**.

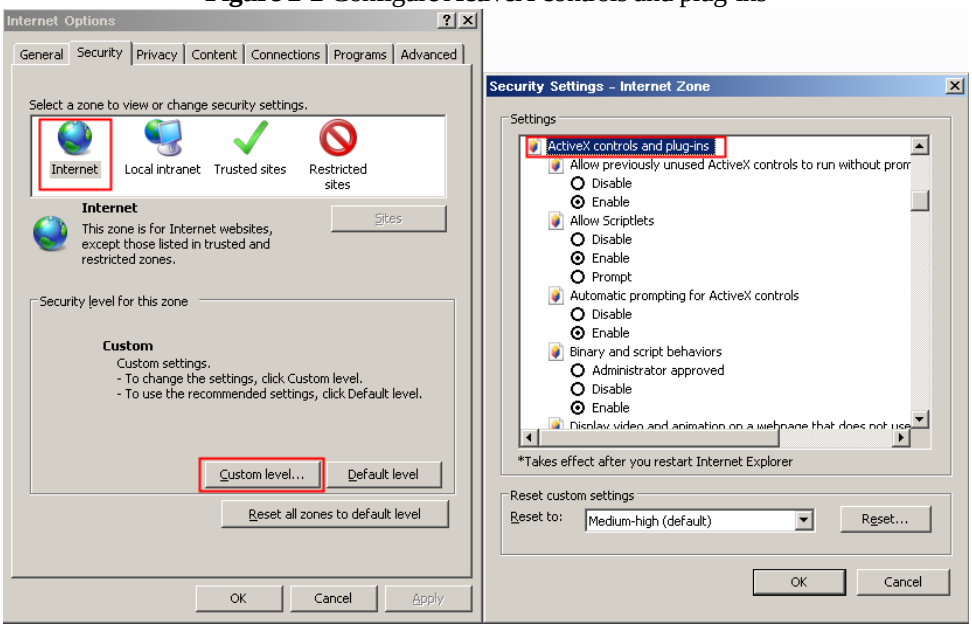
In the displayed dialog box, click **Add**, as shown in Figure 2-1.

Figure 2-1 Adding a trusted site



Step 2 In Internet Explorer, choose **Tools** > **Internet Options** > **Security** > **Customer level**, and set **Download unsigned ActiveX controls** and **Initialize and script ActiveX controls not marked as safe for scripting** under **ActiveX controls and plug-ins** to **Enable**, as shown in Figure 2-2.

Figure 2-2 Configure ActiveX controls and plug-ins



Step 3 Download and install the player control as prompted.

NOTE

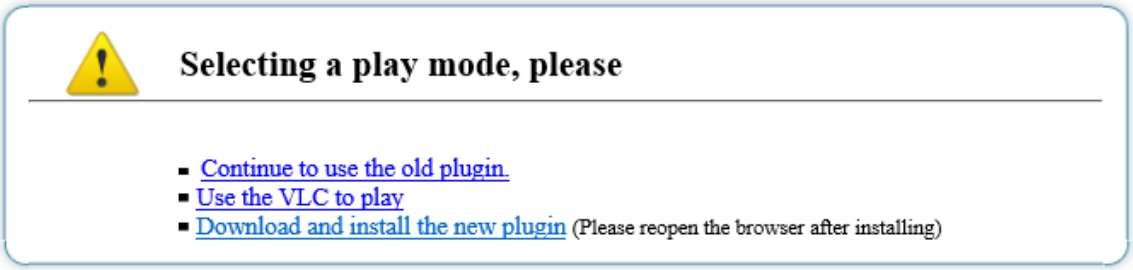
If the repair tips displayed when installing the control , please ignore the prompt, and continue the installation, the login page is displayed when the control is loaded.

----End

Select the play mode

You can select VLC player to play the video, or select the plugin to play the video as shown in Figure 2-1 when you login to the web management system for the first time.

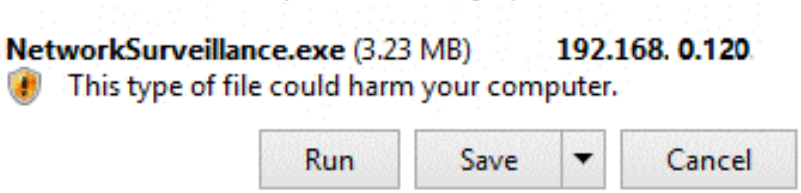
Figure 2-3 Download the plugin page



If plugin is selected, please install player control at first.

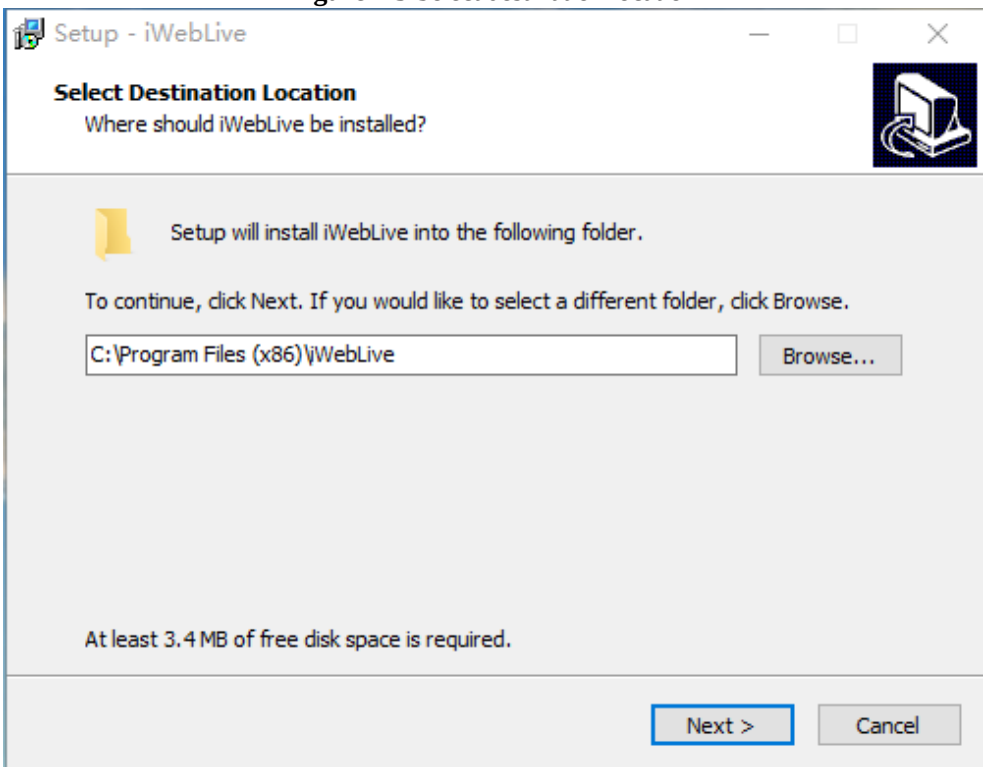
Step 1 Click “ download and install the new plugin”, download the plugin as shown in Figure 2-4.

Figure 2-4 Run the plugin



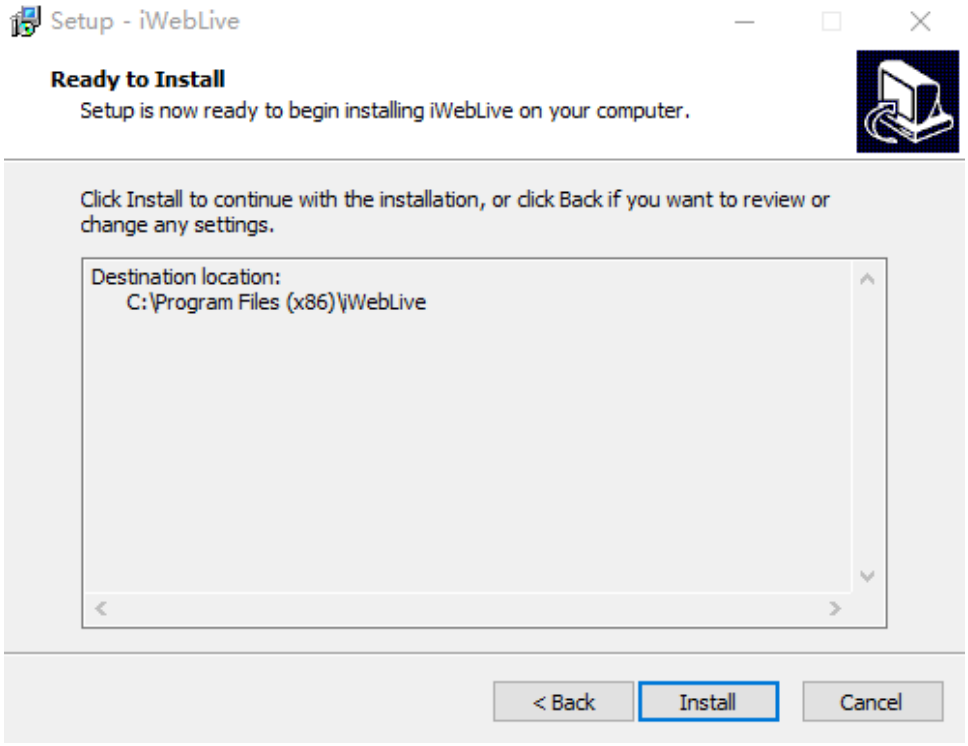
Step 2 Click ”Run”, select destination location as shown in Figure 2-5.

Figure 2-5 Select destination location



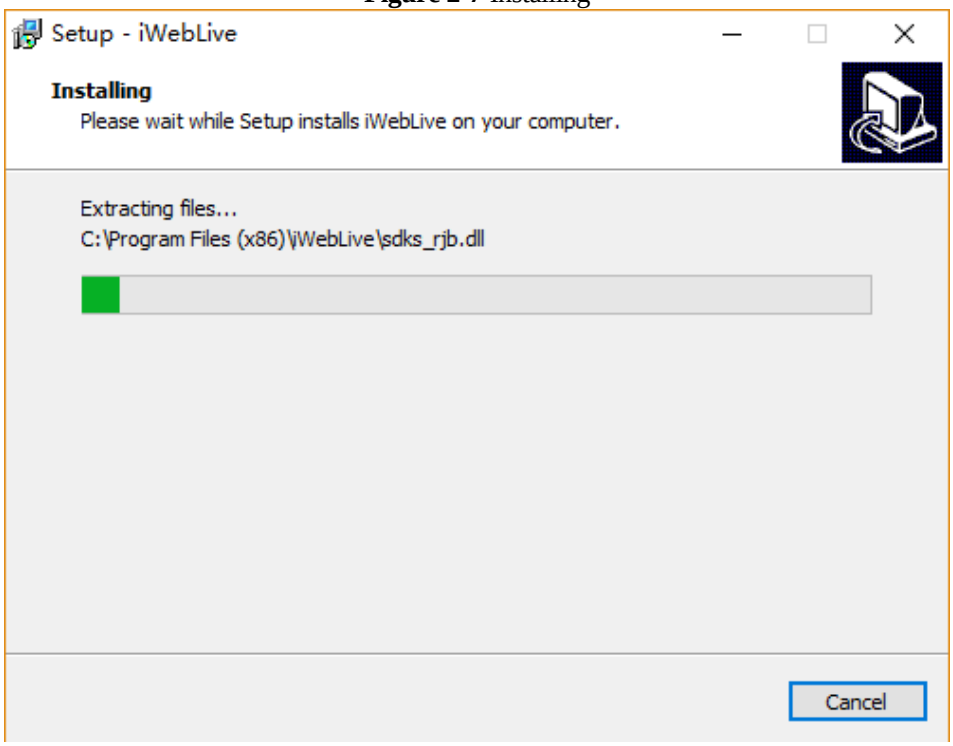
Step 3 Click “Next”, ready to install the plugin, as shown in Figure 2-6.

Figure 2-6 Ready to install



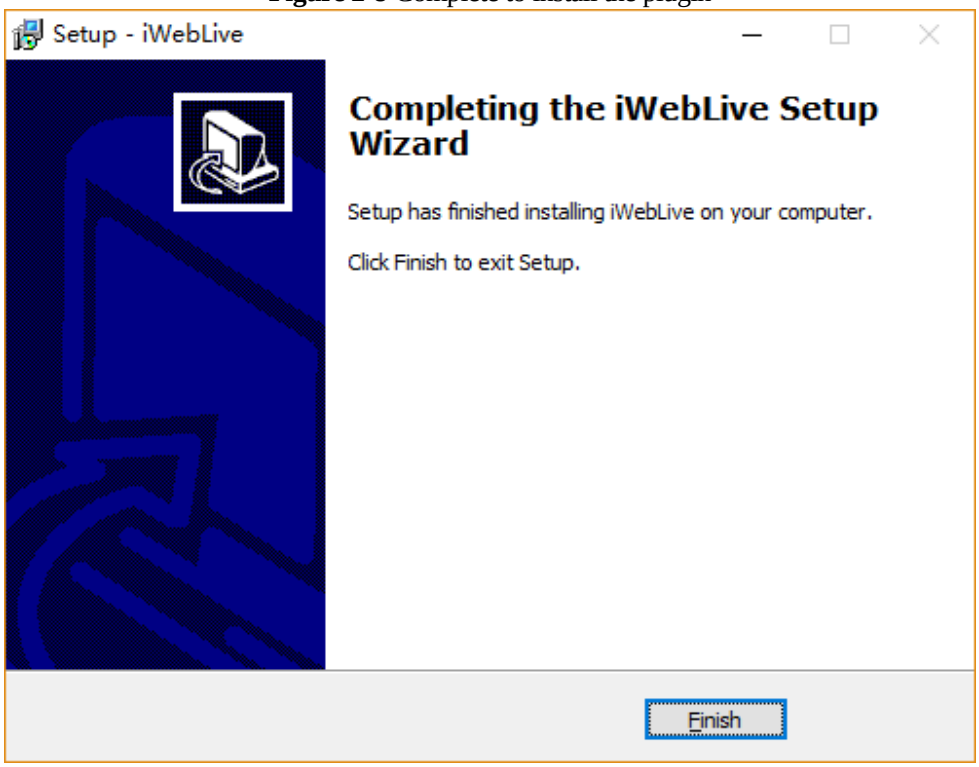
Step 4 Click “Install” to install the plugin, as shown in Figure 2-7.

Figure 2-7 Installing



Step 5 Click “Finish” , complete to install the plugin, as shown in Figure 2-8.

Figure 2-8 Complete to install the plugin



Step 6 Reopen the browser after installing.

NOTE

- If the repair tips displayed when installing the control , please ignore the prompt, and continue the installation.
- During installing the plugin, 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 2-9.

Figure 2-9 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 among preset streams 1, 2, and 3. For details about how to configure streams, see 3.2 Video and Audio Stream .
- Click  to switch the video to smooth mode.
- Click  to snapshot and save the photos.
- Click  to enable the local record.
- Configure the sensor.

  You can right-click in the video area. A shortcut menu is displayed and allows you to enter the full-screen mode, set sensor parameters, zoom in or out, and return to the default view.

To set sensor parameters, click  to open the **Sensor Setting** page. On the **Sensor Setting** page, you can adjust the image, mirror, camera mode, focus setting, Iris setting, white balance, and noise filter as prompted.

2.2 Control and Configure the PTZ

Prerequisite

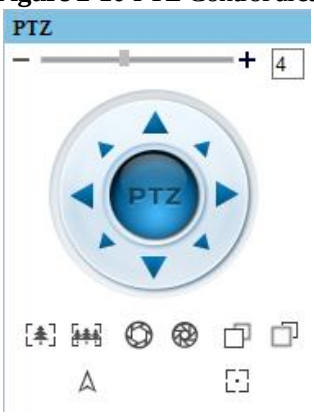
All PTZ functions are only available to High Speed Network Dome and device connected to an external PTZ.

Controlling the PTZ

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

Click  below the **Live Video** page to open the **PTZ Control** page as shown in Figure 2-10, 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 2-10 PTZ Control area



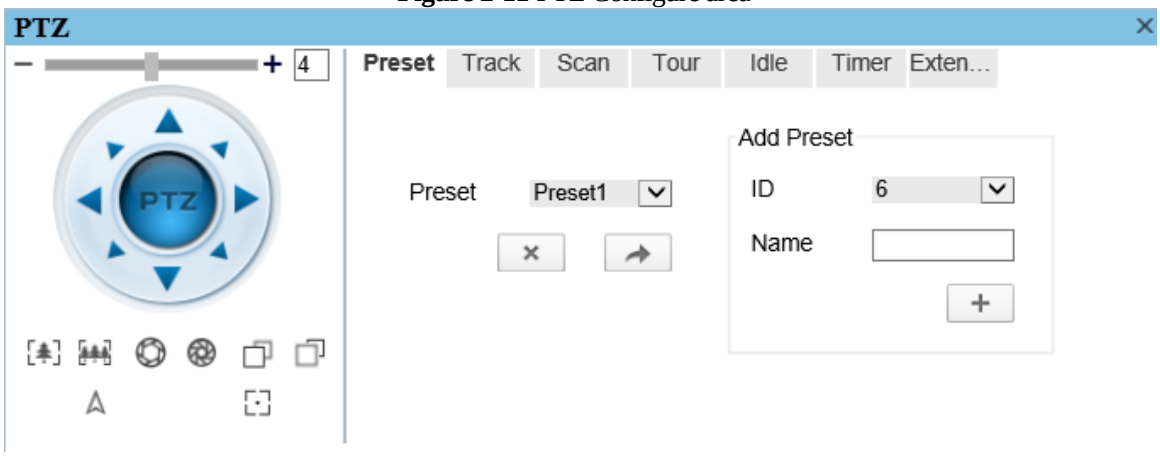
In the PTZ control area, you can perform the following operations:

- 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.
- Click  to enable automatic prime function.

Configure the PTZ

If a camera has the PTZ or is connected to a PTZ, you can configure the PTZ in the **PTZ Configure** area, as shown in Figure 2-11.

Figure 2-11 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 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 to a camera with a brush or a camera shield.
- **Light On/Off** is available only to specific camera shields.

3D Positioning

Click 3D 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.

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. Set the preset ID and name.
2. Click + to finish the preset position setting.

Step 2 Invoke a preset position.

Select a preset position from the **Preset** drop-down list box to invoke the preset position.

----End

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.

Step 2 Invoke a track.

Select a track name from the **Track** drop-down list box to invoke the track.

NOTE
A maximum of six tracks can be configured.

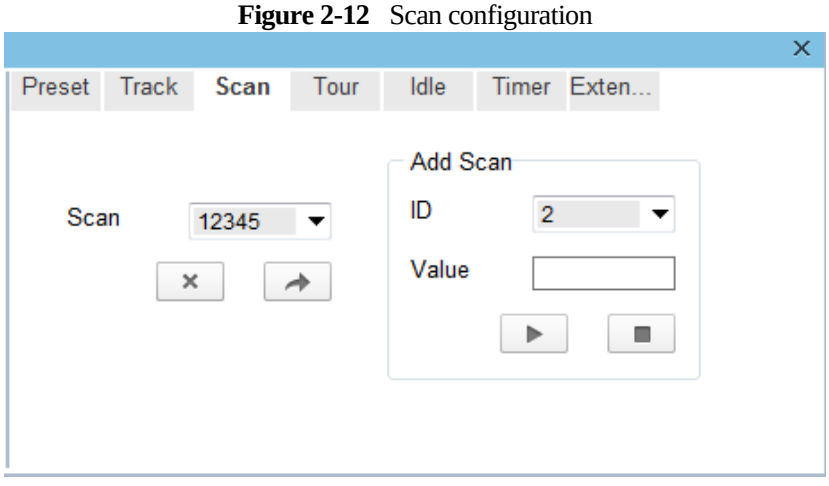
Configure and Invoke Scans

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 2-12.

Figure 2-12 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** drop-down list box to invoke the scan.

NOTE
A maximum of twelve scans can be configured.

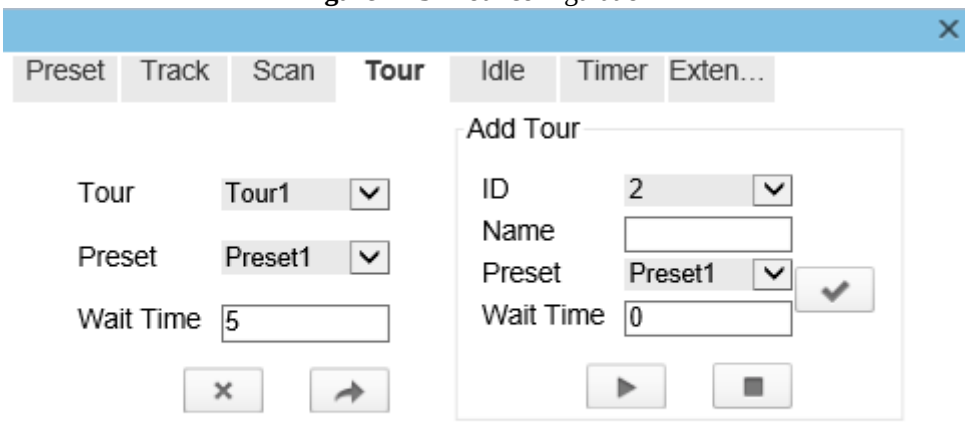
Configure and Invoke Tours

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 2-13.

Figure 2-13 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** drop-down list box to invoke the tour.

NOTE
A maximum of twelve tours can be configured.

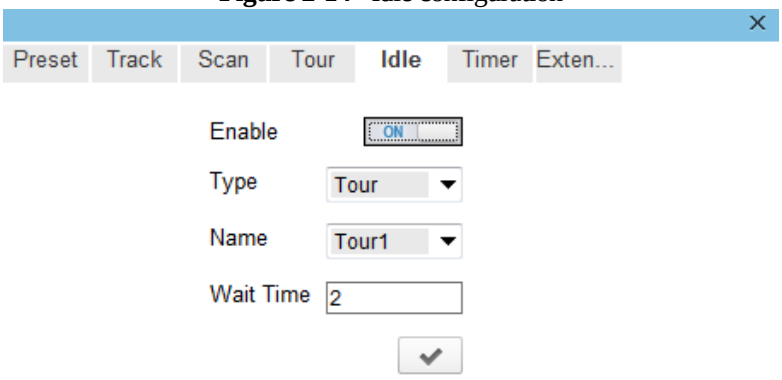
Configure Idles

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

Step 1 Click **Idle**.

The **Idle Add** page is displayed as shown in Figure 2-14.

Figure 2-14 Idle configuration



Step 2 Enable the Idle button.

Step 3 Set the idle Type and name from the drop-down list box.

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

Step 5 Click ✔ to finish the idle setting.

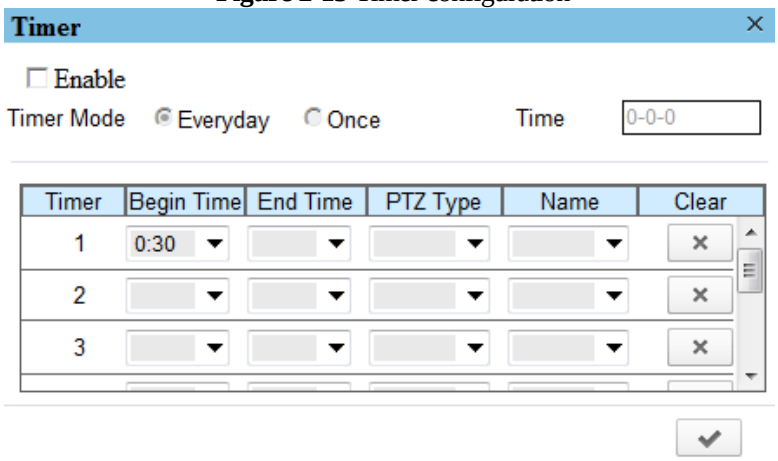
Configure Timer

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 2-15.

Figure 2-15 Timer configuration



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.

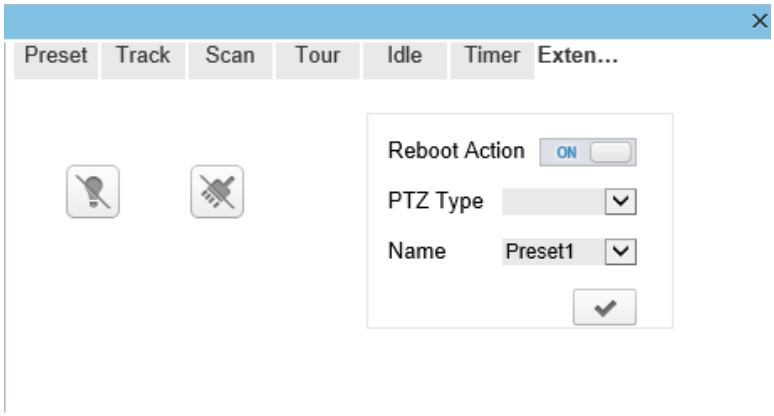
Step 6 Click to finish the timer setting.

Configure Extension

You can set light On/Off, brush function and reboot action in extension page.

Click Extension, the **Extension** page is displayed as shown in Figure 2-16.

Figure 2-16 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 enable.

- 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

2.3 Sensor Setting

2.3.1 Access the Sensor Setting Interface

Operation procedure:

Step 1 On the web interface or client interface, move the cursor to the real-time video page and right-click on the page. A shortcut menu is displayed, as shown in Figure 2-17.Table 2-1 describes the sensor setting interface.

Figure 2-17 Sensor Setting interface

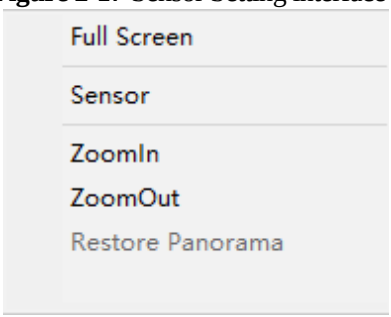


Table 2-1 Sensor parameters description

Parameter	Description
Full Screen	It enlarges and displays the image in full screen.
Sensor	It is used for configure the parameter set of front-end images.

Parameter	Description
Zoom In/Out	It zooms in/out images by electronic means. This function may also be used with the mouse wheel.

Step 2 Choose **Sensor Configure** and the **Sensor Setting** dialog box appears.

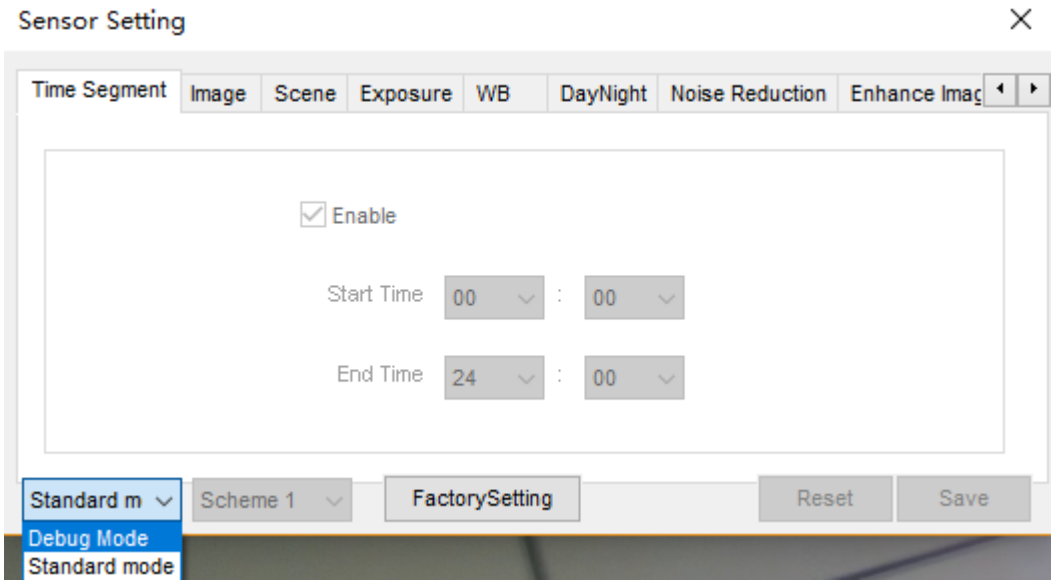
----End

2.3.2 Time Segment

Operation procedure:

Step 1 Click **Time Segment** tag on sensor setting interface, the time segment page is displayed, as shown in Figure 2-18.

Figure 2-18 Time Segment page



Step 2 Choose Debug Model in the lower left corner to activate the sensor setting page.

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

Step 4 Click Save to save the setting.

2.3.3 Image Setting

Figure 2-19 shows the image setting interface.

Figure 2-19 Image setting interface

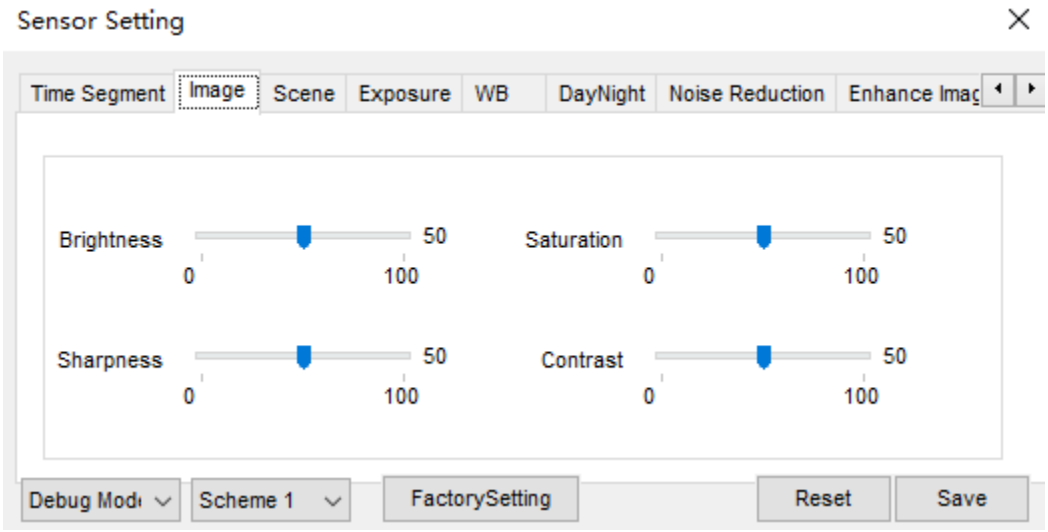


Table 2-2 describes the image setting parameters.

Table 2-2 Image setting parameters description

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

2.3.4 Scene Mode

Figure 2-20 & Figure 2-21 shows the scene mode interface.

Figure 2-20 Scene mode interface for IP camera

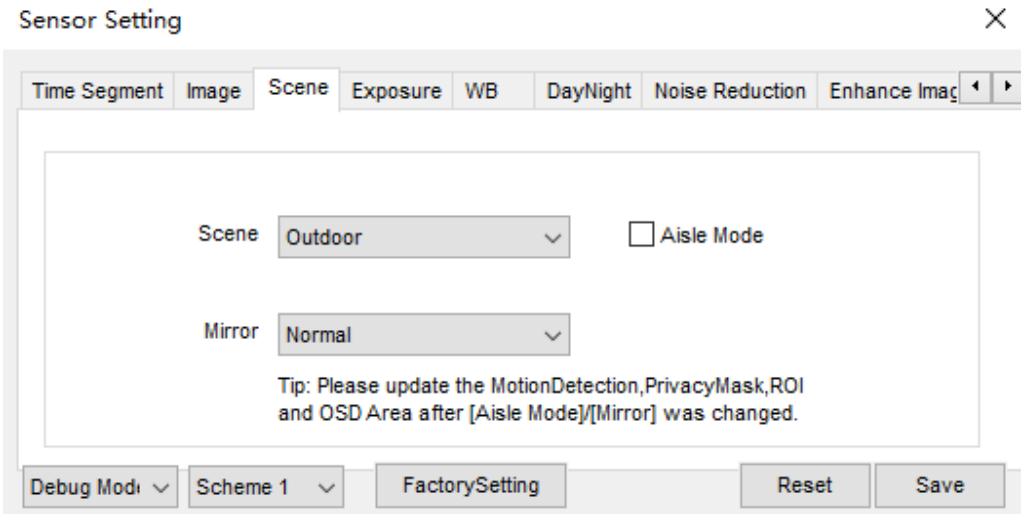


Figure 2-21 Scene mode interface for high speed dome

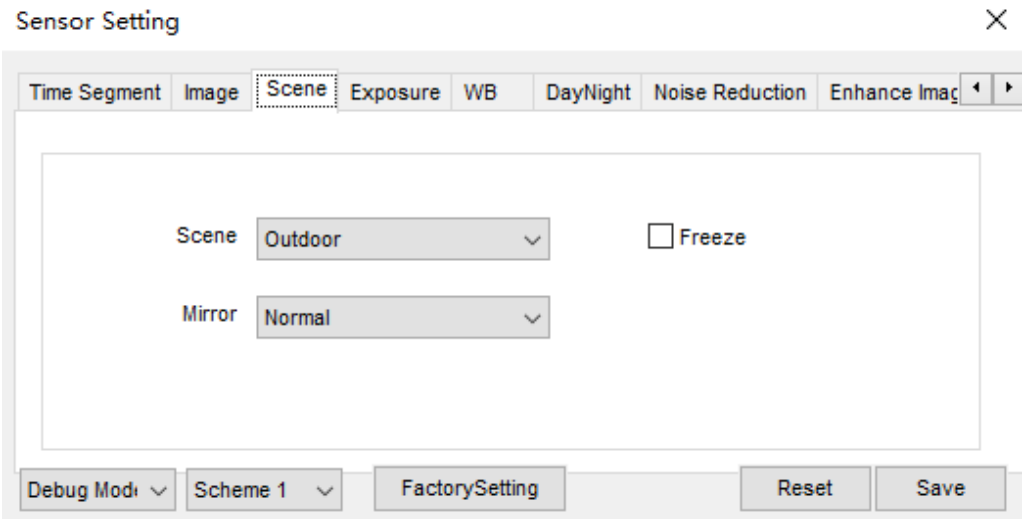


Table 2-3 describes the FFC mode parameters.

Table 2-3 FFC mode parameters description

Parameter	Description	Configuration Method
Scene	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] Outdoor
Mirror	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] Normal
Aisle Mode	The image rotates 90 degrees clockwise when aisle mode is enabled.	[Setting method] Tick the Freeze status. [Default value] Disable
Freeze	It can be set to **on** or **off**. It is used to enable or disable the image freezing function of a camera.	[Setting method] Tick the Freeze status. [Default value] Disable

2.3.5 Exposure

Figure 2-22 and Figure 2-23 shows the Exposure interface.

Figure 2-22 Exposure interface for IP camera

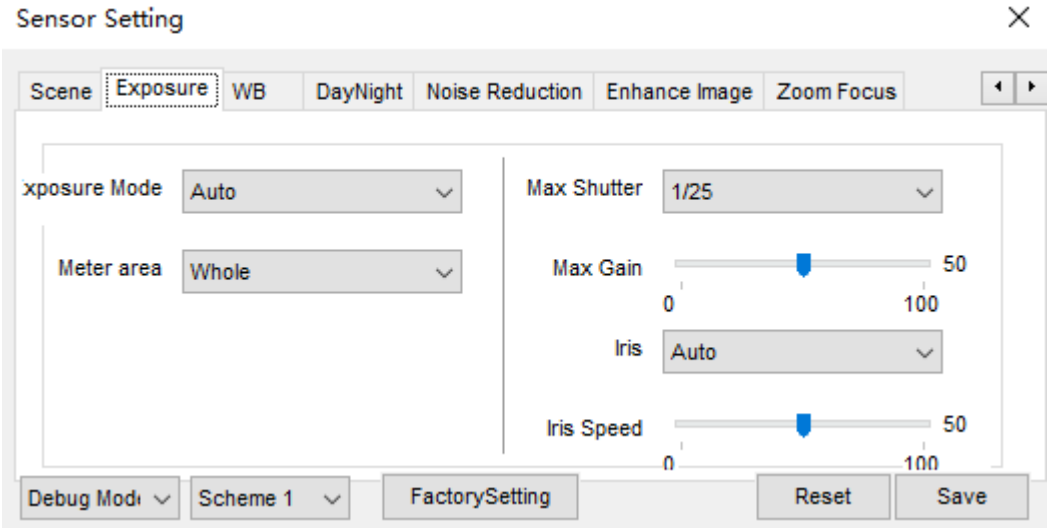


Figure 2-23 Exposure interface for high speed dome

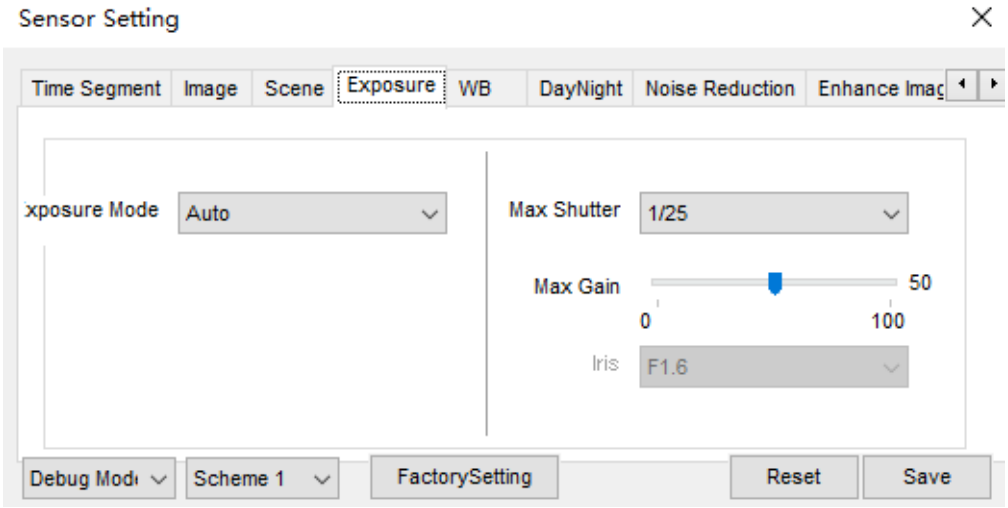


Table 2-4 describes Exposure parameters.

Table 2-4 Exposure parameters description

Parameter	Meaning	Configuration Method
Exposure Mode	The exposure modes include: • **Auto**: The system performs auto exposure based on the monitoring environment. • **Manual**: You can adjust the brightness of an image by setting the following three items: **Shutter Setting**, **Iris Setting** and **Gain Setting**. • **Shutter Priority**: You can set **Shutter Setting** to fixed values. The iris and gain are automatically adjusted by the system. • **Iris Priority (for high speed dome):** You can set Iris Setting to fixed values. The shutter and gain are automatically adjusted by the system.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Meter area	It is used to select the metering area. • **Whole**: During metering, all areas of an image have an equal weight, that is, all areas are involved in the metering. • **Center pot**: During metering, the central pot of an image has the highest weight. • **Center Area**: 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.	[Setting method] Select a value from the drop-down list. [Default value] **Whole**
Max Shutter	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.	[Setting method] Select a value from the drop-down list. [Default value] **1/25**
Max Gain	The device automatically adjusts the gain based on the external light. The gain is less than or equal to the value of this parameter.	[Setting method] Drag the slider. [Default value] **50**

Parameter	Meaning	Configuration Method
Iris (for high speed dome)	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.	[Setting method] Select a value from the drop-down list. [Default value] **F1.6**
Iris（for IP camera）	It is used to control the light admitted to the lens. The auto iris can be set to either of the following states: • **Auto** The iris is automatically adjusted to control the light admitted to the lens. • **Open fully** The iris is fully open.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Iris Speed	It indicates the auto adjustment speed of the iris. As the value increases, the speed increases. Excessive speed may cause instability. NOTE This parameter is valid when the auto iris is enabled.	[Setting method] Drag the slider. [Default value] **50**

2.3.6 WB Setting

Figure 2-24 shows the **WB Setting** interface.

Figure 2-24 WB Setting interface

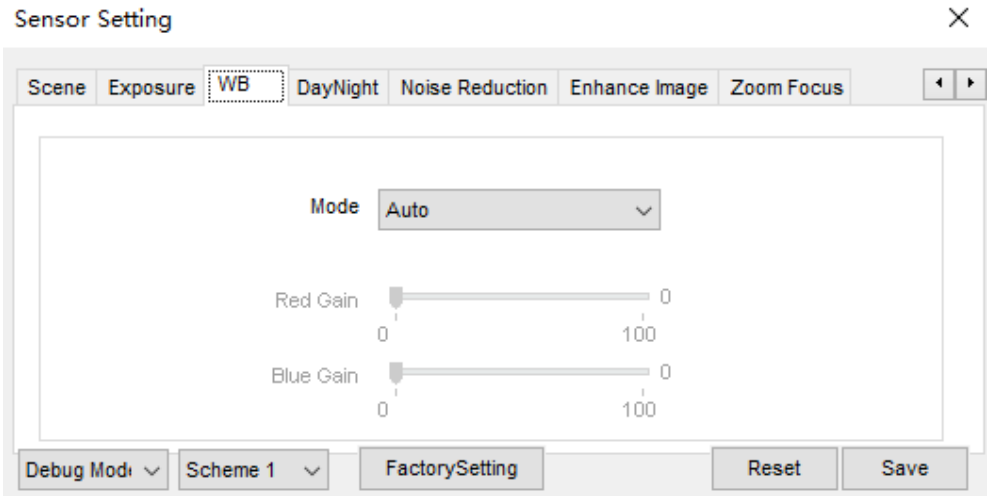


Table 2-5 describes **WB Setting** parameters.

Table 2-5 WB Setting parameters description

Parameter	Meaning	Configuration Method
Mode	It is adjusted based on application scenarios to improve the fidelity of the image color. The WB modes include: • **Auto**: In automatic white balance (WB) mode, the system automatically performs white balance based on the monitoring environment. • **Tungsten** • **Fluorescent** • **Daylight** • **Shadow** • **Manual**: In manual WB mode, you can manually select a WB mode based on the monitoring environment.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Red Gain	It indicates the gain applied to red channels. As the value increases, the color temperature becomes lower. NOTE This parameter is valid when **Manual Mode** is set to **Customized**.	[Setting method] Drag the slider. [Default value] **0**

Parameter	Meaning	Configuration Method
Blue Gain	It indicates the gain applied to blue channels. As the value increases, the color temperature becomes higher. NOTE This parameter is valid when **Manual Mode** is set to **Customized**.	[Setting method] Drag the slider. [Default value] **0**

2.3.7 Daynight

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

Figure 2-25 to Figure 2-28 shows the **DayNight Mode** interface.

Figure 2-25 DayNight Mode (1) interface

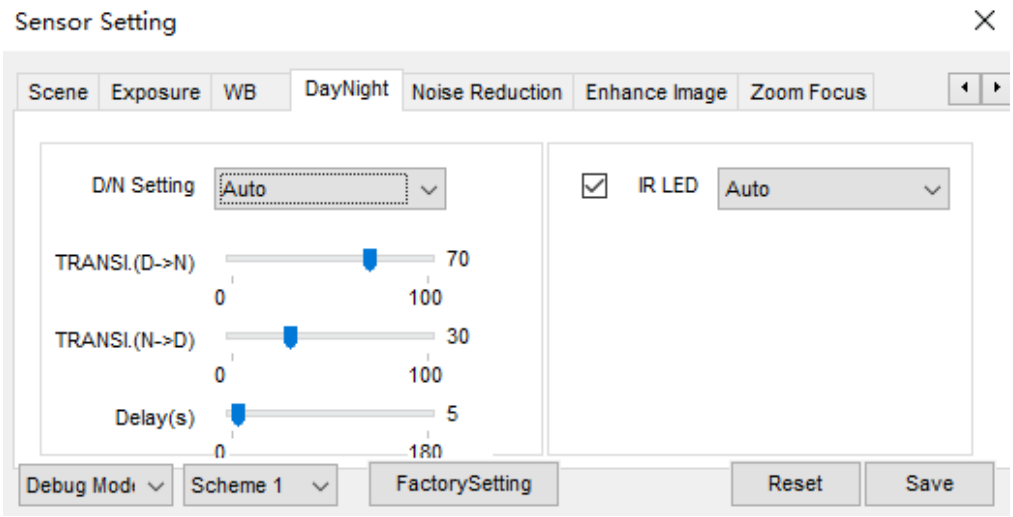


Figure 2-26 DayNight Mode (2) interface

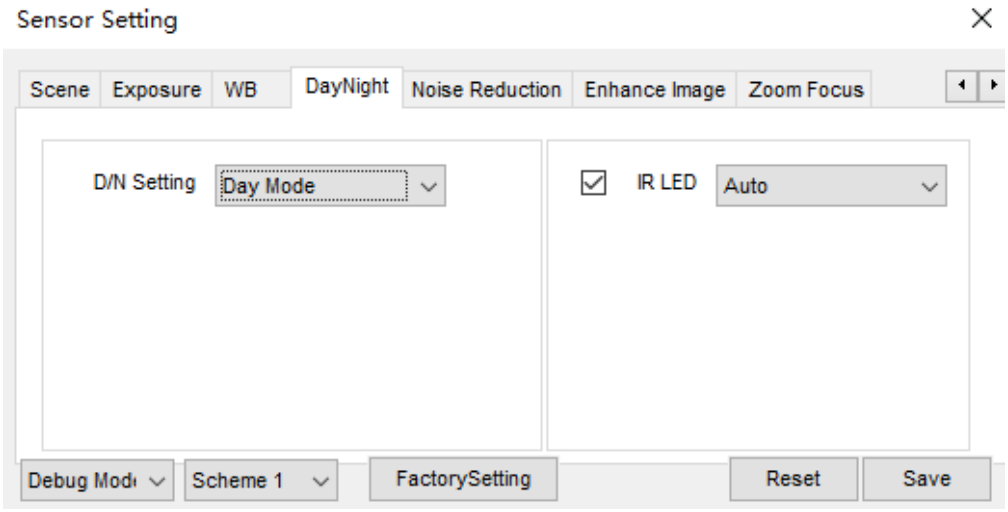


Figure 2-27 DayNight Mode (3) interface

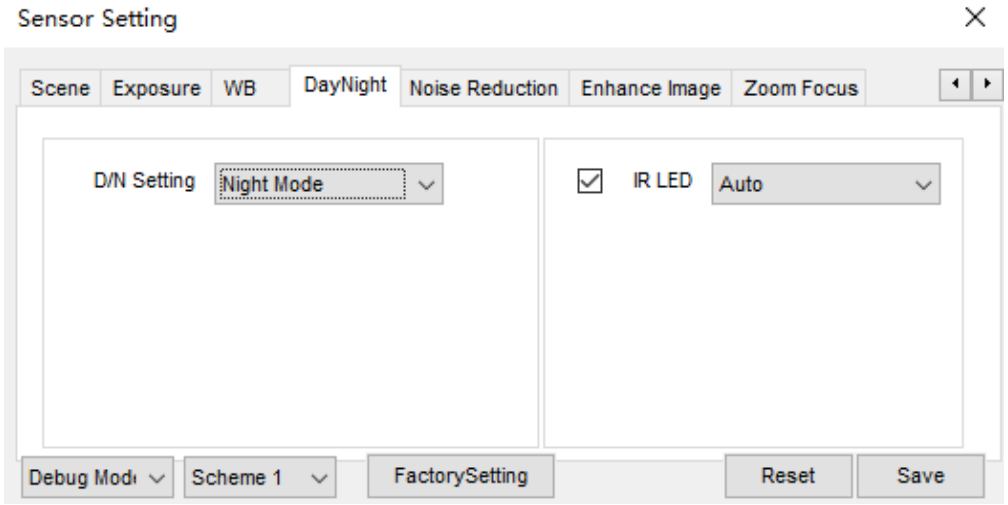


Figure 2-28 DayNight Mode (4) interface

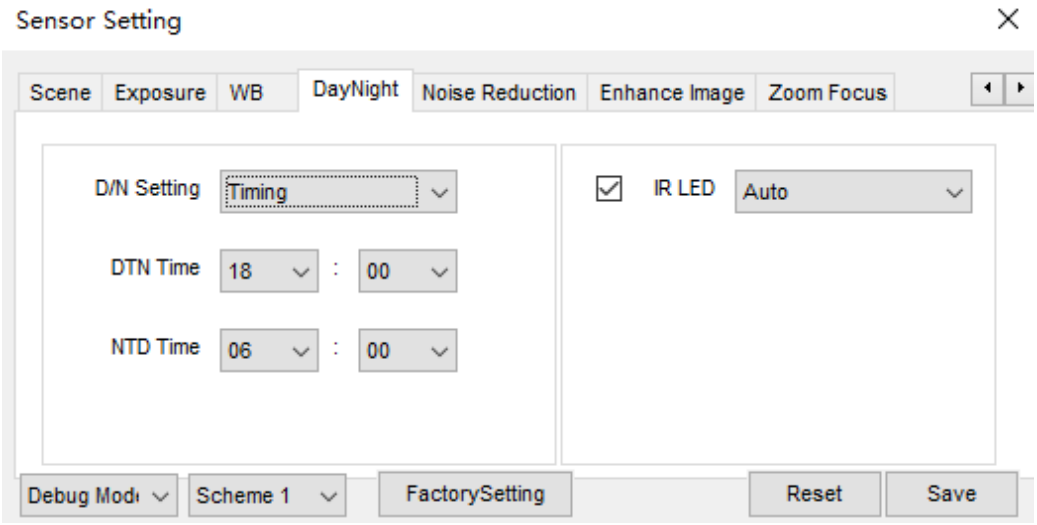


Table 2-6 describes **DayNight Mode** parameters.

Table 2-6 DNR parameters description

Parameter	Meaning	Configuration Method
D/N Setting Mode	It can be set to **Auto**, **Day**, **Night** or **Timing**. • Auto mode The image color and filter status are automatically switched based on the ambient brightness. The filter prevents infrared light from entering the sensor in the day state and allows all types of light to enter the sensor in the night state. • Day mode The image is colored, and the filter is in the day state, preventing infrared light from entering the sensor. • Night mode The image is black and white, and the filter is in the night state, allowing infrared light to enter the sensor. • Timing Set day to night time and night to day time to switch the daynight mode.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**

Parameter	Meaning	Configuration Method
TRANSI.(D->N)(dB)	It determines the day-to-night switching in auto mode. When the system gain is greater than the value of this parameter, the system enters the night mode. NOTE This parameter is valid in auto mode. The value of **TRANSI.(D->N)** must be greater than the value of **TRANSI.(N->D)**.	[Setting method] Drag the slider. [Default value] **70**
TRANSI.(N->D)(dB)	It determines the night-to-day switching in auto mode. When the system gain is smaller than the value of this parameter, the system enters the day mode. NOTE This parameter is valid in auto mode. The value of **TRANSI.(D->N)** must be greater than the value of **TRANSI.(N->D)**.	[Setting method] Drag the slider. [Default value] **30**
Delay(s)	The delay time of day to night or night to day. NOTE This parameter is valid in auto mode.	[Setting method] Drag the slider. [Default value] **0**
IR LED	• **Auto**: The infrared lamp is enabled or disabled based on the external environment identified by the light dependent resistor (LDR). • **ON**: The system enters the night mode forcibly. • **OFF**: The infrared lamp is disabled. The filter and image color are switched based on the external environment identified by the LDR. NOTE This parameter is valid in auto mode.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**

Parameter	Meaning	Configuration Method
Strength	Strength of IR LED, as the value increases, the image becomes brighter.	[Setting method] Drag the slider. [Default value] **50**
DTN Time	Time of day to night.	[Setting method] Select a value from the drop-down list. [Default value] **18:00**
NTD Time	Time of night to day.	[Setting method] Select a value from the drop-down list. [Default value] **6:00**

2.3.8 Noise Reduction

Figure 2-29 shows the Noise Reduction interface.

Figure 2-29 Noise Reduction interface(manual)

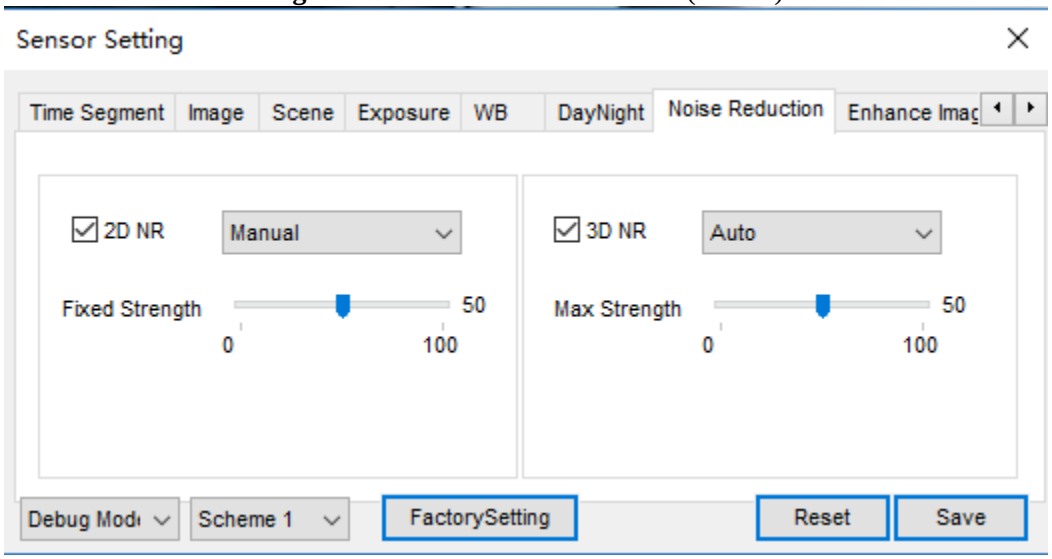


Figure 2-30 Noise Reduction interface(auto)

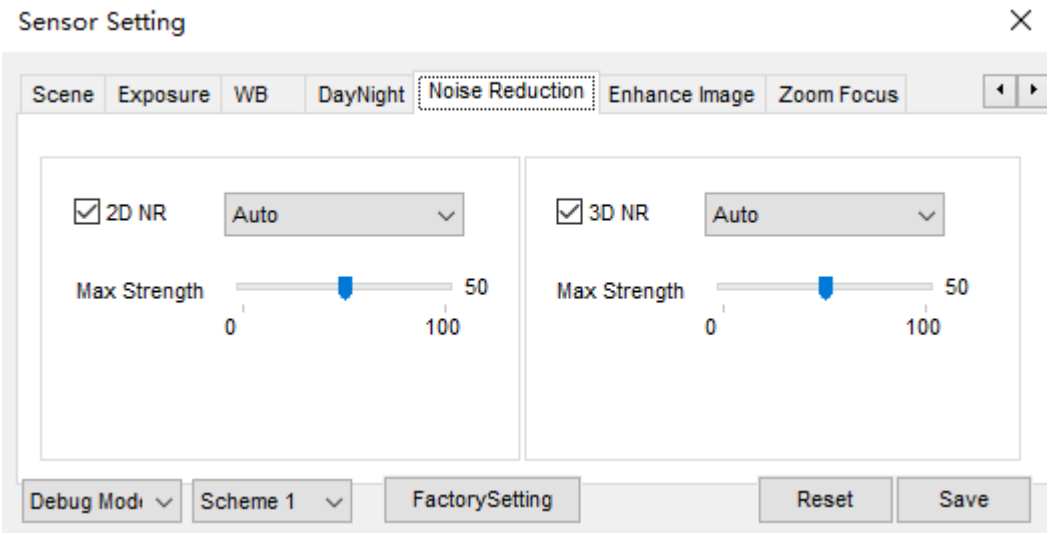


Table 2-7 describes DNR parameters.

Table 2-7 DNR parameters description

Parameter	Meaning	Configuration Method
2D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] Auto
3D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] Auto
Max Strength	It is valid in auto noise filter mode. When the parameter value is **0**, the noise filter is disabled. When the parameter value is greater than **0**, 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] **50**
Fixed Strength	It is valid in a manual noise filter mode.	[Setting method] Drag the slider. [Default value] **50**

2.3.9 Enhance Image

Figure 2-31 and Figure 2-32 shows the enhance image interface and Table 2-8 shows the enhance image parameter.

Figure 2-31 Enhance image interface

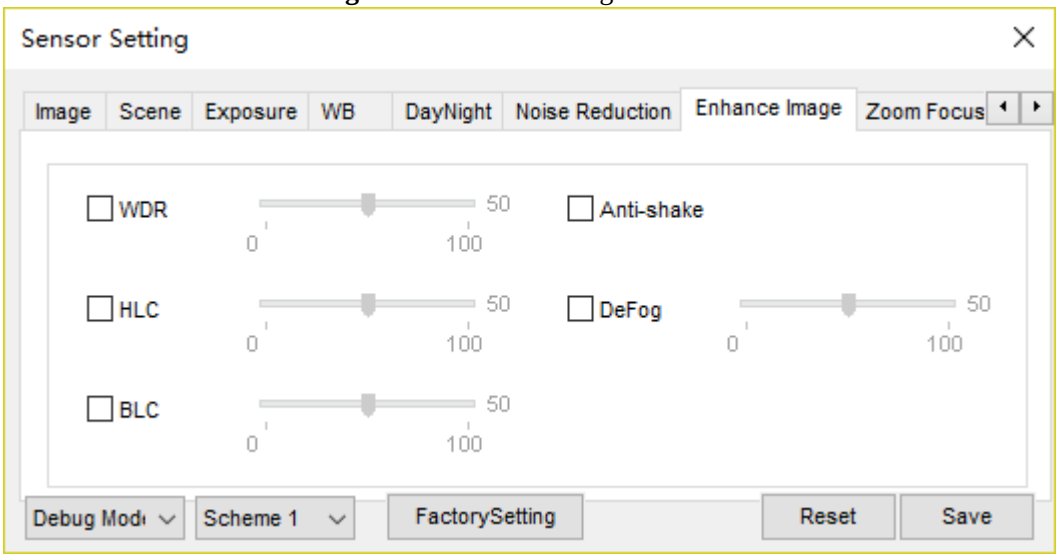


Figure 2-32 Enhance image interface for high speed dome

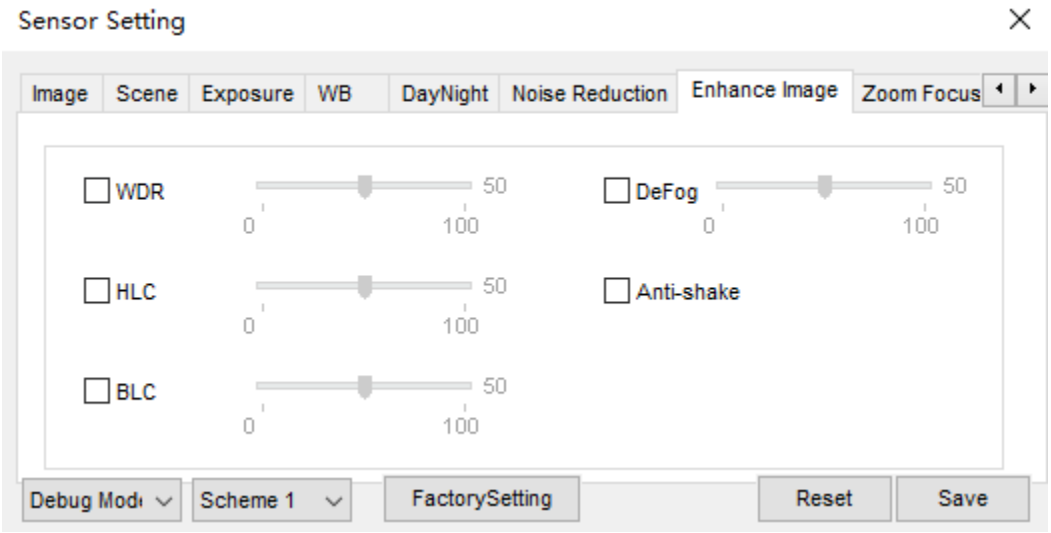


Table 2-8 Enhance image parameters description

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] **50**

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] **50**
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 HLC mode and drag the slider. [Default value] **50**
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.	[Setting method] Tick the Defog mode and drag the slider. [Default value] **50**

2.3.10 Zoom Focus

Figure 2-33 and Figure 2-34 shows the zoom focus interface and Table 2-8 shows the zoom focus parameter.

Figure 2-33 Zoom focus interface for IP camera

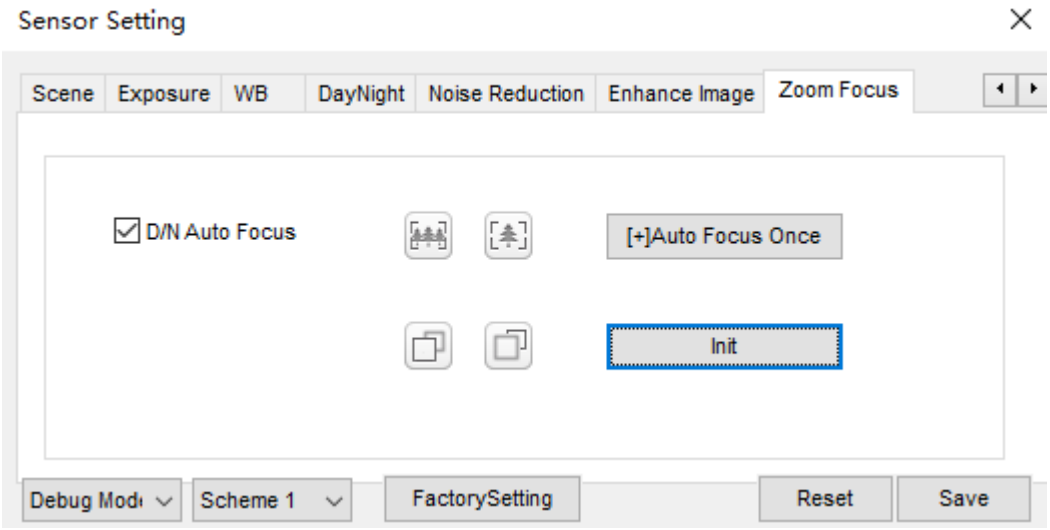


Figure 2-34 Zoom focus interface for high speed dome

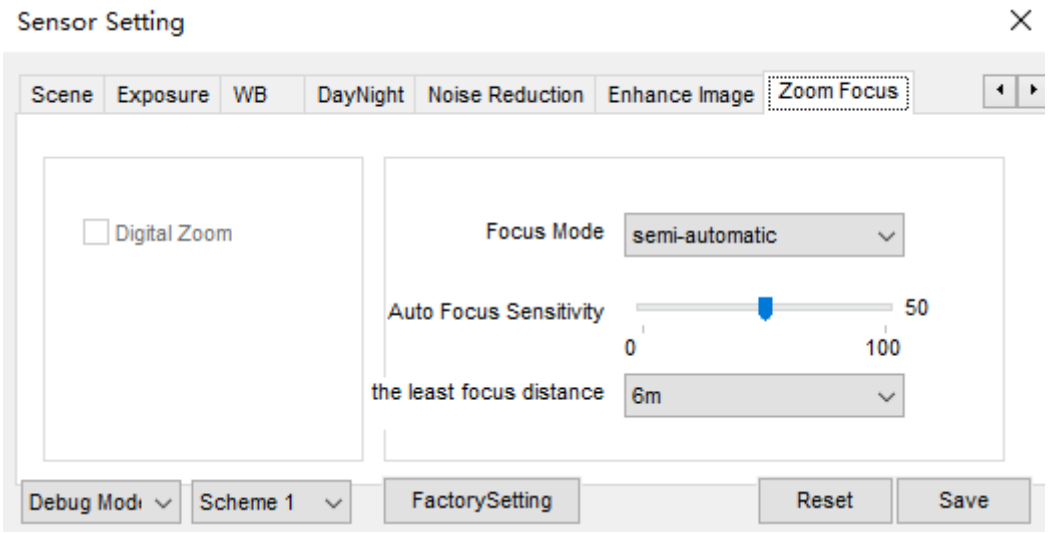


Table 2-9 Zoom focus parameters description

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	It is used to trigger auto focus.	[Setting method] Click the button.
Init	The lens of camera returns to the initial position.	[Setting method] Click the button.

Parameter	Meaning	Configuration Method
Digital	This function enables digital zoom after an image is zoomed in by 20 times in optical mode.	[Setting method] Tick the Digital.
Focus Mode	It can be set to the auto, manual or semi-automatic mode. Auto focus mode: The system automatically triggers focus based on application scenarios. Manual focus mode: You can trigger focus by using the buttons on the client. Semi-automatic focus mode: The system only automatically trigger focus once when the PTZ move or zoom in a scene.	[Configuration method] Select from the drop-down list [Default value] **Semi-automatic**
Auto Focus Sensitivity	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.	[Setting method] Drag the slider. [Default value] **50**
The least focus distance	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. NOTE This parameter applies only to visible light.	[Configuration method] Select from the drop-down list [Default value] 3 m

----End

3 Configure the Device

3.1 Device Information

Description

The device information includes:

- Device ID, name, type, model, 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.

NOTE

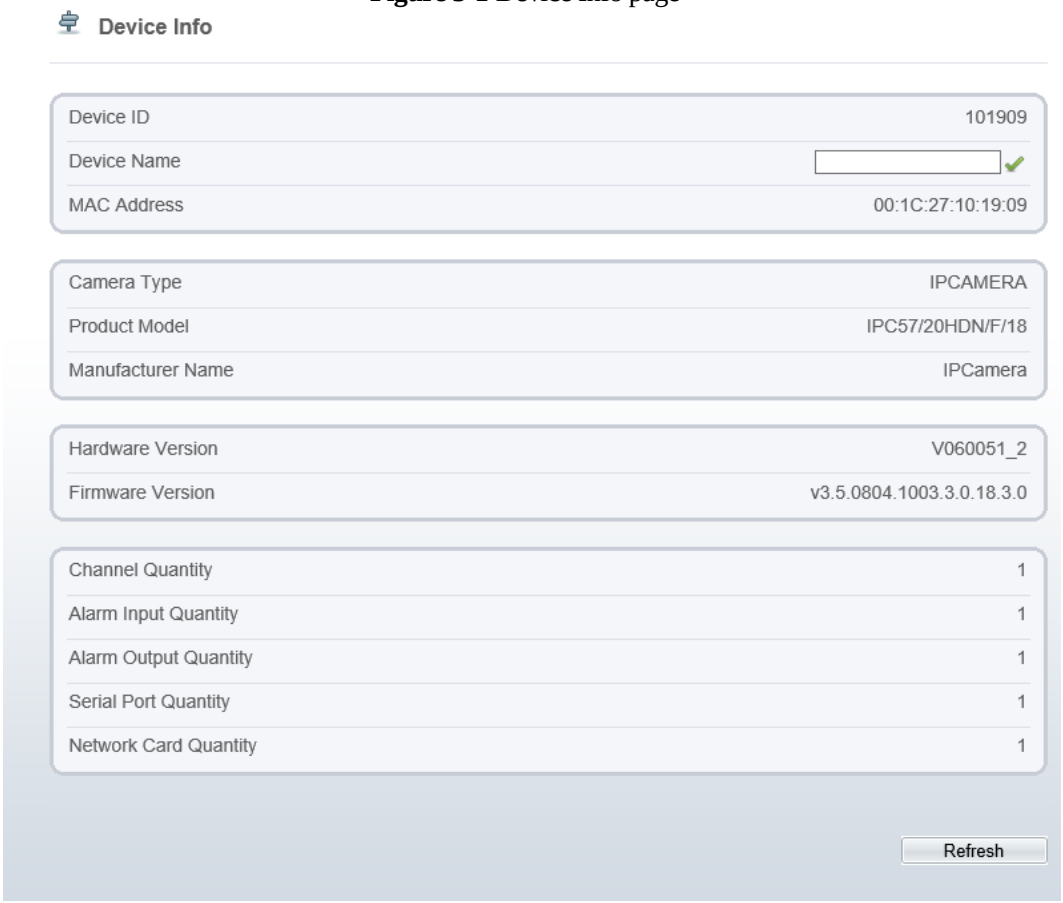
- You can modify the device name. All other parameters can only be viewed.
- When the device is upgraded, the device information is updated automatically.

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



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

Table 3-1 Device parameters

Parameter	Description	Setting
Device ID	Unique device identifier used by the platform to distinguish the devices.	[Setting method] The parameter cannot be modified.
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	N/A	[Setting method] These parameters cannot be modified.
Camera Type		
Product Model		
Manufacturer Name		

Parameter	Description	Setting
Hardware Version		
Firmware 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 11.1 Configure a User.

----End

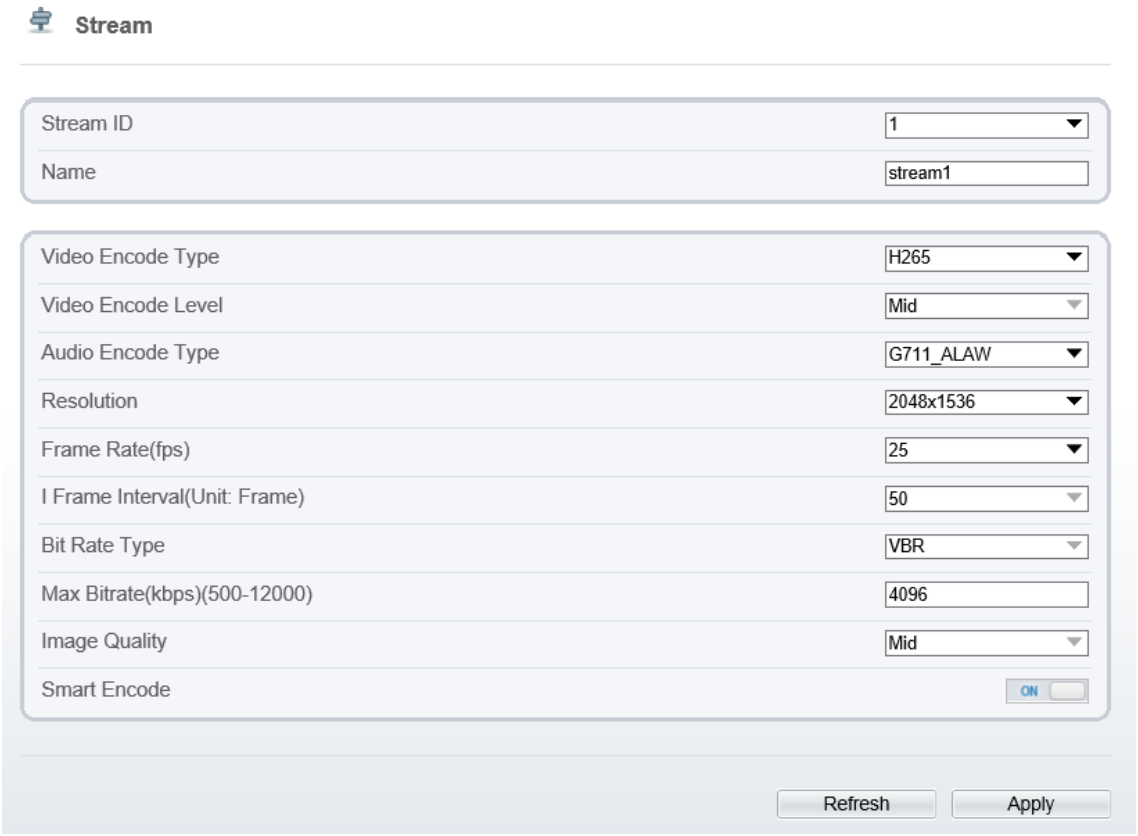
3.2 Video and Audio Stream

Procedure

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

The **Stream Configuration** page is displayed, as shown in Figure 3-2.

Figure 3-2 Stream Configuration page



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

Table 3-2 Stream configuration parameters

Parameter	Description	Setting
Stream ID	The device supports at most three main streams. • Streams 1 and 2 use the H.264 codec. • 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 is combined with 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	The video codec determines the image quality and network bandwidth required by a video. Currently, the following codec standards are supported: • MJPEG 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. • H.264 H.264 consists of H.264 Base 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. H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements on the hardware performance. • H.265 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 as optimization.	[Setting method] Select a value from the drop-down list box. [Default value] H.264 High Profile NOTE 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.
Audio Encode Type	The following audio codec standards are supported: • G711_ULAW: mainly used in North America and Japan. • G711_ALAW: mainly used in Europe and other areas. • RAW_PCM: codec of the original audio data. This codec is often used for platform data.	[Setting method] Select a value from the drop-down list box.
Resolution	A higher resolution means better image quality. NOTE IP cameras support the different resolutions based on the model.	[Setting method] Select a value from the drop-down list box.

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

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 11.1 Configure a User.

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

----End

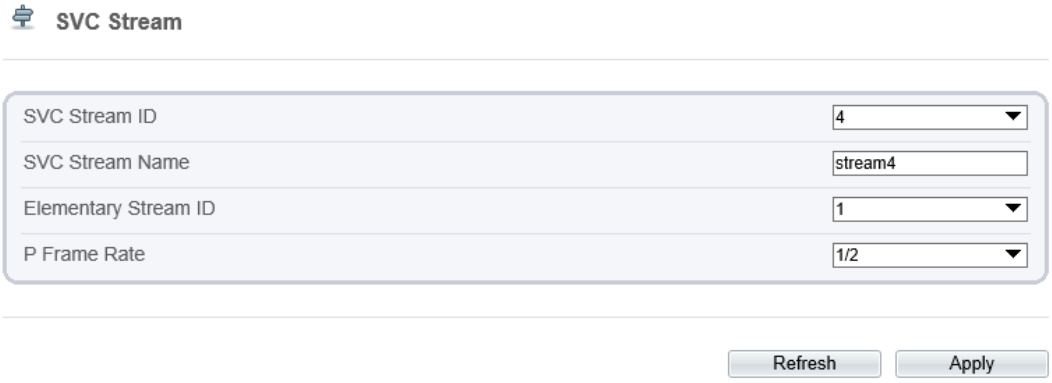
3.3 SVC Stream

Procedure

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

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

Figure 3-3 SVC Stream Configuration page



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

Table 3-3 Stream configuration parameters

Parameter	Description	Setting
SVC Stream ID	The ID of the SVC stream.	[Setting method] Select a value from the drop-down list box. [Default value] 4
SVC Stream Name	Stream name. NOTE The stream name is combined with Chinese character, number, character and underline.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes. [Default value] Stream4
Elementary Stream ID	ID of the elementary stream.	[Setting method] Select a value from the drop-down list box.

Parameter	Description	Setting
P Frame Rate	The P frame rate of SVC stream and elementary stream.	[Setting method] Select a value from the drop-down list box.

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 11.1 Configure a User.

----End

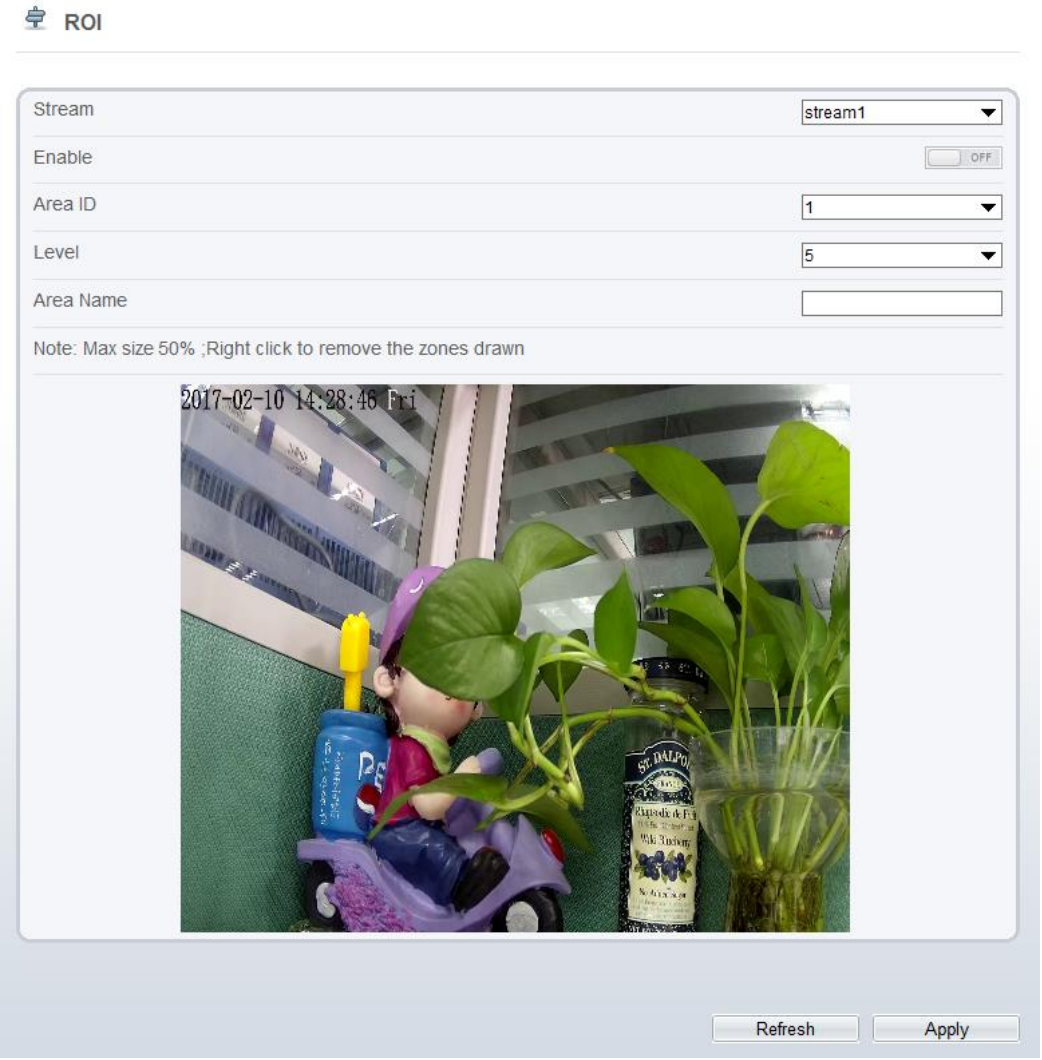
3.4 ROI Parameter

Procedure

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

The **ROI** page is displayed, as shown in Figure 3-4.

Figure 3-4 ROI Configuration page



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

Table 3-4 ROI configuration parameters

Parameter	Description	Setting
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

Parameter	Description	Setting
Area ID	ROI area ID	[Setting method] Select a value from the drop-down list box. [Default value] 1
Level	Visual effect of ROI. The higher the grade is, the more clearly areas inside and the vaguer areas outside are..	[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 **Apply**.

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

----End

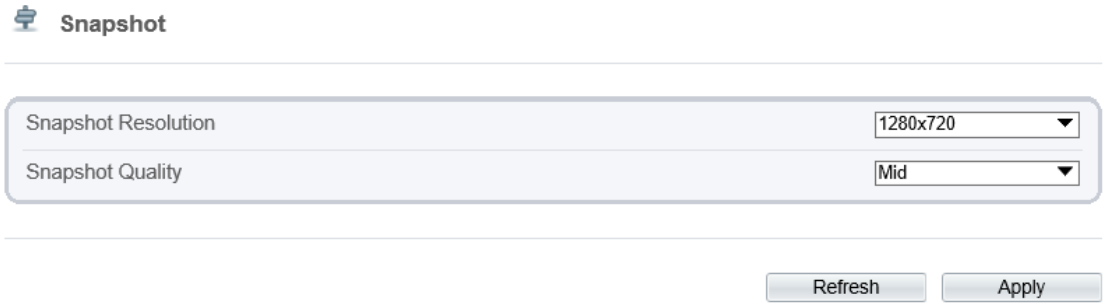
3.5 Snapshot

Procedure

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

The **ROI** page is displayed, as shown in Figure 3-4.

Figure 3-5 ROI Configuration page



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

Table 3-5 ROI configuration parameters

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

3.6 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 **Device Configuration > Local Network**.

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

Figure 3-6 Local Network page

Step 2 Set the parameters according to Table 3-6.

Table 3-6 Local network parameters

Parameter	Description	Setting
IP Protocol	IPv4 is the IP protocol that uses an address length of 32 bits.	[Setting method] Select a value from the drop-down list box. [Default value] IPv4
Obtain IP address automatically	The device automatically obtains the IP address from the DHCP server.	[Setting method] Click the button on to enable **obtain IP address automatically**. 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

Parameter	Description	Setting
IP Address	Device IP address that can be set as required.	[Setting method] Enter a value manually. [Default value] 192.168.0.120
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 800 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 "Invalid IP Address", "Invalid Subnet Mask", "Invalid default gateway", "Invalid primary DNS", or "Invalid space DNS" is displayed, set the parameters correctly.

----End

3.7 Device Port

Description

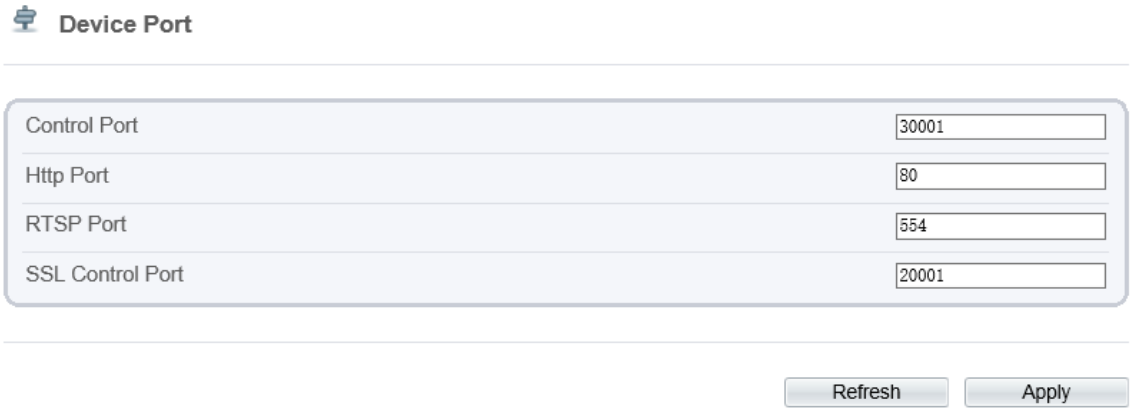
You must configure the HTTP port, control port, Real Time Streaming Protocol (RTSP) port and SSL Control port for device route mapping in a LAN.

Procedure

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

The **Device Port** page is displayed, as shown in Figure 3-7.

Figure 3-7 Device Port page



Step 2 Set the parameters according to Table 3-7.

Table 3-7 Device port parameters

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.	[Setting method] Enter a value manually. [Default value] 80
RTSP Port	RTSP protocol port.	[Setting method] Enter a value manually. [Default value] 554

Parameter	Description	Setting
SSL Control Port	Secure socket layer control port	[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 "Invalid Control Port, Please input an integer between 1025 and 65535" is displayed, enter correct port numbers.

----End

3.8 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 3-8. Table 3-8 describes the parameters.

Figure 3-8 Date and Time page

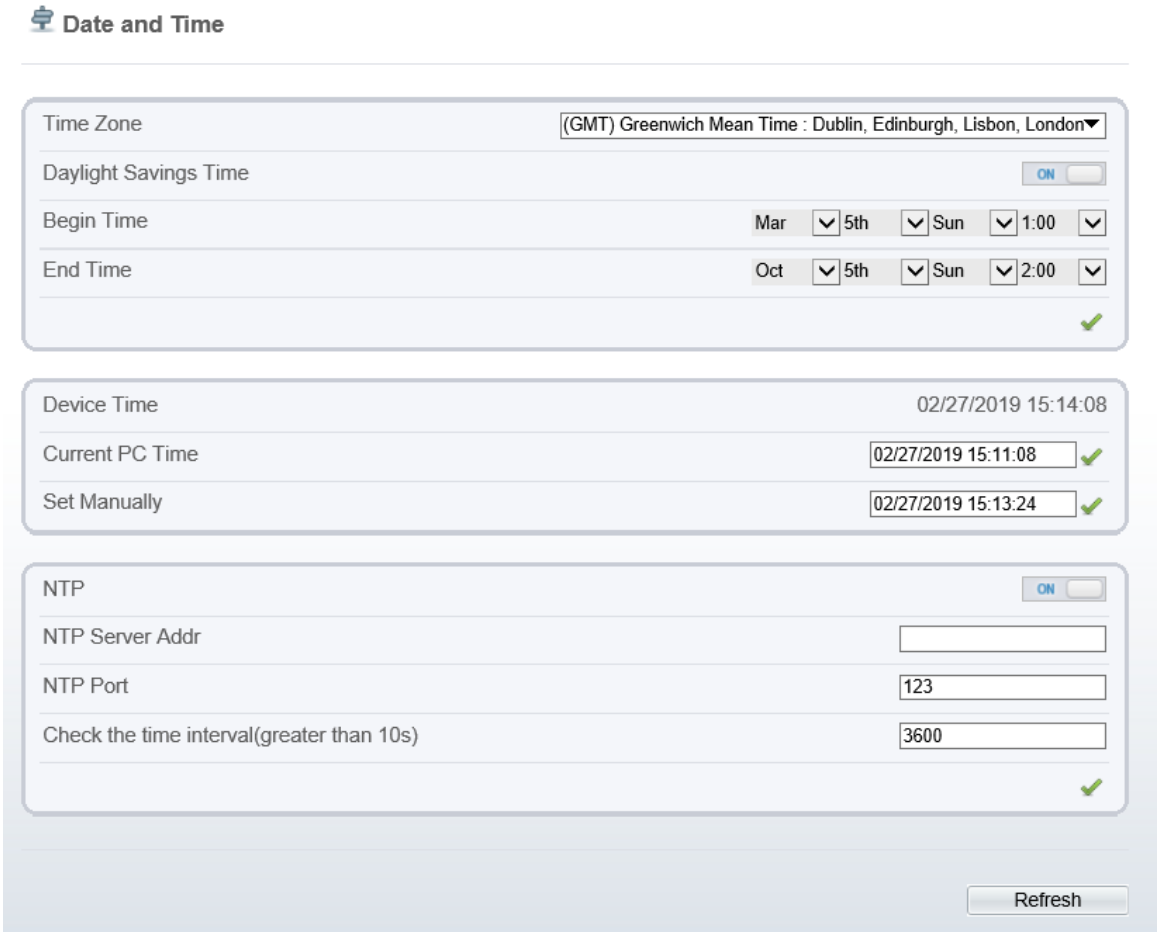


Table 3-8 Date and Time parameters

Parameter	Description	Setting
Time Zone	N/A	[Setting method] Select a value from the drop-down list box. [Default value] Greenwich mean time

Parameter	Description	Setting
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 **Daylight Saving Time**.
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 **Set Manually** and set the date and time in the format *YYYY-MM-DD HH:MM:SS*.
NTP	IP address or domain name of the NTP server.	[Setting method] Click the button on to enable **NTP** and enter a value manually.
NTP Server Addr	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] 123
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] 3600

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

3.9 Camera

Procedure

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

The **Camera** page is displayed, as shown in Figure 3-9. Table 3-9 describes the parameters.

Figure 3-9 Camera page

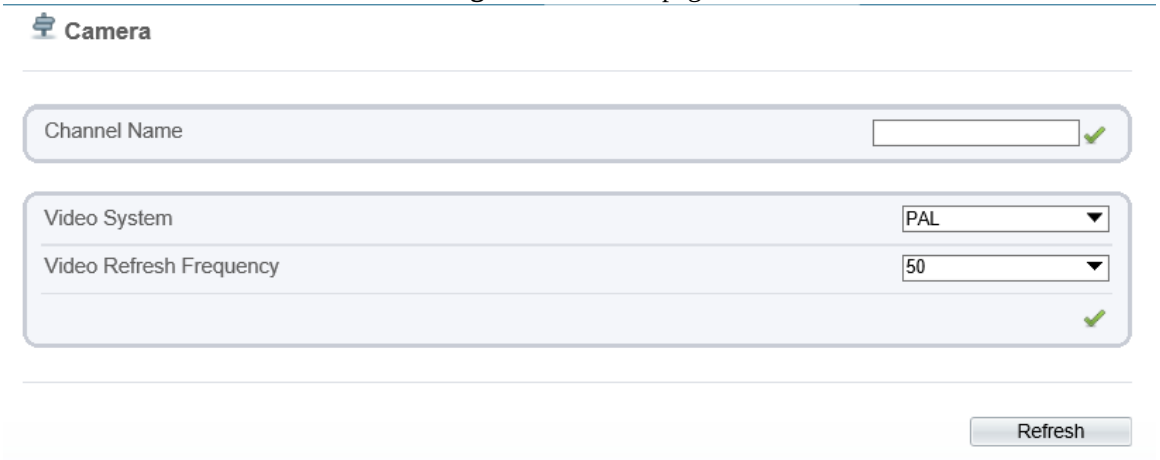


Table 3-9 Camera parameters

Parameter	Description	Setting
Channel Name	Channel name within the length of 0 to 32 bytes.	[Setting method] Enter a value manually.
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] Corresponds to the video system.

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

3.10 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.

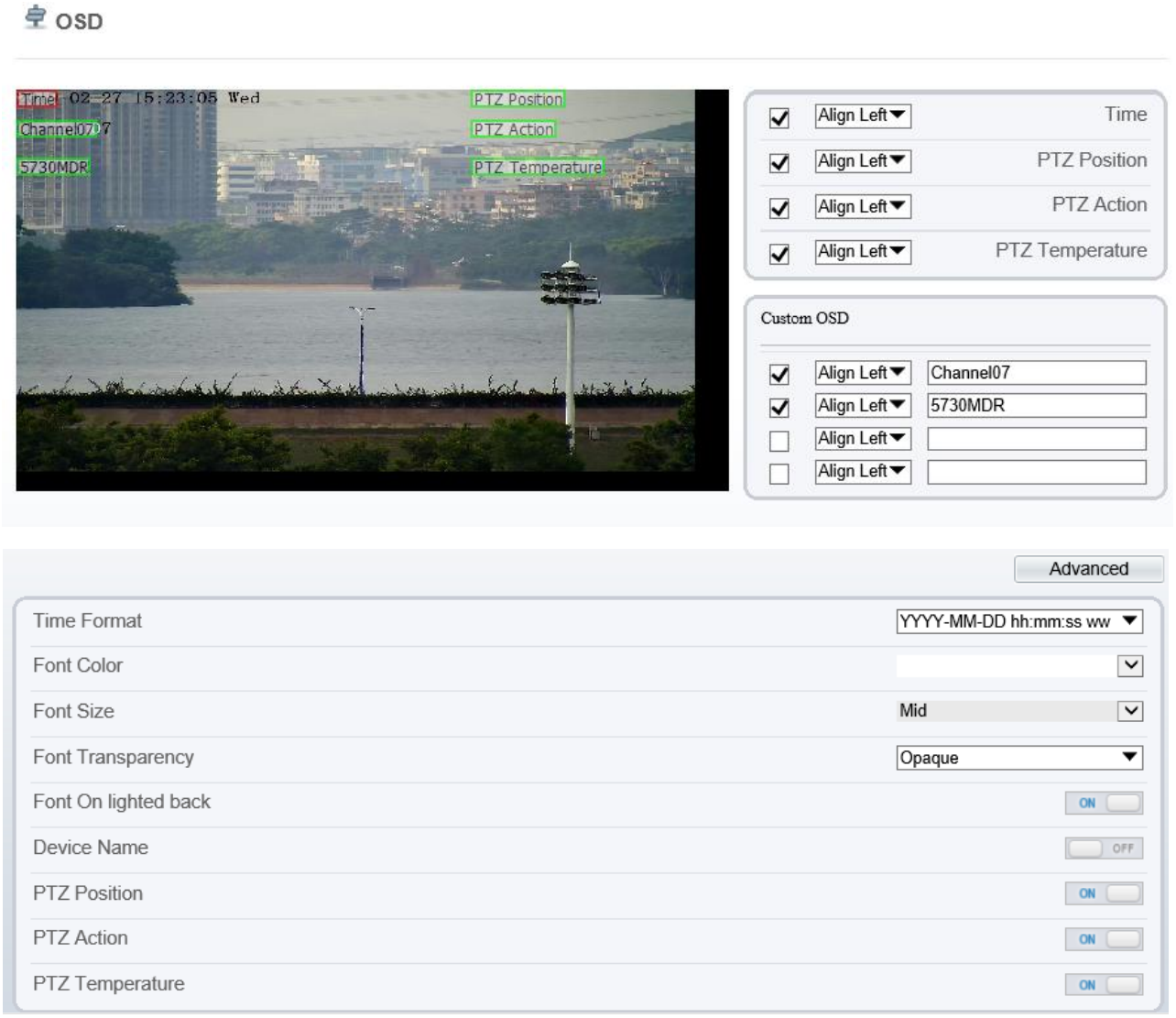
- When the resolution is D1 and CIF, the OSD customized in web interface can show at most 22 words normally.
- The OSD support simplified Chinese, English, digital and some special character only.

Procedure

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

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

Figure 3-10 OSD page



Step 2 Set the parameters according to Table 3-10.

NOTE

- There are at most six OSD display areas..

Table 3-10 OSD parameters

Parameter	Description	Setting
Time	Indicates whether to display the time.	[Setting method] Tick the time.

Parameter	Description	Setting
Focusing on the state	Displays the state of focusing on. NOTE: Only applied 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 **Font on lighted back**.
Device Name	Indicates whether to display the device name.	[Setting method] Click the button on to enable **Device Name**

Step 3 Click **Advanced,** set the parameter of " Time Format", "Font Color", "Font Transparency", "Font on lighted back"

Step 4 Click **Apply**.

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

----End

3.11 Microphone

Description

On the **Microphone** page, you can set the microphone input mode and volume.

Procedure

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

The **Microphone** page is displayed, as shown in Figure 3-11. Table 3-11 describes the parameters.

Figure 3-11 Microphone page

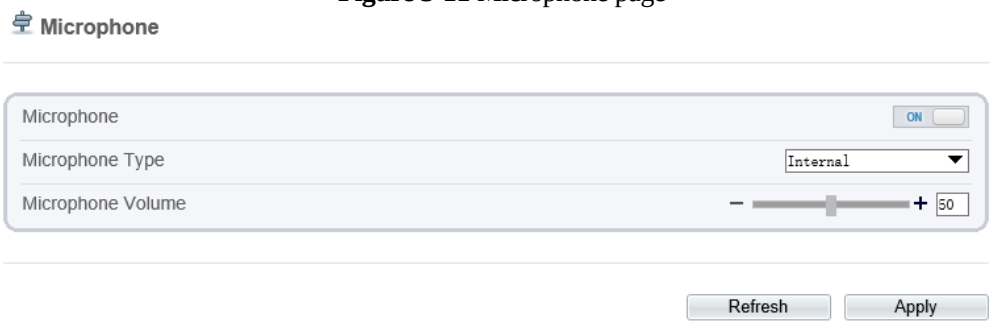


Table 3-11 Microphone parameters

Parameter	Description	Setting
Enable Microphone	Indicates whether to enable the microphone function.	[Setting method] Click the button on to enable microphone.
Microphone Type	Microphone types include: • Line In An active audio input is required.	[Setting method] Select a value from the drop-down list box.
Microphone Volume	Allows you to adjust the microphone 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

3.12 Dome PTZ

Description

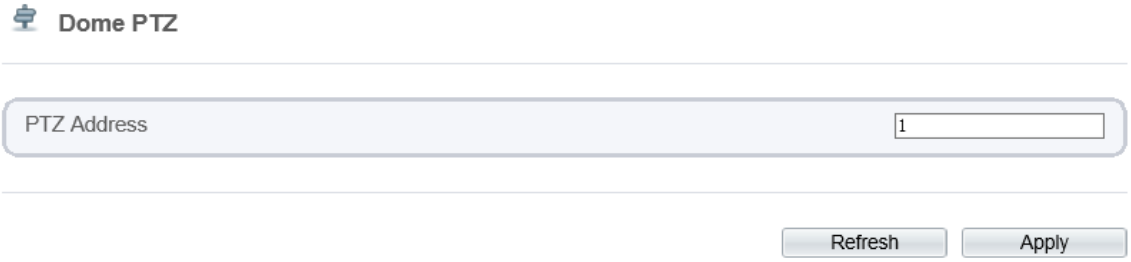
This function only used for dome cameras.

Procedure

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

The **Dome PTZ** page is displayed, as shown in Figure 3-12.

Figure 3-12 Dome PTZ page



Step 2 Set the PTZ address

Step 3 Click **Apply**.

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

NOTE

- The PTZ address should keep the same address with the actual PTZ .
- The value of PTZ address ranges from 1 to 255.

3.13 Analog Output Function

Preparation

Connect a display device to the VIDEO OUT port.

Description

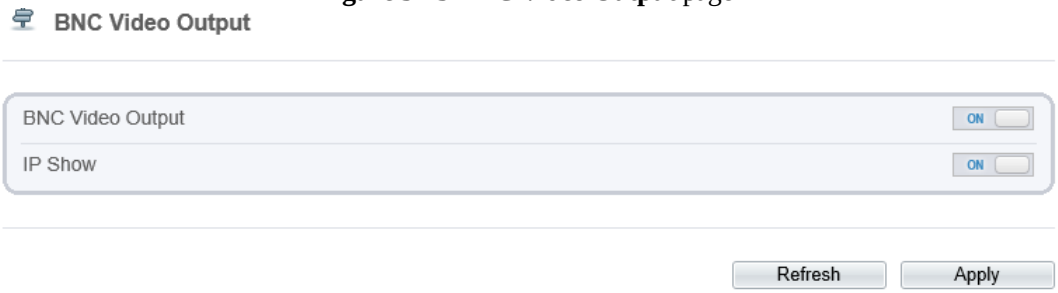
When the analog output function is enabled, the IP camera can send analog signals to a video server or display device through the VIDEO OUT port.

Procedure

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

The **BNC Video Output** page is displayed, as shown in Figure 3-13.

Figure 3-13 BNC **Video Output** page



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

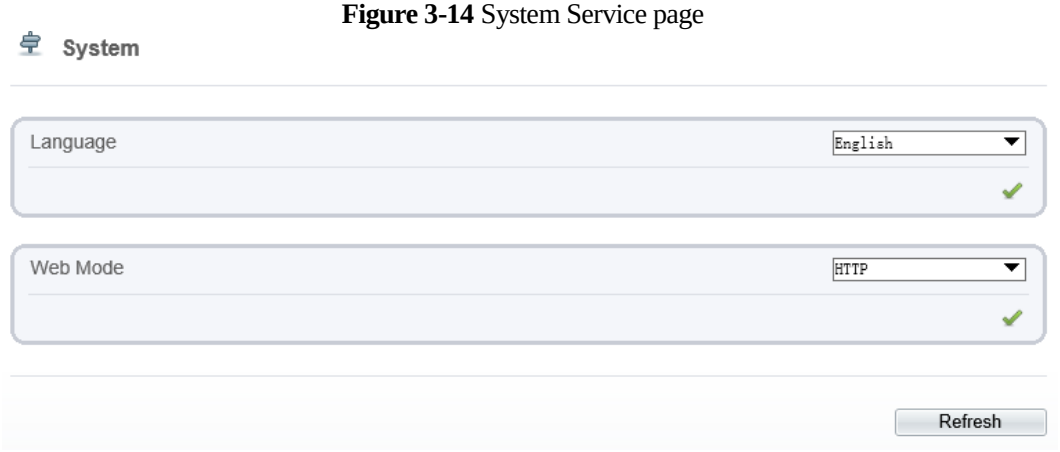
3.14 System Service

Procedure

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

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

Figure 3-14 System Service page



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.

----End

3.15 Video Denoise

Description

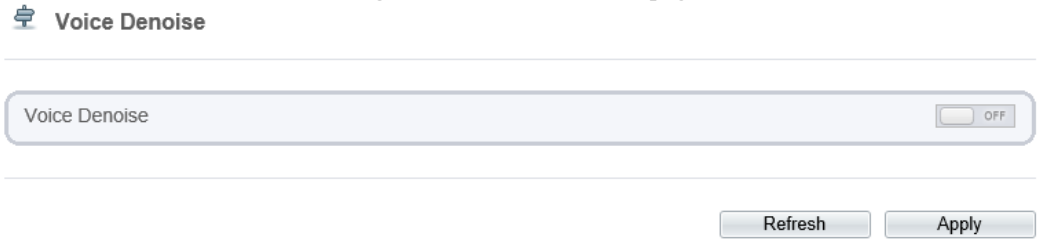
On the **Voice Denoise** page, you can enable the Voice Denoise to reduce the effect of external environmental noise on the built-in MIC.

Procedure

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

The **Voice Denoise** page is displayed, as shown in Figure 3-15.

Figure 3-15 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

3.16 Sensor setting

Description

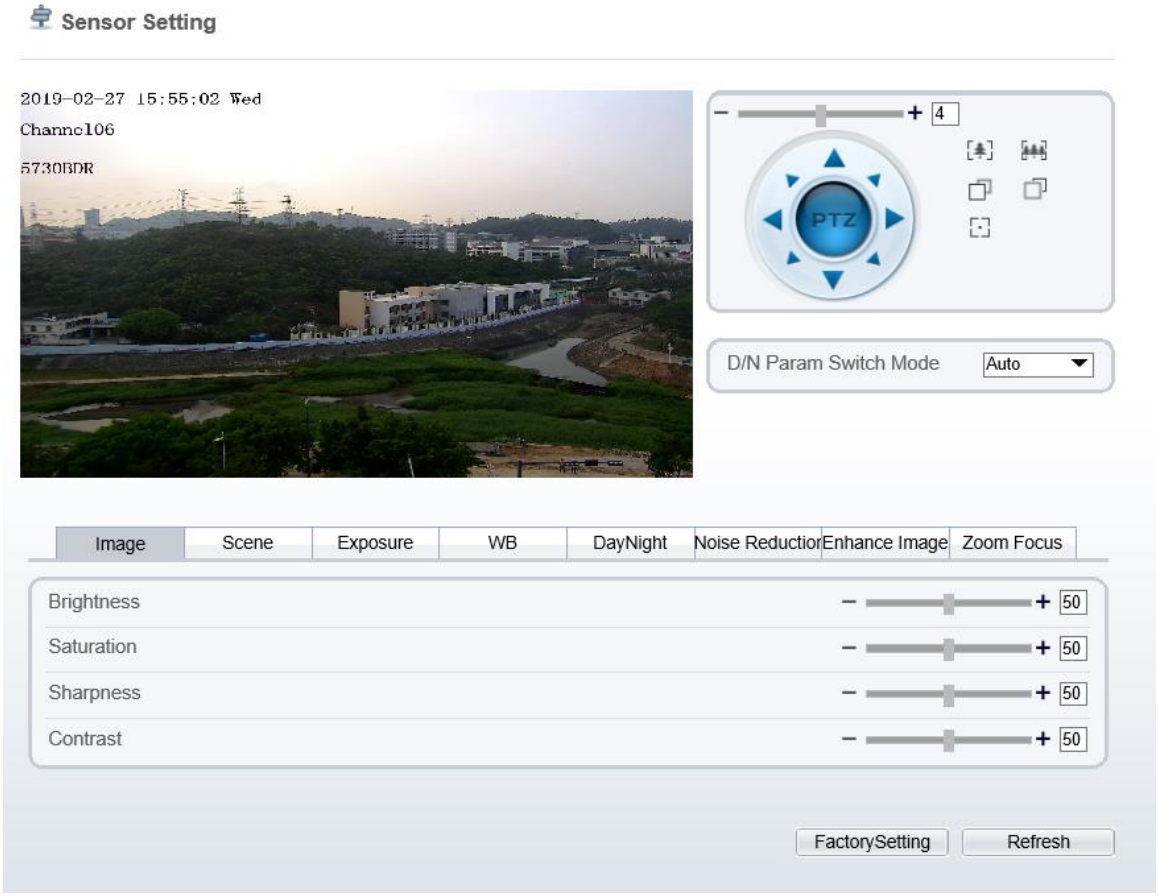
On the **sensor setting** page, you can set the sensor parameters, such as **image, scene, exposure, white balance, day night, noise reduction, enhance image and zoom focus**, more details please refer to chapter *2.3*

Procedure

Step 1 Choose **Configuration** > **Device** > **Sensor Setting.**

The **Sensor Setting** page is displayed, as shown in Figure 3-16.

Figure 3-16 Sensor setting page



Step 2 Adjust the parameters if you want to modify, it will save the settings automatically.

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

----End

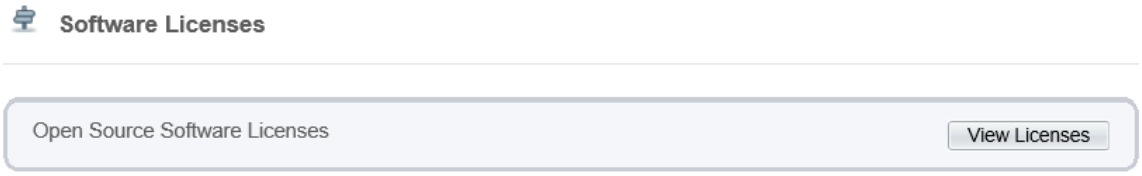
3.17 Software Licenses

Procedure

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

The **Software Licenses** page is displayed, as shown in Figure 3-17.

Figure 3-17 Software licenses page



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

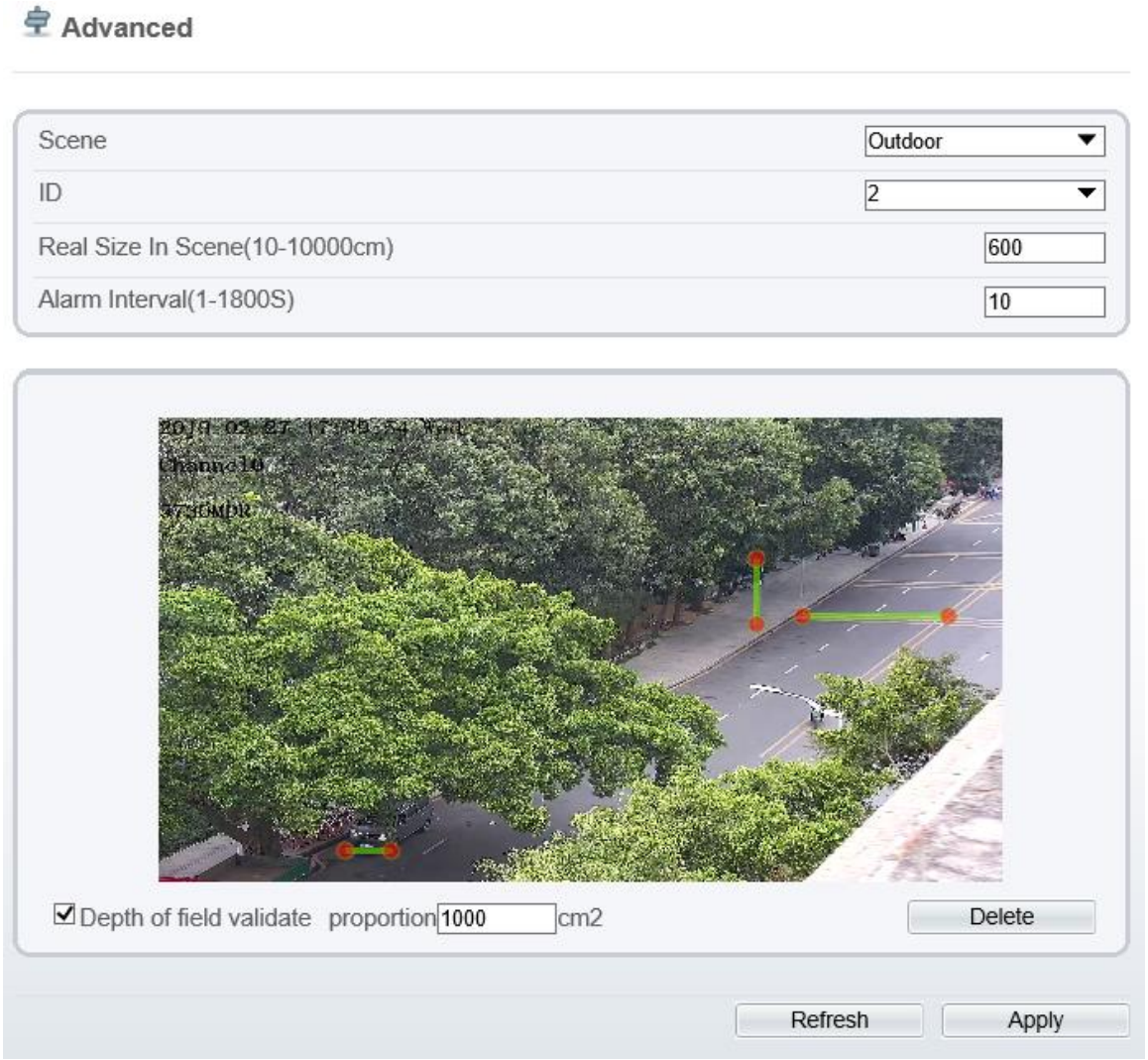
----End

4 Configure Intelligent Analysis

4.1 Advane Settings

After logging in to the device, select **Intelligent Analysis** > **Advanced** to access the **Advanced** setting interface, as shown in Figure 4-1.

Figure 4-1 Advanced Parameter Setting Interface



Scene Setting

You can set scene of camera, ID, real size in scene and depth of field validate on Scene settings. Table 4-1 describes the specific parameters

Table 4-1 . Advanced Parameter Description

Parameter	Description	Setting
Scene	The scene which camera installed. Select indoor/outdoor base on the Environment.	[How to set] Select from the drop-down list. [Default value] Outdoor
ID	Mark the line base on the ID of line, select the according line by the ID.	[How to set] Select from the drop-down list.
Real Size in scene（cm）	Length of line according to the real size in scene. The default value is 0 and the setting value is 10-10000 centimeters.	[How to set] Enter a value in the area box. [Default value] 0
Depth of field validate	Validate the size of setting area in the scene according the marking line.	[How to set] Click and enter a value in the area box.

Set methods and rules

Set advanced parameters before setting function parameters. Draw lines in advanced parameters Interface so that the true object has a mapping relation with the image object. The method and rules for drawing line as below:

- 2-4 vertical lines or 2 vertical lines and 2 ground lines need to be entered.
- In the case of low marking requirement, two vertical lines can meet most scene requirements. Normally, the vertical line is marked based on person height.
- The lines are distributed near and far. Two vertical lines are in the scene, one near and the other far. On the screen, draw a vertical line along the target object height, measure the actual length of this target, and enter the actual length in **Real Size in Scene** box for saving. Similarly, two horizontal lines on the ground are in the scene, one near and the other far. Measure and enter the actual length.
- Click a marking line (turning red after clicking)and click **Delete** to delete the marking line
- Click a marking line (turning red after clicking), to modify the marking line data. You can also modify the line parameters by selecting a number and enter the actual size in **Real Size in Scene** box on the advanced parameter interface.

4.2 Perimeter

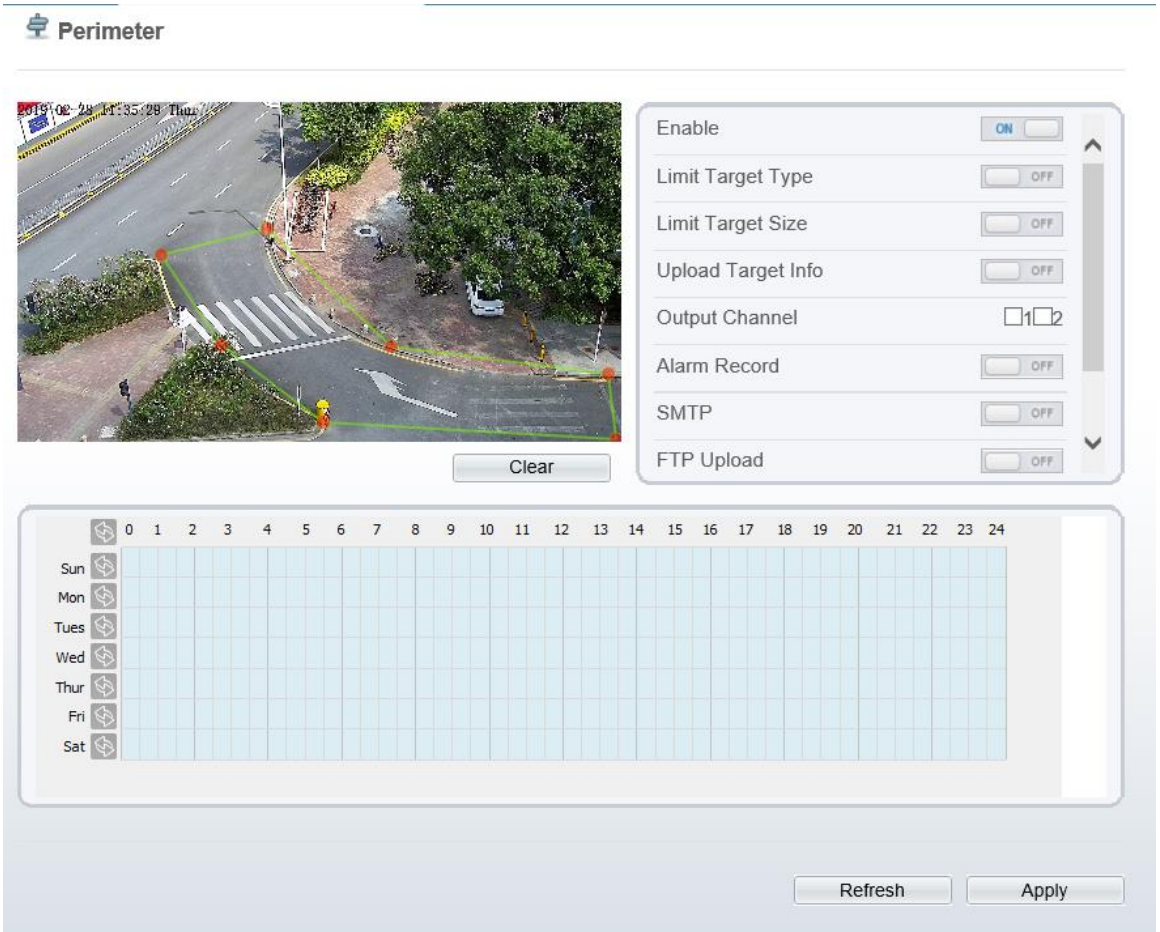
Description

The perimeter function refers to that an alarm is generated when the targets of specified types (such as person, car, and both person and car) enter the deployment area.

Procedure

Step 1 Select **Intelligent Analysis** > **Perimeter** to access the **Perimeter** interface, as shown in Figure 4-2

Figure 4-2 Perimeter Setting Interface



Step 2 Set all parameters for perimeter. Table 4-2 describes the specific parameters.

Table 4-2 Perimeter Parameter Description

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable. [Default value] OFF
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5 Details please refer to chapter 10.5 Details please refer to *chapter 10.5*	[How to set] Click to enable SMTP. [Default value] OFF

Parameter	Description	Setting
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6. Details please refer to *chapter 10.6*	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-3.

Figure 4-3 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Method 1： Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday as shown in Figure 4-4.

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.

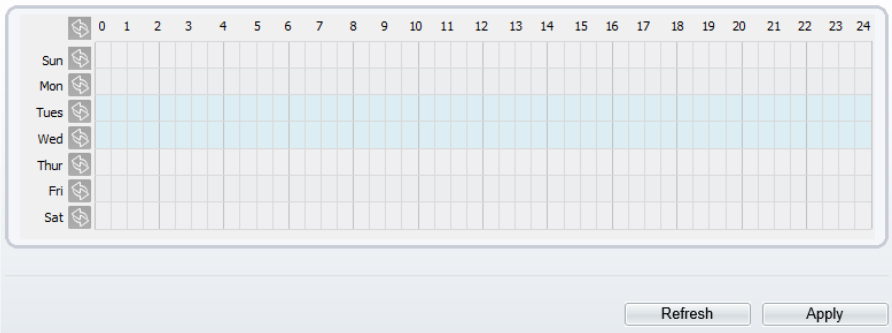
NOTE

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

Method 3： Click in the deployment time page to select the whole day or whole week.

Deleting deployment time: Click again or inverse selection to delete the selected deployment time.

Figure 4-4 Deployment Time Setting Interface



----End

4.3 Single Virtual Fence

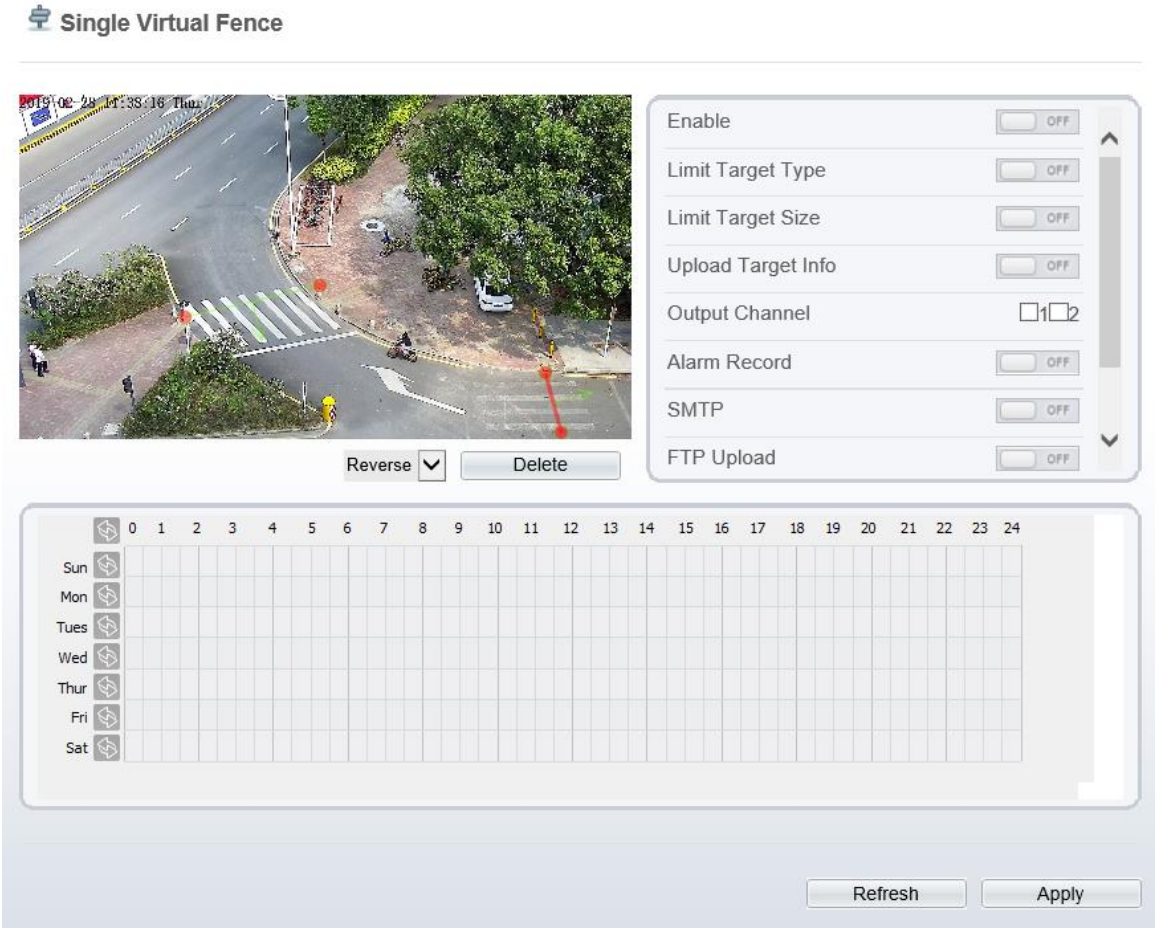
Description

A single virtual fence 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 the targets of specified types (such as person or car) cross this line.

Procedure

Step 1 Select **Intelligent Analysis** > **Single Virtual Fence** to access the **Single Virtual Fence** setting interface, as shown in Figure 4-5.

Figure 4-5 Single Virtual Fence Setting Interface



Step 2 Set all parameters for the single virtual fence. Table 4-3 describes the specific parameters.

Table 4-3 Description of Parameters for Single Virtual Fence

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF

Parameter	Description	Setting
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 virtual fence is generated.

Setting a single virtual fence: click a line (and the trip line turns red) to select the single virtual fence 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 virtual fence and move the mouse to modify the position and length of this single virtual fence. You can right-click to delete the single virtual fence, as shown in Figure 4-6.

Figure 4-6 Deployment Area Setting Interface

NOTE

- A single virtual fence is not within any deployment area, therefore, when an alarm is generated, the trace always exists. Only when the target object moves out of the field of view, the trace disappears.
- Try to draw the single virtual fence 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 virtual fence.
- The single virtual fence which detects person foot as the recognition target cannot be too short, because a short single virtual fence tends to miss targets.

Step 4 Set deployment time

Details please refer to *4.2 Step 4*

----End

4.4 Double Virtual Fences

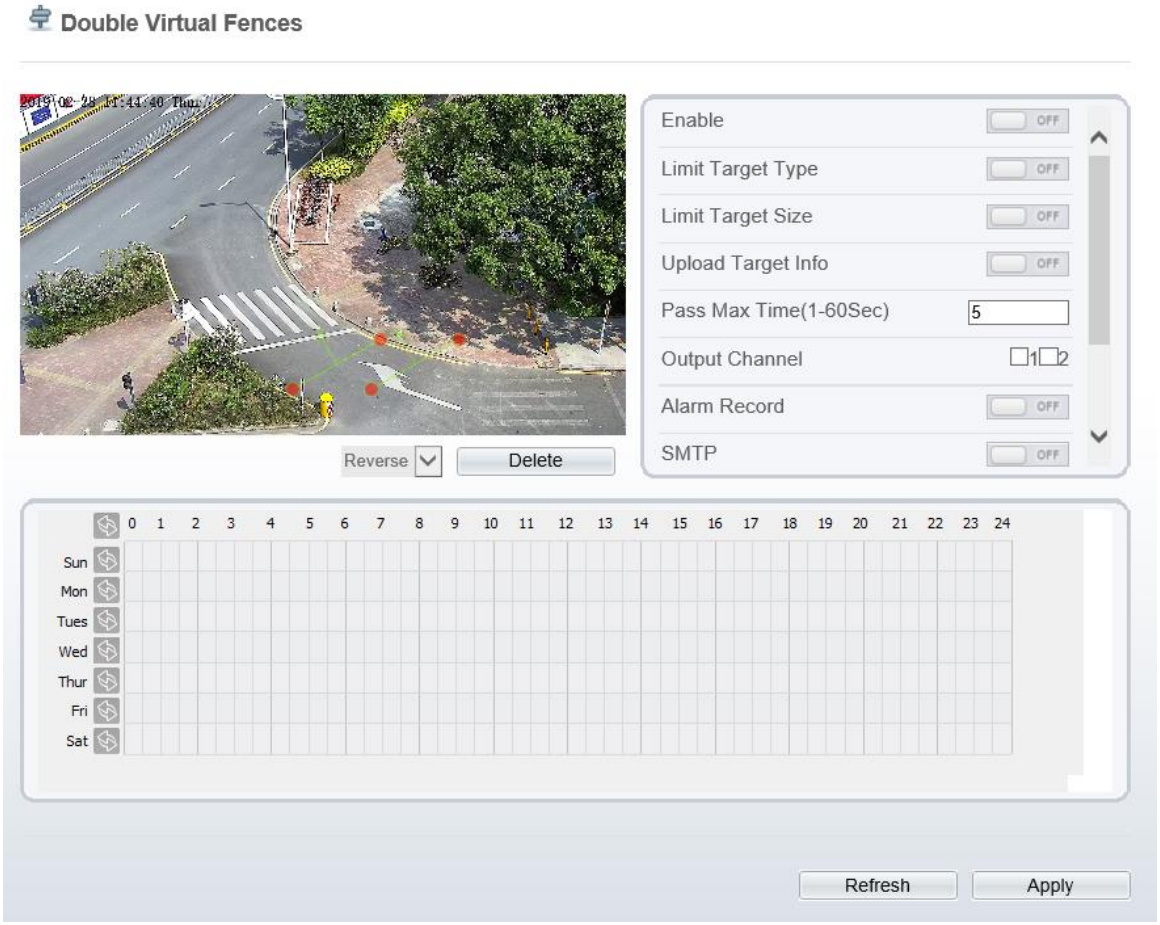
Description

Double virtual fences refer to two lines that are set at a concerned special position within the field of view and specify the forbidden travel direction. when the targets of specified types (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 Virtual Fences** to access the **Double Virtual Fences** setting interface, as shown in Figure 4-7.

Figure 4-7 Double Virtual Fences Setting Interface



Step 2 Set all parameters for the double virtual fences. Table 4-4 describes the specific parameters.

Table 4-4 Description of Parameters for Double Virtual Fence

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

Parameter	Description	Setting
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters; otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
Pass Max Time (Sec)	An alarm is generated only when the time taken to cross the double virtual fences is less than the value. The default value is 10 seconds and the setting range is 1-60 seconds.	[How to set] Enter a value in the area box.
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF

Parameter	Description	Setting
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 virtual fences to set the direction to Positive or Reverse.

Setting double virtual fences: Click one of the double virtual fences (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 virtual fences, as shown in Figure 4-8.

Figure 4-8 Deployment Area Setting Interface

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.
- The double virtual fences are not within any deployment area, therefore, when an alarm is generated, the trace always exists. Only when the target object moves out of the field of view, the trace disappears.
- Try to draw double virtual fences 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 virtual fences.
- The double virtual fences which detect person foot as the recognition target cannot be too short, because short double virtual fences tend to miss targets.

Step 4 Set deployment time

Details please refer to *4.2 Step 4*

----End

4.5 Loiter

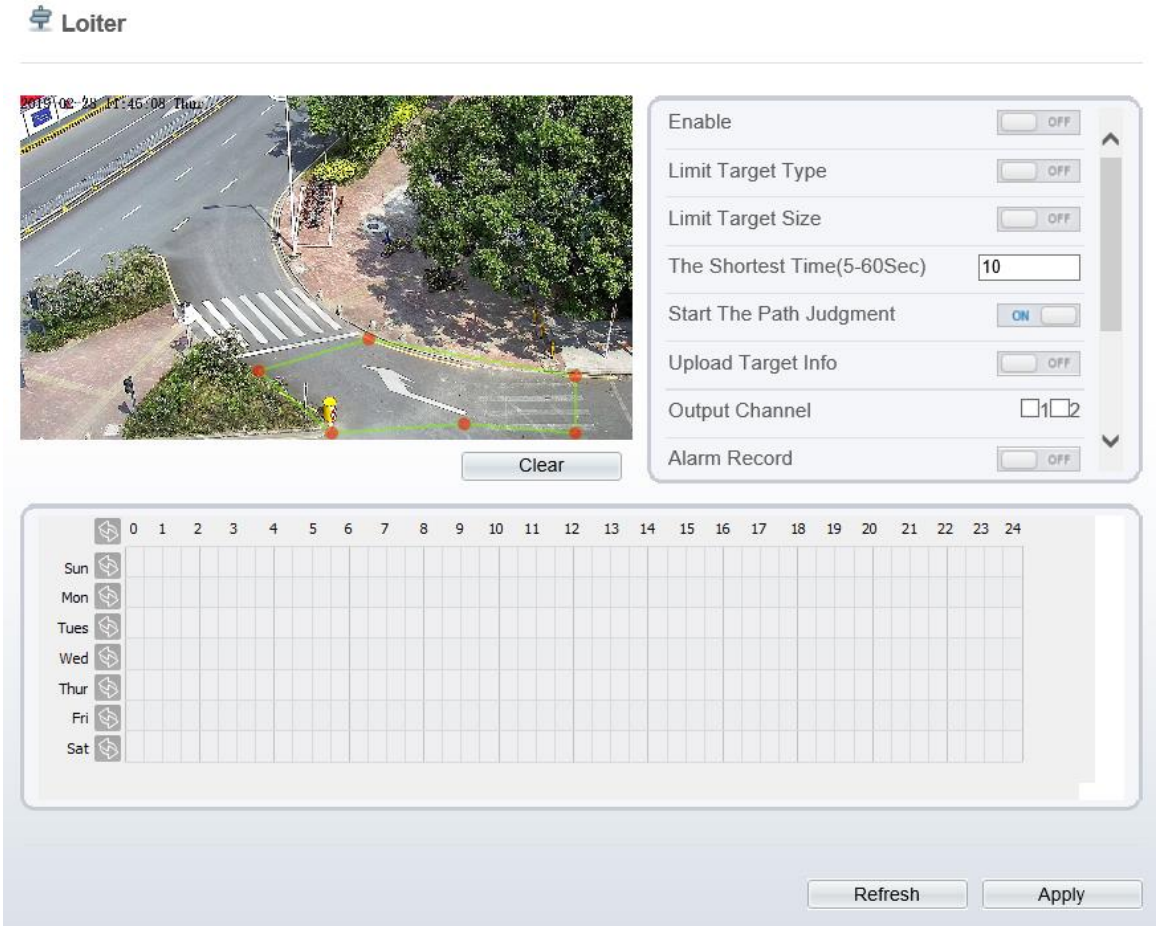
Description

Loiter allows setting the shortest loitering time for a (single) target of specified type (such as person or car) within the deployment area in the field of view. When the loitering time of a (single) target within this area meets the set shortest loitering time, an alarm is generated.

Procedure

Step 1 Select **Intelligent Analysis** > **Loiter** to access the **Loiter** setting interface, as shown in Figure 4-9.

Figure 4-9 Loiter Setting Interface



Step 2 Set all parameters for loitering. Table 4-5 describes the specific parameters.

Table 4-5 Loitering Parameter Description

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF

Parameter	Description	Setting
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
The Shortest Time (Sec)	The time that a target object spends in loitering cannot be less than the shortest loitering time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 10 s
Start the Path Judgment	The enabling of path analysis makes loitering judgment accurate by using the software algorithm, for example, no alarm is generated when a person walks along a straight line if the button set **ON.**	[How to set] Click to enable Start the Path Judgment and enable path analysis.
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF

Parameter	Description	Setting
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-10.

Figure 4-10 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4*.

----End

4.6 Multiple Loiter

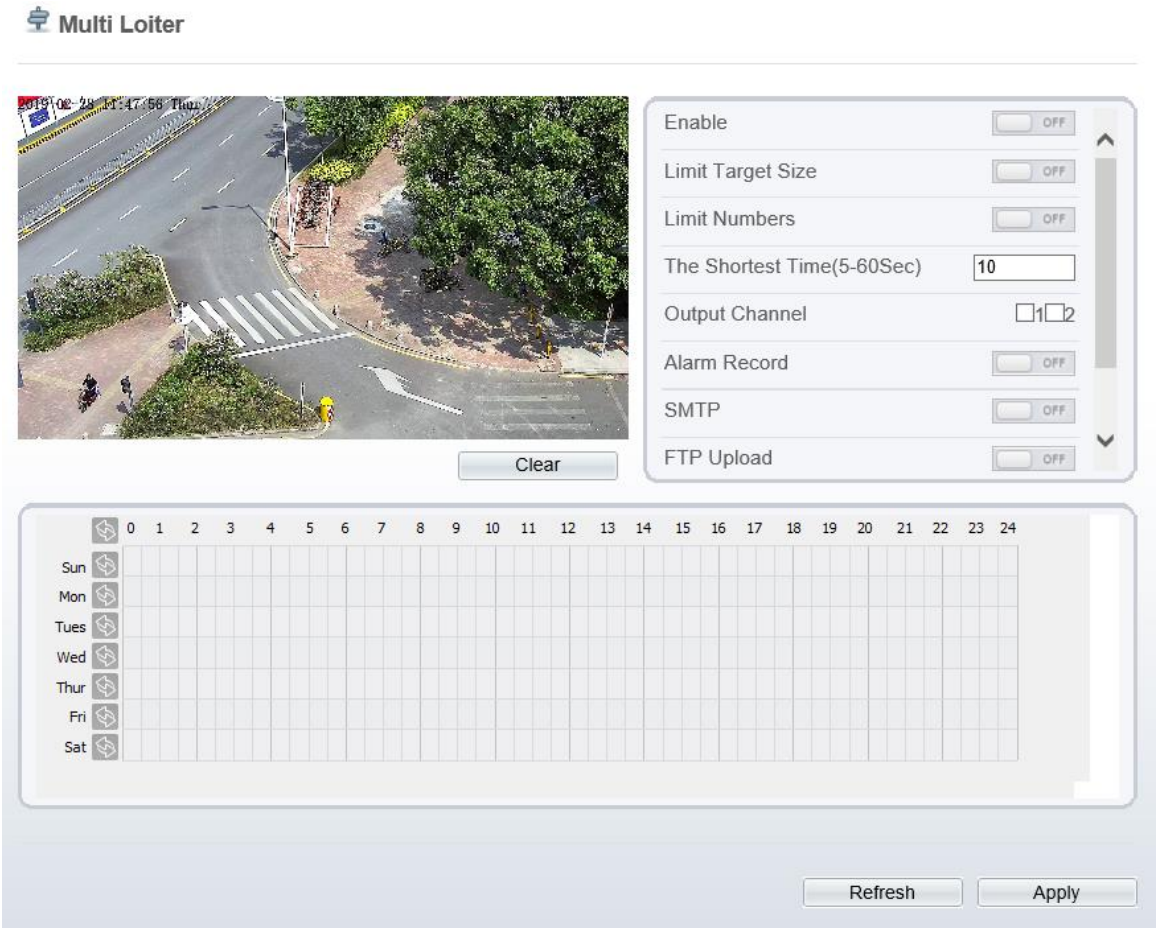
Description

Multiple loiter 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 Loiter** to access the **Multi Loiter** setting interface, as shown in Figure 4-11.

Figure 4-11 Multi Loiter Setting Interface



Step 2 Set all parameters for multiple loitering. Table 4-6 describes the specific parameters.

Table 4-6 Multiple Loitering Parameter Description

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Limit Numbers	When Limit Numbers is set to OFF, an alarm is generated no matter how many people loiter. When Limit Numbers is set to ON, if the minimum number is set to 2 and the maximum number is set to 3, an alarm is generated for 2-3 people loitering. Other settings are the same as loitering.	[How to set] Click to enable Limit Numbers.
The Shortest Time (Sec)	The time that a target object spends in loitering cannot be less than the shortest loitering time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 10s
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF

Parameter	Description	Setting
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-12.

Figure 4-12 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4.*

----End

4.7 Object Left

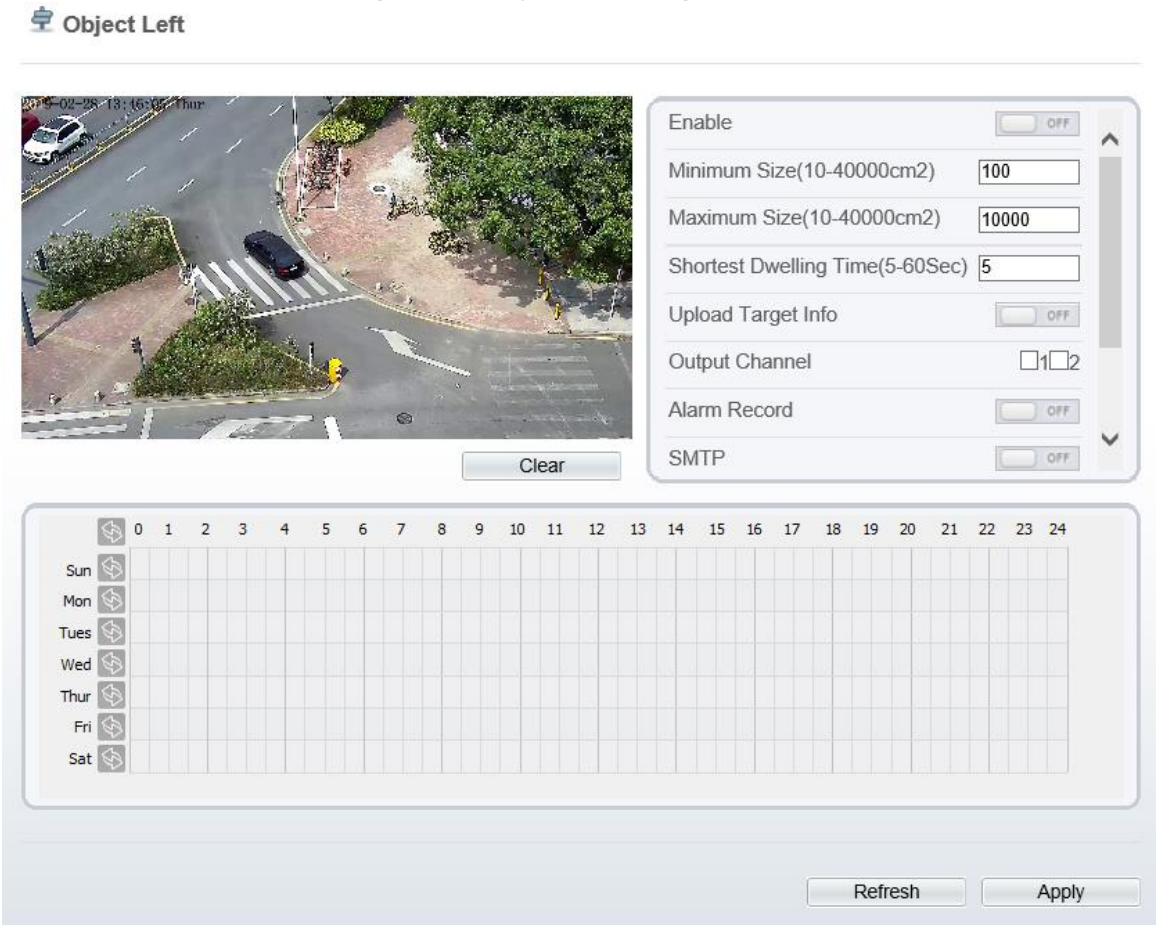
Description

The object left function refers to that an alarm is generated when the dwelling time of an object within the deployment area meets the set shortest dwelling time.

Procedure

Step 1 Select **Intelligent Analysis** > **Object Left** to access the **Object Left** setting interface, as shown in Figure 4-13.

Figure 4-13 Object Left Setting Interface



Step 2 Set all parameters for object left. Table 4-7 describes the specific parameters.

Table 4-7 Description of Parameters for Object Left

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Minimum (Maximum) Size(cm^2)	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 100 square centimeters and the maximum 10000 square centimeters. When setting the target size, you need to well set "Real size in scene" in advanced parameters, otherwise no alarms may be generated.	[How to set] Enter a value in the area box.
Shortest Dwelling Time (Sec)	An alarm is generated when the object left time is longer than the shortest dwelling time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 5s
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF

FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-14.

Figure 4-14 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4.*

----End

4.8 Object Removed

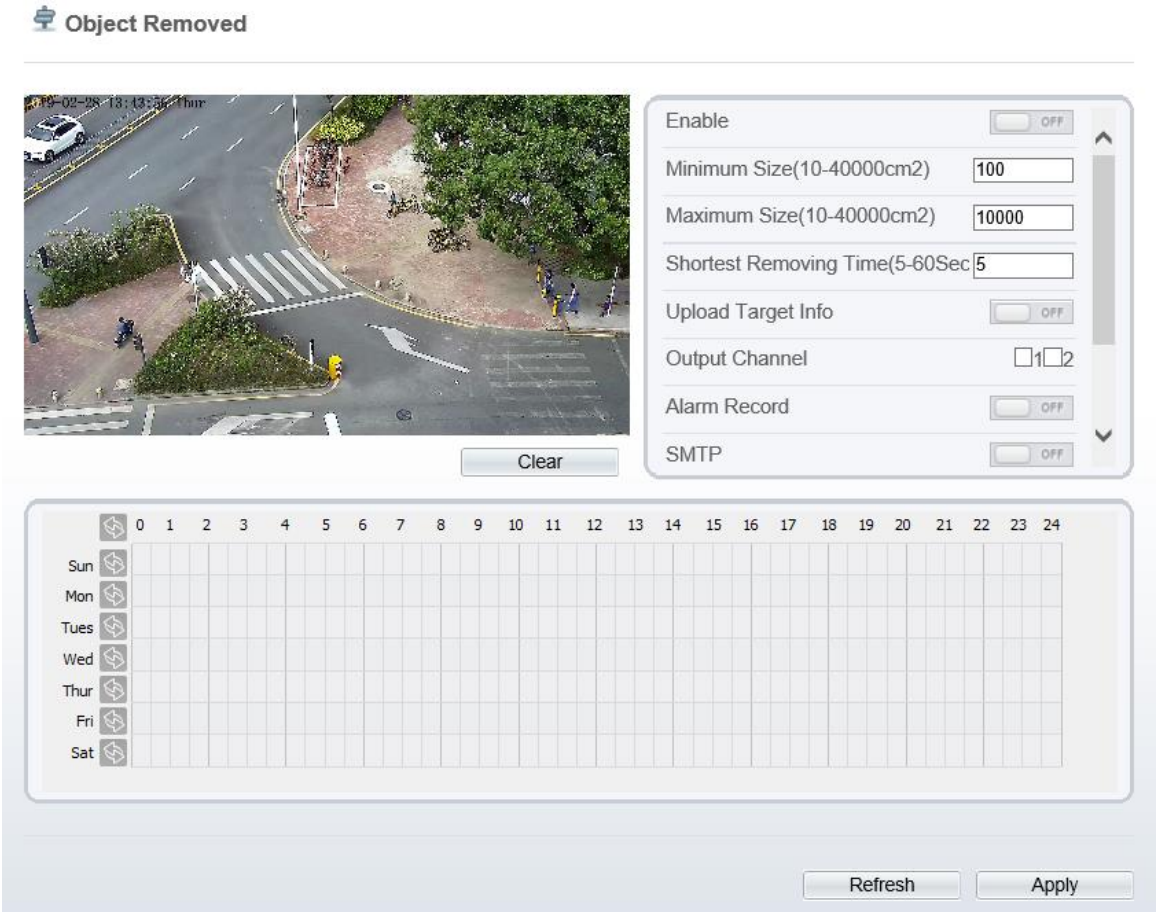
Description

The object removed function refers to that an alarm is generated when the removing time of an object within the deployment area meets the set shortest removing time.

Procedure

Step 1 Select **Intelligent Analysis** > **Object Removed** to access the **Object Removed** setting interface, as shown in Figure 4-15.

Figure 4-15 Object Removed Setting Interface Setting Interface



Step 2 Set all parameters for object removed. Table 4-8 describes the specific parameters.

Table 4-8 Description of Parameters for Object Removed

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Minimum (Maximum) Size(cm^2)	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 100 square centimeters and the maximum 10000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Enter a value in the area box.
Shortest Removing Time (Sec)	An alarm is generated when the object removed time is longer than the shortest removing time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 5s
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF

Parameter	Description	Setting
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-16

Figure 4-16 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

----End

4.9 Abnormal Speed

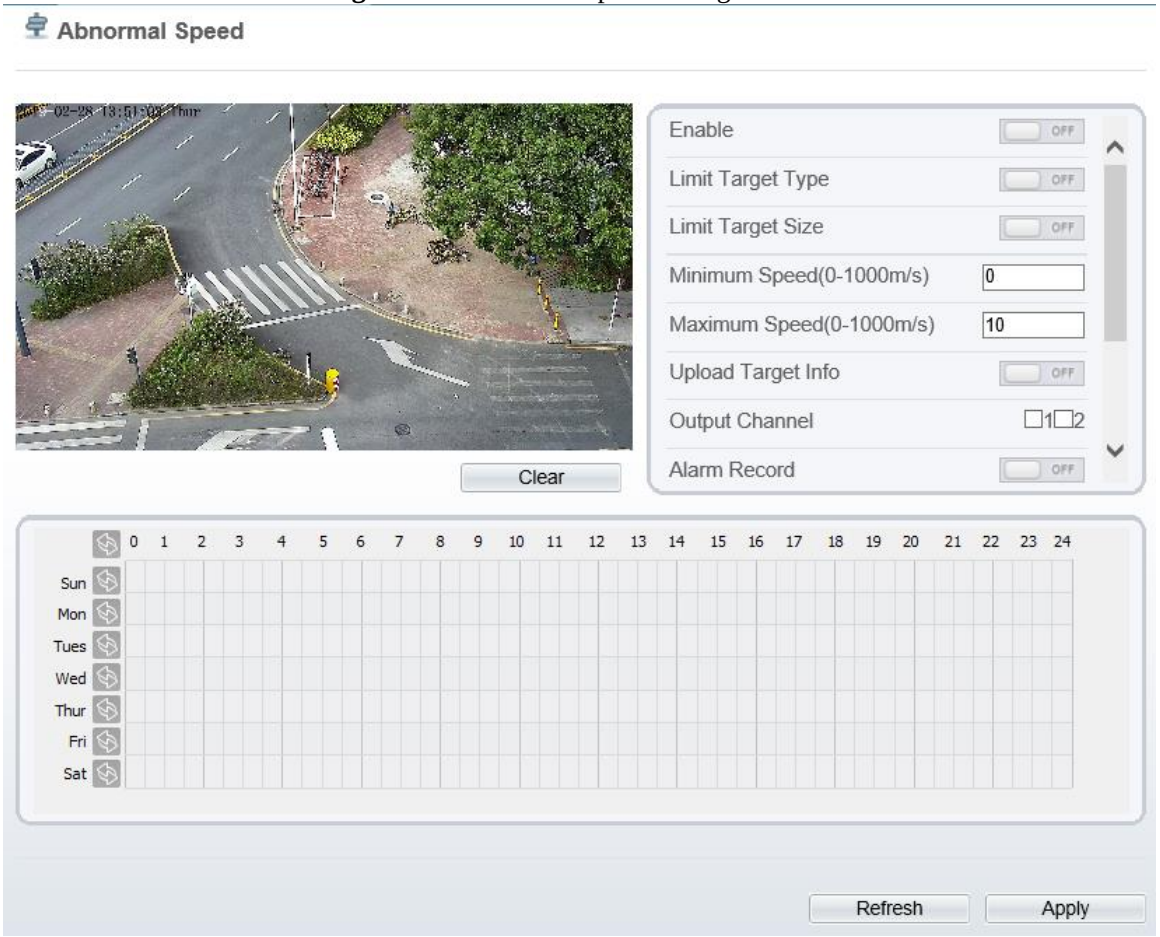
Description

Abnormal speed allows setting the travel speed criteria for a target within the deployment area on the video screen. When the travel speed of a target of specified type (such as person or car) within this area meets the alarm condition, an alarm is generated.

Procedure

Step 1 Select **Intelligent Analysis** > **Abnormal Speed** to access the **Abnormal Speed** setting interface, as shown in Figure 4-17.

Figure 4-17 Abnormal Speed Setting Interface



Step 2 Set all parameters for the abnormal speed. Table 4-9 describes the specific parameters.

Table 4-9 Description of Parameters for Abnormal Speed

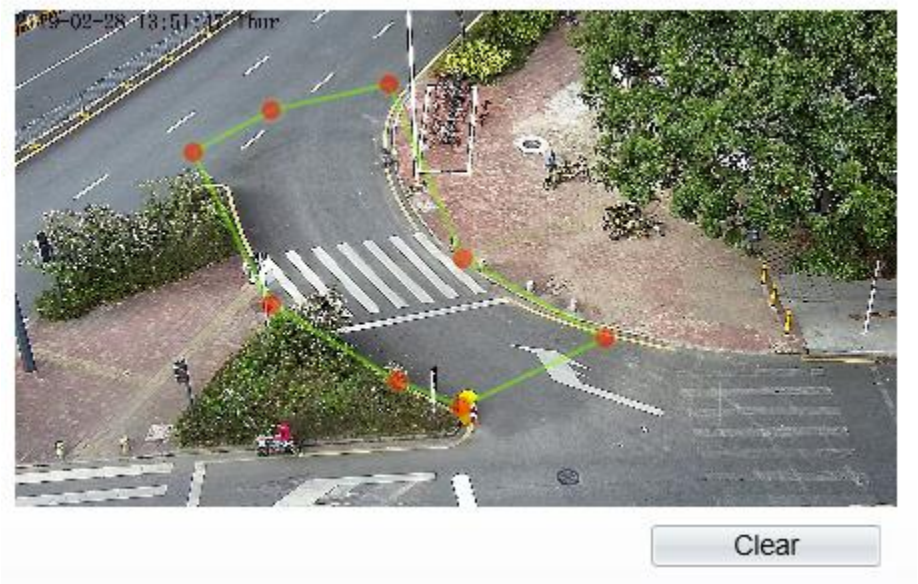
Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Minimum (Maximum) Speed (m/s)	Set prohibited speeds. When a target object crosses an area at a speed between the minimum and maximum speeds, an alarm is generated. Setting range: 0-10 m/s.	[How to set] Enter a value in the area box.
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF

Parameter	Description	Setting
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-18.

Figure 4-18 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4.*

----End

4.10 Converse

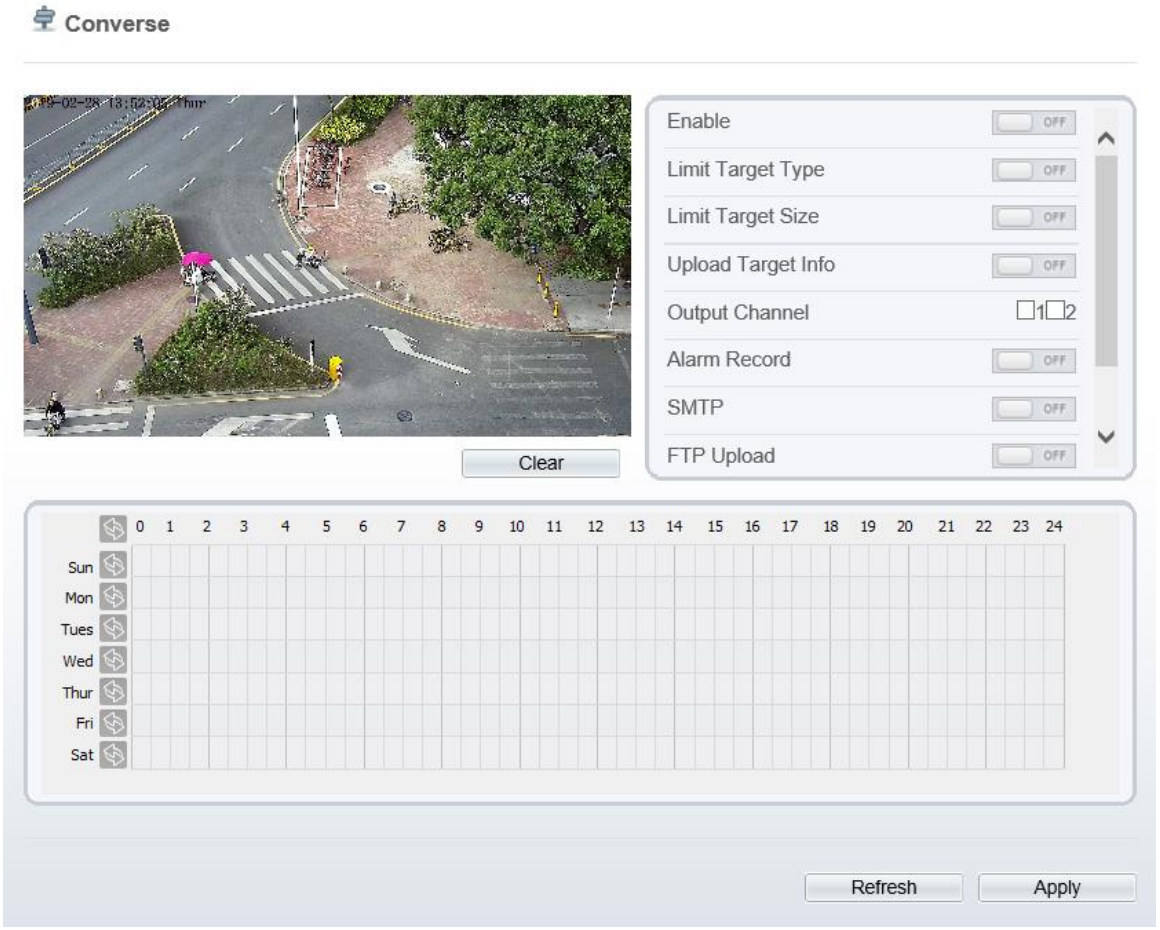
Description

Converse 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** > **Converse** to access the **Converse** setting interface, as shown in Figure 4-19.

Figure 4-19 Converse Setting Interface



Step 2 Set all parameters for converse. Table 4-10 describes the specific parameters.

Table 4-10 Converse Parameter Description

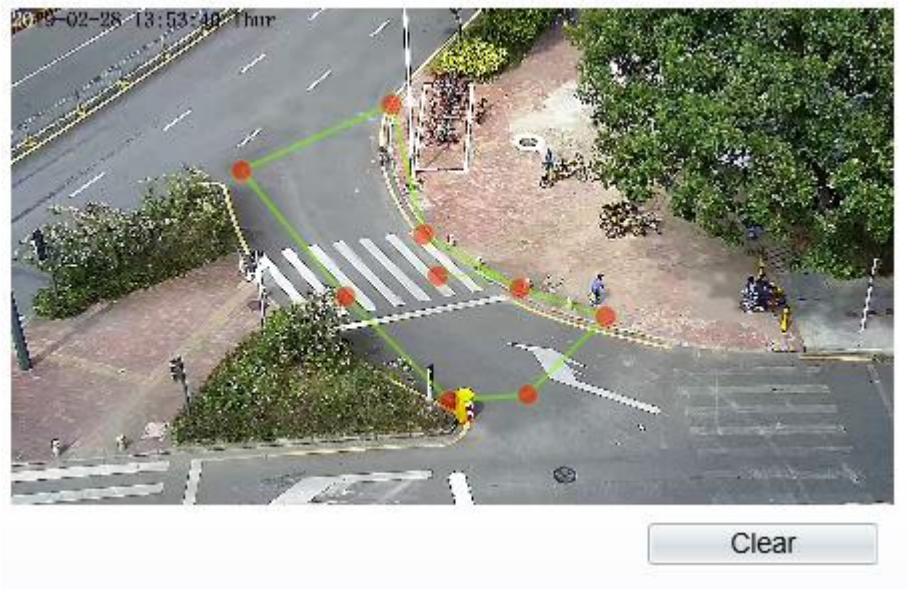
Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Limit Target Type	Effective alarms are set based on target type, with options of Person or Car, person, car. When the device is used indoors, because of small space and large targets, alarms are triggered by person sometimes even if car is selected, leading to false alarms. It is recommended to set the target type to person for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF

Parameter	Description	Setting
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The minimum size is 1000 square centimeters and the maximum size is 100000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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, move the arrow in the field can set the direction of converse. as shown in Figure 4-20.

Figure 4-20 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4.*

----End

4.11 Illegal Parking

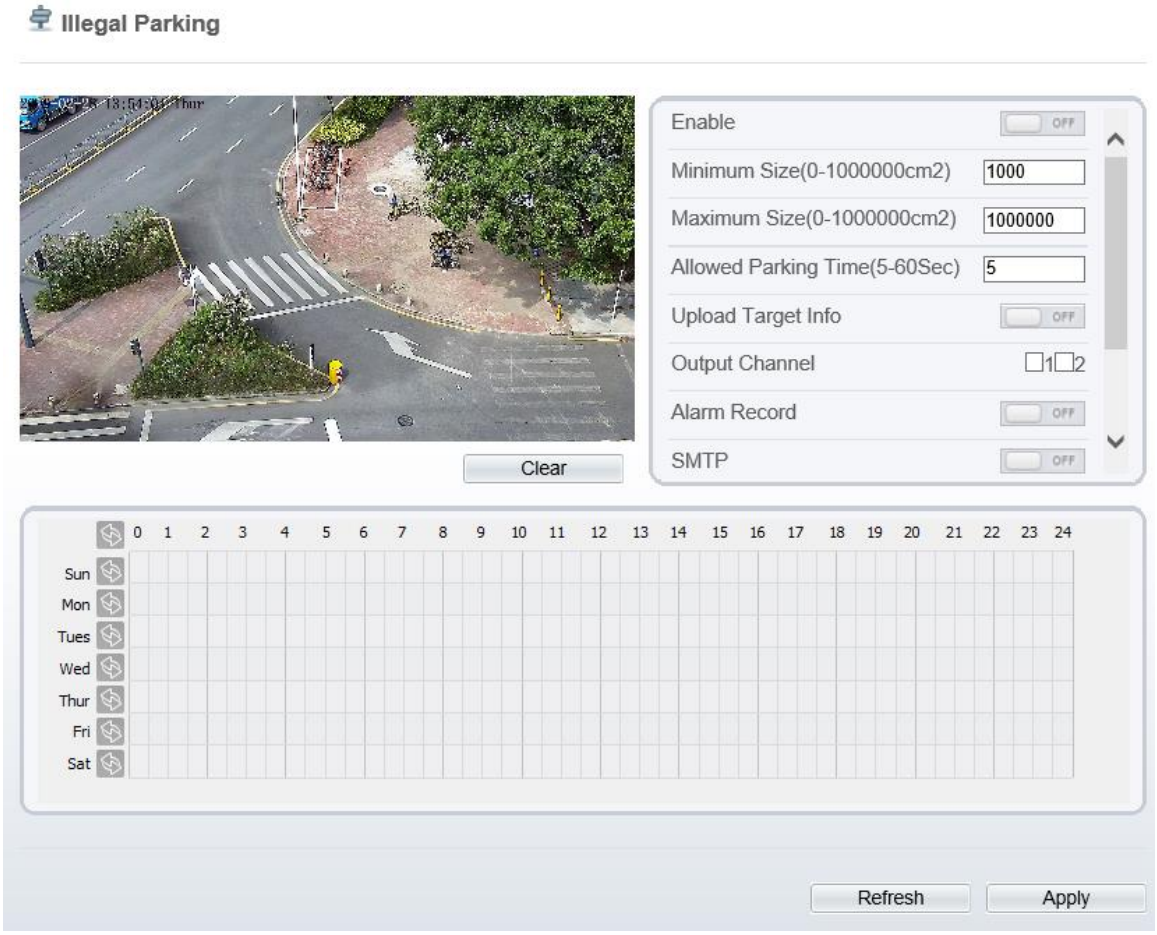
Description

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 4-21.

Figure 4-21 Illegal Parking Setting Interface



Step 2 Set all parameters for illegal parking. Table 4-11 describes the specific parameters.

Table 4-11 Description of Parameters for Illegal Parking

Parameter	Description	Setting
Enable	Enable the button to enable the alarm.	[How to set] Click Enable to enable . [Default value] OFF
Minimum (Maximum) Size(cm^2)	The target size for triggering an effective alarm is set based on the actual target size. The default value is minimum size is 1000 square centimeters and the maximum size is 1000000 square centimeters. When setting the target size, you need to well set “Real size in scene” in advanced parameters, otherwise no alarms may be generated.	[How to set] Enter a value in the area box.

Parameter	Description	Setting
Allowed parking time(Sec)	An alarm is generated when the object left time is longer than the shortest dwelling time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 5
Upload Target Info	Enable the function of uploading target information by clicking  below the real-time video in a browser to turn  into  . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area).	[How to set] Click to enable Upload Target Info. [Default value] OFF
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.
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] OFF
SMTP	Enable the button to enable SMTP sever. Details please refer to chapter 10.5	[How to set] Click to enable SMTP. [Default value] OFF
FTP Upload	Enable the button to enable File Transfer Protocol.Details please refer to chapter 10.6.	[How to set] Click to enable FTP Upload. [Default value] OFF
Trace Linkage	Enable the button to enable trace linkage, when the relevant behaviors are detected, the camera will trace the car or person until the object is disappear, then the camera come back the original position.	[How to set] Click to enable Trace Linkage. [Default value] OFF
Video Stream Draw Line	Enable the button, the draw line will show at live video when the stream is stream 2.	[How to set] Click to enable Video Stream Draw Line. [Default value] OFF

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 4-22

Figure 4-22 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 not limited yet and will be described in future when a limit is applied.

Step 4 Set deployment time

Details please refer to *4.2 Step 4*.

----End

5 Configure Intelligent Tracking

5.1 Intelligent Tracking

Description

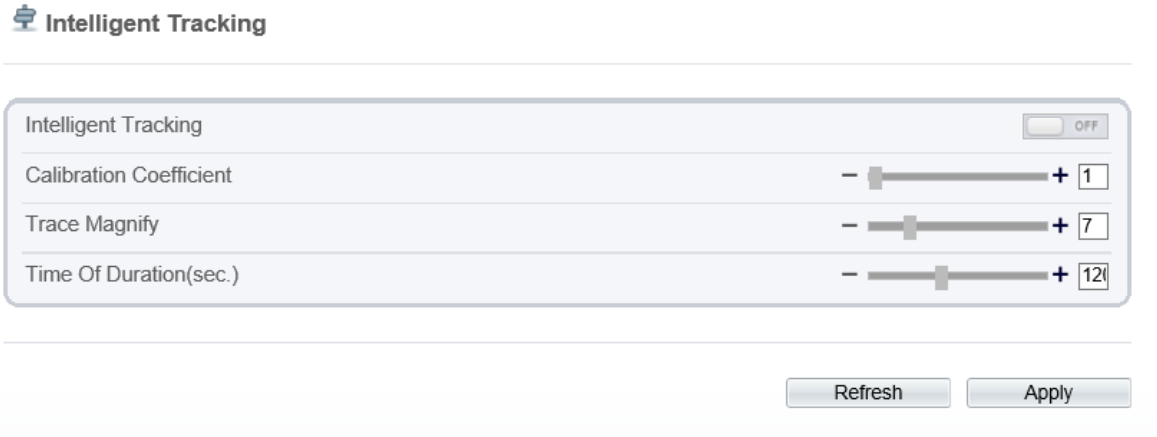
This function only used for high speed dome.

Intelligent tracking is used to a certain algorithm for the basic features such as the position, shape, contour and color of the target. After comparing and matching with each frame of image, the position of the target in each frame of the video image is generated, and the motion track of the target is generated. The method performs 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 the moving target distance, and the dome automatically returns to the preset scene when the moving target disappears.

Procedure

Step 1 Select **Intelligent Analysis** > **Signal Bad** to access the **Signal Bad** setting interface, as shown in Figure 5-1.

Figure 5-1 Intelligent Tracking Interface



Step 2 Set all parameters for signal bad. Table 5-1 describes the specific parameters.

Table 5-1 Description of Parameters for Intelligent Tracking

Parameter	Description	Setting
Enable	Enable the button to enable the intelligent tracking	[How to set] Click Enable to enable . [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] **1**
Trace Magnify	It is the value of lens zoom, it has a large influence on the real-time tracking magnification,	[Setting method] Drag the slider. [Default value] **7**
Time of Duration	The maximum time of a tracking period, it ranges from 0 to 300 s.	[Setting method] Drag the slider. [Default value] **120**

Step 3 Set deployment time

Details please refer to 4.2 Step 4**.**

----End

6 Configure External Devices

6.1 External PTZ Parameters

Description

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

CAUTION

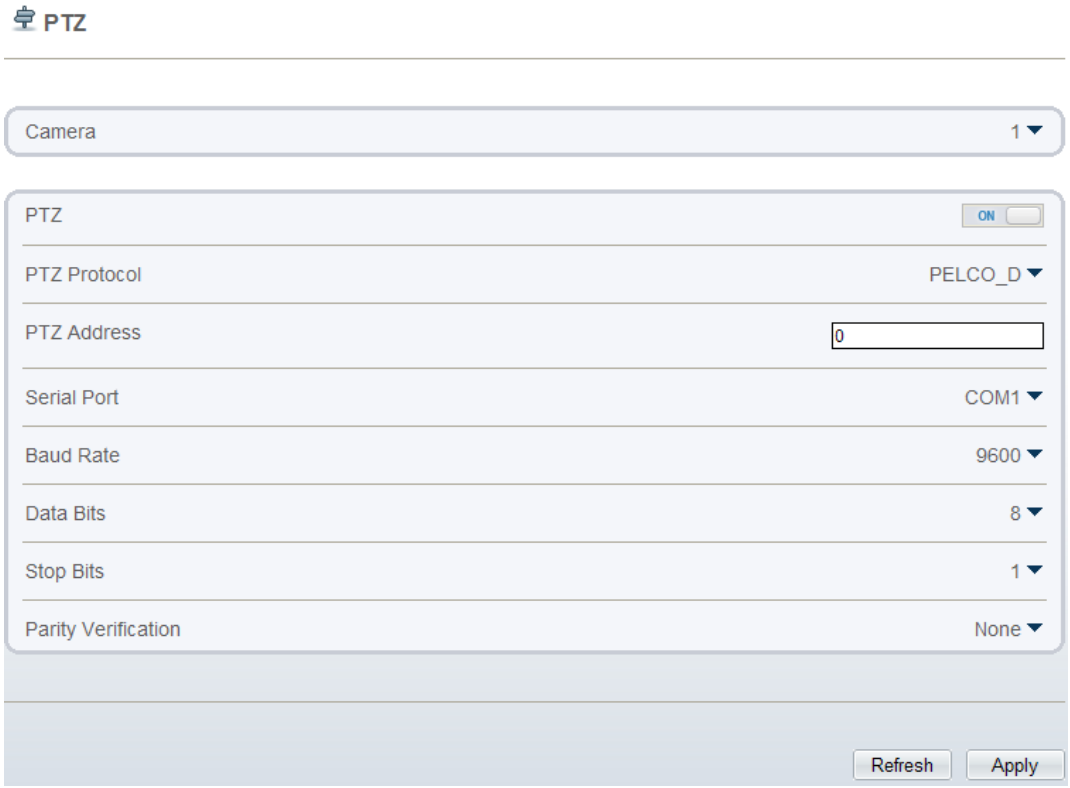
This function is available only to a camera connected to an external PTZ. The PTZ address must be set to the address of the external PTZ; otherwise, the external PTZ cannot be used.

Procedure

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

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

Figure 6-1 PTZ page



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

Table 6-1 PTZ parameters

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.	[Setting method] Select a value from the drop-down list box. NOTE When configure the external PTZ parameters, these parameters must match the settings on the external PTZ.
PTZ Address	Address of the external PTZ.	
Serial Port	The default value is **COM1**.	
Baud Rate	Baud rate used by the external PTZ. The value ranges from 300 bit/s to 115200 bit/s. The default value is **4800** 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 Configure the Alarm Function

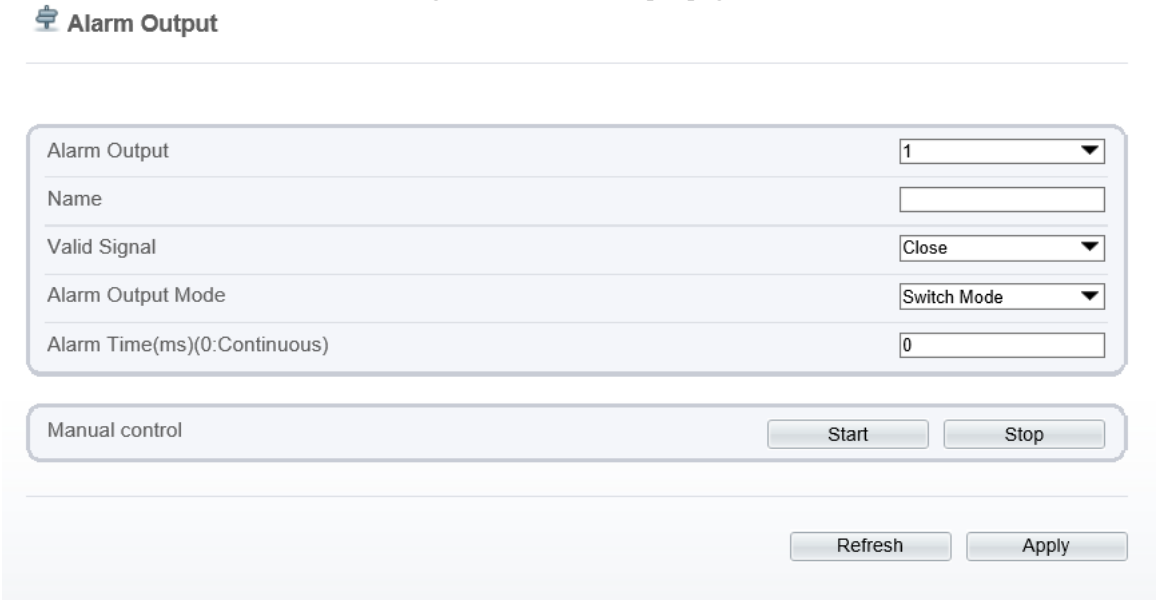
7.1 Alarm Output

Procedure

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

The **Alarm Output** page is displayed, as shown in Figure 7-1.

Figure 7-1 Alarm Output page



Step 2 Set the parameters according to Table 7-1.

Table 7-1 Alarm I/O parameters

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: • **Close**: An alarm is generated when an external alarm signal is received. • **Open**: 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 **0** indicates that the alarm remains valid.	[Setting method] Enter a value manually. [Default value] 0 [Value range] 0 to 86400 seconds
Manual Control	Control the alarm output.	N/A

Step 3 Click  .

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

----End

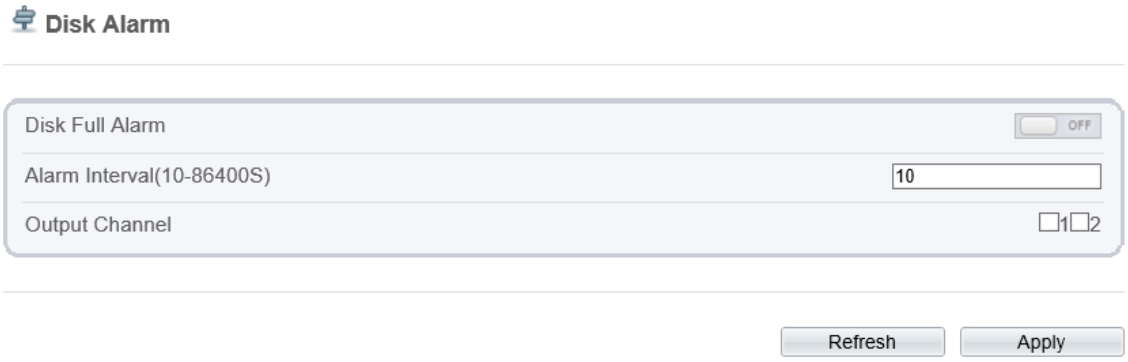
7.2 Disk Alarm

Procedure

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

The **Disk Alarm** page is displayed, as shown in Figure 7-2.

Figure 7-2 Disk Alarm page



Step 2 Click the button on to enable disk alarm.

Step 3 Configure the **alarm interval** parameters.

Step 4 Select **Out channel** number.

Step 5 Click **Apply**.

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

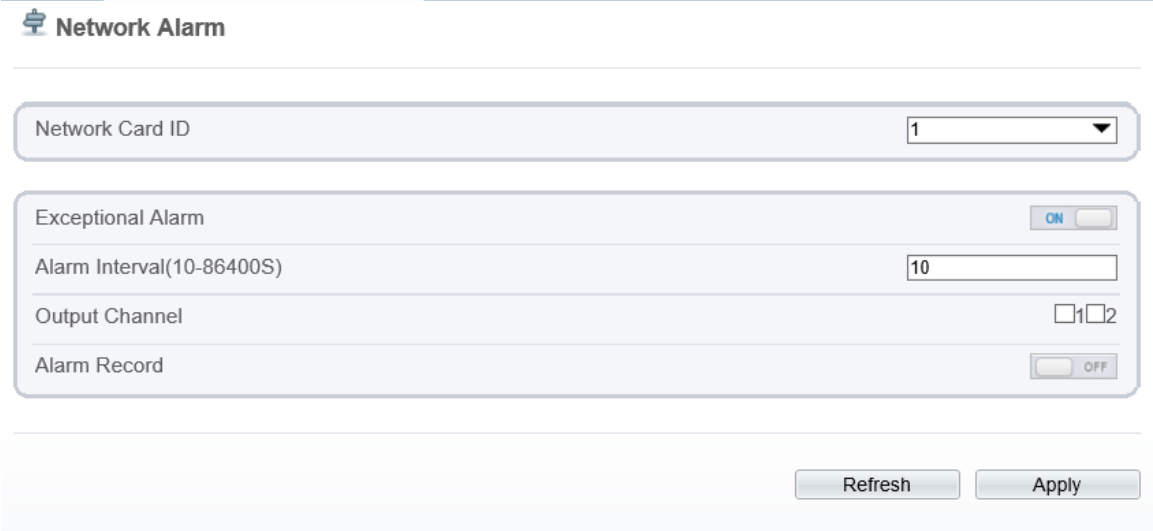
7.3 Network Alarm

Procedure

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

The **Network Alarm** page is displayed, as shown in Figure 7-3.

Figure 7-3 Network Alarm page



Step 2 Click the button on to enable exceptional alarm.

Step 3 Configure the network exceptional alarm interval.

Step 4 Select **Out Channel** number.

Step 5 Click **Apply**.

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

----End

7.4 I/O Alarm Linkage

Prerequisite

The PTZ linkage policy is applicable only to a camera with the PTZ or connected to an external PTZ.

Description

Alarm linkage refers to linkage alarm output and camera PTZ linkage. When receiving an alarm from the alarm input port, the camera performs linkage alarm output and enables PTZ linkage based on the preceding parameters, and rotates based on the linkage policy.

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

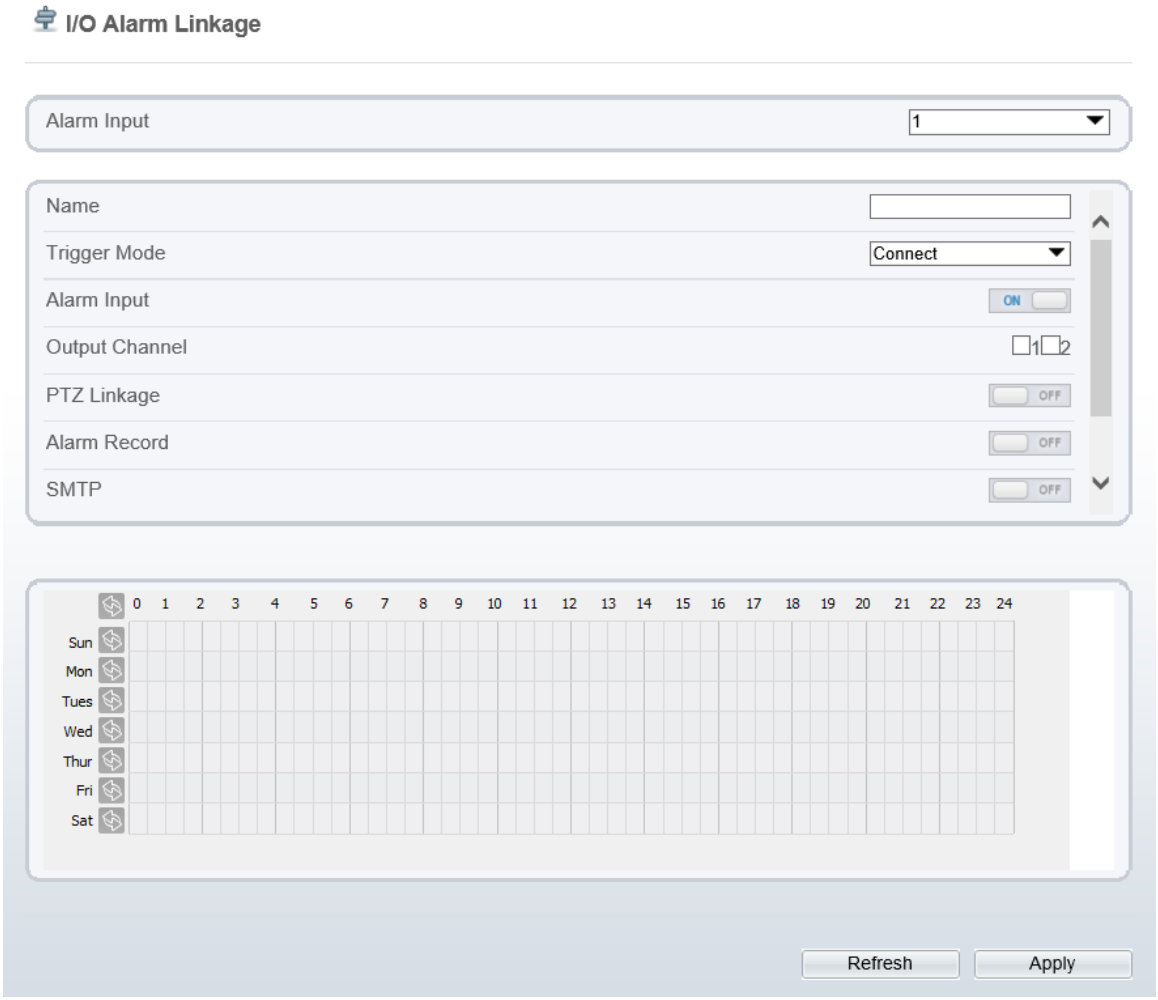
- Enable the I/O alarm function.
- Configure the I/O alarm schedule.
- Configure the alarm output channel.
- Configure the PTZ linkage policy.

Procedure

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

The **I/O Alarm Linkage** page is displayed, as shown in Figure 7-4.

Figure 7-4 I/O Alarm Linkage page



Step 2 Select the **Alarm Input** value from the drop-down list box.

Step 3 Enter alarm input channel name.

Step 4 Select the **Trigger Mode** from the drop-down list box.

Step 5 Click the button on to enable I/O Alarm.

Step 6 Configure the I/O alarm schedule.

Method 1： Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday as shown in Figure 7-5.

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

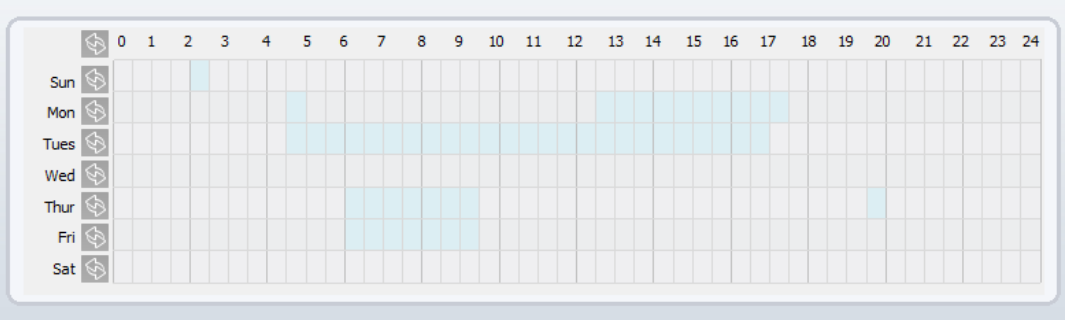
NOTE

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

Method 3： Click in the schedule page to select the whole day or whole week.

Deleting deployment time: Click again or inverse selection to delete the selected schedule.

Figure 7-5 Schedule Setting page



Step 7 Select the **Out Channel** from the drop-down list box.

Step 8 Select the **PTZ Type** from the drop-down list box. The PTZ type includes preset, scan, track, tour.

Step 9 Select **Value**. The value is the ID of PTZ type.

Step 10 Click the button on to enable Alarm Record.

Step 11 Click the button on to enable SMTP.

Step 12 Click the button on to enable FTP Upload.

Step 13 Click **Apply**.

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

----End

7.5 Motion Detection Alarm Linkage

Description

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

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

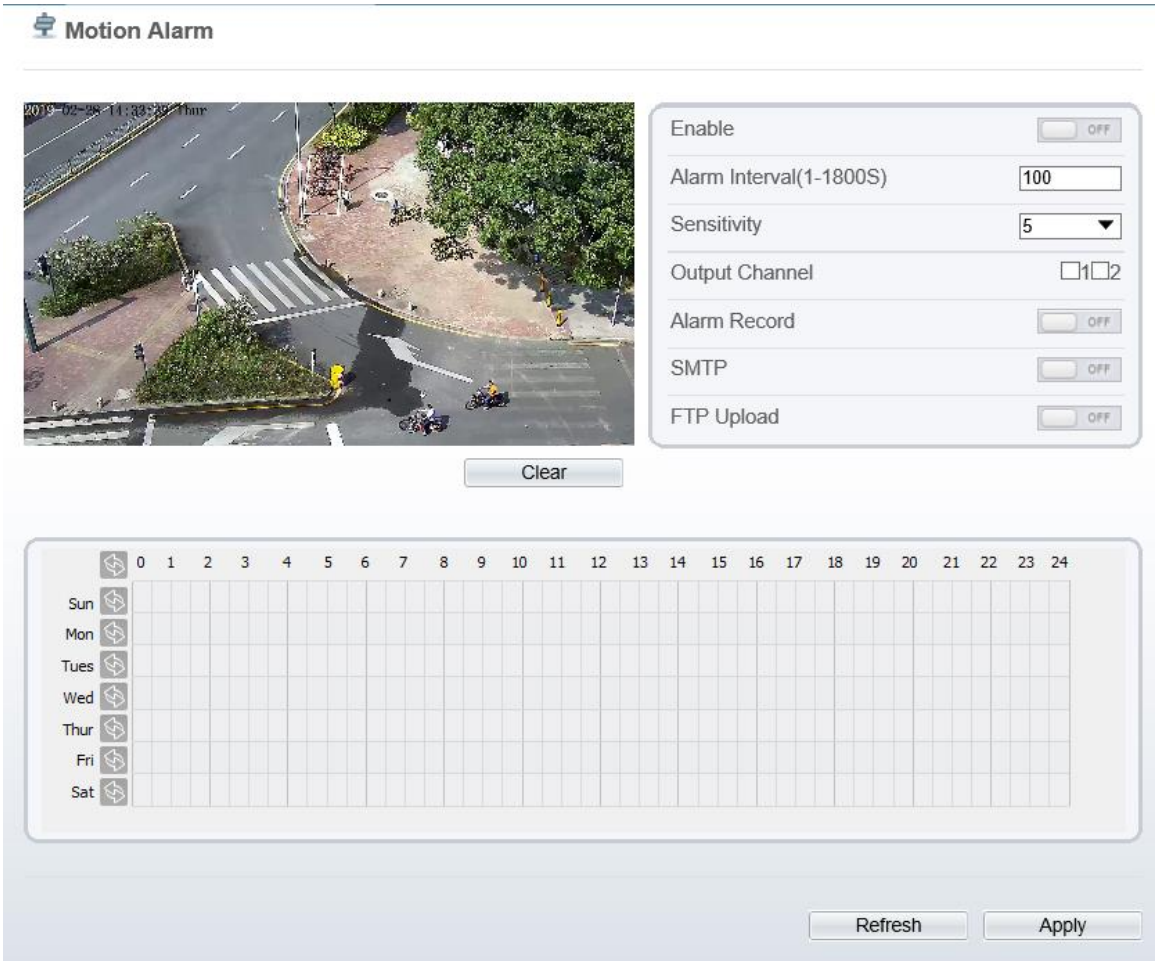
  When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm and triggers linkage alarm output.
- Configure the PTZ linkage policy

Procedure

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

The **Motion Alarm** page is displayed, as shown in Figure 7-6.

Figure 7-6 Motion Alarm page



Step 2 Click the button on to enable motion alarm.

Step 3 Configure the motion interval.

Step 4 Configure the sensitivity.

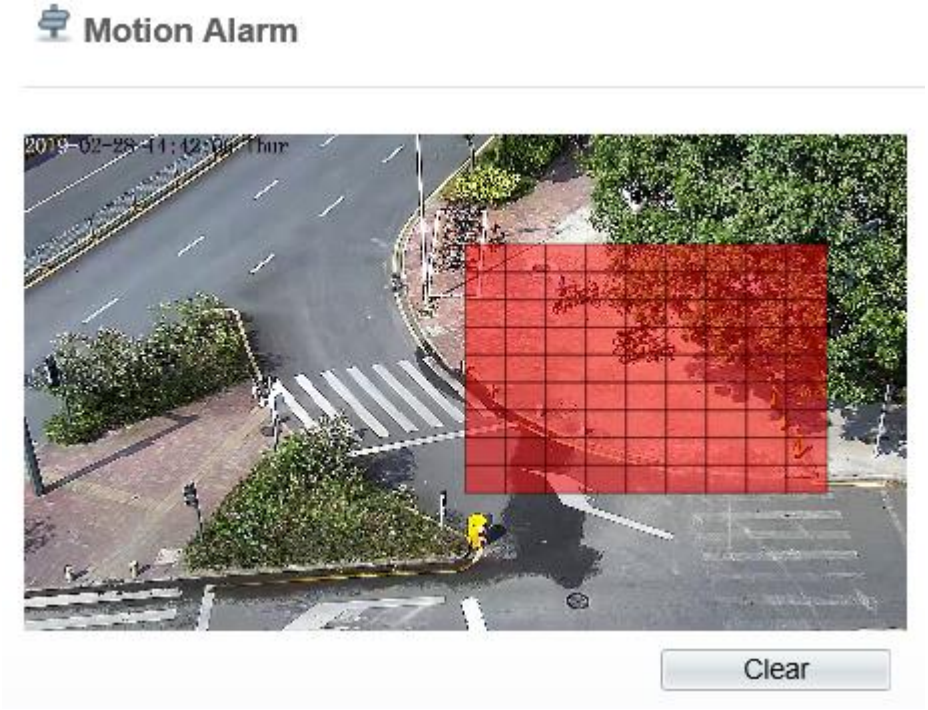
Step 5 Configure the schedule time setting.

For details about how to set **Schedule**, see 7.4 Step 6.

Step 6 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 7-7.

Figure 7-7 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 **Reverse** to select the area out of specified frames as the detection area.

Step 7 Select the **Out Channel**.

Step 8 Click the button on to enable alarm record.

Step 9 Click the button on to enable SMTP.

Step 10 Click the button on to enable FTP Upload.

Step 11 Select the **PTZ Type** from the drop-down list box. The PTZ type includes preset, scan, track, tour.

Step 12 Select **Value**. The value is the ID of PTZ type.

Step 13 Click **Apply**.

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

----End

7.6 Push Message

Description

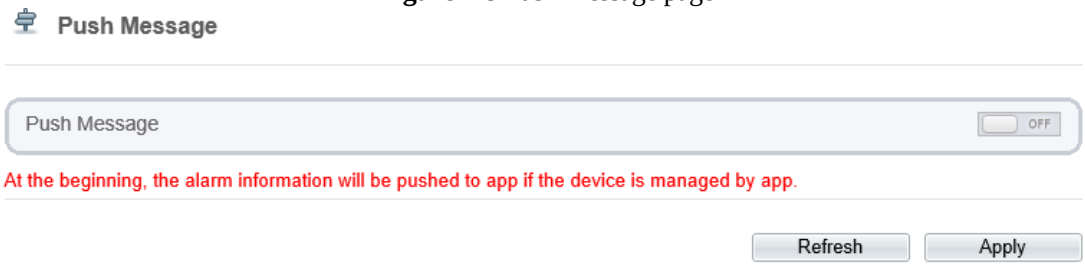
When enable push message button, the alarm information will be pushed to app if the device is managed by app.

Procedure

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

The **Push Message** page is displayed, as shown in Figure 7-8.

Figure 7-8 Push Message page



Step 2 Click **Apply**.

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

----End

8 Configure the Recording Function

8.1 Record Policy

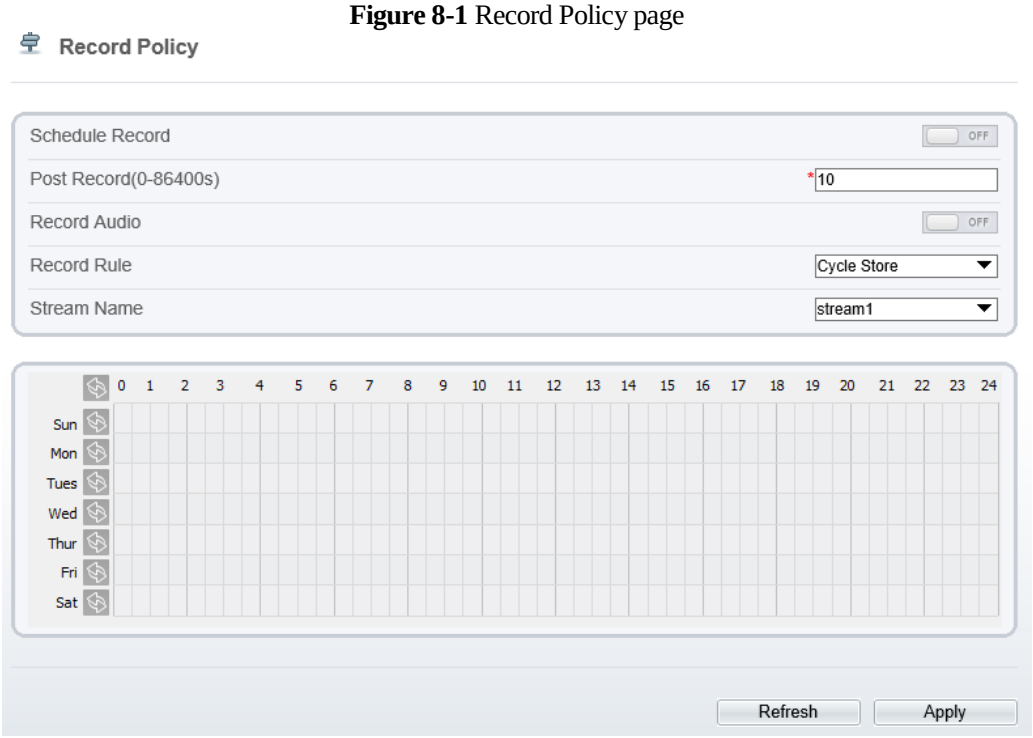
You can configure the scheduled recording function, alarm recording function, recording quality, and recording rules.

Procedure

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

The **Record Policy** page is displayed, as shown in Figure 8-1.

Figure 8-1 Record Policy page



Step 2 Set the parameters according to Table 8-1.

Table 8-1 Recording policy parameters

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
Post Record	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: • **Cycle Store**: Saves recordings in cycles. • **Save Days:** Duration (in days) for saving a recording. The duration can be a maximum of 99999 days. NOTE The value **0** 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 7.4 Step 6.

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

8.2 Record Directory

Description

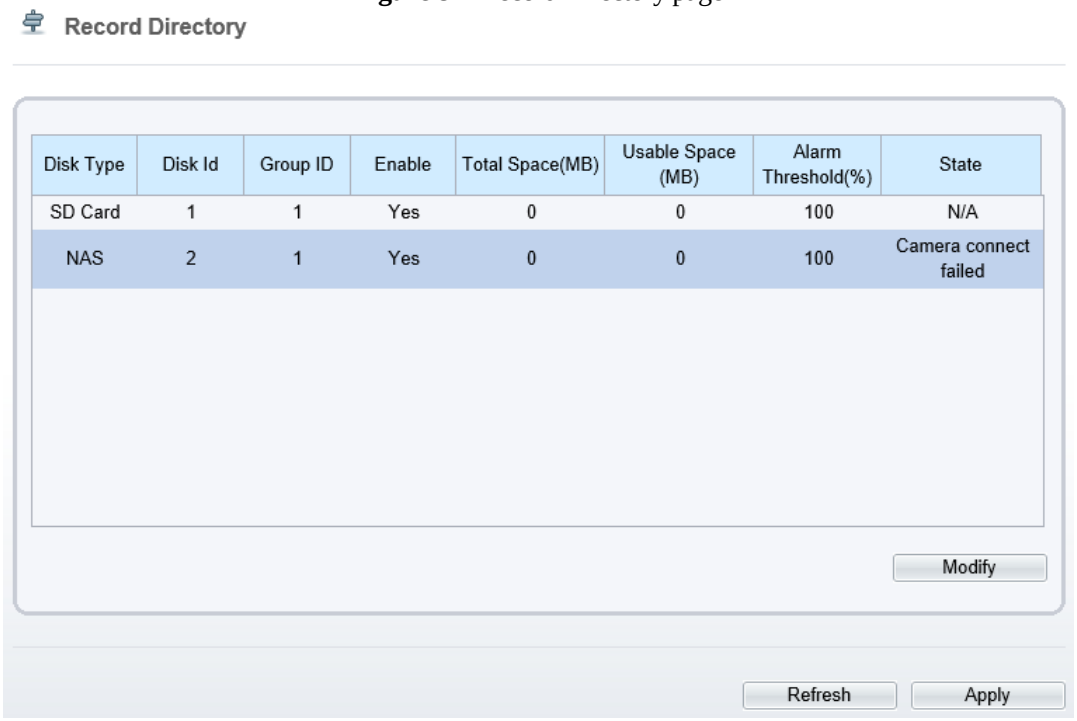
Recordings can be stored in an SD card or NAS.

Procedure

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

The **Record Directory** page is displayed, as shown in Figure 8-2.

Figure 8-2 Record Directory page



Step 2 Set the parameters according to Table 8-2.

Table 8-2 Record directory parameters

Parameter	Description	Setting
Disk Type	Recording directory type, which can be an SD card or a NAS.	[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	Total disk space.	
Usable Space	Maximum disk space read automatically.	
Alarm Threshold (%)	The camera will alarm when used Space achieves the alarm threshold.	

Parameter	Description	Setting
Status	Status of the connection between the current camera and recording directory detected automatically.	

8.3 Configure the SD Card or NAS Recording

Procedure

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

Step 2 Click **Modify**.

The **Record Path Modify** page is displayed, as shown in Figure 8-3 and Figure 8-4.

Figure 8-3 SD card Record Path Modify page

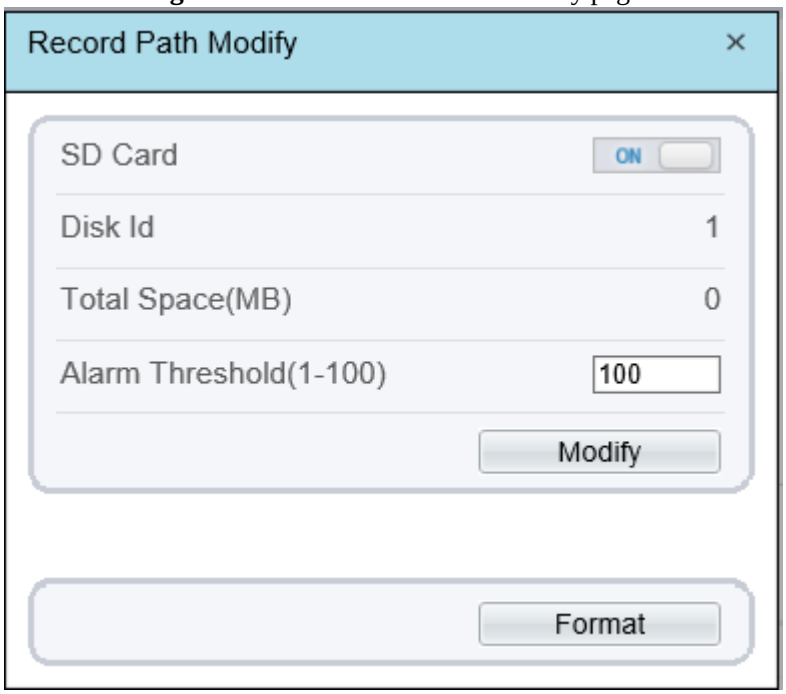
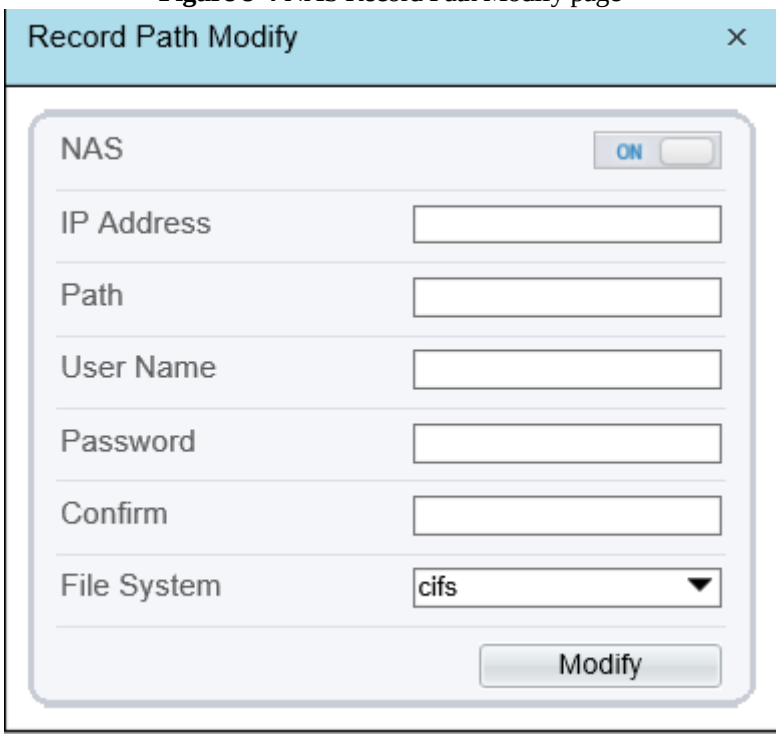


Figure 8-4 NAS Record Path Modify page



Step 3 Set the parameters according to Table 8-3.

Table 8-3 SD card recording parameters

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.
NAS	Enable NAS to enable record.	[Setting method] Click button to enable NAS.
IP Address	IP address of NAS.	[Setting method] Enter a value manually.
Path	Path of NAS.	[Setting method] Enter a value manually.
User Name	User Name of NAS.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Password(Confirm)	Password and confirm password of NAS.	[Setting method] Enter a value manually.
File System	Method to organize files on the SD card.	[Setting method] Select a value from the drop-down list box.

Step 4 Click **Apply**.

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

-----End

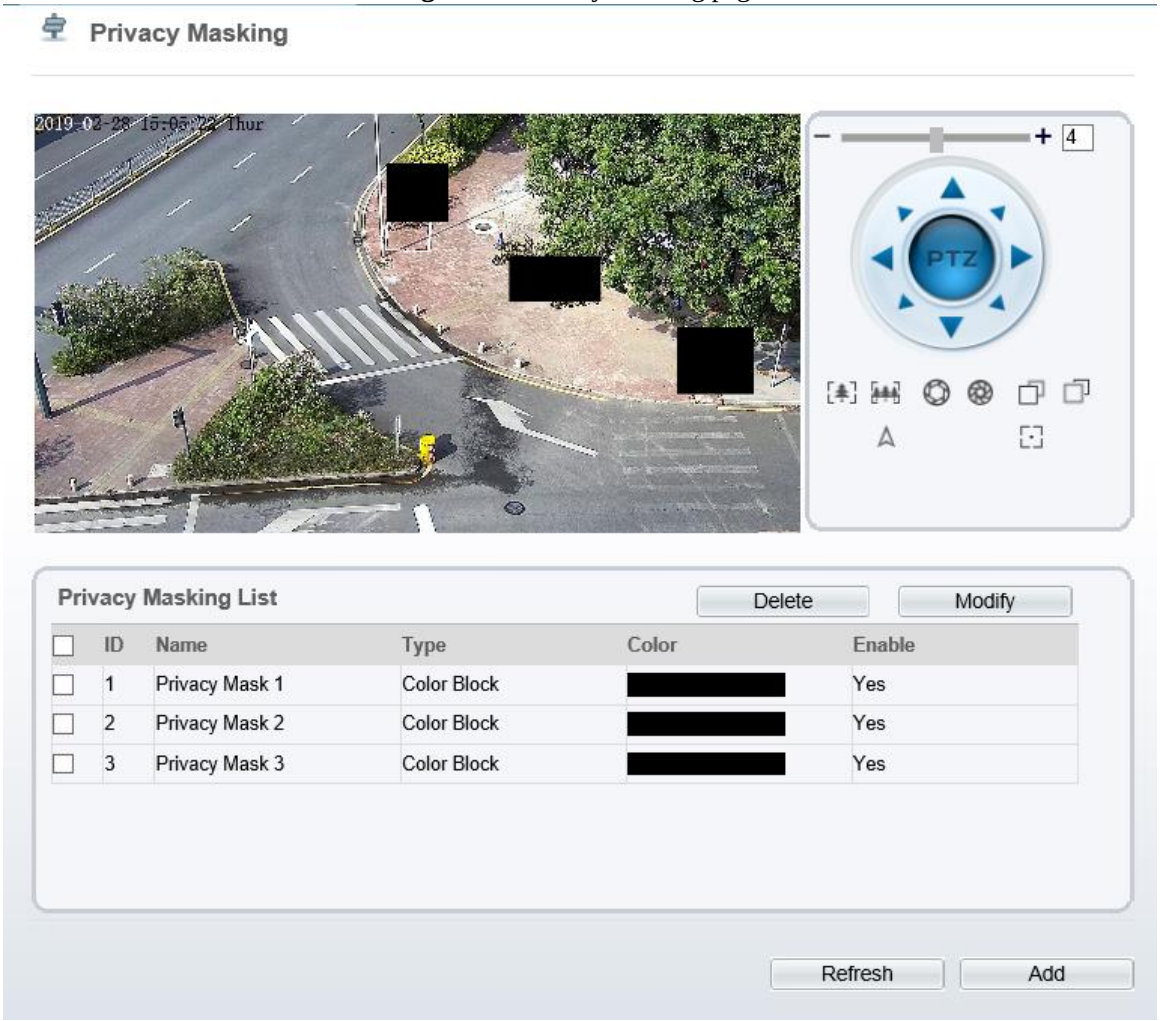
9 Configure the Privacy Mask Function

Procedure

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

The **Privacy Masking** page is displayed, as shown in Figure 9-1.

Figure 9-1 Privacy Masking page



Step 2 Press and hold the left mouse button, and drag on the preview image to cover the part to be masked.

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 area. .

Step 3 Set the parameters according to Table 9-1.

Table 9-1 Privacy Masking parameters

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] Blank
Type	Type of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Color Block
Color	Color of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Black
Enable	Indicates whether to enable the privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Yes
Delete	Delete a privacy masking.	[Setting method] 1. Select a privacy masking from the Privacy Masking List. 2. Click **Delete**, 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 **Modify**, the privacy masking is modified successfully

Step 4 Click **Apply**.

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

----End

10 Configure the Network Service

10.1 802.1x

Preparation

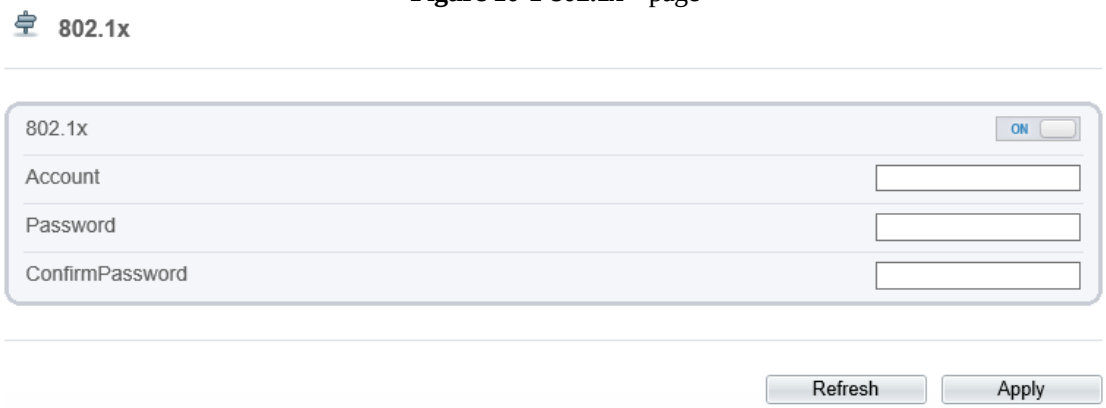
802.1x authentication must be configured on the access port, which controls to access network resources for the connected user devices on the port.

Procedure

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

The **802.1x** page is displayed, as shown in Figure 10-1.

Figure 10-1 802.1x page



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

Step 3 Enter the account name.

Step 4 Enter the password and confirm password..

Step 5 Click **Apply**.

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

----End

10.2 DDNS

Preparation

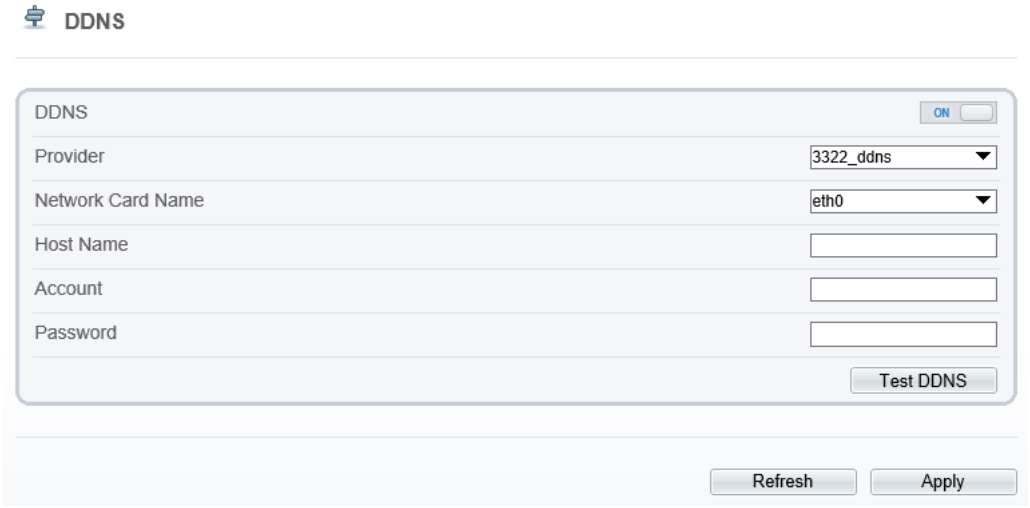
Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

Procedure

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

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

Figure 10-2 DDNS page



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

Step 3 Set the parameters according to Table 10-1.

Table 10-1 DDNS parameters

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

Parameter	Description	Setting
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
Host Name	Host name 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

10.3 PPPoE

Preparation

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

Description

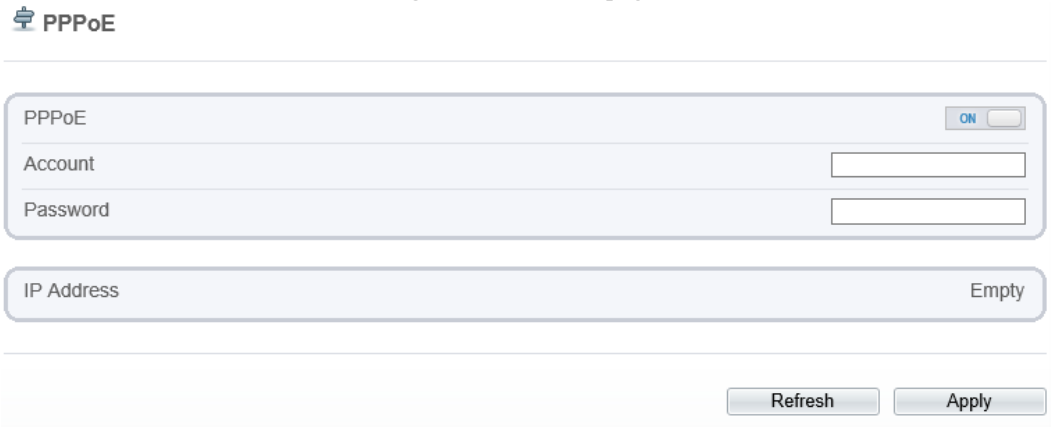
If a PPPoE connection is used, you need to enter the user name and password on the **PPPoE** page. After you restart the device, the PPPoE settings take effect and the device obtains a public IP address.

Procedure

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

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

Figure 10-3 PPPoE page



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

Step 3 Set the parameters according to Table 10-2.

Table 10-2 PPPoE parameters

Parameter	Description	Setting
PPPoE	Indicates whether to enable the PPPoE service.	[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

10.4 Port Mapping

Description

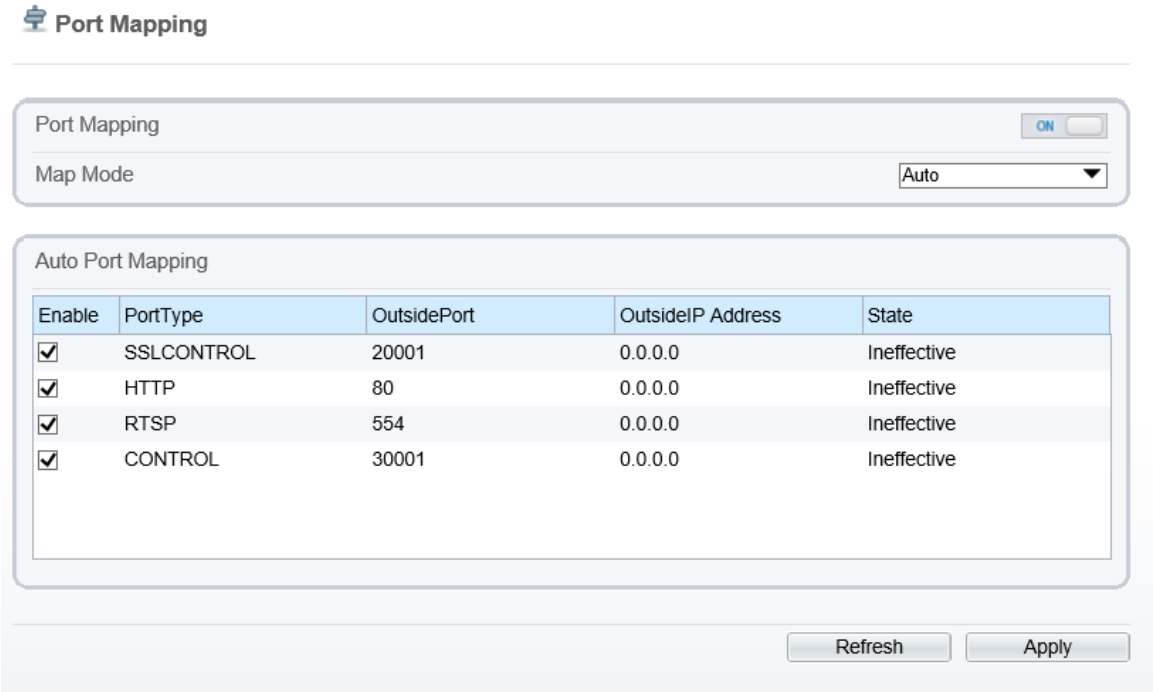
With port forwarding can setup the connection between privacy network and public network. Enable the port forwarding to access the privacy network devices from public network.

Procedure

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

The **Port Mapping** page is displayed, as shown in Figure 10-4.

Figure 10-4 Port Mapping page



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

Step 3 Set the parameters according to Table 10-3.

Table 10-3 Port mapping parameters

Parameter	Description	Setting
Port Mapping	Indicates whether to enable the Port Mapping service.	[Setting method] Click the button on. [Default value] OFF
Map Mode	Mode of port mapping, includes auto and manual.	[[Setting method] Select a value from the

Parameter	Description	Setting
		drop-down list box. [Default value] Auto
Port Type	Port Type includes: SSLCONTROL HTTP, RTSP and Control	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

10.5 SMTP

Description

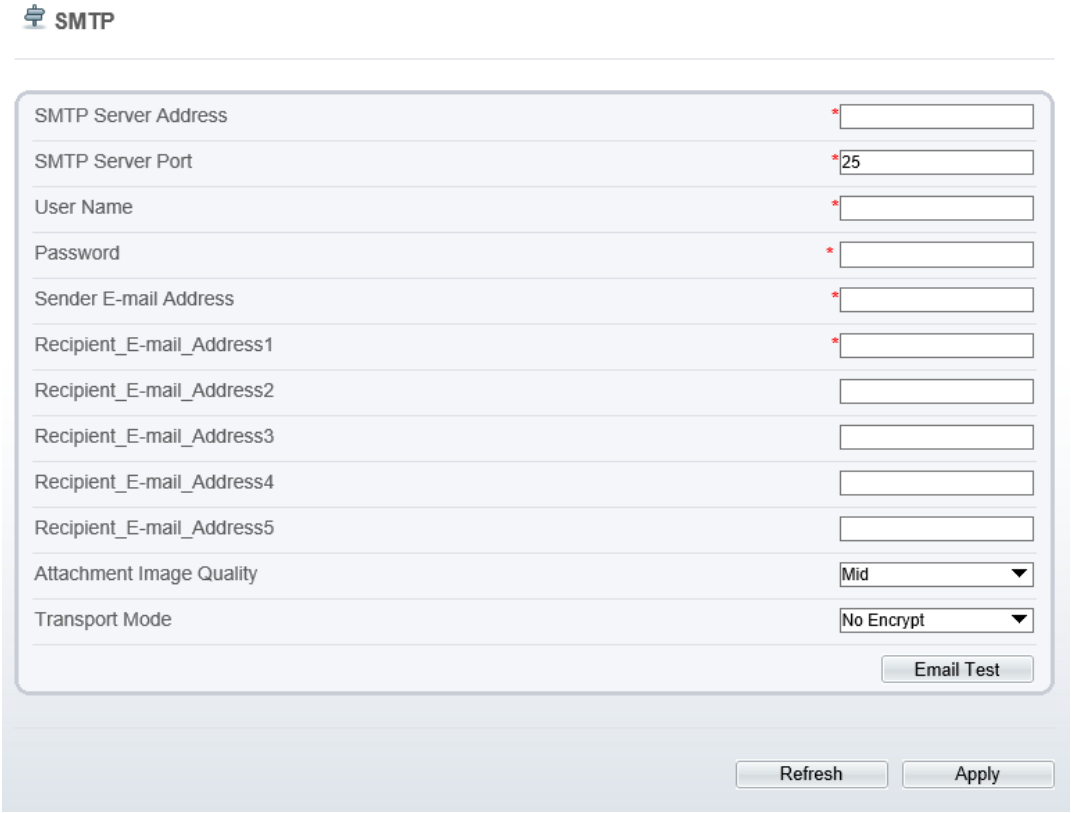
If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device automatically sends JPG images and alarm information to specified email addresses when an alarm is generated.

Procedure

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

The **SMTP** page is displayed, as shown in Figure 10-5.

Figure 10-5 SMTP page



Step 2 Set the parameters according to Table 10-4.

NOTE

Parameters marked with * are mandatory.

Table 10-4 SMTP parameters

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.

Parameter	Description	Setting
Recipient_E-mail_Address 1	(Mandatory) Email address of recipient 1.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 2	(Optional) Email address of recipient 2.	
Recipient_E-mail_Address3	(Optional) Email address of recipient 3.	
Recipient_E-mail_Address 4	(Optional) Email address of recipient 4.	
Recipient_E-mail_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

10.6 FTP

Description

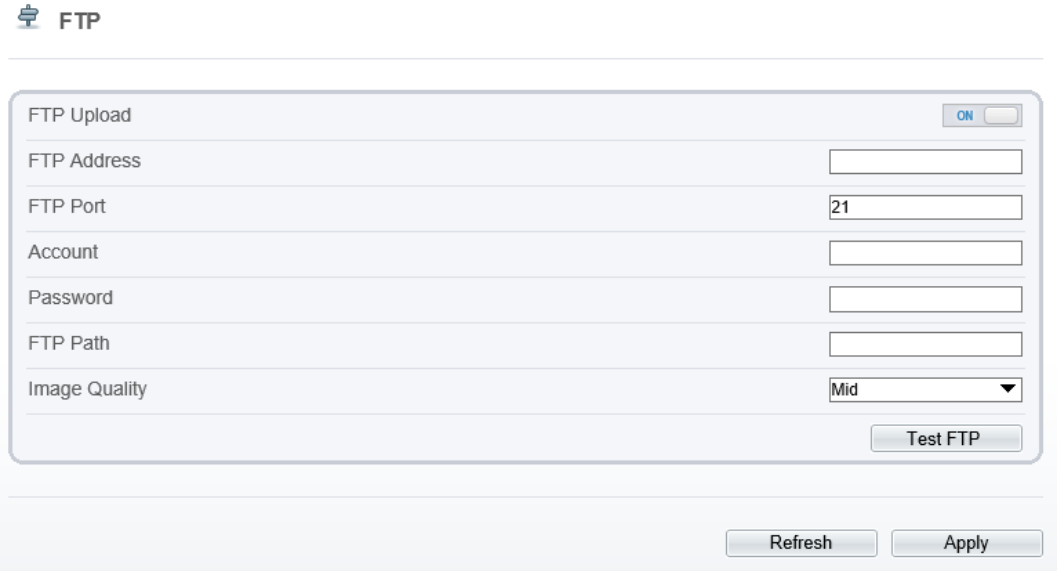
If the File Transfer Protocol (FTP) button is enabled, the device automatically sends the snapped alarm JPG images to specified FTP server.

Procedure

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

The **FTP** page is displayed, as shown in Figure 10-6.

Figure 10-6 FTP page



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

Step 3 Set the parameters according to Table 10-5.

Table 10-5 FTP parameters

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
Image Quality	A higher-quality image means more storage space. Set this parameter based on the site requirement.	[Setting method] Select a value from the drop-down list box. [Default value] Mid

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

10.7 IP Filter

Description

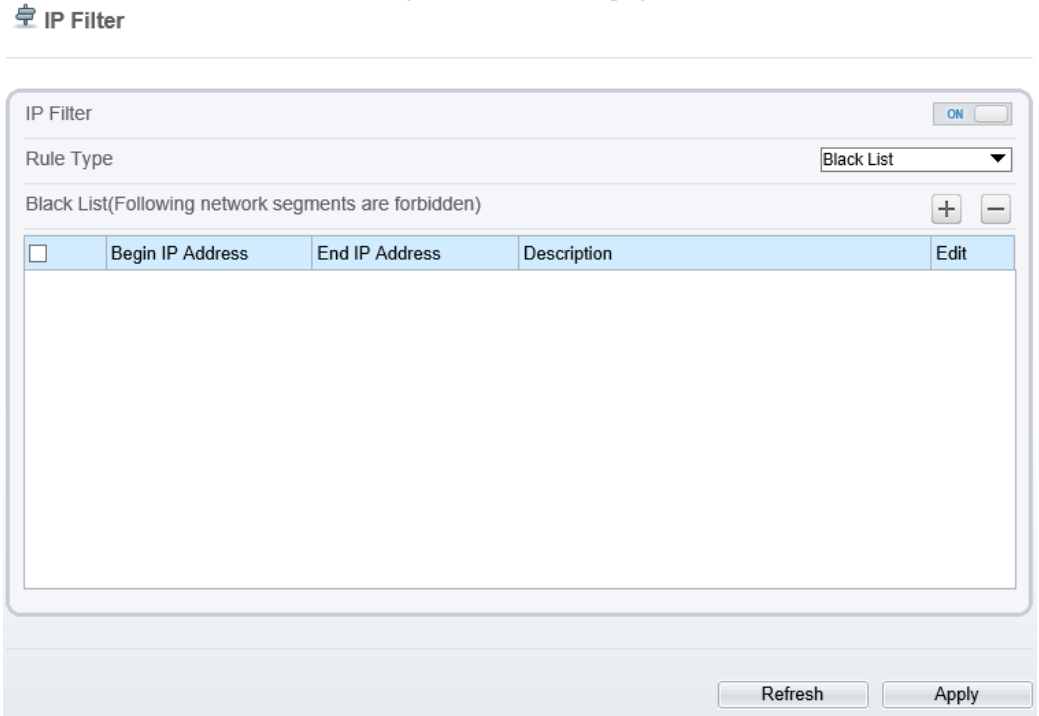
Set the IP address in specified network segment to allow access or prohibit access.

Procedure

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

The **IP Filter** page is displayed, as shown in Figure 10-7.

Figure 10-7 IP Filter page



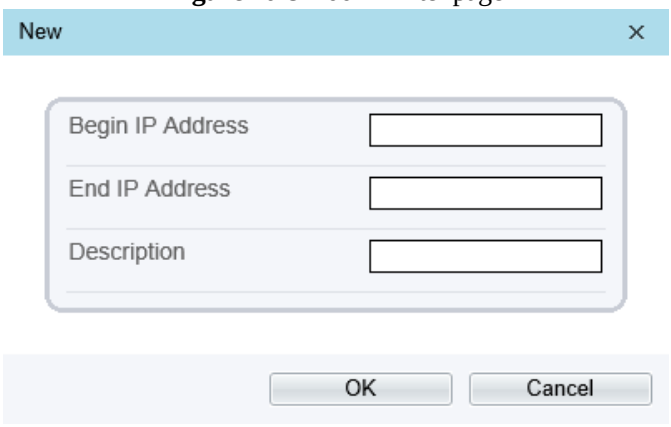
Step 2 Click the button on to enable **IP Filter**.

Step 3 Set the parameters according to Table 10-6

Table 10-6 IP Filter parameters

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
Black List	Specified network segment to allow access	[Setting method] 6. Click + to enter the add black/white list page, as shown in Figure 10-8 7. Enter Begin IP Address. 8. Enter End IP Address. 9. Enter Descrtption. 10. Click OK, the black list added successfully.
White List	Specified network segment to prohibit access	[Setting method] 1. Click + to enter the add black/white list page, as shown in Figure 10-8 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Descrtption. 5. Click OK, the white list added successfully.

Figure 10-8 Add IP Filter page



Step 4 Click **Apply**.

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

----End

10.8 CGI Alarm Service Center

Description

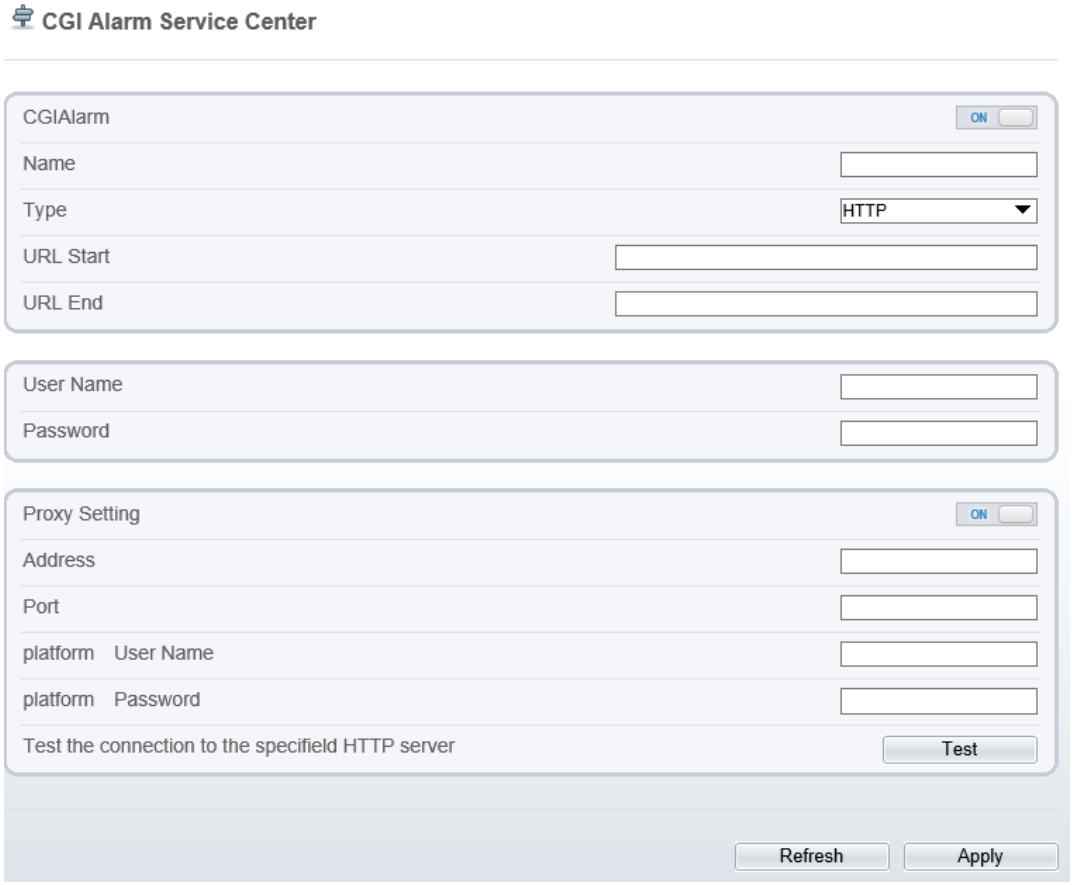
Device will push the alarm message by CGI with Start URL and End URL, and send to data to CGI Server by HTTP protocol. CGI alarm message is the head of User-Agent of HTTP. Use HTTP protocol get and send to CGI Server. When need to integrate the CGI alarm message, need to resolve the HTTP Head "User-Agent" 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 10-9.

Figure 10-9 CGI Alarm Service Center page



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

Step 3 Set the parameters according to Table 10-7.

Table 10-7 CGI Alarm Service Center parameters

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

Parameter	Description	Setting
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
User Name	User name of device.	[Setting method] Enter a value manually.
Password	Password of device.	[Setting method] Enter a value manually.
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.

----End

10.9 SNMP

Description

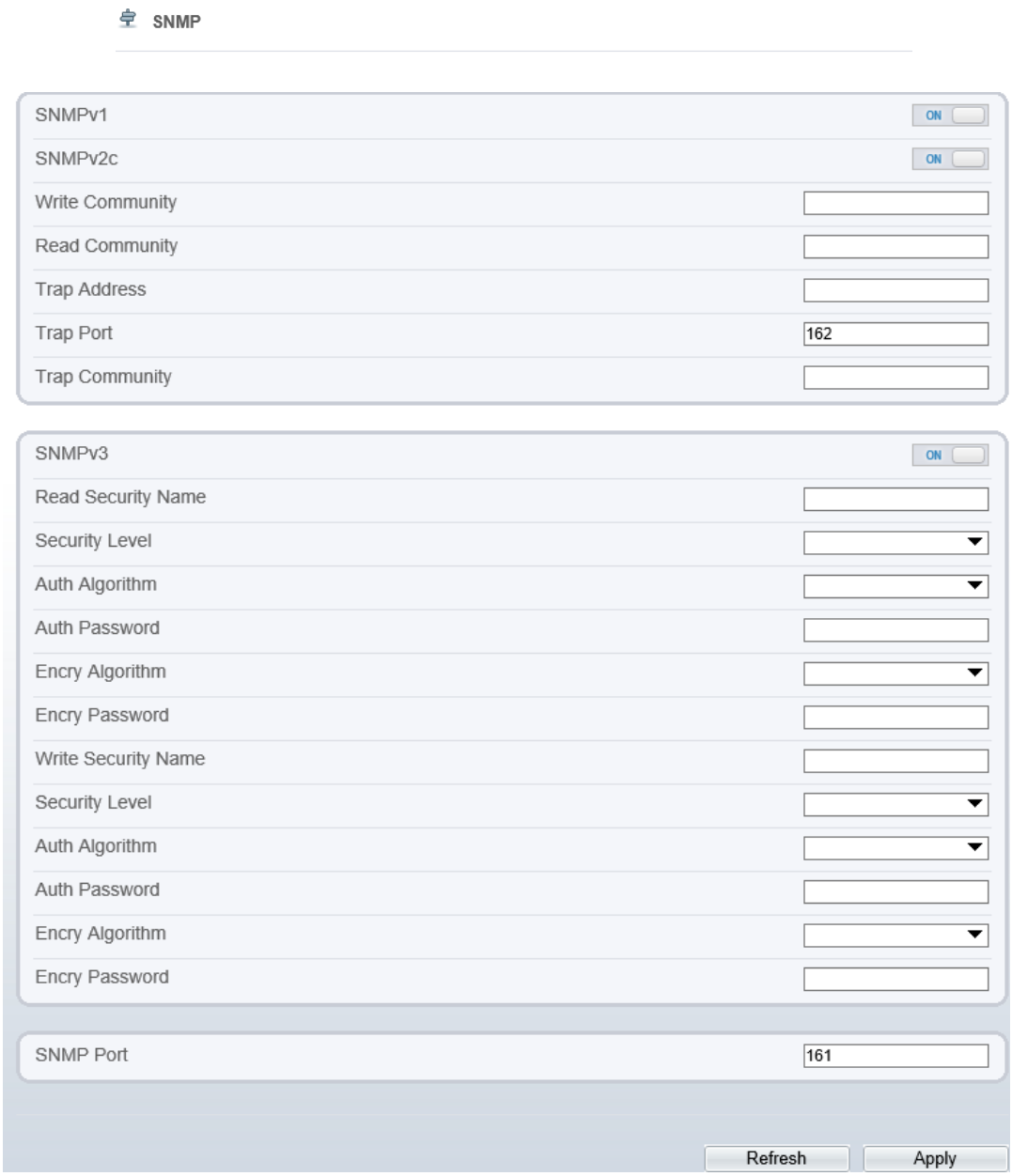
Simple Network Management Protocol (SNMP) is an Internet Standard protocol, supports SNMP v1, SNMPv2c and SNMPv3 network protocol. Choose the proper SNMP protocol version and set the SNMP protocol parameter to collect and organize information about managed devices on IP networks.

Procedure

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

The **SNMP** page is displayed, as shown in Figure 10-10.

Figure 10-10 SNMP page



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

Set the parameters according to Table 10-8.

Table 10-8 SNMP parameters

Parameter	Description	Setting
SNMPv1	Version of SNMP. SNMPv1 and SNMPv2c use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap.	[Setting method] Click the button on. [Default value] OFF
SNMPv2c		
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: Noauth: 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 MD5and SHA.	[Setting method] Select a value from the drop-down list box. [Default value] Blank

Parameter	Description	Setting
Auth Password	Authentication password.	[Setting method] Enter a value manually.
Encry Algorithm	Encryption Algorithm, includes DES and AES.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Encry 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

11 Privilege Manager

11.1 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 11-1. Table 11-1describes the parameters.

Figure 11-1 User page

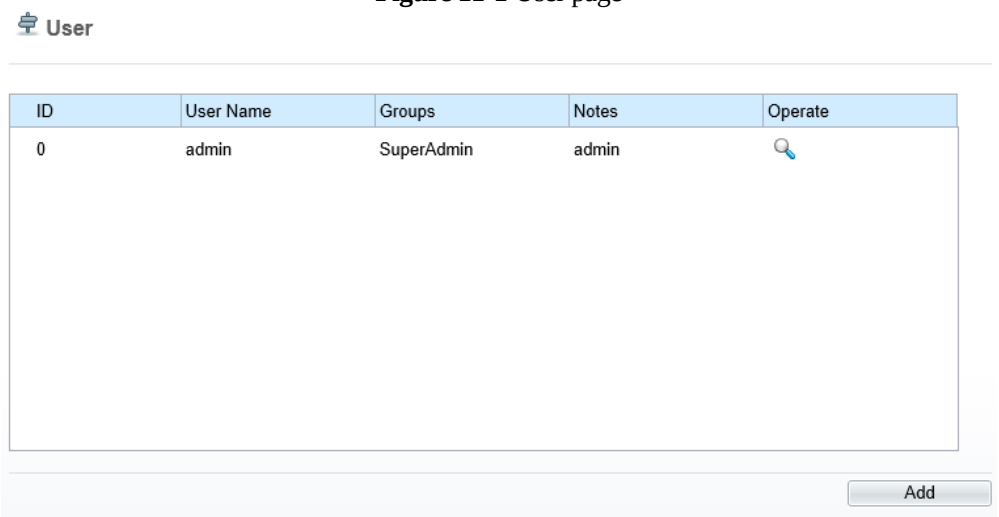


Table 11-1 User parameters

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

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

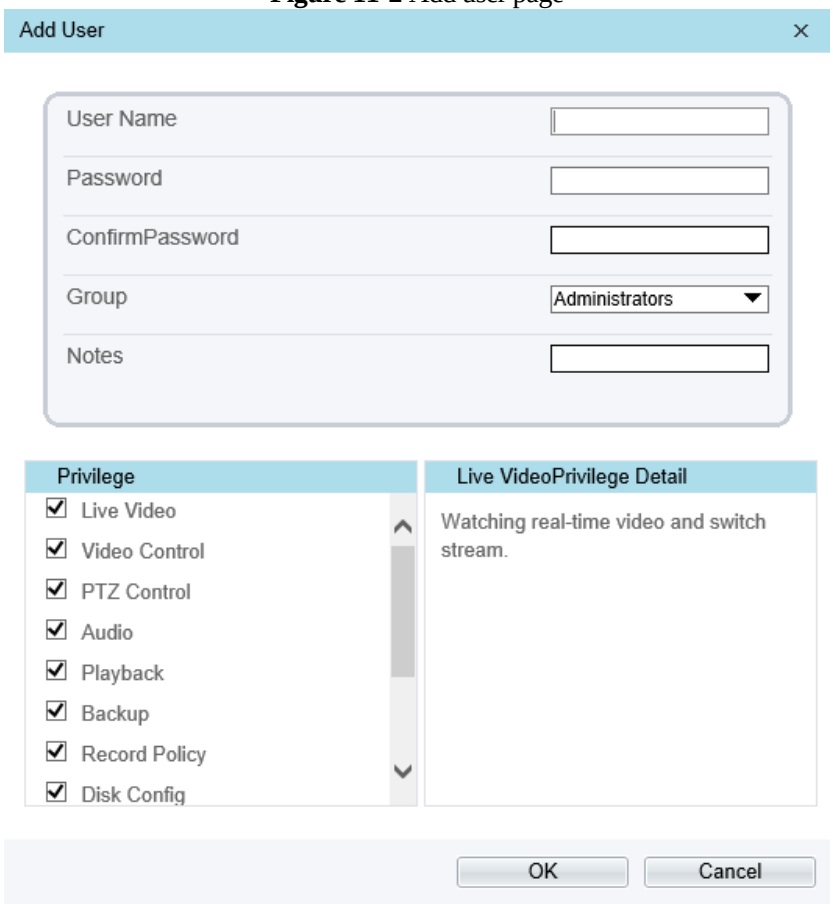
Table 11-2 describes the operations.

Table 11-2 Operation description

Function	Procedure	Description
Add	1. Click **Add**. The **Add User** page is displayed, as shown in Figure 11-2. 2. Enter a user name, password, confirm password. 3. Select a group from the drop down list box. 4. Enter the notes (Optional). 5. Check the privilege. 6. Click **OK**. The user is added successfully.	Add an administrator or a common user as shown in Figure 11-2.

Function	Procedure	Description
Modify	1. Click  . The **Modify User** page is displayed. 2. Modify the user name, password, group or privilege. 3. Click **OK**. The user is modified successfully. The **User** page is displayed.	Modify the user name, password, group or privilege.
Delete	Select the user from the User list. Click  , the message "Confirm to delete?" is displayed, click **OK**, then the group is deleted successfully.	Delete a user.

Figure 11-2 Add user page



----End

12 Configure Protocol Parameters

12.1 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 12-1. Table 12-1 describes the protocol-related parameters.

Figure 12-1 Protocol Info page

Table 12-1 Protocol-related parameters

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 Rule	URL rule of Real Time Streaming Protocol.
RTSP Example	URL example of Real Time Streaming Protocol.
Onvif UUID	Universally Unique Identifier.

12.2 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 12-2. Table 12-2 describes the parameters on the **Security** page.

Figure 12-2 Security page

Table 12-2 Parameter description

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

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

12.3 CMS Configuration

Description

You can view the existing protocol name and version number of the current device on the **Configuration** > **Protocol** >**CMS Configuration** page, as shown in Figure 12-3. Table 12-3 describes the protocol-related parameters.

Figure 12-3 CMS Configuration page

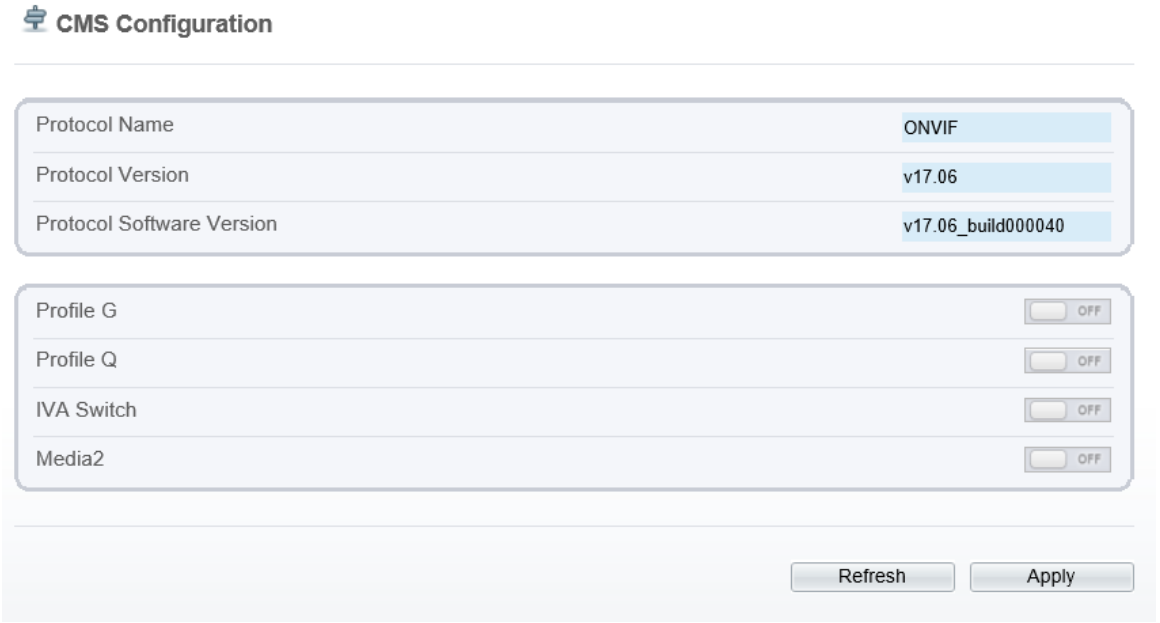


Table 12-3 Protocol-related parameters

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
Profile Q	Enable ONVFI Profile Q
IVA Switch	Enable IVA Switch
Media 2	Enable Media 2

12.4 Multicast

Description

You can set multicast IP, 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 12-4. Table 12-4 describes the parameters on the **Multicast Param** page.

Figure 12-4 Multicast Param page

Table 12-4 Parameter description

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

Parameter	Description	Setting
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 1 Click **Apply**.

The message "Apply success, effective after restart!" is displayed, when the device restarts, the system will save the settings.

----End

13 Query Device Logs

13.1 Query Operation Logs

Description

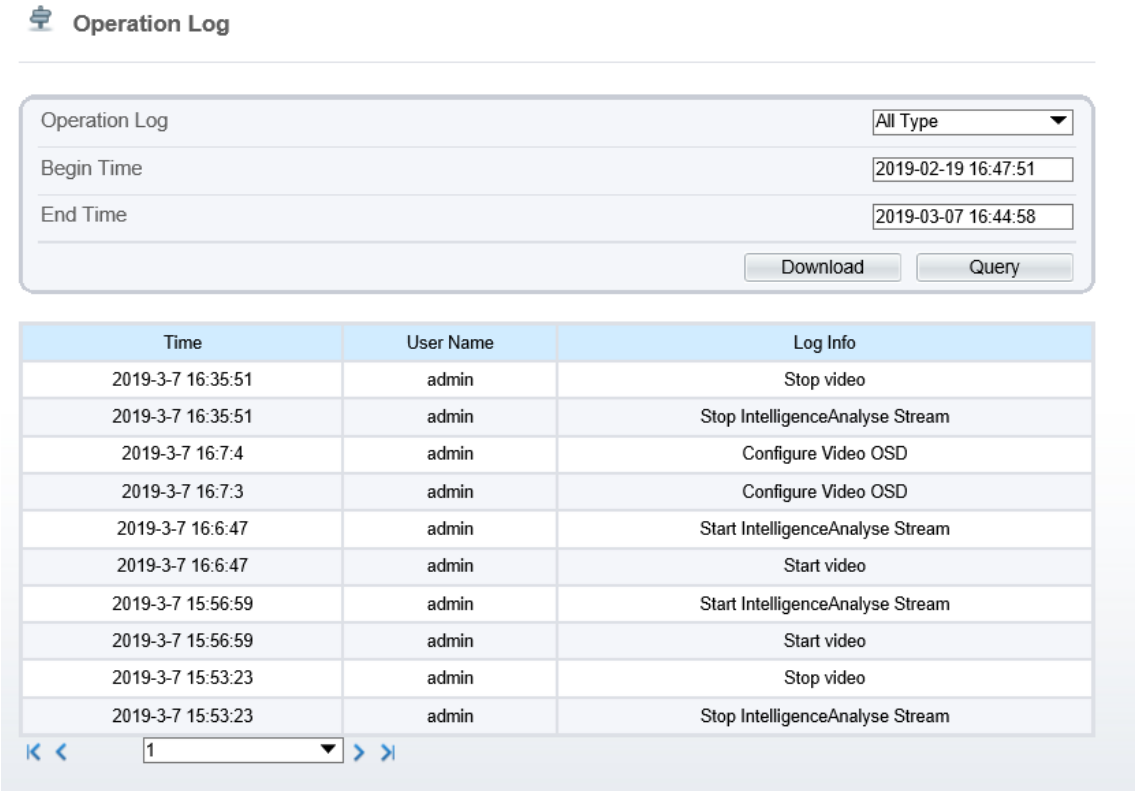
Operation logs record user operations and scheduled task commands during the running of the device. Operation logs can be classified into the following types: permission management, system maintenance, device configuration, recording operation, video control, and real-time video.

Procedure

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

The **Operation Log** page is displayed, as shown in Figure 13-1.

Figure 13-1 Operation Log page



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 user 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.

   The log link and the message "Please download log by ’save as ‘in the right key" are displayed.

3. Right-click the link and save the logs.

NOTE

An operation log is named as **Operation Log** by default and in the following format:

Operation time user(*User name*) *Operation information*

For example:

2012-06-20 13:40:39 user() Start Up Device

2012-06-20 13:42:46 user(admin) Configure Device Name

2012-06-20 13:43:16 user(admin) Configure Alarm In

----End

13.2 Query Alarm Logs

Description

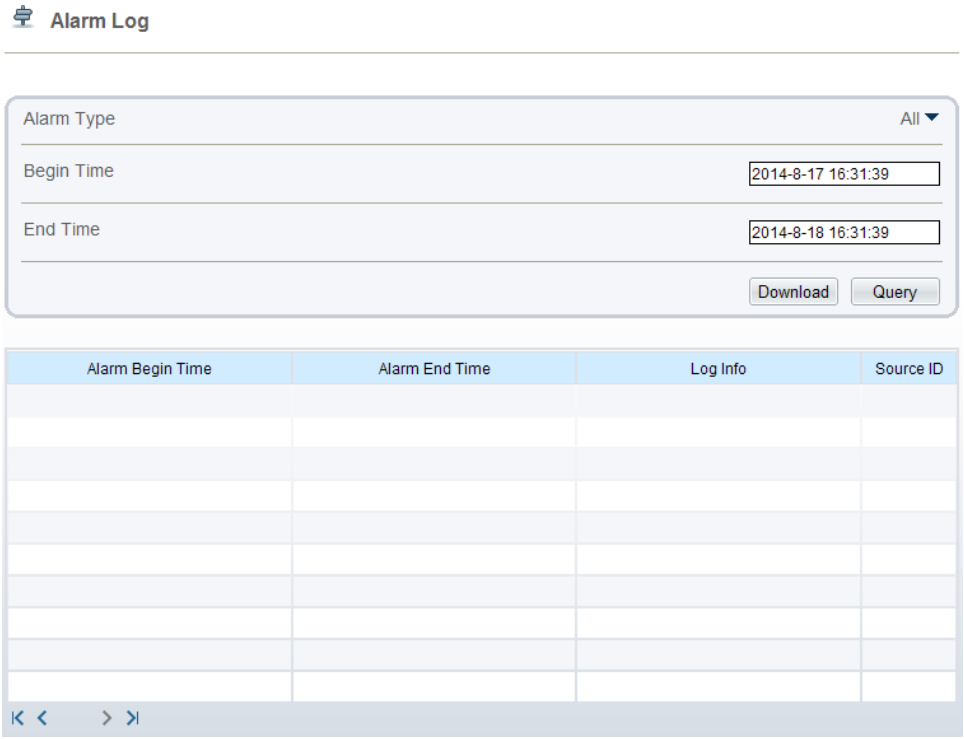
An alarm log records information about an alarm generated on a device, including the security, disk, and recording alarms.

Procedure

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

The **Alarm Log** page is displayed, as shown in Figure 13-2.

Figure 13-2 Alarm Log page



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.
   The log link and the message "Please download log by ’save as ‘in the right key" are displayed.
4. Right-click the link and save the logs.

NOTE

An alarm log is named as **Alarm Info** by default and in the following format:

Alarm start time -> Alarm end time Alarm information Source ID

For example:

2012-03-17 16:31:17 -> 2012-03-17 16:32:29 occur motion detect alarm Source Id(1:1)

2012-03-17 16:35:31 -> 2012-03-17 16:35:41 occur motion detect alarm Source Id(1:1)

----End

13.3 Report Logs

Description

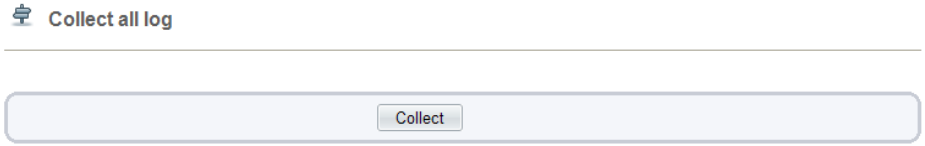
You can collect logs about a device, which help you analyze and solve possible problems occurring on the device. The logs include overview information, key parameters, operation logs, alarm logs, upgrade logs, and debugging logs.

Procedure

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

The **Collect all log** page is displayed, as shown in Figure 13-3.

Figure 13-3 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

14 Maintain the Device

14.1 Restart a Device

Description

You can restart a device in situations including the following:

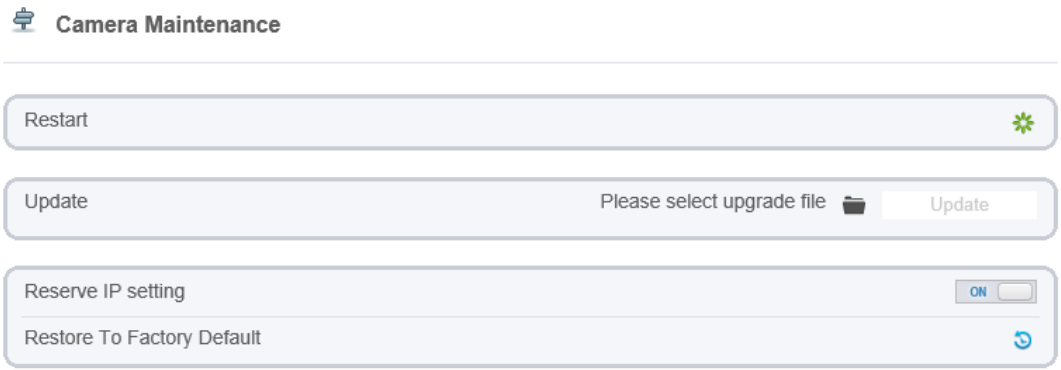
- The device parameters are set incorrectly, and the device cannot work properly.
- A user needs to reset device parameters and make the settings to take effect.
- A device needs to be restarted remotely.

Procedure

Step 1 Choose **Configuration** > **Maintenance**.

The **Camera Maintenance** page is displayed, as shown in Figure 14-1.

Figure 14-1 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

14.2 Update the Software Package

Description

You can update 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 grogram update successfully and the device is rebooted.
- If other information is displayed, select the upgrade package correctly.

CAUTION

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

----End

14.3 Restore Device to Factory Settings

Description

You can restore a device to factory settings in situations including the following:

- 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.

CAUTION

After you click  , 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

15 Local Configuration

Description

You can set folder to save the snapshots and records to local.

Procedure

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

The **Local Config** page is displayed, as shown in Figure 15-1.

Figure 15-1 Local Config page

Step 2 Select snapshot picture format from the drop-down box..

Step 3 Set snapshot save path.

Step 4 Set local record save path

Step 5 Set local record file size(8-128 M), the default value is 64.

Step 6 The message "Apply success!" is displayed, and the system saves the settings.

----End

16 Troubleshooting

Table 16-1 describes the common faults and solutions.

Table 16-1 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 **Enter**, the message "There is a problem with this website's security certificate." is displayed.	The certificate is not installed.	Click **Continue to this website (not recommended)**.
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 **ping** 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: (Internet Explorer 8 is used as an example.) 1. Open Internet Explorer. 2. Choose **Tools** > **Internet Options**. 3. Click **Delete**. The **Delete Browsing History** dialog box is displayed. 4. Select all check boxes. 5. Click **Delete**. Login to the web management system again.

Common Fault	Possible Cause	Solution
The IP camera cannot be upgraded.	• The network is disconnected. • The network settings are incorrect.	• Confirm upgrade network has connections. • Check the network settings right or wrong.
	The upgrade package is incorrect.	Obtain the correct upgrade package and upgrade the IP camera again.

A Acronyms and Abbreviations

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