Liberty

L3 Series AI IP Cameras

User Manual for:
L3 Series 4MP & 8MP AI IP Cameras

Liberty

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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 environmental deterioration.

Special Announcement

This manual may contain misprints, technology information that is not accurate enough, and description of product function and operation that is slightly inconsistent with the actual product. The manufacturer will update this manual according to product function enhancement or changes and regularly update the software and hardware described in this manual. Updated information will be added to new versions of this manual without prior notice.

This manual is only for reference. There may be slight difference among different models. Please refer to the actual products.

Contents

About This Document i
Purpose i
Intended Audience i
Symbol Conventions i
Special Announcement i
Contents ii
1 Quick Start 1
1.1 Login and Logout 1
1.2 Change the Password 2
1.3 Browse Real-Time Videos 3
1.4 Main Page Layout 6
1.5 Playback 9
1.6 People Counting (Only for Some Models) 10
2 Parameters of PTZ(Only for Some Models) 12
2.1 Control and Configure the PTZ 12
2.2 Configure and Invoke Preset Positions 14
2.3 Configure and Invoke Tracks 14
2.4 Configure and Invoke Scans 15
2.5 Configure and Invoke Tours 16
2.6 Configure Idles 17
2.7 Configure Timer 17
2.8 Configure Extension 18
3 Image Settings 20
3.1.1 Access the Image Settings Interface 20
3.1.2 Mode 20
3.1.3 Image Setting 21
3.1.4 Scene Mode 23
3.1.5 Exposure 24
3.1.6 WB Setting 27
3.1.7 DayNight 28
3.1.8 Noise Reduction 31
3.1.9 Enhance Image 33
3.1.10 Zoom Focus (Only for Some Models) 35
4 Configure the Device 39
4.1 Device Information 39
4.2 Video and Audio Stream 41
4.3 ROI Parameter 45
4.4 Snapshot 47
4.5 Local Network 48
4.6 Device Port 51

4. 7 Date and Time 52
4.8 Camera 55
4.9 OSD 56
4.10 Audio Input 60
4.11 Audio Output 61
4.12 Dome PTZ (Only for Some Models) 62
4. 13 CVBS Function (Only for Some Models) 63
4.14 System Service 63
4.15 Voice Denoise (Only for Some Models) 64
4.16 Software Licenses 65
5 Configure External Devices 66
5.1 External PTZ Parameters (Only for Some Models) 66
6 Configure Intelligent Analysis 68
6.1 Perimeter 68
6.2 Single Virtual Fence 71
6.3 Double Virtual Fences 75
6.4 Multi-Loitering 78
6.5 Wrong Way 81
6.6 Illegal Parking 84
6.7 People Counting 87
6.8 Smart Motion 91
7 Configure Intelligent Tracking (Only for Some Models) 96
7.1 Intelligent Tracking 96
8 Configure the Alarm Function 98
8.1 Alarm Output 98
8.2 Disk Alarm 99
8.3 Network Alarm 100
8.4 Day Night Switch Alarm 101
8.5 I/O Alarm Linkage 102
8.6 Motion Alarm Linkage 104
8.7 Push Message 106
8.8 Audible Alarm Output (Only for Some Models) 107
8.9 Abnormal Sound Detection (Only for Some Models) 108
8.10 Whitelight Alarm Output (Only for Some Models) 109
9 AI Multiobject 111
9.1 AI Configuration 111
10 Configure the Recording Function 114
10.1 Record Policy 114
10.2 Record Directory 115
10.2.1 Configure the SD Card 117
10.2.2 Configure the FTP 118
10.2.3 Configure the NAS 120

11 Configure the Privacy Mask Function 122

12 Configure the Network Service 124

12.1 802.1x 124
12.2 DDNS 124
12.3 PPPoE 126
12.4 Port Mapping 127
12.5 SMTP 129
12.6 FTP 130
12.7 IP Filter 132
12.8 CGI Alarm Service Center 134
12.9 SNMP 137
12.10 QOS 140
12.11 Platform Access 141

13 Privilege Manager 143

13.1 Configure a User 143

14 Configure Protocol Parameters 146

14.1 Protocol Information 146
14.2 Security Authentication 146
14.3 Onvif Configuration 147
14.4 Multicast Parameters 149

15 Query Device Logs 151

15.1 Query Operation Logs 151
15.2 Query Alarm Logs 152
15.3 Collect All Logs 154

16 Maintain the Device 155

16.1 Restart a Device 155
16.2 Auto Restart 156
16.3 Upgrade the Software Package 156
16.4 Restore Device to Factory Settings 157
16.5 Export / Inport Configuration 157

17 Local Configuration 159

18 Troubleshooting 160

A Acronyms and Abbreviations 161

1 Quick Start

1.1 Login and Logout

CAUTION

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

Login

Step 1 Open Microsoft Edge, enter the IP address of the IP camera (DHCP is on by default) in the address box, and click on the **Enter** button.

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

Figure 1-1 Login Page

Step 2 Enter the user name and password.

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

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

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

Step 3 Click **Login** to enter the interface.

The main page is displayed.

----End

Logout

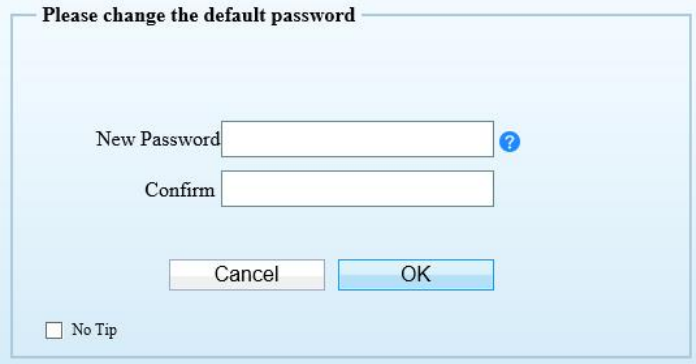
Click  in the upper right to return to login page.

1.2 Change the Password

Description

For the first login, the change default password page is as shown in Figure 1-2.

Figure 1-2 Change the Default Password Page



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

Figure 1-3 Change 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" pops up, the password is successfully changed. If the password fails to be changed, the password advice is displayed. (For example, the new password length couldn't be less than eight.).

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

Step 3 Click **OK**.

The login page is displayed.

1.3 Browse Real-Time Videos

Download IPC Local Server

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

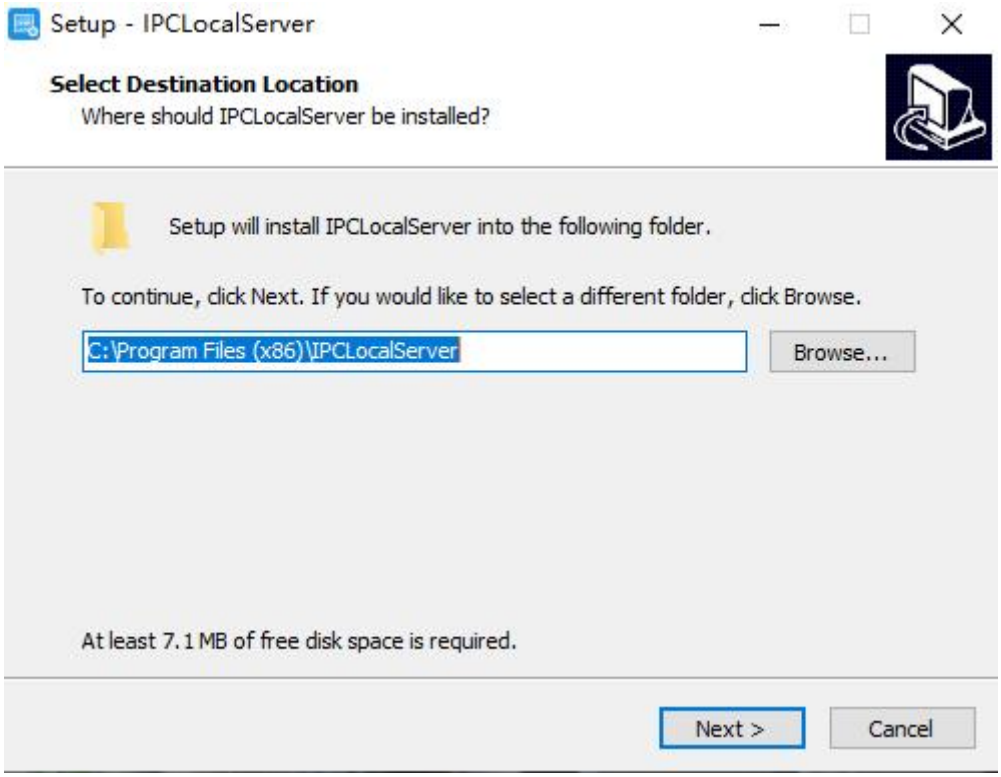
Figure 1-4 Download the Plugin Page

Step 1 Click " Please download the latest plugin", download the IPCLocal Server plugin.

Step 2 Open the download file to complete installation.

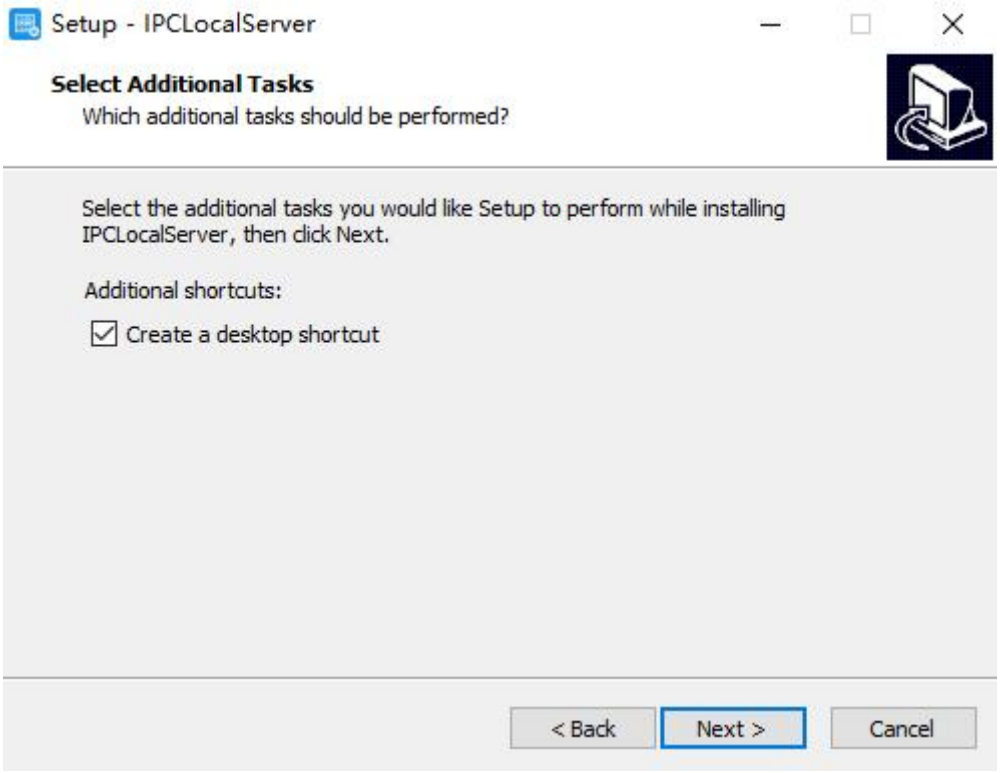
Step 3 Click "Run", select destination location as shown in Figure 1-5.

Figure 1-5 Select Destination Location



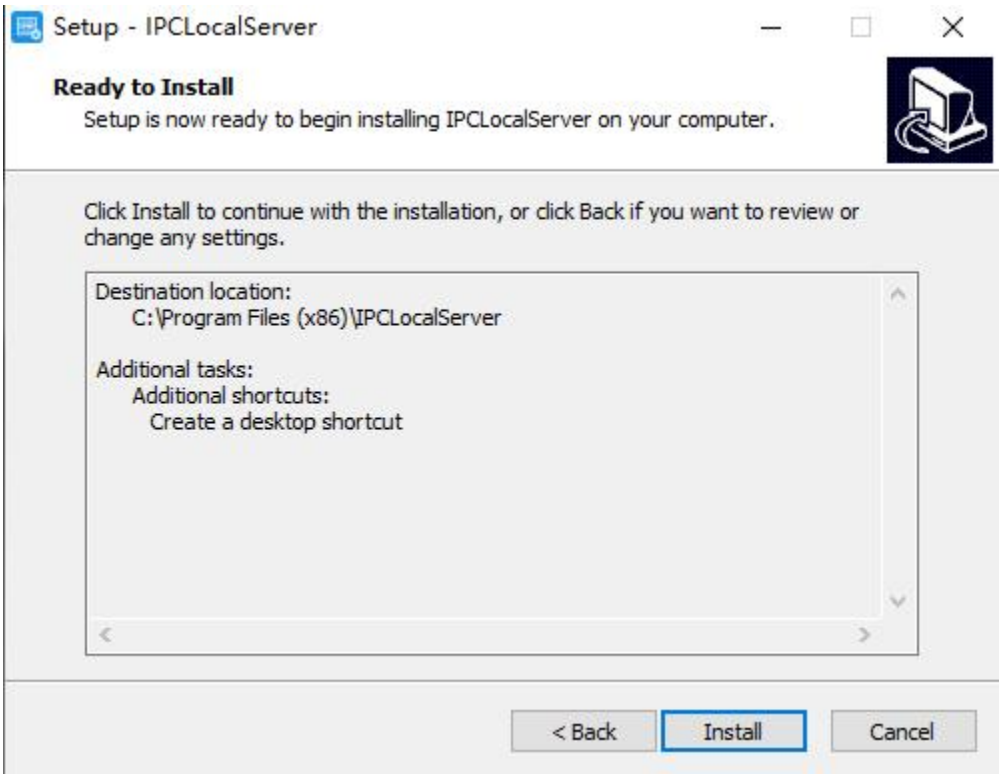
Step 4 Click "Next", ready to install the plugin, as shown in Figure 1-6.

Figure 1-6 Select additional tasks



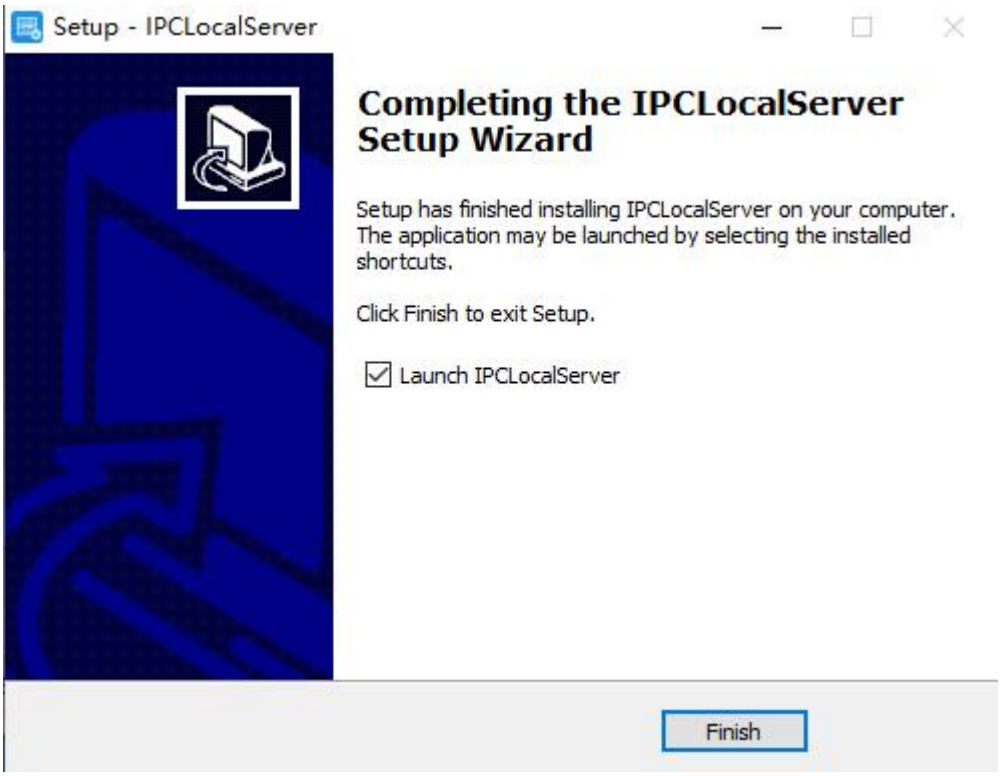
Step 5 Tick “Create a desktop shortcut”, Click “Next” to install the plugin, as shown in Figure 1-7.

Figure 1-7 Installing



Step 6 Click “Finish” , complete plugin installation, as shown in Figure 1-8.

Figure 1-8 Complete to Install the Plugin



Step 7 Reopen the browser after installing.

NOTE

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

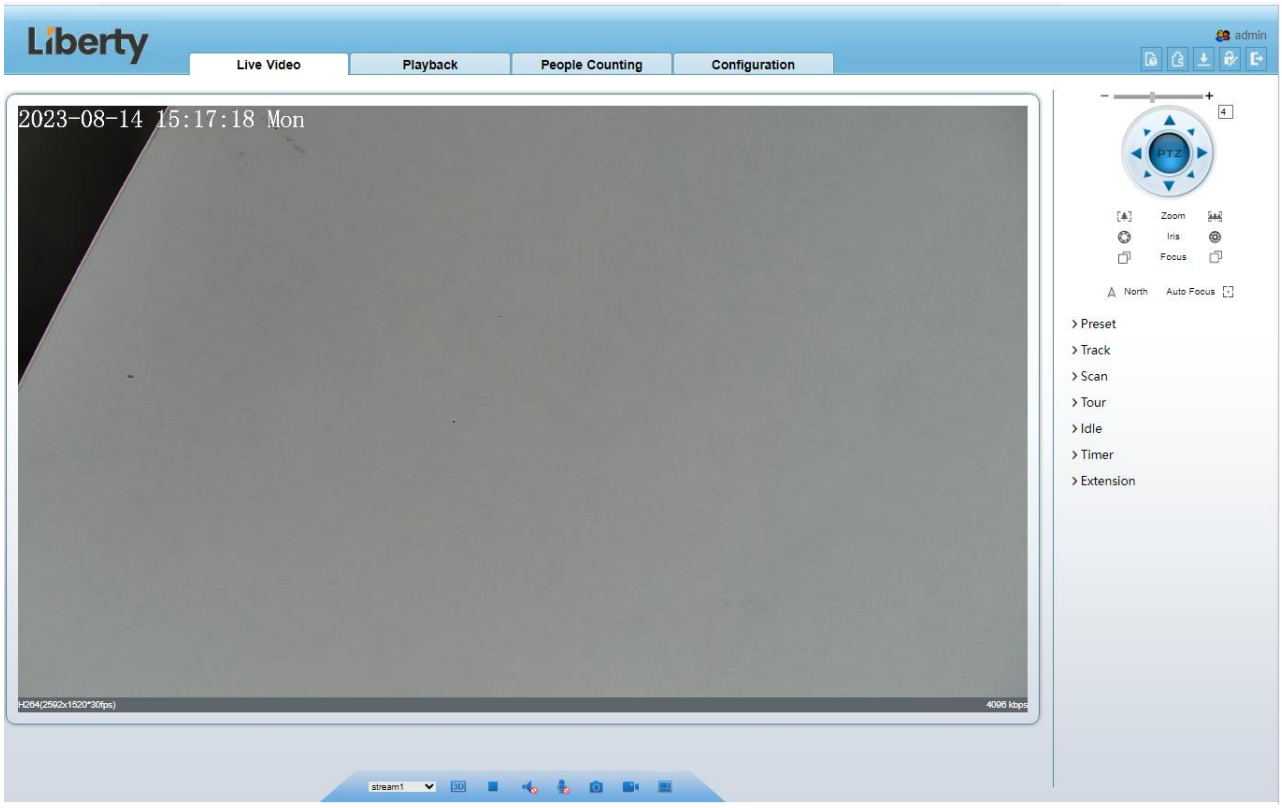
During the plugin installing, the browser should be closed.

----End

Description

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

Figure 1-9 Live Video Page



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

Click  to stop playing a video.

Click  to play a video.

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

Configure the PTZ. For details, see Configure the PTZ.

Control the PTZ. For details, see Controlling the PTZ.

Switch between three modes. For more details about how to configure streams, see 4.2 Video and Audio Stream .

Click  to snapshot and save the photos.

Click  to enable the local record.

NOTE

AI interface is supplied for some models.

1.4 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 1-10 shows the main page layout. Table 1-1 describes the elements on the main page.

Figure 1-10 Main page layout

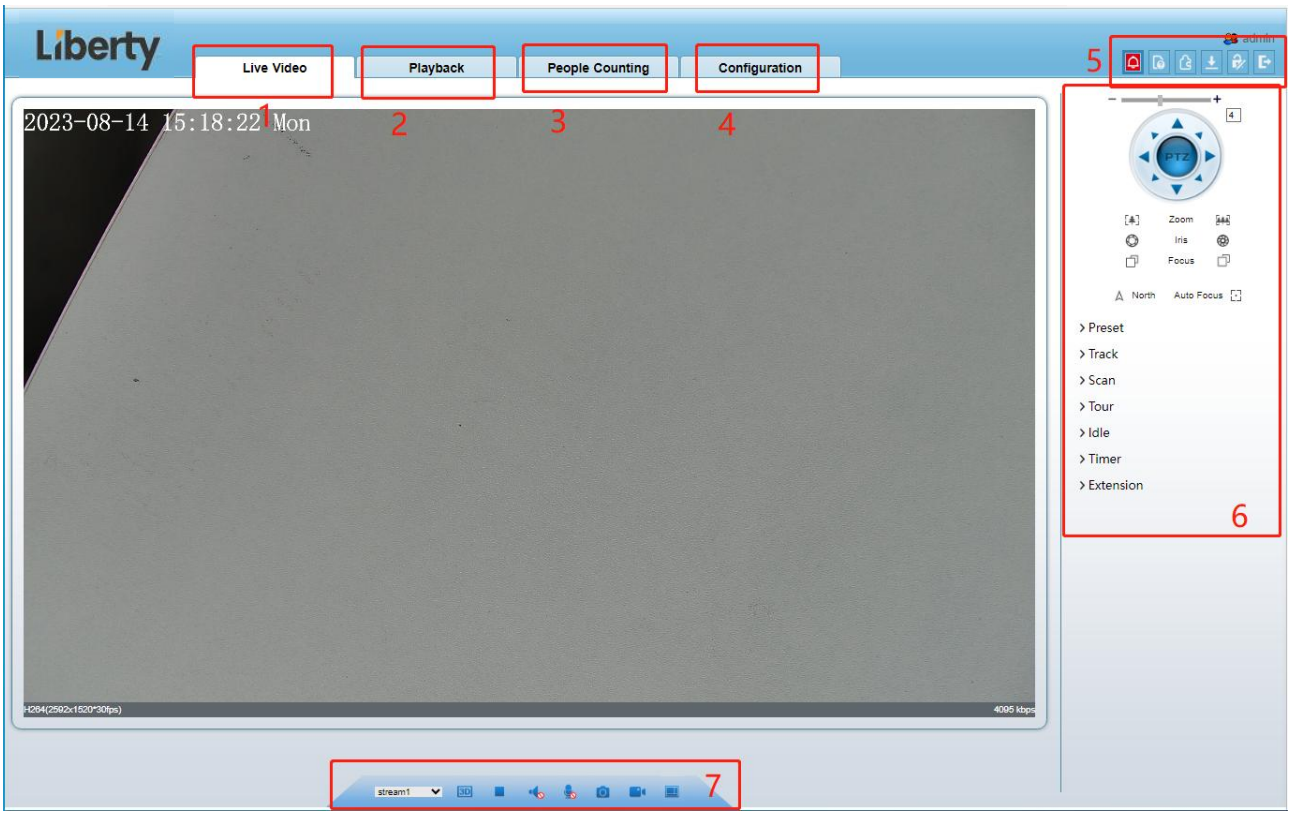


Table 1-1 Elements on the main page

No.	Element	Description
1	Real-time Video Area	Real-time videos are played in this page.
2	Playback	You can query the playback videos in this area. NOTE Only when the SD card or NAS has videos can you query the playback videos.
3	People Counting	Set the query condition to query the personnel count, the statistical can be shown in different types, such as line chart, histogram, list, for more detail information please refer to chapter 1.6 . Only for Some Models.
4	Device configuration	You can choose a menu to set device parameters, including the device information, audio and video streams, alarm setting, privacy mask function and so on.
5		When the device accepts an alarm signal, the alarm icon will display within 10s in the web management system. The alarm icon  is displayed. You can click  to view the alarm information.

No.	Element	Description
		Help of intercom 
		Download the latest plugin IPC Local Server.
		Change password, you can click  to change the password.
		Sign Out, you can click  to return to the login page.
6	PTZ	Only used for dome cameras, set PTZ parameters. Such as zoom in/zoom out, iris +/iris-, focus in / focus out, Preset / Track / Scan / Tour / Idle / Timer / Extension.
7	Switch to No Plugin Play	Support two methods to play live video, plugin play and no plugin play. For no plugin play, the default stream is stream 1.
8	Stream	Choose stream mode from drop-list. Set the parameters in "**Configuration > Streams > Basic Streams**".
	3D	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. Only for Some Models.
	Pause /Play video	Pause the live video or play the video.
	Audio	Open/close the audio.
	Microphone	Open/close the microphone.
	Snapshot	Click the icon to snapshot the video and save the images to the specified location.
	Local Record	Record the video and save the file to the specified location.
	AI Interface	Click the icon to switch to AI live video, you can view the snapshots of AI multi object, there are face, plate, car, human body, riding. Only for Some Models.
	Mode	Only used for fisheye camera, click the icon to choose mode to play video.

Figure 1-11 AI multi object interface

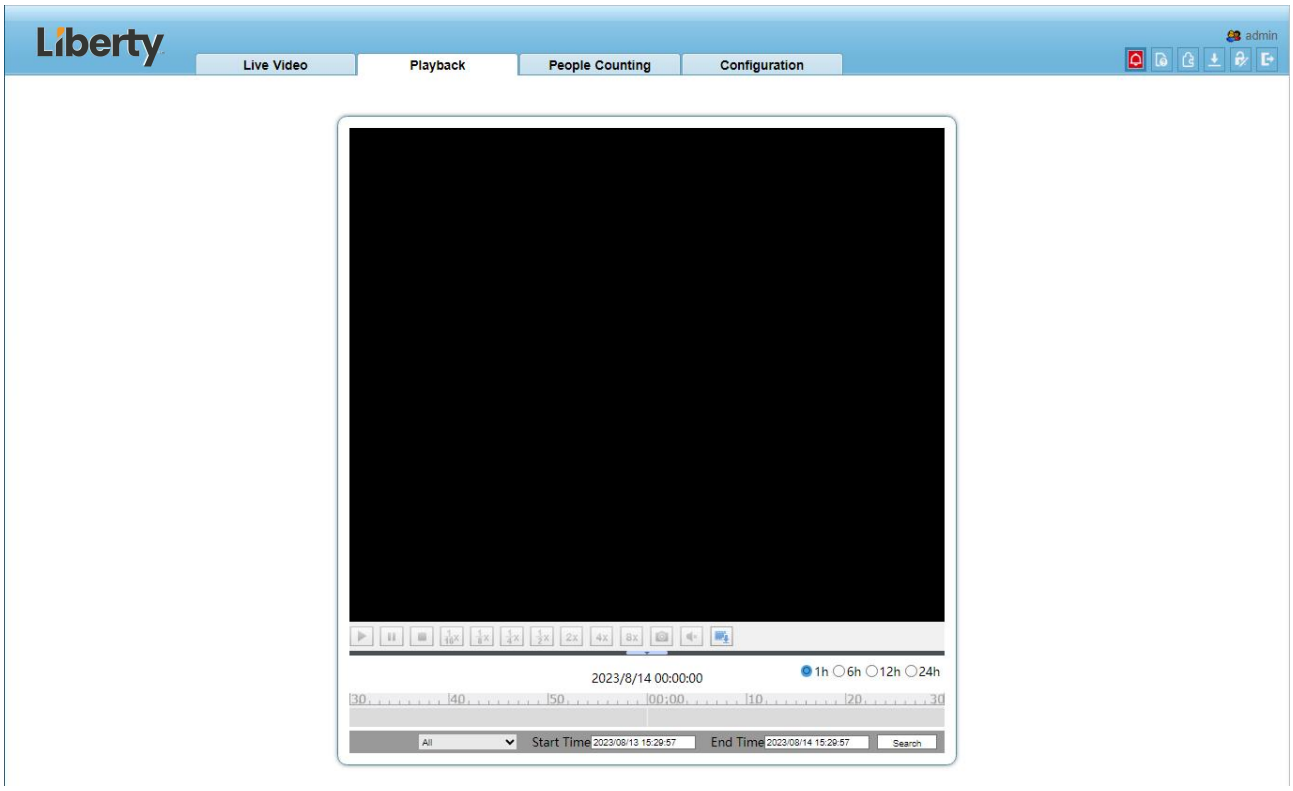
The face frame will show the snapshot of human face.

The plate frame will show the snapshot of license plate.

1.5 Playback

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

Figure 1-12 Playback interface

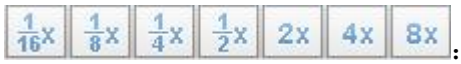


 : Play, click “speaker” to switch sound on or off.

 : Pause.

 : Stop.

 : Frame back / Frame play.

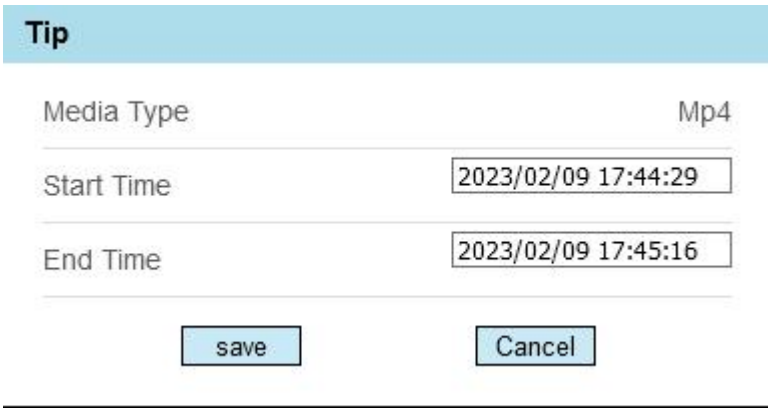


: Fast forward, user can choose the different speed to play.

 : Snapshot, click the icon to snapshot current interface

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

Figure 1-13 Record backup tip



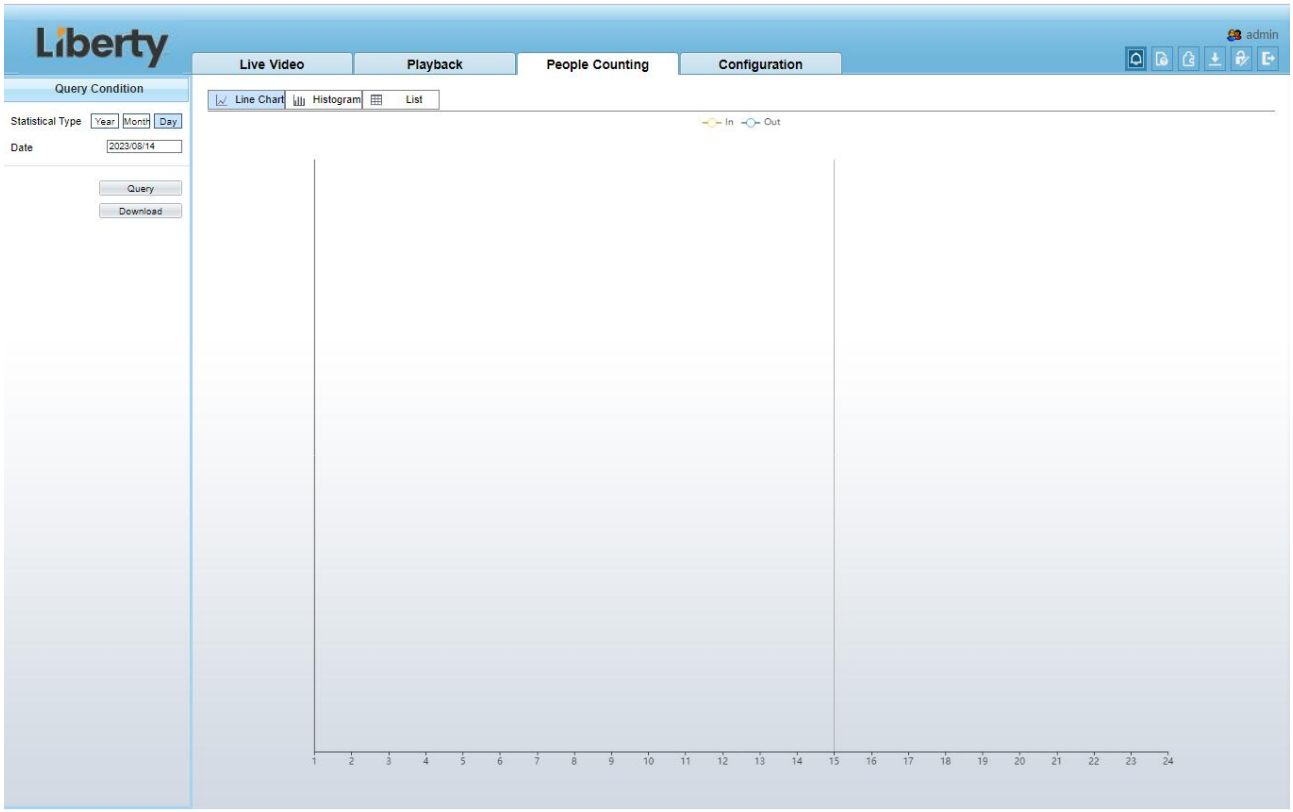
Choose the type of alarm, set the start time and end time to search alarm record quickly.

1.6 People Counting (Only for Some Models)

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

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

Figure 1-14 People counting interface



Click “Download” to download the query result.

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

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

The data result can be saved to local folder.

----End

2 Parameters of PTZ(Only for Some Models)

2.1 Control and Configure the PTZ

Description

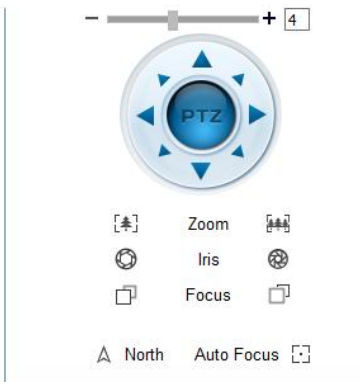
All PTZ functions are only available for High Speed Network Dome and device connected to an external PTZ. The focus and zoom action can be used for motorized cameras

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

Figure 2-1 PTZ Control area



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

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

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

Click or to adjust the focal length.

Click or to adjust the aperture.

Click or to focus.

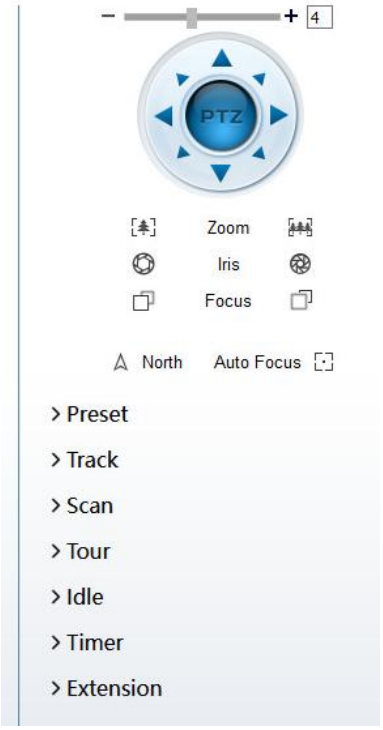
Click to set due north direction. You can define any direction as due north as the reference point of the PTZ rotation.

Click to enable automatic focus.

Configure the PTZ

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

Figure 2-2 PTZ Configure area



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

Add, delete, and invoke preset positions.

Add, delete, and invoke tracks.

Add, delete, and invoke scans.

Add, delete, and invoke tours.

Set the idle.

Set the timer.

Set the extension.

Set Light On/Off and Brush function.

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

NOTE

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

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

3D Positioning

Click 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.

2.2 Configure and Invoke Preset Positions

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

The procedure is as follows:

Step 1 Configure a preset position.

1. Choose the preset ID.
2. Adjust the direction of PTZ to finish the preset position setting.
3. Click  to save, click to rename.

Step 2 Invoke a preset position.

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

NOTE

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

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

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

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

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

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

Invoke No.250 preset, enable the MCU temperature.

Invoke No.251 preset, disenable the MCU temperature.

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

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

----End

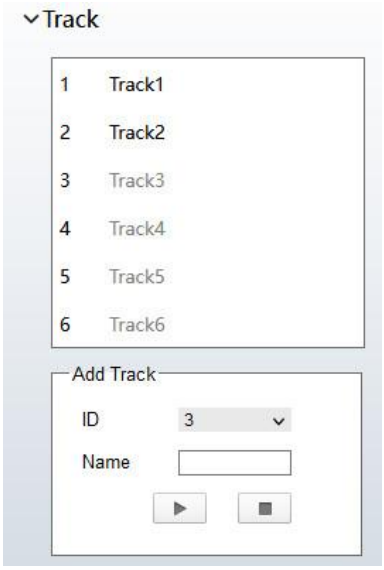
2.3 Configure and Invoke Tracks

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

Step 1 Configure a track.

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

Figure 2-3 Track configuration



Step 2 Invoke a track.

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

NOTE

A maximum of six tracks can be configured.

2.4 Configure and Invoke Scans

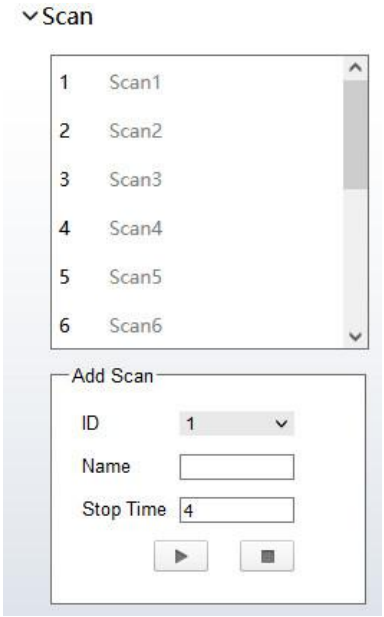
You can configure a starting point and end point to allow the camera to repeatedly rotate from the starting point to end point.

Step 1 Configure a scan.

1. Click **Scan**.

   The **Scan Add** page is displayed as shown in Figure 2-4.

Figure 2-4 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 l**ist box, click ➦ to invoke the scan.

NOTE

A maximum of twelve scans can be configured.

2.5 Configure and Invoke Tours

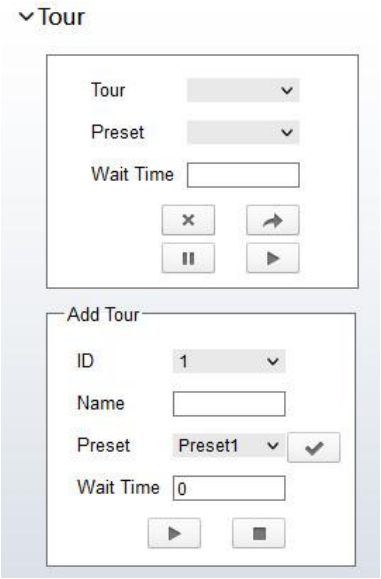
You can configure a tour to allow the camera to repeatedly rotate based the tours. Each tour includes presets and wait time should be set.

Step 1 Configure a tour.

1. Click **Tour**.

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

Figure 2-5 Tour configuration



2. Set the tour ID and name.
3. Select a preset and set the wait time and click ▶.
4. Continue to select a preset and set the wait time and click ✓.
5. Repeat the step 3 and step 4 to add more presets.
6. Click ■ to finish the tour setting.

Step 2 Invoke a tour.

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

NOTE

A maximum of twelve tours can be configured.

2.6 Configure Idles

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

Step 1 Click **Idle**.

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

Figure 2-6 Idle configuration

Step 2 Enable the Idle button.

Step 3 Set the idle type and name from list.

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

Step 5 Click  to finish the idle setting.

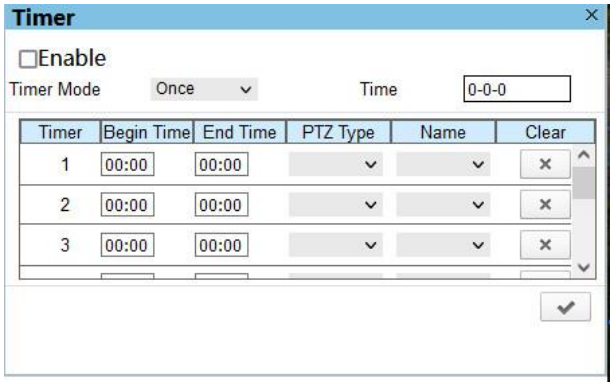
2.7 Configure Timer

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 2-7.

Figure 2-7 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.

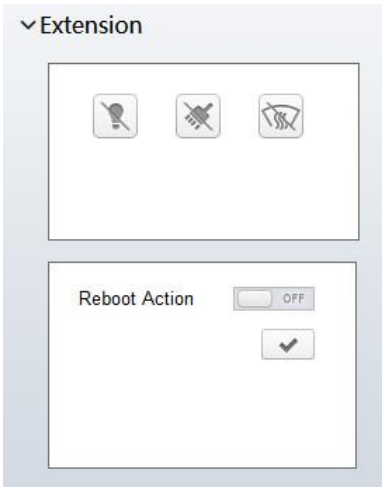
Step 6 Click to finish the timer setting.

2.8 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 2-8.

Figure 2-8 Extension



Light function

Click to enable the light.

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

Brush function

Click to enable brush.

Brush is used to clean the lens.

NOTE

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

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

Reboot Action

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

- Click the reboot action button to enable reboot action.

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

----End

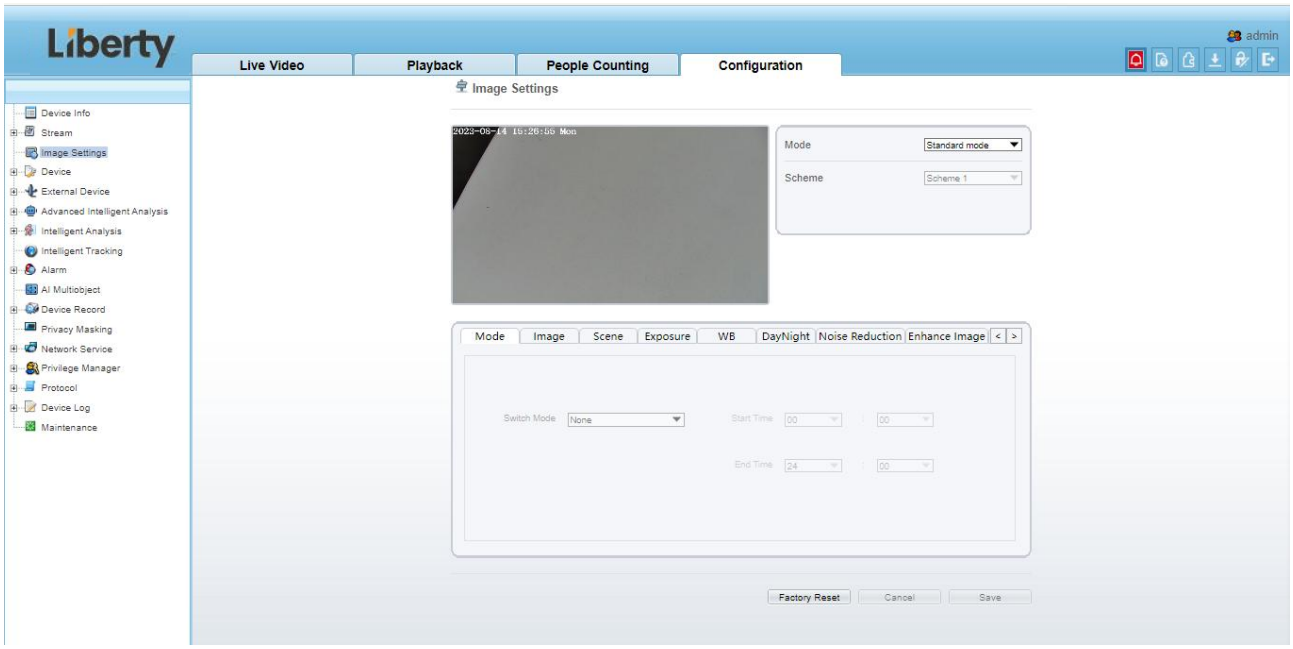
3 Image Settings

3.1.1 Access the Image Settings Interface

Operation Procedure:

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

Figure 3-1 Image Settings Interface



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

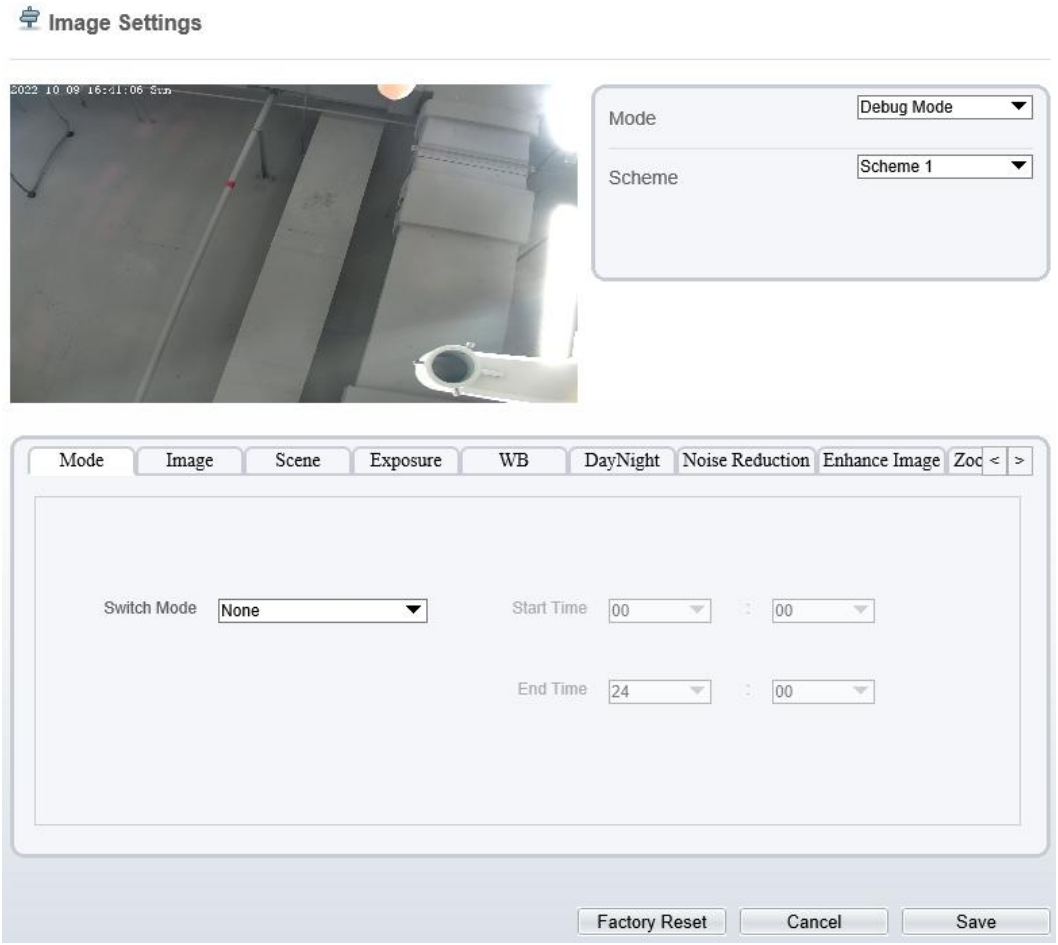
----End

3.1.2 Mode

Operation procedure:

Step 1 Click **Mode** tag on image settings interface, the Mode page is displayed, as shown in Figure 3-2.

Figure 3-2 Mode Page



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

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

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

3.1.3 Image Setting

Figure 3-3 shows the image setting interface.

Figure 3-3 Image Setting Interface

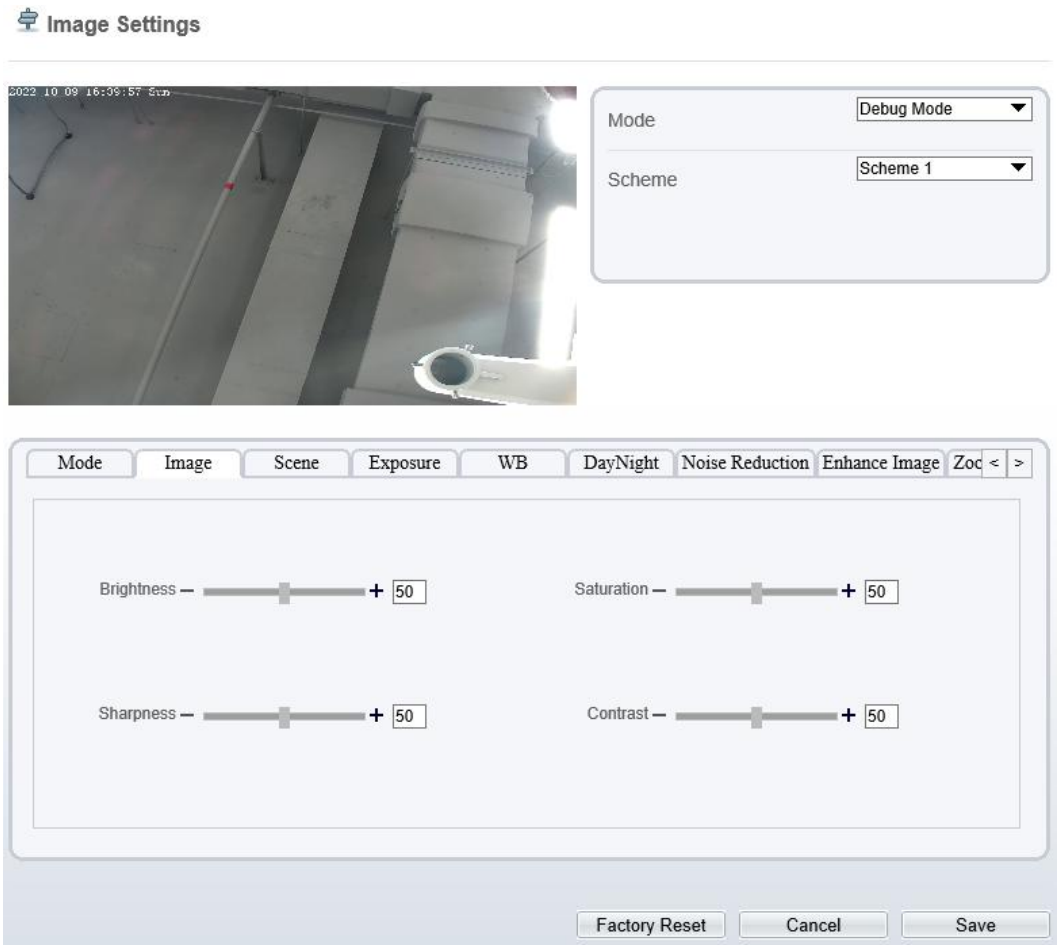


Table 3-1 describes the i**mage setting** parameters.

Table 3-1 Parameters of Image Settings Parameters

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**

Parameter	Description	Configuration Method
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**

3.1.4 Scene Mode

Figure 3-4 shows the **scene mode** interface.

Figure 3-4 Scene Mode Interface for IP Camera

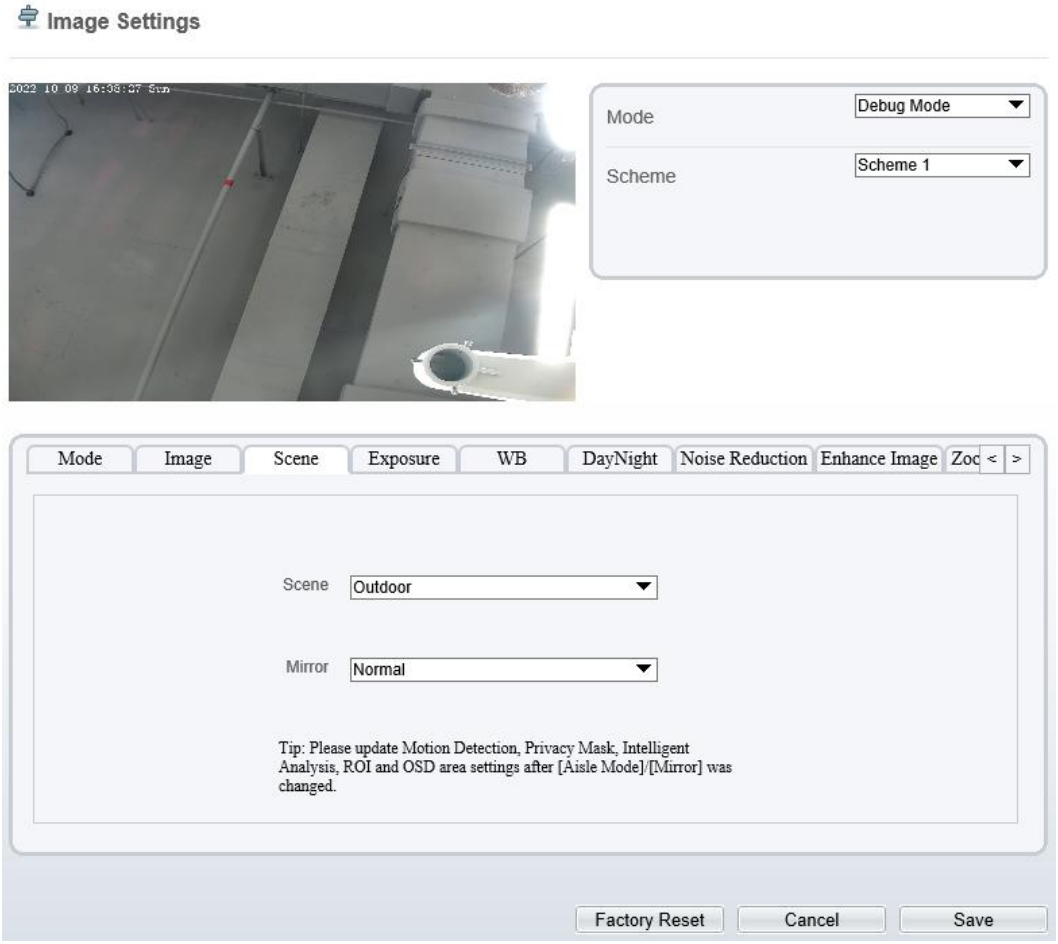


Table 3-2 describes the FFC mode parameters.

Table 3-2 Parameters of FFC

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

Parameter	Description	Configuration Method
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. For some models, when you choose stream 2 / 3, H.265 or H.264 video encode type, resolution chosen CIF or QVGA, it maybe not to play the live video. Only apply for some models.	[Setting method] Tick the Aisle mode. [Default value] Disable

3.1.5 Exposure

Figure 3-5 and Figure 3-6 shows the **Exposure** interface.

Figure 3-5 Exposure Interface for IP Camera

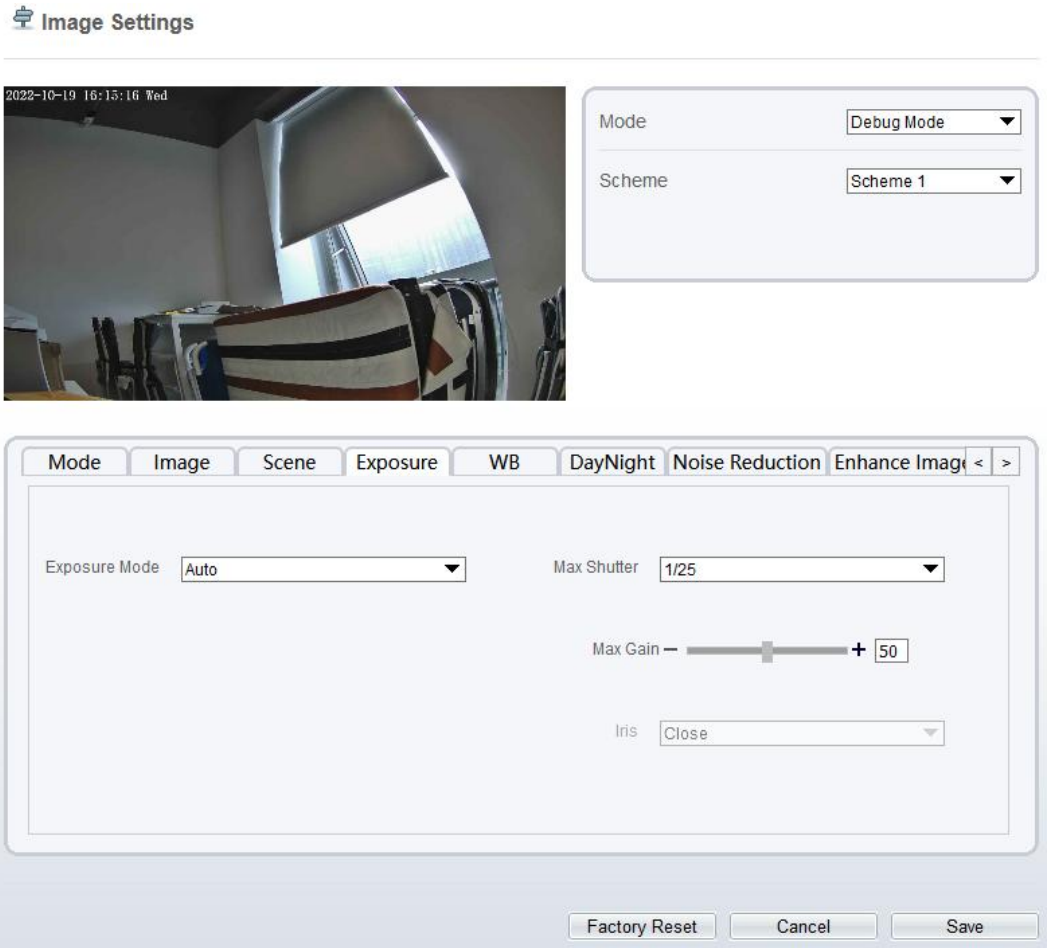


Figure 3-6 Exposure Interface for High-speed Dome

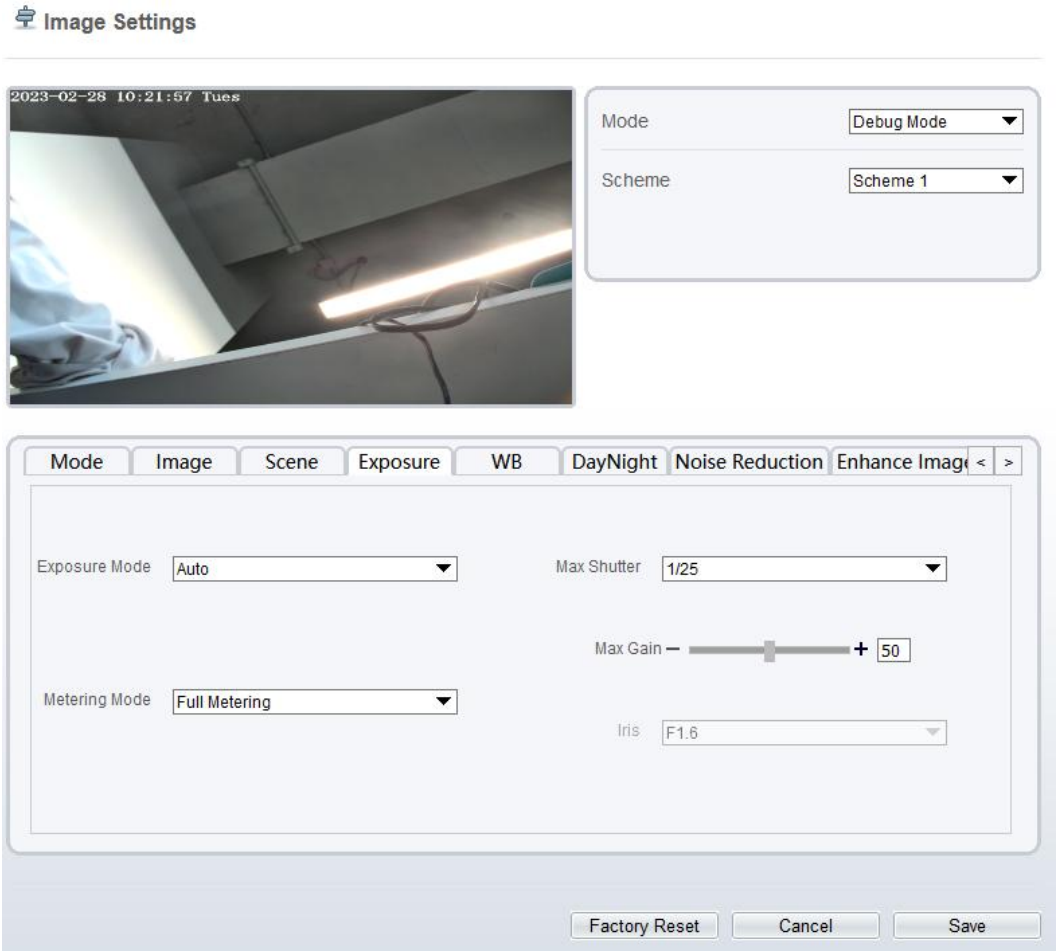


Table 3-3 describes Exposure parameters.

Table 3-3 Parameters of Exposure

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**

Parameter	Meaning	Configuration Method
Meter Mode	It is used to select the metering area. **Fulling Metering**: During metering, all areas of an image have equal weight, that is, all areas are involved in the metering. **Spot Metering**: During metering, the central spot of an image has the highest weight. **Partial Metering**: 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**
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**

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

3.1.6 WB Setting

Figure 3-7 shows the **WB Setting** interface.

Figure 3-7 **WB Setting** Interface

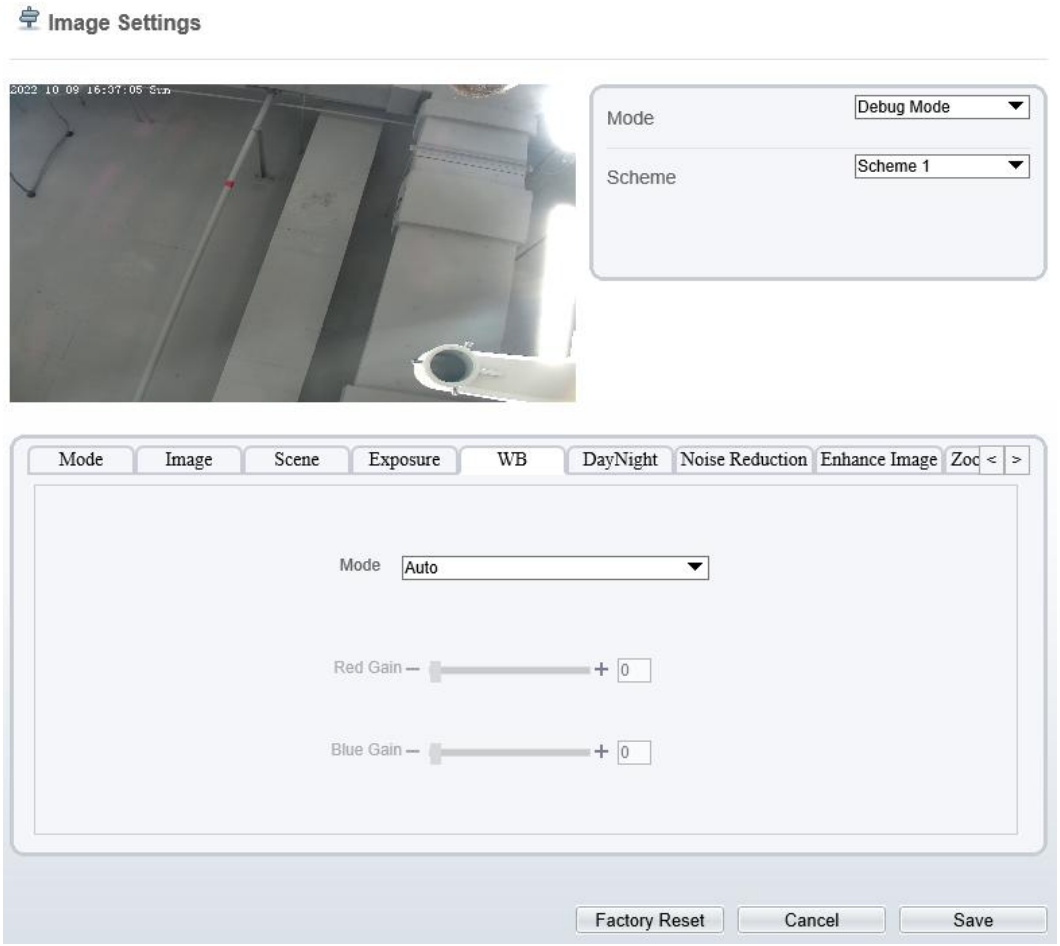


Table 3-4 describes **WB Setting** parameters.

Table 3-4 Parameters of WB Setting

Parameter	Meaning	Configuration Method
Mode	Select WB mode according to different scenes for better image color reproduction. **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**
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**

3.1.7 DayNight

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

Figure 3-8 shows the **DayNight Mode** interface.

Figure 3-8 DayNight Mode Interface

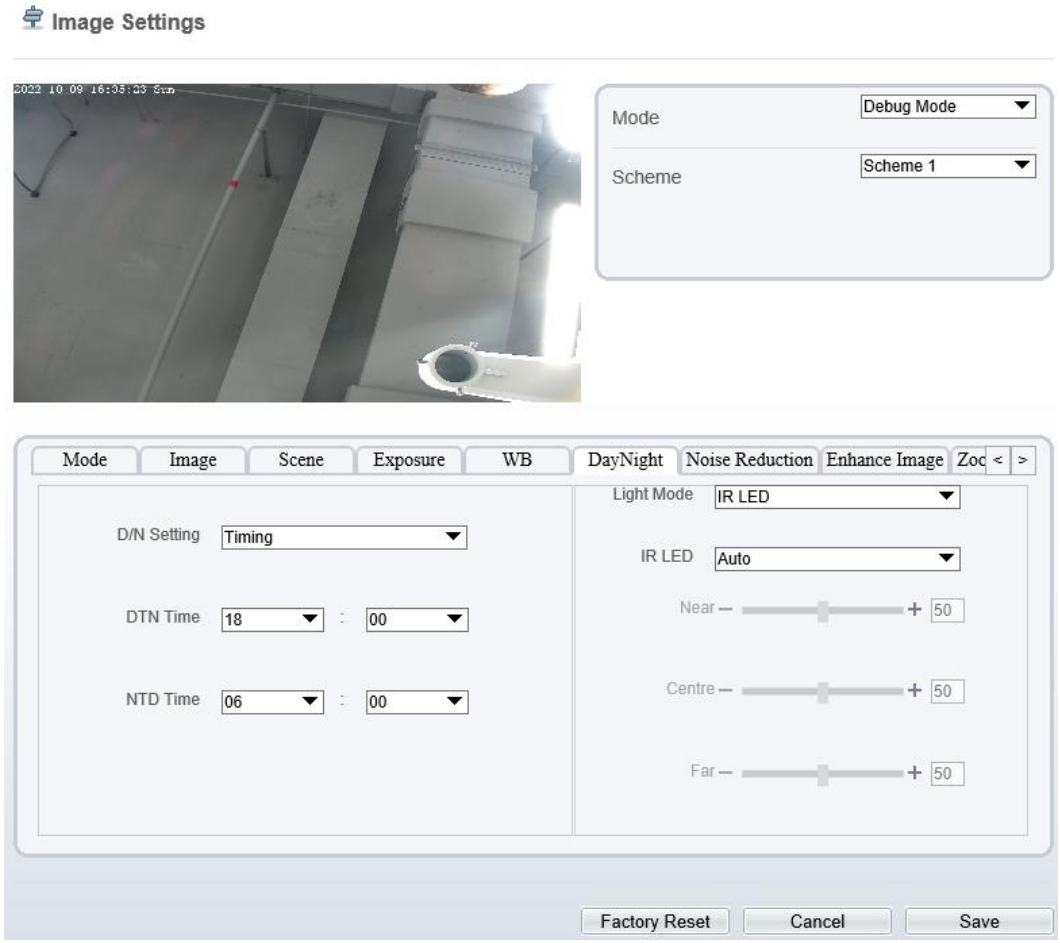


Table 3-5 describes **DayNight Mode** parameters.

Table 3-5 Parameters of DNR

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 keeps infrared light from reaching the sensor during the day; The filter allows all light to reach the sensor at night. 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 Switching between day mode and night mode according to the set time.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**

Parameter	Meaning	Configuration Method
Switch Sensitivity	The sensitivity of switching day and night. The higher value of sensitivity, and the lower light intensity will switch to day. NOTE This parameter is valid in auto mode.	[Setting method] Drag the slider. [Default value] **50**
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**
Light Mode	For different models, you can choose the light modes, such as IR LED, White LED, Intelligent dual light (there are two lights in camera, IR LED and white LED), and none. It depends on performance of cameras.	[Setting method] Select a value from the drop-down list.
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**
Strength	Strength of IR LED, as the value increases, the image becomes brighter.	[Setting method] Drag the slider. [Default value] **50**

Parameter	Meaning	Configuration Method
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**

Fill light settings

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

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

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

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

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

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

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

3.1.8 Noise Reduction

Figure 3-9 shows the Noise Reduction interface.

Figure 3-9 Noise Reduction Interface (auto)

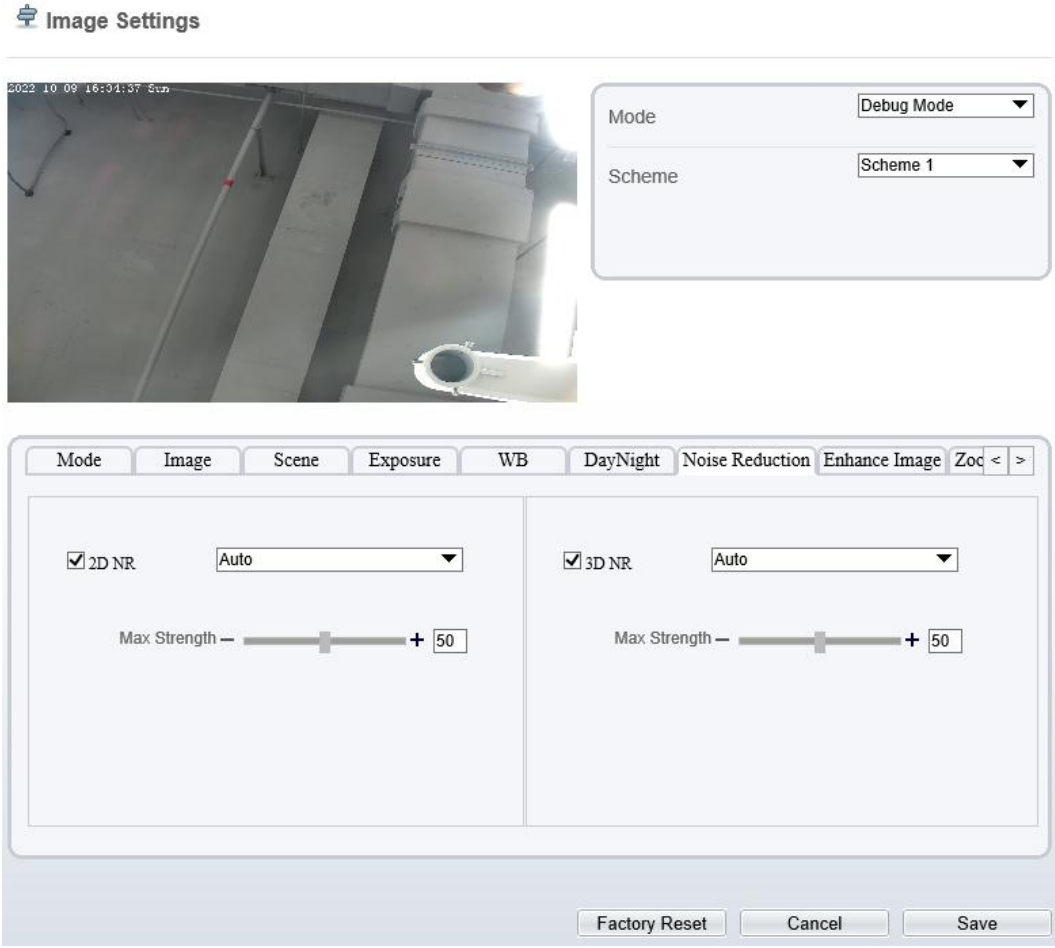


Figure 3-10 Noise Reduction Interface (manual)

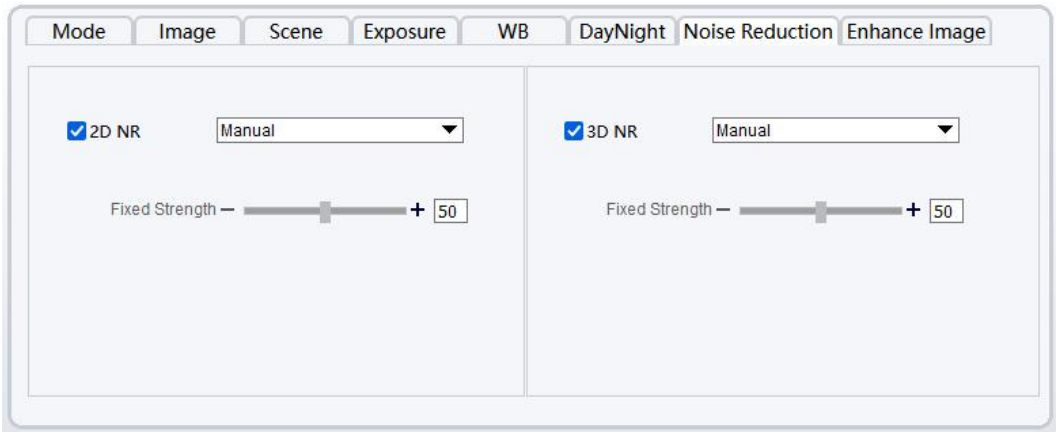


Table 3-6 describes DNR parameters.

Table 3-6 Parameters of DNR Parameters

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

Parameter	Meaning	Configuration Method
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**

3.1.9 Enhance Image

Figure 3-11 shows the enhance image interface and Table 3-7 shows the enhance image parameters.

Figure 3-11 Enhance Image Interface

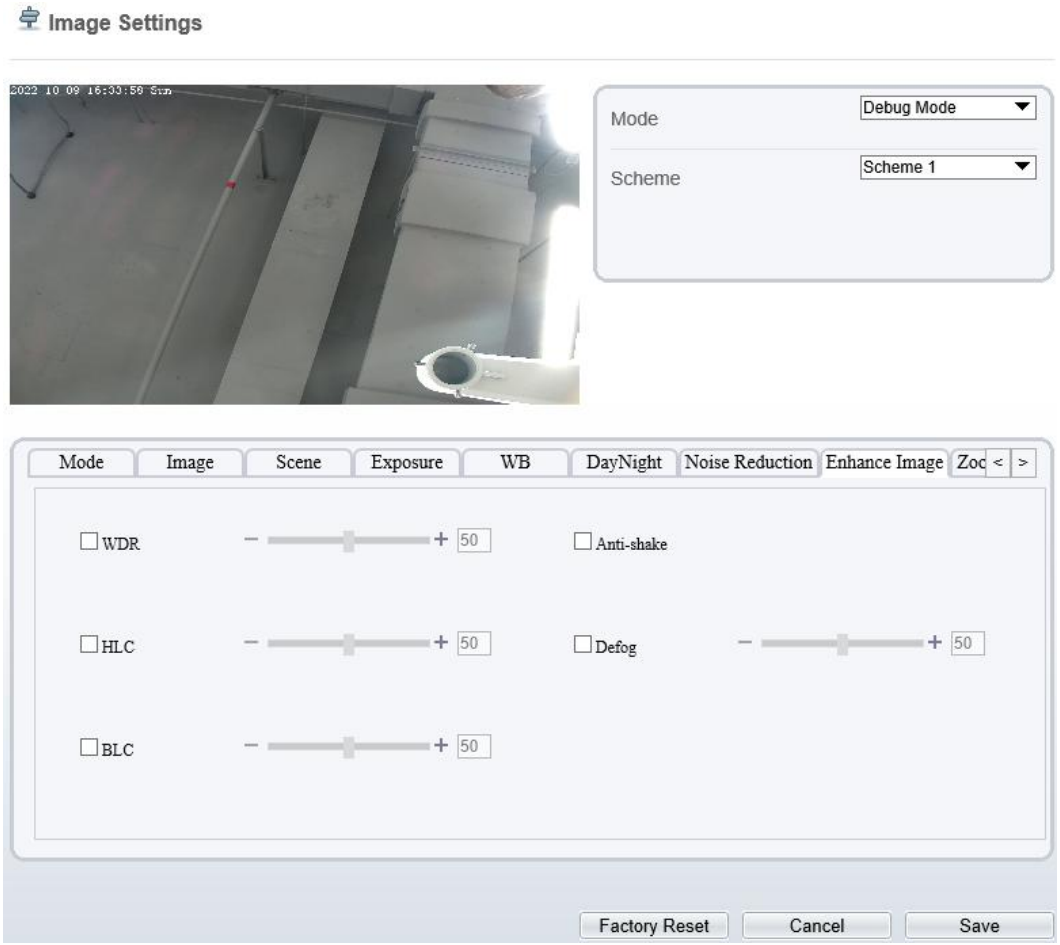


Table 3-7 Parameters of Enhance Image

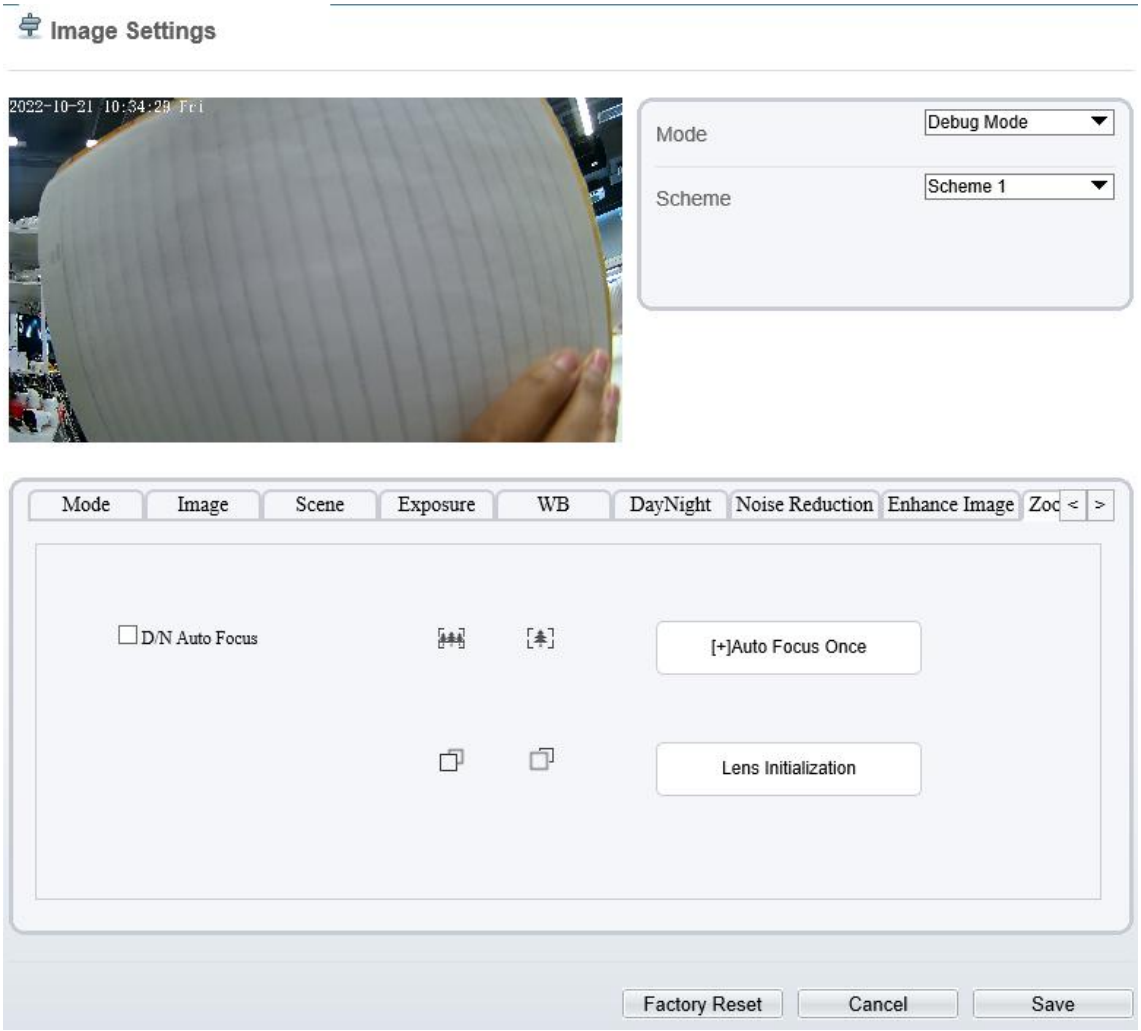
Parameter	Meaning	Configuration Method
WDR	It is used to display the foreground and background at the same time in the environment with a large brightness difference. When the brightness difference is larger, you can increase the WDR level to obtain better image effect.	[Setting method] Tick the WDR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

Parameter	Meaning	Configuration Method
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**

3.1.10 Zoom Focus (Only for Some Models)

Figure 3-12 and Figure 3-13 shows the zoom focus interface and Table 3-7 shows the zoom focus parameters.

Figure 3-12 Zoom Focus Interface for IP Camera



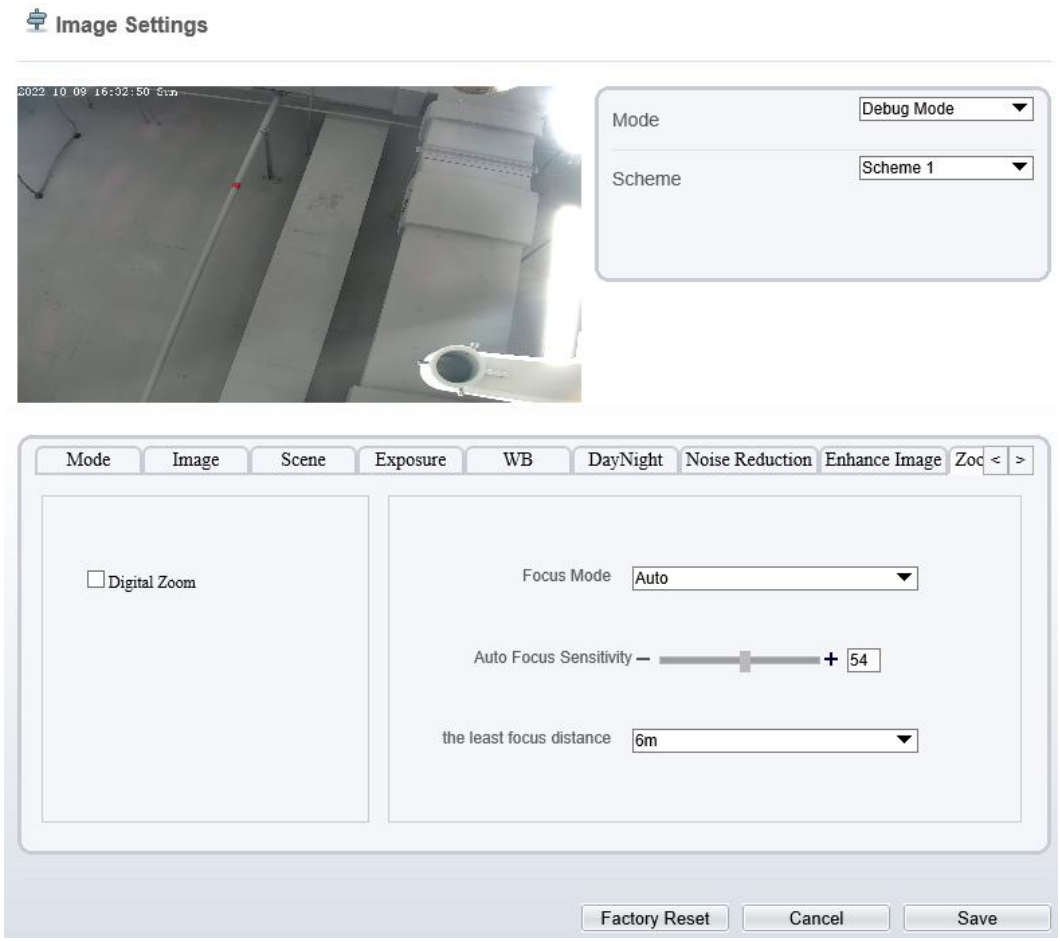


Image Settings
Mode
Debug Mode
Scheme
Scheme 1
Mode
Image
Scene
Exposure
WB
DayNight
Noise Reduction
Enhance Image
Digital Zoom
Focus Mode
Auto
Auto Focus Sensitivity
54
the least focus distance
6m
Factory Reset
Cancel
Save

Figure 3-13 Zoom Focus Interface for High Speed Dome

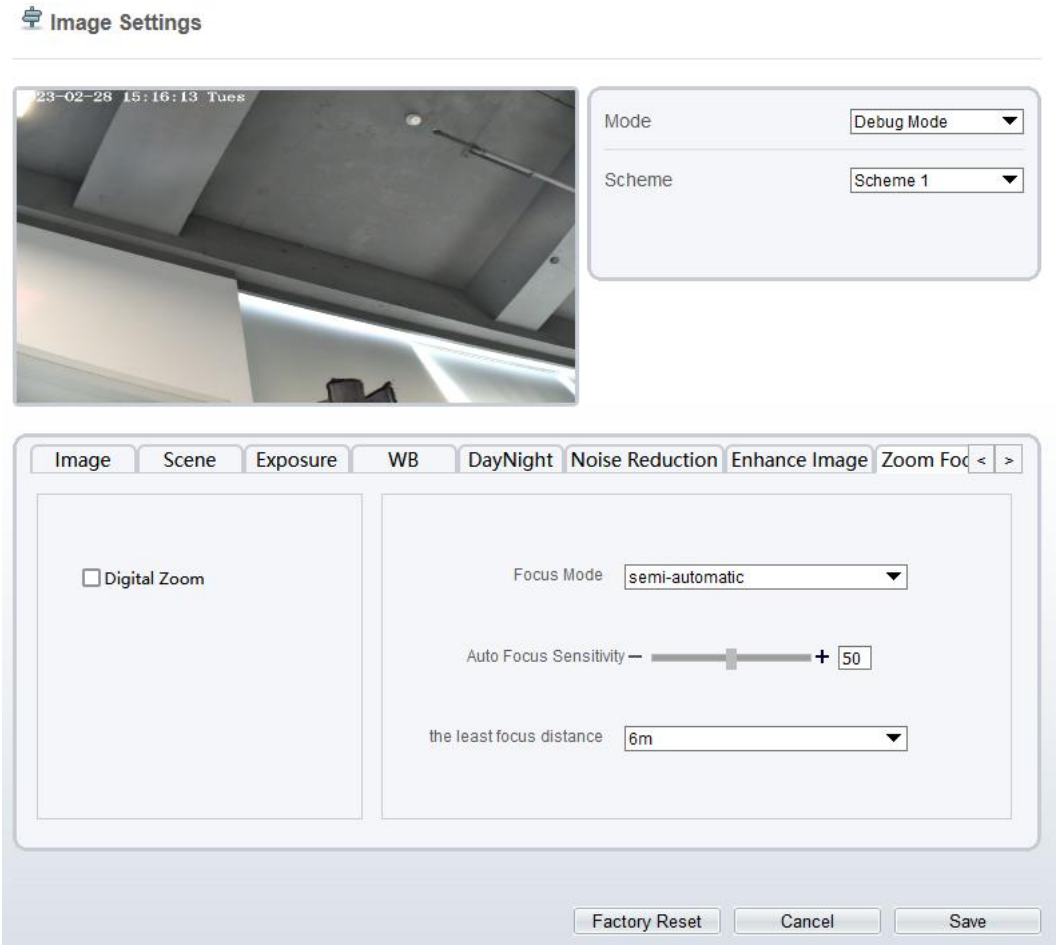


Table 3-8 Parameters of Zoom Focus

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

Parameter	Meaning	Configuration Method
Focus Mode	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

4 Configure the Device

4.1 Device Information

Description

The device information includes:

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

Hardware and software versions.

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

NOTE

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

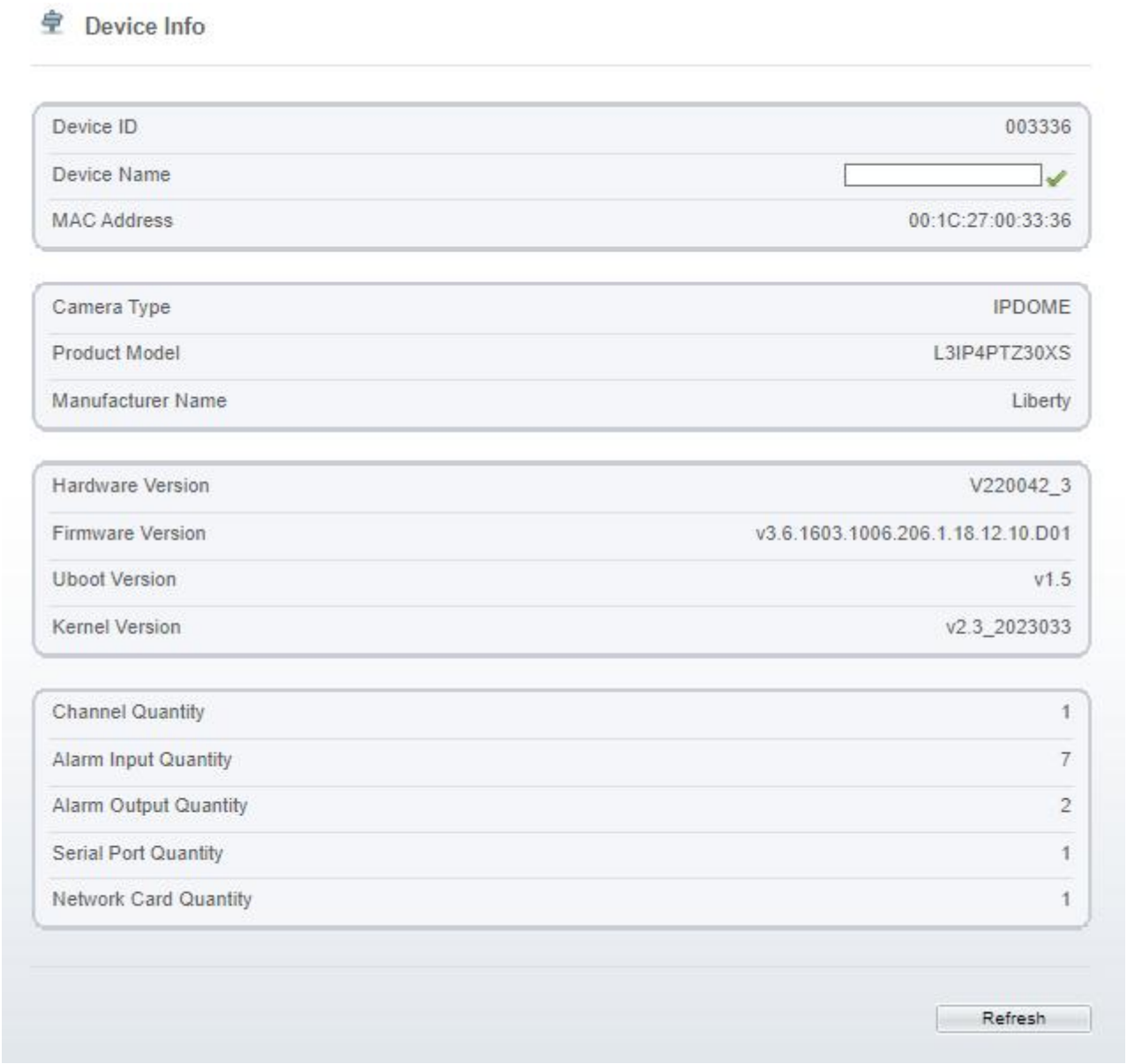
When the device is upgraded, the device information is updated automatically.

Procedure

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

The **Device Info** page is displayed, as shown in Figure 4-1.

Figure 4-1 Device Info Page



Step 2 View the device information, set the device name according to Table 4-1.

Table 4-1 Parameters of Device

Parameter	Description	Setting
Device ID	Unique device identifier used by the platform to distinguish the devices.	[Setting method] The parameter cannot be modified.
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]

Parameter	Description	Setting
Camera Type		These parameters cannot be modified.
Product Model		
Manufacturer Name		
Hardware Version		
Firmware Version		
Uboot version		
Kernel version		
Video Channel(s)		
Channel Quantity		
Alarm Input Quantity		
Alarm Output Quantity		
Serial Port Quantity		
Network card Quantity		

Step 3 Click .

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

If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see 14.1 Configure a User.

----End

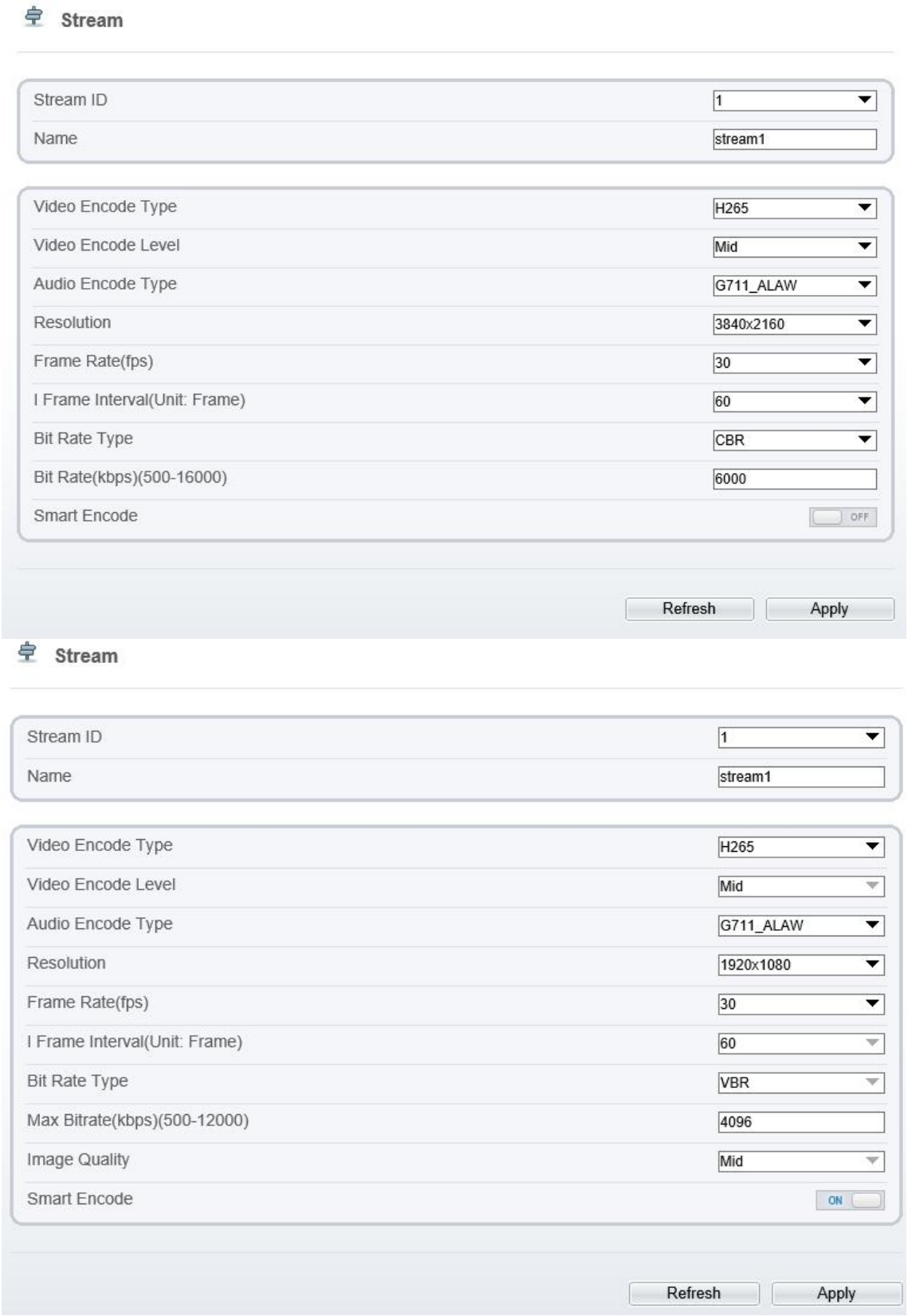
4.2 Video and Audio Stream

Procedure

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

The **Stream Configuration** page is displayed, as shown in Figure 4-2.

Figure 4-2 Stream Configuration Page (CBR)



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

Table 4-2 Parameters of Stream Configuration

Parameter	Description	Setting
Stream ID	The device supports at most three main streams. Streams 1 and 2 adopt H.264 code. The maximum resolution can be set for streams 1. Only a low resolution can be set for stream 2. Stream 3 is the lowest resolution. Stream 4 is the sub stream.	[Setting method] Select a value from the drop-down list box.
Name	Stream name. NOTE The stream name consists of Chinese character, number, character and underline.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes. [Default value] Stream 1
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 low Profile, H.264 Main Profile and H.264 High profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate codec based on the decoding performance of the device. H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements for the hardware performance. 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 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. When users choose the MJPEG for Stream 1, some functions will be error, such as the videos of FTP upload may not be play correctly.

Parameter	Description	Setting
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.
Frame Rate(fps)	Frame rate is the number of images, shots, or frames that a camera can take per second. The frames per second determine the smoothness of a video. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes. 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 frame 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 Bitrate (500-12000)	Indicates the maximal value of the bit rate. the different models may have different ranges, please refer to actual product.	[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.

Parameter	Description	Setting
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 14.1 Configure a User.

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

----End

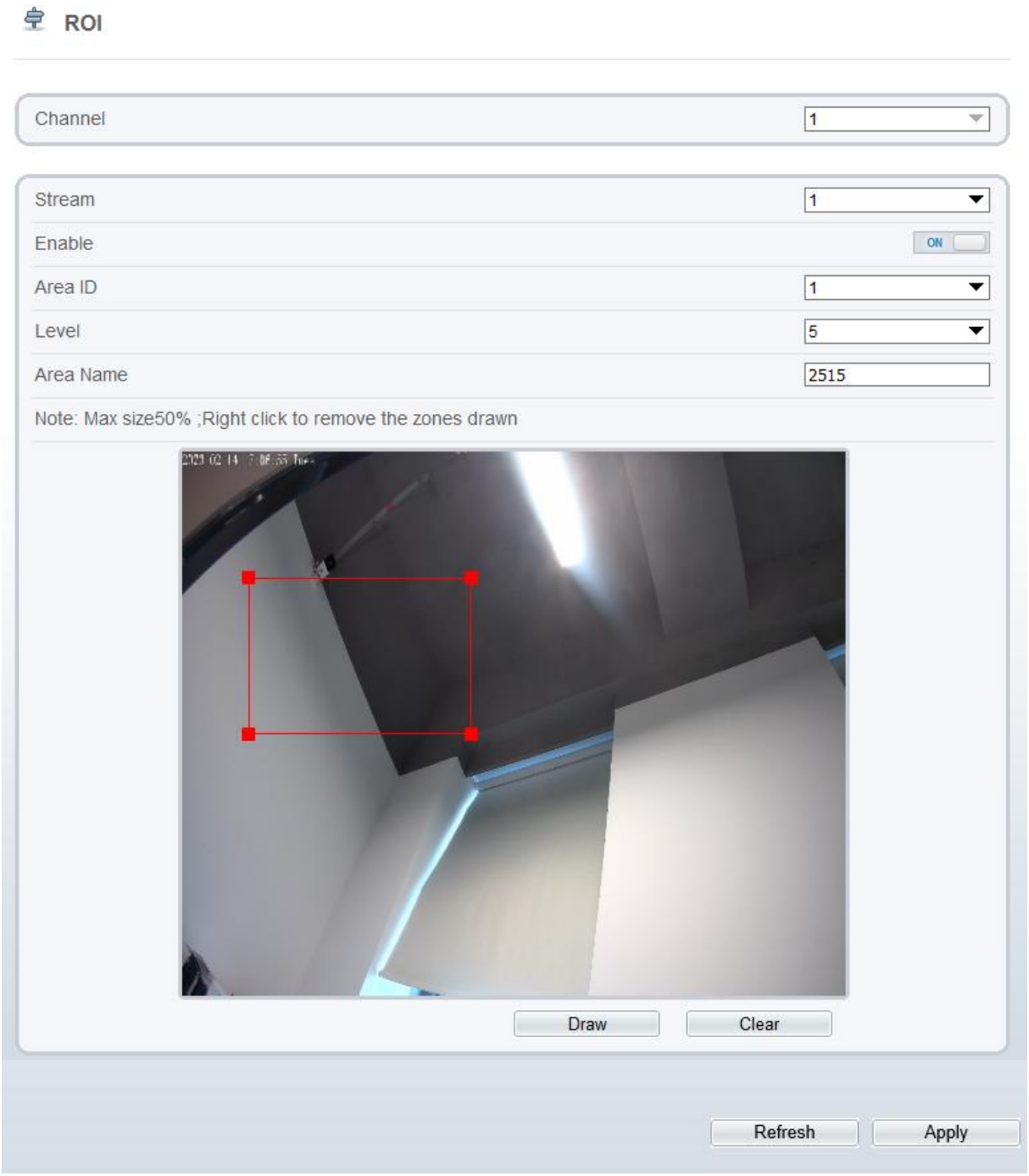
4.3 ROI Parameter

Procedure

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

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

Figure 4-3 ROI Configuration Page



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

Table 4-3 Parameters of ROI

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

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

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

Step 4 Click **Apply**.

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

----End

4.4 Snapshot

Procedure

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

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

Figure 4-4 Snapshot Configuration Page

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

Table 4-4 Parameters of Snapshot Configuration

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

----End

4.5 Local Network

Description

Local network parameters include:

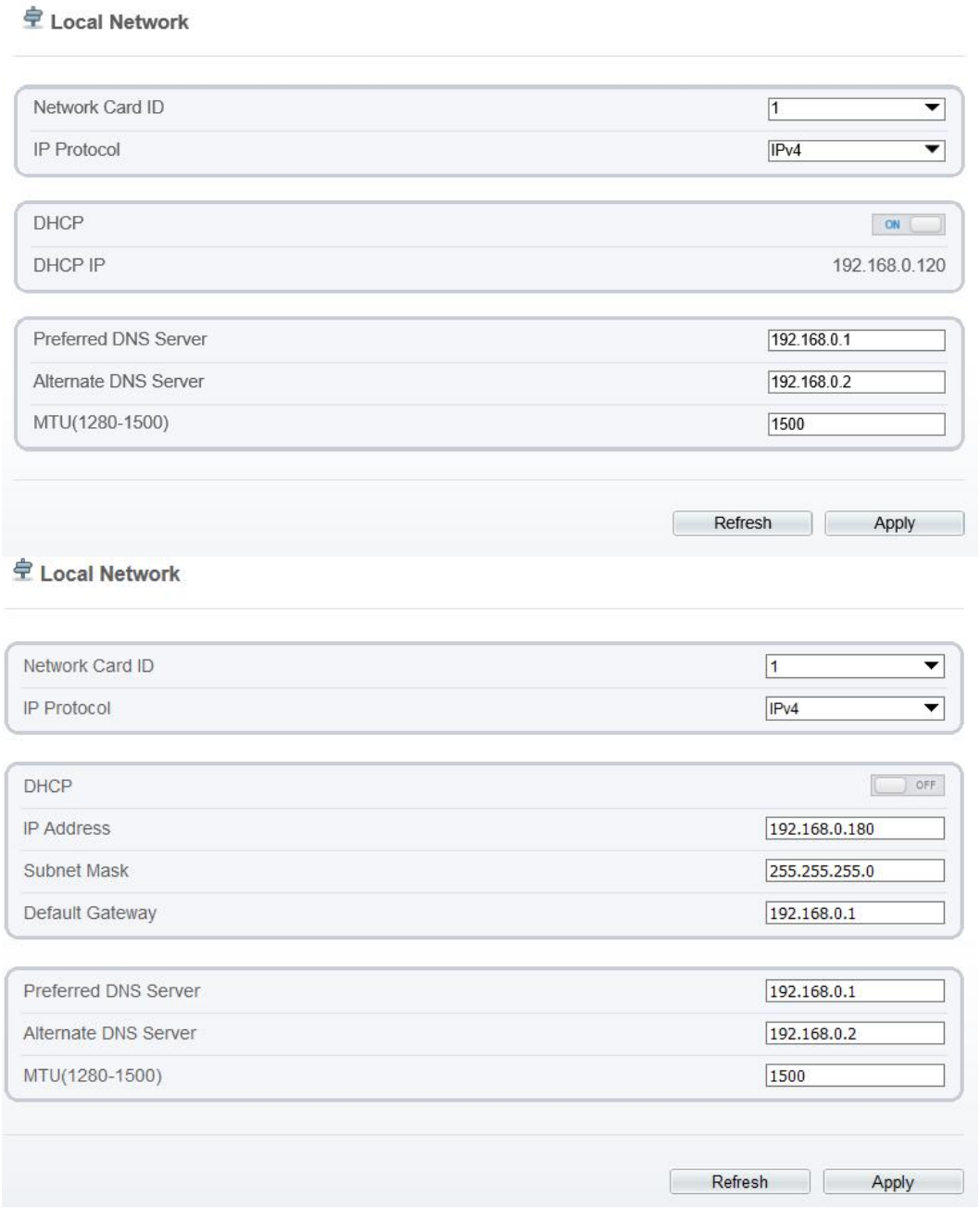
IP protocol
IP address
Subnet mask
Default gateway
Dynamic Host Configuration Protocol (DHCP)
Preferred Domain Name System (DNS) server
Alternate DNS server
MTU

Procedure

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

The **Local Network** page is displayed, as shown in Figure 4-5.

Figure 4-5 Local Network Page



Step 2 Set the parameters according to Table 4-5.

Table 4-5 Local Network Parameters

Parameter	Description	Setting
Network Card ID	--	[Default value] 1
IP Protocol	IPv4 is the IP protocol that uses an address length of 32 bits.	[Setting method] Select a value from the drop-down list box. [Default value] IPv4

Parameter	Description	Setting
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
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 1280 to 1500, the default value is 1500, Please do not change it arbitrarily.

Step 3 Click **Apply**.

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

If the message "Invalid IP Address", "Invalid Subnet Mask", "Invalid default gateway", "Invalid primary DNS", or "Invalid space DNS" is displayed, set the parameters correctly.

----End

4.6 Device Port

Description

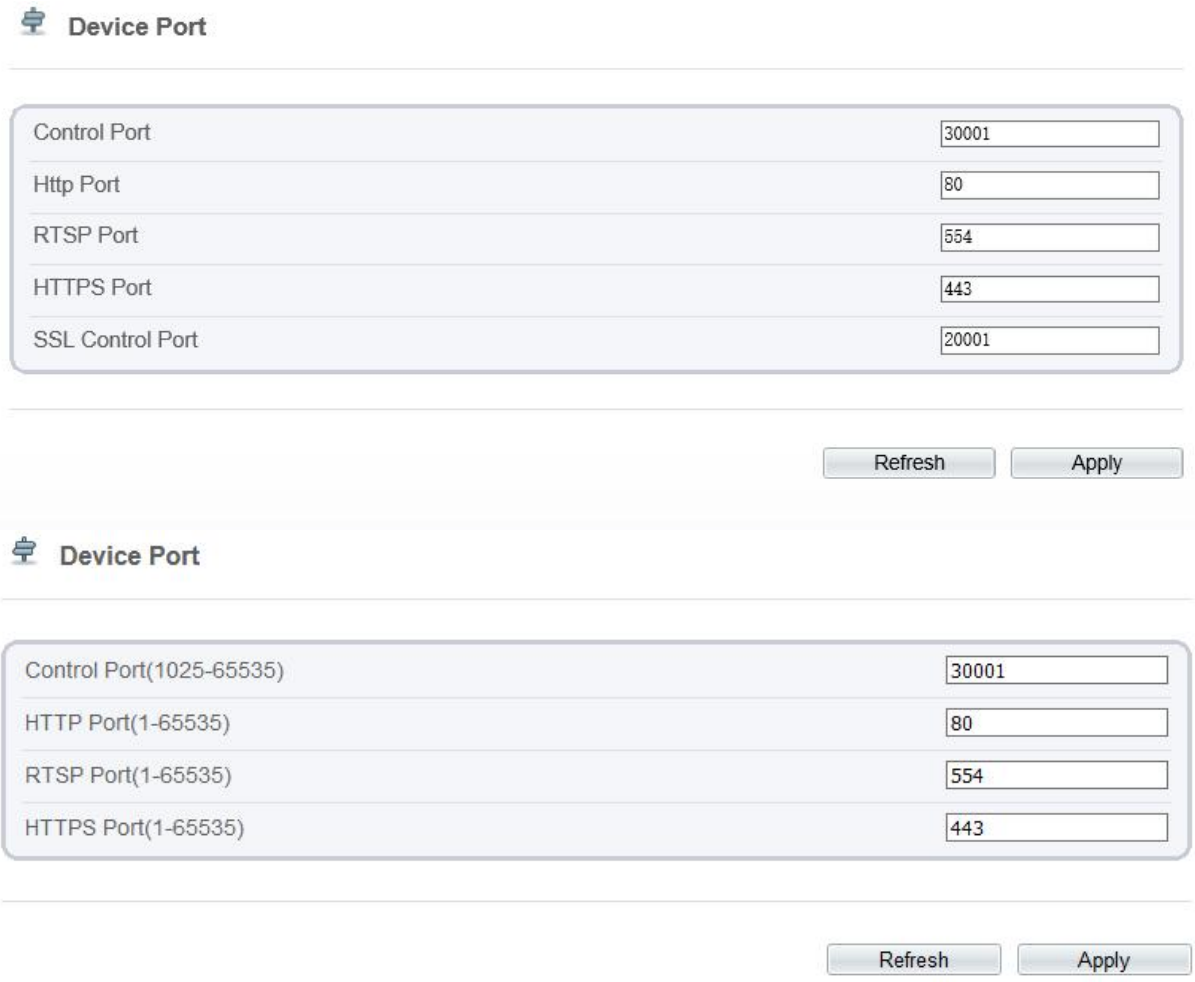
You must configure the HTTP port, control port, Real Time Streaming Protocol (RTSP) port and SSL Control port for device route mapping in a LAN.

Procedure

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

The **Device Port** page is displayed, as shown in Figure 4-6.

Figure 4-6 Device Port Page



Step 2 Set the parameters according to Table 4-6.

Table 4-6 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
HTTPS Port	Hyper Text Transfer Protocol over Secure Socket Layer	[Setting method] Enter a value manually. [Default value] 443
SSL Control Port	Secure socket layer control port. Only for Some Models.	[Setting method] Enter a value manually. [Default value] 20001

NOTE

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

Step 3 Click **Apply**.

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

If the message "Invalid Control Port, please input an integer between 1025 and 65535" is displayed, enter correct port numbers.

----End

4.7 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 4-7. Table 4-7 describes the parameters.

Figure 4-7 Date and Time Page

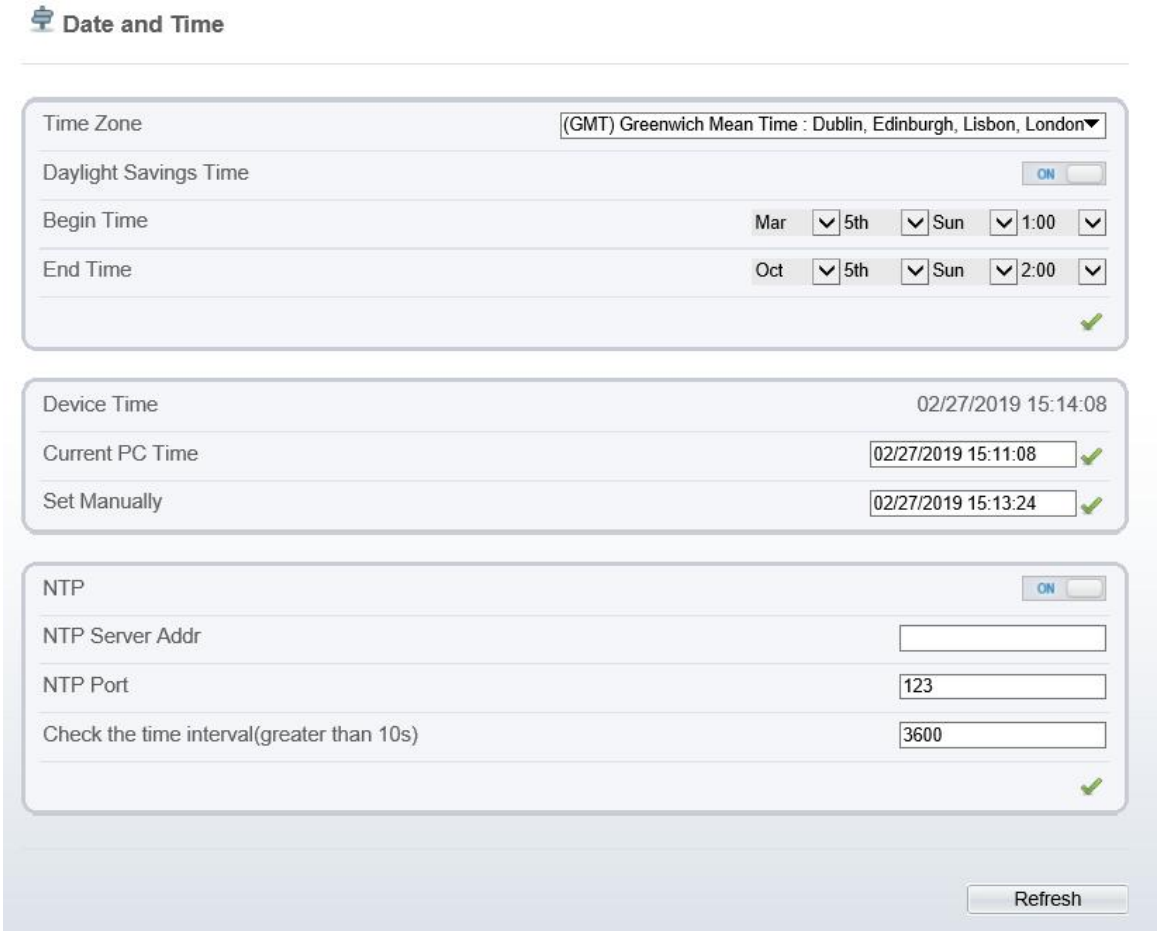


Table 4-7 Date and Time Parameters

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

4.8 Camera

Procedure

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

The **Camera** page is displayed, as shown in Figure 4-8. Table 4-8 describes the parameters.

Figure 4-8 Camera Page

Table 4-8 Camera parameters

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

Parameter	Description	Setting
Video Refresh Frequency	The options are as follows: 50 Hz: corresponds to the PAL system. 60 Hz: corresponds to NTSC system.	[Setting method] Follow the video standard.

Step 2 Enter a channel name.

NOTE

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

Step 3 Click .

The message "Apply success!" is displayed.

NOTE

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

----End

4.9 OSD

Description

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

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

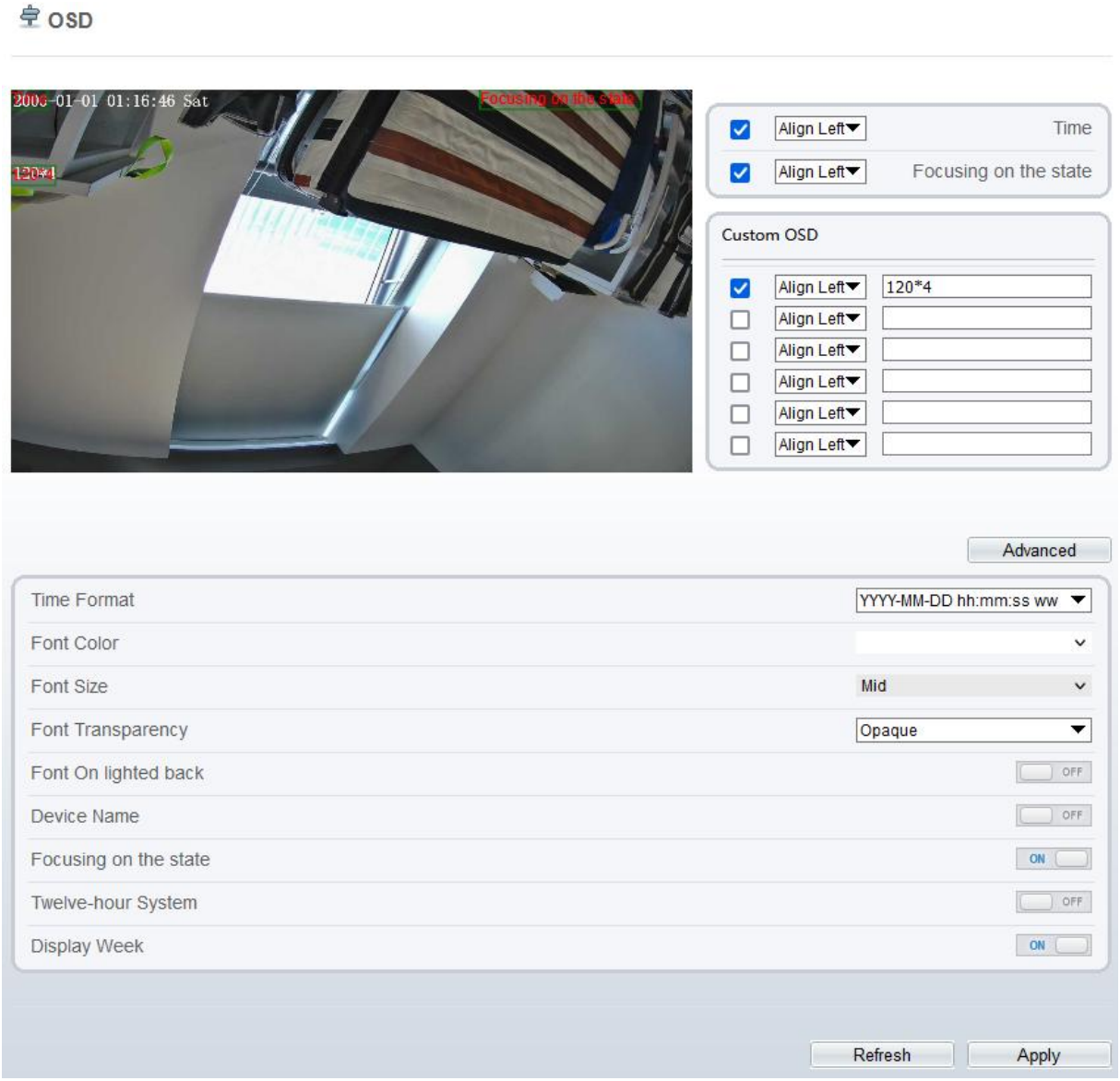
The OSD support simplified Chinese, English, digital and some special character only.

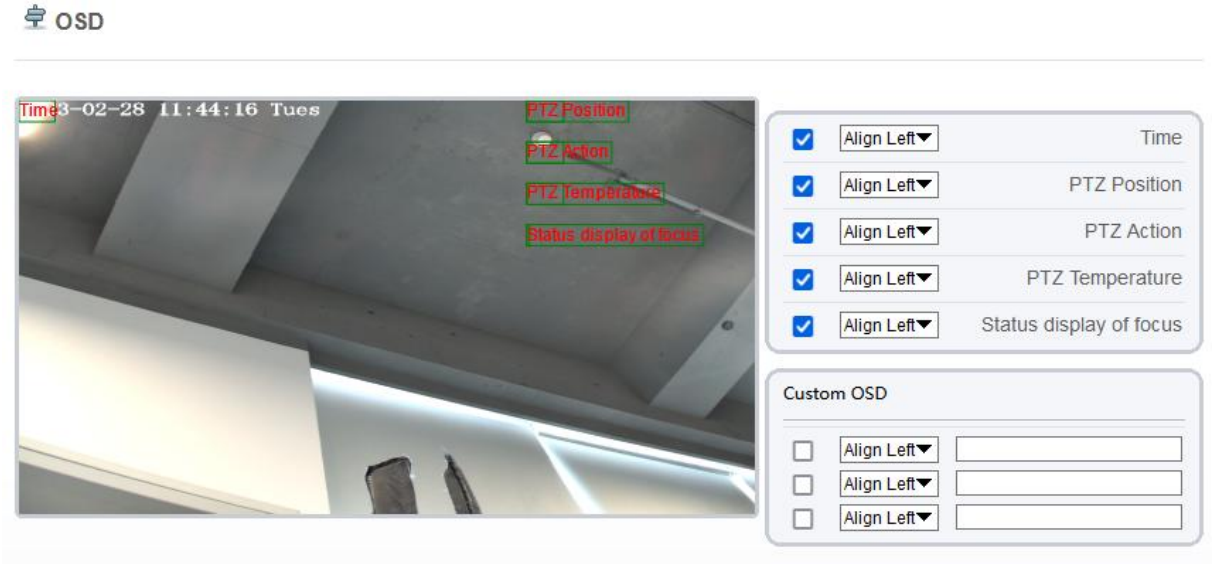
Procedure

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

The **OSD** page is displayed, as shown in Figure 4-9.

Figure 4-9 PTZ OSD Page





Step 2 Set the parameters according to Table 4-9.

NOTE

There are at most seven OSD display areas..

Table 4-9 OSD Parameters

Parameter	Description	Setting
Time	Indicates whether to display the time.	[Setting method] Tick the time.
Focusing on the State	Displays the state of focusing on. NOTE: Only Supplied for camera of auto focusing lens.	[Setting method] Tick the Focusing on the state.
Custom OSD	Enables you to enter a line of characters.	[Setting method] 1. Tick the custom OSD list. 2. Enter the characters. Click to save the value.
Time Format	Format in which the time is displayed.	[Setting method] Select a value from the drop-down list box. [Default value] YYYY-MM-DD hh:mm:ss ww

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

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

Step 4 Click **Apply**.

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

----End

4.10 Audio Input

Description

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

Procedure

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

The **Audio Input** page is displayed, as shown in Figure 4-10. Table 4-10 describes the parameters.

Figure 4-10 Audio Input Page

Table 4-10 Audio Input Parameters

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

Step 2 Click **Apply**.

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

----End

4.11 Audio Output

Description

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

Procedure

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

The **Audio Output** page is displayed, as shown in Figure 4-11. Table 4-11 describes the parameters.

Figure 4-11 Audio Output Page

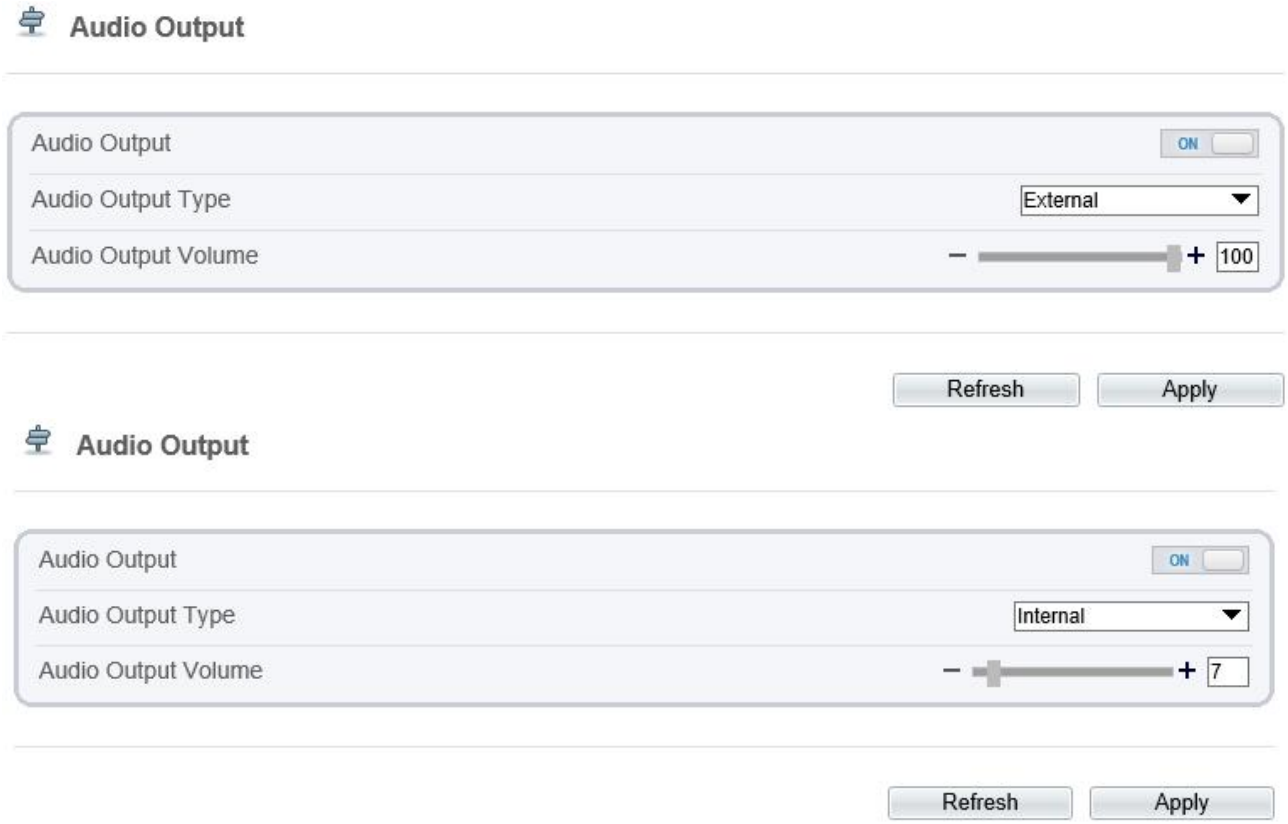


Table 4-11 Audio Output Parameters

Parameter	Description	Setting
Enable Audio Output	Indicates whether to enable the audio output function.	[Setting method] Click the button on to enable audio output.
Audio Output Type	Microphone types include: External An active audio output is required. Internal means the camera own speaker.	[Setting method] Select a value from the drop-down list box.

Parameter	Description	Setting
Audio output Volume	Allows you to adjust the audio output volume.	[Setting method] Slide the slider left or right. [Default value] 50 NOTE The value ranges from 0 to 100.

Step 2 Click **Apply**.

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

----End

4.12 Dome PTZ (Only for Some Models)

Description

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

Procedure

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

The **Dome PTZ** page is displayed, as shown in Figure 4-12.

Figure 4-12 Dome PTZ Page

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

Step 3 Click **Apply**.

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

----End

4.13 CVBS Function (Only for Some Models)

Preparation

Connect a display device to the VIDEO OUT port.

Description

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

Procedure

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

The **BNC Video Output** page is displayed, as shown in Figure 4-13.

Figure 4-13 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

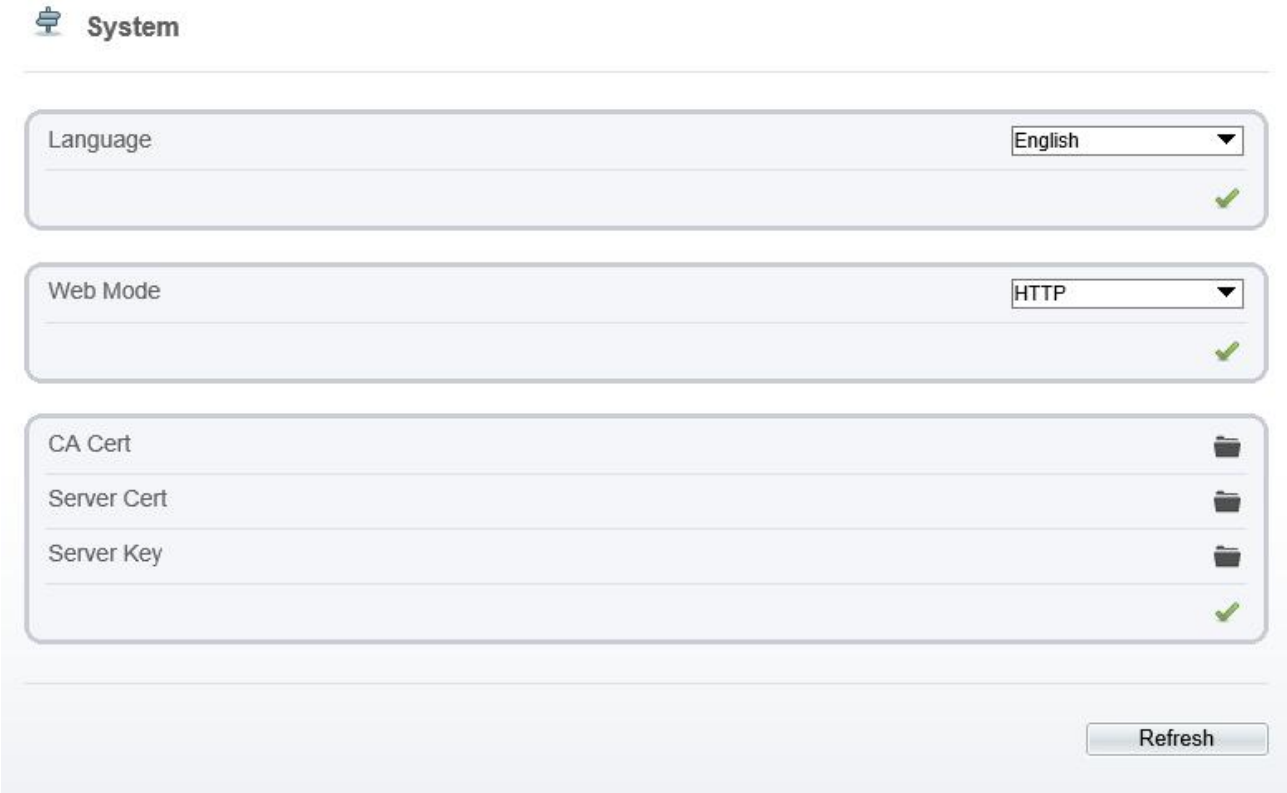
4.14 System Service

Procedure

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

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

Figure 4-14 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.

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

Step 9 Click to update the certificate.

----End

4.15 Voice Denoise (Only for Some Models)

Description

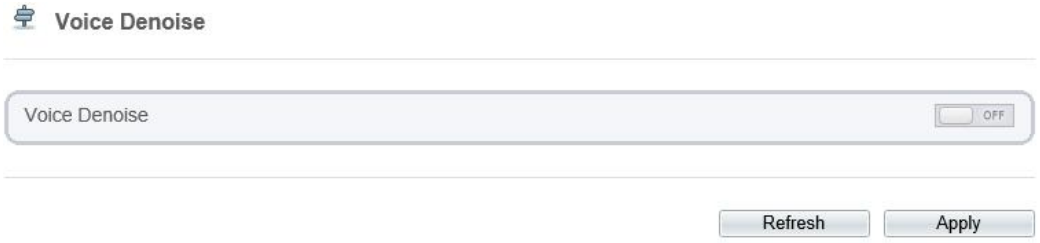
On the **Voice Denoise** page, you can enable the Voice Denoise to reduce the effect of external environmental noise on the built-in MIC.

Procedure

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

The **Voice Denoise** page is displayed, as shown in Figure 4-15.

Figure 4-15 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

4.16 Software Licenses

Procedure

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

The **Software Licenses** page is displayed, as shown in Figure 4-16.

Figure 4-16 Software Licenses Page

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

----End

5 Configure External Devices

5.1 External PTZ Parameters (Only for Some Models)

Description

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

CAUTION

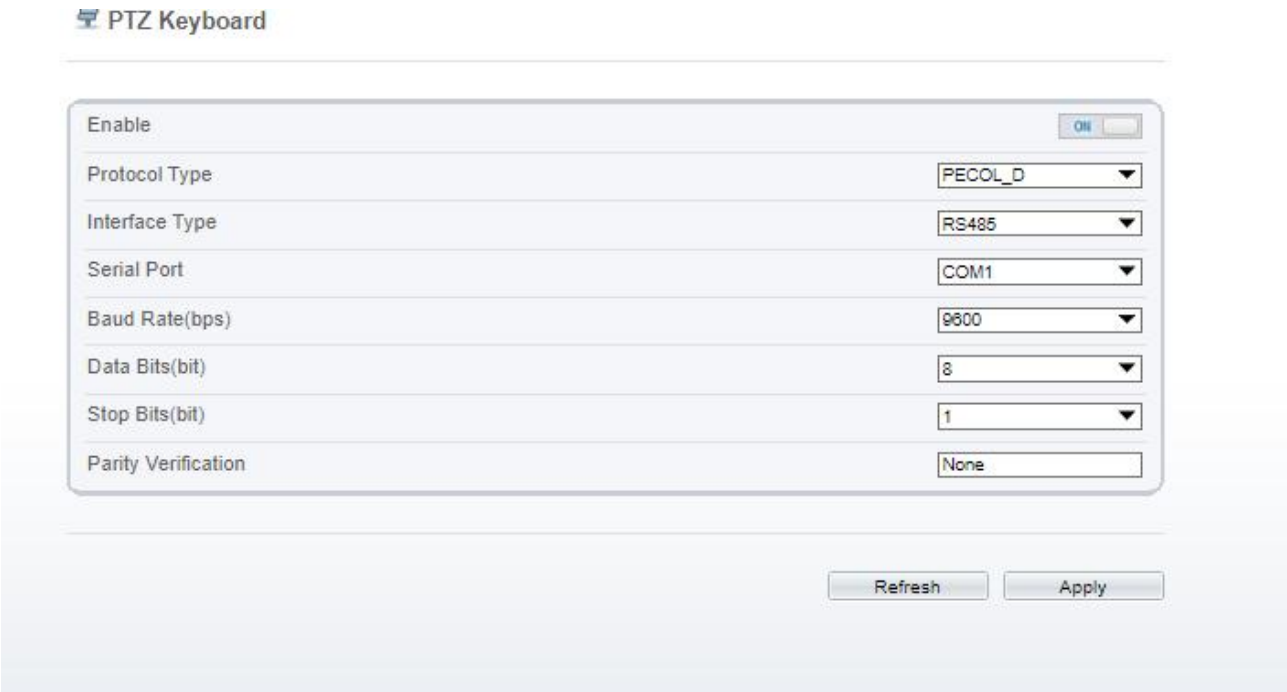
This function is available only for a camera connected to an external PTZ. The PTZ address must be set to the address of the external PTZ; otherwise, the external PTZ cannot be used.

Procedure

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

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

Figure 5-1 PTZ Page



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

Table 5-1 PTZ Keyboard 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, such as PELCO_D and PELCO_P.	[Setting method] Select a value from the drop-down list box. NOTE When external PTZ parameters are configured, these parameters must match the settings on the external PTZ.
PTZ Address	Address of the external PTZ.	
Serial Port	The default value is **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

6 Configure Intelligent Analysis

6.1 Perimeter

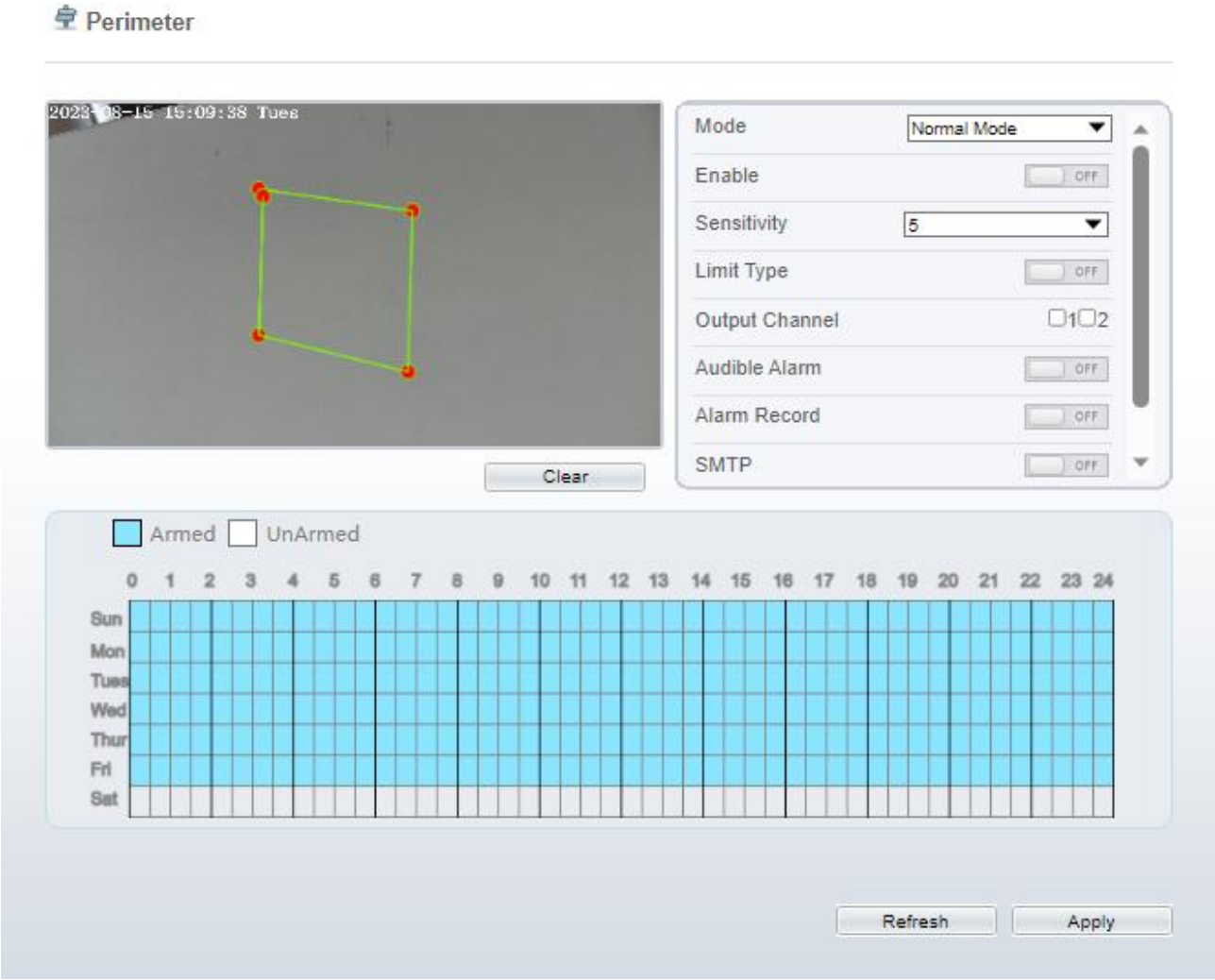
Description

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

Procedure

Step 1 Select **Intelligent Analysis** >**Perimeter** to access the **perimeter** interface, as shown in Figure 7-1

Figure 6-1 perimeter Setting Interface



Step 2 Set all parameters of perimeter. Table 7-1 describes the specific parameters.

Table 6-1 perimeter Parameter Description

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Enable	Enable the button to enable the alarm.	[How to set] Click the button on. [Default value] **OFF**
Sensitivity	The sensitivity of detecting the target, when the value is high, the target can be detected easily, but the accuracy will be lower.	[How to set] Choose from the drop-down list [Default value] **5**
Limit Type	Enable to choose the limit type (person or car / person / car) from type drop-down list.	[How to set] Click the button on. [Default value] **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. Only for Some Models.	[How to set] Click to select an ID.
Audible alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**").	[How to set] Click to enable Audio Detection Alarm [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] **OFF**
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. More details please refer to chapter 13.5	[How to set] Click to enable SMTP. [Default value] **OFF**

Parameter	Description	Setting
FTP Upload	Enable the button to enable File Transfer Protocol. More details please refer to chapter 13.6 .	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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 7-2.

Figure 6-2 Deployment Area Setting Interface

NOTE

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

Any shape with 8 sides at most can be drawn.

The quantity of deployment areas is up to 8.

Step 4 Set deployment time

Click the armed icon 

to set the arming time. Click the Unarmed icon 

to set the unarming time.

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

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

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

NOTE

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

Figure 6-3 Deployment Time Setting Interface

----End

6.2 Single Virtual Fence

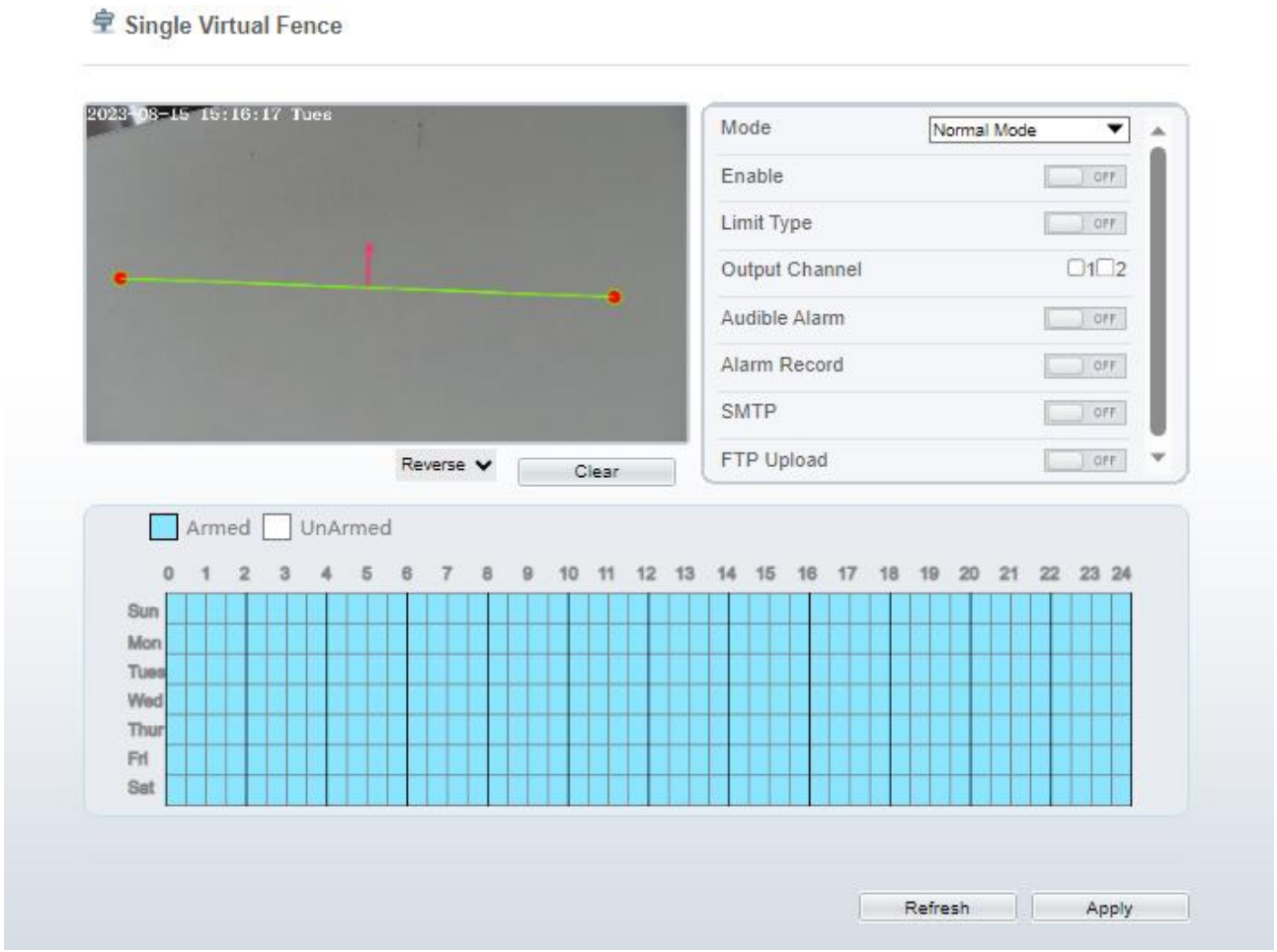
Description

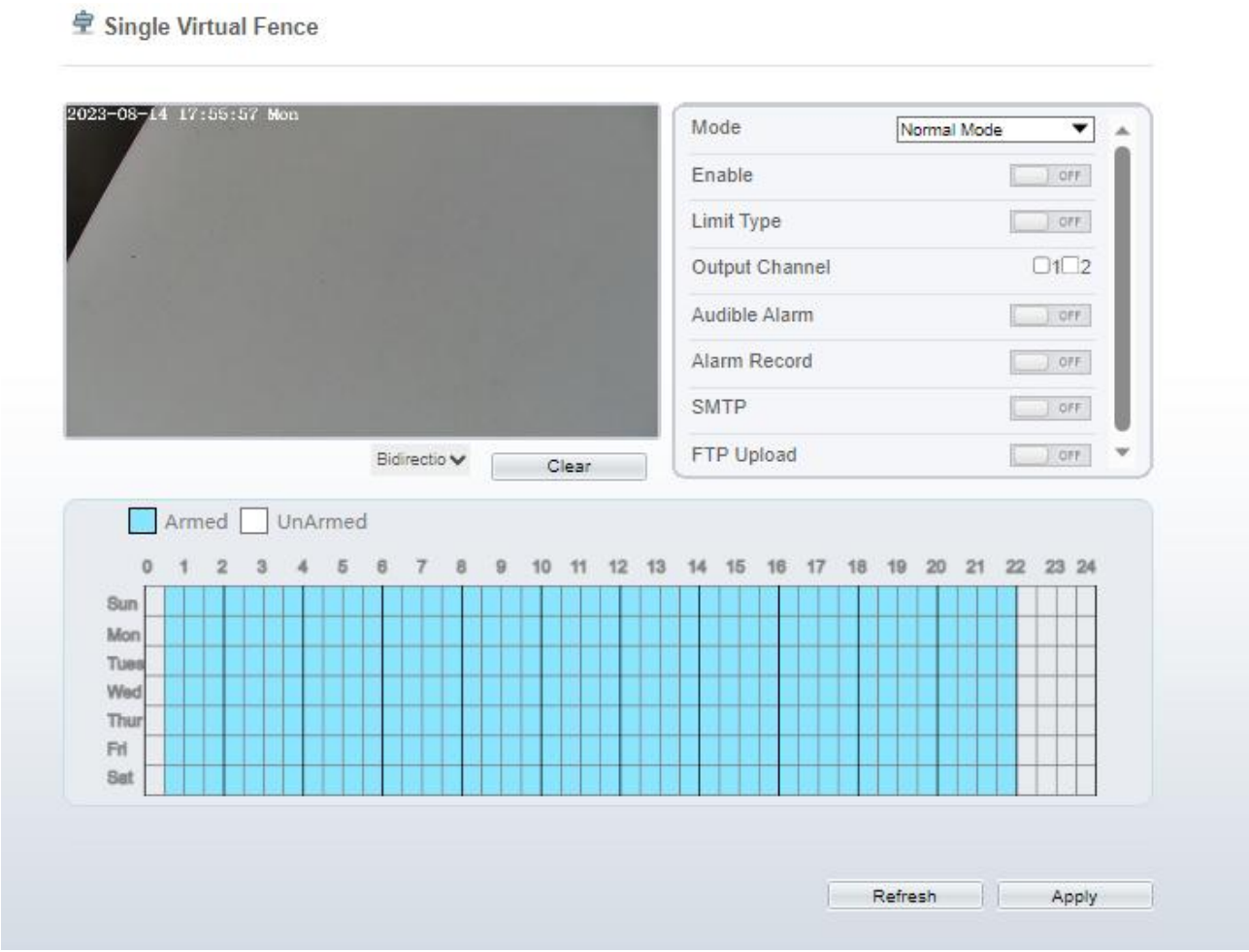
A single virtual fence is a line that is set at a concerned position within the monitored field of view and specifies the forbidden travel direction, an alarm is generated when target objects (such as person or car) cross this line.

Procedure

Step 1 Select **Intelligent Analysis** > **Single Virtual Fence** to access the **Single Virtual Fence** setting interface, as shown in Figure 7-4.

Figure 6-4 Single Virtual Fence Setting Interface





Step 2 Set all parameters of the single line crossing. Table 7-2 describes the specific parameters.

Table 6-2 Parameters of Single Line Crossing

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

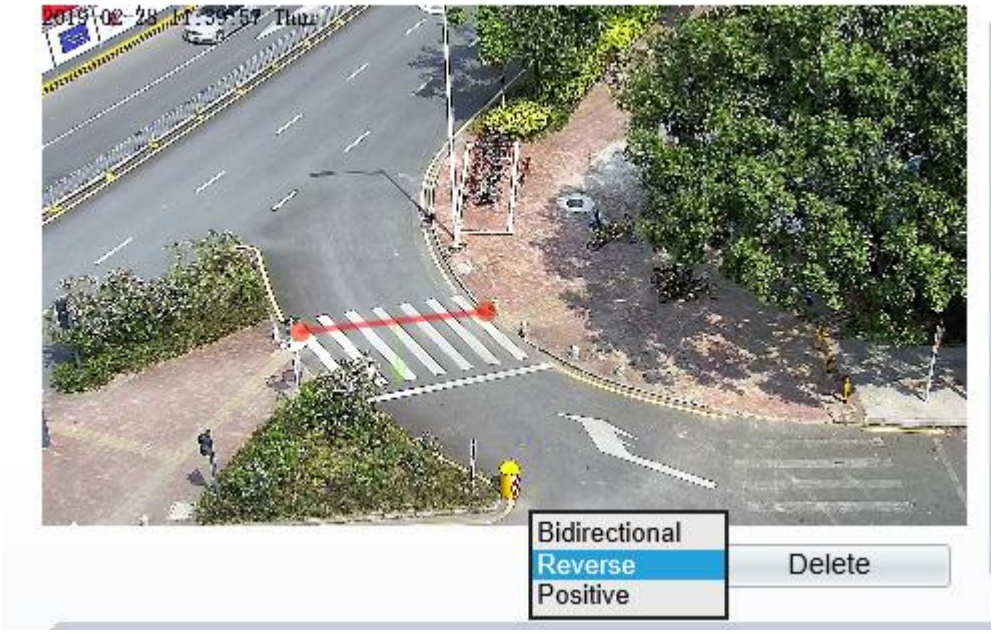
Parameter	Description	Setting
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for some models.	[How to set] Click to select an ID.
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**"). Only for some models.	[How to set] Click the button on. [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] **OFF**
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**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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 line crossing: Click a line (and the trip line turns red) to select the single line crossing and set its direction as **positive**, **reverse** or **bidirectional**, or **delete the selected** line. You can also press and hold left mouse button at the endpoint of a single line crossing and move the mouse to modify the position and length of this single line crossing. You can right-click to delete the single line crossing, as shown in Figure 7-5.

Figure 6-5 Deployment Area Setting Interface



NOTE

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

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

Step 4 Set deployment time.

For more details, please refer to *7.1 Step 4*.

----End

6.3 Double Virtual Fences

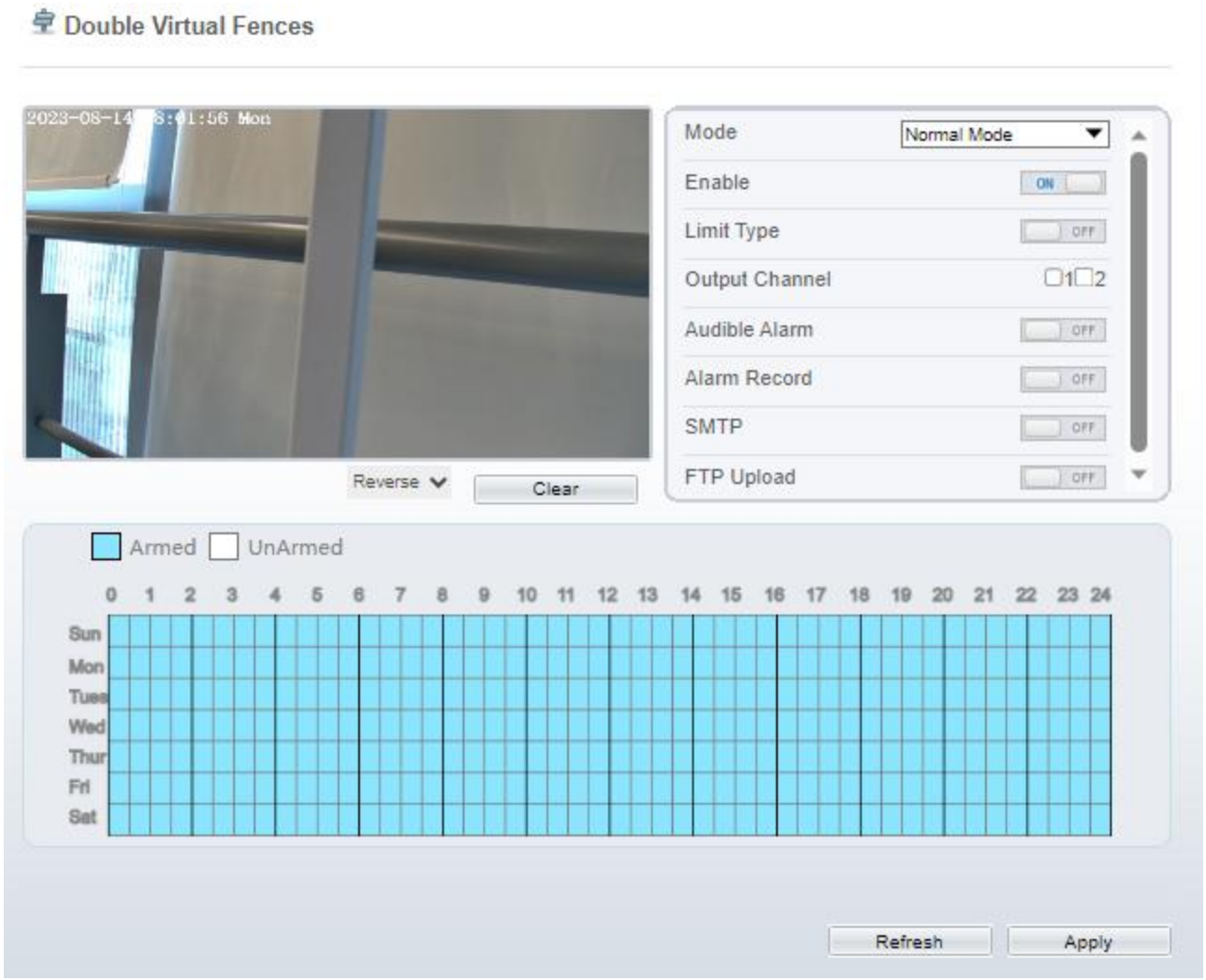
Description

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 target objects (such as person or car) move along the set travel direction and cross these lines in a certain order (line 1 followed by line 2) in pass max time, an alarm is generated.

Procedure

Step 1 Select **Intelligent Analysis** > **Double Virtual Fences** to access the **Double Virtual Fences** setting interface, as shown in Figure 7-6.

Figure 6-6 Double Virtual Fences Setting Interface



Step 2 Set all parameters of the double line crossing. Table 7-3 describes the specific parameters.

Table 6-3 Parameters of Double Virtual Fence

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

Parameter	Description	Setting
Limit Type	Enable to choose the limit type (person or car / person / car) from type drop-down list.	[How to set] Click the button on. [Default value] **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. Only for some models.	[How to set] Click to select an ID.
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**"). Only for some models.	[How to set] Click the button on. [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] **OFF**
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. For more details, please refer to chapter 13.5	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. For more details, please refer to chapter 13.6 .	[How to set] Click to enable FTP. [Default value] **OFF**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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 line crossing to set the direction to Positive or Reverse.

Setting double line crossing: Click one of the double line crossing (and the virtual fence turns red) to select this virtual fence and set the direction to **Positive** or **Reverse**, or delete the selected line. You can

also press and hold left mouse button at the endpoint of a virtual fence and move the mouse to modify the position and length of this virtual fence. You can right-click to delete the double line crossing, as shown in Figure 7-7.

Figure 6-7 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.

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

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

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

Step 4 Set deployment time.

More details please refer to *7.1 Step 4*

----End

6.4 Multi-Loitering

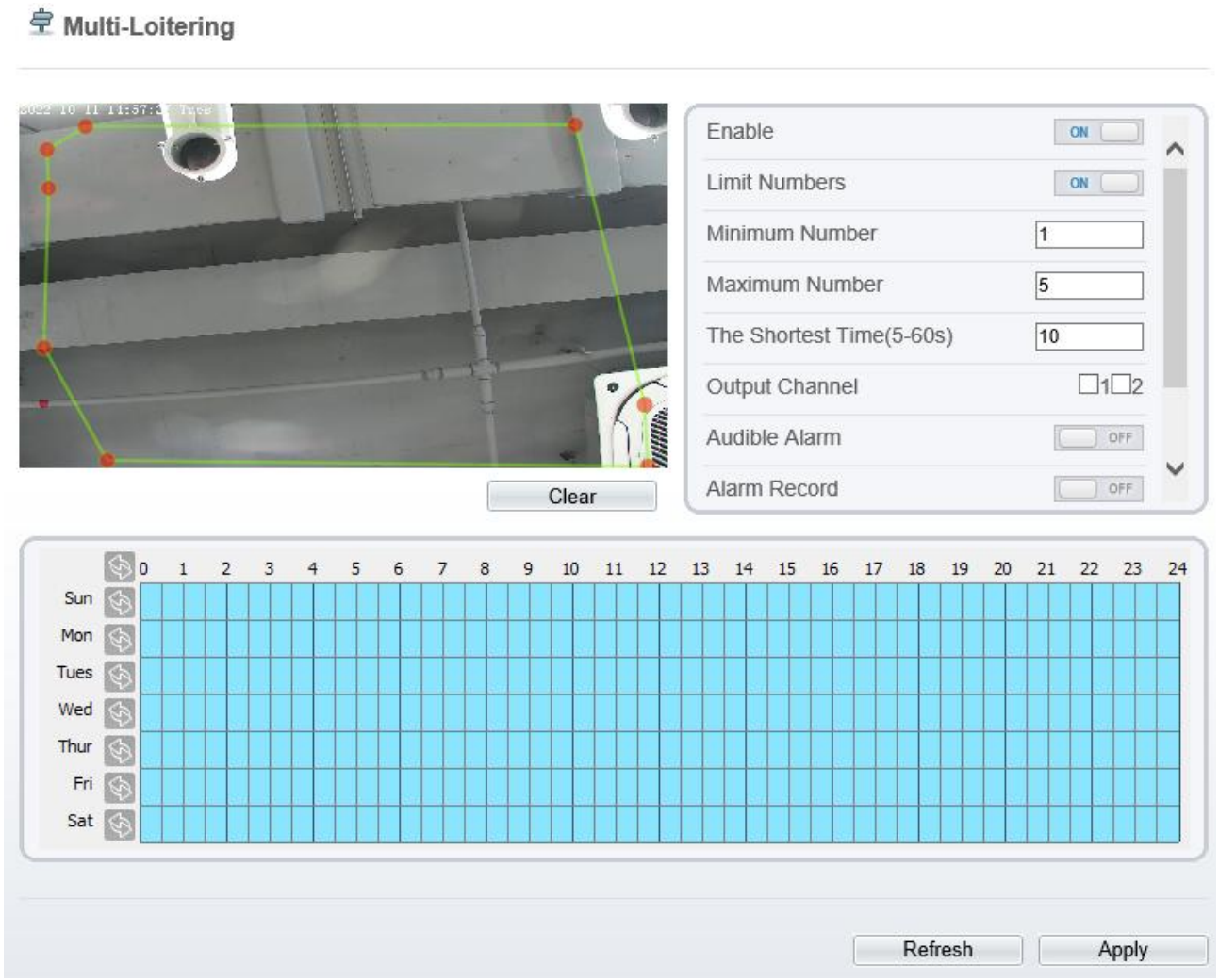
Description

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

Procedure

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

Figure 6-8 Multi-Loitering Setting Interface



Step 2 Set all parameters of multi-loitering. Table 7-4 describes the specific parameters.

Table 6-4 Multi-Loitering Parameter Description

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Enable	Enable the button to enable the alarm.	[How to set] Click the button on. [Default value] **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 alarm is generated for more than 2 people loitering.	[How to set] Click to enable Limit Numbers.

Parameter	Description	Setting
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] Input a value in the area box. [Default value] **10 s**
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for some models	[How to set] Click to select an ID.
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**"). Only for some models.	[How to set] Click the button on. [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] **OFF**
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. For more details, please refer to chapter 13.5	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. For more details please refer to chapter 13.6	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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 7-9.

Figure 6-9 Deployment Area Setting Interface

NOTE

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

Any shape with 8 sides at most can be drawn .

The quantity of deployment areas is up to 8.

Step 4 Set deployment time

For more details please refer to *7.1 Step 4*.

----End

6.5 Wrong Way

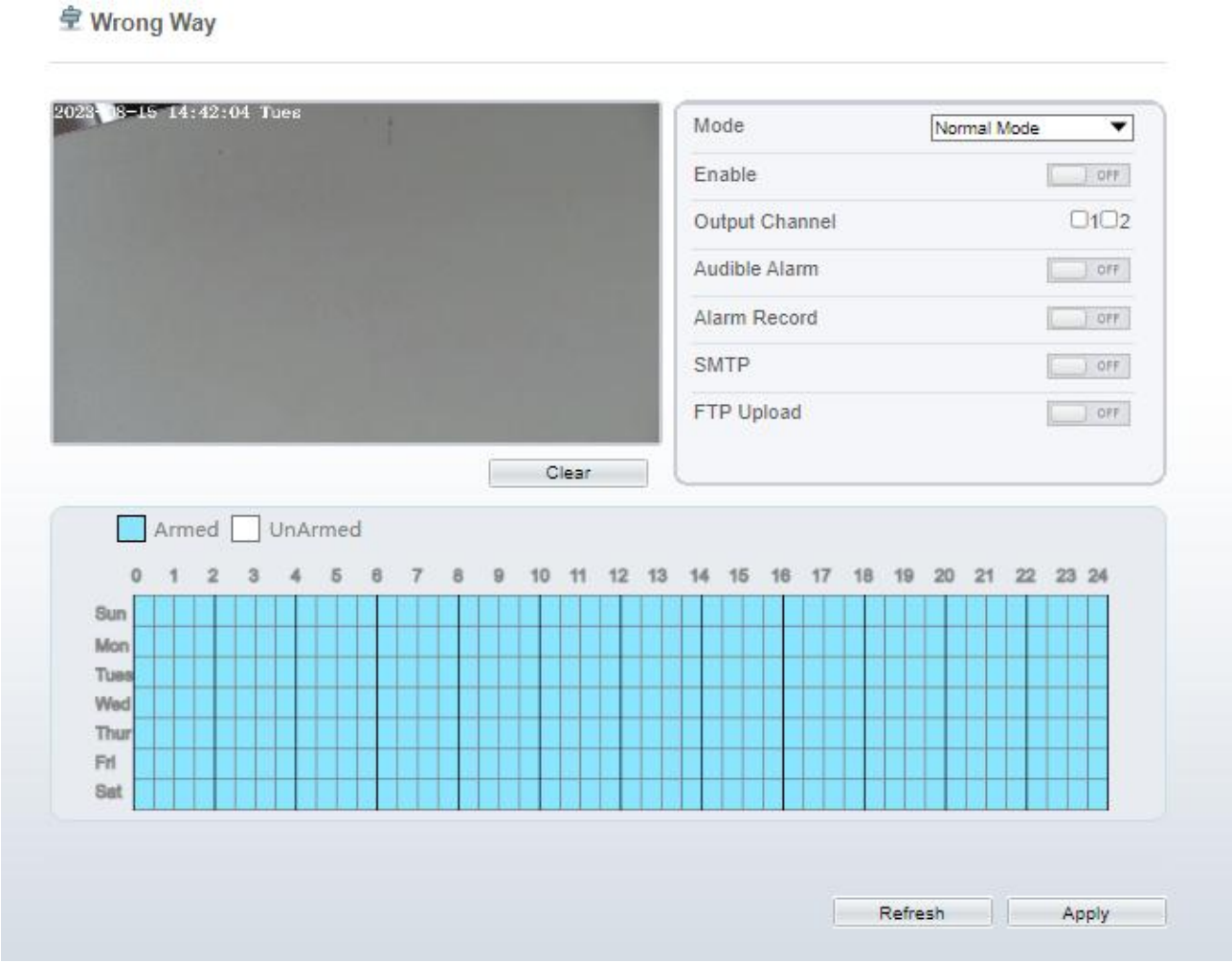
Description

Wrong Way 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** > **Wrong Way** to access the **Wrong Way** setting interface, as shown in Figure 7-10.

Figure 6-10 Wrong Way Setting Interface



Step 2 Set all parameters of Retrograde . Table 7-5 describes the specific parameters.

Table 6-5 Wrong Way Parameter Description

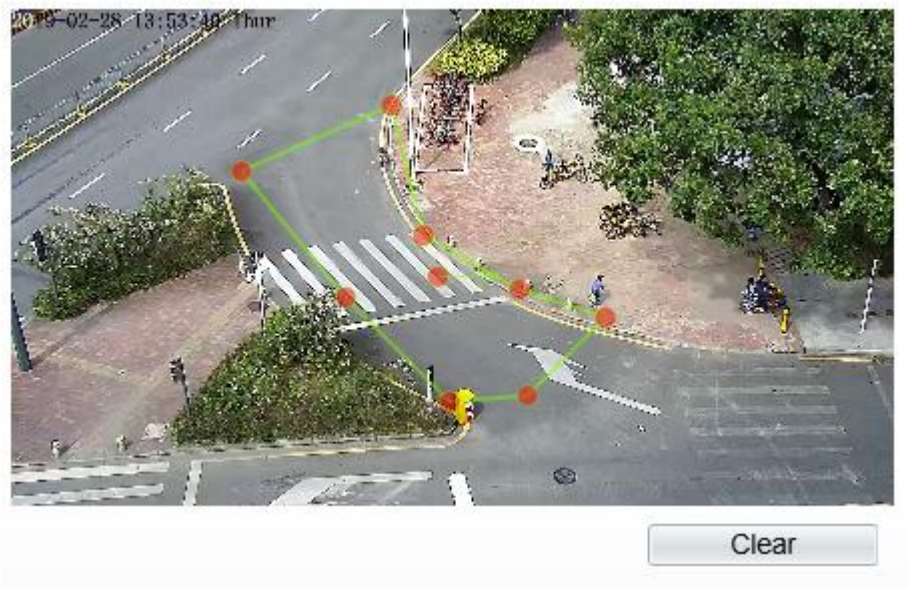
Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Enable	Enable the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

Parameter	Description	Setting
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**"). Only for some models.	[How to set] Click the button on. [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for Some Models.	[How to set] Click the button on. [Default value] **OFF**
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. More details, please refer to chapter 13.5	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. For more details, please refer to chapter 13.6	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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 7-11.

Figure 6-11 Deployment Area Setting Interface



NOTE

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

Any shape with 8 sides at most can be drawn .

The quantity of deployment areas is up to 8.

Step 4 Set deployment time

For more details, please refer to *7.1 Step 4*.

----End

6.6 Illegal Parking

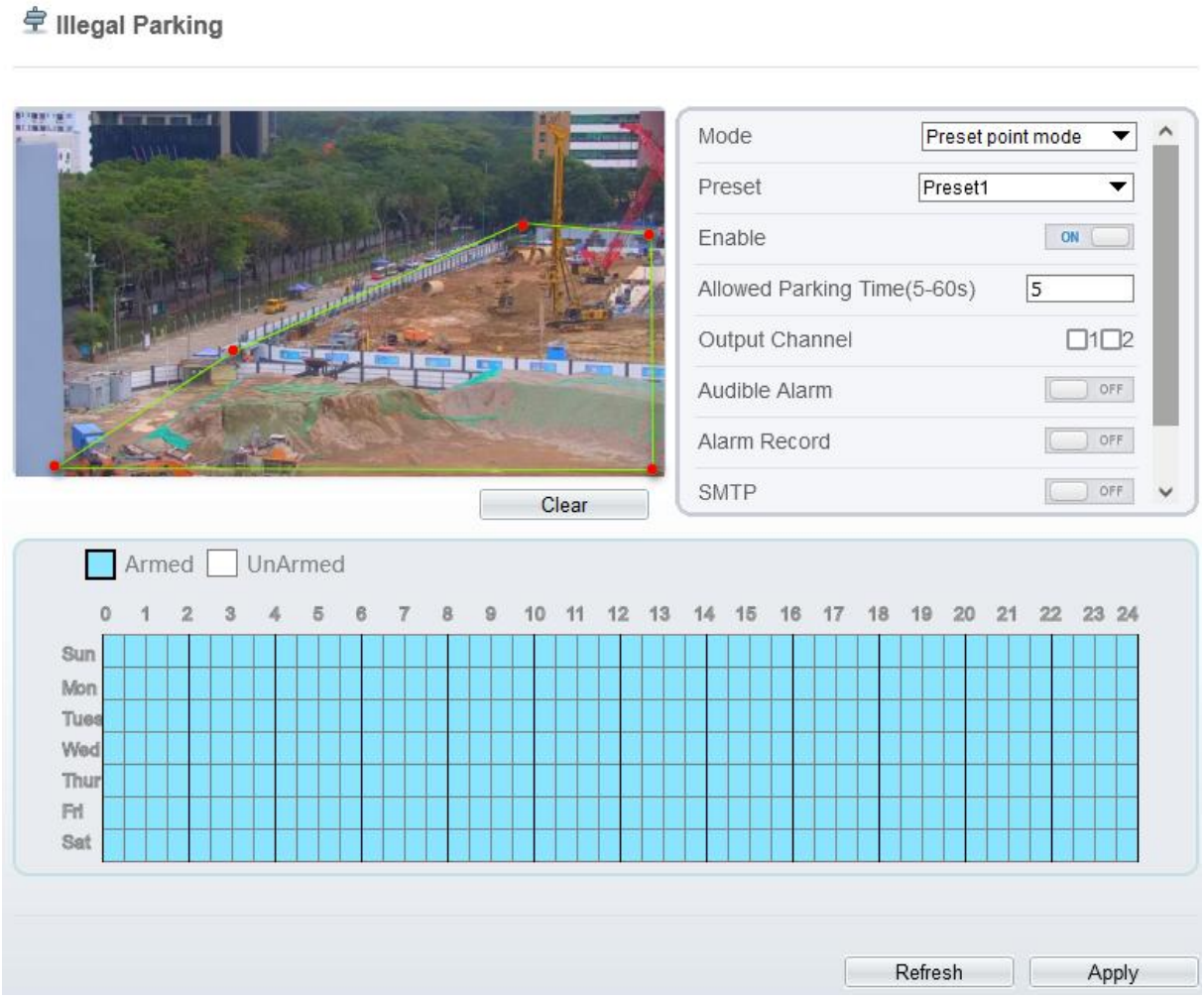
Description

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 7-12.

Figure 6-12 Illegal Parking Setting Interface



Step 2 Set all parameters for illegal parking. Figure 7-13 describes the specific parameters.

Figure 6-13 Description of Parameters for Illegal Parking

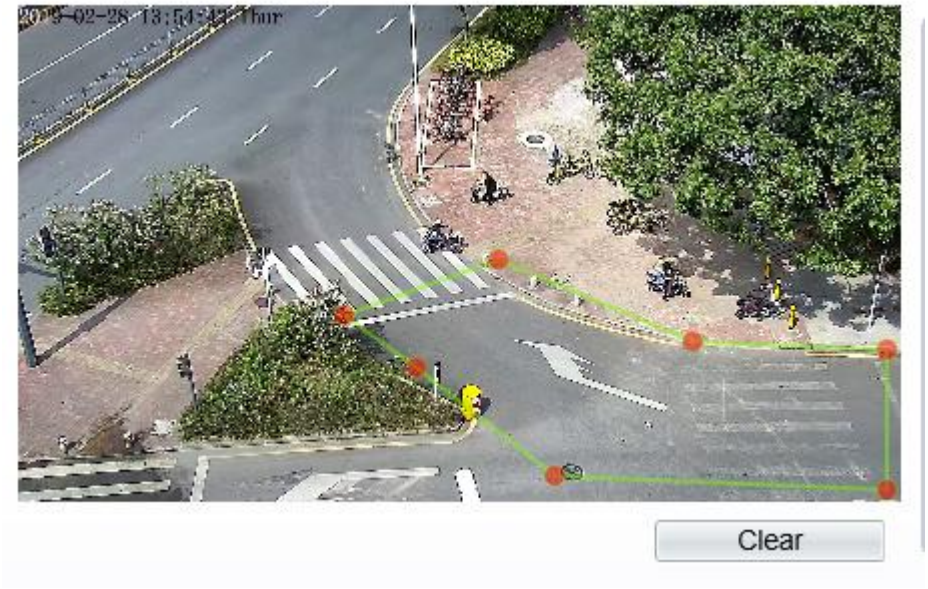
Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advanced.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Enable	Enable the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

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] Input a value in the area box. [Default value] 5
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.
Audio Detect Alarm	Enable to choose the sound alarm file from type drop-down list. When it alarms the device will play alarm sound file. Supplied for some models.	[How to set] Click Enable to enable. [Default value] OFF
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. Supplied for some models.	[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 7-14

Figure 6-14 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 up to 8.

Step 4 Set deployment time.

----End

6.7 People Counting

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

Procedure

Step 1 Select **Intelligent Analysis** > **People Counting** to access the **People Counting** setting interface, as shown in Figure 7-15.

Figure 6-15 People counting

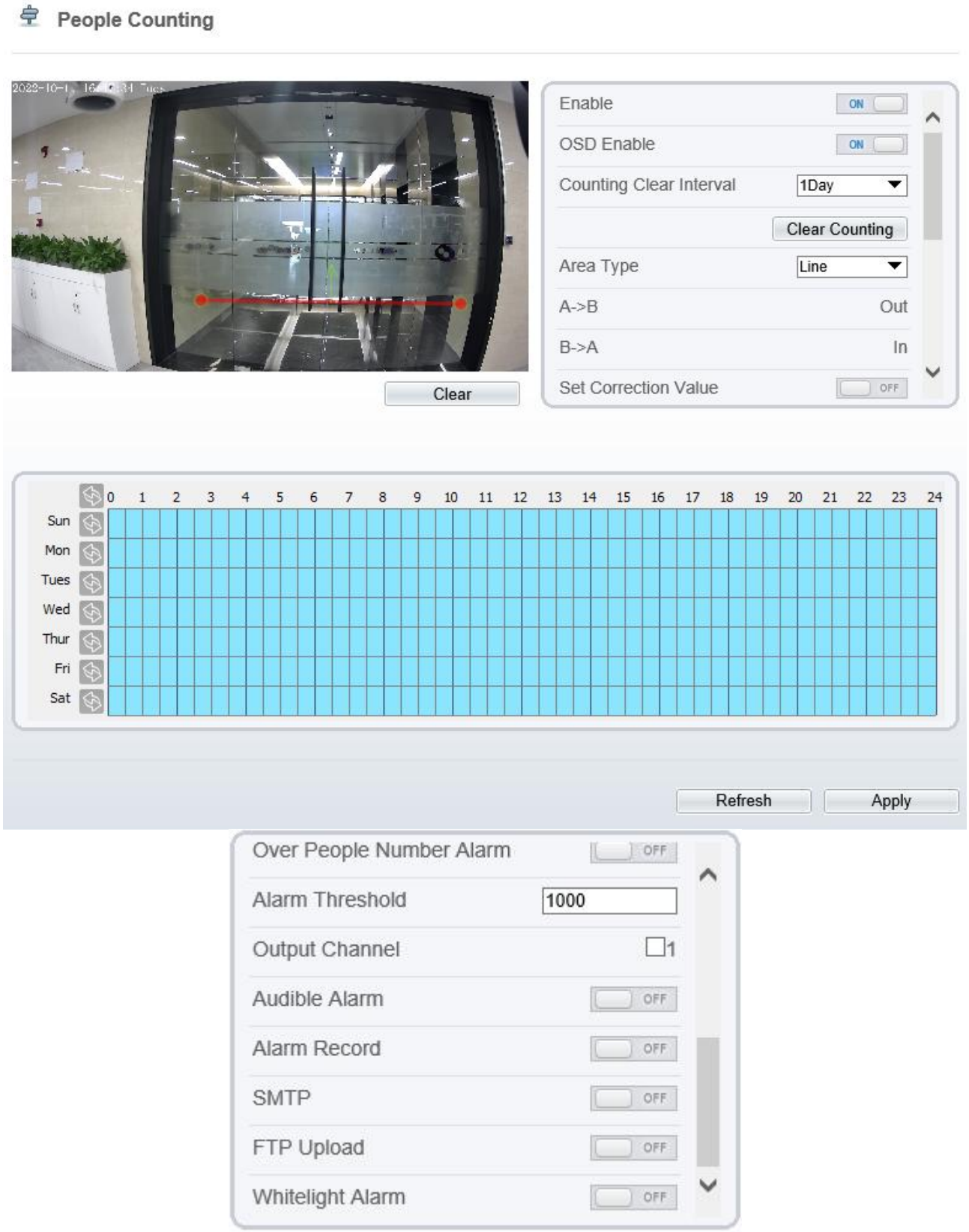
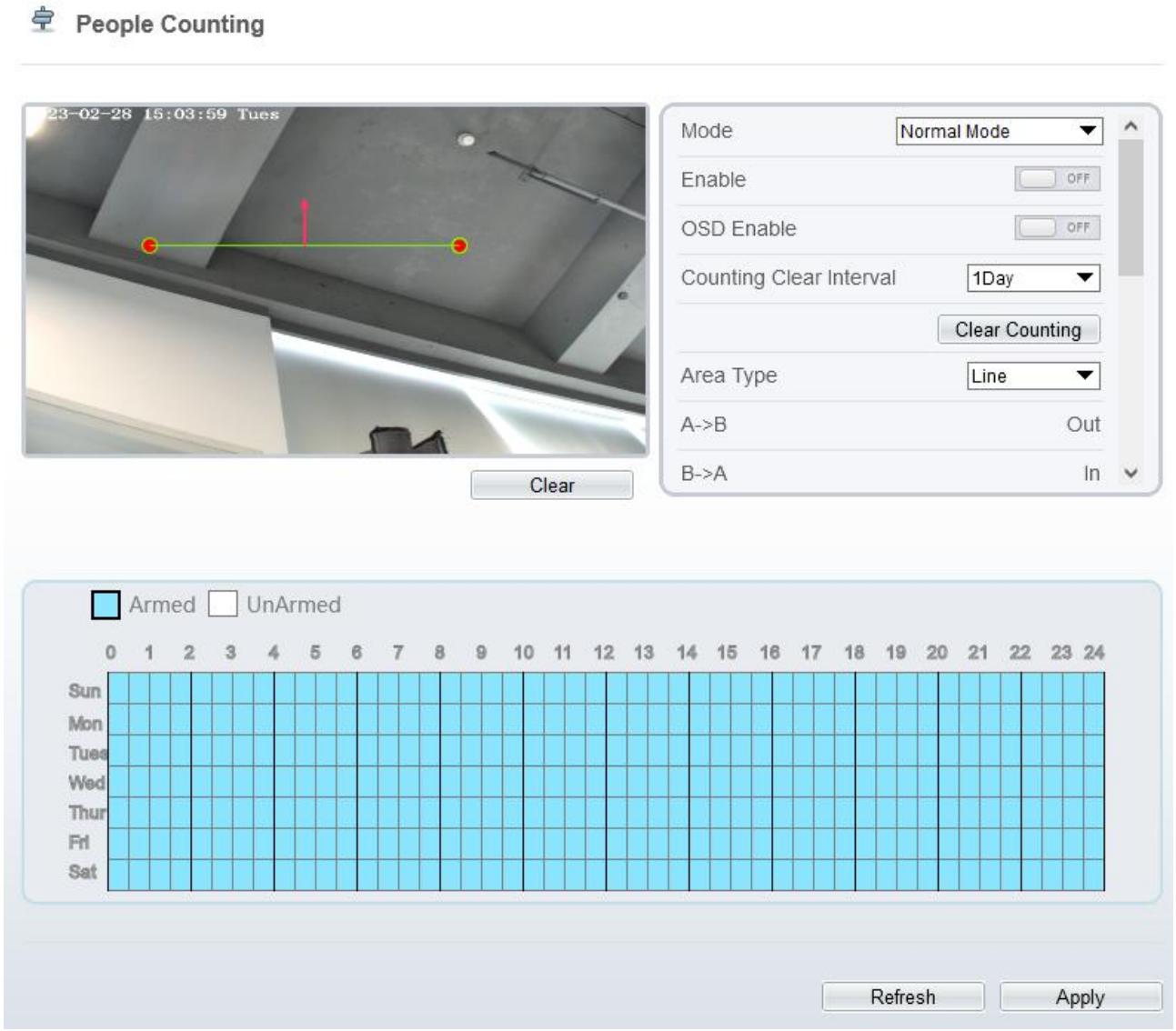


Figure 6-16 People counting for PTZ cameras.



Step 2 Set all parameters of illegal parking. Table 7-6 describes the specific parameters.

Table 6-6 Description of Parameters for People Counting

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

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

Parameter	Description	Setting
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. The parameters of SMTP can be set at **Configuration > Network Service > SMTP** interface.	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. The parameters of FTP can be set at **Configuration > Network Service > FTP** interface.	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Whitelight Alarm	When the **Day Night** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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.

Step 4 Set deployment time

For more details please refer to *7.1 Step 4*.**.**

----End

6.8 Smart Motion

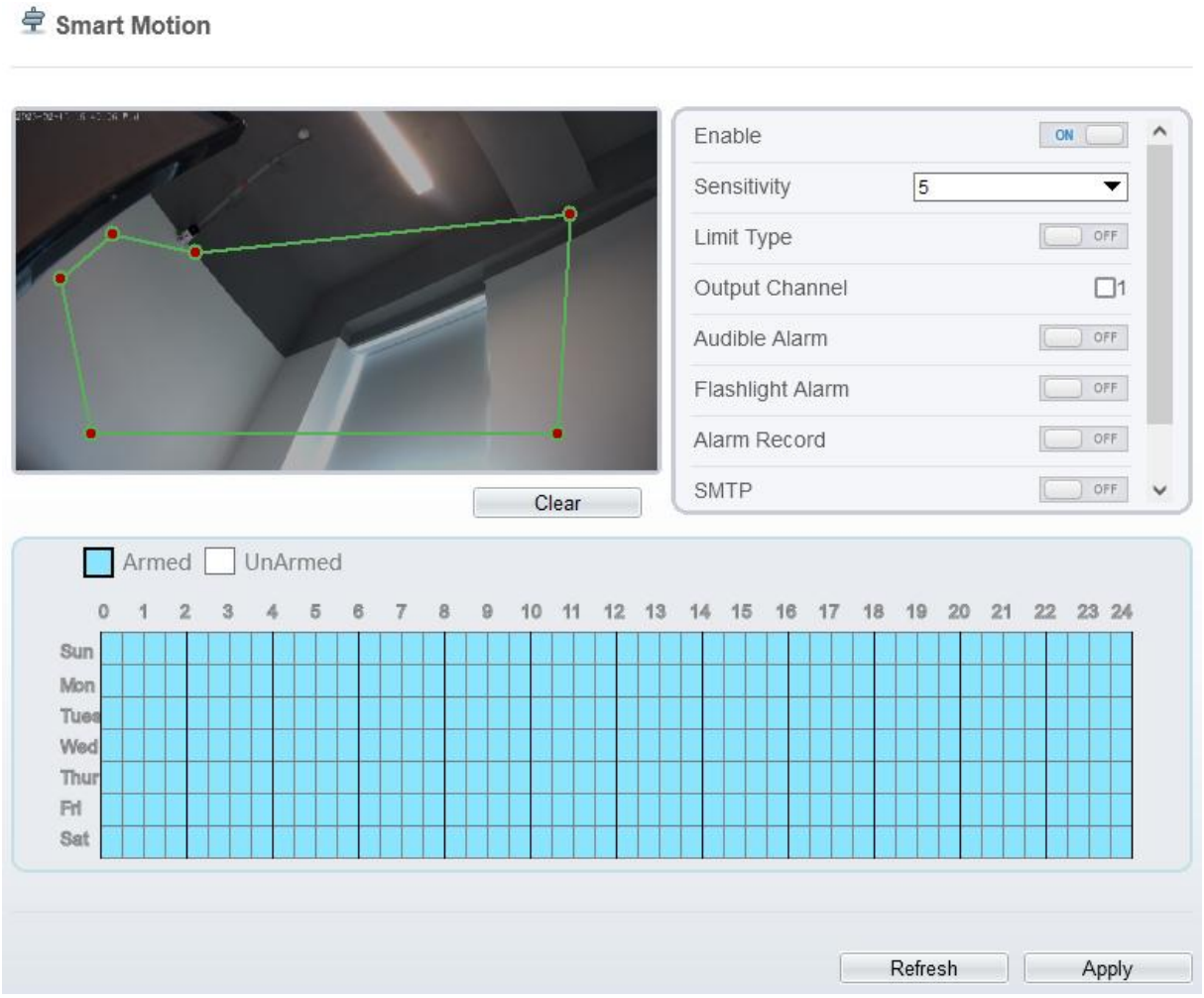
Description

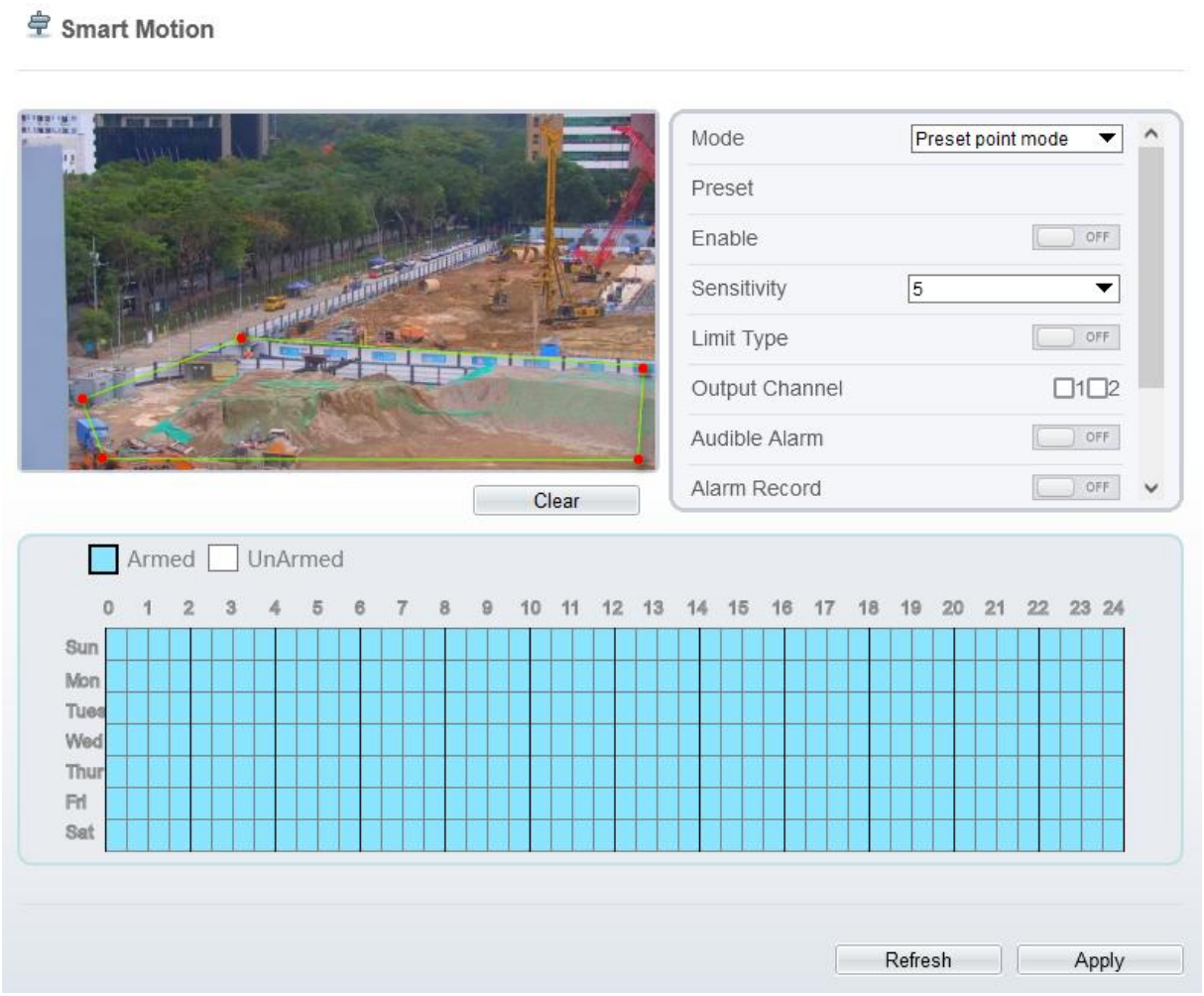
The smart motion function refers to that an alarm is generated when target objects (such as person, car, and both person and car) move at the deployment area.

Procedure

Step 1 Select **Intelligent Analysis** > **Smart Motion**, as shown in Figure 7-17.

Figure 6-17 Smart Motion Setting Interface





Step 2 Set all parameters of smart motion. Table 7-7 describes the specific parameters.

Table 6-7 Smart Motion Parameter Description

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

Parameter	Description	Setting
Limit Type	Enable to choose the limit type (person or car / person / car) from type drop-down list.	[How to set] Click the button on. [Default value] **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. Only for Some Models.	[How to set] Click to select an ID.
Audible Alarm	Enable, when the alarm happens, it will be play audio to alarm. Choose the audible alarm file (set at the "**Configuration > Alarm > Audible Alarm Output**").	[How to set] Click to enable Audio Detection Alarm [Default value] **OFF**
Flashlight Alarm	Enable to flashlight alarm when it triggers the alarm, the flashlight will flash. Only for some models.	[How to set] Click the button on. [Default value] **OFF**
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. More details please refer to chapter 13.5	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. More details please refer to chapter 13.6 .	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Whitelight Alarm	When the **DayNight** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to whitelight alarm when it triggers the alarm, the whitelight will be on. Only for Some Models.	[How to set] Click the button on. [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.

NOTE

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

Any shape with 8 sides at most can be drawn.

The quantity of deployment areas is up to 8.

Step 4 Set deployment time

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

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

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

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

NOTE

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

Figure 6-18 Deployment Time Setting Interface

----End

7 Configure Intelligent Tracking (Only for Some Models)

7.1 Intelligent Tracking

Description

This function is only used for high speed dome.

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

Procedure

Step 5 Select **Configuration > Intelligent Tracking** to access the Intelligent Tracking setting interface, as shown in Figure 8-1.

Figure 7-1 Intelligent Tracking Interface

Step 6 Set all parameters for intelligent tracking. Table 8-1 describes the specific parameters.

Table 7-1 Description of Parameters for Intelligent Tracking

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

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

----End

8 Configure the Alarm Function

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

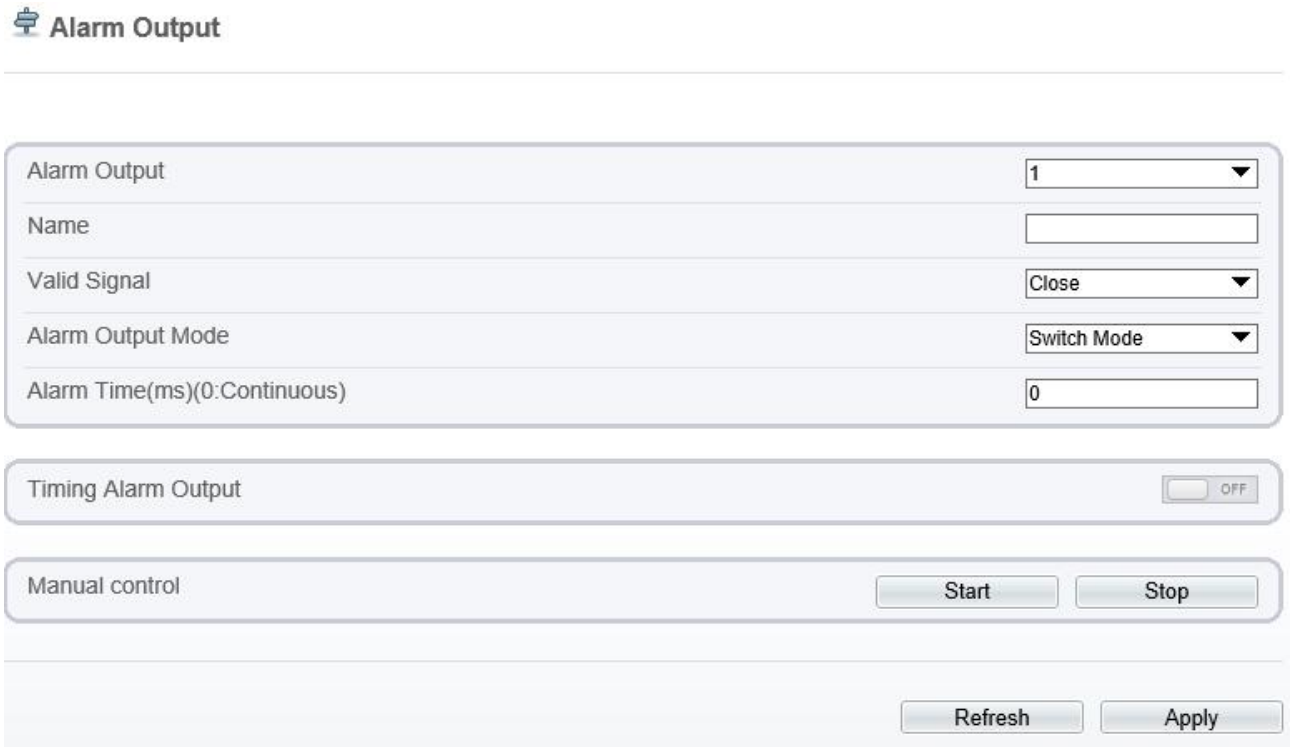
8.1 Alarm Output

Procedure

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

The **Alarm Output** page is displayed, as shown in Figure 9-1.

Figure 8-1 Alarm Output Page



Step 2 Set the parameters according to Table 9-1.

Table 8-1 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
Timing Alarm Output	Enable timing alarm output, set the schedule to time alarm。 NOTE If there are two alarm outputs, this setting is only valid for Alarm output 1.	[Setting method] Enable [Default value] OFF
Manual Control	Control the alarm output.	N/A

Step 3 Click **Apply**.

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

----End

8.2 Disk Alarm

Procedure

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

The **Disk Alarm** page is displayed, as shown in Figure 9-2.

Figure 8-2 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 (Please refer to the actual product).

Step 5 Click **Apply**.

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

----End

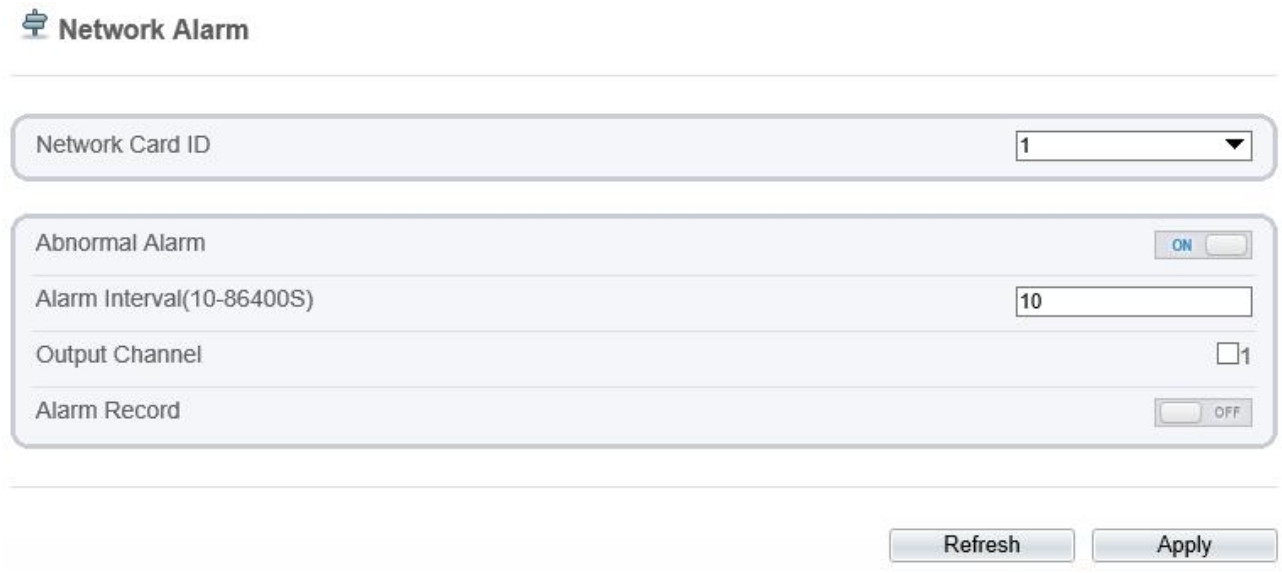
8.3 Network Alarm

Procedure

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

The **Network Alarm** page is displayed, as shown in Figure 9-3.

Figure 8-3 Network Alarm Page



Step 2 Click the button on to enable Abnormal alarm.

Step 3 Configure the network alarm interval.

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

Step 5 Click **Apply**.

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

----End

8.4 Day Night Switch Alarm

Description

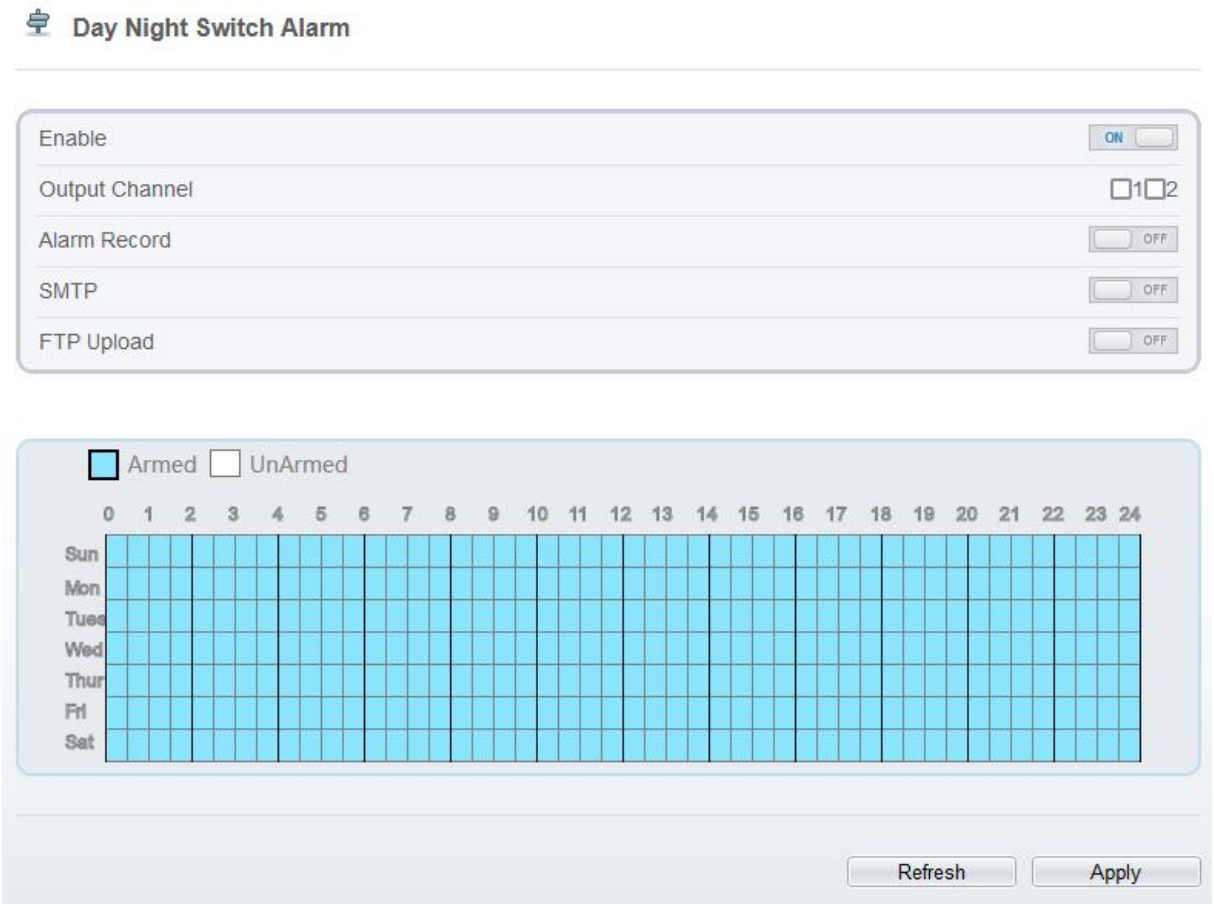
At the setting time, enable the day night switch alarm, when it happens day night switched, it will send alarm signal.

Procedure

Step 1 Choose C**onfiguration > Alarm > Day Night Switch Alarm**.

The **Day Night Switch Alarm** page is displayed, as shown in Figure 9-4.

Figure 8-4 Day Night Switch Alarm



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

Step 3 Configure the day night switch alarm schedule.

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

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

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

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

NOTE

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

Step 4 Click the button on to enable Alarm Record.

Step 5 Click the button on to enable SMTP.

Step 6 Click the button on to enable FTP Upload.

Step 7 Click **Apply**.

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

----End

8.5 I/O Alarm Linkage

Description

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

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

Enable the I/O alarm function.

Configure the I/O alarm schedule.

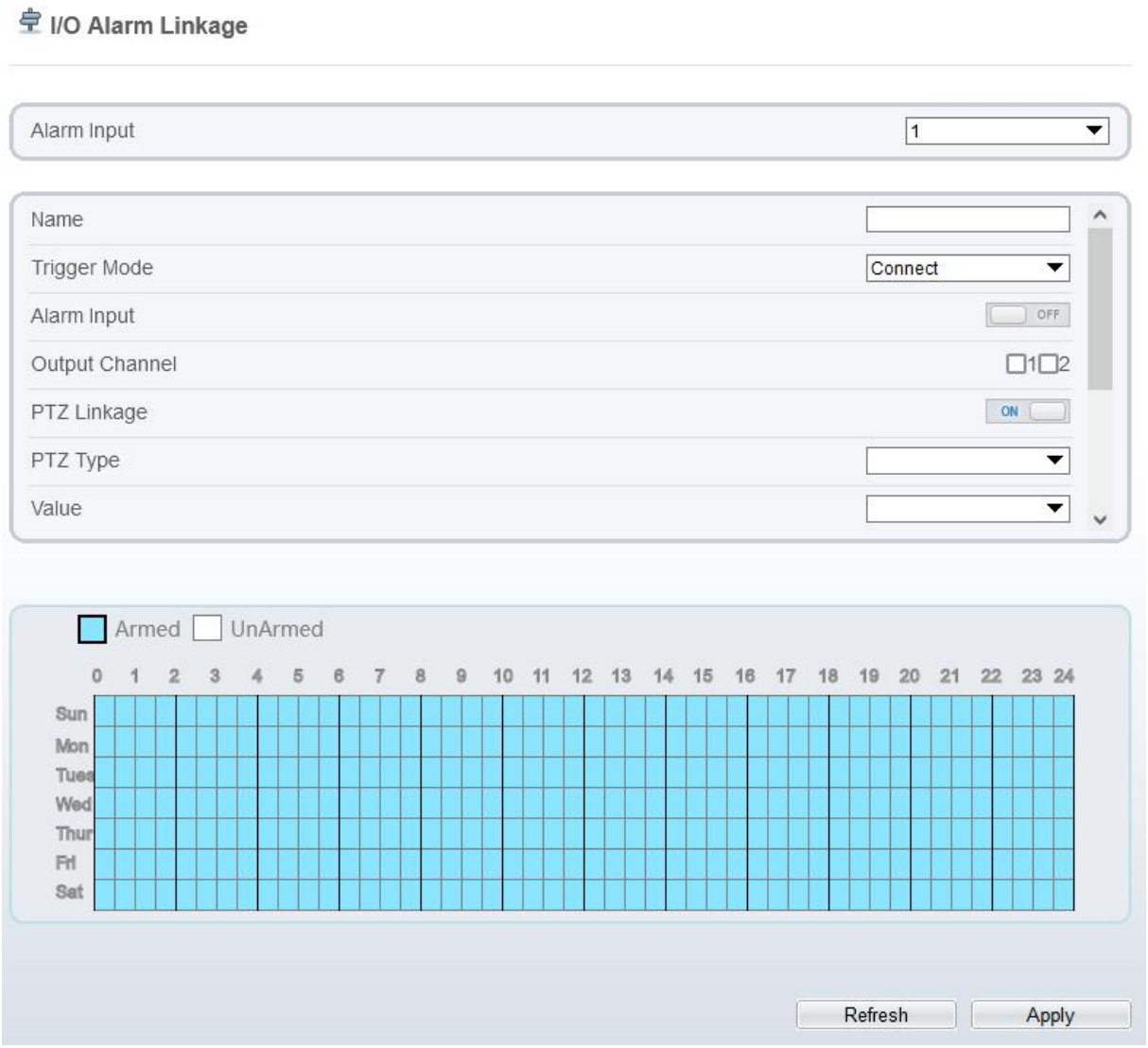
Configure the alarm output channel.

Procedure

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

The **I/O Alarm Linkage** page is displayed, as shown in Figure 9-5.

Figure 8-5 I/O Alarm Linkage Page



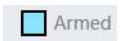
Step 2 Select the **Alarm Input** value from the drop-down list box.

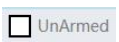
Step 3 Enter alarm input channel name.

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.

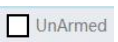
Click the armed icon 

to set the arming time. Click the Unarmed icon 

to set the unarming time.

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

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

Deleting deployment time: Click 

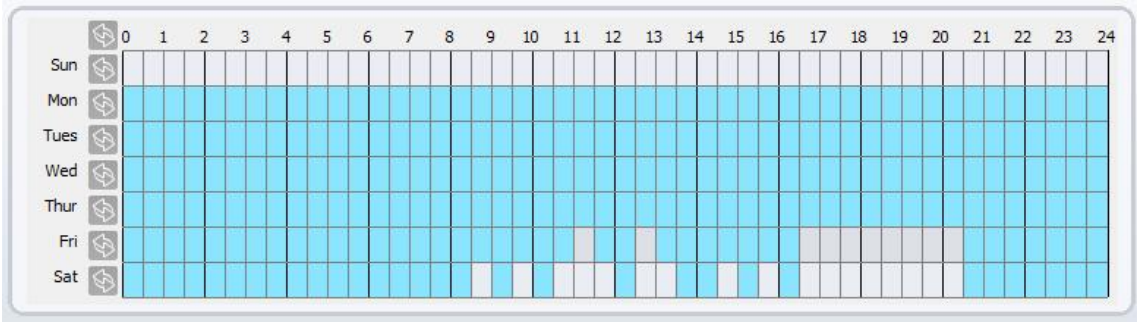
to delete the selected deployment time. The methods are same as set deployment time.

NOTE

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

.

Figure 8-6 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 Recor**d.

Step 11 Click the button on to enable **SMTP**.

Step 12 Click the button on to enable **FTP Upload**.

Step 13 Click the button on to enable **IR Cut.**

Step 14 Click **Apply**.

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

----End

8.6 Motion Alarm Linkage

Description

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

Enable the motion detection function.

Set the motion detection alarming time.

Set the motion detection area.

Configure the motion alarm output channel.

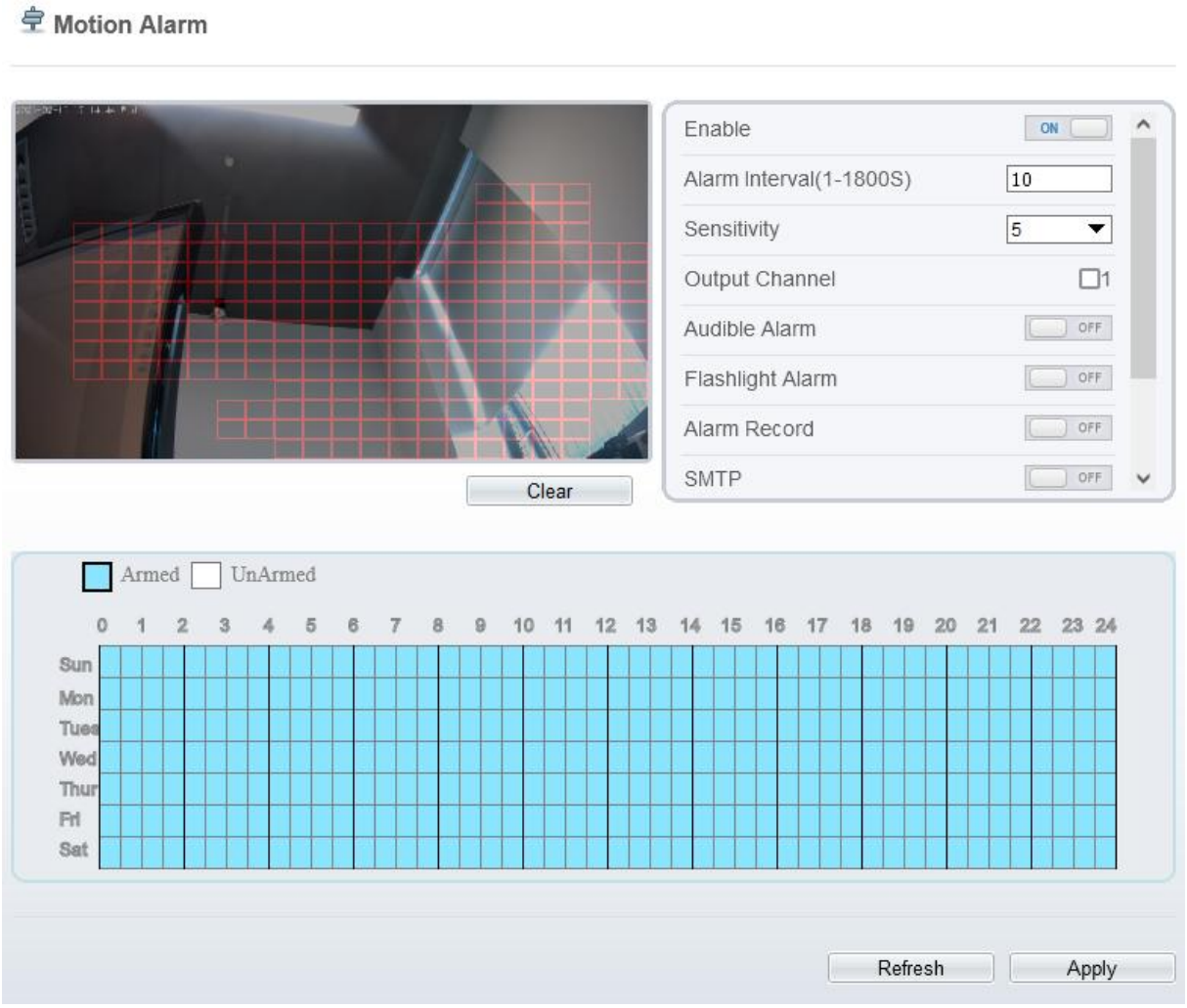
When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm and triggers linkage alarm output.

Procedure

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

The **Motion Alarm** page is displayed, as shown in Figure 9-7.

Figure 8-7 Motion Alarm Page



Step 2 Click the button on to enable motion alarm.

Step 3 Configure the motion alarm interval.

Step 4 Configure the **Sensitivity**. Tick the output channel when the camera is connected to the external alarm device.

Step 5 Enable **Audible Alarm**, **Flashlight Alarm**, **Whitelight Alarm**. (these linkage actions are only applicable for some models, it depends on the performance of cameras.)

Step 6 Enable **Motion Detect Stream**, when camera detects the motion, it will show tracking of object.

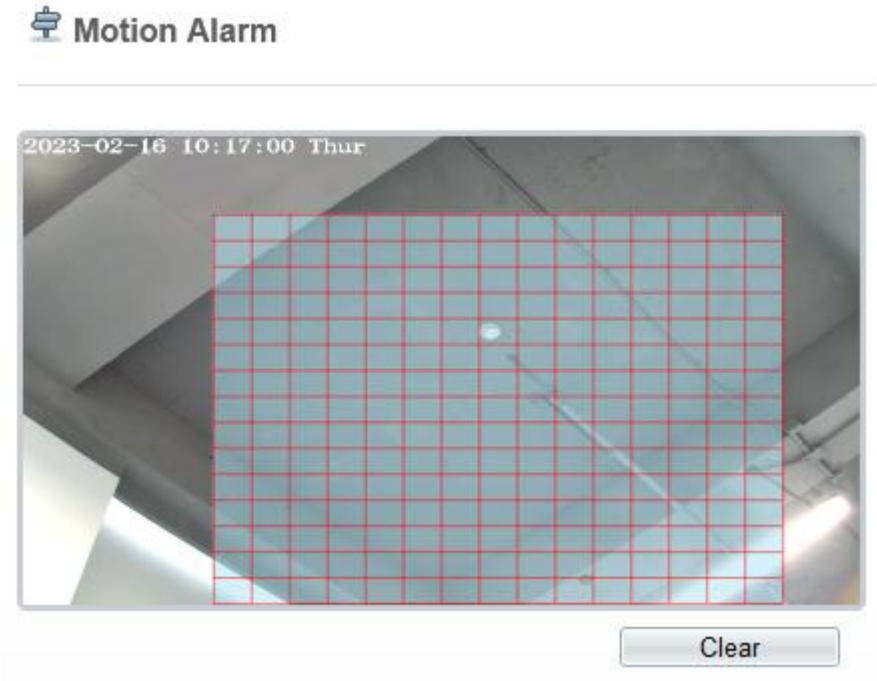
Step 7 Configure the schedule time setting.

For more details about how to set **Schedule**, see 9.5 Step 6.

Step 8 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 9-8.

Figure 8-8 Motion Area Setting Page



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

NOTE

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

----End

8.7 Push Message

Description

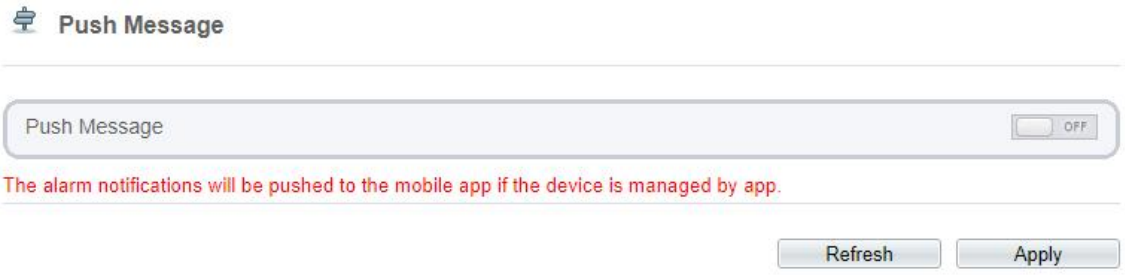
The alarm notification will be pushed to the mobile app if the devices are managed by app.

Procedure

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

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

Figure 8-9 Push Message Page



Step 2 Click **Apply**.

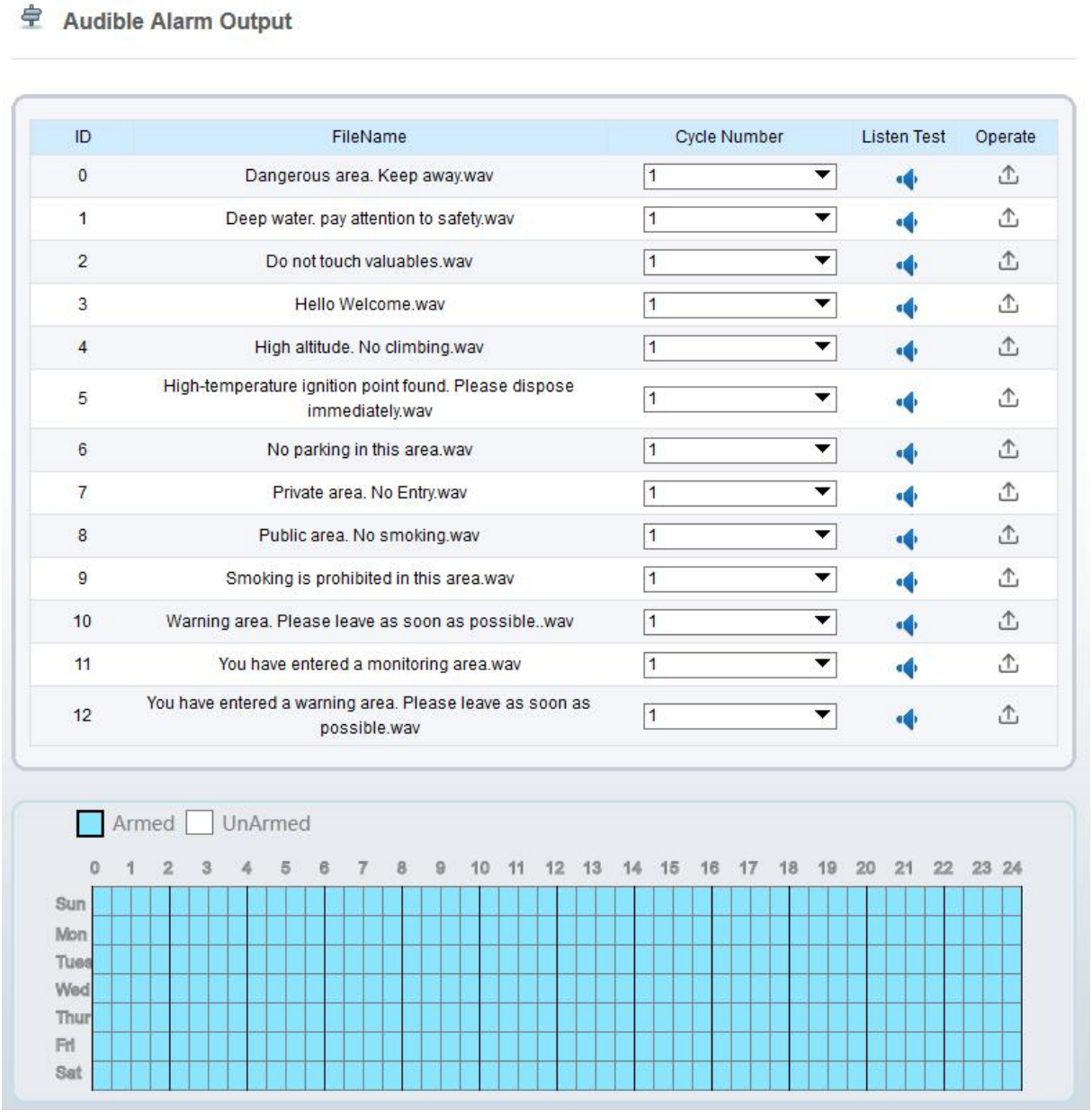
The message "Apply succeed!" is displayed, and the system saves the settings.

----End

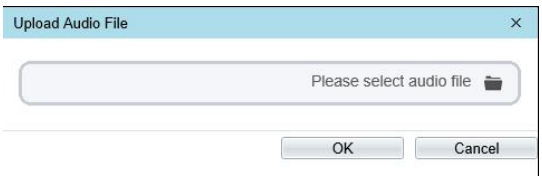
8.8 Audible Alarm Output (Only for Some Models)

At **Configuration > Alarm > Audible Alarm Output** interface, set the audio detect alarm, as shown in Figure 9-10. The volume can be set at **Configuration > Device > Audio Output** interface, as shown in Figure 4-11**.**

Figure 8-10 Audible Alarm Output Interface



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



Click to upload a new audio.

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

Click “Apply” to save the settings.

----End

8.9 Abnormal Sound Detection (Only for Some Models)

Description

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

Enable the Audio Abnormal Detection function.

Set the Audio Abnormal Detection alarming time.

Configure the Audio Abnormal Detection output channel.

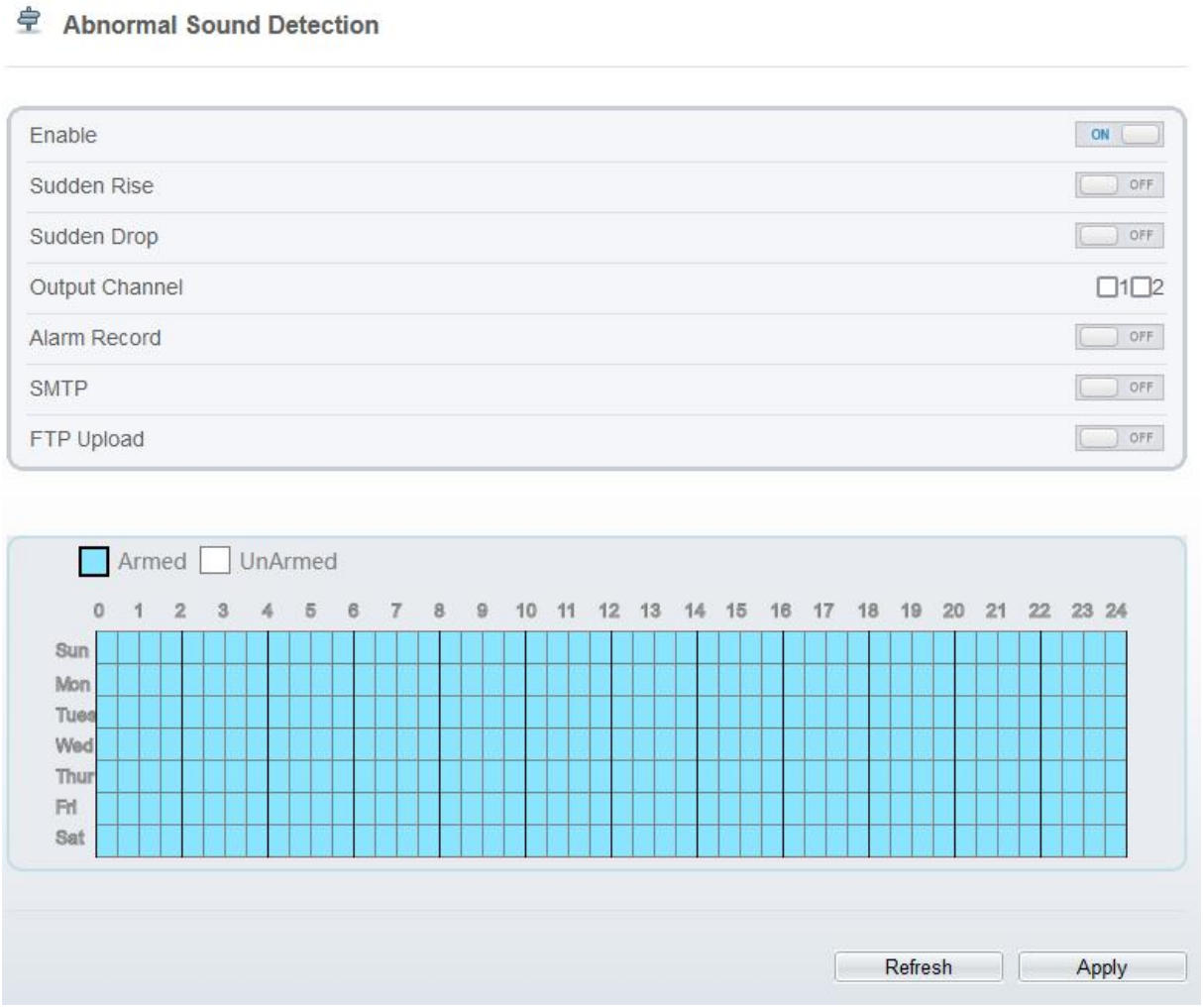
When the alarm output function is enabled and the camera detects abnormal audio (sudden rise or sudden drop) within the schedule time, the camera generates an alarm and triggers linkage alarm output.

Procedure

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

The **Audio Abnormal Detection** page is displayed, as shown in Figure 9-11.

Figure 8-11 Audio abnormal detection



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

Step 3 Enable Sudden Rise, and Sudden Drop.

Step 4 Select the **Output Channel**.

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

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

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

Step 8 Configure the schedule time setting.

For details about how to set **Schedule**, see 9.5 Step 6.

----End

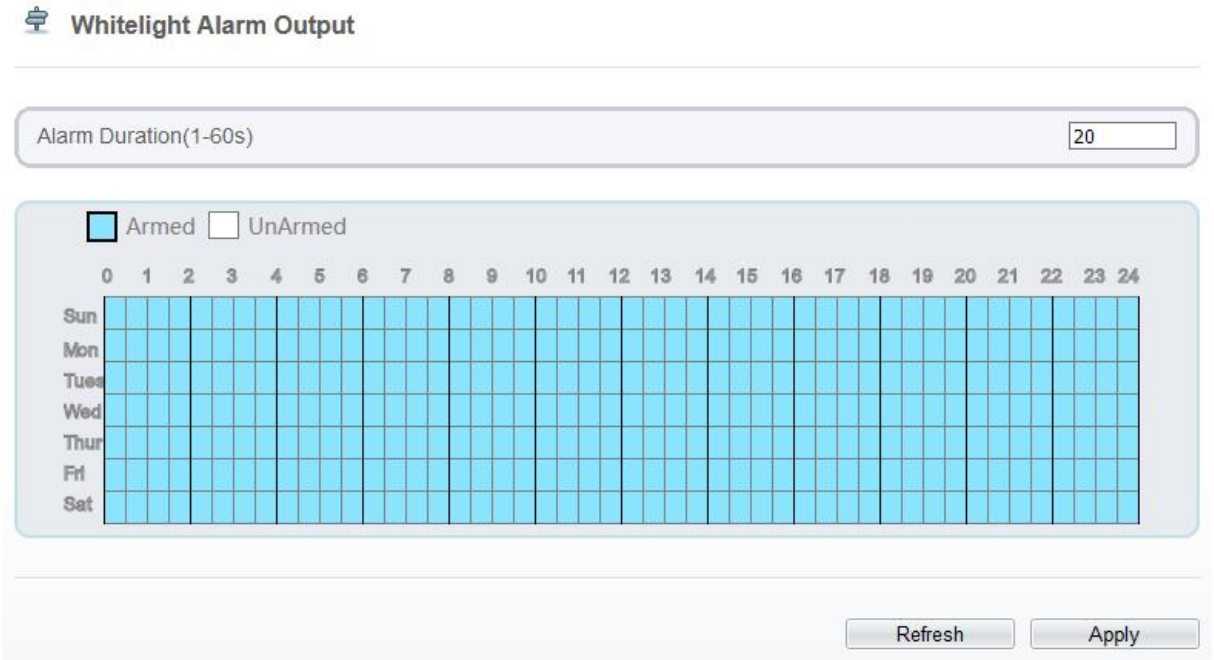
8.10 Whitelight Alarm Output (Only for Some Models)

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

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

At **Configuration > Alarm > Whitelight Alarm Output** interface, set the duration of alarm, as shown in Figure 9-13.

Figure 8-12 Whitelight alarm interface



Set the alarm duration, it determines the duration of the whitelight on.

Configure the schedule time setting.

Click “Apply” to save the settings.

----End

9 AI Multiobject

9.1 AI Configuration

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

Figure 9-1 AI Multiobject interface

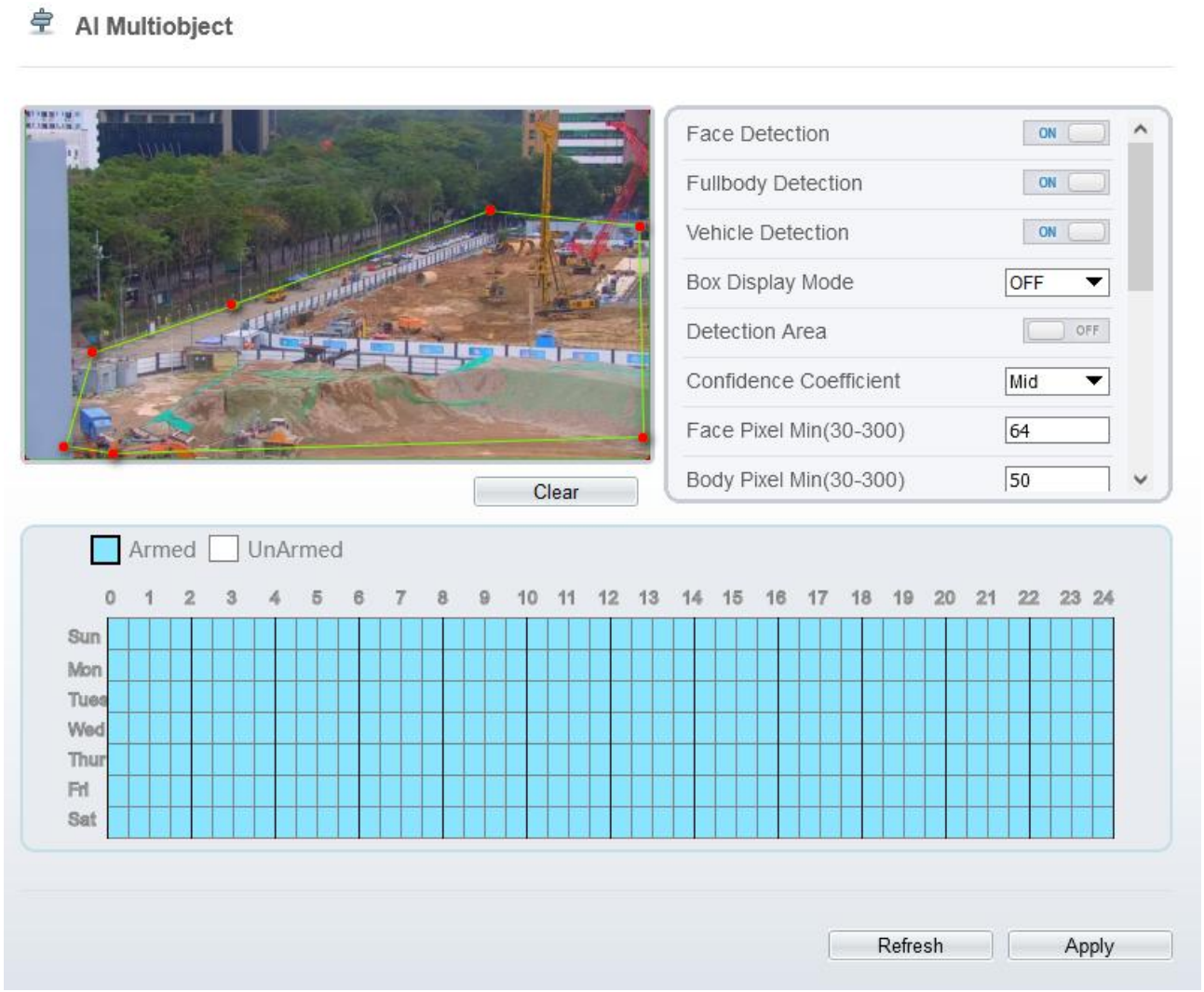


Table 10-1 lists the AI multiobject parameters.

Table 9-1 AI multiobject parameters

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

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

10 Configure the Recording Function

NOTE

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

10.1 Record Policy

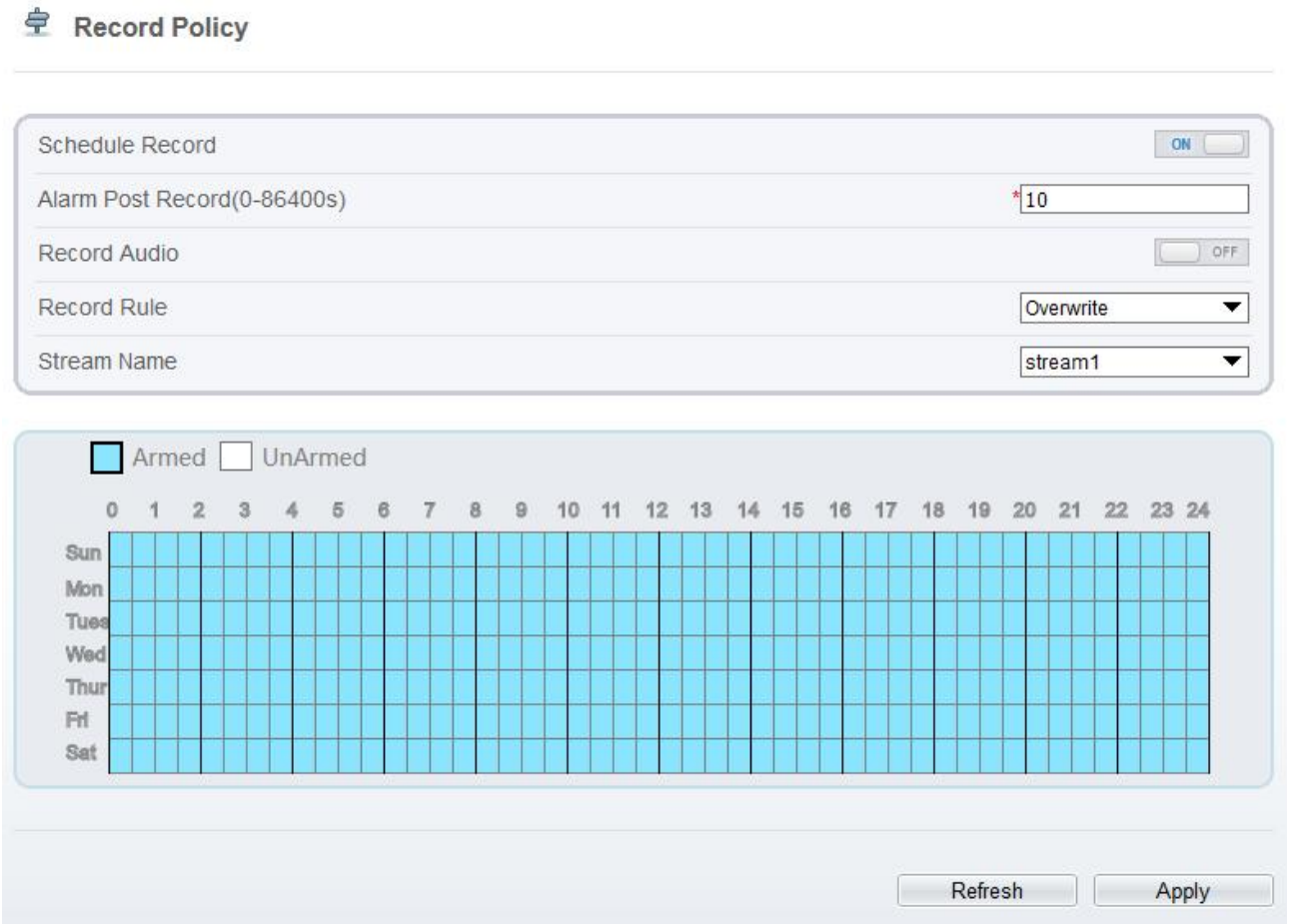
You can configure the scheduled recording function, alarm recording function, recording quality, and recording rules.

Procedure

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

The **Record Policy** page is displayed, as shown in Figure 11-1.

Figure 10-1 Record policy page



Step 2 Set the parameters according to Table 11-1.

Table 10-1 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
Alarm Post Record (0-86400s)	Recording duration (in seconds) after an alarm is generated.	[Setting method] Enter a value manually.
Record Audio	Indicates whether to record audios together with videos.	[Setting method] Click the button on to enable record audio.
Record Rule	Rule for saving recordings. The options are as follows: **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 9.5 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

10.2 Record Directory

Description

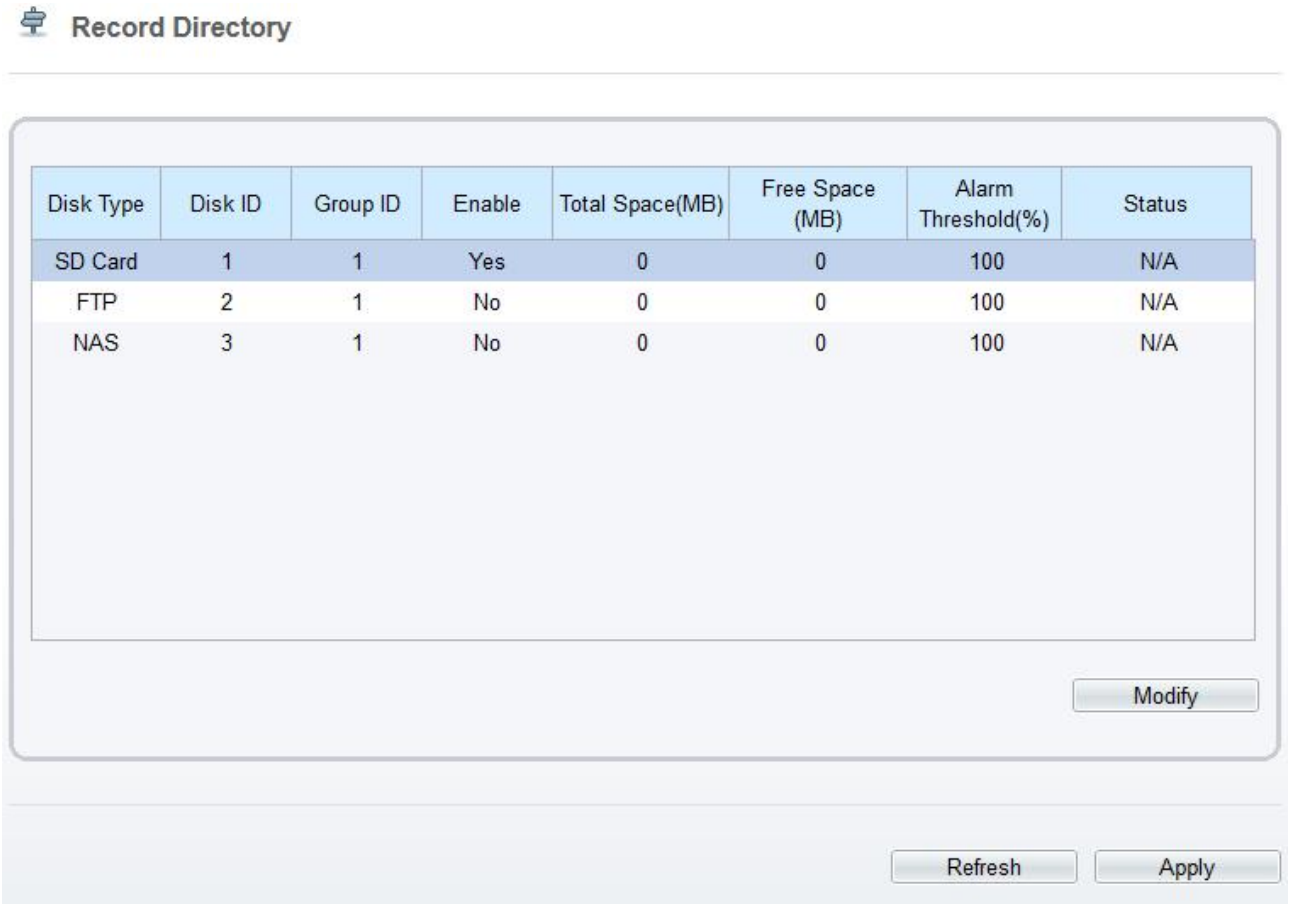
Recordings can be stored in an SD card, FTP, or NSA.

Procedure

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

The **Record Directory** page is displayed, there are three types to action disk, such as SD card, FTP, and NAS, as shown in Figure 11-2..

Figure 10-2 Record Directory page



Step 2 Set the parameters according to Table 11-2.

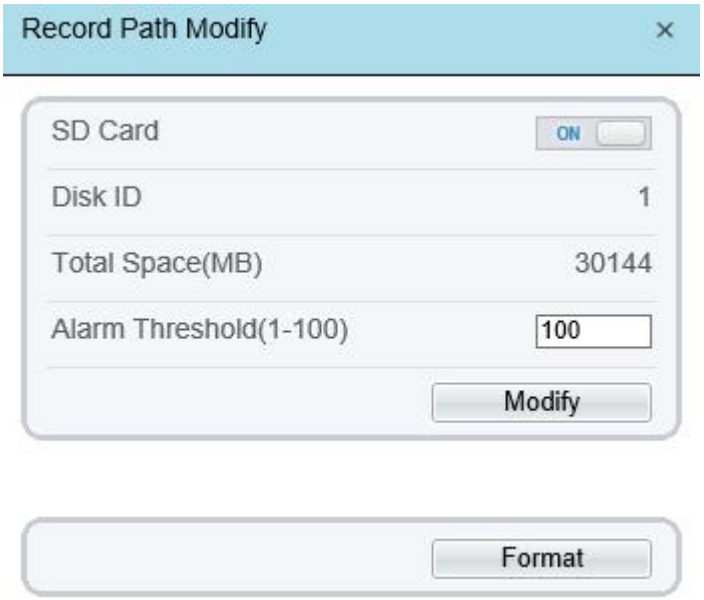
Table 10-2 Record directory parameters

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

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

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

Figure 10-3 Record path modify



----End

10.2.1 Configure the SD Card

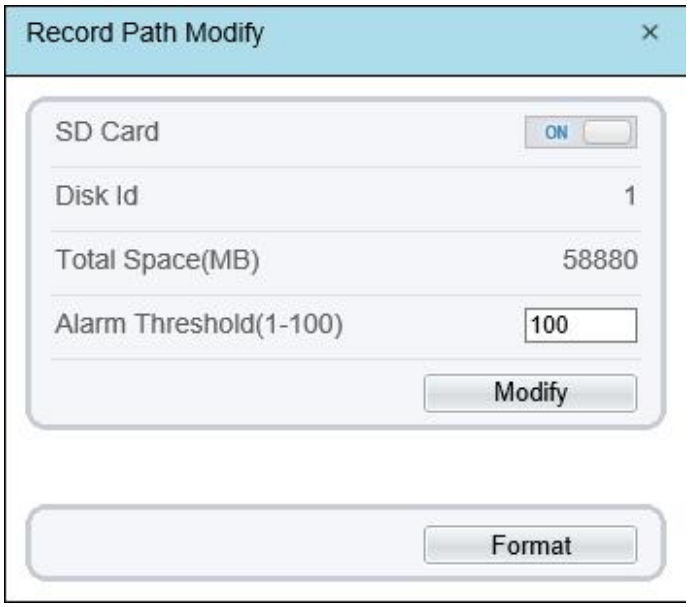
Procedure

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

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

The SD card **Record Path Modify** page is displayed, as shown in Figure 11-4.

Figure 10-4 SD card Record Path Modify page



Step 3 Set the parameters according to Table 11-3.

Table 10-3 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.

Step 4 Click **Apply**.

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

-----End

10.2.2 Configure the FTP

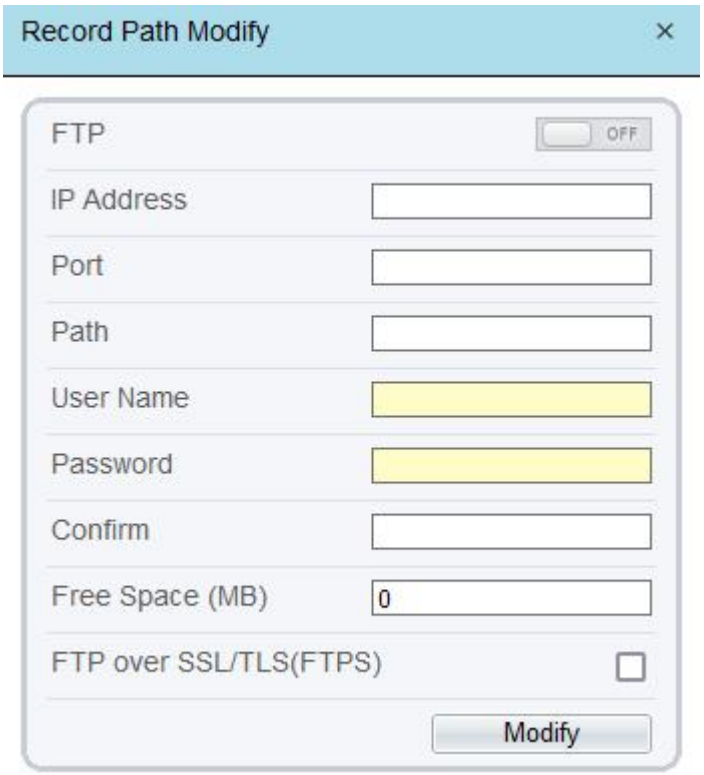
Procedure

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

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

The FTP **Record Path Modify** page is displayed, as shown in Figure 11-5.

Figure 10-5 FTP Record Path Modify page



Step 3 Set the parameters according to Table 11-4.

Table 10-4 FTP recording parameters

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

Step 4 Click **Apply**.

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

-----End

10.2.3 Configure the NAS

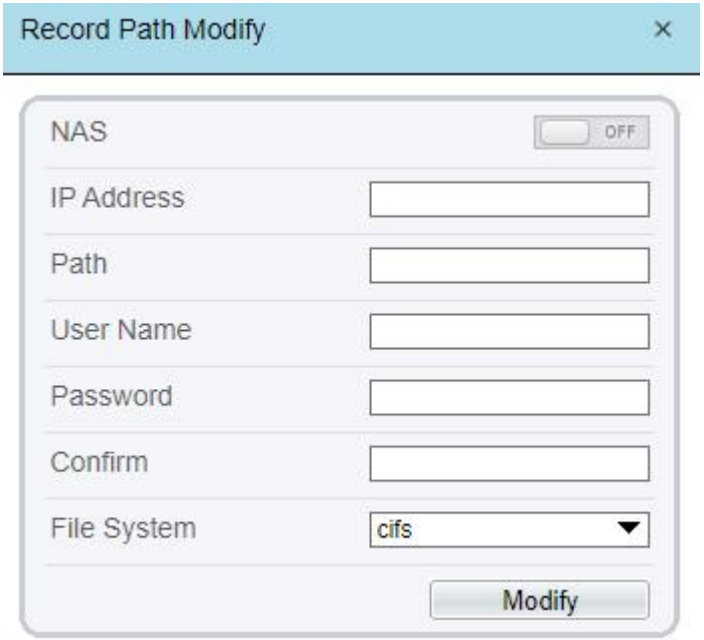
Procedure

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

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

The NAS **Record Path Modify** page is displayed, as shown in Figure 11-6.

Figure 10-6 NAS Record Path Modify page



Step 3 Set the parameters according to Table 11-5.

Table 10-5 NAS recording parameters

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

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

Step 4 Click **Apply**.

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

-----End

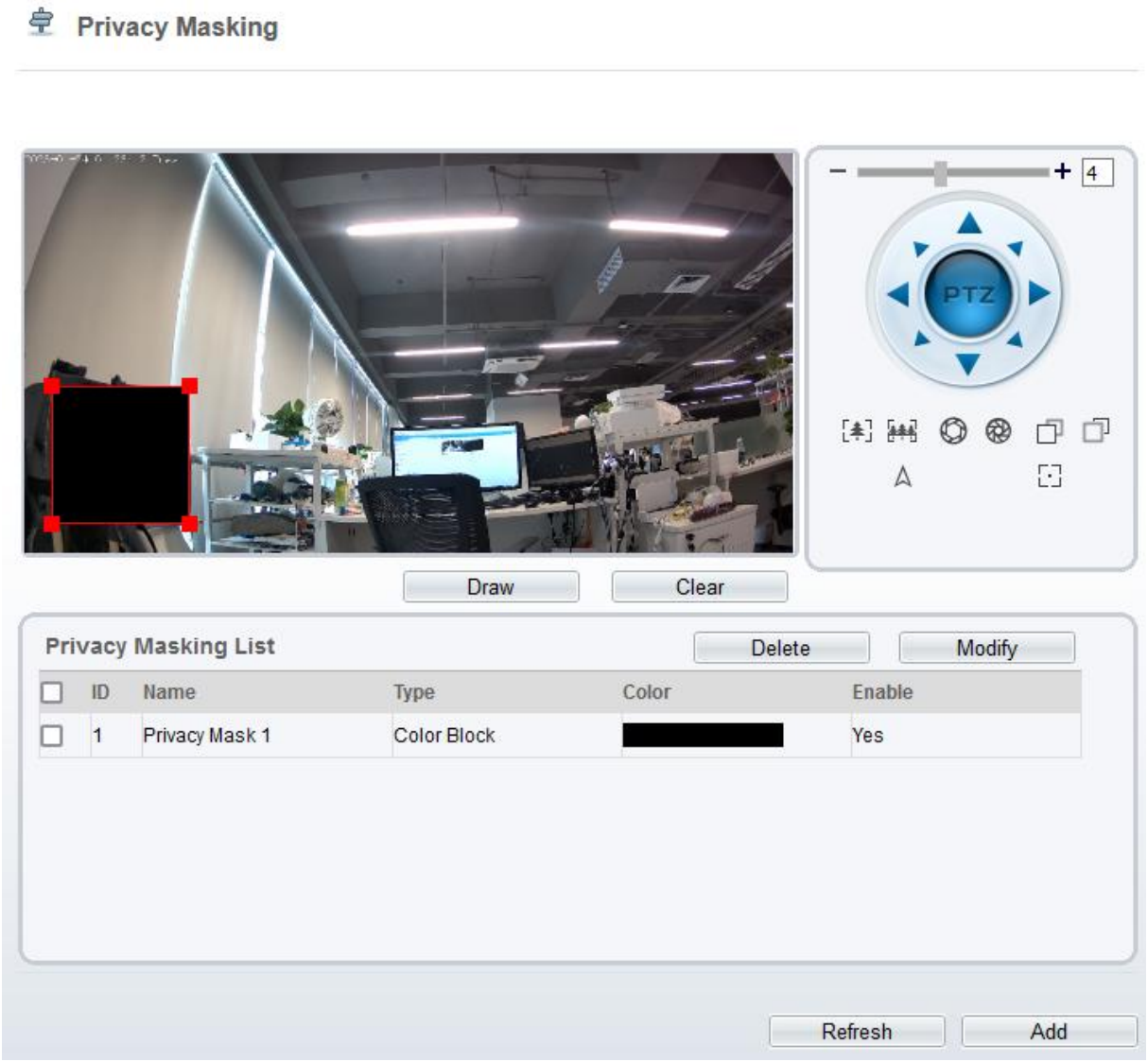
11 Configure the Privacy Mask Function

Procedure

Step 1 Choose Configuration > Privacy Masking.

The **Privacy Masking** page is displayed, as shown in Figure 12-1.

Figure 11-1 Privacy Masking page



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

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

NOTE

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

A maximum of four areas can be masked.

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

Step 4 Set the parameters according to Table 12-1.

Table 11-1 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 5 Click **Add** to add privacy masking.

----End

12 Configure the Network Service

12.1 802.1x

Preparation

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

Procedure

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

The **802.1x** page is displayed, as shown in Figure 13-1.

Figure 12-1 802.1x page

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

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

Step 4 Enter the account name.

Step 5 Enter the password and confirm password..

Step 6 Click **Apply**.

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

----End

12.2 DDNS

Preparation

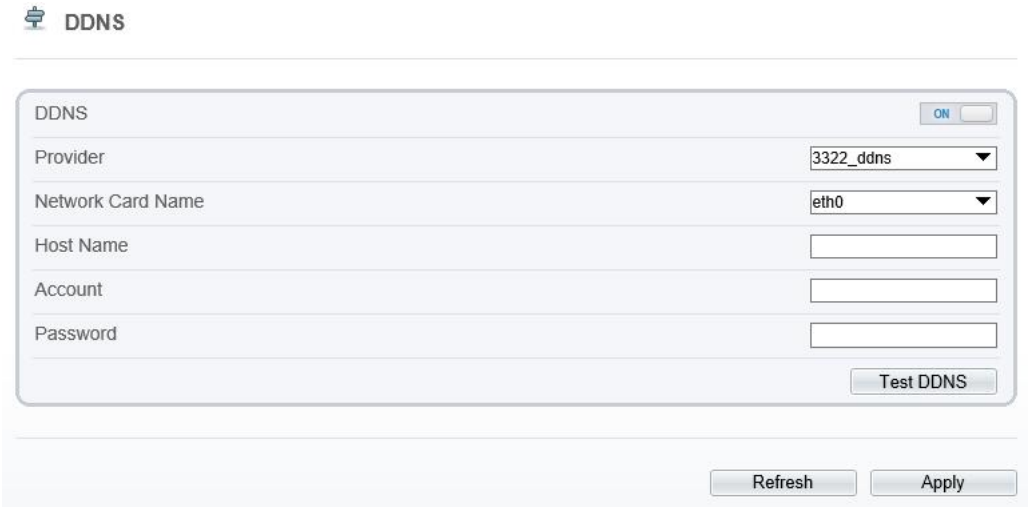
Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

Procedure

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

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

Figure 12-2 DDNS page



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

Step 3 Set the parameters according to Table 13-1.

Table 12-1 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
Provider	DDNS service provider. Currently, only 3322 and dyndns are supported.	[Setting method] Select a value from the drop-down list box. [Default value] 3322 NOTE Set this parameter based on the site requirements.
Network Card Name	Name of network card	[Setting method] Select a value from the drop-down list box. [Default value] Eth0

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

Step 4 Click **Apply**.

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

If other information is displayed, set the parameters correctly.

----End

12.3 PPPoE

Preparation

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

Description

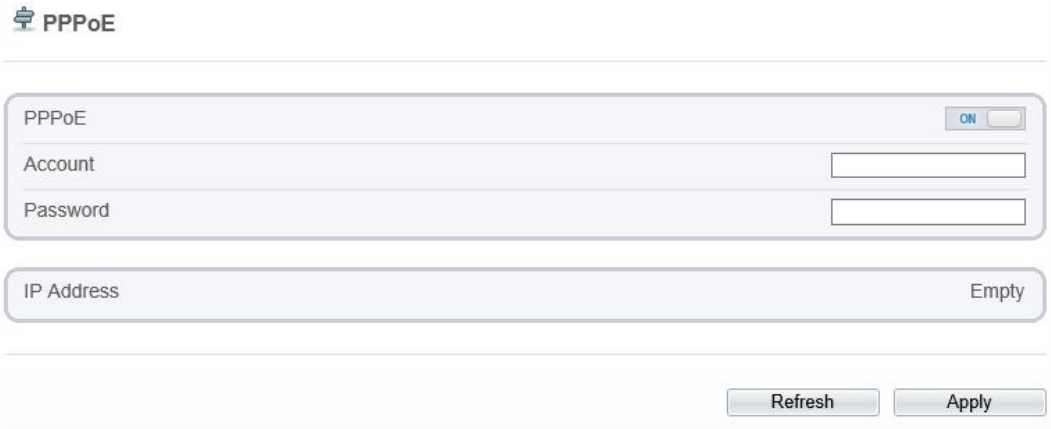
If a PPPoE connection is used, you need to enter the user name and password on the **PPPoE** page. After you restart the device, the PPPoE settings take effect and the device obtains a public IP address.

Procedure

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

The **PPPoE** page is displayed, as shown in Figure 13-3.

Figure 12-3 PPPoE page



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

Step 3 Set the parameters according to Table 13-2.

Table 12-2 PPPoE parameters

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

Step 4 Click **Apply**.

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

If other information is displayed, set the parameters correctly.

----End

12.4 Port Mapping

Description

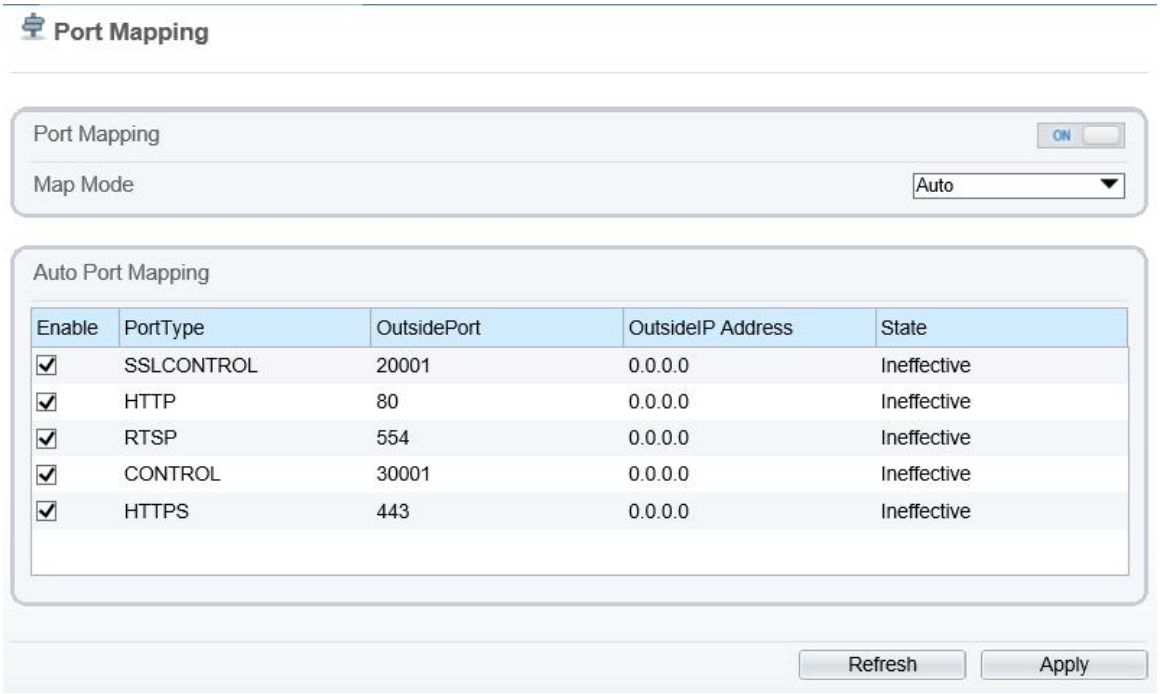
Port mapping helps establish a mapping relationship between the private network and the external network. Port mapping allows outside computers to access intranet devices so that the network works efficiently.

Procedure

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

The **Port Mapping** page is displayed, as shown in Figure 13-4.

Figure 12-4 Port Mapping page



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

Step 3 Set the parameters according to Table 13-3.

Table 12-3 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 drop-down list box. [Default value] Auto
Port Type	Port Type includes: SSLCONTROL HTTP, RTSP, Control and HTTPS.	N/A
Outside Port	Port of outside network.	[Setting method] Enter a value manually in map mode.
Outside IP Address	IP address of outside network.	N/A
State	Mapping status	N/A

Step 4 Click **Apply**.

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

If other information is displayed, set the parameters correctly.

----End

12.5 SMTP

Description

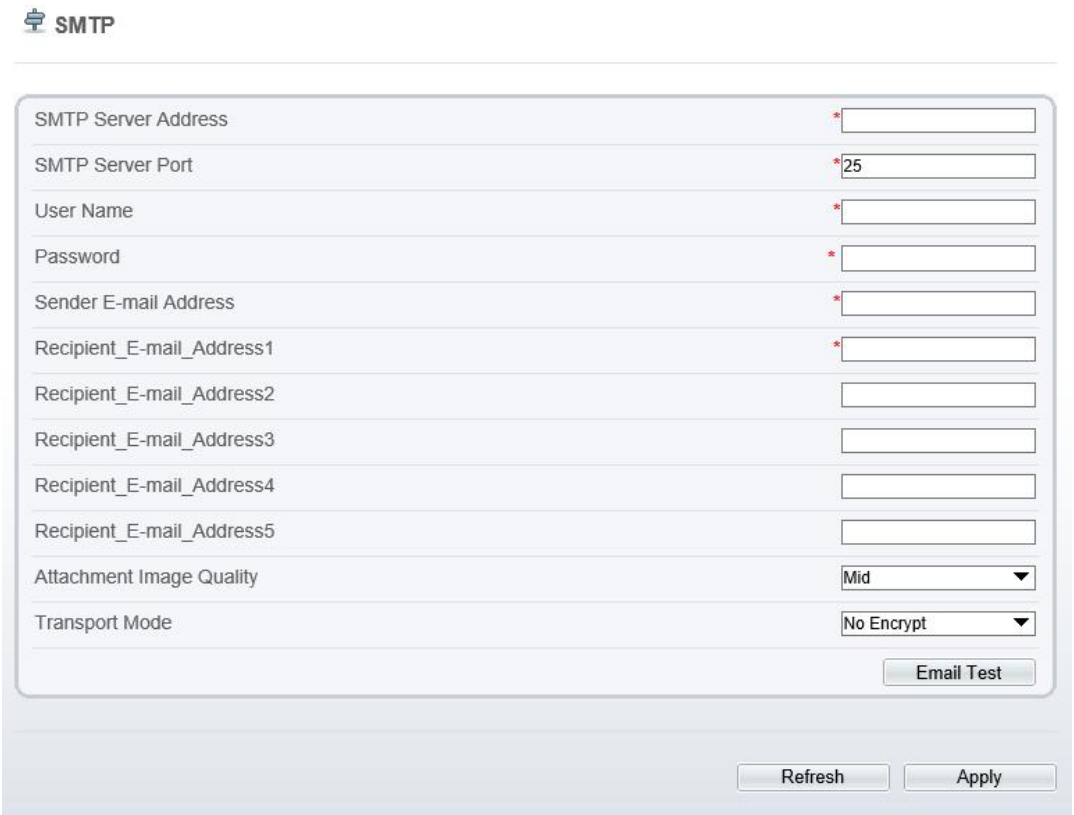
If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device automatically sends JPG images and alarm information to specified email addresses when an alarm is generated.

Procedure

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

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

Figure 12-5 SMTP page



Step 2 Set the parameters according to Table 13-4.

NOTE

Parameters marked with * are mandatory.

Table 12-4 SMTP parameters

Parameter	Description	Setting
SMTP Server Address	IP address of the SMTP server.	[Setting method] Enter a value manually.

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

12.6 FTP

Description

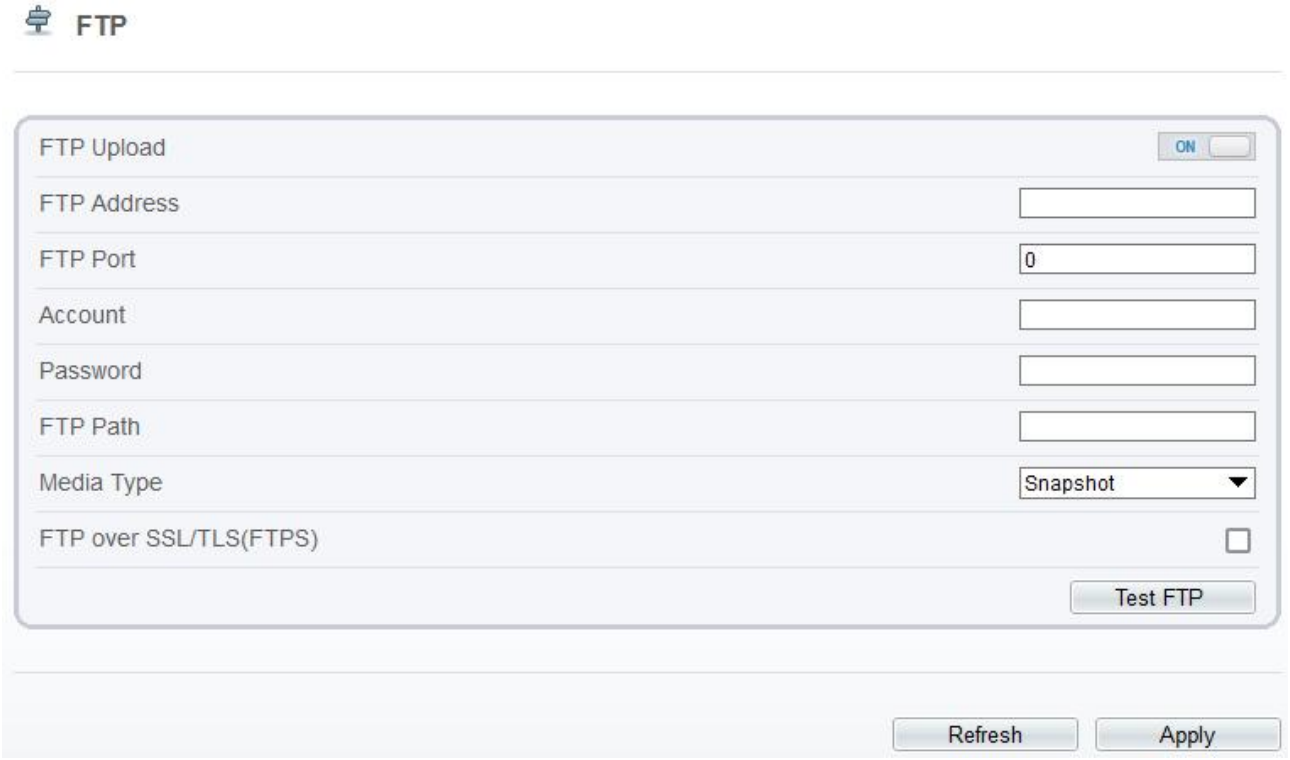
If the File Transfer Protocol (FTP) button is enabled, the device automatically sends the snapped alarm JPG images to specified FTP server.

Procedure

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

The **FTP** page is displayed, as shown in Figure 13-6.

Figure 12-6 FTP page



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

Step 3 Set the parameters according to Table 13-5.

Table 12-5 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.

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

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

Step 5 Click **Apply**.

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

If other information is displayed, set the parameters correctly.

----End

12.7 IP Filter

Description

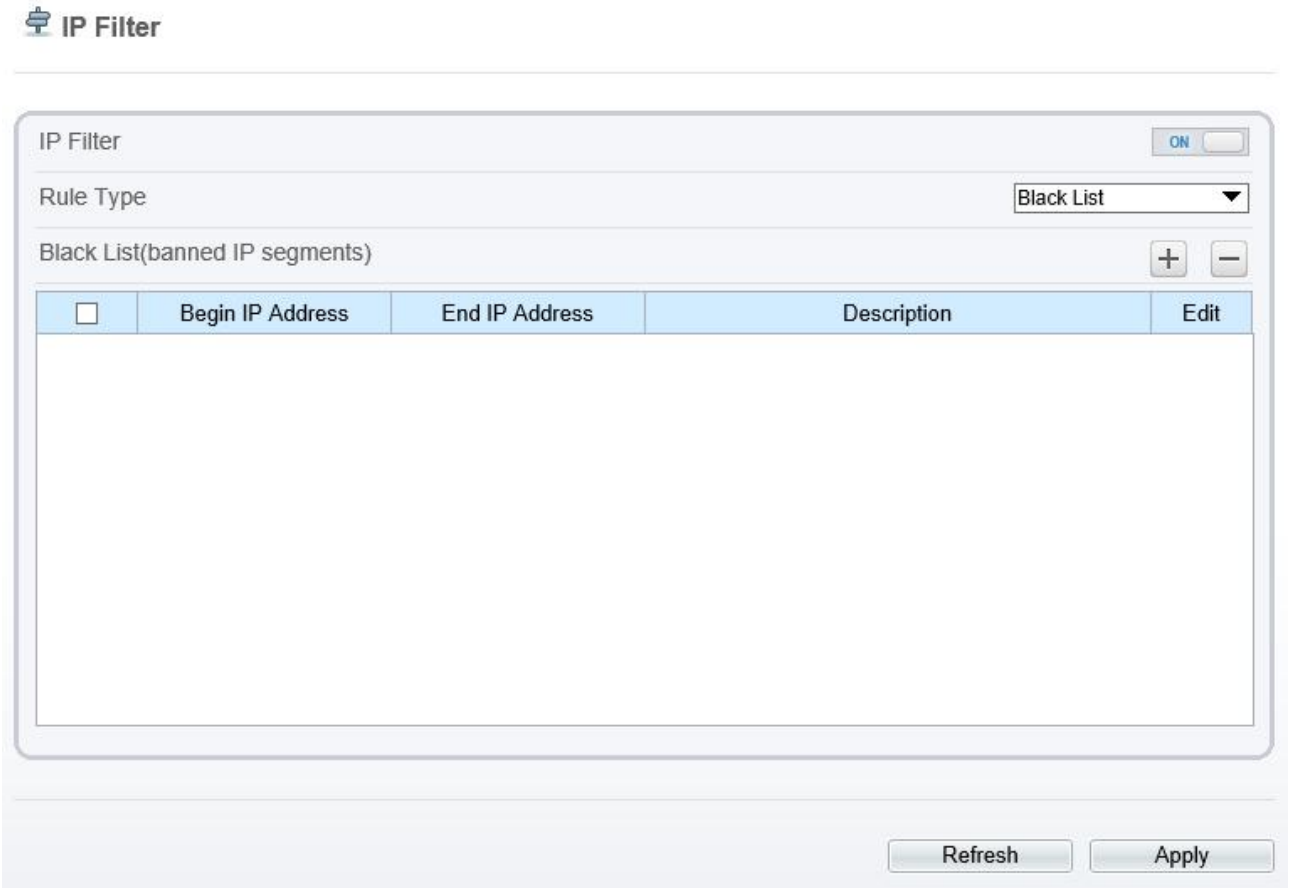
Set the IP address in specified network segment to allow access or prohibit access.

Procedure

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

The **IP Filter** page is displayed, as shown in Figure 13-7.

Figure 12-7 IP Filter page



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

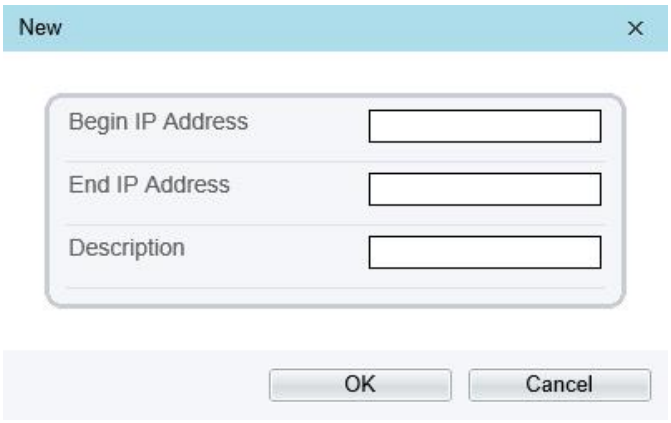
Step 3 Set the parameters according to Table 13-6

Table 12-6 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

Parameter	Description	Setting
Black List	Specified network segment should be banned.	[Setting method] 6. Click + to enter the add black/white list page, as shown in Figure 13-8 7. Enter Begin IP Address. 8. Enter End IP Address. 9. Enter Descrtption. 10. Click OK, the black list added successfully.
White List	Allow specified network segment to access.	[Setting method] 1. Click + to enter the add black/white list page, as shown in Figure 13-8. 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Descrtption. 5. Click OK, add the white list successfully.

Figure 12-8 Add IP Filter page



NOTE

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

Click to delete the setting black list or white.

Step 4 Click **Apply**.

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

----End

12.8 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

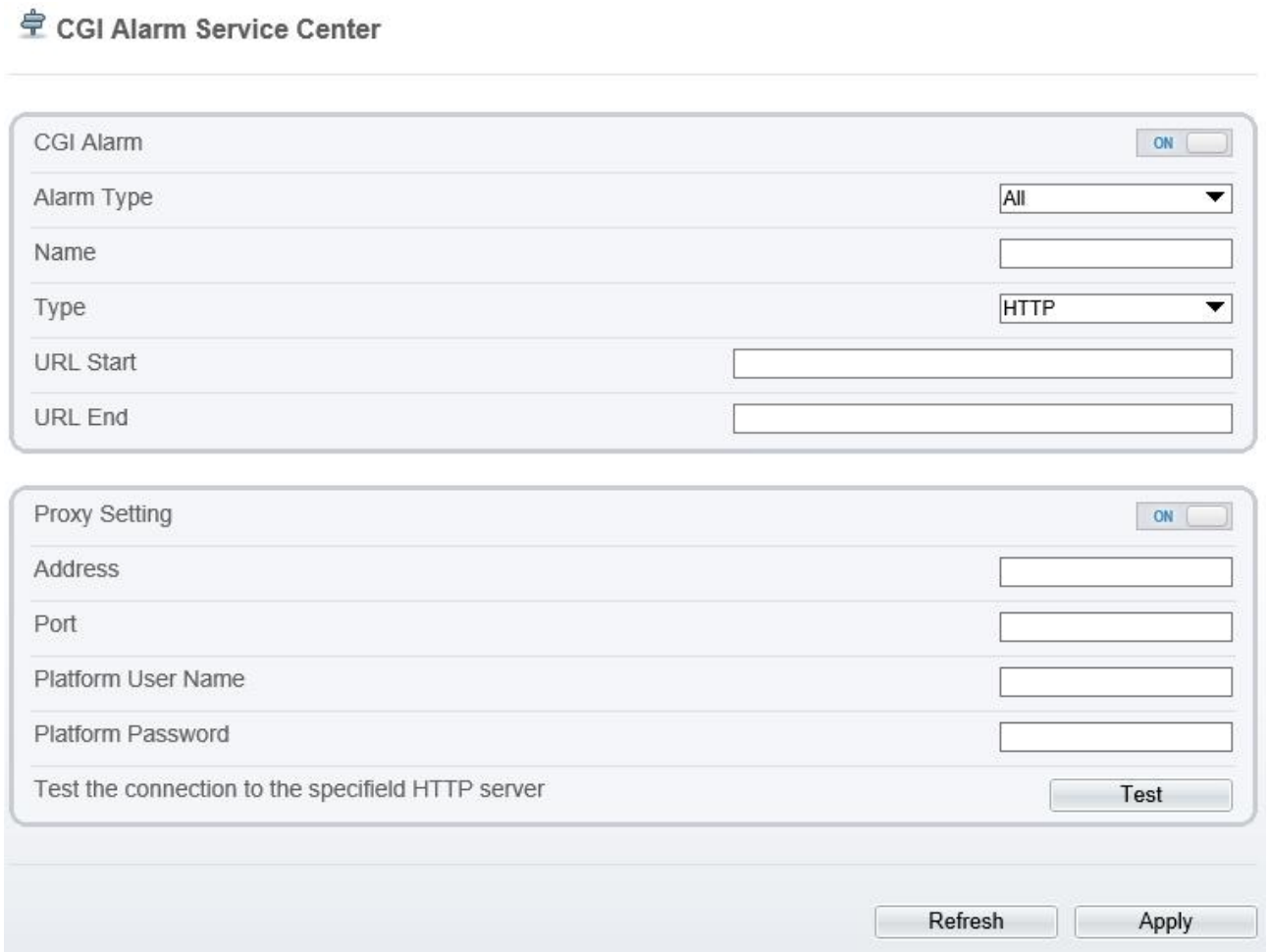
get and send to CGI Server. When need to integrate the CGI alarm message, need to resolve the HTTP Head "User-Agent" to get the data of CGI alarm message.

Procedure

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

The **CGI Alarm Service Center** page is displayed, as shown in Figure 13-9.

Figure 12-9 CGI Alarm Service Center page



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

Step 3 Set the parameters according to Table 13-7.

Table 12-7 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

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

Step 4 Click **Apply**.

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

----End

12.9 SNMP

Description

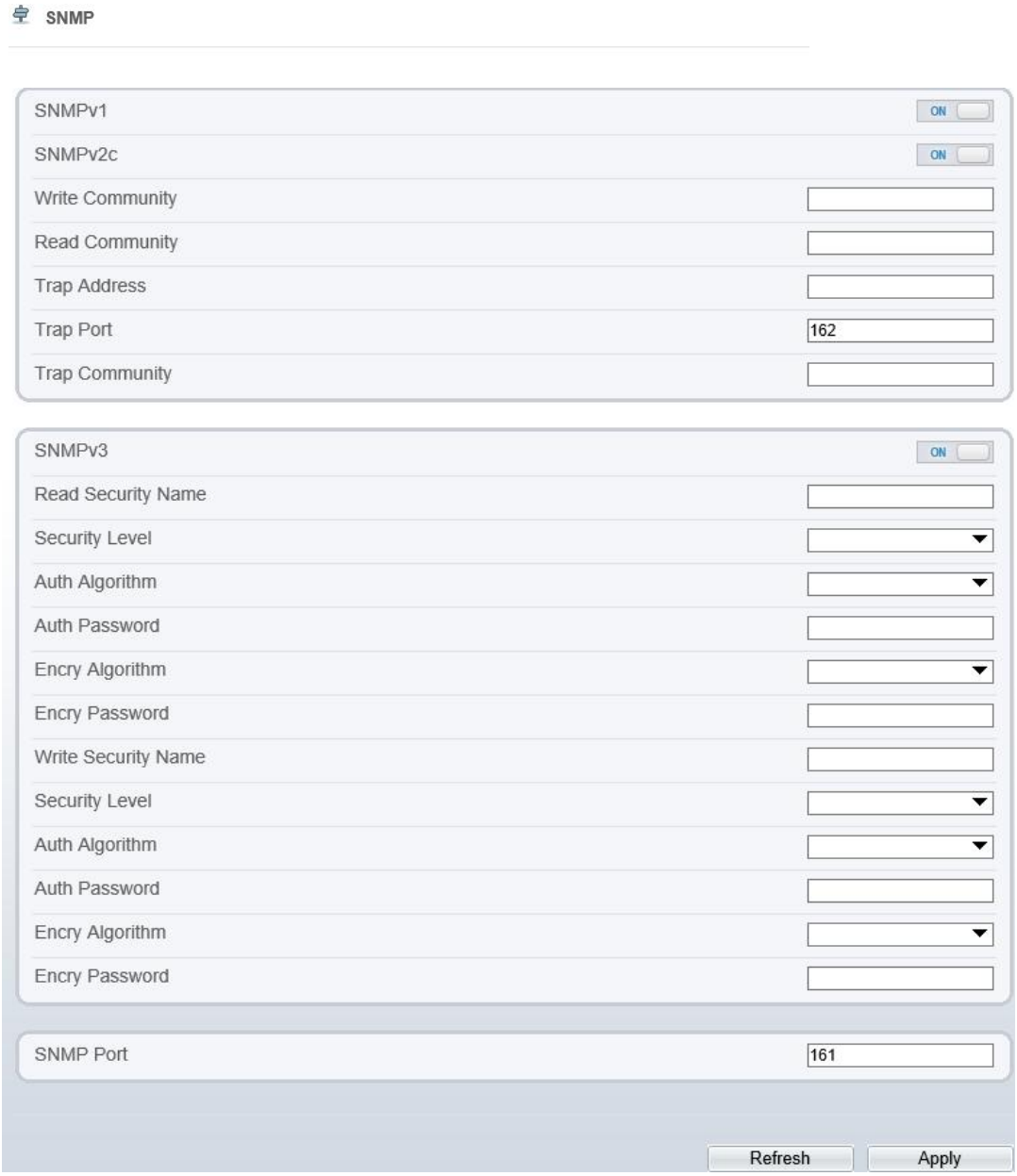
Simple Network Management Protocol (SNMP) is an Internet Standard protocol, supports SNMP v1, SNMPv2c and SNMPv3 network protocol. Choose the proper SNMP protocol version and set the SNMP protocol parameter to collect and organize information about managed devices on IP networks.

Procedure

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

The **SNMP** page is displayed, as shown in Figure 13-10.

Figure 12-10 SNMP page



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

Set the parameters according to Table 13-8.

Table 12-8 SNMP parameters

Parameter	Description	Setting
SNMPv1 SNMPv2c	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
Write Community	Name of write community. The write community only can modify data.	[Setting method] Enter a value manually.
Read Community	Name of read community. The write community only can read data.	
Trap Address	IP address of the trap.	
Trap Port	Management port of accepting message from trap.	
Trap Community	community string of trap. The trap community string allows the manager to receive asynchronous information from the agent.	
SNMPv3	Version of SNMP. SNMPv3 uses community strings, but allows for secure authentication and communication between SNMP manager and agent.	[Setting method] Click the button on. [Default value] OFF
Read Security Name	Name of read security.	[Setting method] Enter a value manually.
Write Security Name	Name of write security.	
Security Level	Security Level between SNMP manager and agent, includes three levels: No auth: No authentication and no encryption Auth: Authentication but no encryption Priv: Authentication and encryption	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Auth Algorithm	Authentication Algorithm, includes MD5and SHA.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Auth Password	Authentication password.	[Setting method] Enter a value manually.

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

Step 3 Click **Apply**.

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

----End

12.10 QOS

Description

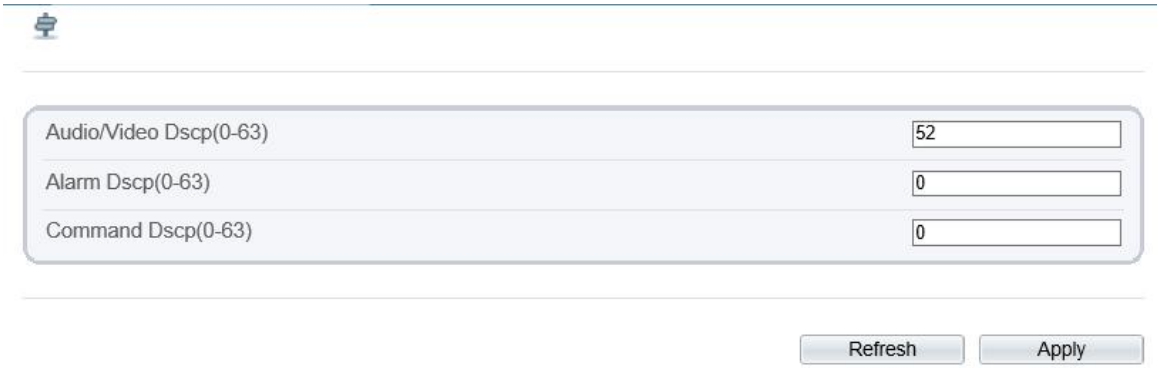
If the device is connected to a router or switch with a QOS function, and the priority rule of the corresponding mark is configured on the network device, the network device will preferentially pass the data packet of the corresponding mark.

Procedure

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

The **QOS** page is displayed, as shown in Figure 13-11.

Figure 12-11 QOS page



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

Step 3 Click **Apply**.

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

----End

12.11 Platform Access

Description

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

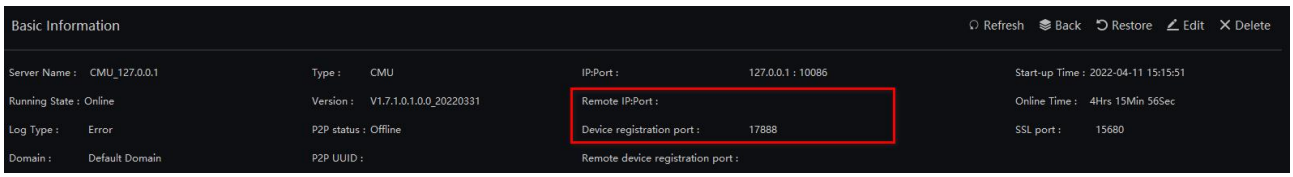
Procedure

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

The **Platform Access** page is displayed, as shown in Figure 13-12

Figure 12-12 Platform Access page

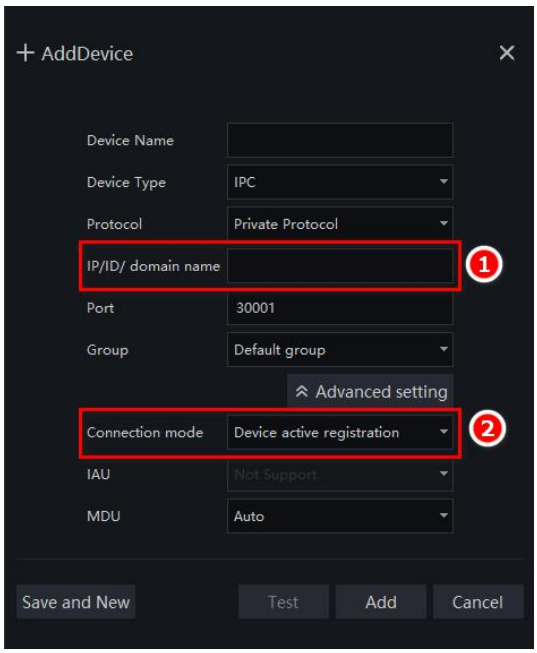
Step 2 Input the parameters. The host name and port are same as the platform, as shown in figure. It is the IP or domain of external network server. The user name and password are same as platform login.

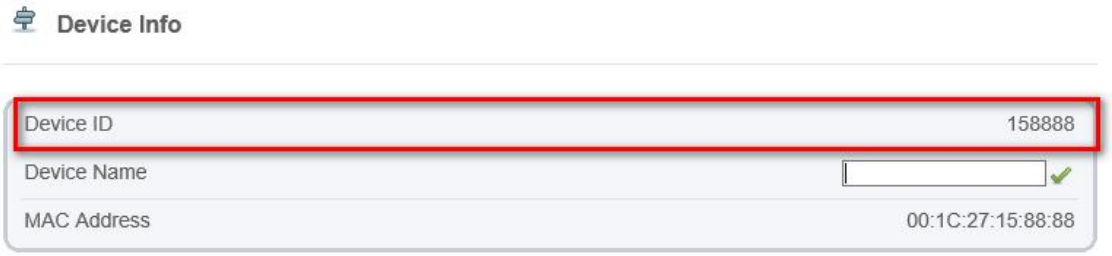


Step 3 Add the IPC to platform, you should input the following information

1: IP/ID/Domain name is device ID of IPC.

2: The connection mode should be chosen **Device active registration**.





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

Step 5 Click **Apply**.

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

----End

13 Privilege Manager

13.1 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 14-1. Table 14-1 describes the parameters.

Figure 13-1 User Page

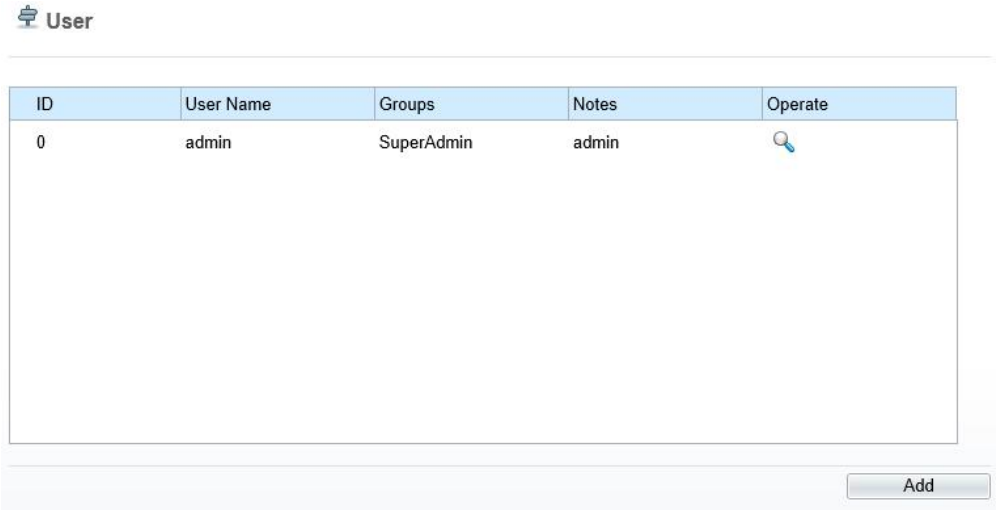


Table 13-1 User Parameters

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.

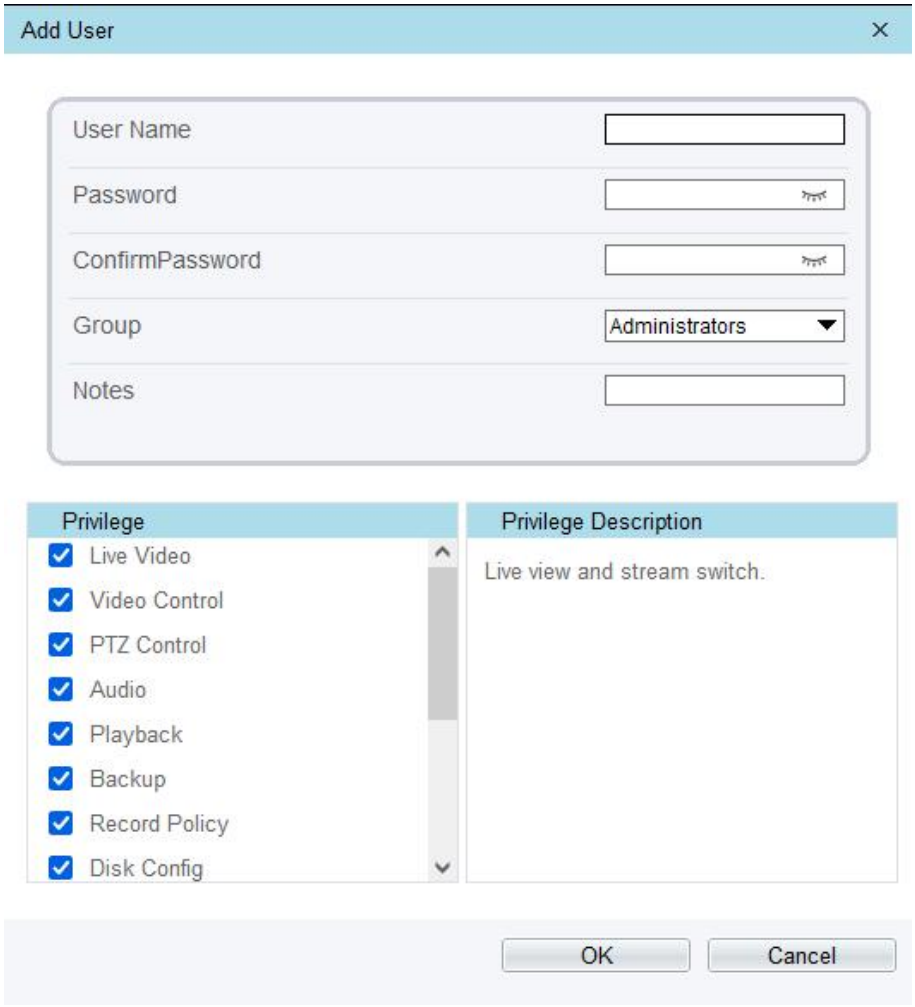
Table 14-2 are specific operations.

Table 13-2 Operation Description

Function	Procedure	Description
Add	1. Click **Add**. The **Add User** page is displayed, as shown in Figure 14-2. 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 14-2.

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 13-2 Add User Page



NOTE

Click the privilege to view the detailed description of function.

----End

14 Configure Protocol Parameters

14.1 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 15-1. Table 15-1 describes the protocol-related parameters.

Figure 14-1 Protocol Info page

Table 14-1 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 Format	URL rule of Real Time Streaming Protocol.
RTSP Example	URL example of Real Time Streaming Protocol.
Onvif UUID	Universally Unique Identifier.

14.2 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 15-2. Table 15-2 describes the parameters on the **Security** page.

Figure 14-2 Security Page

Table 14-2 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

14.3 Onvif Configuration

Description

You can view the existing protocol name and version number of the current device on the **Configuration** > **Protocol** > **Onvif Configuration** page, as shown in Figure 15-3. Table 15-3 describes the protocol-related parameters.

Figure 14-3 Onvif Configuration page

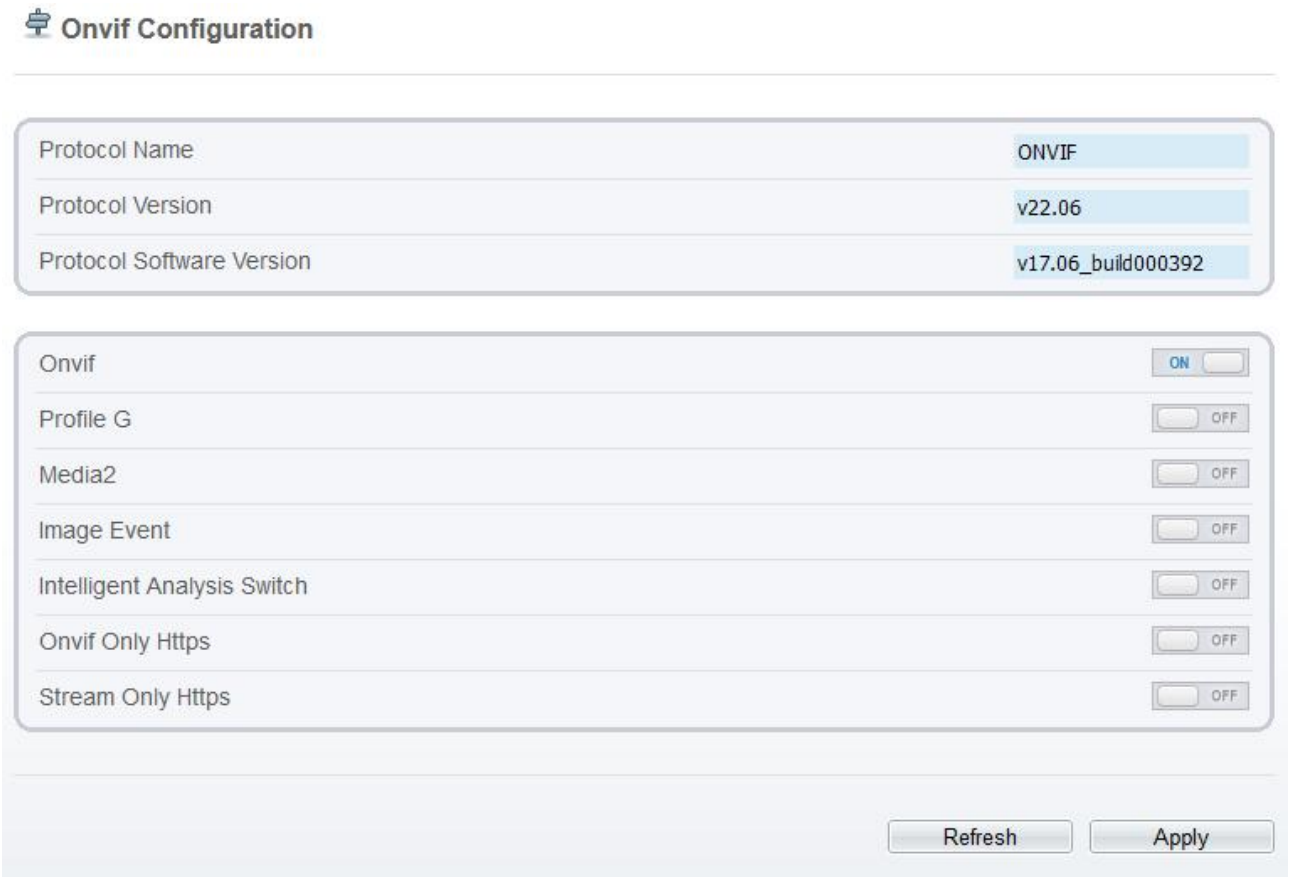


Table 14-3 Protocol-related parameters

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
Intelligent Analysis Switch	Enable Intelligent Analysis Switch
Media 2	Enable Media 2
Image Event	Enable image event
Intelligent Analysis Switch	Enable active onvif
Onvif only Https	Onvif can use a more secure HTTPS mode for connection, command interaction and video data transmission, which are transmitted in an encrypted way to enhance network security.
Stream only https	

14.4 Multicast Parameters

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 15-4. Table 15-4 describes the parameters on the **Multicast Param** page.

Figure 14-4 Multicast Param page

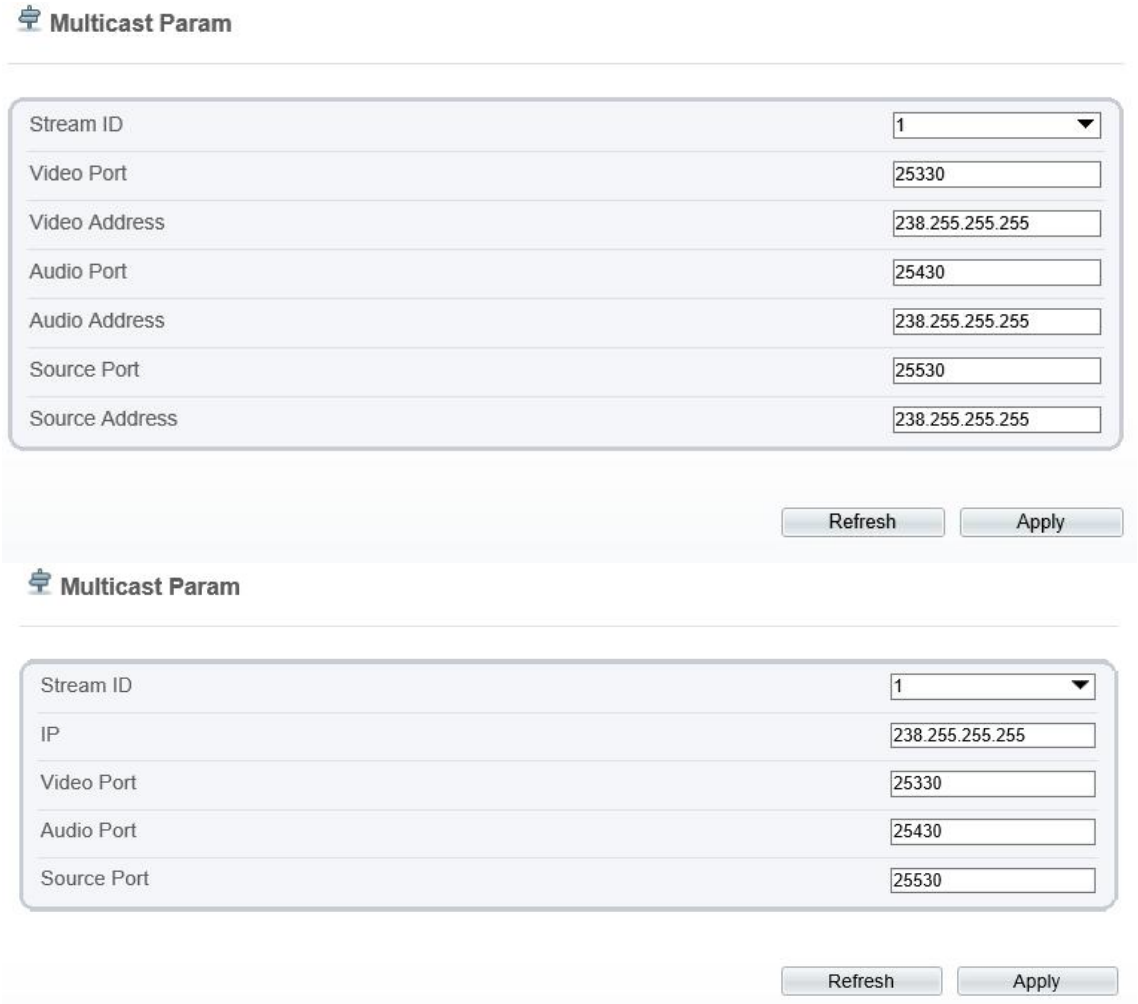


Table 14-4 Parameter description

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

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

Step 2 Click **Apply**.

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

----End

15 Query Device Logs

15.1 Query Operation Logs

Description

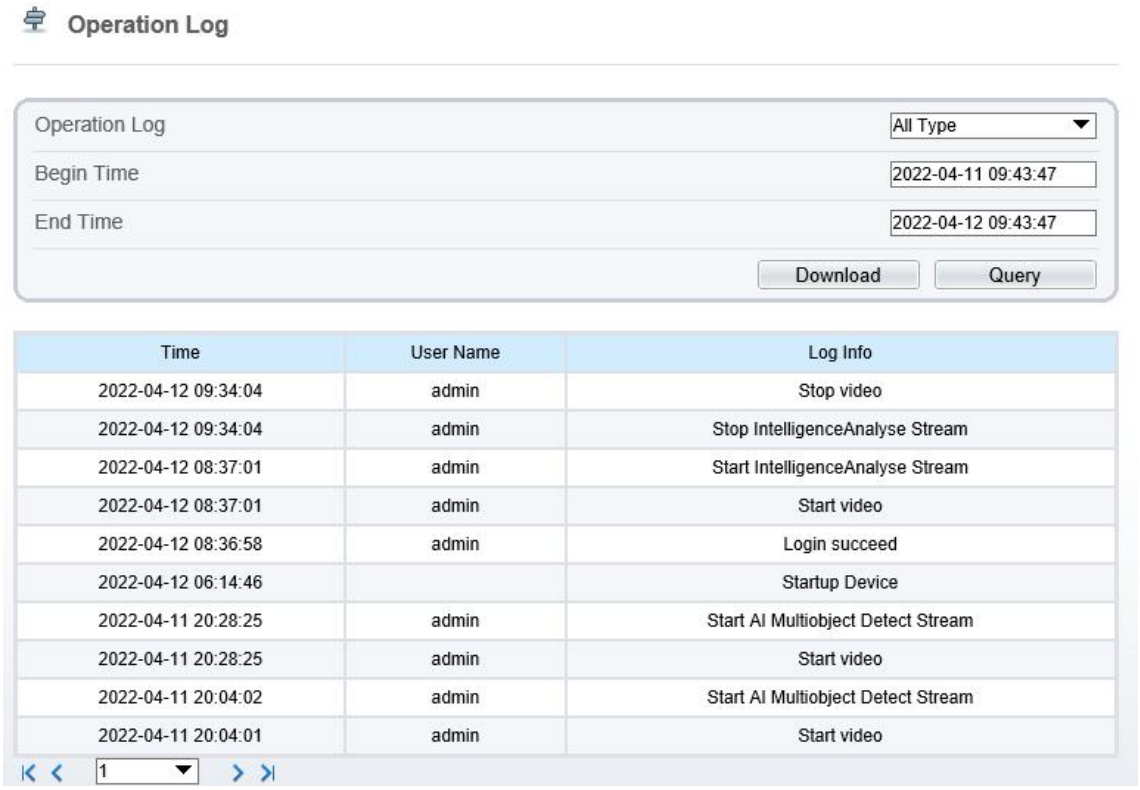
Operation logs record user operations and scheduled task commands during the running of the device. Operation logs can be classified into the following types: permission management, system maintenance, device configuration, recording operation, video control, and real-time video.

Procedure

Step 1 Choose Configuration > Device Log > Operation Log.

The **Operation Log** page is displayed, as shown in Figure 16-1.

Figure 15-1 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 users are displayed.

Step 4 Download the operation logs.

1. Set the start time, end time and log type.
2. Click **Download** on the right of the page.

   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

15.2 Query Alarm Logs

Description

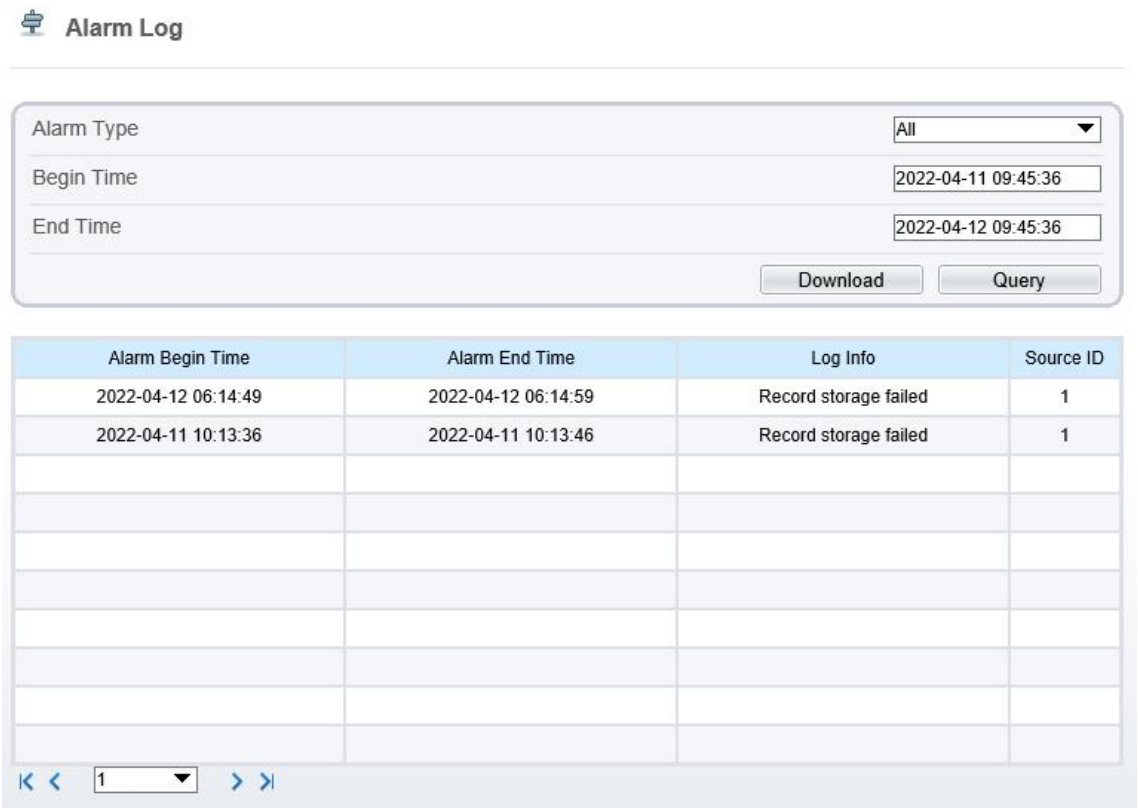
An alarm log records information about an alarm generated on a device, including the security, disk, and recording alarms.

Procedure

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

The **Alarm Log** page is displayed, as shown in Figure 16-2.

Figure 15-2 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

15.3 Collect All Logs

Description

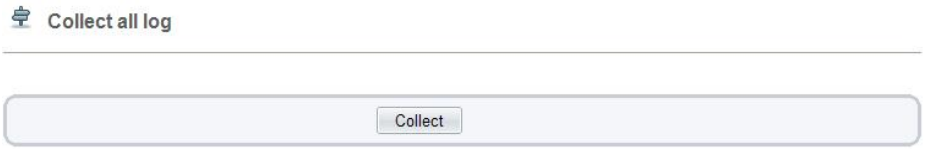
You can collect logs about a device, which help you analyze and solve possible problems occurring on the device. The logs include overview information, key parameters, operation logs, alarm logs, upgrade logs, and debugging logs.

Procedure

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

The **Collect all log** page is displayed, as shown in Figure 16-3.

Figure 15-3 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

16 Maintain the Device

16.1 Restart a Device

Description

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

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

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

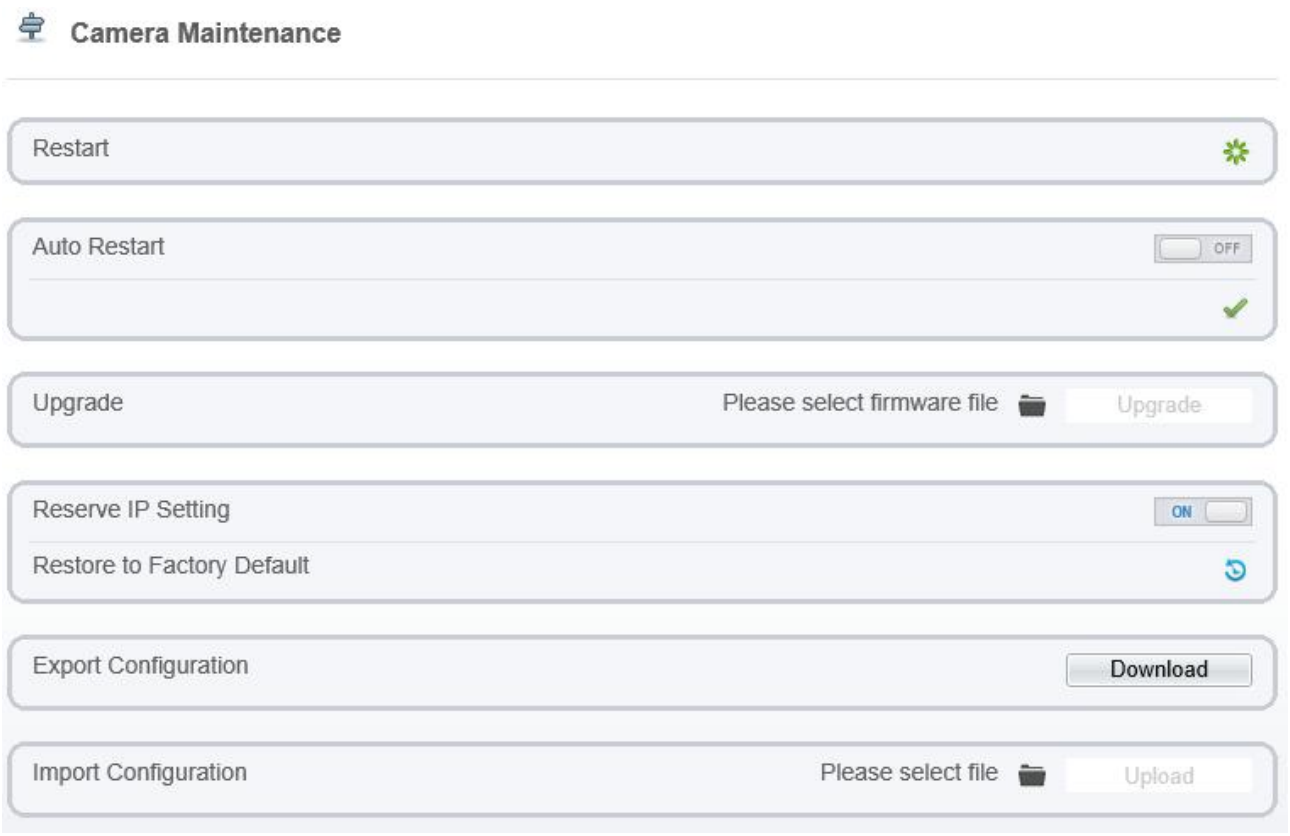
A device needs to be restarted remotely.

Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Camera Maintenance** page is as shown in Figure 17-1.

Figure 16-1 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

16.2 Auto Restart

Step 1 Choose **Configuration > Maintenance**.

The **Camera Maintenance** page is displayed, as shown in Figure 17-1.

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

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

Figure 16-2 Camera auto restart

Step 3 Click **OK**.

The device is restarted successfully five minutes later.

----End

16.3 Upgrade the Software Package

Description

You can upgrade the software package from web.

Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Device Maintenance** page is displayed.

Step 2 Click  to select the upgrade file.

Step 3 Click **Update**.

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

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

CAUTION

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

----End

16.4 Restore Device to Factory Settings

Description

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

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

A user needs to reset device parameters.

All parameters must be restored to the factory settings.

CAUTION

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

Procedure

Step 1 Choose Maintenance.

The **Device Maintenance** page is displayed.

Step 2 Click .

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

Step 3 Click **OK**.

The device is restored to the factory settings.

----End

16.5 Export / Inport Configuration

Description

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

Procedure

Step 1 Choose Maintenance.

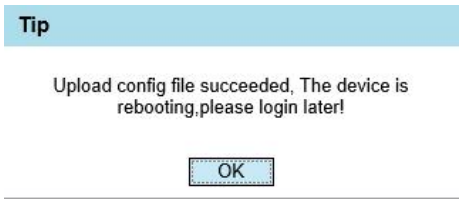
The **Device Maintenance** page is displayed.

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

Save the file to local hard driver follow the prompts.

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

The tip will show after the configuration file uploading finish.



Step 4 Click OK to finish.

----End

17 Local Configuration

Description

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

Procedure

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

The **Local Config** page is displayed, as shown in Figure 18-1.

Figure 17-1 Local Config page

Step 2 Set snapshot save path.

Step 3 Set local record save path

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

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

----End

18 Troubleshooting

Table 19-1 describes the common faults and solutions.

Table 18-1 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: 1. Open browser. 2. **Press Ctrl + Shift +Delete**. The **Delete Browsing History** dialog box is displayed. 3. Select all check boxes. 4. Click **Delete**. Login to the web management system again.
The IP camera cannot be upgraded.	The network is disconnected. The network settings are incorrect.	Confirm that the upgrade network is connected. Check the network settings.
	The upgrade package is incorrect.	Obtain the correct upgrade package and upgrade the IP camera again.

A Acronyms and Abbreviations

A	
ADSL	Asymmetric Digital Subscriber Line
C	
CBR	Constant Bit Rate
CGI	Common Gateway Interface
CMS	Central Management System
D	
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name Server
DDNS	Dynamic Domain Name Server
E	
EAP	Extensible Authentication Protocol
F	
FTP	File Transfer Protocol
G	
GAMA	Graphics Assisted Management Application
H	
HTTP	Hyper Text Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
I	
ID	Identity
ISO	International Standard Organization
IP	Internet Protocol
IPC	Internet Protocol Camera
L	
LPS	Limited Power Source
M	
MJPEG	Motion Joint Photographic Experts Group
MAC	Media Access Control
MTU	Media Transmission Unit
N	
NAS	Network Attached Storage
NTP	Network Time Protocol
NTSC	National Television Standards Committee
O	

OSD	On Screen Display
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

Liberty

L3NVRPOE Series AI NVRs

User Manual for:

L3NVR4POE, L3NVR8POE, L3NVR16POE, L3NVR3216POE

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About This Document：

This document is for several models. The appearance and function of the products are subject to the actual products.

Any loss caused by failure to follow the instructions in this document is the responsibility of the user.

This document will be updated in real time according to the laws and regulations of the relevant region. For details, please refer to the product's paper, electronic CD, QR code or official website. If the paper and electronic files are inconsistent, please refer to the electronic file as.

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Network Security Advice

Required measures to ensure basic network security of equipment:

Modify the password regularly and set a strong password.

Devices that do not change the password regularly or use a weak password are the easiest to be hacked. Users are advised to modify the default password and use strong passwords whenever possible (minimum of 6 characters, including uppercase, lowercase, number, and symbol).

Update firmware

According to the standard operating specifications of the technology industry, the firmware of NVR, DVR and IP cameras should be updated to the latest version to ensure the latest features and security of the device.

The following recommendations can enhance your device's network security:

1. Change your password regularly

Regularly modifying the login credentials ensures that authorized users can log in to the device.

2. Modify the default HTTP and data ports

Modify the device's default HTTP and data ports, which are used for remote communication and video browsing.

These two ports can be set to any number between 1025 and 65535. Changing the default port reduces the risk of the intruder guessing which port you are using.

3. Use HTTPS/SSL encryption

Set up an SSL certificate to enable HTTPS encrypted transmission. The information transmission between the front-end device and the recording device is fully encrypted.

4. Enable IP filtering

After IP filtering is enabled, only devices with the specified IP address can access the system.

5. Change the ONVIF password

For some old versions of the IP camera firmware, after the system's master password is changed, the ONVIF password will not be automatically changed. You must update the camera's firmware or manually update the ONIVF password.

6. Only forward the ports that must be used

Only forward the network ports that must be used. Avoid forwarding a long port area. Do not set the device's IP to DMZ.

If the camera is connected locally to the NVR, you do not need to forward the port for each camera. Only the ports of the NVR need to be forwarded.

7. Use a different username and password on the video surveillance system.

In the unlikely event that your social media account, bank, email, etc. account information is leaked, the person who obtained the account information will not be able to invade your video surveillance system.

8. Restrict the permissions of the ordinary account

If your system is serving multiple users, make sure that each user has permission to access only its permissions.

UPNP

When the UPnP protocol is enabled, the router will automatically map the intranet ports. Functionally, this is user-friendly, but it causes the system to automatically forward the data of the corresponding port, causing the data that should be restricted to be stolen by others.

If you have manually opened HTTP and TCP port mappings on your router, we strongly recommend that you turn this feature off. In actual usage scenarios, we strongly recommend that you do not turn this feature on.

SNMP

If you do not use the SNMP, we strongly recommend that you turn it off. The SNMP function is limited to temporary use for testing purposes.

Multicast

Multicast technology is suitable for the technical means of transmitting video data in multiple video storage devices. There have been no known vulnerabilities involving multicast technology so far, but if you are not using this feature, we recommend that you turn off multicast playback on your network.

12. Check logs

If you want to know if your device is secure, you can check the logs to find some unusual access operations. The device log will tell you which IP address you have tried to log in or what the user has done.

Physically protect your device

For the safety of your device, we strongly recommend that you physically protect your device from unauthorized boring operations. We recommend that you place the device in a locked room and place it in a locked cabinet with a locked box.

It is highly recommended that you use PoE to connect IP cameras to NVR.

IP cameras connected to the NVR using PoE will be isolated from other networks so that they cannot be accessed directly.

Network isolation between NVR and IP cameras

We recommend isolating your NVR and IP cameras from your computer network. This will protect unauthorized users on your computer network from having access to these devices.

About This Document

Purpose

This document describes in detail the installation, use, and interface operation of the NVR (Network Video Recorder) device.

Symbol Conventions

The symbols may be found in this document, which are defined as follows:

Symbol	Description
 DANGER	It's for warning when a hazard or a hazardous condition is likely to be life-threatening.
 WARNING	Alerts you to a medium or low risk hazard that, if not avoided, could result in moderate or minor injury.
 CAUTION	Alerts you to a potentially hazardous situation that, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results.
 TIP	Provides a tip that may help you solve a problem or save time.
 NOTE	Provides additional information to emphasize or supplement important points in the main text.

Safety instructions

The following are the correct use of the product. In order to prevent danger and prevent property damage, please read this manual carefully before using the device and strictly comply that when using it. Please save the manual after reading.

Requirements

The front-end devices of POE are required to be installed indoors.

The NVR device does not support wall mounting.

Do not place and install the device in direct sunlight or near heat-generating equipment.

Do not install the device in a place subject to high humidity, dust or soot.

Please keep the equipment installed horizontally or install the equipment in a stable place, taking care to prevent the product from falling.

Do not drop or spill liquid into the device and ensure that no liquid-filled items are placed on the device to prevent liquid from flowing into the device.

Install the device in a well-ventilated area, and do not block the ventilation openings of the device.

Use the device only within the rated input and output range.

Do not disassemble the device at will.

Please transport, use and store the device within the permissible humidity and temperature range.

Power Requirement

Be sure to use the specified manufacturer's model battery, otherwise there is a danger of explosion!

Be sure to use the battery as required, otherwise there is a danger of the battery catching fire, exploding or burning!

Only use the same model of battery when replacing the battery!

Be sure to dispose of the used battery as the instruction of battery!

Be sure to use the power adapter that meets standard with the device, otherwise the personal injury or equipment damage caused by the user will be borne by the user.

Use a power supply that meets the SELV (Safety Extra Low Voltage) requirements and supply power according to the rated voltage of IEC60950-1 in accordance with the Limited Power Source. The specific power supply requirements are based on the equipment label.

Connect the Class I product to the power outlet with a protective ground connection.

The appliance is coupled to the port unit. Keep it at a proper angle for normal use.

Important Statement

Users are required to enable and maintain the lawful interception (LI) interfaces of video surveillance products in strict compliance with relevant laws and regulations. Installation of surveillance devices in an office area by an enterprise or individual to monitor employee behavior and working efficiency outside the permitted scope of the local law and use of video surveillance devices for eavesdropping of illegal purposes constitute behaviors of unlawful interception.

This manual is only for reference and does not ensure that the information is totally consistent with the actual products. For consistency, see the actual products.

Contents

Legal Notice ..... **ii**
Network Security Advice ..... **iv**
About This Document ..... **vii**
Purpose vii
Symbol Conventions vii
Safety instructions ..... **viii**
Requirements viii
Power Requirement viii
Important Statement ix
Contents ..... **x**
1 Preface **1**
1.1 Product Description 1
1.2 Product Features 1
1.2.1 Cloud Upgrade 1
1.2.2 Real-time Monitoring 2
1.2.3 Playback 2
1.2.4 User Management 2
1.2.5 Storage Function 2
1.2.6 Alarm Function 3
1.2.7 Network Monitoring 3
1.2.8 Split Screen 3
1.2.9 Recording Function 3
1.2.10 Backup Function 4
1.2.11 External Device Control 4
1.2.12 Accessibility 4
2 Product Structure **5**

2.1 Front Panel 5
2.2 Back Panel 5
2.3 Important Notes 10
2.4 About This User Manual 11
2.5 Installation Environment and Precautions 11
3 Install device 13
3.1 Process 13
3.2 Unpacking Inspection 14
3.3 Install Hard Disk 14
3.3.1 Install One or Two Hard disks 15
4 Basic Operations 17
4.1 Power on the Device 17
4.2 Activation 18
4.3 Power off the Device 22
4.4 Login to the System 23
5 Wizard 26
6 Quick Navigation 35
6.1 Quick Bar 35
6.2 Real Time Video Bar 39
6.3 Playback 41
6.3.1 Time Search 43
6.3.2 Picture Grid 44
6.3.3 Event Recording 46
6.3.4 Backup List 48
6.4 AI Recognition (Only for Some Models) 49
6.4.1 Real Time Comparison 49
6.4.1.1 Human Face 49
6.4.1.2 Vehicle and Full Body 50
6.4.2 Smart Search 51
6.4.2.1 Human Face Search 52
6.4.2.2 Full Body Search 54
6.4.2.3 Vehicle Search 55

6.4.3 Archives Library 56
6.4.3.1 Face Library 56
6.4.4 Comparison Configuration 57
6.4.4.1 Face Comparison 57
6.4.5 Attendance Management 59
6.5 Channel Information 63
6.6 Main Menu 63
7 UI System Setting 64
7.1 Channel Management 64
7.1.1 Camera 64
7.1.1.1 Add Camera Automatically 66
7.1.1.2 Add Camera Manually 67
7.1.1.3 Add Camera by RSTP 68
7.1.1.4 Delete Camera 69
7.1.1.5 Operate Camera 69
7.1.2 Encode Parameter 71
7.1.3 Sensor Setting 72
7.1.4 OSD Settings 73
7.1.5 Privacy Zone 74
7.1.6 ROI 75
7.1.7 Microphone 76
7.1.8 Smart 78
7.1.8.1 AI Multiobject 78
7.1.9 Intelligent Tracking 80
7.2 Record Setting 83
7.2.1 Record Schedule 83
7.2.2 Disk 84
7.2.3 RAID (Only for Some Models) 86
7.2.4 Storage Mode 87
7.2.5 S.M.A.R.T 88
7.2.5.1 S.M.A.R.T 88
7.2.5.2 WDDA 89

7.2.6 Disk Detection 90
7.2.7 Disk Calculation 92
7.2.8 FTP 93
7.3 Alarm Management 95
7.3.1 General 95
7.3.1.1 General 95
7.3.1.2 IO control push 96
7.3.2 Motion Detection 96
7.3.3 Video Loss 99
7.3.4 Intelligent Analysis 101
7.3.5 Alarm In 103
7.3.6 Abnormal Alarm 105
7.3.7 Alarm Out 106
7.3.7.1 Alarm Out 106
7.3.7.2 Camera Alarm out 107
7.3.8 Local Intelligent Analysis 109
7.3.8.1 General 109
7.3.8.2 Intrusion 110
7.4 Network Management 113
7.4.1 Network 114
7.4.1.1 IP 114
7.4.1.2 Port 114
7.4.1.3 POE 115
7.4.2 802.1 X 116
7.4.3 DDNS 117
7.4.4 Port Mapping 118
7.4.4.1 Port Mapping 118
7.4.4.2 NAT Port 119
7.4.5 Email 120
7.4.6 P2P 122
7.4.7 IP Filter 123
7.4.8 SNMP 124

7.4.9 POE Status 125
7.4.10 Network Traffic 126
7.4.11 Platform Access 127
7.5 System Management 130
7.5.1 Information 130
7.5.2 General 133
7.5.2.1 System 133
7.5.2.2 Date and Time 134
7.5.2.3 Time Zone 135
7.5.2.4 DST 136
7.5.2.5 Sync Camera Time 137
7.5.3 User Account 138
7.5.3.1 User 138
7.5.3.2 Advance Setting 140
7.5.3.3 App Verification 141
7.5.4 Security Center 142
7.5.4.1 Password 142
7.5.4.2 Pattern Unlock 143
7.5.4.3 Secure Email 144
7.5.4.4 Secure Question 145
7.5.5 Layout 146
7.5.6 Auxiliary Screen (Only for Some Models) 149
7.5.7 Logs 150
7.5.7.1 System Log 150
7.5.7.2 Event Log 151
7.5.8 Maintenance 152
7.5.9 Auto Reboot 154
8 WEB Quick Start 156
8.1 Activation 156
8.2 Login and Logout 158
8.3 Browsing Videos 163
8.3.1 Browsing Real-Time Videos 163

8.3.2 Live Video 164
8.3.3 Channel Operation 165
8.3.4 PTZ Control and Setting 166
8.3.5 Sensor Setting 168
8.3.6 Layout 170
8.4 Playback 171
8.4.1 Video Playback 171
8.5 Alarm Search 173
8.5.1 Channel Alarm 173
8.6 Attendance 175
8.6.1 Attendance Data 175
8.6.2 Attendance Management 176
8.7 AI Recognition 180
8.7.1 Real Time Comparison 181
8.7.1.1 Human Face 181
8.7.1.2 Vehicle and Full Body 181
8.7.1.3 Real Time Body Temperature Filter 182
8.7.2 Smart Search 183
8.7.2.1 Human Face Search 183
8.7.2.2 Full Body Search 184
8.7.2.3 Vehicle Search 185
8.7.3 Archives Library 185
8.7.3.1 Face Library 186
8.7.4 Comparison Configuration 186
9 System Setting 191
9.1 Channel 191
9.1.1 Camera 191
9.1.1.1 Protocol Management 194
9.1.2 Encode 195
9.1.3 Sensor Setting 196
9.1.4 OSD 197
9.1.5 Privacy Zone 198

9.1.6 ROI 199
9.1.7 Microphone 199
9.1.8 Smart 200
9.1.9 Intelligent Tracking (Only for Some Models) 201
9.2 Record 201
9.2.1 Record Schedule 202
9.2.2 Disk 203
9.2.3 Storage Mode 204
9.2.4 RAID (Only for Some Models) 204
9.2.5 S.M.A.R.T 207
9.2.6 Disk Calculation 208
9.2.7 FTP 209
9.3 Alarm 209
9.3.1 General 210
9.3.1.1 General 210
9.3.1.2 IO Control Push 210
9.3.2 Motion Detection 211
9.3.3 Video Loss 213
9.3.4 Intelligent Analysis (Only for Some Models) 214
9.3.5 Alarm In 215
9.3.6 Abnormal Alarm 216
9.3.7 Alarm out 217
9.4 Network 218
9.4.1 Network 218
9.4.2 DDNS 220
9.4.3 Email 221
9.4.4 Port Mapping 222
9.4.4.1 Port Mapping 222
9.4.4.2 NAT port 222
9.4.5 P2P 223
9.4.6 IP Filter 224
9.4.7 802.1X 226

9.4.8 SNMP 227
9.4.9 Web Mode 229
9.4.10 POE Status 229
9.4.11 Platform Access 230
9.5 System 230
9.5.1 Device Information 231
9.5.2 General 233
9.5.3 User Account 236
9.5.3.1 Add User 236
9.5.3.2 Adv.Setting 238
9.5.3.3 App Verification 239
9.5.4 Security Center 239
9.5.4.1 Password 239
9.5.4.2 Secure Email 240
9.5.4.3 Secure Question 240
9.5.5 Logs 241
9.5.5.1 System Logs 241
9.5.5.2 Event 241
9.5.6 Maintenance 242
9.5.7 Auto Reboot 243
9.6 Local (Supplied for IE Browser) 244

1 Preface

1.1 Product Description

This product is a high-performance NVR device. The product has local preview, video multi-screen split display, local real-time storage function of video files, add support for mouse shortcut operation, remote management and control.

This product supports three storage methods: central storage, front-end storage, and client storage. The front-end monitoring point can be located anywhere in the network without geographical restrictions. It is combined with other front-end devices such as network cameras, network construction of network video server, and professional video surveillance systems to form a powerful security monitoring network. In the networked deployment system of this product, the central point and the monitoring point need only one network cable to connect. There is no need to connect video and audio cables. The operation is simple, and the cost of wiring and maintenance cost is low.

This product is widely used in public security, transportation, electric power, education and other industries.

1.2 Product Features

1.2.1 Cloud Upgrade

For devices that have access to the public network, you can update the software of the devices online.

1.2.2 Real-time Monitoring

It has a VGA (Video Graphics Array) port and an HDMI (High Definition Media Interface) port. It can realize monitoring function through monitor and display, and support VGA and HDMI output at the same time.

1.2.3 Playback

Each channel has independent real-time recordings and multi functions, such as retrieval, playback, network monitoring, video query, and download. Please refer to chapter Playback

Multiple playback modes: slow release, fast release, reverse playback, and frame-by-frame playback.

The exact time when the event occurred can be displayed during playback of the recording.

You can select any area of the screen for partial magnification.

1.2.4 User Management

Each user group has a rights management set, which can be selected autonomously. The total rights set is a subset, and the user rights in the group cannot exceed the rights management set of the user group.

1.2.5 Storage Function

According to the user's configuration and policies (alarm or time settings), the corresponding audio and video data transmitted by the remote device is stored in the NVR device. For details, please refer to chapter Storage Management.

Users can record by WEB mode as needed. The video files are stored on the computer where the client is located. Please refer to chapter Storage.

1.2.6 Alarm Function

Real-time response to external alarm input, correct processing according to the user's preset linkage settings and give corresponding prompts.
The setting options of the central alarm receiving server are provided, so that the alarm information can be actively and remotely notified, and the alarm input can come from various external devices connected.
The alarm information can be notified to the user by mail or APP push information.

1.2.7 Network Monitoring

Through the network, the audio and video data of the IP camera or NVS (Network Video Server) of the NVR device is transmitted to the network terminal for decompression and reproduction.
The device supports 8 (or 4) simultaneous online users to perform streaming operations.
The audio and video data is transmitted using protocols such as HTTP (Hyper Text Transfer Protocol), TCP (Transmission Control Protocol), UDF (User Datagram Protocol), MULTICAST, RTP (Real-time Transport Protocol), and RTCP (Real Time Streaming Protocol).
Use SNMP (Simple Network Management Protocol) for some alarm data or information
Support WEB mode access system, applied to WAN, LAN environment.

1.2.8 Split Screen

Image compression and digitization are used to compress several images in the same scale and display them on the display of a monitor. 1/4/8/9/16/32 screen splitting is supported during preview; 1/4/9/16 screen splitting is supported during playback.

1.2.9 Recording Function

The device supports regular recording, motion detection recording, alarm recording, and intelligent recording. The recording file is placed on the hard disk device, USB (Universal Serial Bus) device, and client PC (personal computer). It can be connected to the WEB terminal, USB device, or local device. Query and play back the stored video files.

1.2.10 Backup Function

Support USB2.0 and eSATA video backup.

1.2.11 External Device Control

The peripheral control function is supported, and the control protocol and connection interface of each peripheral can be set as you need.

Support transparent data transmission of multiple interfaces, such as: RS232, RS485.

1.2.12 Accessibility

Supports video NTSL (Nation Television Standards Committee) system and PAL (Phase Alteration Line) system.

Supports system resource information and real-time display of running status.

Supports for logging recording.

Supports local GUI (Graphical User Interface) output and quick menu operation via mouse.

Supports playback of audio and video from remote IPC or NVS devices.

NOTE

For other functions, please see the following text.

2 Product Structure

2.1 Front Panel

Figure 2-1 One disk/four disks model

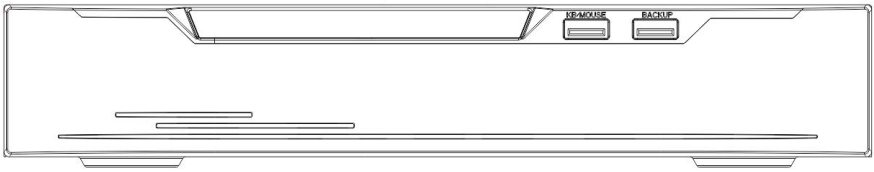


Table 2-1 Front panel function

Port	Description
PWR	When the NVR is operating, the PWR indicator is steady on. When the NVR is shut down, the PWR indicator is turned off.
HDD	Hard disk status indicator. This indicator flashes when data is transmitted.
POE	PoE network status indicator. This indicator flashes when data is transmitted.
KB/MOUSE	Only connected to an USB mouse.
BACKUP	Only connected to U disk.

2.2 Back Panel

Figure 2-2 L3NVR4POE

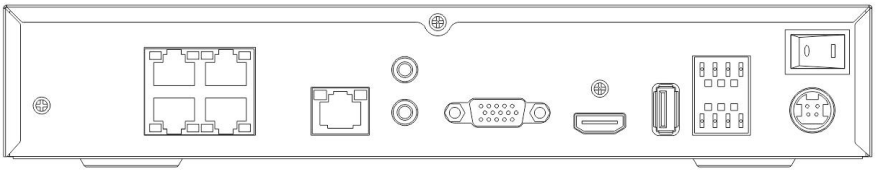


Figure 2-3 L3NVR8POE

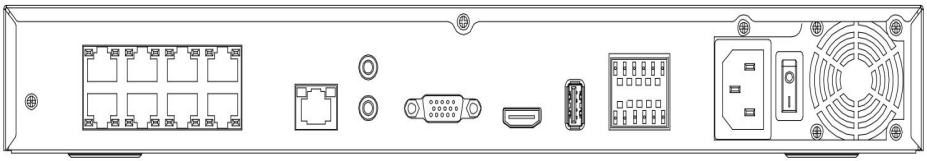


Table 2-2 Real panel function

Port	Description
POE	POE network interfaces
LAN	RJ 45 10/100/1000 Mbps adaptive Ethernet interface
AUDIO OUT / AUDIO IN	Audio output / Audio input
VGA	Video output interface
HDMI	
Alarm I/O	Alarm input/Alarm output
⏚	GND
DC48V	Connected to an external power adapter

Figure 2-4 L3NVR16POE

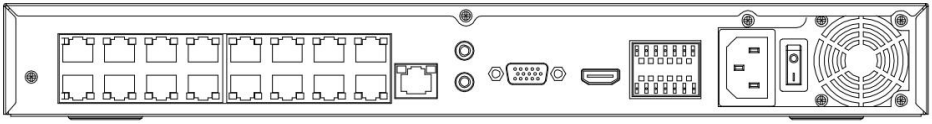


Figure 2-5 L3NVR3216POE

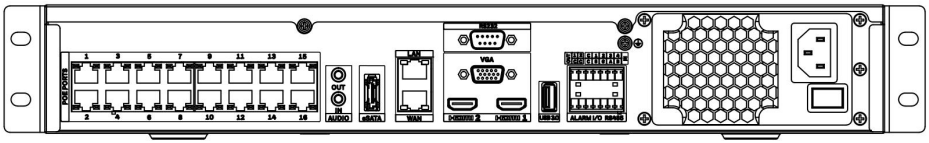
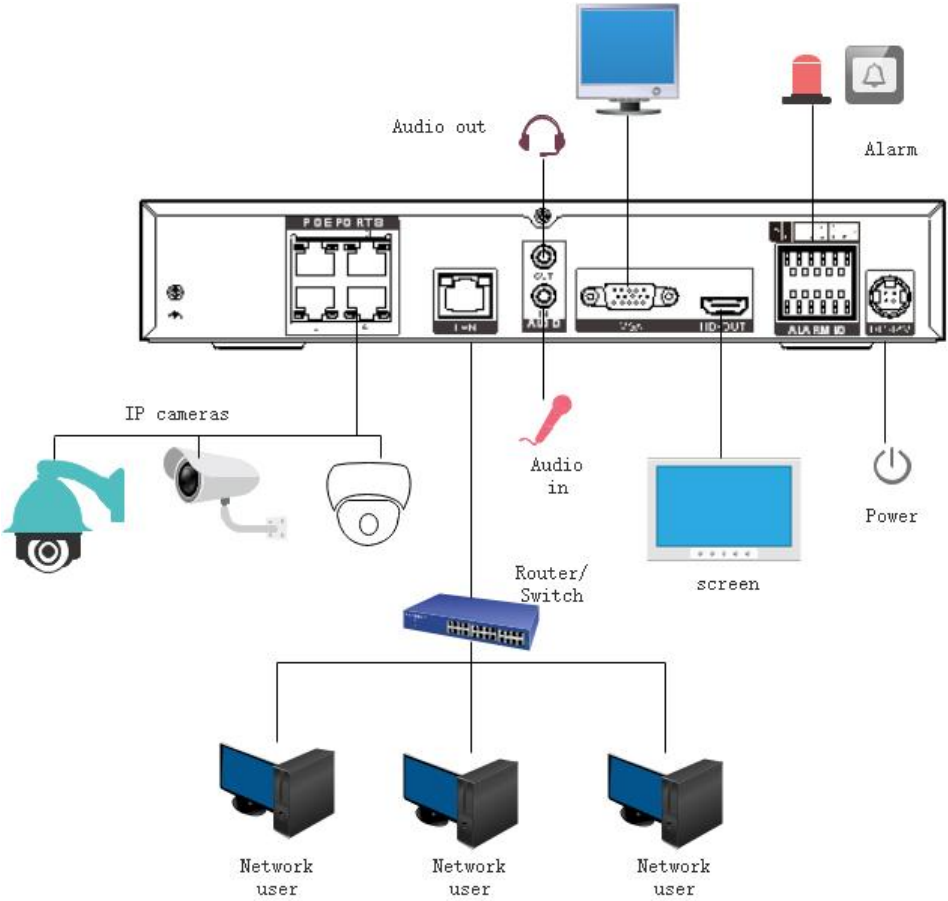
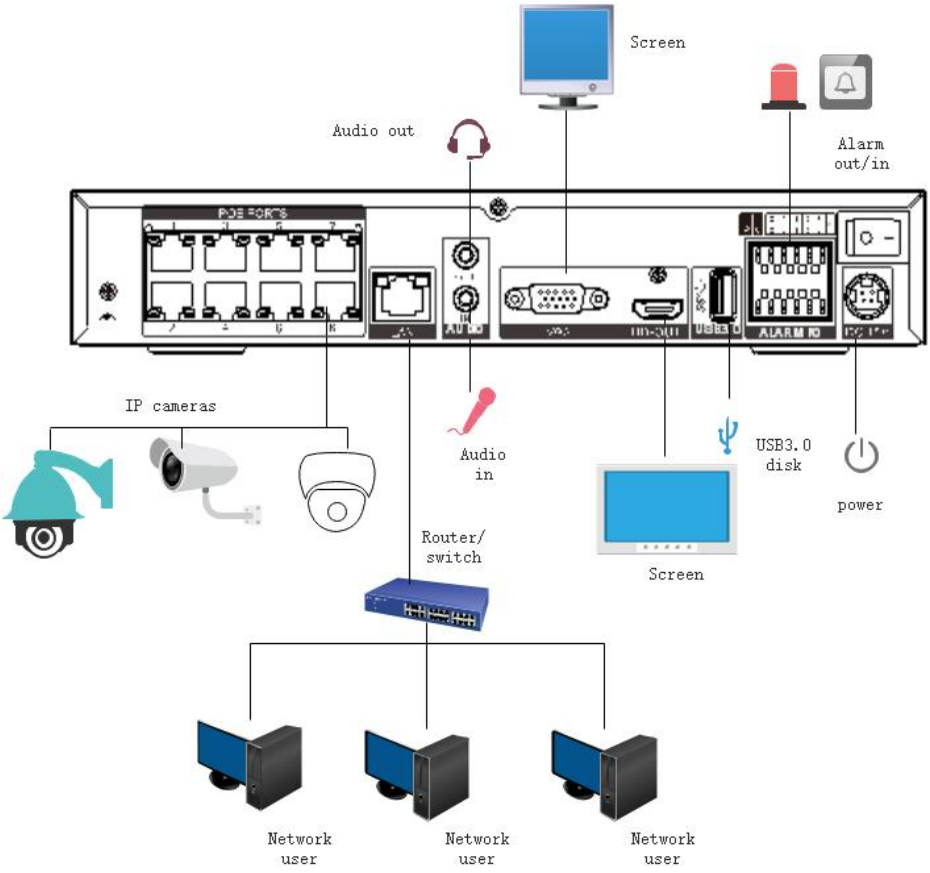
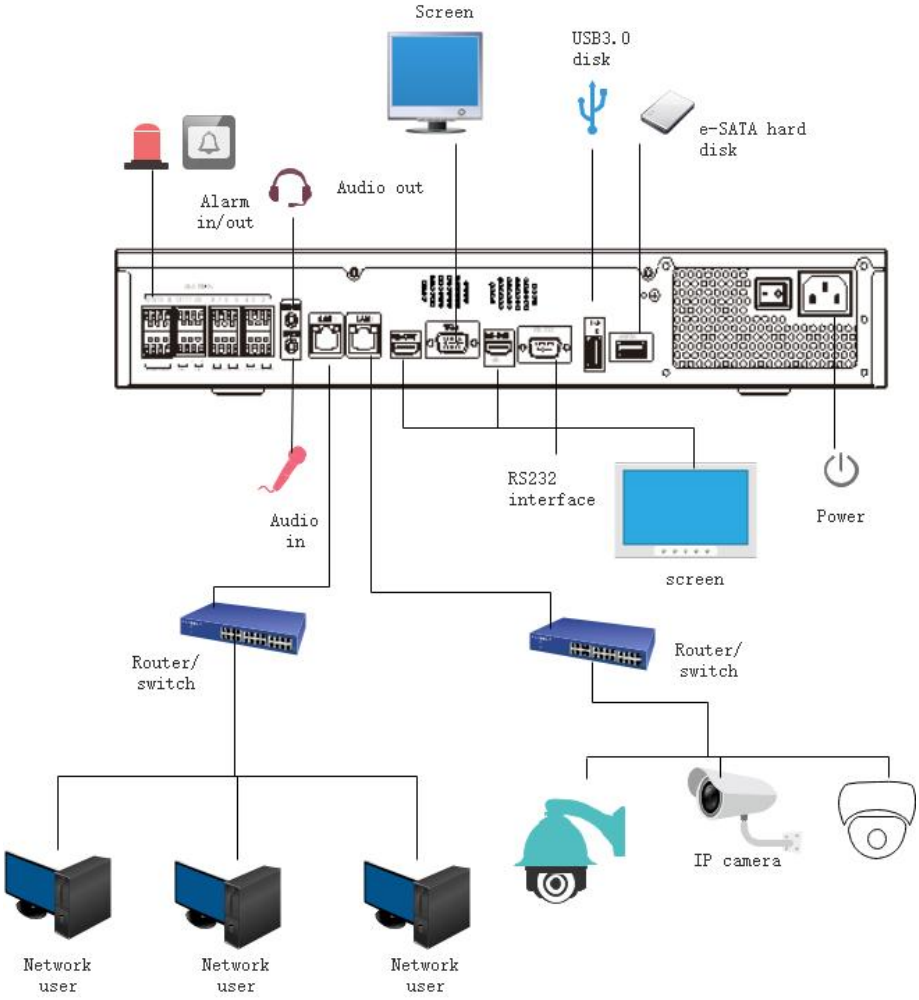


Table 2-3 Real panel function

Port	Description
POE	POE network interfaces
LAN	RJ 45 10/100/1000 Mbps adaptive Ethernet interface
AUDIO OUT / AUDIO IN	Audio output / Audio input
VGA	Video output interface
HDMI	
USB 3.0	Only connected to 3.0 U disk
Alarm I/O	Alarm input/Alarm output
⏚	GND
DC48V	Connected to an external power adapter


Audio out
Alarm
IP cameras
Audio in
Power
screen
Router/ Switch
Network user
Network user
Network user


Screen
Audio out
Alarm out/in
IP cameras
Audio in
USB3.0 disk
power
Router/ switch
Screen
Network user
Network user
Network user



2.3 Important Notes

Thank you for choosing the NVR. Please read the user manual carefully before using this product.

The NVR is a complex system-based device. To avoid misoperations and malfunctions caused by environmental factors and human factors during installation, commission, and application, note the following points when installing and using this product:

Read the user manual carefully before installing and using this product.

Use Monitoring dedicated hard disks as the storage devices of the NVR with high stability and competitive price/performance ratios (the quality of hard disks sold on markets varies greatly with different brands and models).

Do not open the enclosure of this product unless performed by a professional person to avoid damage and electric shock.

We are not liable for any video data loss caused by improper installation, configuration, operation, and hard disk errors.

All images in the document are for reference only, please subject to the actual products.

2.4 About This User Manual

Please note the following points before using this user manual:

This user manual is intended for persons who operate and use the NVR.

The information in this user manual applies to the full series NVR, NVR as an example for description.

Read this user manual carefully before using the NVR and follow the methods described in this manual when using the NVR.

If you have any doubts when using the NVR, contact your product seller.

As our products are subject to continuous improvement, we reserve the right to modify product manual, without notice and without incurring any obligation.

2.5 Installation Environment and Precautions

Installation environment

Table 2-10 defines the installation environment of the NVR.

Table 2-4 Installation environment

Item	Description
Electromagnetism	The NVR conforms to national standards of electromagnetic radiation and does not cause harm to the human body.
Temperature	–10°C to +45°C
Humidity	20% to 80%
Atmospheric pressure	86 Kpa to 106 Kpa
Power supply	DC 12V, DC 48V 2A(1 HDD) or AC110/ 220V 4A(2 HDDs or more)，please refer to actual products.
Power consumption	<15W (not including the hard disk)

Installation precautions

Note the following points when installing and operating the NVR:

The power adapter of the NVR uses DC48V±20% input. Do not use the NVR when voltage is too high or too low.

Install the NVR horizontally.

Avoid direct sunlight on the NVR and keep away from any heat sources and hot environments.

Connect the NVR to other devices correctly during installation.

The NVR is not configured with any hard disk upon delivery. Install one or more hard disks when using the NVR for the first time.

The NVR identifies hard disk capacity automatically and supports mainstream hard disk models.

You'd better use high-quality hard disk so that the NVR can work stably and reliably. Please refer to chapter 10 Disk Compatibility

Other precautions

Clean the NVR with a piece of soft and dry cloth. Do not use chemical solvents.

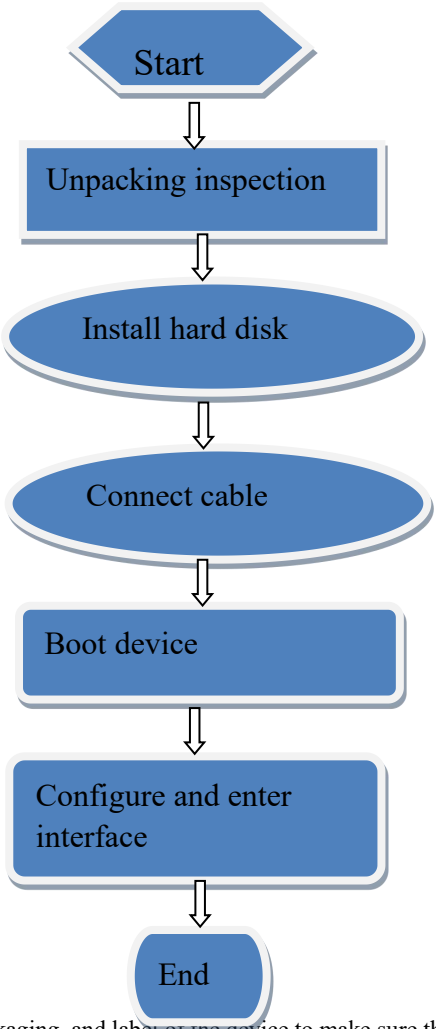
Do not place objects on the NVR.

The NVR meets the national standards of electromagnetic radiation and does not cause electromagnetic radiation to the human body.

Series of NVR

3 Install device

3.1 Process



Step 1 Check the appearance, packaging, and label of the device to make sure there is no damage.

Step 2 Install the hard disk and fix it to the device bracket.

Step 3 Connect the device cable.

Step 4 Make sure the device is properly connected. Power up and turn on the device.

Step 5 Configure the initial parameters of the device. The boot wizard contains network configuration, add cameras, and manage disks. For details, please refer to the chapter of Wizard .

3.2 Unpacking Inspection

When you receive the video recorder, please check it against the following table.

Should you have any issues, please don't hesitate to contact our after-sales support.

Table 3-1 Unpacking inspection

No	Item		Check content
1	Overall packaging	Appearance	Is there any obvious damage
		Package	Is there accidental impact
		Accessories	Is it complete
2	Label	Label of device	Is the equipment model consistent with the order contract? Whether the label is torn **NOTE** Do not tear or discard, otherwise warranty service is not guaranteed. When you call the company for sales personnel calls, you need to provide the serial number of the product on the label.
3	Cabinet	Package	Is there any obvious damage
		Data cable, power cable, fan power supply, and motherboard	Is the connection loose? **NOTE** If it is loose, please contact the company's after-sales personnel.

3.3 Install Hard Disk

Check if the hard disk is installed during the first installation. Please use the recommended hard disk model. For more details, see *10 Disk Compatibility*.

It is not recommended to use a PC dedicated hard disk.

CAUTION

When replacing the hard disk, please turn off the power and then open the device to replace the hard disk.

Please use the monitoring dedicated SATA hard disk recommended by the hard disk manufacturer.

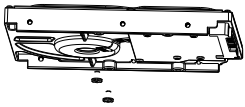
Choose the hard disk capacity according to the recording requirements.

3.3.1 Install One or Two Hard disks

Step 1 Remove the screws for fixing the upper cover and take down the cover.

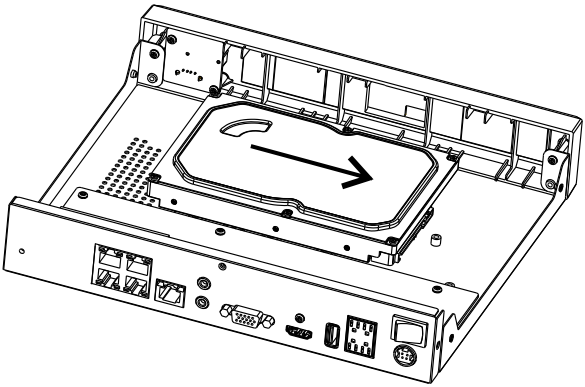
Step 2 Take out the screws and silicone cushion, pass the screws through the silicone cushion, and secure it to the screw holes, as show in Figure 3-1..

Figure 3-2 Installing the hard disk screws



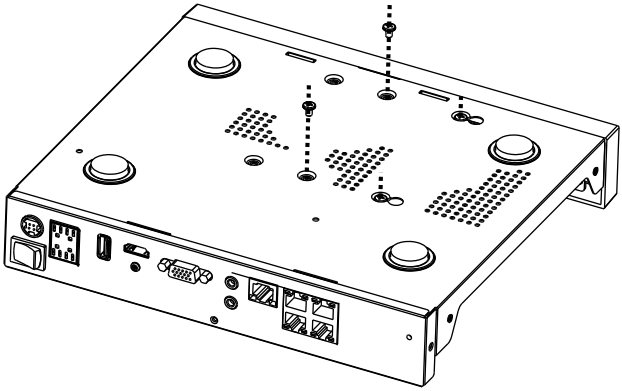
Step 3 Pass the screws through the holes on the base and put the hard disk in place, as shown in Figure 3-2.

Figure 3-3 Install hard disk



Step 4 Turn the device over, and fasten the fixing the rest 2 screws, as shown in Figure 3-3.

Figure 3-4 Install hard disk



Step 5 Insert the hard disk data cable and power cable, then put back the upper cover and fasten the fixing screws.

4 Basic Operations

4.1 Power on the Device

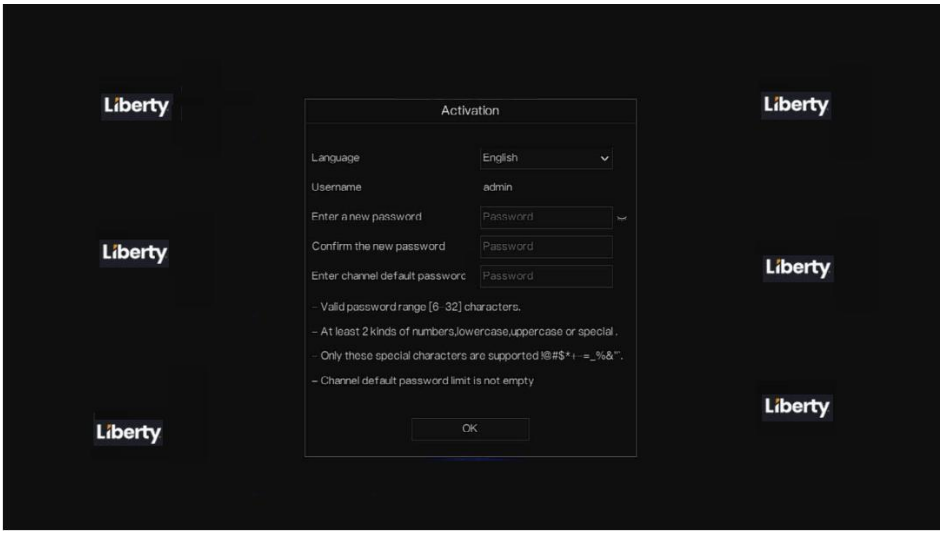
CAUTION

Ensure that the NVR is correctly connected to a power supply, and a display is correctly connected to the high-definition multimedia interface (HDMI) or video graphics array (VGA) port of the NVR before power-on.

In some environments, abnormal power supply may cause the failure of the NVR to work properly and even damage the NVR in severe cases. It is recommended to use a regulated power supply to power up the NVR in such environments.

After connecting the NVR to a power supply, the power indicator is always on. Start the NVR. The real-time video screen is displayed as shown in Figure 4-1.

Figure 4-1 Real-time video screen



NOTE

The hard disk is strictly detected during device startup. If the detection result failed, the possible causes are as follows.

The hard disk is new and is not formatted. Login to the system and format the hard disk.

The hard disk is formatted, but the file system is inconsistent with the file system supported by the NVR. Format the hard disk.

The hard disk is damaged.

4.2 Activation

When users log in the device at first time, or reset the NVR, you need to activate the device and set login and channel default password, as shown in Figure 4-2.

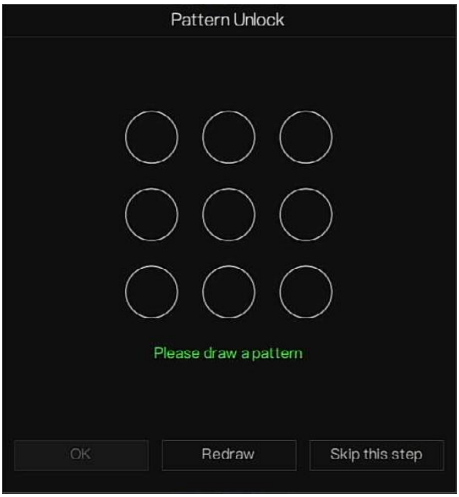
Figure 4-2 Activation

Table 4-1 Description of activation

Name	Description
Username	The default username is admin, and “admin” is super administrator.
Password	Valid password range 6-32 characters. At least 2 kinds of numbers, lower case, upper case or special characters contained. Only these special characters are supported！ @#&*+=-%&”`(),/’.:;< >?^|~[]{}. Channel default password limit is not empty.
Confirm password	
Channel password	The NVR channel connection password is the camera login password.

Users can set the pattern unlock to login the device, as shown in Figure 4-3.

Figure 4-3 Set pattern unlock



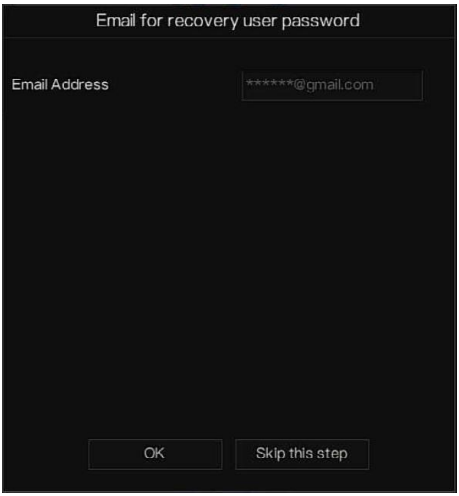
NOTE

After setting pattern unlock, the system default login will be pattern unlock login. If pattern unlock is not set, you need enter the password to log in.

If you don't need to set the pattern to unlock, click "Skip this step".

Allow the Mailbox to receive verification code. The password will be reset when you forget it, as shown in Figure 4-4.

Figure 4-4 Set Email



NOTE

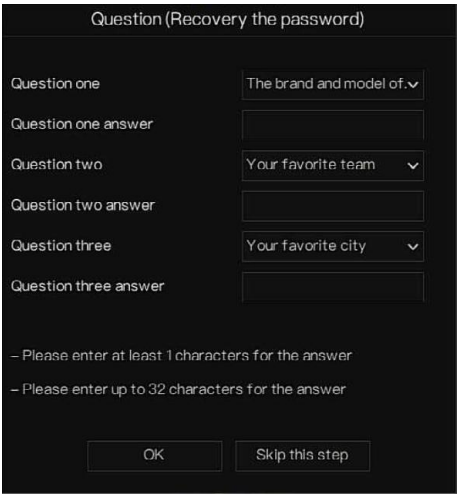
Set the email address, if you forget the password, you can though the email address to receive the verification, and reset the password.

If the email address is not set, you can reply to the secure question or send the QR code to the seller to get the temporary password to login to the device.

If you don't need to set the email, click "Skip this step".

Set the secure questions to create a new password in case the user forgets the password.

Figure 4-5 Set question



NOTE

The user can set three questions, and if they forget the password, they can answer the question and enter the reset password interface.

Questions one can be set: Your favorite animal

Company name of your first job

The name of the first boy/girl you like

The worst security question you have ever seen

The funniest worst design you have ever seen

Your favorite team

Your favorite city

The three question options cannot be set to the same issue.

The answer requires a minimum of four characters and a maximum of 32 characters.

If you do not want to set a password question, you can click Skip this step.

4.3 Power off the Device

Click the main menu and choose **System** > **Maintenance**, the maintenance setting page is displaying, click **Shutdown** to power off the NVR. If there is a power switch on the rear panel of the NVR, you can power off the power switch to disconnect the NVR from the power supply.

4.4 Login to the System

Step 1 Login to the device (two modes to login). The pattern unlock is as shown in Figure 4-6.

Figure 4-6 Pattern unlock login page

Step 2 On the NVR login page, click “Password” to enter pattern unlock interface. If users don’t set the pattern unlock it will show password to login interface directly, select the language, as shown in Figure 4-7.

Figure 4-7 Password login page

Step 3 Input the username and password.

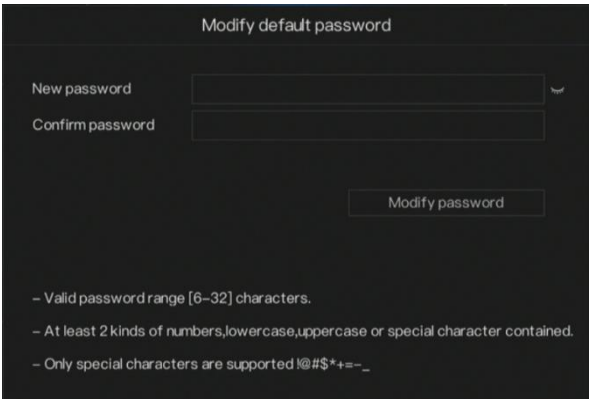
NOTE

The password incorrect more than 3 times, please login again after 5 minutes. You can also power off, and power on to start on the device, input the correct password to avoid waiting five minutes. If user forget password, click Forgot password. User can choose a way to create new password:

1. Scan the QR code and send the QR code to your seller, the seller will send you the verification code to create a new password.
2. Answer the secure question to create new password.

Step 4 Click Login to access the main User Interface (UI).Modify the default password, as shown in Figure 4-8

Figure 4-8 Modify default password



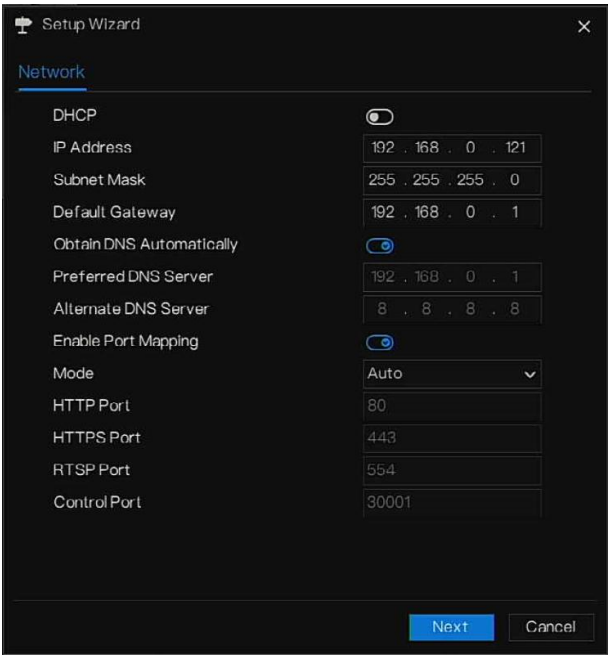
----End

5 Wizard

Login the NVR, the wizard is showing on live video, click **Start Wizard,** the pop-up window will show as Figure 5-1.

Figure 5-1 Wizard

Figure 5-2 Wizard of network



Step 1 Contains he parameter, the details please refer to Table 5- 1.

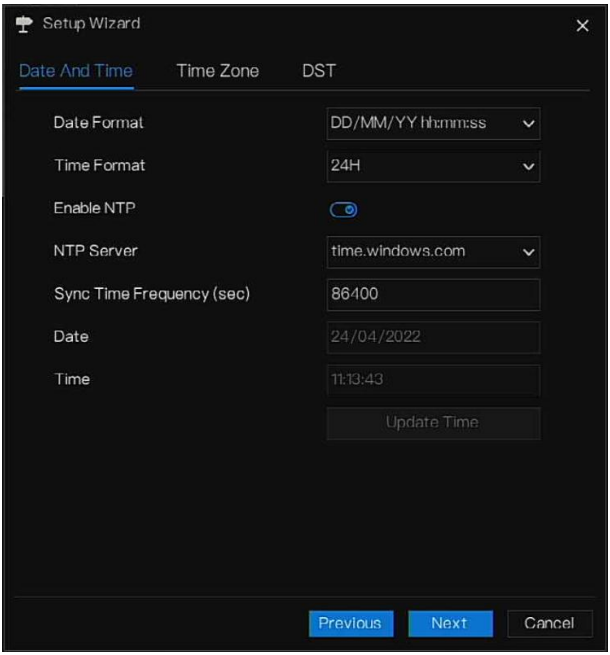
Table 5- 1 Network parameter

Parameter	Description	Configuration
DHCP	Enable DHCP, the device will obtain the IP address from the DHCP server.	[Setting method] Enable
IP Address	Set the IP of device when DHCP is disable	[Setting method] Manual
Subnet mask	Set the subnet mask of device	[Setting method] Manual [Default value] 255.255.255.0
Gateway	If the user wants to access device, he must set that	[Setting method] Manual [Default value] 192.168.0.1
Obtain DNS	N/A	[Setting method]

Parameter	Description	Configuration
automatically		Enable
Preferred DNS Server	N/A	[Setting method] Manual [Default value] 192.168.0.1
Alternate DNS Server	N/A	[Setting method] Manual [Default value] 8.8.8.8
Enable Port Mapping	Enable to set the ports of HTTP, HTTPS, RSTP, Control. Auto: device to obtain Web port, data port and client port. Manual: user set the port manually.	[Setting method] Choose type from drop-down list [Default value] Auto
HTTP Port	N/A	[Setting method] When Port Mapping is manual, you need to set these.
HTTPS Port	N/A	
RTSP Port	N/A	
Control Port	N/A	

Step 2 Click Next to view the basic information about device, as shown in Figure 5-3.

Figure 5-3 Wizard of date and time



Choose date format and time format from drop-down list.

Click  to synchrony time from network.

Disable the NTP-Sync, set time manually.

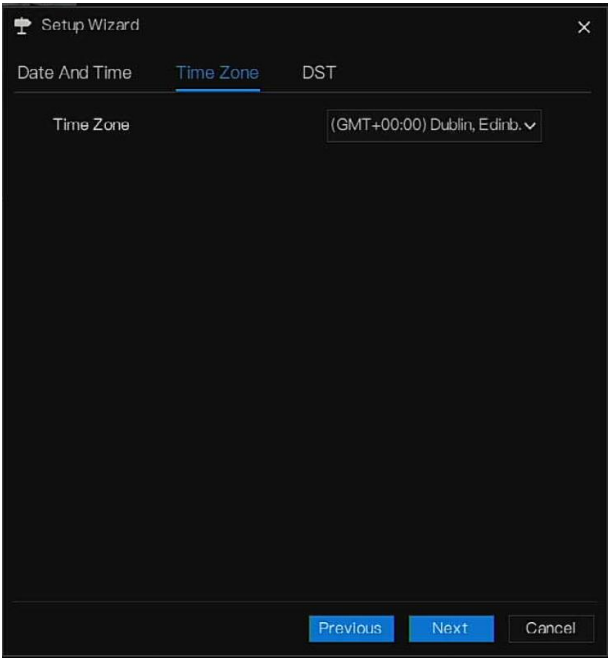
Roll the mouse to choose year, month and day when clicking the date.

Roll the mouse to choose hour, minute and second when clicking the date.

Click **Modify Time** to save the time.

Step 3 Click **Time Zone,** choose the current time zone from drop-down list, as shown in Figure 5-4.

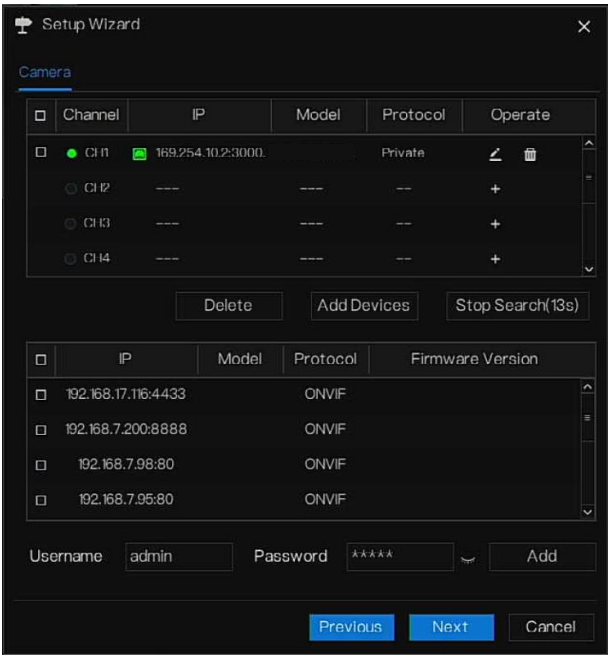
Figure 5-4 Wizard of time zone



Step 4 Click **DST,** enable the DST, set start and end time. Select offset time from drop-down list.

Step 5 Click Next to enter the adding camera wizard, as shown in Figure 5-5.

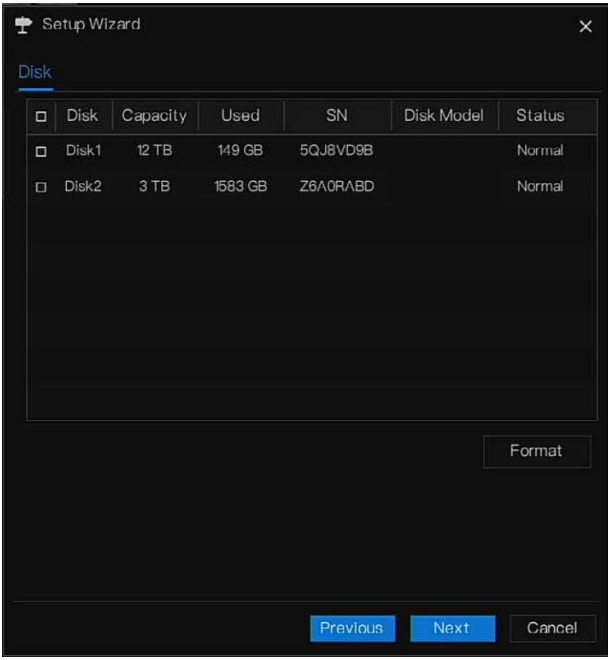
Figure 5-5 Wizard of adding camera



The details of adding camera please refer to *chapter 7.1*.

Step 6 Click Next to enter wizard of disk, as shown in Figure 5-6.

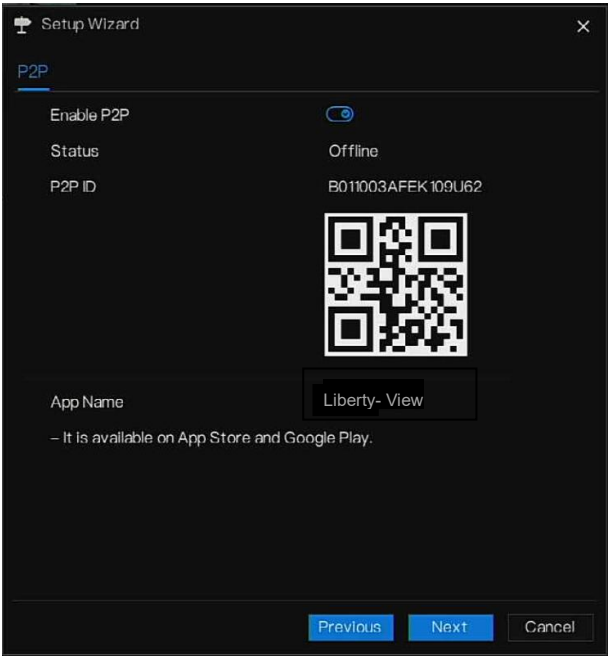
Figure 5-6 Wizard of disk



You can view the general information of disk. You can also format the disk.

Step 7 Click Next to enter wizard of P2P, as shown in Figure 5-7

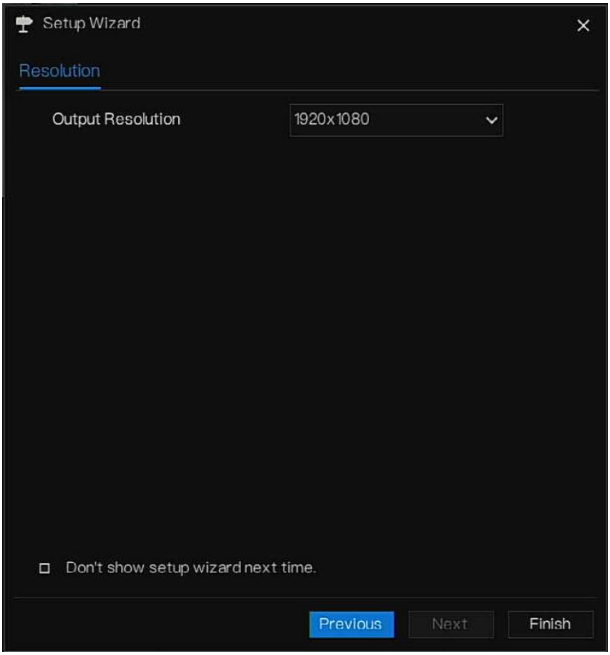
Figure 5-7 P2P



Step 8 Enable the P2P, user can use mobile devices to manage the NVR by scanning the P2P ID, if the mobile phone has loaded the Liberty-View (search the APP at App Store or Google Play).

Step 9 Click Next to enter the wizard of resolution, as shown in Figure 5-8. Choose resolution from drop-down list. (the highest resolution is 3840*2160)

Figure 5-8 Wizard of resolution



Step 10 Click Finish to end the wizard, tick the **Don't show setup wizard next time,** it would not show at next time. Reopen wizard at **system > User > Advance setting**.

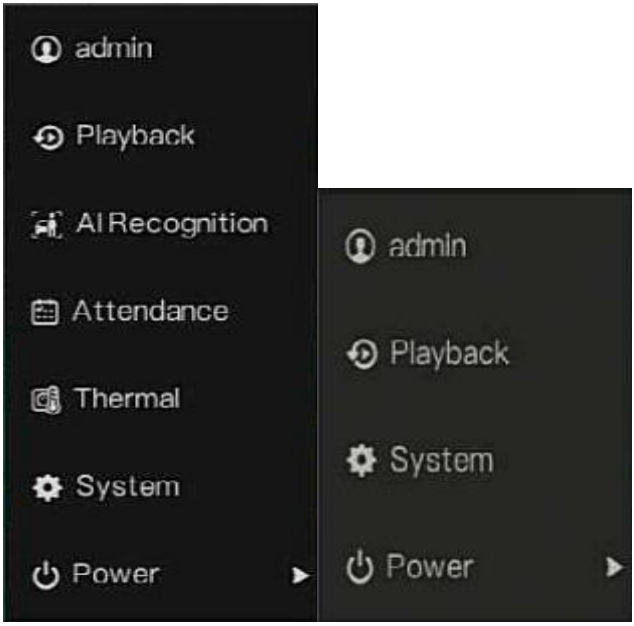
6 Quick Navigation

6.1 Quick Bar

After the NVR operation screen is displaying, move the cursor to the far bottom of the NVR screen. The NVR floating menu bar is displaying.

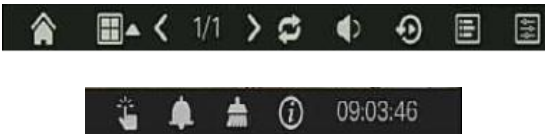
Click  in the left of NVR floating menu bar. The quick home menu is showing. The quick home menu contains **Playback**, **System and Power (Shutdown, Reboot and Logout)** as shown in Figure 6-1.

Figure 6-1 Quick home menu



In the middle of NVR floating menu bar, the video tool bar provides **video window switching**, **auto SEQ, volume, playback,** and **channel information,** as shown in Figure 6-2.

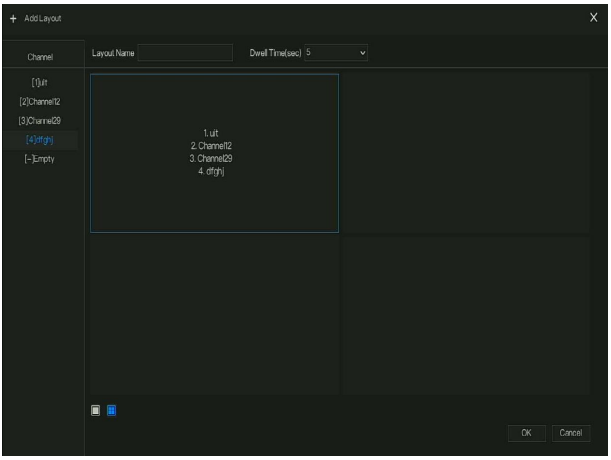
Figure 6-2 Real-time video toolbar



The real-time video toolbar is as follows:

: Layout. Users can choose layout and add new layout strategies as shown in Figure 6-3. Click on the right of screen splitting format and choose the channels to view the video. Click + to add a new layout.

Figure 6-3 Add layout



Input the layout name, choose the dwell time, choose the splitting format. Choose one channel or several channels to add on screen.

: Auto SEQ. click icon, the layout dwell on screen is enabled, for how to set the dwell on, please see *chapter 7.5.5.*

 : Audio. Click on the icon, the audio setting screen is displaying, where you can choose the channel and adjust the volume.

: Channel information, tick the channel or encode, the live video will show the channel information.

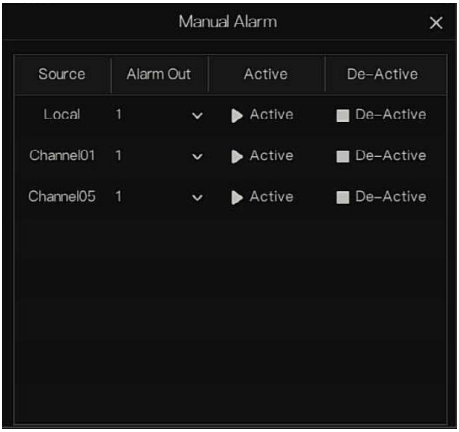
: Preview strategy, users can switch the real-time preview mode according to the network. There are three modes: fluency, balanced and real-time.

A main menu quick toolbar is on the right of NVR floating menu bar. The main menu quick toolbar provides **Manual alarm, Alarm information, Clean alarm, Information** and **time**, as shown in Figure 6-4.

Figure 6-4 Main menu quick toolbar

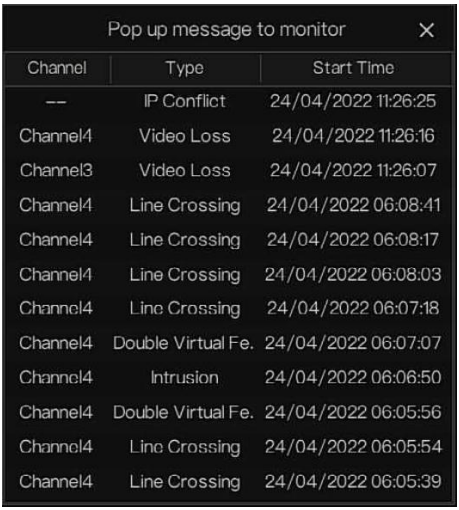
 : Manual alarm, click the icon, users can set different channels, choose alarm out, the window shows in Figure 6-5.

Figure 6-5 Manual alarm



 : Alarm message, click on the icon for more details as shown in Figure 6-6.

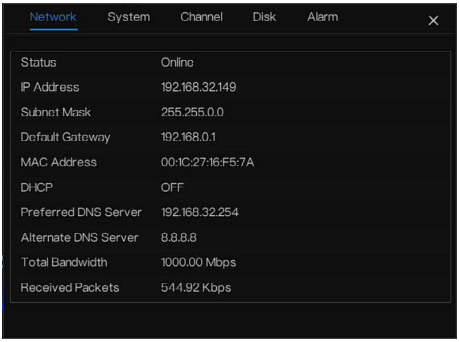
Figure 6-6 Alarm message



 : Clean alarm, click icon and clean the current alarm actions like voice and external alarm out.

 : Information, click icon and the general information would show, like network, system, channel, disk and alarm, as shown in Figure 6-7.

Figure 6-7 Information



6.2 Real Time Video Bar

Right click at realtime image, the quick setting will show as figure.

Record: click the icon and start to record video. Click again to end record.

Instant playback: click the icon, the window will be recording video five minutes ago.

 is the time bar of playback.

Audio: open or close the audio.

PTZ: This function is only applied for speed dome cameras. The monitored camera can focus, zoom or iris at this pop-up window. You can adjust every parameter as shown in Figure 6-8.

Figure 6-8 PTZ adjust screen

 : adjust direction of camera.

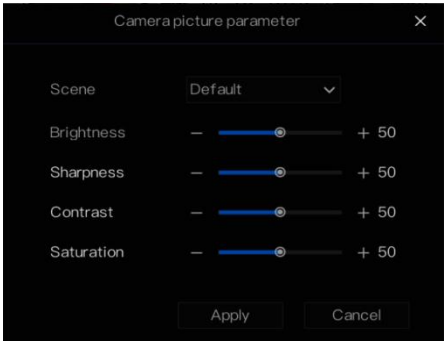
 : At this part, perform **Advanced, Scan** and **Tour** settings.

 : 3D, this function can only be used for high speed dome camera. Click the icon to enter the camera live video screen, use the mouse to move the camera or zoom in or out the lens. Click the point to zoom in. Drag and draw the area, zoom in the drawing area, Reverse drag to zoom out.

 : Zoom in, click zoom in, roll the mouse wheel to zoom in and zoom out. Right-click to exit the zooming.

 : Image, click the icon,as shown in Figure 6-9. Select scene, and drag cursor to adjust value of brightness, sharpness, contrast and saturation.

Figure 6-9 Camera picture parameter

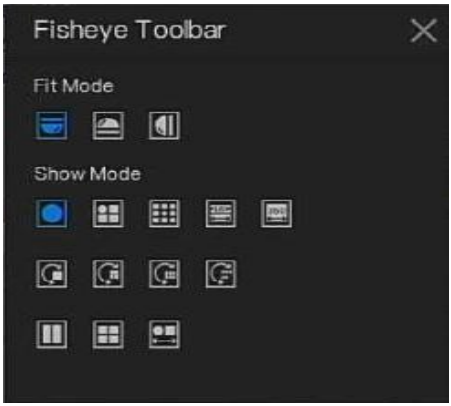


 : Two way audio. The NVR and camera can talk to each other.

 : Snapshot panorama. If an USB storage device is connected to the NVR device, click to save the panorama snapshot directly.

 : fisheye (only used for fisheye cameras), click to switch the fisheye modes, as shown in Figure 6-10.

Figure 6-10 Fisheye



6.3 Playback

Playback refers to playing back a video, fixed-point playback, playback the search type.

Click  in the quick navigation bar to access the playback screen, as shown in Figure 6-11.

Figure 6-11 Playback screen

Choose the channels from the channels list, click one day to play (the date has blue line, it means there is recording video at this day, it doesn't mean for all channels has video.)

It maybe has three color bars on the time bar, the blue one is schedule record, the yellow one is manual record, and the red one is alarm record.

The toolbar at the bottom of the playback screen is described as follows:

 : Layout.

 : Reversed, pause/play, stop.

 :30s backward, 30s forward.

 : Triple speed, it supports up to 32 times to playback. Click the Number to switch the speed.

: Zoom. Roll the roller of mouse to zoom in or out.

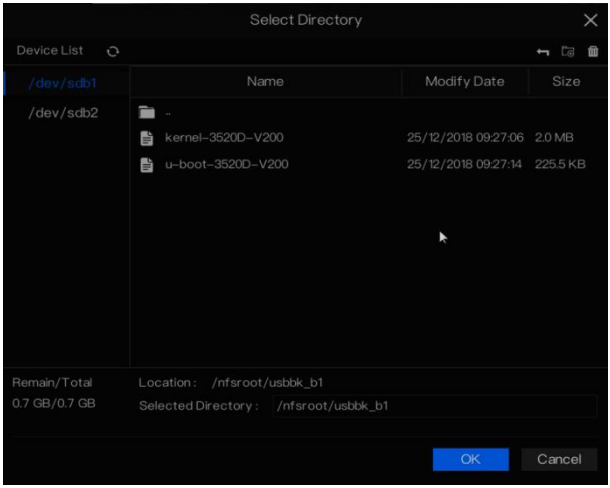
: Audio.

: Start and end backup. Click the icon, the video backup starts, select the video and click the icon again.

The backup type appears. Click **save**. And **saving the file** pop ups as Figure 6-12. Click **OK** to save.

This function is available after an USB disk is plugging in the device.

Figure 6-12 Select directory

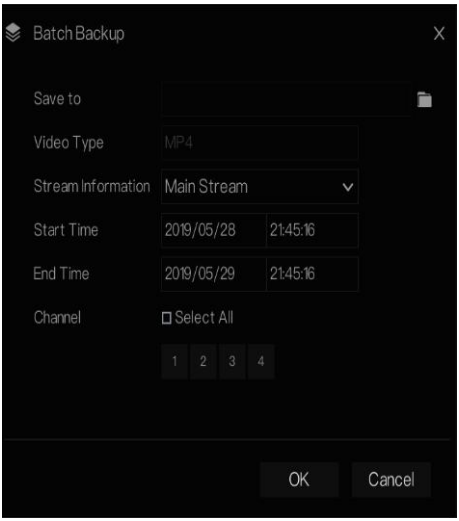


: Batch backup, click the icon to backup multi-channels, as shown in Figure 6-13.

Choose the folder to save, select the stream information from drop-down list, set the start time and end time, select the channels, Click **OK** to backup. The backup videos are marked by watermark, you can view it by our player.

: Snapshot panorama. Click to save it to USB storage device on NVR.

Figure 6-13 Batch backup



: Type of time bar, recording video can show

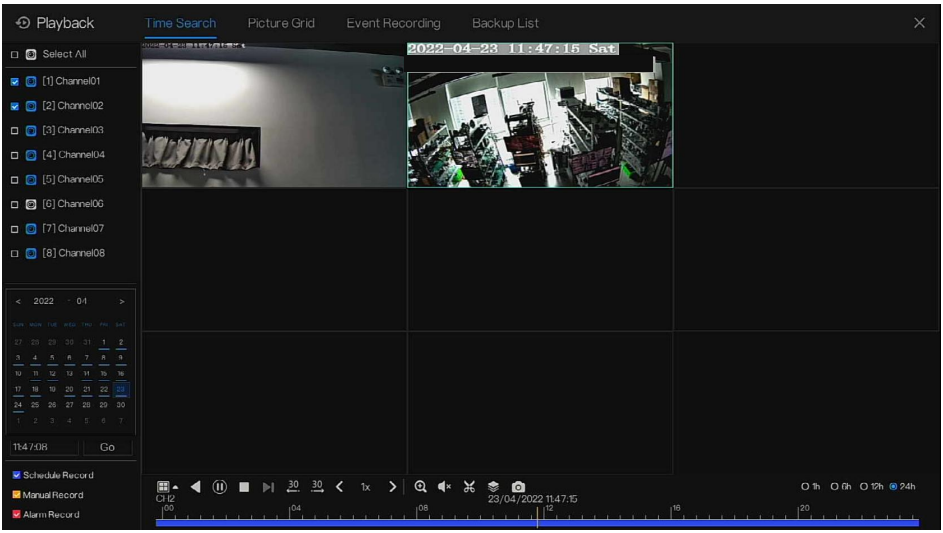
6.3.1 Time Search

Search refers to searching for a video by date and time.

Operation Description

Click  in the quick navigation bar to access the search screen, as shown in Figure 6-14.

Figure 6-14 Time Search screen



Operation Steps

Step 1 Select a camera or cameras in the camera list on the left side of the search screen. The video view of the selected camera is displaying in the play window.

Step 2 Select a date in the calendar on the light-down side of the search screen.

Step 3 Choose record type, and search the video quickly.

Step 4 Choose proper button to adjust video.

----End

6.3.2 Picture Grid

Picture grid refers to evenly dividing the video of a channel by time range and searching for a video based on thumbnails divided by time range.

Click Picture Grid on the quick navigation bar to access the picture grid screen, as shown in Figure 6-15.

Figure 6-15 Picture grid screen

Operation Steps

Step 1 Select a camera in the camera list on the left side of the picture grid screen. Videos shot by the camera in the earliest time range on the current day are displayed as thumbnails in the window on the right side.

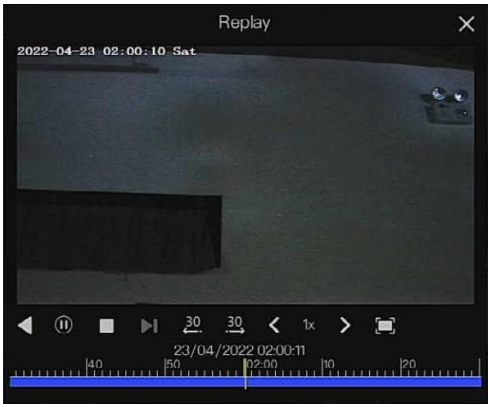
Step 2 Select a date from calendar.

Step 3 A day are dividend to 12 grids, every two hours is a grid. Click the image to change the interval.

Step 4 Select a required thumbnail, double-click it or right-click it and choose Play from the shortcut menu to play the video.

Step 5 Click  to replay the gird individually.

Figure 6-16 Replay

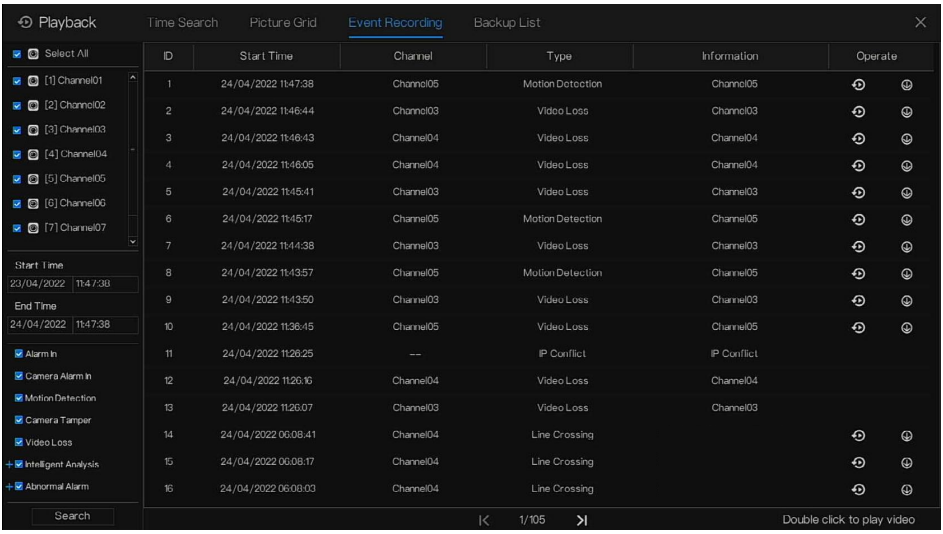


----End

6.3.3 Event Recording

Click  on the quick navigation bar; choose **Event** at title to access the alarm event screen, as shown in Figure 6-17

Figure 6-17 Event screen



Operation Steps

Step 1 Select cameras in the camera list on the left.

Step 2 Set start and end time.

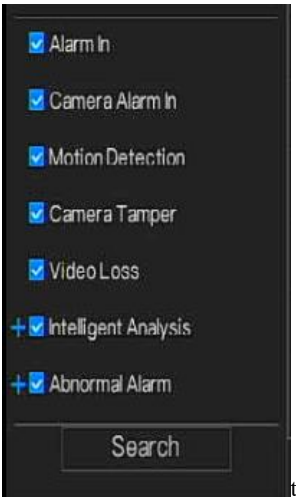
Step 3 Tick the alarm type, such as alarm in, camera alarm in, motion alarm, video loss, intelligent analysis and abnormal alarm

Step 4 Click Search to query the event, the result would show at window.

Step 5 Double click to play video about event. It will play recording video.

 : play the recording video.

 : backup the recording video.



the type of intelligent analysis and abnormal alarm are subdivided, users can tick **Detail Alarm** to show.

Intelligent analysis includes perimeter, single virtual fence, double virtual fences, loiter, multi loiter, object left, object removed, abnormal speed, converse, illegal parking, signal bad, register, stranger, registered license plate, over temperature, low temperature, abnormal temperature, threshold warning, threshold alarm, temperature difference warning, temperature difference alarm, temperature section alarm, face temperature, wear mask, no mask, personnel count threshold alarm, personnel count threshold alarm(IPC) .

Abnormal alarm includes disk error, IP conflict, network disconnected.

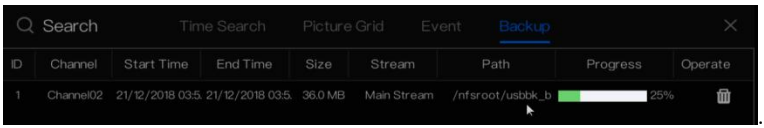
User can choose the accurate alarm events to search.

----End

6.3.4 Backup List

Click  on the quick navigation bar, choose  at title to access the backup screen, as shown in Figure 6-18.

Figure 6-18 Backup screen



View detailed information of backup. Click on **Delete** to quit the download.

----End

6.4 AI Recognition (Only for Some Models)

At AI recognition interface, we can set the **Real time Comparison, Smart search, Archives library, Comparison configuration**.

The all snapshots is able to be added to the libraries according the real needs

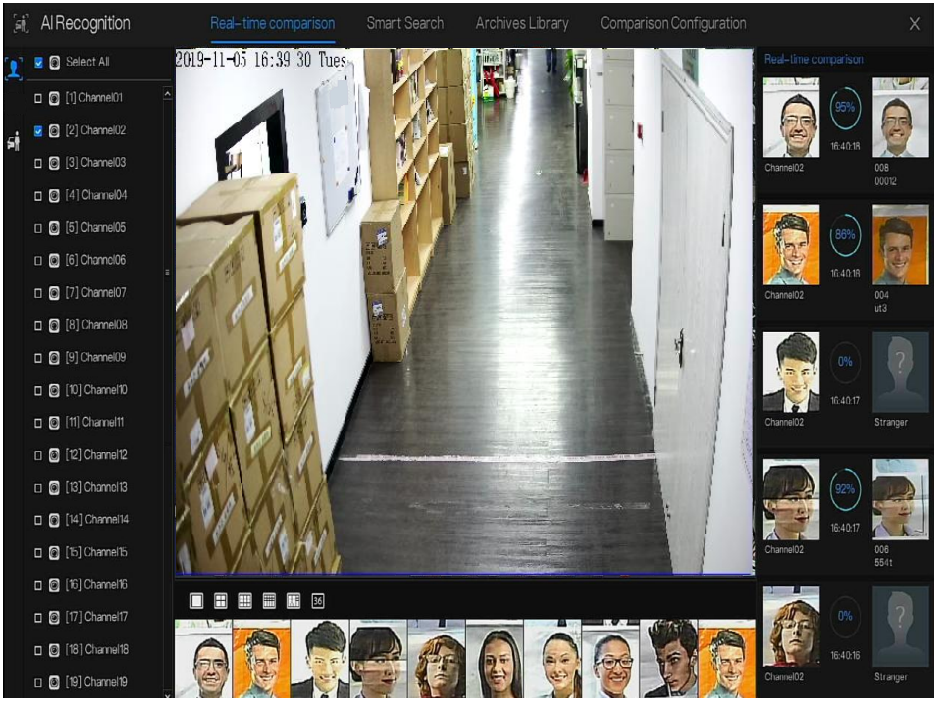
6.4.1 Real Time Comparison

Real time comparison can compare human faces, vehicle license plate, and AI(include riding, vehicle, full body)

6.4.1.1 Human Face

At real time comparison interface, click the  to enter the human face comparison interface, choose the cameras with face recognition function to play live video, the snapshots of camera will be compared with the templates which have been registered in libraries, the result shows as in Figure 6-19.

Figure 6-19 Human face comparison



Click the "+" to add the snapshot to face library immediately.

Snapshot in real time video, put the cursor on picture such as  , you can add it to face library, or face search. The cursor on area and the pictures are not update, move the mouse so that the pictures can be shown in time.

----End

6.4.1.2 Vehicle and Full Body

At real time comparison interface, click the 

to enter the vehicle license plate comparison interface, choose the AI recognition cameras to play live video, the snapshot of camera will be compared in libraries, the snapshot to vehicle and full body will show at the bottom of page, the result shows as in Figure 6-20.

Figure 6-20 Full body

----End

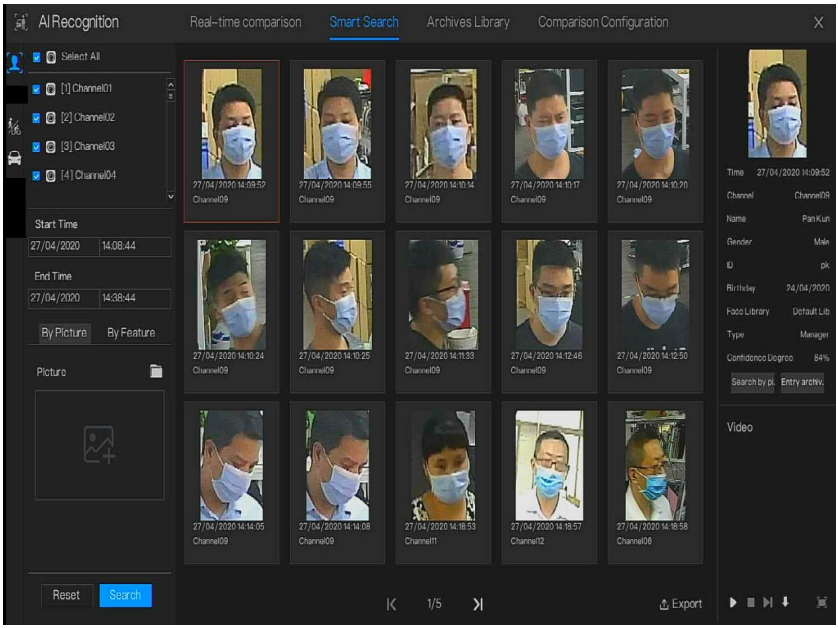
6.4.2 Smart Search

At smart search interface, user can search the human face, vehicle license plate, full body, car, body temperature.

Up to 1000 pictures can be displayed. Click to see more details and export search result.

6.4.2.1 Human Face Search

Figure 6-21 Human face search



Step 1 Choose human face search at smart search interface.

Step 2 Tick the face recognition camera channels, set the start and end time.

Step 3 Choose the condition (by picture or by feature), the picture can be selected from the file folder.

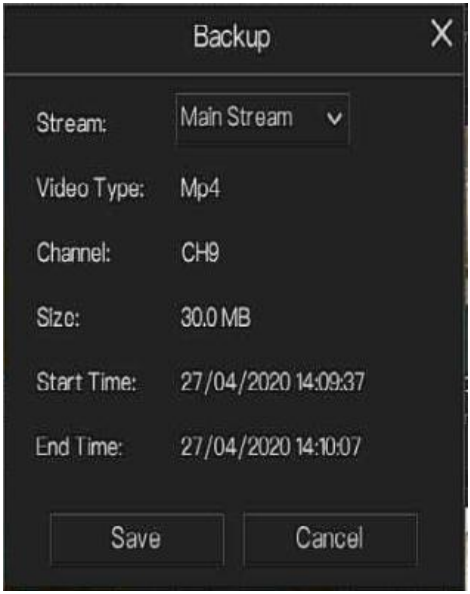
Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 The pictures can be added to library or used to search.

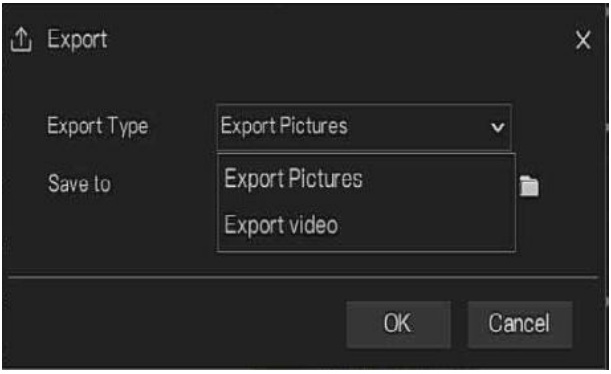
Step 7 Click play button of video to play the recording of snapshot, click “Backup” to back up the recording videos.

Figure 6-22 Back up

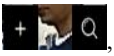


Step 8 Click “Export” to export the result, choose export type pictures or videos.

Figure 6-23 Export



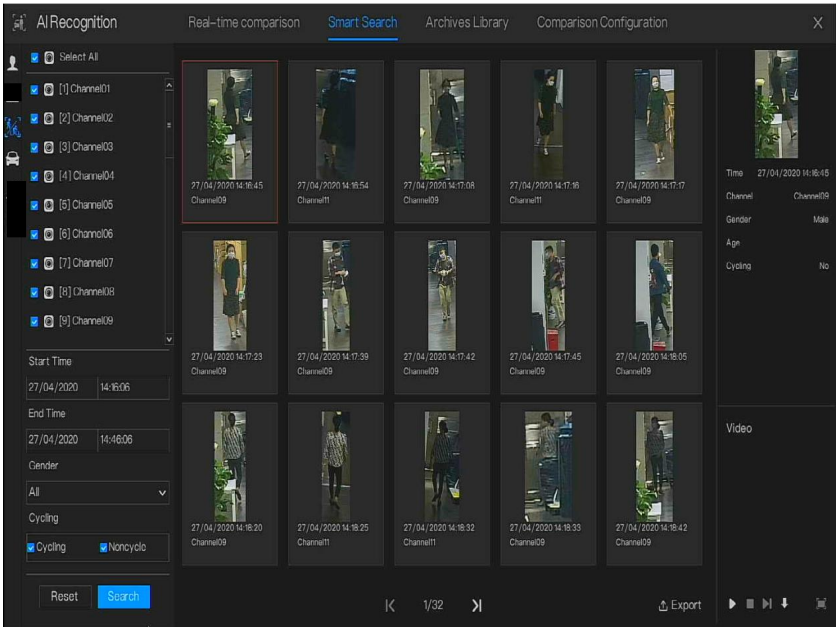
Play video of snapshot, it will play a 30-seconds video before and after the snapshot.

Snapshot in real time video, put the cursor on picture such as  , you can add it to face library, or face search. The cursor on area 6 and the pictures is not update, move the mouse so that the pictures can be shown in time.

----End

6.4.2.2 Full Body Search

Figure 6-24 Full body search



Step 1 Choose full body search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Set the gender, click cycling or no cycling .

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

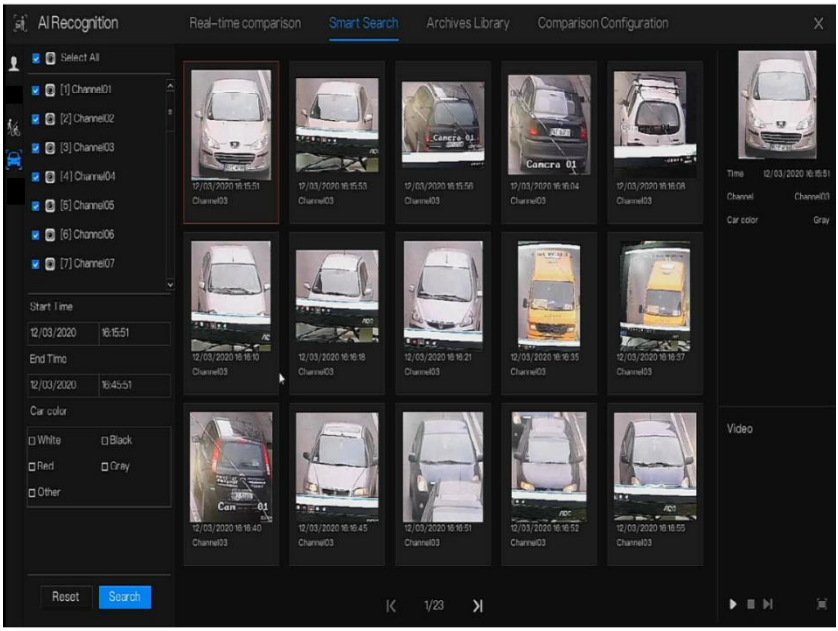
Step 6 Click play button of video to play the recording of snapshot, click “backup” to back up the video.

Step 7 Click “Export” to export the result.

----End

6.4.2.3 Vehicle Search

Figure 6-25 Vehicle search



Step 1 Choose vehicle search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Tick the color.

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will be showed at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 Click play button of video to play the recording of snapshot, click “backup” to back up the video

Step 7 Click “Export” to export the result.

----End

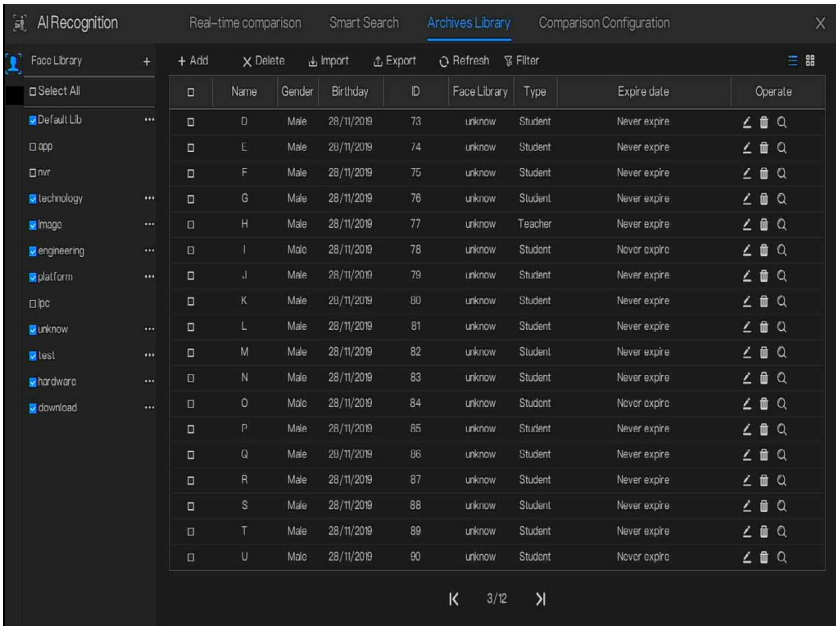
6.4.3 Archives Library

At archives library, users can add or edit the face library , license plate library.

The license plate libraries can be imported to and exported from IP cameras.

6.4.3.1 Face Library

Figure 6-26 Face library



Click “+” to add a new face library.

Click “Add” to add person face.

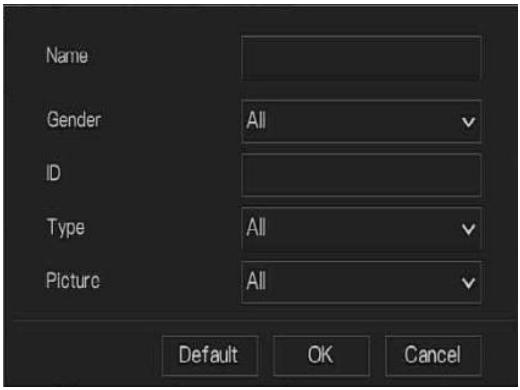
Tick the person, click “Delete” to delete the person.

Click “Import” to add the person batch.

Click “Export” to export the all person in library.

Click “Filter” to filter the all persons in library, as shown in Figure 6-27.

Figure 6-27 Filter



Click operate icon to edit or delete the chosen person.

----End

6.4.4 Comparison Configuration

NOTE

The comparison function is only for AI cameras, please refer to actual cameras.

At comparison configuration interface, user can set the comparison of human face/ license plate/temperature/ mask detection configuration/ personnel count configuration.

6.4.4.1 Face Comparison

At face comparison interface, users can set different channels' strategy, such as similarity, display comparison result, face library, enable alarming, event action, arming time, as shown in Figure 6-28 .

Figure 6-28 Face comparison

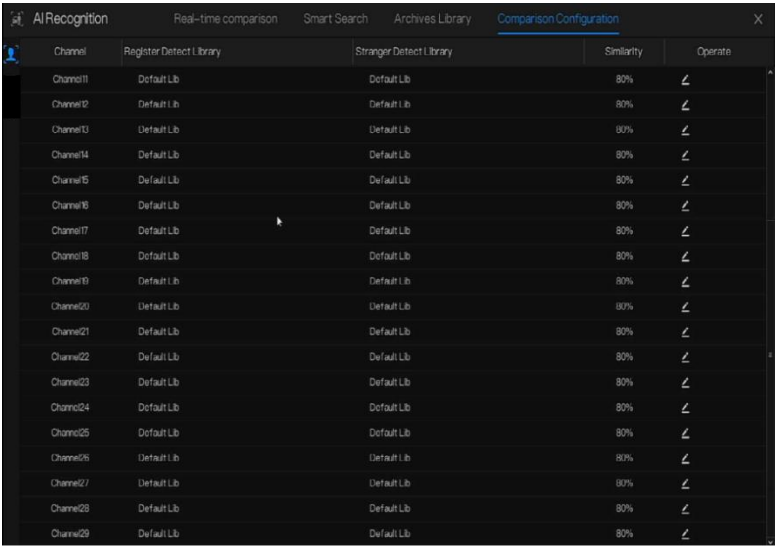
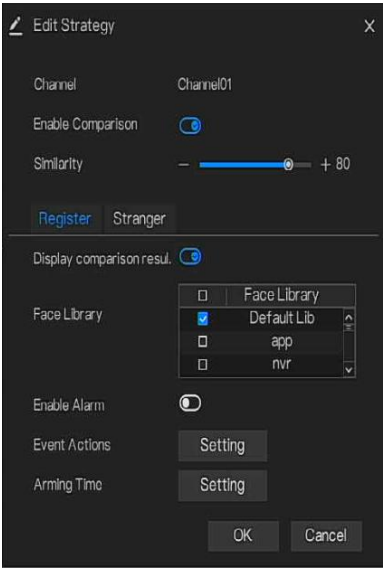


Figure 6-29 Strategy

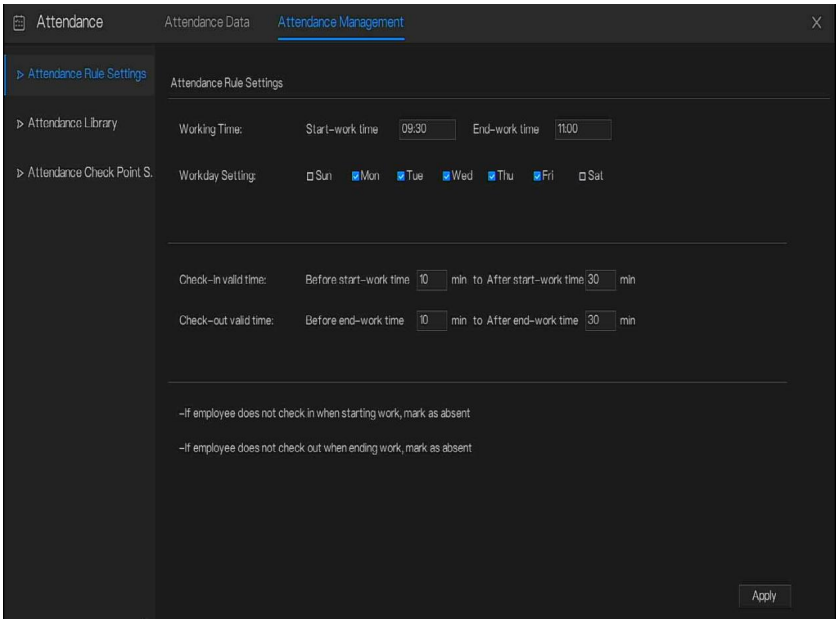


----End

6.4.5 Attendance Management

In attendance management, users can set attendance rule, library and check point, as shown in Figure 6-30.

Figure 6-30 Attendance rule settings



Operation Steps

Step 1 Set start work time and end work time.

Step 2 Tick the workday

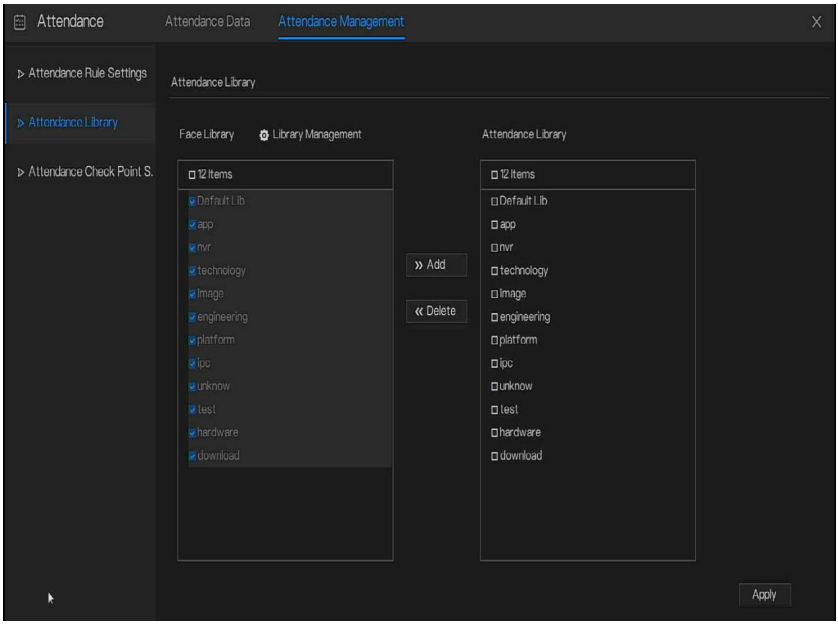
Step 3 Set valid time of check in and check out.

Step 4 Click Save to save the setting.

Attendance library

Step 1 Click **Attendance Library** to add library, the attendance library can call the face database directly.

Figure 6-31 Attendance library



Step 2 Tick the library and click Add to add to attendance library. If you want to modify the library.

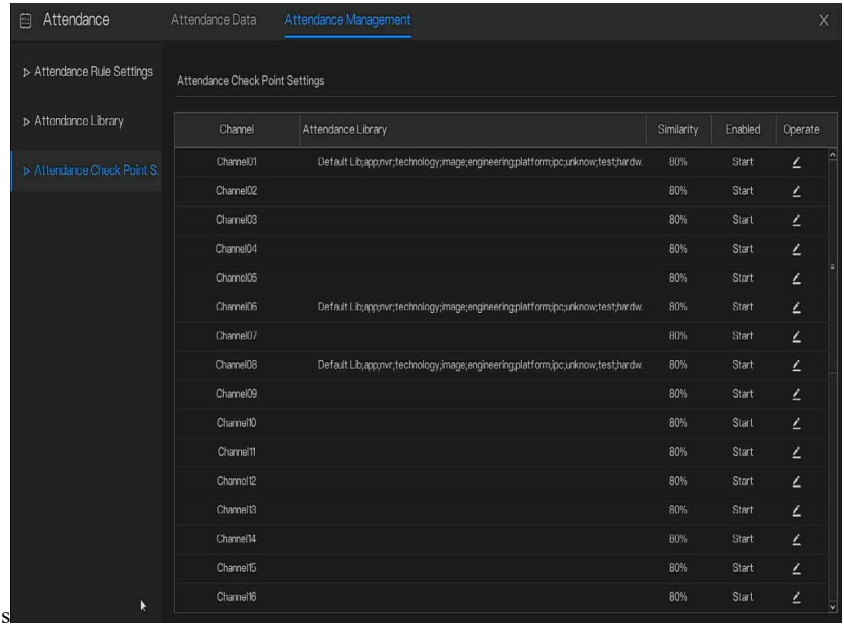
Step 3 click Database management to enter the face database management to modify parameter.

Step 4 Click Save to save the setting.

Attendance check point settings:

Step 1 Click **Attendance check point** settings to set point, as shown in Figure 6-32.

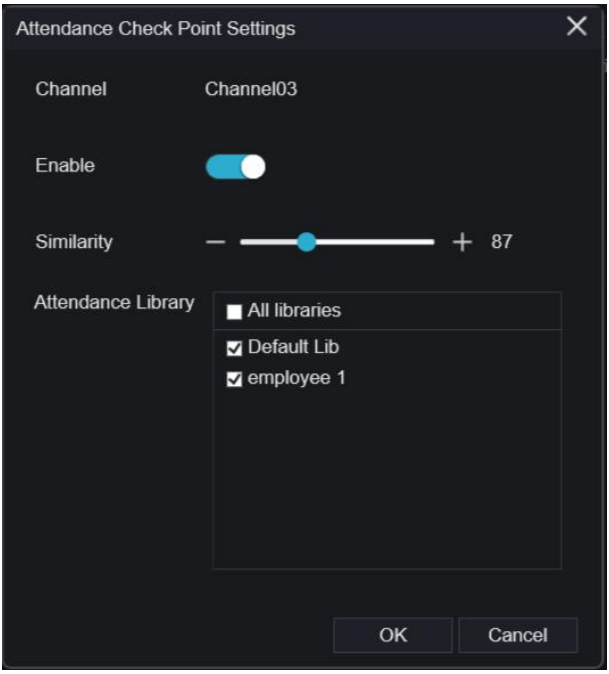
Figure 6-32 Attendance check point setting



S

Step 2 Click  to edit check point setting, as shown in Figure 6-33

Figure 6-33 Check point



Step 3 Enable the function, set similarity and tick the library, all face detection cameras can be set the check points

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

---End

6.5 Channel Information

Click the  will show as Figure 6-34, tick the Channel or Encode, the information will show in live video screen.

Figure 6-34 Channel information

----End

6.6 Main Menu

Right-click on the UI screen, the main menu as shown in Figure 6-35. The main menu includes **Channel**, **Record, Network, Alarm** and **System**.

Figure 6-35 NVR main menu

----End

7 UI System Setting

NOTE

Different devices may have different functions, please refer to actual products.

7.1 Channel Management

IP cameras can directly be connected to input channels of the NVR by plugging in POE port. When IP cameras are insufficient, the NVR can automatically search for and add IP cameras or manually add cameras in the same Local Area Network (LAN).

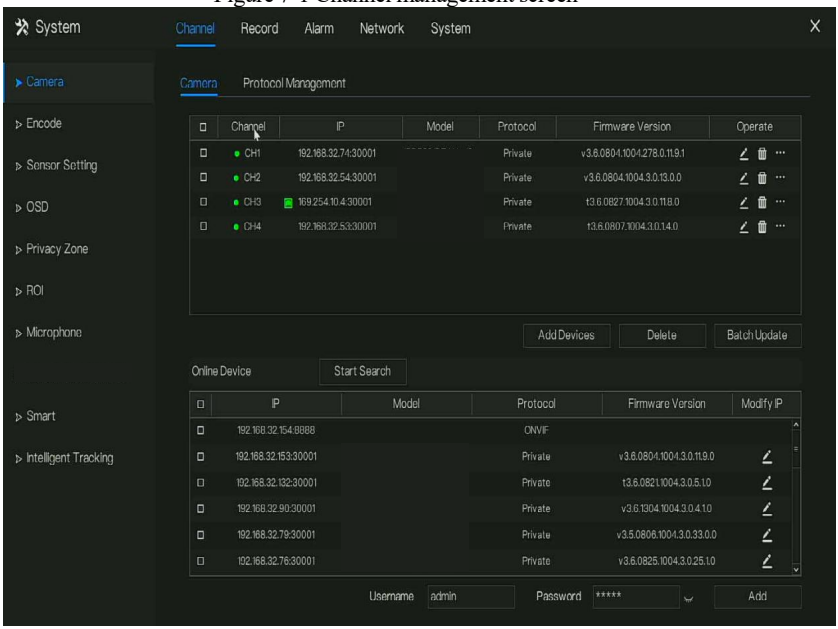
Channel management includes **Add** or **Delete Camera, Encode, Sensor Setting, OSD, Privacy Zone, ROI, Microphone, Human Thermometer, Smart,** and **Intelligent Tracking.**

7.1.1 Camera

Operation Description

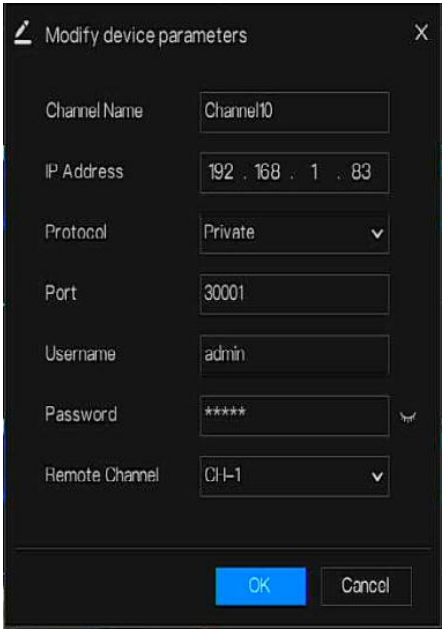
Click **Channel** in the main menu to access the camera management screen, as shown in Figure 7-1 There are four modes for adding cameras, manually add, batch add, search to add, POE add, and automatic add.

Figure 7-1 Channel management screen



 : Modify device parameters, remote channel is based on cameras (human body temperature has two remote channels, fisheye cameras have four remote channels) as shown in Figure 7-2.

Figure 7-2 Modify device parameter



----End

7.1.1.1 Add Camera Automatically

The NVR can add automatically cameras to the camera list.

Operation Methods

Method 1: Click Start Search button, the cameras in the same network as your recorder will show in list, the search will be lasting for 20 seconds. Input username and password (the default value both are admin) click Add Devices, the cameras in the list would be added to channels directly.

Method 2: Select the cameras you want to add, and click Add, the selected cameras would be added to the camera list.

Tick the online non-onvif channels at list and click Batch Update to access the directory of software; it would to update the channels at once.

NOTE

On the camera management screen, check the status of channels in the camera list. If the status of a channel is , this camera is online. If the status of a channel is , this camera is offline.

The added cameras should be the same network as NVR.

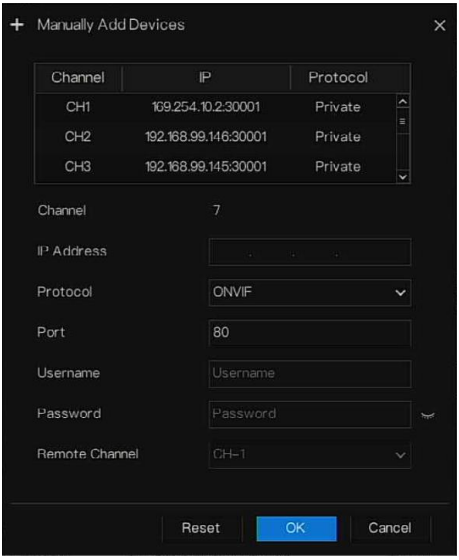
----End

7.1.1.2 Add Camera Manually

Operation Steps

Step 1 Click to add devices as shown in Figure 7-3.

Figure 7-3 Add camera screen



Step 2 Input IP address, port, user name and password of this camera. Double click the online camera IP to copy its configuration. Quick change of other channel's parameters can be done.

Step 3 Select a protocol from the drop-down list(ONVIF, Private, custom protocols). Remote channel is only used for multi channels cameras, such as human temperature cameras, fisheye cameras, and so on.

Step 4 Click OK, the camera is added successfully.

NOTE

If all channels of the NVR are connected by cameras, please delete the cameras that you don't need , so that you can add more cameras.

If an IP camera is added manually, input the correct username and password of the camera below the online device list. The camera will be added successfully. If not the camera would be shown on list at offline.

The protocol can be chosen the custom protocols these are set at protocol interface.

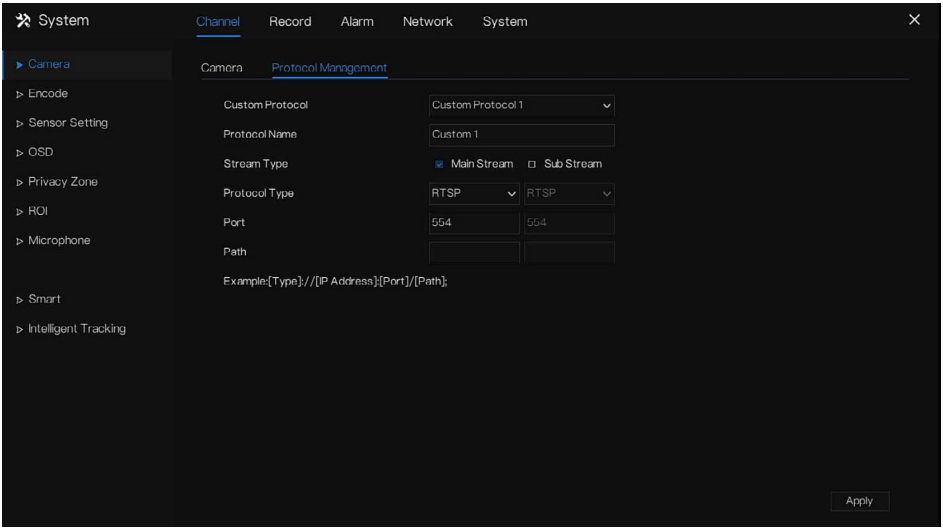
The user can click the added channel to copy the information to save the time, you can just need to modify difference information, such as the remote channel.

----End

7.1.1.3 Add Camera by RSTP

If the user wants to add the different protocol cameras to NVR, you can set the protocol management, and add cameras one by one, as shown in Figure 7-4.

Figure 7-4 Protocol management



Step 1 Click **Channel > Camera > Protocol Management.**

Step 2 Choose the custom protocol from the drop-down list, there are 16 kinds of protocols can be set.

Step 3 Input the protocol name.

Step 4 Tick main stream and sub stream. The main stream shows image on full screen live video. The sub stream shows image on split screen. If you just tick main stream and the channel will not show image on split screen.

Step 5 Choose the type of protocol, the default value is RTSP.

Step 6 Input the port of the IP camera.

Step 7 Input the path (it may vary with different camera models).

Step 8 Click Apply to save the settings.

NOTE

Choose the protocol from the drop-down list, the protocol is set at protocol management interface. The cameras should be confirmed to the protocols.

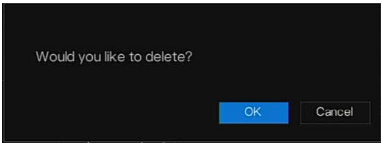
----End

7.1.1.4 Delete Camera

Operation Steps

Step 1 Select a camera to delete in the camera list and click  , the delete confirmation message screen is displaying, as shown in Figure 7-5.

Figure 7-5 Delete confirmation message

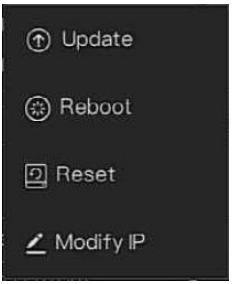


Step 2 Click  , the camera will be deleted successfully.

7.1.1.5 Operate Camera

At camera list, click  to operate camera as shown in Figure 7-6, users can update, reboot and reset the camera immediately.

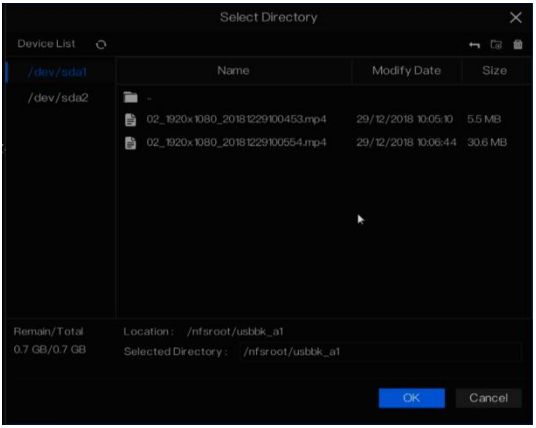
Figure 7-6 More operation



Step 1 Click **Update,** pop-up window to select software, as shown in Figure 7-7.

Step 2 Set the directory click OK to update camera.

Figure 7-7 Select directory of software



Step 3 Click **Reboot,** message "**Are you sure to reboot?** " would show, click OK to reboot the camera.

Step 4 Click **Reset,** message "**Are you sure to reset?** " would show, users can enable the retain IP address function. Click OK to reboot the camera.

Step 5 Tick the cameras with non-onvif protocol and cameras are online, click **Update** to update all cameras at once.

Step 6 IP address of the online camera can be modified, click **Modify IP** to modify as shown in following figure, input the new IP address and subnet mask.

NOTE

Update need upload the firmware by flash driver.

----End

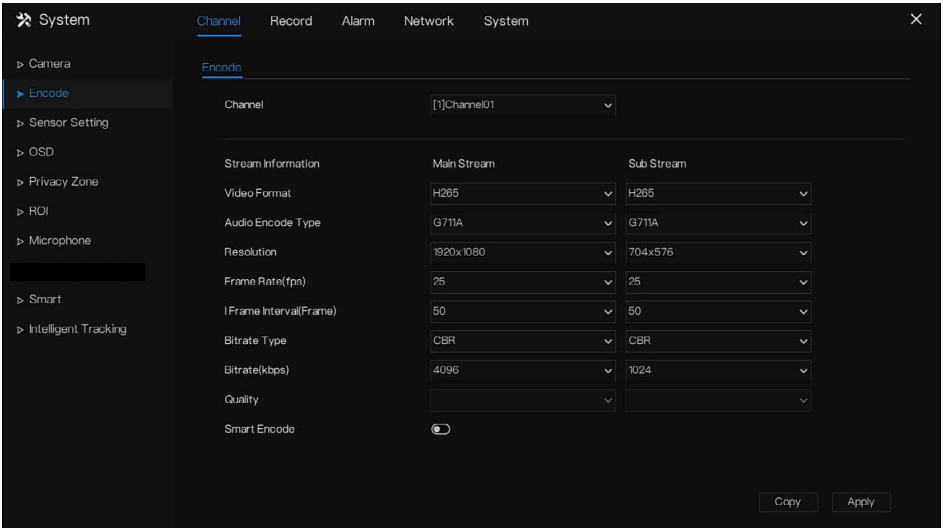
7.1.2 Encode Parameter

The system allows setting the stream information, encoding type, resolution, frame rate, bitrate control, bitrate and quality for cameras in a channel in **Encode Parameter** screen.

Operation Description

Click **Encode** in the main menu or **Menu** of the channel management screen and choose **Encode** to access the **Encode** screen, as shown in Figure 7-8.

Figure 7-8 Encode screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Set video format, audio encode type, resolution, frame rate, bitrate type, bitrate size and quality from the drop-down lists.

Step 3 Click Copy and select channels or tick **all**, then click OK to apply the parameter settings to cameras in selected channels , click Apply to save encode parameter settings.

----End

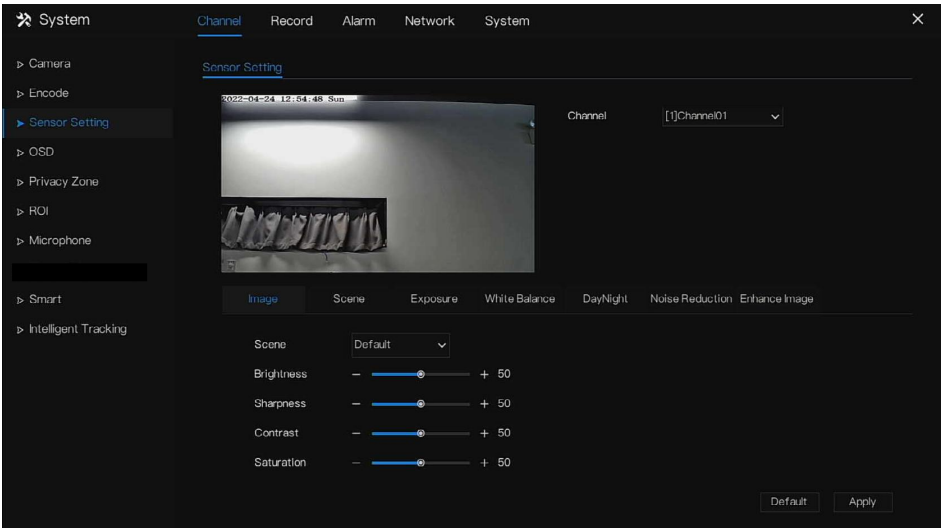
7.1.3 Sensor Setting

Sensor setting refers to basic attributes of pictures, it includes the brightness, sharpness, contrast and saturation. You can set picture parameters for each channel based on scene.

Operation Description

Click **Sensor Setting** in the main menu or click menu of the channel management screen and choose **Sensor Setting** to access the Sensor Setting screen, as shown in Figure 7-9.

Figure 7-9 Sensor setting screen



The Sensor Setting are as follows:

Brightness: it indicates brightness or darkness of an image.

Sharpness: it indicates picture's clarity.

Contrast: it refers to the brightest white and darkest black in an image.

Saturation: it indicates brilliance of the picture color.

Other parameters are sensor settings of IP cameras, like scene, exposure, white balance, day-night, noise reduction, enhance image, zoom focus, etc.

Scene: it includes indoor, outdoor, default. Mirror includes normal, horizontal, vertical, horizontal + vertical.

Exposure: it includes mode, max shutter, meter area and max gain.

White balance: it includes tungsten, fluorescent, daylight, shadow, manual, etc.

Day-night: users can transit day to night, or switch mode.

Noise reduction: it includes 2D NR and 3D NR.

Enhance image: it includes WDR, HLC, BLC, defog and anti-shake.

Zoom focus: users can zoom and focus.

Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Select scene from the drop-down list. The default values of picture parameters vary with scenarios.

Step 3 Set parameters.

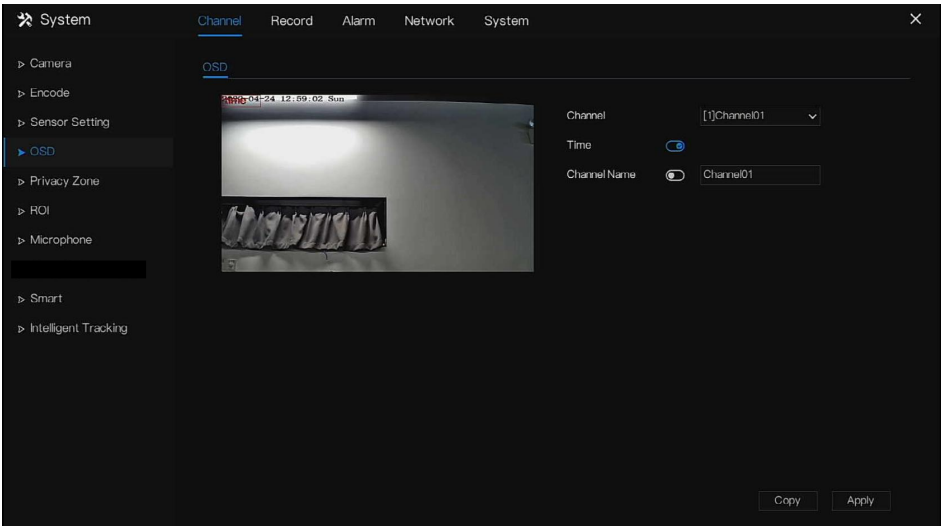
Step 4 Click Default to reset to factory settings, click Apply to save image settings.

----End

7.1.4 OSD Settings

Click **OSD** in the main menu or menu of the channel management screen and choose **OSD** to access the OSD screen, as shown in Figure 7-10.

Figure 7-10 OSD setting screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Click next to Time to enable or disable OSD time setting.

Step 3 Click next to Name to enable or disable OSD channel setting.

Step 4 Set the channel name.

Step 5 In the video window, click and drag time or channel to move to a location.

Step 6 Click Copy and select channels, then click OK to apply the OSD settings to cameras in selected channels , click Apply to save OSD settings.

----End

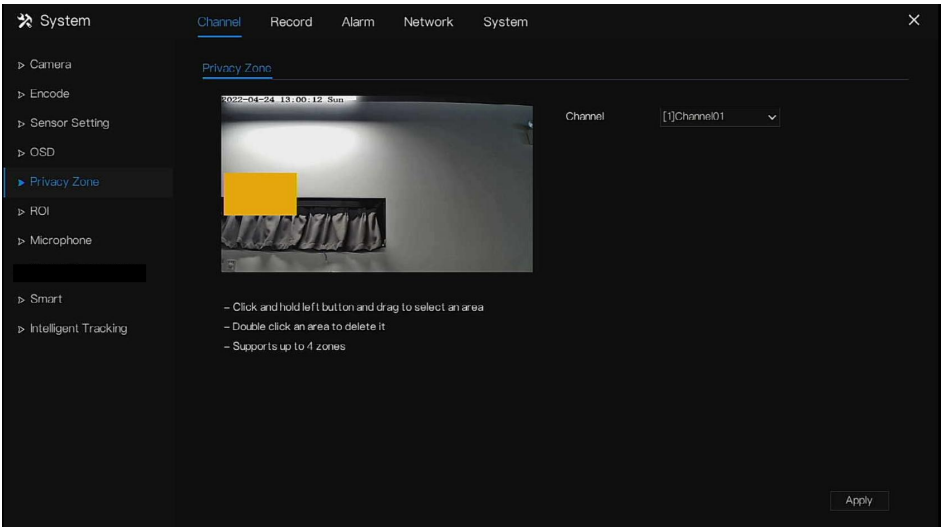
7.1.5 Privacy Zone

The system allows you to mask images in a specified zone and which is called privacy zone.

Operation Description

Click **Privacy Zone** in the main menu or menu of the channel management screen and choose privacy zone to access the **Privacy Zone** screen, as shown in Figure 7-11.

Figure 7-11 Privacy zone screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 In the video window, hold down and drag the left mouse button to draw a privacy area.

Step 3 Click Copy and select channels or tick **all**, then click OK to apply the privacy settings to cameras in selected channels , click Apply to save privacy settings.

Step 4 Double click privacy area to delete setting.

----End

7.1.6 ROI

Click **ROI** in the main menu or menu of the channel management screen and choose **ROI** to access the ROI screen, as shown in Figure 7-12.

Figure 7-12 ROI

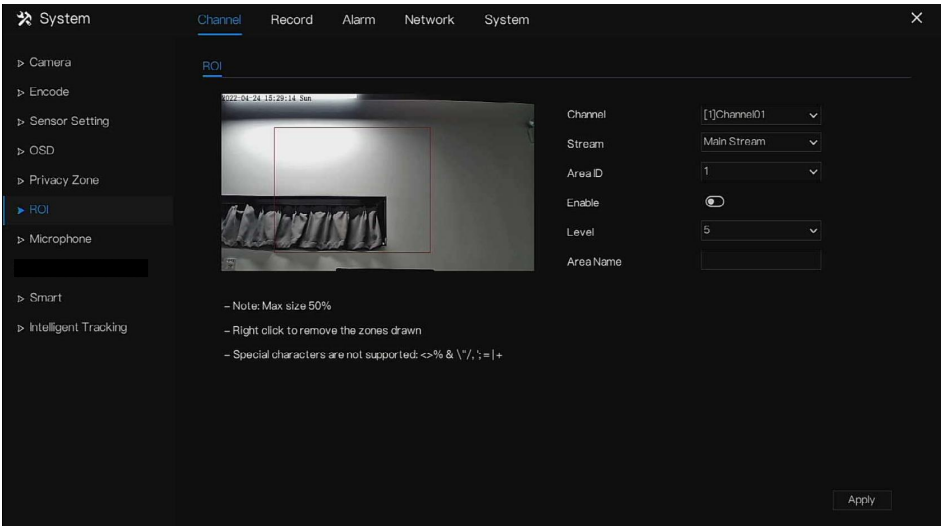


Table 7-2 RIO parameter

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, there are 8 area	[Setting method] Select a value from the drop-down list box. [Default value] 1
Level	The measure result of ROI. The higher the grade, the clearer the area inside and the more vaguer the area outside. There are five levels.	[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.

----End

7.1.7 Microphone

Click **Microphone** in the main menu or menu of the channel management screen and choose **Microphone** to access the Microphone screen, as shown in Figure 7-13.

Figure 7-13 Microphone

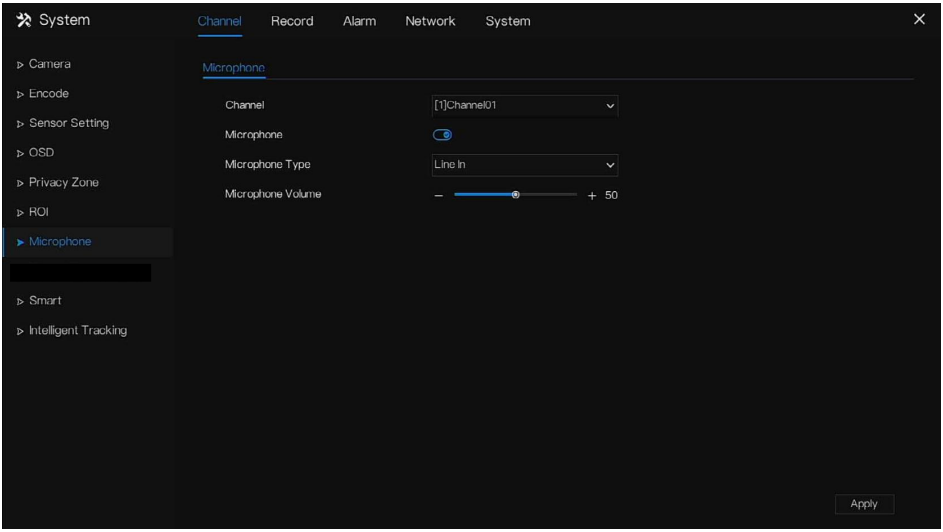


Table 7-3 Microphone

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.

----End

7.1.8 Smart

NOTE

It is only available for cameras with AI function.

The comparison function is only for AI multiobject cameras, please refer to actual cameras.

7.1.8.1 AI Multiobject

Figure 7-14 AI multiobject

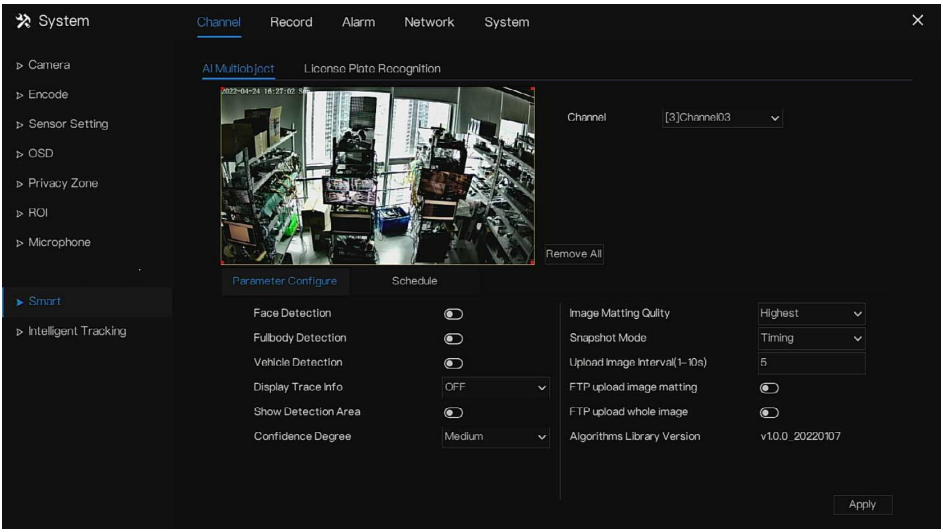
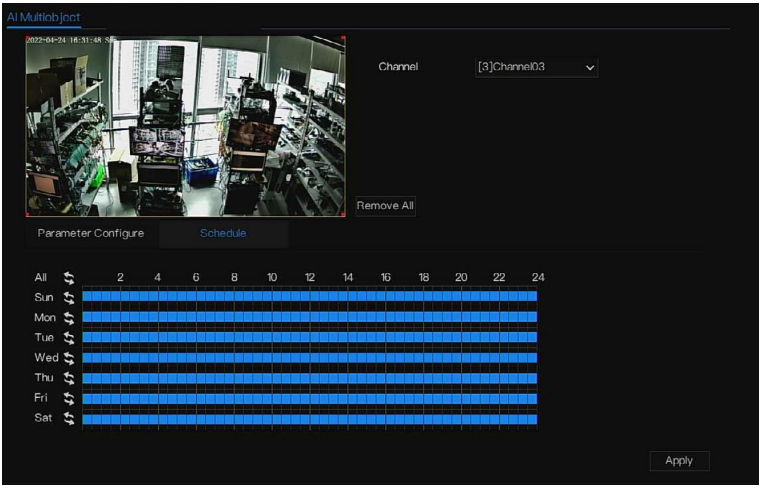


Table 7-4 AI multiobject

Parameter	Description	How to set
Face detection	The camera will snap the face when someone appears in live video.	Enable
Full body detection	The camera will snap the whole body when someone appears in live video.	Enable
Licence plate detection	The camera will snap the licence when the vehicle's licence appears in live video.	Enable
Vehicle detection	The camera will snap the licence when the vehicle appears in live video.	Enable
Display trace info	Enable the function and a trace frame will show at live video.	Choose from drop list.

Parameter	Description	How to set
	Mode 1:  Mode 2: 	
Show detection area	Enable to set a detection area, and the frame will show at live video	Enable
Confidence coefficient	The range of snap image, there are three type, such as high, mid and low. The higher the confidence, the better the snap quality and the fewer snapshots.	Choose from drop-down list.
Face pixel min(30-300)	30-300 pixels, the smaller the pixel be set, the more face will be captured, but it may be mistaken.	Input a value ranges 30 to 300
Body pixel min(30-300)	30-300 pixels, the smaller the pixel be set, the more body will be captured, but it may be mistaken.	Input a value range 30 to 300
Vehicle pixel min(30-800)	30-300 pixels, the smaller the pixel be set, the more face will be captured, but it may be mistaken.	Input a value range 30 to 800
Image matting quality	The quality of snap images, There are three modes can be chosen, such as low, mid and high.	Choose from drop list.
Snapshot mode	There are three modes can be chosen, such as timing, and optimal.	Choose from drop list.
Upload image interval(1-10 s)	At timing mode, set the interval of upload image.	Input a value ranges 1 to 10
FTP upload image matting	**Configuration > Network Service > FTP**, set FTP related parameters, the captured picture will be sent to the set FTP location	Enable
FTP upload whole image	Capture a picture and send a whole image.	Enable

Figure 7-15 Schedule



----End

7.1.9 Intelligent Tracking

NOTE

This function is available for high speed camera.

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.

Figure 7-16 Intelligent tracking

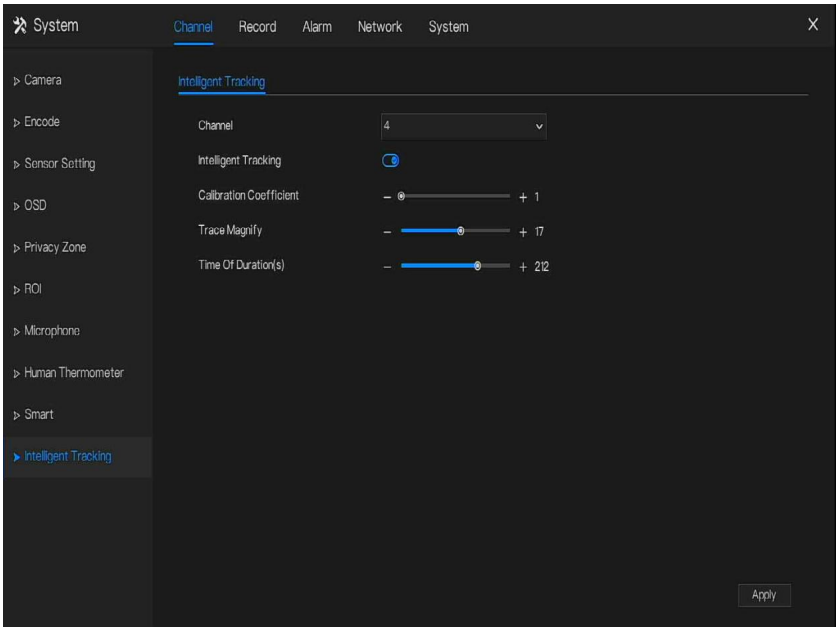


Table 7-5 Intelligent tracking parameters

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**

----End

7.2 Record Setting

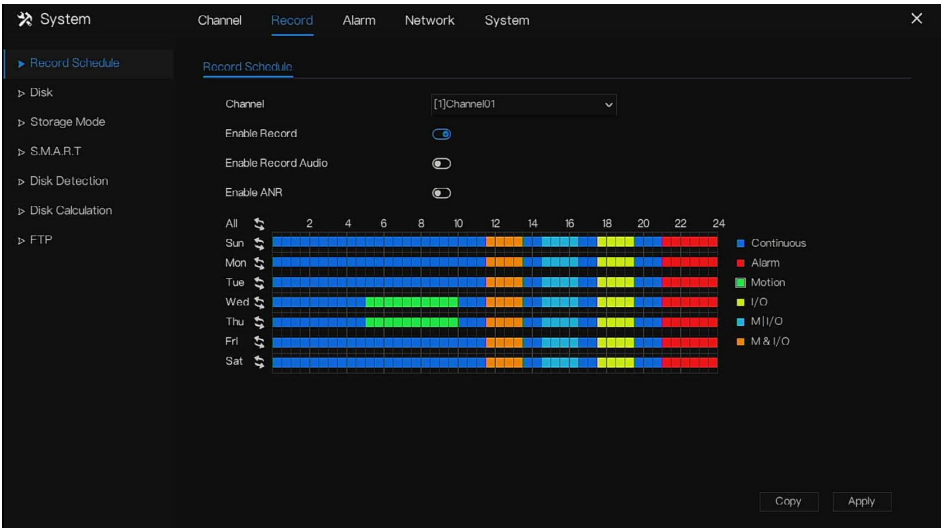
Set the **Record Schedule**, **Disk, Storage Mode, S.M.A.R.T, Disk Detection, Disk Calculation, FTP** and so on.

7.2.1 Record Schedule

Operation Description

Click **Record** in the main menu or click the record page of any function screen in the main menu to access the record schedule screen, as shown in Figure 7-17.

Figure 7-17 Record management screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel option.

Step 2 Enable the record.

Step 3 Enable the record audio.

Step 4 Enable ANR, the camera is installed with SD card, if the camera is disconnected from the network, when the network is recovered, the NVR can read the recording of camera and copy the loss video form the SD card.

Step 5 Set the record schedule.

Method 1: Hold down the left mouse button, drag and release mouse to select the arming time within 00:00-24:00 from Monday to Sunday.

NOTE

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

The selected area is blue. The default is all week.

Users can choose alarm type to record, if the chosen alarm is happening at the setting time, it will record. So that it will using the disk effectively to avoid repeating useless recording.

The ANR function can be used only for the cameras with supplementary recording function.

Users can set different alarms to record.

Method 2: Click  in the record schedule page to select the whole day or whole week.

Step 6 Deleting record schedule: Click  again or inverse selection to delete the selected record schedule.

Step 7 Click Copy and select channels or tick **all**, then click OK to apply the record management settings to selected channels , click Apply to save settings.

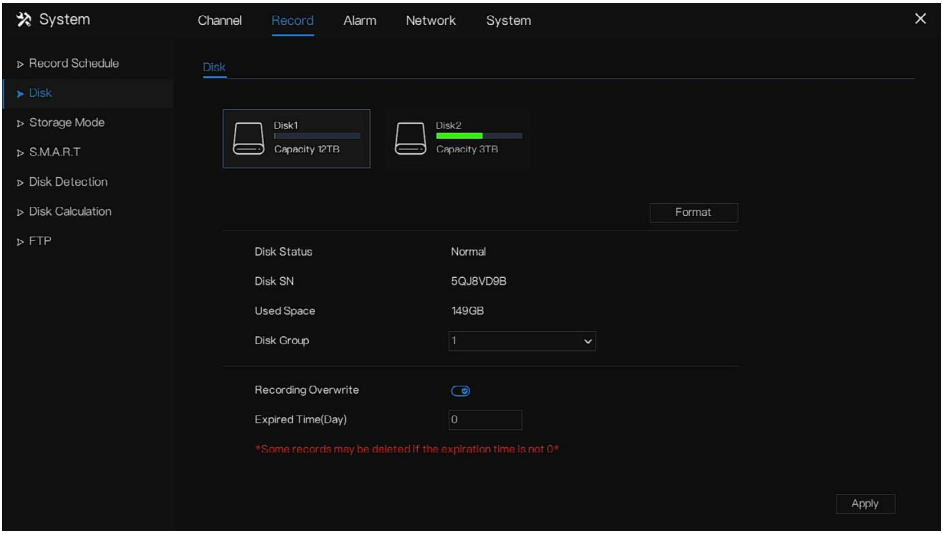
----End

7.2.2 Disk

View the total capacity of disk, disk status, disk SN code and storage space of disk. You can format the disk and set record expiration time.

Step 1 Click **Record** in the main menu or menu of the record screen and choose **Disk** to access the disk screen, as shown in Figure 7-18.

Figure 7-18 Disk screen



Step 2 Click **Format**. The message "Are you sure to format disk? Your data will be lost" is displaying.

Step 3 Choose the disk group, there are four groups.

Step 4 Click OK, and the disk would be formatted.

Step 5 Enable recording overwrite, the disk will be overwrote automatically.

Step 6 Record expiration setting. Select record expiration days from the drop-down list of record expiration. The expired time is not 0, the records will be deleted when the time is over the setting value.

Step 7 Click Apply to save the settings.

NOTE

The disk groups can keep the recording of channels at different disks, it will improve the storage efficiency.

The expired time is 0, it means the disk will be rewrite only when the disk is full .

----End

7.2.3 RAID (Only for Some Models)

The NVR support to build/ edit/ delete the RAID. Users can choose the type of RAID according to the importance of recording.

NOTE

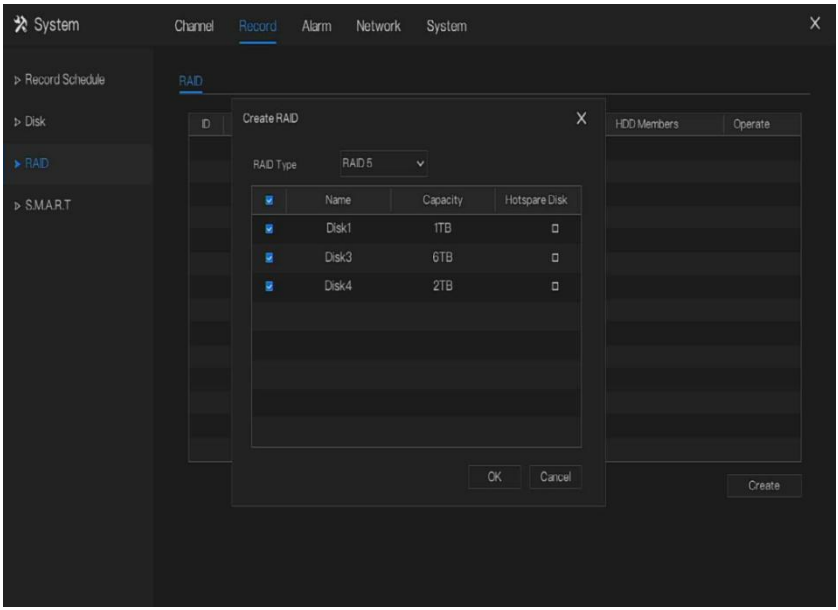
RAID is only used for the device with 4 disks or more. And the disks must be enterprise level disks. The capacity of disks is the same for efficient using.

The maximum capacity of RAID cannot exceed 100T.

RAID5 at least 3 disks can be created. RAID6 at least 4 disks can be created. RAID10 at least 4 disks can be created. Create hot spare disk need more one disk or double basic disks.

The capacity of disks is the same for efficient using

Figure 7-19 RAID



Operation Steps

Step 1 Click **RAID** to create the RAID.

Step 2 Click **Create** to choose a disk to create a new RAID.

Step 3 Tick **Hot-spare Disk** to back up in case the disk is broken. The number of disk must be more than one.

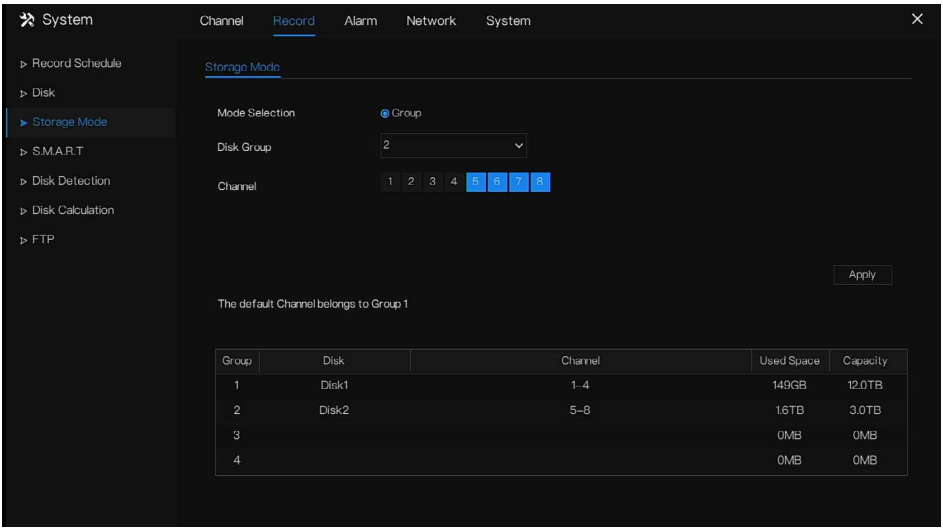
Step 4 Click OK to save the creation, format the new RAID.

----End

7.2.4 Storage Mode

Users need to distribute the channels to different disk groups, and use disk capacity reasonably, as shown in Figure 7-20

Figure 7-20 Storage mode



Operation Steps

Step 1 Choose the disk group.

Step 2 Select the channel to record to disk group.

Step 3 Click Apply to save the settings.

Step 4 The group list will show the detail information.

NOTE

If the channels are not in list, it means NVR will not record these channels, please make sure that all channels are in list.

Choose number of channel number you should consider the capacity of disk group.

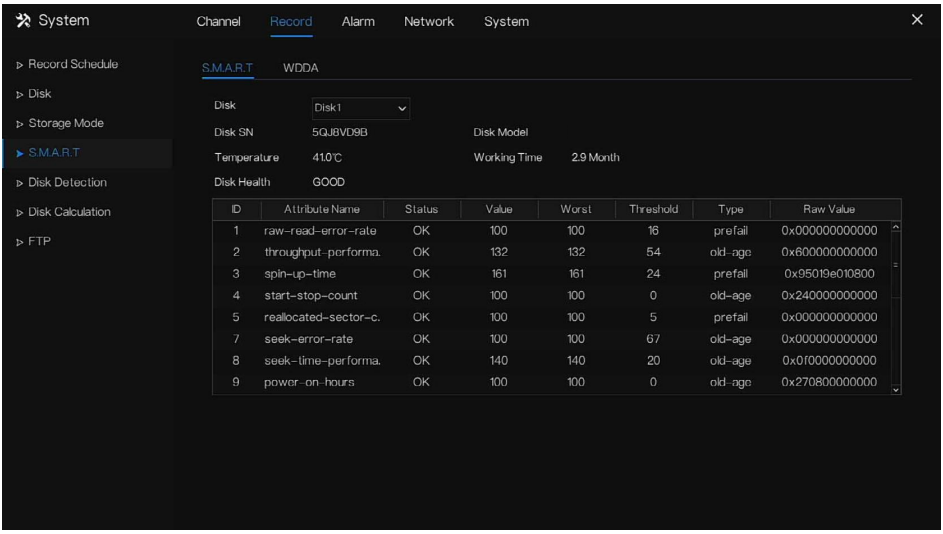
----End

7.2.5 S.M.A.R.T

7.2.5.1 S.M.A.R.T

S.M.A.R.T is Self-Monitoring Analysis and Reporting Technology, u which is able to check the disk as shown in Figure 7-21.

Figure 7-21 S.M.A.R.T

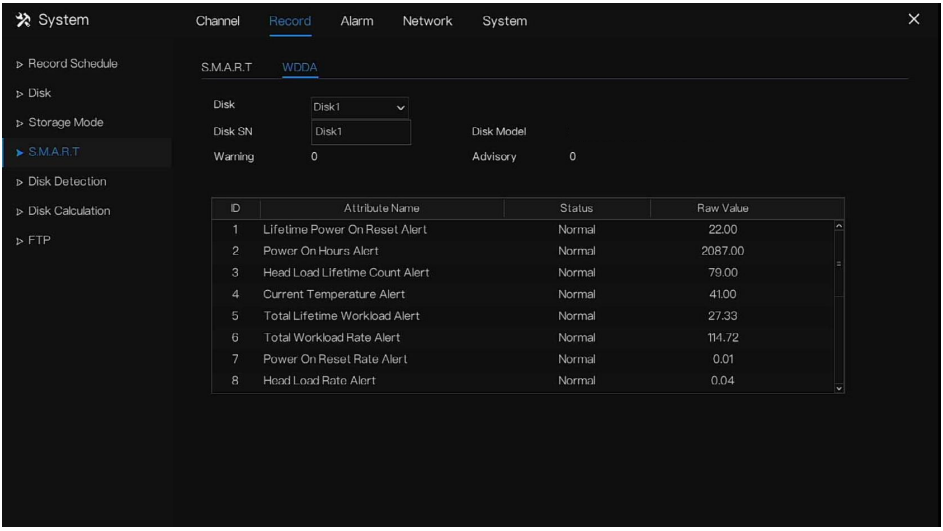


----End

7.2.5.2 WDDA

The western digital disk has the WDDA function, the NVR can read the information of disk, so that users can view the status of disk, as shown in Figure 7-22.

Figure 7-22 WDDA

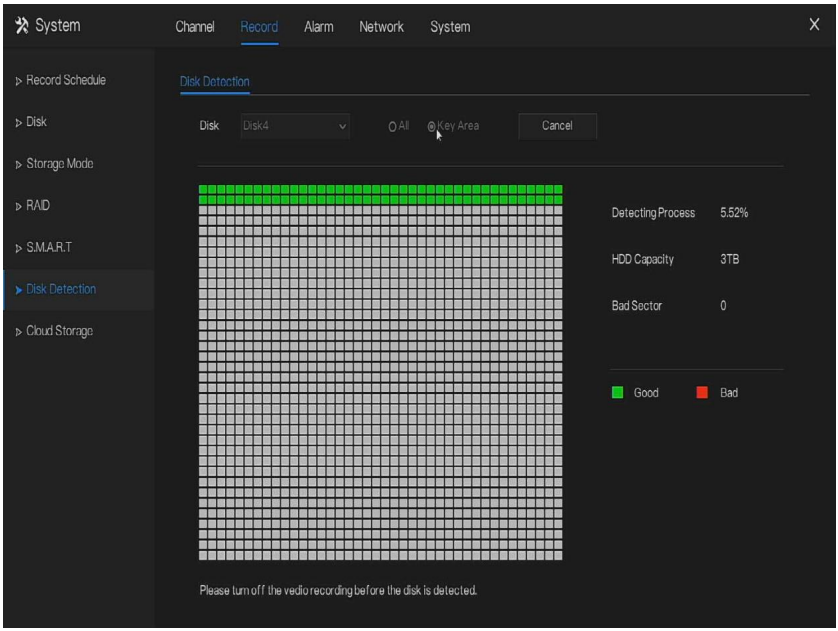


----End

7.2.6 Disk Detection

Detect the disk before recording videos so that the data are secure as shown in Figure 7-23.

Figure 7-23 Disk Detection



Operation Steps

Step 1 Choose the disk from the drop-down list.

Step 2 Tick **All** or **key Area** to detect the disk. It will take some several minutes.

Step 3 Click Scan to scan the disk.

Step 4 The result of disk will show in interface

NOTE

The green block means good, the red block means bad, if the red blocks are too much or at key section, please change the disk immediately.

Please turn off the video recording before the disk is detected, otherwise the recording of video maybe lost.

----End

7.2.7 Disk Calculation

Users can calculate the usage of disk, so that he can set the storage strategy reasonably, as shown in Figure 7-24.

There are two modes can be set, computing capacity and computing time

Figure 7-24 Disk calculation of capacity

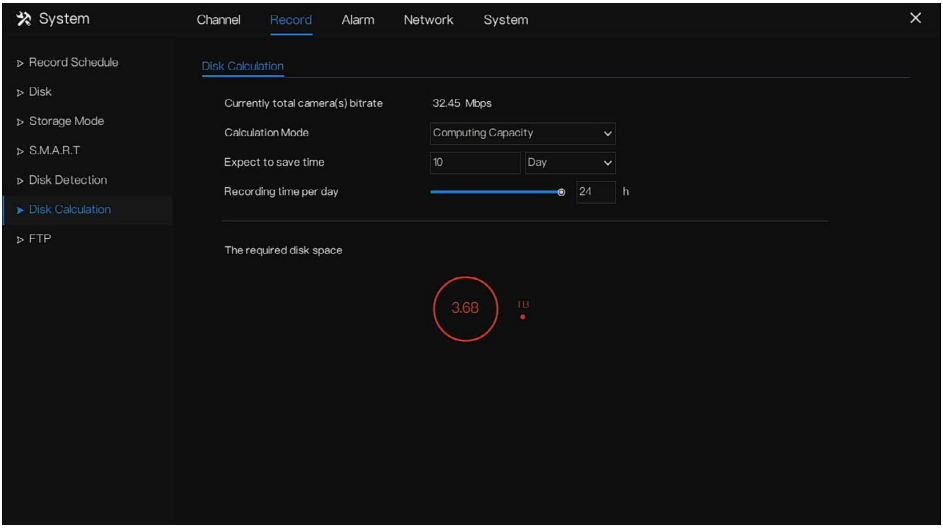
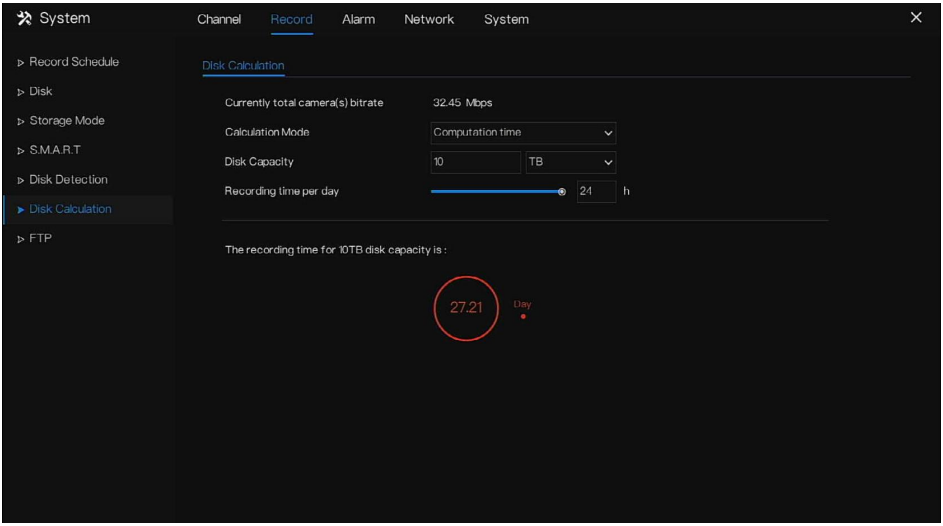


Figure 7-25 Disk calculation of time

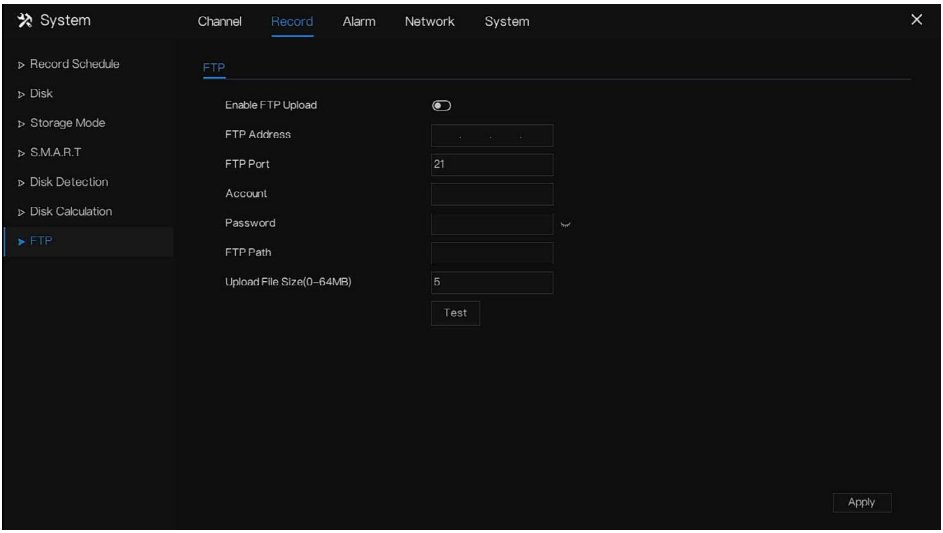


----End

7.2.8 FTP

Enable FTP upload, when the alarm happens, users can linkage the FTP upload to save the alarm recordings.

Figure 7-26 FTP



Step 1 Enable the FTP upload.

Step 2 Input the FTP address and port.

Step 3 Input the account, password and FTP path.

Step 4 Set the upload file size, it ranges from 0 to 64 MB.

Step 5 Click “Test” to test the parameters. After the test is successful, click "Apply" to save the settings

----End

7.3 Alarm Management

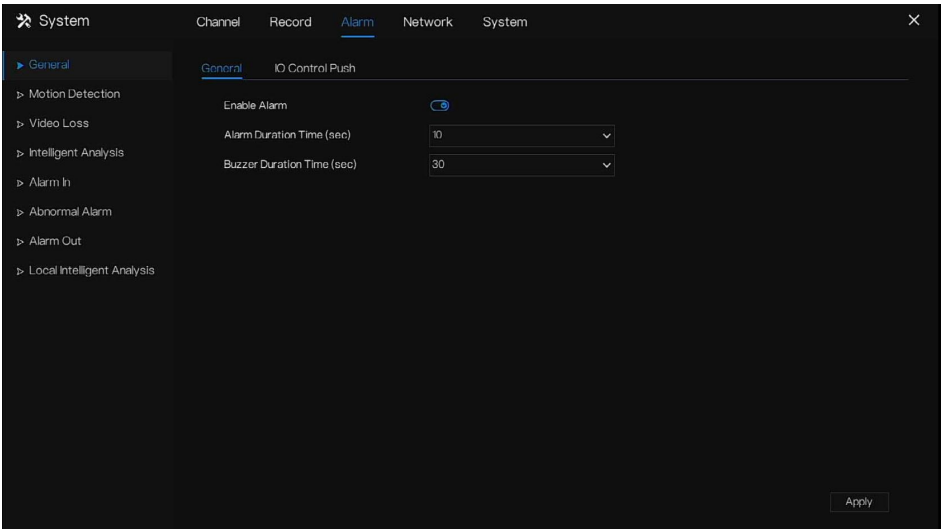
Set the **General alarm information, Motion Detection, Video Loss, Intelligent Analysis, Alarm In, Abnormal Alarm, Alarm out** and **Local intelligent analysis** in alarm management screen.

7.3.1 General

7.3.1.1 General

Step 1 Click **Alarm** in the main menu (or click the alarm page of any function screen in the main menu) to access the alarm management screen, as shown in Figure 7-27.

Figure 7-27 Alarm management screen



Step 2 Click to enable the alarm function.

Step 3 Select a value from the drop-down list of duration time.

Step 4 Click Apply to save alarm settings.

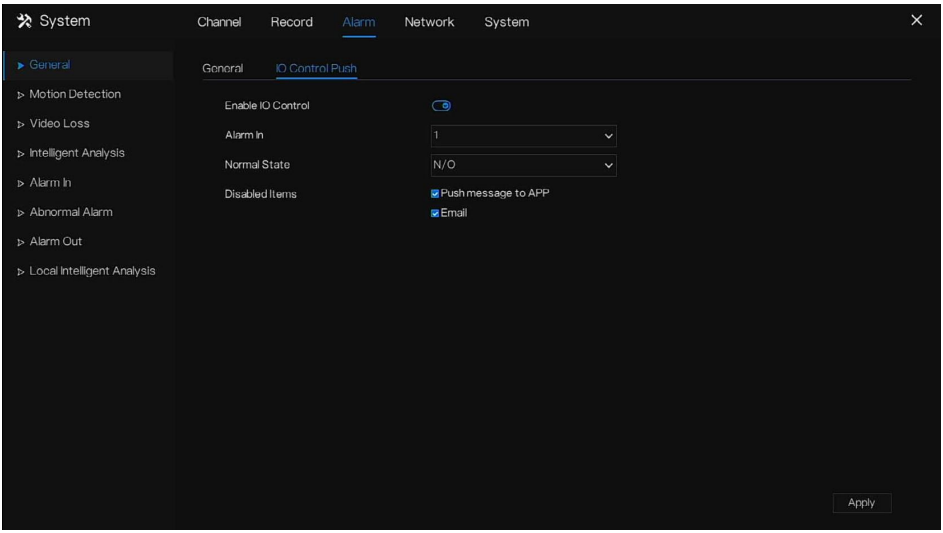
----End

7.3.1.2 IO control push

If you select normally open and tick the disabled items, the alarm input 1 will not push message. Only when the alarm in 1 is in the normally closed, it can push alarm message.

Step 1 Enable the IO control push.

Figure 7-28 IO control push



Step 2 Choose one alarm in and mode(N/C, N/O).

Step 3 Tick the disable items, click “Apply” to save settings.

----End

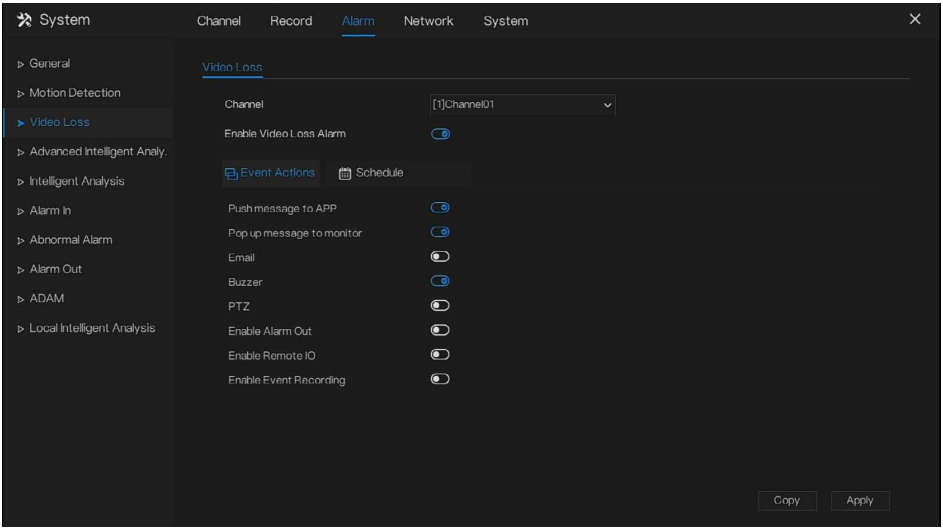
7.3.2 Motion Detection

The NVR will send motion detection alarm while something moving in the specific view of camera.

Operation Description

Step 1 Click **Motion Detection** in the main menu or menu of the alarm management screen and choose **Motion Detection** to access the Motion Detection screen, as shown in Figure 7-29.

Figure 7-29 Motion detection screen



NOTE

For Email, FTP, you should set the parameters of these in advance.

Enable Remote IO, the users connect the ADAM (data acquisition modules) to NVR in advanced. Alarm time, the alarm will be duration. Remote ID, the ADAM is connected to NVR'S ID.

Port number, the alarm device is plugged to ADAM's ID. elation Steps

Step 1 Select a channel from the drop-down list of channel.

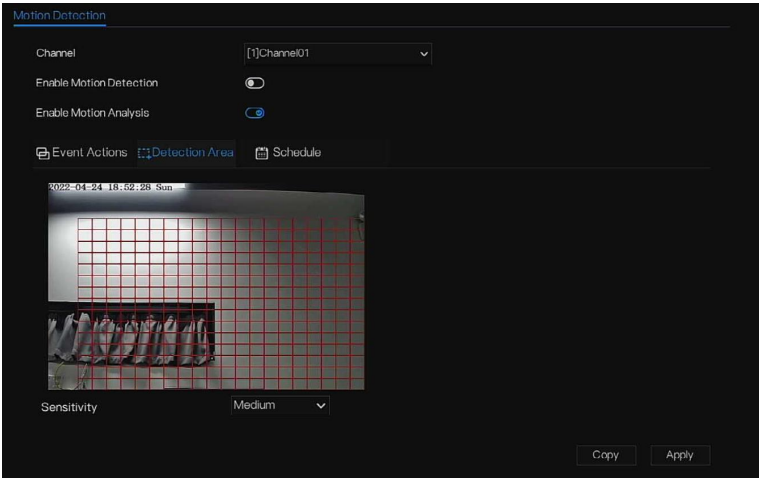
Step 2 Click  to enable motion detection.

Step 3 Enable motion analysis if the camera detects the motion action, the area will be block as shown in Figure 7-30.

Step 4 Enable the Event actions include: push messages to App, pop up messages to monitor, send Email, buzzer, FTP, PTZ, full screen, alarm out, camera alarm out, enable remote IO, event recordings and so on.

Step 5 Click Area page to access the motion detection area setting, as shown in Figure 7-30.

Figure 7-30 Motion detection area setting screen



Area :

1. Hold down and drag the left mouse button to draw a motion detection area.
2. Select a value from the drop-down list next to **Sensitivity**.

Step 6 Click **Schedule** page to access the schedule screen. For details, please see 7.2.1 Record Schedule Figure 7-23Step 5 Set the record schedule.

Step 7 Click Copy and select channels or tick **all**, then click OK to apply the motion detection settings to cameras in selected channels, click Apply to save motion detection alarm settings.

NOTE

Double click to delete the selected area.

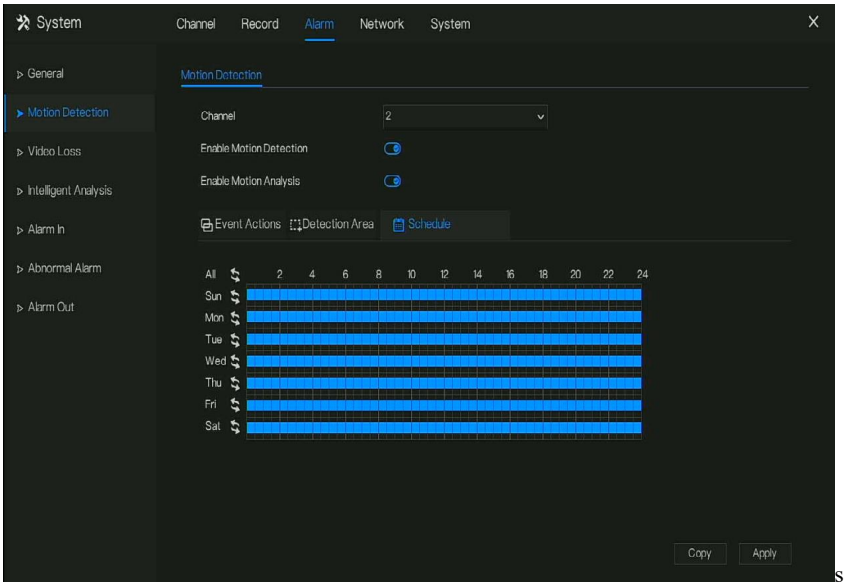
The default area is whole area.

If you leave the page without applying, the tip “Do you want to save?” would show. Click save to save the settings. Click cancel to quit the settings.

Enable the alarm out, users need to set alarm time and output ID, four ID are corresponding to back panel’s alarm out, 1 A and 1 B, 2 A and 2 B, 3 A and 3 B, 4 A and 4 B.

Channel alarm out is corresponding to alarm port of camera.

Figure 7-31 Alarm schedule



s

----End

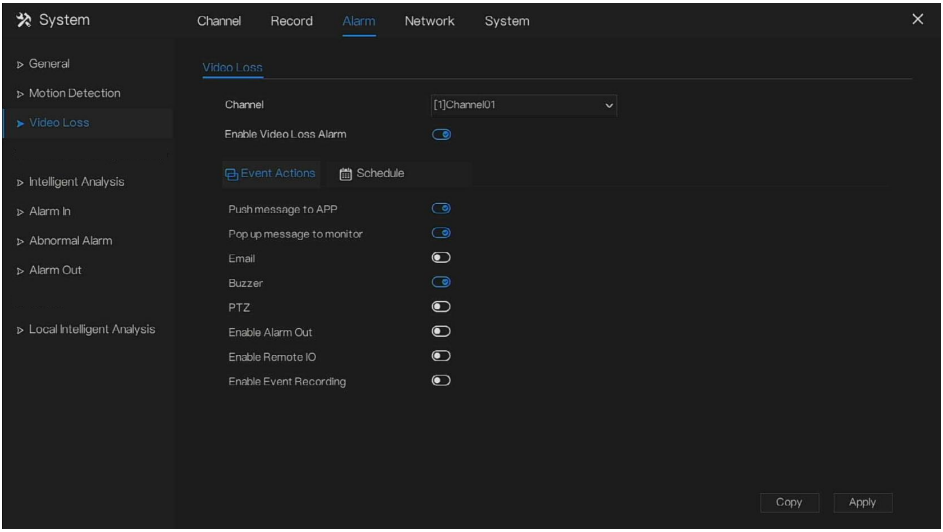
7.3.3 Video Loss

If a camera is disconnected to NVR, it will trigger video loss alarm.

Operation Description

Click **Video Loss** in the main menu or menu of the alarm management screen and choose **video Loss** to access the video loss screen, as shown in Figure 7-32.

Figure 7-32 Video loss screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Click to enable video loss alarm.

Step 3 Enable the Event actions include: push message to App, pop up message to monitor, send Email, buzzer, FTP, PTZ, alarm out, enable remote IO, event recording and so on.

Step 4 Click Schedule page to access the schedule screen.

Step 5 For details, please see 7.2.1 Record Schedule *Figure 7-23Step 5* Set the record schedule.

Step 6 Click Copy and select a channel, then click OK to apply the parameter settings to cameras in selected channels, click Apply to save video loss settings.

----End

7.3.4 Intelligent Analysis

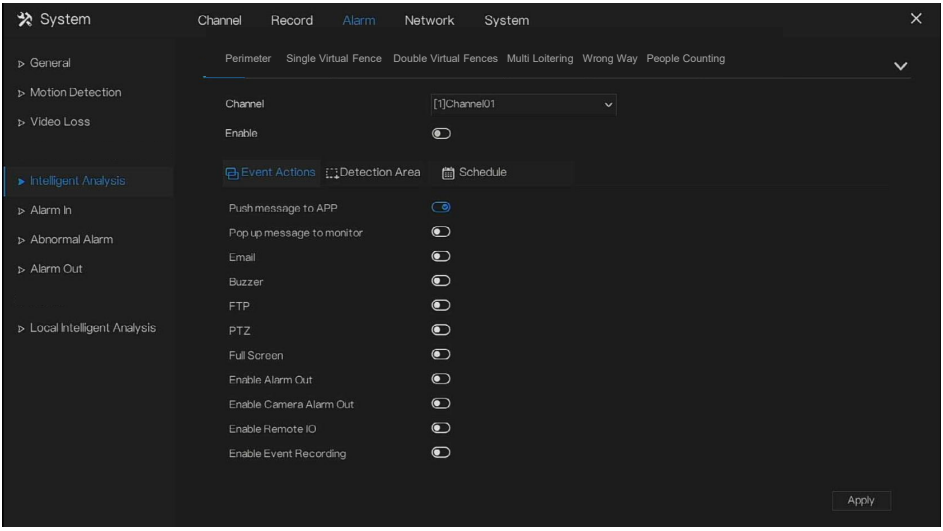
NOTE

The channel camera can set the intelligent analysis which are depended on the performance of cameras.

Operation Description

Step 1 Click **Intelligent Analysis** in the main menu or menu of the alarm management screen and choose **Intelligent Analysis** to access intelligent analysis screen, as shown in Figure 7-33.

Figure 7-33 Intelligent Analysis screen



Step 2 Select one action to set the alarm.(Intrusion, Line crossing, Single virtual fence, Double virtual fences, Object left, Object removed, Signal bad, Loiter, Multi loiter, Abnormal speed, Converse, Illegal parking, Personnel count, Fence, Enter area, Leave area, Advanced).

Step 3 Select a channel from the drop-down list of channel.

Step 4 Click  to enable intelligent analysis alarm.

Step 5 Enable the event actions include: push message to App, pop up message to monitor, send Email, buzzer, FTP, PTZ, full screen, alarm out, camera alarm out, enable remote IO, event recording and so on.

Step 6 Click Schedule page to access the schedule screen.

Step 7 For details, please see *Figure 7-23Step 5* Set the record schedule.

Step 8 Click Copy and select a channel, then click OK to apply the parameter settings to cameras in selected channels, click Apply to save video loss settings.

Figure 7-34 Personnel count

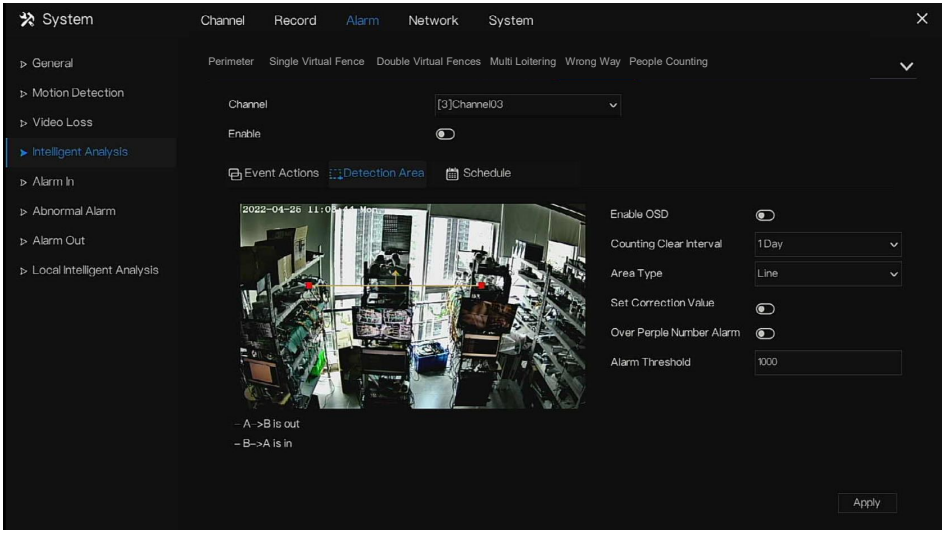


Table 7-6 Personnel count parameters

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

OSD enable	Enable, the statistical data of personnel count will show on OSD	[How to set] Click Enable to enable. [Default value] **OFF**
Counting clear interval	There are five modes can be chosen, such as 10 min, half-hour, 1 hour, 12-hour, 1 day.	[Setting method] Choose from drop-down list [Default value] **7**
Area type	The area to distinguish entry and exit.	[Default value] **Line**

----End

7.3.5 Alarm In

NOTE

This function requires access to a camera that supports external alarm in.

There are two types alarm in, one is the NVR's alarm in, another is the camera channel's alarm in.

Operation Description

Click **Alarm in** in the main menu or menu of the alarm management screen and choose **Alarm in** to access the alarm in screen, as shown in Figure 7-35.

Figure 7-35 Alarm in screen

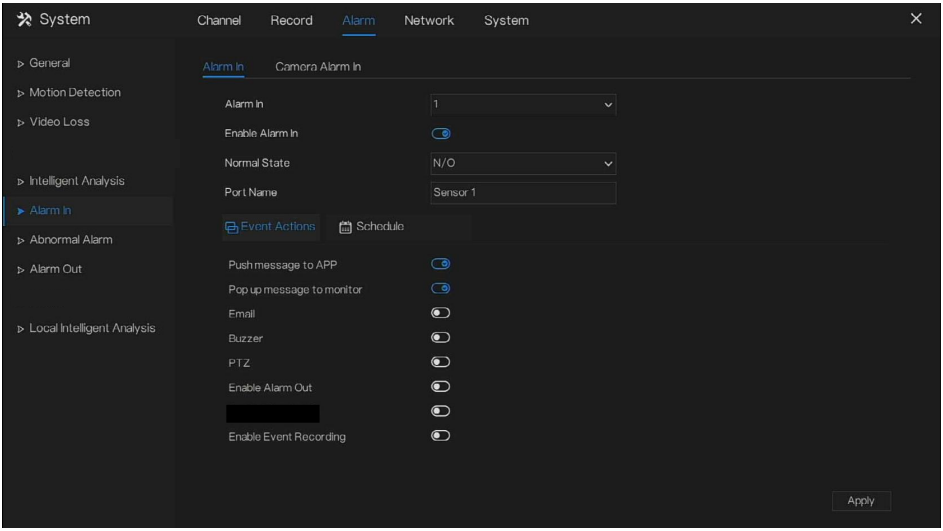
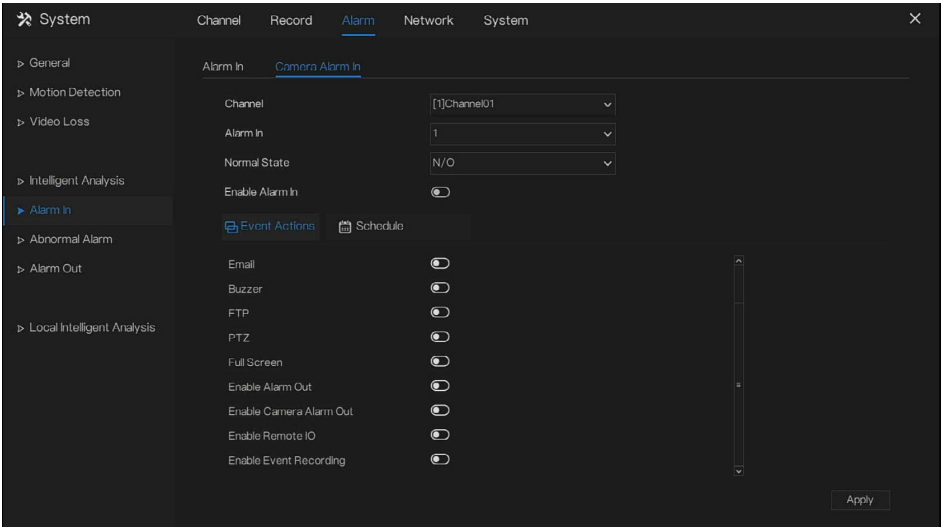


Figure 7-36 Camera alarm in



Operation Steps

Step 1 Select a channel in **alarm in**.

Step 2 Click  to enable or disable the functions.

Step 3 Select **Alarm type** from the drop-down list.

NOTE

NC: Normal close the alarm

NO: Normal open the alarm

Step 4 Set **name**.

Step 5 Enable the event actions include: push message to App, pop up message to monitor, send Email, buzzer, FTP, PTZ, full screen, alarm out, camera alarm out, enable remote IO, event recording and so on.

Step 6 Click **Schedule** page to access the schedule screen. For details, please see 7.2.1 Record Schedule Figure 7-17Step 5 Set the record schedule.

Step 7 Click 

to save settings of **Alarm in**.

----End

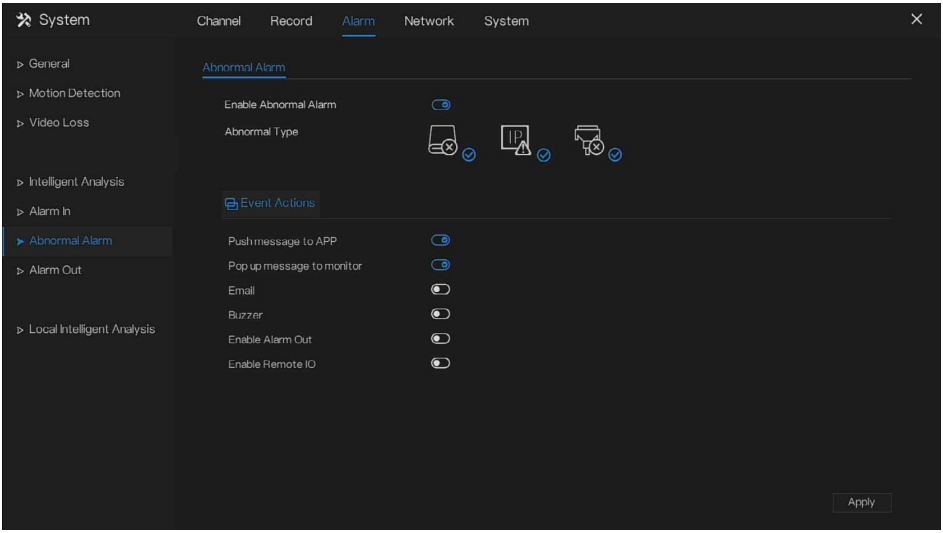
7.3.6 Abnormal Alarm

Abnormal alarm includes disk alarm, IP conflict and network disconnected.

Operation Description

Step 1 Click **Abnormal Alarm** in the main menu or menu of the alarm management screen and choose **Abnormal Alarm** to access the abnormal alarm screen, as shown in Figure 7-39.

Figure 7-37 Abnormal alarm screen



Step 2 Tick the abnormal actions.

Step 3 Enable the event actions include: push message to App, pop up message to monitor, send Email, buzzer, alarm out, enable remote IO and so on.

Step 4 Click Apply to save abnormal alarm settings.

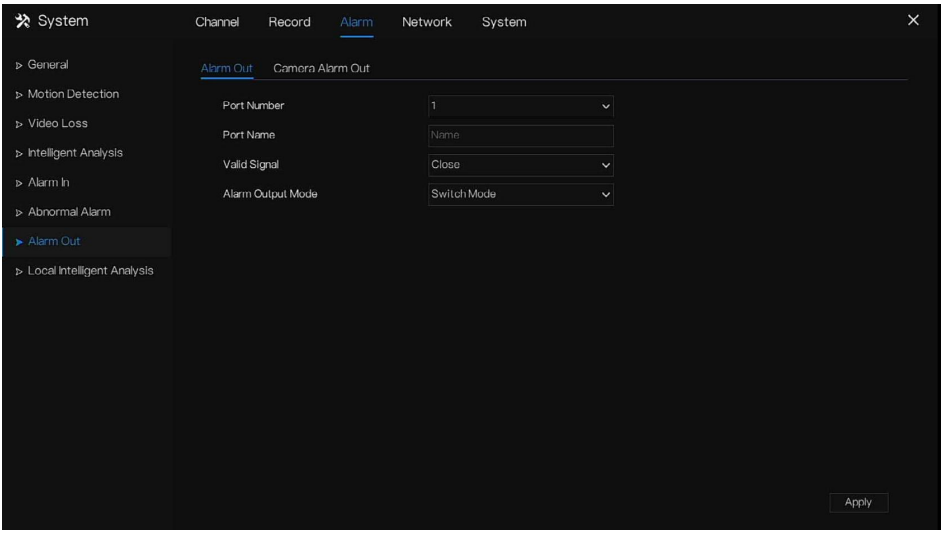
----End

7.3.7 Alarm Out

7.3.7.1 Alarm Out

Choose one output ID as the output interface.

Figure 7-38 Alarm out



----End

7.3.7.2 Camera Alarm out

NOTE

This function requires access to a camera that connected to an external alarm out device.

Figure 7-39 Camera alarm out

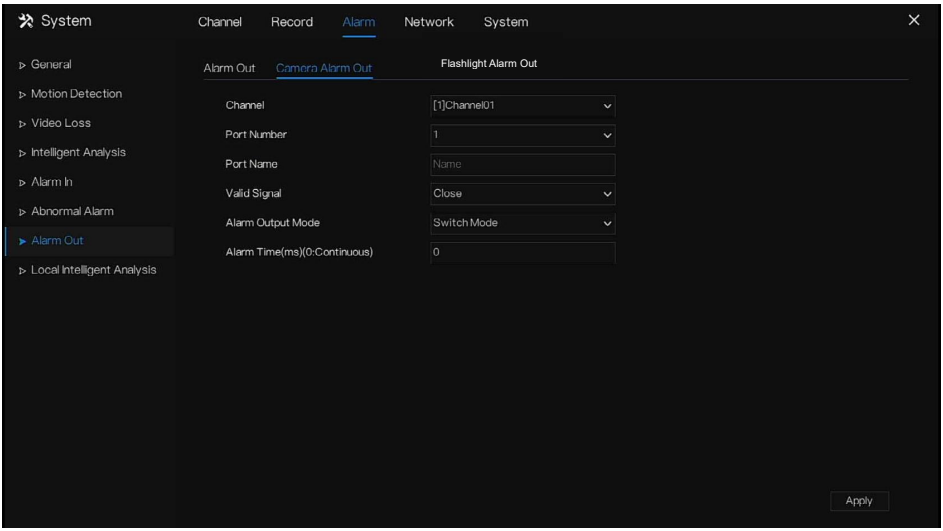


Table 7-7 Camera alarm out

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
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

Parameter	Description	Setting
Alarm Output Mode	When the device receives I/O alarm signals, it will send 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 continuous valid.	[Setting method] Enter a value manually. [Default value] 0 [Value range] 0 to 86400 seconds
Manual Control	Control the alarm output.	N/A

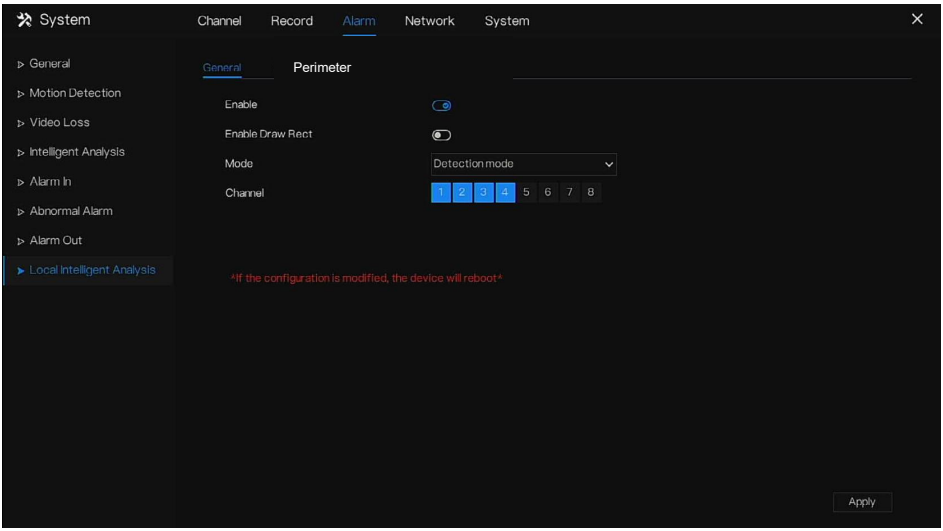
----End

7.3.8 Local Intelligent Analysis

7.3.8.1 General

At “Alarm > Local Intelligent Analysis > General” interface, enable the local intelligent analysis to set the local intrusion, as shown in Figure 7-40.

Figure 7-40 Local intelligent analysis – General



Enable the alarm function.

Enable Draw Rectangle, the detection rectangle will be shown on the live video of intrusion.

Choose the channels, support up to 4 channels.

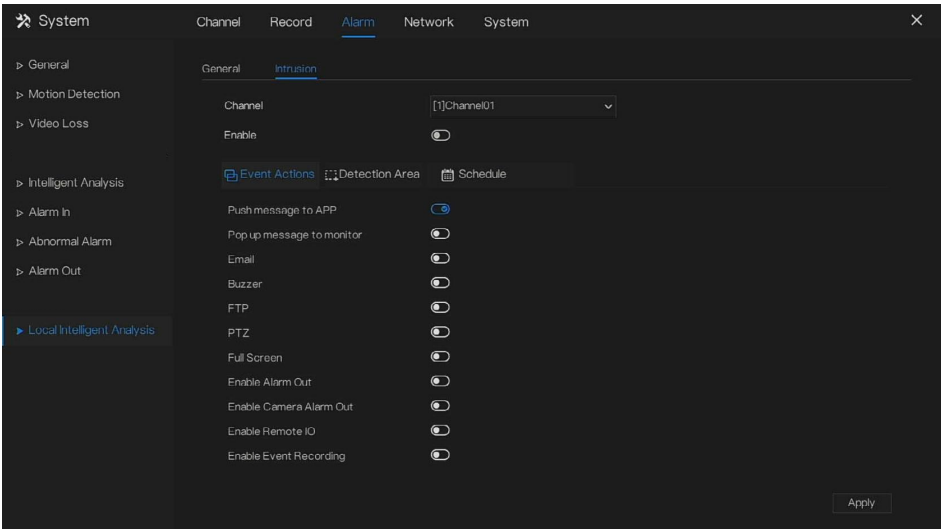
Enable or disable the intrusion, modify the channels, click the “Apply” and the device will be rebooted.

7.3.8.2 Intrusion

At “Alarm > Local Intelligent Analysis > Intrusion” interface to set the parameter of local intrusion.

The “Intrusion” refers to that an alarm is generated when the targets of specified types (such as person, car, and both person and car) enter the detection area.

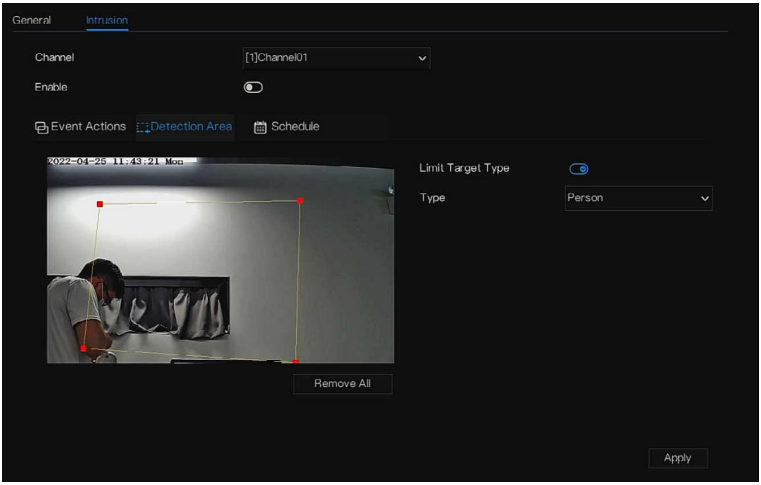
Figure 7-41 Intrusion



Event action：

Choose the channel to enable the intrusion, enable the event actions (such as push message to App, Pop up message to monitor, Email, Buzzer, FTP, PTZ, Full screen, Alarm out, Camera alarm out, enable remote IO, Event recording, and so on). Click “Apply” to save the settings.

Figure 7-42 Detection area



Detection area:

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

NOTE

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

Any shape with 8 sides at most can be drawn.

The quantity of detection areas is not limited yet and will be described in future when a limit is applied.

Choose Limit target from the drop-down list, person/ person or car / car.

Figure 7-43 Set schedule

Set 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 7-63.

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

----End

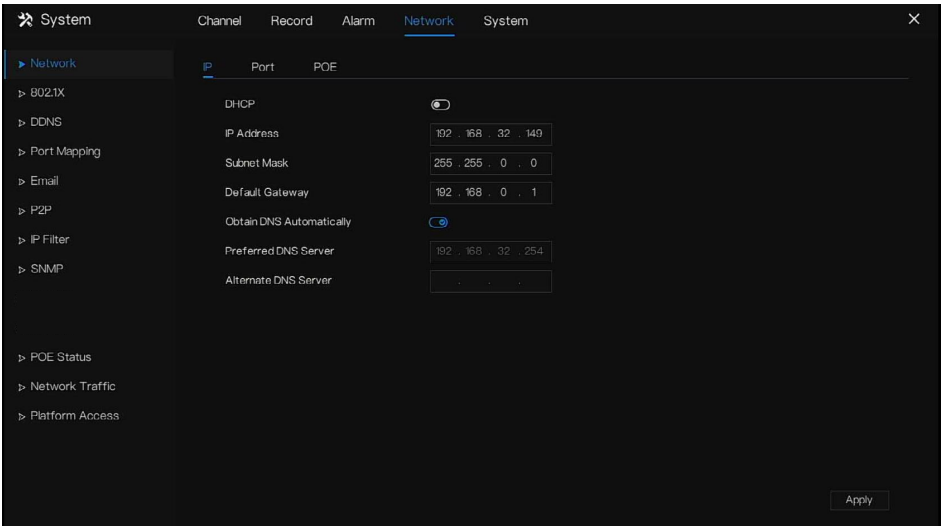
7.4 Network Management

Set the **Network Parameter, 802.1X, DDNS, E-mail, Port Mapping, P2P, IP Filter, SNMP 3G/4G** and **PPPOE, Network Traffic** in the network management screen.

Operation Description

Step 1 Click **Network** in the main menu (or click the network page of any function screen in the main menu) to access the network management screen, as shown in Figure 7-44.

Figure 7-44 Network management screen



7.4.1 Network

Set **DHCP a**nd **DNS** manually or automatically.

7.4.1.1 IP

Operation Steps

Step 1 Click  next to **DHCP** to enable or disable the function of automatically getting an IP address. The function is disabled by default.

Step 2 If the function is disabled, click input boxes next to **IP**, **Subnet mask**, and **Gateway** to set the parameters as required.

Step 3 Click  next to **Obtain DNS Automatically** to enable or disable the function of automatically getting a DNS address. The function is enabled by default.

Step 4 If the function is disabled, click input boxes next to **DNS 1(default 192.168.0.1)** and **DNS 2(default 8.8.8.8)**, delete original address, and enter a new address.

Step 5 Click  to save IP settings.

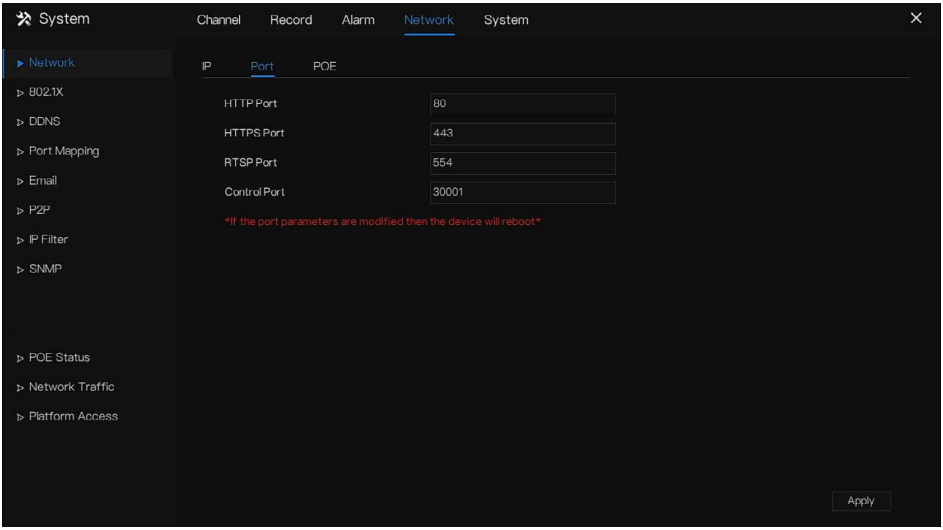
----End

7.4.1.2 Port

Operation Steps

Step 1 Click **Port** page to access the port setting screen, as shown in Figure 7-45.

Figure 7-45 Port setting screen



Step 2 Set the HTTP port, HTTPS port, RTSP port and Control port.

Step 3 Click Apply to save port settings.

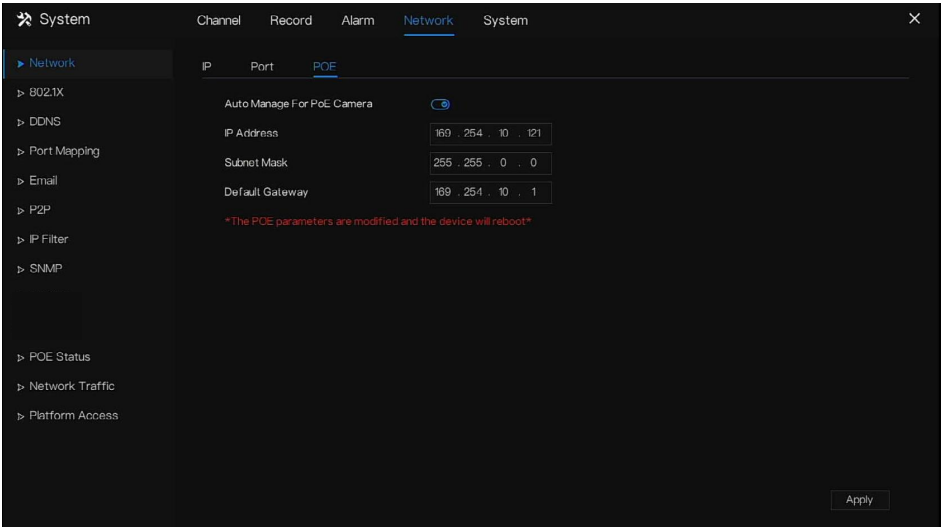
----End

7.4.1.3 POE

Operation Steps

Step 1 Click **POE** page to access the POE setting screen, as shown in Figure 7-46.

Figure 7-46 POE screen



Step 2 The NVR will deploy IP addresses to the cameras connected to POE immediately.

Step 3 Click Apply to set POE camera IP address successfully.

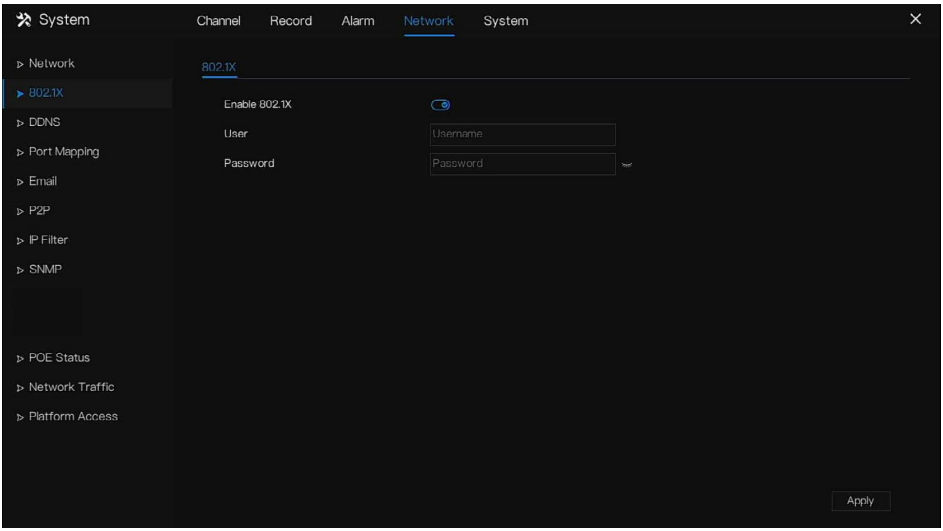
----End

7.4.2 802.1 X

Operation Steps

Step 1 Click next to **802.1 X** to enable or disable the function .The default is disabled.

Figure 7-47 802.1 X



Step 2 Input the user and password of 802.1X, the account is created by user.

Step 3 Click Apply to save the settings. The visitor to view the NVR need to input account to certify.

----End

7.4.3 DDNS

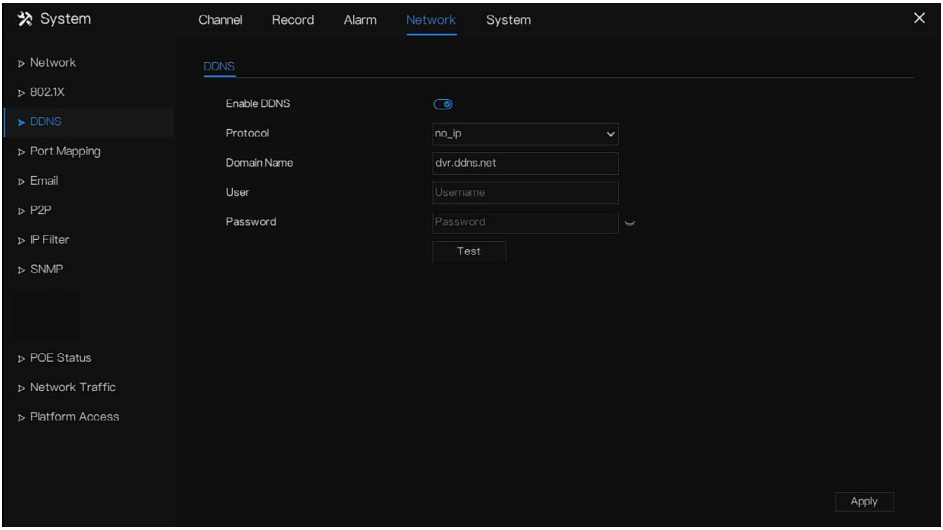
Please make sure connect the specified camera to the Internet, and obtain the user name and password for logging into the dynamic domain name system (DDNS) from the server.

Operation Steps

Step 1 Click **DDNS** in the main menu or menu of the network management screen and choose **DDNS** to access the DDNS screen.

Step 2 Click next to **Enable** to enable the DDNS function. It is disabled by default, as shown in Figure 7-48.

Figure 7-48 DDNS setting screen



Step 3 Select a required value from the protocol drop-down list.

Step 4 Set domain name, input user and password.

Step 5 Click Test to check the domain name.

Step 6 Click Apply to save DDNS network settings

NOTE

An external network can access the NVR via an address that is set in the DDNS settings.

----End

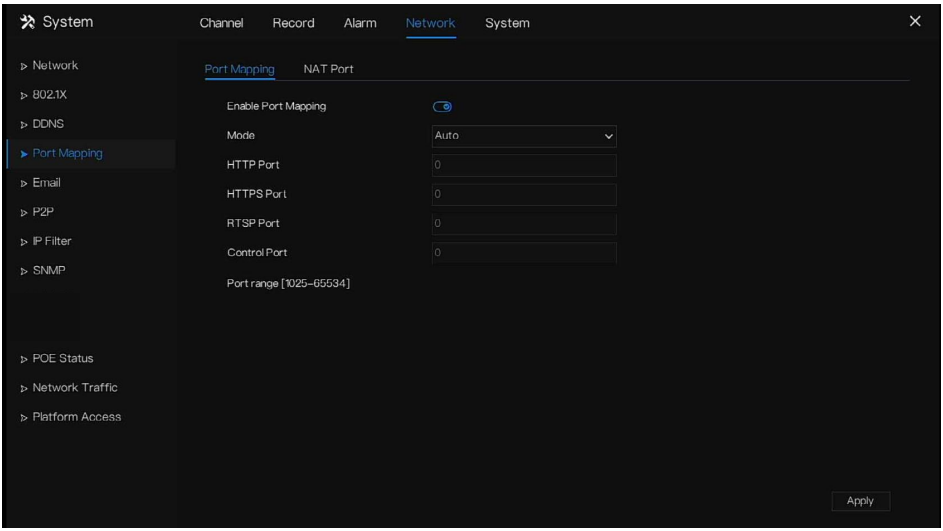
7.4.4 Port Mapping

7.4.4.1 Port Mapping

Operation Steps

Step 1 Click **Port Mapping** in the main menu or menu of the network management screen and choose **Port Mapping** to access the port mapping screen, as shown in Figure 7-49.

Figure 7-49 Port mapping setting screen



Step 2 Select UPnP enable type.

Step 3 Manual UPnP: input http port, data port and client port manually.

Step 4 Auto UPnP: device obtain the port automatically.

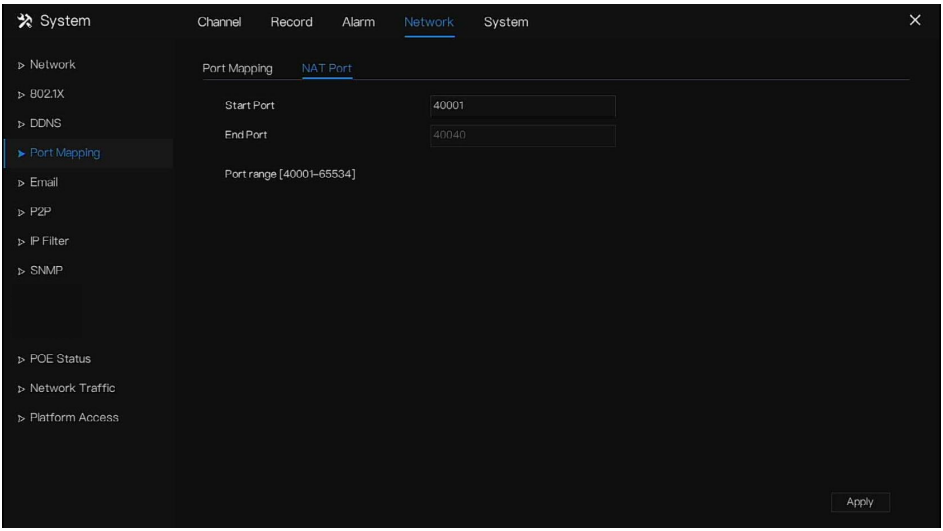
Step 5 Click Apply to save settings.

----End

7.4.4.2 NAT Port

NAT Port (Network Address Translation). Access the NVR channels through the NAT port. Users can set the start port, and it will generate the end port automatically. We will view the NAT port when we access the channel through clicking icon at Web interface.

Figure 7-50 NAT port



----End

7.4.5 Email

If the simple mail transfer protocol (SMTP) function is enabled, the device automatically sends alarm information to specified email addresses when an alarm is generated. Two mailboxes can be set as receivers.

Operation Steps

Step 1 Click **E-mail** in the main menu or menu of the network management screen and choose **E-mail** to access the E-mail screen, as shown in Figure 7-51.

Figure 7-51 E-mail setting screen

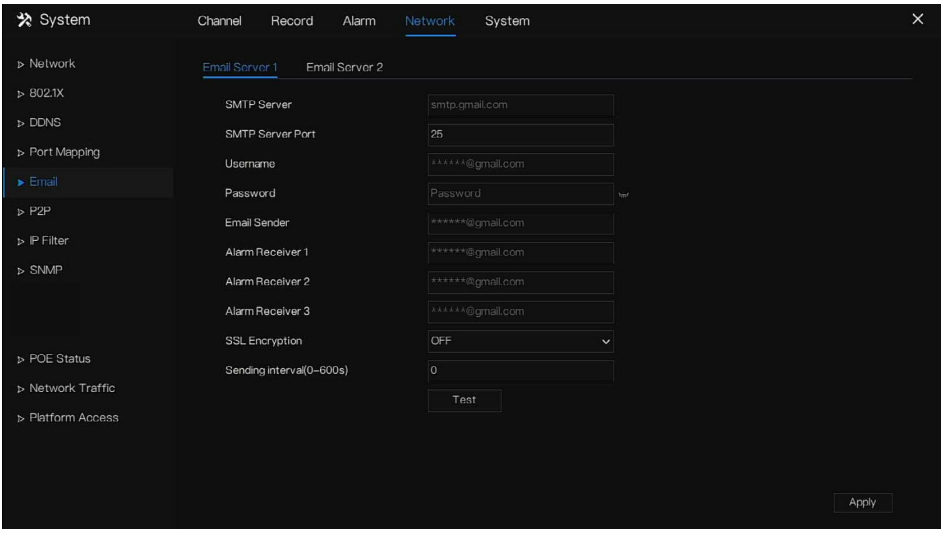
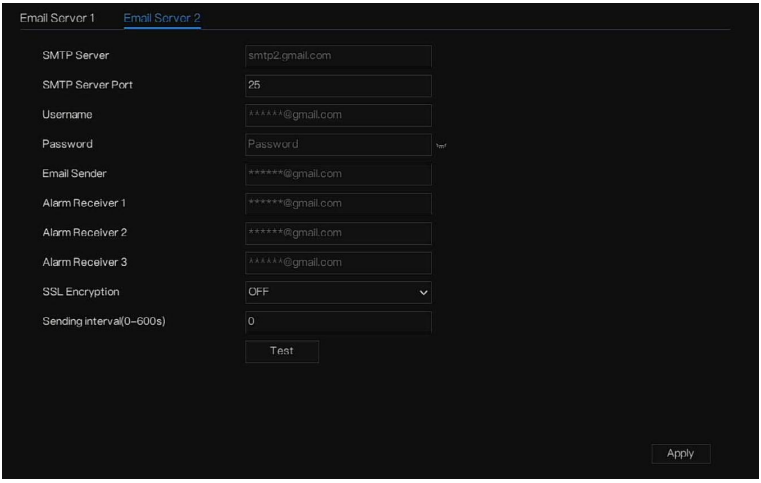


Figure 7-52 E –mail server 2



Step 2 Set SMTP server address and SMTP server port manually.

Step 3 Input E-mail sender, user name and password manually.

Step 4 Set E-mail for receiving alarm. the message "**Mail has been sent, please check**" is displaying. Open the mail, if the verification code is received, that shows the E-mail is set successfully.

Step 5 Set E-mail for retrieve the password. the message "Mail has been sent, please check" is displaying. Open the mail, if the verification code is received, E-mail is set successfully.

Step 6 Set SSL encryption for encrypting mail or not, set sending interval.

Step 7 Click Apply to save settings.

----End

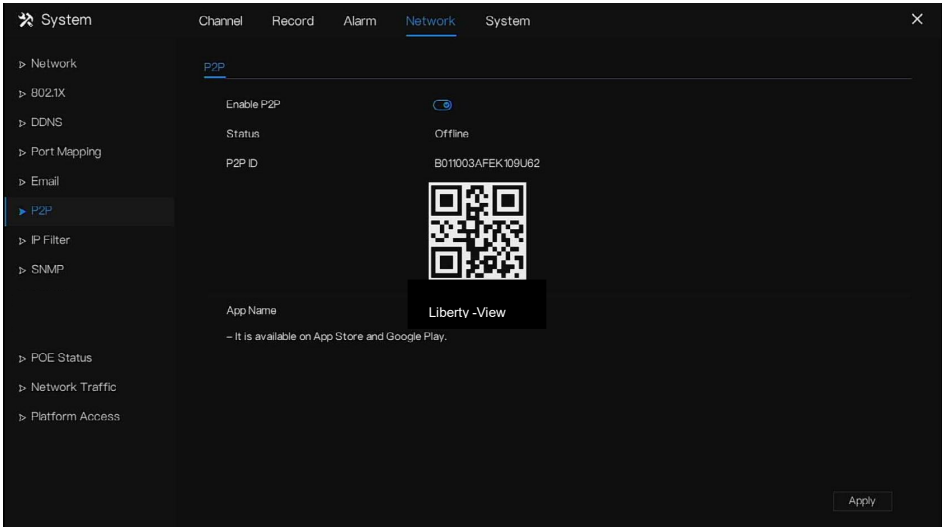
7.4.6 P2P

Show the UUID code and set the P2P status of the device.

Operation Steps

Step 1 Click **P2P** in the main menu or menu of the network management screen and choose **P2P** to access the P2P screen, as shown in Figure 7-53.

Figure 7-53 P2P screen



Step 2 Click to enable the P2P function.

Step 3 Click Apply to save P2P network settings or click **Cancel** to cancel settings.

Step 4 After the **Liberty-View** is installed in mobile phone, run the APP and scan the QR to add and access the NVR when the device is online.

----End

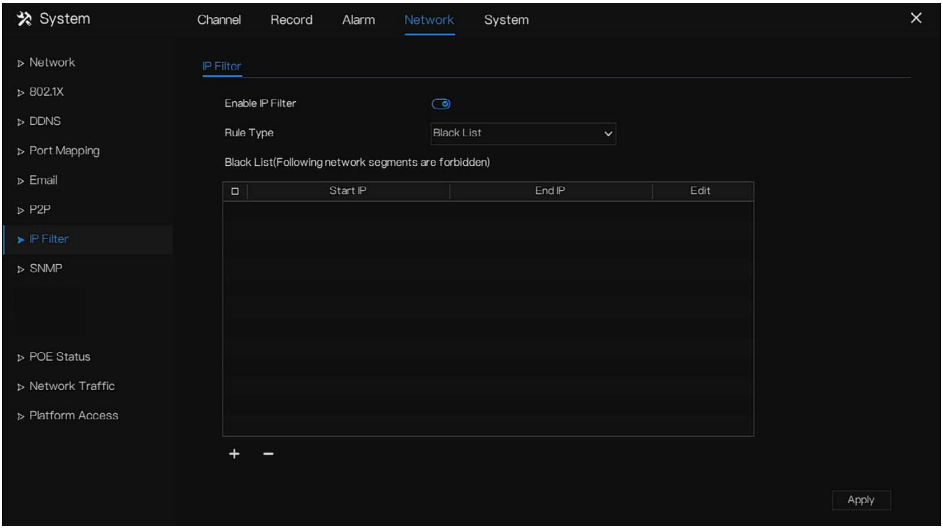
7.4.7 IP Filter

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

Operation Steps

Step 1 Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 7-54.

Figure 7-54 IP Filter setting screen

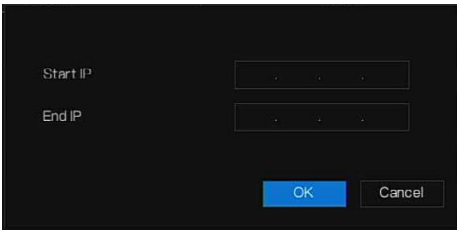


Step 2 Click next to **IP Filter** to enable the function of IP Filter.

Step 3 Select black list or white list drop-down list.

Step 4 Click to set black &white list IP segment screen is displaying, as show in Figure 7-55.

Figure 7-55 IP Address Segment screen



Step 5 Enter value manually for start IP address, end IP address.

Step 6 Click OK. The system saves the settings. The black and white lists IP segment listed in the black (white) list.

NOTE

Black list: A list of IP addresses in specified network segment that are regarded as unacceptable or untrustworthy and should be excluded or avoided.

White list: a list of addresses in specified network segment considered to be acceptable or trustworthy.

Select a name in the list and click **Delete** to delete the name from the list.

Select a name in the list and click **Edit** to edit the name in the list.

Only one rule type is available, and the last rule type set is efficient.

----End

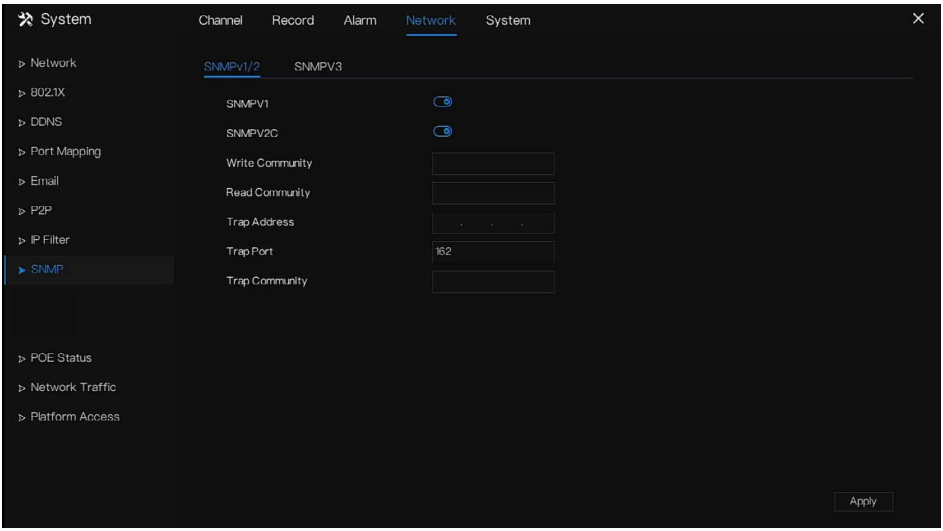
7.4.8 SNMP

There are three versions of simple network management protocols at interface.

Operation Steps

Step 1 Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 7-56.

Figure 7-56 SNMP settings screen



Step 2 Click  next to **SNMPV 1** to enable the function . The interface is shown as Figure 7-59.

Figure 7-57 SNMPV 1/2 interface

Step 3 Input the parameters of protocol.

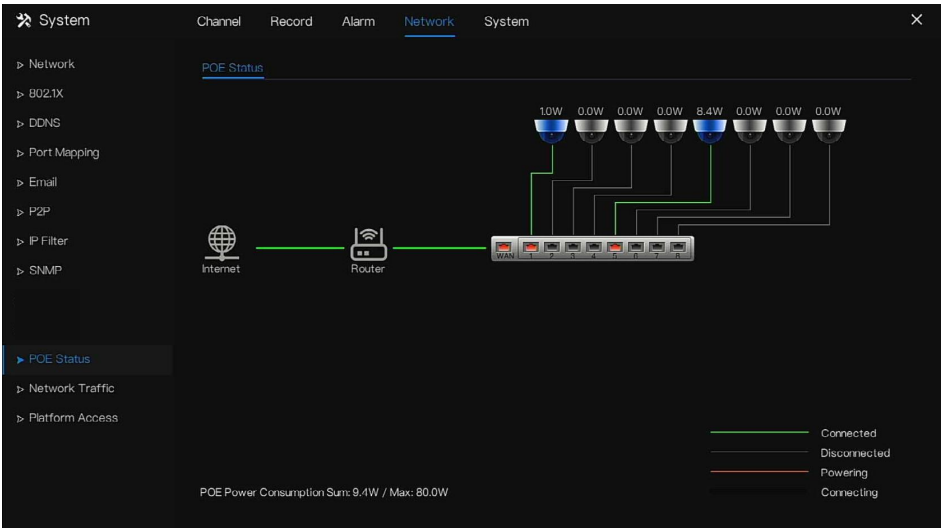
Step 4 Click Apply to save settings or click Cancel to cancel settings.

----End

7.4.9 POE Status

Users can view the status of POE intuitively, as shown in Figure 7-58.

Figure 7-58 POE status

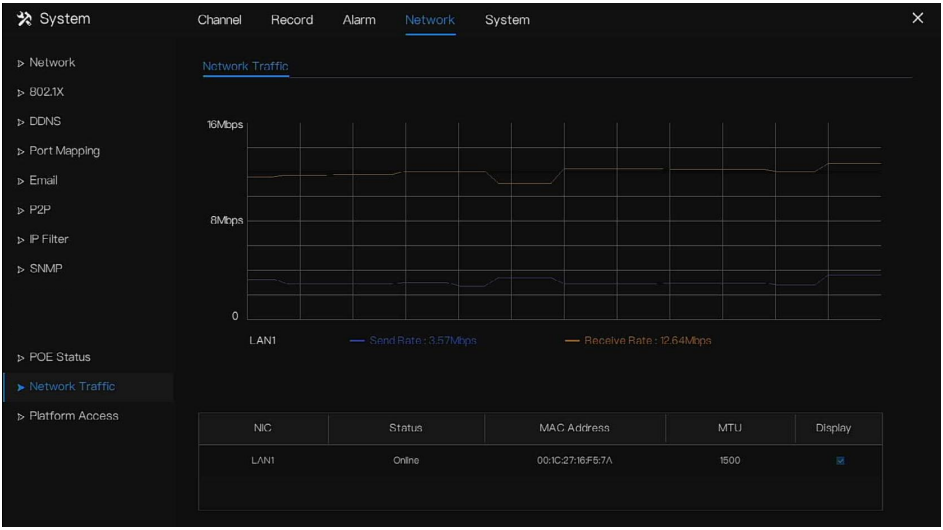


----End

7.4.10 Network Traffic

Users can view the network traffic immediately, as shown in Figure 7-59

Figure 7-59 Network traffic



There are two rates, transmit rate and receive rate. The status of LAN(s) show on list.

----End

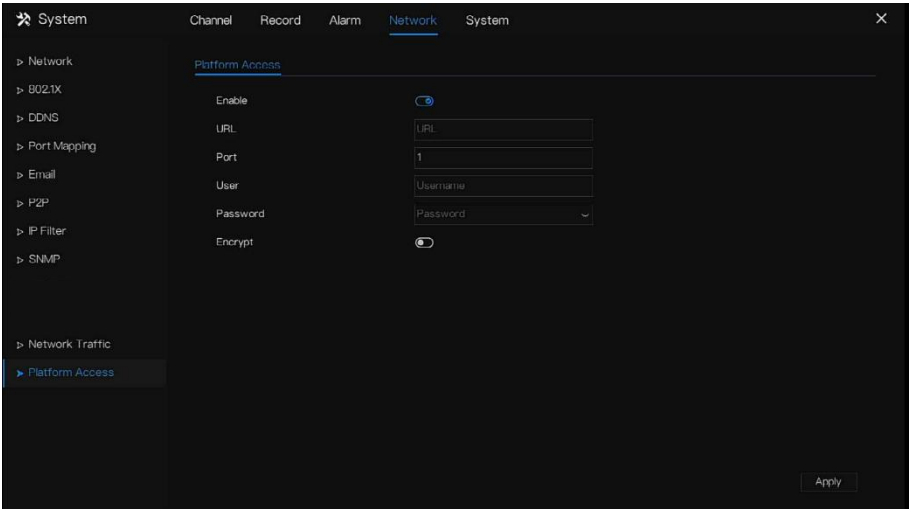
7.4.11 Platform Access

If the NVR and platform system are not at the same local network, ensure the NVR is connected to the same external server as the platform system. You should build a server for platform in advanced, platform's remote IP/Port and NVR are mapping port to external network.

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

The **Platform Access** page is displayed, as shown in Figure 7-60

Figure 7-60 Platform Access page



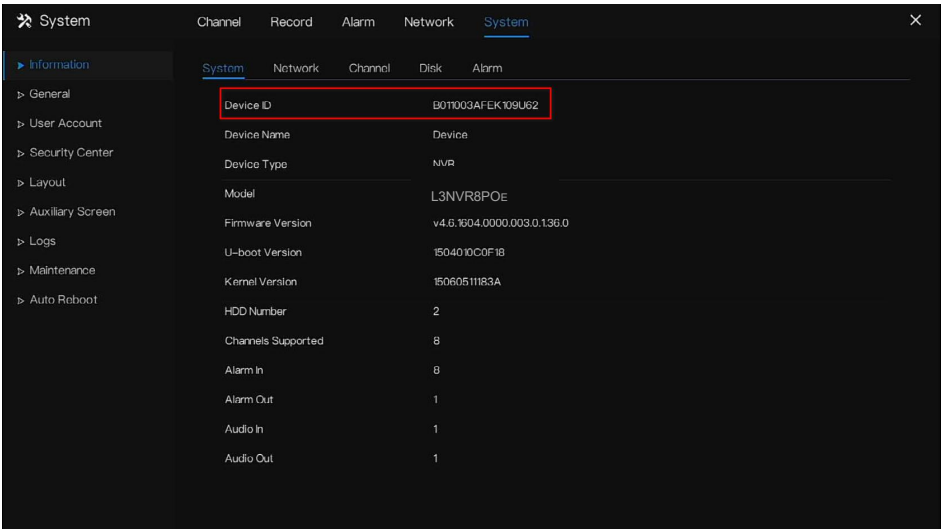
Step 2 Input the parameters. The URL and port are the platform server IP address and port

Step 3 The name and port are the platform's login name and password.

Step 4 Add the NVR to platform, you should input the following information.

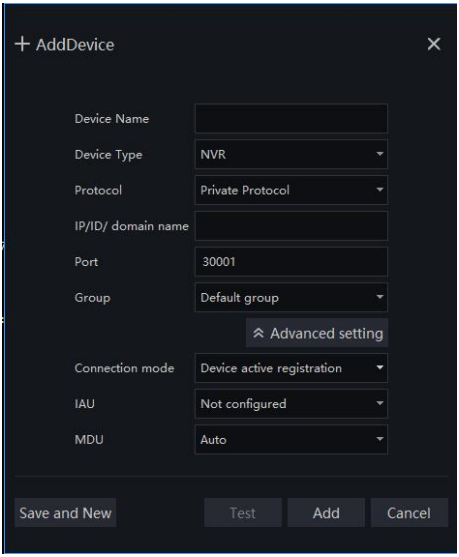
1: IP/ID/Domain name is Device ID of NVR.

Figure 7-61 IP/ID/Domain



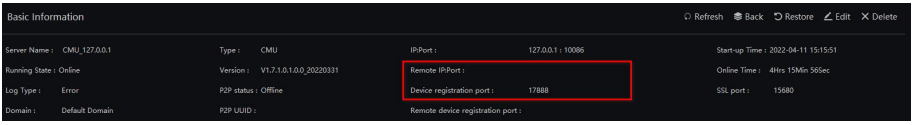
2: The connection mode should be chosen **Device active registration**.

Figure 7-62 Connect NVR to platform



3: the CMU, MDU and IAU servers of platform should be mapped to the ports to external network in advanced.

Figure 7-63 URL address / port



Step 5 If you want to encrypt the access, you can enable the Encrypt.

Step 6 Click **Apply**.

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

----End

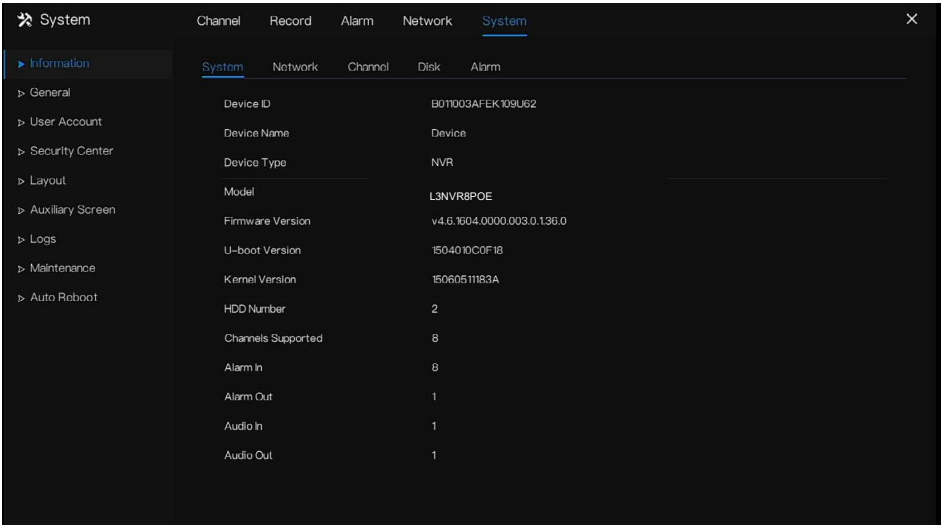
7.5 System Management

View the device **Information** and set **General** information, **User Account, Security Center, Layout, Logs, Maintenance** and **Auto Reboot** for the system setting.

Operation Description

Click **System** in the main menu (or click the system page of any function screen in the main menu) to access the system setting screen, as shown in Figure 7-64.

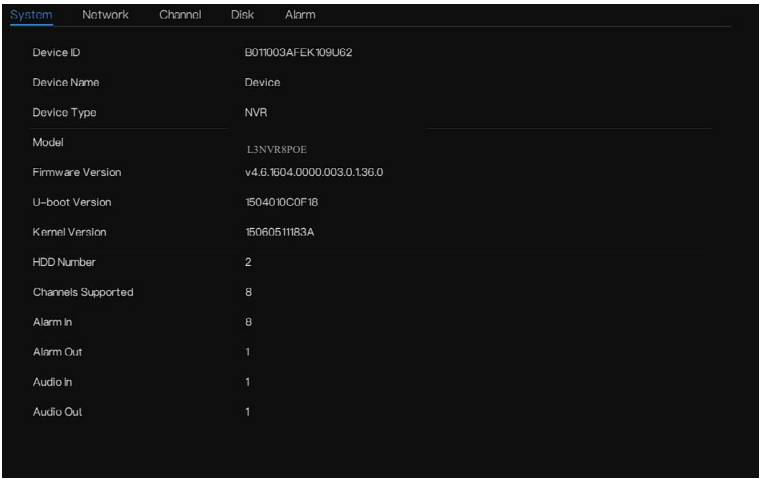
Figure 7-64 System setting screen



7.5.1 Information

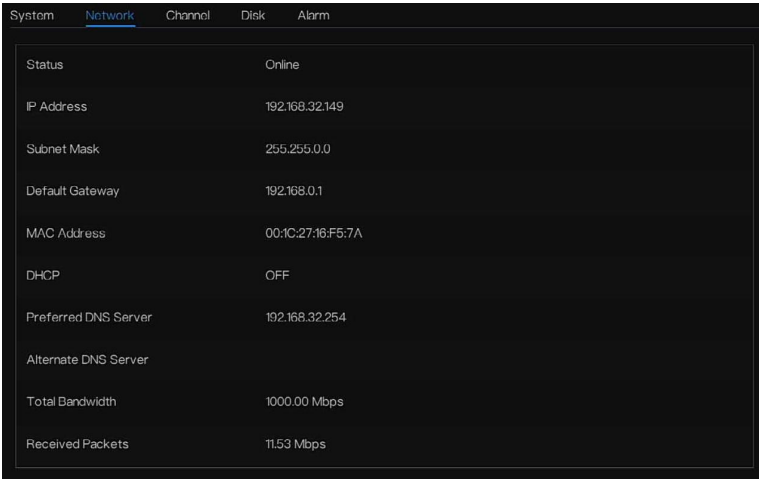
View the device ID, device name, device type, model, firmware version, kernel version, face detection version, HDD volume, channel support, alarm in, and alarm out, audio in, audio out in **information** screen, as shown in Figure 7-65 .

Figure 7-65 Information-system interface



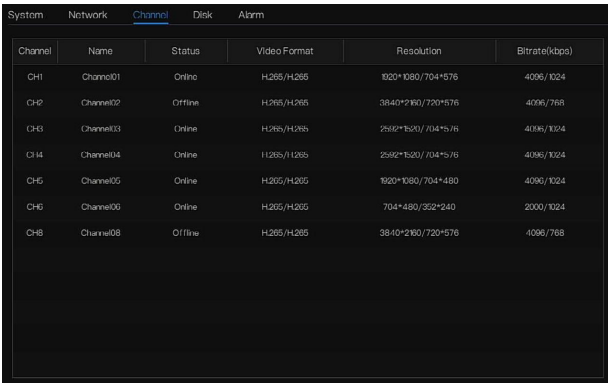
Network: status, IP address, subnet mask, default gateway, MAC address, DHCP, preferred DNS server, Alternate DNS server, total band width, received packets, and so on, as shown in Figure 7-66.

Figure 7-66 Information-network interface



Channel: channel, name, status, video format, resolution, bitrate (kbps), and so on, as shown in Figure 7-67.

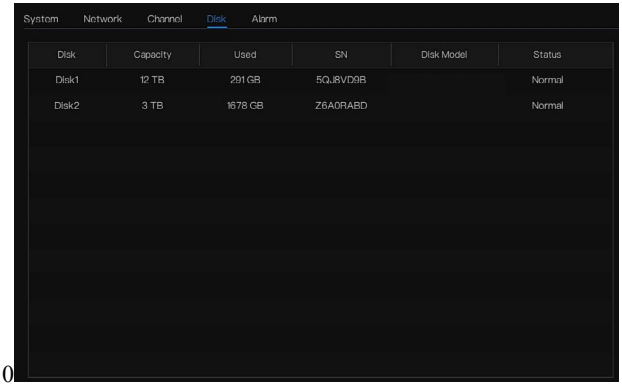
Figure 7-67 Information-channel interface



Disk: disk name, capacity, used, SN, disk model, status, and so on, as shown in Figure 7-68

.

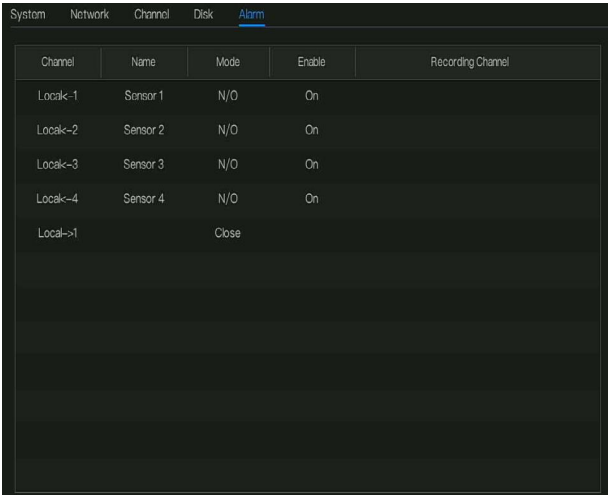
Figure 7-68 Information-disk interface



0

Alarm: channel, name, mode, enable, recording channel, and so on, as shown in Figure 7-69.

Figure 7-69 Information-alarm interface



----End

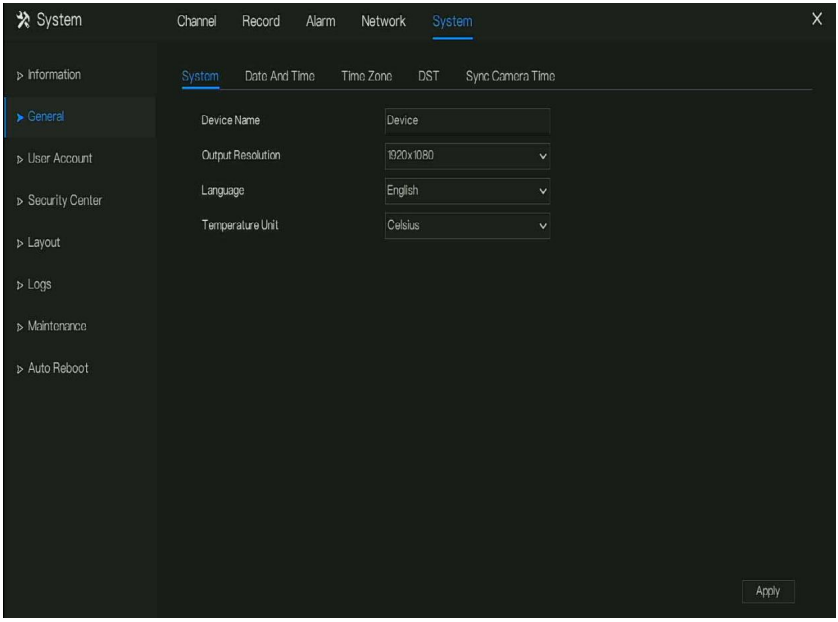
7.5.2 General

7.5.2.1 System

Operation Steps

Step 1 Click **General** in the main menu or menu of the system management screen and choose **General** to access the system screen, as shown in Figure 7-70.

Figure 7-70 system setting screen



Step 2 Enter the name of the selected device.

Step 3 Select a proper resolution from the output resolution drop-down list.

Step 4 Select a required language from the Language drop-down list.

Step 5 Set the temperature unit.

Step 6 Click Apply to save settings.

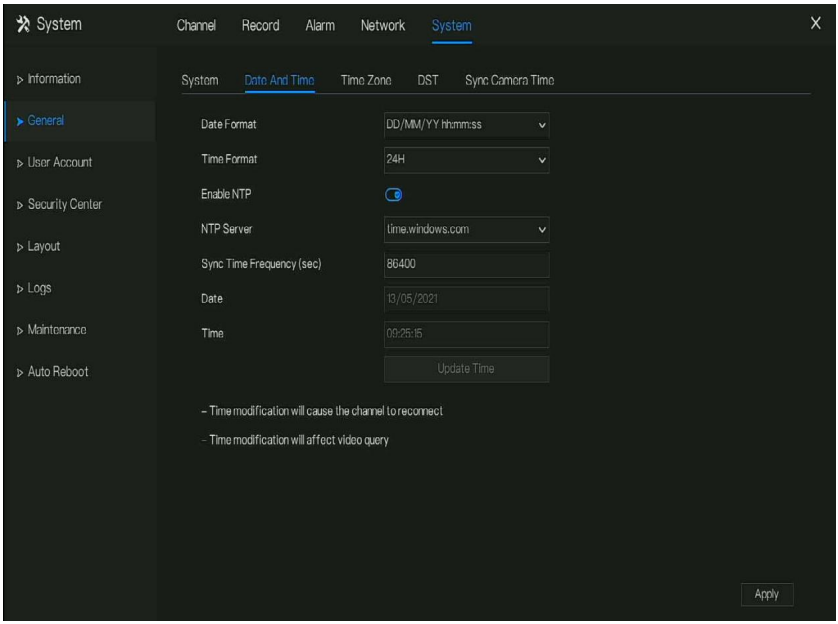
----End

7.5.2.2 Date and Time

Operation Steps

Step 1 Click **Date and Time** page to access the date and time setting screen, as shown in Figure 7-71.

Figure 7-71 Date and Time setting screen



Step 2 Select required format from the Date Format and time format drop-down list.

Step 3 Click  next to NTP Sync to disable time synchronization. Time synchronization is enabled by default. Time is synchronized with the NTP.

Step 4 After NTP Sync is disabled, you can manually set the system time:

Click **Date** and use the scroll wheel to select the year, month, and date.
Click **Time** and use the scroll wheel to select the hour, minute, and second.
Click **Modify Time** to save the time settings.

Step 5 Click Apply to save settings.

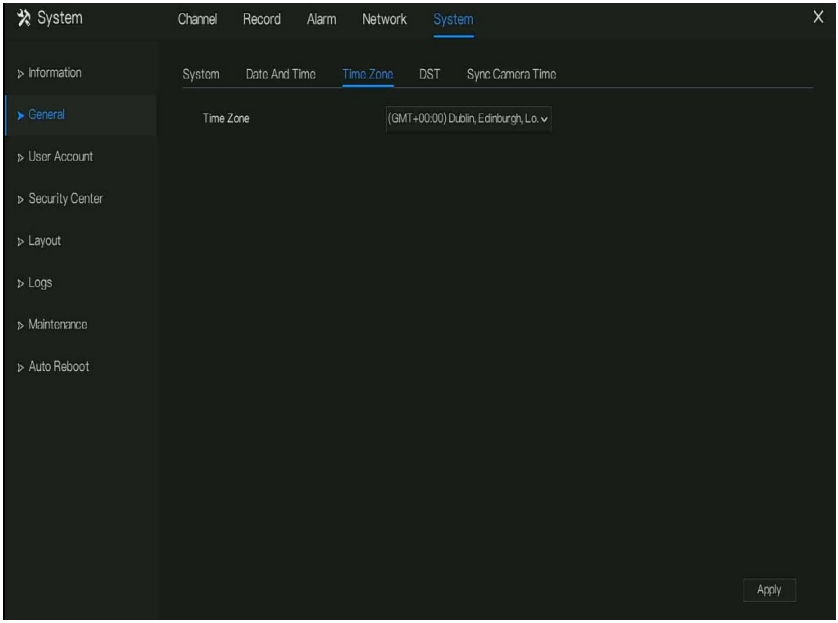
----End

7.5.2.3 Time Zone

Operation Steps

Step 1 Click **Time zone** page to access the time zone setting screen, as shown in Figure 7-72.

Figure 7-72 Time zone setting screen



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

Step 3 Click Apply to save settings.

----End

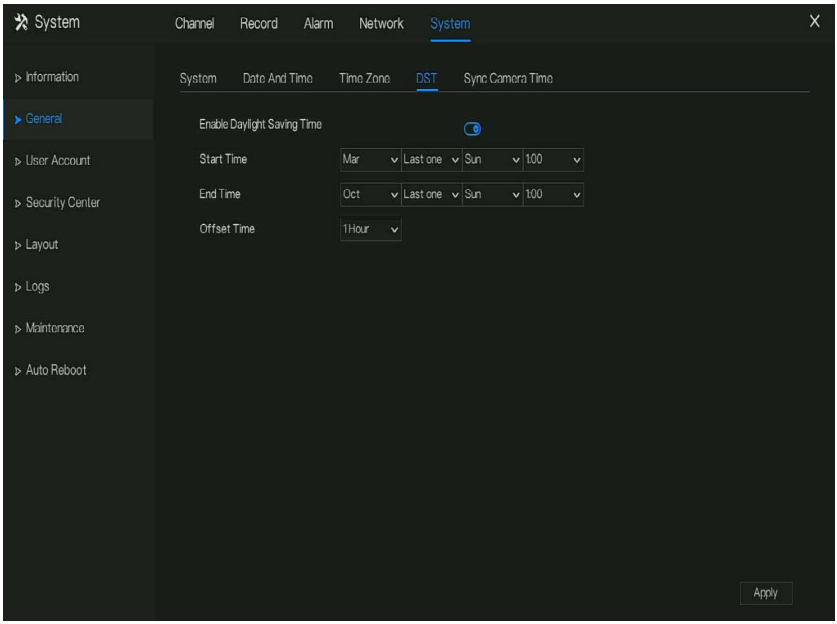
7.5.2.4 DST

When the DST start time arrives, the device time automatically goes forward one hour (offset time). When the DST end time arrives, the device time automatically goes backward one hour. The offset time can change if the local rule is different.

Operation Steps

Step 1 Click **DST** page to access the DST setting screen, as shown in Figure 7-73.

Figure 7-73 DST setting screen



Step 2 Click  next to **DST** to enable DST.

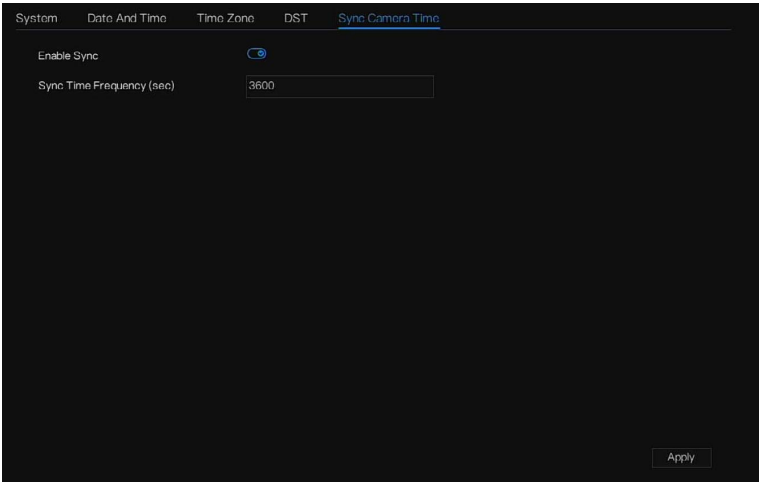
Step 3 Select start time, end time, offset time from the drop-down list respectively, that basis on the local rules.

Step 4 Click  to save settings.

----End

7.5.2.5 Sync Camera Time

Enable the sync camera time, the channels will show the sync time, and set the frequency of check



----End

7.5.3 User Account

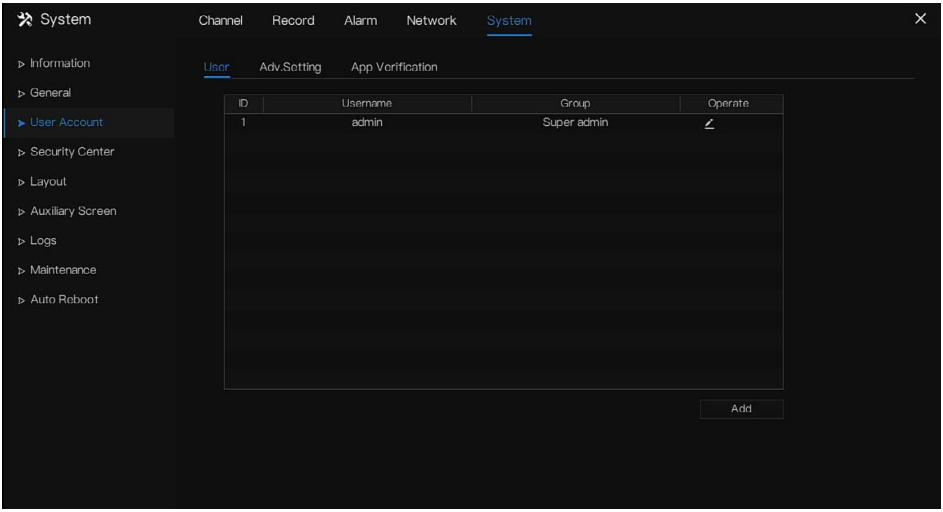
Add, modify, and delete a user and privilege in user screen, admin user can dispose privilege to different users.

7.5.3.1 User

Operation Steps

Step 1 Click **User** in the main menu or menu of the system management screen and choose **User** to access the user screen, as shown in Figure 7-74.

Figure 7-74 User management screen

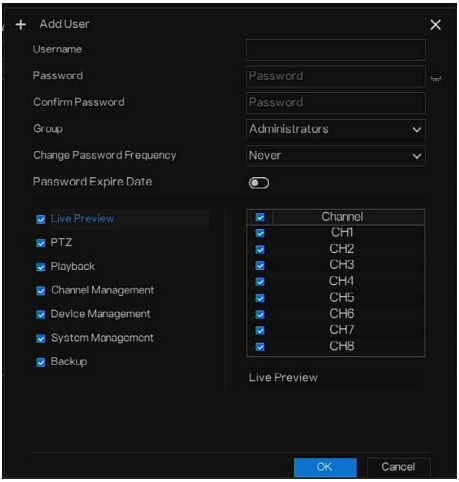


Step 2 Add or delete a user.

Add a user

Click **Add**, the **Add User** dialog box appears, as shown in Figure 7-75.

Figure 7-75 Add user screen



Input a username, password and confirm password, choose group and change password reminder, set the expire date.

NOTE

The password should include at least two types of letters, characters and numbers.

The password should be 6~32 characters long.

Step 3 Select a **Group** from the drop-down list box.

Step 4 Select a **Change password reminder** value from the drop-down list box.

Step 5 Enable the expire date to set the new user's authority time.

Step 6 Select the operation privileges and channels in the list of the add user screen.

Step 7 Click OK. The user is set successfully.

NOTE

The default user is **Administrator** and cannot be deleted or modified.

Select a user from user list and click  to edit, or click  to delete a user.

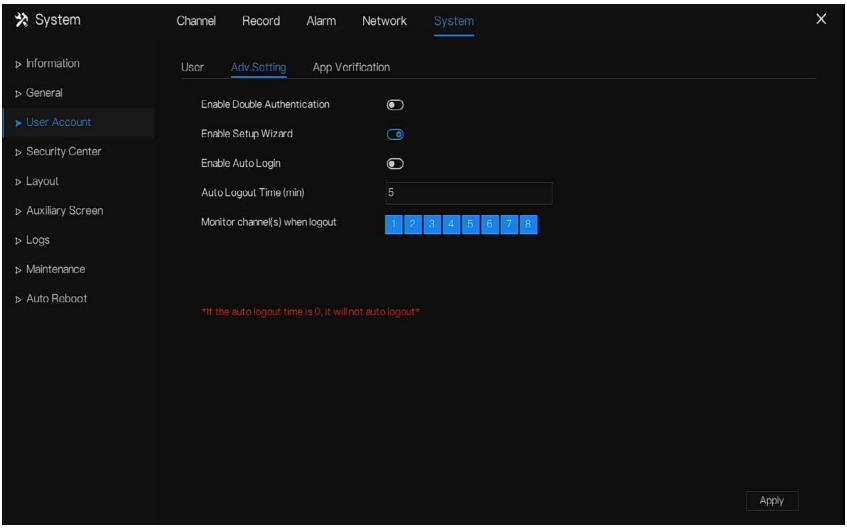
-----End

7.5.3.2 Advance Setting

Operation Steps

Step 1 Click **User** in the main menu or menu of the system management screen and choose **Adv Setting** to access the user screen, as shown in Figure 7-76.

Figure 7-76 Advance setting screen



Step 2 Enable or disable Double Authentication, Auto login, Setup Wizard. Set the logout time if the user disables the auto login.

Step 3 Choose monitor channels when logout, the default is all channels.

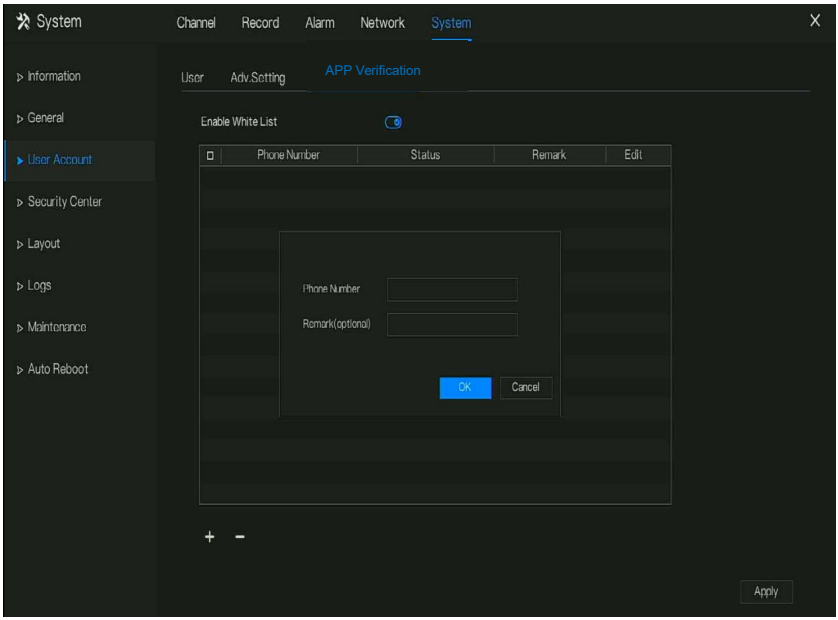
Step 4 Click Apply to save settings.

-----End

7.5.3.3 App Verification

Add the digital number to whitelist, When log in to the mobile app to manage the NVR, enter a series of numbers in the whitelist for testing and verifying to ensure security.

Figure 7-77 App verification



Up to 20 groups of security codes can be added and notes can be modified for them.

Tick the numbers, click "-" to delete the numbers.

Click Apply to save the setting.

----End

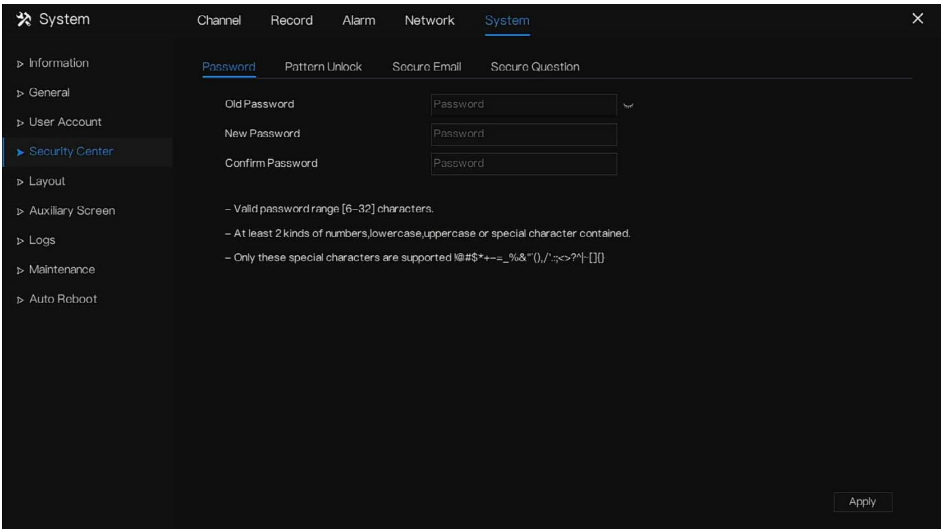
7.5.4 **Security Center**

7.5.4.1 Password

Operation Steps

Step 1 Click **Security Center** in the main menu or menu of the system management screen and choose **Password** to access the modify password screen, as shown in Figure 7-78.

Figure 7-78 Password modification screen



Step 2 Input the correct old password, new password, and confirm password.

NOTE

The password should include at least two kinds of letter, character and number.

The password should be 6~32 characters.

Only special characters (！ @#&*+=-%&"'`(),/'.:;< >?^|~[]{}) are supported,

Step 3 Click Apply to save modified password settings.

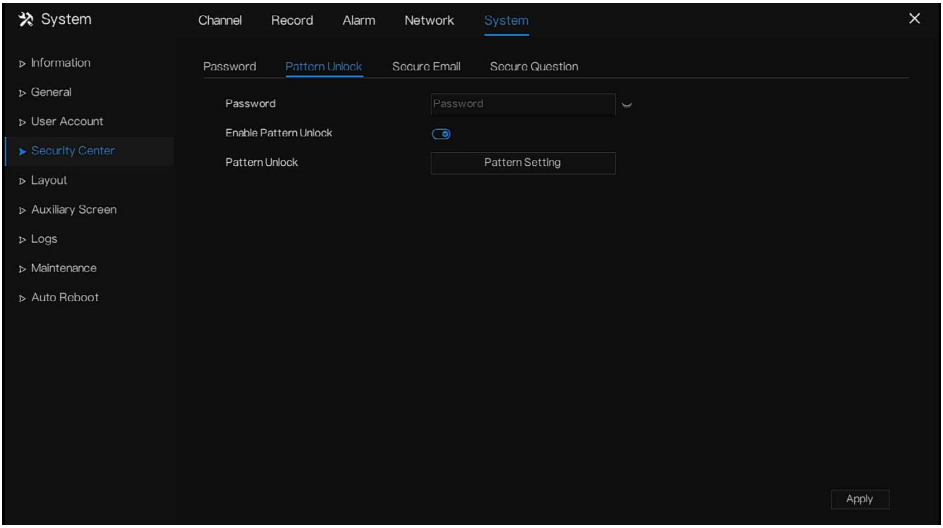
----End

7.5.4.2 Pattern Unlock

Operation Steps

Step 1 Click **Security Center** in the main menu or menu of the system management screen and choose **Pattern Unlock** to access the modify pattern unlock screen, as shown in Figure 7-79.

Figure 7-79 Pattern unlock screen



Step 2 Input the password, enable pattern unlock.

Step 3 Click **Setting Pattern** to set an new pattern unlock.

Step 4 Draw the pattern, then it will remind to draw the confirmation pattern again.

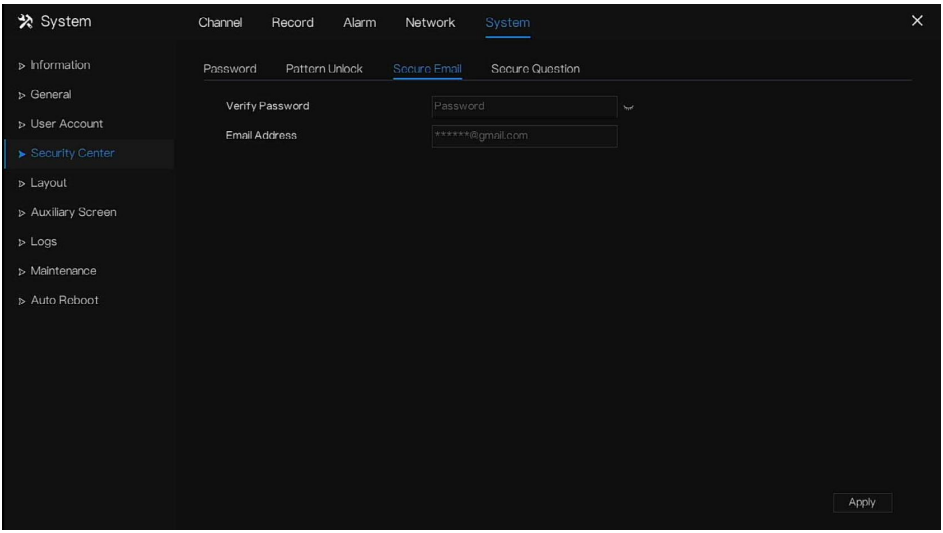
Step 5 Click OK to save the pattern unlock.

----End

7.5.4.3 Secure Email

Set the email to receive the verification code to create new password, as shown in Figure 7-80.

Figure 7-80 Secure Email



Step 1 Input the password of NVR.

Step 2 Set the Email address to receive verification code.

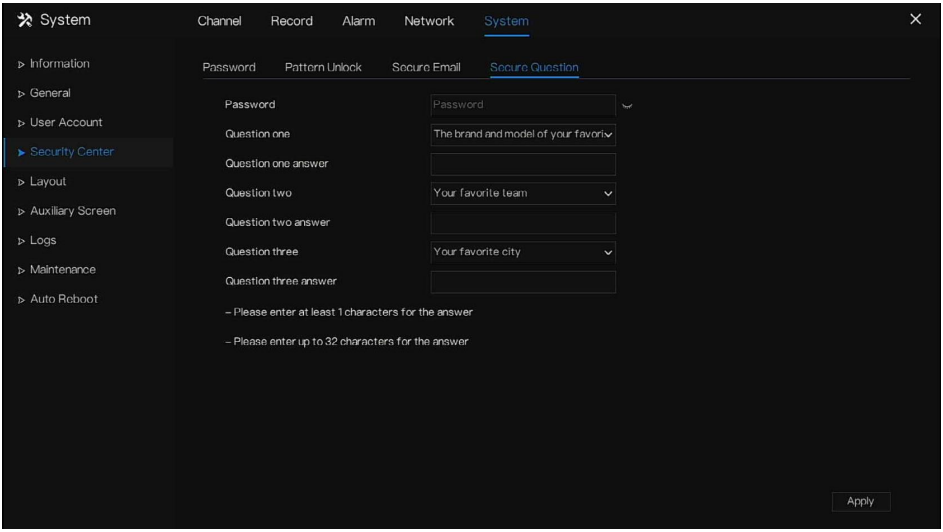
Step 3 Click Apply to save setting.

----End

7.5.4.4 Secure Question

Set the questions to create new password, as shown in Figure 7-80.

Figure 7-81 Secure question



Step 1 Input the password of NVR.

Step 2 Choose the question from drop-down list.

Step 3 Input the answer, click Apply to save setting.

----End

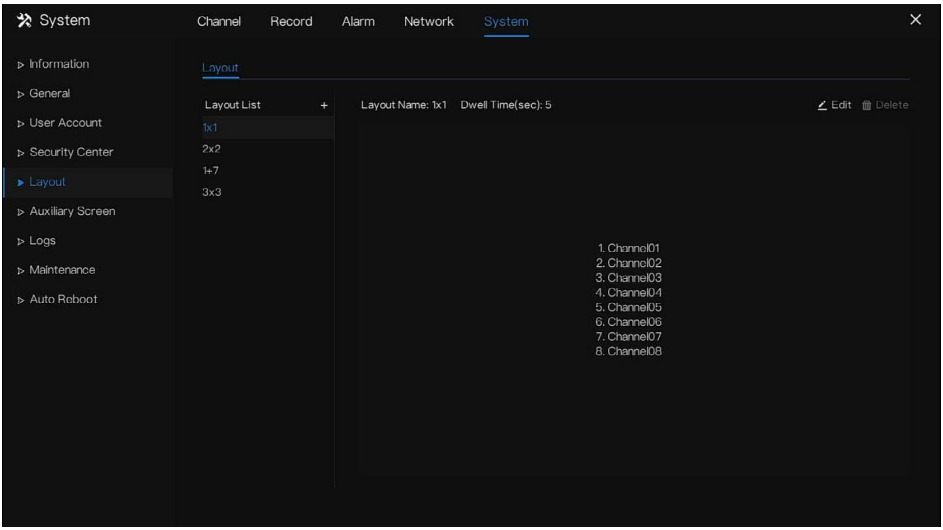
7.5.5 Layout

Set viewing video mode, dwell time in display screen. The layout is set as auto sequence multiple screen.

Operation Steps

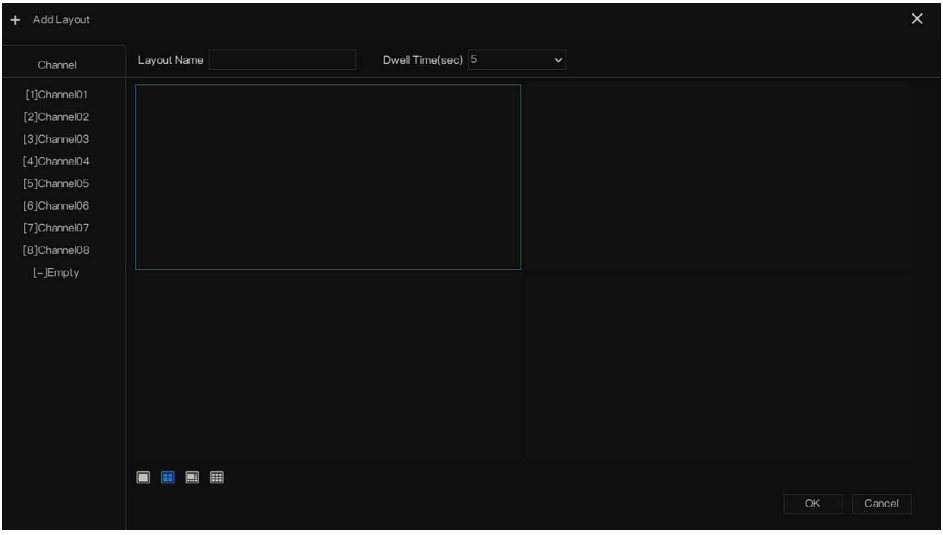
Step 1 Click **Layout** in the main menu or menu of the system management screen and choose **Layout** to access the display screen, as shown in Figure 7-82.

Figure 7-82 Auto Sequence screen



Step 2 Click "+" to add a new layout. The default layout is one splitting screen.

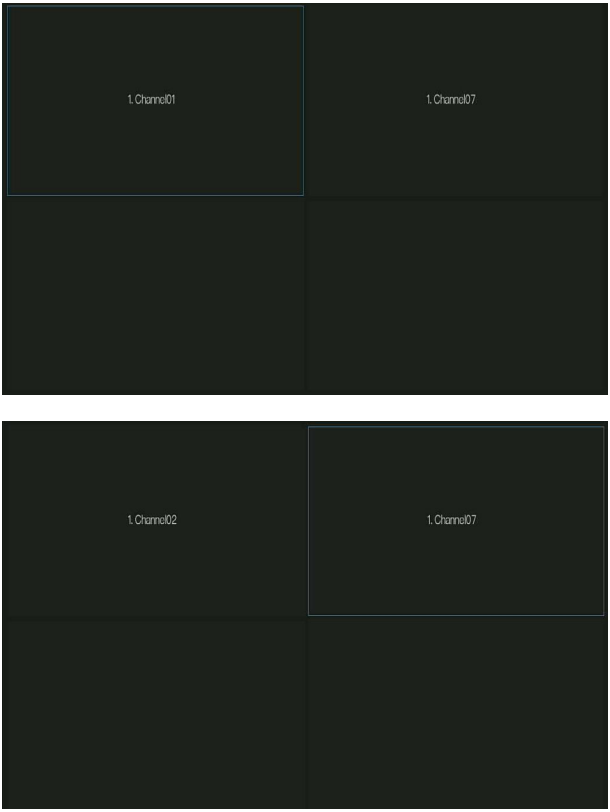
Figure 7-83 Add a new layout



Step 3 Input the layout name, select dwell time from the **SEQ** Dwell time drop-down list(the display screen will loop play the real time video according to setting time).

Step 4 Select split screen mode at the bottom of the page. Set the channel display by dragging the channel to specific position, or select the position first, then click the channel. A split screen can play multiple channels. Auto sequence means it will play according to the setting. For example, the first split screen is set as two pages (channel 1 and 2), the second split screen is set as one page (channel 3). When auto sequence is enabled, channel 1 and channel 3 are displayed, then channel 2 and channel 3 are displayed.

Figure 7-84 Auto sequence



Step 5 Click Apply to save dwell settings.

NOTE

User can add up to 16 layouts.

----End

7.5.6 Auxiliary Screen (Only for Some Models)

NOTE

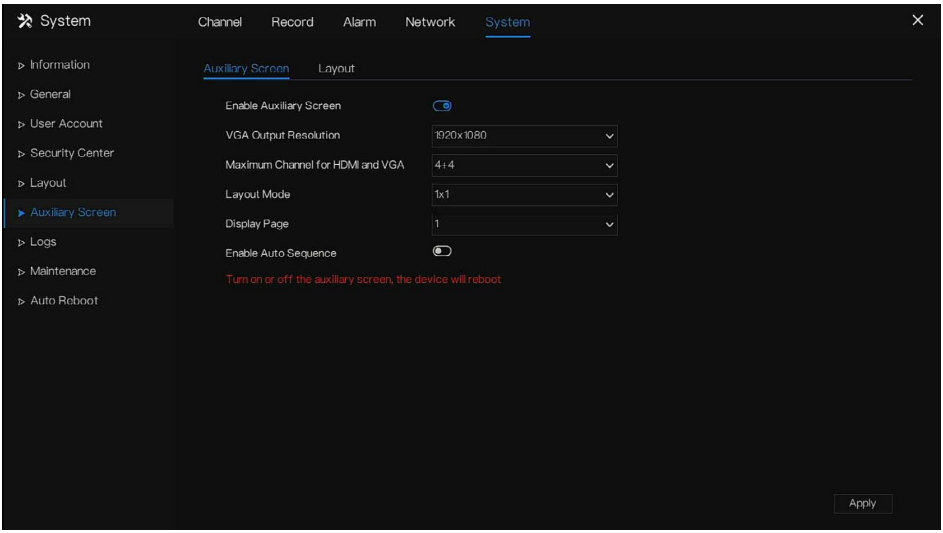
This function only can be used for the devices with 8 or more than channels. The main screen is connected by HDMI (HD-OUT 2), auxiliary screen is connected by VGA.

Operation Steps

Step 1 Click **Auxiliary Screen** in the main menu or menu of the system management screen.

Step 2 Enable the auxiliary screen, as shown in Figure 7-87

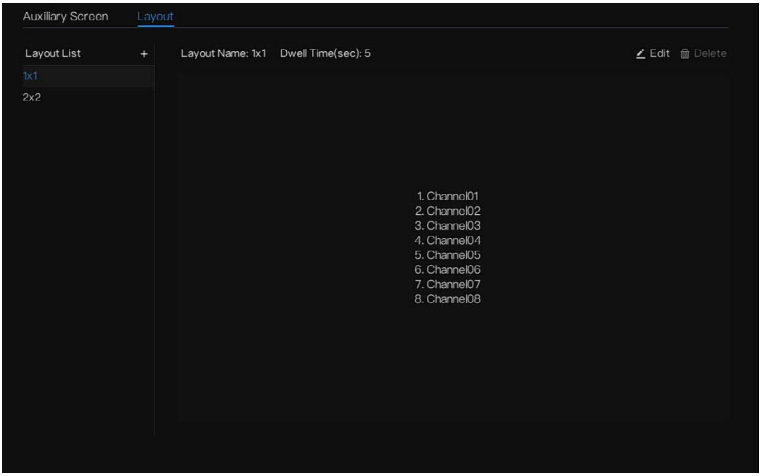
Figure 7-85 Auxiliary screen



Step 3 Set the Output Resolution, Decoding Ability(main + auxiliary), Layout Mode, Display Channel.

Step 4 Enable tour to set **Auto Sequence** of auxiliary screen as shown in.

Figure 7-86 Auto sequence of auxiliary screen



Step 5 Click Apply to save settings.

NOTE

The auxiliary screen shows different channels with main screen, and the auto sequence show all channels.

The auxiliary screen will show the personnel counting information if it is enabling.

----End

7.5.7 Logs

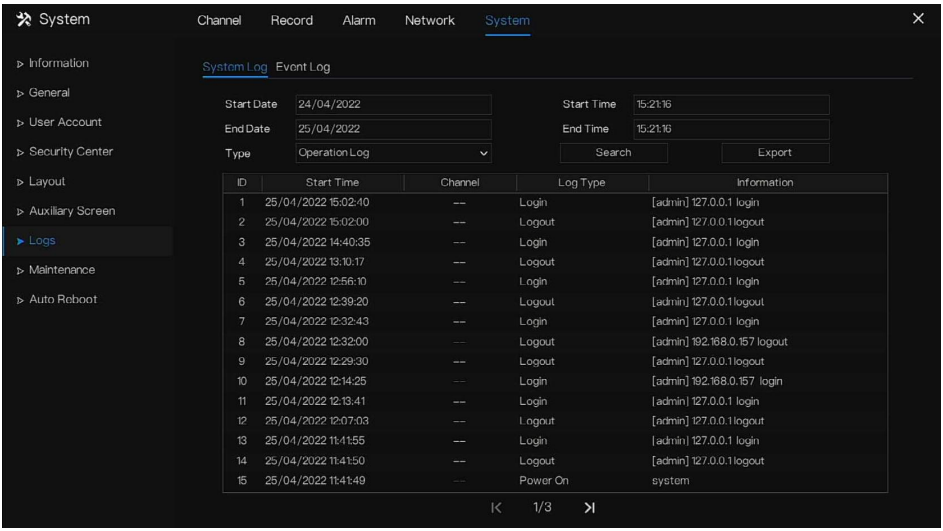
7.5.7.1 System Log

Search for logs information and export the information of logs.

Operation Steps

Step 1 Click **Logs** in the main menu or menu of the system management screen and choose **Logs** to access the log screen, as shown in Figure 7-87.

Figure 7-87 Log screen



Step 2 Set start date, end date, start time and end time of the logs on log screen.

Step 3 Select logs type from the drop-down list.

Step 4 Click Search to query logs.

Step 5 Click Export to export logs to flash disk.

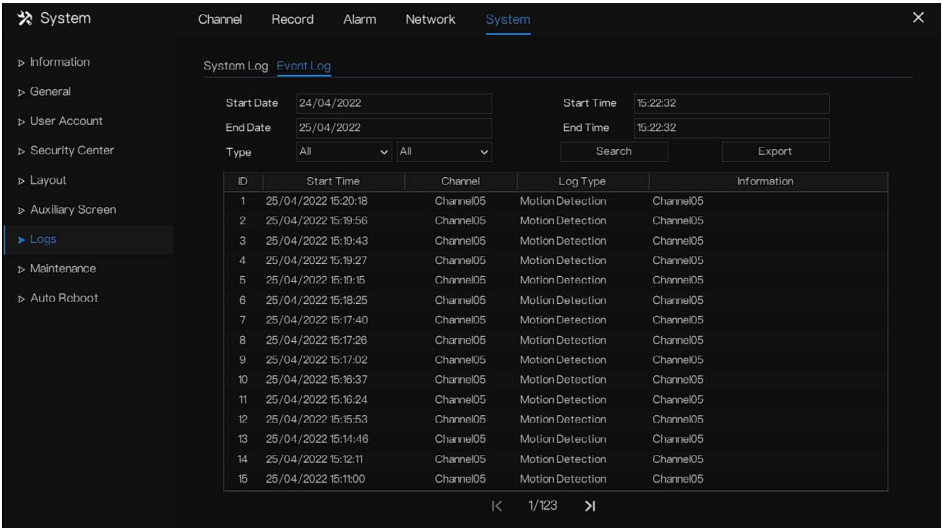
Step 6 the logs can be saved to flash disk and hard disk at the same time, the newest logs is saved to flash disk, and the old logs will be transferred to hard disk.

----End

7.5.7.2 Event Log

Event logs are divided into more detailed types, which can be found quickly. Its operation is the same as the system log, please refer to chapter 7.5.7.1.

Figure 7-88 Event

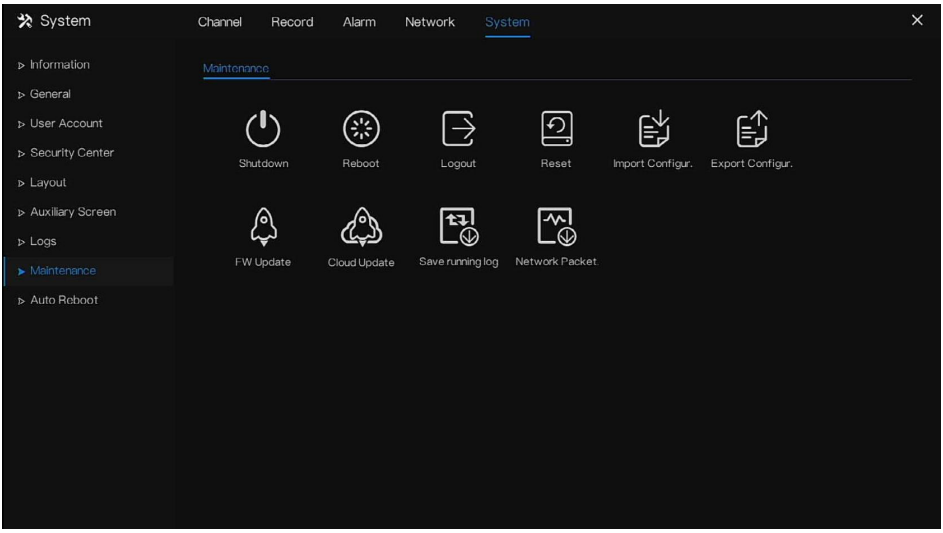


7.5.8 Maintenance

Operation Steps

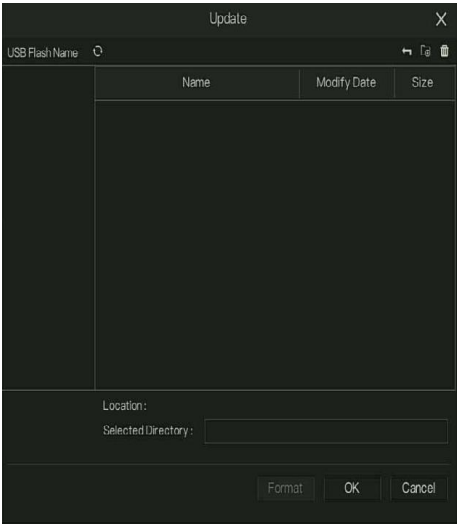
Step 1 Click **Maintenance** in the main menu or menu of the system management screen and choose **Maintenance** to access the maintenance screen, as shown in Figure 7-89.

Figure 7-89 Maintenance screen



Step 2 Click Shutdown, Reboot , Logout, Exit system, Reset or update to operate NVR if you need.

Figure 7-90 Firmware update



Step 3 Click import configuration or export configuration to view the message " **Are you sure to import the configuration?"** Make sure the flash driver is working.

Step 4 The tips will show on screen, click **ok** to ensure choice.

Step 5 Click **Import Config** to import the configuration to flash drive.

Step 6 Import the configuration, the device would restart immediately.

Step 7 Click **Export Config** to export the configuration from flash drive.

NOTE

When the NVR finishes updating, the device would restart.

Network packet capture: the NVR is plugged into the USB disk, click the network packet capture, and set the relevant parameters of the packet capture. The captured data can be downloaded and used for device problem analysis.

FW Update, firmware update; Plug in the U disk with the update software, choose the file to update.

Save running log: In the U disk to save the running log.

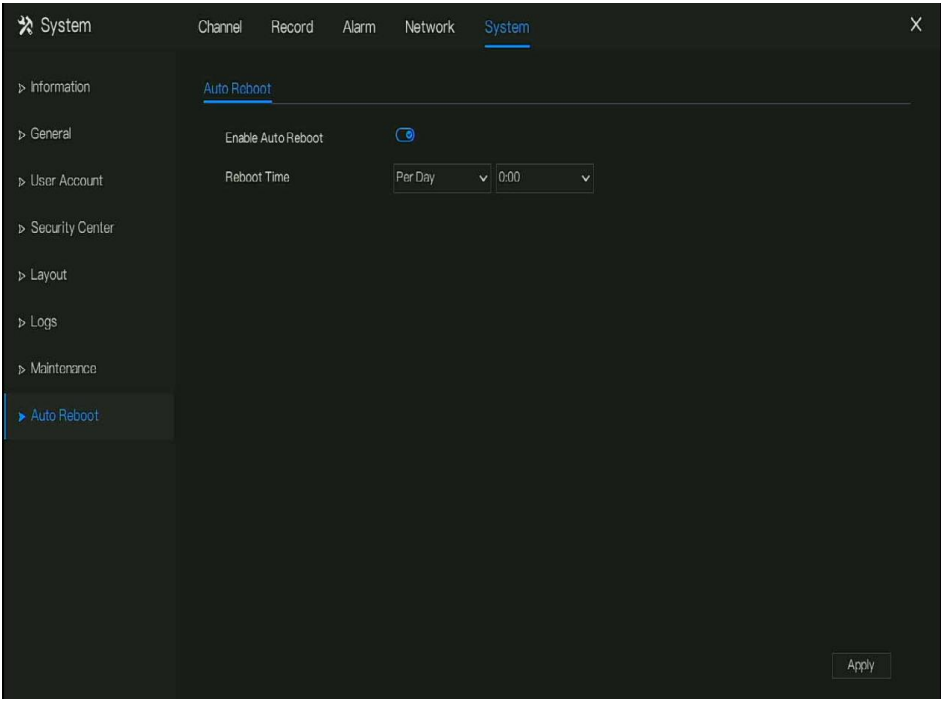
----End

7.5.9 Auto Reboot

Operation Steps

Step 1 Click **Auto reboot** in the main menu or menu of the system management screen and choose **Auto reboot** to access the maintenance screen, as shown in Figure 7-91.

Figure 7-91 Auto restart screen



Step 2 Enable the function, restart time is showing as figure  .

Step 3 Restart the NVR per day, week or month.

Step 4 Select the restart time from the drop-down list.

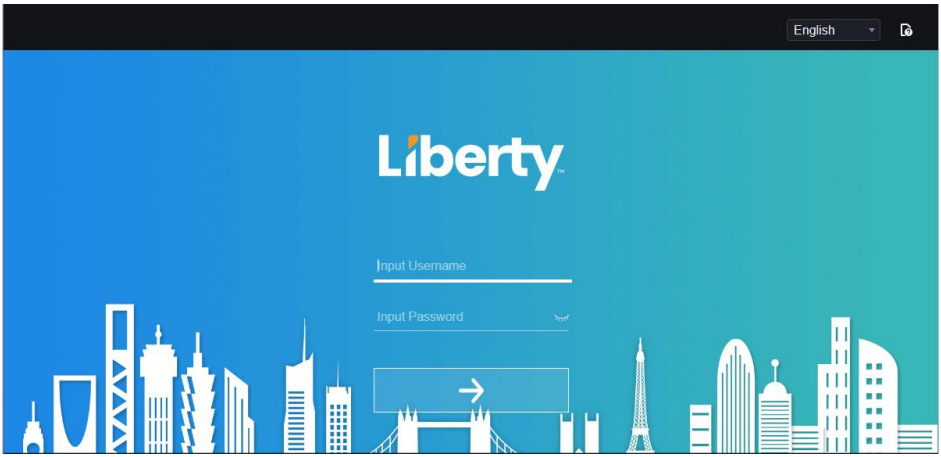
----End

8 WEB Quick Start

The functions of Web are the same as those of UI system, all functions can be referred to chapter 7 UI system setting.

8.1 Activation

If you don’t set the password at UI interface, user need activate the device, as shown in Figure 8-1 Activation

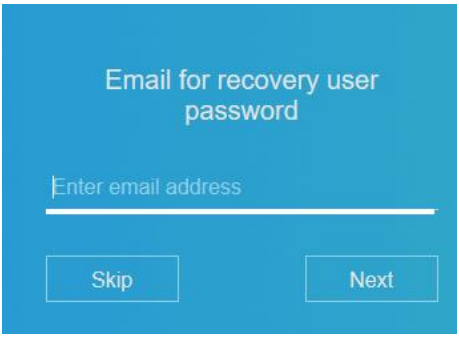


Step 1 Set the password, and confirm the password.

Step 2 Input the channel password.

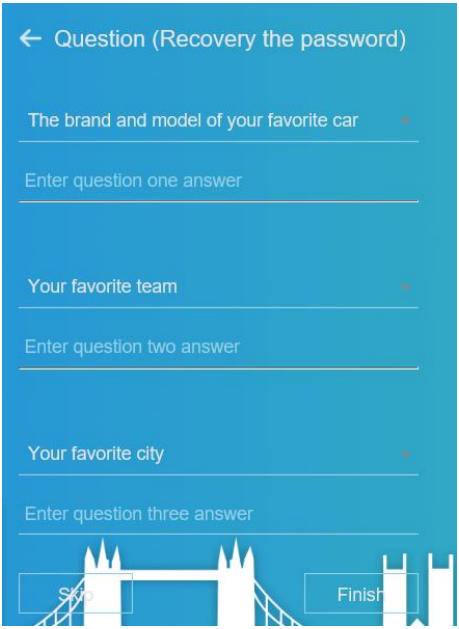
Step 3 Set the email to recovery the password.

Figure 8-2 Email



Step 4 Set the question to recovery the password.

Figure 8-3 Question



NOTE

If you don’t set the email or question, you can skip the steps.

8.2 Login and Logout

CAUTION

You must use Firefox 53, Chrome 45 or Edge to access the Web interface. Otherwise, the interface functions cannot be used normally.

The win 7/ win 10 system supports Firefox/Chrome, but the XP system does not.

Brower supports 32 bits systems.

Descriptions of browser:

To access the client by using Chrome 42-44, you need to enable manually Npapi in the browser according to following steps:

In the Chrome address bar, enter chrome://flag/#enable-npapi.

Go to the experimental features' management page.

Enable NAPAPI Mac, Windows.

Click **Enable** (NPAPI plugin is enabled).

Re-launch Chrome.

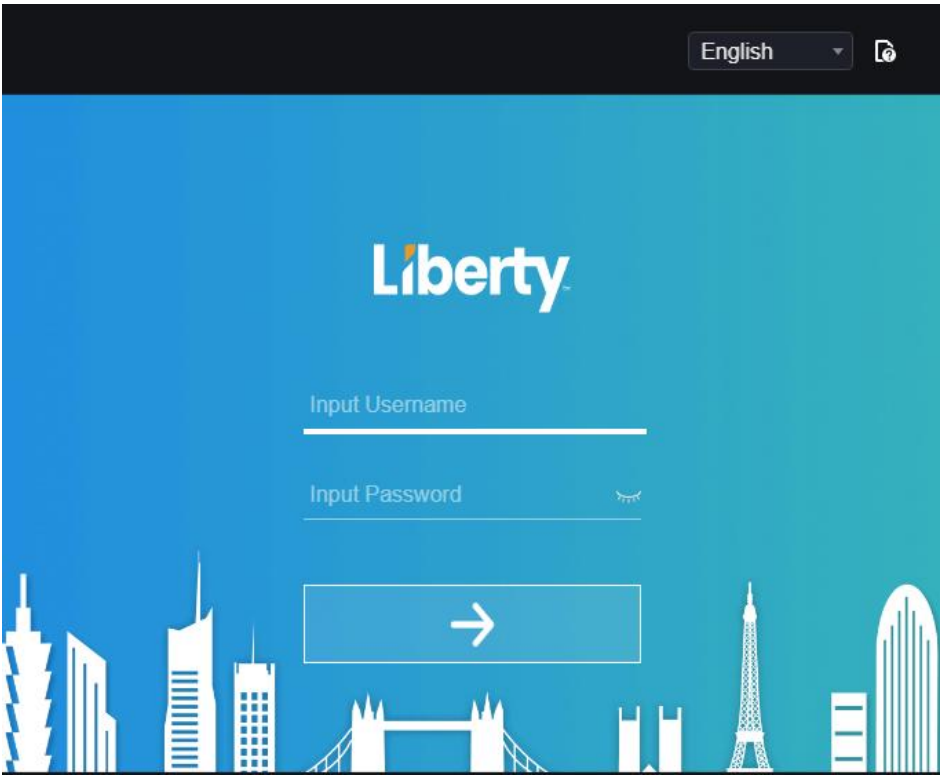
Here we take IE 10 as an example for videos viewing.

Login

Step 1 Open IE browser, enter the IP address of the NVR (DHCP is on by default) in the address box, and press **Enter**.

The login page is displayed, as shown in Figure 8-4.

Figure 8-4 Login page interface



Step 2 Input the user name and password.

NOTE

The default user name and password both are admin. The password is incorrect more than 3 times, please log in again after 5 minutes.
User can change the system display language on the login page.
The modify password page pop-up window would show when login the NVR for the first time.

Step 3 Click **Login** to access the homepage, as shown in Figure 8-5.

Figure 8-5 Homepage interface 1

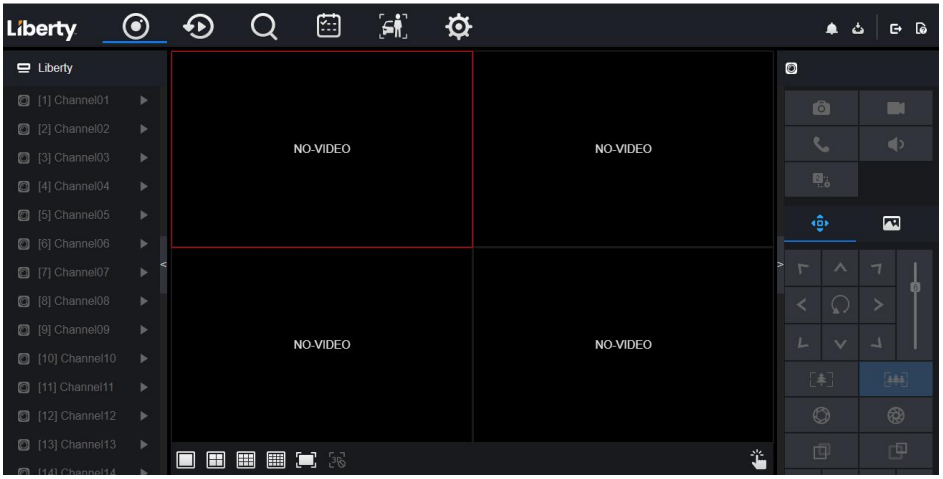
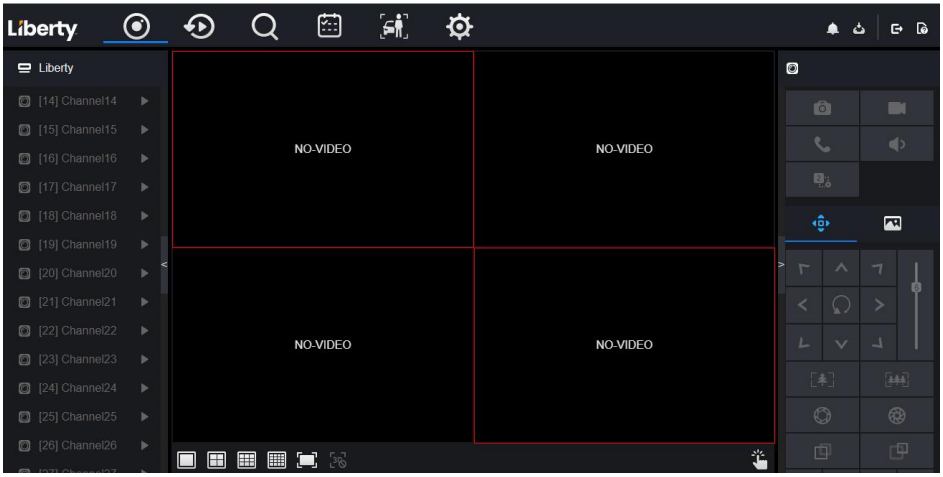


Figure 8-6 Homepage interface 2



Logout

To logout of the system, click in the upper right corner of the homepage. The pop-up message shows "**Would you like to exit?**" Click OK and the login page will display.

Homepage Layout

NVR allows you to use the Web interface in a PC for implementation of such functions as live video, playback, retrieval, setting, image parameters access, configuration, PTZ control and so on. Figure 6-8 shows the overall layout of the interface. For descriptions of the interface, please refer to Table 8-1.

Figure 8-7 Homepage layout

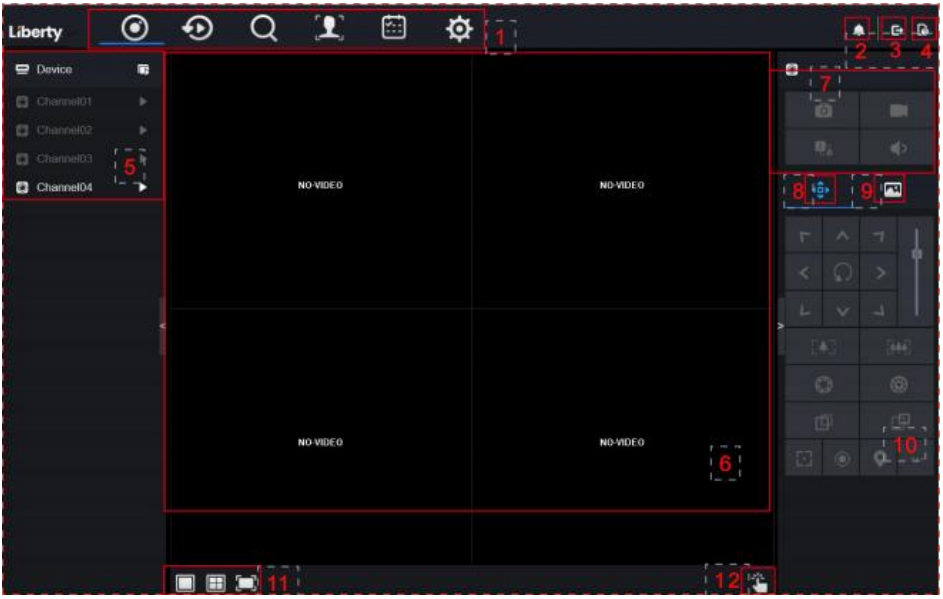


Table 8-2 Descriptions of homepage

No.	Function	Description
1	Function navigation bar	Main functions navigation bar of the device, it includes Live Video, Playback, Alarm Search, Face Recognition, Attendance and System Setting.
2	Alarm	Alarm notification. User can tick pop-up message to monitor, system alarm and channel alarm.
3	Logout button	User can click **Logout** to exit the current account and return to the login interface.
4	Help	Help for running environment, plug-in installation and activation.
5	Device's list	Display a list of the channels of the managed NVR and the channels managed by NVR.
6	Real-time video	Display the real-time videos of the channels managed by NVR.
7	Channel Operation	Include snapshot, record, stream switch and audio on/off.
8	PTZ control button	Click  to show PTZ control buttons in zone 10, you can control the PTZ equipment in the current channels. That function only uses for IP dome camera.
9	Color parameter button	Click  to show color parameter setting buttons in zone 9, you can set and adjust the color parameters, for example, brightness, contrast, saturation, and sharpness. Click **More** to access image settings.
10	Operation zone	The operation zone of PTZ control and image parameter setting.
11	Layouts	Select the one-screen, four-screen, nine-screen or sixteen- screen to switch the layout.
12	Manual alarm	Trigger and close the external alarm device manually.

----End

8.3 Browsing Videos

8.3.1 Browsing Real-Time Videos

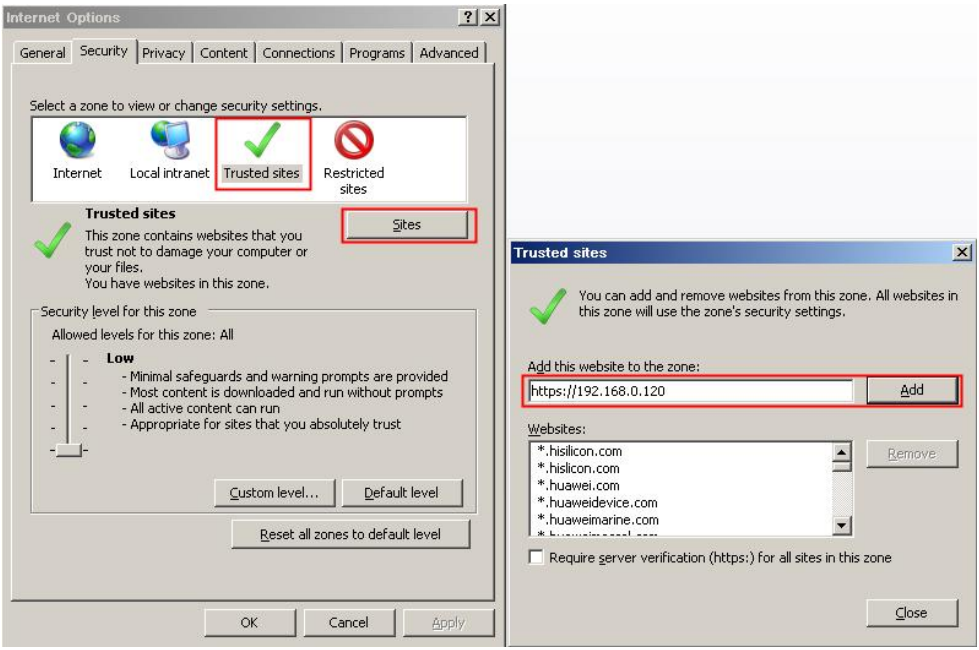
You can browse real-time videos in the web management system.

Preparation

To ensure that real-time videos can be played properly, perform the following operations when you log in 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 8-8.

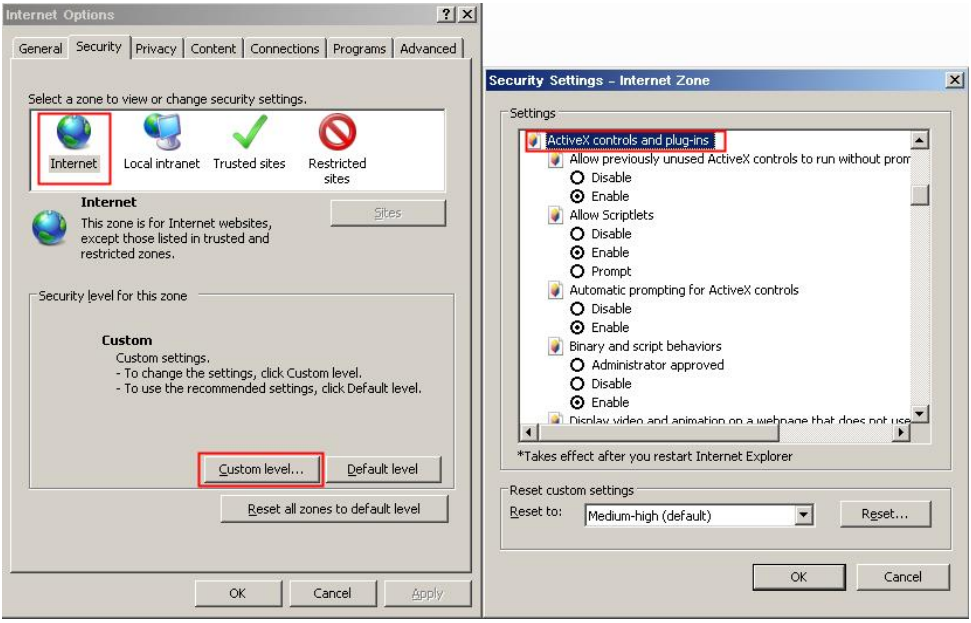
Figure 8-8 Adding a trusted site



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 8-9.

Figure 8-9 Configuring ActiveX controls and plug-ins



Step 3 Download and install the player control as prompted. During installing, you need to close the browser.

NOTE

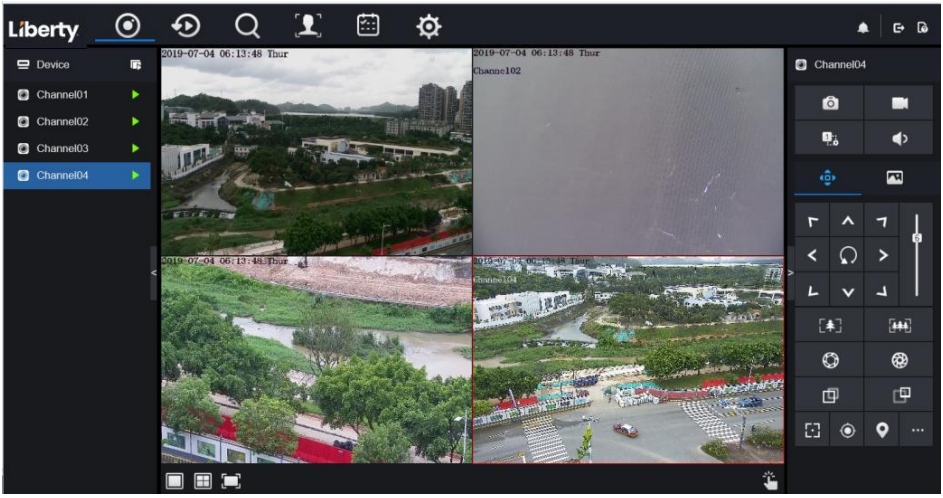
If the repair tips displayed when installing the control , close the browser and continue the installation, reopen the login page when the control is installed.

8.3.2 Live Video

Descriptions

After login the device, click online channel, you can view the real-time videos, as shown in Figure 8-10.

Figure 8-10 Real-time videos interface



----End

8.3.3 Channel Operation

Descriptions

Channel operation includes snapshot, record, stream switch and audio on/off. Table 8-3 describes the operations.

Table 8-3 Descriptions of homepage

Buttons	Button description	How to operate
	Snapshot	Click button to take snapshots of the current image.
	Record	Click button to start recording and click button again to stop recording.
	Switch stream	Click button to switch stream 1 (main stream) and stream 2(sub stream).
	Enable/Disable video	Click button to enable the audio and click again to disenable the video.

----End

8.3.4 PTZ Control and Setting

Descriptions

The PTZ control and setting function applies only to Network Dome or camera connected to an external PTZ.

PTZ Setting

If a Network Dome or a camera connected to PTZ had been added to the NVR channel, users can control the PTZ rotation to adjust their shooting angle when you are viewing the video. This allows you to perform Omni-directional video surveillance.

Click  , the PTZ operation and setting interface is as shown in Figure 8-11. Table 8-4 describes the operations.

Figure 8-11 PTZ control interface

Table 8-4 Device parameters

Buttons	Button description	How to operate
	Direction key	Click button to control omni-directional movement of the PTZ.
	Speed slider	Drag the slider to adjust the value of PTZ rotation speed.

Buttons	Button description	How to operate
	Zoom in	Click buttons to adjust the focal length.
	Zoom out	
	Iris+	Click buttons to adjust the aperture.
	Iris-	
	Far focus	Click buttons to adjust the focal length.
	Near focus	
	Auto focus	Click button to focus automatically.
	Home preset	N/A
	Preset	The camera is set the tour, click the button and dome camera rotate as the setting.
	More	More settings, scan and tour

8.3.5 Sensor Setting

Descriptions

The sensor setting can adjust scene, brightness, sharpness, contrast and saturation, click  to access image setting, as shown in Figure 8-12. Table 8-5 describes the operations.

Figure 8-12 Image parameter interface

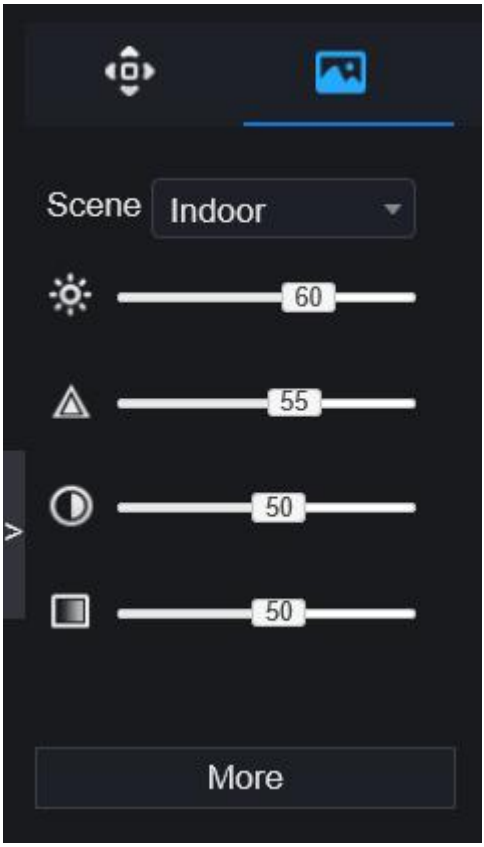
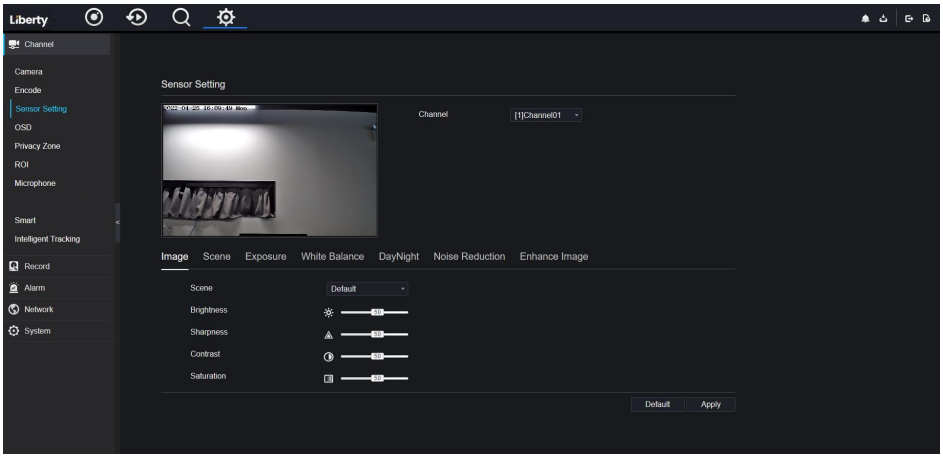


Table 8-5 Device parameters

Buttons	Button description	How to operate
	Brightness	Click button to adjust the image brightness.
	Sharpness	Click button to adjust the image definition.
	Contrast	Click button to adjust the transparency of the image.
	Saturation	Click button to adjust the chromatic purity of the image.

Click more will be access to system sensor setting. As shown in Figure 8-13, for more detail please refer to *chapter Figure 4-7*.

Figure 8-13 Sensor setting interface



----End

8.3.6 Layout

Click  at the bottom left conner of real-time videos interface, the buttons indicate 1 screen, 4 screens and 9 screens from left to right. The device with more POE ports can support 16 screens layout.

----End

8. 4 Playback

8.4.1 Video Playback

Video playback refers to playing of videos stored in local hard disks.

Procedure

Step 1 Click  in the function navigation bar, the video playback interface is displayed, as shown in Figure 8-14.

Figure 8-14 Video playback

Step 2 Select a channel. Click a device in the device list. A selected device is marked with  .

The unselected device is marked with  .

Step 3 Select a date from calendar at left bottom, the date will be colored if it has record as shown in upper figure.

Step 4 Tick the type of record, such as schedule record, manual record and alarm record.

Step 5 Display videos.

After a device and date are selected, video information is displayed below the video pane. The time scale above the file axis shows the different time points of video recording. The time in blue in the middle is the time of the video playing.

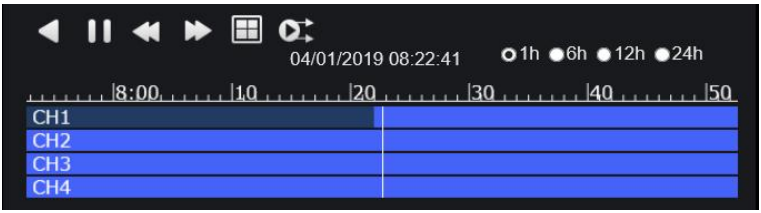
The file axis displays videos. The blue file axis indicates a video exits, grey file axis indicates no video exits.

You can drag the axis to play recording quickly.

Step 6 Play a video.

You can play a video after selecting a device and date. Figure 8-15 shows the control bar of video playback.

Figure 8-15 Control bar



 : reversed.

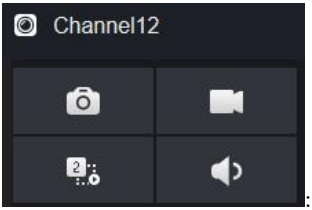
 :play/pause.

 : triple speed.

 : split screen. One or four screens.

 : sync/async. You can set the different channels to play synchronously or asynchronous. Sync mode indicates the selected channels play video synchronously. Async mode indicates users play different time period record

: types of time bar.



: user can operate the record as same as live video.

----End

8.5 Alarm Search

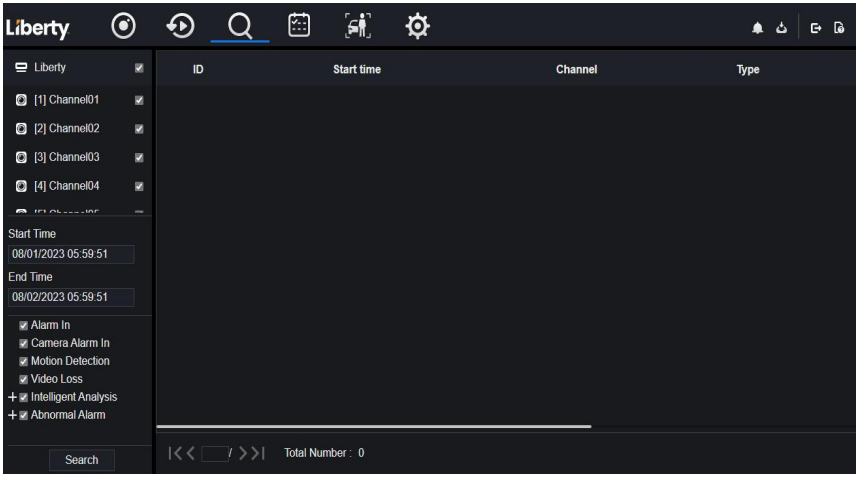
You can search for channel alarm and system alarm in the alarm search interface.

8.5.1 Channel Alarm

Procedure

Step 1 Click  in the function navigation bar, the channel alarm interface is displayed, as shown in Figure 8-16.

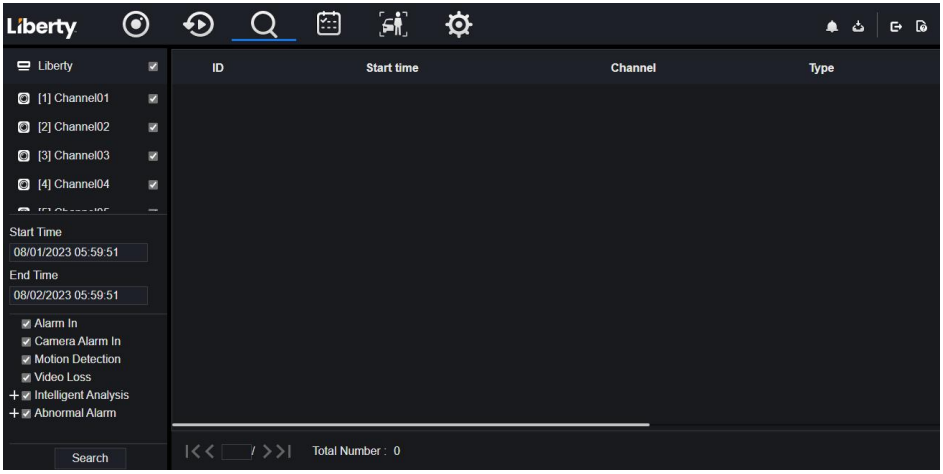
Figure 8-16 Channel alarm interface



Step 2 Choose the alarm type to search.

Step 3 Click **Search**, the result will be displayed as shown in Figure 8-17.

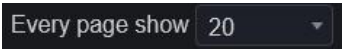
Figure 8-17 Channel alarm result



NOTE

Click 

to select the page of alarm list.



shows the rows shown in every page.

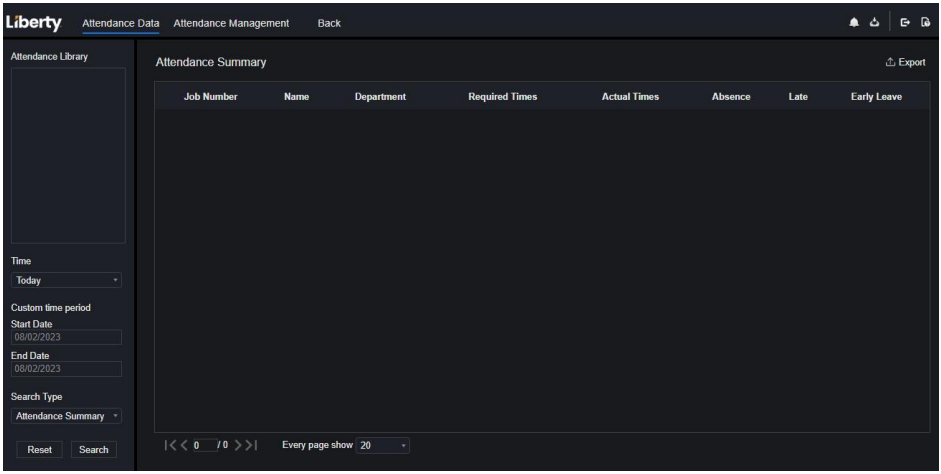
----End

8.6 Attendance

8.6.1 Attendance Data

Click to enter attendance data interface, as shown in Figure 8-18.

Figure 8-18 Attendance data



Operation Steps

Step 1 Tick the attendance library.

Step 2 Choose time mode, such as today, this week, this month and custom time.

Step 3 Choose search type, such as attendance summary and attendance details.

Step 4 Click search, the result will show in interface.

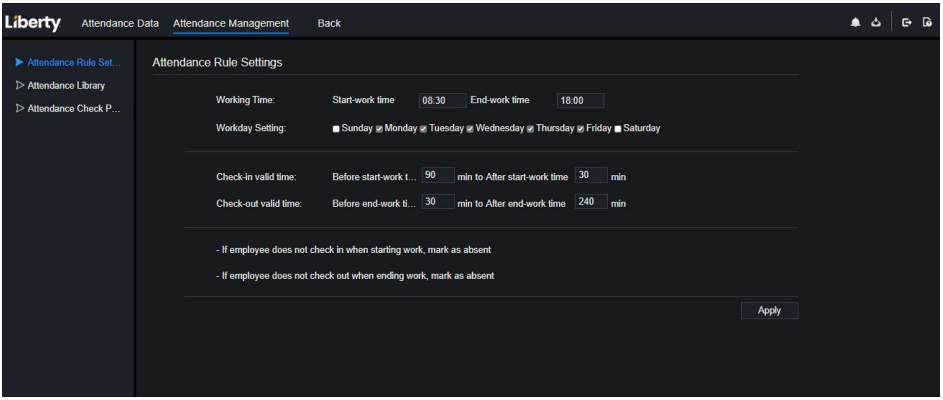
Step 5 Click Export to export the query result.

----End

8.6.2 Attendance Management

In attendance management, user can set attendance rule, library and check point, as shown in Figure 8-19.

Figure 8-19 Attendance rule settings



Operation Steps

Step 1 Set start work time and end work time.

Step 2 Tick the workdays.

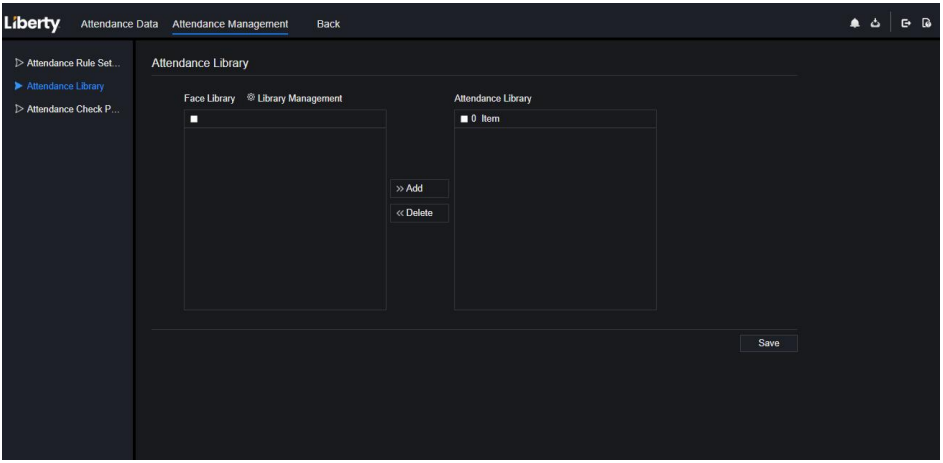
Step 3 Set valid time of check in and check out.

Step 4 Click Save to save the setting.

Attendance library

Step 1 Click **Attendance Library** to add library, the attendance library can call the face database directly.

Figure 8-20 Attendance library



Step 2 Tick the library and click **Add** to add to attendance library. If you want to modify the library, please enter to library interface to change parameters..

Step 3 click 

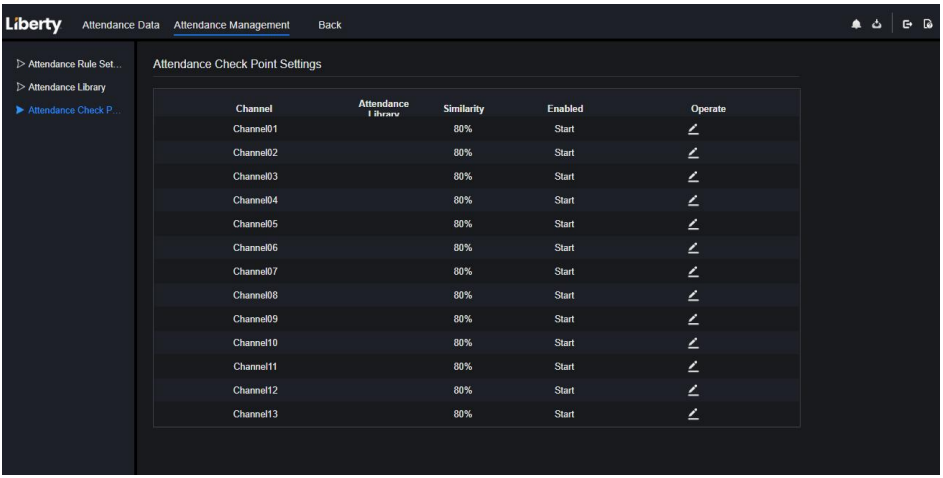
to enter the face database management to modify parameter.

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

Attendance check point settings:

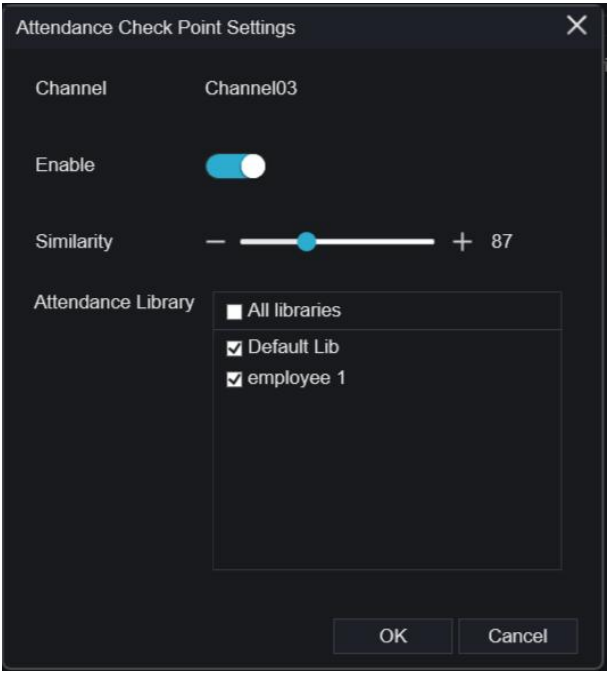
Step 1 Click Attendance check point settings to set point, as shown in Figure 8-21.

Figure 8-21 Attendance check point setting



Step 2 Click  to edit check point setting, as shown in Figure 8-22

Figure 8-22 Check point



Step 3 Enable the function, set similarity and tick the library, all face detection cameras can be set the check points.

Step 4 Click OK to save the setting.

----End

8.7 AI Recognition

At AI recognition interface, we can set the **Real time Comparison, Smart search, Archives library, Comparison configuration**.

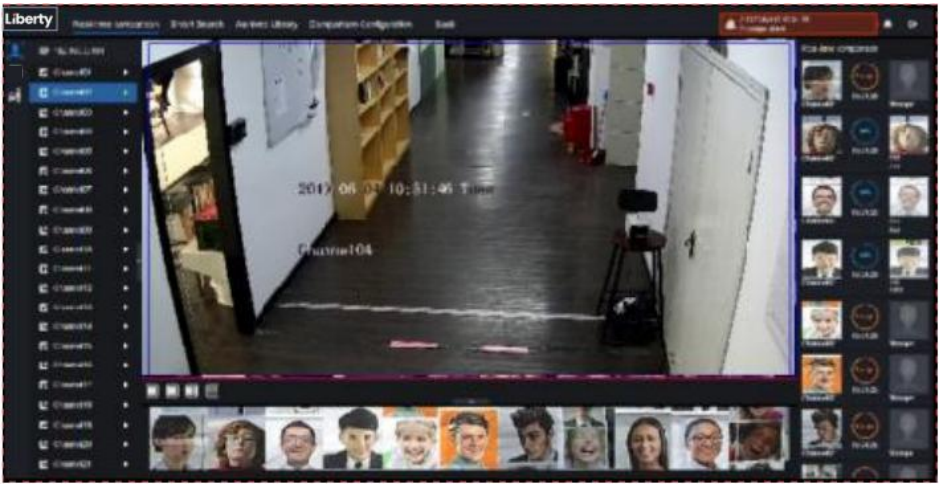
8.7.1 Real Time Comparison

Real time comparison can compare human face, vehicle license plate, and AI(include riding, vehicle, full body)

8.7.1.1 Human Face

At real time comparison interface, click the  to enter the human face comparison interface, choose the cameras with face recognition function to play live video, the snapshot of camera will be compared with libraries, the result shows as in Figure 8-23.

Figure 8-23 Human face comparison



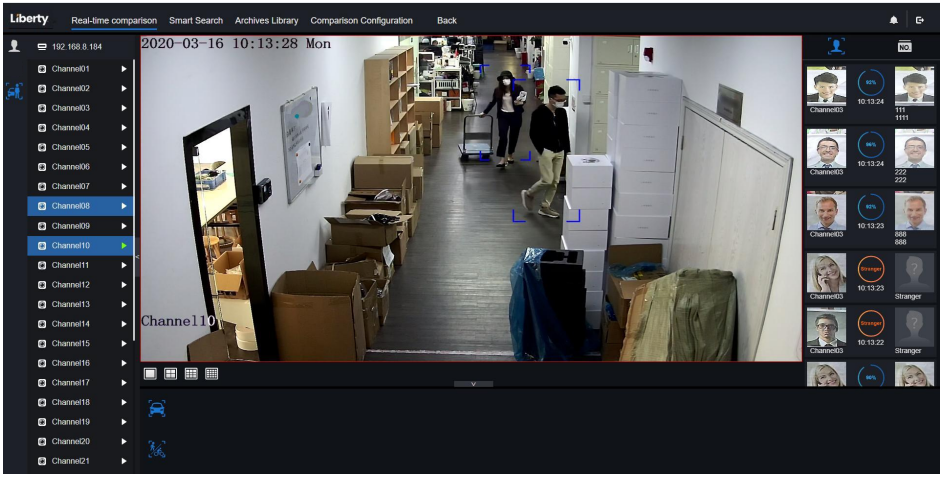
Click the “+” to add the snapshot to face library immediately.

----End

8.7.1.2 Vehicle and Full Body

At real time comparison interface, click the  to enter the vehicle license plate comparison interface, choose the AI recognition cameras to play live video, the snapshot of camera will compare with libraries, the snapshot to vehicle and full body will show at the bottom of page, the result shows as in Figure 8-25.

Figure 8-24 Full body

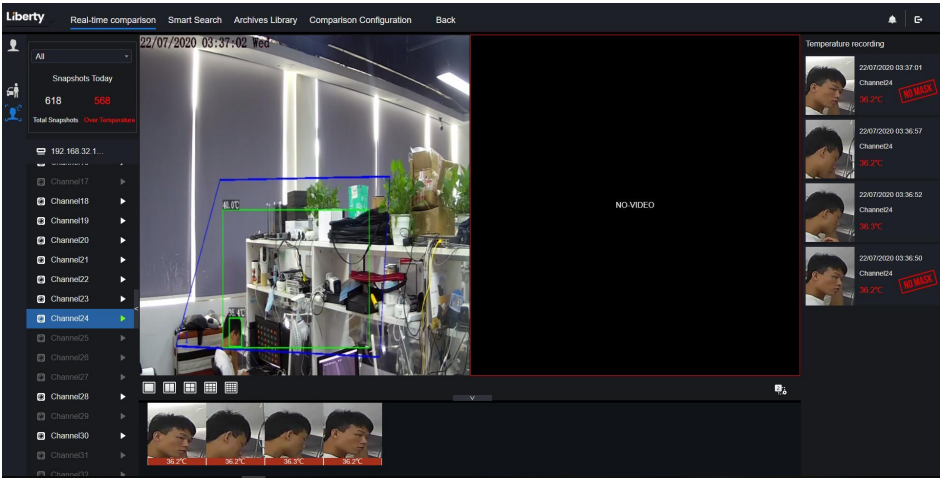


8.7.1.3 Real Time Body Temperature Filter

The real time body temperature will show the snapshot of device, it shows the over temperature and snapshot to human face.

Snapshot will show the characteristic such as no mask (the mask detection configuration can be set at comparison configuration interface)

Figure 8-25 Body temperature



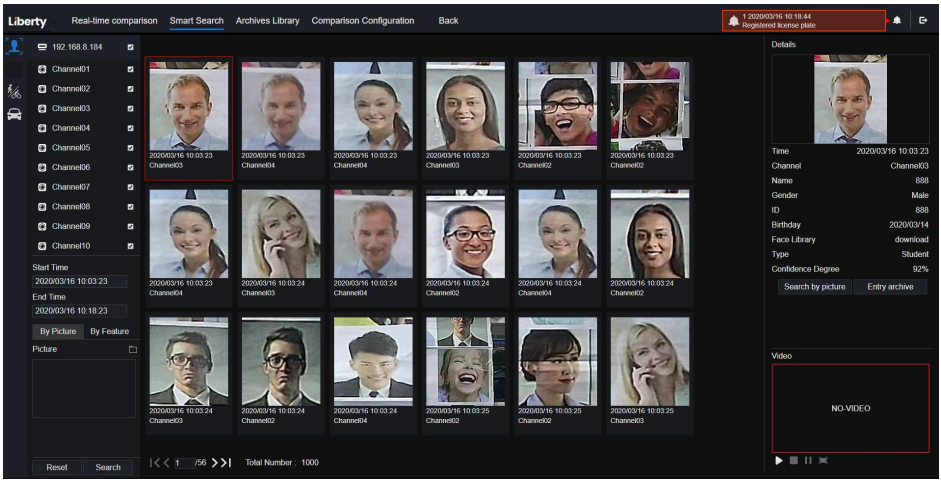
----End

8.7.2 Smart Search

At smart search interface, users can search the human face, vehicle license plate, full body, car, body temperature.

8.7.2.1 Human Face Search

Figure 8-26 Human face search



Step 1 Choose human face search at smart search interface.

Step 2 Tick the face recognition camera channels, set the start time and end time.

Step 3 Choose the condition (by picture or by feature), the picture can be chosen from the file folder.

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and detailed information at the top right of page.

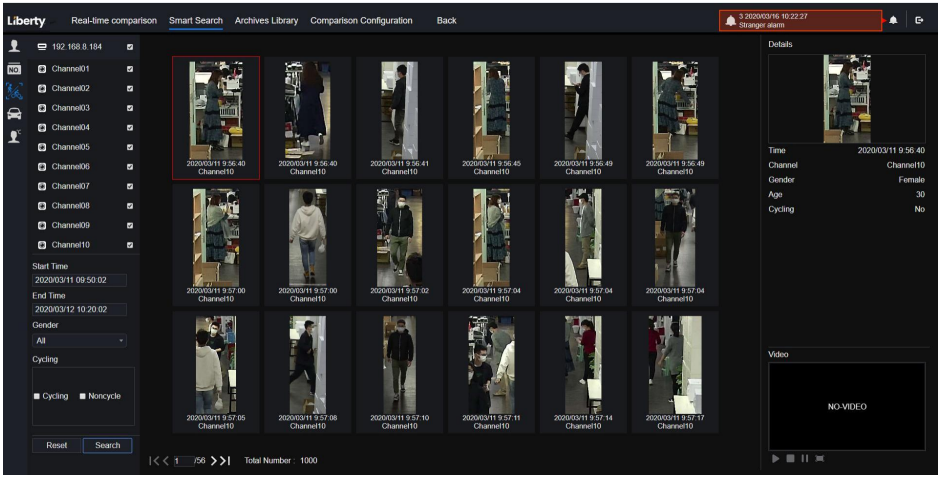
Step 6 Detailed picture can be used to search or add to library.

Step 7 Click play button of video to play the recordings of snapshot.

----End

8.7.2.2 Full Body Search

Figure 8-27 Full body search



Step 1 Choose full body search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Set the gender, click cycling or no cycling .

Step 4 Click “Search” to search the snapshot of human face.

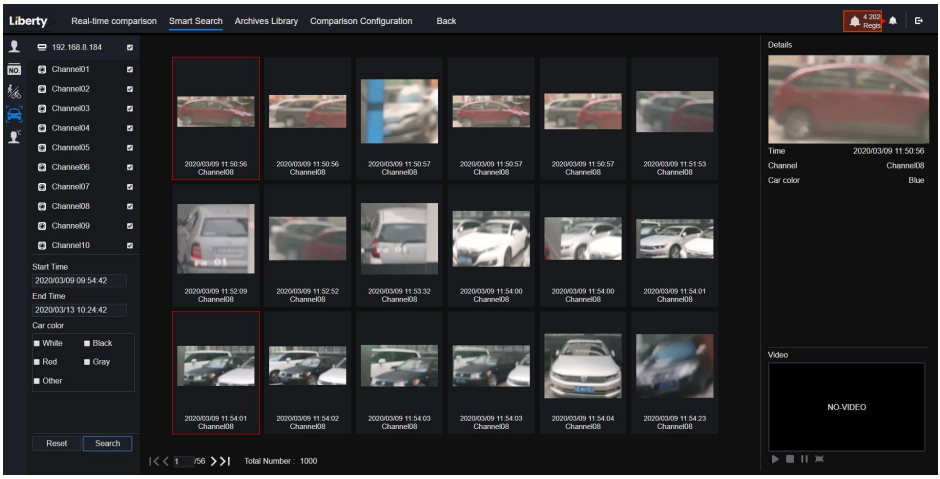
Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 Click play button of video to play the recording of snapshot.

----End

8.7.2.3 Vehicle Search

Figure 8-28 Vehicle search



Step 1 Choose vehicle search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Tick the color.

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and detailed information at the top right of page.

Step 6 Click play button of video to play the recordings of snapshot.

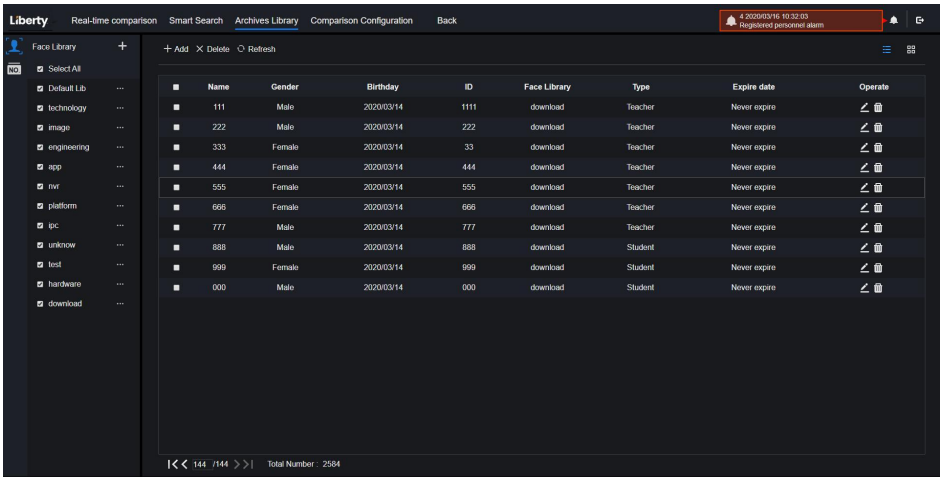
----End

8.7.3 Archives Library

At archives library, users can add or edit the face library, license plate library.

8.7.3.1 Face Library

Figure 8-29 Face library



Click “+” to add face library.

Click “Add” to add person enroll.

Tick the person, click “Delete” to delete the person.

Click “Import” to add the person batch.

Click “Export” to export all people in library.

Click operate icon to edit or delete the chosen person.

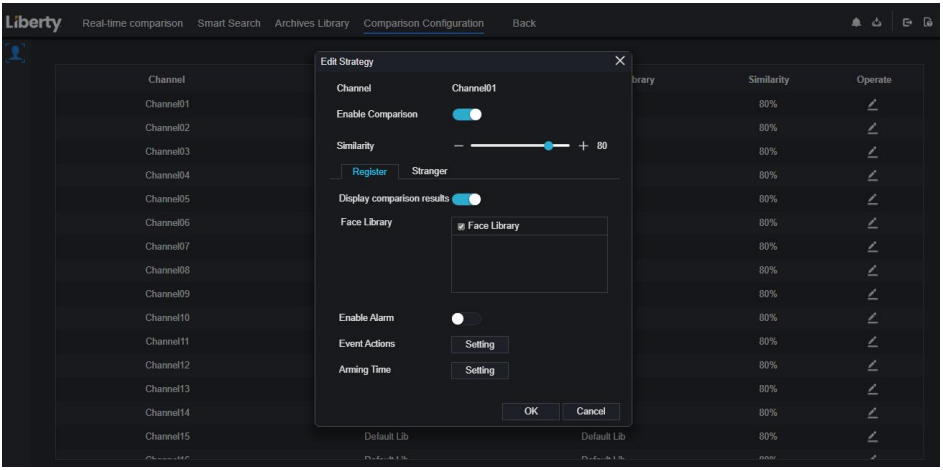
To get snapshot in real time video, put the cursor on picture such as  , you can add it to face library, or face search. The cursor on area 6 and the pictures are not update, move the mouse so that the pictures show in time.

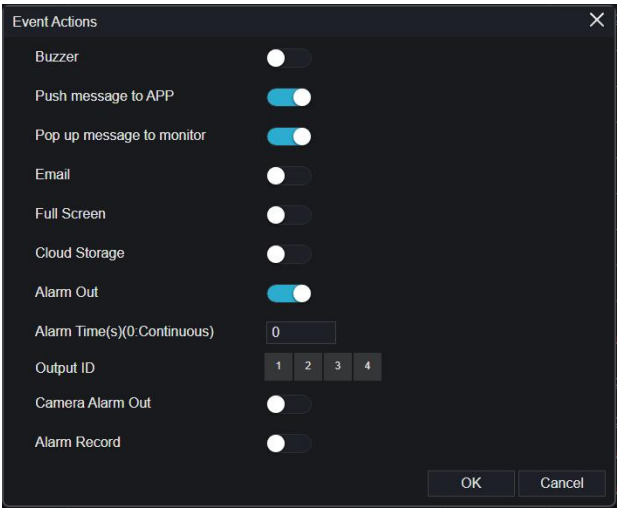
----End

8.7.4 Comparison Configuration

At comparison configuration interface, users can set the comparison of human face/ license plate/temperature.

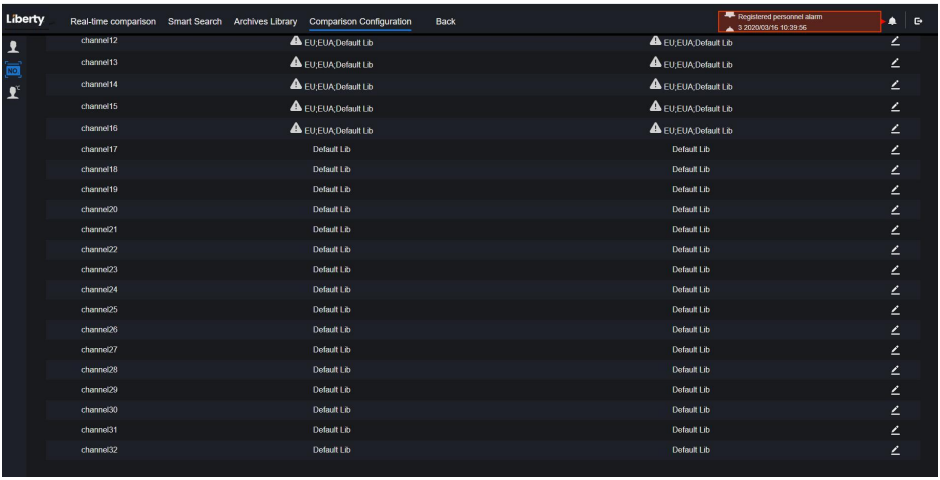
Figure 8-30 Face comparison





At face comparison interface, users can set different channels' strategy, such as similarity, display comparison result, face library, enable alarming, event action, schedule, as shown in Figure 6-35 .

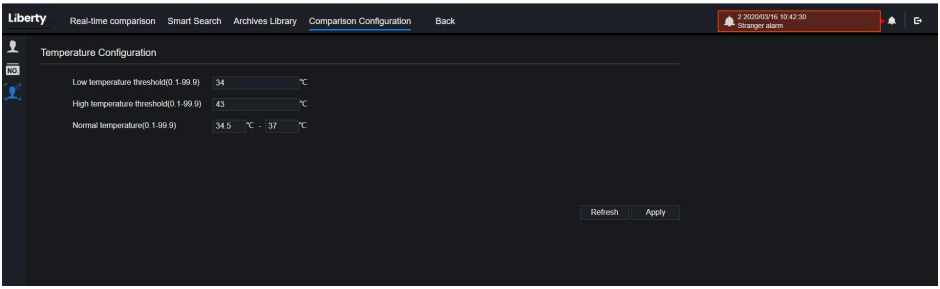
Figure 8-31 License comparison



At license plate interface, users can set strategies of different channels of license plate recognition cameras, such as register and unregister, enable alarming, event action, schedule, as shown in Figure 8-31.

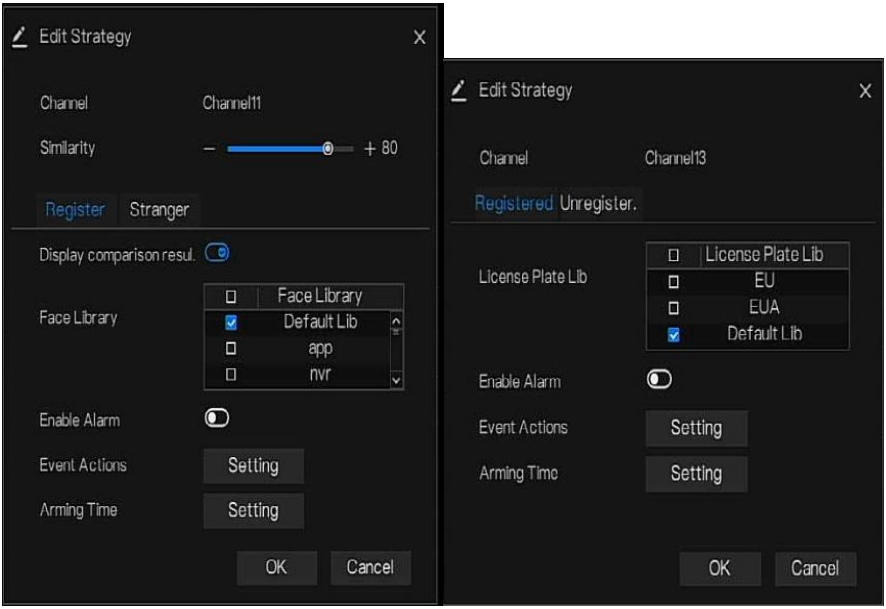
 means the library is deleted.

Figure 8-32 Temperature comparison



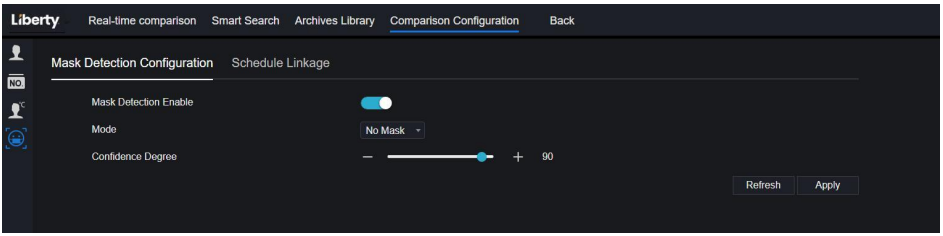
At temperature comparison interface, users can set low temperature threshold, high temperature threshold, normal temperature, as shown in Figure 8-33.

Figure 8-33 Strategy



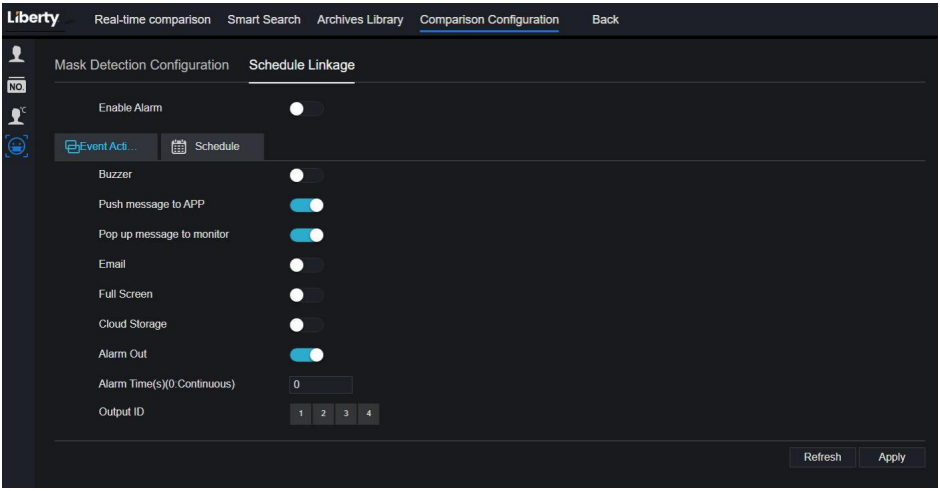
Mask detection configuration: enable mask detection, set the mode (wear mask, no mask). Set confidence degree, the default value is 90. Click “apply” to save the settings.

Figure 8-34 Mask detection configuration



Enable mask alarm linkage, set the event action and schedule.

Figure 8-35 Schedule linkage



The alarm information is relevant to mask detection configuration.

----End

9 System Setting

The system setting allows you to set system, channel, record, alarm, network and local setting.

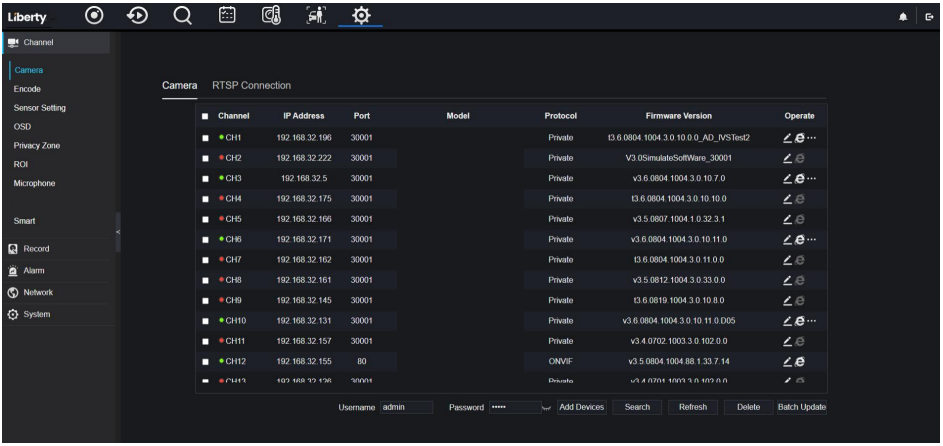
9.1 Channel

User can set parameter about camera, encode, sensor setting, OSD and privacy zone.

9.1.1 Camera

Step 0 On the **System Setting** screen, choose **Channel > Camera** to access the camera interface, as shown in Figure 9-1.

Figure 9-1 Camera interface

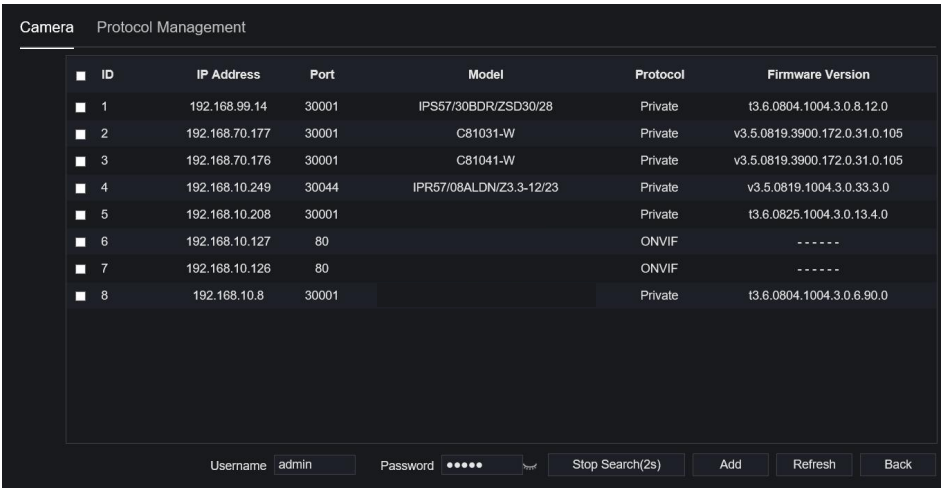


Step 1 Input username and password (the default username and password both are admin), and click Click To Add add cameras automatically.

Step 2 Click Search to search cameras at the same LAN as NVR, as shown in Figure 9-2.

Choose the cameras, input username and password, click **Add** to add new cameras.

Figure 9-2 Device search



Step 3 Click Back to back to camera interface.

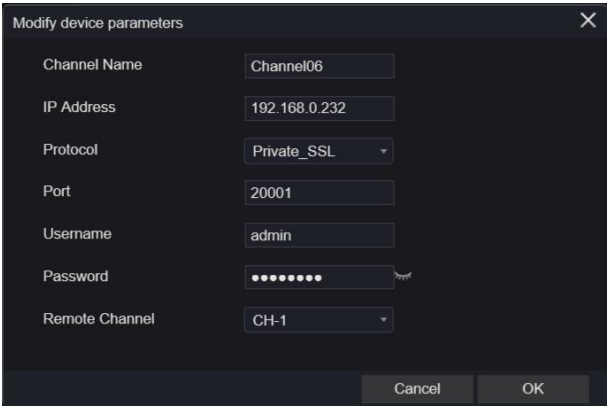
Step 4 Click Refresh to refresh cameras status.

Step 5 Choose the cameras and click Delete to delete.

Step 6 Click Batch Update to update all selected cameras at once, the pop-up window would show to select software.

Step 7 Click to modify the information of device parameters, as shown in Figure 9-3.

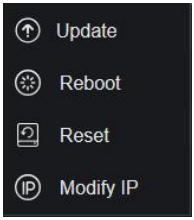
Figure 9-3 Modify device parameters



Step 8 Click  to add camera manually, click the added channel to copy information to add, so that user just modify some information quickly, as shown in Figure 9-4.

Figure 9-4 Add camera manually

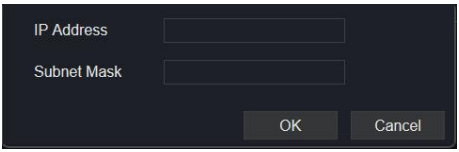
Step 9 Click  to access web immediately.

Step 10 Click  to update, reboot or reset the selected camera, as 

shows.

The pop-up message “Are you sure to restart the device?” “Are you sure to reset? Reserve IP Address” would respectively show.

Figure 9-5 Modify IP



NOTE

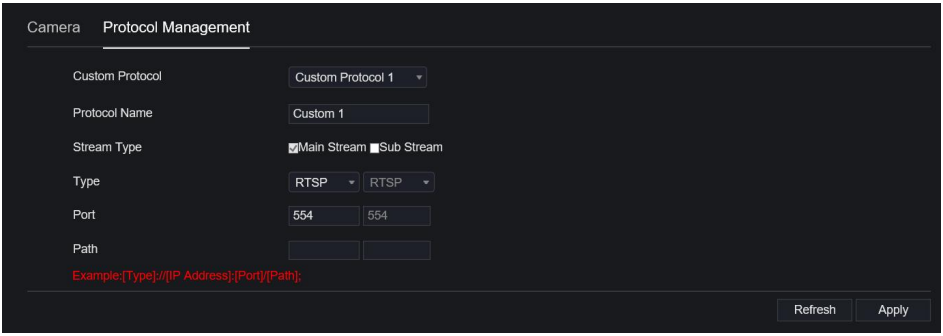
 : it indicates the camera is online, users can view the live video immediately.

 : it indicates the camera is offline, it maybe not connected to the network, or the password is incorrect. Access to the modify device parameters interface to change.

9.1.1.1 Protocol Management

Set the protocol management, users can add different protocol cameras to NVR

Figure 9-6 Protocol management



Step 1 Click **Channel > Camera > RTSP Connection.**

Step 2 Choose the custom protocol from the drop-down list, there are 16 kinds of protocols can be set.

Step 3 Input the protocol name.

Step 4 Tick main stream and sub stream. The main stream shows image on full screen live video. The sub stream shows image on split screen. If you just tick main stream and the channel will not show image on split screen.

Step 5 Choose the type of protocol, the default value is RTSP.

Step 6 Input the port of the IP camera.

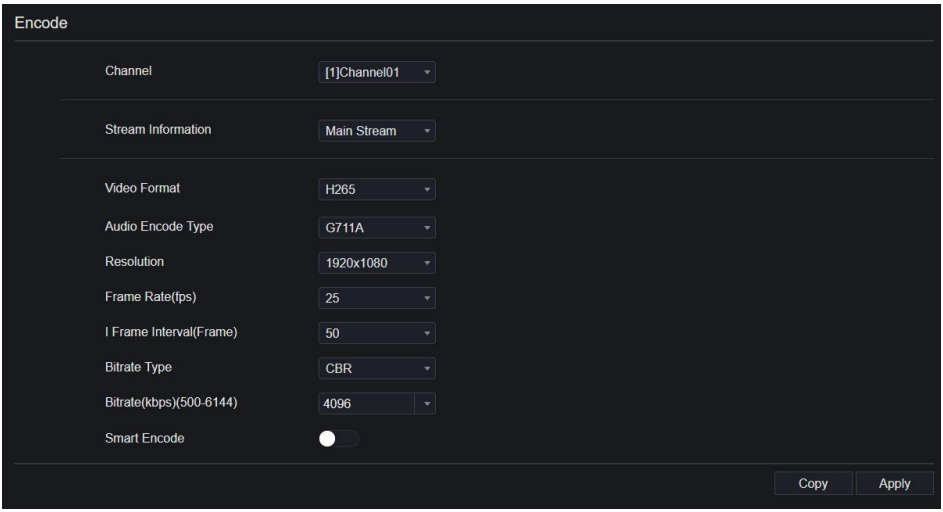
Step 7 Input the path, which decided by the manufacturer of cameras.

Step 8 Click Apply to save the settings.

9.1.2 Encode

Step 1 On the **System Setting** screen, choose **Channel > Encode** to access the encode interface, as shown in Figure 9-7.

Figure 9-7 Encode interface



Step 2 Select a channel from drop-down list.

Step 3 Select stream information, encode type, resolution, frame rate, bitrate control and bitrate from drop-down list.

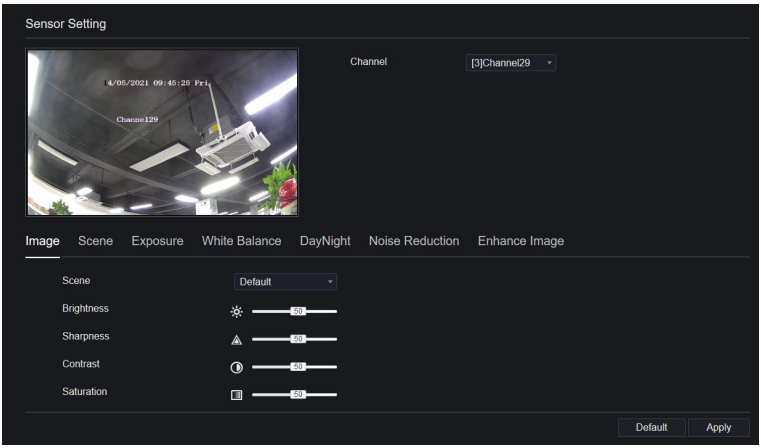
Step 4 Click Copy to choose other camera to copy settings. Click Apply to save the settings.

----End

9.1.3 Sensor Setting

Step 1 On the **System Setting** screen, choose **Channel >Sensor Setting** to access the sensor setting interface, as shown in Figure 9-8.

Figure 9-8 Image interface



Step 2 Select a channel and scene from drop-down list.

Step 3 Set image parameters, like scene, brightness, sharpness, contrast and saturation.

Step 4 Other parameters are camera's senor setting, please refer IP cameras' settings.

Step 5 Click Copy to choose other cameras to copy settings. Click Apply to save the settings.

NOTE

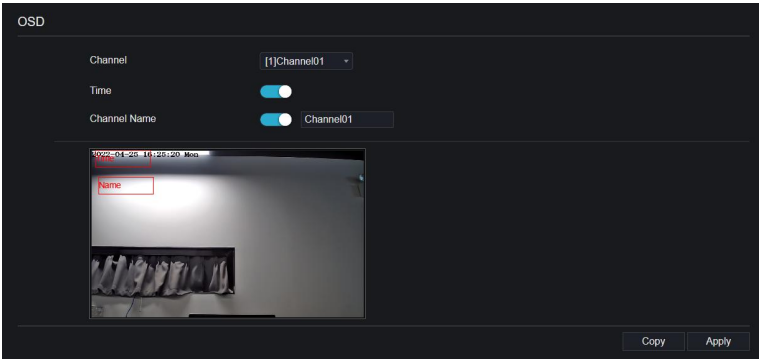
Brightness: It indicates the total brightness of an image. As the value increases, the image becomes brighter.
Sharpness: It indicates the border sharpness of an image. As the value increases, the borders become clearer, and the number of noise points increases.
Saturation: It indicates the color saturation of an image. As the value increases, the image becomes more colorful.
Contrast: It indicates the measurement of different brightness levels between the brightest white and darkest black in an image. The larger the difference range is, the greater the contrast is the smaller the difference range is, the smaller the contrast is.
Scene: it includes indoor, outdoor, default. Mirror includes normal, horizontal, vertical, horizontal + vertical.
Exposure: it includes mode, max shutter, meter area and max gain.
White balance: it includes tungsten, fluorescent, daylight, shadow, manual, etc.
Day-night: it transit day to night, or switch mode.
Noise reduction: it includes 2D NR and 3D NR.
Enhance image: it includes WDR, HLC, BLC, defog and anti-shake.
Zoom focus: zoom and focus.

----End

9.1.4 OSD

Step 1 On the **System Setting** screen, choose **Channel >OSD** to access the OSD interface, as shown in Figure 5-4

Figure 9-9 OSD interface



Step 2 Select a channel and scene from drop down list.

Step 3 Enable time and channel name. You can set channel name. Drag the icon of Channel Name or Date and Time to move, select the location.

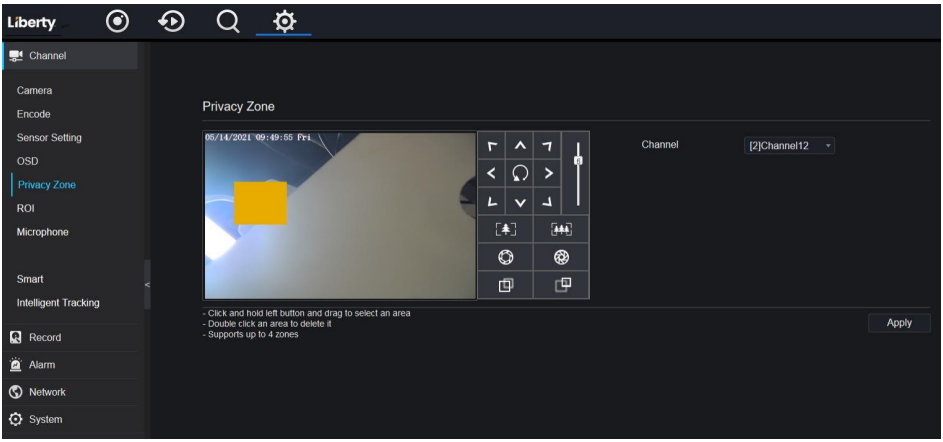
Step 4 Click Copy to choose other cameras to copy settings. Click Apply to save the settings.

----End

9.1.5 Privacy Zone

Step 1 On the **System Setting** screen, choose **Channel >Privacy Zone** to access the privacy zone interface, as shown in Figure 9-10.

Figure 9-10 Privacy interface



Step 2 Select a channel from drop-down list.

Step 3 Drag the mouse to select area to cover with rectangle frame. You can set less than four areas to be covered. Double click would delete the area.

Step 4 PTZ can be used for adjusting the IP dome cameras.

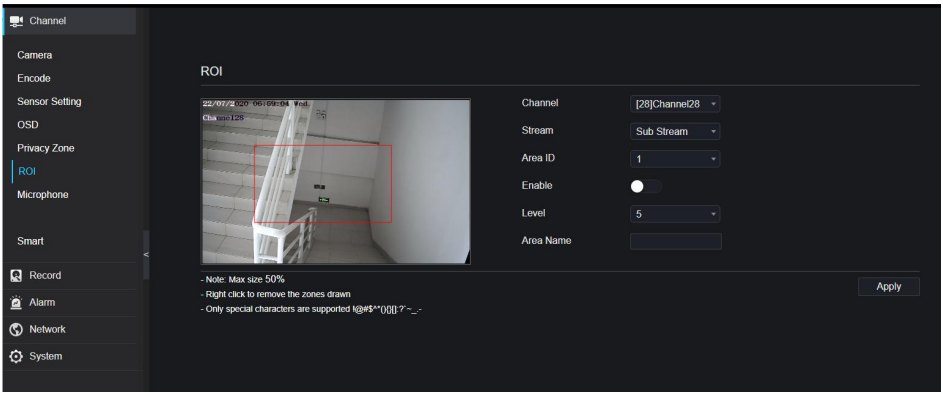
Step 5 Click Copy to choose other cameras to copy settings. Click Apply to save the settings.

----End

9.1.6 ROI

ROI(Region of interest), choose channel, stream, area ID and draw the area. Set the level, there are five levels can be chosen. Set area name, click “Apply” to save the settings.

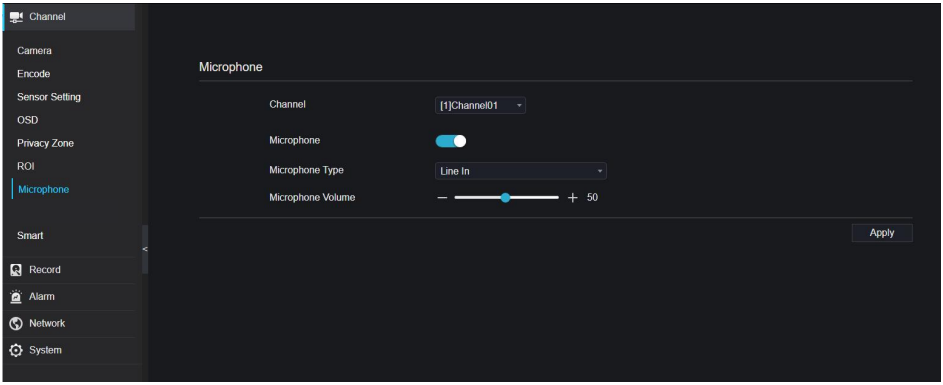
Figure 9-11 ROI



9.1.7 Microphone

Users can set the microphone parameters of channel.

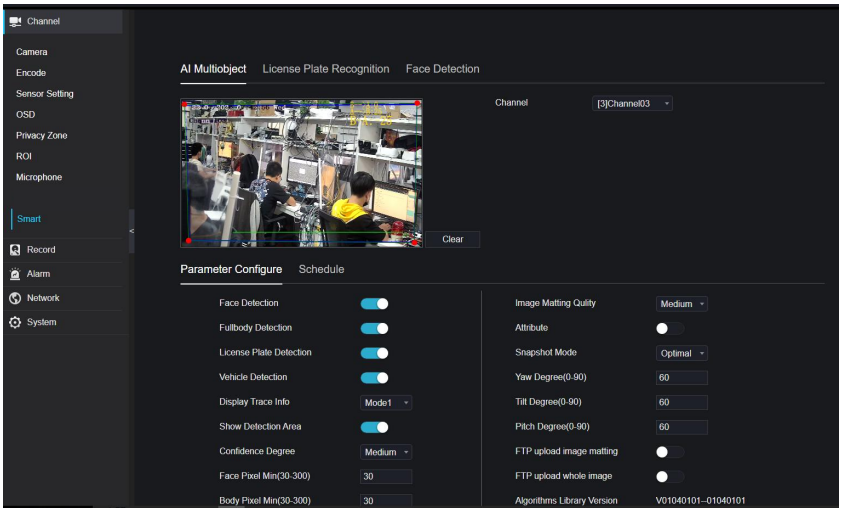
Figure 9-12 Microphone



9.1.8 Smart

At smart interface, users can set AI multiobject, license plate recognition, face detection.

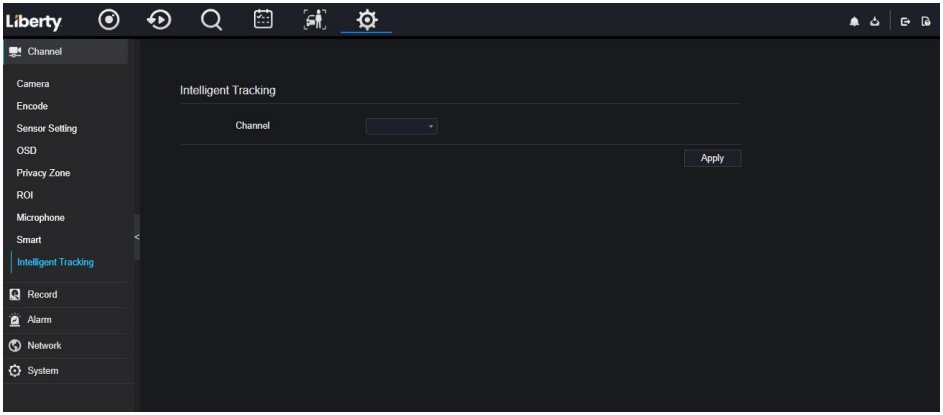
Figure 9-13 Smart interface



9.1.9 Intelligent Tracking (Only for Some Models)

This function can only be used for high speed dome camera. It works with PTZ function.

Figure 9-14 Intelligent tracking



The detailed information please refer to UI configuration setting.

9.2 Record

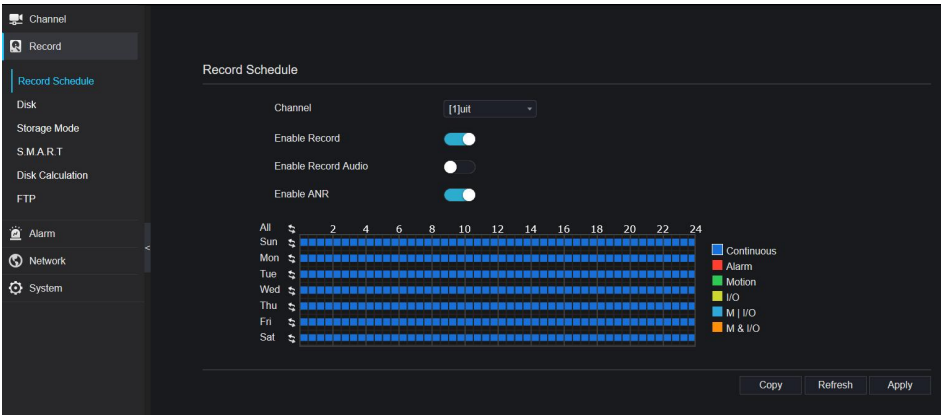
Users can set record policy in storage interface.

9.2.1 Record Schedule

Procedure

Step 1 On the **System Setting** screen, choose **Record > Record schedule** to access the record schedule interface, as shown in Figure 9-15.

Figure 9-15 Record schedule interface



Step 2 Select a channel.

Step 3 Enable the record, then enable record audio.

Step 4 Enable ANR, when the IP cameras support the ANR, if the cameras are disconnected to NVR, the NVR can copy the loss video recordings from SD card installed in cameras.

Step 5 Set the record schedule, you can drag the mouse to choose area, click  to choose all day or all week, you can also click one by one to set the schedule. Or dray the mouse cursor to choose. Users can set the alarm recording to save the space of disk.

Step 6 Click Refresh to return the previous settings.

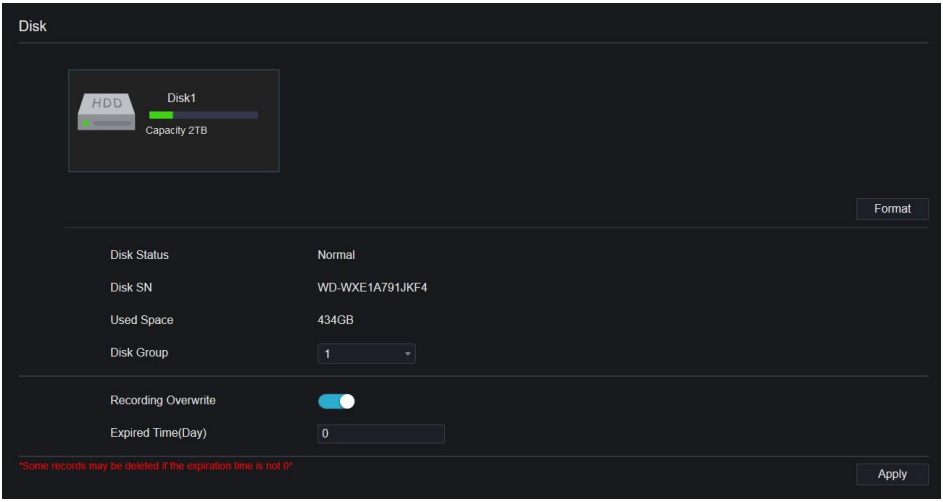
Step 7 Click Copy to choose other cameras to copy settings. Click Apply to save the settings.

----End

9.2.2 Disk

Step 1 On the **System Setting** screen, choose **Record >Disk** to access the disk interface, as shown in Figure 9-16.

Figure 9-16 Disk interface



Step 2 You can view the information like capacity, disk status, disk SN code and used space.

Step 3 Click Format to delete all data. Before deleting data users will view pop-up window "Are you sure to format disk? Your data will be lost". Click OK to delete, click Cancel to quit.

Step 4 Choose the disk group from drop-down list, there are four disk groups.

Step 5 Enable the recording overwrite, set the expired time. (If the expired time is 0, it means the disk is full, then the recording will be rewrite. It the expired time is 5 days, the recording video will be rewrite when it reaches the expiration date..)

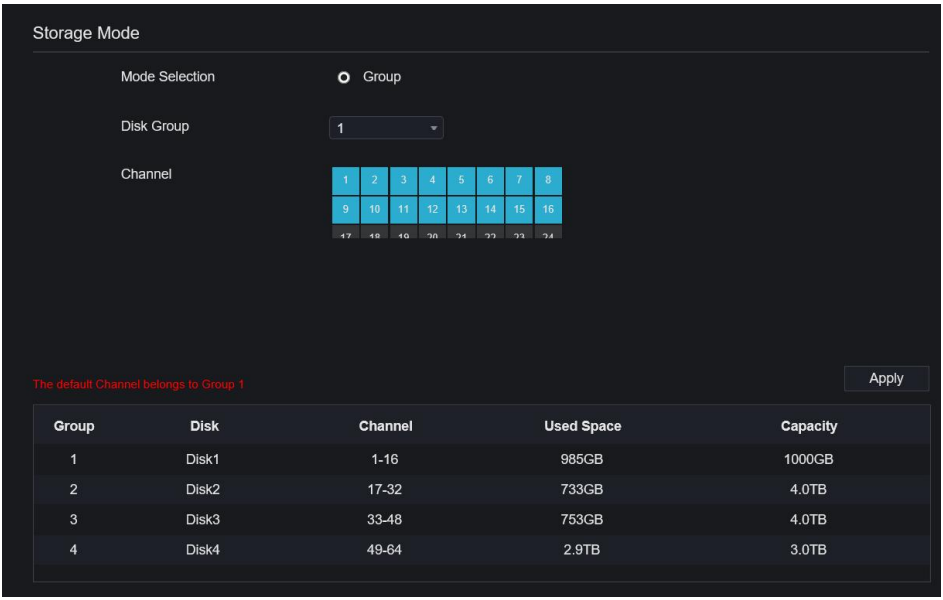
Step 6 If the recording overwrite is disable, set the expired time, it is up to 90 days.

----End

9.2.3 Storage Mode

Distribute channels to different disk groups as needed for efficient use of the disk capacity.

Figure 9-17 Storage Mode



Operation Steps

Step 1 Choose the disk group.

Step 2 Select the channel to record to disk group.

Step 3 Click Apply to save the settings.

Step 4 The group list will show the detail information.

9.2.4 RAID (Only for Some Models)

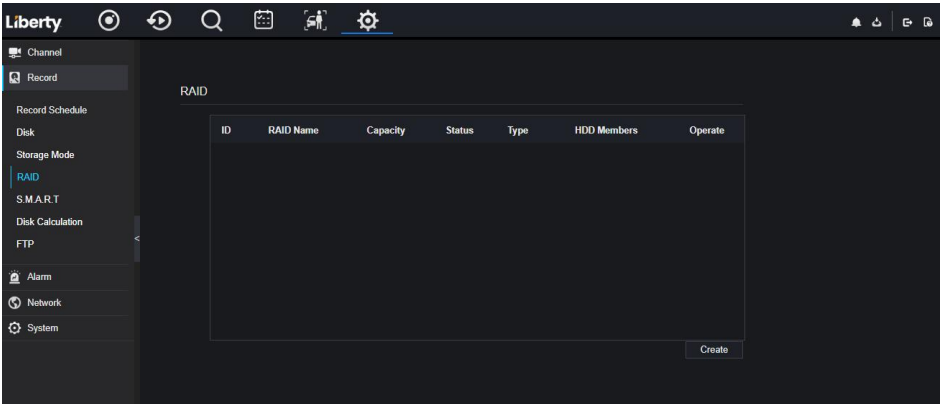
NOTE

RAID is only used for the device with 4 disks or more. And the disks must be enterprise level disks. It is recommended to choose the same capacity for efficient use.

For Raid5, at least 3 disks can be created. For RAID6, at least 4 disks can be created. For RAID10, at least 4 disks can be created. Creating a hot spare disk requires more disks.

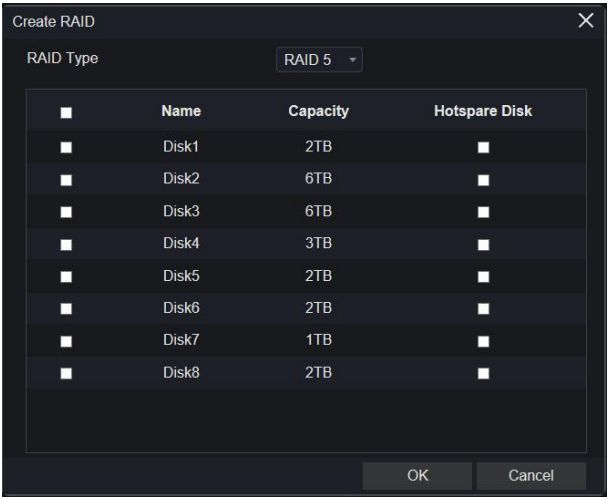
It is recommended to choose the same capacity for efficient use. The RAID with less than 100T capacity can be built.

Figure 9-18 RAID



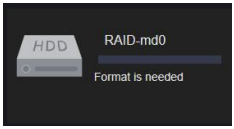
Operation Steps

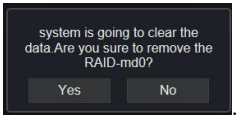
Step 1 Click **RAID** to create the RAID.



Step 2 Click **Create** to choose disk to create a new RAID.

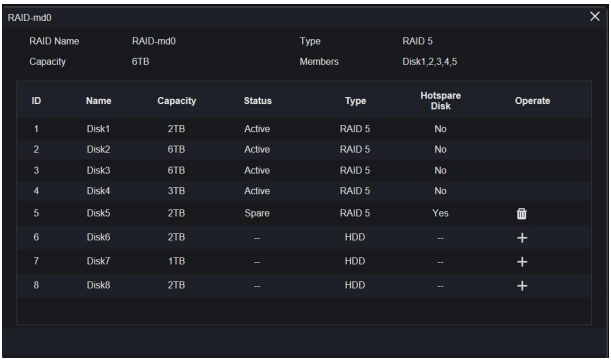
Step 3 Tick the **Hot-spare Disk** to back up the broken disk in case, the number of disk must be more than basic disks.

Step 4 Click OK to save the operation, format the new RAID 

Step 5 Click **format it will show** 

.

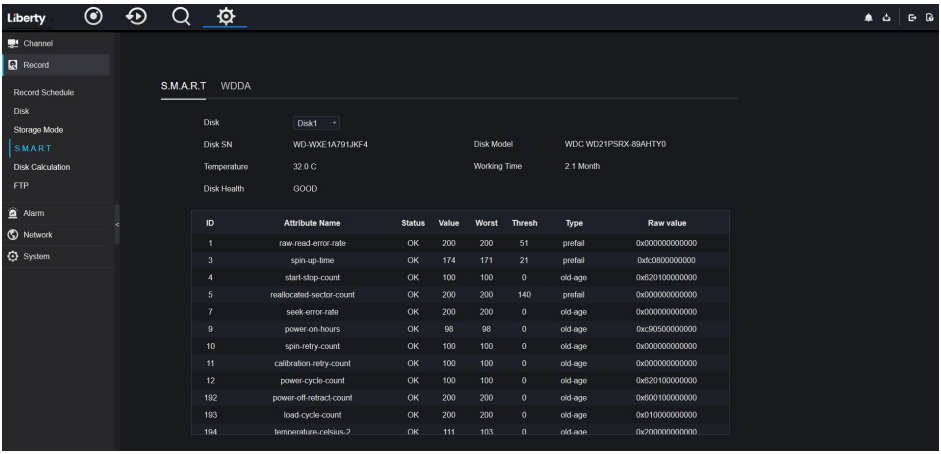
Figure 9-19 Modify the RAID



9.2.5 S.M.A.R.T

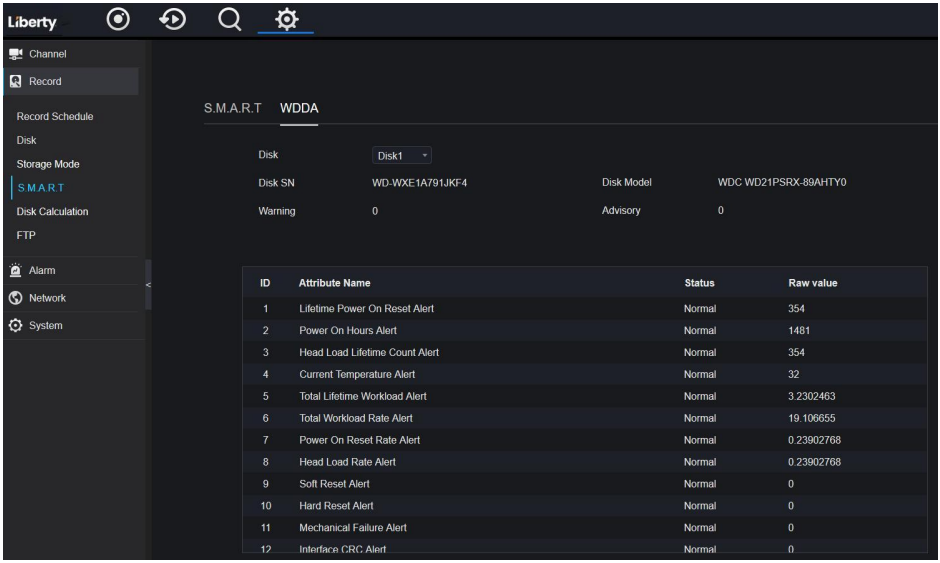
S.M.A.R.T is Self-Monitoring Analysis and Reporting Technology, users can view the health of disk, as shown in Figure 9-20.

Figure 9-20 S.M.A.R.T



The disk of Western Digital can be viewed by WDDA, as shown in Figure 9-21.

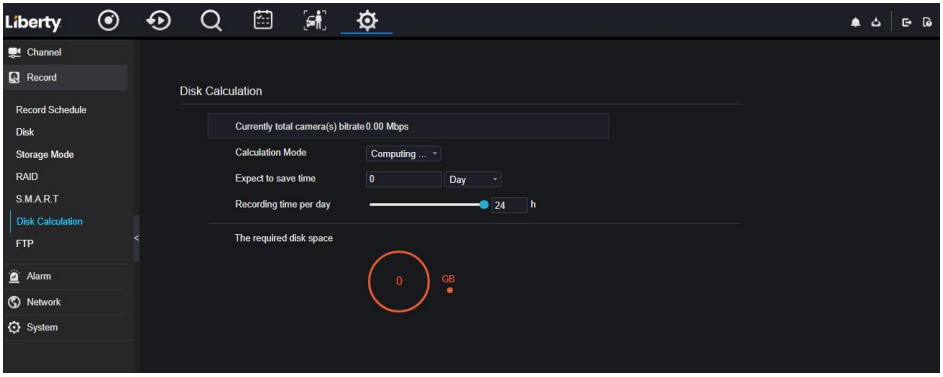
Figure 9-21 WDDA (Supplied for Some Model)

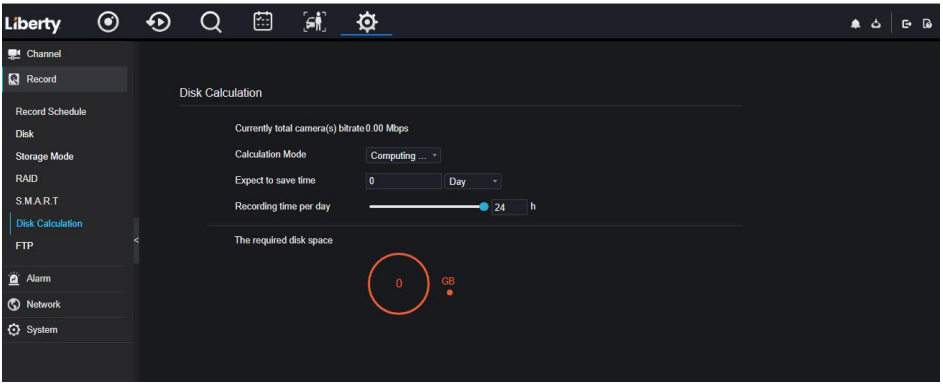


9.2.6 Disk Calculation

There are two modes to calculate the captivity of disk, as Computing Capacity Computation time shown in.

Figure 9-22 Disk calculation

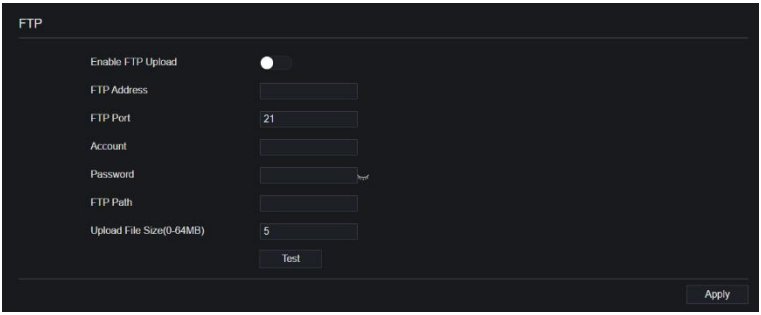




9.2.7 FTP

Set the FTP path to receive the alarm information, as shown in Figure 9-23. More detail information please refer to UI interface parameters.

Figure 9-23 FTP



9.3 Alarm

Users can set general, motion detection, video loss, intelligent analysis and alarm in on alarm interface.

9.3.1 General

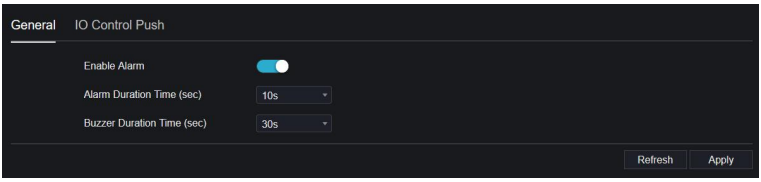
9.3.1.1 General

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > General** to access the general interface.

Step 2 Enable alarm to set duration time and buzzer duration time, as shown in Figure 9-24.

Figure 9-24 General interface



Step 3 Click Apply to save settings. Click Refresh to return to the previous settings.

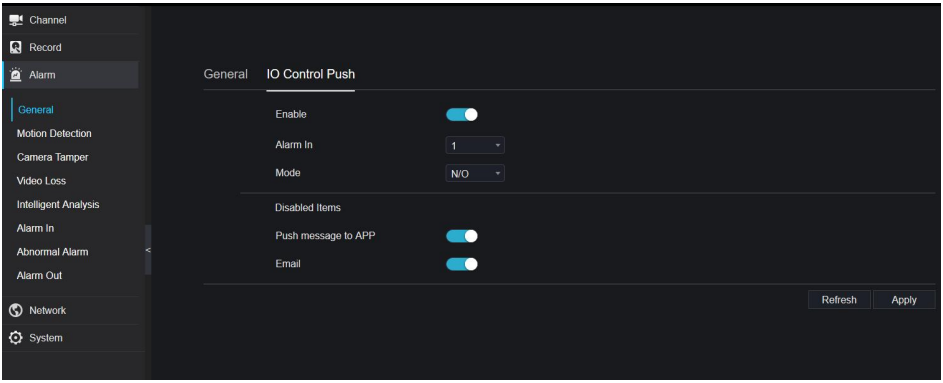
9.3.1.2 IO Control Push

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > General** > **IO Control Push** to access the general interface.

Step 2 Enable the IO control push, as shown in Figure 9-25.

Figure 9-25 IO control push interface



Step 3 Choose one alarm in and mode (N/C, N/O).

Step 4 Tick the disable items, click “Apply” to save settings.

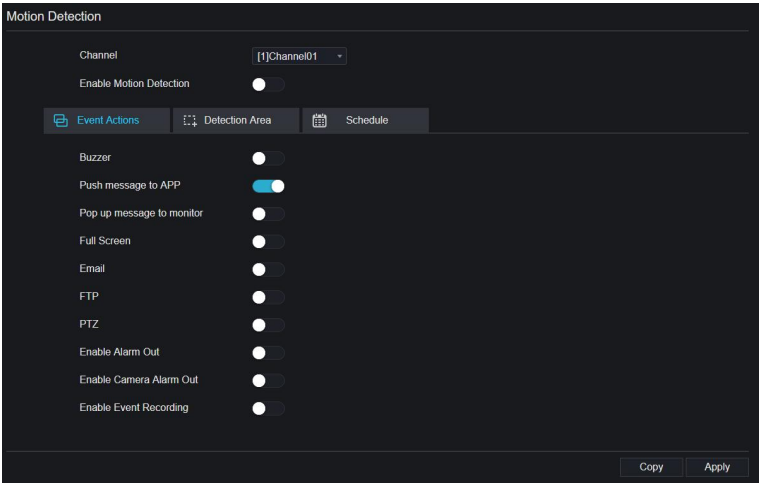
----End

9.3.2 Motion Detection

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Motion Detection** to access the motion detection interface, as shown in Figure 9-26.

Figure 9-26 Motion detection interface



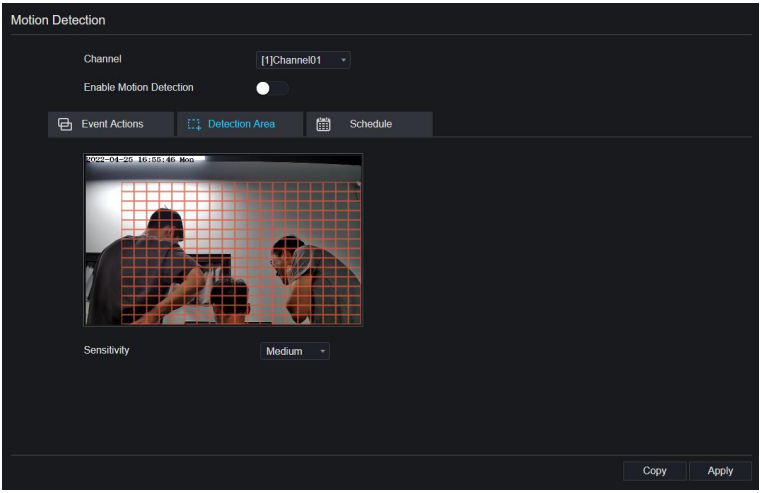
Step 2 Click channel drop-down list to choose channel.

Step 3 Enable motion detection alarm.

Step 4 Set **Event Activity**, includes buzzer, push message to APP, pop-up message to monitor, full screen, Email, cloud storage, alarm out (the back panel), channel alarm out (the port of cameras), and alarm record.

Step 5 Click **Area** to access the motion detection area setting, as shown in Figure 9-27.

Figure 9-27 Motion detection area interface



1. Hold down and drag the left mouse button to draw a motion detection area.
2. Select a value from the drop-down list next to **Sensitivity**.
3. Double -click the chosen area to delete.

Step 6 Click **Schedule** to access schedule settings, drag and release mouse to select the alarming time within 00:00-24:00 from Monday to Sunday. Click the chosen area can cancel. The settings of alarm schedule are same as disk schedule.

Step 7 Click Copy to choose other cameras to copy settings. Click Apply to save the settings.

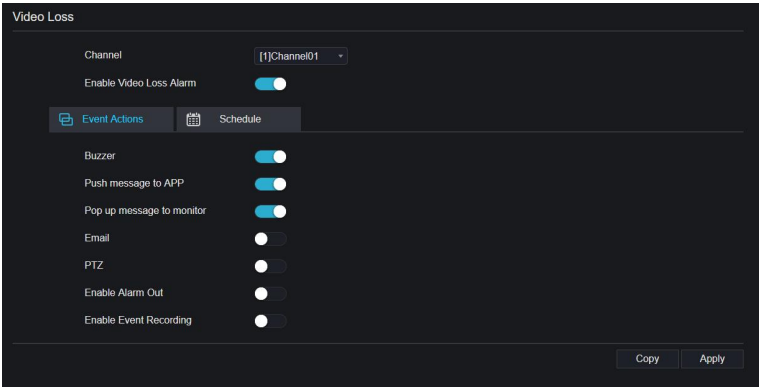
---End

9.3.3 Video Loss

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Video Loss** to access the video loss interface, as shown in Figure 9-28.

Figure 9-28 Video loss interface



Step 2 Click drop-down list to choose channel.

Step 3 Enable the video loss alarm.

Step 4 Set event activity and schedule please refer to *Figure 5-1 motion detection settings*.

Step 5 Click Copy to choose other camera to copy settings. Click Apply to save the settings.

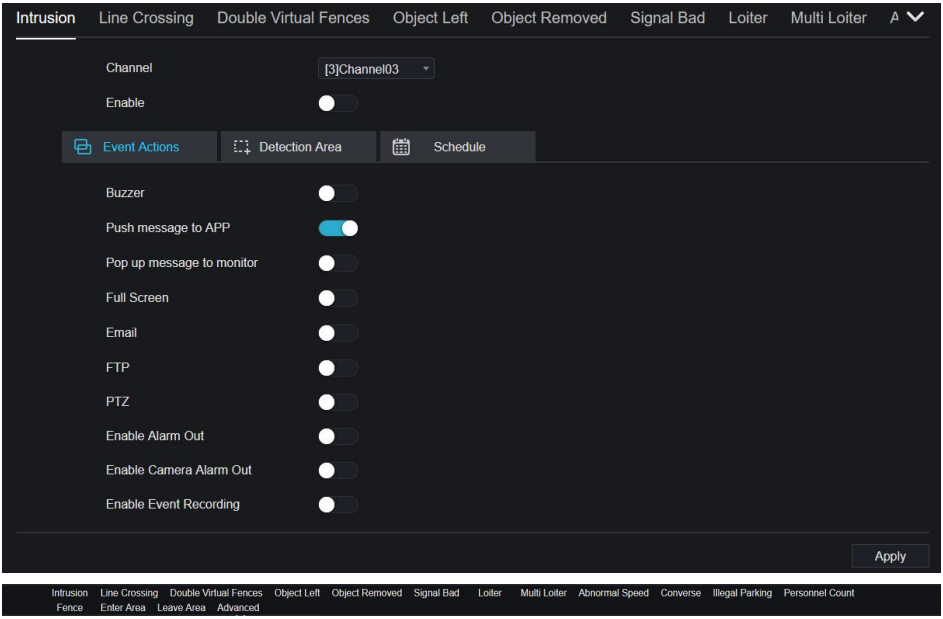
----End

9.3.4 Intelligent Analysis (Only for Some Models)

Procedure

Please refer to chapter *7.4.1 video loss settings,* interface displayed as shown in Figure 9-29.

Figure 9-29 Intelligent analysis interface

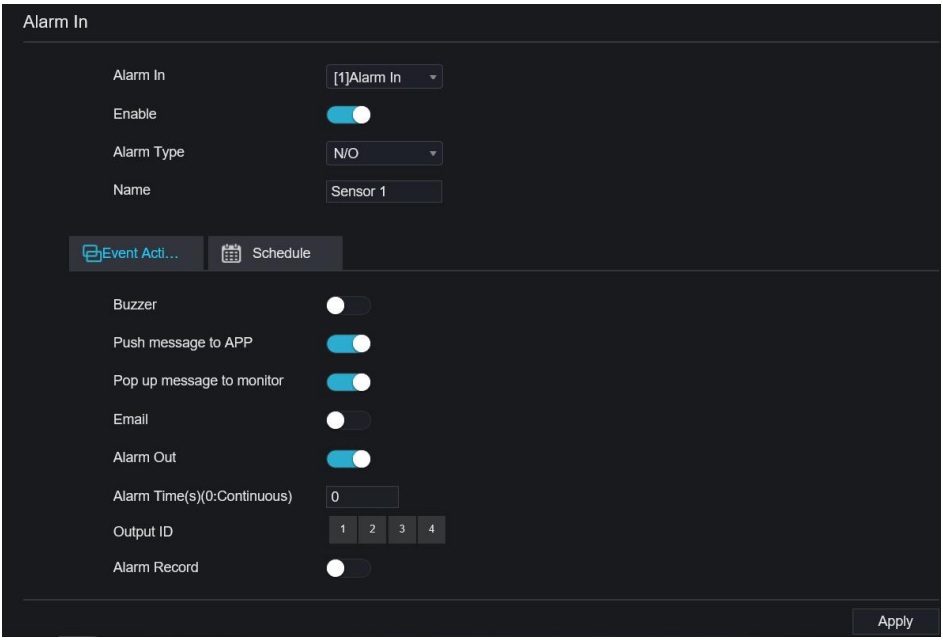


9.3.5 Alarm In

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Alarm In** to access the alarm in interface, as shown in Figure 9-30.

Figure 9-30 Alarm in interface



Step 2 Click drop-down list to choose alarm in.

Step 3 Enable the button, choose alarm type.

Step 4 Set name, default as Sensor 1.

Step 5 Set event activity and schedule please refer to *motion detection settings*.

Step 6 Click Apply to save settings.

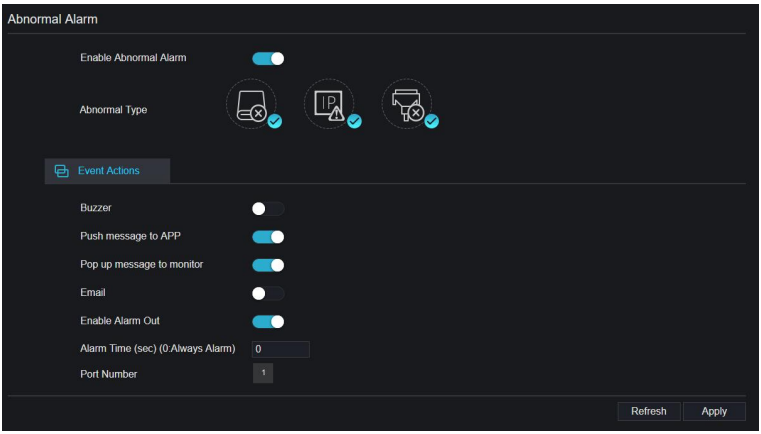
----End

9.3.6 Abnormal Alarm

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Abnormal Alarm** to access the abnormal alarm interface, as shown in Figure 6-12.

Figure 9-31 Abnormal alarm interface



Step 2 Enable the button, tick alarm type.

Step 3 Set event activity and schedule please refer to *motion detection settings*.

Step 4 Click Apply to save settings.

----End

9.3.7 Alarm out

Set the alarm out, the camera alarm out.

Figure 9-32 Alarm out

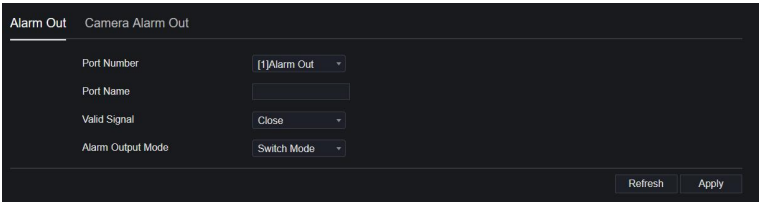
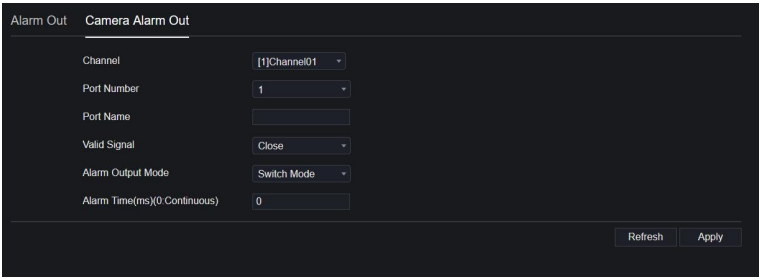


Figure 9-33 Camera alarm out



9.4 Network

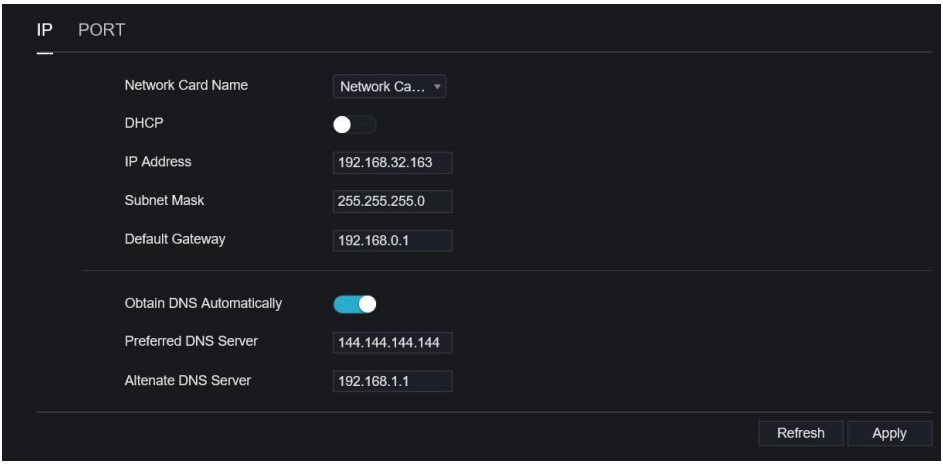
Users can set Network, DDNS, E-mail, UPnP, P2P, IP Filter, 802.1X, SNMP and Web Mode.

9.4.1 Network

Procedure

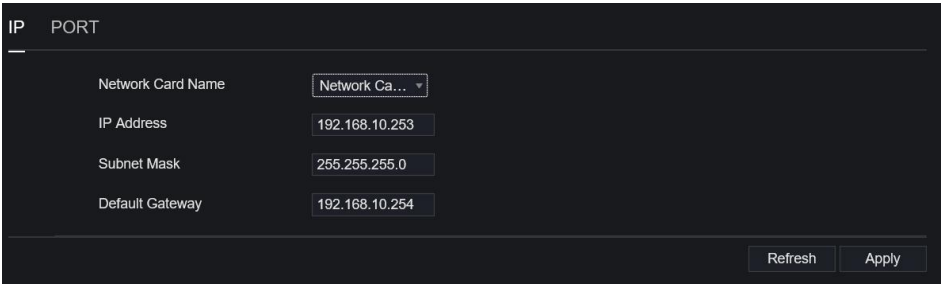
Step 1 On the **System Setting** screen, choose **Network > Network** to access the network interface, as shown in Figure 9-34.

Figure 9-34 Network interface



Step 2 Choose network card from the drop-down list. Network card I is LAN1, network card II is LAN2, as shown in Figure 9-35.

Figure 9-35 Network card II



Step 3 Click  next to **IP** to enable or disable the function of automatically getting an IP address. The function is enabled by default.

If the function is disabled, click input boxes next to **IP**, **Subnet mask**, and **Gateway** to set the parameters as required.

Step 4 Click  next to **Obtain DNS Automatically** to enable or disable the function of automatically getting a DNS address. The function is enabled by default.

If the function is disabled, click input boxes next to **DNS1** and **DNS2**, delete original addresses, and enter new addresses.

Step 5 Set **PORT** and **POE** manually, input the information about these.

Figure 9-36 POE

Step 6 Click Refresh to restore previous settings. Click Apply to save the settings.

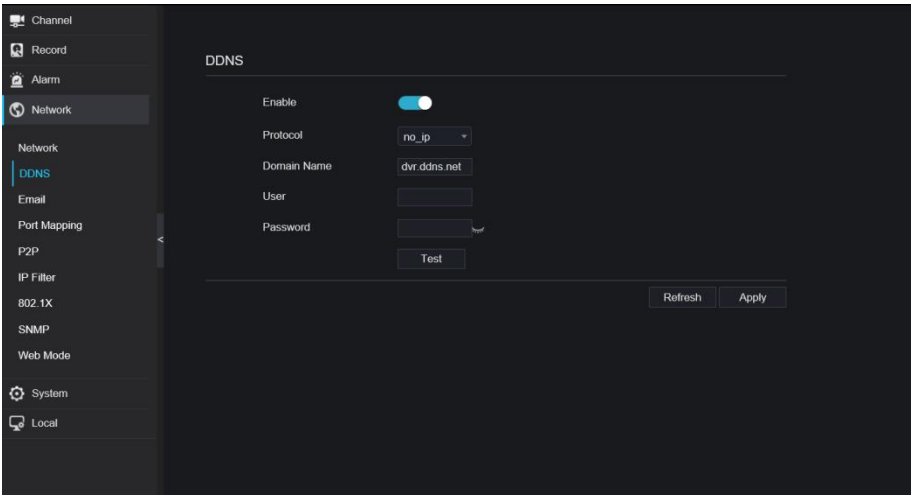
----End

9.4.2 DDNS

Procedure

Step 1 Click **DDNS** in the network interface, choose **Network > DDNS** to access the DDNS interface as shown in Figure 9-37.

Figure 9-37 DDNS interface



Step 2 Click the button to enable the DDNS function. It is disabled by default.

Step 3 Select a required value from the **protocol** drop-down list.

Step 4 Set domain name, user, and password.

Step 5 Click Refresh to restore previous settings. Click Apply to save the settings.

NOTE

An external network can access an address specified in the DDNS settings to access the NVR.

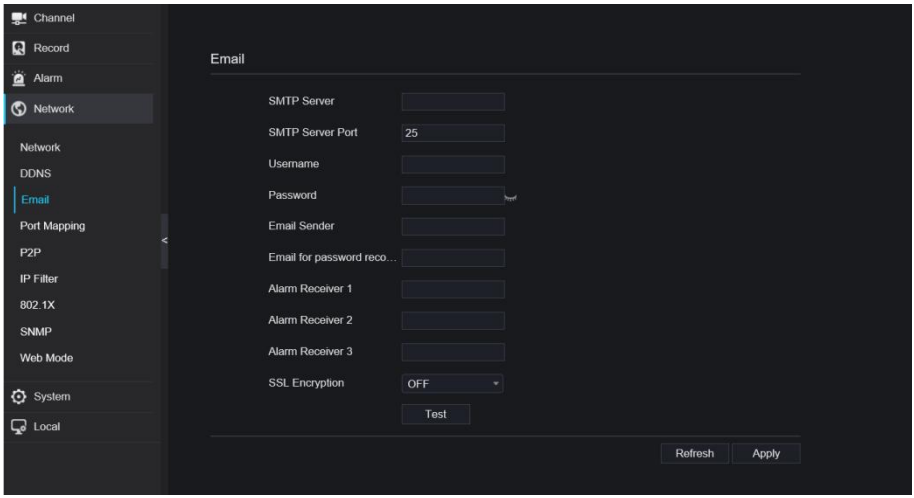
----End

9.4.3 Email

Procedure

Step 1 Click **Email** in the network interface, choose **Network > Email** to access the E-mail interface, as shown in Figure 9-38

Figure 9-38 Email interface



Step 2 Set SMTP server and SMTP server port manually.

Step 3 Set sender E-mail, user name and password manually.

Step 4 Set E-mail for receiving the alarm message.

Step 5 Set E-mail for retrieving the password.

Step 6 Click **SSL Encryption** drop-down list to enable safeguard of email.

Step 7 Click Refresh to restore previous settings. Click Apply to save the settings.

----End

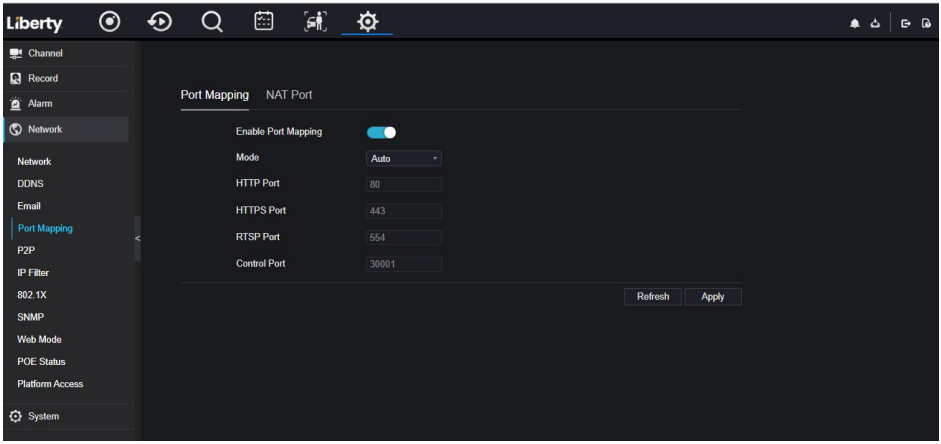
9.4.4 Port Mapping

9.4.4.1 Port Mapping

Procedure

Step 1 Click **Port Mapping** in the network interface, choose **Network > Port Mapping** to access the UPnP interface as shown in Figure 9-39.

Figure 9-39 Port Mapping interface



Step 2 Select manner from UPnP enable drop list. The default value is auto.

Step 3 After **UPnP** is manual, set the Web port, data port and client port manually.

Step 4 Click Refresh to restore previous settings. Click Apply to save the settings.

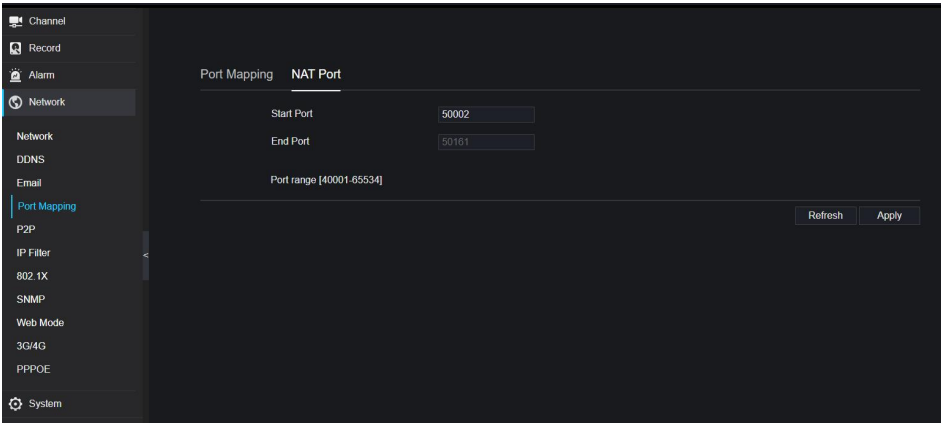
NOTE

Auto: System perform UPnP automatically.
Manual: The ports are distributed by the router. Input them according to the router.

9.4.4.2 NAT port

NAT (Network Address Translation), users can browse the web of camera by NAT port. There are five ports can be assigned to each camera. Input the start port, the system will compute the end port automatically.

Figure 9-40 NAT port



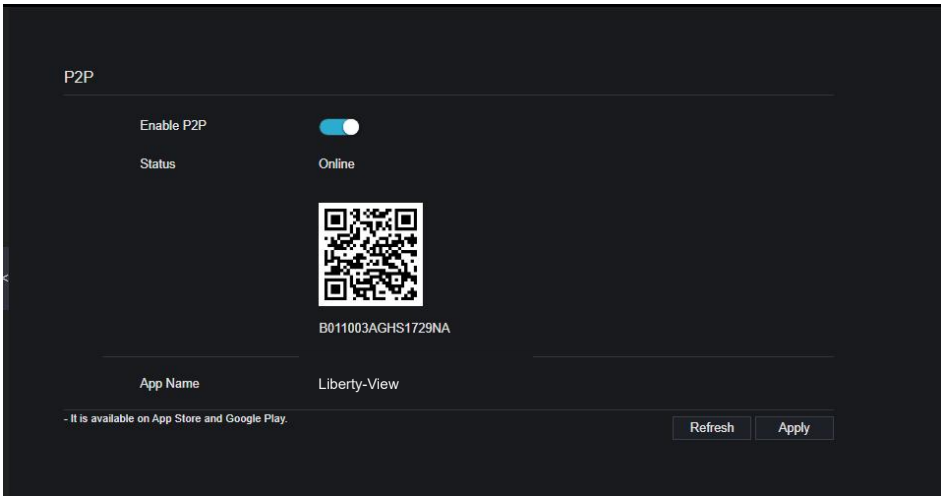
----End

9.4.5 P2P

Procedure

Step 1 Click **P2P** in the network interface, choose **Network > P2P** to access the P2P interface, as shown in Figure 9-41.

Figure 9-41 P2P interface



Step 2 Click **Enable** to enable the P2P function.

Step 3 Click Refresh to restore previous settings. Click Apply to save the settings.

Step 4 After installing **Liberty-View** in mobile phone, run the app and scan the UUID QR code to add it. And then access the NVR while the device is online.

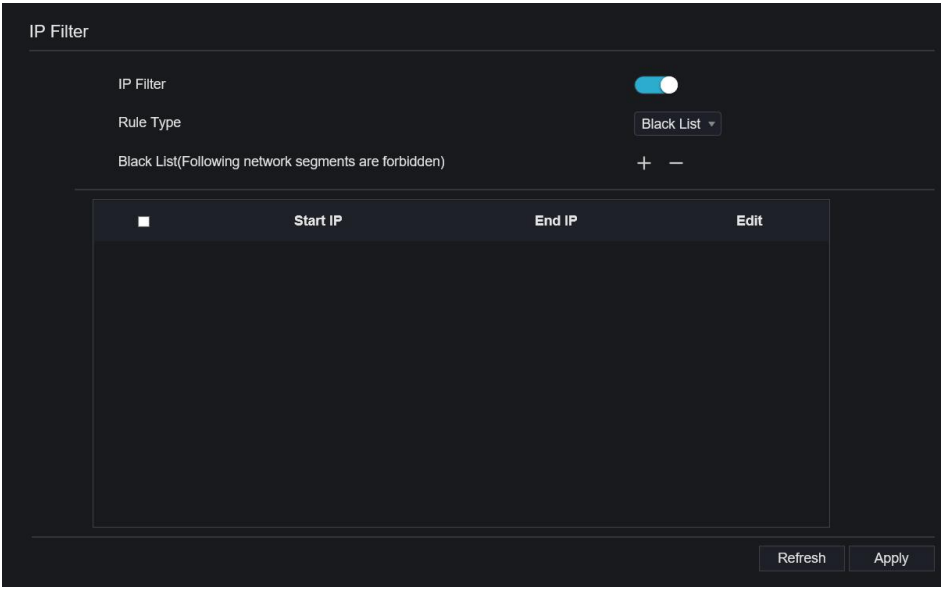
----End

9.4.6 IP Filter

Procedure

Step 1 Click **IP Filter** in the network interface, choose **Network > IP Filter** to access the IP filter interface, as shown in Figure 9-42.

Figure 9-42 IP filter interface



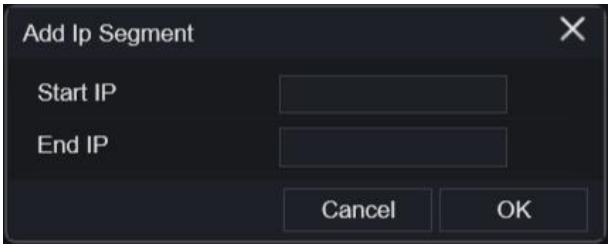
Step 2 Click **Enable** to enable the IP filter function.

Step 3 Click drop-down list of rule type to choose black list or white list.

Step 4 Click  ,view the pop-up windows to set black list or white list, as shown in 7.5.5.

Click  to delete the list.

Figure 9-43 Black or white list interface



Step 5 Set start IP and end IP.

Step 6 Click  to deny settings, click  to save the settings.

Step 7 Click Refresh to restore previous settings. Click Apply to save the settings.

NOTE

Black list: IP address in specified network segment to prohibit access.
White list: IP address in specified network segment to allow access.
Select a name in the list and click Delete to delete the name from the list.
Select a name in the list and click Edit to edit the name in the list.
Only one rule type is available, and the last rule type set is efficient.

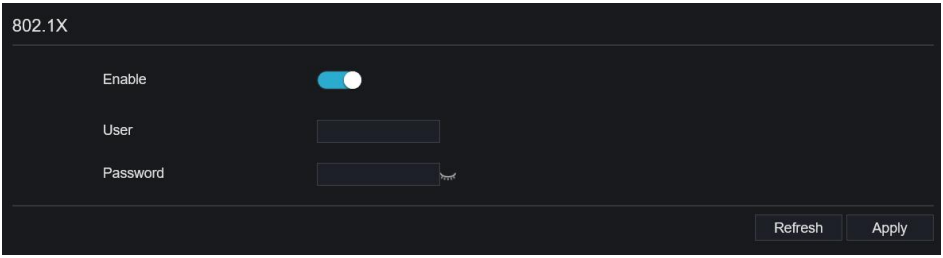
----End

9.4.7 802.1X

Procedure

Step 1 Click **802.1X** in the network interface, 802.1X interface is displayed, enable the button, as shown in Figure 9-44.

Figure 9-44 802.1X interface



Step 2 Input the user and password of 802.1X authentication.

Step 3 Click Refresh to restore previous settings. Click Apply to save the settings.

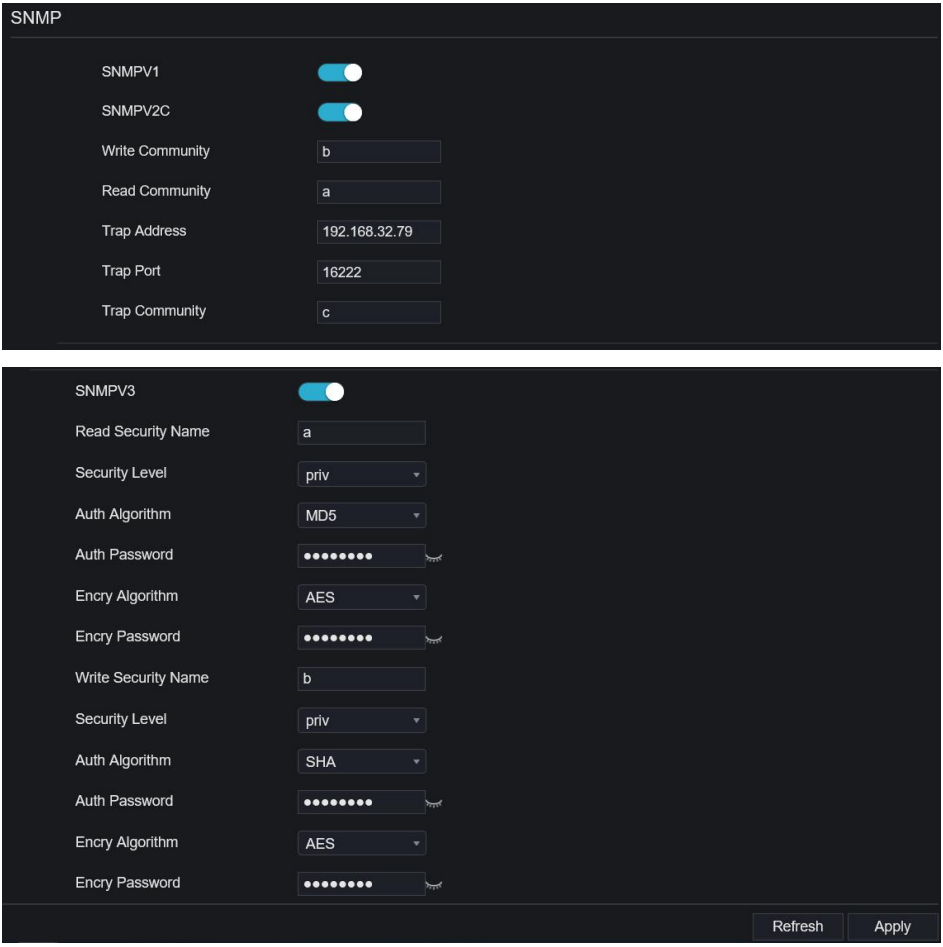
----End

9.4.8 SNMP

Procedure

Step 1 Click **SNMP** in the network interface, SNMP interface is displayed, enable the button next to SNMPV1, as shown in Figure 9-45.

Figure 9-45 SNMP interface



Step 2 Input the information of SNMP (simple network management protocol). there are three types of that function. Users can apply that if need.

Table 9-2 SNMP 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.
Recipient_E-mail_Address1	(Mandatory) Email address of recipient 1.	[Setting method] Enter a value manually.
Recipient_E-mail_Address2	(Optional) Email address of recipient 2.	
Recipient_E-mail_Address3	(Optional) Email address of recipient 3.	
Recipient_E-mail_Address4	(Optional) Email address of recipient 4.	
Recipient_E-mail_Address5	(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

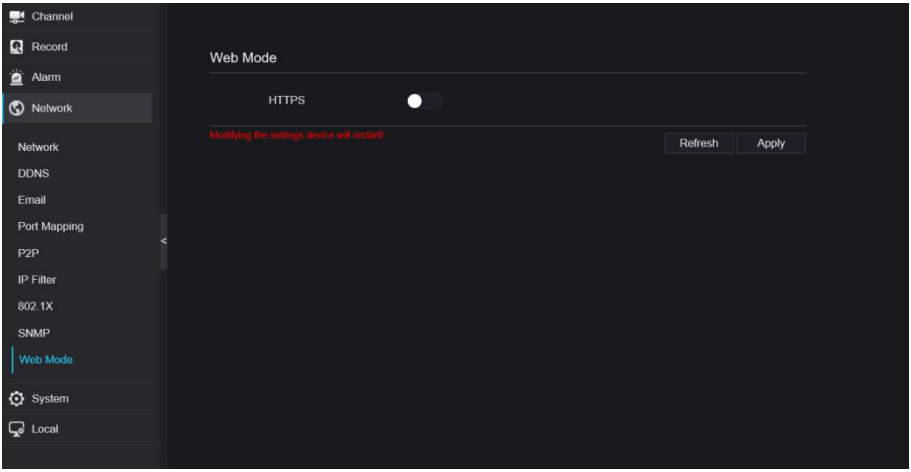
Step 3 Click Refresh to restore previous settings. Click Apply to save the settings.

----End

9.4.9 Web Mode

Step 1 Click **Web Mode** in the network interface, Web mode interface is displayed, as shown in Figure 9-46.

Figure 9-46 Web mode interface



Step 2 Enable the https, the device will restart and start https secure.

Step 3 Click Refresh to restore previous settings. Click Apply to save the settings.

----End

9.4.10 POE Status

Users can view the POE status at this interface, as shown in Figure 9-47.

Figure 9-47 POE status

9.4.11 Platform Access

For more detail, please refer to UI interface parameter setting *7.4.13 Platform Access*.

Figure 9-48 Platform access

9.5 System

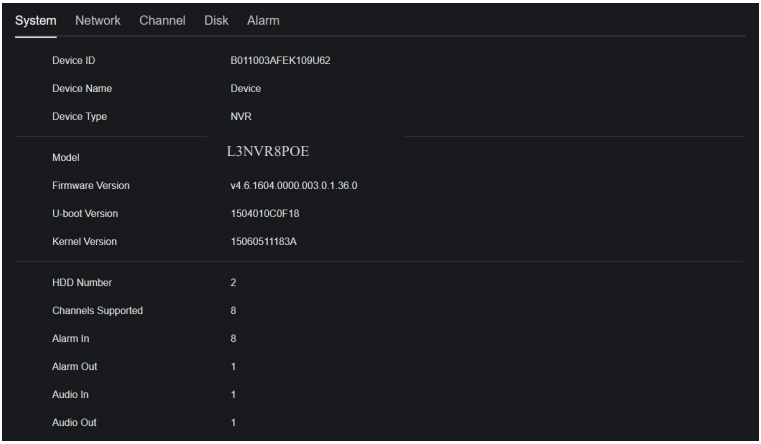
Users can set parameters about information, general, user, password, logs, maintenance and auto restart.

9.5.1 Device Information

Procedure

Step 1 Click  on the navigation bar, the device information interface is displayed, as shown in Figure 9-49.

Figure 9-49 Device information interface



Step 2 Set the device name according to Table 9-2.

Table 9-3 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.	[Setting method] **System Setting > General** Modify the device name.
Device Type	N/A	[Setting method] These parameters cannot be modified.
Model		
Firmware version		
HDD volume		
Channel support		

Parameter	Description	Setting
Alarm in		
Alarm out		
Audio in		
Audio out		

Figure 9-50 Network

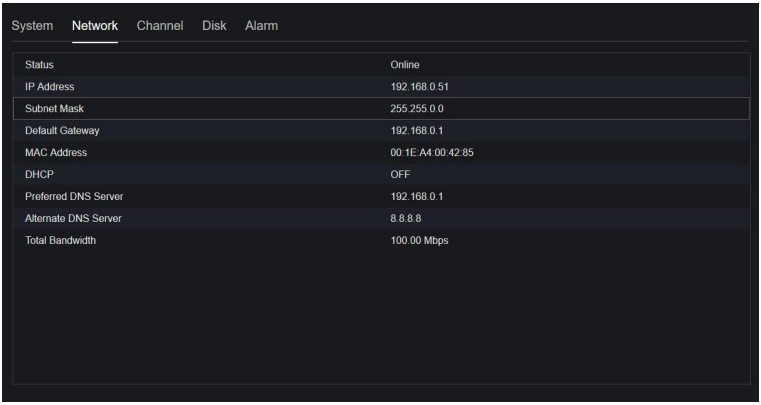


Figure 9-51 Channel

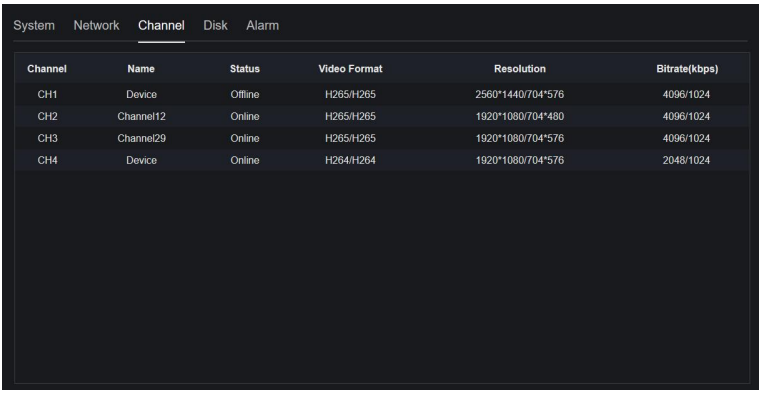


Figure 9-52 Disk

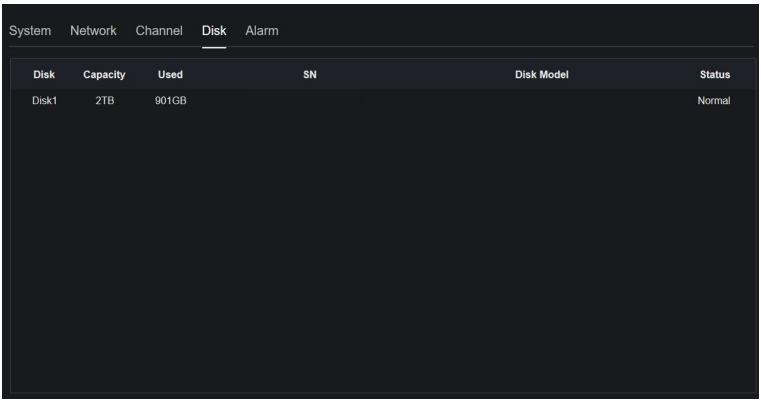
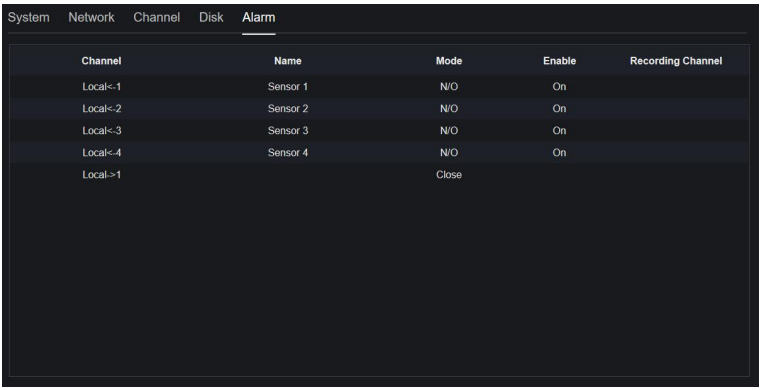


Figure 9-53 Alarm



----End

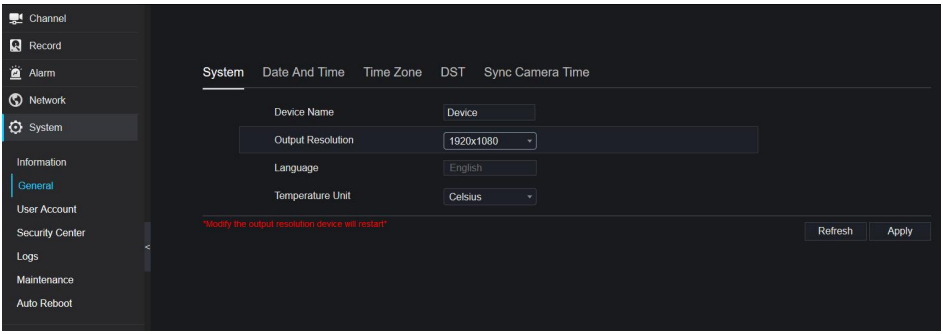
9.5.2 General

You can set system, date and time, time zone and DST general interface.

Procedure

Step 1 On the **System Setting** screen, choose **System >General** to access the general interface, as shown in Figure 9-54.

Figure 9-54 Basic setting interface



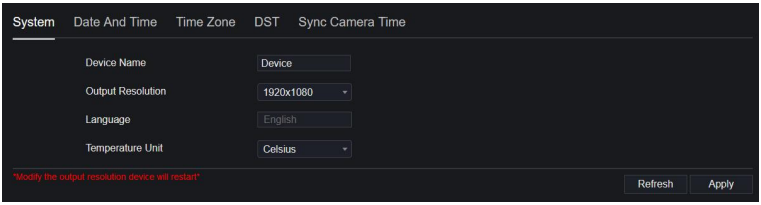
Step 2 Set system.

1. Input the device name.
2. Choose output resolution from drop list.
3. Click Apply to save the system setting.

Step 3 Set date and time.

1. Synchronize the time from the NTP server.
2. Click NTP Sync button to enable synchronize time. The default value is enabling.

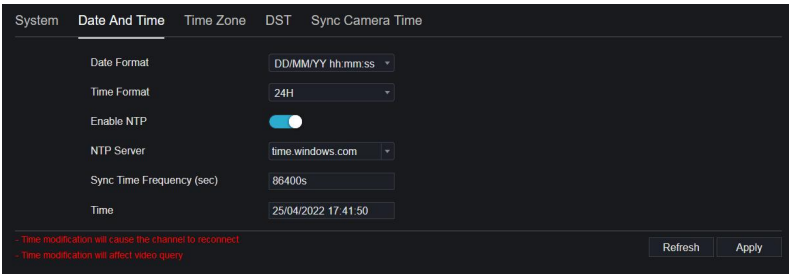
Figure 9-55 System interface



3. Select NTP server, date format and time format from drop list.
4. Click Apply to save date and time setting. The device time will synchronize with NTP server time.
5. Set the device time manually, as shown in Figure 9-56.
6. Click NTP Sync button to disable synchronize time.

7. Async date and time interface

Figure 9-56 Date and time



Step 4 Set the time zone.

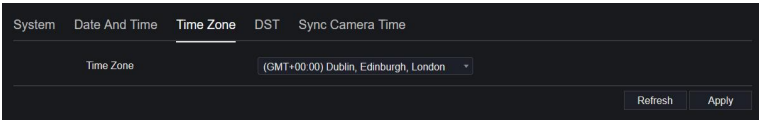
1. Select date format and time format from the drop-down list.

2. Click Apply to save the device time setting. Click Refresh to return to previous setting.

Step 5 Set time zone.

Click **Time Zone** to enter the time zone setting interface, as shown in Figure 9-57.
Time zone setting interface

Figure 9-57 Time zone



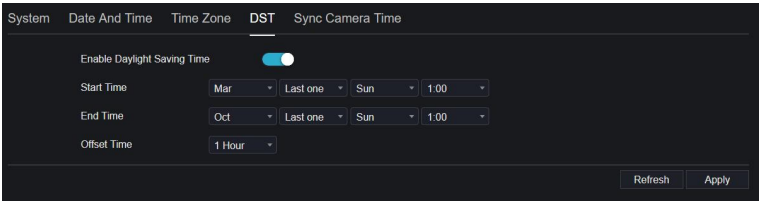
Select a time zone from the drop-down list.

Click Apply to save the time zone setting. Click Refresh to return to previous setting.

Step 6 Set DST.

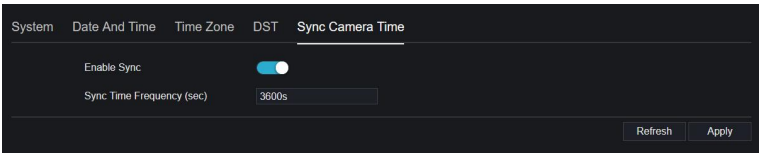
1. Click DST to enter the DST setting interface, click DST button to enable, as shown in Figure 9-60. The button is disabled by default.

Figure 9-58 DST setting interface



Select a start time from the drop-down list.
Select an end time from the drop-down list.
Select an offset time from the drop-down list.

Figure 9-59 Sync camera time



Enable sync camera time, the cameras of NVR management will be showing the same time.
Set the frequency of checks (minimum 10s).

Step 7 Click Apply to save the DST setting. Click Refresh to return to previous setting.

----End

9.5.3 User Account

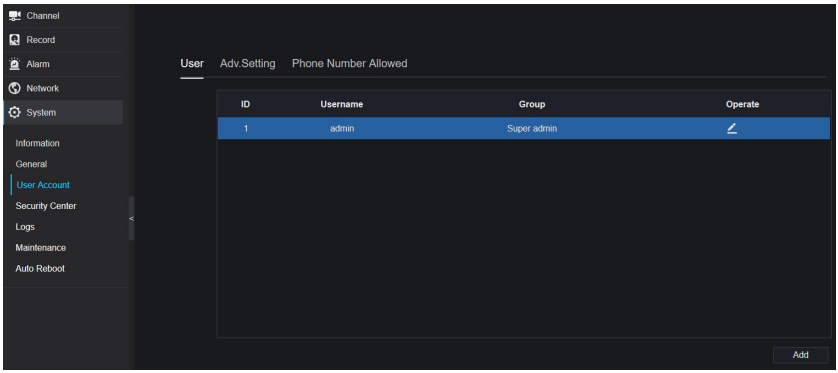
You can create new user accounts to manage the device.

9.5.3.1 Add User

Procedure

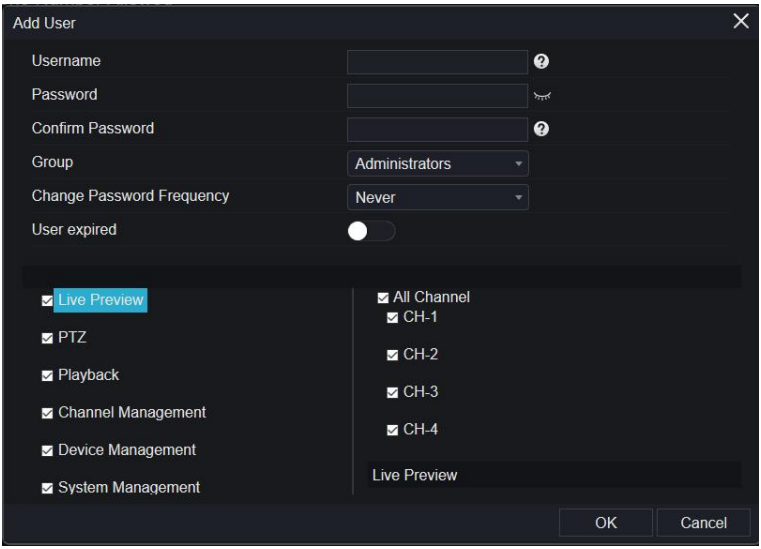
Step 1 On the **System Setting** screen, choose **System >User** to access the **User** interface, as shown in Figure 9-60.

Figure 9-60 User interface



Step 2 Click **Add** to add a new user, as shown in Figure 9-61.

Figure 9-61 Add user



Step 3 Input username, password and confirm password.

Step 4 Select a group and change password reminder from drop-down list.

Step 5 Assign the privilege to the user.

Step 6 Enable the expire date to set the new user's authority time.

Step 7 Select channels to manage.

Step 8 Click OK, the message **"Add success"** is showed. If the password is not meet the rule, it would show Password does not meet requirements.

Step 9 Click to edit user's information.

Step 10 Click to delete the account, it would show Are you sure to delete? OK Cancel, click OK to delete.

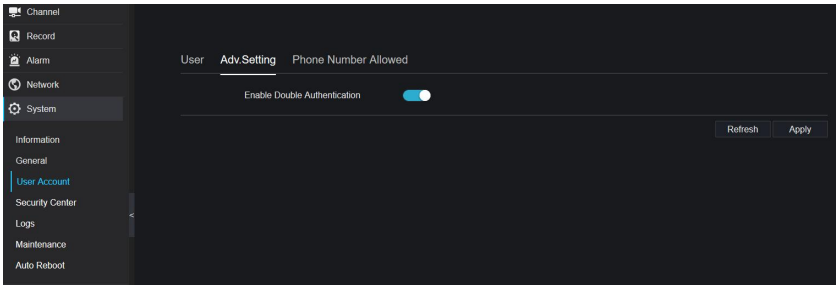
----End

9.5.3.2 Adv.Setting

Procedure

Step 1 On the **System Setting** screen, choose **System > User** > **Adv. Setting** to access interface, as shown in Figure 9-62.

Figure 9-62 Adv. Setting interface



Step 2 Enable the **Password double authentication**. If the user want to playback video, he need input another username and password to authenticate.

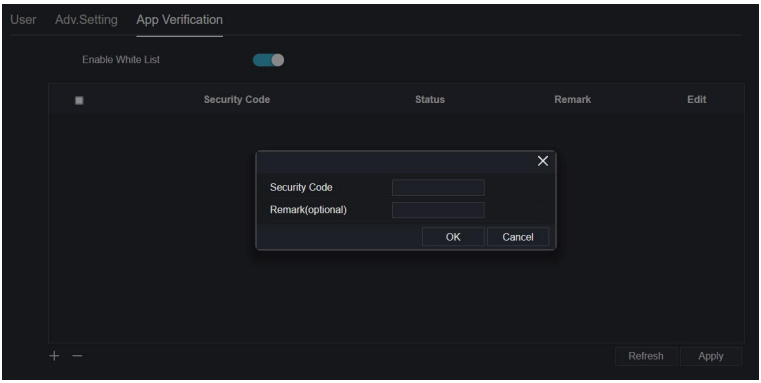
Step 3 Click Apply to save the device time setting. Click Refresh to return to previous setting.

----End

9.5.3.3 App Verification

Add the digital number to white list, when the user logins the cellphone App to manage the NVR, A series of numbers must be added in the whitelist for testing and verification to ensure the security.

Figure 9-63 App Verification



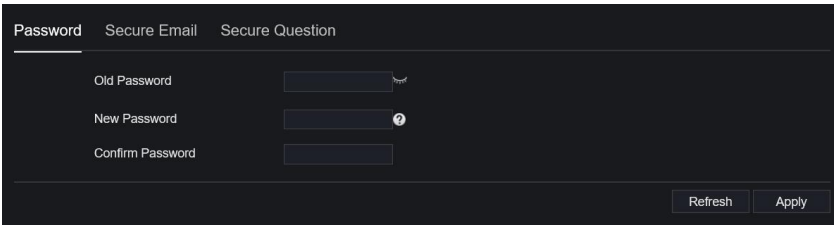
9.5.4 Security Center

9.5.4.1 Password

Procedure

Step 1 On the **System Setting** screen, choose **System >Security Center** to access password interface, as shown in Figure 9-64.

Figure 9-64 Password interface



Step 2 Input old password, new password and confirm password.

Step 3 Click Apply to save settings. Click Refresh to return to previous setting.

NOTE

Valid password range [6-32] characters.

At least 2 kinds of numbers, lowercase, uppercase or special character contained.

Only special characters are support ！ @#&*+=-%&”`(),/’.:;< >?^|~[]{}.

----End

9.5.4.2 Secure Email

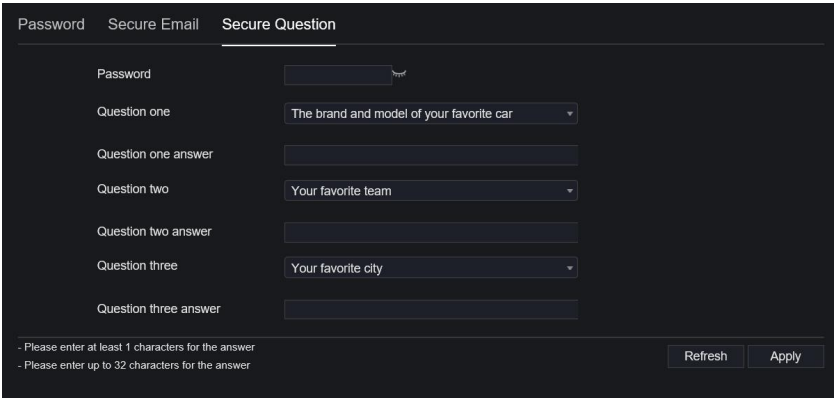
The secure email can receive the verification code of NVR, if user forgot the password accidentally.

Figure 9-65 Secure Email

----End

9.5.4.3 Secure Question

If the user forgets the password and answers the security question correctly, the user can change the password to log in to the NVR..



----End

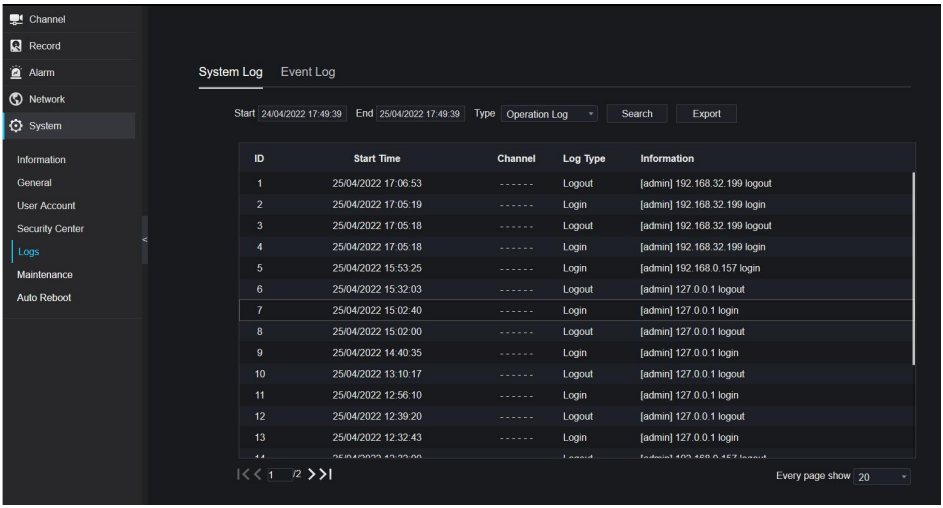
9.5.5 Logs

9.5.5.1 System Logs

Procedure

Step 1 On the **System Setting** screen, choose **System > Logs** to access logs interface, as shown in Figure 9-66.

Figure 9-66 System log interface



Step 2 Set start and end time from calendar.

Step 3 Select log type from drop-down list.

Step 4 Click **Search** to acquire log information.

Step 5 Click **Export** to export the logs.

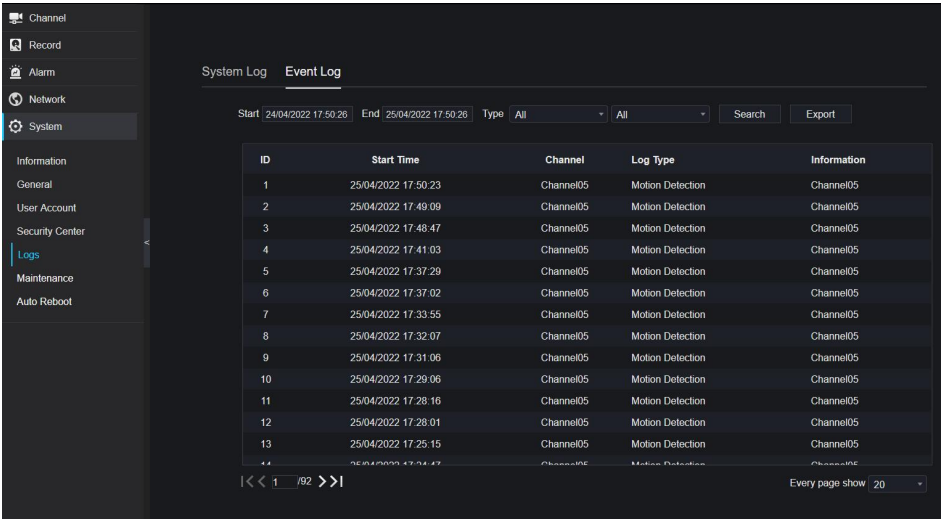
----End

9.5.5.2 Event

Procedure

Step 1 On the **System Setting** screen, choose **System >Logs > Event** to access logs interface, as shown in Figure 9-67.

Figure 9-67 Event log interface



Step 2 Set start and end time from calendar.

Step 3 Select event type from drop-down list.

Step 4 Click **Search** to acquire log information.

Step 5 Click **Export** to export the event logs.

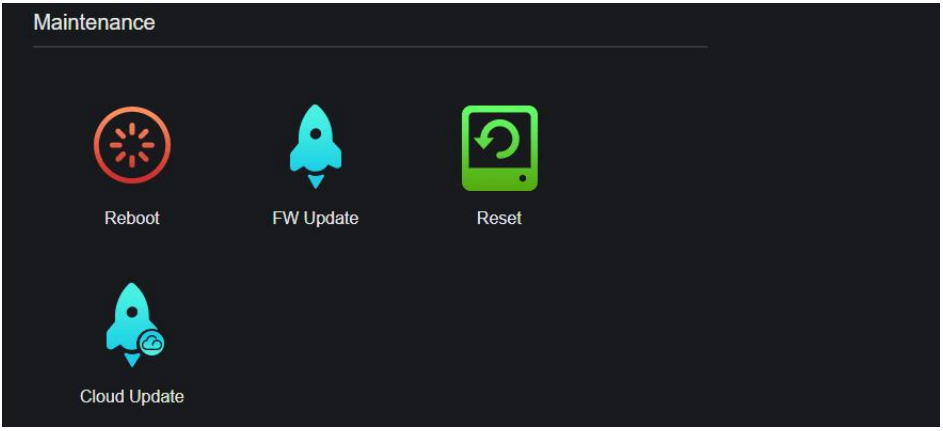
----End

9.5.6 Maintenance

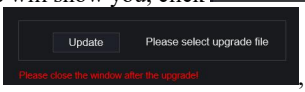
Procedure

Step 1 On the **System Setting** screen, choose **System >Maintenance** to access maintenance interface, as shown in Figure 9-68.

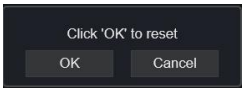
Figure 9-68 Maintenance interface



Step 2 Click **Reboot**, the pop-up message will show you, click OK to reboot.

Step 3 Click **Update,** the message shows 

, choose software from specific location to update.

Step 4 Click **Reset**, the pop-up message 

shows to you, click OK to reset.

Step 5 If the device is online, and the cloud server has the software, click the **Cloud Update, it shows** ‘make sure to update’ **,** click **OK** to update.

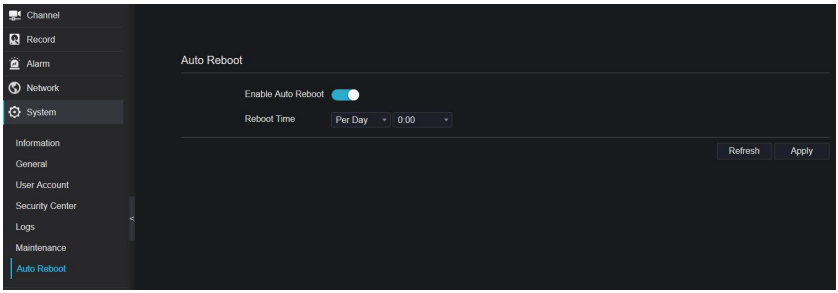
----End

9.5.7 Auto Reboot

Procedure

Step 1 On the **System Setting** screen, choose **System > Auto Reboot** to access auto restart enable the auto restart, the screen as shown in Figure 9-69.

Figure 9-69 Auto restart



Step 2 Select one type of restart time from drop-down list.

Step 3 Click Apply to save settings. Click Refresh to return to previous setting.

----End

9.6 Local (Supplied for IE Browser)

Set the image download path for snapshot and the record download path for record files in the download configuration interface.

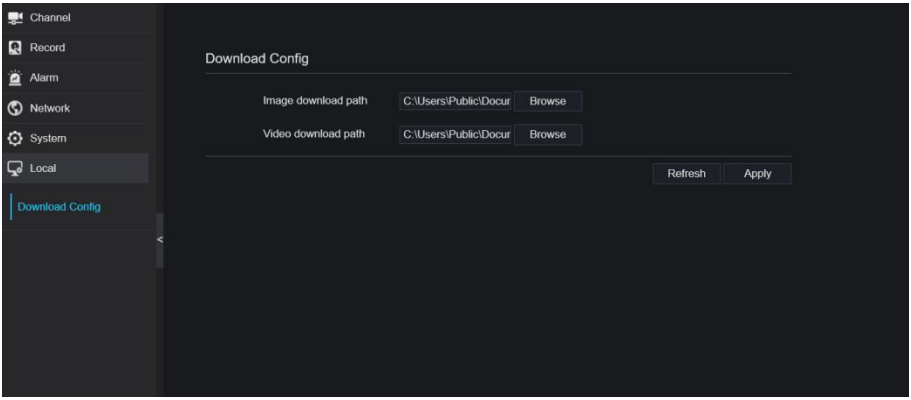
NOTE

This function is only used for IE browser.

Procedure

Step 1 Click **Local Download Config** in local interface, as shown in Figure 9-70.

Figure 9-70 Local interface



Step 2 Enter the image download path.

Step 3 Enter the record download path.

Step 4 Click Refresh to return the previous settings. Click Apply to save the settings.

----End