Redvision™

Web interface guide

All Generation 3 products (>2020) including:

X2 COMBAT

X3 STORM

X4 COMMANDER

KNIGHT VIEW

KNIGHT WATCH

KNIGHT EYE

VEGA 2052

VEGA 2065

ONVIF Member

V2.1 September 2023

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Contents

1 Quick Start

i.   Quick-Guide to essential configuration:

Your camera uses a built-in web server, to allow configuration from any web-browser application. The camera contains the following settings as a factory-default configuration:

Supported Web Browsers	MS Edge Chrome Firefox Basilisk Opera	Cameras have been optimised for use with Microsoft Edge browser. For advanced features such as SD Card playback, use the Internet Explorer Compatibility mode in Edge.
IP Address	DHCP/ 192.168.0.120	Camera will look for DHCP address on boot-up, if no DHCP present, camera will assign itself this fixed IP address. Your computer must be set to same IP range to connect to the camera (example: 192.168.0.254)
Stream 1	H.264, 1920x1080p,25fps, CBR 4Mbps	H.265 & MJPEG options available
Stream 2	H.264, D1, 25fps, CBR, 1.5Mbps	
Stream 3	H.264, CIF, 25fps, CBR, 256kbps	
ONVIF Port	80	Configurable
RTSP Port	554	
Login Credentials	admin/admin	
Camera orientation	Hanging	

Connecting to the camera:

Your camera will automatically get an IP address from a DHCP server if one is connected to the network. If not; the camera will configure a temporary fixed IP address of **192.168.0.120** so you can communicate with it. **Your computer must be set to operate in the same IP address range, so it can connect to the camera**. Use one of the above listed web browsers to access the camera's web interface.

NOTE: Microsoft Internet Explorer browser has now ceased operation and has been replaced by Edge Browser. The following X-Series firmware versions all support multi-browser operation:

PTZ Model	Firmware version*	Release Date
X2 COMBAT	v3.6.0804.1004.161.0.15.**8.7**	26/01/2022
X3 STORM	v3.6.0804.1004.161.0.15.**8.9**	20/03/2022
X4 COMMANDER	v3.6.0824.1004.161.0.13.**2.8**	18/02/2022
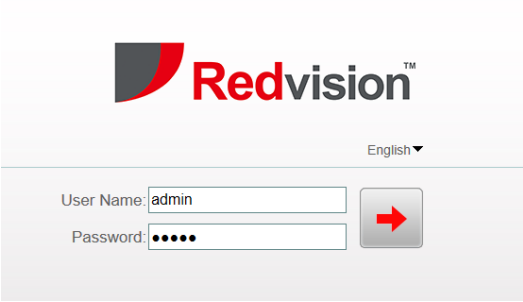
*Firmware versions higher than those listed above support Edge/ multi-browser operation.

Please contact Redvision Technical Support on +44 (0) 1420 448 448 or techsupport@redvisioncctv.com **to request latest firmware.**

Login via web browser

Type the camera's IP address into the web browser address bar, e.g. 192.168.0.120 and press enter.

The login page is displayed, as shown below.

- Enter the username and password.

- The default username is **admin**. The default password is **admin**. Change the password when you log in to the system for the first time to ensure system security.

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

- Click [→] to proceed. The main page is displayed.

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Main Page Layout

From the main page, you can view live images, set PTZ parameters, access the main configuration menus, change the password, and log out of the system. For detailed configuration help, please read the Web User Guide for Gen 3.0 products (available at www.redvisioncctv.com) Fig 1 below shows the main page layout.

Fig 1. Main page layout (Edge browser shown in example)

Changing the Password

Description

Upon first login to the camera, you will be prompted to change the default admin/admin password

for a more secure login. Once logged in, you can also click [icon] to change the password for logging in to the system.

Procedure

Step 1 Click [icon] in the upper right corner of the main page.

The **Change Password** dialog box is displayed, as shown in Figure 1-1.

Figure 1-1 Modify Password dialog box
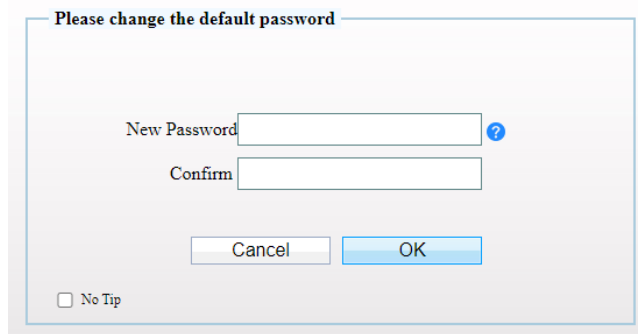
Step 2 Enter the old password, new password, and confirmation password.

Step 3 Click "No Tip" to avoid future prompts when logging in.

Step 4 Click **OK**.

If the message "Change own password success" is displayed, the password is successfully changed. If the password fails to be changed, the cause is displayed.

Step 5 Click **Confirm**.

The login page is displayed.

2 Browsing Videos

Browsing Live streams

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

Preparation

MS Edge browser does not require any special plugin or additional configuration, to view the camera. Live video is displayed in MJPEG format, at 12fps.

Description

To browse real-time videos, click **Live Video**. The **Live Video** page is displayed, as shown in Figure 1-2.

Figure 1-2 Live Video page
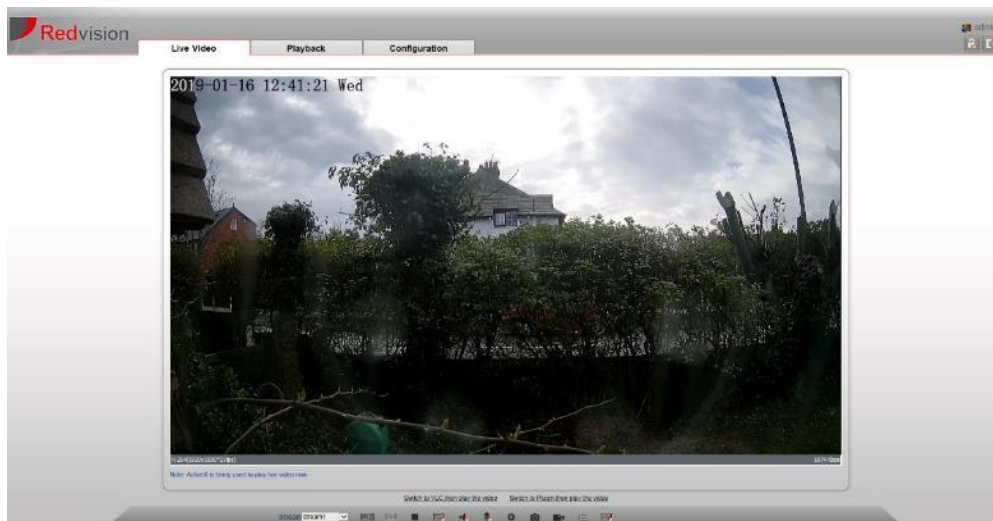
On the **Live Video** page, you can perform the following operations:

- Click ▣ to stop streaming live video (MJPEG format)

- Click ▶ to stream live video.

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

- Adjust the Zoom.

- Switch among preset streams 1, 2, and 3. For details about how to configure streams, see page 15.

- Click 📷 to snapshot and save the photos.

- Configure the sensor.

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

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

Controlling and Configuring the PTZ

PTZ control panel

The PTZ control panel is accessed via the PTZ button in the live view screen:

Controlling the PTZ

The left, right, up and down movement and 30x Motorised Zoom Lens can be controlled via the PTZ control interface.

Click [PTZ] below the **Live Video** page to open the **PTZ Control** interface as shown in Figure 1-3, click the buttons as shown to zoom the lens and adjust the focus manually:

Figure 1-3 PTZ Control area
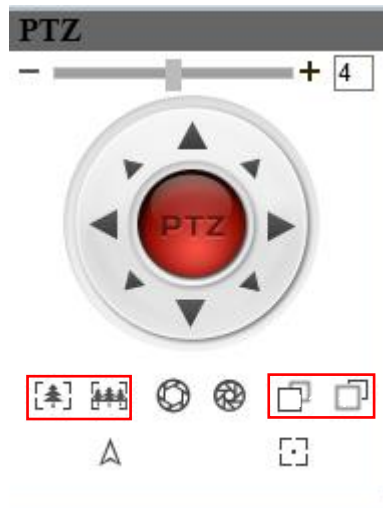
- Use the direction arrows to move the camera.
- Use the speed control slider at the top of the panel to adjust the speed of movement.
- Click ⌈⬥⌉ or ⌈⬥⬥⌉ to adjust the Zoom in or out.
- Click ⬜ or ⬜ to manually focus near or far.

Configuring the Device

Description

The device information includes:

- Device ID, name and MAC address.
- Camera Type, Product model and Manufacturer Name.
- Hardware and software versions.
- Number of video channels, number of alarm input channels, number of alarm output channels, and number of serial ports.

📖 NOTE

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

Procedure

Step 6 Click **Configuration > Device Info**.

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

Figure 1-4 Device Info page

🖥 Device Info

Device ID	0047C0
Device Name	RVX2 ✔
MAC Address	BC:34:00:00:47:C0

Camera Type	X-Series
Product Model	RVX2
Manufacturer Name	Redvision

Hardware Version	V060511_3
Firmware Version	t3.6.0804.1004.161.0.10.2.3

Channel Quantity	1
Alarm Input Quantity	4
Alarm Output Quantity	2
Serial Port Quantity	0
Network Card Quantity	1

Refresh

Step 7 View the device information, set the device ID and name according to Table 1-1.

Table 1-1 Device parameters

Parameter	Description	Setting
Device ID	Unique device identifier used by the platform to distinguish the devices.	[Setting method] The parameter cannot be modified.
Device Name	Name of the device. NOTE: The name cannot exceed 10 characters	[Setting method] Enter a value manually.
MAC Address	N/A	[Setting method] These parameters cannot be modified.
Camera Type		
Product Model		
Manufacturer Name		
Hardware Version		
Software Version		
Camera Quantity		
Alarm Input Quantity		
Alarm Output Quantity		
Serial Port Quantity		
Network card Quantity		

Step 8 Click .

- If the message "Apply success" is displayed, click **Confirm**. The system saves the settings.
- If the message "Apply failed" is displayed, ensure you have Administrator rights.

Setting Video and Audio Stream Parameters

Procedure

        Step 9   Click **Configuration > Stream > Base Stream.**

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

Figure 1-5 Stream Configuration page

        Step 10   Set the parameters according to 0.

Default Stream Settings:

Stream	Encoder	Profile	Audio	Resolution	FPS	GOP	Bitrate Type	Bitrate	Smart
1	H.264	HIGH	G711_ALAW	1920x1080	25	50	CBR	4096	OFF
2	H.264	HIGH	G711_ALAW	D1	25	50	CBR	1500	OFF
3	H.265	MID	G711_ALAW	CIF	25	50	VBR	256	OFF

Note: VMS platforms and NVRs vary in how they manage or control a camera's streaming. Some are passive and simply accept what the camera sends; others enforce their preferred settings onto the camera. It is important that you know how your platform works and how it will affect the camera. Ensure that camera settings are suitable for your chosen platform. If in doubt, consult with the VMS platform manufacturer's or supplier's Technical Support team first.

Table 1-2 Stream configuration parameters

Parameter	Description	Setting
Stream ID	The device supports 3 streams. • All streams can use H.264/H.265 or MJPEG codecs. • The maximum resolution can be set for streams 1, sub-streams 2 & 3 are lower-resolution streams (D1 and VGA respectively).	[Setting method] Select a value from the drop-down list box.
Name	Stream name. 10 characters maximum. Default value: "Stream x"	[Setting method] Enter a value manually.
Video Encode Type	The video codec determines the image quality and network bandwidth required by a video. Currently, the following codec standards are supported: • **H.264** H.264 consists of H.264 Base Profile, H.264 Main Profile, and H.264 High profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate codec based on the decoding performance of the device. H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements on the hardware performance. • **H.265** H.265 offers greater compression of the stream than H.264, and the ability to send higher resolution streams at lower bitrates, and also require less storage space on a recording platform. Theoretically, H.265 can compress the same stream to approximately half that of H.264. In practice, the actual performance of H.265 varies, depending upon stream settings and the decoding platform. H.265 has higher requirements for hardware performance than H.264. • **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.	[Setting method] Select a value from the drop-down list box. [Default value] H.264 High Profile NOTE The H.264 & H.265 High Profile codecs mean high requirements on PC hardware. If the hardware-decoding capability is low, use H.264 Main Profile or H.264 Base Profile.

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.	[Setting method] Select a value from the drop-down list box.
Frame Rate(fps)	The frame rate is used to measure displayed frames. A higher frame rate means smoother videos. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes. Frame rates for different frequencies are as follows: • 50 Hz: 1–25 f/s • 60 Hz: 1–30 f/s NOTE The frequency is set on the **Device Configuration** > **Camera** page. The biggest MJPEG coding format frame rate is 12 frames per second.	[Setting method] Slide the slider left or right.
I Frame Interval(f)	I frames do not require other frames to decode. A smaller I frame interval means better video quality but higher bandwidth.	[Setting method] Slide the slider left or right.
Bit Rate Type	The bit rate is the number of bits transmitted per unit of time. The following bit rate types are supported: • Constant bit rate (CBR) The compression speed is fast; however, improper bit rate may cause vague motion images. • Variable bit rate (VBR) The bit rate changes according to the image complexity. The encoding efficiency is high, and the definition of motion images can be ensured.	[Setting method] Select a value from the drop-down list box.
Max Bit Rate(500-12000)	Indicates the maximum value of the bit rate. Note – avoid high values, as this can cause issues with decoding latency.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Quality	The video quality of the video stream.	[Setting method] Slide the slider left or right. [Default value] 5

Step 11 Click **Apply**.

- If the message "Apply Success" is displayed, click **Confirm**. The system saves the settings.
- If the message "Apply failed" is displayed, you must apply for the Parameter Configure permission from an administrator.
- If a message indicating that the bit rate is out of range is displayed, enter a new bit rate value.

Setting ROI Parameters

Procedure

Step 12   Click **Configuration > Stream > ROI**.

The **ROI** page is displayed:

Figure 1-6 ROI page
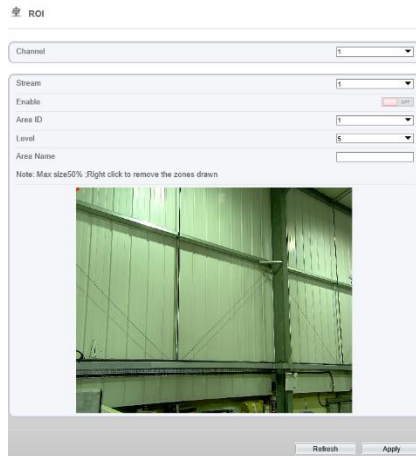
Step 13   Set the parameters:

Table 1-3 ROI parameters

Parameter	Description	Setting
Stream	Stream ID.	[Setting method] Select a value from the drop-down list box. [Default value] Stream1
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

Parameter	Description	Setting
Level	Visual effect of ROI. The higher the grade is, the clearer the selected areas are and the less distinct the outer areas become.	[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.

Setting Local Network Parameters

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 14 Choose **Configuration > Device > Local Network**..

The **Local Network** page is displayed, as shown in Table 1-4.

Figure 1-7 Local Network page

Step 15 Set the parameters according to Table 1-4.

Table 1-4 Local network parameters

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

Parameter	Description	Setting
Subnet Mask	Subnet mask of the network adapter.	[Setting method] Enter a value manually. [Default value] 255.255.255.0
Default Gateway	This parameter must be set if the client accesses the device through a gateway.	[Setting method] Enter a value manually. [Default value] 192.168.0.1
Preferred DNS Server	IP address of a DNS server.	[Setting method] Enter a value manually. [Default value] 192.168.0.1
Alternate DNS Server	IP address of a domain server. If the preferred DNS server is faulty, the device uses the alternate DNS server to resolve domain names.	[Setting method] Enter a value manually. [Default value] 192.168.0.2
MTU(800-1500)	Set the maximum value of network transmission data packets.	[Setting method] Enter a value manually. NOTE The MTU value range is from 800 to 1500, the default value is 1500. Check with Network Admin for appropriate value.

Step 16 Click **Apply**.

- If the message "Apply Success" is displayed, click **Confirm**. The system saves the settings. The message "Set network parameter success, Please login to the system again" is displayed. Use the new IP address to log in 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.

Configuring Device Ports

Description

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

Procedure

Step 17 Choose **Configuration > Device** > **Device Port**. The **Device Port page i**s displayed, as shown in Figure 1-8.

Figure 1-8 Device Port page

Step 18 Set the parameters according to Table 1-5.

Table 1-5 Device port parameters

Parameter	Description	Setting
Control Port	Port used for audio and video transfer and signalling 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

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

📖 **NOTE**

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

Step 19 Click **Apply**.

- If the "This operation will lead to the device to restart, continue?" dialog box is displayed, click **Confirm**. The system automatically restarts and saves the settings.

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

Configuring the 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 20 Choose **Configuration** > **Device** > **Date and Time**.

The **Date and Time** page is displayed:

Figure 1-9 Date and Time page

Table 1-6 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
Daylight Savings 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 savings Time**.
Device Time	Device display time.	[Setting method] • Synchronize the time from the PC. • Enter a value manually.

Parameter	Description	Setting
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 Port	Port number of the NTP server.	[Setting method] Enter a value manually. [Default value] 123

Step 21 Select a time zone from the **Time Zone** drop-down list box.

Step 22 (Optional) Click the button on to enable **Daylight saving changes** and specify the DST start time and end time, click , the message "Apply Success" is displayed.

Step 23 Modify the device time.

- Synchronizing time from the PC

  Click **Current PC Time**, click , the message "Apply Success" is displayed.

- Manually setting the device time
  - Click **Set Manually**.
    A time setting control is displayed.
  - Set the date and time.
  - Click , the message "Apply Success" is displayed.

Step 24 Configure the NTP.

1. Click the button on to enable **NTP**.
2. Enter the IP address or domain name of the NTP server and the port number.
3. Click , the message "Apply Success" is displayed.

Setting the Channel Name, Video System, and Source Resolution

Procedure

Step 25 Choose **Configuration** > **Device** > **Camera**.

The **Camera** page is displayed:

Figure 1-10 Camera page
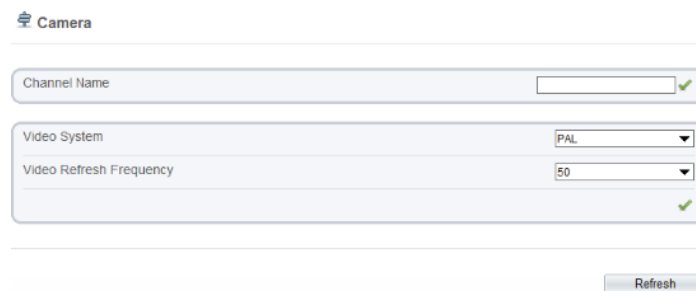
Table 1-7 Camera parameters

Parameter	Description	Setting
Channel Name	Channel name within the length of 0 to 32 bytes.	[Setting method] Enter a value manually.
Video System	The options are as follows: • PAL system used in UK, Europe and China mainland. • NTSC system used in USA and Japan. Note: the video refresh frequency setting affects the upper limit of the frames per second (FPS) setting. 50Hz = 25FPS max. 60Hz=30FPS max.	[Setting method] Select a value from the drop-down list box. [Default value] 50 Hz NOTE Whether the video system can be changed depends on the device model.
Video Refresh Frequency	The options are as follows: • 50 Hz: corresponds to the PAL system. • 60 Hz: corresponds to NTSC system .	[Setting method] Corresponds to the video system.

Step 26 Enter a channel name.

Step 27 NOTE

The channel name must not exceed 32 characters, numbers and letters can be used.

The message "Apply Success" is displayed.

Step 28 Click

Step 29 Click **Refresh**.

The system saves the settings.

📖 **NOTE**

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

Setting OSD Parameters

Description

The on-screen display (OSD) function allows you to display the device name, channel ID and name, time, and other customized contents on videos.

- When the resolution is D1 and CIF, the customised OSD in web interface can show 22 words maximum.
- The OSD supports some special characters.
- The camera will automatically show "**White Light On**" OSD when the white lights are enabled (Dual IR and White Light models only).

Procedure

Step 30 Choose **Configuration** > **Device** > **OSD**.
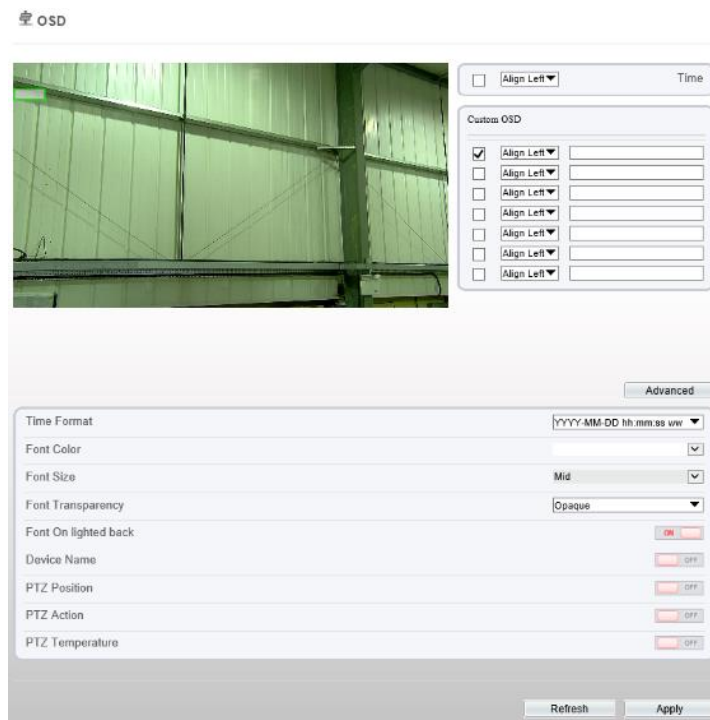
The **OSD** page is displayed:

Figure 1-11 OSD page

Table 1-8 OSD parameters

Parameter	Description	Setting
Area	Area of OSD	[Setting method] Select a value from the drop-down list box.
Font Size	Set the font size.	[Setting method] Select a value from the drop-down list box. [Default value] Mid
Device Name	Indicates whether to display the device name on videos.	[Setting method] Select "Device Name" from the drop-down list box in box 2 and click ➕ in box 5.
Channel ID	Indicates whether to display the channel ID.	[Setting method] Select "Channel ID" from the drop-down list box in box 2 and click ➕ in box 5.
Channel Name	Indicates whether to display the channel name.	[Setting method] Select "Channel Name" from the drop-down list box in box 2 and click ➕ in box 5.
Time	Indicates whether to display the time.	[Setting method] Select "Time" from the drop-down list box in box 2 and click ➕ in box 5.
Custom OSD	Enables you to enter a line of characters.	[Setting method] • Select "Custom OSD" from the drop-down list box in box 2 and click ➕ in box 5. • Click ✏️ , enter a value within the length of 0 to 32 characters in Custom OSD. • Click ✔️ to save the value.

Parameter	Description	Setting
Focusing on the state	Indicates whether to display the focusing on the state.	[Setting method] Select "Focusing on the state" from the drop-down list box in box 2 and click ➕ in box 5.
PTZ Position	Indicates whether to display the PTZ position.	[Setting method] Select "PTZ Position" from the drop-down list box in box 2 and click ➕ in box 5.
PTZ Action	Indicates whether to display the PTZ action.	[Setting method] Select "PTZ Action" from the drop-down list box in box 2 and click ➕ in box 5.
PTZ Temperature	Indicates whether to display the PTZ temperature.	[Setting method] Select "PTZ Temperature" from the drop-down list box in box 2 and click ➕ in box 5.
Time Format	Format in which the time is displayed.	[Setting method] Select a value from the drop-down list box. [Default value] YYYY-MM-DD hh:mm:ss ww
Font Colour	Set the font colour.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
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**.

Step 31   Select an OSD area.

Step 32   Set the OSD font.

Step 33   Select the parameters from the drop-down list box in box 2 and click ⊞ in box 5 to add the parameters to the OSD area; Select parameters in box 4, click ⊟ to delete the parameters in the OSD area; Select parameters in box 4, click ⬇⬆ to move the parameters up or down; Click ⊫⊫ to set the parameters left alignment or right alignment in OSD area.

📖 **NOTE**

A maximum of 5 parameters can be displayed in an OSD area.

Step 34   Click Advanced, set the parameter of "Time Format", "Font Colour", "Font Transparency", "Font on lighted back"

Step 35   Click Apply.

The message "Apply success" is displayed.

Configuring Audio Settings

Description

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

Procedure

Step 36   Choose **Configuration** > **Device** > **Microphone**.

The **Microphone** page is displayed, Table 1-9 describes the parameters.

Figure 1-12 Microphone page
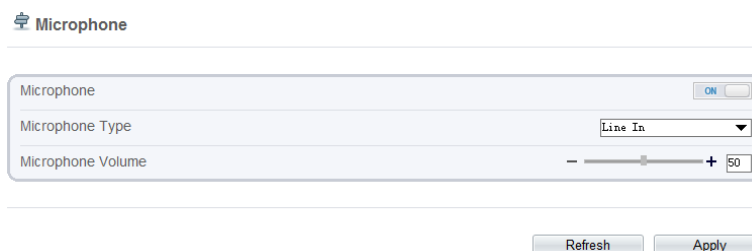
Table 1-9 Microphone parameters

Parameter	Description	Setting
Enable Microphone	Indicates whether to enable the microphone function.	[Setting method] Click the button on to enable microphone.

Parameter	Description	Setting
Microphone Type	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 audio input volume.	[Setting method] Slide the slider left or right. [Default value] 50 NOTE The value ranges from 0 to 100.

Step 37   Click **Apply**.

The message " Apply success" is displayed.

System

Description

On the System page, you can configure the language used by the time displayed in the video window and alarm emails and web mode.

Procedure

Step 38   Choose **Configuration** > **Device** > **System**.

The **System** page is displayed:

Figure 1-13 System page
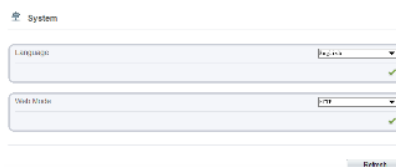
Step 39   Select a language from the **Language** drop-down list box.

Step 40   Click ✓ , the message "Apply success" is displayed.

Step 41   Click **OK**, the system saves the settings.

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

Step 42   Click ✓ , the message "This operation will lead to the device to restart, Continue? " is displayed.

Step 43   Click **OK**, the system restarts and saves the settings automatically.

Intelligent Analysis

Parameter Settings

Advanced IVA Settings

Choose **Configuration** > **Intelligent Analysis** > **Advanced** to access the **Advanced** setting page, as shown in 0.

Figure 1-14 Advanced Parameter Setting page

Function Definition

The Advanced IVA Settings page allows the user to set global values, fine-tuning the analytics environment; affecting all Intelligent Analytics functions set in the camera. These settings are:

- **Scene (Outdoor or Indoor)**: Default: **Outdoor**

- **Real Size in Scene (10-10000cm)**: The horizontal scene width normally viewed by the camera. Default: **0**

- **Alarm Interval (1-1800s)**: Sets ignore period for repeated events. Next event will not be processed until the Alarm Interval period has expired. Default: **10 seconds**

Configure each setting according to the scene normally viewed by the camera.

Click **Apply** to save the settings.

Scene Setting

You can enable/disable Camera Shake, High Noise, Low Contrast and Period Motion based on Scene settings. Table 1-10 describes the specific parameters.

Table 1-10 Advanced Parameter Description

Parameter	Description	Setting
Scene	Fine-tune the camera scene type. The Analytics will be optimized for the scene type.	[How to set] Select from the drop-down list. [Default value] Outdoor
Real Size in scene （cm）	Actual width of scene, viewed by the camera. The default value is 0 and the setting value is 10-10000 centimetres (100m). The Analytics will be optimized for the scene	[How to set] Enter a value in the area box. [Default value] 0

Setting methods and rules

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

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

Important Note: If the camera is moved, the analytics will trigger from the moving scene. Only use analytics/ motion detection on static scenes!

Perimeter

Description

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

Procedure

Step 44 Select **Configuration** > **Intelligent Analysis** > **Perimeter** to access the **Perimeter** interface, as shown in Figure 1-150.

Figure 1-15 Perimeter Setting Interface
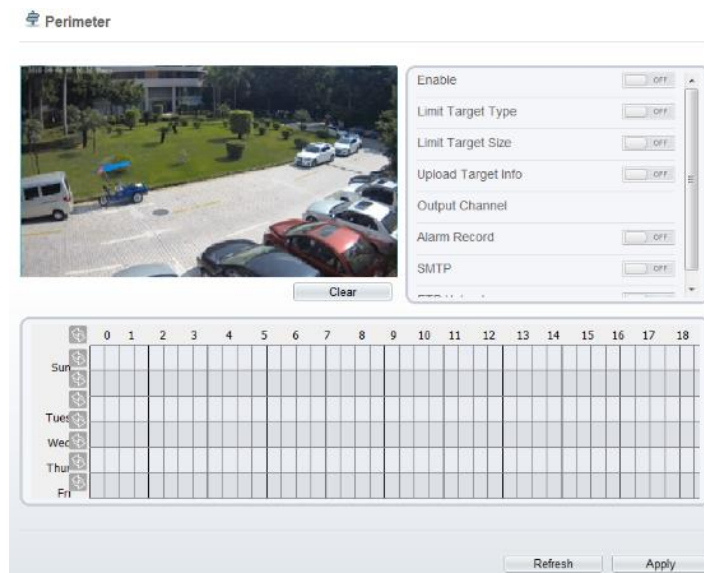
Step 45 Set all parameters for perimeter. Table 1-11 describes the specific parameters.

Table 1-11 Perimeter Parameter Description

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when targets enter the deployment area, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10

Parameter	Description	Setting
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ▢ below the real-time video in a flash browser to turn ▢ into ▢. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 46   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 1-161.

Figure 1-16 Deployment Area Setting Interface

📖 **NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 47 Set deployment time

Figure 1-17 Deployment Time Setting Interface
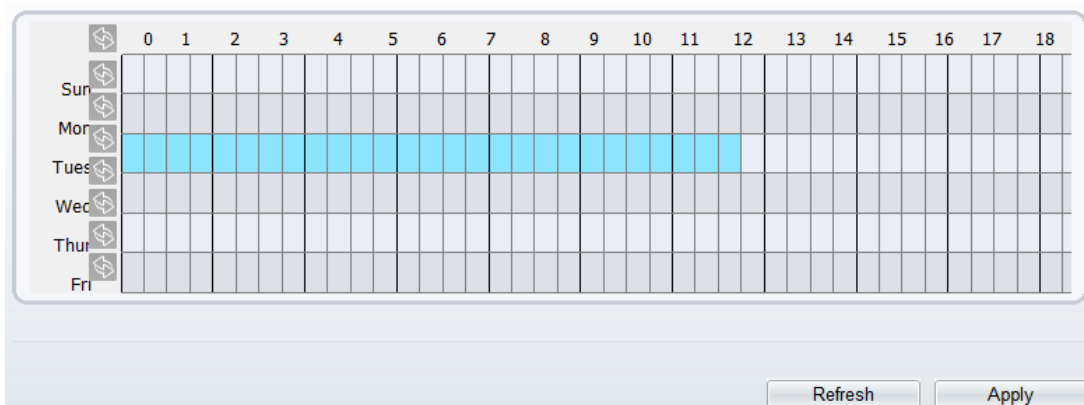
Single Virtual Fence

Description

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

Procedure

Step 48 Select **Configuration** > **Intelligent Analysis** > **Single Virtual Fence** to access the **Single Virtual Fence** setting interface, as shown in Figure 1-183:

Figure 1-18 Single Virtual Fence Setting Interface
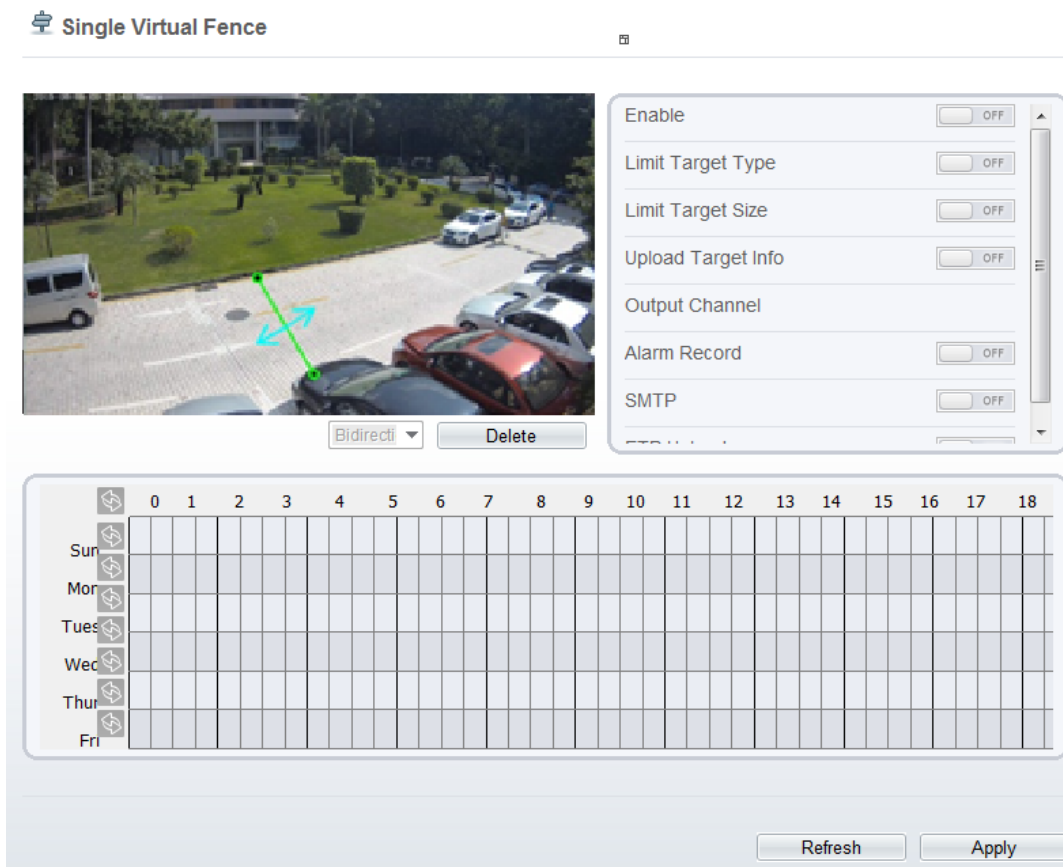
Step 49 Set all parameters for the single virtual fence. Table 1-12 describes the specific parameters.

Table 1-12 Description of Parameters for Single Virtual Fence

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when targets cross the single virtual fence, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, you need to well set "Real size in scene" in advanced parameters, otherwise no alarms may be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
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 the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ▭ below the real-time video in a flash browser to turn ▭ into ▭. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 50 Set a deployment area

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

Setting a single virtual fence: Click a line (and the trip line turns red) to select the single virtual fence and set its direction as Positive, Reverse or Bidirectional, or delete the selected line. You can also press and hold the left mouse button at the endpoint of a single virtual fence and move

the mouse to modify the position and length of this single virtual fence. You can right-click to delete the single virtual fence, as shown in Figure 1-194:

Figure 1-19 Deployment Area Setting Interface
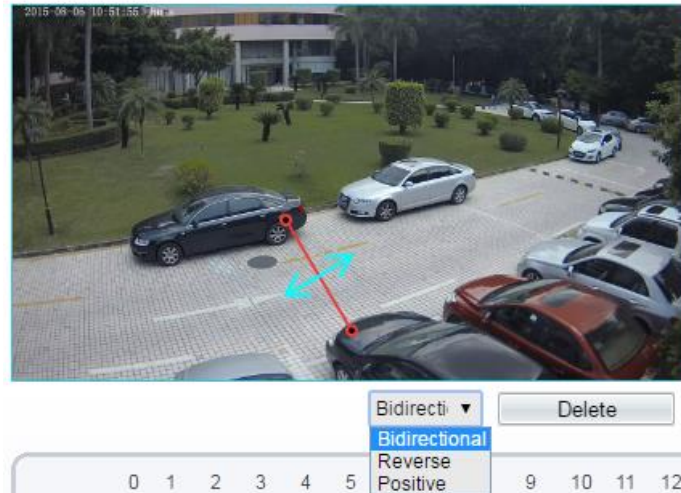
> 📖 **NOTE**
>
> - A single virtual fence is not within any deployment area, so the trace always exists. Only when the target object moves out of the field of view will the trace disappear.
> - Try to draw the single virtual fence in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the single virtual fence.
> - The single virtual fence which detects humans as the recognition target cannot be too short, as short single virtual fences can miss targets.

Step 51 Set deployment time

Details please refer to Step 47 Set deployment time**.**

Double Virtual Fences

Description

"Double virtual fences" refers to two lines that are set and operate as a "double knock" event within the field of view. when valid targets (such as human or vehicle) move along the set travel direction and cross these lines in a certain order (line 1 followed by line 2) within the "pass max time" setting, an alarm is generated.

Procedure

Step 52   Select **Configuration** > **Intelligent Analysis** > **Double Virtual Fences** to access the **Double Virtual Fences** setting interface, as shown in Figure 1-205.

Figure 1-20 Double Virtual Fences Setting Interface
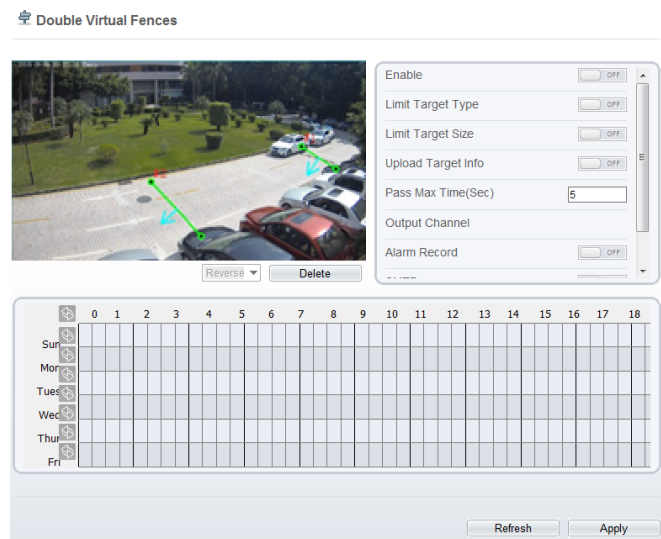
Step 53   Set all parameters for the double virtual fences. Table 1-135 describes the specific parameters.

Table 1-13 Description of Parameters for Double Virtual Fence

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when targets cross the double virtual fences in a certain order (line 1 followed by line 2), it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10

| Parameter	Description	Setting
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Pass Max Time (Sec)	An alarm is generated only when the time taken to cross the double virtual fences is less than the value. The default value is 10 seconds and the setting range is 1-60 seconds.	[How to set] Enter a value in the area box.
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking below the real-time video in a flash browser to turn into . When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 54 Set a deployment area

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

Setting double virtual fences: Click one of the double virtual fences (and the virtual fence turns red) to select this virtual fence and set the direction to **Positive** or **Reverse**, or delete the selected line. You can also press and hold the left mouse button at the endpoint of a virtual fence and move the mouse to modify the position and length of this virtual fence. You can right-click to delete the double virtual fences, as shown in Figure 1-216:

<p align="center">Figure 1-21 Deployment Area Setting Interface</p>
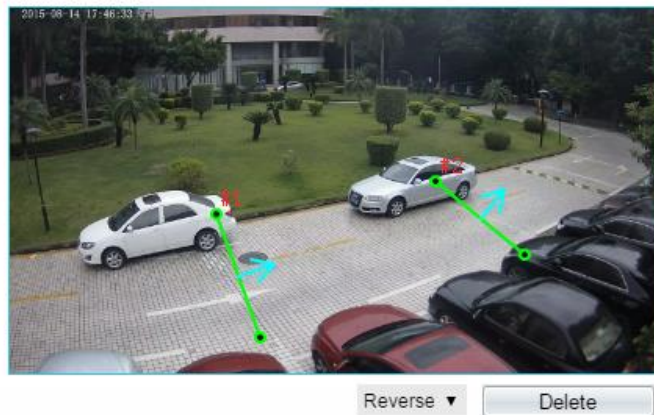
NOTE

- The two virtual fences are in sequential order. An alarm is generated only when a target crosses virtual fence 1 and then virtual fence 2 within the set maximum passing time.
- The double virtual fences are not within any deployment area, therefore, when an alarm is generated, the trace always exists. Only when the target object moves out of the field of view, the trace disappears.
- Try to draw double virtual fences in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the double virtual fences.
- The double virtual fences which detect human foot as the recognition target cannot be too short, because short double virtual fences tend to miss targets.

Step 55 Set deployment time

Details please refer to Step 47 Set deployment time**.**

Loiter

Description

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

Procedure

Step 56 Select **Configuration** > **Intelligent Analysis** > **Loiter** to access the **Loiter** setting interface, as shown in Figure 1-22.

Figure 1-22 Loiter Setting Interface
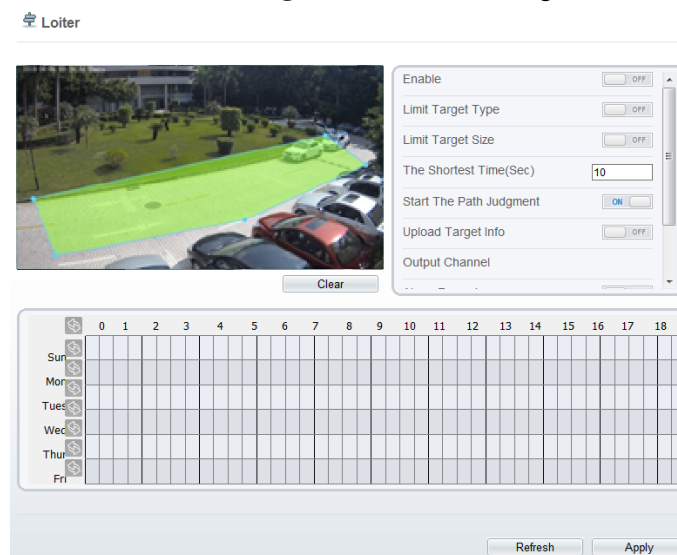
Step 57 Set all parameters for loitering. Table 1-14 describes the specific parameters.

Table 1-14 Loitering Parameter Description

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the loitering time of a (single) target meets the set shortest loitering time, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF

Parameter	Description	Setting
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
The Shortest Time (Sec)	The time that a target object spends in loitering cannot be less than the shortest loitering time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 10s
Start the Path Judgment	The enabling of path analysis makes loitering judgment accurate by using the software algorithm, for example, no alarm is generated when a person walks along a straight line if the button is set **ON.**	[How to set] Click to enable Start the Path Judgment and enable path analysis.
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 the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ▢ below the real-time video in a flash browser to turn ▢ into ▢. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 58 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 1-2328:

Figure 1-23 Deployment Area Setting Interface

📖 **NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 59   Set deployment time

Details please refer to Step 47 Set deployment time**.**

Multiple Loiter

Description

Multiple loiter allows setting the shortest loitering time for multiple targets of specified type (such as human or vehicle) 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 60   Select **Configuration** > **Intelligent Analysis** > **Multi Loiter** to access the **Multi Loiter** setting interface, as shown in Figure 1-249:

Figure 1-24 Multi Loiter Setting Interface
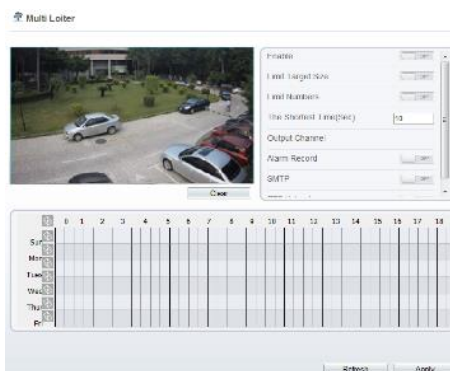
Step 61 Set all parameters for multiple loitering. Table 1-15 describes the specific parameters.

Table 1-15 Multiple Loitering Parameter Description

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the loitering time of the multiple targets within the deployment area meets the set shortest time, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	Limit Target Size
Limit Numbers	When Limit Numbers is set to OFF, an alarm is generated no matter how many people loiter. When Limit Numbers is set to ON, if the minimum number is set to 2 and the maximum number is set to 3, an alarm is generated for 2-3 people loitering. Other settings are the same as loitering.	[How to set] Click to enable Limit Numbers.
The Shortest Time (Sec)	The time that a target object spends in loitering cannot be less than the shortest loitering time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 10s
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click the parameter and input an ID.

Step 62 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 1-250:

Figure 1-25 Deployment Area Setting Interface

> 📖 **NOTE**
>
> - A drawn line cannot cross another one, or the line drawing fails.
> - Any shape with 32 sides at most can be drawn.
> - The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 63 Set deployment time

Details please refer to Step 47 Set deployment time**.**
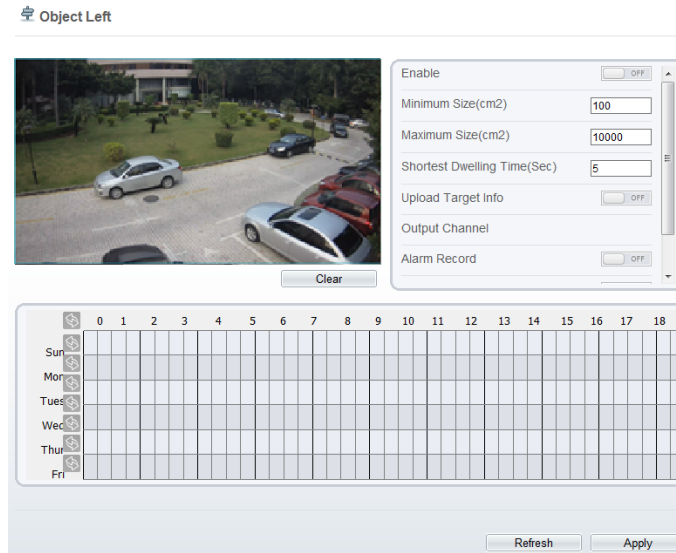
Object Left

Function Definition

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

Procedure

Step 64 Select **Configuration** > **Intelligent Analysis** > **Object Left** to access the **Object Left** setting interface, as shown in Figure 1-261:

Figure 1-26 Object Left Setting Interface

Step 65 Set all parameters for object left. Table 1-168 describes the specific parameters.

Table 1-16 Description of Parameters for Object Left

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the dwelling time of an object within the deployment area meets the set shortest dwelling time. it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Minimum (Maximum) Size(cm²)	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Enter a value in the area box.
Shortest Dwelling Time (Sec)	An alarm is generated when the object left time is longer than the shortest dwelling time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 5s
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 the parameter and input an ID.
Upload	Enable the function of uploading target	[How to set]

Parameter	Description	Setting
Target Info	information by clicking [image] below the real-time video in a flash browser to turn [image] into [image]. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	Click to enable Upload Target Info. [Default value] OFF

Step 66 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 1-272:

Figure 1-27 Deployment Area Setting Interface

NOTE

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 67 Set deployment time

Details please refer to Step 47 Set deployment time**.**

Object Removed

Description

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

Procedure

Step 68 Select **Configuration** > **Intelligent Analysis** > **Object Removed** to access the **Object Removed** setting interface, as shown in Figure 1-283:

Figure 1-28 Object Removed Setting Interface Setting Interface
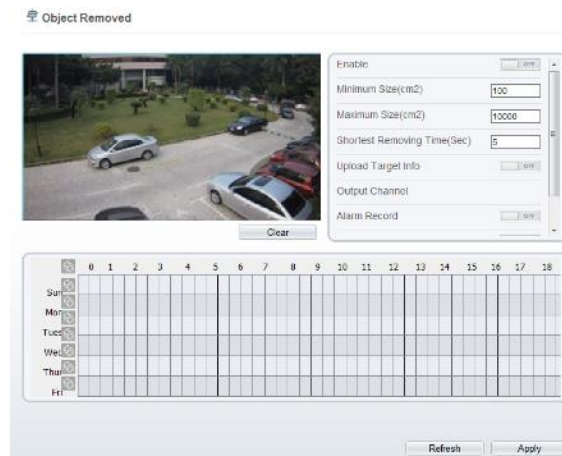
Step 69 Set all parameters for object removed. Table 1-1719 describes the specific parameters.

Table 1-17 Description of Parameters for Object Removed

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the removing time of an object within the deployment area meets the set shortest removing time, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Minimum (Maximum) Size(cm²)	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Enter a value in the area box.

Parameter	Description	Setting
Shortest Removing Time (Sec)	An alarm is generated when the object removed time is longer than the shortest removing time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box. [Default value] 5s
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 the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ▨▨ below the real-time video in a flash browser to turn ▨▨ into ▨▨. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 70 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 1-294:

Figure 1-29 Deployment Area Setting Interface

NOTE

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 71 Set deployment time

Details please refer to Step 47 Set deployment time.

Abnormal Speed

Function Definition

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

Procedure

Step 72 Select **Configuration** > **Intelligent Analysis** > **Abnormal Speed** to access the **Abnormal Speed** setting interface, as shown in Figure 1-305:

Figure 1-30 Abnormal Speed Setting Interface
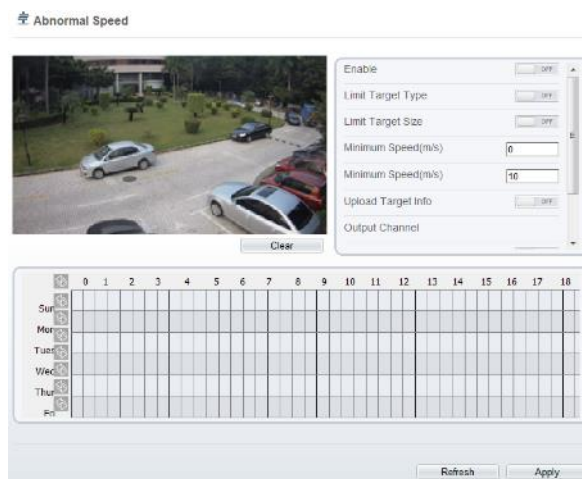
Step 73 Set all parameters for the abnormal speed. Table 1-180 describes the specific parameters.

Table 1-18 Description of Parameters for Abnormal Speed

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the travel speed of a target of specified type meets the alarm condition, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF

Parameter	Description	Setting
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Minimum (Maximum) Speed (m/s)	Set prohibited speeds. When a target object crosses an area at a speed between the minimum and maximum speeds, an alarm is generated. Setting range: 0-1,000 m/s.	[How to set] Enter a value in the area box.
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ░░░ below the real-time video in a flash browser to turn ░░░ into ░░░. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 74   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 1-316:

Figure 1-31 Deployment Area Setting Interface

> 📖 **NOTE**
> - A drawn line cannot cross another one, or the line drawing fails.
> - Any shape with 32 sides at most can be drawn.
> - The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 75 Set deployment time

Details please refer to Step 47 Set deployment time**.**

Converse

Description

Converse allows setting the travel direction criteria for a target within an area on the video screen. When a target of specified type (such as human or vehicle) within this area moves in the set travel direction, an alarm is generated.

Procedure

Step 76 Select **Configuration** > **Intelligent Analysis** > **Converse** to access the **Converse** setting interface, as shown in Figure 1-32:

Figure 1-32 Converse Setting Interface
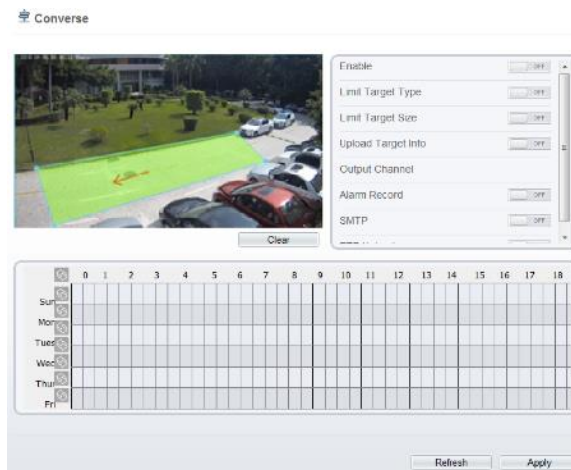
Step 77 Set all parameters for converse. Table 1-191 describes the specific parameters.

Table 1-19 Converse Parameter Description

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when a target within the deployment area moves in the set travel direction, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Limit Target Type	Alarm events are set based on target type, with options of human, vehicle, human or vehicle. When the device is used indoors, due to confined area and relatively large targets, alarms can be triggered by people, even if "Vehicle" is selected, leading to false alarms. It is recommended to set the target type to "Human" for indoor use.	[How to set] Click to enable Limit Target Type. [Default value] OFF
Limit Target Size	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Click to enable Limit Target Size. [Default configuration] OFF
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click the parameter and input an ID.
Upload Target Info	Enable the function of uploading target information by clicking ▒▒ below the real-time video in a flash browser to turn ▒▒ into ▒▒. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 78 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 1-33:

Figure 1-33 Deployment Area Setting Interface

📖 **NOTE**

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 79 Set deployment time

Details please refer to Step 47 Set deployment time**.**
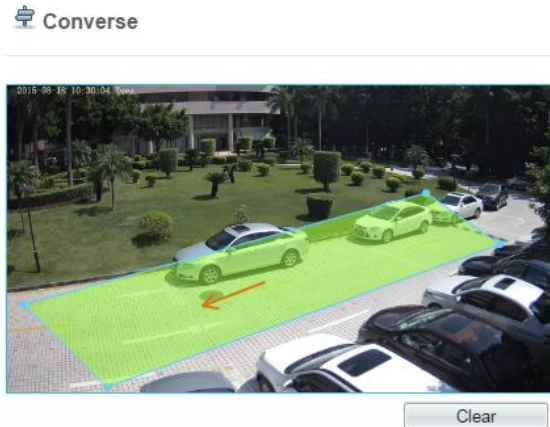
Illegal Parking

Function Definition

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 (vehicle) within this area meets the set allowed parking time, an alarm is generated.

Procedure

Step 80 Select **Configuration > Intelligent Analysis > Illegal Parking** to access the Illegal Parking setting interface, as shown in Figure 1-34:

Figure 1-34 Illegal Parking Setting Interface
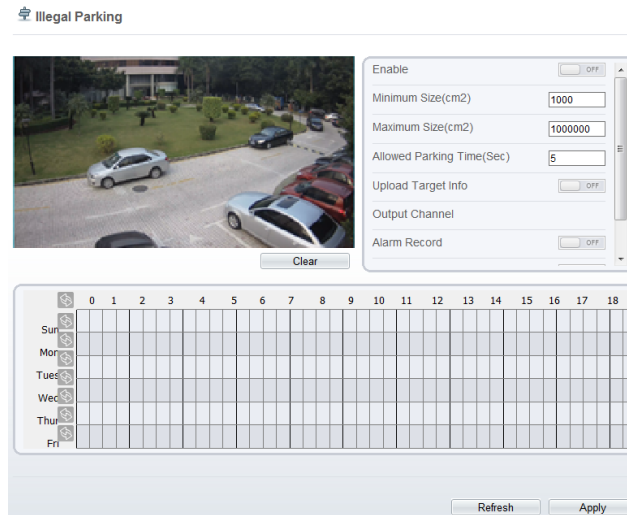
Step 81 Set all parameters for illegal parking. Table 1-20 describes the specific parameters.

Table 1-20 Description of Parameters for Illegal Parking

Parameter	Description	Setting
Alarm Interval (1-1800s)	An alarm is generated when the dwelling time of a target (vehicle) within the deployment area meets the set allowed parking time, it is generated again in next intervals (alarm interval) until the end of event. Setting range: 1-1,800 seconds.	[How to set] Enter a value in the area box. [Default value] 10
Minimum (Maximum) Size(cm²)	The target size for triggering an effective alarm is set based on the actual target size. The default value is 1000-100000 square centimetres and the setting range is 0-1000000 square centimetres. When setting the target size, set the "Real size in scene" function in advanced parameters, otherwise alarms might not be generated.	[How to set] Enter a value in the area box.
Allowed parking time (Sec)	An alarm is generated when the object left time is longer than the shortest dwelling time. Setting range: 5-60 seconds.	[How to set] Enter a value in the area box.
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 the parameter and input an ID.

Parameter	Description	Setting
Upload Target Info	Enable the function of uploading target information by clicking [image] below the real-time video in a flash browser to turn [image] into [image]. When an alarm is triggered, the target movement trace can be displayed (The trace can be seen only within the deployment area and disappears after the target leaves the deployment area)	[How to set] Click to enable Upload Target Info. [Default value] OFF

Step 82 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 1-35:

Figure 1-35 Deployment Area Setting Interface

NOTE

- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 32 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Step 83 Set deployment time

For details please refer to Step 47 Set deployment time**.**

Intelligent Auto-Tracking

Choose **Configuration** >Intelligent Tracking. The settings page is displayed:

Intelligent Tracking	OFF
Calibration Coefficient	− ▬▬●▬▬ + 1
Trace Magnify	− ▬●▬▬▬ + 7
Time Of Duration(sec.)	− ▬▬●▬▬ + 120
Start Point	None ▼

Refresh   Apply

This feature is disabled by default. To enable, click the red **OFF** button until it shows **ON**.

Intelligent Auto Tracking uses a motion detection analytic to detect movement in the scene and the direction of the movement. Once detected, the camera will track the target's movement, using pan, tilt and zoom functions. **Note: The Tracking function is designed to operate as a standalone process. It should not be used with preset tours, Idle (return to preset) function or other analytics functions.**

Auto Tracking is optimised at heights of 5m and above, please ensure that no unwanted movement occurs in the camera's view. It is advised to set a home preset position to cover the desired area, positioning the camera to exclude any unwanted continual movement (such as traffic on nearby road/ railway, flags and areas of continuous movement such as public walkways). This will allow the camera to monitor only desired movement events in the scene, such as a car entering a car park.

The **Calibration Coefficient** and **Trace Magnify** settings apply weighting values, to increase accuracy for certain scenes. It is advised to begin testing with the default settings, they should work well in most outdoor applications.

The **Time of Duration** setting sets a maximum follow time, default setting is **120 seconds**. This will need to be changed, according to the size of the scene and likely travel time of moving objects.

Start Point allows a standard preset position to be used as the starting point for all tracking activity. The camera will return to the chosen point after 8 seconds, once the target has been lost. **Do not use the IDLE function when this setting is enabled!** To configure, simply set a preset position where you want the tracking to always start from (e.g., Security gate, driveway, emergency exit). Do this via the PTZ control pop-up in the live screen section of the web interface (LIVE tab). Once the preset position has been set, simply assign the same preset number as the **Start Point** in this menu.

Click **Apply** to save any changed settings.

Configuring the Alarm Function

Setting Alarm Output Parameters

Procedure

Step 84 Choose **Configuration** >**Alarm** > **Alarm Output**.

The **Alarm Output** page is displayed:

Figure 1-36 Alarm Output page

Step 85 Set the parameters.

Table 1-21 Alarm Output parameters

Parameter	Description	Setting
Alarm Out	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 input channel name.	[Setting method] Enter a value manually. [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. • **Normally 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 Out 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
Manual Control	Control the alarm output.	-

Step 86 Click **Apply**.

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

Setting Disk Alarm Parameters

Procedure

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

The **Disk Alarm** page is displayed:

Figure 1-37 Disk Alarm page

Step 2 Click the button on to enable disk alarm.

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

Step 4 Select **Out channel** number.

Step 5 Click **Apply**.

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

Setting Network Alarm Parameters

Procedure

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

The **Network Alarm** page is displayed:

Figure 1-38 Network Alarm page

Step 2   Click the button on to enable exceptional alarm.

Step 3   Configure the network exceptional alarm interval.

Step 4   Select **Out Channel** number.

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

Step 6   Click **Apply**.

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

Setting I/O Alarm Linkage Parameters

Description

Alarm linkage refers to creating a link between an alarm input and a PTZ. IF set, when receiving an alarm from an input, the camera enables the chosen PTZ function.

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

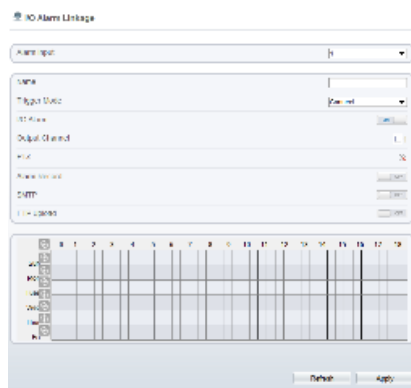- Configure the trigger mode.
- Enable the I/O alarm function.
- Configure the I/O alarm schedule.
- Configure the alarm output channel.
- Configure the PTZ linkage policy.
- Enable the Alarm record.
- Enable SMTP.
- Enable FTP Upload.

Procedure

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

The **I/O Alarm Linkage** page is displayed:

Figure 1-39 I/O Alarm Linkage page

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

Step 3 Enter the name for alarm linkage.

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

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

Step 6 Select Output channel.

Step 7 Click on the right of PTZ parameters and configure the PTZ linkage policy.

Set the **Camera PTZ Type**, and **Name** parameters, then click **OK**.

Step 8 Configure the I/O alarm schedule.

Details please refer to Step 47 Set deployment time**.**

Step 9 Click **Apply**.

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

Setting Motion Alarm Parameters

Description

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

- Enable the motion alarm function.
- Set the motion alarm interval.
- Set the motion detection area.
- Set motion alarm the sensitivity
- 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.

- Enable the Alarm record.
- Enable SMTP.
- Enable FTP Upload.

Procedure

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

The **Motion Alarm** page is displayed:

Figure 1-40 Motion Alarm page
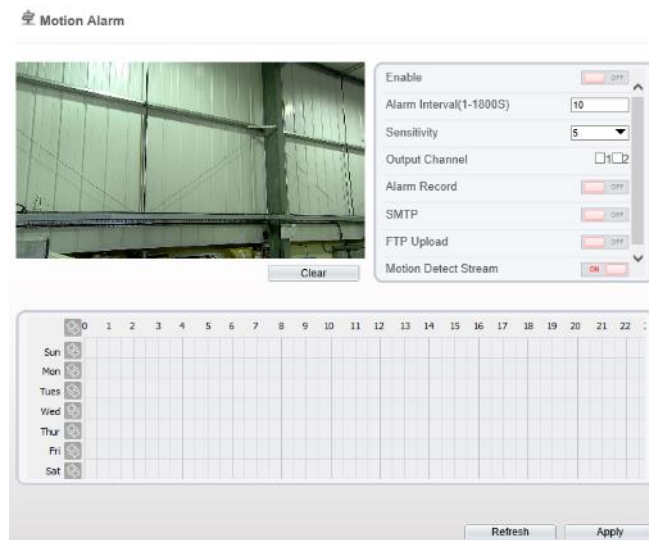
Step 2   Click the button on to enable motion alarm.

Step 3   Configure the motion interval.

Step 4   Configure the sensitivity.

Step 5   Configure the schedule time setting.

Details please refer to Step 47 Set deployment time**.**

Step 6   Configure the detection area.

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

Figure 1-41 Motion Area Setting page
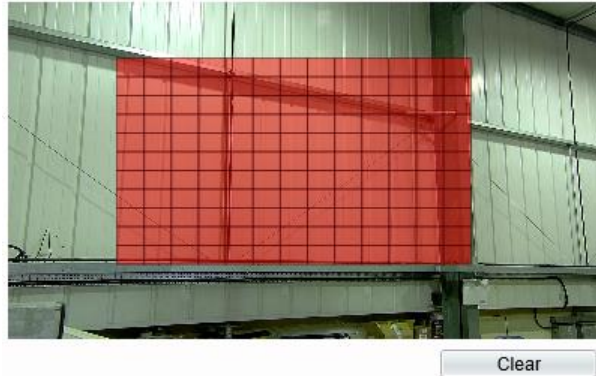
☐ NOTE
      Click **Clear** to delete a detection area.

Step 7   Click **Apply.**

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

Important Note: If the camera is moved, the analytics will trigger from the moving scene. Only use analytics/ motion detection on static scenes!

PTZ Parameter Settings

Install mode

- Install modes select the orientation of the camera, options are:

    Hanging (default)

    Upright (for pole/tower-top mounting)

    Upright, Arms Tilted (with arms cantilevered forwards)

- Motor torque control (100% default) – applies full power to the motors when the camera is stationary. Can be set to 70% or 40% power, but should remain set at 100% in areas of high winds or vibration.

- Bandwidth (0-100Mb/s default) – sets Network port speed. Can be set to force 10 Mb/s for longer cable runs. Attention should be paid to stream settings when 10Mb/s setting is used. <u>All streams combined should not exceed 75% of the port speed setting.</u>

Datum Check

Datum Calibration	Off ▼
Time interval(Sec)	86400
	Check Now

- Sets a scheduled datum check, with a time interval in seconds (86400=every 24hours). A datum check will force the camera to re-calibrate its datum points, to maintain accuracy.

- The Datum can be manually forced by clicking the "Check Now" button, should the camera have been forcibly moved off-position.

Wiper Settings

Wiper	Stop ▼
Time interval(Sec)	180
Wash	Wash

- The Wiper can be set to run at a specific interval, set in seconds. The wiper will continue to run until the command is set to disabled.

- The Wash can be manually tested by clicking the "Wash" button.

Preset Shortcuts

Intermittent Wiper Control	Not Set ▼
Wiper Start/Stop	Preset4 ▼
Wiper Stop	Not Set ▼
D/N Setting-Auto	Preset3 ▼
Force Day Mode	Not Set ▼
Force Night Mode	Preset1 ▼
Force White Light On/Off	Preset2 ▼
Wash	Not Set ▼

- Each auxiliary function (wiper, wash, lights, Day/Night modes) can be assigned to a preset position number, to allow the auxiliary functions to be controlled remotely. Each time the preset number is sent to the camera, the appropriate auxiliary function will be turned on or off. Most VMS platforms and NVRs can control the functions by sending the preset number via ONVIF.

Click **Apply** to save the new settings, before exiting the page.

Configuring the Recording Function

Configuring a Recording Policy

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

Procedure

Step 8 Choose **Configuration** > Local Record > **Record Policy**.

The **Record Policy** page is displayed:

Figure 1-42 Record Policy page
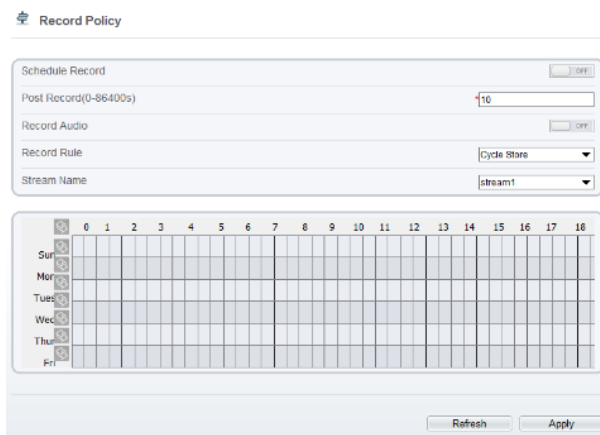
Step 9 Set the parameters:

Table 1-22 Recording policy parameters

Parameter	Description	Setting
Schedule Record	Enables schedule record that you can configure the time policy.	[Setting method] Click the button on to enable schedule record. [Default value] OFF
Post Record	Recording duration (in seconds) after an alarm is generated.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Record Audio	Indicates whether to record audios with the video stream.	[Setting method] Click the button on to enable record audio.
Record Rule	Rule for saving recordings. The options are as follows: • **Cycle Write**: 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 10 Configure a recording plan.

Details please refer to Step 47 Set deployment time**.**

Step 11 Click **Apply**.

- If the message "Apply success" is displayed, click **Confirm**. The system saves the settings.
- If other information is displayed, set the parameters correctly.

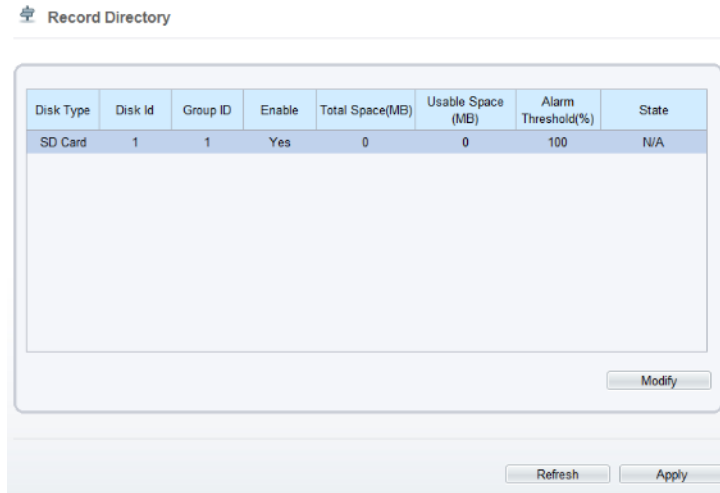# Configuring a Record Directory

Description

Recordings can be stored in an SD card.

Procedure

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

The **Record Directory** page is displayed:

Figure 1-43 Record Directory page

Step 2 Set the parameters:

Table 1-23 Recording directory parameters

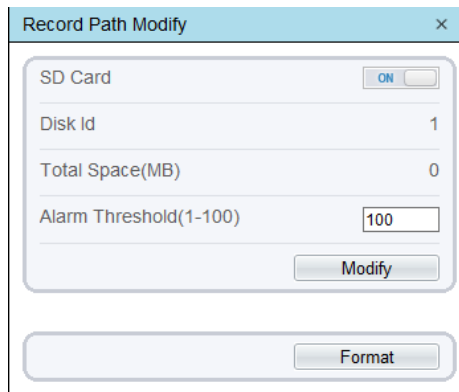| Parameter	Description	Setting
Disk Type	Recording directory type, which can be an SD card.	[Setting method] The parameter cannot be set manually.
Disk ID	Indicates the Disk ID.	
Group ID	Indicates the group HID.	
Enable	Indicates whether to enable the record directory.	
Total Space(MB)	Total disk space.	
Usable Space(MB)	Maximum disk space read automatically.	
Alarm Threshold(%)	The camera will alarm when used Space achieves the alarm threshold.	
State	Status of the connection between the current camera and recording directory detected automatically.	

Configuring the SD Card Recording

Procedure

Step 3 Choose **Configuration** > **Local Record** > **Record Directory**.

Step 4 Click **Modify**.

The **Record Path Modify** page is displayed:

Record Path Modify page

Step 5 Set the parameters:

Table 1-24 SD card recording parameters

Parameter	Description	Setting
SD Card	Enable the SD card.	Click the button on to enable SD card.
Disk ID	Indicates the Disk ID.	Disk ID
Total Space (MB)	Total disk space.	Total Space (MB)
Alarm Threshold (%)	The camera will alarm when used Space achieves the alarm threshold.	Enter the presents value of alarm threshold.
Format	Button for formatting the SD card.	[Setting method] Click the button. NOTE You need to format an SD card when using it for the first time. Formatting is effective only when the scheduled recording function is disabled.

Step 6 Click **Modify** to return to the Record Directory page.

Configuring the Privacy Mask Function

Introduction to privacy masking:

Privacy masking allows a user to draw a number of rectangular shapes over the scene, to hide or mask a particular area. When saved, the mask will remain over the chosen area, the mask will be visible on the web browser live view and all video streams sent from the camera.

Setting and maintaining privacy masks in a PTZ camera is a complex process in firmware, although simple to set as a user. It is important to note some key factors involved when setting privacy masks:

- Masks are prone to slight movement when the camera is in motion (pan, tilt, zoom control). This is due to the camera updating and correcting the mask position, as the camera is moved by the user. This is so the masks always stay in place, and do not move with the camera.

- Lens perspective: the 3D real world is represented in a CCTV camera in 2D (width & height), so complex calculations must be made, continually, in real-time. Masks may drift slightly when they are shown at the very edges or corners of the scene. It is important to select a mask size to account for this slight drift, so the target area always remains masked.

- Sizing rules: In order to ensure that the chosen target area is always covered by the privacy mask, the mask size should <u>always be a minimum of 1.5x to 2x the size of the target area.</u>

- A maximum of 20 privacy masks can be set in the camera.

Procedure

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

The **Privacy Masking** page is displayed:

NOTE: The privacy mask should always be <u>minimum</u> 1.5x to 2x the size of the target area, or 1% of the overall screen area, whichever is the largest; to ensure that the area is always covered, even when the camera is in motion.

Ensure the camera is set to the widest viewing angle before setting the privacy mask. The target area to be masked should be in the centre of the screen.

Step 2   Ensure that the camera is positioned so the area to be masked is in <u>the centre of the scene</u>. Ensure the lens is set to the widest angle of view.

Step 3   Click the DRAW button once. A green box outline will appear, with 4 red drag handles, in the corners.

Step 4   Click the centre of the box and drag across the scene, until the target area is in the centre of the box.

Step 5   Click and drag the red corner handles, to resize the box.

Step 6   Press and hold the left mouse button and drag on the preview image to cover the part to be masked, click **Add** to add a privacy mask.

Step 7   Select colour and "yes" or "no" from the Enable to enable or disable the privacy mask.

Step 8   Click **Modify**. The settings are saved.

- To delete a Privacy Mask, click the box next to the ID number, then click the **Delete** button.

Configuring the Network Service

Setting DDNS Parameters

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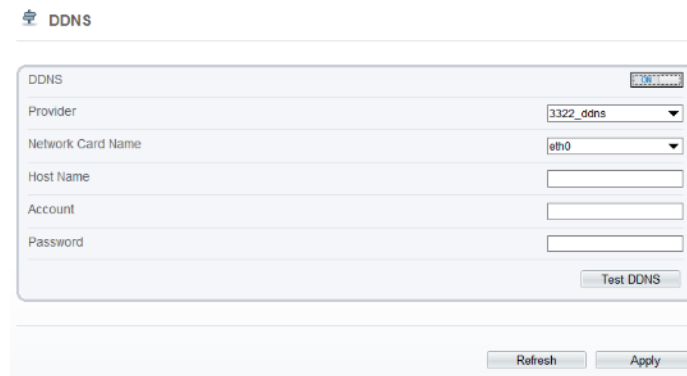
Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

Procedure

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

The **DDNS** page is displayed, as shown in Figure 1-44.

Figure 1-44 DDNS page

Step 2   Set the parameters according to Table 1-25.

Table 1-25 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	Preset DDNS service providers. 3322, DynDns and no-ip_ddns are supported.	[Setting method] Select a value from the drop-down list box. [Default value] 3322

Parameter	Description	Setting
Network Card Name	Network Card Name	[Setting method] Select a value from the drop-down list box.
Host name	Host name customized by a user.	[Setting method] Enter a value manually. [Default value] Blank
Accounts	User name for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank
Password	Password for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank

Step 3 Click **Apply**.

- If the message "Apply Success" is displayed, click **Confirm**. The system saves the settings.
- If other information is displayed, set the parameters correctly.

Setting PPPoE Parameters

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 4 Choose **Configuration** >**Network Service** > **PPPoE**.

The **PPPoE** page is displayed, as shown in Figure 1-45.

Figure 1-45 PPPoE page

Step 5 Click the button on to enable **PPPoE**.

Step 6 Set the parameters according to Table 1-26.

Table 1-26 PPPoE parameters

Parameter	Description	Setting
PPPoE	Indicates whether to enable the PPPoE service.	[Setting method] Click the button on. [Default value] OFF
Accounts	PPPoE user name provided by the network carrier.	[Setting method] Enter a value manually.
Password	Password provided by the network carrier.	[Setting method] Enter a value manually.
IP Address	• If the device uses PPPoE to connect to the Internet, the current IP address is displayed in **IP Address**. • If the device connects to the Internet in other modes, the currently IP address is not displayed in **IP Address.**	

Step 7 Click **Apply**.

- If the message "Apply Success" is displayed, and the system saves the settings.
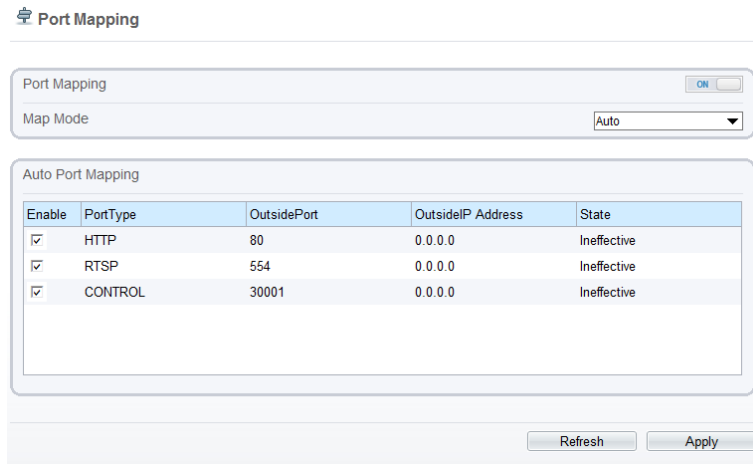- If other information is displayed, set the parameters correctly.

Setting Port Mapping Parameters

Procedure

Step 8 Choose **Configuration** >**Network Service** > **Port Mapping**.

The **Port Mapping** page is displayed, as shown in Figure 1-46.

Figure 1-46 Port Mapping page

Service Centre

Configuring the Alarm Centre

Description

When the device receives alarm information, it can send the alarm information to an alarm centre or send an alarm image to a recipient.

Procedure

Step 9 Choose **Service Centre** > **Alarm Centre**.

The **Alarm Centre** page is displayed:

Figure 1-47 Alarm Centre page

Step 10 Set **Alarm Centre Server IP** to the IP address of the platform server.

Step 11 Set **Alarm Centre Server Port** to the required alarm centre port number.

Step 12 Click **Apply**.

- If the message "Apply Success" is displayed, click **Confirm**. The system saves the settings.
- If other information is displayed, set the parameters correctly.

Setting SMTP Parameters

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 13 Choose **Service Centre** > **SMTP**.

The **SMTP** page is displayed:

SMTP page

Step 14 Set the parameters:

📖 **NOTE**

Parameters marked with ⬛* are mandatory.

Table 1-27 SMTP parameters

Parameter	Description	Setting
SMTP	N/A	[Setting method] Select the check box.
SMTP Server Address	IP address of the SMTP server.	[Setting method] Enter a value manually.
SMTP Server Port	Port number of the SMTP server.	[Setting method] Enter a value manually. [Default value] 25
User Name	User name of the mailbox for sending emails.	[Setting method] Enter a value manually.
Password	Password of the mailbox for sending emails.	[Setting method] Enter a value manually.
Sender E-mail Address	Mailbox for sending emails.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 1	(Mandatory) Email address of recipient 1.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 2	(Optional) Email address of recipient 2.	
Recipient_E-mail_Address 3	(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

Parameter	Description	Setting
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
Send Interval	Sets delay time between successive emails sent from the camera, to reduce mail server overrun/ spam detection	Set between 0 (no delay between emails sent) and 60 seconds.
Image Number (1-5)	Burst-Shot feature, camera will send up to 5 consecutive snapshot images, taken at an interval specified by the setting below.	Set a value between 1 and 5, to set the number of snapshot images sent per email.
Image Interval (0.1-5s)	Sets the snapshot interval, each image will be + the specified time on from the previous image.	Sets snapshot interval value between 0.1 seconds and 5 seconds.

Step 15 Click **Apply**.

- If the message "Apply Success" is displayed, click **Confirm**. The system saves the settings.
- If other information is displayed, set the parameters correctly.

Configuring User Permissions

Configuring a User

Description

You can add, modify, and delete users.

NOTE: You must be an administrator with the **Privilege Manage** permission to unlock a user.

Procedure

Step 16 Choose **Privilege Manager** > **User**.

Figure 1-48 User page

ID	User Name	Groups	Notes	Operate
0	admin	SuperAdmin	admin	🔍

Add

Table 1-28 User parameters

Parameter	Description	Setting
User	User name for logging in to the camera.	Click the ADD button to add a new user to the system.
Group	Permission group where a user belongs. The permission groups are: **Administrators**, **Operator**, and **Media user**. Their permissions are described as follows: • Administrators: Privilege Manage, System Maintenance, Parameter Configure, Record Operation, Video Control, and Live Video • Operator: System Maintenance, Parameter Configure, Record Operation, Video Control, and Live Video • Media user: Video Control and Live Video	[Setting method] Select a group from the drop-down list in the displayed web.

Step 17 Add, modify, or delete a user as required.

Table 1-29 Operation description

Function	Procedure	Description
Add	1. Click ADD to create a new user. The **Add User** page is displayed. 2. Enter a user name, password, or group. 3. Click **OK**. The user is added successfully.	Add an administrator or a common user.

Function	Procedure	Description
Modify	1. Click 🖉 to edit the user. The **Modify User** page is displayed. 2. Modify the user name, password, or group. 3. Click **OK**. The user is modified successfully. The **User** page is displayed.	Modify the user name, password, or group. NOTE: You will be prompted to change your password if it is deemed too weak. A password complexity prompt will display.
Delete	Select the user from the User drop-down list box. Click ✖ next to a user. The message "Confirm to delete?" is displayed. Click OK to confirm the action.	Deletes a user.

Setting Platform Parameters

Checking Protocol Information

Description

Protocol menu option. You can view the ONVIF protocol details via this page:

Table 1-30 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.

Setting 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. The factory-default login is admin/admin on port 80.

Procedure

Step 18 Choose **Protocol** > **Security**.
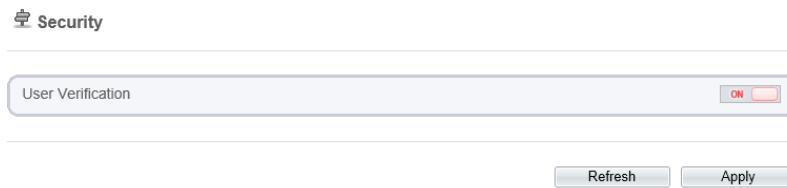
The **Security** page is displayed:

Figure 1-49 Security page

Table 1-31 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 19 Click **Apply**.

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

ONVIF Configuration

Description

Sets various ONVIF protocols for individual functions. The camera uses Profile S by default, which should allow it to connect to any ONVIF Profile S compliant recording/control platform.

ONVIF: (On by default) Enables ONVIF Profile S, to allow operation with a compatible controller.

Profile G: Sets compatibility with VMS platforms and NVRs that use the Profile G protocol. Profile G allows a platform to configure, request and control recording of video data. It also includes support for audio and metadata streams. For more information, see
https://www.onvif.org/profiles/profile-g/

Media2: Enables ONVIF access for extended features, such as H.265 encoding. Ensure this setting is enabled before adding the camera to a compatible ONVIF controller.

ONVIF/ Stream only HTTPS: For use in encrypted (HTTPS) environments. Camera must also be set to HTTPS mode, in the SYSTEM configuration page. The camera must be rebooted afterwards.

Apply button saves all settings.

Querying Alarm Logs

Description

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

Procedure

Step 20 Choose **Device Log** > **Alarm Log**.

The **Alarm Log** page is displayed:

Figure 1-50 Alarm Log page

Step 21 Set the search criteria.

Step 22 Click the **Begin Time** and **End Time** text boxes respectively.

A time setting control is displayed.

Step 23 Set the start time and end time as required.

Select the type of the alarm logs to be queried from the **Alarm Type** drop-down list box.

Click **Query**.

The alarm logs of the specified type are displayed.

Download the alarm logs.

Set the start time and end time.

Select a log type.

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.

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 SourceID

For example:

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

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

Maintaining the Camera

Restarting the camera

Procedure

- From the live screen, Click Configuration> Maintenance.

The **Device Maintenance** page is displayed:

Device Restart

- Click 🌼
- The message "Are you sure to restart?" is displayed.
- Click **Confirm**.
- The device is restarted successfully approx. 2 minutes later.

Restoring a Device to Factory Settings

Description

You can restore a device to the original factory settings. All settings, including preset positions, tours, preset shortcuts, recording settings

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⚠️ **CAUTION**

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

Procedure

- Choose Maintenance.

   The **Device Maintenance** page is displayed.

- Click 🔄

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

   Click **Confirm**.

Wait for approx. 4 minutes, the camera will reboot and restore the factory default settings. If you have chosen to reset the IP address, this will default to DHCP, if no DHCP server is present, a temporary address of 192.168.0.120 will be assigned, to allow you to re-connect to the camera.

It is strongly advised to set a new IP address immediately.

End of document.

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