AI Network Camera

Web Operation Guid
GUI 5.0

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About This Document

Purpose

This document describes the main functions and usage of the WEB interface for IP cameras, including network access, network configuration, and troubleshooting.

Intended Audience

This document is intended for:

- Technical support engineers
- Maintenance engineers
- IP camera operators

Symbol Conventions

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

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

Contents

1 Quick Start

1.1 Login and Logout

CAUTION

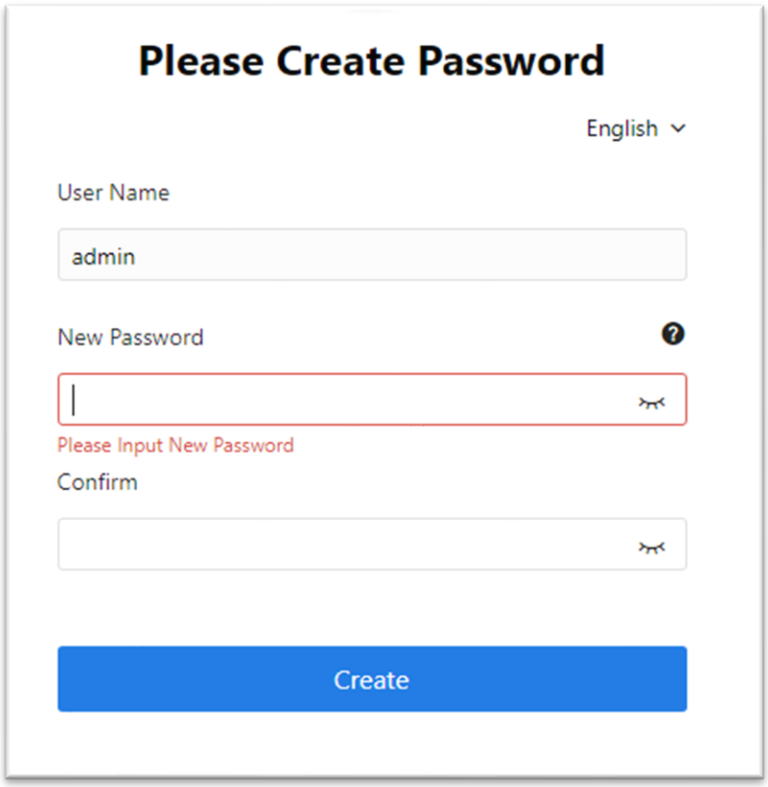
To access the web interface through Microsoft Edge, Chrome or Firefox browser; Otherwise some functions may be unavailable.

Login

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

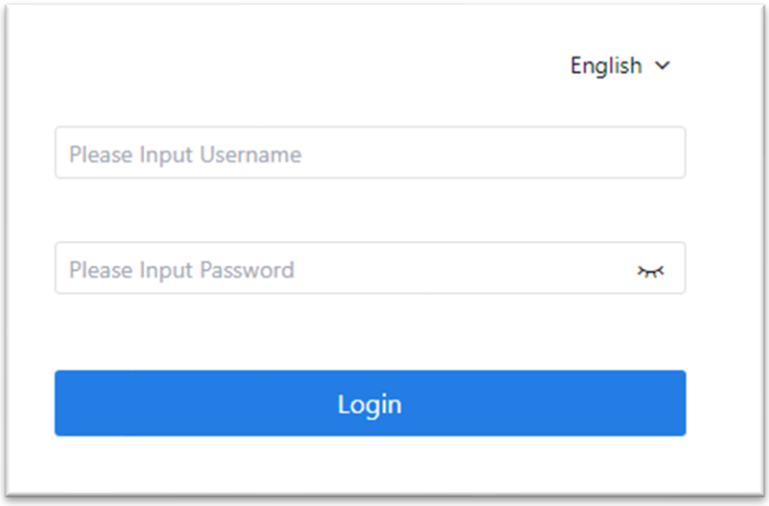
Step 2 Create password when you login for the first time, then jump to the login interface

Figure 1-1 Create password



Step 3 Enter the user name and password. The login page is displayed as shown in Figure 1-2.

Figure 1-2 Login page



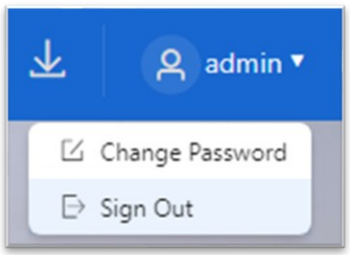
NOTE

- The default username is admin. Users should create the password for the first time login.
- DHCP is on by default. Please use tool to search IP, the default IP address is 192.168.0.120.
- After modifying password, you need to wait at least three minutes then power off to make sure modify it successfully. Or login the Web interface again with the new password.
- You can change the system display language on the login page.

Step 4 Click **Login** to enter the homepage.

----End

Sign out

Click 

sign out in the upper right to return to login page.

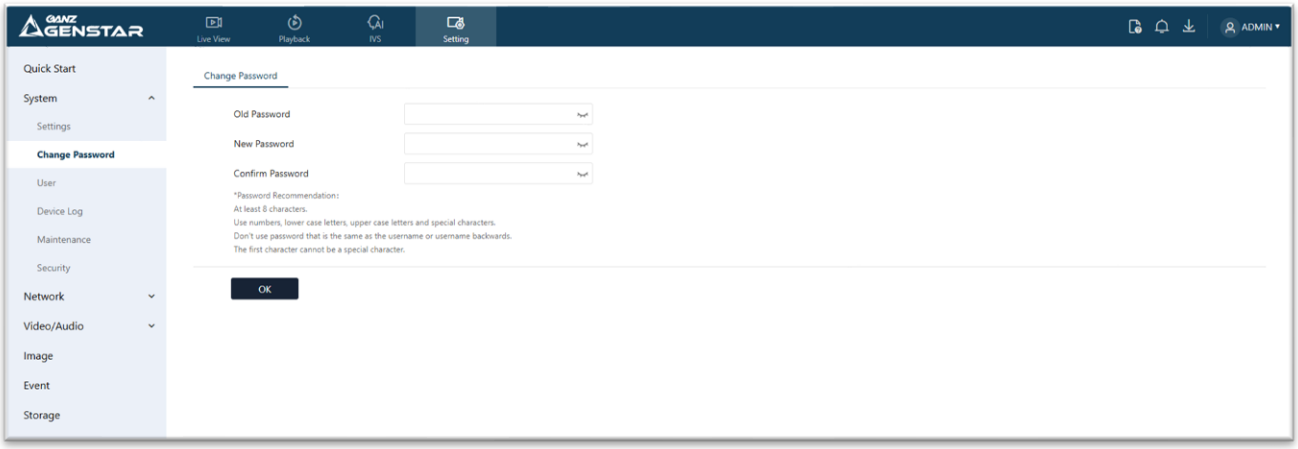
1.2 Change Password

Description

Click the username on the upper right, choose **Change Password** to enter the change password interface as shown in Figure 1-3.

Or choose **Setting > System > Change Password**.

Figure 1-3 Change the default password page



Procedure

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

Step 2 Click **OK**.

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

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

Step 3 Click **OK** to enter the login interface.

----End

1.3 Homepage Layout

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

Figure 1-4 Homepage layout

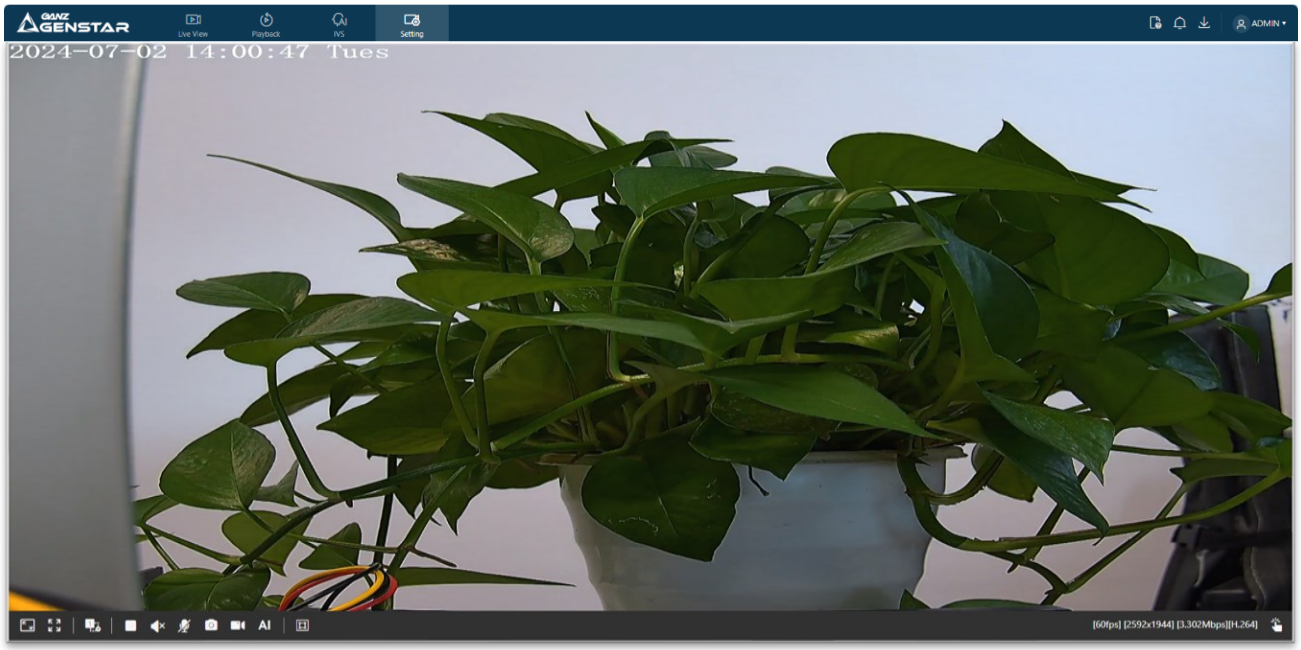
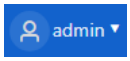


Figure 1-5 PTZ interface

Table 1-1 Elements on the homepage

No.	Element	Description
1	Live View	Real-time videos are played in this page.
2	Playback	You can query the playback videos in this area. NOTE Only when the SD card or NAS has videos can you query the playback videos.

No.	Element	Description
3	IVS setting	Intelligent Video System, set the ai multi-target, intelligent analysis (intrusion, smart motion, single line crossing, double line crossing, multi-loitering, Wrong-Way, general parameters), people counting and so on
4	Configuration	You can choose a menu to set device parameters, quick start, system, network, audio /video, image, event, and storage.
5		About the intercom function.
6		When the device receives an alarm signal, the alarm icon will display  . You can click  to view the alarm information.
7		SD card video backup and download status
8		Current user, sign out or change password
9		Zoom +/ zoom -
10		Iris +/ iris -
11		Near focus /far focus
12		Auto focus
13	Image	Set brightness, saturation, contrast and sharpness.
14		Window scale, switch the scale of play live video.
15		Full screen, click the icon to play live video at full screen.
16		Stream, click icon to switch stream. There are three modes stream. Some special models, they have two modes stream.
17		Pause/Start. Close live video or play live video.
18		Audio. Open or close audio.
19		Two-way audio. Open or close intercom, the computer should be plugged in microphone in advanced.
20		Click the icon to snapshot the video and save the images to the specified location.
21		Record the video and save the file to the specified location.
22		Click the icon to switch to AI live video, you can view the snapshots of AI multi-target, there are face, plate, car, human body, riding.

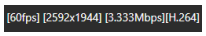
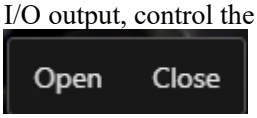
No.	Element	Description
23		 Target frame: when detect the target, it will show frame on target. Intelligent marking: The detection area frame of the intelligent analysis in IVS will be displayed in the live video interface.
24		Frame rate / resolution / bit rate / video encode type
25		I/O output, control the I/O alarm output manually. Click  to open alarm or close the alarm
26		Open or close the flashing light manually, for the special models.

Figure 1-6 About the intercom function

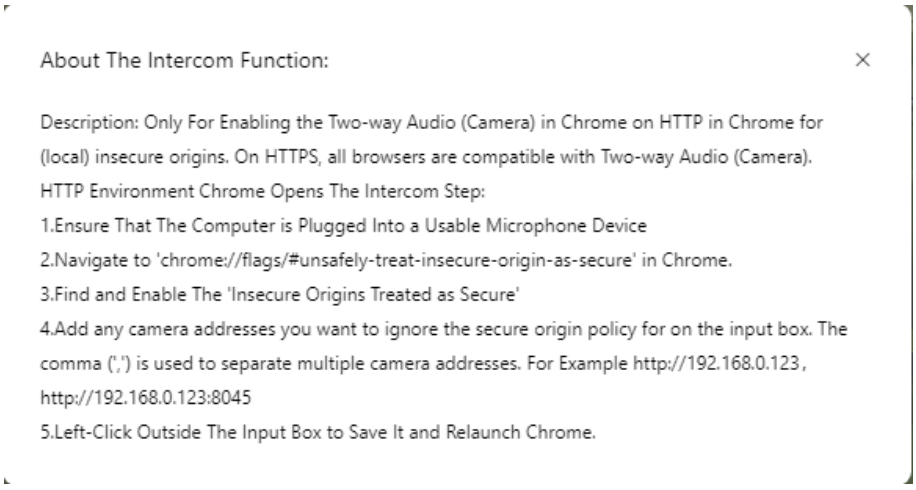
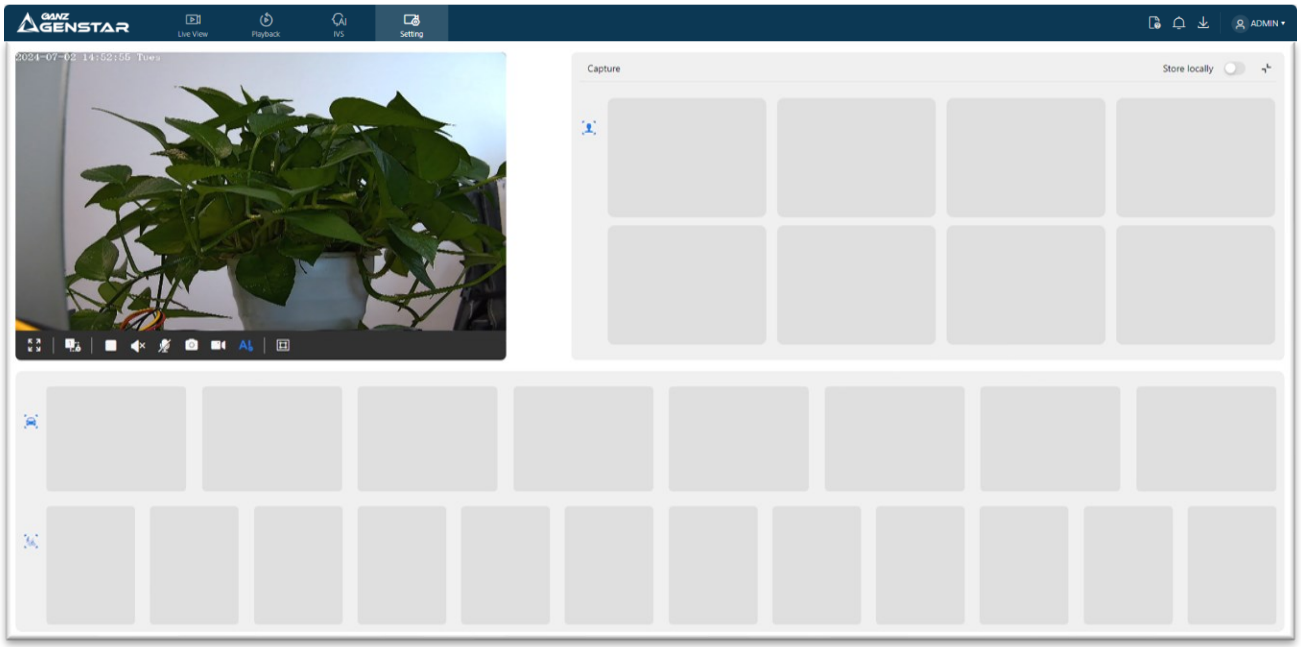


Figure 1-7 AI multi object interface



1.4 **Playback**

Click “Playback” at web interface. If users have installed SD card and enable it, there will be recordings on the SD card. Click “Playback” and the playback video will be shown as in Figure 1-8.

Figure 1-8 Playback page

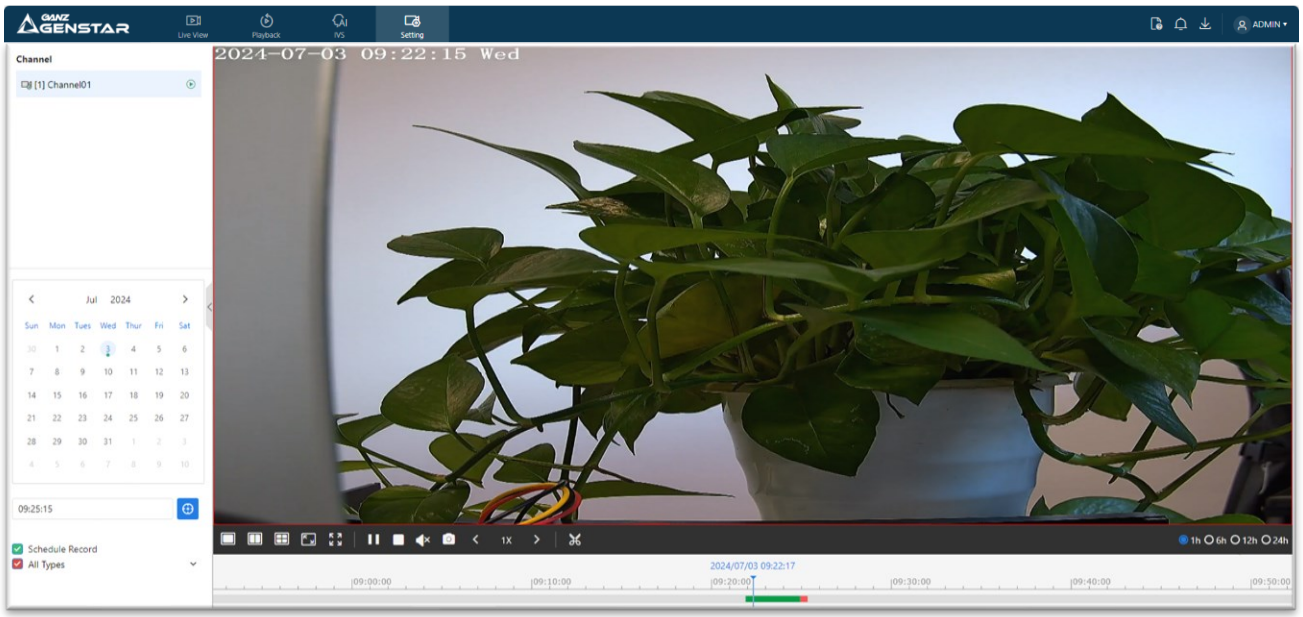


Table 1-2 Playback function

No.	Element	Description

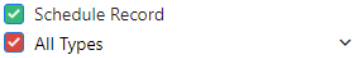
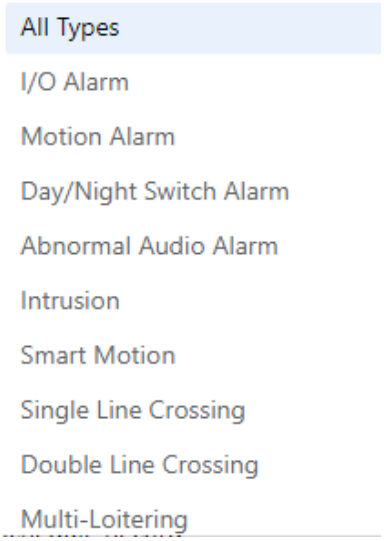
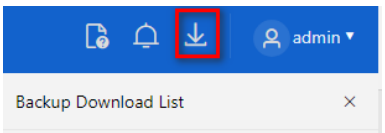
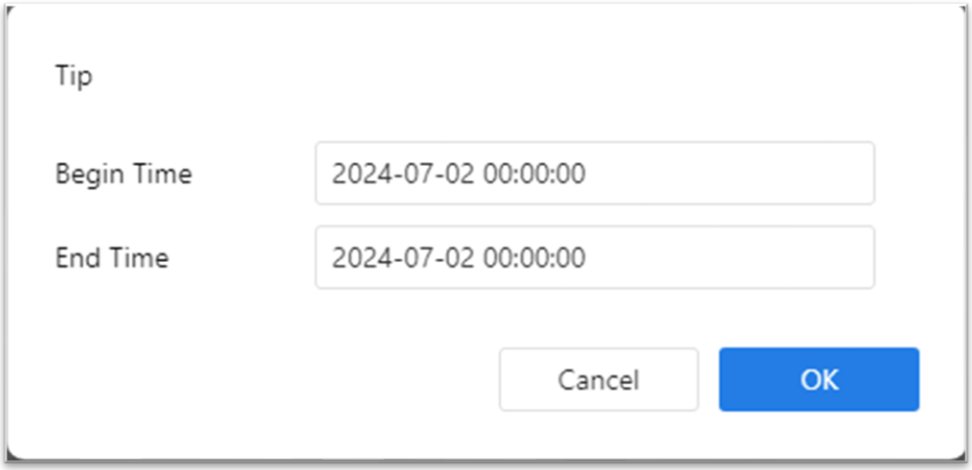
1	Channel	The channel list of cameras
2	Calender	 the green point means it has recording video. Set the time to play recording.
3		 The green timeline represents scheduled recording and the red timeline is alarm recording. The types of alarm recording varies according to model performance.
4		Window scale, switch the scale of play recording video.
5		Full screen, click the icon to play recording video at full screen.
6		Pause/Start. Close live video or play recording video.
7		Audio. Open or close audio.
8		Click the icon to snapshot the video and save the images to the specified location.
9		Fast Forward, 1/16X, 1/8 X, 1/4 X, 1/2 X, 1 X, 2 X, 4 X, 8 X
10		click the icon to start backup, drag the bar to download recording quickly, click the icon again to end up. The pop-up window of tip as shown in Figure 1-9, click the save to save the video. Click **Cancel** to abandon.  the backup list to show the detail information.
11		Time axis, users can choose 1h, 6h,12h, 24h.

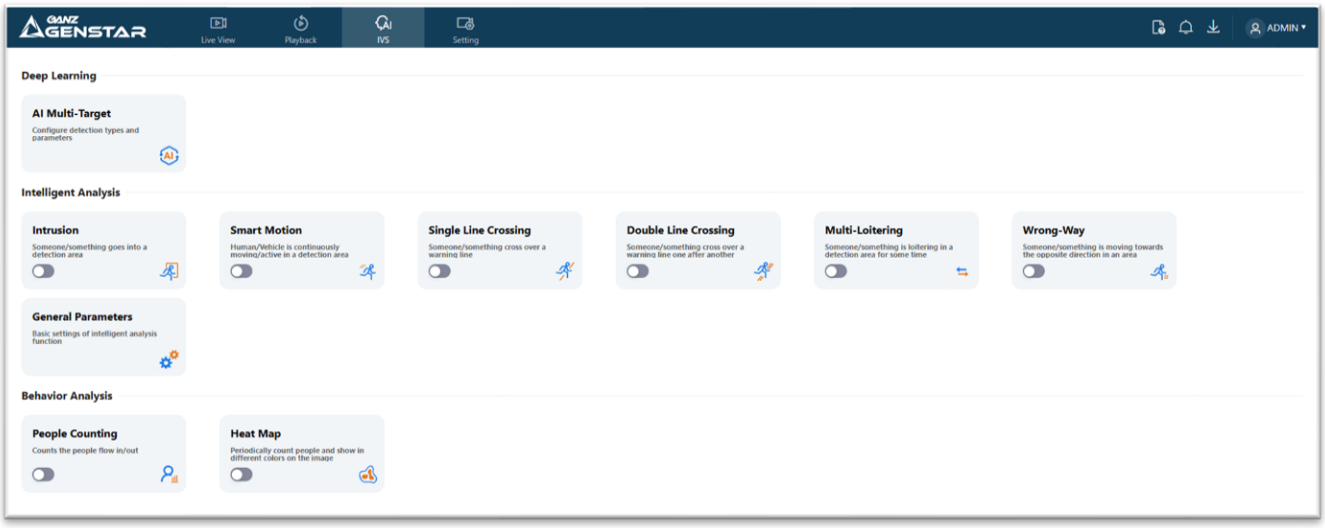
Figure 1-9 Record backup tip



1.5 IVS Setting

Click IVS to enter IVS setting page, users can set the deep learning, intelligent analysis, behavior analysis as shown in Figure 1-10. The detail settings will be introduced at the following chapters.

Figure 1-10 IVS setting page



NOTE

- The different models have different IVS functions, please refer to actual product.

----End

2.1 Local Network

Description

Local network parameters include:

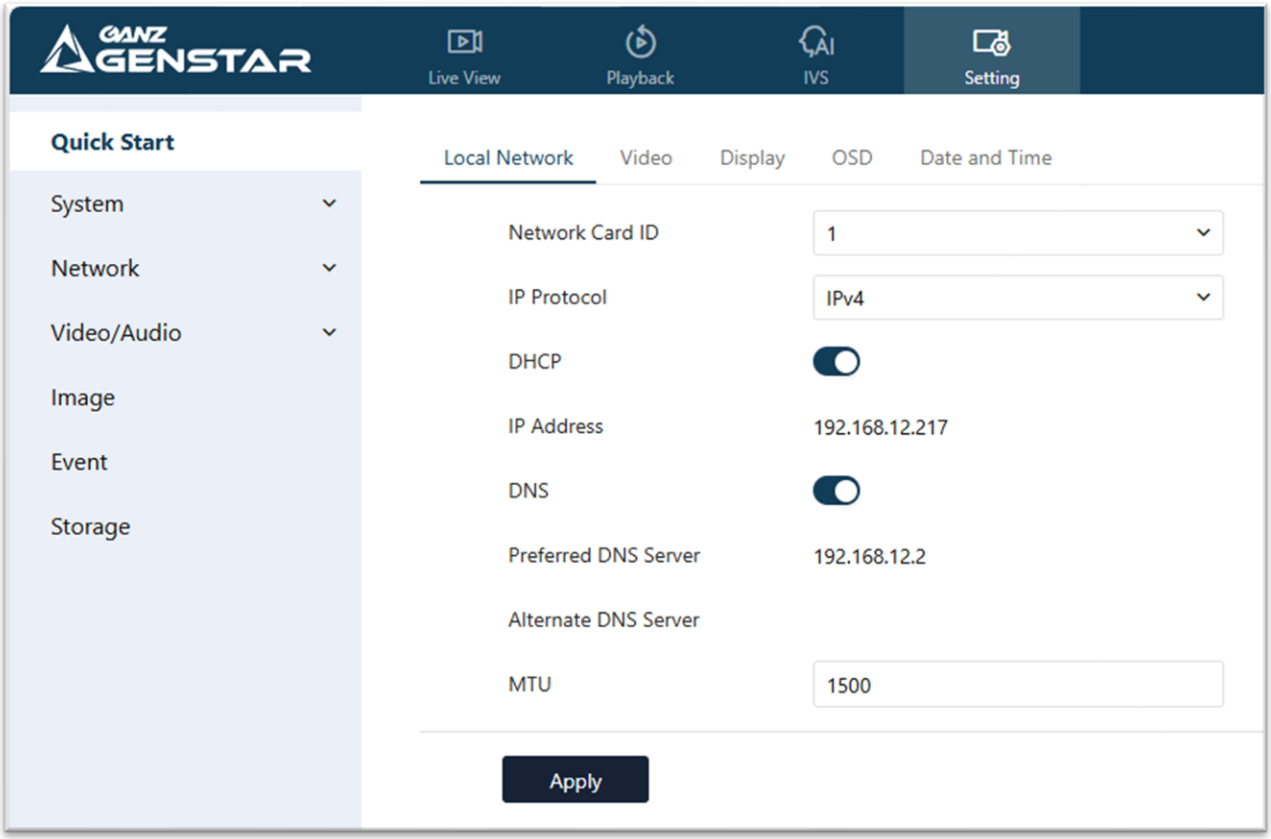
- IP protocol
- IP address
- Subnet mask
- Default gateway
- Dynamic Host Configuration Protocol (DHCP)
- Preferred Domain Name System (DNS) server
- Alternate DNS server
- MTU

Procedure

Step 1 Choose **Setting > Quick Start > Local Network**.

The **Local Network** page is displayed, as shown in Figure 2-1.

Figure 2-1 Local network page



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

Table 2-1 Local network parameters

Parameter	Description	Setting
Network Card ID	--	[Default value] 1
IP Protocol	IPv4 is the IP protocol that uses an address length of 32 bits. IPv6 is the IP protocol that uses an address length of 64 bits.	[Setting method] Select a value from the drop-down list box. [Default value] IPv4
DHCP	Enable DHCP, and the device will automatically obtain 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.
IP Address	Device IP address that can be set as required.	[Setting method] Enter a value manually. [Default value] 192.168.0.120
Subnet Mask	DHCP is off. Subnet mask of the network adapter.	[Setting method] Enter a value manually. [Default value] 255.255.255.0
Default Gateway	DHCP is off. 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	DNS is on. IP address of a DNS server.	[Setting method] Enter a value manually. [Default value] 192.168.0.1
Alternate DNS Server	DNS is on. 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

Parameter	Description	Setting
MTU	Set the maximum value of network transmission data packets.	[Setting method] Enter a value manually. NOTE The MTU value is range from 1280 to 1500, the default value is 1500, Please do not change it arbitrarily.

Step 3 Click **Apply**.

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

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

----End

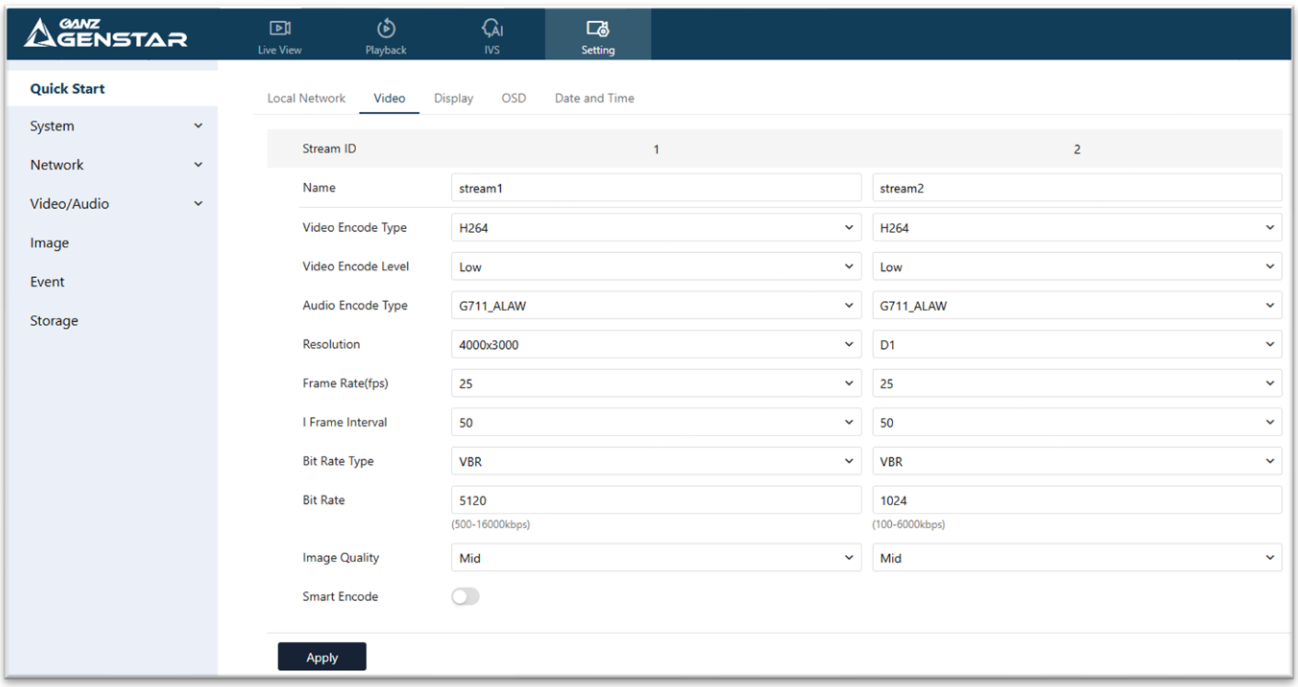
2.2 Video

Procedure

Step 1 Choose **Setting > Quick Start > Video**.

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

Figure 2-2 Video setting page



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

Table 2-2 Parameters of stream configuration

Parameter	Description	Setting
Stream ID	The device supports at most three streams. □ Streams 1 and 2 adopt H.264 code. □ Stream 1 stands for the best stream performance of the device supports. □ Stream 2 usually offers comparatively low-resolution options. □ Stream 3 is the lowest resolution. Some models may only have two streams.	[Setting method] Select a value from the drop-down list box.
Name	Stream name. NOTE The stream name consists of character, number, character and underline.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes. [Default value] Stream 1
Video Encode Type	The video encode determines the image quality and network bandwidth required by a video. Currently, the following encode standards are supported: □ MJPEG MJPEG is a standard intra-frame compression encode. The compressed image quality is good. No mosaic is displayed on motion images. MJPEG does not support proportional compression and requires large storage space. Recording and network transmission occupy large hard disk space and bandwidth. MJPEG is not applicable to continuous recording for a long period of time or network transmission of videos. It can be used to send alarm images. □ H.264 H.264 consists of H.264 low Profile, H.264 Main Profile and H.264 High profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate encode based on the decoding performance of the device. H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements for the hardware performance. □ H.265 H.265 is the advanced video encoding standard. It's the improvement standard from H.264. H.265 improves the streams, encoding quality and algorithm complexity to make configuration optimization.	[Setting method] Select a value from the drop-down list box. [Default value] H.264 High Profile NOTE The H.264 High Profile encode means high requirements on the hardware. If the hard-decoding capability is low, use H.264 Main Profile or H.264 Base Profile. When users choose the MJPEG for Stream 1, some functions will be error, such as the videos of FTP upload may not be play correctly.

Parameter	Description	Setting
Audio Encode Type	The following audio encode standards are supported: □ G711_ULAW: mainly used in North America and Japan. □ G711_ALAW: mainly used in Europe and other areas. □ RAW_PCM: encode of the original audio data. This encode is often used for platform data.	[Setting method] Select a value from the drop-down list box.
Resolution	A higher resolution means better image quality. NOTE IP cameras support different resolutions based on the model.	[Setting method] Select a value from the drop-down list box.
Frame Rate(fps)	Frame rate is the number of images, snapshots, or frames that a camera can take per second. The frames per second determine the smoothness of a video. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes. Frame rates for different frequencies are as follows: □ 50 Hz: 1–25 f/s □ 60 Hz: 1–30 f/s NOTE The frequency is set on the **Device Configuration** > **Camera** page. The biggest MJPEG coding format frame rate is 12 frames per second.	[Setting method] Select a value from the drop-down list
I Frame Interval(f)	I frame do not require other frames to decode. A smaller I frame interval means better video quality but higher bandwidth.	[Setting method] Select a value from the drop-down list
Bit Rate Type	The bit rate is the number of bits transmitted per unit of time. The following bit rate types are supported: □ Constant bit rate (CBR) The compression speed is fast; however, improper bit rate may cause vague motion images. □ Variable bit rate (VBR) The bit rate changes according to the image complexity. The encoding efficiency is high and the definition of motion images can be ensured.	[Setting method] Select a value from the drop-down list box.
Bit Rate Range	Indicates the maximal value of the bit rate. the different models may have different ranges, please refer to actual product.	[Setting method] Enter a value manually.
Image Quality	The video quality the camera output.	[Setting method] Select a value from the drop-down list box.

Parameter	Description	Setting
Smart Encode	Smart Encode. □ Smart encode includes H.264 & H.265. □ The storage space will be reduced fifty percent when smart encode is enabled. □ Only main stream supports smart encode.	[Setting method] Click the button on to enable **Smart Encode**.

Step 3 Click **Apply**.

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

□ If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see 3.3 Configure User.

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

----End

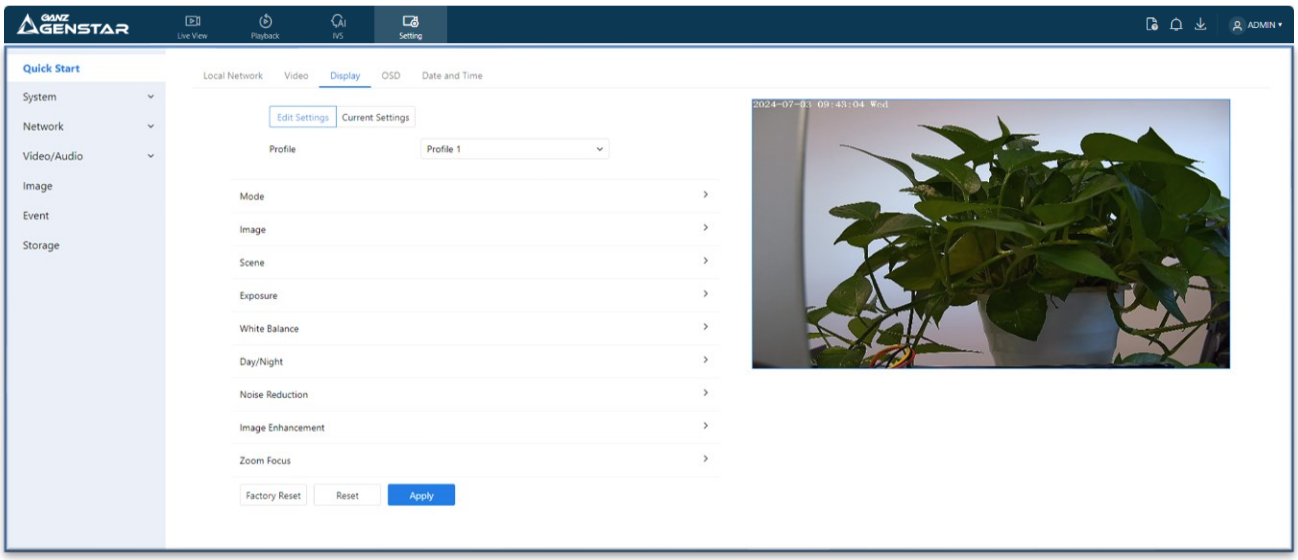
2.3 Display

2.3.1 Access the Display Settings

Operation Procedure:

Step 1 Choose **Setting > Quick Start > Display**.

Figure 2-3 Image settings page



Step 2 Choose **Edit Settings** on Mode item to set the parameters. You can set four profiles.

NOTE

- All image settings can be modified at edit settings.
- Factory Reset: All parameters will be restore to the factory settings.
- Reset: the settings will be recovered to the last settings.

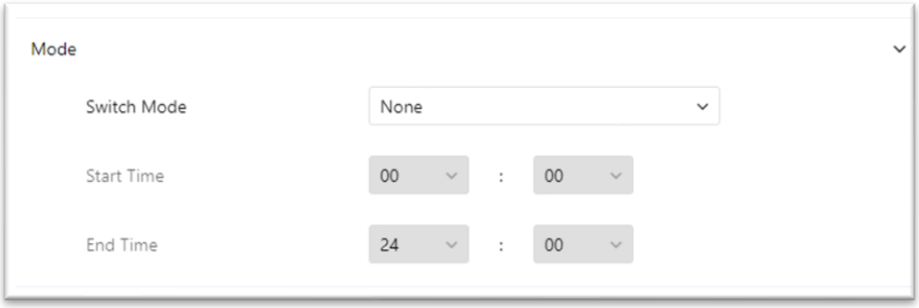
----End

2.3.2 Mode

Operation procedure:

Step 1 Choose **Setting > Quick Start > Display > Mode** tag on display interface, the Mode page is displayed, as shown in Figure 2-4.

Figure 2-4 Mode page



Step 2 Choose Switch Mode, there are three modes to be chosen, none, time mode, D/N linkage mode.

Time mode: it is the setting time, system switch to other profile. There are four profiles, you should set in advanced.

D/N linkage mode: it is the setting time, system switch to day or night mode.

None: it is carrying out the current profile.

Step 3 Set the start time and end time.

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

----End

2.3.3 Image Setting

Choose **Setting > Quick Start > Display > Image** tag on display interface ,Figure 2-5 shows the image setting interface.

Figure 2-5 Image setting page

Table 2-3 describes the **image setting** parameters.

Table 2-3 Parameters of image settings parameters

Parameter	Description	Configuration Method
Brightness	It indicates the total brightness of an image. As the value increases, the image becomes brighter.	[Setting method] Drag the slider. [Default value] **50**
Saturation	It indicates the color saturation of an image. As the value increases, the image becomes more colorful.	[Setting method] Drag the slider. [Default value] **50**
Sharpness	It indicates the clearness of an image. As the value increases, the image becomes clearer.	[Setting method] Drag the slider. [Default value] **50**
Contrast	It indicates the contrast between the bright part and the dark part of an image. As the value increases, the contrast increases.	[Setting method] Drag the slider. [Default value] **50**

Click **Apply** to save the setting.

----End

2.3.4 Scene Mode

Choose **Setting > Quick Start > Display > Scene** tag on display interface, Figure 2-6 shows the **scene mode** interface.

Figure 2-6 Scene mode page

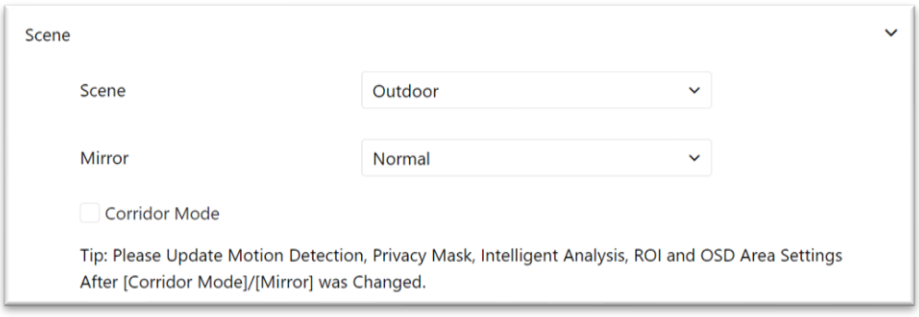


Table 2-4 describes the FFC mode parameters.

Table 2-4 Parameters of FFC

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

Click **Apply** to save the setting.

----End

2.3.5 Exposure

Choose **Setting > Quick Start > Display > Exposure** tag on display interface, Figure 2-7 and Figure 2-8 shows the **Exposure** interface.

Figure 2-7 Exposure interface for IP camera

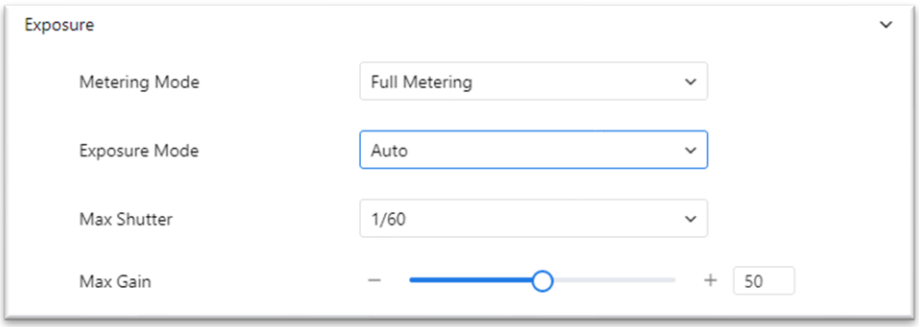


Figure 2-8 Exposure Interface for high-speed home

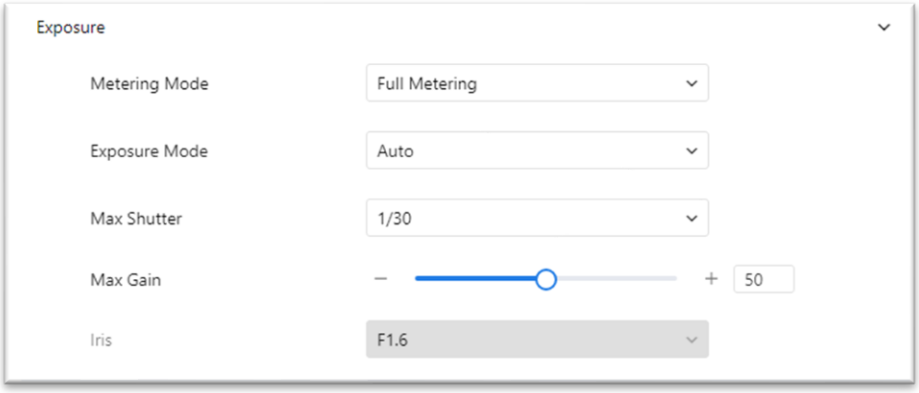


Table 2-5 describes Exposure parameters.

Table 2-5 Parameters of exposure

Parameter	Meaning	Configuration Method
Exposure Mode	The exposure modes include: □ **Auto**: The system performs auto exposure based on the monitoring environment. □ **Manual**: You can adjust the brightness of an image by setting the following three items: **Shutter Setting**, **Iris Setting** and **Gain Setting**. □ **Shutter Priority**: You can set **Shutter Setting** to fixed values. The iris and gain are automatically adjusted by the system. □ **Iris Priority (for high-speed dome):** You can set Iris Setting to fixed values. The shutter and gain are automatically adjusted by the system.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Meter Mode	It is used to select the metering area. □ **Fulling Metering**: During metering, all areas of an image have equal weight, that is, all areas are involved in the metering. **Spot Metering**: During metering, the central spot of an image has the highest weight. □ **Partial Metering**: During metering, the middle area (1/2 of the total area) of an image has the highest weight, and other areas have the lowest weight.	[Setting method] Select a value from the drop-down list. [Default value] **Whole**

Parameter	Meaning	Configuration Method
Max Shutter	The device automatically adjusts the shutter time based on the ambient brightness. The shutter time is less than or equal to the value of this parameter.	[Setting method] Select a value from the drop-down list. [Default value] **1/25**
Max Gain	The device automatically adjusts the gain based on the external light. The gain is less than or equal to the value of this parameter.	[Setting method] Drag the slider. [Default value] **50**
Iris (for high speed dome)	It is valid in manual mode and iris priority mode. You can adjust the brightness of an image by setting the iris. As the value increases, the brightness increases (when the shutter and gain remain the same). However, the camera movement automatically adjusts the shutter and gain in this mode. Therefore, the brightness of an image may not increase when you increase the iris.	[Setting method] Select a value from the drop-down list. [Default value] **F1.6**
Iris（for IP camera）	It is used to control the light admitted to the lens. The auto iris can be set to either of the following states: □ **Auto** The iris is automatically adjusted to control the light admitted to the lens. □ **Open fully** The iris is fully open.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Iris Speed	It indicates the auto adjustment speed of the iris. As the value increases, the speed increases. Excessive speed may cause instability. NOTE This parameter is valid when the auto iris is enabled.	[Setting method] Drag the slider. [Default value] **50**
Fixed Gain	When the exposure Mode is Manual, you can set the fixed gain.	[Setting method] Drag the slider. [Default value] **50**

Click **Apply** to save the setting.

----End

2.3.6 White Balance Setting

Choose **Setting > Quick Start > Display > White Balance** tag on display interface, Figure 2-9 shows the **White Balance** interface.

Figure 2-9 White balance settings page

Table 2-6 describes **WB Setting** parameters.

Table 2-6 Parameters of WB setting

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

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

Click **Apply** to save the setting.

----End

2.3.7 Day/Night

Choose **Setting > Quick Start > Display > Day/Night** tag on display interface, The Day/Night mode settings vary based on device models. For details, see the following sections.

Figure 2-10 shows the **Day/Night** interface.

Figure 2-10 Day/Night page (timer)

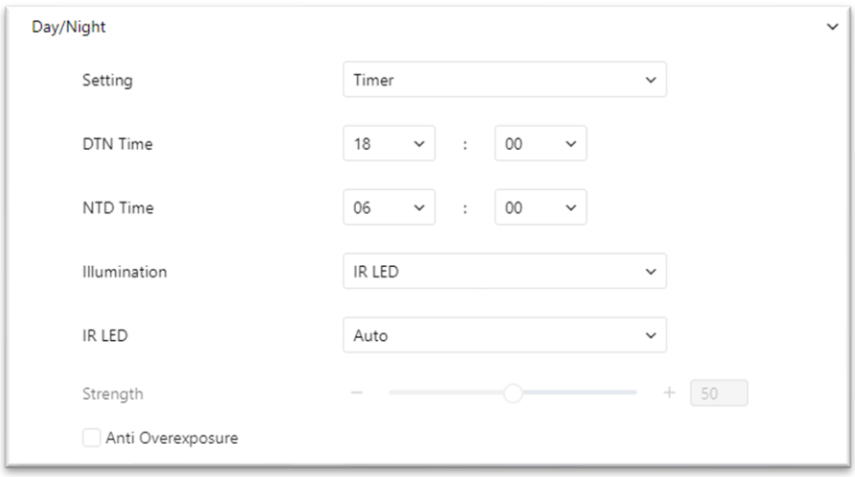


Figure 2-11 Day/Night mode page (auto)

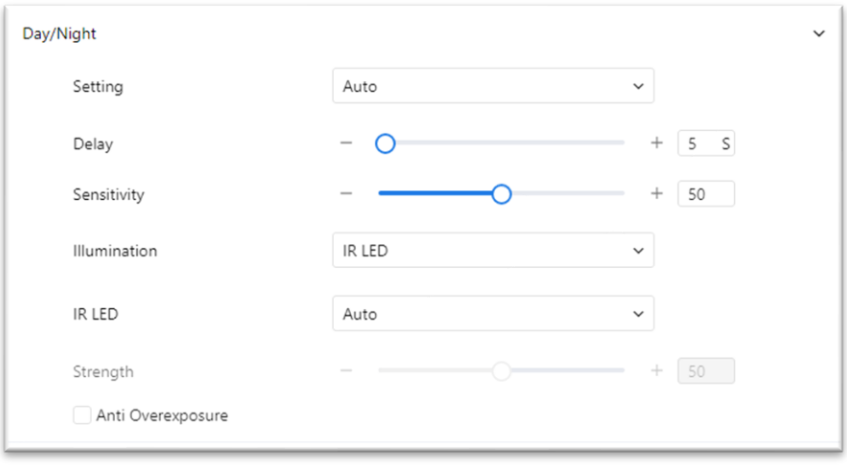


Table 2-7 describes **Day/Night Mode** parameters.

Table 2-7 Parameters of Day/Night

Parameter	Meaning	Configuration Method
D/N Setting Mode	It can be set to **Auto**, **Day**, **Night** or **Timer**. □ Auto mode The image color and filter status are automatically switched based on the ambient brightness. The filter keeps infrared light from reaching the sensor during the day; The filter allows all light to reach the sensor at night. □ Day mode The image is colored, and the filter is in the day state, preventing infrared light from entering the sensor. □ Night mode The image is black and white, and the filter is in the night state, allowing infrared light to enter the sensor. □ Timer Switching between day mode and night mode according to the set time.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
D/N Switch Sensitivity	The sensitivity of switching day and night. The higher value of sensitivity, and the lower light intensity will switch to day. NOTE This parameter is valid in auto mode.	[Setting method] Drag the slider. [Default value] **50**
TRANSI. (D->N) (dB)	High-speed Dome It determines the day-to-night switching in auto mode. When the system gain is greater than the value of this parameter, the system enters the night mode. NOTE This parameter is valid in auto mode. The value of **TRANSI.(D->N)** must be greater than the value of **TRANSI.(N->D)**.	[Setting method] Drag the slider. [Default value] **70**
TRANSI. (N->D) (dB)	High-speed Dome It determines the night-to-day switching in auto mode. When the system gain is smaller than the value of this parameter, the system enters the day mode. NOTE This parameter is valid in auto mode. The value of **TRANSI.(D->N)** must be greater than the value of **TRANSI.(N->D)**.	[Setting method] Drag the slider. [Default value] **30**

Parameter	Meaning	Configuration Method
Delay(s)	The delay time of day to night or night to day. NOTE This parameter is valid in auto mode.	[Setting method] Drag the slider. [Default value] **0**
Light Mode	For different models, you can choose the light modes, such as IR LED, White LED, Intelligent dual light (there are two lights in camera, IR LED and white LED), and none. It depends on performance of cameras.	[Setting method] Select a value from the drop-down list.
IR LED	**Auto**: The infrared lamp is enabled or disabled based on the external environment identified by the light dependent resistor (LDR). **ON**: The system enters the night mode forcibly. **OFF**: The infrared lamp is disabled. The filter and image color are switched based on the external environment identified by the LDR. NOTE This parameter is valid in auto mode.	[Setting method] Select a value from the drop-down list. [Default value] **Auto**
Strength	Strength of IR LED, as the value increases, the image becomes brighter.	[Setting method] Drag the slider. [Default value] **50**
DTN Time	Time of day to night.	[Setting method] Select a value from the drop-down list. [Default value] **18:00**
NTD Time	Time of night to day.	[Setting method] Select a value from the drop-down list. [Default value] **6:00**

Fill light settings

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

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

Day mode: It can be used in the scene with sufficient ambient light for 24 hours, where the image will be colorful without enabling the fill light.

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

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

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

The brightness of the supplemental light can be set to either automatic or manual. In automatic mode, it adjusts based on the current environment. In manual mode, you can adjust the brightness by dragging the slider or setting a specific value.

Click **Apply** to save the setting.

----End

2.3.8 Noise Reduction

Choose **Setting > Quick Start > Display > Noise Reduction** tag on display interface, Figure 2-12 shows the Noise Reduction interface.

Figure 2-12 Noise reduction page (auto)

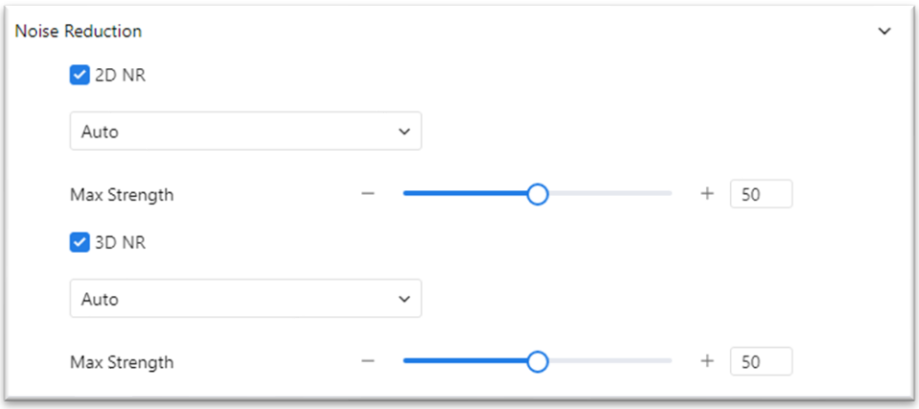


Figure 2-13 Noise reduction page (manual)

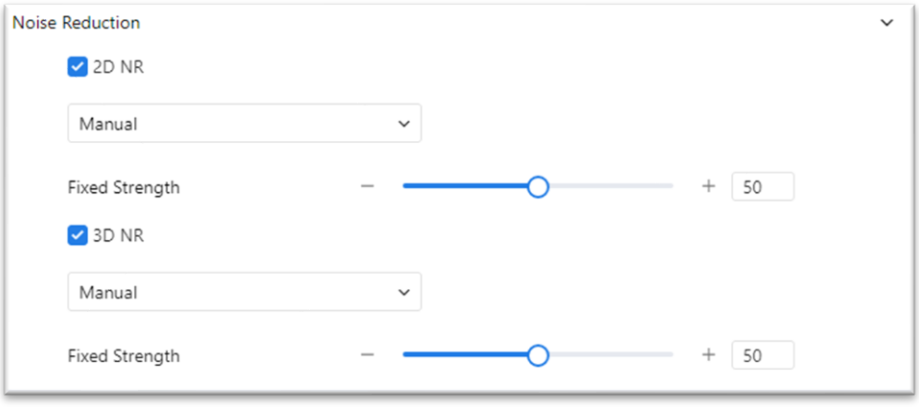


Table 2-8 describes Noise Reduction parameters.

Table 2-8 Parameters of noise reduction

Parameter	Meaning	Configuration Method
2D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] **Auto**
3D NR	Reduce noise of image.	[Configuration method] Select from the drop-down list [Default value] **Auto**
Max Strength	It is valid in auto noise filter mode. When the parameter value is **0**, the noise filter is disabled. When the parameter value is greater than **0**, the noise filter is enabled, and the system automatically adjusts the noise filter level based on the ambient brightness without exceeding the value of this parameter.	[Setting method] Drag the slider. [Default value] **50**
Fixed Strength	It is valid in a manual noise filter mode.	[Setting method] Drag the slider. [Default value] **50**

Click **Apply** to save the setting.

----End

2.3.9 Image Enhancement

Choose **Setting > Quick Start > Display > Image Enhancement** tag on display interface, the figure shows the enhance image interface and Table 2-9 shows the enhance image parameters.

Figure 2-14 Image Enhancement page

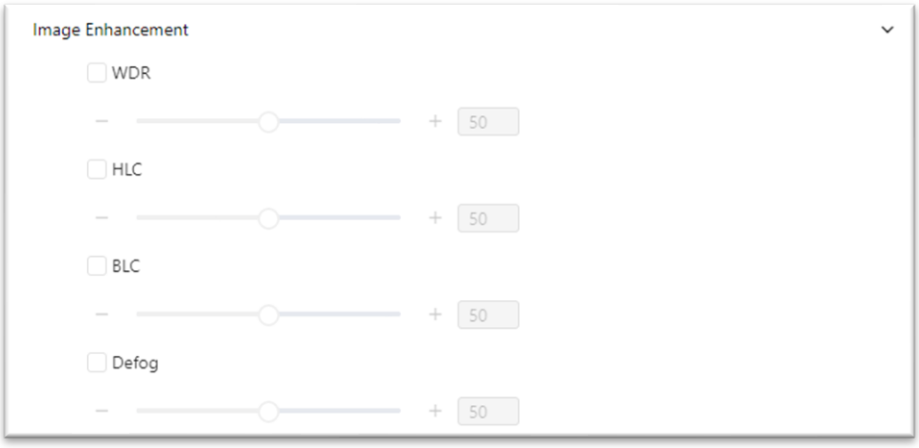


Table 2-9 Parameters of enhance image

Parameter	Meaning	Configuration Method
WDR	It is used to display the foreground and background at the same time in the environment with a large brightness difference. When the brightness difference is larger, you can increase the WDR level to obtain better image effect.	[Setting method] Tick the WDR mode and drag the slider. [Default value] **50**
HLC	It provides a clearer view of an image in the highlight environment. When HLC is enabled, the total brightness of an image is reduced, allowing you to view objects in front of the highlight.	[Setting method] Tick the HLC mode and drag the slider. [Default value] **50**
BLC	It provides a clearer view of an image in the backlight environment. When BLC is enabled, the total brightness of an image increases, allowing you to view objects in front of the backlight. Meanwhile, the objects behind the backlight are exposed excessively.	[Setting method] Tick the BLC mode and drag the slider. [Default value] **50**
Anti-shake	The shakes and visual angle of image will reduce when the camera shakes slightly and the anti-shake is enable.	[Setting method] Tick the Anti-shake mode.
DeFog	It provides a clearer view of an image in the fogged environment when DeFog is enabled. As the value increases, the image becomes clearer. Only apply for some models.	[Setting method] Tick the Defog mode and drag the slider. [Default value] **50**

Click **Apply** to save the setting.

----End

2.3.10 Zoom Focus (Only for Some Models)

Choose **Setting > Quick Start > Display > Zoom Focus** tag on display interface, Figure 2-15 and Figure 2-16 shows the zoom focus interface and Table 2-9 shows the zoom focus parameters.

Figure 2-15 Zoom focus page for IP camera 1

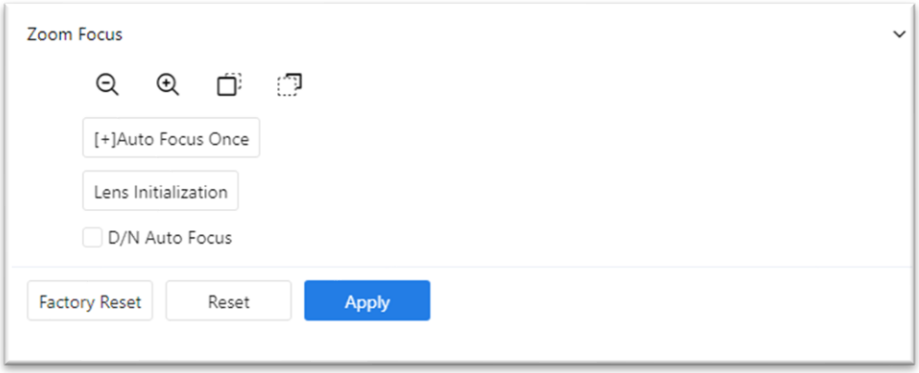


Figure 2-16 Zoom focus interface for high speed dome

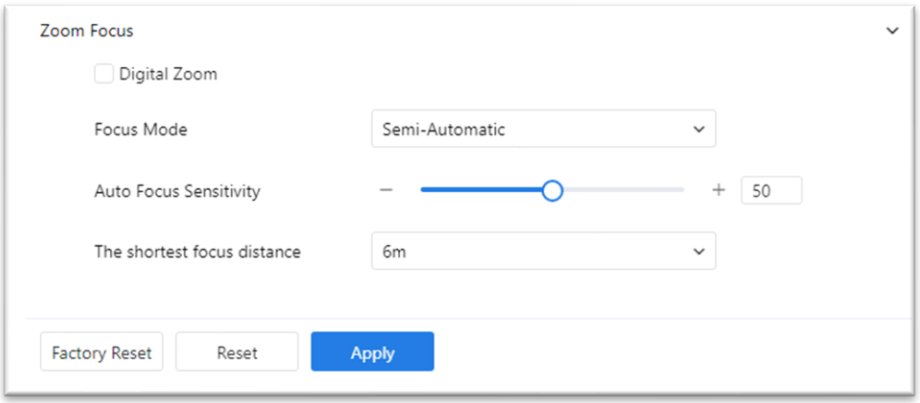


Table 2-10 Parameters of zoom focus

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

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

Click **Apply** to save the setting.

----End

2.4 OSD

Description

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

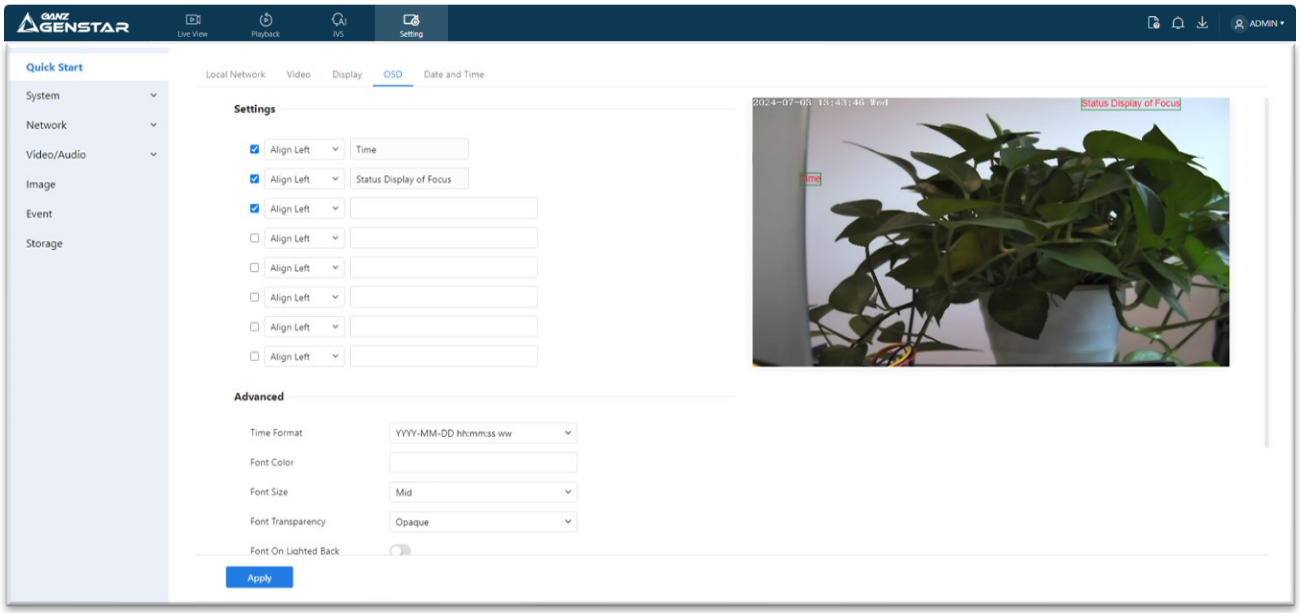
- When the resolution is D1 and CIF, the OSD customized in web interface can show at most 22 words normally.
- The OSD support simplified Chinese, English, digital and some special character only.

Procedure

Step 1 Choose **Setting > Quick Start > OSD**.

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

Figure 2-17 OSD (standard cameras)



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

NOTE

There are no more than seven OSD display areas.

Table 2-11 Parameters of OSD

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

Parameter	Description	Setting
Font Size	Set the font size.	[Setting method] Select a value from the drop-down list box. [Default value] Mid
Font Transparency	Set the font transparency.	[Setting method] Select a value from the drop-down list box. [Default value] Opaque
Font on Lighted Back	Enable the font on lighted back.	[Setting method] Click the button on to enable **Font on lighted back**.
Device Name	Indicates whether to display the device name.	[Setting method] Click the button on to enable **Device Name**
PTZ Position	Only used for PTZ cameras	[Setting method] Click the button on to enable
PTZ Action		[Setting method] Click the button on to enable
PTZ Temperature		[Setting method] Click the button on to enable
Status Display of Focus	The status of focusing will be showing on live video.	[Setting method] Click the button on to enable
Twelve-hour System	The time format shows at twelve-hour system.	[Setting method] Click the button on to enable
Display Week	The week will show.	[Setting method] Click the button on to enable

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

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

----End

2.5 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

Choose **Setting > Quick Start > Date and Time**.

The **Date and Time** page is displayed, as shown in Figure 2-18. Table 2-12 describes the parameters.

Figure 2-18 Date and time page

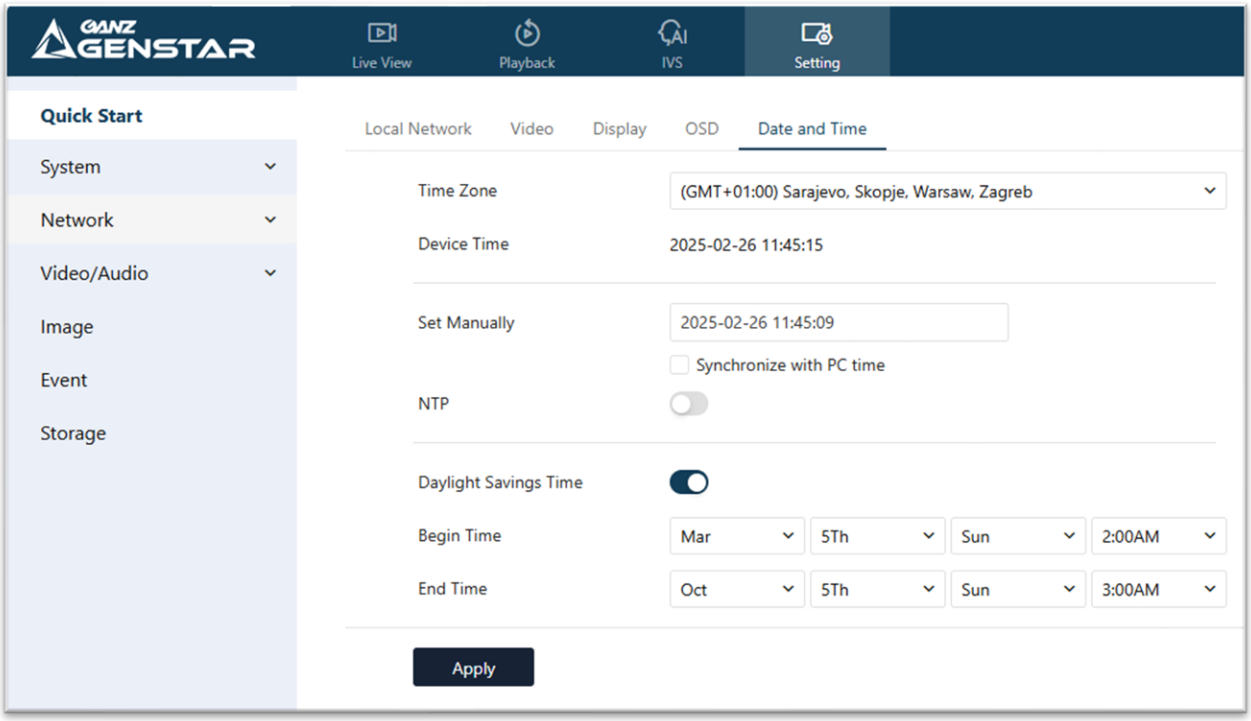


Table 2-12 Parameters of date and time

Parameter	Description	Setting
Time Zone	N/A	[Setting method] Select a value from the drop-down list box. [Default value] Greenwich mean time
Device Time	Device display time.	[Setting method] ☐ Synchronize the time from the PC. Enter a value manually.
Set Manually	You can set the device time manually or synchronize with PC 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.

Parameter	Description	Setting
Server Address	NTP is enabled. The NTP server IP.	[Setting method] Enter a value manually.
Port	NTP is enabled. Port number of the NTP server.	[Setting method] Enter a value manually. [Default value] **123**
Interval	NTP is enabled. Set time interval to check if the device time has synchronized with the NTP server time.	[Setting method] Enter a value manually. [Default value] **60**
Daylight Saving Time	When the DST start time arrives, the device time will automatically be one hour earlier.. When the DST end time arrives, the device time will automatically be one hour later.	[Setting method] Click the button on to enable **Daylight Saving Time**.

Click **Apply**. The message "Apply success!" is displayed and the system will save the settings.

----End

3.1 Settings

3. 1. 1 Device Information

Description

The device information includes:

- Device ID, name, type, model, manufacturer name and MAC address.
- Hardware and software versions.
- Number of video channels, number of alarm input channels, number of alarm output channels, and number of serial ports, network cards.

NOTE

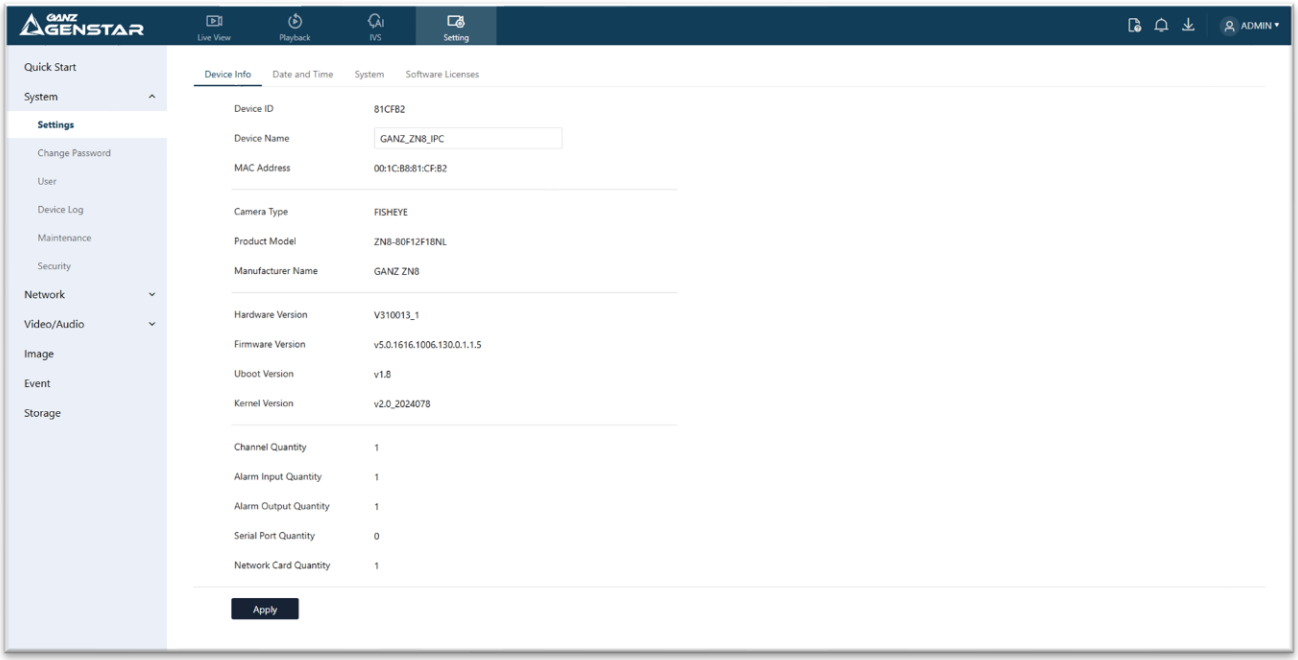
- You can modify the device name. All other parameters can only be viewed.
- When the device is upgraded, the device information will be updated automatically.

Procedure

Step 1 Choose **Setting > System > Settings > Device Info**.

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

Figure 3-1 Device info page



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

Table 3-1 Parameters of device

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

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, click **OK**. The system will save the settings.
- If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator.

----End

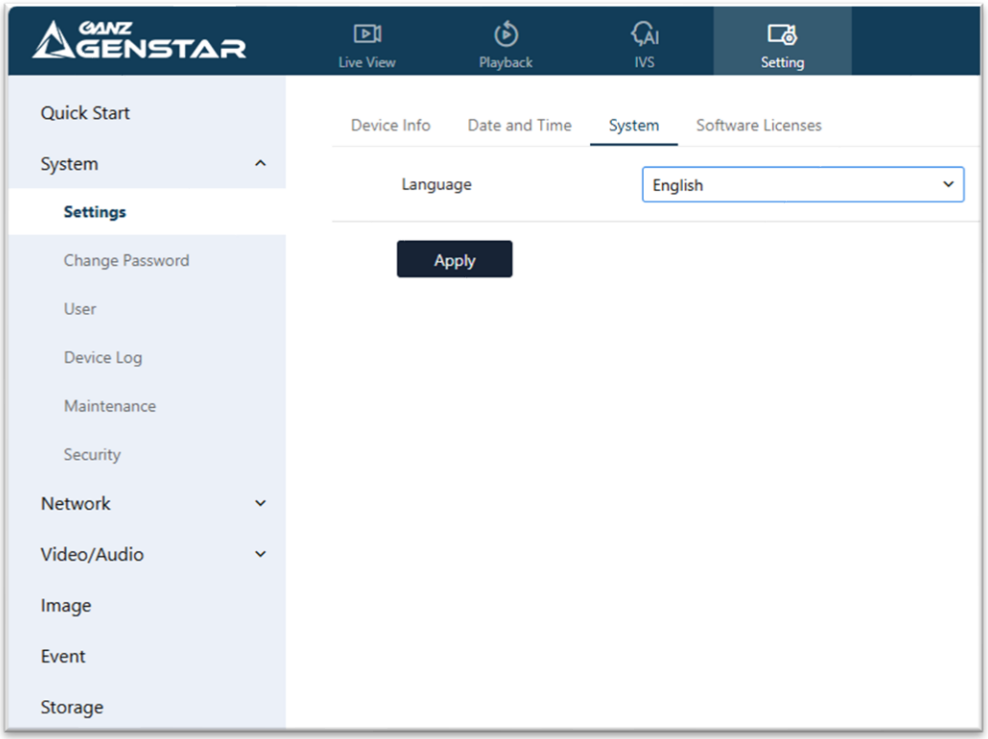
3.1.2 Date and Time

The detailed information, please refer to chapter 2.5

3.1.3 System

Click **Setting > System > Settings > System** to set language, this language is used for sending alarm email, the OSD's week and the name of FTP's image.

Figure 3-2 System



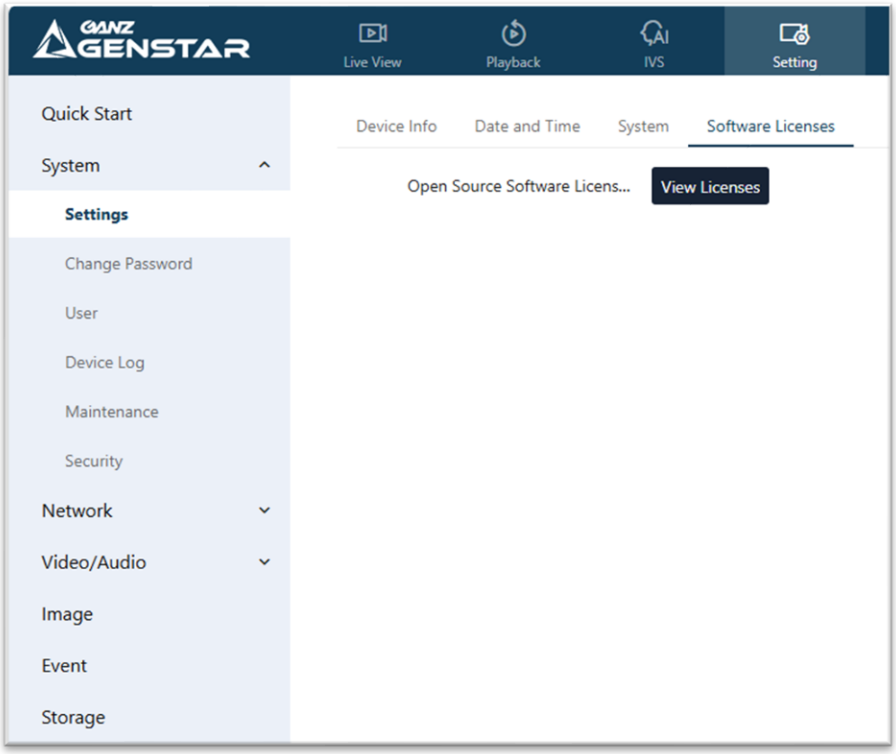
3.1.4 Software Licenses

Procedure

Step 1 Click Click **Setting > System > Settings > Software Licenses**.

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

Figure 3-3 Software licenses page



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

----End

3.2 Change Password

1.2 The detailed information, please refer to chapter 1.2.

3.3 Configure User

3.3.1 Add User

Description

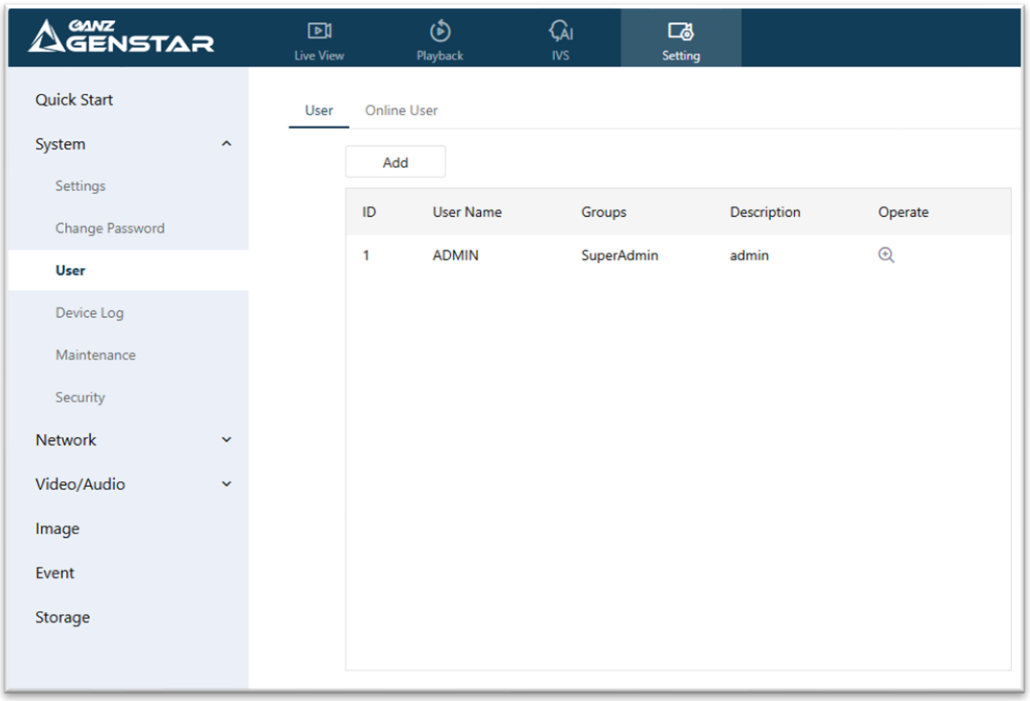
You can add, modify, and delete a user in privilege manager page.

Procedure

Step 1 Choose **Setting > System > User**.

The **User** page is displayed, as shown in Figure 3-4. Table 3-2 describes the parameters.

Figure 3-4 User page



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

Table 3-2 Parameters of user

Parameter	Description	Setting
ID	User ID	N/A
User Name	User name for logging in to the camera.	[Setting method] Select a value from the drop-down list box.
Groups	Permission group where a user belongs. The default permission groups are **Super Admin**, **Administrators**, **Operator**, and **Media user**. Their permissions are described as follows: □Super Admin: Includes all privileges. □Administrators: Live Video, Video Control, PTZ control, Audio, Playback, Backup, Record Policy, Disk Configure, Privilege Manage, Parameter Configure, System Maintenance and Log, □Operator: System Maintenance, Parameter Configure, playback, Live Video and Video Control. □Media user: Live Video	[Setting method] Click **Add**, then select a value from the drop-down list box.
Notes	Notes of the User.	[Setting method] Click **Add**, then enter a value manually.

Parameter	Description	Setting
Operate	The operation of the user, including view user, modify user and delete user. NOTE Super Admin can be viewed only.	[Setting method] Click the icon as required.

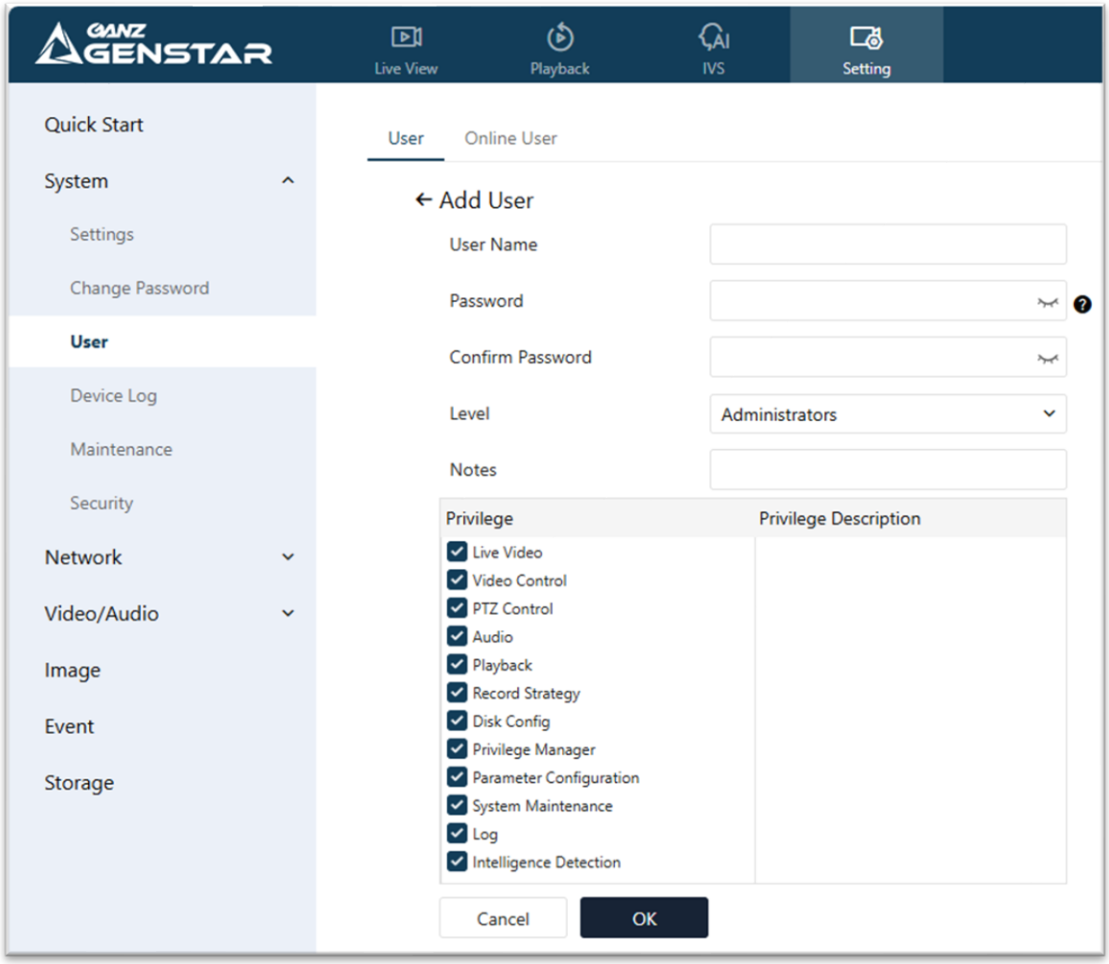
Step 3 Add, modify, or delete a user as required.

Table 3-3 is specific operations.

Table 3-3 Operation description

Function	Procedure	Description
Add	1. Click **Add**. The **Add User** page is displayed, as shown in Figure 3-5. 2. Enter a user name, password, confirm password. 3. Select a group from the drop-down list box. 4. Enter the notes (Optional). 5. Check the privilege. 6. Click **OK**. The user is added successfully.	Add an administrator or a common user as shown in Figure 3-5.
Modify	1. Click  . The **Modify User** page is displayed. 2. Modify the user name, password, group or privilege. 3. Click **OK**. The user is modified successfully. The **User** page is displayed.	Modify the user name, password, group or privilege.
Delete	Select the user from the User list. Click  , the message “Confirm to delete?” is displayed, click **OK**, then the group is deleted successfully.	Delete a user.

Figure 3-5 Add user page



NOTE

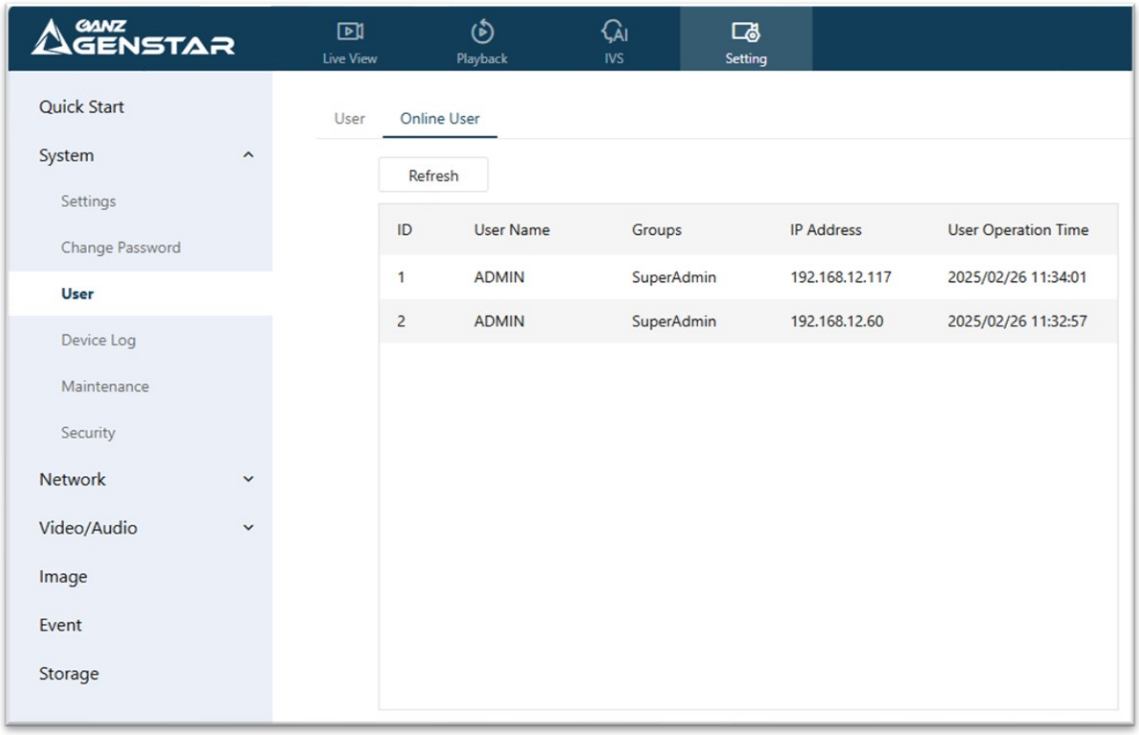
Click the privilege to view the detailed description of function.

----End

3.3.2 Online User

Choose **Setting > System > User > Online User,** you can view the online users, as shown in Figure 3-6.

Figure 3-6 Online user



----End

3.4 Query Device Logs

3.4.1 Query Operation Logs

Description

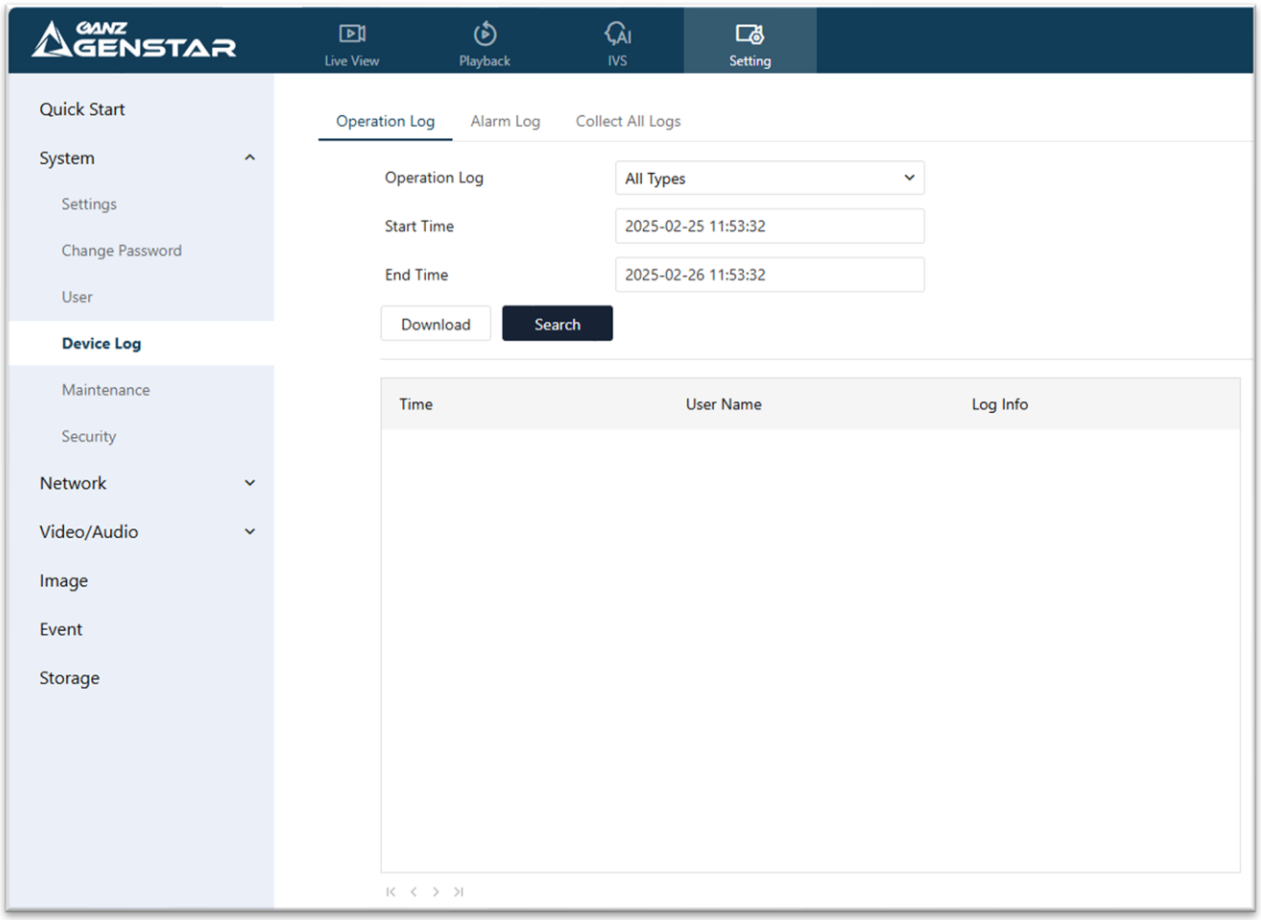
The operation log records user operations and scheduled task instructions during the device's operation. Operation logs can be classified into the following types: privilege manager, system maintenance, device, recording operation, video control, and live video.

Procedure

Step 1 Choose **Setting > System > Device Log > Operation Log**.

The **Operation Log** page is displayed, as shown in Figure 3-7.

Figure 3-7 Operation log page



Step 2 Set the query conditions.

1. Select the type of operation logs to be queried from the **Operation Log** drop-down list box.
2. Click the **Begin Time** and **End Time** text boxes respectively.

   A time setting control is displayed.
3. Set the start time and end time as required.
4. Enter the corresponding user name that is registered with the device from the **User Name** drop-down list box.

Step 3 Click **Search**.

The operation logs related to the specified users are displayed.

Step 4 Download the operation logs.

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

----End

3.4.2 Query Alarm Logs

Description

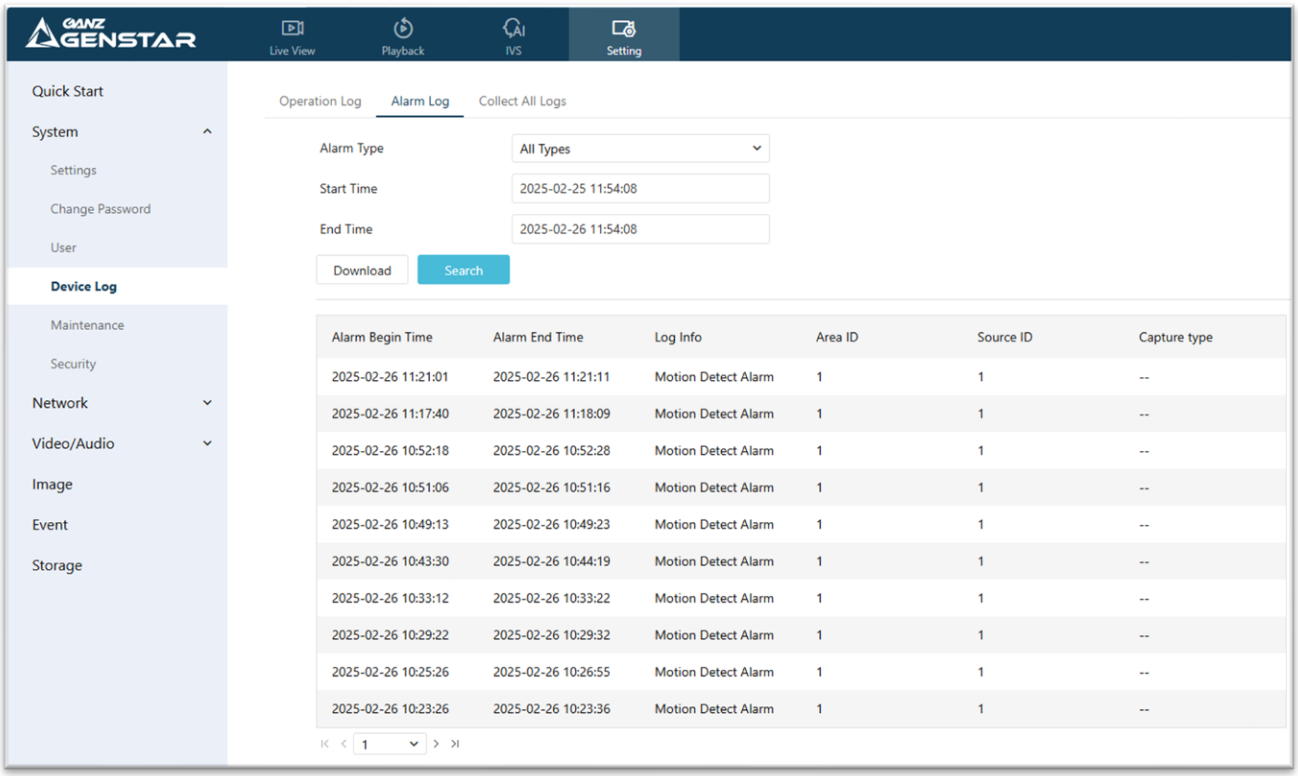
An alarm log records information about an alarm generated on a device, including the security alarm, disk alarm, recording alarms and intelligent analysis alarm.

Procedure

Step 1 Choose **Setting > System > Device Log > Alarm Log**.

The **Alarm Log** page is displayed, as shown in Figure 3-8.

Figure 3-8 Alarm log page



Step 2 Set the search conditions.

1. Click the **Begin Time** and **End Time** text boxes respectively.

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

Step 3 Click **Search**.

The alarm logs of the specified type are displayed.

Step 4 Download the alarm logs.

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

----End

3.4.3 Collect All Logs

Description

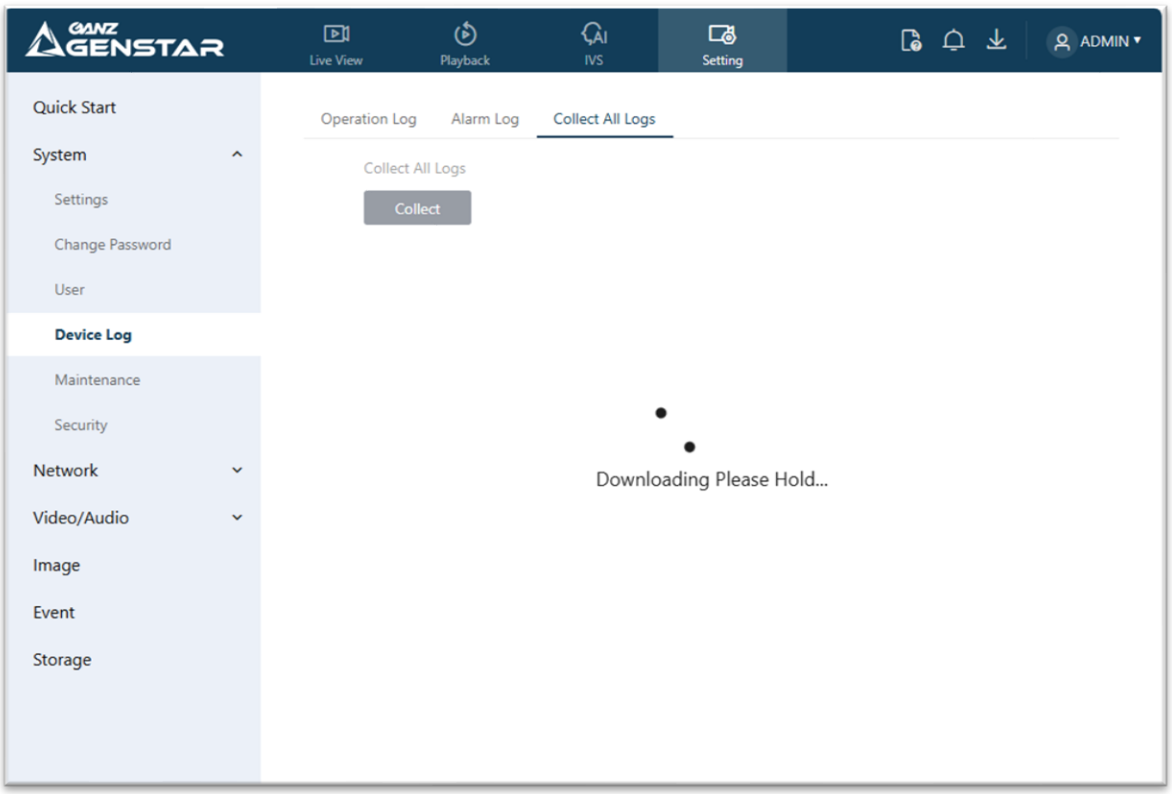
You can collect logs about a device, which helps you analyze and solve possible problems occurring on the device. The logs include overview information, key parameters, operation logs, alarm logs, upgrade logs, and debugging logs.

Procedure

Step 1 Choose **Setting > System > Device Log > Collect all Log**.

The **Collect all log** page is displayed, as shown in Figure 3-9.

Figure 3-9 Collect log page



Step 2 Collect logs with one click.

1. Click **Collect**, the downloading pop-up window is displayed.
2. The logs will be saved at the default path of browser.

----End

3.5 Maintain the Device

3.5.1 Reboot Device

Description

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

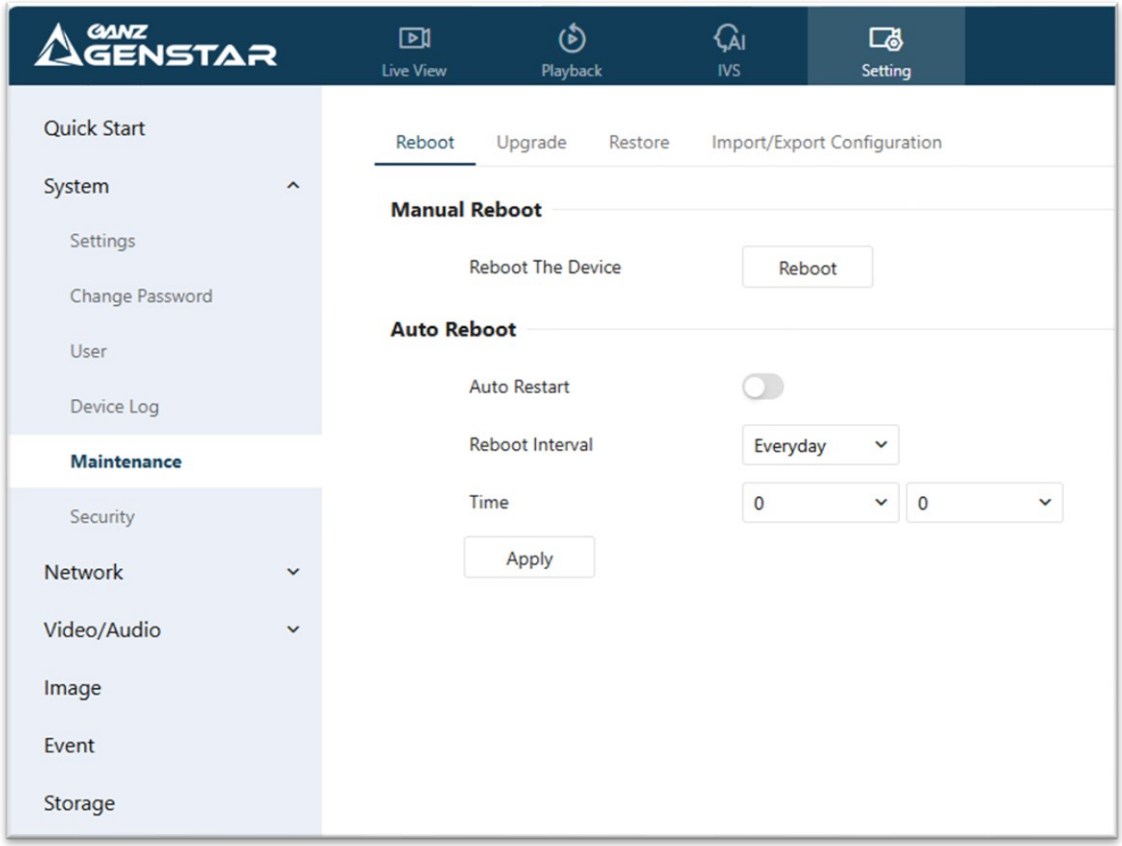
- The device parameters are set incorrectly, and the device cannot work properly.
- A user needs to reset device parameters and make it to take effect.
- A device needs to be restarted remotely.

Procedure

Step 1 Choose **Setting > System > Maintenance > Reboot**.

The **Camera Maintenance** page is as shown in Figure 3-10.

Figure 3-10 Reboot device page



Step 2 Click **Reboot**.

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

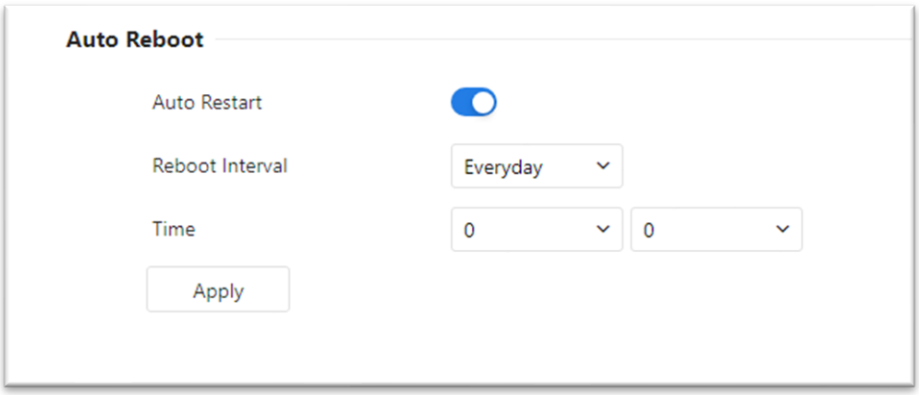
Step 3 Click **OK**.

The device is restarted successfully five minutes later.

Step 4 Enable the auto reboot and choose the reboot interval from drop-down list.

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

Figure 3-11 Camera auto restart



Step 5 Click **Apply**.

The device is restarted successfully five minutes later.

----End

3.5.2 Upgrade the Software Package

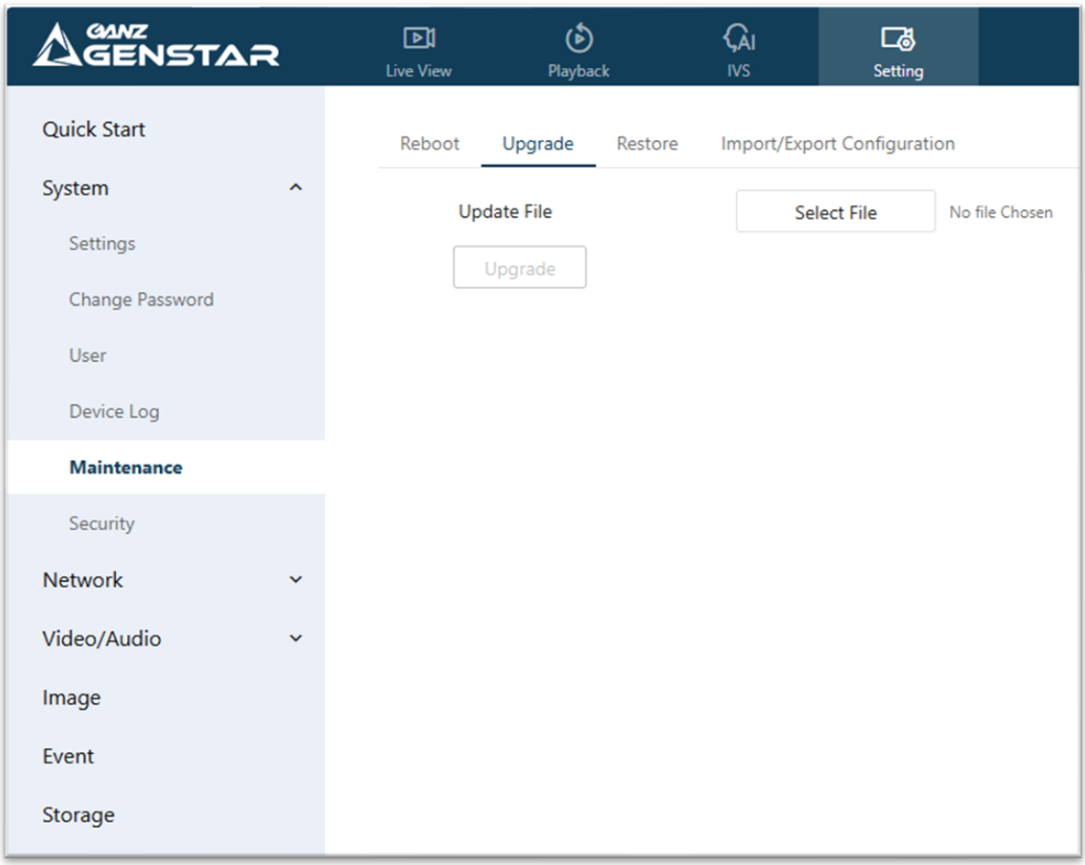
Description

You can upgrade the software package from web.

Procedure

Step 1 Choose **Setting > System > Maintenance > Upgrade**.

The **Upgrade** page is displayed.



Step 2 Click **Select File** to select the upgrade file.

Step 3 Click **Update**.

- If the message "Updating, please wait a few minutes, and not close the browser" is displayed, the program updated successfully and the device is rebooted.
- If other information is displayed, select the upgrade package correctly.

CAUTION

Don't power off during the upgrade. If the camera is powered off, there may be some malfunctions.

----End

3.5.3 Restore Device to Factory Settings

Description

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

- The device parameters are set incorrectly, and the device cannot work properly.
- A user needs to reset device parameters.
- All parameters must be restored to the factory settings.

CAUTION

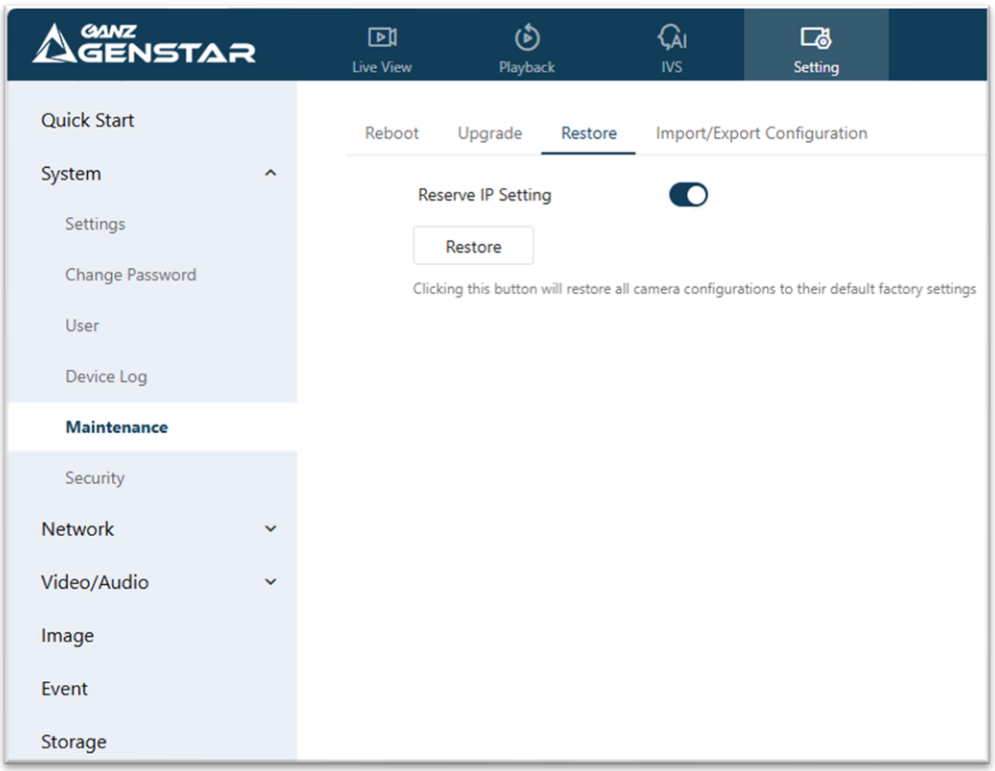
After you clicking **Restore**, all parameters (you can choose whether to reserve the IP address) will be restored to the factory settings. Use this function carefully.

Procedure

Step 1 Choose **Setting > System > Maintenance > Restore**.

The **Restore** page is displayed.

Figure 3-12 Restore device



Step 2 Click **Restore**.

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

Step 3 Click **OK**.

The device is restored to the factory settings.

----End

3.5.4 Export / Import Configuration

Description

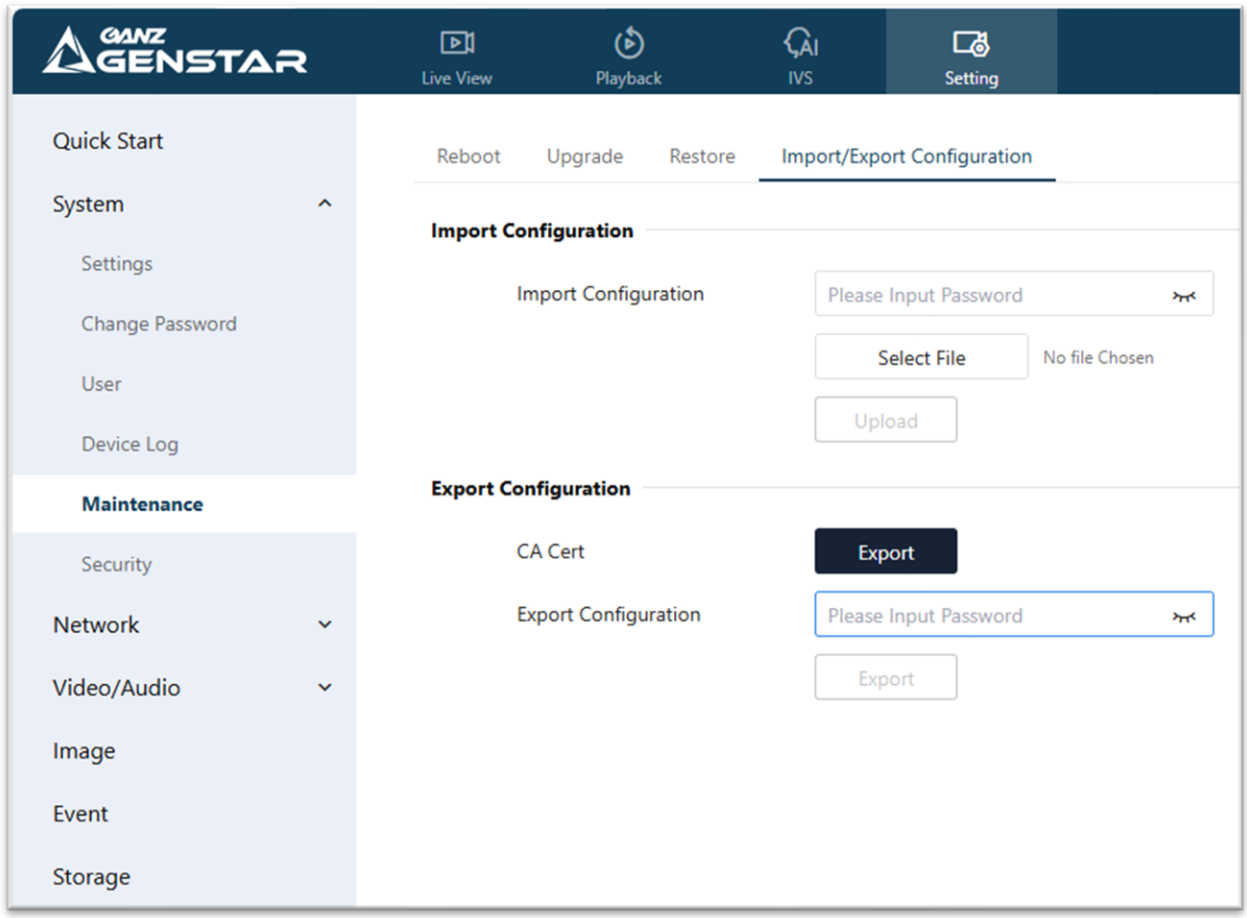
You can export configuration to local hard driver, when you configure the same model cameras or the current camera, import the configuration file (config.bin) directly

Procedure

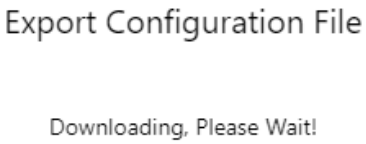
Step 1 Choose **Setting > System > Maintenance > Export / Import Configuration**.

The Export / Import Configuration page is displayed.

Figure 3-13 Export / Import Configuration page



Step 2 Input the password, then Click **Export** to download the configuration file.



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

----End

3.6 Configure Security

3.6.1 IP Filter

Description

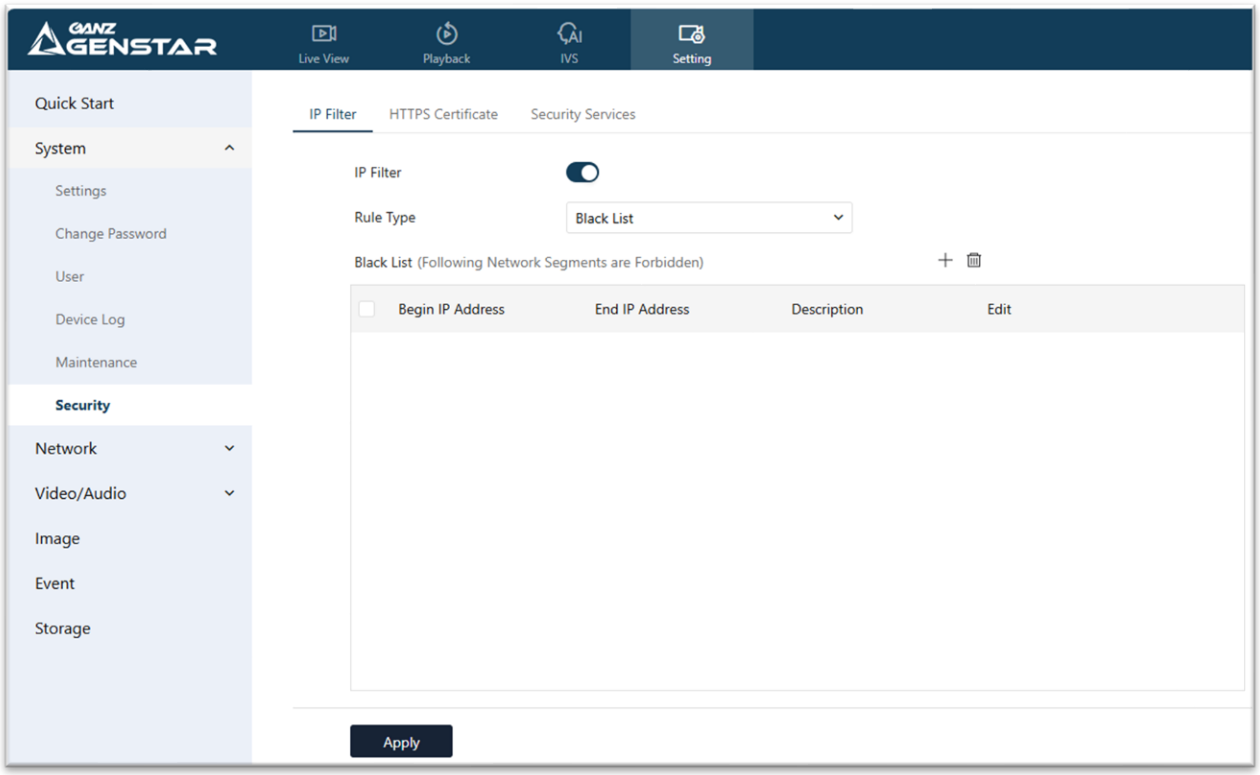
Set the IP address in specified network segment to allow accessing or prohibit accessing.

Procedure

Step 1 Choose **Setting > System > Security > IP Filter**.

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

Figure 3-14 IP filter page



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

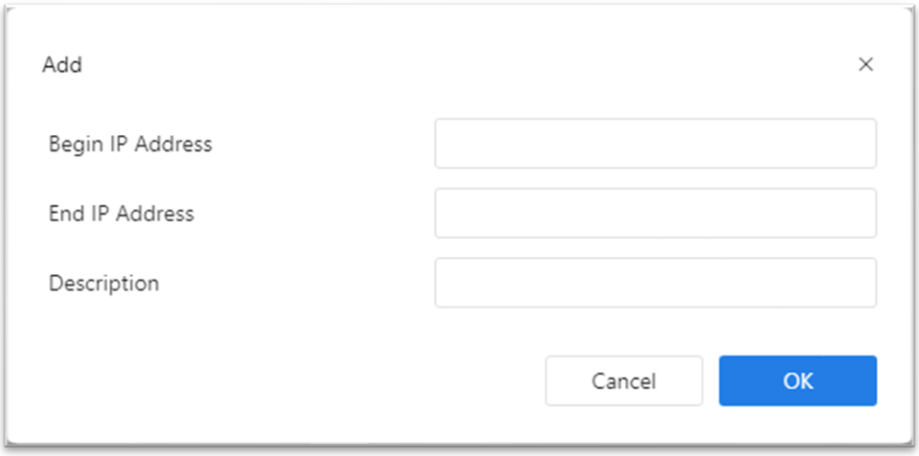
Step 3 Set the parameters according to Table 3-4

Table 3-4 Parameters of IP filter

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

Parameter	Description	Setting
Rule Type	IP filter type, including black list and white list.	[Setting method] Select a value from the drop-down list box. [Default value] Black List
Black List	Specified network segment should be banned.	[Setting method] 1. Click + to enter the add black/white list page, as shown in Figure 3-15 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Description. 5. Click OK, the black list added successfully.
White List	Allow specified network segment to access.	[Setting method] 1. Click + to enter the add black/white list page, as shown in Figure 3-15. 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Description. 5. Click OK, add the white list successfully.

Figure 3-15 Add IP filter page



NOTE

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

Click to delete the setting black list or white.

Step 4 Click **Apply**.

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

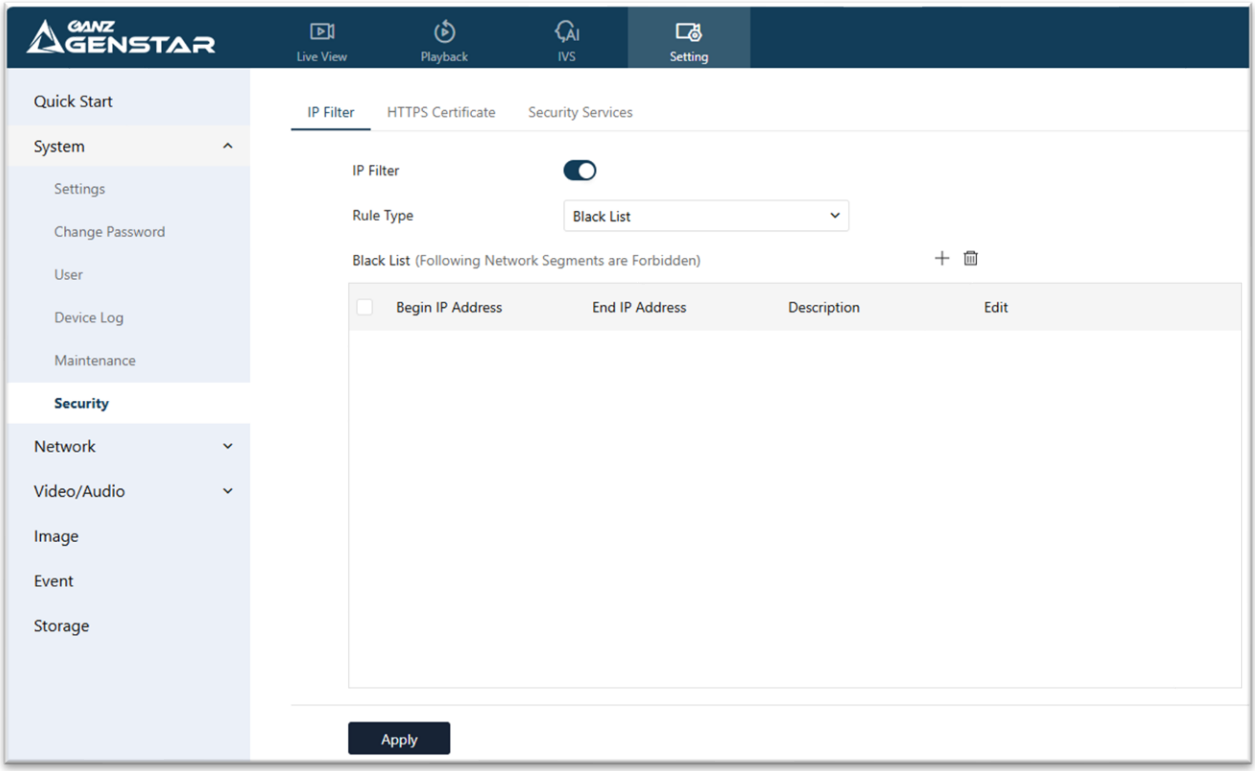
----End

3.6.2 HTTPS Certificate

Step 1 Choose **Setting > System > Security > HTTPS Certificate**.

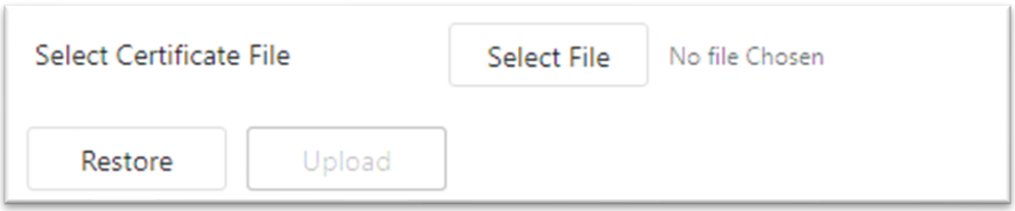
The **HTTPS Certificate** page is displayed, as shown in Figure 3-16

Figure 3-16 HTTPS Certificate



Step 2 Create the certificate request.

1. Click **Create** to generate the file.
2. Users upload the file to 3rd party to create the certificate,
3. Then click **Select File** to upload the certificate file.
4. Upload successfully, the certificate will show on HTTPS web.



Step 3 To import the certificate from third party:

1. In the Certificate field, click **Select File** to select a certificate file you have already applied from 3rd party or CA domain.
2. In the Key field, click **Select File** to select a certificate key you have already applied from 3rd party or CA domain.
3. Click **Upload** and reboot camera.

After the certificate file is uploaded successfully, if you want to remove the certificate, click **Delete**.

----End

3.6.3 Security Services

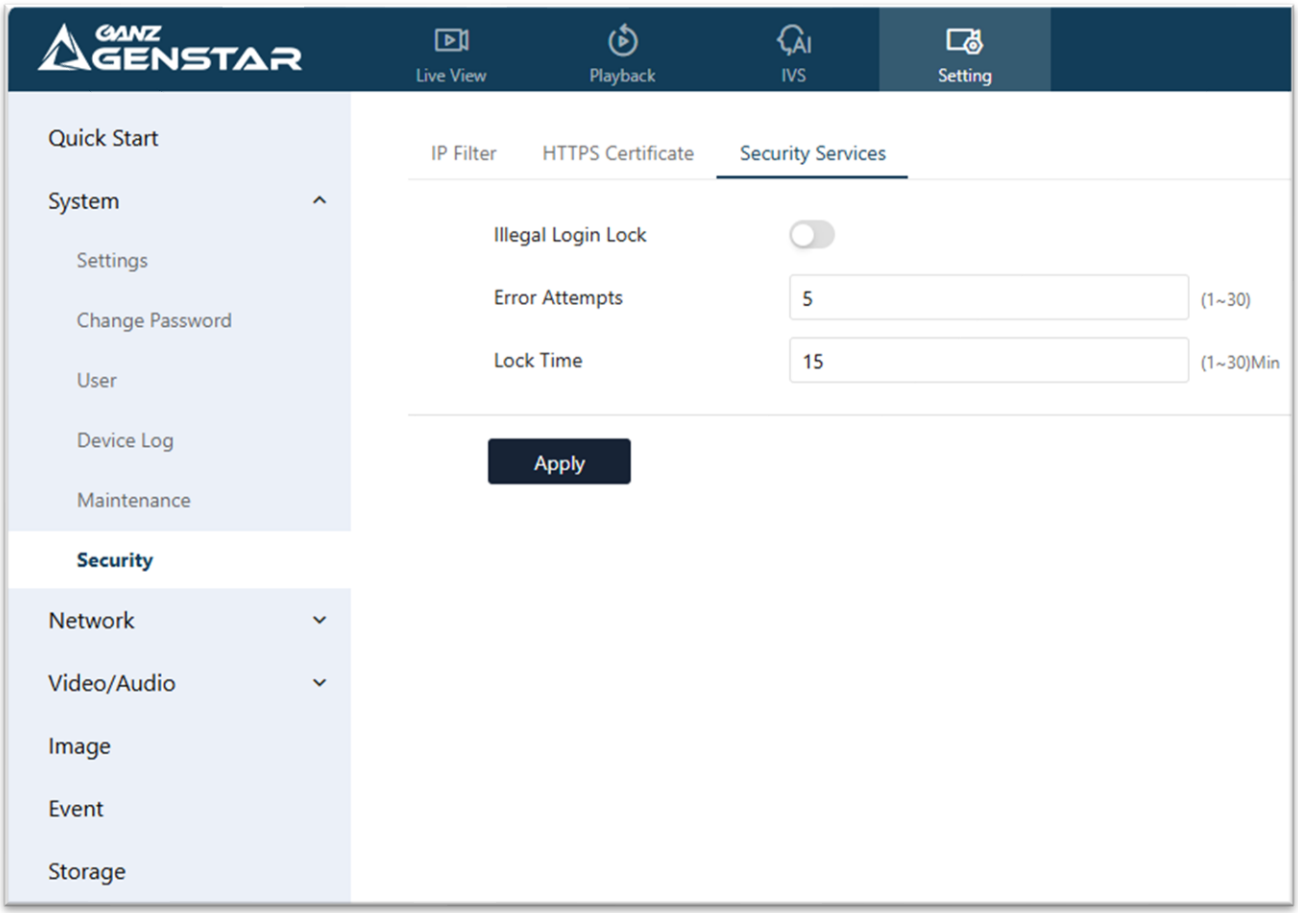
Description

To keep security of camera, users can enable illegal login lock, when the number of inputting the password error is more than the setting times, the camera will be lock for locking time.

Step 1 Choose **Setting > System > Security > Security Services**.

The **Security Services** page is displayed, as shown in Figure 3-17.

Figure 3-17 Security services page



Step 2 Enable illegal login lock, set the error attempts and lock time.

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

----End

4 Configure the Network Service

4.1 Basic Settings

4.1.1 Local Network

The detailed information, please refer to chapter 2.5

4.1.2 Device Port

Description

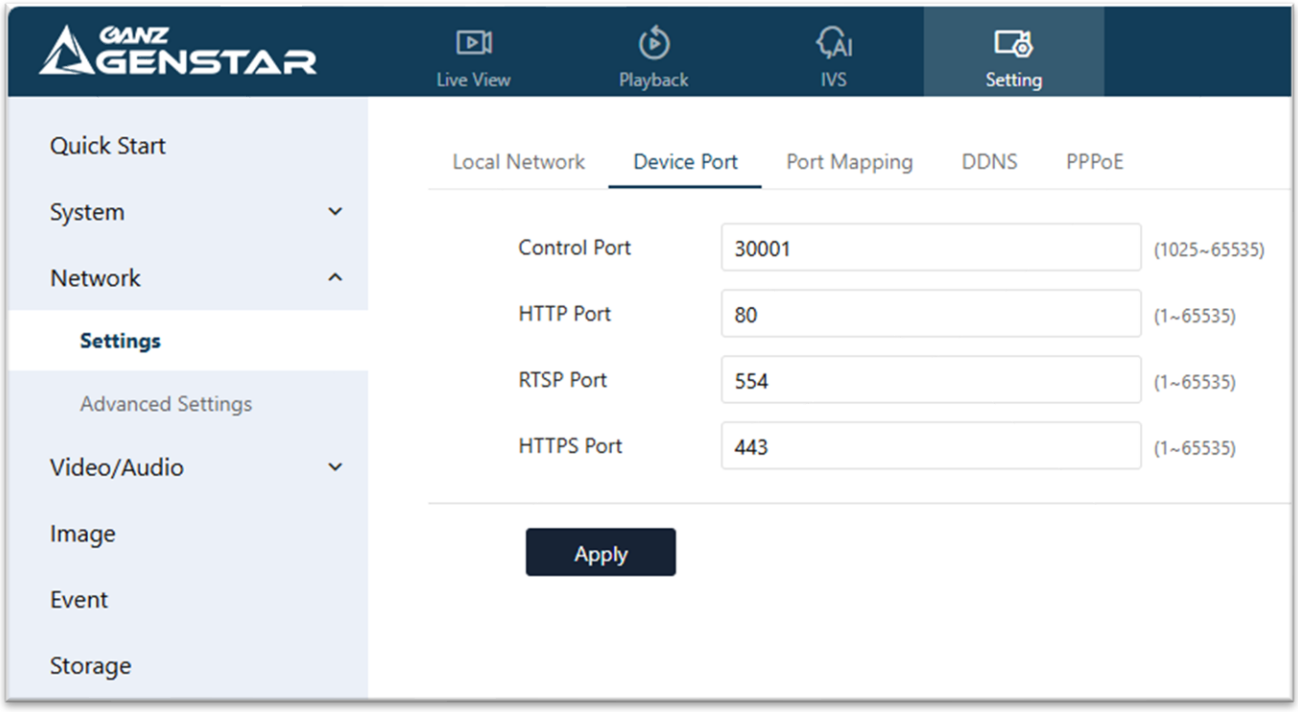
You must configure the HTTP port, control port, RTSP (Real-Time Streaming Protocol) port and SSL Control port for device route mapping in a LAN.

Procedure

Step 1 Choose **Setting > Network > Settings > Device Port**.

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

Figure 4-1 Device port page



Step 2 Set the parameters according to Table 4-1.

Table 4-1 Parameters of device port

Parameter	Description	Setting
Control Port	Port used for audio and video transfer and signaling interaction.	[Setting method] Enter a value manually. [Default value] 30001
HTTP Port	Port used in web access. Modify the port to 86, you should input “ http://192.168.0.120:86/” to access the web.	[Setting method] Enter a value manually. [Default value] 80
RTSP Port	RTSP protocol port. The rule can refer to “ Configuration > Protocol > Protocol Info”. Input the “ rtsp://192.168.0.120:554/snl/live/1/1” at VLC player to view the live video.	[Setting method] Enter a value manually. [Default value] 554
HTTPS Port	Hyper Text Transfer Protocol over Secure Socket Layer. At “Configuration > Device > System ” set Web Mode to HTTPS. Input “https://192.168.0.120:443” to access the web.	[Setting method] Enter a value manually. [Default value] 443
SSL Control Port	Secure socket layer control port. Only for Some Models.	[Setting method] Enter a value manually. [Default value] 20001

NOTE

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

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system will save the settings.
- If the message "Port invalid, please check it" is displayed, enter correct port numbers.

----End

4.1.3 Port Mapping

Description

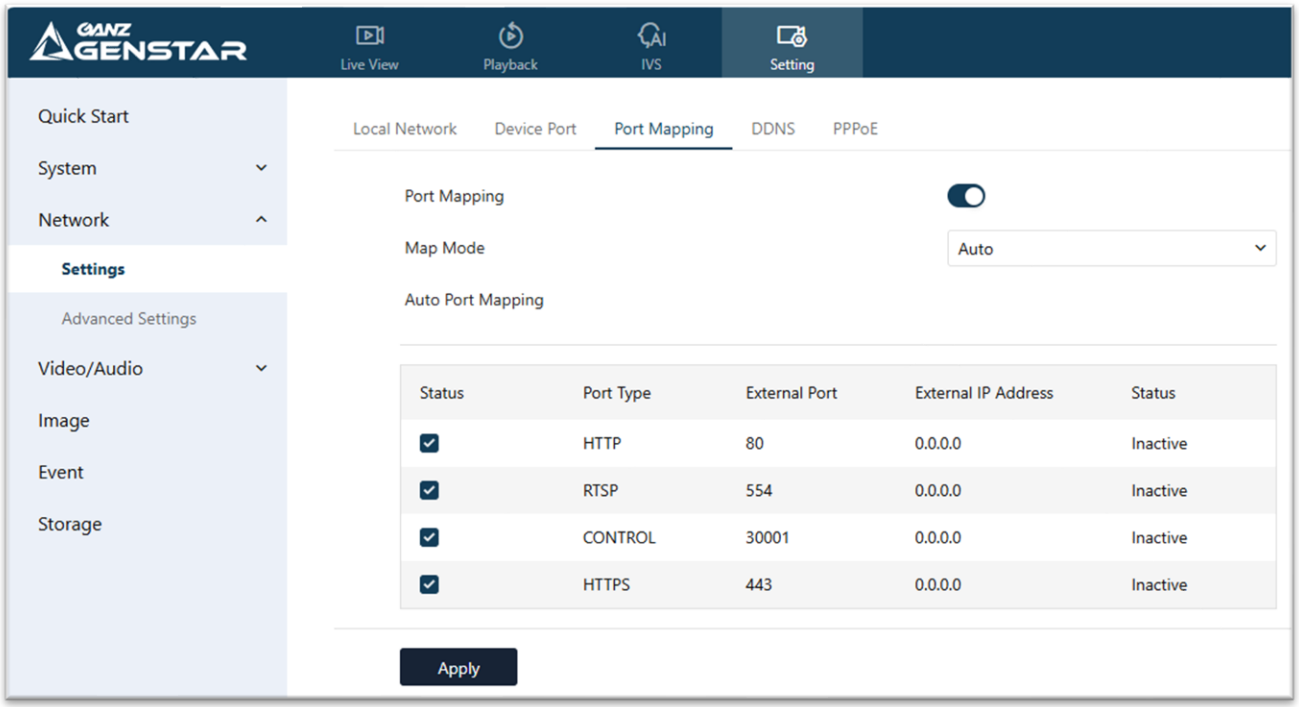
Port mapping helps establish a mapping relationship between the private network and the external network. Port mapping allows outside computers to access intranet devices so that the network works efficiently.

Procedure

Step 1 Choose **Setting > Network > Settings > Port Mapping**.

The **Port Mapping** page is displayed, as shown in Figure 4-2.

Figure 4-2 Port mapping page



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

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

Table 4-2 Parameters of port mapping

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

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system will save the settings.
- If other information is displayed, set the parameters correctly.

----End

4.1.4 DDNS

Preparation

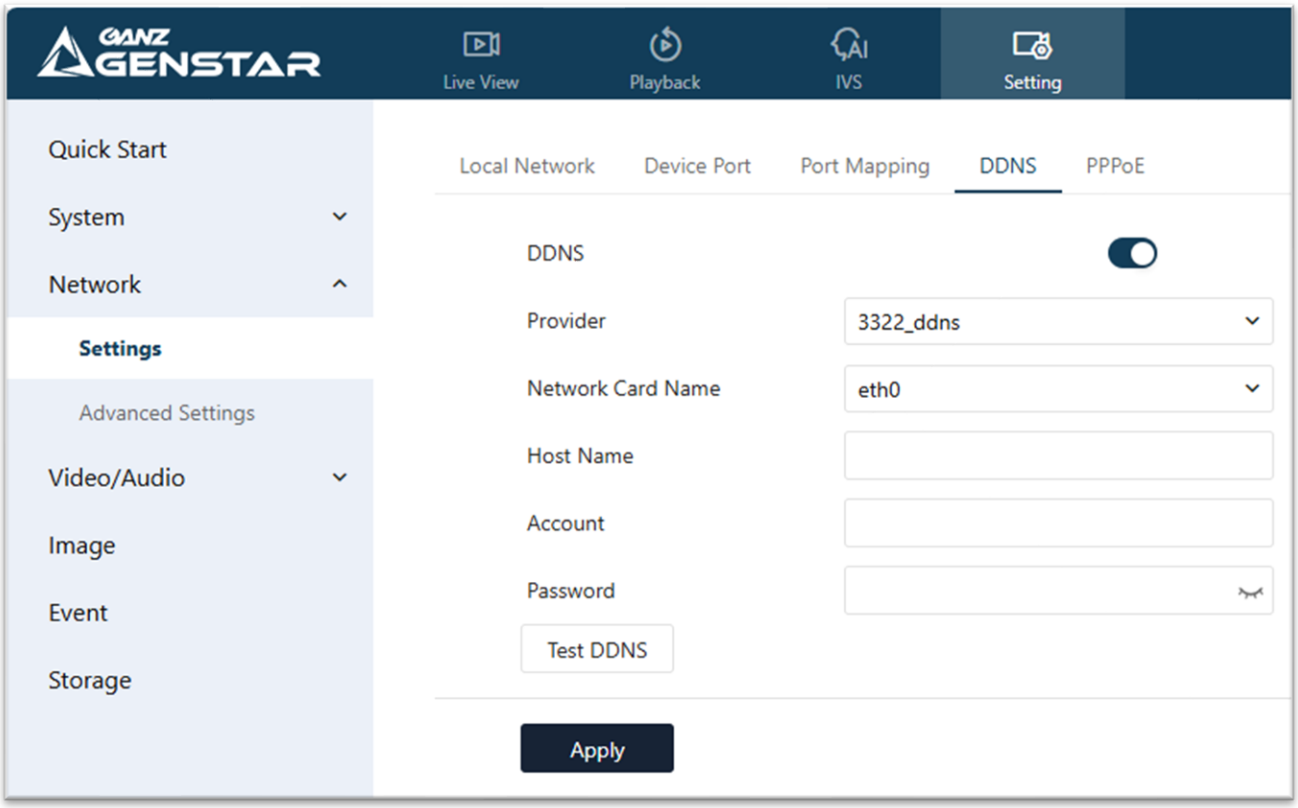
Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

Procedure

Step 1 Choose **Setting > Network > Settings > DDNS**.

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

Figure 4-3 DDNS page



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

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

Table 4-3 Parameters of DDNS

Parameter	Description	Setting
DDNS	Indicates whether to enable the DDNS service.	[Setting method] Click the button on to enable DDNS. [Default value] OFF
Provider	DDNS service provider. Currently, only 3322_DDNS and Dyndns are supported.	[Setting method] Select a value from the drop-down list box. [Default value] 3322 NOTE Set this parameter based on the site requirements.
Network Card Name	Name of network card	[Setting method] Select a value from the drop-down list box. [Default value] Eth0
Host Name	Host name is customized by a user.	[Setting method] Enter a value manually. [Default value] Blank
Accounts	User name for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank
Password	Password for logging in to the DDNS server.	[Setting method] Enter a value manually. [Default value] Blank

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system will save the settings.
- If other information is displayed, set the parameters correctly.

----End

4.1.5 Set PPPoE

Preparation

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

Description

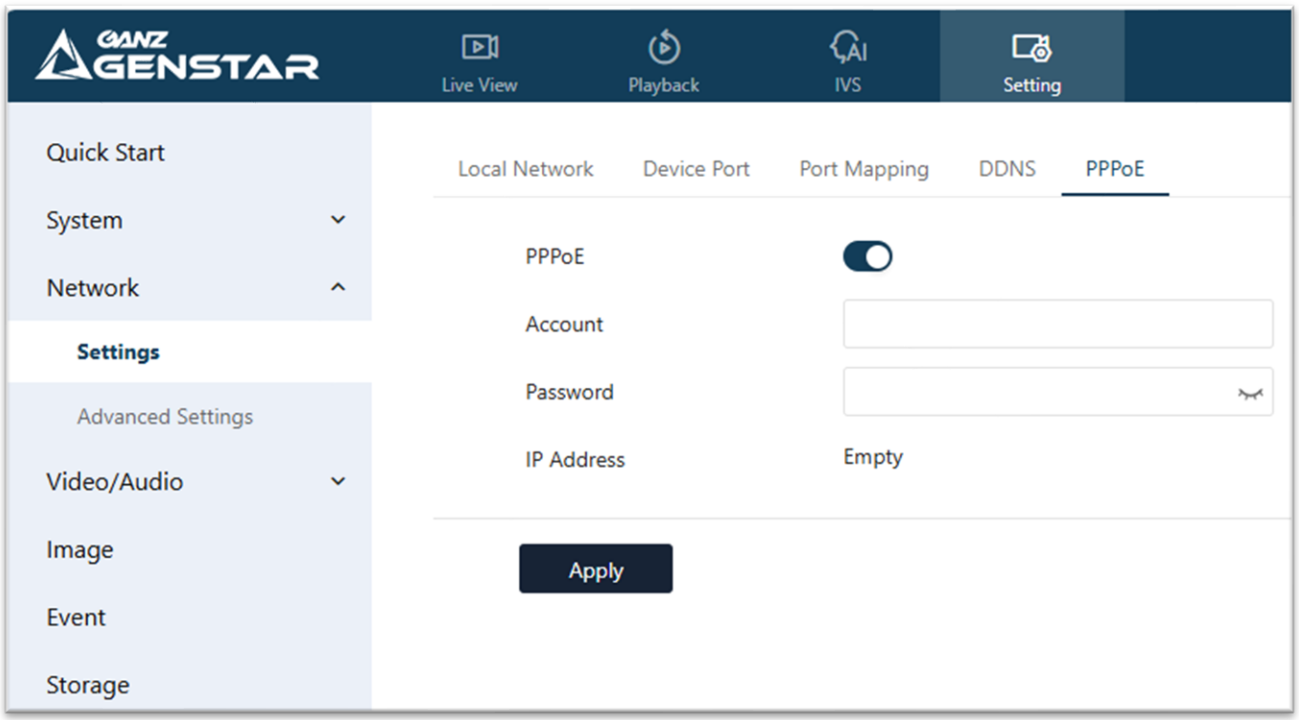
If a PPPoE connection is used, you need to enter the user name and password on the **PPPoE** page. After you restart the device, the PPPoE settings take effect and the device obtains a public IP address.

Procedure

Step 1 Choose **Setting > Network > Settings > PPPoE**.

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

Figure 4-4 PPPoE page



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

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

Table 4-4 Parameters of PPPoE

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

Step 4 Click **Apply**.

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

If other information is displayed, set the parameters correctly.

----End

4.2 Advanced Settings

4.2.1 Set FTP

Description

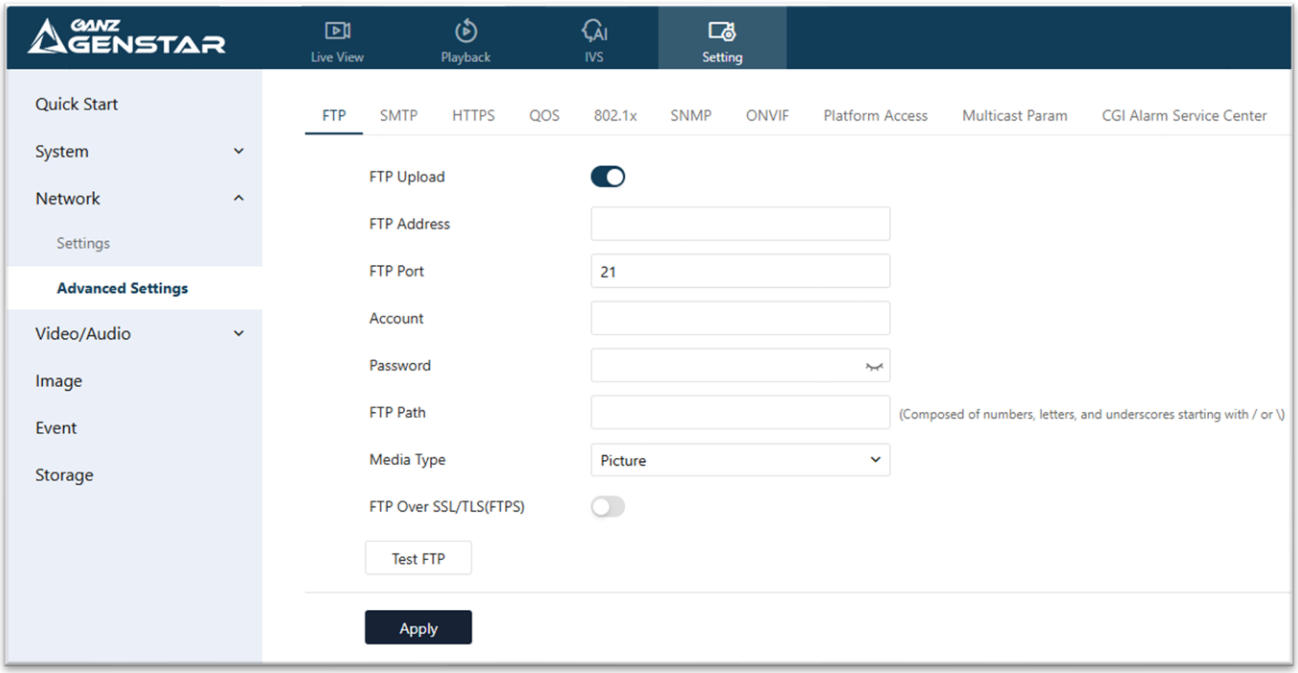
If the File Transfer Protocol (FTP) button is enabled, the device will automatically send the snapped alarm JPG images to specified FTP server.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > FTP**.

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

Figure 4-5 FTP page



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

Step 3 Set the parameters according to Table 4-5.

Table 4-5 Parameters of FTP

Parameter	Description	Setting
FTP Upload	Indicates whether to enable the FTP service.	[Setting method] Click the button on. [Default value] OFF
FTP Address	IP address of FTP server.	[Setting method] Enter a value manually.
FTP Port	Port of FTP server.	[Setting method] N/A [Default value] 21
Account	FTP server account.	[Setting method] Enter a value manually.
Password	FTP server password.	[Setting method] Enter a value manually.
FTP Path	FTP Path to save the JPG image.	[Setting method] Enter a value manually.
Media Type	The media type of sending to FTP, snapshot or video clip.	[Setting method] Select a value from the drop-down list box. [Default value] Snapshot
FTP over SSL/TLS (FTPS)	Encrypt the files by SSL/TLS when they are be transferred.	[Setting method] Tick

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

Step 5 Click **Apply**.

- If the message "Apply success!" is displayed, the system will save the settings.
- If other information is displayed, set the parameters correctly.

----End

4.2.2 Set SMTP

Description

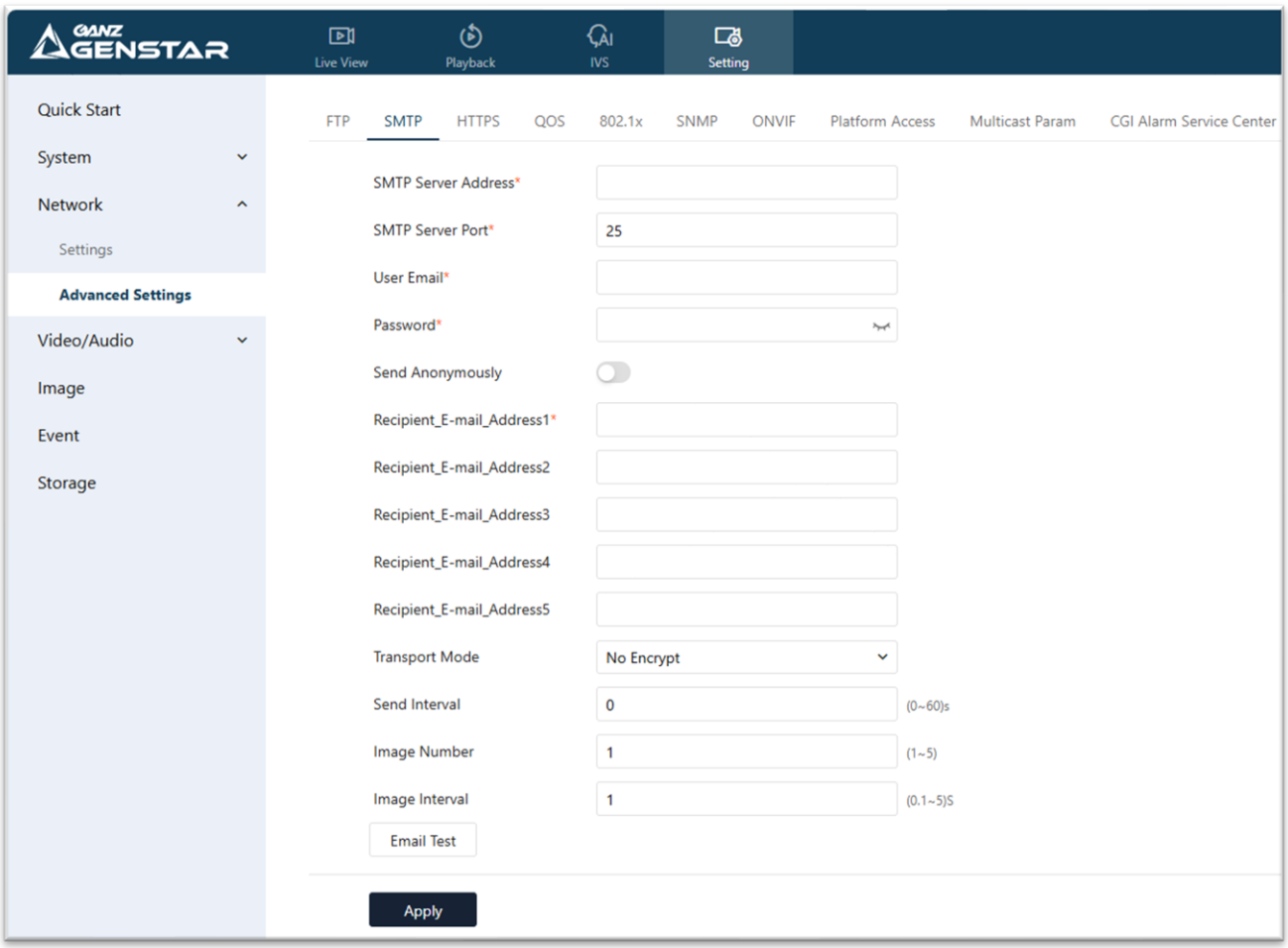
If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device will automatically send JPG images and alarm information to specified email addresses when an alarm is generated.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > SMTP**.

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

Figure 4-6 SMTP page



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

NOTE

Parameters marked with * are required fields.

Table 4-6 Parameters of SMTP

Parameter	Description	Setting
SMTP Server Address	IP address of the SMTP server.	[Setting method] Enter a value manually.
SMTP Server Port	Port number of the SMTP server.	[Setting method] Enter a value manually. [Default value] 25
User Name	User name of the mailbox for sending emails.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Password	Password of the mailbox for sending emails.	[Setting method] Enter a value manually.
Sender E-mail Address	Mailbox for sending emails.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 1	(Mandatory) Email address of recipient 1.	[Setting method] Enter a value manually.
Recipient_E-mail_Address 2	(Optional) Email address of recipient 2.	
Recipient_E-mail_Address3	(Optional) Email address of recipient 3.	
Recipient_E-mail_Address 4	(Optional) Email address of recipient 4.	
Recipient_E-mail_Address 5	(Optional) Email address of recipient 5.	
Attachment Image Quality	A higher-quality image means more storage space. Set this parameter based on the site requirement.	N/A
Transport Mode	Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server.	[Setting method] Select a value from the drop-down list box. [Default value] No Encrypted

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system will save the settings.
- If other information is displayed, set the parameters correctly.

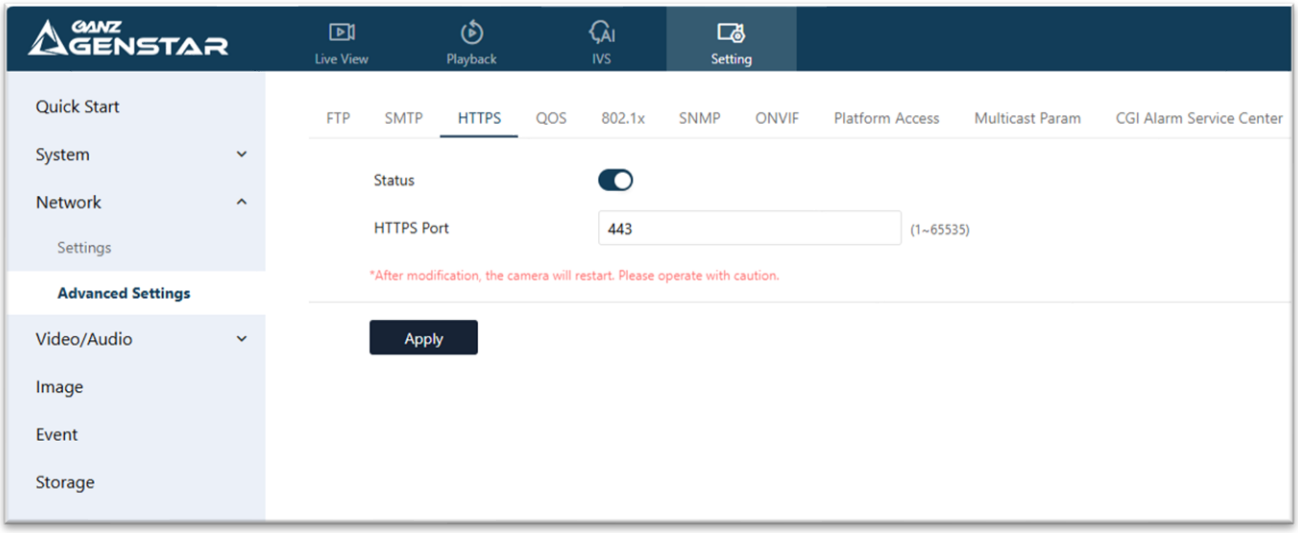
----End

4.2.3 Set HTTPS

Preparation

Users want to access web through HTTPS mode, set the port, input “https://192.168.1.167:443, as example” to enter the web.

Figure 4-7 HTTPS page



4.2.4 Set QOS

Description

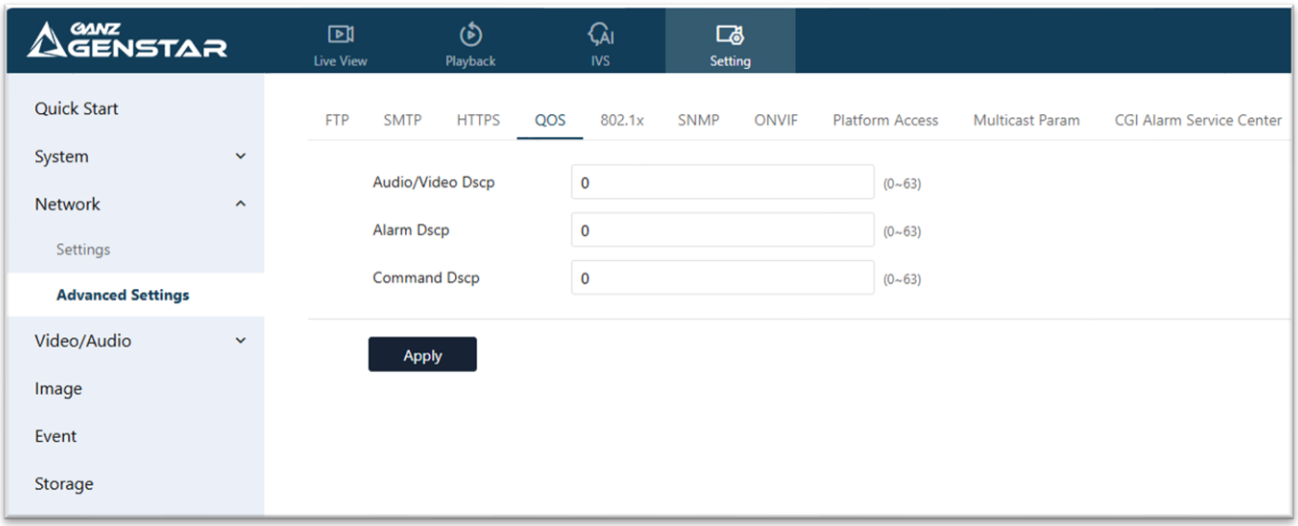
If the device is connected to a router or switch with a QOS function, and the priority rule of the corresponding mark is configured on the network device, the network device will preferentially pass the data packet of the corresponding mark.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > QOS**.

The **QOS** page is displayed, as shown in Figure 4-8.

Figure 4-8 QOS page



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

Step 3 Click **Apply**.

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

----End

4.2.5 Set 802.1x

Preparation

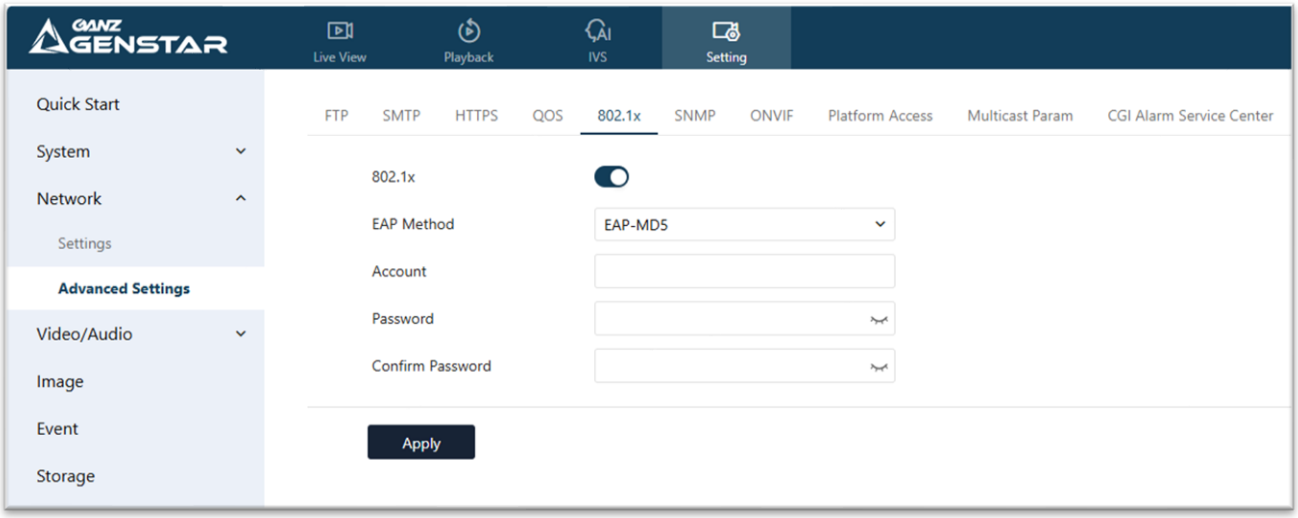
The 802.1x authentication must be configured on the device port. Authentication of user devices connected to the port is used to control access to network resources.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > 802.1x**.

The **802.1x** page is displayed, as shown in Figure 4-9.

Figure 4-9 802.1x page



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

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

Step 4 Enter the account name.

Step 5 Enter the password and confirm password.

Step 6 Click **Apply**.

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

----End

4.2.6 Set SNMP

Description

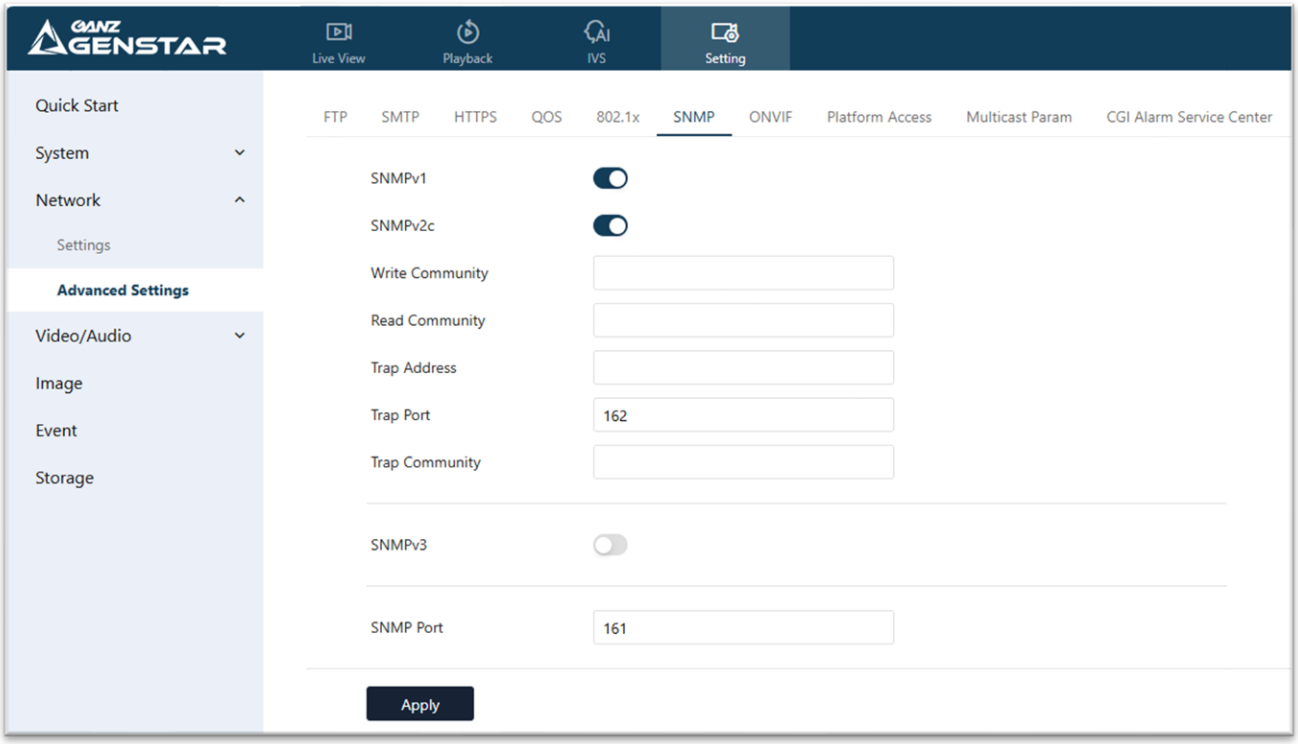
Simple Network Management Protocol (SNMP) is an Internet Standard protocol, supports SNMP v1, SNMPv2c and SNMPv3 network protocol. Choose the proper SNMP protocol version and set the SNMP protocol parameter to collect and organize information about managed devices on IP networks.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > SNMP**.

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

Figure 4-10 SNMP page



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

Set the parameters according to Table 4-7.

Table 4-7 Parameters of SNMP

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

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

Step 3 Click **Apply**.

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

----End

4.2.7 View ONVIF

Description

Step 1 Choose **Setting > Network > Advanced Settings > ONVIF** page, as shown in Figure 4-11. Table 4-8 describes the protocol-related parameters

Figure 4-11 ONVIF page

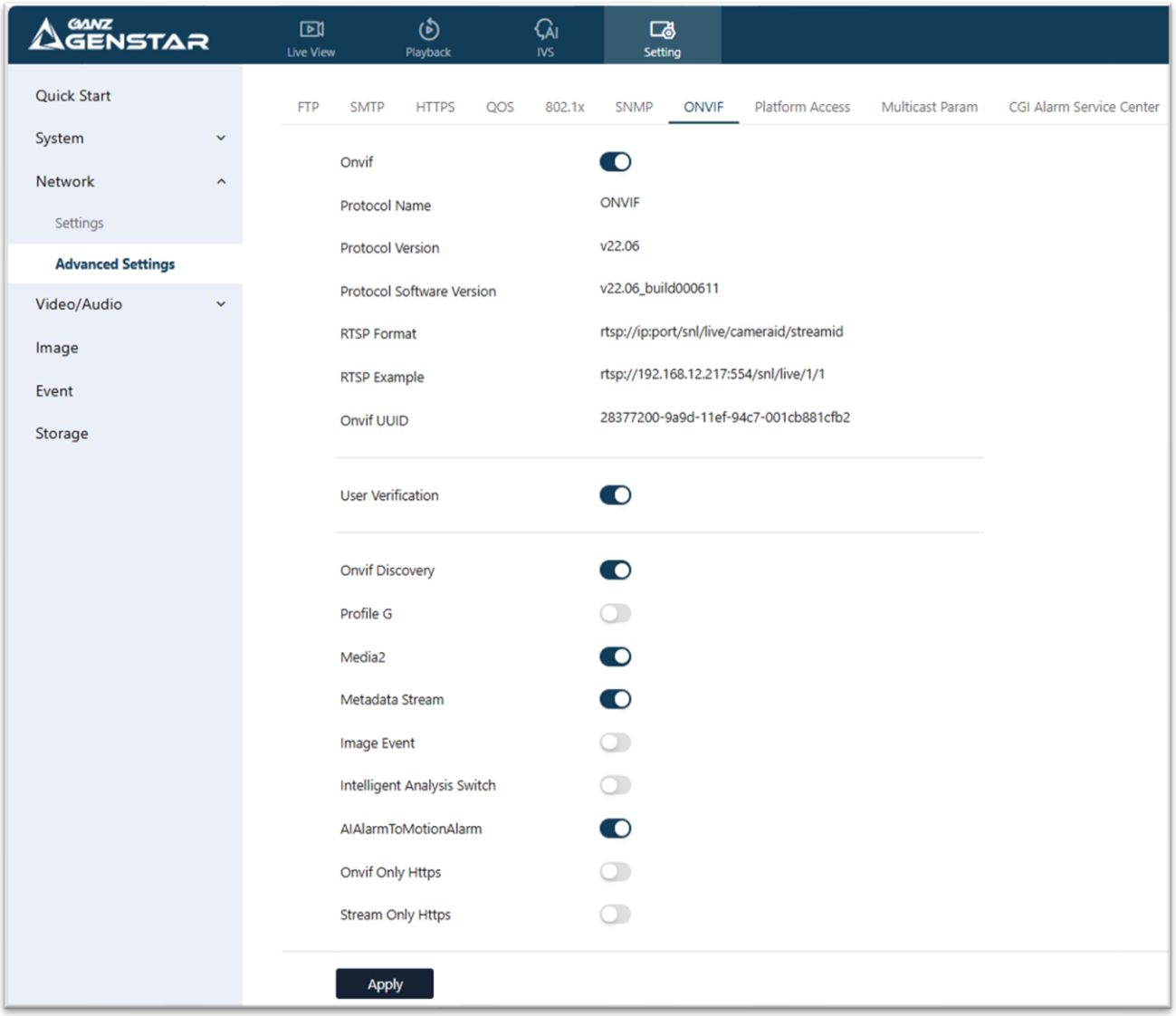


Table 4-8 Parameters of protocol-related

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

Parameter	Description
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 When an ONVIF-compliant device connects to the platform, you must authenticate the user name and password to ensure the connection security.
Onvif	Enable Onvif
Profile G	Enable Onvif profile G
Intelligent Analysis Switch	Enable intelligent analysis switch
Media 2	Enable media 2
Image Event	Enable image event
Intelligent Analysis Switch	Enable active onvif
Onvif only Https	Onvif can use a more secure HTTPS mode for connection, command interaction and video data transmission, which are transmitted in an encrypted way to enhance network security.
Stream only https	

Step 2 Click **Apply**.

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

4.2.8 Set Platform Access

Description

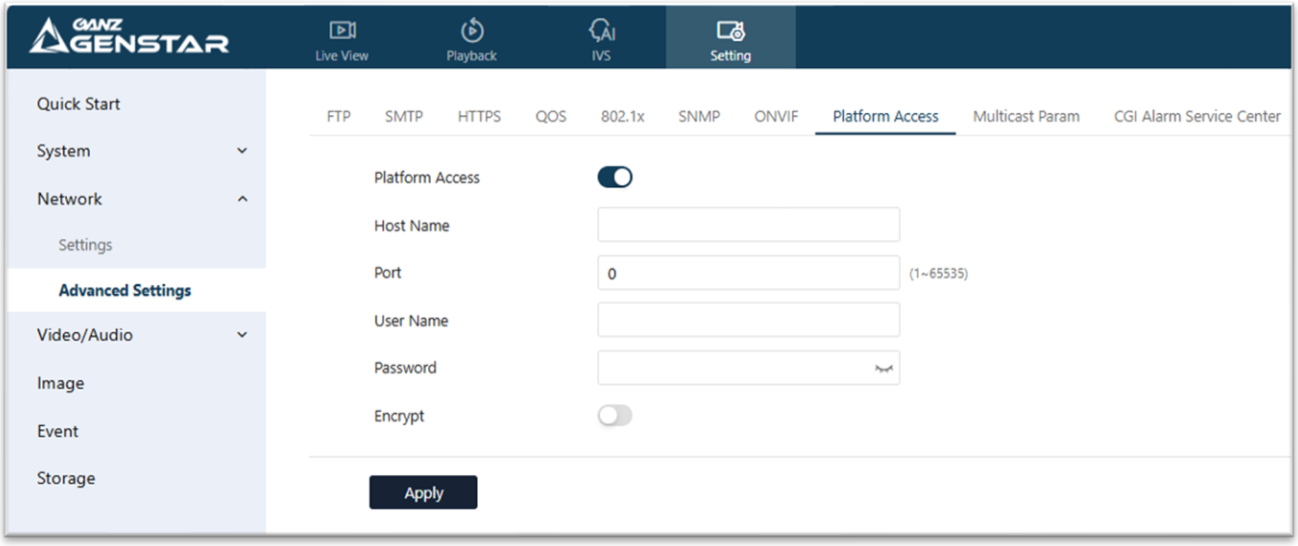
If the device and platform system are not at the same local network, you can connect device and platform system to the external server. You should build a server for platform in advance, platform's remote IP/Port and IP camera are mapping port to external network.

Procedure

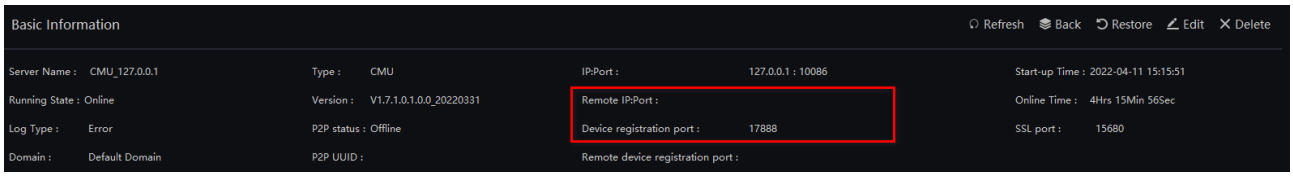
Step 1 Choose **Setting > Network > Advanced Settings > Platform Access**.

The **Platform Access** page is displayed, as shown in Figure 4-12

Figure 4-12 Platform access page



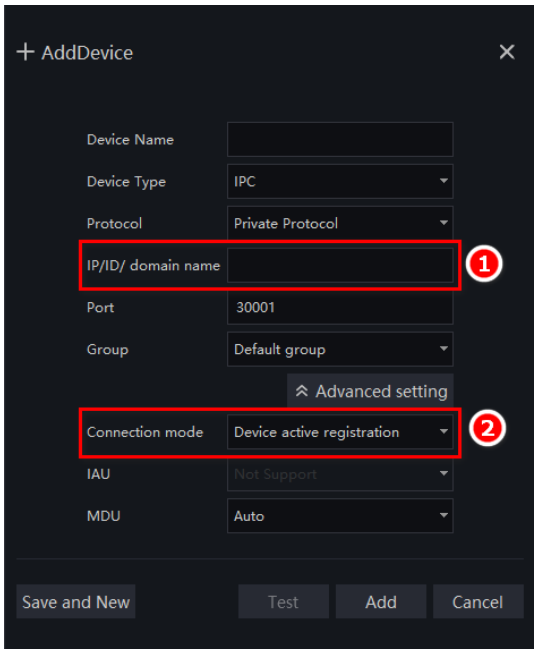
Step 2 Input the parameters. The host name and port are same as the platform, as shown in figure. It is the IP or domain of external network server. The user name and password are same as platform login.

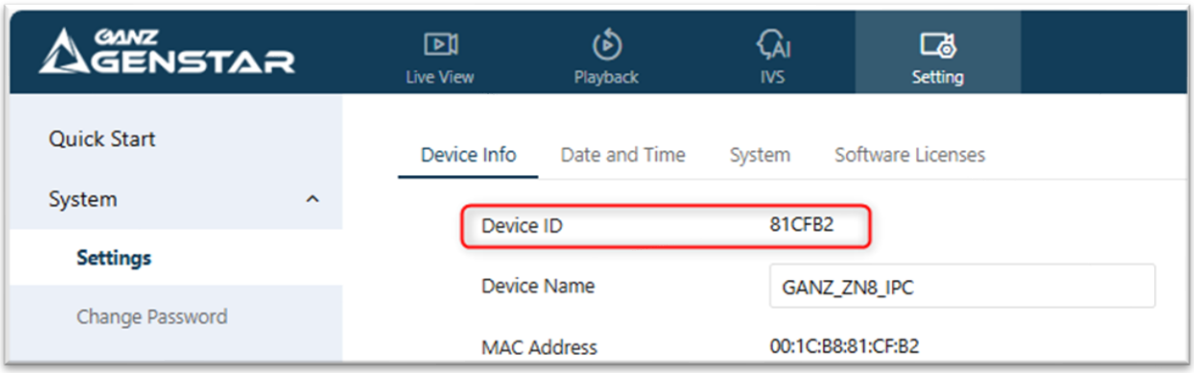


Step 3 Add the IPC to platform, you should input the following information

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

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





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

Step 5 Click **Apply**.

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

----End

4.2.9 Set Multicast Parameters

Description

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

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > Multicast Param**.

The **Multicast Param** page is displayed as shown in Figure 4-13. Table 4-9 describes the parameters on the **Multicast Param** page.

Figure 4-13 Multicast param page

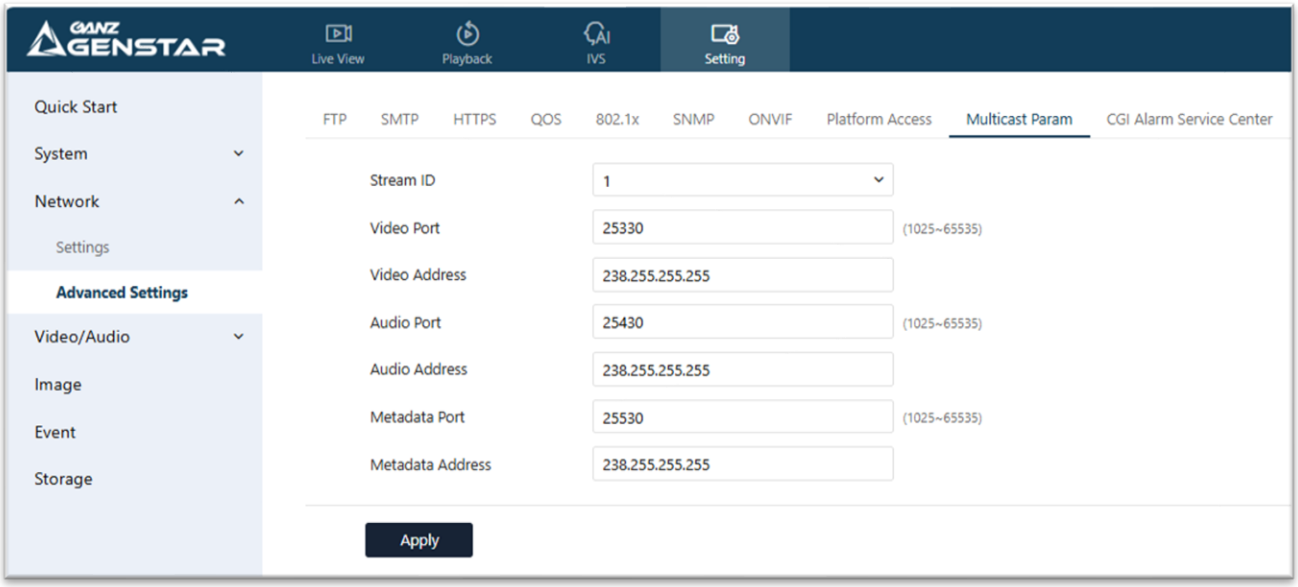


Table 4-9 Parameter description

Parameter	Description	Setting
Stream ID	ID of stream.	[Setting method] Select a value from the drop-list box. [Default value] 1
Video address	IP address that receive multicast data.	[Setting method] Enter a value manually. [Default value] 238.255.255.255
Video Port	Port that receive video data.	[Setting method] Enter a value manually. [Default value] 25330

Parameter	Description	Setting
Audio Port	Port that receive audio data.	[Setting method] Enter a value manually. [Default value] 25430
Source Port	Port that receive source data.	[Setting method] Enter a value manually. [Default value] 25530

Step 2 Click **Apply**.

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

----End

4.2.10 Set CGI Alarm Service Center

Description

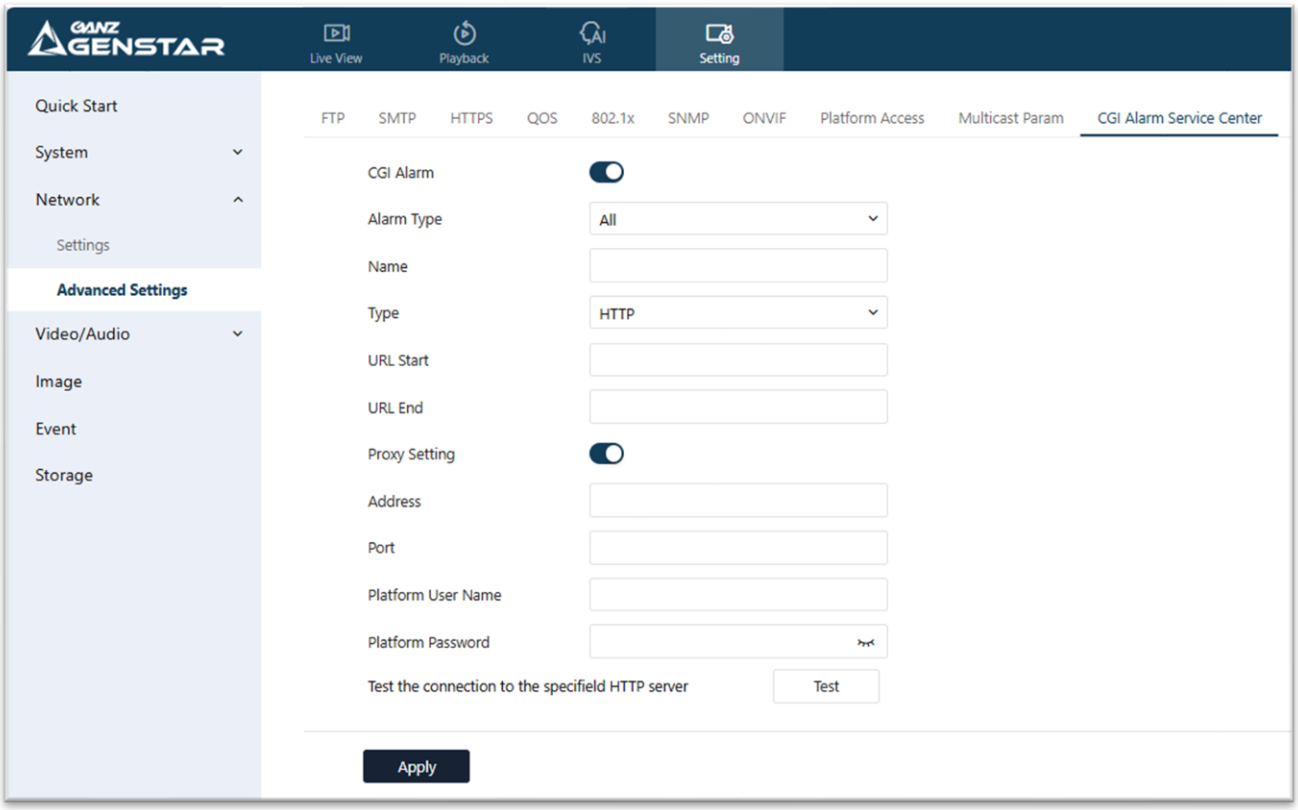
Device will push the alarm message by CGI with Start URL and End URL, and send data to CGI Server by HTTP protocol. CGI alarm message is the head of User-Agent of HTTP. Use HTTP protocol get and send to CGI Server. Therefore, to integrate CGI alerts, users need to parse the User-Agent field in the HTTP URL to get the alert information.

Procedure

Step 1 Choose **Setting > Network > Advanced Settings > CGI Alarm Service Center**.

The **CGI Alarm Service Center** page is displayed, as shown in Figure 4-14.

Figure 4-14 CGI alarm service center page



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

Step 3 Set the parameters according to Table 4-10.

Table 4-10 Parameters of CGI Alarm service center

Parameter	Description	Setting
CGI Alarm	Indicates whether to enable the CGI Alarm.	[Setting method] Click the button on. [Default value] OFF
Alarm Type	All alarm types can be chosen, users can choose one to alarm, or choose all.	[Setting method] Select a value from the drop-down list box. [Default value] All
Name	Name of CGI Alarm.	[Setting method] Enter a value manually.
Type	Type of CGI Alarm.	[Setting method] Select a value from the drop-down list box. [Default value] HTTP

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

Step 4 Click **Apply**.

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

----End

5.1 Video

5.1.1 Set video

The detailed information, please refer to chapter 2.5

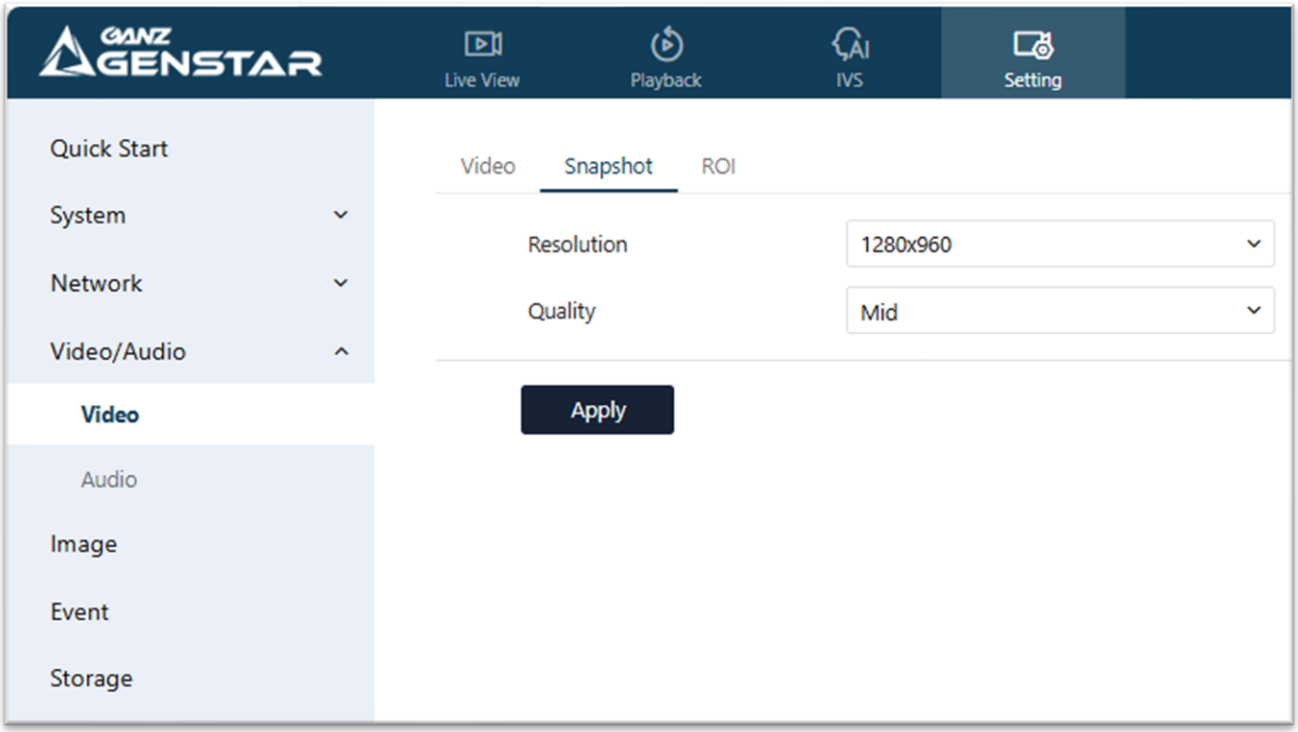
5.1.2 Snapshot

Procedure

Step 1 Choose **Setting > Video/Audio > Snapshot**.

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

Figure 5-1 Snapshot configuration page



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

Table 5-1 Parameters of snapshot configuration

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

Parameter	Description	Setting
Snapshot Quality	Choose the quality of snapshot.	[Setting method] Click the button. [Default value] **Mid**

----End

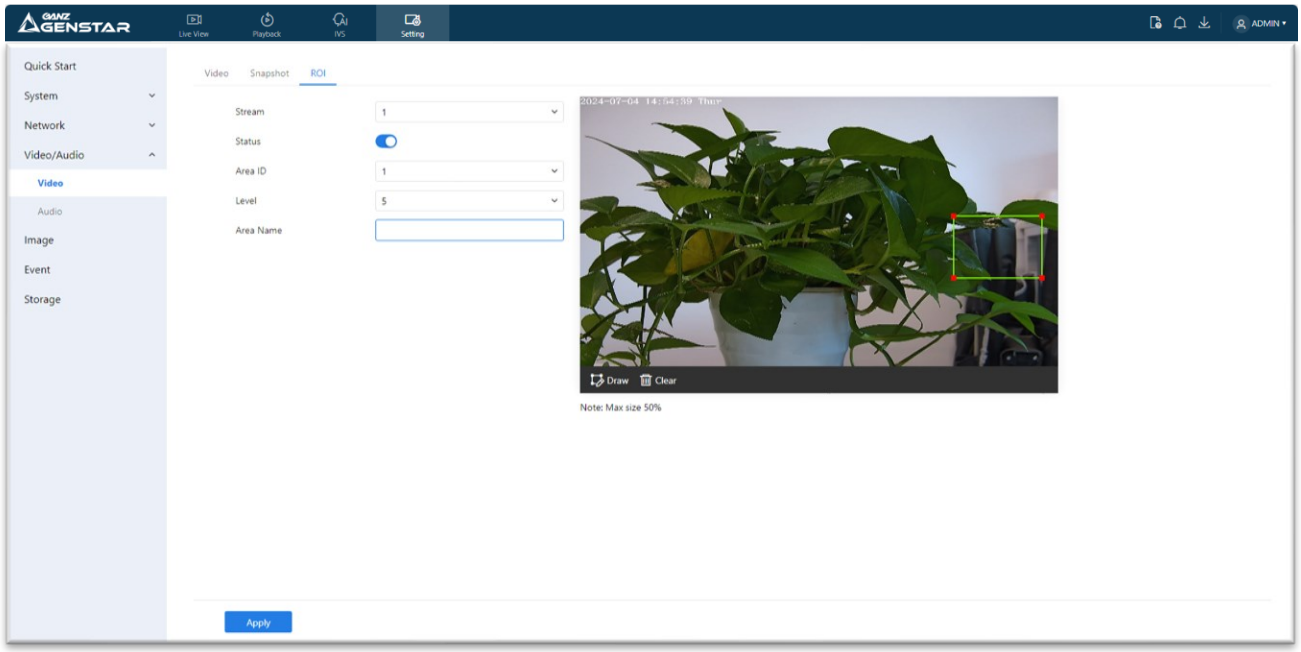
5.1.3 ROI Parameter

Procedure

Step 1 Choose **Setting > Video/Audio > ROI**.

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

Figure 5-2 ROI configuration page



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

Table 5-2 Parameters of ROI

Parameter	Description	Setting
Channel	For general cameras, the default is channel 1. For bi-spectrum cameras, 1 is optical channel, 2 is thermal channel.	[Setting method] Select a value from the drop-down list box. [Default value] Stream 1
Stream	Stream ID.	[Setting method] Select a value from the drop-down list box. [Default value] Stream 1

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

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

Step 4 Click **Apply**.

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

----End

5.2 Audio

5.2.1 Audio

Description

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

Procedure

Step 1 Choose **Setting > Video/Audio > Audio**.

The **Audio Input** page is displayed, as shown in Figure 5-3. Table 5-3 describes the parameters.

Figure 5-3 Audio input page

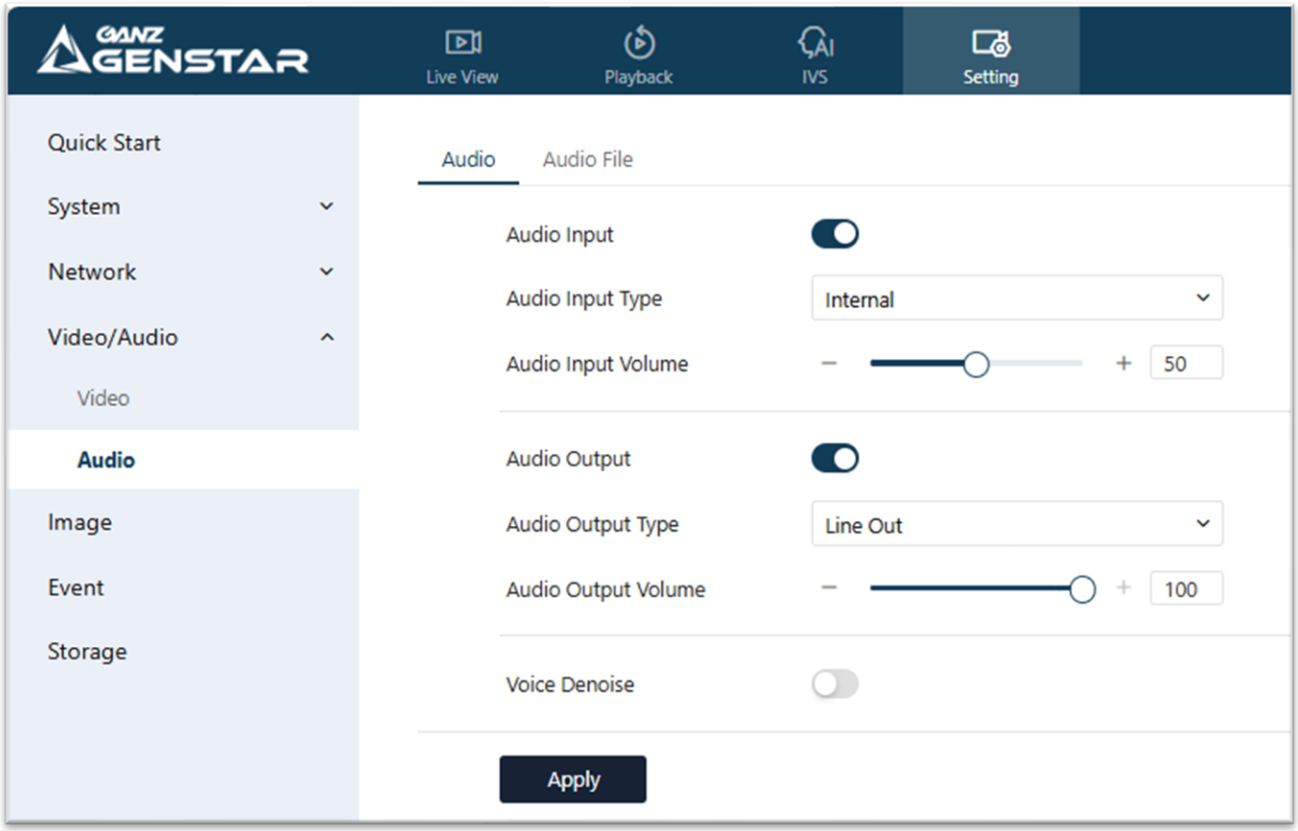


Table 5-3 Parameters of audio input

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

Parameter	Description	Setting
Audio output Volume	Allows you to adjust the audio output volume.	[Setting method] Slide the slider left or right. [Default value] 50 NOTE The value ranges from 0 to 100.
Voice Denoise	you can enable the Voice Denoise to reduce the effect of external environmental noise on the built-in MIC.	[Setting method] Click the button on to enable.

Step 2 Click **Apply**.

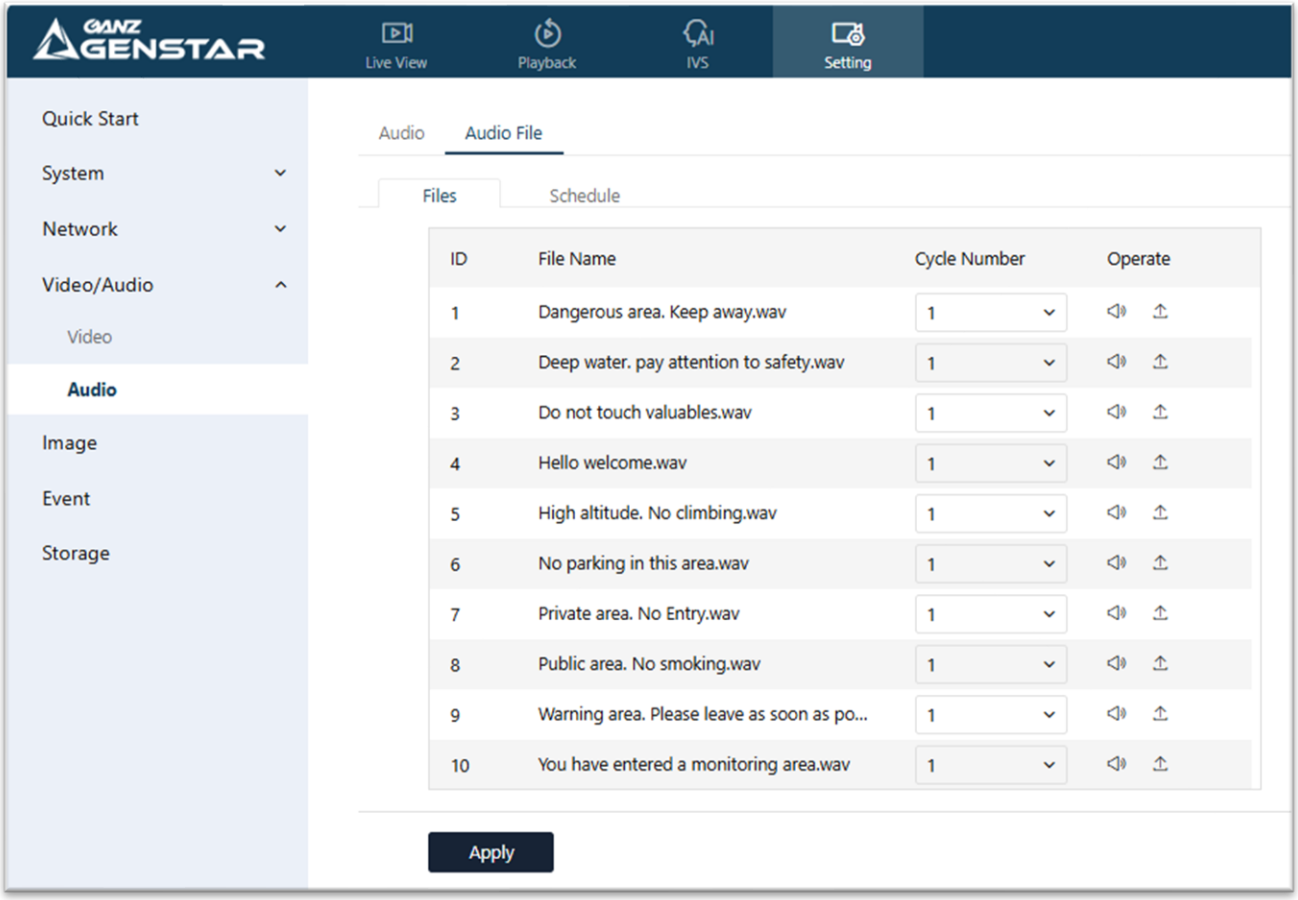
The message "Apply success!" is displayed. And the system will save the settings.

----End

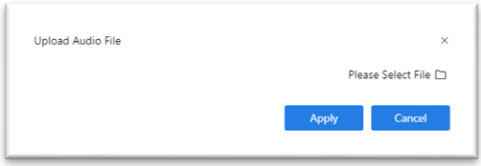
5.2.2 Audible Alarm Output (Only for Some Models)

Step 1 At **Configuration > Alarm > Audible Alarm Output** interface, set the audio detect alarm, as shown in Figure 5-4. The volume can be set at **Configuration > Device > Audio Output** interface, as shown in Figure 5-4.

Figure 5-4 Audio file page



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



Step 2 Click to upload a new audio.

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

Step 3 Click “Apply” to save the settings.

Step 4 Set the armed schedule.

----End

6.1 Configure Display

The detailed information, please refer to chapter 2.3 .

6.2 Configure OSD

The detailed information, please refer to chapter 2.4

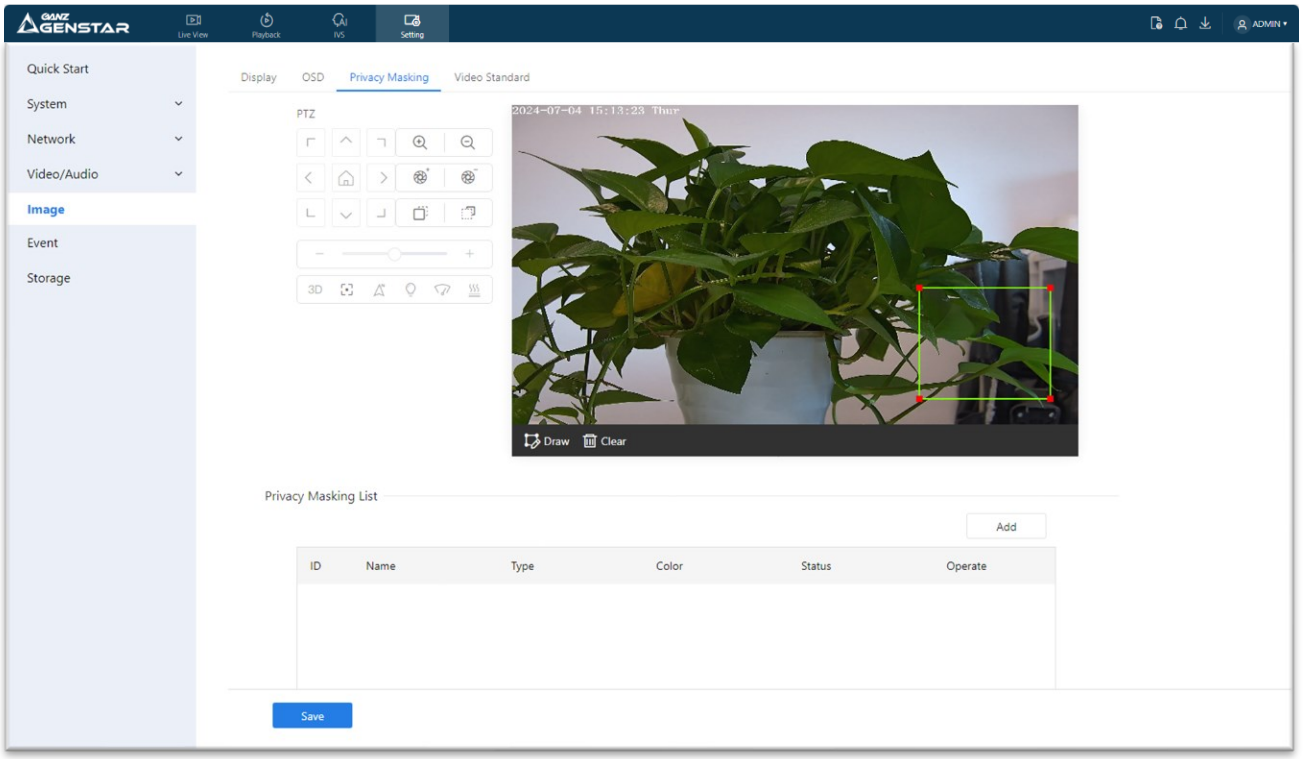
6.3 Configure the Privacy Mask

Procedure

Step 1 Choose **Setting > Image > Privacy Masking**.

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

Figure 6-1 Privacy masking page



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

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

NOTE

- The maximum percentage of an image that can be masked depends on the device model. Read the tip displayed on the page.
- A maximum of four areas can be masked.
- Tick the ID of mask area and click Delete to delete the masking.

Step 4 Set the parameters according to Table 6-1.

Table 6-1 Parameters of privacy masking

Parameter	Description	Setting
ID	ID of Privacy Masking.	N/A
Name	Name of privacy Masking.	[Setting method] Click the name and enter a value manually. [Default value] **Blank**
Type	Type of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] **Color Block**
Color	Color of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] **Black**
Enable	Indicates whether to enable the privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] **Yes**
Delete	Delete a privacy masking.	[Setting method] 6. Select a privacy masking from the Privacy Masking List. 7. Click **Delete**, the privacy masking is deleted successfully
Modify	Modify a privacy masking.	[Setting method] 8. Select a privacy masking from the Privacy Masking List. 9. Click a parameter and modify it. 10. Click **Modify**, the privacy masking is modified successfully

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

----End

6.4 Configure Video Standard

Procedure

Step 1 Choose **Setting > Image > Video Standard**.

The **Camera** page is displayed, as shown in Figure 6-2. Table 6-2 describes the parameters.

Figure 6-2 Camera page

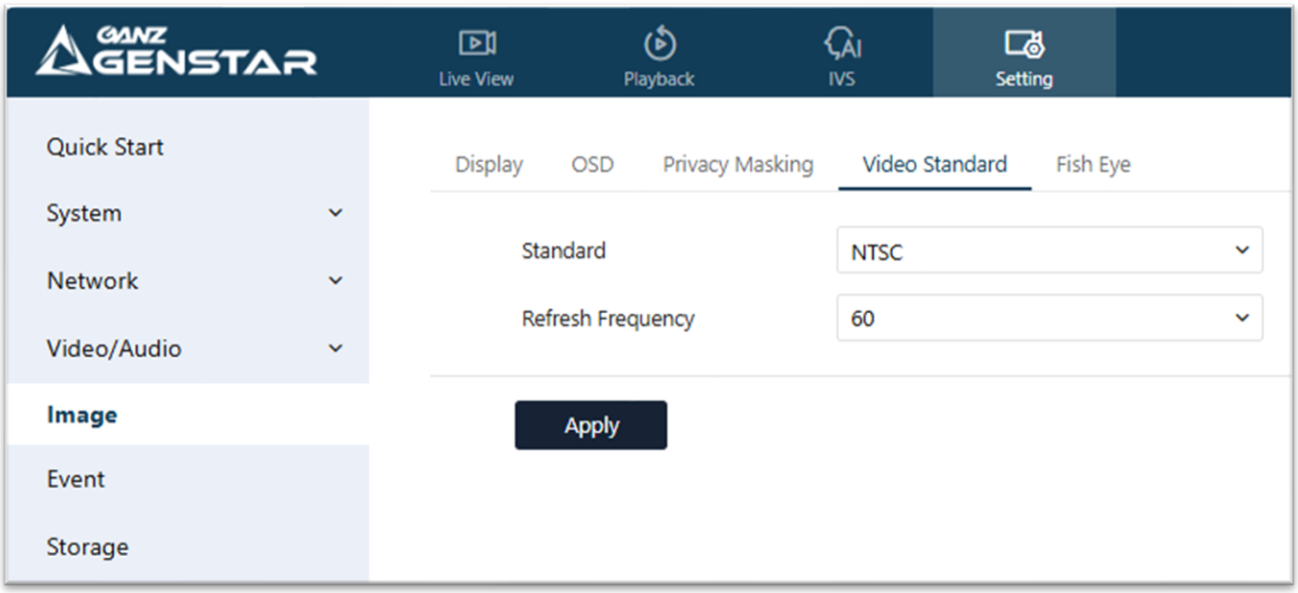


Table 6-2 Parameters of camera

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

Step 2 Click **Apply**. The message "Apply success!" is displayed.

NOTE

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

----En

7 Configure Event

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

7.1 Motion Alarm Linkage

Description

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

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

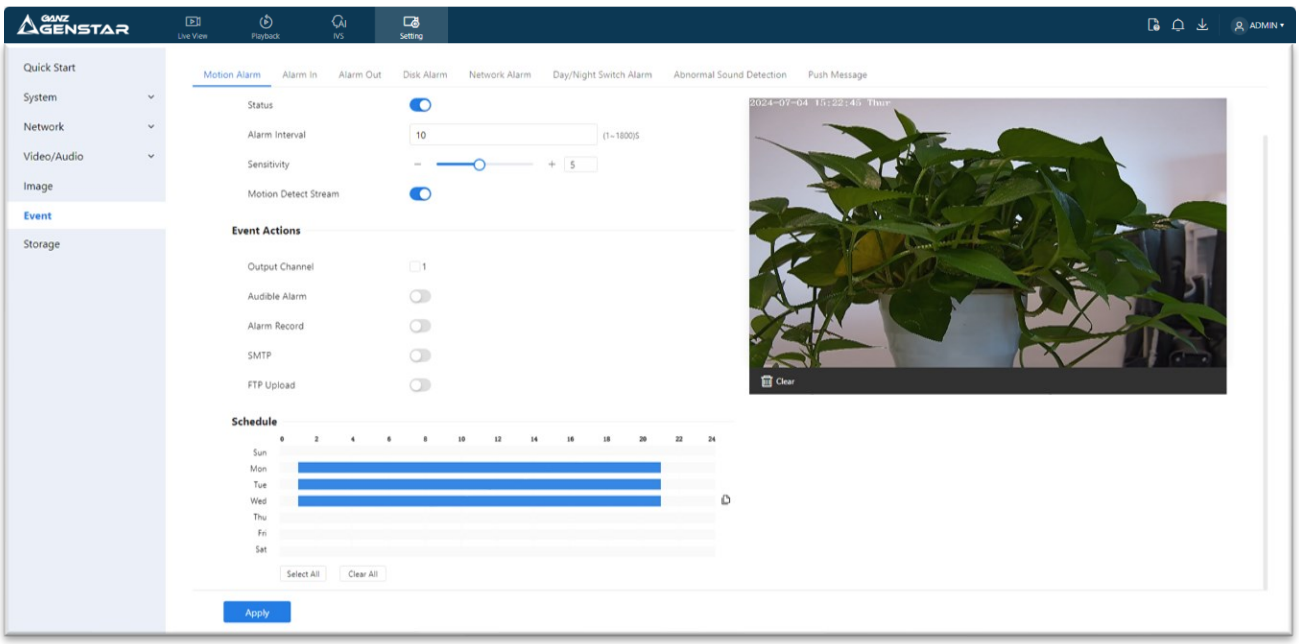
  When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm and triggers linkage alarm output.

Procedure

Step 1 Choose **Setting > Event > Motion Alarm**.

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

Figure 7-1 Motion alarm page



Step 2 Set all parameters, please refer to *10.3 Step 2*

Table 7-1 Motion alarm parameters

Parameter	Description	Setting
Status	Click **Status** to enable motion alarm.	[How to set] Click Enable to enable. [Default value] **OFF**
Alarm Interval	During the interval, the same alarm will only be sent once.	[How to set] Input a value, 1~1800s
Sensitivity	The sensitivity of motion detection. When the value is higher, the alarm can be triggered more easily with lower accuracy.	[How to set] Choose from the drop-down list [Default value] **5**
Motion Detect Stream	Enable, when it is detected the moving, it will show the moving path of object	[How to set] Click to enable [Default value] **OFF**
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered.	[How to set] Click to select an ID.
Audible Alarm	After enabling Audible Warning and setting Audible Alarm Output, the built-in speaker of the device or connected external speaker plays warning sounds when an alarm happens. (set at the "**Setting > Video / Audio > Audio File**")	[How to set] Click to enable Audible alarm [Default value] **OFF**
Alarm Record	The device will record alarm with SD card.	[How to set] Click to enable alarm record. [Default value] **OFF**
SMTP	Enable the button to enable SMTP serve.	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol.	[How to set] Click to enable FTP Upload. [Default value] **OFF**
White Light Alarm	The camera should have white light or dual lights. When an alarm occurs, the device will flicker the white light.	[Setting method] Click to enable White Light Alarm [Default value] **OFF**

Parameter	Description	Setting
Red and Blue Light Alarm	The camera should have red and blue light. When an alarm occurs, the device will flicker alternating red light and blue light.	[Setting method] Enable Red and Blue Light Alarm [Default value] **OFF**

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

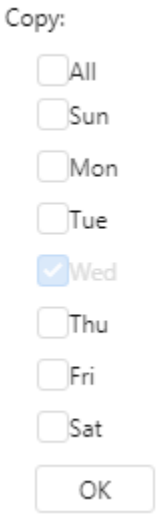
Step 4 Set deployment time.

Method 1： Hold down the left mouse button, drag and release mouse to select the deployment time within 0:00-24:00 from Monday to Sunday.

Method 2： Click **Select All** to deploy all time.

Method 3： set one day, click to copy to other days.

Figure 7-2 Copy



Delete schedule time: click **Clear All** to delete all time.

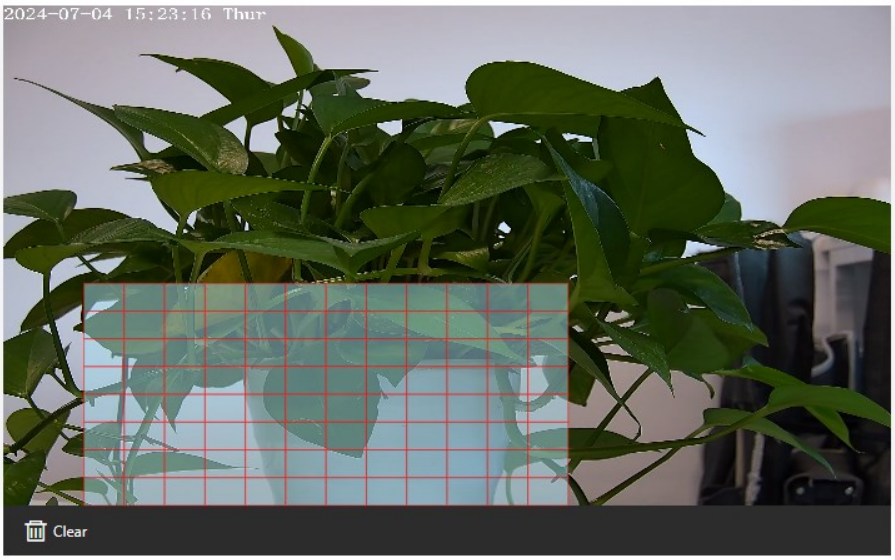
Click the set time, 

click **Delete** to delete this time.

Step 5 Configure the detection area.

1. Press and hold the left mouse button, and drag in the video area to draw a detection area, as shown in Figure 7-3.

Figure 7-3 Motion area setting page



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

NOTE

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

Step 6 Click **Apply**. The message "Apply success!" is displayed.

----End

7.2 Alarm In (Only for Some Models)

Description

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

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

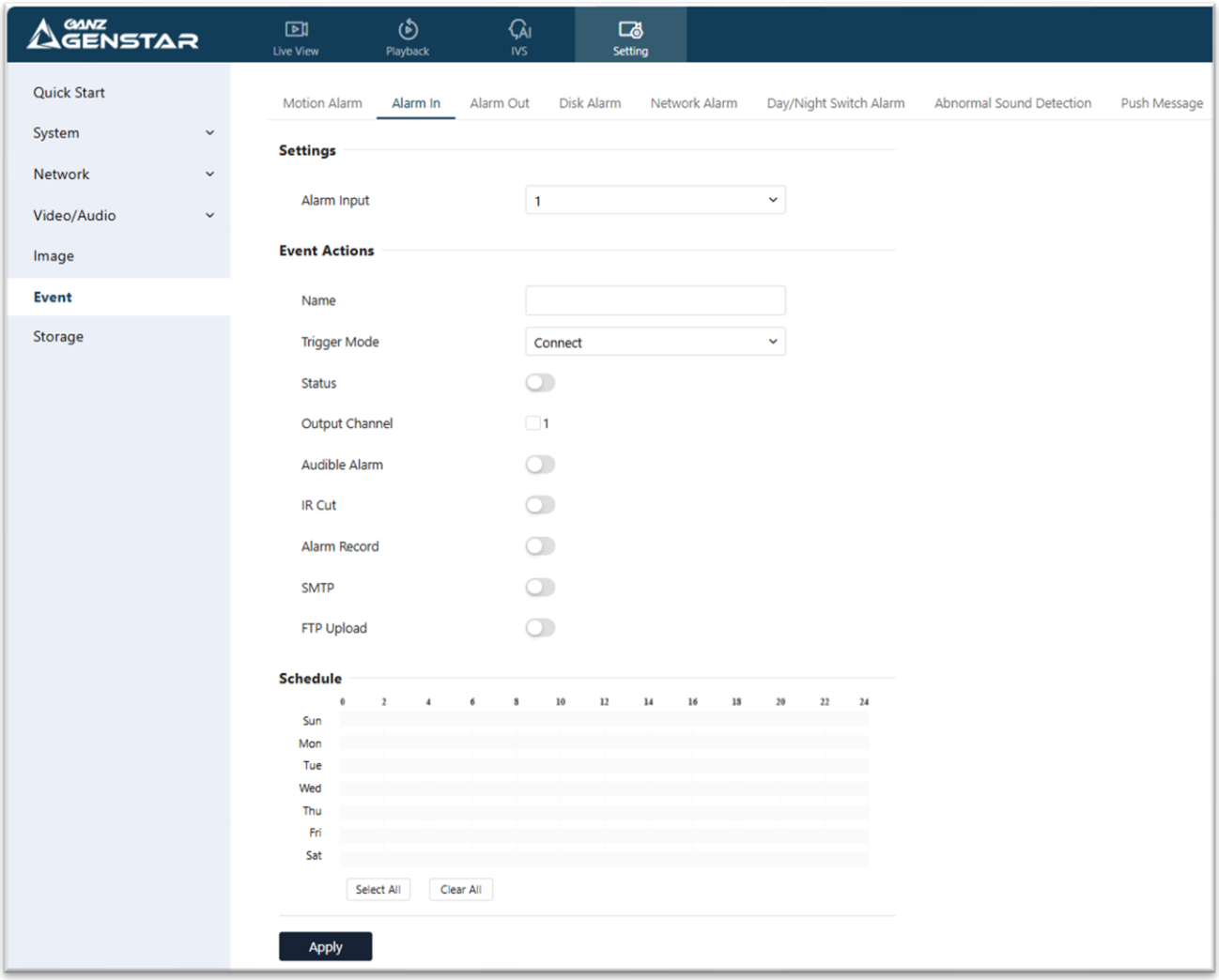
- Enable the I/O alarm function.
- Configure the I/O alarm schedule.
- Configure the alarm output channel.

Procedure

Step 1 Choose **Setting > Event > Alarm In**.

The **Alarm In** page is displayed, as shown in Figure 7-4.

Figure 7-4 Alarm in page



Step 2 Set the parameters please refer to Table 7-2

Table 7-2 Parameters of I/O alarm linkage

Parameter	Description	Setting
Alarm input	ID of the alarm input channel. NOTE The number of alarm input 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.	[Value range] 0 to 32 bytes
Trigger Mode	The options are as follows: □ **Connect**: An alarm is generated when an external alarm device is connected. □ **Disconnect**: An alarm is generated when the external alarm device is disconnected.	[Setting method] Select a value from the drop-down list box. [Default value] Connect

Parameter	Description	Setting
Status	When the device receives alarm in signals, the device sends the alarm information to an external alarm device.	[Setting method] Enable [Default value] OFF
Output channel	Linkage the output channel alarm device to send alarm information.	[Setting method] Tick
Audible Alarm	After enabling Audible Warning and setting Audible Alarm Output, the built-in speaker of the device or connected external speaker plays warning sounds when an alarm happens. (set at the "**Setting > Video / Audio > Audio File**")	[How to set] Click to enable Audible alarm [Default value] **OFF**
IR Cut	The camera should have IR light. When an alarm occurs, the device will open the IR light to send alarm information.	[Setting method] Enable [Default value] OFF
Alarm Record	The device will record alarm with SD card.	[Setting method] Enable [Default value] OFF
SMTP	When an alarm occurs, the device will send mail. The mail parameters should be set in advance.	[Setting method] Enable [Default value] OFF
FTP Upload	When an alarm occurs, the device will send alarm information to FTP server. The FTP parameters should be set in advance.	[Setting method] Enable [Default value] OFF
White Light Alarm	The camera should have white light or dual lights. When an alarm occurs, the device will flicker the white light.	[Setting method] Enable [Default value] OFF
Red and Blue Light Alarm	The camera should have red and blue light. When an alarm occurs, the device will flicker alternating red light and blue light.	[Setting method] Enable [Default value] OFF

Step 3 Set deployment time, please refer to 7.1 Step 4.

Step 4 Click **Apply**.

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

----End

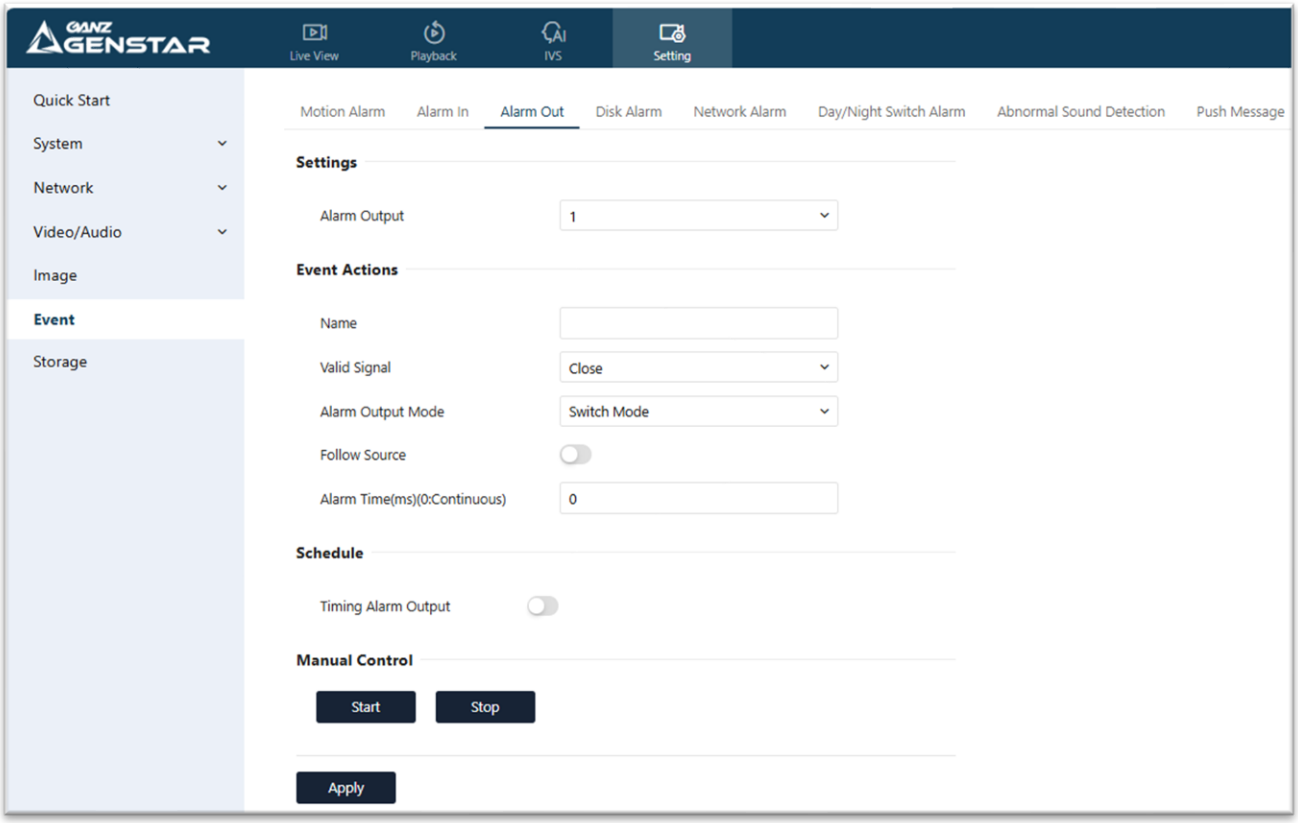
7.3 Alarm Out (Only for Some Models)

Procedure

Step 1 Choose **Setting > Event > Alarm Out**.

The **Alarm Out** page is displayed, as shown in Figure 7-5.

Figure 7-5 Alarm output page



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

Table 7-3 Parameters of alarm output

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

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

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

----End

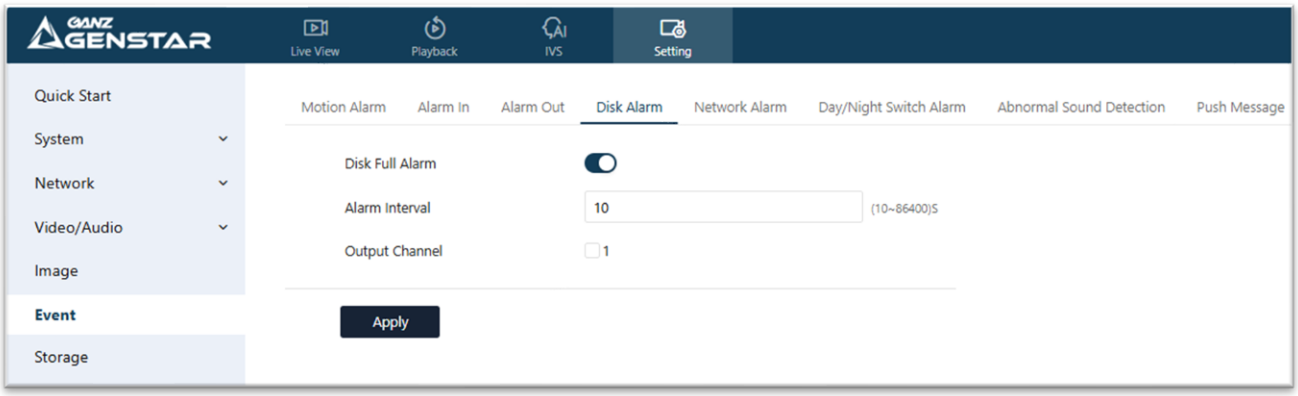
7.4 Disk Alarm

Procedure

Step 1 Choose **Setting > Event > Disk Alarm**.

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

Figure 7-6 Disk alarm page



Step 2 Click the button on to enable disk alarm.

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

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

Step 5 Click **Apply**.

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

----End

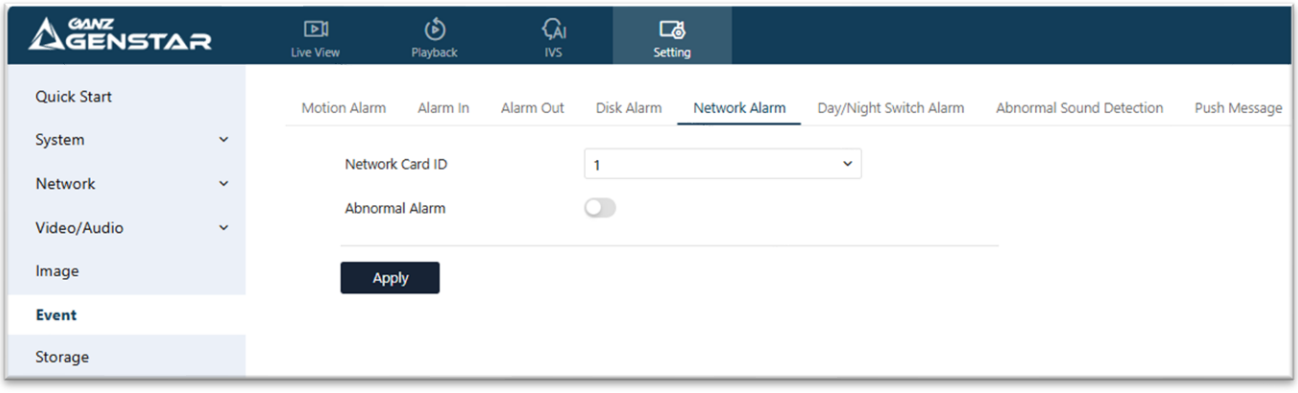
7.5 Network Alarm

Procedure

Step 1 Choose **Setting > Event > Network Alarm**.

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

Figure 7-7 Network alarm page



Step 2 Click the button on to enable Abnormal alarm.

Step 3 Configure the network alarm interval.

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

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

----End

7.6 Day/Night Switch Alarm

Description

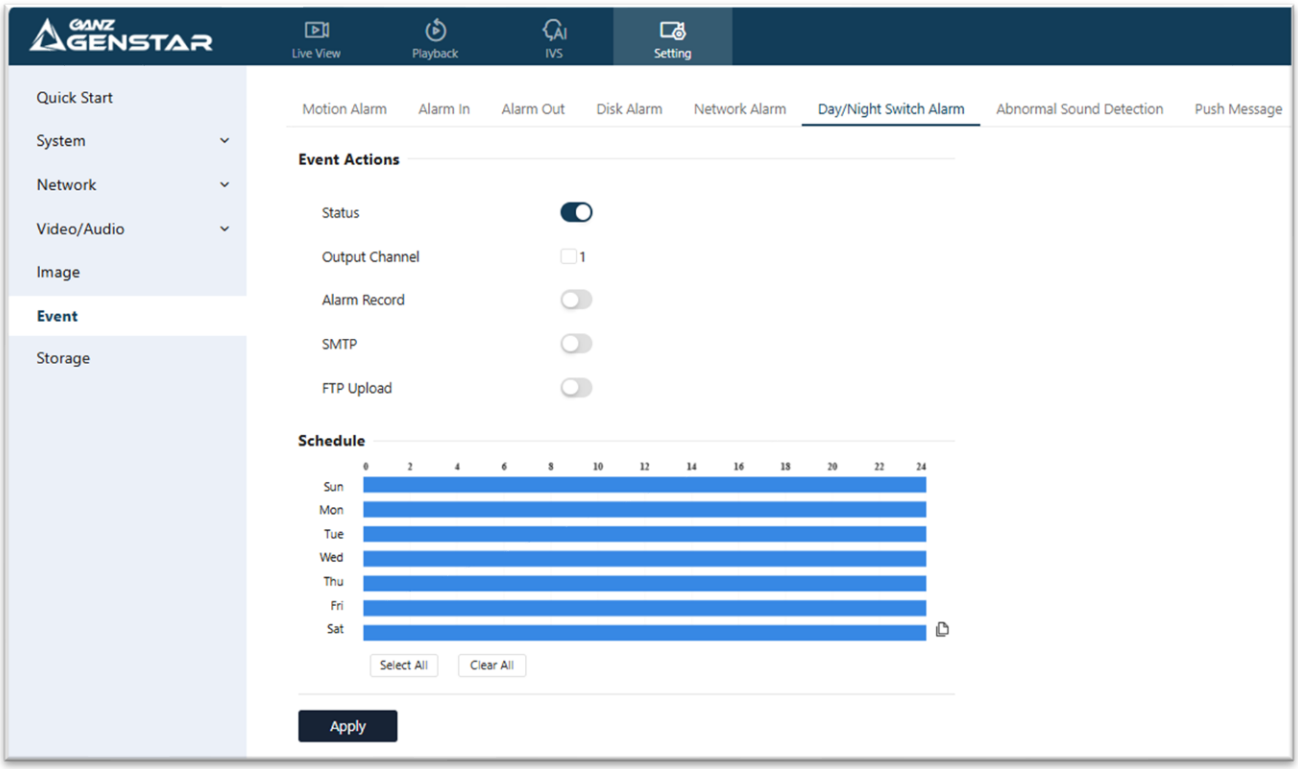
At the setting time, enable the Day/Night switch alarm, when it happens Day/ Night switched, it will send alarm signal.

Procedure

Step 1 Choose **Setting > Event > Day/Night Switch Alarm**.

The **Day/Night Switch Alarm** page is displayed, as shown in Figure 7-8.

Figure 7-8 Day/Night switch alarm



Step 2 Click the button to enable Day/Night switch alarm.

Step 3 Configure the Day/Night switch alarm schedule.

Step 4 Click the button on to enable Alarm Record.

Step 5 Click the button on to enable SMTP.

Step 6 Click the button on to enable FTP Upload.

Step 7 Click **Apply**. The message "Apply success!" is displayed, the system will save the settings.

----End

7.7 Abnormal Sound Detection (Only for Some Models)

Description

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

- Enable the Audio Abnormal Detection function.
- Set the Audio Abnormal Detection alarming time.
- Configure the Audio Abnormal Detection output channel.

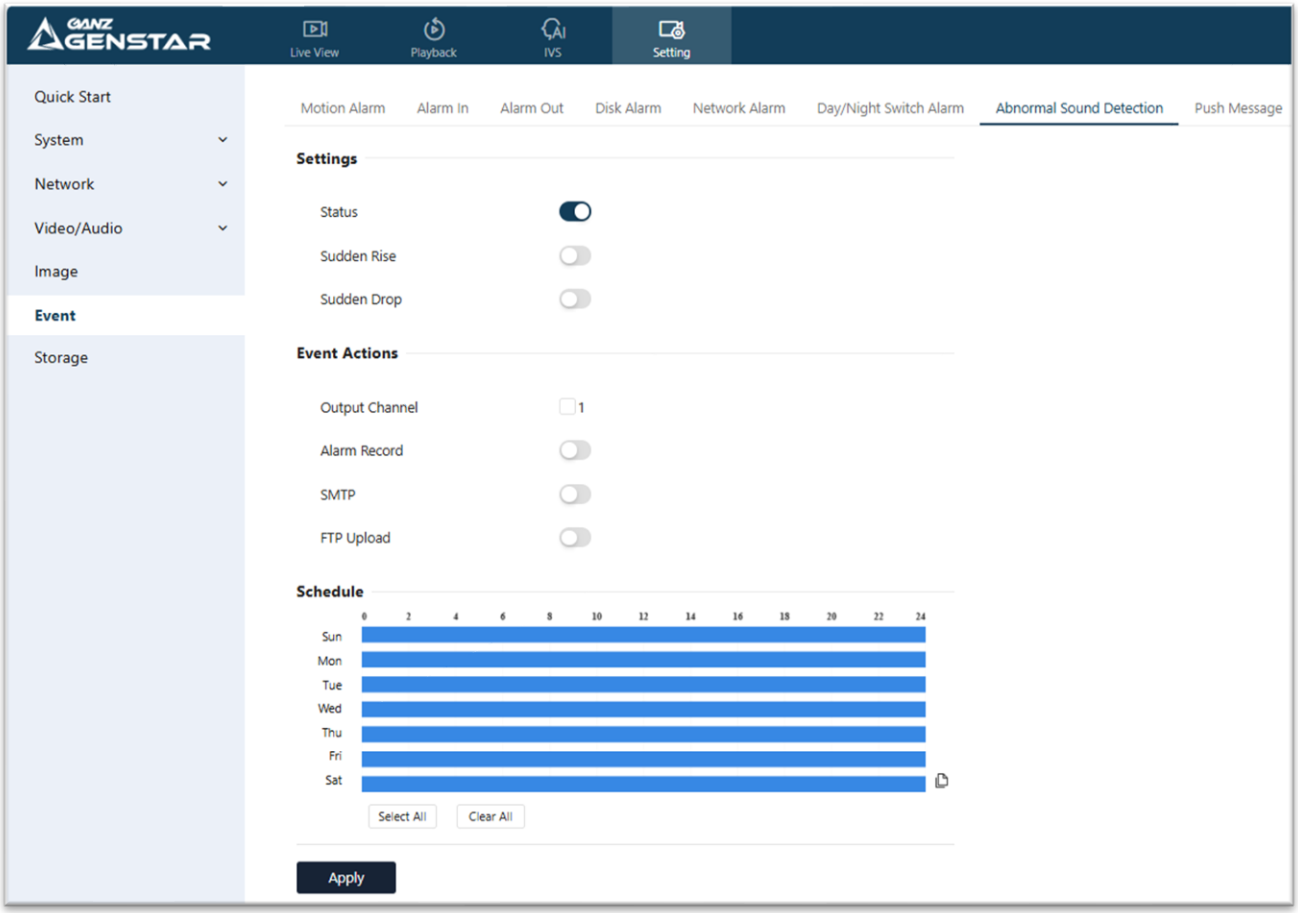
  When the alarm output function is enabled and the camera detects abnormal audio (sudden rise or sudden drop) within the schedule time, the camera generates an alarm and triggers linkage alarm output.

Procedure

Step 1 Choose **Setting > Event > Abnormal Sound Detection**.

The **Audio Abnormal Detection** page is displayed, as shown in Figure 7-9.

Figure 7-9 Audio abnormal detection page



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

Step 3 Enable Sudden Rise, and Sudden Drop.

Step 4 Select the Output Channel.

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

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

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

Step 8 Set deployment time.

For details about how to set **Schedule**, please refer to *10.3 Step 4*.

----End

7.8 Push Message

Description

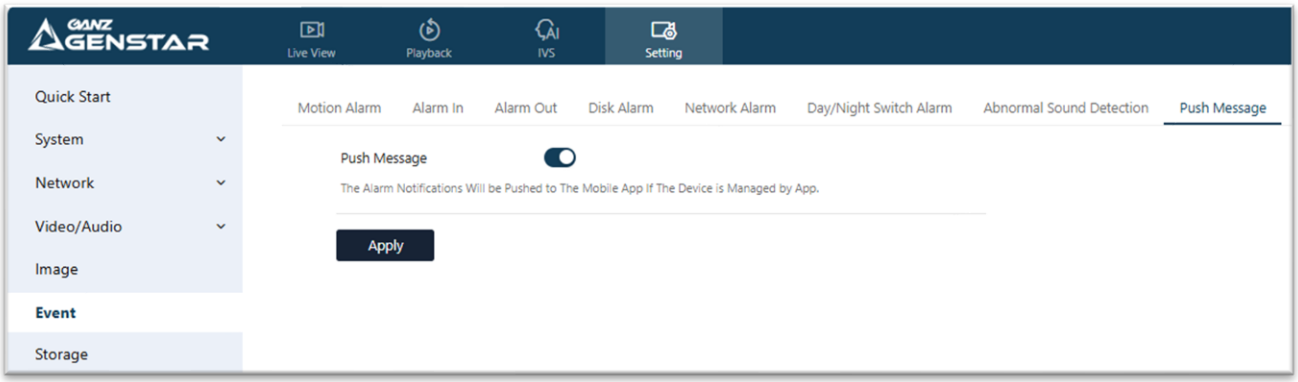
The alarm notification will be pushed to the mobile app if the devices are managed by app.

Procedure

Step 1 Choose **Setting > Event > Push Message**.

The **Push Message** page is displayed, as shown in Figure 7-10.

Figure 7-10 Push message page



Step 2 Click **Apply**.

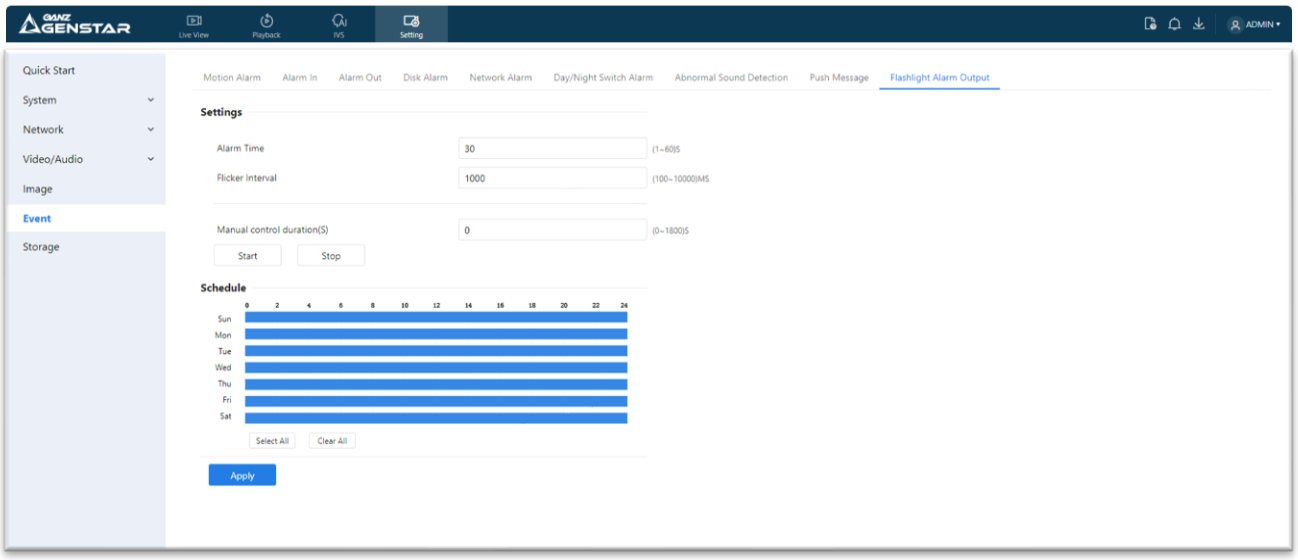
The message "Apply succeed!" is displayed, and the system will save the settings.

----End

7.9 Flashlight Alarm Output (Only for Some Models)

Step 1 At **Setting > Event > Flashlight Alarm Output** interface, set the schedule to enable flashlight alarm, as shown in Figure 7-11.

Figure 7-11 Flashlight alarm page



Step 2 Set the alarm time and flicker interval.

Step 3 Set the manual control duration， click Start, the flash light is on for the setting time, you can click Stop to end the manually flashing.

Step 4 Set deployment time.

Step 5 Click “Apply” to save the settings.

----End

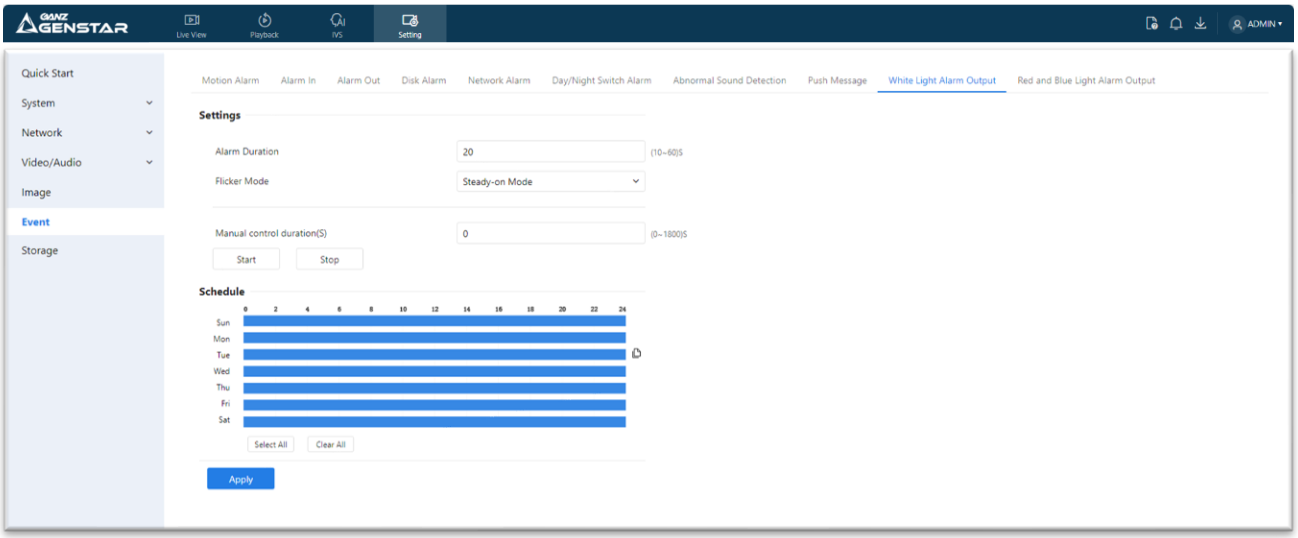
7.10 White Light Alarm Output

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

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

Step 1 At **Setting > Event > White light Alarm Output** interface, set the duration of alarm, as shown in Figure 7-12.

Figure 7-12 White light alarm page



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

Step 3 Set deployment time.

Step 4 Click “Apply” to save the settings.

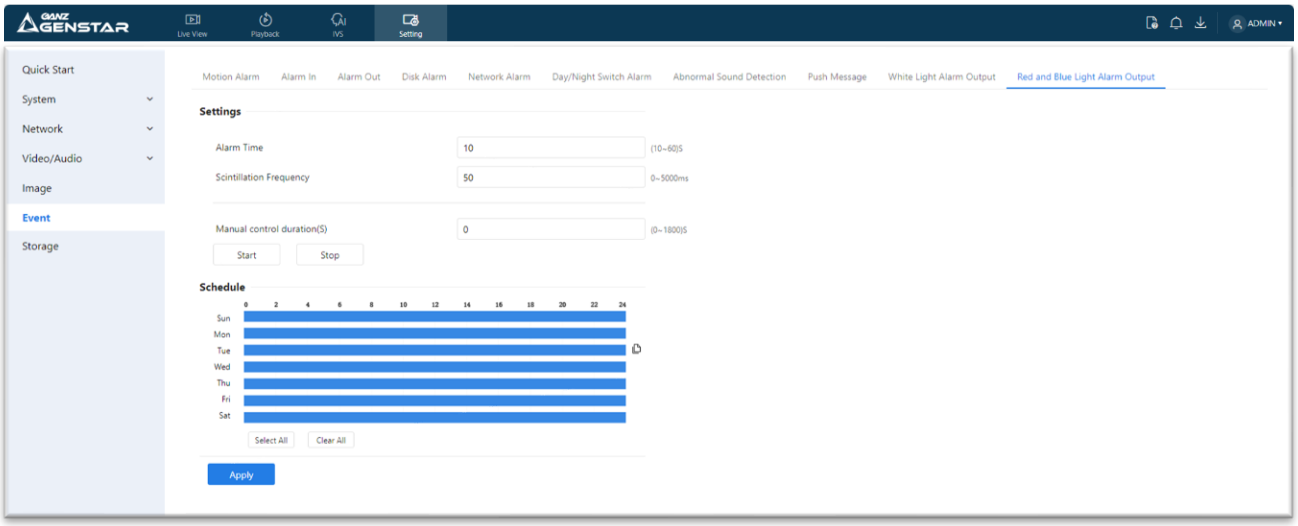
----End

7.11 Red and Blue Light Alarm Output

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

Step 1 At **Setting > Event > Red and Blue light Alarm Output** interface, set the duration of alarm, as shown in Figure 7-12.

Figure 7-13 Red and blue light alarm output page



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

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

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

Step 5 Set deployment time.

Step 6 Click “Apply” to save the settings.

----End

NOTE

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

8.1 Record Strategy

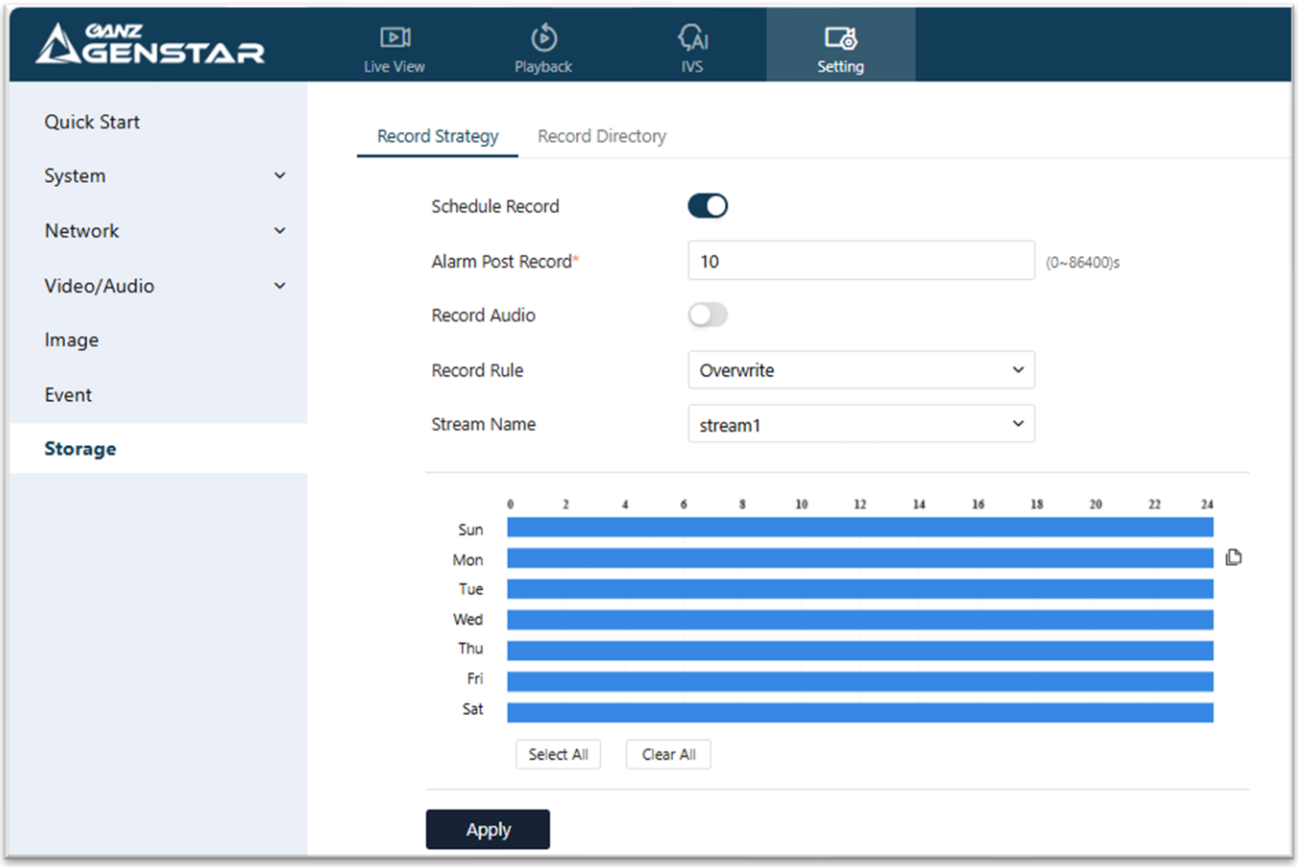
You can configure the scheduled recording function, alarm recording function, recording quality, and recording rules.

Procedure

Step 1 Choose **Setting > Storage > Record Strategy**.

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

Figure 8-1 Record strategy page



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

Table 8-1 Parameters of recording policy

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

Step 3 Set deployment time, please refer to 7.1 Step 4.

Step 4 Click Apply.

- If the message "Apply success!" is displayed, the system will save the settings.
- If other information is displayed, set the parameters correctly.

-----End

8.2 Record Directory

Description

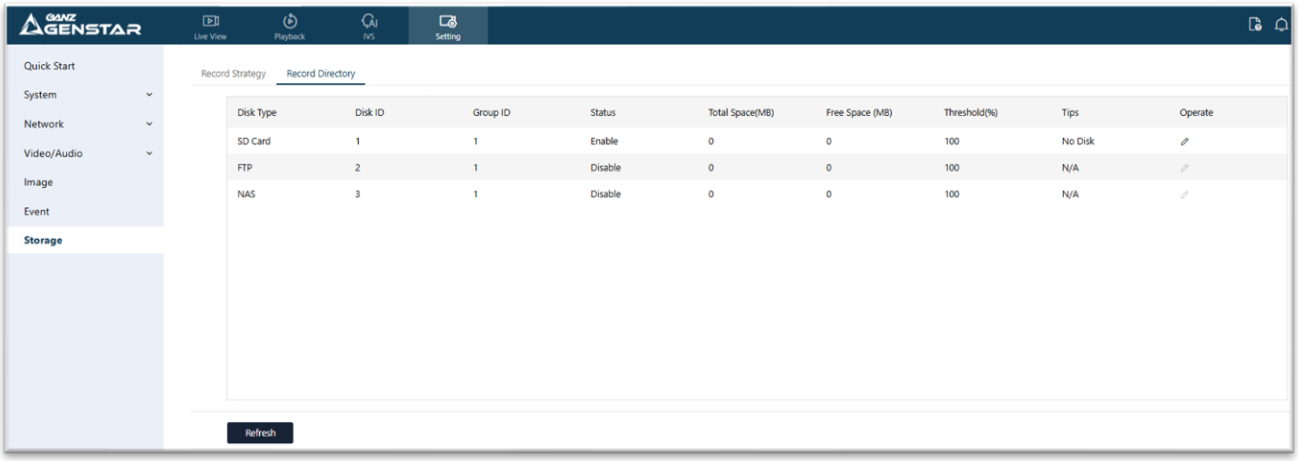
Recordings can be stored in an SD card, FTP, or NSA.

Procedure

Step 1 Choose **Setting > Storage > Record Directory**.

The **Record Directory** page is displayed, there are three types to action disk, such as SD card, FTP, and NAS, as shown in Figure 8-2.

Figure 8-2 Record directory page



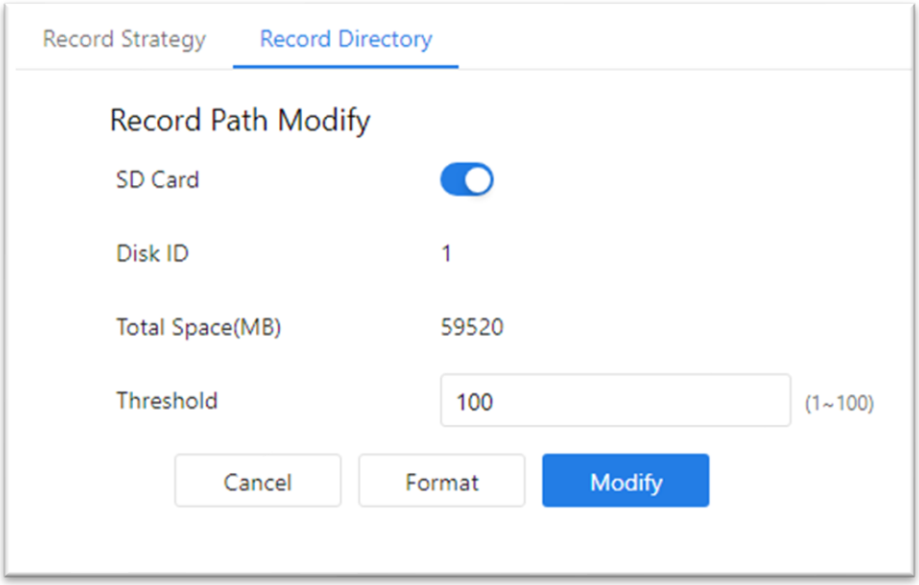
Step 2 Set the parameters according to Table 8-2.

Table 8-2 Parameters of Record directory

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

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

Figure 8-3 Record path modify



-----End

8.2.2 Configure the SD Card

Procedure

Step 1 Choose **Setting > Storage > Record Directory**.

Step 2 Choose SD Card, click .

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

Table 8-3 Parameters of SD card recording

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

Step 4 Click **Apply**.

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

-----End

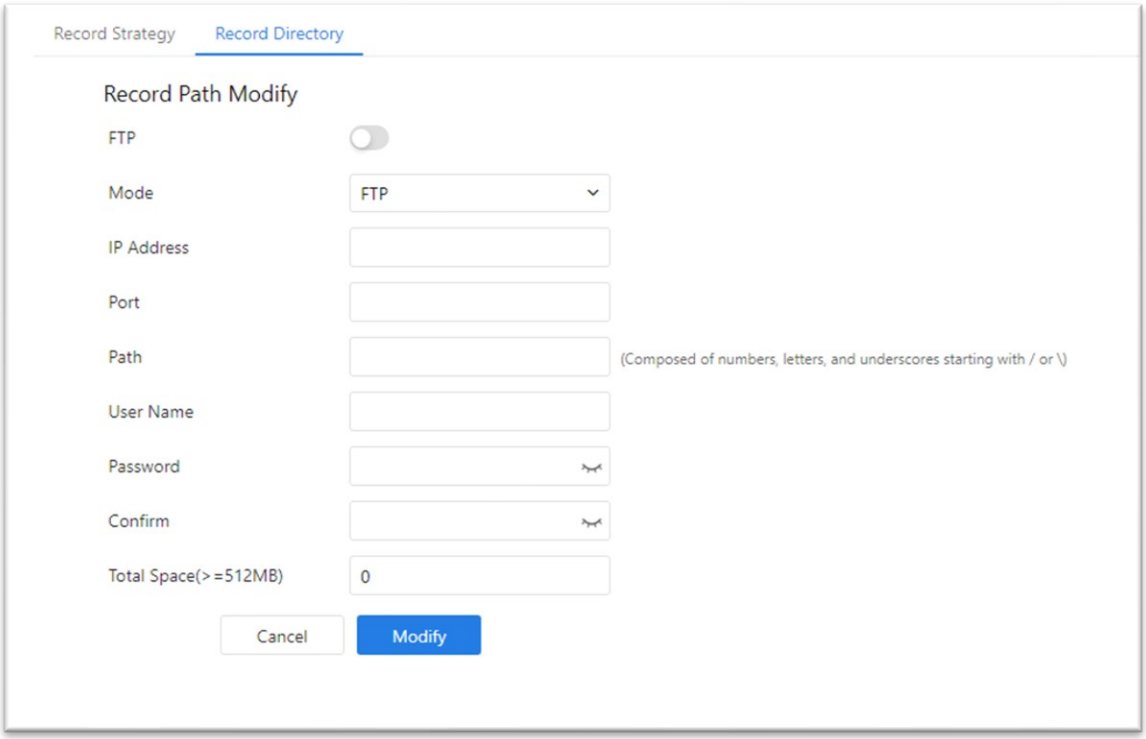
8.2.3 Configure the FTP

Procedure

Step 1 Choose **Setting > Storage > Record Directory**. The SD card type is OFF.

Step 2 Choose FTP, click . The FTP **Record Path Modify** page is displayed, as shown in Figure 8-4.

Figure 8-4 FTP record path modify page



Step 3 Set the parameters according to Table 8-4.

Table 8-4 Parameters of FTP recording

Parameter	Description	Setting
FTP	Enable to use FTP (File Transfer Protocol) to record the video.	[Setting method] Enable
IP Address	IP address of FTP server.	[Setting method] Enter a value manually.
Port	Port of FTP server.	[Setting method] Enter a value manually.
Path	FTP Path to save the recording.	[Setting method] Enter a value manually.
User Name	FTP server account.	[Setting method] Enter a value manually.
Password	FTP server password.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Confirm	Confirm the password.	[Setting method] Enter a value manually.
Free Space (MB)	The free space of FTP server	[Setting method] Enter a value.
FTP over SSL / TLS (FTPS)	Transfer the recording by encryption.	[Setting method] Tick

Step 4 Click **Apply**.

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

-----End

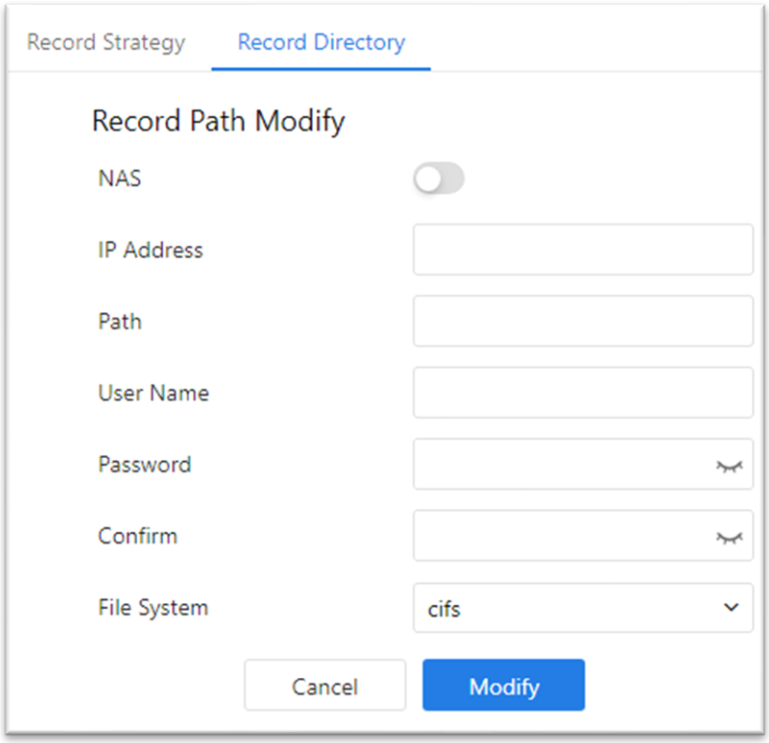
8.2.4 Configure the NAS

Procedure

Step 1 Choose **Setting > Storage > Record Directory**. The SD card type is OFF.

Step 2 Choose NAS, click . The NAS **Record Path Modify** page is displayed, as shown in Figure 8-5.

Figure 8-5 NAS record path modify page



Step 3 Set the parameters according to Table 8-5.

Table 8-5 Parameters of NAS recording

Parameter	Description	Setting
NAS	Enable to use NAS (Network Attached Storage) to record the video.	[Setting method] Enable
IP Address	IP address of NAS server.	[Setting method] Enter a value manually.
Path	IP address of NAS device.	[Setting method] Enter a value manually.
User Name	NAS device account.	[Setting method] Enter a value manually.
Password	NAS device Password.	[Setting method] Enter a value manually.
Confirm	Confirm the password.	[Setting method] Enter a value manually.
File System	There are two types can be chosen, cifs and nfs	[Setting method] Choose from drop-down list. [Default value] **cifs**

Step 4 Click **Apply**.

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

-----End

9.1 Configure AI Multi-Target

Step 1 Choose **IVS > Deep Learning > AI Multi-Target** to set parameter of detected face, full body and vehicle.

Figure 9-1 AI Multi-Target page

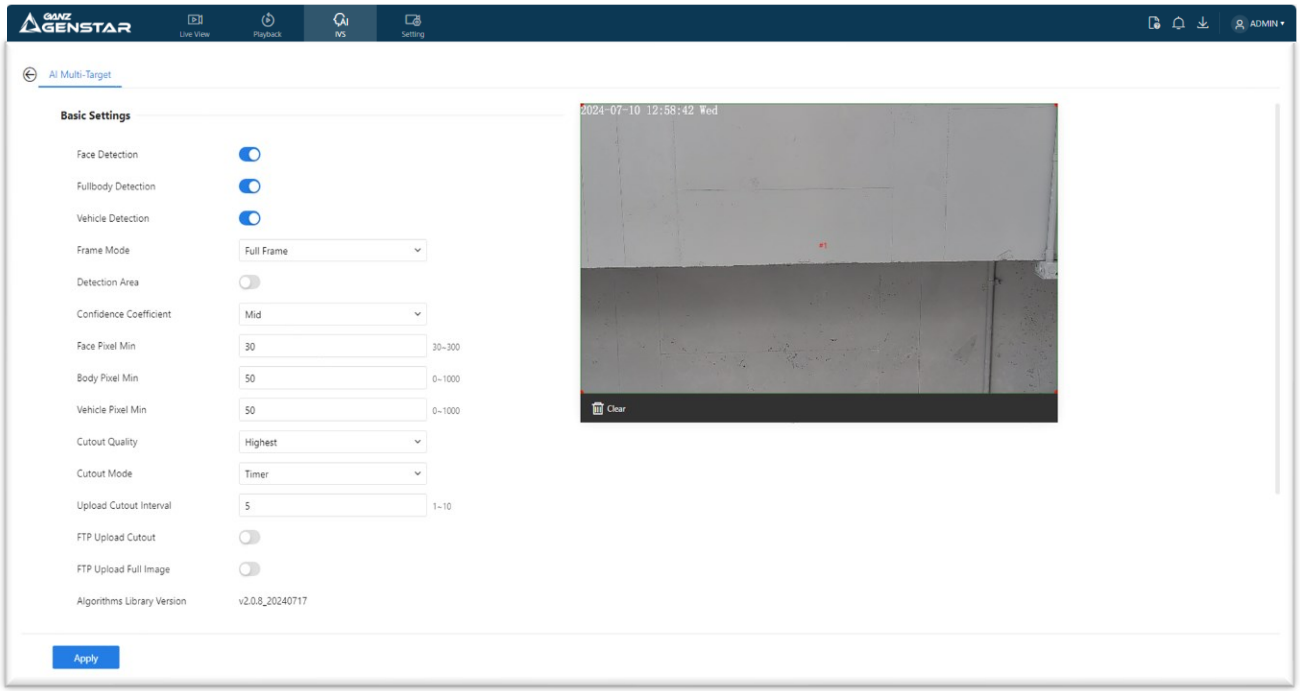


Table 9-1 lists the AI Multi-Target parameters.

Table 9-1 Parameters of AI Multi-Target

Parameter	Description	How to set
Face Detection	The camera will capture the face when someone appears in live video.	Enable
Full body Detection	The camera will capture the whole body when someone appears in live video.	Enable
Vehicle Detection	The camera will capture the vehicle when the vehicle appears in live video.	Enable
Frame Mode	Choose one to a trace box will show at live video. There are four modes can be chosen, full frame, four-corner frame, mosaic, OFF. Users can also choose OFF to close the box on showing.	Choose from drop list.
Detection Area	Enable to show the detection area on live video.	
Confidence Coefficient	The range of snapshots, there are three types, such as high, mid and low. The higher the confidence,	Choose from drop list.

Parameter	Description	How to set
	the better the snapshot quality and the fewer snapshots.	
Face Pixel Min (30-300)	Face detection is on. It's the min face pixel that the device will capture. If the detected pixel is lower than the value, it will not be captured.	Input a value range 30 to 300
Body Pixel Min (30-300)	Full body detection is on. It's the min full body pixel that the device will capture. If the detected pixel is lower than the value, it will not be captured	Input a value range 30 to 300
Vehicle Pixel Min (30-300)	Vehicle detection is on. It's the min vehicle pixel that the device will capture. If the detected pixel is lower than the value, it will not be captured.	Input a value range 30 to 300
Cutout Quality	The quality of snapshots, There are three mode can be chosen, such as low, mid and high.	Choose from drop list.
Cutout Mode	There are two mode can be chosen, such as timing, and optimal.	Choose from drop list.
Upload Cutout Interval	At timing mode, set the interval of upload image. (1-10 s)	Input a value range 1 to 10
FTP Upload Cutout	**Configuration > Network Service > FTP**, set FTP related parameters, the captured picture will be sent to the set FTP location	Enable
FTP Upload Full Image	Capture a picture and send a whole image.	Enable

Step 2 Set deployment time, please refer to 7.1 Step 4.

Step 3 Click **Apply**.

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

----End

9.2 Configure Intelligent Analysis

9.2.1 Intrusion

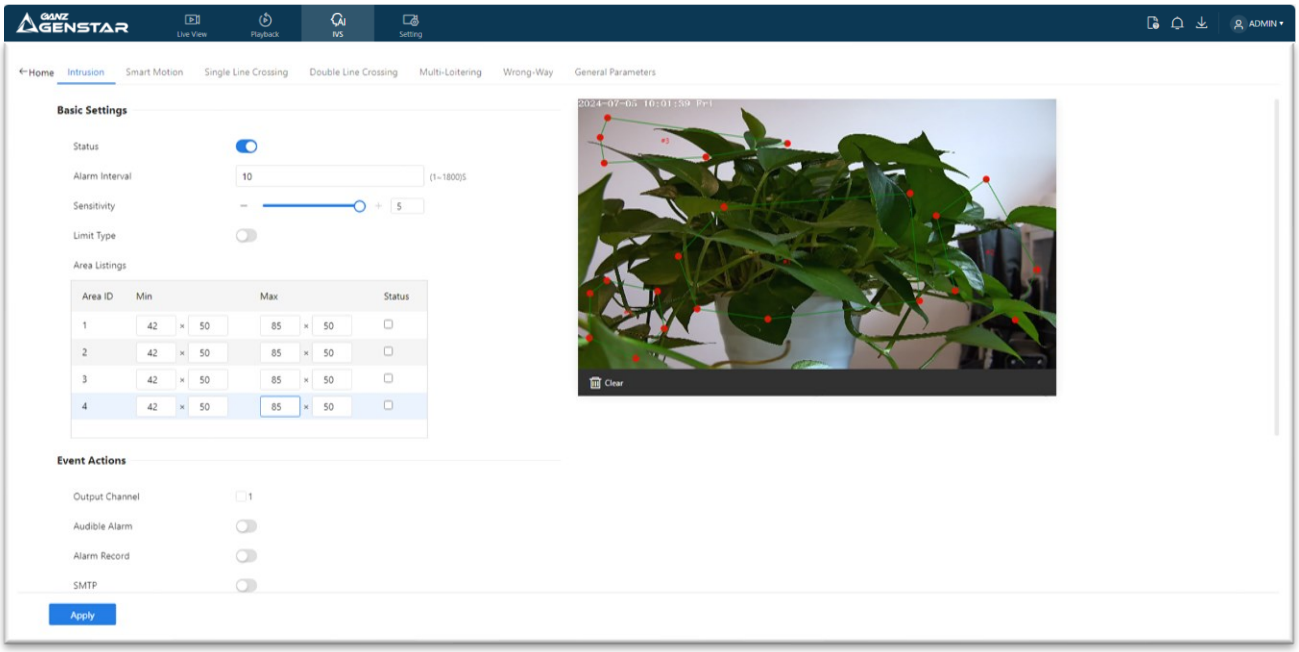
Description

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

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Intrusion** to access the **Intrusion** interface, as shown in Figure 9-2

Figure 9-2 Intrusion settings page



Step 2 Set all parameters of intrusion. Table 9-2 describes the specific parameters.

Table 9-2 Intrusion parameter description

Parameter	Description	Setting
Status	Enable the intrusion alarm.	[How to set] Click the button on. [Default value] **OFF**
Alarm Interval	During the interval, the same alarm will only be sent once.	[How to set] Input a value, 1~1800s
Sensitivity	The sensitivity of detecting the target, when the value is high, the target can be detected easily, but the accuracy will be lower.	[How to set] Choose from the drop-down list [Default value] **5**
Limit Type	Enable to choose the limit type (person or car / person / car) from type drop-down list.	[How to set] Click the button on. [Default value] **OFF**
Area Listings	Set the areas will show in listings. Tick the status, the min and max detecting area show on area, you can drag the point to adjust the size of the detecting area, or modify the value directly.	[How to set] Set the detecting area.

Parameter	Description	Setting
Output Channel	If you check to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for Some Models.	[How to set] Click to select an ID.
Audible Alarm	After enabling Audible Warning and setting Audible Alarm Output, the built-in speaker of the device or connected external speaker plays warning sounds when an alarm happens. (set at the "**Setting > Video / Audio > Audio File**").	[How to set] Click to enable Audible alarm [Default value] **OFF**
Alarm Record	The device will record alarm with SD card.	[How to set] Click to enable alarm record. [Default value] **OFF**
SMTP	Enable the button to enable SMTP serve.	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol.	[How to set] Click to enable FTP Upload. [Default value] **OFF**
Flashlight Alarm	After enabling Flashing Light and setting the Flashing Light Alarm Output, the light flashes when an alarm event is detected.	[How to set] Click the button on. [Default value] **OFF**
White light Alarm	When the **Day**/**Night** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to white light alarm when it triggers the alarm, the white light will be on. Only for Some Models.	[How to set] Click the button on. [Default value] **OFF**
Red and Blue Light Alarm	The camera should have red and blue light. When an alarm occurs, the device will flicker alternating red light and blue light.	[Setting method] Enable Red and Blue Light Alarm [Default value] **OFF**

Step 3 Set a deployment area.

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, as shown in Figure 9-3.

Figure 9-3 Deployment area setting page

NOTE

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

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.2.2 Smart Motion

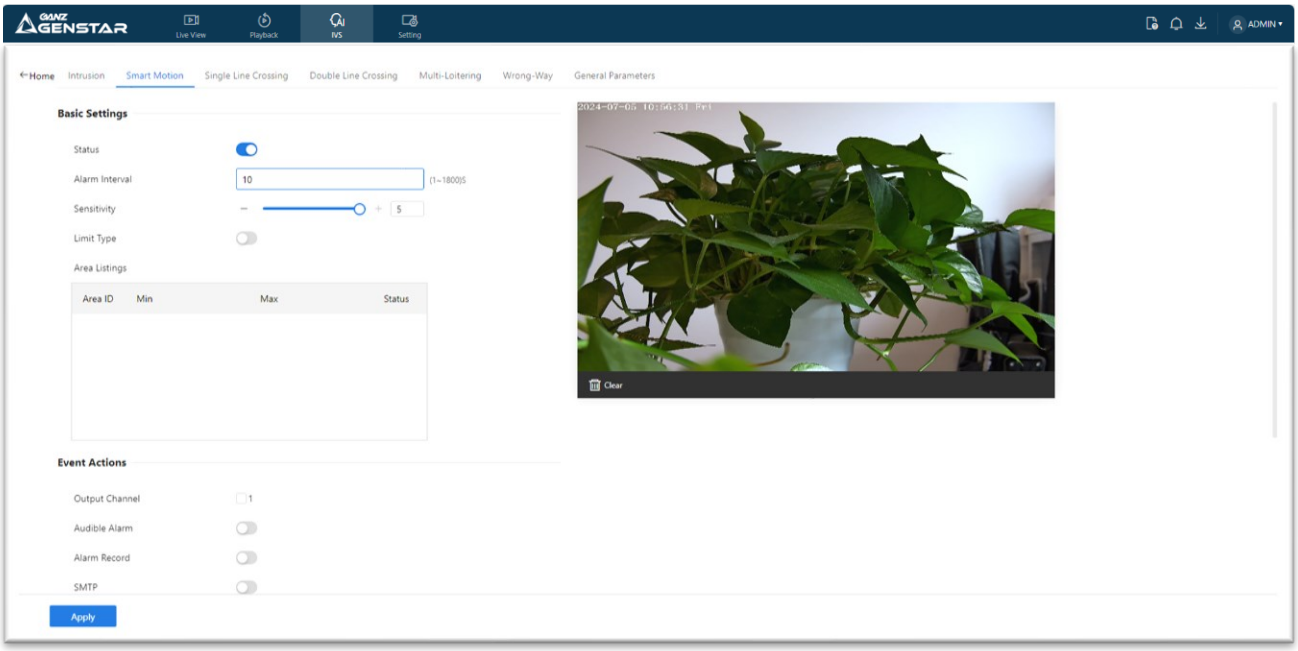
Description

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

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Smart Motion**, as shown in Figure 9-4.

Figure 9-4 Smart motion settings page



Step 2 Set all parameters of smart motion, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area

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

NOTE

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

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.2.3 Single Line Crossing

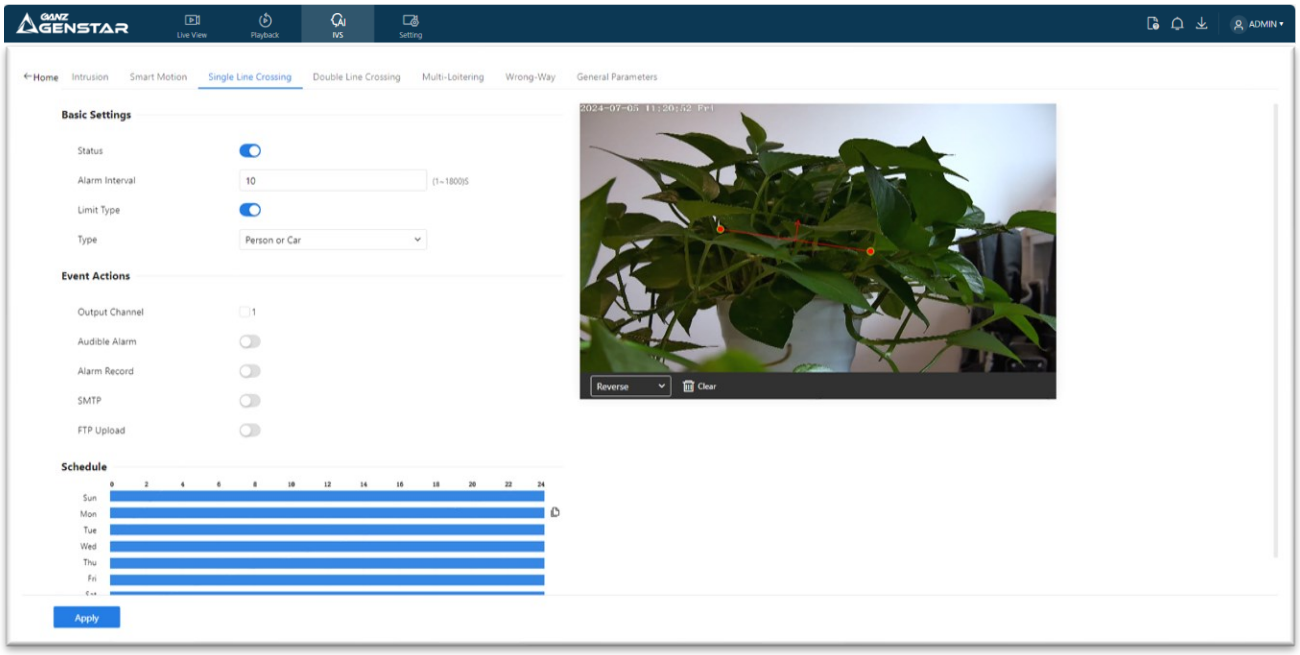
Description

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

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Single Line Crossing** to access the **Single Line Crossing** setting interface, as shown in Figure 9-5.

Figure 9-5 Single line crossing setting interface



Step 2 Set all parameters of the single line crossing, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area.

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

Setting a single line crossing: Click a line (and the trip line turns red) to select the single line crossing and set its direction as **positive**, **reverse** or **bidirectional**, or **delete the selected** line. You can also press and hold left mouse button at the endpoint of a single line crossing and move the mouse to modify the position and length of this single line crossing. You can right-click to delete the single line crossing, as shown in Figure 9-6.

Figure 9-6 Deployment area setting page

NOTE

- Try to draw the single line crossing in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the single line crossing.
- The single line crossing which detects person foot as the recognition target cannot be too short, because a short single line crossing tends to miss targets.

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.2.4 Double Line Crossing

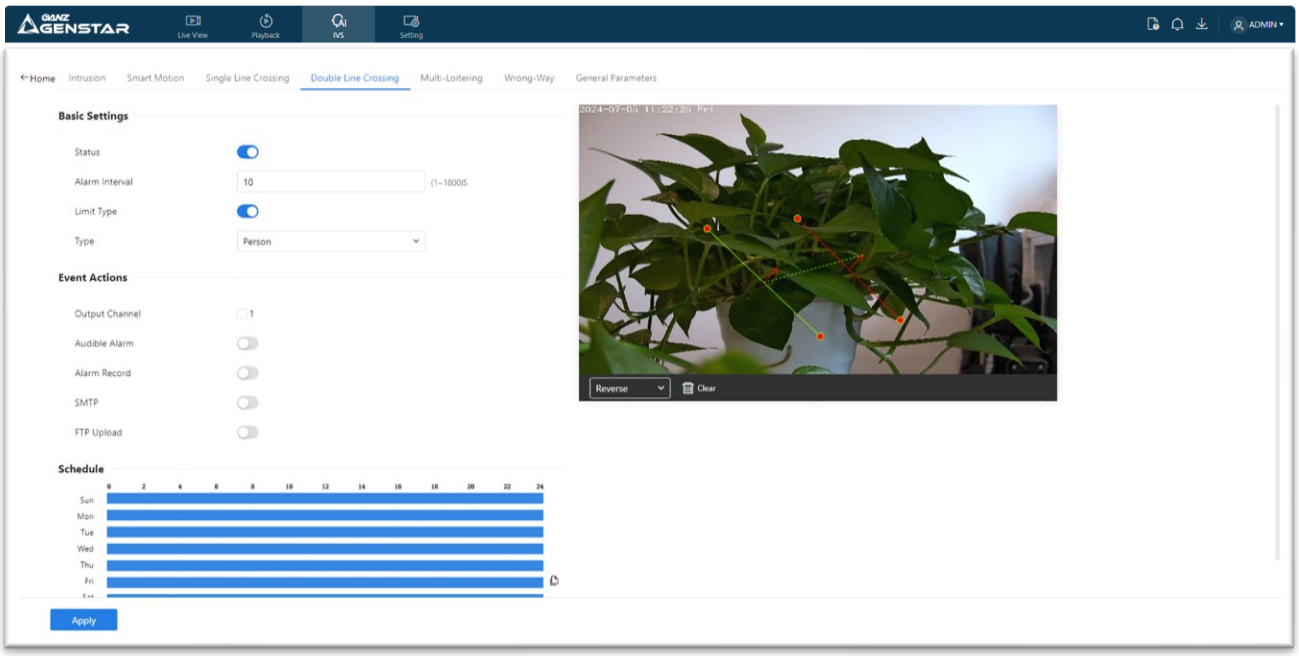
Description

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

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Double Line Crossing** to access the **Double Line Crossing** setting interface, as shown in Figure 9-7.

Figure 9-7 Double line crossing settings interface



Step 2 Set all parameters of the double line crossing, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area.

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

Setting double line crossing: Click one of the double line crossing (and the virtual fence turns red) to select this virtual fence and set the direction to **Positive** or **Reverse**, or delete the selected line. You can also press and hold left mouse button at the endpoint of a virtual fence and move the mouse to modify the position and length of this virtual fence. You can right-click to delete the double line crossing, as shown in Figure 9-8.

Figure 9-8 Deployment area settings page

NOTE

- The two virtual fences are in sequential order. An alarm is generated only when a target crosses virtual fence 1 and then virtual fence 2 within the set maximum passing time.
- Try to draw double line crossing in the middle, because the recognition of a target takes time after target appearance on the screen and an alarm is generated only when the object is recognized to have crossed the double line crossing.
- The double line crossing which detect person foot as the recognition target cannot be too short, because short double line crossing tend to miss targets.
- The double line crossing is not supported to modify the direction manually, you can change the direction by choosing **Reverse**.

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.2.5 Multi-Loitering

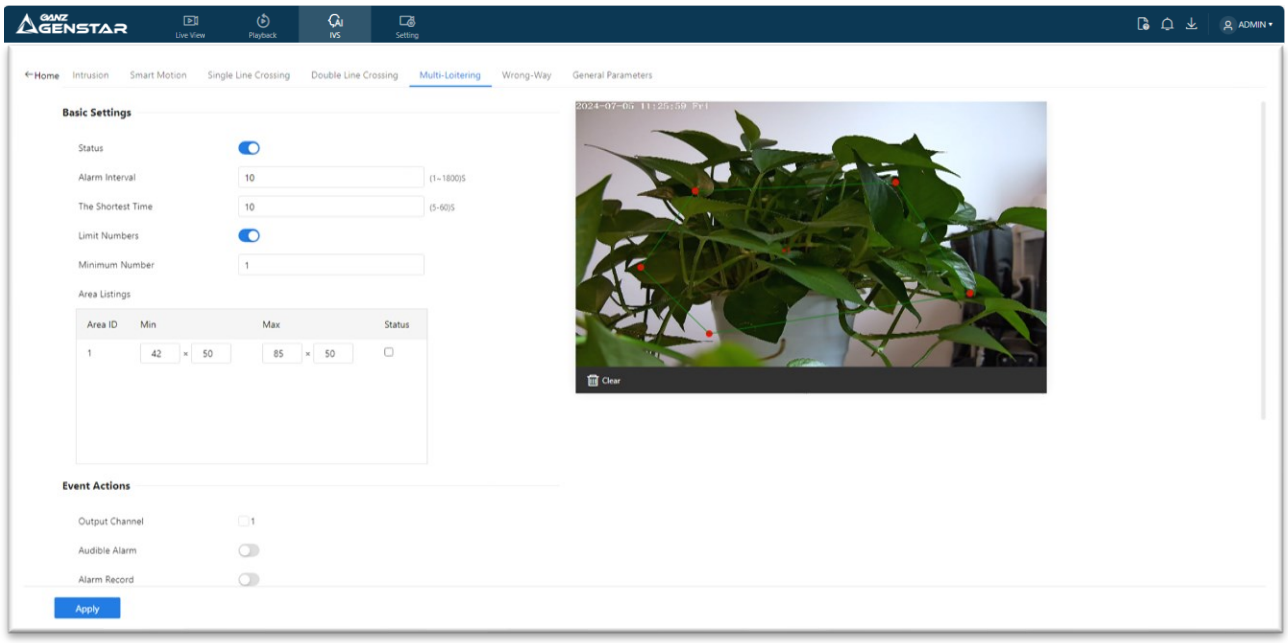
Description

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

Procedure

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

Figure 9-9 Multi-Loitering setting page



Step 2 Set all parameters of multi-loitering, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, as shown in Figure 9-10.

Figure 9-10 Deployment area settings page

NOTE

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

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.2.6 Wrong-Way

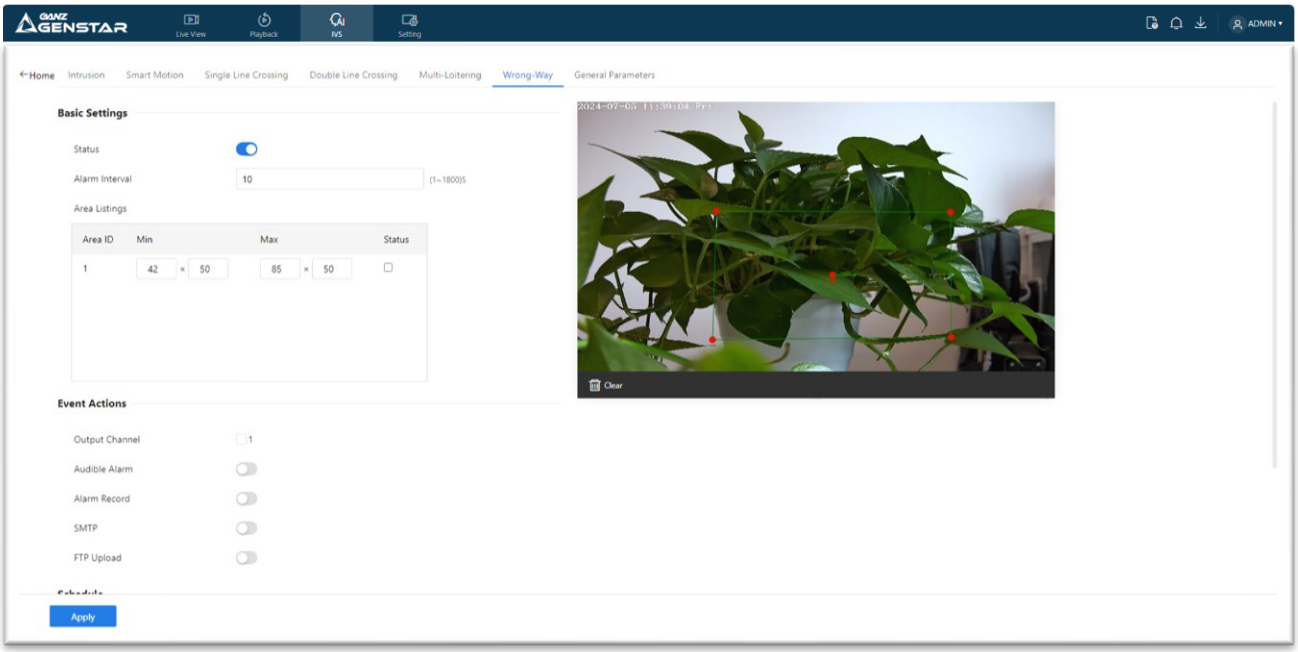
Description

Wrong-Way allows setting the travel direction criteria for a target within an area on the video screen. It means someone/something is moving towards the opposite direction in an area, an alarm is generated.

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Wrong-Way** to access the Wrong-Way setting interface, as shown in Figure 9-11.

Figure 9-11 Wrong-Way settings page



Step 2 Set all parameters of Wrong-Way, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area.

Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing, move the arrow in the field can set the direction of converse. as shown in Figure 9-12.

Figure 9-12 Deployment area setting interface

NOTE

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

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

----End

9.3 Configure People Counting

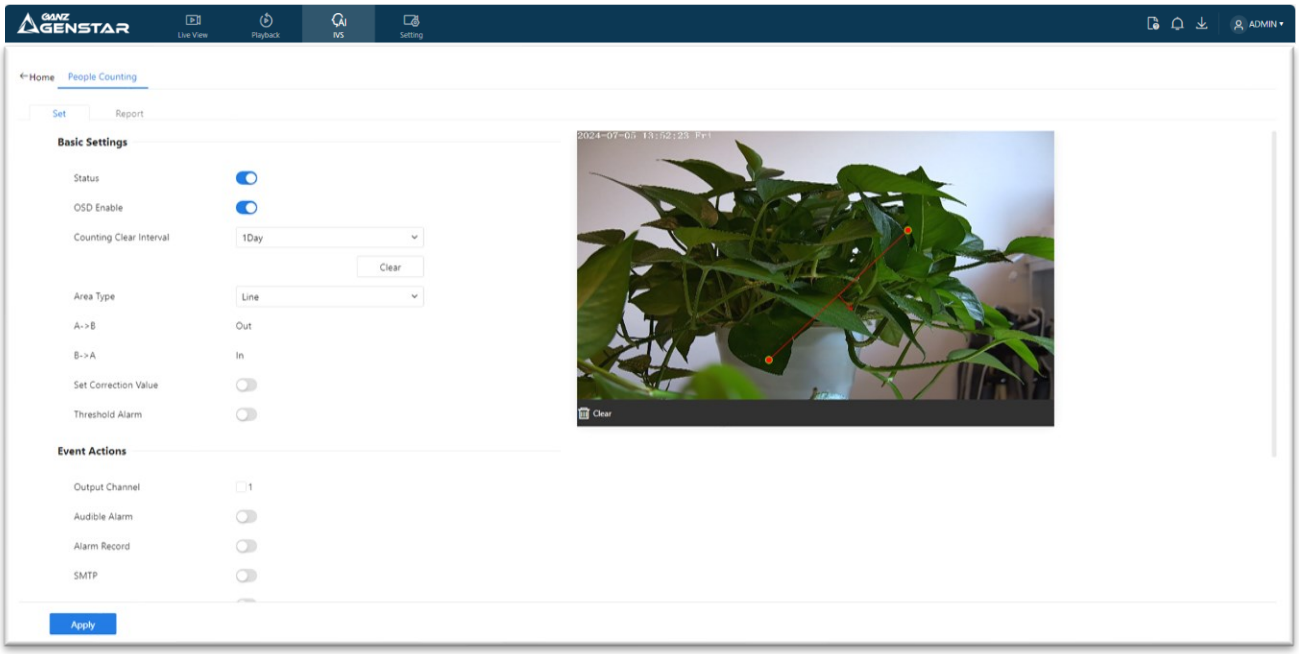
9.3.1 Setting

User can draw line to count the people flow in/out at detection area.

Procedure

Step 1 choose **IVS > Behavior Analysis** > **People Counting** to access the **People Counting** setting interface, as shown in Figure 9-13.

Figure 9-13 People counting page



Step 2 Set all parameters of illegal parking. Table 9-3 describes the specific parameters.

Table 9-3 Parameters of people counting

Parameter	Description	Setting
Mode (only for PTZ camera)	There are two modes can be chosen, normal mode and preset point mode. When you choose the preset point mode, please choose one which is set in advance.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Enable	Enable the button to enable the alarm.	[How to set] Click the button on. [Default value] **OFF**
OSD Enable	Enable the OSD, the count data will show on live video screen.	[How to set] Click the button on. [Default value] **OFF**
Counting Clear Interval	The camera will clear counting data at the setting interval. 10 min /half-hour /1 hour /2 hours /12 hours /1 day /custom time(hh : mm) Click the “Clear Counting” to clear the data immediately.	[How to set] Choose from drop-down list. [Default value] **12 hours**
Area Type	Draw a line on live video screen. The label of A and B indicates out and in.	[How to set] Choose from drop-down list. [Default value] **Line**

Parameter	Description	Setting
Set Correction Value	Enable, set the count correction value, it can be positive or negative. For example, if there are 30 people enter the area before counting, input 30 to correct. If 30 people go out the area, input -30.	[How to set] Enable /Input a value in the area box. [Default value] **0**
Threshold alarm	Enable, if the counting number is over the threshold, it will alarm. The threshold of activating alarm.	[How to set] Click the button on. [Default value] **OFF**
Output Channel	If you click to set the Output Channel and the device is connected to an external alarm indicator, the alarm indicator signals when an alarm is triggered. Only for Some Models.	[How to set] Click to select an ID.
Flashlight Alarm	After enabling Flashing Light and setting the Flashing Light Alarm Output, the light flashes when an alarm event is detected. Only for Some Models.	[How to set] Click the button on. [Default value] **OFF**
Audible Alarm	After enabling Audible Warning and setting Audible Alarm Output, the built-in speaker of the device or connected external speaker plays warning sounds when an alarm happens. (set at the "**Setting > Video / Audio > Audio File**") Only for some models.	[How to set] Click the button on. [Default value] **OFF**
Alarm Record	Enable the button to enable the alarm record.	[How to set] Click to enable Alarm Record. [Default value] **OFF**
SMTP	Enable the button to enable SMTP sever. The parameters of SMTP can be set at **Configuration > Network Service > SMTP** interface.	[How to set] Click to enable SMTP. [Default value] **OFF**
FTP Upload	Enable the button to enable File Transfer Protocol. The parameters of FTP can be set at **Configuration > Network Service > FTP** interface.	[How to set] Click to enable FTP Upload. [Default value] **OFF**
White light Alarm	When the **Day/Night** mode is chosen **Night** mode, and the light is **IR LED** or **NON**E, this linkage action is valid. Enable to white light alarm when it triggers the alarm, the white light will be on. Only for Some Models.	[How to set] Click the button on. [Default value] **OFF**

Step 3 Set a deployment area.

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

Step 4 Set deployment time, please refer to 7.1 Step 4..

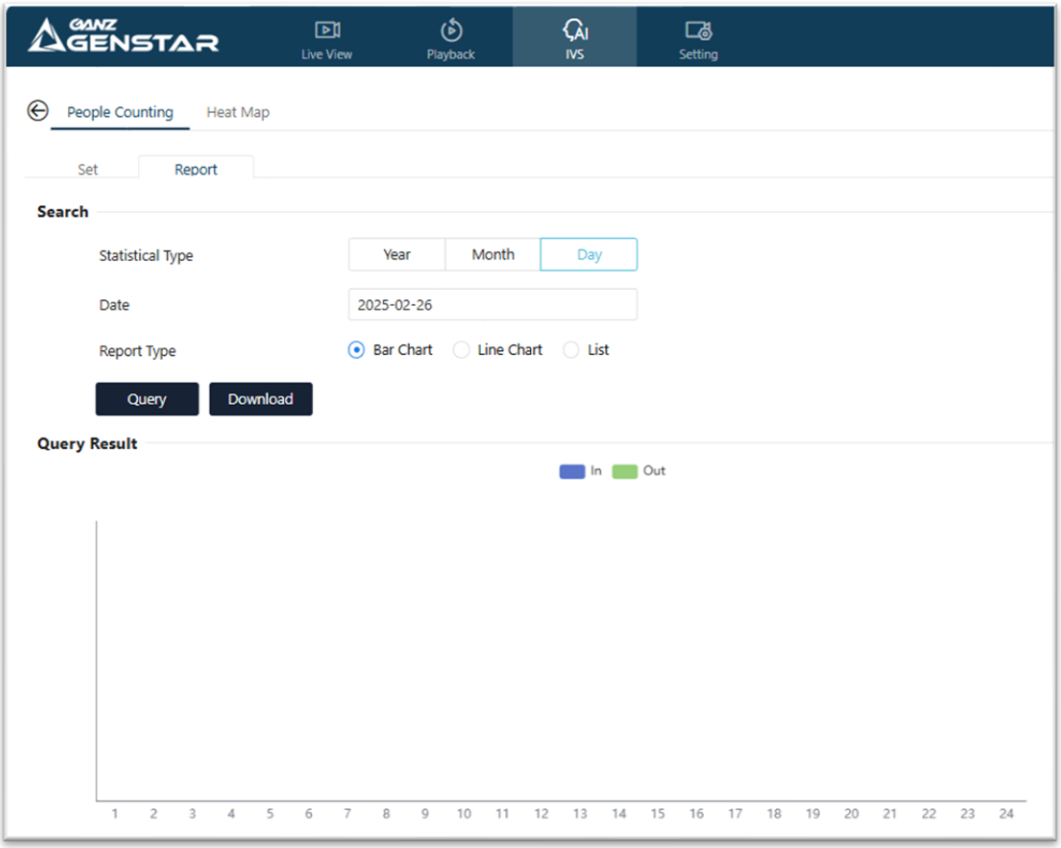
Step 5 Click **Apply**. The message "Apply success!" is displayed, and the system will save the settings.

----End

9.3.2 Report

At **people counting** interface, you can view the data of people counting through setting query condition (choose the detail time at date's pop-up window).There are three modes to show the data, such as line chart, histogram, and list, as shown in Figure 9-14.

Figure 9-14 People counting page



Click "Download" to download the query result.

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

Click "Query" to query the data of people counting.

The data result can be saved to local folder.

----End

10.1 Configure PTZ

10.1.1 Control and Configure the PTZ (Only for Some Models)

Description

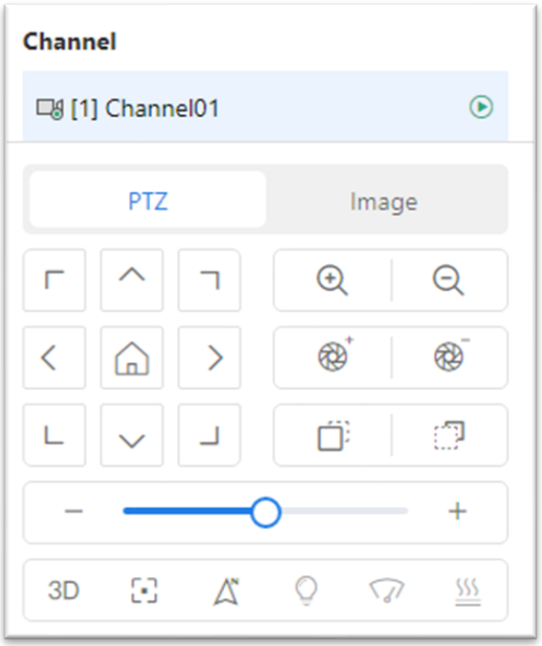
All PTZ functions are available for high speed network dome, PTZ cameras or device connected to an external PTZ. The focus and zoom actions can be used for motorized cameras. The real functions please refer to the actual product.

Controlling the PTZ

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

Click PTZ below the **Live Video** page to open the **PTZ Control** page as shown in Figure 10-1, you can click the eight arrow keys to move the PTZ in eight directions. You can also zoom the lens and adjust the focal length.

Figure 10-1 PTZ control area



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

- Slide the slider left or right beyond the PTZ rotation keys, you can adjust the PTZ rotation speed.
- Click the arrows to move the PTZ in eight directions.
- Click  to go home position.
- Click  to adjust the focal length.

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

Click 3D to operate the lens directly, zoom +/zoom- the area, or move the focus point.

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

- Click  to enable automatic focus.

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

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

Click  to enable brush. Brush is used to clean the lens.

NOTE

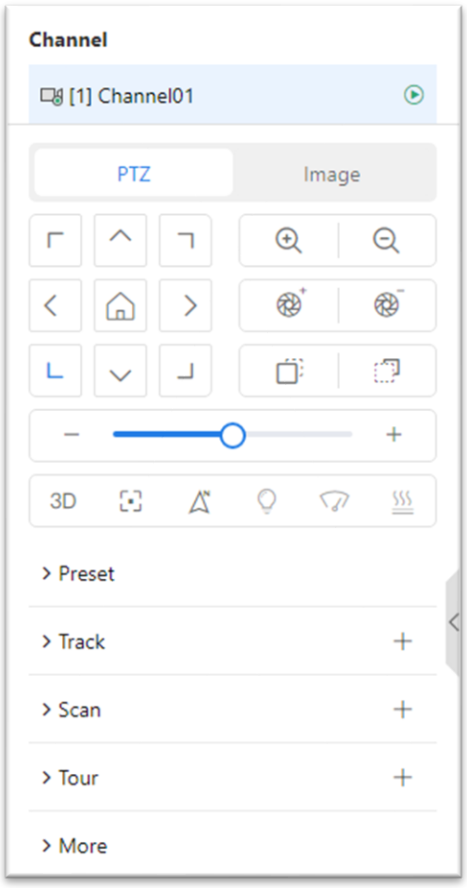
- **Brush** is available only to a camera with a brush or a camera shield.
- **Light On/Off** is available only to specific camera shields.

----End

10.1.2 Configure the PTZ

It is available for the cameras with PTZ or connected to PTZ. **PTZ Configure** interface is as shown in Figure 10-2.

Figure 10-2 PTZ configure area



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

- Add, delete, and invoke preset positions.
- Add, delete, and invoke tracks.
- Add, delete, and invoke scans.
- Add, delete, and invoke tours.
- Set the home.
- Set the idle.
- Set the timer.
- Set the extension. Set Light On/Off and Brush function.

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

NOTE

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

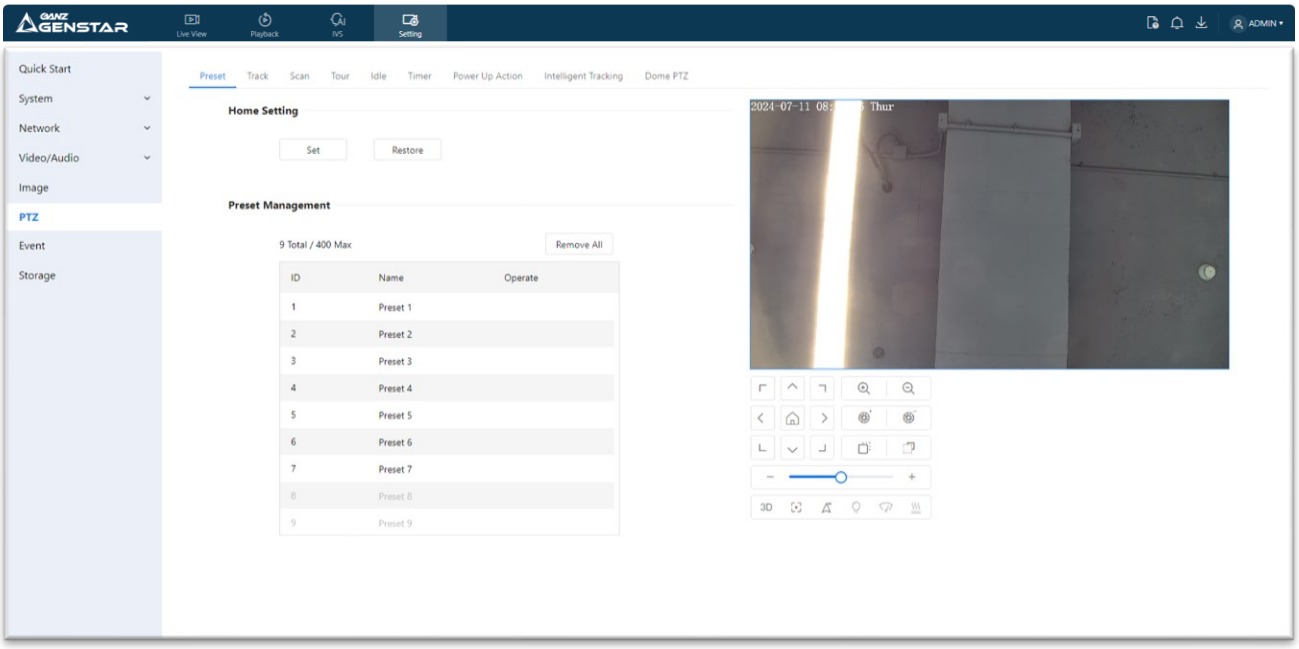
Light On/Off is available only for specific camera shields.

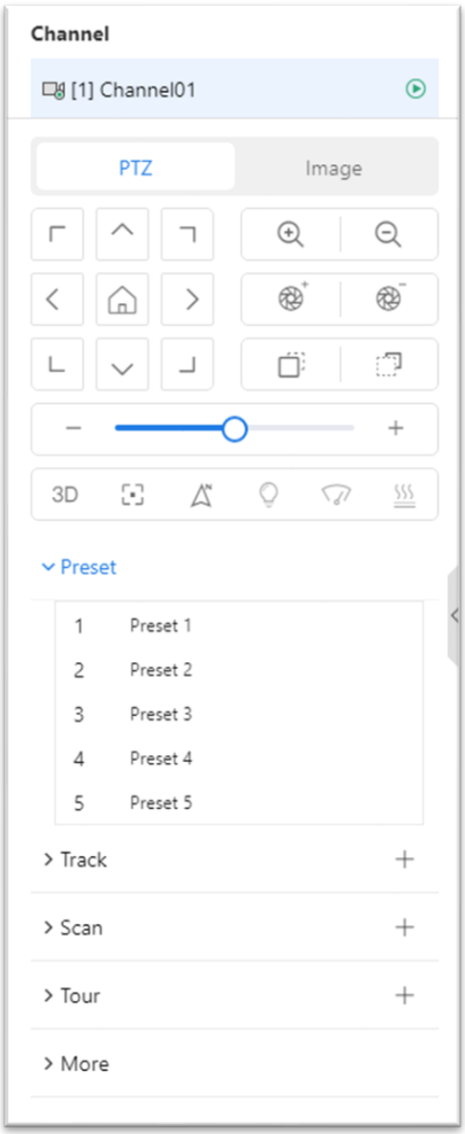
10.1.3 Configure and Invoke Home / Preset Positions

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

Choose setting > PTZ > Preset. You can set preset and home position at preset interface

Figure 10-3 Preset interface



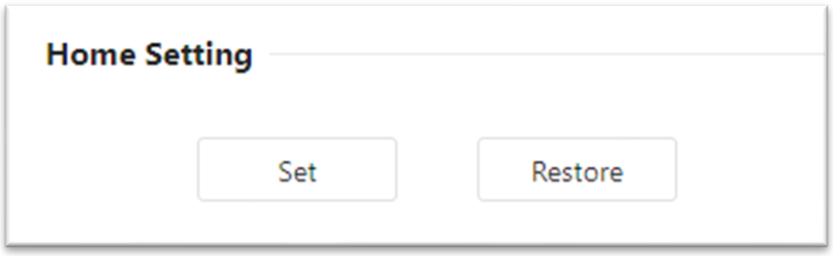


You can set any point as Home and the default Home is the 0.00/90.0/1X coordinate. Click to go home position directly.

Step 1 Click **Home**.

The Home setting page is displayed as shown in Figure 10-4.

Figure 10-4 Home configuration



Step 2 Adjust the PTZ keyboard to operate the lens.

Step 3 Click **Set** to set home. Click **Restore** to restore the default home.

Step 4 Click invoke home.

----End

Step 1 Configure a preset position.

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

Step 2 Invoke a preset position.

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

NOTE

The special presets:

- Set No.64 preset, the PTZ functions restore to factory settings .
- Invoke No.92 preset, set the start point of scan.
- Invoke No.93 preset, set the end point of scan.
- Invoke No.97 preset, it will invoke the SCAN 1.
- Set No.97 preset, view the version of MCU and chip.
- Invoke No.99 preset, scan by rotating 360°.
- Invoke No.250 preset, enable the MCU temperature.
- Invoke No.251 preset, disable the MCU temperature.
- Set No.252 preset, the PTZ parameters will be restore to factory settings.
- Invoke 103 preset, the brush works once, this function is only for PTZ cameras with brush.

----End

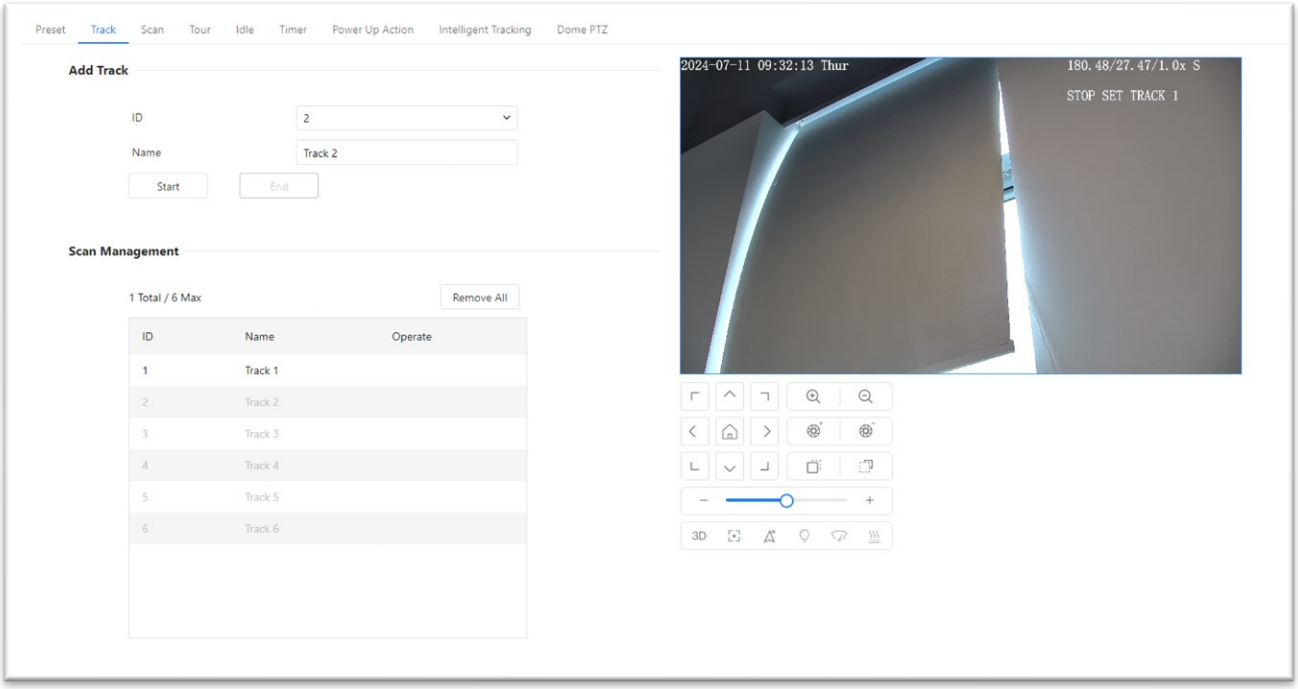
10.1.4 Configure and Invoke Tracks

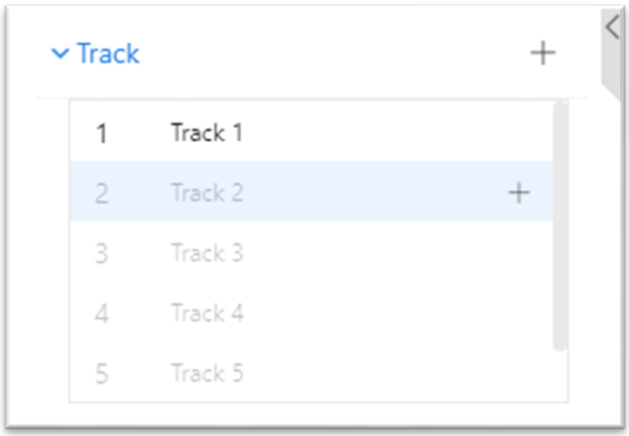
You can record a track to allow the camera to repeatedly rotate based on the preset track.

Step 1 Configure a track.

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

Figure 10-5 Track configuration





Step 2 Invoke a track.

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

Click to delete the current track. Or click Remove All to delete all track.

NOTE

A maximum of six tracks can be configured.

----End

10.1.5 Configure and Invoke Scans

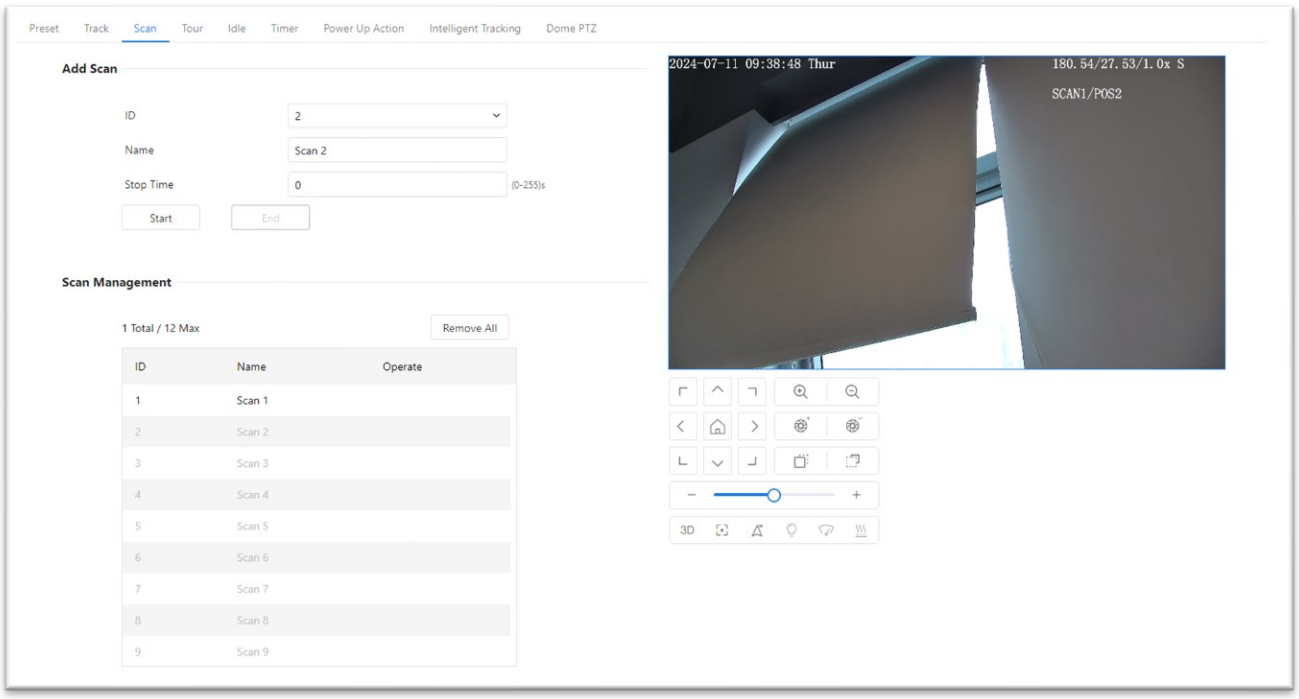
You can configure a starting point and end point to allow the camera to repeatedly rotate from the starting point to end point.

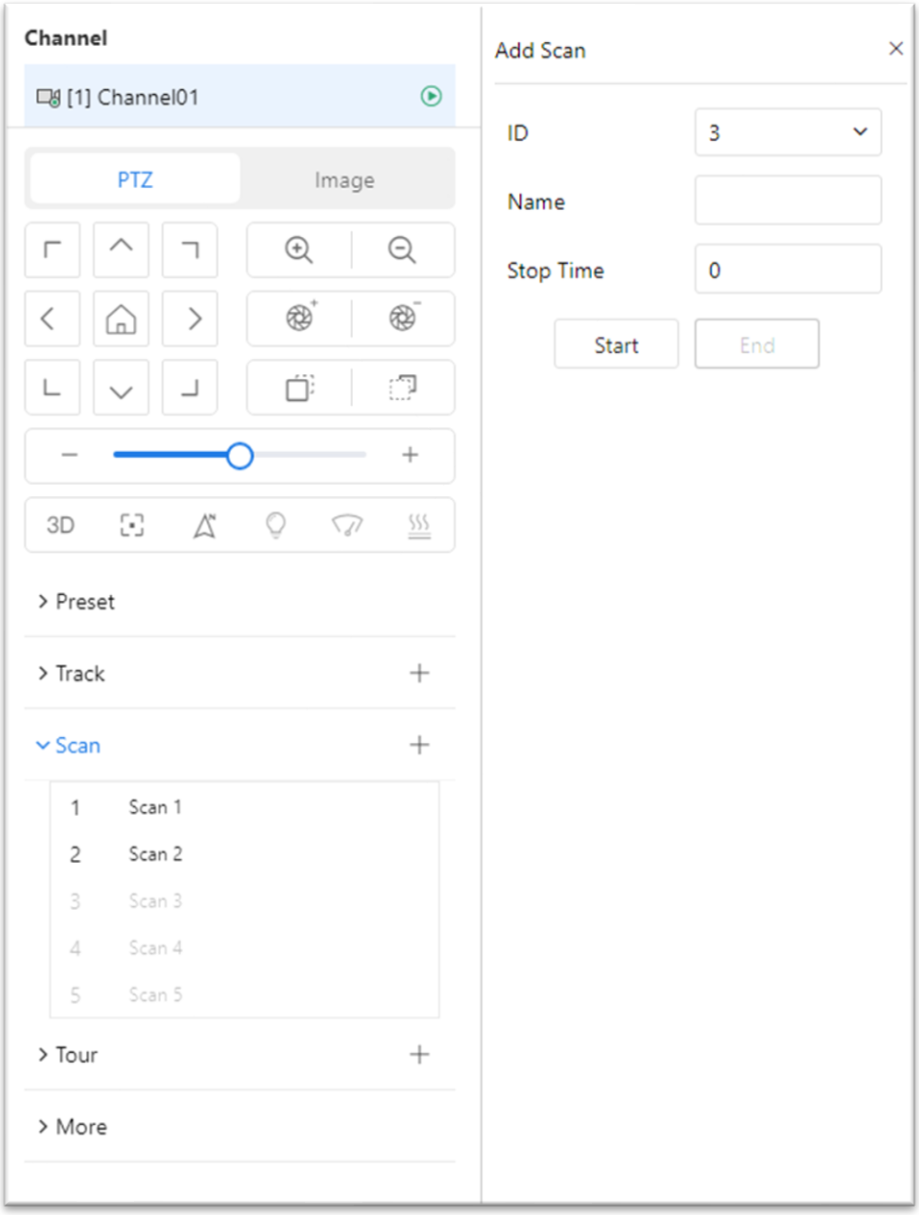
Step 1 Configure a scan.

1. Click **Scan**.

   The **Scan Add** page is displayed as shown in Figure 10-6.

Figure 10-6 Scan configuration





2. Set the scan ID and name.
3. Click **Start** to start setting.
4. Use arrow keys in the **PTZ Control** area to set a start point and an end point.
5. Click **End** to finish the scan setting.

Step 2 Invoke a scan.

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

Click to delete the current scan.

NOTE

A maximum of twelve scans can be configured.

----End

10.1.6 Configure and Invoke Tours

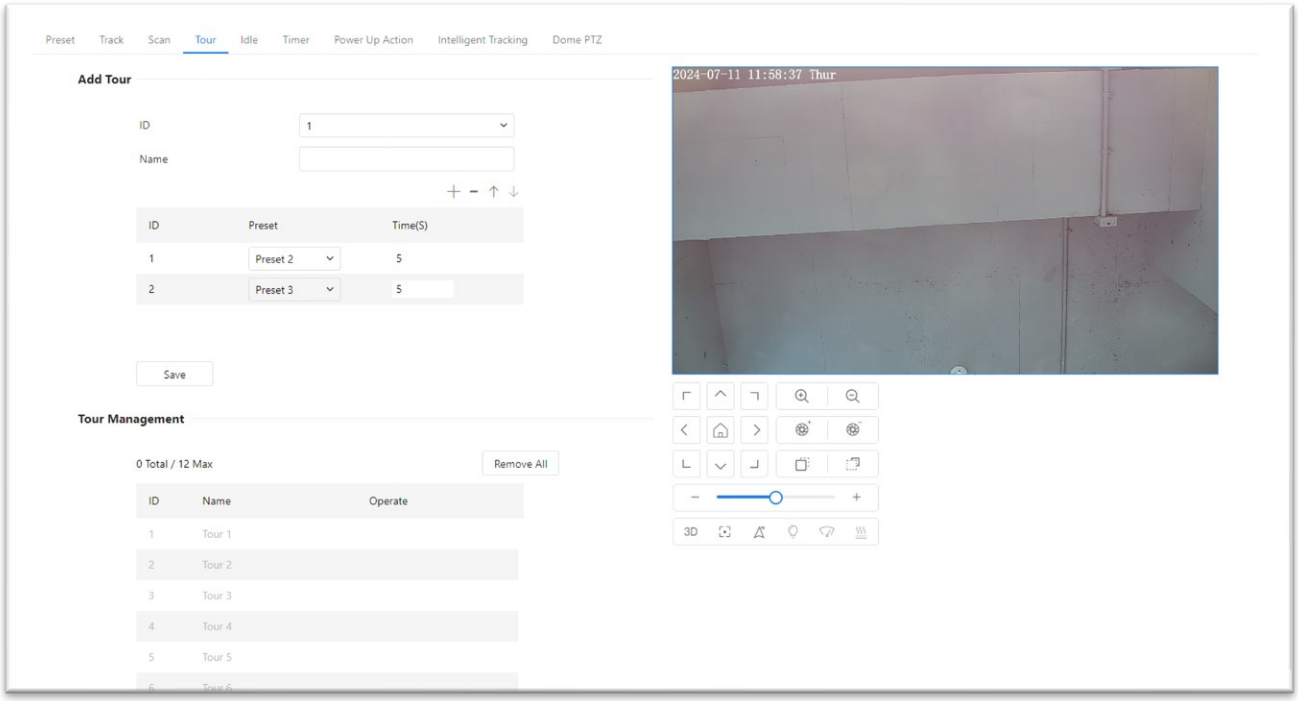
You can configure a tour to allow the camera to repeatedly rotate based the tours. Each tour includes presets and wait time should be set.

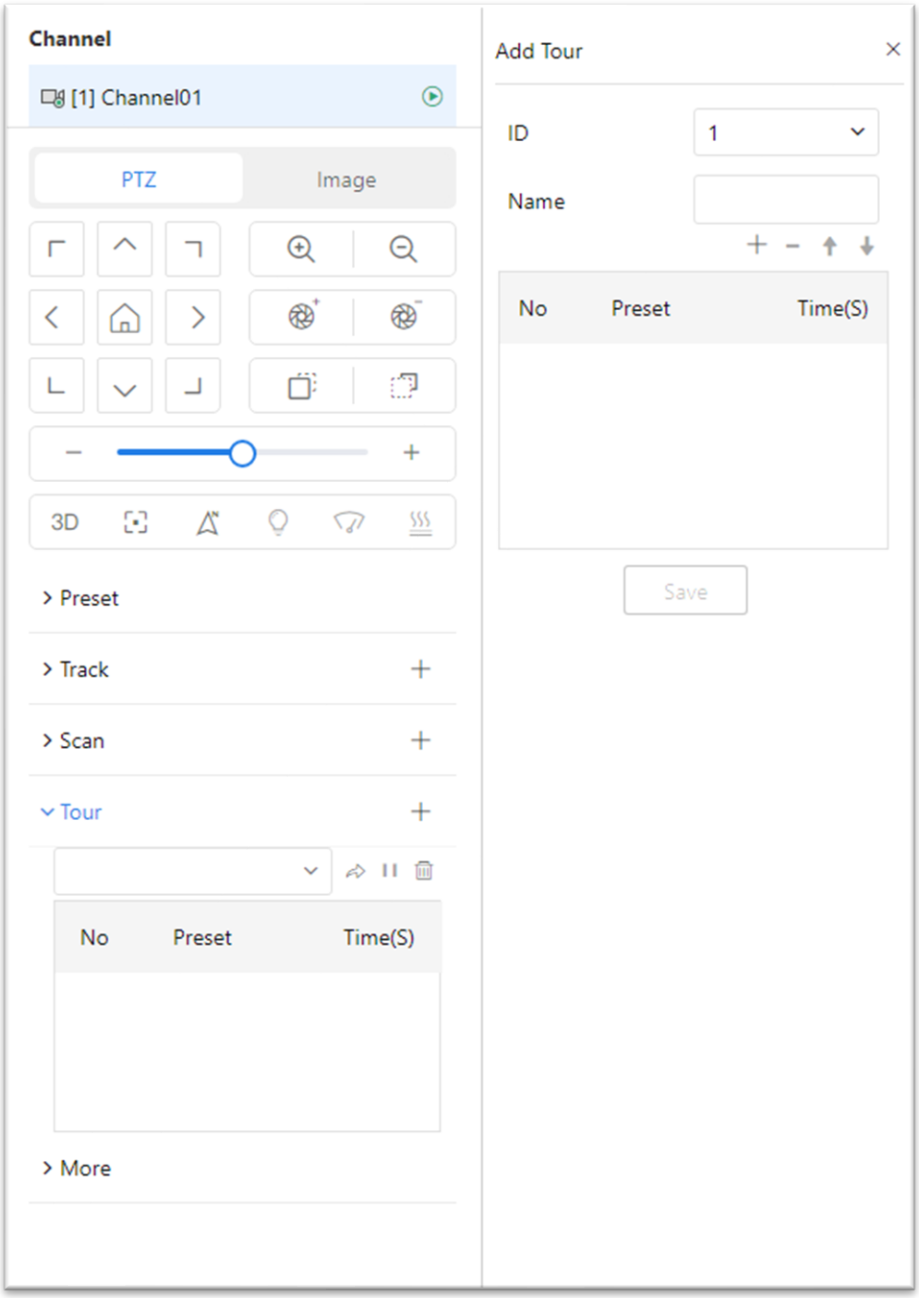
Step 1 Configure a tour.

1. Click **Tour**.

   The **Tour Add** page is displayed as shown in Figure 10-7.

Figure 10-7 Tour configuration





2. Set the tour ID and name.
3. Click + to start add preset to tour.
4. Select a preset and set the wait time.
5. Continue to select a preset and set the wait time.
6. Click **Save** to finish the tour setting.

Step 2 Invoke a tour.

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

Click to delete the current tour.

NOTE

A maximum of twelve tours can be configured.

----End

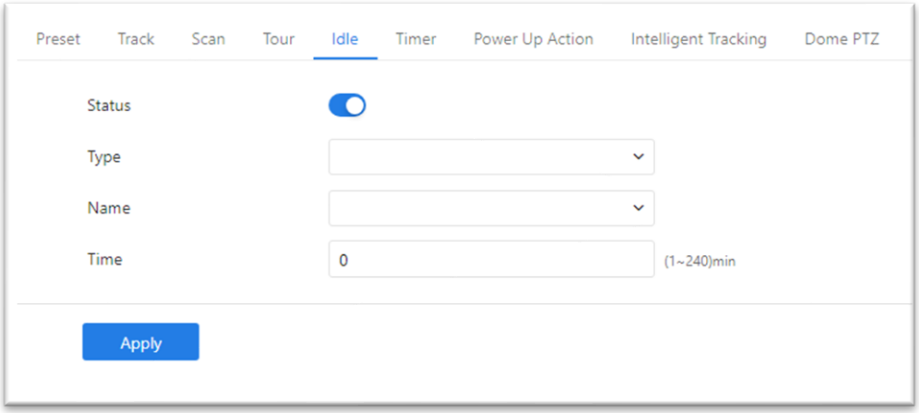
10.1.7 Configure Idles

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

Step 1 Choose **Idle**.

The **Idle Add** page is displayed as shown in Figure 10-8.

Figure 10-8 Idle configuration



Step 2 Enable the Idle button.

Step 3 Set the idle type and name from list.

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

Step 5 Click **Apply** to save the idle setting.

----End

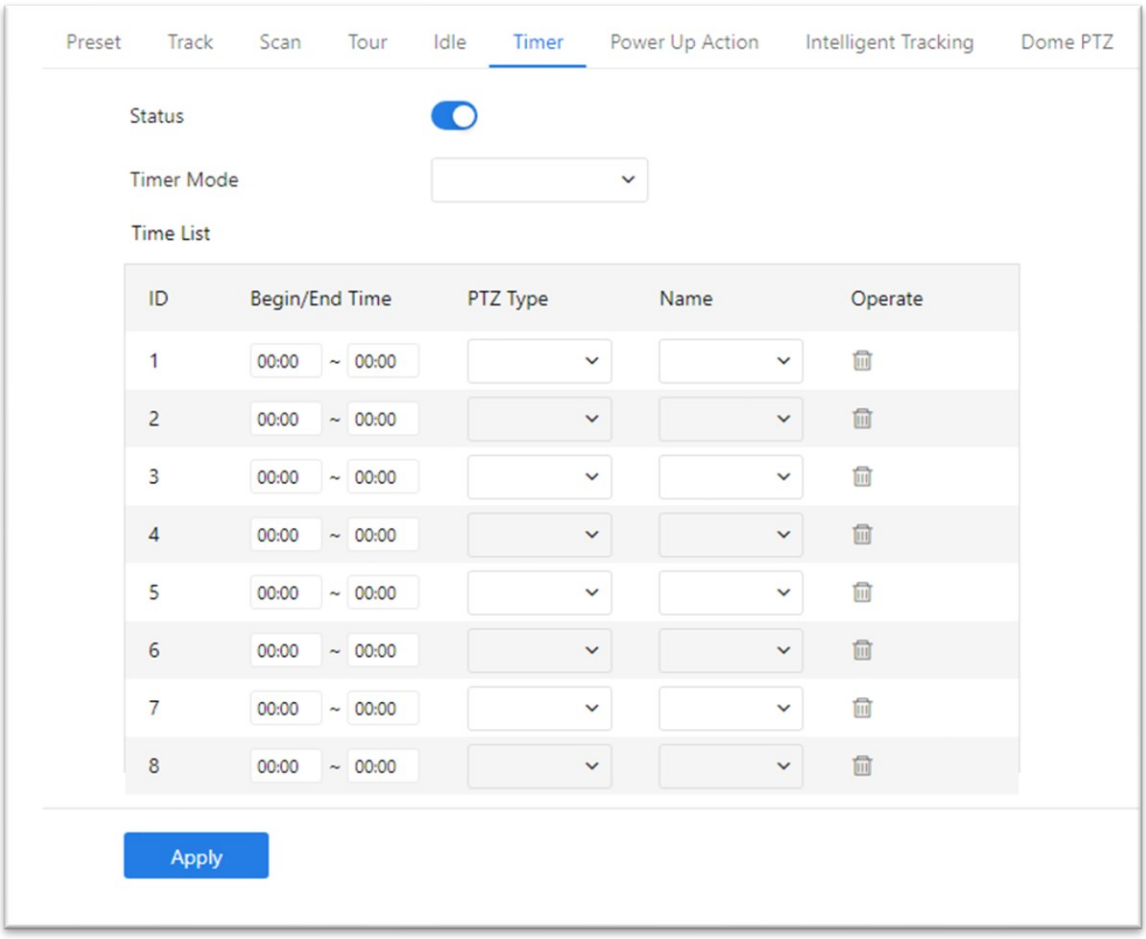
10.1.8 Configure Timer

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

Step 1 Choose **Timer**.

The **Set the PTZ Timer** page is displayed and enable the timer, the **Timer** page is displayed as shown in Figure 10-9.

Figure 10-9 Timer configuration



Step 2 Set the Timer Mode. Timer mode includes Everyday and Once. You should set the time when once mode is selected.

Step 3 Choose Once, click Time to choose day from the pop-up calendar.

Step 4 Set Timers.

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

NOTE

A maximum of eight timers can be configured.

Click Clear to delete the setting.

Step 5 Click **Apply** to save the timer setting.

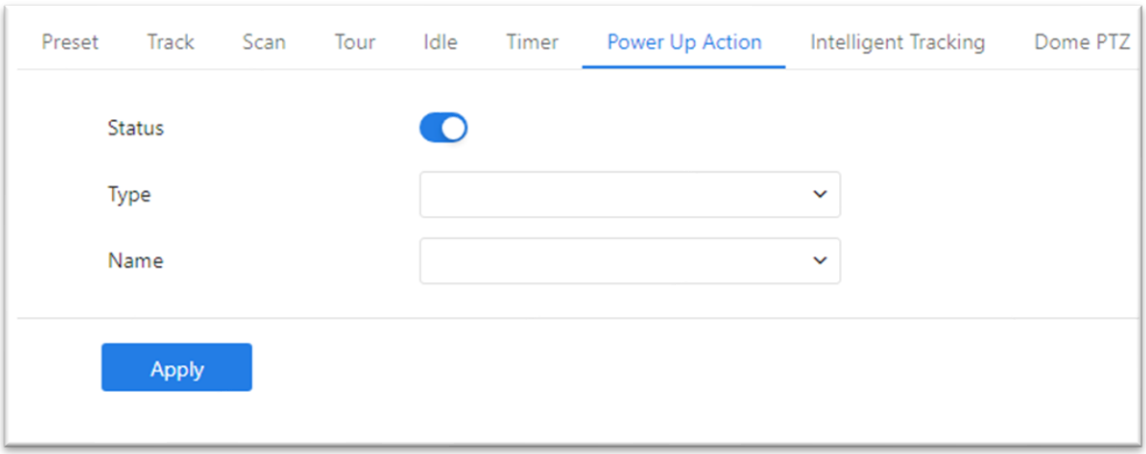
----End

10.1.9 Configure Power UP Action

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

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

Figure 10-10 Power up action



10.1.10 Configure Intelligent Tracking

The intelligent tracking is only for PTZ cameras.

Description

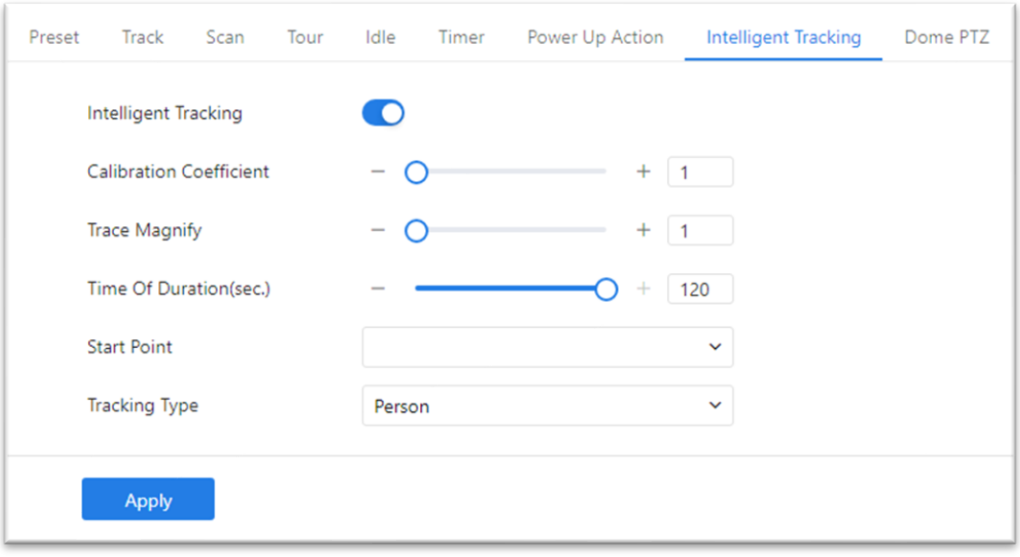
This function is only used for high speed dome.

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

Procedure

Step 1 Choose **Setting > PTZ > Intelligent Tracking** to access the Intelligent Tracking setting interface, enable the intelligent tracking function, as shown in Figure 10-11.

Figure 10-11 Intelligent tracking page



Step 2 Set all parameters for intelligent tracking. Table 10-1 describes the specific parameters.

Table 10-1 Parameters of intelligent tracking

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

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

----End

10.1.11 Dome PTZ

Description

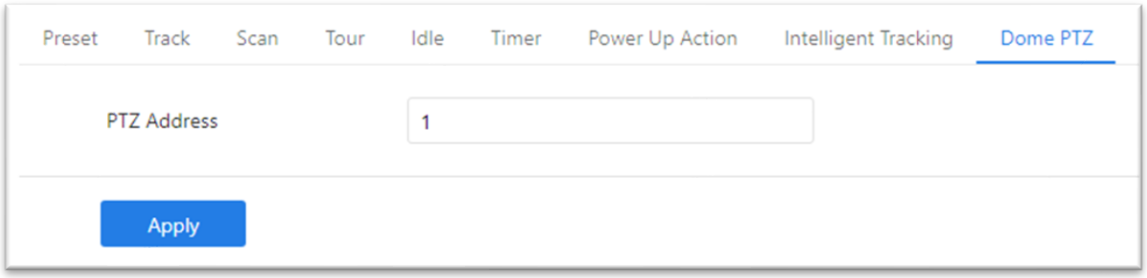
The high speed dome cameras are connected to 485 keyboards, users can use the keyboard to control the cameras' PTZ menu.

Procedure

Step 1 Choose **Setting > PTZ > Dome PTZ**.

The **Dome PTZ** page is displayed, as shown in Figure 10-12.

Figure 10-12 Dome PTZ page



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

Step 3 Click **Apply**.

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

----End

10.2 Configure PTZ Keyboard

Description

When the IP camera is connected to an external PTZ by RS485 port, you can set external PTZ parameters, such as **PTZ Protocol**, **PTZ Address**, **Baud Rate**, and **Data Bits**.

CAUTION

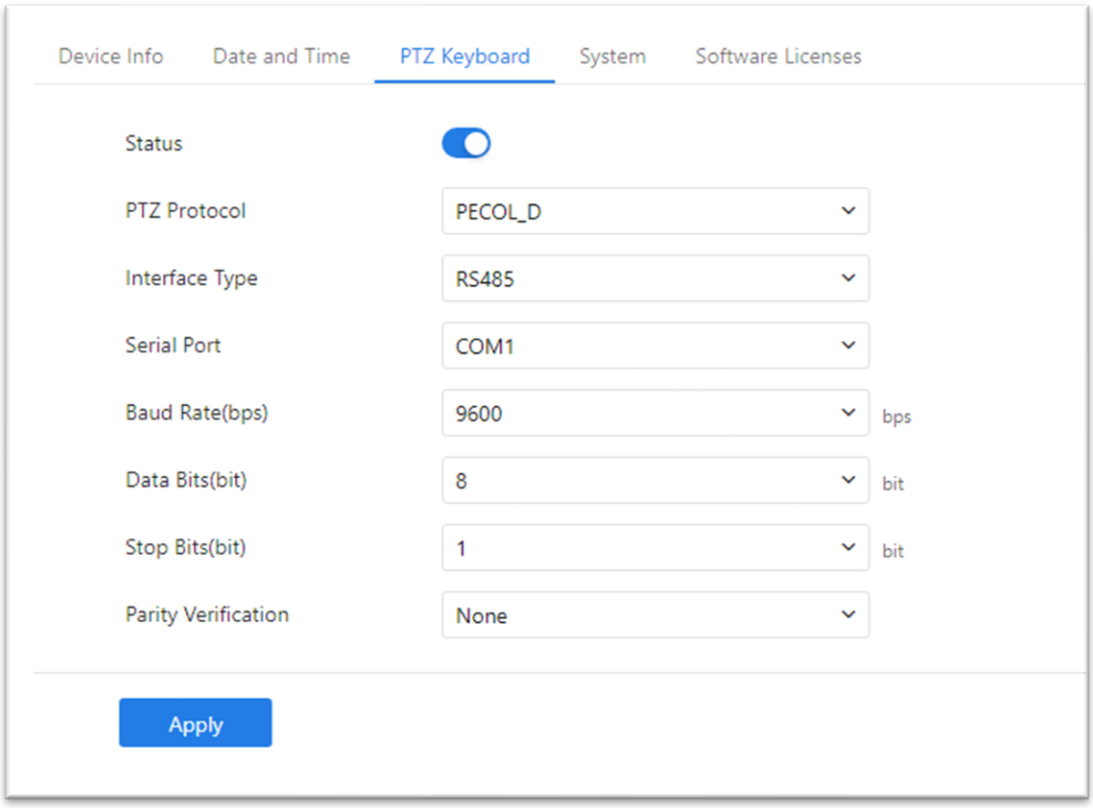
This function is available only for a camera connected to an external PTZ. The PTZ address must be set to the address of the external PTZ; otherwise, the external PTZ cannot be used.

Procedure

Step 1 Choose **Setting > System > Settings > PTZ Keyboard**.

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

Figure 10-13 PTZ page



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

Table 10-2 Parameters of PTZ Keyboard

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

Parameter	Description	Setting
Parity Verification	N/A	

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

----End

10.3 Smoke and Flame Detection

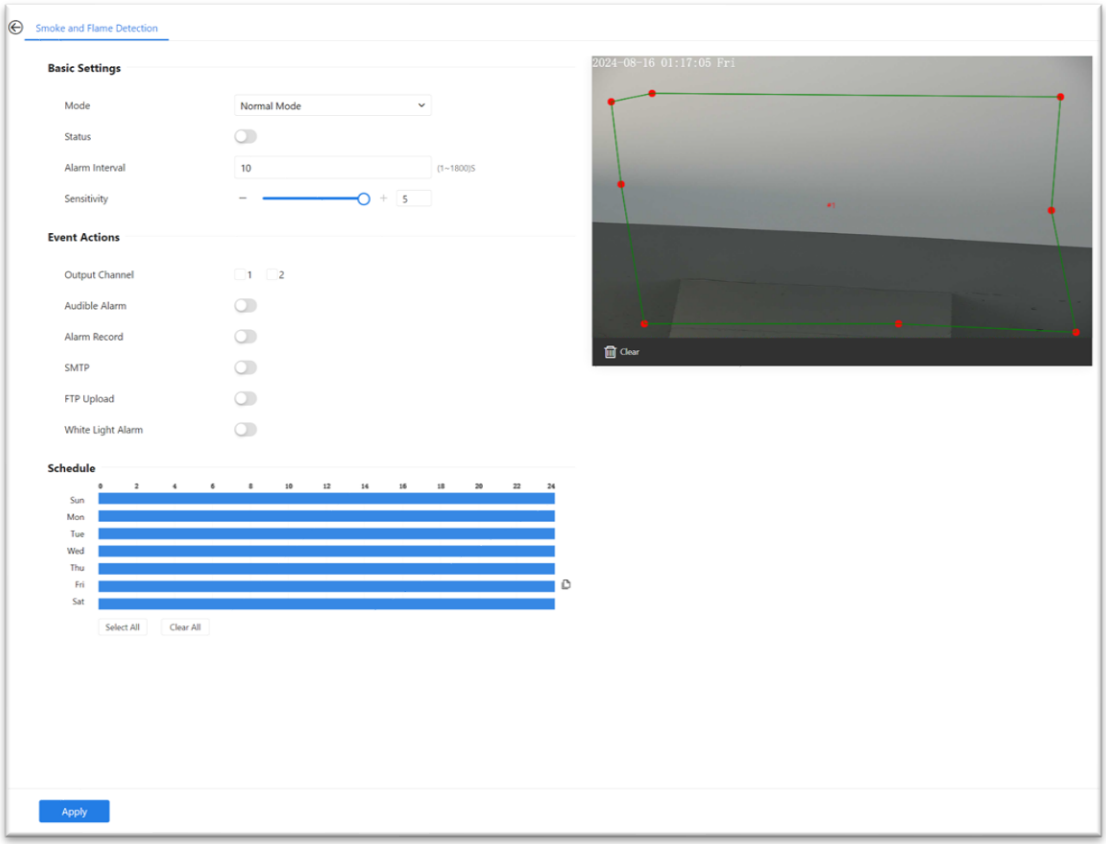
Description

The smoke and flame detection function refer to that an alarm is generated when smoke and flame is generated at the detection area.

Procedure

Step 1 Select **IVS > Advanced Intelligent Analysis >> Smoke and Flame Detection** to access the Smoke and Flame Detection interface, as shown in Figure 10-14.

Figure 10-14 Smoke and flame detection page



Step 2 Set all parameters for smoke and flame detection, please refer to 9.2.1 Step 2.

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

NOTE

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

Step 4 Set deployment time, please refer to 7.1 Step 4..

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

----End

NOTE

For dual-lens, multi channels, panoramic cameras, the all IVS actions should choose one channel to set. The alarm information can linkage to other channels, users select on demand.

Figure 10-15 Choose channel

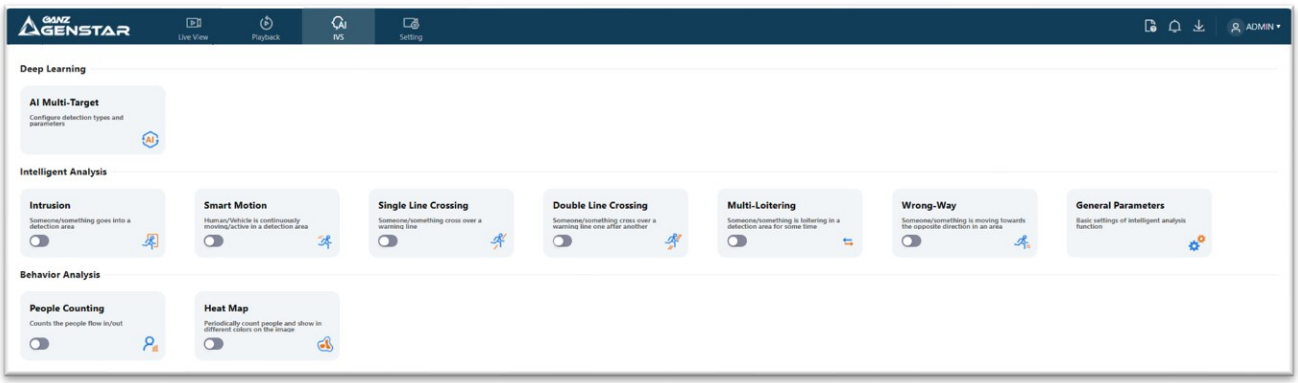
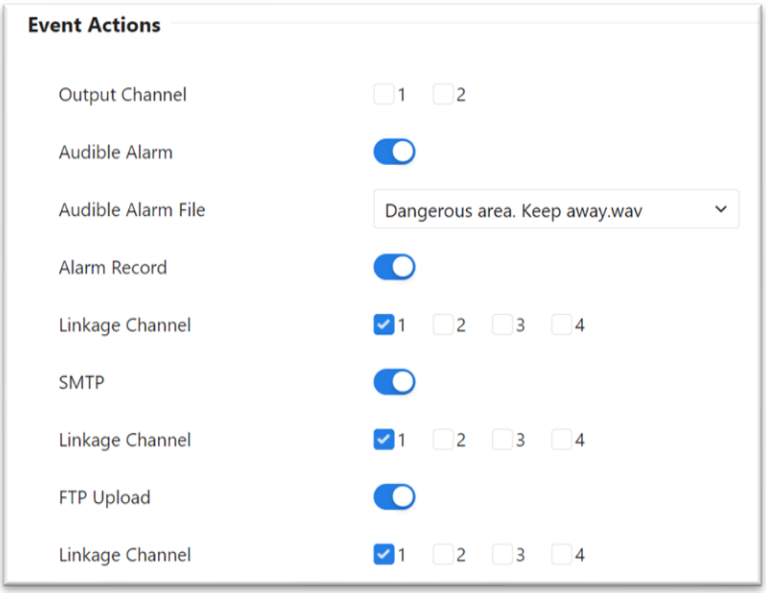


Figure 10-16 Linkage channels



11 Panoramic Cameras

11.1 CVBS Function (Only for Some Models)

Preparation

Connect a display device to the VIDEO OUT port.

Description

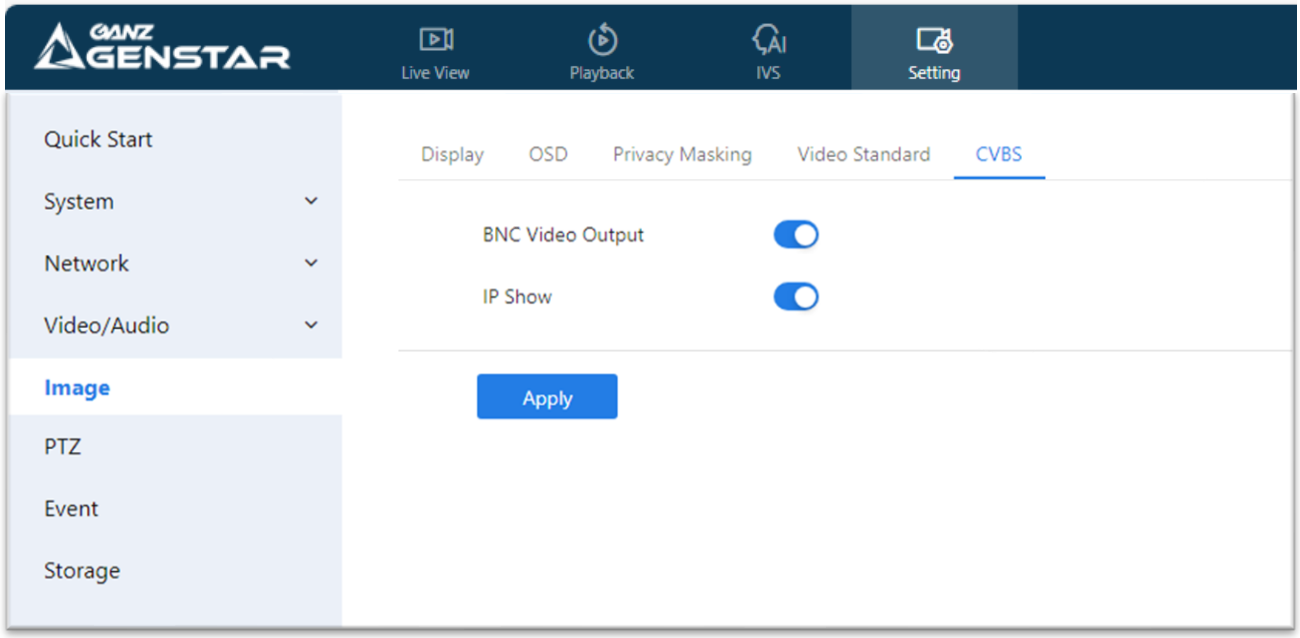
When the analog output function is enabled, the IP camera can send analog signals to a video server or display device through the VIDEO OUT port.

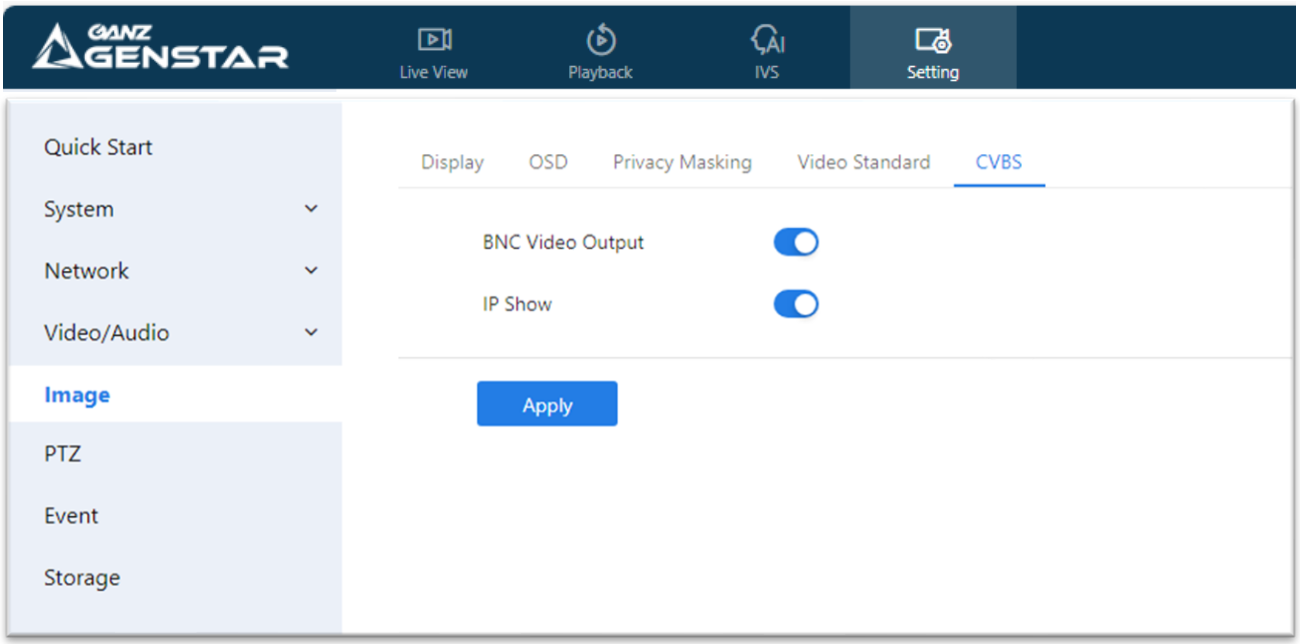
Procedure

Step 1 Choose **Setting > Image > CVBS**.

The **BNC Video Output** page is displayed, as shown in Figure 11-1.

Figure 11-1 BNC video output page





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

Step 3 Click the button on to enable **IP Show**, the IP address will show on video.

Step 4 Click **Apply**. The message "Apply success!" is displayed. And the system will save the settings.

----End

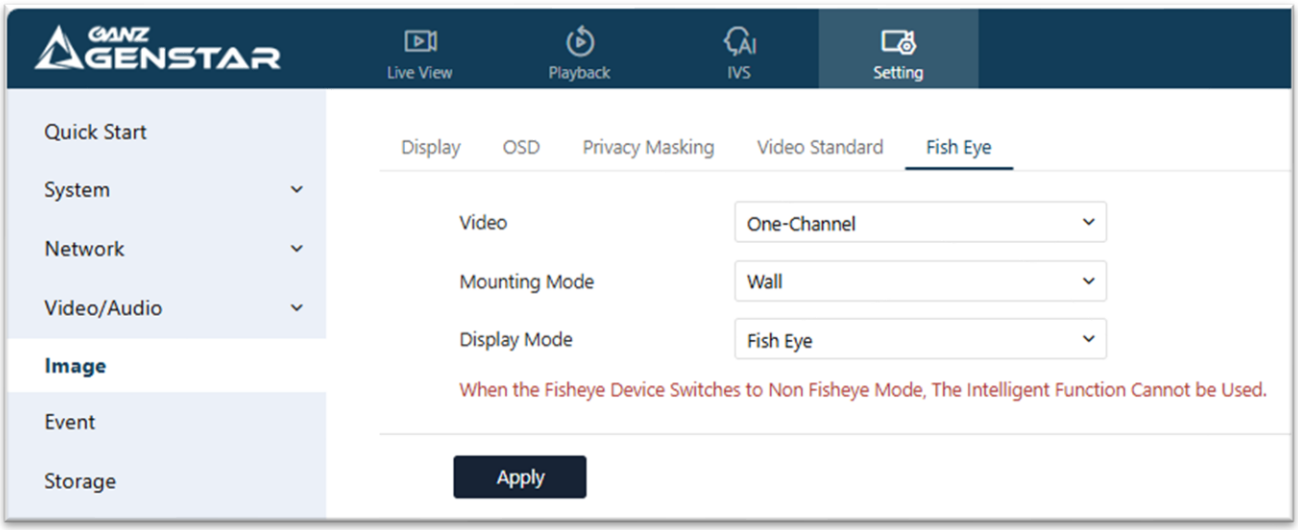
11.2 Fisheye Camera

Procedure

Step 1 Click **Setting > Image > Fisheye**.

The Fisheye page is displayed, as shown in Figure 11-2.

Figure 11-2 Fisheye page



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

Step 3 Choose the mounting type. There are three types, Wall, Ceiling and Desktop.

Step 4 Choose the display mode.

One-channel fisheye types include:

- Fish eye: Original 360°, surround image; the intelligent analysis function is only used at this type.
- Double panorama: Double 180° panoramic image;
- 4PTZ: De-warping quad image;
- Single panorama: Single180° panoramic image;
- Fisheye+3_PTZ: 360° surround+3 De-warping images.

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

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

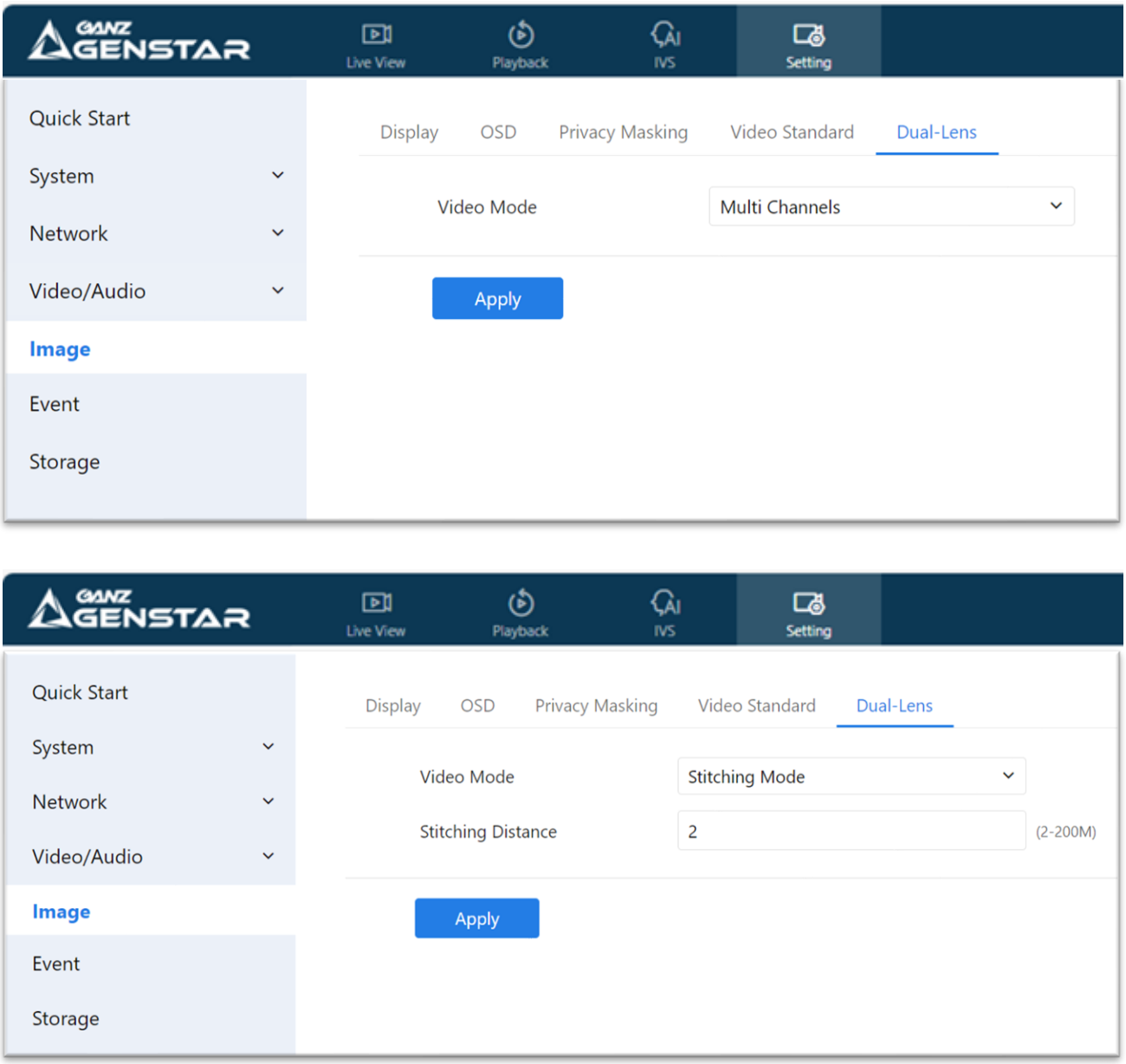
----End

11.3 Dual-Lens

11.3.1 Dual-Lens

For dual-lens cameras, you can set the video mode at **Setting > Image > Dual-Lens** page. There are two modes, Multi Channels and stitching Mode as shown in Figure 11-3.

Figure 11-3 Dual-Lens



Users can choose video modes based on the environment or personal habits.

Multi Channels: the two lens are displayed respectively and one lens corresponds one channel.

Stitching Mode: Two lens videos are stitched together. At the stitching distance position, set for natural stitching of the image.

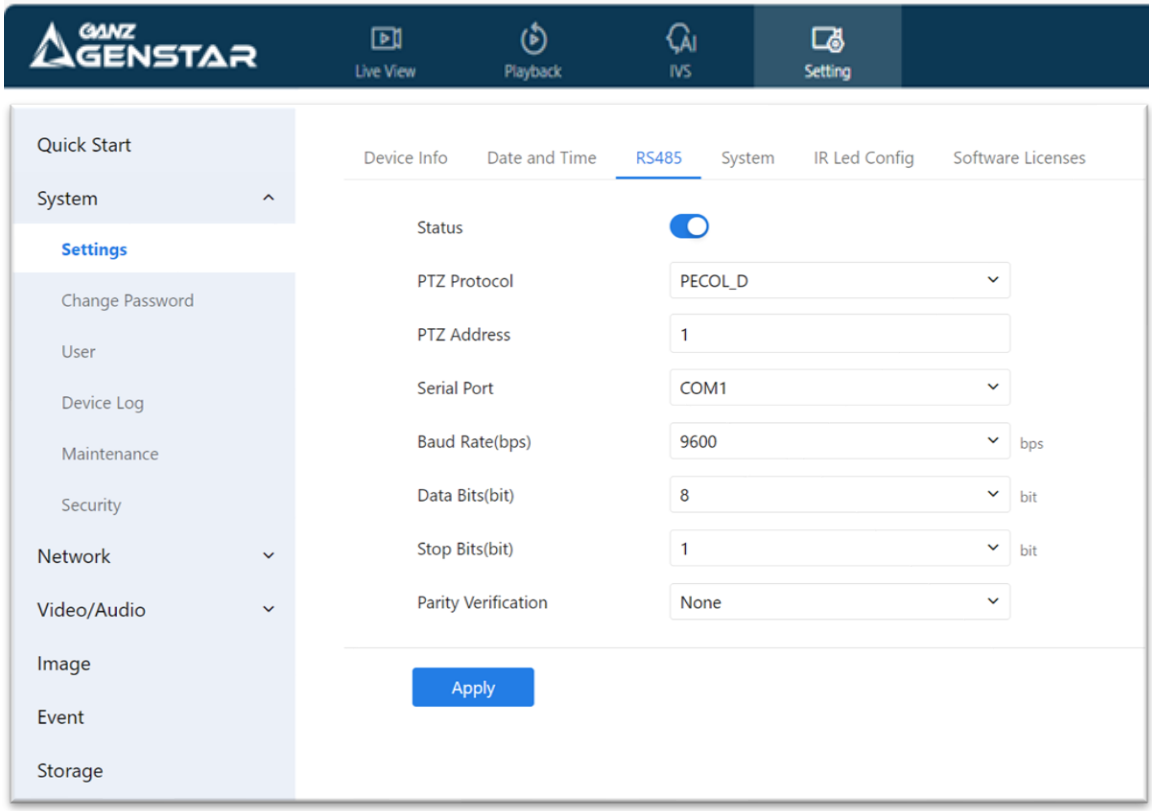
NOTE

Switch the mode, and all the IVS settings will be reset, please be careful about this.

11.4 Panoramic Camera

11.4.1 RS458

Go to **Setting > System > Settings > RS485** page. The panoramic camera connects the high-speed camera through the RS485 port. Set parameters, so that the panoramic camera can operate the high-speed camera.



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

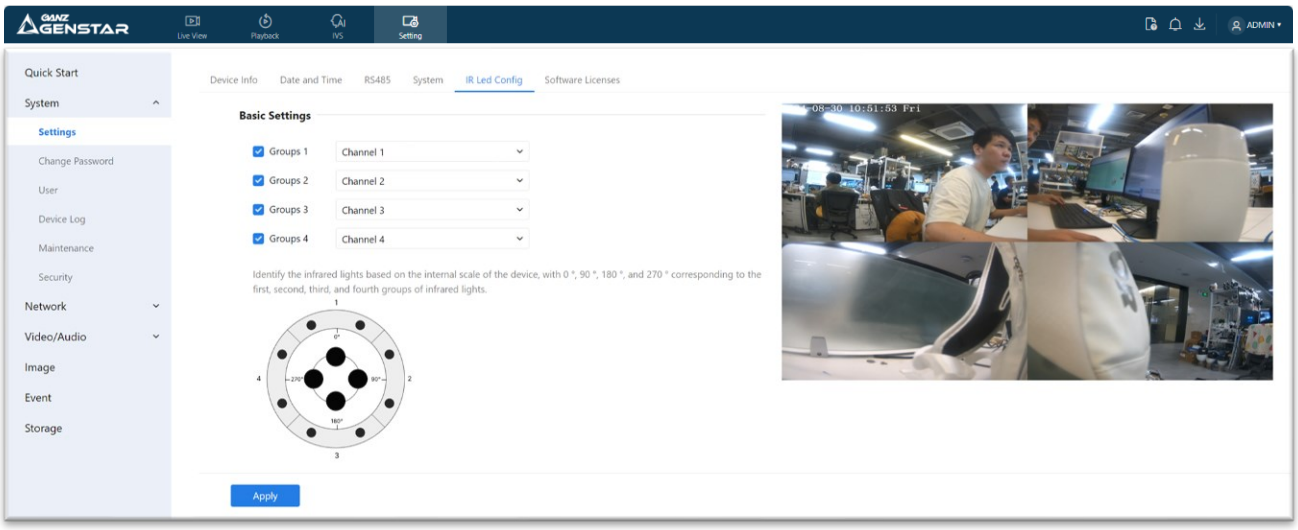
Click **Apply**. The message "Apply success!" is displayed, the system will save the settings.

----End

11.4.2 IR Led Config

For Panoramic cameras, you can set the IR led at **Setting > System > Settings > IR Led Config** page.

Figure 11-4 IR led config



The IR led is corresponded as the figure on page. Identify the infrared lights based on the internal scale of the device, with 0 °, 90 °, 180 °, and 270 ° corresponding to the first, second, third, and fourth groups of infrared lights. The position is marking on the device, users should make sure the position before installing.

If you move the cameras to different point, you should adjust the channels so that the IR led are corresponded as the real scene.

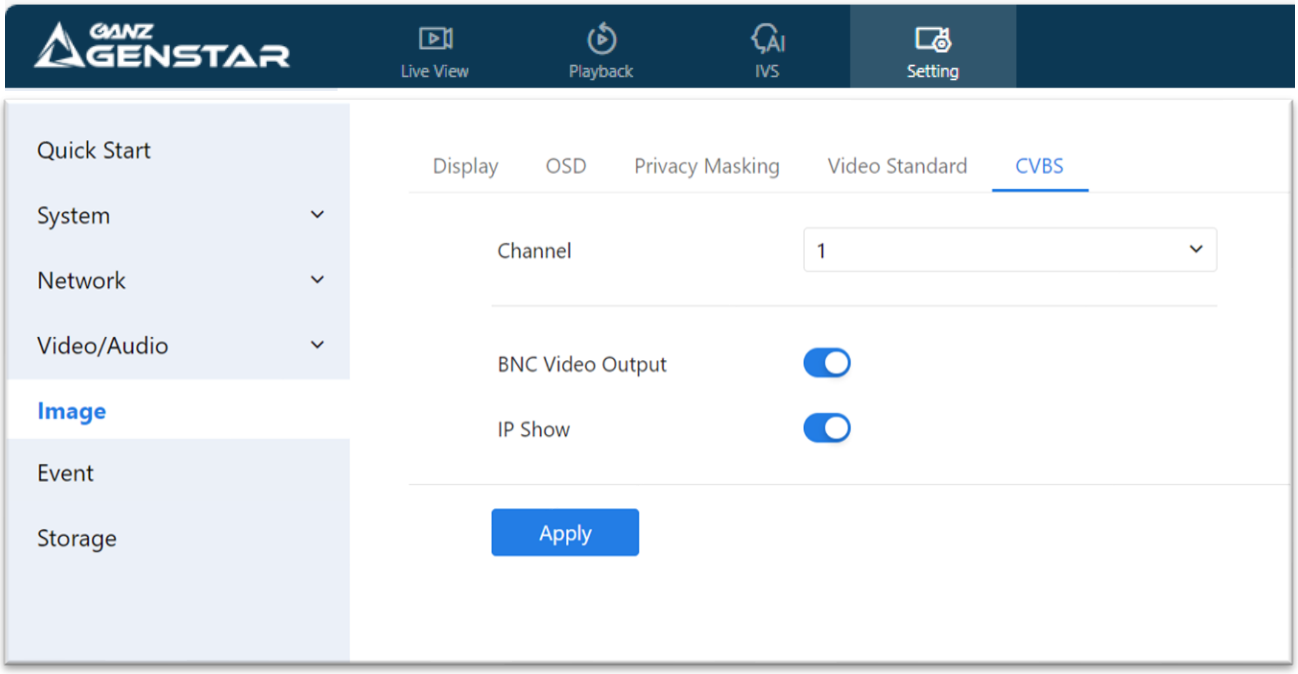
Click **Apply**. The message "Apply success!" is displayed, the system will save the settings.

----End

11.4.3 CVBS

If users want to use BNC cable to show live video of channel, set the parameters at **Setting > Image > CVBS.**

Figure 11-5 CVBS



Enable BNC Video Output to open IP show.

NOTE

The channels can be switch on device by dipswitch.

11.5 For Special Cameras

11.5.1 General Parameters

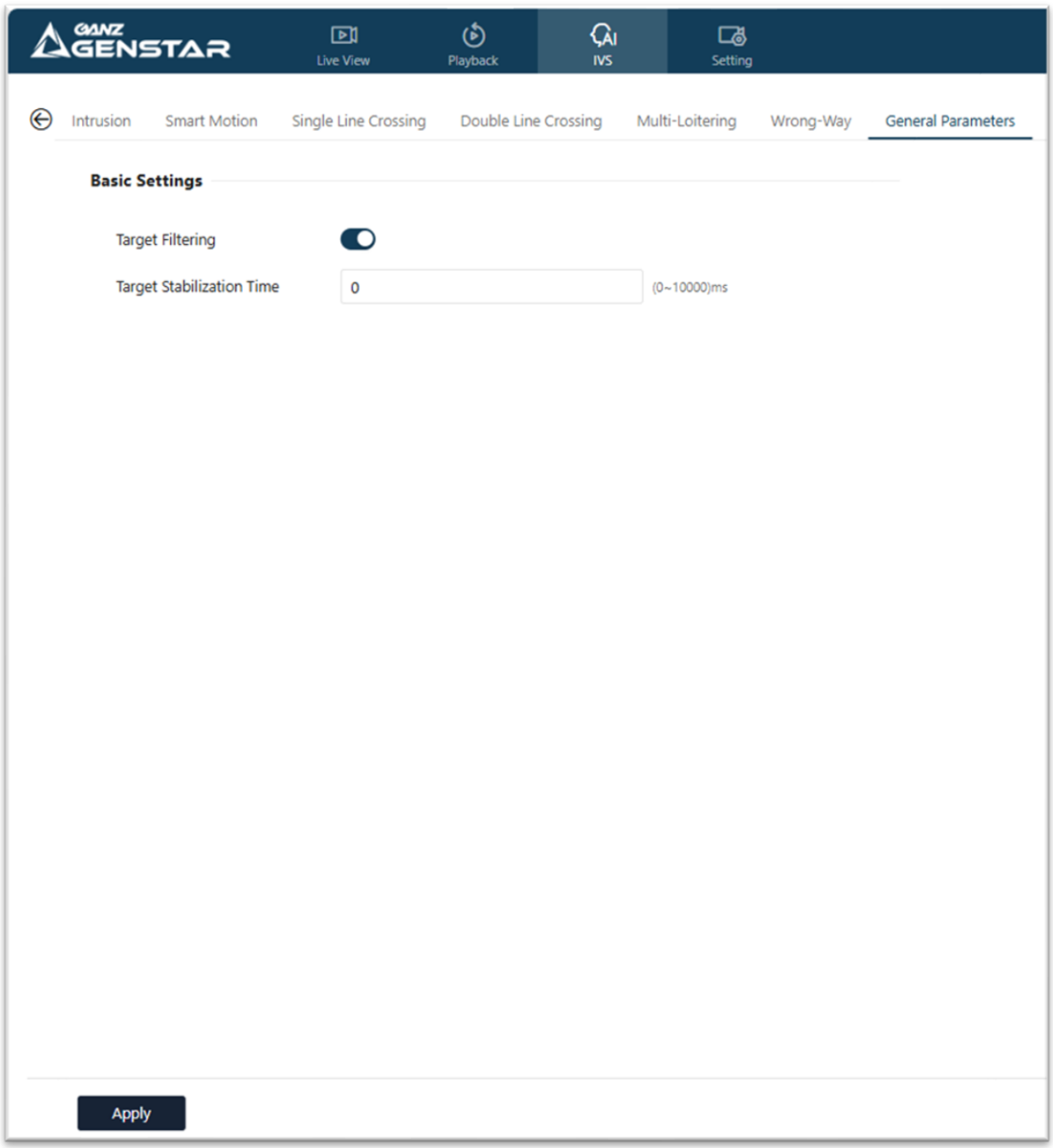
Description

At General Parameters page, users can set target filtering to filter the target(people or car) at the setting filtering time. When targets occur in the detection area, it will not trigger the alarms of intelligent analysis.

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **General Parameters** to access the advanced setting interface, as shown in Figure 11-6.

Figure 11-6 General Parameters page



Step 2 Enable target filtering.

Step 3 Set the target stabilization time.

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

----End

11.5.2 Illegal Parking (Only for Some Models)

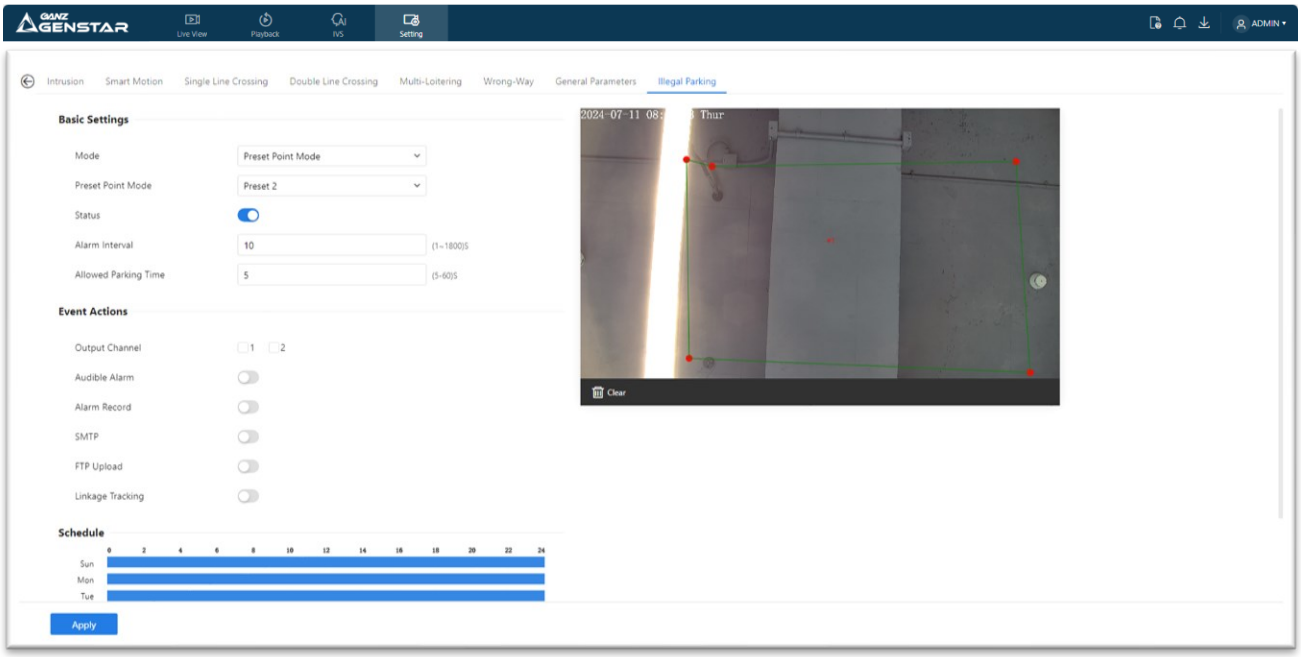
Description

Illegal parking allows setting the dwelling time criteria for a vehicle within the deployment area on the video screen. When the dwelling time of a vehicle within this area exceeds the set allowed parking time, an alarm is generated.

Procedure

Step 1 Select **IVS > Intelligent Analysis** > **Illegal Parking** to access the **Illegal Parking** setting interface, as shown in Figure 11-7.

Figure 11-7 Illegal parking settings page



Step 2 Set all parameters for illegal parking, please refer to 9.2.1 Step 2.

Step 3 Set a deployment area.

Step 4 Set deployment time, please refer to 7.1 Step 4.

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

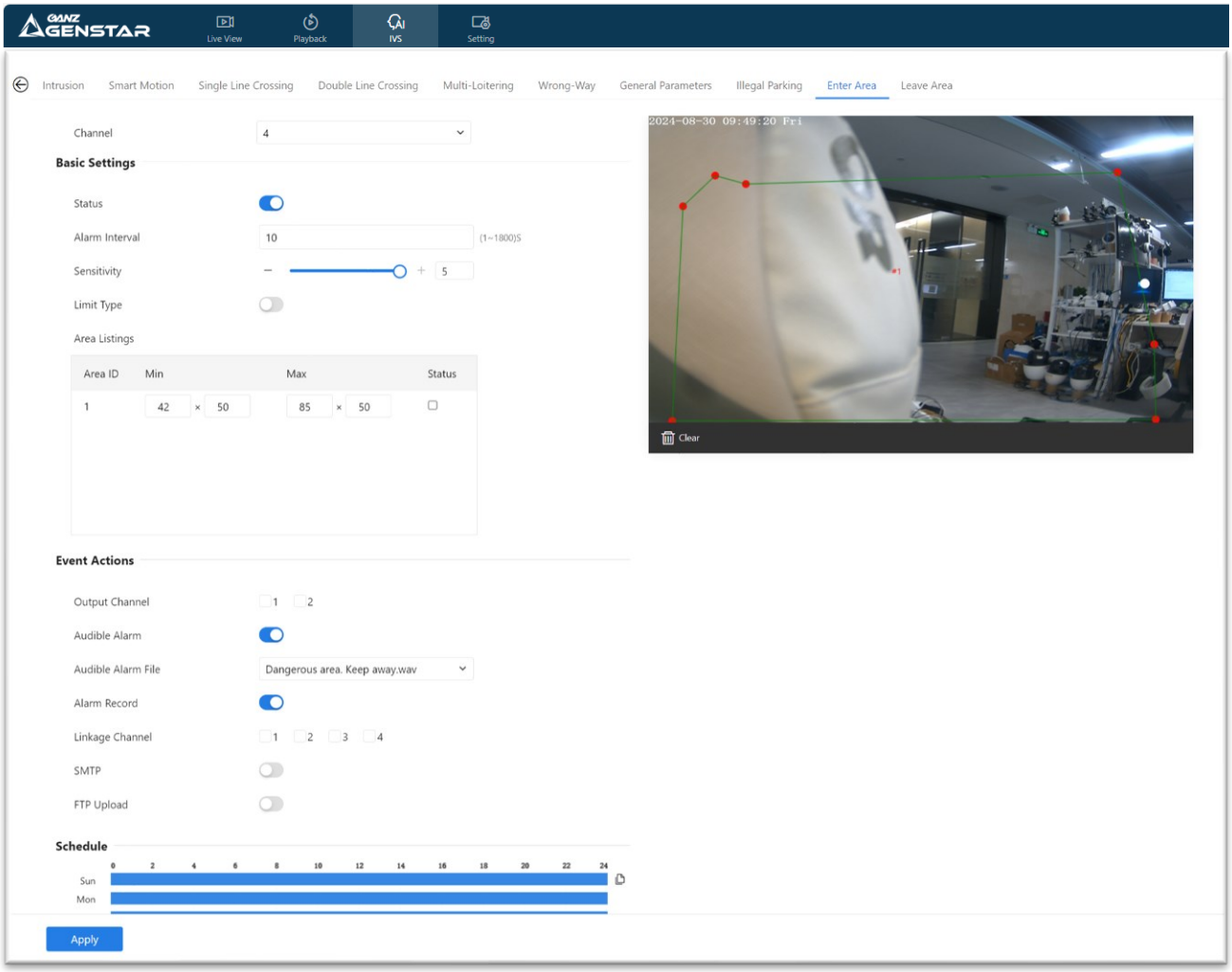
----End

11.5.3 Enter Area

The enter area refers to that an alarm is generated when a target enters the deployment area at the valid time.

Select **Configuration** > **Intelligent Analysis** > **Enter Area** to access the **Enter Area** setting interface, as shown in Figure 11-8.

Figure 11-8 Enter Area



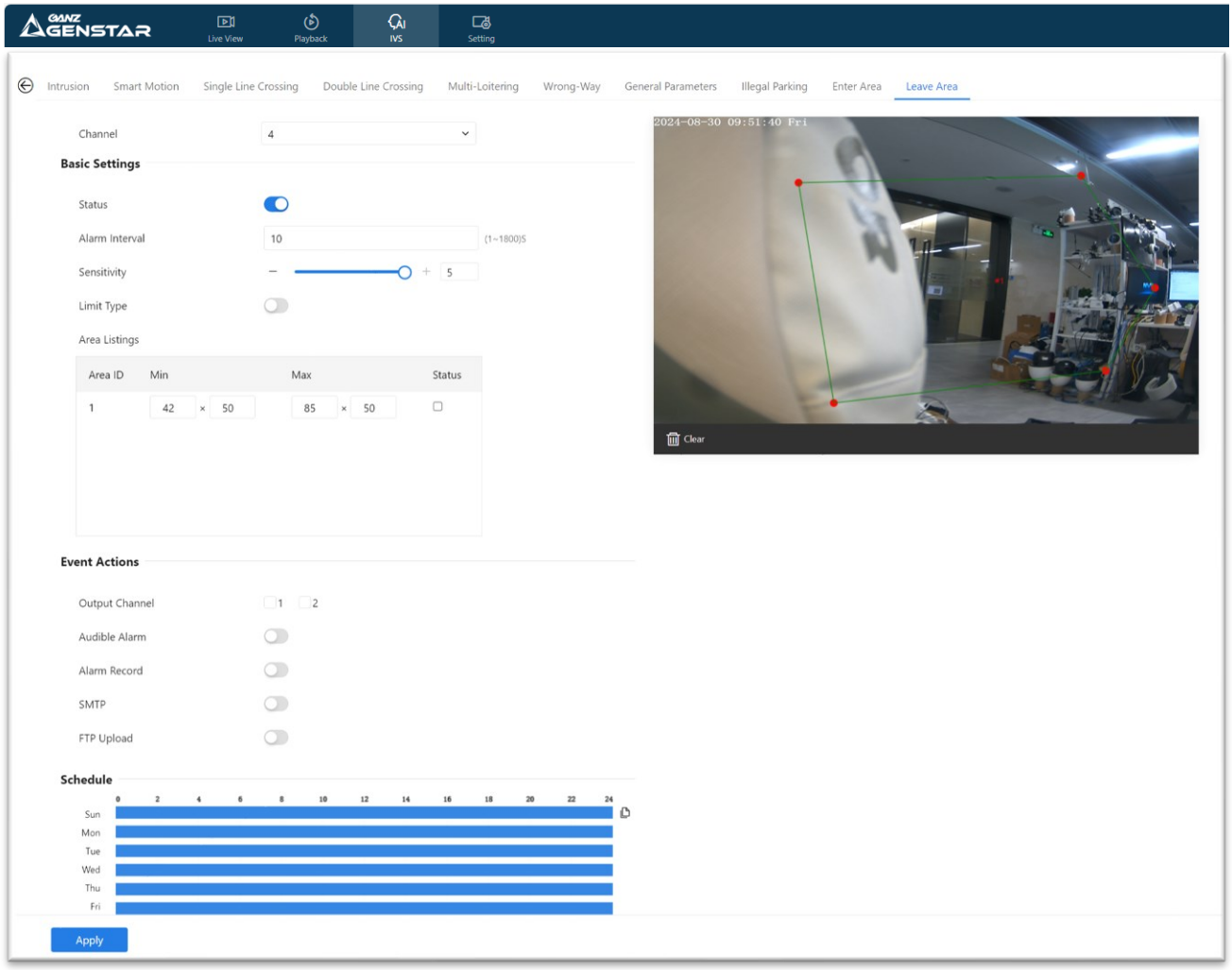
Set all parameters for enter area, please refer to chapter Figure 3-6

11.5.4 Leave Area

The leave area refers to that an alarm is generated when a target leaves the deployment area at the valid time.

Select **Configuration** > **Intelligent Analysis** > **Leave Area** to access the **Leave Area** setting interface, as shown in Figure 11-9.

Figure 11-9 Leave Area



Set all parameters for leave area, please refer to chapter Figure 3-6

11.5.5 Heat Map

11.5.5.1 Heat Map Set (Only for Some Models)

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

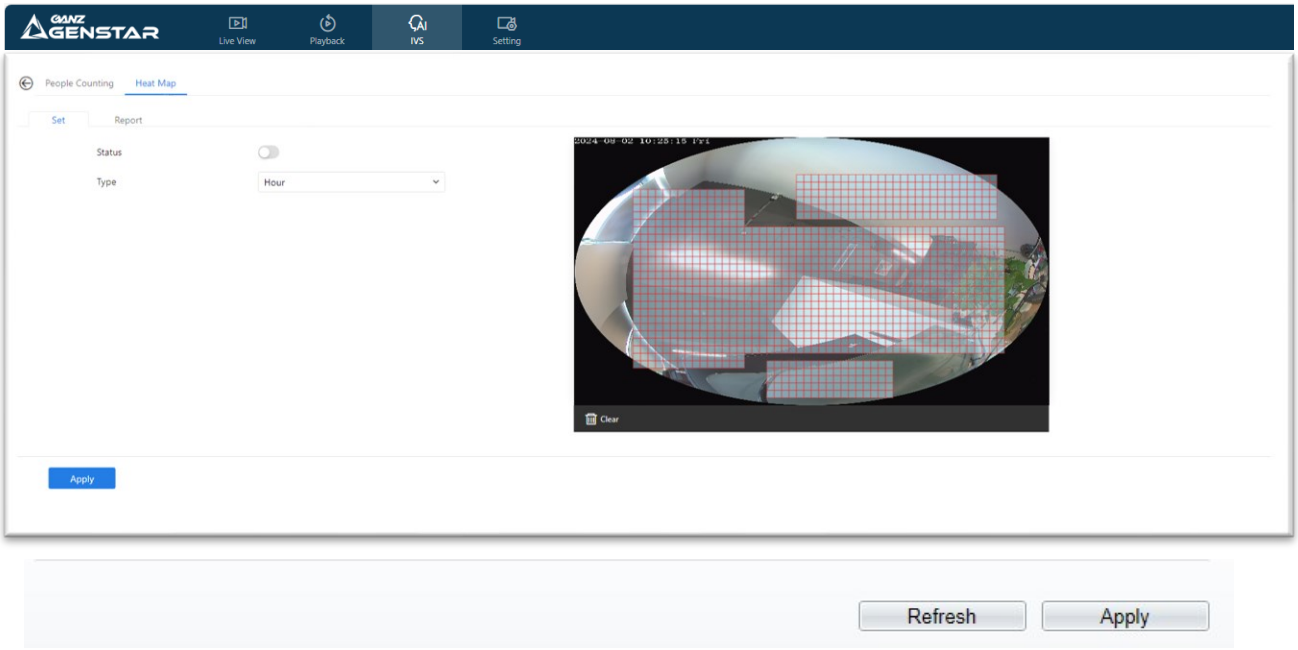
After the camera enables the heat map, it will automatically detect and count the flow of personnel in the detection area, and identify the relative frequency of flow activities through different colors.

NOTE

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

Step 1 Choose **IVS > Behavior Analysis > Heat map > Set** interface, as shown in Figure 11-10.

Figure 11-10 Heat map set page



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

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

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

----End

11.5.5.2 Heat Map Report

Step 1 Choose **IVS > Behavior Analysis > Heat Map > Report,** the page as shown in Figure 11-12.

Figure 11-12 Heat map report page

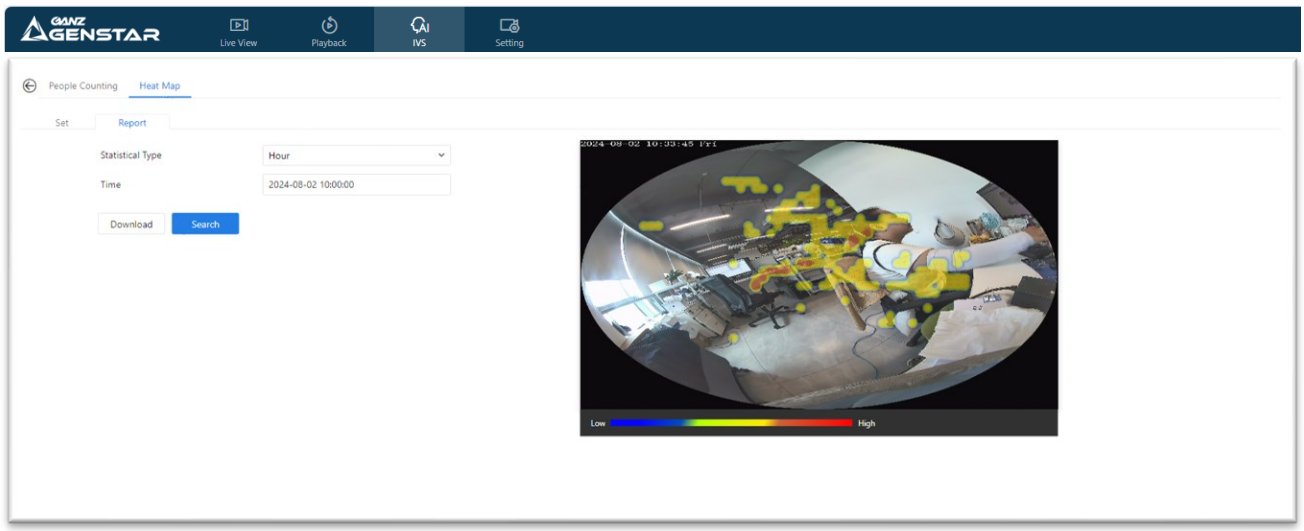


Table 11-1 Parameters of heat map

Parameter	Description	Setting
Type	Choose Data or Picture. Data is presented in numerical form to download; The picture is displayed in different areas with different colors on the downloaded picture.	[How to set] Choose from the drop-down list [Default value] **Normal mode**
Statistics type	Year/ Month/ Day/ Hour can be chosen.	[How to set] Click the button on. [Default value] **OFF**
Time	Select a retail time to search or download heat map data.	[How to set] Choose from the drop-down list
Heat map bar	Distinguish different degrees by different colors. The maximum value is maximum data of single area in the heat map at the current set time.	Null

Step 2 Set the time to search., “Search” or “Download” the relevant heat map statistic.

click "Search" to view directly, or click " Download " to download the data in CSV format to a local folder

----End

Table 11-2 describes the common faults and solutions.

Table 11-2 Common faults and solutions

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

Acronyms and Abbreviations

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

NTP	Network Time Protocol
NTSC	National Television Standards Committee

O

OSD	On Screen Display

P

PAL	Phase Alteration Line
PoE	Power over Ethernet
PPPoE	Point-to-Point Protocol over Ethernet
PTZ	Pan/Tilt/Zoom

R

ROI	Region of Interest
RSTP	Rapid Spanning Tree Protocol

S

SMTP	Simple Mail Transfer Protocol
SSL	Secure Sockets Layer

V

VBR	Variable Bit Rate