

QUALVISION

PTZ Network Camera

User Manual

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Regulatory Information

FCC Information

Please take attention that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.





FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Symbol Conventions

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


Symbol	Description
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Warning	Remind the matters to be noted in the operation, improper operation may lead to data loss or equipment damage.
 Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Firmly connect the plug to the power socket. Do not connect several devices to one power adapter. Power off the device before connecting and disconnecting accessories and peripherals.
- Shock hazard! Disconnect all power sources before maintenance.
- The equipment must be connected to an earthed mains socket-outlet.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- ⚡ Indicates hazardous live and the external wiring connected to the terminals requires installation by an instructed person.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.
- Input voltage should meet the SELV (Safety Extra Low Voltage) and the LPS (Limited Power Source) according to the IEC62368.
- High touch current! Connect to earth before connecting to the power supply.
- If smoke, odor or noise rises from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- Use the device in conjunction with an UPS, and use factory-recommended HDD if possible.
- This product contains a coin/button cell battery. If the battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- This equipment is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- Dispose of used batteries according to the instructions.
- Keep body parts away from fan blades and motors. Disconnect the power source during servicing.
- Keep body parts away from motors. Disconnect the power source during servicing.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- The device is designed for indoor use only. Install it in a well-ventilated, dust-free environment without liquids.
- Ensure the recorder is properly secured to a rack or shelf. Major shocks or jolts to the recorder as a result of dropping it may cause damage to the sensitive electronics within the recorder.
- The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids shall be placed on the equipment, such as vases.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc. The openings shall never be blocked by placing the equipment on a bed, sofa, rug or other similar surfaces.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- For certain models, the equipment has been designed, when required, modified for connection to an IT power distribution system.
-  identifies the battery holder itself and identifies the positioning of the cell(s) inside the battery holder.
- + identifies the positive terminal(s) of equipment that is used with, or generates direct current. - identifies the negative terminal(s) of equipment that is used with, or generates direct current.
- Keep a minimum 200 mm (7.87 inches) distance around the equipment for sufficient ventilation.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- Use only power supplies listed in the user manual or user instructions.
- The USB port of the equipment is used for connecting to a mouse, keyboard, USB flash drive, or Wi-Fi dongle only.
- Use only power supplies listed in the user manual or user instructions.
- Do not touch the sharp edges or corners.

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1. Overview

1.1 Product Introduction

The Network Speed Dome is an integration of the HD zoom camera and the PT module, ideal for remote monitoring. The device is easy to install and operate. Through Ethernet control, the device is able to compress and transmit images to multiple users. With network attached storage (NAS), the device is able to store and retrieve data easily.

The device is well suited for HD monitoring in various places, such as rivers, forests, roads, railways, airports, ports, oil fields posts, squares, parks, scenic areas, streets, stations, stadiums, residential blocks, libraries, shopping malls, hotels, government buildings, museums, and banks.

1.2 Key Function

The key functions of the device are as follows.

Event Function

The device detects basic events and multiple smart events.

PTZ Function

The device supports PTZ Functions such as presets, scans, patrol, and power-off memory.

1.3 System Requirement

Your computer should meet the requirements for visiting and operating the product.

Items	Recommended Specifications
Operating System	Microsoft Windows XP SP1 or later
CPU	2.0 GHz or faster
RAM	1GB
Display	1024×768 resolution or higher
Web Browser	<ul style="list-style-type: none">● Apple Safari version 5.0.2 or later● Mozilla Firefox version 5.0 or later● Google Chrome version 18 or later● Microsoft Edge version 107 or later

Table 1-1 System Requirements



Note

The following contents are written based on using Microsoft Windows 10 and Microsoft Edge.

1.4 Network Connection

Before you start:

- Before accessing a network camera (also known as PTZ Camera or IPD) from a PC, you need to connect the network camera to the PC directly with a network cable or via a switch or router.
- The network camera supports direct power supply and PoE power supply, please make sure the camera is properly powered up before using it.

The following figures show the two methods of cable connection between a network camera and a computer:

1. Connecting Directly.

Connect the network camera to the PC with a network cable directly as shown in the following picture.

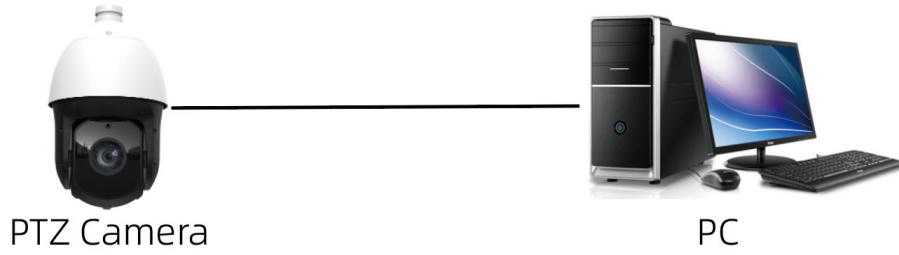


Figure 1-1 Connecting Directly

2. Connecting via a Switch or a Router.

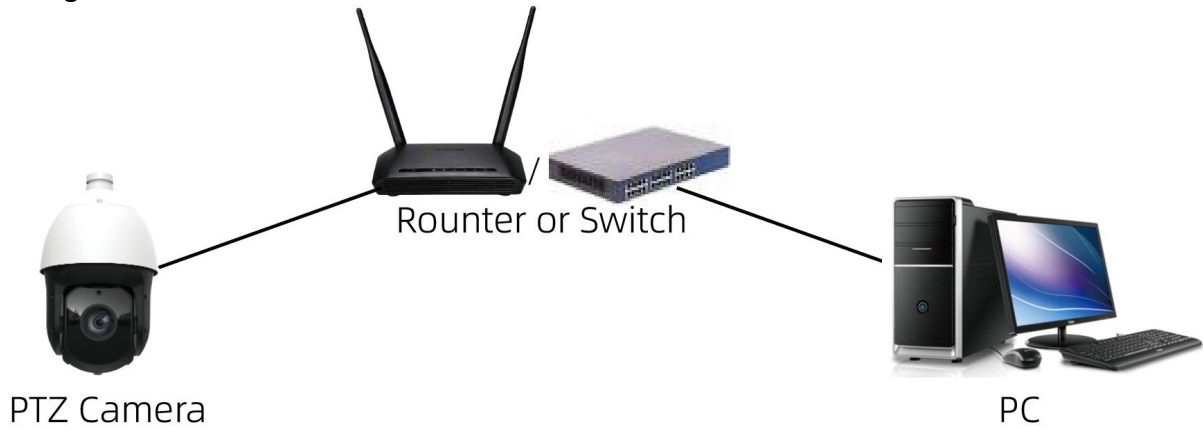


Figure 1-2 Connecting via a Switch or a Router

2. Device activation and Login

2.1 Login

The following login procedure is exemplified base on Microsoft Edge.

1. Open up the login page by entering the correct IP address of your camera in the address bar.
2. Enter your username and password, and then click Login.
3. If you log in with Save Password checked, you will not need to enter your password from the next login. To ensure security, we don't recommend using this feature.
4. After login, the camera live view will be displayed by default.

2.2 Install plug-ins

If you are logging in for the first time, Please Click the '**Download**' to download the browser plug-ins (**vLocalServerSetup.exe**).

1. Click in the following order: "**Downloads-Keep-Show more-Keep anyway**". The installer of the plug-in named vLocalServerSetup.exe will be downloaded. Double click on the installer to install the plug-in. You need to refresh your browser to complete the installation.

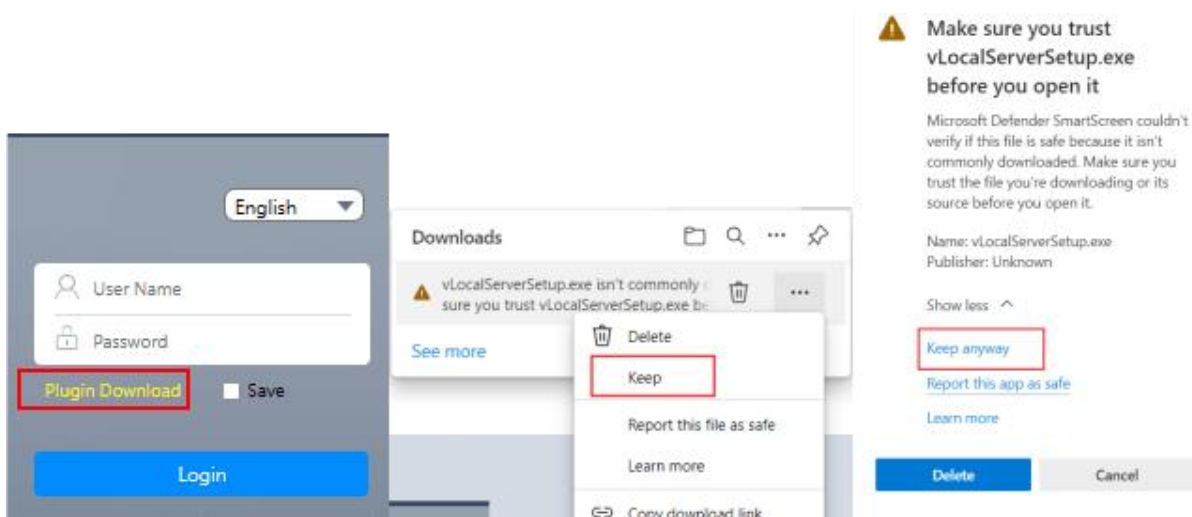


Figure 2-1 Download

Note

When installing the vLocalServerSetup.exe, a notification may pop up on your PC. Please click **More info** and **Run anyway** to install it.

2. Install **vLocalServerSetup.exe**.

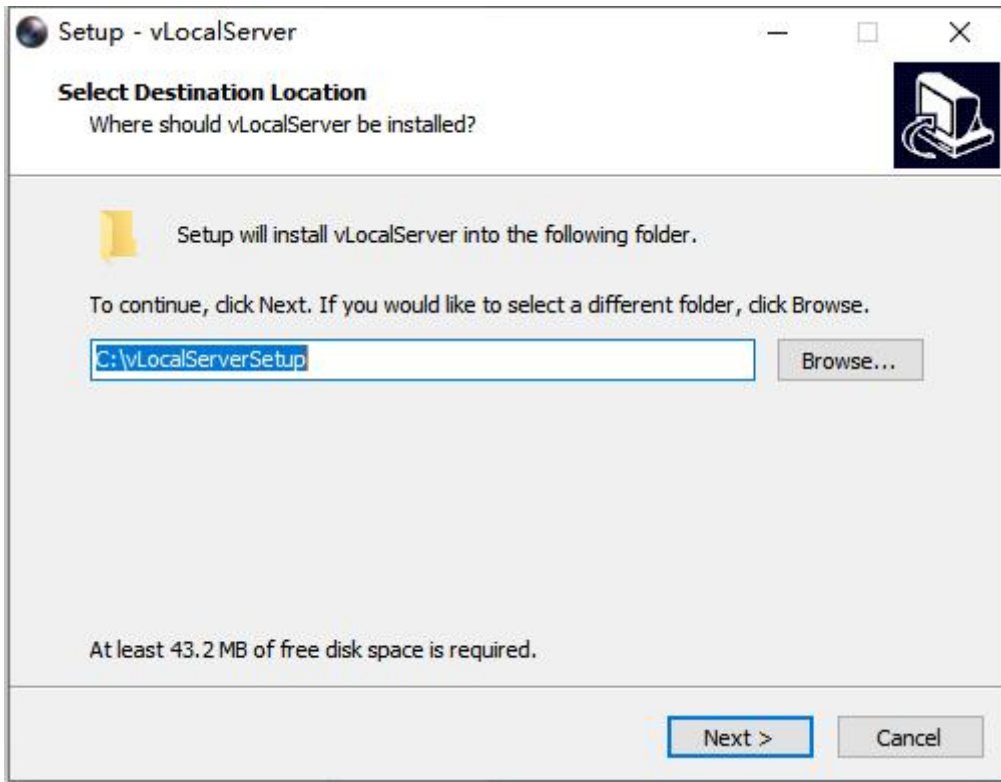


Figure 2-2 Select folder to install

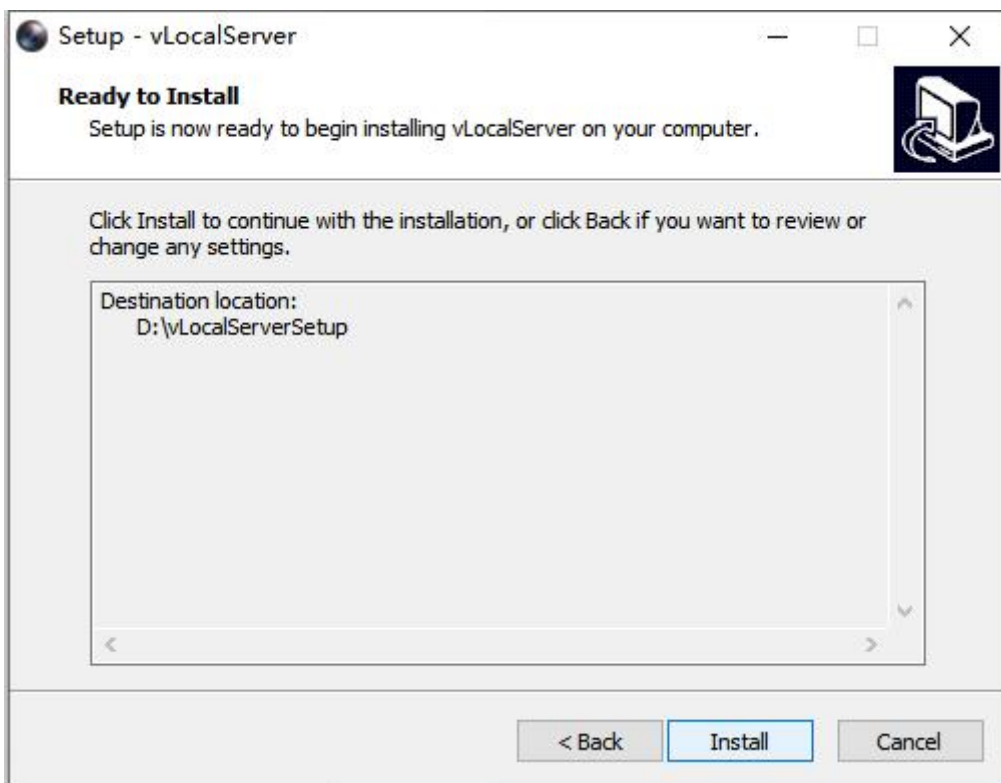


Figure 2-3 Install

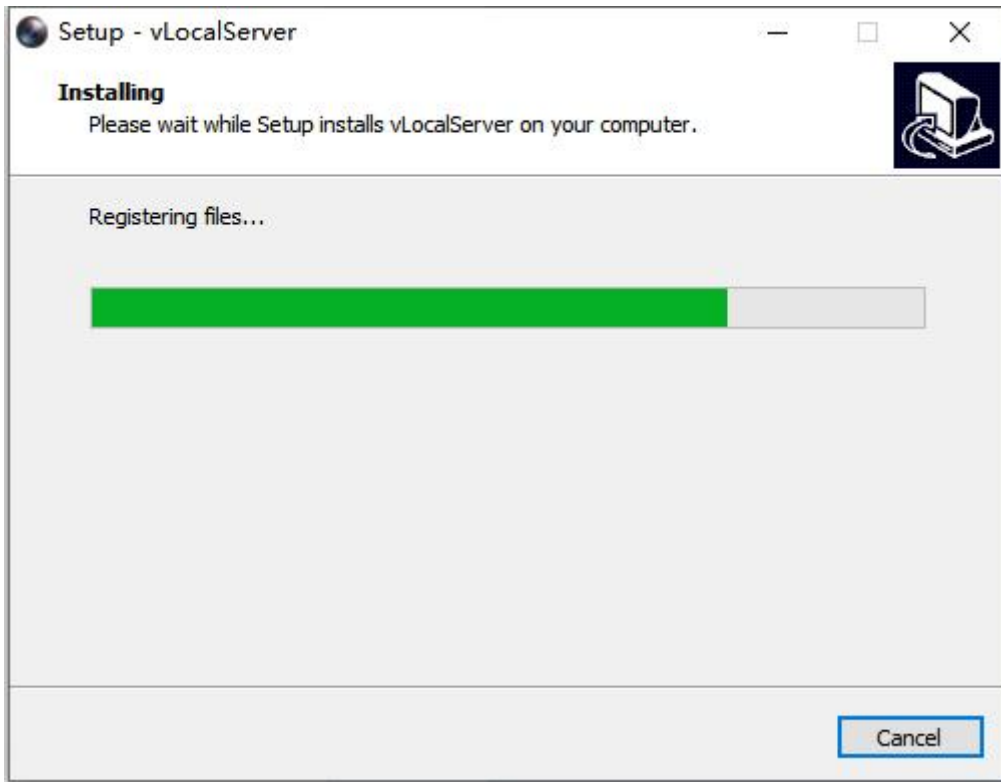


Figure 2-4 Installing

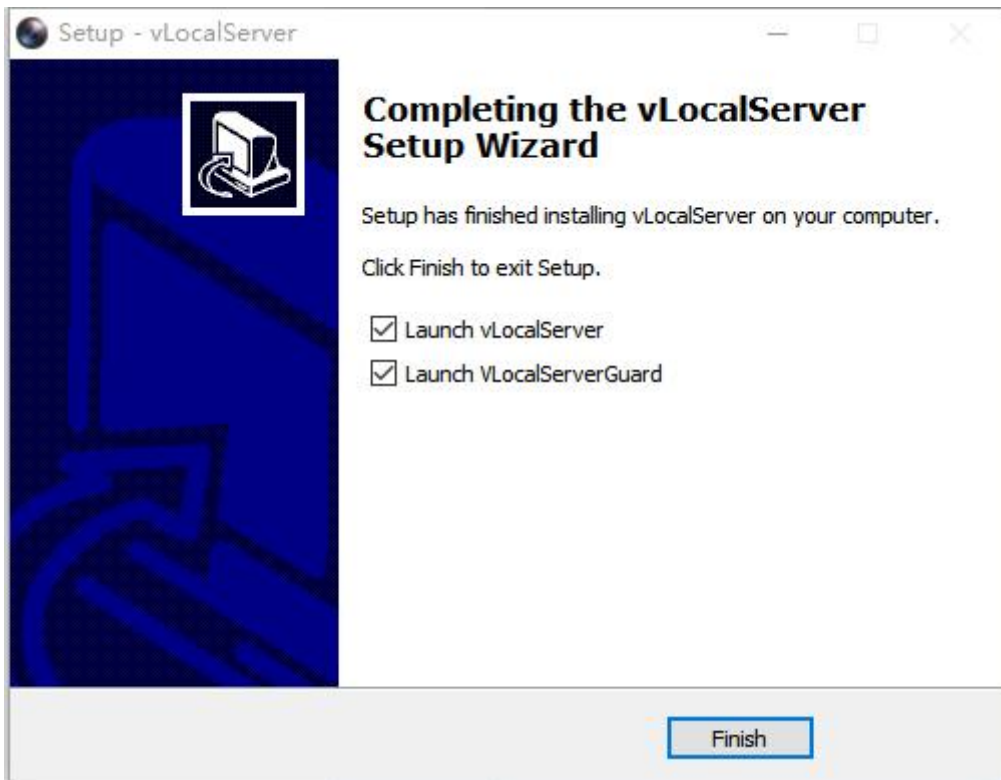


Figure 2-5 Finish

3. Live View

This chapter mainly introduces the parameters of live view, corresponding function of each icons and PTZ settings.

3.1 Introduction of Live View

By default the live view window is displayed when you are logged in to the Web interface. , as shown in the following picture.



Figure 3-1 Live View

No.	Items	Description
1	Menu	You can navigate between Live View, Playback, Application, Alarm, Set and Account pages in this area.
2	Preview window	The Live video will be displayed in this area.
3	PTZ control area	You can perform panning, tilting and zooming action of the camera.
4	Toolbar	You can adjust the size of the live view window, set stream type; You can also perform operations such as start/stop live view, local snapshot, record, audio on/off, etc.

Table 3-1 Live View

Button	Description
	Live viewing the main stream
	Live viewing the sub stream
	Preview with 3rd stream



















	Full screen
	Self-adaptive screen size
	Set the aspect ratio of the live view screen to 4:3
	Set aspect ratio of the live view screen to 16:9
	Set the aspect ratio of the live view screen in accordance with the video source
	Electronic zoom on/off
	Dynamic Tracking Open/Close
	Talk
	Multicast (require supporting routers)
	Device Snapshot
	Local Snapshot
	Local Record
	Audio
	Start/Stop live view
	Focus/Zoom control
	Device IP address – Channel No.– Real-time Bitrate – Stream type(Main, Sub or Third)

Table 3-2 Live View Button Description

 **Note**

The buttons may vary depending on camera models.


3.2 Start and Stop Live View

Click **Live View**. Click  to start live view. Click  to stop live view.

3.3 Full Screen Preview






This function is used to access full screen preview mode.

Steps:

1. Click **Live View**.
2. Go to toolbar click  to access the full screen preview mode.
3. Use Esc button to quit the full screen preview mode.

3.4 Adjust Aspect Ratio




Steps:

1. Click **Live View**.
2. Click  to select the aspect ratio.
 -  refers to 4:3 window size.
 -  refers to 16:9 window size.
 -  refers to original window size.
 -  refers to self-adaptive window size.

3.5 Preview Stream Type

This function is used to select the Preview stream type according to your needs. For the detailed information about the stream type information, please refer to Stream Type.



Steps

1. Click **Live View**.
2. Go to toolbar click
 -  refers to Main Stream.
 -  refers to Sub Stream.
 -  refers to 3rd Stream.

3.6 Dynamic Tracking lines and Smart Rules

This function is used to enable the dynamic tracking lines and smart rules in preview for the detail information about the smart rules, please refer to **8.4 Smart Event** for detail.


Steps:

Click   to enable /disable the dynamic tracking lines and smart rules in preview.

3.7 Multicast view

This function is used to enable the multicast view. Please refer to **5.3.12 Multicast** for detail.





Steps:


Click  to open the multicast view

3.8 Recording Videos and Capturing Pictures Manually

This function is used to capture the picture and record videos from the Live View manually.



Steps:

1. Click  to tack a snapshot and save the picture to the device memory.
2. Click  to tack a snapshot and save the picture to the specified path on your PC.
3. Click  to start a manual recording session and click  to end the session.

 **Note**
The video will be saved to the specified path on your PC. For path configuration, please refer to **5.1 File Directory**.

3.9 Audio and Talk to the Device

Steps:

1. Click  to enable the audio. You shall hear the sound from the microphone on the PTZ camera.
2. Click  to talk to the device, the speaker on the PTZ camera will play the sound from the microphone on your end.

 **Note**
This feature is only supported on PTZ cameras with the Mic or speaker.

4. PTZ Control

In live view interface, you can use the PTZ control buttons to control the device panning, tilting and zooming.

4.1 PTZ control


Click  to show PTZ control page.



Figure 4-1 PTZ control page


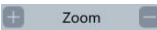
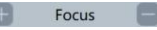

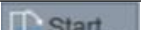



Button	Items	Description
	Directional Button	Click and hold the directional button to pan/tilt the device.
Step	Step(1~8)	Set the step to adjust the speed of pan/tilt movement..
	Zoom	Click +/- button, and the lens zoom in/out.
	Focus	Click +/- button, and lens focuses near/far.
	Iris	When the image is too dark, click the + button to enlarge the iris. When the image is too bright, click the - button to stop down the iris.
	Horizontal Rotation	Start/End horizontal rotation

Table 4-1 Area Functions Introduce of PTZ

4.2 Set Preset

A preset is a predefined image position. For the defined preset, you can call the preset number to view the position.


Steps:

1. Click  to show PTZ control page, and click .
2. Use the PTZ control buttons to move the lens to the desired position.
3. Select a preset number from the preset list, and click  to finishing the setting.

Note

Some presets are predefined with special command. You can only call them but not configure them.

4. Repeat the steps above to set multiple presets.

Click  to call the preset.

Click  to delete the preset.

Note

You can delete all presets in **Set** → **System Settings** → **PTZ** → **Clear config**. Check **Clear All Presets**, and click **Save**.

4.2.1 Special Presets

You can call the following presets with special demands to enable corresponding functions.

Preset No.	Function	Preset No.	Function
33	Back to zero	39	Horizontal scan
34	Stop scanning	40	Area scan
35	Frame scan	41	Automatic flip
36	Panorama scan	42	One-click cruise
37	Random scan	43	One-click watch
38	Vertical scan		

Table 4-2 Special Presets





4.3 Set Patrol Scan

Patrol scan is a function to automatically move among multiple presets.

Before You Start

Make sure that you have defined more than one presets. See **4.2 Set Preset** for detailed configuration.

Steps:

1. Click  to show the setting panel, and click  to enter patrol setting interface.
2. Select a patrol number from the list and click .
3. Click  to add presets.

Preset


Select predefined preset.



Speed

Set the speed of moving from one preset to another.

Time

It is the duration staying on one patrol point.





Click  Delete the presets in patrol.

Click   Adjust the preset order.



Note

A patrol can be configured with 32 presets at most, and 2 presets at least.

4. Click **Save** to finish a patrol setting.
5. Repeat the steps above to configure multiple patrols.
6. Operate patrols.
 -  Call the patrol.
 -  Stop patrolling.
 -  Delete the patrol.
 -  Set the patrol.










Note

You can delete all patrols in **Set → System Settings → PTZ → Clear config**. Check **Clear All Patrol Routs**, and click **Save**.

4.4 Set Linear Scan

This function sets two vertical boundaries for the camera's movements, the device can only move within the limited range.

Steps:

1. Click  to show the setting panel, and click  to enter linear setting interface.
2. Use the direction button to move the camera to the estimated position for the left boundary, click  save the left limit.
3. Use the direction button to move the camera to the estimated position for the left boundary, click  save the right limit.
4.  Call the linear scan.
5.  Stop the linear scan.
6. Click  to add presets.



Note




You can delete all limit in **Set → System Settings → PTZ → Clear config**. Check **Clear all limit settings**, and click **Save**.

4.5 Set Pattern Scan

This function records the movement pattern and the device can move as the recorded pattern.



 **Note**

This function is only supported by certain models.

1. Click  to show the PTZ control panel, and click .
 2. Select one pattern scan path that needs to be set.
 3. Click  to start recording pattern scan.
 4. Click PTZ control buttons as demands.
-

 **Note**

Recording stops when the space for pattern scan is 0%.

5. Click  to complete one pattern scan path settings.
 6. Click  to call pattern scan.
-

 **Note**

You can delete all patrols in **Set → System Settings → PTZ → Clear config**. Check **Clear all the tracks**, and click **Save**.

4.6 Set Auto Tracking

Before You Start

Make sure that you have defined presets. See **4.2 Set Preset** for detailed configuration.

Steps:

1. Go to **Set → Event → Smart Event → Area Intrusion**.
-

 **Note**

This article uses **Area Intrusion** as an example to illustrate the example, other smart event, such as Line Crossing/Region Entrance/Region Exiting are the same configuration steps.

2. Check the checkbox of **Enable** to enable the function.
 3. Select the **PreSet**. This is used for camera repositioning after the auto tracking completes.
-

 **Note**

This article uses PreSet2 as an example to illustrate the example, please refer to the actual situation.

4. Select the **Human/Vehicle Shape Filter**, the Area Intrusion will be triggered only by Human/Car.

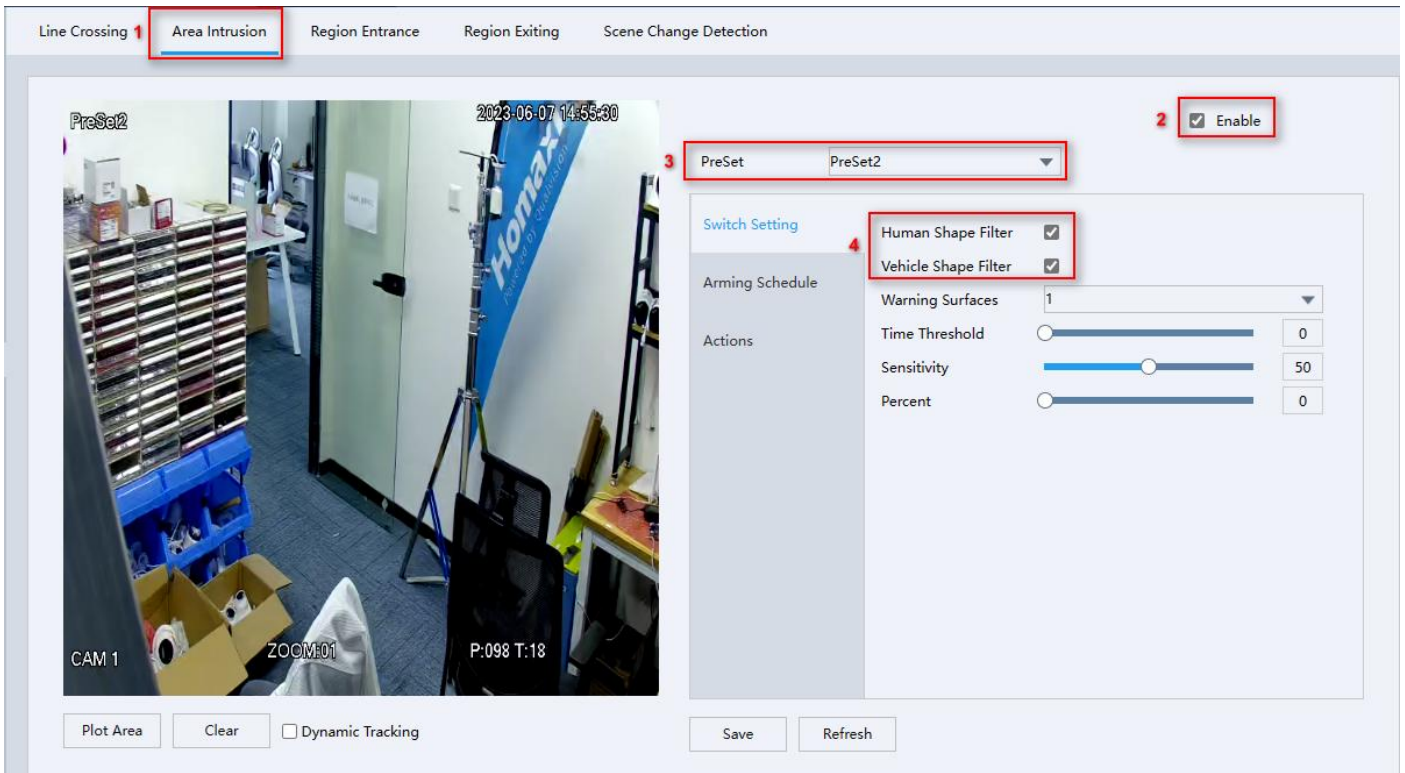


Figure 4-2 Set Auto Tracking

5. Draw Area :

- 1) Click the **Plot Area** button, and a virtual rectangle is displayed on the live image.
- 2) Click-and-drag the rectangle, so you can modify the rectangle's position as desired.
- 3) Click on the line, the vertices of the rectangle represented by the red squares, can be dragged around to modify the shape of the area as you desire.

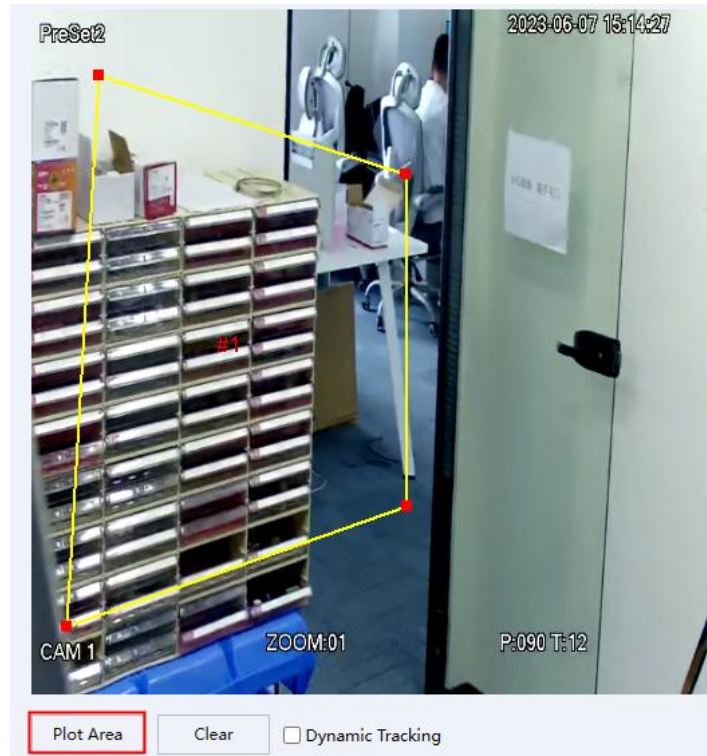


Figure 4-3 Draw Area

6. Set **Auto Track** and **Auto Track Time**, click **Save**.

Enable

PreSet PreSet2

Switch Setting

Arming Schedule

1 Actions

Alarm Output 1

Alarm Delay 10 Sec 10~300

Show Message Send Email Buzzer

Record Delay 10 Sec 10~300

Record Channel 1

PTZ Act Set

Tour 1

Snapshot 1

2 AutoTrack

3 AutoTrack Time 30 Sec 0~300

4 Save Refresh

Figure 4-4 Actions

5. Configuration

5.1 File Directory

You can specify the path for saving the record files, snapshot pictures on your PC by performing the following steps.

Go to **Set** → **File Directory**.

- **Record video**

Record size: Set the maximum package size of the record file. Available options are **256MB**, **512 MB**, **1GB**.

Record Path: Specify the path for saving the videos recorded manually from the Live View mode. You can click **Browse** and select a folder as the storage path.

Remote Path: Specify the path for saving the videos recorded manually or downloaded from the Playback mode. You can click **Browse** and select a folder as the storage path.

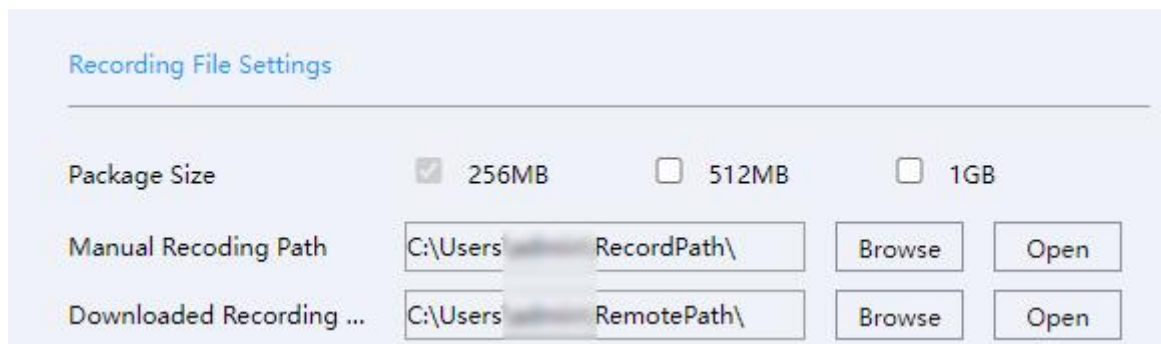


Figure 5-1 Recorded Video

- **Snapshot**

Picture Path: Specify the path for saving the snapshots taken manually from the Live View mode. You can click **Browse** to select a folder as the storage path.

Picture Path: Specify the path for saving the snapshots taken manually from the Playback mode. You can click **Browse** to select a folder as the storage path.

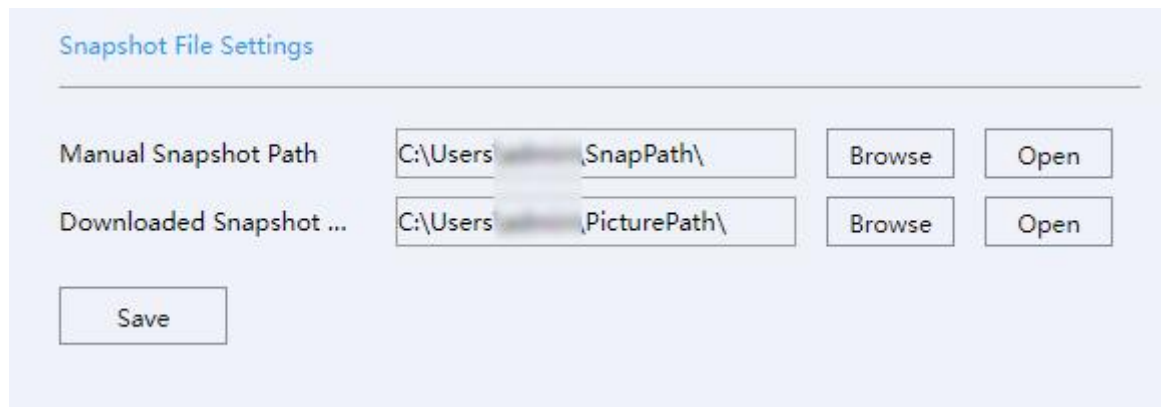


Figure 5-2 Snapshot

5.2 System Parameters

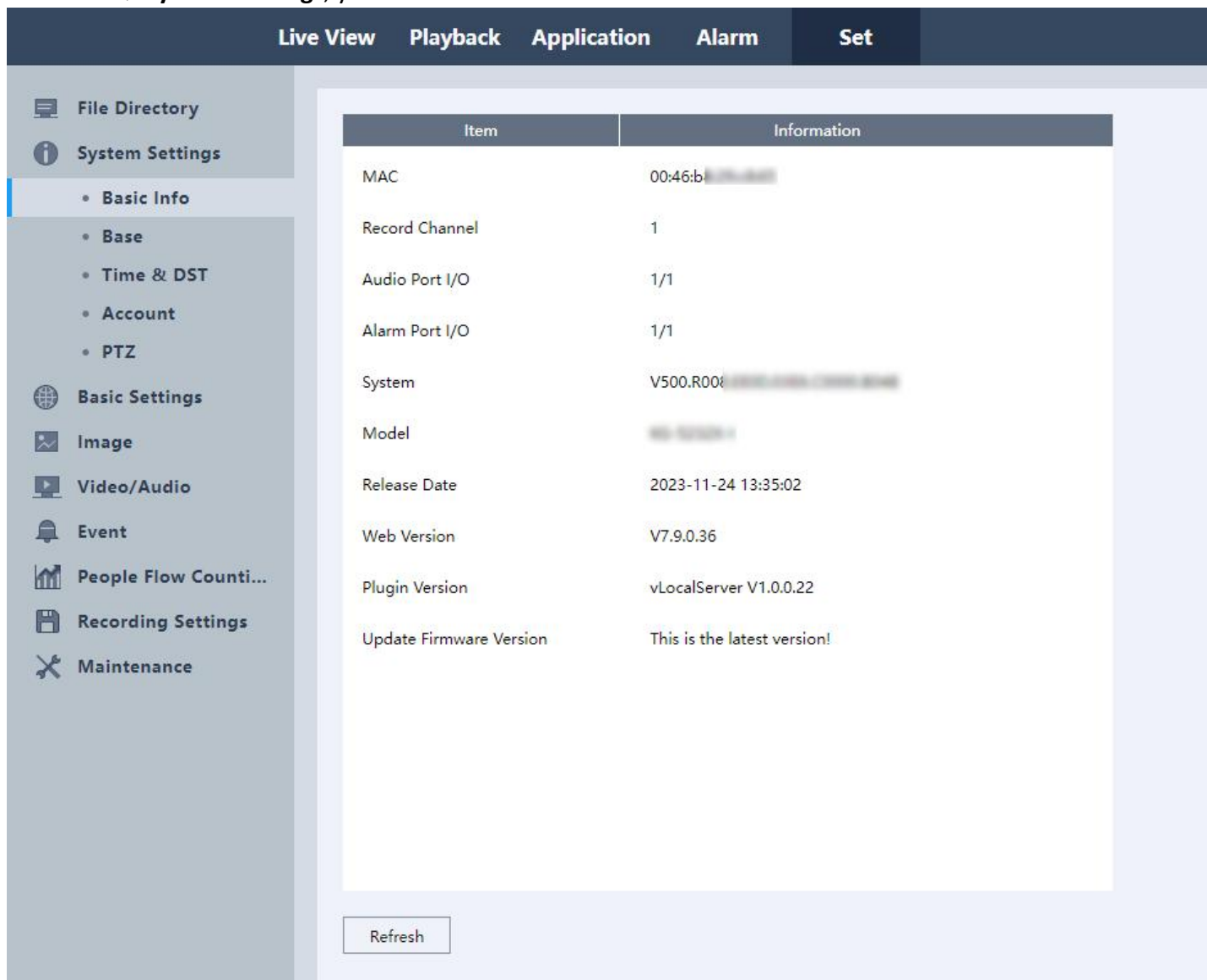
In this section, you can configure device system parameters.

5.2.1 Check Device Information

In this page you can view the device information such as firmware version, MAC address, model, etc.

Steps:

Go to **Set** → **System-Settings**, you will see the device information.



The screenshot shows a web interface with a top navigation bar containing 'Live View', 'Playback', 'Application', 'Alarm', and 'Set'. The 'Set' tab is active. On the left is a sidebar menu with categories: 'File Directory', 'System Settings' (expanded), 'Basic Info', 'Base', 'Time & DST', 'Account', 'PTZ', 'Basic Settings', 'Image', 'Video/Audio', 'Event', 'People Flow Counti...', 'Recording Settings', and 'Maintenance'. The main content area displays a table with two columns: 'Item' and 'Information'. Below the table is a 'Refresh' button.

Item	Information
MAC	00:46:b1:27:8d:88
Record Channel	1
Audio Port I/O	1/1
Alarm Port I/O	1/1
System	V500.R008
Model	WS-5020P-1
Release Date	2023-11-24 13:35:02
Web Version	V7.9.0.36
Plugin Version	vLocalServer V1.0.0.22
Update Firmware Version	This is the latest version!

Figure 5-3 System Settings

 **Note**



When you see “New version available!” on the interface, it is recommended you manually to download the new software and update it.

5.2.2 Set Device Language, Video Format & Host Name

You can perform the following steps to set Device Language, Video Format and Host name.

Steps:

Go to **Set** → **System Settings** → **Base**.

- **Language:** Click , and select the language you want to set. Click **Save** to save the settings.
- **Video standard:** Click , and select the video format **PAL / NTSC** you want to set. And click **Save** to save the settings.
- **Host name:** You can edit the Host name as you want to set. Click **Save** to save the settings.

 **Note**

The host name will show on Network and when using the Email function. Please refer to **5.3.9 Email** for detail.

5.2.3 Time and Date

You can perform the following steps to set time format, DST, etc.

● Set Manually or Sync with PC

Steps:

1. Go to **Set** → **System Settings** → **Time & DST**.

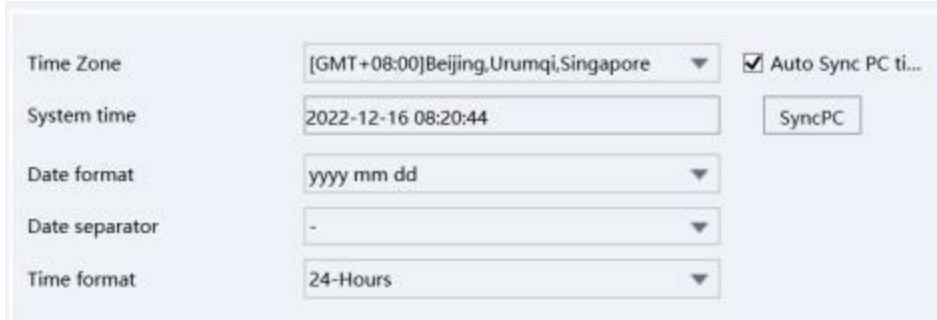


Figure 5-4 Time

2. Set the correct time zone and system time.
3. Optional: Click **SyncPC** to synchronize the time settings of your camera with your PC.
4. Set the date and time format.
5. Click **Save**.

● Set DST (Daylight Saving Time)

Support to auto-change the device time.

Steps:

1. Go to **Set** → **System Settings** → **Time & DST**.



Figure 5-5 DST

2. Enable **DST**.
3. Choose the DST format **Day of Week** or **Date**.
4. Set the start date and end date.
5. Click **Save**.

● Set NTP

Device time will be synchronized with the NTP server.

Steps:

1. Go to **Set** → **System Settings** → **Time & DST**.

A screenshot of a configuration interface for NTP. It features a light blue background with a white border. At the top, there is a label 'NTP' followed by an unchecked checkbox and the text 'Enable'. Below this are three input fields: 'Host IP' containing 'time.nist.gov', 'Port' containing '123', and 'Update Time' containing '10'. To the right of the 'Update Time' field is the text 'min'.

Figure 5-6 NTP

2. Enable **NTP**.
3. Set **Host IP** (NTP Server).
4. Set the **Port** number.
5. Set **Update Time**. The device will synchronize the time with the NTP server at this interval.
6. Click **Save**.







5.2.4 User and Account Manage

You can add/delete users, modify passwords of certain users and block IP addresses in this section.

- **Create group and user account**

Steps:

1. Go to **Set** → **System Settings** → **Account**.

No.	Group	User Name	Edit	Modify Password	Delete User
1	admin	admin(Reuseable)			
2	user	guest(Reuseable)			


Add Group
Add User
Modify group
Delete Group

Figure 5-7 Account

2. Click **Add Group** to create a new group, set the group name and authority, click **OK**.
3. Click **Add User** to create a new user, set the username, password, group and authority, click **OK**.


- **Modify user password**

Steps:

1. Go to **Set → System Settings → Account**.
2. Select the user whose password you want to change.
3. Click **Modify Password**  , input the Old Password, New password and Confirm password.
4. Click **Save**.

- **Modify username and authority**


Steps:

1. Go to **Set → System Settings → Account**.
2. Select the user whose information you want to modify.
3. Click  . You can change the user name, select the authority you want to change.

4. Click **OK**.

Delete User

Steps:

1. Go to **Set → System Settings → Account**.
2. Click the **Delete User** button () after the user need to be deleted.
3. Enter the username into the popup dialog window to confirm.
4. Click **OK**.

● IP Block

You can add and delete IP addresses to and from the blacklist. Blocked IP addresses will not be permitted to access the device.

Steps:

1. Go to **Set → System Settings → Account → Access Control**.
2. Under Restriction Type, select **Blocked Sites**.
3. Enter the IP address you would like to block in the input box and click **Add IP**. This IP address will be added to the blacklist.

Optional: If you need to remove an IP address from the blacklist, you can select the IP address and click **Delete IP**.

4. Click **Save**.



Figure 5-8 Access Control

● IP Trust

You can add IP addresses to the whitelist. IP addresses not included in the whitelist will not be permitted to access the device.

Steps:

1. Go to **Set → System Settings → Account → Access Control.**

2. Under Restricted Type, select **Trusted Sites.**

3. Enter the IP address you would like to add to the whitelist and click **Add IP.** This IP address will be added to the whitelist.

Optional: If you need to remove an IP address from the whitelist, you can select the IP address and click

4. Click **Save.**



Figure 5-9 Access Control

● **View Online Users**

You can view the list of current online users in this section.

Steps:

1. Go to **Set → System Settings → Account → Online Users.**

The information (Username, IP address, Login Way and Login Time) of the users online would be displayed as the following picture.

No.	User Name	IP address	Login Way	Login Time
<input checked="" type="checkbox"/> 1	admin	192.168.120.11	XVR	2023-01-04 13:55:39
<input type="checkbox"/> 2	admin	192.168.120.41	Web	2023-01-04 01:21:19
<input type="checkbox"/> 3	admin	192.168.120.7	Web	2023-01-04 01:20:17
<input type="checkbox"/> 4	admin	192.168.120.9	XVR	2023-01-04 14:00:49

Sec 0~65535

Figure 5-10 Online Users

Optional:

If you need to disconnect a user from the device, you can select the user and click the **Disconnect** button. The selected user will be disconnected from the device instantly.

If you need to block an IP address of an online user from logging in, you can select the user from the online users list, enter a block duration, and click the **Block** button. IP addresses blocked by this method will not have the access to the device for the set duration.

5.3 Network Configuration



Note

Network Configuration page may vary depending on the model. Please be subject to the actual web interface.

5.3.1 Configure Device TCP/IP Settings

TCP/IP settings must be configured properly before you operate the device over a network.

- **NIC Type**

Setting **Adaptive** as default is recommended.

- **DHCP**

By enabling DHCP, the device will automatically obtain an IP address and other network configurations (subnet mask, default gateway) from the DHCP server. Please note that the IP address of the device might be changed by enabling this feature.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **TCP/IP**.
2. Enable **DHCP**.
3. Click **Save**.

Network connection type	Adaptive	<input checked="" type="checkbox"/> DHCP
IP Address	192.168.120.147	
MAC	00:46:b8:29:c8:65	<input type="button" value="IP conflict"/>
Sub Net Mask	255.255.255.0	
Gateway	192.168.120.1	

Figure 5-11 TCP/IP

● **Manual Configuration**

You can configure the network of the device manually. Input device IP Address, IP Subnet Mask, and Gateway, and click IP conflict to test check if the IP address is available.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **TCP/IP**.
2. Confirm that **DHCP** is disabled.
3. Enter IP address, Sub Net Mask, and Default Gateway.
4. Click the **IP conflict** button to check if there is an IP conflict.
5. Click **Save**.

● **DNS Server**

DNS is the abbreviation for domain name server. A DNS server is requisite if you want to access a site from the device through a domain name. It is also required for some features (e.g., sending emails, cloud storage). You need to configure **Preferred DNS Server** and **Alternate DNS Server** properly if you need to utilize these features.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **TCP/IP**.
2. Enter in **Preferred DNS Server** and **Alternate DNS Server**.
3. Click **Save**.

● **Transfer Mode**

You can specify the Transfer Mode as self-adaptive, fluency preferred or quality preferred.

<input checked="" type="checkbox"/> Transfer Mode	10M/100M Self-adaptive
---	------------------------

Figure 5-12 Transfer Mode

● **Max Users**

You can set the maximum number of IP addresses connected concurrently to the device.

● **Ports**

You can configure the ports of HTTP, HTTPS, Media, RTSP, RTMP in this section.

HTTP port	<input type="text" value="80"/>
HTTPS Port	<input type="text" value="443"/>
Media port	<input type="text" value="34567"/>
RTSP port	<input type="text" value="554"/>
RTMP port	<input type="text" value="1936"/>

Enable

Figure 5-13 Ports

● URL Templates

This section provides templates for RTMP and RTSP URLs, you can use them after modifications according to your specific situation.

RTMP URL	<input type="text" value="rtmp://[IP]:[PORT]/[Optional:stream?]mode=real&idc=[*]&ids=[*]"/>
RTSP URL	<input type="text" value="rtsp://[IP]:[PORT]/[Optional:stream?]mode=real&idc=[*]&ids=[*]"/>

Figure 5-14 URL Templates

5.3.2 Configure DDNS Settings

Support use the Dynamic DNS (DDNS) for network access.

DDNS is the abbreviation of Dynamic DNS, it maps the dynamically allocated IP address of the device to a static domain name that can be accessed by the external network.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **DDNS**.
2. Check the **Enable** checkbox.
3. Select your DDNS provider under **DDNS Type**, enter your **Domain Name**, **Username**, and **Password**.
4. Click **Save**.

Note

Our devices support multiple DDNS providers, such as Oray DDNS, CN99 DDNS, DynDNS DDNS, and NO-IP DDNS. You need to register an account before using. The following table includes the websites of our supported DDNS providers for your reference.

DDNS type	Website
Oray	http://www.oray.com/
DynDNS	http://dyn.com/dns/
NOIP	https://www.noip.com/
CN99	http://www.pubyun.com/

Table 5-1 DDNS Provider Websites

5.3.3 Configure NAT Settings

NAT is the abbreviation for Network Address Translation, it maps addresses and ports between your internal network and external network. You can configure the UPnP™ settings in this section.

Universal Plug and Play (UPnP™) is a networking architecture that provides compatibility among networking equipment, software, and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the home and in corporate environments.

By enabling this feature, you will not need to configure the port mapping for each port manually. The camera will be connected to the Wide Area Network via the router automatically.

Steps:

1. Go to **Set → Basic Settings → General → NAT**.
2. Click **Enable**.
3. Click **Save**.



Note

To ensure this feature can properly function, please make sure the UPnP feature on your router is enabled.

5.3.4 UPNP-TM

By enabling this feature, your network camera can be found as a network device on your network.

Steps:

1. Go to **Set → Basic Settings → General → UPNP-TM**.
2. Click **Enable** and enter the device name as you want.
3. Click **Save**.



Note

The default name of a device is its Cloud ID.

5.3.5 Bonjour

The same as UPNP-TM which is used in iMAC. Support Safari to check the device via bookmark-bonjour protocol.

Steps:

1. Go to **Set → Basic Settings → General → Bonjour**.
2. Click **Enable**, and input the device name you want to set.
3. Click **Save**.



Note

The default name of the device would be the Cloud ID of the Network Camera.

5.3.6 Cloud

By enabling Cloud features, users can access the information of the device (video, alarm, etc.) via APP and our IE Web platform.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **P2P**.
2. Click **Enable**.
3. Click **Save**.
4. Click the **Refresh** button to reload the page. Your device is connected to the Cloud when **Status** changed to **Connected**.

● **Access the device via APP**

Steps:

1. Ensure the device connected with Cloud.
2. Scan the iPhone/Android QR code to download the APP.
3. Scan the Cloud ID QR code to bind the device and access the device.

 **Note**

The default name of the device would be the Cloud ID of the Network Camera.

You can download our **vEye Pro** App by scanning the QR code on the page corresponding to your platform. To bind your cameras for later access, scan the Cloud ID QR code on the right. Note that you will be required to register an account prior to using **vEye Pro**.

● **Access the device via web**

Steps:

1. Ensure the device connected with Cloud.
2. Open your browser, enter the URL displayed by **IE Web** in the URL bar.

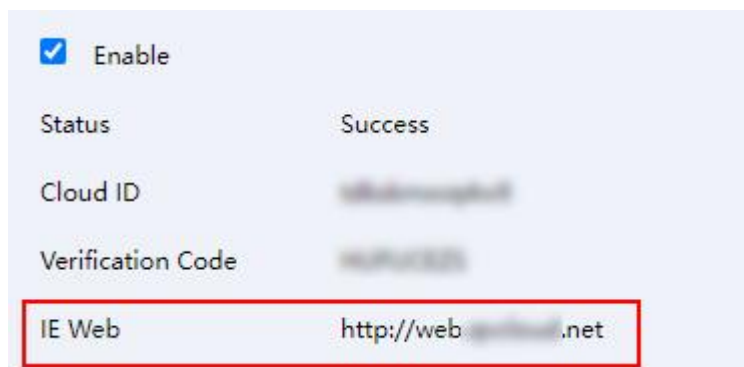


Figure 5-15 IE Web

3. Switch to **By device**, input **Cloud ID**、**Device username** and **Device password**.



Figure 5-16 By device

4. Click **Login**.

5.3.7 IPV6

Support to set the IPV6 address, subnet prefix length, Gateway, Preferred DNS, Secondary DNS.

Steps:

1. Go to **Set** → **Basic Settings** → **General** → **IPV6**.
2. Click **DHCP** or set the parameter settings.
3. Click **Save**.

5.3.8 FTP

FTP is the abbreviation for File Transfer Protocol, which is quintessentially designed for file transferring. In this section, you can configure FTP server related settings to enable the uploading of the captured pictures or recorded videos to the FTP server. The uploading process can be triggered by events or timed snapshot tasks.

Steps:

1. Go to **Set** → **Basic Settings** → **Advance Option** → **FTP**.
2. Select **Type**: Record FTP/Picture FTP.
3. Check **Enable** checkbox.
4. Enter the IP address in the **Server** input box and **Port** to your FTP Server.
5. Configure the FTP settings: enter the username and password required for logging into the FTP server.
6. Specify the directory and the file length for uploading.

Directory: Device will create a new folder on your FTP if specified directory doesn't exist.

File length: Recorded videos will be segmented into files with size that is not larger than the specified file length (Max. 65535 MB).

7. Click **FTP Test** to test the connection to your FTP server.

8. Set the **FTP Schedule**.

Channel	1-Network			
Week Day	Sun.		Standard	Event
Schedule1	00:00:00	23:59:59	<input type="checkbox"/>	<input type="checkbox"/>
Schedule2	00:00:00	23:59:59	<input type="checkbox"/>	<input type="checkbox"/>

Figure 5-17 FTP Schedule

9. Click **Save**.

 **Note**

To anonymously access (access without authentication) the FTP Server, check the **Anonymous** checkbox. Note that the anonymous access feature must be supported by the FTP server.

5.3.9 Email

The device can send Email notifications to all designated receivers when an alarm event (e.g., motion detection event, video loss, video tampering, etc.) is detected.

Before you start:

Please make sure the TCP/IP Settings has been configured properly.

Steps:

1. Go to **Set** → **Basic Settings** → **Advance Option** → **Email**.

2. Configure the following settings:

SMTP Server: The IP address or the domain name (e.g., smtp.263xmail.com) of the SMTP Server.

Email Encryption: None or SSL. When SSL is selected, emails will be sent after SSL encryption.

Port: The SMTP port. The default SMTP port is 25 (not secured) and the default SSL SMTP port is 465.

Snap Interval time: The time interval of snapshots.

Username: The email account of the sender.

Password: The password to the email account.

Sender: The name of the email sender.

Subject: The subject of emails.

Receiver 1/2/3: The email addresses of the receivers of the emails.

3. Click the **Mail Test** to test whether the settings are configured properly.

 **Note**

You can check with your email service provider for the SMTP settings.

5.3.10 SNMP

By enabling the SNMP feature, you can obtain the camera status, configurations, and alarm-related information. You can also manage the camera remotely when it is connected to the network.

Before you start:

Prior to configuring SNMP, please download the SNMP client and make sure you can receive information from camera via a SNMP port. Trap is the terminology in SNMP for a message sent from one device to another to

notify a specific event. By setting the **Trap Address** (the IP address of the trap receiver), the camera can send alarm events and exception messages to the surveillance center.



Note

The SNMP version you select should be the same as that of the SNMP client. You need to select from different versions according to the security level you required: SNMP v1 provides no security; SNMP v2 requires authentication for the access; SNMP v3 provides encryption and prior to using SNMP v3, HTTPS protocol must be enabled.

Steps:

1. Go to **Set** → **Basic Settings** → **Advance Option** → **SNMP**.
 2. Check one or multiple checkboxes in Enable SNMP v1, Enable SNMP v2, Enable SNMP v3 to enable the feature depending on your need.
 3. Configure the **SNMP settings**.
 4. Click **Save**.
-



Note

For a lower risk of information leakage, SNMP v3 is highly recommended instead of SNMP v1 or v2.

SNMP v1/v2	
<input type="checkbox"/> Enable SNMPv1	<input type="checkbox"/> Enable SNMPv2
Read Community	public
Write Community	private
Trap Address	127.0.0.1
Trap Port	162
Trap Community Name	public

SNMP v3	
<input type="checkbox"/> Enable SNMPv3	
Read Security Name	public
Security Level	no auth_no priv
Authentication Algorithm	<input checked="" type="radio"/> MD5 <input type="radio"/> SHA
Authentication Password	
Private-key Algorithm	<input checked="" type="radio"/> DES <input type="radio"/> AES
Private-key Password	
Write Security Name	private
Security Level	no auth_no priv
Authentication Algorithm	<input checked="" type="radio"/> MD5 <input type="radio"/> SHA
Authentication Password	
Private-key Algorithm	<input checked="" type="radio"/> DES <input type="radio"/> AES
Private-key Password	
SNMP Port	161

Figure 5-18 SNMP Settings

5.3.11 Https

HTTPS supplies authentication of the website and its associated web server, which protects you against Man-in-the-middle attacks.

Before you start:

Make sure HTTPS Port is configured properly in **General** → **TCP/IP** section before you enable the HTTPS feature on a device. For example, if the port number is set to 443 and the IP address is 192.168.1.64, you may access the device by entering `https://192.168.1.64:443` in the address bar of a supported web browser.

Steps:

1. Go to **Set** → **Basic Settings** → **Advance Option** → **Https**.
2. Check the **Enable** checkbox.

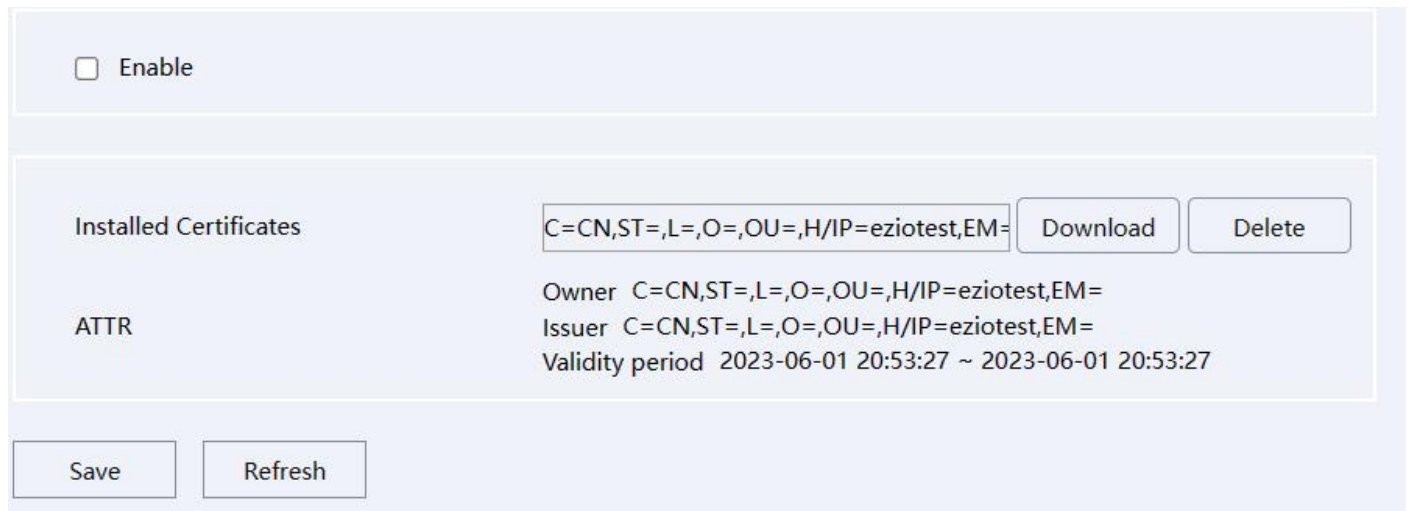


Figure 5-19 HTTPS

3. You need to **Download** the certificate and install it on your PC before visit the device via HTTPS.
4. Click **Save**.
5. The device will reboot to apply the settings.

Note

If the HTTPS feature is enabled but the certificate has not been installed on your PC, a notification about 'the certificate of this site has an issue' will be displayed when accessing the device webpage.

5.3.12 Multicast

In computer networking, multicast (one-to-many or many-to-many distribution) is group communication where data transmission is addressed to a group of destination computers simultaneously.

When multiple servers ask for the same information, the source device only needs to send the information only once. Hence, the most important benefit of the multicast is saving transmission bandwidth when the device is accessed by multiple remote clients.

Before you start:

Please confirm the router to which the device is connected supports Multicast feature.

Steps:

1. Go to **Set** → **Basic Settings** → **Advance Option** → **Multicast**.
2. Set the **Multicast IP**(224.0.0.0~239.255.255.255) and port(1025~65534)。
3. Click **Save**.

6. Image Parameter Configuration

Note

The Image Configuration page may vary depending on the model. Please be subject to the actual web interface.

6.1 Schedule Image Modes

You can select image mode amongst three options: **Auto Switch**, **Scheduled Switch** and **Universal Day And Night**.

- **Universal Day And Night:** The same configurations of the image will be applied to both day and night modes.
- **Schedule Switch:** You can configure image parameters for Daytime and Night modes individually. You need to set up a schedule for shifting between Daytime and Night modes if you select this option.
- **Auto Switch:** You can configure image parameters for Daytime and Night modes individually, and the device will switch the Daytime Night image parameters synchronize with the day/night mode.

Steps:

1. Go to **Set** → **Image** → **Image Configuration**.
2. Click the **Image Mode** drop-down box to select a mode.

6.2 Image Adjust

- **Brightness:** Specifies the brightness/luminance of the image. The parameter ranges from 0 to 100 with a default value of 50.
- **Contrast:** Specifies the ratio of tones or the ratio between the light and dark areas of an image. The parameter ranges from 0 to 100 with a default value of 50.
- **Saturation:** Specifies the colorfulness of the image. The parameter ranges from 0 to 100 with a default value of 50.
- **Hue:** Defines the quality of the color by its dominant wavelength. The parameter ranges from 0 to 100 with a default value is 50.
- **Sharpness:** Specifies the contrast of edges in the image. The parameter ranges from 0 to 100 with a default value of 50.

Steps:

1. Go to **Set** → **Image** → **Image Configuration**.
2. Click **Image Configuration** and set the parameters by sliding on the seek bars for each parameter.

6.3 Exposure

You can select the correct exposure mode to achieve the desired exposure effect.

- **Anti-Flicker:** Outdoor/50Hz/60Hz anti-flickering modes are supported. You can select depending on the environment.

Note: 50Hz/60Hz: Reduces stripes by limiting shutter frequency.

- **Exposure mode:** Auto/Manual.

Auto: the camera will auto-adjust the exposure time according to the environment.

Exposure time: Refers to the shutter time of the electronic shutter. 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/12, 1/15, 1/25, 1/30, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 are selectable. You can adjust according to the actual luminance condition.

Note: Exposure time is used to control the light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly.

- **Gain:** Control image signals so that the camera outputs standard video signals according to the light condition. To compensate the sensitivity of the sensor, the default value is 50. The bigger the value is, the brighter would the image be, and the noise would also be amplified to a larger extent.

Note: You can configure **Gain** parameter only when **Exposure Mode** is set to Auto.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Exposure** and set the parameters.

6.4 Backlight



Note

Only one of the function can be enabled at the same time.

- **Highlight Compensation:** This feature should be enabled when there is a bright light in the view. You can adjust Highlight Compensation parameter only when it's enabled. The parameter ranges from 0 to 100. Bigger the number is stronger the effect takes.
- **Backlight:** This feature of compensates light to an object in the front to make it clearer. You can select amongst Close, Default and Custom.
- **WDR/DWDR:** (Digital) Wide Dynamic Range can be enabled when there is a sharp contrast between the bright area and the dark area of the scene. You can configure the parameter (limit) of WDR/DWDR feature only when it's enabled. Bigger the parameter is, wider the dynamic range is.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Backlight** and set the parameters.

6.5 White balance

White balance is the white rendition function of the camera, and it's used to adjust the color temperature according to the environment.

Auto Mode: Camera will adjust the color temperature according to the environment automatically.

Manual Mode: User can set the R (red) gain and the B (blue) gain manually.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **White balance** and set the parameters.

6.6 Day and Night Mode Switch

- **Day/Night Switch:** You can select the Day/Night Switch mode according to different surveillance demand. Daytime, Night, Auto are selectable for day/night switch.
Daytime: The camera will stay in the day (color) mode.
Night: The camera will stay in the night (black and white) mode.
Auto: The camera outputs the optimum images according to the luminance condition. In this mode. The camera can switch between night mode and day mode automatically.
- **Filter time:** Refers to the interval time between the day/night switch range from 5-120s.
- **Fill type:** Support the select the **Infrared Lamp, Warm light.**
- **Smart illumination :** Under low luminance condition, When Smart motion detection or Perimeter Protection alarm are turned on, as long as there are human or vehicles in the monitoring screen, the warm light will turn on, and image switch to color, even if the alarm is not triggered.
- **Warm light:** You can set it to Close, Auto and Manual. **Close:** the warm light will not on;
Auto: the warm light will turn on automatically when the environment brightness is lower. **Manual :** the warm light always turn on.
- **Infrared Lamp:** You can set it to Close, Auto and Manual mode. **Close:** the Infrared lamp will not on. **Auto:** when the environment brightness is lower, the Infrared lamp will on and auto-adjust the lamp brightness to get the best image; **Manual:** when the environment brightness is lower, the Infrared lamp will on and the lamp brightness will be the highest.
- **Smart IR:** Adjustable IR brightness feature, it can adjust the IR automatically according to the image brightness. When the object is very close to the camera, the IR will be too bright for the object and it will be totally white to see the details. So Smart IR will adjust the output of IR brightness so that the object would not be so white and missing details. There are three options: Close, Manual and Auto. Close option is to close the IR, Manual is to adjust the IR brightness manually, Auto is to adjust the IR brightness automatically.

Steps:

1. Go to **Set-Image-Image Configuration.**
2. Click **Day/Night Switch**, and set the parameters.

6.7 Video Adjust

You can adjust the video image to the correct position as you want.

- **Image:** This feature allows you to view the image in different flipped directions. Left Right, Up Down, Centre and Close are the selectable options.
- **Rotate:** This function rotates the image with certain degrees, is essential for Corridor display mode. You can select the angle 90°, 180°, 270°.

Steps:

1. Go to **Set → Image → Image Configuration.**
2. Click **Video Adjust**, and set the parameters.

6.8 Enhancement

The device supports Noise Reduction and Defog features to enhance the camera image quality. You can adjust the NR Level to configure the intensity of Noise Reduction. Note that this feature may result in a blurry image.

You can enable the Defog feature to adjust the clarity of images captured in foggy or hazy conditions.

- **NR Level:** Noise Reduction Level, ranges from 0 to 6, the higher the value, the less noisy the video.
- **Defog:** You can enable the Defog feature when the environment is foggy and the image is misty. It enhances subtle details so that the image appears more clearly.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Enhancement** and set the parameters.
 - **Smart Light: Stop**-Smart Light will not on, **Auto**-Smart light will on when the linkage action occurs.

6.9 Privacy Mask

On certain occasions, you may need to set a masked area on the camera image to protect privacy. For example, the keyboard of an ATM machine. When a PTZ camera changes its position or zooms, you should make manual adjustment to the Privacy Mask accordingly to protect the area all along.

Steps:

1. Go to **Set → Image → Privacy Mask**.
2. Check the **Enable** checkbox.
3. Left click the mouse on the preview on the left and drag to draw a masked area (up to 4 areas for Fisheye Cameras).

Optional:

Move a mask area: Left click the mouse on a masked area and then drag it to the destination position.

Delete a mask area: Left click the mouse on a masked area and then click Delete. You can also click Clear id you want to delete all masked areas.

4. Click **Save**.

7. Video and Audio Configuration

This part introduces the configuration of video and audio related parameters.

Note

The Video/Audio configurations may vary depending on the model. Please be subject to the actual web interface.

7.1 Video Settings

This part introduces the configurations of video parameters such as stream type, video encoding, and resolution. To configure, go to **Set → Video/Audio → Video Settings**.

7.1.1 Stream Type

For devices that supports more than one stream, you can specify the type for each stream.

- **Main Stream**

This stream type stands for the stream of the best quality that the device supports. It usually provides the best resolution and the highest frame rate that the device supports. But high resolution and frame rate usually requires a larger storage space and a higher transmission bandwidth.

- **Sub Stream**

The stream usually offers comparatively low-resolution images, which consumes less bandwidth and storage space.

- **Mobile Stream**

The stream usually used for mobile APP preview, which consumes smallest bandwidth and storage space.

Steps:

1. Go to **Set → Video/Audio**.
2. Click **Video Settings, Stream type** and select the **Stream** you want to configure.

7.1.2 Video Encode

It stands for the compression standard the device adopts for video encoding.

- **H.264**

H.264, also known as MPEG-4 Part 10 and Advanced Video Coding (AVC), is a compression standard. Without losing too much image quality, it increases compression ratio and reduces the size of video file (in comparison to MJPEG or MPEG-4 Part 2 standards).

- **H.264+**

H.264+ is an improved compression coding technology based on H.264. By enabling H.264+, you can estimate the HDD consumption by its maximum average bitrate. Compared to H.264, H.264+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

- **H.265**

H.265, also known as High Efficiency Video Coding (HEVC) and MPEG-H Part 2, is a compression standard. In comparison to H.264, it offers better video compression at the same resolution frame rate and image quality.

- **H.265+**

H.265+ is an improved compression coding technology based on H.265. By enabling H.265+, you can estimate the HDD consumption by its maximum average bitrate. Compared to H.265, H.265+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

Steps:

1. Go to **Set → Video/Audio → Video Settings**.
2. Go to **Compression** to select the H.264/H.265.
3. Check the **Encode Enable** checkbox to enable H.264+/H.265+.
4. Click **Save**.

7.1.3 Complexity level

You can select the encode complexity level for your device: Baseline/Main Profile/High Profile. The higher complexity level, the smaller video stream code. (Selectable options may vary depending on the model)

Steps:

1. Go to **Set → Video/Audio → Video Settings → Complexity level**.
2. Select amongst Baseline/Main Profile/High Profile.
3. Click **Save**.

7.1.4 Video/Audio Enable

Configure the stream the Video and Audio support for a specific stream.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Enable**.
2. Select the **Video/Audio**.
3. Click **Save**.



Note

Disabling the Main Stream video is not supported.

7.1.5 Resolution

You can select video resolution according to actual needs on Main/Sub/Mobile Stream. Higher resolution requires a higher bandwidth and takes up a larger storage space.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Resolution**.
2. Select the **Resolution** you want to set.
3. Click **Save** to save and finish the settings.

7.1.6 Frame rate (FPS)

Frame rate is used to describe the frequency at which the video stream is updated, and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout. Note that a higher frame rate requires a higher bandwidth and takes up a larger storage space.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Frame rate (FPS)**.
2. Select the **Resolution** you want to set.
3. Click **Save**.

7.1.7 Bit Rate Type

CBR: Abbreviation for Constant Bit Rate. It means that the stream is compressed and transmitted at a comparatively fixed bitrate. The compression speed is fast, but mosaic may occur on the image.

VBR: Abbreviation for Variable Bit Rate. It means that the device automatically adjust the bitrate under the set Bitrate. The compression speed is slower than that of the constant bitrate. But it guarantees the image quality of complex scenes.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Bit rate Type**.
2. Select a Bit rate Type according to the needs.
3. Click **Save**.

7.1.8 Quality

When Bitrate Type is set as VBR, video quality would be configurable. You can select a video quality according to your actual needs. Note that higher video quality often requires higher bandwidth.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Video Quality**.
2. Select a Image quality.
3. Click **Save**.

7.1.9 Bit Rate (Kb/S)

The value of the bit rate is related on the video quality, higher video quality results in higher bit rate and requires a higher bandwidth. The limit of the bit rate value varies according to different resolution and image quality.

Steps:

1. Go to **Set → Video/Audio → Video Settings → Bit Rate (Kb/S)**.
2. Select the **Bit Rate** you want to set.
3. Click **Save**.

7.1.10 I Frame Interval

Frame interval defines the number of frames between 2 I-frames. In H.264 and H.265, an I-frame, or intra frame, is a self-contained frame that can be independently decoded without any reference to other images. An I-frame consumes more bits than other frames.

Thus, video with more I-frames, in other words, smaller I-frame interval, generates more steady and reliable data bits while requiring more storage space.

Steps:

1. Go to **Set → Video/Audio → Video Settings → I Frame Interval**.
2. Enter **I-Frame Interval** (from 10 to 100 ms) in the input box.
3. Click **Save**.

7.2 Audio Setting

You can set audio parameters such as audio encoding, environment noise filtering in this section.

- **Audio coding type:** 2 coding methods are supported: G.711A/G.711U.
- **Volume input:** Ranges from 0-100 with a default value of 50.
- **Noise reduction:** By enabling, the audio noise will be reduced.

Steps:

1. Go to **Set → Video/Audio → Audio Settings**.
2. Configure the parameters.
3. Click **Save**.

7.3 ROI

ROI (Region of Interest) encoding helps to assign more encoding resource to the region of interest. This feature can increase the quality of the ROI while the background information is less focused.

Steps:

1. Go to **Set → Video/Audio → ROI**.
2. Check the **Enable** checkbox.
3. Select a **Stream Type**.
4. Select a **Region No** and draw an ROI region.
5. Select an option under **Level Up** and input the Regional Name.
6. Click **Save**.
7. Optional: You can select unused region No. and repeat the steps above if you need to draw multiple ROI regions.

7.4 Snapshot Settings

You can configure the snapshot settings in this section. The snapshots will be taken when events trigger snapshot.

Steps:

1. Go to **Set → Video/Audio → Snapshot Settings**.
2. Select the **Resolution** and **Quality**.
3. Click **Save**.

7.5 OSD Setting

In this section, you can customize OSD (On-screen Display) information such as device name, time/date, font, color, and text overlay displayed on video stream.

Steps:

1. Go to **Set → Video/Audio → OSD**.
2. Enter in the **Channel Name** to be set.
3. Check and uncheck the **Channel title**, **Time title** checkbox to specify whether they are displayed on screen.
4. Optional: Left click the OSD information on live video and drag it to the ideal position.
5. Optional: Left click the OSD information on live video, move to the position you want to set.
6. Click **Save**.

7.6 Image Superposition

This function support to upload a picture show on video.



Note

Only certain device models support the function.

Before you start :

Prepare the picture file in bmp format, with 24-bit pixels, and the length and width should not exceed 128*128.

Steps:

1. Go to **Setup Menu → Video audio → Image Superposition**.
2. Click **Browse** to select the picture you want to upload.
3. Click **Upload**.
4. Enable the Image.

Optional:

Set the Transparency: Set the Transparency to 1, input the color number (R/G/B) you want to transparency.

Set picture position: Left-click the picture you uploaded, move to the position you want to set.

6. Click **Save**.

8. Event and Alarm Configuration

This part introduces the configuration of events and how the device responds to a triggered alarm.

 **Note**

The Event and Alarm configuration may vary depending on the model. Please be subject to the actual Web interface.

8.1 Motion Detection

This feature detects moving objects in the detection area and trigger actions set for this event.

Steps:

1. Go to **Set** → **Event** → **Basic Event** → **Motion detection**.

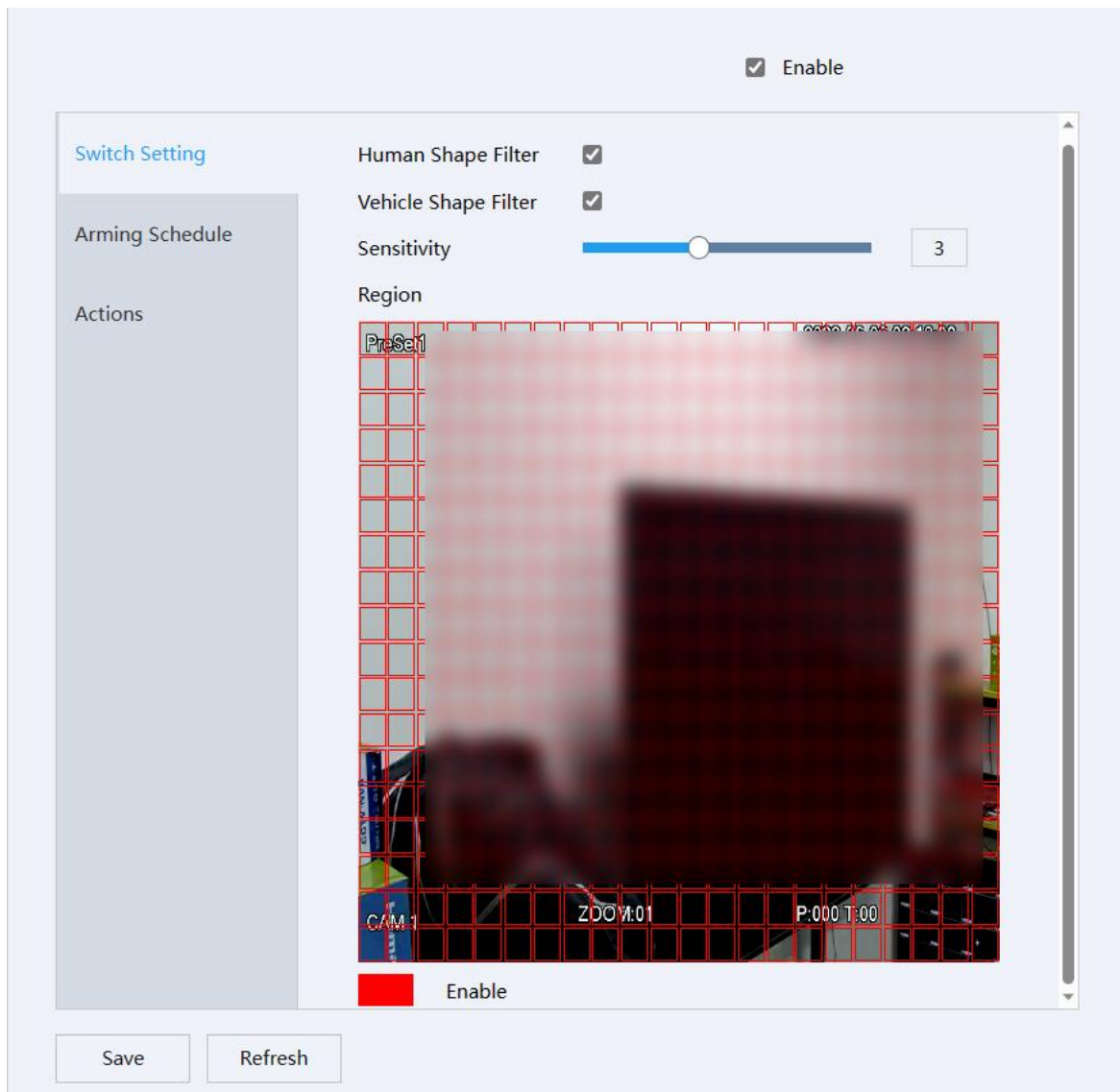


Figure 8-1 Switch Setting

2. Check the **Enable** checkbox.
3. Set **Detect Target**. Support to detect the Human shape/Vehicle shape detection.

Optional:

Detect all motions: Disable the Human and Car filter check box.

Detect Human shape only: Enable the Human filter check box and disable the car filter check box.

Detect Car shape only: Enable the Car filter and disable the Human filter.

Detect the Car and Human shape: Enable the Car filter and Human filter.

4. Set the **Sensitivity**: Motion detection alarm event is more prone to be triggered with a higher sensitivity.
5. Set the **Detect Region**: Drag the mouse in the preview area to specify the detection area (Red marked areas are selected).
6. Set the **Arming Schedule** for Motion Detection.

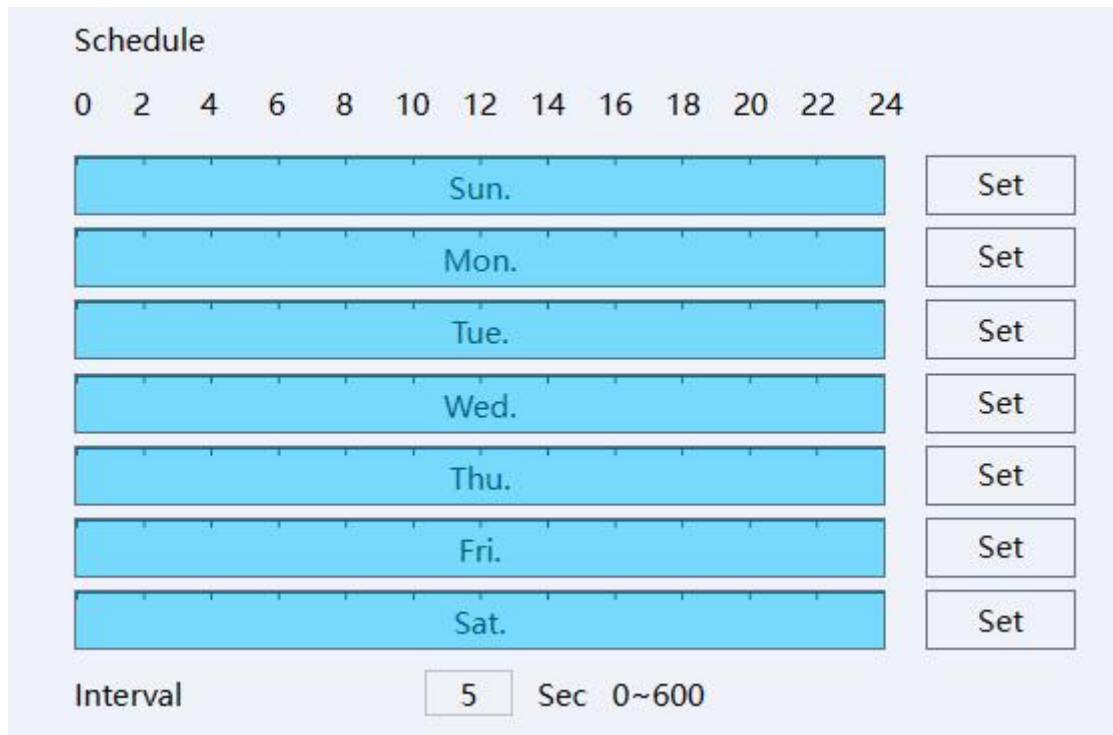


Figure 8-2 Schedule

- 1) Click **Set** to set the detect time for each day.

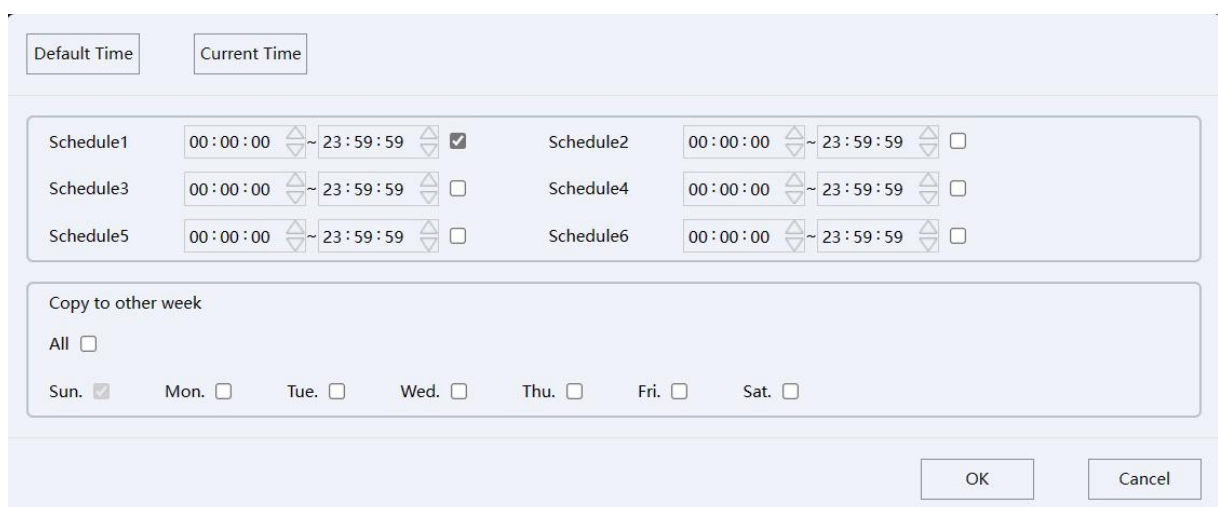


Figure 8-3 Set

- 2) Set the **Interval** time (During the interval time, device will detect/alarm).
7. To set the **actions** performed after being triggered, click **Actions**.

Figure 8-4 Actions

Alarm Delay : Duration of the alarms.

Send Email: When motion detection is triggered, the device will send emails to configured email addresses. Please refer to **5.3.9 Email** for detail.

Record Channel: When motion detection is triggered, the device will start to record with this channel.

Record delay time: The device will keep recording for this period after the motion detect event ends.

PTZ Act:

 **Note**

Only support the PTZ camera.

Set Snapshot: When motion detection is triggered, the device will take snapshots of the video.

8. Click **Save**.

8.2 Video Cover Detection

When the configured area is covered and cannot be monitored normally, the alarm is triggered and the device takes certain alarm response actions.

Steps:

1. Go to **Set** → **Event** → **Basic Event** → **Video Cover Detection**.
2. Check the **Enable** checkbox.
3. Set the **Sensitivity**: The higher the value is, the easier to detect the area covering.
4. Set the **Arming Schedule** for Motion Detection. Click **Set** to set the detect time for each day.
5. Set the linkage actions. Click **Actions**.
 - 1) Set the **Alarm out, Alarm delay, send email**.

Alarm delay time: Duration of the alarms.

Send email: When alarm input event is triggered, the device will send emails to configured email addresses. For Email Setting please refer to **5.3.9 Email**.

Note: Alarm out function only support the camera which support the alarm out.

2) Set **Record delay time, record channel**.

Record Channel: When alarm input event is triggered, it will start to record with this channel.

Note: Record delay time: The device will keep recording for this period after the alarm input event ends.

3) Set **PTZ Act**.

Note: Only support the PTZ camera.

4) Set **Smart light, Smartlight delay**. When motion detection is triggered, the smart light will on.

Note: Only support the camera which has the Smart light.

5) Set **Snapshot**. When motion detection is triggered, the device will take snapshots of the video.

6. Click **Save**.

8.3 Alarm in/out

8.3.1 Alarm Input

Alarm signal from the external device triggers the corresponding actions of the current device.

Before you start

Alarm signal from the external device triggers the corresponding actions of the current device.

Steps:

1. Go to **Set → Event → Alarm → Alarm Input**.

2. Check the **Enable** checkbox.

3. Set the Type: Normal Close/Normal Open.

4. Set the **Arming Schedule** for Motion Detection.

1) Click **Set** to set the detect time for each day.

2) Set the **Interval time** (During the interval time, device will alarm)

5. To set the linkage actions performed after being triggered. Click **Actions**.

1) Set the **Alarm out, Alarm delay, send email**.

Alarm delay time: Duration of the alarms.

Send email: When alarm input event is triggered, the device will send emails to configured email addresses. For Email Setting please refer to **5.3.9 Email**.

Note: Alarm out function only support the camera which support the alarm out.

2) Set **Record delay time, record channel**.

Record Channel: When alarm input event is triggered, it will start to record with this channel.

Note: Record delay time: The device will keep recording for this period after the alarm input event ends.

3) Set **PTZ Act**.

Note: Only support the PTZ camera.

4) Set **Smart light, Smartlight delay**. When motion detection is triggered, the smart light will on.

Note: Only support the camera which has the Smart light.

5) Set **Snapshot**. When motion detection is triggered, the device will take snapshots of the video.

6. Click **Save**.

8.3.2 Alarm Output

If the device is connected to an alarm output device, and the alarm output No. is configured properly, the device will send alarm information to the connected alarm output device when an alarm is triggered.

Steps:

1. Go to **Set** → **Event** → **Camera I/O** → **Alarm Output**.
2. Set the Type: **Schedule, Manual, Stop**.
 - 1) **Schedule**: Alarm output will be on, when an alarm is triggered in the configured schedule.
 - 2) **Manual**: Alarm out will always be on.
 - 3) **Stop**: Alarm out will always be off.

Note: You can check the Alarm Out status via the status: white - no alarm out; red - **alarm out** is on.

3. Click **Save**.

8.4 Smart Event

8.4.1 Line Crossing Detection

It is used to detect objects crossing a pre-defined virtual line. When it occurs, the device can take linkage actions. **Steps:**

1. Go to **Set** → **Event** → **Smart Event** → **Line Crossing**.
2. Check the checkbox of **Enable** to enable the function.

Optional: You can select the Human/Car filter, the Line crossing will be triggered only by Human/Car.
3. Select **Warning Surfaces** you want to set.
4. Click the **Plot Area** button, and a virtual line is displayed on the live image.
5. Click-and-drag the line, and you can locate it on the live image as desired.
6. Click on the line, two red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.
7. Select the Direction for line cross detection. And you can select the directions:
 - **A<->B**: When an object goes across the configured line from both direction can be detected and alarms are triggered.
 - **A->B**: Only the object crossing the configured line from the A side to the B side can be detected.
 - **B->A**: Only the object crossing the configured line from the B side to the A side can be detected.

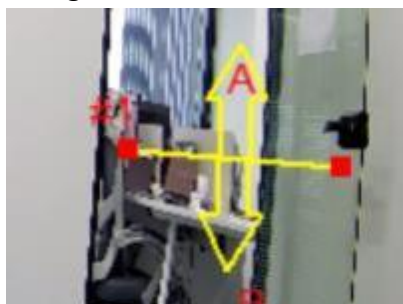


Figure 8-5 Line Crossing

8. Set the **Sensitivity**: The Line Crossing is easier to detect when the value is higher.
9. Set the **Arming Schedule** and **Actions**. Please refer to **8.1 Motion Detection** for detail.
10. Click **Save**.

8.4.2 Area Intrusion Detection

It is used to detect objects entering and loitering in a pre-defined virtual region. When it occurs, the device can take linkage actions.

Steps:

1. Go to **Set** → **Event** → **Smart Event** → **Aera Intrusion**.
2. Check the checkbox of **Enable** to enable the function.
Optional: You can select the Human/Car filter, the Area Intrusion will be triggered only by Human/Car.
3. Select **Warning surfaces** you want to set.
4. Draw **Area** :
 - 1) Click the **Plot Area** button, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.

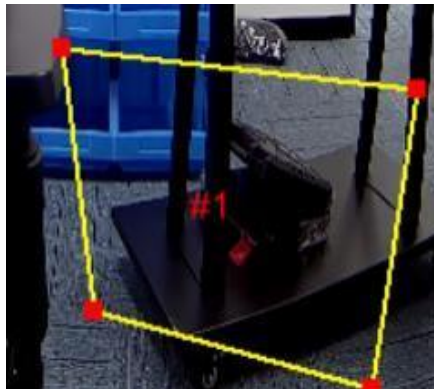


Figure 8-6 Area Intrusion

5. Set the **Time Threshold**.
Indicates that an alarm will be generated after the target object enters the warning area and stays for this period of time. For example, if it is set to 0, the alarm will be triggered immediately after the target object invades the area. The maximum is 10 seconds.
6. Set the **Sensitivity**.
The sensitivity setting affects the size of the intruding object that will be judged as the target object. A higher sensitivity setting may identify smaller objects as the target, while a lower sensitivity setting may identify larger objects as the target.
7. Set the **Percent**.
It indicates how much of the invaded area is required to trigger the alarm, the percentage value is taken for input.
8. Set the **Arming schedule** and **Actions**. Please refer to **8.1 Motion Detection** for detail.
9. Click **Save**.

8.4.3 Region Entrance Detection

It is used to detect objects entering a pre-defined virtual region from the outside place. When it occurs, the device can take linkage actions.

Steps:

1. Go to **Set** → **Event** → **Smart Event** → **Region Entrance**.
2. Check the checkbox of **Enable** to enable the function.
Optional: You can select the **Human/Car** filter, the **Region Entrance** will be triggered only by **Human/Car**.
3. Select **Warning Surfaces** you want to set.
4. Draw Area :
 - 1) Click the **Plot Area** button, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.

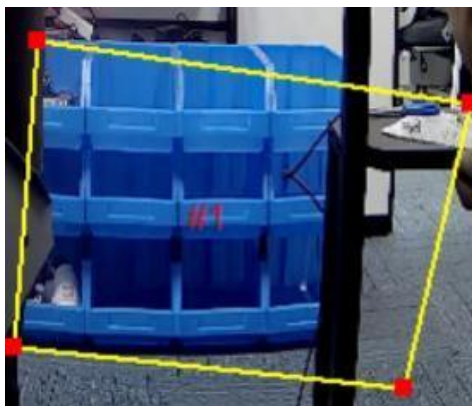


Figure 8-7 Region Entrance Detection

5. Set the **Sensitivity**.
The sensitivity setting affects the size of the intruding object that will be judged as the target object. A higher sensitivity setting may identify smaller objects as the target, while a lower sensitivity setting may identify larger objects as the target.
6. Set the **Arming Schedule** and **Actions**. Please refer to **8.1 Motion Detection** for detail.
7. Click **Save**.

8.4.4 Region Exiting Detection

It is used to detect objects exiting from a pre-defined virtual region. When it occurs, the device can take linkage actions.

Steps:

1. Go **Set** → **Event** → **Smart Event** → **Region Exiting**.
2. Check the checkbox of **Enable** to enable the function.
Optional: You can select the **Human/Car** filter, the **Region Exiting** will be triggered only by **Human/Car**.
3. Select **Warning Surfaces** you want to set.
4. Draw Area :
 - 1) Click the **Plot Area** button, and a virtual rectangle is displayed on the live image.

- 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
- 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.

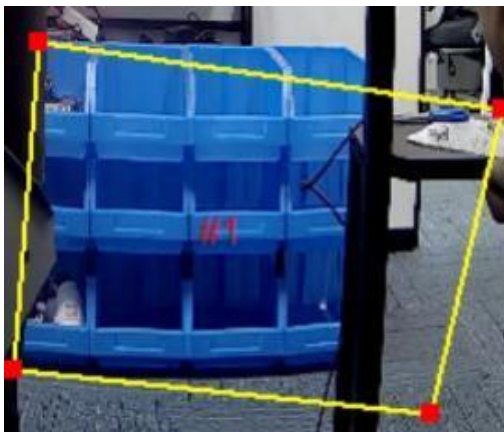


Figure 8-8 Region Exiting Detection

5. Set the **Sensitivity**.

It is used to set and control the size of the target object. The higher the sensitivity setting, the smaller the object entering the area will be judged as the target object. The lower the sensitivity setting, the larger the object entering the area will be judged as the target object.

6. Set the **Arming schedule** and **Actions**. Please refer to **8.1 Motion Detection** for detail.

7. Click **Save**.

8.4.5 Fast Moving Detection

Support to detect the object which fast move in the area.

Steps:

1. Go to **Setup Menu** → **Event** → **Smart Event** → **Fast Moving**.
2. Check the checkbox of **Enable** to enable the function.
3. Select **Warning surfaces** you want to set.
4. Draw Area:
 - 1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.
5. Set the **Sensitivity**: It is used to set the moving speed of the control object. The higher the sensitivity setting, the slower the moving speed of the object will trigger the alarm message. The lower the sensitivity setting, the faster the moving speed of the object will trigger the alarm message.
6. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.
7. Click **Save** to save and finish the settings.

8.4.6 Loitering Detection

Support to detect the object which wandering in the Area.

Steps:

1. Go to **Setup Menu** → **Event** → **Smart Event** → **Loitering Detection**.
2. Check the checkbox of **Enable** to enable the function.
3. Select **Warning surfaces** you want to set.
4. Draw **Area** :
 - 1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.
5. Set the
 - **Sensitivity:** It is used to set and control the size of the target object. The higher the sensitivity setting, the smaller the object in the wandering area will be judged as the target object. The lower the sensitivity setting, the larger the object in the wandering area will be judged as the target object.
 - **Time Threshold:** Indicates the time to be reached when the target hovers in the warning area. For example, if it is set to 0s, the alarm message will be triggered once the target has a wandering behavior.
 - **Offset:** When select Offset, whether the loitering behavior occurs will be judged according to whether the amount of the target object's linear movement in the area exceeds a certain threshold. When the target object enters the area in the first frame, the first position of the target object is recorded and the distance is calculated. When the distance is greater than (the distance between the current frame and the first frame plus 3/7 of the screen width (pixels)), it is considered that the hovering behavior occurs.
 - **Weight:** When select Weight, It will be judged whether the wandering behavior occurs according to the number of times the target object turns back in the area to reach a certain threshold. The number of turns is counted from the first frame when the target object enters the area. The threshold is 3.
 - **Journey:** Whether the loitering behavior occurs will be judged according to whether the total distance moved by the target object in the area exceeds a certain threshold. The total distance is calculated from the first frame when the target enters the area. The threshold is the longest diagonal length of the region.
6. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.
7. Click **Save** to save and finish the settings.

8.4.7 People Gathering Detection

Support to detect the select area whether has people gathering.

Steps:

1. Go to **Set** → **Event** → **Smart Event** → **People Gathering**.
2. Check the checkbox of **Enable** to enable the function.
3. Select Warning surfaces you want to set.
4. Draw Area :
 - 1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the
 - 4) red squares to define the shape and length of the line.
5. Set the
 - **Sensitivity:** It is used to set and control the intensity of concentration of the target object.
 - **Percent:** A total of 1-100 is optional, which is used to control the density of the edge pixels of the object in the area. The higher the proportion, the more pixels on the edge of the object in the area can trigger the

alarm. The lower the proportion, the fewer pixels on the edge of the object in the area can also trigger the alarm.

6. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.

7. Click **Save** to save and finish the settings.

8.4.8 Unattended Object Detection

It is used to detect the objects left over in the pre-defined region. Linkage methods can be triggered after the object is left and stays in the region for a set time period.

Steps:

1. Go to **Setup Menu → Event → Smart Event → Unattended Object**.

2. Check the checkbox of **Enable** to enable the function.

3. Draw Area :

1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.

2) Click-and-drag the rectangle, and you can locate it on the live image as desired.

3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.

4. Set the

● **Sensitivity:** It is used to set the change range of the control target object. The higher the sensitivity, the larger the change range of the left object in the warning area will be judged as the target object. The lower the sensitivity, the smaller the change range of the left object in the warning area can be judged as the target object.

● **Time Threshold:** Indicates the time required for the target object to be left in the warning area. For example, if it is set to 5s, the target object will be left for 5s before the alarm message will be triggered. Note: It takes 10s to judge whether the target object is left behind.

5. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.

6. Click **Save** to save and finish the settings.

8.4.9 Object Missing Detection

It detects whether the objects are removed from the pre-defined detection region, such as the exhibits on display. If it occurs, the device can take linkage actions and the staff can take measures to reduce property loss.

Steps:

1. Go to **Setup Menu → Event → Smart Event → Object Missing**.

2. Check the checkbox of **Enable** to enable the function.

3. Draw Area :

1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.

2) Click-and-drag the rectangle, and you can locate it on the live image as desired.

3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.

4. Set the

● **Sensitivity:** It is used to set the change range of the control lost target. The higher the sensitivity, the greater the change range of the lost position of the object in the warning area, and it will be judged as a lost target. The lower the sensitivity, the smaller the change range of the lost position of the object in the warning

area. Only then can it be judged as a lost target. When the pixels in the area are always moving, the sensitivity is high, and the lost position can be found in the case of large changes

- **Time Threshold:** Indicates the time required for the target object to be left in the warning area. For example, if it is set to 5s, the target object will be left for 5s before the alarm message will be triggered. Note: It takes 10s to judge whether the target object is left behind.

5. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.
6. Click Save to save and finish the settings.

8.4.10 Parking Detection

Support to detect whether has car park in the region.

Steps:

1. Go to **Setup Menu** → **Event** → **Smart Event** → **Parking Detection**.
2. Check the checkbox of **Enable** to enable the function.
3. Draw Area :
 - 1) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.
 - 2) Click-and-drag the rectangle, and you can locate it on the live image as desired.
 - 3) Click on the line, four red squares are displayed on each end, and you can Click-and-drag one of the red squares to define the shape and length of the line.
4. Set the
 - **Sensitivity:** It is used to set and control the size of the target object. The higher the sensitivity setting, the smaller the detected object will be judged as the target object. The lower the sensitivity setting, the larger the detected object will be judged as the target object.
 - **Time Threshold:** Indicates the time required for the target object to stay in the warning area. For example, if it is set to 5s, the target object stay for 5s before the alarm message will be triggered.
5. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.
6. Click **Save** to save and finish the settings.

8.4.11 Scene Change Detection

Scene change detection function detects the change of surveillance scene. When it occurs, the device can take linkage actions.

Steps:

1. Go to **Set** → **Event** → **Smart Event** → **Scene Change Detection**.
2. Check the checkbox of **Enable** to enable the function.
3. Set the **Sensitivity**. The Scene Change Detection is easier to trigger if the sensitivity is higher.
4. Set the Arming Schedule and Actions. Please refer to **8.1 Motion Detection** for detail.
5. Click **Save**.

8.4.12 Audio Exception Detection

Audio exception detection function detects the device surrounding sound whether has strong sound or dropped sharply sound.

Steps:

1. Go to **Setup Menu** → **Event** → **Smart Event** → **Audio exception detection**.
2. Check the checkbox of Abnormal audio input, Strong sound intensity, Sound intensity dropped sharply.
3. Set the sensitivity. The higher the value is, the more abnormal audio to be detected.
4. You can check the Real-time volume shape from the picture.



Figure 8-9 Real-time Volume

5. Set the **Arming schedule** and **Actions**. Details reference the **7.1 Motion detection setting**.
6. Click **Save** to save and finish the settings.

9. Recording to Local Storage/NAS

This chapter introduces the functions for recording management and configuration.

Note

Only certain device models which support the Local Storage (Micro-SD card) or the NAS features support these features.

9.1 Record and Snapshot

You can configure the record and snapshot behaviors in this section.

9.1.1 Record setting

Steps:

1. Go to **Set** → **Recording Settings**→ **Record and snap**→ **Record Schedule**.
2. You can enable the checkbox to choose recording the videos with **Main stream** or **Sub stream**.
3. Set the **Pack Duration** and **Pre-Record**.
 - **Pack duration**: The length of time that cameras will segment the video file into.
 - **Pre-Record**: The length of camera's pre-record time for the event recordings (0-30s).
4. Set the Record type at Record Control: **Schedule, Manual, Stop**.
 - **Schedule**: Camera will follow the Record Plan to record.
 - **Manual**: Camera will always be recording (7*24h).
 - **Stop**: Camera will stop recording.
5. Set the **Record Plan**.
 - 1) Select the Record type **Normal, MD** and **Alarm**.
 - 2) And click **Set** to set each day's record Plan, click **OK**.

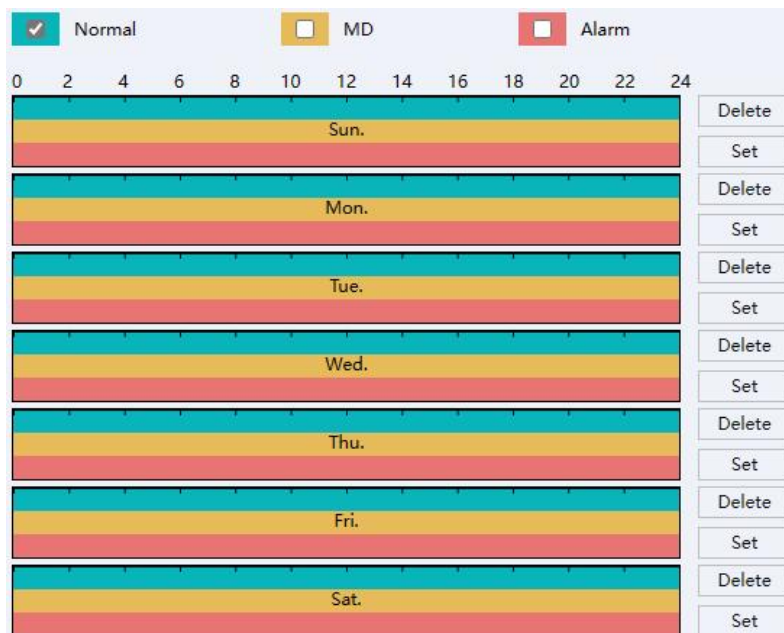


Figure 9-1 Set Record Plan

6. Set the Record type at Record Control section: Schedule, Manual and Stop.
 - **Schedule**: Camera will follow the Record Plan to record.
 - **Manual**: Camera will always in record (7*24h).

- **Stop:** Camera will stop recording.
7. Click **Save** to save and finish the settings.

9.1.2 Snapshot Setting

This section involves settings of the snapshot features.

- **Set Parameter of interval snapshot**

Camera will take snapshots at the configured time interval.

Steps:

1. Go to **Set → Recording Settings → Record and snap → Snapshot Setting → Time Picture.**
2. Check the **Enable** checkbox to enable snapshot by interval time.
3. Set the **Interval** time you want to set.
4. Set the **Schedule.**
5. Click **Save** to save and finish the settings.

- **Set Parameter of Alarm Snapshot**

Camera will snapshot when the alarm in has the signal input.

Steps:

1. Go to **Set → Recording Settings → Record and snap → Snapshot Setting → Alarm Snapshot.**
2. Check the checkbox to enable snapshot by Alarm.
3. Set the **Interval** time you want to set.
4. Set the Snap Count.
5. Click **Save** to save and finish the settings.

- **Event-Triggered Snapshot**

Camera will snapshot when the Event-Triggered.

Steps:

1. Go to **Set → Recording Settings → Record and snap → Snapshot Setting → Event-Triggered Snapshot.**
2. Check the checkbox to enable snapshot by Event-Triggered.
3. Set the **Interval** time you want to set.
4. Set the **Snap Count.**
5. Click **Save** to save and finish the settings.

9.2 Storage Manager

9.2.1 Local Storage Manage (Micro-SD Card)

After inserting the Micro-SD Card properly, you can access its information as a local storage device, and our devices support to manage it. Go to **Set → Recording Settings → Storage Management.**

- **Format/Delete the Micro-SD Card**

The function is used to Format/Delete the Micro-SD Card.

Steps:

1. Select the device you want to manage.
2. Click **Format/Delete**.

Set the storage rule when HDD full

Steps:

1. Click the **HDD Full Overwrite/Stop** from the drop down menu.
Overwrite: When storage is full, camera will overwrite the oldest file.
Stop: When storage is full, camera will stop recording.
2. Click **Save** to save and finish the settings.

● Quota Storage for record and picture

Steps:

1. Click the **Record Quota (%) / Picture Quota (%)** to set the parameters. Camera will quota the capacity for record and picture storage as you set.
2. Click **Save** to save and finish the settings.

9.2.2 Connect to NAS

The function used to save the recording/picture file to the NAS.

Before you start:

Valid NAS service is needed within the same network section.

Steps:

1. Go to **Set** → **Recording Settings** → **Storage Management** → **NAS**.

1	NAS	2
2	NAS	2
3	NAS	2
4	NAS	2
-	----	-

Figure 9-2 NAS

2. Double click one of the option to access its **Config**.
3. Input the **NAS Server Address, File Path, Mount Type, Space (GB)**.
4. Click **Test** if success click OK; if failed please check the parameters again.
5. Click **Save** to save and finish the settings.

Config

Disk No.	1
Type	NAS
Server Address	<input type="text"/>
File Path	<input type="text"/>
Mount Type	NFS ▼
Space(GB)	<input type="text" value="2"/>
User Name	<input type="text"/>
Password	<input type="text"/>

Figure 9-3 Config

10. Maintenance

This chapter introduces the maintenance details.

10.1 Reboot Device

You can the reboot the device via web access. The devices also support Auto-reboot with configured schedules.

- **Reboot device manually via browser**

Steps:

1. Go to **Set → Maintenance → Auto Reboot**.
2. Click the **Reboot**, and click **OK** to confirm the operation.
3. Device will reboot, and re-route your web page back to the login page.

- **Auto-reboot the device at the certain time**

Steps:

1. Go to **Set → Maintenance → Auto Reboot**.
2. Set the time you want to reboot.
3. Click **Save** to save changes.

10.2 Restore and Default Settings

Restore and Default helps restore the device parameters to the default values.

- **Restore default setting**

Steps:

1. Go to **Set → Maintenance → Default Settings**.
2. Select the type of settings you want to restore.
3. Click **Execute** to perform the operation.

- **Restore factory setting**

Steps:

1. Go to **Set → Maintain → Default Settings**.
2. Click Restore factory and **Execute** to restore everything to default.

 **Note**

Be careful when using this function. After resetting to the factory default, all the parameters are reset to the default settings.

10.3 Config Export/Import

It helps speed up batch configuration on other devices that need to have the same parameters.

Steps:

1. Go to **Set → Maintenance → Import/Export**.

2. Click Export Config **Execute**, select the folder you want to save the config file.
3. Click Import Config **Execute**, select the config file you want to Import.

10.4 Upgrade device

Before You Start

You need to obtain the correct upgrade package.

 **Caution**

DO NOT disconnect power during the process, the device reboots automatically after the upgrade.

Steps:

1. Go to **Set** → **Maintenance** → **Upgrade**.
2. Click **Select upgrade file**.
3. Click **Upgrade**.

10.5 Search and Manage Log

Log will record the device operations, it helps to locate and analyze problems.

Steps:

1. Go to **Set** → **Maintenance** → **Log**.
2. Set the **Type**, **Start time**, **End time**.
3. Click **Search**.
The matched log will be displayed on the log list.
4. Additionally, click **Backup** to save the log files in your computer.

11. Playback and download video

This chapter introduces how to use the playback functions and download video from the local storage.

Before you start

Insert the Micro-SD card and configure a valid recording schedule for device.

11.1 Playback the Recording Video

Steps:

1. Go to **Playback**.
2. Click the date you want to search for the recordings. Black marked date means it has the record video.
Device will search the record file on this date.

3. Select the type of video you want to play,

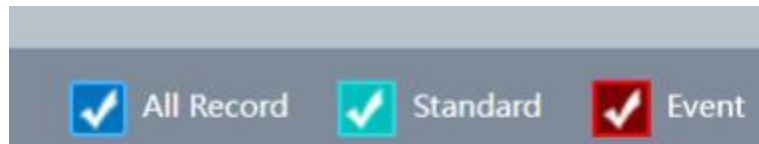


Figure 11-1 Select the Video

4. Click to play the video or left click on the video timeline you want to play.
5. Additionally, click to switch to video list page, Click the operation button.

Click to stop video	Click to Play the video with slow speed (x1/2,x1/4,x1/8)
Click to Pause the video	Click to play the video with fast Speed (x2,x4, x8, x16)
Click to Play the video by frame	Click to snapshot current picture
Click to Enable/Disable the audio	Click to Switch to the video file list page
Click to Control and switch the time bar	
Click to access the record file download list	

Table 11-1 Description of the items

11.2 Download the Video File

Steps:

1. Go to **Playback**.
2. Click to enter the download page.
3. Select the **Type (Record/Picture)** you want to download.

4. Set the Start time, End time, click **Search**. It will show the video/picture list.
5. Select the file you want to download.
6. Select the video file format (DAV/AVI).
7. Click **Download**.

The screenshot displays a software interface for video management. On the left, there is a sidebar with several sections: 'Type' (with a dropdown menu set to 'Record'), 'Parameter' (containing radio buttons for 'All Record', 'Event Record', 'Manual Record', and 'Time Record'), 'Start Time' (input field: 2023-00 00:00), 'End Time' (input field: 2023-23 59:59), 'Channel' (dropdown menu: All Channel), and 'Operation' (with a 'Search' button and a 'Stop Download' button). Below these are radio buttons for 'DAV' and 'AVI'. The main area is a table with columns: No., Start Time, End Time, Record File Size(KB), Channel, Type, and Encoding Format. Row 2 is selected. At the bottom, there is a progress bar showing 13% completion and navigation buttons: 'All', 'Prev', 'Next', and a refresh icon.

No.	Start Time	End Time	Record File Size(KB)	Channel	Type	Encoding Format
<input type="checkbox"/> 1	2023-00:59:59	2023-00:00:00	308	1	Time Record	H265
<input checked="" type="checkbox"/> 2	2023-00:00:00	2023-00:04:38	86018	1	Time Record	H265
<input type="checkbox"/> 3	2023-00:04:38	2023-00:18:21	253739	1	Time Record	H265
<input type="checkbox"/> 4	2023-00:18:21	2023-00:32:03	253739	1	Time Record	H265
<input type="checkbox"/> 5	2023-00:32:03	2023-00:45:46	253741	1	Time Record	H265
<input type="checkbox"/> 6	2023-00:45:46	2023-00:59:28	253740	1	Time Record	H265
<input type="checkbox"/> 7	2023-00:59:28	2023-01:13:11	253740	1	Time Record	H265
<input type="checkbox"/> 8	2023-01:13:11	2023-01:26:53	253739	1	Time Record	H265
<input type="checkbox"/> 9	2023-01:26:53	2023-01:40:36	253740	1	Time Record	H265
<input type="checkbox"/> 10	2023-01:40:36	2023-01:54:18	253739	1	Time Record	H265
<input type="checkbox"/> 11	2023-01:54:18	2023-02:08:01	253740	1	Time Record	H265
<input type="checkbox"/> 12	2023-02:08:01	2023-02:21:43	253739	1	Time Record	H265
<input type="checkbox"/> 13	2023-02:21:43	2023-02:35:26	253740	1	Time Record	H265
<input type="checkbox"/> 14	2023-02:35:26	2023-02:49:08	253740	1	Time Record	H265
<input type="checkbox"/> 15	2023-02:49:09	2023-03:02:51	253740	1	Time Record	H265
<input type="checkbox"/> 16	2023-03:02:51	2023-03:16:33	253739	1	Time Record	H265
<input type="checkbox"/> 17	2023-03:16:34	2023-03:30:16	253740	1	Time Record	H265
<input type="checkbox"/> 18	2023-03:30:16	2023-03:43:58	253739	1	Time Record	H265
<input type="checkbox"/> 19	2023-03:43:59	2023-03:57:41	253739	1	Time Record	H265
<input type="checkbox"/> 20	2023-03:57:41	2023-04:11:24	253740	1	Time Record	H265
<input type="checkbox"/> 21	2023-04:11:24	2023-04:25:06	253739	1	Time Record	H265
<input type="checkbox"/> 22	2023-04:25:06	2023-04:38:49	253741	1	Time Record	H265
<input type="checkbox"/> 23	2023-04:38:49	2023-04:52:31	253747	1	Time Record	H265
<input type="checkbox"/> 24	2023-04:52:31	2023-05:06:14	253750	1	Time Record	H265
<input type="checkbox"/> 25	2023-05:06:14	2023-05:19:56	253746	1	Time Record	H265

Figure 11-2 Download

The video file will start to download, and save to the PC folder.

To find the file, check the configured saving path from **5.1 File Directory**.