QUALVISION

Network Camera

User Manual

V 1.0.3

Legal Information

About this Manual

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Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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In The Event Of Any Conflicts Between This Manual And The Applicable Law, The Later Prevails.

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.

Contents

1. Overview

1.1. 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	● 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 Requirement

Note

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

1.2. Network Connection

Before you start:

- Before accessing a network camera from PC, you need to connect the network camera to a 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.

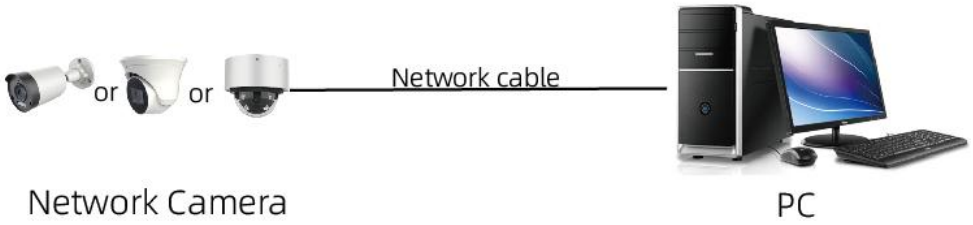


Figure 1-1 Connecting Directly

2. Connecting via a Switch or a Router

Figure 1-2Connecting via a Switch or a Router

2. 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 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 '**Plugin 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.

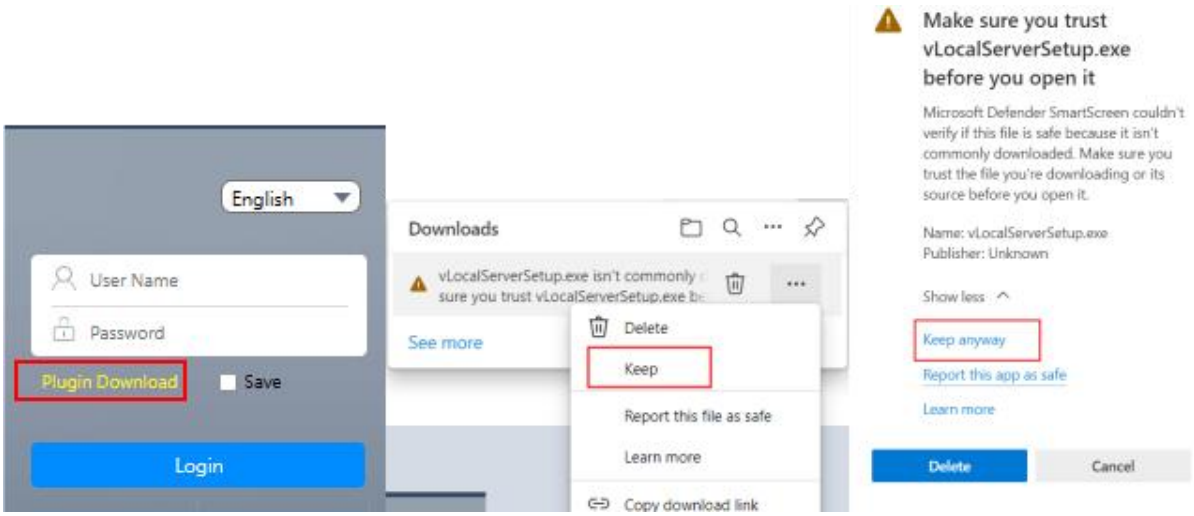


Figure 2-3 Download

Note

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

1. Install **vLocalServerSetup.exe**.

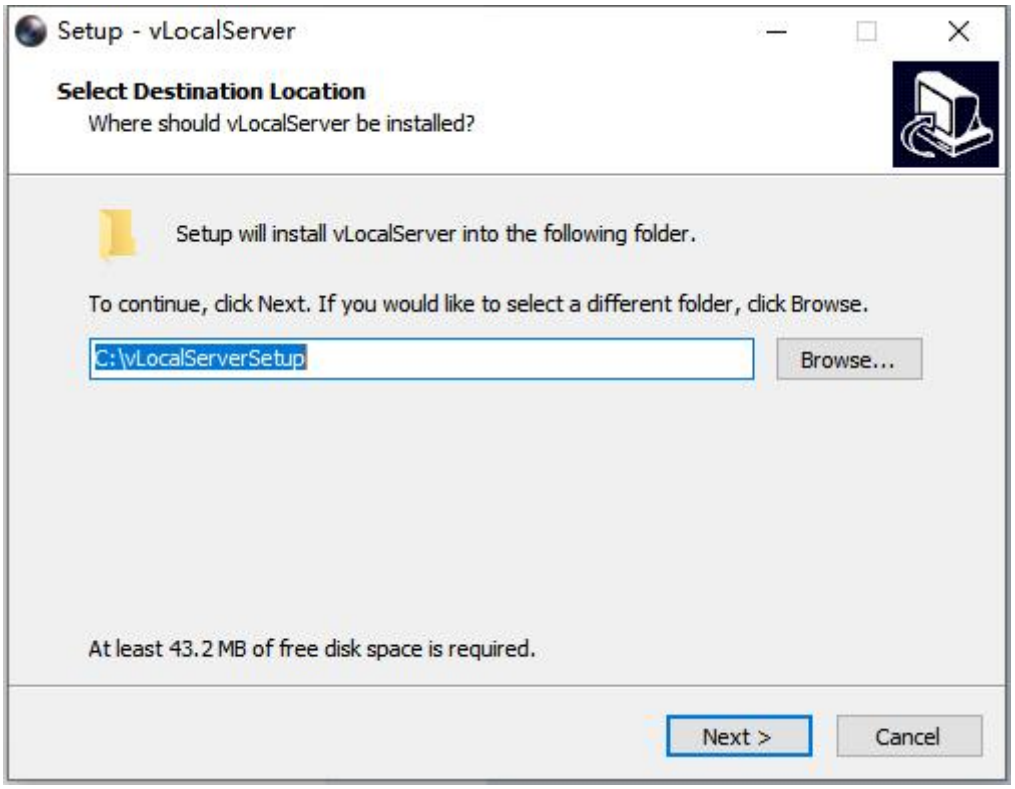


Figure 2-4 Select folder to install

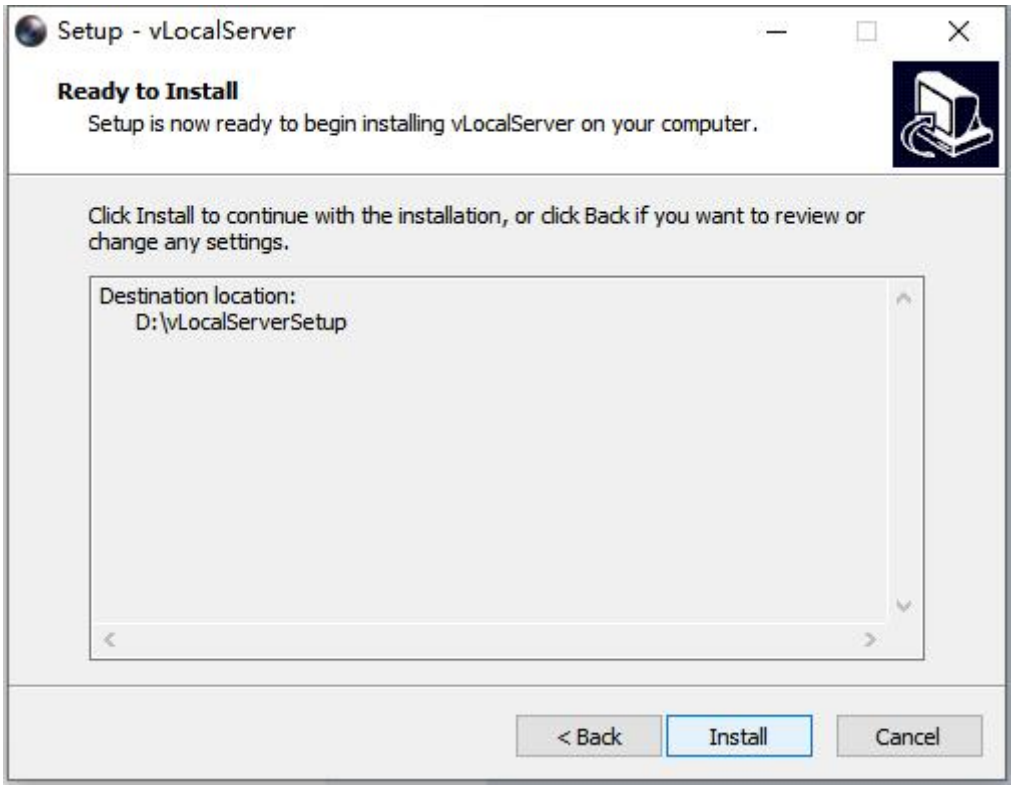


Figure 2-5 Install

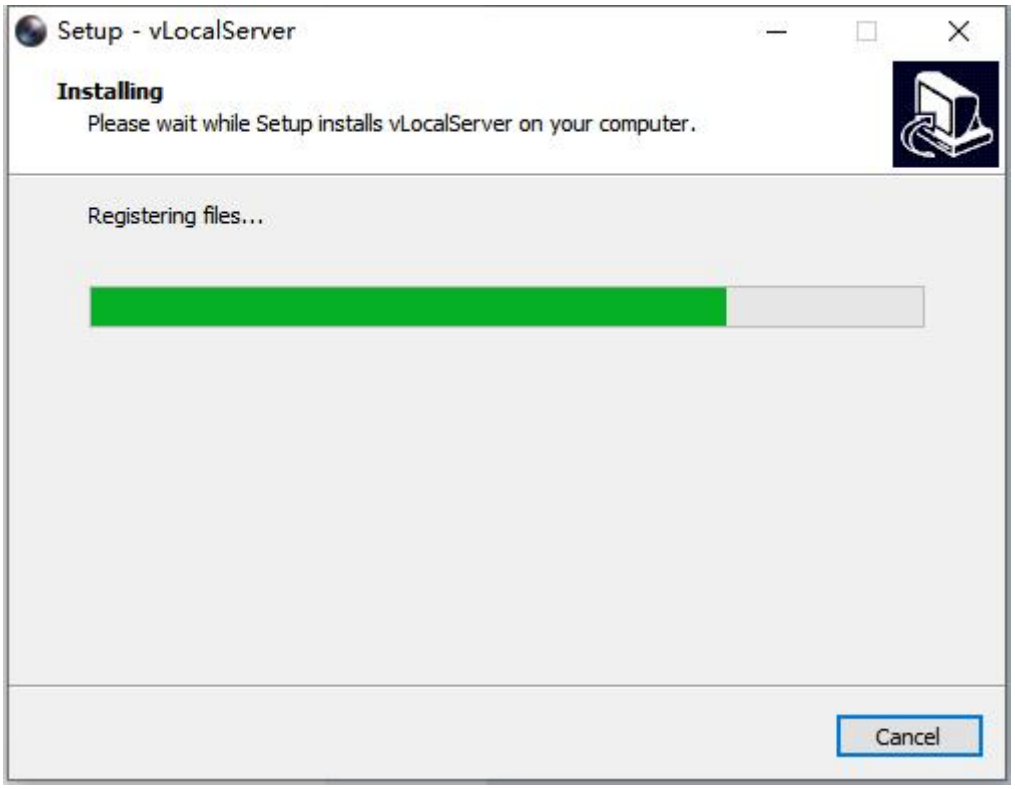


Figure 2-6 Installing

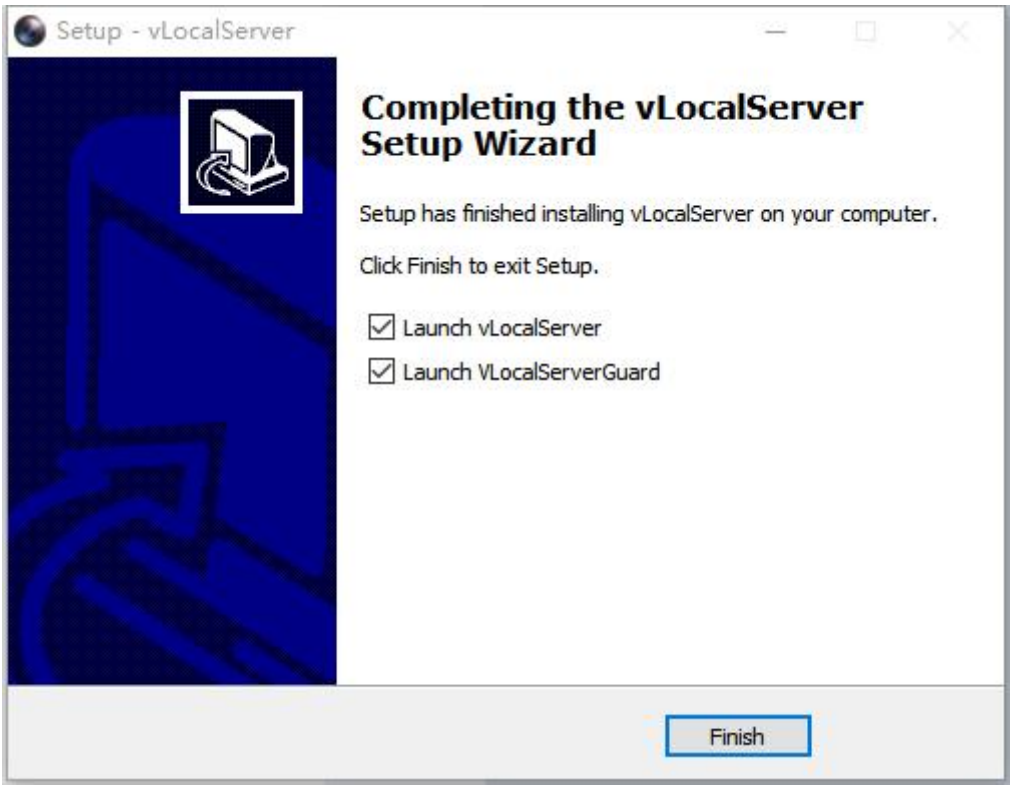


Figure 2-7 Finish

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.

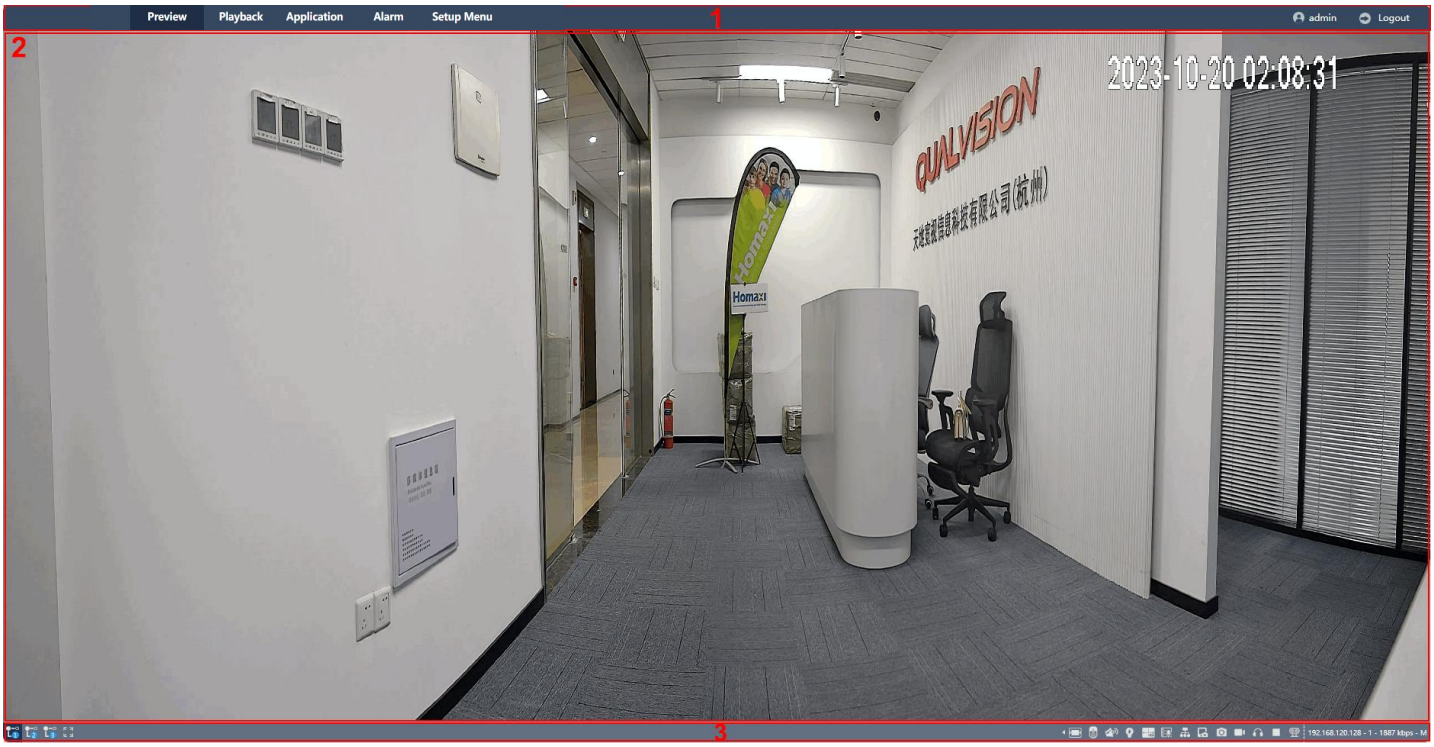


Figure 3-1 Live View

No.	Items	Description
1	Menu	You can navigate between Preview, Playback, Application, Alarm, Setup Menu and Account pages in this area.
2	Preview window	The Live video will be displayed in this area.
3	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, capture, record, audio on/off, etc.

Table 3-1 Live View

Button	Description
	Live viewing the main stream
	Live viewing the sub stream
	Live viewing the third stream
	Full screen

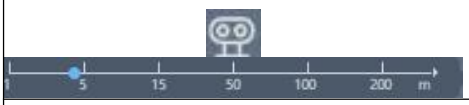
	Self-adaptive screen size
	Set the aspect ratio of the live view screen to 4:3
	Set aspect ratio of the live view screen to 16:9
	Set the aspect ratio of the live view screen in accordance with the video source
	Electronic zoom on/off
	Siren on
	Warming light on
	License plate capture **Note**: Only part of camera support this function.
	Smart event **Note**: Only part of camera support this function.
	Dynamic Tracking Open/Close
	Talk
	Multicast (require supporting routers)
	Device Snapshot
	Local Snapshot
	Local Record
	Audio
	Start/Stop live view
	Image Stitching: drag the scroll bar to adjust the splice distance. **Note**: Only dual lens camera support this function.
	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 **Preview**.
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 **Preview**.
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 **Preview**.
2. Go to toolbar click

-  refers to Main Stream.
-  refers to Sub Stream.
-  refers to 3rd Stream.

3.6. Manually triggered sound alerts

Steps:

1. Click **Preview**.

2. Click  to manually activate the camera's siren sound once. Our device supports switching alarm content, please refer to ***6.3 Alarm Audio*** for Red and blue lights setting details.

3.7. Manually triggered light alerts

Steps:

1. Click **Preview**.

2. Click  to manually activate the camera's warming light on. Red and blue lights setting please refer to ***6.3 Alarm Audio***.

3.8. Dynamic Tracking lines and Smart Rules

This function is used to display the dynamic tracking lines and smart rules in preview For the detail information about the smart rules, please refer to ***7.4 Smart Event*** for details.

Steps:

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

3.9. Multicast View

This function is used to enable the multicast view. For the detail information about the Multicast, please refer to ***5.3.12 Multicast***.

Steps:

Click  to open the multicast view.

3.10. 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 take a snapshot and save the picture to the device memory.

2. Click  to take a snapshot and save the picture to the specified path on your PC.

3. Click  to start a manual recording session and click  to the session.

Note

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

3.11. Audio and Talk to the Device

Steps:

1. Click  to enable the audio. You shall hear the sound from the microphone on the camera.

2. Click  to talk to the device. The speaker on the camera will play the sound from the microphone on your end.

Note

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

3.12. Image Stitching

This function is used to set the dual lens camera's stitching distance.

Steps:

1. Click **Preview**.
2. Click  .
3. Drag the  in the scroll bar 

to adjust the splice distance.

4. Configuration

4.1. Local Storage

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

Go to **Setup Menu → Local Set.**

- **Recorded video**

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

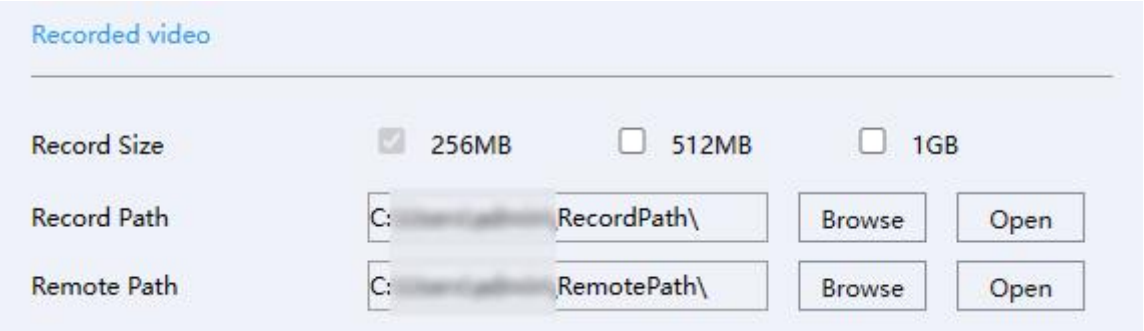


Figure 4-1 Recorded Video

- **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 4-2 Snapshot

4.2. System Parameters

In this section, you can configure the device system parameters.

4.2.1. Check Device Information

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

Steps:

Go to **Setup Menu → System → Setting**, you will see the device information.

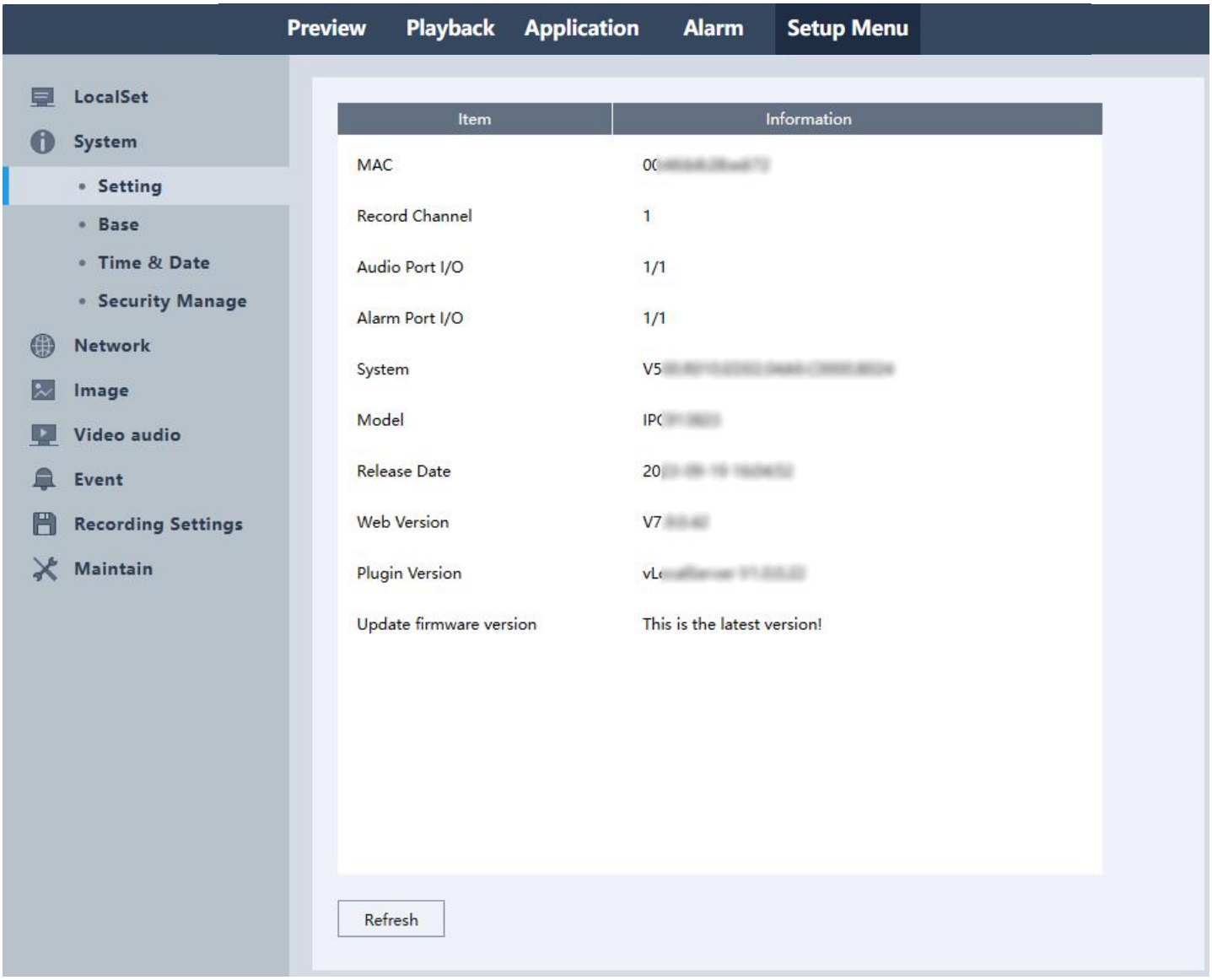


Figure 4-3 System Settings

Note

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

4.2.2. 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 **Setup Menu → System → 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**) .Click **Save** to save the settings.
- **Host name**: You can edit the Host name as you want. Click **Save** to save the settings.

Note

The host name will show on Network and when using the Email function. For the detail of email function, please refer to ***4.3.7 Email.***

4.2.3. Time and Date

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

- **Set Manually or Sync with PC**

Steps:

1. Go to **Setup Menu → System → Time & Date**.

Figure 4-4 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 **Setup Menu → System → Time & Date → DST**.

Figure 4-5 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 synchronize with the NTP server.

Steps:

1. Go to **Setup Menu → System → Time & Date**.

Figure 4-6 NTP

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

4.2.4. User and Account Manage

You can add/delete user, modify password, block IP in this section.

- **Create group and user account**

Steps:

1. Go to **Setup Menu → System → Security Manage → Account.**

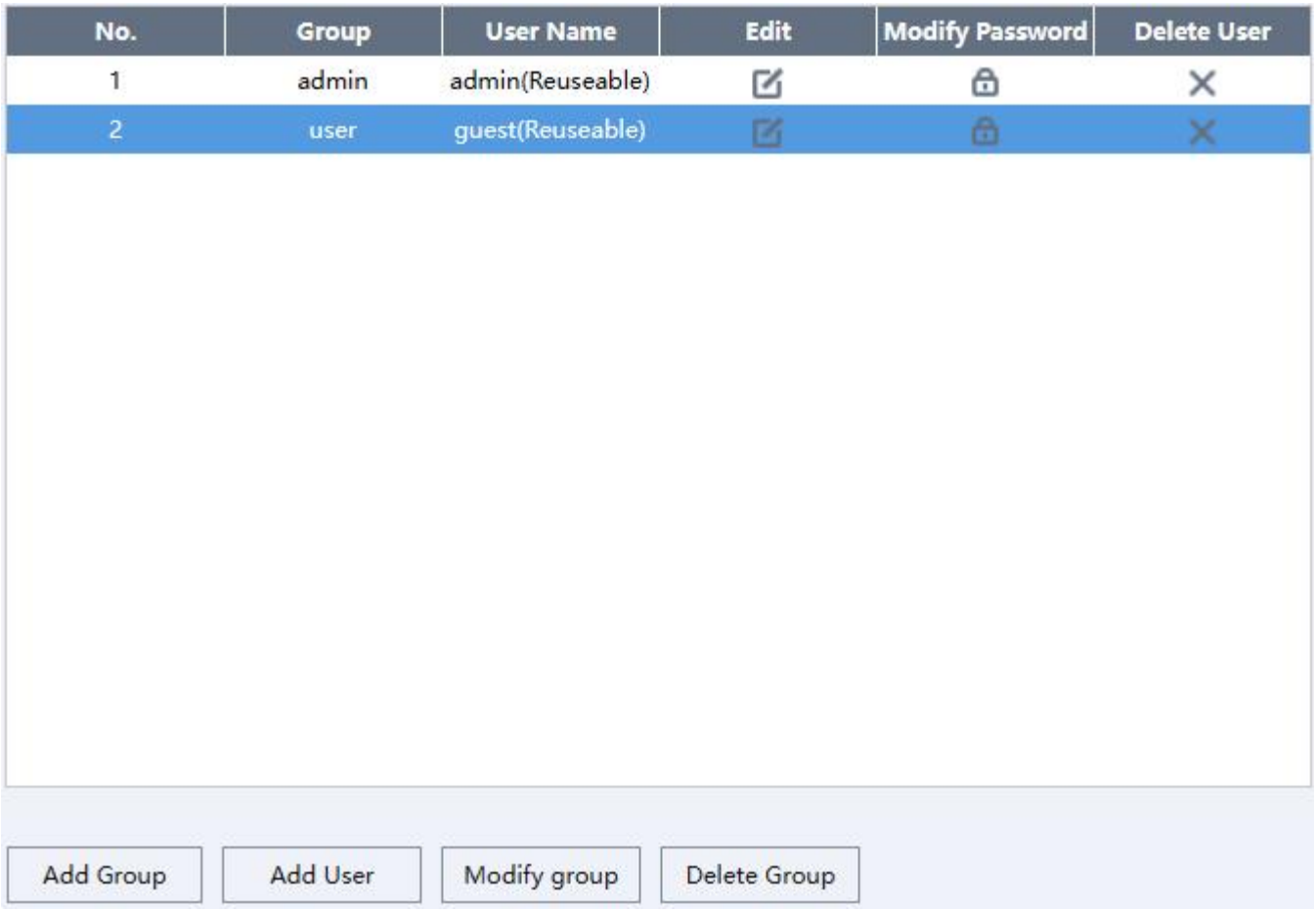


Figure 4-7 Account

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

- **Modify user password**

Steps:

1. Go to **Setup Menu → System → Security Manage → Account.**
2. Select the user whose password you want to modify.
3. Click Modify Password , input the Old Password, New password and Confirm password.

Figure 4-8 Modify Password

4. Click **Save** to modify the password.

- **Modify username and authority**

Steps:

1. Go to **Setup Menu → System → Security Manage → Account**.
2. Select the user whose information you want to modify.
3. Click  . You can modify the username, and the authority of the user as you want.
4. Click **OK**.

- **Delete User**

Steps:

1. Go to **Setup Menu → System →Security Manage → 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 **Setup Menu → System → Security Manage → 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.**

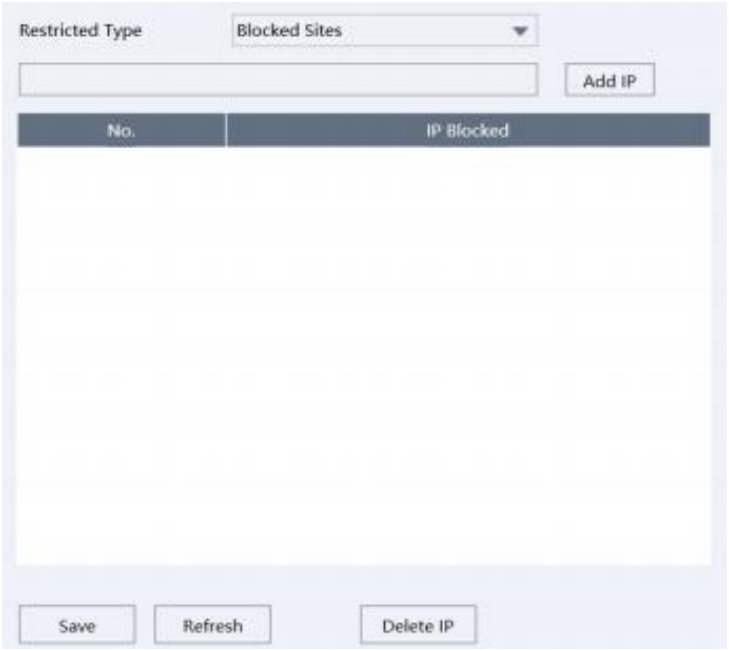


Figure 4-9 Access Control

- **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 **Setup Menu → System → Security Manage → Account.**

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 **Delete IP**.

4. Click **Save**.

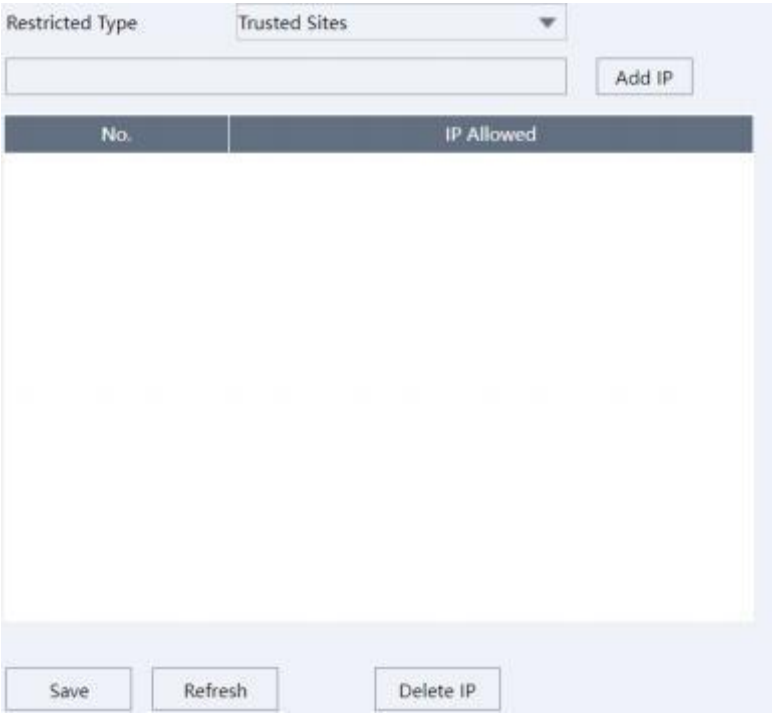


Figure 4-10 Access Control

- **View Online Users**

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

Steps:

1. Go to **Setup Menu → System → Security Manage → Online Users**.

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

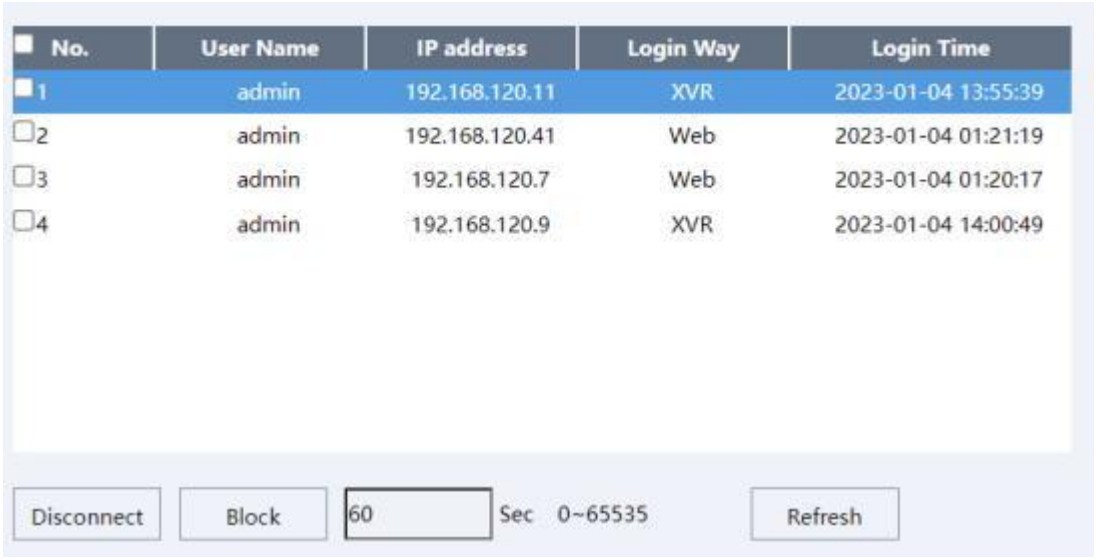


Figure 4-11 Online Users

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.

4.3. Network Configuration

Note

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

4.3.1. 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 **Setup Menu → Network → General → TCP/IP**.
2. Enable **DHCP.**
3. Click **Save**.

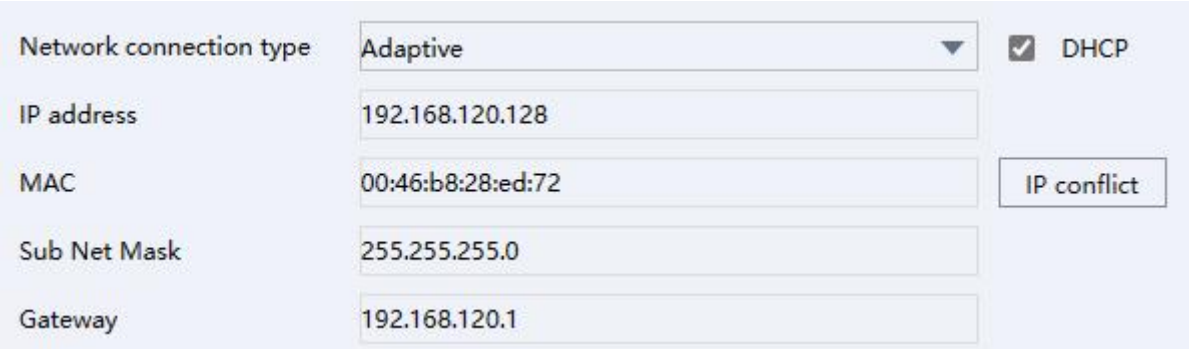


Figure 4-12 TCP/IP

- **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 **Setup Menu → Network → General → TCP/IP**.
2. Confirm that **DHCP** is disabled.
3. Enter IP address, Sub Net Mask, and 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 → Network → 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.

Figure 4-13 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.

Figure 4-14 Ports

- **URL Templates**

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

Figure 4-15 URL Templates

4.3.2. 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 **Setup Menu → Network → 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/
NO-IP	https://www.noip.com/
CN99	http://www.pubyun.com/

Table 4-1 DDNS Provider Websites

4.3.3. 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 **Setup Menu → Network → 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.

4.3.4. UPNP-TM

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

Steps:

1. Go to **Setup Menu → Network → General → UPNP-TM**.

2. Click **Enable** and enter the device name as you want.

3. Click **Save** to save changes.

Note
The default name of a device is its Cloud ID.

4.3.5. Cloud

After enable the Cloud. Support user to access the device (image, alarm and so on) via APP, IE Web.

Steps:

1. Go to **Setup Menu → Network → General → Cloud**.
2. Click **Enable**.
3. Click **Save**.

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
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.

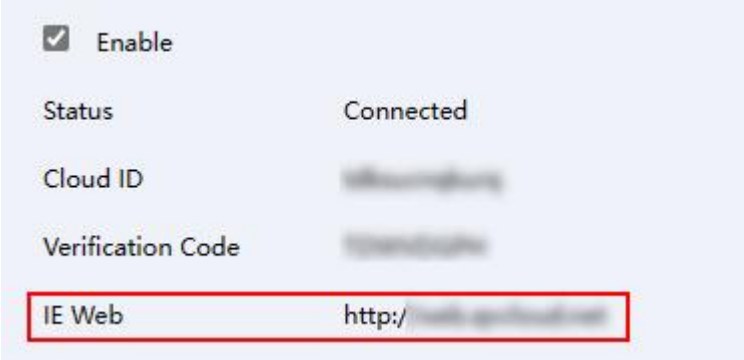


Figure 4-16 IE Web

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

Figure 4-17 By device

4. Click **Login**.

4.3.6. FTP (File Transfer Protocol)

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 **Setup Menu → Network → 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**.

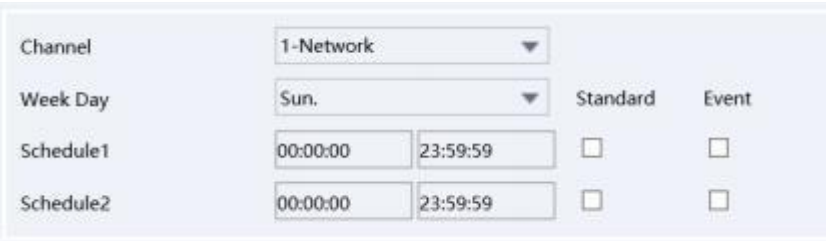


Figure 4-18 FTP Schedule

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

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.

4.3.7. 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 **Setup Menu → Network → Advanced → 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 **Mail Test** to test whether the settings are configured properly.
4. 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.

4.3.8. 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 **Setup Menu → Network → Advanced → SNMP.**

2. Check the checkbox of Enable SNMPv1, Enable SNMP v2c, Enable SNMPv3 to enable the feature correspondingly.

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.

Figure 4-19 SNMP Settings

4.3.9. 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 **Geneal → 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 **Setup Menu → Network → Advance Option → Https**.

2. Check the **Enable** checkbox.

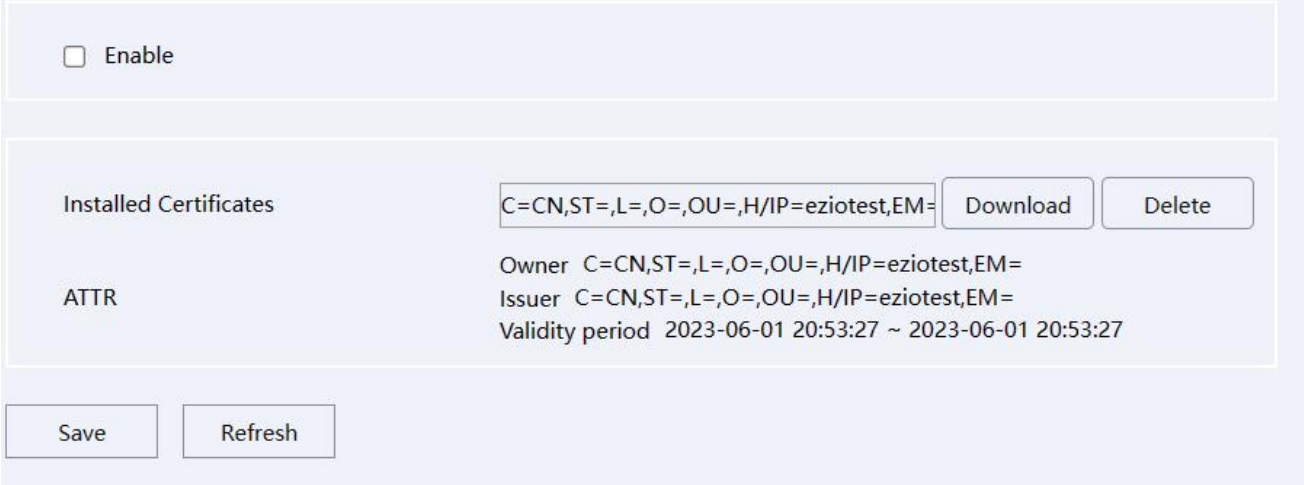


Figure 4-20 HTTPS

3. You need to **Download** the certificate and install it on your PC before visit the device via HTTPS.
4. Click **Save** to save changes.
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 web page.

4.3.10 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 **Setup Menu → Network → Advance Option →Multicast**.
2. Set the Multicast IP (224.0.0.0~239.255.255.255) and port (1025~65534).
3. Click **Save** to save changes.

5. Image Parameter Configuration

Note

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

5.1. Schedule Image Setting

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 **Setup Menu → Image → Image Configuration**.
2. Click the **Image Mode** drop-down box to select a mode.

5.2. 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.
- **Sharpnes**s: 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 **Setup Menu → Image → Image Configuration**.
2. Click **Image Configuration** and set the parameters by sliding on the seek bars for each parameter.

5.3. Exposure

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

- **Anti-flash**: 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 **Setup Menu→ Image → Image Configuration**.
2. Click **Exposure** and set the parameters.

5.4. Back Light Comp

Note

Only one of the features 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 **Setup Menu → Image → Image Configuration**.
2. Click **Back Light Comp** and configure the parameters.

5.5. 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 **Setup Menu → Image → Image Configuration**.
2. Click **White balance** and set the parameters.

5.6. 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**. 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.

Steps:

1. Go to **Setup Menu → Image → Image Configuration**.
2. Click **Day/Night Switch**, and set the parameters.

5.7. Illuminator

Note

Only certain device models support the function.

Steps:

1. Go to **Setup Menu → Image → Image Configuration**.
2. Click **Illuminator**, and set the parameters.

- **Light Type**: There are three options: IR Mode, Warm Light Mode and Smart illumination .

- **IR Light Setting:**
  Light Mode: It is used to control the camera's infrared lighting physical switch, independent of **Fill Light** selection. There are three options: **Close**, **Manual and Auto**, default is Manual.
  Close: Close the infrared light of the camera;

  Note

  When you need to use the camera's infrared light function, please do not set **Fill Light Mode** to Close.

  Manual: in this mode, the infrared light is at its brightest.
  Auto: adjust the IR brightness automatically. When auto mode is selected, the Smart IR is on. Smart IR 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.
- **Warm Light Setting**:
  Light Mode: It is used to control the camera's warm light physical switch, independent of **Fill Light** selection. There are three options:**Close**, **Manual and Auto**, default is Auto.
  Close: Close the warm light of the camera;

  Note

When you need to use the camera's warm light function, please do not set **Fill Light Mode** to Close.

Manual: When switching to manual mode, the Brightness Upper Limit item appears, with an adjustment range of 0-100 and the default of 50;

Auto: When switching to auto mode, the Brightness Upper Limit item appears, with an adjustment range of 1-100 and the default of 100.

Illuminator Delay: With an adjustment range of 10 ~ 300, default 30 sec.

5.8. 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 **Setup Menu → Image → Image Configuration**.
2. Click **Enhancement** and set the parameters.

5.9. 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 **Setup Menu → 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).

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**.

6. 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.

6.1. Video Settings

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

6.1.1. 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 **Setup Menu → Video audio**.
2. Click **Video Settings**, **Stream type** and select the Stream you want to configure.

6.1.2. 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 **Setup Menu → 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**.

6.1.3. 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 **Setup Menu → Video audio → Video Settings → Complexity level**.
2. Select amongst Baseline/Main Profile/High Profile.
3. Click **Save** to save changes.

6.1.4. Video/Audio Enable

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

Steps:

1. Go to **Setup Menu → Video audio → Video Settings**.
2. Select the **Video/Audio**.
3. Click **Save** to save changes.

Note

Disabling the Main Stream video is not supported.

6.1.5. 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 **Setup Menu → Video Audio → Video Settings → Resolution**.
2. Select the **Resolution** you want to set.
3. Click **Save** to save and finish the settings.

6.1.6. 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 **Setup Menu → Video audio → Video Settings → Frame rate (FPS)**.
2. Select the **Resolution** you want to set.
3. Click **Save** to save and finish the settings.

6.1.7. 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 **Setup Menu → Video audio → Video Settings → Bit rate Type**.
2. Select a Bitrate Type according to the needs.
3. Click **Save**.

6.1.8. Quality

When Bit Rate 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 **Setup Menu → Video audio → Video Settings → Image Quality**.
2. Select a Image quality.
3. Click **Save** to save changes.

6.1.9. 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 **Setup Menu → Video audio → Video Settings → Bit Rate (Kb/S)**.
2. Select the **Bit Rate** you want to set.
3. Click **Save** to save and finish the settings.

6.1.10. 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 **Setup Menu → Video audio → Video Settings → I Frame Interval.**
2. Enter **I-Frame Interval** (from 10 to 100 ms) in the input box.
3. Click **Save**.

6.2. 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 **Setup Menu → Video audio → Audio Settings**.
2. Configure the parameters.
3. Click **Save**.

6.3. 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 **Setup Menu → 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** to save changes.
7. Optional: You can select unused region No. and repeat the steps above if you need to draw multiple ROI regions.

6.4. Snapshot Setting

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

Steps:

1. Go to **Setup Menu → Video audio → Snapshot Settings**.
2. Select the **Resolution** and **Quality**.
3. Click **Save**.

6.5. 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 **Setup Menu → Video audio → OSD Setting**.
2. Enter in the **Channel Name** to be set.
3. Check and uncheck the **Channel title**, **Time title** checkboxes 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. Click **Save**.

6.6. 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**.

7. 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.

7.1. Motion Detection

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

Steps:

1. Go to **Setup Menu → Event → Basic Event → Motion detection**.
2. Check the **Enable** checkbox.
3. Set the **Sensitivity**: Motion detection alarm event is more prone to be triggered with a higher sensitivity.
4. Set the **Detect Region**: Drag the mouse in the preview area to specify the detection area (Red marked areas are selected).
5. Set the **Arming Schedule** for Motion Detection.

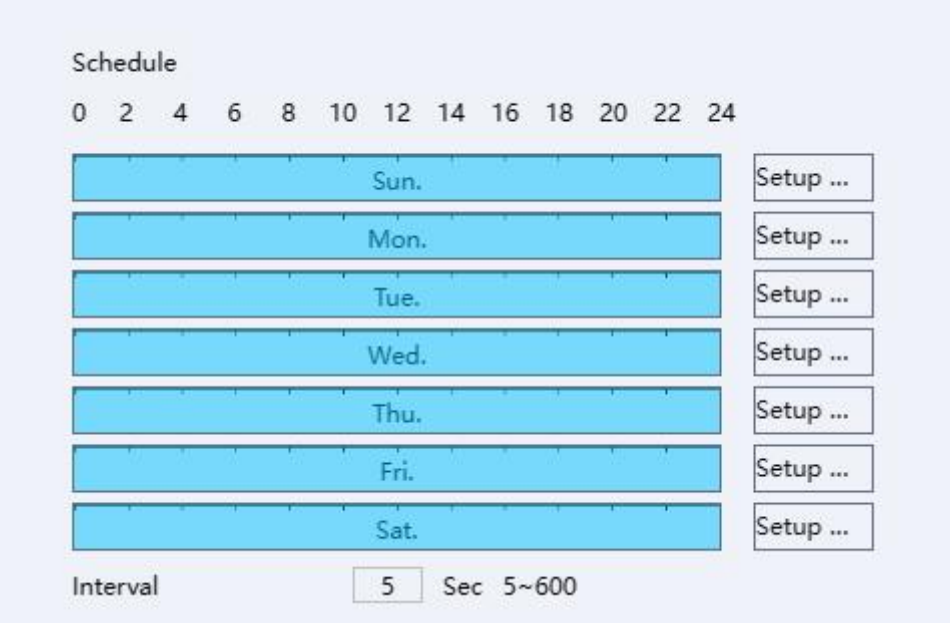


Figure 7-1 Schedule

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

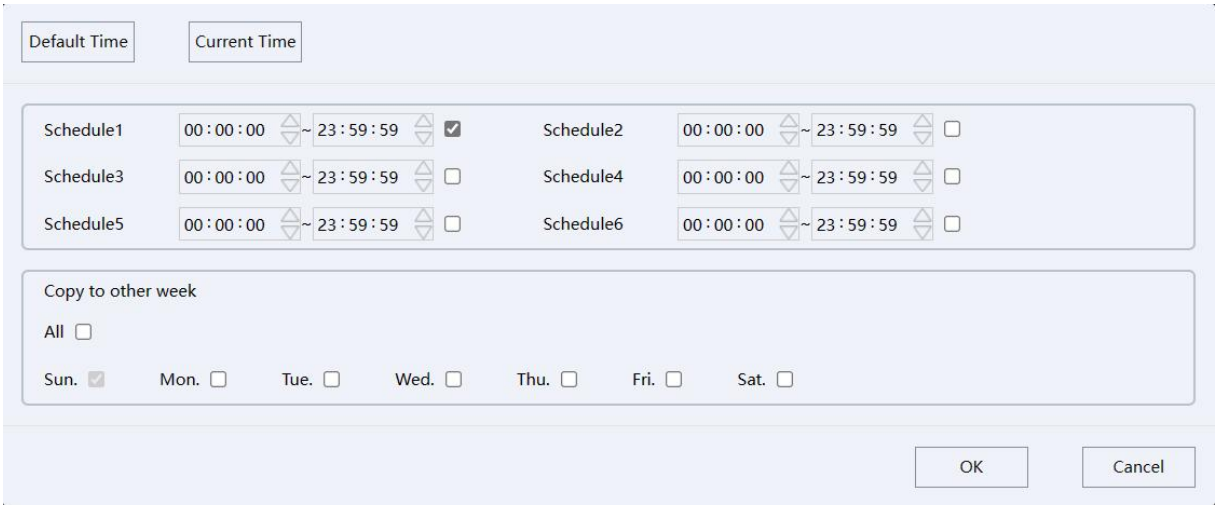


Figure 7-2 Set

2) Set the **Interval time**. It determines the minimal time period between two consecutive alarms. Turn it up to filter frequent alarms, and turn it down to prevent missing alarms.

6. To set the **actions** performed after being triggered, click **Actions.**

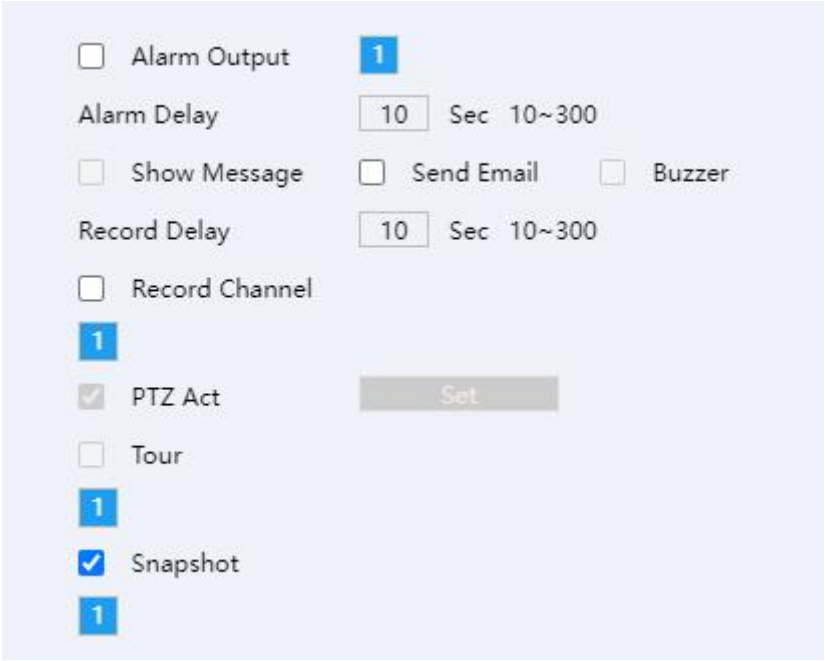


Figure 7-3 Actions

Alarm Delay： Duration of the alarms.

Send Email: When motion detection is triggered, the device will send emails to configured email addresses. For Email Setting please refer to ***4.3.7 Email***.

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.

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

7. Click **Save**.

7.2. Video Tampering

When the configured area is covered and cannot be surveilled normally, the alarm will be triggered and the device will make certain alarm response.

Steps:

1. Go to **Setup Menu → Event → Basic Event → Tampering**.
2. Check the **Enable** checkbox.
3. Set the **Sensitivity**: The cover detection alarm event is more prone to be triggered with a higher sensitivity.
4. Set the **Arming Schedule** for Motion Detection. Click **Setup Menu** to set the detect time for each day.
5. To set the actions performed after being triggered. Click **Actions.**
   1) Set the **Alarm output**, **Alarm delay**, **send email.**
      Alarm delay time: Duration of the alarms.
      Send email: When motion detection is triggered, it will send the email. Email setting please reference the ***4.3.7 Email*.**
      Note: Alarm out function only support the camera which support the alarm out.
   2) Set **Record delay time, record channel**.
      Record Channel: When cover 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 cover detect event ends.
   3) Set **Snapshot.** When cover detection is triggered, device will take snapshots of the video.
6. Click **Save**.

7.3. Disarming

- **Arming/Disarming mode**

After using arming/disarming mode, the alarm linkage action on camera will be activated/deactivated.

- **Custom Disarming Mode**

Steps:

1. Go to **Set → Event → Disarming**.
2. Check the **Custom Disarming** checkbox.
3. Set custom disarming, support **disarm once** or **disarm by schedule**.
4. Set disarm linkage action.

Warning light on: When alarm event is triggered, the device will turn on warning light.

Audio Linkage: When alarm event is triggered, the device will play alarm audio.

Note

Only active deterrence models support warning light and audio linkage function.

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

5. Click **Save** to finished.

7.4. Intelligent

7.4.1. Smart Motion Detection

Smart Motion Detection is a motion detection function that supports human and vehicle filter, which can effectively filter alarms triggered by light changes, tree shadows shaking, small animals, etc.

Steps:

1. Go to **Setup Menu → Intelligent → AI Config → Smart Motion Detection**.
2. Tick the checkbox of **Smart Motion Detection**.
3. Click .
4. Click **Rule**, drag the cursor in the preview area to specify the detection area (Red marked areas are selected).

Max Size： When the size of objects in the scene is larger than the drawing max size， the alarm will not be triggered.

Min Size: When the size of objects in the scene is smaller than the drawing Min Size, the alarm will not be triggered.

Clear Rule: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
6. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
7. Set **Sensitivity**, 1-100 is optional, sensitivity value represent percentage of targets entering the alarm area. A sensitivity value of 0 indicates the alarm will be triggered only if the target enters the area completely. A sensitivity value of 100 indicates the alarm will be triggered the target has just enter the area.
8. Select a **Target Validity** for the event among the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.
9. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.
10. Click **Apply**.

7.4.2. Line Crossing Detection

Line Crossing can be understood as a warning line, which is drawn in the real-time monitoring screen area of the camera . When a target crosses the warning line in the set direction, the system generates an alarm and performs alarm linkage actions .

Steps:

1. Go to **Setup Menu → Intelligent → AI Config → Line Crossing**.
2. Tick the checkbox of **Line Crossing**.
3. Click .
4. Set line crossing detection rules and detection line. You can adjust the Line Crossing warning line by dragging the anchor points at both ends of the default tripwire with the cursor on the screen.

Max Size： When the size of objects in the scene is larger than the drawing max size, the alarm will not be triggered.

Min Size: When the size of objects in the scene is smaller than the drawing Min Size, the alarm will not be triggered.

Clear Rule: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

Dynamic Tracking : Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

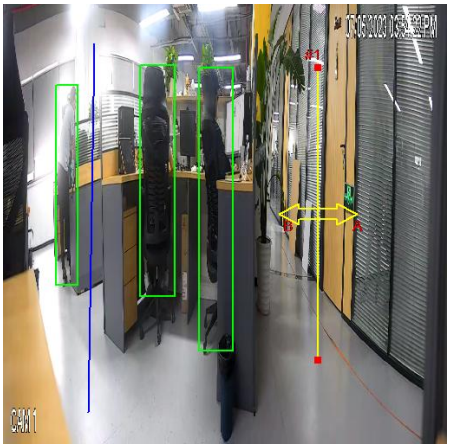


Figure 7-5 Enable Dynamic Tracking

5. Select the **Arming Rule**, Up to 4 arming lines can be set.

6. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.

7. Select **Direction** as **A<->B**, **A->B**, or **B->A**.

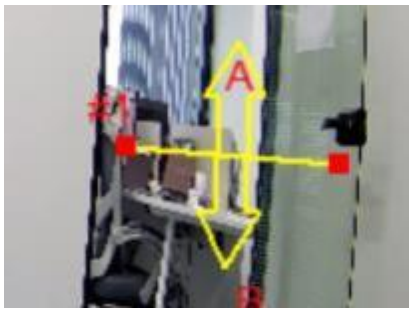


Figure 7-4 Line Crossing

A<->B

The arrow on the A and B side shows. An object crossing a configured line in both directions can be detected and trigger alarms.

A->B

Only an object crossing the configured line from the A side to the B side can be detected.

B->A

Only an object crossing the configured line from the B side to the A side can be detected.

8. Set **Sensitivity**, 1-100 is optional, sensitivity value represent percentage of targets cross the line. A sensitivity value of 0 indicates the alarm will be triggered only if the target cross the line completely. A sensitivity value of 100 indicates the alarm will be triggered the target has just cross the line.

9. Select a **Target Validity** for the event among the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.

10. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.

11. Click **Apply**.

7.4.3. Area Intrusion Detection

Area Intrusion is to draw one or more detection areas in the monitoring area,when an object enters the detection area and reaches the set proportion and intrusion duration, an alarm will be triggered and the set alarm action will be linked.

Steps:

1. Go to **Setup Menu → Intelligent → AI Config → Area Intrusion.**
2. Tick the checkbox of **Area Intrusion**.
3. Click .
3. Click **Rule**, click 4 points by using the left mouse button to draw area directly in the video window.

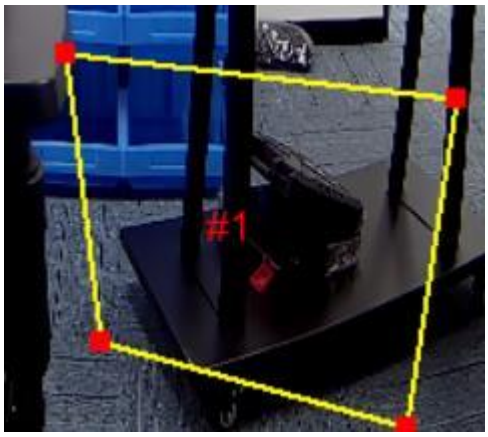


Figure 7-6 Area Intrusion

Max Size: When the size of objects in the scene is larger than the drawing max size, the alarm will not be triggered.

Min Size: When the size of objects in the scene is smaller than the drawing Min Size, the alarm will not be triggered.

Clear Rule: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

Optional: Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

4. Select the **Arming Rule**, Up to 4 areas can be set.
5. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
6. Set **Threshold**: Alarm occurs if target enter arming areas and stay longer than the time threshold you set, 0 -10s settable.
7. **Sensitivity** value represent percentage of targets intrusion the area. A sensitivity value of 0 indicates the alarm will be triggered only if the target intrusion the area completely. A sensitivity value of 100 indicates the alarm will be triggered the target has just intrusion the area.
8. Select a **Target Validity** for the event among the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.
9. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.
10. lick **Apply**.

7.4.4. Region Entrance Detection

Region Entrance is to draw one or more detection areas in the monitoring area. When an object enters the detection area, an alarm will be triggered and the alarm action will be set in conjunction .

Steps:

1. Go to **Setup Menu → Intelligent → AI Config → Region Entrance.**
2. Tick the checkbox of **Region Entrance**.
3. Click .

4. Click **Rule**, click 4 points by using the left mouse button to draw area directly in the video window.

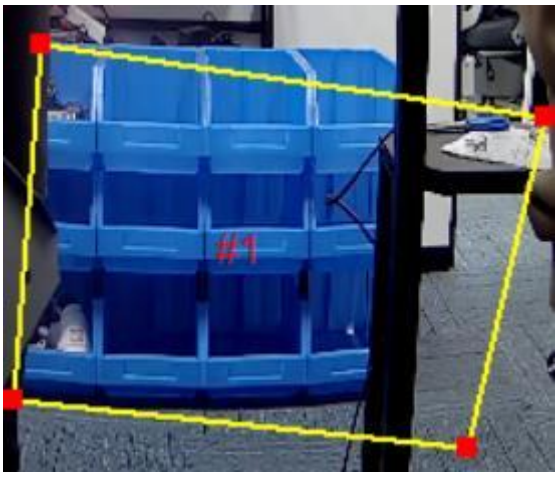


Figure 7-7 Region Entrance

Max Size: When the size of objects in the scene is larger than the drawing max size, the alarm will not be triggered.

Min Size: When the size of objects in the scene is smaller than the drawing Min Size, the alarm will not be triggered.

Clear Rule: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Select the **Arming Rule**, Up to 4 arming areas can be set.
6. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
7. **Sensitivity** value represent percentage of targets enter the area. A sensitivity value of 0 indicates the alarm will be triggered only if the target enter the area completely. A sensitivity value of 100 indicates the alarm will be triggered the target has just enter the area.
8. Select a **Target Validity** for the event among the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.
9. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.
10. Click **Apply**.

7.4.5. Region Exiting Detection

Region Exiting is used to detect whether the target in a certain area has left the preset monitoring area. When the camera detects the target leaving the specified area,and some certain actions can be taken when the alarm is triggered.

Steps:

1. Go to Go to **Setup Menu → Intelligent → AI Config → Region Exiting**.
2. Tick the checkbox of **Region Exiting**.
3. Click .
4. Click **Rule**, click 4 points by using the left mouse button to draw area directly in the video window.

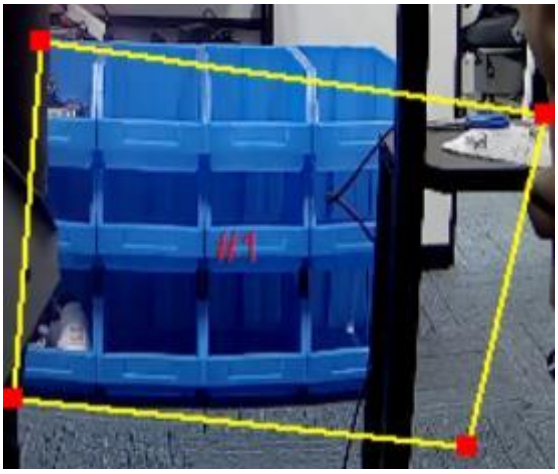


Figure 7-8 Region Exiting

Max Size: When the size of objects in the scene is larger than the drawing max size, the alarm will not be triggered.

Min Size: When the size of objects in the scene is smaller than the drawing Min Size, the alarm will not be triggered.

Clear Rule: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

Optional: Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

5. Select the **Arming Rule**, Up to 4 arming areas can be set.

6. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.

7. **Sensitivity** value represent percentage of targets exit the area. A sensitivity value of 0 indicates the alarm will be triggered only if the target exit the area completely. A sensitivity value of 100 indicates the alarm will be triggered the target has just exit the area.

8. Select a **Target Validity** for the event among the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.

9. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.

10. Click **Apply**.

7.4.6. Face Detection

This function support to detect the human face in the detection region and trigger the linkage actions.

Note

Only certain device models support the function.

Steps:

1. Go to **Setup Menu → Intelligent → AI Config → Face Detection.**

2. Tick the checkbox of **Face Detection**.

3. Click .

4. Draw Area:

1) Click the **Rule**, 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.

Optional: Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

5. Set the **sensitivity**. The higher the value is, the more face shape can be detected.

6. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.

7. Click **Apply**.

7.4.7. People Flow Counting

Note

- This function is available on some select models.
- Enable **People Flow Counting** will disable the **Crowd Density Monitoring**.

The system counts the number of people entering and leaving the detection area. When the number of counted people exceeds the configured value, an alarm is triggered and the system performs an alarm linkage.
Steps:

1. Go to **c Intelligent → AI Config → People Flow Counting.**

2. Tick the checkbox of **People Flow Counting**.

3. Click  .

4. Draw Area:

1) Click  to draw rule area, click up to 10 points by using the left mouse button to draw area directly in the video window, right click mouse button to finish.

2) Click  to draw direction line, you can click  to change direction.

Note

Please configure the rule area to ensure that the direction line is within the rule area.

3) Optional: Click  to reset OSD data.

Optional: Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

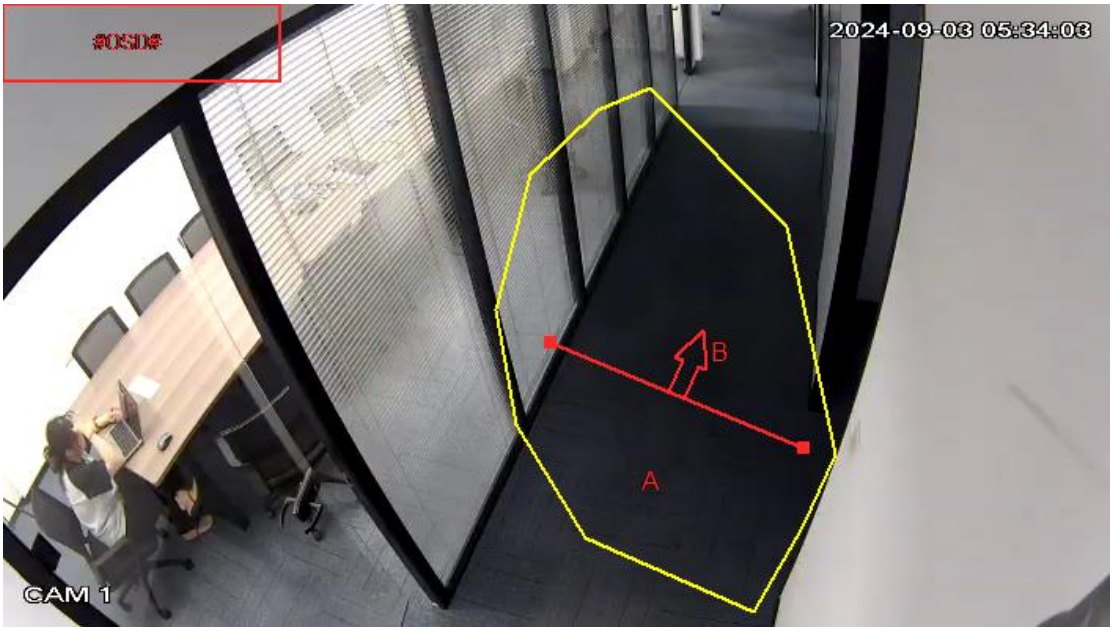


Figure 7-8 People Flow Counting

5. Set the **Report Type**, default is “Total”, in this mode, system will upload the entry and exit data to the report. You can switch the mode to “People Entered” or “People Exited”. Go to **Application → People Flow Counting** to view report.

Figure 7-8 People Flow Counting Report

Note

- You can click , or to view the report in tables, bar or line graphs.
- Support export people counting report to save and check. Click **Export** in the upper right corner, select a path to save.

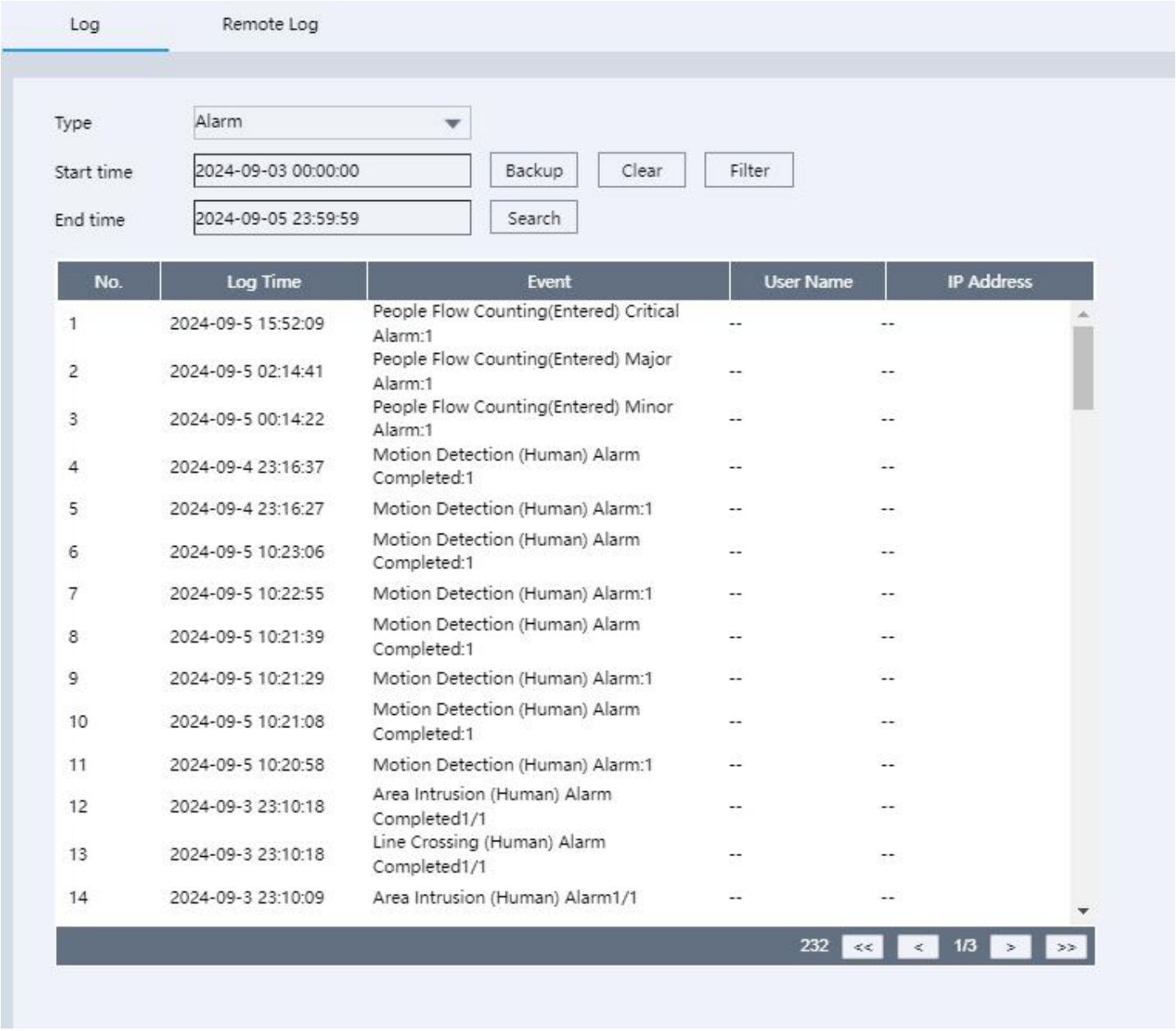
6. Check the checkbox of **OSD Overlay** to overlaying OSD data onto the preview screen, you can drag the red border to change OSD position.

7. Check the checkbox of **OSD Auto Reset.**, system will recount at the time you set automatically.

8. Set people entered/exited or staying alarm rule amount.

Figure 7-8 Alarm Setup Menu

The system will record the alarm information when target trigger the alarm rule, you can go to **Setup Menu → Maintain → Log** to check alarm information, as shown below.



9. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.

10. Click **Apply**.

7.4.8. Crowd Density Monitoring

Note

- This function is available on some select models.
- Enable **Crowd Density Monitoring** will disable the **People Flow Counting** .

The system counts the people in the detection area that people stay in the area. When the number of counted number of people in the detection area, an alarm is triggered, and the system performs an alarm linkage.

Steps:

1. Go to **c Intelligent → AI Config → Crowd Density Monitoring.**
2. Tick the checkbox of **Crowd Density Monitoring**.
3. Click .
4. Draw Area:

1) Click to draw rule area, click up to 10 points by using the left mouse button to draw area directly in the video window, right click mouse button to finish.

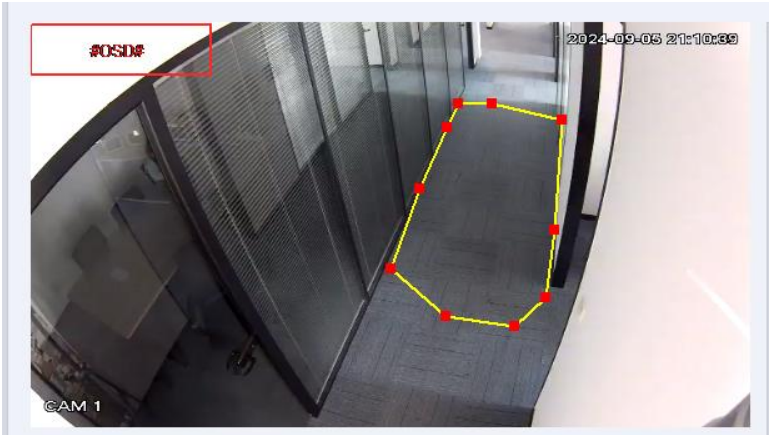


Figure 7-8 Crowd Density

Optional: Check the checkbox of **Dynamic Tracking** to enable the dynamic tracking lines and smart rules.

5. Tick the checkbox of **Crowd Density Alarm**, set alarm amount. System will upload the crowd level to the log, you can go to **Setup Menu → Maintain → Log** to check alarm information.
6. Set the **Arming Schedule** and **Actions**. Please refer to ***7.1 Motion detection*** for details.
7. Click **Apply**.

7.4.9. Blurred Detection

The blurred image caused by lens defocus can be detected. If it occurs, the device can take linkage actions.

Steps:

1. Go to **Setup Menu → Event → Smart Event → Blurred Detection**.

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

3. Select **Warning** surfaces you want to set.

4. Set the **Sensitivity**.
The Blurred Detection is easier to trigger with higher sensitivity value.

5. Set the **Percent.**
It indicates how much of the invaded area is required to trigger the alarm, the percentage value is taken for input.

6. Set the **Arming schedule** and **Actions**. Please refer to ***7.1 Motion detection setting*** for details.

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

7.4.10. 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 **Setup Menu → Event → Smart Event → Scene Change.**

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 ***7.1 Motion detection setting*** for details.

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

7.4.11. 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.

7.4.12. 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.

7.4.13. 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.

7.4.14. 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.

7.4.15. 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.

7.4.16. 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.

7.4.17. 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 7-9 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.

7.5. Face Detection

This function support to detect the human face in the detection region and trigger the linkage actions.

Note

Only certain device models support the function.

7.5.1. Configure the Face Detection

Steps:

8. Go to **Setup Menu → Event → Face Detection →Base.**

9. Check the checkbox **Enable** the function.

10. Draw Area :

2) Click the **Plot Area button**, and a virtual rectangle is displayed on the live image.
3) Click-and-drag the rectangle, and you can locate it on the live image as desired.
4) 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.

11. Set the **sensitivity**. The higher the value is, the more face shape can be detected.

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

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

7.5.2. Overlay and Capture Settings

Steps:

1. Go to **Setup Menu → Event → Face Detection → Overlay and capture.**

2. Set the

- **Capture configuration**: You can set the face picture name as default or Custom prefix it with 1-15 characters.
- **Monitoring point parameters:** You can set the device ID and Monitoring point information.
- **OSD statistics:** You can set the OSD statistics **Open/Stop**.

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

7.6. Body Detection

This function support to detect the human shape in the detection region and trigger the linkage actions.

Note

Only certain device models support the function.

Steps:

1. Go to **Setup Menu → Event → Body Detection.**
2. Check the checkbox **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**: The higher the value is, the more human shape can be detected.
5. Set the **Arming schedule** and **Actions**. Details reference the ***7.1 Motion detection setting*.**
6. Click **Save** to save and finish the settings.

7.7. Car Shape Detection

This function support to detect the car shape in the detection region and trigger the linkage actions.

Note

Only certain device models support the function.

Steps:

1. Go to **Setup Menu → Event → Car shape Detection.**
2. Check the checkbox **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**: The higher the value is, the more car shape can be detected.
5. Set the **Arming schedule** and **Actions**. Details reference the ***7.1 Motion detection setting*.**
6. Click **Save** to save and finish the settings.

7.8. Crossing Line Statistics

This function support to statistic the number of crossing line movement.

Before you start:

The camera must insert the Micro-SD card to support this function. The statistics date will be saved in Micor SD card.

7.8.1. Configure the Crossing line statistics

This function support to statistics the number of crossing line.

Steps:

1. Go to **Setup Menu →Crossing line statistics.**
2. Check the checkbox **Enable** crossing line statistics, Enable OSD overlay.
3. Click **Smart regulation** to set the crossing line parameters.

1) Click  to Draw the crossing line

2) Click  to change the direction of drawing line.

3) Click  to delete the drawing line.

Optional:

- Click on the line, 2 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.
- Left click the OSD information, move to the position you want to set. Will show the crossing line In/Out numbers on the OSD.

4. Set the **Arming time**, click **Set** to set the schedule.
5. Click **Save** to save and finish the settings.

7.8.2. Check the Crossing line statistics data

Support to check the Crossing line statistics data as **list/chart/Histogram**

Steps:

1. Click **Application**, Enter the interface.
2. Select to choose **Report range**: Daily/Weekly/Monthly/Annual report
3. Select to choose **Statistics type**: Enter / Leave the number of people.
4. Select the Start time.
5. Click **Statistics.**
6. Check the **Statistics result**, you can check with list/Polyline chart/Histogram
7. **Optional**: Support to export the date as .xls file to PC
8. Click **Export** to export the file.

8. 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.

8.1. Record and Snapshot

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

8.1.1. Record setting

Steps:

1. Go to **Setup Menu → Recording Settings → Record and snap → Record → 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**.

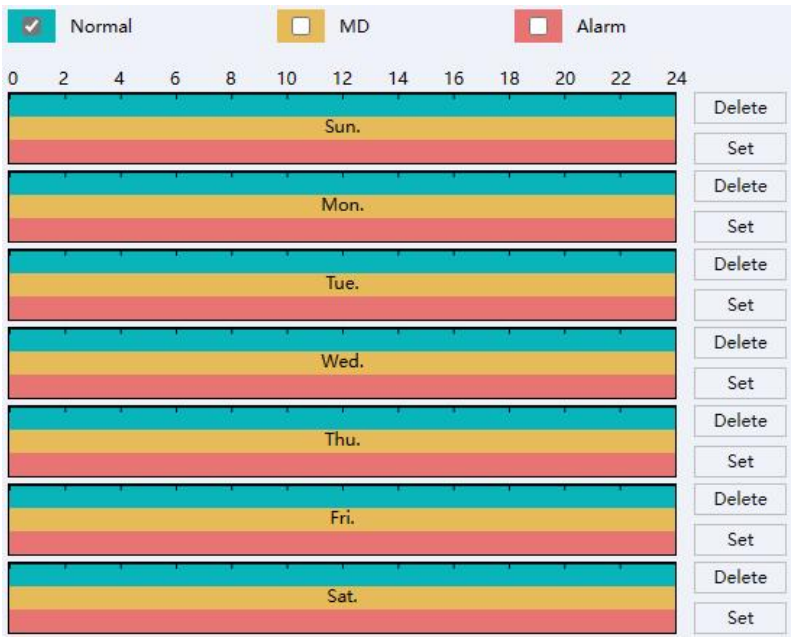


Figure 8-1 Set Record Plan

6. Set the Record type at Record Control section: Schedule, Manual, 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.

8.1.2. 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 **Setup Menu → Record 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 **Setup Menu → Record 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 **Setup Menu → Record 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.

8.2. Storage Manager

8.2.1. 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 **Setup Menu → Recording Settings → Storage Manager.**

- **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.

8.2.2. 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 **Setup Menu → Recording Settings → Storage Manager → NAS**.

Disk No.	Type	Server address	File path	Space(GB)
1	NAS			2
2	NAS			2
3	NAS			2
4	NAS			2

Figure 8-2 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.

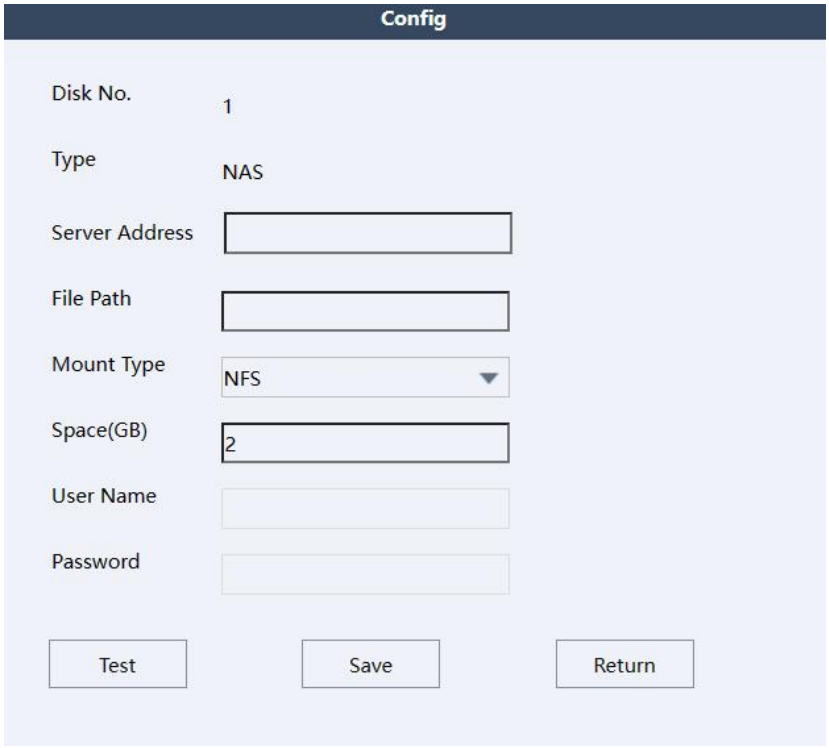


Figure 8-3 Config

9. Maintain

This chapter introduces the maintenance details.

9.1. Reboot Device

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

- **Reboot device manually via browser**

Steps:

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

9.2. Restore and Default Settings

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

- **Restore default setting**

Steps:

1. Go to **Setup Menu → Maintain → 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 **Setup Menu → 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.

9.3. Config Export/Import

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

Steps:

1. Go to **Setup Menu → Maintain → Export Import.**
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.

9.4. 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 **Setup Menu → Maintain → Upgrade.**
2. Click **Select upgrade file**.
3. Click **Upgrade**.

9.5. Search and Manage Log

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

1. Go to **Setup Menu → Maintain → 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.

10. 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.

10.1. 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,

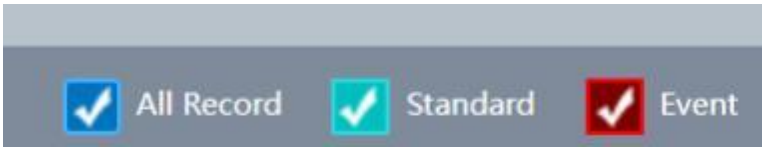


Figure 10-1 Select the video

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 10-1 Description of the items

10.2. 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**.

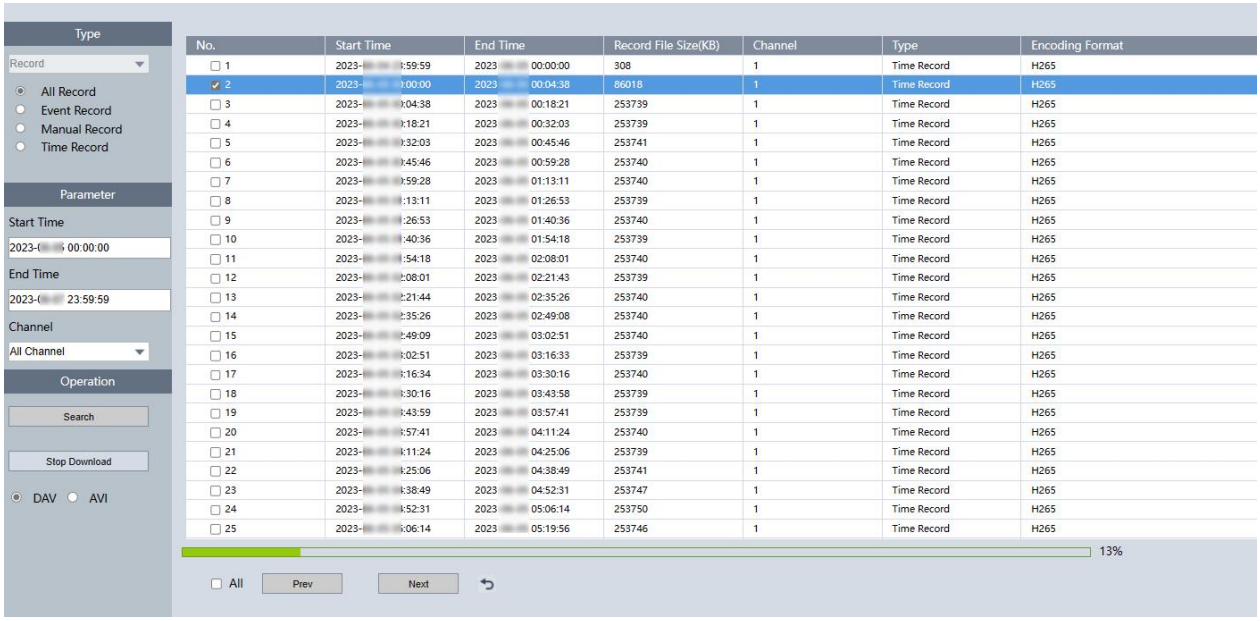


Figure 10-2 Download

The video file will start to download, and save to the PC folder.
To find the file, check the configured saving path from ***4.1 Local Storage***.