Network Video Recorder

User Manual

Legal Information

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual on the Homaxi website (***https://www.Homaxi.com***).
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.

Applicable Model

This manual applies to the following models.

Series	Model
X Series	NVR808E-32
	NVR808H-64
I Series	NVR602S-8P8
	NVR602S-16P16
	NVR604E-16P16
	NVR604E-32P16
	NVR604E-32
S Series	NVR401S-8P8
	NVR401L-4P4

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 forconnection 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 of NVR

1.1 Front Panel

POE NVR Front Panel, as shown in Figure 1-1, 1-2.

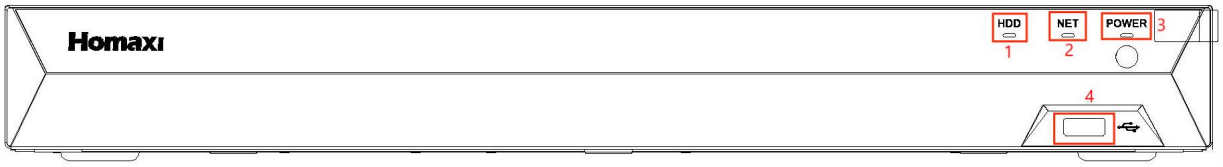


Figure 1-1 Front panel of POE NVR

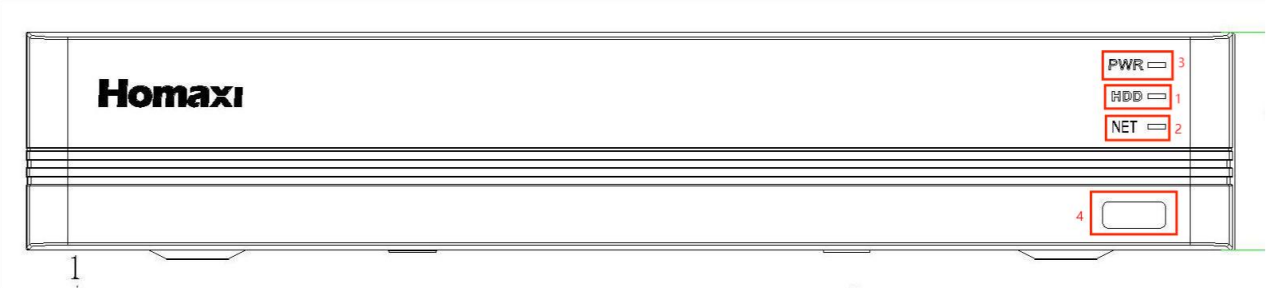


Figure 1-2 Front panel of POE NVR

No.	Function Description
1	Hard disk status light
2	Network status light
3	Power status light
4	USB interface

Table 1-1 Description of the front panel

NO-POE NVR Front Panel, as shown in Figure 1-3, 1-4.

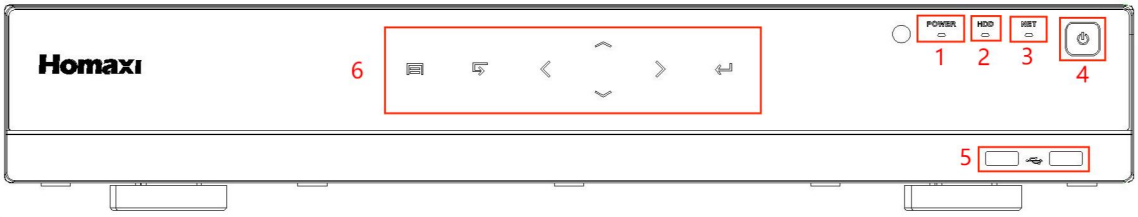


Figure 1-3 Front panel of NO-POE NVR

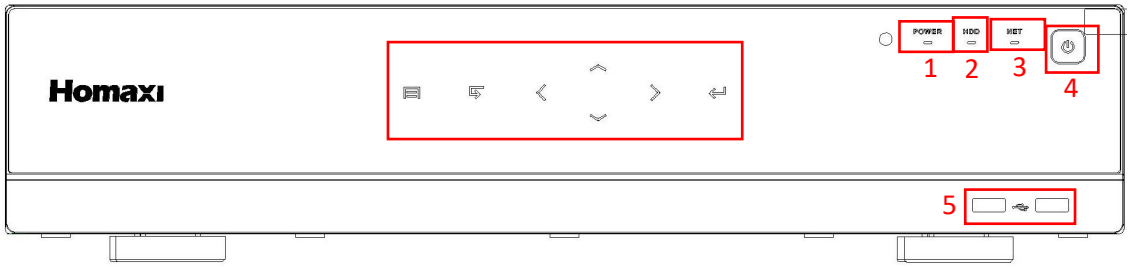


Figure 1-4 Front panel of NO-POE NVR

No.	Description
1	Power status light

2	Hard disk status light
3	Network status light
4	Power switch
5	USB interface
6	Operation panel

Table 1-2 Description of the front panel

Note

All the drawings above are for reference only.

1.2 Rear Panel

POE NVR Rear Panel, as shown in Figure 1-5 , 1-6.

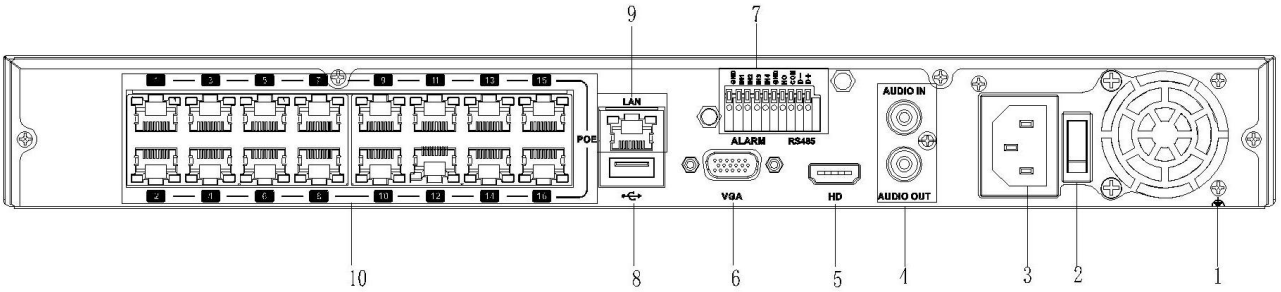


Figure 1-5 Rear panel of POE NVR

No.	Description
1	Ground
2	Power switch
3	Power Input
4	Audio IN/OUT RCA
5	HD port
6	VGA port
7	Alarm Input
8	USB port
9	Network port
10	POE Network port

Table 1-3 Description of Rear Panel

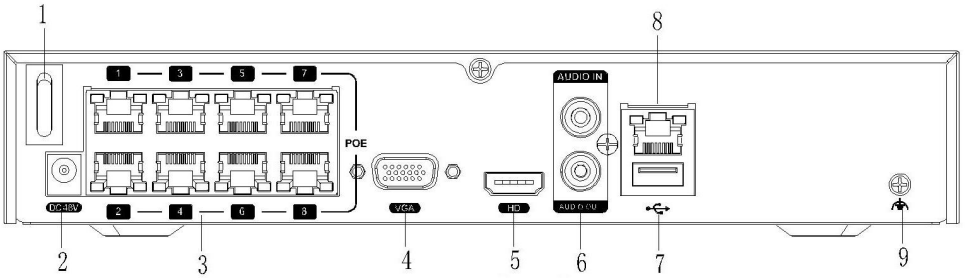


Figure 1-6 Rear panel of POE NVR

No.	Description

1	Power Switch
2	Power Input
3	POE Network port
4	VGA port
5	HD port
6	Audio IN/OUT RCA
7	USB port
8	Network port
9	Ground

Table 1-4 Description of Rear Panel

NO-POE NVR Rear Panel, as shown in Figure 1-7.

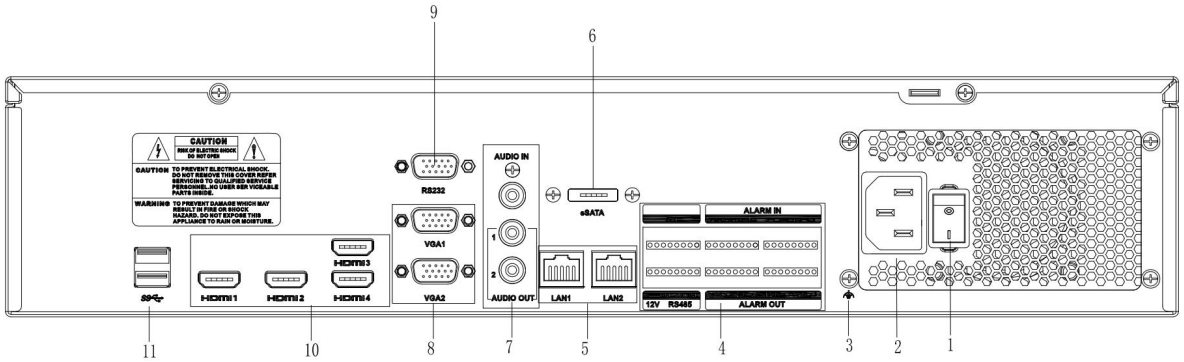


Figure 1-7 Rear panel of NO-POE NVR

No.	Description
1	Power Switch
2	Power Input
3	Ground
4	Alarm Input
5	Network port
6	e SATA port
7	Audio IN/OUT RCA
8	VGA port
9	RS232 port
10	HDMI port
11	USB port

Table 1-5 Description of Rear Panel

Note

All the drawings above are for reference only.

1.3 HDD Installation

Before installing Hard Disk (HDD), please make sure the power is disconnected from the NVR. To specify the

capacity limit of the HDDs, please refer to NVR's specifications. NVR without Hard Disk still supports monitoring, but no recording or playback. If you correctly install the Hard Disk, the HDD indicator will blink regularly when the NVR is on work.

Please turn off the power before the installation of HDDs. The pictures of the installation are only for reference.

1 or 2 HDD(s) Series

Figure 1-8 Remove the cover

Figure 1-9 Connect the power and data cables

Figure 1-10 Fix the HDD

Figure 1-11 Install the cover and screws

4 or 8 HDD(s) Series

Figure 1-12 Remove the cover

Figure 1-13 Connect the power and data cables

Figure 1-14 Fix the HDD

Figure 1-15 Install the cover and screws

Note

- If user requires higher performance HDD, it is strongly recommended to use special hard drive for security and protection.
- Please do not take out hard drive when NVR is running!

1.4 IP Camera and Monitor Connection

Transmit signals of IP camera to NVR by the network cable, and connect VGA port and HDMI port for output.

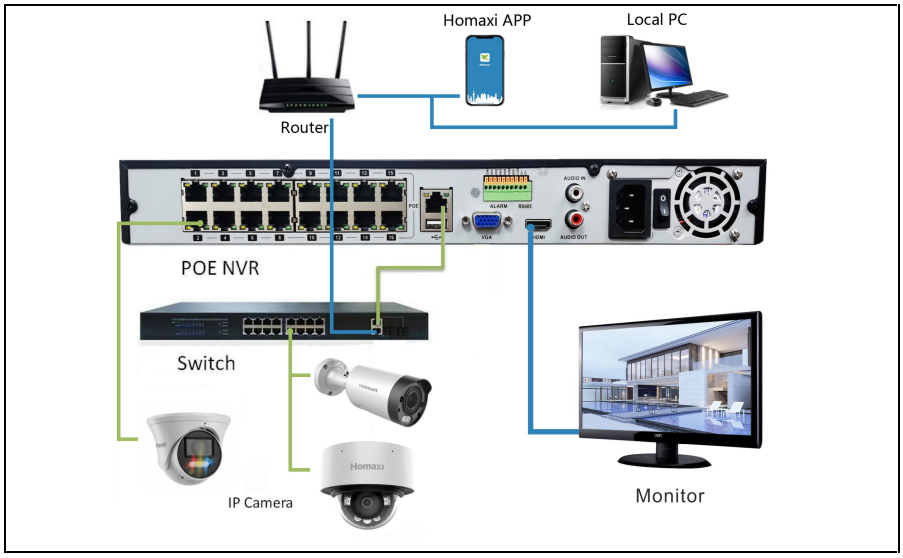


Figure 1-16 Device connection

Note

We use PoE NVR as an example. When connect non-PoE NVR, please choose to access the PoE or non-PoE switch according to the camera type.

1.5 Power Supply Connection

Please use attached power adapter to connect NVR. Before power on, make sure the cables on the audio I/O ports and network port are well connected.

Figure 1-17 Power Supply Connection

1.6 USB Mouse Operation

A regular 3-button (Left/Right/Scroll-wheel) USB mouse can also be used with this NVR. To use a USB mouse:

1. Plug the USB mouse into one of the USB interfaces on the front panel of the NVR.
2. The mouse should automatically be detected. If in a rare case that the mouse is not detected, the possible reason may be that the two devices are not compatible, please refer to the recommended device list from your provider.

Items	Action	Description
Left-Click	Single-Click	Live view: Select channel and show the quick set menu.
	Double-Click	Live view: Switch between single-screen and multi-screen.
	Click and Drag	Live view: Drag channel/time bar. Alarm: Select target area. Digital zoom-in: Drag and select target area.
Right-Click	Single-Click	Menu: Exit current menu to the upper-level menu.
Left&Right-Click	At the same time click	Hold 5 seconds to, change the device resolution to the lowest.
Scroll-Wheel	Scrolling up	Menu: increase the value of the setting.
	Scrolling down	Menu: decrease the value of the setting.

Table 1-6 Key Functions of USB Mouse Operation

1.7 Input Method Description

Figure 1-18 Soft keyboard (1)

Figure 1-19 Soft keyboard (2)

Figure 1-16 Soft keyboard (3)

Button	Description
! ? @ # $ % ^ & * + =	Symbols
0 9	Number
Enter	Enter
␣	Space
a ..... z	English letter
←	Backspace
Shift	Lowercase/Uppercase

Table 1-7 Description of the Soft Keyboard Icons

2. Startup

2.1 Starting Up and Shutting Down the NVR

Purpose

Proper startup and shutdown procedures are crucial to expanding the lifespan of the NVR.

Before you start

Check that the voltage of the extra power supply meets the NVR's requirement, and the ground connection is working properly.

Starting up the NVR

Steps:

1. Check the power supply is plugged into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. The Power indicator LED on the front panel should be on, indicating the device gets the power supply.
2. Turn on the power switch on the rear panel if the device starts up for the first time or press the button on the front panel (Not required if not exists). The Power indicator LED should blink or be always on indicating that the unit begins to start up.
3. After the startup you will hear a beep, the Power indicator LED stays on. A splash screen with the status of the HDD appears on the monitor. The row of icons at the bottom of the screen shows the HDD status. 'X' means that the HDD is not installed or cannot be detected.

Shut down the NVR

Steps:

1. Move the mouse to the bottom of the interface then enter the Shutdown menu.

Go to **Power → Shutdown.**

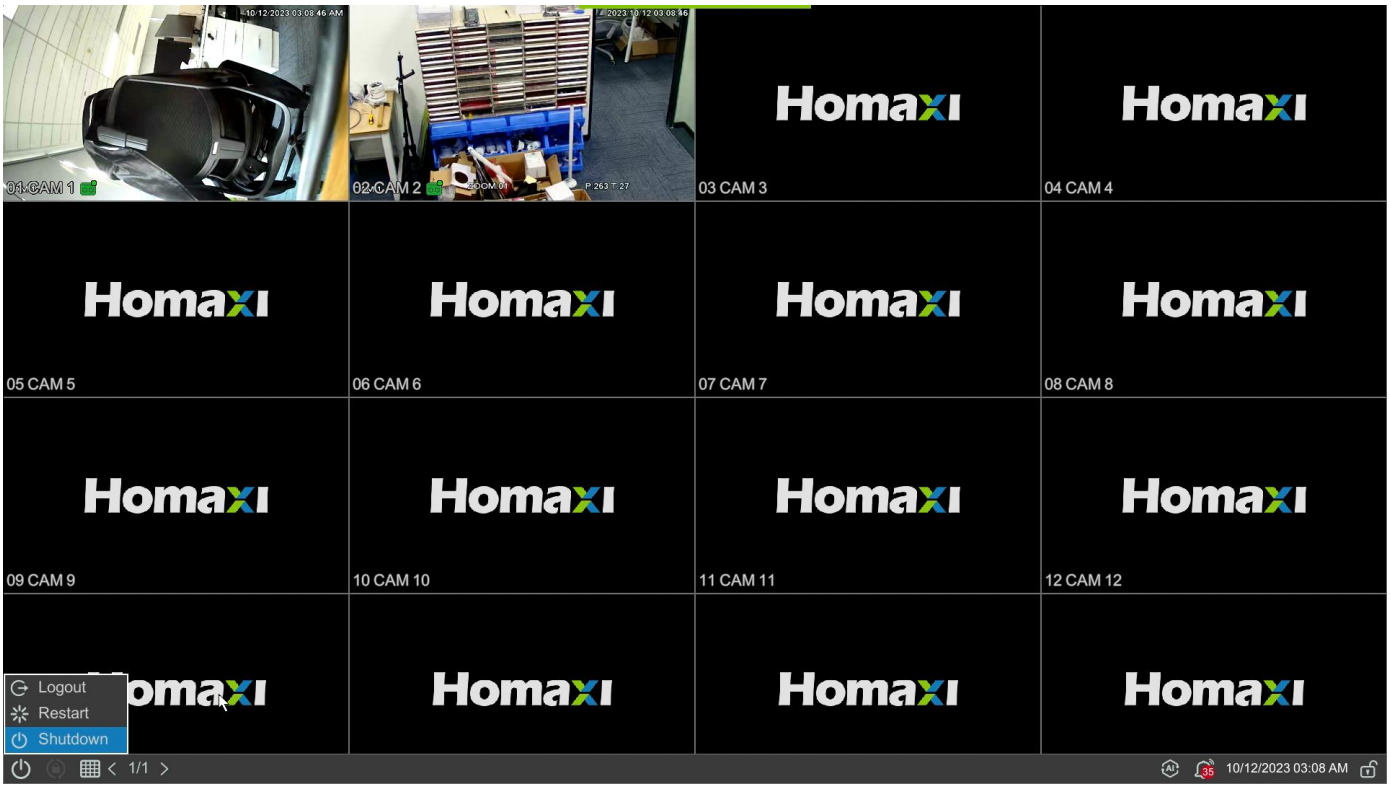


Figure 2-1 Power

2. .Equipment shutdown.

Figure 2-2 Shutdown Attention

Restart the NVR

In the Shutdown menu, you can also restart the NVR.

Steps:

1. Go to **Power → Restart**.
2. Wait for the device to restart successfully.

Figure 2-3 Restart Menu

2.2 Activate Your Device

For the first-time access, you need to activate the video recorder by setting the admin password. No operation is allowed until activation is done. You can also activate the video recorder via web browser or Device Manager.

Before You Start

Power on your device.

Steps:

1. Input the same password in **Password and Confirm**.

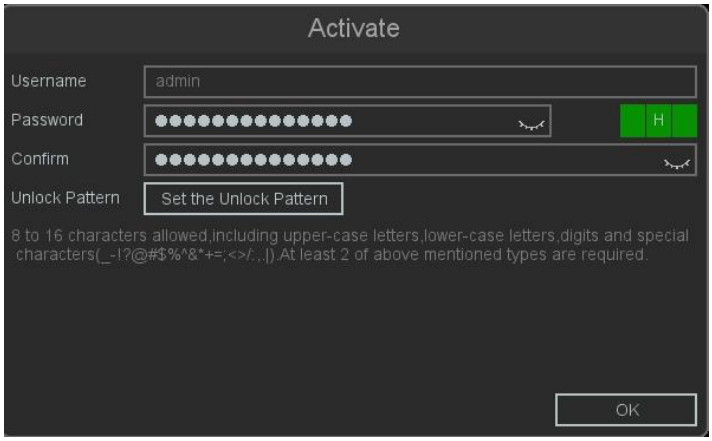


Figure 2-4 Activation

Warning

Strong Password recommended-We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high standard security system, resetting the password monthly or weekly can provide better protect to your products.

2. Optional: You can also set the Pattern Lock by click **Set the Unlock Pattern**.

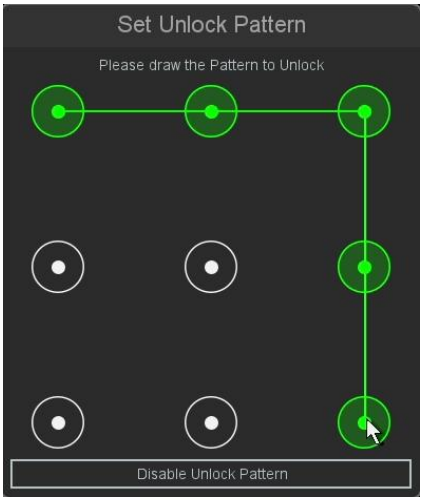


Figure 2-5 Set Unlock Pattern

3. Click **OK**.
4. Message 'Save successful', the password setting is complete.

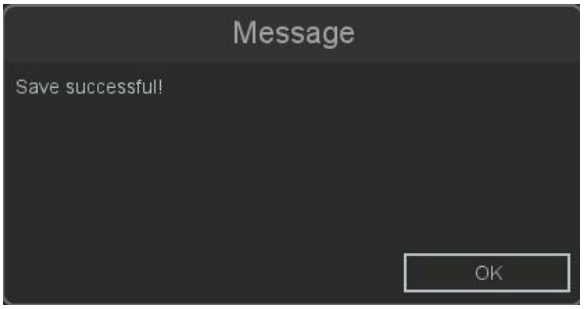


Figure 2-6 Message

5. Configure at least one password reset method: add a reserved email or set security questions.

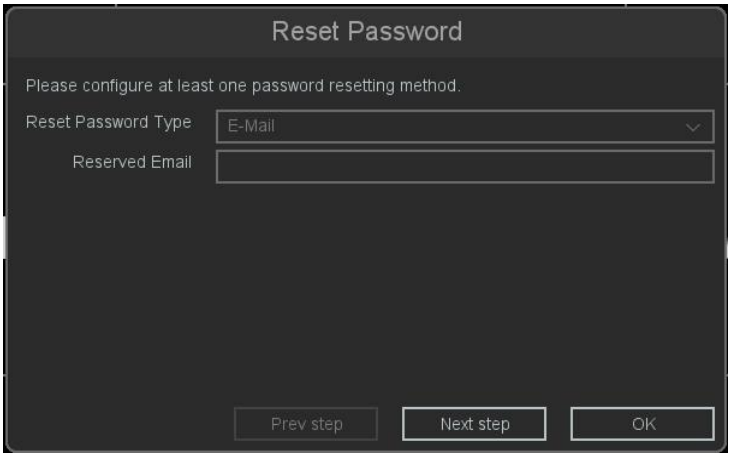


Figure 2-7 Reset Password

Figure 2-8 Reset Password

6. Click **OK**.

2.3Using the Startup Wizard

Steps:

1. By default, the Startup Wizard starts once the NVR has loaded.

Figure 2-9 Startup Wizard

Note

The Startup Wizard can guide you through some important settings of the NVR. If you don't want to use the Startup Wizard at that moment, click the exit button. You can also choose to use the Startup Wizard next time by leaving the 'enable' checkbox checked.

2. Click **Next step** button to enter the Set Administrator Password window.

Figure 2-10 Set Administrator Password window

3. Click **Next Step** button to enter the general settings window.

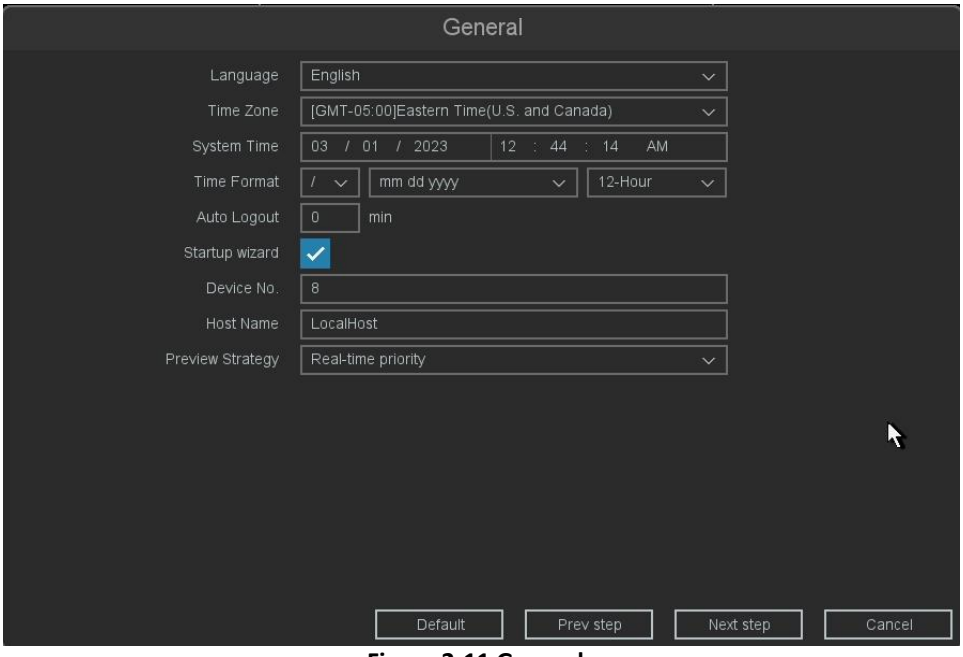


Figure 2-11 General

4. After the general settings, click **Next step** button which takes you to the **Record** setup wizard window.

Figure 2-12 Record

5. After the Record settings, click **Next Step** which takes you to the HDD Management Setup window.

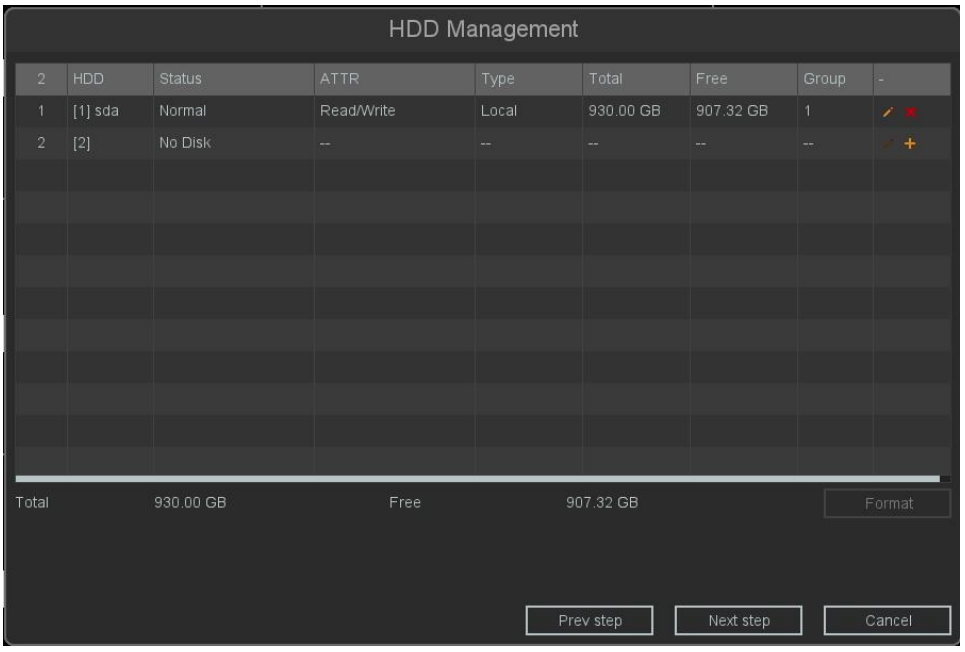


Figure 2-13 HDD Management

6. Click **Next step**. You will enter the Network setup wizard window.

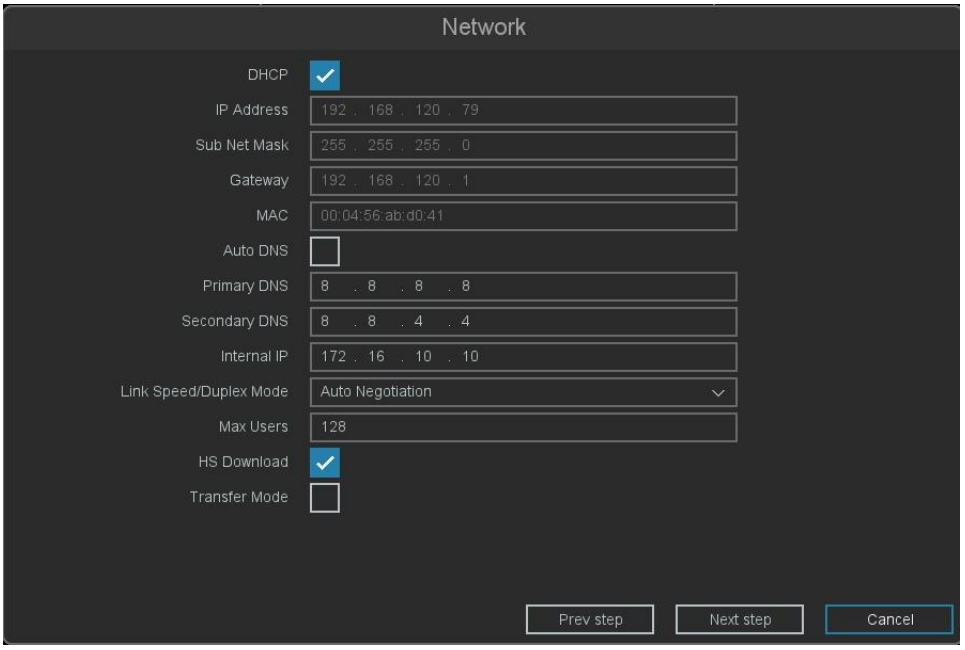


Figure 2-14 Network

Note

NVR with dual Ethernet port can select Lan1 or Lan2 to configure the network parameters individual.

Default Route recommend use the port connect to the router.

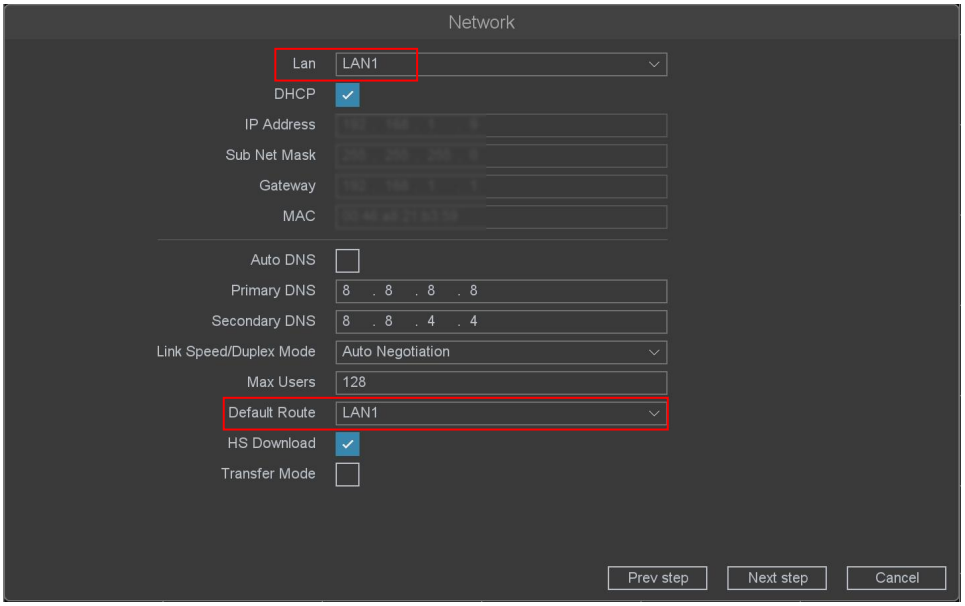


Figure 2-15 Dual Ethernet Port NVR

7. Click **Next step** after you configured the network parameters, you then enter the cloud service setup wizard window.

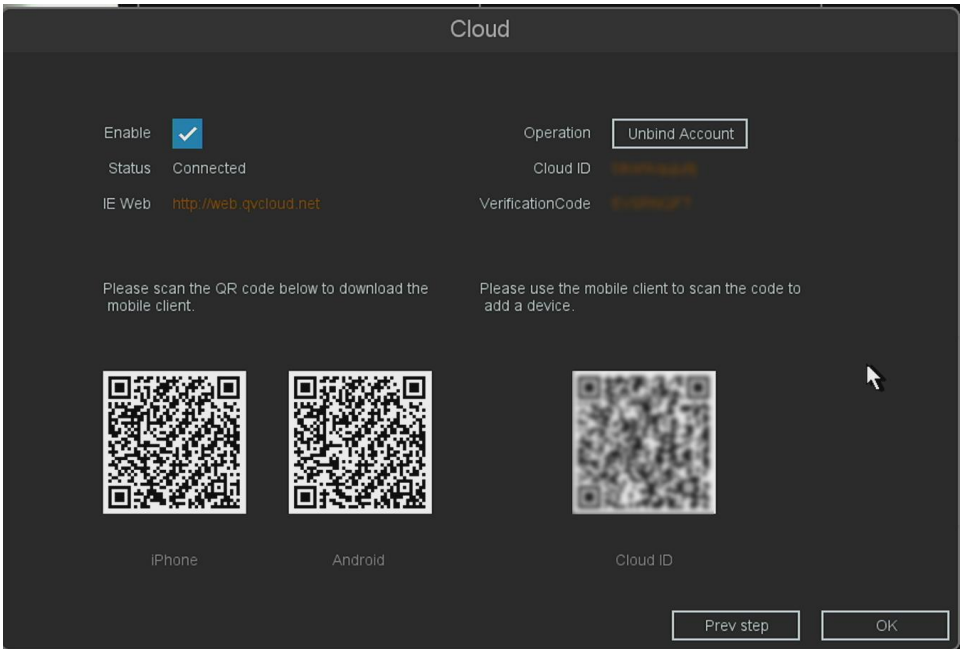


Figure 2-16 Cloud

8. Click **OK**.

2.4Login and Logout

2.4.1 Set Unlock Pattern

Admin users can use the unlock pattern to login. You can set the unlock pattern when the device is activated, another method go to **Setting → System settings → Account** to modify password.

Steps:

1. Press down the mouse and draw a pattern among the 9 dots on the screen. Release the mouse when the pattern is done.

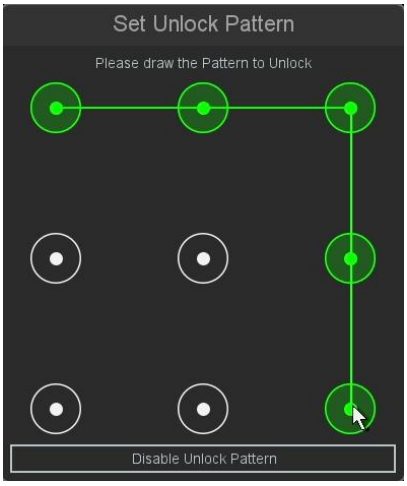


Figure 2-17 Set Unlock Pattern

Note

- The pattern shall have at least 4 dots.
- Each dot can only be connected for once.

2. Draw the same pattern again to confirm it. When the two patterns match, the pattern is configured successfully.

2.4.2 Log in via Unlock Pattern

If you set a pattern password, you can use it to log in when you enter any menu operation (it will also be used in the first step when you use the boot wizard after reboot).

Steps:

1. Click the menu you want.
2. Draw the pre-defined pattern to unlock to enter the menu operation.

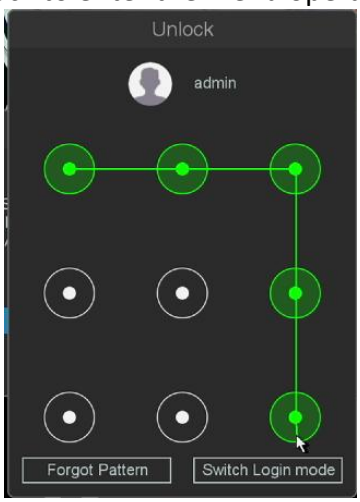


Figure 2-18 Draw the Unlock Pattern

Note

- If you have forgotten the pattern, you can click Forgot Pattern or Switch Login mode to log in via password.
- If you have drawn the wrong pattern more than 5 times, the system will lock your account for 30 minutes.

2.4.3 Log in via Password

If your video recorder has logged out, you must log in before accessing the menu and other functions.

Steps:

1. Select **User Name**.

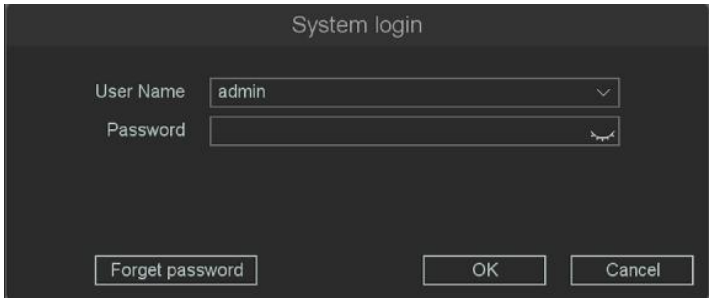


Figure 2-19 Login Interface

2. Input password.
3. Click **OK**.

Note

- If you have forgotten the pattern, you can click **Forgot Pattern** or Switch Login mode to log in via password.
- If you have drawn the wrong pattern more than 5 times, the system will lock your account for 30 minutes.

2.4.4 User Logout

After logging out, the device stays at the preview page, and if you want to do anything other than watching previews, you need to enter log in again with the account name and password.

Steps:

1. Move the mouse to the bottom of the live view interface, go to **Power → Logout**.

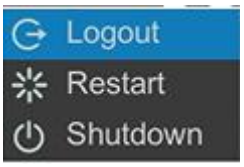


Figure 2-20 Logout

Note

After you have logged out of the system, the menu operation buttons on the screen would become invalid. It is required to log in again to unlock the system.

2.5Adding the Online IP Cameras

The main function of the NVR is to connect the network cameras and record their video outputs. So before you can get any live view or stored record of the video, you should add the network cameras to the connection list of the device.

Before you start:

Ensure the network connection is available and the its details are correct. Thoroughly checks are recommended before moving on.

Adding the IP Cameras

OPTION 1:

Steps:

1. Select the **Setting Menu → Camera.**

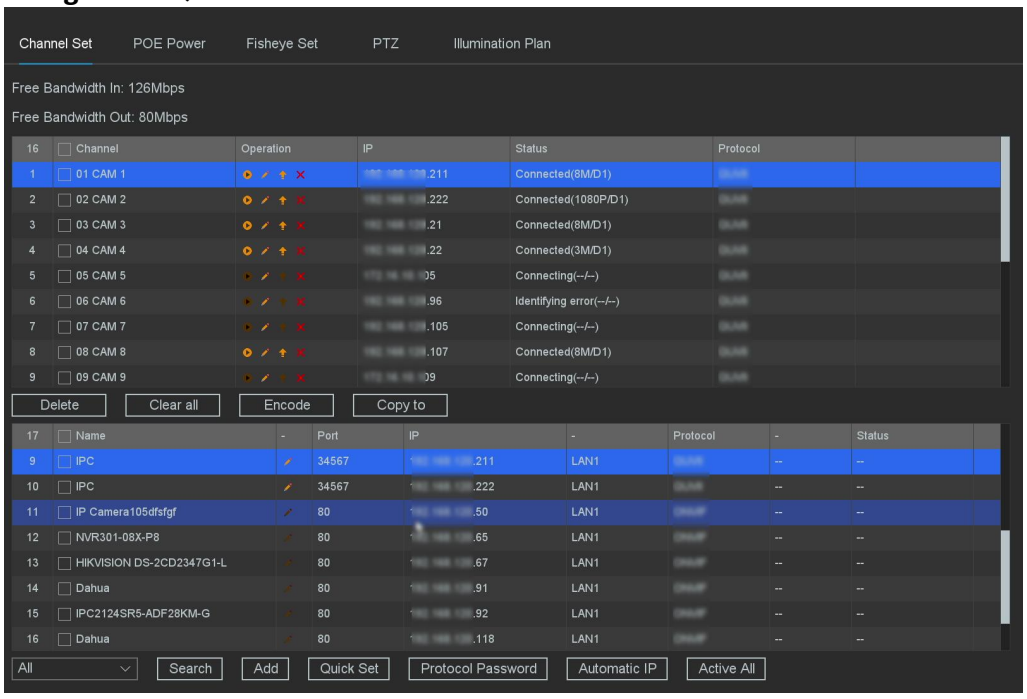


Figure 2-21 Add IP Camera

2. Click the **Search** button below, the online cameras within same network segment will be detected and

displayed in the camera list.

3. Select the IP camera from the list and click the **Add** button or double click to add the camera.(If your IPC is **Not activated**, it will be automatically activated after adding and changed to the IP address of the local network and the default password is the same password for the NVR.)
4. If you want to activate devices in bulk, click **Active All.**
5. You can choose the NVR password for activation or you can use the password you want to set for activation.

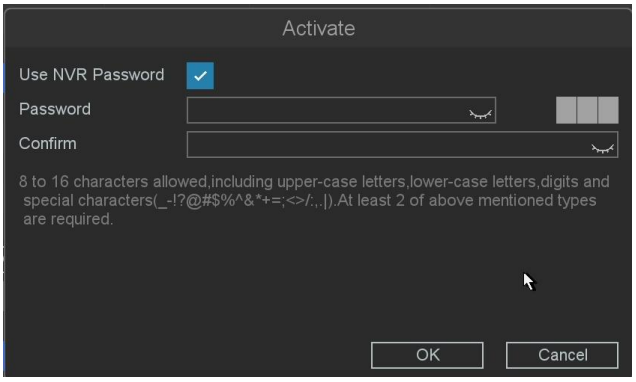


Figure 2-22 Activate the device

6. Check the status of the camera, ‘Connected' means connected, 'Connecting' means connecting, 'identifying error' means the password is incorrect. All the status other than ‘Connected’ indicates there is a need to check the connection information again and ensure the camera can be connected normally.

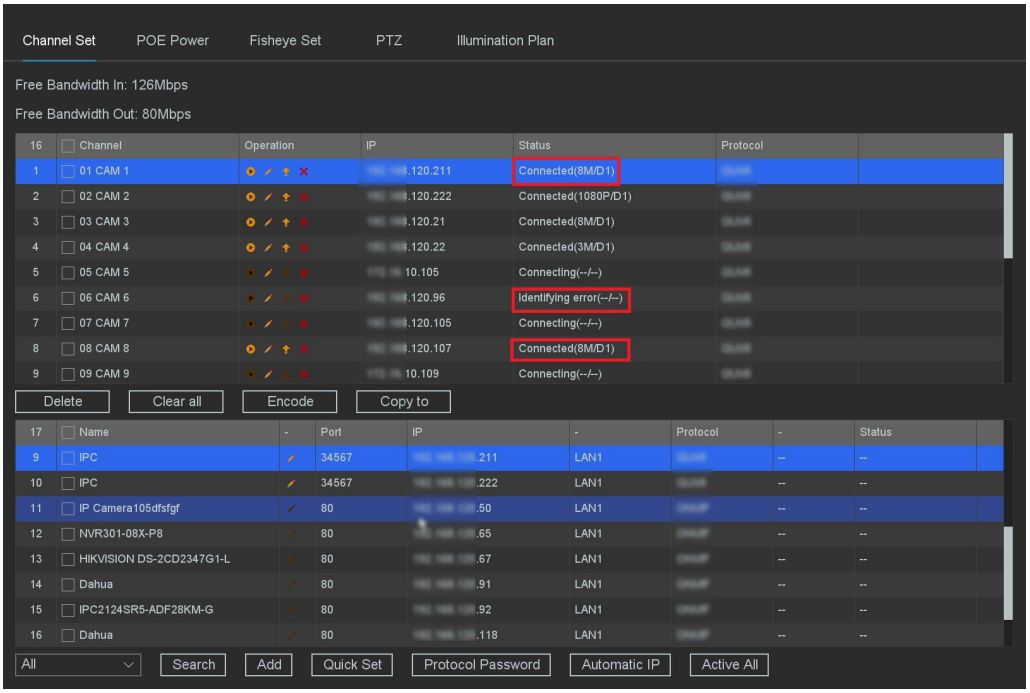


Figure 2-23 Check the status of the camera

Note

●After you have logged out of the system, the menu operation buttons on the screen would become invalid. It is required to log in again to unlock the system.

●If the camera does not load in the selected position after double-clicking, try deleting the information of the connection by clicking the red 'X' and then double click the IP address to add here.

Explanation of the icons:

Get the live view of the camera	Edit basic parameters of the camera	Upgrade the camera	Delete the IP camera

OPTION 2:

Steps:

1. On the Channel Set interface, you can also click to open the Edit IP Camera (Custom) interface.
2. If the prompt password is wrong, please apply the correct user name and password; if it has been in the 'connecting' state, please modify the port or protocol.

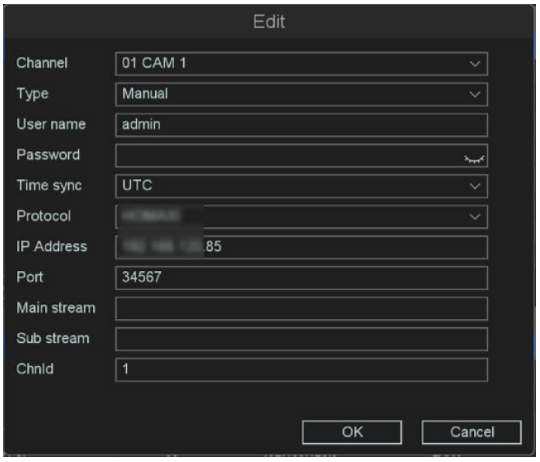


Figure 2-24 Edit IP Camera (Custom) interface

2.6 Editing the connected IP cameras and Configuring

Customized Protocols

After adding of the IP cameras, the basic information of the camera will be listed on the page, you can configure the basic setting of the IP cameras.

Steps:

1. Click to edit the parameters; you can edit the IP address, User name, Password, Port and other parameters.

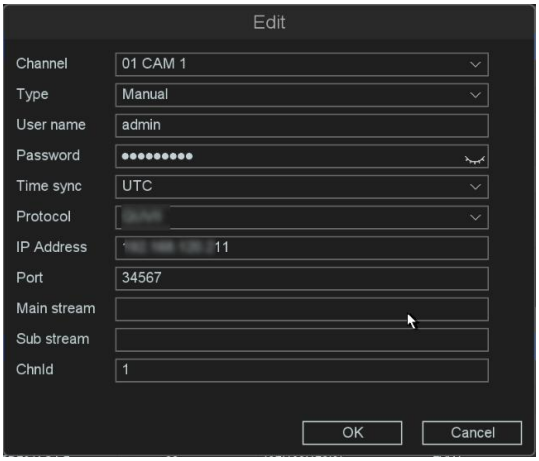


Figure 2-25 Edit the parameters

2. Click the drop-down box of Protocol, You can choose three protocols: QUVII, ONVIF,RTSP; QUVII is a private protocol, ONVIF and RTSP protocols are generally adapted by third-party cameras.
3. Click **OK**.

2.7 Editing IP Cameras Connected to the PoE Interfaces

The PoE interfaces enable the NVR system to pass electrical power safely, along with data, on Ethernet cabling to the connected network cameras. Up to 8 network cameras can be connected to /8P models, and 16 network cameras to /16P models. If you disable the PoE interface, you can also connect to the online network cameras. And the PoE interface supports the Plug-and-Play function.

To add Cameras for NVR supporting PoE function

Before you start

Connect the network cable from the IP camera to the POE port of the NVR.

Steps:

1. Go to → **Setting Menu** → **Camera** → **Channel**.
2. Click  on the channel you selected.

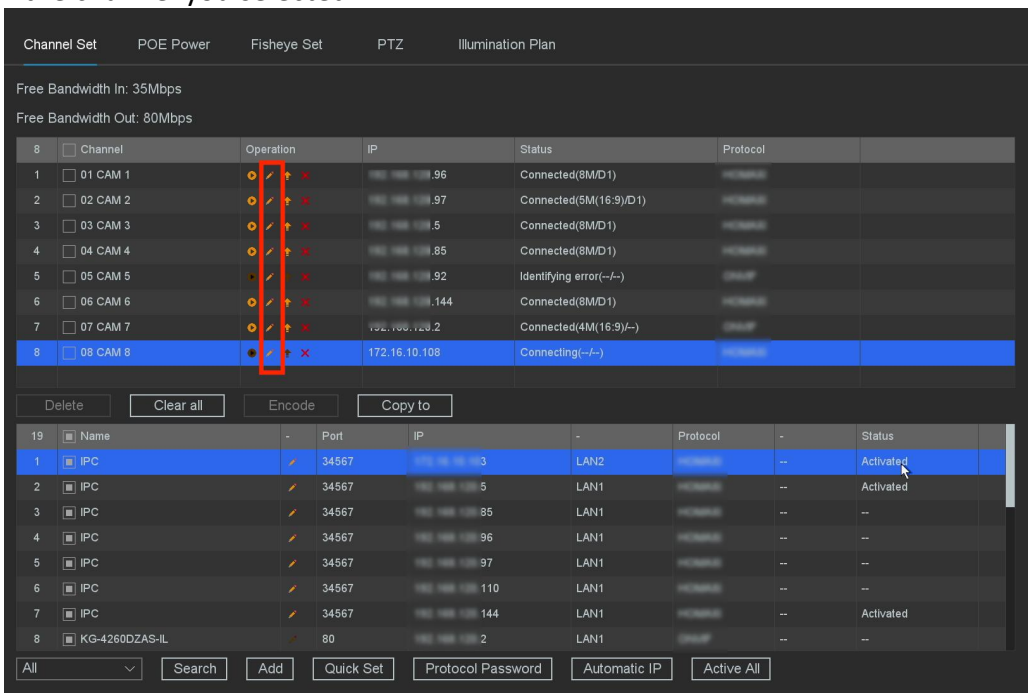


Figure 2-26 Edit Icon

3. Change the connection type by clicking the drop-down box of Type and change it to **UPNP**.

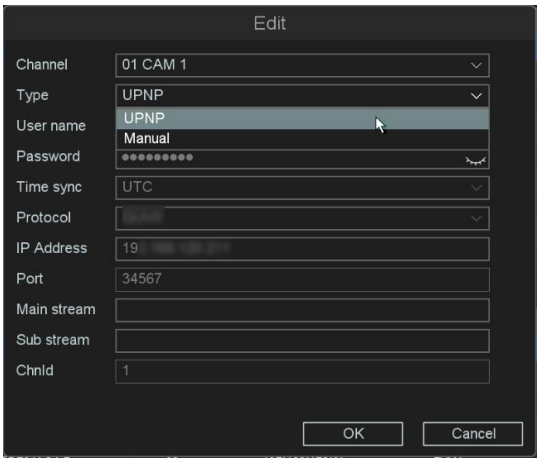


Figure 2-27 UPNP Type

4. Click **OK**.
5. Connect your IPC to the POE port, the IPC will be automatically activated and the automatic connection will be completed.

Note

● The factory default is Type is UPNP, if not, please refer to the above method to modify, if you want to quickly modify each channel, please use the **Copy to** function.

● Manual: You can disable the PoE interface by selecting the manual while the current channel can be used as a normal channel and the parameters can also be edited. Input the IP address, the user name and password of the administrator manually, and click OK to add the IP camera. Please refer to ***2.5 Adding the IP Cameras OPTION2.***

● When your device is plugged into the POE port, your IPC will be activated automatically and the IPC password is the same as the NVR password.

6. Check the status of the camera, 'Connected' means the camera is connected.
7. Click the **POE Power** tab, you can see the connection status of the POE port.

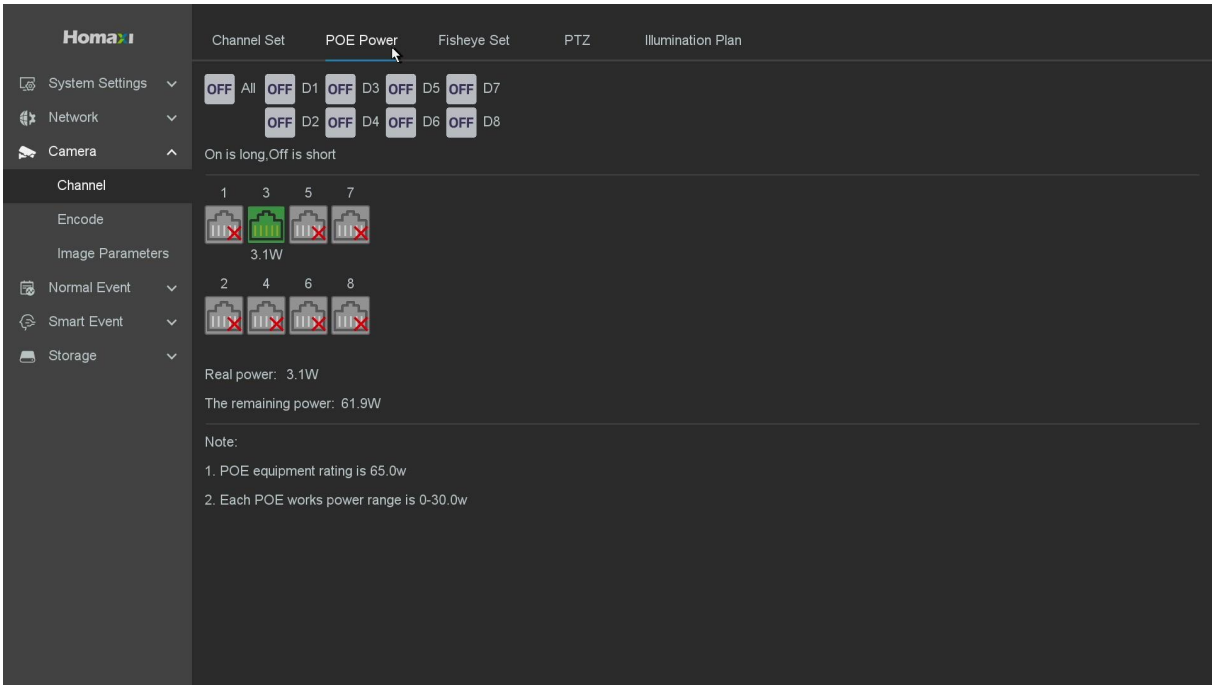


Figure 2-28 Edit the Parameters

Note

- On this page you can check all PoE channels's power and connection status.
- Select between EPoE and PoE by pressing the ON/OFF button beneath the individual channels or selecting 'All'. ON is long, OFF is short.
- EPoE (Extended Power Over Ethernet) extends the usual PoE distance limit of 100M to an improved 250M. Turning EPoE on allows even greater capacity for installations on larger sites without expensive additional power infrastructure.
- It is recommended EPoE is only enabled on cameras that are using over 100M of cable as it can introduce a small video delay introduced for the processing of camera data at higher distances.

3. Live View

3.1 Introduction of Live View

Live view shows you the video image getting from each camera in real-time. The NVR automatically enters Live View mode when powered on. It is also at the very top of the menu hierarchy, thus pressing the right click many times (depending on which menu you're on) brings you to the Live View mode.

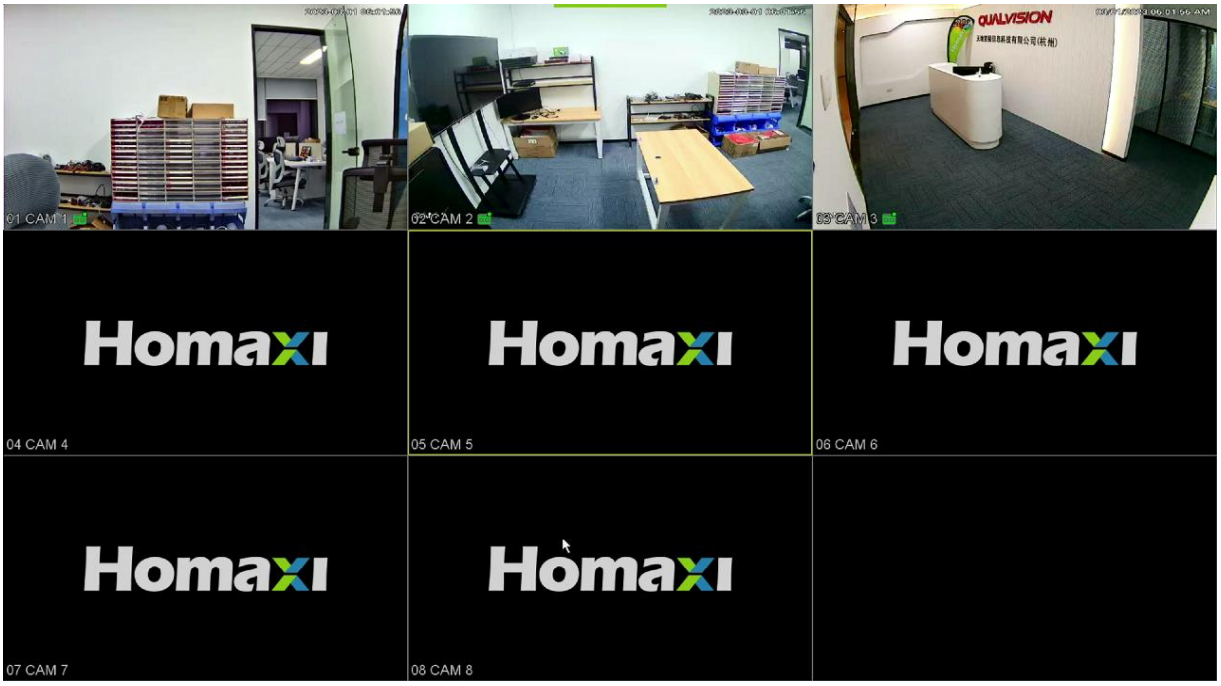


Figure 3-1 Live view

In the **Live view** mode, there are icons at the bottom left corner of the screen for each channel, showing the status of the record and alarm in the channel, so that you can know whether the channel is recorded, or whether there are alarms occur as soon as possible.

Icon	Items	Description
	Recording state	Shown on channel preview when recording.
	Alarm detect	Shown on channel preview when alarm triggered.
	Video lost	Shown on channel preview when video lost.
	Camera lock	No preview authority.

Table 3-1 Live View Icons

Note

●On the live view screen, click to **Setting Menu → Camera** to enter the camera interface, click the search button, the NVR automatically searches for network segment IPC, and then select the IPC and click 'Add'. You can refer to

2.5 Adding the Online IP Cameras.

●The number of IP camera channels may differ by its type.

3.2 Operations in Live View Mode

In live view mode, there are many functions provided. The functions are listed below.

- Single Screen: showing only one screen on the monitor.
- Multi-screen: showing multiple screens on the monitor simultaneously.
- Tour: the screen is auto switched to the next one. And you must set the dwell which screen on the configuration menu before enabling the tour.

3.3 Quick Setting Toolbar in Live View Mode

On the screen of each channel, there is a quick setting toolbar that shows when you move the cursor to the top of the image.

Figure 3-2 Quick Setting Toolbar in channel image

Button	Items	Description
	Instant Replay	In the preview channel window interface within ten minutes of video for playback.
	Zoom	Displays the selected channel in full screen, Scroll the mouse wheel to zoom in on the area where the mouse is clicked.
	Manual Record	Quick switch video mode for this channel (only in manual and stop mode switching).
	Manual Snap	This channel the display resolution of the images that are captured in real time.
	Audio Preview	To listen Open channel monitor.
	Voice Intercom	Open-channel intercom functions, support and IPC, web and mobile client to talk.
	Channel Set	Quickly enter and locate a channel is channel management interface.
	Bitrate	Quickly check the bitrate of this channel when the mouse move to it.
	Red and Blue Lights	Manually turn on or off the red and blue light alarm.
	Siren	Manually turn the siren on or off.
	PTZ	Quickly enter PTZ control interface.
	Image Stitching	Manually drag the scrollbar to control dual-Lens camera's stitching length.

Table 3-2 Quick Setting Toolbar

3.4 Power

In preview mode you can click  .

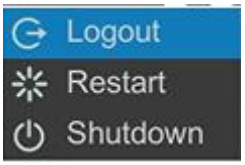


Figure 3-3 Power

Power

●Logout: After you have logged out of the system, the menu operation buttons on the screen would become invalid. It is required to log in again to unlock the system.

●Restart: The device will restart.

●Shutdown: Shutdown the device.

Supplementary function description

● / TourStart/TourStop: In this part you can turn Tour on or off.

● Split Mode: Preview in 1 screen/3 screens/4 screens ect. according to your choice.

● Alarm Center: You can view all the event histories here. Go to the bottom of the interface click alarm center to access the integrated Alarm Information.

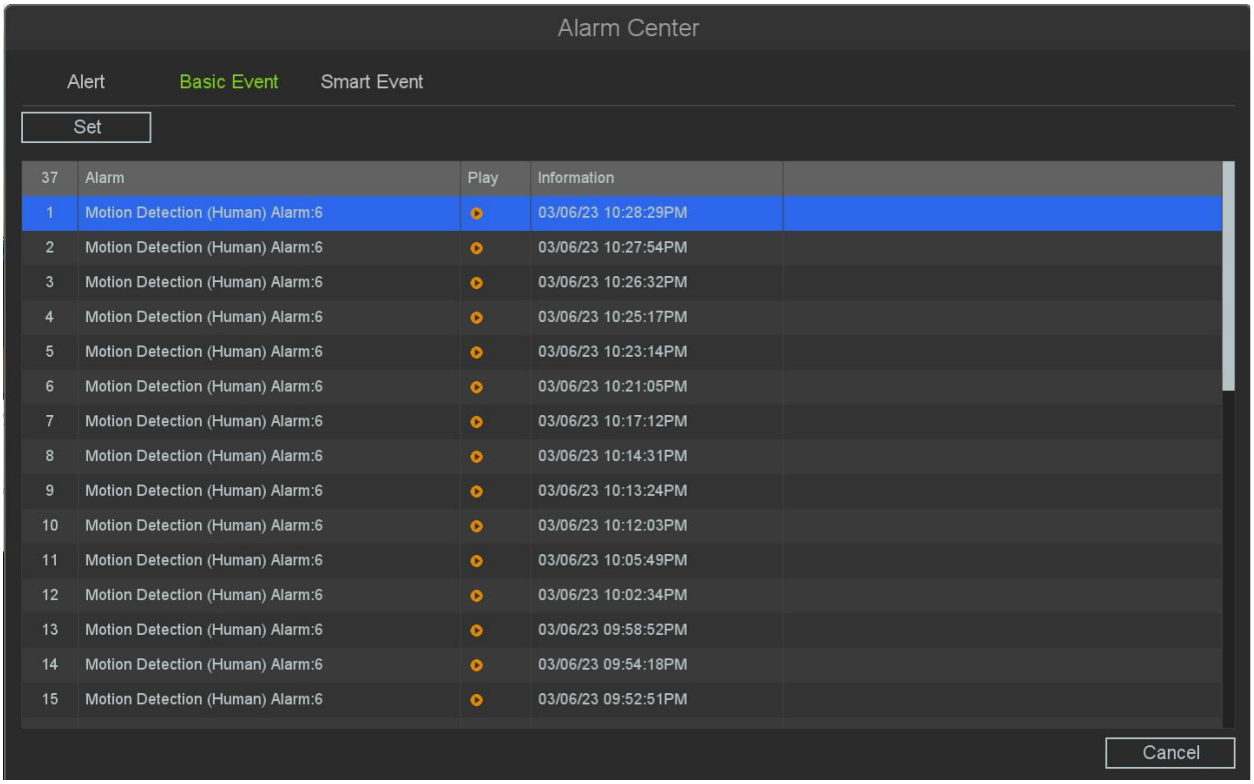


Figure 3-4 Alarm Center

● Smart: After clicking this mode, the NVR can display the captured face/portrait/vehicle pictures on the right side of the preview interface as shown below (you need to enable the face/portrait/vehicle detection function of the network camera and turn on the associated action snapshot first).

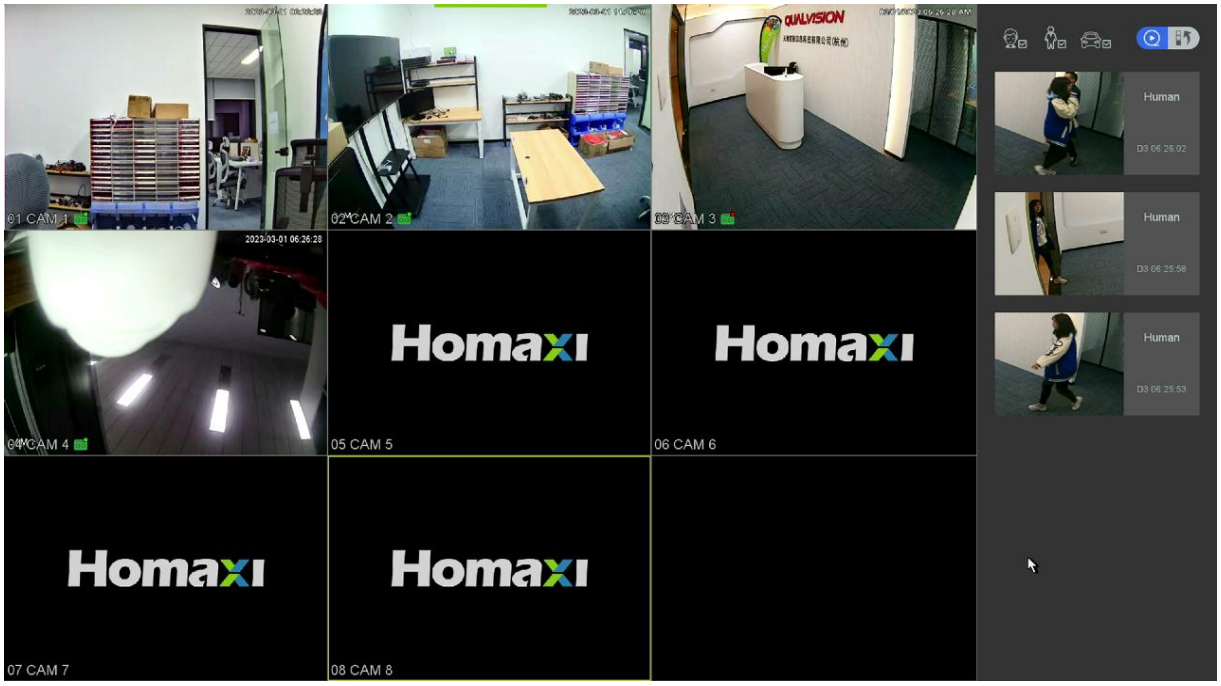


Figure 3-5 Smart

● Maintain: This part is system maintenance. Refer to ***Chapter 7 Maintain*** for details.

● Lock: Lock the floating bar at the bottom of the screen.

Right click menu in Preview screen

● PTZ control: Operation interface is as shown in picture below. The functions include: PTZ direction control, speed, zoom, focus, iris, setup operation, patrol between spots, pattern, border, tour.

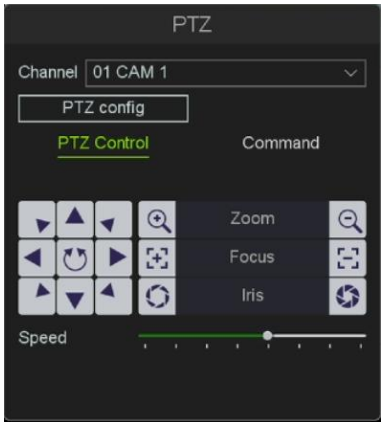


Figure 3-6 PTZ(1)

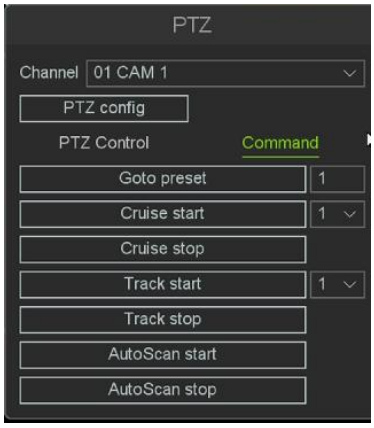


Figure 3-7 PTZ(2)

● Mute: In this part you can turn the sound on or off.

4. Playback

4.1 GUI Introduction

Go to **Playback**.

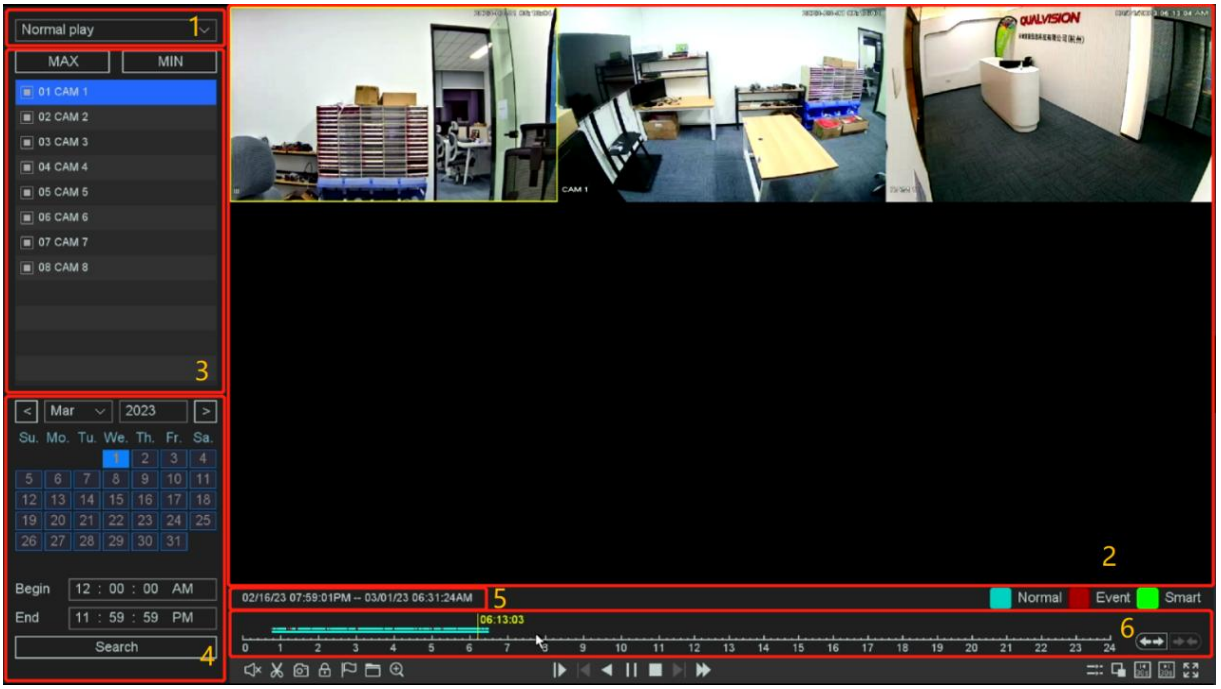


Figure 4-1 Playback

●The functions of each block in the above figure are described as follows.

No.	Items	Description
1	Playback Type	NVR support six types playback mode 'Normal play', 'Event play', 'Label play', 'Smart play', 'Time division play' and 'Normal play (Picture)'.
2	Display	The windows display videos.
3	Camera list	You can select the channels for playback in this area.
4	Date	Shows the date that have video files and marked blue.
5	Time of File	Shows the start time and the end time of files in HDD.
6	Time Line	Shows files playing course in this area.

Table 4-1 Area Functions Introduce of Playback

●The video playback timeline.

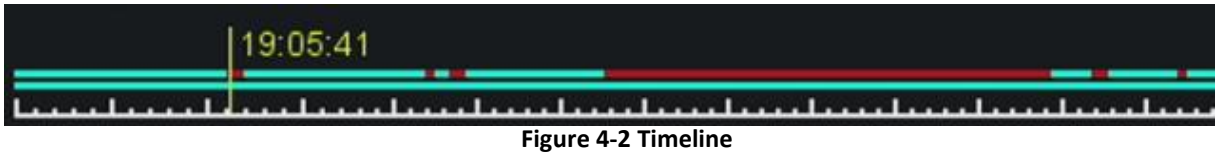


Figure 4-2 Timeline

1. Position the cursor on the timeline, drag the timeline to position to a certain time.
2. Period marked with blue bar contains video. Red bar indicates the video in the period is event video. Scroll the mouse wheel up/down to fast forward and rewind.

3. Click the buttons at the bottom right of the timeline to zoom in/out of the timeline.

Note

The second line shows all the files of the channels you selected. And the first line shows the files of the channel you chose by mouse on the display area. The event files are marked red, normal files are marked blue, and the smart files are marked green.

●The Tool menu Description in playback Interface.

Button	Items	Description
	Mute	Switch of playback channel audio
	Cut	Cut the interest video of playing channel
	Snap	Snap a picture of playing channel
	Lock record	Lock the file in case over written in HDD
	Default label	Default label, Label the file
	File Management	File manager, Mange the cut file/locked file/labeled file
	Zoom	Zoom, Zoom the playing channel

Table 4-2 The Tool menu Description

4.2 Normal Playback

Play back normal videos.

Steps:

1. Go to **Playback**.
2. Select a camera from the camera list.
3. Select a date on the calendar.

Note

The blue highlighting square at the calendar date indicates there are available videos. For example, 9 means video is available, 10 means no video.

4. Click the timeline for Playback.

Figure 4-3 Timeline

5. Video playback is controlled by the following buttons.

Button	Description	Button	Description
	Slow down.		Prev frame.
	Backward play.		Start playback.

	Pause		Stop play.
	Next frame.		Speed up.
	Synchronous playback or asynchronous playback switching		Main and sub stream switching
	Backward 30S.		Forward 30S.
	Full screen.		Multi-speed playback.

Table 4-3 Playback Interface Description

6. For a recording of a time period, select the recording start time and recording end time you want under the calendar.

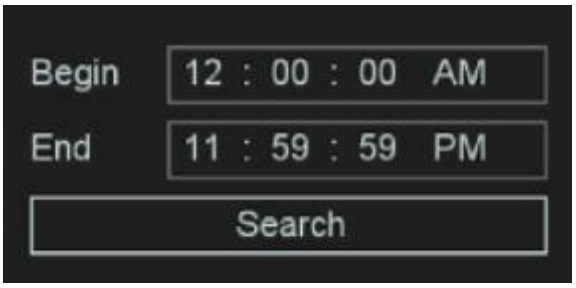


Figure 4-4 Select time

7. The video playback can be controlled by the following buttons.

Button	Description	Button	Description
	Switch of playback channel audio.		Cut the interest video of playing channel.
	Snap a picture of playing channel.		Lock the file in case over written in HDD.
	Default label, Label the file.		File manager, Mange the cut file/locked file/labeled file.
	Zoom, Zoom the playing channel.		

Table 4-4 Button Description

8. All the operations of these buttons to control the playback, you can refer to the previous table.

●Click will cut all the files of the channels you're playing, you can check the files you cut in the .

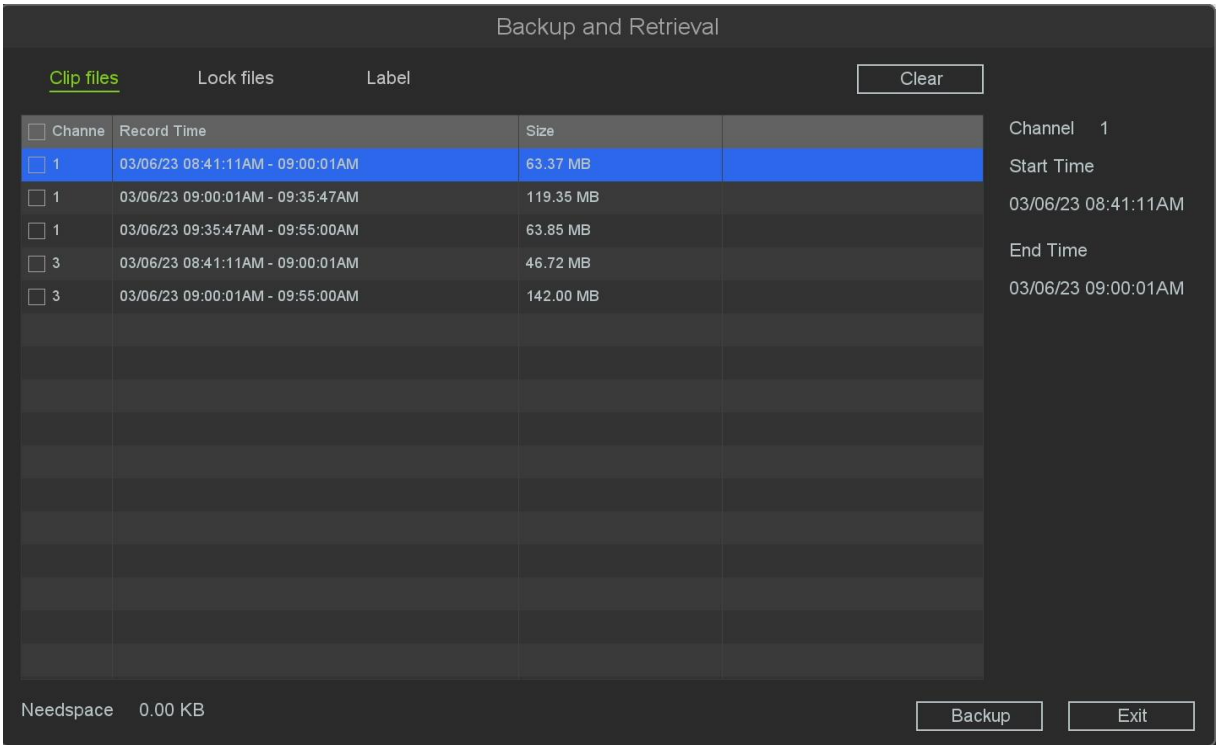


Figure 4-5 File Management

●Click  will lock the file in case this file be covered by new file. You can check and backup the locked files in  . And you can unlock the locked files in the Lock files.

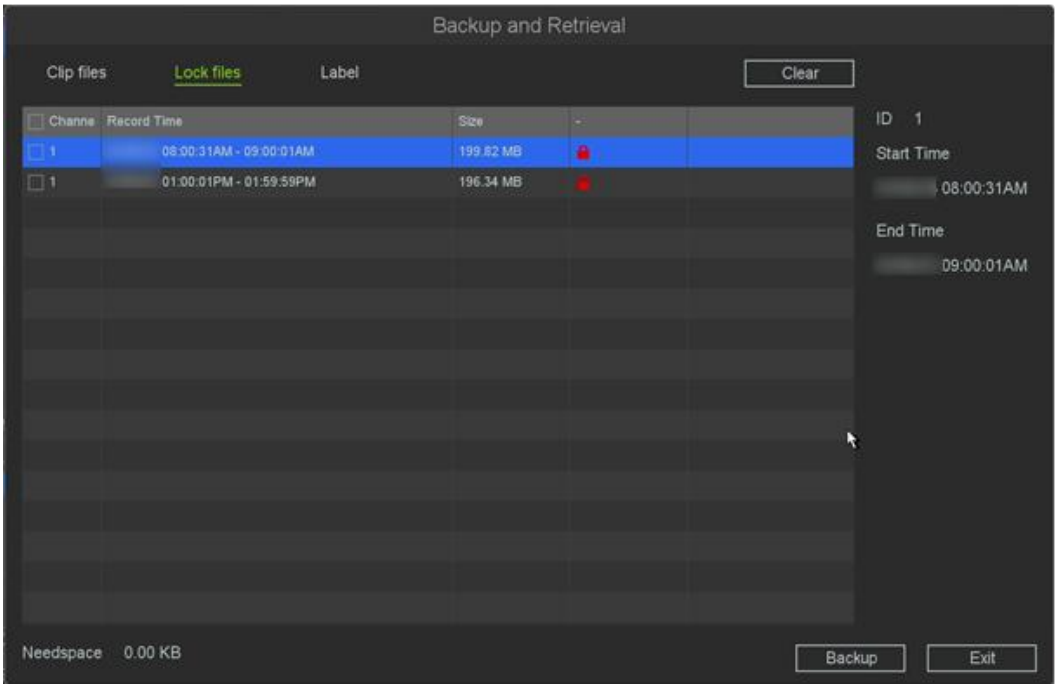


Figure 4-6 Lock files

●Click  will mark the video as a default label, you can edit the label and check in the Label.

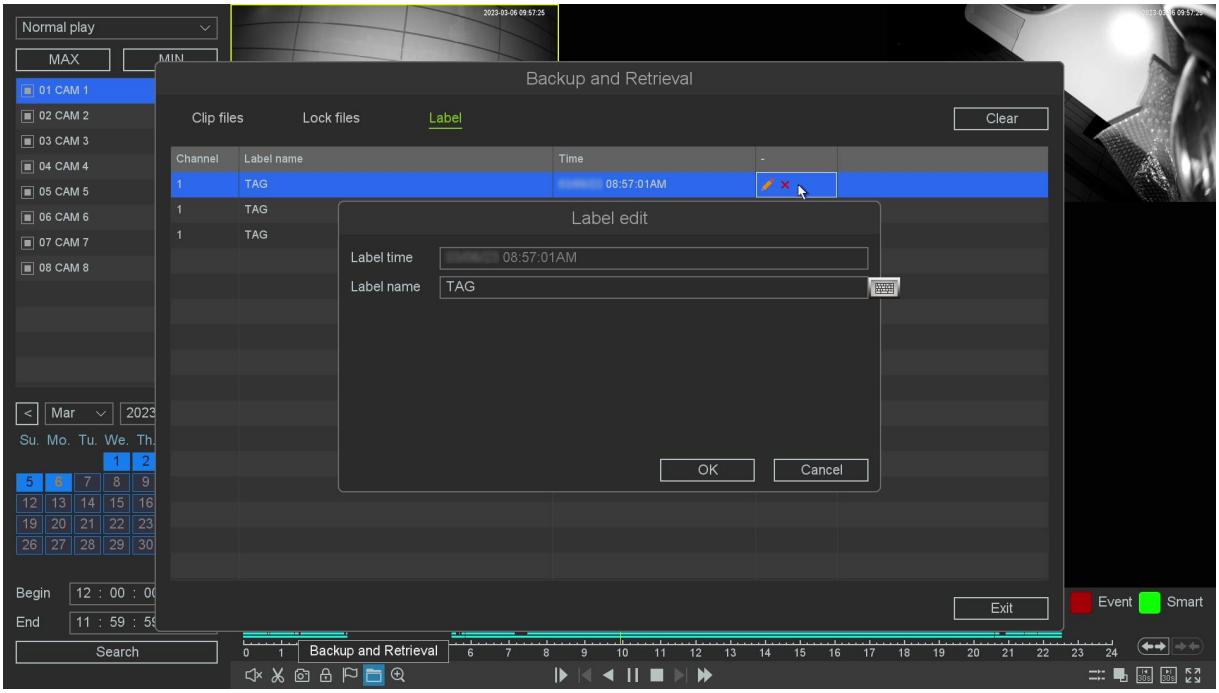


Figure 4-7 Label

4.3 Event Playback

When you select the event playback mode, the system will analyze and mark videos that contain the motion detection, line crossing detection, or intrusion detection information, etc.

Before You Start

Ensure your video recorder has enabled the Motion detection, the Perimeter Protection, or the Diagnosis. You can enable it via the **Event** or **Intelligent → AI Config**.

Steps:

1. Go to **Playback**.
2. Click **Event play**.
3. Select a camera.
4. Set time period, then Click **Search**.
5. Search results as shown in the figure bellow, 'Source' means alarm channel and 'Channel' means record channel of linkage operations, 'Time' means when the alarm happened.

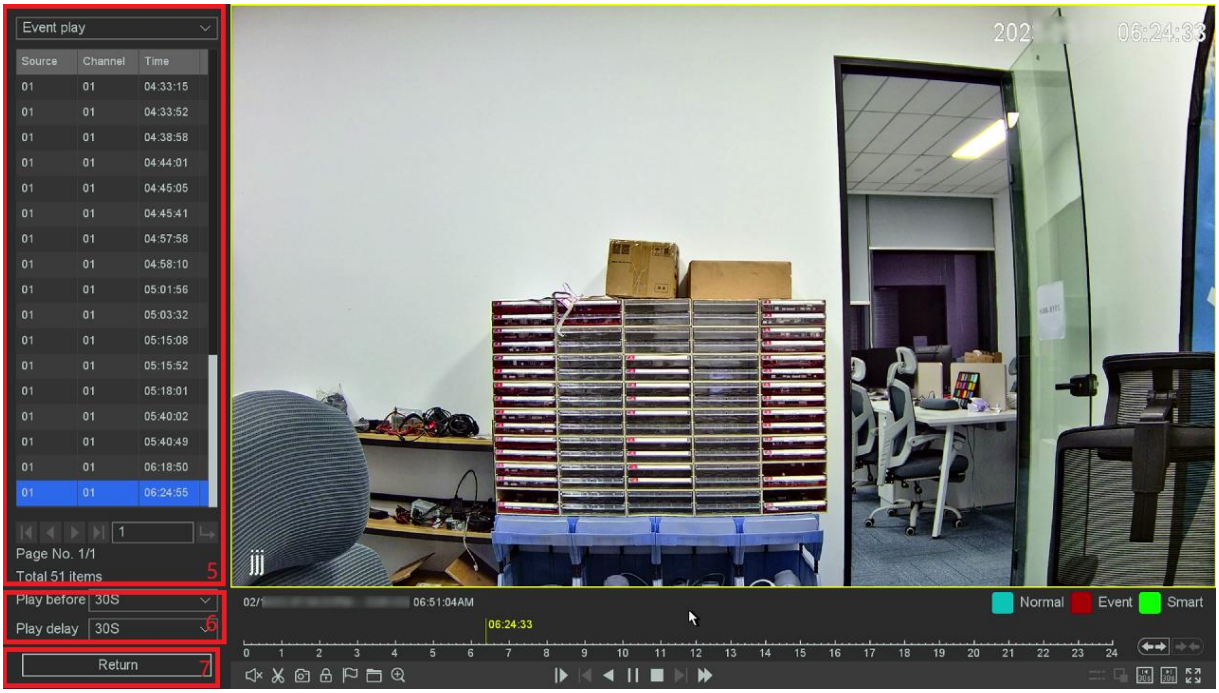


Figure 4-8 Event Playback

6. Click **Next** will shows all the alarm items, you can change the page to find the alarm item you want. And then you can set the play period before/after of the alarm time.
7. You can change the alarm types and channels by click **Return** back to the last interface. As for the operations of these buttons you can refer to the below table. But you can't use the 'Sync/Async', 'Main/Sub stream' button in event playback mode.

Button	Description	Button	Description
	Quickly go to the first page of event search results.		Quickly go to the last page of event search results.
	Go to the previous page of event search results.		Quickly go to the last page of event search results.
	Go to the next page of event search result.		

Table 4-5 Button Description of Event Search Results

4.4 Back up Clip

You can clip videos during playback. Video clips can be exported to the backup device (USB flash drive, etc.).

Before You Start

Connect a backup device to your video recorder.

Steps:

1. Start playback. Refer to ***Chapter 4 Playback*** for details.
2. Click at the start time you want.
3. Click **Stop Cutting** at the end time you want.
4. You can check the files you cut in .
5. Select the videos to backup.

6. Click **Backup** into Record backup interface.
7. Select the backup device and folder.
8. Click **Start** to export the clip to backup device.

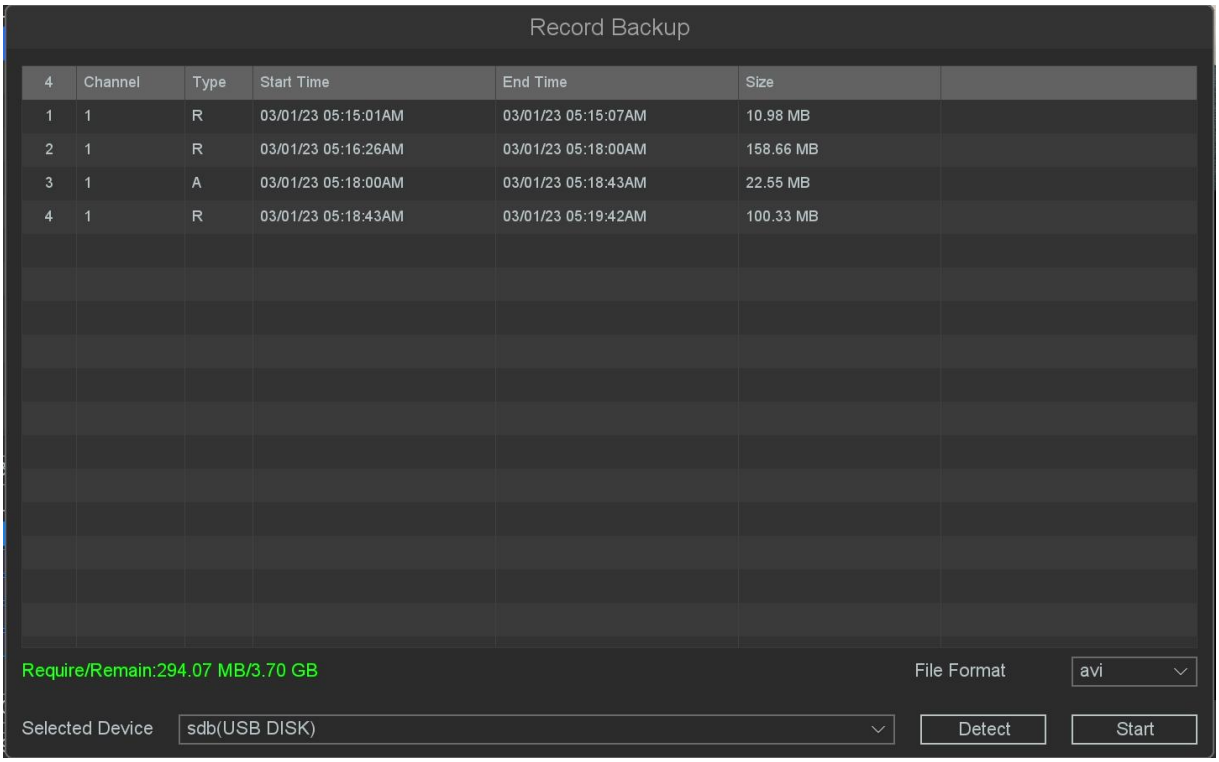


Figure 4-9 Record Backup

5. Backup

You can Backup the video recording .It can be exported to the backup device (USB flash drive, etc.).

Before You Start

Connect a backup device to your video recorder.

Steps:

1. Go to **Backup and Analysis → Backup →Backup/Event/Picture**.

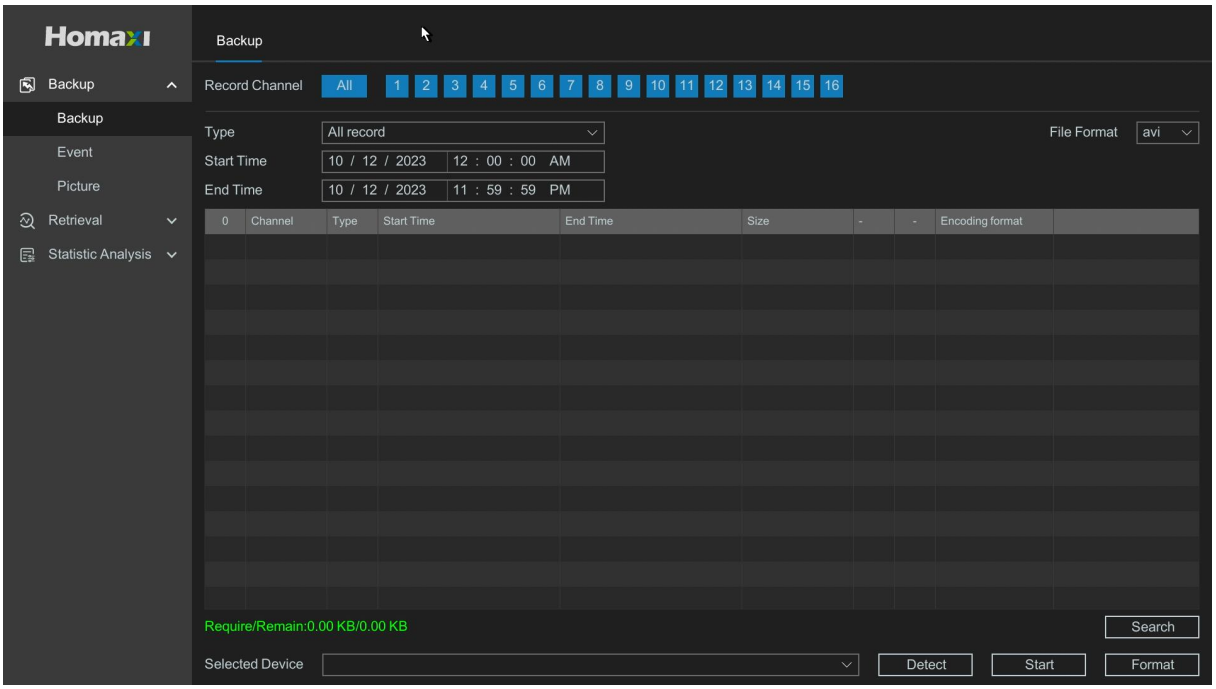


Figure 5-1 Search

2. Select a search type.
3. Set search conditions.
4. Click **Search**.
5. Click  to play the video.
6. Click  to lock the file, Locked file will not be overwritten.
7. Select file(s).
8. Select the backup device and folder.
9. And click **Start** to export file(s) to backup device.

Note

If you can't find the backup device, you can re-plug and unplug it. If the backup fails, you can click the format button to format it first.

6. Configuration (Common Mode)

Easy mode contains basic configurations.

6.1 System Settings

6.1.1 General Configuration

You can configure the language, Time Zone, System Time, Startup wizard, Device No., Host Name etc.

Steps:

1. Go to **Setting Menu → System Settings → General Configuration → Basic Setting**.

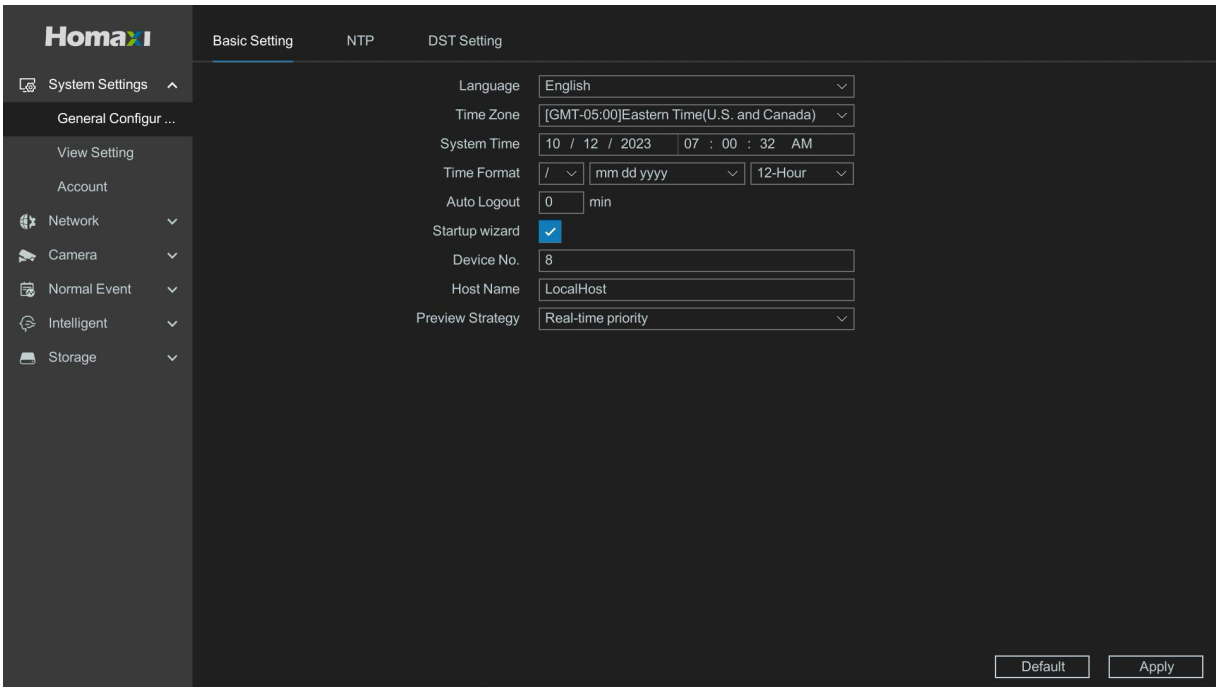


Figure 6-1 Basic Setting

2. Configure the parameters as your desire.

Time Format

The form of time display.

Auto Logout

Auto logout time, the device will not automatically log out when you set 0min, the maximum can be set to 60 minutes.

Startup wizard

The wizard will pop up after the device starts up.

Device No.

The number is required in the connection with remote control. Edit the serial number of video recorder. The device number ranges from 1 to 998.

Host Name

NVR's name.

Preview Strategy

"Real-time priority" is displayed according to the shortest delay, if the network is not very ideal, may lag.

"Fluent priority" is to improve the buffer area and improve the fluency of the IP channel image, and the relative display delay may increase.

3. Click **Apply**.

6.1.2 Account

Add User

There is a default account: Admin. The admin user name is **admin**. Admin has the permission to add, delete, and edit user.

Steps:

1. Go to **Setting Menu → System Settings → Account → Account**.
2. Click **Add User** and confirm your admin password.

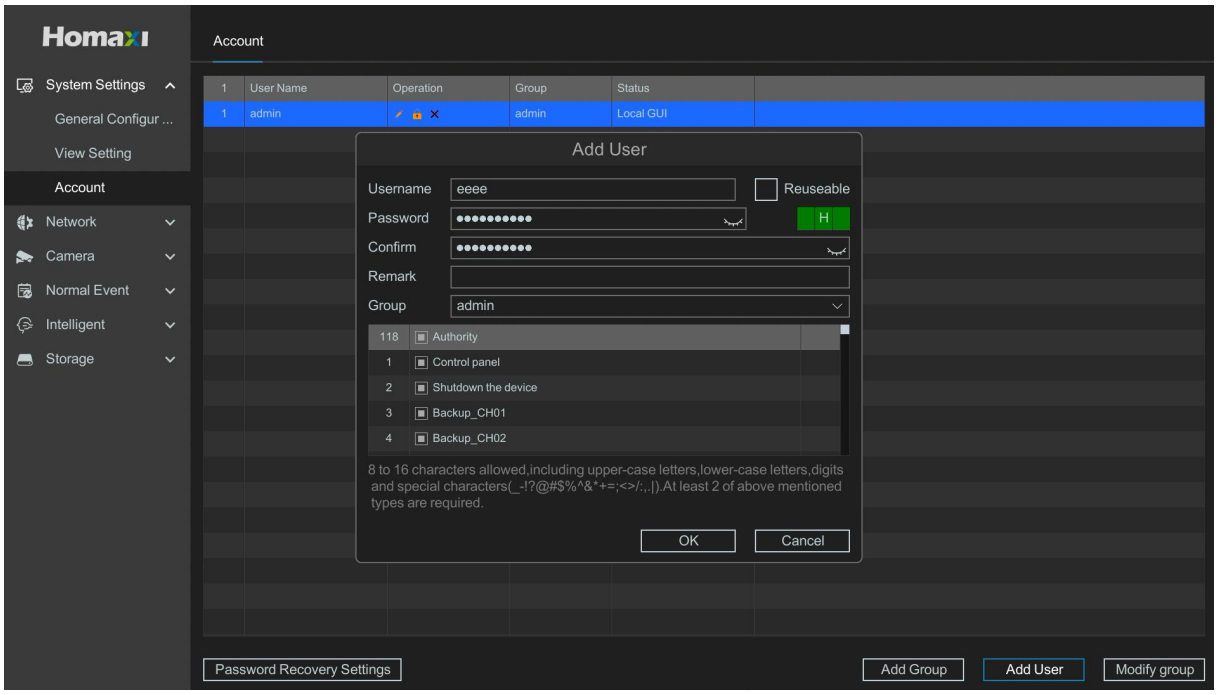


Figure 6-2 Add User

3. Enter **Username**.
4. Enter the same password in **Password** and **Confirm**.

Warning

We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

5. Click OK.
6. Click / to edit/delete user.

Modify Password

You can modify your password when your password has been compromised.

Steps:

1. Click at the Account interface.

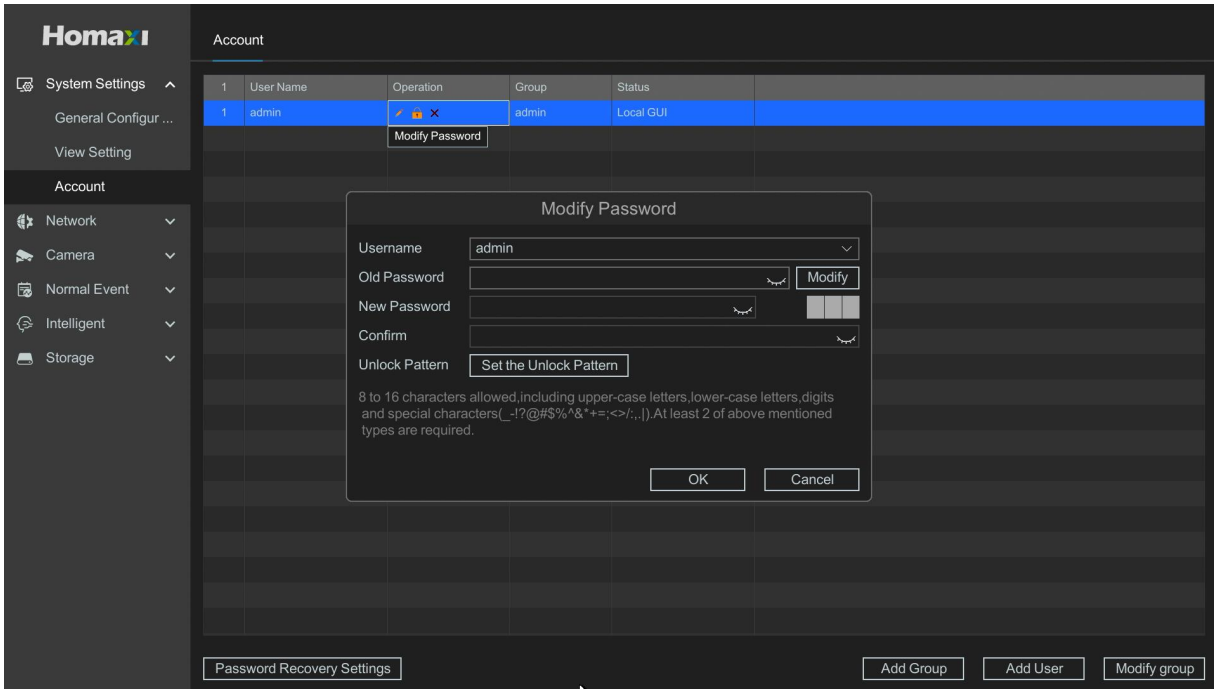


Figure 6-3 Modify Password

2. Enter the **Old Password**.
3. Enter the same new password in **New Password** and **Confirm.**
4. Click **OK**.
5. Optional: Admin can also set the Pattern Lock by click **Set the Unlock Pattern**.

Password Recovery Settings

You can reset the Password Recovery Settings in this interface. You can reset up your mailbox or choose three questions and set the answers.

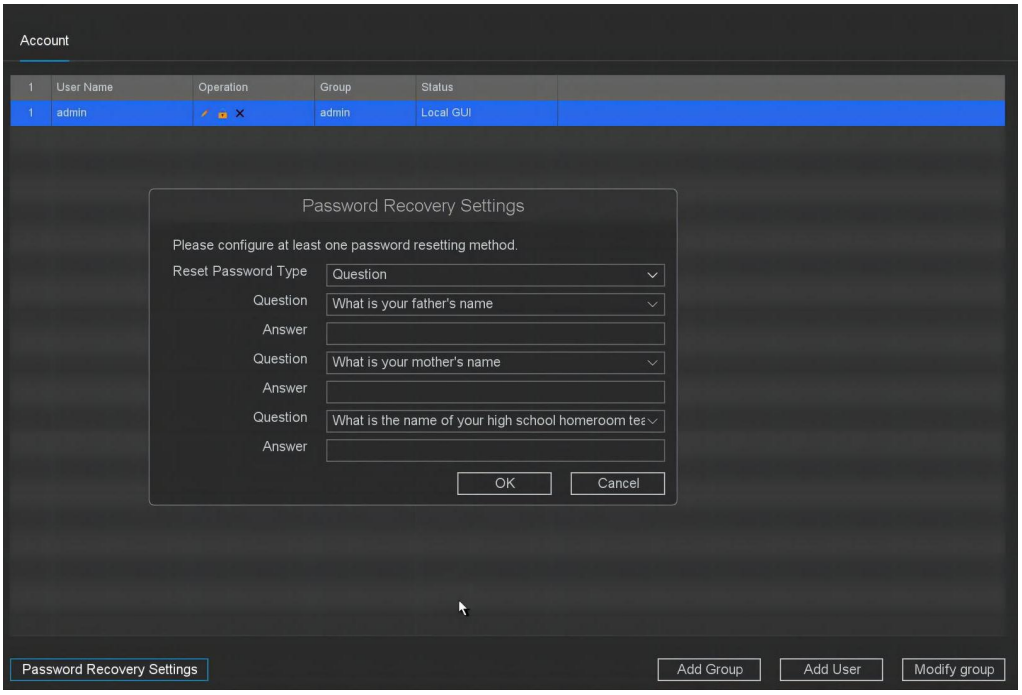


Figure 6-4 Password Recovery Settings

6.2 Network Configuration

6.2.1 General - TCP/IP

You shall properly configure the network settings before operating the device over network.

Steps:

1. Go to **Setting Menu → Network → IP Address → TCP/IP**.

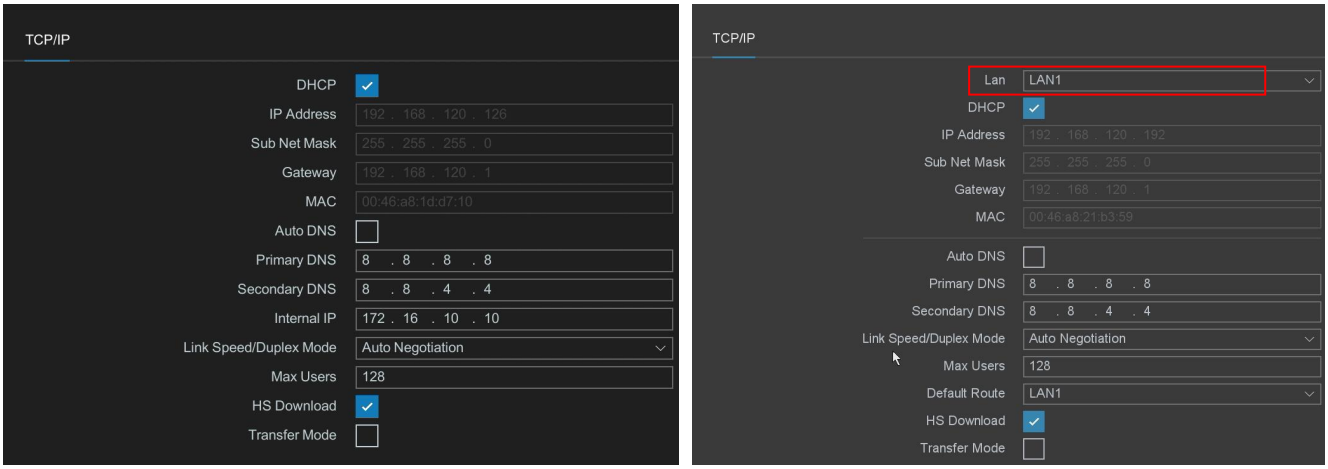


Figure 6-5 Network

Note

Only NVR with dual Ethernet port have **Lan** parameters, please refer to the actual page.

2. Set network parameters.

DHCP

If the DHCP server is available, you can enable **DHCP** to automatically obtain an IP address and other network settings from that server.

Auto DNS

If **DHCP** is enabled, you can enable **Auto DNS** to automatically obtain **Preferred DNS Server** and **Alternate DNS Server**.

Note

Auto obtain DNS function options, there will be differences between different models, subject to the specific model.

Manual IP

Manually configure your IP address, Such as:

IP Address: 192.168.1.100

Sub Net Mask: 255.255.255.0

Gateway 192.168.1.1

Please make sure that your IP address and the IP address of the camera are in the same LAN.

3. Click **Apply**.

6.2.2 P2P

We provide mobile apps and cloud services to access and manage your connected devices, allowing you to conveniently access your surveillance system remotely.

Steps:

1. Go to **Setting Menu → Platform Access → P2P**.
2. Turn on Enable, your device will automatically perform P2P cloud registration connection.

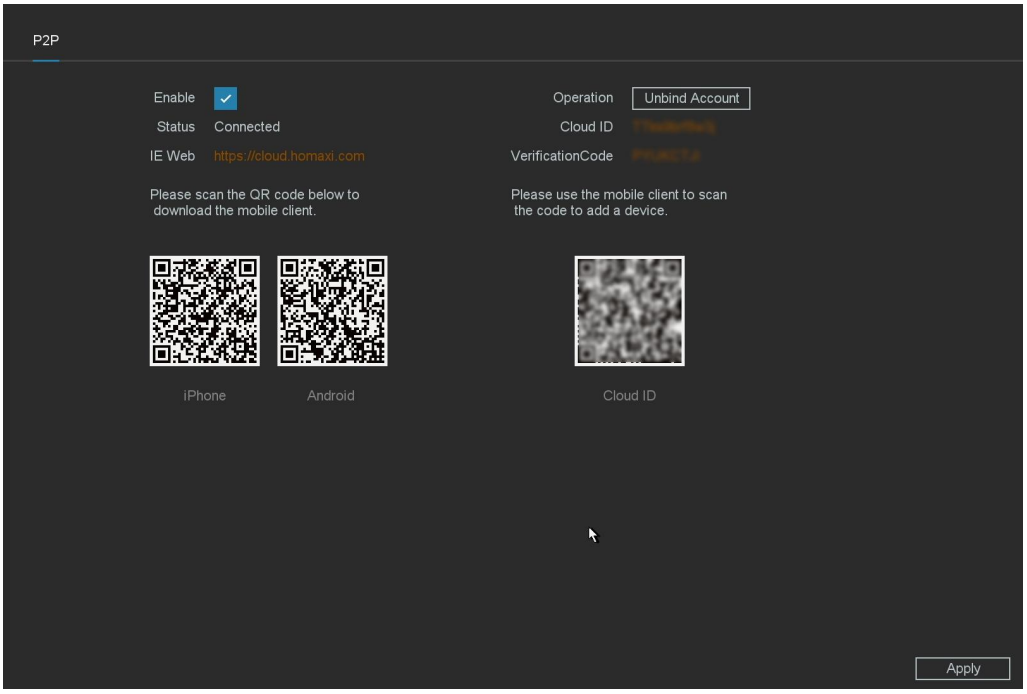


Figure 6-6 P2P interface

3. Your device will change from connecting to connected, which means your device has successfully registered with the P2P cloud.
4. Bind your device to the cloud account.

1) Scan the QR code with your smartphone to download the **Homaxi View APP** . You can also download from **https://cloud.homaxi.com** or the **QR code** below..

Figure 6-7 Download

2) Use **Homaxi View APP** to scan the device QR code and bind the device.

Steps:

1. Open the **Homaxi View APP** on the smart phone.
2. Tap ‘Register’ in the lower left corner of the login box, then register your credentials and then Login to the app creating an account allows user to connect multiple sites.
3. Open the ‘Menu’ by tapping the top left option.
4. Tap 'Devices’ then the ‘+’ in the top right to add device.
5. Allow the app access to the device’s camera, now scan the QR code. From the start up wizard labelled ‘Cloud ID‘. This will enter the connection information to the device to the app.

6. Set a name for the device so the user can easily identify it from a list; the location of the installed device is a popular way to name connections.

7. Tap ‘Save’, then you will be able to ‘Start Live View’.

8. Find the device you just added in the devices menu, click the play button in the triangle, and the default is to open the real-time preview of the sub-stream. Choosing sub stream over main will increase video display speeds and reduce mobile data usage.

Note

- You can also direct your phone to the app download store.
- If the device has been bound with an account, you can click ‘Unbind’ to unbind it from the current account.
- If your device does not support manual unbinding, please contact relevant technical personnel.

6.2.3 Email

Set an email account to receive event notification.

Before You Start

●Ensure SMTP service is available for your email.

●Configure your network parameters. Refer to ***6.2.1 General - TCP/IP*** for details.

Steps:

1. Go to **Setting Menu→ Network → Advanced → Email**.

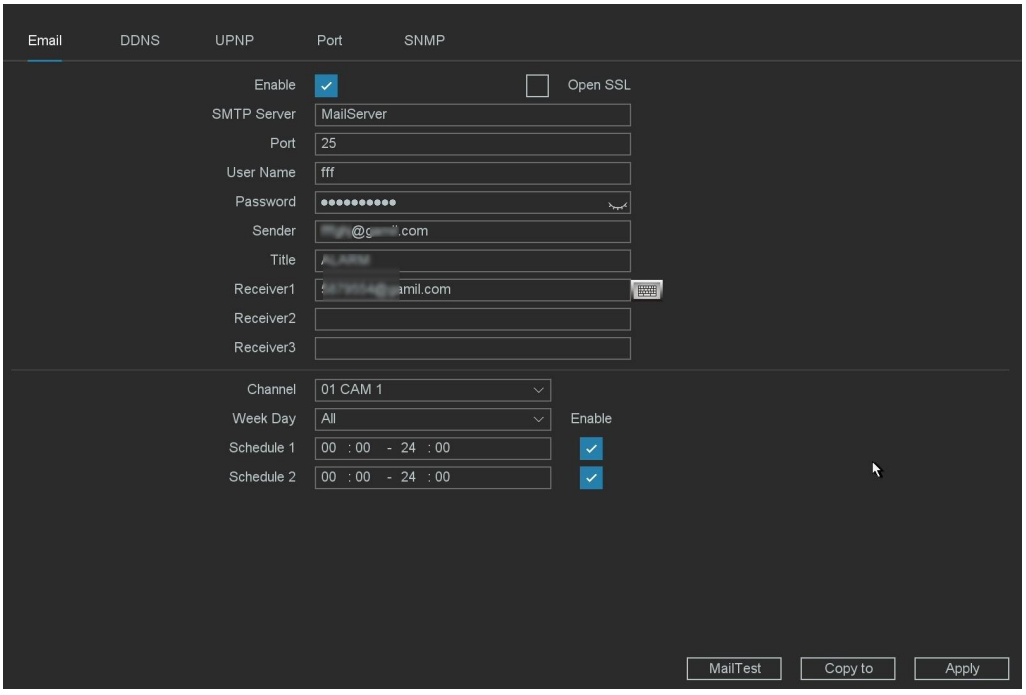


Figure 6-8 Email

2. Set email parameters

Enable

Check it to enable the server authentication feature.

SMTP Server

The address of the server providing SMTP service, such as ‘smtp.163.com’.

Port

The port used for the SMTP server, which can be obtained from the service provider.

User Name

User account of the email sender for SMTP server authentication.

Password

Email sender password for SMTP server authentication.

Sender

The sender name or the sender's email address.

Title

Title of the pushed message.

Receiver1-3

Fill in the receiver's email address. Up to 3 receivers are available.

Channel

Select the channel that needs to be pushed through the Email alarm.

Week day

Select the date to send the alarm by Email.

Schedule

Select the schedule that needs to be pushed by Email.

SSL

(Optional) Enable SSL if it is required by the SMTP server.

3. Click **MailTest** to send a test email and Get a notification that a message was successfully sent.
4. Click **Apply**.

Note

- For network cameras, the event images are directly sent as the email attachment. One network camera generally sends 3 pictures. Subject to the actual conditions..
- If Email always fails to connect, you can try to check whether the DNS service is configured correctly.

6.3 Camera Management

6.3.1 Network Camera

Add Network Camera by Quick Set

Add IP camera with default password or the package camera for this device;

Before You Start

●Ensure your network camera is on the same network segment with your video recorder.

●Ensure the network connection is valid and correct. Refer to ***6.2.1 General - TCP/IP*** for details.

●Make sure that the IP camera password has not been manually changed.

Steps:

1. Go to **Setting Menu → Camera → Channel → Channel Set**.
2. Click **Search**.
3. The online cameras on the same network segment with your video recorder are displayed in bottom half **Online Device List**.
4. Select multiple desired cameras you want to add, or select all cameras.
5. Click **Quick Set** to add the cameras (with the default login password) from the list.

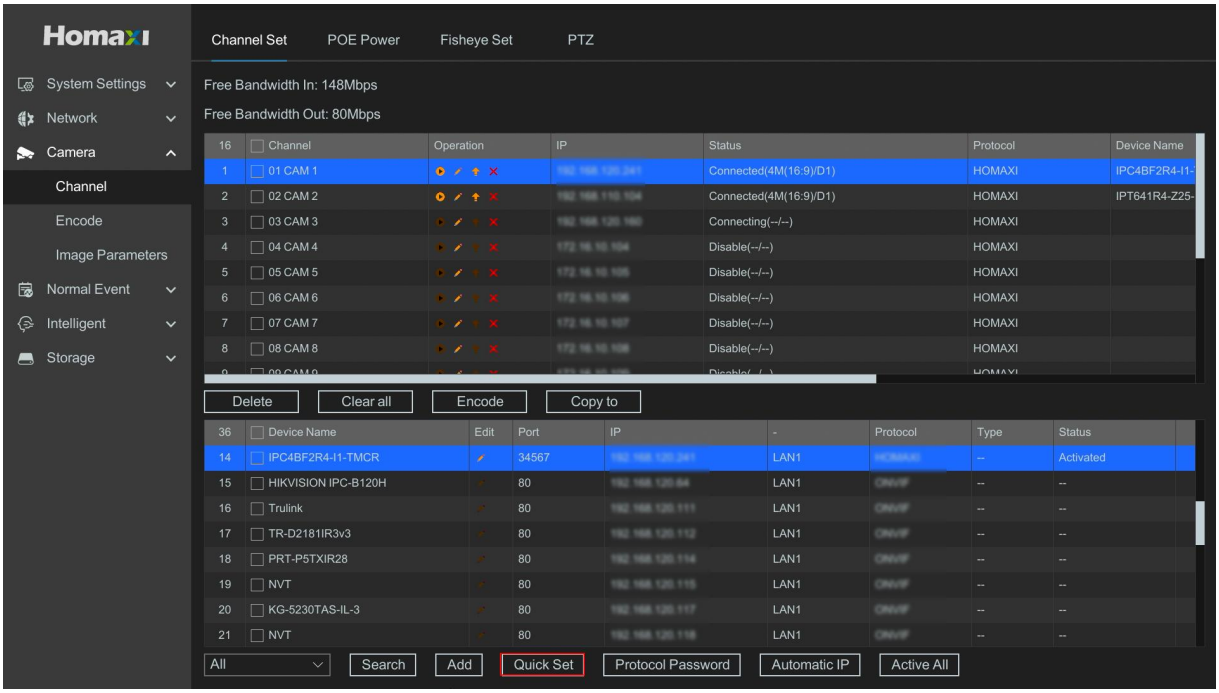


Figure 6-9 Channel Set Interface

6. The device you selected will be added quickly.

Note

If the camera is not added successfully, you can manually modify the user name, password, port, protocol or other.

Add Network Camera Manually

Before You Start

●Ensure your network camera is on the same network segment with your video recorder.
●Ensure the network connection is valid and correct.
●Ensure the network camera is activated.

Steps:

1. Go to **Setting Menu→ Camera → Channel → Channel Set**.
2. Select the channel you want to add manually.
3. Click  for that channel.
4. You can edit the IP Address, User name, Password, Port and other parameters.

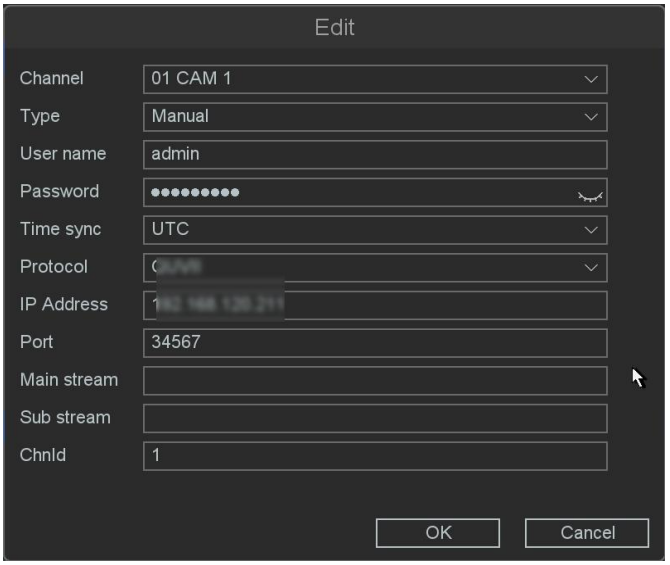


Figure 6-10 Edit the Parameters

5. Click the drop down box of Protocol, you can choose three protocols: QUVII, ONVIF, RTSP; QUVII is a private protocol, ONVIF and RTSP protocols are mainly connected to third-party cameras.
6. Edit the ChnId, Default is 1.
7. Click **OK** to save and exit the editing interface.

Time sync

Time synchronization, the default is UTC synchronization, you can also choose to disable.

Port

Device connection port, QUVII is 34567, ONVIF is 80, RTSP is 554, and other ports are provided by the equipment manufacturer.

ChnId

Device channel number, if the device you connect has multiple channels, please fill in the channel number you want to connect.

Previewing Video

The camera can be previewed directly through the preview button.

Before You Start

●Ensure your network camera is on the same network segment with your video recorder.
●Ensure the network connection is valid and correct.
●Ensure the camera's status is Connected, and like this (8M/D1) in brackets, not (--/--).

Steps:

1. Go to **Setting Menu→ Camera → Channel → Channel Set**.
2. Click .
3. The preview window is shown in the figure below.

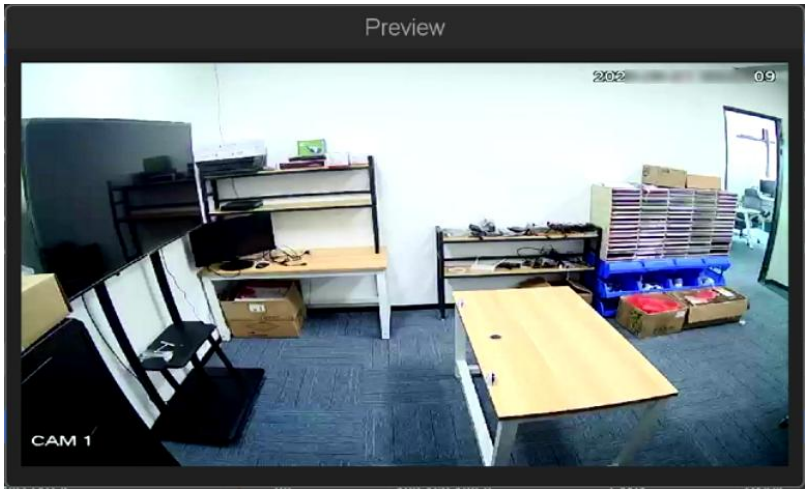


Figure 6-11 Preview

Upgrade Network Camera

The Network camera can be remotely upgraded through the NVR.

Before You Start

●Ensure you have inserted the USB flash drive to the device, and it contains the network camera upgrade firmware.

●Ensure your network camera is on the same network segment with your video recorder.

●Ensure the network connection is valid and correct.

Steps:

1. Go to **Setting Menu → Camera → Channel → Channel Set**.
2. Select the camera to be upgraded.
3. Click  .
4. Select your USB flash drive from the drop down box.
5. Select upgrade file and click **Upgrade.**
6. Click **OK** to start upgrading. The camera will restarted automatically after upgrade completed.

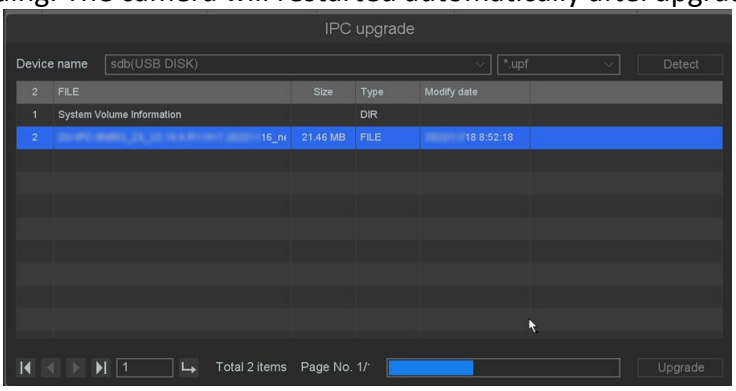


Figure 6-12 IPC upgrade

Delete Camera

The camera can be deleted through the delete button.

Before You Start

Ensure your network camera is needs to be deleted.

Steps:

1. Go to **Setting Menu→ Camera → Channel → Channel Set**.
2. Click  or Select the camera and click the **Delete** button.

3. Optional1: Check the device to be deleted and click the '**Delete**' button.
4. Optional2: Click '**Clear all**', you can delete all the channels you want to delete.
5. As shown in the figure below, click **OK**.

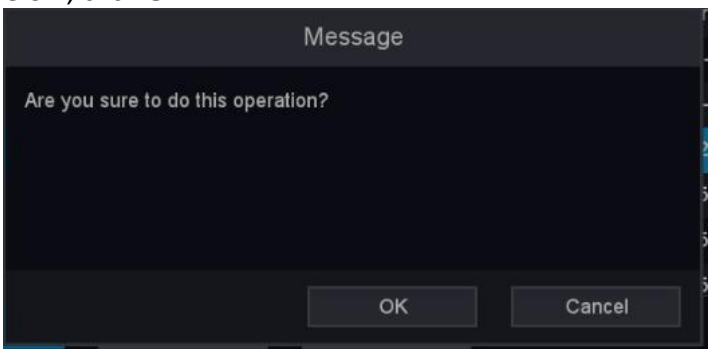


Figure 6-13 Message

OSD

Configure OSD (On-Screen Display) settings for the camera, including date format, camera name, etc.

Steps:

1. Go to **Setting Menu → Camera → Image Parameters → OSD**.
2. Select a camera.

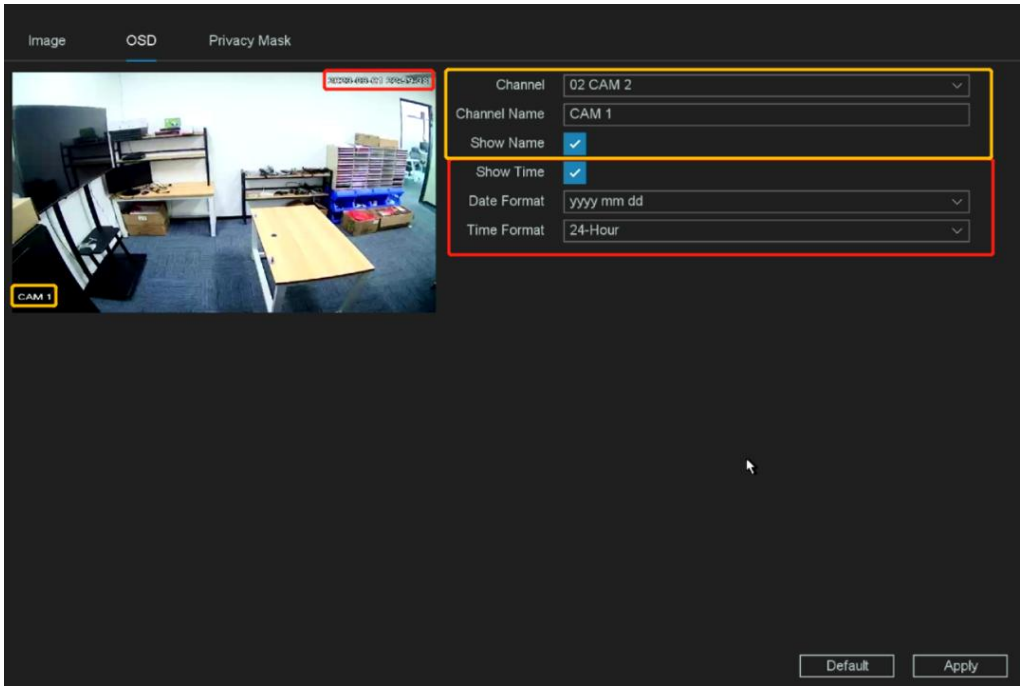


Figure 6-14 OSD

3. Set parameters as your desire.
4. The name and time can be chose to display or not, and can also be customized.
5. Click **Apply**.

6.3.2 Event

Motion Detection

Motion detection enables the video recorder to detect the moving objects in the monitored area and trigger alarms.

Steps:

1. Go to **Setting Menu → Event → Video Detection → Motion Detection**.

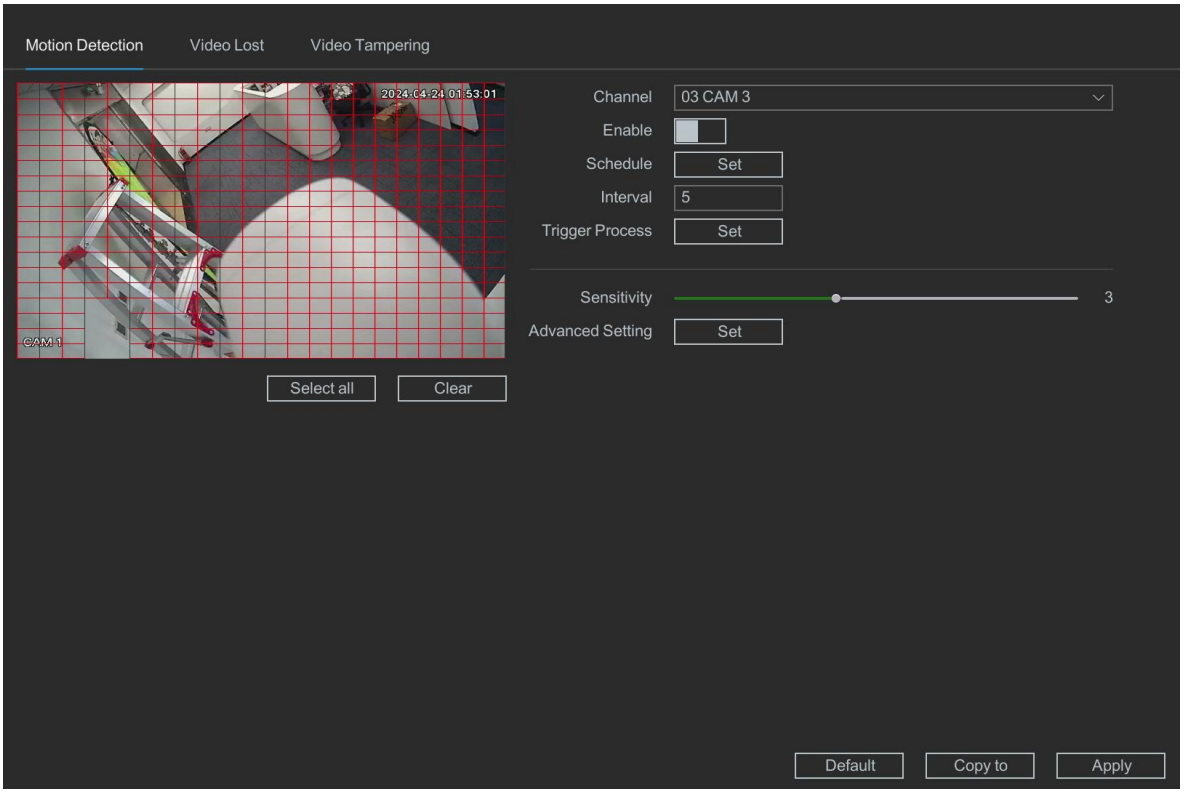


Figure 6-15 Motion Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set the motion detection area.

Click **Clear** or **Hold down the left mouse button** to clear or draw areas. The first area is set as full screen by default.

Click **Select all** to set the motion detection area as full screen. You can drag on the preview window to draw motion detection areas.

5. Set the arming **Schedule**. Refer to ***6.3.3 Configure Arming Schedule*** below for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger process**. Refer to ***6.3.4 Configure Alarm Trigger Process*** below for details.
8. 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.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. Click **Apply**.

Line Crossing

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 **Setting Menu → Intelligent → AI Config → Perimeter Protection → Line Crossing**.
2. Tick the checkbox of **Line Crossing**.
3. Click  to enter the popup window.

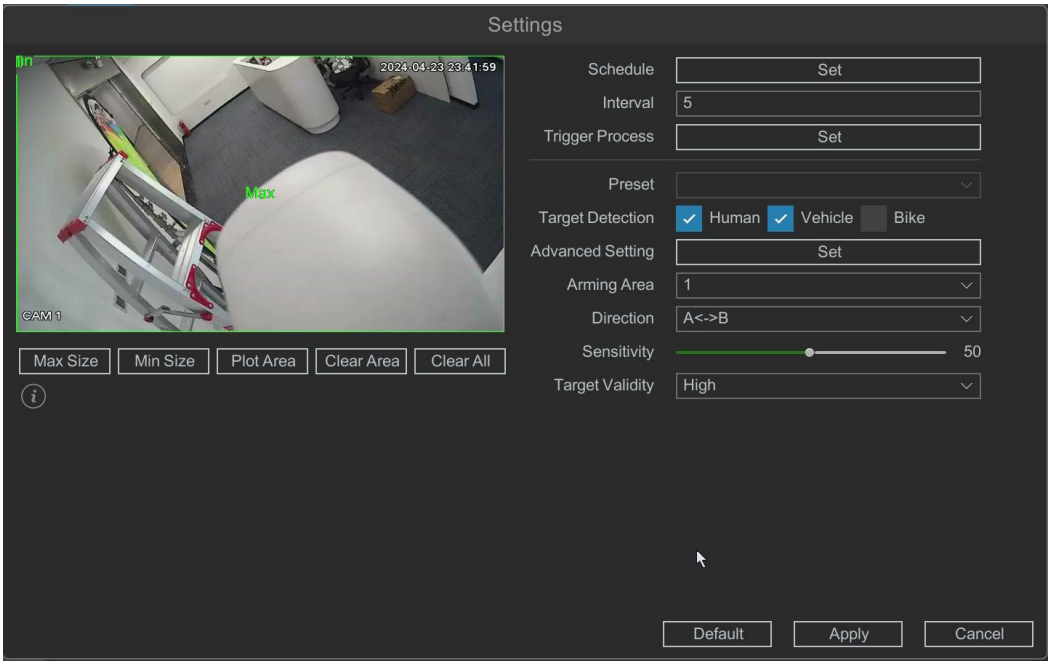


Figure 6-16 Line Crossing

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 Area: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
8. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. Select the **Arming Area**, Up to 4 arming lines can be set.
11. Select **Direction** as **A<->B**, **A->B**, or **B->A**.

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.

12. 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.
13. 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.

14. Click **Apply**.

Area Intrusion

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 **Setting Menu → Intelligent→ AI Config → Perimeter Protection → Area Intrusion**.
2. Tick the checkbox of **Area Intrusion**.
3. Click  to enter the popup window.

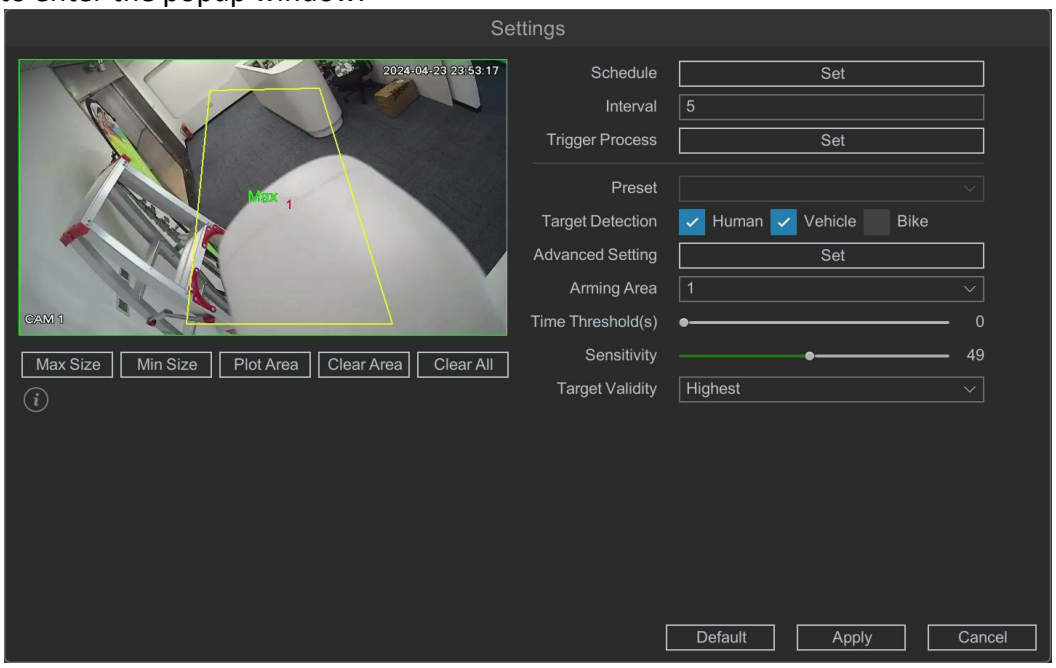


Figure 6-17 Area Intrusion

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

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 Area: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
8. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. Select the **Arming Area**, Up to 4 areas can be set.

11. Set **Threshold**: Alarm occurs if target enter arming areas and stay longer than the time threshold you set, 0-10s settable.

12. **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.

13. 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.

14. lick **Apply**.

Region Entrance

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 **Setting Menu → Intelligent→ AI Config → Perimeter Protection → Region Entrance**.
2. Tick the checkbox of **Region Entrance**.
3. Click to enter the popup window.

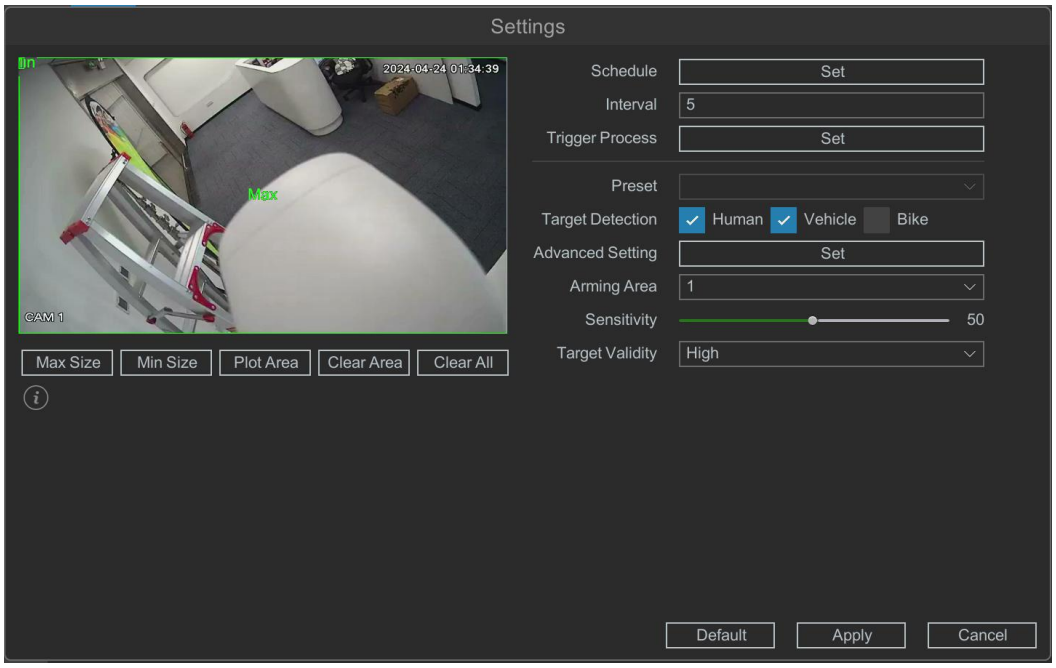


Figure 6-18 Region Entrance

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

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 Area: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.

6. Set the **Interval** for the event. 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.
7. Set the **Trigger process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
8. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. Select the **Arming Area**, Up to 4 arming areas can be set.
11. **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.
12. 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.
13. Click **Apply**.

Region Exiting

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 **Setting Menu → Intelligent→ AI Config → Perimeter Protection → Region Exiting**.
2. Tick the checkbox of **Region Exiting**.
3. Click  to enter the popup window.

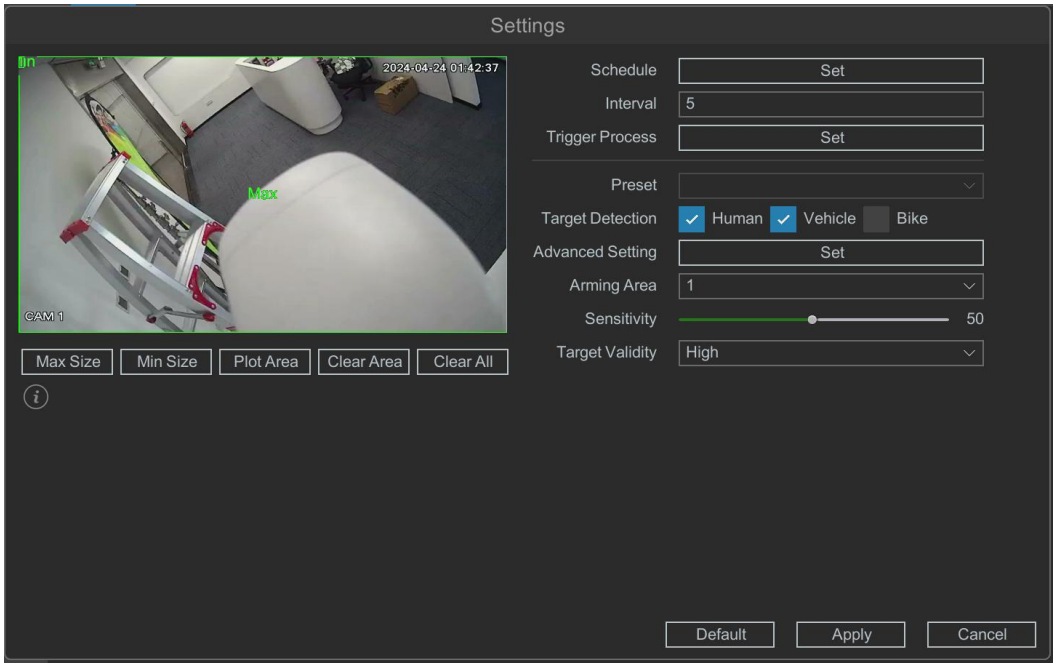


Figure 6-19 Region Exiting

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

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 Area: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
8. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. Select the **Arming Area**, Up to 4 arming areas can be set.
11. **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.
12. 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.
13. Click **Apply**.

6.3.3 Configure Arming Schedule

Steps:

1. Go to **Setting Menu → Event → Alarm I/O → Local I/O.**
2. Click **Set** of Schedule.
3. Choose one day of a week and set the time segment. Up to six time periods can be set within each day.

Note

Time periods shall not be repeated or overlapped.

4. Edit the time period 1-6 that you want to trigger the alarm and check it, as shown in the figure below.

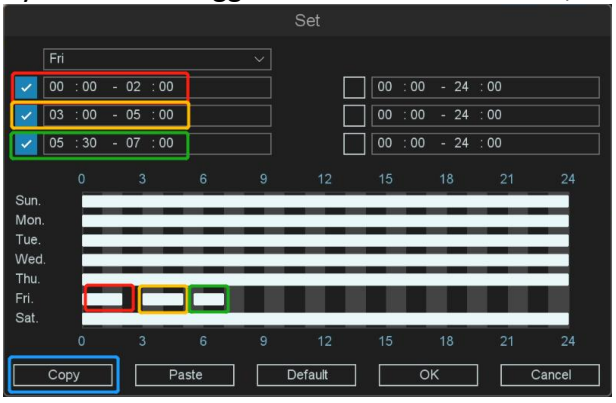


Figure 6-20 Configure Arming Schedule

5. Click **OK**.

6.3.4 Configure Alarm Trigger Process

Alarm Trigger process will be activated when an alarm or exception occurs.

Steps:

1. Go to **Setting Menu → Event → Alarm I/O → Local I/O.**

2. Click **Set** of Trigger Process.

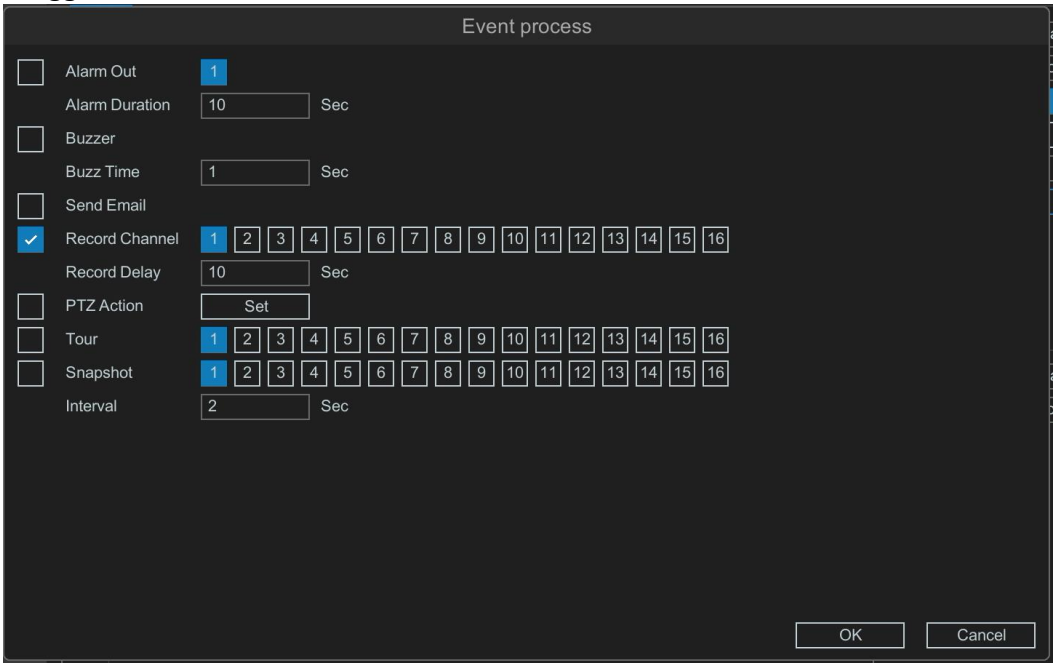


Figure 6-21 Trigger process

3. Set Buzzer, Send Email, Record Channel etc.

Buzzer & Buzz time

It will trigger a buzzer beep when an alarm is triggered.

Send Email

It will send an email with alarm information when an alarm is triggered.

Record Channel

It triggers the alarm recording for that channel when an alarm is triggered, and associate the recording for viewing

Record Delay

The length of recording after the alarm ends.

PTZ Action

It will trigger PTZ actions (e.g., call Preset/Tour/Pattern) when smart events occur.

Tour

When the alarm is triggered, it will patrol the screens you have chosen.

Snapshot

It saves the alarm picture for that channel when an alarm is triggered.

Interval

The interval time of the continuous picture capturing when the alarm lasts.

4. Click **OK**.

Note

- For certain network cameras, you can set the alarm linkage action as audio alarm or light alarm.
- Ensure your camera supports audio and light alarm linkage.
- Ensure the audio output and volume are properly configured.
- If you require to set audio and light parameters, please log into the network camera via web browser to configure them.

6.3.5 Configure Advanced Setting

Advanced Setting will also be activated when an alarm or exception occurs. It includes the red and blue lights, sirens, white lights related to the configuration of parameters.

Red and Blue Lights

You can set the red and blue lights to flash red and blue when the event is triggered.

Schedule

In this screen you can set the lighting time schedule.

Flash Rate

Set the red and blue light alarm frequency.

Stay Time

Set the red and blue light alarm duration.

File

You can set the Siren Sound when the event is triggered.

Play Count

You can set the number of siren alarm.

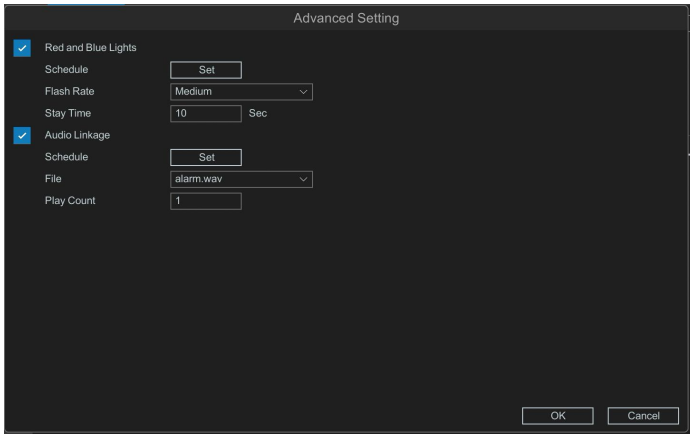


Figure 6-22 Advanced Setting (Red and Blue Lights)

6.4 Recording Management

6.4.1 Storage

Initialize HDD

A newly installed hard disk drive (HDD) must be initialized before it can be used to save videos and information.

Before You Start

Install at least an HDD to your video recorder. For detailed steps, refer to ***1.3 HDD Installation***.

Steps:

1. Go to **Setting menu → Storage → HDD Management**.

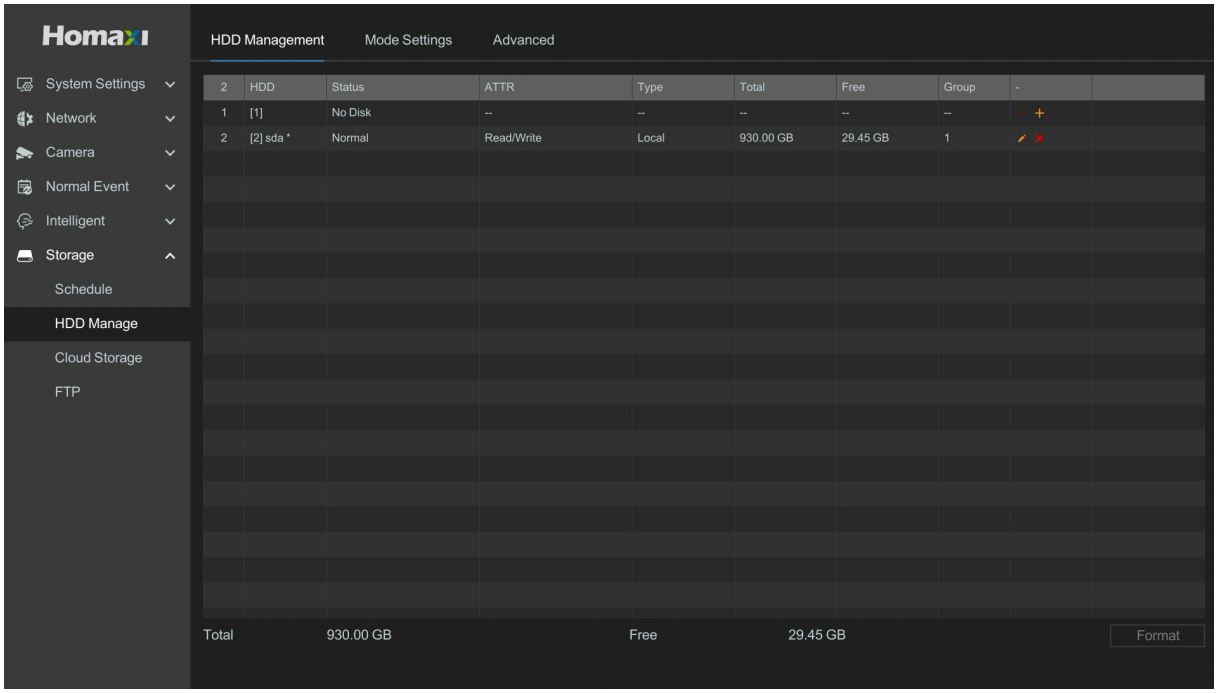


Figure 6-23 HDD Management

2. Select an HDD.
3. Click **Format**.
4. Click **OK** to continue.

Note

To repair an HDD that fails to function as a database. Please operate under the help of professional technical support.

HDD Management

This page displays your device's installed hard drive number, the hard disk status, the hard disk Attributes, the type of hard drive, the total/free capacity, as well as belonging to a group, edit button and delete button.

HDD

Shows HDD serial number, '[1] sda' or '[2] sdb'.

Status

Shows the state of HDD, 'Unformatted' or 'normal' or 'no disk'.

ATTR

HDD have three type of ATTR, 'Read/Write', 'Read only' and 'Redundant'.

Type

Shows HDD connection type.

Total

The size of the HDD total capacity.

Free

Shows HDD remaining capacity size.

Group

Shows which group the HDD belonged.

Delete

Uninstall HDD.

Add

Add the HDD from uninstall state.

Format

Format the HDD manually.

Steps:

1. Click HDD the **Edit** button, interface shows as below.

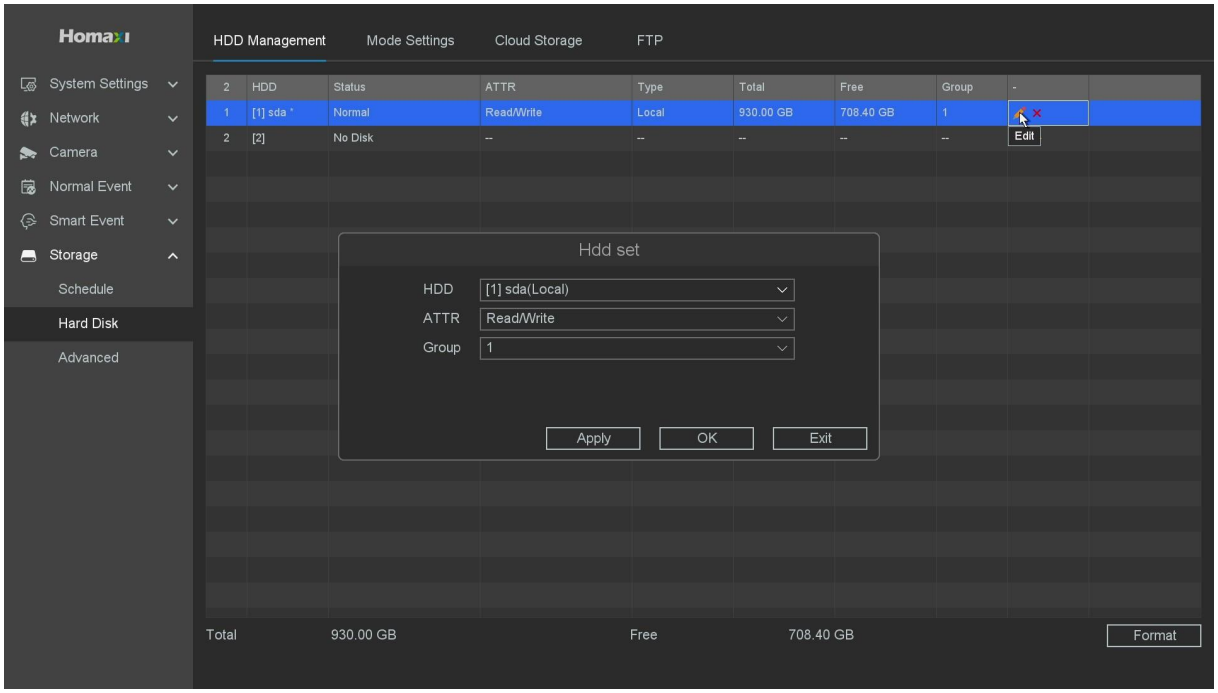


Figure 6-24 Edit

2. Configure the other parameters as your desire.
3. Click **OK**.

6.4.2 Configure Recording Schedule

Configure the schedule for the record by configuring the related parameters, Video recorder will automatically start/stop recording according to the configured schedule. And before these operations, please make sure that the HDD has already been installed and formatted. If not, please install the HDD and initialize it. For detailed information, please refer to ***6.4.1 Storage***.

Configure Recording

Steps:

1. Go to **Setting Menu → Storage → Schedule.**

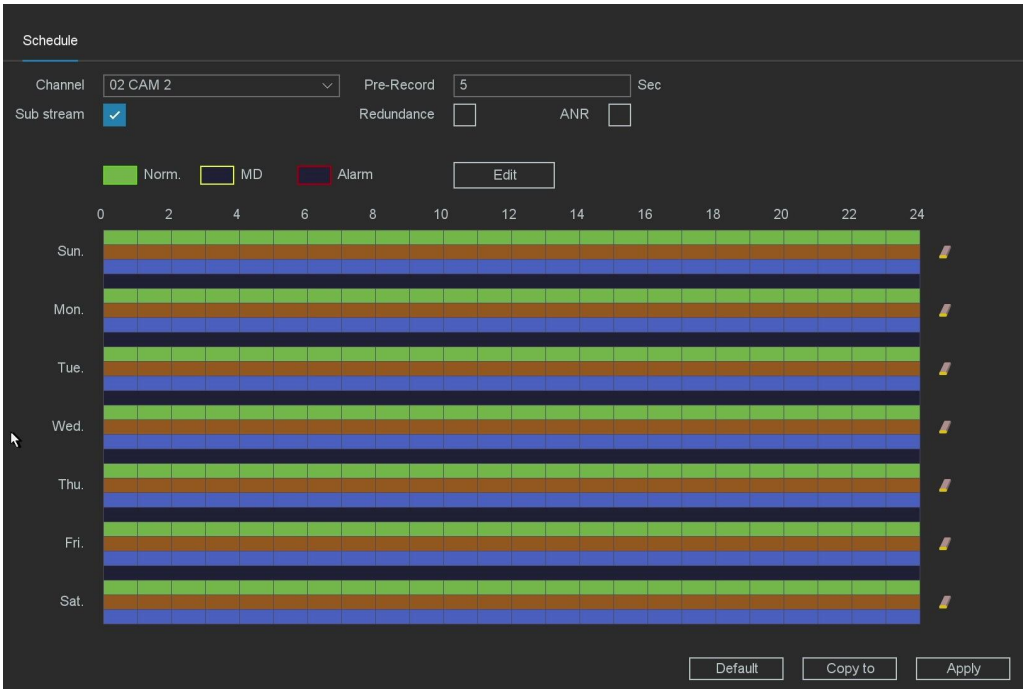


Figure 6-25 Schedule

2. Select the channel.
3. Set the Pre-Record.

The time to be pre-record on the created videos. Range from 0-30 seconds.

4. Select main stream recording or sub stream recording.

Some devices with less than 16 channels can support dual stream recording.

5. Set recording schedule.
6. Click **Apply**.

Note

- ANR: When IPC disconnected with NVR and IPC has its own record in its TF-card, NVR will supplement the record from IPC's TF card when IPC re-connects with NVR.
- Redundancy: The record will be backed up in redundant HDD, if there is redundant HDD device installed in the system.
- If there are several channels to be set with pre-record function, the pre-record time will be less than 30 seconds (the maximum value), because pre-record function will consume the system resources and it will adjust the time length to support many channels at the same time.

Edit Schedule

OPTION 1:

You can click the button Edit to enter the edit screen and set the schedule of the record.

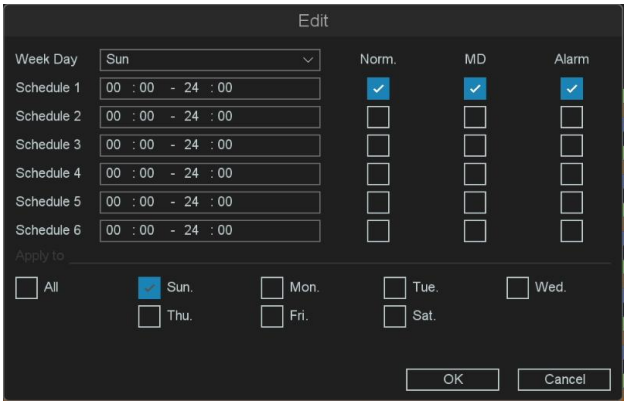


Figure 6-26 Edit Schedule

Week Day

The day to set the schedule, from Sunday to Saturday.

Schedule 1-6

The time slot for the record, you can set 6 time slots during one day.

Norm

The type of the record, record as normal video.

MD

The type of the record, record as motion detection video.

Alarm

The type of the record, record as alarm video.

Steps:

1. Click **Edit**.
2. Select the Week Day which from Sunday to Saturday.
3. Set the time period you want to record.
4. Check Alarm, MD or Norm for the type of recording you want.
5. Click **OK.**

Note

You can check the All to select all the week day and set the schedule at the same time, or check several of them. If Norm, MD and Alarm are checked at the same time, it will record as a priority like: Alarm > MD > Norm. That means if the three types of detection occurred at the same time, the type of the record will be set as Alarm video.

OPTION 2:

You can also edit the schedule on the configuration graph screen, as shown below.

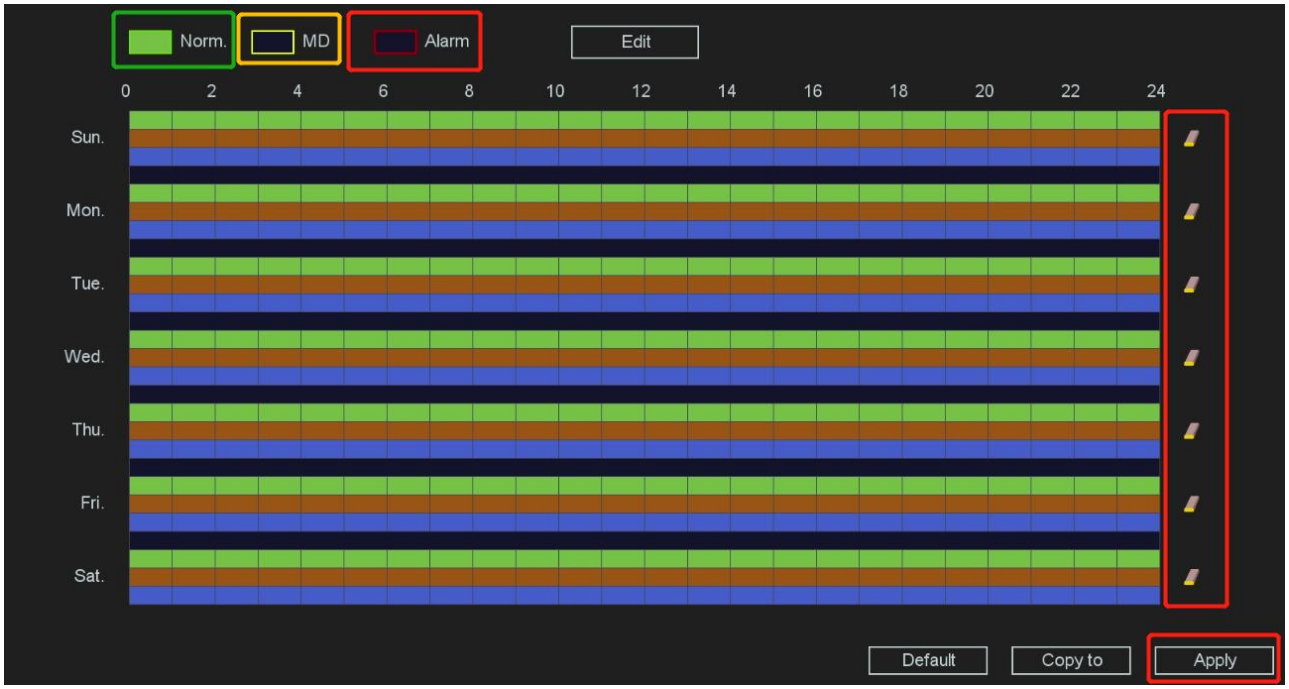


Figure 6-27 Edit Schedule

Steps:

1. Select any one of Norm, MD, and Alarm in the upper left corner
2. Hold down the left mouse button and move on the corresponding bar.
3. If we check the Norm, and Hold down the left mouse button to move on the corresponding bar, we will be able to edit the green part of the bar. The first Holding down is selected, the second Holding down is deleted, and so on.
4. Click  to clear the setting of the bar at once.
5. After all the settings finished, click **Apply**.
6. Optional: You can copy the current channel setting to other channels by clicking the button **Copy to**.

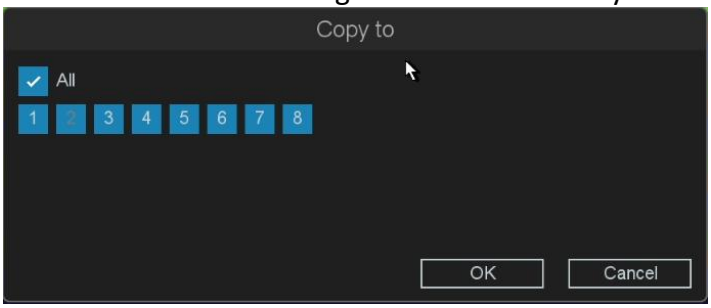


Figure 6-28 Copy to

Note

By clicking the button **Default**, you can reset all the settings.

Configure MD Recording

You can configure the recording triggered by the **Motion Detection**, **Perimeter Protection**, **Behavior Analysis**, **Face Detection**, **Detection** and **Audio Detection**.

Steps:

1. Select any MD in the upper left corner

2. Hold down the left mouse button and move on the yellow corresponding bar, check or clear.
3. Optional: Click  to clear the setting of the bar at once.
4. After all the settings finished, click **Apply** to activate all the settings.
5. Optional: You can copy the current channel setting to other channels by clicking the button **Copy to**.

Configure Alarm Recording

You can configure the recording triggered by the **Alarm I/O, System Alert**.

Steps:

1. Select any Alarm in the upper left corner.
2. Hold down the left mouse button and move on the blue corresponding bar, check or clear.
3. Optional: Click  to clear the setting of the bar at once.
4. After all the settings finished, click Apply to activate all the settings.
5. Optional: You can copy the current channel setting to other channels by clicking **Copy to**.

7. Maintain

7.1 System

1. Go to **Maintain → System.**

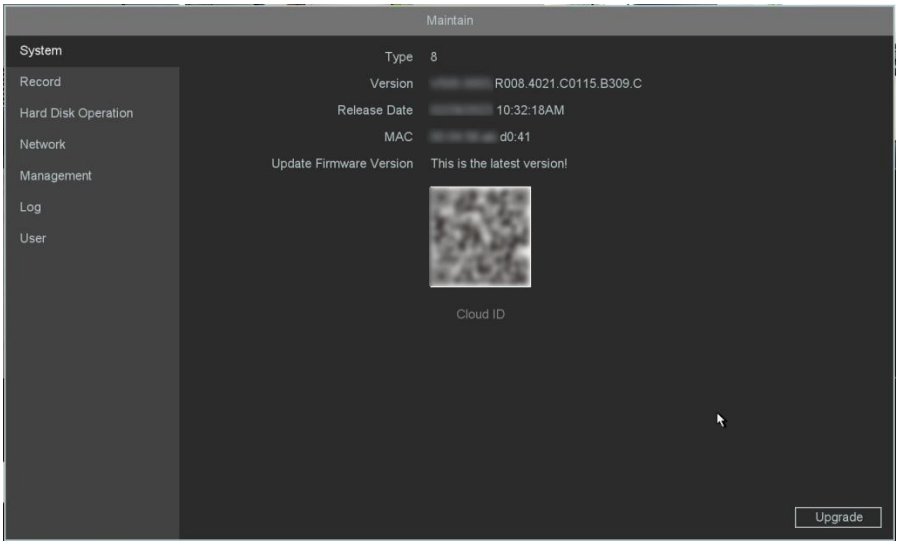


Figure 7-1 System

2. In this page, you can see the version information of the device.

Type

Number of channel supported by the device.

Version

Version Information.

Release Date

The release date of firmware.

MAC

The MAC address of the device.

Update firmware version

Update firmware version information.

3. The system will automatically detect whether there is the latest firmware.
4. If there is a new firmware, Click **Upgrade.**

1) Select your USB flash drive from the drop down box of Device name.
2) Select the correct upgrade firmware.
3) Click **Upgrade**.
4) Click **OK**, your device will reboot automatically after the upgrade is complete completed.

Warning

Do not shutdown or turn off the power during upgrade.

7.2 Record

On this page you can check all the channels record status, open or stop; stream type, video or mixture (video and audio); frame/bite rate of channels stream; main/sub resolution of IP channel; and whether open the redundancy function or not.

Before You Start

Please make sure whether you have configured the recording Schedule.

Steps:

1. Go to **Maintain → Record.**

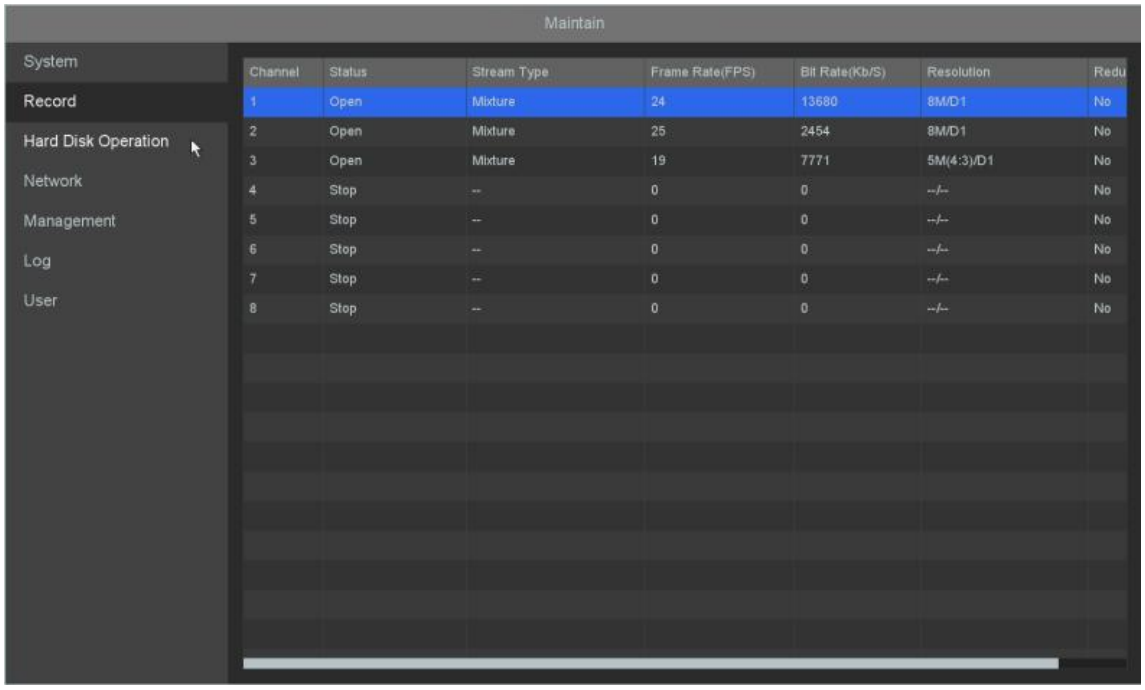


Figure 7-2 Record

7.3 Hard Disk Operation

The device provides the HDD detection function such as the adopting of the S.M.A.R.T. and the Bad Sector Detection technique. The S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a monitoring system for HDD to detect and report on various indicators of reliability in the hopes of anticipating failures.

Before You Start

Install at least an HDD to your video recorder.

Steps:

1. Go to **Maintain → Hard Disk Operation**.
2. Select the HDD you want to detect.
3. Select the self-test types as Short Test or Expanded Test.

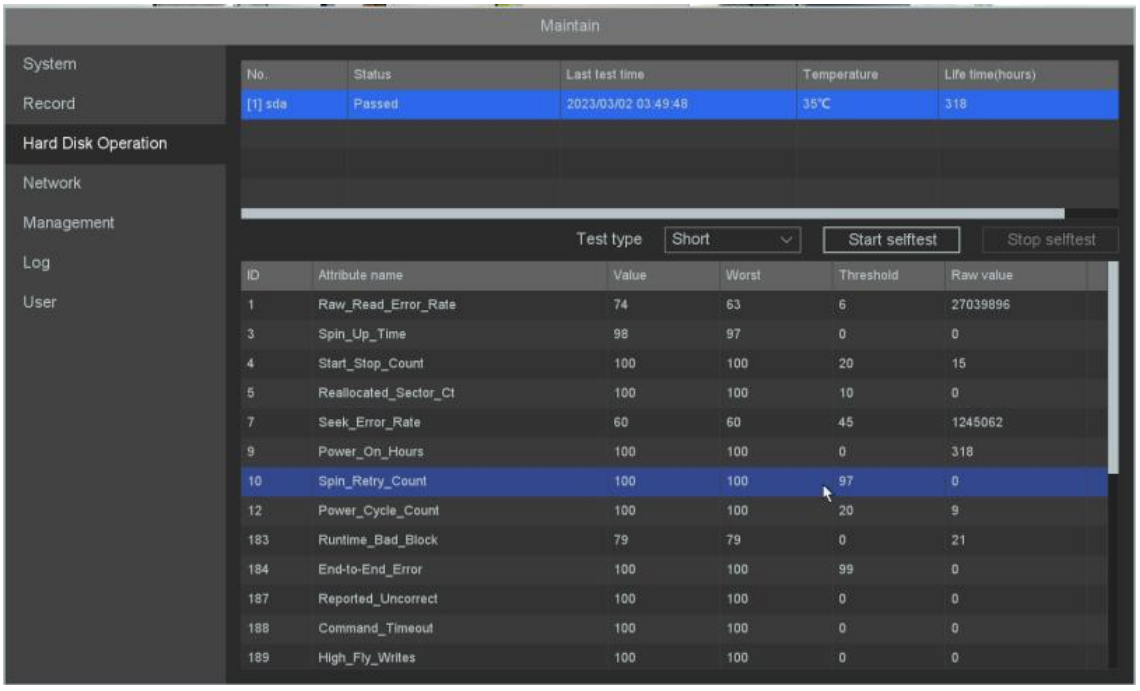


Figure 7-3 Hard Disk Operation

4. Click **Start Selftest** to start the S.M.A.R.T. HDD self-evaluation.
5. If the HDD is normal you can see the Status is Passed, and you can also pause or cancel the detection.

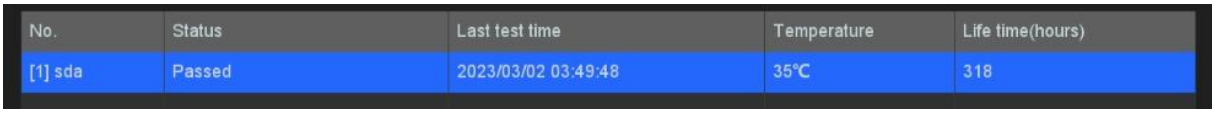


Figure 7-4 Check Status

7.4 Network

You can view the current status parameters of all your LANs in this screen.

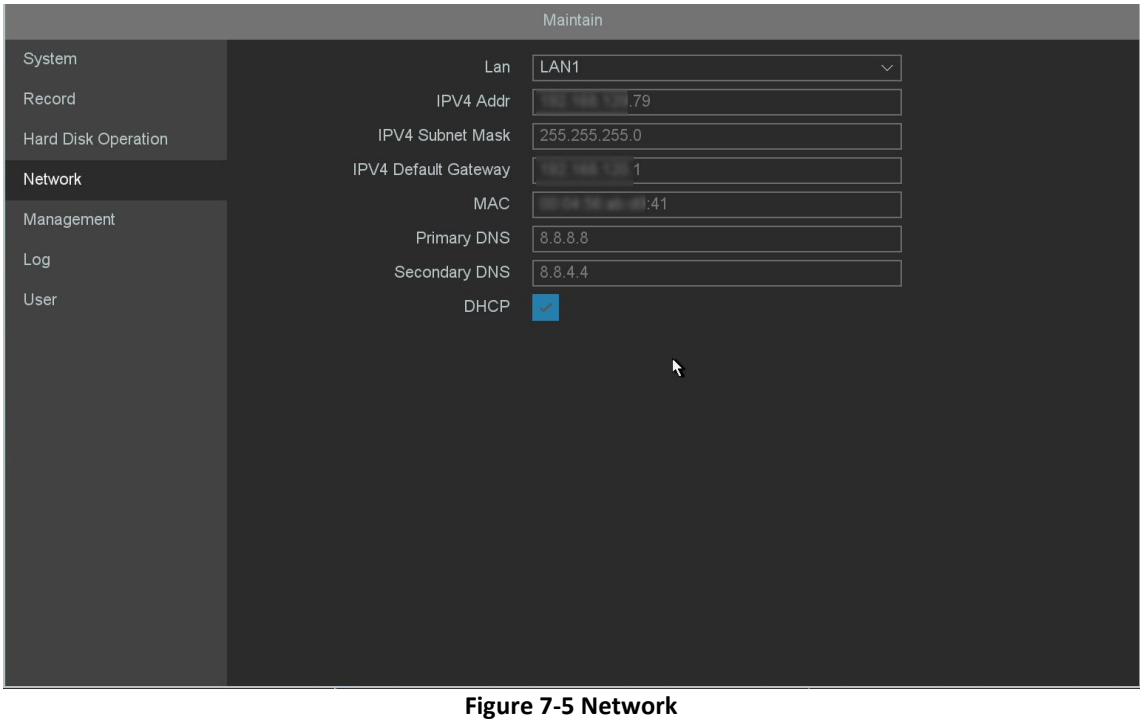


Figure 7-5 Network

7.5 Management

Steps:

1. Go to **Maintain → Management.**

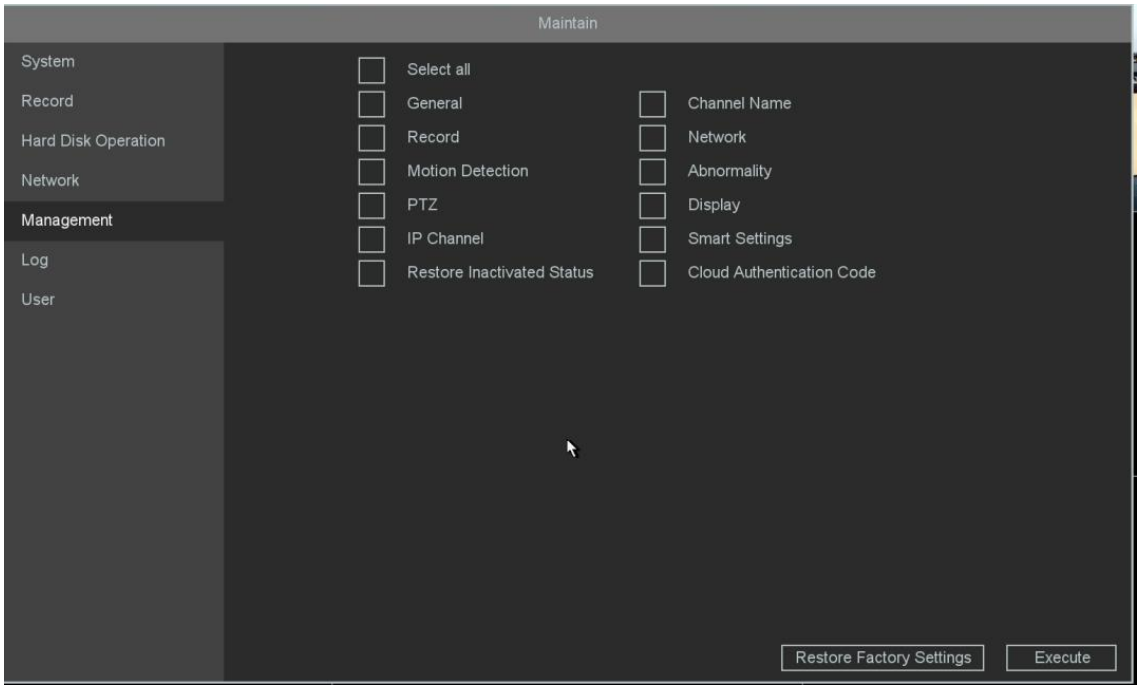


Figure 7-6 Management

2. Select the restoring type.

Simple Restore

●Choose the function item, General/Channel Name/Record/Network/Motion Detection/Abnormality/PTZ/Display/IP Channel/Smart Settings/Restore Inactivated Status/Cloud Authentication Code.

●Click **Execute**, the items you have chosen will restore to defaults.

●Optional: you can also check **Select all**, all the items restore default.

Factory Defaults

Click **Restore factory settings**, restore all parameters to the factory default settings.

3. If you performed the restore, the device will reboot automatically.

7.6 Log

The operation, alarm, exception and information of video recorder can be stored in logs, which can be viewed and exported at any time.

Steps:

1. Go to **Maintain → Log**.

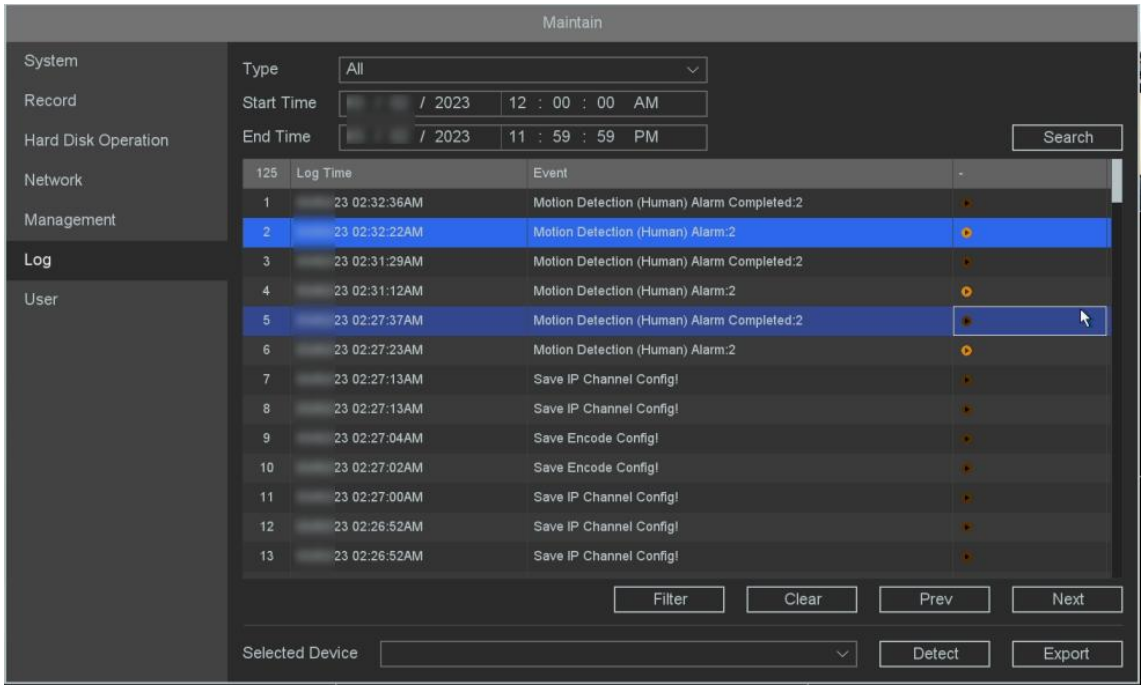


Figure 7-7 Log

2. Select the Type of Log.
3. Select the time period of the log you want.
4. Click **Search**.

Type

Search type include ‘System’, ‘Config’, ‘Storage’, ‘Alarm’, ‘Record’, ‘Account’, ‘Clear’ and ‘Playback.

Start time/End time

Set the time you want to search.

Search

After you set the period and search type, click **Searh**, and device can save maximum 4096 logs tops.

Prev/Next

It can show 1000 logs in one page, and you can check on more by click **Prev/Next**.

Filter

On this page you can chose whether cover the log after it’s full, and decide which type operation log you want to save.

Detect

Detect the USB device.

Export

Export the operations log into the USB flash disk.

7.7 User

On the online user interface, you can see online connected users. If there are unknown users, you can disconnect them or Shielding the connected user in a time that you set.

1. Go to **Maintain → User.**

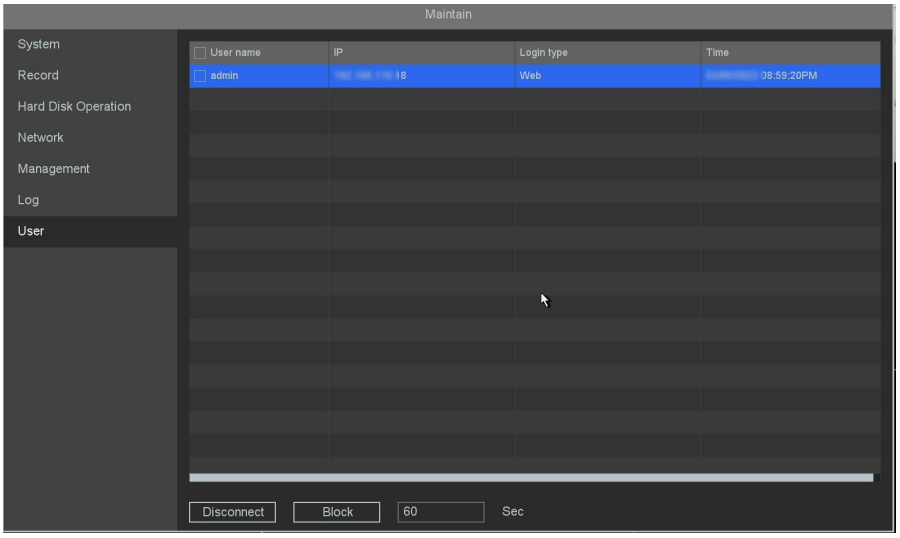


Figure 7-8 User

User Name

Remote device login this NVR device account.

IP

User remote access devices IP Address.

Login Type

Remote connection type.

Time

The login time of online user.

Disconnect

Disconnect the connected user, and disconnected users will reconnect automatically in a while.

Block

Shielding the connected user in a time that you set, and remote user will reconnect in that time.

8. Alarm Center

When events occur, you can view their details in Alarm Center.

8.1 Alarm Center

Every alarm event occurs, you will see it here.

Steps:

1. Go to **Alarm Center**.

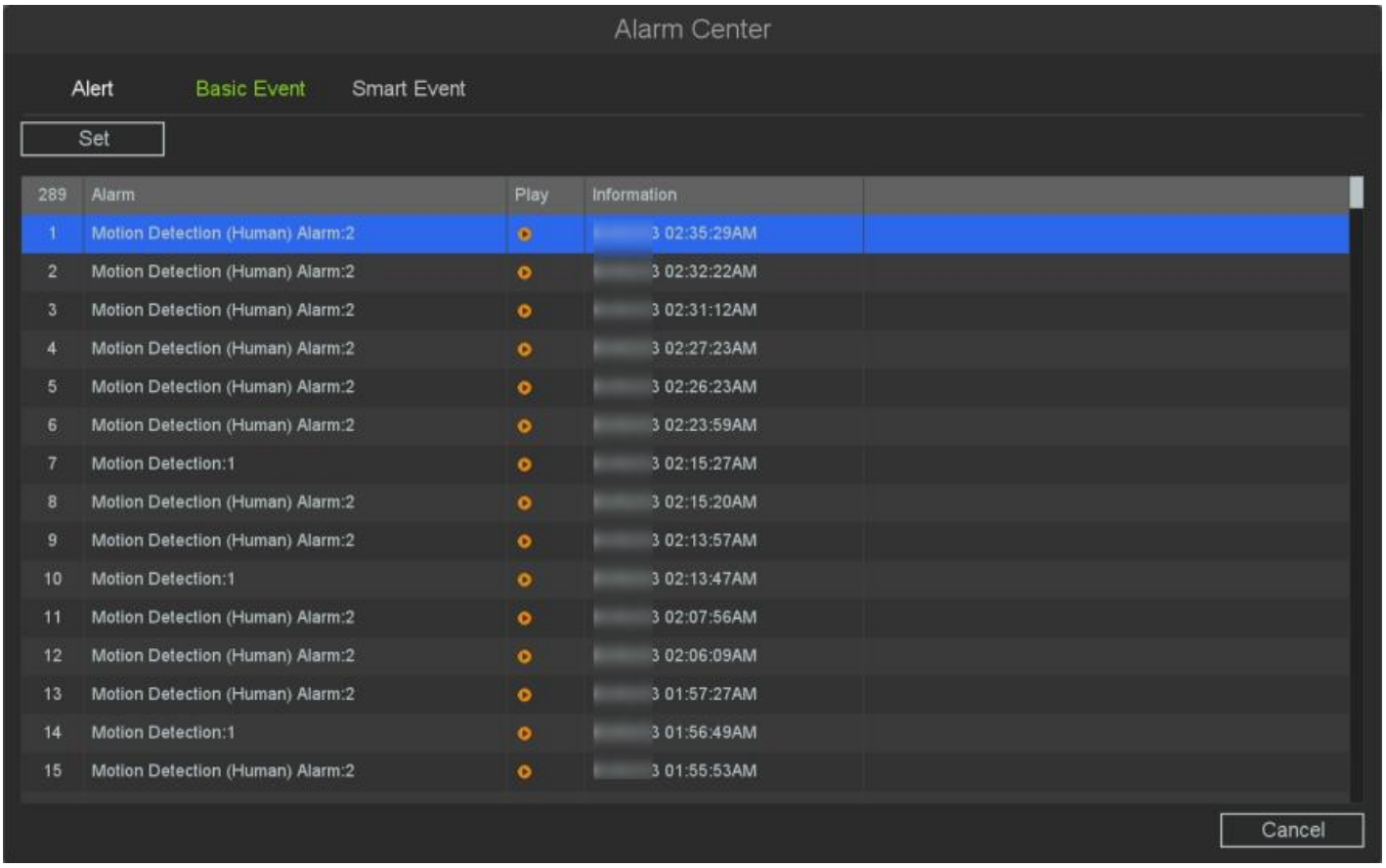


Figure 8-1 Alarm Center

Alert

System type abnormal alarm message.

Basic Event

General Event Alarm Messages.

Smart Event

Intelligent event alarm messages.

Set

Here you can set which specific events to display alarm messages.

Item	Description
Alert	NO Writable Disk, Disk Error, Disk Full, Network Disconnect, IP Conflict

Basic Event	Motion Detection, Video Cover, Video Lost, Camera I/O, Blurred Detection, Scene Change Detection, Audio Exception Detection
Smart Event	Line Crossing, Area Intrusion, Region Entrance, Region Exiting, Fast Moving, Unattended Object, Object Missing, Face Detection, Loitering Detection, Parking Detection, People Gather

Table 8-1 Event classification

9. Configuration (Advanced Mode)

9.1 System Settings

9.1.1 General Configuration

Basic Setting

You can configure the Language, Time Zone, System Time, Time Format, DST, Auto logout, Startup wizard, Device No., Host Name and Preview Strategy.

Steps:

1. Go to **Setting Menu → System Settings → General Configuration.**
2. Configure the parameters as your desire, please refer to ***6.1.1 General Configuration*** for details.

NTP

Your device can connect to a network time protocol (NTP) server to ensure that the system time is accurate.

Steps:

1. Go to **Setting Menu → System Settings → General Configuration → NTP**.
2. Turn on **Enable**.
3. Enter the parameters.

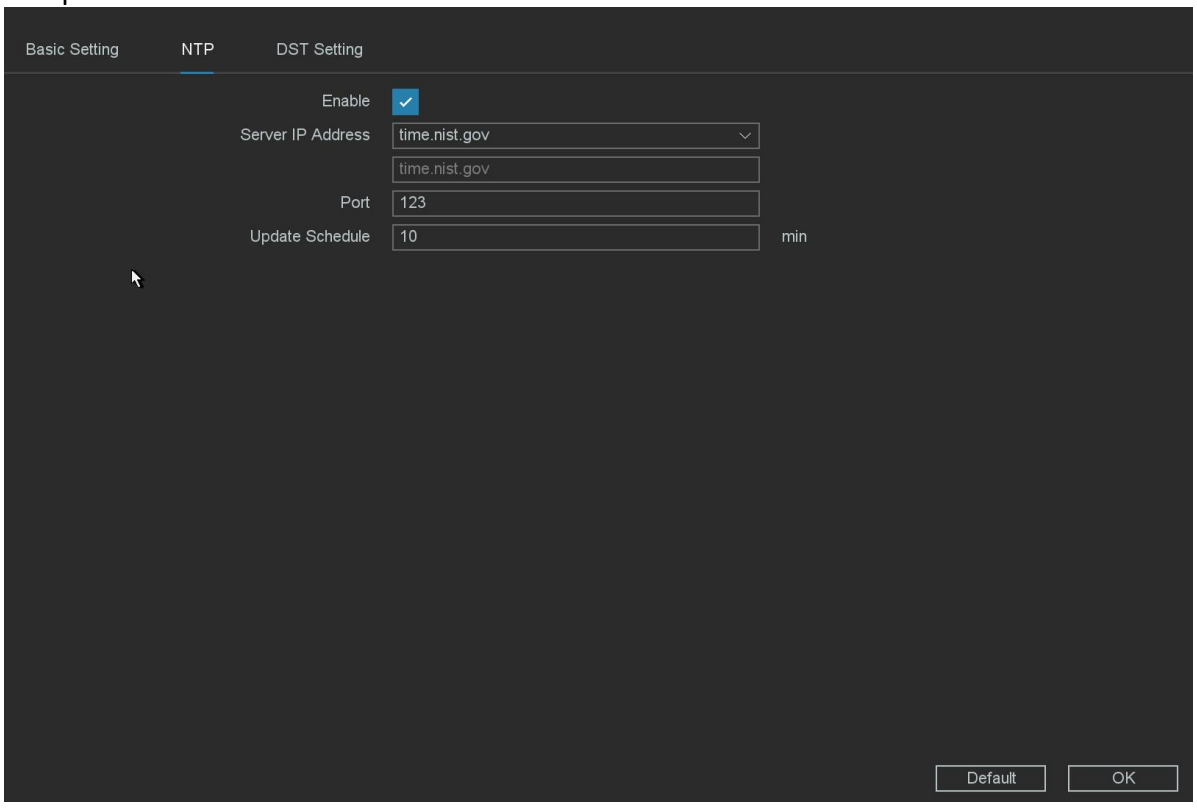


Figure 9-1 NTP

Server IP Address

The NTP Server IP address or host name. Support two built-in server IP and custom way.

Port

Port of NTP server.

Update Schedule

Time interval between the two synchronizing actions with NTP server. The unit is minute.

Note

The time synchronization interval can be set from 1 to 65535min, and the default value is 10 min. If the NVR is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center.

4. Click **OK.**

DST Setting

DST (Daylight Saving Time) refers to the period of the year when clocks are moved one period ahead. In some areas worldwide, this has the effect of creating more sunlit hours in the evening during months when the weather is the warmest.

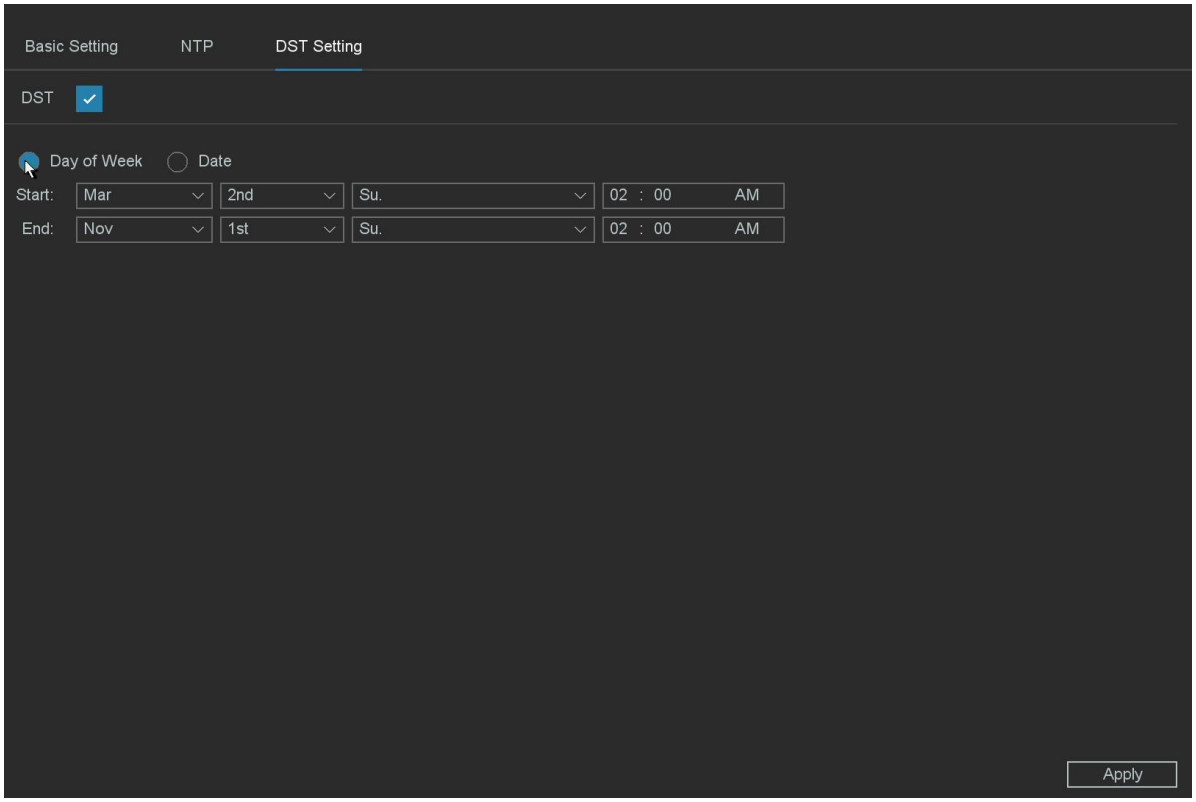
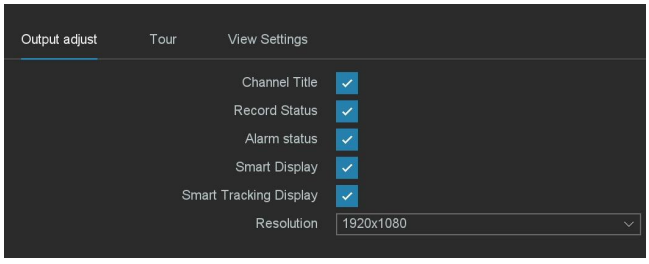


Figure 9-2 DST Setting

9.1.2 View Setting

Output adjust

1. Go to **Setting Menu → System Settings → View Setting → Output adjust.**



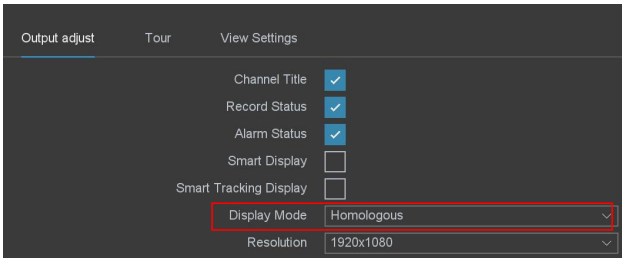


Figure 9-3 Output adjust

Note

Only some models have **Display Mode** parameters, please refer to the actual page.

Channel Title

Enable/disable the display of the time tile and channel title on the monitor screen.

Record Status

Enable/disable the display of the record status on the screen.

Alarm Status

Enable/disable the display of the alarm status on the screen.

Smart Display

It will display smart alarm line or area after you enable this function, you can see the blue box in the picture as below.

Figure 9-4 Display smart alarm line

Smart Tracking Display

It will track the moving objects from the specified intelligent alarm type, you can see the tracking box in the picture as below.

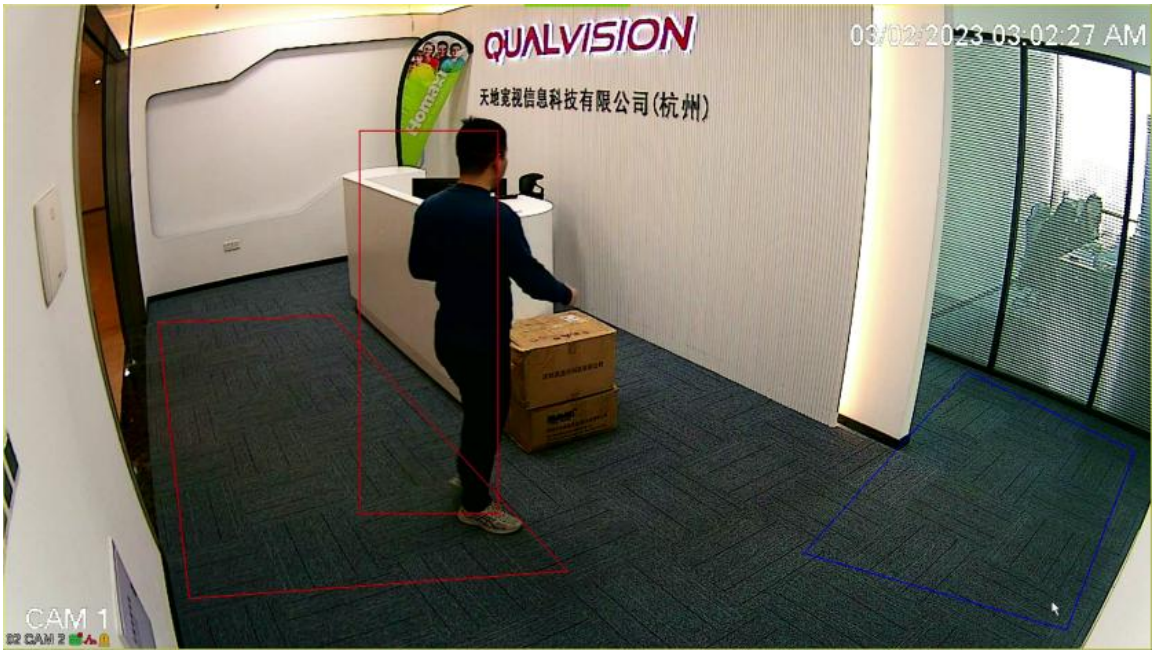


Figure 9-5 Smart Tracking Display

Display Mode

Note

- Only some models have **Display Mode** parameters, please refer to the actual page.
- After switching modes, the function will take effect only after the device is restart.

Homologous: The connected monitors will display the exact same interface.
Heterologous The connected monitors support display different interface, the mouse pointer will be displayed on the main port display, the auxiliary port can only display the preview screen.

Resolution

Select the appropriate resolution of menu output.

Tour

In this part you can set screens for monitoring patrol.

1. Go to **Setting Menu → System Settings → View Setting → Tour.**

Figure 9-6 Tour

Video Output

Optional: Select **Video Output**, the video output port should match the actual connected monitor.

Note

Only some models have **Video Output** parameters, please refer to the actual page.

Layout

The channel quantity and channel group for preview, for example there's a 64ch NVR, and choose View 16-1, the preview interface will show channel 1-16; if choose View 16-2, the preview interface will show channel 17-32, etc.

Dwell Time

The time in seconds to dwell between switching of channels when enabling auto-switch in Live View.

2. Click **Apply** after the setting is complete.

View settings

In this pare you can set the patrol screen of the monitor.

1. Go to **Setting Menu → System settings → View setting → View settings.**
2. Optional: Select **Video Output**, the video output port should match the actual connected monitor.

Note

Only some models have **Video Output** parameters, please refer to the actual page.

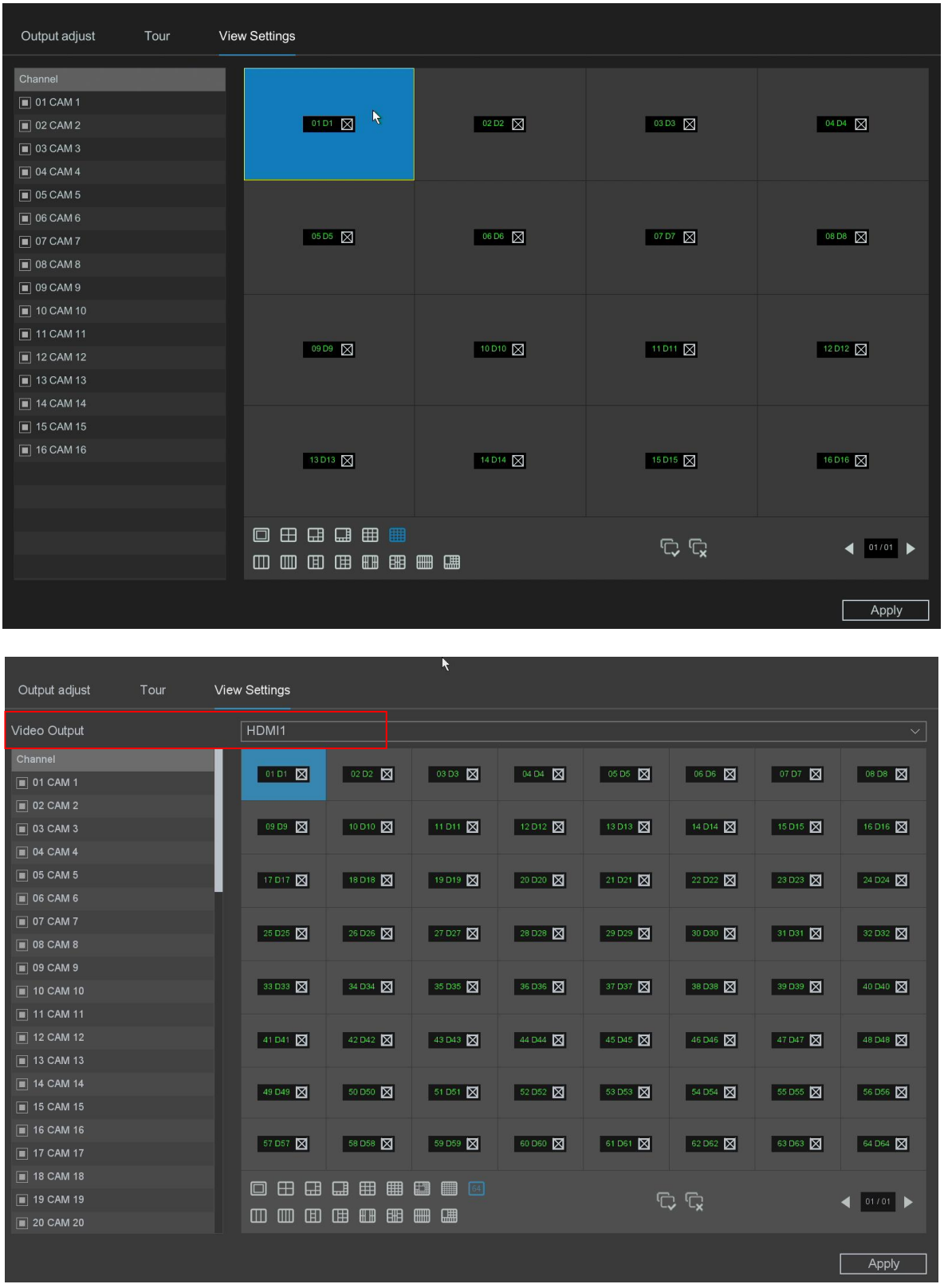


Figure 9-7 View Settings

3. Click a window to select it, and then double-click a camera name in the channel list you would like to display.

4. You can also click  to display the configured channels corresponding to each screen and click  to cancel the display of configured channels on the screen. Click  or  to go to the previous or next page.

5. Click **Apply**.

9.1.3 Account

Steps:

1. Go to **Setting Menu → System Settings → Account → Account**.

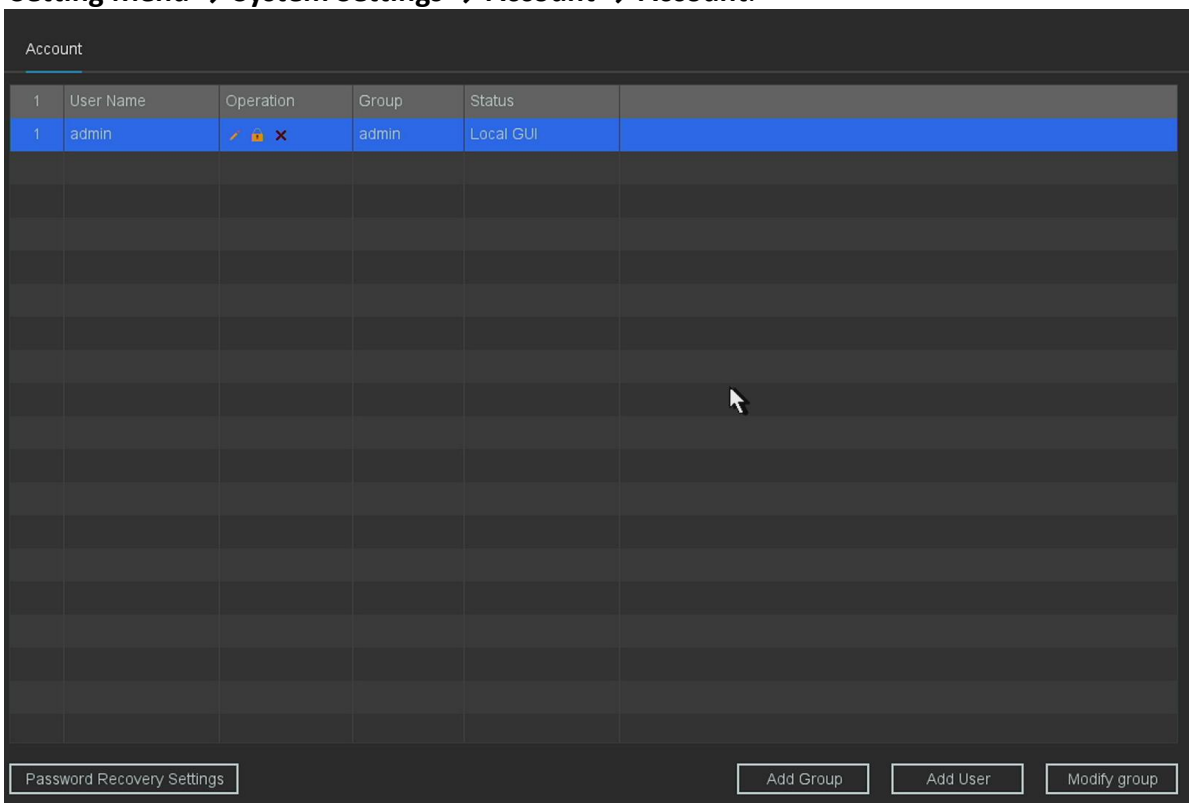


Figure 9-8 Account

Add Group

Add a user group and set the permission. There are many different permissions: Control panel, Shutdown the device, Backup, Local replay, Monitor and so on.

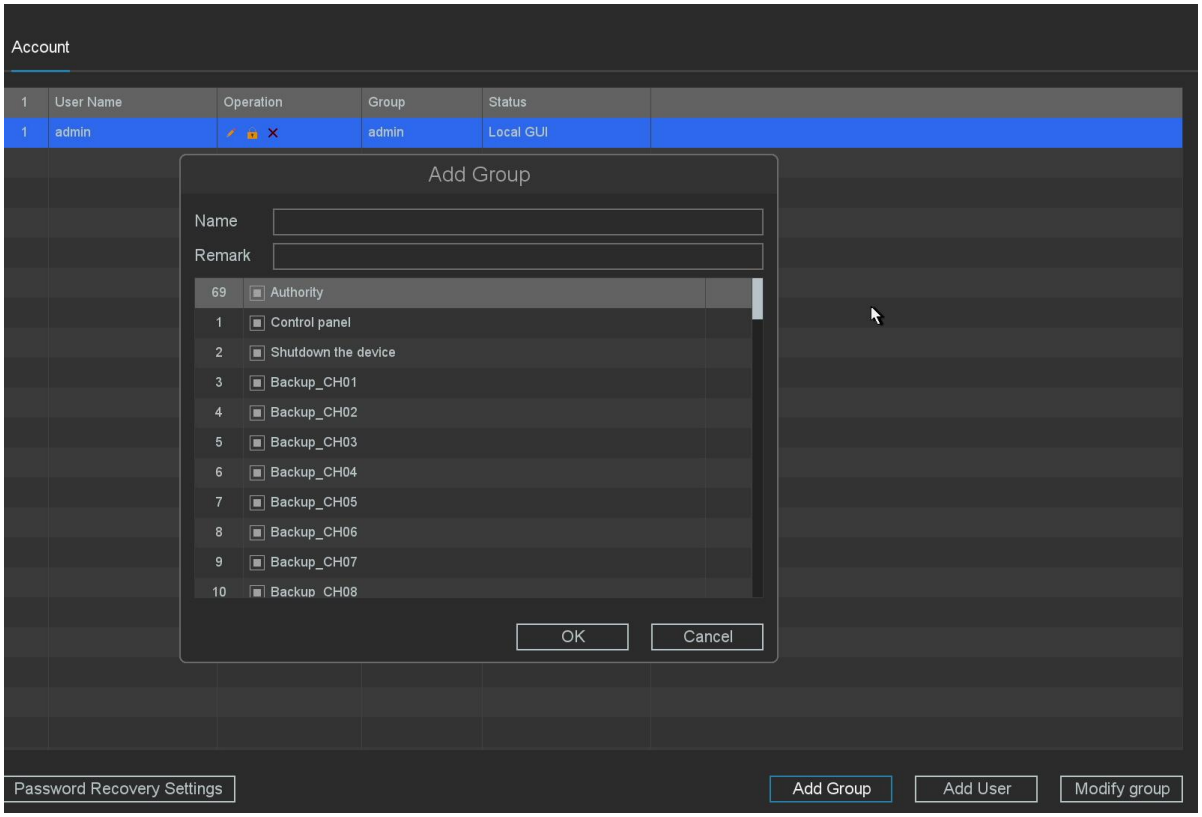


Figure 9-9 Add Group

Modify Group

Modify the existing groups' attribute, configure the parameters as your desire.

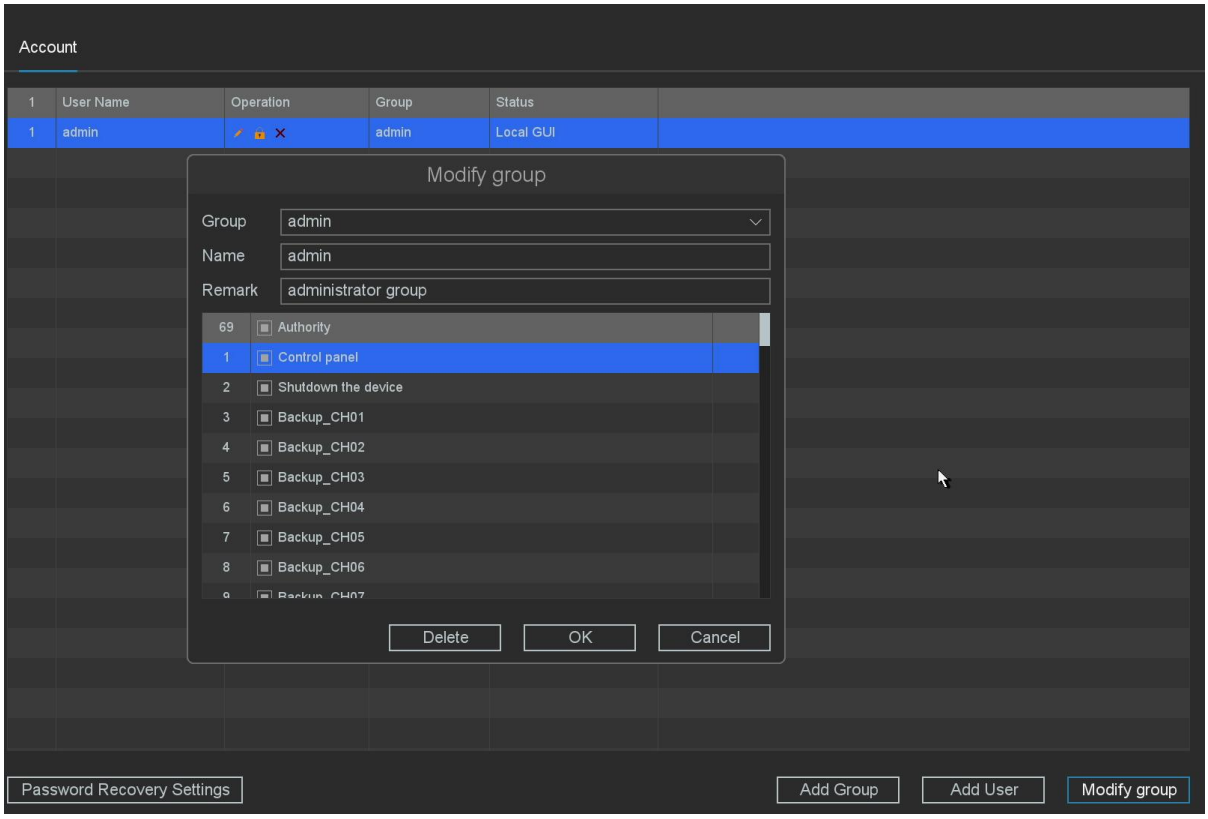


Figure 9-10 Modify Group

Add user & Modify User & Modify password & Password Recovery Settings. Please refer to ***6.1.2 Account.***

Note

- The character length of name is 64 bytes at most for the users and users' group. Legal characters include: letter and number, other characters are forbidden.
- The user management includes: group/user. One user should belong to one group.

9.2 Network

9.2.1 IP Address

TCP/IP must be properly configured before you can operate video recorder over network. This page you can set the device IP Address, gateway, DNS as well as view MAC Address. If the NVR has two Ethernet ports, you can connect with two net segments and set one for default Route.

Steps:

1. Go to **Setting Menu → Network → IP Address → TCP/IP.**
2. For general settings, please refer to ***6.2.1 General - TCP/IP*** for details.
3. Configure other network parameters as your desire.

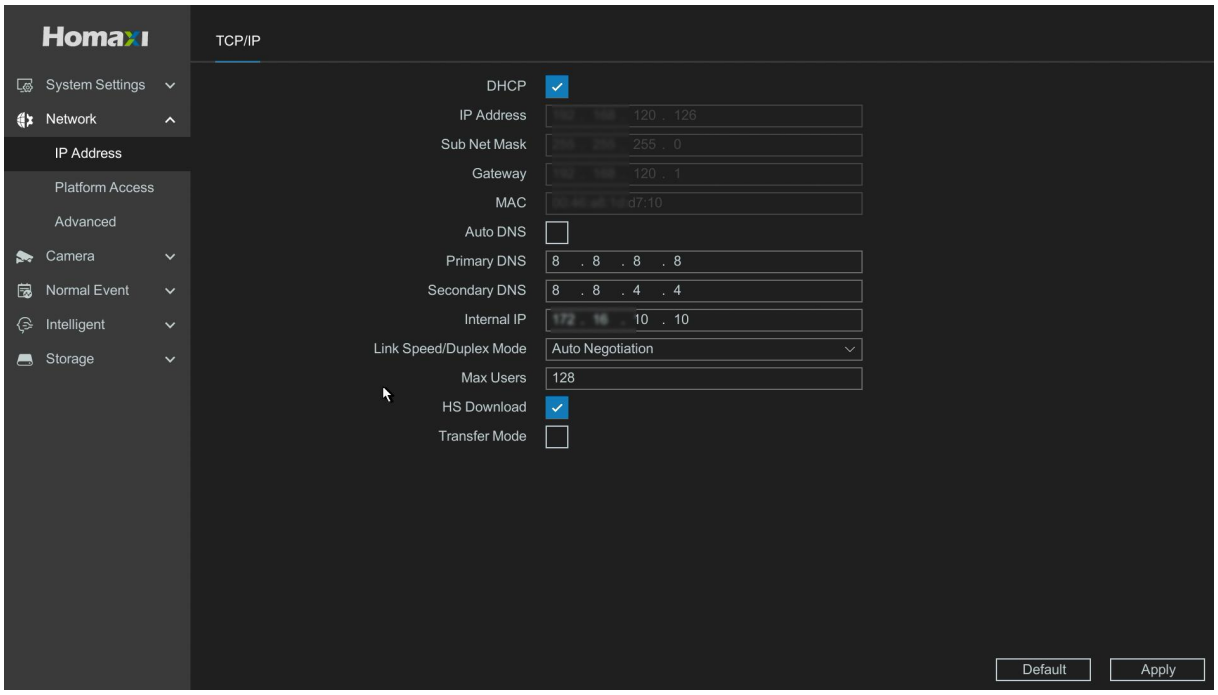


Figure 9-11 TCP/IP

DHCP

If the DHCP server is available, you can check **Enable DHCP** to automatically obtain an IP address and other network settings from that server.

MAC

The physical address of NVR.

DNS setup

You can check **Enable Auto DNS** to automatically obtain a DNS .Domain Name Server, it translates the domain name into IP address, it contains primary DNS and secondary DNS.

Internal IP

Set the beginning of IP addresses of those IP Cameras connected to POE panel. Default is 192.168.3.10. Make sure that this value should not be at the same subnet with the IP address of NVR.

Link Speed/Duplex Mode

There are a total of these modes to choose from 10Mbps/Half Duplex, 10Mbps/Full Duplex, 100Mbps/Half

Duplex, 100Mbps/Full Duplex and Auto Negotiation.

Max Users

The maximum number of simultaneously accessing users to the NVR is 32 by default.

HS Download

Download at a high speed on the network side.

Transfer Mode

There are three modes: Quality preferred, Fluency preferred and Adaptive. The code stream will adjust itself according to the setup, adaptive is the tradeoff between the image quality preferred and fluency preferred, fluency preferred and adaptive are valid only when the sub-stream is turned on, otherwise, quality preferred is valid.

4. Click **Apply**.

Note

You can't set internal IP address if the NVR is not support POE function, Please check whether your NVR has POE function.

9.2.2 Platform Access

P2P

Go to **Setting Menu → Network → Platform Access → P2P**. Refer to ***6.2.2 P2P*** for details.

9.2.3 Advanced

Email

Go to **Setting Menu → Network → Advanced → Email**. Refer to ***6.2.3 Email*** for details.

DDNS

DDNS is a service that can be used to automatically update DNS records if client PCs get their IP settings from a DHCP Server. If DDNS function is enabled on NVR, you can access the NVR by domain name provided by Internet Service Provider (ISP) provider.

Before You Start

Register Oray DDNS, CN99 DDNS, DynDNS and NO-IP services with your ISP.

Steps:

1. Go to **Setting Menu → Network → Advanced → DDNS**.
2. Turn on **Enable**.
3. Select a DDNS type.
4. Enter parameters including Domain Name, User Name and Password etc.

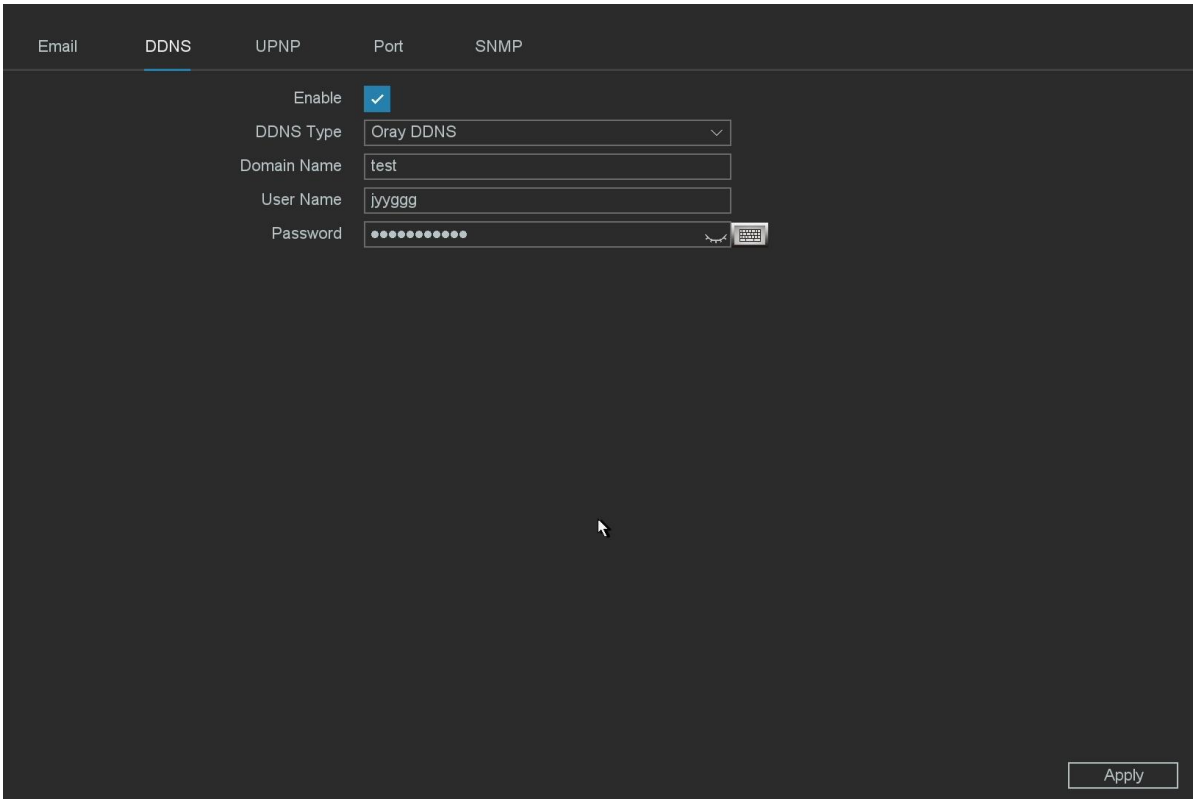


Figure 9-12 DDNS

DDNS Type

ISP of DDNS, including Oray DDNS, CN99 DDNS, DynDNS DDNS and NO-IP DDNS. This option can be customized according to the requirement of users.

Domain Name

Fill in the domain name provided by ISP.

User Name/Password

Fill in the username and password input correspond to the domain name.

5. Click **Apply**.

UPNP

UPNP is a networking standard that uses protocols on the Internet to allow electronic devices connected to a network to detect and identify each other.

Before You Start

If you want to use UPNP function, Enable the UPNP™ function of your router, when the device network working mode is multi-address, the default device route should be on the same network segment as the LAN IP address of the router.

Steps:

1. Go to **Setting Menu → Network → Advanced → UPNP**.

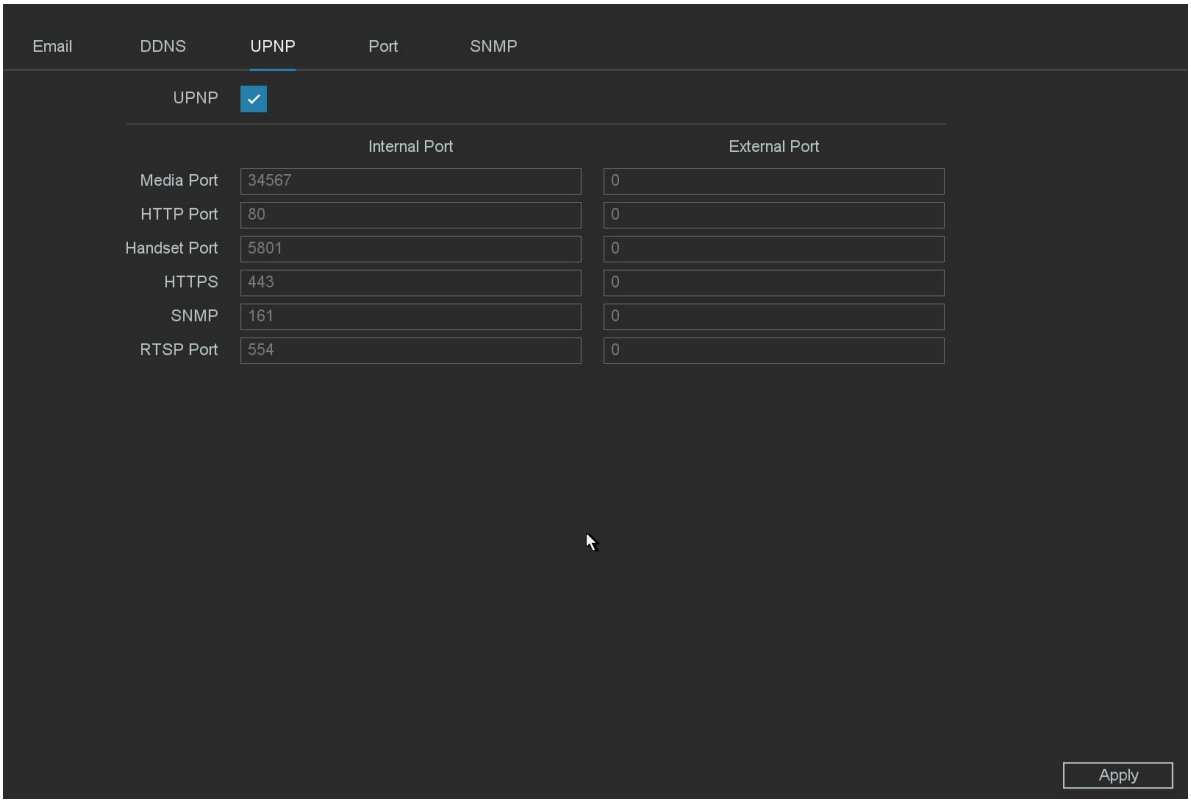


Figure 9-13 UPNP

2. Turn on **UPNP**.

3. Set up Media Port, HTTP Port, Handset Port, HTTPS and SNMP as your desire. (If you are not sure, do not modify it, it may conflict with other ports of the system).

Note

- RTSP Port: The RTSP (Real Time Streaming Protocol) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers. Enter the RTSP port in the text field of RTSP Port. The default RTSP port is 554, and you can change it according to different requirements.
- The value of the RTSP port No. should be 554 or between 1024 and 65535, while the value of the other ports should be between 1 and 65535 and the value must be different from each other. If multiple devices are configured for the UPNP™ settings under the same router, the value of the port No. for each device should be unique.

4. Click **Apply**.

Port

This screen is the service port information, our default Media port number is 34567,HTTP port number is 80,Handset port number is 5801,HTTPS port number is 443,SNMP port number is 161,RTSP port number is 554.

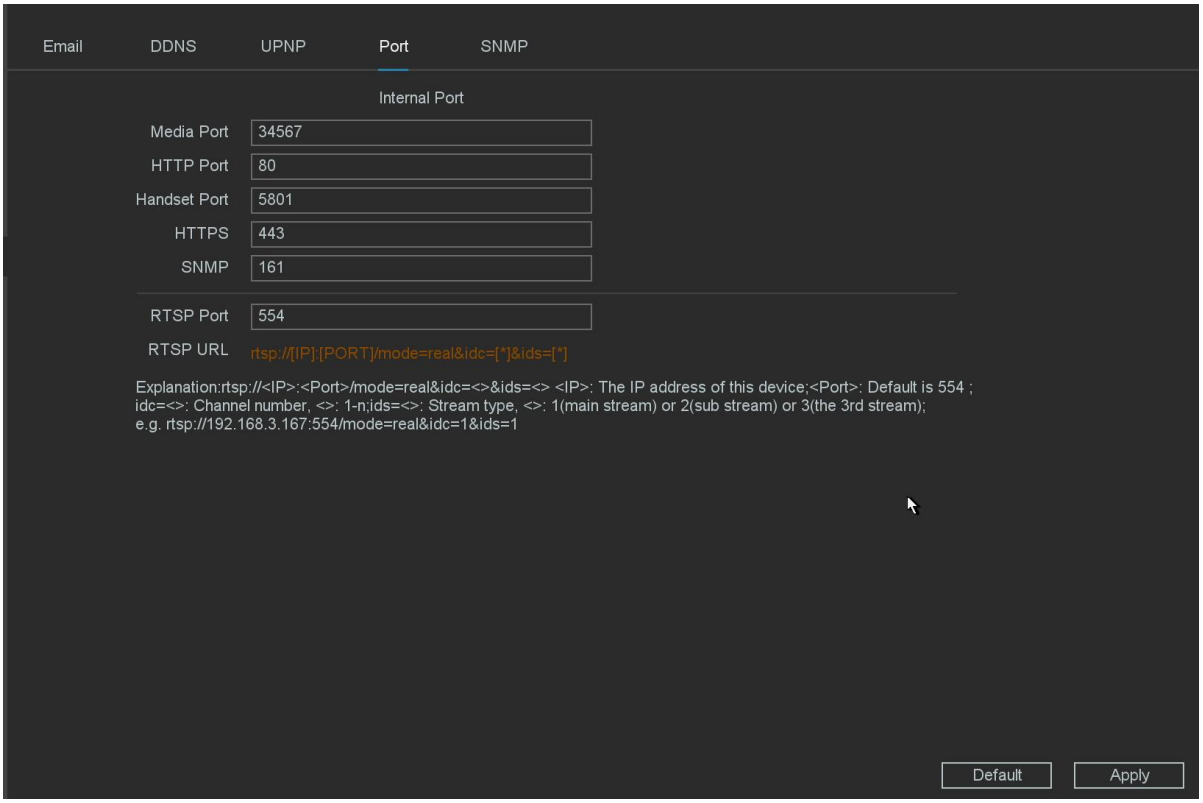


Figure 9-14 Port

Note

As shown in the figure above, you can use the RTSP address for RTSP streaming.

SNMP

SNMP (Simple Network Management Protocol) is an Internet-standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.

Steps:

1. Go to **Setting Menu → Network → Advanced → SNMP**.
2. There are 3 versions in SNMP.

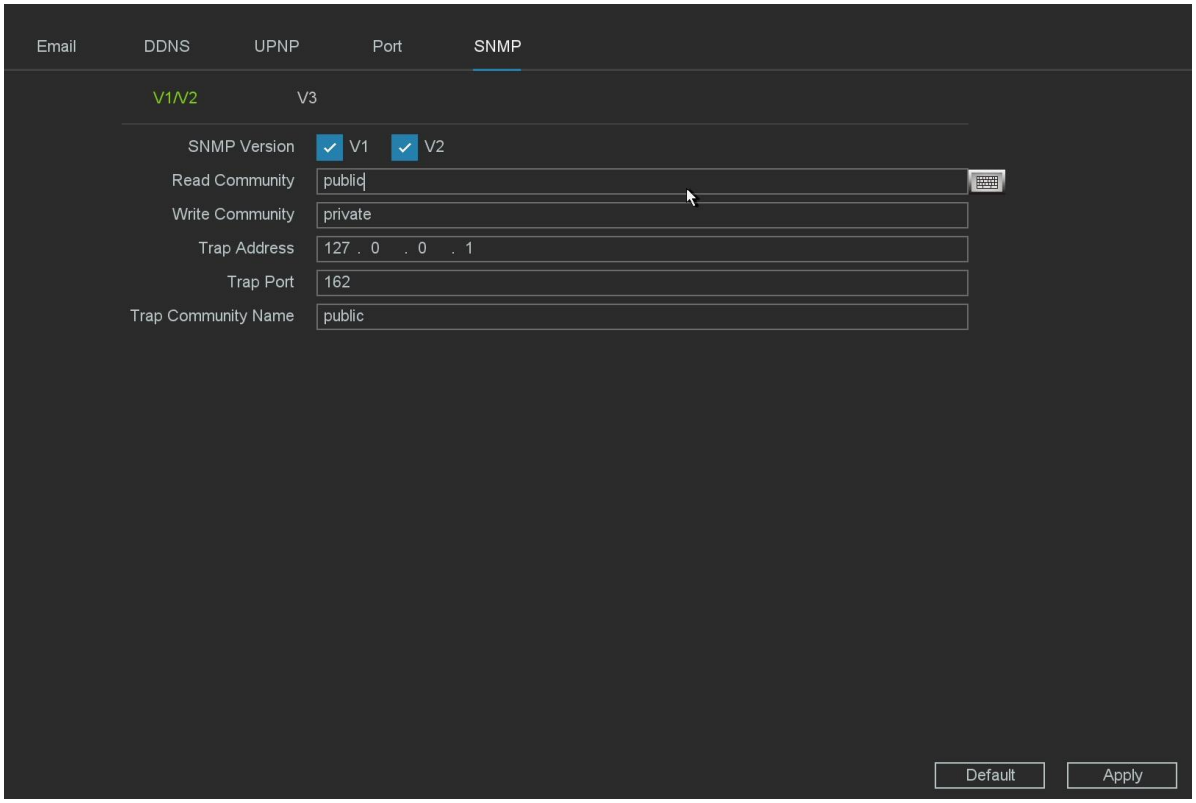


Figure 9-15 V1/V2 Version

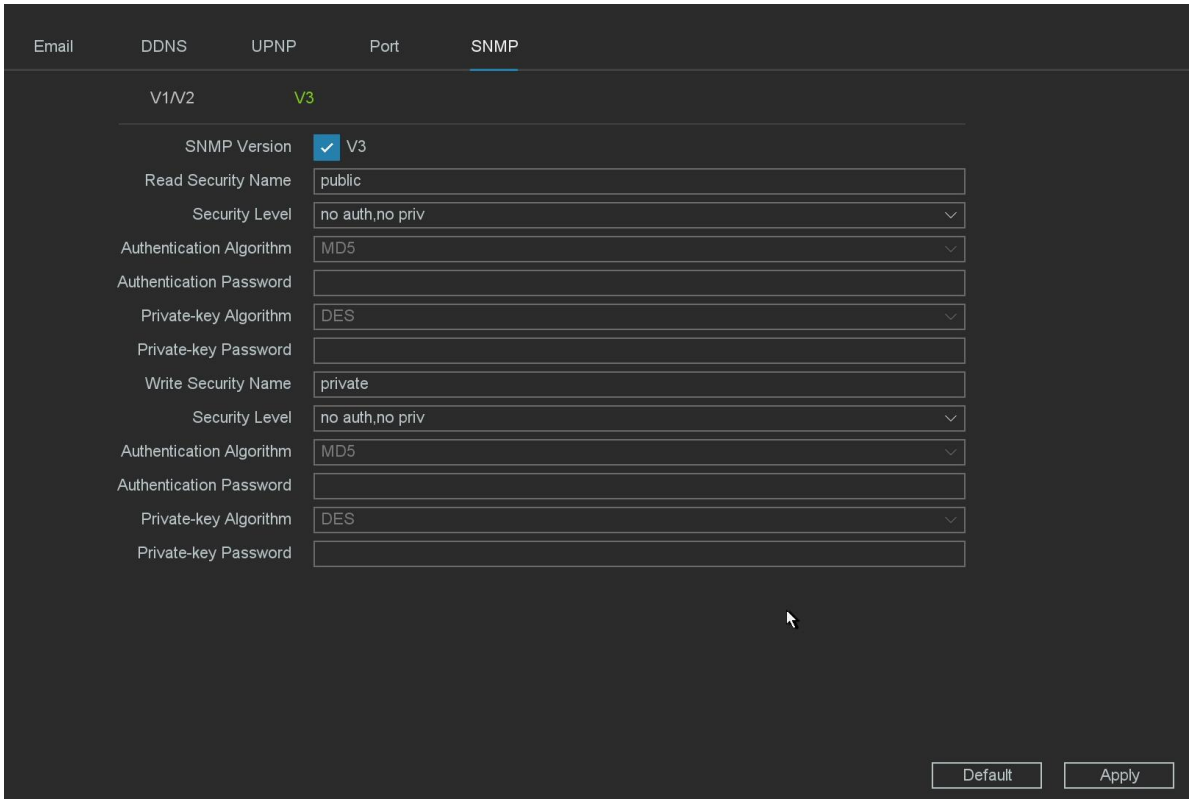


Figure 9-16 V3 Version

3. Tick the protocol as your desire.
4. Click **Apply** to save.

9.3 Camera

9.3.1 Channel

Channel Set

Please refer to ***6.3.1 Network Camera*** for details.

Protocol Password

It will make NVR use specified password firstly when we add the IPCs found by NVR.

Before You Start

You need to know the protocol and protocol password used to connect to the camera.

Steps:

1. Go to **Setting Menu → Camera → Channel → Protocol Password.**
2. Click **Edit** button.

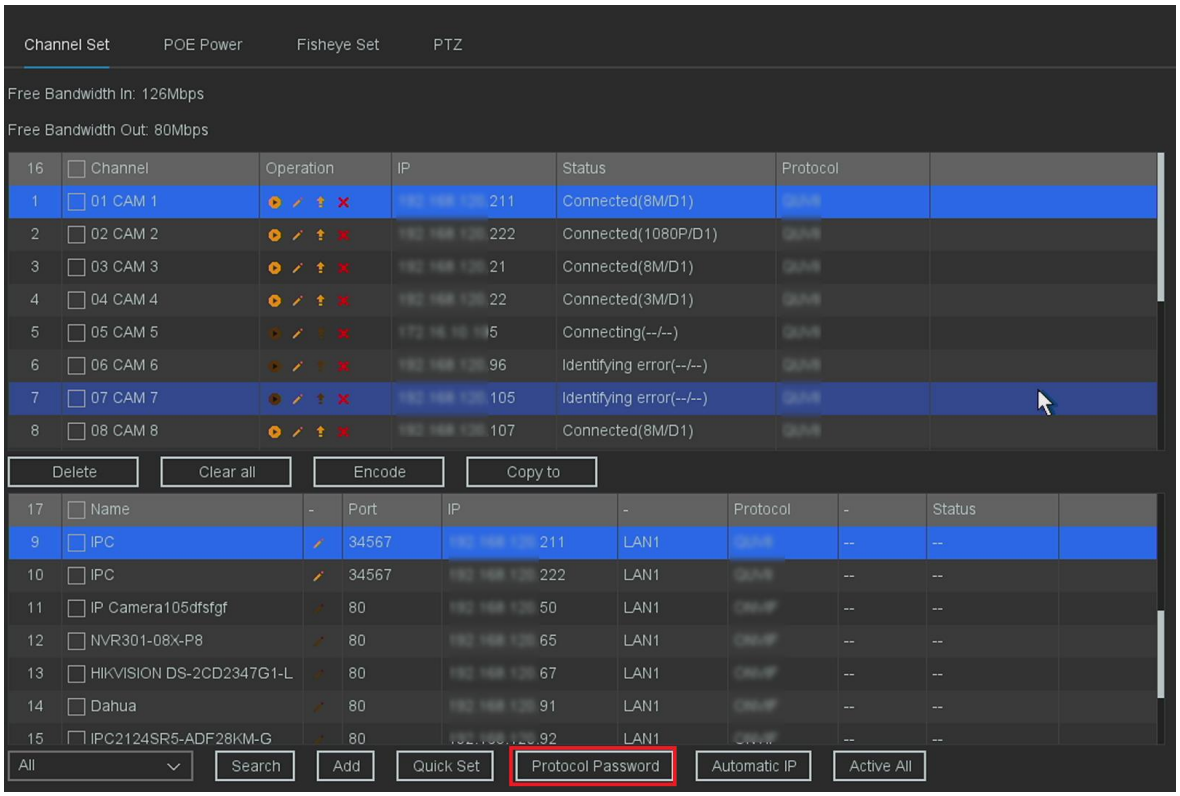


Figure 9-17 Protocol Password

3. Select the **Protocol** you need to modify.
4. Set **Password**.
5. Click **OK.**

Note

If the camera connection status shows identifying error, you need to manually change the password again, please refer to ***2.6 Editing the connected IP cameras and Configuring.***

Active all

Please refer to ***2.5 Adding the Online IP Cameras*** for details.

Encode

By configuring the encode parameters you can define the parameters which affect the image quality, such as the Compression type, Resolution, Frame Rate, Bit Rate Type, Quality, etc.

The NVR support Dual Stream Encode, we can set the main stream encode and sub stream encode on this screen.

Before You Start

Please make sure you already have an IPC whose connection status is **Connected**.

Steps:

1. Go to **Setting Menu → Camera → Channel → Encode.**
2. You can also go to **Setting Menu → Camera → Encode**.

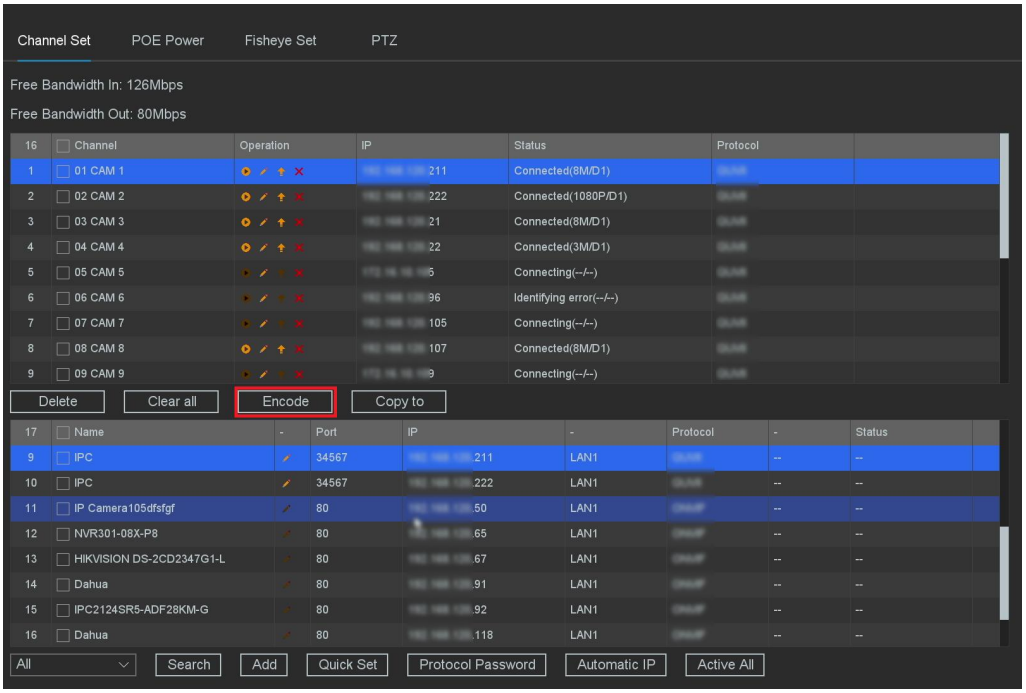


Figure 9-18 Channel

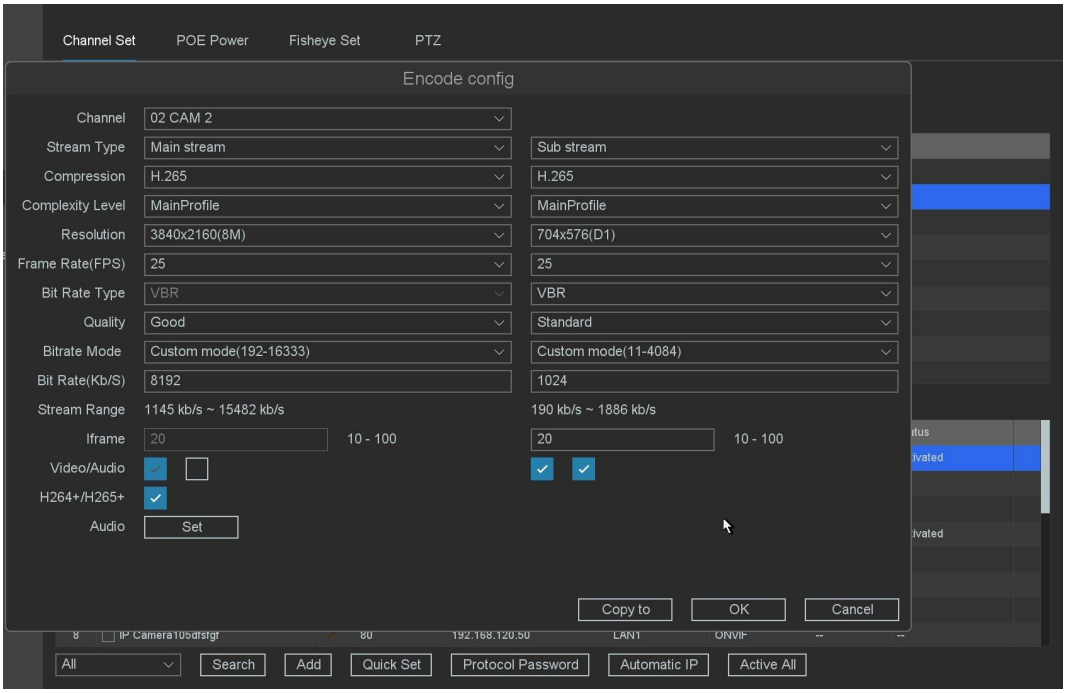


Figure 9-19 Encode config

3. Configure the parameters as your desire.

Channel

Select the channel to configure.

Stream Type

Main Stream/Sub Stream/Event Stream/Mobile Stream.

Compression

H.265, this is the compression protocol for encoding. It also supports H.264 IP cameras.

Complexity level

Base Profile/Main Profile/High Profile.

Resolution

The resolution of the encoding record.

Frame Rate (FPS)

The number of frames per second in the encoding video.

Bit Rate Type

CBR/VBR.

Quality

Lowest/Low/Standard/Good/Better/Best.

Bitrate Mode

General mode/Custom mode.

Bit Rate(Kb/S)

Value of the Bandwidth.

Stream Range

The bitrate range of this channel.

Iframe

I-frame setting, range from 10-100.

Video/Audio

To encode the Video and Audio in the record files. The video in mainstream is always enabled.

H264+/H265+

Enable smart encode technology, all the record file can reduce the HDD space maximum 80%-90% in static view.

Audio

Set the audio encode for this channel as shown below.

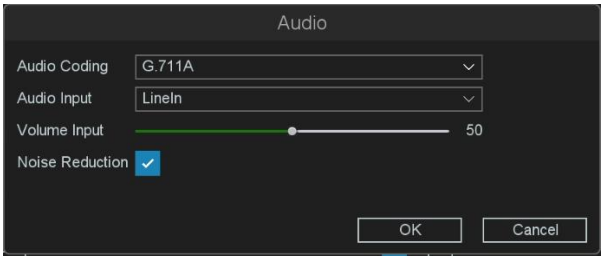


Figure 9-20 Audio

4. Optional: You can also use the function of **Copy to**. The parameters for all channels can be quickly set.

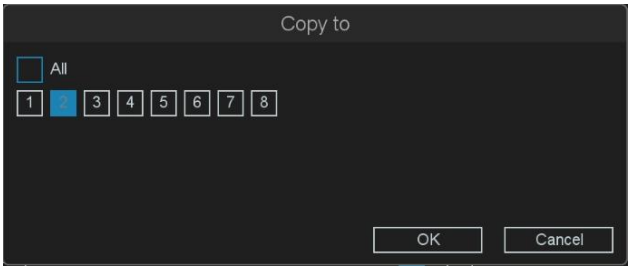


Figure 9-21Copy to

Note

If you want to use the **Copy to** function, it is recommended to use it under the same model of cameras.

5. Click **OK**.

POE Power

please refer to ***2.7 Editing IP Cameras Connected to the PoE Interfaces*** for details.

PTZ

This chapter is to show you how to set the actions which you want the PTZ Camera to respond when corresponding alarm occurred.

Before You Start

Please make sure that the presets, patrols and patterns should be supported by PTZ protocols.

Steps:

1. Go to **Setting Menu → Camera → Channel → PTZ**.

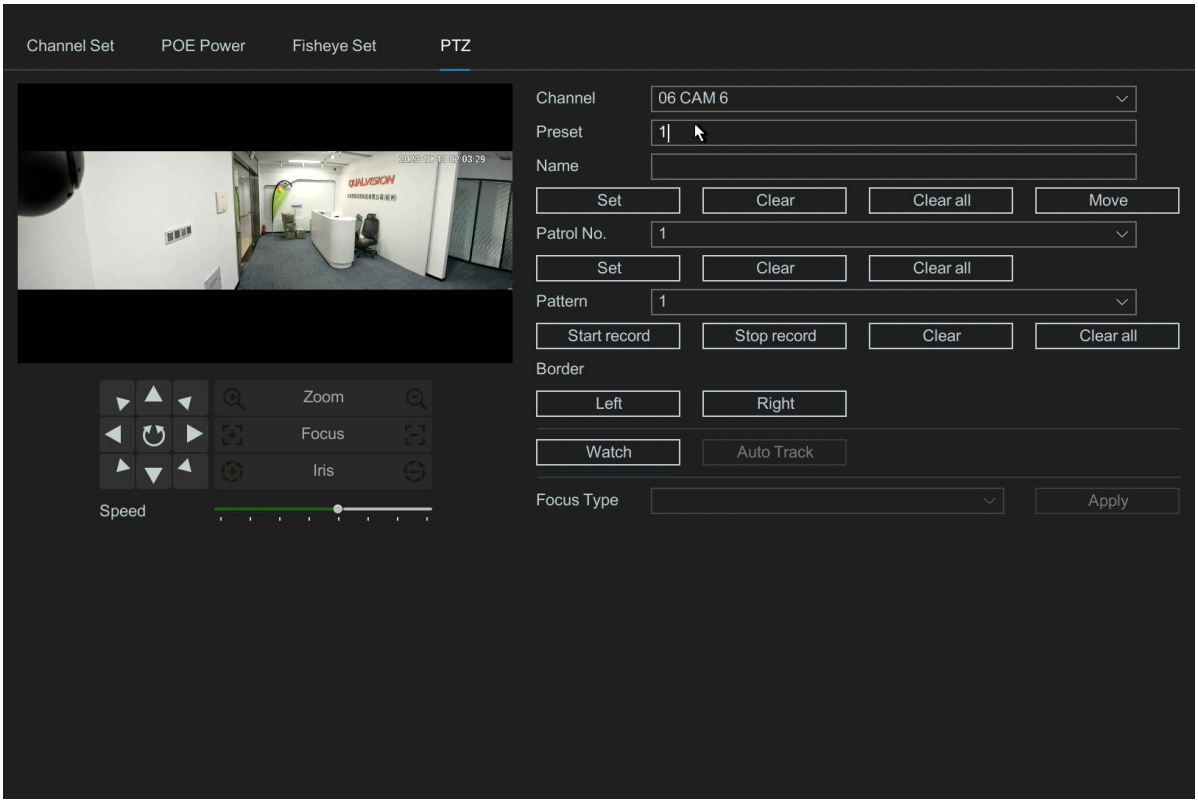


Figure 9-22 PTZ

2. Select the channel to configure.
3. Configure the parameters as your desire.

Channel

Select the channel to configure.

Preset

This feature enables the camera to point to a specified position such as a window when an event takes place. You can set up to 255 preset points.

Name

The name of the preset point will be displayed in the upper left corner of the screen after the call.

Patrol No.

Patrols can be set to move the PTZ to different key points and have it stay there for a set duration before moving on to the next key point. The key points are corresponding to the presets. You can set up 4 cruise lines, each cruise line includes preset points and the time stayed in the preset point and cruising speed.

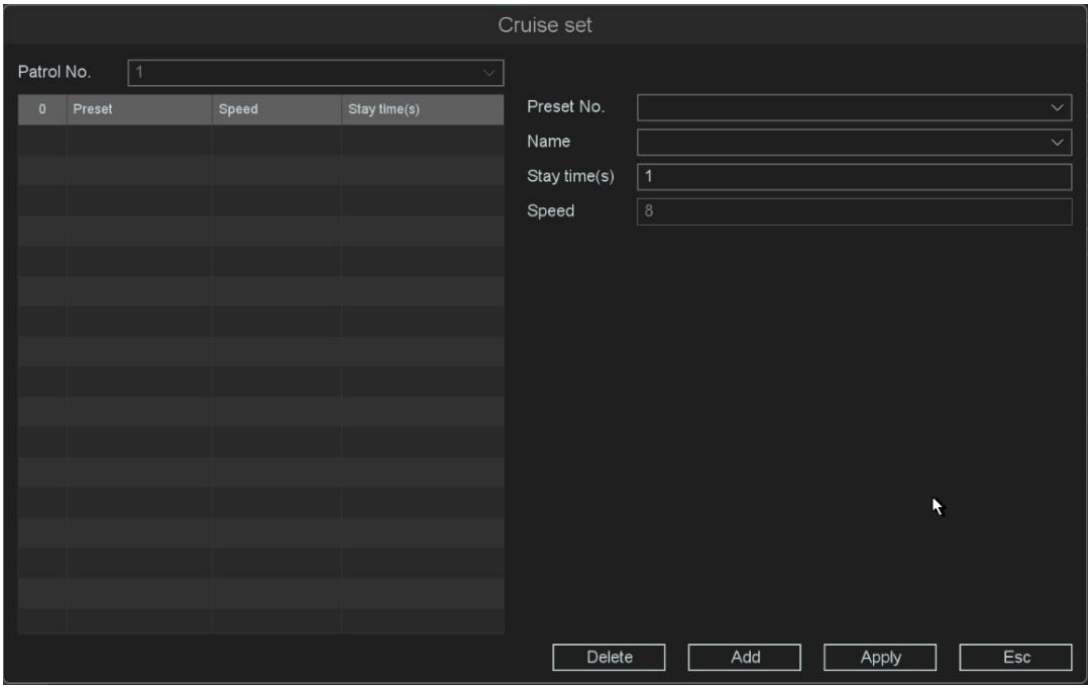


Figure 9-23 Cruise set

Pattern

Patterns can be set by recording the movement of the PTZ. You can call the pattern to make the PTZ movement according to the predefined path.

Border

Linear boundaries Including Left and right boundaries.

Watch

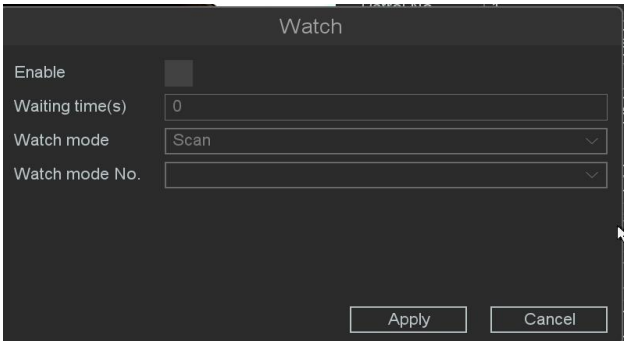


Figure 9-24 Watch

Waiting time(s)

The waiting time after the watchdog enable application takes effect, in seconds, the value can be set to any value between 5 and 720.

Watch mode

There are multiple scanning modes, include Auto Pan, Patrol scan, Pattern scan, PreSet, Area scanning

Watch mode No.

The number corresponding to the selected scan mode.

Auto Track

According to the dynamic objects to detect tracking, as long as there are dynamic objects, it will follow the

movement, tracking time: [0s -300s].

Focus Type

It is the autofocus adapted to IPC.

PTZ Config

Mainly through the RS485 port to control the head.

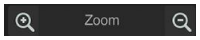
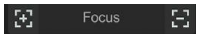
Items	Function Description
	Direction button and the auto-cycle button
	Zoom+, Zoom-
	Focus+, Focus-
	Iris+, Iris-
	The speed of the PTZ movement

Table 9-1 PTZ Config

9.3.2 Encode

Encode

Please refer to ***10.3.1 Channel*** for details.

Audio

Please refer to ***10.3.1 Channel*** for details.

9.3.3 Image Parameters

Image

Our camera has completed the default configuration before leaving the factory, which can meet the needs of ordinary applications, if you have higher requirements. IP Cameras support image adjustment such as Brightness, Contrast, Saturation, Hue and Sharpness. Some high-end IP Cameras support advanced Settings such as Image adjust, Exposure, Backlight, White balance, Day/Night setting, etc. In this chapter you can configure the IP Camera to improve the image and make a better view experience.

Before You Start

Please make sure you already have an IPC whose connection status is **Connected**.

Steps:

1. Go to **Setting Menu → Camera → Image Parameters → Image**.

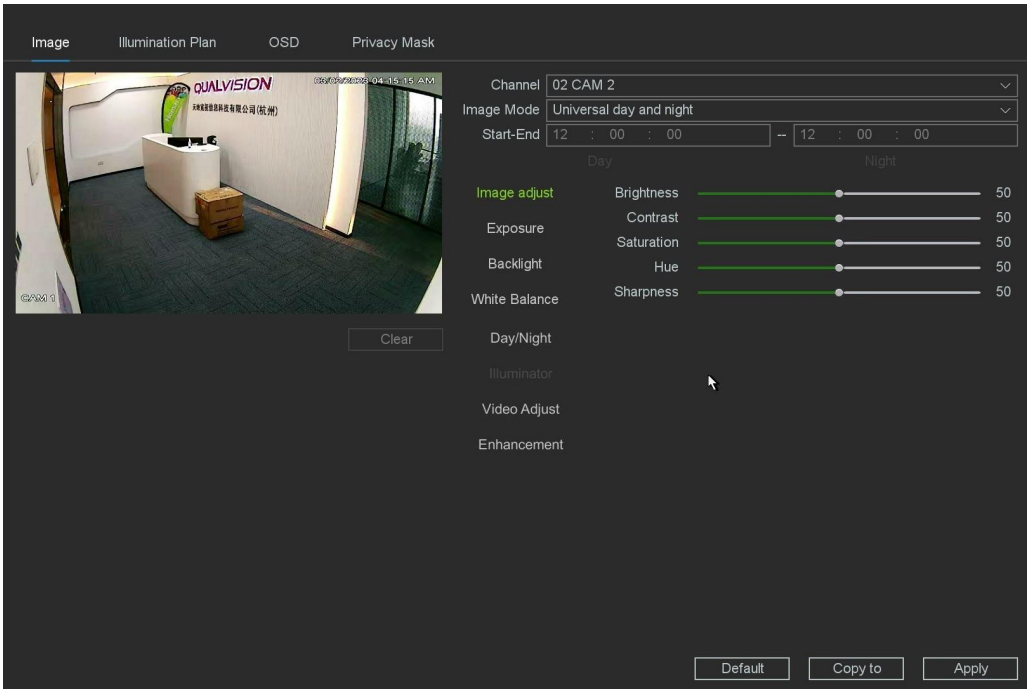


Figure 9-25 Image

2. Configure the parameters as your desire.

Channel

Select the channel to configure.

Image Mode

The image mode for specific period of the configuration, there are Auto/Manual for options. Auto mode keeps the image settings for 24h, and Manual mode supports 2 period settings (Day period & Night period). You can set independent image settings for different period.

Start-End

Set the image mode as Manual, then enter the starting time and ending time for Day period or Night period.

3. Set the IP Camera parameters on this screen if the IP Camera compatible with the NVR.

Functions	Description	Functions	Description
Image adjust	Brightness: 0-100 Contrast: 0-100 Saturation: 0-100 Hue: 0-100 Sharpness: 0-100	Video adjust	Image: Close/Updown/Left right/Centre Rotate: Off/90/180/270
Exposure	Auto: Set exposure time automatically Manual: Set exposure time by selecting exact value	Defog	Close: function disable Auto: defog automatically Manual: adjust the effect manually
Backlight	DWDR:Close, DWDR, WDR(if IPC supports) Limit: Set the degree of DWDR or WDR Back Light Comp: When DWDR is Close, BLC function can be activated as Off,HLC, BLC	Illuminator	Only certain device models support the function. IR Setting: Control the camera's infrared light function. Warm Light Setting: Control the camera's warm light function.

White balance	Auto: Set white balance automatically Manual: Set white balance by selecting exact value of Red Gain and Blue Gain	Enhancement	NR Level: 0-6 Defog: Close/Auto/Manual Smart light: close/manual/auto
Day/Night	Auto/Color On/Color Off Switch Type: IR Synchronous Switch Filter Time: from 0-120 seconds		

Table 9-2 Set IP Camera parameters

Image adjust

Customize the image parameters including the brightness, contrast, and saturation for the live view and recording effect.

Exposure

Set the camera exposure time (1/10000 to 1/3 sec). A larger exposure value results in a brighter image.

Backlight

Set the camera's wide dynamic range (0 to 100). When the surrounding illumination and the object have large differences in brightness, you should set the WDR value.

White Balance

When there is a color cast, you can compensate by strengthening the corresponding complementary color

Day/Night

The camera can be set to day, night, or auto switch mode according to the surrounding illumination conditions.

Illuminator

Note

Only certain device models support the function.

- **Fill light**: There are four options: IR Mode, Warm Light Mode, Smart illumination and Schedule.

Schedule and **Setting** buttons are only displayed when Schedule mode is selected, click the Setting button to pop up the Lighting Plan schedule, as shown in the figure below.

In this screen you can set the lighting plan for different lighting modes. The green one is Smart mode, the orange one is Warm Light mode, the Blue one is Infrared Lamp.

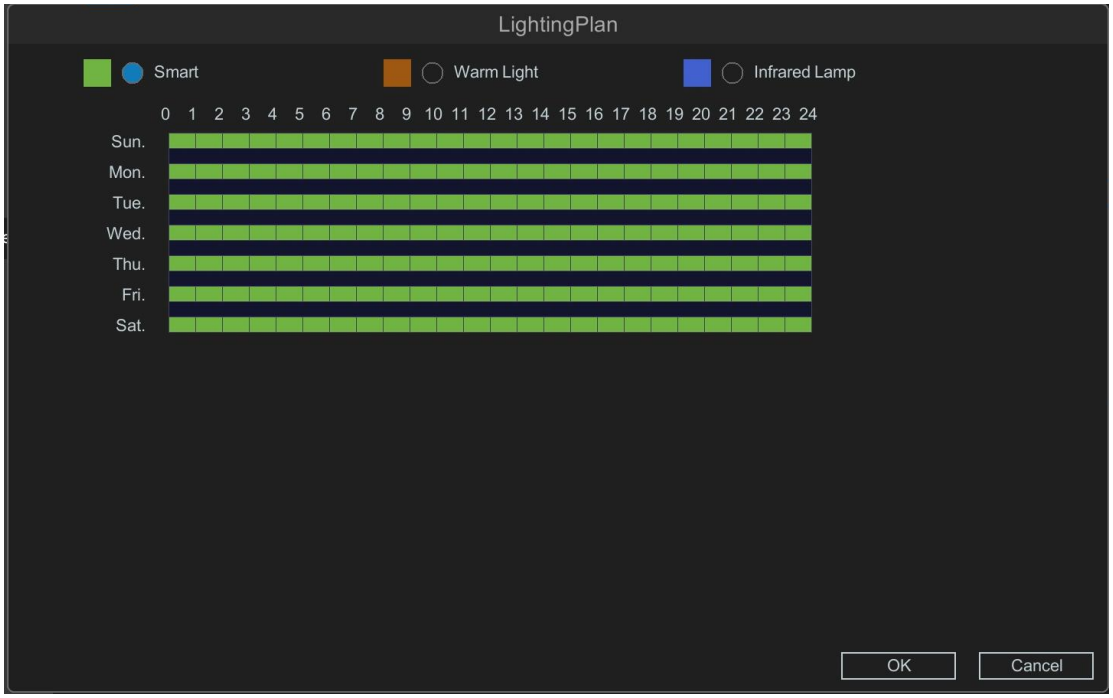


Figure 9-26 Illumination Plan

- **IR Setting:**

  Fill 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**:

  Fill 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.

Video Adjust

You can rotate the orientation and angle of the image.

Enhancement

For optimized image contrast enhancement

OSD

You can configure the OSD (On-screen Display) settings for the camera, including Channel Name, Date/Time format, Record status, Alarm status, etc. You can also refer to ***6.3.1 Network Camera-OSD***.

Before You Start

Please make sure you already have an IPC whose connection status is **Connected**.

Steps:

1. Go to **Setting Menu → Camera → Image Parameters → OSD**.
2. Select a camera.

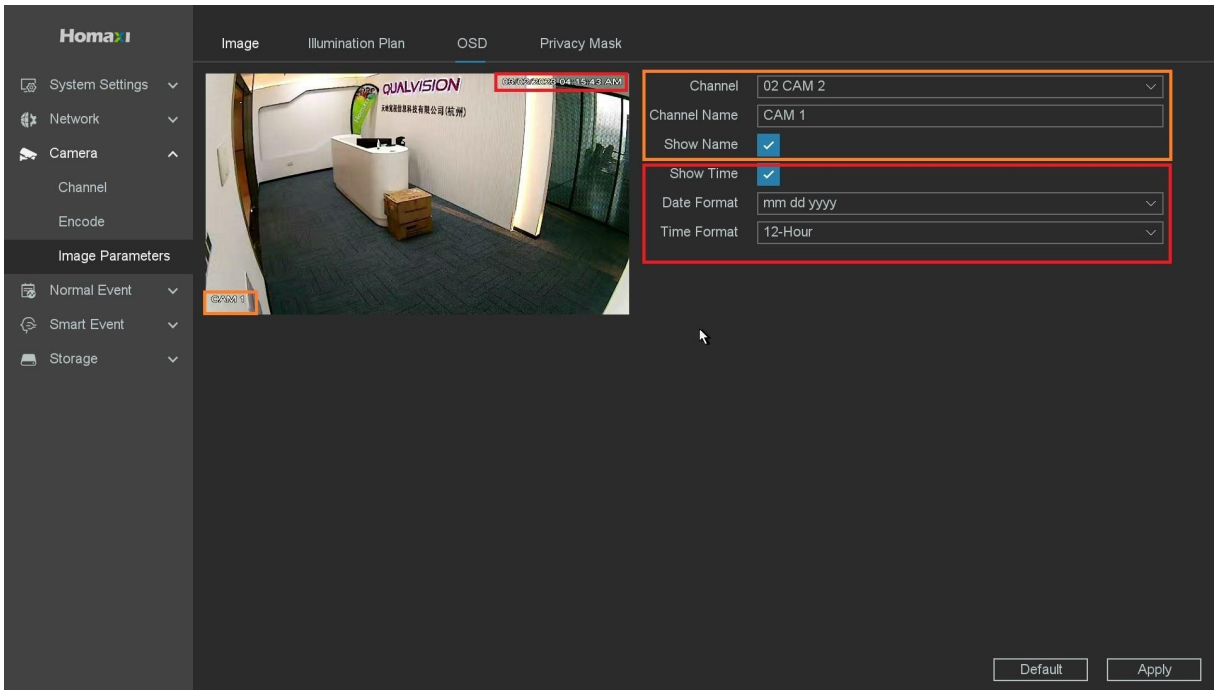


Figure 9-27 OSD

3. Set parameters as your desire.
4. The name and time can be chose to display or not, and can also be customized.
5. Click **Apply**.

The settings are divided into two parts: channel settings and general settings. The channel setting is to configure the IPC, and the general setting is to set the NVR local display.

For the Channel Setting:

Channel

Select the channel to configure.

Channel Name

The name of the channel to be set.

Show Name, Show Time

Enable the information of channel name and time on the screen.

Date Format, Time Format

Set the format of the date and time.

For the general set:

Channel Title

Enable/disable the display of the channel title on the monitor screen.

Record Status, Alarm Status

Enable/disable the display of the record status and alarm status on the screen.

Privacy Mask

The Cover function can effectively block the sensitive areas in the monitoring screen, it supports covering 4 areas at the same time.

Before You Start

Please confirm the area you need to cover in advance.

Steps:

1. Go to **Setting Menu → Camera → Image Parameters → Privacy Mask**.

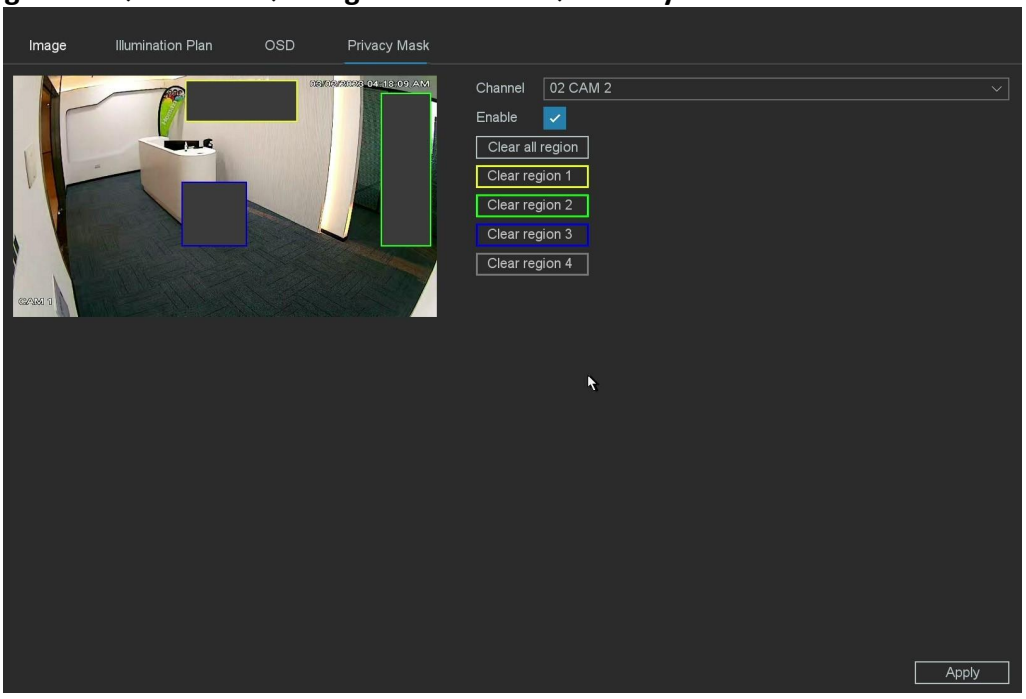


Figure 9-28 Privacy Mask

2. Select the camera you want to draw the cover area.
3. Set two opposite corners of a square in the preview window to draw a quadrilateral cover region1.
4. The same operation draws region2-4.
5. Turn on **Enable**.
6. Click **Apply**.

Note

Up to 4 privacy mask areas can be configured. The size of each area can be adjusted.

9.4 Event

9.4.1 Video Detection

Motion Detection

Motion detection enables the video recorder to detect the moving objects in the monitored area and trigger alarms. Please Refer to ***6.3.2 - Event***.

Video Lost

Detect video loss of a camera and take alarm response actions.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Setting Menu → Event → Video Detection → Video Lost.**

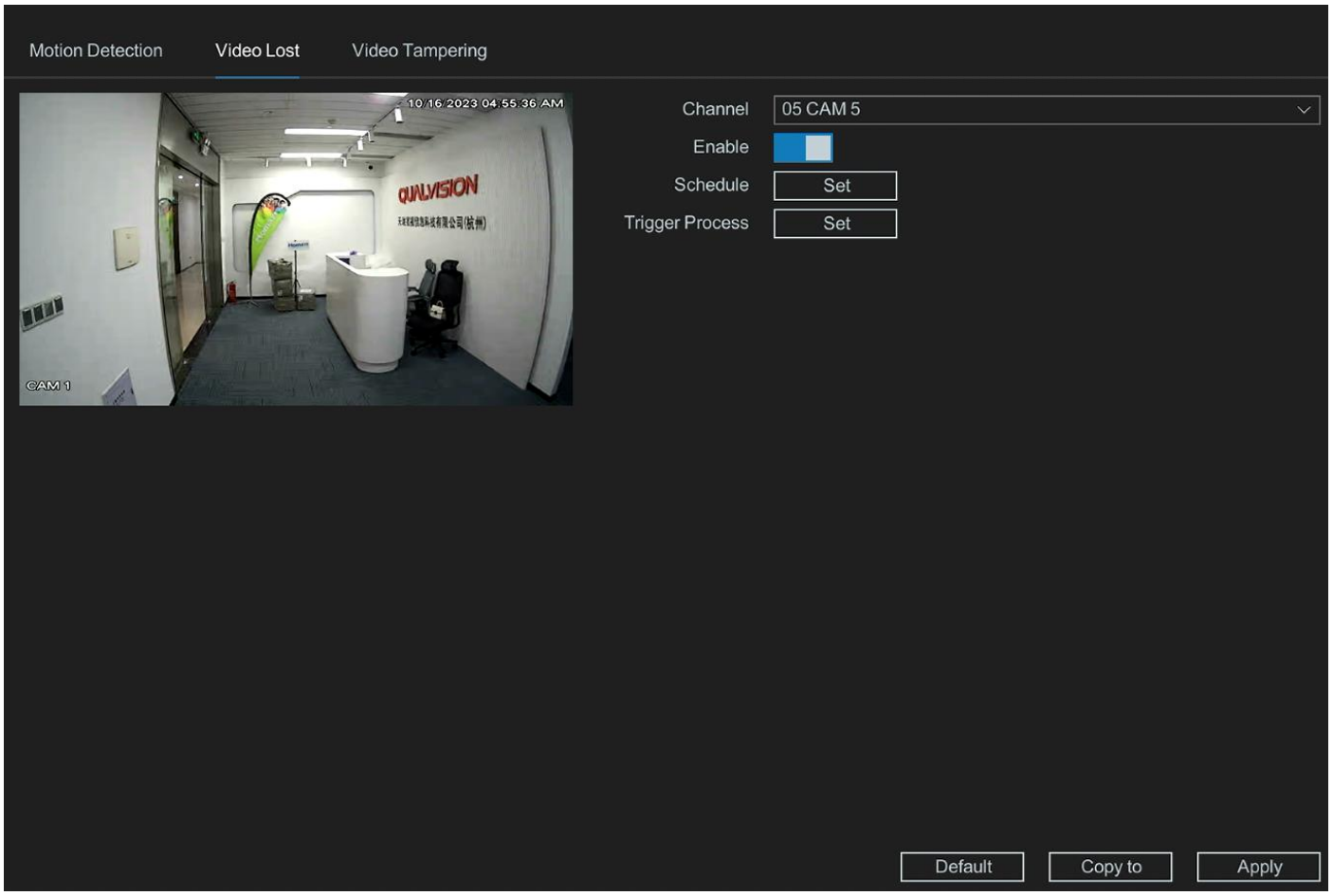


Figure 9-29 Video lost

2. Set **Channel**.
3. Turn on **Enable**.
4. Set the arming **Schedule**. Refer to ***6.3.4 Configure Arming Schedule*** for details.
5. Set the **Trigger process**. Refer to ***6.3.5 Configure Alarm Trigger Process*** for details.
6. Click **Apply**.

Video Tampering

Trigger alarm when the lens is covered and take alarm response actions.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Setting Menu → Event → Video Detection → Video Tampering**.

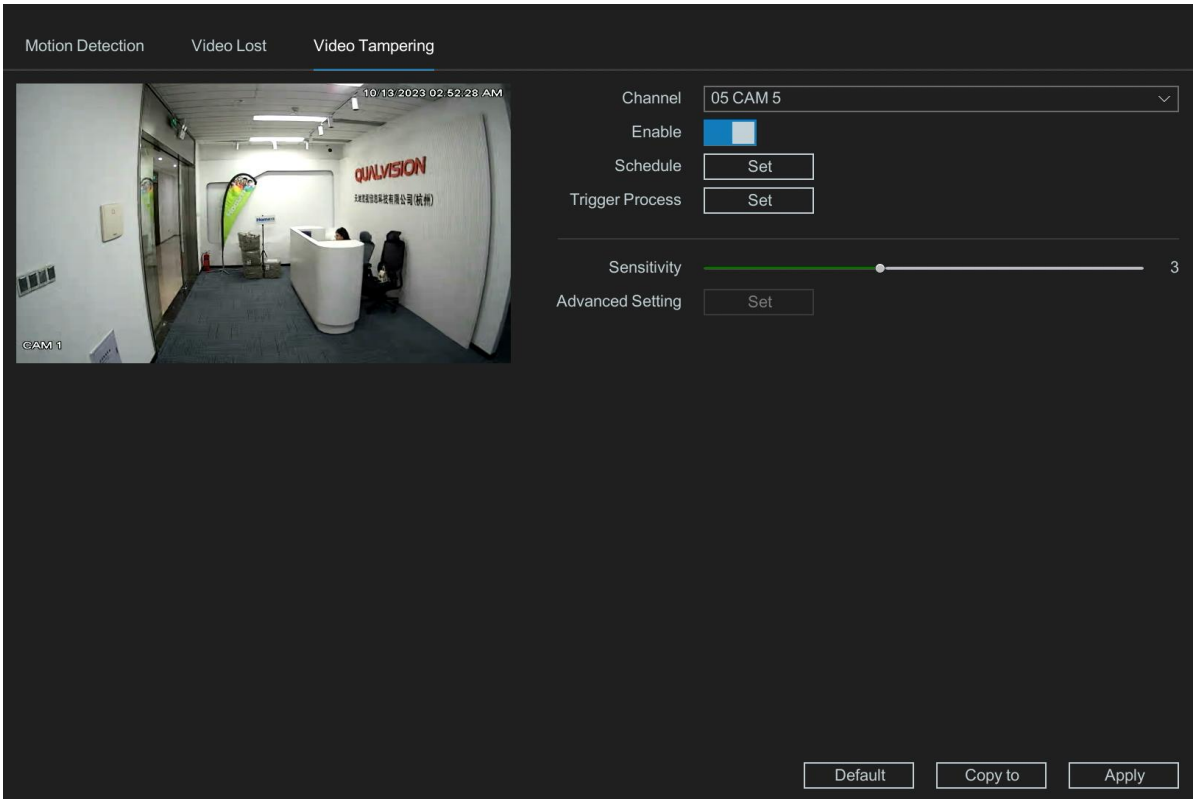


Figure 9-30 Video lost

2. Set **Channel**.
3. Turn on **Enable**.
4. Set the arming **Schedule**. Refer to ***6.3.4 Configure Arming Schedule*** for details.
5. Set the **Trigger Process**. Refer to ***6.3.5 Configure Alarm Trigger Process*** for details.
6. Adjust **Sensitivity** as your desire. The higher the value is, the more easily the video Masking can be triggered.
7. Set the **Advanced Setting**. Refer to ***6.3.6 Configure Advanced Setting*** for details.
8. Click **Apply**.

9.4.2 Alarm I/O

Local I/O

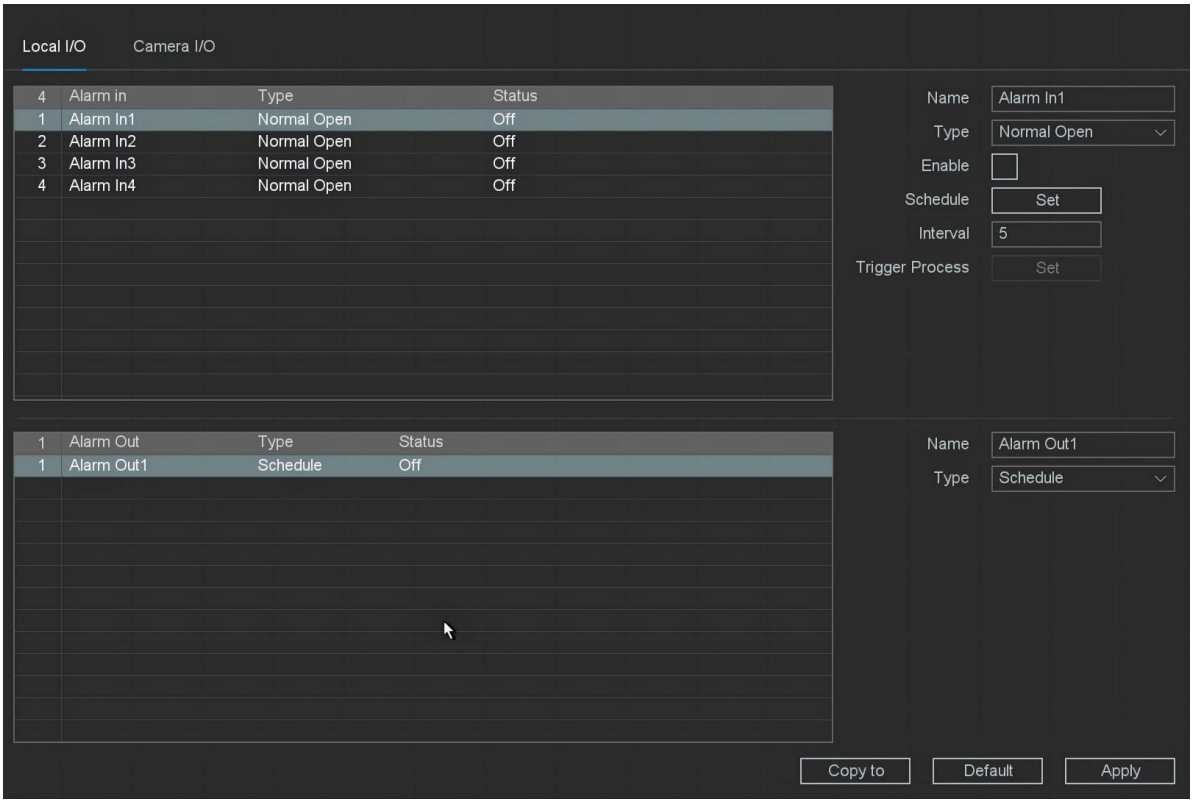


Figure 9-31 Alarm I/O

Alarm input device is a kind of device which can detect the surveillance area by some sensors such as infrared sensor or temperature sensor, and when the environment is been changed, the sensor will detect information and alter the status.

Alarm output device is a kind of device which can output warning signal such as sound or light, to remind the user that there´s alarm being triggered.

Alarm Input

Name

Set the name of the Alarm input device.

Type

Normal Open/Normal Close. It means the system support those external sensor alarms which have two statuses: Open and Close. When the status switches from Open to Close, or from Close to Open, alarm will be triggered.

Enable

Alarm in enabled switch.

Schedule

Set time slot to detect video loss.

Interval

Set the time interval of each Alarm in triggered.

Trigger process

Set the handling action of alarm in detection; please take the setting of ***chapter 4.7.1.1*** motion detection for reference.

Alarm Output

Name

Set the name of the Alarm output device.

Type

Three types: Schedule/Manual/Stop. 'Schedule' means the alarm output device will be activated when the NVR detects the alarm. 'Manual' means the alarm output device will be activated after choosing the Manual and press the button Apply. 'Stop' means the alarm output device is not on-guard.

Camera I/O

This function can get alarm from IPC's alarm input port, and then make actions on NVR.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Setting Menu → Event → Alarm I/O**.

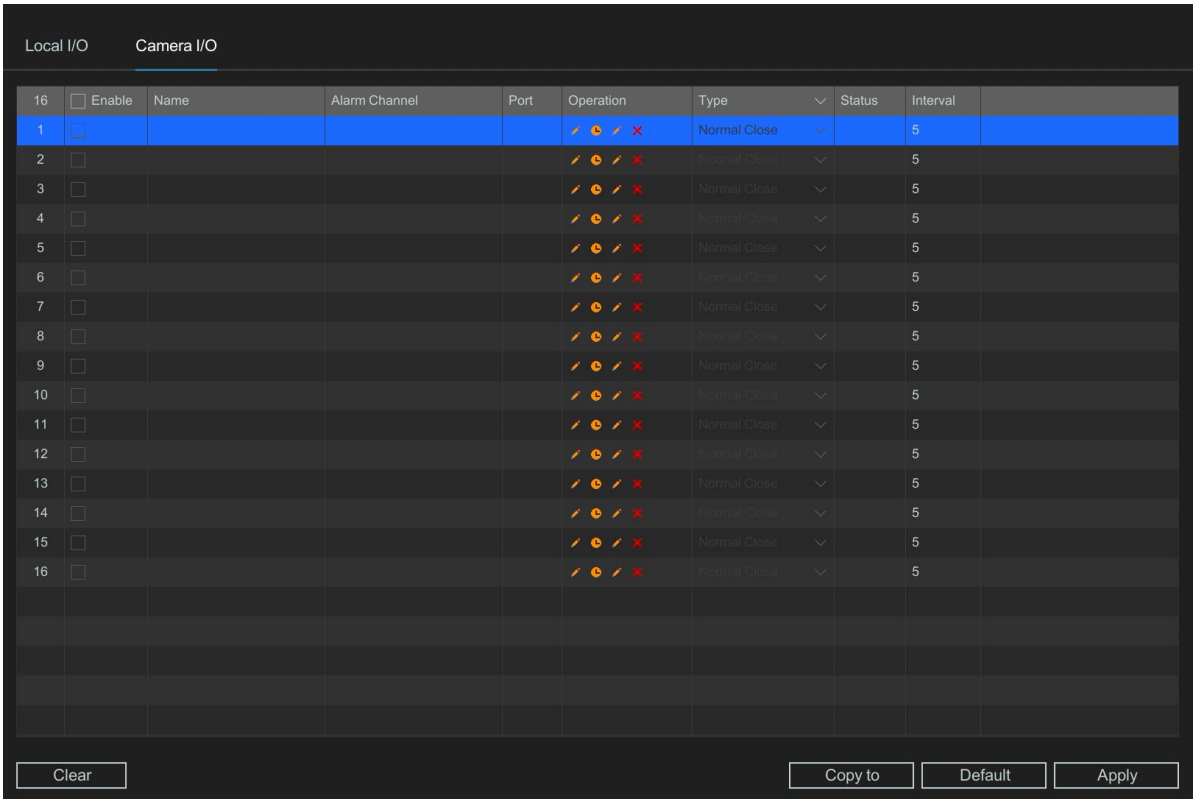


Figure 9-32 Alarm I/O

2. Click Edit button to set the name, Alarm Channel and Port.
3. Click to set the arming **Schedule**. Refer to ***6.3.3 Configure Arming Schedule*** for details.
4. Click Trigger Process button to set the **Trigger process**. Refer to ***6.3.4 Configure Alarm Trigger Process*** for details.
5. Configure the other parameters as your desire.
6. Check the enable box to turn on.
7. Click **Apply**.

Enable

Alarm in enabled switch of IP channel.

Name

Set the name of the Alarm input device.

Alarm channel

Show which IP channel's alarm input it is.

Port

Show which alarm input port of IP channel it is.

Operation

It includes four kinds of operations: **Edit/Schedule/Trigger Process** and **Delete.**

Type

Normal Open/Normal Close. It means the system support those external sensor alarms which have two statuses: Open and Close. When the status switches from Open to Close, or from Close to Open, alarm will be triggered.

Status

Show the trigger status of alarm input port.

Interval

Set the time interval of each Alarm in triggered.

9.4.3 Alert

Exception settings refer to the handling action of various exceptions, including No Writable Disk, Disk Error, Disk Full, Network Disconnect, IP Conflict and S.M.A.R.T.

No writable disk

If all HDD are set to only read, this exception will be triggered. It supports these methods to remind the user about the exception: Show Message, Buzzer, Send Email and Alarm Out.

Disk Error

If writing HDD error or DHH is unformatted, this exception will be triggered. It supports these methods to remind the user about the exception: Show Message and Buzzer.

Disk Full

You can set minimum percentage of hard disk space. The handling actions of this exception are Show Message, Buzzer, Send Email and Alarm Out.

Network Disconnect

If network is disconnected, this exception will be triggered. It supports these methods to remind the user about the exception: Show Message, Buzzer and Alarm out.

IP Conflict

Contain If IP conflict with other device at the same network, exception will be triggered. It supports these methods to remind the user about the exception: Show Message, Buzzer and Alarm out.

S.M.A.R.T

This exception is about HDD health detection. It will be triggered when the HDD of device have some problems and not work under good condition. It supports these methods to remind the user about the exception: Show Message and Buzzer.

Steps:

1. Go to **Setting Menu → Event → Alert.**

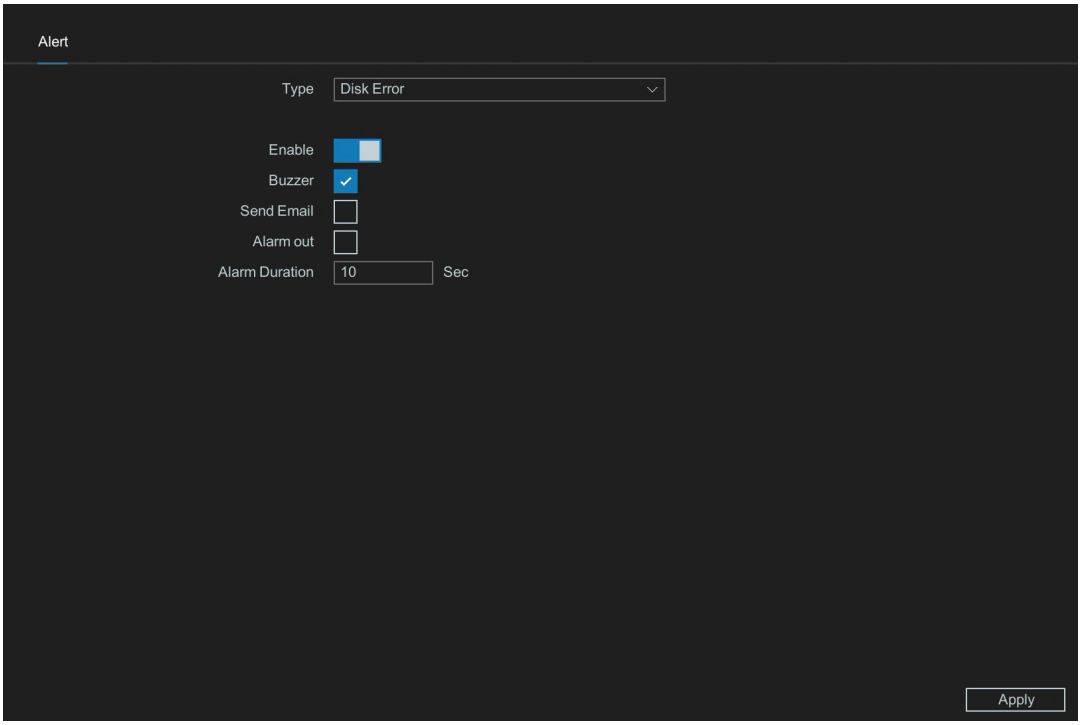


Figure 9-33 Alert

2. Select Type.
3. Turn on **Enable**.
4. Configure the other parameters as your desire. When the set events occur, you will receive hints in **Alarm Status.**
5. Click **Apply**.

9.4.4 Disarming

This function is disarms the alarm linkage action, default is **ALL**. There are four options : Buzzer, Tour, Send Email and Alarm Output.

Steps:

1. Go to **Setting Menu → Event → Disarming.**

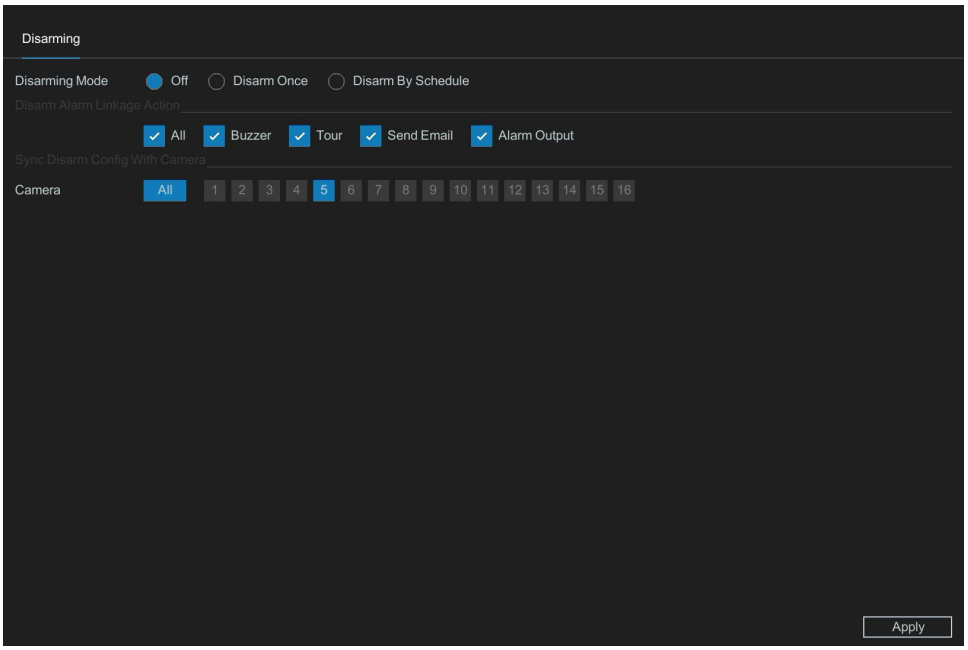


Figure 9-34 Disarming

2. Select disarming mode.

Off: The default mode.

Disarm Once: You can customize the duration of disarming by setting the start time and end time, it will automatically cuts to Off mode if the set disarm time has expired.

Disarm By Schedule: Click Set to config disarm schedule.

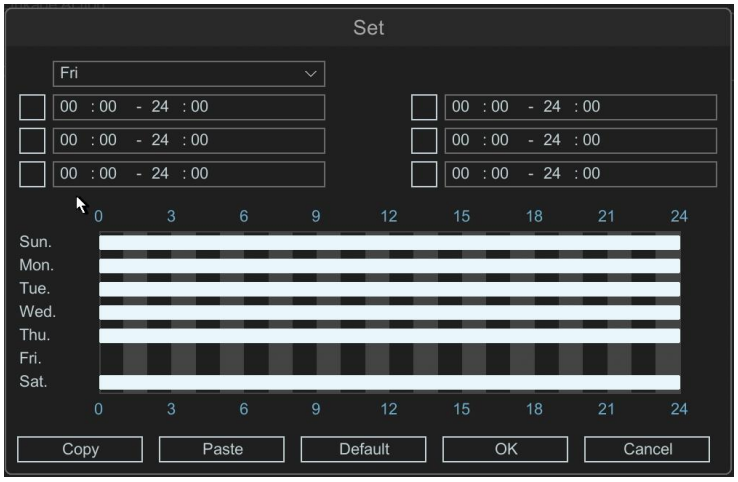


Figure 9-35 Set Disarming Time

9.5 Intelligent

Note

When the selected channel does not support this function, it is grayed out witch means not settable.

Steps:

1. Go to **Setting Menu → Intelligent → AI Config**.

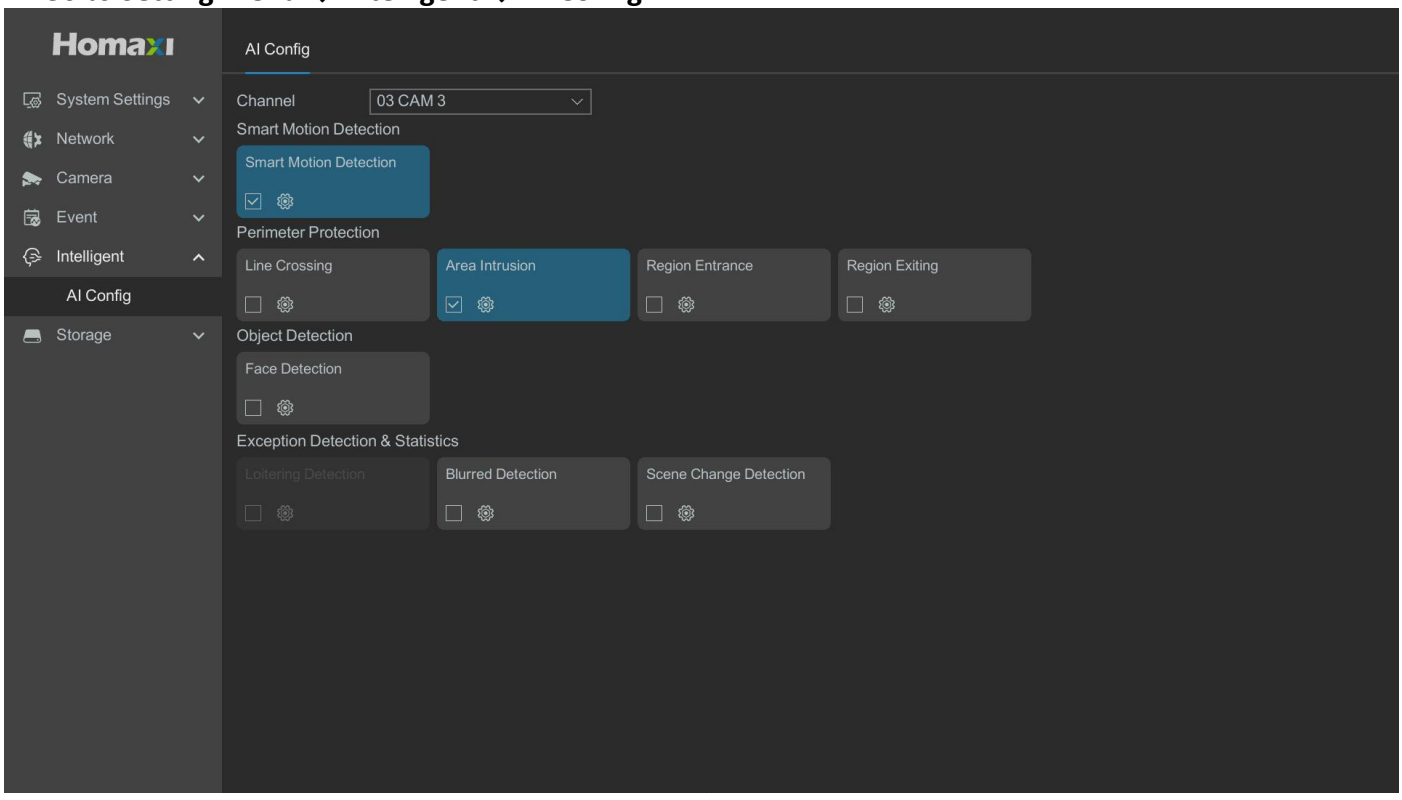


Figure 9-36 AI Config

9.5.1 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 **Setting Menu → Intelligent → AI Config → Smart Motion Detection**.
2. Tick the checkbox of **Smart Motion Detection**.
3. Click  to enter the popup window.

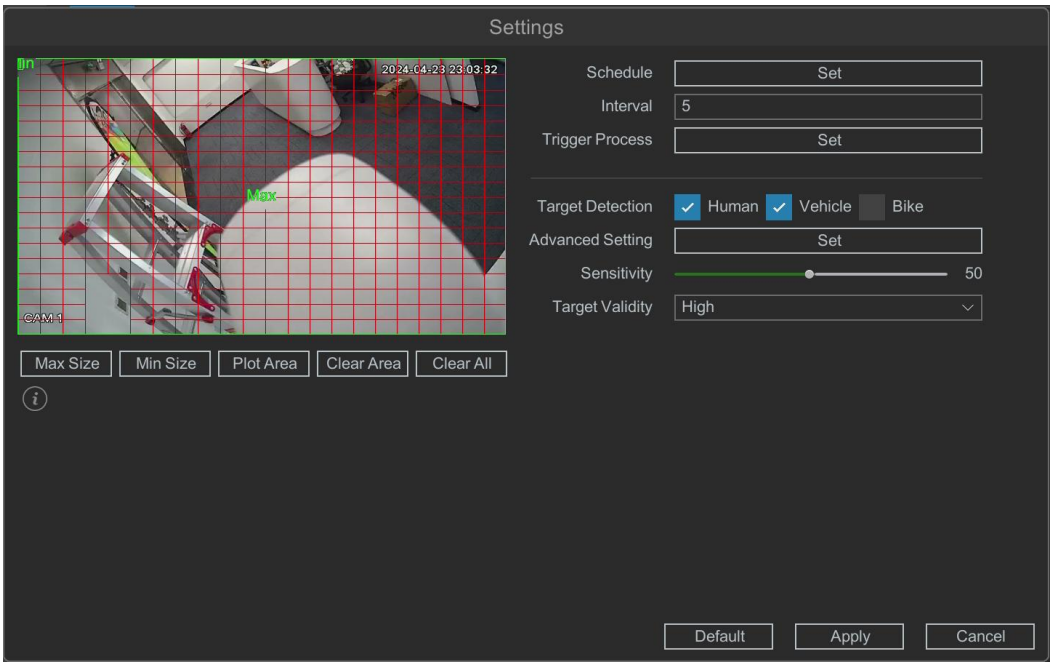


Figure 9-37 Smart Motion Detection

4. Click **Plot Area**, 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 Area: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger Process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
8. You can enable the **Human/Vehicle/Bike** filters. After enabling the filter(s), event will be triggered only by specified targets.
9. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
10. 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.
11. 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.

12. Click **Apply**.

9.5.2 Perimeter Protection

Line Crossing & Area Intrusion & Region Entrance & Region Exiting

Line Crossing & Area Intrusion & Region Entrance & Region Exiting, They are the 4 most commonly used Perimeter Protection, if setting Target Detection as Human Shape Filter or Vehicle Shape Filter to discard alarms which are not triggered by human body or vehicle, They are described as Perimeter Protection, referred to as PP. Only certain camera models support these function. Please refer to ***6.3.2 Event.***

9.5.3 Face Detection

Face Detection is an intelligent event detection function of the camera, which uploads an alarm message after detecting a human face.

Steps:

1. Go to **Setting Menu → Intelligent → AI Config → Object Detection → Face Detection**.
2. Tick the checkbox of **Object Protection**.
3. Click  to enter the popup window.

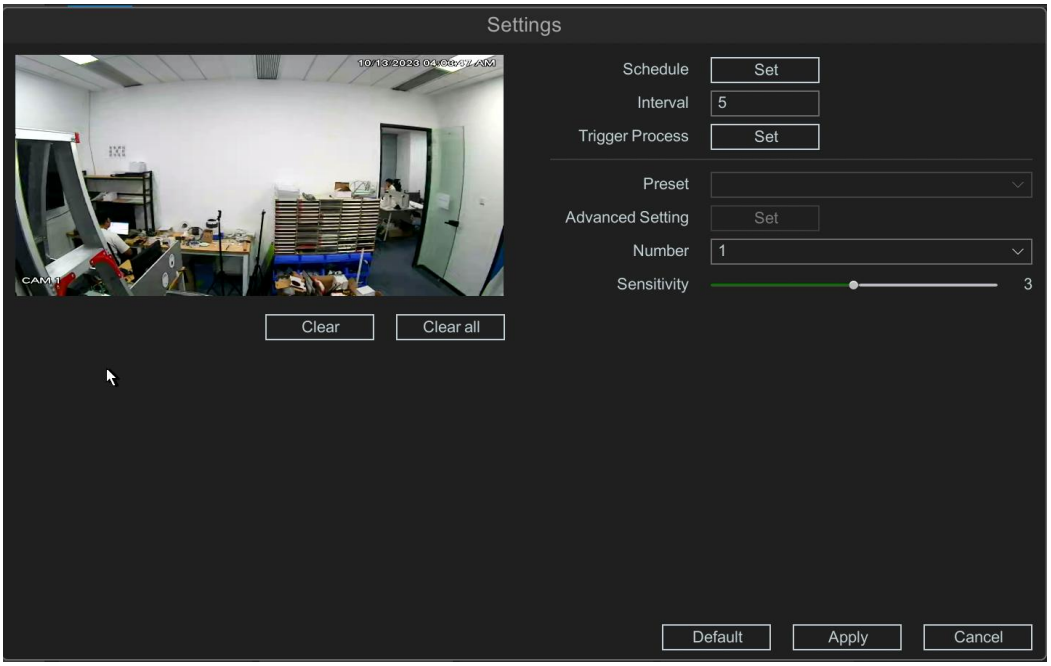


Figure 9-38 Set Disarming Time

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

Clear: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

5. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
6. Set the **Interval** for the event. 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.
7. Set the **Trigger Process**. Refer to **6.3.4 Configure Alarm Trigger Process** for details.
13. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** below for details.
14. Set **Sensitivity**, 1-5 is optional, sensitivity value represent percentage of targets entering the alarm area.

The higher the sensitivity, the higher the face detection rate.

15. Click **Apply**.

9.5.4 Exception Detection & Statistics

Loitering Detection

Loitering detection can detect the moving human body staying in a predefined place for more than a period of time or abnormal movement trajectory, and some certain actions can be taken when the alarm is triggered.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Setting Menu → Intelligent → AI Config → Exception Detection & Statistics → Loitering Detection.**
2. Tick the checkbox of **Loitering Detection**.
3. Click  to enter the popup window.

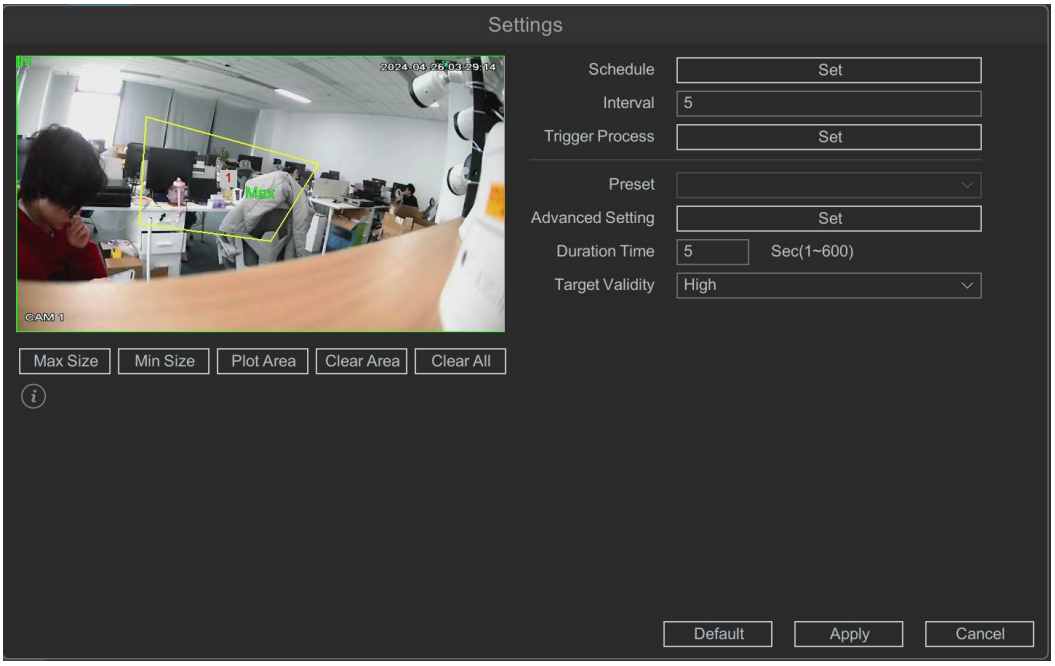


Figure 9-39 Loitering Detection

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

Clear: Removes area on the current alert area.

Clear All: Removes all areas on all alert areas.

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.

5. Set the arming **Schedule**. Refer to for ***6.3.3 Configure Arming Schedule*** for details.
6. Set the **Interval** for the event. 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.

7. Set the **Trigger process**. Refer to ***6.3.4 Configure Alarm Trigger Process*** for details.
8. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** for details.
9. **Duration Threshold**: Loitering Detection alarm occurs if target enter arming areas and stay longer than the duration time you set, 1-600s settable.
10. Select a **Target Validity** for the event amongst the options, the default is Higher. The higher the level, the more resemble human/vehicle target will be detected.
11. Click **Apply**.

Blurred Detection

Burred is usually caused by the camera failing to focus accurately, which may result in a blurred or unclear image. Burred detection analyses the characteristics of the image to determine whether the image has been focused correctly and triggers the appropriate alarm linkage response when the image is not clear.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Setting Menu → Intelligent → AI Config → Exception Detection & Statistics → Blurred Detection**.
2. Tick the checkbox of Blurred Detection.
3. Click  to enter the popup window.

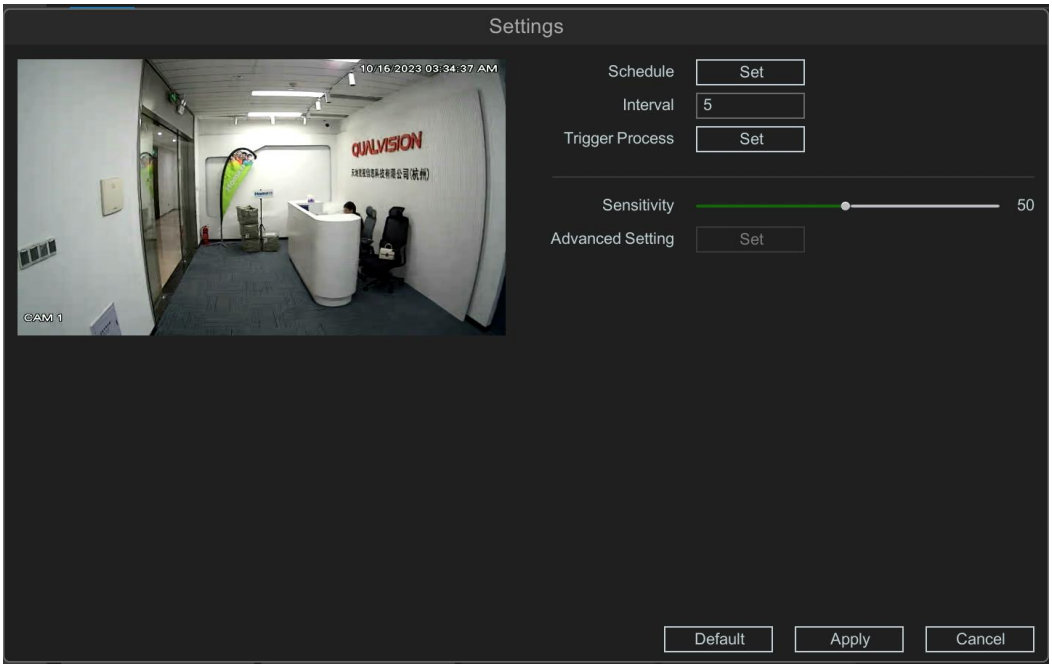


Figure 9-40 Blurred Detection

4. Set the arming **Schedule**. Refer to ***6.3.4 Configure Arming Schedule*** for details.
5. Set the **Interval** for the event. 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. Set the **Trigger process**. Refer to ***6.3.5 Configure Alarm Trigger Process*** for details.
7. The **Sensitivity** controls the degree of blurring of the image alarm. The higher the sensitivity, the more the image will alarm when it is slightly blurred. The lower the sensitivity, the alarm will be raised only when the image is very blurred.
8. Set the **Advanced Setting**. Refer to ***6.3.6 Configure Advanced Setting*** for details.

9. Click **Apply**.

Scene Change Detection

When the scene taken by the camera changed due to human, external environment and other reasons, the camera detects the scene change event and triggers the corresponding alarm linkage reaction.

Steps:

1. Go to **Setting Menu → Intelligent → AI Config → Exception Detection & Statistics → Scene Change Detection.**
2. Tick the checkbox of Blurred Detection.
3. Click  to enter the popup window.

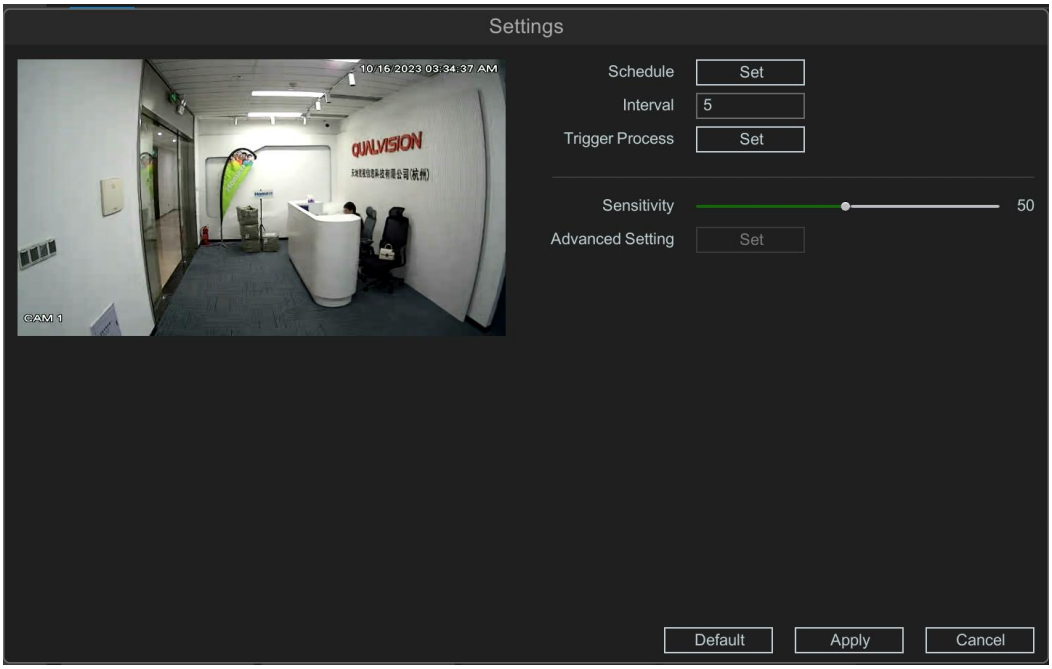


Figure 9-41 Scene Change Detection

4. Set the arming **Schedule**. Refer to ***6.3.3 Configure Arming Schedule*** for details.
5. Set the alarm **Interval** for the event. 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. Set the **Trigger process**. Refer to ***6.3.4 Configure Alarm Trigger Process*** for details.
7. Adjust the **Sensitivity**. 1-100 configurable, the higher the sensitivity, the more the image will alarm with a slight change. The lower the sensitivity, the alarm will be raised only if the image changes a lot.
8. Set the **Advanced Setting**. Refer to ***6.3.5 Configure Advanced Setting*** for details.
9. Click **Apply**.

9.6 Storage

9.6.1 Schedule

Schedule

Go to **Setting Menu → Storage → Schedule → Schedule.**

It is the Recording schedule, Please refer to ***6.4.2 Configure Recording Schedule.***

9.6.2 HDD Management

If it is the first time you use your HDD, please initialize it after it is installed. Please refer to ***6.4.1 Storage.***

Mode Settings

Multiple HDDs can be managed in groups. Video from specified channels can be recorded into a particular HDD group through HDD settings. You can also switch the hard disk's storage mode, including the 'group', 'quotas (Capacity)', and 'Quota (Time)'.

Before You Start

Install at least one HDD to your video recorder.

Steps:

1. Go to **Setting Menu → Storage → HDD Manage → Mode Settings**.
2. Select **Mode** as **Group**.
3. Select a group number.
4. Select IP channels to record on the HDD group.

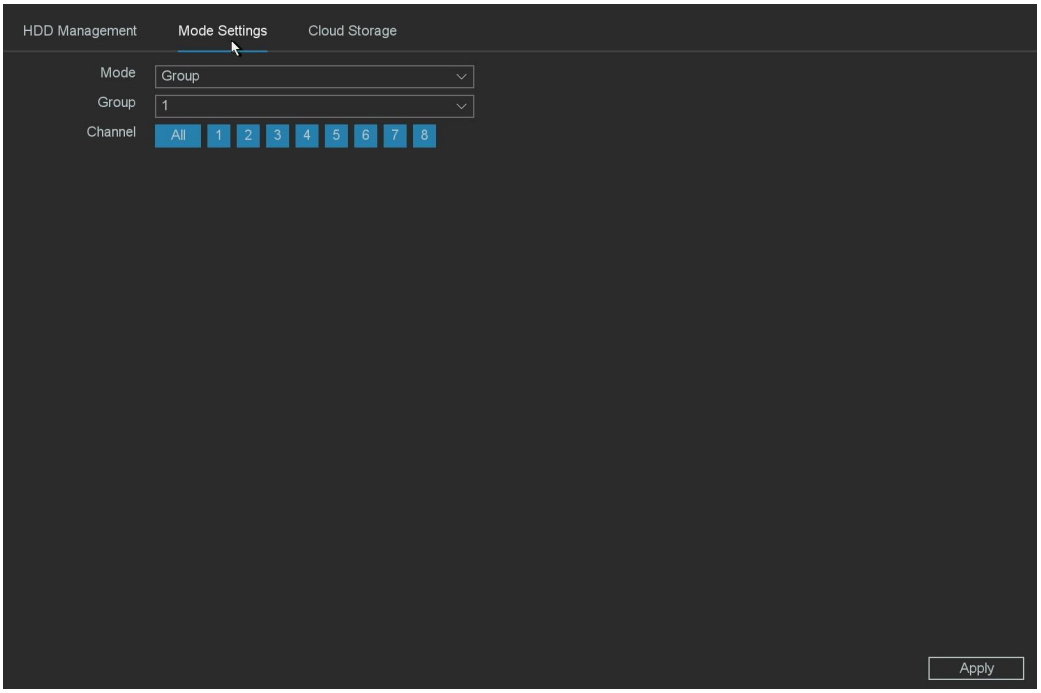


Figure 9-42 Group

5. Click **Apply**.
6. Restart the video recorder to activate the new storage mode settings.
7. After restart, go to **Setting Menu→ Storage → HDD Manage → HDD Management**.
8. Click of desired HDD to set the group.
9. Select a group number for the current HDD.

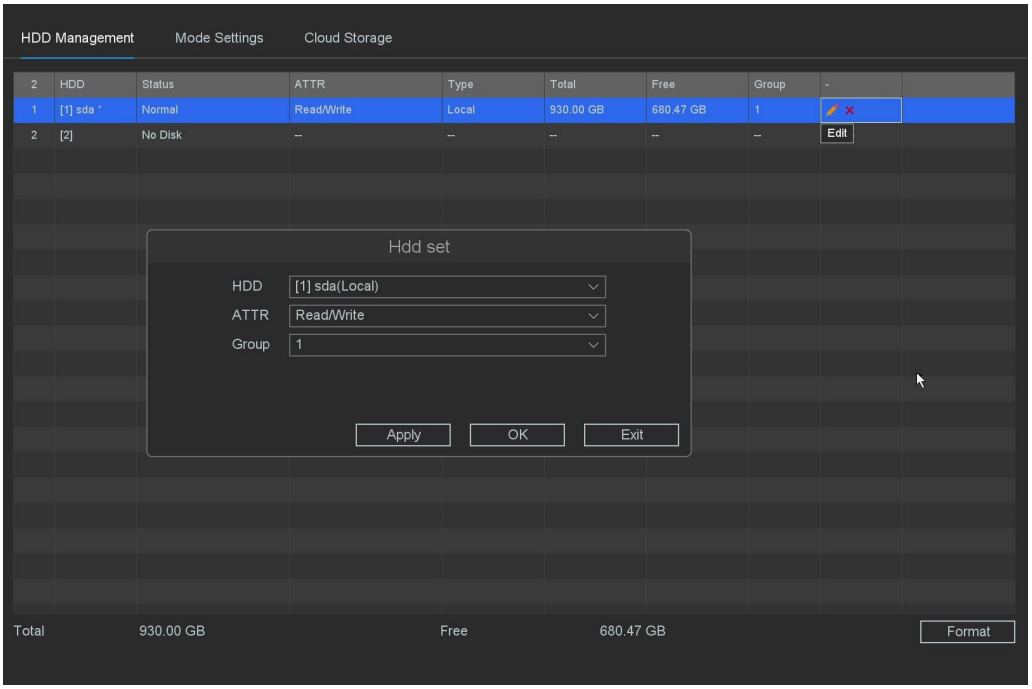


Figure 9-43 Hdd Set

10. Click **OK**.

Note

If the channel does not belong to any group, none video file will be saved, and if the channel belongs to more than one group, the channel will use the space of these group one by one until all the group are full.

Configure HDD Quota (Capacity)

Each camera can be configured with an allocated Quota (Capacity) for storing videos.

Steps:

1. Go to **Setting Menu → Storage → HDD Manage → Mode Settings**.
2. Select **Mode** as **Quota (Capacity)**.
3. Select a camera to set quota in **Channel**.
4. Enter the Record capacity in **Record quota (GB)** and **Picture quota (GB)**.

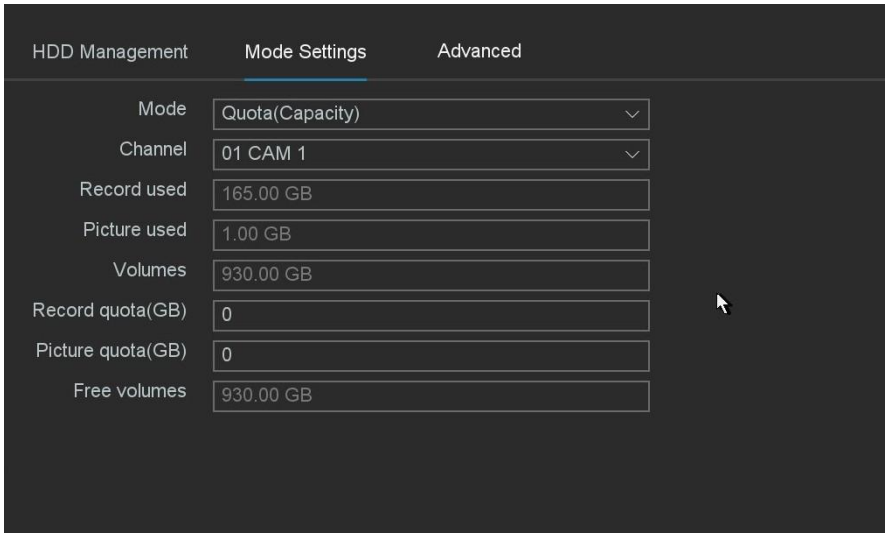


Figure 9-44 Quota

5. Click **Apply**.
6. Click **OK** to the video recorder to activate the new settings.

Note

When the quota capacity is set to 0, all cameras will use the total capacity of HDD for videos and pictures. Every time you change the storage mode, you need to restart the NVR device.

Record used

Shows the video files space that the channel you chose have used in real-time.

Picture used

Shows the pictures space that the channel you chose have used in real-time.

Volumes

Total capacity of all hard drives.

Record Quota

You can manually set the quota size of channel video.

Picture quota

You can manually set the quota size of channel picture.

Free volumes

Shows the free space minus the space you have set on other channels.

Note

About the operation mechanism of capacity quota (It needs to be set to allow overwriting when the hard disk video is full).

- The video recording is given priority. If the hard disk capacity is left, the video recording will continue. The highest priority is to ensure that there are as many videos as possible.
- After the recording is full, the BLOCK of the channel with the earliest end time exceeding the quota will be overwritten first.
- Until the capacity quota is allocated, then look for the block with the earliest end time within the quota to be overwritten.

Configure HDD Quota (Time)

Each camera can be configured with an allocated Quota (Time) for storing videos.

Steps:

1. Go to **Setting Menu → Storage → HDD Manage → Mode Settings**.
2. Select **Mode** as **Quota (Time)**.
3. Select a camera to set quota in **Channel**.
4. Enter the Record Day in **Record Quota (Day)**.

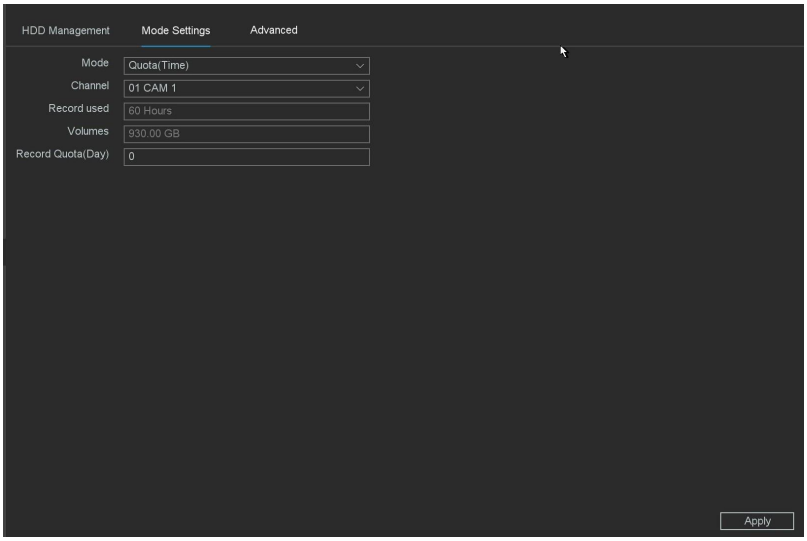


Figure 9-45 Quota

5. Click **Apply**.
6. Click **OK** to the video recorder to activate the new settings.

Note

When the Record Quota (Day) is set to 0, all cameras will use the total capacity of HDD for videos and pictures. Every time you change the storage mode, you need to restart the NVR device.

Record used

Shows the video files space that the channel you chose has used in real-time.

Volumes

Total capacity of all hard drives.

Record Quota (Day)

Set a time for a channel from 0-60 days, and the new video files will not cover the old files in this period.

Note

About the time quota operation mechanism (It needs to be set to allow overwriting when the hard disk video is full)**.**

- The video recording is given priority. If the hard disk capacity is left, the video recording will continue. The highest priority is to ensure that there are as many videos as possible.
- After the recording is full, the BLOCK of the channel with the earliest end time exceeding the time quota will be overwritten first.
- Until the BLOCK of the channel exceeding the time quota is covered by the recordings of the remaining channels within the time quota, the time quota mechanism of the channel will take effect.
- Because the video stream changes dynamically, under the time quota mechanism, to make the time quota mechanism of this channel take effect, you can set the time quota of another channel as large as possible.

Advanced

In this page you can set the full strategy of hard disk, ‘Stop record’ or ‘Overwrite’.

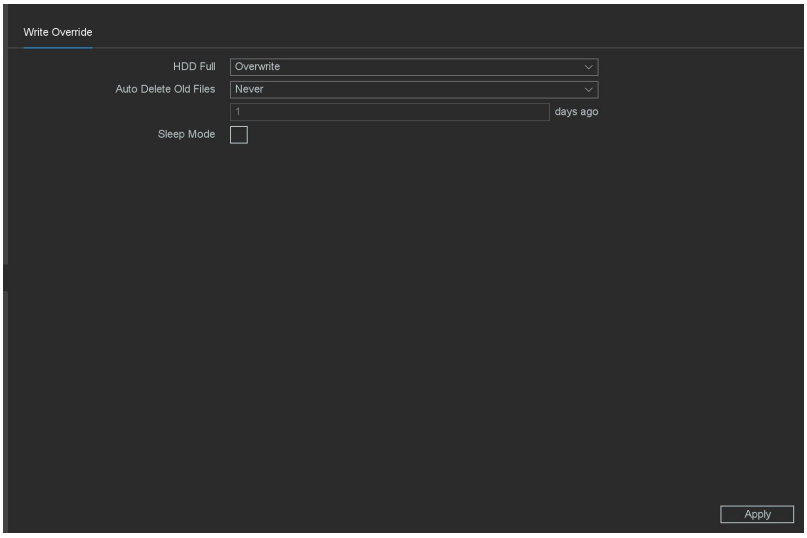


Figure 9-46 Advanced

HDD Full

- Stop record: When the HDD is full, video recorder will stop writing.
- Overwrite: When hard drive is full, video record will continue to write new files by deleting the oldest files.

Auto-Delete Old Files

Support two mode of strategy, 'never' and 'Custom'. In the 'Custom' mode you can set auto-delete time from 1-30 days before.

Sleep Mode

HDDs which are free of working for a long time will turn into sleep status.

9.6.3 Cloud Storage

As a new feature our device support upload video & picture to the Cloud Storage. The Cloud Storage allows our users to take video stored on their hard drives and upload to either Google Drive or Drop Box. Pricing is all based on the costs on which Google Drive or Drop Box charge when signing up. A hard drive must be installed within the DVR/NVR for Cloud Storage to work, but The Cloud Storage will upload the video and picture to the cloud automatically after you set this function correctly.

Before You Start

Please make sure you have registered for Google drive and Drop box accounts.

Steps:

1. Go to **Setting → Storage → Cloud Storage**.

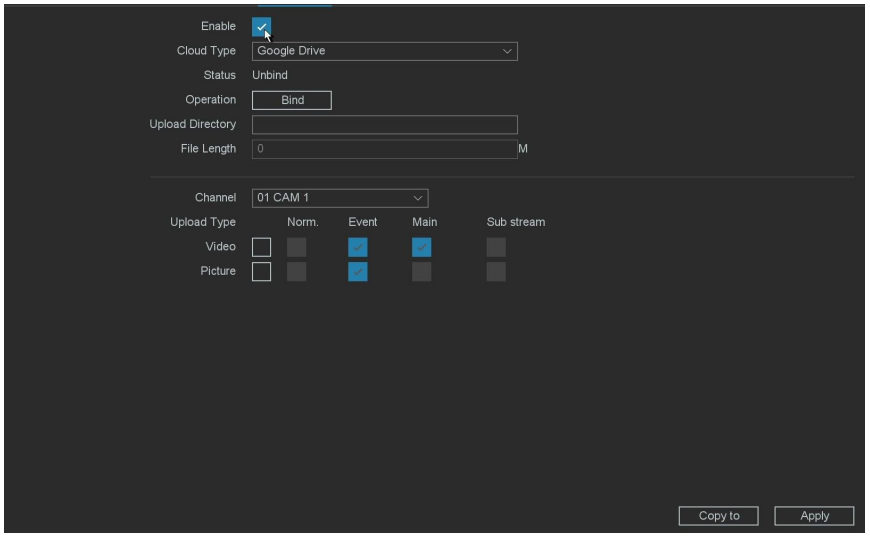


Figure 9-47 Cloud Storage

Cloud Type

Support two kinds of cloud type ‘Google Drive’ and ‘Dropbox’.

Upload directly

You can set the path of your account folder on your device.

File length

Set the video length that will upload to the cloud.

Channel

Choose the channel which you want upload files. Also you can choose different channels to set different upload plant.

Upload type

Including ‘Norm’ ‘Event’ ‘Main’ ‘Sub stream’ four kinds of upload type.

Video

In ‘Norm’ type device will keep upload the video file all the time as long as recording keep going. In ‘Event’ type device will only upload video files as plan that you set in alarm trigger process. ‘Main’ and ‘Sub stream’ means you can choose which the record file type you want to upload.

Picture

Same as the video configuration. It has ‘Norm’ and ‘Even’ type of upload.

2. Turn on **Enable**.
3. Select cloud type.
4. Click **Bind**.
5. A window will open and load a Verification Code as well as a QR Scan box.

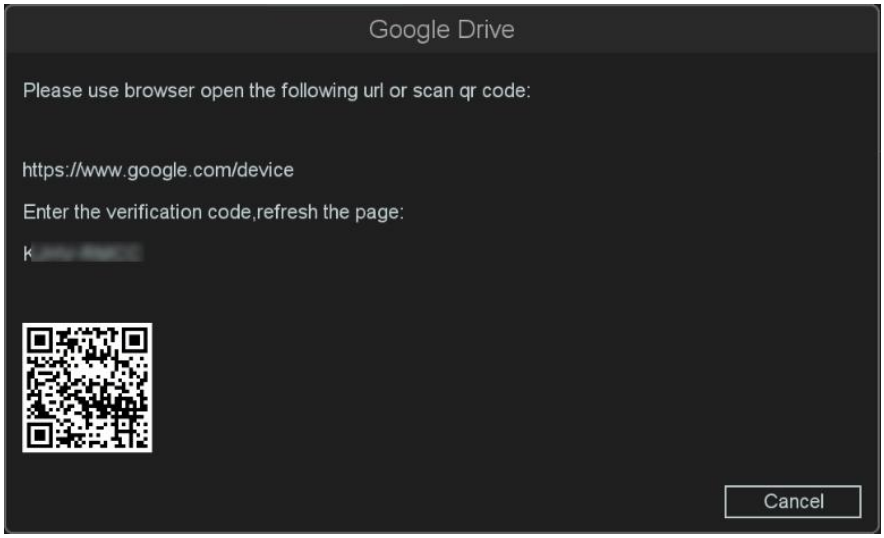


Figure 9-48 Google Drive

6. Use your mobile phone to scan the QR code, or use your computer to log in to the address in the prompt box.
7. Follow steps of inputting the verification code, signing into your account, and ‘Allowing’.

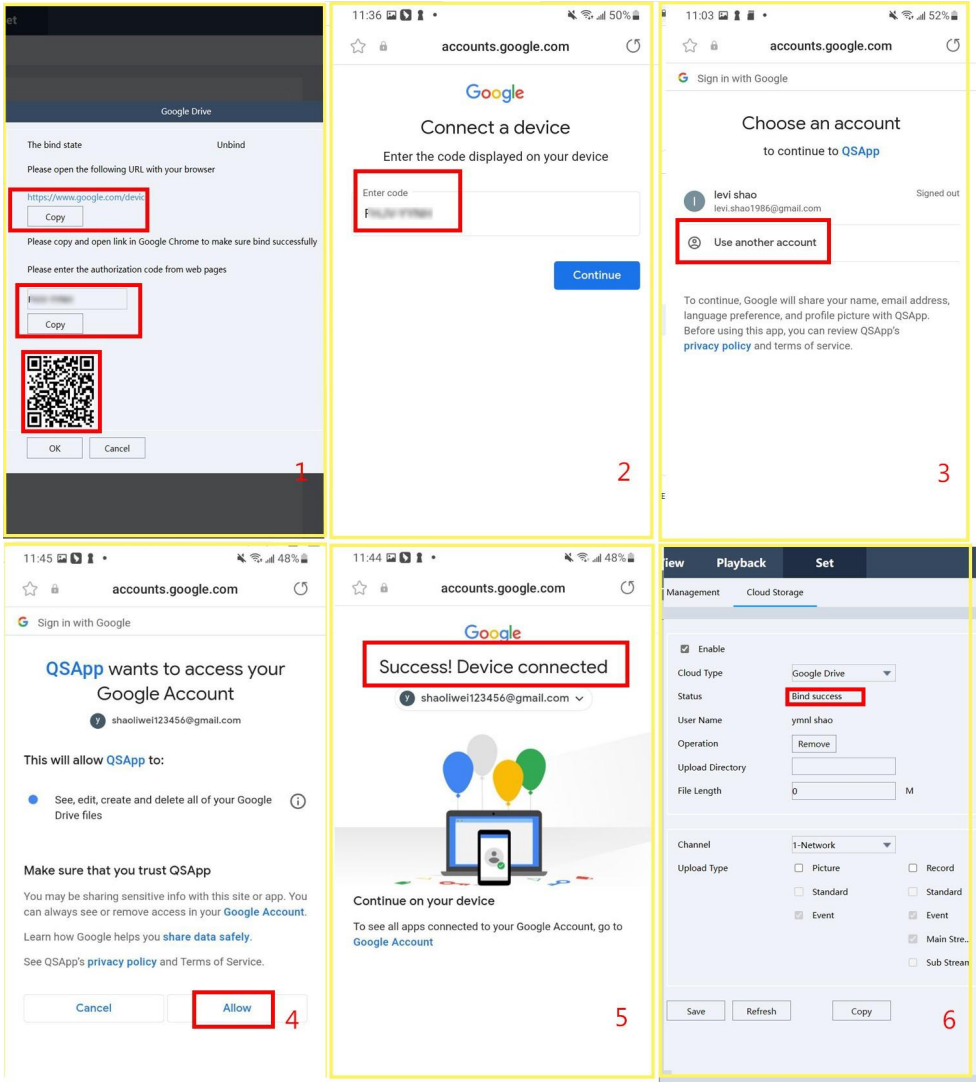


Figure 9-49 Mobile Operation Example

8. Once you fill in/Allow your information to your Google Drive or Drop Box you will see a 'Bind Success', at that point you can hit 'Logout' to close window.
9. The Status line will then read 'bind Your Login Name'.
10. Under 'Upload Directory' you will make a file name of your choice. This file path will automatically appear within the Google Drive or Drop Box directory.
11. Click **Apply**.

9.6.4 FTP

You can upload the record file onto an FTP server by configuring the FTP settings. It allows you to upload the record file by the record type and record time.

Before You Start

First, you need to confirm that your FTP server is running normally and can upload files.

Steps:

1. Go to **Setting Menu → Storage → FTP**.
2. Configure each parameter of the FTP service.

FTP setting

Divided into video FTP and pictures FTP, you can set up your server IP, port, user name, password, directory, file length, and there is the Anonymous option, and FTP Setting whether the testing successful.

Channel setting

You can select the channel to transmit, set up on weekday, as well as the time period.

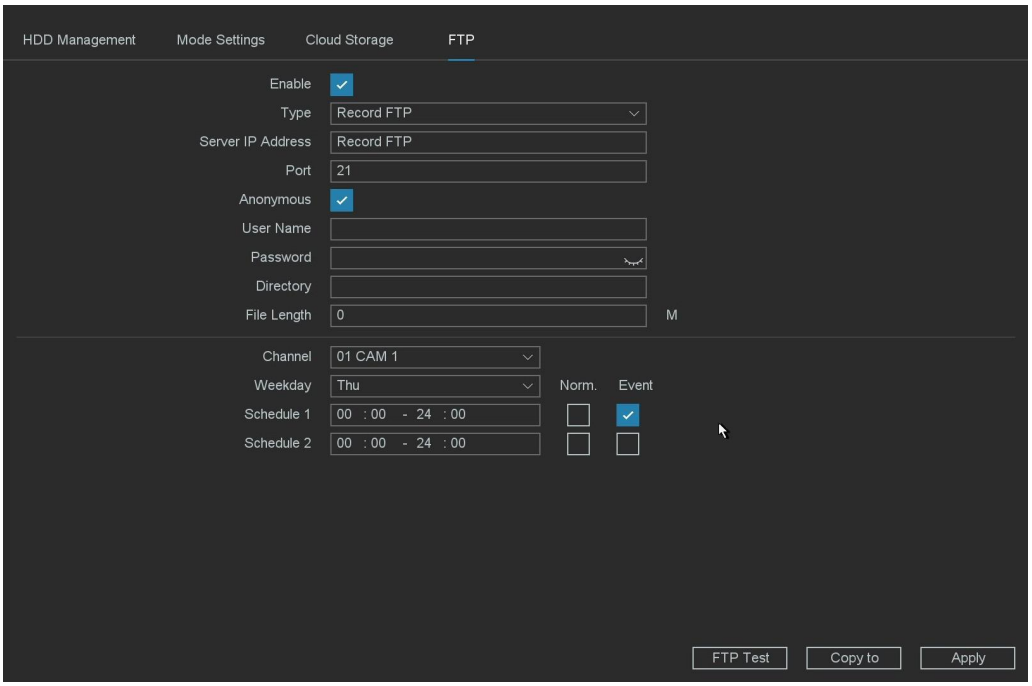


Figure 9-50 FTP

Note

- After finishing the setting, you can click the button FTP Test to try to verify the FTP service is available, and Copy To button is used to copy the configuration of current channel to other channels. Click the button Apply to activate the configuration.
- The password of some mail servers is a special authorization code, which needs to be subject to the mail server provider.

9.6.5 RAID

When RAID is enabled on the device, a Redundant Array of Independent Disks (RAID) can be implemented.

Warning

- The array function has high requirements for hard disks. In order to ensure that the disk array works reliably and stably for a long period of time, it is recommended to use enterprise level hard drivers to participate in array creation and other configurations. We are not responsible for any data loss or damage caused by the use of surveillance-grade or desktop-grade hard disks.
- It is recommend to use the same model and capacity HDDs.
- The capacity of a single disk can not less than 4TB.

Enable RAID

NVR need enable RAID to configure array, such as creating array.

Before You Start

- The RAID function requires device support.
- Go to **Setting Menu → Storage → HDD Manage → Mode Settings** to confirm the mode to **Quota**.

Steps:

1. Go to **Setting Menu→ Storage → HDD Manage**.
2. Turn on **Enable RAID**.

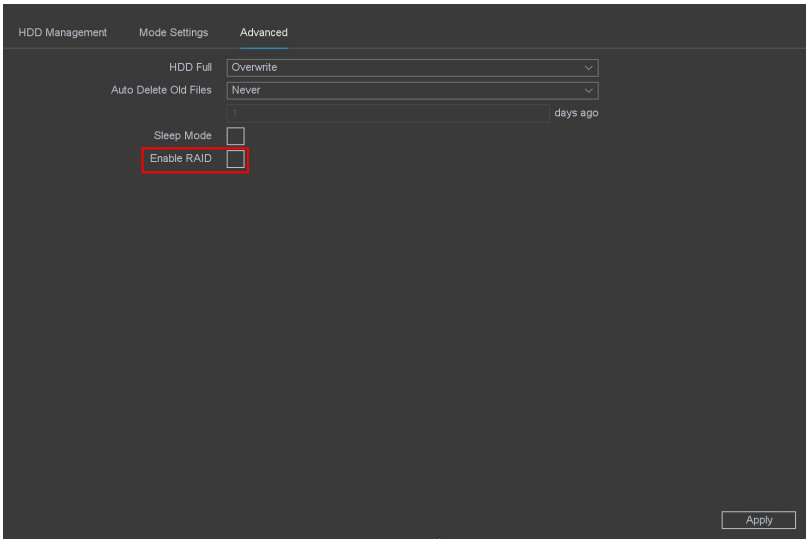


Figure 9-51 Advanced Setting

3. Click **OK** and continue.

Figure 9-52 Continue

4. Click **OK** and wait for for restart finish.

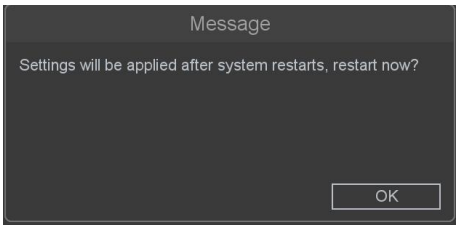


Figure 9-53 Restart

Note

The NVR does not record when RAID is turned on, please refer to ***Create RAID*** to configure to record.

Create RAID

There are two ways to create RAID, **Quick Set** configuration and **Manual Create RAID**. Quick set configuration creates RAID5 by default, manual create RAID support RAID0, RAID1, RAID5 and RAID10.

Type.	Number of Hard Disk
RAID0	≥2
RAID1	2
RAID5	≥3
RAID10	4 or 8

Table 9-3 Description of Number of Hard Disk

Quick Set RAID

With Quick Set, the appliance can quickly perform the creation of disk arrays and virtual disks. The default array type created is RAID5.

Before You Start

NVR has at least 3 physical disks installed.

Steps:

1. Go to **Setting Menu→ Storage → RAID**.
2. Click **Quick Set**.
3. Click **OK**.

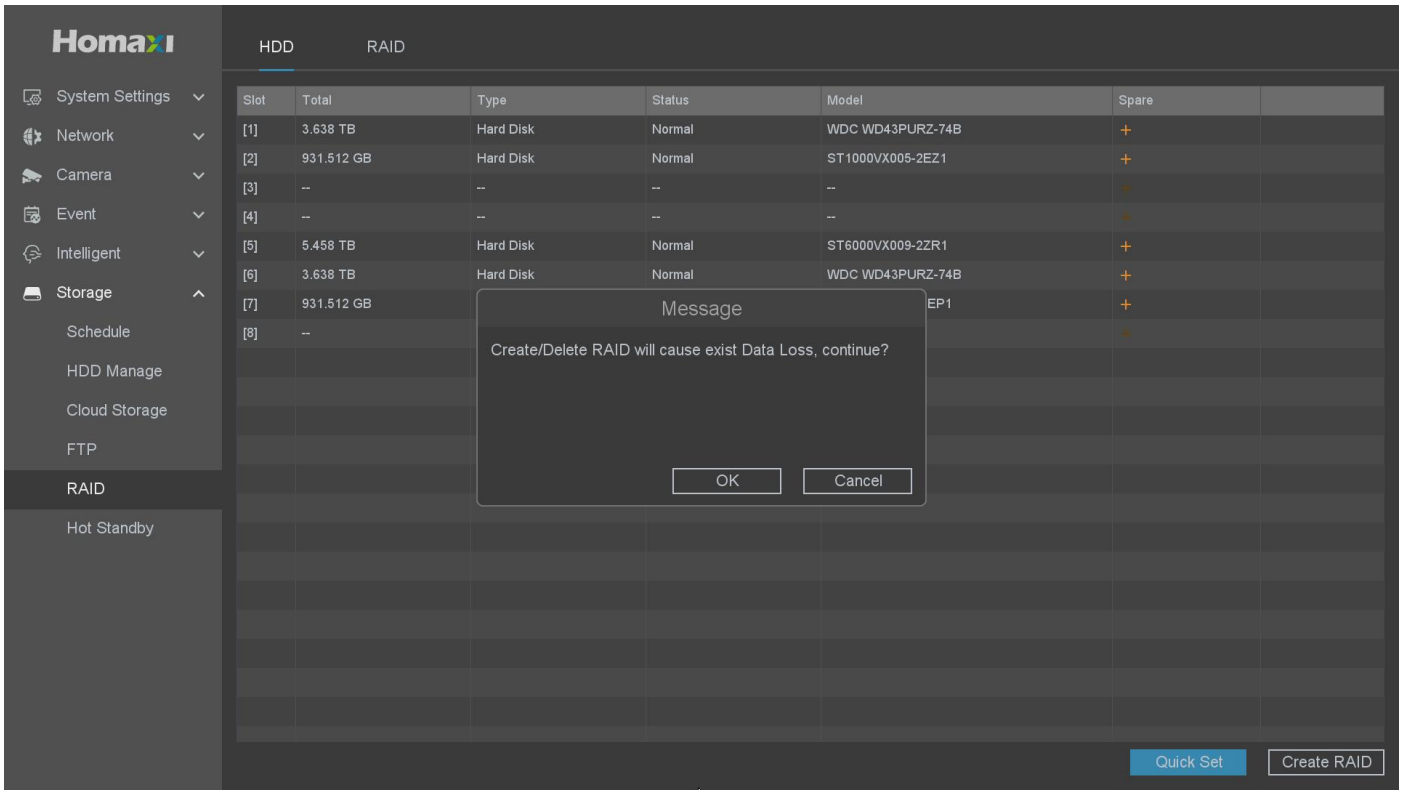


Figure 9-54 Quick Set

4. Go to **Setting Menu→ Storage → RAID → RAID** to check RAID status. When the initialization is complete, the status is displayed as normal and the disk is ready for normal reading and writing.

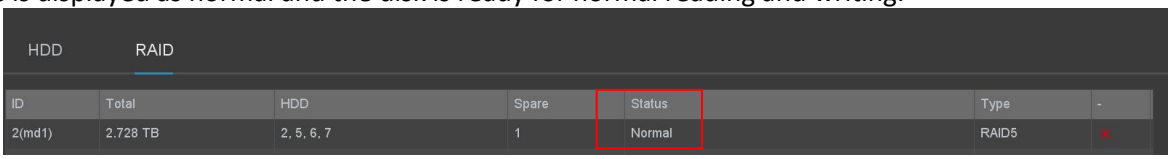


Figure 9-55 Check Status

5. Optional, you can click  to delete or click **Quick Delete** to delete all RAID.
6. Go to **Setting Menu→ Storage → HDD Manage** to check array (equivalent to a high-capacity logical disk) recording status information.

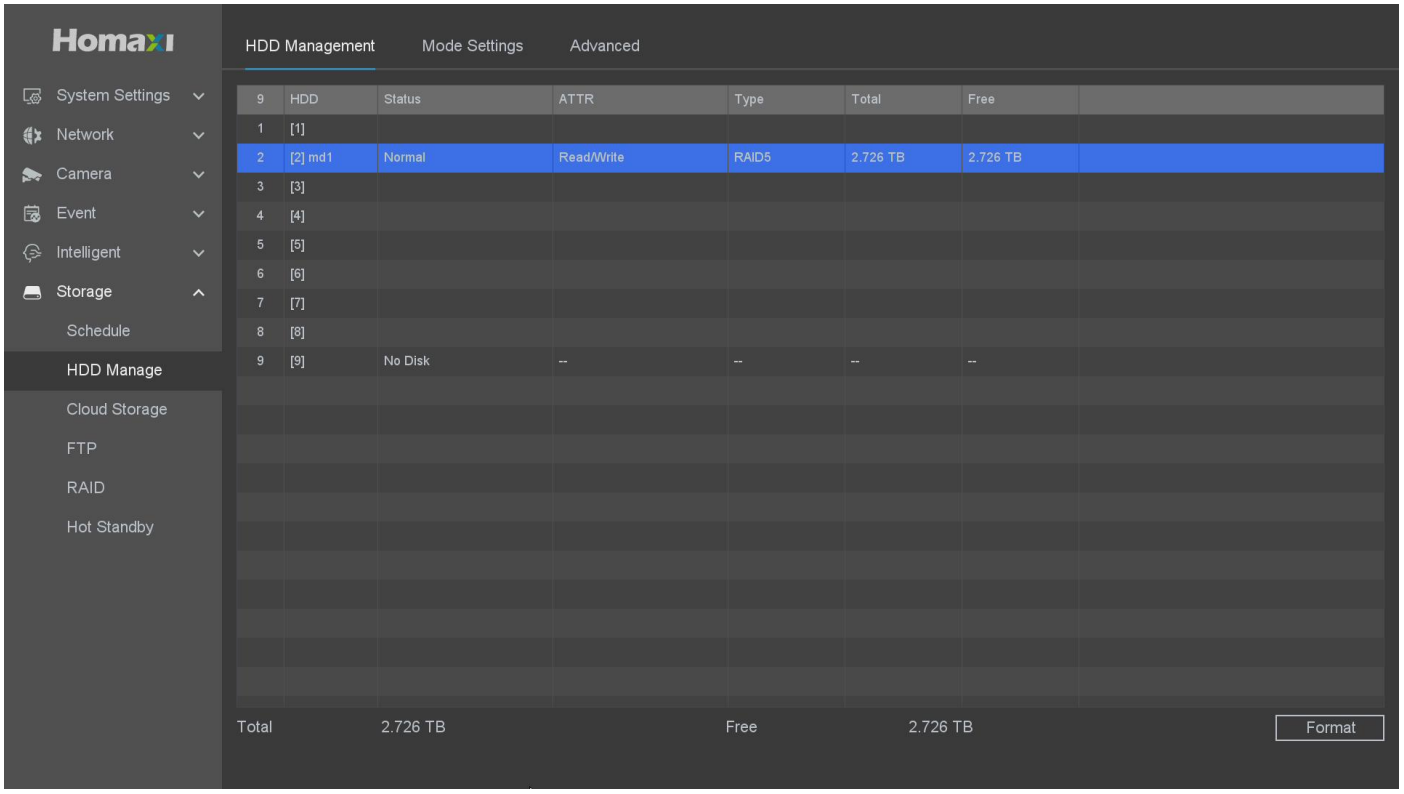


Figure 9-56 Check Recording Status Information

Manual create RAID

With manual creation, users can create different types of arrays depending on the number of hard disks.

Before You Start

NVR has at least 2 physical disks installed.

Steps:

1. Go to **Setting Menu→ Storage → RAID → HDD**.
2. Click **Create RAID**.

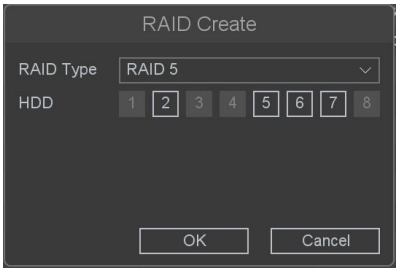


Figure 9-57 Manual Create RAID

3. Check the physical disks for which you need to create an array and click OK to continue.

Note

If the array creation requirements are not met, it will popup “Available disk are not enough!”

4. Go to **Main Menu→ Storage → RAID → RAID** to check RAID status. When the initialization is complete, the status is displayed as normal and the disk is ready for normal reading and writing.

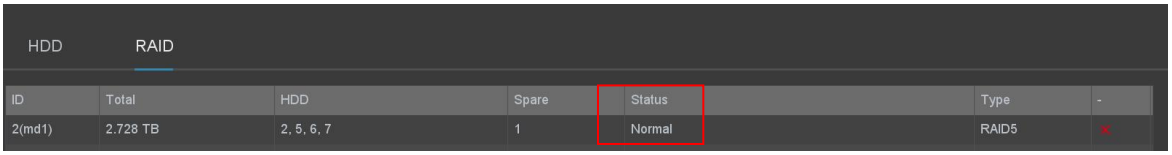


Figure 9-58 Check Status

5. Optional, you can click  to delete or click **Quick Delete** to delete all RAID.

6. Go to **Setting Menu → Storage → HDD Manage** to check array (equivalent to a high-capacity logical disk) recording status information.

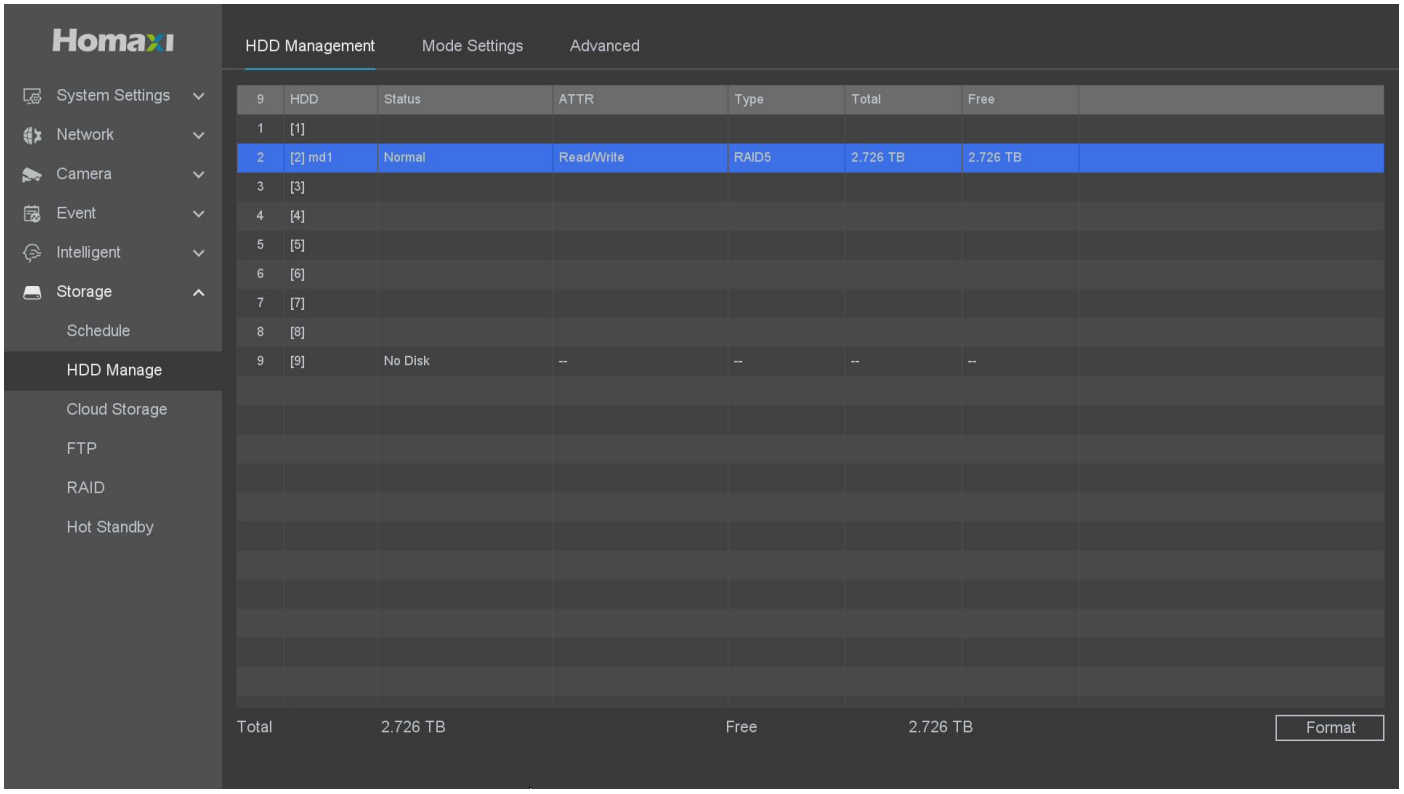


Figure 9-59 HDD Manage

7. Optional, set up a hot spare disk.

(1)Go to **Setting Menu → Storage → RAID → HDD.**

(2)Select a disk which status is Normal, click  .

(3)Click **OK**.

(4)The Status will display Spare(Global).

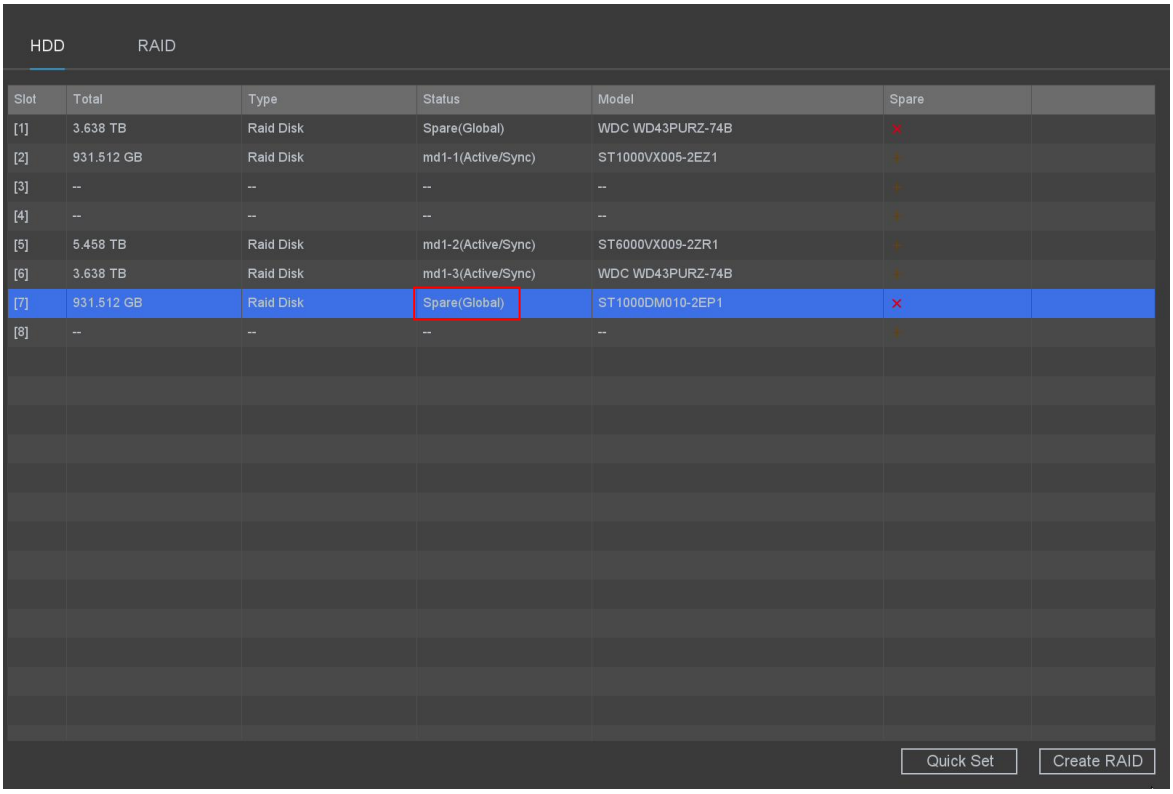


Figure 9-60 Set a Hot Spare Disk

Note

The global hot spare disk can be used by all created RAID.

9.6.6 Hot Standby

Enable hot standby system, when the working NVR in the system fails, it will automatically switch to the hot standby machine to continue recording, when the working NVR is back to normal, it will automatically cut back to the working NVR, which can reduce video loss and enhance video continuity. When the working machine returns to normal, it will be automatically cut back to the working NVR, which can reduce the loss of video recording and enhance the continuity of video recording.

Note

All working and hot standby machines need to be of the same model.

Config working machine

The working machine is the NVR for daily work, when it break down, it will automatically switch to the hot standby NVR to continue recording. The hot standby function will take effect only after a hot standby has been configured and a working NVR has been added to the hot standby.

Steps:

1. Go to **Setting menu → Storage → Hot Standby**.

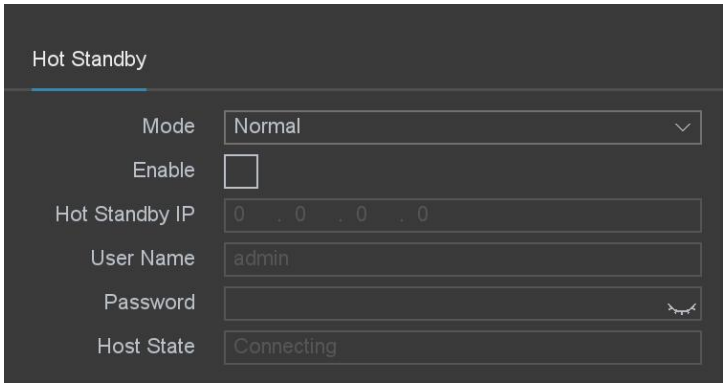


Figure 9-61 Normal Mode

2. **Mode** selects normal, the device is set as a working machine.
3. Turn on **Enable**.
4. Add the IP address of the hot standby.
5. Enter the password of the Hot Standby device.
6. Click **Apply**.

Config hot standby machine

Hot standby NVR does not work everyday, when the corresponding working NVR fails, it can automatically take over the working NVR and continue recording.

Steps:

1. Go to **Main menu → System → Hot Standby.**
2. **Mode** selects standby.
3. Click **Apply**.
4. Click **OK**, wait for the device to reboot successfully.

Figure 9-62 Prompt to Reboot

Note

After the hot standby mode takes effect, some of the parameters of the device change, such as: IP channels are all deleted (preview configuration is cleared at the same time).

5. After restart, go to **Setting menu → Storage → Hot Standby.**

Figure 9-63 Hot Standby Mode

6. Adding Work NVRs.

Note

- If the hot standby does not add a working machine or if the working machine is deleted, video backup or video synchronization is not possible.
- If the hot standby is switched to normal operating mode, it can be switched back to the working machine for use.

9.7 Backup and Analysis

9.7.1 Backup

You can Backup the video recording .It can be exported to the backup device (USB flash drive, etc.),Please refer ***Chapter 5 Backup***.

9.7.2 Retrieval

Face Detection

This page you can select the record channel which had triggered face detection and has recording files. Then you can set the Start time and End time.

Before You Start

Please make sure you have enabled the **face detection** of the camera through the NVR, and enabled the **Record Channel** and **snapshot** in the Trigger process of the face detection, and also enabled the Snapshot in the camera which you can refer to ***the IPC User Manual***.

Steps:

1. Go to **Backup and Analysis → Retrieval → Face**.

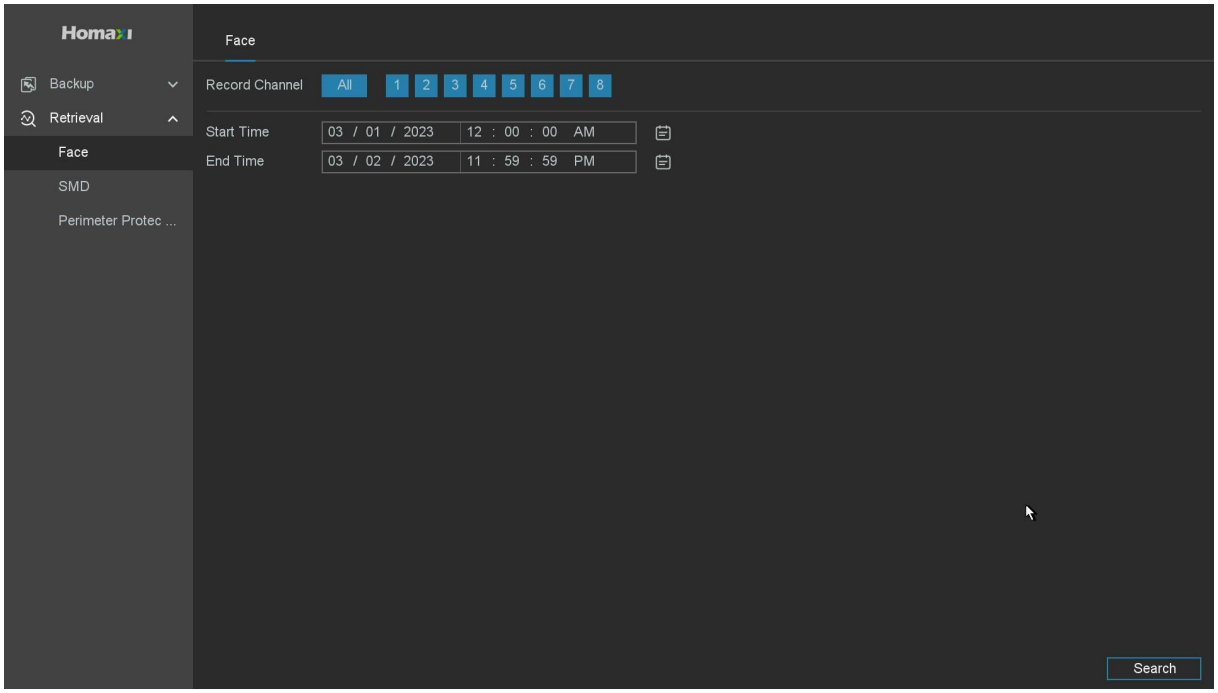


Figure 9-64 Face

2. Select the **Record Channel** you want to search.
3. Set the **Start time** and **End time**.
4. Click **Search**.
5. You can see the search results as shown below.

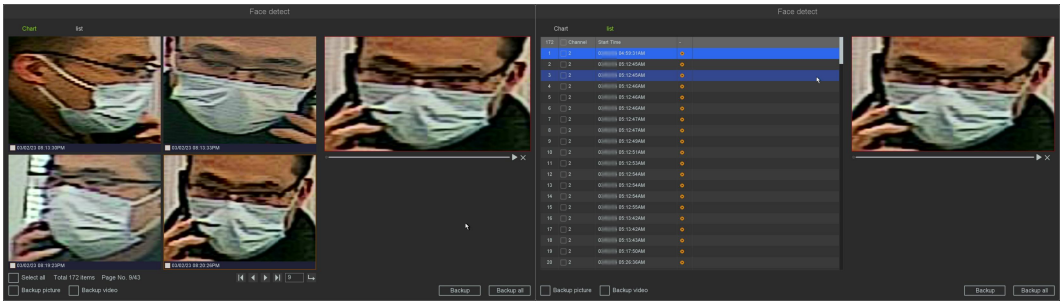


Figure 9-65 Search Results

Note

- In this page, you can select the way of face detection's preview, chart or list. Then you can choose some recordings and decide whether to back up the pictures or videos.
- If you don't find pictures in the chart, please check whether your camera has turned on Snapshot, about the setting of camera you can refer to ***the IPC User Manual***.

Smart Motion Detection

This page you can select the record channel which had triggered **Motion Detection** with **Human Shape Filter/Vehicle Shape Filter** and has the alarm videos or alarm pictures. Then you can set the Start time and End time.

Before You Start

Please make sure you have enabled the **Motion Detection with Human Shape Filter/Vehicle Shape Filter** of the camera through the NVR, and enabled the **Record Channel** and **snapshot** in the Trigger process of the Motion Detection, and also enabled the **Snapshot** in the camera which you can refer to ***the IPC User***

Manual.

Steps:

1. Go to **Backup and Analysis → Retrieval → SMD.**

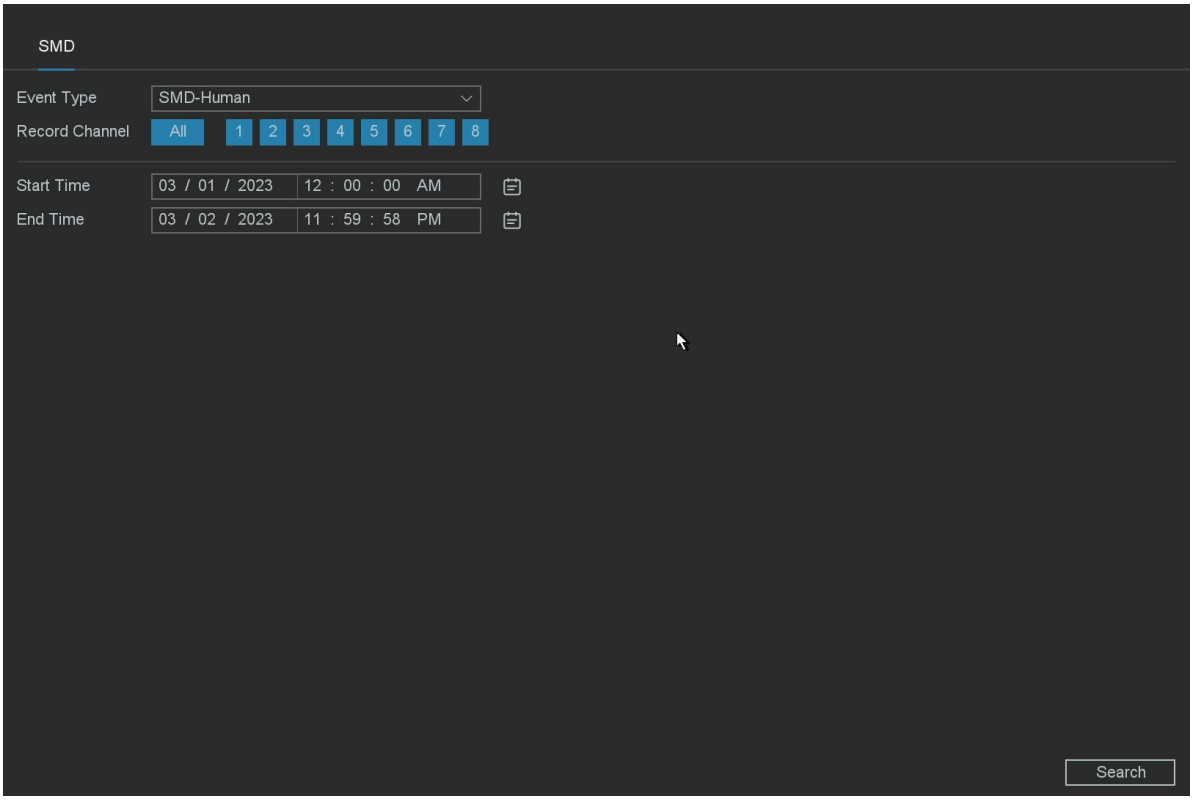


Figure 9-66 SMD

2. Select the Event type as **SMD-Human** or **SMD-Vehicle.**
3. Select the **Record Channel** you want to search.
4. Set the **Start time** and **End time**.
5. Click **Search**.
6. You can see the search results.

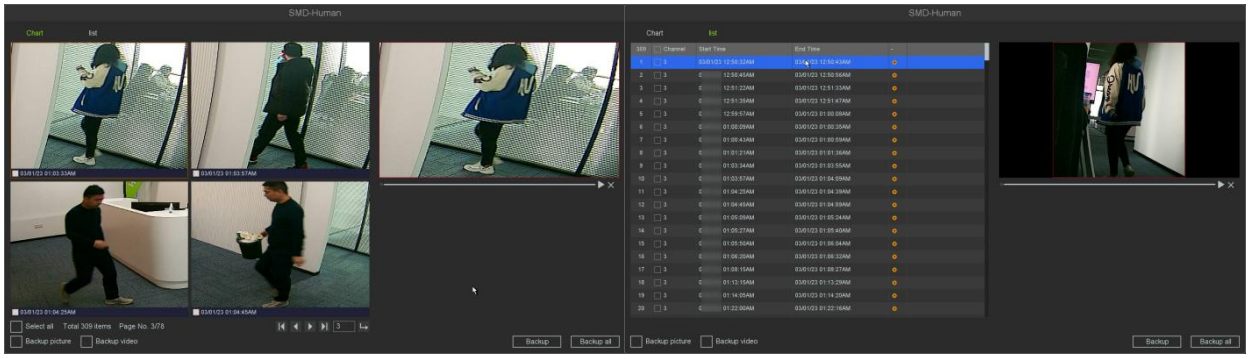


Figure 9-67 Search Results

Note

● In this page, you can select the way of SMD's preview ---chart or list. Then you can choose some recordings and decide whether to back up the pictures or videos.

● If you don't find pictures in the chart, please check whether your camera has turned on Snapshot, about the setting of camera you can refer to ***the IPC User Manual***.

Perimeter Protection

This page you can select the record channel which had triggered **Line Crossing & Area Intrusion & Region Entrance & Region Exiting** with **Human Shape Filter/Vehicle Shape Filter** and has the alarm videos or alarm pictures. Then you can set the Start time and End time.

Before You Start

Please make sure you have enabled the **Line Crossing & Area Intrusion & Region Entrance & Region Exiting** with **Human Shape Filter/Vehicle Shape Filter** of the camera through the NVR, and enabled the **Record Channel** and **snapshot** in the Trigger process of the Motion Detection, and also enabled the **Snapshot** in the camera which you can refer to ***the IPC User Manual***.

Steps:

1. Go to **Backup and Retrieval → Retrieval → Perimeter Protection.**
2. Select the Event type as **Line Crossing-Human/Vehicle, Area Intrusion-Human/Vehicle, Region Entrance-Human/Vehicle or Region Exiting-Human/Vehicle.**
3. Select the **Record Channel** you want to search.
4. Set the **Start time** and **End time**.

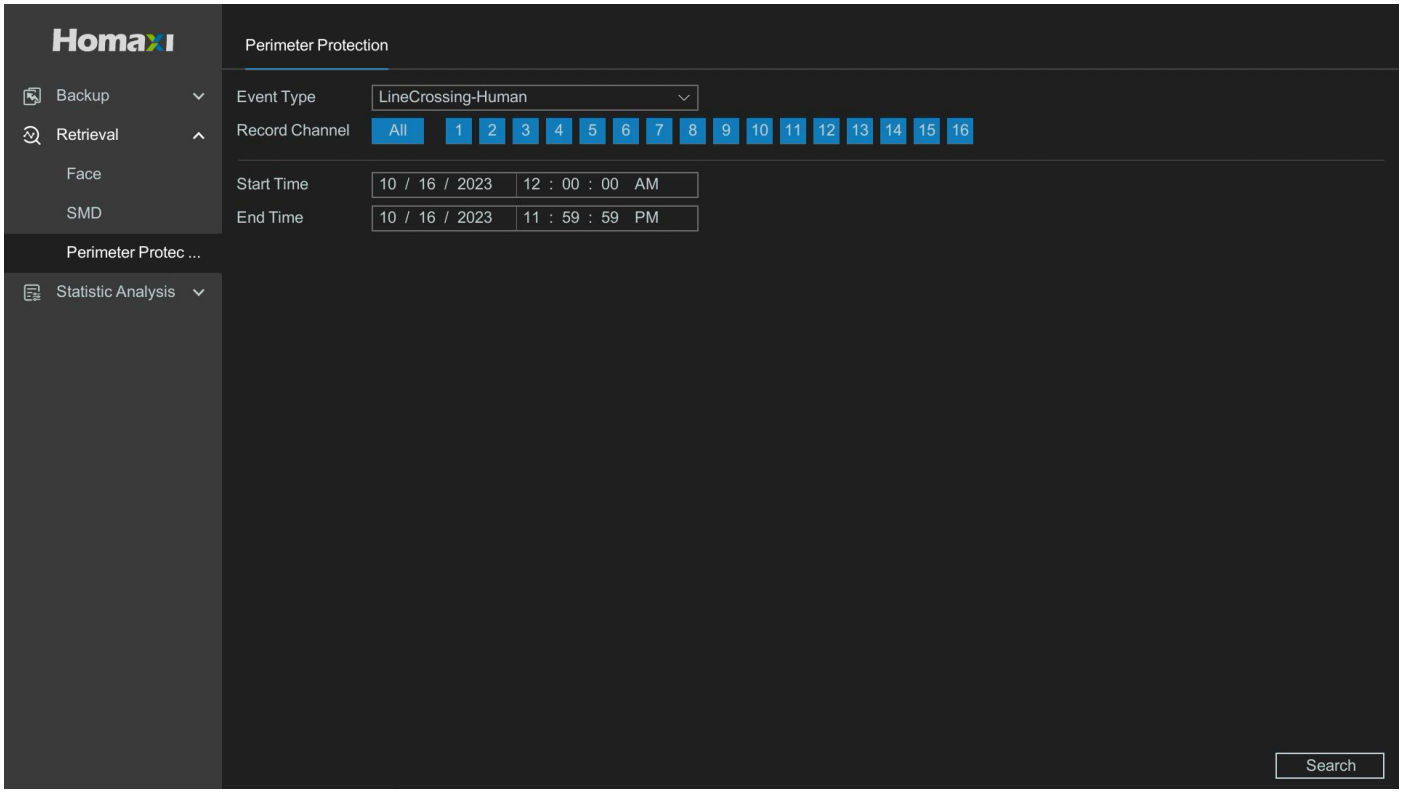


Figure 9-68 Perimeter Protection

5. Click **Search**.
6. You can see the search results as shown below.

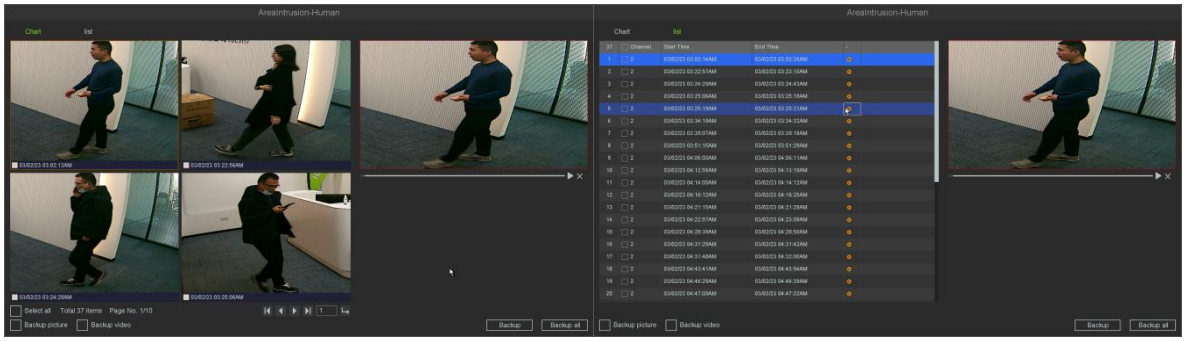


Figure 9-69 **Search Results**

Note

- In this page, you can select the way of **Line Crossing & Area Intrusion & Region Entrance & Region Exiting**'s preview , chart or list. Then you can choose some recordings and decide whether to back up the pictures or videos.
- If you don't find pictures in the chart, please check whether your camera has turned on Snapshot, about the setting of camera you can refer to ***the IPC User Manual***.

9.7.3 Statistic Analysis

Note

- Only certain camera models support this function.
- Please make sure the camera's People Counting and Heat Map functions are enabled, which you can verify by going to the menu of **Setting Menu → Intelligent → AI Config**.

People Counting

Steps:

1. Go to **Backup and Analysis → Statistic Analysis → People Counting → People Flow Counting.**

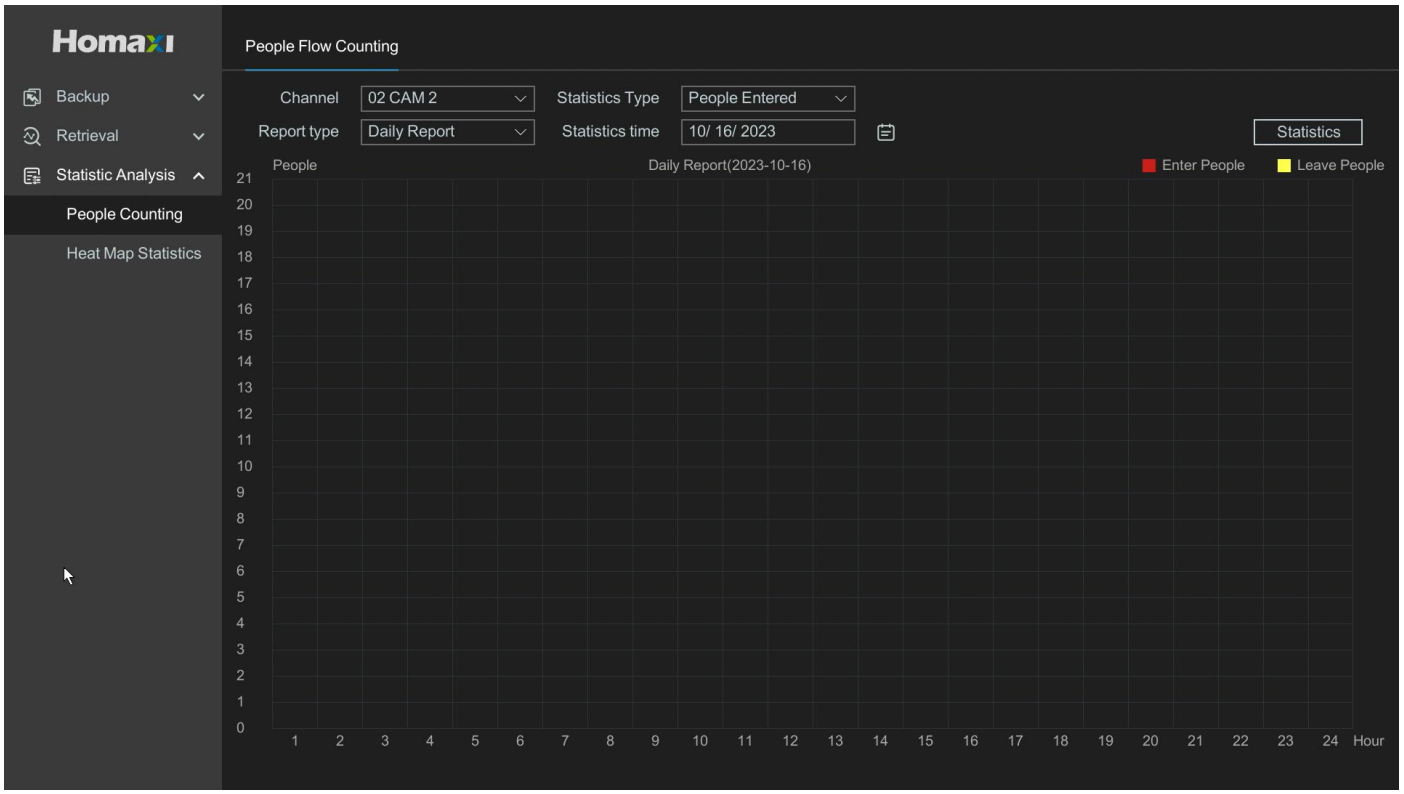


Figure 9-70 People Counting

2. Select **Channel**.
3. Select **Statistic Type**, three options are available: **People Entered, People Exited** and **Total.**
4. Select **Report Type**, you can click  and go to the popup page to set time.
5. Click **Statistics**.

Heat Map

Steps:

1. Go to **Backup and Analysis → Statistic Analysis → Heat Map Statistics.**

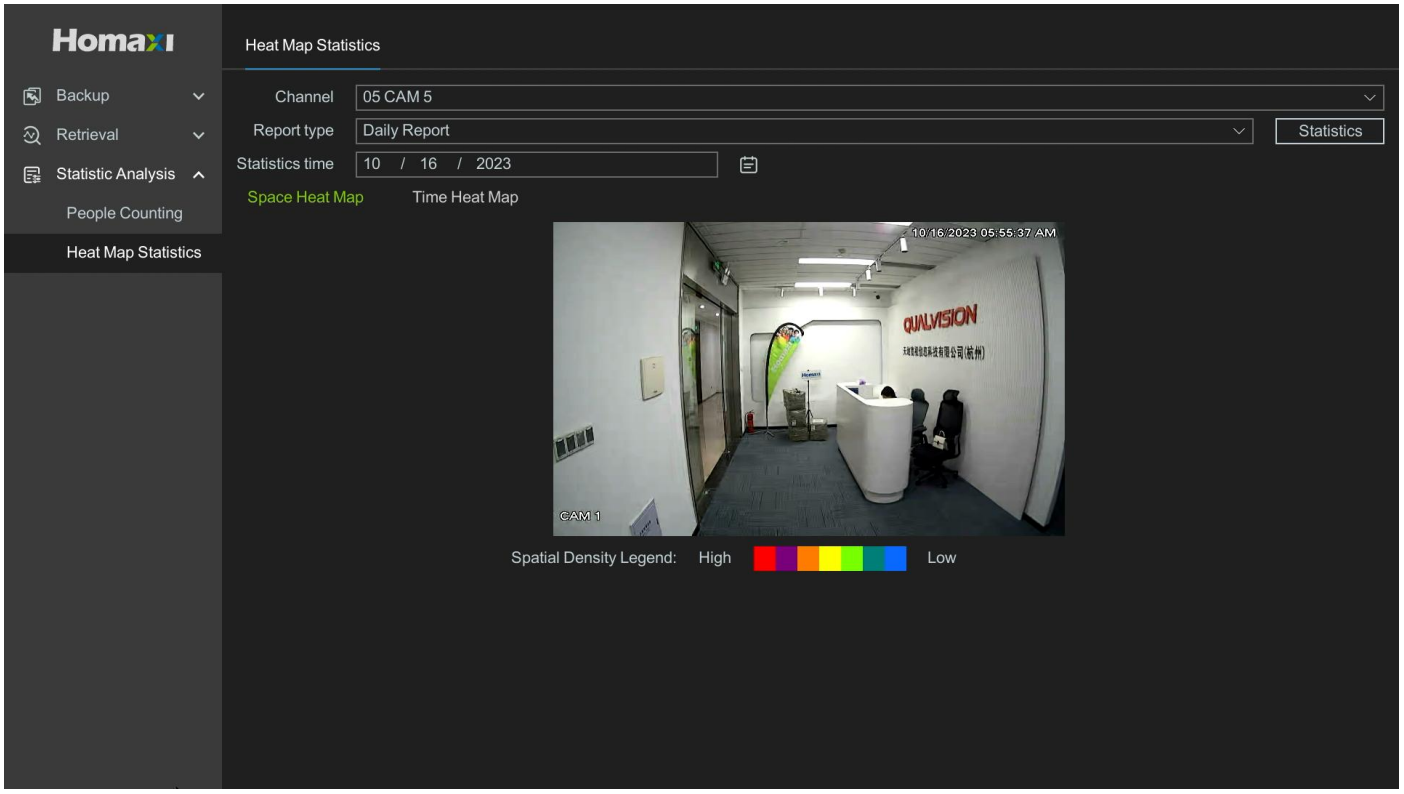


Figure 9-71 Heat Map Statics

2. Select **Channel**.
3. Select Report Type, you can click  and go to the popup page to set time.
4. Click **Statistics**.

9.8 Playback

9.8.1 Normal Playback & Event Playback

Right click and select the 'Playback' to enter the playback interface and you can also click on the playback button in the below the preview screen to enter the playback interface. The Normal Playback & Event Playback please refer to ***4.2 Normal Playback* & *4.3 Event Playback.***

9.8.2 Label Play

Select the 'Label Play' enters the label playback mode.

Before You Start

Please confirm that you have added the Default label during normal playback and there are already the

records of the label you made in File management as shown below. You can also refer to ***4.2 Normal Playback.***

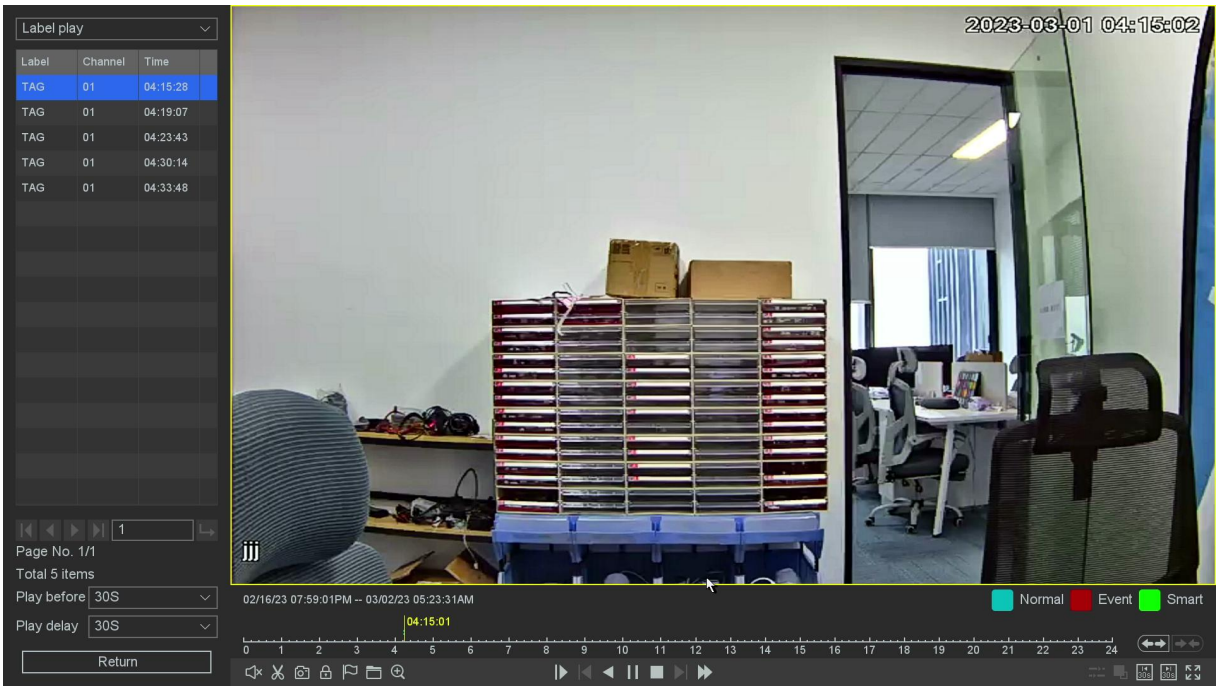


Figure 9-72 Label Play

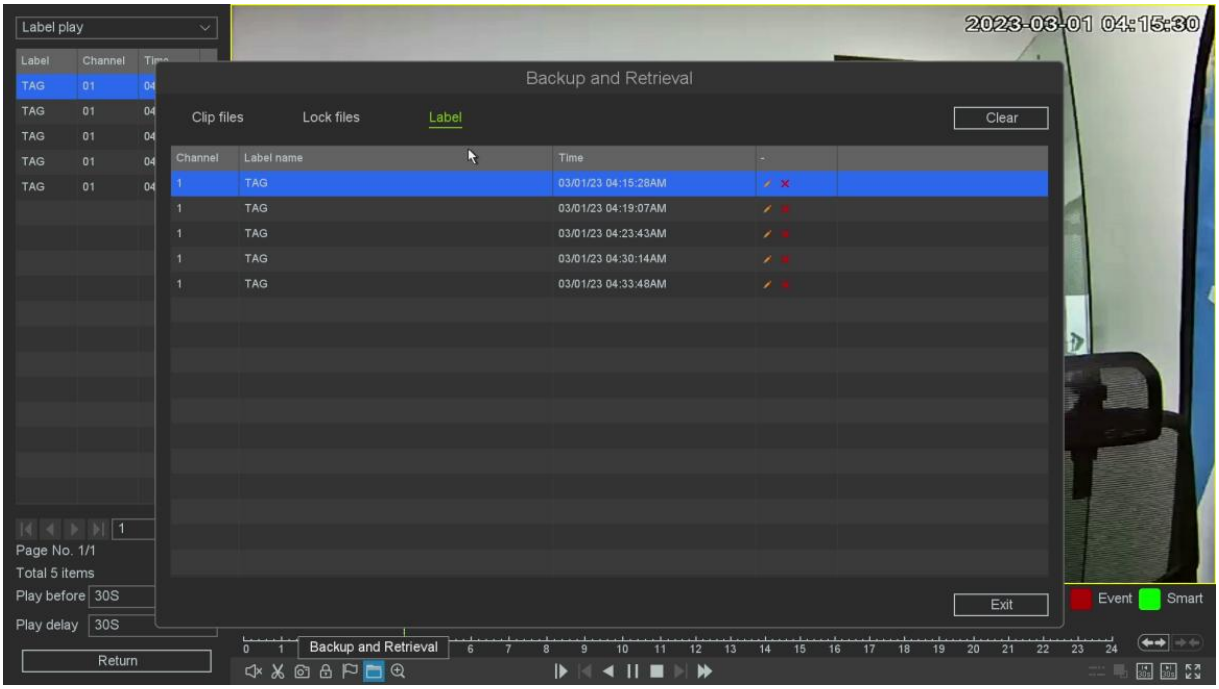


Figure 9-73 Backup and Retrieval

Steps:

1. Go to **Playback**.

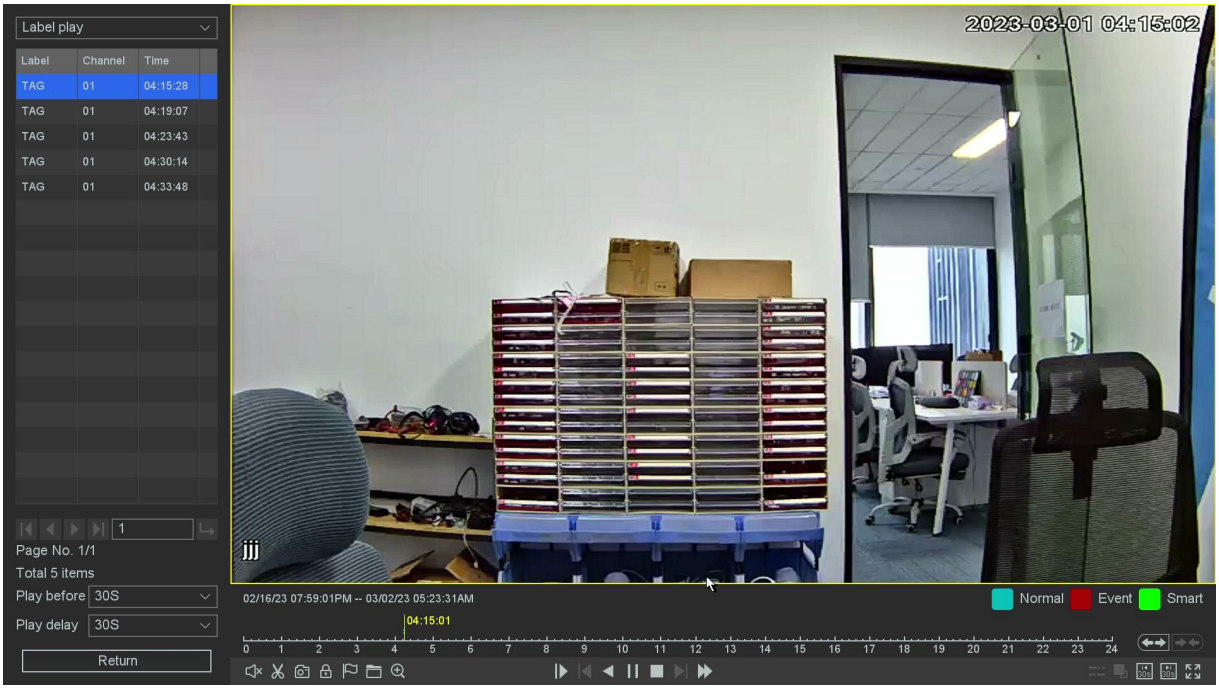


Figure 9-74 Playback

2. Select the **Label play**.
3. Select the channels as your desire, set time period.
4. Click **Search**.
5. The search results as shown in the figure above.
6. Click a label in the label list for label playback as your desire.
7. Click the return button back to the last interface to change the search channels.

Label

The label's name that you can edit in file manage.

Chan

The channel you tagged.

Time

The time that was playing when you tag.

The left and right arrows

You can change the page to find the label items you want.

Play before and Play delay

You can set the play period before/after of the label time.

Note

As for the operations of these buttons you can refer to ***Table 4-2-1 Playback Interface Description***. But you can't use the 'Sync/Async', 'Main/Sub stream', 'Frame Control' button in label playback mode.

9.8.3 Smart Play

Select the 'Smart Play' enters the Smart playback mode.

Before You Start

Please make sure that your device has enabled Perimeter Protection such as Motion Detection, Line Crossing, Area Intrusion, Region Entrance, Region Exiting, etc., and the alarm videos has been generated.

Icon	Description	Icon	Description

	Draw Line		Face search
	Draw Quadrilateral		Human Body search
	Motion Draw Rectangle		Vehicle search
	Motion Full Screen		

Table 9-4 Description

Draw Line

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click to draw a line on the video interface.
6. Click **Setting** you can specify some setting for playback like 'Skip Non-Focus Video' and specify the playback speed for Non-Concerned Video and Attention-Video, also you can specify the time before and after the events from 0 to 600 seconds, as shown below.

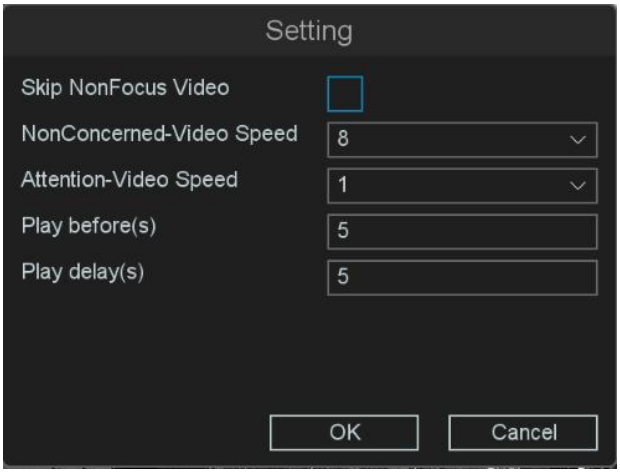


Figure 9-75 Draw Line

7. Click **Search** then the result will be shown below, video with line crossing will be marked color 'green', and the video will be played by the setting as you made at step 6.

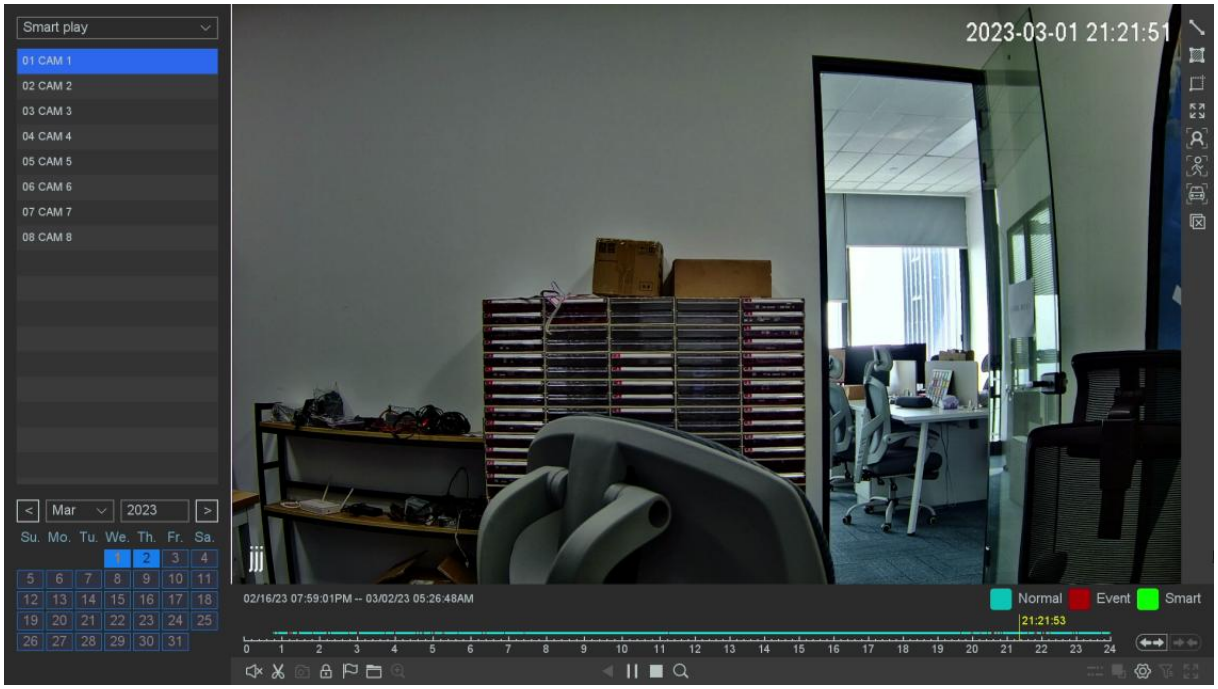


Figure 9-76 Search Results

Draw Quadrilateral

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click  to draw a quadrilateral on the video interface.
6. Click **Setting** to configure the parameters as your desire.
7. Click **Search** then the result will be shown below, video with Area Intrusion will be marked color ‘green’, and the video will be played by the setting as you made at step 6.

Figure 9-77 Draw Quadrilateral

Motion Draw Rectangle

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click  to draw an area on the video interface.
6. Click **Setting** to configure the parameters as your desire.
7. Click **Search** then the result will be shown below, video with Motion will be marked color ‘green’, and the video will be played by the setting as you made at step 6.

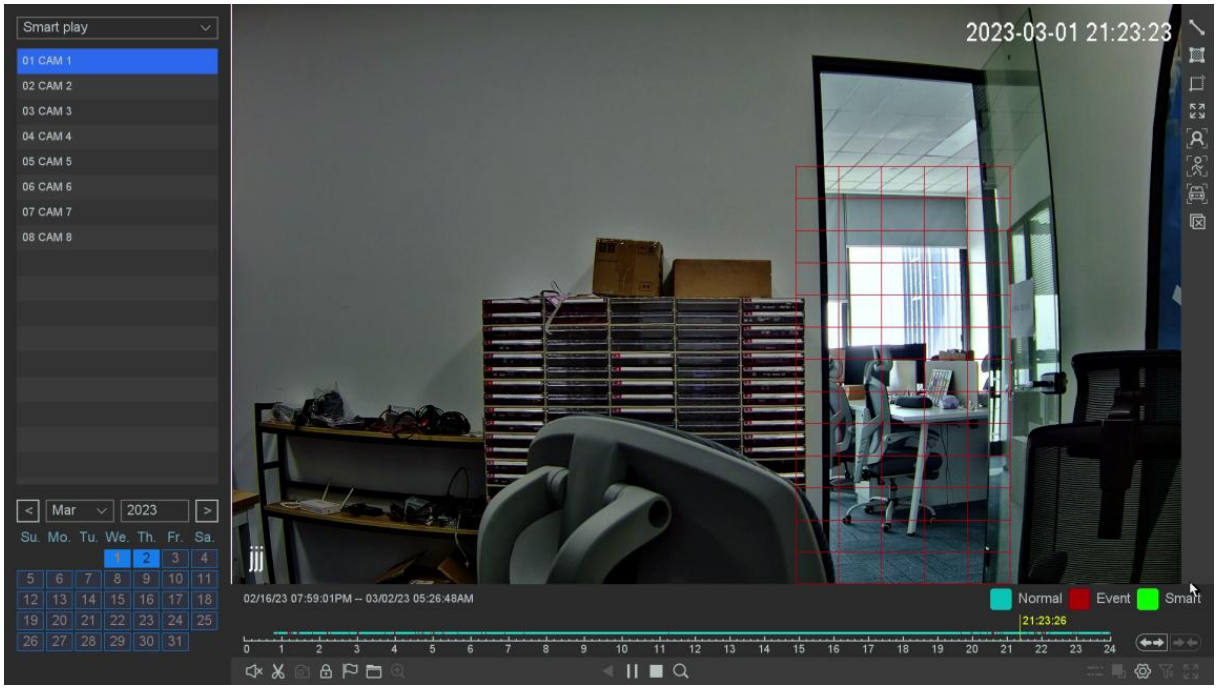


Figure 9-78 Motion Draw Rectangle

Motion Full Screen

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click  to draw an area on the video interface.
6. Click **Setting** button to configure the parameters as your desire.
7. Click **Search** button then the result will be shown below, video with Motion will be marked color ‘green’, and the video will be played by the setting as you made at step 6.

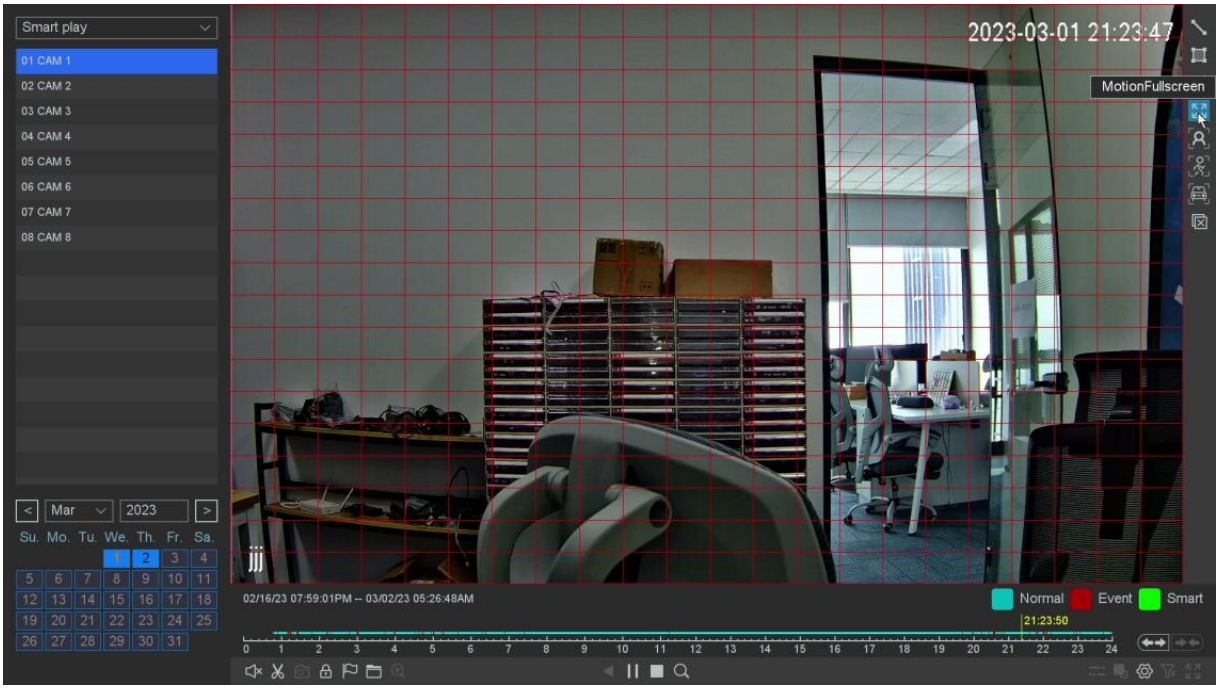


Figure 9-79 Motion Full Screen

Face search

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click  , then the full video interface will be detected by default.
6. Click **Setting** button to configure the parameters as your desire.
7. Click the 'Search' button then the result will be shown below, video with people's face will be marked color 'green', and the video will be played by the setting as you made at step 6.

Note

Smart Play only work with IPCs which support these features.

Figure 9-80 Face search

Human Shape search

Steps:

1. Go to **Playback**.
2. Select **the Smart Play**.
3. Select the channel and the record time as your desire.
4. Click **Play** or Click the blue timeline.
5. Click , then the full video interface will be detected by default.
6. Click **Setting** button to configure the parameters as your desire.
7. Click the **Search** then the result will be shown below, video with Human Shape Motion will be marked color ‘green’, and the video will be played by the setting as you made at step.

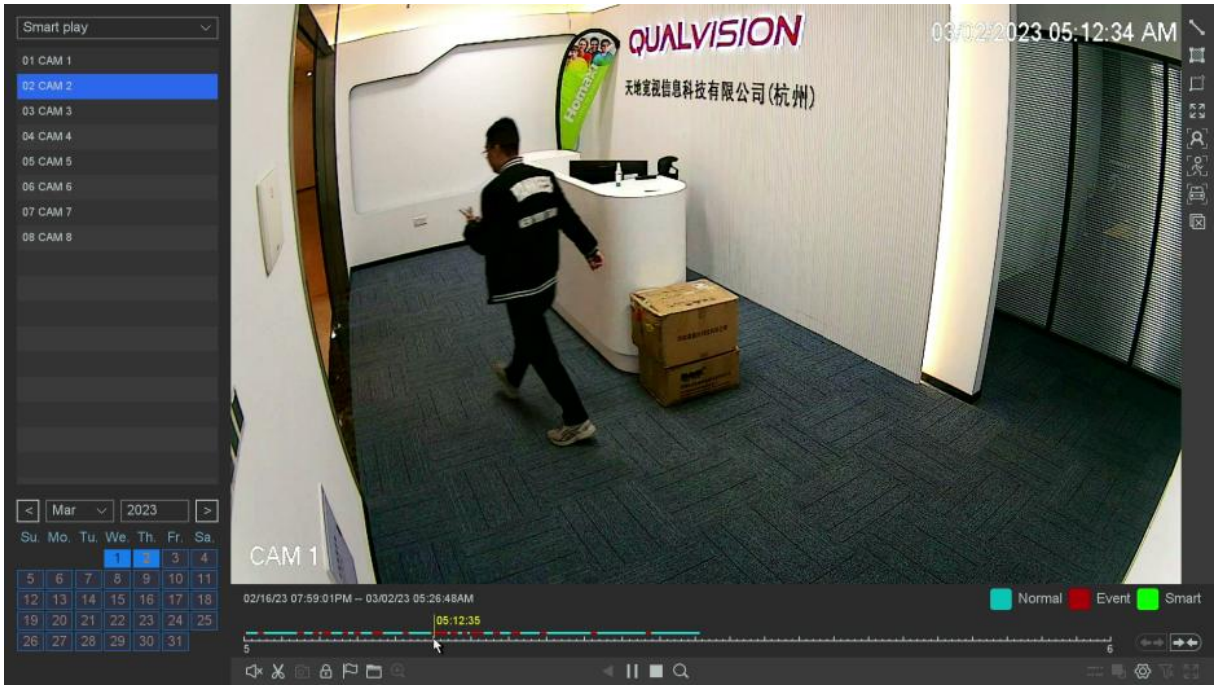


Figure 9-81 Human Shape search

9.8.4 Time Division play

Select the ‘Label Play’ enters the label playback mode, on this page, you can play the recordings by time period, and distribute the 24-hour recordings evenly according to the number of windows you choose, from 1-16 windows. For example, if you chose the windows number is 4, the files of the date you chose will be divided into 4 parts.

Before You Start

Please make sure that your camera channel has recorded.

1. Go to **Playback**.

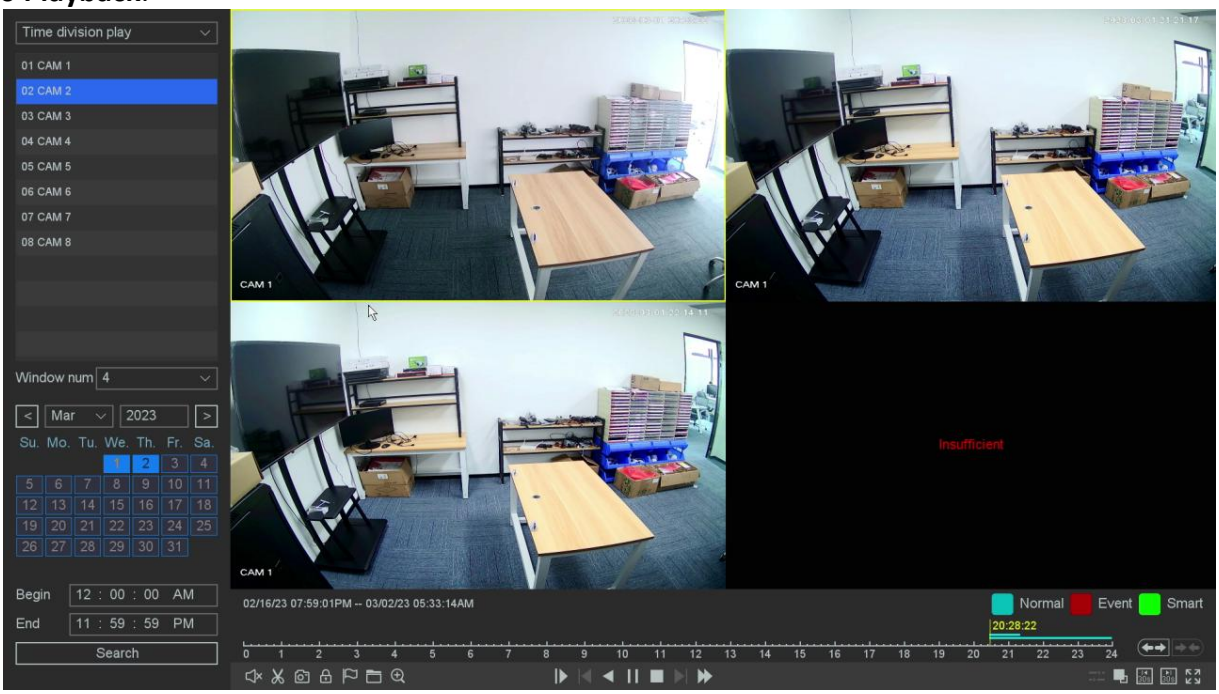


Figure 9-82 Time Division play

2. Select **the Time Division play**.
3. Select the channel as your desire.
4. Select division windows number and the record time.
5. Click **Search**.
6. Select the corresponding window to quickly play the video period you want.

Note

If the division windows number you choose is too large, your device will not be able to play back all the windows due to the limitation of the decoding capability of the device. Please try reducing the division windows number.

9.8.5 Normal Play (Picture)

On this page, you can play back the video as picture.

Before You Start

Please make sure that the channel you choose already has pictures generated by manual capture or Perimeter Protection alarm.

1. Go to **Playback**.
2. Select **Normal Play (Picture)**.

Figure 9-83 Normal Play (Picture)

3. Select the channel as your desire.
4. Select the time period you want to play back.
5. Click **Search**.
6. As for the button of control playback including ‘File Manage’, ‘Sync/Async’, ‘Start/Pause’, ‘Backward play’, ‘Stop Playing’, ‘Slow down’, ‘Speed up’, and ‘Time-line Stretch’, ‘Time-line Shorten’.

Note

You can stop playback by right click and exit the playback interface by keep right click.

10. Web Operation

10.1 Introduction

You can get access to the video recorder via web browser.

You may use one of the following listed web browsers: Internet Explorer 6.0 to 11.0, Apple Safari, Mozilla Firefox, and Google Chrome. The supported resolutions include 1024×768 and above.

10.2 Login

You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

Steps:

1. Open web browser, input the IP address of the video recorder and then press **Enter**.

Note

If you have changed HTTP port, enter ***http://IP address:HTTP port*** in address bar. E.g., ***http://192.168.1.10:81***.

2. Select language, enter **User Name** and **Password,** click **Login**.

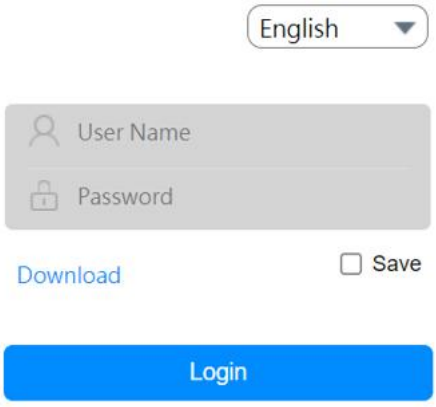


Figure 10-1 Login

3. Follow the installation prompts to install the plug-in.

Note

- If you log in without installing the plugin, you will still be prompted to install the plugin, Please Follow the installation prompts to install the plug-in. Otherwise you will not be able to use it normally.
- You may have to close the web browser to finish the installation of the plug-in.

10.3 Preview

After login, you will enter the preview interface.

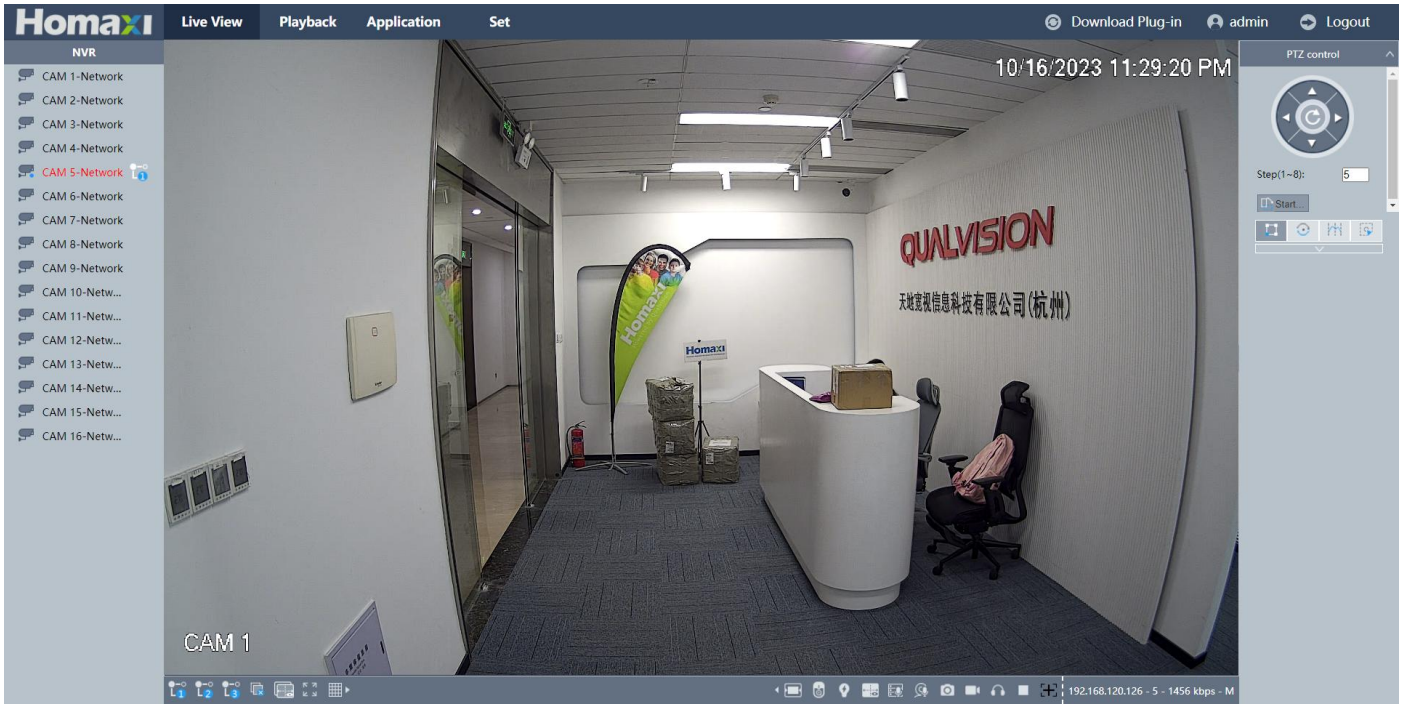


Figure 10-2 Live View

10.4 Playback

Click **Playback** to enter playback interface.

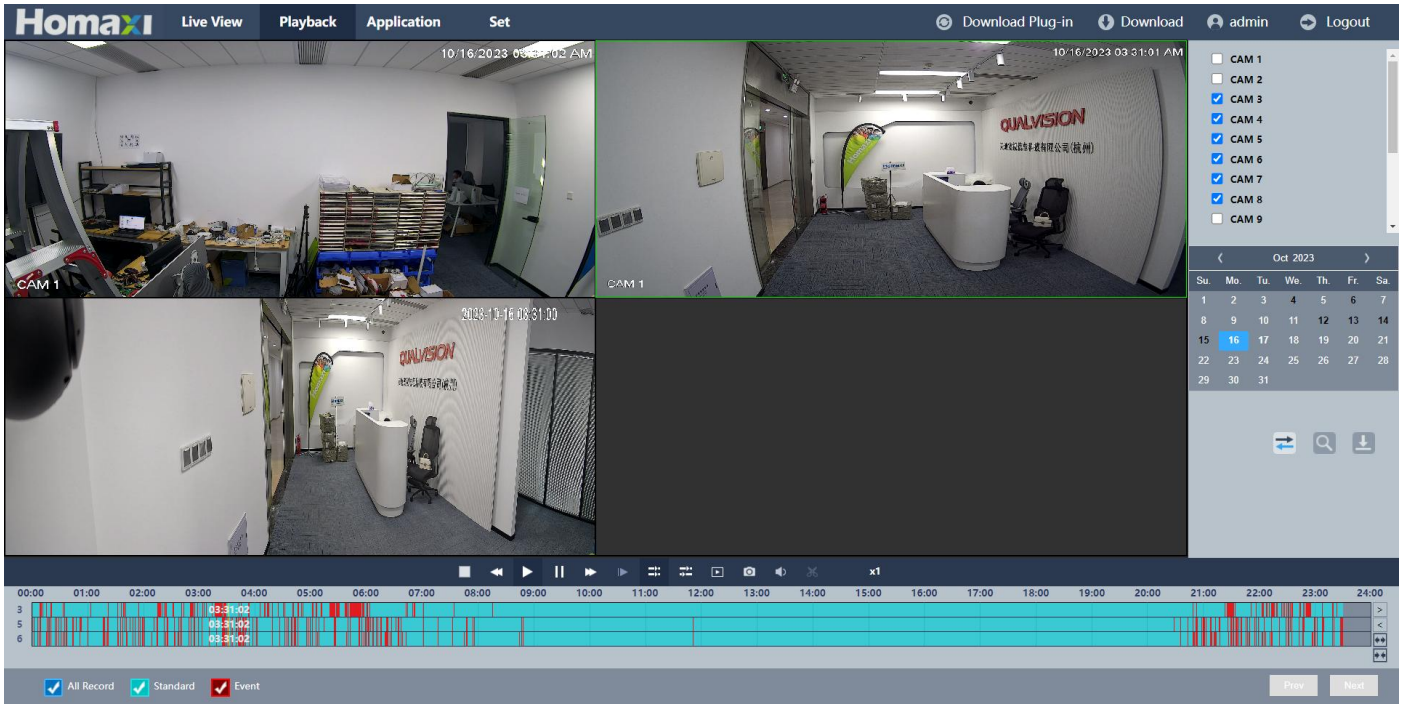


Figure 10-3 Playback

10.5 Set

Click **Set Menu** to enter configuration interface.

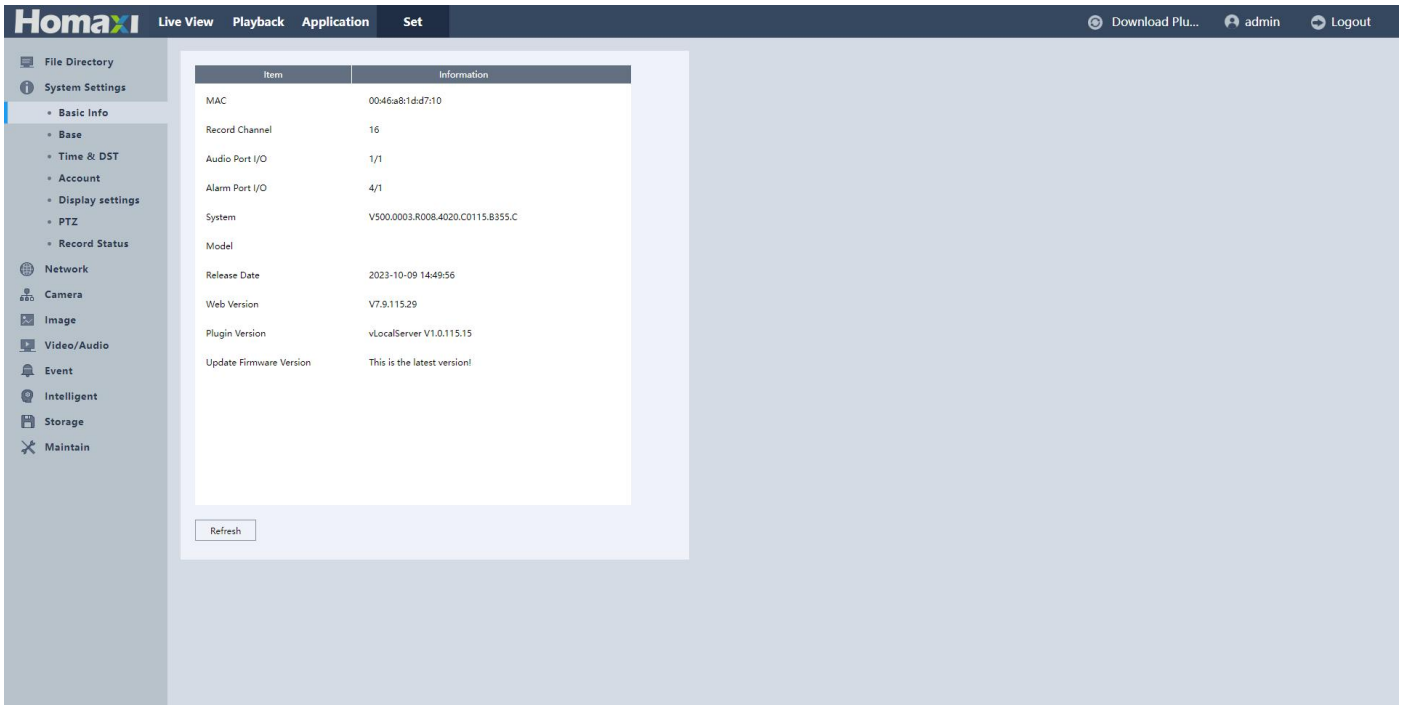


Figure 10-4 Configuration

10.6 Log

Steps:

1. Go to **Set Menu → Maintain → Log**.
2. Set the search conditions.
3. Click **Search**.

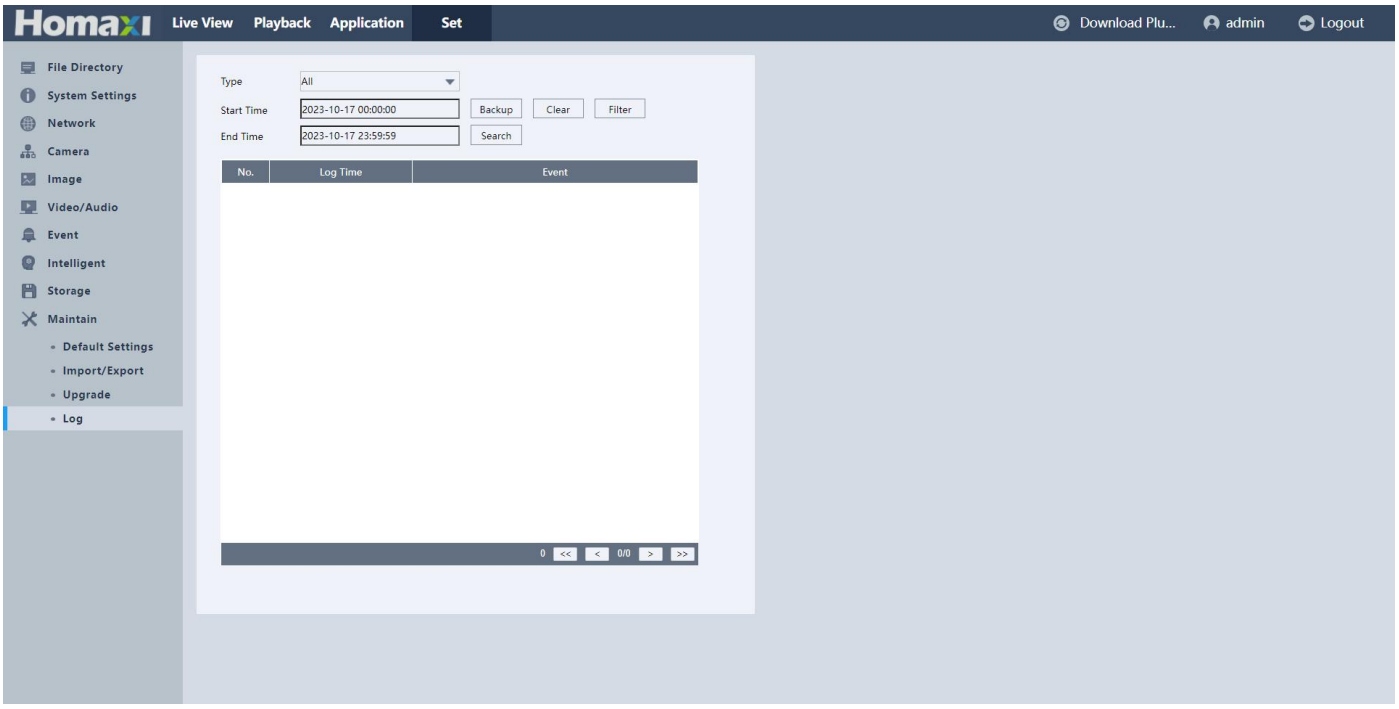


Figure 10-5 Log

11. Appendix

11.1 Glossary

DVR

Acronym for Digital Video Recorder. A DVR is device that is able to accept video signals from analog cameras, compress the signal and store it on its hard drives.

NVR

Acronym for Network Video Recorder. An NVR can be a PC-based or embedded system used for centralized management and storage for IP cameras, IP Domes and other DVRs.

Dual-Stream

Dual-stream is a technology used to record high resolution video locally while transmitting a lower resolution stream over the network. The two streams are generated by the DVR, with the main stream having a maximum resolution of 4K and the sub-stream having a maximum resolution of 720p.

HDD

Acronym for Hard Disk Drive. A storage medium which stores digitally encoded data on platters with magnetic surfaces.

DHCP

Dynamic Host Configuration Protocol (DHCP) is a network application protocol used by devices (DHCP clients) to obtain configuration information for operation in an Internet Protocol network.

HTTP

Acronym for Hypertext Transfer Protocol. A protocol to transfer hypertext request and information between servers and browsers over a network.

P2P

P2P, in full peer-to-peer, type of computer network often used for the distribution of digital media files. In a peer-to-peer (P2P) network, each computer acts as both a server and a client—supplying and receiving files—with bandwidth and processing distributed among all members of the network.

DDNS

Dynamic DNS is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system using the Internet Protocol Suite, to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

NTP

Acronym for Network Time Protocol. A protocol designed to synchronize the clocks of computers over a network.

NTSC

Acronym for National Television System Committee. NTSC is an analog television standard used in such countries as the United States and Japan. Each frame of an NTSC signal contains 525 scan lines at 60Hz.

PAL

Acronym for Phase Alternating Line. PAL is also another video standard used in broadcast televisions systems in large parts of the world. PAL signal contains 625 scan lines at 50Hz.

PTZ

Acronym for Pan, Tilt, Zoom. PTZ cameras are motor driven systems that allow the camera to pan left and right, tilt up and down and zoom in and out.

USB

Acronym for Universal Serial Bus. USB is a plug-and-play serial bus standard to interface devices to a host computer.

11.2 Communication

FAQs, Additional Documents, Guides, Software, Upgrades, and more can be found on the Protect Series Support Page. Scan the QR code or access the link below.

https://www.Homaxi.com

Figure 11-1 Communication