



Network Video Recorder
Protect Series User Manual

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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 modification 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.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see:

<http://www.recyclethis.info>



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: <http://www.recyclethis.info>.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.




Applicable Model

This manual is applicable to the following models.

Series	Model
Protect	PRTN-8X8
	PRTN-16X16

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.
 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 rise 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 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, table-cloths, curtains, etc. The openings shall never be blocked by placing the equipment on a bed, sofa, rug or other similar surface.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- For certain models, the equipment has been designed, when required, modified for connection to an IT power distribution system.
-  Identifies the battery holder itself and identifies the positioning of the cell(s) inside the battery holder.
- + identifies the positive terminal(s) of equipment which is used with, or generates direct current. - identifies the negative terminal(s) of equipment which is used with, or generates direct current.
- Keep a minimum 200 mm (7.87 inch) 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 instruction.
- 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 instruction.
- Do not touch the sharp edges or corners.

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Chapter 1 Overview of NVR

1.1 Front Panel

NVR Front Panel, as shown in figure 1-1-1



Figure 1-1-1 Front panel of M1 case

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

Table 1-1-1 Description of front panel



- All above drawings are for reference only

1.2 Rear Panel

NVR Rear Panel, as shown in figure 1-2-1.

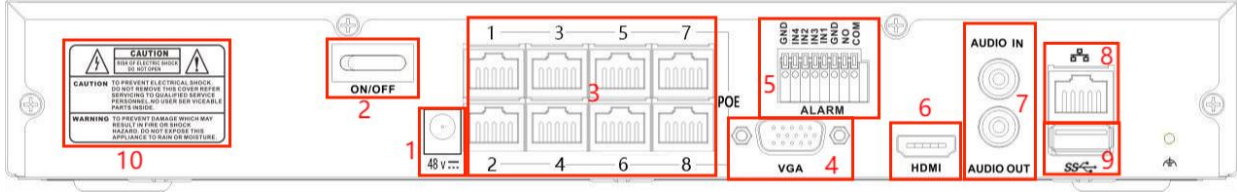


Figure 1-2-1 Rear panel of MX8 case

No.	Description
1	Power Input Interface
2	Power switch
3	POE network port
4	VGA interface
5	Alarm in/out Interface
6	HDMI interface
7	Audio in/out Interface
8	RJ45 interface
9	USB 3.0 interface
10	Caution Information

Table 1-2-1 Description of Rear Panel



- All above drawings are for reference only.

1.3 HDD Installation

Before installing Hard Disk (HDD), please make sure the power is disconnected with the NVR. Each capacity of Hard Disk please refer to NVR's specifications. NVR without Hard Disk still support 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 and then start the installation of HDD. The pictures of the installation are only for reference.



Figure 1-3-1 Remove the cover



Figure 1-3-2 Fix the HDD



Figure 1-3-3 Connect the power and data cables



Figure 1-3-4 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.

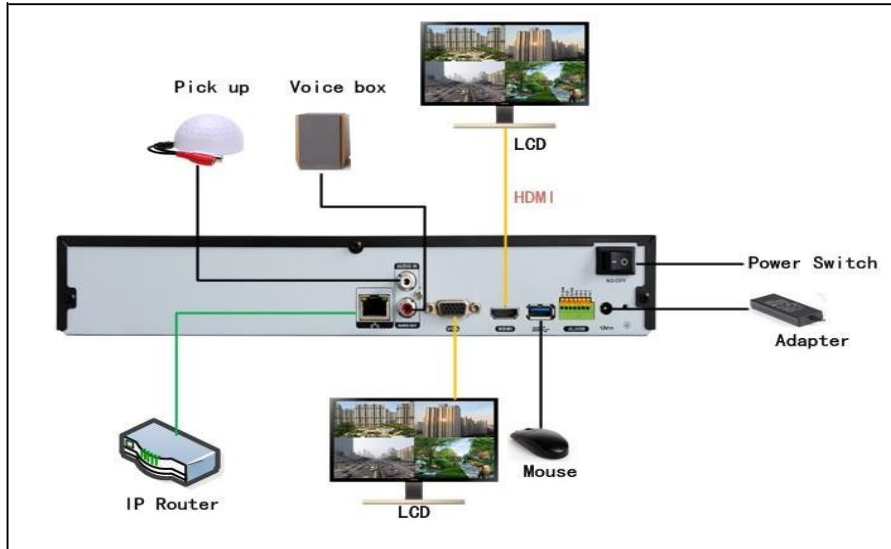


Figure 1-4-1 Device connection

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.

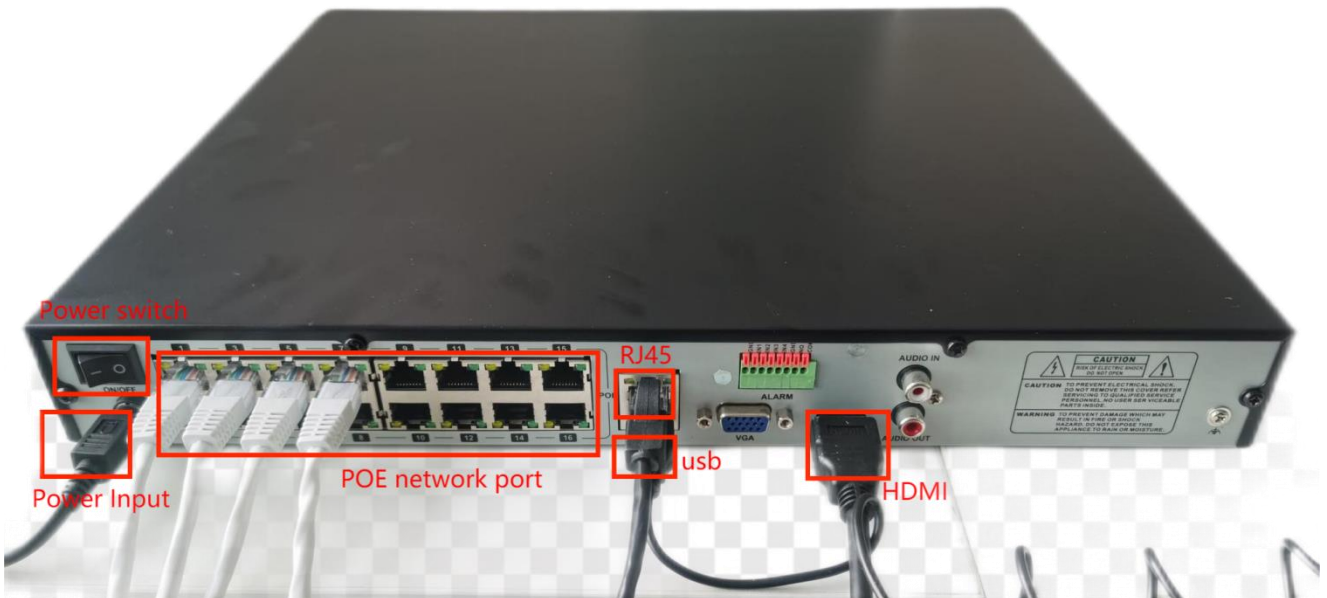


Figure 1-5-1 Power Supply Connection

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 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 the device list from your provider.

The operation of the mouse:

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

Table 1-6-1 Key functions of USB Mouse Operation

1.7 Input Method Description

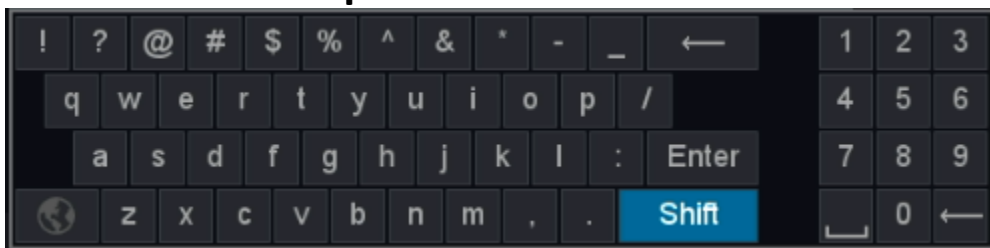


Figure 1-7-1 Soft key board (1)



Figure 1-7-2 Soft key board (2)



Figure 1-7-3 Soft key board (3)

Icon	Description
	Symbols
	Number
	Enter
	Space
	English letter
	Backspace
	Lowercase/Uppercase

Table 1-7-1 Description of the Soft Keyboard Icons

Chapter 2 Startup

2.1 Starting Up and Shutting Down the NVR

Purpose:

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

Before you start:

Check that the voltage of the extra power supply is the same with 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). 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.

Shutting down the NVR

Steps:

1. Move the mouse to the bottom of the interface then enter the Shutdown menu.
Go to the bottom of the interface → **Quick Menu** → **Shutdown**

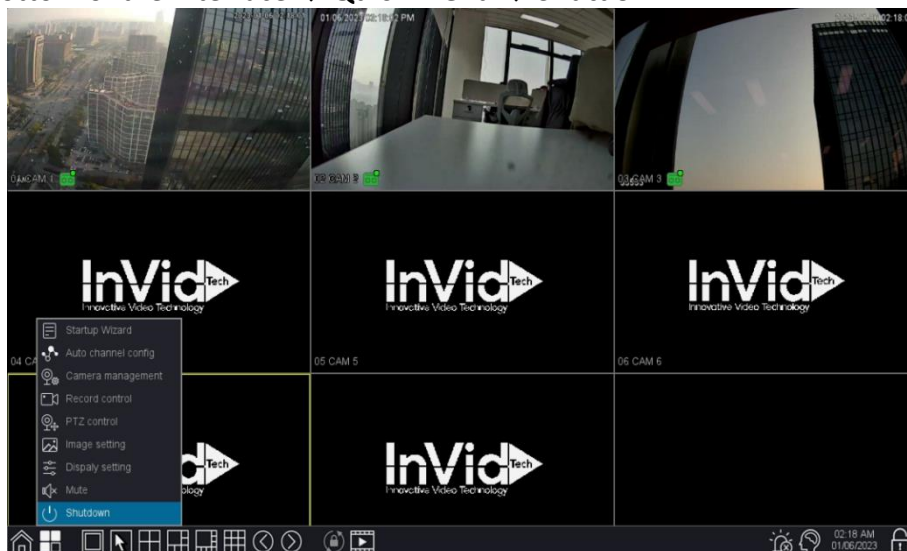


Figure 2-1-1 Quick Menu

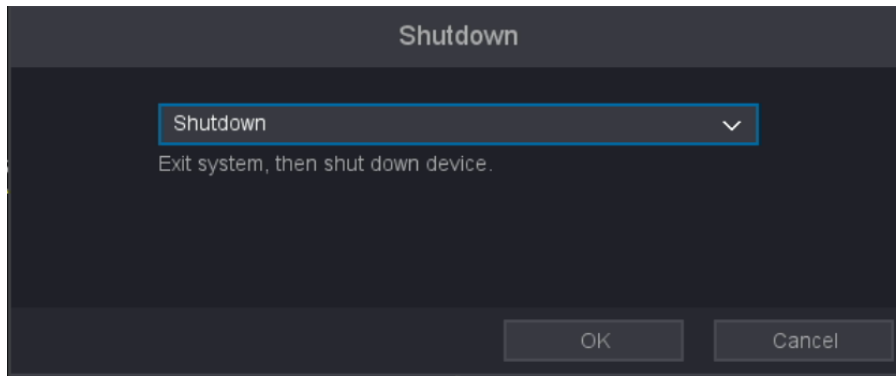


Figure 2-1-2 Shutdown Menu

2. Select **shutdown** in the drop-down box.
3. Click the **OK** button.

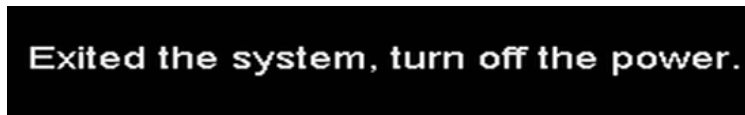


Figure 2-1-3 Shutdown Attention

Rebooting the NVR

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

Steps:

1. Go to the bottom of the interface → **Quick Menu** → **Shutdown**.
2. Select the **Logout** button to lock the NVR or the **Reboot** button to reboot the NVR in the drop-down box.

2.2 Activate Your Device

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

Before You Start

Power on your device.

Steps:

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

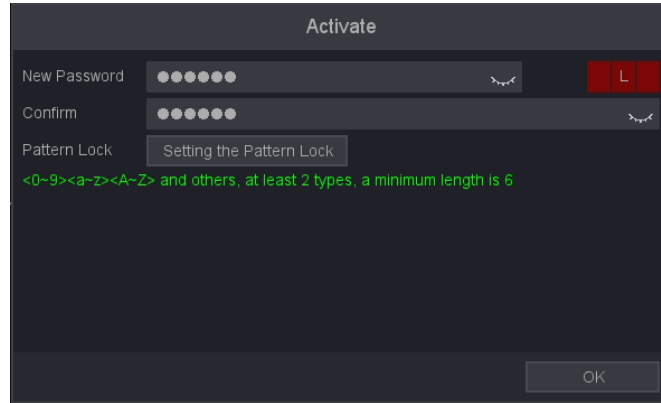


Figure 2-2-1 Activation

2. Optional: You can also set the Pattern Lock by click **“setting the Pattern Lock”**.

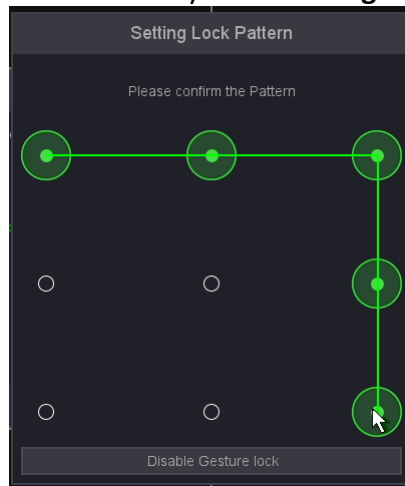


Figure 2-2-2

3. Click **ok**.
4. Message "Save successful", the password setting is complete.

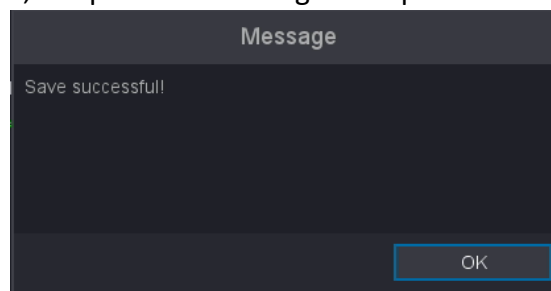


Figure 2-2-3



● **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 security system, resetting the password monthly or weekly can better protect your product.

2.3 Using the Startup Wizard

Steps:

1. By default, the Startup Wizard starts once the NVR has loaded, as shown in Figure 2-3-1.

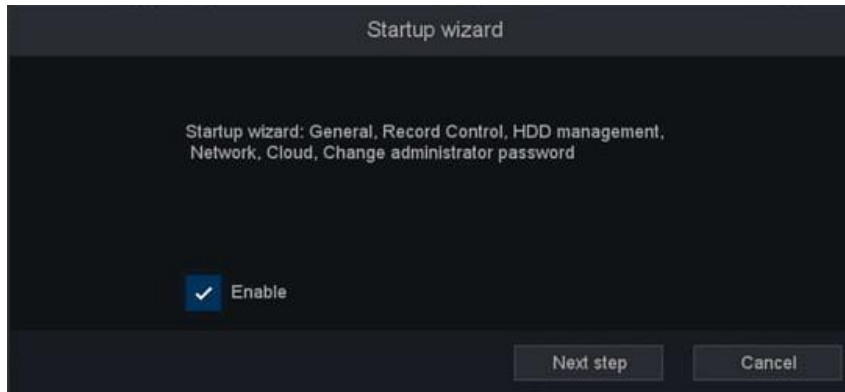


Figure 2-3-1 Startup Wizard

Note

- Operating the Startup Wizard: The Startup Wizard can walk 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 general settings window, as shown in figure 2-3-2.

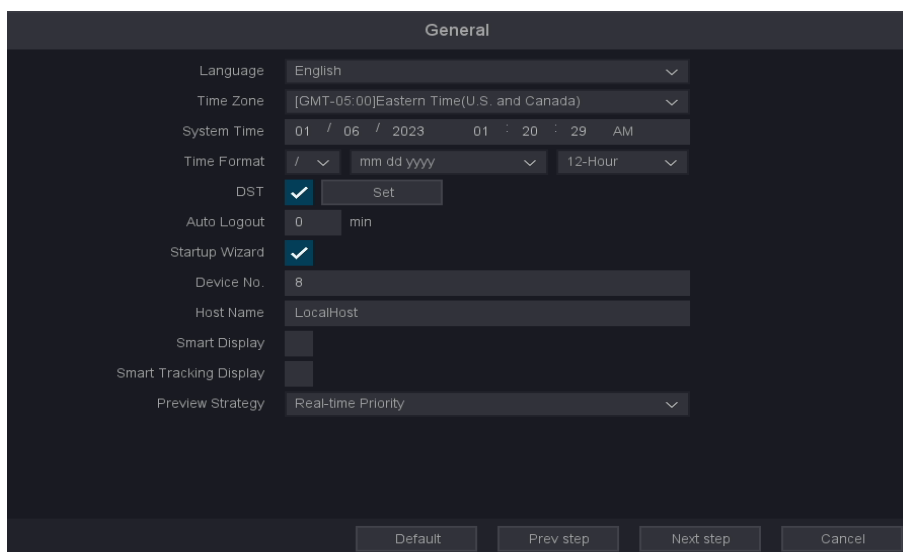


Figure 2-3-2

3. After the general settings, click **Next Step** button which takes you back to the record control Setup Wizard window, as shown in figure 2-3-3.



Figure 2-3-3

4. After the record control settings, click **Next Step** button which takes you to the HDD Manage Setup Wizard window, as shown in figure 2-3-4.

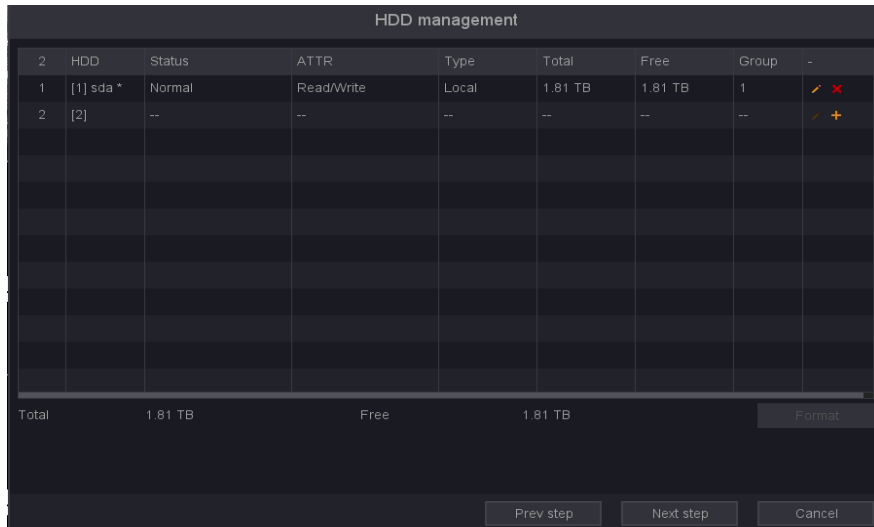


Figure 2-3-4

5. Click **Next step** button. You enter the Network Setup Wizard window, as shown in figure 2-3-5.

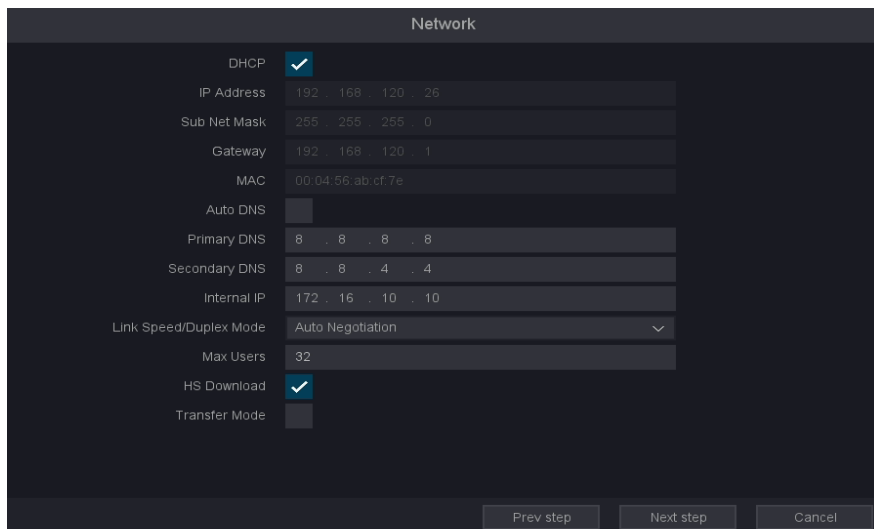


Figure 2-3-5

6. Click **Next button** after you configured the network parameters, you enter the cloud service Setup Wizard window, as shown in figure 2-3-6.

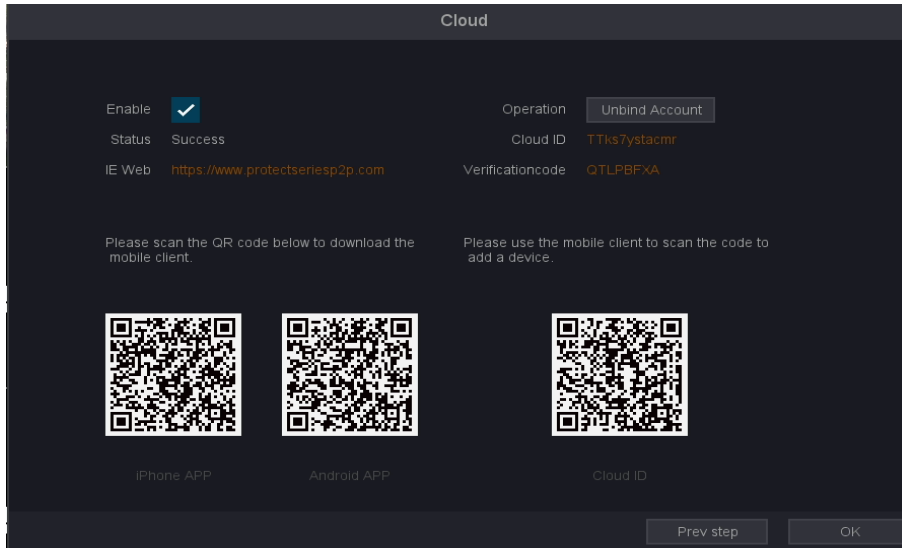


Figure 2-3-6

7. Click finished button to complete the startup Setup Wizard.

2.4 Login and Logout

2.4.1 Set Unlock Pattern

Admin user can use the unlock pattern to login. You can configure the unlock pattern when the device is activated, also can modify or set in modify password tab.

Steps:

1. Use the mouse to draw a pattern among the 9 dots on the screen. Release the mouse when the pattern is done.
2. Draw the same pattern again to confirm it. When the two patterns match, the pattern is configured successfully.

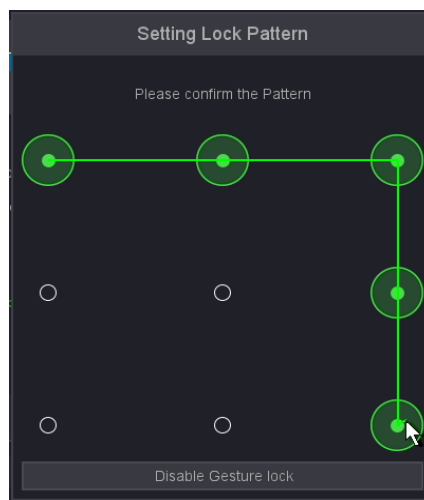


Figure 2-4-1-1 Set Unlock Pattern

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

2.4.2 Log in via Unlock Pattern

Steps:

1. Right click the mouse → **Seven Grid Menu** on live view interface.
2. Click the menu you want.
3. Draw the pre-defined pattern to unlock to enter the menu operation.

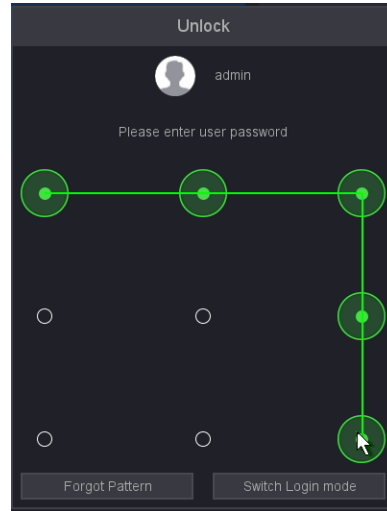


Figure 2-4-2-1 Draw the Unlock Pattern

- Note**
- If you have forgotten your pattern, you click **Forgot My Pattern** or **Switch Login mode** to log in via password.
 - If you have drawn the wrong pattern for more than 6 times, the system will lock your account about 15 minute.

2.4.3 Log in via Password

If your video recorder has logged out, you must login before operating the menu and other functions.

Steps:

1. Select **User Name**.

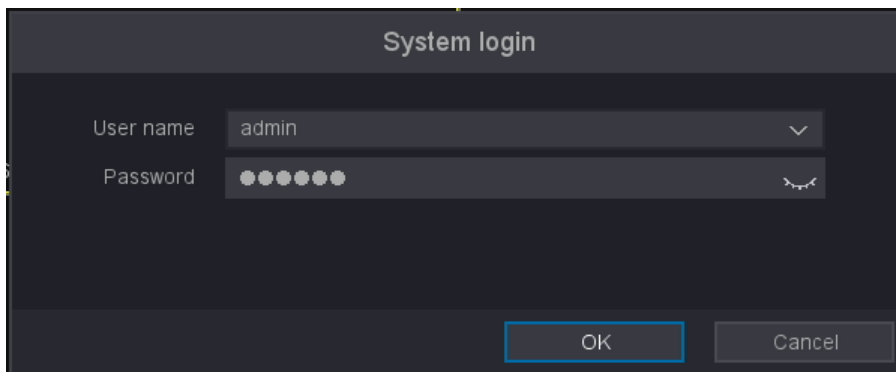


Figure 2-4-3-1 Login Interface

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




- When you forget the password of the admin, you can click **Forgot Password** to reset the password.
- If you enter the wrong password 6 times, the current user account will be locked for 15 min.

2.4.4 User Logout

After logging out, the monitor turns to the live view mode and if you want to do some operation, you need to enter user name and password to log in again.

Steps:

1. Move the mouse to the bottom of the interface → **Quick Menu** → **Shutdown**, or enter the 'shutdown' button  in the upper right corner of the settings interface.
2. Select Logout in the drop-down box.
3. Click OK.

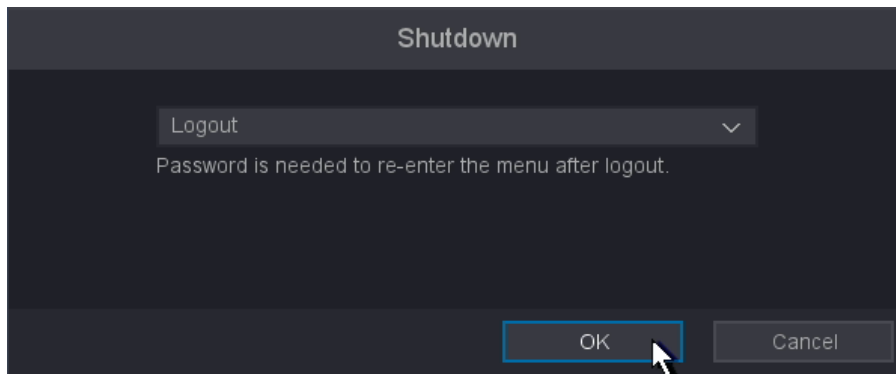


Figure 2-4-4-1



- After you have logged out the system, menu operation on the screen is invalid. It is required to input a user name and password to unlock the system.

2.5 Adding the Online IP Cameras

The main function of the NVR is to connect the network cameras and record the video got from it. So before you can get a live view or 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 valid and correct. For detailed checking and configuring of the network, please see Chapter Checking Network Traffic and Chapter Configuring Network Detection.

Adding the IP Cameras

OPTION 1:

Steps:

1. Select the **Camera Management** from the **Seven Grid Menu** or Move the mouse to the bottom of the interface then enter **camera management** interface.

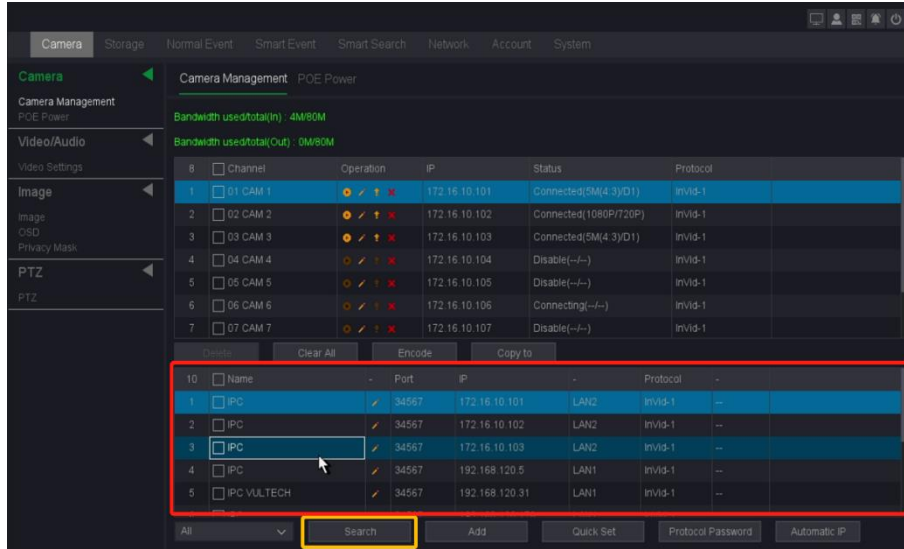


Figure 2-5-1

2. Click the **'Search'** button below, the online cameras with 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 to add the camera.

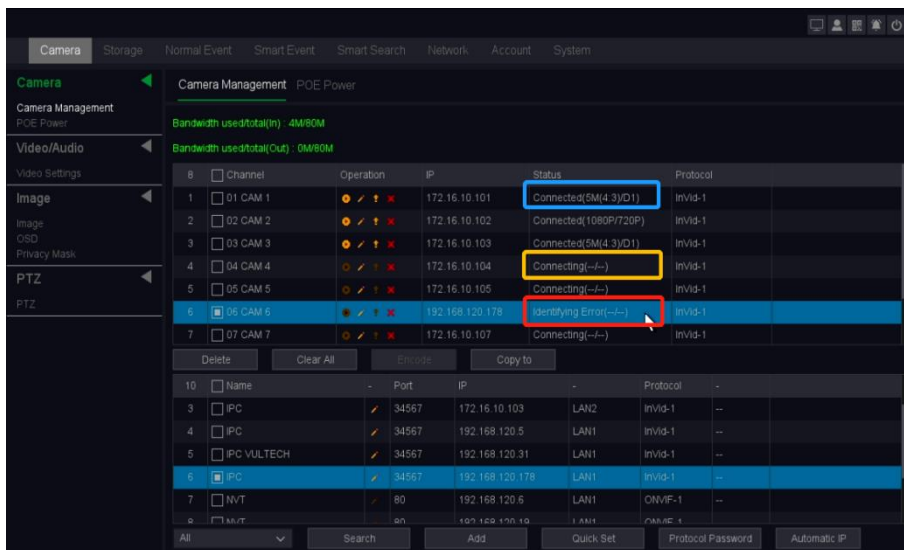


Figure 2-5-2

4. Check the status of the camera, **'Connected'** means connected, **'Connecting'** means connecting, **'identifying error'** means the password is incorrect, except **'Connected'**, all others need to check the connection information to ensure that the camera can be connected normally.



● 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' then double clicking 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 Camera Management interface, you can also click the pencil icon ' ' to pop up the Edit IP Camera (Custom) interface.
2. If the prompt password is wrong, please modify the correct user name and password; if it has been in the "connecting" state, please modify the port or protocol.

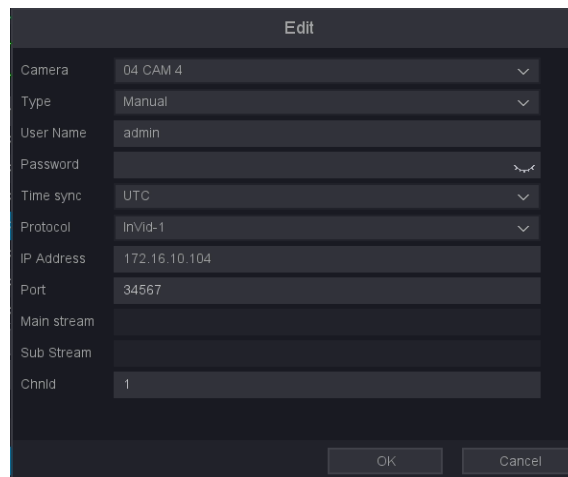



Figure 2-5-3

2.6 Editing the connected IP cameras and Configuring

Customized Protocols

After the adding of the IP cameras, the basic information of the camera lists in the page, you can configure the basic setting of the IP cameras.

Steps:

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

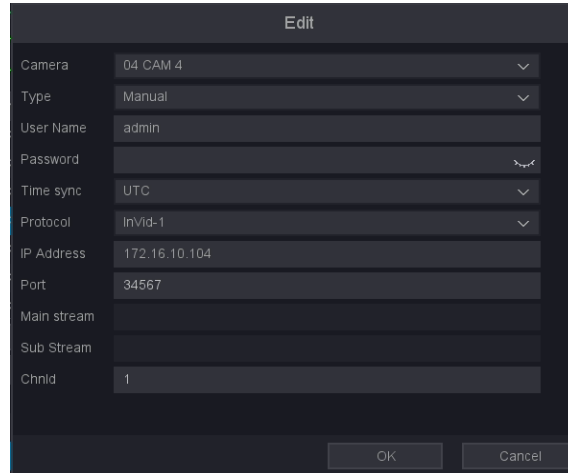


Figure 2-6-1

2. Click the drop down box of Protocol, You can choose three protocols: InVid-1, ONVIF-1, ONVIF-2 RTSP; InVid-1 is a private protocol, ONVIF and RTSP protocols are mainly connected to third-party cameras.
3. Click 'OK' to save and exit the editing interface.


2.7 Editing IP Cameras Connected to the PoE Interfaces

The PoE interfaces enables 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 network cable from the IP camera to the POE port of the NVR.

Steps:

1. Go to **Seven Grid Menu** → **Camera Management**.
2. Click the icon '  ' for the channel you selected.

Bandwidth used(total)(In) 4M/80M
Bandwidth used(total)(Out) 0M/80M

Channel	Operation	IP	Status	Protocol
01 CAM 1	✓	172.16.10.101	Connected(5M/4.3/D1)	invid-1
02 CAM 2	✓	172.16.10.102	Connected(1080P/720P)	invid-1
03 CAM 3	✓	172.16.10.103	Connected(5M/4.3/D1)	invid-1
04 CAM 4	✗	172.16.10.104	Connecting(--)	invid-1
05 CAM 5	✗	172.16.10.105	Connecting(--)	invid-1
06 CAM 6	✗	192.168.120.178	Identifying Error(--)	invid-1
07 CAM 7	✗	172.16.10.107	Connecting(--)	invid-1

Name	Port	IP	Protocol
IPC	34567	172.16.10.101	LAN2 invid-1
IPC	34567	172.16.10.102	LAN2 invid-1
IPC	34567	172.16.10.103	LAN2 invid-1
IPC	34567	192.168.120.5	LAN1 invid-1
IPC VULTECH	34567	192.168.120.31	LAN1 invid-1
IPC	34567	192.168.120.178	LAN1 invid-1

Figure 2-7-1

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

Edit

Camera	01 CAM 1
Type	UPNP
User Name	UPNP
Password	Manual
Time sync	UTC
Protocol	ONVIF
IP Address	192.168.120.56
Port	80
Main stream	
Sub Stream	
Chnid	1

OK Cancel

Figure 2-7-2



- 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 administrator manually, and click OK to add the IP camera. Please refer to **2.5 Adding the IP Cameras OPTION2**.

4. Check the status of the camera, **'Connected'** means the camera is connected.
5. By clicking the **POE Power** tab, you can see the connection status of the POE port.

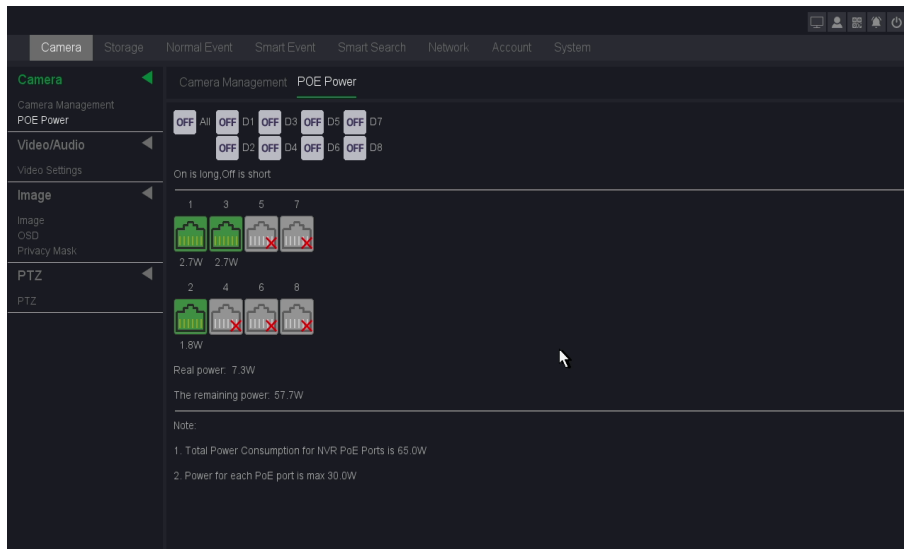


Figure 2-7-3 Edit the Parameters



- This page you can check all PoE channels power and connection status.
- 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.
- Select between PoE and EPoE by pressing the ON/OFF button beneath the individual channels or select beneath ‘All’ .

Chapter 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, as shown in figure 3-1-1.

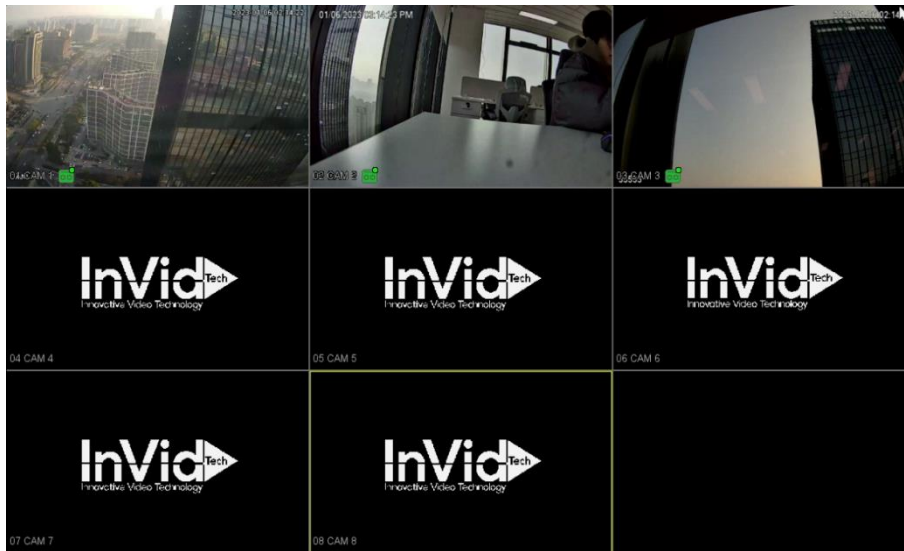


Figure 3-1-1

In the **live view** mode, there are icons at the upper-right 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 3-1-1 Live view Icons



- On live view screen, Right click to **Seven Grid Menu** to enter the camera management interface NVR Automatically search for network segment IPC, and then select the IPC Click Add to. You can refer to **2.5 Adding the Online IP Cameras**.
- The number for IP cameras 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 time for each screen on the configuration menu before enabling the tour.
- Start Recording: continuous record and motion detection record are supported.
- Playback: playback the recorded videos for current day.

3.3 Quick Setting Toolbar in Live View Mod

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

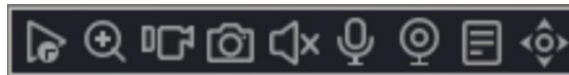


Figure 3-3-1 Quick Setting Toolbar in channel image










Icon	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.
	PTZ	Quickly enter PTZ control interface.

Table 3-3-1 Quick Setting Toolbar

3.4 Quick menu

In preview mode you can Go to the bottom of the interface → **Main Menu** or **Quick Menu** , as shown in figure 4-4.



Figure 3-4-1








Menu name	Function description.
Main Menu	Seven Grid Menu
Startup wizard	Please refer to the chapter 2.3 Using the Startup Wizard for more information.
Auto channel config	When you right click mouse and choose Auto Channel Config, it means that NVR will auto add the IP cameras which in the same LAN.
camera management	it is a shortcut access to IP channel interface.
Record control	You can check current channel status: “o” means it is not selected, “●” means it is selected.
PTZ control	The functions include: PTZ direction control, speed, zoom, focus, iris, setup operation, patrol between spots, pattern, border, tour.
image setting	it is a shortcut to settings ->Channel management ->Image color settings window.
Display setting	it is a shortcut access to System-Display settings-Display interfaces.
Mute	The speaker mute switch, Icon  means speaker turns on, icon  means speaker turns off.
Shutdown	Shutdown, restart system, logout menu user and switch user.
View 1/4/6/8/9	Split screen preview.
Split Mode Views	Preview in 3 screens/4 screens/5 screens /7 screens according to your choice.
	Flip preview screen
	Go to video playback
	One-key arming or one-key disarming
	Lock the floating bar at the bottom of the screen

Table 3-4-1



● The right-click menu varies according to different models, please refer to the actual GUI menu of the device.

Supplementary function description

- 
Record Control: You can check current channel status: “o” means it is not selected, “●” means it is selected.

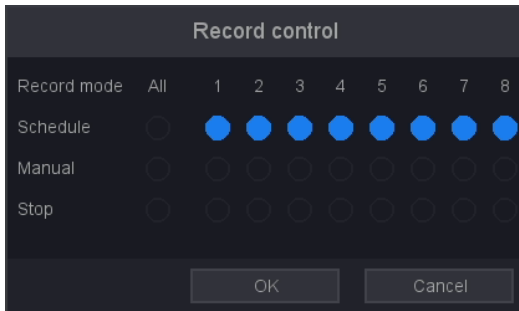


Figure 3-4-2

Items	Description
Schedule	Record according to the configuration.
Manual	Click the button and the according channel will record immediately regardless of the current state.
Stop	Click the stop button and the according channel will stop recording regardless of the current state.

Table 3-4-2



- 
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 3-4-3



Figure 3-4-4

- 
Smart: After clicking this mode, NVR can show the captured face picture on the bottom of preview interface, as shown below (it needs to enable IP camera’s face detection function firstly).

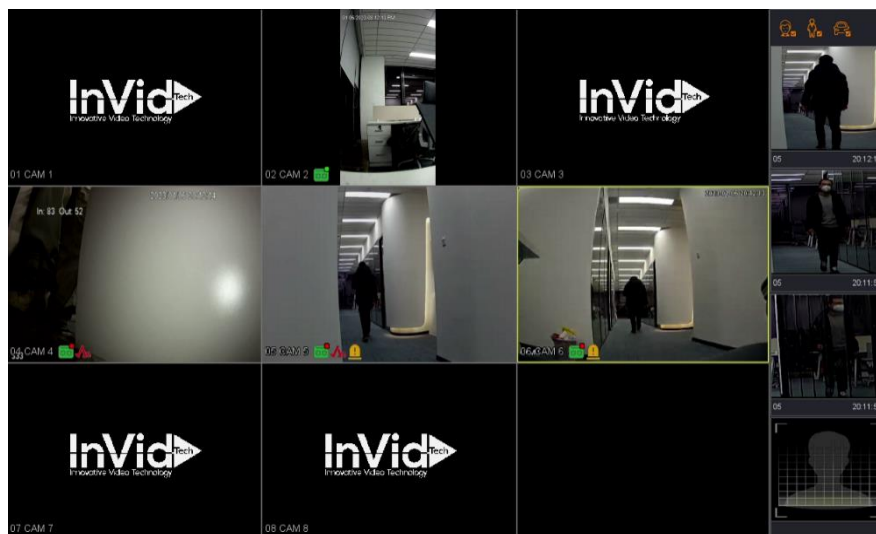


Figure 3-4-5

Chapter 4 Playback

4.1 GUI Introduction

Go to Playback.

- Move the mouse to the bottom of the interface and select the “Playback” to enter the playback interface as shown in the figure 4-1-1.

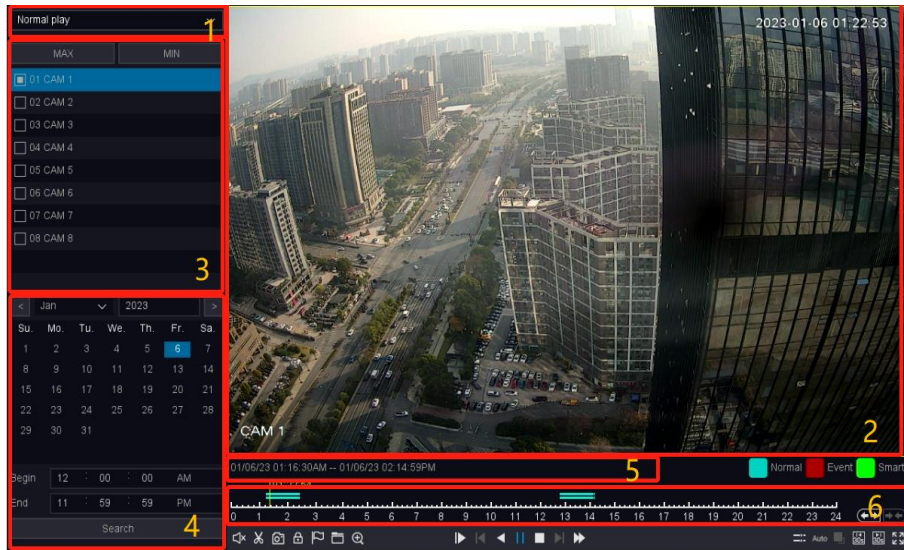


Figure 4-1-1 Playback

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

No.	Items	Function
1	Playback Type	NVR support four types playback mode “Normal Play”, “Event Play”, “Label Play”, “Smart Play”, “Time Division Play”, “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 4-1-1 Area Functions Introduce of Playback

- The video playback timeline as the Figure 4-1-2 shows



Figure 4-1-2 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 and buttons at the bottom right of the timeline to zoom in/out of the timeline.



● 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. And event files marked red, normal files marked blue.

● **The Tool menu Description in playback Interface.**








No.	Key title	Key function
1		Switch of playback channel audio
2		Cut the interest video of playing channel
3		Snap a picture of playing channel
4		Lock the file in case over written in HDD
5		Default label, Label the file
6		File manager, Mange the cut file/locked file/labeled file
7		Zoom, Zoom the playing channel

Table 4-1-2

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.



• The blue 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 4-2-1

5. Video playback is controlled by the following buttons. The Description of common buttons for playback video as the Table 4-2-1 shows.

Button	Operation	Button	Operation
	30 s reverse.		30 s forward.
	Full screen.		Start playback.
	Speed down.		Speed up.
	Speed.		Stop play.
	Upside down.		Synchronous playback or asynchronous playback switching
	Main and sub stream switching		Main and sub-stream automatic switching

Table 4-2-1 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, as shown below.

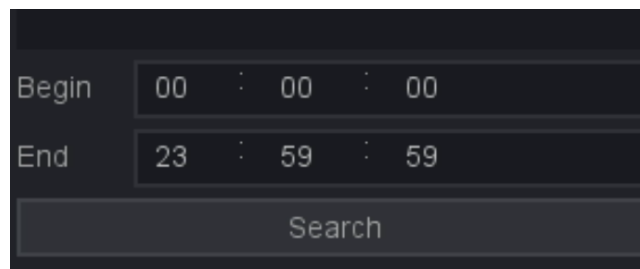


Figure 4-2-2



• If you want to find a recording of a time period, you can select the recording start time and recording end time you want under the calendar, as shown below.

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










Button	Description	Button	Description
	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
	Switch of playback channel audio		

Table 4-2-2

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

- The “Cut” button  will cut all the files of the channels you’re playing, you can check the files you cut in the “File Manage” .

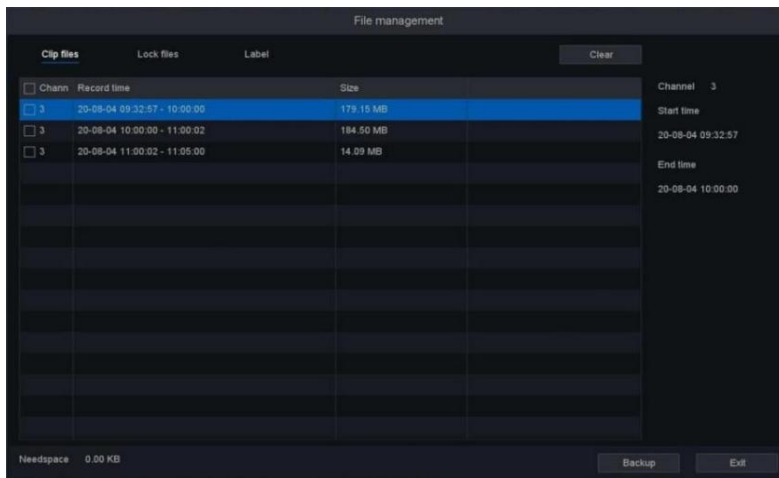


Figure 4-2-3

- The “Lock Record” button will lock the file in case this file be covered by new file. You can check and backup the locked files in “File Manage”. And you can unlock the locked files in this interface.

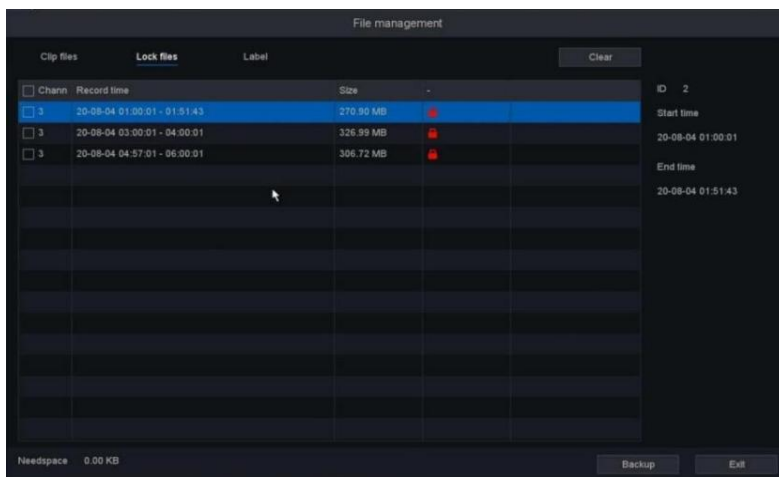


Figure 4-2-4

- Click the “Default Label” button will mark the video as a default label, you can edit the label and check in the “File Manage” .

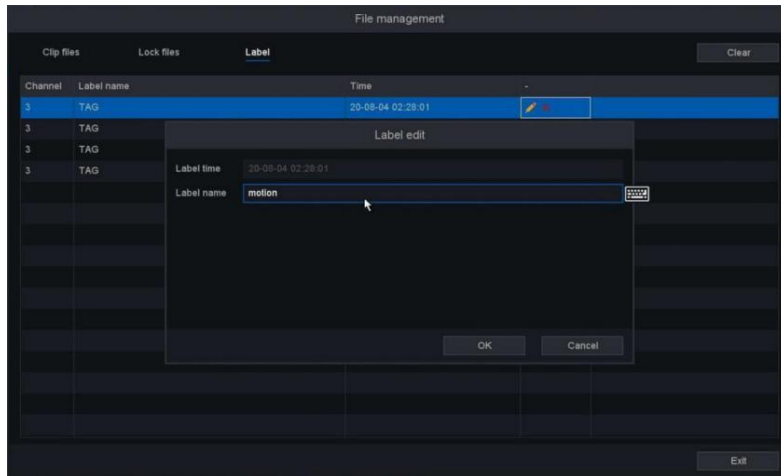


Figure 4-2-5

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 the camera has enabled the Motion detection, the Perimeter Protection, or the Diagnosis. You can enable it via the **Seven Grid Menu** → **Normal Event or Smart Event** → **Motion Detection, Perimeter Protection or other**.
- Ensure your video recorder has enabled 'Record channel' in the setting of the 'Trigger process'. You can enable it via **Seven Grid Menu** → **Normal Event or Smart Event** → **Motion Detection, Perimeter Protection or other** → **Trigger process**.

Steps:

1. Go to **Playback**.
2. Click **Event play**.
3. Select a camera.
4. Set time period, then Click Search.

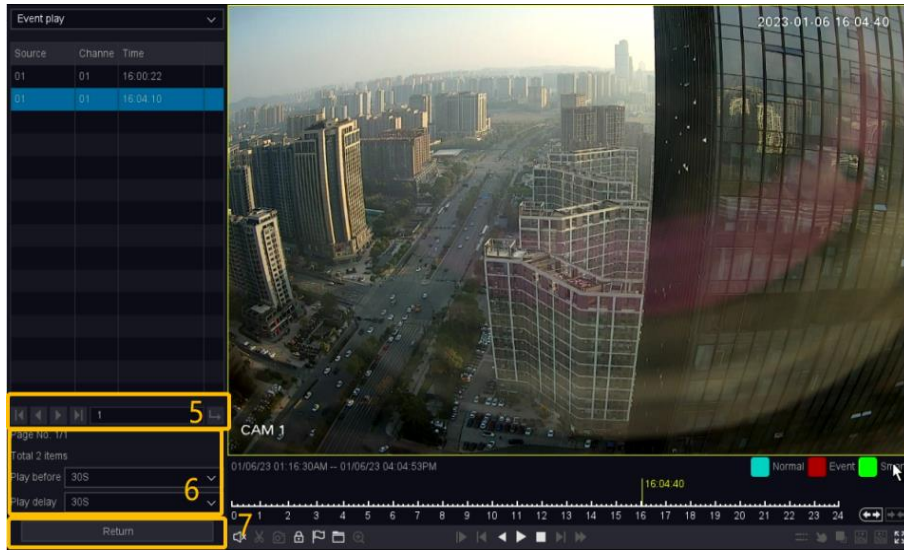


Figure 4-3-1 Event Playback

5. Search results as shown in the figure, “Source” means alarm channel and “Chan” means record channel of linkage operations, “Time” means when the alarm happened.
6. The next area shows all the alarm items and 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 the return button 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 ”, “ Frame Control ” button in event playback mode.

The Buttons of Event Search Results:

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.		Turn on/off audio.

Table 4-3-1 Button Description



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  again at the end time you want.
4. You can check the files you cut in the “File Manage”.
5. Select the videos to backup.
6. Click the ‘backup’ into Record backup interface.
7. Select the backup device and folder.
8. Click **Start** to export the clip to backup device.

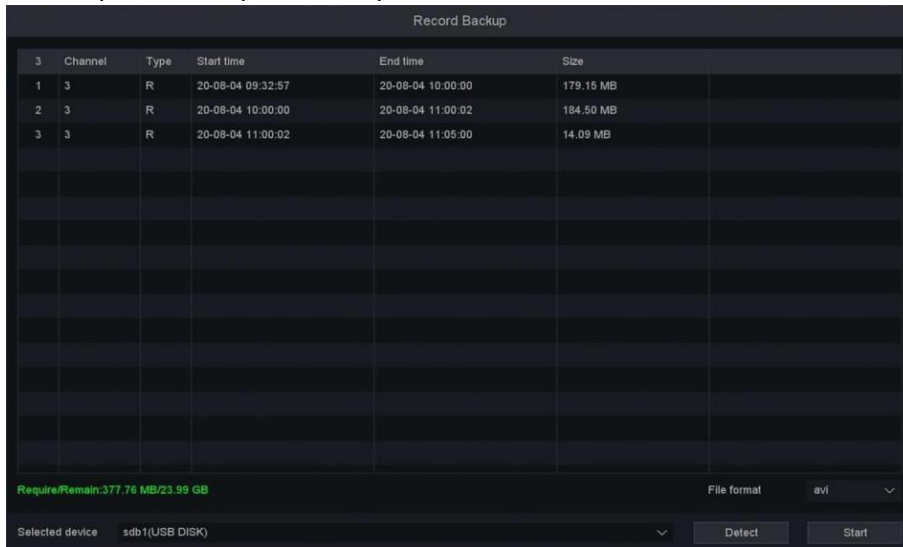


Figure 4-4-1

Chapter 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 **Seven Grid Menu** → Any Menu→ Smart Search → Normal Search → Video/Picture/Event.

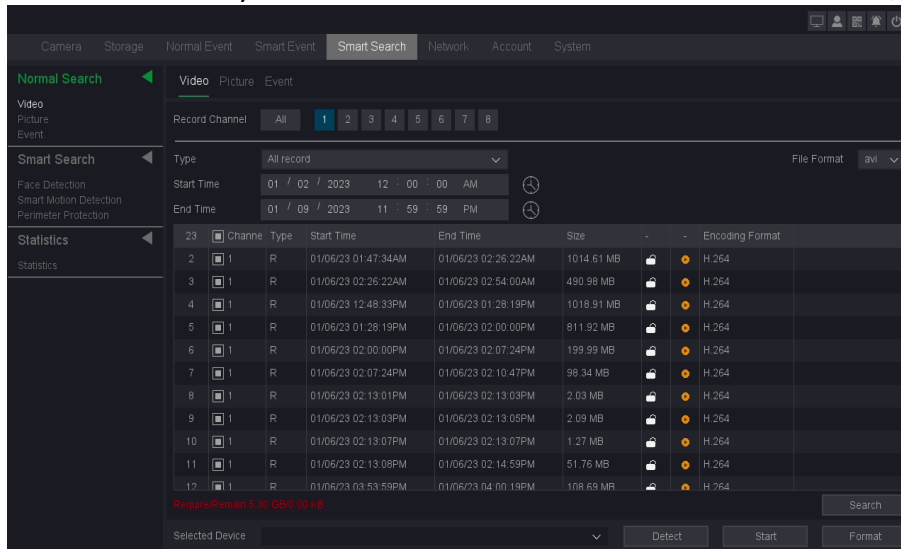




Figure 5-1-1 Search

2. Select a search type (video or picture).
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.



● 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.

Chapter 6 Configuration (Common Mode)

Easy mode contains basic configurations.

6.1 System Configuration

6.1.1 System - Base

You can configure the language, Time zone, System time, Device No, Host name etc.

Steps:

1. Go to **Seven Grid Menu** → **System** → **Base Settings** → **Base Settings**.

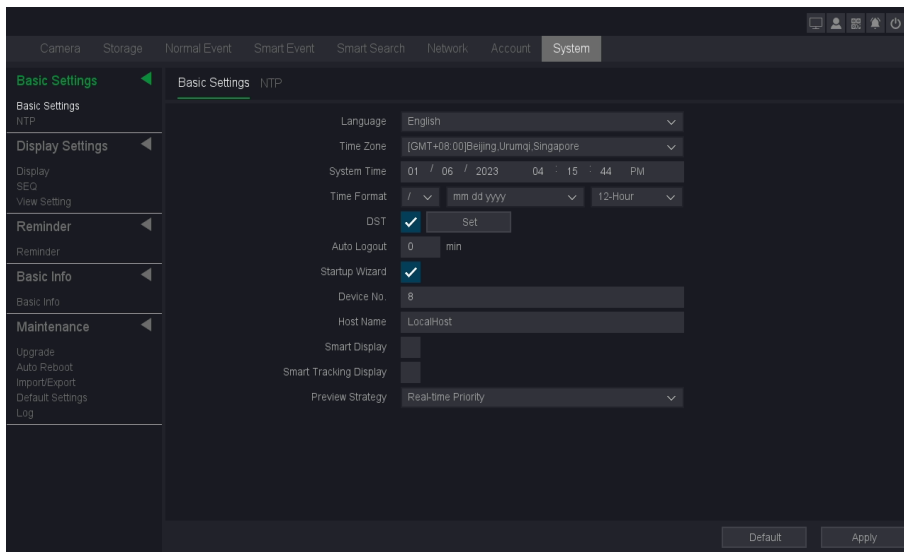


Figure 6-1-1-1 General Settings

2. Configure the parameters as your desire.

Time format

The form of time display.

DST

The Summer time.

Auto logout

Auto logout time, the maximum can be set to 60 minutes.

Startup Wizard

The wizard will pop up after the device starts up.

Smart display

Smart rule box display.

Smart tracking display

Smart Track Box Display.

3. Click **Apply**.

6.1.2 User

Add User

There is a default account: Admin. The admin user name is **admin**. Admin has the permission to add, delete, and edit user. Guest user only has live view, playback, and download.

Steps:

1. Go to **Seven Grid Menu** → **Account** → **Account**.
2. Click **Add user** and maybe confirm your admin password.

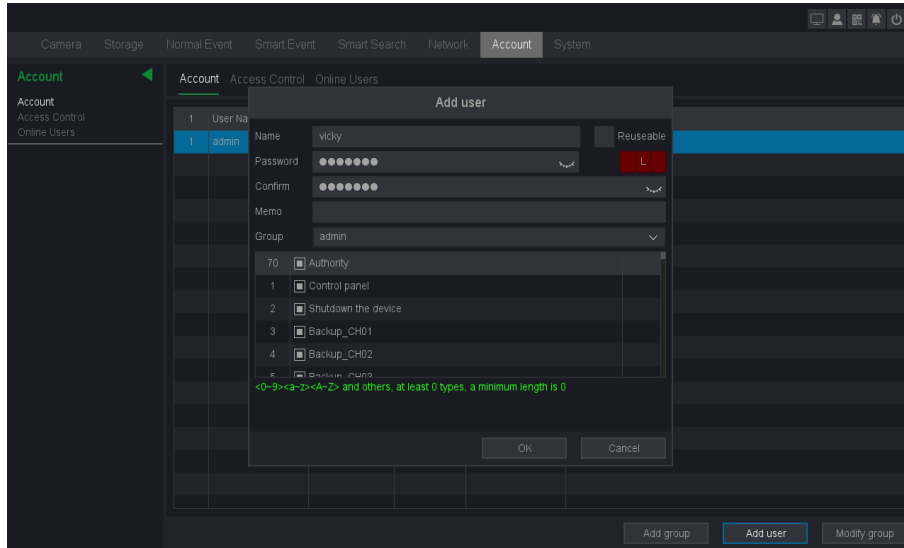




Figure 6-1-2-1 Add User

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

Note 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**.
 - 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.

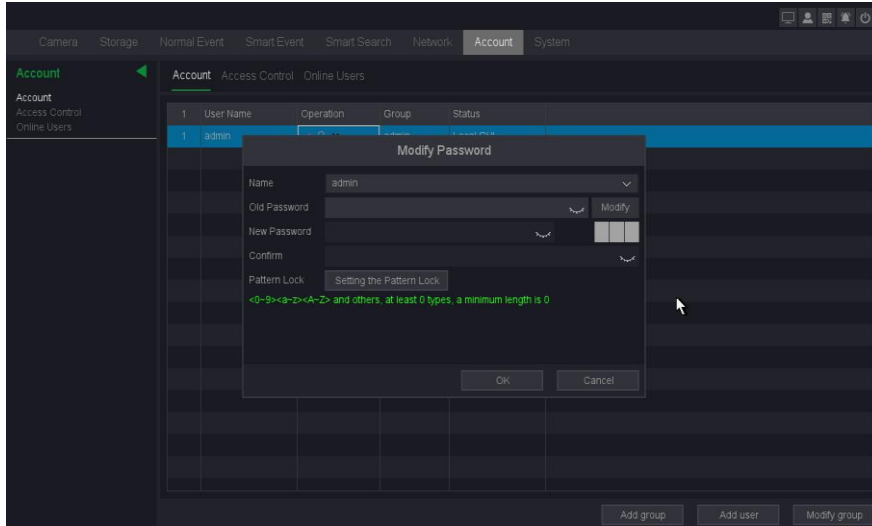


Figure 6-1-2-2

2. Enter the **Old Password**.
3. Enter the same new password in **NEW Password** and **Confirm**.
4. Click **OK**.
6. Optional: You can also set the Pattern Lock by click “setting the Pattern Lock”.

6.1.3 Alarm events & Trigger process

You can receive alarm events hint in Alarm Status and set exception linkage actions in the ‘Set’ of the **Trigger processes**.

Step1: Alarm Information

1. Go to **Seven Grid Menu** → Any Menu → Click “” at top right corner.

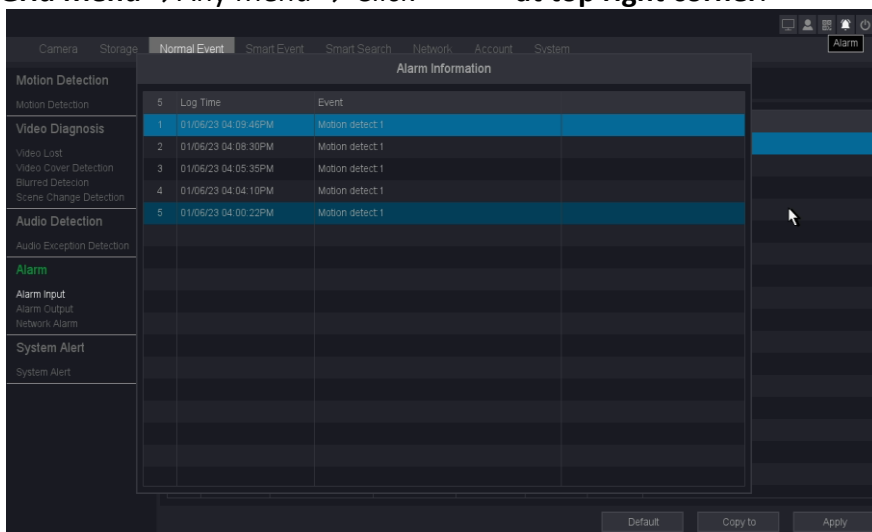


Figure 6-1-3-1

2. When the set events occur, you will receive hints in Alarm Status.

Step2 Enable the Trigger process

1. Go to **Seven Grid Menu** → **Normal Event or Smart event** → **Motion Detection, Perimeter Protection or Video Diagnosis** → **Trigger process** → **Set**.

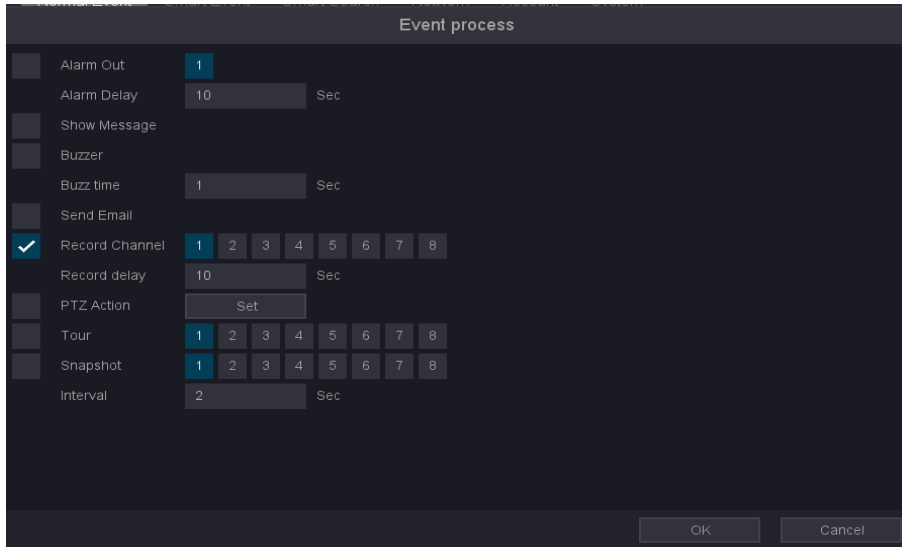


Figure 6-1-3-2

Show message

Video preview popup prompt.

Buzzer

Buzzer prompt, you can set the buzzer time.

Send email

An email will be sent to your mailbox when an alarm occurs, if your mailbox is configured.

Record Channel

Enable alarm recording when there is an alarm event in this channel.

Snapshot

Enable to capture pictures when there is an alarm event in this channel, you can also set the snapshot interval.

2. Select the linkage action you need when the alarm event occurs.

3. Click **OK**.

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 **Seven Grid Menu** → **Network** → **Basic Settings** → **TCP/IP**.

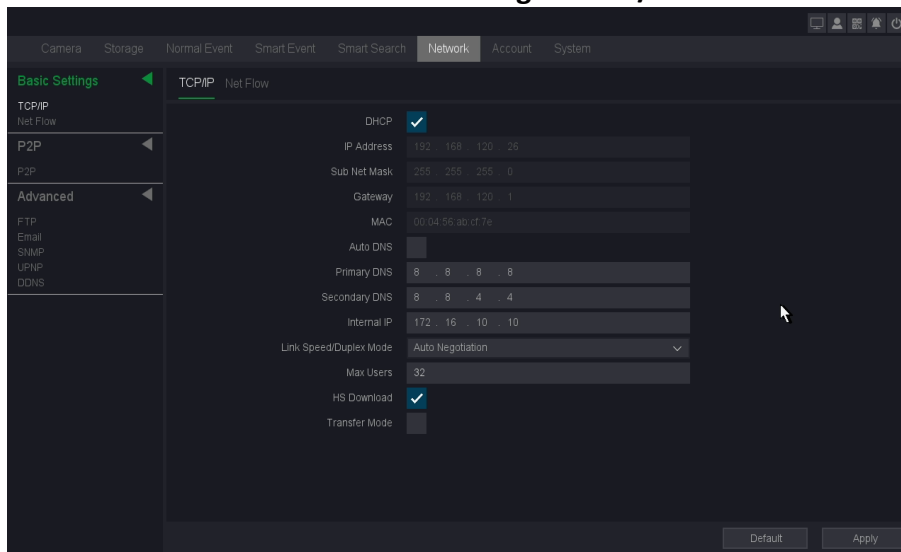


Figure 6-2-1-1 Network

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 Obtain DNS

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



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

Manual

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 **Seven Grid Menu** → **Network** → **P2P** → **P2P**.
2. Turn on Enable, your device will automatically perform P2P cloud registration connection.

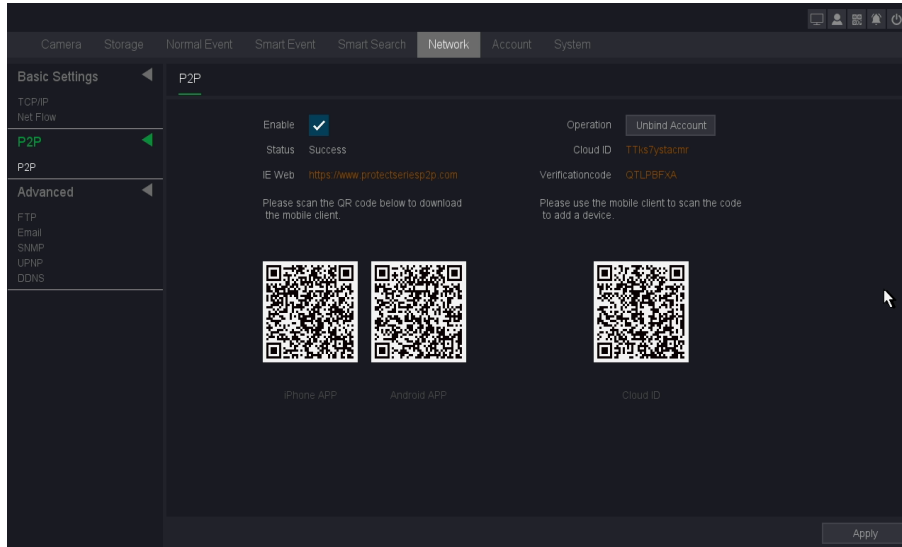


Figure 6-2-2-1

3. Your device will change from connected 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 InVid Protect APP. You can also download from <https://www.protectseriesp2p.com> or the QR code below.

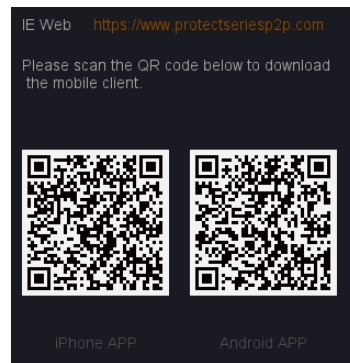


Figure 6-2-2-2 Download

- 2) Use InVid Protect APP to scan the device QR, and bind the device.

Steps:

1. Open the InVid Protect application 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 devices camera, now scan the QR code. From the start up wizard labeled ‘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 install 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.



- 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 **Seven Grid Menu → Network → Advanced → Email**.

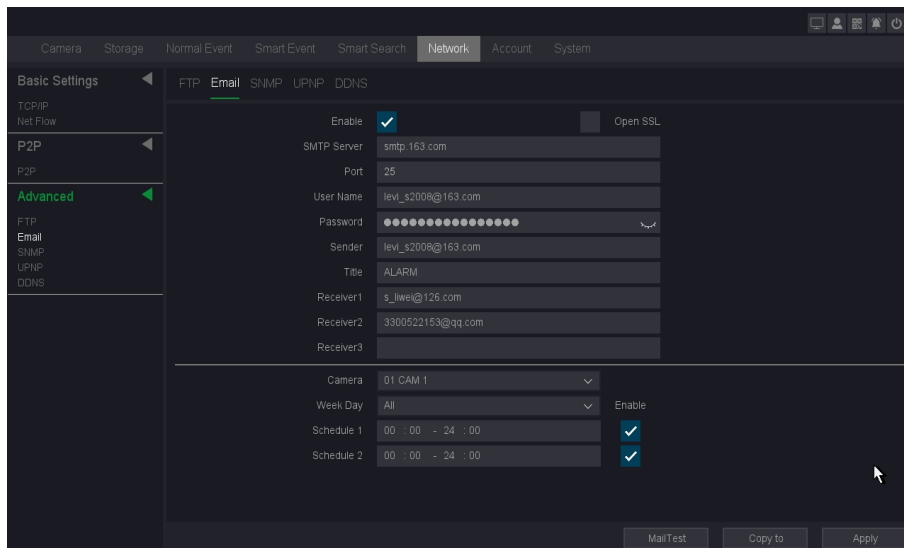


Figure 6-2-3-1 Email

2. Set email parameters

Enable

Check it to enable the server authentication feature.

SMTP server

Address of server providing SMTP service: 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.

SSL/TLS

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

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.

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

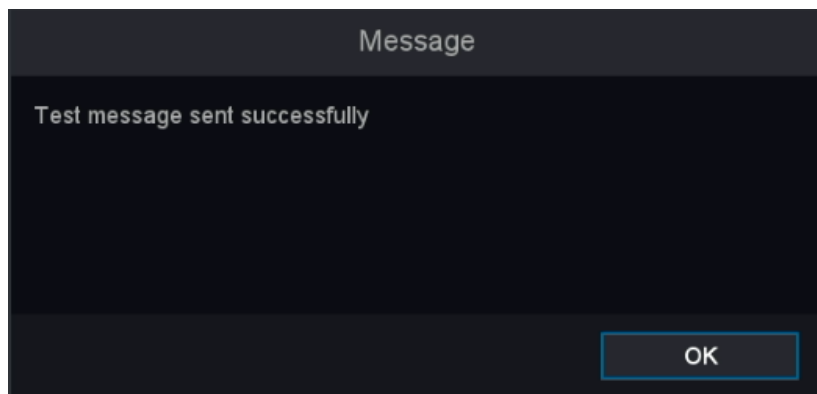


Figure 6-2-3-2

4. Click **Apply**.



- For network cameras, the event images are directly sent as the email attachment. One network camera generally sends 3 pictures. Specific to the actual subject.
- 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 InVid Protect 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 **Seven Grid Menu** → **Camera** → **Camera Management**.
2. Click 'Search' button.
3. The online cameras on the same network segment with your video recorder are displayed in **Online Device List**.
4. Select multiple desired cameras you want to add, or select all cameras.
5. Click the '**Quick Set**' button to add the cameras (with the default login password) from the list.

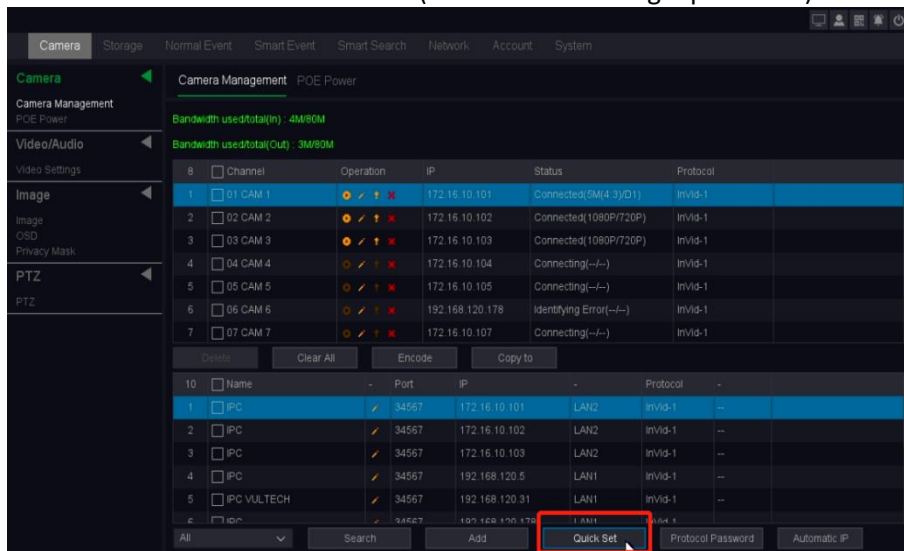


Figure 6-3-1-1 Camera Management Interface

6. The device you selected will be added quickly.




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

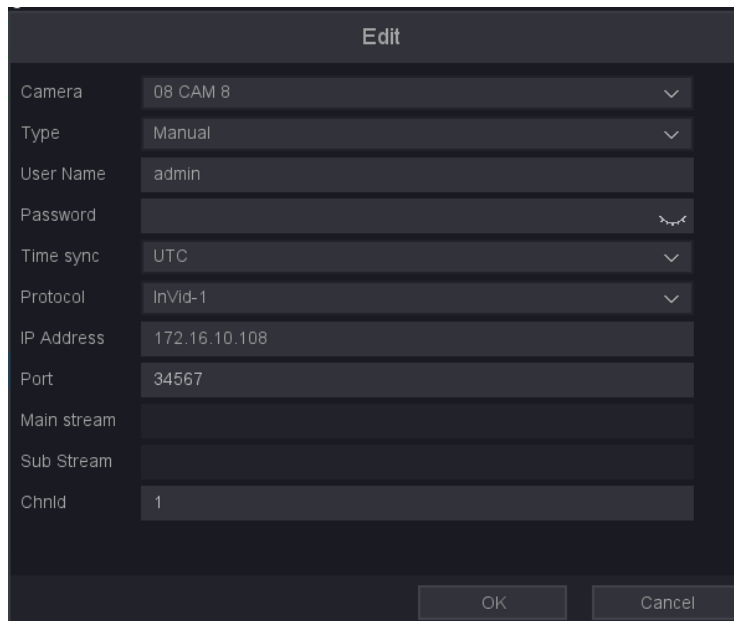
Add Network Camera Manually

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 **Seven Grid Menu** → **Camera** → **Camera Management**.
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.



Edit	
Camera	08 CAM 8
Type	Manual
User Name	admin
Password	
Time sync	UTC
Protocol	InVid-1
IP Address	172.16.10.108
Port	34567
Main stream	
Sub Stream	
ChnId	1

Figure 6-3-1-2 Edit the Parameters

5. Click the drop down box of Protocol, You can choose three protocols: InVid-1, ONVIF-1, ONVIF-2, RTSP; InVid-1 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.
8. Optional: Click **Add More** to add another network camera.

Time sync

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

Port

Device connection port, ONVIF 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 'conneted' and like this '(1080P/720P)', In brackets not '(--/--)

Steps:

1. Go to **Seven Grid Menu** → **Camera** → **Camera Management**.
2. Click .
3. The preview window is shown in the figure below.

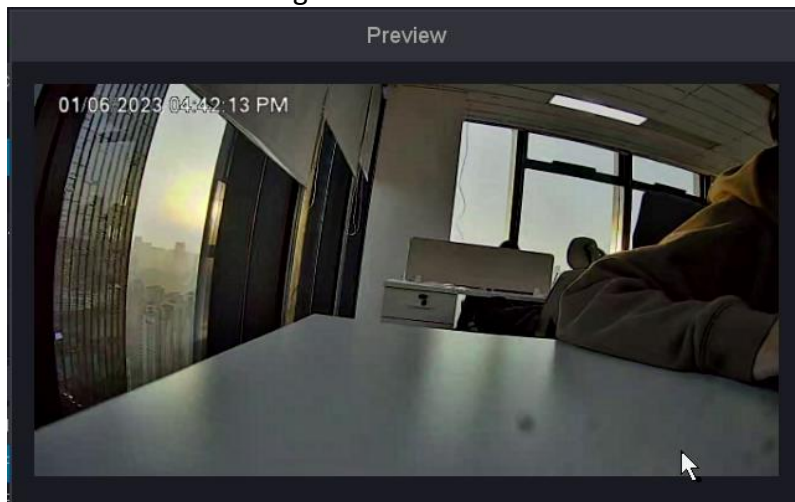


Figure 6-3-1-3


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 **Seven Grid Menu** → **Camera** → **Camera Management**.
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.

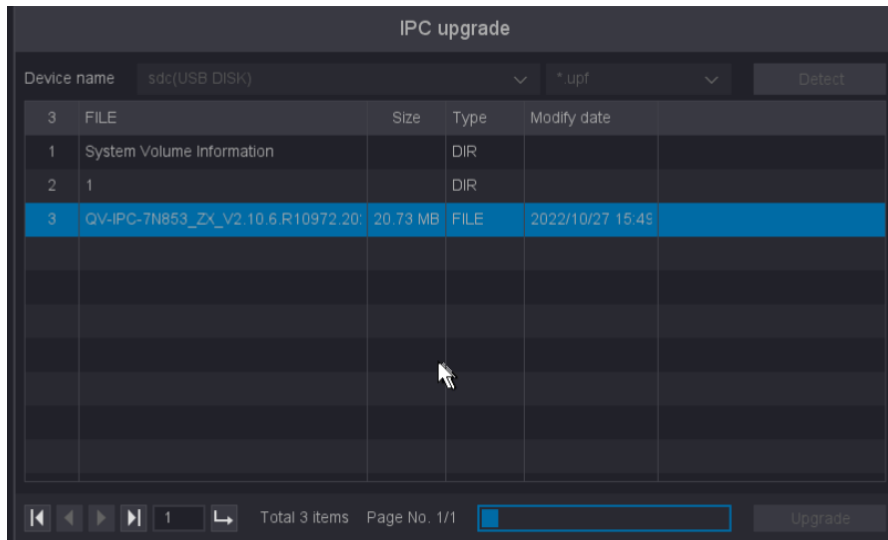


Figure 6-3-1-4


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 **Seven Grid Menu** → **Camera** → **Camera Management**.
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**.

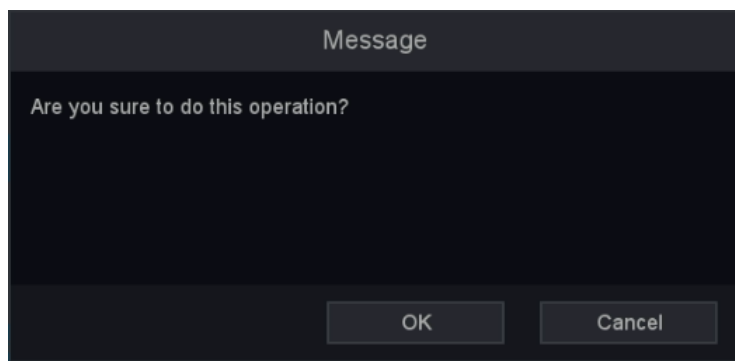


Figure 6-3-1-5

6.3.2 OSD Settings

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

Steps:

1. Go to **Seven Grid Menu** → **Camera** → **Image** → **OSD**.
2. Select a camera.

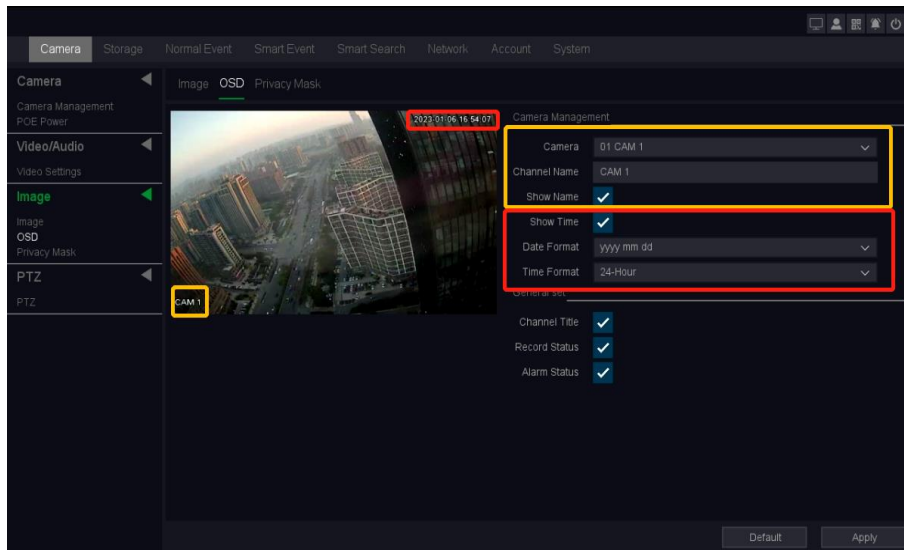


Figure 6-3-2-1 OSD

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**.

6.3.3 Smart 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 **Seven Grid Menu** → **Normal Event** → **Motion Detection** → **Motion Detection**.

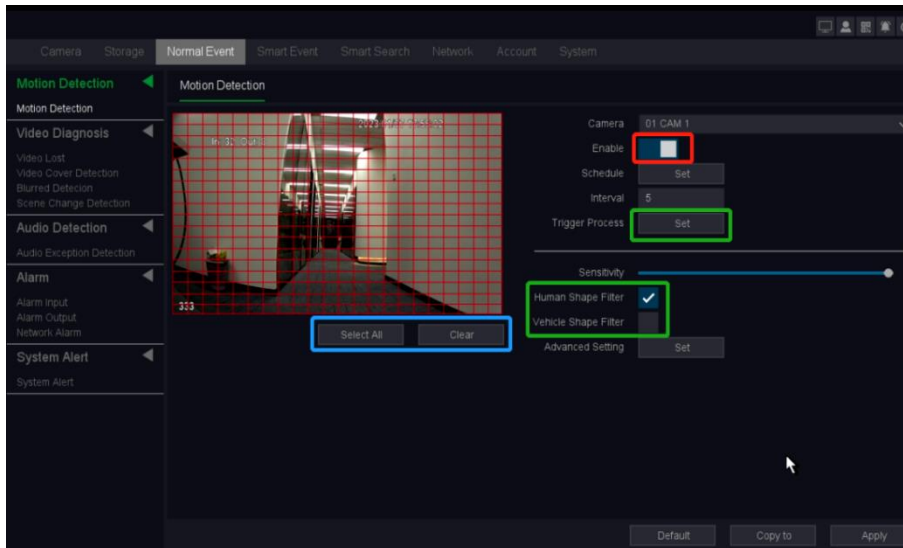


Figure 6-3-3-1 Motion Detection

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. **Sensitivity** adjust. Sensitivity allows you to calibrate how easily movement could trigger the alarm. A higher value results in the more readily to triggers motion detection.
6. Optional: Set **Target Detection** as **Human Shape Filter** or **Vehicle Shape Filter** to discard alarms which are not triggered by human body or vehicle. **Only certain camera models support this function.**
7. Set the arming **Schedule**. Refer to **Configure Arming Schedule** below for details.
8. Set the **Trigger process**. Refer to **Configure Alarm Trigger process** below for details.
9. Click **Apply**.



● If setting target Detection as Human Shape Filter or Vehicle Shape Filter to discard alarms which are not triggered by human body or vehicle, it is described as SMD.

Line Crossing

Line crossing detection detects people, vehicles, and objects crossing a set virtual line. The detection direction can be set as bidirectional, from A to B or from B to A.

Steps:

1. Go to **Seven Grid Menu** → **Smart Event** → **Perimeter Protection** → **Line Crossing**.

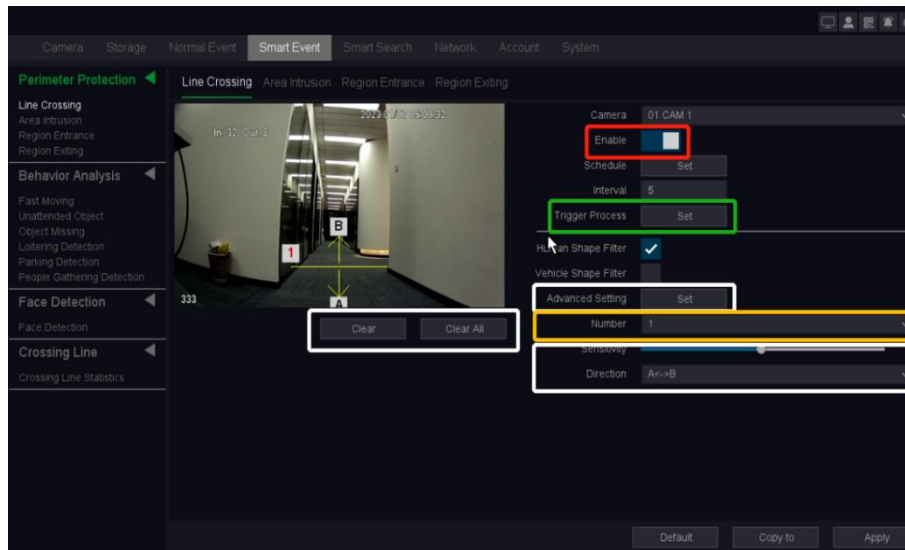


Figure 6-3-3-2 Line Crossing Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set line crossing detection rules and detection line.
 - 1) Select the **Number** to set **Arming line**. Up to 4 arming lines can be set.
 - Click **Clear** or **set two points in the preview window** to clear or draw a line.
 - 2) Select **Direction** as **A<->B**, **A->B**, or **A<-B**.

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.

- 3) Set **Sensitivity**. The higher the value is, the easier the detection alarm will be triggered.
5. Set the arming **Schedule**. Refer to for **Configure Arming Schedule** below for details.
6. Set the **Trigger process**. Refer to **Configure Alarm Trigger process** below for details.
7. Optional: Click **Advanced setting** to Set **Target Detection** as **Human Shape Filter** or **Vehicle Shape Filter** to discard alarms which are not triggered by human body or vehicle.
8. Click **Apply**.

Area Intrusion

Area Intrusion detects people, vehicles, or objects that enter and loiter in a pre-defined virtual region.

Steps:

1. Go to **Seven Grid Menu** → **Smart Event** → **Perimeter Protection** → **Area Intrusion**.

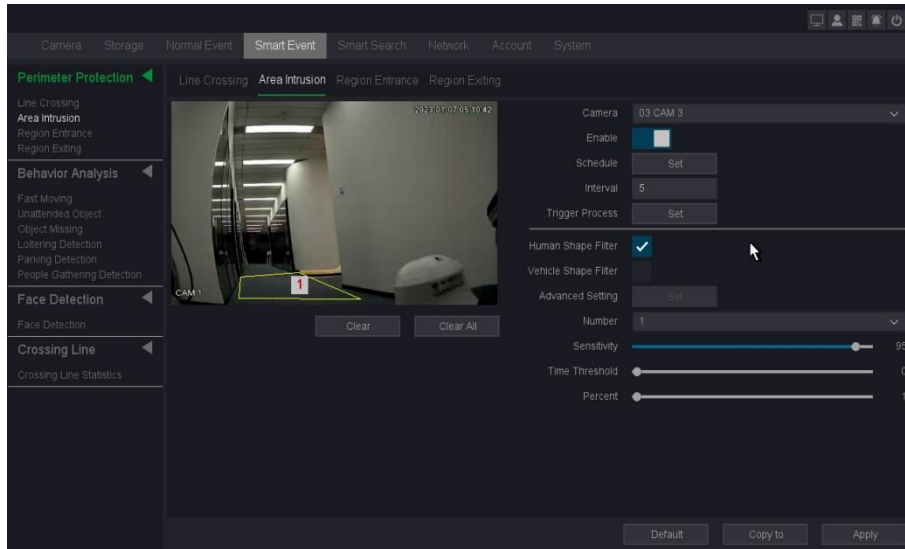


Figure 6-3-3-3 Intrusion Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
5. Set the arming **Schedule**. Refer to for **Configure Arming Schedule** below for details.
6. Set the **Trigger process**. Refer to **Configure Alarm Trigger process** below for details.
7. Optional: Click **Advanced setting** to Set **Target Detection** as **Human Shape Filter** or **Vehicle Shape Filter** to discard alarms which are not triggered by human body or vehicle.
8. Click **Apply**.



● Click clear all to delete all alarm areas, you can also click clear to delete individual areas.

Region Entrance

Region entrance detection detects objects that enter a predefined virtual region.

Steps:

1. Go to **Seven Grid Menu** → **Smart Event** → **Perimeter Protection** → **Region Entrance**.

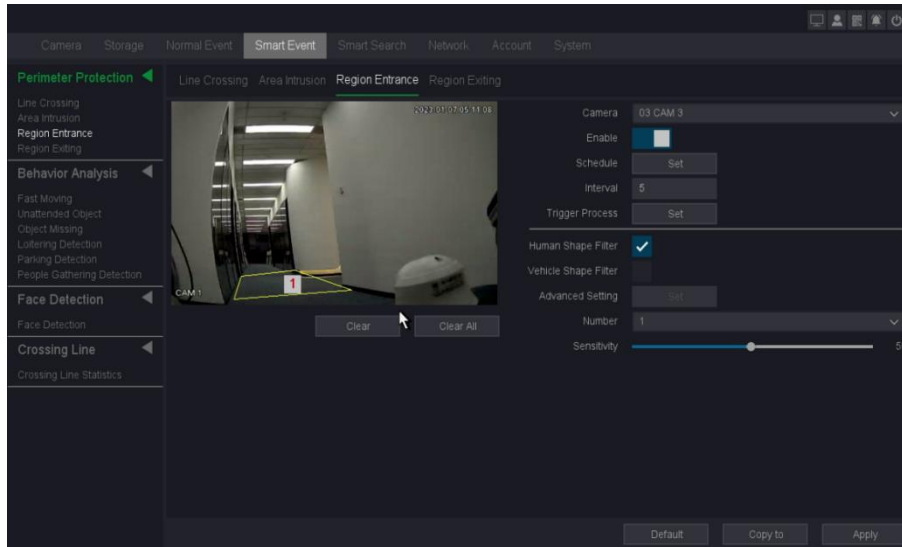


Figure 6-3-3-4 Region Entrance Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
5. Set the arming **Schedule**. Refer to for **Configure Arming Schedule** below for details.
6. Set the **Trigger process**. Refer to **Configure Alarm Trigger process** below for details.
7. Optional: Click **Advanced setting** to Set **Target Detection** as **Human Shape Filter** or **Vehicle Shape Filter** to discard alarms which are not triggered by human body or vehicle.
8. Click **Apply**.

Region Exiting

Region exiting detection detects objects that exit from a predefined virtual region.

Steps:

1. Go to **Seven Grid Menu** → **Smart Event** → **Perimeter Protection** → **Region Exiting**.

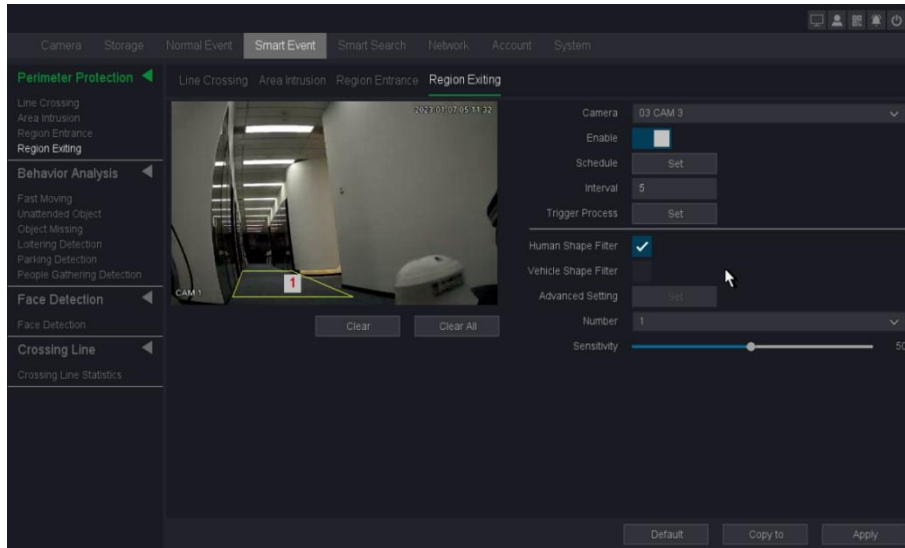


Figure 6-3-3-5 Region Exiting Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
5. Set the arming **Schedule**. Refer to for **Configure Arming Schedule** below for details.
6. Set the **Trigger process**. Refer to **Configure Alarm Trigger process** below for details.
7. Optional: Click **Advanced setting** to Set **Target Detection** as **Human Shape Filter** or **Vehicle Shape Filter** to discard alarms which are not triggered by human body or vehicle.
8. Click **Apply**.

Configure Arming Schedule

Steps:

1. Click Arming **Schedule**.
2. Choose one day of a week and set the time segment. Up to six time periods can be set within each day.



- Time periods shall not be repeated or overlapped.



Figure 6-3-3-6 Set Arming Schedule

3. Edit the time period 1-6 that you want to trigger the alarm and check it, as shown in Figure 5-15, edit the three time periods and check it.
4. Click **OK**.



- Edit the time period 1-6 that you want to trigger the alarm and check it, as shown in Figure 5-15, edit the three time periods and check it.

Configure Alarm Trigger process

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

Steps:

1. Click **Trigger Process**.

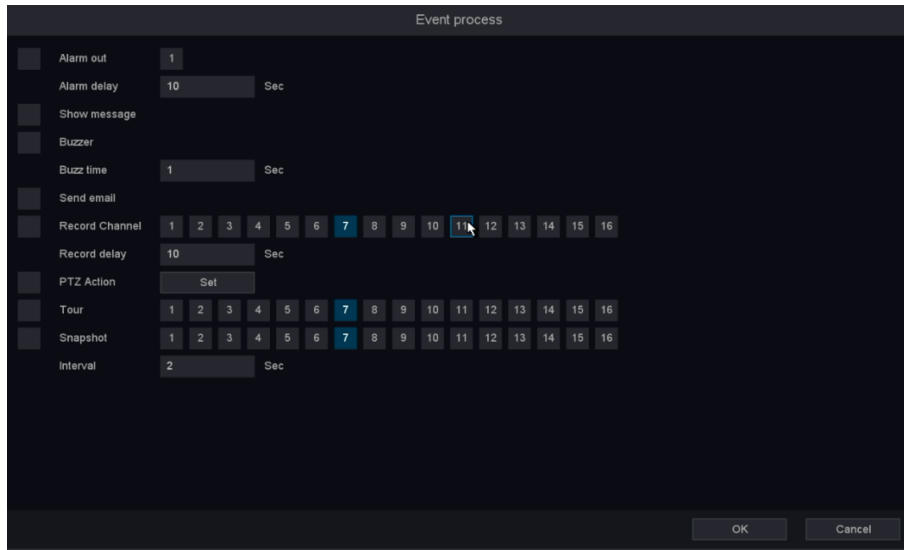


Figure 6-3-3-7 Trigger process

2. Set normal Trigger process, alarm output Trigger process, trigger channel, etc.

Alarm out

The local monitor will pop up the alarming channel image when an alarm is triggered. It requires to select the alarming channel(s) in **Trigger Channel**.

Show message

The local monitor will pop up the alarming channel image when an alarm is triggered. It requires to select the alarming channel(s) in **Trigger Channel**.

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 alarm is over and the time to continue recording

Send Email

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

PTZ Action

It will trigger PTZ actions (e.g., call preset/patrol/pattern) when smart events occur.

Tour

When the alarm is triggered, it will patrol the screen you choose.

Snapshot

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

Interval

The interval time of picture capture when the alarm lasts.

3. Click **OK**.



- 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.

6.4 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 **1.4 HDD Installation**.

Steps:

1. Go to **Seven Grid Menu → Storage → Storage → HDD Management**.

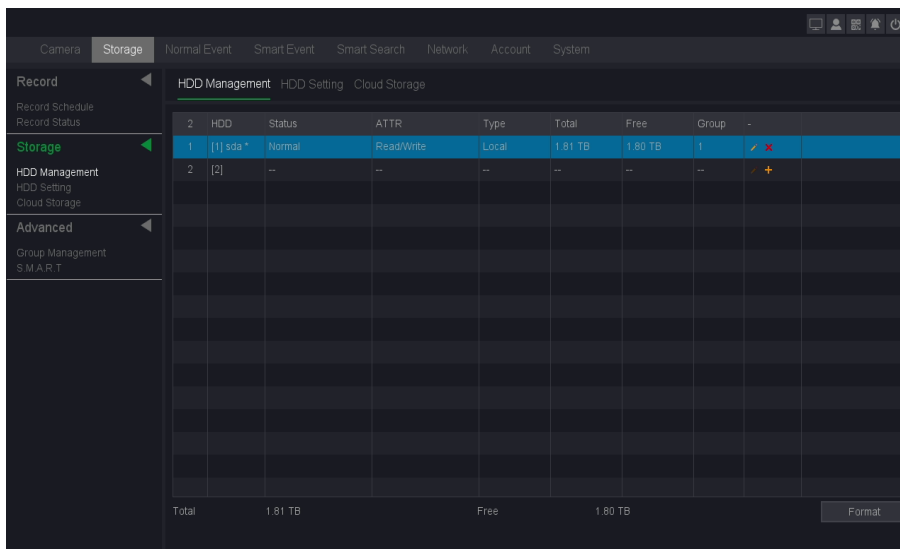


Figure 6-4-1-1

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



● Repair an HDD that with error in database. Please operate it with the help of professional technical support.

HDD SETTING

This page displays your device is plugged into the hard disk status, hard drive serial number, name, attributes, the type of hard drive, the total capacity / Remaining capacity, as well as belonging to a group, edit button and uninstall / Loaded 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", "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.

Uninstall

Uninstall HDD.

Add

Add the HDD from uninstall state.

Format

Format the HDD manually.

Total record days

Shows how many days HDD can save the record totally if without overwriting.

Remaining record days

Shows how many days HDD can continue to save the record if without overwriting.

Steps:

1. Click HDD the **Edit** button, interface shows as below.
2. Configure the other parameters as your desire.
3. Click **OK**.

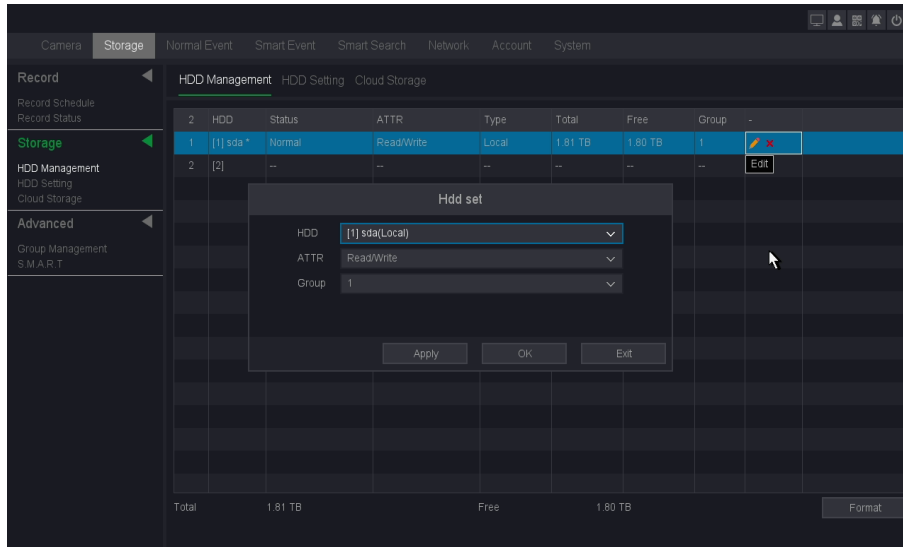


Figure 6-4-1-2

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/Initialize HDD**.

Configure Recording Steps:

1. Go to **Seven Grid Menu → Storage → Record → Record Schedule**.

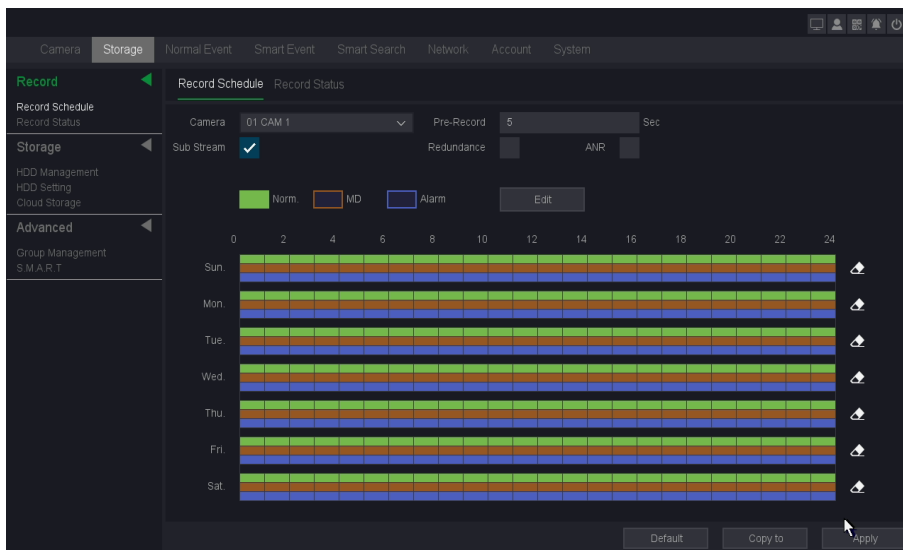


Figure 6-4-2-1

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. Refer to **Edit Schedule** below for details.
6. Click Apply.



- 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. Please check the chapter 4.4.3 for the details.
- 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.

Week day	Sun	Norm.	MD	Alarm
Schedule 1	00 : 00 - 24 : 00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule 2	00 : 00 - 24 : 00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule 3	00 : 00 - 24 : 00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule 4	00 : 00 - 24 : 00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule 5	00 : 00 - 24 : 00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule 6	00 : 00 - 24 : 00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Apply to

All
 Sun.
 Mon.
 Tue.
 Wed.
 Thu.
 Fri.
 Sat.

OK Cancel

Figure 6-4-2-2

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 the **Edit** button into the editing interface.
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**.



• 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 6-4-2-3

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 the icon eraser to clear the setting of the bar at once.
5. After all the settings finished, click Apply to activate all the settings.
6. Optional: You can copy the current channel setting to other channels by clicking the button Copy To. As shown below.

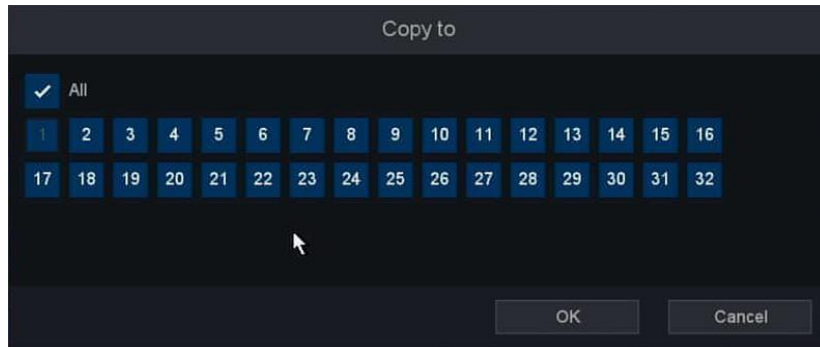


Figure 6-4-2-4




- 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, Video Diagnosis, 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 the icon eraser  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. As shown below.

Configure Alarm Recording

You can configure the recording triggered by the **Alarm, 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 the icon eraser  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. As shown below.

6.4.3 Configuring video encoding

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.

Steps:

1. Go to **Seven Grid Menu** → **Camera** → **Video Settings** → **Video Settings**.
2. Configuring video encoding.

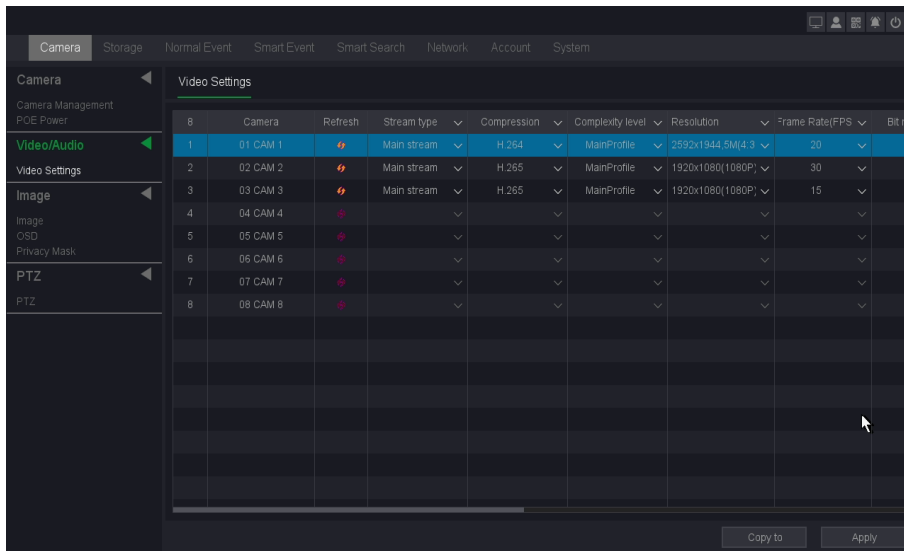


Figure 6-4-3-1

Channel

Select the channel to configure.

Refresh

Click it to refresh IP channel’ s encode parameters.

Main Stream

Main stream refers to the primary stream that affects data recorded to the hard disk drive and will directly determine your video quality and image size. Comparing with the sub-stream, the main stream provides a higher quality video with higher resolution and frame rate.

Sub Stream

Sub-stream is a second codec that runs alongside the mainstream. It allows you to reduce the outgoing internet bandwidth without sacrificing your direct recording quality. Sub-stream is often exclusively used by smartphone applications to view live video. Users with limited internet speeds may benefit most from this setting.

Compression

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

Resolution

Image resolution is a measure of how much detail a digital image can hold: the greater the resolution, the greater the level of detail. Resolution can be specified as the number of pixel-columns (width) by the number of pixel-rows (height), e.g., 1024×768.

Frame Rate

Frame rate refers to how many frames are captured each second. A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.

Bitrate

The bit rate (in Kbit/s or Mbit/s) is often referred to as speed, but actually defines the number of bits/time unit and not distance/time unit.

H.264+/H.265+

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.

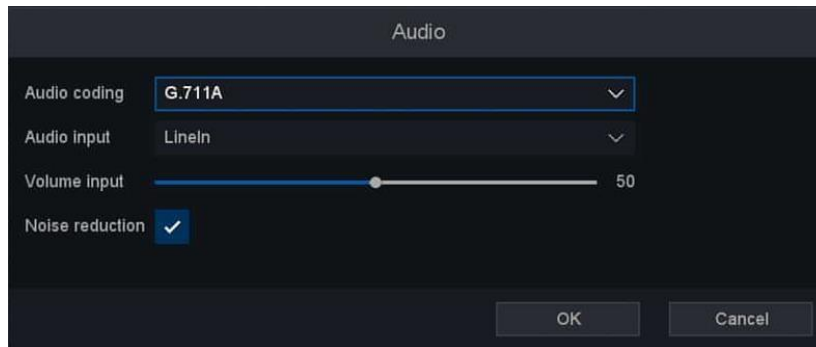


Figure 6-4-3-2



- Higher resolution, frame rate, and bitrate provide you better video quality, but it also requires more internet bandwidth and uses more storage space on the hard disk drive.

3. Click **Apply**.

4. Optional: You can copy the configuration of selected channels to the one which you would like to apply the same configuration. By clicking Copy To button, select the channels and save the setting. Please refer to Figure 6-4-3-3 below Copy To.

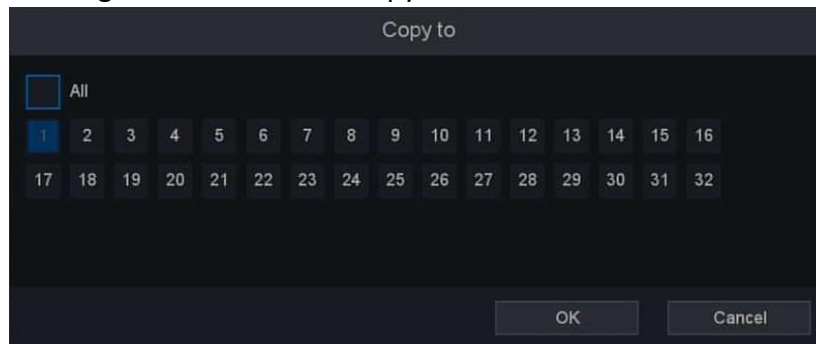


Figure 6-4-3-3

Chapter 7 Maintenance

7.1 Restore Default

Steps:

1. Go to **Seven Grid Menu → System → Maintenance → Default Settings.**

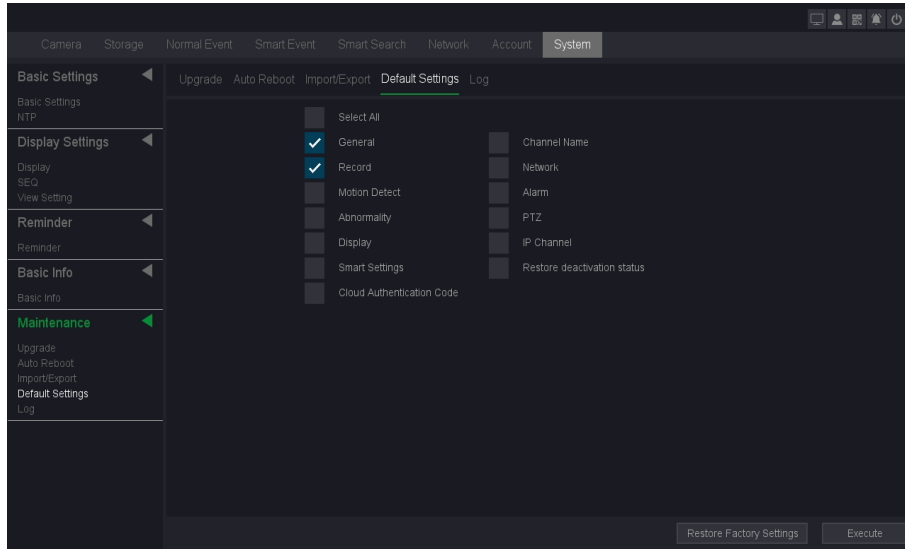


Figure 7-1-1

2. Select the restoring type.

Simple Restore

- Choose the function item, General/Channel name/Control/Network/Motion Detect/Alarm/Abnormality/PTZ/Display/IP Channel/Smart settings/Cloud Authentication Code.
- Click **'execute'** button, the item what you chosen restore defaults.
- Optional: you can also select the "select all" button, all the items restore default.

Factory Defaults

Click the **'Restore factory settings'** button Restore all parameters to the factory default settings.

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

7.2 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 **Seven Grid Menu → System → Maintenance → Log.**

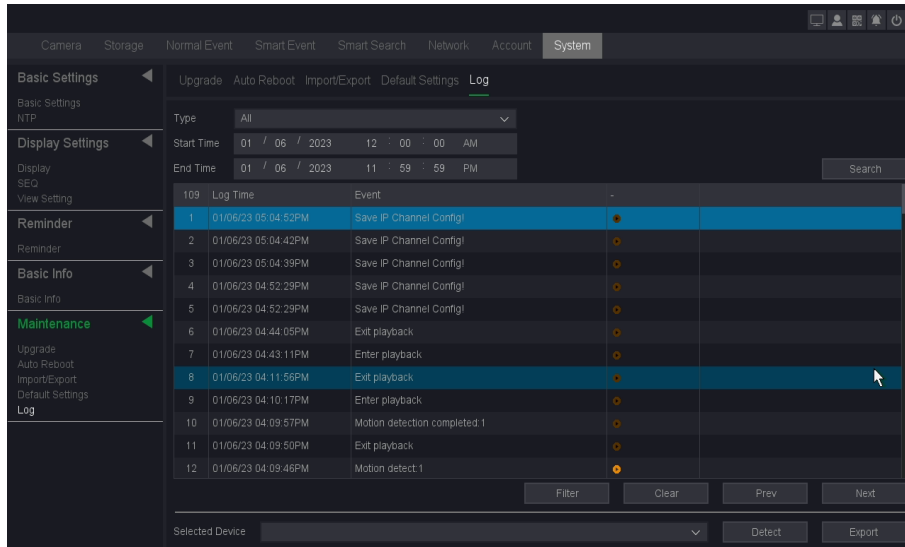


Figure 7-2-1

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”, “Playback”.

Start time/End time

Set the period you want to search.

Search

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

Prev/Next

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

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.

7.3 Upgrade



- Warning: Do not shutdown or turn off the power during upgrade.

7.3.1 Local Upgrade

Before You Start

Store the upgrade firmware to a backup device (USB flash drive), and connect it to your device.

Steps:

1. Go to **Seven Grid Menu** → **System** → **Maintenance** → **Upgrade**.

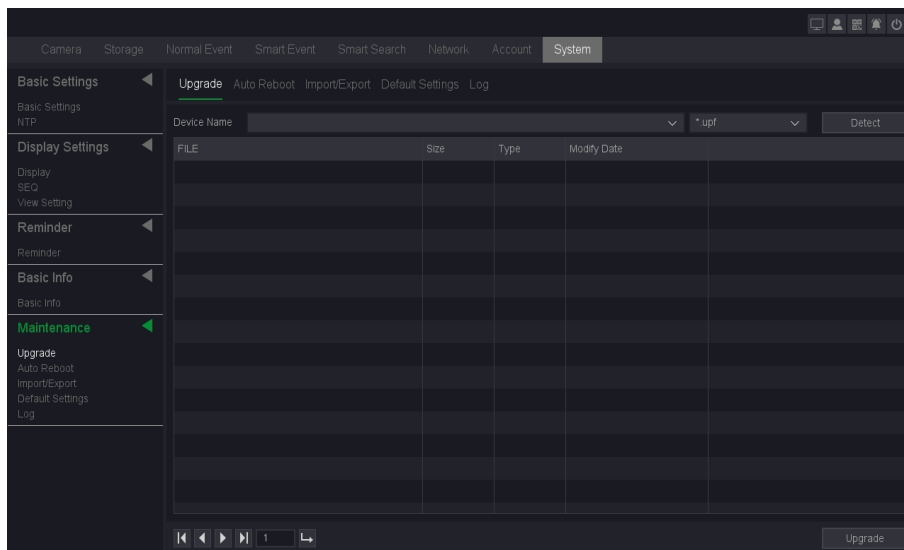


Figure 7-3-1

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

7.3.2 Online Upgrade & The Version

Upgrade the device with the latest online firmware.

Before You Start

Ensure P2P is enabled and properly configured. Refer to **6.2.2 P2P** for details.

Steps:

1. Go to **Seven Grid Menu** → **System** → **Basic Info** → **Basic Info**

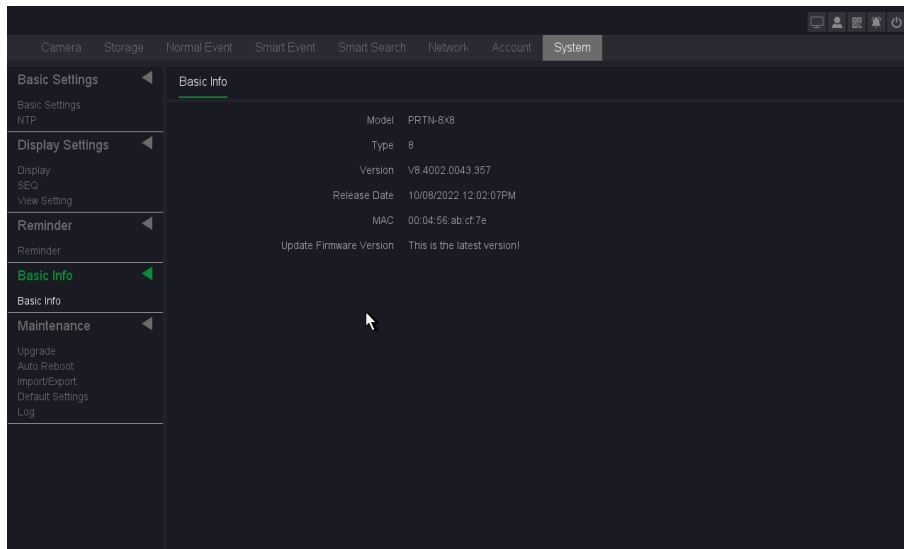


Figure 7-3-2

2. The system will automatically detect whether there is the latest firmware.
3. If there is a new firmware, Click **Upgrade**.
4. Click **OK**. Your device will reboot automatically after the upgrade is complete completed.
5. Optional: in this page, you can see the version information of the device.

Type

Number of channels 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.

Chapter 8 Alarm Status & Show Message

8.1 Alarm Status

Every alarm event occurs, you will see it here.

Steps:

1. Click “” at the upper right corner of the setting interface to show the **Alarm Information**.

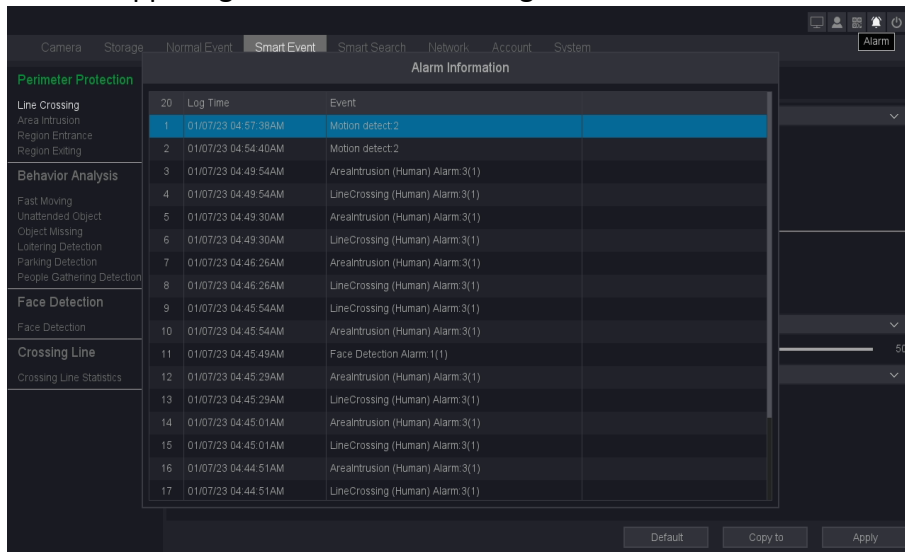


Figure 8-1-1 Alarm Center

8.2 View Alarm in Show Message

If The Show message is configured in the Trigger process, please refer to the configuration of **6.1.3 Alarm events & Trigger process**.

Steps:

1. Go to **Seven Grid Menu** → **Normal Event or Smart Event** → **Motion Detect, Perimeter Protection or Video Diagnosis** → **Trigger process** → **Set**.
2. Check the Show Message as shown below.

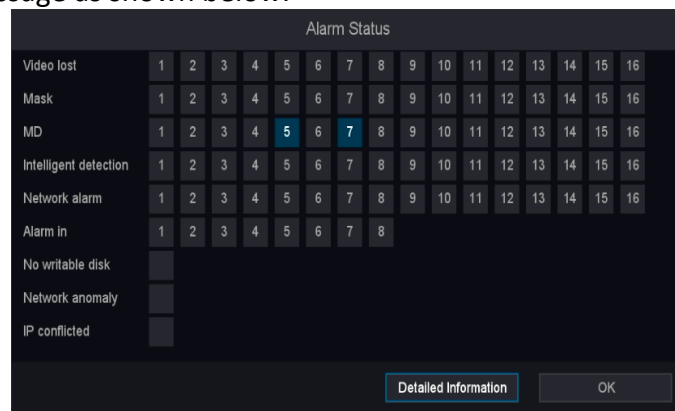


Figure 8-2-1

Chapter 9 Web Operation

9.1 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.

9.2 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**.



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

2. The first time you log in, you will be prompted to install the plugin.
3. Allow the prompt and download the plugin to complete the installation.
4. Close the browser and reopen.
5. Select language in the interface.
6. Enter **user name** and **password** in the login interface (The first time you log in to the device, you need to activate it, you can also activate it on the local GUI first).
7. Click **Login**.



Figure 9-2-1 Login



• 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.

9.3 Preview

After your login successfully, you will enter the preview interface, as show below.

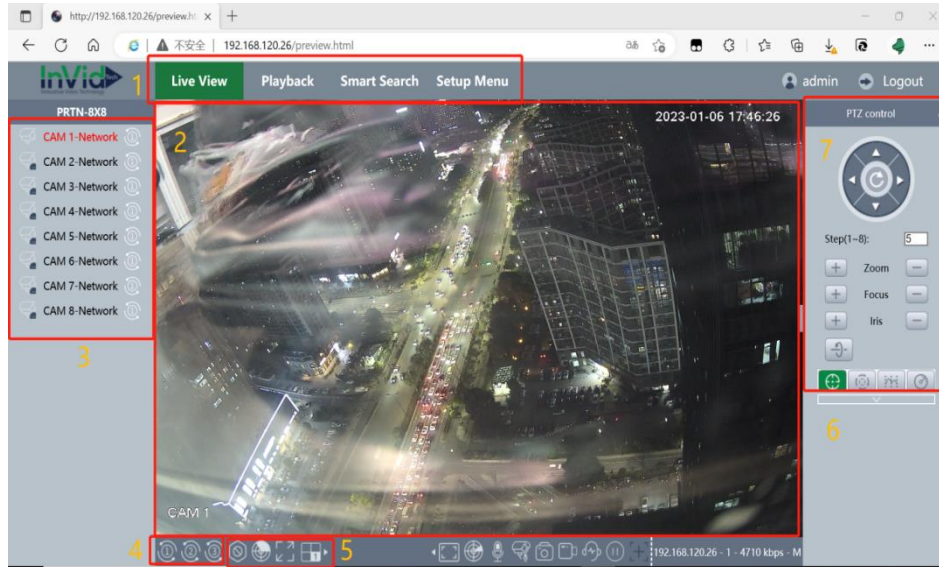


Figure 9-3-1 Live View

9.4 Playback

Click **Playback** to enter playback interface, as show below.

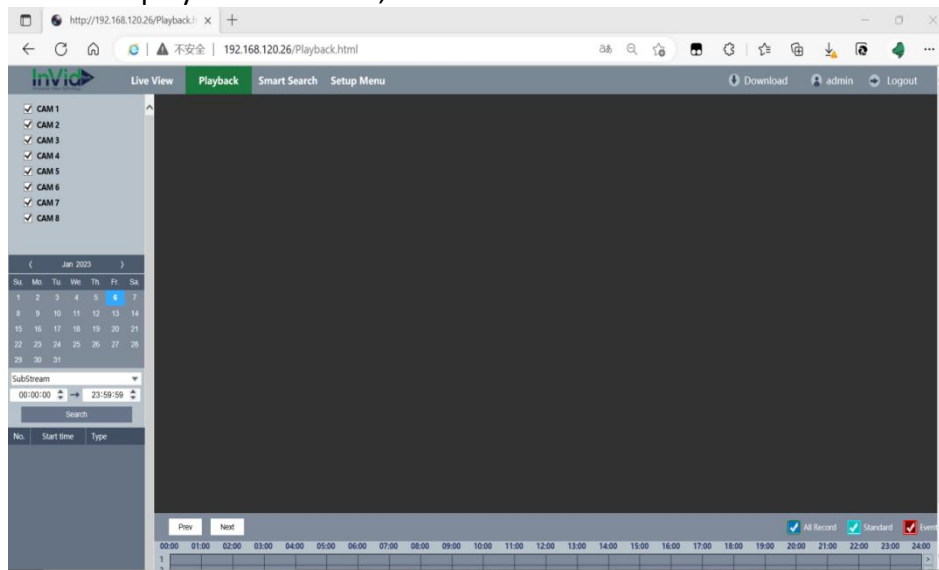


Figure 9-4-1 Playback

9.5 Set

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

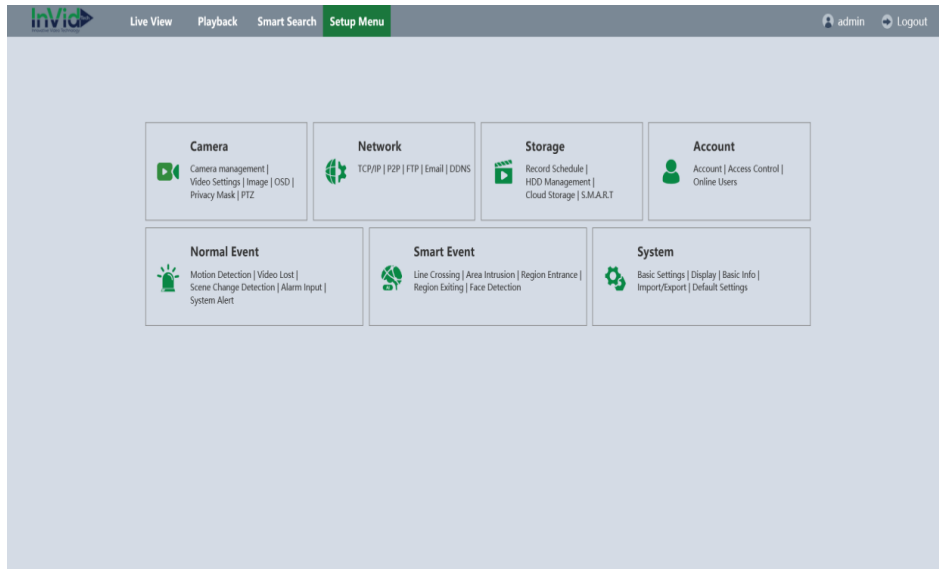


Figure 9-5-1 Configuration

9.6 Log

Steps:

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

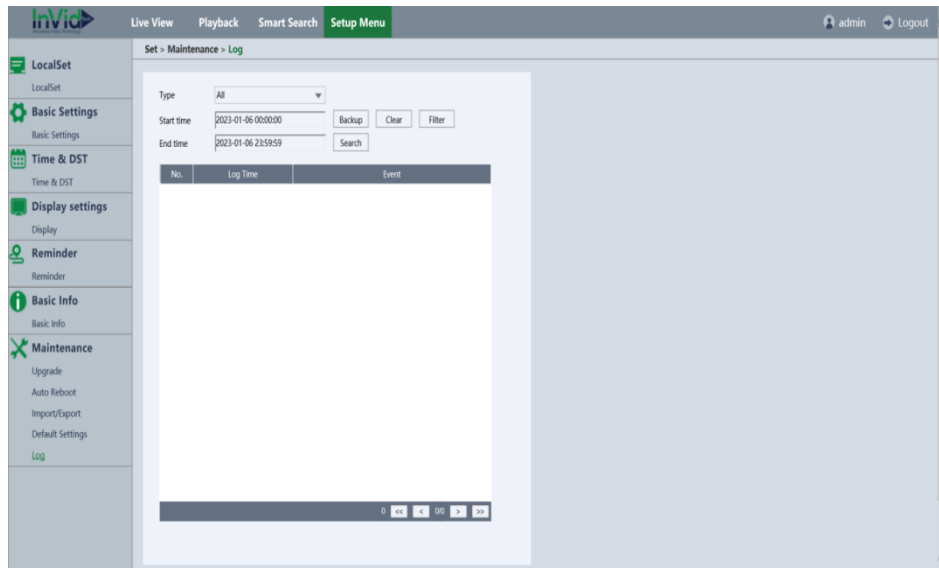


Figure 9-6-1 Log

Chapter 10 Configuration (Advanced Mode)

10.1 System Configuration

10.1.1 Basic Settings

Configure Basic Settings

You can configure the Language, Time zone, System time, Time format, DST, Auto logout, Startup Wizard, Smart display, Smart tracking display, Preview strategy.

Steps:

1. Go to **Seven Grid Menu** → **System** → **Basic Settings** → **Basic Settings**.
2. Configure the parameters as your desire.

DST

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.

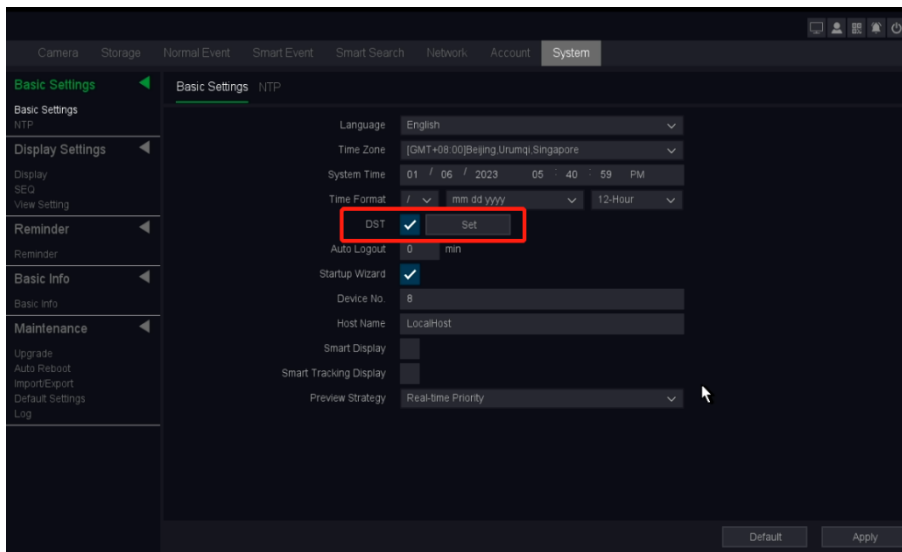


Figure 10-1-1-1 DST Settings

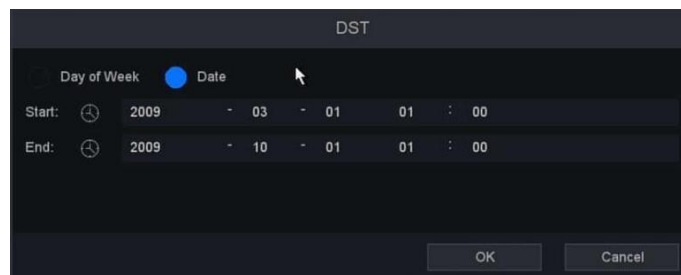


Figure 10-1-1-2 DST Settings

Time format

The form of time display.

Device No

When you are using one remote control to control several NVRs, you can give a number to each NVR as address for your management.

Host Name

NVR' s name.

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.

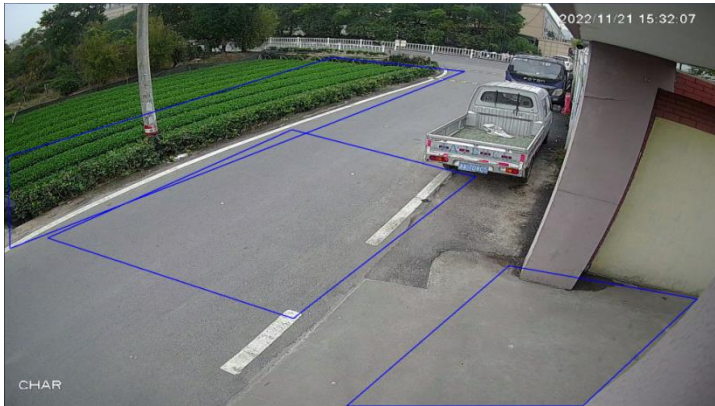


Figure 10-1-1-3

Smart tracking display

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

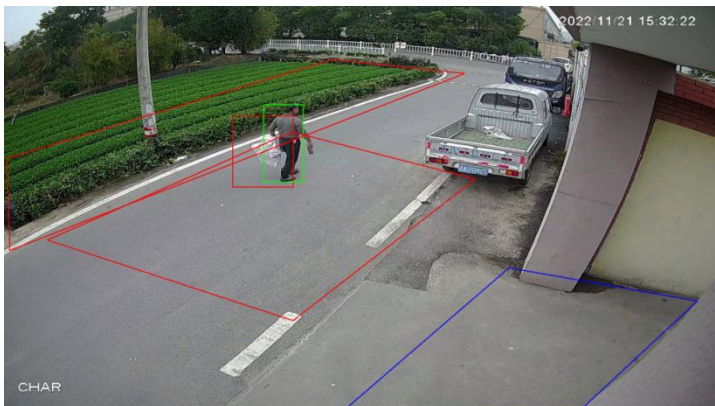


Figure 10-1-1-4

Preview strategy

Real-time priority and fluent priority is available for the preview strategy.

3. Click Apply.

NTP

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

Steps:

1. Go to **Seven Grid Menu** → **Network** → **Basic Settings** → **NTP**.
2. Turn on **Enable**.
3. Enter the parameters.

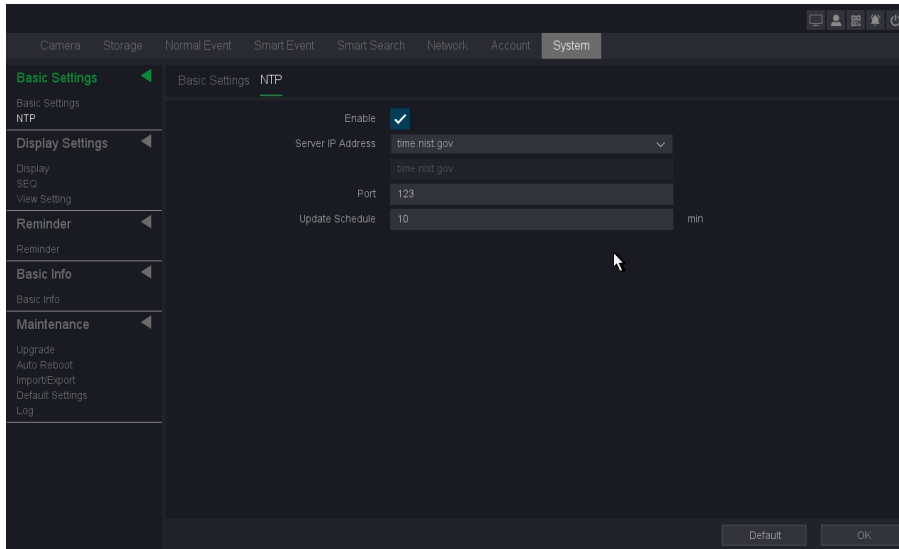


Figure 10-1-1-5

Server IP

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

Port

Port of NTP server.

Update Schedule

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

4. Click **OK**.



● 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.

10.1.2 Display Settings

Display

In this pare you can adjust video output parameters.

1. Go to **Seven Grid Menu** → **System** → **Display settings** → **Display**.
2. Click Apply after the setting is complete.

Resolution

Select the appropriate resolution of menu output.

Hue

Set the color tone of the display.

Brightness

Set the brightness of the display.

Contrast

Set the contrast of the display.

Saturation

Set the saturation of the display.

Top & Bottom & Left & Right

Set the distance between the top, bottom, left, and right borders of the display.

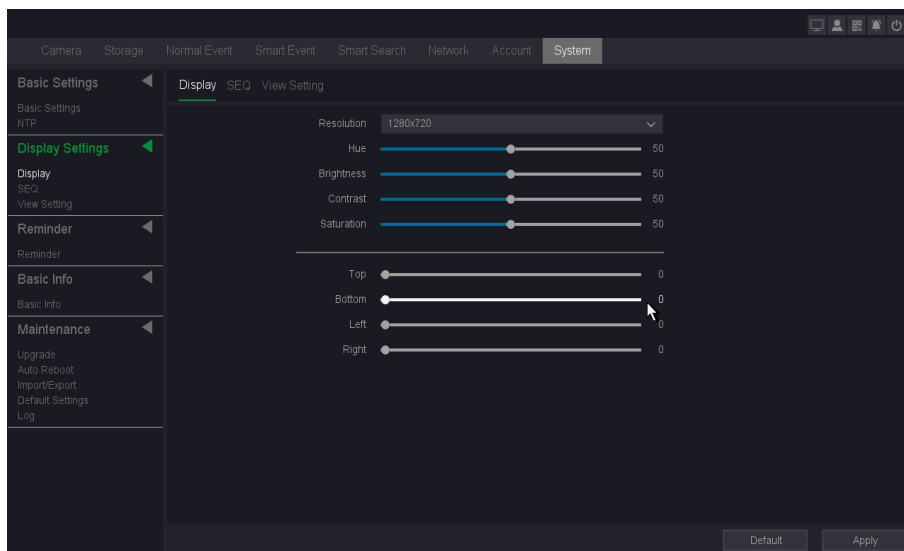


Figure 10-1-2-1



For 6B series NVR, they support show different things on two monitors, and their display mode includes.

- Homologous: All monitors will display the same thing.
- VGA/HDMI1, HDMI2: VGA/HDMI1 port will display the different thing with HDMI2 port.
- HDMI1, VGA/HDMI2: VGA/HDMI2 port will display the different thing with HDMI1 port.

SEQ

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

1. Go to **Seven Grid Menu** → **System** → **Display settings** → **SEQ**.
2. Click Apply after the setting is complete.

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.

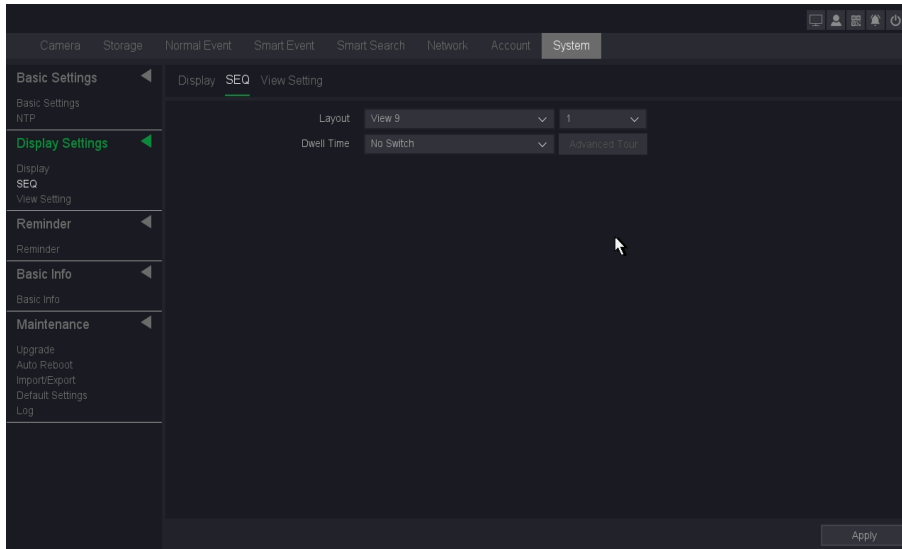


Figure 10-1-2-2

3. And if you choose advanced tour in ‘Dwell time’, the setting method is shown as following picture:

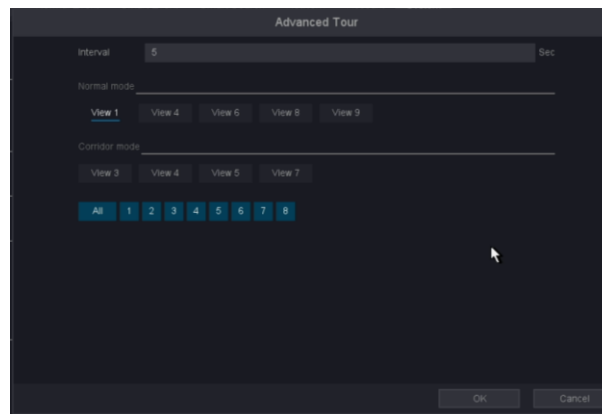


Figure 10-1-2-3

Interval

Interval time setting, the range of values is from 5s to 120s.





View

View checking about tour.

View setting

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

1. Go to **Seven Grid Menu** → **System** → **Display settings** → **View setting**.
2. Select the Channel from the drop-down list.
3. Click a window to select it, and then double-click a camera name in the channel list you would like to display.

- 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.
- Click Apply after the setting is complete.

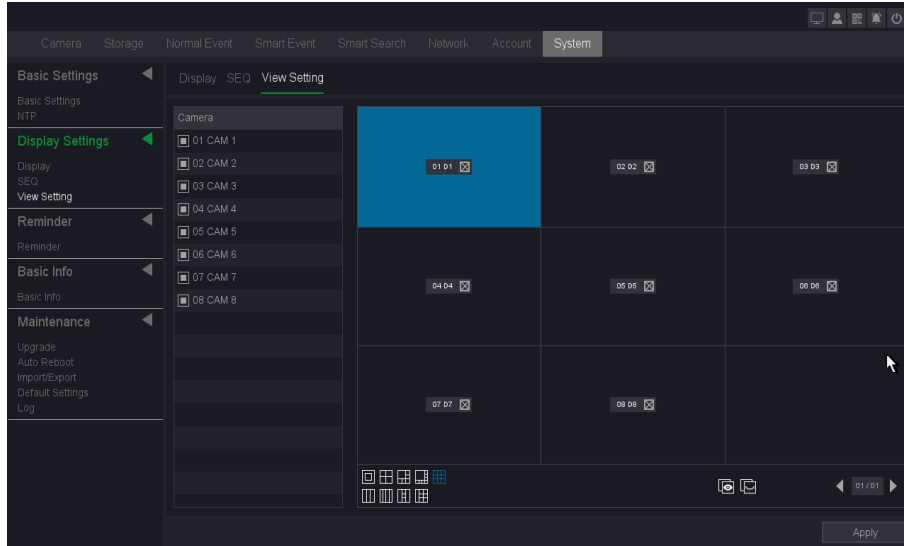


Figure 10-1-2-4

10.1.3 Reminder

When patrol detection occurs, the system will jump out of the Inspection information. Click OK, the patrol will be detected successful. Otherwise, it will fail; the information can also be searched in the log message. As below following figure.

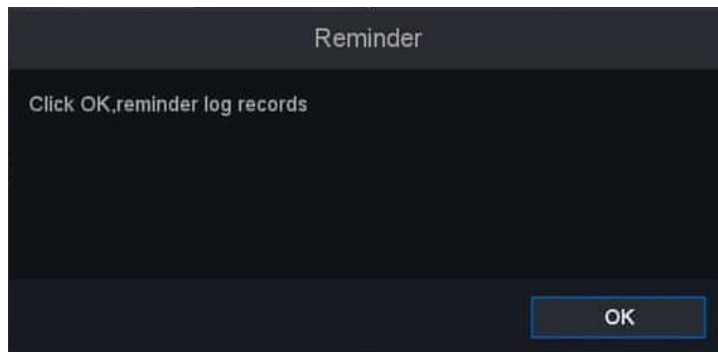


Figure 10-1-3-1

- Go to **Seven Grid Menu** → **System** → **Reminder** → **Reminder**.
- Set the time interval between two patrol checks and the time period for cloth removal.
- Click Apply after the setting is complete.

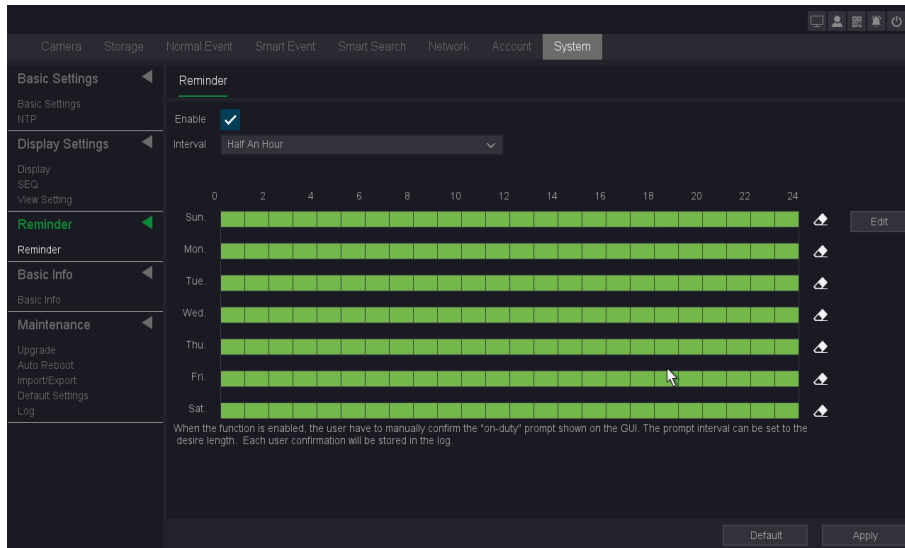


Figure 10-1-3-2

10.1.4 Basic info

The Version

Please refer to **7.3.2 Online Upgrade & The Version**.

10.1.5 Maintenance

Upgrade

Please refer to **7.3.1 Local Upgrade & 7.3.2 Online Upgrade**

Auto reboot

In this interface, you can set the automatic maintenance time of the device. Automatic maintenance on time can clear unnecessary caches and improve device performance.

1. Go to **Seven Grid Menu** → **System** → **Maintenance** → **Auto Reboot**.

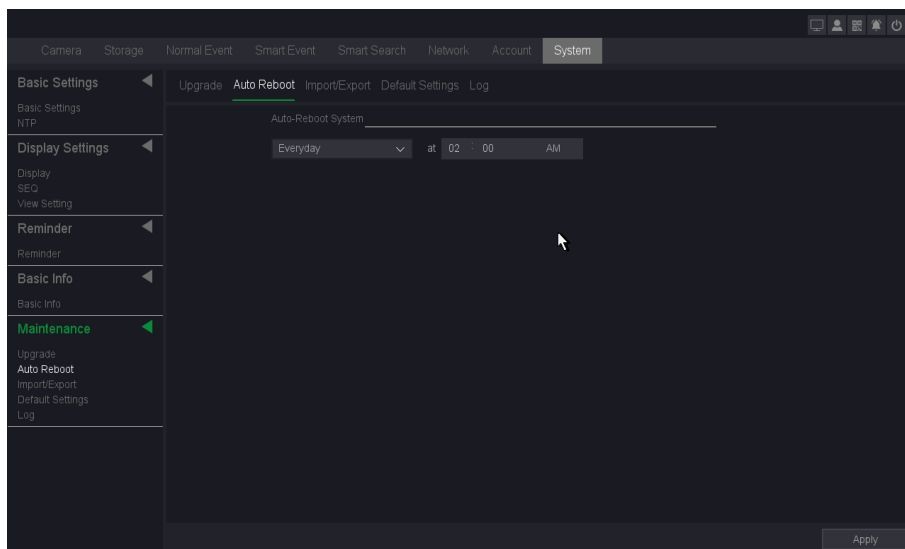


Figure 10-1-6-1

Import/Export

On this page you can backup device parameters into USB flash disk, Of course, you can also import the device parameters you backed up before.

1. Go to **Seven Grid Menu** → **System** → **Maintenance** → **Import/Export**.
2. Click **Detect**.
3. Click **Import** or **Export**.

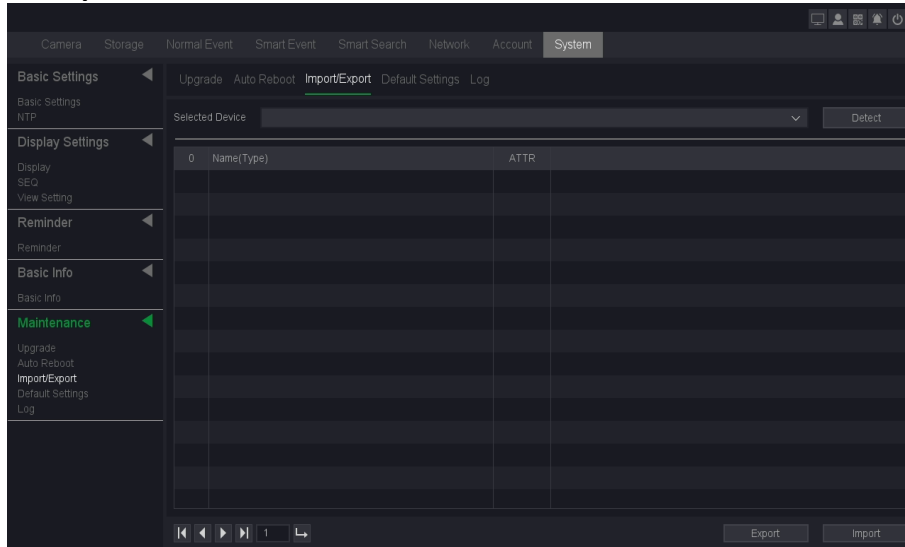


Figure 10-1-6-2

Detect

Detect the USB device.

Name (type)

File name and file type, and the backup file is “.coi” type.

ATTR

Shows the file type.

Export

Export the parameters backup file into USB disk.

Import

Choose the backup file and click import button, your device parameters will change into the new one.

Default Settings

On this page you can choose the function item, General/Channel name/Control/Network/Motion Detect/Alarm/Abnormality/PTZ/Display/IP Channel/Smart settings/Cloud Authentication Code, and after click **Execute** button, the item what you chosen restore defaults. And you can also select the “select all” button, all the items restore default.

1. Go to **Seven Grid Menu** → **System** → **Maintenance** → **Default Settings**.
2. Select the function item you want to restore the default parameters or **Select all**.

3. Click **Execute**.

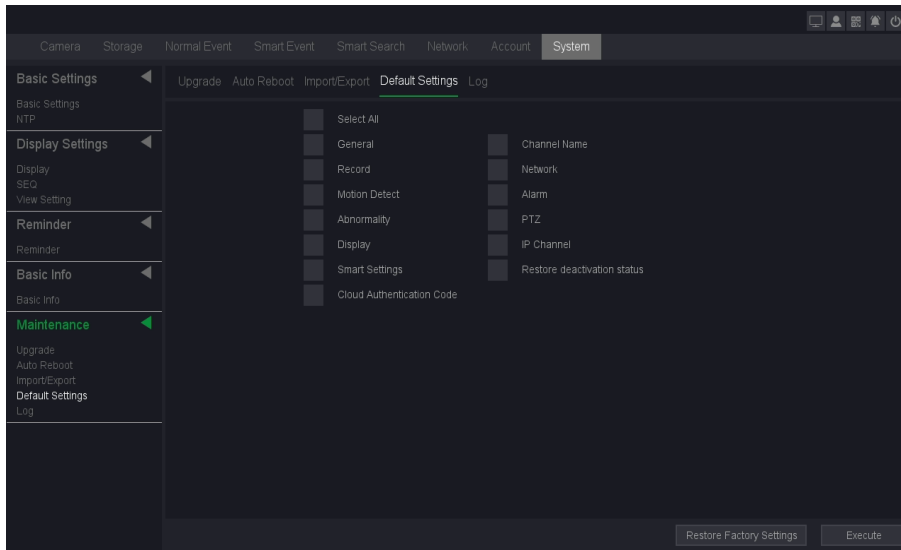


Figure 10-1-6-3



• You can also click **Restore factory settings** button to quickly restore factory settings, It is necessary to be cautious when restoring the factory settings, and it is recommended to back up before operation.

Log

This is the operation log of the system, Please refer to **7.2 Log**

10.1.6 Account

Account

There are three default accounts in the NVR: admin/guest/default, their default passwords are empty. The account of admin is an administrator, it has the permission to add and delete any user and configure user parameters. The account of default is used when logout, and this account just has preview permission, so that we can also use this account to decide which channel’s preview can be shown when logout.

Steps:

1. Go to **Seven Grid Menu** → **Account** → **Account** → **Account**.

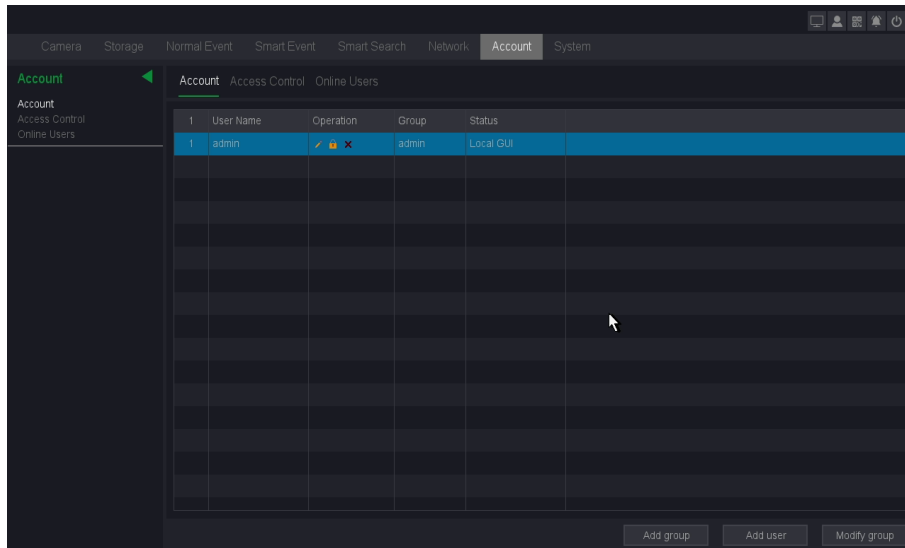


Figure 10-1-7-1

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.

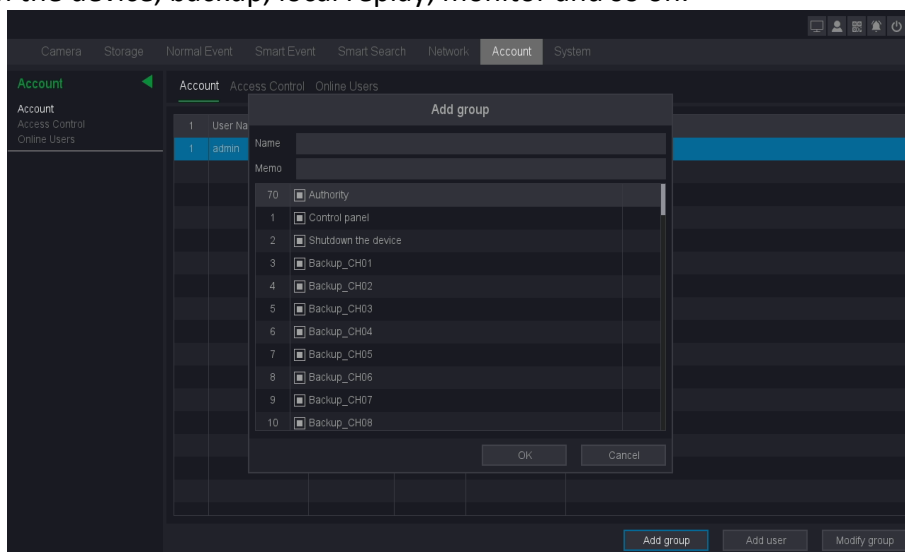


Figure 10-1-7-2

Modify Group

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

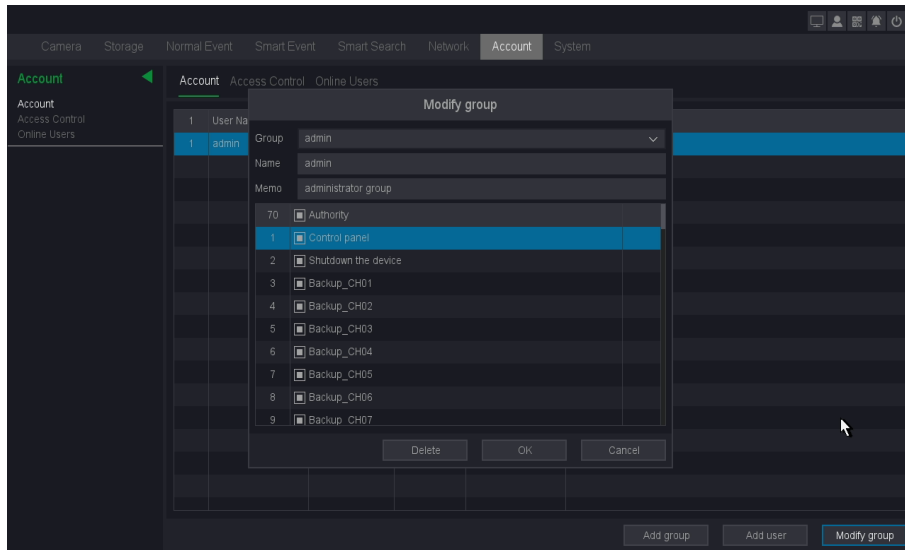


Figure 10-1-7-3

Add user & Modify User & Modify password

Please refer to **6.1.2 User**.



- 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.

Access Control

In this chapter by setting the IP address to be blocked and trusted, you can block specific IP address or allow some trusted IP.

Steps:

1. Go to **Seven Grid Menu → Account → Account→ Access Control**.

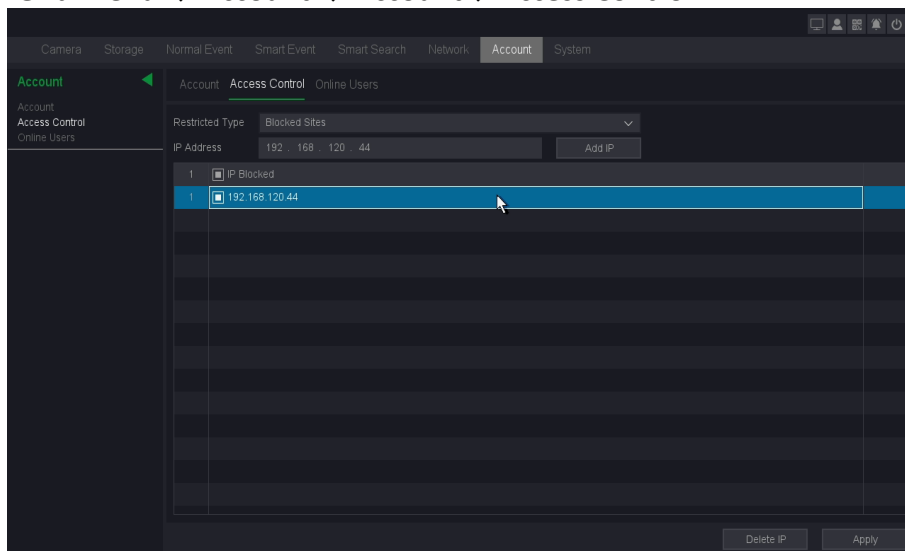


Figure 10-1-7-4

Blocked Sites

The IP Addresses which are added to blocked sites are not allowed to login NVR.

Trusted Sites

Only the IP Addresses which are added to trusted sites are allowed to login NVR.

1. Add IP or delete IP by clicking Add IP and Delete IP buttons.
2. Click the Apply button.

Online Users

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 **Seven Grid Menu** → **Account** → **Account** → **Online Users**

User Name	IP	Login type	Time
<input type="checkbox"/> admin	192.168.110.18	Web	01/06/2023 05:52:08PM
<input type="checkbox"/> admin	192.168.120.25	CMS	01/06/2023 05:53:37PM
<input type="checkbox"/> admin	192.168.120.25	CMS	01/06/2023 05:53:37PM

Disconnect Block 60 Sec

Figure 10-1-7-5

User Name

Remote device login this NVR device account.

IP

User remote access devices IP Address.

Login Type

Remote connection type.

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.

10.2 Network Configuration

10.2.1 Basic Settings

TCP/IP

TCP/IP must be properly configured before you 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 **Seven Grid Menu** → **Network** → **Basic Settings** → **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.

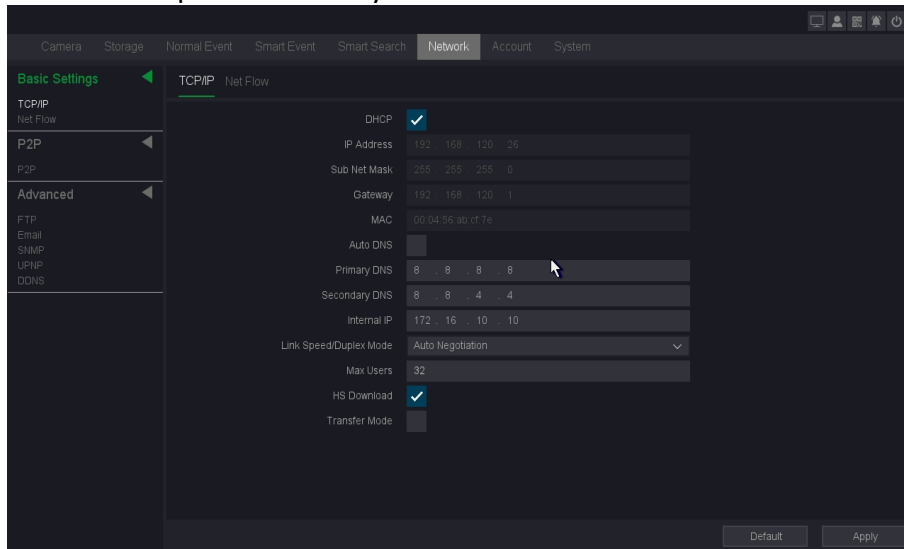


Figure 10-2-1-1

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

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.

Max Users

The maximum number of users can simultaneously access the NVR. Default value is 32.

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**.



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

Net Flow

In this interface, you can check transmission and receive status by LAN Port.

1. Go to **Seven Grid Menu** → **Network** → **Basic Settings** → **Net Flow**.

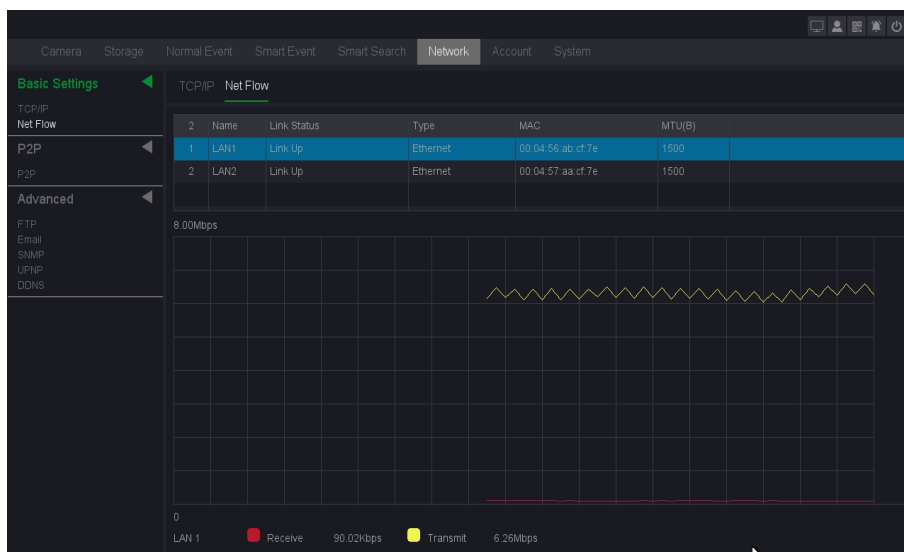


Figure 10-2-1-2

Receive

Shows the byte rate that NVR device received in real-time.

Transmit

Shows the byte rate that NVR device transmit in real-time.

10.2.2 P2P

P2P

Go to **Seven Grid Menu** → **Network** → **P2P** → **P2P**. Refer to **6.2.2 P2P** for details.

10.2.3 Advanced

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 **Seven Grid Menu** → **Network** → **Advanced** → **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.

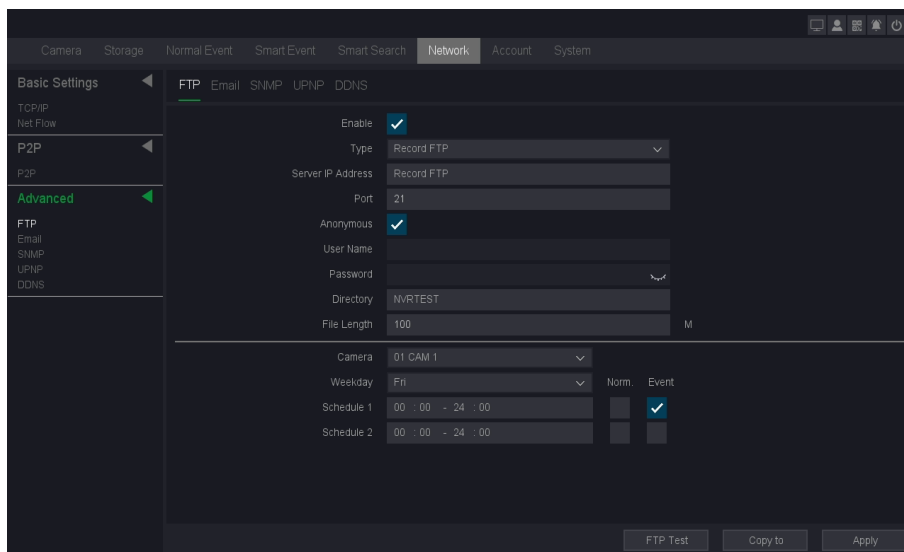


Figure 10-2-3-1



- 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.

Email

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

SNMP

Simple Network Management Protocol (SNMP) 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 **Seven Grid Menu** → **Network** → **Advanced** → **SNMP**.
2. There are 3 versions in SNMP. V1/V2 are shown below.

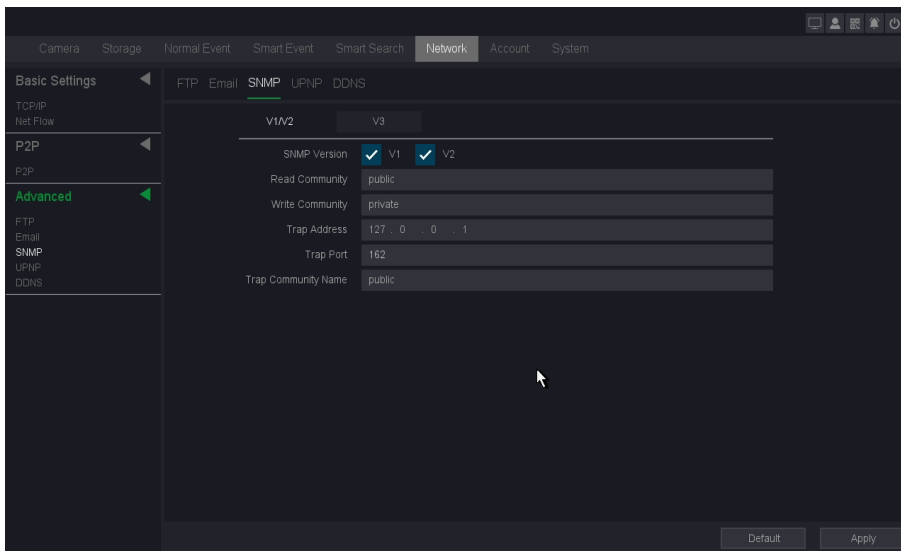


Figure 10-2-3-2

3. V3 is shown below.

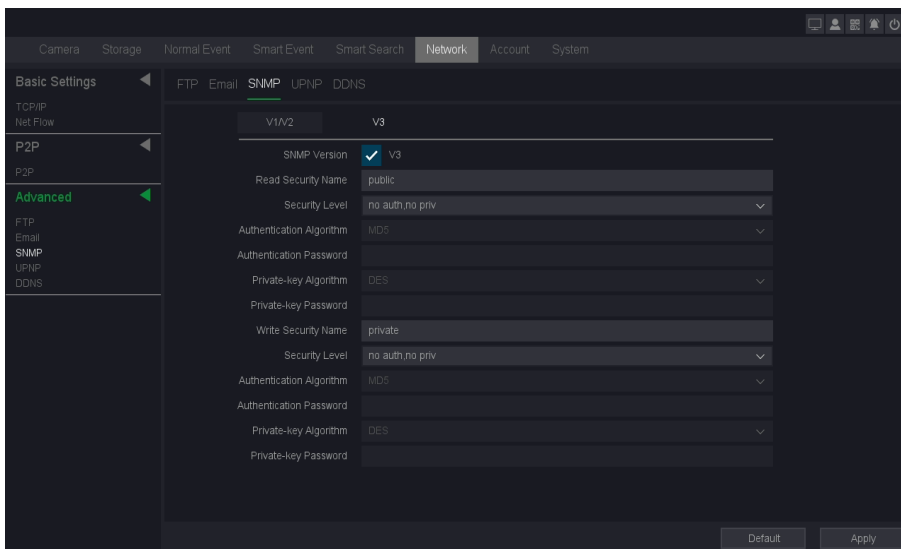


Figure 10-2-3-3

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

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 **Seven Grid Menu** → **Network** → **Advanced** → **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).
4. Click **Apply**.

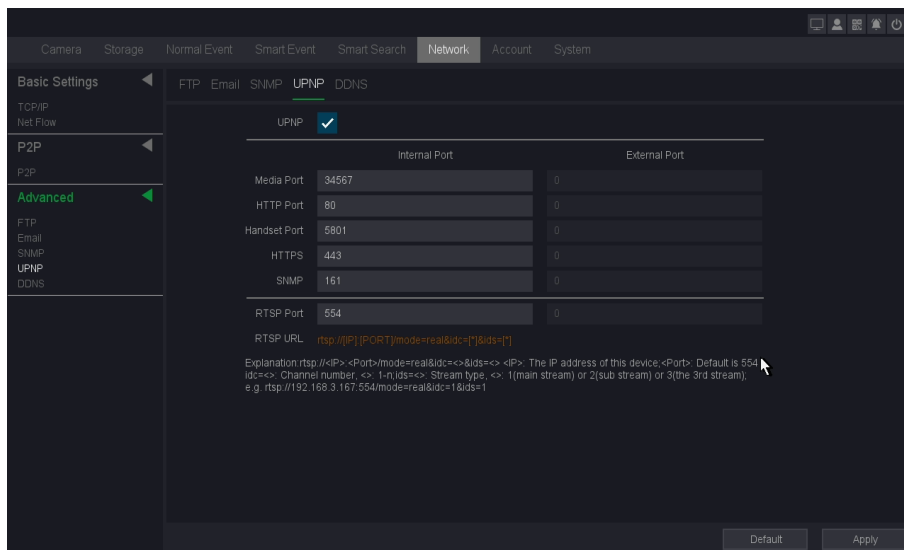


Figure 10-2-3-4



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

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 **Seven Grid Menu** → **Network** → **Advanced** → **DDNS**.
2. Turn on **Enable**.
3. Select a DDNS type.
4. Enter parameters including domain name, User name and Password etc.

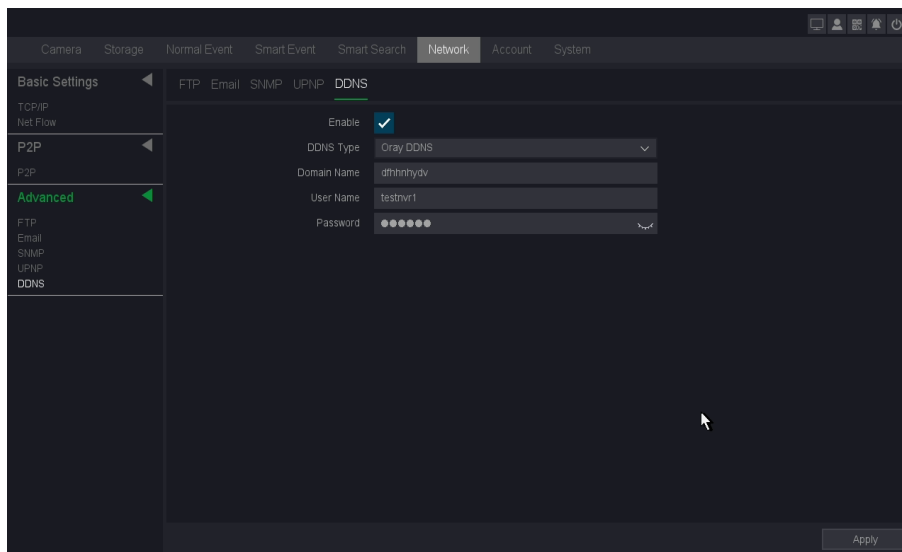


Figure 10-2-3-5

5. Click **Apply**.

DDNS Type

ISP of DDNS, including Oray DDNS, CN99 DDNS, DynDNS DDNS, 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.

10.3 Camera Management

10.3.1 Camera Management & POE Power

Camera Management & POE Power please refer to 6.3.1 & 2.7 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 **Seven Grid Menu** → **Camera** → **Camera Management** → **Protocol Password**.
2. Click **Edit** button.

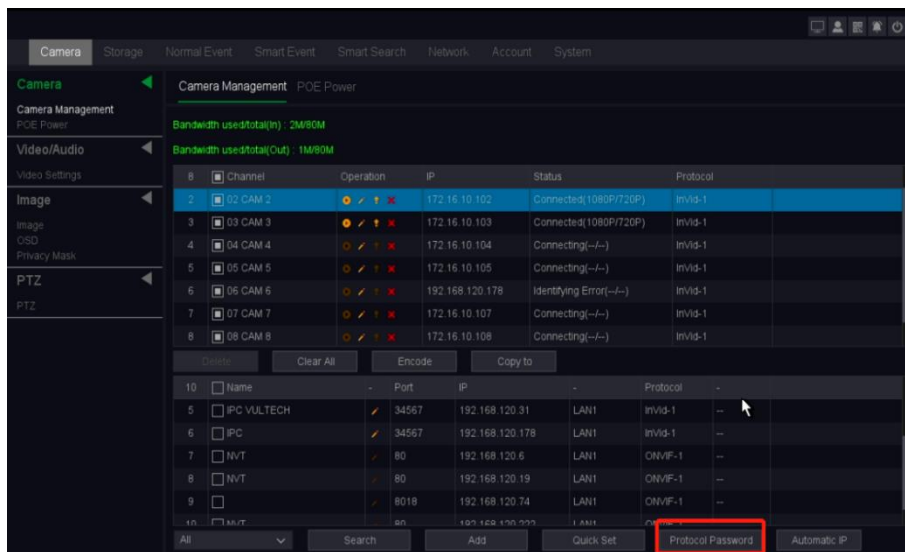


Figure 10-3-1-1

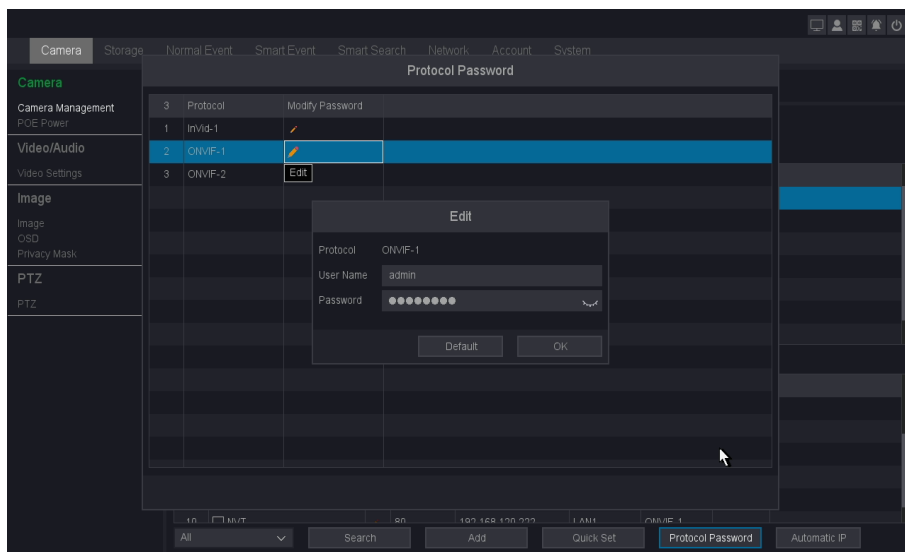


Figure 10-3-1-2

3. Select the **Protocol** you need to modify.
4. Set common password.
5. Click **OK**.
6. Click **Apply**.



● 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**.

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 **Seven Grid Menu → Camera → Camera Management → Encode**.

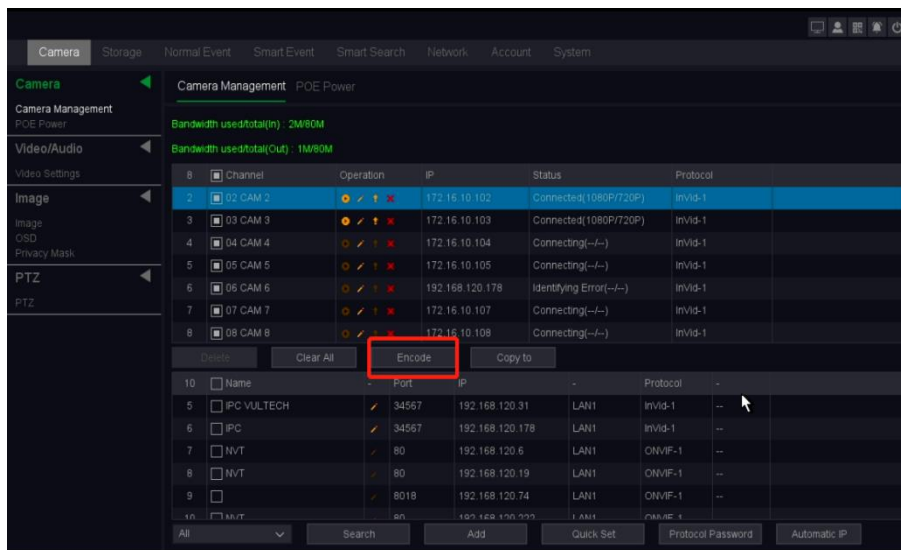


Figure 10-3-1-3

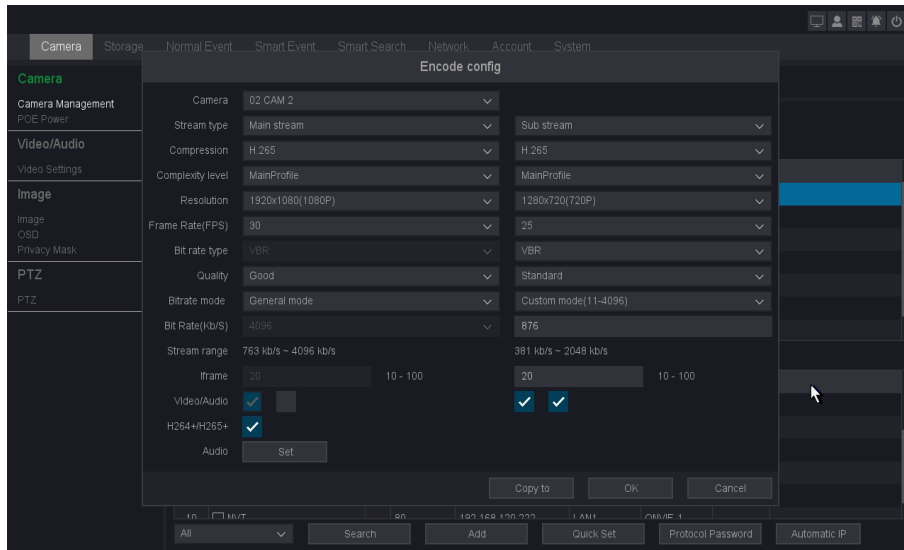


Figure 10-3-1-4

2. Configure the parameters as your desire.

Channel

Select the channel to configure.

Refresh

Click it to refresh IP channel's encode parameters.

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.

Image Quality

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

Bit Rate Type

General mode/Custom mode.

Bit rate(Kb/s)

Value of the Bandwidth.

Stream range

The bitrate range of this channel.

I-Frame GOP

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.

H.264+/H.265+

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.

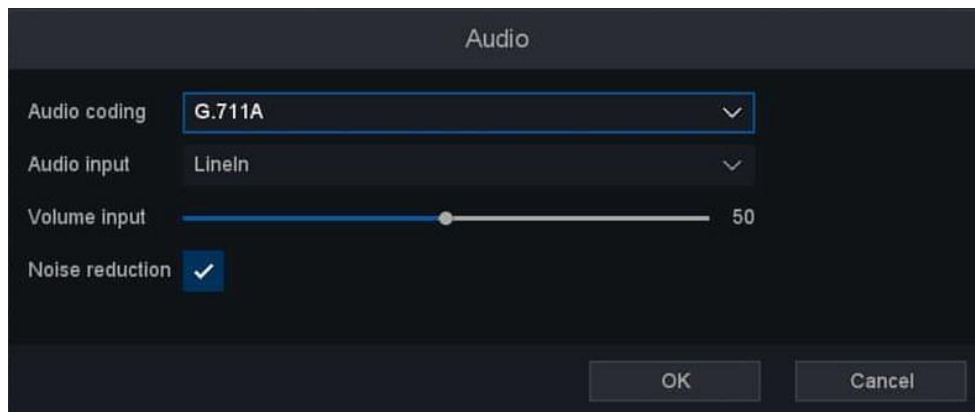


Figure 10-3-1-5

3. Optional: You can also use the function of **copy to**. The parameters for all channels can be quickly set.
4. Click **OK** and Click **Apply**.



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

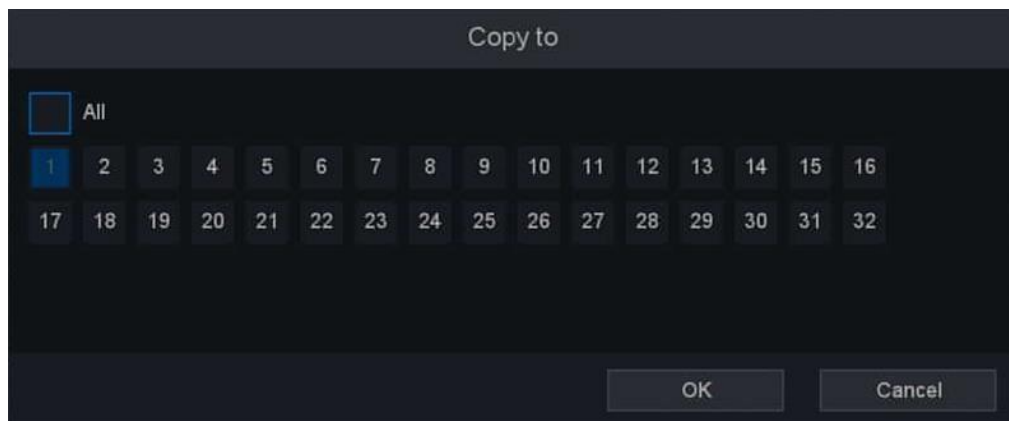


Figure 10-3-1-6

10.3.2 Video/Audio

Video/Audio please refer to **6.4.3 Configuring video encoding**.

10.3.3 Image

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 **Seven Grid Menu** → **Camera** → **Image** → **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.

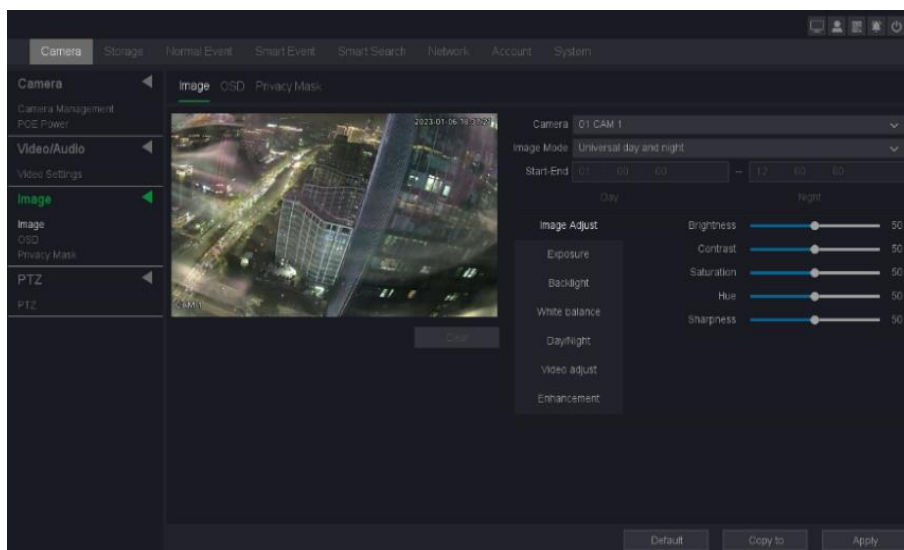


Figure 10-3-3-1

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	Day/Night	Auto/Color On/Color Off Switch Type: IR Synchronous Switch Filter Time: from 0-120 seconds
Exposure	Auto: Set exposure time automatically Manual: Set exposure time by selecting exact value	Video adjust	Image:Close/Up down/Left right/Centre Rotate: Off/90/180/270
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	Defog	Close: function disable Auto: defog automatically Manual: adjust the effect manually
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

Table 10-3-3-1

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 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.

Day/Night

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

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 **6.3.2 OSD Settings**.

Before You Start

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

Steps:

1. Go to **Seven Grid Menu** → **Camera** → **Image** → **OSD**.
2. Select a camera.

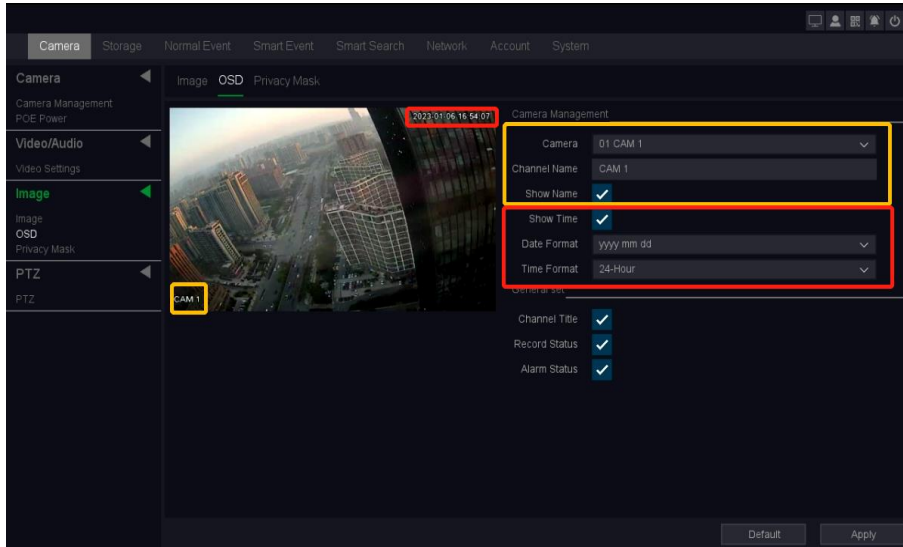


Figure 10-3-3-2 OSD

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:

Time Title, Channel Title

Enable/disable the display of the time tile and 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 **Seven Grid Menu** → **Camera** → **Image** → **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**.

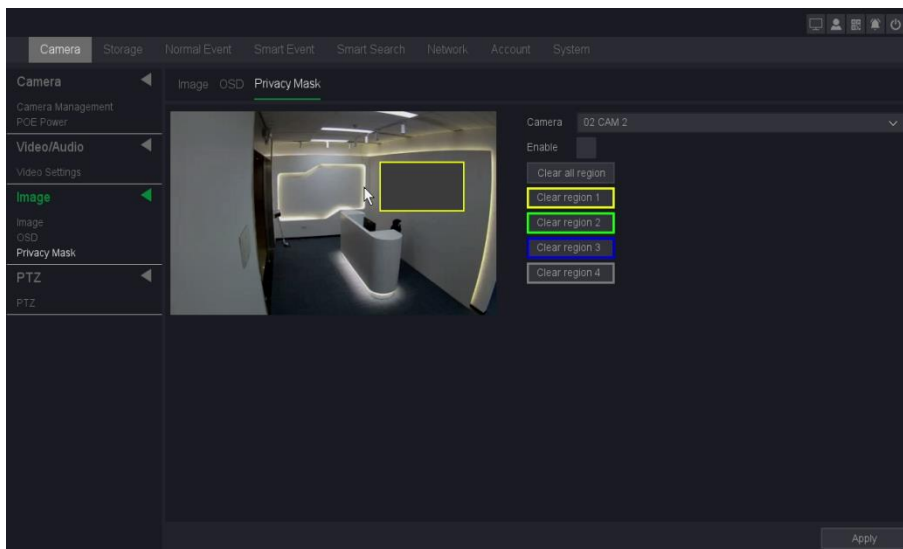


Figure 10-3-3-3



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

10.3.4 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 **Seven Grid Menu** → **Camera** → **PTZ** → **PTZ**.
2. Select the channel to configure.
3. Configure the parameters as your desire.

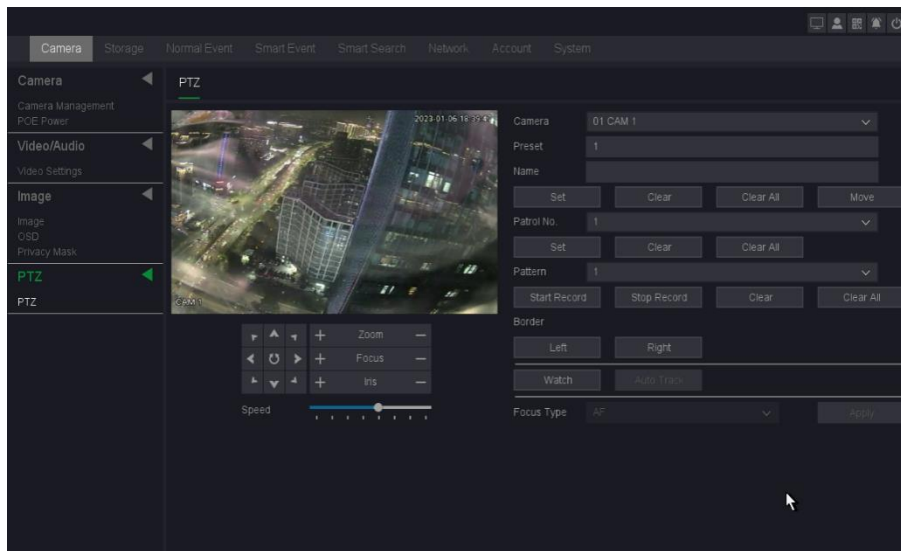


Figure 10-3-4-1

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.

Patrol

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. As shown below.

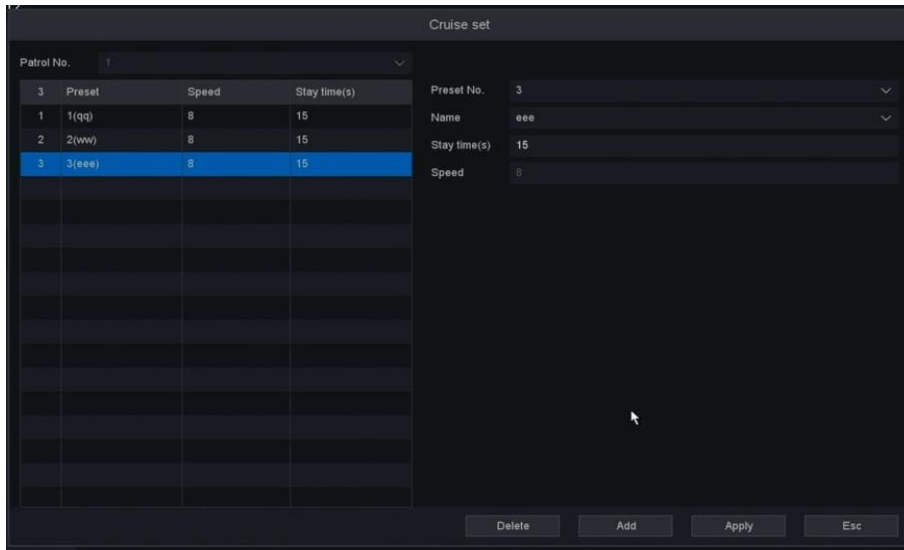


Figure 10-3-4-2

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.

Speed

Set the speed of the PTZ movement.


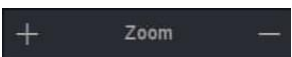
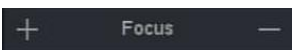


Items	Function Description
	Direction button and the auto-cycle button
	Zoom+, Zoom-
	Focus+, Focus-
	Iris+, Iris-
	The speed of the PTZ movement

Table 10-3-4-1

10.4 Normal Event

10.4.1 Motion detection

Motion Detection

Motion detection enables the video recorder to detect the moving objects in the monitored area and trigger alarms. Please Refer to **6.3.3 - Motion Detection**.

10.4.2 Video Diagnosis

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 **Seven Grid Menu** → **Normal Event** → **Video Diagnosis** → **Video Lost**.

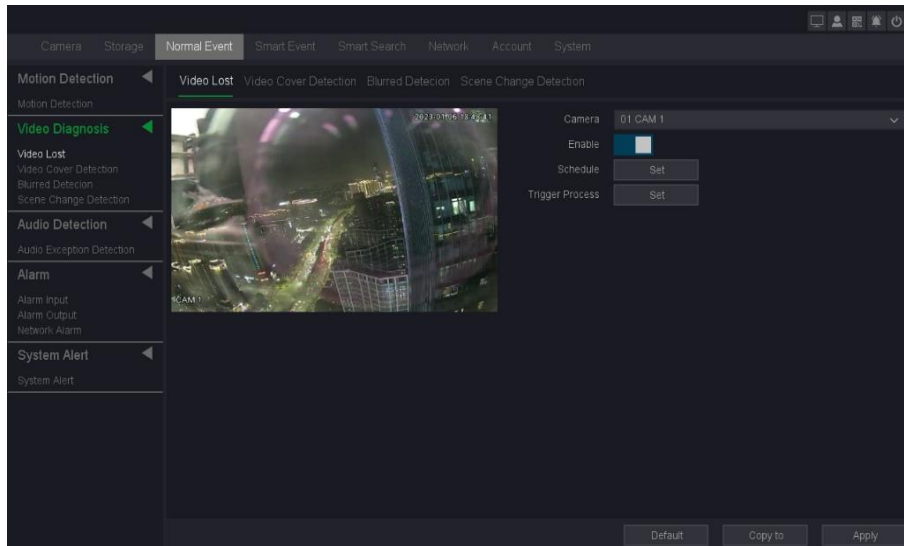


Figure 10-4-2-1

2. Set **Channel**.
3. Turn on **Enable**.
4. Set the arming **Schedule**. Refer to **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Click **Apply**.

Video Cover Detection

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 **Seven Grid Menu** → **Normal Event** → **Video Diagnosis** → **Video Cover Detection**.

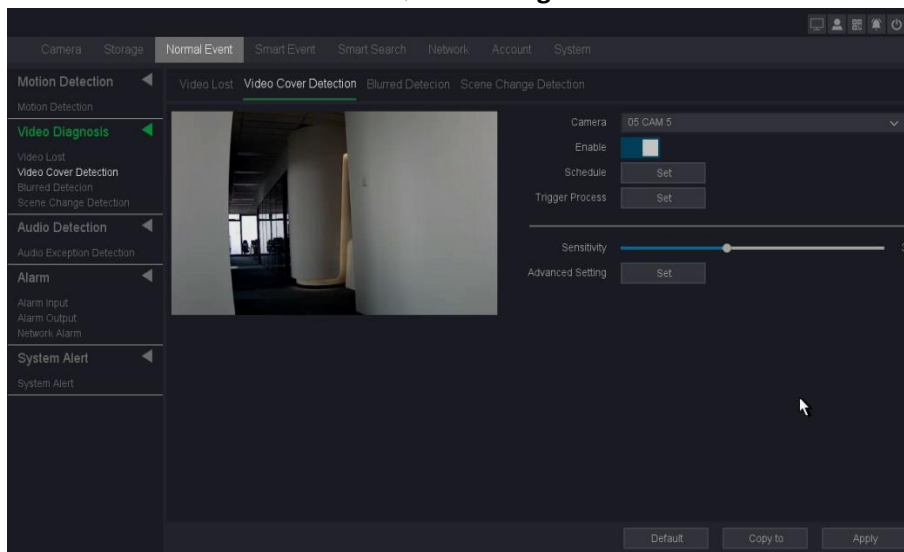


Figure 10-4-2-2 Video Cover Detection

2. Set **Channel**.
3. Turn on **Enable**.
4. Adjust **Sensitivity** as your desire. The higher the value is, the more easily the video Masking can be triggered.
5. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Click **Apply**.

Blurred detection

Blurred Detection alarm is triggered when the focus of lens is abnormal, 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 **Seven Grid Menu** → **Normal Event** → **Video diagnosis** → **Blurred Detection**.
2. Select a camera.
3. Turn on **Enable**.

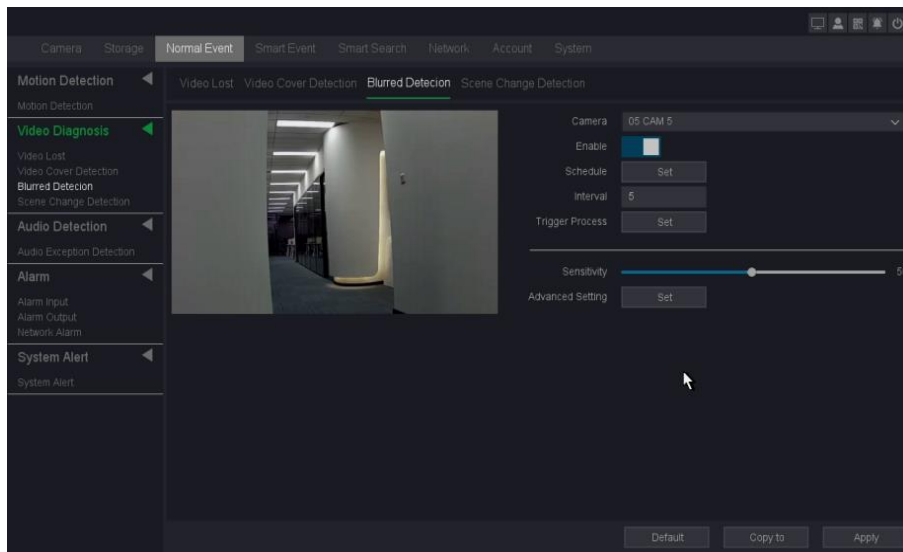


Figure 10-4-2-3

4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Adjust the sensitivity. Range from 1-100. The higher the value is, the more easily the detection alarm can be triggered. Set the alarm interval time and recommend using the default.
7. Click **Apply**.

Scene change detection

Scene change Detection alarm is triggered when the scene is changed a lot especially the direction of lens was moved by someone, 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 **Seven Grid Menu** → **Normal Event** → **Video diagnosis** → **Scene change detection**.
2. Select a camera.
3. Turn on **Enable**.
4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Adjust the sensitivity. Range from 1-100. The higher the value is, the more easily the detection alarm can be triggered.
7. Set the alarm interval time and recommend using the default.

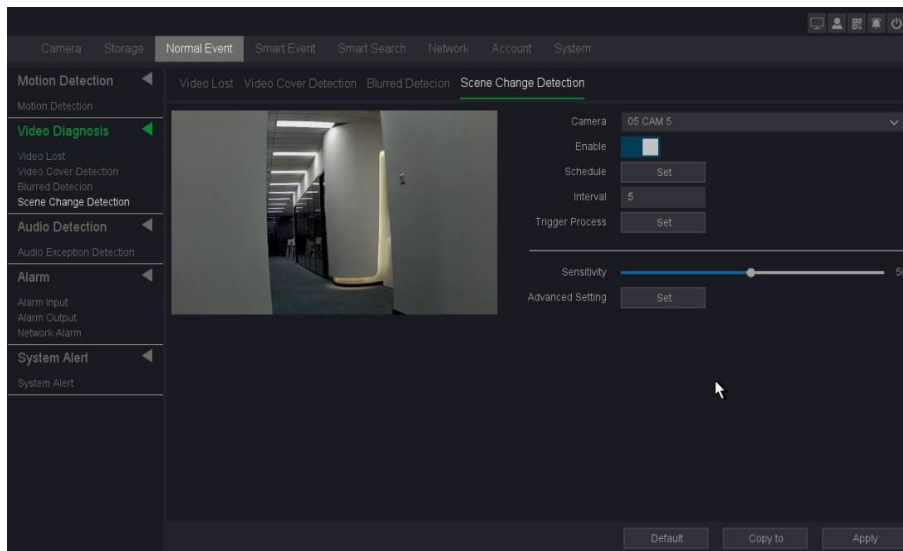


Figure 10-4-2-4

8. Click **Apply**.

10.4.3 Audio detection

Audio exception detection

Audio exception detection alarm is triggered when audio around camera is abnormal, 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 **Seven Grid Menu** → **Normal Event** → **Audio Detection** → **Audio exception detection**.

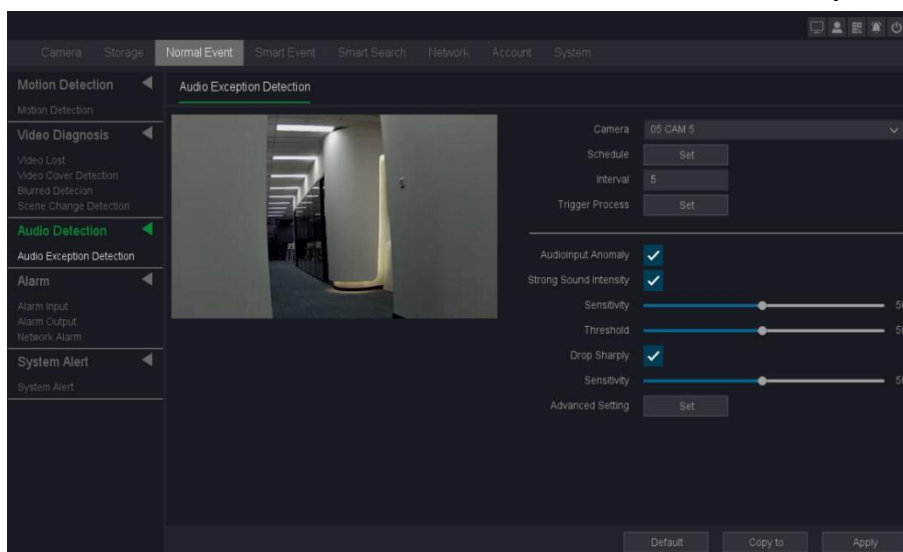


Figure 10-4-3-1

2. Select a camera.
3. Turn on **Enable**.
4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Adjust the sensitivity. Range from 1-100. The higher the value is, the more easily the detection alarm can be triggered.
7. Set the alarm interval time and recommend using the default.
8. Click **Apply**.

10.4.4 Alarm

Alarm Input

Set linkage actions for an external sensor alarm.

Steps:

1. Go to **Seven Grid Menu** → **Normal Event** → **Alarm** → **Alarm Input**.

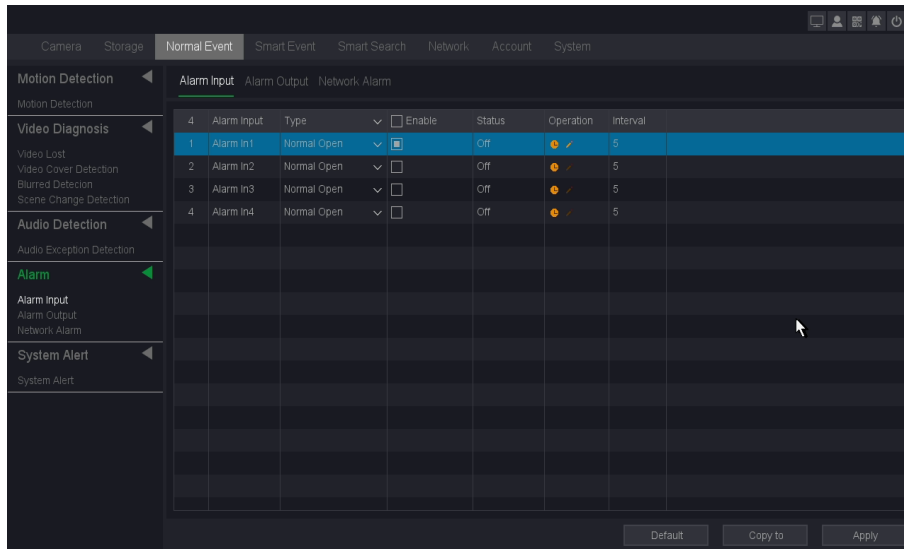


Figure 10-4-4-1 Alarm Input



• **Local alarm input:** Local alarm input is triggered by the external device that connected to the video recorder's terminal block. It 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.

2. Click the Alarm input's name to edit the Alarm input's name as your desire.

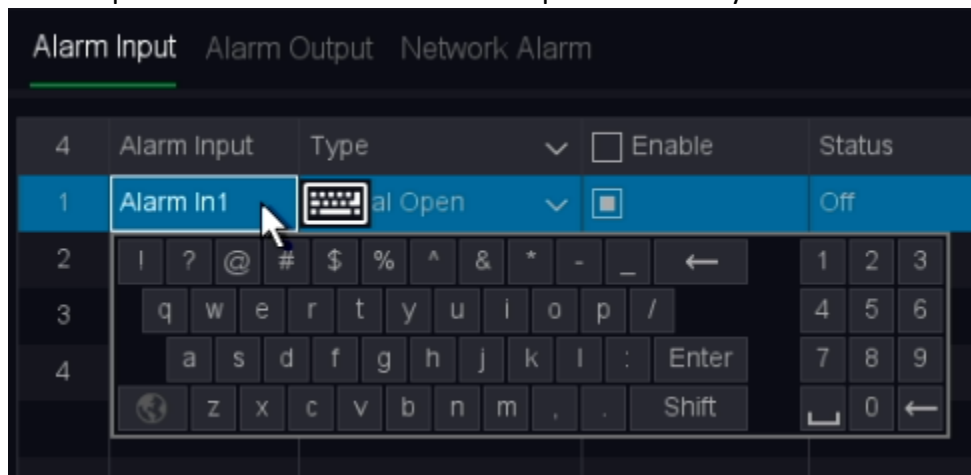




Figure 10-4-4-2 Edit Alarm Input

2. Set alarm type as **normally open** or **normally closed**.
3. Check the enable box to turn on.
4. Configure the other parameters as your desire.

5. Click  to set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Click  to set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Click **Apply**.

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 -> Close, or from Close ->Open, alarm will be triggered.

Enable

Alarm in enabled switch.

Status

Show the trigger status of alarm input port.

Interval

Set the time interval of each Alarm in triggered.

Alarm Output

Trigger an alarm output when an alarm is triggered.

Steps:

1. Go to **Seven Grid Menu → Normal Event → Alarm → Alarm Output**.

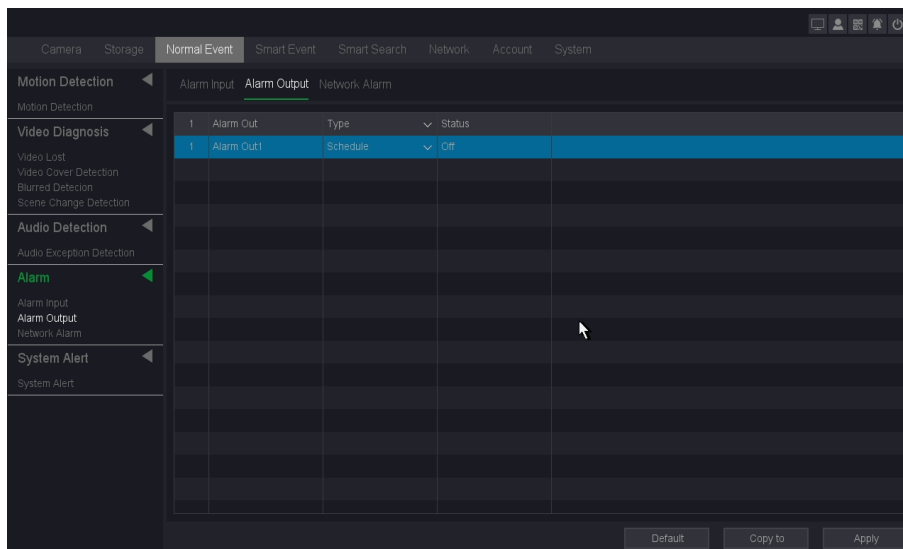


Figure 10-4-4-3

2. Click the Alarm Output's name to edit the Alarm Output's name as your desire.
3. Set alarm type as **Schedule, Manual or Stop**.
4. Configure the other parameters as your desire.
5. Click **Apply**.

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.

Status

Show the trigger status of alarm output port.

Network Alarm

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 **Seven Grid Menu** → **Normal Event** → **Alarm** → **Network Alarm**.

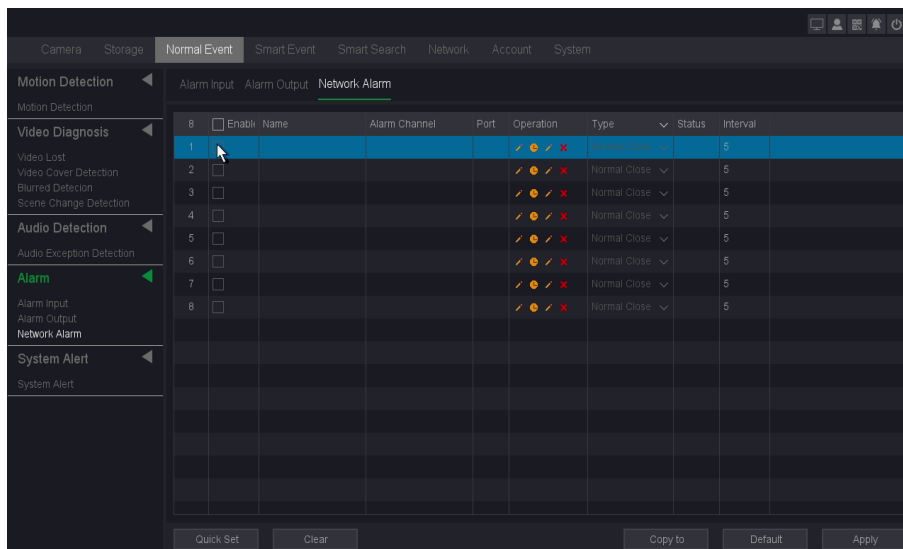


Figure 10-4-4-4

2. Click left to set the name, alarm channel and alarm Port.
3. Click to set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
4. Click right to set the **Trigger process**. Refer to **6.3.3 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 channels

Show which IP channel's alarm input it is.

Port

Show which alarm input port of IP channel it is.

Operations

It includes four kinds of operations: **Edit/Schedule/Trigger process/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 - > Close, or from Close - >Open, alarm will be triggered.

Status

Show the trigger status of alarm input port.

Interval

Set the time interval of each Alarm in triggered.

10.4.5 System Alert

Exception settings refer to the handling action of various exceptions, including No writable disk, Disk error, Disk no space, Network Disconnection, IP Conflicted.

Steps:

1. Go to **Seven Grid Menu → Normal Event → System Alert → System Alert.**

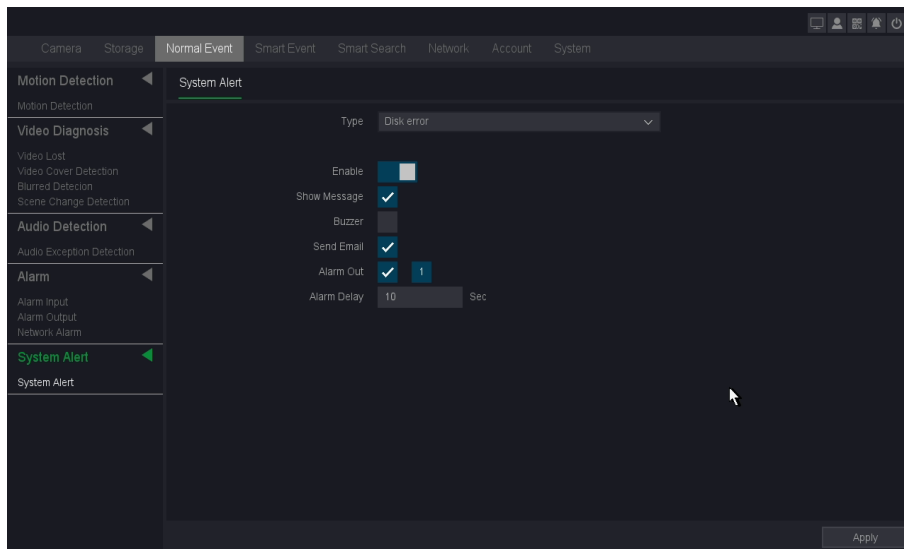


Figure 10-4-5-1

2. Select Exception 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**.

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 No Space

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 Disconnection

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 Conflicted

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.

10.5 Smart Event

10.5.1 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 **6.3.3 Smart Event**.

10.5.2 Behavior Analysis

Fast Moving

Fast Moving function detects people, vehicle and some other objects that move with forbidden speed, 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 **Seven Grid Menu** → **Smart Event** → **Behavior Analysis** → **Fast Moving**.

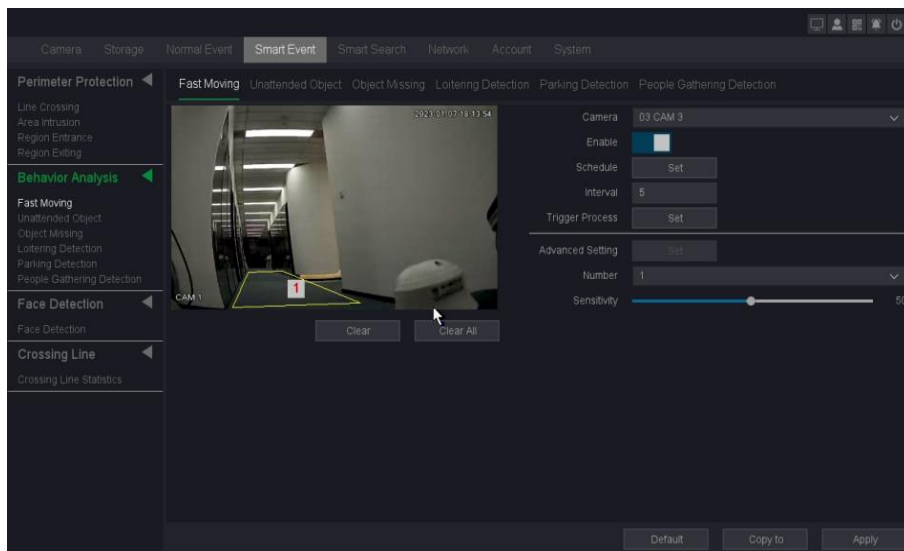


Figure 10-5-2-1 Fast Moving

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
5. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Set the alarm interval time and recommend using the default.
8. Click **Apply**.

Unattended Object

Unattended Object function detects articles that left in a certain pre-defined virtual region, 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: Go to **Seven Grid Menu** → **Smart Event** → **Behavior Analysis** → **Unattended Object**.

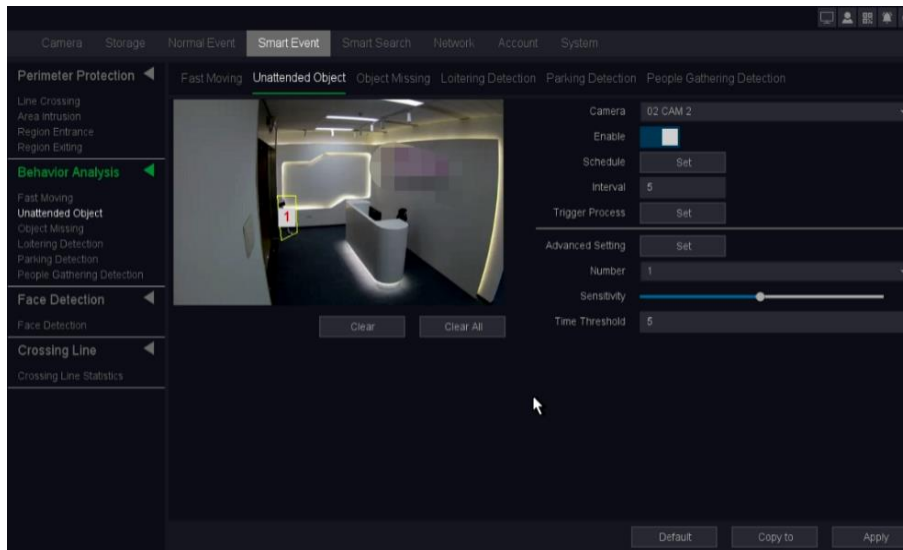


Figure 10-5-2-2 Unattended Object

1. Select a camera.
2. Turn on **Enable**.
3. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
 - 3) Set Time Threshold, It is to set how long the detection object is in the area to trigger the alarm.
4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Set the alarm interval time and recommend using the default.
7. Click **Apply**.

Object Missing

Object Missing function detect articles that missing in a certain pre-defined virtual region, 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

Go to Seven Grid Menu → Smart Event → Behavior Analysis → Object Missing.

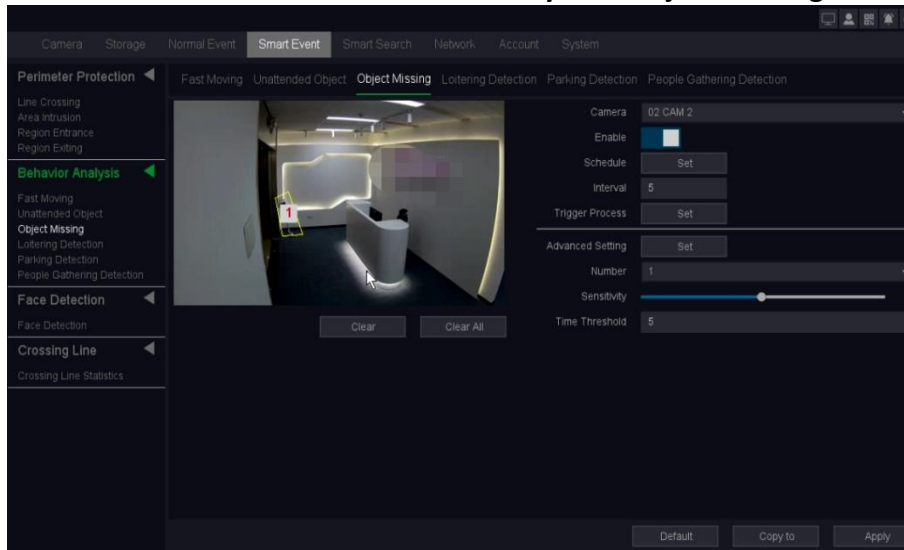


Figure 10-5-2-3 Object Missing

1. Select a camera.
2. Turn on **Enable**.
3. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
 - 3) Set Time Threshold, It is to set how long the detection object is in the area to trigger the alarm.
4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Set the alarm interval time and recommend using the default.
7. Click **Apply**

Loitering Detection

Loitering Detection alarm is triggered when people, go straight and back at least 3 times, or go not in a straight line in a pre-defined virtual region, 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 **Seven Grid Menu** → **Smart Event** → **Behavior Analysis** → **Loitering Detection**.

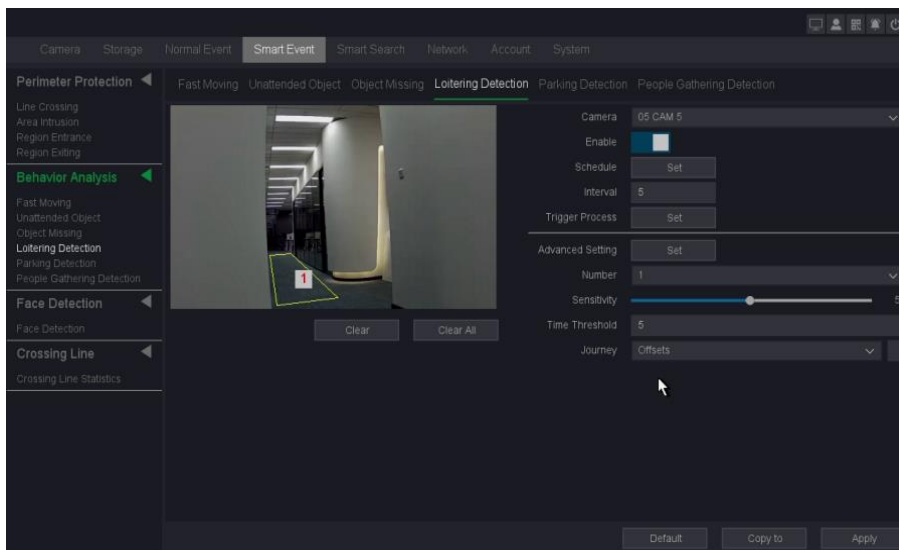


Figure 10-5-2-4 Loitering Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
 - 3) Set **Time Threshold**, It is to set how long the detection object is in the area to trigger the alarm.
 - 4) Select **Journey** (loitering detection) mode: **Offset**, **Weighing**, **Journey**, you can choose one, two or all.
5. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Set the alarm interval time and recommend using the default.
8. Click **Apply**.

Parking Detection

Parking Detection alarm is triggered when park in a pre-defined virtual region, 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 **Seven Grid Menu** → **Smart Event** → **Behavior Analysis** → **Parking Detection**.

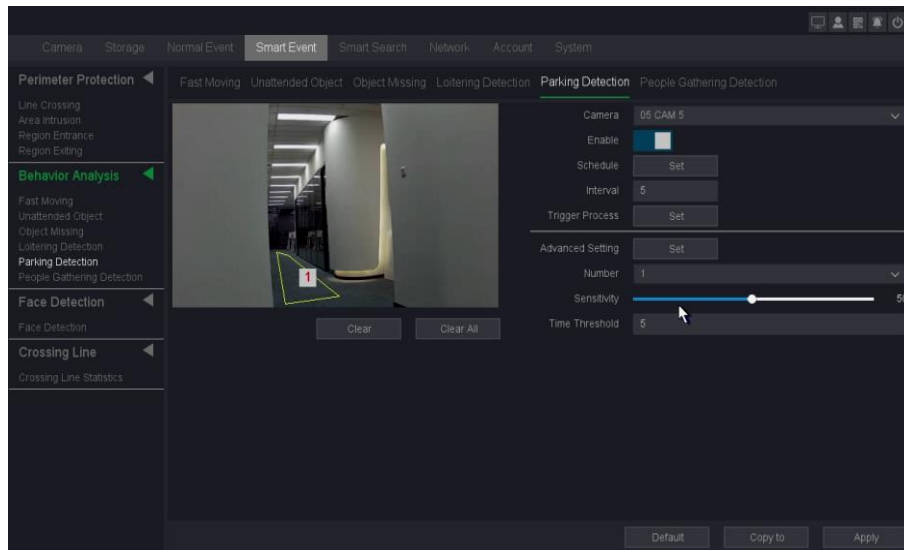


Figure 10-5-2-5 Parking Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
 - 3) Set **Time Threshold**, It is to set how long the detection object is in the area to trigger the alarm.
5. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Set the alarm interval time and recommend using the default.
8. Click **Apply**.

People Gathering Detection

People Gathering Detection alarm is triggered when there are many people in a pre-defined virtual region, 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 **Seven Grid Menu** → **Smart Event** → **Behavior Analysis** → **People Gathering Detection**.

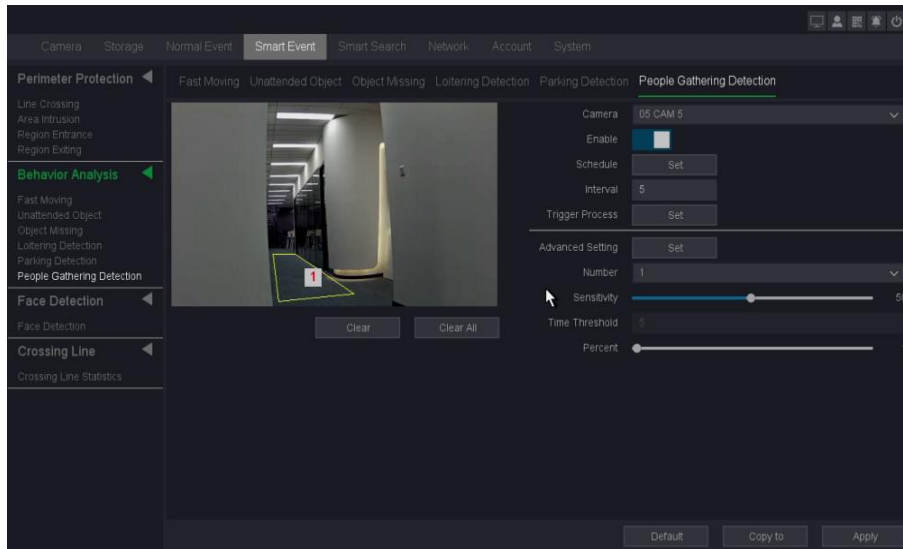


Figure 10-5-2-6 People Gathering Detection

2. Select a camera.
3. Turn on **Enable**.
4. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. Up to 4 arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
 - 3) Set **Time Threshold**, It is to set how long the detection object is in the area to trigger the alarm.
 - 4) Adjust the **percent**. Range from 1-100. The higher the value is, the more edge pixels needed to trigger the detection alarm.
5. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
6. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
7. Set the alarm interval time and recommend using the default.
8. Click **Apply**.

10.5.3 Face Detection

Face detection function detect peoples' faces in a certain pre-defined virtual region, 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:

Go to Seven Grid Menu → Smart Event → Face Detection → Face Detection.

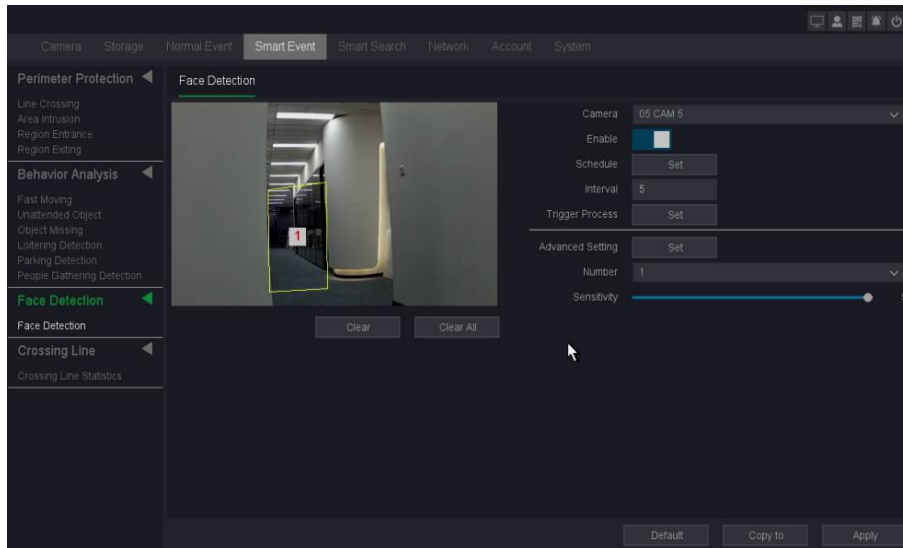


Figure 10-5-3-1 Face Detection

1. Select a camera.
2. Turn on **Enable**.
3. Set detection rules and detection areas.
 - 1) Select the **Number** to set **Arming Area**. But only one arming areas are selectable.
 - Click **Clear** or **set four points in the preview window** to clear or draw a **quadrilateral detection region**.
 - 2) Set **Sensitivity**. The size of the object that can trigger the alarm. The higher the value is, the easier the detection alarm can be triggered. Its range is [1-100].
4. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
5. Set the **Trigger process**. Refer to **6.3.3 Configure Alarm Trigger process** for details.
6. Set the alarm interval time and recommend using the default.
7. Click **Apply**

10.5.4 Crossing Line

Crossing line statistics

The feature is used to calculate the number of people entered or left a certain configured area and generate daily/weekly/monthly/annual reports for analysis.

Before You Start

Please make sure whether your IPC supports this function.

Steps:

1. Go to **Seven Grid Menu** → **Smart Event** → **Crossing Line** → **Crossing Line Statistics**.

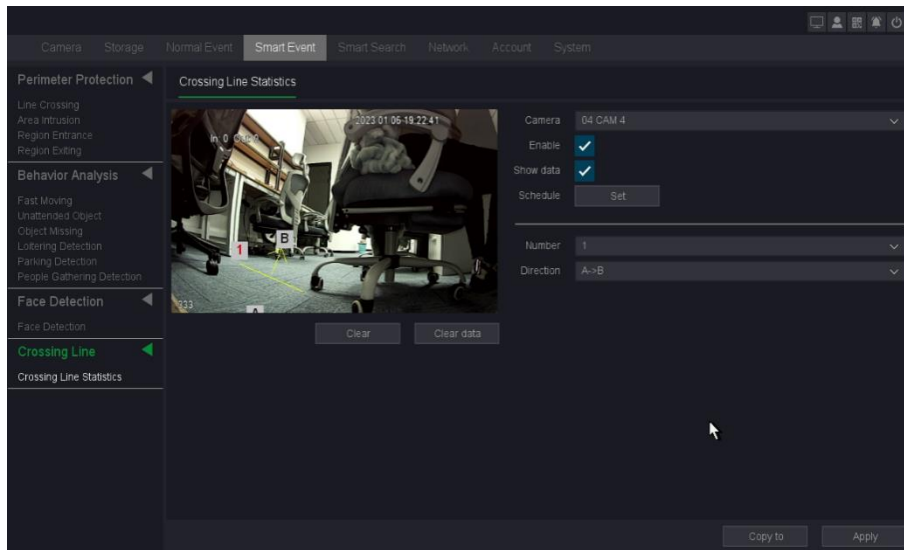


Figure 10-5-4-1

2. Select the **Channel** with this function as your desire.
3. Turn on **Enable**.
4. Set line crossing detection rules and detection line.
 - 1) Select the **Number 1** to set **Arming line**.
 - Click **Clear** or **set two points in the preview window** to clear or draw a line.
 - 2) Select **Direction** as **A->B**, or **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

When the people crossing the configured line from the A side to the B side can be counted as in, and when the people crossing the configured line from the B side to the A side can be counted as out.

B->A

When the people crossing the configured line from the B side to the A side can be counted as in, and when the people crossing the configured line from the A side to the B side can be counted as out.

5. Enable Show data, you can see the **In/Out** data on the preview screen in the top-left corner.
6. Set the arming **Schedule**. Refer to for **6.3.3 Configure Arming Schedule** for details.
7. Click **Apply**.
8. Back to preview screen, you can see as shown below.



Figure 10-5-4-2

10.6 Storage

10.6.1 Record

Record Schedule

It is the Recording schedule, Please refer to **6.4.2**

Record Status

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 **Seven Grid Menu** → **Storage** → **Record** → **Record** → **Record Status**.

Channel	Status	Stream type	Frame Rate(FPS)	Bit Rate(kb/s)	Resolution	Redundance
1	Open	Mixture	20	2965	5M(4-3)D1	No
2	Open	Video	30	198	1080P/720P	No
3	Open	Mixture	15	212	1080P/720P	No
4	Open	Mixture	15	433	1080P/720P	No
5	Stop	--	0	0	--	No
6	Stop	--	0	0	--	No
7	Stop	--	0	0	--	No
8	Stop	--	0	0	--	No

Figure 10-6-1-1

10.6.2 Storage

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**.

HDD Setting

In this page you can set the full strategy of hard disk, “stop” or “overwrite”.

Steps:

1. Go to **Seven Grid Menu → Storage → Storage → HDD Setting**.

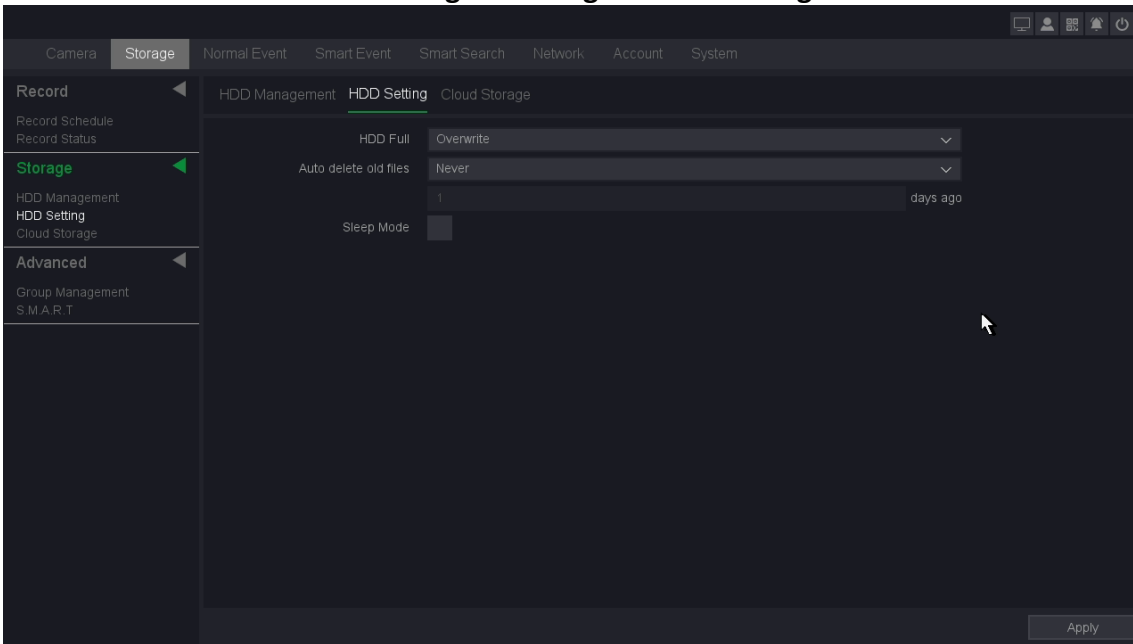


Figure 10-6-2-1

2. Configure the parameters as your desire.

3. Click **Apply**.

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.

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 **MainMenu**→**Storage**→**Storage** → **Cloud Storage**.
2. Turn on **Enable**.
3. Select cloud type.
4. Click the “BIND” button.

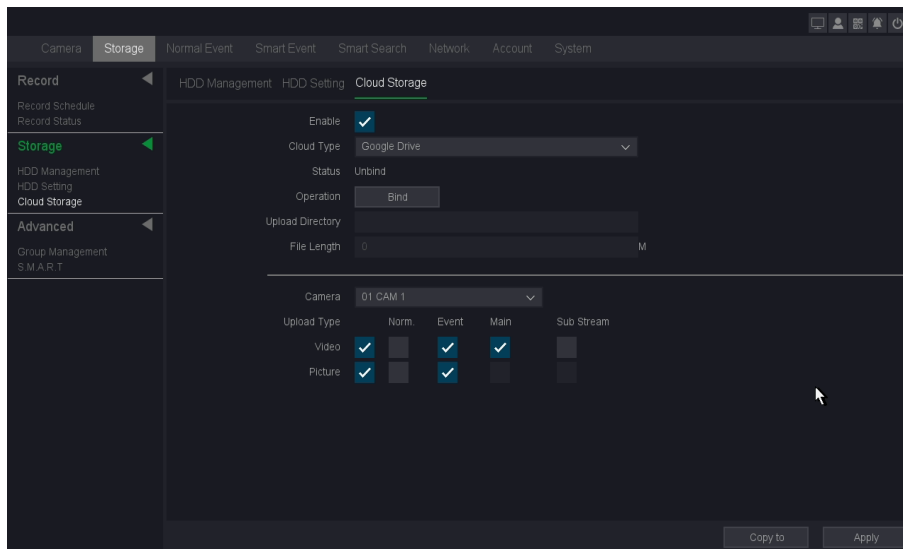


Figure 10-6-2-2

5. A window will open and load a Verification Code as well as a QR Scan box.

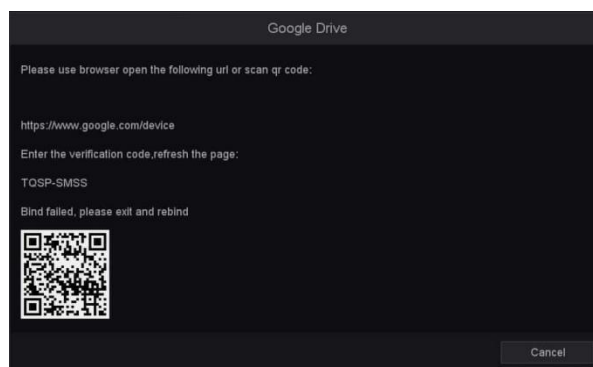


Figure 10-6-2-3

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.”

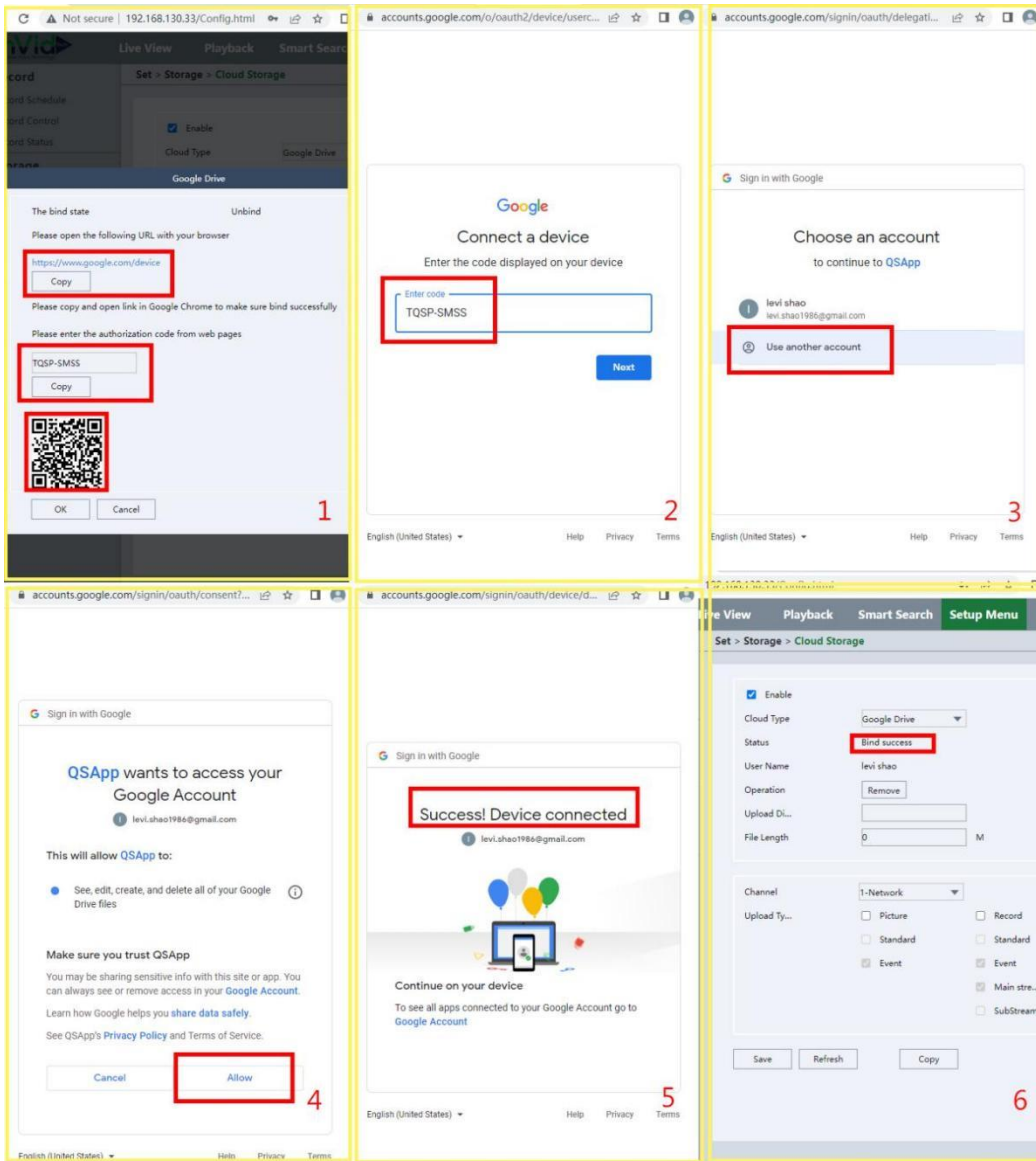


Figure 10-6-2-4

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.”

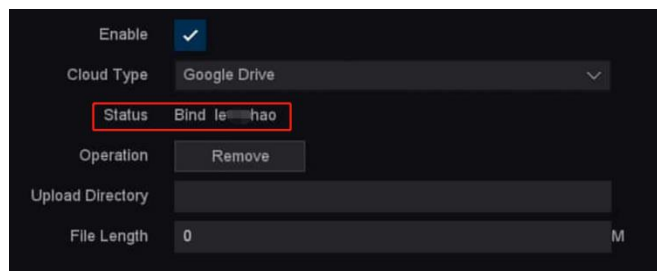


Figure 10-6-2-5

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 to save.

Cloud Type

Support two kinds of cloud type "Google Drive" & "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.

Other setting items

It's about how you can enable this cloud storage function. You can set which kind of file you want to upload as you followed by the steps below.

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.

10.6.3 Advanced

Group Management

Multiple HDDs can be managed in groups. Video from specified channels can be recorded onto a particular HDD group through HDD settings. Multiple HDDs can be managed in groups. Video from specified channels can be recorded onto 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 an HDD to your video recorder.

Steps:

1. Go to **Seven Grid Menu** → **Storage** → **Advanced** → **Group Management**.
2. Select **Mode** as **Group**.
3. Select a group number.

4. Select IP channels to record on the HDD group.

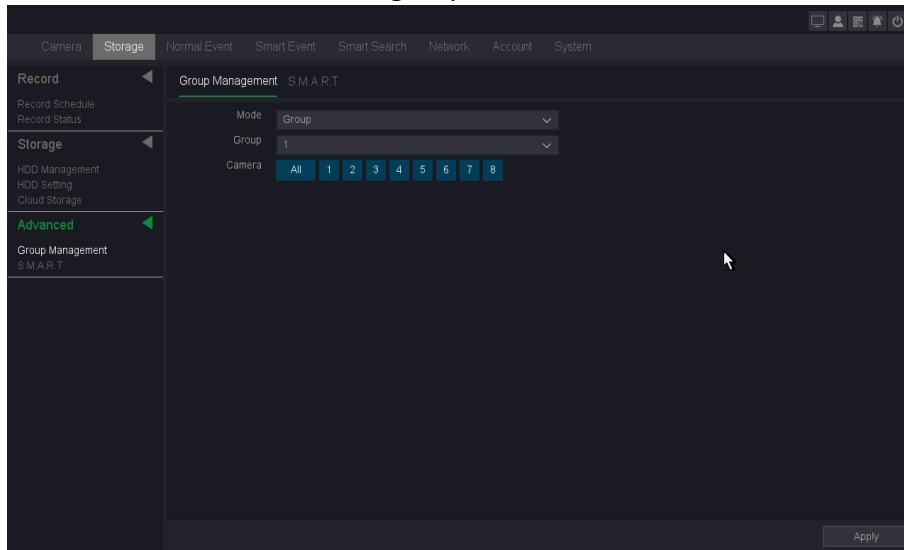



Figure 10-6-3-1 Group

5. Click **Apply**.

6. Restart the video recorder to activate the new storage mode settings.

7. After restart, go to **Seven Grid Menu** → **Storage** → **Storage** → **HDD Management**.

8. Click  of desired HDD to set the group.

9. Select a group number for the current HDD.

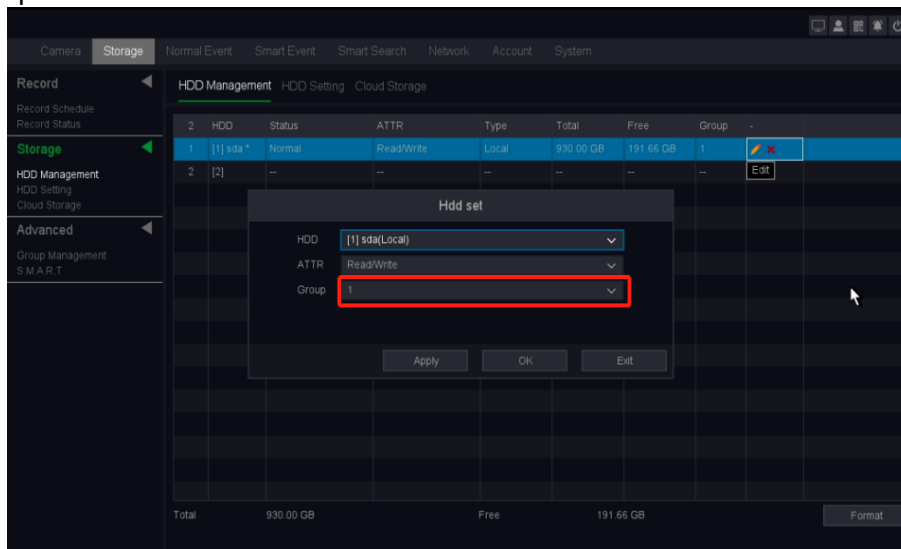


Figure 10-6-3-2

10. Click **OK**.



• You can set 16 groups under group mode, and each channel is independent of each group. 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 **Seven Grid Menu** → **Storage** → **Advanced** → **Group Management**.
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)**.

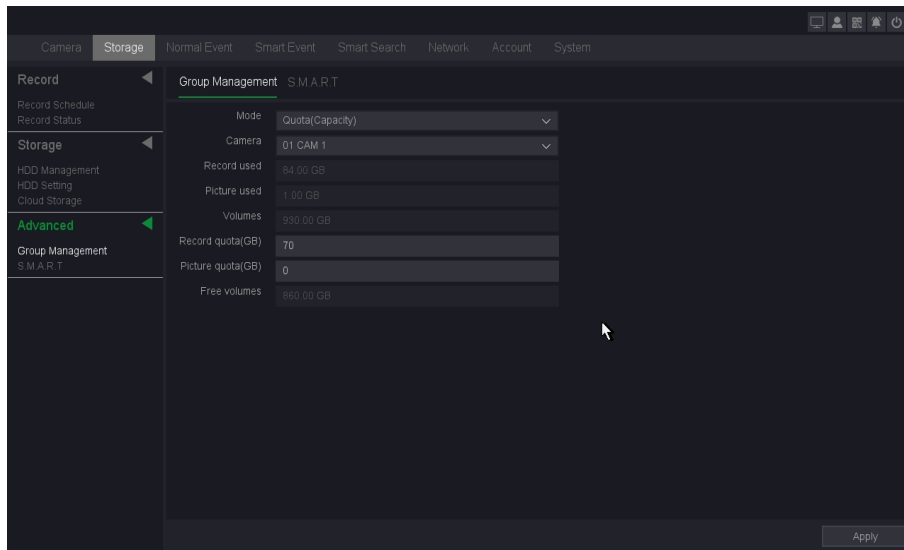


Figure 10-6-3-3 Quota

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



• 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.



About the operation mechanism of capacity quota (It needs to be set to allow overwriting when the hard disk video is full. For the setting, please refer to **10.5.5 Advanced Settings/HDD 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 **Seven Grid Menu** → **Storage** → **Advanced** → **Group Management**.
2. Select **Mode** as **Quota (Time)**.
3. Select a camera to set quota in **Channel**.
4. Enter the Record Day in **Record Quota (Day)**.

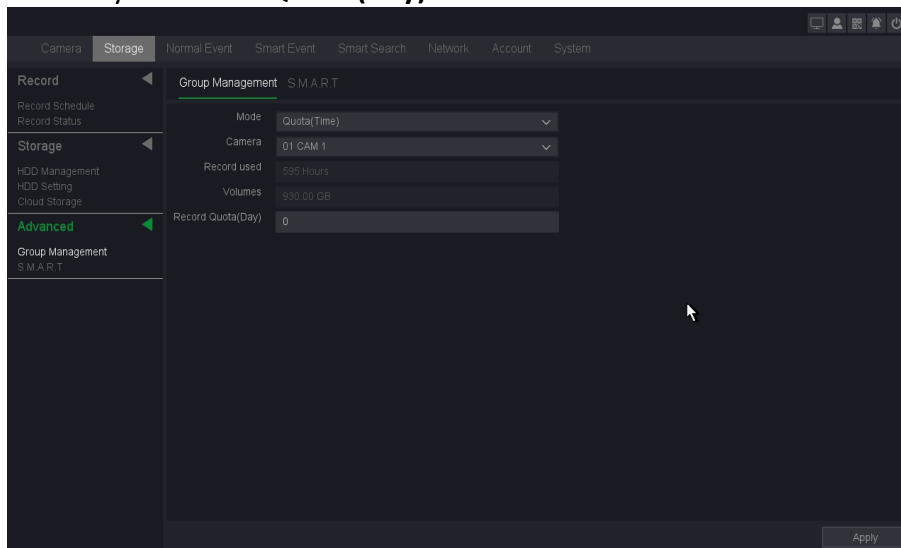


Figure 10-6-3-4 Quota

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



• 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.



About the time quota operation mechanism (It needs to be set to allow overwriting when the hard disk video is full. For the setting, please refer to **10.5.5 Advanced Settings/HDD Full**).

- 1.2.1 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.
- 1.2.2. After the recording is full, the BLOCK of the channel with the earliest end time exceeding the time quota will be overwritten first.
- 1.2.3. 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.
- 1.2.4. 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.

S.M.A.R.T

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 **Seven Grid Menu** → **Storage** → **Advanced** → **S.M.A.R.T.**
2. Select the HDD you want to detect.
3. Select the self-test types as Short Test or Expanded Test.

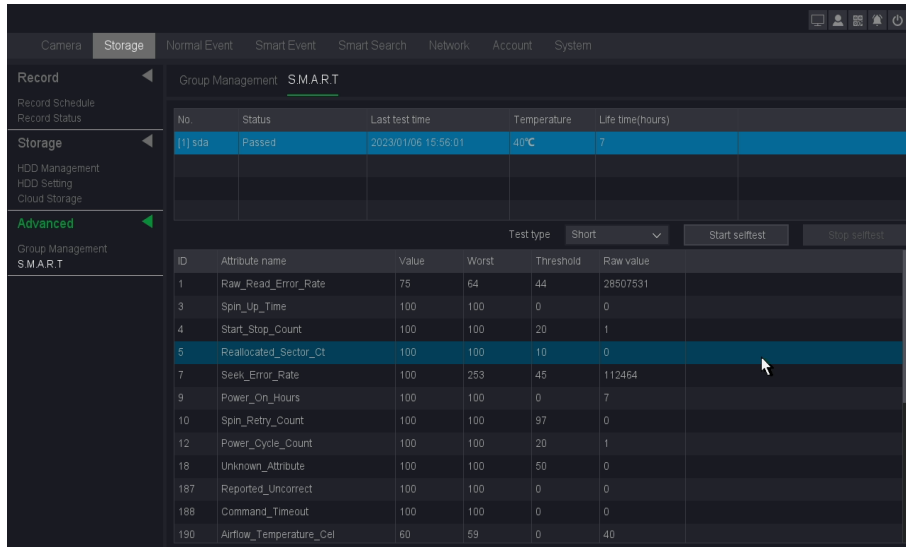


Figure 10-6-3-5

4. Click the **Start selftest** button 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.

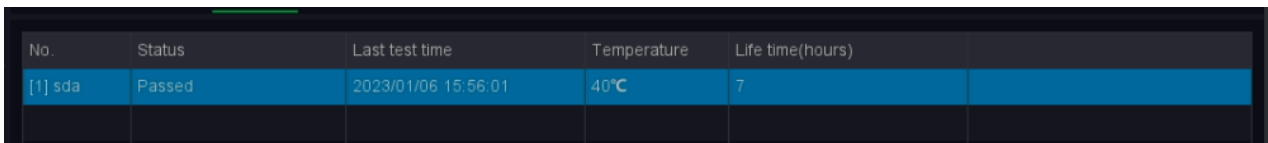


Figure 10-6-3-6

10.7 Smart search

10.7.1 Normal Search

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

10.7.2 Smart Search

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 **Seven Grid Menu** → **Smart Search** → **Smart search** → **Face detection**.
2. Select the **Record Channel** you want to search.
3. Set the **Start time** and **End time**.

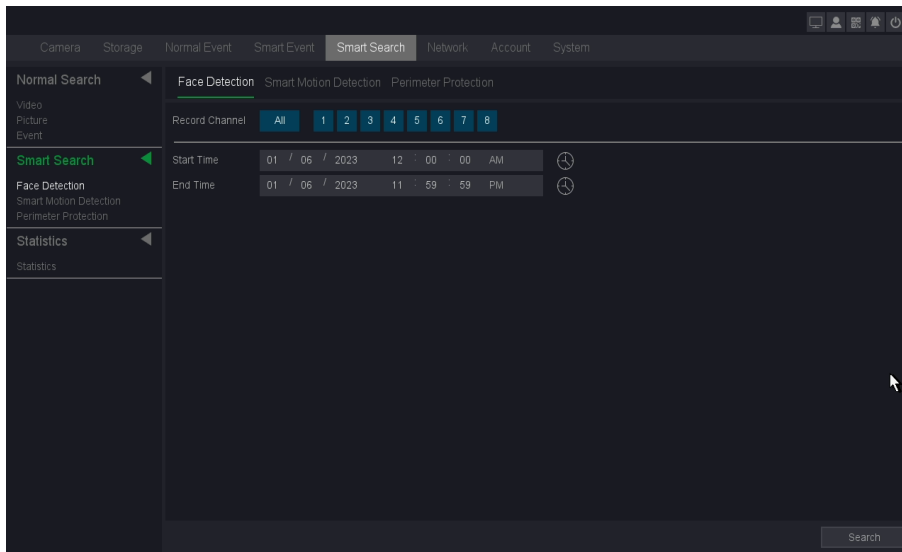


Figure 10-7-2-1

4. Click **Search**.

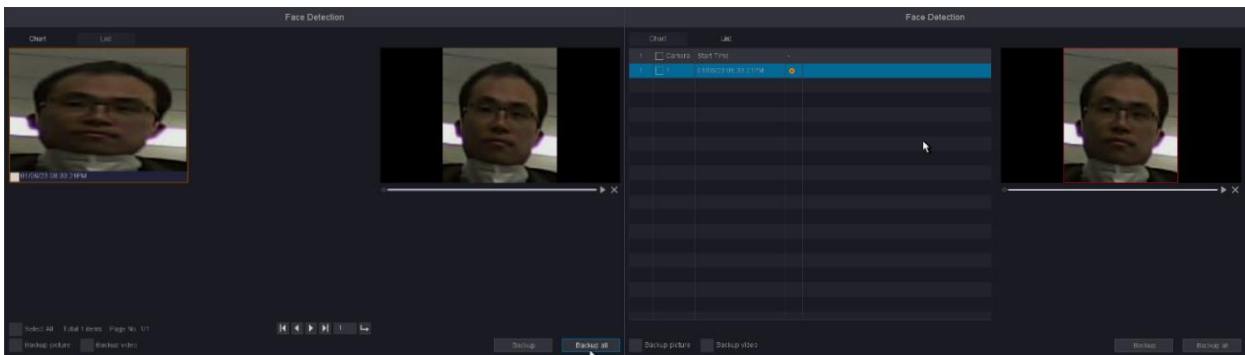


Figure 10-7-2-2

5. You can see the search results as shown below.

- 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 backup 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 **Seven Grid Menu** → **Smart search** → **Smart search** → **Smart Motion Detection**.
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**.

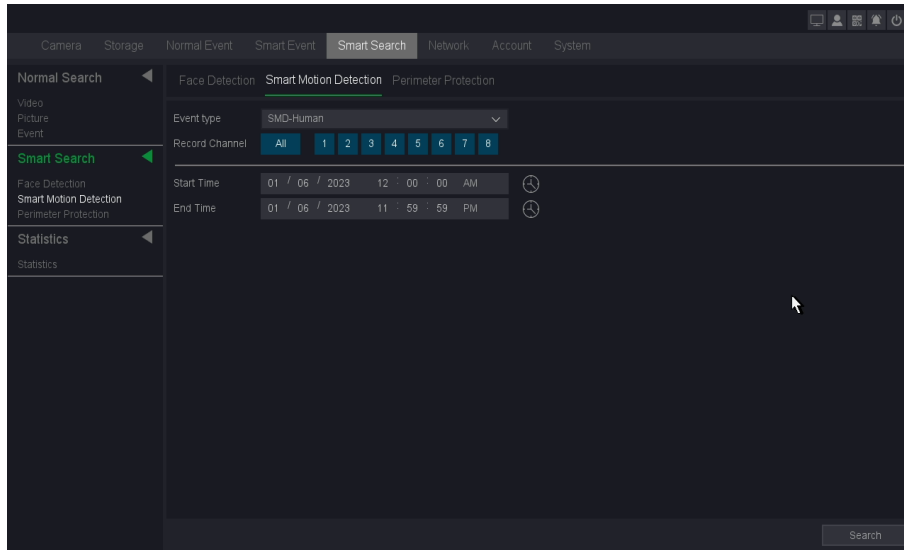


Figure 10-7-2-3

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

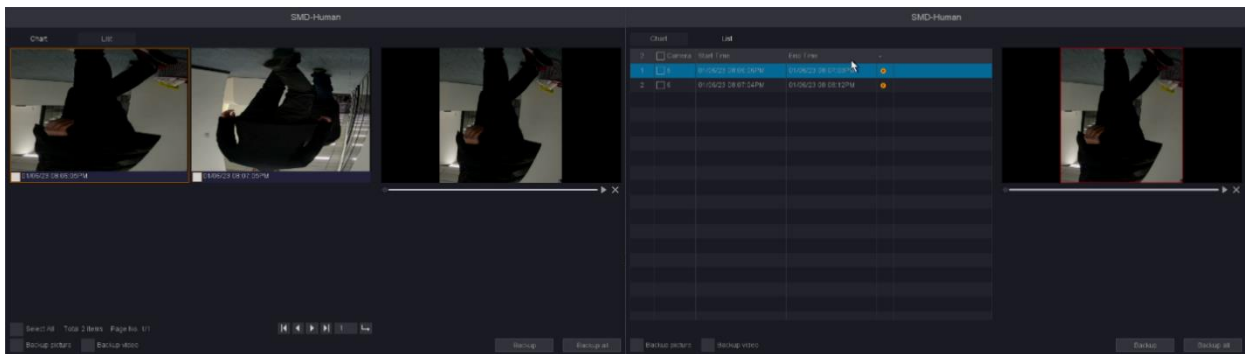


Figure 10-7-2-4

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 **Seven Grid Menu** → **Smart search** → **Smart search** → **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**.

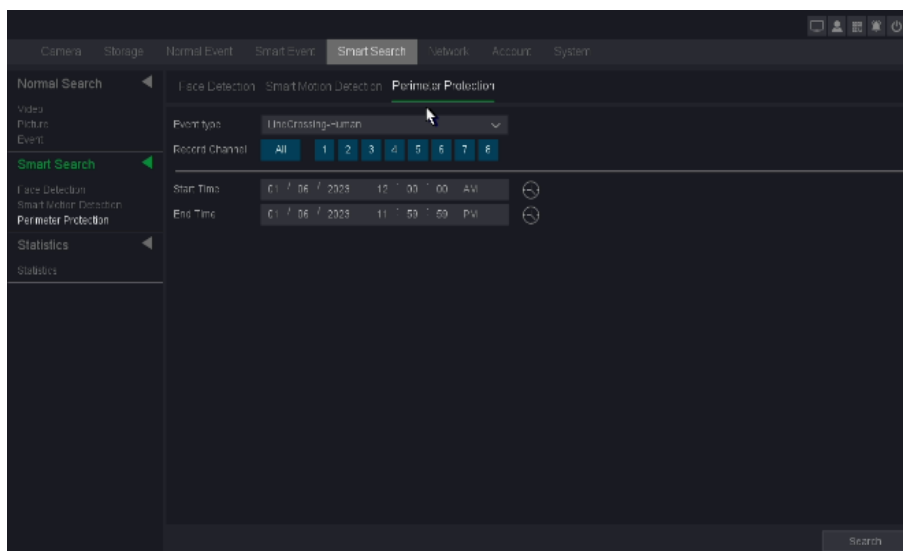


Figure 10-7-2-5

5. Click **Search**.

6. You can see the search results as shown below.

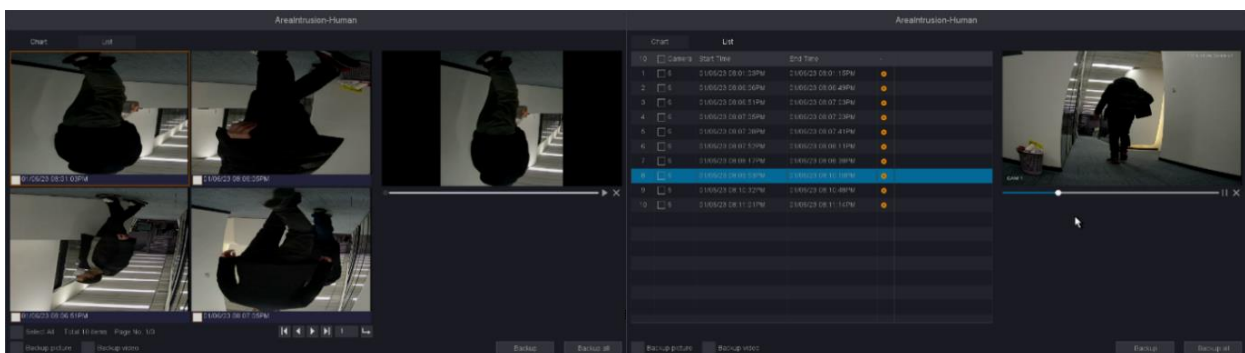


Figure 10-7-2-6



- 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*.

10.7.3 Statistics

The feature is used to show the crossing line statistics result by chart.

Before You Start

Please make sure you have enabled the Line Statistics of the camera through the NVR and your camera already have generated line statistics data.

Steps:

1. Go to **Seven Grid Menu** → **Smart Search** → **Statistics** → **Statistics**.
2. Select the channel.
3. Select report type.
4. Select time of statistics you want to check.
5. Click the **Statistics** button to check the result as shown below.

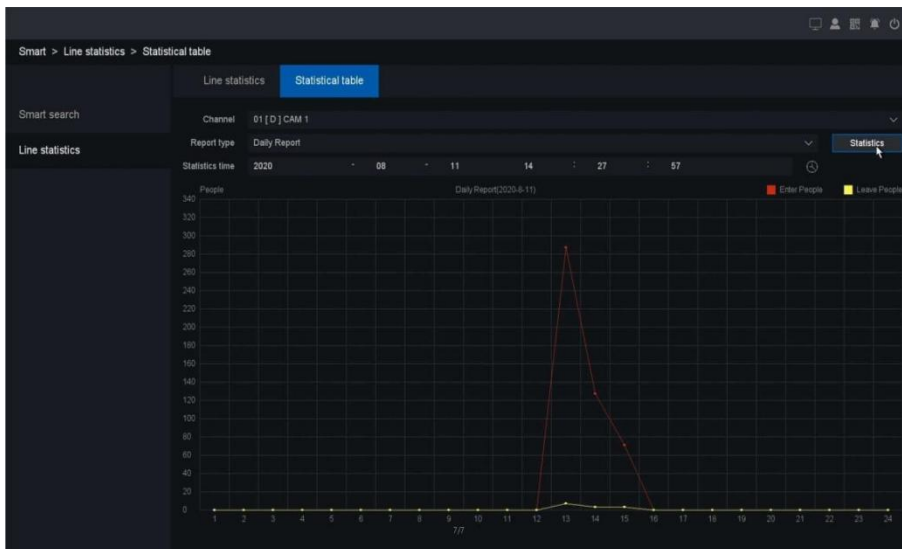


Figure 10-7-3

10.8 Playback

10.8.1 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**.

10.8.2 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/8**.

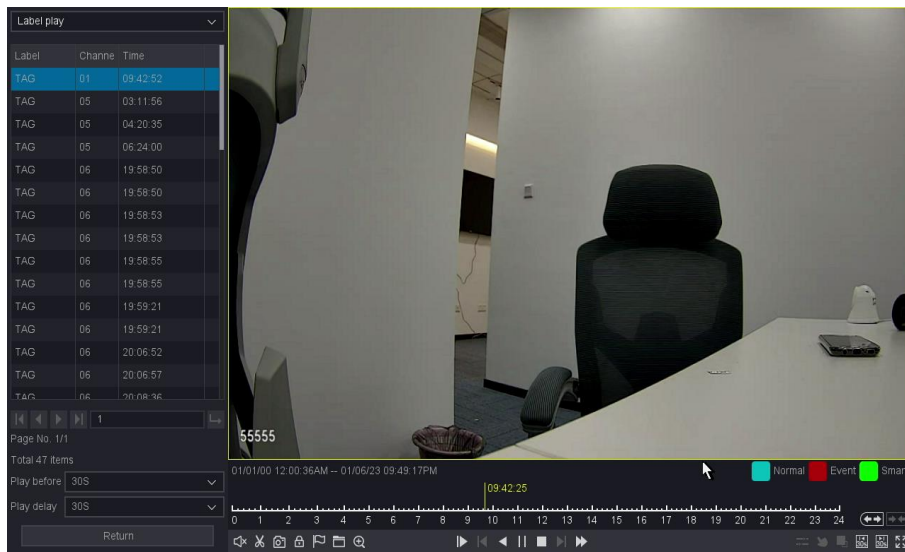


Figure 10-8-2-1

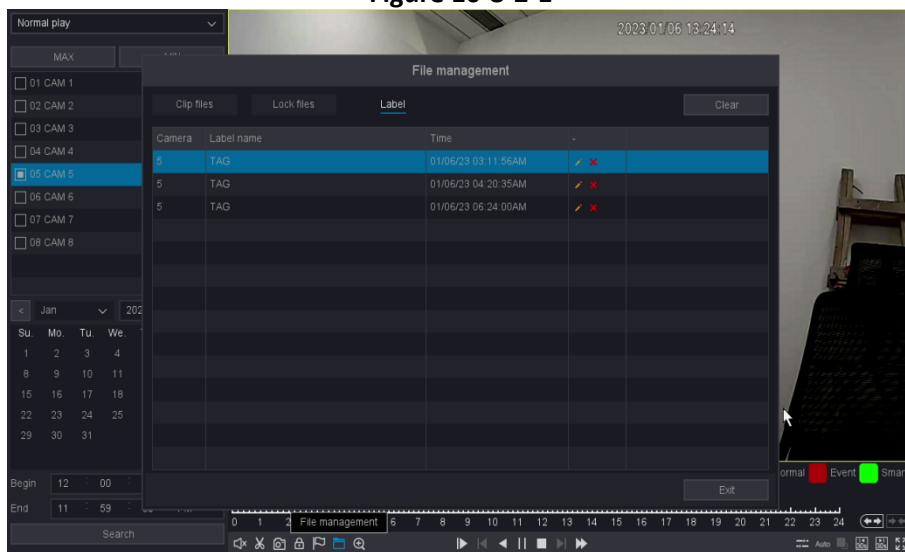


Figure 10-8-2-2

Steps:

1. Go to **Playback**.
2. Select the **Label play**.
3. Select the channels as your desire.
4. Set time period, then Click Search.

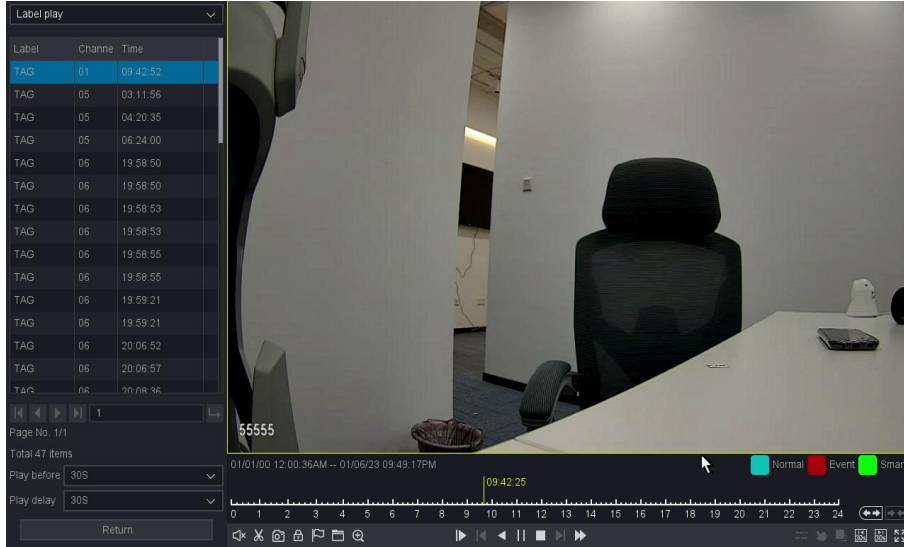


Figure 10-8-2-3

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.



● 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.

10.8.3 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 10-8-3-1

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 button or Click the blue timeline.
5. Click the icon  of “Draw Line” to draw a line on the video interface.
6. Click “Setting” button 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 10-8-3-1

7. Click “Search” button 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.

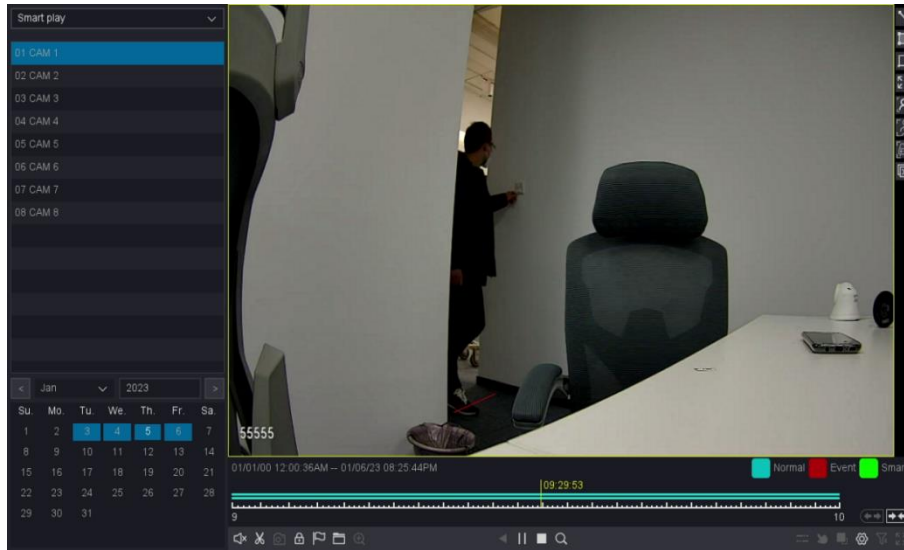



Figure 10-8-3-2

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 button or Click the blue timeline.
5. Click the icon  of "Draw Quadrilateral" to draw a quadrilateral on the video interface.
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 Area Intrusion will be marked color "green", and the video will be played by the setting as you made at step 6.

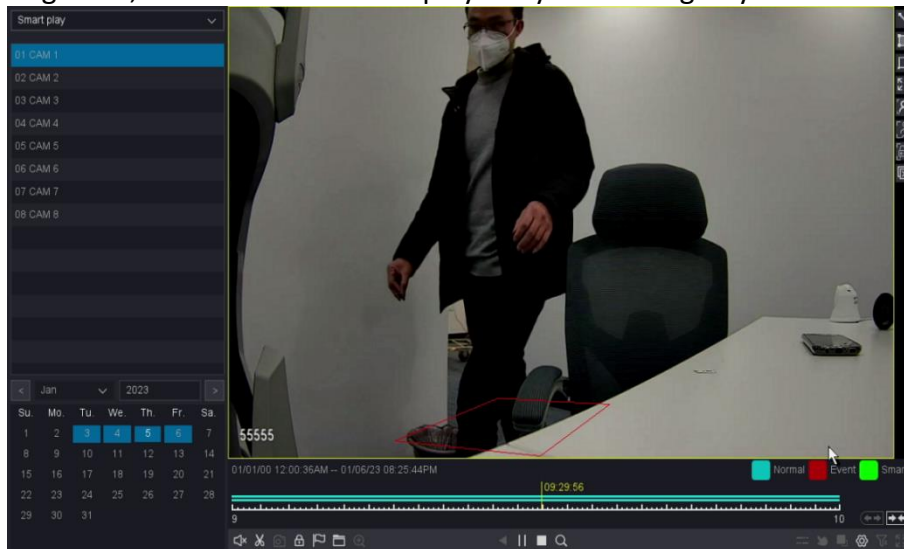



Figure 10-8-3-3

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 button or Click the blue timeline.
5. Click the icon  of “Motion Draw Rectangle” to draw an area on the video interface.
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 Motion will be marked color “green”, and the video will be played by the setting as you made at step 6.

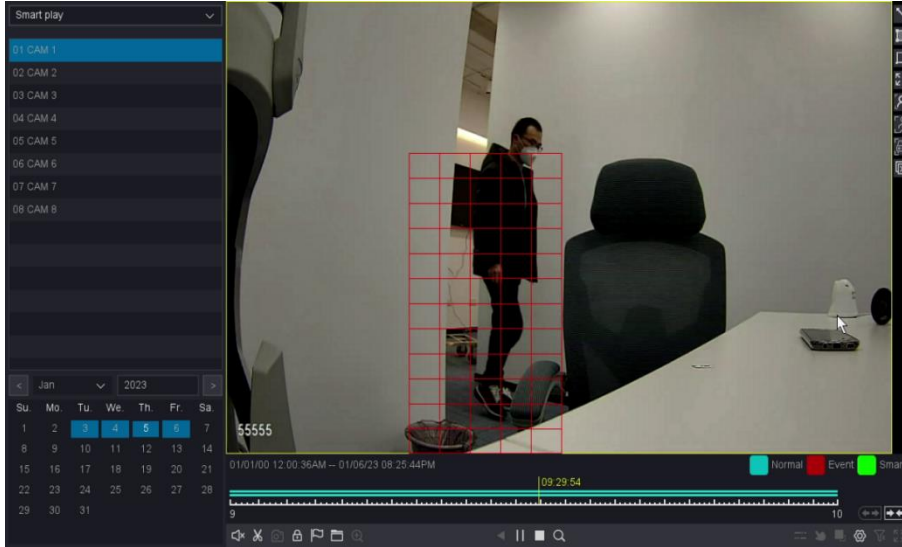



Figure 10-8-3-4

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 button or Click the blue timeline.
5. Click the icon  of “Motion Full Screen” to draw an area on the video interface.
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 Motion will be marked color “green”, and the video will be played by the setting as you made at step 6.

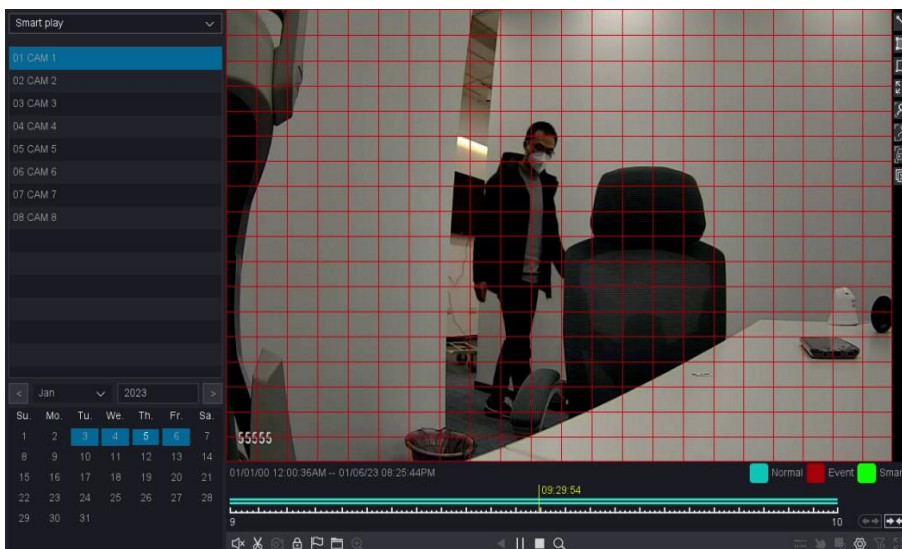



Figure 10-8-3-5

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 button or Click the blue timeline.
5. Click the icon  of "Face search", 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.



- Smart Play only work with InVid IPCs which support these features.

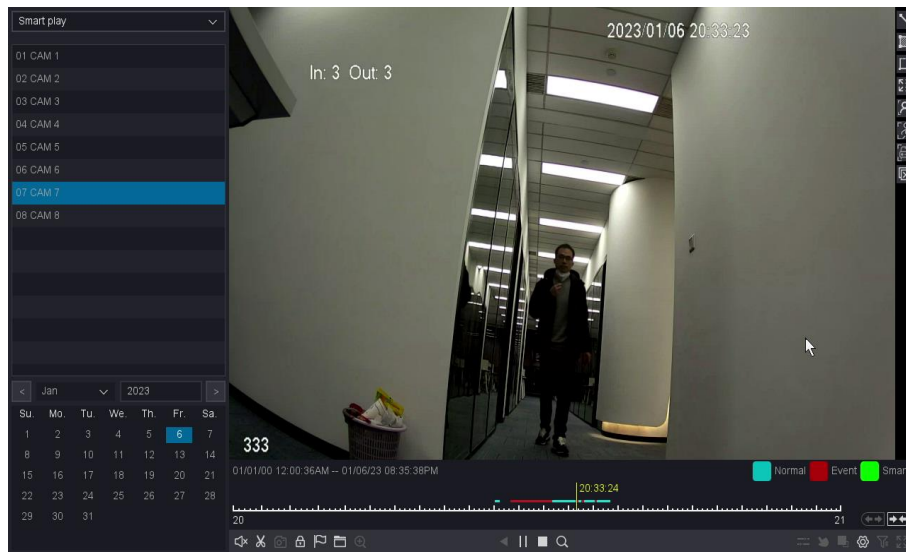



Figure 10-8-3-6

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 button or Click the blue timeline.
5. Click the icon  of "Human Body search", 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 Human Shape Motion will be marked color "green", and the video will be played by the setting as you made at step.

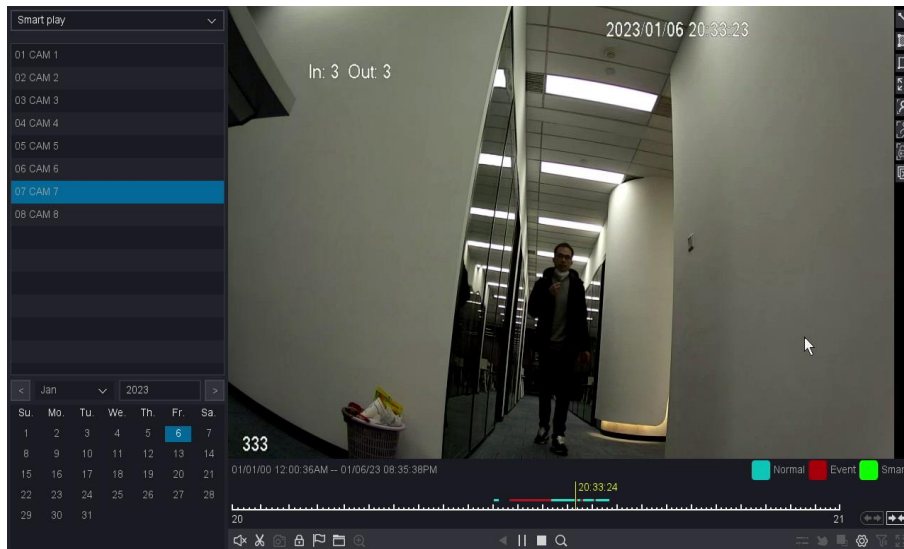


Figure 10-8-3-7

10.8.4 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**.
2. Select **the Time Division play**.
3. Select the channel as your desire.
4. Select division windows number and the record time.

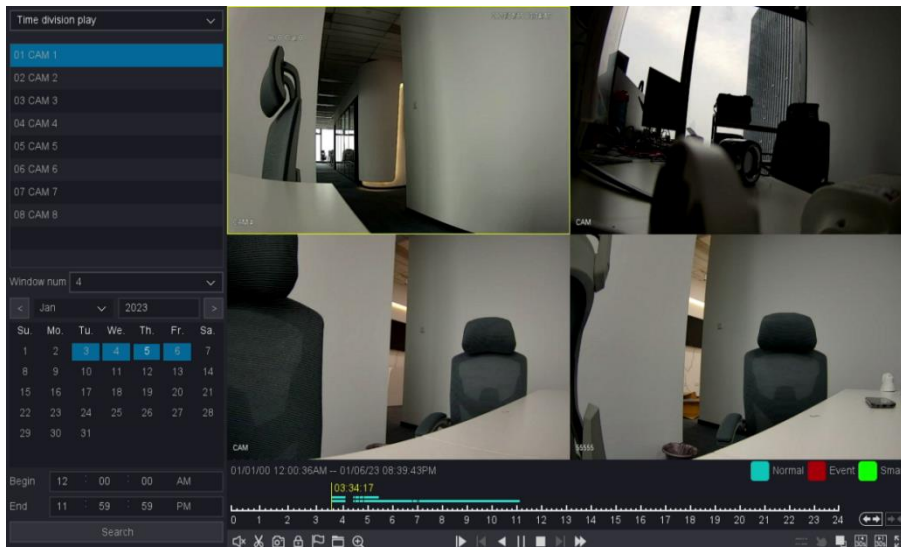


Figure 10-8-4-1

5. Click **Search**.
6. Select the corresponding window to quickly play the video period you want.



● 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.

10.8.5 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)**.
3. Select the channel as your desire.
4. Select the time period you want to play back.
5. Click **Search**.

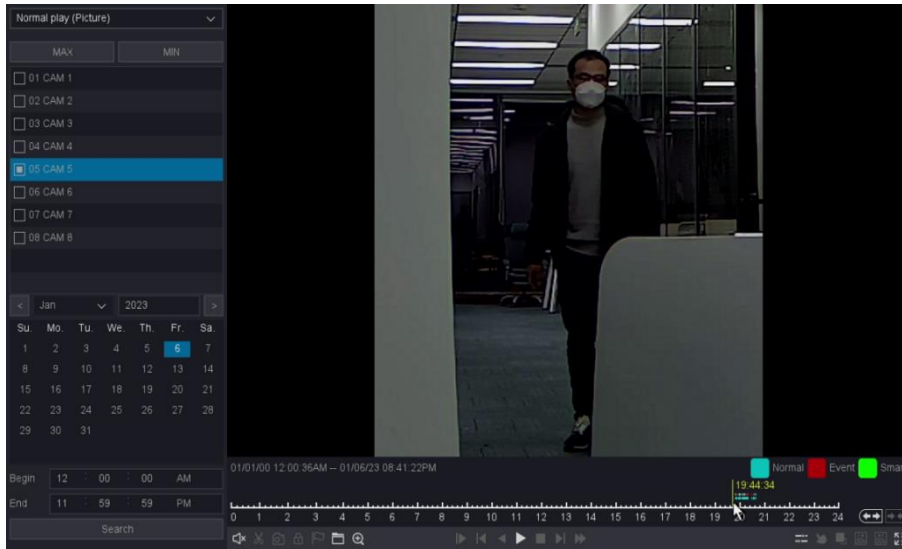


Figure 10-8-5-1

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”.



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

Chapter 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://info.invidtech.com/protect-support-page>



Figure 11-2-1 Communication

