



Network Video Recorder (NVR) User Manual

SECURE^USERIES

Issue

V 4.4

Date

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Network Security Advice

Required measures to ensure basic network security of equipment:

Modify the factory default password and use a strong password

Devices that do not change the factory default password or use a weak password are the easiest to be hacked. Users are advised to modify the default password and use strong passwords whenever possible (minimum of 6 characters, including uppercase, lowercase, number, and symbol).

Update firmware

According to the standard operating specifications of the technology industry, the firmware of NVR, DVR and IP cameras should be updated to the latest version to ensure the latest features and security of the device.

The following recommendations can enhance your device's network security:

1. Change your password regularly

Regularly modifying the login credentials ensures that authorized users can log in to the device.

2. Modify the default HTTP and data ports

Modify the device's default HTTP and data ports, which are used for remote communication and video browsing.

These two ports can be set to any number between 1025 and 65535. Changing the default port reduces the risk of the intruder guessing which port you are using.

3. Use HTTPS/SSL encryption

Set up an SSL certificate to enable HTTPS encrypted transmission. The information transmission between the front-end device and the recording device is fully encrypted.

4. Enable IP filtering

After IP filtering is enabled, only devices with the specified IP address can access the system.

5. Change the ONVIF password

Some old versions of the IP camera firmware, after the system's master password is changed, the ONVIF password will not be automatically changed. You must update the camera's firmware or manually update the ONVIF password.

6. Only forward the ports that must be used

Forward only the network ports that must be used. Avoid forwarding a long port area. Do not set the device's IP to DMZ.

If the camera is connected locally to the NVR, you do not need to forward the port for each camera. Only the ports of the NVR need to be forwarded.

7. Use a different username and password on the video surveillance system.

In the unlikely event that your social media account, bank, email, etc. account information is leaked, the person who obtained the account information will not be able to invade your video surveillance system.

8. Restrict the permissions of the ordinary account

If your system is serving multiple users, make sure that each user has permission to access only its permissions.

UPnP

When the UPnP protocol is enabled, the router will automatically map the intranet ports.

Functionally, this is user-friendly, but it causes the system to automatically forward the data of the corresponding port, causing the data that should be restricted to be stolen by others.

If you have manually opened HTTP and TCP port mappings on your router, we strongly recommend that you turn this feature off. In actual usage scenarios, we strongly recommend that you do not turn this feature on.

SNMP

If you do not use the SNMP, we strongly recommend that you turn it off. The SNMP function is limited to temporary use for testing purposes.

Multicast

Multicast technology is suitable for the technical means of transmitting video data in multiple video storage devices. There have been no known vulnerabilities involving multicast technology

so far, but if you are not using this feature, we recommend that you turn off multicast playback on your network.

12. Check logs

If you want to know if your device is secure, you can check the logs to find some unusual access operations. The device log will tell you which IP address you have tried to log in or what the user has done.

Physically protect your device

For the safety of your device, we strongly recommend that you physically protect your device from unauthorized boring operations. We recommend that you place the device in a locked room and place it in a locked cabinet with a locked box.

It is highly recommended that you use PoE to connect IP cameras to NVR.

IP cameras connected to the NVR using PoE will be isolated from other networks so that they cannot be accessed directly.

Network isolation between NVR and IP cameras

We recommend isolating your NVR and IP cameras from your computer network. This will protect unauthorized users on your computer network from having access to these devices.

About This Document

Purpose

This document describes in detail the installation, use, and interface operations of the NVR (Network Video Recorder) device.

Modify Log

| ID | Version | Log | Release Time |
|----|---------|--|--------------|
| 1 | V 4.0 | Initial Release | 2017/ |
| 2 | V 4.1 | Add function | |
| 3 | V 4.1.3 | Perfect interface, add models | |
| 4 | V 4.1.5 | Add reverse playback Open data port 2 | 20180106 |
| 5 | V 4.1.6 | Add 4 spilt screens of automatic adjusting main stream or sub stream. Add private protocol access. Support multi-screen playback. Add the schedule recording function by channel setting Increase the allocation of permissions by channel | |
| | V 4.2 | Add boot wizard Add toolbar Add manual recording and timely playback Add multiple clicks to enlarge Add user lockout Remove the upper right corner to display the | |

| | | | |
|---|---------|--|--|
| | | <p>alarm warning</p> <p>Add the view of the latest alarm information, modify the manual alarm</p> <p>Modify quick navigation content</p> <p>Preview channel and modify network parameter function on IPC side</p> <p>Support for copying to some or all channels</p> <p>Remove the full screen function</p> <p>Add background backup</p> <p>Add video dual authentication</p> <p>Intelligent motion detection</p> <p>Add the color to distinguish the video type, increase the video type search</p> <p>Add sound switch</p> <p>Add instant playback</p> <p>Remove the timeline function</p> <p>Increase intelligence analysis</p> <p>Increase test DDNS function</p> <p>Increase test mail function</p> <p>Modify the time precision to half an hour, remove the recording plan master switch</p> <p>Add hardware information</p> <p>Added video dual authentication and boot wizard configuration function</p> <p>Add alarm log</p> <p>Add interval update profile</p> | |
| 6 | V 4.2.1 | <p>Add the NTP synchronization interval and add the manual NTP synchronization interval.</p> <p>Add access to thermal imaging cameras and display IPC product models</p> <p>Remove auto hide</p> <p>Add the patrol route and line sweep function</p> <p>Add upgrade IPC, restart IPC, restore factory IPC</p> <p>Increase the selection of primary and sub stream backups</p> | |

| | | | |
|---|---------|--|--|
| | | <p>Add click playback button to play video</p> <p>Add UI display granular IPC intelligence analysis</p> <p>Add 802.1x functionality</p> <p>Add SNMP function</p> <p>Add upgrade device features</p> <p>Add the timing restart function</p> <p>Add U disk upgrade display progress bar</p> | |
| 7 | V 4.2.4 | <p>Increase U-boot and kernel version display</p> <p>Increase P2P status display</p> <p>Increase signal type display</p> <p>Increase POE icon display</p> <p>Increase SSL access IPC, special models support</p> <p>Optimize username and password saving methods</p> <p>Increase batch backup</p> <p>Increase fixed point playback</p> <p>Increase hard disk alarm</p> <p>Optimized recording expiration time input mode is editable</p> <p>Increase the city after each time zone</p> <p>Increase face recognition</p> <p>Add P2P server</p> | |
| 8 | V 4.3 | <p>Add pattern unlock</p> <p>Add mailbox reset password</p> <p>Increase the secure question reset password</p> <p>Add 1+7 split screen</p> <p>Add channel information display</p> <p>Add 3D ball machine</p> <p>Remove the video type switch from the scene</p> <p>Add RAID</p> <p>Add S.M.A.R.T</p> <p>Add formatting (fat32 and NTFS)</p> <p>Support event video quick download backup</p> | |

| | | | |
|---|------|---|--|
| | | <p>Add event video backup</p> <p>Add the full screen of the bomb and send the screenshot</p> <p>Add IPC intelligent analysis configuration</p> <p>Add manual input automatic logout time</p> <p>Restore factory refinement</p> | |
| 9 | V4.4 | <p>Support adding POE cameras automatically or manually.</p> <p>Support 3G/4G modem provide Internet service.</p> <p>Support cloud storage.</p> <p>Add disk detection, disk group and multi channels recording.</p> <p>Support license plate recognition management.</p> <p>Support through RTSP to add cameras.</p> <p>Add thermal and face detection functions.</p> <p>Add IP conflict and internet disconnected alarm.</p> | |

Symbol Conventions

The symbols may be found in this document, which are defined as follows:

| Symbol | Description |
|--|---|
|  DANGER | Alerts you to a high risk hazard that could, if not avoided. |
|  WARNING | Alerts you to a medium or low risk hazard that could, if not avoided, result in moderate or minor injury. |
|  CAUTION | Alerts you to a potentially hazardous situation that could, if not avoided, result in equipment damage, data loss, performance deterioration, or unanticipated results. |
|  TIP | Provides a tip that may help you solve a problem or save time. |

| Symbol | Description |
|---|---|
|  NOTE | Provides additional information to emphasize or supplement important points in the main text. |

Safety instructions

The following are the correct use of the product. In order to prevent danger and prevent property damage, please read this manual carefully before using the device and strictly comply that when using it. Please save the manual after reading.

Requirements

- The front-end devices of POE are required to be installed indoors.
- The NVR device does not support wall mounting.
- Do not place and install the device in direct sunlight or near heat-generating equipment.
- Do not install the device in a place subject to high humidity, dust or soot.
- Please keep the equipment installed horizontally or install the equipment in a stable place, taking care to prevent the product from falling.
- Do not drop or spill liquid into the device and ensure that no liquid-filled items are placed on the device to prevent liquid from flowing into the device.
- Install the device in a well-ventilated area, and do not block the ventilation openings of the device.
- Use the device only within the rated input and output range.
- Do not disassemble the device at will.
- Please transport, use and store the device within the permissible humidity and temperature range.

Power Requirement

- Be sure to use the specified manufacturer's model battery, otherwise there is a danger of explosion!
- Be sure to use the battery as required, otherwise there is a danger of the battery catching fire, exploding or burning!
- Only use the same model of battery when replacing the battery!
- Be sure to dispose of the used battery as the instruction of battery!

- Be sure to use the power adapter that meets standard with the device, otherwise the personal injury or equipment damage caused by the user will be borne by the user.
- Use a power supply that meets the SELV (Safety Extra Low Voltage) requirements and supply power according to the rated voltage of IEC60950-1 in accordance with the Limited Power Source. The specific power supply requirements are based on the equipment label.
- Connect the Class I product to plug with the power outlet with a protective ground connection.
- The appliance is coupled to the port unit. Keep it at an easy angle for normal use.

Important Statement

Users are required to enable and maintain the lawful interception (LI) interfaces of video surveillance products in strict compliance with relevant laws and regulations. Installation of surveillance devices in an office area by an enterprise or individual to monitor employee behavior and working efficiency outside the permitted scope of the local law and use of video surveillance devices for eavesdropping of illegal purposes constitute behaviors of unlawful interception.

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1 Preface

1.1 Product Description

This product is a high performance NVR device. The product has local preview, video multi-screen split display, local real-time storage function of video files, support for mouse shortcut operation, remote management and control functions.

This product supports three storage methods: central storage, front-end storage, and client storage. The front-end monitoring point can be located anywhere in the network without geographical restrictions. It is combined with other front-end devices such as network cameras, network video server networks, and professional video surveillance systems to form a powerful security monitoring network. In the networked deployment system of this product, the central point and the monitoring point need only one network cable to connect. It is not necessary to set up visual and audio lines to the monitoring point, and the construction is simple, and the wiring cost and maintenance cost are low.

This product is widely used in public security, transportation, electric power, education and other industries.

1.2 Product Features

1.2.1 Cloud Upgrade

For devices that have access to the public network, you can update the software of the device through online upgrade.

1.2.2 Real-time Monitoring

It has a VGA (Video Graphics Array) port and an HDMI (High Definition Media Interface) port. It can be monitored by a monitor screen or monitor, and supports simultaneous output of VGA and HDMI.

1.2.3 Playback

Each channel can independent real-time recording, and play functions such as retrieval, playback, network monitoring, video query, and download. Please refer to chapter Playback

Multiple playback modes: slow release, fast release, reverse playback, and frame-by-frame playback.

The exact time when the event occurred can be displayed during playback of the recording.

You can select any area of the screen for partial magnification.

1.2.4 User Management

Each user group has a rights management set, which can be selected autonomously. The total rights set is a subset, and the user rights in the group cannot exceed the rights management set of the user group.

1.2.5 Storage Function

According to the user's configuration and policies (such as through alarm and timing settings), the corresponding audio and video data transmitted by the remote device is stored in the NVR device. For details, please refer to chapter Storage Management.

Users can record by WEB mode as needed. The video files are stored on the computer where the client is located. Please refer to chapter Storage.

1.2.6 Alarm Function

Real-time response to external alarm input, correct processing according to the user's preset linkage settings and give corresponding prompts.

The setting options of the central alarm receiving server are provided, so that the alarm information can be actively and remotely notified, and the alarm input can come from various external devices connected.

The alarm information can be notified to the user by mail or APP push information.

1.2.7 Network Monitoring

Through the network, the audio and video data of the IP camera or NVS (Network Video Server) of the NVR device is transmitted to the network terminal for decompression and reproduction.

The device supports 8 simultaneous online users to perform streaming operations.

The audio and video data is transmitted using protocols such as HTTP (Hyper Text Transfer Protocol), TCP (Transmission Control Protocol), UDF (User Datagram Protocol), MULTICAST, RTP (Real-time Transport Protocol), and RTCP (Real Time Streaming Protocol).

Use SNMP (Simple Network Management Protocol) for some alarm data or information

Support WEB mode access system, applied to WAN, LAN environment.

1.2.8 Split Screen

Image compression and digitization are used to compress several images in the same scale and display them on the display of a monitor. 1/4/8/9/16/32 screen splitting is supported during preview; 1/4/9/16 screen splitting is supported during playback.

1.2.9 Recording Function

The device supports regular recording, motion detection recording, alarm recording, and intelligent recording. The recording file is placed on the hard disk device, USB (Universal Serial Bus) device, and client PC (personal computer). It can be connected to the WEB terminal, USB device, or local device. Query and playback the stored video files.

1.2.10 Backup Function

Support USB2.0 and eSATA video backup.

1.2.11 External Device Control

The peripheral control function is supported, and the control protocol and connection interface of each peripheral can be freely set.

Support transparent data transmission of multiple interfaces, such as: RS232, RS485.

1.2.12 Accessibility

Supports video NTSL (Nation Television Standards Committee) system and PAL (Phase Alteration Line) system.

Supports system resource information and real-time display of running status.

Supports for logging recording.

Supports local GUI (Graphical User Interface) output and quick menu operation via mouse.

Supports playback of audio and video from remote IPC or NVS devices.



NOTE

For other functions, please see the following text.

2 Product Structure

2.1 Front Panel

Figure 2-1 One disk/four disks model



Table 2-1 Front panel function

| Port | Description |
|----------|--|
| PWR | When the NVR is operating, the PWR indicator is steady on. When the NVR is shut down, the PWR indicator is turned off. |
| HDD | Hard disk status indicator This indicator flashes when data is transmitted. |
| POE | PoE network status indicator This indicator flashes when data is transmitted. |
| KB/MOUSE | Only supports connected to an USB mouse. |
| BACKUP | Only supports connected to U disk |

Figure 2-2 One disk model



Table 2-2 Front panel function

| Port | Description |
|--|--|
| PWR | When the NVR is operating, the PWR indicator is steady on. When the NVR is shut down, the PWR indicator is turned off. |
| NET | Network status indicator This indicator flashes when data is transmitted. |
| REC | Hard disk status indicator This indicator flashes when data is transmitted. |
|  | Only supports connected to an USB mouse |

Figure 2-3 Eight disk model

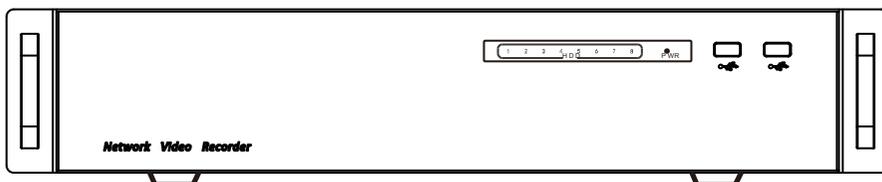


Table 2-3 Front panel function

| Port | Description |
|--|--|
| PWR | When the NVR is operating, the PWR indicator is steady on. When the NVR is shut down, the PWR indicator is turned off. |
| HDD | Hard disk status indicator This indicator flashes when data is transmitted. |
|  | Only supports connected to an USB mouse |

Figure 2-4 WiFi model

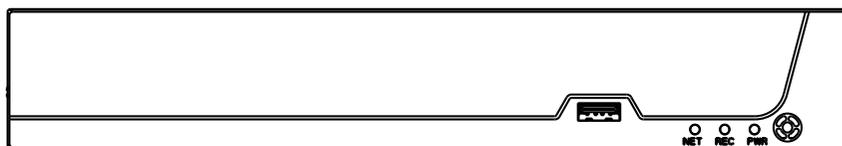


Table 2-4 Front panel function

| Port | Description |
|--|--|
| PWR | When the NVR is operating, the PWR indicator is steady on. When the NVR is shut down, the PWR indicator is turned off. |
| NET | Network status indicator This indicator flashes when data is transmitted. |
| REC | Hard disk status indicator This indicator flashes when data is transmitted. |
|  | Only supports connected to an USB mouse |

2.2 Back Panel

Figure 2-5 One disk 4 POE

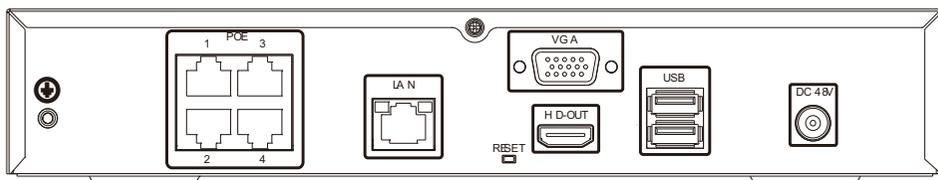


Figure 2-6 Two disks 8 POE

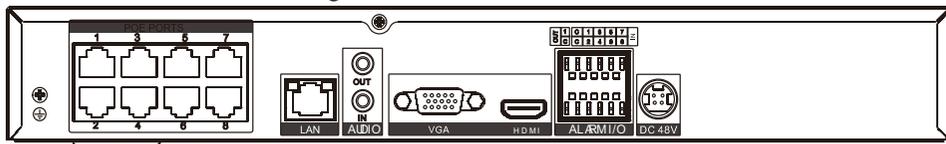


Table 2-5 Real panel function

| Port | Description |
|-------------|--|
| POE | POE network interfaces |
| LAN | RJ 45 10/100/1000 Mbps adaptive Ethernet interface |
| AUDIO OUT / | Audio output / Audio input |

| | |
|--|--|
| AUDIO IN | |
| VGA | Video output interface |
| HDMI | |
| Alarm I/O | Alarm input/Alarm output |
|  | GND |
| DC48V | Connected to an external power adapter |

Figure 2-7 One disk 8 POE

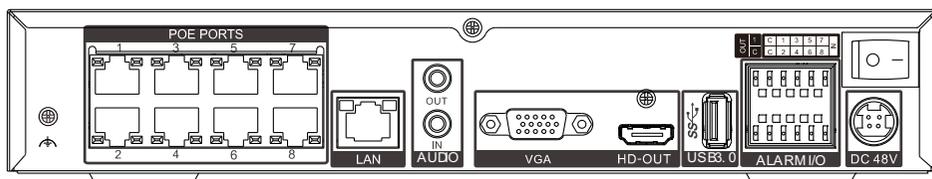


Table 2-6 Real panel function

| Port | Description |
|--|--|
| POE | POE network interfaces |
| LAN | RJ 45 10/100/1000 Mbps adaptive Ethernet interface |
| AUDIO OUT / AUDIO IN | Audio output / Audio input |
| VGA | Video output interface |
| HDMI | |
| USB 3.0 | Only supports connected to 3.0 U disk |
| Alarm I/O | Alarm input/Alarm output |
|  | GND |
| DC48V | Connected to an external power adapter |

Figure 2-8 Four disks/ eight disks

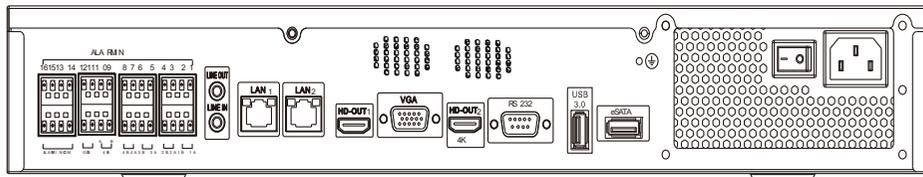


Table 2-7 Real panel function

| Port | Description |
|--|---|
|  | Alarm input and alarm output./RS485 |
| LINE OUT / LINE IN | Audio output / Audio input |
| LAN1 /LAN2 | RJ 45 10/100/1000 Mbps adaptive Ethernet interface |
| VGA | Video output interface |
| HDMI (1/2) | |
| RS232 | Standard RS232 serial communication interface of the device |
| USB 3.0 | Only supports connected to 3.0 U disk |
| E SATA | External hard disk interface |
|  | Power switch |
|  | Safe ground screw of the device |
|  | AC 110V/220V power input interface |

Figure 2-9 Four disks 16 POE

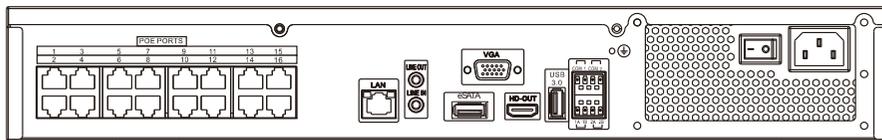


Table 2-8 Real panel function

| Port | Description |
|--|---|
| POE port | POE network interfaces |
|  | Alarm input and alarm output./RS485 |
| LINE OUT / LINE IN | Audio output / Audio input |
| LAN | RJ 45 10/100/1000 Mbps adaptive Ethernet interface |
| VGA | Video output interface |
| HDMI | |
| RS232 | Standard RS232 serial communication interface of the device |
| USB 3.0 | Only supports connected to 3.0 U disk |
| E SATA | External hard disk interface |
|  | Power switch |
|  | Safe ground screw of the device |
|  | AC 110V/220V power input interface |

Figure 2-10 WiFi model

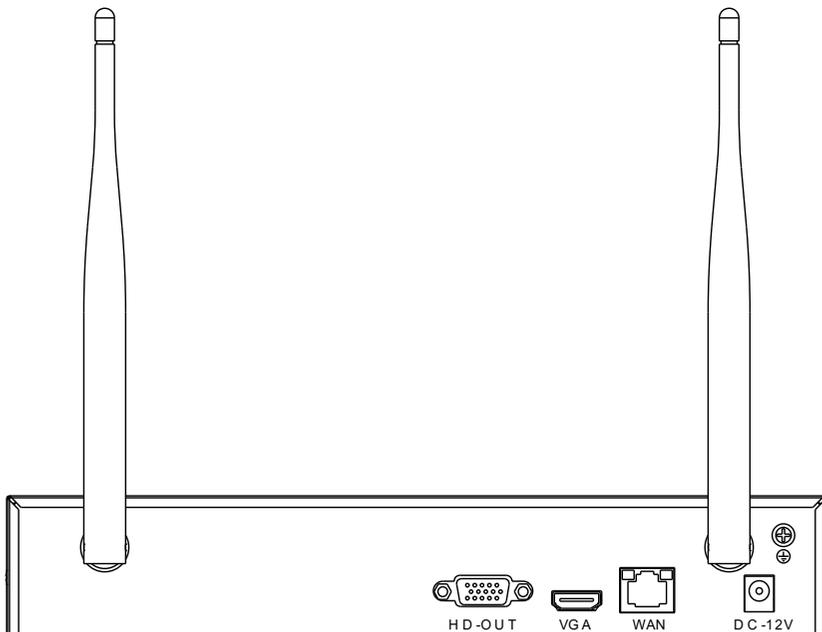
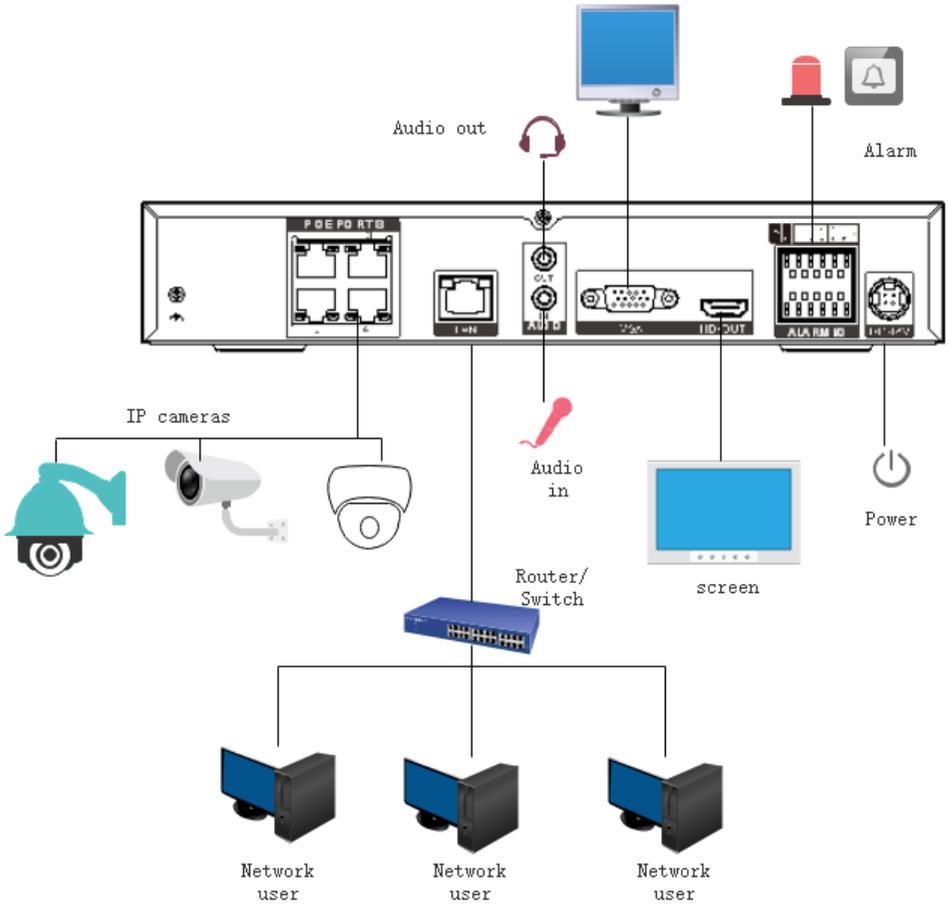
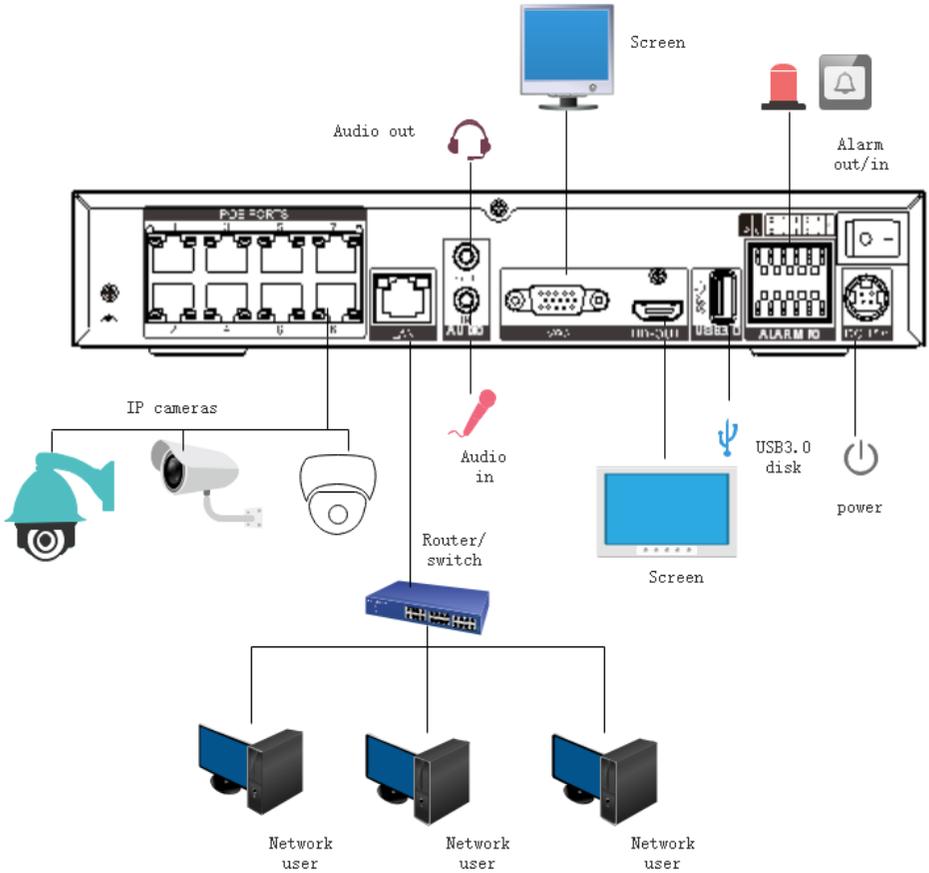
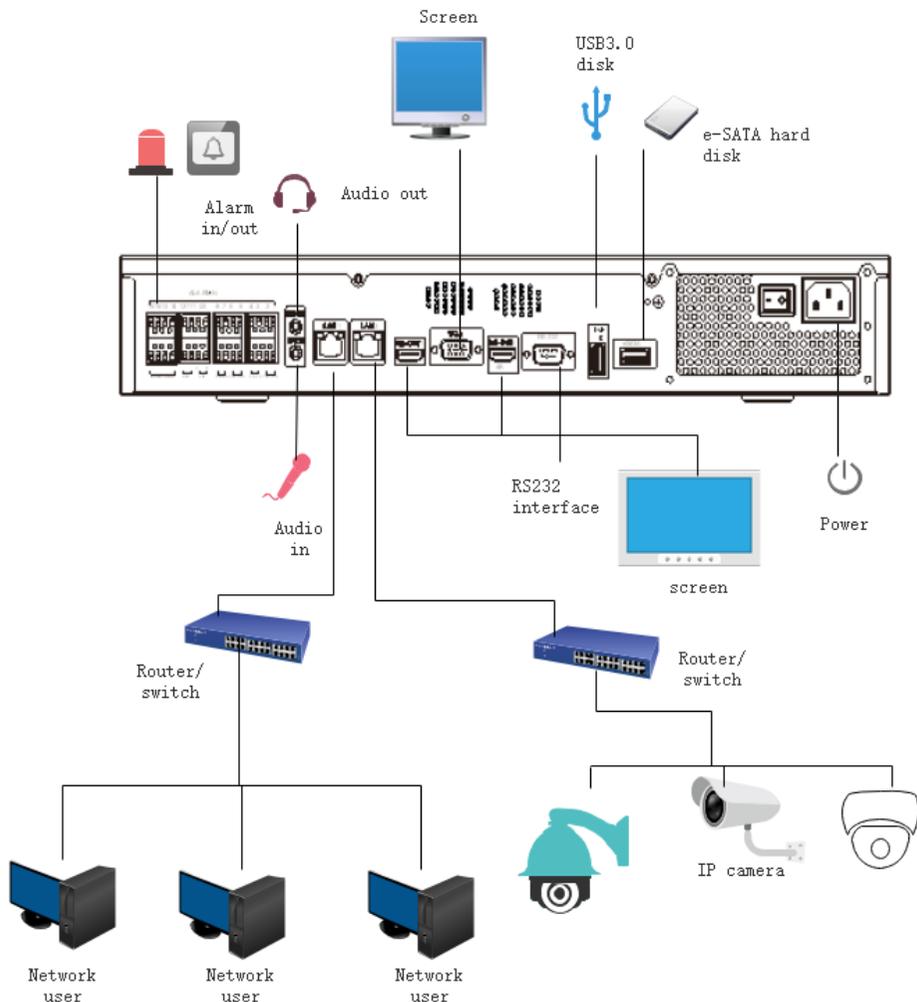


Table 2-9 Real panel function

| Port | Description |
|--------|--|
| WAN | RJ 45 10/100/1000 Mbps adaptive Ethernet interface |
| VGA | Video output interface |
| DC 12V | Connected to an external power adapter |
| ⊕ | Safe ground screw of the device |







2.3 Important Notes

Thank you for choosing the NVR. Please read the user manual carefully before using this product.

The NVR is a complex system-based device. To avoid misoperations and malfunctions caused by environmental factors and human factors during installation, commission, and application, note the following points when installing and using this product:

Read the user manual carefully before installing and using this product.

- Use Monitoring dedicated hard disks as the storage devices of the NVR with high stability and competitive price/performance ratios (the quality of hard disks sold on markets varies greatly with different brands and models).
- Do not open the enclosure of this product unless performed by a professional person to avoid damage and electric shock.
- We are not liable for any video data loss caused by improper installation, configuration, operation, and hard disk errors.
- All images in the document are for reference only, please subject to the actual products.

2.4 About This User Manual

Please note the following points before using this user manual:

- This user manual is intended for persons who operate and use the NVR.
- The information in this user manual applies to the full series NVR, NVR as an example for description.
- Read this user manual carefully before using the NVR and follow the methods described in this manual when using the NVR.
- If you have any doubts when using the NVR, contact your product seller.
- In the case of product upgrade, the information in this document is subject to change without notice.

2.5 Installation Environment and Precautions

Installation environment

Table 2-10 defines the installation environment of the NVR.

Table 2-10 Installation environment

| Item | Description |
|----------------------|---|
| Electromagnetism | The NVR conform to national standards of electromagnetic radiation and does not cause harm to the human body. |
| Temperature | -10°C to +45°C |
| Humidity | 20% to 80% |
| Atmospheric pressure | 86 Kpa to 106 Kpa |
| Power supply | DC 12V, DC 48V 2A(1 HDD) or AC110/ 220V 4A(2 |

| Item | Description |
|-------------------|--|
| | HDDs or more), please refer to actual product. |
| Power consumption | <15W (excluding the hard disk) |

Installation precautions

Note the following points when installing and operating the NVR:

- The power adapter of the NVR uses $DC48V \pm 20\%$ input. Do not use the NVR when voltage is too high or too low.
- Install the NVR horizontally.
- Avoid direct sunlight on the NVR and keep away from any heat sources and hot environments.
- Connect the NVR to other devices correctly during installation.
- The NVR is not configured with any hard disk upon delivery. Install one or more hard disks when using the NVR for the first time.

The NVR identifies hard disk capacity automatically and supports mainstream hard disk models. User should use good brands of hard disk so that the NVR can operate stably and reliably, please refer to chapter 10 Disk Compatibility

Other precautions

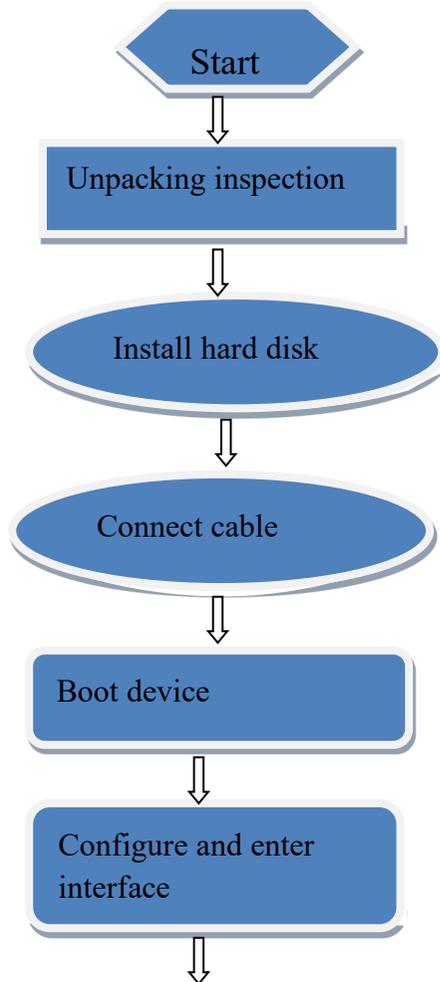
- Clean the NVR with a piece of soft and dry cloth. Do not use chemical solvents.
- Do not place objects on the NVR.

The NVR meets the national standards of electromagnetic radiation and does not cause electromagnetic radiation to the human body.

Series of NVR

3 Install device

3.1 Process





- Step 1 Check the appearance, packaging, and label of the device to ensure which no damage.
- Step 2 Install the hard disk and fix the hard disk on the device bracket.
- Step 3 Connect the device cable.
- Step 4 After ensuring that the device is connecting correct, connect the power and turn on the device.
- Step 5 Configure the initial parameters of the device. The boot wizard contains network configuration, add cameras, and manage disks. For details, please refer to the chapter of Wizard .

3.2 Unpacking Inspection

When the transportation company sends network video recorder to you, please check the following table for unpacking. If you have any questions, please contact our sales technicians.

Table 3-1 Unpacking inspection

| No | Item | | Check content |
|----|-------------------|-----------------|---|
| 1 | Overall packaging | Appearance | Is there any obvious damage |
| | | Package | Is there accidental impact |
| | | Accessories | Is it complete |
| 2 | Label | Label of device | <p>Is the equipment model consistent with the order contract?</p> <p>Whether the label is torn</p> <p> NOTE</p> <p>Do not tear or discard, otherwise warranty service is not guaranteed. When you call the company for sales personnel calls, you will need to provide the serial number of the</p> |

| | | | |
|---|---------|--|--|
| | | | product on the label. |
| 3 | Cabinet | Package | Is there any obvious damage |
| | | Data cable, power cable, fan power supply, and motherboard |  NOTE If it is loose, please contact the company's after-sales personnel. |

3.3 Install Hard Disk

When installing for the first time, first check if the hard disk is installed. It is recommended to use the company recommended hard disk model 9 disk compatibility.

It is not recommended to use a PC dedicated hard disk.



When replacing the hard disk, please turn off the power and then open the device to replace the hard disk.

Please use the monitoring dedicated SATA hard disk recommended by the hard disk manufacturer.

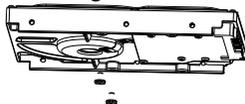
Use a reasonable hard disk capacity according to the recording requirements.

3.3.1 Install One or Two Hard disks

Step 1 Remove the screws for fixing the upper cover and take down the cover.

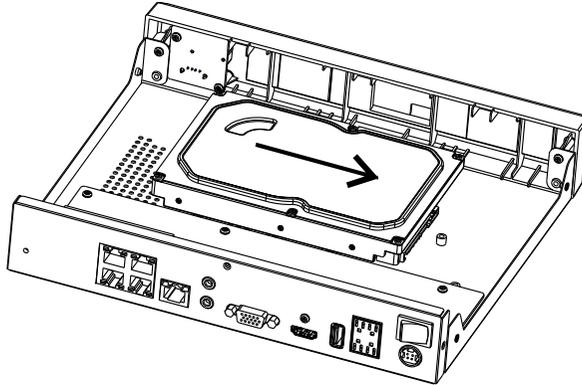
Step 2 Take out the screws and silicone cushion, route the screws through the silicone cushion, and install it to the screw holes, as show in Figure 3-1..

Figure 3-1 Installing the hard disk screws



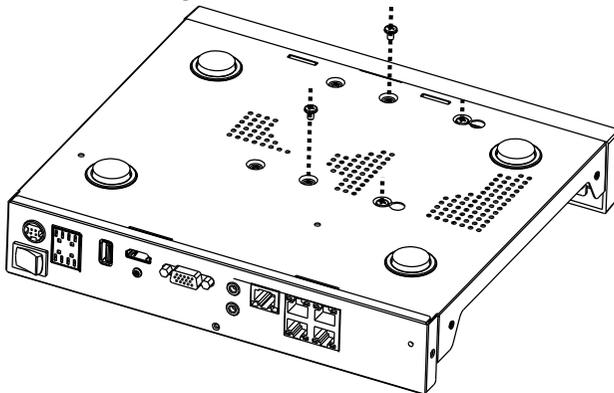
Step 3 Route the screws through the hole on the base, push the hard disk to the appropriate position on the left, as shown in Figure 3-2.

Figure 3-2 Install hard disk



Step 4 Turn the device over, and fasten the rest two hard disk fixing screws, as shown in Figure 3-3.

Figure 3-3 Install hard disk



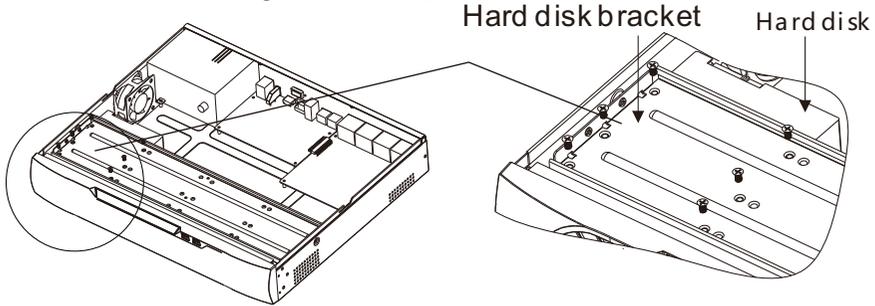
Step 5 Insert the hard disk data cable and power cable, then put on the upper cover and fasten the fixing screws.

3.3.2 Install Four Hard disks

Step 1 Remove the screws for fixing the upper cover and take down the cover.

Step 2 Put the hard disk under the hard disk bracket, hold the hard disk with one hand and aim the hard disk hole at the bracket hole, then fix the screws for hard disk (install the hard disk near the fan first), as shown in Figure 3-4.

Figure 3-4 Installing the hard disks



Step 3 Install other hard disks following step 2.

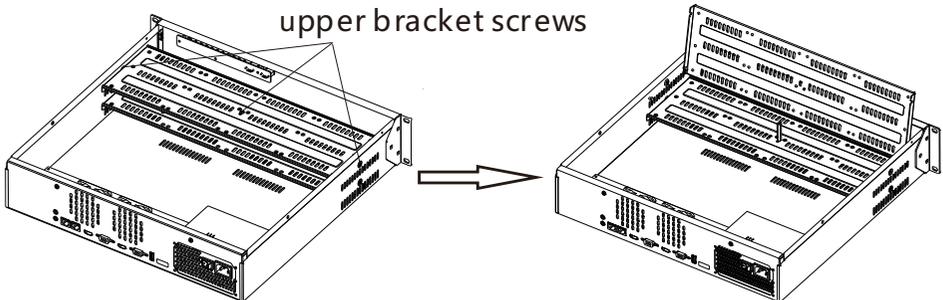
Step 4 Insert the hard disk data cable and power cable, then put on the upper cover and fasten the fixing screws.

3.3.3 Install Eight Hard disks

Step 1 Remove the screws for fixing the upper cover and take down the cover.

Step 2 Unscrew the screws on both sides and the upside of the upper bracket respectively, lift the upper bracket, as shown

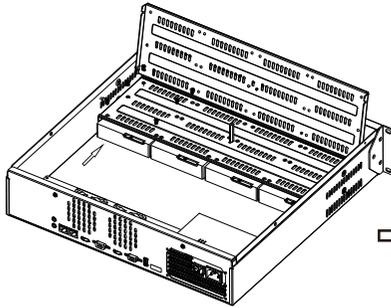
Figure 3-5 Unscrew the screws lift the upper bracket



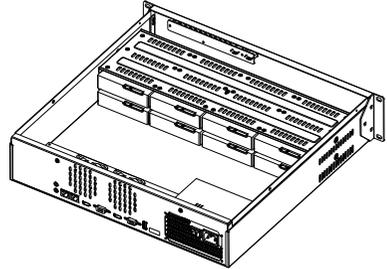
Step 3 Put the hard disk under the lower bracket, hold the hard disk with one hand and aim the hard disk hole at the bracket hole, then fix the screws for hard disk, as shown in Figure 3-6.

Step 4 Pull down upper bracket and screw it, then install other hard disks in upper layer following step 3, as shown in the right figure in Figure 3-6.

Figure 3-6 Unscrew the screws



lift the upper bracket



Step 5 Insert the hard disk data cable and power cable, then put on the upper cover and fasten the fixing screws.

4 Basic Operations

4.1 Power on the Device

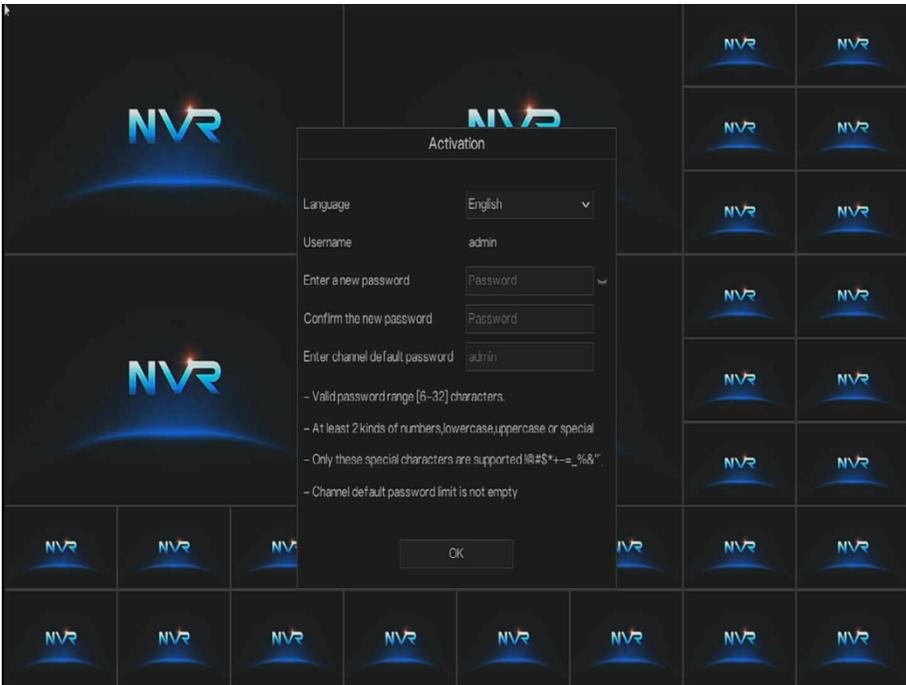


CAUTION

- Ensure that the NVR is correctly connected to a power supply, and a display is correctly connected to the high definition multimedia interface (HDMI) or video graphics array (VGA) port of the NVR before power-on.
 - In some environments, abnormal power supply may cause the failure of the NVR to work properly and even damage the NVR in severe cases. It is recommended to use a regulated power supply to power the NVR in such environments.
-

After the NVR is connected to a power supply, the power indicator is steadily on. Start the NVR. The real-time video screen is displaying, as shown in Figure 4-1.

Figure 4-1 Real-time video screen



NOTE

Users need to provide a hard disk for the NVR. The hard disk is strictly detected during device startup. If the detection result failed, the possible causes are as follows.

The hard disk is new and is not formatted. Login to the system and format the hard disk.

The hard disk is formatted, but the file system is inconsistent with the file system supported by the NVR. Format the hard disk.

The hard disk is damaged.

4.2 Activation

When the user login the device at first time, or reset the NVR, you need to activate the device and set login and channel default password, as shown in Figure 4-2.

Figure 4-2 Activation

Activation

Language English ▾

Username admin

Enter a new password

Confirm the new password

Enter channel default password

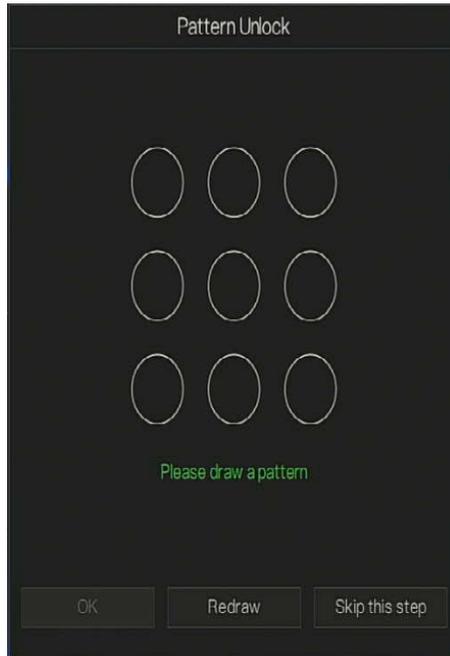
- Valid password range [6-32] characters.
- At least 2 kinds of numbers, lowercase, uppercase or special .
- Only these special characters are supported !@#*\$+ -=_ %&"
- Channel default password limit is not empty

Table 4-1 Description of activation

| Name | Description |
|------------------|---|
| Username | The default username is admin, and “admin” is super administrator. |
| Password | Valid password range 6-32 characters. |
| Confirm password | At least 2 kinds of numbers, lower case, upper case or special characters contained. Only these special characters are supported !@#*\$+ -=_ %&” Channel default password limit is not empty. |
| Channel password | The NVR channel connection password is the camera login password. |

User can set the pattern unlock to login the device, as shown in Figure 4-3.

Figure 4-3 Set pattern unlock



 **NOTE**

After the pattern is unlocked, the system defaults to the pattern unlock login. If the pattern unlock is not set, you will need to input the password to login.

If you don't need to set the pattern to unlock, click "Skip this step".

Set the Email to receive the verification code if user forget the initial password to create new password, as shown in Figure 4-4.

Figure 4-4 Set Email

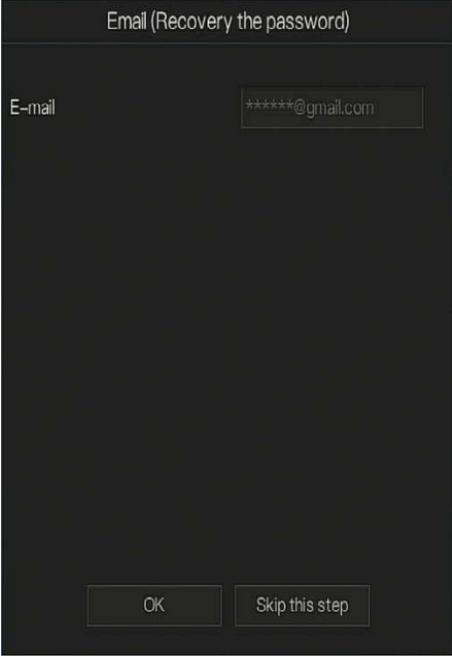


Figure 4-4 shows a dark-themed screen titled "Email (Recovery the password)". The screen contains a label "E-mail" on the left and a text input field on the right containing "*****@gmail.com". At the bottom of the screen, there are two buttons: "OK" and "Skip this step".

 **NOTE**

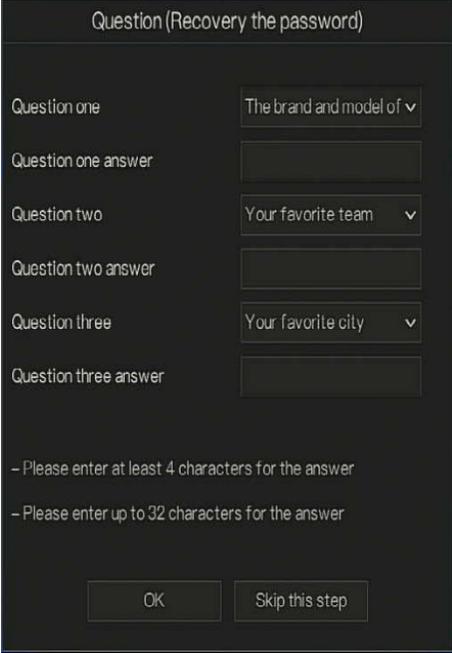
Set the email address, if you forgot the password, you can through the email address to receive the verification, and reset the password.

If the email address is not set, you can reply to the secure question or send the QR code to the seller to give the temporary password to login to the device..

If you don't need to set the email, click "Skip this step".

Set the secure question, if user forgot the password can through the secure questions to create new password to login the device.

Figure 4-5 Set question



Question (Recovery the password)

Question one The brand and model of ▾

Question one answer

Question two Your favorite team ▾

Question two answer

Question three Your favorite city ▾

Question three answer

- Please enter at least 4 characters for the answer

- Please enter up to 32 characters for the answer

OK Skip this step

 **NOTE**

The user can set three questions, and if they forget the password, they can answer the question and enter the reset password interface.

Question one can be set: Your favorite animal

Company name of your first job

The name of the first boy/girl you like

The worst security question you have ever seen

The most funning/worst design you have ever seen

Question 2: Your favorite team

Question 3: Your favorite city

The three question options cannot be set to the same issue.

The answer requires a minimum of four characters and a maximum of 32 characters.

If you do not want to set a password question, you can click Skip this step.

4.3 Power off the Device

Click the main menu and choose **System > Maintenance**, the maintenance setting page is displaying, click **Shutdown** to power off the NVR. If there is a power switch on the rear panel of the NVR, you can RPM off the power switch to disconnect the NVR from the power supply.

4.4 Login to the System

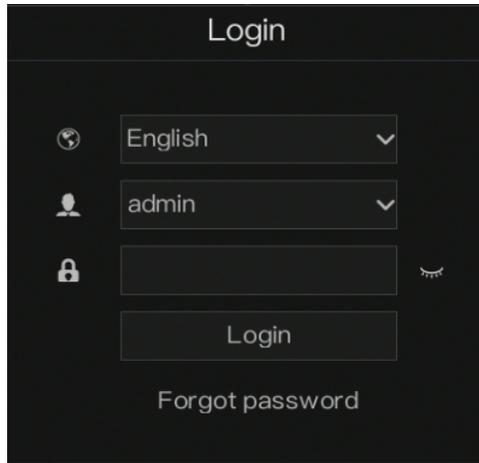
Step 1 Login to the device, there are two modes to login if you set the pattern unlock, as shown in

Figure 4-6 Pattern unlock login page



Step 2 On the NVR login page, click “ Password” to at pattern unlock interface. If user don’t set the pattern unlock it will show password to login interface directly, select the language, as shown in Figure 4-7.

Figure 4-7 Password login page



Step 3 Input the username and password.

 **NOTE**

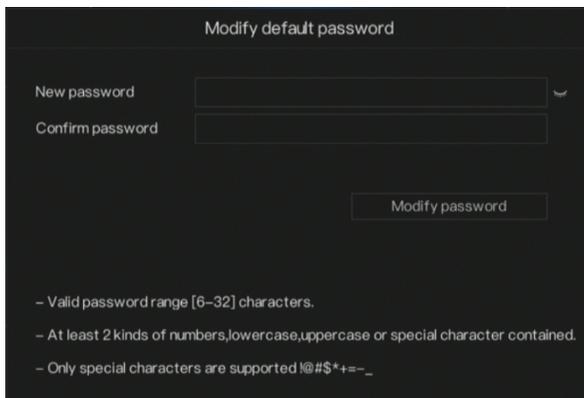
The password incorrect more than 3 times, please login again after 5 minutes. You can also power off, and power on to start on the device, input the correct password to avoid waiting five minutes. If user forget password, click Forgot password. User can choose a way to create new password:

1. Scan the QR code and send the QR code to your seller, seller send the verification code to user and set new password to login .
2. Answer the secure question to create new password.

Step 4 Click Login to access the main User Interface (UI).

Step 5 Modify the default password, as shown in Figure 4-8

Figure 4-8 Modify default password



Modify default password

New password

Confirm password

- Valid password range [6-32] characters.
- At least 2 kinds of numbers, lowercase, uppercase or special character contained.
- Only special characters are supported !@#\$*+=-_

----End

5 Wizard

Login the NVR, the wizard is showing on live video, click **Start Wizard**, the pop-up window will show as Figure 5-1.

Figure 5-1 Wizard

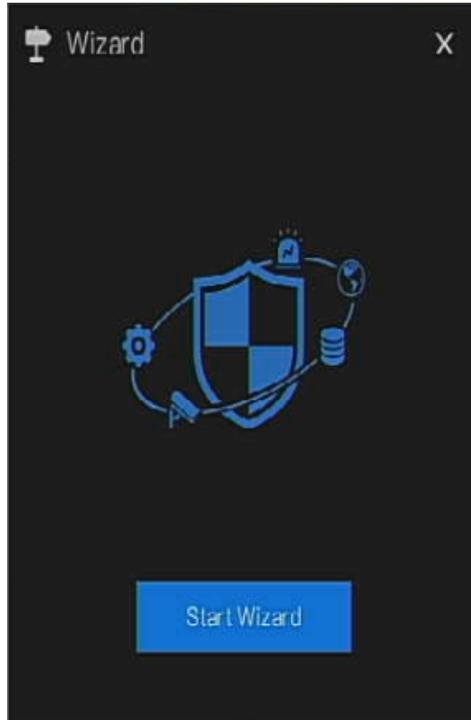
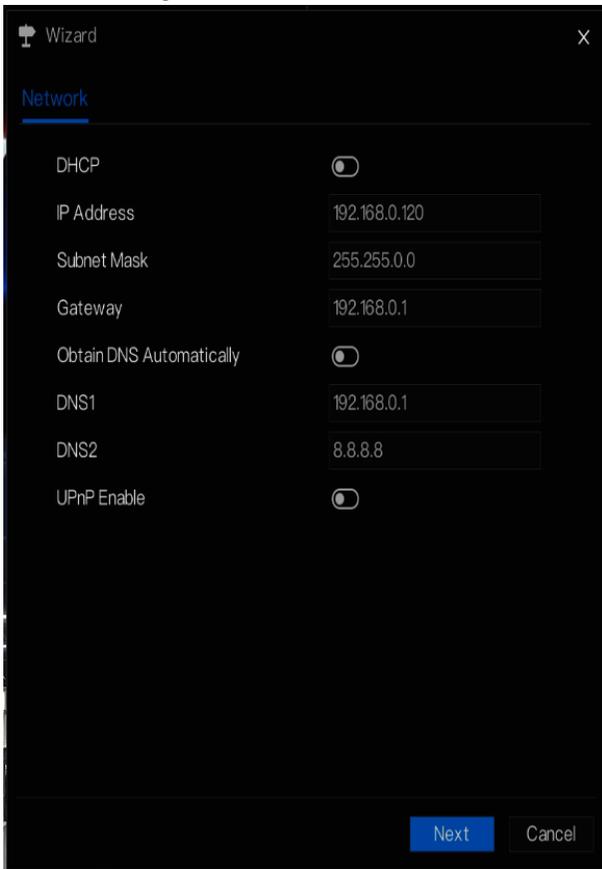


Figure 5-2 Wizard of network



Step 1 Set the parameter, the details please refer to Table 5-1.

Table 5-1 Network parameter

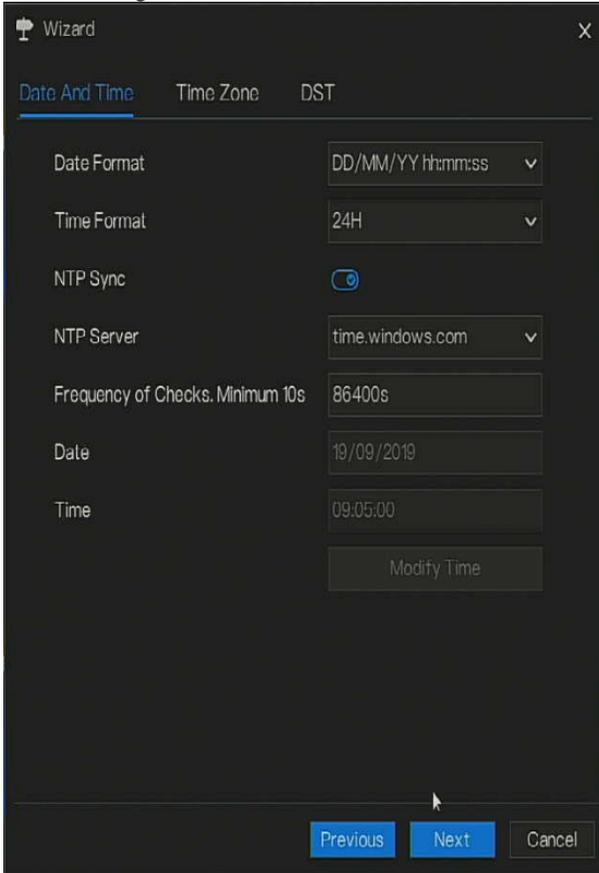
| Parameter | Description | Configuration |
|------------|--|----------------------------|
| DHCP | Enable DHCP, the device will obtain the IP address from the DHCP server. | [Setting method] Enable |
| IP Address | Set the IP of device when DHCP is disable | [Setting method] Manual |

| Parameter | Description | Configuration |
|--------------------------|--|--|
| Subnet mask | Set the subnet mask of device | [Setting method] Manual [Default value] 255.255.255.0 |
| Gateway | If the user wants to access device, he must set that | [Setting method] Manual [Default value] 192.168.0.1 |
| Obtain DNS automatically | N/A | [Setting method] Enable |
| DNS 1 | N/A | [Setting method] Manual [Default value] 192.168.0.1 |
| DNS 2 | N/A | [Setting method] Manual [Default value] 192.168.0.1 |
| UPnP | Auto: device to obtain Web port, data port and client port. Manual: user set the port manually. | [Setting method] Choose type from drop-down list [Default value] Auto |
| Web Port | N/A | [Setting method] |
| Data Port | N/A | When UPnP is manual, you need to |
| Client | N/A | |

| Parameter | Description | Configuration |
|-----------|-------------|---------------|
| | | set these. |

Step 2 Click  to view the basic information about device, as shown in Figure 5-3.

Figure 5-3 Wizard of date and time



Choose date format and time format from drop-down list.

Click  to synchrony time from network.

Disable the NTP-Sync, set time manually.

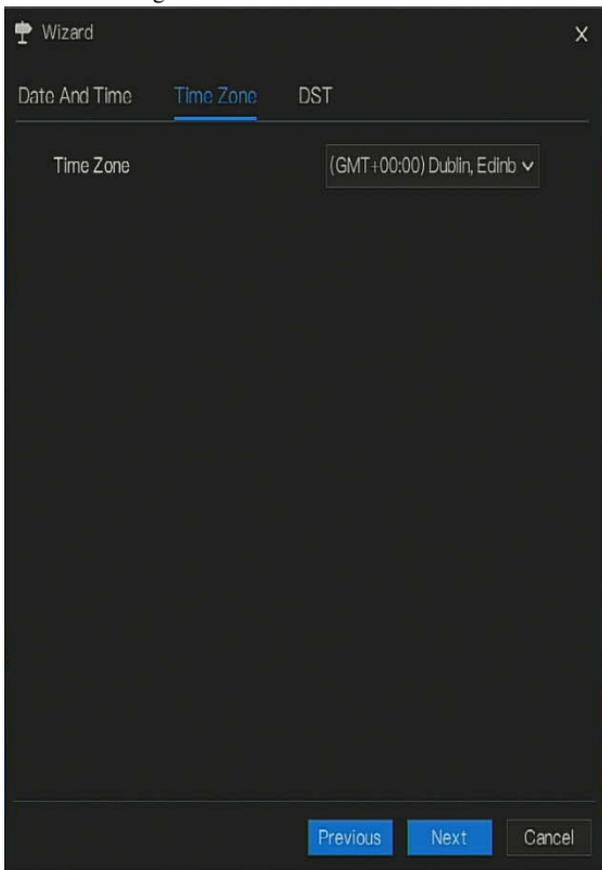
Roll the mouse to choose year, month and day when clicking the date.

Roll the mouse to choose hour, minute and second when clicking the date.

Click **Modify Time** to save the time.

Step 3 Click **Time Zone**, choose the current time zone from drop-down list, as shown in Figure 5-4.

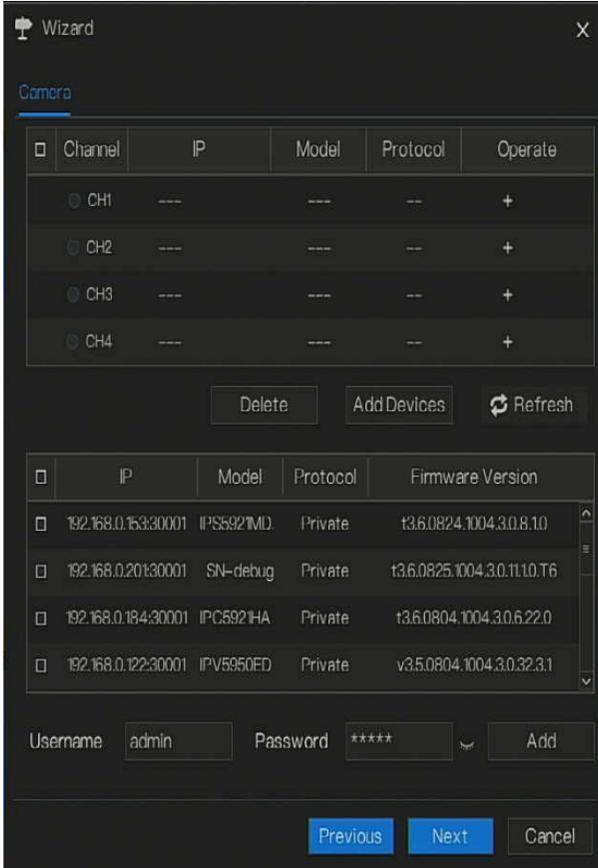
Figure 5-4 Wizard of time zone



Step 4 Click **DST**, enable the DST, set start and end time. Select offset time from drop-down list.

Step 5 Click **Next** to enter the adding camera wizard, as shown in Figure 5-5.

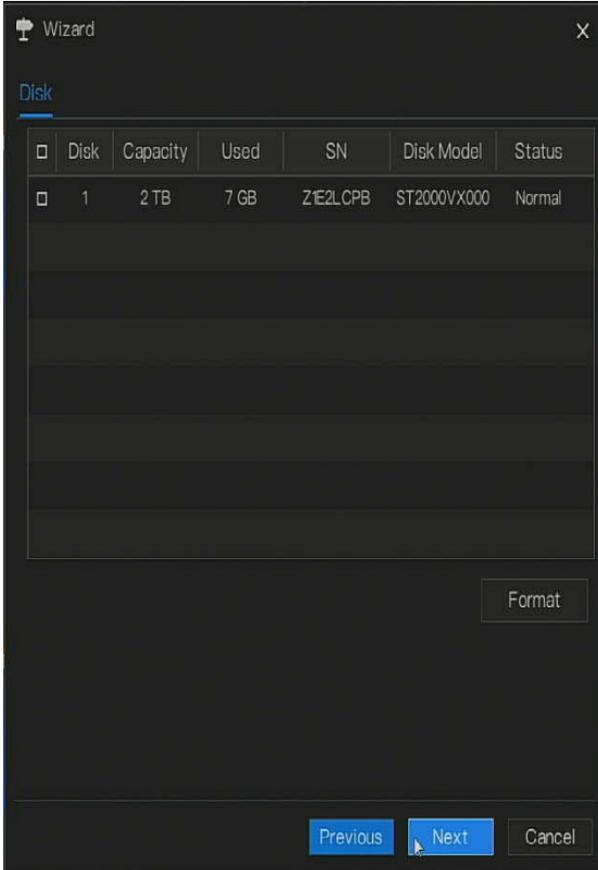
Figure 5-5 Wizard of adding camera



The details of adding camera please refer to *chapter 7.3*.

Step 6 Click **Next** to enter wizard of disk, as shown in Figure 5-6.

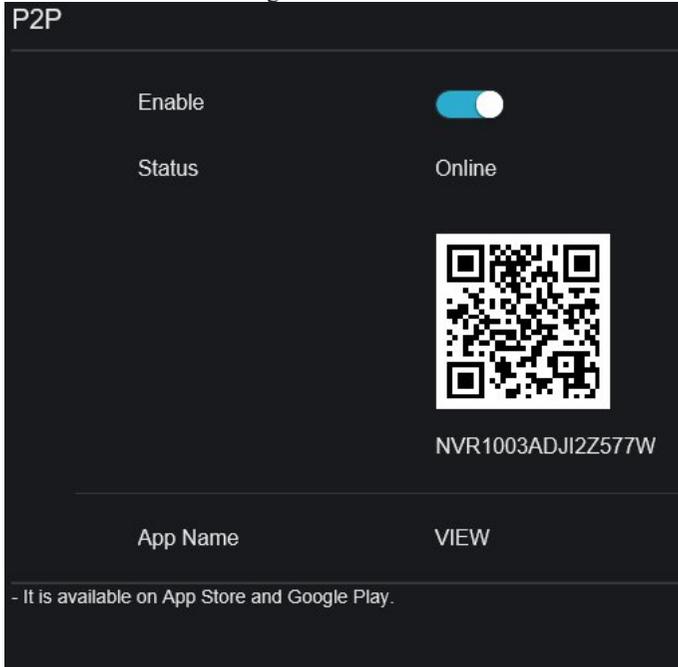
Figure 5-6 Wizard of disk



You can view the general information of disk. You can also format the disk.

Step 7 Click **Next** to enter wizard of P2P, as shown in Figure 5-7

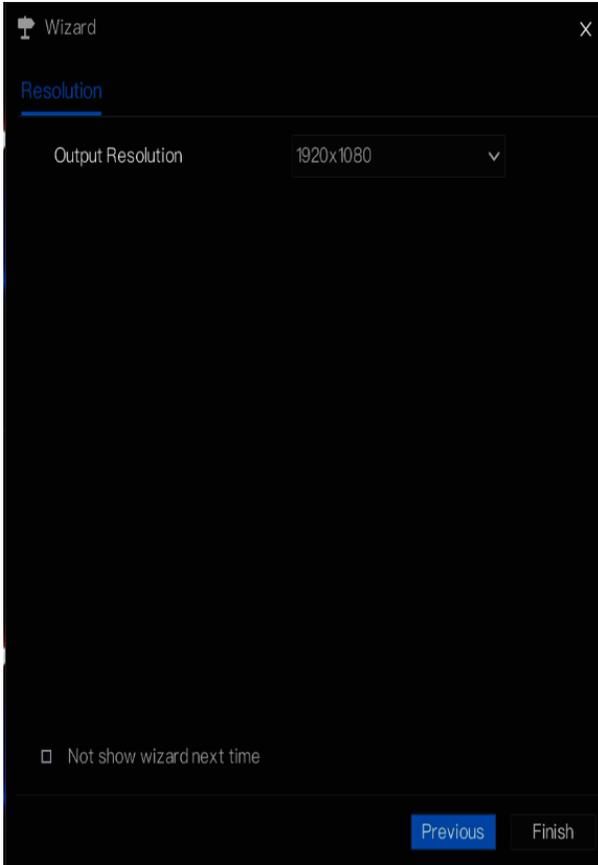
Figure 5-7 P2P



Step 8 Enable the P2P, user can use mobile devices to manage the NVR by scanning the P2P ID, if the mobile phone has loaded the InVid LIVE app(search the APP at App Store or Google Play).

Step 9 Click [Next](#) to enter the wizard of resolution , as shown in Figure 5-8. Choose resolution from drop-down list.

Figure 5-8 Wizard of resolution



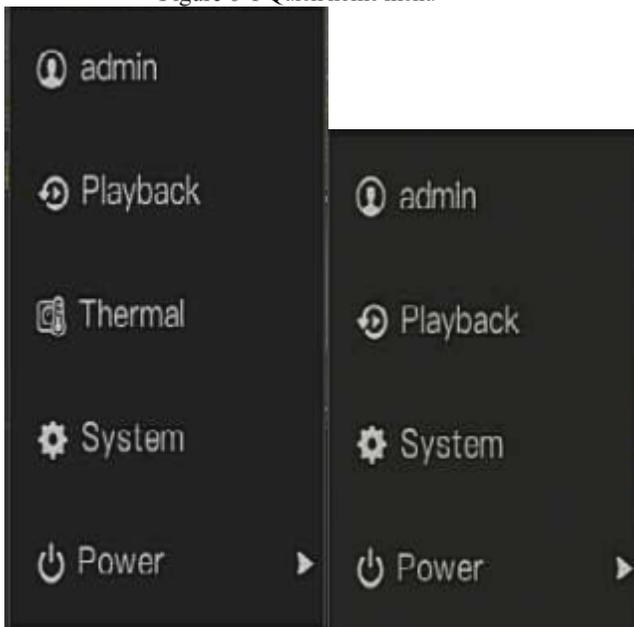
Step 10 Click **Finish** to end the wizard, tick the **Not show this window next time**, wizard would not show at next time. Reopen wizard at **system >user >advance setting**.

6 Quick Navigation

After the NVR operation screen is displaying, move the cursor to the down most position of the NVR screen. The NVR floating menu bar is displaying.

Click  in the left of NVR floating menu bar. The quick home menu is showing. The quick home menu provides **Playback, System and Power(Shutdown, Reboot and Logout)** as shown in Figure 6-1.

Figure 6-1 Quick home menu



In the middle of NVR floating menu bar, the video tool bar provides **video window switching, auto SEQ, volume, playback, and channel information**, as shown in Figure 6-2.

Figure 6-2 Real-time video toolbar



The real-time video toolbar is described as follows:



: Layout. Click the icon, the real-time video window switch

between the single-screen mode and multi-screen mode. Click  on the right of screen splitting format and choose the channels to view the video.



: Auto SEQ. click icon, the layout dwell on screen is enabled, for how to set the dwell on, please see *chapter 7.7.5*.



: Audio. Click icon, the audio setting screen is displaying, which you can choose the channel and adjust the volume.



:channel information, tick the channel or encode, the live video will show the channel information.

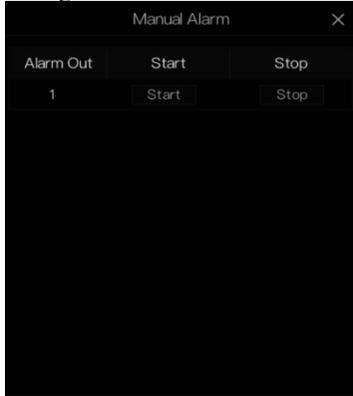
A main menu quick toolbar is display on the right of NVR floating menu bar. The main menu quick toolbar provides **manual alarm**, **alarm information**, **clean alarm information** and **time**, as shown in Figure 6-3.

Figure 6-3 Main menu quick toolbar



: Manual alarm, click the icon, the window shows in Figure 6-4.

Figure 6-4 Manual alarm



: Alarm message, click icon would show pop-up message window, as shown in 6.1.

6.1 Alarm message

| Channel | Type | Start time |
|----------|------------------|---------------------|
| Channel8 | Motion Detection | 27/12/2018 17:32:57 |
| Channel8 | Motion Detection | 27/12/2018 17:32:42 |
| Channel8 | Motion Detection | 27/12/2018 17:31:53 |
| Channel8 | Motion Detection | 27/12/2018 17:31:11 |
| Channel8 | Motion Detection | 27/12/2018 17:29:23 |
| Channel8 | Motion Detection | 27/12/2018 17:23:46 |
| Channel8 | Motion Detection | 27/12/2018 17:23:35 |
| Channel8 | Motion Detection | 27/12/2018 17:23:24 |
| Channel8 | Motion Detection | 27/12/2018 17:23:13 |
| Channel8 | Motion Detection | 27/12/2018 17:18:14 |



: Clean alarm, click icon and clean the current alarm actions like voice and external alarm out.



: Information, click icon and the general information would show, like network, system, channel and disk, as shown in Figure 6-5.

Figure 6-5 Information

| Parameter | Value |
|----------------------|-------------------|
| Status | Online |
| IP Address | 192.168.0.121 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.0.1 |
| MAC Address | 00:1E:A4:00:24:91 |
| DHCP | OFF |
| Preferred DNS Server | 192.168.0.1 |
| Alternate DNS Server | 8.8.8.8 |
| Total Bandwidth | 100.00 Mbps |
| Used Bandwidth | 10.00 Mbps |

6.2 Real Time Video Bar

Click realtime image, the quick setting will show as figure.



Record: click the icon and start to record video. Click again to end record.

Instant playback: click the icon, the window will play previous five minutes record video.

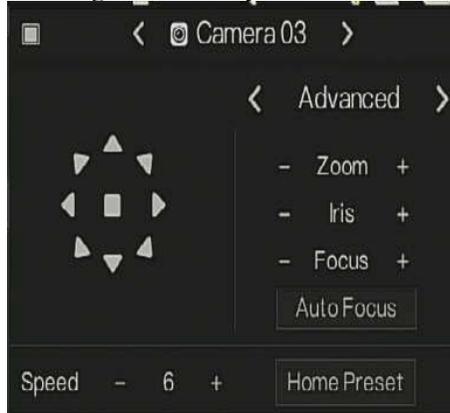


is the time bar of playback.

Audio: open or close the audio.

PTZ: This function only is useful for speed dome cameras. You can adjust every parameter as shown in Figure 6-6.

Figure 6-6 PTZ adjust screen



: User adjust direction of camera.



: At this part, user can set **Advanced**, **Scan** and **Tour** settings.



: 3D, this function only can be used for high speed dome camera. Click the icon to enter the camera live video screen, use the mouse to move the camera or zoom in or out the lens. Click the point to zoom in. Drag and draw the area, zoom in the drawing area, Reverse drag to zoom out.

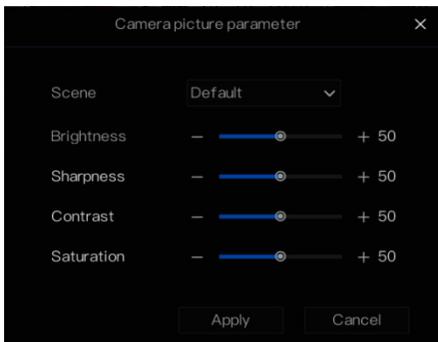


: Zoom in, click zoom in, roll the mouse wheel to zoom in and zoom out. Right-click to exit the zooming.



: Image, click the icon ,as shown in Figure 6-7. Select scene, and drag cursor to adjust value of brightness, sharpness, contrast and saturation.

Figure 6-7 Camera picture parameter

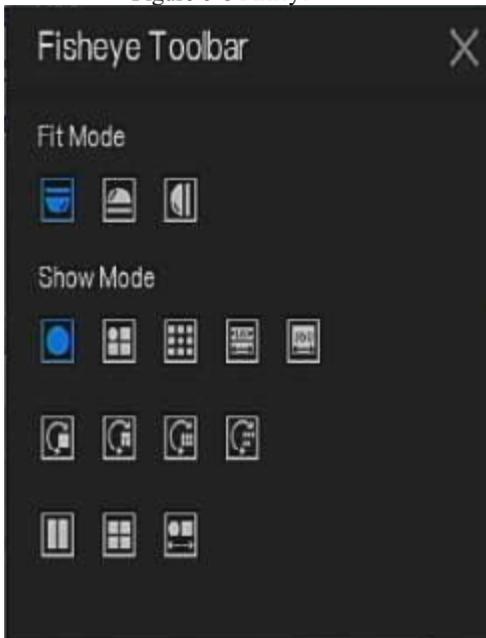


: Two way audio. The NVR and camera can talk to each other.



: fisheye, click to switch the fisheye modes, as shown in Figure 9-23.

Figure 6-8 Fisheye



: Modify device parameters, as shown in Figure 6-9.

Figure 6-9 Modify device parameter

Modify device parameters

| | |
|----------------|--------------|
| Device Name | Channel07 |
| IP Address | 192.168.1.77 |
| Protocol | Private_SSL |
| Port | 20001 |
| Username | admin |
| Password | ***** |
| Remote Channel | CH-1 |

OK Cancel

6.3 Playback

Playback refers to playing back a video.

Click  in the quick navigation bar to access the playback screen, as shown in Figure 6-10.

Figure 6-10 Playback screen



The toolbar at the bottom of the playback screen is described as follows:



: Layout.

: Reversed, pause/play, stop.

:30s backward, 30s forward.

:Triple speed, it supports up to 32 times to playback.

: Zoom.

: Audio.

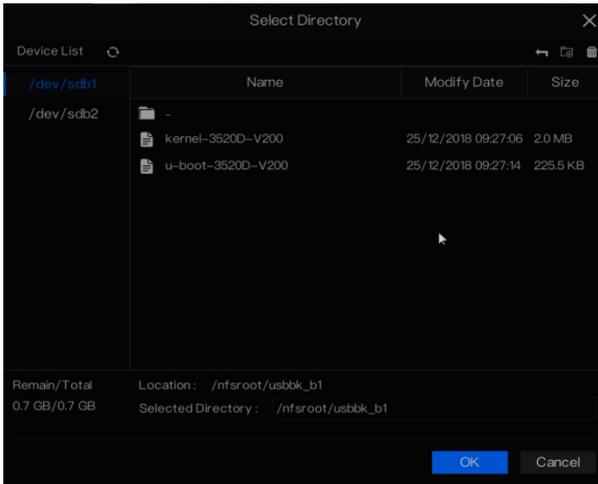


: Start and end backup. Click the icon, the video backup starts, select the video and click the icon again.

The backup type shows, click **save**, then saving the file pop-up windows would show as Figure 6-11 . Click **OK** to save.

This function is available after a USB disk is plugging in the device.

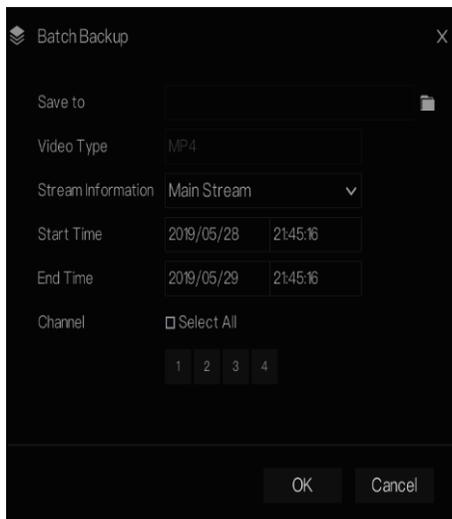
Figure 6-11 Select directory



: Batch backup, click the icon to backup multi-channels, as shown in Figure 6-12.

Choose the folder to save, select the stream information from drop-down list, set the start time and end time, select the channels, Click **OK** to backup.

Figure 6-12 Batch backup



: Type of time bar, recording video can show

6.3.1 Time Search

Search refers to searching for a video by date and time.

Operation Description

Click  in the quick navigation bar to access the search screen, as shown in Figure 6-13.

Figure 6-13 Time Search screen



Operation Steps

- Step 1 Select a camera in the camera list on the left side of the search screen. The video view of the selected camera is displaying in the play window.
- Step 2 Select a date in the calendar on the light-down side of the search screen.
- Step 3 Choose record type , and search the video quickly.
- Step 4 Choose proper button to adjust video.

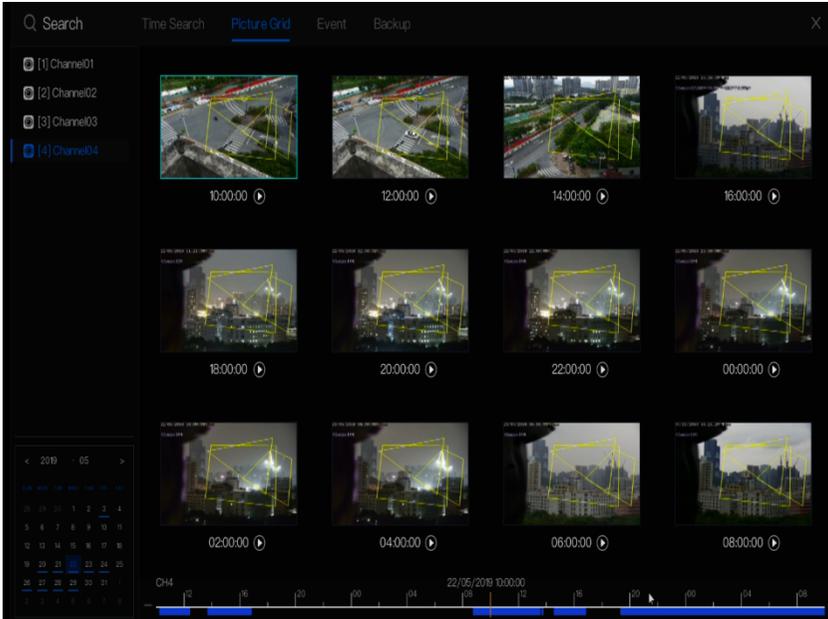
---End

6.3.2 Picture Grid

Picture grid refers to evenly dividing the video of a channel by time range and searching for a video based on thumbnails divided by time range.

Click **Picture Grid** on the quick navigation bar to access the picture grid screen, as shown in Figure 6-14.

Figure 6-14 Picture grid screen



Operation Steps

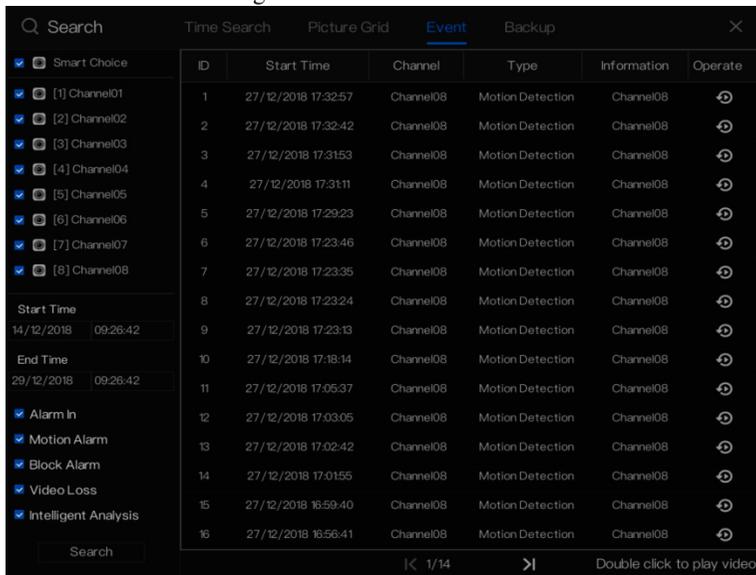
- Step 1 Select a camera in the camera list on the left side of the picture grid screen. Videos shot by the camera in the earliest time range on the current day are displayed as thumbnails in the window on the right side.
- Step 2 Select a day from calendar.
- Step 3 A day are dividend to 12 grids, two hours is one grid.
- Step 4 Select a required thumbnail, double-click it or right-click it and choose Play from the shortcut menu to play the video.

----End

6.3.3 Event

Click  on the quick navigation bar; choose **event** at title to access the alarm event screen, as shown in Figure 6-15

Figure 6-15 Event screen



Operation Steps

Step 1 Select a camera in the camera list on the left.

Step 2 Set start and end time.

Step 3 Tick the alarm type, such as alarm in, motion alarm, block alarm, video loss and intelligent analysis.

Step 4 Click **Search** to query the event, the result would show at window.

Step 5 Double click to play video about event. It will play recording video.

---End

6.3.4 Backup

Click **🔄** on the quick navigation bar, choose **Backup** at title to access the backup screen, as shown in Figure 6-16.

Figure 6-16 Backup screen

| ID | Channel | Start Time | End Time | Size | Stream | Path | Progress | Operate |
|----|-----------|-----------------|-----------------|---------|-------------|------------------|----------|---------|
| 1 | Channel02 | 21/12/2018 03:5 | 21/12/2018 03:5 | 36.0 MB | Main Stream | /nfsroot/usbtk_b | 25% | |

You can view the detail information of backup. Click delete button to quit the download.

---End

6.4 Thermal Temperature

NOTE

The thermal temperature function is only carried by some devices. If the current device does not have the function, please ignore it.

6.4.1 Temperature Parameters

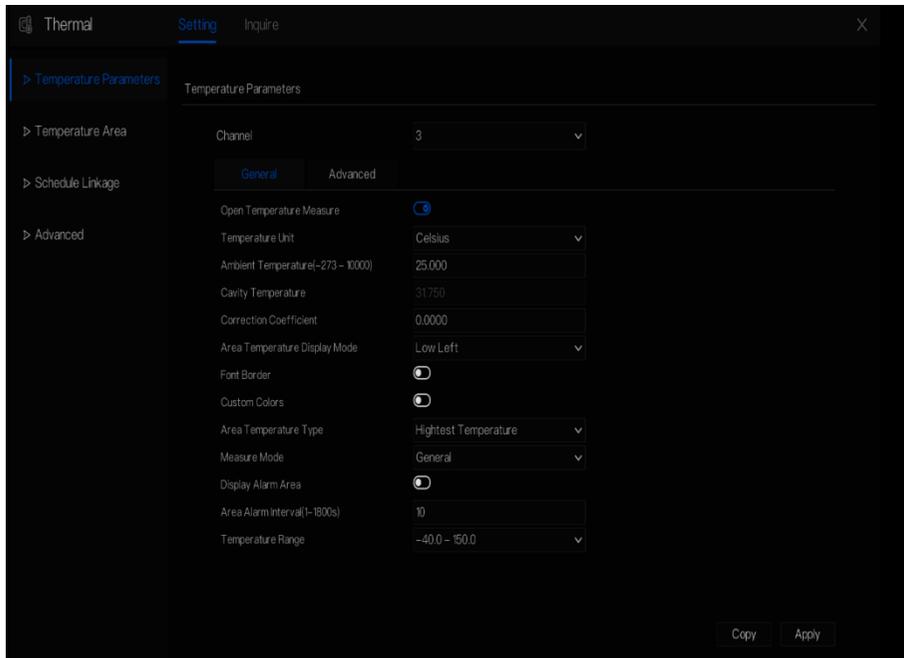
Temperature parameters include: temperature unit, ambient type, ambient temperature, cavity temperature, correctional coefficient and area temperature display mode.

Operation Procedure

Step 1 Choose Thermal >Temperature Parameters.

The **Temperature Parameters** page is displayed, as shown in Figure 6-17.

Figure 6-17 Temperature Parameters interface



Step 2 Set the parameters according to Table 6-1.

Table 6-1 Temperature parameters

| Parameter | Description | Setting |
|--------------------------|---|---|
| Open Temperature Measure | Enable temperature measure. | |
| Temperature Unit | Celsius and Fahrenheit temperature units are available. | [Setting method] Select a value from the drop-down list box. [Default value] Celsius |
| Ambient Temperature | The ambient temperature of camera. It is set when ambient is outside. | [Setting method] Enter a value manually. |

| Parameter | Description | Setting |
|-------------------------------|--|---|
| Cavity Temperature | The cavity temperature of camera. | N/A |
| Correction Coefficient | <p>Correction coefficient is refer to the deviation of measured object temperature and actual temperature.</p> <p>For example:</p> <ol style="list-style-type: none"> 1. The measured object temperature is 30, and actual temperature is 37, so the correction coefficient should be 7. 2. The measured object temperature is 37, and actual temperature is 30, so the correction coefficient should be -7. | <p>[Setting method]</p> <p>Enter a value manually.</p> <p>[Default value]</p> <p>0.00</p> |
| Area Temperature Display Mode | The display position of temperature information on the live-video image. | <p>[Setting method]</p> <p>Select a value from the drop-down list box.</p> <p>[Default value]</p> <p>Low left</p> |
| Font Border | The font will be bolded. | <p>[Setting method]</p> <p>Enable or disable</p> <p>[Default value]</p> <p>disable</p> |

| Parameter | Description | Setting |
|-----------------------|---|---|
| Custom Colors | Enable to custom the color, there are nine colors chosen. | [Setting method] Enable or disable [Default value] disable |
| Area Temperature Type | There are three types of area temperature. | [Setting method] Select a value from the drop-down list box. [Default value] Highest Temperature |
| Measure Mode | There are two types measure modes. | [Setting method] Select a value from the drop-down list box. [Default value] General |
| Display Alarm Area | N/A | [Setting method] Enable or disable [Default value] disable |
| Area Alarm Interval | N/A | [Setting method] Enter a value manually ranges from 1 to 1800. [Default value] 10 |

Figure 6-18 Advanced parameter

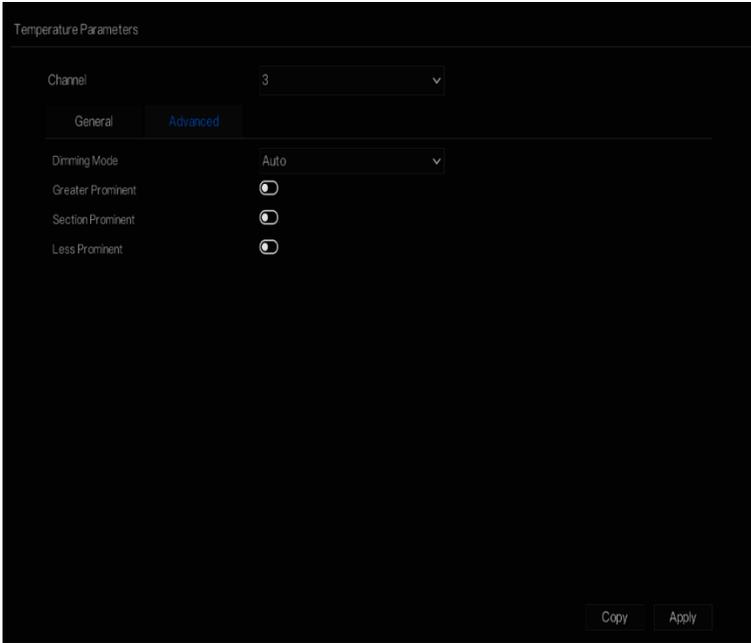


Table 6-2 Advanced parameters

| Parameter | Description | Setting |
|-------------------|---|--|
| Dimming Mode | There are auto and manual modes. It will show on temperature item. | [Setting method] Select a value from the drop-down list box. [Default value] Auto |
| Greater Prominent | Enable that, the image will show the setting color if the temperature is higher than set value. | [Setting method] Enter a value manually. Choose one color to show. |

| Parameter | Description | Setting |
|-------------------|---|--|
| Section Prominent | Enable that, the image will show the setting color if the temperature is between minimum and maximum temperature. | [Setting method] Enter a value manually. Choose one color to show. |
| Less Prominent | Enable that, the image will show the setting color if the temperature is lower than set value. | [Setting method] Enter a value manually. Choose one color to show. |

Step 3 Click **Copy** to copy the same settings to others thermal cameras.

Step 4 Click **Apply**.

Step 5 The message "Apply success" is displayed, the system saves the settings.

----**End**

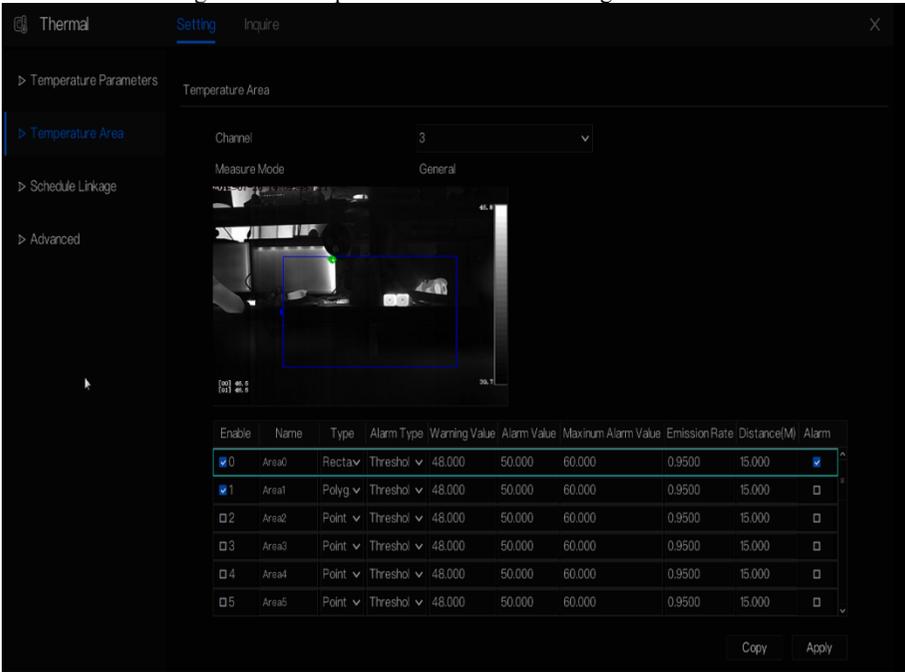
6.4.2 Temperature Area

Operation Procedure

Step 1 Choose Thermal >Temperature Area.

The **Temperature Area** page is displayed, as shown in Figure 6-19

Figure 6-19 Temperature area and alarm configuration



Step 2 Set the parameters according to Table 6-3

Table 6-3 Temperature area and alarm configuration

| Parameter | Description | Setting |
|--------------|---|---|
| Channel | N/A | [Setting method] Select a value from the drop-down list box. [Default value] 1 |
| Measure Mode | Set at temperature parameter interface. | N/A |

| Parameter | Description | Setting |
|------------------------------------|---|---|
| PTZ Area(only use for PTZ cameras) | Choose or set the preset, adjust the camera with PTZ keyboard. The all presets can set 20 areas to alarm | Set the preset manually, or select an existing preset in the drop-down list. |
| Enable | Tick to enable alarm areas. | N/A |
| ID | It ranges from 0 to 19. | N/A |
| Name | Area name of temperature area. | [Setting method] Enter a value manually. |
| Type | Type of temperature area. ID 0 is default rectangle area, which is full screen. There are 20 areas can be set, these are from 0 to 19 area. | [Setting method] Select a value from the drop-down list box. [Default value] Rectangle/Point |
| Alarm Type | Threshold alarm and Temperature difference alarm are available for alarm type. | [Setting method] Select a value from the drop-down list box. [Default value] Threshold alarm |
| Warning Value | Camera will warn when the surveillance object temperature reaches the warning value. | [Setting method] Enter a value manually. [Default value] 48.00 |
| Alarm Value | Camera will alarm when the surveillance object temperature reaches the alarm value. | [Setting method] Enter a value manually. [Default value] 50.00 |

| Parameter | Description | Setting |
|---------------------|---|--|
| Maximum Alarm Value | The maximum value of the alarm range, if the alarm value is exceeded, no alarm will be generated. | [Setting method] Enter a value manually. [Default value] 60.00 |
| Emission Rate | The emission rate is the capability of an object to emit or absorb energy. The emission rate should be set only when the target is special material. | [Setting method] Enter a value manually. [Default value] 0.95 |
| Distance(M) | The distance between camera and target. | [Setting method] Enter a value manually. [Default value] 15  NOTE Enter actual distance when the distance between camera and target is less than 15 m. Enter 15 when the distance between camera and target is great than or equal to 15 m. |
| Alarm | Open or close the alarm output and linkage of area. | [Setting method] Tick the alarm areas |

Step 3 Set temperature area.

1. Tick an area ID.
2. Select type from drop-list.
3. Press and hold the left mouse button, and drag in the video area to draw a temperature area. Right-click to finish the area selected.

4. Click **Apply**, the message “Apply success” is displayed, the temperature area is set successfully.

Delete a temperature area:

1. Select an area ID.
2. Click the temperature area and right-click.
3. Remove the tick of area ID.
4. Click **Apply**, the message “Apply success” is displayed, the temperature area is deleted successfully.

Step 4 Click **Apply**.

Step 5 The message "Apply success" is displayed, the system saves the settings.

----End

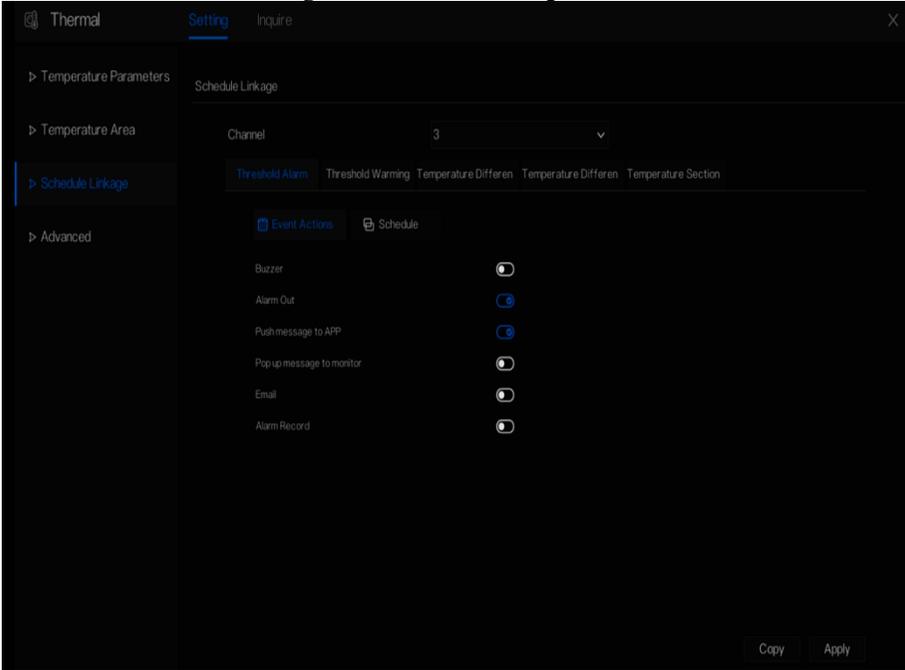
6.4.3 Schedule Linkage

Operation Procedure

Step 1 Choose Thermal > Schedule Linkage

The **Schedule Linkage** page is displayed, as shown in Figure 6-20.

Figure 6-20 Schedule Linkage

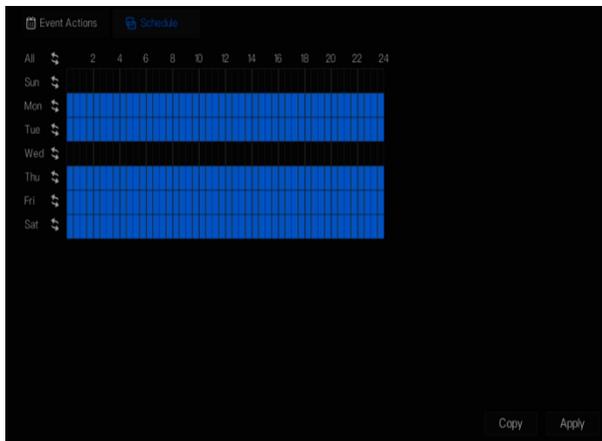


Step 2 Tick the output channel.

Step 3 Enable “Alarm Record”, “E-mail” button.

Step 4 Set schedule linkage.

Figure 6-21 Schedule



Method 1: Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday as shown in Figure 6-20.

Method 2: Hold down the left mouse button, drag and release mouse to select the alarm time within 0:00-24:00 from Sunday to Saturday.

 **NOTE**

When you select time by dragging the cursor, the cursor cannot be moved out of the time area.

Otherwise, no time can be selected.

Method 3: Click  in the alarm time page to select the whole day or whole week.

Deleting alarm time: Click  again or inverse selection to delete the selected alarm time.

Step 5 Click **Apply**.

Step 6 The message "Apply success" is displayed, the system saves the settings.

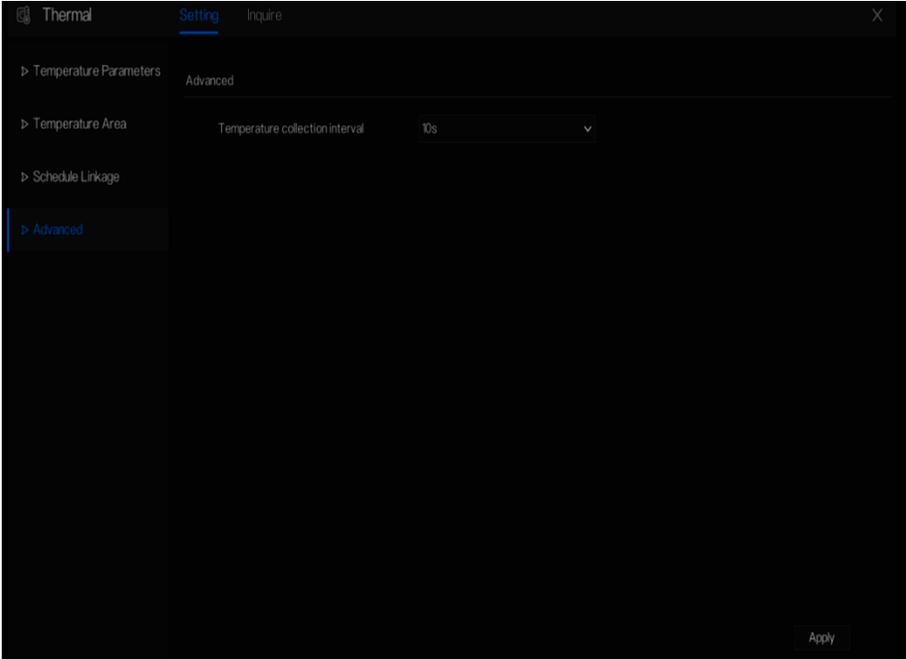
---End

6.4.4 Advanced

Operation Procedure

Step 1 Choose **Thermal > Advanced** to enter the advance interface, as shown in Figure 7-1.

Figure 6-22 Advanced



Step 2 Select the temperature collection interval from the drop-list.

Step 3 Click **Apply**.

Step 4 The message "Apply success" is displayed, the system saves the settings.

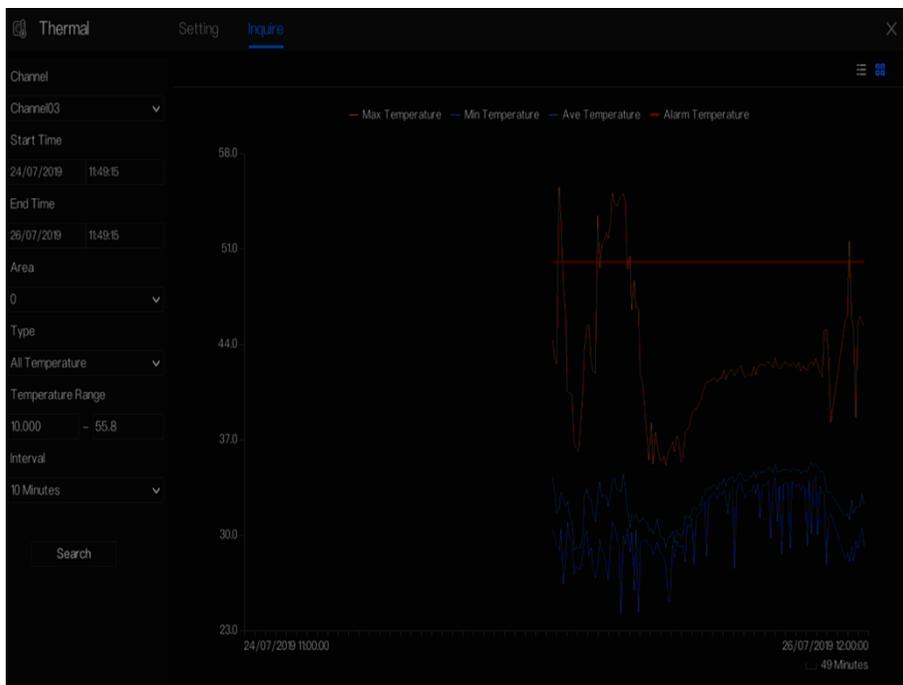
---End

6.4.5 Inquire

Operation Procedure

Step 1 Choose **Thermal** > **Inquire** to enter the inquire interface, as shown in Figure 6-23.

Figure 6-23 Inquire



Step 2 Choose the channel is thermal camera.

Step 3 Set the start and end time.

Step 4 Choose the area, which is set at the temperature area interface. The default area is 0(full screen).

Step 5 Choose the type of temperature, set the temperature range.

Step 6 Choose the interval of showing, click **Search** to show the result, there are two modes to show result, list or picture.

6.5 Attendance

The function only be used for NVR2604E1-P4C-J and NVR2608E1-P8C-J

6.5.1 Attendance Data

Click to enter attendance data interface, as shown in Figure 6-24.

Figure 6-24 Attendance data

The screenshot shows the NVR Attendance Data interface. On the left is a sidebar with an 'Attendance Library' section containing a tree view with 'Default Lib', 'MR WANG', 'LXH', 'LBL', and 'employee 1'. Below this are filters for 'Time' (set to 'This week'), 'Custom time period' (Start Date: 2019-06-30, End Date: 2019-07-06), and 'Search Type' (set to 'Attendance Summary'). The main area is titled 'Attendance Summary' and contains a table with the following data:

| Job Number | Name | Department | Required Times | Actual Times | Absence | Late | Early Leave |
|------------|---------|-------------|----------------|--------------|---------|------|-------------|
| 100201 | MR WANG | Default Lib | 5 | 0 | 5 | 0 | 0 |
| 10022 | LXH | Default Lib | 5 | 2 | 5 | 1 | 0 |
| 10023 | LBL | Default Lib | 5 | 2 | 5 | 1 | 0 |

At the bottom of the table area, there are navigation controls: '| << 1 / 1 >> |' and 'Every page show 20'.

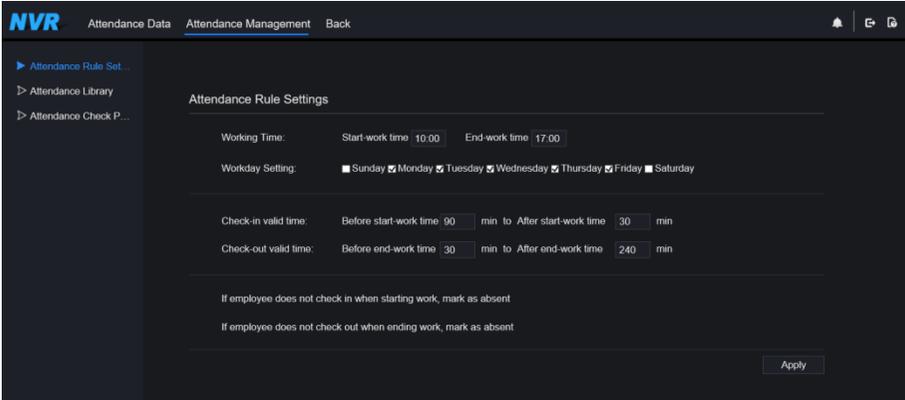
Operation Steps

- Step 1 Tick the attendance library.
- Step 2 Choose time mode, such as today, this week, this month and custom time.
- Step 3 Choose search type, such as attendance summary and attendance details.
- Step 4 Click search, the result will show in interface.
- Step 5 Click Export to export the query result.

6.5.2 Attendance Management

In attendance management, user can set attendance rule, library and check point, as shown in Figure 6-25.

Figure 6-25 Attendance rule settings



Operation Steps

Step 1 Set start work time and end work time.

Step 2 Tick the workday

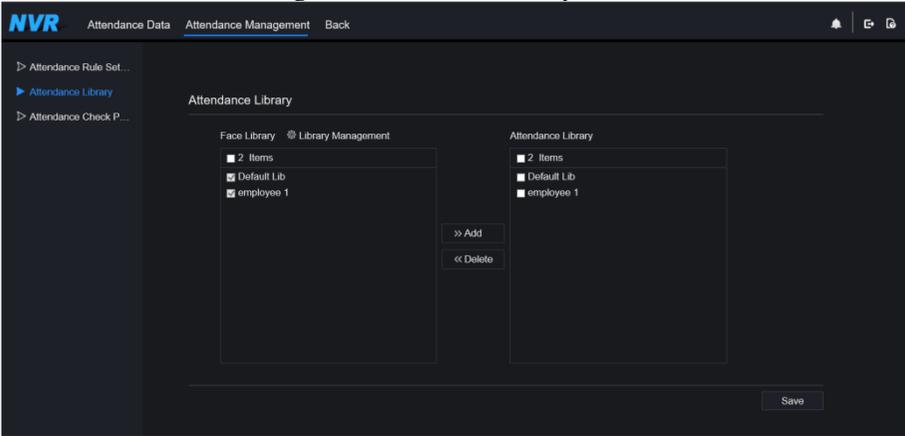
Step 3 Set valid time of check in and check out.

Step 4 Click Save to save the setting.

Attendance library

Step 1 Click **Attendance Library** to add library, the attendance library can call the face database directly.

Figure 6-26 Attendance library



Step 2 Tick the library and click Add to add to attendance library. If you want to modify the library.

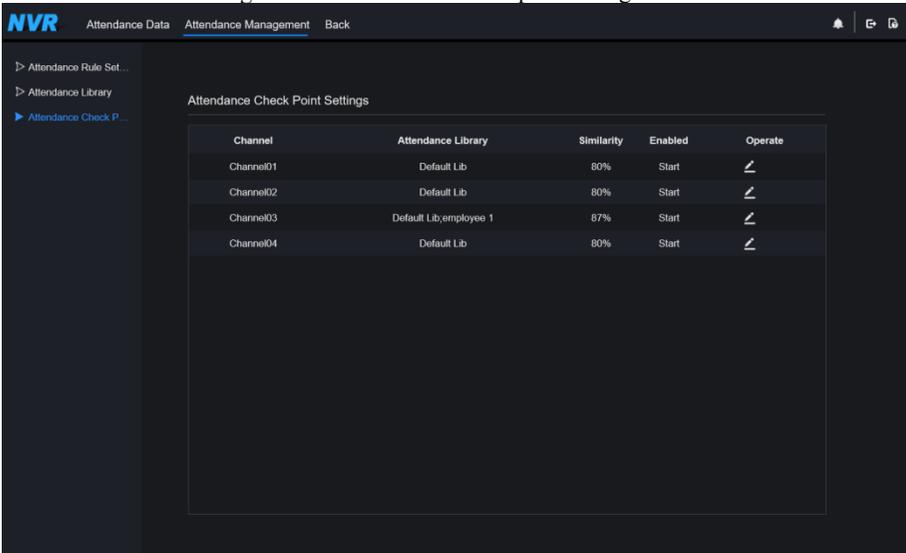
Step 3 click **Database management** to enter the face database management to modify parameter.

Step 4 Click Save to save the setting.

Attendance check point settings:

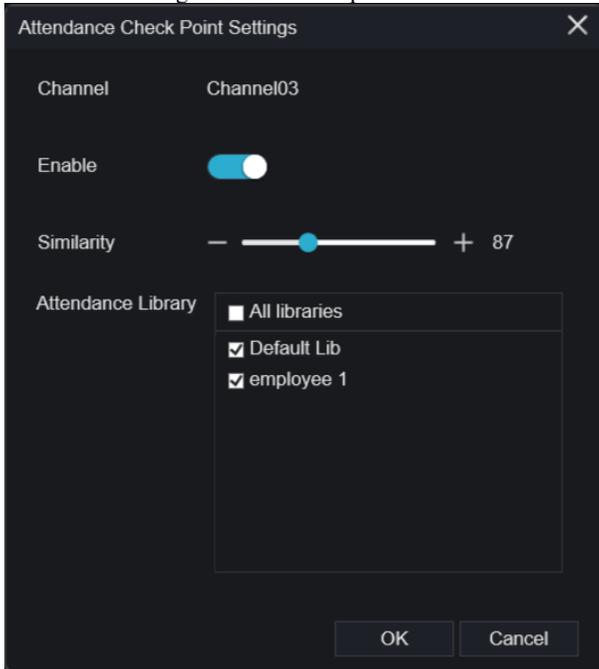
Step 1 Click **Attendance check point** settings to set point, as shown in Figure 6-27.

Figure 6-27 Attendance check point setting



Step 2 Click  to edit check point setting, as shown in Figure 6-28

Figure 6-28 Check point



Step 3 Enable the function, set similarity and tick the library, all face detection cameras can be set the check points

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

---End

6.6 AI Recognition

At AI recognition interface, we can set the **Real time Comparison, Smart search, Archives library, Comparison configuration.**

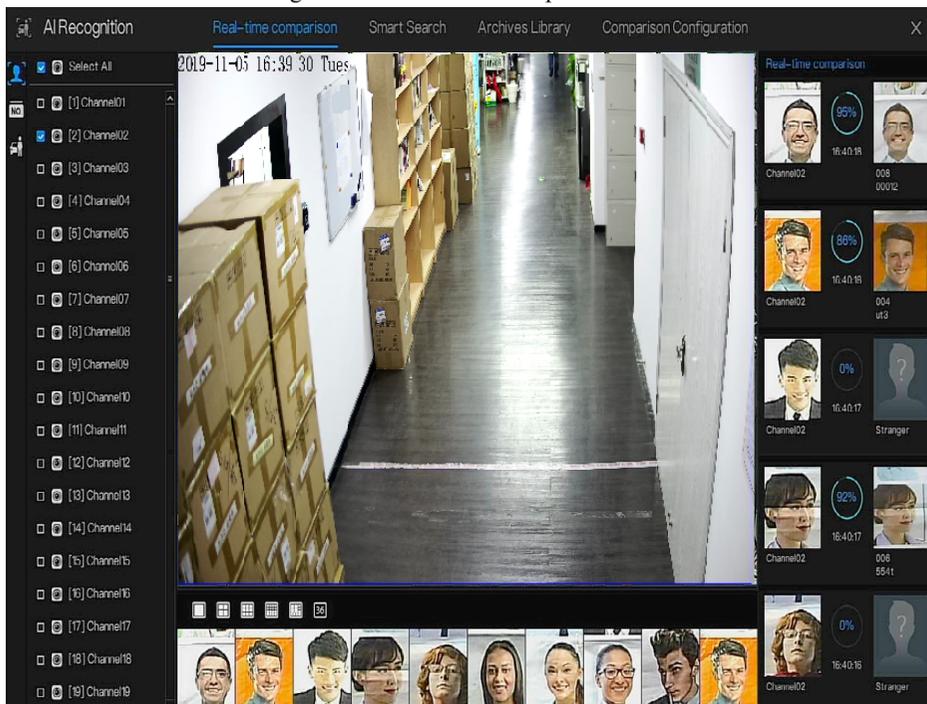
6.6.1 Real Time Comparison

Real time comparison can compare human face, vehicle license plate, and AI(include riding, vehicle, full body)

6.6.1.1 Human Face

At real time comparison interface, click the  to enter the human face comparison interface, choose the cameras with face recognition function to play live video, the snapshot of camera will compare with libraries, the result shows as in Figure 6-29.

Figure 6-29 Human face comparison



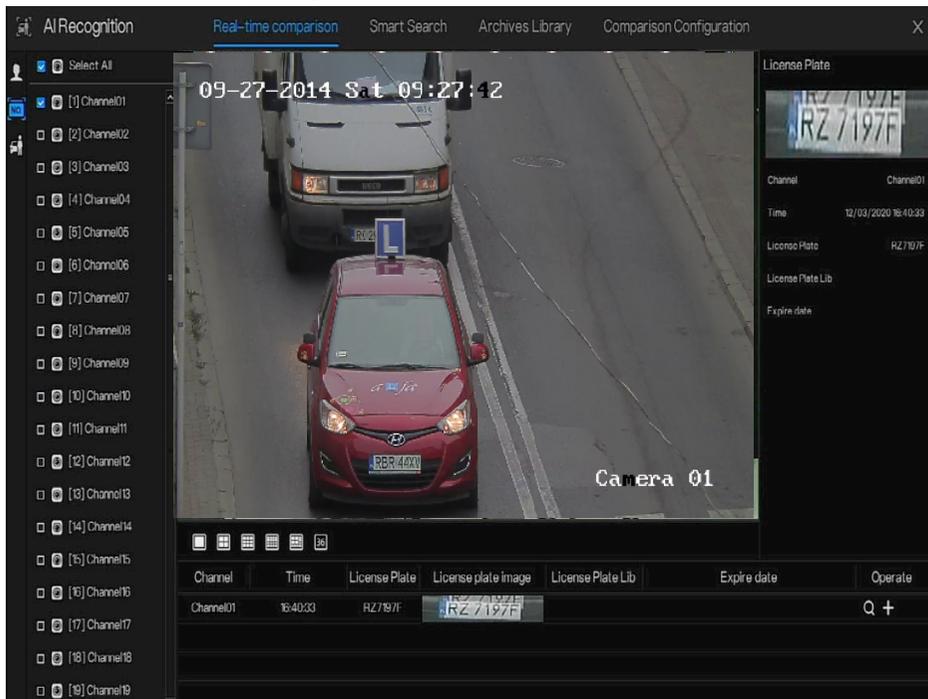
Click the “+” can add the snapshot to face library immediately.

Snapshot in real time video, put the cursor on picture such as , you can add it to face library, or face search. The cursor on area 6 and the pictures is not update, move the mouse so that the pictures can be shown in time.

6.6.1.2 Vehicle License Plate

At real time comparison interface, click the **NO** to enter the vehicle license plate comparison interface, choose the cameras with license plate recognition function to play live video, the snapshot of camera will compare with libraries, the result shows as in Figure 6-30.

Figure 6-30 Vehicle license plate

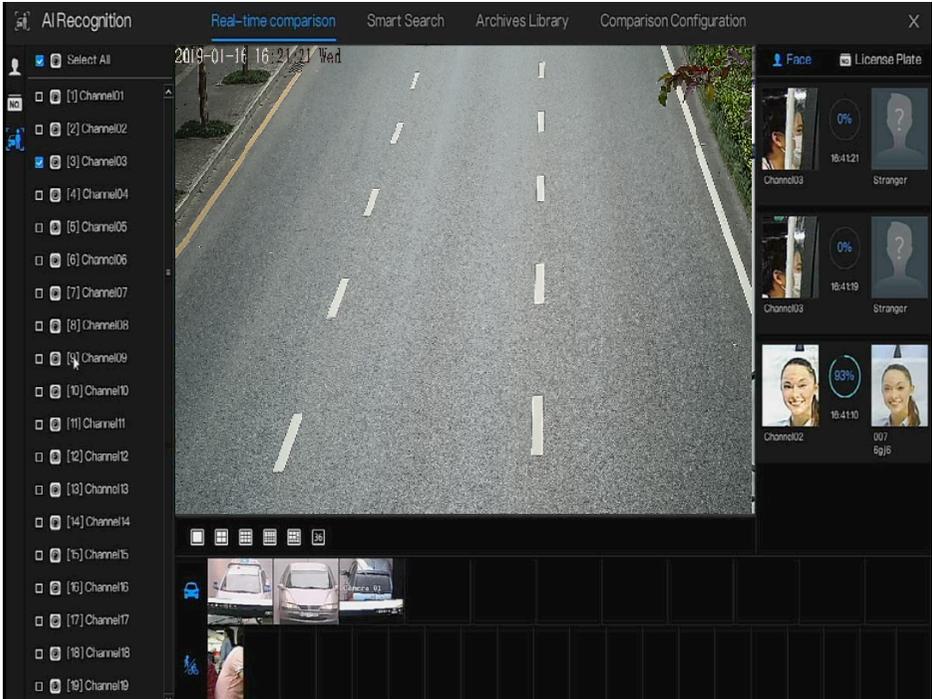


Click the “+” can add the snapshot to license plate library immediately.

6.6.1.3 Vehicle and Full Body

At real time comparison interface, click the **NO** to enter the vehicle license plate comparison interface, choose the AI recognition cameras to play live video, the snapshot of camera will compare with libraries, the snapshot to vehicle and full body will show at the bottom of page, the result shows as in Figure 6-31.

Figure 6-31 Full body

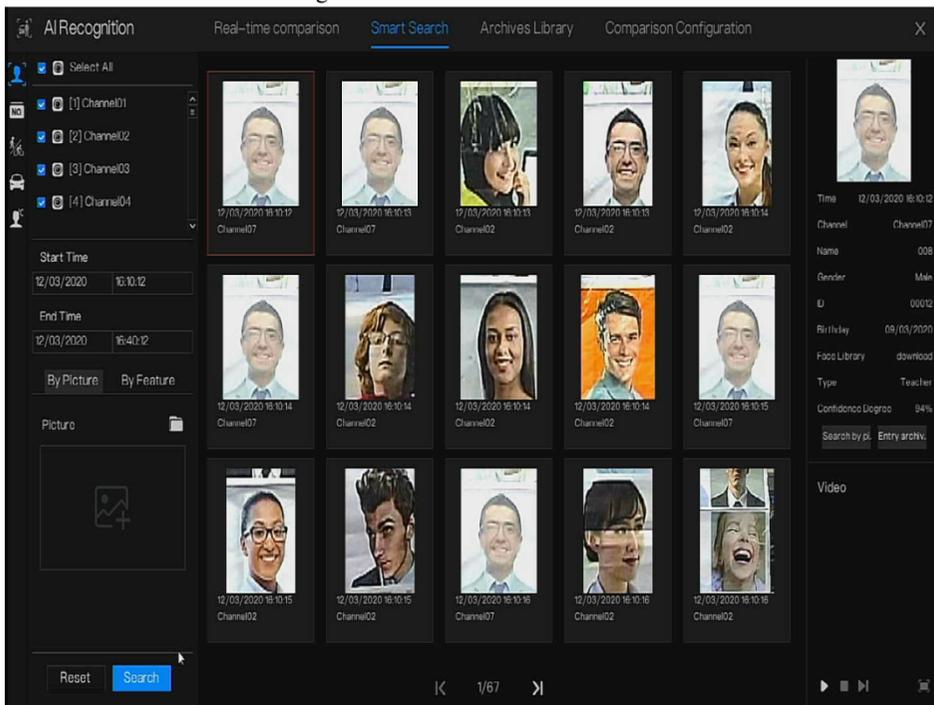


6.6.2 Smart Search

At smart search interface, user can search the human face, vehicle license plate, full body, car, body temperature.

6.6.2.1 Human Face Search

Figure 6-32 Human face search



Step 1 Choose human face search at smart search interface.

Step 2 Tick the face recognition camera channels, set the start time and end time.

Step 3 Choose the condition (by picture or by feature), the picture can choose from the file folder.

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 The detail picture can be used to search or add to library.

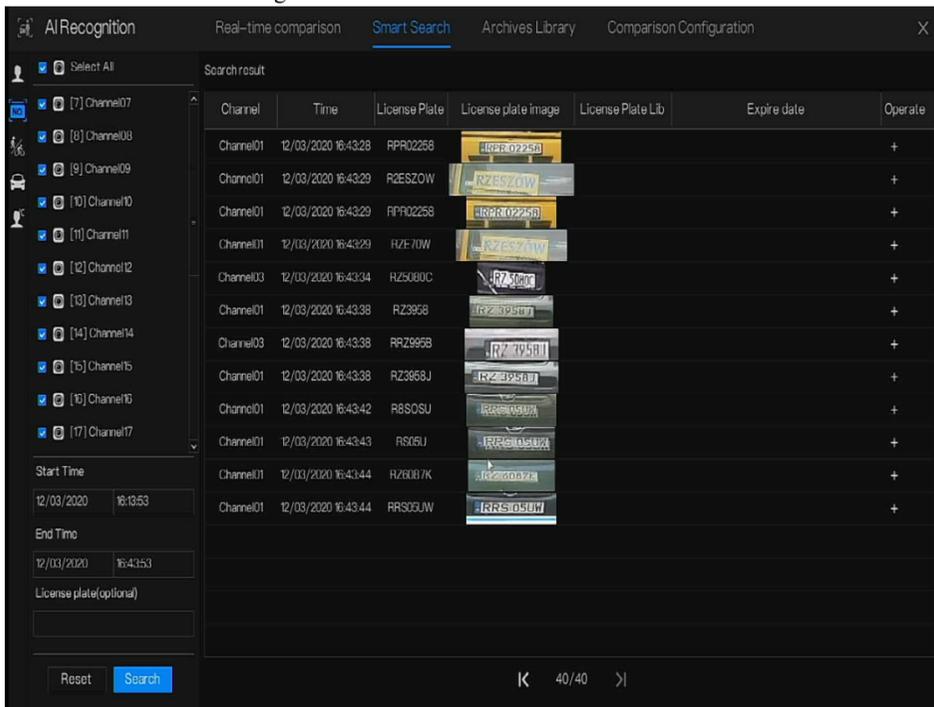
Step 7 Click play button of video to play the recording of snapshot.

Play video of snapshot, it will play a 30-second video before and after the snapshot.

Snapshot in real time video, put the cursor on picture such as , you can add it to face library, or face search. The cursor on area 6 and the pictures is not update, move the mouse so that the pictures can be shown in time.

6.6.2.2 Vehicle License Plate Search

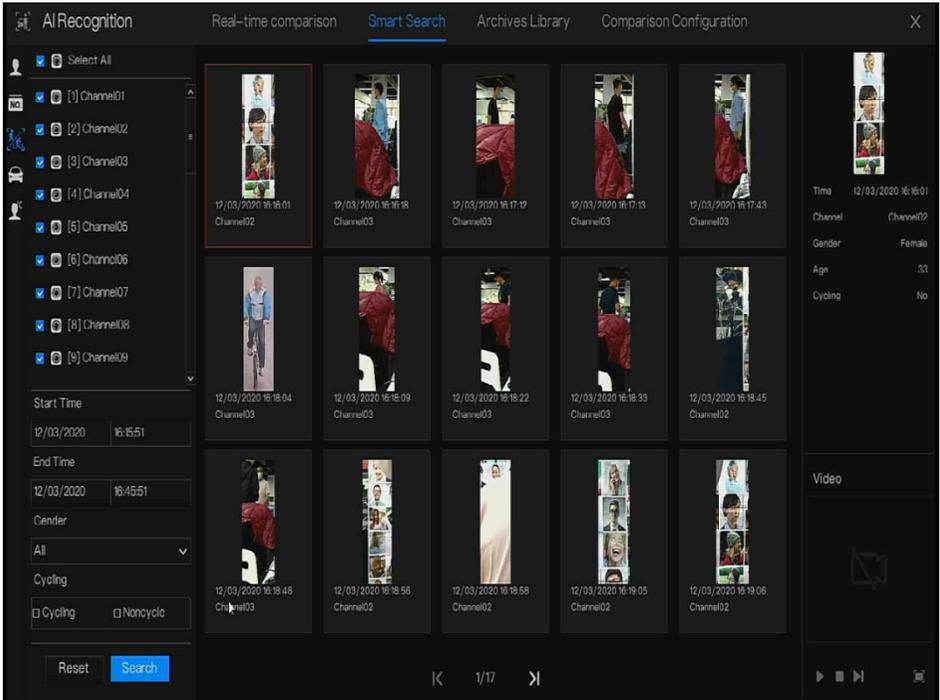
Figure 6-33 Vehicle License Plate search



- Step 1 Choose vehicle License Plate at smart search interface.
- Step 2 Tick the vehicle license plate recognition camera channels, set the start time and end time.
- Step 3 Input the license plate optionally.
- Step 4 Click “Search” to search the snapshot of license plate.
- Step 5 The result will show at the page, click “+” add to library.

6.6.2.3 Full Body Search

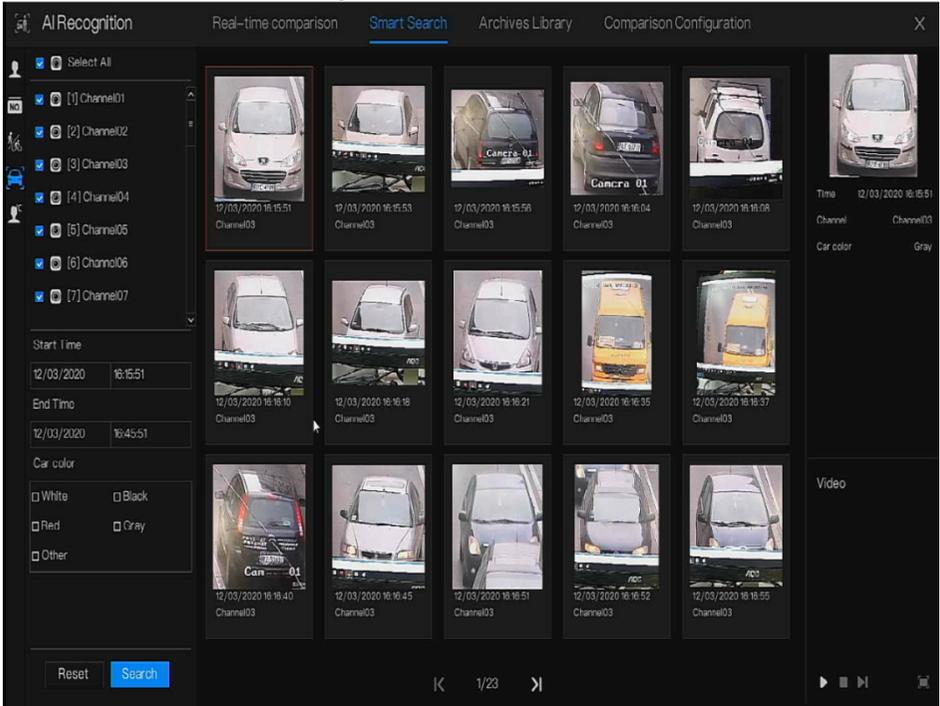
Figure 6-34 Full body search



- Step 1 Choose full body search at smart search interface.
- Step 2 Tick the AI recognition camera channels, set the start time and end time.
- Step 3 Set the gender , click cycling or no cycling .
- Step 4 Click “Search” to search the snapshot of human face.
- Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.
- Step 6 Click play button of video to play the recording of snapshot.

6.6.2.4 Vehicle Search

Figure 6-35 Vehicle search



Step 1 Choose vehicle search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Tick the color

Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 Click play button of video to play the recording of snapshot.

6.6.2.5 Body Temperature Search

Figure 6-36 Body temperature search

The screenshot shows the 'Smart Search' interface for body temperature. On the left, there is a sidebar with 'Select All' and a list of 8 channels (Channel01 to Channel08). Below the channels are search filters: Start Time (05/03/2020 13:15:51), End Time (10/03/2020 16:45:51), Person Type (All), Temperature Type (All), and an optional ID field. The main area displays a table of search results.

| | Capture Photo | Library Photo | Information | Temperature | Capture Time |
|---|---------------|---------------|-------------------------------------|-------------|---------------------|
| 1 | | | Channel01 004 download 94% | 2.9 °C | 09/03/2020 10:30:36 |
| 2 | | | Channel01 Stranger | 2.9 °C | 09/03/2020 10:30:36 |
| 3 | | | Channel01 Stranger | 2.9 °C | 09/03/2020 10:30:36 |
| 4 | | | Channel01 Stranger | 2.9 °C | 09/03/2020 10:30:36 |
| 5 | | | Channel01 Stranger | 2.9 °C | 09/03/2020 10:30:36 |
| 6 | | | Channel01 Stranger | 2.9 °C | 09/03/2020 10:30:36 |

At the bottom of the interface, there are 'Reset' and 'Search' buttons, and a pagination indicator showing '1/167'.

Step 1 Choose body temperature search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Choose the person type, temperature type, input ID optionally.

Step 4 Click “Search” to search the temperature.

6.6.3 Archives Library

At archives library, user can add or edit the face library , license plate library.

6.6.3.1 Face Library

Figure 6-37 Face library

| Select All | Name | Gender | Birthday | ID | Face Library | Type | Expire date | Operate |
|---------------------------|--------------|--------|------------|-------------|--------------|---------|--------------|-----------------|
| Default Lib | Pan Jianing | Male | 12/03/2020 | panjianing | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| app | Xu Jianing | Male | 12/03/2020 | xujianing | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| ner | Liu Junsan | Male | 12/03/2020 | lujunsan | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| technology | Xu Jianing | Male | 12/03/2020 | xujianing | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| imago | zhazhahul | Male | 12/03/2020 | zhazhahul | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| engineering | Chen Yi | Male | 12/03/2020 | chenyi | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| platform | Qin Zhiwei | Male | 12/03/2020 | qinzhwei | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| pc | Luo Jiachun | Male | 12/03/2020 | luojiachun | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| unknown | Liu Xiaohui | Female | 12/03/2020 | liuxiaohui | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| test | Pan Lingling | Female | 12/03/2020 | panlingling | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| hardware | Tang Jie | Male | 12/03/2020 | tangjie | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| download | Huang Shuhua | Male | 12/03/2020 | huangshuhua | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| 1234567890qwertyuiop12... | Zhong Zebin | Male | 12/03/2020 | zhongzebin | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| | Li Pin | Male | 12/03/2020 | lipin | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| | Kang Longgen | Male | 12/03/2020 | kanglonggen | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| | Pan Jianing | Male | 12/03/2020 | panjianing | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| | Liu Ming | Male | 12/03/2020 | liuming | Default Lib | Teacher | Never expire | [Edit] [Delete] |
| | Li Dongliang | Male | 13/03/2020 | lidongliang | Default Lib | Teacher | Never expire | [Edit] [Delete] |

Click “+” to add face library.

Click “Add” to add person enroll.

Tick the person, click “Delete” to delete the person.

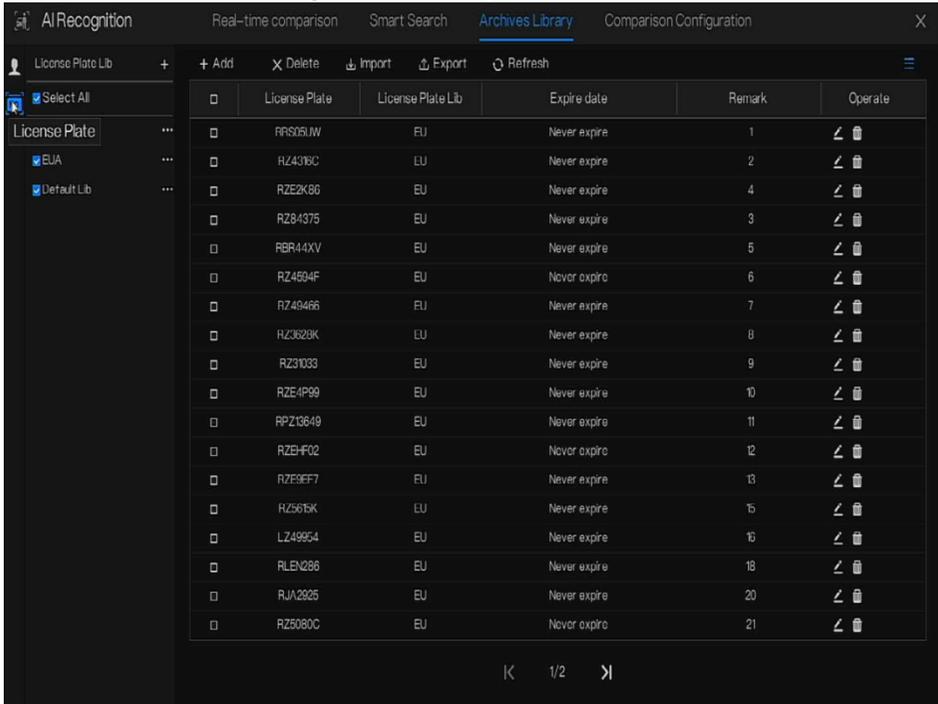
Click “Import” to add the person batch.

Click “Export” to export the all person in library.

Click operate icon to edit or delete the chosen person.

6.6.3.2 License Plate Library

Figure 6-38 License plate library



| License Plate Lib | License Plate | License Plate Lib | Expire date | Remark | Operate |
|-------------------|---------------|-------------------|--------------|--------|---------|
| License Plate Lib | RNS05UW | EU | Never expire | 1 | 🔍 🗑️ |
| License Plate Lib | RZ437BC | EU | Never expire | 2 | 🔍 🗑️ |
| License Plate Lib | RZE2K80 | EU | Never expire | 4 | 🔍 🗑️ |
| License Plate Lib | RZ84375 | EU | Never expire | 3 | 🔍 🗑️ |
| License Plate Lib | RBR44XV | EU | Never expire | 5 | 🔍 🗑️ |
| License Plate Lib | RZ4594F | EU | Never expire | 6 | 🔍 🗑️ |
| License Plate Lib | RZ48466 | EU | Never expire | 7 | 🔍 🗑️ |
| License Plate Lib | RZ3628K | EU | Never expire | 8 | 🔍 🗑️ |
| License Plate Lib | RZ31033 | EU | Never expire | 9 | 🔍 🗑️ |
| License Plate Lib | RZE4P99 | EU | Never expire | 10 | 🔍 🗑️ |
| License Plate Lib | RPZ13649 | EU | Never expire | 11 | 🔍 🗑️ |
| License Plate Lib | RZEHF02 | EU | Never expire | 12 | 🔍 🗑️ |
| License Plate Lib | RZE99F7 | EU | Never expire | 13 | 🔍 🗑️ |
| License Plate Lib | RZ567BK | EU | Never expire | 15 | 🔍 🗑️ |
| License Plate Lib | LZ49954 | EU | Never expire | 16 | 🔍 🗑️ |
| License Plate Lib | RLEN286 | EU | Never expire | 18 | 🔍 🗑️ |
| License Plate Lib | RJA2925 | EU | Never expire | 20 | 🔍 🗑️ |
| License Plate Lib | RZ5080C | EU | Never expire | 21 | 🔍 🗑️ |

Click “+” to add license plate library.

Click “Add” to add plate to library.

Tick the plate , click “Delete” to delete the license plate.

Click “Import” to add the license plate batch.

Click “Export” to export the all license plate library.

Click operate icon to edit or delete the chosen license plate.

6.6.4 Comparison Configuration

At comparison configuration interface, user can set the comparison of human face/ license plate/temperature.

Figure 6-39 Face comparison

The screenshot shows a software interface titled "AI Recognition" with a "Comparison Configuration" tab selected. The interface contains a table with the following columns: Channel, Register Detect Library, Stranger Detect Library, Similarity, and Operate. The table lists 29 channels, each with "Default Lib" for both libraries, a "80%" similarity setting, and a downward-pointing arrow in the Operate column.

| Channel | Register Detect Library | Stranger Detect Library | Similarity | Operate |
|-----------|-------------------------|-------------------------|------------|---------|
| Channel11 | Default Lib | Default Lib | 80% | ⌵ |
| Channel12 | Default Lib | Default Lib | 80% | ⌵ |
| Channel13 | Default Lib | Default Lib | 80% | ⌵ |
| Channel14 | Default Lib | Default Lib | 80% | ⌵ |
| Channel15 | Default Lib | Default Lib | 80% | ⌵ |
| Channel16 | Default Lib | Default Lib | 80% | ⌵ |
| Channel17 | Default Lib | Default Lib | 80% | ⌵ |
| Channel18 | Default Lib | Default Lib | 80% | ⌵ |
| Channel19 | Default Lib | Default Lib | 80% | ⌵ |
| Channel20 | Default Lib | Default Lib | 80% | ⌵ |
| Channel21 | Default Lib | Default Lib | 80% | ⌵ |
| Channel22 | Default Lib | Default Lib | 80% | ⌵ |
| Channel23 | Default Lib | Default Lib | 80% | ⌵ |
| Channel24 | Default Lib | Default Lib | 80% | ⌵ |
| Channel25 | Default Lib | Default Lib | 80% | ⌵ |
| Channel26 | Default Lib | Default Lib | 80% | ⌵ |
| Channel27 | Default Lib | Default Lib | 80% | ⌵ |
| Channel28 | Default Lib | Default Lib | 80% | ⌵ |
| Channel29 | Default Lib | Default Lib | 80% | ⌵ |

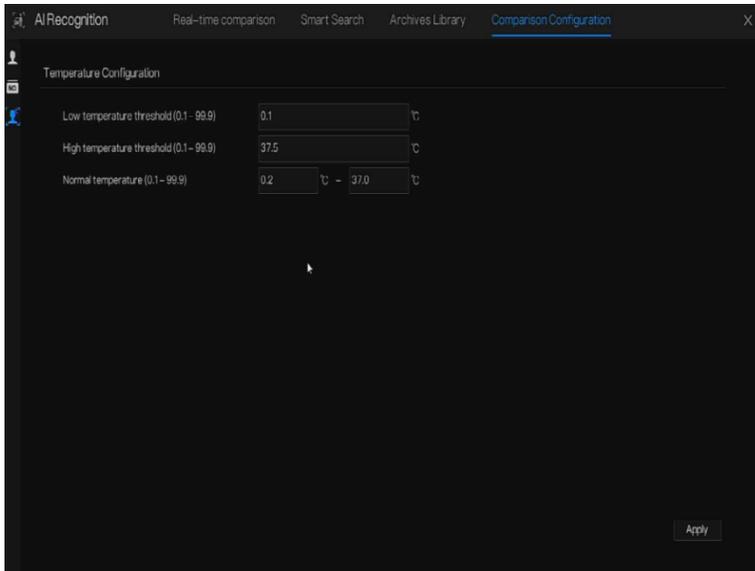
At face comparison interface, user can set different channels' strategy, such as similarity, display comparison result, face library, enable alarming, event action, arming time, as shown in Figure 6-39 .

Figure 6-40 License comparison

| Channel | Registered detection library | Unregistered detection library | Operate |
|-----------|------------------------------|--------------------------------|---------|
| Channel14 | Default Lib | Default Lib | ⌵ |
| Channel15 | Default Lib | Default Lib | ⌵ |
| Channel16 | Default Lib | Default Lib | ⌵ |
| Channel17 | Default Lib | Default Lib | ⌵ |
| Channel18 | Default Lib | Default Lib | ⌵ |
| Channel19 | Default Lib | Default Lib | ⌵ |
| Channel20 | Default Lib | Default Lib | ⌵ |
| Channel21 | Default Lib | Default Lib | ⌵ |
| Channel22 | Default Lib | Default Lib | ⌵ |
| Channel23 | Default Lib | Default Lib | ⌵ |
| Channel24 | Default Lib | Default Lib | ⌵ |
| Channel25 | Default Lib | Default Lib | ⌵ |
| Channel26 | Default Lib | Default Lib | ⌵ |
| Channel27 | Default Lib | Default Lib | ⌵ |
| Channel28 | Default Lib | Default Lib | ⌵ |
| Channel29 | Default Lib | Default Lib | ⌵ |
| Channel30 | Default Lib | Default Lib | ⌵ |
| Channel31 | Default Lib | Default Lib | ⌵ |
| Channel32 | Default Lib | Default Lib | ⌵ |

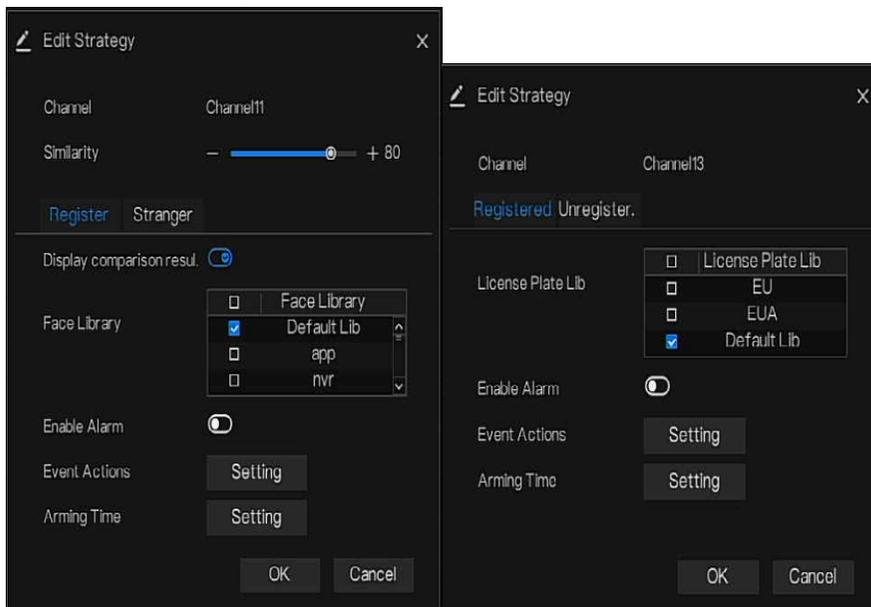
At license plate interface, use can set strategies of different channels of license plate recognition cameras, such as register and unregister, enable alarming, event action, arming time, as shown in Figure 6-40.

Figure 6-41 Temperature comparison



At temperature comparison interface, user can set low temperature threshold, high temperature threshold, normal temperature, as shown in Figure 6-41.

Figure 6-42 Strategy



7 UI System Setting

7.1 Channel Information

Click the  will show as Figure 7-1, tick the Channel or Encode, the information will show in live video screen.

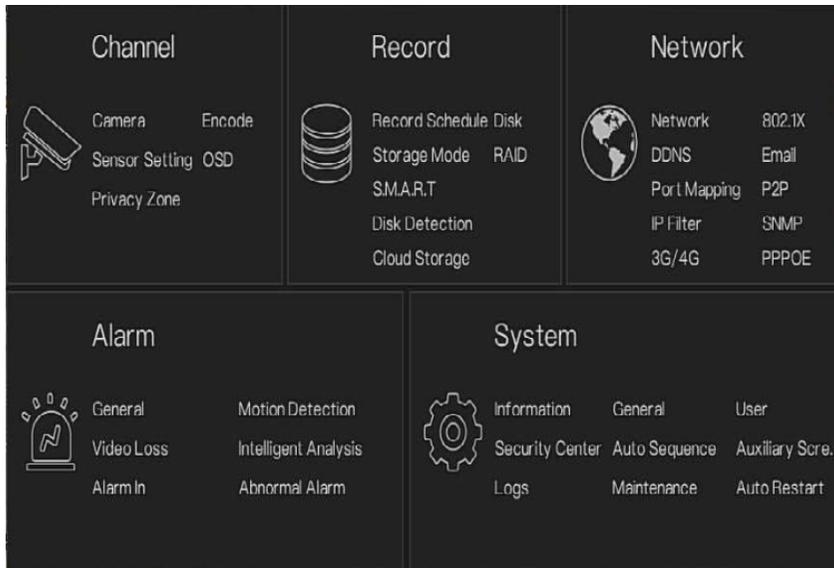
Figure 7-1 Channel information



7.2 Main Menu

Right-click on UI screen, the main menu as shown in Figure 7-2. The main menu includes **Channel, Record, Network, Alarm** and **System**.

Figure 7-2 NVR main menu



----End

7.3 Channel Management

IP cameras can directly connect to input channels of the NVR by plugging in POE port. When IP cameras are insufficient, the NVR can automatically searches for and adds IP cameras or manually add cameras in the same Local Area Network (LAN).

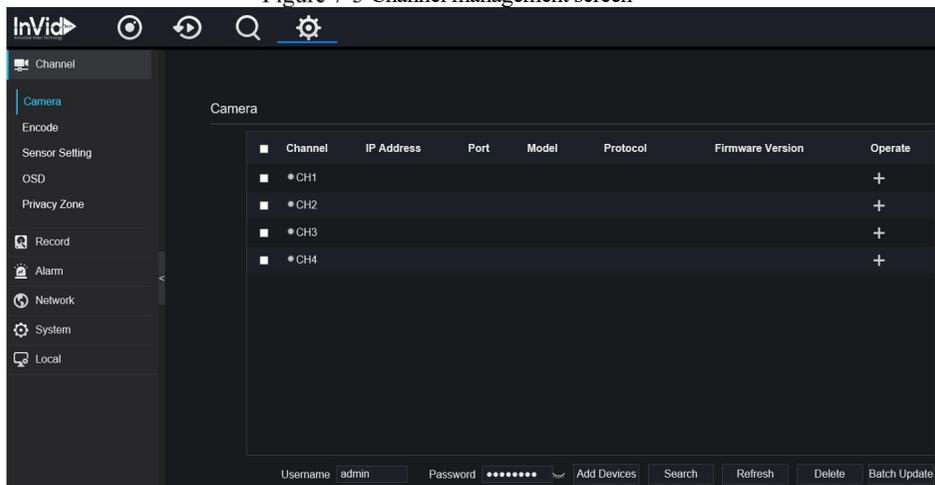
Channel management includes add or delete **Camera, Encode, Sensor Setting, OSD and Privacy Zone.**

7.3.1 Camera

Operation Description

Click **Channel** in the main menu to access the camera management screen, as shown in Figure 7-3 .

Figure 7-3 Channel management screen

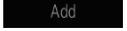


7.3.1.1 Add Camera Automatically

The NVR can add automatically cameras to the camera list.

Operation Methods

Method 1: Click  button, the cameras these are the same local area network with NVR will show in list, input username and password (the default value both are admin)click , the cameras in the list would be added to channels directly.

Method 2: Select the cameras you wanted to add, and click  the selected cameras would be added to the camera list.

Tick the online non-onvif channels at list and click  to access the directory of software; it would to update the channels at once.

NOTE

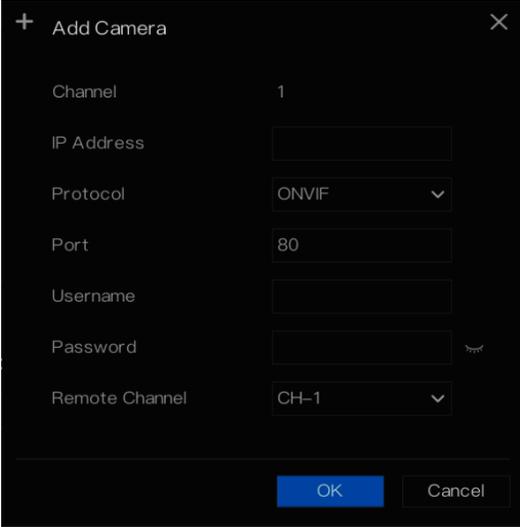
- On the camera management screen, check the status of channel in the camera list. If the status of a channel is , this camera is online. If the status of a channel is , this camera is offline.
- The added cameras should be the same network segment as NVR.

7.3.1.2 Add Camera Manually

Operation Steps

Step 1 Click , the screen to add devices manually is displaying, as shown in Figure 7-4.

Figure 7-4 Add camera screen



Step 2 Input IP address, port, user name and password of camera.

Step 3 Select a protocol from the drop-down list. Remote channel is only used for thermal imaging cameras.

Step 4 Click , the camera is added successfully.



NOTE

If all channels of the NVR are connected by cameras, please delete the cameras that you don't need, so that you can add more cameras.

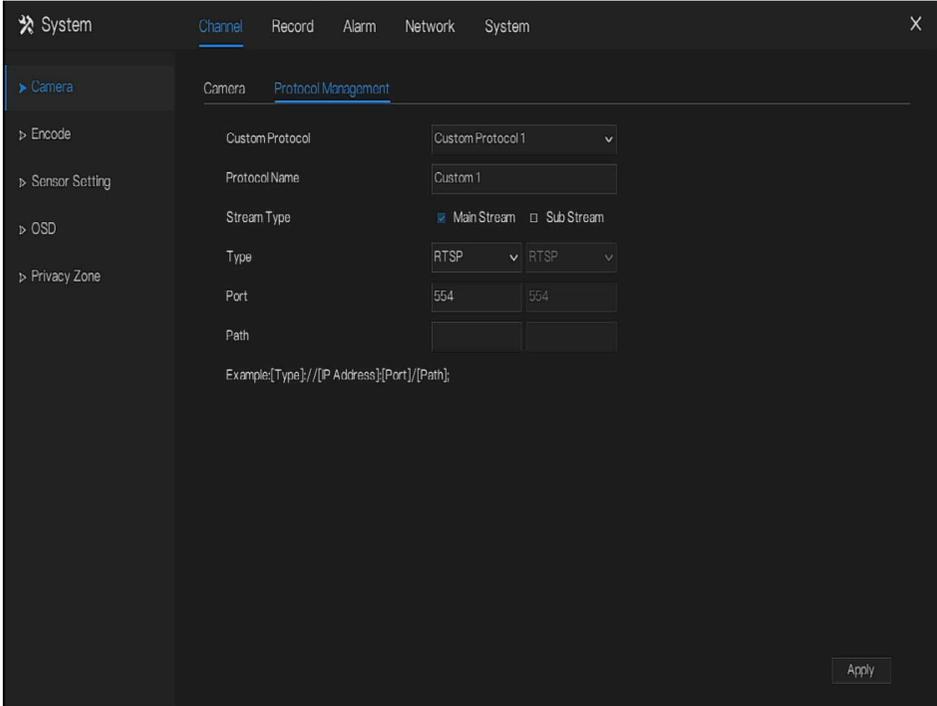
If a IP camera is added manually, input the correct username and password of the camera below the online device list. The camera will be added successfully. If not the camera would be shown on list at offline.

The protocol can choose the custom protocols these are set at protocol interface.

7.3.1.3 Add Camera by RSTP

If the user want to add the different protocol cameras to NVR, you can set the protocol management, and add cameras one by one, as shown in Figure 7-5.

Figure 7-5 Protocol management



Step 1 Click **Channel > Camera > Protocol Management**.

Step 2 Choose the custom protocol from the drop-down list, there are 16 kinds of protocols can be set.

Step 3 Input the protocol name.

Step 4 Tick main stream and sub stream. The main stream shows image on full screen live video. The sub stream shows image on split screen. If you just tick main stream and the channel will not show image on split screen.

Step 5 Choose the type of protocol, the default value is RTSP.

Step 6 Input the port, it depends the IP camera.

Step 7 Input the path, it depends the manufacturer of cameras.

Step 8 Click Apply to save the settings.

 **NOTE**

Choose the protocol from the drop-down list, the protocol is set at protocol management interface.

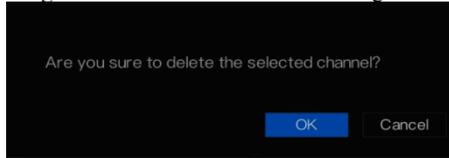
The cameras should confirm to the protocols.

7.3.1.4 Delete Camera

Operation Steps

Step 1 Select a camera to delete in the camera list and click , the delete confirmation message screen is displaying, as shown in Figure 7-1.

Figure 7-1 Delete confirmation message

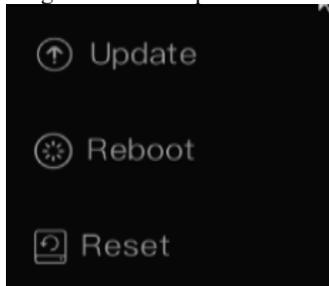


Step 2 Click , the camera is deleted successfully.

7.3.1.5 Operate Camera

At camera list, click  to operate camera as shown in Figure 7-2, user can update, reboot and reset the camera immediately.

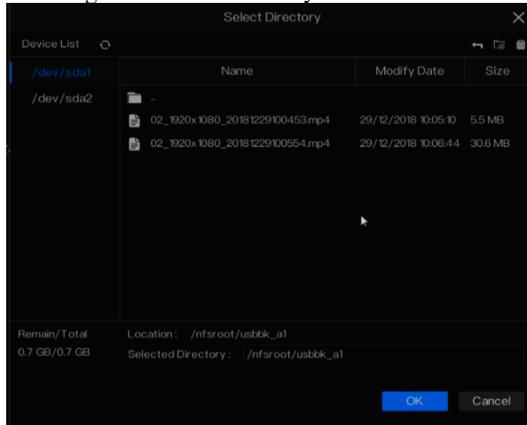
Figure 7-2 More operation



Step 1 Click **Update**, pop-up window to select software, as shown in Figure 7-3.

Step 2 Set the directory click  to update camera.

Figure 7-3 Select directory of software



Step 3 Click **Reboot**, message “Are you sure to reboot?” would show, click  to reboot the camera.

Step 4 Click **Reset**, message “Are you sure to reset?” would show, user can enable the retain IP address function. click  to rebsert the camera.

Step 5 Tick the cameras with non-onvif protocol and cameras are online, click **Update** to update all cameras at once.

 **NOTE**

Update need upload the software by flash driver.

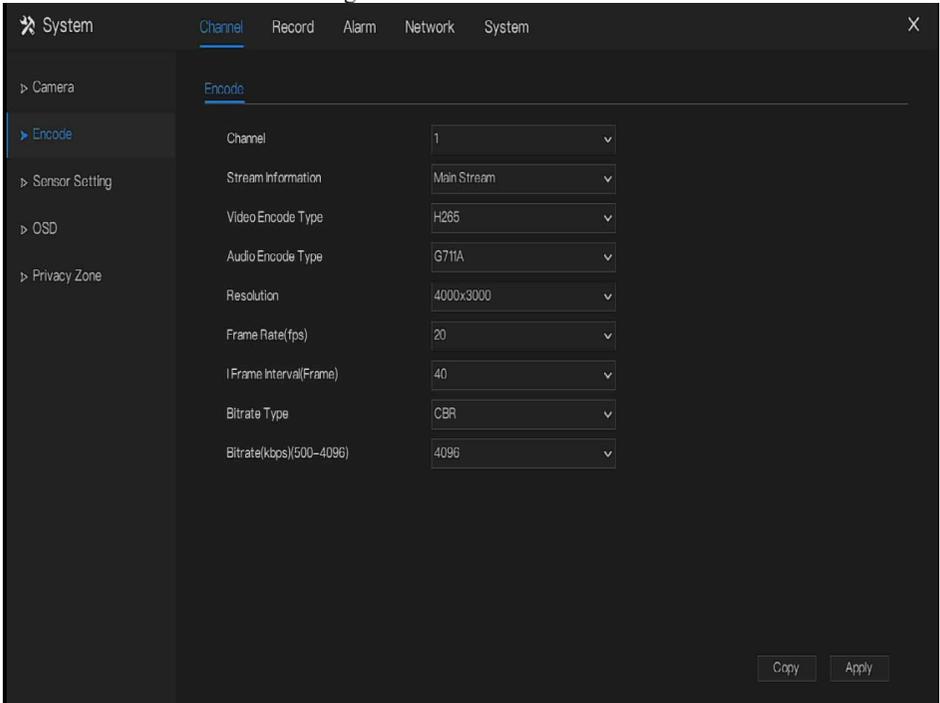
7.3.2 Encode Parameter

The system allows setting the stream information, encoding type, resolution, frame rate, bitrate control, bitrate and quality for cameras in a channel in **Encode Parameter** screen.

Operation Description

Click **Encode** in the main menu or **Menu** of the channel management screen and choose **Encode** to access the **Encode** screen, as shown in Figure 7-4.

Figure 7-4 Encode screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Select stream information.

Step 3 Select encode type (video and audio), resolution, frame rate, bitrate type and bitrate size from the drop-down lists.

Step 4 Click **Copy** and select channels or tick **all**, then click **OK** to apply the parameter settings to cameras in selected channels , click **Apply** to save encode parameter settings.

----End

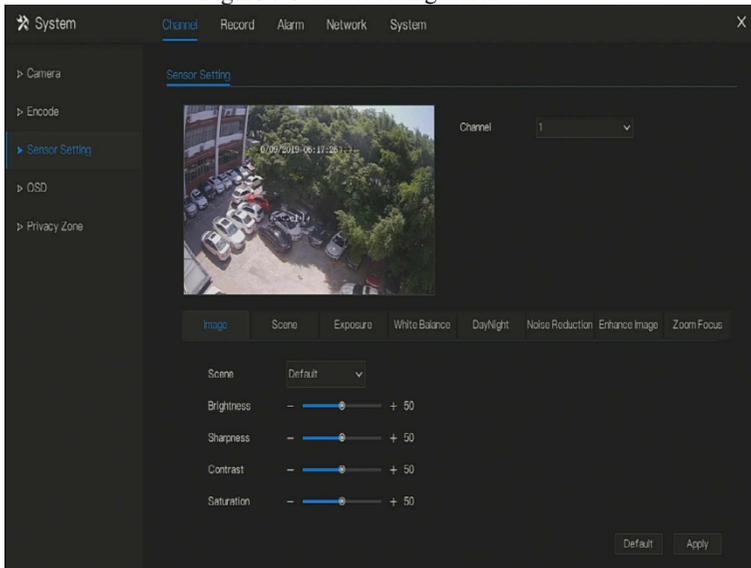
7.3.3 Sensor Setting

Sensor setting refer to basic attributes of pictures, it includes the brightness, sharpness, contrast and saturation. You can set picture parameters for each channel based on scene.

Operation Description

Click **Sensor Setting** in the main menu or click menu of the channel management screen and choose **Sensor Setting** to access the Sensor Setting screen, as shown in Figure 7-5.

Figure 7-5 Sensor setting screen



The Sensor Setting are as follows:

- Brightness: it indicates brightness or darkness of picture.
- Sharpness: it indicates picture's clarity.
- Contrast: it refers to the brightest white and darkest black in an image.
- Saturation: it indicates brilliance of the picture color.

Other parameters are sensor settings of IP cameras, like scene, exposure, white balance, day-night, noise reduction, enhance image, zoom focus, etc.

- Scene: it includes indoor, outdoor, default. Mirror includes normal, horizontal, vertical, horizontal + vertical.
- Exposure: it includes mode, max shutter, meter area and max gain.
- White balance: it includes tungsten, fluorescent, daylight, shadow, manual, etc.
- Day-night: user can transit day to night, or switch mode.
- Noise reduction: it includes 2D NR and 3D NR.
- Enhance image: it includes WDR, HLC, BLC, defog and anti-shake.

- Zoom focus: user can zoom and focus.

Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Select scene from the drop-down list. The default values of picture parameters vary with scenarios.

Step 3 Set parameters.

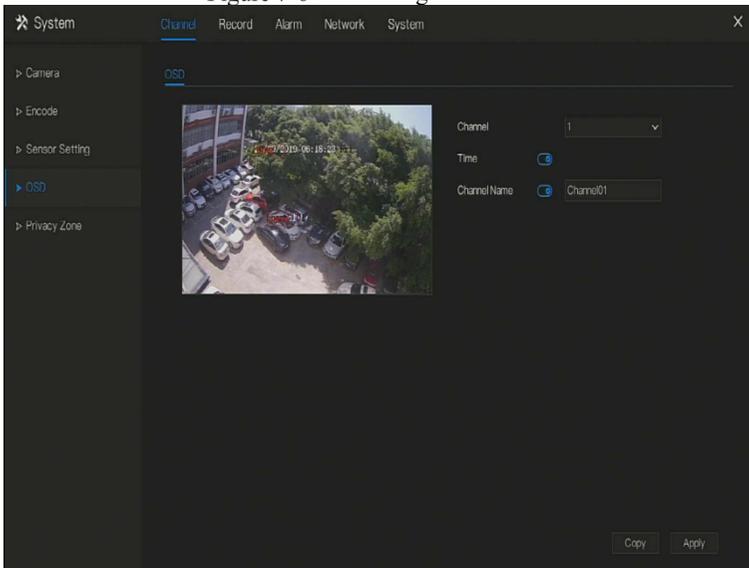
Step 4 Click **Default** to reset to factory settings, click **Apply** to save image settings.

----End

7.3.4 OSD Settings

Click **OSD** in the main menu or menu of the channel management screen and choose **OSD** to access the OSD screen, as shown in Figure 7-6.

Figure 7-6 OSD setting screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Click **Time** next to Time to enable or disable OSD time setting.

Step 3 Click **Name** next to Name to enable or disable OSD channel setting.

Step 4 Set the channel name.

Step 5 In the video window, click and drag time or channel to move to a location.

Step 6 Click **Copy** and select channels, then click **OK** to apply the OSD settings to cameras in selected channels , click **Apply** to save OSD settings.

----End

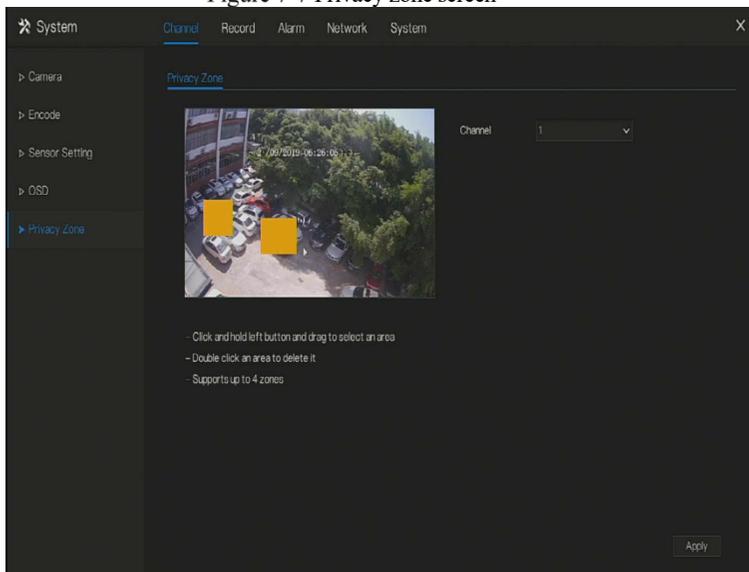
7.3.5 Privacy Zone

The system allows you to mask images in a specified zone and this zone is called privacy zone.

Operation Description

Click **Privacy Zone** in the main menu or menu of the channel management screen and choose privacy zone to access the **Privacy Zone** screen, as shown in Figure 7-7.

Figure 7-7 Privacy zone screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 In the video window, hold down and drag the left mouse button to draw a privacy area.

Step 3 Click **Copy** and select channels or tick **all**, then click **OK** to apply the privacy settings to cameras in selected channels , click **Apply** to save privacy settings.

Step 4 Double click privacy area to delete setting.

----**End**

7.4 Record Setting

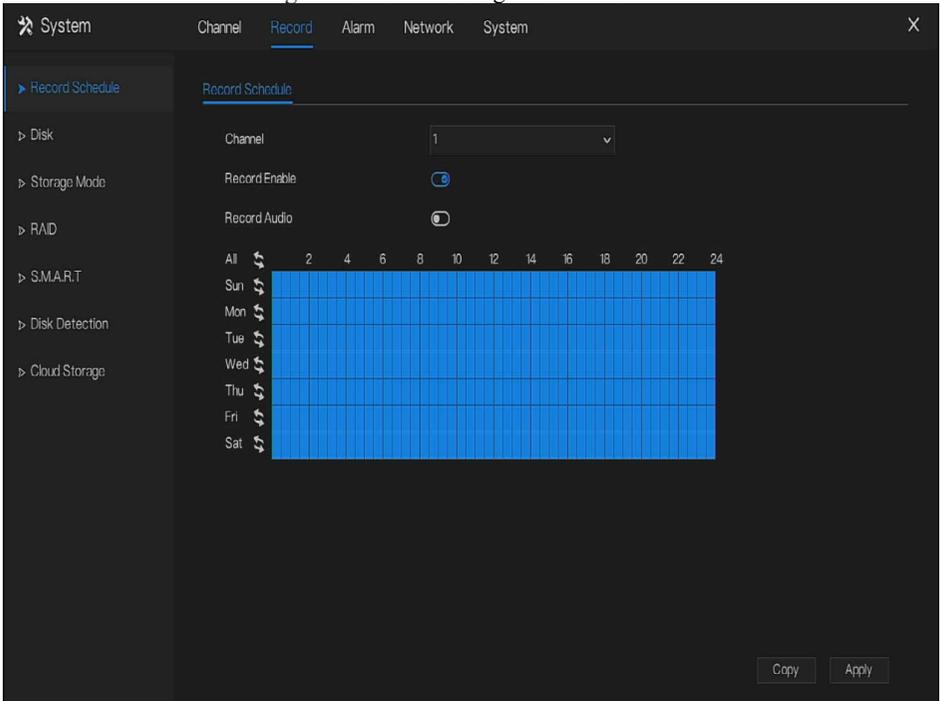
Set the **Record Schedule**, view the disk capacity, examine the record' status.

7.4.1 Record Schedule

Operation Description

Click **Record** in the main menu or click the record page of any function screen in the main menu to access the record schedule screen, as shown in Figure 7-8.

Figure 7-8 Record management screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Enable the record enable.

Step 3 Enable the record audio.

Step 4 Set the record schedule. **Method 1:** Hold down the left mouse button, drag and release mouse to select the arming time within 00:00-24:00 from Monday to Sunday.

 **NOTE**

- When you select time by dragging the cursor, the cursor cannot move out of the time area. Otherwise, no time would be selected.
- The selected area is blue. The default is all week.

Method 2: Click  in the record schedule page to select the whole day or whole week.

Step 5 Deleting record schedule: Click  again or inverse selection to delete the selected record schedule.

Step 6 Click  and select channels or tick **all**, then click  to apply the record management settings to cameras in selected channels , click  to save settings.

----End

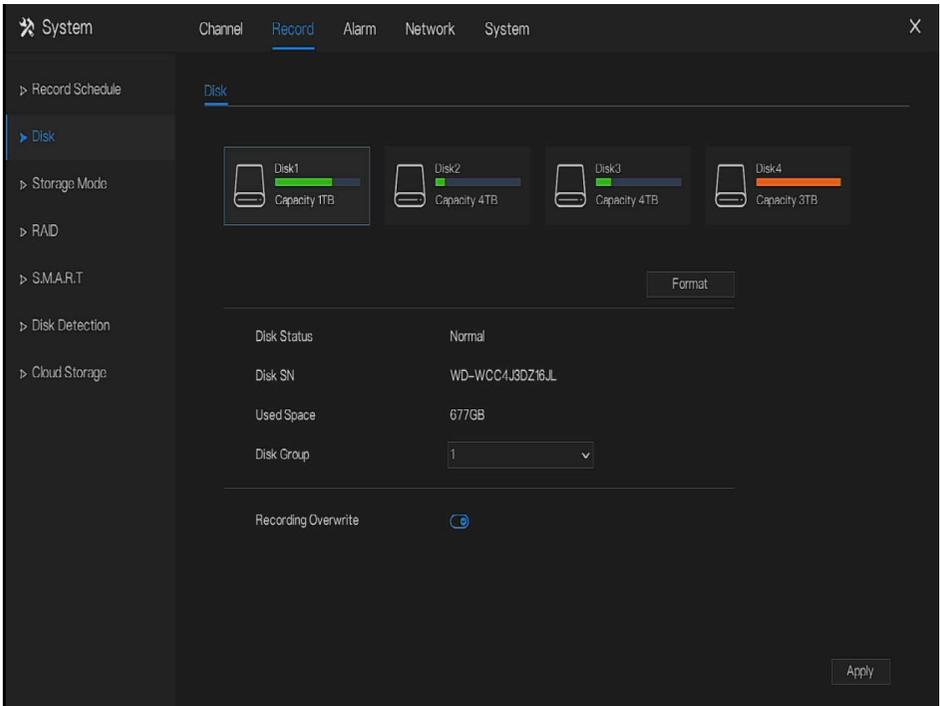
7.4.2 Disk

View the total capacity of disk, disk status, disk SN code and storage space of disk. You can format the disk and set record expiration manner.

Operation Description

Step 1 Click **Record** in the main menu or menu of the record screen and choose **Disk** to access the disk screen, as shown in Figure 7-9.

Figure 7-9 Disk screen



Step 2 Click **Format**. The message “Are you sure to format disk? Your data will be lost” is displaying.

Step 3 Choose the disk group, there are four groups.

Step 4 Click **OK**, and the disk would be formatted.

Step 5 Record expiration setting. Select record expiration days from the drop-down list of record expiration.

Step 6 Click **Apply** to save the settings.

NOTE

The disk groups can keep the recording of channels at different disks, it will improve the storage efficiency.

---End

7.4.3 RAID

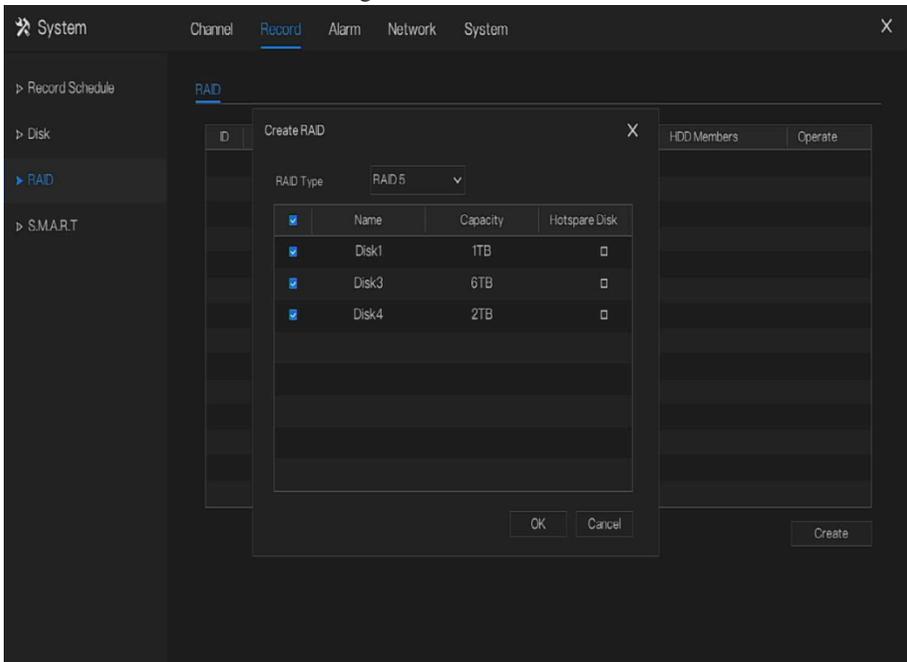
 **NOTE**

RAID is only used for the device with 4 disks or more. And the disks must be enterprise level disks. The capacity of disks are better same for efficient using.

RAID5 at least 3 disks can be created. RAID6 at least 4 disks can be created. RAID10 at least 4 disks can be created. Create hot spare disk need more one disk or double basic disks.

The capacity of disks are better same for efficient using.

Figure 7-10 RAID



Operation Steps

Step 1 Click **RAID** to create the RAID.

Step 2 Click **Create** to choose disk to create a new RAID.

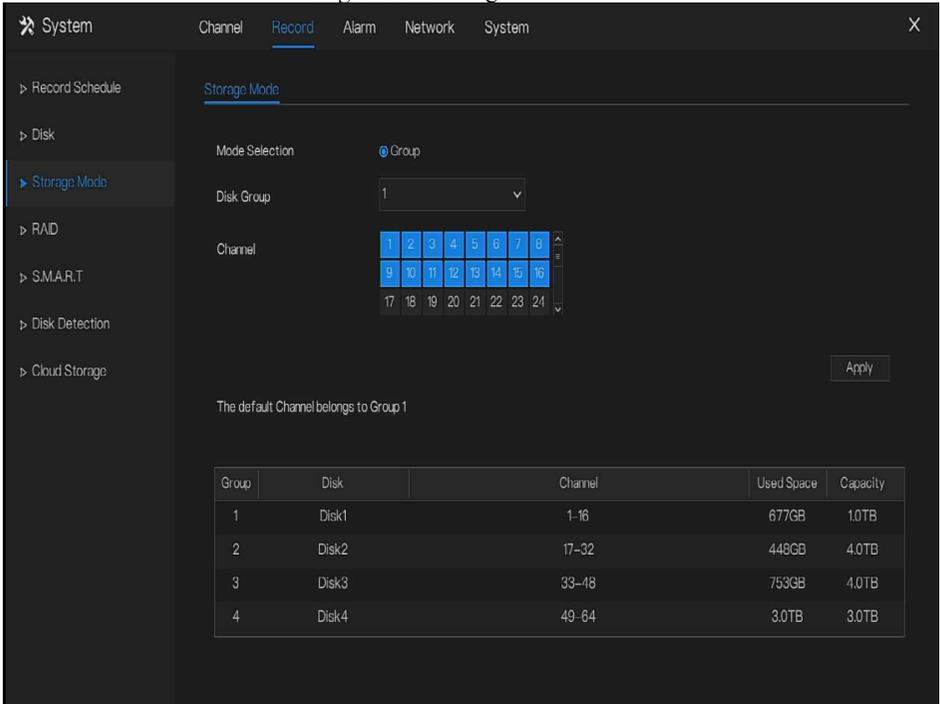
Step 3 Tick the **Hot-spare Disk** to back up the broken disk in case, the number of disk must more than basic disks.

Step 4 Click  to save the creation, format the new RAID.

7.4.4 Storage Mode

User is based on need to distribute the channels to different disk group, and use disk capacity reasonably, as shown in Figure 7-11

Figure 7-11 Storage mode



| Group | Disk | Channel | Used Space | Capacity |
|-------|-------|---------|------------|----------|
| 1 | Disk1 | 1-16 | 677GB | 1.0TB |
| 2 | Disk2 | 17-32 | 448GB | 4.0TB |
| 3 | Disk3 | 33-48 | 753GB | 4.0TB |
| 4 | Disk4 | 49-64 | 3.0TB | 3.0TB |

Operation Steps

- Step 1 Choose the disk group.
- Step 2 Select the channel to record to disk group.
- Step 3 Click  to save the settings.
- Step 4 The group list will show the detail information.

 **NOTE**

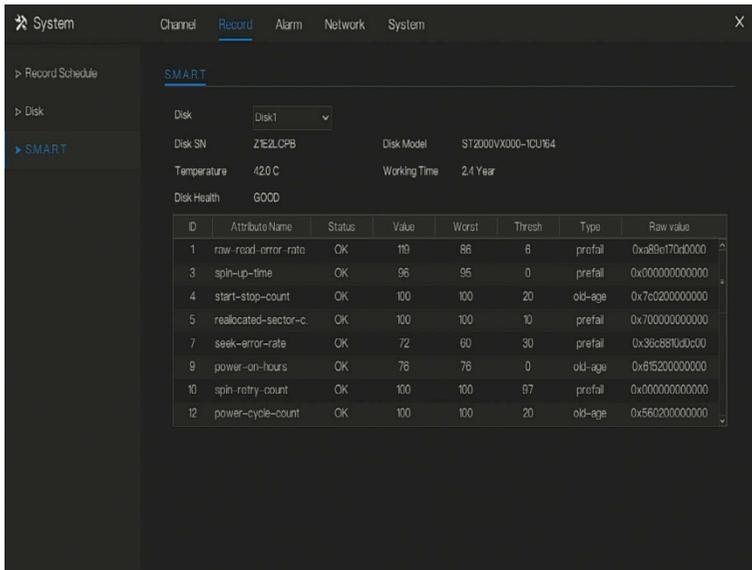
If the channels are not in list, it means NVR will not to record these channels, please make sure about all channels are in list.

Choose number of channel number you should consider the capacity of disk group.

7.4.5 S.M.A.R.T

S.M.A.R.T is Self-Monitoring Analysis and Reporting Technology, user can view the health of disk, as shown in Figure 7-12.

Figure 7-12 S.M.A.R.T



The screenshot shows the 'Record' tab in the NVR System interface. Under the 'SMART' section, the following information is displayed:

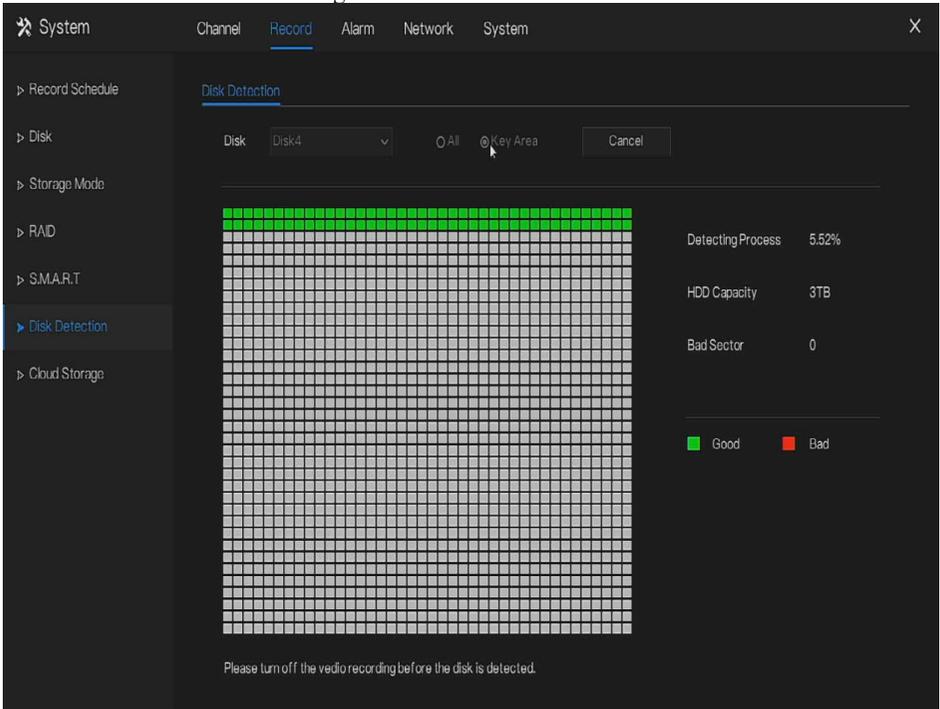
- Disk: Disk1
- Disk SN: Z1E2LCPB
- Disk Model: ST2000VX000-1CU64
- Temperature: 42.0 C
- Working Time: 2.4 Year
- Disk Health: GOOD

| ID | Attribute Name | Status | Value | Worst | Thresh | Type | Raw value |
|----|----------------------|--------|-------|-------|--------|---------|----------------|
| 1 | raw-read-error-rate | OK | 119 | 86 | 8 | prefail | 0xa89e170d0000 |
| 3 | spin-up-time | OK | 96 | 95 | 0 | prefail | 0x000000000000 |
| 4 | start-stop-count | OK | 100 | 100 | 20 | old-age | 0x7c0200000000 |
| 5 | reallocated-sector-c | OK | 100 | 100 | 10 | prefail | 0x700000000000 |
| 7 | seek-error-rate | OK | 72 | 60 | 30 | prefail | 0x36c8810d0000 |
| 9 | power-on-hours | OK | 76 | 76 | 0 | old-age | 0x8f5200000000 |
| 10 | spin-rotary-count | OK | 100 | 100 | 97 | prefail | 0x000000000000 |
| 12 | power-cycle-count | OK | 100 | 100 | 20 | old-age | 0x560200000000 |

7.4.6 Disk Detection

Before the recording the video, user need to detect the disk to keep the data safety, as shown in Figure 7-13.

Figure 7-13 Disk Detection



Operation Steps

- Step 1 Choose the disk from the drop-down list.
- Step 2 Tick all or key to detect the disk. Detect all need some time, detect key section maybe need a few minutes.
- Step 3 Click Scan to scan the disk.
- Step 4 The result of disk will show in interface

 **NOTE**

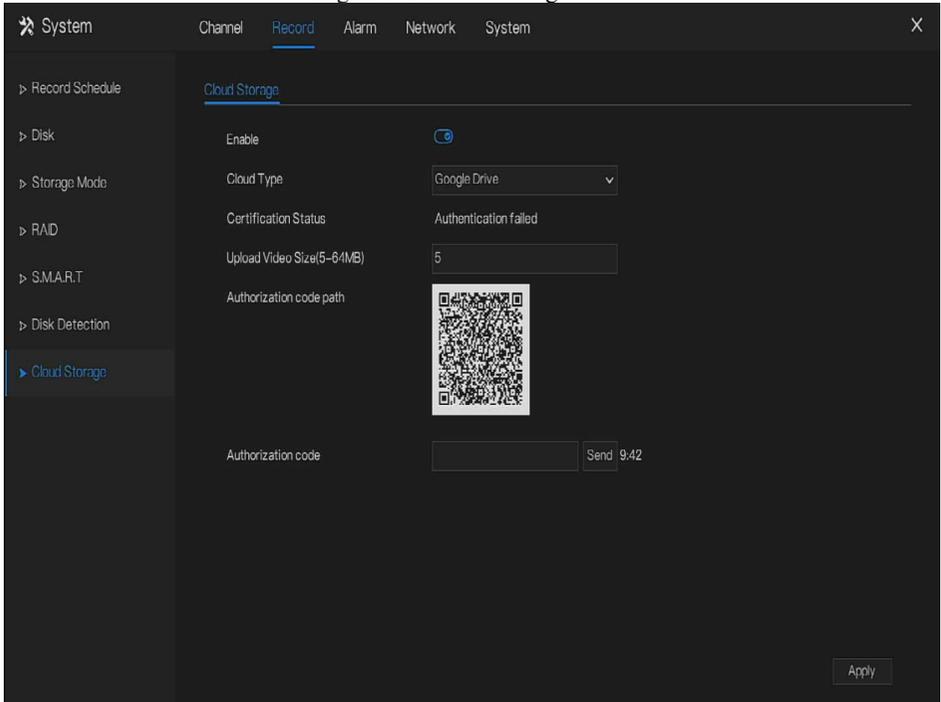
The green block means good, the red block means bad, if the red blocks are too much or at key section, please change the disk immediately

Please turn off the video recording before the disk is detected, otherwise the recording of video maybe lost.

7.4.7 Cloud Storage

The cloud storage can save the motion detection and intelligent analysis alarm, if user certificate the Google Drive.

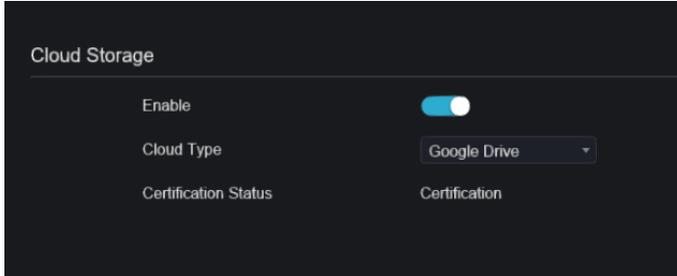
Figure 7-14 Cloud Storage



Operation Steps

- Step 1 Enable the cloud storage, and the UUID of code path will show.
- Step 2 Choose the cloud type, the default is Google cloud.
- Step 3 Set upload video size, the video is saving in sub stream(the video size is less).
- Step 4 Use browser to scan the UUID to jump to Google drive certification, input the account and password to certificate the NVR.
- Step 5 Input the code , click Send to fish certificate, as shown in Figure 7-15.

Figure 7-15 Certification



Step 6 Click Apply to save the settings

 **NOTE**

Google Cloud only needs to be authenticated once, without multiple authentications. After the authentication is completed, the cloud storage function can be turned on or off as required.

This function needs to be re-certified after the device is restored to factory settings.

The UUID is the path of Google drive.

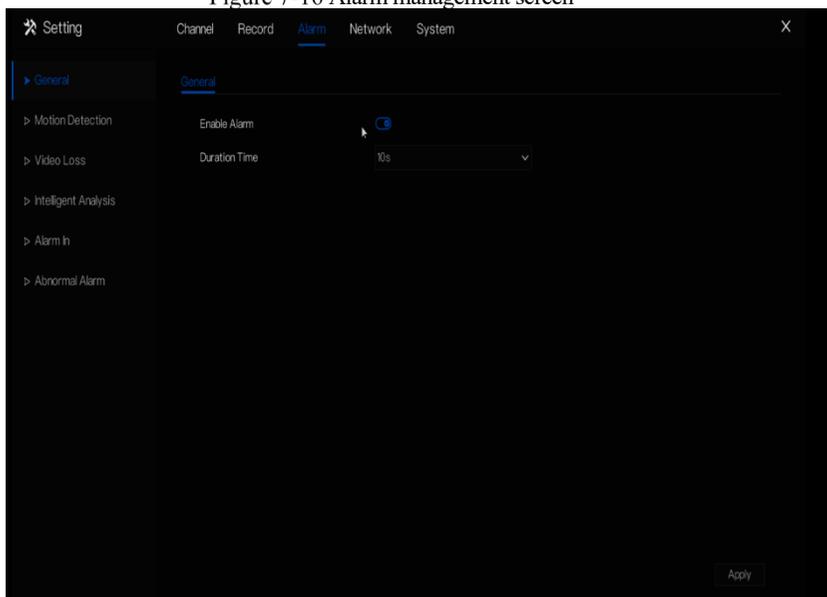
7.5 Alarm Management

Set the **General alarm information, Motion Detection, Video Loss, Intelligent Analysis, Alarm In** and **Abnormal Alarm** in alarm management screen.

7.5.1 General

Step 1 Click **Alarm** in the main menu (or click the alarm page of any function screen in the main menu) to access the alarm management screen, as shown in Figure 7-16.

Figure 7-16 Alarm management screen



Step 2 Enable the Enable alarm button.

Step 3 Select a value from the drop-down list of duration time.

Step 4 Click **Apply** to save alarm settings.

----End

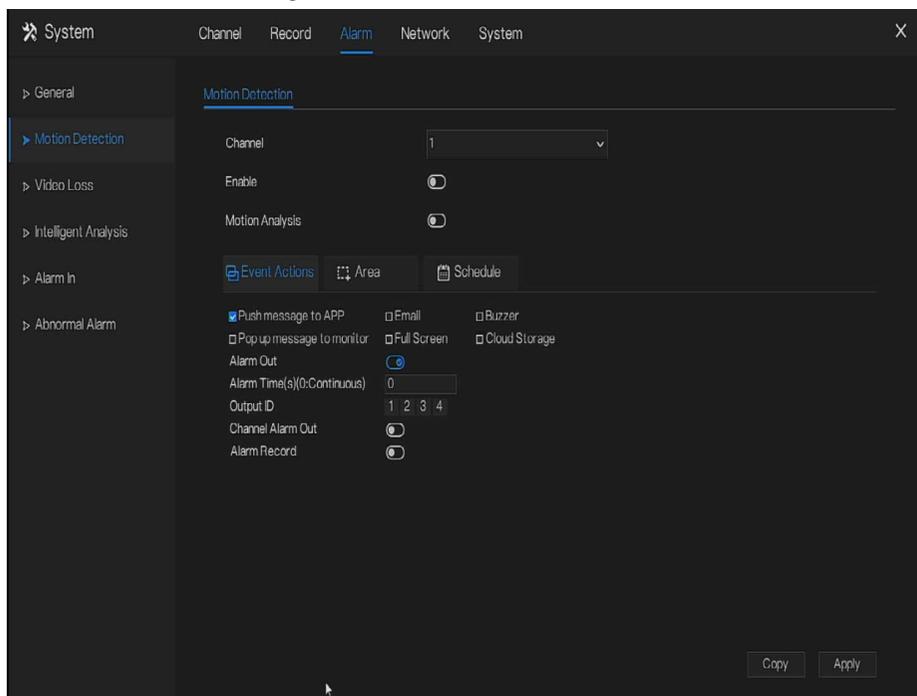
7.5.2 Motion Detection

The NVR will send motion detection alarm while something moving in the specific view of camera.

Operation Description

Step 1 Click **Motion Detection** in the main menu or menu of the alarm management screen and choose **Motion Detection** to access the Motion Detection screen, as shown in Figure 7-17.

Figure 7-17 Motion detection screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

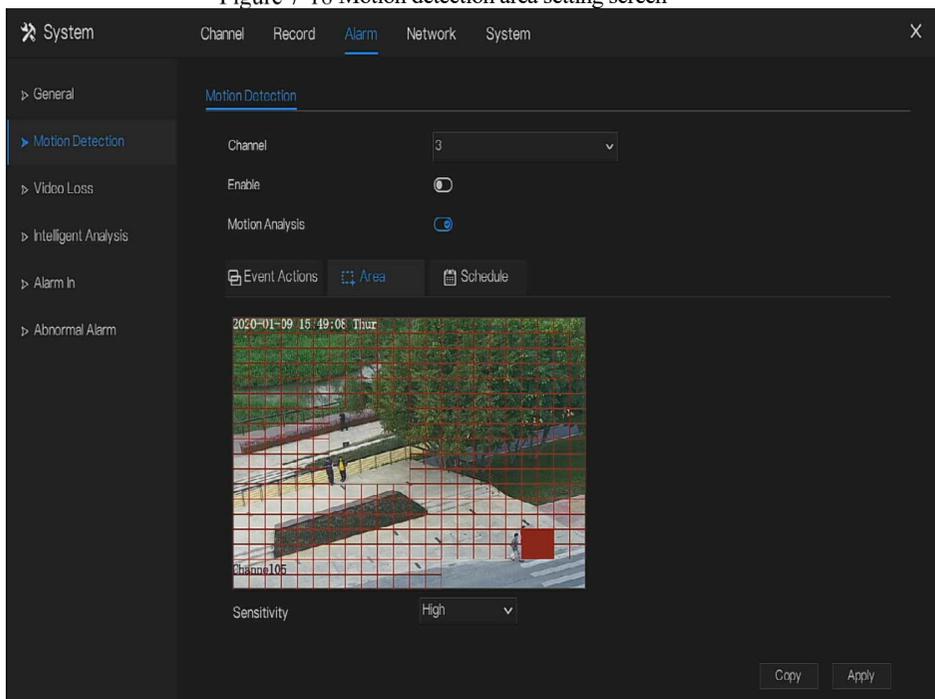
Step 2 Click  to enable motion detection.

Step 3 Enable motion analysis, if the camera detect the motion action, the area will be block as shown in Figure 7-18.

Step 4 Enable the Event actions include: push to APP, Email, Buzzer, Pop up message to monitor, Full screen, Cloud storage, Alarm out, Channel alarm out, and alarm record.

Step 5 Click Area page to access the motion detection area setting, as shown in Figure 7-18.

Figure 7-18 Motion detection area setting screen



Area :

1. Hold down and drag the left mouse button to draw a motion detection area.
2. Select a value from the drop-down list next to **Sensitivity**.

Step 6 Click **Schedule** page to access the schedule screen. For details, please see 7.4.1 Record Schedule Figure 7-8Step 4 Set the record schedule.

Step 7 Click **Copy** and select channels or tick **all**, then click **OK** to apply the motion detection settings to cameras in selected channels, click **Apply** to save motion detection alarm settings.

 **NOTE**

After a motion detection area is selected, double-click it to delete the selected area.

The default area is whole area.

If you leave the page without applying, the tip “Do you want to save?” would show. Click save to save the settings. Click cancel to quit the settings.

Enable the alarm out, user need to set alarm time and output ID, four ID are correspond to back panel’s alarm out, 1 A and 1 B, 2 A and 2 B, 3 A and 3 B, 4 A and 4 B.

Channel alarm out is correspond to alarm port of camera.

---End

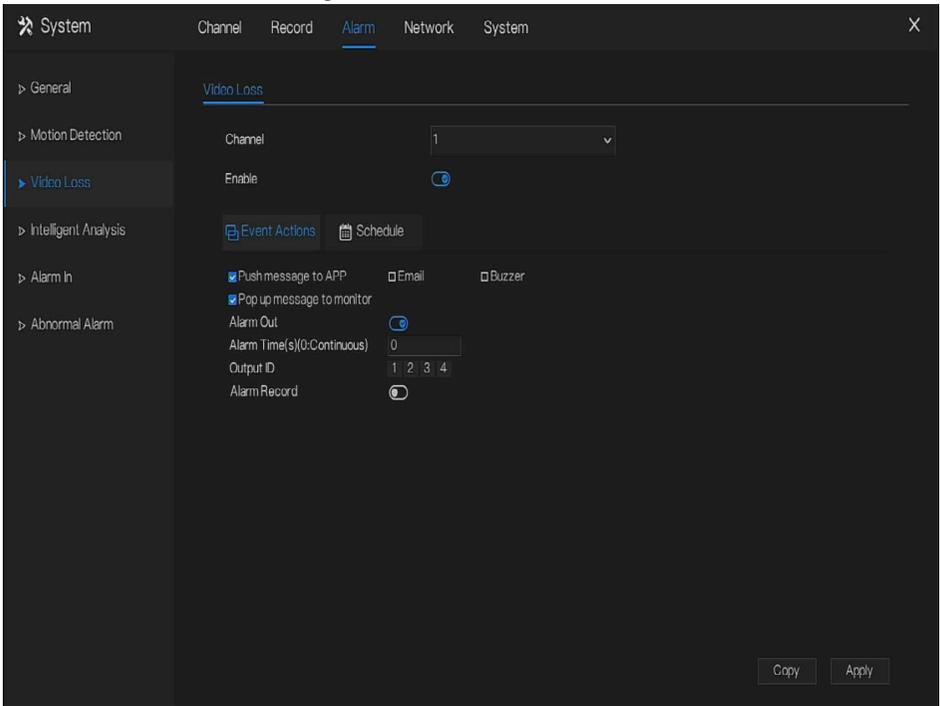
7.5.3 Video Loss

If a camera is disconnected to NVR, it will trigger video loss alarm.

Operation Description

Click **Video Loss** in the main menu or menu of the alarm management screen and choose **video Loss** to access the video loss screen, as shown in Figure 7-19.

Figure 7-19 Video loss screen



Operation Steps

Step 1 Select a channel from the drop-down list of channel.

Step 2 Click  to enable video loss alarm.

Step 3 Enable the Event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 4 Click Schedule page to access the schedule screen.

Step 5 For details, please see 7.4.1 Record Schedule Figure 7-8Step 4 Set the record schedule.

Step 6 Click  and select a channel, then click  to apply the parameter settings to cameras in selected channels, click  to save video loss settings.

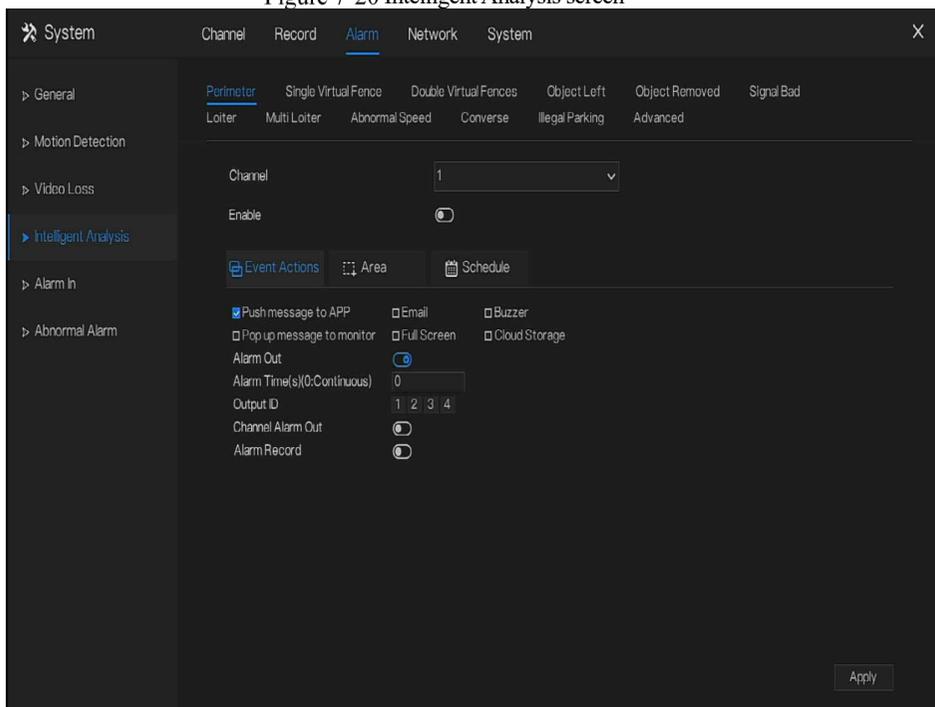
----End

7.5.4 Intelligent Analysis

Operation Description

Step 1 Click **Intelligent Analysis** in the main menu or menu of the alarm management screen and choose **Intelligent Analysis** to access intelligent analysis screen, as shown in Figure 7-6.

Figure 7-20 Intelligent Analysis screen



Step 2 Select one action to set the alarm.(perimeter, single virtual fence, double virtual fences, object left, signal bad, loiter, multi loiter, abnormal speed, converse, illegal parking, advanced)

Step 3 Select a channel from the drop-down list of channel.

Step 4 Click  to enable intelligent analysis alarm.

Step 5 Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 6 Click Schedule page to access the schedule screen.

Step 7 For details, please see Figure 7-8Step 4 Set the record schedule.

Step 8 Click **Copy** and select a channel, then click **OK** to apply the parameter settings to cameras in selected channels, click **Apply** to save video loss settings.

----End

7.5.5 Alarm In

There two types alarm in, one is the NVR's alarm in, another is the camera channel's alarm in.

Operation Description

Click **Alarm in** in the main menu or menu of the alarm management screen and choose **Alarm in** to access the alarm in screen, as shown in Figure 7-21.

Figure 7-21 Alarm in screen

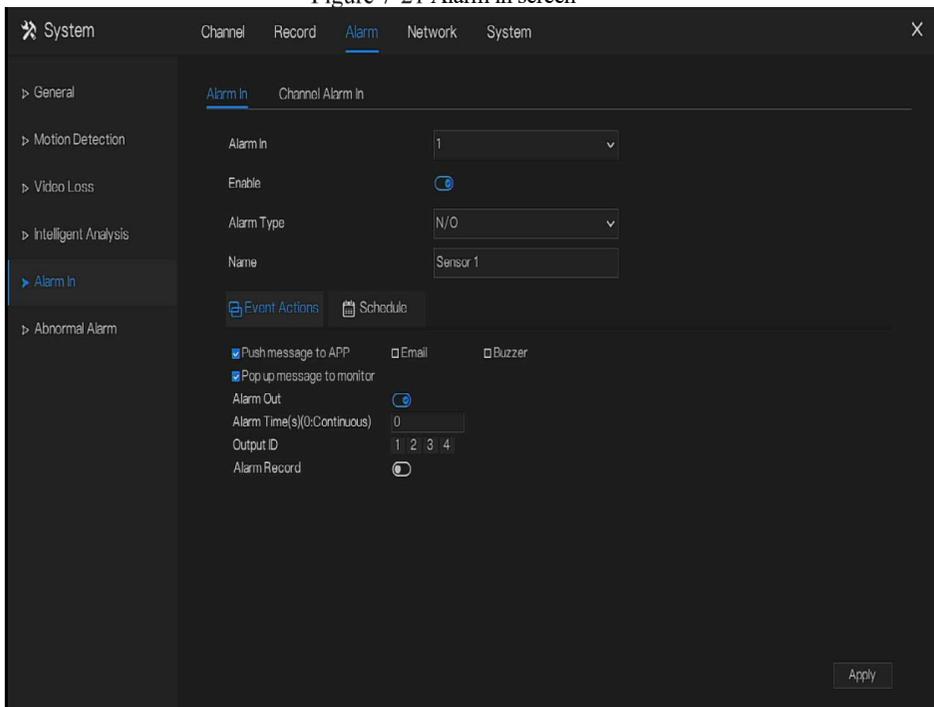
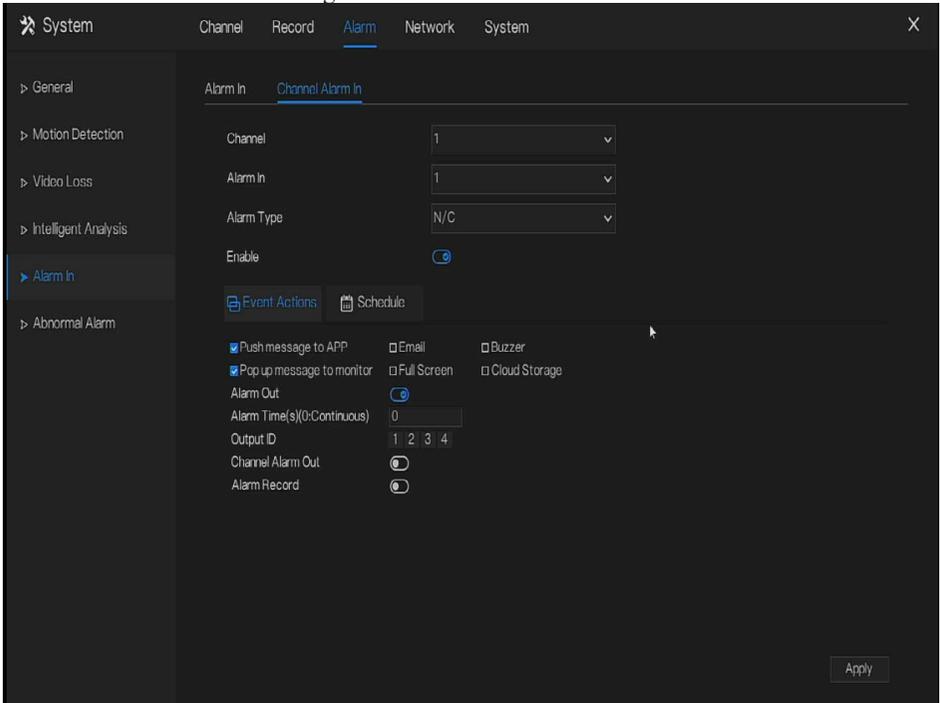


Figure 7-22 Channel alarm in



Operation Steps

Step 1 Select a channel in **alarm in**.

Step 2 Click  to enable or disable the functions.

Step 3 Select **Alarm type** from the drop-down list.

NOTE

NC: Normal close the alarm

NO: Normal open the alarm

Step 4 Set **name**.

Step 5 Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 6 Click **Schedule** page to access the schedule screen. For details, please see 7.4.1 Record Schedule Figure 7-8Step 4 Set the record schedule.

Step 7 Click **Apply** to save alarm in settings.

---End

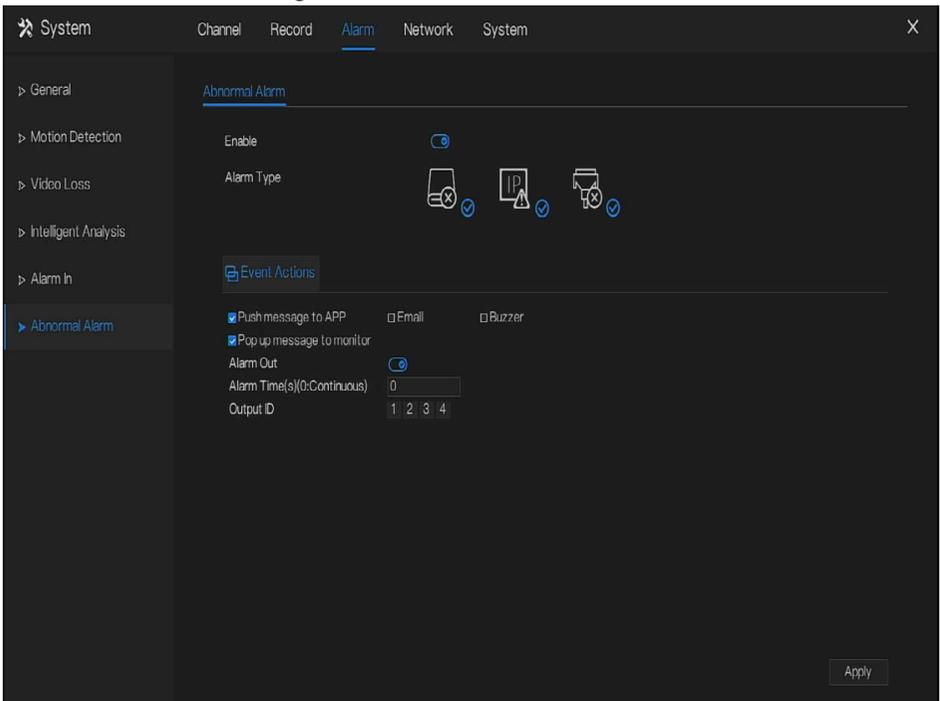
7.5.6 Abnormal Alarm

Abnormal alarm includes disk alarm, IP conflict and network disconnected.

Operation Description

Step 1 Click **Abnormal Alarm** in the main menu or menu of the alarm management screen and choose **Abnormal Alarm** to access the abnormal alarm screen, as shown in Figure 7-23.

Figure 7-23 Abnormal alarm screen



Operation Steps

Step 2 Tick the abnormal actions.

Step 3 Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 4 Click  to save abnormal alarm settings.

---End

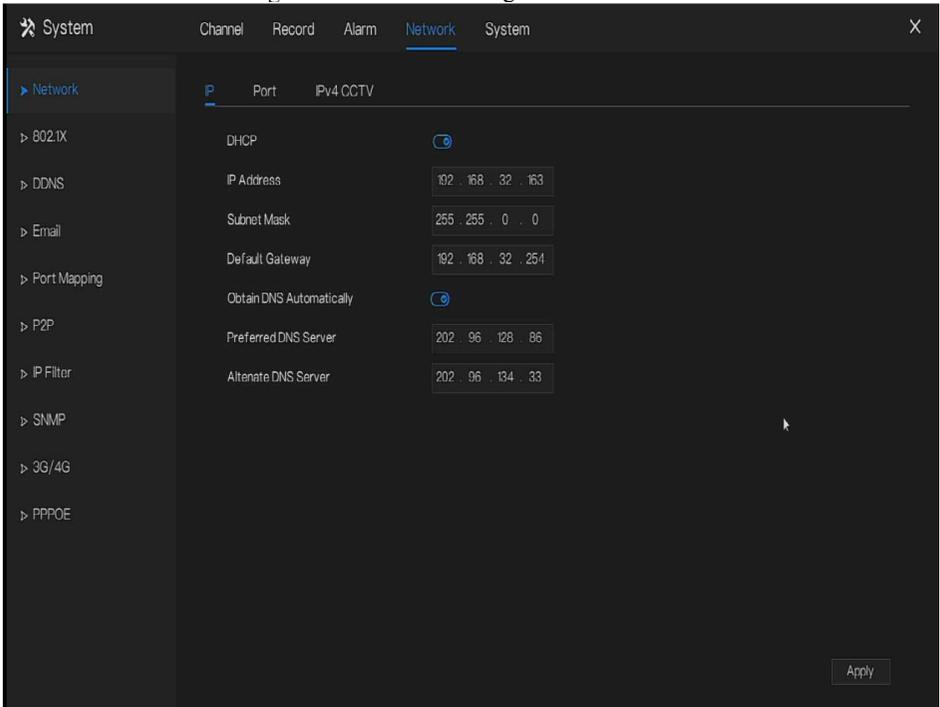
7.6 Network Management

Set the **Network Parameter, 802.1X, DDNS, E-mail, Port Mapping, P2P, IP Filter, SNMP 3G/4G** and **PPPOE** in the network management screen.

Operation Description

Step 1 Click **Network** in the main menu (or click the network page of any function screen in the main menu) to access the network management screen, as shown in Figure 7-24.

Figure 7-24 Network management screen



7.6.1 Network

Set **DHCP** and **DNS** manually or automatically.

7.6.1.1 IP

Operation Steps

Step 1 Click  next to **DHCP** to enable or disable the function of automatically getting an IP address. The function is disabled by default.

Step 2 If the function is disabled, click input boxes next to **IP**, **Subnet mask**, and **Gateway** to set the parameters as required.

Step 3 Click  next to **Obtain DNS Automatically** to enable or disable the function of automatically getting a DNS address. The function is enabled by default.

Step 4 If the function is disabled, click input boxes next to **DNS 1(default 192.168.0.1)** and **DNS 2(default 8.8.8.8)**, delete original address, and enter new address.

Step 5 Click  to save IP settings.

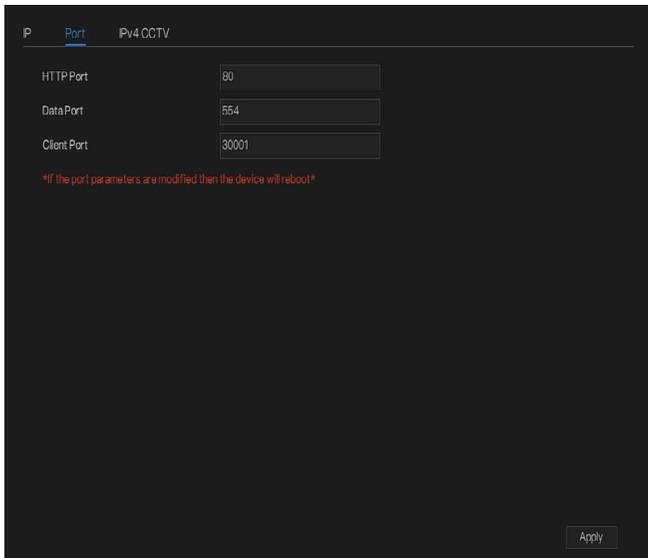
----End

7.6.1.2 Port

Operation Steps

Step 1 Click **Port** page to access the port setting screen, as shown in Figure 7-25.

Figure 7-25 Port setting screen



Step 2 Set the web port, data port and client port.

Step 3 Click  to save port settings.

----End

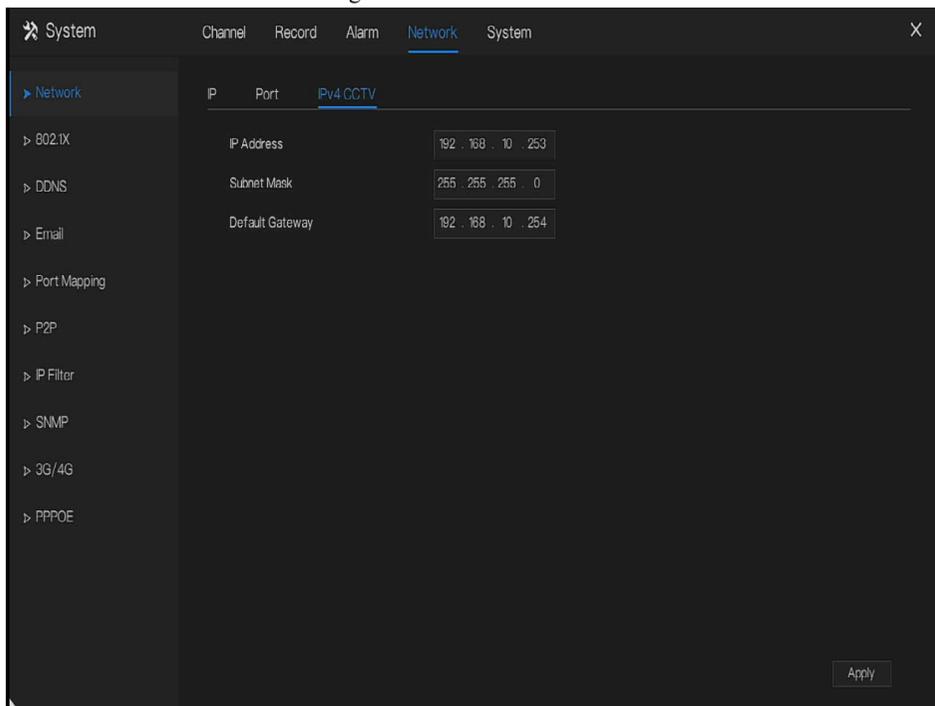
7.6.1.3 IPv4 CCTV

The no POE device have two LANs, LAN1 and LAN2.

Operation Steps

Step 1 Click **Ipv4 CCTV** page to access the LAN2 setting screen, as shown in Figure 7-26.

Figure 7-26 IPv4 CCTV



Step 2 Input the IP address, subnet mask, default gateway.

Step 3 Click  to save the settings.

NOTE

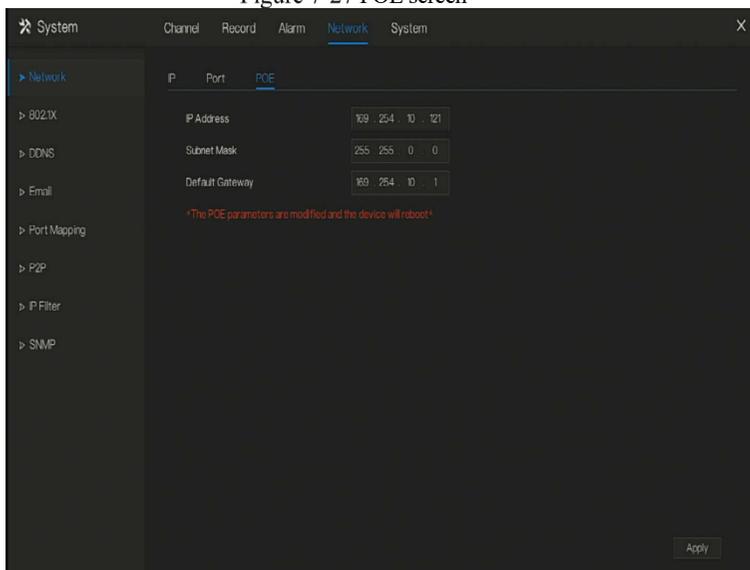
LAN1 and LAN2 can connect to different network, so that NVR can add more cameras. LAN1 usually connect to the external network, it is default gateway. LAN2 connect to internal network.

7.6.1.4 POE

Operation Steps

Step 1 Click **POE** page to access the POE setting screen, as shown in Figure 7-27.

Figure 7-27 POE screen



Step 2 The NVR will deploy IP addresses to the cameras which connect POE immediately.

Step 3 Click **Apply** to set POE camera IP address successfully.

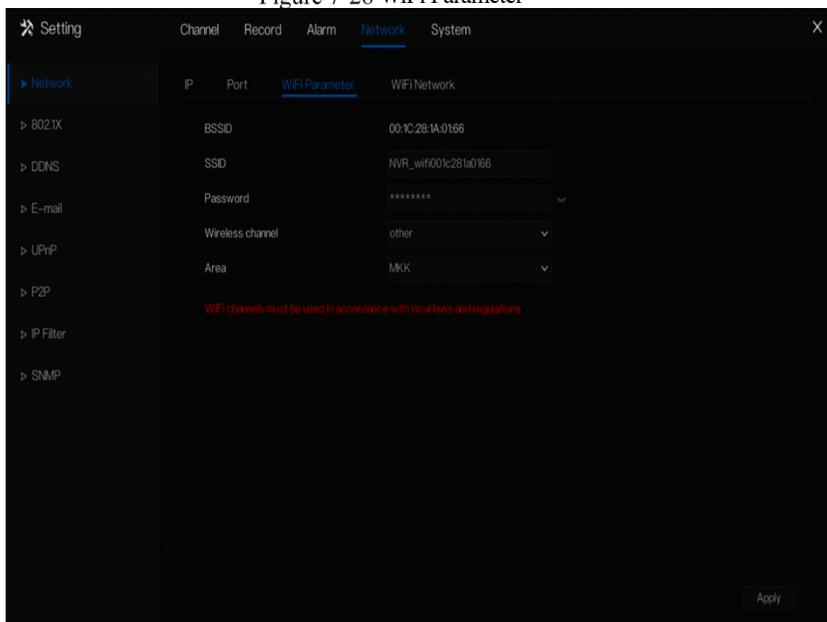
----End

7.6.1.5 WiFi Parameter

Operation Steps

Step 1 Click **WiFi Parameter** page to access the WiFi Parameter setting screen, as shown in Figure 7-27.

Figure 7-28 WiFi Parameter



Step 2 Set the parameters of WiFi.

Step 3 Click  to set POE camera IP address successfully.

 **NOTE**

BSSID, default value of the device, cannot be changed.

SSID, the name can be changed to facilitate customer search.

WiFi channel; 1-13 channels, plus the other channel, can be changed according to network blocking conditions to avoid interference.

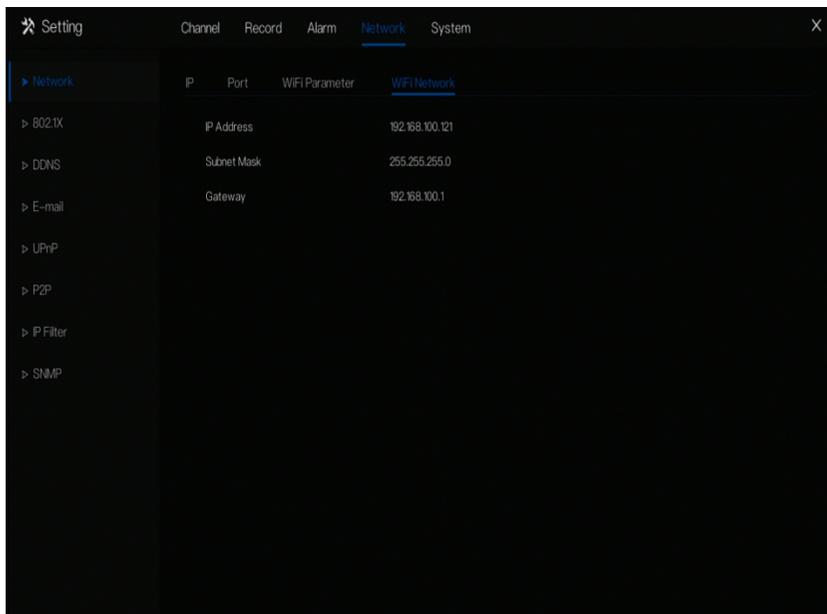
The area can be selected according to the country where it is located, MKK, ETSI1, ETSI2, FCC.

7.6.1.6 WiFi Network

Operation Steps

Step 1 Click **WiFi Parameter** page to access the WiFi Parameter setting screen, as shown in Figure 7-27.

Figure 1-1 WiFi network



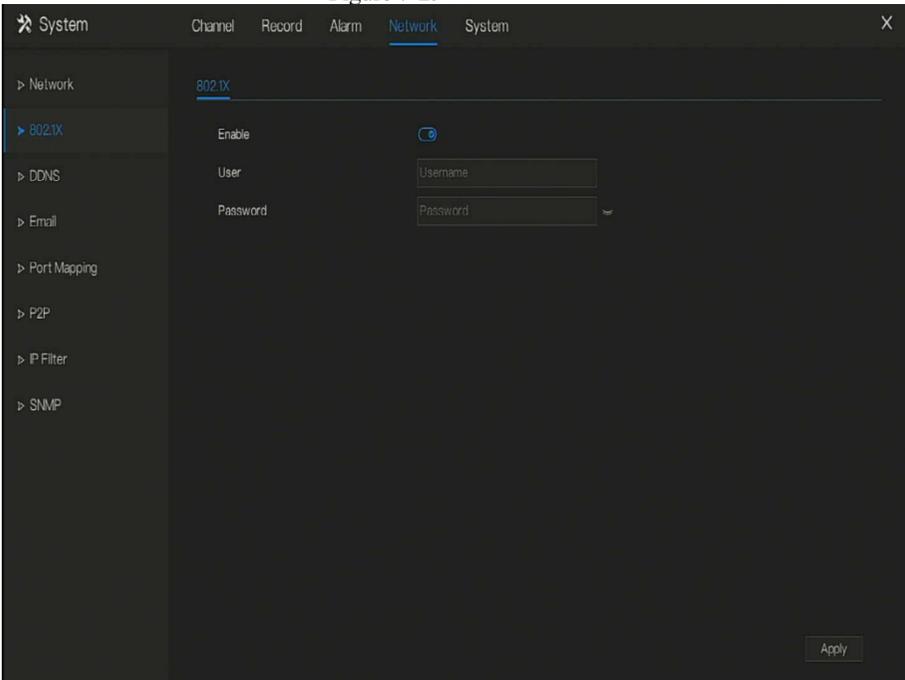
----End

7.6.2 802.1 X

Operation Steps

Step 1 Click  next to **802.1 X** to enable or disable the function .The default is disabled.

Figure 7-29 802.1X



Step 2 Input the user and password of 802.1X, the account is created by user.

Step 3 Click  to save the settings. The visitor to view the NVR need to input account to certify.

7.6.3 DDNS

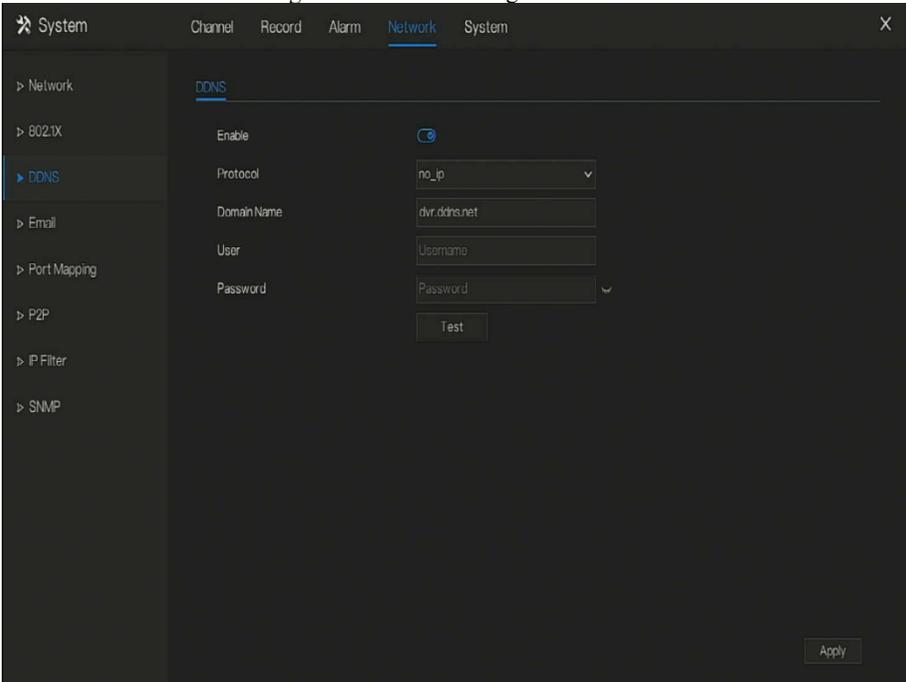
Please make sure of connecting the specified camera to the Internet, and obtain the user name and password for logging into the dynamic domain name system (DDNS) from the server.

Operation Steps

Step 1 Click **DDNS** in the main menu or menu of the network management screen and choose **DDNS** to access the DDNS screen.

Step 2 Click  next to **Enable** to enable the DDNS function. It is disabled by default, as shown in Figure 7-30.

Figure 7-30 DDNS setting screen



Step 3 Select a required value from the protocol drop-down list.

Step 4 Set domain name, input user and password.

Step 5 Click **Test** to check the domain name.

Step 6 Click **Apply** to save DDNS network settings

 **NOTE**

An external network can access the NVR via an address that is set in the DDNS settings.

---End

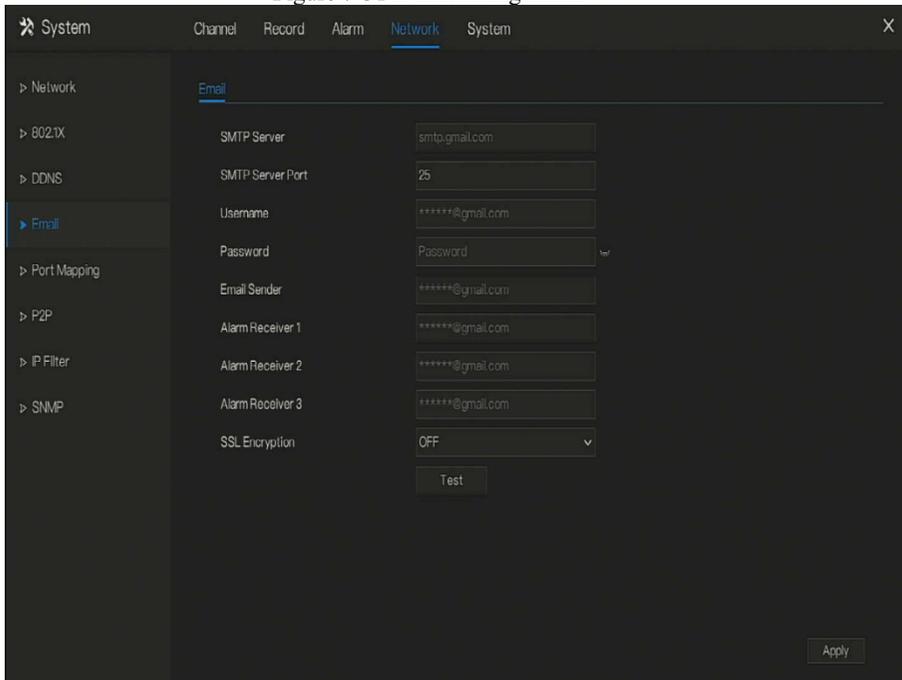
7.6.4 E-mail

If the simple mail transfer protocol (SMTP) function is enabling, the device automatically sends alarm information to specified email addresses when an alarm is generated.

Operation Steps

Step 1 Click **E-mail** in the main menu or menu of the network management screen and choose **E-mail** to access the E-mail screen, as shown in Figure 7-31.

Figure 7-31 E-mail setting screen



Step 2 Set SMTP server and SMTP server port manually.

Step 3 Input E-mail sender, user name and password manually.

Step 4 Set E-mail for receive alarm. the message “**Mail has been sent, please check**” is displaying. Open the mail, if the verification code is received, that shows the E-mail is set successfully.

Step 5 Set E-mail for retrieve the password. the message “**Mail has been sent, please check**” is displaying. Open the mail, if the verification code is received, that shows the E-mail is set successfully.

Step 6 Set SSL encryption for encrypting mail or not.

Step 7 Click **Apply** to save settings.

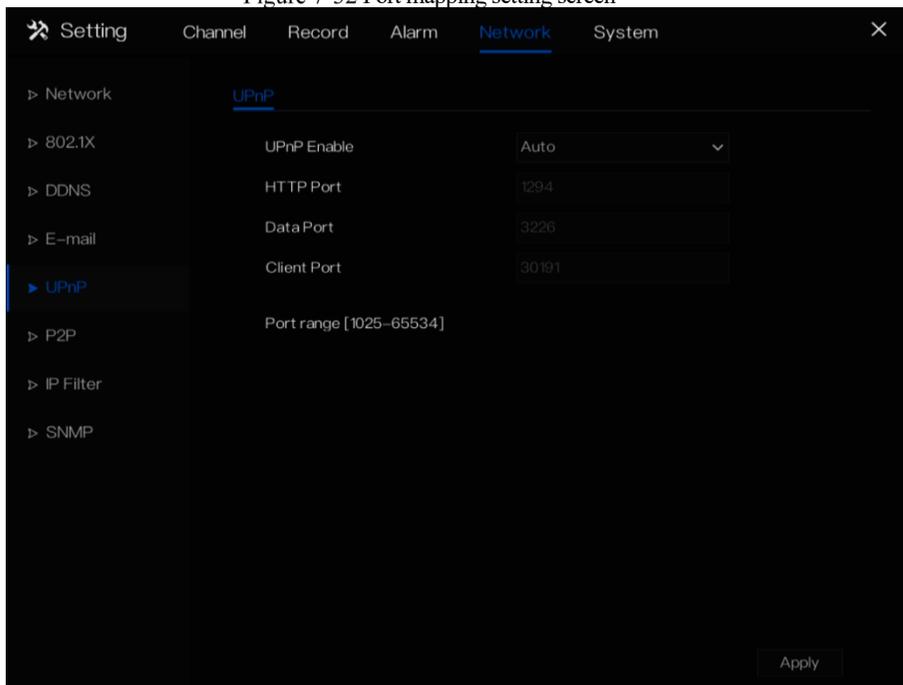
----**End**

7.6.5 Port Mapping

Operation Steps

Step 1 Click **Port Mapping** in the main menu or menu of the network management screen and choose **Port Mapping** to access the port mapping screen, as shown in Figure 7-32.

Figure 7-32 Port mapping setting screen



Step 2 Select UPnP enable type.

Step 3 Manual UPnP: input http port, data port and client port manually.

Step 4 Auto UPnP: device obtain the port automatically.

Step 5 Click **Apply** to save settings.

----End

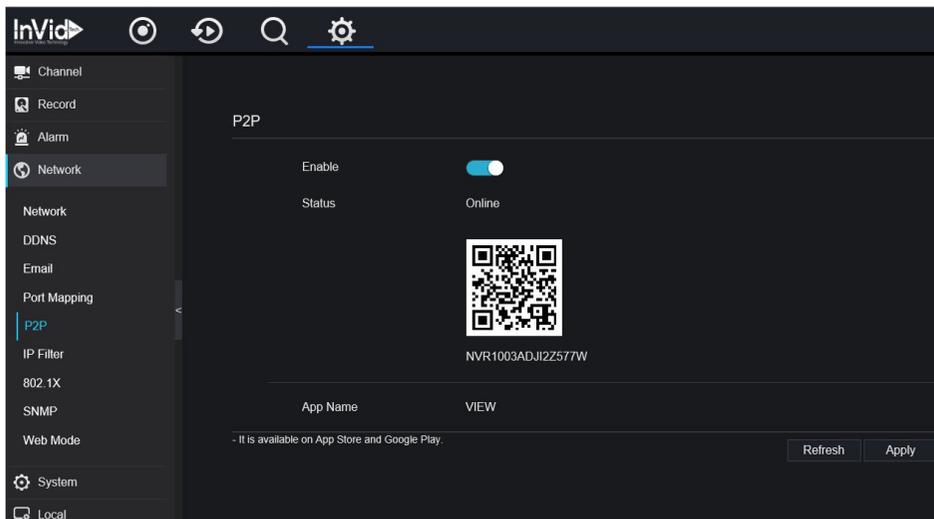
7.6.6 P2P

Show the UUID code and set the P2P status of the device.

Operation Steps

Step 1 Click **P2P** in the main menu or menu of the network management screen and choose **P2P** to access the P2P screen, as shown in Figure 7-33.

Figure 7-33 P2P screen



Step 2 Click  to enable the P2P function.

Step 3 Click  to save P2P network settings or click **Cancel** to cancel settings.

Step 4 After the **InVid LIVE** is installed in mobile phone, run the APP and scan the QR to add and access the NVR when the device is online.

----End

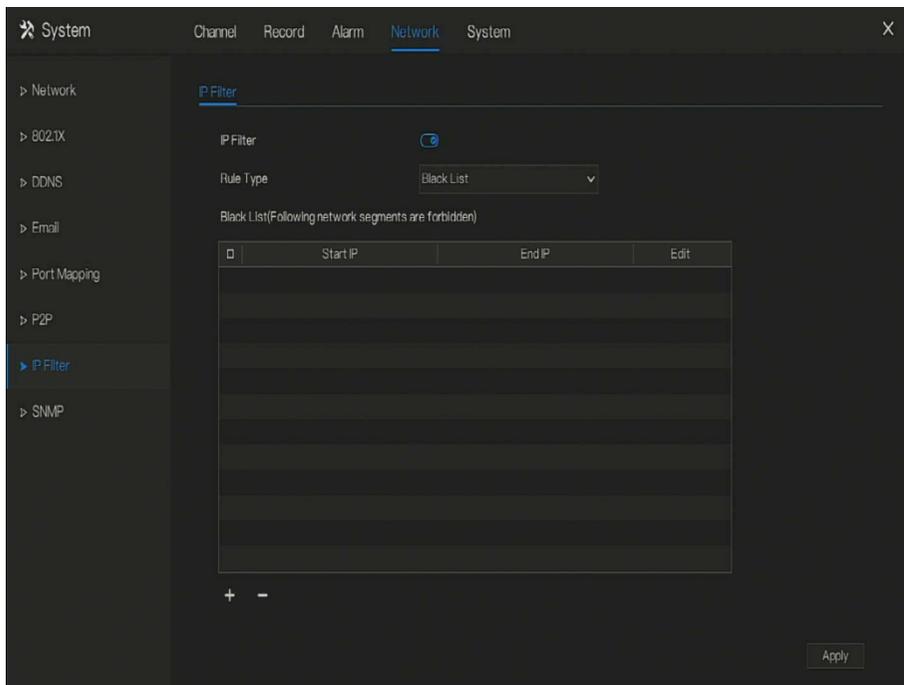
7.6.7 IP Filter

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

Operation Steps

Step 1 Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 7-34.

Figure 7-34 IP Filter setting screen



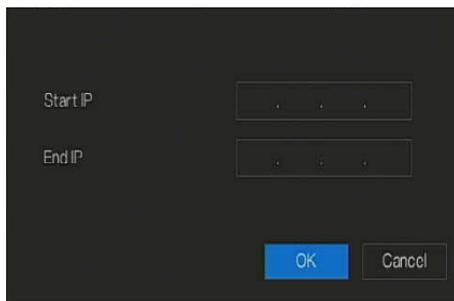
Step 2 Click  next to **IP Filter** to enable the function of IP Filter.

Step 3 Select black list or white list drop-down list.

Step 4 Click  to set black & white list IP segment screen is displaying, as show in Figure 7-

35.

Figure 7-35 IP Address Segment screen



V

Step 5 Enter value manually for start IP address, end IP address.

Step 6 Click . The system saves the settings. The black and white lists IP segment listed in the black (white) list.



NOTE

Black list: IP address in specified network segment to prohibit access.

White list: IP address in specified network segment to allow access

Select a name in the list and click **Delete** to delete the name from the list.

Select a name in the list and click **Edit** to edit the name in the list.

Only one rule type is available, and the last rule type set is efficient.

---End

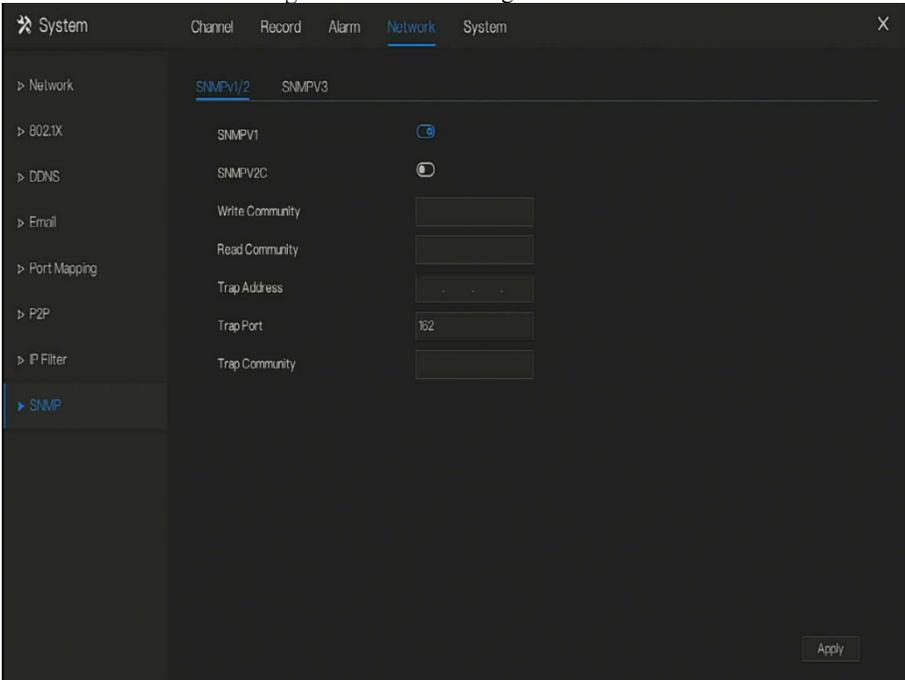
7.6.8 SNMP

There are three versions of simple network management protocol at interface.

Operation Steps

Step 1 Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 7-36.

Figure 7-36 SNMP settings screen



Step 2 Click  next to **SNMPV 1** to enable the function . The interface is shown as Figure 7-37.

Figure 7-37 SNMPV 1/2 interface



Step 3 Input the parameters of protocol.

Step 4 Click  to save settings or click  to cancel settings.

----End

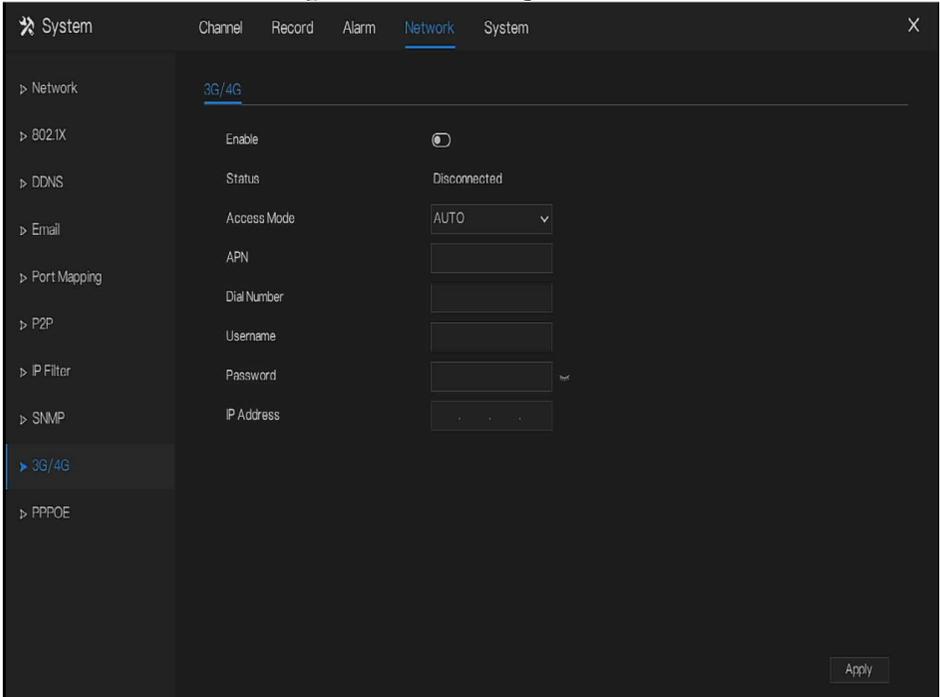
7.6.9 3G/4G

User can use modem to connect to data network.

Operation Steps

Step 1 Plug the modem to NVR, and enable the 3G/4G function, as shown in Figure 7-38.

Figure 7-38 3G/4G setting screen



Step 2 The status is connected to set the other parameters.

Step 3 Choose access mode, the default is AUTO. There are five modes can be chosen, such as AUTO, LTE, TD-SCDMA, WCDMA, GSM/GPRS.

Step 4 Input the APN, dial number, username, password, IP address. At auto mode, all these parameters can obtain automatically.

Step 5 Click  to save settings.

 **NOTE**

Modify the access mode, if the status is all disconnected in five minutes, please unplug the modem to restart the modem immediately.

Users are familiar with the relevant network (different service provider parameters are different) and modem information before manually switching to other modes, we recommend access mode to choose auto.

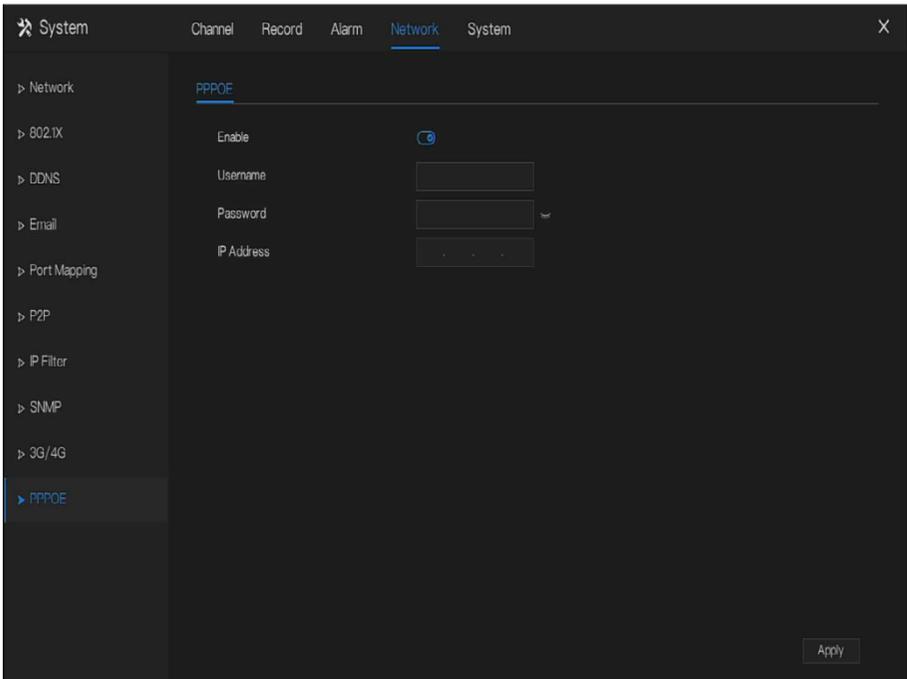
When using the 3G / 4G function, you need to manually close the PPPOE function. Only one function can be used at a time.

If the Internet access type is LTE (4G network), you do not need to dial the number, user name and password.

7.6.10 PPPOE

PPPOE point to point protocol Ethernet, user use the PPPOE to access network immediately.

Figure 7-39 PPPOE



Step 1 Enable the PPPOE function.

Step 2 Input the username, password.

Step 3 Click  to save settings, and the IP is obtained automatically.

Step 4 User input the IP to access NVR web immediately.

----**End**

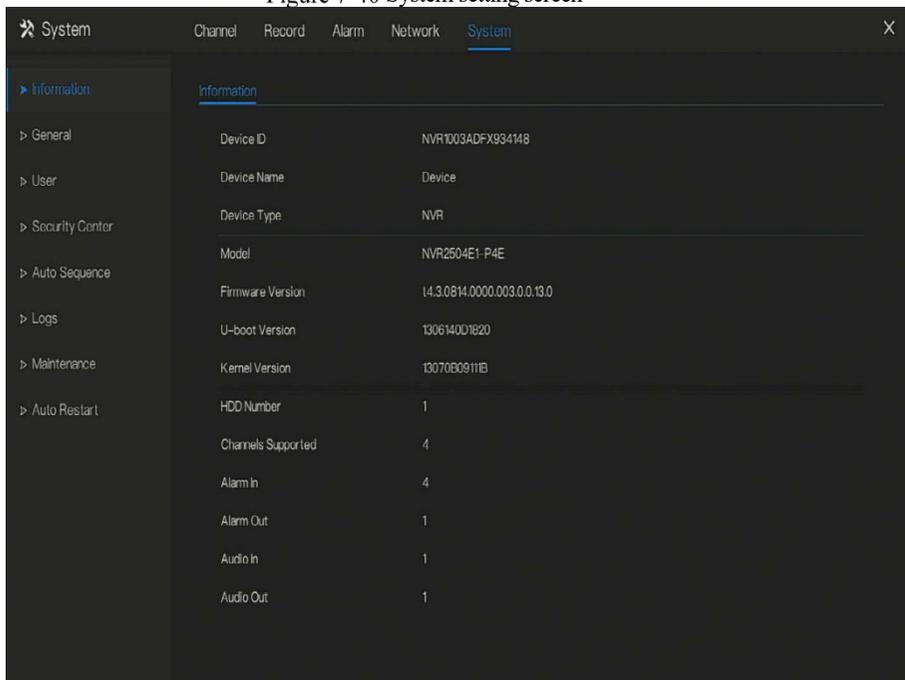
7.7 System Management

View the device **Information** and set **General** information, **User**, **Security Center**, **Auto Sequence**, **Logs**, **Maintenance** and **Auto Restart** for the system setting.

Operation Description

Click **System** in the main menu (or click the system page of any function screen in the main menu) to access the system setting screen, as shown in Figure 7-40.

Figure 7-40 System setting screen



7.7.1 Information

View the device ID, device name, device type, model, firmware version, HDD volume, channel support, alarm in, and alarm out, audio in, audio out in **information** screen, as shown in Figure 7-41 .

Figure 7-41 Information interface

The screenshot shows the InVid web interface. On the left is a sidebar menu with options: Channel, Record, Alarm, Network, System (highlighted), Information (highlighted), General, User, Security Center, Logs, Maintenance, Auto Restart, and Local. The main area displays the 'Information' page with a table of device details.

| Information | |
|--------------------|-----------------------------|
| Device ID | NVR1003ADJ12Z577W |
| Device Name | Device |
| Device Type | NVR |
| Model | SN1A-4X4T |
| Firmware Version | v4.3.0814.0000.163.0.0.42.1 |
| U-boot Version | 13090C102631 |
| Kernel Version | 13090C0E3418 |
| HDD Number | 1 |
| Channels Supported | 4 |
| Alarm In | 4 |
| Alarm Out | 1 |
| Audio In | 1 |
| Audio Out | 1 |

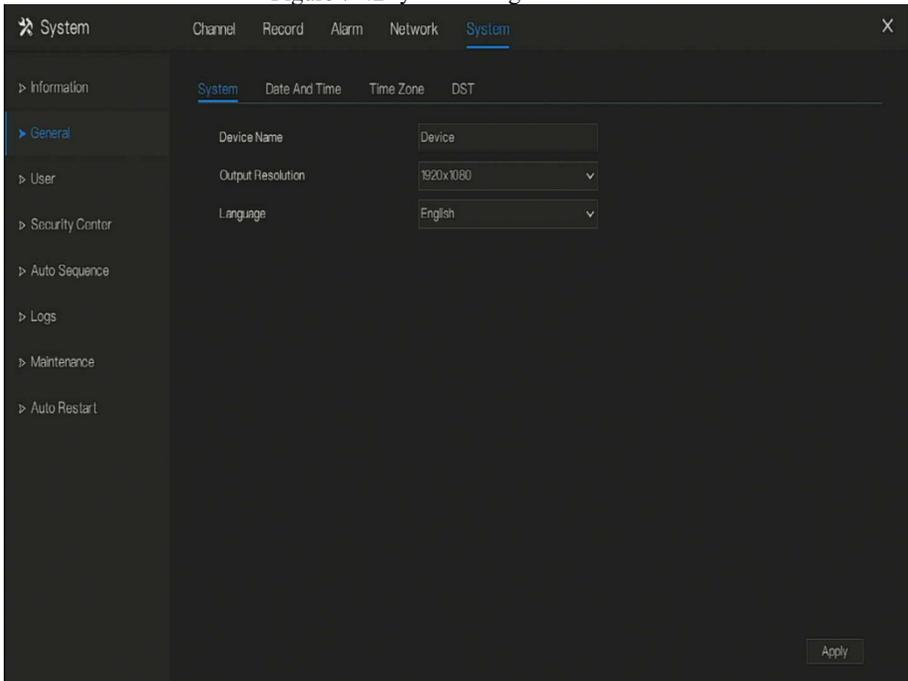
7.7.2 General

7.7.2.1 System

Operation Steps

Step 1 Click **General** in the main menu or menu of the system management screen and choose **General** to access the system screen, as shown in Figure 7-42.

Figure 7-42 system setting screen



Step 2 Enter device name for selected device.

Step 3 Select a proper resolution from the output resolution drop-down list.

Step 4 Select a required language from the Language drop-down list.

Step 5 Click **Apply** to save settings.

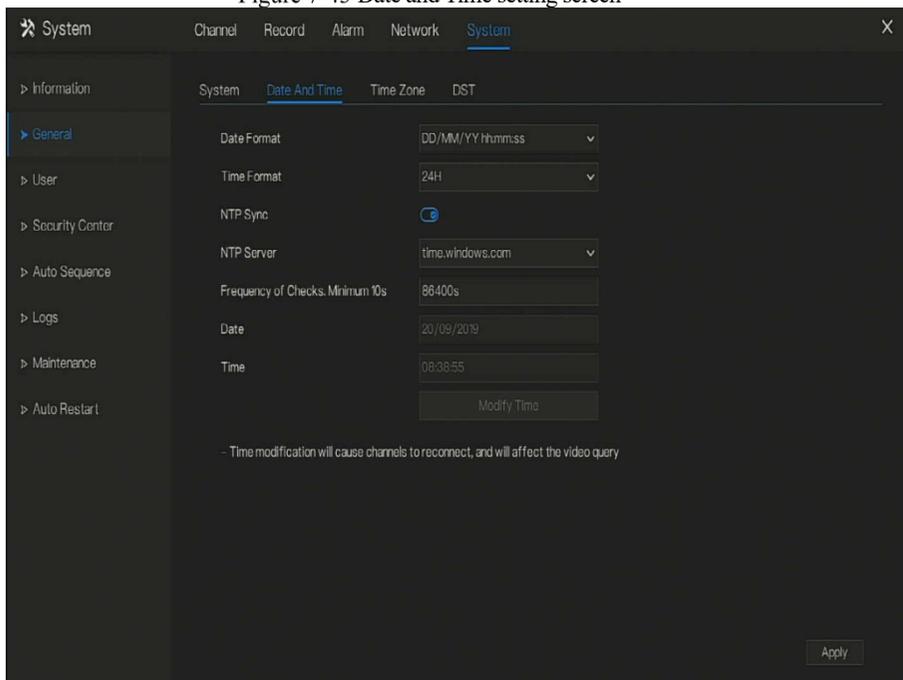
----End

7.7.2.2 Date and Time

Operation Steps

Step 1 Click **Date and Time** page to access the date and time setting screen, as shown in Figure 7-43.

Figure 7-43 Date and Time setting screen



Step 2 Select required format from the Date Format and time format drop-down list.

Step 3 Click  next to NTP Sync to disable time synchronization. Time synchronization is enabled by default. Time is synchronized with the NTP.

Step 4 After NTP Sync is disabled, you can manually set the system time:

Click **Date** and scroll the mouse scroll wheel to select the year, month, and date.

Click **Time** and scroll the mouse scroll wheel to select the hour, minute, and second.

Click **Modify Time** to save the time settings.

Step 5 Click Apply to save settings.

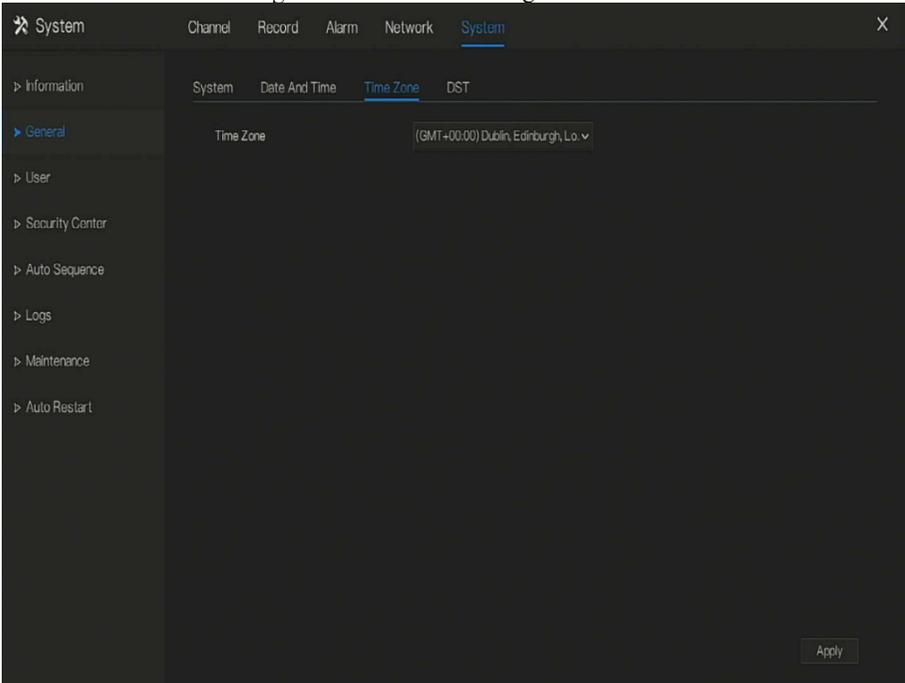
----End

7.7.2.3 Time Zone

Operation Steps

Step 1 Click **Time zone** page to access the time zone setting screen, as shown in Figure 7-44.

Figure 7-44 Time zone setting screen



Step 2 Select a required time zone from the Time Zone drop-down list.

Step 3 Click **Apply** to save settings.

----End

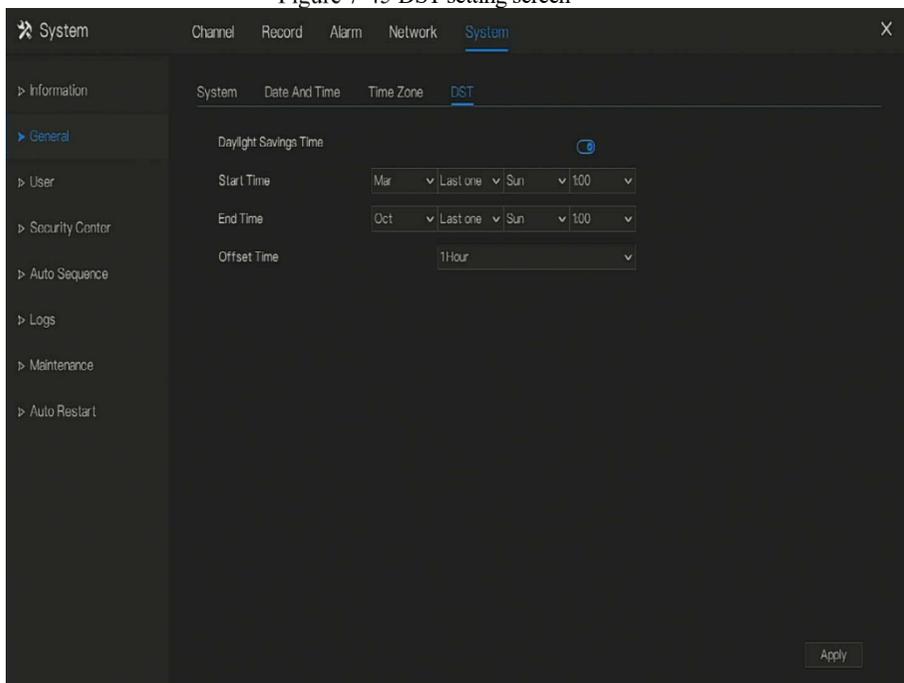
7.7.2.4 DST

When the DST start time arrives, the device time automatically goes forward one hour (offset time). When the DST end time arrives, the device time automatically goes backward one hour. The offset time can change if local rule is different.

Operation Steps

Step 1 Click **DST** page to access the DST setting screen, as shown in Figure 7-45.

Figure 7-45 DST setting screen



Step 2 Click  next to **DST** to enable DST.

Step 3 Select start time, end time, offset time from the drop-down list respectively, that basis on the local rules.

Step 4 Click  to save settings.

---End

7.7.3 User

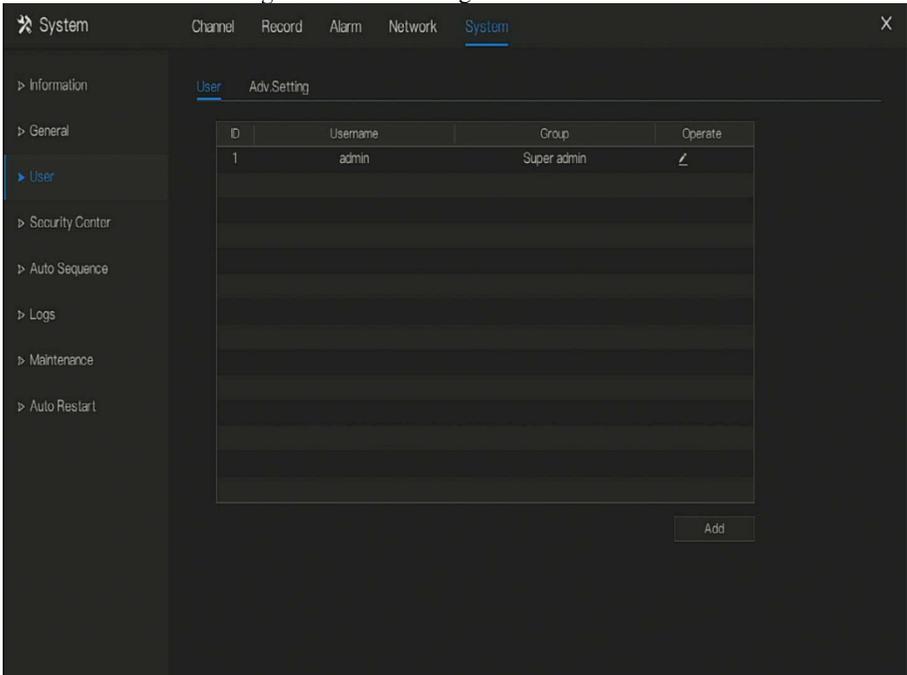
Add, modify, and delete a user and privilege in user screen, admin user can dispose privilege to different user.

7.7.3.1 User

Operation Steps

Step 1 Click **User** in the main menu or menu of the system management screen and choose **User** to access the user screen, as shown in Figure 7-46.

Figure 7-46 User management screen



Step 2 Add or delete a user.

- Add a user

Click **Add**, the **Add User** dialog box appears, as shown in Figure 7-47.

Figure 7-47 Add user screen

+ Add User X

Username

Password Password

Confirm Password Password

Group Administrators

Change password reminder Never

Expire date

Live Preview

PTZ

Playback

Channel Management

Device Management

System Management

Thermal

Channel

CH1

CH2

CH3

CH4

CH5

CH6

CH7

CH8

Live Preview

OK Cancel

Input a username, password and confirm password.

 **NOTE**

The password should include letter, character and number, at least two types.

The password should be 6~32 characters.

Step 3 Select a **Group** from the drop-down list box.

Step 4 Select a **Change password reminder** value from the drop-down list box.

Step 5 Enable the expire date to set the new user's authority time.

Step 6 Select the operation privileges and channels in the list of the add user screen.

Step 7 Click . The user is set successfully.

 **NOTE**

The default user is **Administrator** and cannot be deleted or modified.

Select a user from user list and click  to edit , or click  to delete a user.

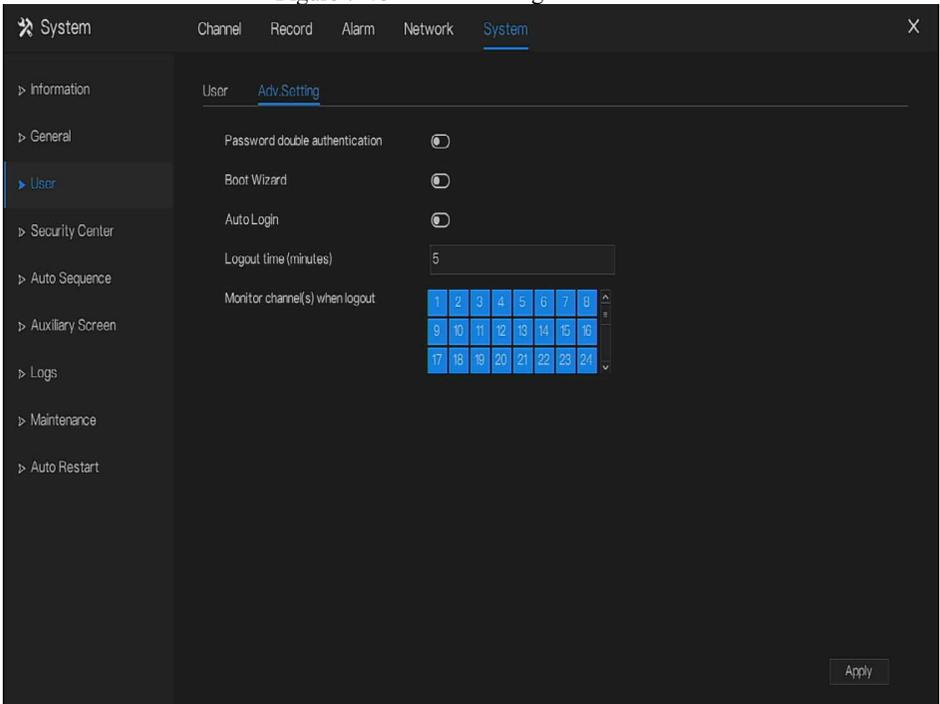
-----**End**

7.7.3.2 Advance Setting

Operation Steps

Step 1 Click **User** in the main menu or menu of the system management screen and choose **Adv Setting** to access the user screen, as shown in Figure 7-48.

Figure 7-48 Advance setting screen



Step 2 Enable or disable Auto login, Password double authentication, Boot Wizard. Set the logout time if the user disable the auto login.

Step 3 Choose monitor channels when logout, the default is all channels.

Step 4 Click **Apply** to save settings.

----**End**

7.7.4 Security Center

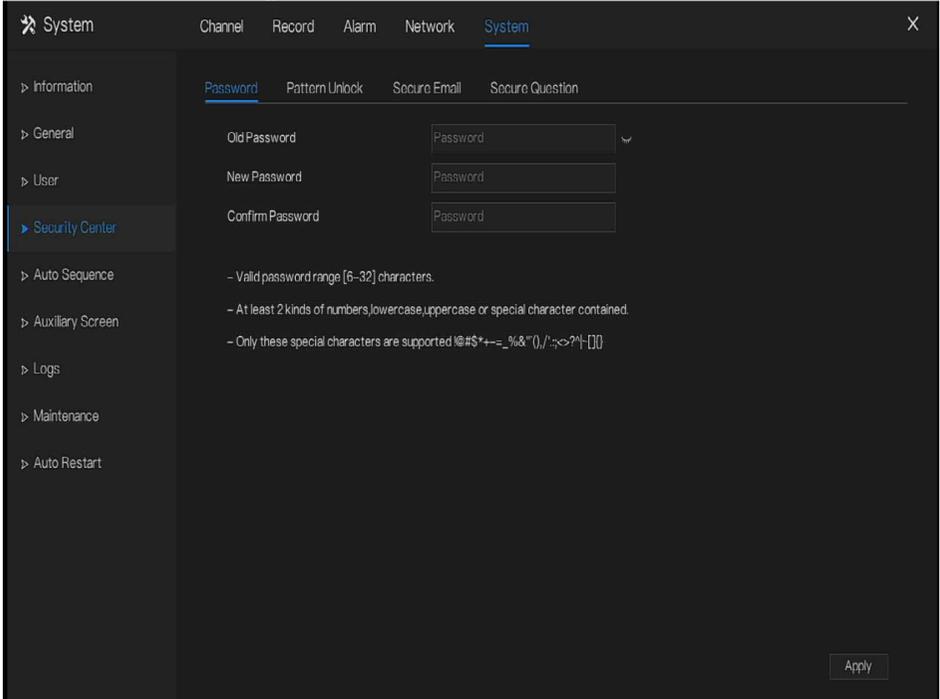
User can modify the password, pattern unlock, secure email, and secure question..

7.7.4.1 Password

Operation Steps

Step 1 Click **Security Center** in the main menu or menu of the system management screen and choose **Password** to access the modify password screen, as shown in Figure 7-49.

Figure 7-49 Password modification screen



Step 2 Input the correct old password, new password, and confirm password.

NOTE

The password should include at least two kinds of letter, character and number.

The password should be 6~32 characters.

Only special characters (!@#\$*+ = -) are supported,

Step 3 Click  to save modified password settings.

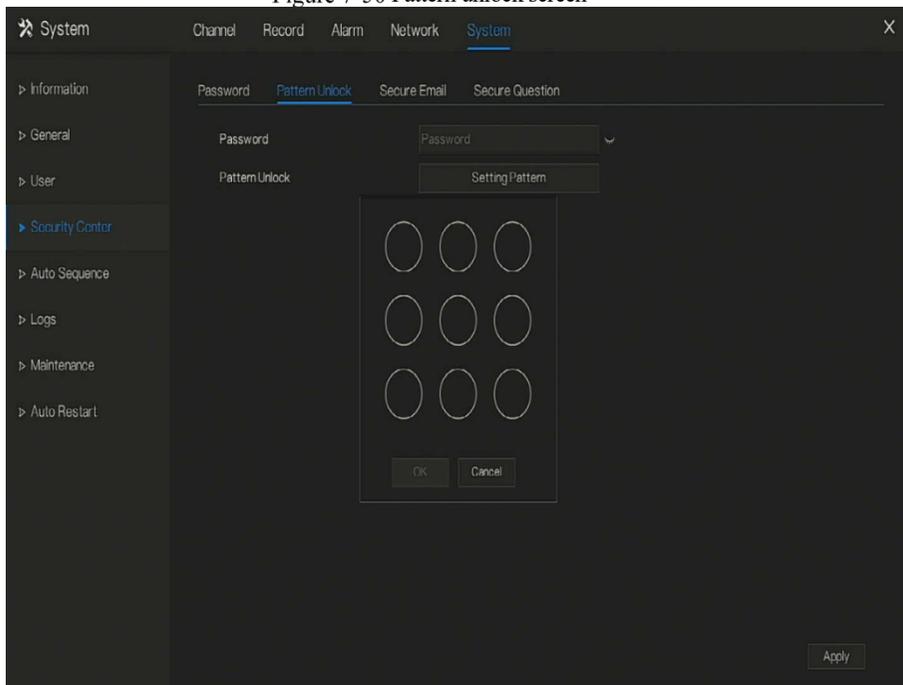
----End

7.7.4.2 Pattern Unlock

Operation Steps

Step 1 Click **Security Center** in the main menu or menu of the system management screen and choose **Pattern Unlock** to access the modify pattern unlock screen, as shown in Figure 7-50.

Figure 7-50 Pattern unlock screen



Step 2 Input the password, click **Setting Pattern** to set a new pattern unlock.

Step 3 Draw the pattern, then it will remind to draw the confirmation pattern again.

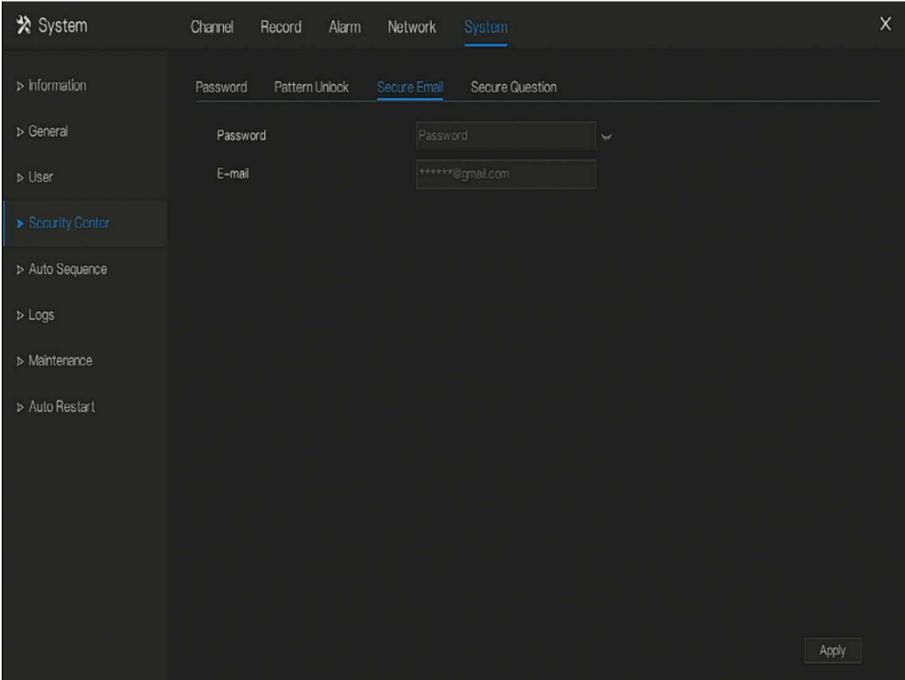
Step 4 Click **OK** to save the pattern unlock.

----End

7.7.4.3 Secure Email

Set the email to receive the verification code to create new password, as shown in Figure 7-51.

Figure 7-51 Secure Email



Step 1 Input the password of NVR.

Step 2 Set the Email which will receive email of the verification code.

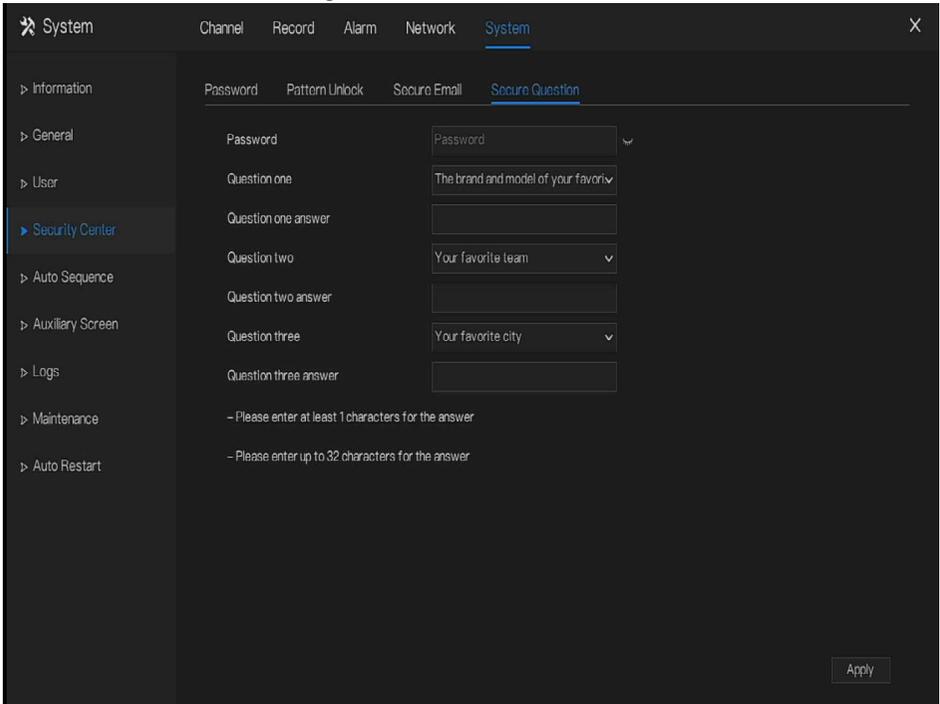
Step 3 Click **Apply** to save setting.

----End

7.7.4.4 Secure Question

Set the questions to create new password, as shown in Figure 7-51.

Figure 7-52 Secure question



Step 1 Input the password of NVR.

Step 2 Choose the question from drop-down list.

Step 3 Input the answer, click **Apply** to save setting.

----End

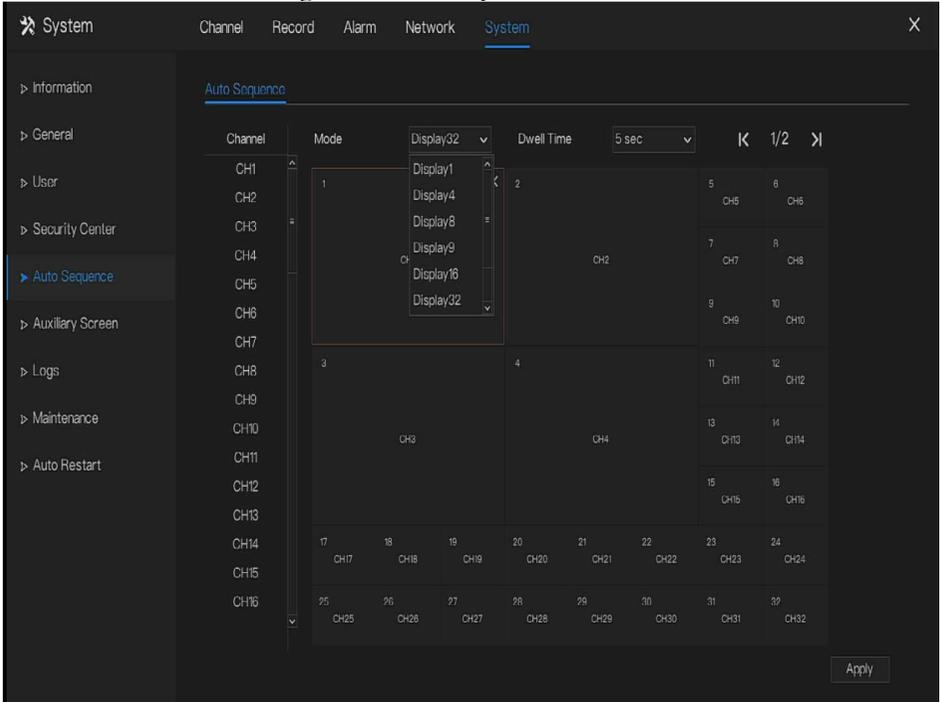
7.7.5 Auto Sequence

Set video mode, dwell time in display screen.

Operation Steps

Step 1 Click **Auto Sequence** in the main menu or menu of the system management screen and choose **Auto Sequence** to access the display screen, as shown in Figure 7-53.

Figure 7-53 Auto Sequence screen



- Step 2 Set mode of display. Select a display mode from the **SEQ** drop-down list.
 - Step 3 Select dwell time from the **SEQ** Dwell time drop-down list(the display screen will loop play the real time video according to setting time).
 - Step 4 Click **Apply** to save dwell settings.
- End

7.7.6 Auxiliary Screen

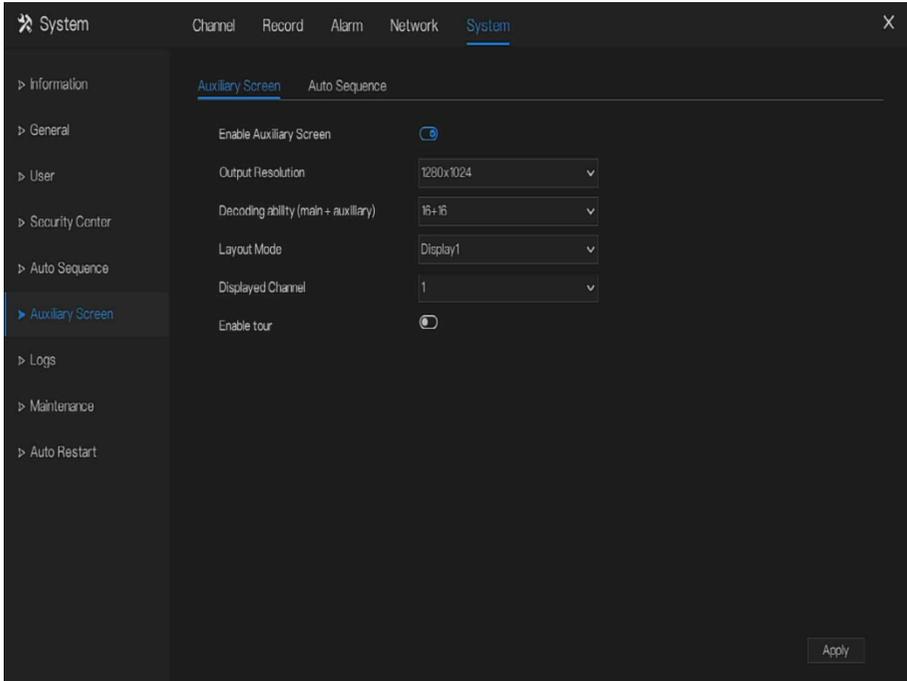
NOTE

This function only can be used for the devices are 8 or more than channels. The main screen is connected by HDMI(HD-OUT 2), auxiliary screen is connected by VGA.

Operation Steps

- Step 1 Click **Auxiliary Screen** in the main menu or menu of the system management screen.
- Step 2 Enable the auxiliary screen, as shown in Figure 7-54

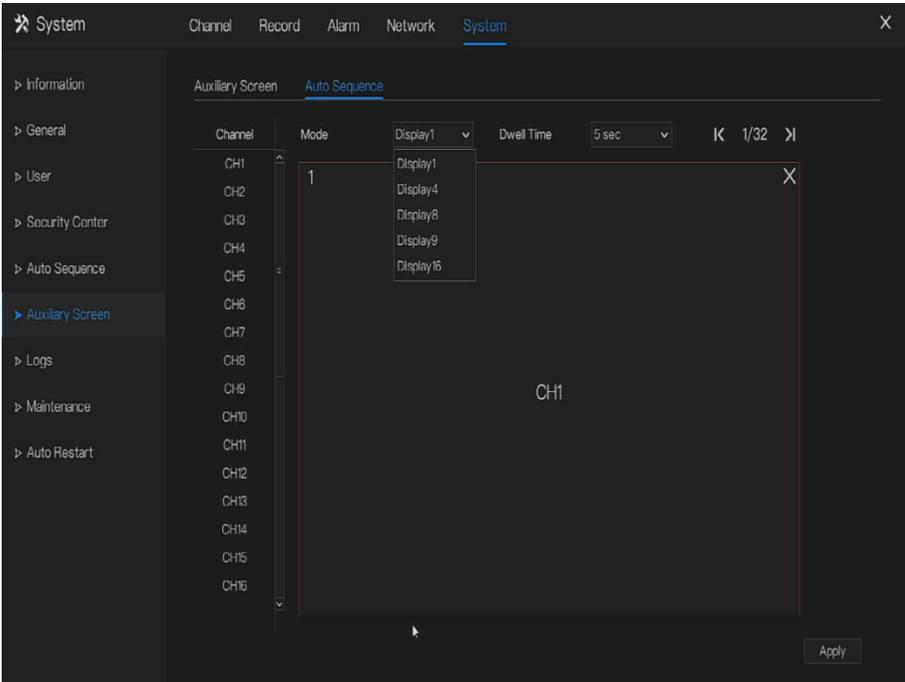
Figure 7-54 Auxiliary screen



Step 3 Set the Output Resolution, Decoding Ability(main + auxiliary), Layout Mode, Display Channel.

Step 4 Enable tour to set **Auto Sequence** of auxiliary scree as shown in .

Figure 7-55 Auto sequence of auxiliary screen



Step 5 Click **Apply** to save settings.

NOTE

The auxiliary screen shows different channels with main screen, and the auto sequence show all channels..

7.7.7 Logs

Search for logs information and export the information.

Operation Steps

Step 1 Click **Logs** in the main menu or menu of the system management screen and choose **Logs** to access the log screen, as shown in Figure 7-56.

Figure 7-56 Log screen

The screenshot displays the 'System' log screen. On the left is a sidebar menu with options like Information, General, User, Security Center, Auto Sequence, Auxiliary Screen, Logs (selected), Maintenance, and Auto Restart. The main panel is titled 'Logs' and includes filter fields for Start Date (09/01/2020), End Date (10/01/2020), Start Time (13:51:29), and End Time (13:51:29). A 'Log Type' dropdown is set to 'All'. Below these are 'Search' and 'Export' buttons. A table lists log entries with the following data:

| ID | Start Time | Channel | Log Type | Information |
|----|---------------------|-----------|-----------------------|-------------|
| 1 | 10/01/2020 13:48:14 | Channel01 | Double Virtual Fences | Channel01 |
| 2 | 10/01/2020 13:43:19 | Channel19 | Video Loss | Channel19 |
| 3 | 10/01/2020 13:33:22 | Channel01 | Double Virtual Fences | Channel01 |
| 4 | 10/01/2020 13:30:11 | Channel01 | Signal Bad | Channel01 |
| 5 | 10/01/2020 12:55:01 | Channel01 | Double Virtual Fences | Channel01 |
| 6 | 10/01/2020 12:34:41 | Channel01 | Signal Bad | Channel01 |
| 7 | 10/01/2020 12:23:24 | Channel01 | Double Virtual Fences | Channel01 |
| 8 | 10/01/2020 12:19:31 | Channel01 | Double Virtual Fences | Channel01 |
| 9 | 10/01/2020 12:18:22 | Channel01 | Double Virtual Fences | Channel01 |
| 10 | 10/01/2020 12:02:54 | Channel01 | Double Virtual Fences | Channel01 |
| 11 | 10/01/2020 12:01:44 | Channel01 | Double Virtual Fences | Channel01 |
| 12 | 10/01/2020 12:00:57 | Channel01 | Double Virtual Fences | Channel01 |
| 13 | 10/01/2020 12:00:30 | Channel01 | Double Virtual Fences | Channel01 |
| 14 | 10/01/2020 11:50:46 | Channel18 | Video Loss | Channel18 |
| 15 | 10/01/2020 11:47:13 | Channel18 | Video Loss | Channel18 |

At the bottom of the table, there are navigation arrows and a page indicator '1/122'.

Step 2 Set the logs start date, end date, start time and end time on log screen.

Step 3 Select logs type from the drop-down list.

Step 4 Click  to query logs.

Step 5 Click  to export logs to USB storage.

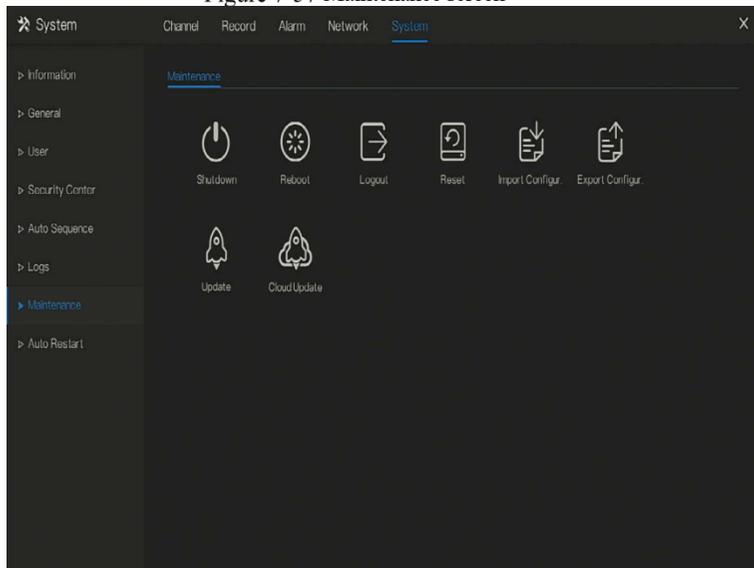
----End

7.7.8 Maintenance

Operation Steps

Step 1 Click **Maintenance** in the main menu or menu of the system management screen and choose **Maintenance** to access the maintenance screen, as shown in Figure 7-57.

Figure 7-57 Maintenance screen



Step 2 Click Shutdown , Reboot , Logout, Exit system, Reset or update to operate NVR if you need.

Step 3 Click import configuration or export configuration to view the message “ **Are you sure to import the configuration?**” user should make flash driver is working.

Step 4 The tip will show on screen, click **ok** to ensure choice.

Step 5 Click **Import Config** to import the configuration to flash drive.

Step 6 Import the configuration, the device would restart immediately.

Step 7 Click **Export Config** to export the configuration from flash drive.

 **NOTE**

When the NVR finishes updating, the device would restart.

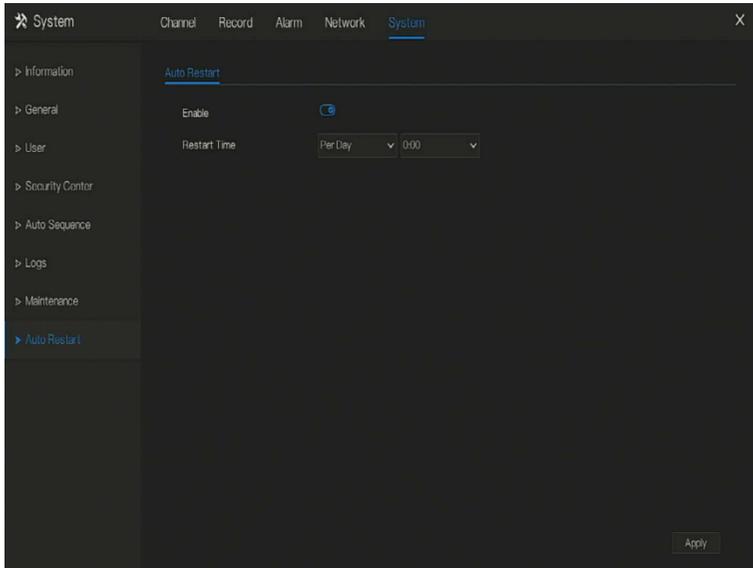
----**End**

7.7.9 Auto Restart

Operation Steps

Step 1 Click **Auto restart** in the main menu or menu of the system management screen and choose **Auto restart** to access the maintenance screen, as shown in Figure 7-57.

Figure 7-58 Auto restart screen



Step 2 Enable the function, restart time is showing as figure



Step 3 Restart the NVR per day, week or month.

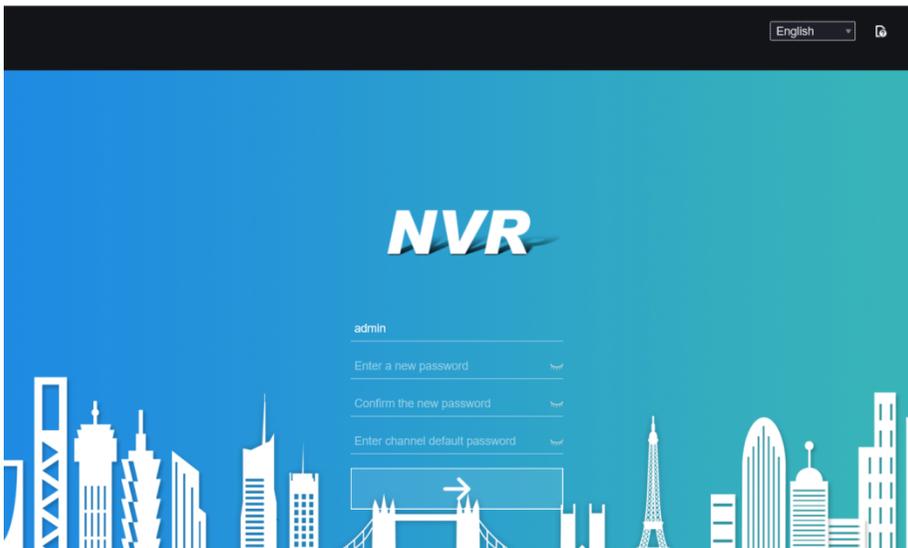
Step 4 Select the restart time from the drop-down list.

---End

8 WEB Quick Start

8.1 Activation

If you don't set the password at UI interface, user need activate the device, as shown in Figure 8-1 Activation

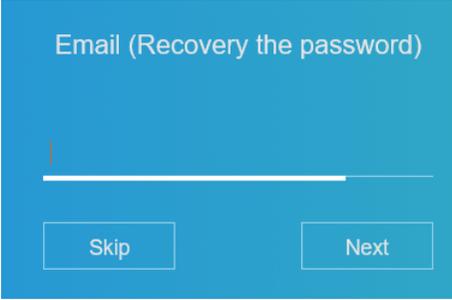


Step 1 Set the password, confirm the password.

Step 2 Input the channel password.

Step 3 Set the email of recovery the password.

Figure 8-2 Email

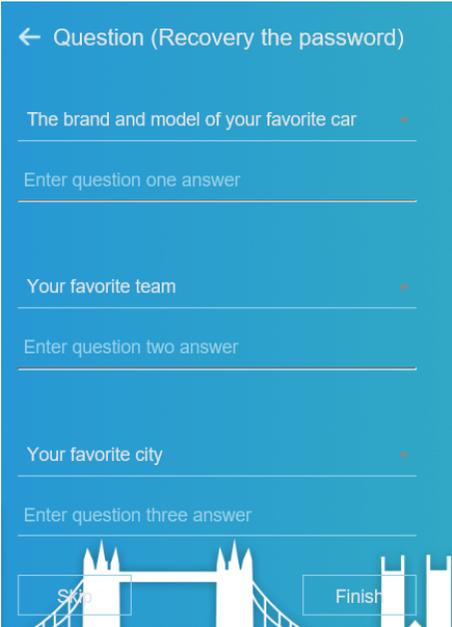


Email (Recover the password)

Skip Next

Step 4 Set the question of recovery the password.

Figure 8-3 Question



← Question (Recovery the password)

The brand and model of your favorite car ▾

Enter question one answer

Your favorite team ▾

Enter question two answer

Your favorite city ▾

Enter question three answer

Skip Finish

 **NOTE**

If you don't to set the email or question, you can skip the steps.

8.2 Login and Logout



You must use below Firefox 53 or below Chrome 45 to access the Web interface. Otherwise, the interface functions cannot be used normally.

The win 7/ win 10 system supports IE 8 or more, but the XP system does not.

Browser supports 32 bits.

Descriptions of browser:

To access the client by using Chrome 42-44, you need to enable manually Npapi in the browser according to following steps:

- In the Chrome address bar, enter `chrome://flag/#enable-npapi`.
- Go to the experimental features management page.
- Enable NAPAPI Mac, Windows.
- Click **Enable** (NPAPI plugin is enabled).
- Re-launch Chrome.

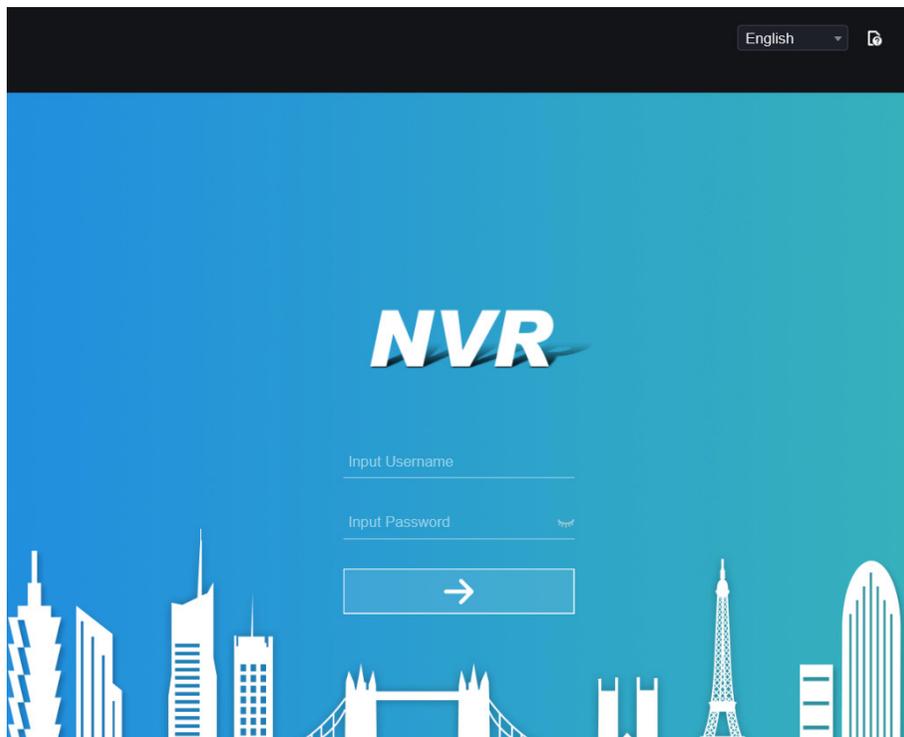
Here we take IE 10 as an example for videos viewing.

Login

Step 1 Open IE browser, enter the IP address of the NVR (default value: 192.168.0.121) in the address box, and press **Enter**.

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

Figure 8-4 Login page interface



Step 2 Input the user name and password.



NOTE

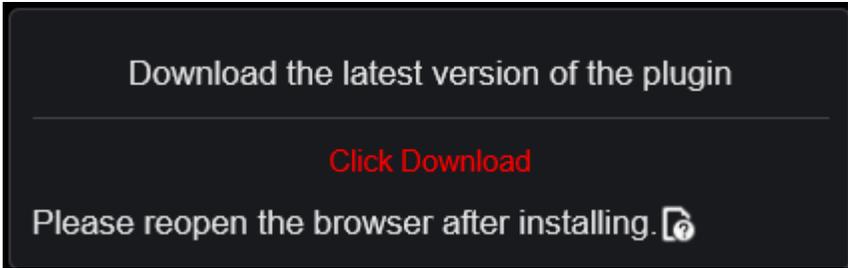
The default user name and password both are admin. The password incorrect more than 3 times, please login again after 5 minutes.

User can change the system display language on the login page.

The modify password page pop-up window would show when login the NVR for the first time.

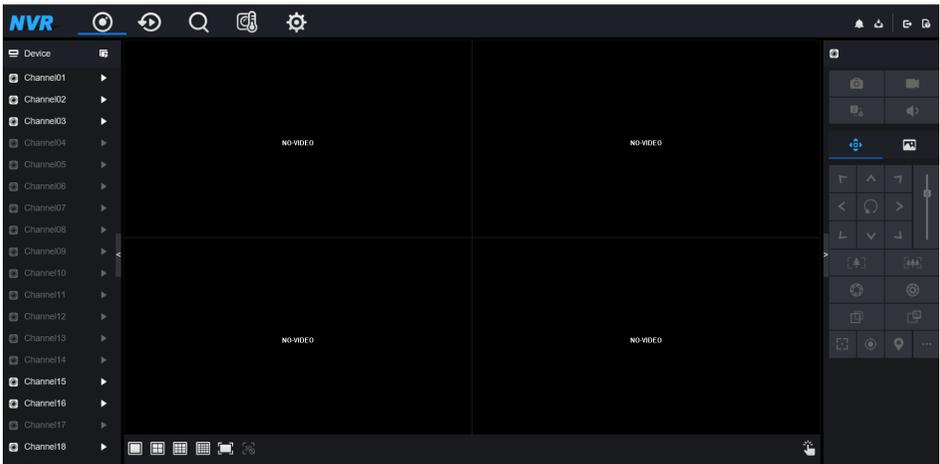
Step 3 Click **Login** to access the homepage, it would show reminder to download the latest version of the plugin, as shown in Figure 6-4.

Figure 8-5 Download the plugin

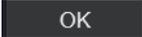


Step 4 Install the latest plugin, reopen the browser and the homepage is displaying as shown in Figure 8-6.

Figure 8-6 Homepage interface



Logout

To logout of the system, click  in the upper right corner of the homepage. The pop-up message shows “Do you want to exit?” Click  and the login page will display.

Homepage Layout

NVR allows you to use the Web interface in a PC for implementation of such functions as live video, playback, retrieval, setting, image parameters access, configuration, PTZ control and so on.

Figure 6-6 shows the overall layout of the interface. For descriptions of the interface, please refer to Table 8-1.

Figure 8-7 Homepage layout

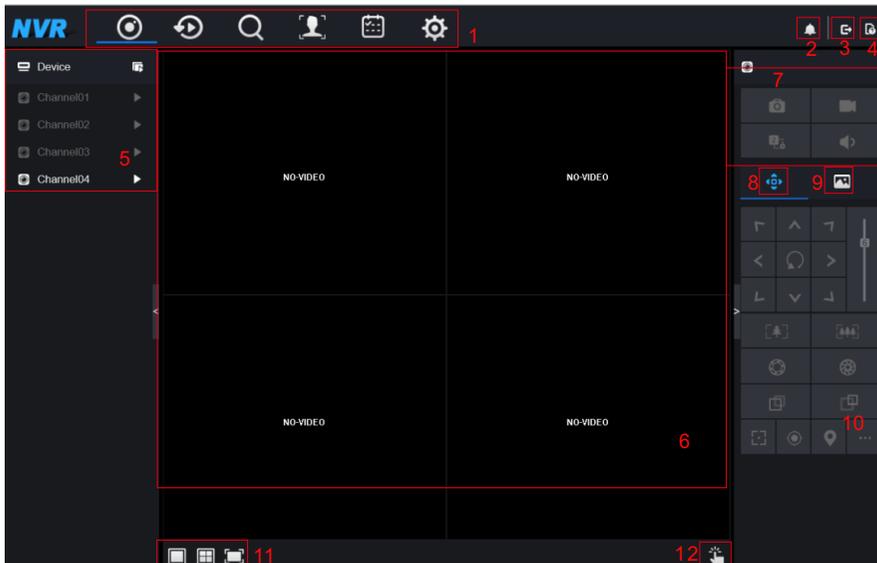


Table 8-1 Descriptions of homepage

| No. | Function | Description |
|-----|-------------------------|---|
| 1 | Function navigation bar | Main functions navigation bar of the device, it includes Live Video, Playback, Alarm Search, Face Recognition, Attendance and System Setting. |
| 2 | Alarm | Alarm notification. User can tick pop-up message to monitor, system alarm and channel alarm. |
| 3 | Logout button | User can click Logout to exit the current account and return to the login interface. |
| 4 | Help | Help for running environment, plug-in installation and activation. |
| 5 | Devices list | Display a list of the channels of the managed NVR and the channels managed by NVR. |

| | | |
|----|------------------------|--|
| 6 | Real-time video | Display the real-time videos of the channels managed by NVR. |
| 7 | Channel Operation | Include snapshot, record, stream switch and audio on/off. |
| 8 | PTZ control button |  <p>Click  to show PTZ control buttons in zone 10, you can control the PTZ equipment in the current channels. That function only use for IP dome camera.</p> |
| 9 | Color parameter button |  <p>Click  to show color parameter setting buttons in zone 9, you can set and adjust the color parameters, for example, brightness, contrast, saturation, and sharpness. Click More to access image settings.</p> |
| 10 | Operation zone | The operation zone of PTZ control and image parameter setting. |
| 11 | Layouts | Select the one-screen, four-screen, nine-screen or sixteen- screen to switch the layout. |
| 12 | Manual alarm | Trigger and close the external alarm device manually. |

---End

8.3 Browsing Videos

8.3.1 Browsing Real-Time Videos

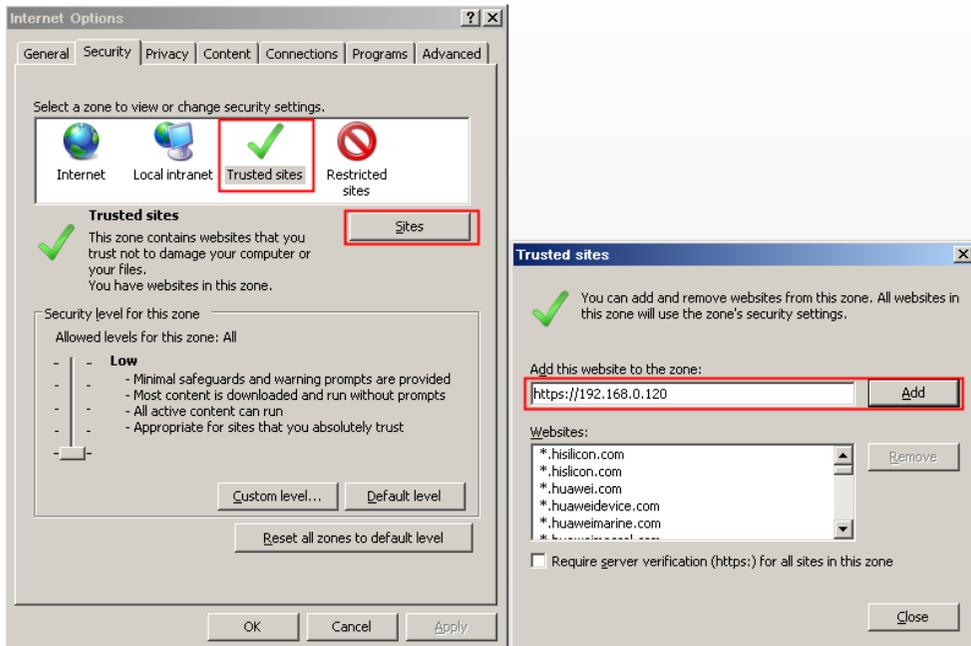
You can browse real-time videos in the web management system.

Preparation

To ensure that real-time videos can be played properly, user must perform the following operations when you log in to the web management system for the first time:

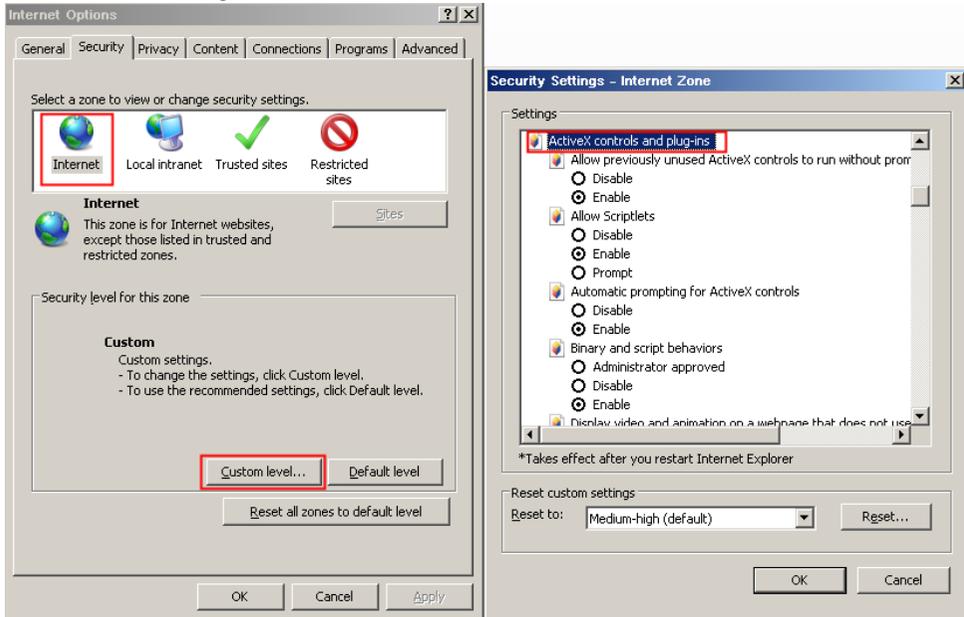
Step 1 Open Internet Explorer. Choose **Tools > Internet Options > Security > Trusted sites > Sites**. In the displayed dialog box, click **Add**, as shown in Figure 8-8.

Figure 8-8 Adding a trusted site



Step 2 In Internet Explorer, choose **Tools > Internet Options > Security > Customer level**, and set Download unsigned ActiveX controls and Initialize and script ActiveX controls not marked as safe for scripting under ActiveX controls and plug-ins to Enable, as shown in Figure 8-9.

Figure 8-9 Configuring ActiveX controls and plug-ins



Step 3 Download and install the player control as prompted. During installing, you need to close the browser.

 **NOTE**

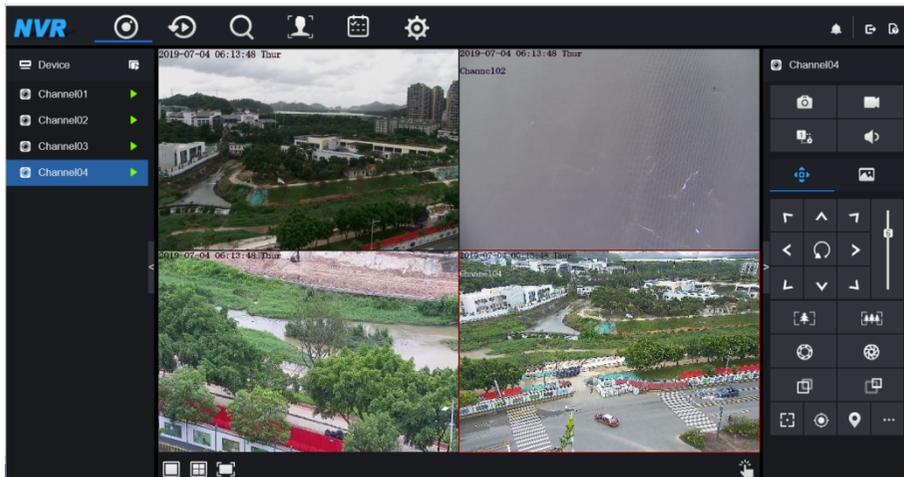
If the repair tips displayed when installing the control, close the browser and continue the installation, reopen the login page when the control is installed.

8.3.2 Live Video

Descriptions

After login the device, click online channel, you can view the real-time videos, as shown in Figure 8-10.

Figure 8-10 Real-time videos interface



---End

8.3.3 Channel Operation

Descriptions

Channel operation includes snapshot, record, stream switch and audio on/off. Table 8-2 describes the operations.

Table 8-2 Descriptions of homepage

| Buttons | Button description | How to operate |
|--|--------------------|---|
|  | Snapshot | Click button to take snapshots of the current image. |
|  | Record | Click button to start recording and click button again to stop recording. |
|  | Switch stream | Click button to switch stream 1 (main stream) and stream 2(sub stream). |

| Buttons | Button description | How to operate |
|--|----------------------|--|
|  | Enable/Disable video | Click button to enable the audio and click again to disenable the video. |

---End

8.3.4 PTZ Control and Setting

Descriptions

The PTZ control and setting function applies only to Network Dome or camera connected to an external PTZ.

PTZ Setting

If a Network Dome or a camera connected to PTZ had been added to the NVR channel, user can control the PTZ rotation to adjust their shooting angle when you are viewing the video. This allows you to perform Omni-directional video surveillance.



Click , the PTZ operation and setting interface is displaying, as shown in Figure 8-11.

Table 8-3 describes the operations.

Figure 8-11 PTZ control interface

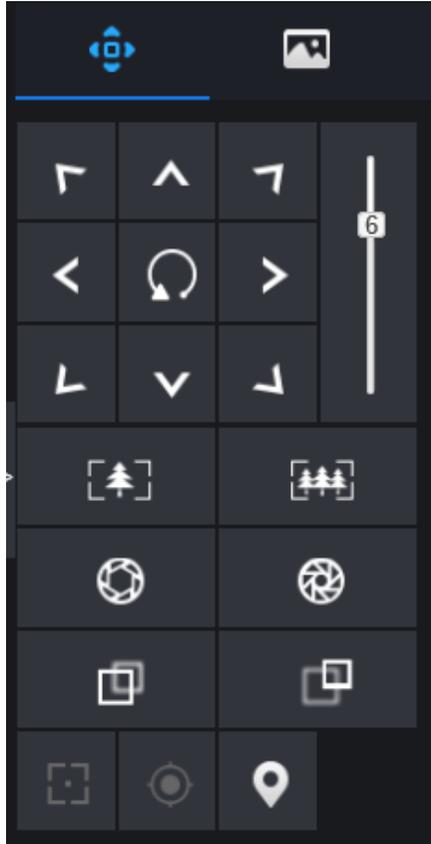


Table 8-3 Device parameters

| Buttons | Button description | How to operate |
|--|--------------------|---|
|  | Direction key | Click button to control omni-directional movement of the PTZ. |

| Buttons | Button description | How to operate |
|--|--------------------|---|
|  | Speed slider | Drag the slider to adjust the value of PTZ rotation speed. |
|  | Zoom in | Click buttons to adjust the focal length. |
|  | Zoom out | |
|  | Iris+ | Click buttons to adjust the aperture. |
|  | Iris- | |
|  | Far focus | Click buttons to adjust the focal length. |
|  | Near focus | |
|  | Auto focus | Click button to focus automatically. |
|  | Home preset | N/A |
|  | Preset | The camera is set the tour, click the button and dome camera rotate as the setting. |
|  | More | More settings, scan and tour |

8.3.5 Sensor Setting

Descriptions

The sensor setting can adjust scene, brightness, sharpness, contrast and saturation, Click  to access image setting, as shown in Figure 8-12. Table 8-4 describes the operations.

Figure 8-12 Image parameter interface

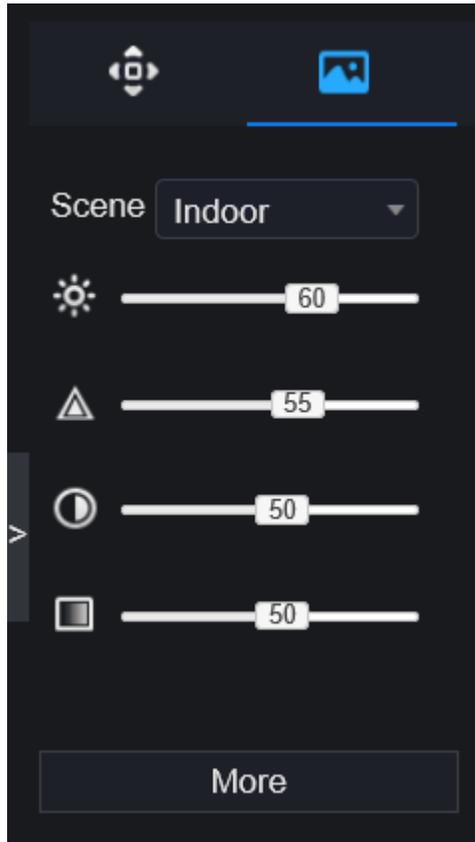
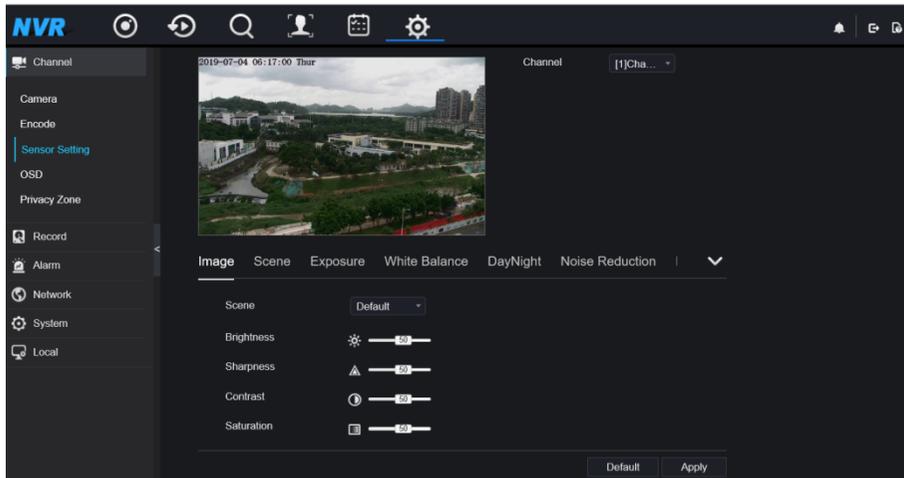


Table 8-4 Device parameters

| Buttons | Button description | How to operate |
|--|--------------------|---|
|  | Brightness | Click button to adjust the image brightness. |
|  | Sharpness | Click button to adjust the image definition. |
|  | Contrast | Click button to adjust the transparency of the image. |
|  | Saturation | Click button to adjust the chromatic purity of the image. |

Click more will be access to system sensor setting. As shown in Figure 8-13, more detail please refer to *chapter Figure 4-7*.

Figure 8-13 Sensor setting interface



---End

8.3.6 Layout



Click  at the bottom left corner of real-time videos interface, the buttons indicate 1 screen, 4 screens and 9 screens from left to right. More POE port will be 16 screens.

----**End**

8. 4 Playback

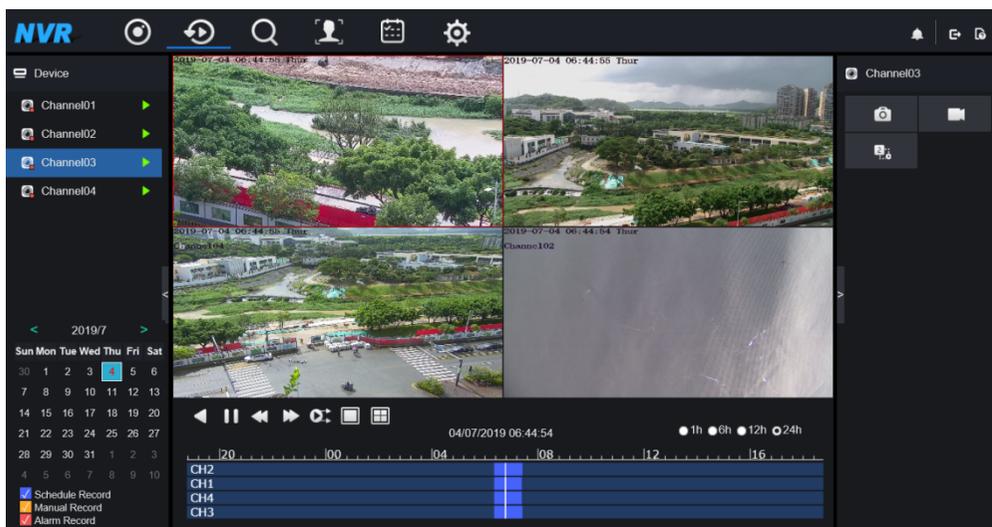
8.4.1 Video Playback

Video playback refers to playing of videos stored in local hard disks.

Procedure

Step 1 Click  in the function navigation bar, the video playback interface is displayed, as shown in Figure 8-14.

Figure 8-14 Video playback



Step 2 Select a channel. Click a device in the device list. A selected device is marked with .

An unselected device is marked with .

Step 3 Select a date from calendar at left bottom, the date will be colored if it has record as shown in upper figure.

Step 4 Tick the type of record, such as schedule record, manual record and alarm record.

Step 5 Display videos.

After a device and date are selected, video information is displayed below the video pane. The time scale above the file axis shows the different time points of video recording. The time in blue in the middle is the time of the video playing.

The file axis displays videos. The blue file axis indicates a video exists, grey file axis indicates no video exists.

You can drag the axis to play recording quickly.

Step 6 Play a video.

You can play a video after selecting a device and date. Figure 8-15 shows the control bar of video playback.

Figure 8-15 Control bar



 : reversed.

 : play/pause.

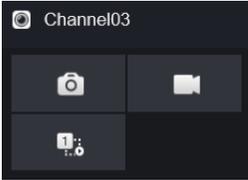
 : triple speed.

 : split screen. One or four screens.

 : sync/async. You can set the differen channels to play synchronously or asynchronously.

Sync mode indicates the selected channels play video synchronously. Async mode indicates user play different time period record

 : types of time bar.



: user can operate the record as same as live video.

----End

8.5 Alarm Search

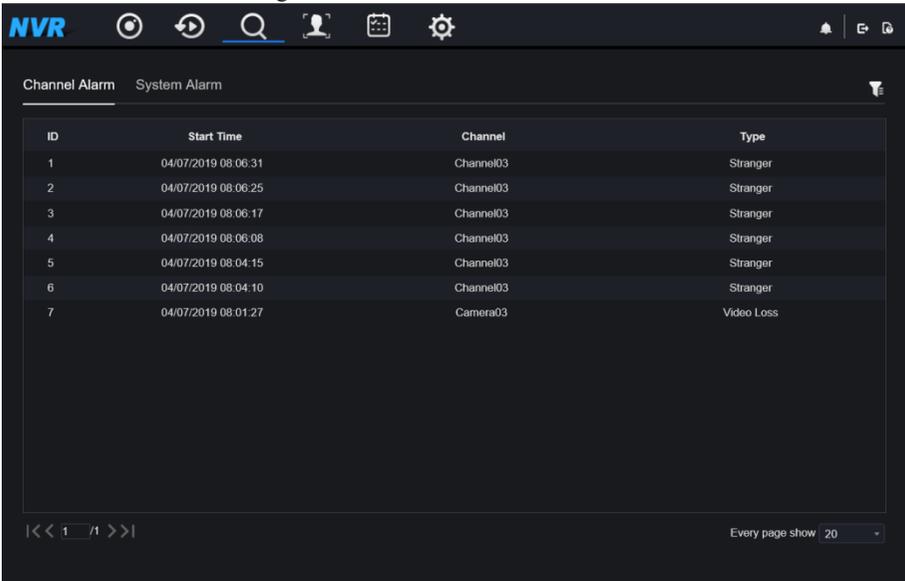
You can search for channel alarm and system alarm in the alarm search interface.

8.5.1 Channel Alarm

Procedure

Step 1 Click  in the function navigation bar, the channel alarm interface is displayed, as shown in Figure 8-16.

Figure 8-16 Channel alarm interface



The screenshot shows the NVR Channel Alarm interface. At the top, there is a navigation bar with icons for Home, Refresh, Search, User, Calendar, and Settings. Below the navigation bar, there are two tabs: "Channel Alarm" (selected) and "System Alarm". A search icon is located in the top right corner. The main area contains a table with the following data:

| ID | Start Time | Channel | Type |
|----|---------------------|-----------|------------|
| 1 | 04/07/2019 08:06:31 | Channel03 | Stranger |
| 2 | 04/07/2019 08:06:25 | Channel03 | Stranger |
| 3 | 04/07/2019 08:06:17 | Channel03 | Stranger |
| 4 | 04/07/2019 08:06:08 | Channel03 | Stranger |
| 5 | 04/07/2019 08:04:15 | Channel03 | Stranger |
| 6 | 04/07/2019 08:04:10 | Channel03 | Stranger |
| 7 | 04/07/2019 08:01:27 | Camera03 | Video Loss |

At the bottom left, there is a pagination control showing "1 / 1" with navigation arrows. At the bottom right, there is a dropdown menu labeled "Every page show" with the value "20".

Step 2 Click  at the top right corner, select the channel and type, set start time and end time, as shown in Figure 8-17.

Figure 8-17 Set channel alarm

Channel

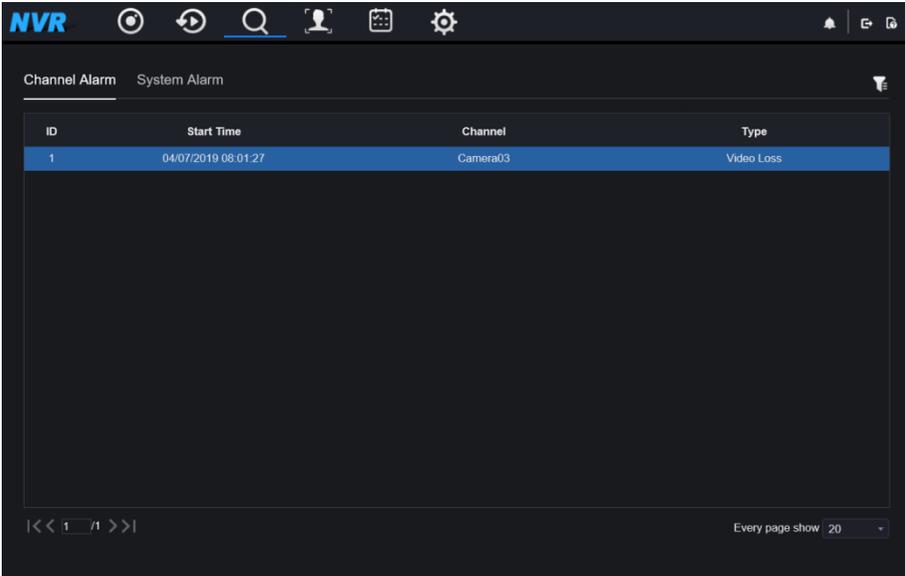
Type

Start Time

End Time

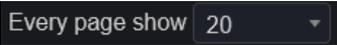
Step 3 Click **Search**, the result will be displayed as shown in Figure 8-18.

Figure 8-18 Channel alarm result



 **NOTE**

Click  to select the page of alarm list.

 shows the rows shown in every page.

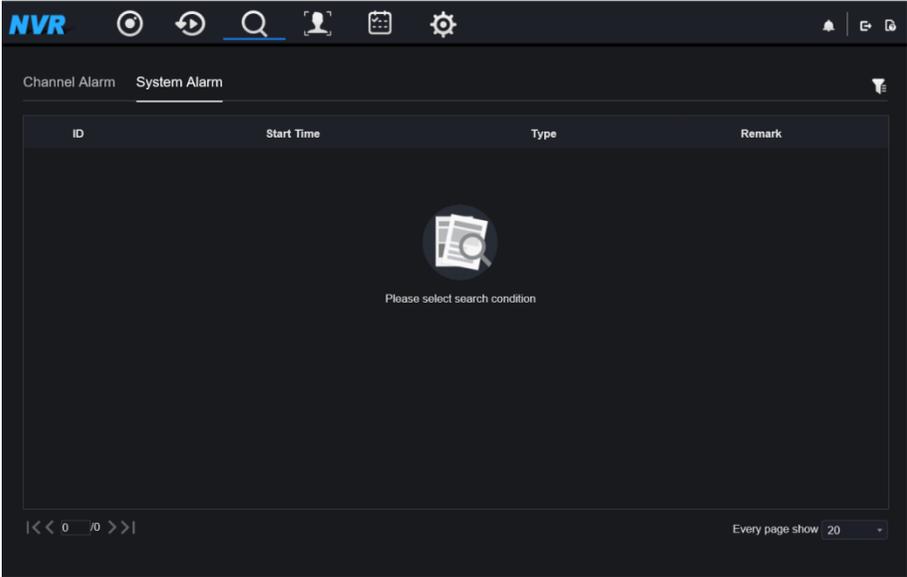
---End

8.5.2 System Alarm

Procedure

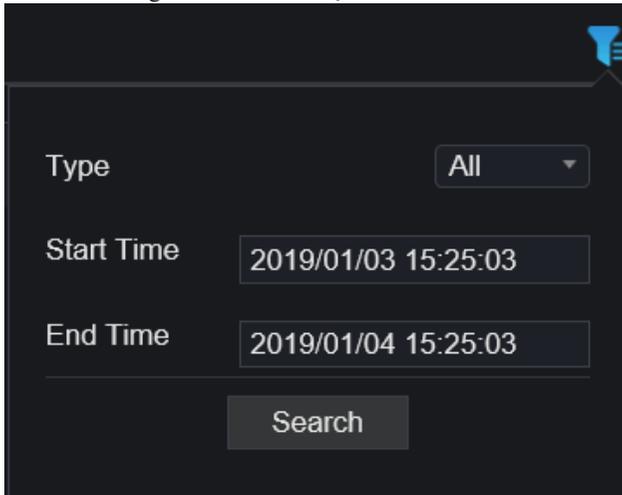
Step 1 Click **System Alarm** in the channel alarm interface, the system alarm is displayed, as shown in Figure 8-19.

Figure 8-19 System alarm result



Step 2 Click  at the top right corner, set the channel, type(alarm in and other), start time and end time, as shown in Figure 8-20.

Figure 8-20 Search system alarm



Step 3 Click **Search**, the result will be displayed.

---End

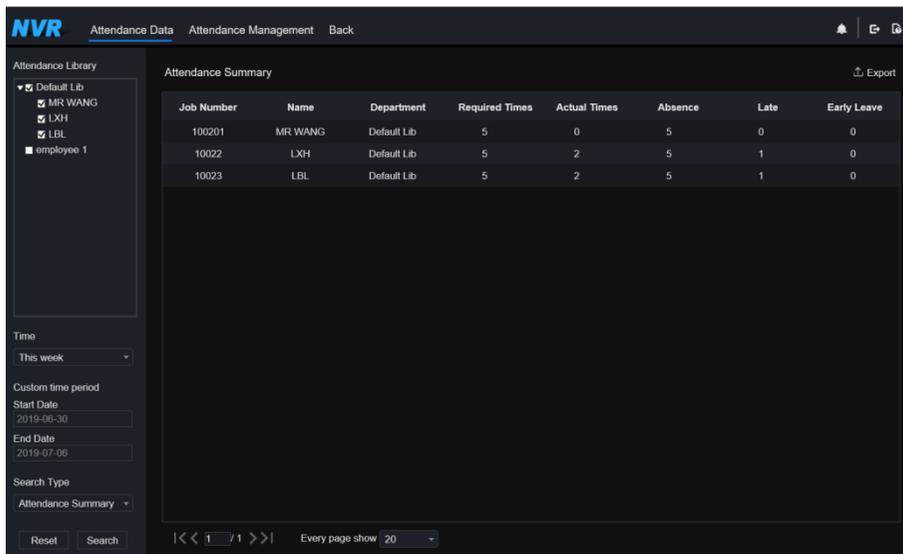
8.6 Attendance

The function is only applicable for NVR2604E1-P4C-J and NVR2608E1-P8C-J

8.6.1 Attendance Data

Click to enter attendance data interface, as shown in Figure 8-21.

Figure 8-21 Attendance data



The screenshot shows the NVR Attendance Data interface. On the left is the 'Attendance Library' sidebar with a tree view containing 'Default Lib', 'MR WANG', 'LXH', 'LBL', and 'employee 1'. Below the sidebar are filters for 'Time' (set to 'This week'), 'Custom time period' (Start Date: 2019-06-30, End Date: 2019-07-06), and 'Search Type' (set to 'Attendance Summary'). The main area displays an 'Attendance Summary' table with columns: Job Number, Name, Department, Required Times, Actual Times, Absence, Late, and Early Leave. The table contains three rows of data for employees MR WANG, LXH, and LBL. An 'Export' button is located at the top right of the table area. At the bottom of the interface are 'Reset' and 'Search' buttons, and a pagination control showing '1 / 1' and 'Every page show 20'.

| Job Number | Name | Department | Required Times | Actual Times | Absence | Late | Early Leave |
|------------|---------|-------------|----------------|--------------|---------|------|-------------|
| 100201 | MR WANG | Default Lib | 5 | 0 | 5 | 0 | 0 |
| 10022 | LXH | Default Lib | 5 | 2 | 5 | 1 | 0 |
| 10023 | LBL | Default Lib | 5 | 2 | 5 | 1 | 0 |

Operation Steps

Step 1 Tick the attendance library.

Step 2 Choose time mode, such as today, this week, this month and custom time.

Step 3 Choose search type, such as attendance summary and attendance details.

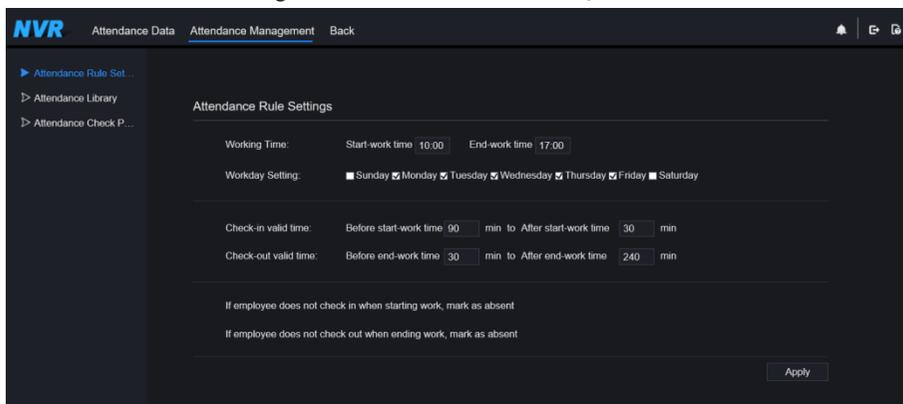
Step 4 Click search, the result will show in interface.

Step 5 Click Export to export the query result.

8.6.2 Attendance Management

In attendance management, user can set attendance rule, library and check point, as shown in Figure 8-22.

Figure 8-22 Attendance rule settings



Operation Steps

Step 1 Set start work time and end work time.

Step 2 Tick the workday

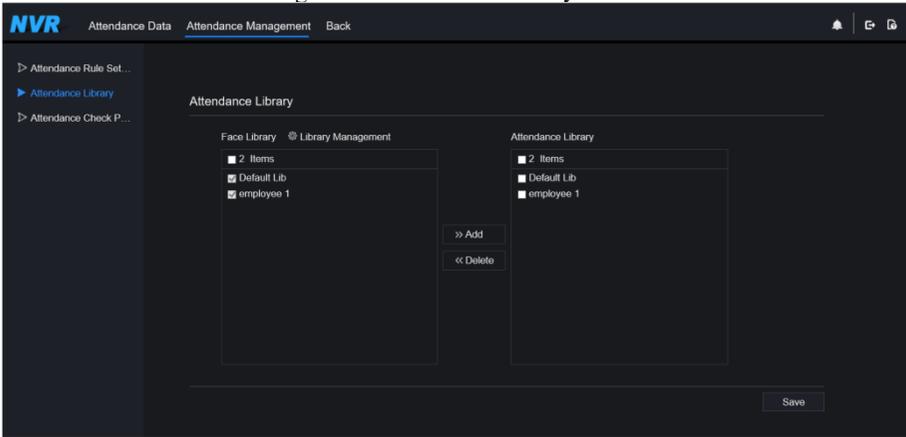
Step 3 Set valid time of check in and check out.

Step 4 Click Save to save the setting.

Attendance library

Step 1 Click **Attendance Library** to add library, the attendance library can call the face database directly.

Figure 8-23 Attendance library



Step 2 Tick the library and click **Add** to add to attendance library. If you want to modify the library, please enter to library interface to change parameters..

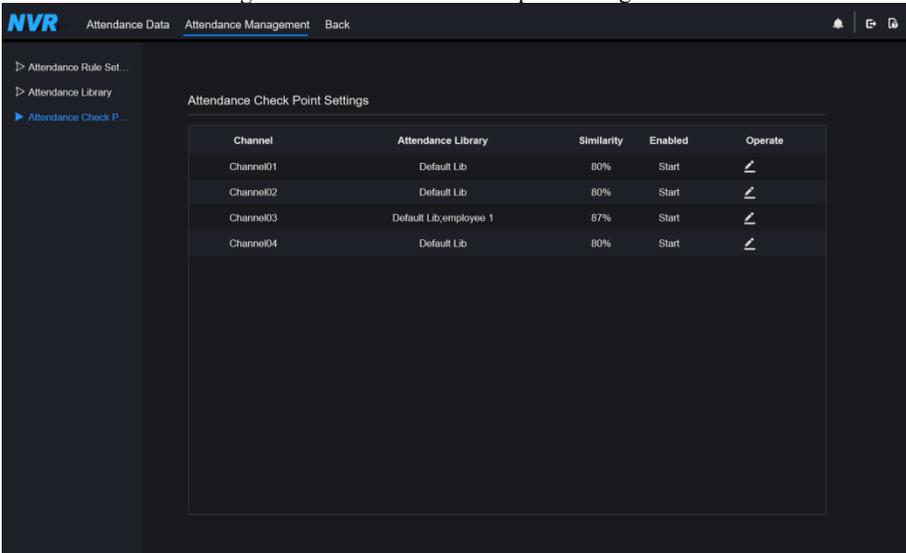
Step 3 click **Database management** to enter the face database management to modify parameter.

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

Attendance check point settings:

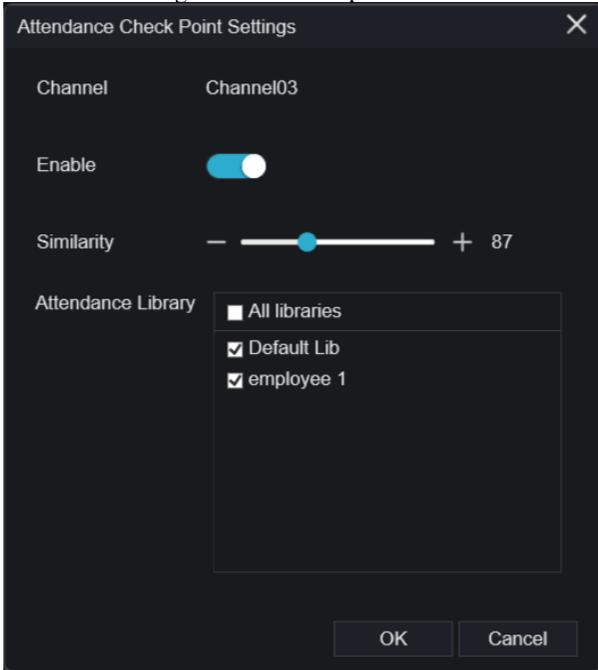
Step 1 Click Attendance check point settings to set point, as shown in Figure 8-24.

Figure 8-24 Attendance check point setting



Step 2 Click  to edit check point setting, as shown in Figure 8-25

Figure 8-25 Check point



Step 3 Enable the function, set similarity and tick the library, all face detection cameras can be set the check points

Step 4 Click OK to save the setting.

8.7 AI Recognition

At AI recognition interface, we can set the **Real time Comparison, Smart search, Archives library, Comparison configuration.**

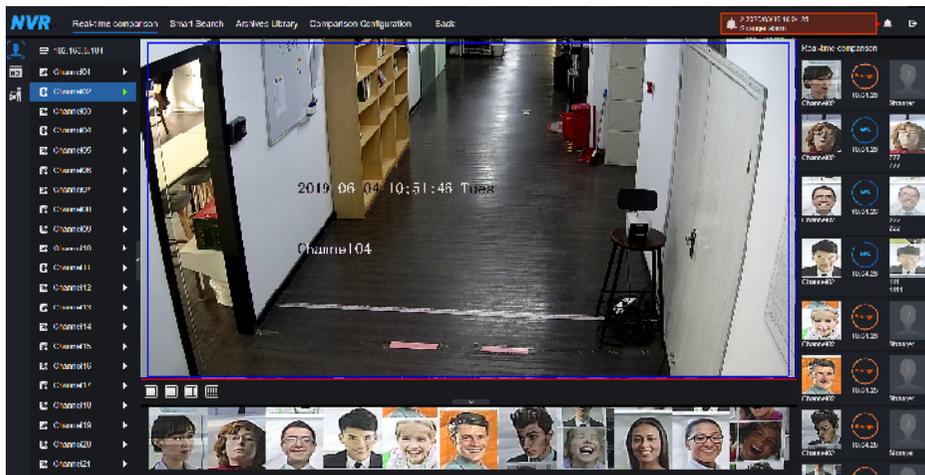
8.7.1 Real Time Comparison

Real time comparison can compare human face, vehicle license plate, and AI(include riding, vehicle, full body)

8.7.1.1 Human Face

At real time comparison interface, click the  to enter the human face comparison interface, choose the cameras with face recognition function to play live video, the snapshot of camera will compare with libraries, the result shows as in Figure 8-26.

Figure 8-26 Human face comparison

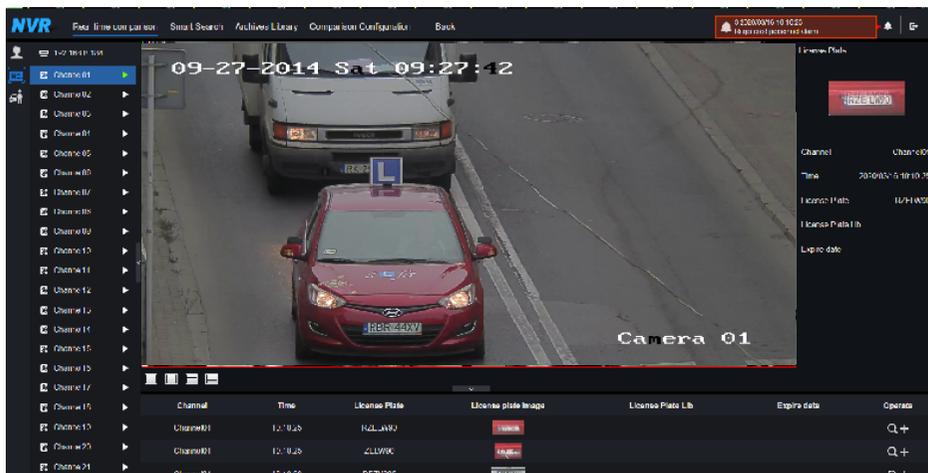


Click the “+” can add the snapshot to face library immediately.

8.7.1.2 Vehicle License Plate

At real time comparison interface, click the  to enter the vehicle license plate comparison interface, choose the cameras with license plate recognition function to play live video, the snapshot of camera will compare with libraries, the result shows as in Figure 8-27.

Figure 8-27 Vehicle license plate



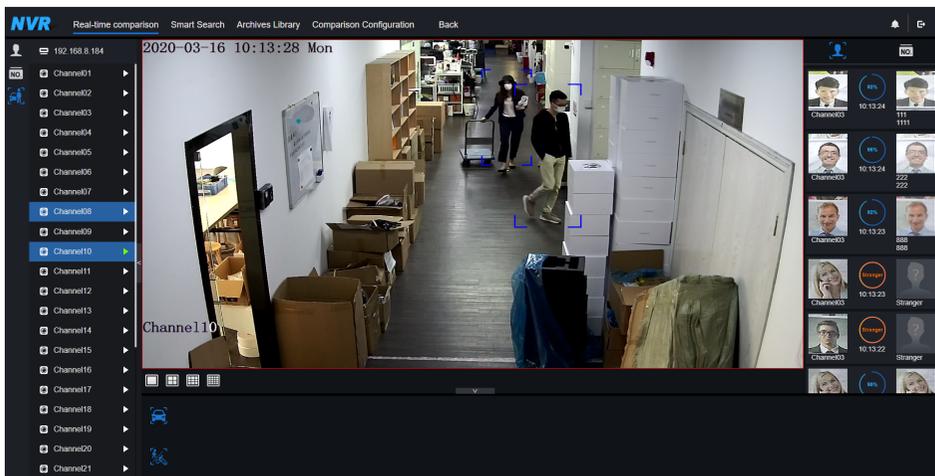
Click the “+” can add the snapshot to license plate library immediately.

Snapshot in real time video, put the cursor on picture such as , you can add it to face library, or face search. The cursor on area 6 and the pictures is not update, move the mouse so that the pictures can be shown in time.

8.7.1.3 Vehicle and Full Body

At real time comparison interface, click the  to enter the vehicle license plate comparison interface, choose the AI recognition cameras to play live video, the snapshot of camera will compare with libraries, the snapshot to vehicle and full body will show at the bottom of page, the result shows as in Figure 8-28.

Figure 8-28 Full body

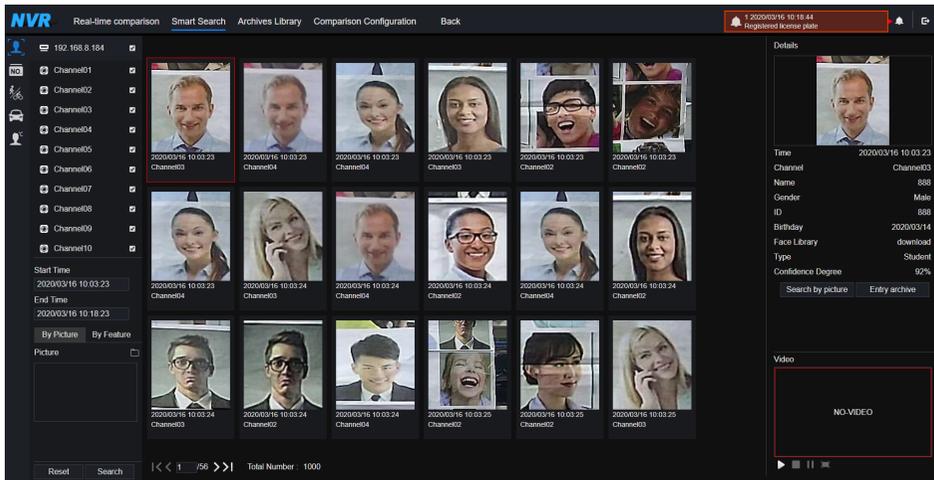


8.7.2 Smart Search

At smart search interface, user can search the human face, vehicle license plate, full body, car, body temperature.

8.7.2.1 Human Face Search

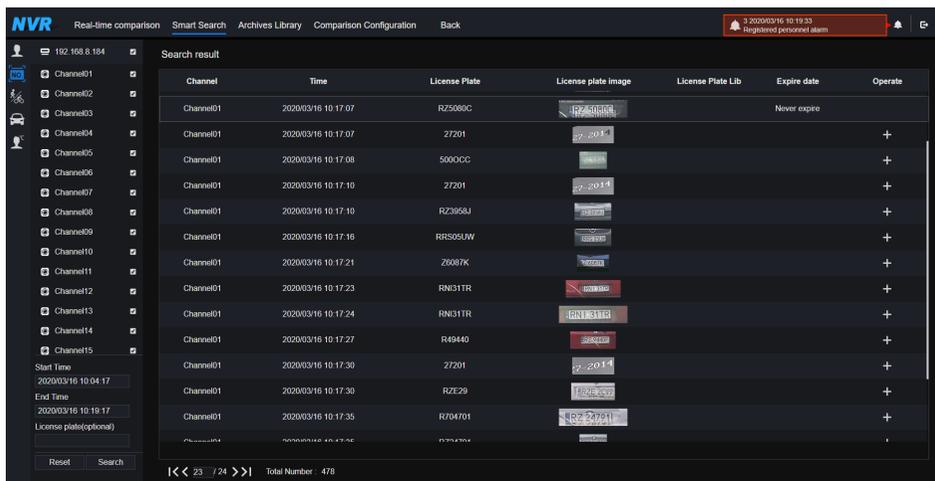
Figure 8-29 Human face search



- Step 1 Choose human face search at smart search interface.
- Step 2 Tick the face recognition camera channels, set the start time and end time.
- Step 3 Choose the condition(by picture or by feature), the picture can choose from the file folder.
- Step 4 Click “Search” to search the snapshot of human face.
- Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.
- Step 6 The detail picture can be used to search or add to library.
- Step 7 Click play button of video to play the recording of snapshot.

8.7.2.2 Vehicle License Plate Search

Figure 8-30 Vehicle License Plate search



Step 1 Choose vehicle License Plate at smart search interface.

Step 2 Tick the vehicle license plate recognition camera channels, set the start time and end time.

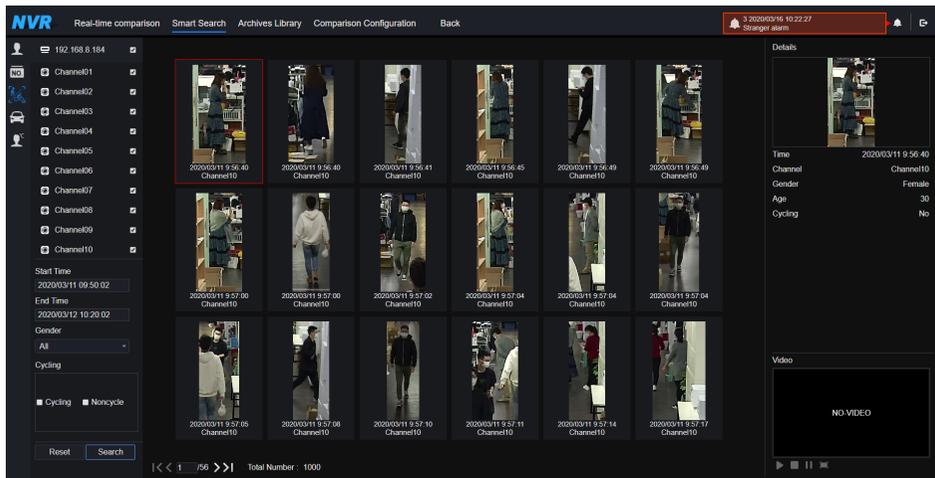
Step 3 Input the license plate optionally.

Step 4 Click “Search” to search the snapshot of license plate.

Step 5 The result will show at the page, click “+” add to library.

8.7.2.3 Full Body Search

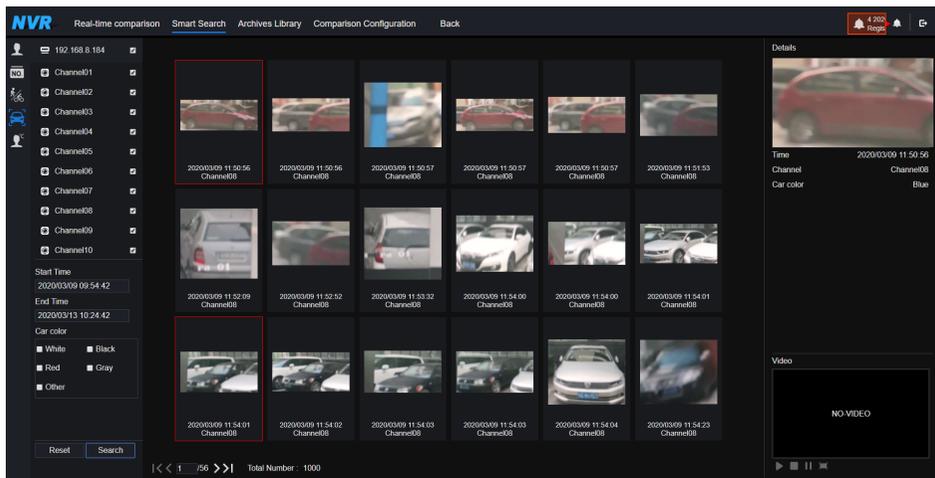
Figure 8-31 Full body search



- Step 1 Choose full body search at smart search interface.
- Step 2 Tick the AI recognition camera channels, set the start time and end time.
- Step 3 Set the gender , click cycling or no cycling .
- Step 4 Click “Search” to search the snapshot of human face.
- Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.
- Step 6 Click play button of video to play the recording of snapshot.

8.7.2.4 Vehicle Search

Figure 8-32 Vehicle search



Step 1 Choose vehicle search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Tick the color

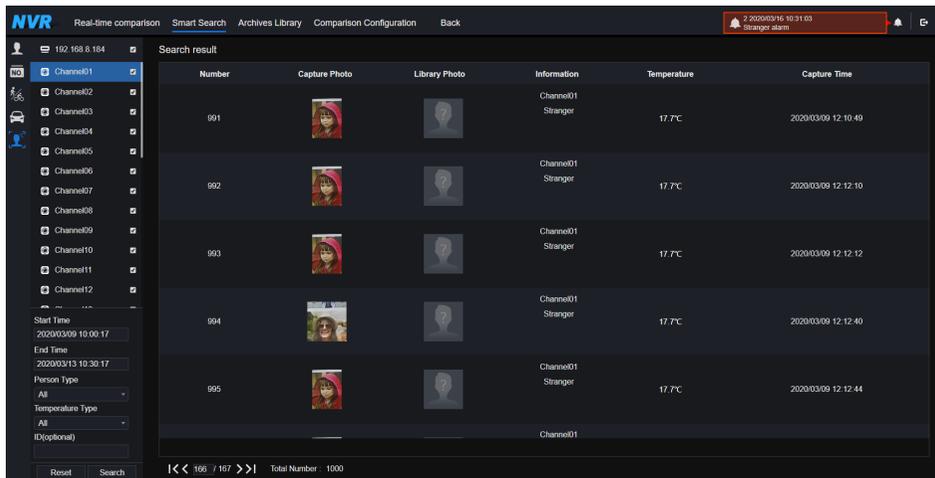
Step 4 Click “Search” to search the snapshot of human face.

Step 5 The result will show at the middle of page, click the picture and the detail information show at the top right of page.

Step 6 Click play button of video to play the recording of snapshot.

8.7.2.5 Body Temperature Search

Figure 8-33 Body temperature search



Step 1 Choose body temperature search at smart search interface.

Step 2 Tick the AI recognition camera channels, set the start time and end time.

Step 3 Choose the person type, temperature type, input ID optionally.

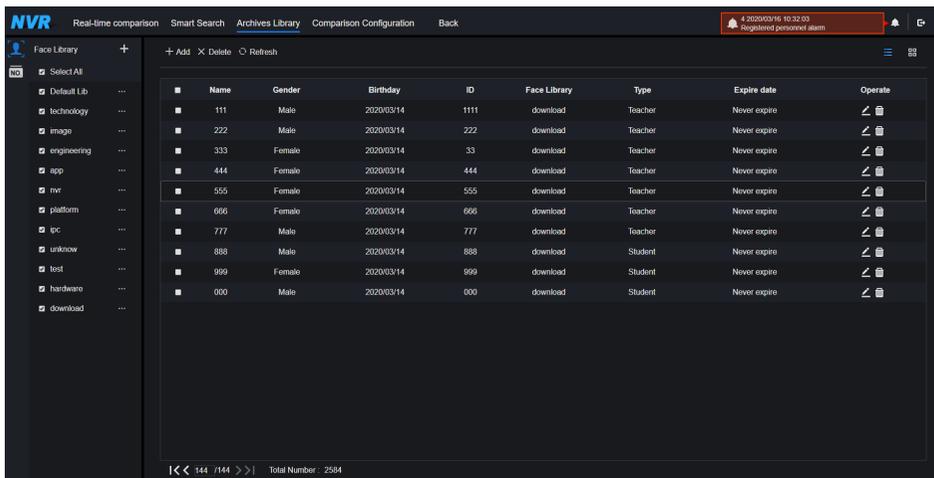
Step 4 Click “Search” to search the temperature.

8.7.3 Archives Library

At archives library, user can add or edit the face library , license plate library.

8.7.3.1 Face Library

Figure 8-34 Face library



Click “+” to add face library.

Click “Add” to add person enroll.

Tick the person, click “Delete” to delete the person.

Click “Import” to add the person batch.

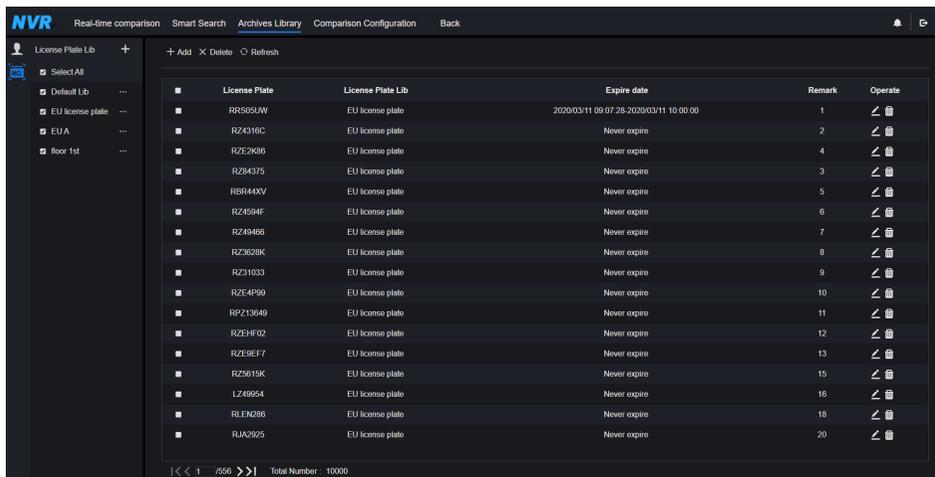
Click “Export” to export the all person in library.

Click operate icon to edit or delete the chosen person.

Snapshot in real time video, put the cursor on picture such as , you can add it to face library, or face search. The cursor on area 6 and the pictures is not update, move the mouse so that the pictures can be shown in time.

8.7.3.2 License Plate Library

Figure 8-35 License plate library



Click “+” to add license plate library.

Click “Add” to add plate to library.

Tick the plate , click “Delete” to delete the license plate.

Click “Import” to add the license plate batch.

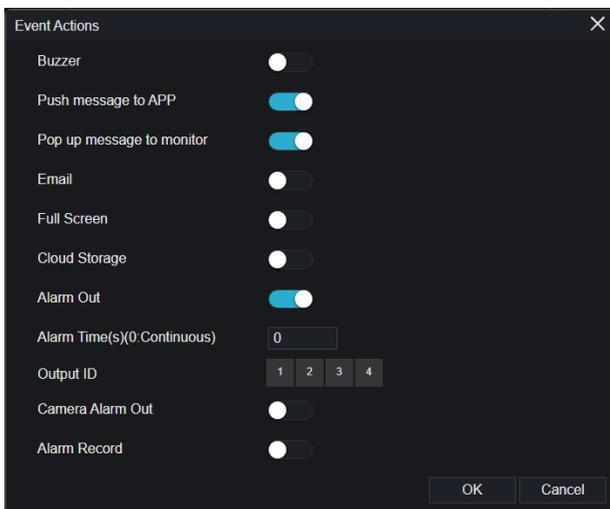
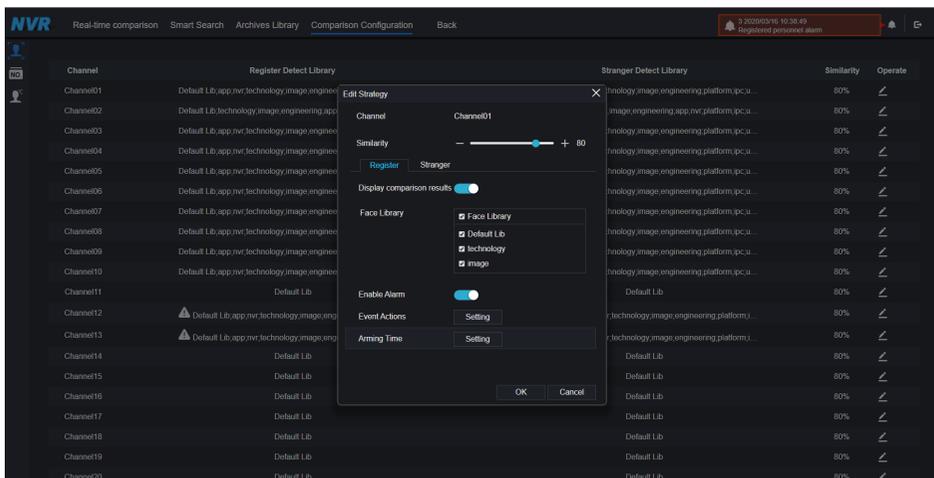
Click “Export” to export the all license plate library.

Click operate icon to edit or delete the chosen license plate.

8.7.4 Comparison Configuration

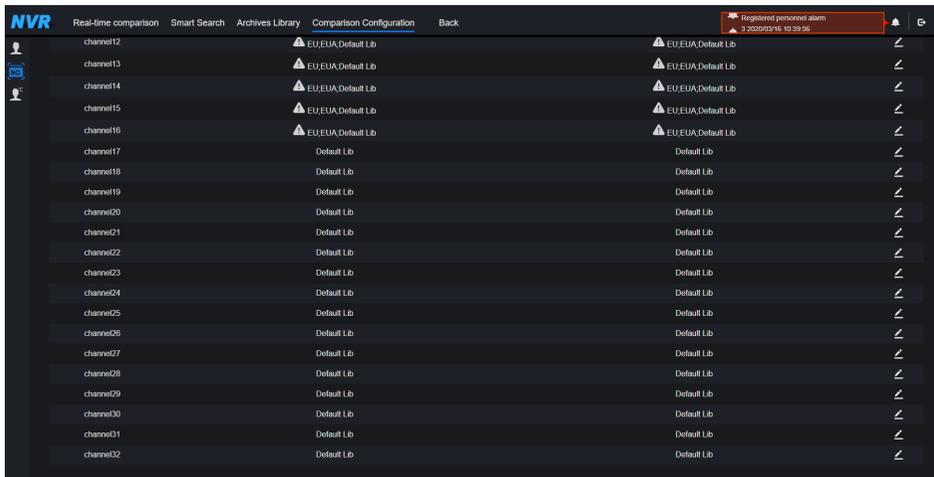
At comparison configuration interface, user can set the comparison of human face/ license plate/temperature.

Figure 8-36 Face comparison



At face comparison interface, user can set different channels' strategy, such as similarity, display comparison result, face library, enable alarming, event action, arming time, as shown in Figure 6-39 .

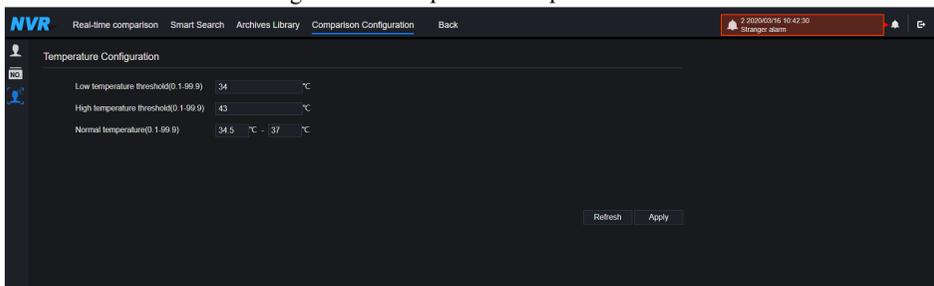
Figure 8-37 License comparison



At license plate interface, use can set strategies of different channels of license plate recognition cameras, such as register and unregister, enable alarming, event action, arming time, as shown in Figure 8-37.

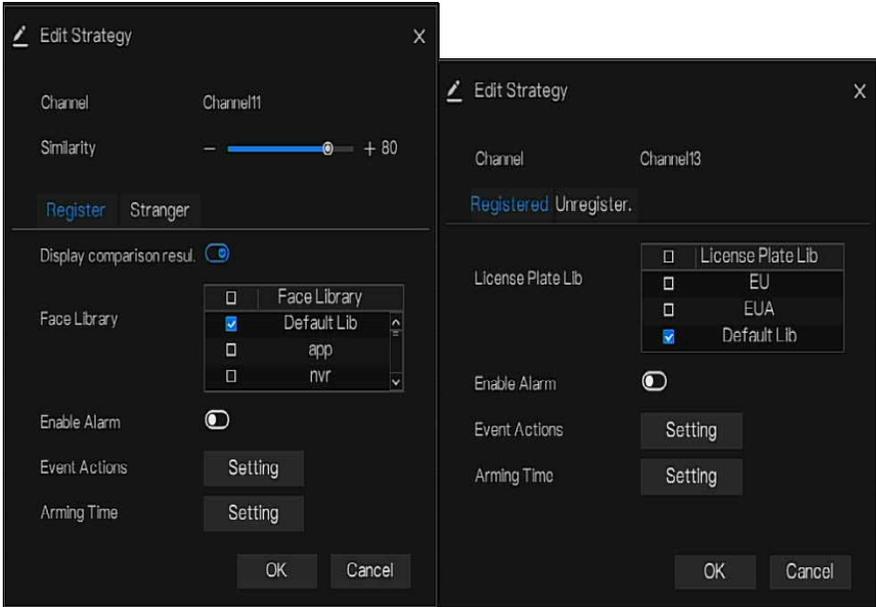
 means the library is deleted.

Figure 8-38 Temperature comparison



At temperature comparison interface, user can set low temperature threshold, high temperature threshold, normal temperature, as shown in Figure 8-38.

Figure 8-39 Strategy



9 System Setting

The system setting allows you to set system, channel, record, alarm, network and local setting.

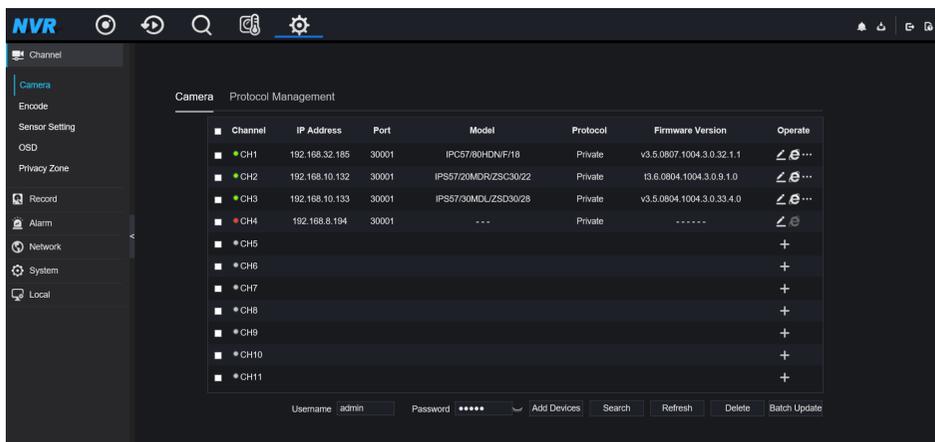
9.1 Channel

User can set parameter about camera, encode, sensor setting, OSD and privacy zone.

9.1.1 Camera

Step 0 On the **System Setting** screen, choose **Channel > Camera** to access the camera interface, as shown in Figure 9-1.

Figure 9-1 Camera interface



Step 1 Input username and password (the default value both are admin), and click [Click To Add](#) add cameras automatically.

Step 2 Click [Search](#) to search cameras at the same LAN as NVR, as shown in Figure 9-2.

Choose the camera, input username and password, click **Add** to add new camera.

Figure 9-2 Device search

| ID | IP Address | Port | Model | Protocol | Firmware Version |
|----|----------------|-------|--------------------------------|----------|-------------------------------|
| 1 | 192.168.99.14 | 30001 | IPS57/30BDR/ZSD30/28 | Private | 13.6.0804.1004.3.0.8.12.0 |
| 2 | 192.168.70.177 | 30001 | C81031-W | Private | v3.5.0819.3900.172.0.31.0.105 |
| 3 | 192.168.70.176 | 30001 | C81041-W | Private | v3.5.0819.3900.172.0.31.0.105 |
| 4 | 192.168.10.249 | 30044 | IPR57/08ALDN/Z3.3-12/23 | Private | v3.5.0819.1004.3.0.33.3.0 |
| 5 | 192.168.10.208 | 30001 | SN-TSL/13 | Private | 13.6.0825.1004.3.0.13.4.0 |
| 6 | 192.168.10.127 | 80 | | ONVIF | ----- |
| 7 | 192.168.10.126 | 80 | | ONVIF | ----- |
| 8 | 192.168.10.8 | 30001 | SN-IPR5821BZAN-J3-Z2.7-13.5-13 | Private | 13.6.0804.1004.3.0.6.90.0 |

Username: admin Password: [masked] Stop Search(2s) Add Refresh Back

Step 3 Click **Back** to back to camera interface.

Step 4 Click **Refresh** to refresh cameras status.

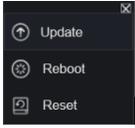
Step 5 Choose the cameras and click **Delete** to delete.

Step 6 Click **Batch Update** to update all selected cameras at once, the pop-up window would show to select software.

Step 7 Click  to modify the information of device parameters, as shown in Figure 9-3.

Figure 9-3 Modify device parameters

Step 8 Click  to access web immediately.

Step 9 Click  to update, reboot or reset the selected camera, as  shows. The pop-up message “Are you sure to restart the device?” “Are you sure to reset? Reserve IP Address” would respectively show.

 **NOTE**



: it indicates the camera is online, user can view the live video immediately.

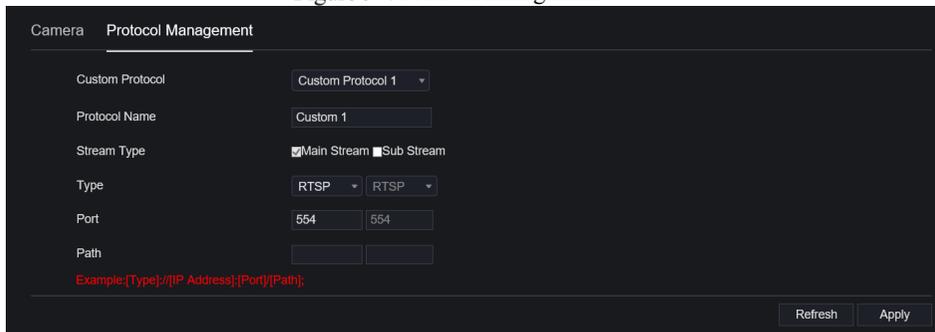


: it indicates the camera is offline, it maybe not connect the network, or the password is incorrect. User access to the modify device parameters interface to change.

9.1.1.1 Protocol Management

Set the protocol management, user can add different protocol cameras to NVR

Figure 9-4 Protocol management



Step 1 Click **Channel > Camera > Protocol Management**.

Step 2 Choose the custom protocol from the drop-down list, there are 16 kinds of protocols can be set.

Step 3 Input the protocol name.

Step 4 Tick main stream and sub stream. The main stream shows image on full screen live video. The sub stream shows image on split screen. If you just tick main stream and the channel will not show image on split screen.

Step 5 Choose the type of protocol, the default value is RTSP.

Step 6 Input the port, it depends the IP camera.

Step 7 Input the path, it depends the manufacturer of cameras.

Step 8 Click **Apply** to save the settings.

9.1.2 Encode

Step 1 On the **System Setting** screen, choose **Channel > Encode** to access the encode interface, as shown in Figure 9-5.

Figure 9-5 Encode interface

The screenshot shows the 'Encode' configuration interface. It features a list of settings, each with a dropdown menu:

- Channel: [1]Channel01
- Stream Information: Main Stream
- Video Encode Type: H265
- Audio Encode Type: G711A
- Resolution: 4000x3000
- Frame Rate(fps): 20
- I Frame Interval(Frame): 40
- Bitrate Type: CBR
- Bitrate(kbps)(500-4096): 4096

At the bottom right, there are two buttons: 'Copy' and 'Apply'.

Step 2 Select a channel from drop-down list.

Step 3 Select stream information, encode type, resolution, frame rate, bitrate control and bitrate from drop-down list.

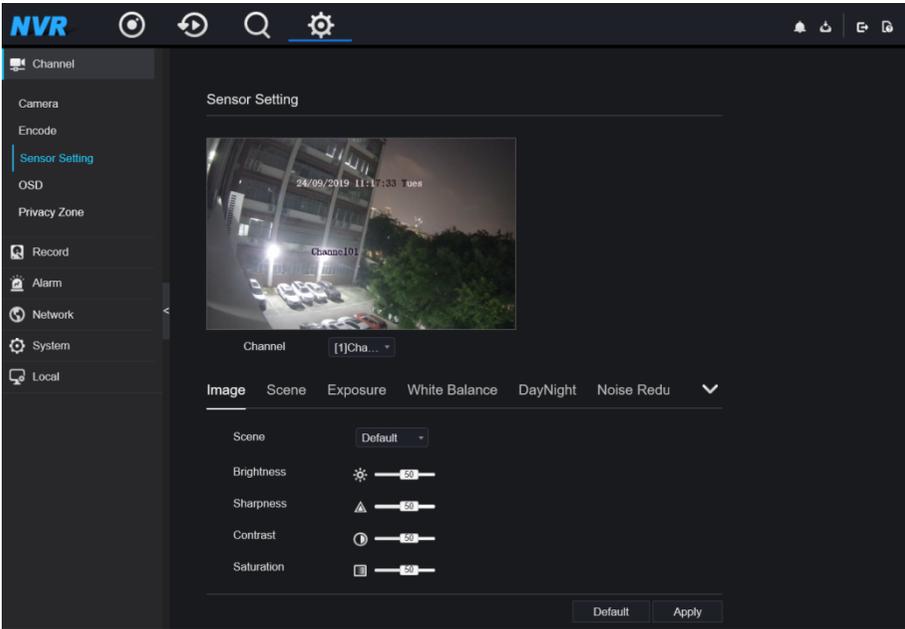
Step 4 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

----End

9.1.3 Sensor Setting

Step 1 On the **System Setting** screen, choose **Channel >Sensor Setting** to access the sensor setting interface, as shown in Figure 9-6.

Figure 9-6 Image interface



Step 2 Select a channel and scene from drop-down list.

Step 3 Set image parameters, like scene, brightness, sharpness, contrast and saturation.

Step 4 Other parameters are camera's sensor setting, user can refer IP cameras' settings.

Step 5 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

 **NOTE**

Brightness: It indicates the total brightness of an image. As the value increases, the image becomes brighter.

Sharpness: It indicates the border sharpness of an image. As the value increases, the borders become clearer, and the number of noise points increases.

Saturation: It indicates the color saturation of an image. As the value increases, the image becomes more colorful.

Contrast : It indicates the measurement of different brightness levels between the brightest white and darkest black in an image. The larger the difference range is, the greater the contrast; the smaller the difference range is, the smaller the contrast.

Scene: it includes indoor, outdoor, default. Mirror includes normal, horizontal, vertical, horizontal + vertical.

Exposure: it includes mode, max shutter, meter area and max gain.

White balance: it includes tungsten, fluorescent, daylight, shadow, manual, etc.

Day-night: user can transit day to night, or switch mode.

Noise reduction: it includes 2D NR and 3D NR.

Enhance image: it includes WDR, HLC, BLC, defog and anti-shake.

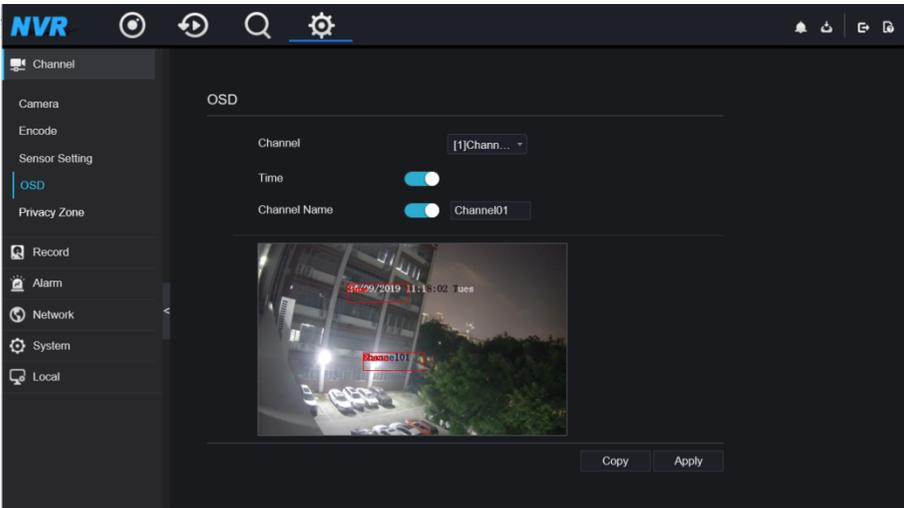
Zoom focus: user can zoom and focus.

---End

9.1.4 OSD

Step 1 On the **System Setting** screen, choose **Channel >OSD** to access the OSD interface, as shown in Figure 5-4

Figure 9-7 OSD interface



Step 2 Select a channel and scene from drop list.

Step 3 Enable time and channel name. You can set channel name. Drag the icon of Channel Name or Date and Time to move, select the location.

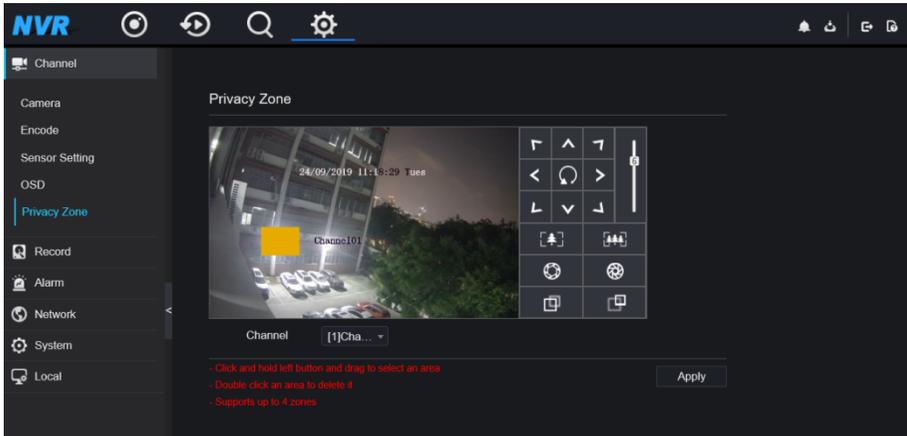
Step 4 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

---End

9.1.5 Privacy Zone

Step 1 On the **System Setting** screen, choose **Channel >Privacy Zone** to access the privacy zone interface, as shown in Figure 9-8.

Figure 9-8 Privacy interface



Step 2 Select a channel from drop-down list .

Step 3 Drag the mouse to select area to cover with rectangle frame. You can set less than four areas to be covered. Double click would delete the area.

Step 4 PTZ can be used for adjusting the IP dome cameras.

Step 5 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

---End

9.2 Record

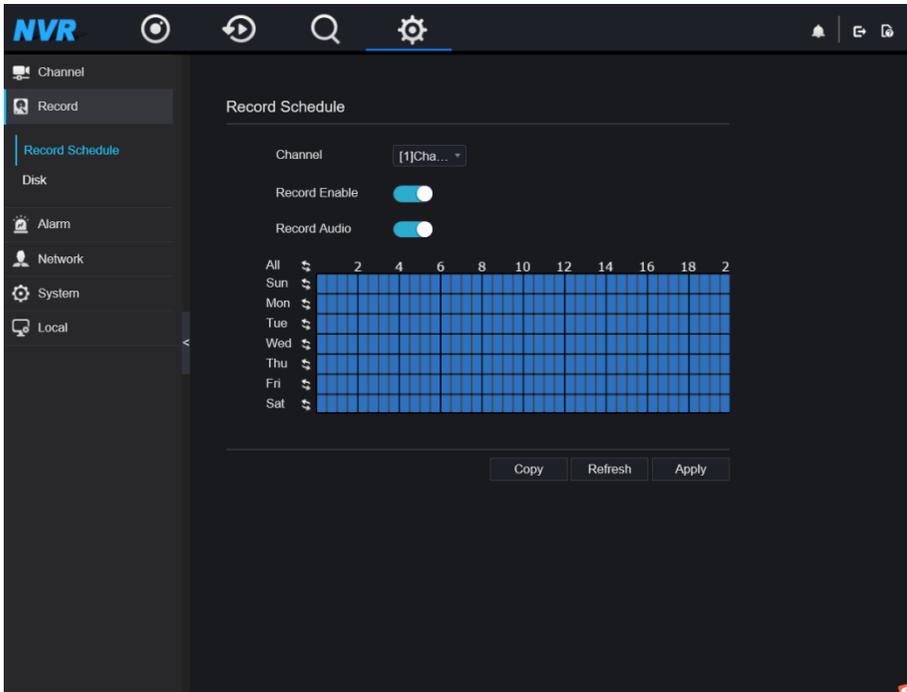
Users can set record policy in storage interface.

9.2.1 Record Schedule

Procedure

Step 1 On the **System Setting** screen, choose **Record > Record schedule** to access the record schedule interface, as shown in Figure 9-9.

Figure 9-9 Record schedule interface

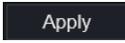


Step 2 Select a channel .

Step 3 Enable the record, then enable record audio.

Step 4 Set the record schedule, you can drag the mouse to choose area, click  to choose all day or all week, you can also click one by one to set the schedule. Or dray the mouse cursor to choose.

Step 5 Click  to return the previous settings.

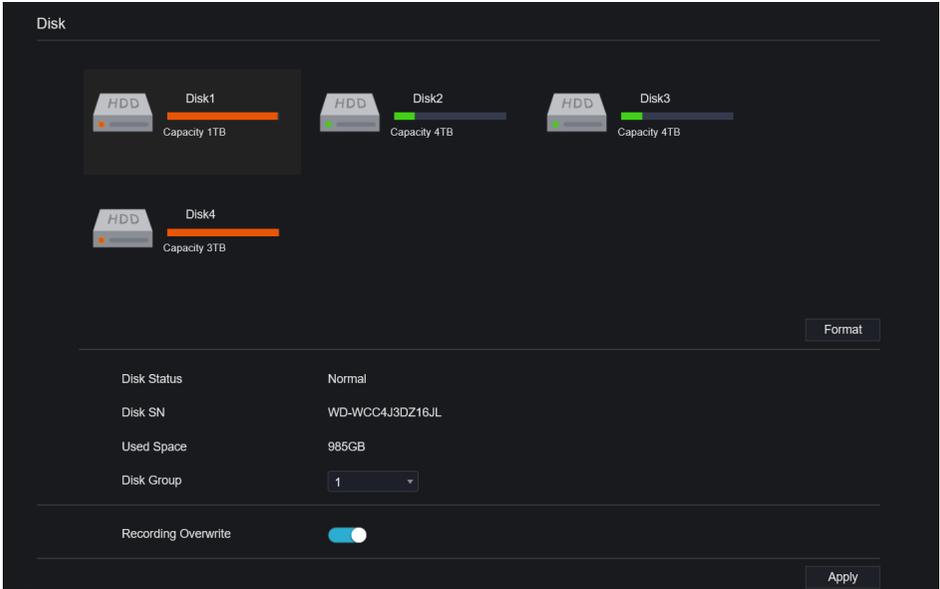
Step 6 Click  to choose other camera to copy settings. Click  to save the settings.

----End

9.2.2 Disk

Step 1 On the **System Setting** screen, choose **Record >Disk** to access the disk interface, as shown in Figure 9-10.

Figure 9-10 Disk interface



Step 2 You can view the information like capacity, disk status, disk SN code and used space.

Step 3 Click **Format** to delete all data. Before deleting data user will view pop-up window

“ Are you sure to format disk? Your data will be lost”. Click **OK** to delete, click

Cancel to quit.

Step 4 Choose the disk group from drop-down list, there are four disk group.

Step 5 If the recording overwrite is disable, user need to set the expired time, it is up to 90 days.

---End

9.2.3 RAID

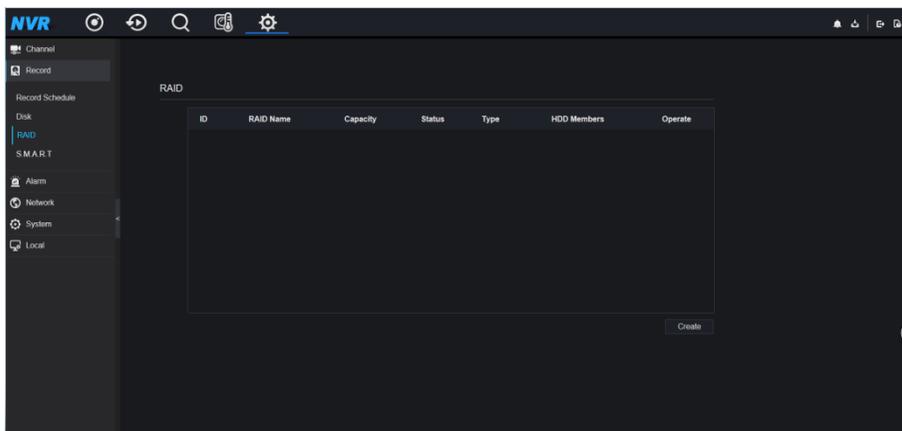
NOTE

RAID is only used for the device with 4 disks or more. And the disks must be enterprise level disks. The capacity of disks are better same for efficient using.

RAID5 at least 3 disks can be created. RAID6 at least 4 disks can be created. RAID10 at least 4 disks can be created. Create hot spare disk need more one disk or double basic disks.

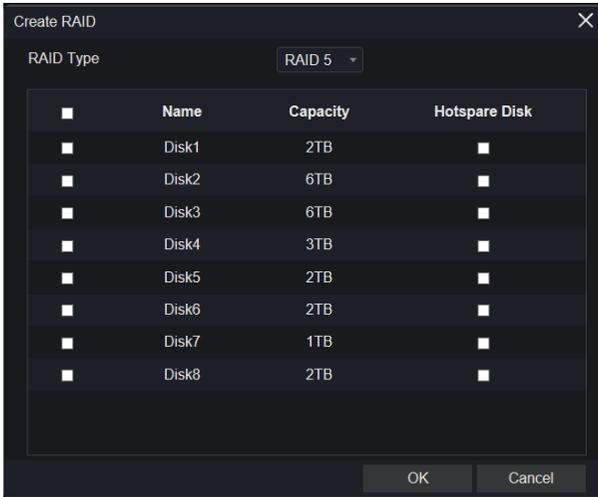
The capacity of disks are better same for efficient using.

Figure 9-11 RAID



Operation Steps

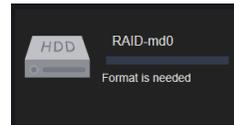
Step 1 Click **RAID** to create the RAID.



Step 2 Click **Create** to choose disk to create a new RAID.

Step 3 Tick the **Hot-spare Disk** to back up the broken disk in case, the number of disk must more than basic disks.

Step 4 Click  to save the creation, format the new RAID



Step 5 click **format it will show**

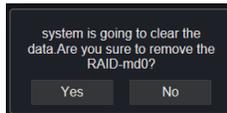


Figure 9-12 Modify the RAID

| RAID Name | RAID-md0 | Type | RAID 5 |
|-----------|----------|---------|-------------------|
| Capacity | 6TB | Members | Disk1, 2, 3, 4, 5 |

| ID | Name | Capacity | Status | Type | Hotspare Disk | Operate |
|----|-------|----------|--------|--------|---------------|---------|
| 1 | Disk1 | 2TB | Active | RAID 5 | No | |
| 2 | Disk2 | 6TB | Active | RAID 5 | No | |
| 3 | Disk3 | 6TB | Active | RAID 5 | No | |
| 4 | Disk4 | 3TB | Active | RAID 5 | No | |
| 5 | Disk5 | 2TB | Spare | RAID 5 | Yes | 🗑️ |
| 6 | Disk6 | 2TB | -- | HDD | -- | + |
| 7 | Disk7 | 1TB | -- | HDD | -- | + |
| 8 | Disk8 | 2TB | -- | HDD | -- | + |

9.2.4 S.M.A.R.T

S.M.A.R.T is Self-Monitoring Analysis and Reporting Technology, user can view the health of disk, as shown in Figure 9-13.

Figure 9-13 S.M.A.R.T

The screenshot shows the NVR interface with the S.M.A.R.T. section selected. The left sidebar contains navigation options: Channel, Record, Record Schedule, Disk, S.M.A.R.T., Alarm, Network, System, and Local. The main content area displays S.M.A.R.T. information for 'Disk1'.

S.M.A.R.T. Summary:

- Disk: Disk1
- Disk SN: Z1E2LCPB
- Disk Model: ST2000VX000-1CU164
- Temperature: 41.0 C
- Working Time: 2.4 Year
- Disk Health: GOOD

S.M.A.R.T. Attributes Table:

| ID | Attribute Name | Status | Value | Worst | Thresh | Type | Raw value |
|-----|--------------------------|--------|-------|-------|--------|---------|----------------|
| 1 | raw-read-error-rate | OK | 118 | 86 | 6 | prefail | 0x18de840a0000 |
| 3 | spin-up-time | OK | 96 | 95 | 0 | prefail | 0x000000000000 |
| 4 | start-stop-count | OK | 100 | 100 | 20 | old-age | 0x7d0200000000 |
| 5 | reallocated-sector-count | OK | 100 | 100 | 10 | prefail | 0x700000000000 |
| 7 | seek-error-rate | OK | 72 | 60 | 30 | prefail | 0xef19830d0c00 |
| 9 | power-on-hours | OK | 76 | 76 | 0 | old-age | 0x995200000000 |
| 10 | spin-retry-count | OK | 100 | 100 | 97 | prefail | 0x000000000000 |
| 12 | power-cycle-count | OK | 100 | 100 | 20 | old-age | 0x570200000000 |
| 184 | end-to-end-error | BAD | 97 | 97 | 99 | old-age | 0x030000000000 |
| 187 | reported-uncorrect | OK | 98 | 98 | 0 | old-age | 0x020000000000 |
| 188 | command-timeout | OK | 100 | 73 | 0 | old-age | 0x25000b000800 |
| 189 | high-fly-writes | OK | 1 | 1 | 0 | old-age | 0x5b1100000000 |

9.2.5 Storage Mode

User is based on need to distribute the channels to different disk group, and use disk capacity reasonably.

Figure 9-14 Storage Mode

The default Channel belongs to Group 1

| Group | Disk | Channel | Used Space | Capacity |
|-------|-------|---------|------------|----------|
| 1 | Disk1 | 1-16 | 985GB | 1000GB |
| 2 | Disk2 | 17-32 | 733GB | 4.0TB |
| 3 | Disk3 | 33-48 | 753GB | 4.0TB |
| 4 | Disk4 | 49-64 | 2.9TB | 3.0TB |

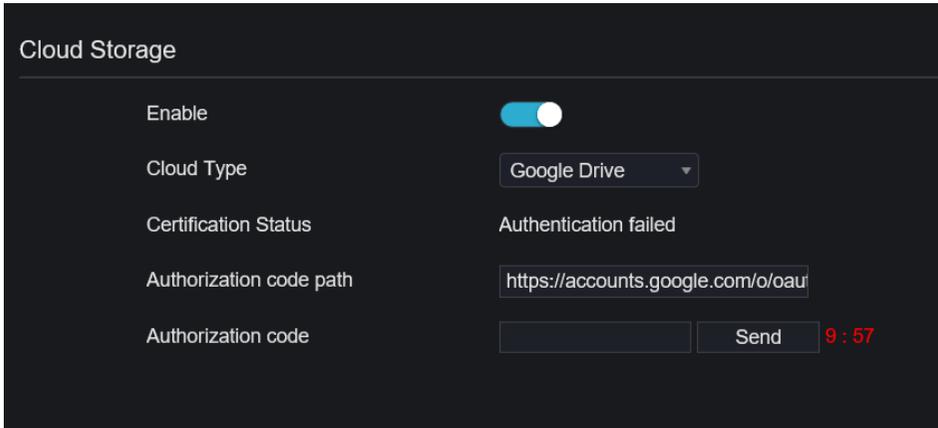
Operation Steps

- Step 1 Choose the disk group.
- Step 2 Select the channel to record to disk group.
- Step 3 Click Apply to save the settings.
- Step 4 The group list will show the detail information.

9.2.6 Cloud Storage

User copy the authorization code path to browser to enter Google Drive interface. Google send the code, and user input the code to authority NVR, so the device can set the alarm recording to Google drive.

Figure 9-15 Cloud Storage



| | |
|-------------------------|-------------------------------------|
| Cloud Storage | |
| Enable | <input checked="" type="checkbox"/> |
| Cloud Type | Google Drive |
| Certification Status | Authentication failed |
| Authorization code path | https://accounts.google.com/o/oauth |
| Authorization code | <input type="text"/> Send 9:57 |

 **NOTE**

User should enable the alarm of cloud storage at first so that the Google drive can receive the recoding. Cloud storage can only be set at motion detection and intelligent analysis interface.

9.3 Alarm

User can set general, motion detection, video loss, intelligent analysis and alarm in on alarm interface.

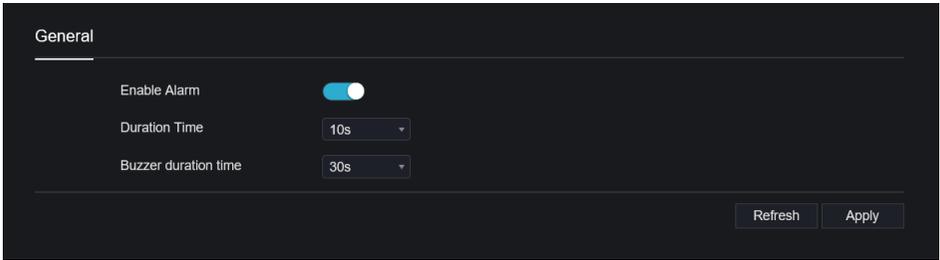
9.3.1 General

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > General** to access the general interface.

Step 2 Enable alarm to set duration time and buzzer duration time, as shown in Figure 9-16.

Figure 9-16 General interface



Step 3 Click **Apply** to save settings. Click **Refresh** to return to the previous settings.

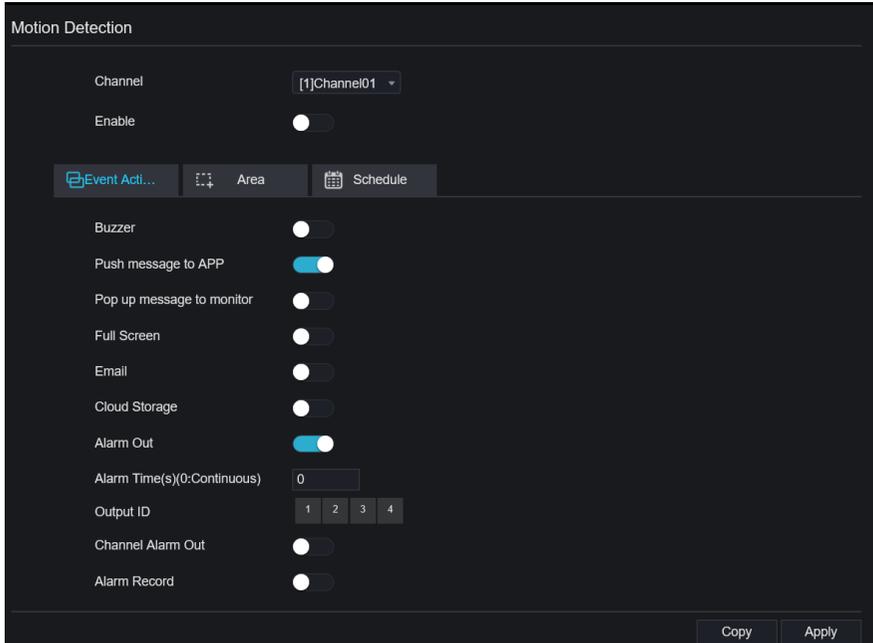
----End

9.3.2 Motion Detection

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Motion Detection** to access the motion detection interface, as shown in Figure 9-17.

Figure 9-17 Motion detection interface



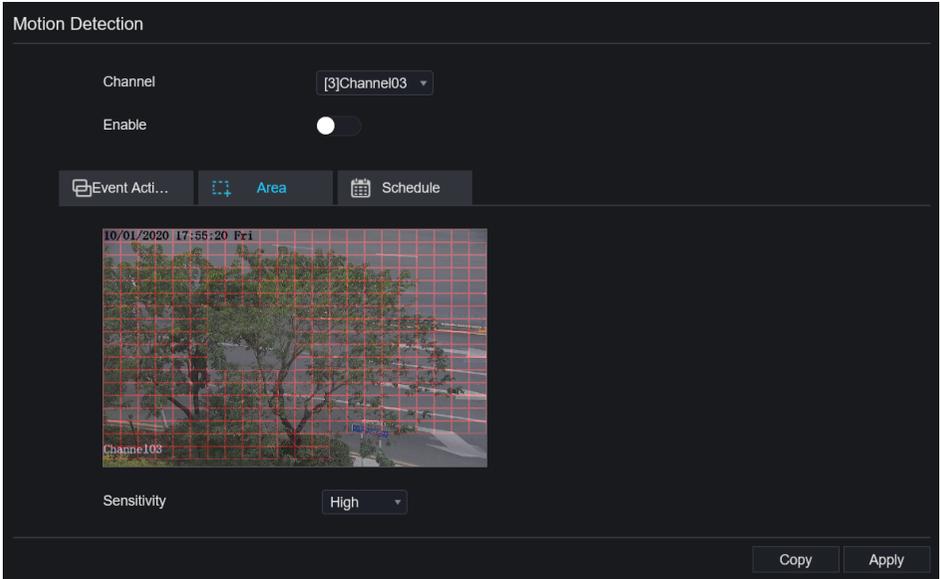
Step 2 Click channel drop-down list to choose channel.

Step 3 Enable motion detection alarm.

Step 4 Set **Event Activity**, includes buzzer, push message to APP, pop-up message to monitor, full screen, Email, cloud storage, alarm out(the back panel), channel alarm out(the port of cameras), and alarm record.

Step 5 Click **Area** to access the motion detection area setting, as shown in Figure 9-18.

Figure 9-18 Motion detection area interface



1. Hold down and drag the left mouse button to draw a motion detection area.
2. Select a value from the drop-down list next to **Sensitivity**.
3. Double -click the chosen area to delete.

Step 6 Click **Schedule** to access schedule settings, drag and release mouse to select the alarming time within 00:00-24:00 from Monday to Sunday. Click the chosen area can cancel. The settings of alarm schedule are same as disk schedule.

Step 7 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

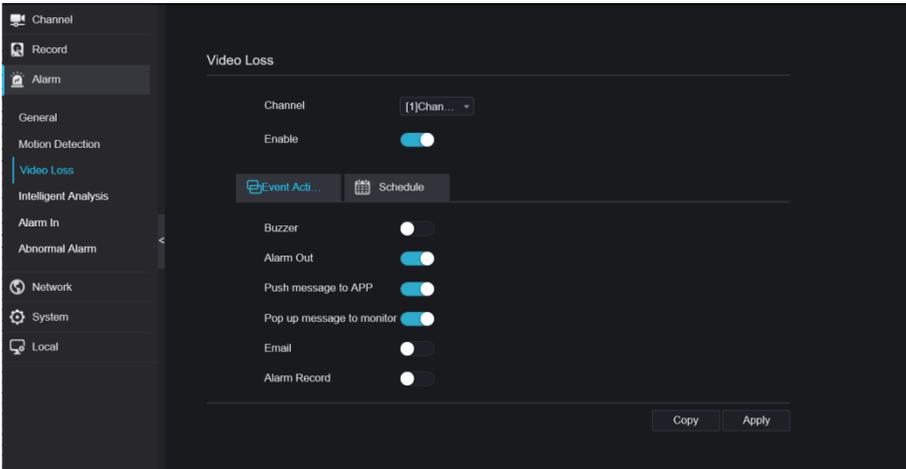
---End

9.3.3 Video Loss

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Video Loss** to access the video loss interface, as shown in Figure 9-19.

Figure 9-19 Video loss interface



Step 2 Click drop-down list to choose channel.

Step 3 Enable the video loss alarm.

Step 4 Set event activity and schedule please refer to *Figure 5-1 motion detection settings* .

Step 5 Click **Copy** to choose other camera to copy settings. Click **Apply** to save the settings.

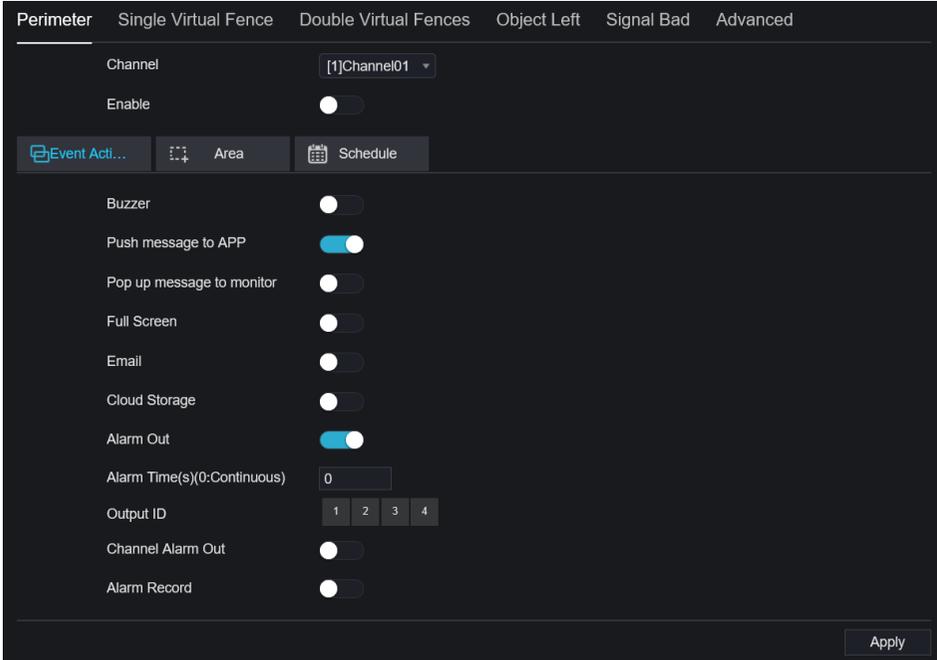
---End

9.3.4 Intelligent Analysis

Procedure

Please refer to chapter 7.6.1 *video loss settings*, interface displayed as shown in Figure 9-20.

Figure 9-20 Intelligent analysis interface



9.3.5 Alarm In

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Alarm In** to access the alarm in interface, as shown in Figure 9-21.

Figure 9-21 Alarm in interface

Step 2 Click drop-down list to choose alarm in .

Step 3 Enable the button, choose alarm type.

Step 4 Set name, default is Sensor 1.

Step 5 Set event activity and schedule please refer to *motion detection settings* .

Step 6 Click **Apply** to save settings.

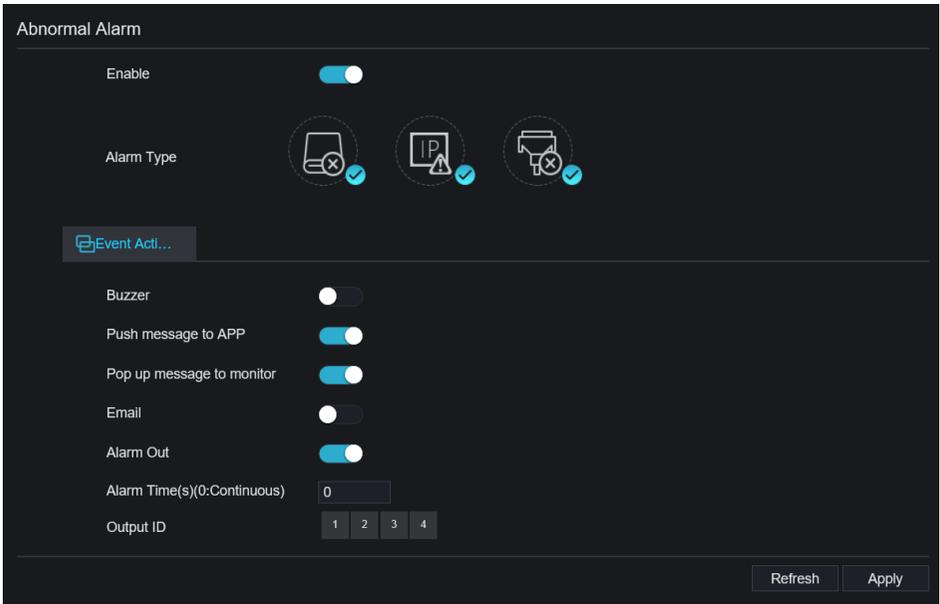
----End

9.3.6 Abnormal Alarm

Procedure

Step 1 On the **System Setting** screen, choose **Alarm > Abnormal Alarm** to access the abnormal alarm interface, as shown in Figure 6-11.

Figure 9-22 Abnormal alarm interface



Step 2 Click drop-down list to choose alarm in .

Step 3 Enable the button, tick alarm type.

Step 4 Set name, default is Sensor 1.

Step 5 Set event activity and schedule please refer to *motion detection settings* .

Step 6 Click **Apply** to save settings.

---End

9.4 Network

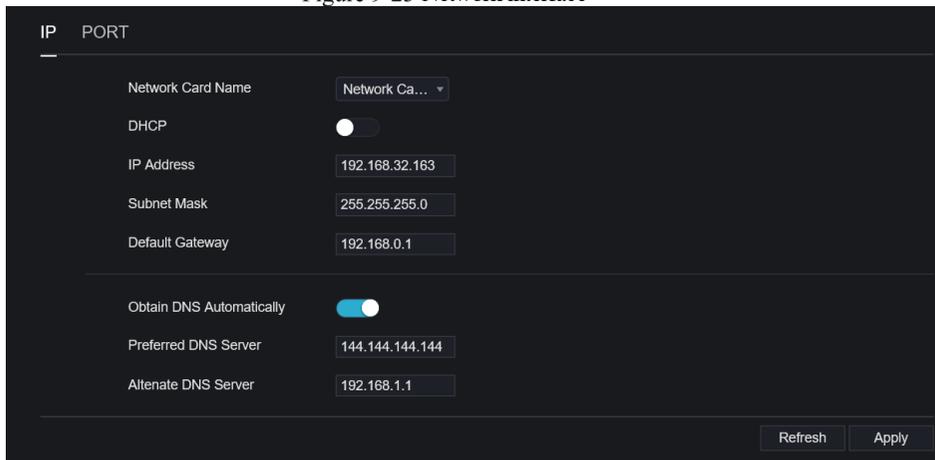
Users can set Network, DDNS, E-mail, UPnP, P2P, IP Filter, 802.1X, SNMP and Web Mode.

9.4.1 Network

Procedure

Step 1 On the **System Setting** screen, choose **Network > Network** to access the network interface, as shown in Figure 9-23.

Figure 9-23 Network interface



IP PORT

Network Card Name Network Ca... ▾

DHCP

IP Address 192.168.32.163

Subnet Mask 255.255.255.0

Default Gateway 192.168.0.1

Obtain DNS Automatically

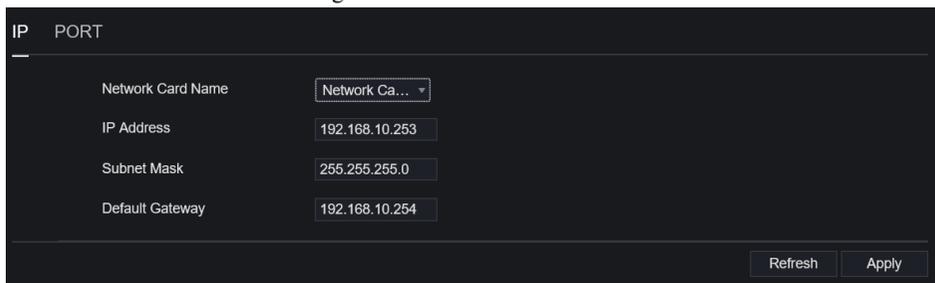
Preferred DNS Server 144.144.144.144

Alternate DNS Server 192.168.1.1

Refresh Apply

Step 2 Choose network card from the drop-down list. Network card I is LAN1, network card II is LAN2, as shown in Figure 9-24.

Figure 9-24 Network card II



IP PORT

Network Card Name Network Ca... ▾

IP Address 192.168.10.253

Subnet Mask 255.255.255.0

Default Gateway 192.168.10.254

Obtain DNS Automatically

Refresh Apply

Step 3 Click  next to **IP** to enable or disable the function of automatically getting an IP address. The function is enabled by default.

If the function is disabled, click input boxes next to **IP**, **Subnet mask**, and **Gateway** to set the parameters as required.

Step 4 Click  next to **Obtain DNS Automatically** to enable or disable the function of automatically getting a DNS address. The function is enabled by default.

If the function is disabled, click input boxes next to **DNS1** and **DNS2**, delete original addresses, and enter new addresses.

Step 5 Set **PORT** and **POE** manually, input the information about these.

Step 6 Click  to restore previous settings. Click  to save the settings.

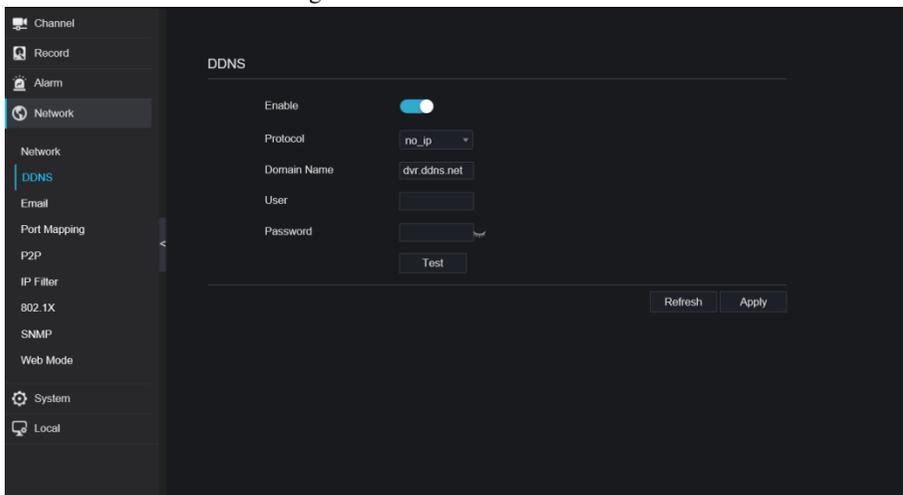
---End

9.4.2 DDNS

Procedure

Step 1 Click **DDNS** in the network interface, choose **Network > DDNS** to access the DDNS interface as shown in Figure 9-25.

Figure 9-25 DDNS interface



Step 2 Click the button to enable the DDNS function. It is disabled by default.

Step 3 Select a required value from the **protocol** drop-down list.

Step 4 Set domain name, user, and password.

Step 5 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

 **NOTE**

An external network can access an address specified in the DDNS settings to access the NVR.

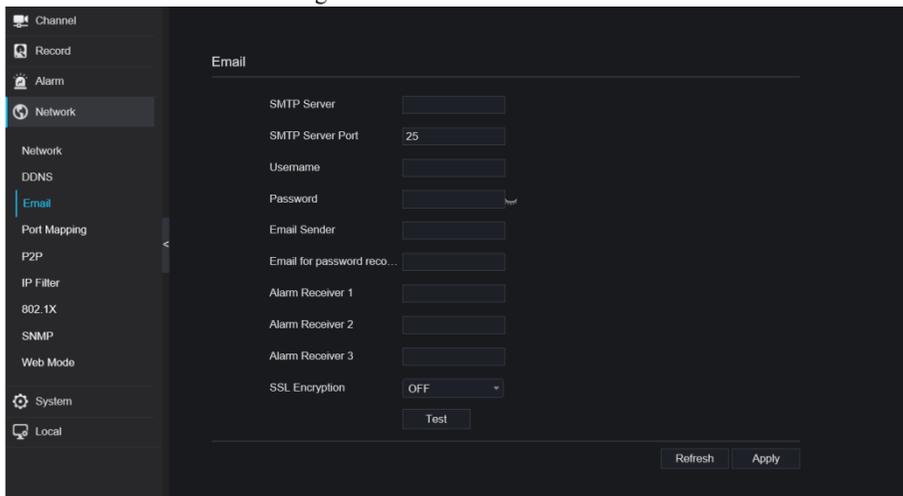
---End

9.4.3 E-mail

Procedure

Step 1 Click **E-mail** in the network interface, choose **Network > E-mail** to access the E-mail interface, as shown in Figure 9-26

Figure 9-26 E-mail interface



Step 2 Set SMTP server and SMTP server port manually.

Step 3 Set sender E-mail, user name and password manually.

Step 4 Set E-mail for receive alarm the message.

Step 5 Set E-mail for retrieve the password the message.

Step 6 Click **SSL Encryption** drop-down list to enable safeguard of email.

Step 7 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

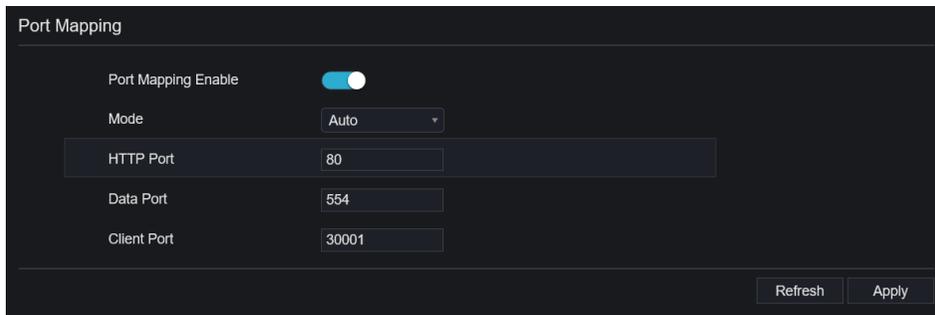
---End

9.4.4 Port Mapping

Procedure

Step 1 Click **Port Mapping** in the network interface, choose **Network > Port Mapping** to access the UPnP interface as shown in Figure 9-27.

Figure 9-27 Port Mapping interface



Step 2 Select manner from UPnP enable drop list. The default value is auto.

Step 3 After **UPnP** is manual, set the Web port, data port and client port manually.

Step 4 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

NOTE

Auto :system perform UPnP automatically.

Manual : the ports distribute by router, you need to refer router then input them.

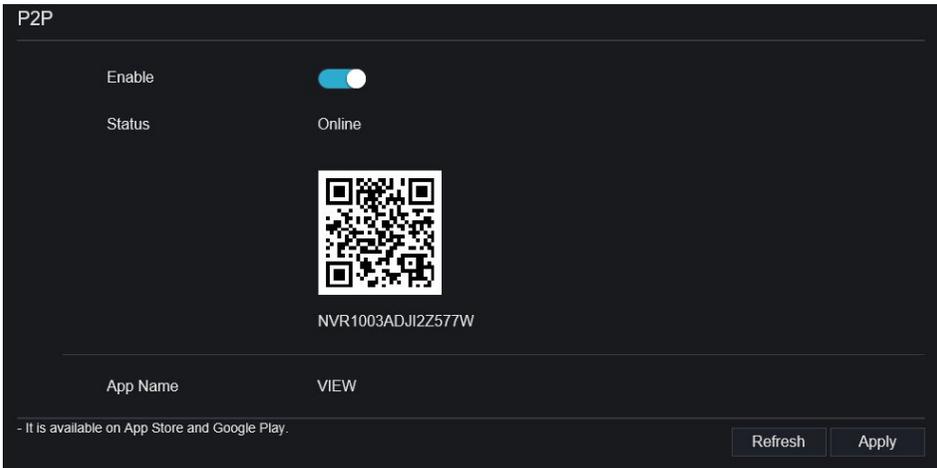
---End

9.4.5 P2P

Procedure

Step 1 Click **P2P** in the network interface, choose **Network > P2P** to access the P2P interface, as shown in Figure 9-28.

Figure 9-28 P2P interface



Step 2 Click **Enable** to enable the P2P function.

Step 3 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

Step 4 After the InVid LIVE is installed in mobile phone, run the APP and scan the UUID QR code to add then access the NVR when the device is online.

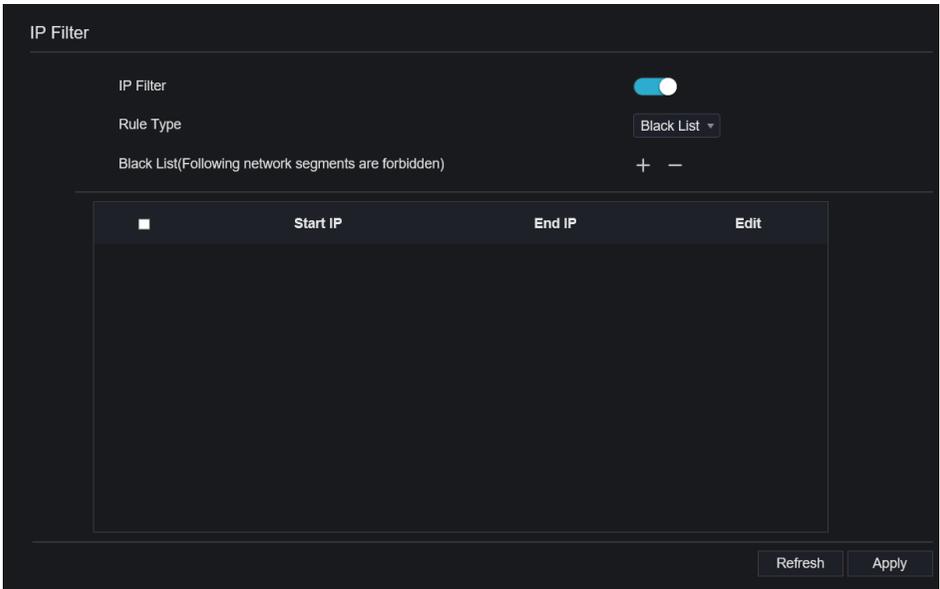
---End

9.4.6 IP Filter

Procedure

Step 1 Click **IP Filter** in the network interface, choose **Network > IP Filter** to access the IP filter interface, as shown in Figure 9-29.

Figure 9-29 IP filter interface



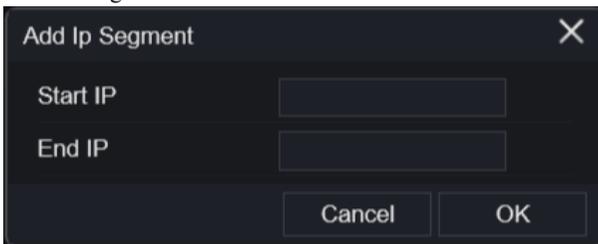
Step 2 Click **Enable** to enable the IP filter function.

Step 3 Click drop-down list of rule type to choose black list or white list.

Step 4 Click , view the pop-up windows to set black list or white list, as shown in 7.7.5.

Click  to delete the list.

Figure 9-30 Black or white list interface



Step 5 Set start IP and end IP.

Step 6 Click  to deny settings, click  to save the settings.

Step 7 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

NOTE

Black list: IP address in specified network segment to prohibit access.

White list: IP address in specified network segment to allow access.

Select a name in the list and click Delete to delete the name from the list.

Select a name in the list and click Edit to edit the name in the list.

Only one rule type is available, and the last rule type set is efficient.

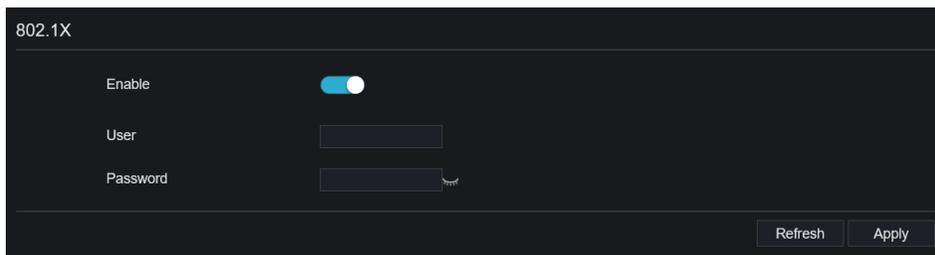
---End

9.4.7 802.1X

Procedure

Step 1 Click **802.1X** in the network interface, 802.1X interface is displayed, enable the button, as shown in Figure 9-31.

Figure 9-31 802.1X interface



Step 2 Input the user and password of 802.1X authentication.

Step 3 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

---End

9.4.8 SNMP

Procedure

Step 1 Click **SNMP** in the network interface, SNMP interface is displayed, enable the button aside of SNMPV1, as shown in Figure 9-32.

Figure 9-32 SNMP interface

The screenshot shows the 'SNMP' configuration page. At the top, 'SNMPV1' and 'SNMPV2C' are both enabled with toggle switches. Below these are several text input fields: 'Write Community' (value: b), 'Read Community' (value: a), 'Trap Address' (value: 192.168.32.79), 'Trap Port' (value: 16222), and 'Trap Community' (value: c).

The screenshot shows the 'SNMPV3' configuration page. At the top, 'SNMPV3' is enabled with a toggle switch. The page is divided into two sections for 'Read' and 'Write' operations. Each section includes: 'Security Name' (text input), 'Security Level' (dropdown menu), 'Auth Algorithm' (dropdown menu), 'Auth Password' (password field with visibility toggle), 'Encry Algorithm' (dropdown menu), and 'Encry Password' (password field with visibility toggle). The 'Read' section has values: Security Name 'a', Security Level 'priv', Auth Algorithm 'MD5', Encry Algorithm 'AES'. The 'Write' section has values: Security Name 'b', Security Level 'priv', Auth Algorithm 'SHA', Encry Algorithm 'AES'. At the bottom right, there are 'Refresh' and 'Apply' buttons.

Step 2 Input the information of SNMP (simple network management protocol) . there three types of that function. User can apply that if need.

Table 9-1 SNMP parameters

| Parameter | Description | Setting |
|---------------------------|--|--|
| SMTP Server Address | IP address of the SMTP server. | [Setting method] Enter a value manually. |
| SMTP Server Port | Port number of the SMTP server. | [Setting method] Enter a value manually. [Default value] 25 |
| User Name | User name of the mailbox for sending emails. | [Setting method] Enter a value manually. |
| Password | Password of the mailbox for sending emails. | [Setting method] Enter a value manually. |
| Sender E-mail Address | Mailbox for sending emails. | [Setting method] Enter a value manually. |
| Recipient_E-mail_Address1 | (Mandatory) Email address of recipient 1. | [Setting method] Enter a value manually. |
| Recipient_E-mail_Address2 | (Optional) Email address of recipient 2. | |
| Recipient_E-mail_Address3 | (Optional) Email address of recipient 3. | |
| Recipient_E-mail_Address4 | (Optional) Email address of recipient 4. | |
| Recipient_E-mail_Address5 | (Optional) Email address of recipient 5. | |

| Parameter | Description | Setting |
|--------------------------|---|--|
| Attachment Image Quality | A higher-quality image means more storage space. Set this parameter based on the site requirement. | N/A |
| Transport Mode | Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server. | [Setting method] Select a value from the drop-down list box. [Default value] No Encrypted |

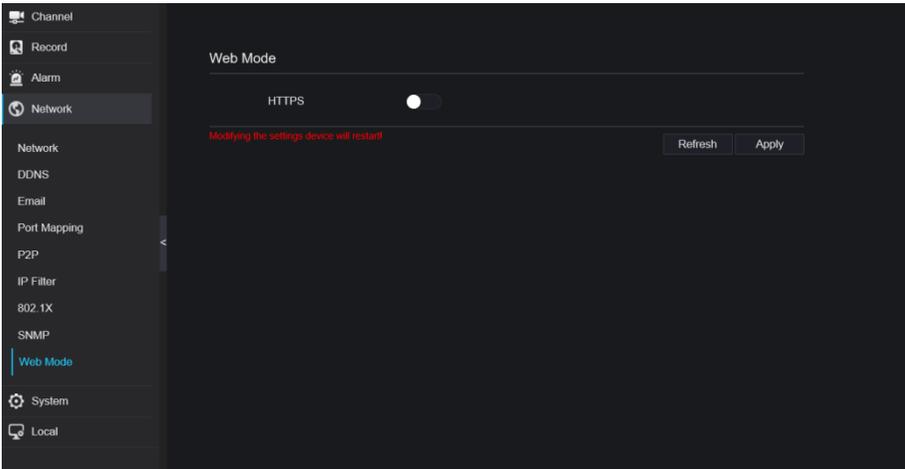
Step 3 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

---End

9.4.9 Web Mode

Step 1 Click **Web Mode** in the network interface, Web mode interface is displayed, as shown in Figure 5-1.

Figure 9-33 Web mode interface



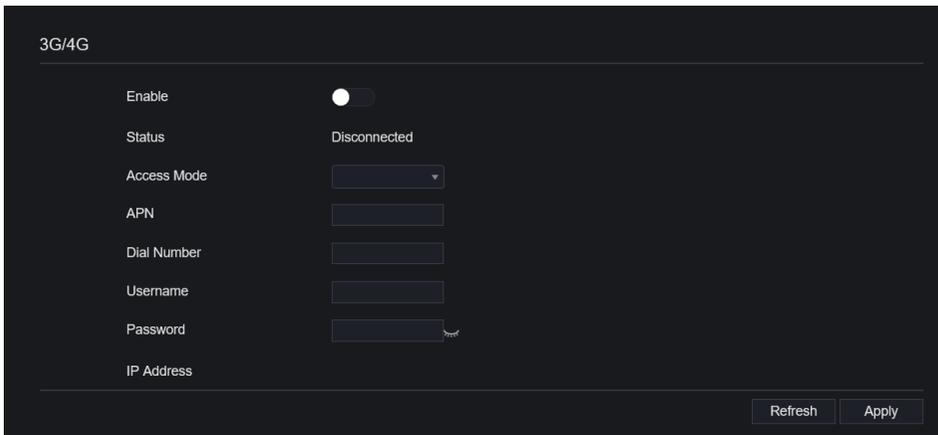
Step 2 Enable the https, the device will restart and start https secure.

Step 3 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

---End

9.4.10 3G/4G

Figure 9-34 3G/4G



Step 1 The user plug the modem to NVR.

Step 2 Enable the 3G/4G.

Step 3 When the status is connection, user can set the access mode, AUTO is recommended.

Step 4 If choose other access mode, user should input the parameter correctly.

Step 5 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

9.4.11 PPPOE

User can use PPPOE function to manage the NVR conveniently.

Figure 9-35 PPPOE

PPPOE

Enable

Username

Password

IP Address

Refresh Apply

Step 1 Enable the PPPOE.

Step 2 Input the username and password.

Step 3 The IP address is obtained automatically.

Step 4 Click **Refresh** to restore previous settings. Click **Apply** to save the settings.

Step 5 User use the IP address to access NVR immediately.

9.5 System

Users can set parameters about information, general, user, password, logs, maintenance and auto restart.

9.5.1 Device Information

Procedure



Step 1 Click  on the navigation bar, the device information interface is displayed, as shown in Figure 9-36.

Figure 9-36 Device information interface

| Information | |
|--------------------|-----------------------------|
| Device ID | NVR1003ADJ12Z577W |
| Device Name | Device |
| Device Type | NVR |
| Model | SN1A-4X4T |
| Firmware Version | v4.3.0814.0000.163.0.0.42.1 |
| U-boot Version | 13090C102631 |
| Kernel Version | 13090C0E3418 |
| HDD Number | 1 |
| Channels Supported | 4 |
| Alarm In | 4 |
| Alarm Out | 1 |
| Audio In | 1 |
| Audio Out | 1 |

Step 2 Set the device name according to Table 9-2.

Table 9-2 Device parameters

| Parameter | Description | Setting |
|------------------|---|---|
| Device ID | Unique device identifier used by the platform to distinguish the devices. | [Setting method] The parameter cannot be modified. |
| Device Name | Name of the device. | [Setting method] System Setting > General Modify the device name. |
| Device Type | N/A | [Setting method] |
| Model | | These parameters cannot be modified. |
| Firmware version | | |
| HDD volume | | |
| Channel support | | |
| Alarm in | | |
| Alarm out | | |
| Audio in | | |
| Audio out | | |

----End

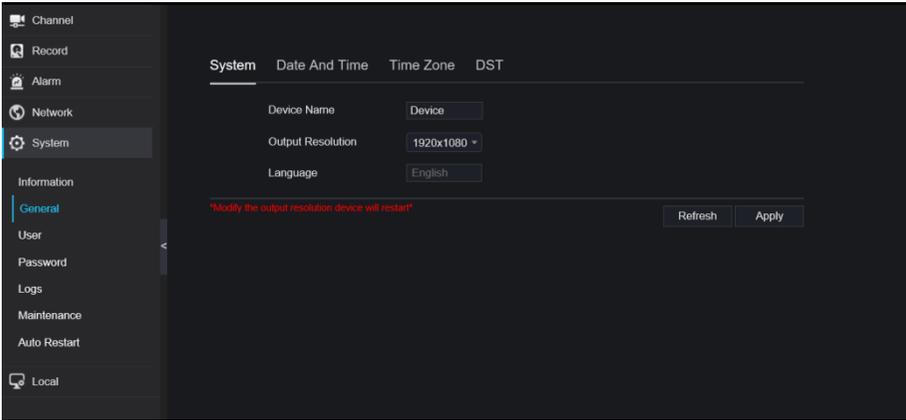
9.5.2 General

You can set system, date and time, time zone and DST general interface.

Procedure

Step 1 On the **System Setting** screen, choose **System >General** to access the general interface, as shown in Figure 9-37.

Figure 9-37 Basic setting interface



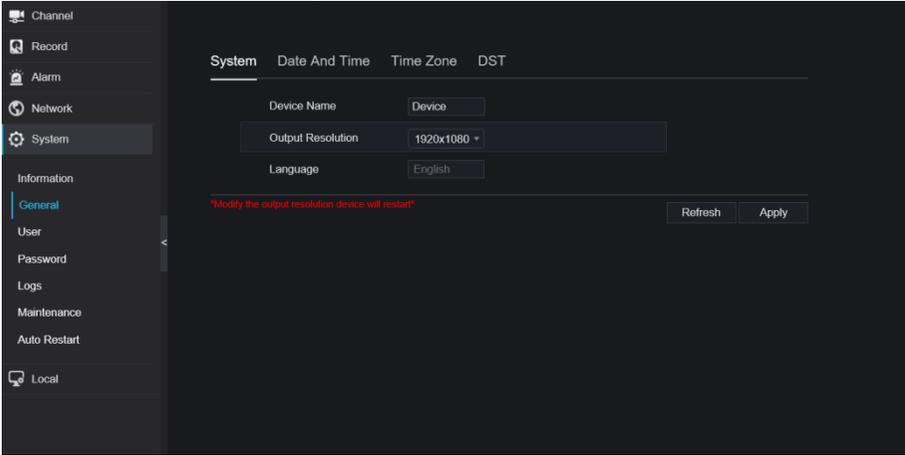
Step 2 Set system.

1. Input the device name.
2. Choose output resolution from drop list.
3. Click **Apply** to save the system setting.

Step 3 Set date and time.

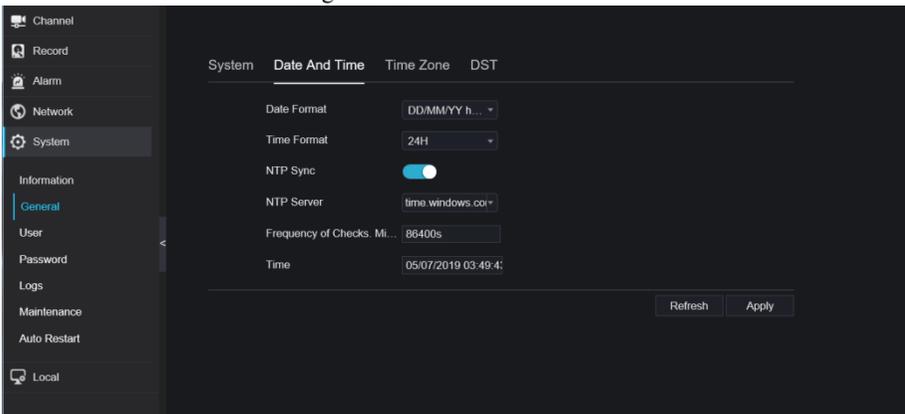
1. Synchronize the time from the NTP server, as shown in Figure 5-8.
2. Click NTP Sync button to enable synchronize time. The default value is enabling.

Figure 9-38 System interface



3. Select NTP server, date format and time format from drop list.
4. Click **Apply** to save date and time setting. The device time will synchronize with NTP server time.
5. Set the device time manually, as shown in Figure 9-39.
6. Click NTP Sync button to disable synchronize time.
7. Async date and time interface

Figure 9-39 Date and time



Step 4 Set the time zone.

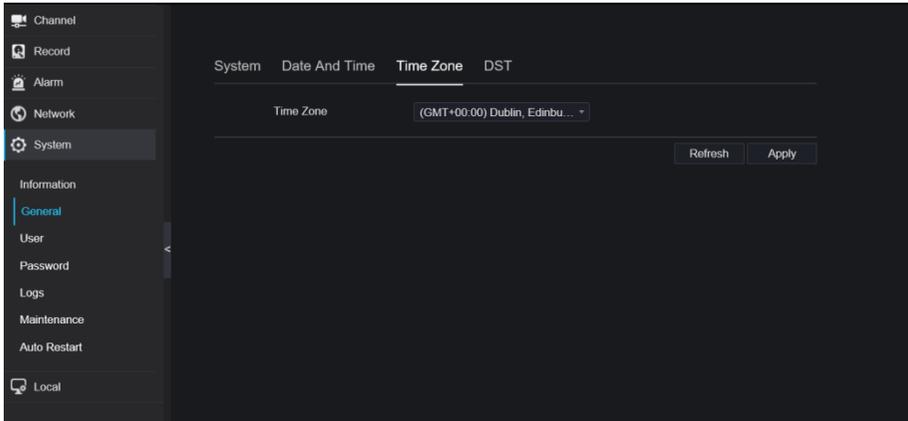
1. Select date format and time format from the drop-down list.
2. Click **Apply** to save the device time setting. Click **Refresh** to return to previous setting.

Step 5 Set time zone.

Click **Time Zone** to enter the time zone setting interface, as shown in Figure 9-40.

Time zone setting interface

Figure 9-40 Time zone



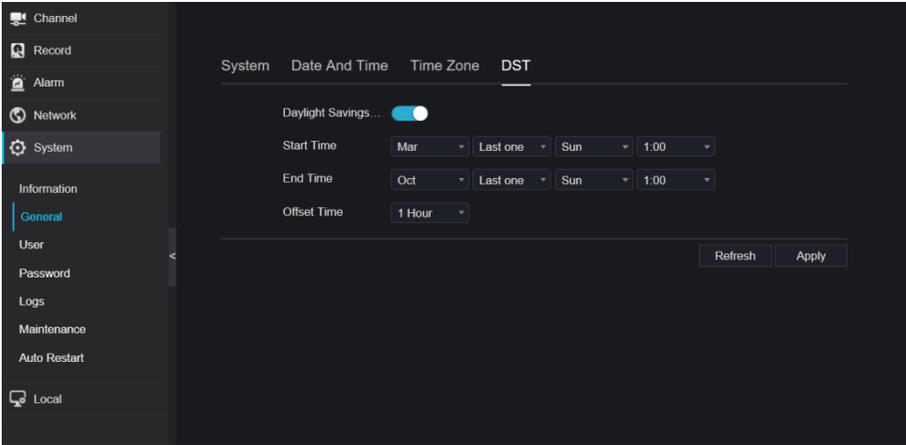
Select a time zone from the drop-down list.

Click **Apply** to save the time zone setting. Click **Refresh** to return to previous setting.

Step 6 Set DST.

1. Click DST to enter the DST setting interface, click DST button to enable, as shown in Figure 9-41. The button is disable by default.

Figure 9-41 DST setting interface



Select a start time from the drop-down list.

Select an end time from the drop-down list.

Select an offset time from the drop-down list.

Click **Apply** to save the DST setting. Click **Refresh** to return to previous setting.

9.5.3 User

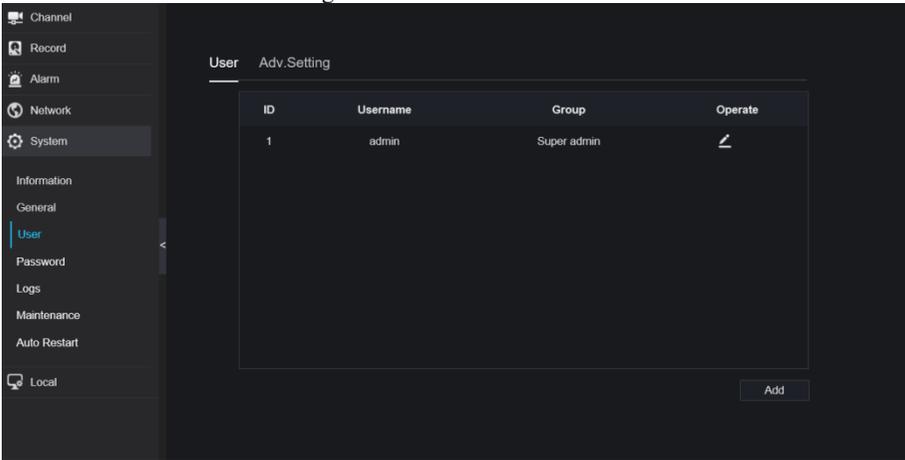
You can create new user accounts to manage the device.

9.5.3.1 Add User

Procedure

Step 1 On the **System Setting** screen, choose **System > User** to access the **User** interface, as shown in Figure 9-42.

Figure 9-42 User interface



Step 2 Click **Add** to add a new user, as shown in Figure 9-43.

Figure 9-43 Add user

Step 3 Input username, password and confirm password.

Step 4 Select group and change password reminder from drop-down list.

Step 5 Assign the privilege to user.

Step 6 Enable the expire date to set the new user’s authority time.

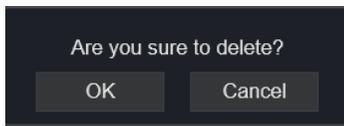
Step 7 Select channels to manage.

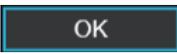
Step 8 Click , the message “**Add success**” is showed. If the password is not

meet the rule, it would show .

Step 9 Click  to edit user’s information.

Step 10 Click  to delete the account, it would show



click  to delete.

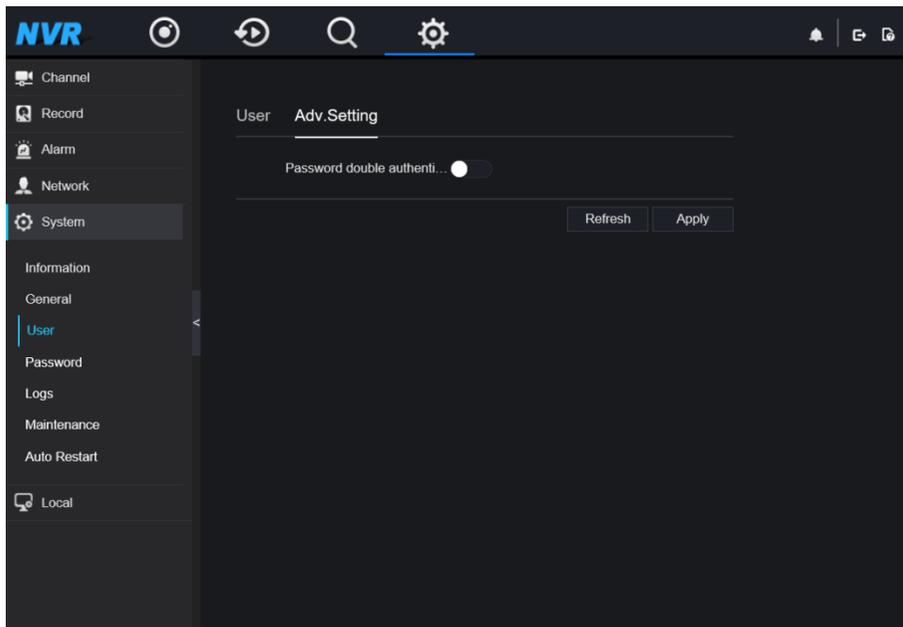
---End

9.5.3.2 Adv.Setting

Procedure

Step 1 On the **System Setting** screen, choose **System > User > Adv. Setting** to access interface, as shown in Figure 9-44.

Figure 9-44 Adv. Setting interface



Step 2 Enable the **Password double authentication**. If the user want to playback video , he need input another username and password to authenticate.

Step 3 Click **Apply** to save the device time setting. Click **Refresh** to return to previous setting.

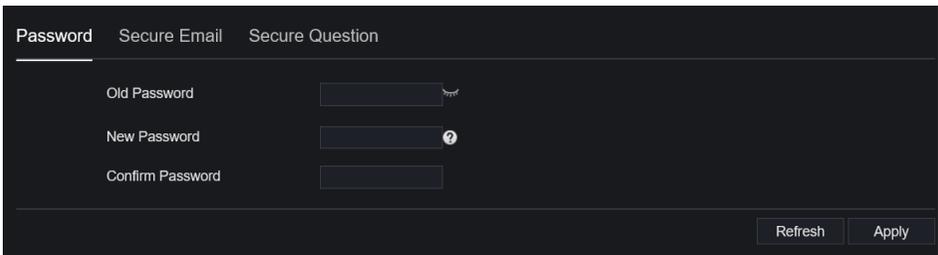
9.5.4 Security Center

9.5.4.1 Password

Procedure

Step 1 On the **System Setting** screen, choose **System >Security Center** to access password interface, as shown in Figure 9-45.

Figure 9-45 Password interface

The screenshot shows a dark-themed interface for password management. At the top, there are three tabs: "Password" (selected), "Secure Email", and "Secure Question". Below the tabs, there are three input fields: "Old Password" with a visibility toggle (eye icon), "New Password" with a help icon (question mark), and "Confirm Password". At the bottom right, there are two buttons: "Refresh" and "Apply".

Step 2 Input old password, new password and confirm password.

Step 3 Click **Apply** to save settings. Click **Refresh** to return to previous setting.

NOTE

Valid password range [6-32] characters.

At least 2 kinds of numbers, lowercase, uppercase or special character contained.

Only special characters are support !@#*\$%+&=.,

9.5.4.2 Secure Email

The secure email can receive the verification code of NVR, if user forgot the password accidentally.

Password **Secure Email** Secure Question

Password

E-mail

Refresh Apply

9.5.4.3 Secure Question

User can modify the password to login the NVR if user forgot the password and answer correctly the secure questions.

Password Secure Email **Secure Question**

Password

Question one

Question one answer

Question two

Question two answer

Question three

Question three answer

- Please enter at least 1 characters for the answer
- Please enter up to 32 characters for the answer

Refresh Apply

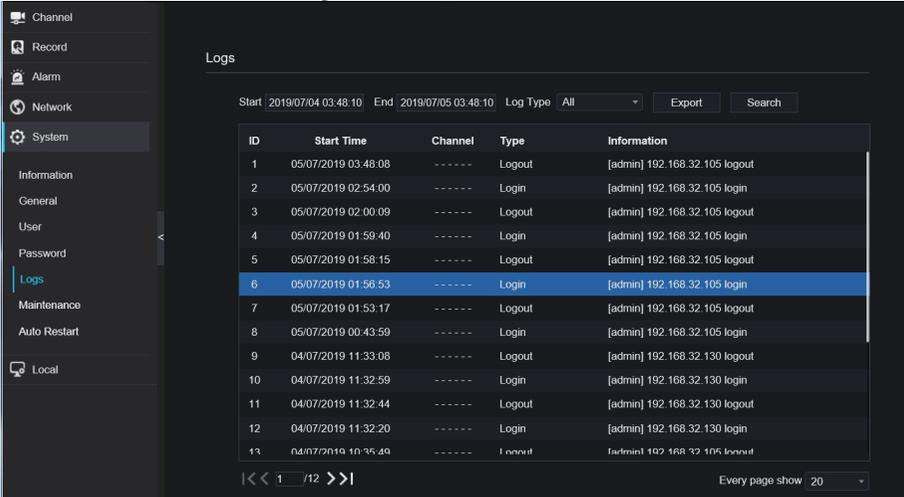
---End

9.5.5 Logs

Procedure

Step 1 On the **System Setting** screen, choose **System >Logs** to access logs interface, as shown in Figure 9-46.

Figure 9-46 Logs interface



Step 2 Set start and end time from calendar.

Step 3 Select log type from drop-down list.

Step 4 Click **Search** to acquire log information.

Step 5 Click **Export** to export the logs.

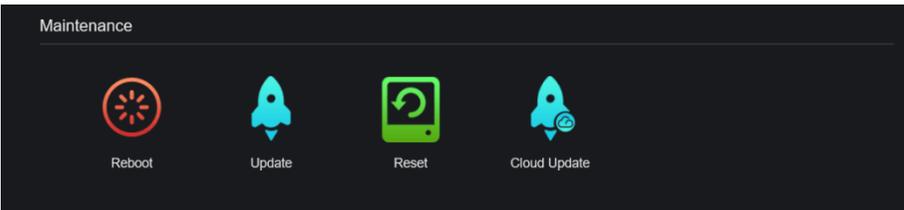
---End

9.5.6 Maintenance

Procedure

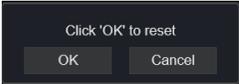
Step 1 On the **System Setting** screen, choose **System >Maintenance** to access maintenance interface, as shown in Figure 9-47.

Figure 9-47 Maintenance interface



Step 2 Click **Reboot**, the pop-up message would show you, click **OK** to reboot.

Step 3 Click **Update**, the message shows  , choose software from specific location to update.

Step 4 Click **Reset**, the pop-up message  shows to you, click  to reset.

Step 5 If the device is online, and the cloud server has the software, click the **Cloud Update**, it shows ‘make sure to update’ , click **OK** to update.

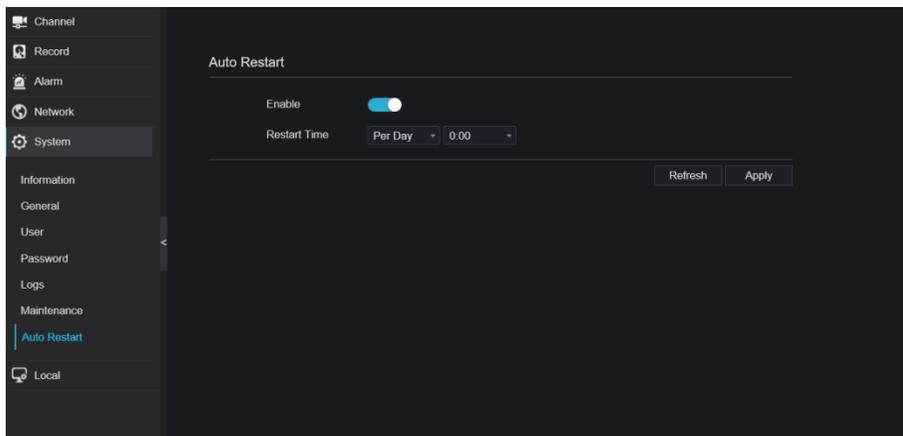
----End

9.5.7 Auto Restart

Procedure

Step 1 On the **System Setting** screen, choose **System > Auto Restart** to access auto restart enable the auto restart, the screen as shown in Figure 9-48.

Figure 9-48 Auto restart



Step 2 Select one type of restart time from drop-down list.

Step 3 Click  to save settings. Click  to return to previous setting.

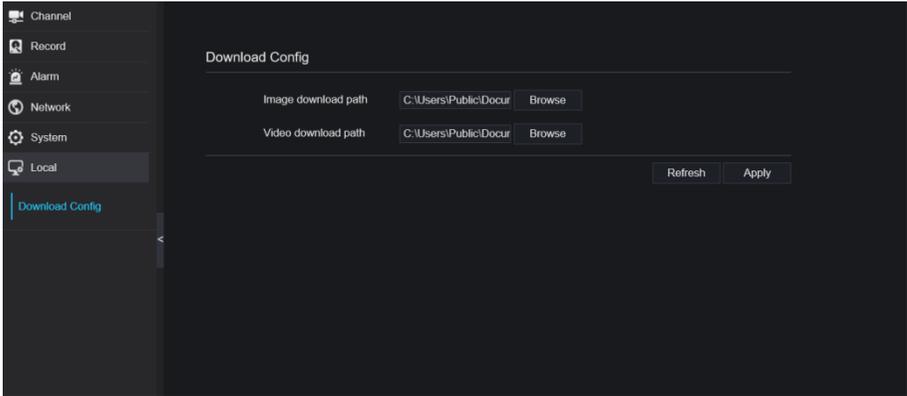
9.6 Local

Set the image download path for snapshot and the record download path for record files in the download configuration interface.

Procedure

Step 1 Click **Local Download Config** in local interface, as shown in Figure 9-49.

Figure 9-49 Local interface



Step 2 Enter the image download path.

Step 3 Enter the record download path.

Step 4 Click **Refresh** to return the previous settings. Click **Apply** to save the settings.

----End

10 Disk Compatibility

The hard disks in the following list are tested and certified by our company, if you want to use other hard disks, please consult to our technical staff.

Table 10-1 Disk specification

| Disk Brand | Type | Capacity | Model | Parameter | Verification of Platform |
|---------------------|------------------|----------|-----------------------|---------------------------------|---|
| WD(Western Digital) | Monitoring level | 3T | WD30EJRX -89G3VY0 | 3000G/ 5400RPM/64MB /SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 1T | WD10EJRX -89N74Y0 | 1000G/5400RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 4T | WD40PUR X-64GVNY0 | 4000G/5400RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 2T | WD20EUR S-63S48Y0 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 3T | WD30EUR S-63SPKY0 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 0.5T | WD5000AA KK-001CA0 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 1T | WD10EZE X-00BN5A0 | 1000G/7200RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |

| | | | | | |
|---------|---------------------|-----|--------------------------|------------------------------|---|
| | | 4T | WD40EJRX -89T1XY0 | 4000G/5400RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 3T | WD30PUR X-64P6ZY0 | 3000G/5400RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 6T | WD60PUR X- 64WYOY1 | 6000G/5400RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 8T | WD82EJRX -89AD9Y0 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | Desktop | 12T | WD121EJR X-89S5UY0 | 7200RPM/256M B/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| Seagate | Monitoring level | 2T | ST2000VX0 00 | 2000G/5900RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 2T | ST2000VX0 08 | 2000G/5900RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 4T | ST4000VX0 00 | 4000G/5900RP M/ 64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 3T | ST3000VX0 00 | 3000G/5900RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 4T | ST3000VX0 10 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 1T | ST31000528 | | NVR25 Series /NVR 26 |

| | | | | | |
|---------|---------------------|----|------------------|---------------------------------|---|
| | | | AS | | Series /ADR33 Series /ADR36 Series |
| | | 6T | ST6000VX0 001 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 3T | ST3000VX0 10 | 3000G/5900RP M/64MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | | 8T | ST8000VX0 002 | | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| | Enterprise level | 6T | ST6000VN0 011 | 6000G/7200RP M/128MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |
| Toshiba | Monitoring level | 1T | DT01ABA1 00V | 1000G/5400 RPM /32MB/SATA | NVR25 Series /NVR 26 Series /ADR33 Series /ADR36 Series |

Video recording size per channel per hour =bitrate (kbps)*3600/1200/8 (M)

Recording duration =Total hard disk capacity (M) / Video recording size per channel per hour /
number channels (H)