
Network Video Recorder User's Manual




Responsibility Statement:

- This Manual may include some inaccurate or not practical points due to product continuous upgrade , we will modify this manual in time and inform the users
- This Manual is just for reference, we can't make sure all info is totally same with the real products, please check the real products for exact info.
- The parts, components and accessories mentioned in this manual don't mean the standard configuration, for detail configuration, please refer to the real products.
- The pictures, forms and words used in this Manual are not allowed to be transferred without approval.

Default Info:

- Default administrator account: admin
- Default administrator password: 1111
- Default IP address:192.168.1.3

Signal Explanation:

| Signals | Explanation |
|---|---|
|  | Low or moderate potential risk, it may slightly or moderately injure persons if the risks can't avoided. |
|  | Potential risks .If this signal is ignored, it may damage the device, lost data, lower device functions or other potential damages. |
|  | Additional info on the contents. |

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1. Product Main Functions

Basic Functions:

- Support IP camera, high speed dome IP camera, Internet video server, and third-party IP products.
- Support Onvif standard protocol.
- Each channel supports dual -stream compression.
- Each channel's encoder parameter is adjustable, including resolution, frame rate, bite rate, image qualify.
- Each channel support two recording template: timing and event template.
- Support fast adding devices.

Local Monitor

- Support VGA and HDMI.
- Support split preview screen: 1/4/6/8/9/16/25/32
- Support quick menu in preview interface.
- Support camera intelligent analysis processing and built-in intelligent analysis function.
- Support motion detection/lost video/hidden image detection.
- Support pan/tilt/zoom control protocol, support setting preset, cruise, scan and pattern.

Hard Disk Files Management

- Display SMART info.
- Set disk property: redundancy , read-only, write, backup
- Support disk hibernation.
- Support Raid, settings disk group, distributing different video into target disk.

Records and Playback

- Trigger recording methods, manual recording, timing recording, port/motion detection/ lost video/hidden image/intelligent video alarms recording.

-
- Set pre-recording and post-recording linked by alarms
 - Query records according to timing/events.
 - Support local redundancy recording.
 - Support encrypted recording files.
 - Support 4 recording period each day, each period can be set as different recording template.
 - Support special recording template in holiday.
 - Smart search for records according to channels ,video type, start and end time , file format
 - Support various playback modes: event/label/external file/smart /picture playback.
 - Picture snapshot on videos, different records are marked different colors.
 - Support: Pause, rapid play, slow play, jump advance 30s, jump after30s, target position by moving mouse.
 - Enlarge or shorten the time bar by mouse roll.
 - Digital zoom in any region in playback interface.
 - Video records support Play back function.
 - Max 16 channels synchronous playback.

Backup

- Backup by USB
- Back up files in batch.
- Backup record clips of playback interface
- Backup according to channels and time
- Backup device management.

Alarm and Unusual Situation Management

- Set time for alarm in/out
- Alarm detection on lost video / motion detection/port /intelligent analysis. All these alarms can activate actions, such as single screen display, sound alert,

upload into control center, send emails, alarm output, video recording by any channel .

- Unusual situation detection includes no disk, full disk, error in disk reading and writing, illegal access, IP address conflict, MAC address conflict, no available redundant disk, offline, hot spare error. All these info can link, screen alert info, sound alert, upload into to management center.
- When the system is unusually running, software watch -dog will reboot the system.

Other Functions

- Four levels of user management, the administrator can set different levels of user and grant them different authority.
- Manually trigger alarm and clear alarms.
- Import and export configuration.

Internet Function

- Support TCP/IP/PPPoE/DHCP/DNS/DDNS/NTP/SADP/NFS/HTTPS.
- Built-in WEB server.
- Support unicast and multicast, unicast supports TCP.UDP.RTP protocol.
- Support remote query , playback ,download ,lock and unlock records
- Gain / set/import/export parameter by remote access ,
- Gain info about device status, system log ,alarm status by remote access
- Format hard disk, upgrade, reboot system by remote access .
- Alarm port extension by alarm host.
- Manually trigger and stop recording by remotes access.
- Manually trigger and stop alarm output by remotes access.
- Control PTZ by remotes access.
- Audio intercom and broadcast.

Support on Development

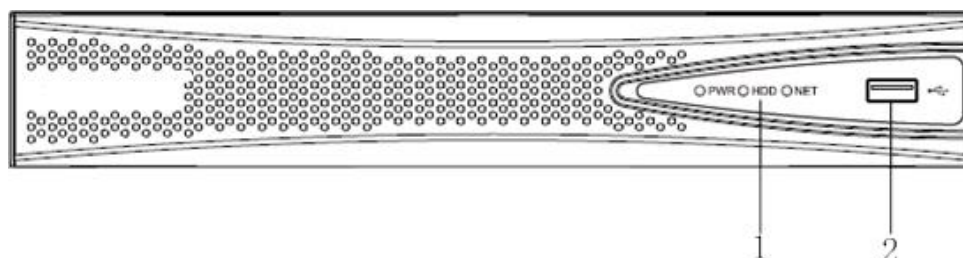
- We can offer SDK for Windows and Linux system.

-
- Original code for some software function.
 - Development support and training on user system .

2. Operation Instruction

2.1 Front Panel

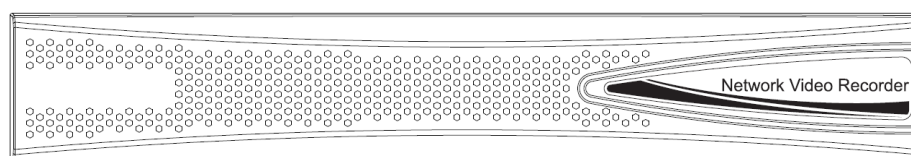
The following picture is PSE series NVR front panel.



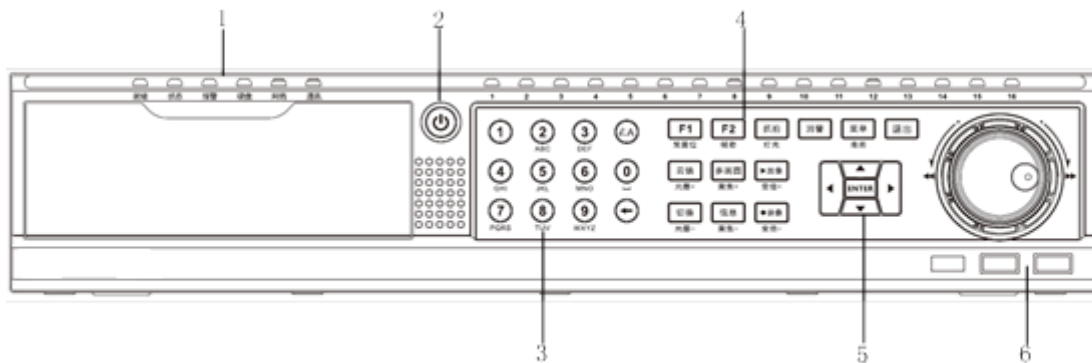
Function list:

| NO. | Type | Name | Explanation |
|-----|--------------|----------|--|
| 1 | Status light | PWR | Power light will light up after the device power on |
| | | HDD | HDD light will light up when reading and writing disk |
| | | Internet | Internet light will light up after the device is connected with internet . |
| 2 | Port | USB | USB port can connect mouse , flash disk , portable HDD |

Standard series NVR(1/2/4 HDD) front panel:



Standard series NVR(8 HDD) front panel:



Standard series NVR(8 HDD) front panel lights:

| NO. | Type | Name | Explanation |
|-----|---------------|----------------|---|
| 1 | Status lights | Power light | It lights up after the nvr is powered on |
| | | Status light | It lights up under remote controller |
| | | Alarm light | It lights up after system alarms |
| | | HDD lights | HDD light will light up when reading and writing disk |
| | | Internet | Internet light will light up after the device is connected with internet . |
| | | Communication | It lights up when front panel communicate with main board |
| | | 1—16 | Lights for 1-16channels: blue light for previewing , yellow color for recording |
| 2 | Button | Power switch | Open/close NVR. |
| 3 | Button | Numbers button | Press number buttons to choose relative preview interface Input numbers In editable mode |

| | | | |
|---|-----------|-------------------|---|
| 4 | Button | Function buttons | For PTZ, these buttons can call preset .zoom ; control iris, focal length ,lights and wiper. Other function : manually record, playback records , swift between main and sub output port , clear off alarms ,call main menu. |
| 5 | Button | Direction buttons | In main menu, it is used to choose options up and down . In playback interface , it is used to speed up , slow down playing process , choose files up and down . |
| 6 | Interface | USB interface | It can connect mouse , flash disk , portable HDD |

2.3 Mouse Operation Instruction:

Mouse can control devices after being connected with device by USB. For details, please the following picture:

| Part on mouse | Behavior | Instruction |
|---------------|--------------|---|
| Left button | Left click | <ul style="list-style-type: none"> ● Preview interface :click "+" to add device ● Preview interface :click to show fast menu when there is image . ● Menu interface :choose and confirm. |
| | Double click | In preview and playback interface , click to swift from single and multi split screen |
| | drag | <ul style="list-style-type: none"> ● Change direction for PTZ ● Set region for mask , motion ● Change the position between two screen |
| Right button | Click | <ul style="list-style-type: none"> ● Preview interface :click to show menu ● Menu :Exit current menu , back to prior |

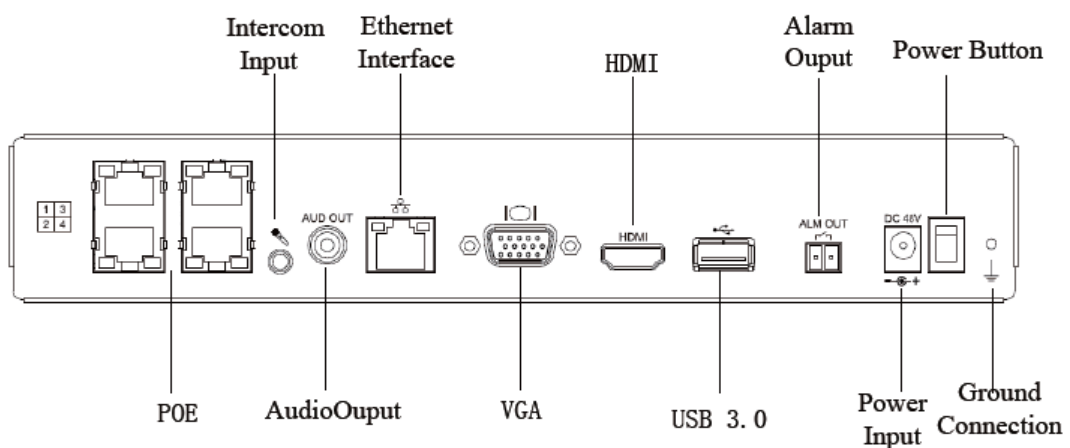
| | | |
|--------|----------------|---|
| | | interface. |
| Roller | Slid up | <ul style="list-style-type: none"> ● Slid to choose options ● Slid to show upper page |
| | Slid down | <ul style="list-style-type: none"> ● Slid to choose options ● Slid to show lower page |
| | Press and drag | Swift mouse between main and vice screen. |

3. Installation and Connection

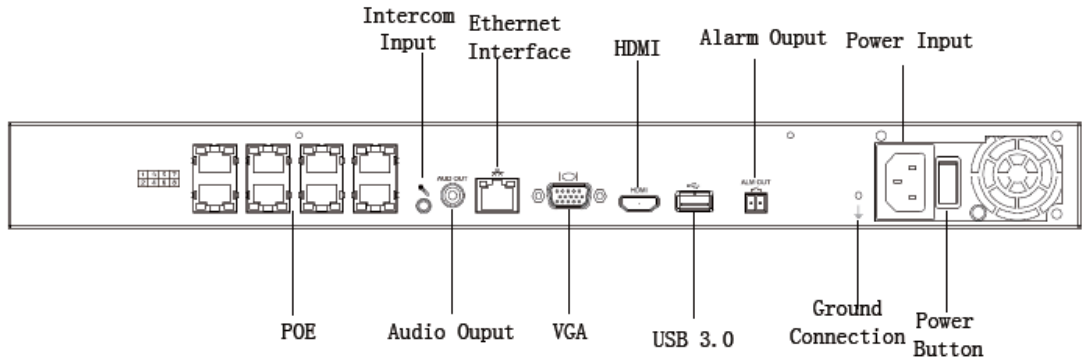
Before using, first please install HDD, then install NVR and other parts

2.2 Rear Panel

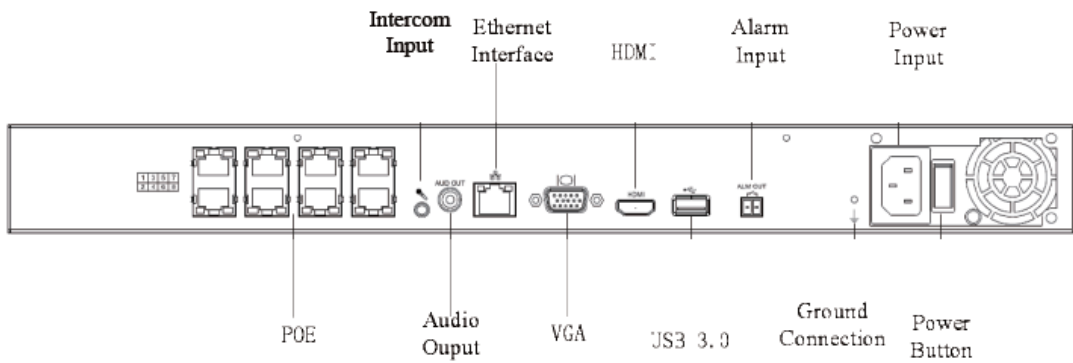
PSE series NVR(4ch 1 HDD)rear panel is like the following picture :



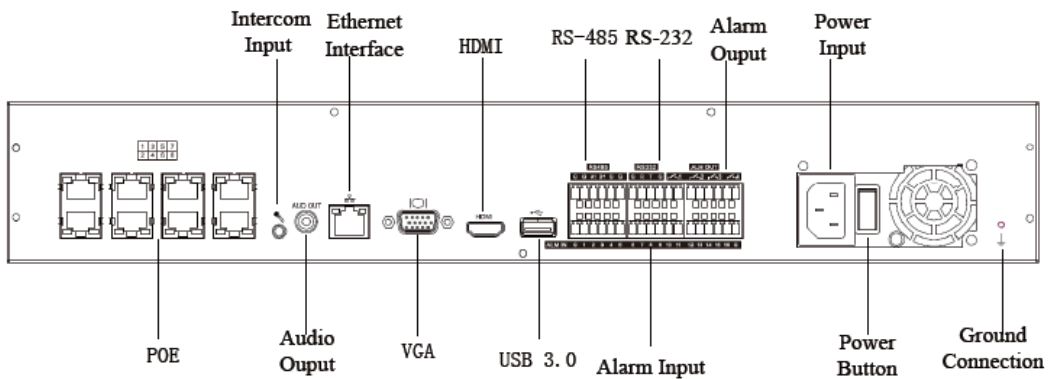
PSE series NVR (4ch 2HDD) rear panel is like the following picture:



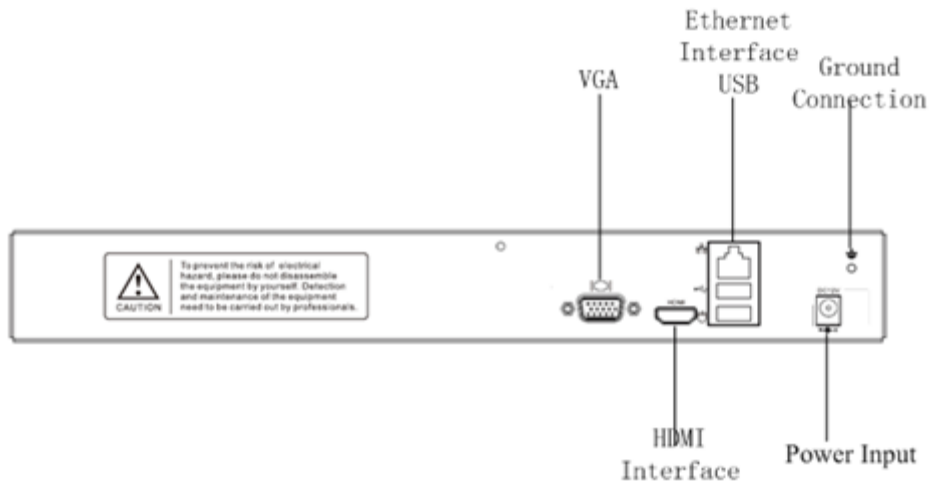
PSE series NVR (8ch 2HDD/16ch 2HDD) rear panel is like the following picture :



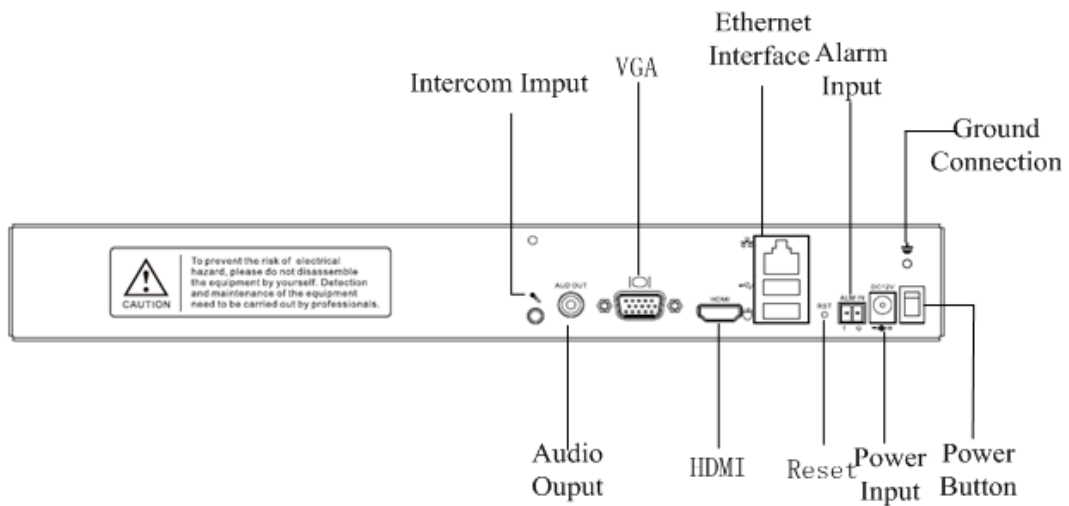
PSE series NVR (16ch 4HDD)rear panel is like the following picture :



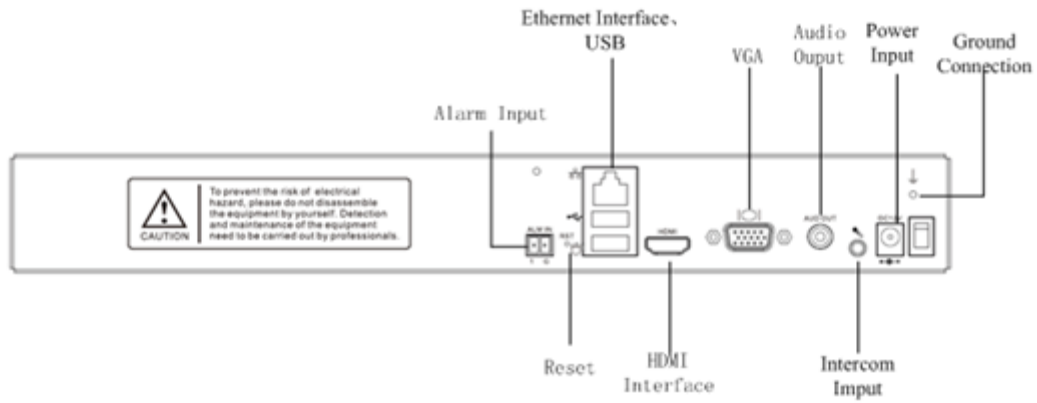
Standard series NVR (4ch 1HDD)rear panel is like the following picture :



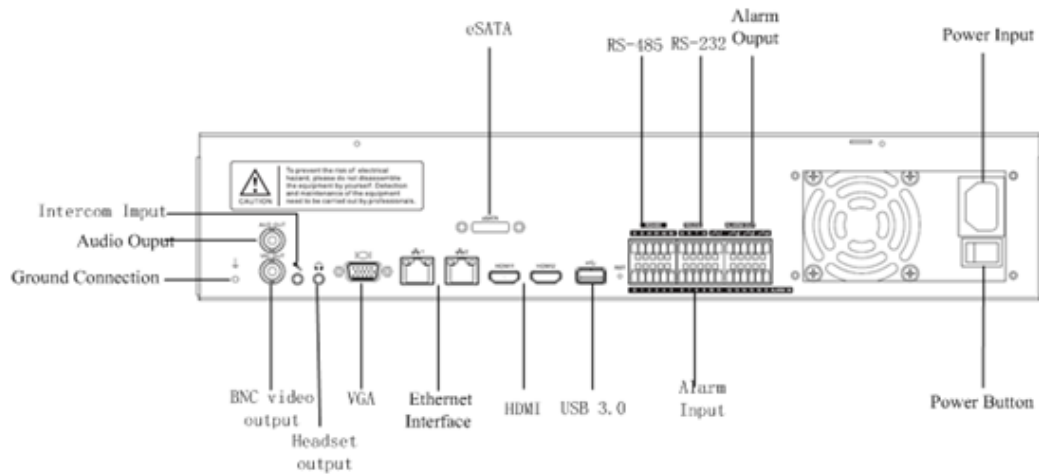
Standard series NVR (4ch 2HDD/8ch 2HDD)rear panel is like the following picture :



Standard series NVR (16ch 2HDD/16ch 4HDD)rear panel is like the following picture :



Standard series NVR (16ch 8HDD/32ch 8HDD)rear panel is like the following picture :



3.1 Warning



Warning:

Change battery or adapter may cause explosion. If necessary, please replace it by same type.

Installation precaution:

- Don't put liquid container on NVR
- NVR should be installed in good ventilation condition, distance between different NVR should be more 2CM.
- Working temperature (-10°C~+55°C), humidity (10%~90%)
- Please power off when clean NVR
- The dust in board may lead to short circuit in humid condition. It is necessary to clean the board, connector and assembly, device case and fan with banister brush in time. If necessary, mild detergent after being diluted by water can be used. And finally please dry the device.
- When cleaning the NVR, don't use alcohol, benzene, diluter or other volatile solvent. Don't use strong and abrasive cleaner in case of scratching the NVR interface.
- Please buy HDD in regulated channel, we suggest Seagate.
- Please pay attention to even mechanical load to avoid and damage.
- Please make sure there is enough space for audio/video cable, cable bending radius should be no more than 5 times cable diameter.
- Please make sure NVR have ground protection.

3.2 HDD installation

NVR not include HDD. The disassembly of NVR case and HDD installation must be done by professional person.



Precaution:

- Please use monitoring-level HDD used specially for NVR.
- Make sure the device is powered off before installation

3.2.1 HDD capacity calculation method:

The total capacity is calculated according to recording demand (record type, records retention time), the following sheet can be used as reference

Examples:

| Bite rate | File size/hour | Bite rate | File size/hour |
|-----------|----------------|------------|----------------|
| 96Kbps | 42M | 128 Kbps | 56 M |
| 160 Kbps | 70 M | 192 Kbps | 84 M |
| 224 Kbps | 98 M | 256 Kbps | 112 M |
| 320 Kbps | 140 M | 384 Kbps | 168 M |
| 448 Kbps | 196 M | 512 Kbps | 225 M |
| 640 Kbps | 281 M | 768 Kbps | 337 M |
| 896 Kbps | 393 M | 1024 Kbps | 450 M |
| 1280 Kbps | 562 M | 1536 Kbps | 675 M |
| 1792 Kbps | 787 M | 2048 Kbps | 900 M |
| 3072 Kbps | 1350 M | 4096 Kbps | 1800 M |
| 8192 Kbps | 3600 M | 16384 Kbps | 7200M |

⚠️ Precaution:

The upper file just for reference, file size may be a bit different with reality. Any damage made by this will not be taken by manufacturer.

3.2.2 HDD installation steps:

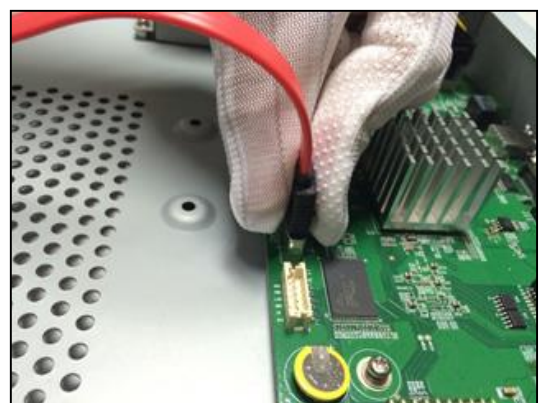
Tool : Philip's head screw

Instruction pictures(1):

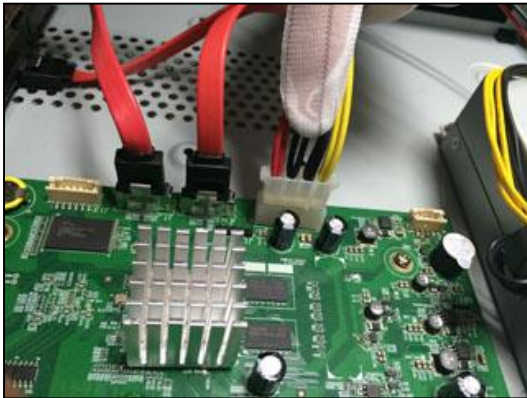
1. Loose the screws on the upper cover and remove the cover from the NVR.



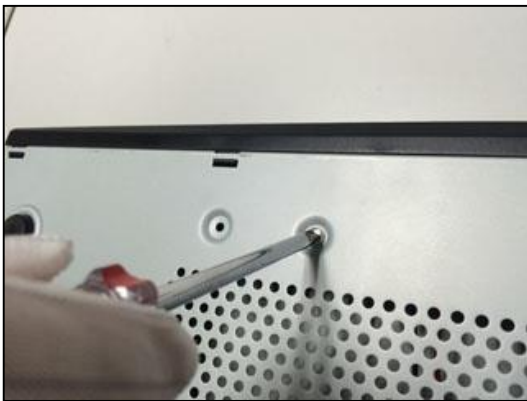
2. Connect the data bus of HDD to the SATA data bus connector of the NVR.



3. Connect the power cable of HDD to the power connector of the NVR.



4. Fix the HDD with screws onto the bottom of the NVR. And then close the upper cover of the NVR, and fasten all the screws loosened in step 1.

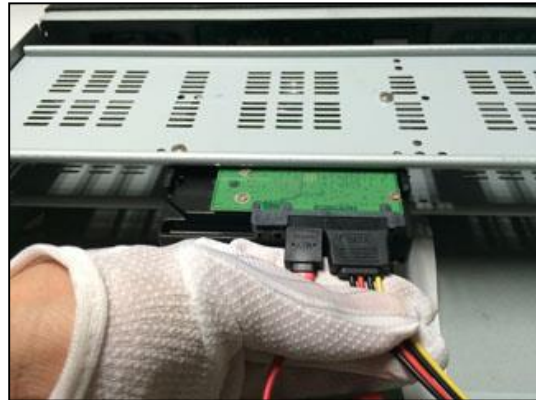


Instruction pictures(2):

1. Loose the screws on the upper cover and remove the cover from the NVR.



2. Connect the data bus of HDD to the SATA data bus connector of the NVR.



3. Connect the power cable of HDD to the power connector of the NVR.



4. Configuration and Operation

4.1 Start Up/Log Out

4.1.1 Start Up

 **Precaution:**

Before starting up the device, please make sure the power input and ground protection is well done.

Before starting up the device, please make sure NVR output interface and monitor is well connected.

Please make sure the power supplier is stable in case of any unusual condition or damage caused by this.

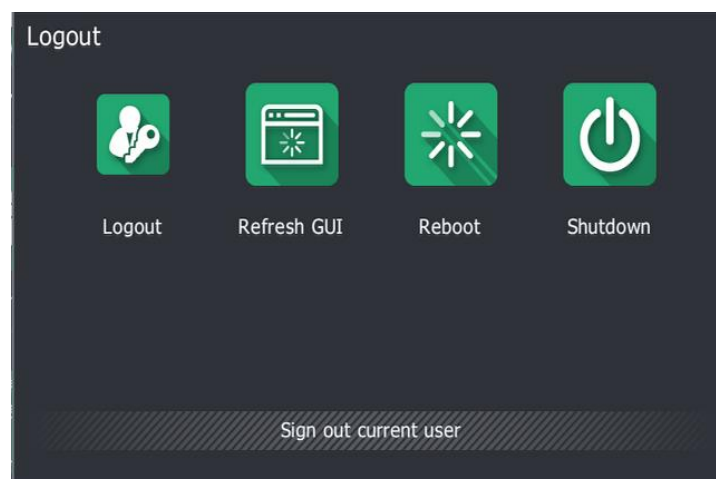
1. plug in power , open power on button on rear panel , the NVR will start up when it beeps .

2. NVR will show the following interface when starting up .



4.1.2 Log out

1. Choose "main menu ->log out".





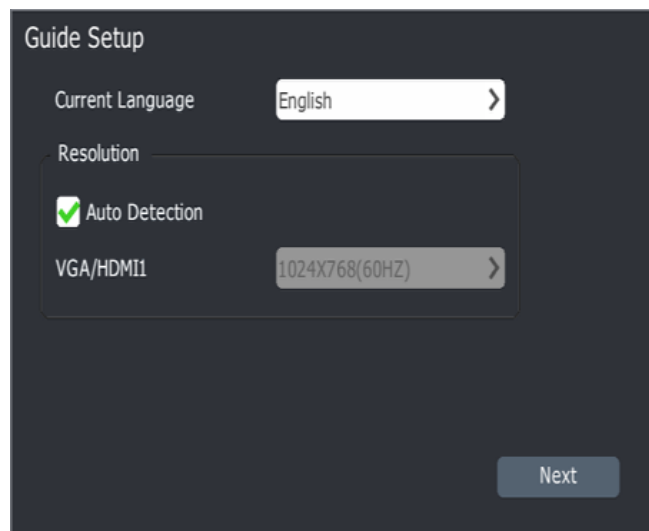
Precaution:

- Don't power off when the system shows "sign out current user"
- Don't power off compulsorily when the device is running.

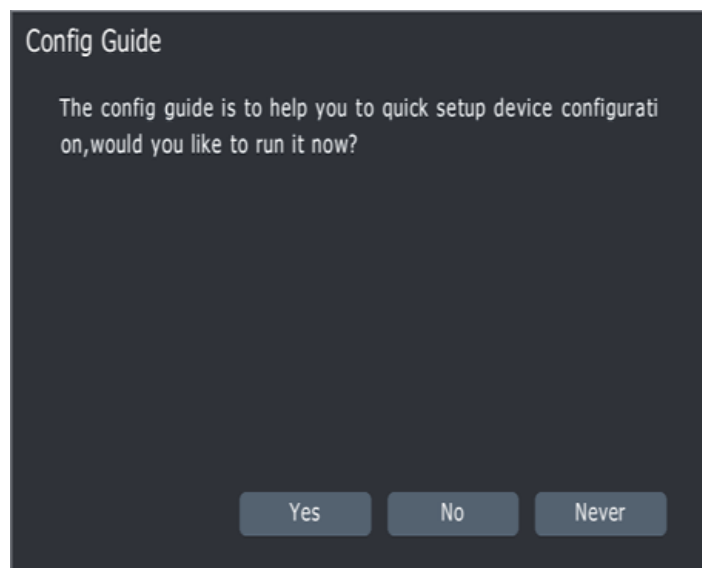
4.2 Guide setup

Customer can do fast setting on the device by "guide setup"

1. First, set the current language, output resolution, and auto detection of device.



2. Click "Next" to "Configure Guide Setup".

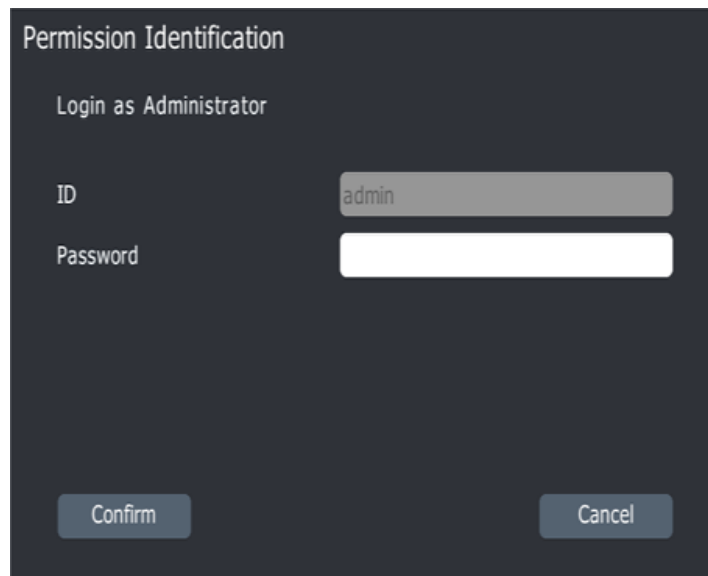




Note Choose "Yes" to continue running "Guide setup"; choose "No" to jump "Guide setup", choose "Never" to jump "Guide setup" automatically when starting up the system next time.

3. Choose "Yes", it will show the following interface:

- **ID: admin**
- **Password: admin**



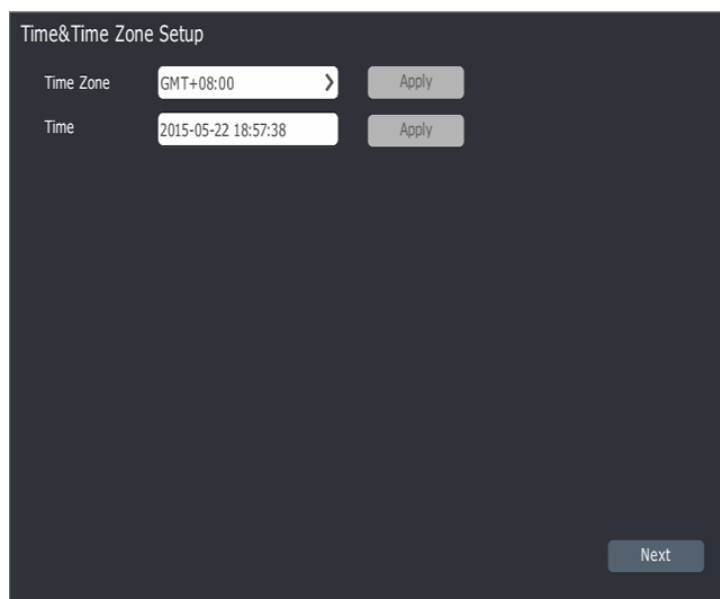
Permission Identification

Login as Administrator

ID

Password

4. Click "confirm" to enter "Time and Time zone" setting interface



Time & Time Zone Setup

Time Zone

Time

5. Click "Next" to enter "Network Setup" interface.

The screenshot shows the "Network Setup" interface for NIC 2. The MAC Address is 00:50:c2:28:4a:4a. The "Auto obtain IP address via DHCP" checkbox is unchecked. The "Manual setup IP address" checkbox is checked, with the following fields: IP Address (010.030.021.047), SubNet Mask (255.255.255.000), and Gateway (010.030.021.001). The "Manual Setup DNS" checkbox is also checked, with Preferred DNS (192.168.001.001) and Reserved DNS (192.168.001.001). There are "Apply", "Back", and "Next" buttons at the bottom.

6. Click "next" to formatting Disk.

The screenshot shows the "Format Disk" interface. It features a table with the following data:

| Device | Size | Used | Free | Sleep |
|--------|-------|------|------|-------|
| SATA1 | 1.82T | -- | -- | N |

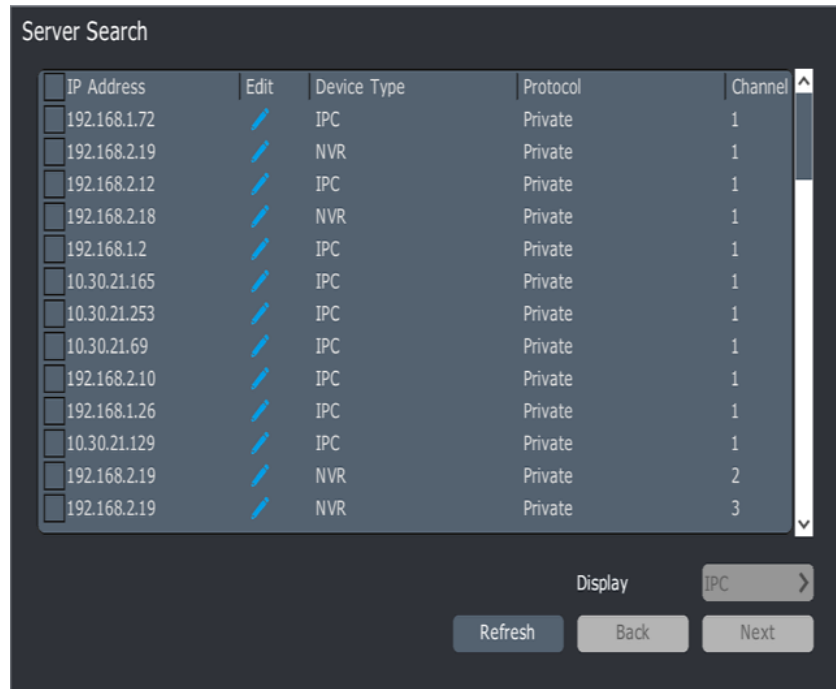
Below the table, there are "Initialization", "Back", and "Next" buttons.



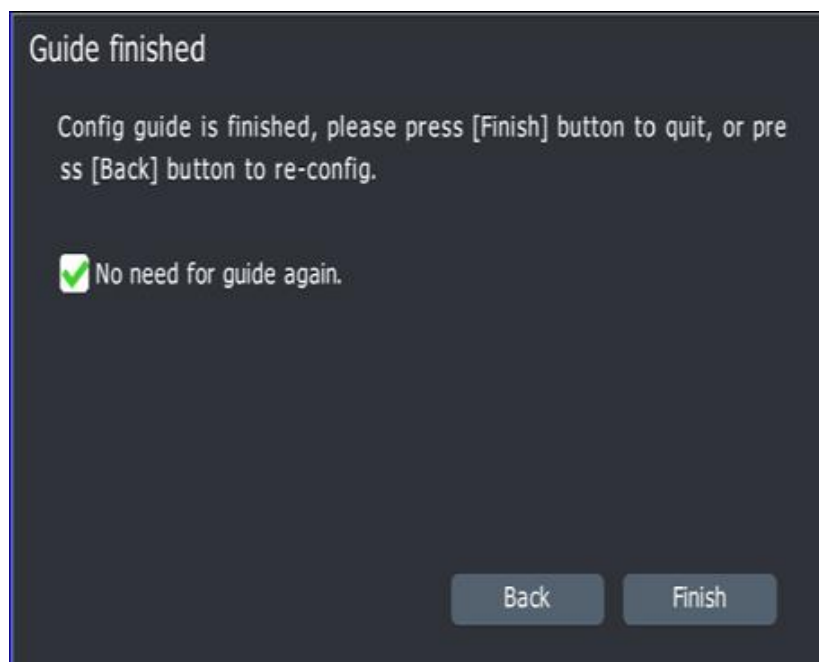
Note

You must initialize the hard disk before recording.

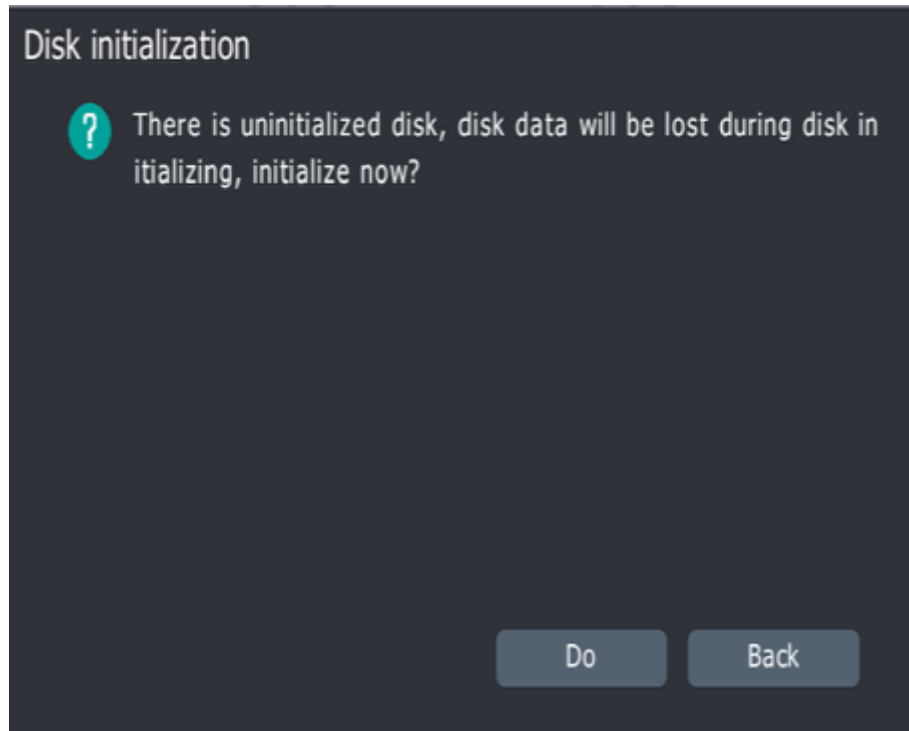
7. Click "next" to search and add devices.



8. After configuration guide is finished, it will show the following interface



9.If there is still uninitialized disk , it will show the following interface.

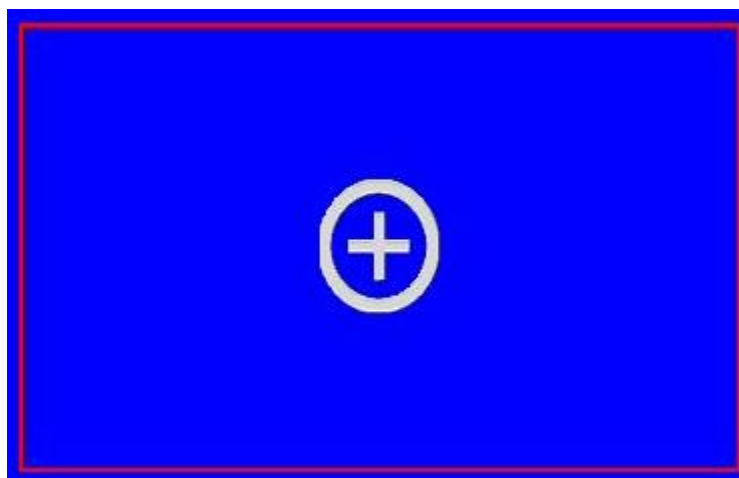


Click "Do", then the system will automatically formatting the uninitialized disks

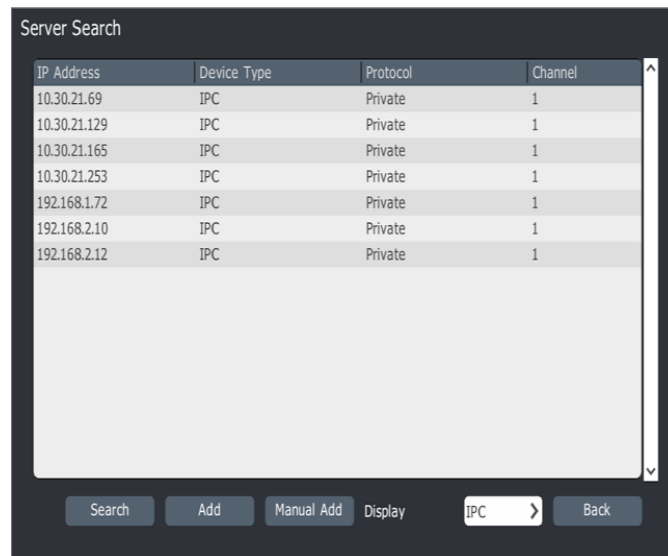
4.3 channel management

4.3.1 Add device.

If there is no camera to be added in this channel, it will show the following mark , click "+" to add device.



1. Click "+" to see following.



The screenshot shows a 'Server Search' window with a table of results and a control bar at the bottom. The table has four columns: IP Address, Device Type, Protocol, and Channel. The results are as follows:

| IP Address | Device Type | Protocol | Channel |
|--------------|-------------|----------|---------|
| 10.30.21.69 | IPC | Private | 1 |
| 10.30.21.129 | IPC | Private | 1 |
| 10.30.21.165 | IPC | Private | 1 |
| 10.30.21.253 | IPC | Private | 1 |
| 192.168.1.72 | IPC | Private | 1 |
| 192.168.2.10 | IPC | Private | 1 |
| 192.168.2.12 | IPC | Private | 1 |

At the bottom of the window, there is a control bar with buttons for 'Search', 'Add', 'Manual Add', 'Display', a dropdown menu currently showing 'IPC', and a 'Back' button.



Note

- Mouse click is not available in searching process.
- The system will automatically add the devices with default port, ID and password. If the info doesn't match the default, customer can choose "Manual Add".

2. After searching, double click the IP address in the list to add device or choose "Add" button.

3. Choose "Manual Add", it will show the following interface.

Digital Channel

| | | | |
|----------------|---|----------------|---|
| Channel No. | <input type="text" value="01"/> | State | <input type="checkbox"/> Enable |
| Add Method | <input type="text" value="Manual Add"/> | Device Type | <input type="text" value="Private Protocol"/> |
| Connect mode | <input type="text" value="IP"/> | Device Address | <input type="text" value="0.0.0.0"/> |
| Proxy IP | <input type="text"/> | Port No. | <input type="text" value="3000"/> |
| Device Channel | <input type="text" value="01"/> | User | <input type="text" value="Admin"/> |
| Stream | <input type="text" value="Mainstream"/> | Password | <input type="text" value="****"/> |
| Decryption | <input type="text"/> | | |

Smart Adding

| | | | | |
|---|---|---------------------------------|---|---------------------------------|
| <input type="checkbox"/> IP address ascending | Target Channel | <input type="text" value="01"/> | - | <input type="text" value="32"/> |
| <input type="checkbox"/> Channel number ascending | <input type="button" value="Batch Adding"/> | | | |

Bandwidth Remain

4. After input Device IP address, Port NO., User name and password, then it will add devices successfully.

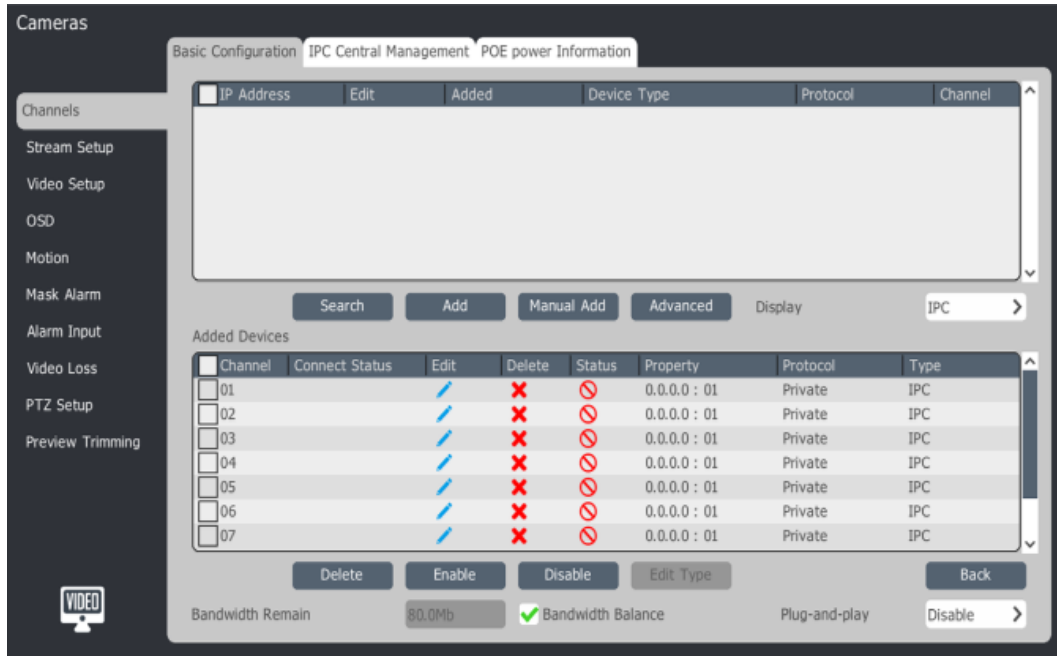


Note

- For PSE-NVR POE port, the system will add devices automatically, for PSE-NVR standard port, it support manual add.

4.3.2 Add devices in usual way

1. Choose "main menu->channel management->basic configuration" to enter channel management interface as the following picture.



Note

- For difference devices, this interface is different.
- Adding successfully, you can see the device in the "added devices" list.

2. In the search result, the sequence is arranged automatically according to IP

address. Clients can click to change the IP address.

Click "Advance Search", customer can search devices according to different connect mode.

3. In the search result interface, choose the IP address, then click "Add" to add device into NVR channel , or double click IP address to add. It supports bulk adding.



Note

- For PSE-NVR digital channels, if it showed "Plug and Play" in this channel, then it is occupied.
- Manual Add

1. Go to channel configuration -> basic configuration, click "manual add" to enter digital channel interface.

Digital Channel

| | | | |
|----------------|------------|----------------|---------------------------------|
| Channel No. | 01 | State | <input type="checkbox"/> Enable |
| Add Method | Manual Add | Device Type | Private Protocol |
| Connect mode | IP | Device Address | 0.0.0.0 |
| Proxy IP | | Port No. | 3000 |
| Device Channel | 01 | User | Admin |
| Stream | Mainstream | Password | **** |
| Decryption | | | |

Smart Adding

| | | | | |
|---|----------------|---|---|----|
| <input type="checkbox"/> IP address ascending | Target Channel | 01 | — | 32 |
| <input type="checkbox"/> Channel number ascending | | <input type="button" value="Batch Adding"/> | | |

Bandwidth Remain 200.0Mb

2. Choose the channel number to add the camera, check "enable" button, choose connection mode according to camera type. When you select RTSP in device type, you will going to interface as follow.

Digital Channel

Channel No. 01 > State Enable

Add Method Manual Add > Device Type RTSP >

Connect mode TCP > URL Address rtsp://

Proxy IP

Device Channel 01 > User Admin

Stream Mainstream > Password ****

Decryption

Smart Adding

IP address ascending Target Channel 01 > - 32 >

Channel number ascending Batch Adding

Bandwidth Remain 200.0Mb Confirm Cancel

3. When you select ONVIF in device type, you will going to interface as follow.

Digital Channel

Channel No. 01 > State Enable

Add Method Manual Add > Device Type ONVIF >

Connect mode TCP > Device Address 0.0.0.0

Proxy IP Port No. 80

Device Channel 01 > User Admin

Stream Mainstream > Password ****

Decryption

Smart Adding

IP address ascending Target Channel 01 > - 32 >

Channel number ascending Batch Adding

Bandwidth Remain 200.0Mb Confirm Cancel



-
4. Input device IP address or URL address, User name and password, click "confirm" to finish adding. Adding other devices in the same way.

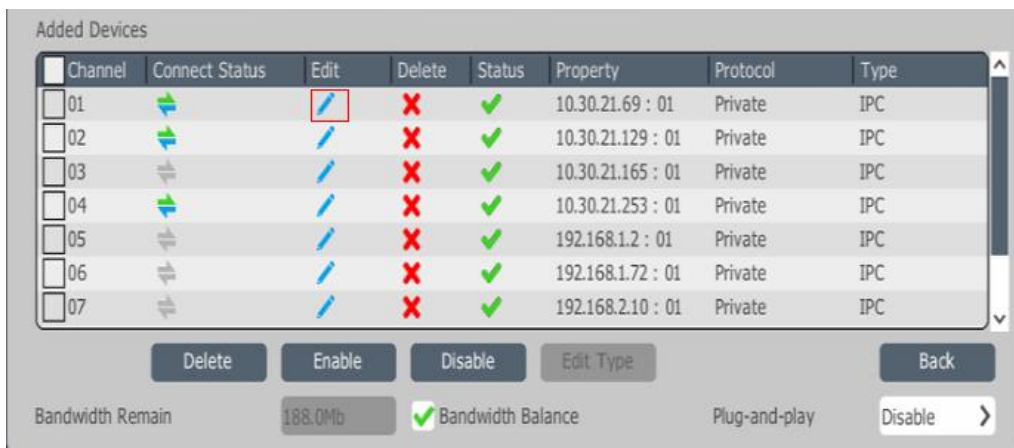


Note

- If you want to add several channels together, please choose the channels in "device channels" interface
- If you choose adding devices with IP address increasing, then after the IP address's last number reach 255, it will stop adding.
- If the device type is ONVIF, default port is 80, user and password is Admin/Admin, for different brand devices, the log in account and password may be different.

4.3.3 Add device in NVR PSE channel

1. Click  In "channel configuration"->" basic configuration" ->"added list "
2. In "Added Devices" interface, click  or double click channels to enter "Digital channels" interface



| Channel | Connect Status | Edit | Delete | Status | Property | Protocol | Type |
|-----------------------------|----------------|------|--------|--------|-------------------|----------|------|
| <input type="checkbox"/> 01 | | | | | 10.30.21.69 : 01 | Private | IPC |
| <input type="checkbox"/> 02 | | | | | 10.30.21.129 : 01 | Private | IPC |
| <input type="checkbox"/> 03 | | | | | 10.30.21.165 : 01 | Private | IPC |
| <input type="checkbox"/> 04 | | | | | 10.30.21.253 : 01 | Private | IPC |
| <input type="checkbox"/> 05 | | | | | 192.168.1.2 : 01 | Private | IPC |
| <input type="checkbox"/> 06 | | | | | 192.168.1.72 : 01 | Private | IPC |
| <input type="checkbox"/> 07 | | | | | 192.168.2.10 : 01 | Private | IPC |

Bandwidth Remain 188.0Mb Bandwidth Balance Plug-and-play

3. PSE channel can be added devices in two ways "plug and play" and "manual add"
 - 1) For "Manual Add", the device should be access to internet
 - 2) For "plug and play", connect the camera in POE port, the system will add automatically.

4.3.4 Plug and Play Set

Users can enable "plug and play" to add cameras In the same LAN.

- There are three options for “plug and play”
- Disable: Cannot add device in “plug and play”, users can add cameras manually.
- Add automatic: NVR will automatically search and add devices.
- Automatic found: When you get back to preview interface, the system will automatically search the available devices and show the following interface. You can choose whether you want to add this device or not.

New device found

New device has been found, as shown below

Device MAC address: 00:50:c2:28:12:56

Device IP address: 10.30.21.165

Add to channel: 01

Change Plug-and-play type

Disable Automatic

Confirm Cancel



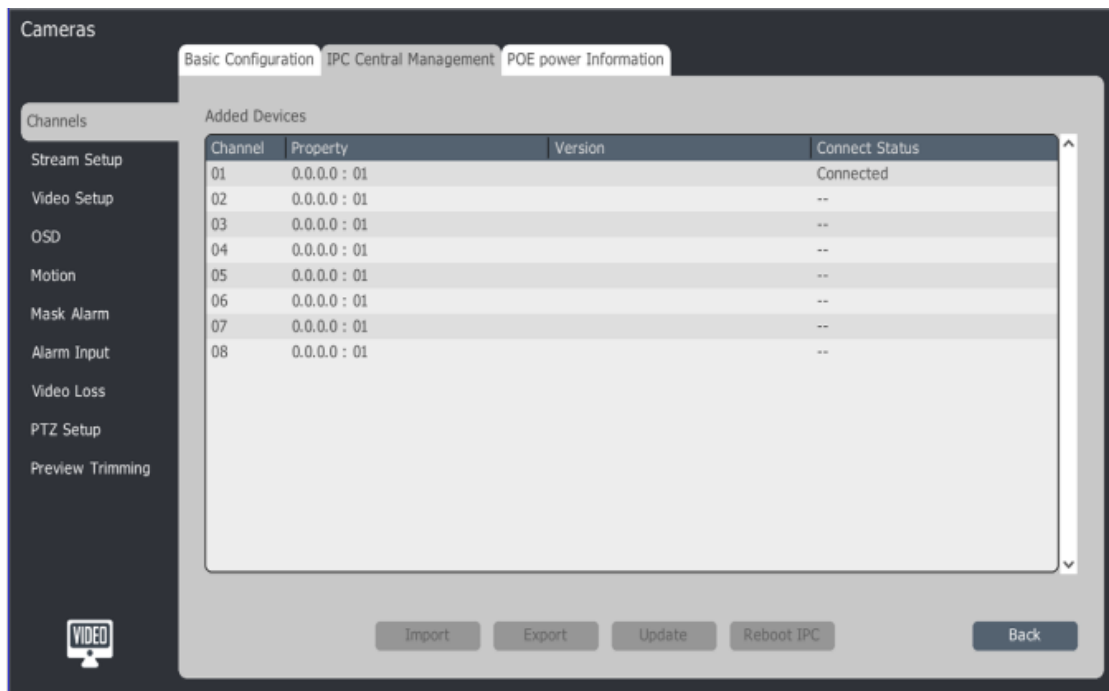
Note

- “plug and play” function will automatically clear off “added device ” list , and automatically change the cameras’ IP address in search result .

4.3.5 IPC Central Management:

Through IPC central management, users can export and import the parameters, or upgrade firmware remotely, or reboot added devices.

1. Go to main menu ->channel configuration->IPC central management.



Note

- This interface shows added cameras' channel number, property, version and connect status.

2.parameter import/export

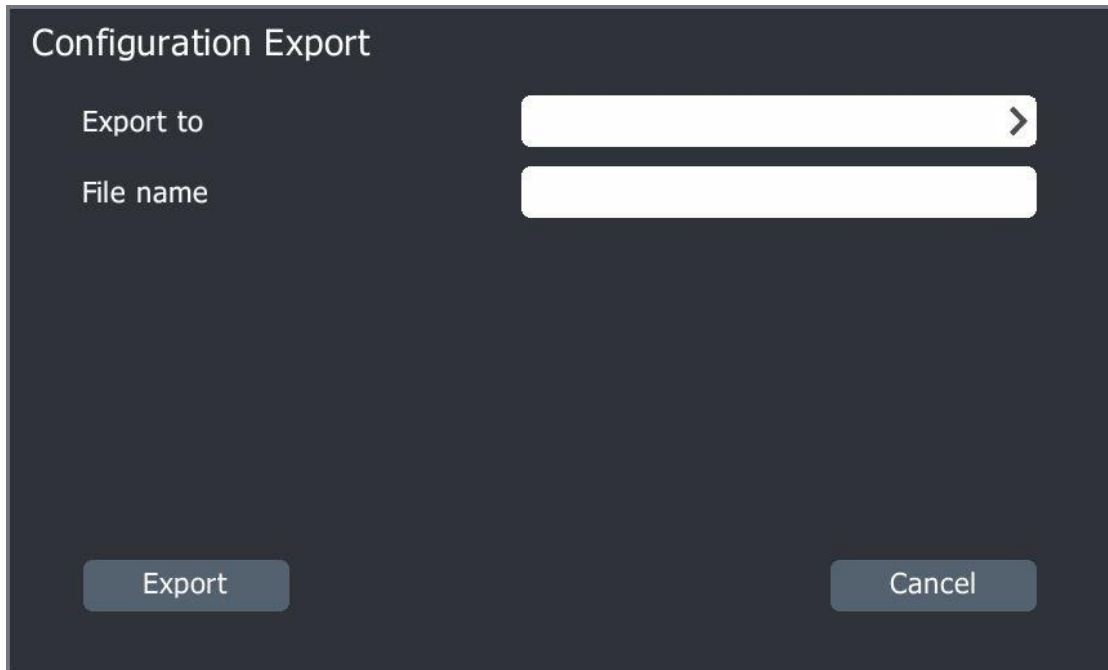
- 1) Choose the camera for import/export in added list.
- 2) Click "import".
- 3) Choose target configuration backup file to import.



Note

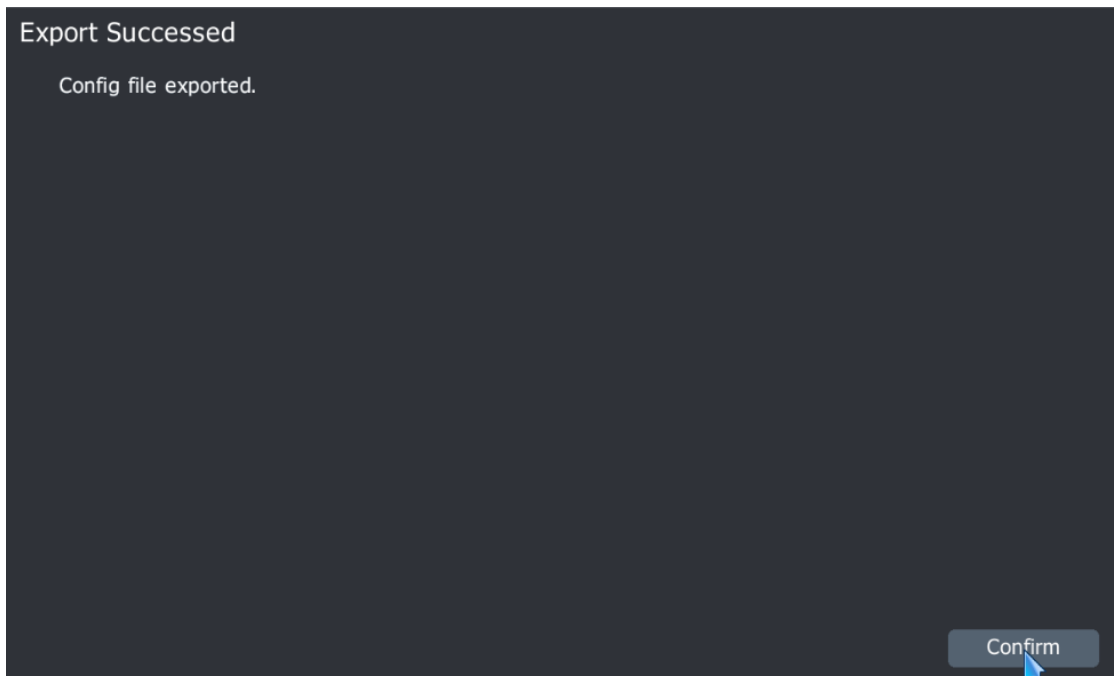
- After the parameter is imported successfully ,the camera will reboot automatically

4) Click "export" to go to following page.



The image shows a dark-themed dialog box titled "Configuration Export". It contains two input fields: "Export to" with a dropdown arrow and "File name" with a text input field. At the bottom, there are two buttons: "Export" on the left and "Cancel" on the right.

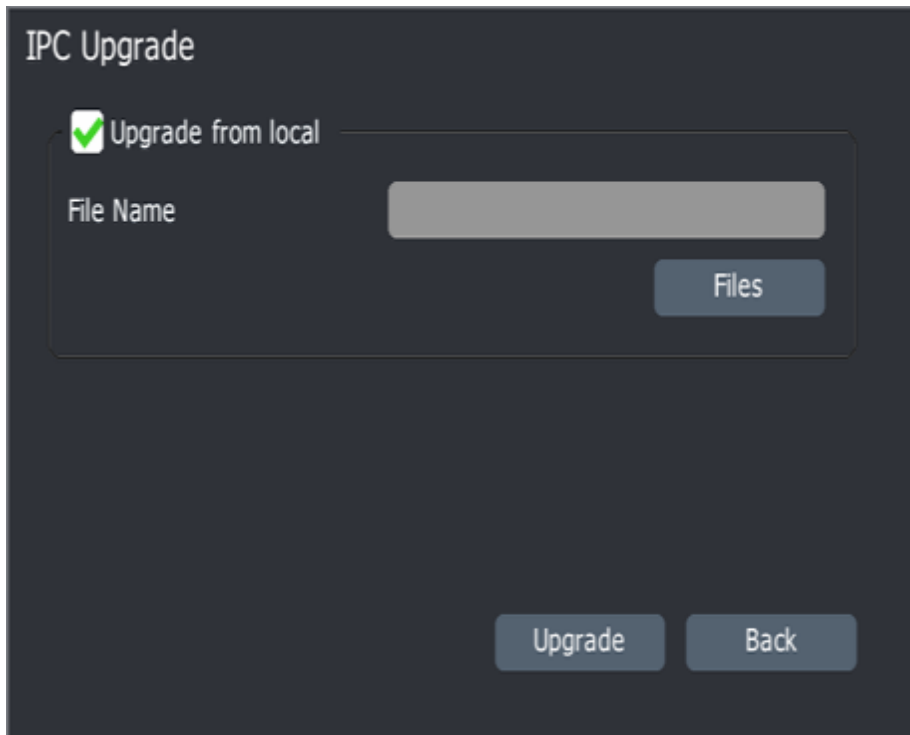
5) Choose saving path for exporting files. When it shows the following image, it export successfully.



Upgrade by remote access, reboot IPC

1) Choose the camera for import/export in added list.

2) Click "upgrade".



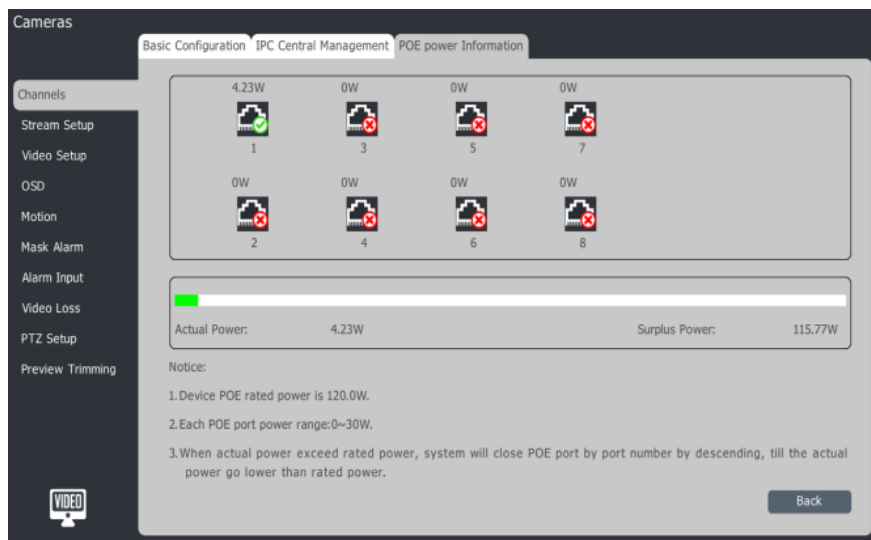
3) Click "browser files" to choose upgrade file

4) Click "reboot IPC" to restart cameras.

4.3.6 POE Power Info.




Only PSE NVR has this function

1. Go to "main menu->channel management ->channels->POE power information".



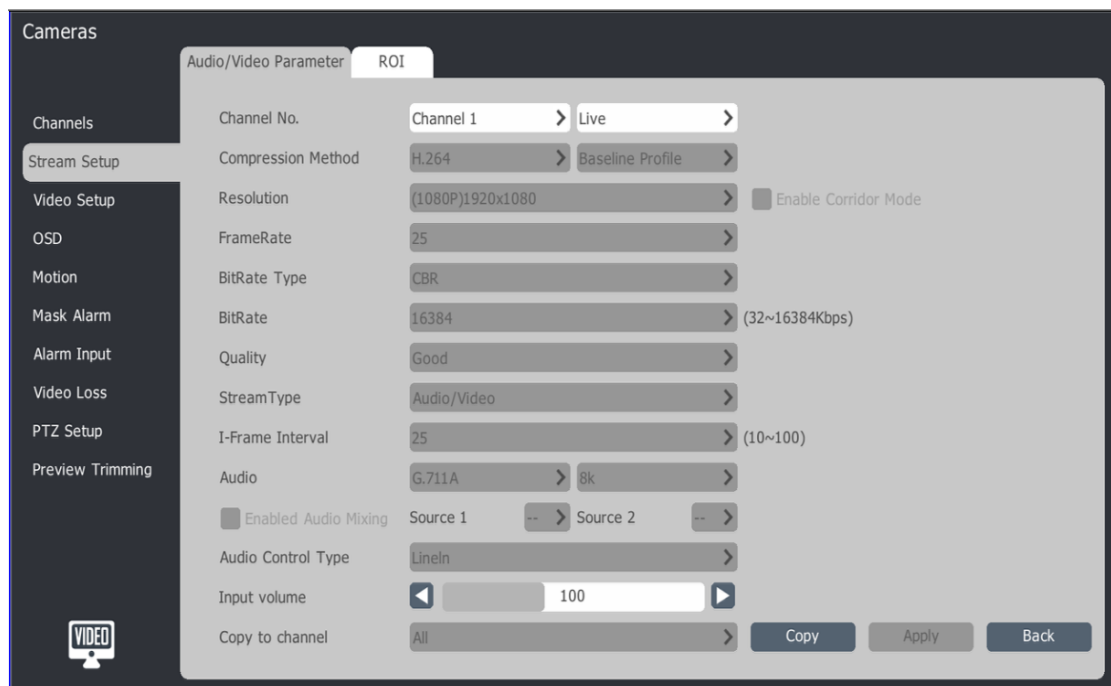


Note

- “” means POE supply is working well.
- “” means no camera connected or no power
- “” means real-time power info.

4.3.7 Stream setup

1. Select main menu-cameras-stream setup



Video/audio parameter

1. Select channel

- Channel No.: video compression type: live(current status cannot be modified) ,main stream(timing), main stream(event), sub-stream, timing template1, timing template2.
- Compression type: support H.264 and High Profile, Main Profile, Baseline Profile.
- Resolution: Setup the resolution of camera.

-
- Enable corridor mode: change 16:9 into 9:16.
 - Frame Rate: Video frames per second
 - Bit rate type: CBR(Constant Bit Rate) and VBR(Variable Bit Rate) for option. CBR is to fix bit rate, and VBR will fluctuate according to if there are many moving objects or not.
 - Bit Rate Range: 32-16384Kbps.
 - Quality: Best, better, good, normal and poor.
 - Stream Type: Video and video/audio
 - I-Frame Interval: From how many frames is there an I-frame to be abstracted I-Frame is the most important key frame in frames.
 - Audio: ADPCM_D(ADPCM_DIV4).G.711A.G.711U for option. And also support 8K.32K.48K three audio sampling rate.
 - Enable Audio Mixing: In order to meet special requirements, it need mix two channel audio, when the equipment has a virtual channel (VC) synthesis, the two different channels in the channel can be mixing.
 - Audio Control Type: Line-in and Mic-in.
 - Input volume: Range is 0-255.



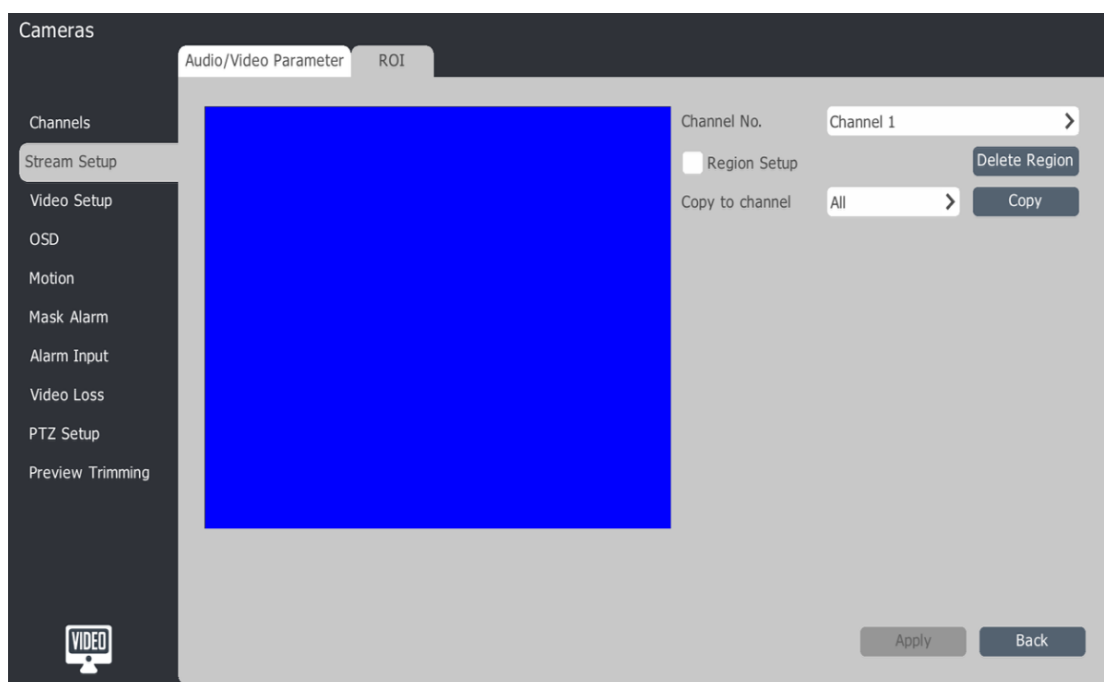
Note

- Sub stream is often used for network transmission and mobile monitoring.
- Corridor mode only for 1080P/720P/QXGA

ROI

High quality picture in ROI

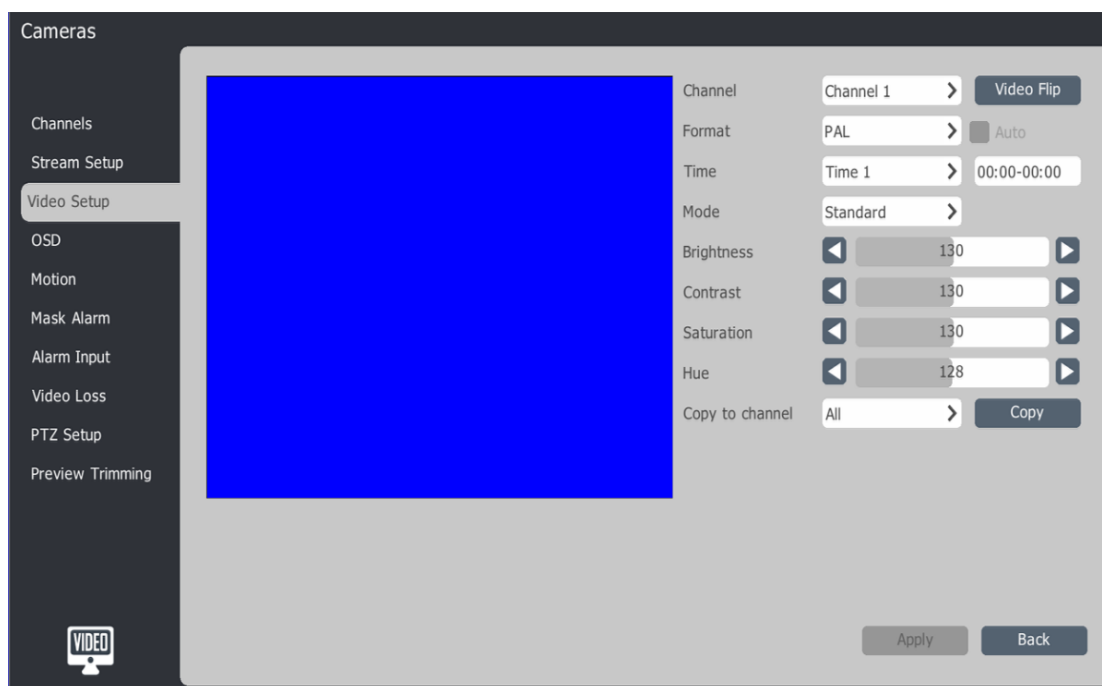
1. Select ROI interface



2. Select region setup and enable this function, hold the left mouse button drag on the screen to set the key area. It support up to 4 ROI.
3. Click apply and save the setup.

4.3.8 Video Setup

1. Select main menu -> -cameras -> video setup





2. Select channel

3. Setup format, video flip and mode.



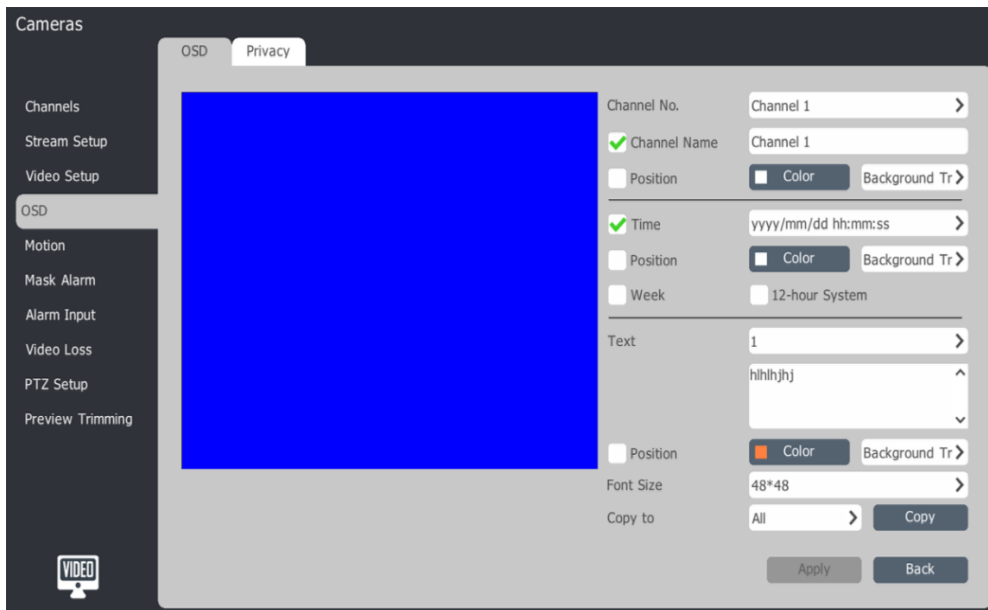
Note

- Equipment support four period and a temporary value, different time parameters can be independent configuration, time period shall not overlap, if start time and end time are same the setting will be disabled. The current time is out of the period, according to the provisional value to set the video input parameters
- There are 5 modes including standard, indoor, weak light, outdoor and custom.
- Brightness, contrast, saturation, hue are adjustable between 0-255
- You can copy the configuration to all other channels.
- Use the mouse wheel can adjust the value, also can click the icon  and  increase or decrease the value.

5. Click apply to save parameter.

4.3.9 OSD

1. Select main menu -> cameras -> OSD



OSD

1. Select channel

2. Setup OSD for this channel

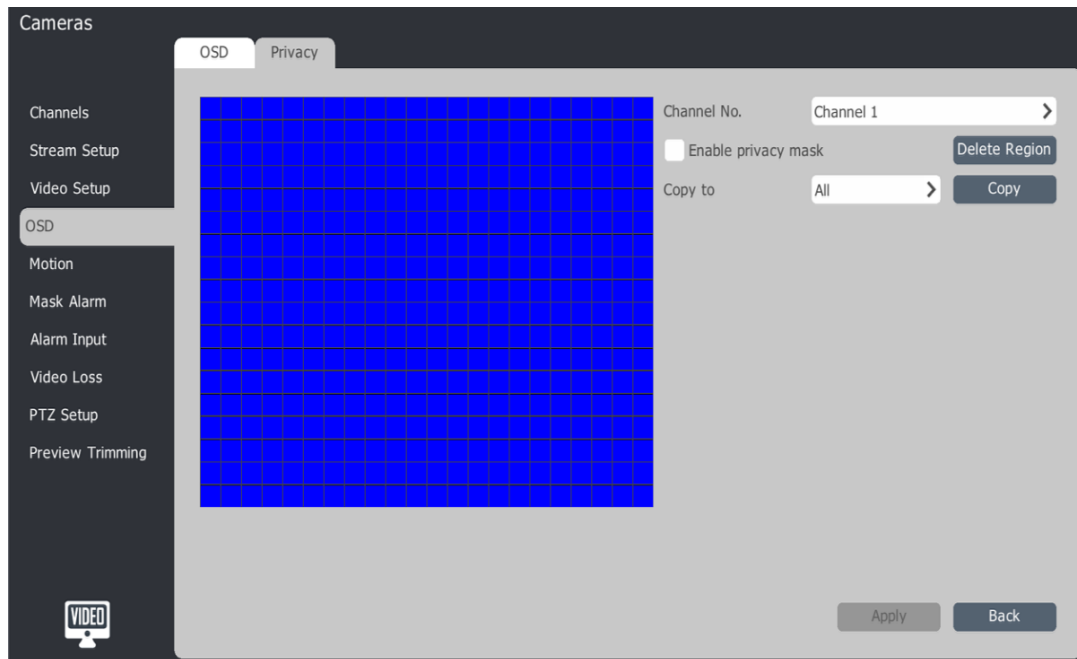
If want to change OSD position, drag OSD into target location directly.



Note

- OSD setup include name, date, week, 12 hours system, date format, time format, OSE color and background color.

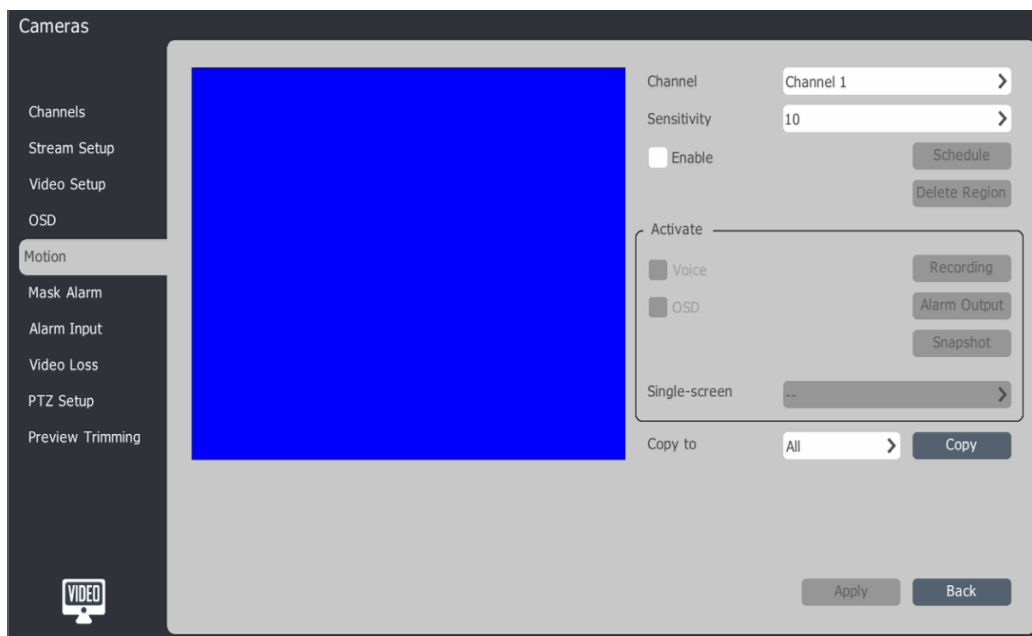
Privacy



1. Select channel.
2. Drag mouse and set privacy area.

4.3.10 Motion

1. Select main menu -> cameras -> motion



2. Select channel

3. Setup motion schedule time, region and sensitivity.

1) Click enable.

2) Click schedule to schedule time.

3) Drag mouse to select region of motion detection.

4) Edit the sensitivity. The bigger the value is, the more sensitive the motion detection alarm is.

4. Select activate to link other actions.

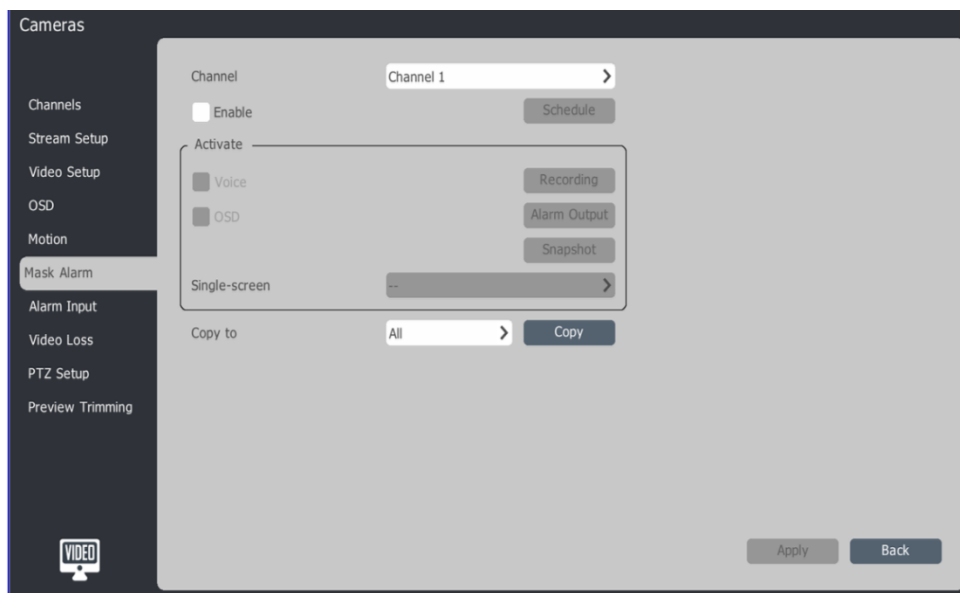
1) It can trigger voice prompt, screen display, record, alarm output, capture and single screen.

2) Parameter can copy to other channel

5. Click apply to save parameter.

4.3.11 Mask Alarm

1. Select main menu -> cameras -> mask alarm



2. Select channel

3. Check enable

4. Click schedule to schedule time.

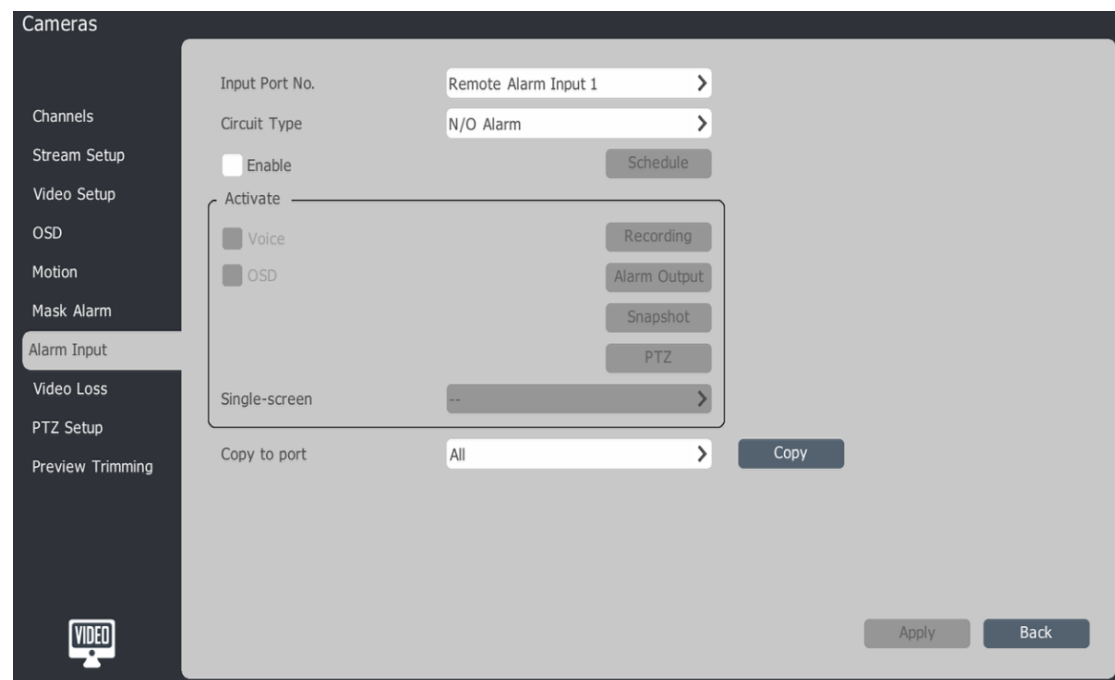
5. Select activate, when the alarm occurs, it can trigger voice prompt, screen display, record, alarm output, capture and single picture.

6. Parameter can be copy to other channels and clicks apply to save setup.

4.3.12 Alarm Input

Alarm input means there are external alarm devices to be connected with, such as switch alarm, smoke alarm, laser alarm, temperature alarm, and etc.

1. Select main menu -> cameras -> alarm input



2. Select port.

3. Select alarm type.

4. Click enable, and click schedule to schedule time.

5. Select activate to link other actions.

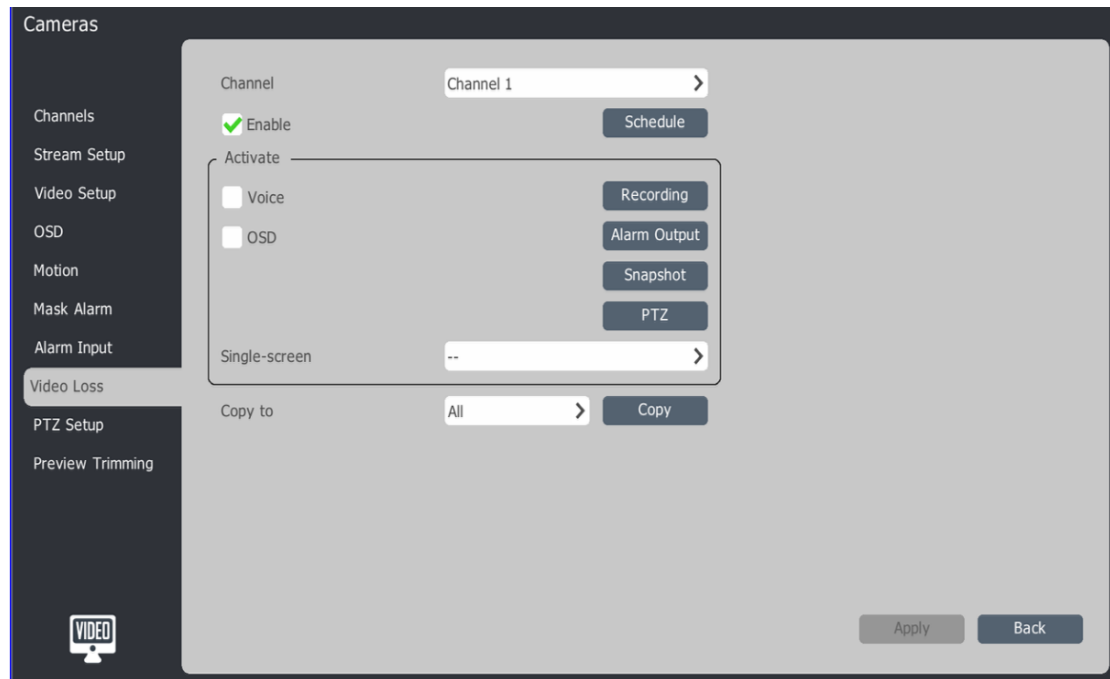
1) It can trigger voice prompt, screen display, record, alarm output, capture and single picture.

2) Parameter can copy to other channel.

6. Click apply to save parameter.

4.3.13 Video Loss

1. Select main menu -> cameras -> video loss



2. Select channel.

3. Select enable and click schedule then setup alarm input schedule time.

4. Select activate to link other actions.

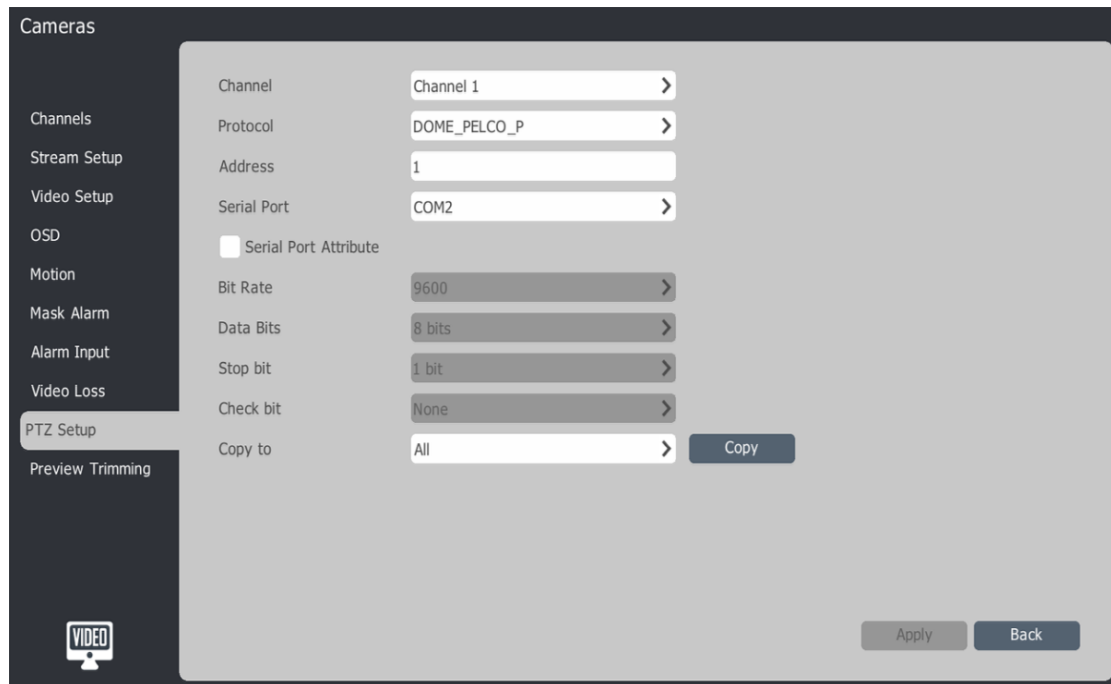
1) It can trigger voice prompt, screen display, record, alarm output, capture and single picture.

2) Parameter can copy to other channel

5. Click apply to save parameter.

4.3.14 PTZ Setup

1. Select main menu -> cameras -> PTZ Setup



2. Select channel.
3. Select PTZ control protocol, address and port.
4. Click apply to save parameter.



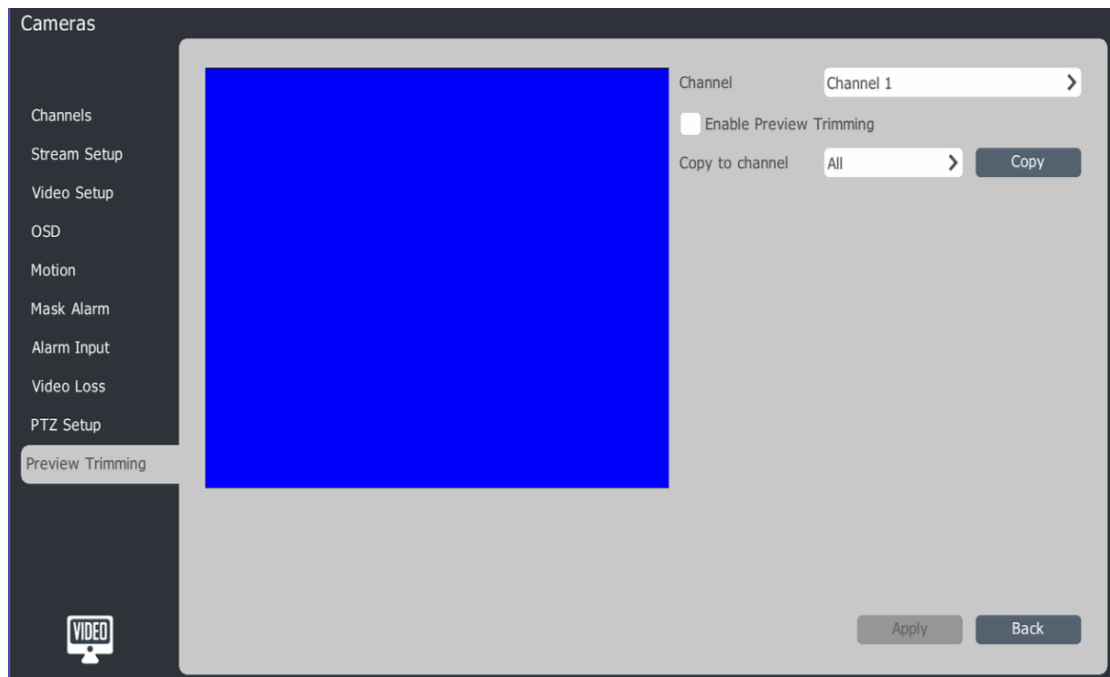
Note

Users can customize a serial port attributes, set the baud rate of serial port, data bits, stop bits, parity and then copy to other channel.

4.3.15 Preview Trimming

If there is black margin on the screen, maybe because of non-standard screen size, or if there is some place you don't want to see, you can trim a part of picture on the screen.




1. Select -> cameras -> preview trimming



2. Select channel.
3. Click enable preview trimming, and then copy to other channels.
4. Click apply to save parameter.

4.4 Preview

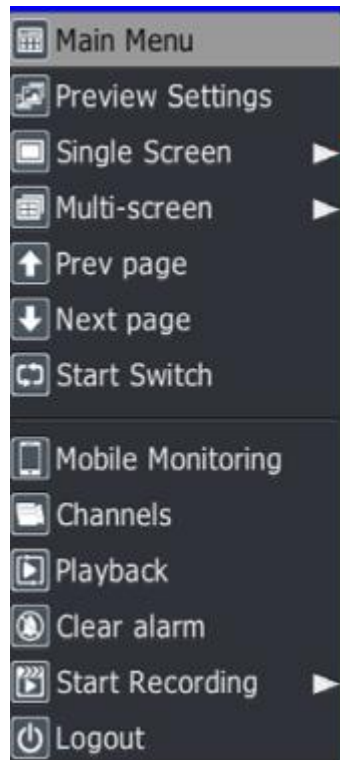
4.4.1 Preview

| Icon | Description |
|---|--|
|  | Alarm(motion detection alarm, video privacy alarm, port alarm, video loss alarm and IVS alarm) |
|  | Record(timing, manual) |
|  | This channel is in recording as well as in alarming at the same time. |

4.4.2 Right-click Menu

In preview, it can do switch preview screen, preview setup, cameras, playback and enable record.

MENU



Description:

| Name | Description |
|------------------|--|
| Main menu | Go to main menu |
| Preview settings | Go to preview settings screen |
| Single screen | Select channel and go to single screen |
| Multi-screen | Go to 1/4/8/9/16/25/32 screen |
| Prev page | Go to the previous page |
| Next page | Go to the next page |

| | |
|--------------------|--|
| Start switch | According to the rule of preview settings the screen constantly switch the next channel in the preview list. And it will switch circle continuously. |
| Mobile monitoring | Download mobile monitoring software and scan QR-code device ID |
| Channels | Go to channel management page |
| Playback | Go to playback page |
| Clear alarm | Clear all alarm |
| Start recording | Enable whole day timing or motion record for all channels |
| Supplementary port | Switch to supplementary port |
| Logout | Logout, refresh and restart system. |



Note

- Before "start" switch operation, please set "cruise" in the preview settings first.
- It support mobile monitoring software for IOS and Android
- NVR (16-ch 8HDD& 32-ch 8HDD) have advocate complementary mouth set, the rest of the models and auxiliary.

Description of supplementary port

| Name | Description |
|------------------|---|
| Preview settings | Entry preview settings screen |
| Single screen | Select channel and switch single screen |
| Multi-screen | Change preview mode |
| Prev page | Switch prev page |

| | |
|------------------|--|
| Next page | Switch next page |
| Start switch | According to the preview Settings constantly switching the next screen, it will switch to final screen again from the first screen |
| Main port | Switch to main port from supplementary port |
| Set to main port | Set the supplementary port to main port |



Note











- Only NVR (16-ch 8HDD, 32-ch 8 HDD) support 25 or 32 screen.

Scroll

Scroll up or click prev page to switch to previous screen and scroll down or click next page to switch to next screen.

4.4.3 Super menu description

Mouse sliding into a display on the right side, a super task bar which can be enter the main menu by one key, including video playback, recording settings, preview settings, PTZ control are fixed for the first four, the remaining ICONS will display the most frequently using functions.

| ICON | MEBU |
|---|------------------|
|  | playback |
|  | Record settings |
|  | Preview settings |
|  | PTZ control |
|  | channels |
|  | Systems settings |
|  | backup |
|  | Alarm settings |
|  | IVA |
|  | User management |










4.4.4 Shortcut bar

1. In preview interface, hold your mouse pointer in the bottom of any screens, it will display shortcut bar.



2.The shortcut bar support PTZ control, instant playback, manual capture, manual record, E-zoom, intercom and edit channel information.

| Button | Description |
|---|---|
|  | PTZ control: up, down, left, right and cruise |
|  | Instant playback |
|  | manual capture |
|  | start/stop manual record |
|  | E-zoom |
|  | start/stop intercom |
|  | check/edit channel information |

Instant playback

It will playback the latest recording video in 5 minute.

E-zoom

1. Click 



2. Move your mouse to where you want to see in red square area in the mini viewer at right bottom of screen.
3. Scroll up and down of your mouse to zoom in or zoom out.



Note

- NVR (4-ch 1HDD, 4-ch 2HDD, 8-ch 2HDD) can zoom in by 8 times, other models support up to 16 times.

4.4.5 Preview parameter setup

1. Select preview setup.

Preview Setup

Preview Performance: AUTO High fluency Keep the last frame

Output: HDMI/VGA

Time Interval(Sec): None Switch

Preview: 16 Screens Big

| | | | |
|----|----|----|----|
| 01 | 02 | 03 | 04 |
| 05 | 06 | 07 | 08 |
| 09 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |

Alarm cruise interval(Secs): 2

AutoConfig Confirm Cancel

2. Preview Performance

Auto, as system default option, means if <4-screen the system displays main-stream. If <8-screen it displays main-stream for 1* big screen, others are sub-stream. If >9ch, it displays all sub-stream.

“Preview the biggest performance”, the system will automatically display sub-stream if NVR decoding capacity is overloading.

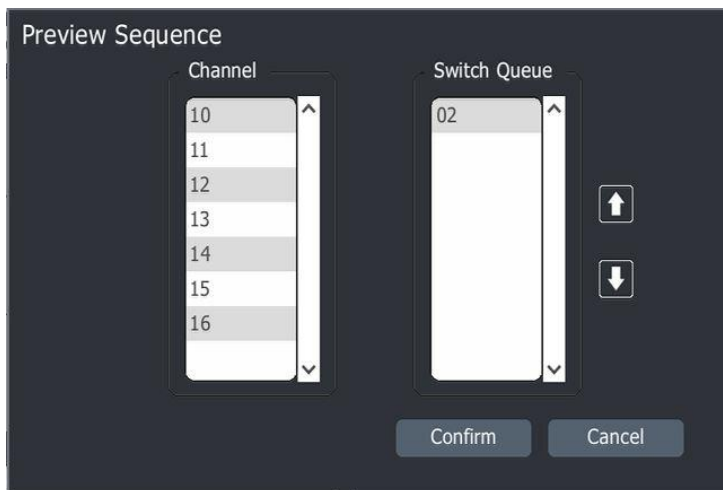
“The best image quality”, in order to ensure the preview effect, all channels are forced to display main stream for preview.



Note

- No matter main stream or sub-stream the system display in preview, it won't affect the stream of recording video, NVR always record the main stream.
3. Output: VGA/HDM1, HDMI2/BNC, VC
 4. Cruise intervals: set the interval time between switch channels, such as no cruise, 2s, 3s, 5s, 10s, 15s, 30s and 60s.
 5. Alarm cruise interval: set interval time when it stays single screen activated by alarm, such as 2s, 3s, 5s, 10s and 15s.
 6. Keep the last frame: When the camera is off line, the picture will stay on the last frame of video. Or else it will display "No Video" instead.
 7. High fluency: NVR will always put fluency at top priority to ensure fluent flow.
 8. Set preview sequence

- 1) Click preview channel



- 2) Double click channel in the pool of channels in switch.

9. Auto configuration

Click "automatic configuration" button, the system will automatically distribute the channels in every screen in turn. For example, if there are 4 screens, the system automatically distribute channel 1, 5, 9, 13 to the first screen, Channel

2, 6, 10, 14 are to the second, Channel 3, 7, 11, 15 are to the third, Channel 4, 8, 12, 16 are to the fourth one.



Note

- Only NVR (16-ch 8HDD, 32-ch 8HDD) have HDMI2/BNC.VGA/HDMI1
- Only the last one channel can be set to synthesis of virtual channel, suggested that VC (virtual synthesis channel) does not exceed the "preview mode" setting of "nine" screen. Otherwise it may cause equipment with low frame
- When the main stream switch to the sub-stream in preview biggest performance mode, the system cannot support sound at same time. With limited by equipment performance, when the access codes flow reaches on limit it cannot continue to connect other stream.

4.4.6 Preview information

Decoding performance limited


When the system is beyond decoding limit, it will display "decoding performance reached upper limit, please manually disable parts of channel".

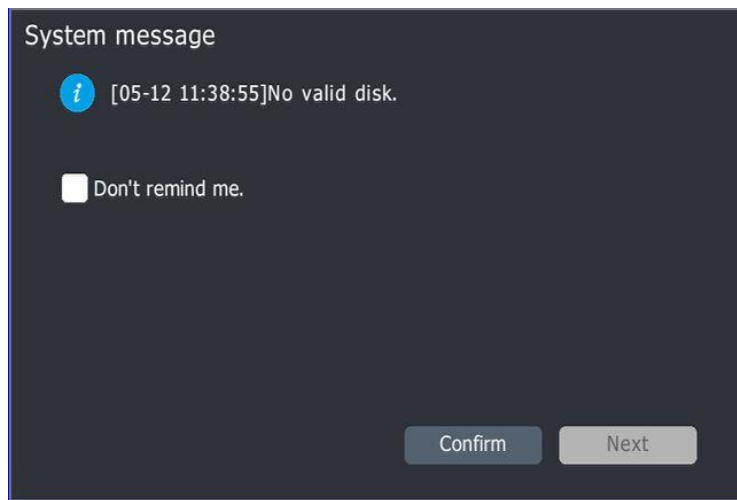
We suggest to set preview performance as "Preview the biggest performance" to display sub-stream.

System abnormal information

Enable system settings-system information-abnormal and it occurs abnormal event



will display in the right corner. Then double click  it will open system notice screen.



The user can choose "Don't remind me" to not display prompt information, or click "next" to see the message.

4.4.7 Audio preview and intercom

Audio preview

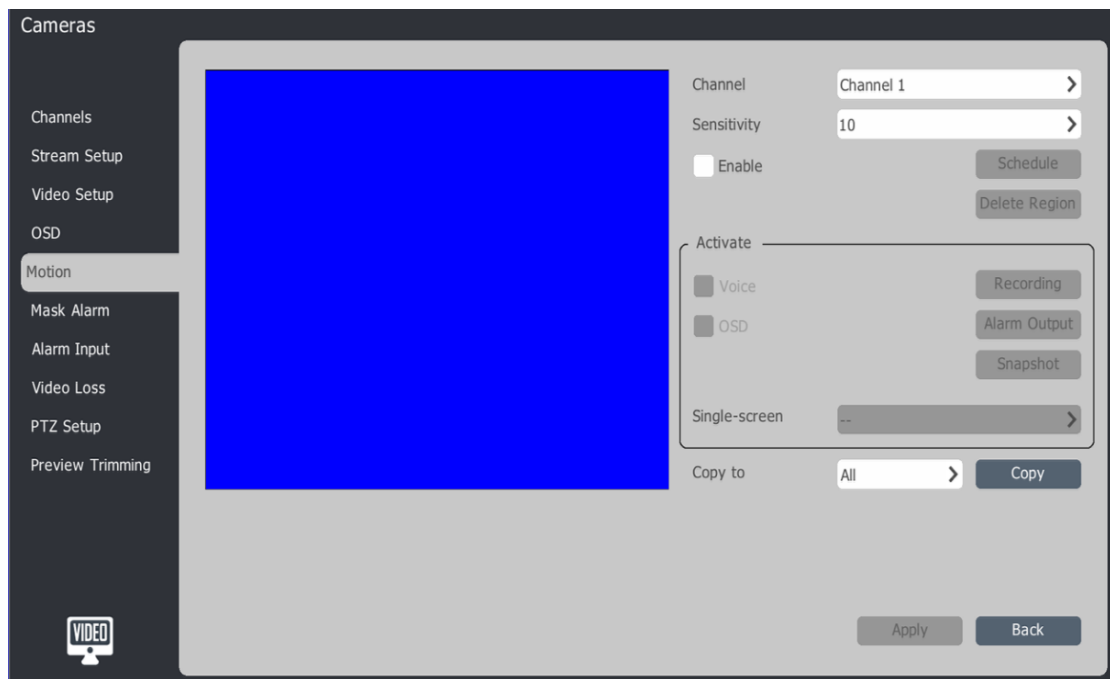
Select one video with mouse or remote control, system will play audio automatically.

Intercom

Users can use intercom interface to realize intercom between remote control and equipment. Before that, please ensure to connect with the pick-up and speakers

4.4.8 One key back to preview

In any configuration interfaces, click  to return to preview screen.



4.5 PTZ control

4.5.1 PTZ parameter setting

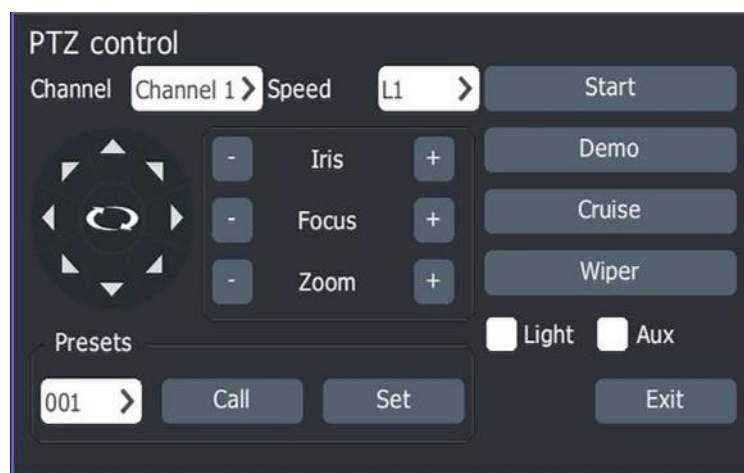


Note:

- Please confirm the network to be connected between the PTZ decoder and the NVR and have the PTZ decoder parameters configuration in device.
- IPC serial port settings see 4.3.14 section.
- NVR local serial port settings see system setup instructions.




4.5.2 PTZ control

1. Double click the chosen channel to go to full screen. Then right click the mouse to choose "control panel", and see pop-up window of PTZ control as below.









2. Choose channel.
3. PTZ control description

1). **PTZ Control**

Use mouse to click  to control PTZ going up, down, left and right. Use mouse to click  to control PTZ going inclined direction. Click  to start or stop PTZ auto horizontal action.

2). **Lenz control**

Click  at left of "aperture" to narrow aperture, click  to enlarge aperture.

Click  at the left of "focus" to focus the object at distance and click  at right side to focus close object. Click  at left side of "zoom" to zoom out and click  to zoom in.

3). **Speed setting**

The larger the value is, the faster PTZ runs. The default speed number is L1.

4.5.3 Preset, Cruise and path setting and call

1. Preset setting and call preset.

1) Call preset, select the preset position number in the "Preset" drop-down list, or input the preset no. and click "call" to go to selected preset position.

2) Preset setting Control the PTZ to a particular location, and select the preset number in preset drop-down list, or directly enter the preset number, click "Settings" to complete preset position setting of this number.

2. Recording and demonstration track

1) Click "began track", the icon's message becomes "end track", the system will record the PTZ running track process.

2) Then the user click "end track" to finish recording.

3) Finally, click "demo track" to show the PTZ track just recorded.

3. Light , wiper and auxiliary switch setting

Check the "Light" option box to turn on light of corresponding device of selected channel and shut down light if cancel it . "Aux" option box is checked to open the channel corresponding auxiliary switch, and to close auxiliary switch if selection is cancelled. By using the left mouse button and hold down the "wiper" button, the wipers start action corresponding to the channel, and to stop it if loosen the button.

4. Cruise path setting

Cruise Setup

Cruise No. 01 > Enable Call Stop

Cruise Point > Delete

Property

Presets 001 >

Time(s) 0 > (1~60) New

Speed 0 Setup

Apply Confirm Cancel

Cruise path description

1) Cruiser path information browser

Select cruiser number in "Cruise No." drop-down list. When select a certain cruise no. the system will automatically display the preset position and the preset position dwell time and call speed.

2) Editing the cruising path

First, select a cruise no. and enable it.

Second, click "Add" to add preset position into the cruise point list.

Third, select dwell time and moving speed between two presets.

3) Enable / Disable the cruise path:

4) Call / Stop cruiser path:

5) Quit cruise path setting interface

Click "Apply" and "Confirm" to save settings.

6) 3D positioning

By using 3D positioning function, the user can use the mouse to click any area in the screen, the PTZ will go to the position where you click. Also you can drag mouse from left to right to zoom in and drag it from right to left to zoom out.

4.5.4 PTZ control by USB keyboard

1. Under the preview mode, press **【↑】** **【↓】** to select the control channel .Press **【P】** ,the selected channel will show in the system single picture. On the top right corner of screen shows "PTZ ChnXX" to prompt user the system is under which channel PTZ controlling now.

2. PTZ control operation

PTZ control: under the PTZ control mode, press**【↑】****【↓】****【←】****【→】**to control direction action. When press **【OK】** the PTZ to start auto running at pan range. Press **【OK】** again the PTZ would stop auto running at pan range.

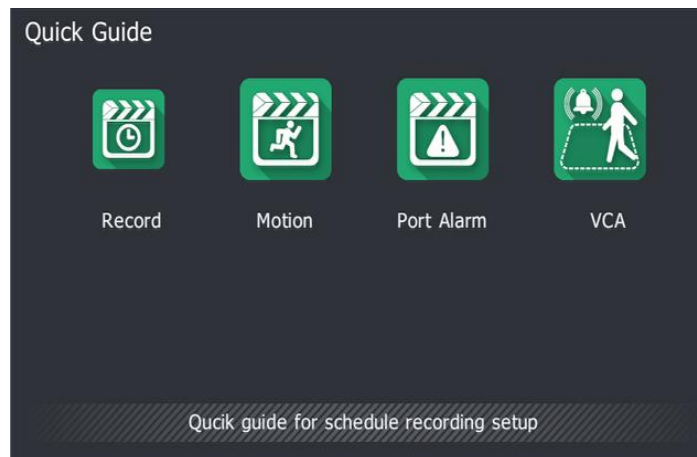
- Lenz control: under the PTZ control mode, press **【I】** or **【G】** to open the aperture. Press **【Ctrl+I】** or **【Ctrl+G】** to close the aperture. Press" **【Z】** or **【B】** for zoom in, press **【Ctrl+Z】** or **【Ctrl+B】** for zoom out. Press **【F】** or **【J】** to focus objectives at distance, Press **【Ctrl+F】** or **【Ctrl+J】** for close focus.

-
- Call preset: under the PTZ control mode, press **【backspace】** and **【number】** and then **【OK】** , the system will take action of call preset accordingly.
 - Speed setting: under the PTZ control mode, press number keys **【1】** ~ **【4】** to set speed of PTZ action.
 - Control PTZ light, wiper and auxiliary switch: when in the PTZ control mode, press **【W】** or **【Y】** to start wiper, and loosen it to stop wiper. Press **【A】** to open auxiliary switch and when press **【A】** again to shut down auxiliary switch. Press **【L】** or **【D】** to turn on light and when press again to shut down light.
 - Quit PTZ control mode :under the PTZ control mode, click **【backspace】** , return preview mode.

4.6 Record

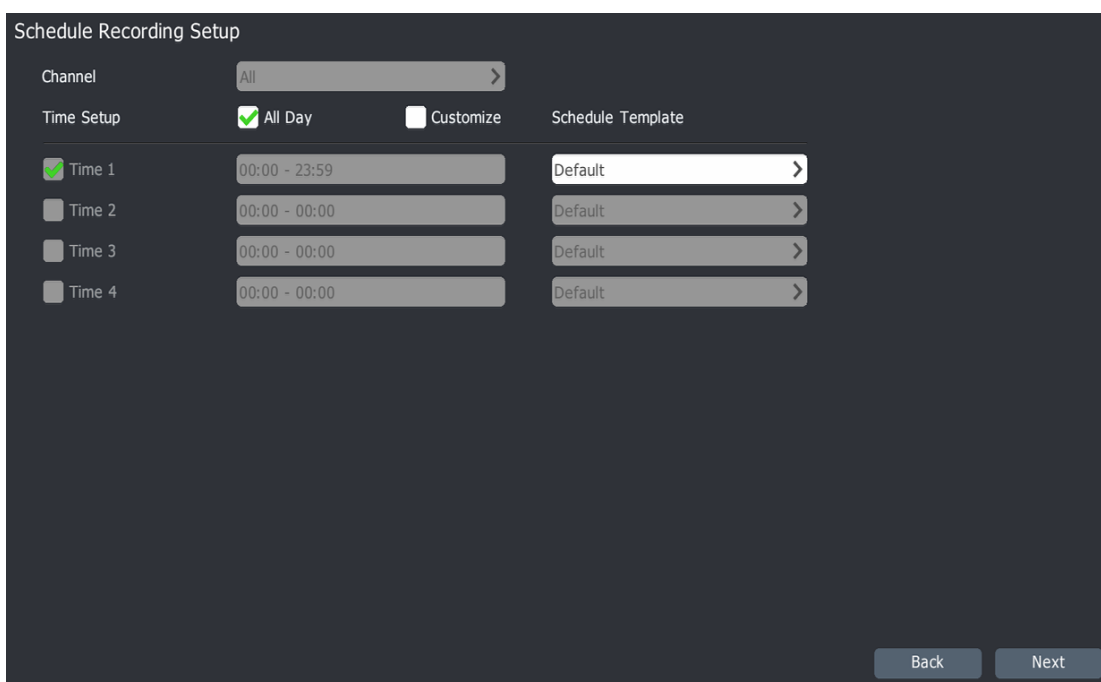
4.6.1 Quick Guide

Enter [Main Menu]—>[Quick Guide] to give easy recording settings for all channels.

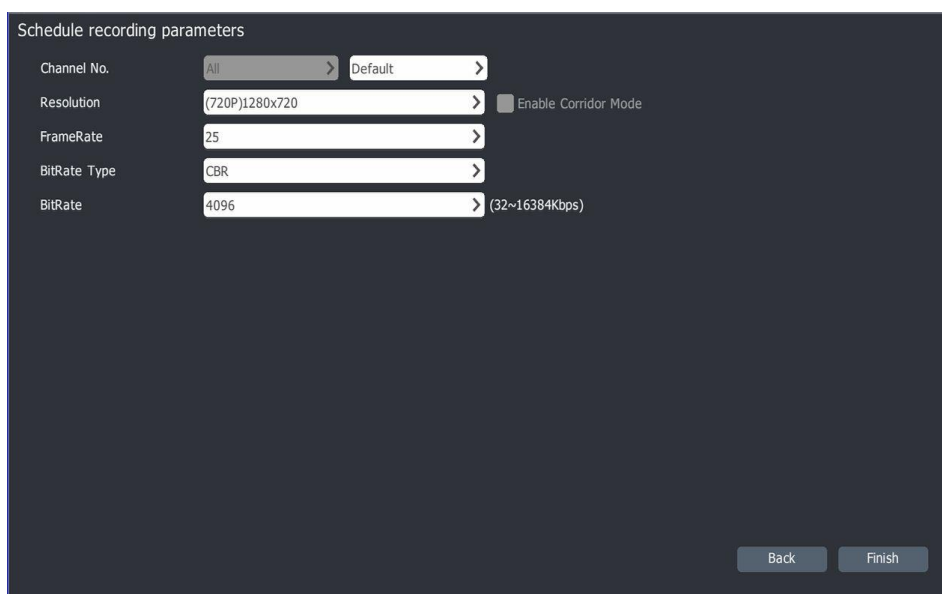


1. Schedule Recording setup

1) Choose [Main Menu]->[Quick Guide]->[Record],enter [Schedule Recording Setup] as below.

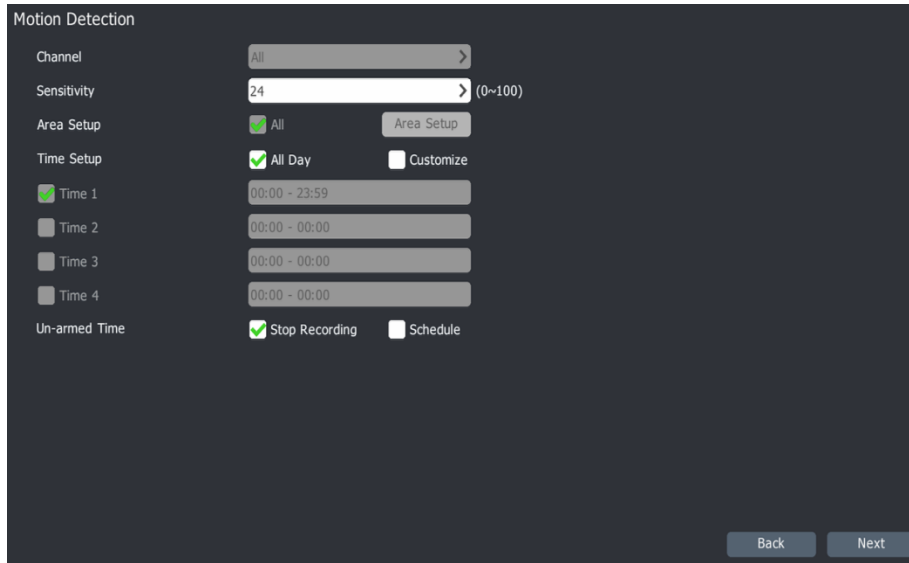


- 3) Check [All Day] to recording 24hour all day for all channels.
Check [Customize] to set up to 4 time period in a day at different templates.

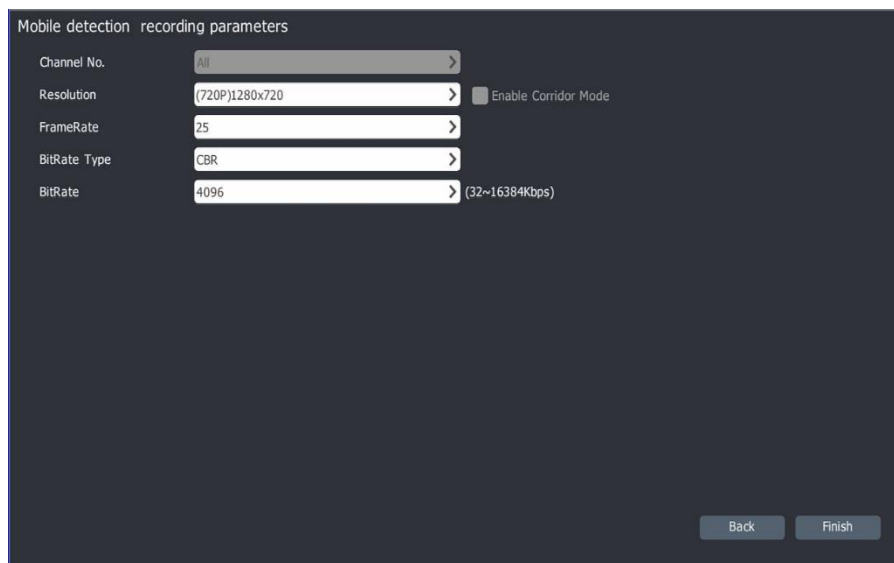


- 3) Select resolution, frame rate, bit rate and type for different templates.
 - 4) Click [Finish] to save the configuration.
2. Motion Detection Recording setup

1) Choose [Main Menu]->[Quick Guide]->[Motion],enter the window as below.



2) Set motion detection in all day or customized time period. And you can set sensitivity of detection. Also you can set if the system stop recording or start schedule recording in un-armed time.

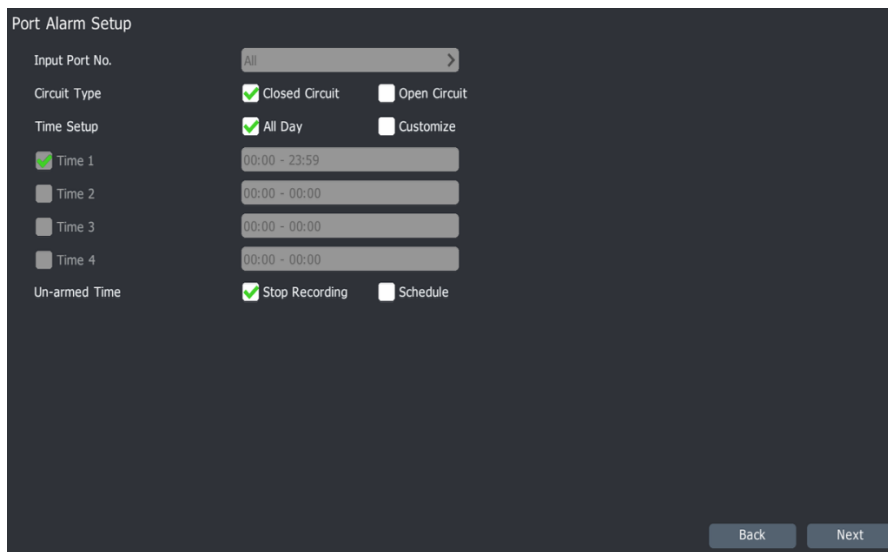


3) Set resolution and encoding parameters for all channels.

4) Click [Finish] to save the configuration.

3. Port Alarm Recording Setup

1) Choose [Main Menu]->[Quick Guide]->[Port alarm],enter the window as below.

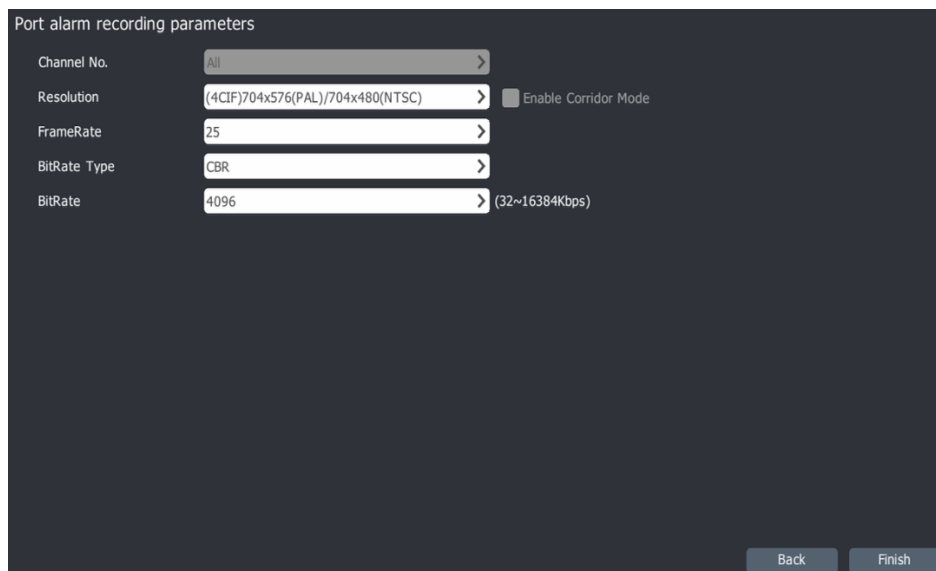


2) Select open circuit or close circuit.

Check [All Day] to recording 24hour all day for all channels.

Check [Customize] to set up to 4 time period in a day at different templates.

Also you can set if the system stop recording or start schedule recording in un-armed time.

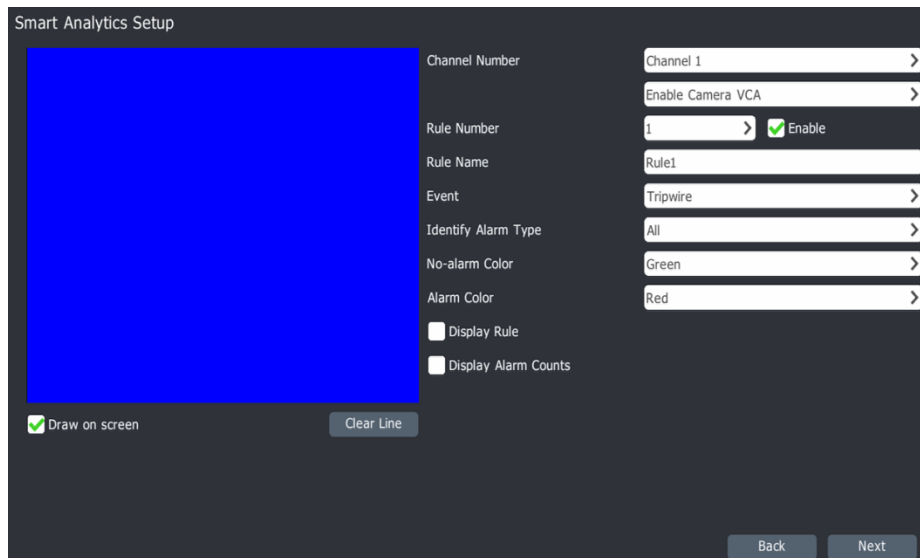


3) Set resolution and encoding parameters for all channels.

4) Click [Finish] to save the configuration.

4. Smart Analytics Setup.

1) Choose [Main Menu]->[Quick Guide]->[VCA],enter [Smart Analytics Setup] as below.



The image shows a 'Smart Analytics Setup' configuration screen. On the left, there is a large blue rectangular area for drawing a rule. Below it, there is a checked checkbox for 'Draw on screen' and a 'Clear Line' button. On the right, there are several configuration options: 'Channel Number' (Channel 1), 'Enable Camera VCA', 'Rule Number' (1) with an 'Enable' checkbox, 'Rule Name' (Rule1), 'Event' (Tripwire), 'Identify Alarm Type' (All), 'No-alarm Color' (Green), and 'Alarm Color' (Red). At the bottom right, there are 'Back' and 'Next' buttons.

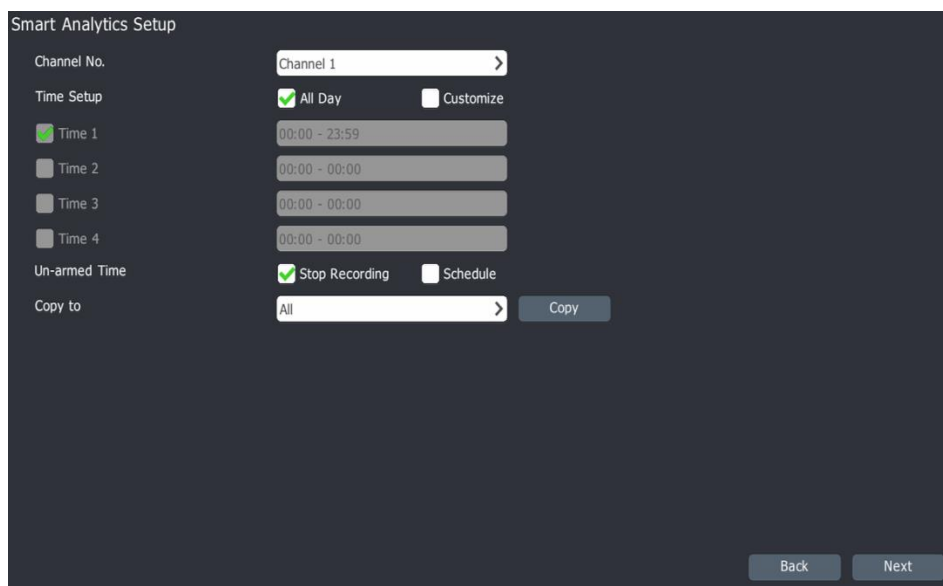
2) Channel number: Select to enable camera VCA or NVR VCA. (Only NVR with 8HDD support 2 channels of NVR VCA)

Rule number: Select rule number and check to enable it.

Rule name: Enter rule name.

Event: Select to activate tripwire or perimeter in this rule.

Check [Draw on screen] before you draw the rule on the left screen.

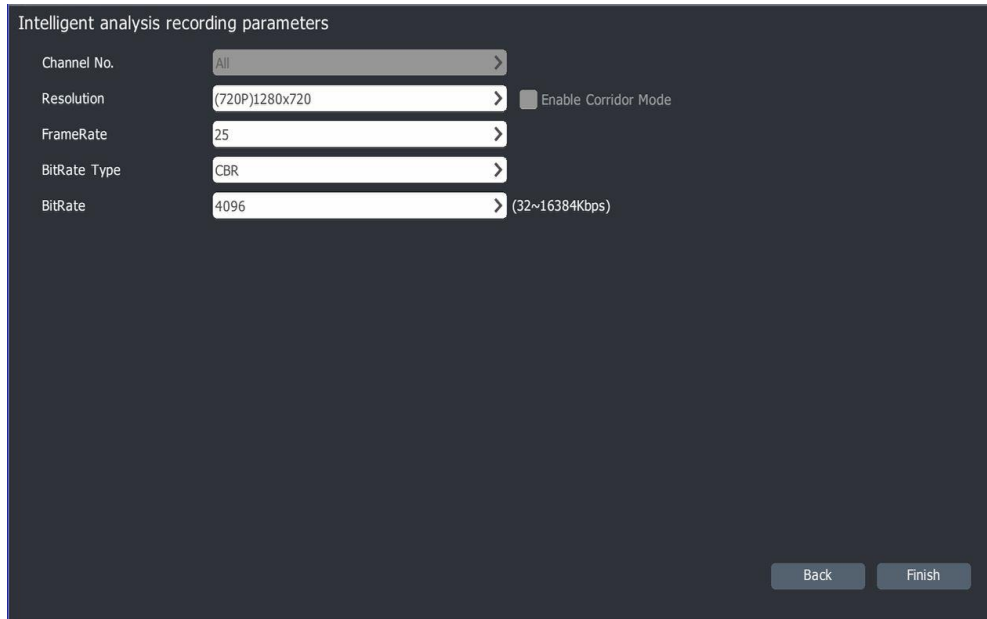


The image shows a 'Smart Analytics Setup' configuration screen. It includes 'Channel No.' (Channel 1), 'Time Setup' with 'All Day' checked and 'Customize' unchecked, four time slots (Time 1 to Time 4) with time ranges (00:00 - 23:59, 00:00 - 00:00, 00:00 - 00:00, 00:00 - 00:00), 'Un-armed Time' with 'Stop Recording' checked and 'Schedule' unchecked, and 'Copy to' (All) with a 'Copy' button. At the bottom right, there are 'Back' and 'Next' buttons.

3) Check [All Day] to recording 24hour all day for all channels.

Check [Customize] to set up to 4 time period in a day at different templates.

Also you can set if the system stop recording or start schedule recording in un-armed time.



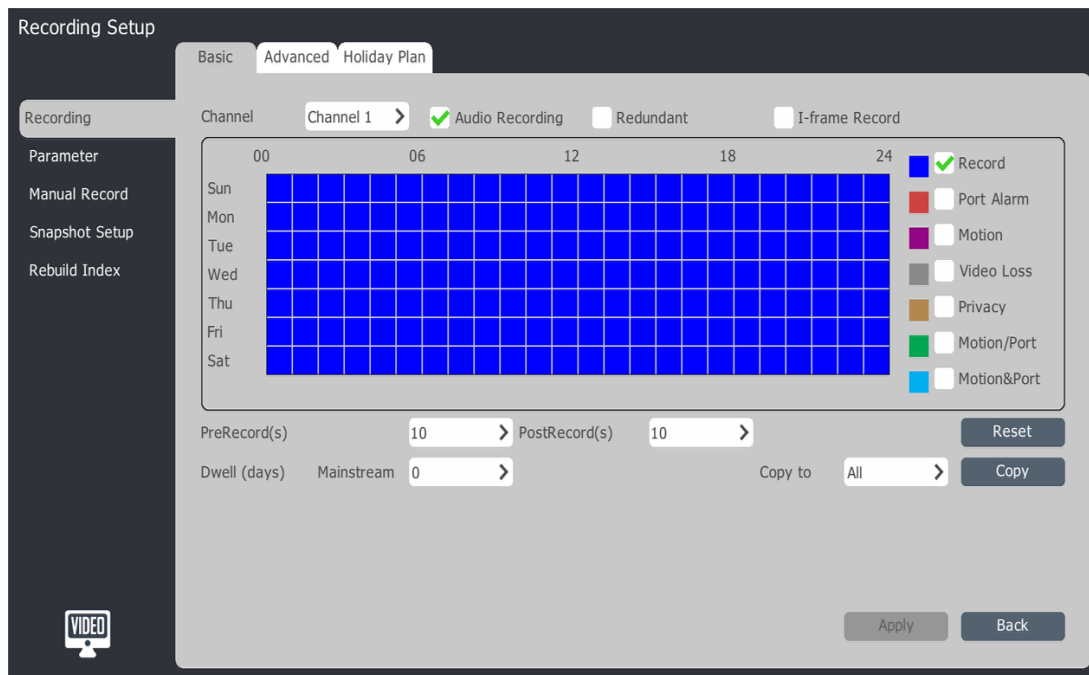
4) Set resolution and encoding parameters for all channels.

5) Click [Finish] to save the configuration.

4.6.2 Recording Setup

Basic Setup

1. Choose [Main Menu]->[Recording Setup]->[Recording]->[Basic], enter the recording template setup as below.



2. Choose a channel.
3. Choose whether to enable record "audio", "redundant" or "I-frame".

Note

If you need redundant recording, you have to configure redundant disk in [Disk management].

If you need I-frame recording, you have to set I-frame specification of camera in web client.

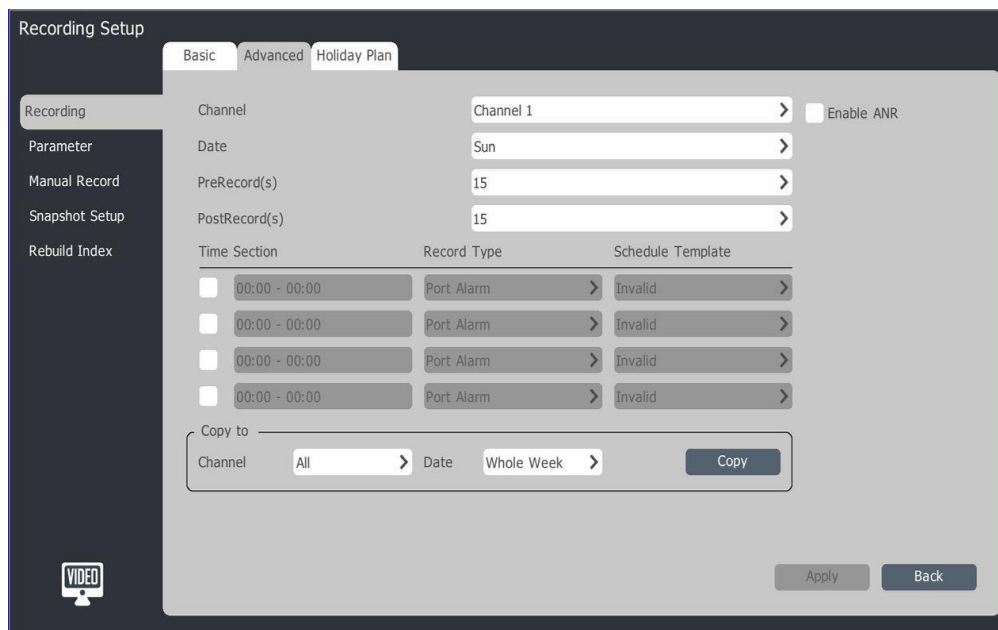
4. Set arming time period. Different kinds of recording are in different color, including "Record (timing recording)", "Port Alarm, Motion", "Video Loss", "Privacy", "Motion/Port", "Motion &Port" seven alarm types.
5. Hold the left mouse button drag in the area of the period, the recording type will be used for the selected time zone is updated to the video types.
6. Prerecord and Post record setup
 - Prerecord: If users set "5S", the system will save the video 5 seconds before alarm recording automatically.
 - Post Record: If users set "5S", the system will save the video 5 seconds after alarm recording automatically.

7. Dwell (days) setup to set how many days the recording video will save. "0" means no time limitation, the max video retention time is 60(days).

8. Click **【Apply】** save the configurations.

Advance Setup

1. Choose [Main Menu]->[Recording Setup]>[Recording]->[Advanced], enter the window as below.



3. Enable ANR, if enabled, IPC will automatically save the video into local storage devices when it is offline. And it will automatically upload video from the local to NVR once online.

4. Prerecord (s), choose the prerecord time in the drop-down list.

5. Post Record (s), select the Post Record time in the drop-down list.

6. Time Section, Set time period and the video types of this period. Check the time option box, make it in the selected state. Enter the start and end time. Select one recording type in the list, can set different recording type for different time periods.

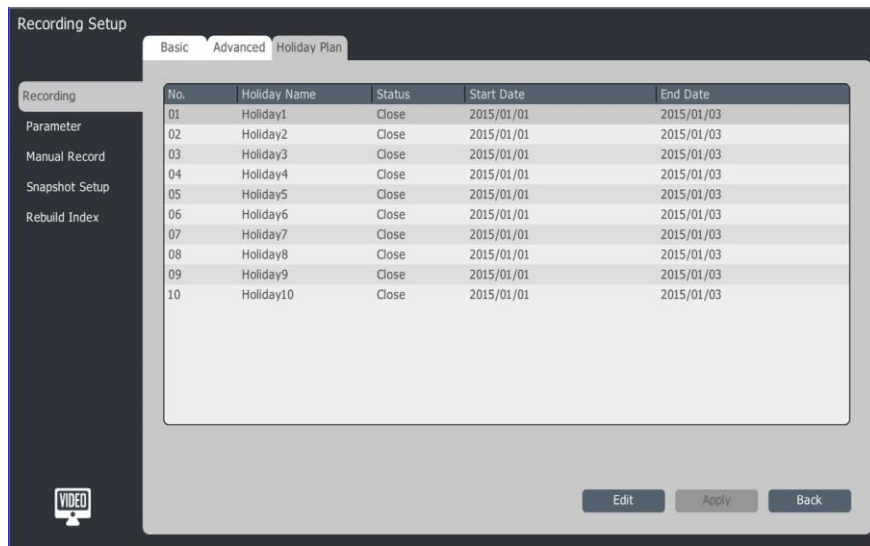
7. Copy recording template. Select "Channel" and "Date", then copy it.

8. Click **【apply】** to save it.

Holiday Plan

Configure the holiday plan of the current year .Once enable ,it will carry out the plan preferential during the holiday.

1. Choose [Main Menu]->[Recording Setup]>[Recording]->[Holiday Plan], enter the window as below.



2. Click one of the Holiday plans and press **【Edit】** or double click the article in recording setup list.
3. Check **【Enable Holiday Plan】** , select holiday mode "by day ", "by month" or " by week ". Input the holiday start date and end date. Click **【Confirm】** to save .

Holiday Setup

Holiday Name:

Enable Holiday Plan

Mode:

Start Date:

End Date:

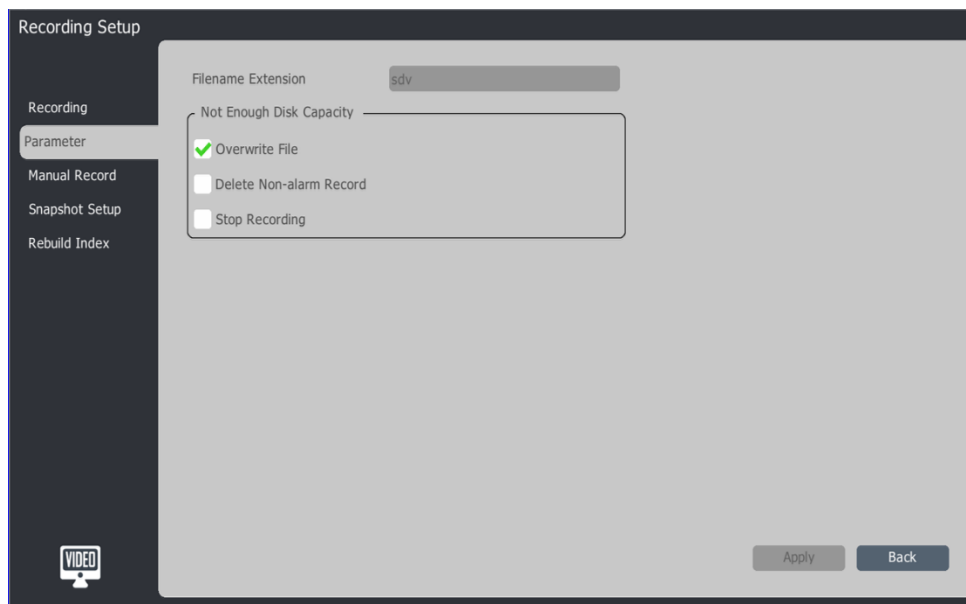


Note

- Sunday is seen as the first day of a week.

4.6.3 Recording Parameter

1. Choose [Main Menu]->[Recording Setup]>[Parameter], enter the setting page as below.

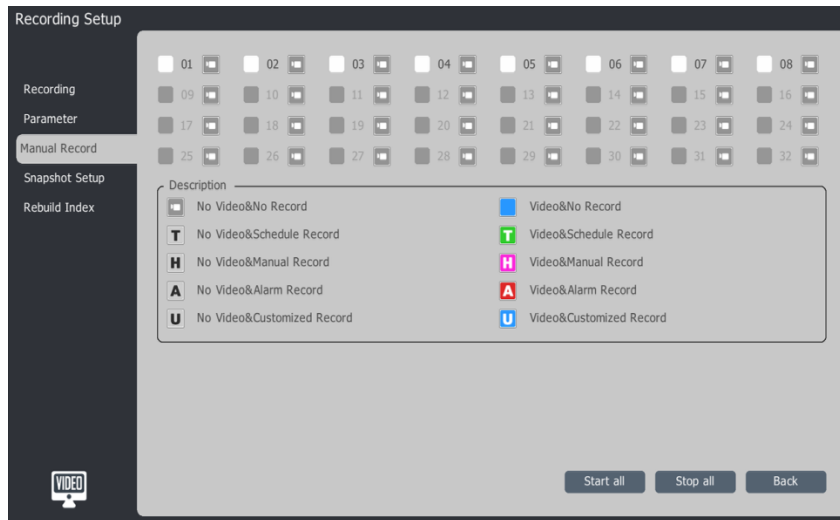


2. You can choose which method you use when the disk is full, such as [Overwrite File][Delete Non-Alarm Record][Stop Recording].

3. Click **【Apply】** to save.

4.6.4 Manual Record








1. Choose [Main Menu]->[Recording Setup]>[Manual Record], enter the setting page as below.






2. Check and Uncheck channels to start or stop the manual record.
3. Click [Start all], then start all channels manual record.
4. Click [Stop all], then stop all channels manual record.



Note:

| Icon | Status descriptions |
|---|---------------------------------------|
|  | no video and no recording |
|  | Video available but no recording |
|  | no video in manual recording |
|  | video available in manual recording |
|  | no video in schedule recording |
|  | video available in schedule recording |
|  | no video in alarm recording |

| | |
|---|---|
|  | video available in alarm recording |
|  | no video in customized recording |
|  | video available in customized recording |

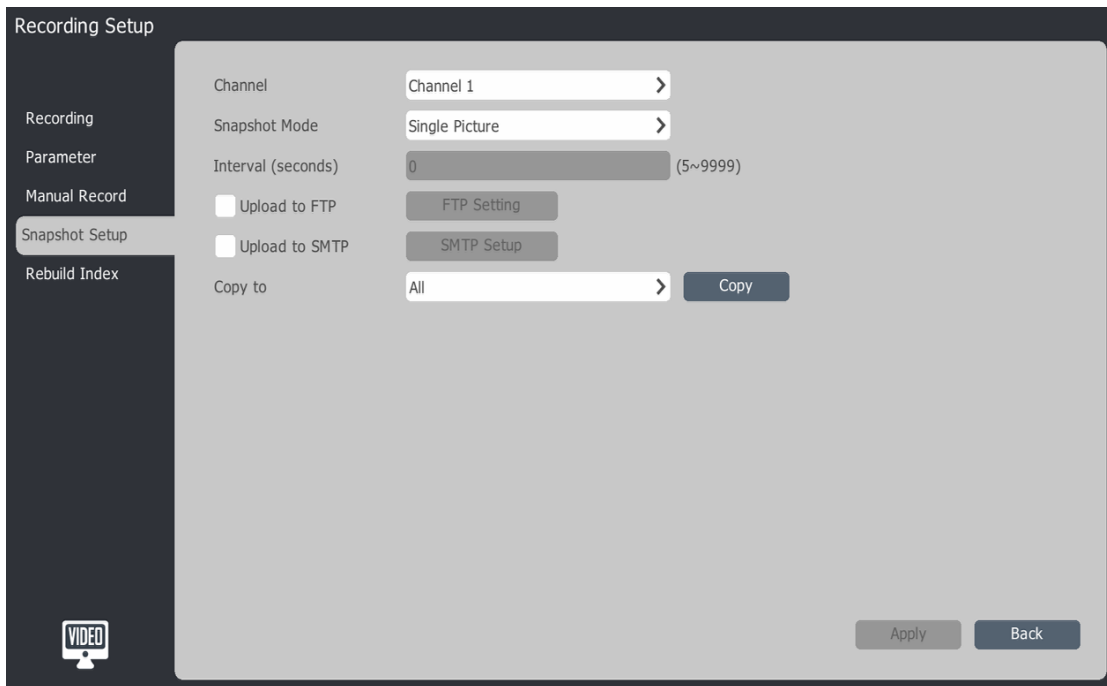


Note

- The manual recording can only be stopped manually, otherwise the video will always going on until restart the device. If enable the recoding template for some channels , it will go on the template setting after stopping the manual recording

4.6.5 Snapshot Setup

1. Choose [Main Menu]->[Recording Setup]>[Snapshot setup], enter the setting page as below.



- 1) Select channel.
- 2) Snapshot Mode allows "Single Picture" and " Timing capture "
- 3) Set the interval time between twice capture pictures if you select "Timing capture" (seconds)

-
- 4) Choose whether to upload the snapshot to FTP. Click on the "FTP Settings" button to enter the setting interface, specific FTP setting method can be found in the corresponding sections.
 - 5) Choose whether to upload the snapshot to SMTP. Click on the "SMTP Setup" button to enter the setting interface, specific SMTP setting method can be found in the corresponding sections.
 - 6) The current channel's snapshot parameters can be copy to other channels.
 - 7) Click **【Apply】** to save configuration.

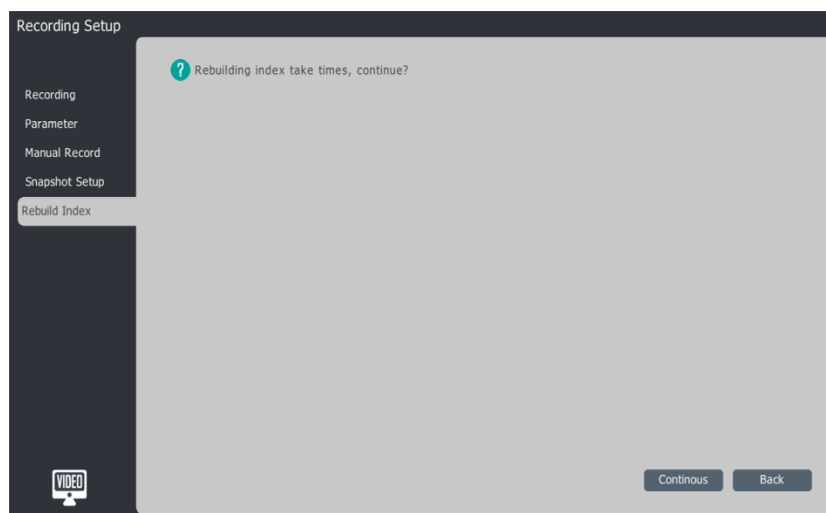


NVR can capture up to 2000 images in 24 hours.

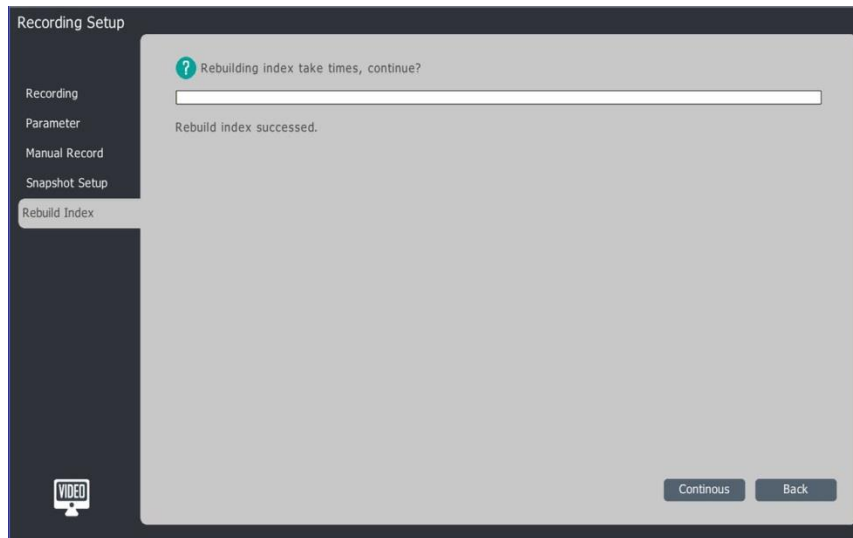
4.6.6 Rebuild Index

When HDD exception or video loss occurs, user can rebuild the index to maximize the recovery of lost video.

1. Choose [Main Menu]->[Recording Setup]>[Rebuild Index], enter the setting page as below.



-
- Click [Continuous], start the cooperation of "rebuild index".




- Users can exit this page for other operation under the process of "rebuild index."

4.7 Playback

4.7.1 Instant Playback

In [Preview] interface, when you hold your mouse pointer at the bottom of selected screen, it will appear a shortcut bar.

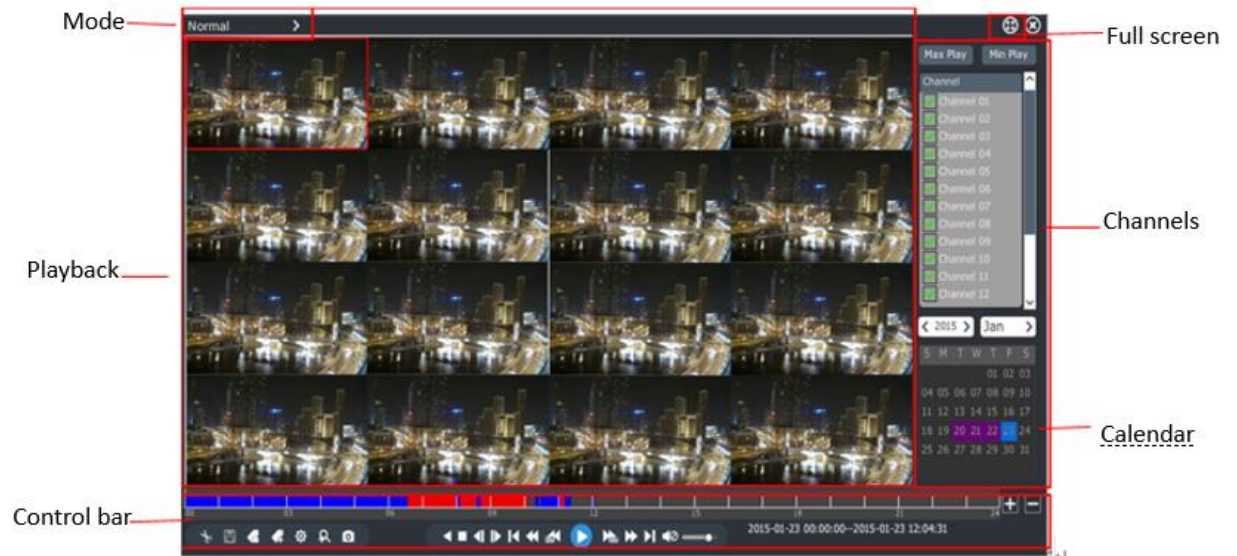
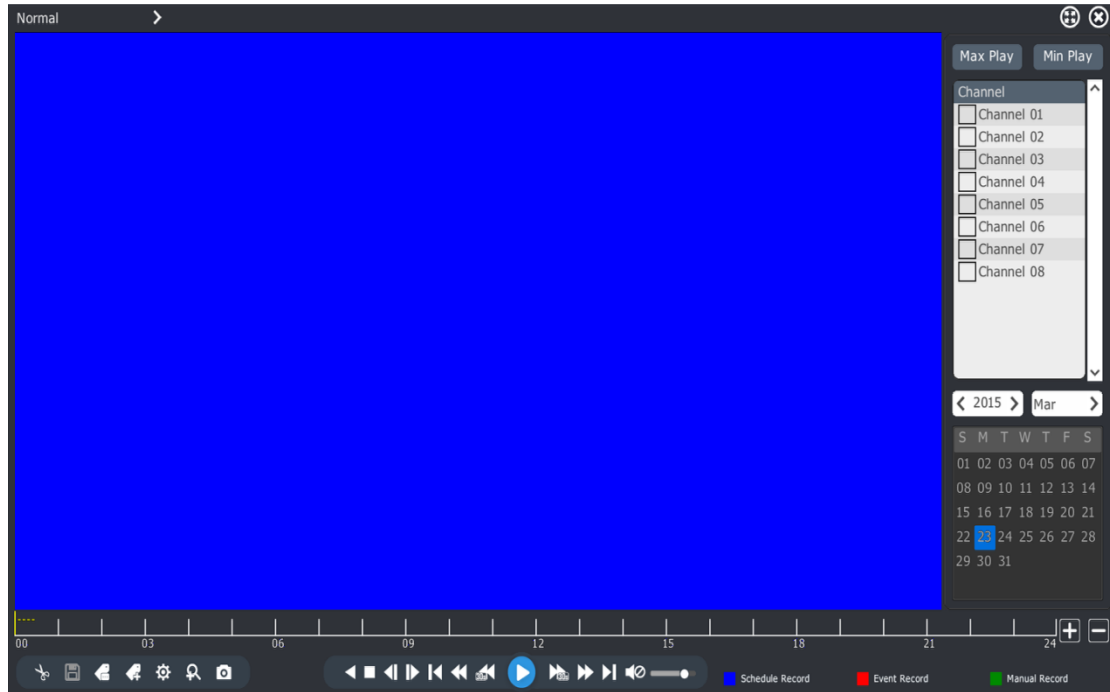


Click  to enter the Playback page as above, it allows to playback video for more than 5 minute ago.


























Shortcut bar 

4.7.2 Playback Descriptions

Right click [Menu]-> [Playback]



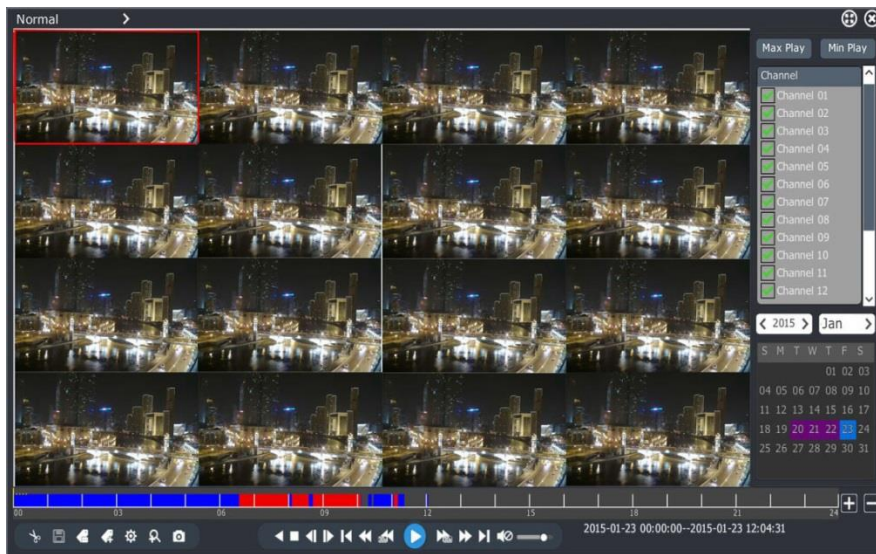
Playback control bar description

| Button | Description | Button | Description | Button | Description |
|--|-----------------------------|---|---------------------------------|--|-----------------------|
|  | Open/Close voice |  | Star/End clips |  | Lable management |
|  | Save clips |  | Add default lable |  | Add customized lable |
|  | Digital zoom in |  | Tripwire/Perimeter video search |  | Confirm/Cancel search |
|  | Pause/Backward |  | Pause/Play |  | Stop |
|  | Play last 30s |  | play next 30s |  | Fast forward |
|  | Slow down play |  | play by frame |  | Backward by frame |
|  | Last day |  | Next day |  | Playback timeline |
|  | Playback position /Snapshot |  | Capture |  | Amplify timeline |
|  | Less timeline | | | | |


4.7.3 Normal Playback



1. Choose [Main Menu]->[Playback],enter the page "Normal playback" page as below.
2. When you select a channel, the calendar will automatically show available videos in the current month.
3. Single click the date in calendar.

4. System automatically plays the video clips.



5. Other playback operation

Click  , enter full screen playback.

Click  or  , realize the video "fast forward "or " Slow forward"



Note

- Max support 16ch synchronous playback, Different models and recording have different playback performance.

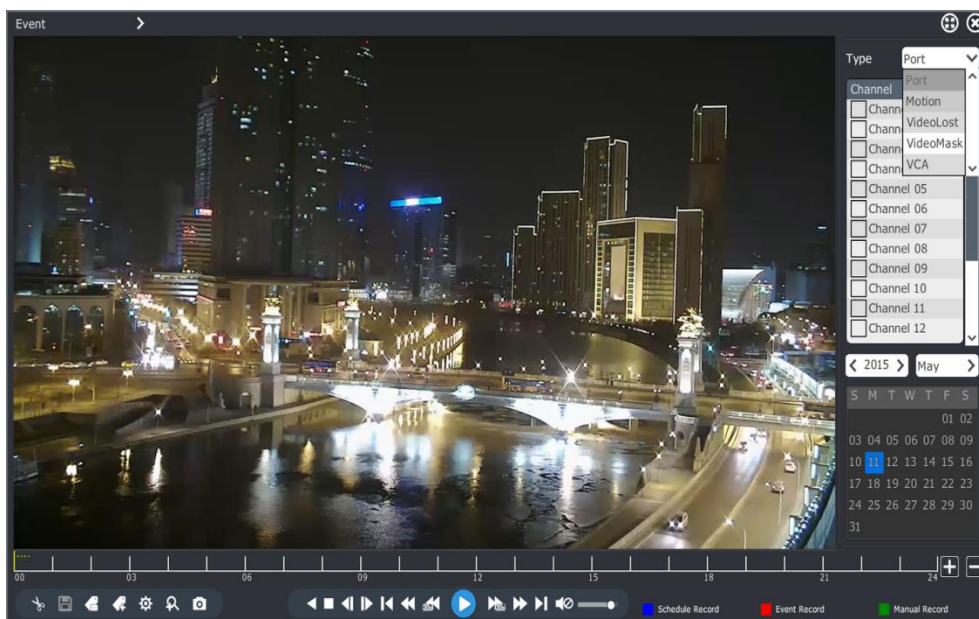
4.7.4 Event Playback

By event type (port alarm, motion detection, video lost, video mask, VCA) query the video in a certain period .And play the qualified video from the generated query list.

The specific steps are as follows:

1. Choose [Main Menu]->[Playback], select "Event" at the left top of corner.
2. Select event type at the right top of corner.
3. Choose the channel.
4. Single click the date in calendar.

5. System automatically plays the video clips.



 **Note**


- Event playback, the player will skip no-alarm video time period


4.7.5 Tag Playback

Tag record helps users take Note of relevant information during video playback at some point. Then users can position the right video clip by tag when searching.


Add /manage Tags

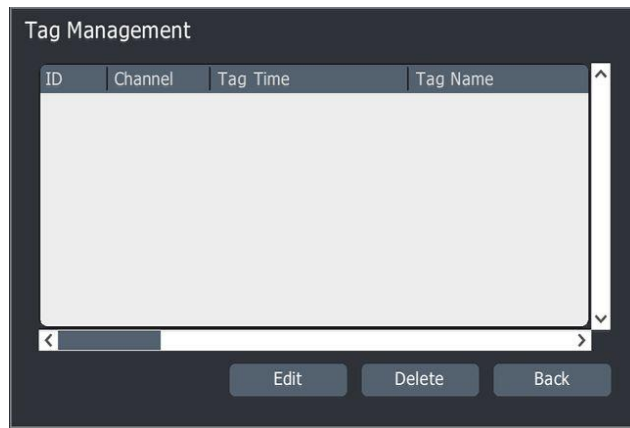
1. Enter Playback page

Click , add default tags.

Click , input tags' name , add "custom tag".

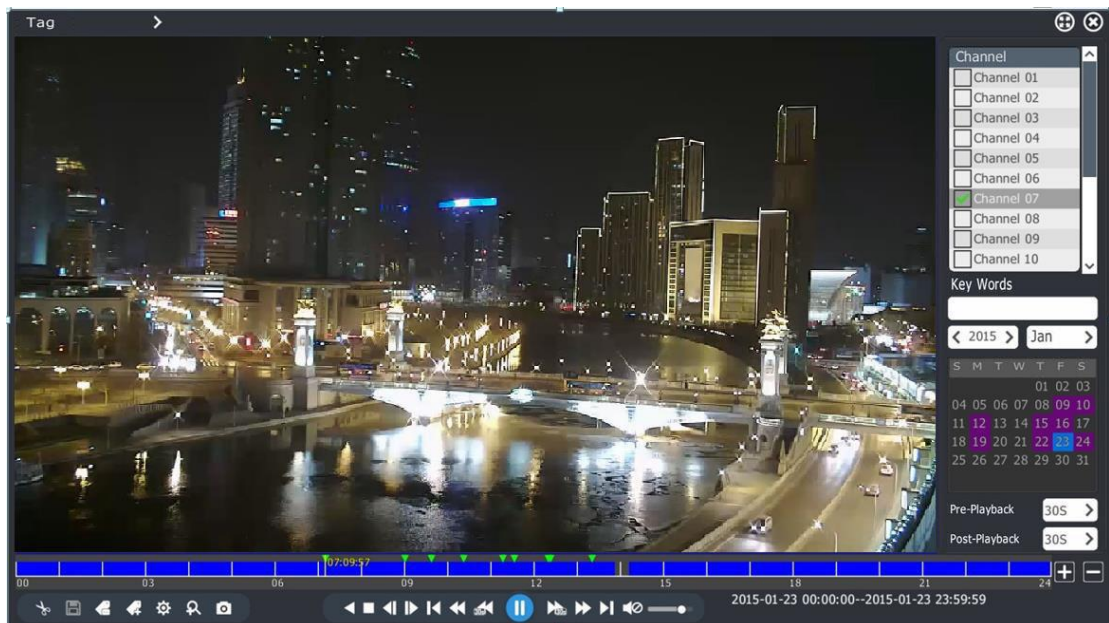
2. Tag management

Click , enter "tag management" page as below. Users can read, edit and delete the added tags.

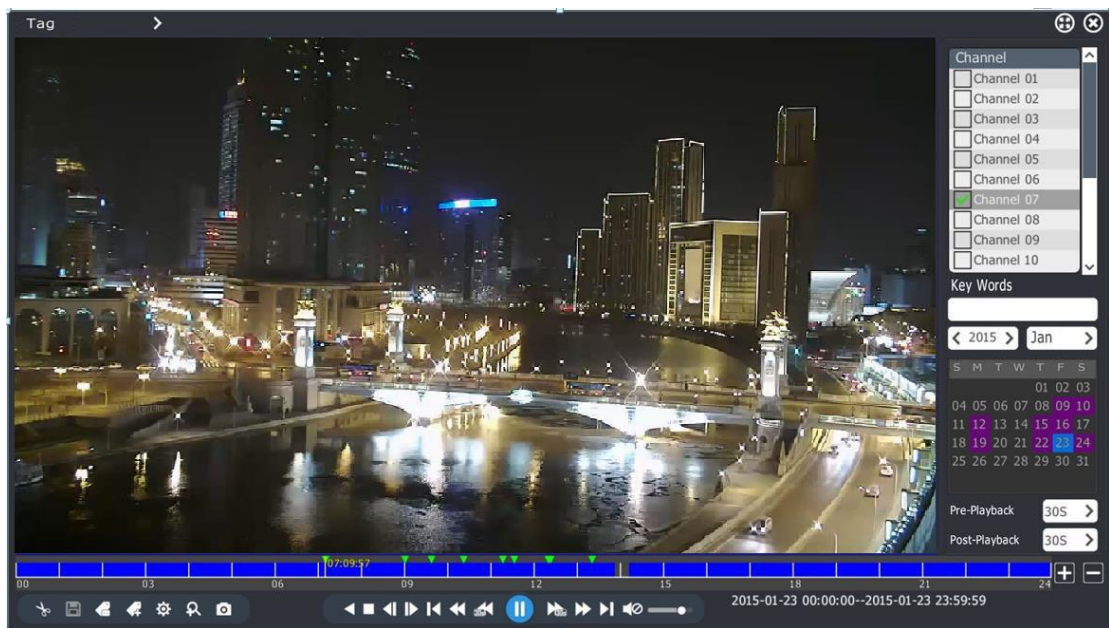


Tags playback operation

1. Enter "Playback" interface, choose "Tag", go to the "Tag Playback" as below.
2. Choose channels.
3. Input keywords of Tag. If input nothing, it will default searching the scheduled date video from selected channels.
4. Select date.



5. The playback progress bar appears the tag highlighted in green. When mouse moved to it, it automatically displays the tag information. As shown in the figure below



Note

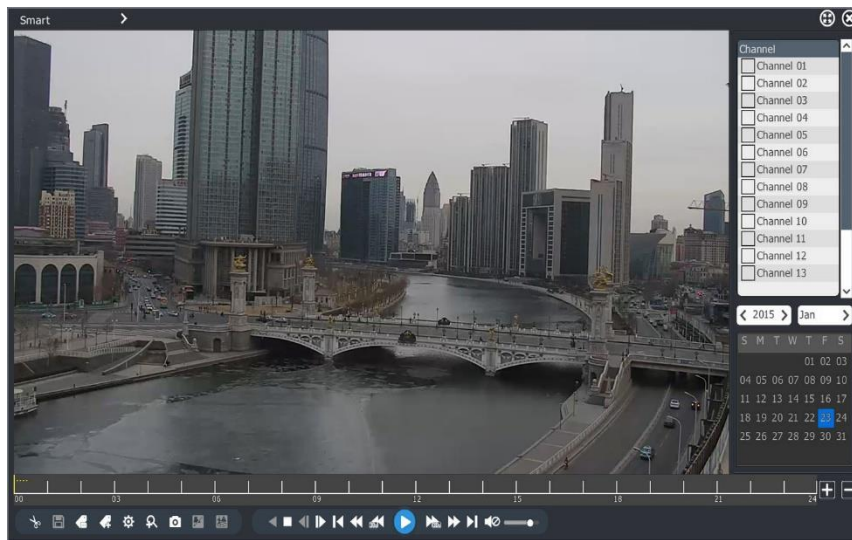
- Recording play from "Pre-Playback" to "Pose-Playback". And it turn to the next tag recording when plays end
- "Pre-playback" and "Pose-playback" can be edited.

4.7.6 Smart Playback



When you set IVA functions on the camera, including "tripwire" or "perimeter", the NVR can find all the video in which IVA alarm is triggered intelligently.

The specific steps as follows

1. Enter [Playback] interface, choose "Smart" , go to the "Smart Playback" as below.

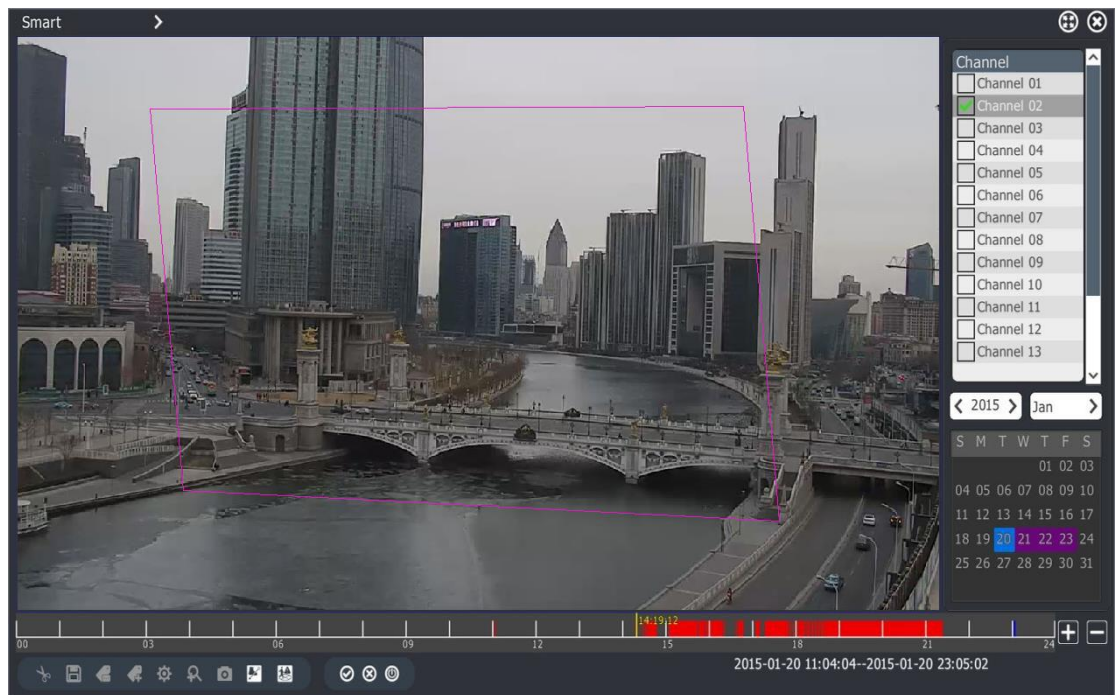



2. Select "channel" and "date" ,start to play.

3. Click on the left bottom icon  or , enter the smart playback interface of line drawing



4. Drawing a line or an area in the video.



5. Click  start to search. During the search process, at the left top corner it displays the words "VCA SEARCHING ", at the same time, the progress bar will display the search progress and results in RED.
6. When searching process ended, the system will automatically begin to play from the search results.



7. If click the other channels or dates during searching, search will automatically stop. Or click "stop search" button to manually stop the search.

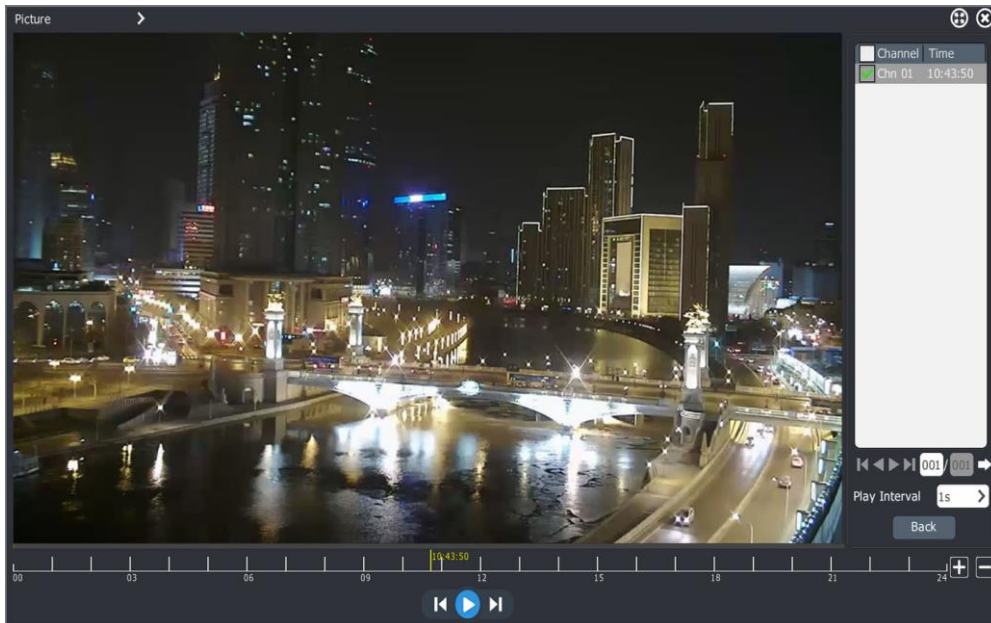


NOTE

Intelligent playback process video only within the scope of time shaft.

4.7.7 Picture viewer

Browse the pictures saved in the hard disk. See picture as below.



Description

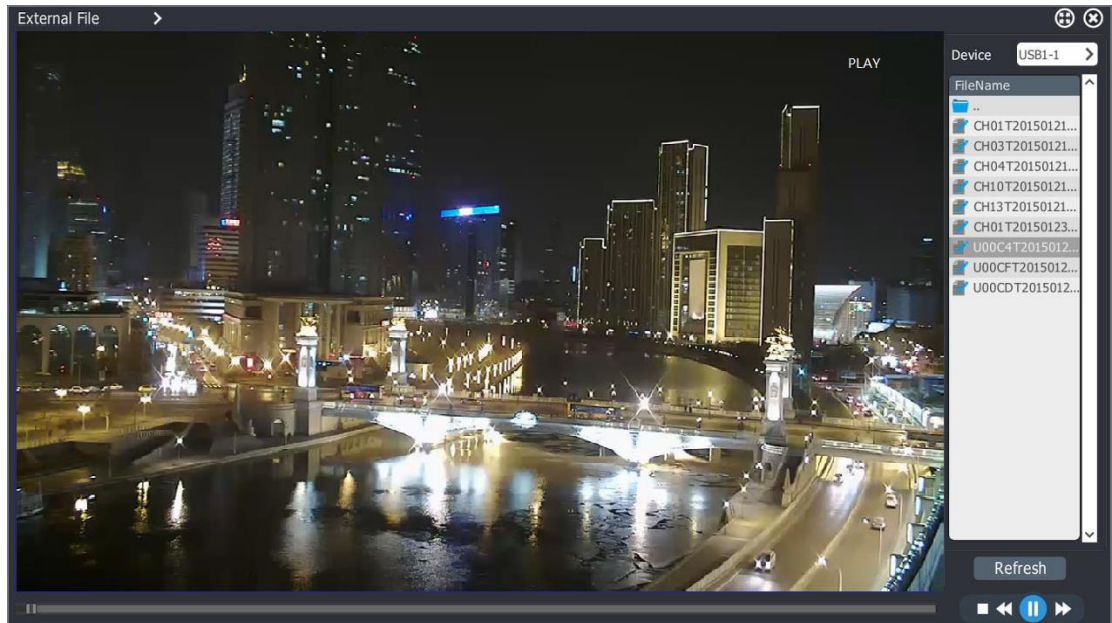
- User may set interval time to play the pictures automatically.
- Also user may pause auto-play and click left or right side of the picture to go to the previous or the next one.

4.7.8 Playback the files from external devices

Playback the recording files saved in external storage media, such as USB flash disk, mobile HDD, CD, and etc.

Please follow the steps as below.

1. Enter playback interface, and select "External file".



2. Select "Refresh" to read files from external storage medium.
3. Click the target file to play.



Description

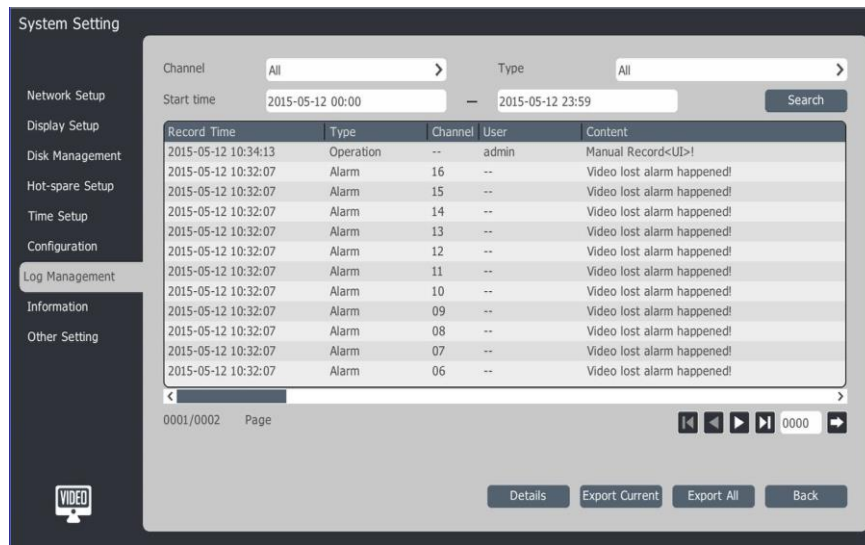
Ensure USB flash disk, mobile HDD or USB CD-ROM are well connected with NVR.

4.7.9 Play by log information

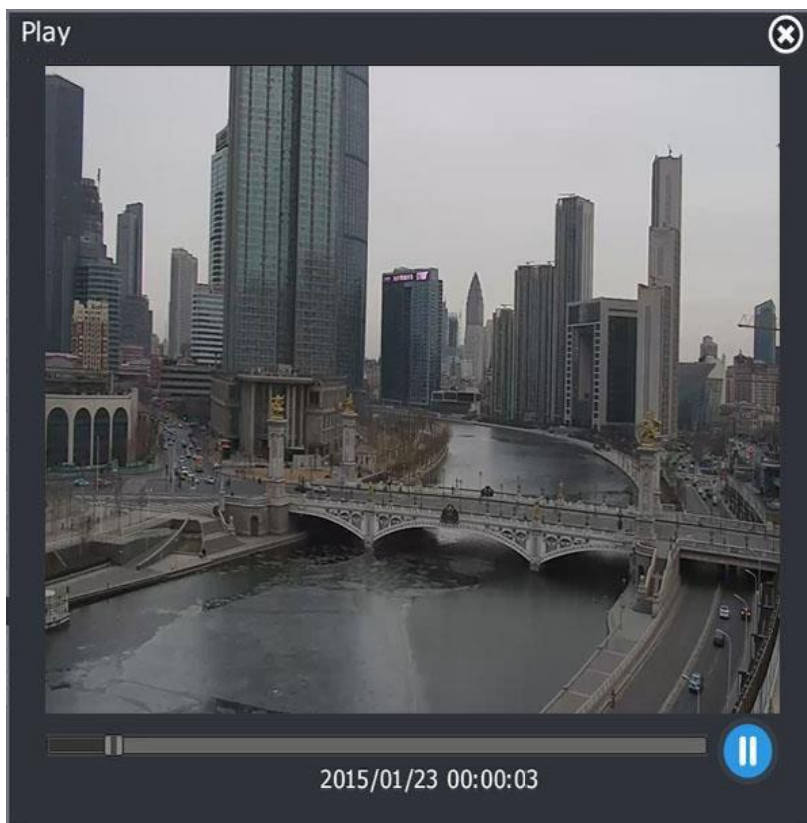
Play the files according to log information.

Please follow the steps as below.

1. Select [Main menu] -> [System Setting] -> [Log Management]



2. Select " Channel " and set " Type " and " Start time " and click " Query "
3. Double click file in log list, and enter "Play" interface.



Description





- Move the time bar to control playback progress.

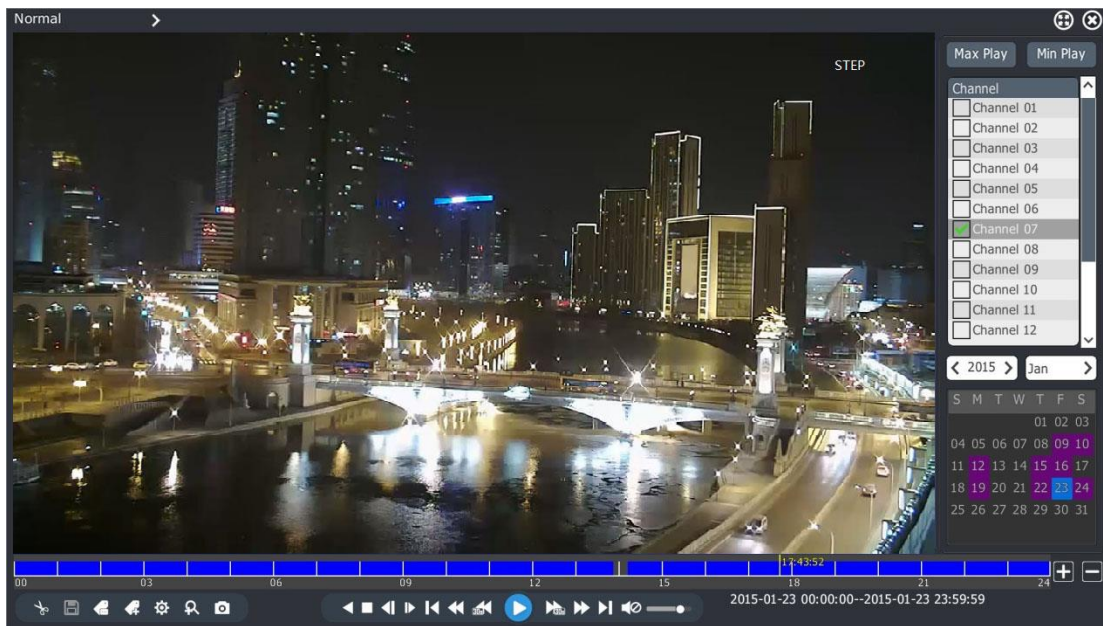
- The recording files in the channel and time which you check must be available before you can play.

4.7.10 Playback assist function.

Single frame playback

You can find slight changing of image by single frame playback.


Enter [Playback] interface, and click  or  to adjust into "Single frame" speed. It will step forward by 1 frame in every click , and step backward by 1 frame in every click .



E-zoom

When you playback or pause the video, E-zoom will help you zoom in the details into full screen.

Please follow the steps as below.


1. Enter playback interface.
2. Click  at the control bar to enter digital zoom in interface.
3. Zoom in the red square area you check and go into full screen. Also you may hold left click of mouse to drag location of red square.
4. Use mouse scroll wheel to adjust red square area.



Snapshot

Capture the pictures when playback.

Please follow the steps as below.

1. Enter playback interface.
2. Click  at the control bar to capture picture of which channel you select.



Description

- If you need save pictures which you snapshot in USB flash disk, please ensure the disk is well connected with NVR.

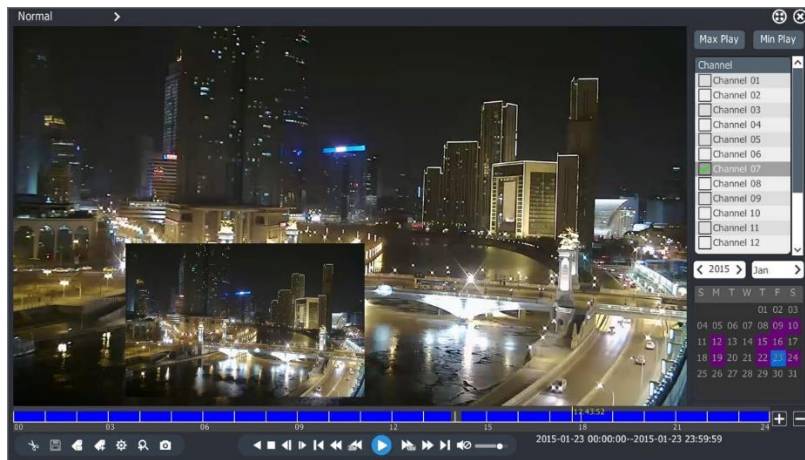
Thumbnail view

In normal, event, tag, or smart playback mode, when you stay the mouse on a certain location of progress bar, the system would appear a thumbnail view to show the video at that time.

Please follow the steps as below.

1. Select one of mode which is referred above and start to play.

2. Staying the mouse on the progress bar where recording is available for 1 second, it will appear thumbnail view.



Description

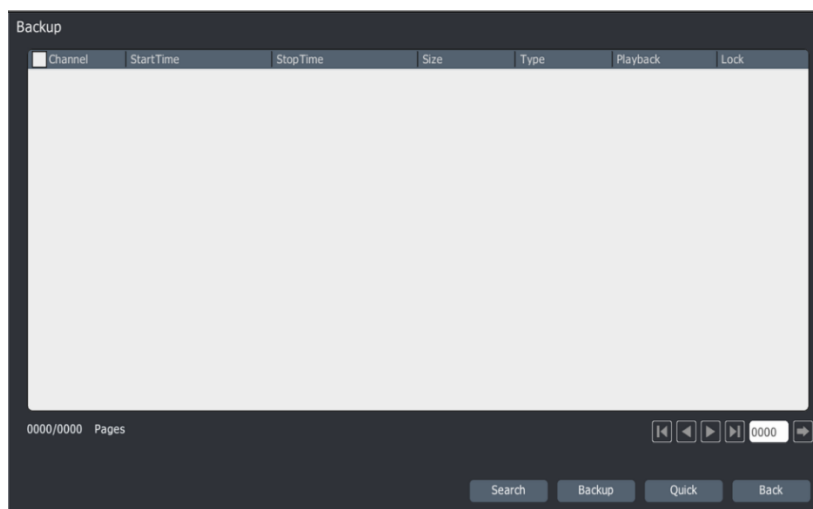
- When it is beyond the decoding capacity, thumbnail view cannot be displayed.
- When there is no recording files where your mouse stays, thumbnail view cannot be displayed.

4.8 Backup

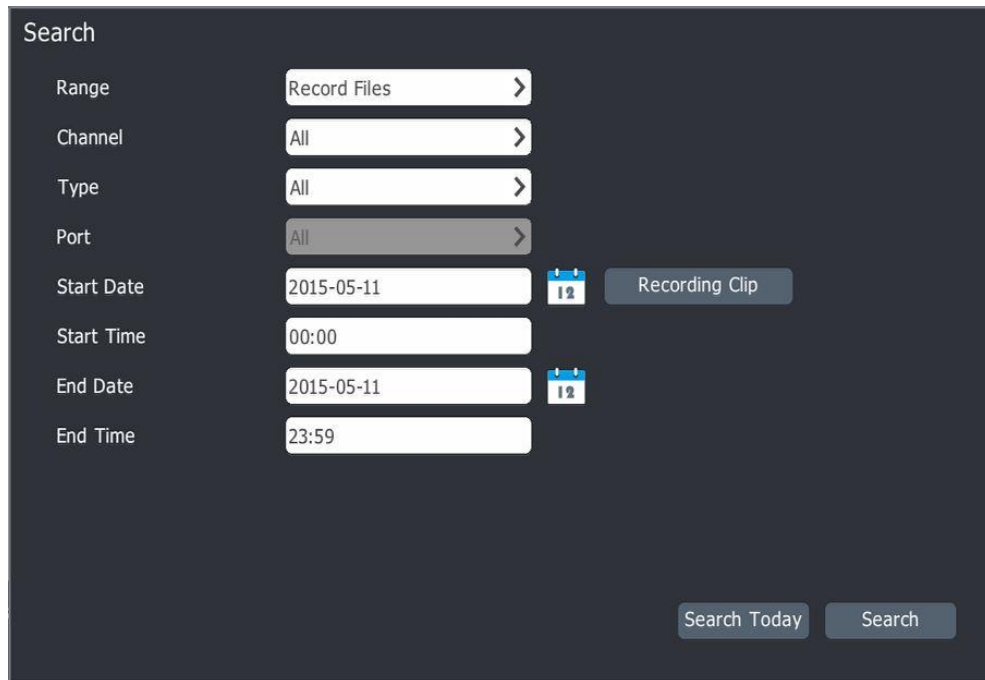
4.8.1 Backup

Backup record files to backup disk or USB device (U disk, Mobile HDD etc.)

1. [Main menu]->[Backup]



2. [Search]



The screenshot shows a search interface with the following fields and controls:

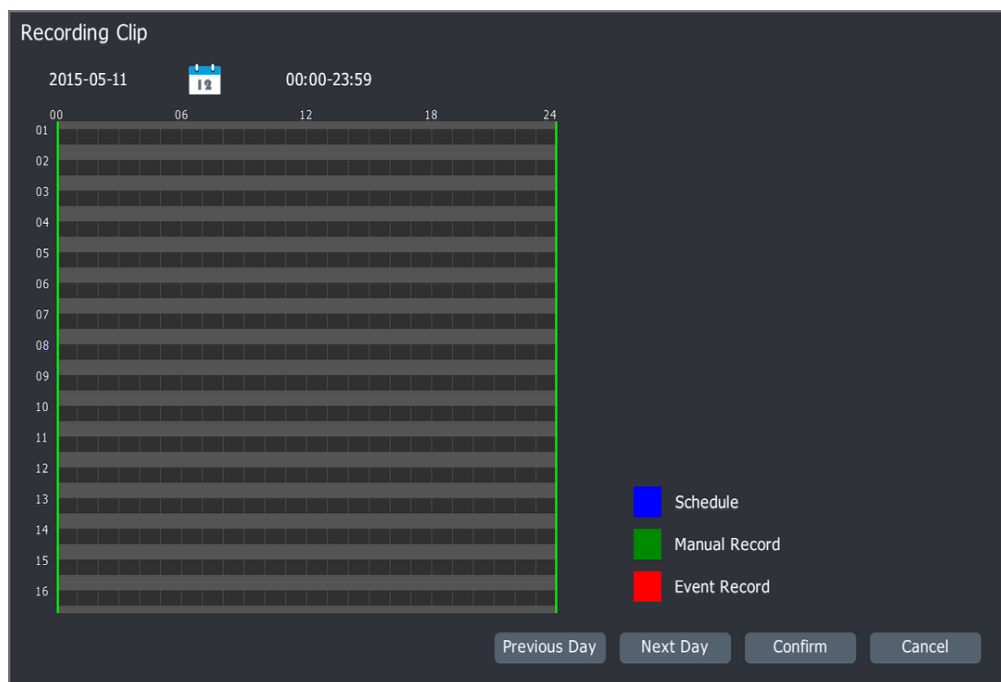
- Range: Record Files
- Channel: All
- Type: All
- Port: All
- Start Date: 2015-05-11
- Start Time: 00:00
- End Date: 2015-05-11
- End Time: 23:59

Additional elements include a "Recording Clip" button, a "Search Today" button, and a "Search" button.

3. After input search condition, click "Search".

Click "Search Today", only search today's recording.

Click "Recording Clip"





Note

- Image file can't support "Recording Clip" function.

4. [Main menu]->[Backup]

| <input type="checkbox"/> | Channel | StartTime | StopTime | Size | Type | Playback | Lock |
|--------------------------|---------|---------------------|---------------------|---------|----------|----------|------|
| <input type="checkbox"/> | 15 | 2015-03-16 15:48:42 | 2015-03-16 15:52:14 | 118.12M | Schedule | | |
| <input type="checkbox"/> | 7 | 2015-03-16 15:48:42 | 2015-03-16 15:52:12 | 105.17M | Schedule | | |
| <input type="checkbox"/> | 10 | 2015-03-16 15:48:42 | 2015-03-16 15:52:13 | 107.77M | Schedule | | |
| <input type="checkbox"/> | 5 | 2015-03-16 15:48:42 | 2015-03-16 15:52:12 | 87.76M | Schedule | | |
| <input type="checkbox"/> | 8 | 2015-03-16 15:50:00 | 2015-03-16 15:52:12 | 60.81M | Schedule | | |
| <input type="checkbox"/> | 14 | 2015-03-16 15:51:23 | 2015-03-16 15:51:43 | 9.91M | Schedule | | |
| <input type="checkbox"/> | 5 | 2015-03-16 15:52:23 | 2015-03-16 15:56:05 | 93.43M | Schedule | | |
| <input type="checkbox"/> | 7 | 2015-03-16 15:52:24 | 2015-03-16 15:56:05 | 110.04M | Schedule | | |
| <input type="checkbox"/> | 10 | 2015-03-16 15:52:24 | 2015-03-16 15:56:05 | 112.23M | Schedule | | |
| <input type="checkbox"/> | 14 | 2015-03-16 15:53:21 | 2015-03-16 15:56:05 | 89.05M | Schedule | | |
| <input type="checkbox"/> | 15 | 2015-03-16 15:52:26 | 2015-03-16 15:56:05 | 133.67M | Schedule | | |

0001/0001 Pages 0000

Click " " or double click recording file to play it.

Click " ", lock or unlock the recording file.

5. Choose recording file, then click "Backup" button:

Select Target

Target

File Format SDV MP4

Video Backup Player

6. Choose "Target", file format, video backup player, then "Apply".

4.8.2 Quick backup

1. [Main menu]->[Backup]->[Quick backup]

The screenshot shows a configuration window titled "Quick" with the following fields and options:

- Range: Record Files
- Channel: All
- Type: All
- Start Time: 2015-05-11 00:00
- End Time: 2015-05-11 20:38
- Target: (empty dropdown)
- File Format: SDV MP4
- Video Backup Player

At the bottom right, there are two buttons: "Today's" and "Backup".

4.9 Network setup

4.9.1 NIC 1

1. [Main menu]->[System setting]->[Network setup]->[NIC 1]

The screenshot shows the "System Setting" window with the "NIC 1" tab selected. The "Network Setup" section is active, showing the following configuration:

- MAC address: 00:50:c2:28:10:31
- Auto Get IP Address
- Manual Setup IP Address
 - IP address: 010.030.021.049
 - SubnetMask: 255.255.255.000
 - Gateway: 010.030.021.001
- Manual Setup DNS
 - Preferred DNS: 192.168.001.001
 - Reserved DNS: 192.168.001.001

At the bottom right, there are "Apply" and "Back" buttons.

2. Choose "Auto Get IP Address" or "Manual Setup IP Address".

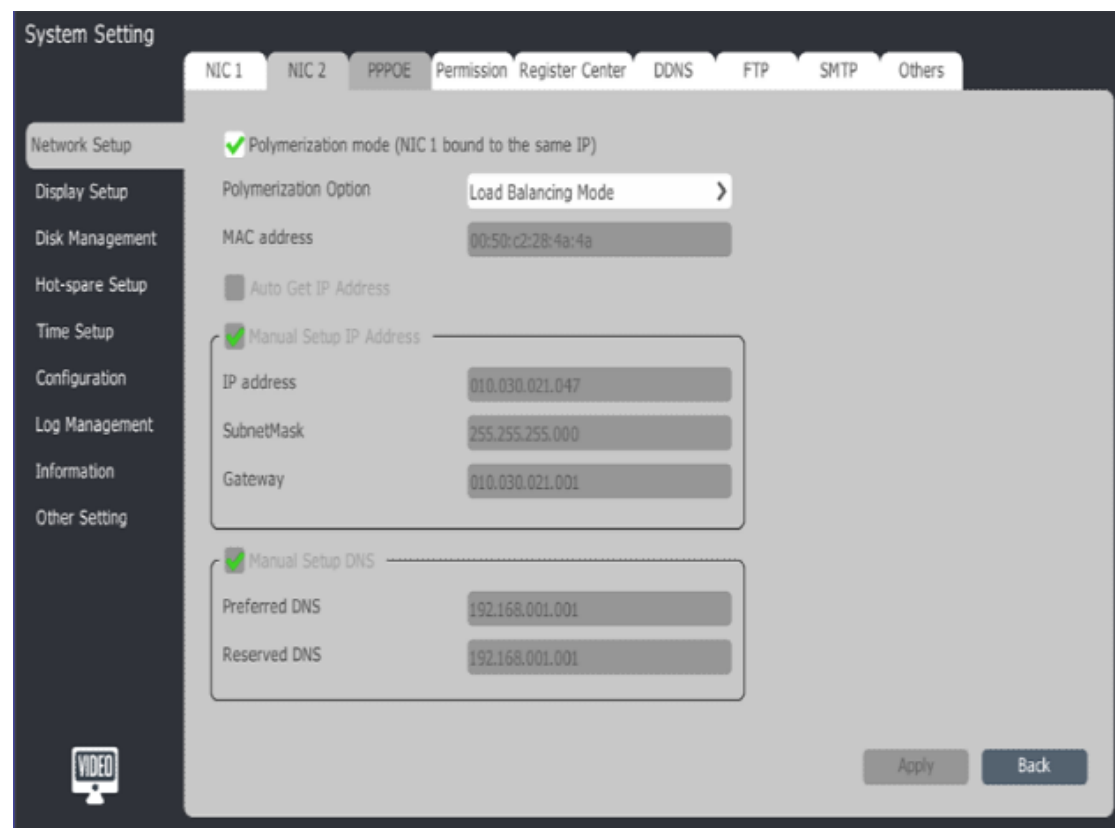
If choose "Auto Get IP Address", NVR will get IP address from DHCP after reboot.

3.If choose "Manual Setup IP Address", please set IP address, Subnet Mask, Gateway etc.

4. [Apply], then NVR will reboot automatically.

4.9.2 NIC 2

1. [Main menu]->[System setting]->[Network setup]->[NIC 2]



2. Enable "Polymerization mode", you can choose as below.

Load Balancing Mode, 2 network cards are in use.

Network redundancy, 1 network card is in use, another one as standby.

3. The Configuration method of NIC2 is the same as NIC1 if disable "Polymerization mode".

4.9.3 POE LAN Card

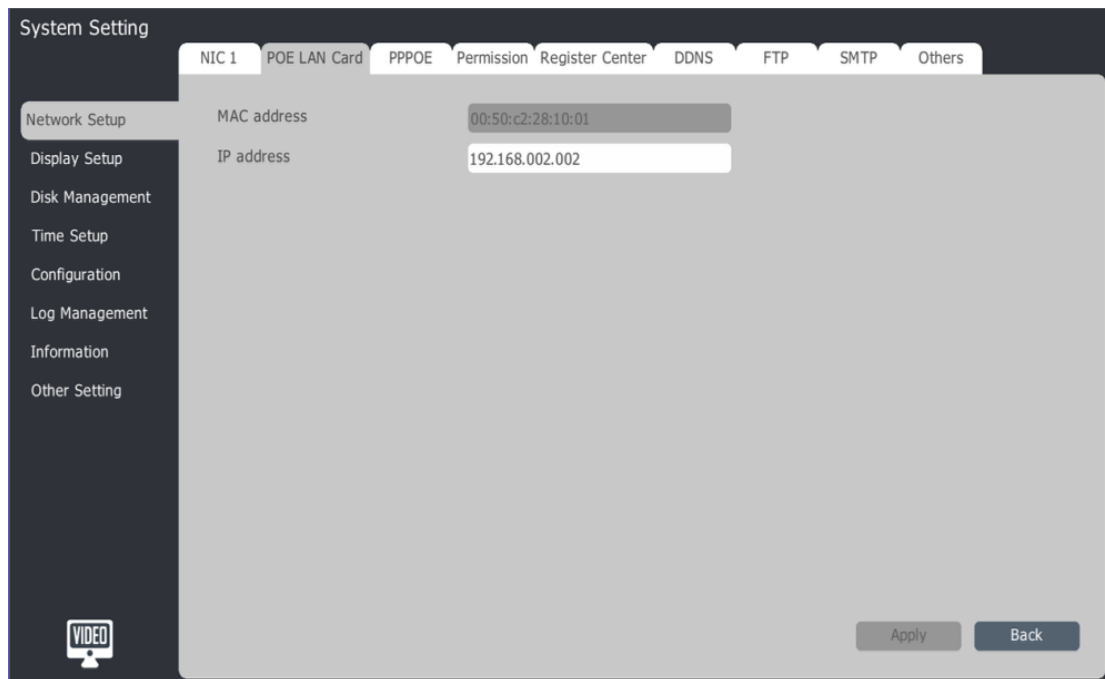


Note

- Only POE NVR support it.

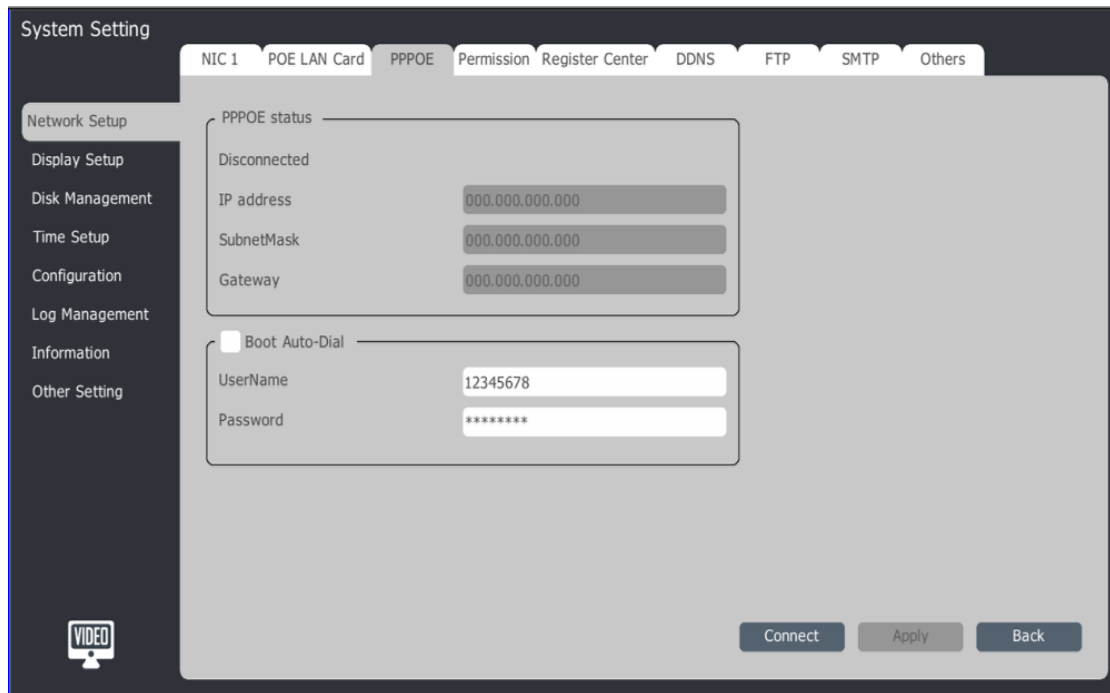
1. [Main menu]->[System setting]->[Network setup]->[POE LAN Card].

2. Plug and Play IP camera's IP address will be changed automatically when we change this POE NVR's IP address.



4.9.4 PPPOE

1. "Main menu"->"System setting"->"Network setup"->"PPPOE"



2.Set "Boot Auto-Dial".

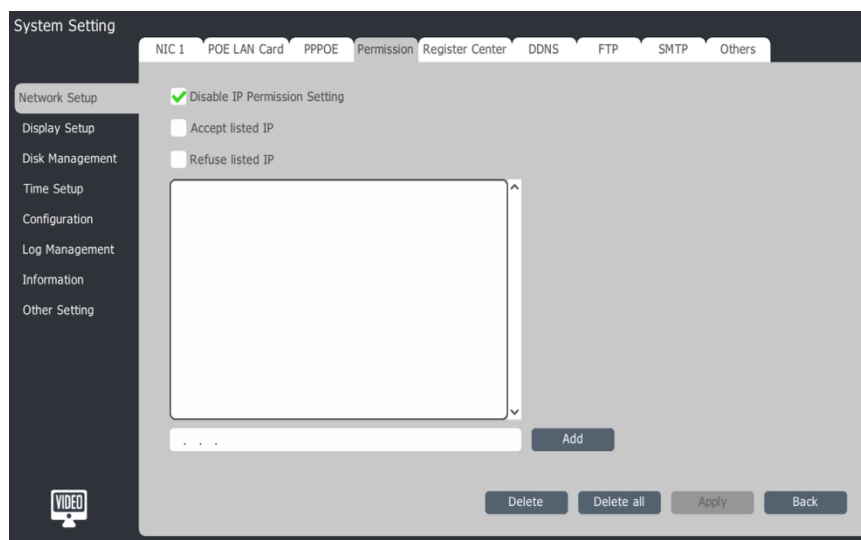
3.Input User Name and Password.

4.Connect.

5.Click "Apply" to save setting information.

4.9.5 IP permission

1."Main menu"->"System Setting"->"Network Setup"->"IP permission"



2. "Disable IP Permission Setting". "Accept listed IP" or "Refuse listed IP"

3. Input IP address

4. Add

5. Apply

4.9.6 Register Center

1. "Main menu"->"System Setting"->"Network Setup"->"Register Center"

The screenshot shows a web-based configuration interface for a system. The main title is "System Setting". Below it, there are several tabs: "NIC 1", "POE LAN Card", "PPPOE", "Permission", "Register Center", "DDNS", "FTP", "SMTP", and "Others". The "Register Center" tab is currently selected. On the left side, there is a vertical menu with options: "Network Setup", "Display Setup", "Disk Management", "Time Setup", "Configuration", "Log Management", "Information", and "Other Setting". The "Network Setup" option is highlighted. The main content area of the "Register Center" tab contains the following fields:

| | | | |
|-------------|---------|---|------|
| Server1 | 0.0.0.0 | : | 6004 |
| Server2 | 0.0.0.0 | : | 6004 |
| Device Name | DVRS | | |
| UserName | | | |
| Password | | | |

At the bottom right of the configuration area, there are two buttons: "Apply" and "Back". In the bottom left corner of the interface, there is a logo for "VIDEO" with a camera icon.

2. Input main server and standby server's IP address and port number. The default port number is 6004.

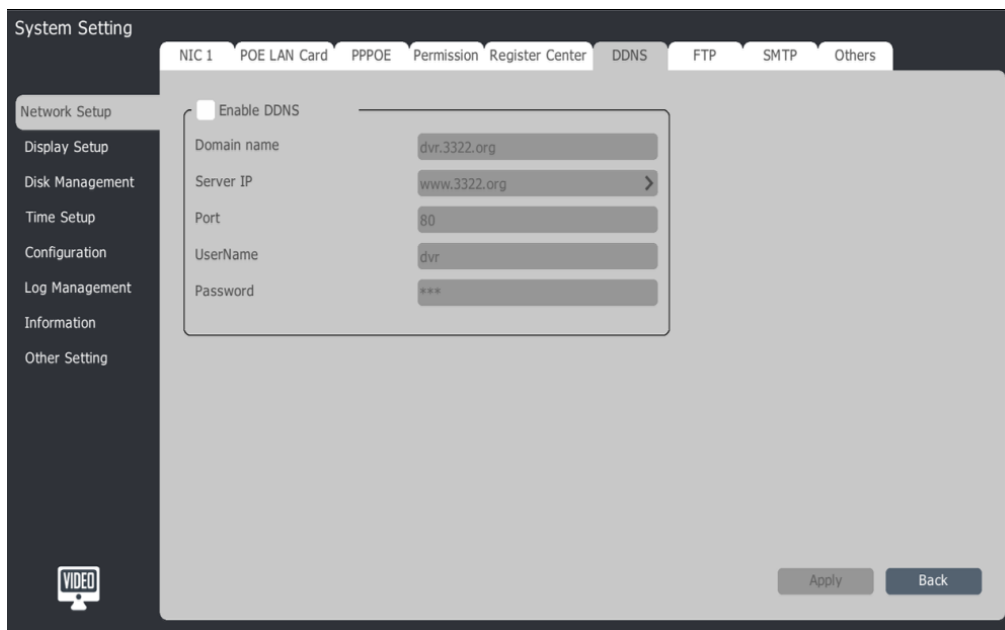
3. Input device name, the device name is registered in the server.

4. Input User name and password. The user name and password are registered in the server.

5. Apply

4.9.7 DDNS Setting

1. [Main menu]->[System setting]->[Network setup]->[DDNS]



2. Click "Enable DDNS"

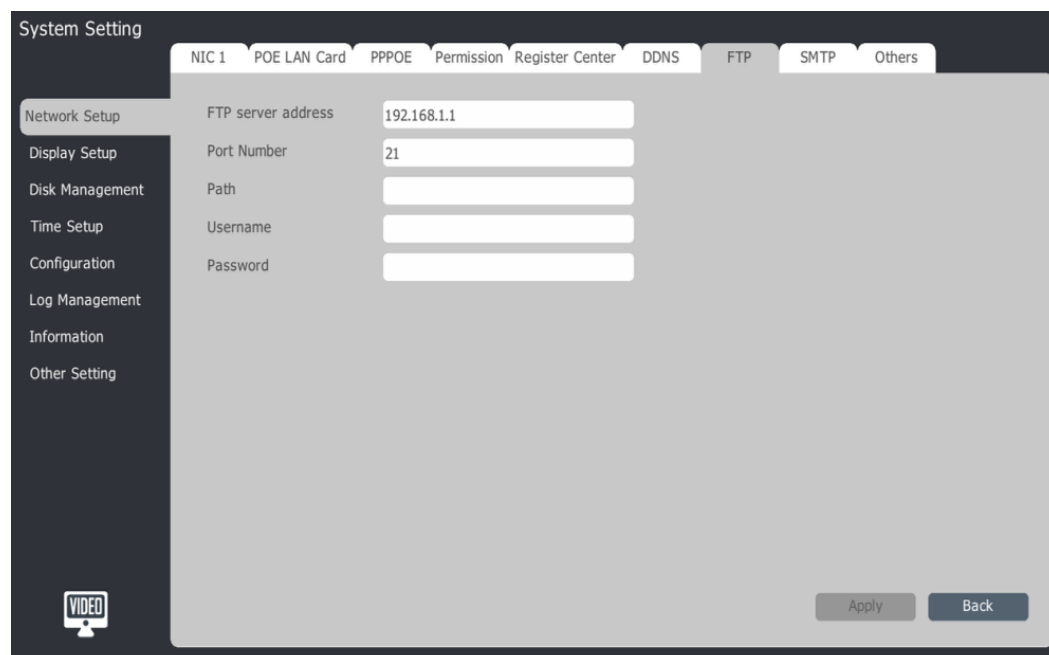
3. Input Domain name.

4. Input DDNS server's domain name or IP address.

5. Input DDNS server's port number, user name and password.

4.9.8 FTP Setting

1. [Main menu]->[System setup]->[Network Setup]->[FTP]

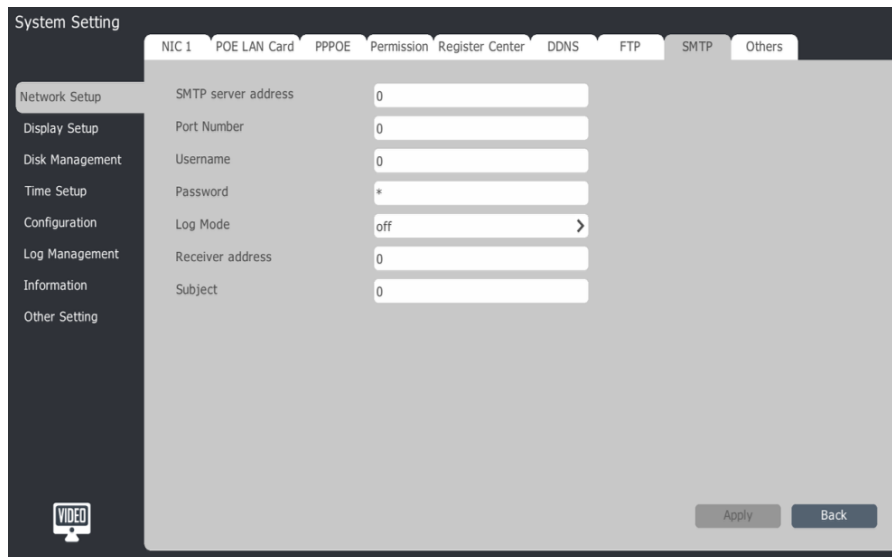


2. Input FTP Server's address, port number, user name and password.

3. Apply

4.9.9 SMTP

1. "Main menu" -> "System Setting" -> "Network setup" -> "SMTP"

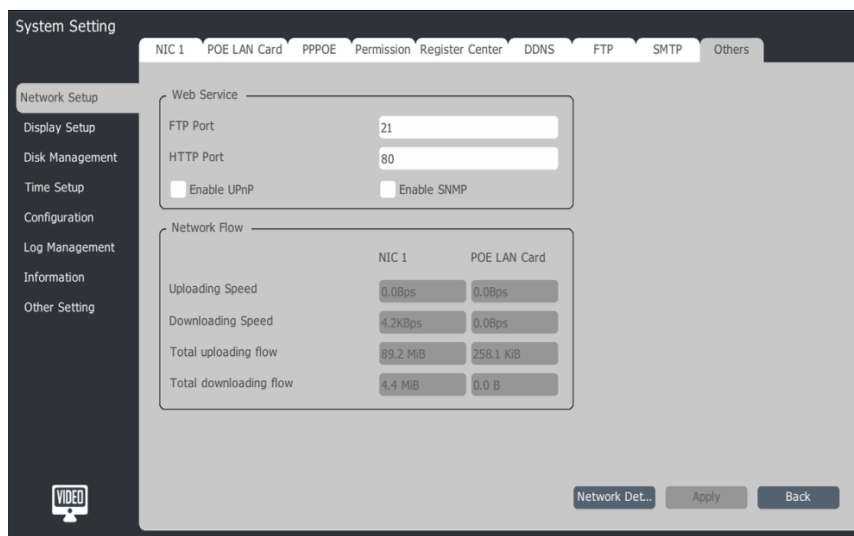


2. Input SMTP server address, port number, user name, password, log mode, receiver address and subject.

3. Apply

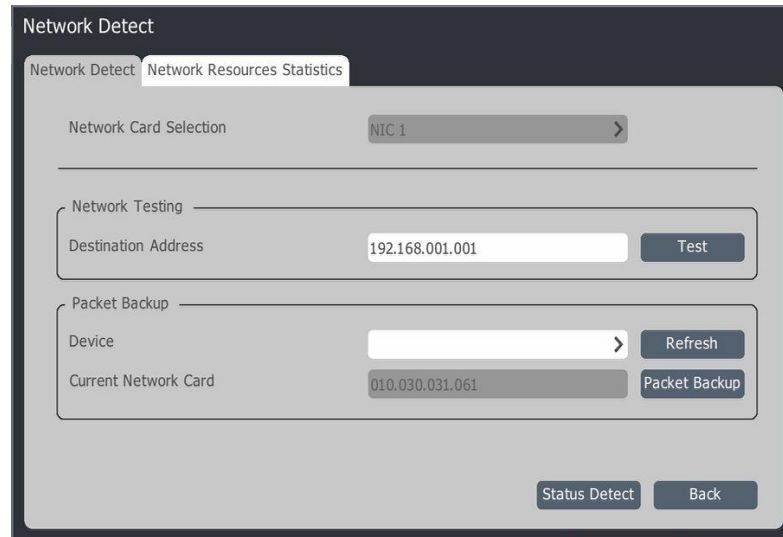
4.9.10 Others

"Main menu" -> "System Setting" -> "Network setup" -> "Others".



Network Detect

1. "System Setting" -> "Network Setup" -> "Other Setting" -> "Network Detect":



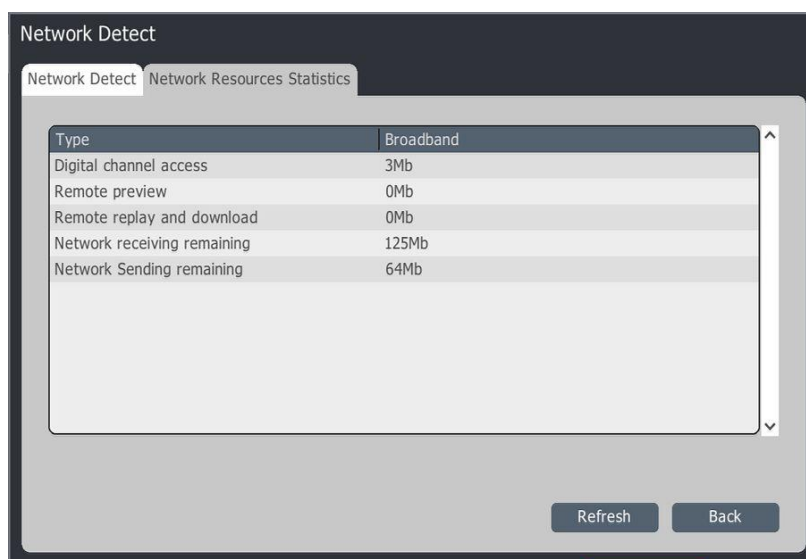
The screenshot shows the 'Network Detect' interface with two tabs: 'Network Detect' and 'Network Resources Statistics'. The 'Network Detect' tab is active. It features a 'Network Card Selection' dropdown menu set to 'NIC 1'. Below this is a 'Network Testing' section with a 'Destination Address' input field containing '192.168.001.001' and a 'Test' button. A 'Packet Backup' section includes a 'Device' dropdown menu, a 'Refresh' button, and a 'Current Network Card' input field containing '010.030.031.061' with a 'Packet Backup' button. At the bottom right, there are 'Status Detect' and 'Back' buttons.

2. Input IP camera's address in "Network testing", then click "Test" to test network environment.

3. Click "Status Detect" to test "Network gateway", DNS.

Network Resources Statistics

"System Setting" -> "Network setup" -> "Other Setting" -> "Network Detect" -> "Network Resources Statistics":



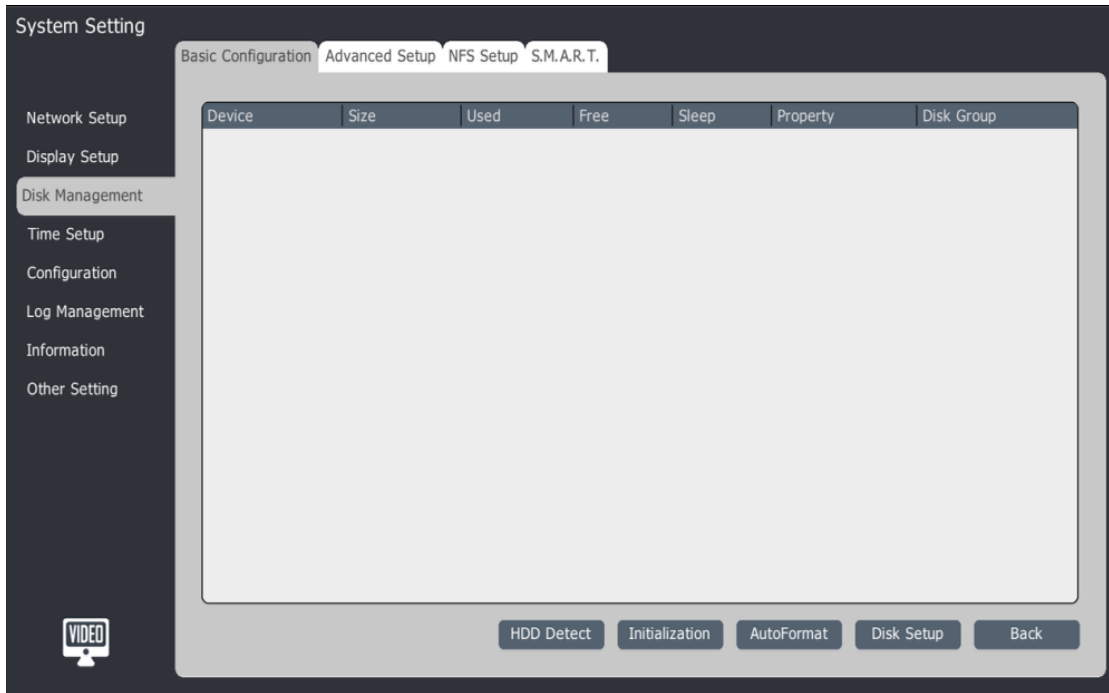
The screenshot shows the 'Network Resources Statistics' tab in the 'Network Detect' interface. It displays a table with two columns: 'Type' and 'Broadband'. The table lists various network resource types and their corresponding bandwidth usage.

| Type | Broadband |
|-----------------------------|-----------|
| Digital channel access | 3Mb |
| Remote preview | 0Mb |
| Remote replay and download | 0Mb |
| Network receiving remaining | 125Mb |
| Network Sending remaining | 64Mb |

At the bottom right of the interface, there are 'Refresh' and 'Back' buttons.

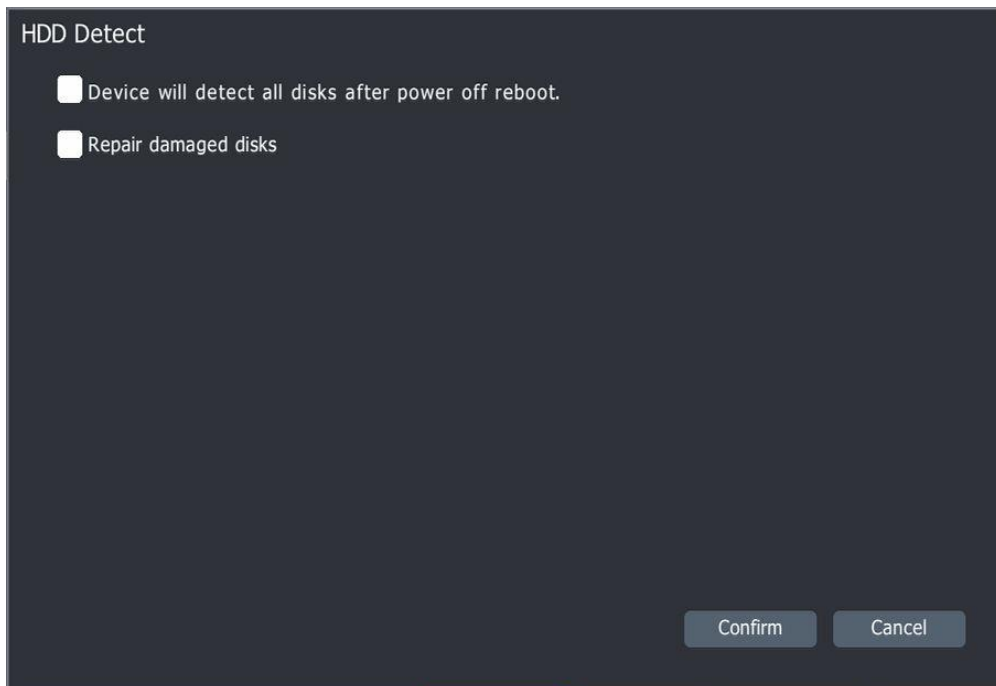
4.10 Disk Management

“Main menu”->“System Setting”->“Disk management”



4.10.1 Basic Configuration

HDD Detect.

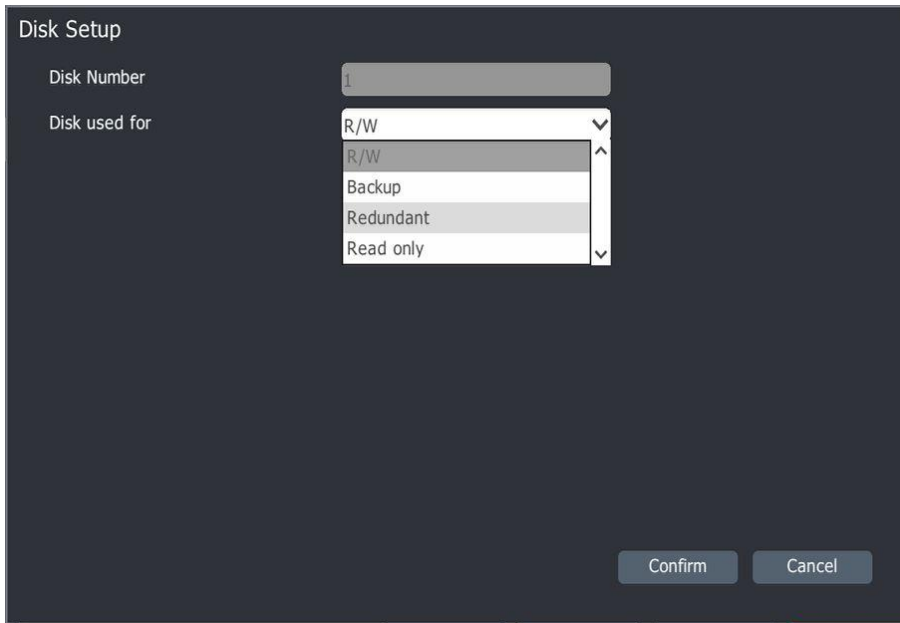


Disk Setup

Select which function you use for the disk.

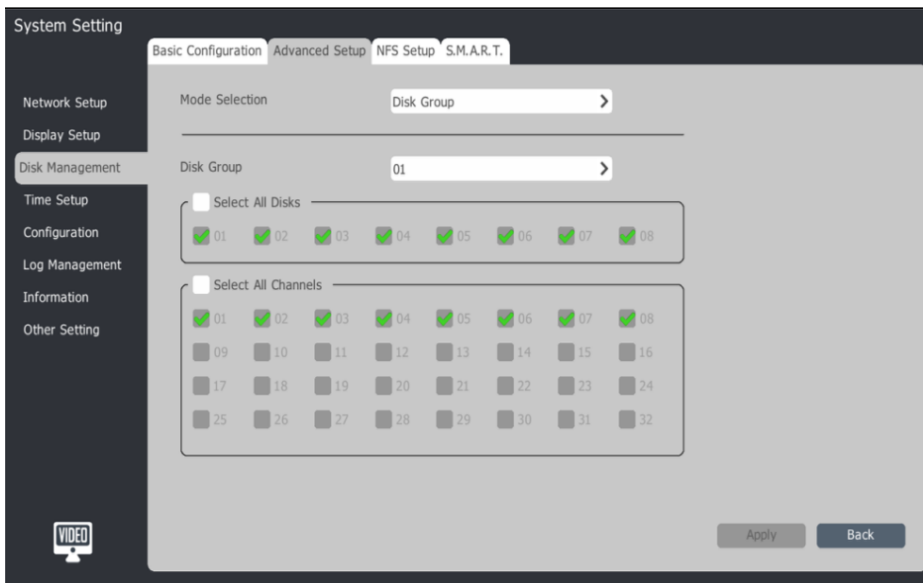
Note

You have to set the disk as redundant use before start redundancy recording.



4.10.2 Advanced Setup

1. "Disk Management"--"Advanced setup"

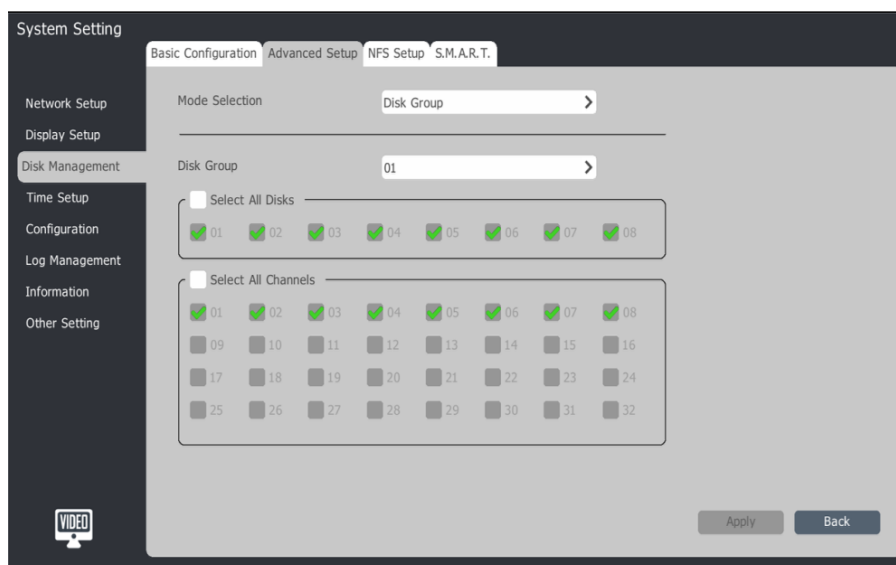


2. Mode selection

Disk Group: you can define which disk record which channel or define which channel recorded into the targeted disk.

Quota: Set the max disk space for every channel, different channel can be set different disk space.

3. Disk Group



1) Choose group number (01-08)

2) Select disk number. One disk only can be selected once.

3) Select channel number.

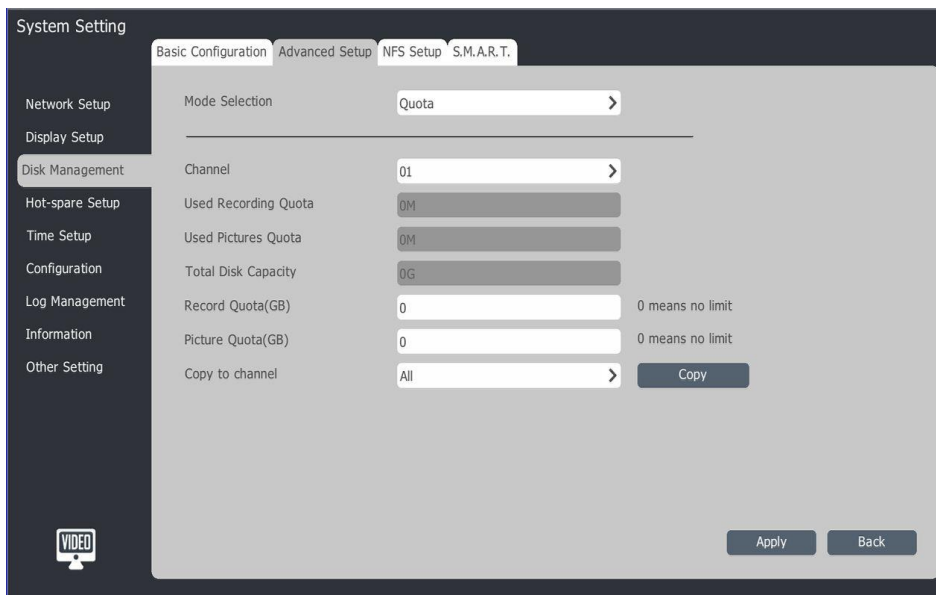
4) Apply



Please setup 2 disk groups at least when 32 channel video input.

4. Quota

1) "Disk Management" -> "Advanced Setup" -> "Mode Selection" -> "Quota"



2) Choose channel number.

3) Set disk space of recording file, unit is GB, 0 means unlimited.

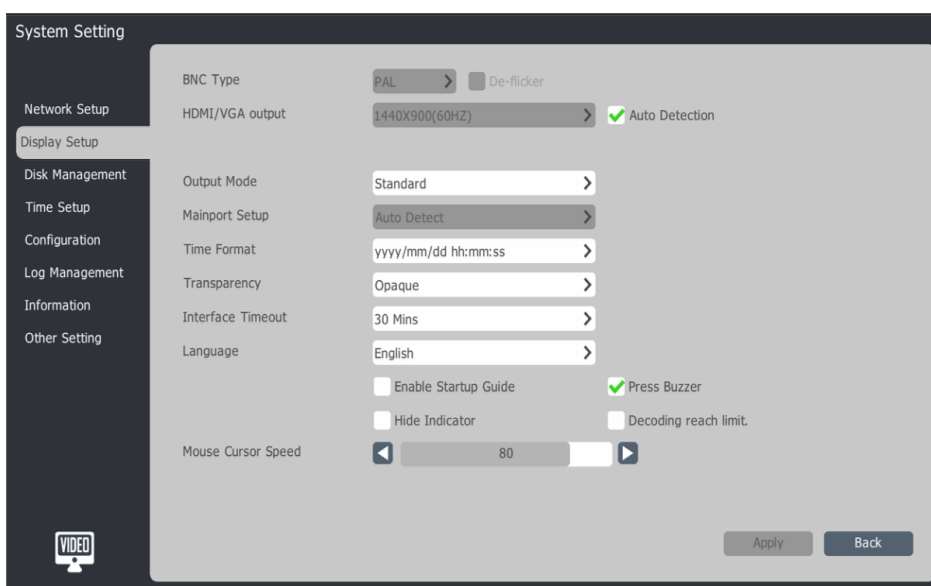
4) Set disk space of pictures, unit is GB, 0 means unlimited.

5) "Apply" for save.

4.10.3 Display Setup

Setup device display parameters.

1. Main menu – system setting – display setup



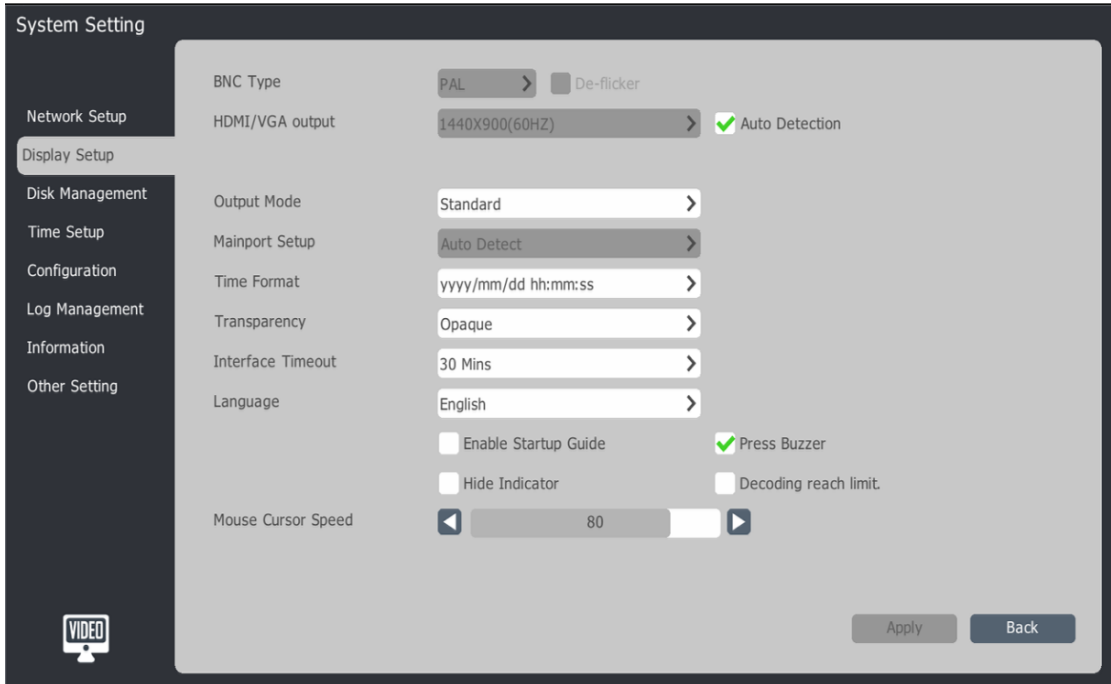
2. Display setup parameters instruction:

- BNC:BNC output mode, P/N optional, only NVR with 8HDD support this function.
- HDMI/VGA output: setup output device resolution
- Auto detection: auto adjust monitor best resolution
- Output mode: setup VGA output image mode, four modes optional.
- Main port setup: only NVR with 8HDD support this function.
- Time format: choose system time display format. Interface timeout: choose time of interface timeout. Language: support simple Chinese, traditional Chinese, English, Korea, Spanish, Italian, Thai, Russian, Turkish 9 languages.
- Enable startup guide: enable startup guide
- Press buzzer: setup buzzer or not when press front panel, remote controller
- Hide indicator: choose to show the record indicator and alarm indicator in preview interface.
- Decoding reach limit: choose there is tip information when device decode ability reach max limit.
- Mouse cursor speed: setup mouse speed, support 0-100 optional

4.10.4 Display Setup

Setup device display parameters.

1. [Main menu] -> [System setting] - [Display setup]



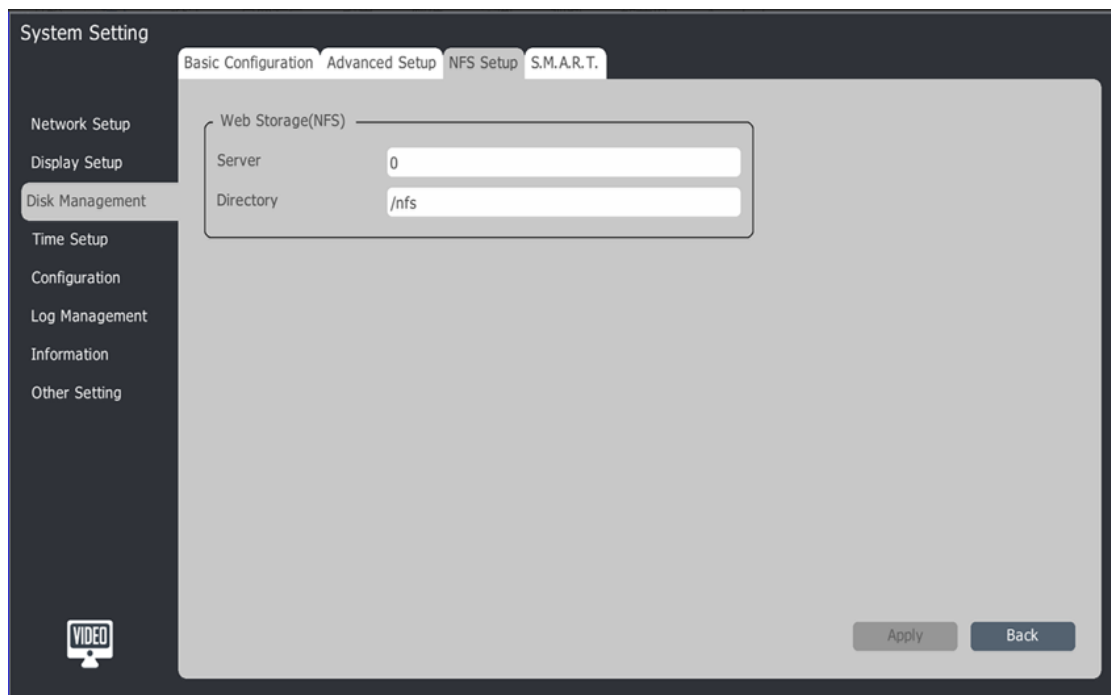
2. Display setup parameters instruction:

- BNC: BNC output mode, P/N optional, only NVR with 8HDD support this function.
- HDMI/VGA output: setup output device resolution
- Auto detection: auto adjust monitor best resolution
- Output mode: setup VGA output image mode, four modes optional.
- Main port setup: only NVR with 8HDD support this function.
- Time format: choose system time display format. Interface timeout: choose time of interface timeout. Language: support simple Chinese, traditional Chinese, English, Korea, Spanish, Italian, Thai, Russian, Turkish 9 languages.
- Enable startup guide: enable startup guide
- Press buzzer: setup buzzer or not when press front panel, remote controller

- Hide indicator: choose to show the record indicator and alarm indicator in preview interface.
- Decoding reach limit: choose there is tip information when device decode ability reach max limit.
- Mouse cursor speed: setup mouse speed, support 0-100 optional

4.10.5 NFS Setup

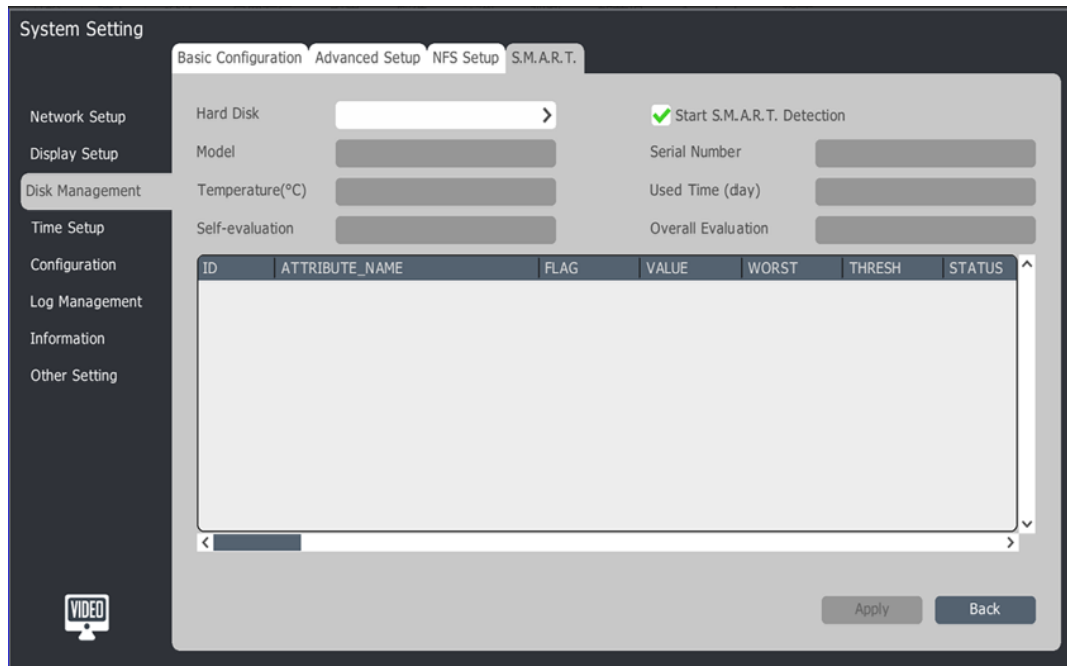
1. Disk Management-->NFS Setup



2. Setup server IP address and storage path
3. **【Apply】** to save the setup

4.10.6 S.M.A.R.T

1. Disk Management-->S.M.A.R.T Setup

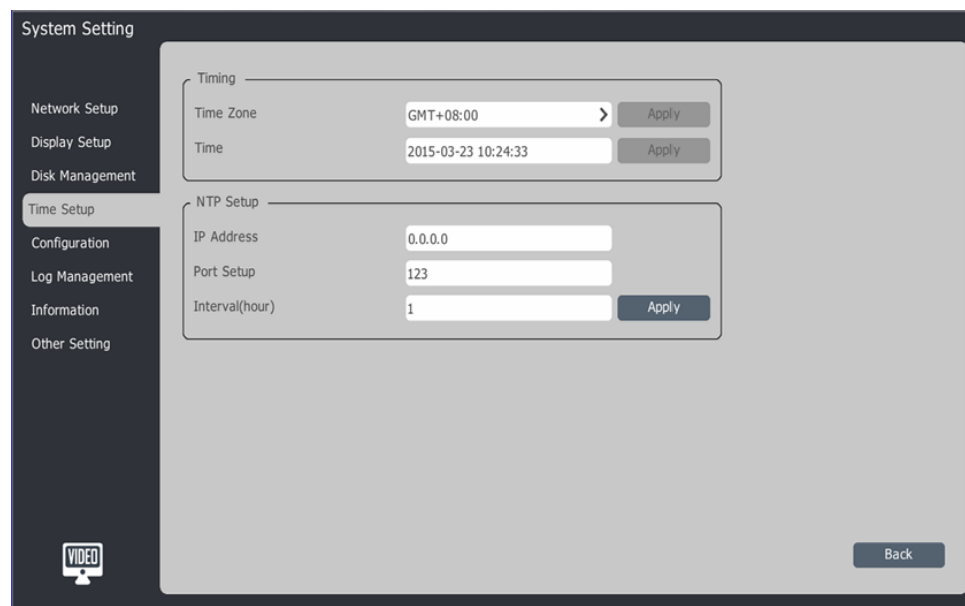


2. Select one hard disk

3. Enable **【Start S.M.A.R.T Detection】** , the information will be displayed in the list

4.11 Time Setup

Setup system time, timing and NTP.



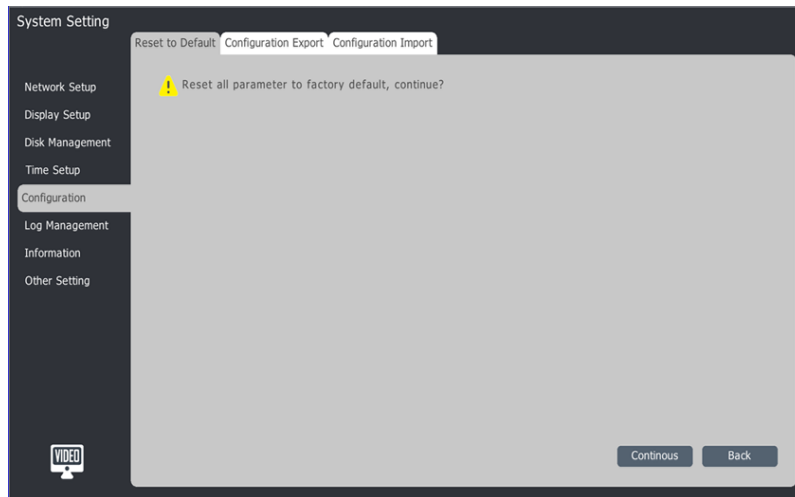
Modify system time zone and time, click "apply" to save the settings.

NTP setup: input NTP server address, port and interval time

4.12 Configuration

4.12.1 Reset to Default

【Continue】 to reset all parameter to factory default



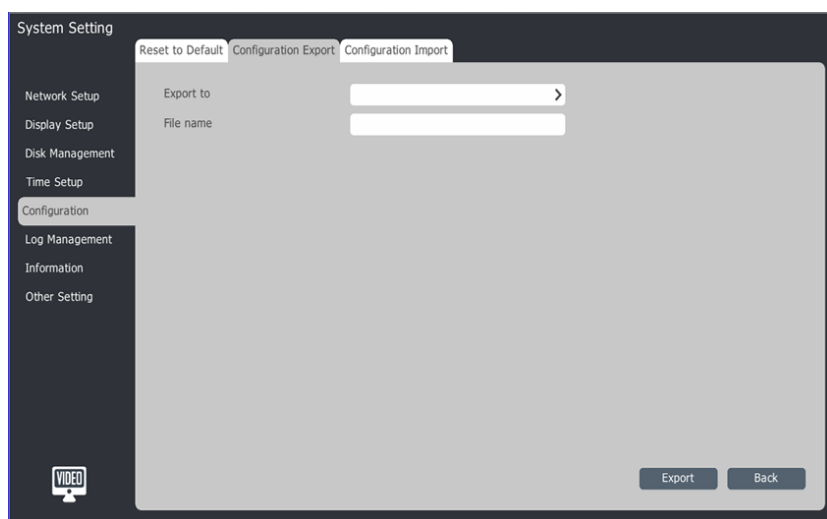
Note

The NVR will auto restart after resetting to default.

4.12.2 Configuration Export

【Export to】 select export save path

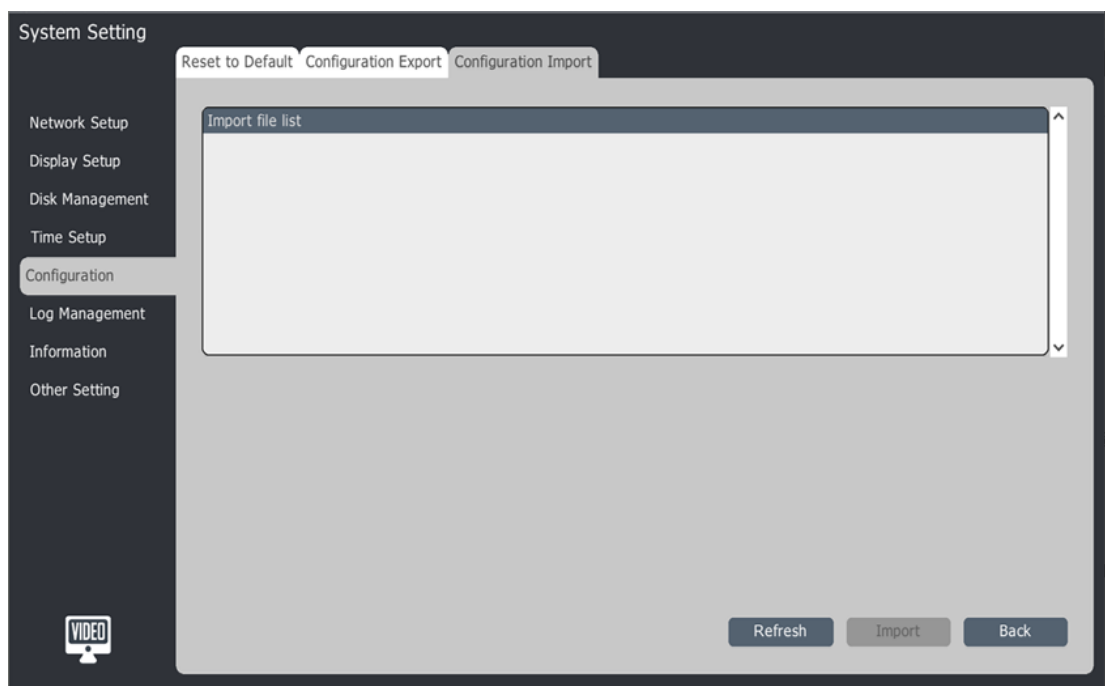
【File name】 name the export file



4.12.3 Configuration Import

【Refresh】 to check the import file list

【Import】 to import the configuration

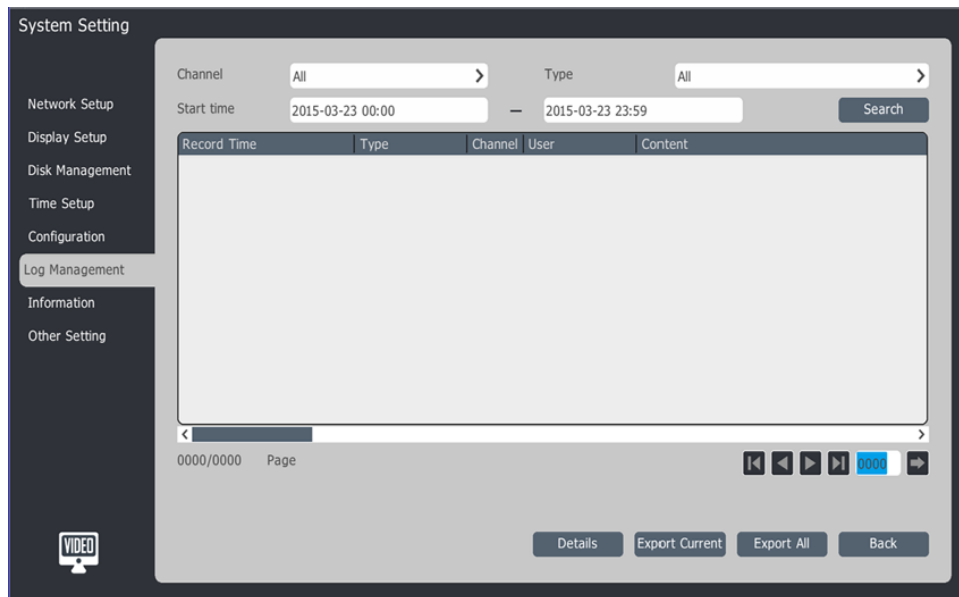


 **Note**

The NVR will auto restart after importing.

4.13 Log Management

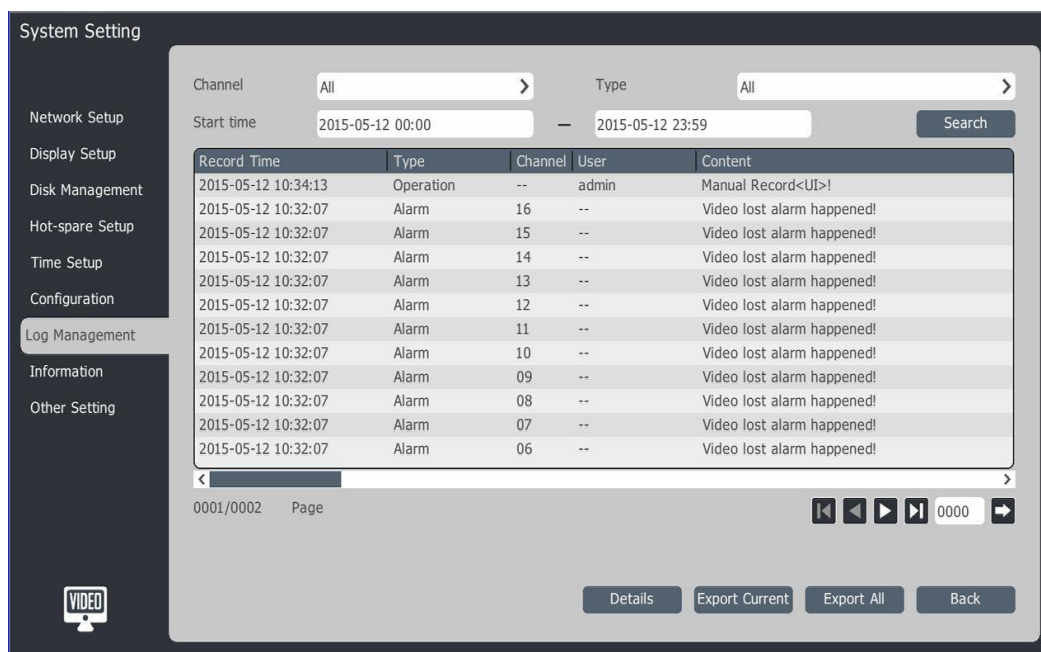
1. Search the log via **【Channel】** , **【Type】** and **【Start Time】**



2. First page Previous page

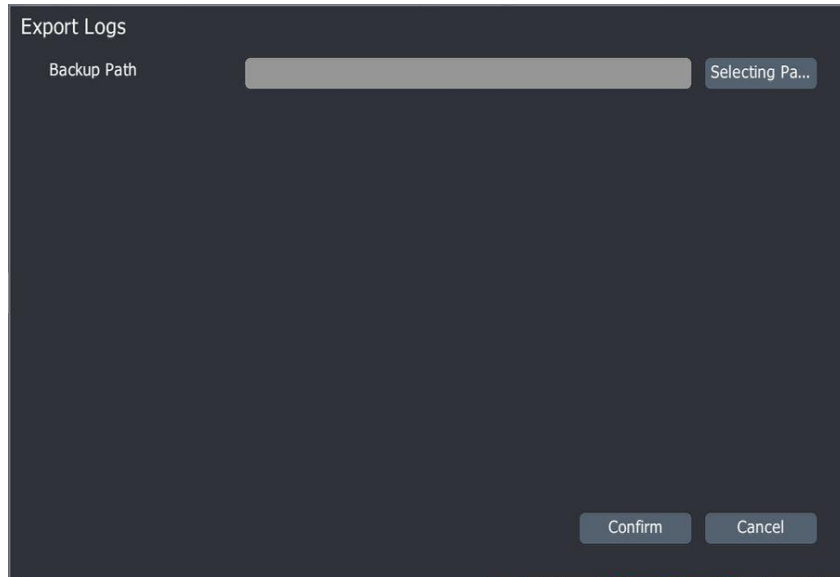
Last page Next page

0000 Enter page No. and turn to that page



3. Log export

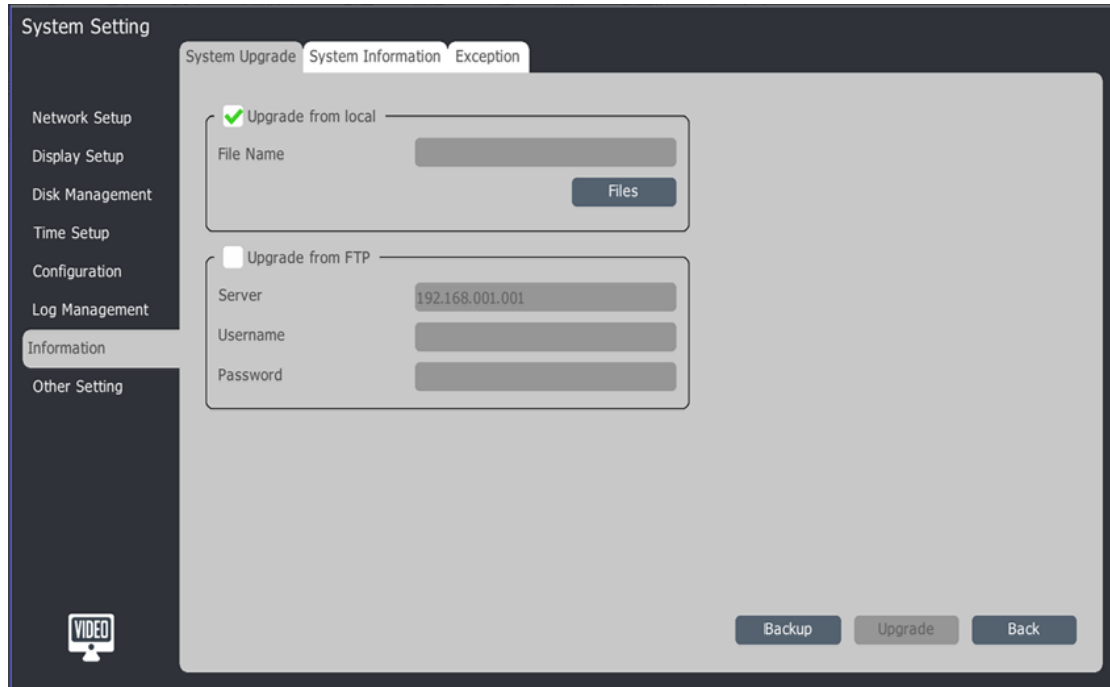
Select **【Export Current】** or **【Select All】** to export the logs, then select backup path



The image shows a dialog box titled "Export Logs". It features a "Backup Path" label followed by a text input field and a "Selecting Pa..." button. At the bottom right, there are "Confirm" and "Cancel" buttons.

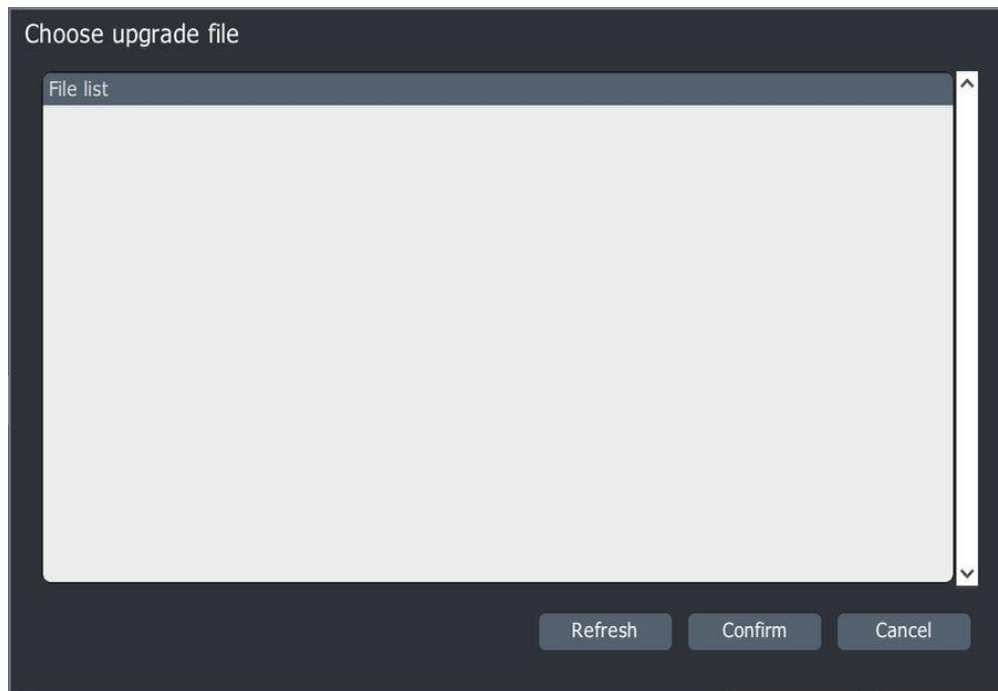
4.14 Information

4.14.1 System Upgrade



The image shows the "System Setting" interface with the "System Upgrade" tab selected. The left sidebar lists various settings: Network Setup, Display Setup, Disk Management, Time Setup, Configuration, Log Management, Information (highlighted), and Other Setting. The main area has three tabs: "System Upgrade", "System Information", and "Exception". Under "System Upgrade", there are two options: "Upgrade from local" (checked) and "Upgrade from FTP" (unchecked). The "Upgrade from local" section includes a "File Name" input field and a "Files" button. The "Upgrade from FTP" section includes "Server" (with the value 192.168.001.001), "Username", and "Password" input fields. At the bottom right, there are "Backup", "Upgrade", and "Back" buttons. A "VIDEO" icon is visible in the bottom left corner.

Upgrade from local: select local firmware files



Upgrade from FTP: enter server IP, Username and Password

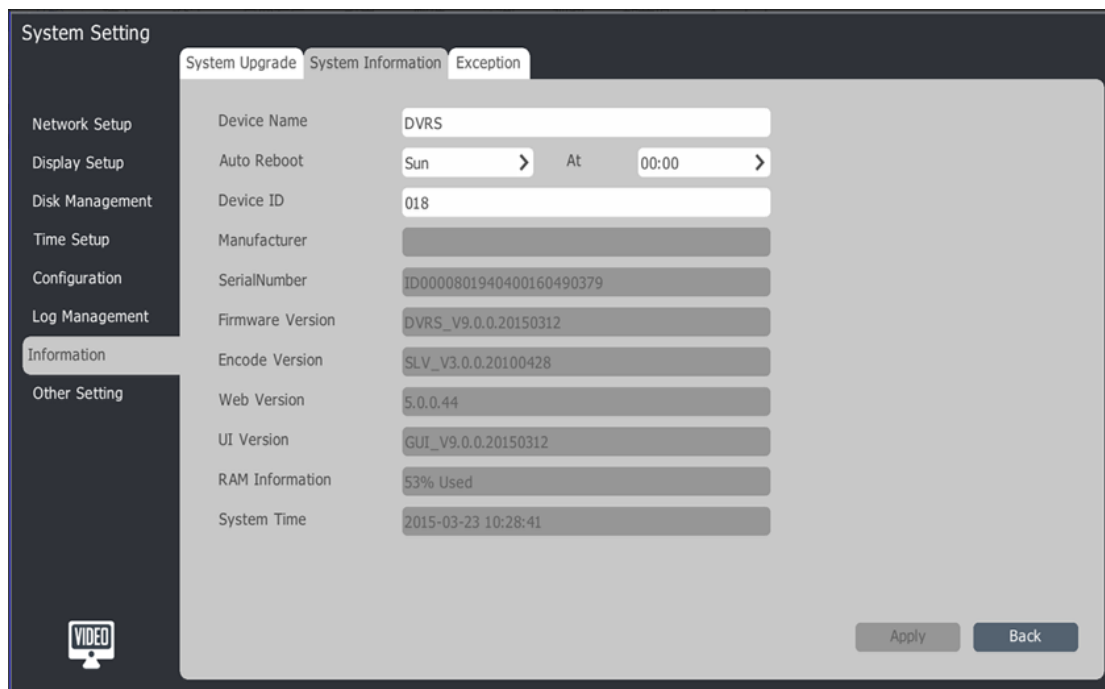


Note

- The NVR will auto restart after upgrading.
- If upgrade failed or can't work after restart, please contact supplier soon.
- The NVR is dual system, the kernel files may need upgrade twice, please select backup firmware

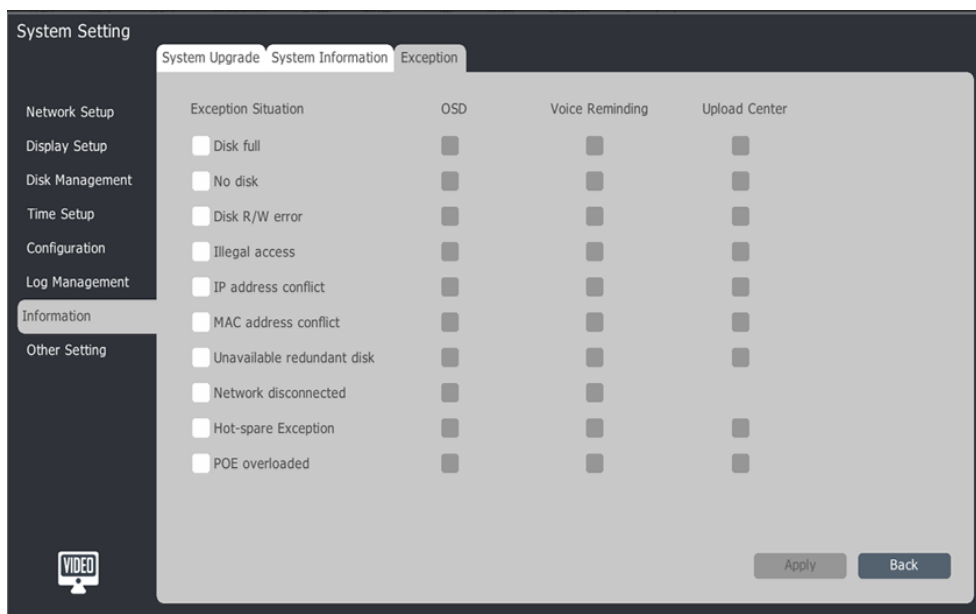
4.14.2 System Information

Check **【Device Name】**, **【Device ID】**, **【Firmware Version】**, **【UI version】**, etc., also can set **【Auto Reboot】** time to maintenance regularly.



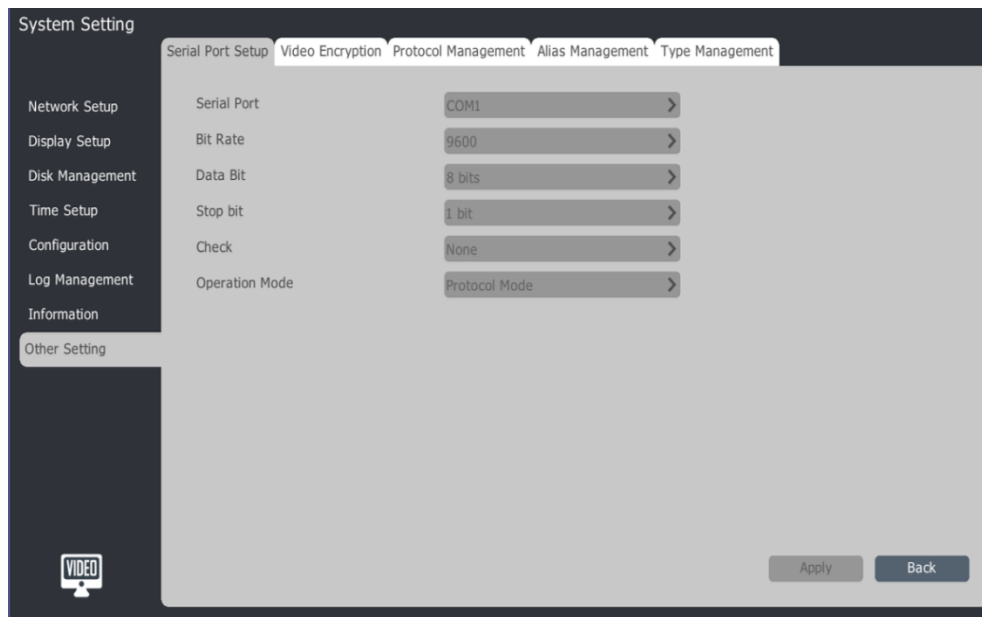
4.14.3 Exception

There are ten exception situation, such as **【Disk Full】**, **【No Disk】**, **【Disk R/W error】**, etc., and you can select to active **【OSD】**, **【Voice Reminding】** and **【Upload Center】** when it happens.



4.15 Other Setting

Setup serial port, video encryption, protocol management, alias management and type management.

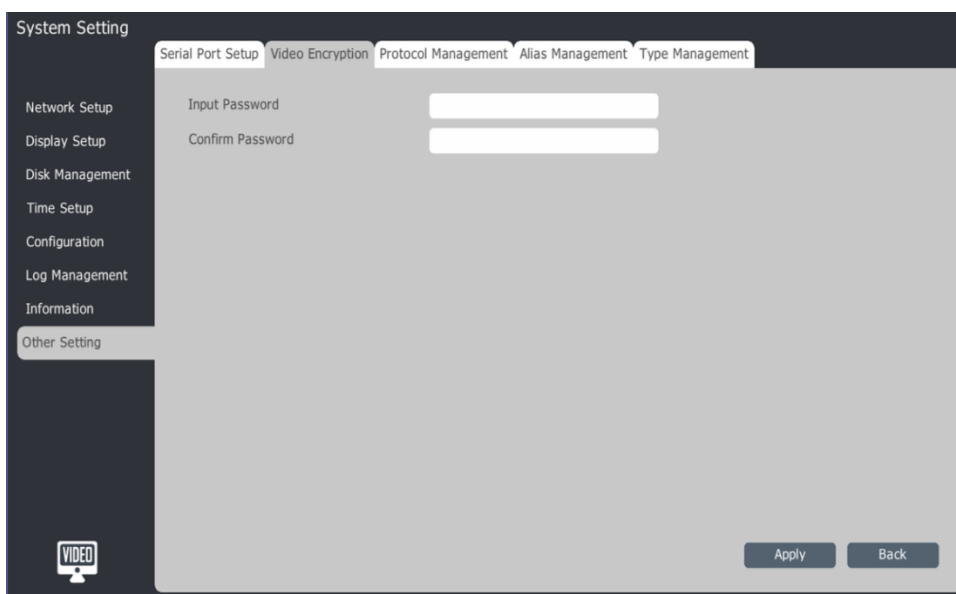


4.15.1 Serial port

Setup device serial port, bit rate, data bit, stop bit, check and operation mode.

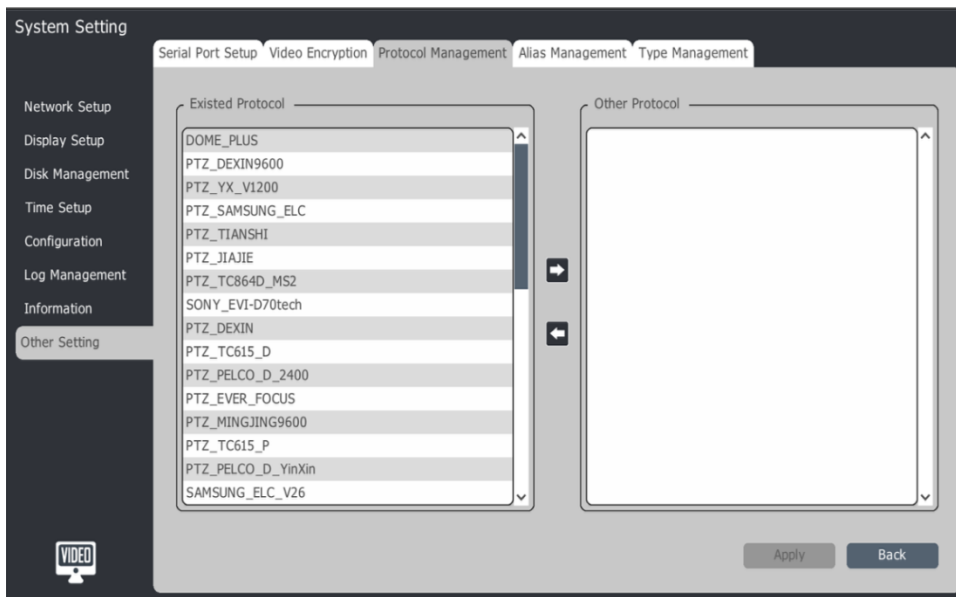
Video encryption

Setup video encryption password



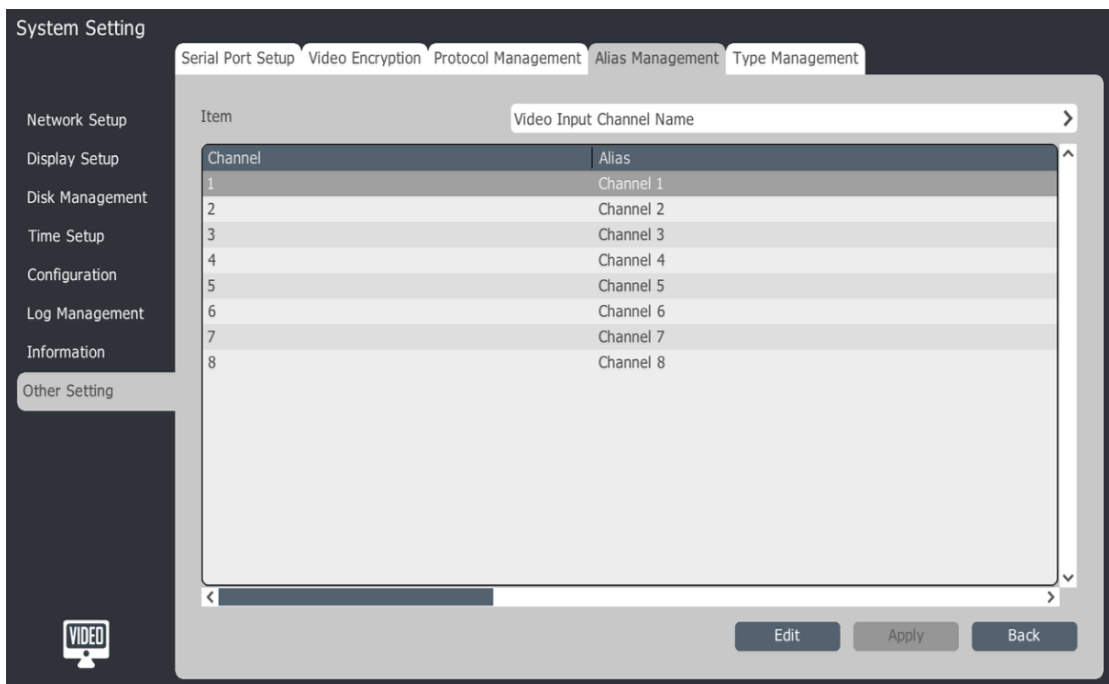
4.15.2 Protocol management

Setup and add device protocol



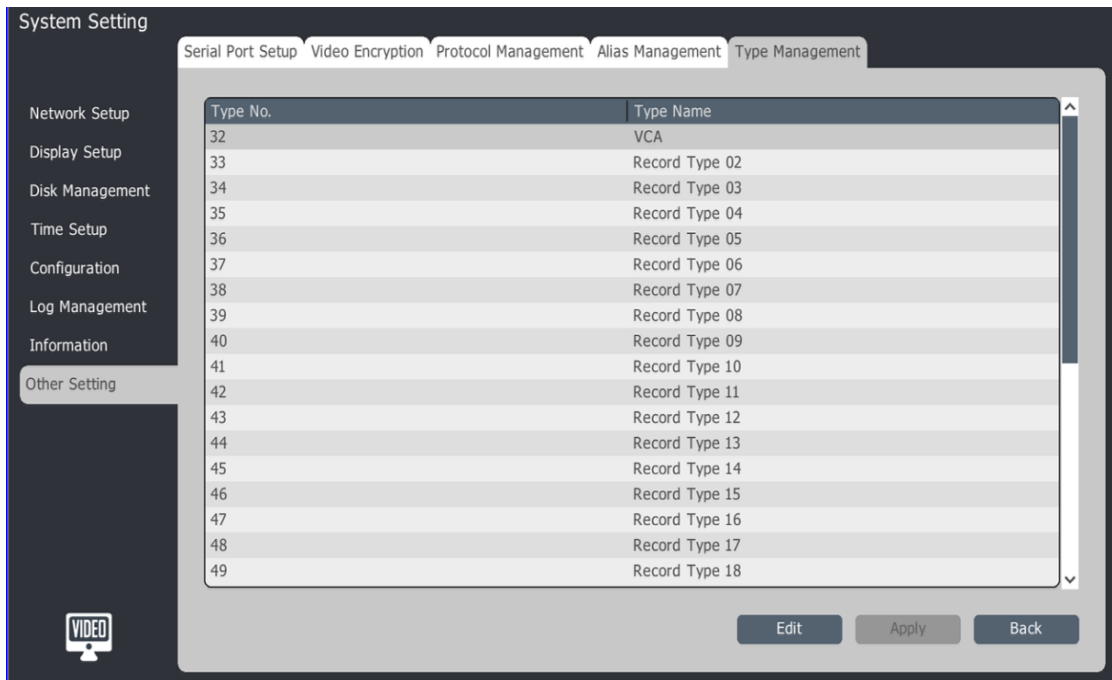
4.15.3 Alias management

Setup channel's alias



4.15.4 Type management

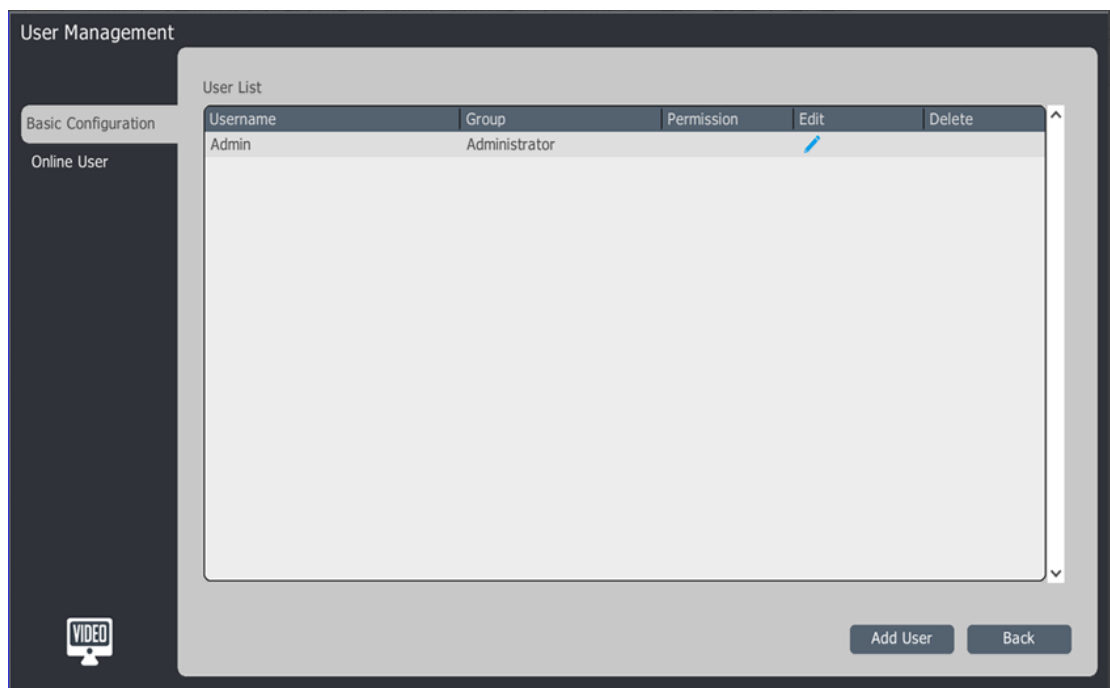
Setup record type name.



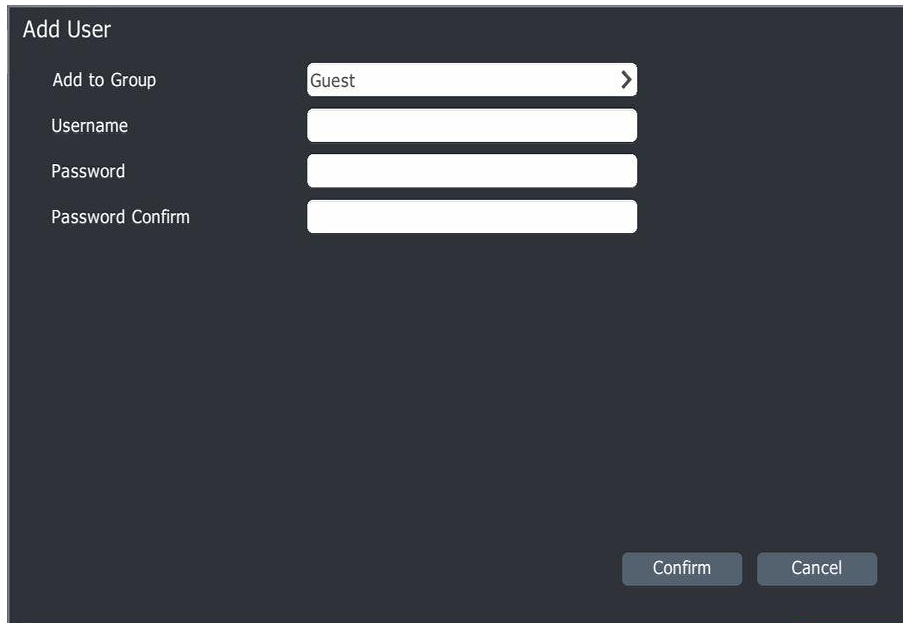
4.16 User Management

4.16.1 Add User

Main Menu-->User Management-->Basic Configuration



【Add User】 : Select 【Group】 -->Enter 【Account】 and 【Password】



Add User

Add to Group

Username

Password

Password Confirm

Confirm Cancel



Note

- Add up to 31 users
- There are four groups, "Normal User", "Special User", "Super User" and "Administrator", and the authorization are different as well:


Normal User: Preview

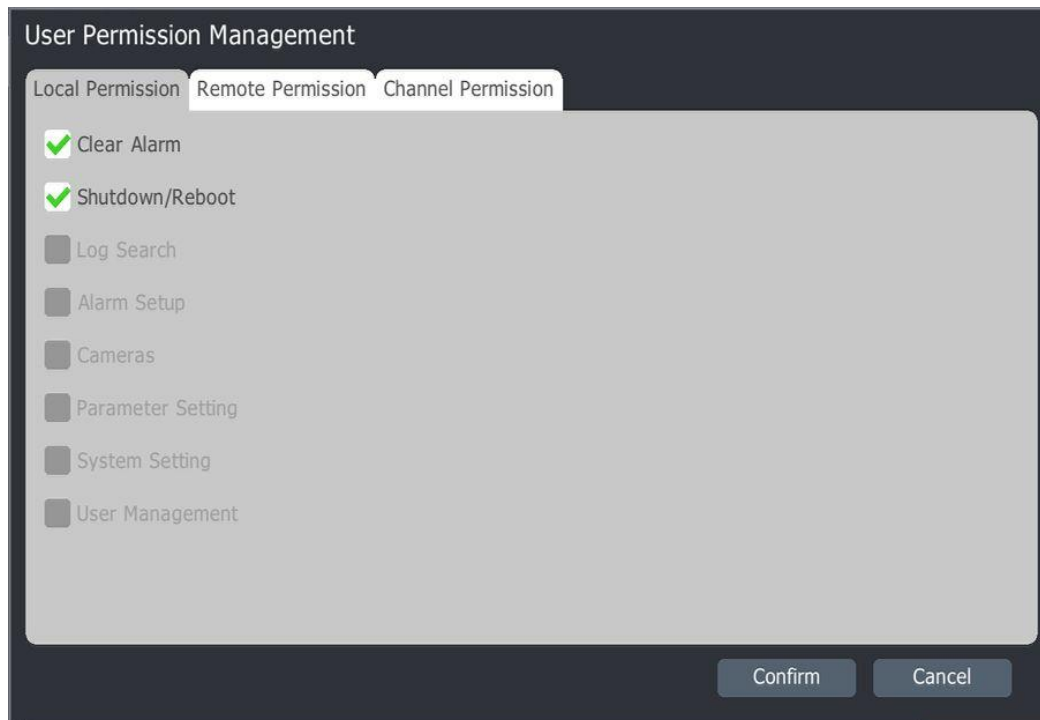
Special User: Preview + Control

Super User: Preview + Control + Setup

Administrator: Preview + Control + Setup + User Management

4.16.2 User Authority Management

1. Select  in the user list to edit user authority

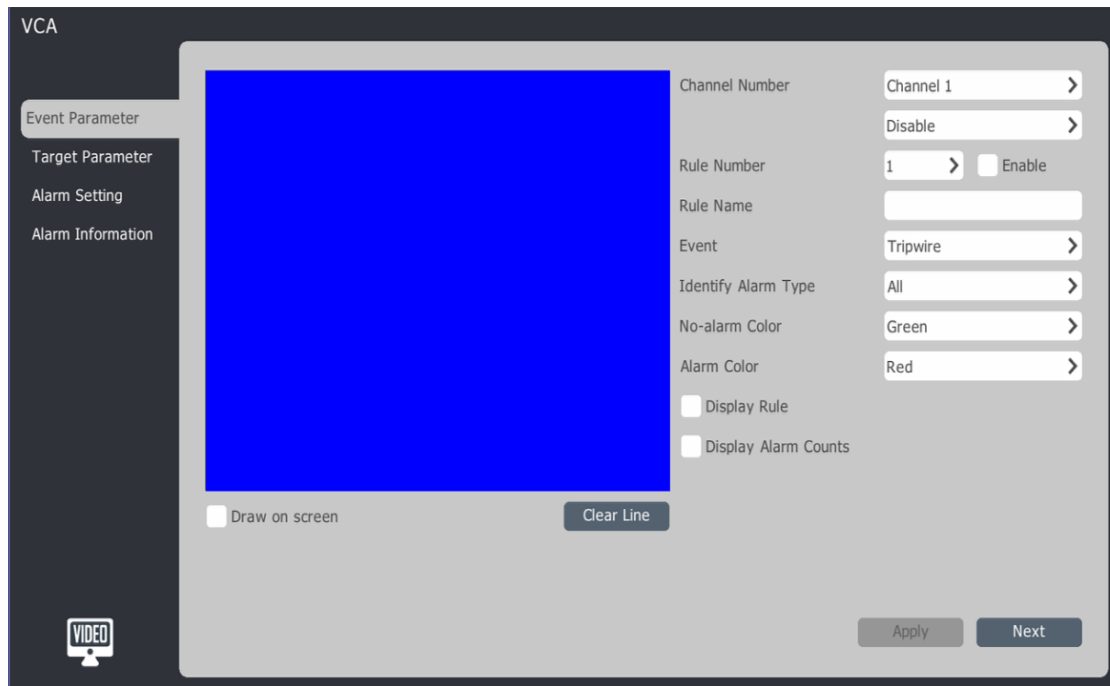


2. Authority Instruction:

- 1) Local: clear alarm, shutdown/restart, log search, alarm setup, channel management, parameter setup, system setup and user management
- 2) Remote: Manual dis-alarm, shutdown/restart, log search, alarm setup, channel management, parameter setup, system setup and user management
- 3) Channel: remote preview, local playback/ capture preview, remote playback/ capture preview, local/remote PTZ control

4.17 VCA

1.Main menu – VCA – event parameter.



2.Choose the channel need to be setup.

3.Enable VCA, user can choose enable local VCA or IPC VCA.



Instructions

- Only standard NVR series (16 channel with 8HDD, 32 channel with 8HDD) and POE NVR (16 channel with 4HDD) support 2 channel local VCA.

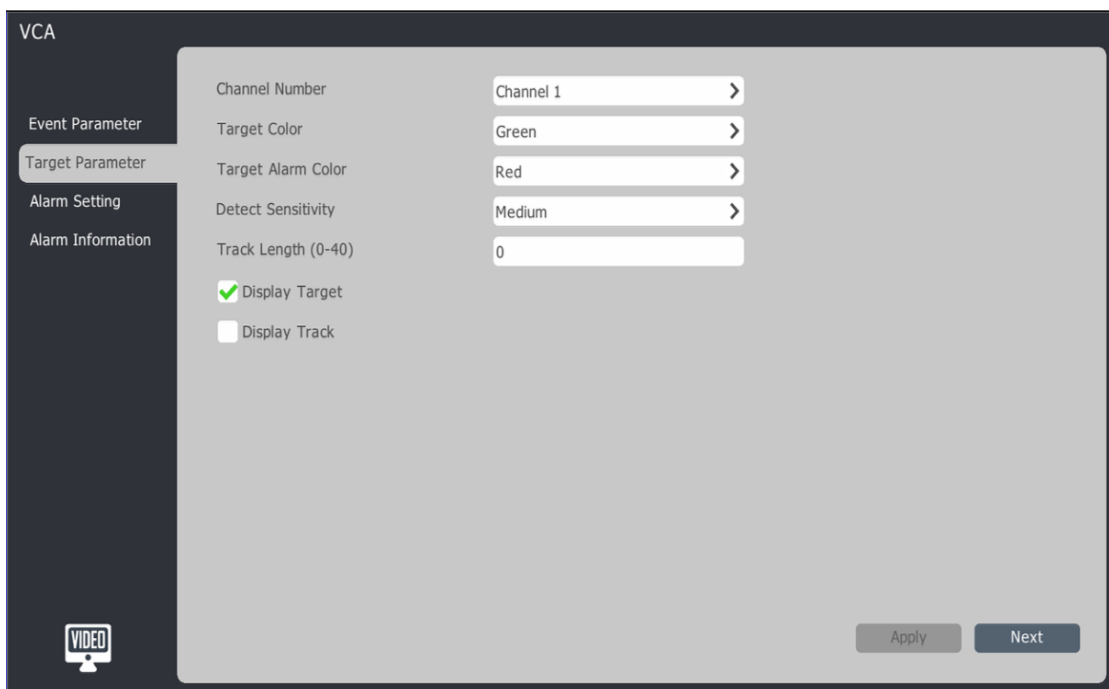
4.VCA parameters setup:

- Rule number: choose VCA rule, every channel max support 8 rules..
- Enable: enable the rule.
- Rule name: setup rule name.
- Event: choose VCA mode, include tripwire, perimeter, object missing and video diagnosis etc.
- Identify alarm type: include all, people, car , people and car etc.

-
- No-alarm color: setup border color without alarm.
 - Alarm color: setup border color with alarm.
 - Display rule: display rule information on screen.
 - Display alarm counts: display alarm accounts on screen.

5. Draw on screen: enable it and draw rule area on small screen, click "clear line" to clear rules on screen.

6. Click next to setup target parameter.



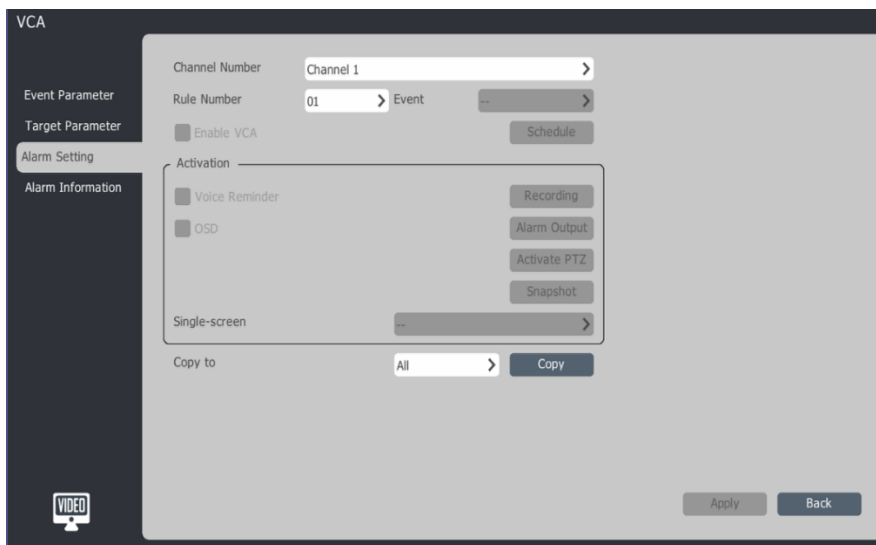
The screenshot displays the 'VCA' configuration window. On the left, a dark sidebar contains a menu with the following items: 'Event Parameter', 'Target Parameter' (highlighted), 'Alarm Setting', and 'Alarm Information'. At the bottom of the sidebar is a 'VIDEO' icon. The main area of the window is light gray and contains the following settings:

| | | |
|--|-----------|---|
| Channel Number | Channel 1 | > |
| Target Color | Green | > |
| Target Alarm Color | Red | > |
| Detect Sensitivity | Medium | > |
| Track Length (0-40) | 0 | |
| <input checked="" type="checkbox"/> Display Target | | |
| <input type="checkbox"/> Display Track | | |

At the bottom right of the main area, there are two buttons: 'Apply' and 'Next'.

7. User can setup target color, alarm color and detect sensitivity etc.

8. Click next to setup alarm setting.



1)choose rule number need to be setup

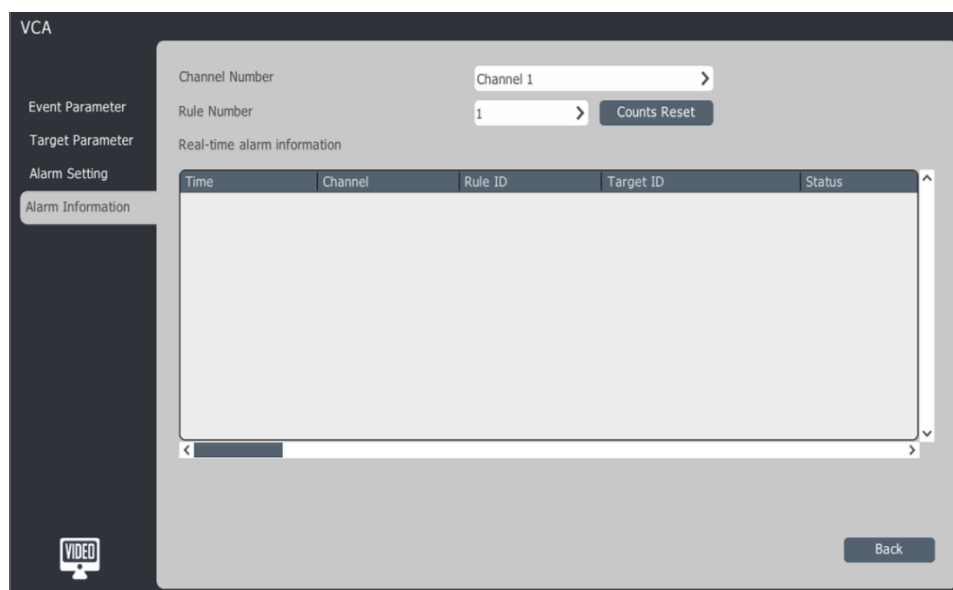
2)choose "enable VCA" and click schedule to setup.

3)Activation: setup VCA alarm trigger action, include voice, OSD, recording, alarm output, snapshot and single screen etc.

4)after done the setting, can copy to all channels.

9.click apply to save settings.

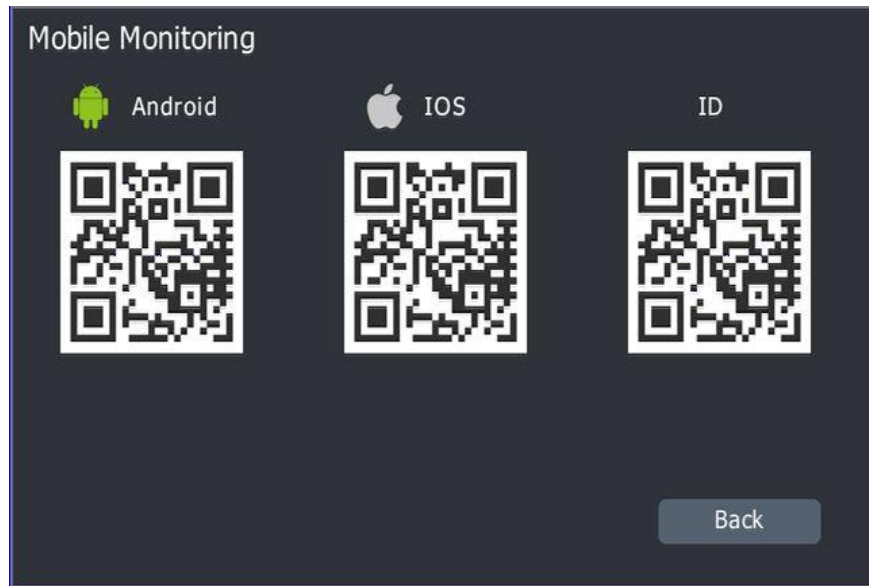
10.into alarm information interface, display real time alarm information.



4.18 Mobile Monitoring

User can download client app via scan QR-code, input ID to use mobile monitoring.

1. Right-click menu -> mobile monitoring



4. Scan QR-code for Android APP and IOS APP.
5. When the NVR can access to internet, QR-code of ID will appear automatically.
6. Scan QR-code of device ID to add device on APP.

5. WEB Browser

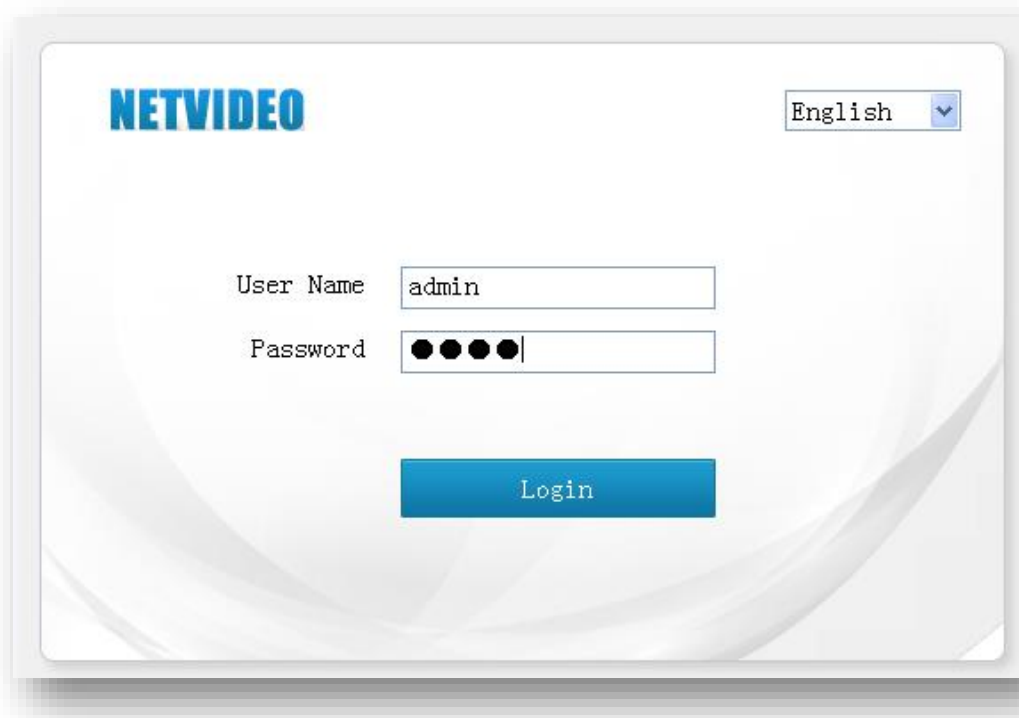
5.1 Introduction

User can input device IP address in web browser to remote view device. Support IE/Firefox/Chrome.

5.2 Login

User can login device IE interface through multiple computers at same time.

1. Open Web browser, input NVR's IP address:



2. choose language

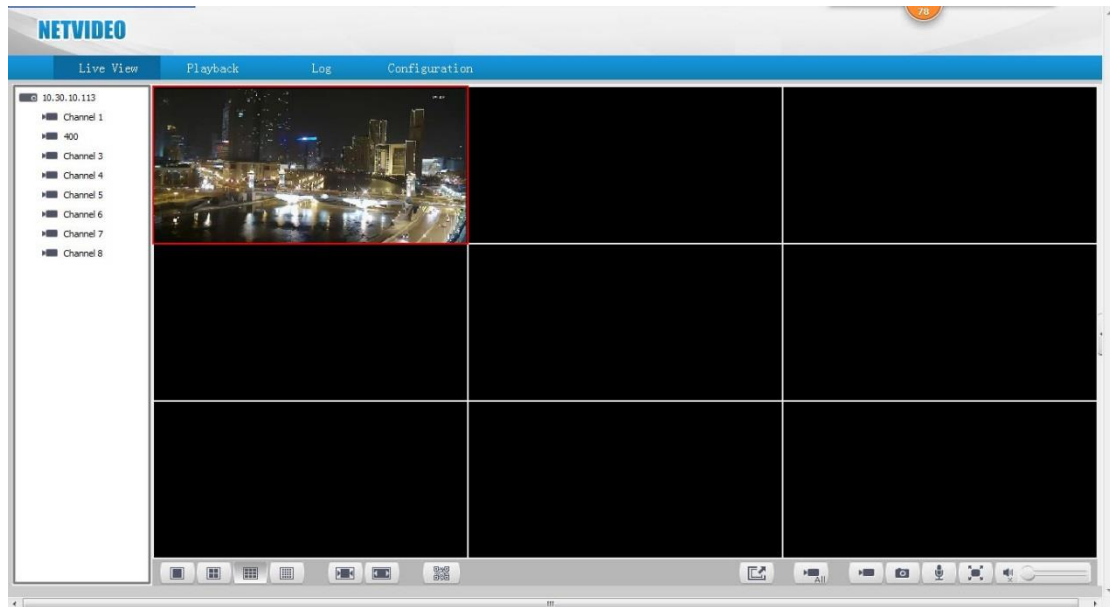
3. input user name, password, and click login into preview interface.

 **Notice:**








- If use IE browser, please make sure version higher than V6.0








5.3 Preview

After login successfully enter preview page.



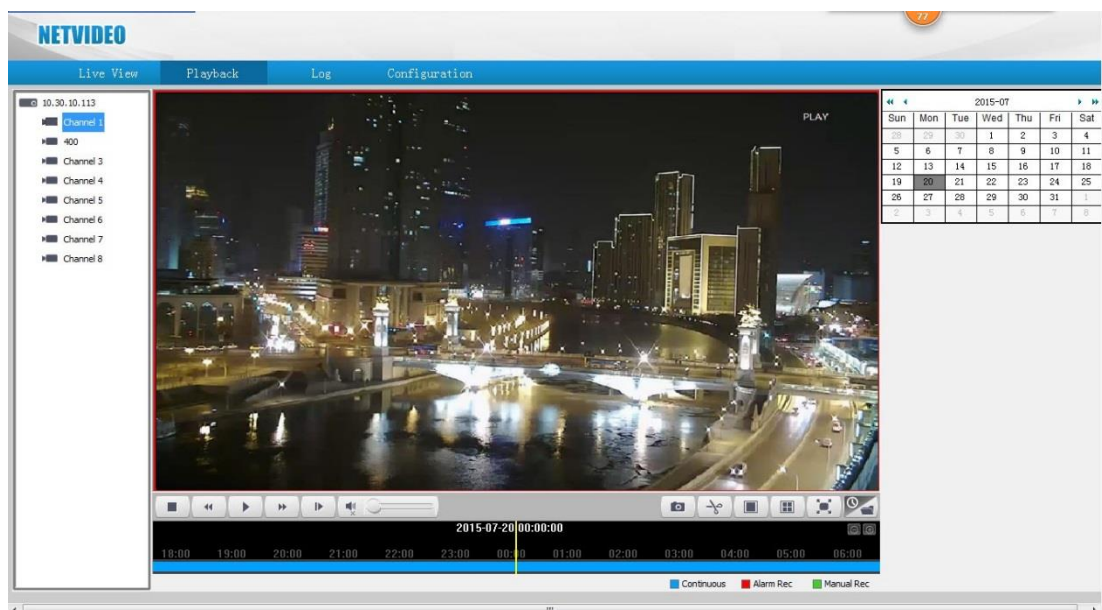
Preview icon description

| Icon | Description |
|---|-------------------------|
|  | Single screen |
|  | 4-split screen |
|  | 9-split screen |
|  | 16-split screen |
|  | Fixed ratio |
|  | Ratio self-adaption |
|  | Connect all the channel |


| | |
|---|---------------------------------|
|  | Start remote recording |
|  | Start recording |
|  | Snapshot |
|  | Talkback with front-side device |
|  | Full screen |
|  | Start full channels recording |
|  | Volume |

5.4 Playback




Click "Playback" tab page to enter into web playback page.




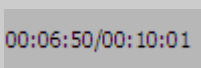







Playback icon description

| Icon | Description |
|---|--|
|  | Switch into playback by listed files portfolio |

| | |
|---|------------------------------|
|  | Play recording file |
|  | Pause |
|  | Stop |
|  | Step-forward by frame |
|  | Fast forward, x2 |
|  | Slow forward, /2 |
|  | Volume control |
|  | Snapshot |
|  | Cut recording file |
|  | Single screen |
|  | 4-split screen play |
|  | Full screen |
|  | Switch mode |
|  | Visualized play bar |

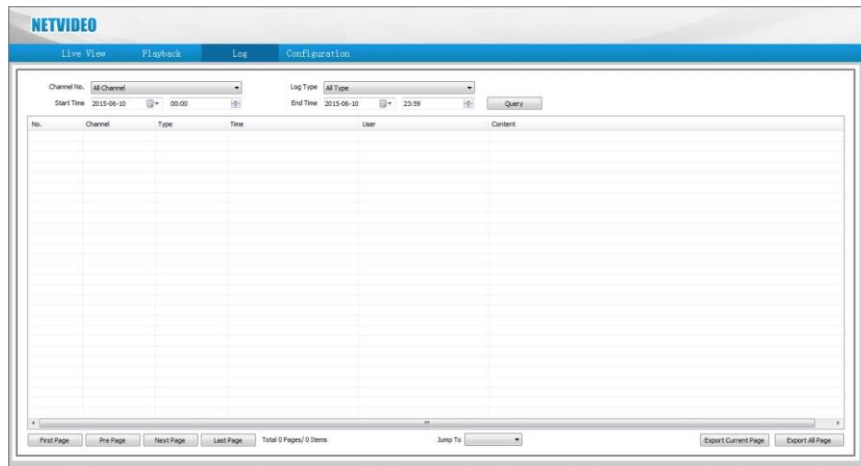
| | |
|---|--|
|  | Draw yellow line to move time shaft |
|  | Zoom in time shaft |
|  | Zoom out time shaft |

Control icon description

| Icon | Description |
|---|--------------------------------------|
|  | Browse local recording files |
|  | Elapsed time / Remaining time |
|  | Progress bar |
|  | First page |
|  | Last page |
|  | Next page |
|  | End page |
|  | Download |
|  | Download management |

5.5 Log

Click "Log" tab page to enter into log query page.



Enter query condition to search log information and back it up.

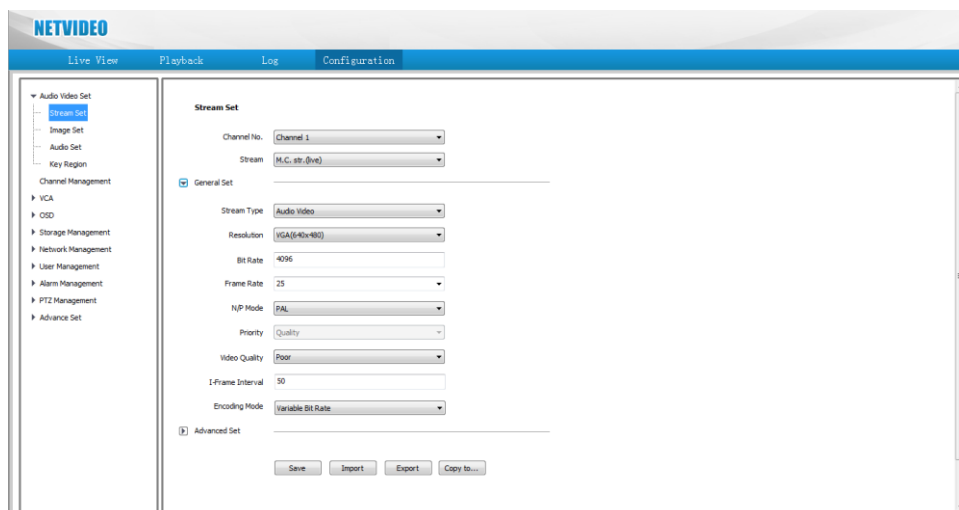


Description

- Log file saving path: D:\NetVideoBrowser

5.5 Configuration

Click "configuration" tab page to enter into configuration page.



Description

- If you revise configuration of remote cameras, the local specifications will be updated right away

Appendix 1 Hard disk capacity calculation method

According to recording conditions, such as recording type, saving time of recording files, you can figure out how much hard disk capacity a NVR need.

Method:

1. According to formula(1)we can get how much storage capacity needs for single channel per hour q_i , unit MByte.

$$q_i = d_i \div 8 \times 3600 \div 1024 \quad (1)$$

d_i –code rate,unit Kbit/s

2. Confirming saving time we can get storage capacity for single channel m_i , unit MByte.

$$m_i = q_i \times h_i \times D_i \quad (2)$$

h_i – Recording time per day (hour)

D_i –Recording files saving days

3. According to formula(3)Total storage capacity for all channels **timing recordings** are

q_T .

$$q_T = \sum_{i=1}^c m_i \quad (3)$$

c –total channels of a NVR

4. According to formula(4)Total storage capacity for all channels **alarm**

recordings(including motion detection alarm) are q_T .

$$q_T = \sum_{i=1}^c m_i \times a\% \quad (4)$$

$a\%$ –alarm probability

Appendix 2 Trouble shooting

| Trouble | Possible reason |
|--|--|
| Plugging in power and turning on NVR, but "PWR" light on the panel is off, and the fan in the chassis does not work. | <ol style="list-style-type: none"> 1) Power cable is broken. 2) Power supply is broken. |
| Plugging in power and turning on NVR, and "PWR" light on the panel is on in green, but the fan in the chassis does not work. | <ol style="list-style-type: none"> 1) Cable on the panel is broken. 2) Fan is broken. |
| Booting the NVR, there is no video on the screen of monitor connected with VOUT. | <ol style="list-style-type: none"> 1) Video cable is broken. 2) Interface panel of NVR is broken. 3) Main board of NVR is broken. |
| Booting the NVR, hard disk cannot be detected. | <ol style="list-style-type: none"> 1) Hard disk cable is broken. 2) Hard disk cable is not plugged in. 3) Hard disk is broken. |
| NVR cannot record. | <ol style="list-style-type: none"> 1) Hard disk is not connected with SATA. 2) Hard disk is not formatted. 3) Recording template is not activated or not configured in right time period. 4) In rebuilding index 5) SATA usage is not set as recording. |

| | |
|---|--|
| <p>PTZ cannot be control by RS-485 of NVR.</p> | <ol style="list-style-type: none"> 1) RS-485 cable is not well connected. 2) PTZ decoder type is incorrect. 3) RS-485 interface on the main board is broken. 4) The location of connected serial port does not match what you set. (default is A2B2) 5) Configuration of serial port is not correct or does not match the protocol. |
| <p>Client side cannot transfer video or audio signal.</p> | <ol style="list-style-type: none"> 1) Enter wrong IP address, port number, user name or password on "local configuration" page in the client. 2) Network cable is broken. 3) Main board interface is broken. |

Appendix 3 Maintenance instruction

1. The dust on the PCB board would cause short circuit after it is damped. To run the device well for a long time, we suggest to clean dust internal chassis regularly.
2. Please make sure all the devices are connected to the ground well in order to avoid disturbance of video or audio signal.
3. Do not hot-plug audio or video signal cables, RS-285 or alarm interfaces. Or else the interface is easy to be broken.
4. Do not shut down power switch directly when the device is closed. Please use shut-down button on the front panel (Press and hold for 3 seconds) or use shut-down button on the video interface, and then shut down the power before close the device for protection of hard disk.
5. Keep the device away from source of high temperature
6. Keep drafty condition around the devices for heat dissipation.
7. Please check and maintenance the system regularly.

In the end.