
M7 Series Net Video Recorder Manual

Suitable Models:

Product Series	Products Models	Product Names
TC-NR10-P Series	TC-NR1004/08/16M7-P1/2/4	PSE Series NVR
TC-NR10-S Series	TC-NR1004/08/16/32M7-S1/2/4/8	Standard Series NVR

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: admin
- 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 be avoided.
	Potential risks. If this signal is ignored, it may damage the device, lose data, lower device functions or cause 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 module: timing module, and event module.
- Support fast adding IP channels.

Local Supervision.

- Support VGA and HDMI.
- Support split preview screen: 1/4/6/8/9/16/25/32
- Support quick manual 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 disks with different record space .

Records and Playback

- Trigger recording methods : manual, timing, port/motion detection/ lost video/hidden image/intelligent video alarms
- Set Pre-recording and delay recording after being linked by alarms
- Query records according to timing/events.
- Support local redundancy recording.
- Support records encrypted
- Support 4 recording period each day , each period can be set different trigger mode .
- Support holiday strategy
- 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 after 30s, 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 link : single screen display , sound alert , upload into to management center , send emails , alarm output , video recording by any channel .
- Unusual situation detection on : 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 .

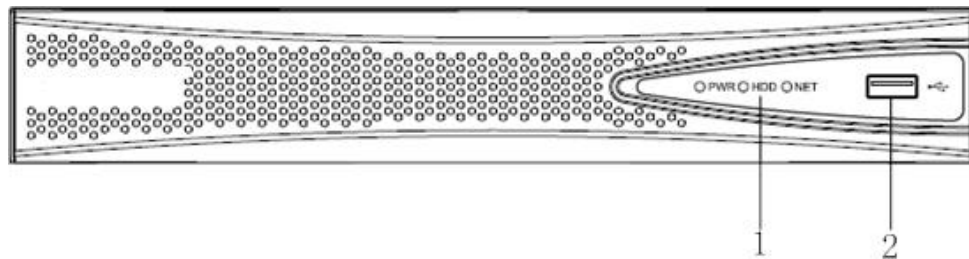
Support on Development

- We can offer SDK for Windows.Linux system
- Original code for some software function.
- Development support and training on user system .

2. Operation Instruction

2.1 Front Panel

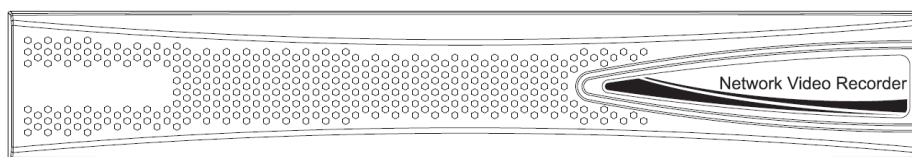
The following picture are PSE series NVR front panel.



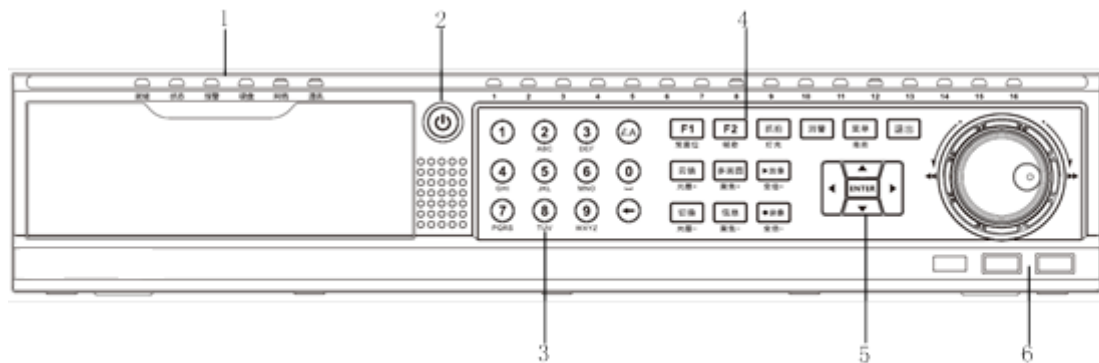
Function list:

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:



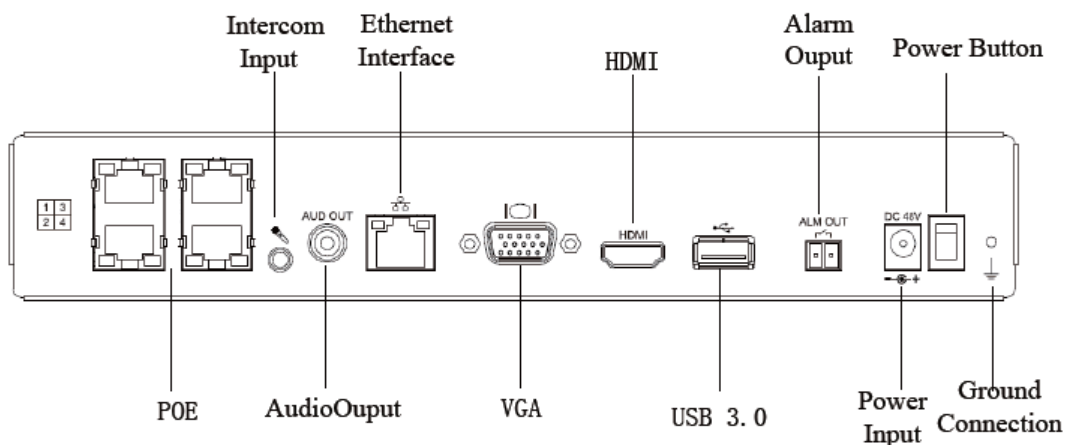
Standard series NVR(8 HDD) front panel lights:

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

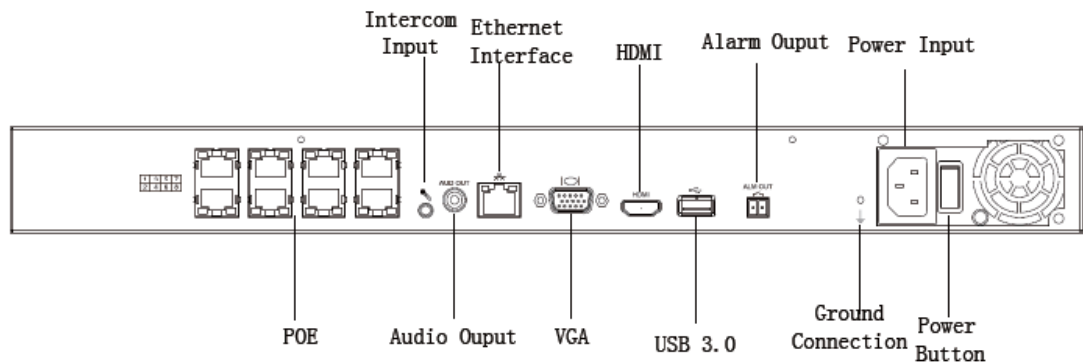
4	Button	Function buttons	For PTZ, these buttons can call preset .zoom ; control iris, focal length ,lights and wiper. Other function : manually record, playback records , swift between main and sub output port , clear off alarms ,call main menu.
5	Button	Direction buttons	In main menu, it is used to 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

2.2 Rear Panel

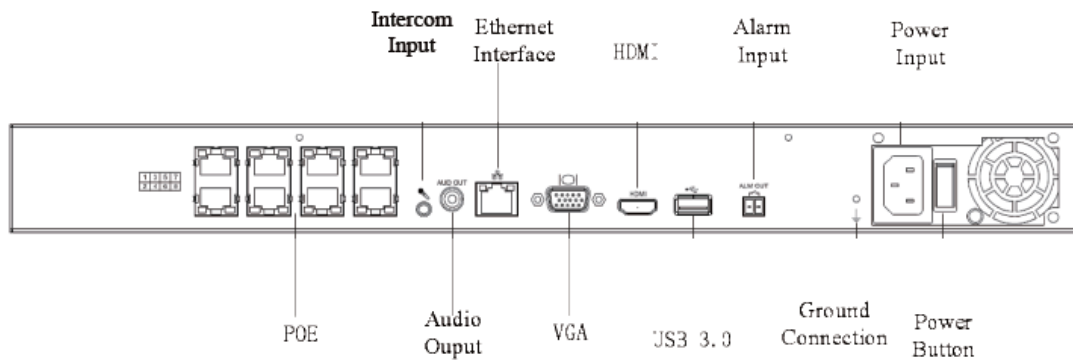
PSE series NVR(4ch 1 HDD)rear panel is like the following picture :



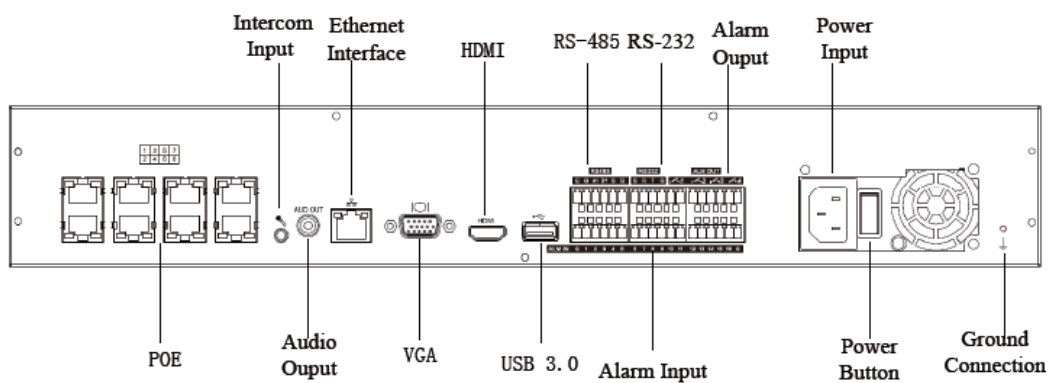
PSE series NVR (4ch 2HDD) rear panel is like the following picture:



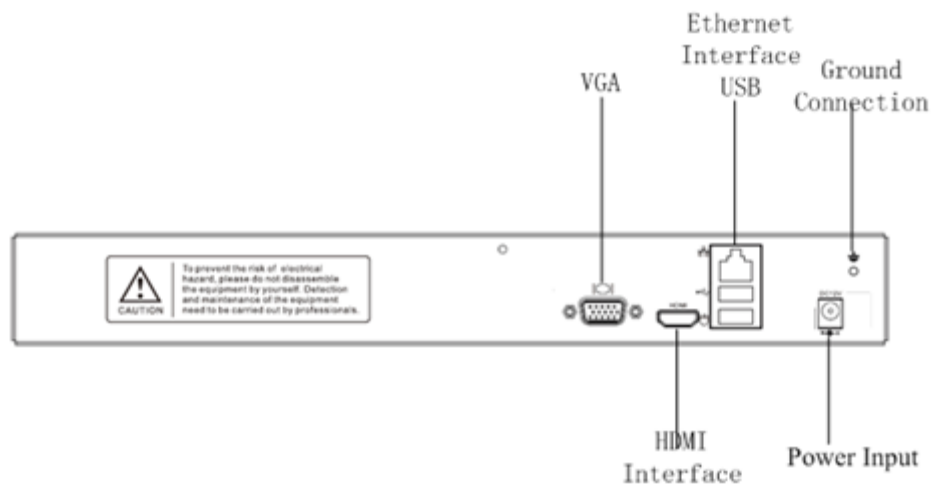
PSE series NVR (8ch 2HDD/16ch 2HDD) rear panel is like the following picture :



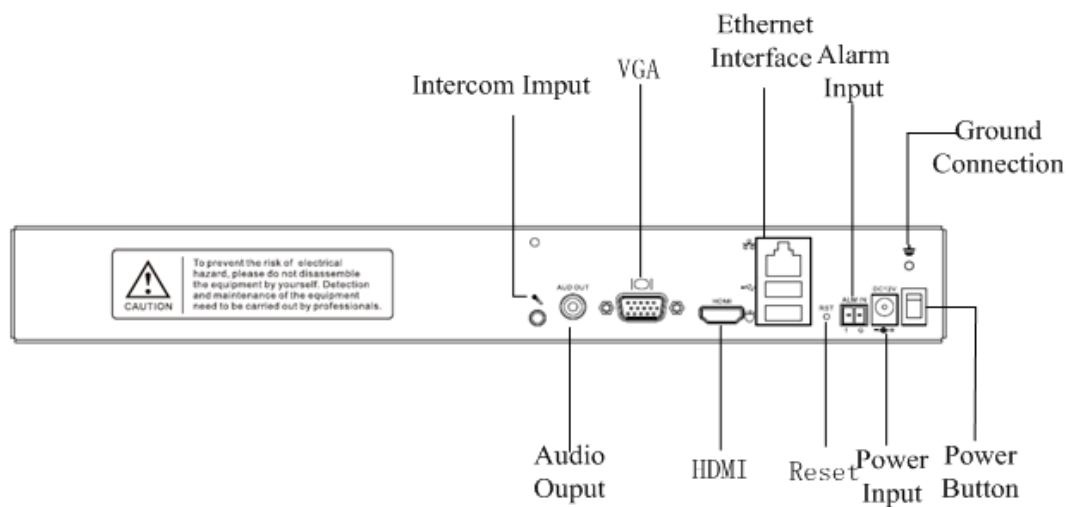
PSE series NVR (16ch 4HDD)rear panel is like the following picture :



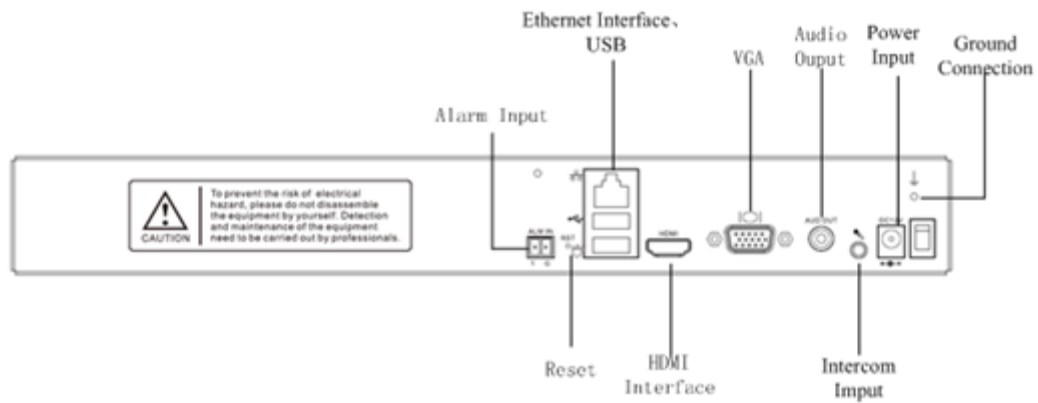
Standard series NVR (4ch 1HDD)rear panel is like the following picture :



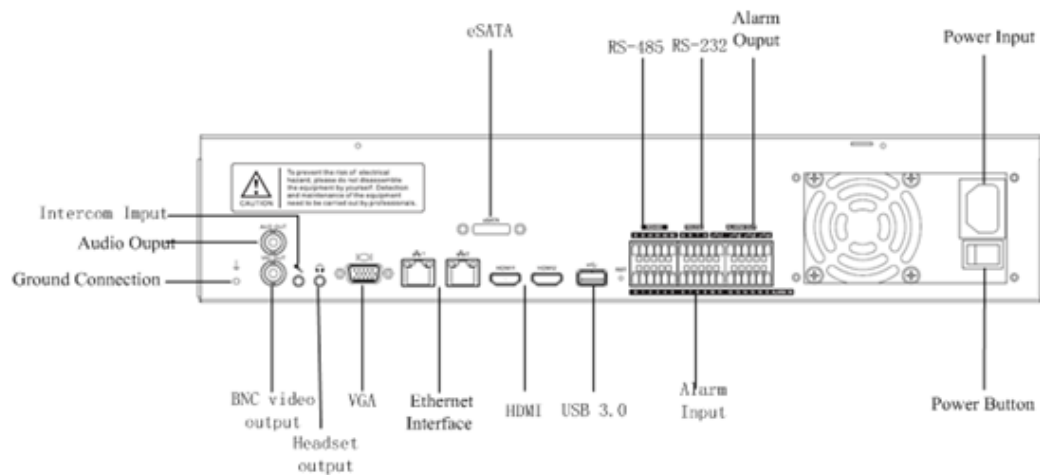
Standard series NVR (4ch 2HDD/8ch 2HDD)rear panel is like the following picture :



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 :



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	● 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	● Change direction for PTZ ● Set region for mask , motion ● Change the position between two screen
Right button	Click	● Preview interface :click to show menu ● Menu :Exit current menu , back to prior interface.
Roller	Slid up	● Slid to choose options ● Slid to show upper page
	Slid down	● 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

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 ($-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$), 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

Tiandy 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 Tiandy.

3.2.2 HDD installation steps:

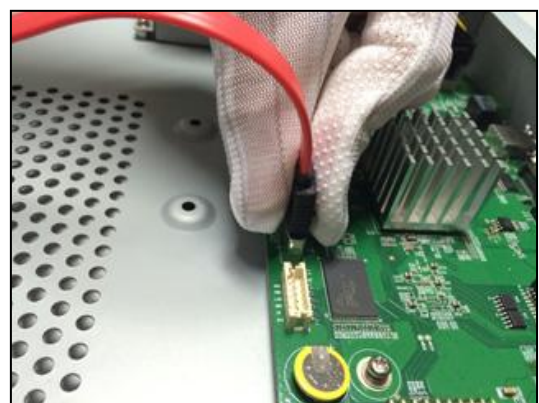
Tool : Philip's head screw

Instruction pictures(1):

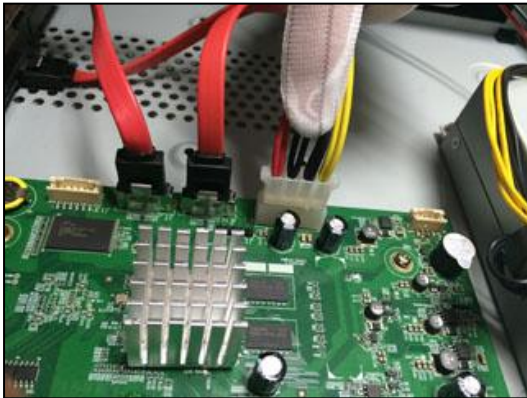
1. Loose the screws on the upper cover and remove the cover from the NVR.



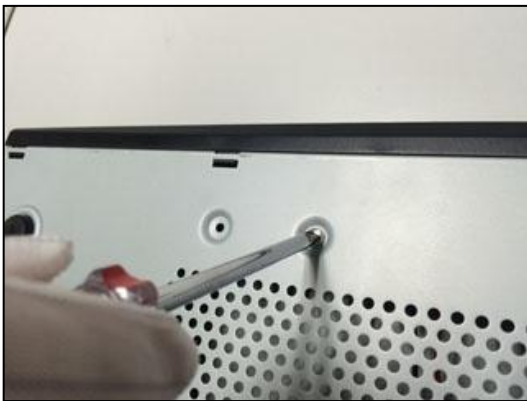
2. Connect the data bus of HDD to the SATA data bus connector of the NVR.



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.

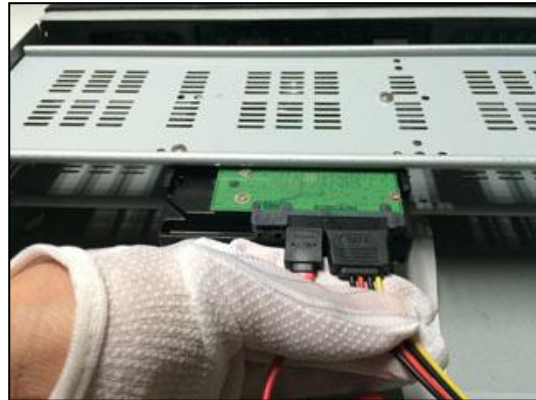


Instruction pictures(2):

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:

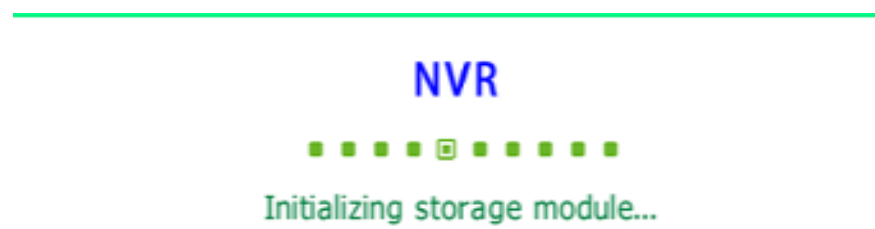
Before starting up the device, please make sure the power input and ground protection is well done.

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.

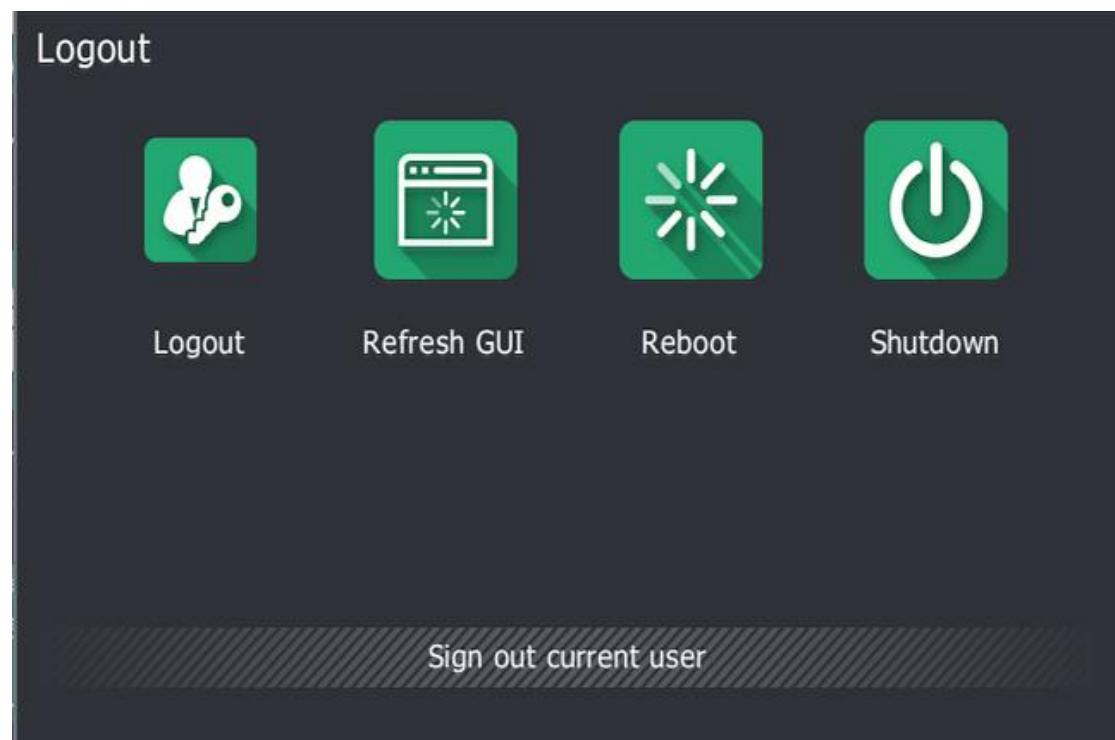
1. plug in power , open power on button on rear panel , the NVR will start up when it beeps .

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



4.1.2 log out

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



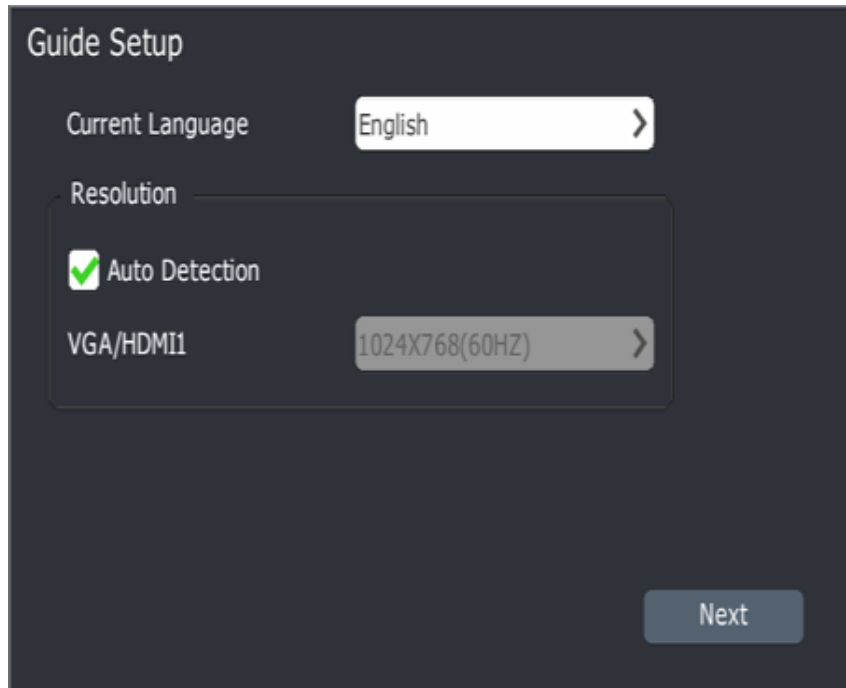
 Precaution:

- 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 step: Set the current language, output resolution, and auto detection



2.Click"Next" to "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.

A dark-themed dialog box titled "Permission Identification". Below the title is the text "Login as Administrator". There are two input fields: "ID" with the value "admin" and "Password" which is empty. At the bottom, there are two buttons: "Confirm" and "Cancel".

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

A dark-themed dialog box titled "Time&Time Zone Setup". It contains two rows of settings. The first row is "Time Zone" with a dropdown menu showing "GMT+08:00" and a right-pointing arrow, followed by an "Apply" button. The second row is "Time" with a text field showing "2015-05-22 18:57:38" and an "Apply" button. At the bottom right, there is a "Next" button.

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

The "Network Setup" interface displays configuration for NIC 2. The MAC Address is 00:50:c2:28:4a:4a. The "Auto obtain IP address via DHCP" option is unchecked. The "Manual setup IP address" section is active, showing IP Address: 010.030.021.047, SubNet Mask: 255.255.255.000, and Gateway: 010.030.021.001. The "Manual Setup DNS" section is also active, showing Preferred DNS: 192.168.001.001 and Reserved DNS: 192.168.001.001. An "Apply" button is at the bottom right, and "Back" and "Next" buttons are at the bottom center.

6. Click "next" to formatting Disk.

The "Format Disk" interface shows a table with disk information:

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

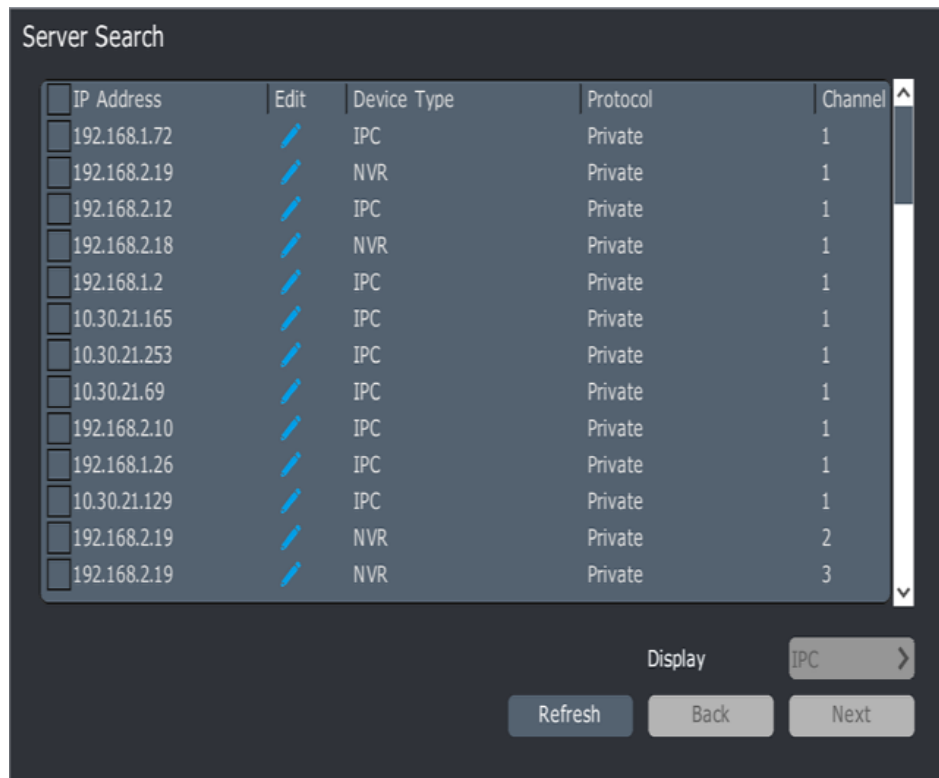
Below the table is a large empty area for additional information. At the bottom, there are "Initialization", "Back", and "Next" buttons.



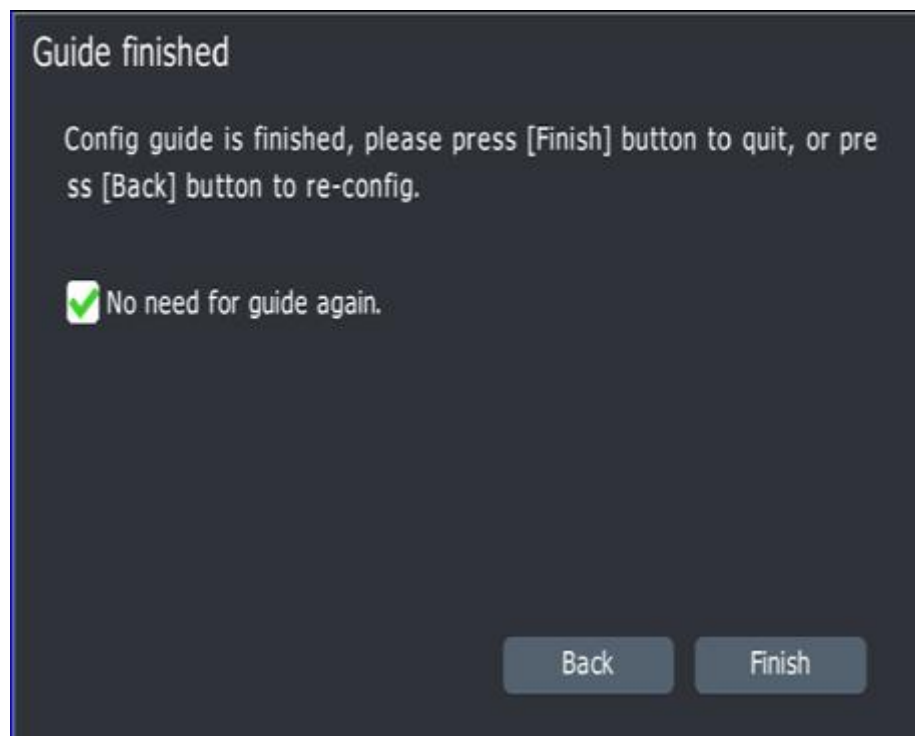
Note:

Recording can work only after disks get initialization.

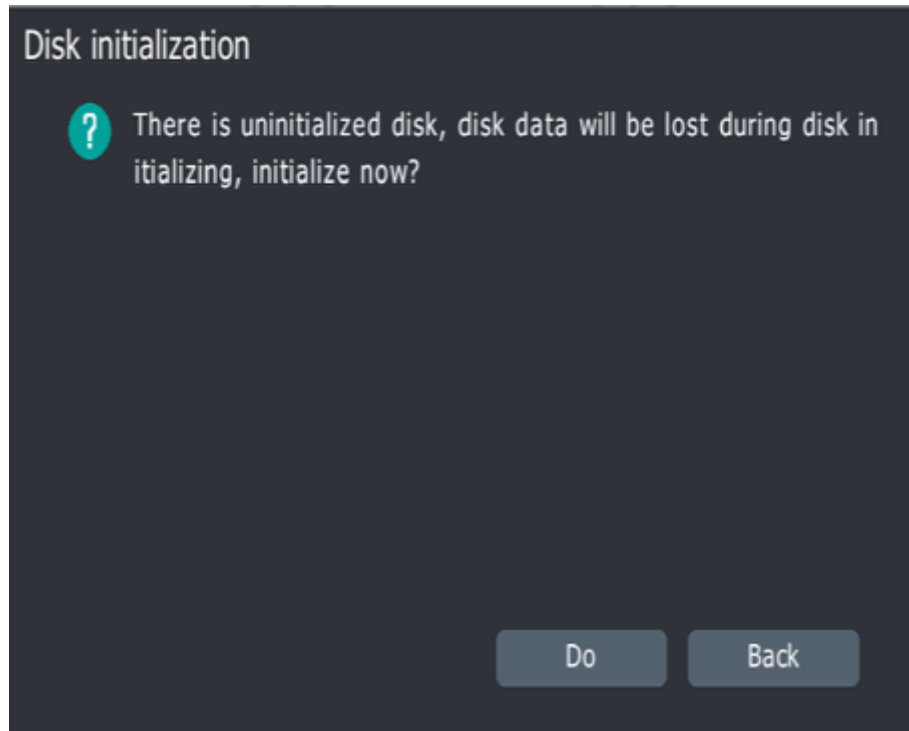
7. Click "next" to search and add devices.



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.

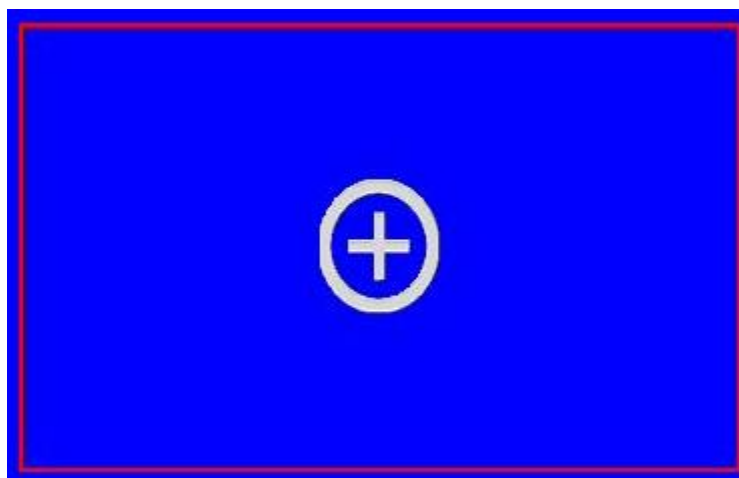


Click "Do", then I will automatically formatting the uninitialized disks

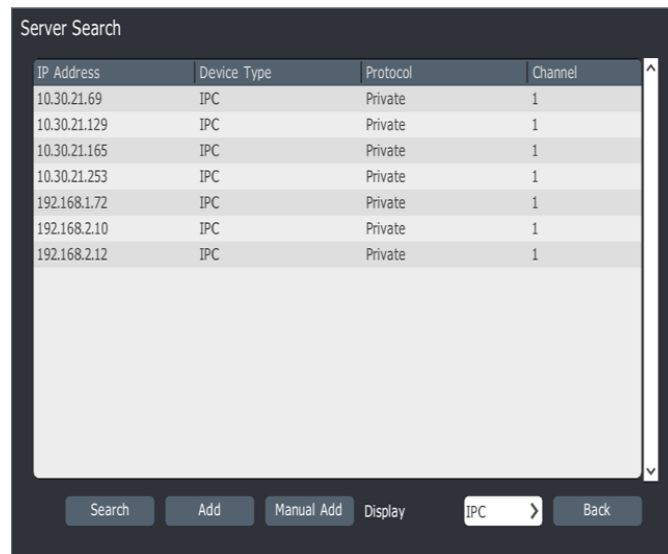
4.3 channel management

4.3.1 Add device.

If one channel is not added camera yet, it will show the following mark , click "+ " to add device.



1. Click "+" in preview interface, it will show the following interface :



Server Search

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

Search Add Manual Add Display IPC > Back

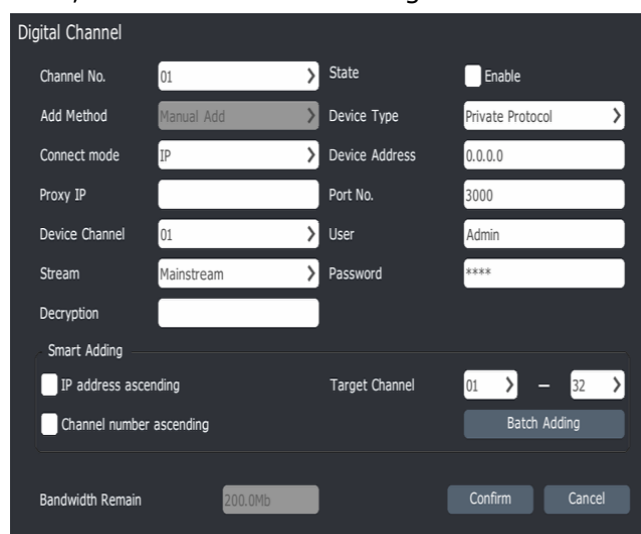


note:

- 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 info, customer can choose Manual Add.

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

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



Digital Channel

Channel No. 01 > State ☐ 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

☐ IP address ascending Target Channel 01 > - 32 >

☐ Channel number ascending Batch Adding

Bandwidth Remain 200.0Mb Confirm Cancel

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

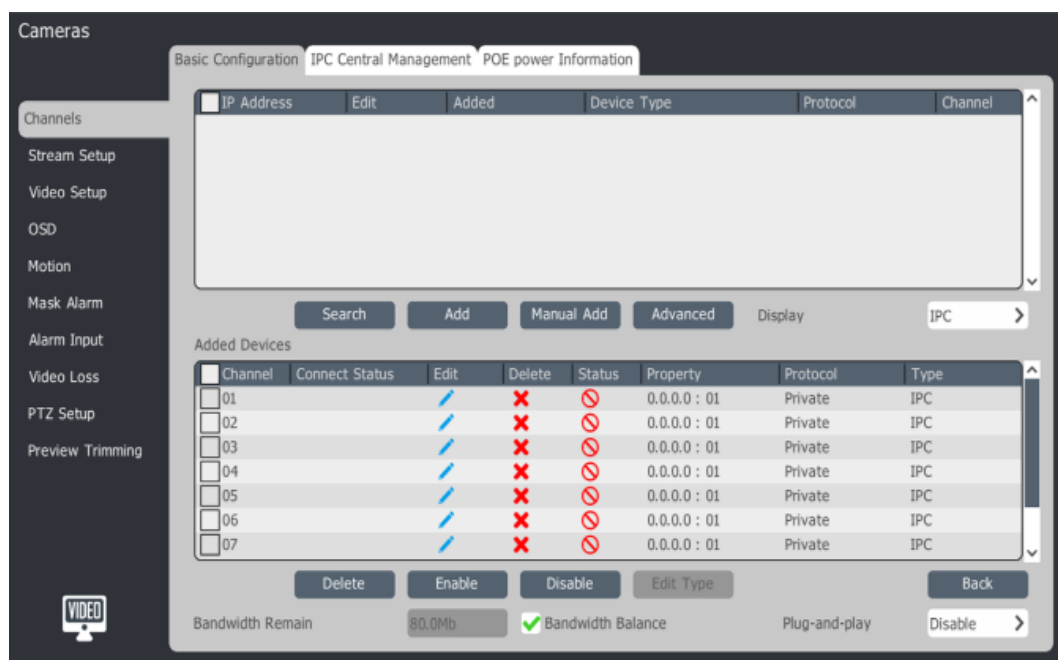


Note:

- 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 like the following picture:



note:

- For difference devices, this interface is different
- After add 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, like the following picture:

Modify IP

MAC address

00:50:c2:28:10:69

Original network address

010.030.021.069

New network address

010.030.021.069

SubnetMask

255.255.255.000

Gateway

010.030.021.001

DNS

010.030.021.001

Confirm

Cancel

Click "Advance Search", customer can search devices according to different connect mode, like the following interface:

Server Search

☐ IP Address

Server Name

Serial Number

Channel

Connect Mode

Domain

Search

Add

Back

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 this channel used "Plug and Play", then this channel is occupied.
- Manual Add

1. In channel configuration / basic configuration interface, click "manual add" to enter digital channel interface like the following :

Digital Channel

Channel No.	01	State	☐ 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

☐ IP address ascending	Target Channel	01	32
☐ Channel number ascending		Batch Adding	

Bandwidth Remain

2. Choose the channel number to add the camera, check "enable " button, choose connection mode according to camera type, when the Device type is RTSP, the interface is like the following picture:

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 the Device type is ONVIF, the interface is like the following picture:

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

3.Input device IP address or URL address, User name and password, click “confirm ” to finish device 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

Added Devices								
☐	Channel	Connect Status	Edit	Delete	Status	Property	Protocol	Type
☐	01					10.30.21.69 : 01	Private	IPC
☐	02					10.30.21.129 : 01	Private	IPC
☐	03					10.30.21.165 : 01	Private	IPC
☐	04					10.30.21.253 : 01	Private	IPC
☐	05					192.168.1.2 : 01	Private	IPC
☐	06					192.168.1.72 : 01	Private	IPC
☐	07					192.168.2.10 : 01	Private	IPC

Delete

Enable

Disable

Edit Type

Back

Bandwidth Remain 188.0Mb Bandwidth Balance Plug-and-play

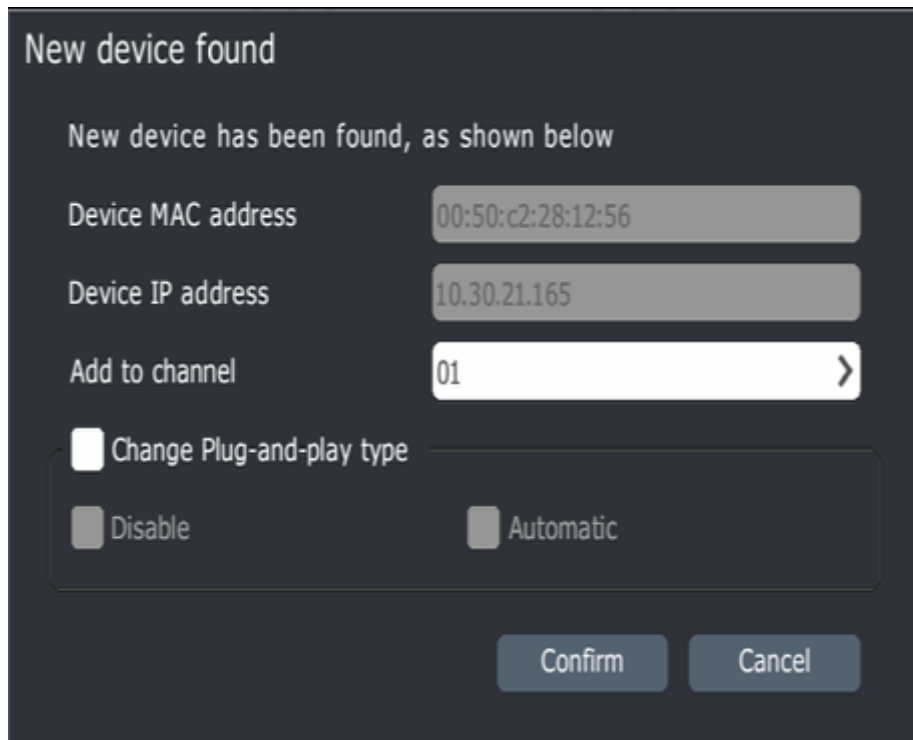
Disable >

3. PSE channel can add devices in two ways : “plug and play ” and “manual add”
 - 1) for “Manual Add”, the device should be internet connected with the IP channels
 - 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 :unable "plug and play", users can add cameras manually
- Add automatic: in this mode, NVR will automatically search and add devices.
- Automatic found: in this mode, 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



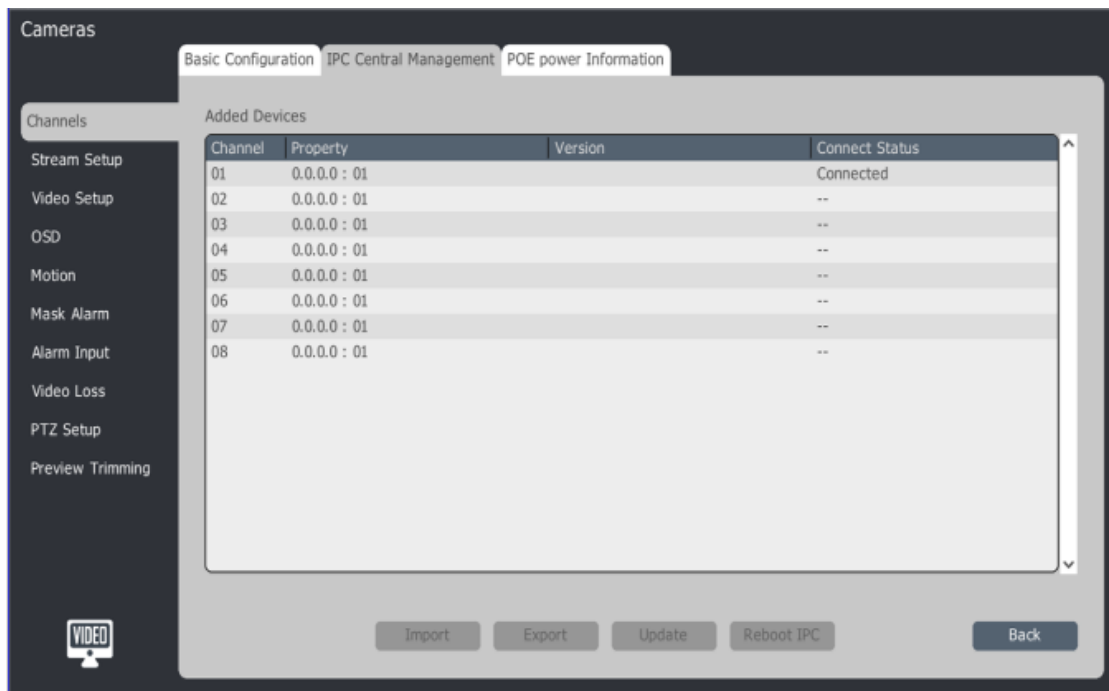
note:

- "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 of, upgrade by remote access to , and reboot added devices.

1.choose "main menu" ->channel configuration->IPC central management" to enter the following interface :



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" to enter the following interface :

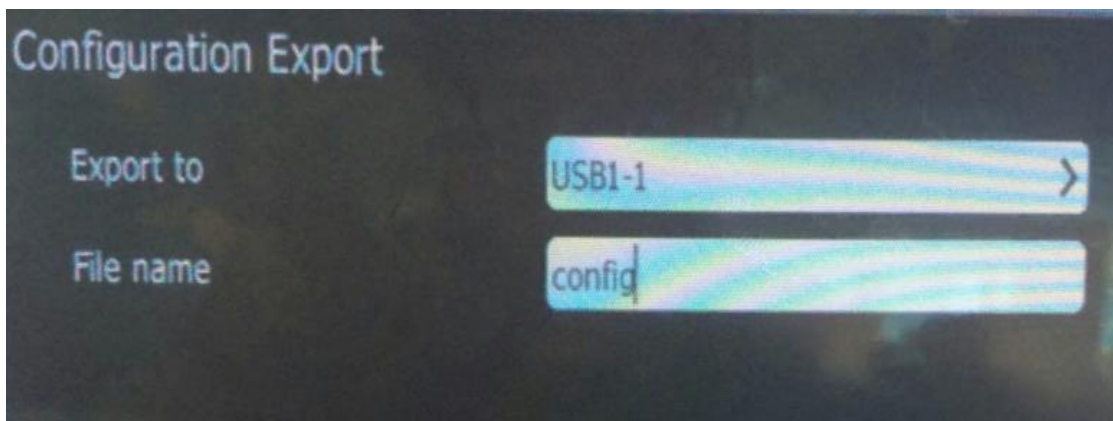
3)choose related file to import



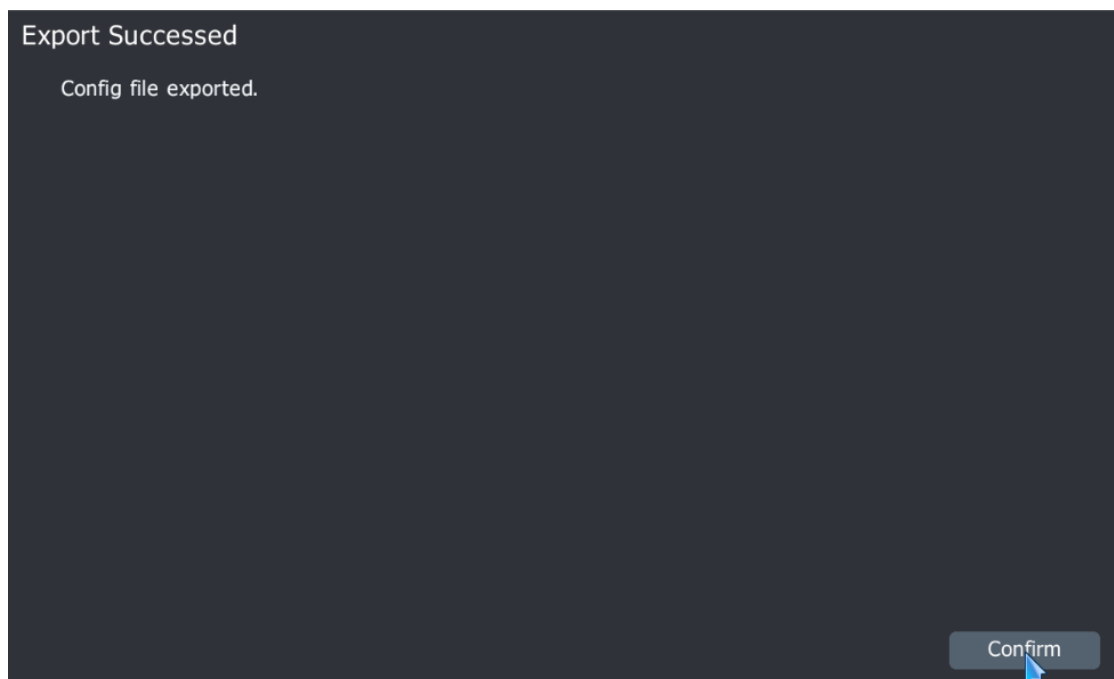
note:

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

4)click"export"to enter the following interface :

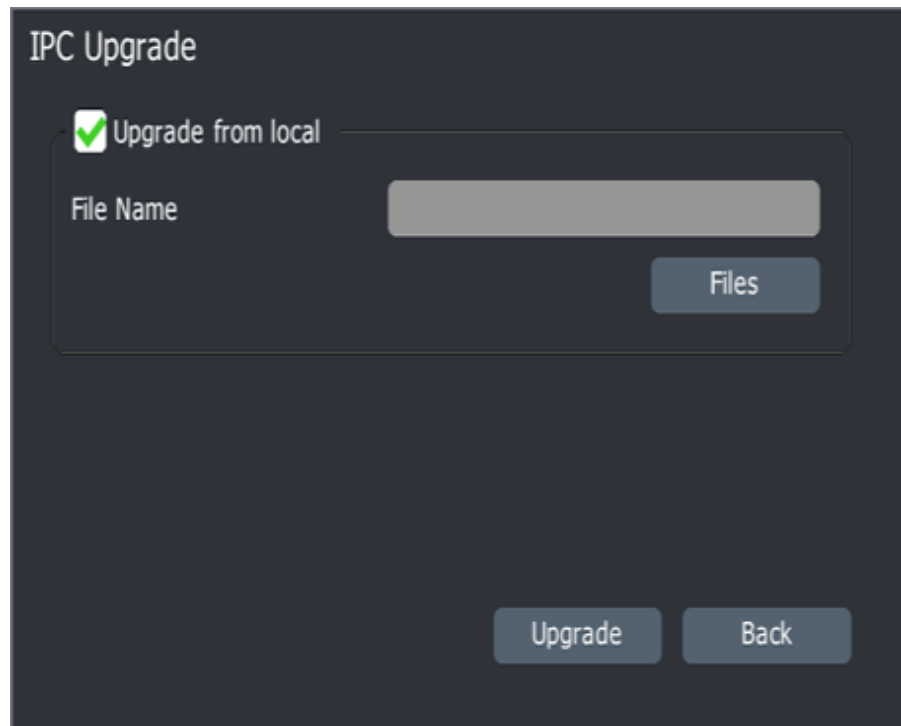


5) choose storage place for exporting files, when it show the following interface , the exporting work succeed.



Upgrade by remote access, reboot IPC

- 1) Choose the camera for import/export in added list .
- 2) Click "upgrade " to enter the following interface

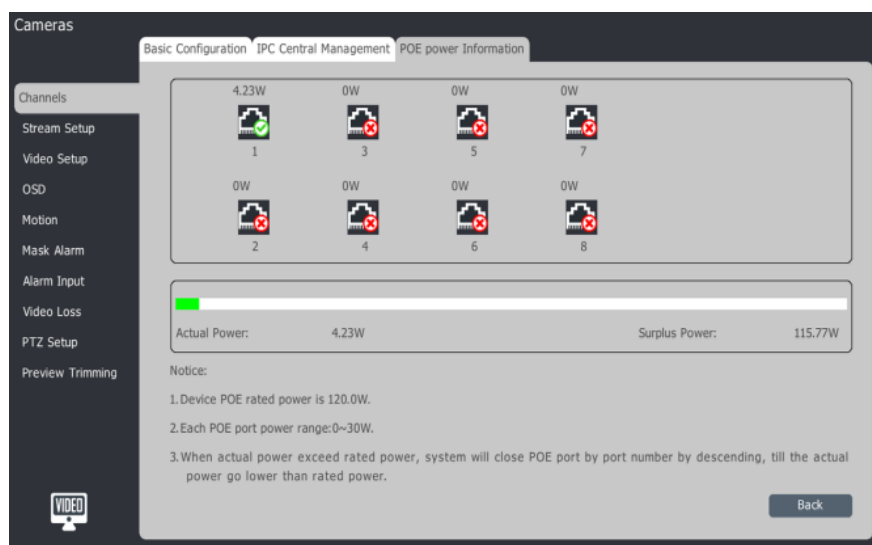


- 3) Click "browser files" to choose upgrade file
- 4) Click "reboot IPC " to restart cameras .

4.3.6 POE Power Info.

Only PSE NVR has this function

1. choose "main menu->channel management ->channels->POE power information", to enter the following interface.



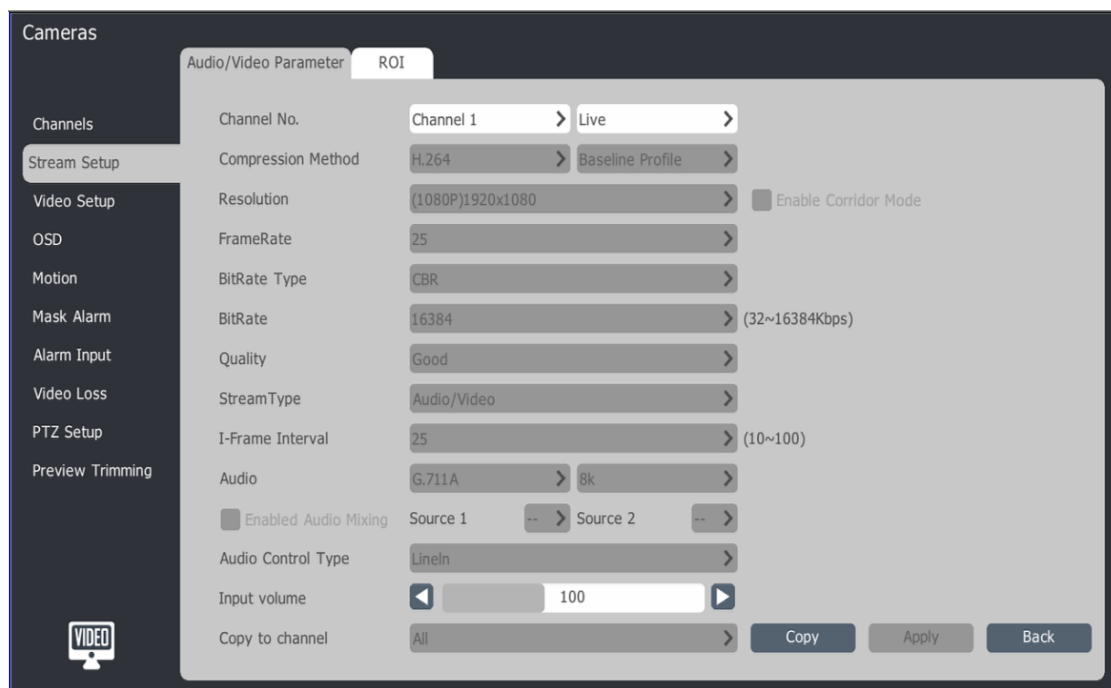


note :

- “” this logo means POE supply is working , “” this logo means no cameras connected or no power
- “” the info upper this logo means realtime 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: main stream(), main stream(timing), main stream(event), sub-stream, timing mode1, timing mode2.
- Compression type: support H.264 and High Profile, Main Profile, Baseline Profile
- Resolution: Setup the resolution of camera.

-
- Enable corridor mode: Enable this function when resolution is 16:9, after enable resolution will change to 9:16
 - Frame Rate: Video frames per second
 - Bit rate type: CBR and VBR for option. VBR will change according to scene.
 - Bit Rate Range: 32-16384Kbps.
 - Quality: Best, better, good, normal and poor.
 - Stream Type: Video and video/audio
 - I-Frame Interval: I-Frame is a important frame. I-Frame rate is inversely proportional to the code rate.
 - 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: LineIn and MicIn.
 - Input volume: Range is 0-255.

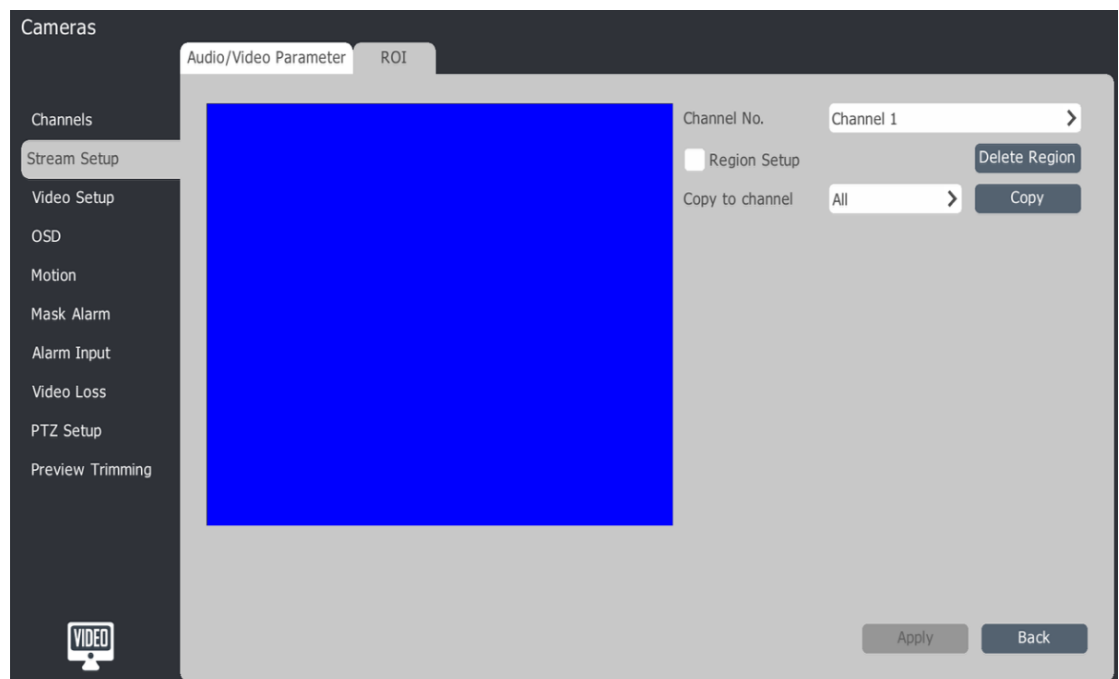
**Note:**

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

ROI

High quality picture in ROI

1.Select ROI interface

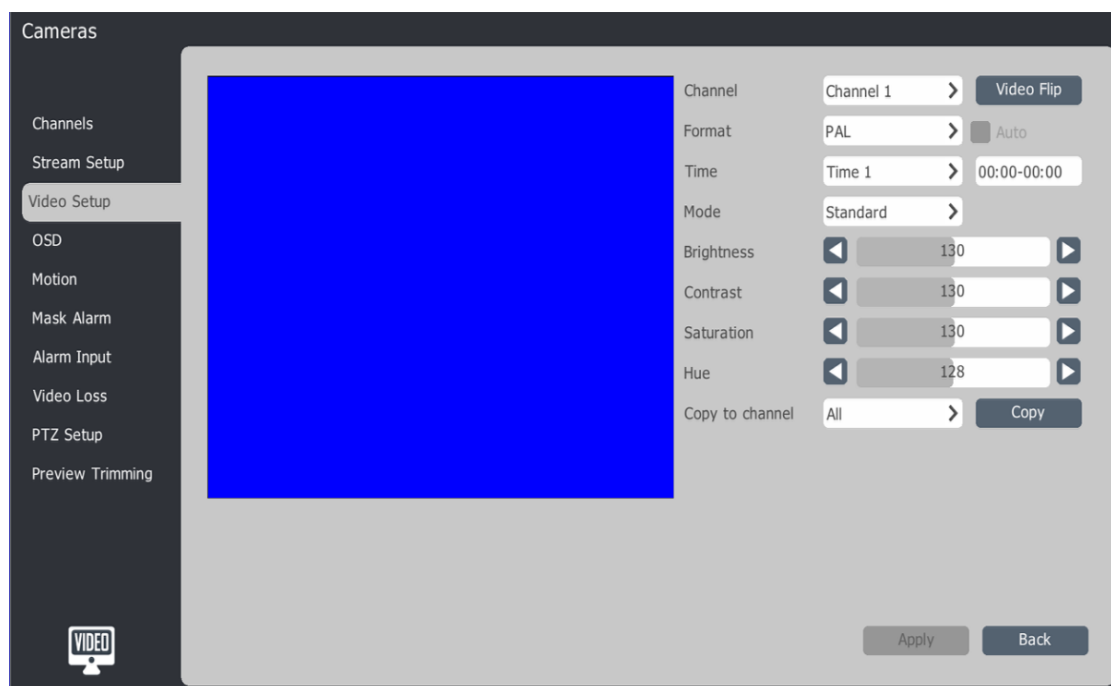


2. Select region setup and enable this function, hold the left mouse button drag on video, it can set the key area. The maximum support 4 ROI.

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.



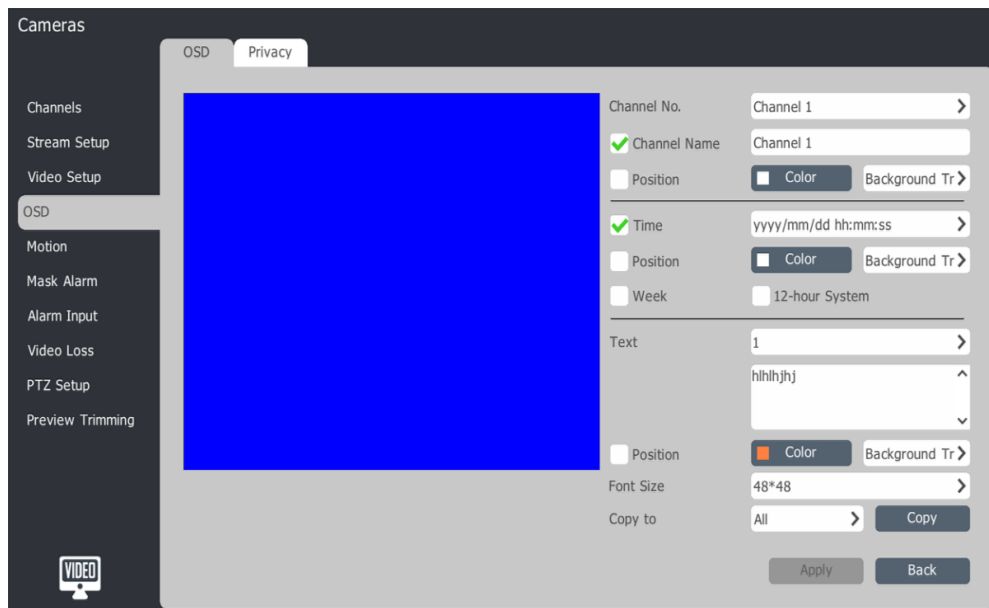
Note:

- Equipment support four period and a temporary value, different time parameters can be independent configuration, time period shall not overlap, if the time of beginning and ending time period is the same time will be disabled. The current time is out of the period, according to the provisional value to set the video input parameters
- Setup standard, indoor, weak light, outdoor, custom and five video mode.
- Brightness, contrast, saturation, chroma is adjustable between 0-255
- It can choose to copy to the channel function then will copy all parameter.
- Use the mouse wheel can debug video input parameters, also can click on the icon  and  increase or decrease the value

3. 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

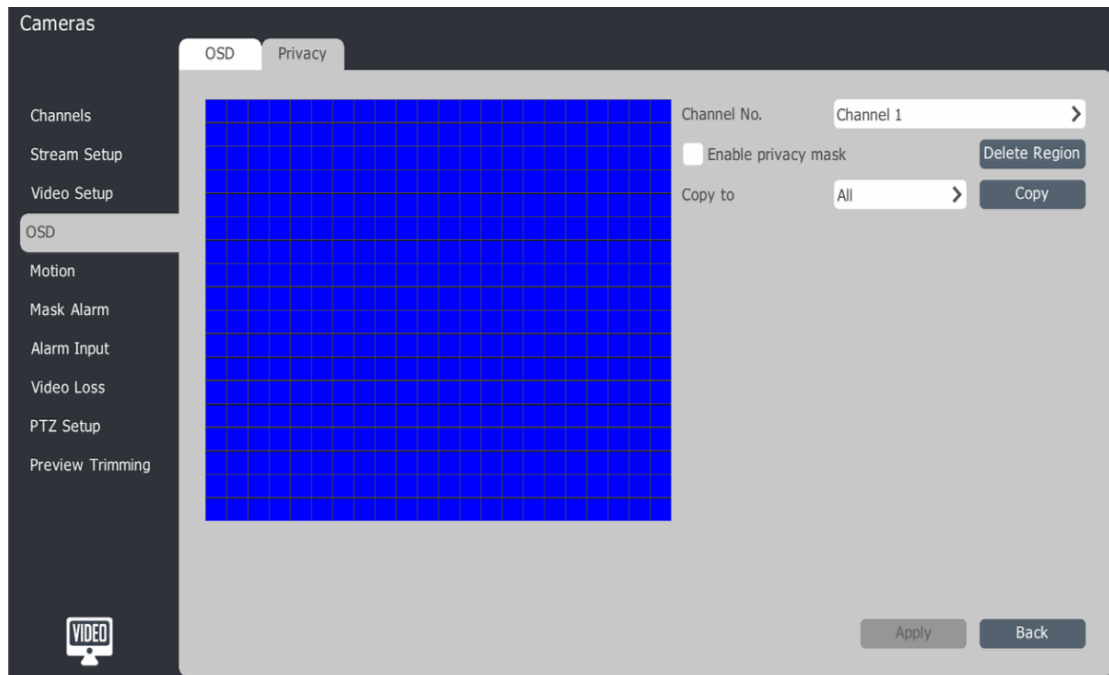
If want to change OSD position, drive OSD directly.



Note:

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

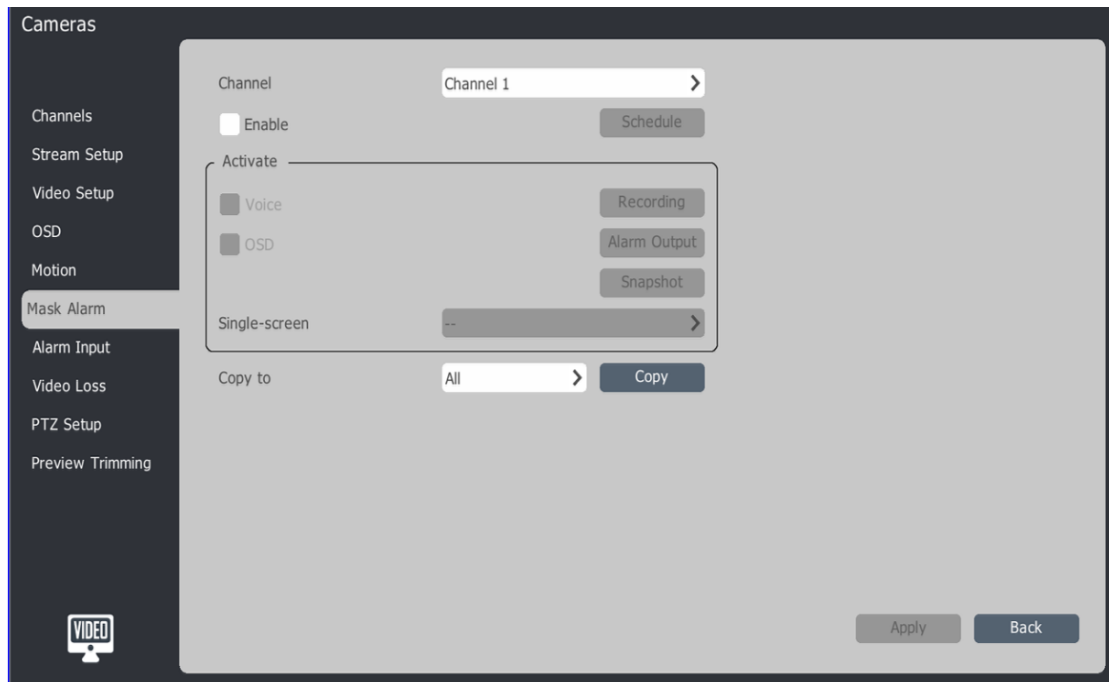
Privacy



1. Select channel.
2. Drive mouse and setup privacy section.

4.3.10 Mask Alarm

1. Select main menu-cameras-mask alarm



2. Select channel

3. Select enable

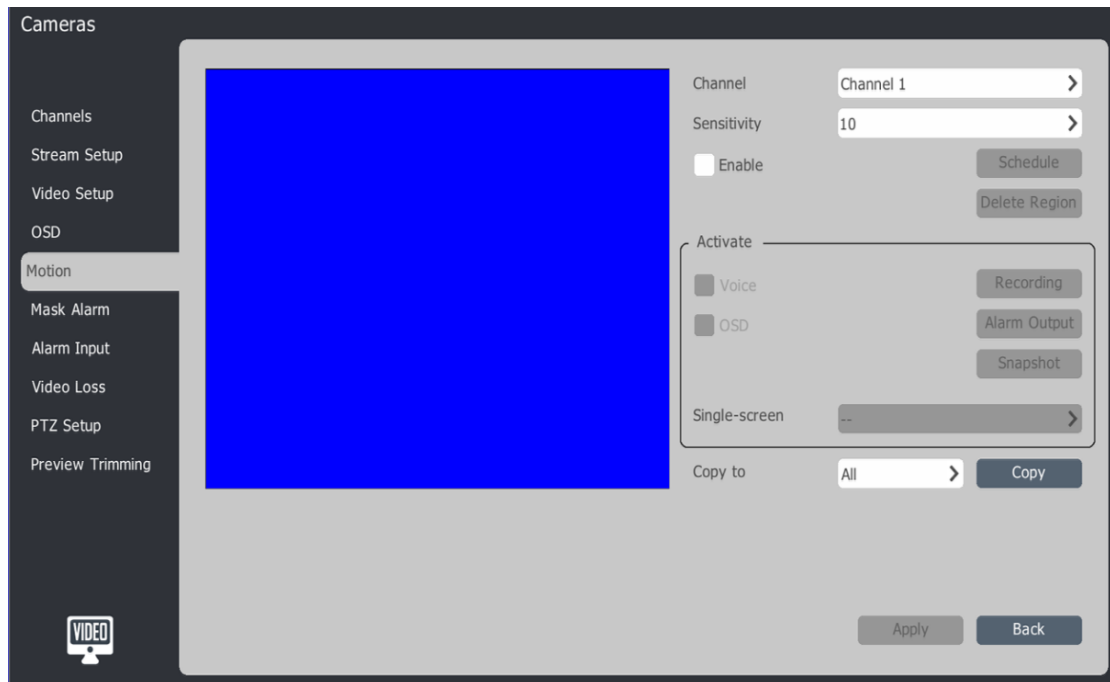
4. Click schedule and setup time.

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

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

4.3.11 Motion

1. Select main menu-cameras-motion



2. Select channel

3. Setup motion schedule time, region and sensitivity.

1) Click enable

2) Click schedule and setup schedule time.

3) Drive mouse and draw region.

4) Edit the sensitivity. The smaller the value of the sensitivity and motion detecting more sensitive

4. Select active and setup motion alarm.

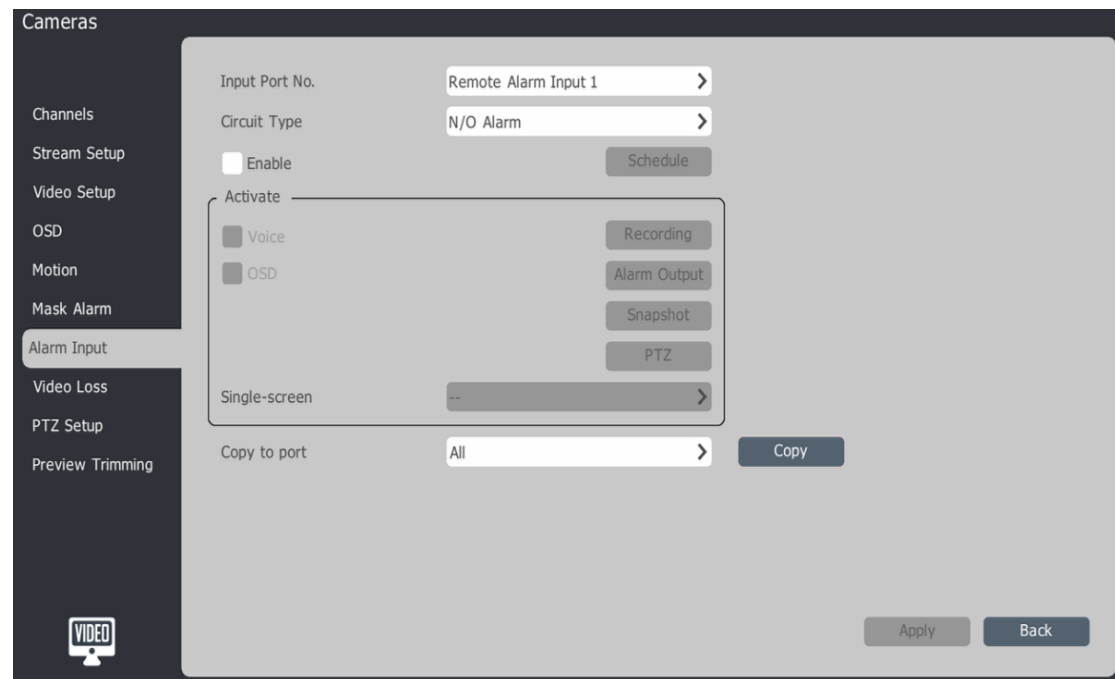
1) It can trigger voice prompt, screen display, record, alarm output, capture and single picture.

2) Parameter can copy to other channel

5. Click apply to save parameter.

4.3.12 Alarm Input

1. Select main menu-cameras-alarm input



2. Select port

3. Select alarm type

4. Select enable, click schedule and setup alarm input schedule time.

5. Select active and setup alarm trigger

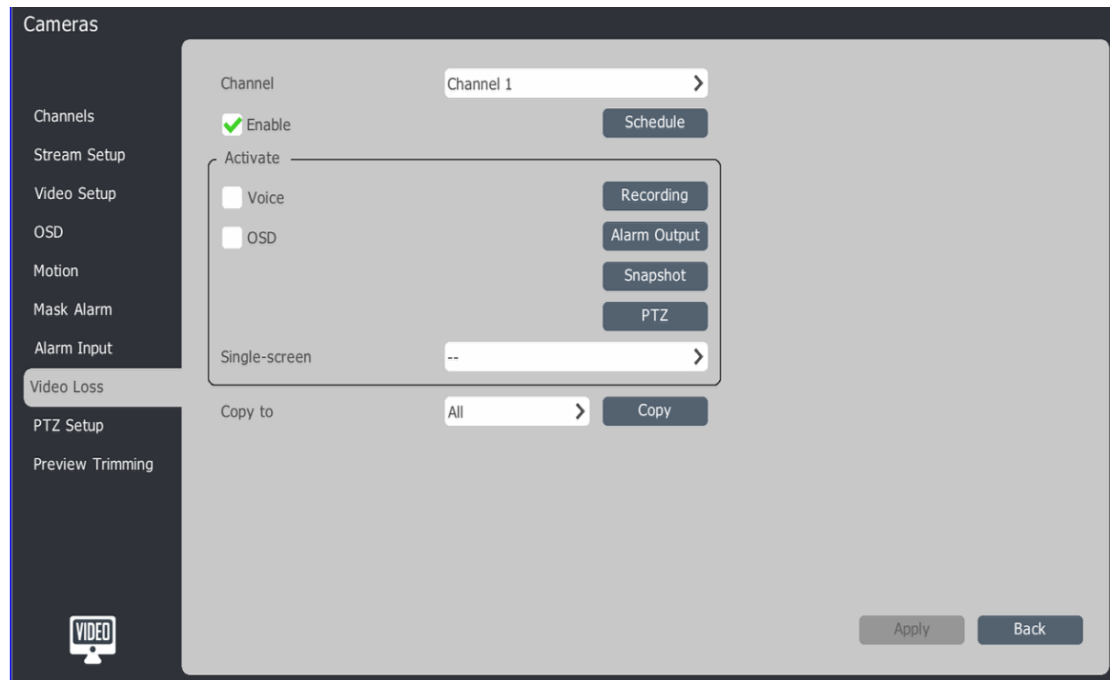
1) It can trigger voice prompt, screen display, record, alarm output, capture and single picture.

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 and setup alarm trigger

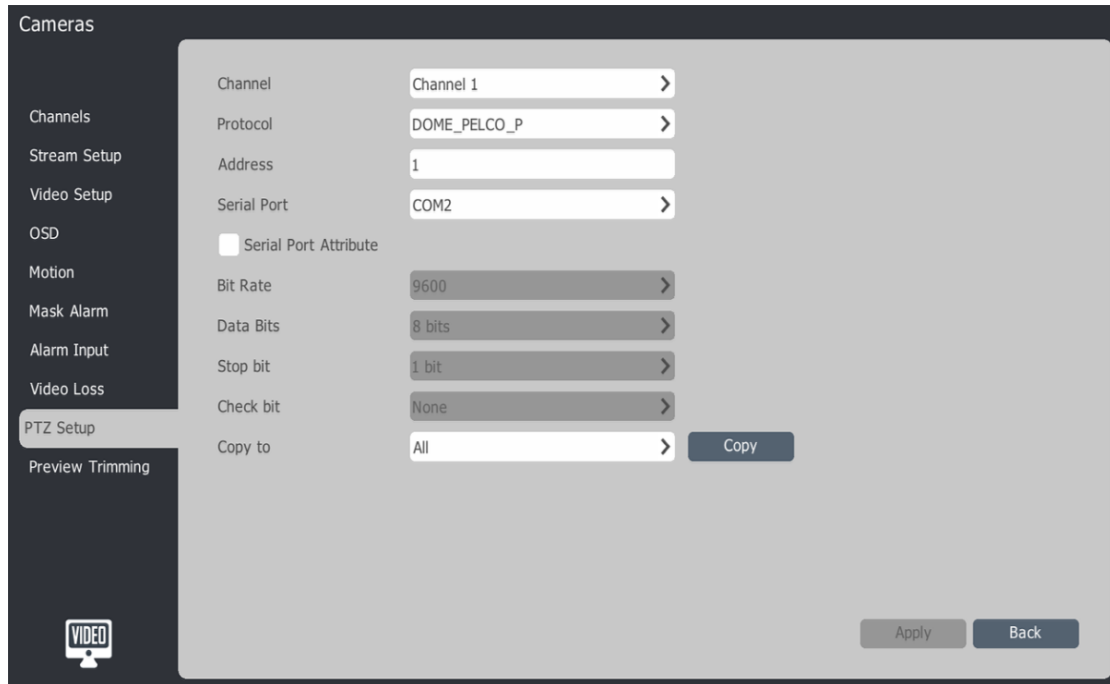
1) It can trigger voice prompt, screen display, record, alarm output, capture and single picture.

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



The screenshot shows the 'Cameras' menu on the left with 'PTZ Setup' selected. The main area contains the following settings:

Parameter	Value
Channel	Channel 1
Protocol	DOME_PELCO_P
Address	1
Serial Port	COM2
Serial Port Attribute	☐
Bit Rate	9600
Data Bits	8 bits
Stop bit	1 bit
Check bit	None
Copy to	All

Buttons: 'Copy' (next to 'Copy to'), 'Apply', and 'Back' (at the bottom right).

2. Select channel

3. Select PTZ control protocol, address and port.

4. Click apply to save parameter.

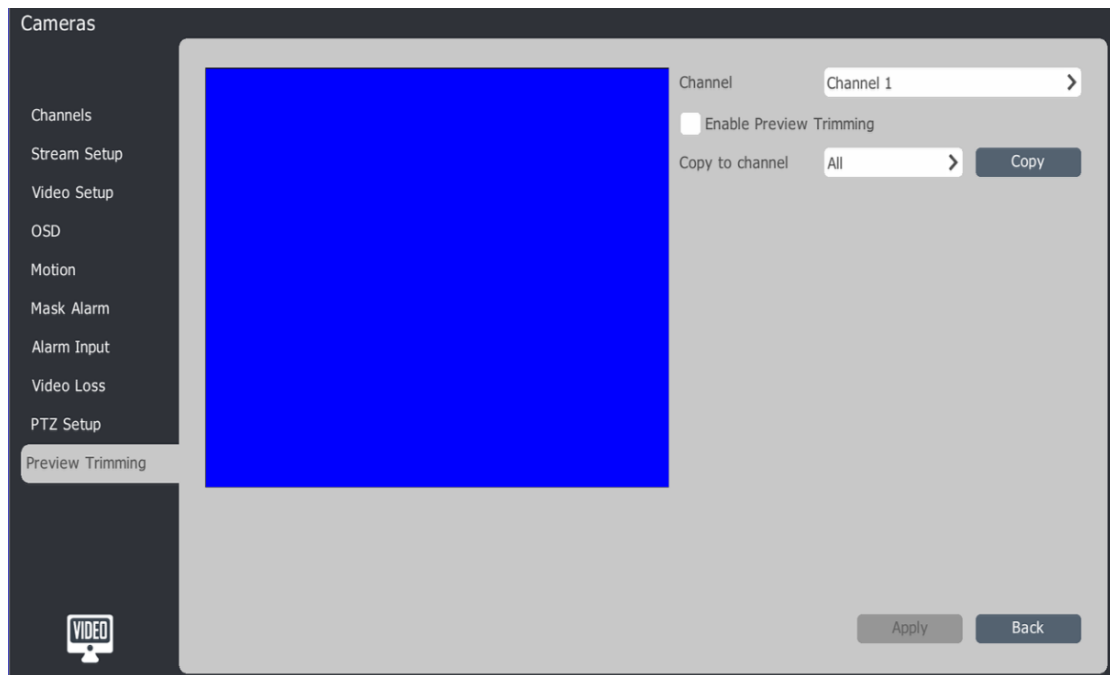


Note:

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

1. Select-camera-preview trimming



2. Select channel

3. Select enable preview trimming, and then copy to other channel.

4. Click apply to save parameter.

4.4 Preview

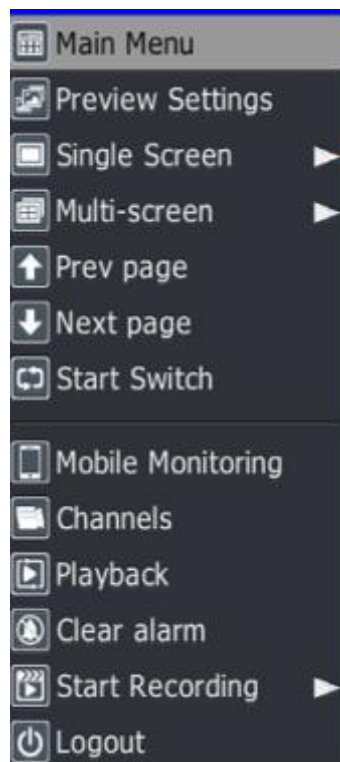
4.4.1 Preview

Icon	Description
	Alarm(motion detection alarm, video privacy alarm, port alarm, video loss alarm and IVS alarm)
	Record(timing, manual)
	This channel is on recording and has alarm at the same time.

4.4.2 Menu

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

MENU



Description:

Name	Description
Main menu	Entry main menu
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
Mobile monitoring	Download mobile monitoring software and ID
Channels	Entry to channel
Playback	Entry to playback
Clear alarm	Clear all alarm
Start recording	Enable whole day timing and motion record for all channels
Supplementary port	Switch to supplementary port
Logout	Logout, refresh and restart system.

**Note:**

- If need to use the "start" switch operation, please set "cruise" in the preview set in advance
- 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

Single screen

The current screen changes to a specified channel. In the "single screen" menu, select a particular channel

Multi-screen

Change display mode, system support 1/4/6/8/9/16/25/32.



Note:

- NVR (16-ch 8HDD, 32-ch 8 HDD) support 25 or 32 screen, and another same output will be forced to single screen display

Scroll

Click prev page switch to prec screen and next page 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, video Settings, preview Settings, PTZ control are fixed for the first four, the remaining ICONS according to click update frequency

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



4.4.4 Preview operation

1.In preview, select channel and then 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 5 mins record

E-zoom

1. Click 



2. Use the mouse to choose magnified area, that is, to enlarge the red areas
3. Mouse wheel can zoom in and out red box area, move or choose a new red box area, can switch to the need enlarge the area.



Note:

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

4.4.5 Preview parameter setup

1. In preview, select preview settings

The screenshot shows the 'Preview Setup' window with the following settings:

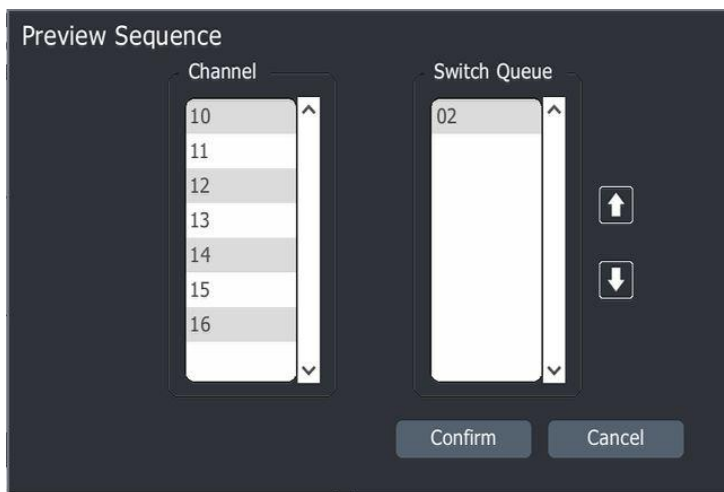
- Preview Performance: AUTO (dropdown menu)
- High fluency: ☒ (checkbox)
- Keep the last frame: ☐ (checkbox)
- Output: HDMI/VGA (dropdown menu)
- Time Interval(Sec): None Switch (dropdown menu)
- Preview: 16 Screens (dropdown menu)
- Big: Big (dropdown menu)
- Alarm cruise interval(Secs): 2 (dropdown menu)

At the bottom right, there are three buttons: AutoConfig, Confirm, and Cancel.

2. preview settings

- Preview: System default option "auto", that is, starts to preview video by sub stream. The best image quality: in order to ensure the preview effect, all channels use main stream for preview. Preview the biggest performance: the system based on the current preview performance adjustment of main stream
- Output: Select video output: HDMI2/BNC.VGA/HDMI.VC
- Cruise intervals: Set the preview automatic switch time, that is no cruise, 2s, 3s, 5s, 10s, 15s, 30s and 60s.
- Alarm cruise interval: set time interval of single screen alarm linkage, there are 2s, 3s, 5s, 10s and 15s for option.
- Retain the last frame: after the camera off line, the preview will stay on the last frame. Otherwise it will display "No Video"
- High flow: select high flow, NVR device will be according to the network conditions to ensure the fluency.
- Set preview sequence

1) Click preview channel



2) Double click channel number in channel and switch channel to add and remove preview queue

- Auto configuration

Click on the "automatic configuration" button, the system will automatically distribute video input channel in every display in turn. Four images showed automatic configuration, for example, the system automatically distribute channel 1, 5, 9, 13 to the first picture; Channel 2, 6, 10, 14 are assigned to the second picture; Channel 3, 7, 11, 15 assigned to the third picture; Channel 4, 8, 12, 16 are assigned to the fourth picture



Note:

- 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" picture. Otherwise it may cause equipment with low frame
- When the main stream to switch to the sub stream in preview biggest performance, UI will appear the phenomenon of no sound at this 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

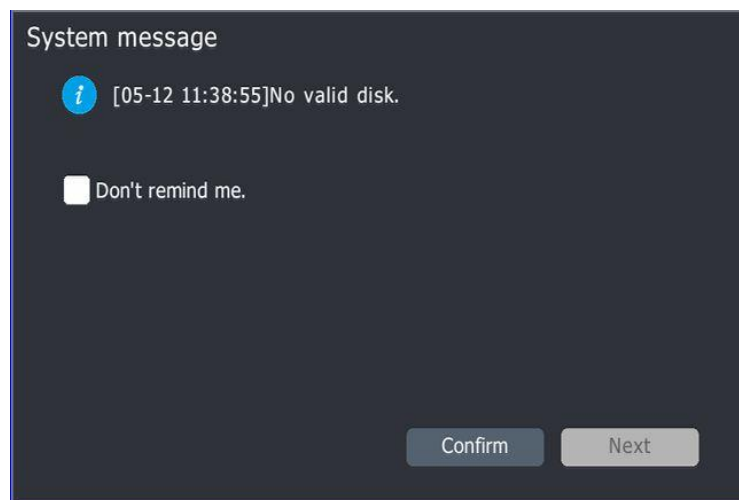
When the decoding performance reach the limit, it will display "decoding performance reached upper limit, please manually disable parts of channel".

Whether enable the prompt can be option, as shown in the system Settings - > display Settings. The default is disable.

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.



Note:

The user can choose not display prompt information, or click "next" to see the message

4.4.7 Audio preview and intercom

Audio preview

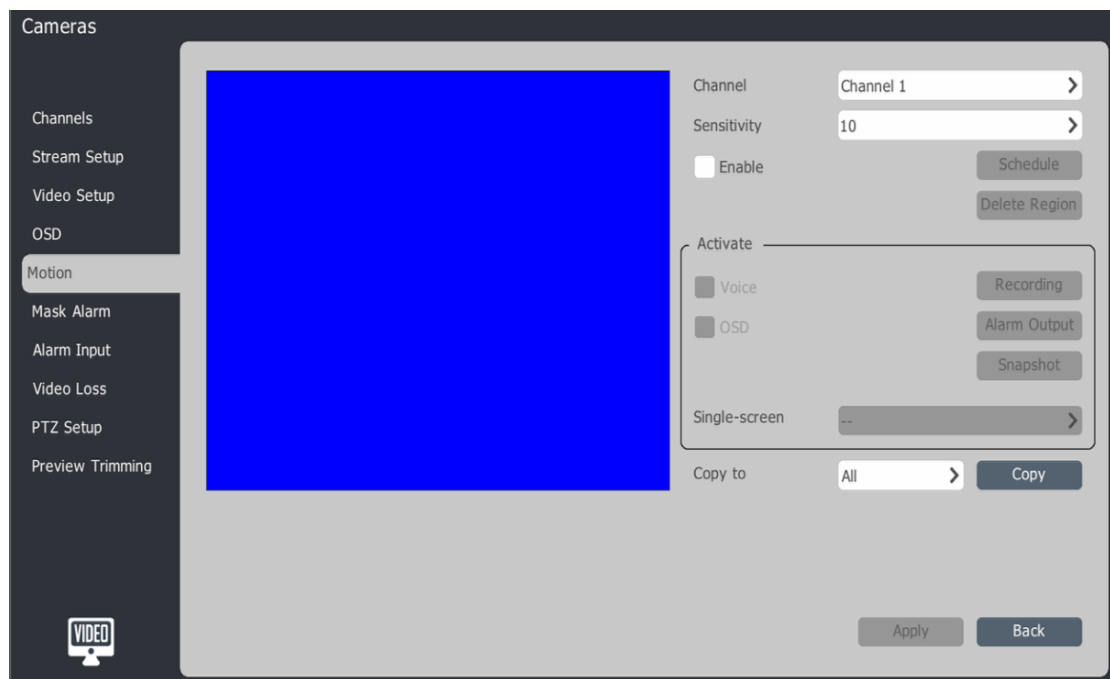
Select one video with mouse or remote control, system will play audio automatically.

Intercom

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

4.4.8 One key back to preview

In parameter configuration, click  can back to preview screen.



4.5 PTZ control

4.5.1 PTZ parameter setting

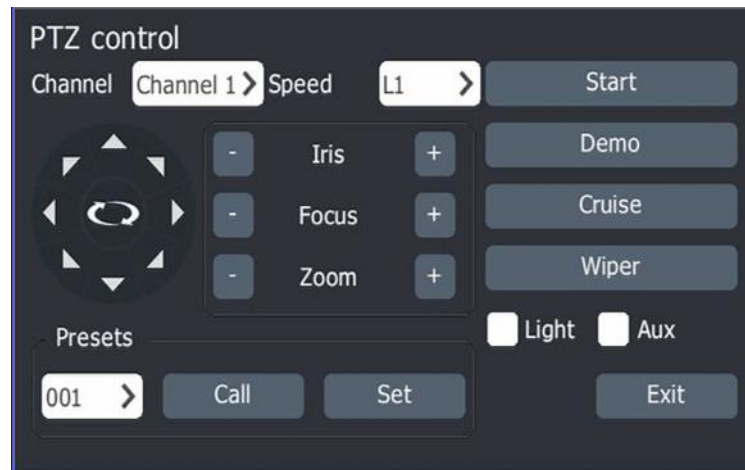


Tips:

- Before the PTZ control, please confirm the network connected between the PTZ decoder and the NVR and have the PTZ decoder parameters configuration in device.
- IPC serial port parameter Settings see 4.3.14 section.
- NVR local serial port parameters Settings see system setup instructions.

4.5.2 PTZ control

1. Enter the preview mode, double click mouse to choose targeted channel .Then enter fullscreen and right click the mouse choose "control panel" ,and pop-up window PTZ control interface 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 take auto horizontal action.

2). **Lenz control:** Click  at left side of "aperture" to shut down aperture ,click  at the right to open aperture. Click  at the left of "focus" to focus objectives at distance and click  at right side to focus close objects. Click  at left side of "zoom" to zoom out and click  to zoom in .

3). **Speed setting:** select value of speed in the "speed "drop-down list. The larger the value, the faster PTZ runs. The default speed number is L1.

4.5.3 Preset, Cruise and path setting and call

Prest settig and call

1. Call preset: Select the preset position number in the "Preset" drop-down list, or input the preset no. and click "call" to transfer the 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.

Recording and demonstration track

Click "began track", the icon's message becomes "end track", the system enters into the track recording status. The system will automatically record all operations taken by the user before "end track" is clicked. When the user presses the "end track", track recording operation is complete and the system automatically exits track recording status. The user can click on the "demo track" to show track just recorded.

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.

Cruise path setting

1. Click "Cruiser Setup" to enter into cruise setting interface

The screenshot shows a 'Cruise Setup' dialog box with a dark background. At the top, it says 'Cruise Setup'. Below this, there are several input fields and buttons. 'Cruise No.' has a text box with '01' and a right arrow, followed by 'Enable', 'Call', and 'Stop' buttons. 'Cruise Point' has a text box and a right arrow, followed by a 'Delete' button. A 'Property' section is enclosed in a rounded rectangle, containing 'Presets' (text box with '001' and right arrow), 'Time(s)' (text box with '0' and right arrow, with '(1~60)' next to it), and 'Speed' (text box with '0'). To the right of the 'Time(s)' and 'Speed' fields are 'New' and 'Setup' buttons respectively. At the bottom of the dialog are 'Apply', 'Confirm', and 'Cancel' buttons.

2. Cruise path description:

1) **Cruiser path information browser:**

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

2) **Editing the cruising path:**

Select targeted path number in "path number" drop-down list, if the path is disabled at this time, press the "Enable" button to enable the cruise path. Select targeted preset number in "preset " drop-down list, enter the time and speed, then click the "Add" button, the preset position is added to the cruise point list of consecutive path. When select a certain cruise point in the "cruise point" list and click "delete" button to remove this cruise point from the list. When select a certain cruise point and select a preset position from the preset drop-down list, then input speed and time and click "Setup" button to modify the configuration information of the selected cruise point.

3) **Enable / Disable the cruise path:**

Select cruise path number in "Cruise No." list, and users can enable and disable this cruise.

4) **Call / Stop cruiser path:**

when click "call" button the device will cruise according to preset path. When click stop it will stop current cruising status.

5) **Quit cruise path setting interface**

When click "Apply" button, all path editing operations taken after enter into the cruise path interface will be saved in the system at the same time quit path setting interface. When click "cancel" button the system will automatically neglect all editing operations and quit path setting interface.

6) **3D positioning**

By using 3D positioning function, the user can use the mouse to select any area in the screen, the system will automatically control the PTZ operation to realize scenes

zoom functions (zoom in drawn from left to right and zoom out drawn from right to left) .

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

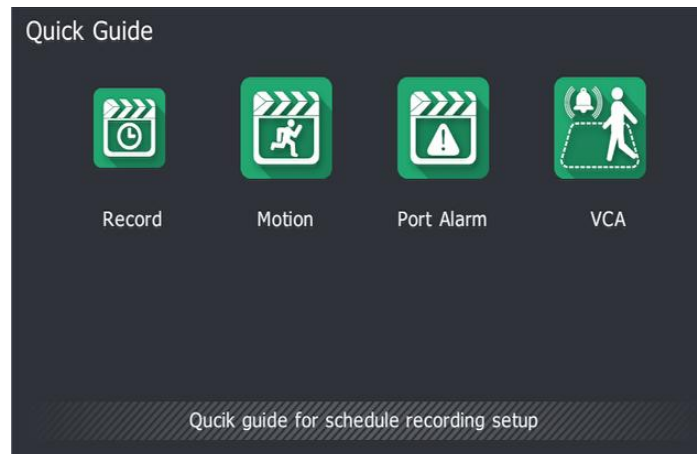
PTZ control: under the PTZ control mode, press**【↑】****【↓】****【←】****【→】**to control direction action. When press **【OK】** the PTZ to start auto running at pan range. Press **【OK】** again the PTZ would stop auto running at pan range.

- 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 Men] —>[Quick Guide] can configure the four kinds of schedule recording, motion detecting, video port alarm and intelligent video analysis recording conveniently. Refer the figure below.



1. Schedule Recording setup

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

The image shows the 'Schedule Recording Setup' screen. It has a dark background with white text. At the top, the title 'Schedule Recording Setup' is displayed. Below it are several fields: 'Channel' with a dropdown menu set to 'All', 'Time Setup' with a checked 'All Day' checkbox and an unchecked 'Customize' checkbox, and 'Schedule Template' with a dropdown menu set to 'Default'. Below these are four rows for 'Time 1' through 'Time 4'. Each row has a checkbox (checked for Time 1), a time range field (00:00 - 23:59 for Time 1, 00:00 - 00:00 for others), and a 'Default' dropdown menu. At the bottom right, there are 'Back' and 'Next' buttons.

2) It will be used for all channels' schedule time under "Schedule Recording setup" interface. Click [Next] enter the interface of [Schedule Recording parameters].

Schedule recording parameters

Channel No.	All	Default
Resolution	(720P)1280x720	☐ Enable Corridor Mode
FrameRate	25	
BitRate Type	CBR	
BitRate	4096	(32~16384Kbps)

Back Finish

3) Under this page to enable the "Schedule Recording", these parameters will be used for all channels.

4) Click[Finish], save the configuration.

2. Motion Detection Recording setup

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

Motion Detection

Channel	All	
Sensitivity	24	(0~100)
Area Setup	☒ All	Area Setup
Time Setup	☒ All Day	☐ Customize
☒ Time 1	00:00 - 23:59	
☐ Time 2	00:00 - 00:00	
☐ Time 3	00:00 - 00:00	
☐ Time 4	00:00 - 00:00	
Un-armed Time	☒ Stop Recording	☐ Schedule

Back Next

2) Under “Motion Detection”, here can set all channels of motion detecting alarm sensitivity, time period and the un-armed time operation. The motion detecting region defaults to the whole region. Click 【next】 into the [motion detecting video parameter] setting.

The screenshot shows a configuration window titled "Mobile detection recording parameters". It contains several settings:

- Channel No.: All
- Resolution: (720P)1280x720
- FrameRate: 25
- BitRate Type: CBR
- BitRate: 4096 (32~16384Kbps)

There is an unchecked checkbox labeled "Enable Corridor Mode". At the bottom right, there are "Back" and "Finish" buttons.

3) Enable “Mobile detection recording parameters” ,it will be used for all channels.

4) Click[Finish], save the configuration.

3. Port Alarm Recording Setup

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

The screenshot shows a configuration window titled "Port Alarm Setup". It contains several settings:

- Input Port No.: All
- Circuit Type: ☒ Closed Circuit, ☐ Open Circuit
- Time Setup: ☒ All Day, ☐ Customize
- Time 1: ☒ 00:00 - 23:59
- Time 2: ☐ 00:00 - 00:00
- Time 3: ☐ 00:00 - 00:00
- Time 4: ☐ 00:00 - 00:00
- Un-armed Time: ☒ Stop Recording, ☐ Schedule

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

2)Under the “Port Alarm Setup],users can set alarm circuit type, time period and un-armed time operation. Click [Next] to “Port alarm recording parameters” interface.

Port alarm recording parameters

Channel No. All

Resolution ((4CIF)704x576(PAL)/704x480(NTSC)) Enable Corridor Mode

FrameRate 25

BitRate Type CBR

BitRate 4096 (32~16384Kbps)

Back Finish

3)Enable “Port alarm recoding parameters” ,it will been used for all channels.

4)Click[Finish], save the configuration.

4. Smart Analytics Setup

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

Smart Analytics Setup

Channel Number Channel 1

Enable Camera VCA

Rule Number 1 Enable

Rule Name Rule1

Event Tripwire

Identify Alarm Type All

No-alarm Color Green

Alarm Color Red

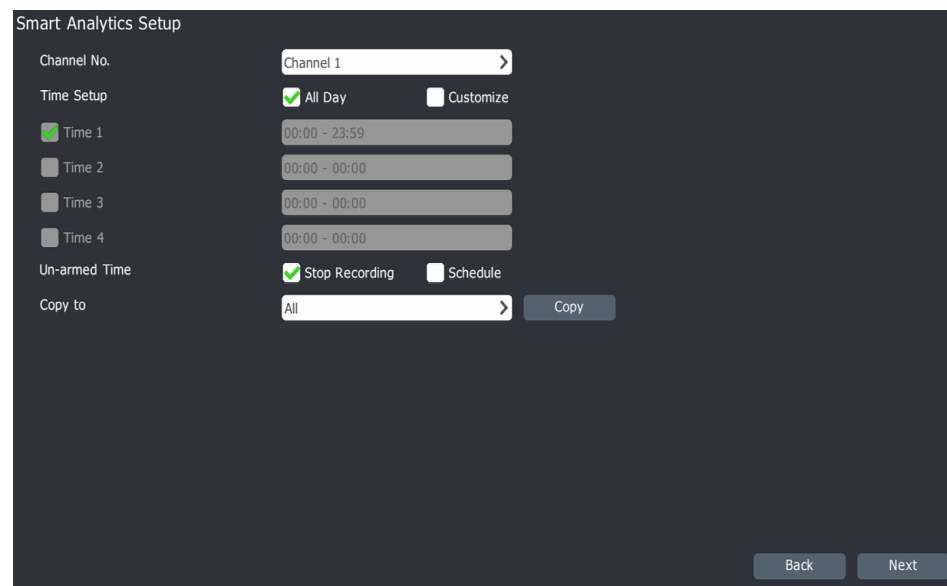
Display Rule

Display Alarm Counts

Draw on screen Clear Line

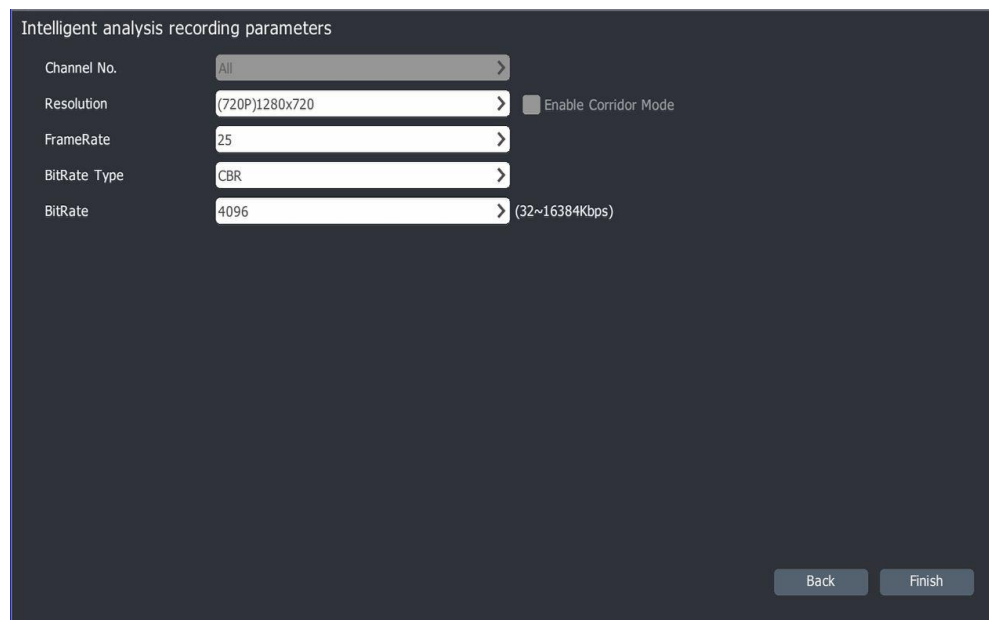
Back Next

2)Set the VCA parameters under” Smart Analytics setup” , the details configuration please refer the ”VCA” chapter. Click [Next] to ”Smart Analytics Setup”



The 'Smart Analytics Setup' interface is displayed on a dark background. It features several configuration options: 'Channel No.' is set to 'Channel 1'; 'Time Setup' has 'All Day' selected with a green checkmark, and 'Customize' is unselected; 'Time 1' is selected with a green checkmark and shows a time range of '00:00 - 23:59'; 'Time 2', 'Time 3', and 'Time 4' are unselected and show '00:00 - 00:00'; 'Un-armed Time' has 'Stop Recording' selected with a green checkmark, and 'Schedule' is unselected; 'Copy to' is set to 'All'. A 'Copy' button is located next to the 'Copy to' dropdown. At the bottom right, there are 'Back' and 'Next' buttons.

3)Set the time period of the selected channels and the un-armed time operation under ” Smart Analytics Setup”. The configuration info. can be copied to other channels. Click [Next] to” Smart Analytics Parameter” interface.



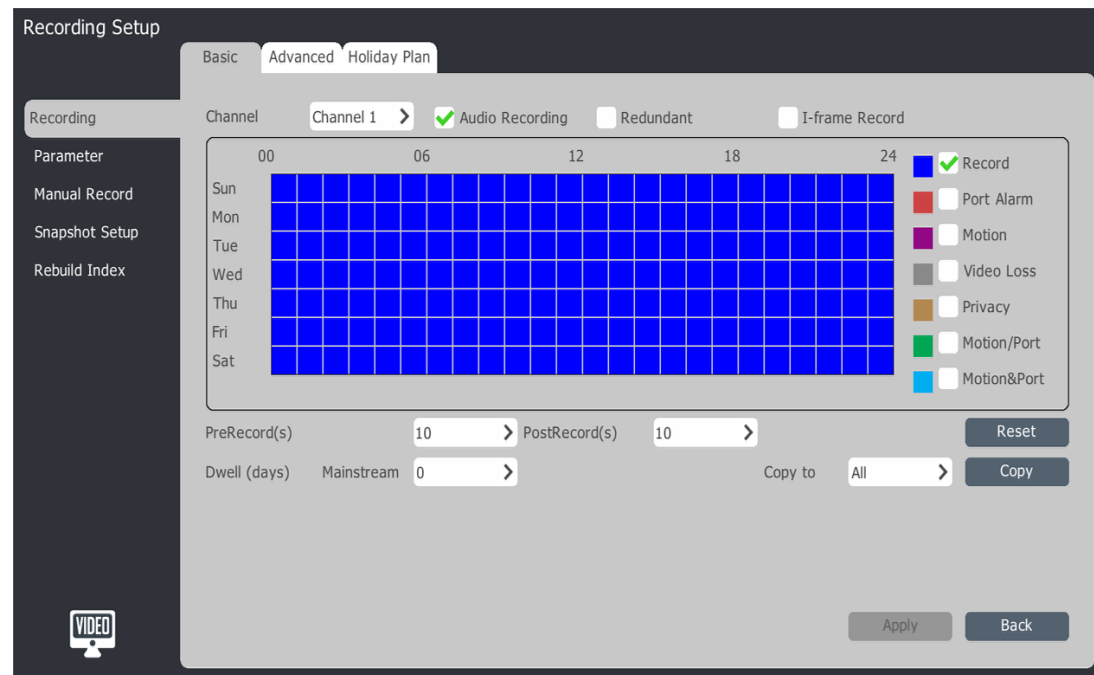
The 'Intelligent analysis recording parameters' interface is displayed on a dark background. It features several configuration options: 'Channel No.' is set to 'All'; 'Resolution' is set to '(720P)1280x720'; 'FrameRate' is set to '25'; 'BitRate Type' is set to 'CBR'; 'BitRate' is set to '4096' with a note '(32~16384Kbps)'. There is an 'Enable Corridor Mode' checkbox which is currently unchecked. At the bottom right, there are 'Back' and 'Finish' buttons.

4) Set the ”Intelligent analysis recoding parameters” , it will be used for all channels. Click [Finish], 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 the setup channels.
3. Choose whether to enable record "audio", "redundant" or "I-frame".
 - If not check **【Audio Recording】** , it only save the video data in recording files.
 - If system exit a redundant disk and enable the "Redundant/Snapshot" function, the video and captured image can be saved in video disc and in redundant disk save a copy.
 - Enable the **【I-frame Record】** ,system will draw frame processing on video files. In this way, it can save the memory for the non-key region recording.
4. Recording Template Setup.

It include "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 been used for the selected time zone is updated to the video types.

6. Prerecord and Post record setup

- Prerecord: if users set "5S", System will save the video 5S before alarm recording automatically
- Post Record: the post record used for alarm recording, if set it "5S", system will save the video until alarm disappear 5S.
- Pre Record and post record used for the video analysis before and after the alarm.

7. Dwell (days) setup. "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.

The screenshot shows the 'Recording Setup' window with the 'Advanced' tab selected. The interface includes a sidebar with options: Recording, Parameter, Manual Record, Snapshot Setup, and Rebuild Index. The main area contains the following settings:

- Channel:** Channel 1
- Date:** Sun
- PreRecord(s):** 15
- PostRecord(s):** 15
- Enable ANR:** ☐

Time Section	Record Type	Schedule Template
☐ 00:00 - 00:00	Port Alarm	Invalid
☐ 00:00 - 00:00	Port Alarm	Invalid
☐ 00:00 - 00:00	Port Alarm	Invalid
☐ 00:00 - 00:00	Port Alarm	Invalid

At the bottom, there is a 'Copy to' section with dropdowns for 'Channel' (set to 'All') and 'Date' (set to 'Whole Week'), and a 'Copy' button. 'Apply' and 'Back' buttons are at the bottom right.

2. Choose the the channels to set.

3. Enable ANR, If enabled, the IPC will automatically start the local video when offline. And it will automatically upload the local video 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 current year .Once enable ,it will carry out the plan preferential during the holiday.

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

Recording Setup

Basic Advanced **Holiday Plan**

Recording Channel Channel 1 ☐ Enable ANR

Parameter Date Sun

Manual Record PreRecord(s) 15

Snapshot Setup PostRecord(s) 15

Rebuild Index

	Time Section	Record Type	Schedule Template
☐	00:00 - 00:00	Port Alarm	Invalid
☐	00:00 - 00:00	Port Alarm	Invalid
☐	00:00 - 00:00	Port Alarm	Invalid
☐	00:00 - 00:00	Port Alarm	Invalid

Copy to

Channel All Date Whole Week **Copy**

VIDEO

Apply Back

2. Click one of the Holiday plan and press **【Edit】** or double click enter the "Holiday setup" directly.

Recording Setup

Basic Advanced **Holiday Plan**

Recording

Parameter

Manual Record

Snapshot Setup

Rebuild Index

No.	Holiday Name	Status	Start Date	End Date
01	Holiday1	Close	2015/01/01	2015/01/03
02	Holiday2	Close	2015/01/01	2015/01/03
03	Holiday3	Close	2015/01/01	2015/01/03
04	Holiday4	Close	2015/01/01	2015/01/03
05	Holiday5	Close	2015/01/01	2015/01/03
06	Holiday6	Close	2015/01/01	2015/01/03
07	Holiday7	Close	2015/01/01	2015/01/03
08	Holiday8	Close	2015/01/01	2015/01/03
09	Holiday9	Close	2015/01/01	2015/01/03
10	Holiday10	Close	2015/01/01	2015/01/03

VIDEO

Edit Apply Back

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 

Confirm Back

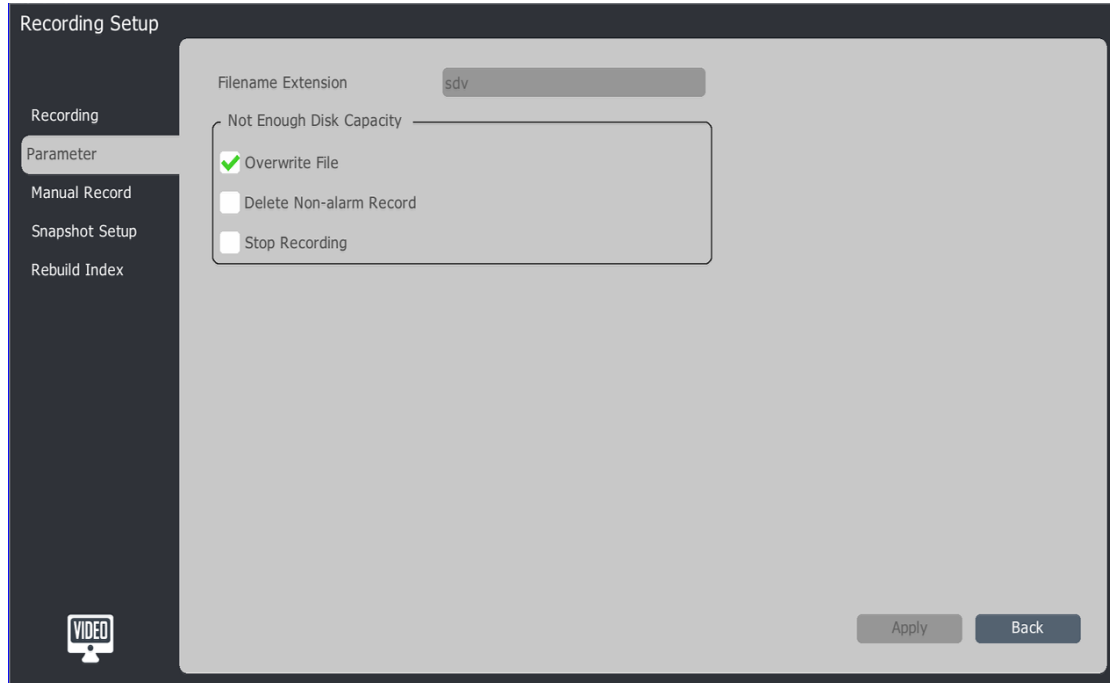


Tips :

- If no Special instructions, Sunday is the first day for week setting.

4.6.3 Recording Parameter

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

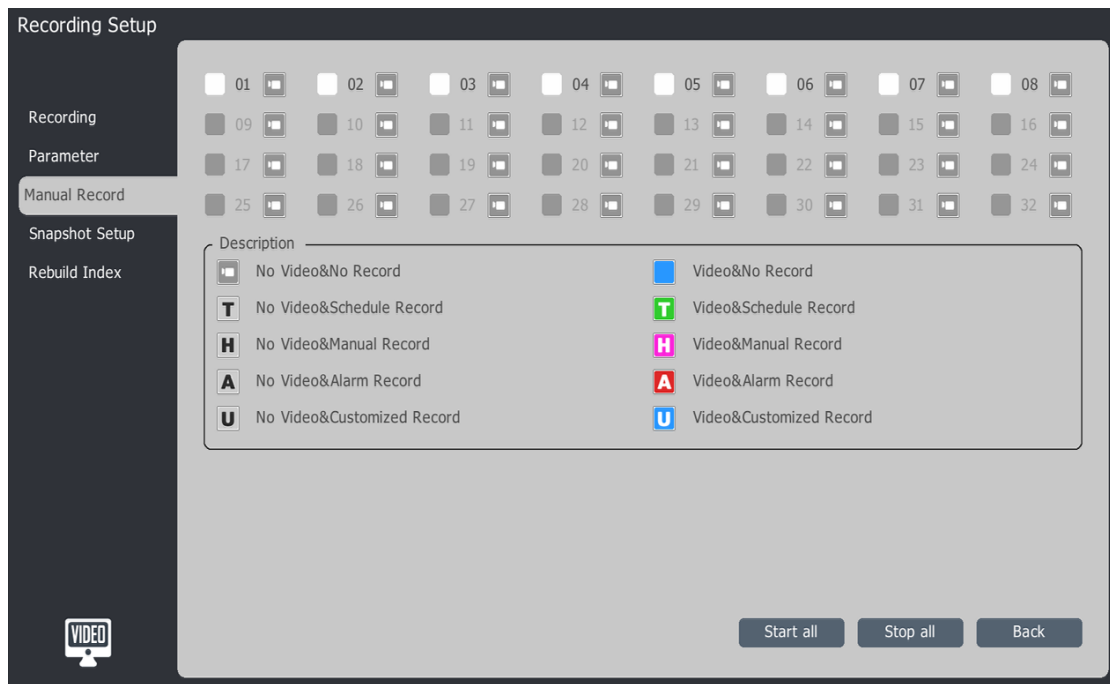


2. Choose the method when disk capacity not enough , 【Overwrite File】 【Delete Non-Alarm Record】 【Stop Recording】 .

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.



Tips:

Icon	Status descriptions
	no video, no recording
	have video, no recording
	no video ,under manual recording
	video available and under manual recording

	no video, under schedule recording
	video available and under schedule recording
	no video, under alarm recording
	video available, under alert recording
	no video, under customized recording
	no video, under customized recording



Tips:

- The manual recording can only stop by manual, 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.

The screenshot shows the 'Recording Setup' interface with the 'Snapshot Setup' tab selected. The settings are as follows:

Field	Value
Channel	Channel 1
Snapshot Mode	Single Picture
Interval (seconds)	0 (5~9999)
Upload to FTP	☐
Upload to SMTP	☐
Copy to	All

Buttons: FTP Setting, SMTP Setup, Copy, Apply, Back.

- 1) Choose the target channel no. for snapshot setup.
- 2) Snapshot Mode: "Single Picture" and "Timing capture"
- 3) Set the interval time (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



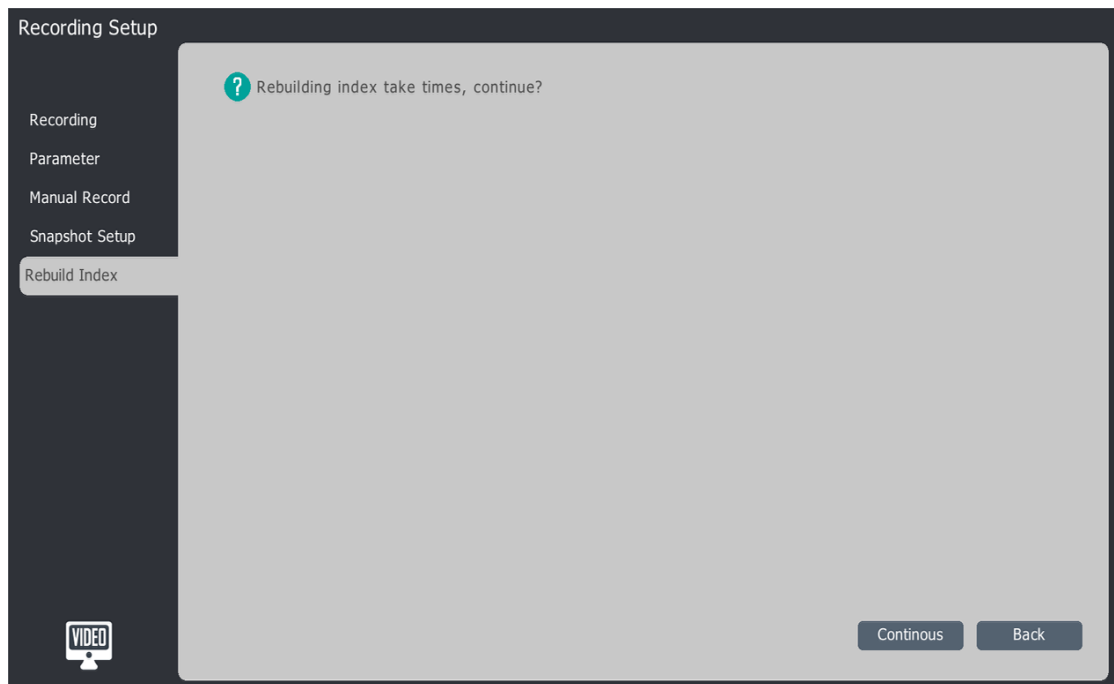
Tips:

System captured a maximum of 2000 images in 24 hours.

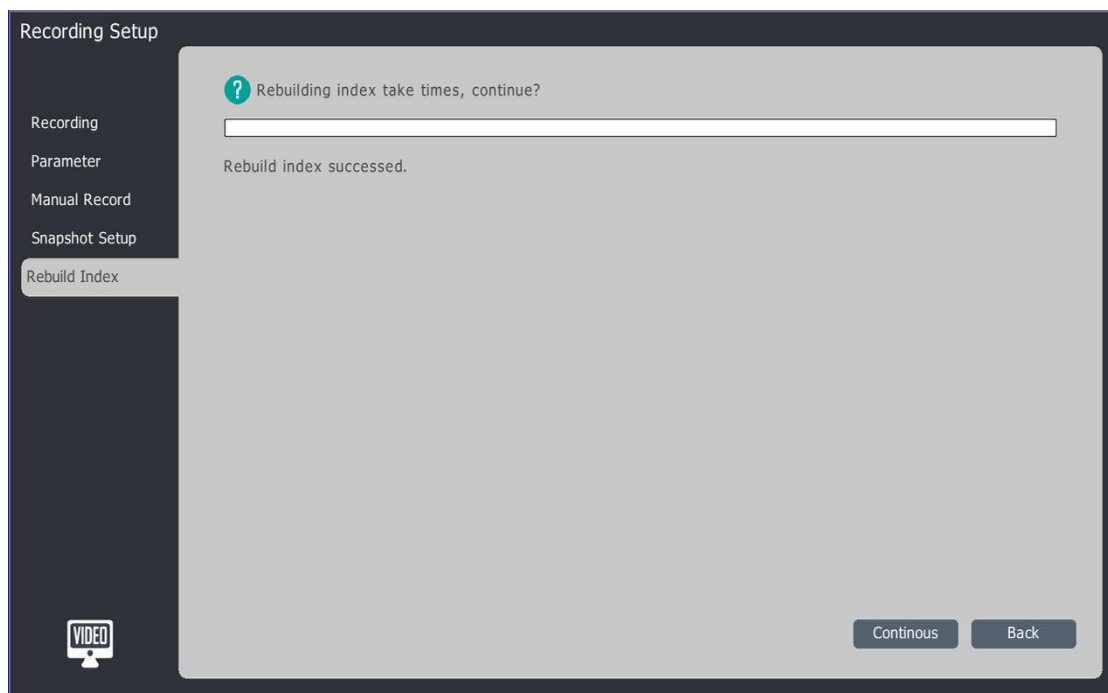
4.6.6 Rebuild Index

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.



2. Click **【Continous】** ,start the cooperation of “rebuild index”.

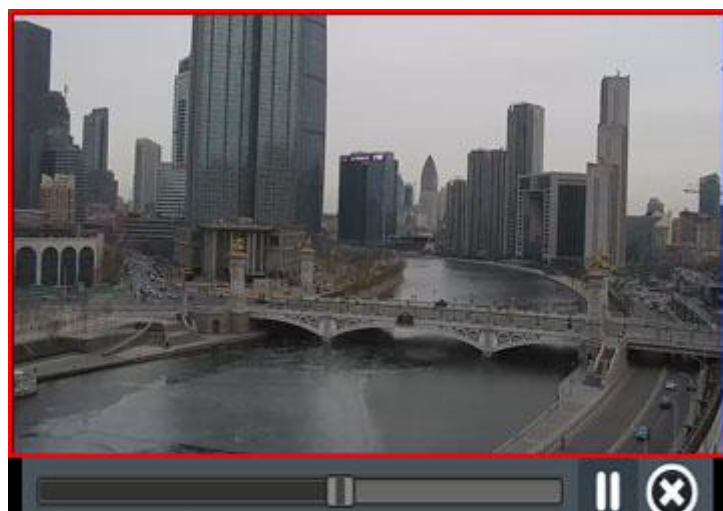


- 3.
4. Users can exit this page for other operation under the process of “rebuild index.”

4.7 Playback

4.7.1 Instant Playback

Under “Preview” page, it can playback only 5 minutes video of selected channel.



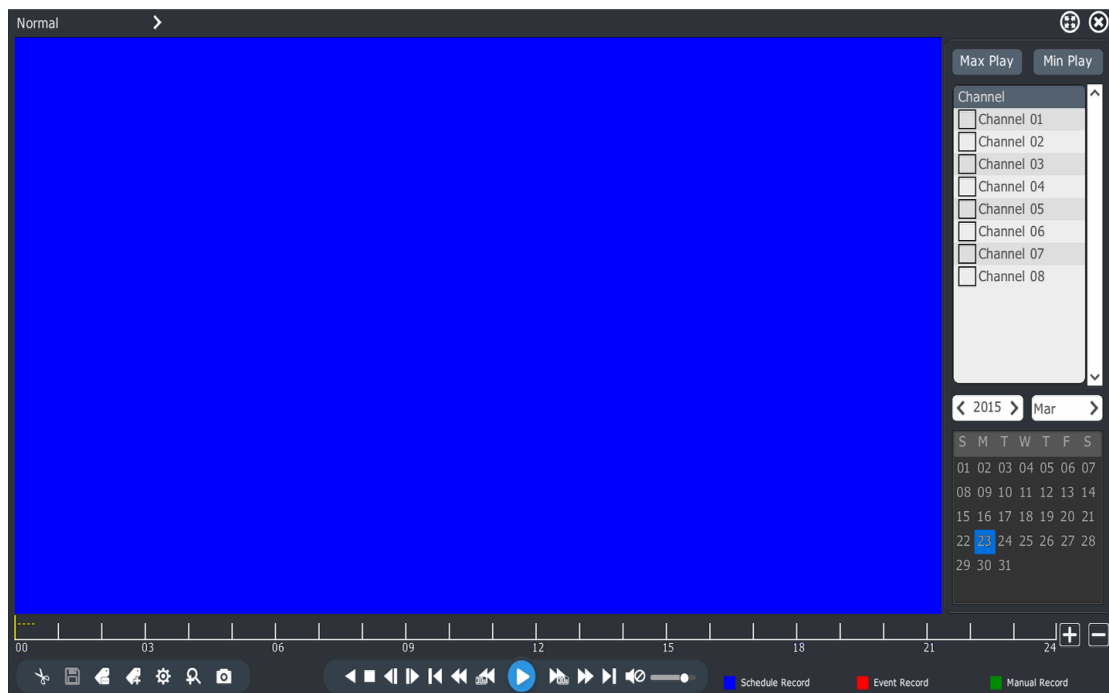
Under "Preview", choose the target channel, click " "enter the Playback page, as above.

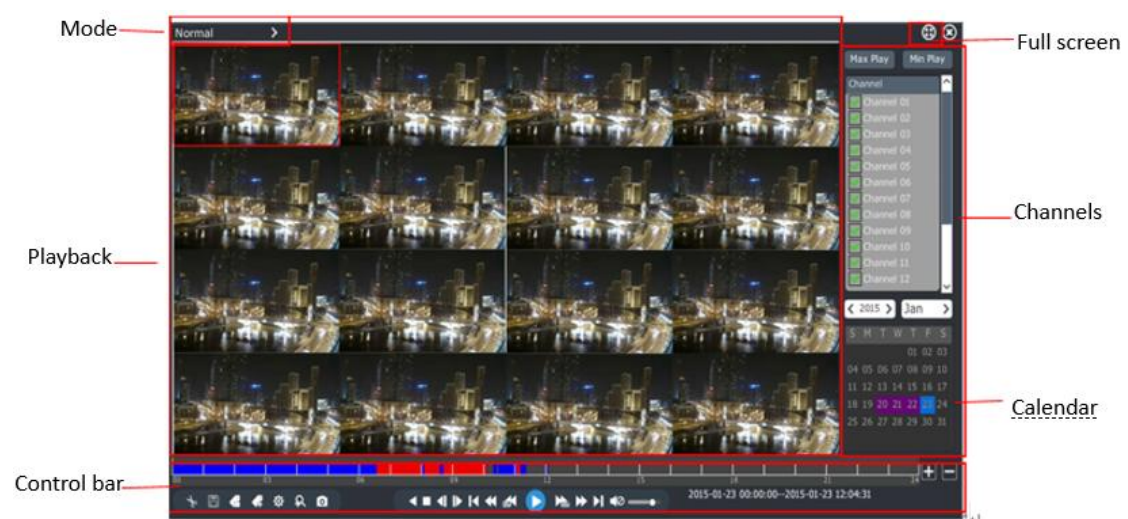
Easy button: 

4.7.2 Playback Descriptions

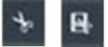
The composition of the playback interface and each function module.

Enter the playback menu interface: Right click [menu]-> [Playback]





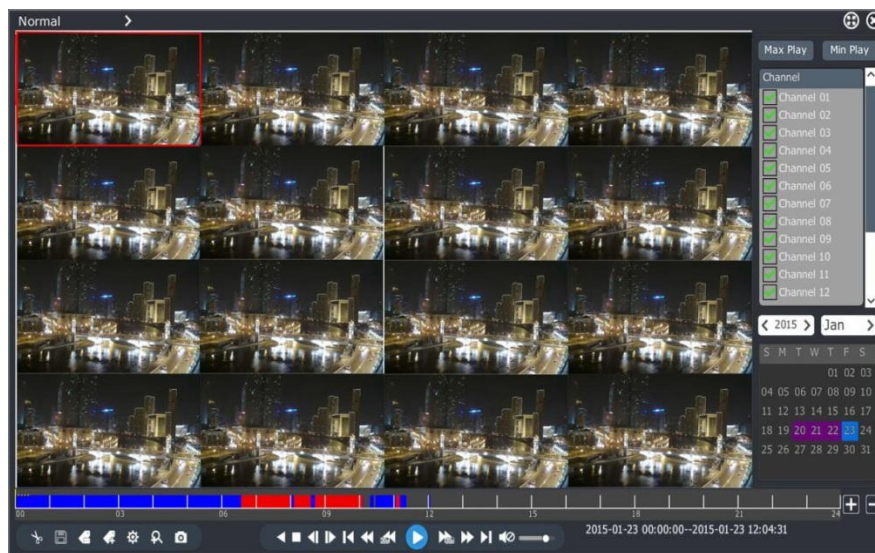
Playback control bar description

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

According to the channels and date to retrieve the corresponding video file, Play the generated eligible videos in turn .The playback operation steps are as follows:

1. Choose [Main Menu]->[Playback],enter the page "Normal playback" page as below.
2. Select the video playback channel, calendar will automatically show the current month video
3. Single lick the playback date
4. System automatically play eligible video files



1. Other playback operation

Click"  ", enter full screen playback.

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



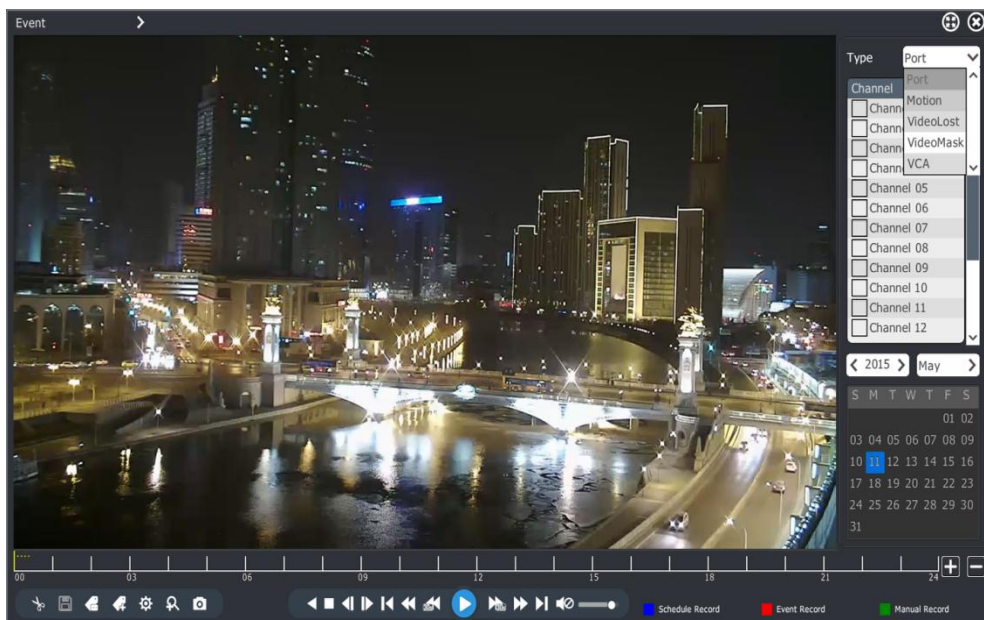
Tips:

- 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],Choose "Event" .
2. Select time type on the upper right corner.
3. Choose the video playback channel.
4. Single lick the playback date
5. System automatically play eligible video files



Tips:

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

4.7.5 Tag Playback

Tag record to help users take notes of relevant information during video playback at some point. Then users can search positioning video by tag in the future.

Add /manage Tags

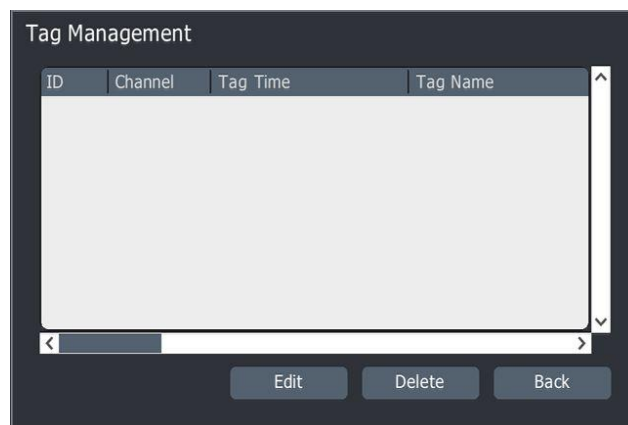
1. Enter Playback page

Click , add default tags.

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

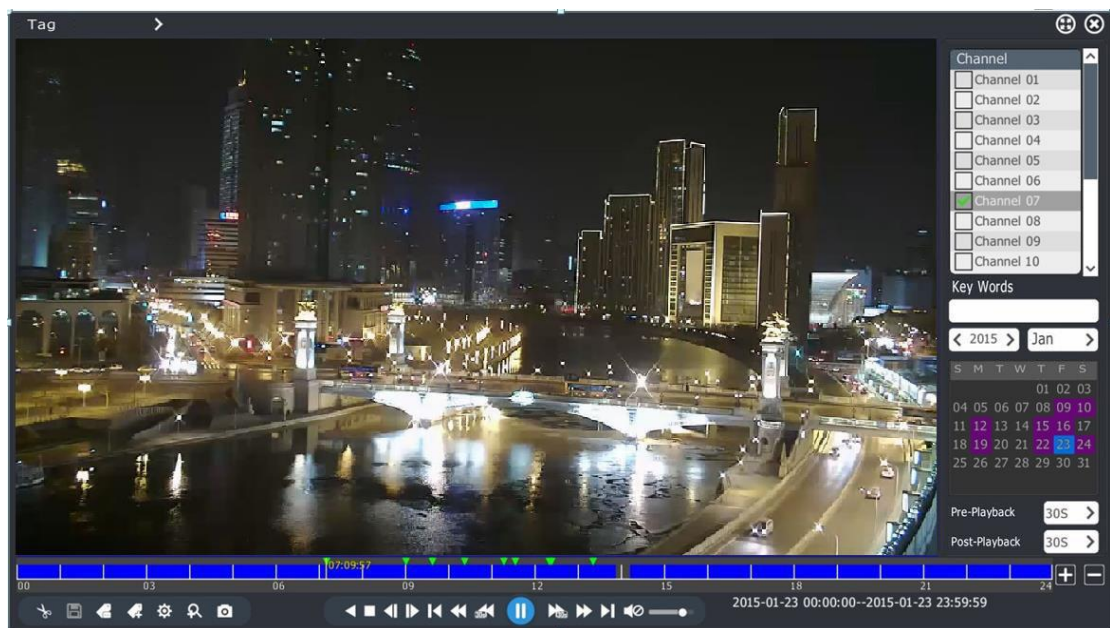
2. Tag management

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

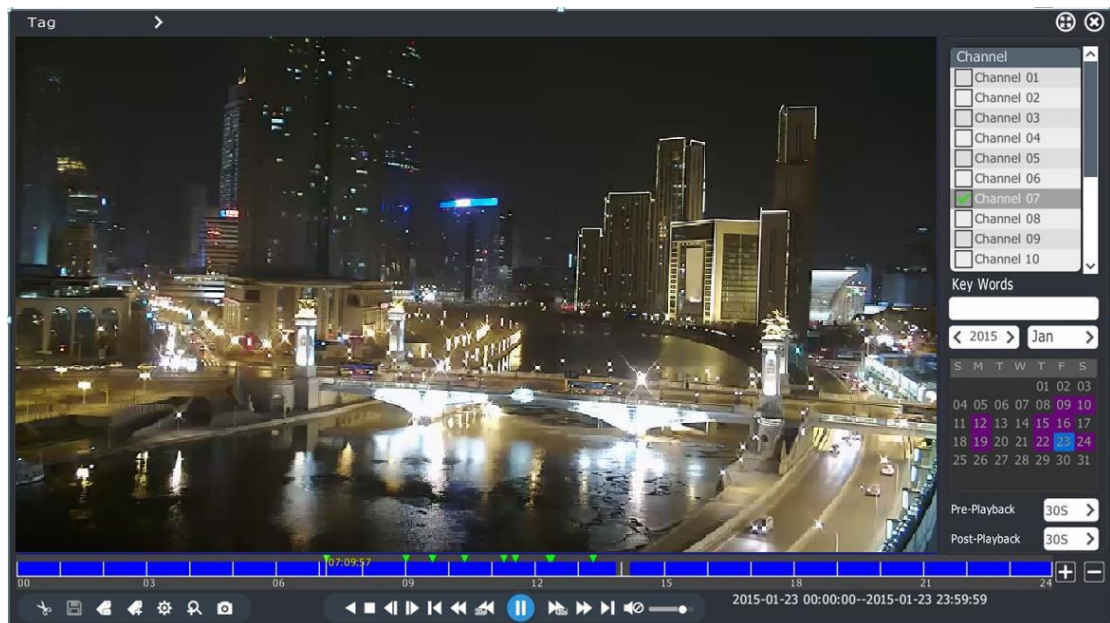


Tags playback operation

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 automatically displays the tag information. As shown in the figure below



Tips:

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

4.7.6 Smart Playback

Smart Playback, an intelligent analysis for video and playback according to the result of analysis. Currently support "perimeter" and "tripwire" smart analysis only.

The specific steps as follows:

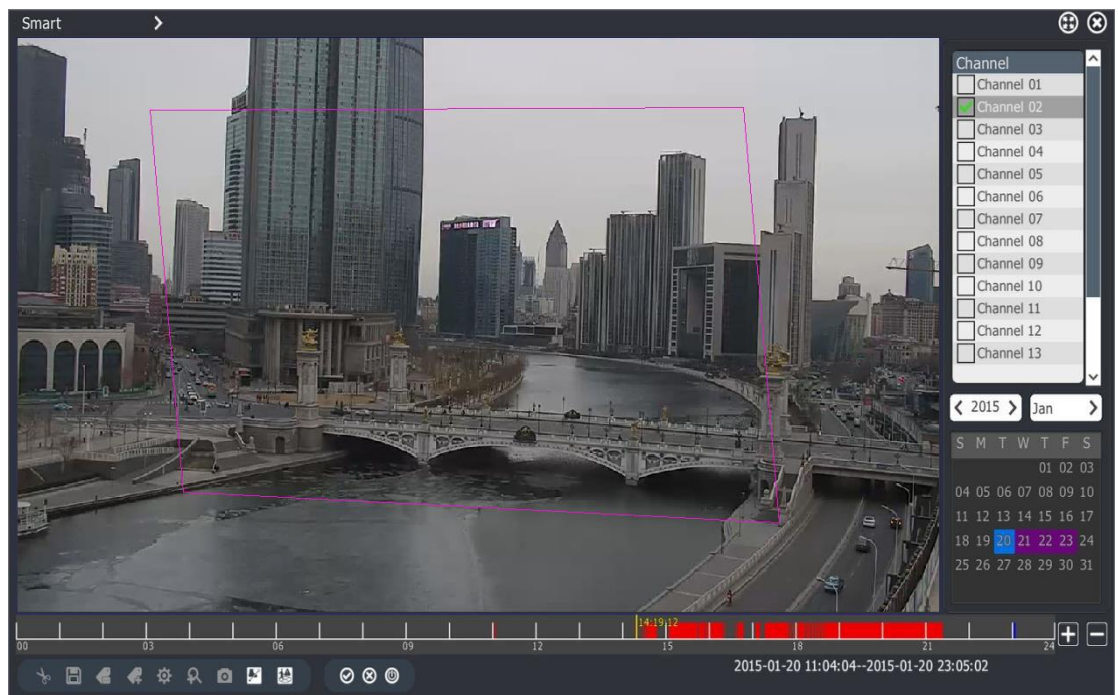
1. Enter "Playback" interface, choose "Smart", go to the "Smart Playback" as below.



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 line in the video.



5. Click  start to search. During the search process, the upper-left displaying the words " VCA SEARCHING ", at the same time, the progress bar will display the search progress and results.

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.

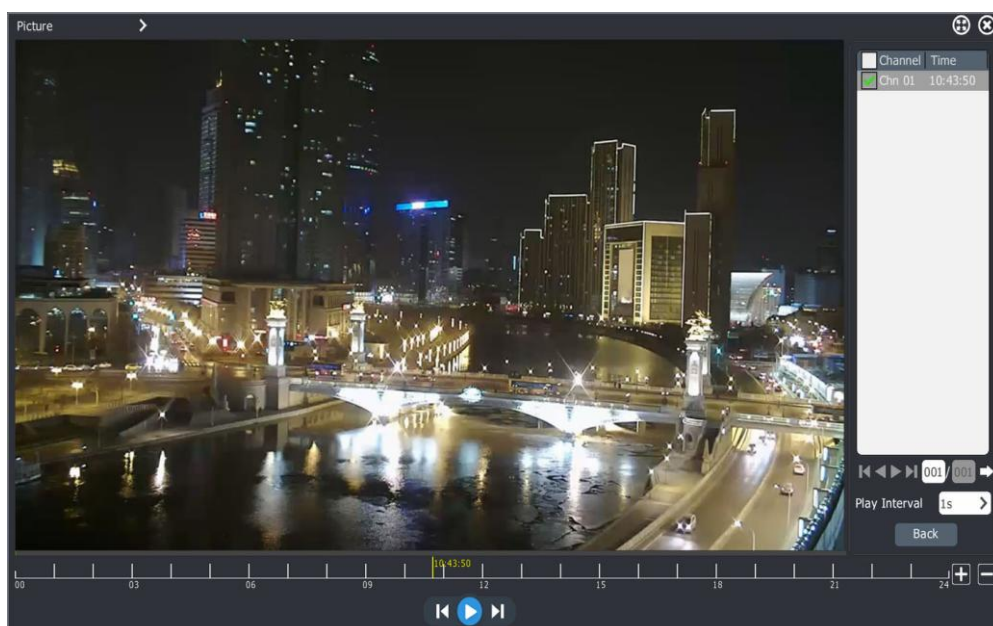


TIPS:

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

4.7.7 Picture viewer

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





Description

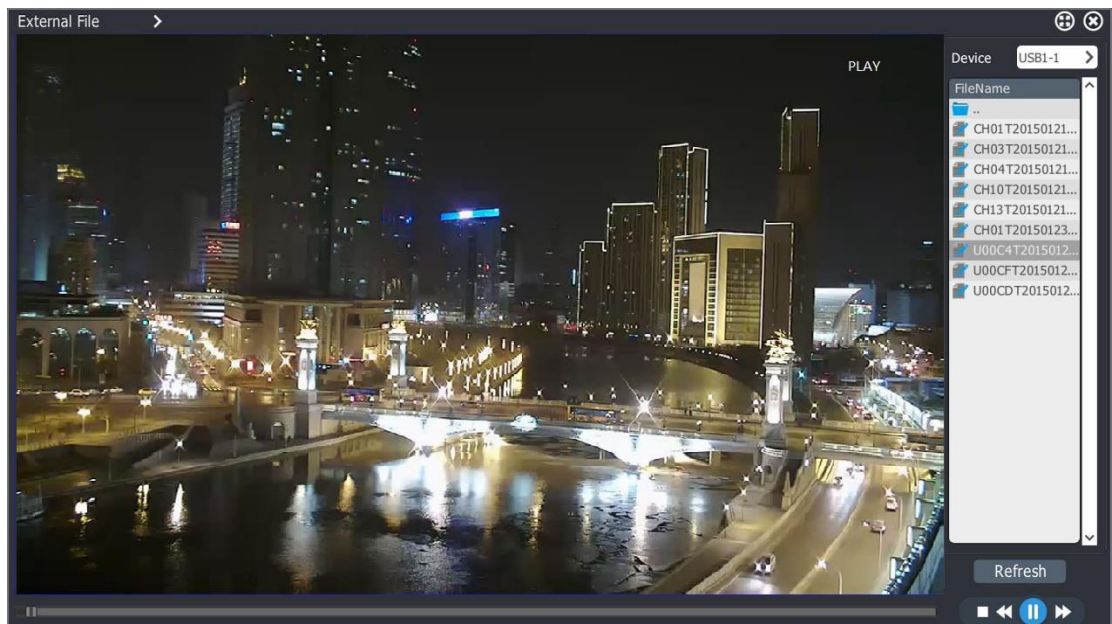
- User may set interval time to play the pictures automatically.
- Also user may pause auto-play and click left or right side of the picture to go to the previous or the next one.

4.7.8 Playback the files from external devices

Playback the recording files saved in external storage medium, 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

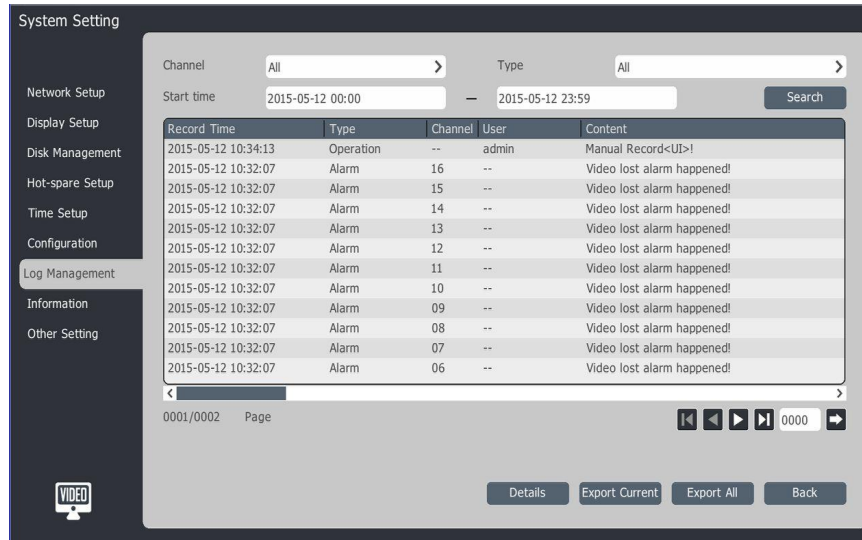
Ensure USB flash disk, mobile HDD or USB CD-ROM are well connected with NVR.

4.7.9 Play by log information

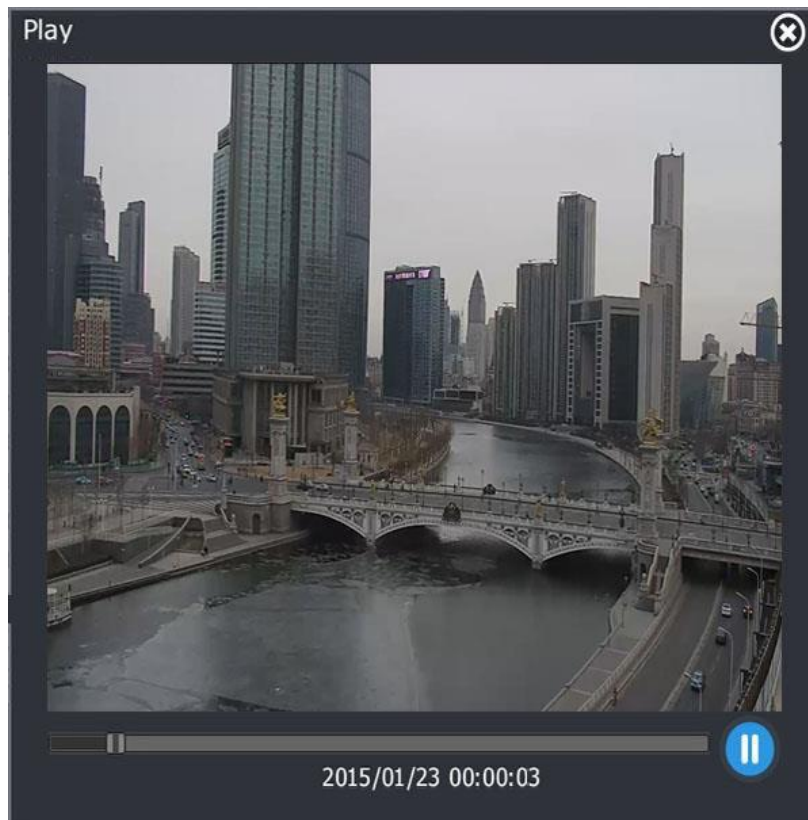
Play the files according to log information.

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, and enter " Play " interface.





Description

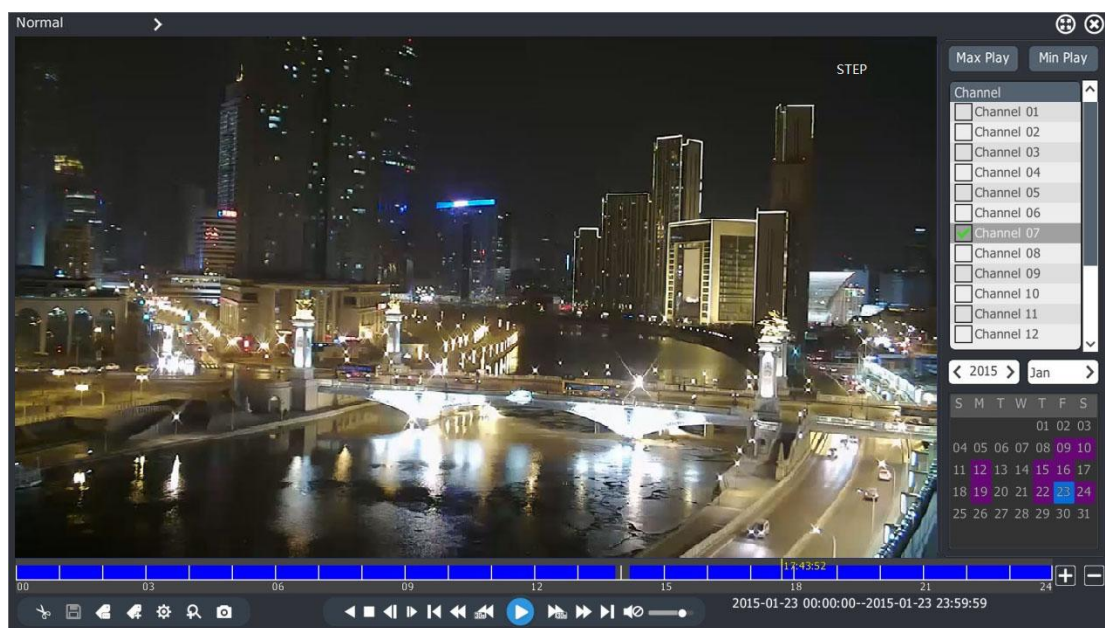
- Move the time bar to control playback progress.
- The recording files in the channel and time which you check must be available before you can play.

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.

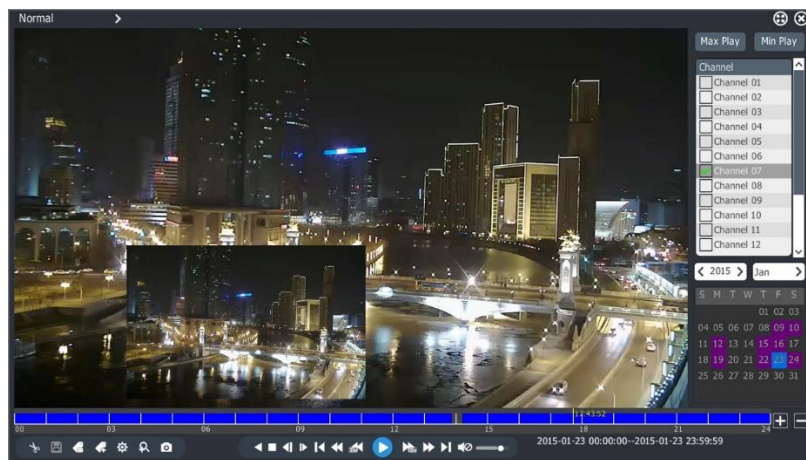
Thumbnail view

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

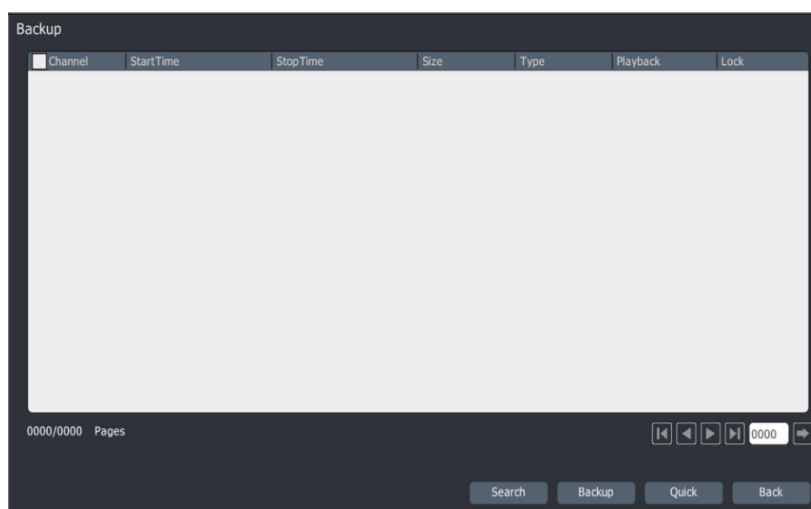
- When it is beyond the decoding capacity, thumbnail view cannot be displayed.
- When there is no recording files where your mouse stays, thumbnail view cannot be displayed.

4.8 Backup

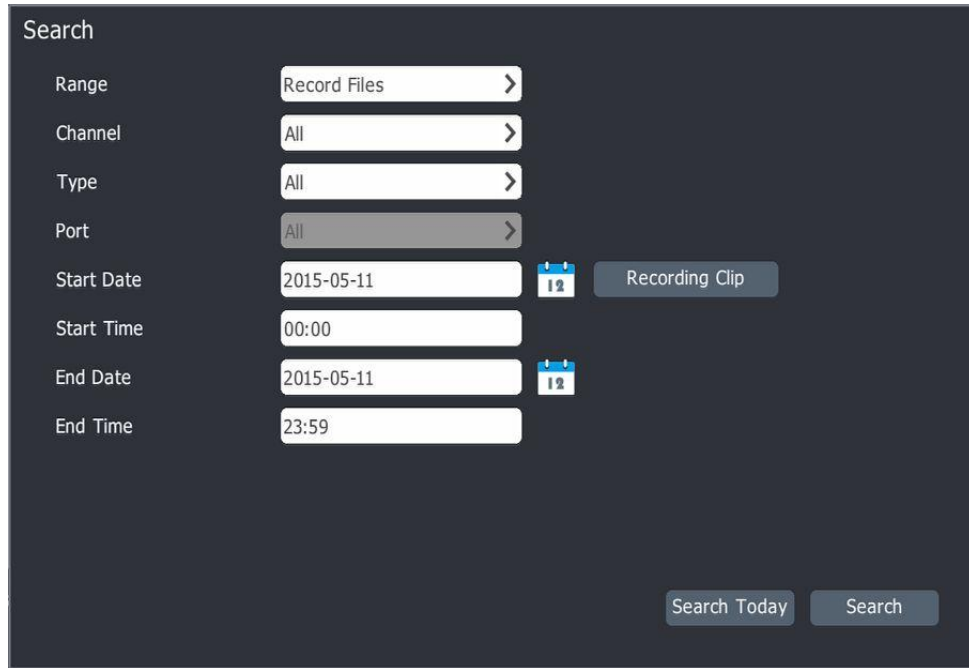
4.8.1 Backup

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

1. "Main menu"->"Backup":



2. "Search":



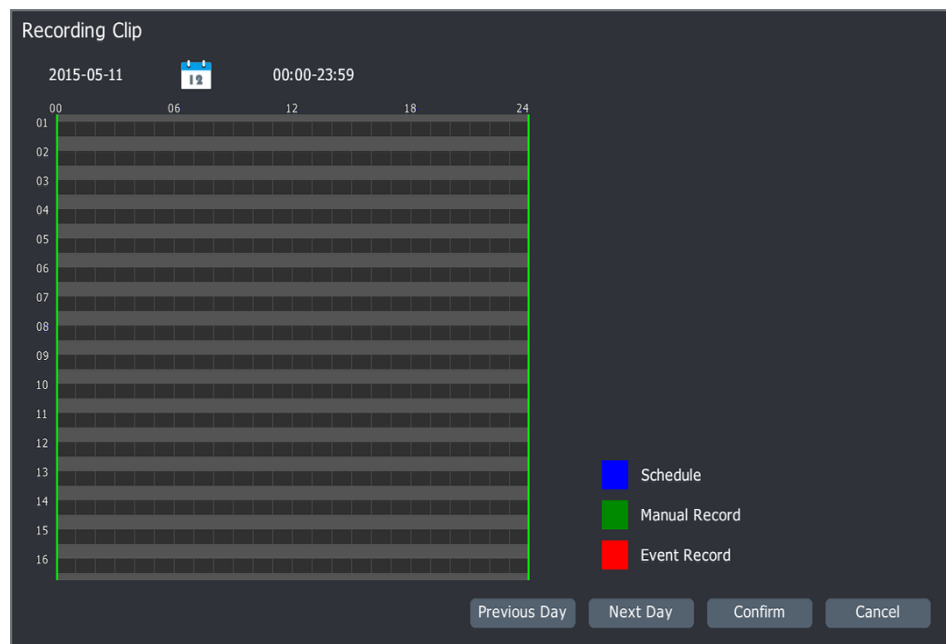
The screenshot shows a 'Search' dialog box with the following fields and controls:

- 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
- Recording Clip button
- Search Today button
- Search button

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

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

Click "Recording Clip":





Notes:

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

4. "Main menu"->"Backup":

Backup

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

0001/0001 Pages

Search Backup Quick Back

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

Apply Back

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 'Quick' backup configuration window with a dark background. It contains several settings: 'Range' is set to 'Record Files'; 'Channel' is set to 'All'; 'Type' is set to 'All'; 'Start Time' is '2015-05-11 00:00'; 'End Time' is '2015-05-11 20:38'; 'Target' is an empty field with a right arrow; 'File Format' has two options: 'SDV' (checked) and 'MP4' (unchecked); and 'Video Backup Player' is checked. 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 left sidebar lists various settings: Network Setup, Display Setup, Disk Management, Time Setup, Configuration, Log Management, Information, and Other Setting. The main area shows network configuration for NIC 1. The 'MAC address' is '00:50:c2:28:10:31'. There are two options for IP address: 'Auto Get IP Address' (unchecked) and 'Manual Setup IP Address' (checked). The 'Manual Setup IP Address' section includes fields for 'IP address' (010.030.021.049), 'SubnetMask' (255.255.255.000), and 'Gateway' (010.030.021.001). Below this, there is a 'Manual Setup DNS' section with 'Preferred DNS' (192.168.001.001) and '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"

The screenshot shows the 'System Setting' window with the 'NIC 2' tab selected. The left sidebar lists various settings: Network Setup, Display Setup, Disk Management, Hot-spare Setup, Time Setup, Configuration, Log Management, Information, and Other Setting. The main area is divided into sections for 'Network Setup', 'Polymerization Option', 'MAC address', 'Auto Get IP Address', 'Manual Setup IP Address', and 'Manual Setup DNS'. The 'Manual Setup IP Address' section is active, showing fields for IP address (010.030.021.047), SubnetMask (255.255.255.000), and Gateway (010.030.021.001). The 'Manual Setup DNS' section shows fields for Preferred DNS (192.168.001.001) and Reserved DNS (192.168.001.001). At the bottom right, there are 'Apply' and 'Back' buttons.

2.Enable "Polymerization mode", you can choose:

Load Balancing Mode,2 network cards be used.

Network redundancy,1 network card be used, another one as standby

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

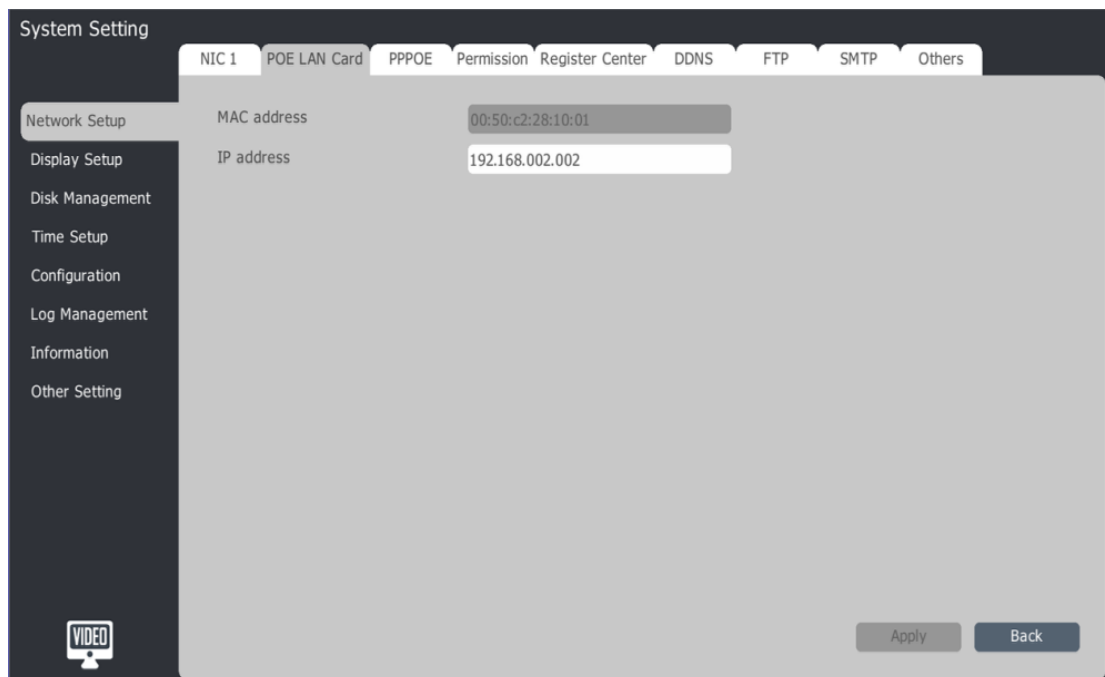
4.9.3 POE LAN Card



Notes:

- 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"

System Setting

NIC 1 POE LAN Card PPPOE Permission Register Center DDNS FTP SMTP Others

Network Setup

Display Setup

Disk Management

Time Setup

Configuration

Log Management

Information

Other Setting

PPPOE status

Disconnected

IP address 000.000.000.000

SubnetMask 000.000.000.000

Gateway 000.000.000.000

☒ Boot Auto-Dial

UserName 12345678

Password *****

Connect Apply Back

2.Set "Boot Auto-Dial".

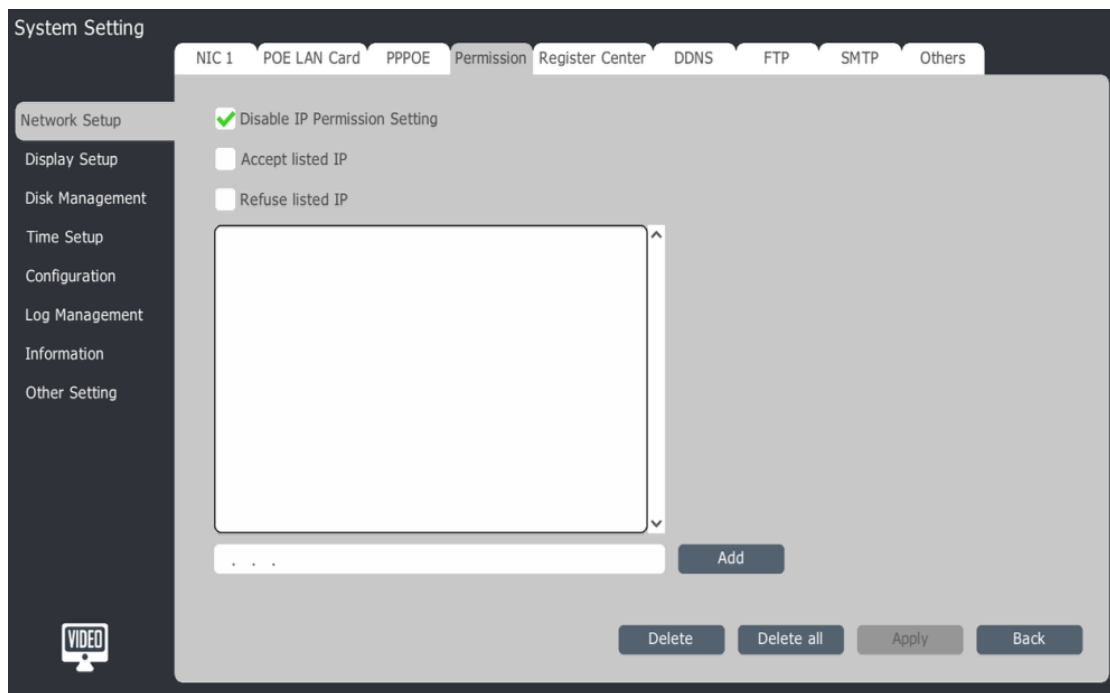
3.Input User Name and Password.

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 the 'System Setting' window with the 'DDNS' tab selected. On the left, a sidebar lists various settings: Network Setup, Display Setup, Disk Management, Time Setup, Configuration, Log Management, Information, and Other Setting. The 'Network Setup' option is highlighted. The main area contains the following fields:

Field	Value
Server1	0.0.0.0 : 6004
Server2	0.0.0.0 : 6004
Device Name	DVRS
UserName	
Password	

At the bottom right, there are 'Apply' and 'Back' buttons. A 'VIDEO' icon is visible in the bottom left corner of the window.

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"

System Setting

NIC 1 POE LAN Card PPPOE Permission Register Center DDNS FTP SMTP Others

Network Setup

Display Setup

Disk Management

Time Setup

Configuration

Log Management

Information

Other Setting

☐ Enable DDNS

Domain name dvr.3322.org

Server IP www.3322.org >

Port 80

UserName dvr

Password ****

VIDEO

Apply Back

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.

6.Apply

4.9.8 FTP Setting

1. "Main menu" -> "System setup" -> "Network Setup" -> "FTP"

The screenshot displays the 'System Setting' interface. At the top, there is a horizontal menu with tabs: NIC 1, POE LAN Card, PPPOE, Permission, Register Center, DDNS, FTP, SMTP, and Others. The 'FTP' tab is currently selected. On the left side, there is a vertical sidebar 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 shows the FTP configuration fields: 'FTP server address' with the value '192.168.1.1', 'Port Number' with the value '21', 'Path' (empty), 'Username' (empty), and 'Password' (empty). At the bottom right of the main area, there are two buttons: 'Apply' and 'Back'. In the bottom left corner of the interface, there is a small icon labeled 'VIDEO'.

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"

System Setting

NIC 1 POE LAN Card PPPOE Permission Register Center DDNS FTP SMTP Others

Network Setup

SMTP server address 0

Port Number 0

Username 0

Password *

Log Mode off >

Receiver address 0

Subject 0

Apply Back

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".

System Setting

NIC 1 POE LAN Card PPPOE Permission Register Center DDNS FTP SMTP Others

Network Setup

Web Service

FTP Port 21

HTTP Port 80

☐ Enable UPnP ☐ Enable SNMP

Network Flow

	NIC 1	POE LAN Card
Uploading Speed	0.0Bps	0.0Bps
Downloading Speed	4.2KBps	0.0Bps
Total uploading flow	89.2 MiB	258.1 KiB
Total downloading flow	4.4 MiB	0.0 B

Network Det... Apply Back

Network Detect

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

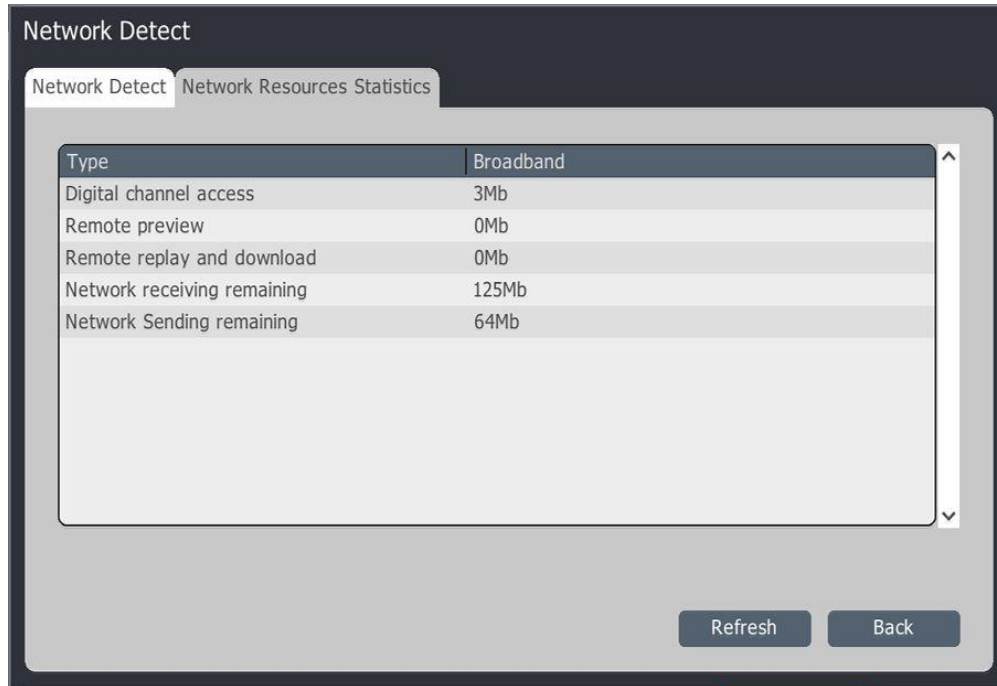
The screenshot displays the 'Network Detect' interface. At the top, there are two tabs: 'Network Detect' (active) and 'Network Resources Statistics'. Below the tabs, the 'Network Card Selection' dropdown is set to 'NIC 1'. The 'Network Testing' section contains a 'Destination Address' field with '192.168.001.001' and a 'Test' button. The 'Packet Backup' section includes a 'Device' dropdown, a 'Refresh' button, and a 'Current Network Card' field with '010.030.031.061' and 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.

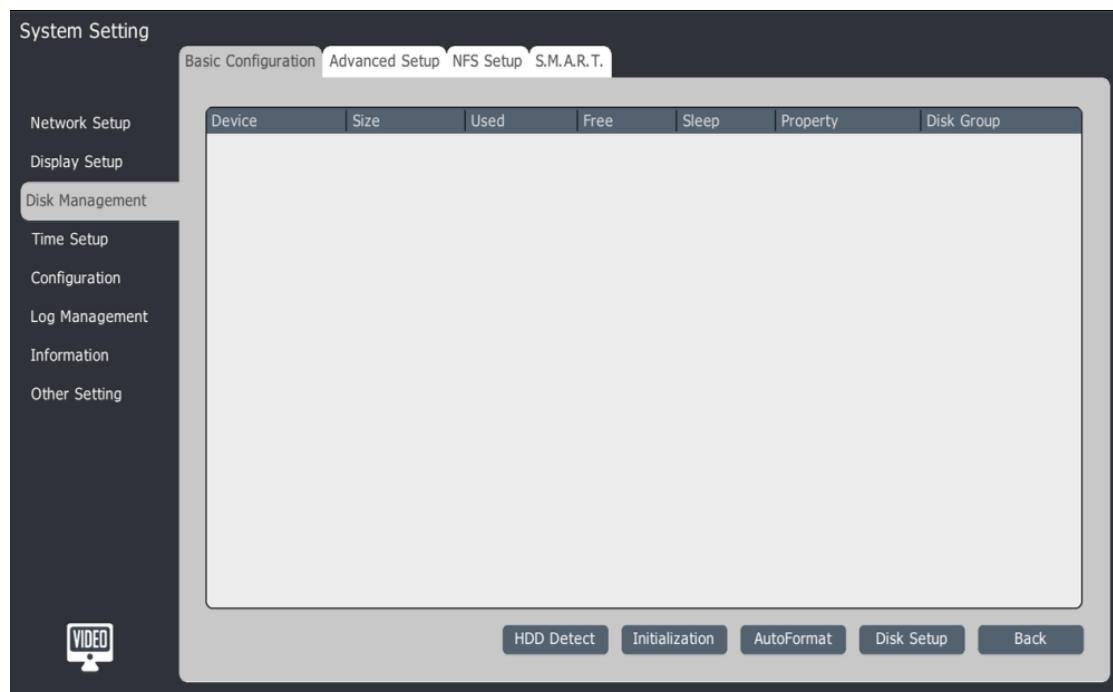
Network Resources Statistics

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



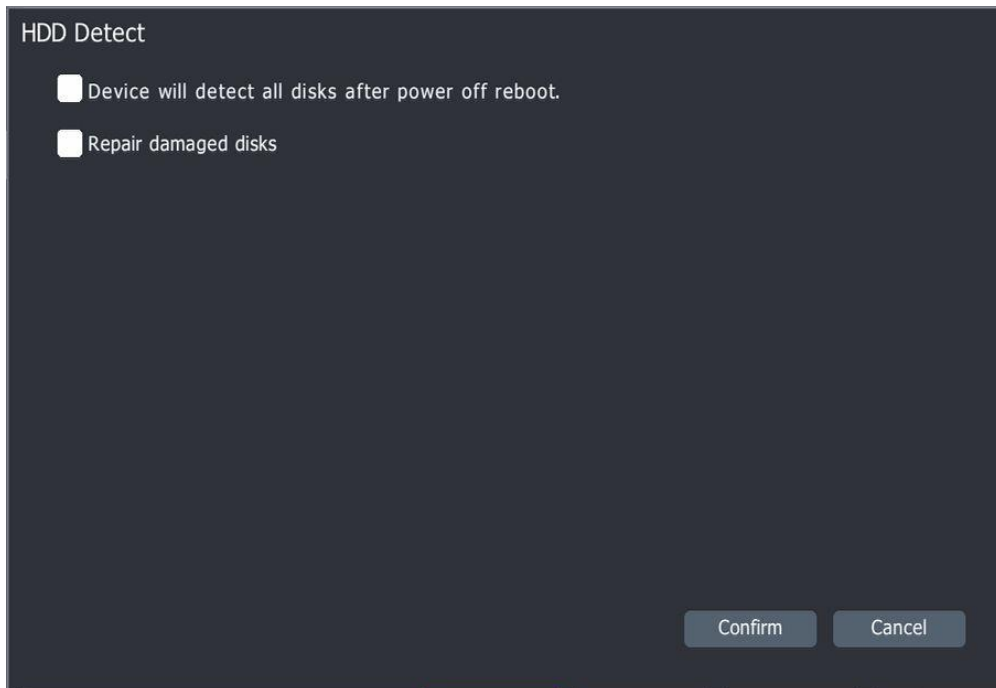
4.10 Disk Management

"Main menu"->"System Setting"->"Disk management"



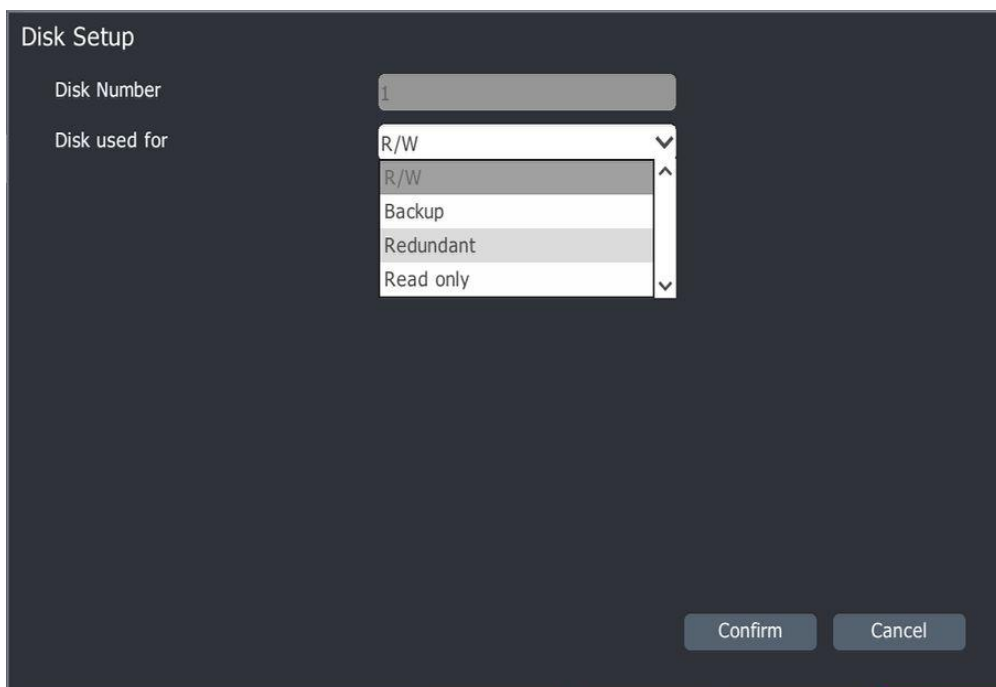
4.10.1 Basic Configuration

HDD Detect.



The screenshot shows a dark-themed window titled "HDD Detect". It contains two unchecked checkboxes: "Device will detect all disks after power off reboot." and "Repair damaged disks". At the bottom right, there are two buttons: "Confirm" and "Cancel".

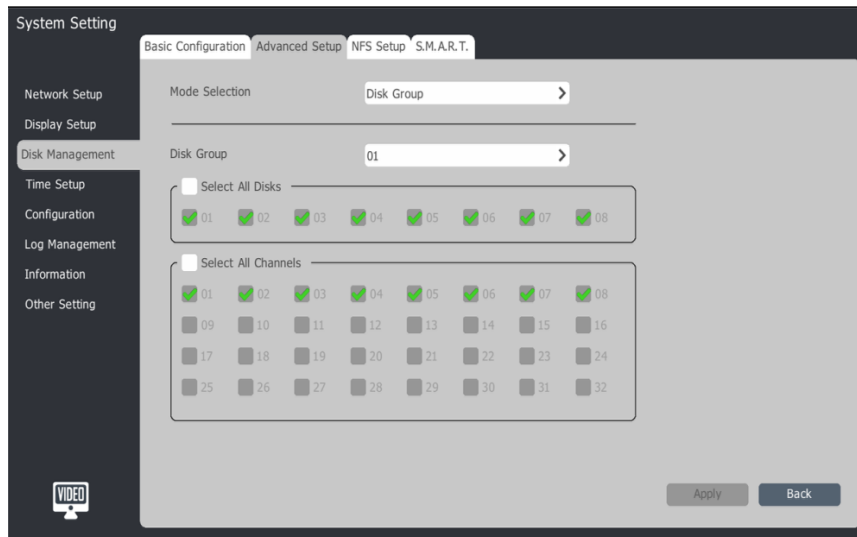
Disk Setup:



The screenshot shows a dark-themed window titled "Disk Setup". It has two labels on the left: "Disk Number" and "Disk used for". The "Disk Number" field contains the value "1". The "Disk used for" field is a dropdown menu currently showing "R/W". The dropdown list is open, showing five options: "R/W", "Backup", "Redundant", and "Read only". There are up and down arrow icons on the right side of the dropdown list. At the bottom right, there are two buttons: "Confirm" and "Cancel".

4.10.2 Advanced Setup

1.“Disk Management”--“Advanced setup”



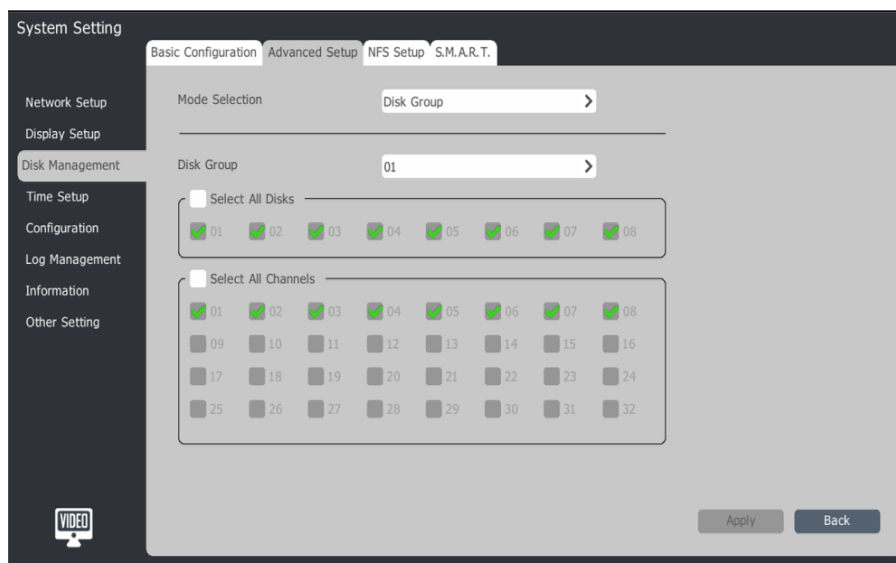
2.Mode

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



Notes:

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

4.Quota

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

The screenshot shows the 'System Setting' interface with a sidebar on the left containing menu items: Network Setup, Display Setup, Disk Management (highlighted), Hot-spare Setup, Time Setup, Configuration, Log Management, Information, and Other Setting. The main area has tabs for Basic Configuration, Advanced Setup (selected), NFS Setup, and S.M.A.R.T. Under the 'Advanced Setup' tab, the 'Mode Selection' dropdown is set to 'Quota'. Below this, there are several configuration options: 'Channel' (dropdown set to '01'), 'Used Recording Quota' (input field '0M'), 'Used Pictures Quota' (input field '0M'), 'Total Disk Capacity' (input field '0G'), 'Record Quota(GB)' (input field '0' with a note '0 means no limit'), 'Picture Quota(GB)' (input field '0' with a note '0 means no limit'), and 'Copy to channel' (dropdown set to 'All' with a 'Copy' button next to it). At the bottom right, there are 'Apply' and 'Back' buttons. A 'VIDEO' icon is visible in the bottom left corner of the main area.

2)Choose channel number.

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

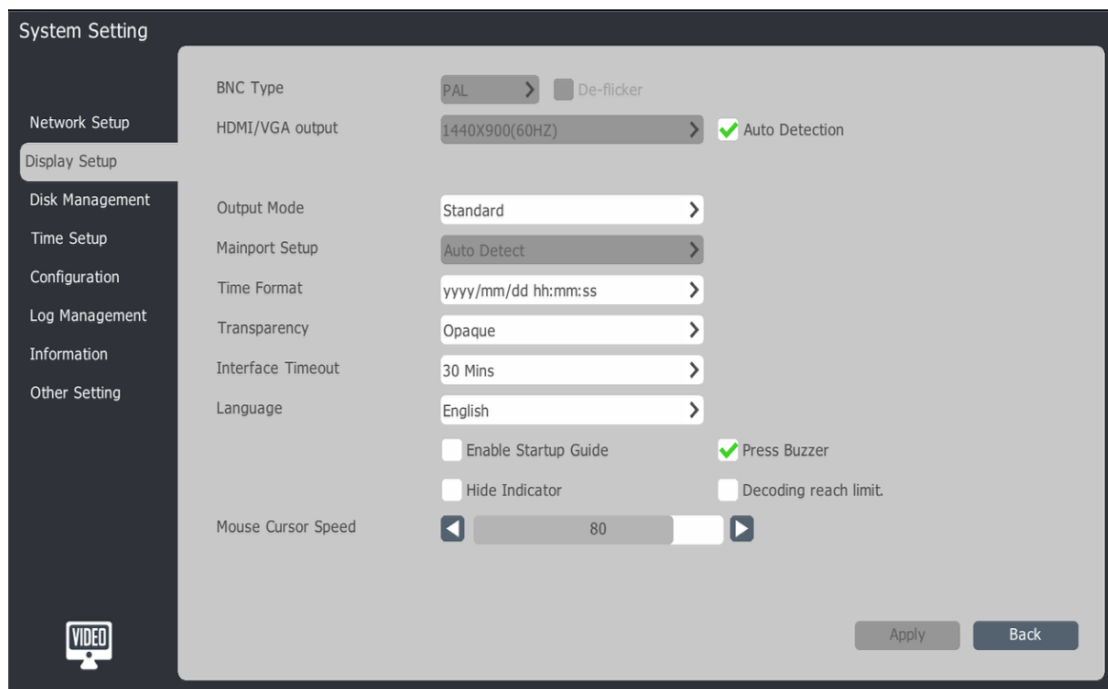
4)Set disk space of pictures, unit is GB, 0 means unlimited.

5)"Apply" for save.

4.12.7 Display Setup

Setup device display parameters.

1.Main menu – system setting – display setup



2. Display setup parameters instruction:

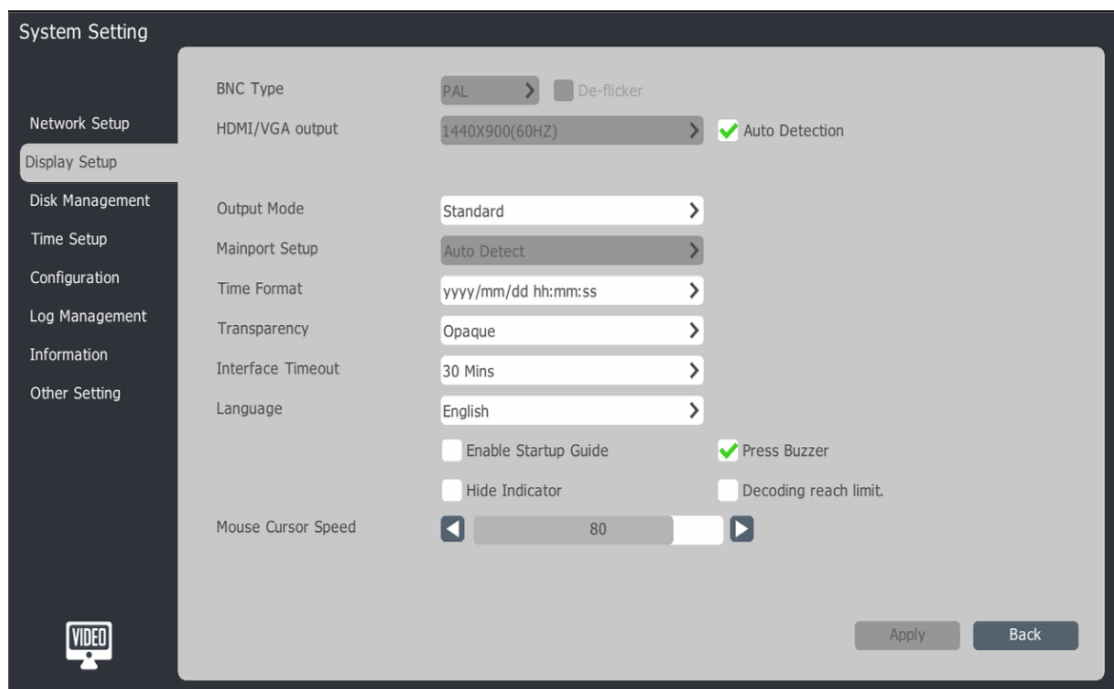
- BNC: BNC output mode, P/N optional, TC-2816AN-SR.TC-2800AN-R32-S8 support this setup.
- HDMI/VGA output: setup output device resolution
- Auto detection: auto adjust monitor best resolution
- Output mode: setup VGA output image mode, four modes optional.
- Main port setup: only TC-2816AN-SR.TC-2800AN-R32-S8 support this setup
- 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

4.10.3 Display Setup

Setup device display parameters.

1.Main menu – system setting – display setup



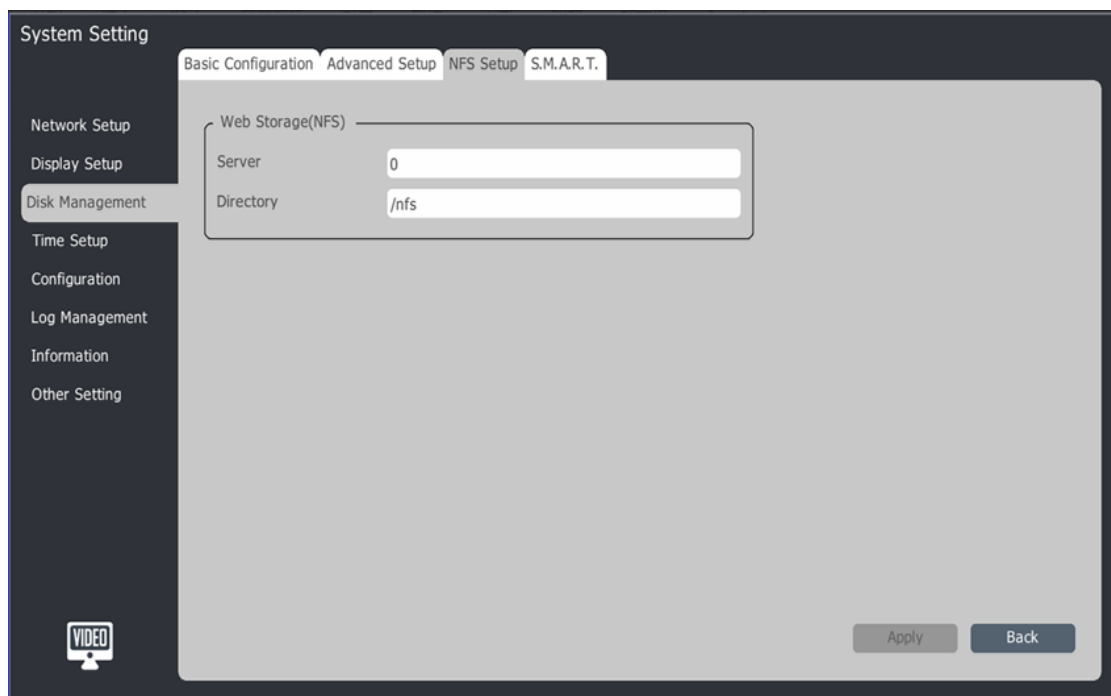
2.Display setup parameters instruction:

- BNC:BNC output mode, P/N optional, TC-2816AN-SR.TC-2800AN-R32-S8 support this setup.
- 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 TC-2816AN-SR.TC-2800AN-R32-S8 support this setup

- 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 NFS Setup

1. Disk Management-->NFS Setup



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

4.10.5 S.M.A.R.T

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

The screenshot shows the 'System Setting' window with the 'S.M.A.R.T.' tab selected. The left sidebar lists various settings: Network Setup, Display Setup, Disk Management (highlighted), Time Setup, Configuration, Log Management, Information, and Other Setting. The main area has tabs for Basic Configuration, Advanced Setup, NFS Setup, and S.M.A.R.T. Under the S.M.A.R.T. tab, there are input fields for Hard Disk, Model, Temperature(°C), Self-evaluation, Serial Number, Used Time (day), and Overall Evaluation. A checkbox labeled 'Start S.M.A.R.T. Detection' is checked. Below these fields is a table with columns: ID, ATTRIBUTE_NAME, FLAG, VALUE, WORST, THRESH, and STATUS. The table is currently empty. At the bottom right are 'Apply' and 'Back' buttons.

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.

The screenshot shows the 'System Setting' window with the 'Time Setup' tab selected. The left sidebar is the same as in the previous screenshot. The main area has tabs for Timing and NTP Setup. Under the Timing tab, there are input fields for Time Zone (set to GMT+08:00) and Time (set to 2015-03-23 10:24:33), each with an 'Apply' button. Under the NTP Setup tab, there are input fields for IP Address (0.0.0.0), Port Setup (123), and Interval(hour) (1), with an 'Apply' button. A 'Back' button is located at the bottom right.

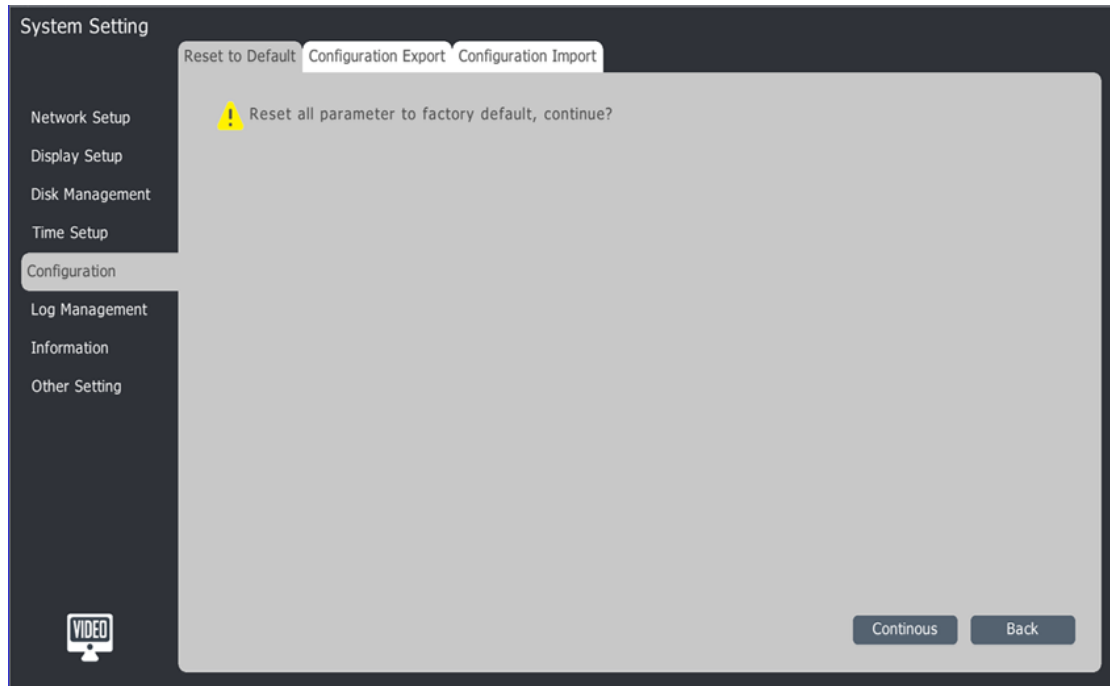
Modify system time zone and time, click “apply” to save the settings.

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

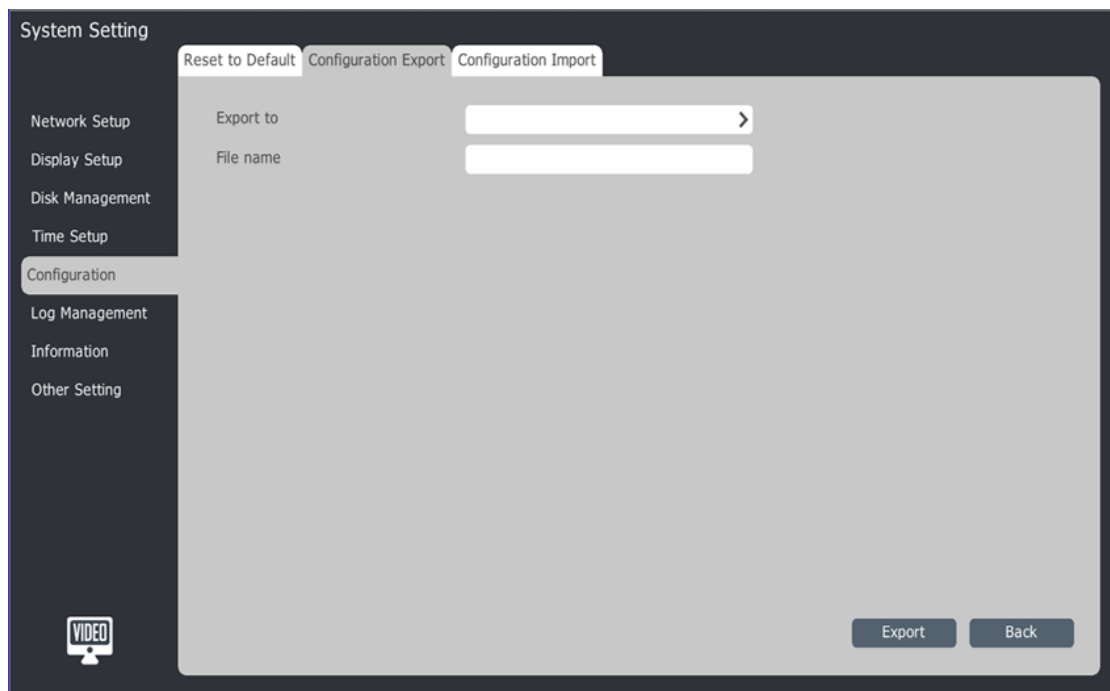


Note:The NVR will auto restart after resetting to default

4.12.2 Configuration Export

【Export to】select export save path

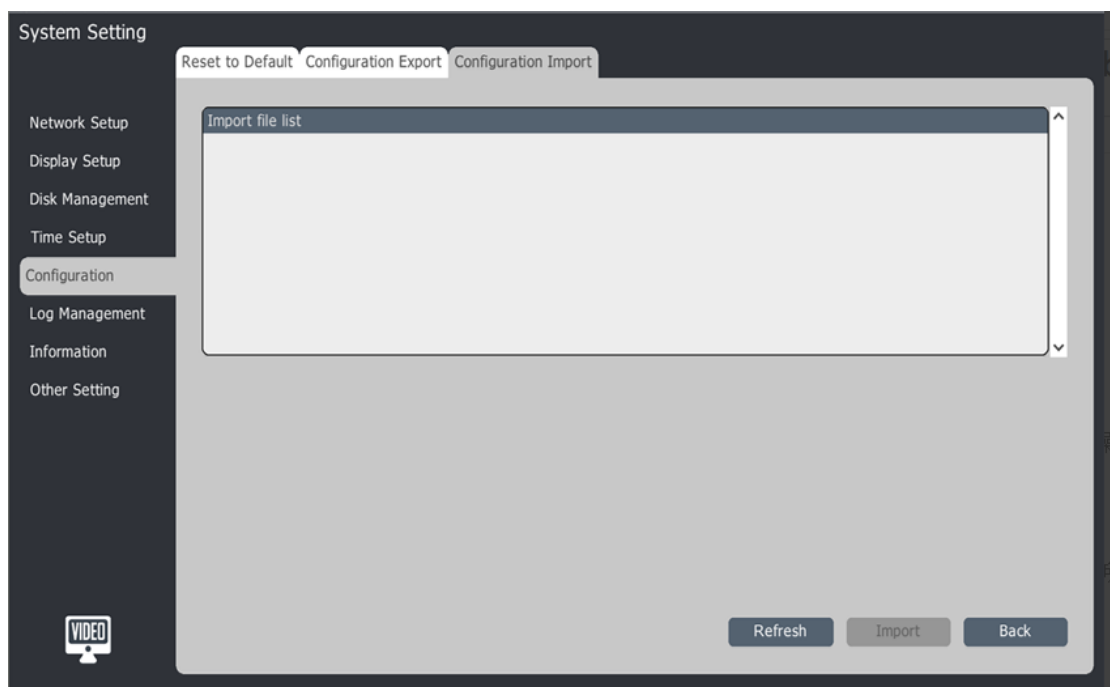
【File name】name the export file



4.12.3 Configuration Import

【Refresh】to check the import file list

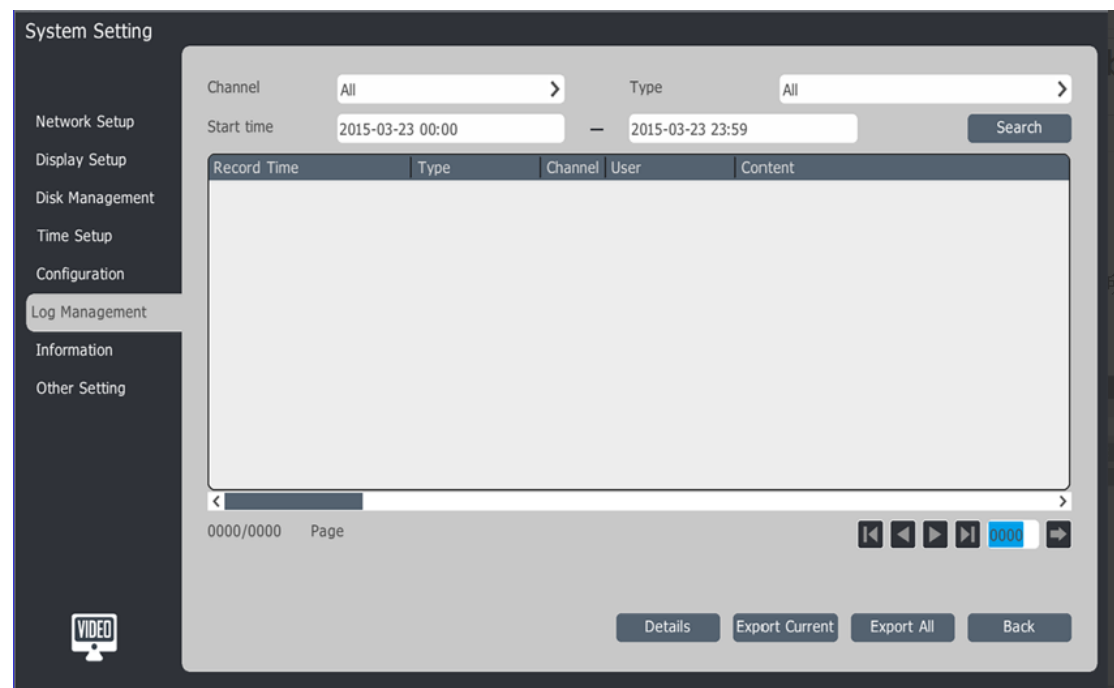
【Import】to import the configuration



Note: The NVR will auto restart after importing

4.13 Log Management

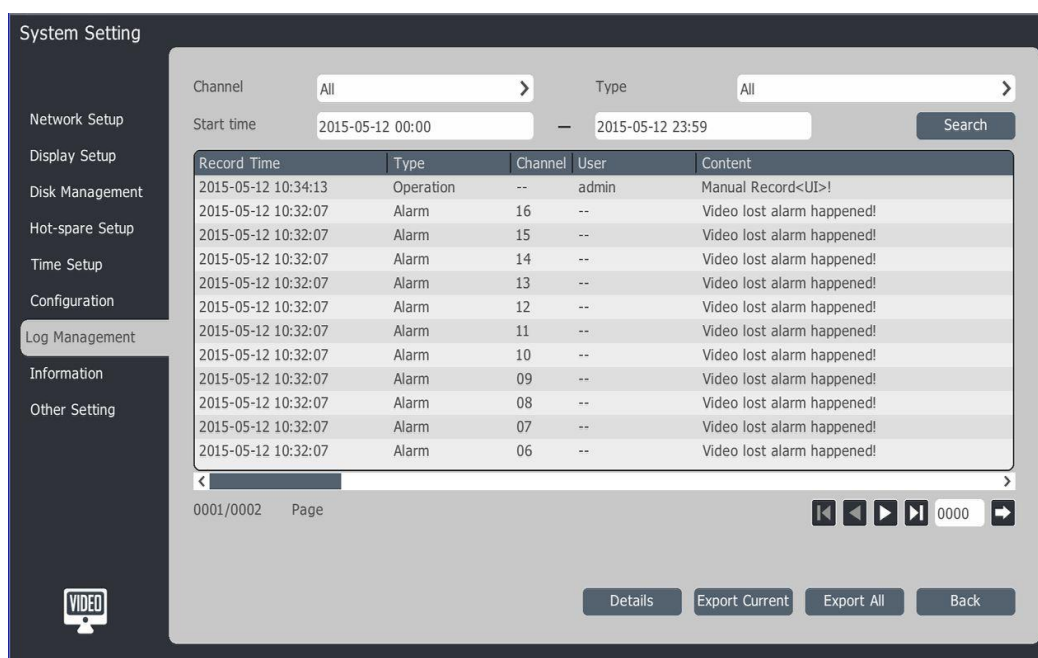
1. Search the log via 【Channel】 , 【Type】 and 【Start Time】



2.  First page  Previous page

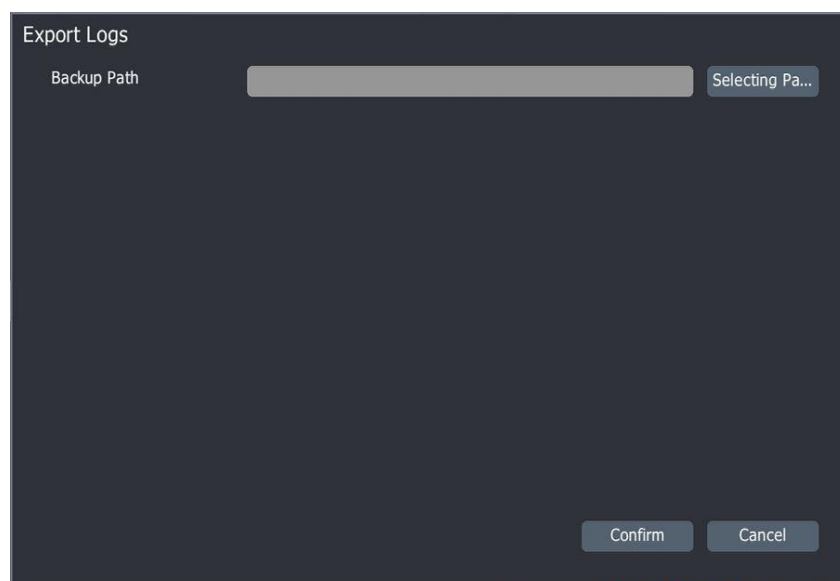
 Last page  Next page

 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



4.14 Information

4.14.1 System Upgrade

The screenshot shows the 'System Setting' interface with a sidebar on the left containing the following menu items: Network Setup, Display Setup, Disk Management, Time Setup, Configuration, Log Management, Information (highlighted), and Other Setting. The main content area has three tabs: 'System Upgrade' (active), 'System Information', and 'Exception'. Under the 'System Upgrade' tab, there are two sections. The first section, 'Upgrade from local', is selected with a green checkmark and contains a 'File Name' input field and a 'Files' button. The second section, 'Upgrade from FTP', is unselected with a white checkbox and contains three input fields: 'Server' (with the value '192.168.001.001'), 'Username', and 'Password'. At the bottom right of the main area are three buttons: 'Backup', 'Upgrade', and 'Back'. A 'VIDEO' icon is located in the bottom left corner of the sidebar.

Upgrade from local: select local firmware files

The screenshot shows a 'Choose upgrade file' dialog box. It features a 'File list' header above a large, empty rectangular area for displaying files. At the bottom of the dialog are three buttons: 'Refresh', 'Confirm', and 'Cancel'.

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.

System Setting

Network Setup

Display Setup

Disk Management

Time Setup

Configuration

Log Management

Information

Other Setting

VIDEO

System Upgrade

System Information

Exception

Device Name

DVRS

Auto Reboot

Sun

>

At

00:00

>

Device ID

018

Manufacturer

Tiandy Tech.

SerialNumber

ID0000801940400160490379

Firmware Version

DVRS_V9.0.0.20150312

Encode Version

SLV_V3.0.0.20100428

Web Version

5.0.0.44

UI Version

GUI_V9.0.0.20150312

RAM Information

53% Used

System Time

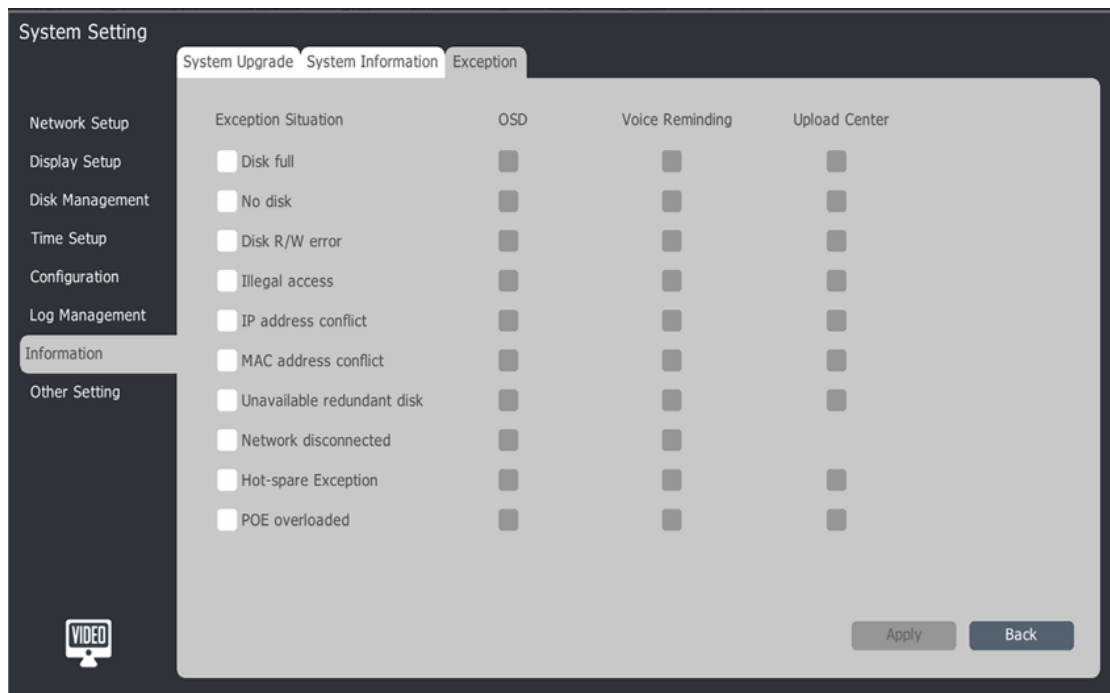
2015-03-23 10:28:41

Apply

Back

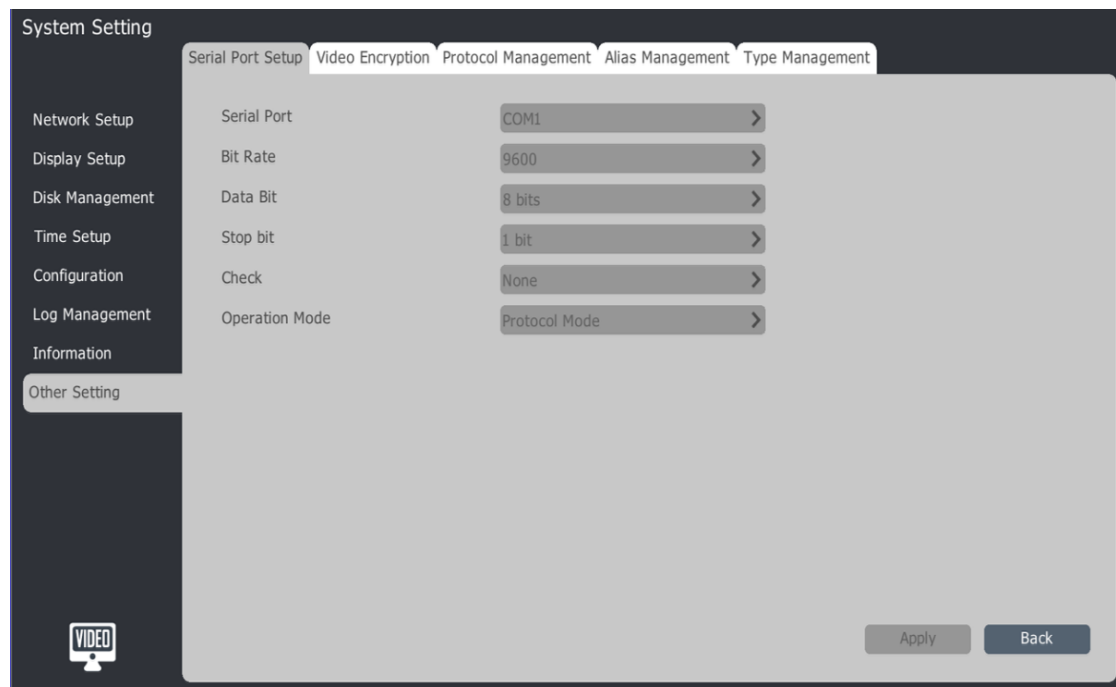
4.14.3 Exception

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, date bit, stop bit, check and operation mode.

Video encryption

Setup video encryption password

The screenshot shows the 'System Setting' window with the 'Video Encryption' tab selected. On the left is a sidebar menu with options: Network Setup, Display Setup, Disk Management, Time Setup, Configuration, Log Management, Information, and Other Setting (which is highlighted). The main area has tabs for Serial Port Setup, Video Encryption, Protocol Management, Alias Management, and Type Management. Under the Video Encryption tab, there are two input fields: 'Input Password' and 'Confirm Password'. At the bottom right are 'Apply' and 'Back' buttons. A 'VIDEO' logo is in the bottom left corner.

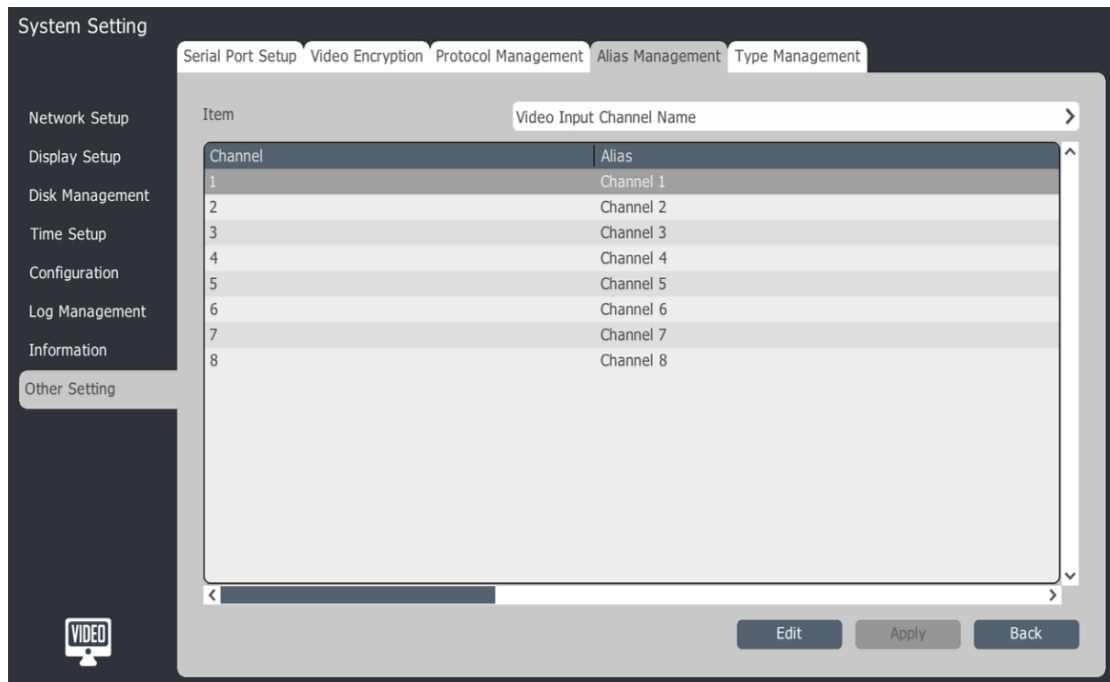
4.15.2 Protocol management

Setup and add device protocol

The screenshot shows the 'System Setting' window with the 'Protocol Management' tab selected. The sidebar menu is the same as in the previous image. The main area has tabs for Serial Port Setup, Video Encryption, Protocol Management, Alias Management, and Type Management. Under the Protocol Management tab, there are two list boxes: 'Existed Protocol' on the left and 'Other Protocol' on the right. The 'Existed Protocol' list contains the following items: DOME_PLUS, PTZ_DEXIN9600, PTZ_YX_V1200, PTZ_SAMSUNG_ELC, PTZ_TIANSHI, PTZ_JIAJIE, PTZ_TC864D_MS2, SONY_EVI-D70tech, PTZ_DEXIN, PTZ_TC615_D, PTZ_PELCO_D_2400, PTZ_EVER_FOCUS, PTZ_MINGJING9600, PTZ_TC615_P, PTZ_PELCO_D_YinXin, and SAMSUNG_ELC_V26. Between the two list boxes are two arrow buttons (right-pointing and left-pointing). At the bottom right are 'Apply' and 'Back' buttons. A 'VIDEO' logo is in the bottom left corner.

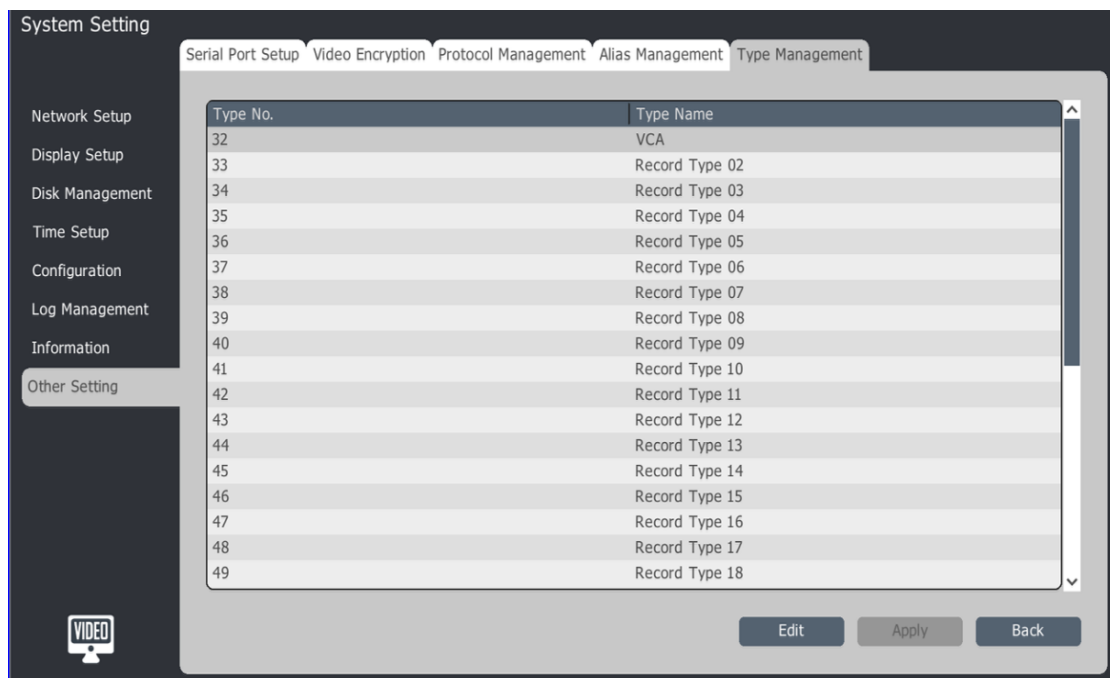
4.15.3 Alias management

Setup channel's alias



4.15.4 Type management

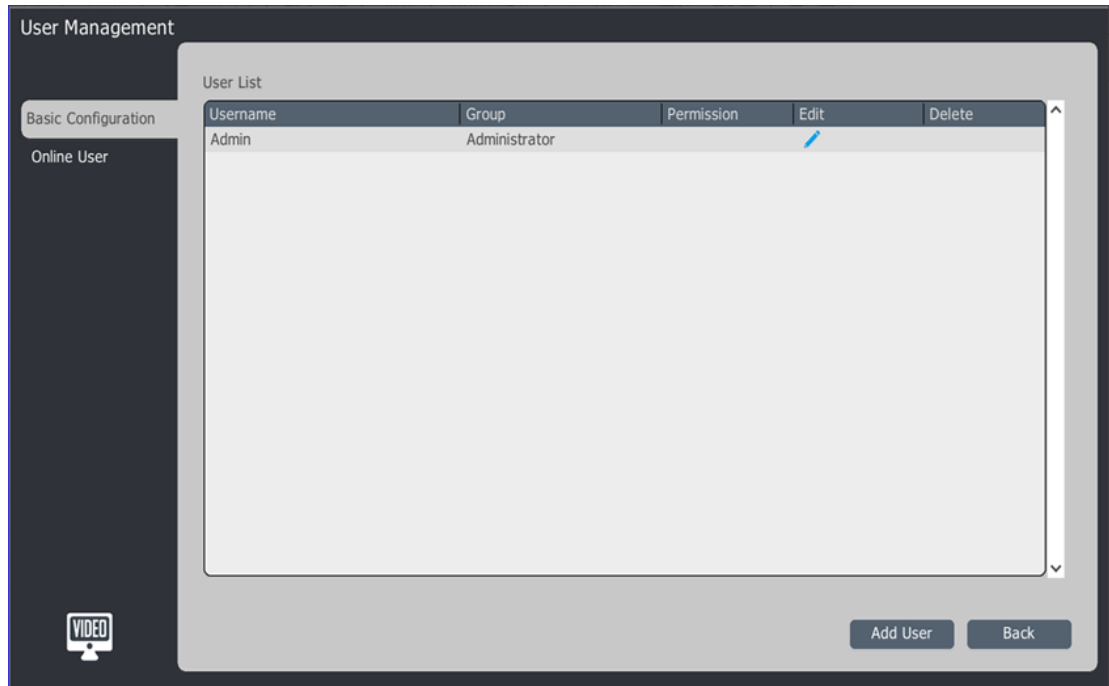
Setup record type name.



4.16 User Management

4.16.1 Add User

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



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

The 'Add User' form is displayed with the following fields and options:

- Add to Group:** A dropdown menu currently showing 'Guest' with a right-pointing arrow.
- Username:** A text input field.
- Password:** A text input field.
- Password Confirm:** A text input field.

At the bottom right of the form are 'Confirm' and 'Cancel' buttons.



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

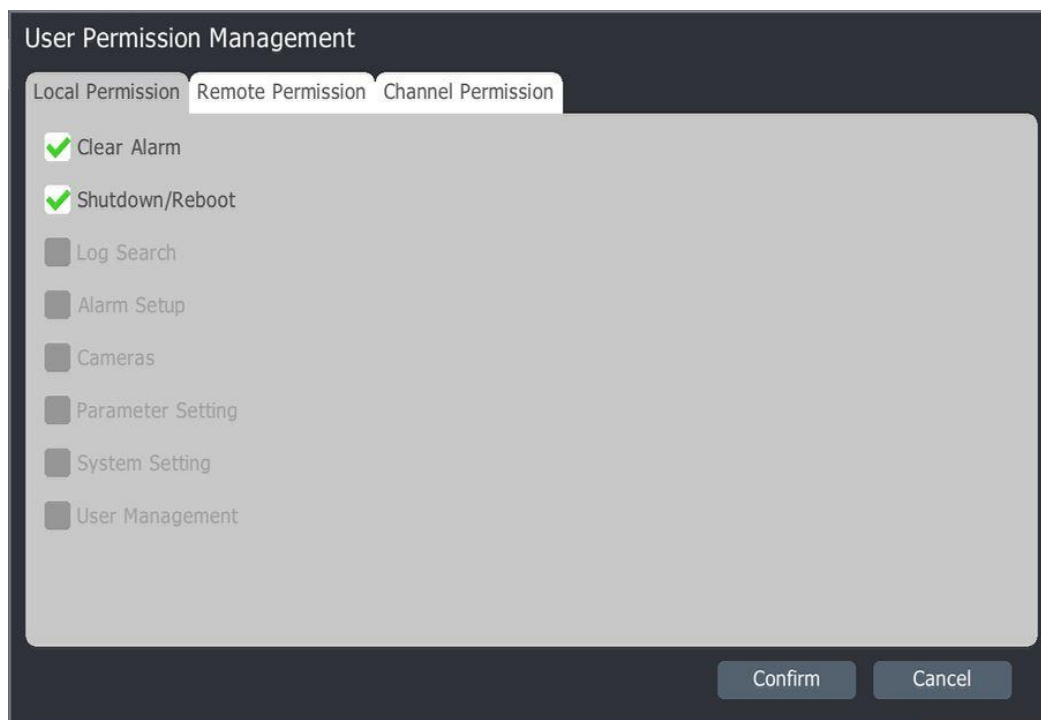
Special User:Preview + Control

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:Manual disalarm, shutdown/restart, log search, alarm setup, channel management, parameter setup, system setup and user management

-
- 2) Remote: Manual disalarm, 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 CA

1.Main menu – VCA – event parameter.

The screenshot shows the 'VCA' configuration window. On the left is a sidebar with a 'VIDEO' icon and four menu items: 'Event Parameter' (selected), 'Target Parameter', 'Alarm Setting', and 'Alarm Information'. The main area features a large blue video preview window. To its right are configuration fields: 'Channel Number' (set to 'Channel 1'), 'Disable' (a dropdown), 'Rule Number' (set to '1' with an 'Enable' checkbox), 'Rule Name' (an empty text field), 'Event' (set to 'Tripwire'), 'Identify Alarm Type' (set to 'All'), 'No-alarm Color' (set to 'Green'), and 'Alarm Color' (set to 'Red'). Below these are two checkboxes: 'Display Rule' and 'Display Alarm Counts', both of which are unchecked. At the bottom left of the main area is a 'Draw on screen' checkbox, and next to it is a 'Clear Line' button. At the bottom right are 'Apply' and 'Next' buttons.

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.

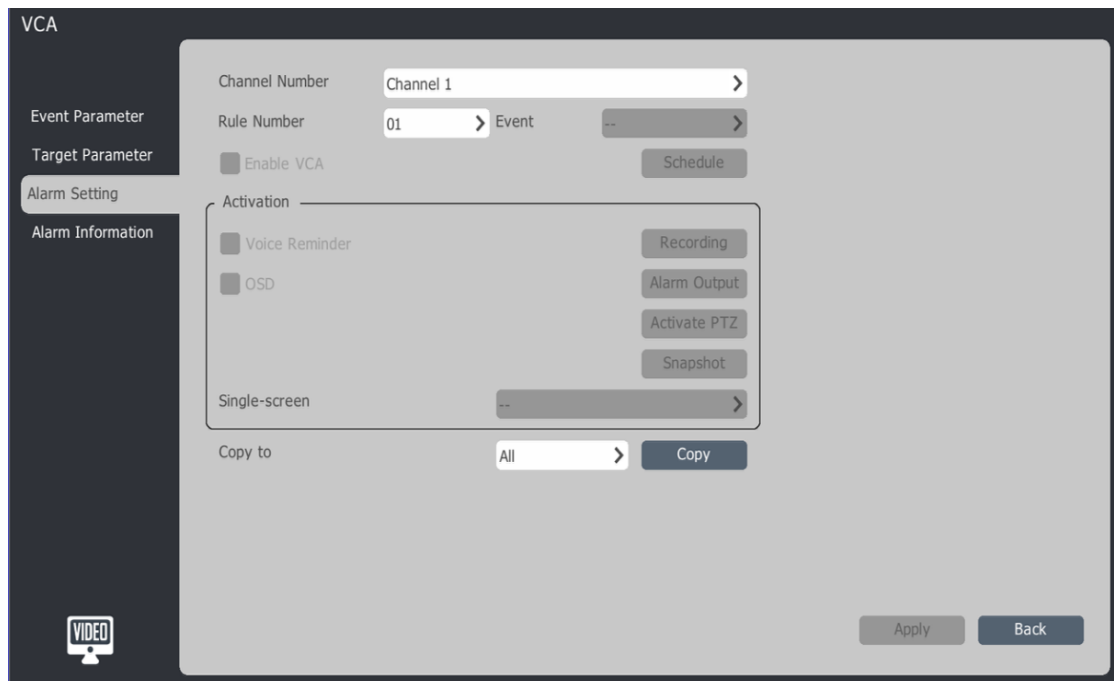
- Rule name: setup rule name.
- Event: choose VCA mode, include tripwire, perimeter, object missing and video diagnosis etc.
- Identify alarm type: include all, people, car , people and car etc.
- No-alarm color: setup border color without alarm.
- Alarm color: setup border color with alarm.
- Display 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.

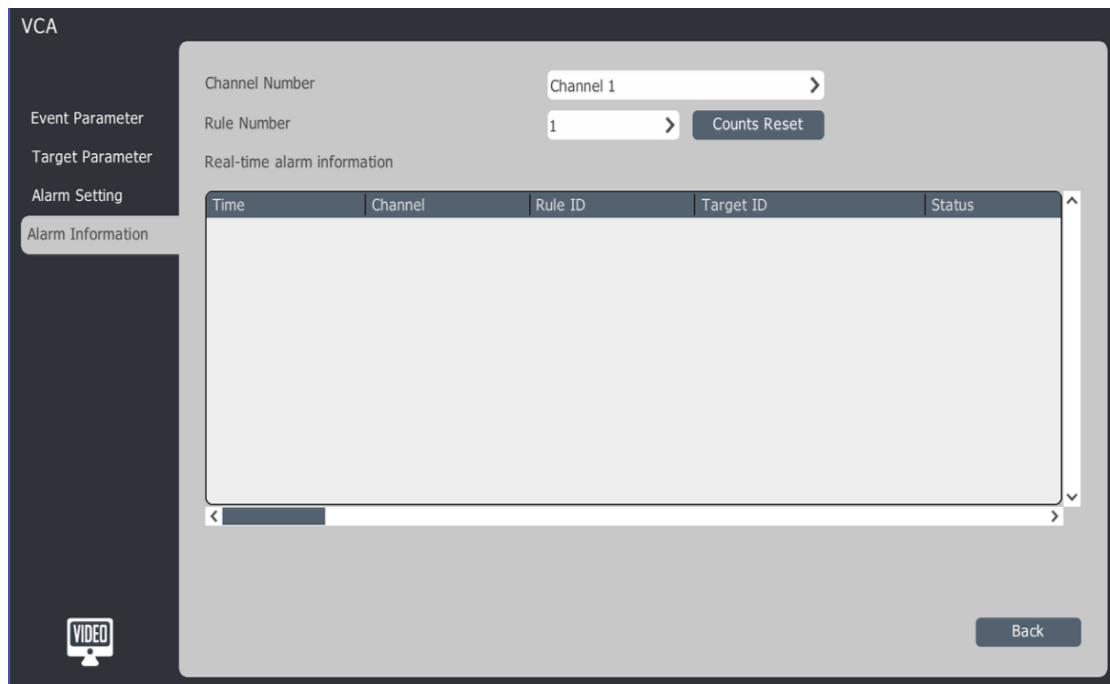
6.Click next to setup target parameter.

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

8.Click next to setup alarm setting.



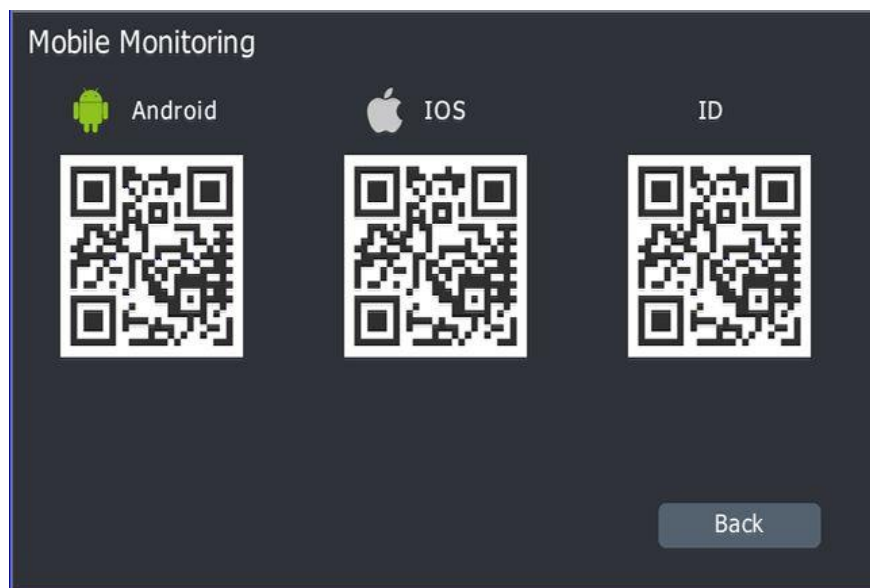
- 1)choose rule number need to be setup
- 2)choose "enable VCA" and click schedule to setup.
- 3)Activation: setup VCA alarm trigger action, include voice, OSD, recording, alarm output, snapshot and single screen etc.
- 4)after done the setting, can copy to all channels.
- 9.click apply to save settings.
- 10.into alarm information interface, display real time alarm information.



4.18 Mobile Monitoring

User can download client app via scan QRcode, input ID to use mobile monitoring.

1.Mouse right button – mobile monitoring.



2.user download Android or IOS client, register account, and scan QRcode to use mobile monitoring.

5. WEB Browser

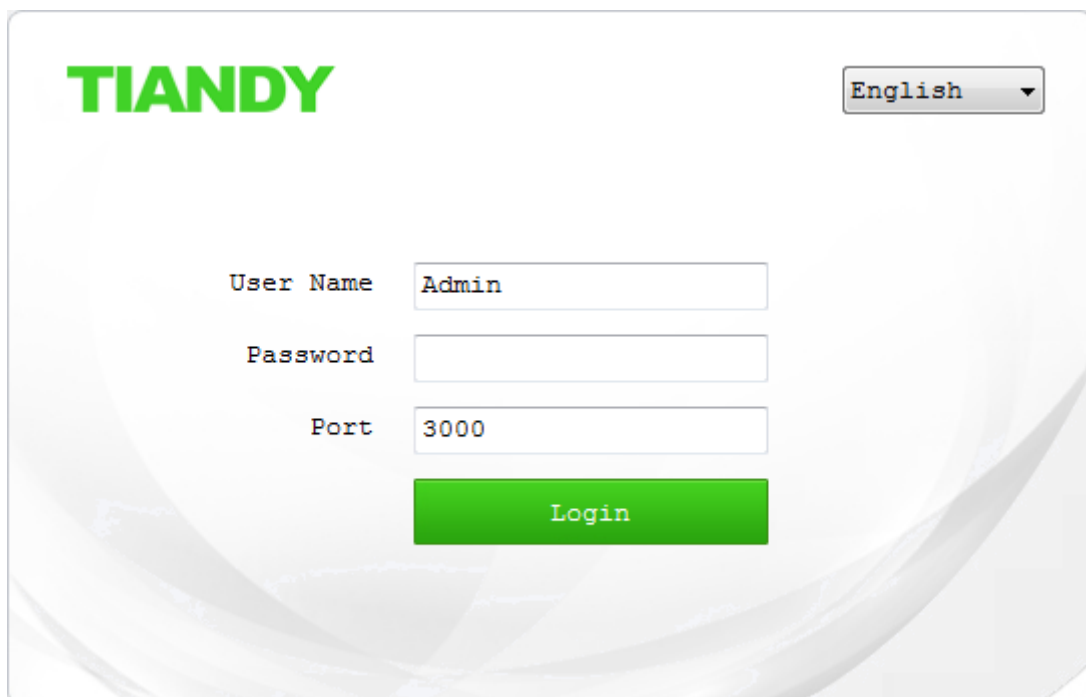
5.1 Introduction

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

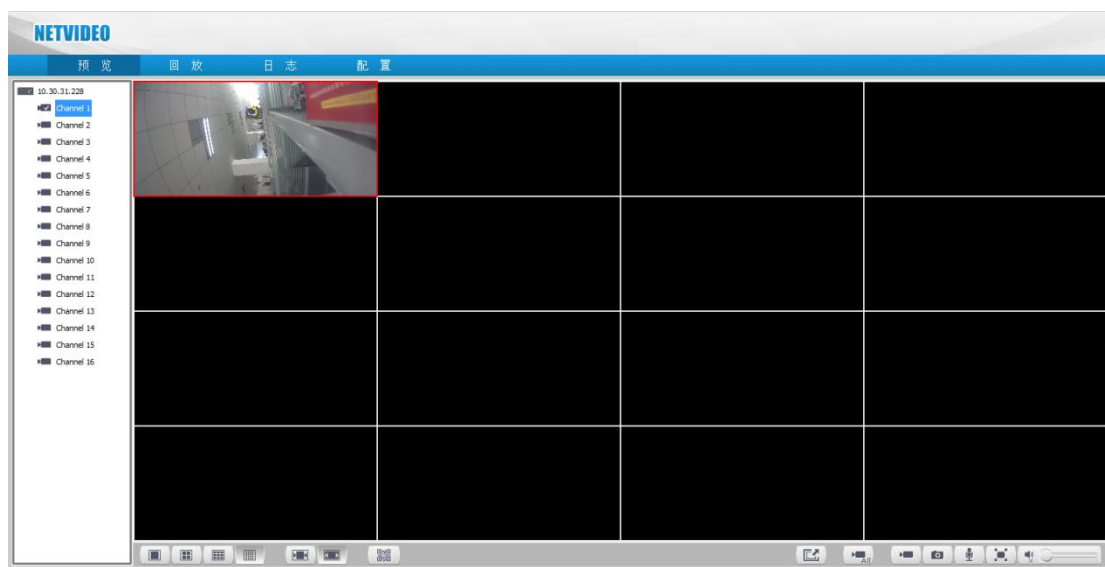
3.input user name, password, and click login into preview interface.

Notice:

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

5.3 Preview

After login successfully enter preview page.



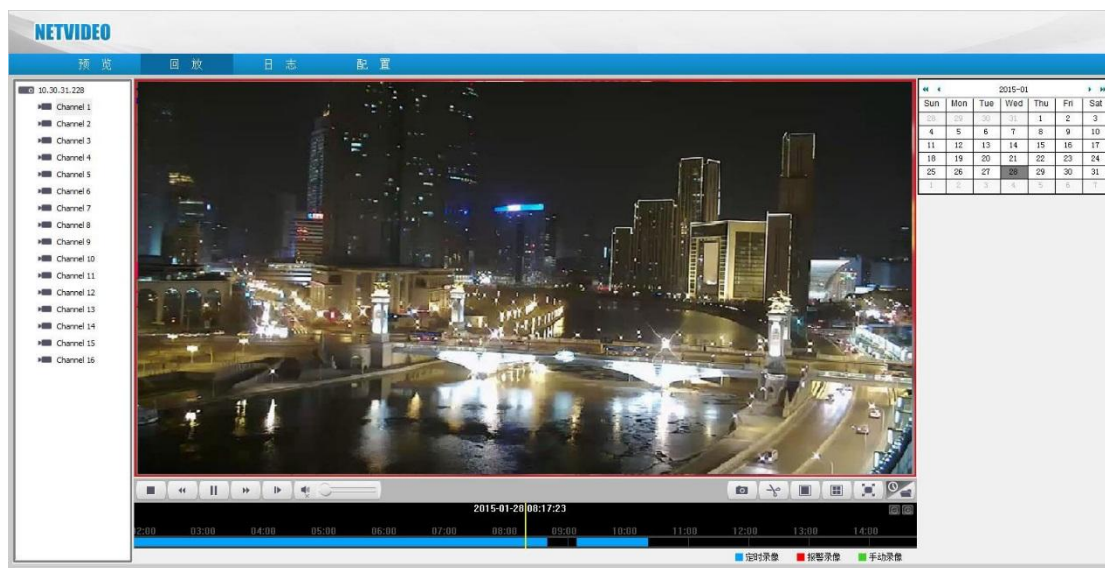
Preview icon description

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

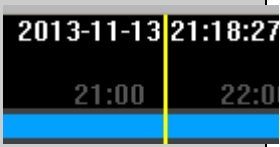
5.4 Playback

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

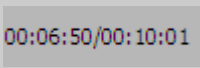


Playback icon description

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  定时录像  报警录像  手动录像
	Draw yellow line to move time shaft
	Zoom in time shaft
	Zoom out time shaft

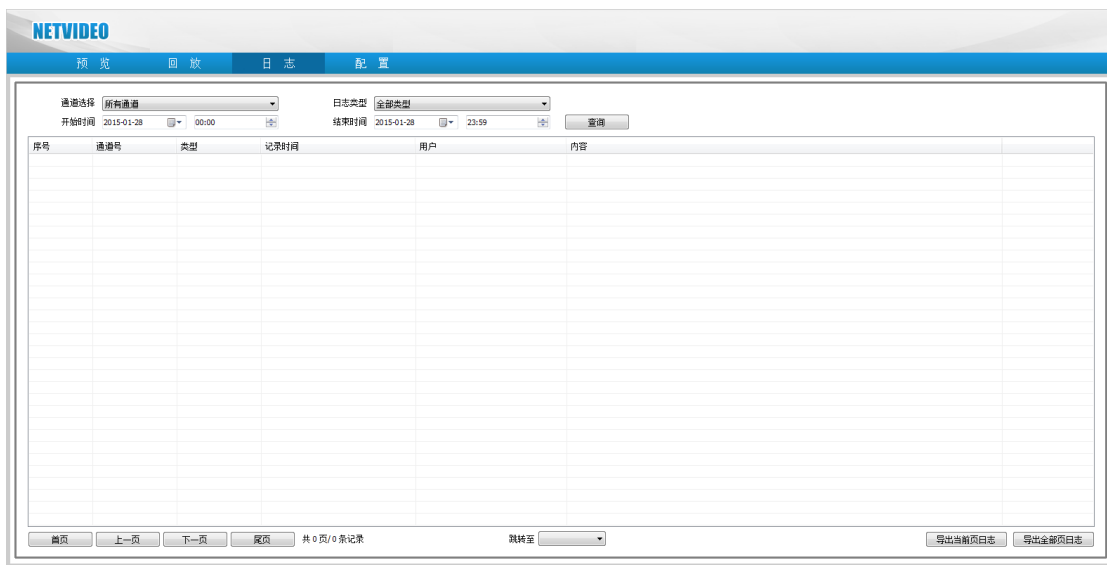
Control icon description

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.



The screenshot shows a web-based configuration interface for video parameters. On the left is a sidebar menu with the following items: 音视频参数 (Audio/Video Parameters), 视频参数 (Video Parameters), 视频输入 (Video Input), 音频参数 (Audio Parameters), 数字通道 (Digital Channel), 智能分析 (Smart Analysis), 字符叠加 (Character Overlay), 前端存储 (Frontend Storage), 网络管理 (Network Management), 用户管理 (User Management), 报警管理 (Alarm Management), PTZ管理 (PTZ Management), and 高级选项 (Advanced Options). The main area is titled "视频参数" (Video Parameters) and contains two sections: "常用设置" (Common Settings) and "高级设置" (Advanced Settings). The "常用设置" section includes: 通道选择 (Channel Selection) set to "Channel 1a", 码流类型 (Stream Type) set to "主码流(实时)" (Main Stream (Real-time)), 视频质量 (Video Quality) set to "较好" (Good), 流类型 (Stream Type) set to "音视频" (Audio/Video), 分辨率 (Resolution) set to "960P (1280x960)", 码率 (Bitrate) set to "2048", 帧率 (Frame Rate) set to "25", 优先模式 (Priority Mode) set to "质量优先" (Quality Priority), 制式 (Standard) set to "PAL", I 帧帧率 (I Frame Frame Rate) set to "100", and 压缩方式 (Compression Method) set to "变码率" (Variable Bitrate). The "高级设置" section is currently collapsed. At the bottom of the main area are four buttons: 保存 (Save), 导入参数 (Import Parameters), 导出参数 (Export Parameters), and 复制... (Copy...).



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.	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.	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.	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.	1) Hard disk cable is broken. 2) Hard disk cable is not plugged in. 3) Hard disk is broken.
NVR cannot record.	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.

PTZ cannot be control by RS-485 of NVR.	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.
Client side cannot transfer video or audio signal.	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.