Net Video Recorder
User Manual

Introduction

Thank you for purchasing our products and please contact us at any time if you have any question or need.

Applicable Model

This Manual is applicable to the following models:

Channel	HDD Number	series
4/8/16 ch	1/2/4 HDD	H.264 POE
5/10/20 ch	1/2 HDD	H.265 POE
4/8/16/32 ch	1/2/4/8 HDD	Standard H.264
20/40/80 ch	2/4/8 HDD	Standard H.265
20/40 ch	4 HDD	Standard H.265、Double Ethernet Interface
20/40/80/160 ch	8/16 front-loaded HDD	Enhanced H.265
5/10/20 ch	1 HDD	Lite H.265

10/20 ch	2HDD	Lite H.265
20/40 ch	4HDD	Lite H.265

Disclaimer

- This Manual may contain inaccuracies, unconformities in product function operation or misprints. Our company will update the contents of this Manual according to the enhancement and change of product functions and regularly improve and update the software and hardware products described in this Manual. The updated information will be reflected in the latest version of this Manual without notice.
- Our company continues to adopt new technologies and performs real-time product update, so no further notification is performed if any upgrade.
- This Manual is for reference only and it cannot guarantee that the products described are all the same as real objects; for the actual application, please in kind prevail.
- The parts, components and accessories mentioned in this Manual do not represent the standard configuration of device, and the detailed configuration shall be subject to the packing list.
- All the characters, tables and picture information in this Manual are protected by the relevant laws of the state and cannot be used without permission.

About Default 1

- Factory default administrator account of device: admin
- Factory default administrator password of device: admin
- Factory default IP address of device: 192.168.1.3

Sign Description

The descriptions for the signs presented in this Manual are shown below:

Sign	Description
	It indicates that there is a moderate or low-level potential danger which may result in minor or moderate injury if it cannot be avoided.
	It indicates that there is a potential risk that the device damage, loss of data, performance degradation or unpredictable results may be caused if these texts are ignored.
	It indicates the additional information of text and the emphasis and supplement for the text.

Contents

1.Overview of Product Functions

Introduce the main functional characteristics which need to be known by users when using the NVR.

Basic Functions

- Support the access of network device; the webcam, webdome and network video server as well as the third-party webcam can be accessed.
- Support the standard Onvif protocol.
- Support the main/ second stream preview in each channel.
- Support the adjustable coding parameters, including resolution, frame rate, bitrate, image quality and other parameters in each channel.
- Support the general and alarm, customization 1, customization 2 and other intelligent recording template parameters in each channel.
- Support to add IP channel rapidly.

Local Monitoring

- Support the VGA and HDMI display.
- Support the multi-screen video preview.
- Support the 1/3/4/6/8/9/10/13/16/20A/20B/25/32/36/40/64 screen preview at most.
- Support the quitmenu operation of preview.
- Support the local and front-terminal VCA.
- Support the video motion detection, video loss detection, video mask detection and port alarm detection.
- Support a variety of mainstream PTZ control protocols and support the presetting bit, cruising path, track setting and call.

Hard Disk File Management

- Support the hard disk SMART information display.

- Support the bad track detection.
- Support the hard disk attribute setting: redundancy, read only, read-write and backup.
- Support the hibernation of hard disk.
- Support disk group quota; disk group can be divided or different video save spaces can be allocated for different channels.
- The devices of NR2020-E8, NR2040-E8, NR2080-E8, NR2080-E16, NR2160-E16, NR2020-S8, NR2040- S8 and NR2080- S8 models support the disk array.

Recording and Playback

- The recording trigger mode includes: manual, timing and port alarms, motion detection alarm, detection or port alarm, detection and port alarms, video loss alarm, video mask alarm, VCA alarm and other alarm trigger recordings.
- Support the pre-recording and delay of link recordings of all alarm types.
- Support to inquire the recording file according to the general/event.
- Support the local redundancy video.
- Support the locking and unlocking of recording file.
- 4 recording time periods can be set every day and the recording trigger modes of different time periods can be set independently.
- Support the holiday plan.
- Support to inquire videos according to the channel numer, recording type, starting and ending time, file type and other items.

- Support the general playback, event playback, tag playback, external file playback, intelligent playback, picture playback, time sharing playback and other playback modes.
- Support the video snapshot function and support to distinguish different types of videos by different colors.
- Support the functions of pause, fast playback, slow playback, advancing 30S, backing 30S, steping forward, steping back, stop, previous day, next day and positioning by dragging mouse.
- Support to zoom in and out the playback time shaft by mouse wheel.
- Support the electronic amplification of any playback area.
- Support the reverse playback function of recording file.
- 16-channel and above devices support at most 16-channel synchronous playback.

Data Backup

- Support to back up videos, pictures and other data through USB device.
- Support batch backup according to the range and type of file.
- Support the video playback clip backup.
- Support the rapid backup by channel and time.
- Support the management and maintenance of backup device.

Alarm and Exception Management

- Support the arming time setting of alarm input/output.

- Support the video loss, motion detection, video mask, port, VCA, detection or port, detection and port and other alarm detections. Various alarms can be linked to single-screen display, character plan, voice prompt, email sending and trigger alarm output and also can trigger any channel video.
- Support the disk full, no disk, disk read-write errors, illegal access, IP address conflict, MAC address conflict, no available redundant disk, network disconnection, hot standby exception, array exception, disk overload, recording exception, disk smart exception, abnormal disk temperature and other exception detections, Moreover, the POE NVR also spport the POE overloaded detection; a variety of exceptions can trigger the screen prompt, voice warning, uploading center, mail alarm and port alarm.
- Support the software watchdog reboot when system runs abnormally.

Other Local Functions

- For the users with five-level permission, the administrator can create multiple operating users and set their permissions and the permissions can be refined to the channel.
- Complete operation, alarm, exception and information log record and retrieval.
- Support the manual alarm triggering and clearing.
- Support the import/export operation of configuration information of device.

Network Function

- Support the TCP/IP protocol stack and support PPPoE, DHCP, DNS, DDNS, NTP, SADP, NFS, HTTPS and other protocols.
- WEB server is embedded.

- Support the unicast and multicast and support TCP, UDP and RTP protocols during unicast.
- Support the remote search, playback, download, locking and unlocking of recording file.
- Support to remotely obtain and configure parameters and support to remotely export and import device parameters.
- Support to remotely obtain the operation status of device, system log and alarm status.
- Support the remote formatting of disk, program upgrade, restaring and other system maintenance operations.
- Support to perform the alarm port extension by alarm host.
- Support the remote manual triggering and recording stopping.
- Support remote manual triggering and alarm output stopping.
- Support the remote PTZ control.
- Support the voice talkback or voice broadcast.

Development Support

- Provide the SDK software development kit under Windows and Linux systems.
- Provide the application software source code of demonstration.
- Provide the development support and development training service of application system.

 **Description:**

- The main functions supported by our NVR are listed in the product function part and the functions of different models are different due to different positions and configurations, so please in kind prevail.

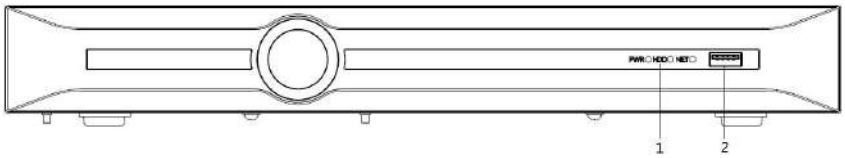
2.Operation Instructions

Introduce the parts and accessories which must be known by users before using NVR: front and back panels, mouse as well as how to operate the device by using these parts and accessories.

2.1.Introduction and Description of Front Panel

Introduce the descriptions for front panel buttons and indicators.

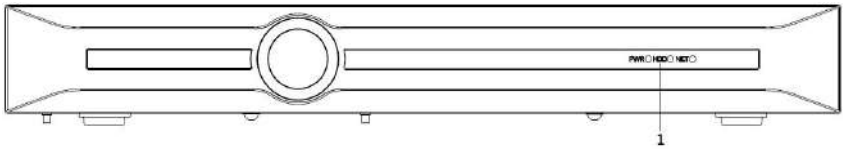
The panels of PSE series NVR and standard series NVR (2/4 HDD) are shown below:



The functions of front panel are shown below:

No.	Type	Name	Description
1	Status lamp	PWR	It is the power indicator which is on when the device link power is in an energized status.
		HDD	It is the hard disk work indicator which flashes when the device reads and writes the disk.
		NET	It is the network status lamp which flashes under the network communication status.
2	Interface	USB interface	It can connect with the mouse, U disk, mobile hard disk and other external devices.

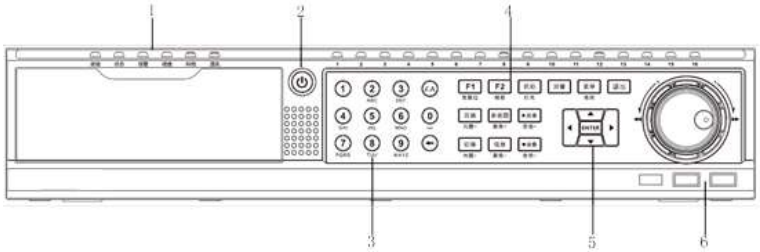
The front panels of NR40 standard series NVR (1/2/4 HDD) and NR50 standard series NVR (1 HDD) are shown below:



The functions of front panel status lamps of NR40 standard series NVR (1/2/4 HDD) and NR50 standard series NVR (1 HDD) are shown below:

No.	Type	Name	Description
1	Status lamp	PWR	It is the power indicator which is on when the device link power is in an energized status.
		HDD	It is the hard disk work indicator which flashes when the device reads and writes the disk.
		NET	It is the network status lamp which flashes under the network communication status.

The front panels of NR40 standard series NVR (8 HDD) and NR50 standard series NVR (8 HDD) are shown below:

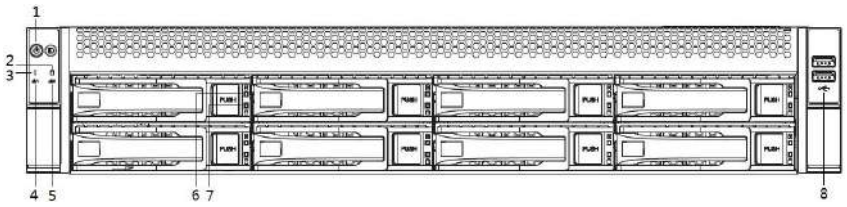


The functions of front panel status lamps of NR40 standard series NVR (8 HDD) and NR50 standard series NVR (8 HDD) are shown below:

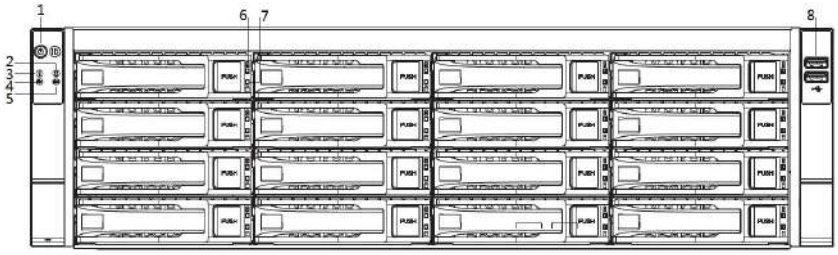
No.	Type	Name	Description
1	Status lamp	Ready	It is the host-ready indicator which flashes when the device is power on and works normally.
		Status	The status lamp is on under the control of remote control.
		Alarm	It is the alarm status lamp which flashes under the alarm status.
		Hard disk	It is the hard disk work indicator which flashes when the device reads and writes the disk.
		Network	It is the network status lamp which flashes under the network communication status.
		Communication	It is on under the normal communication status of front panel and mainboard.
		1—16	It is the front 16-channel dual-color status indicator, the blue lamp is on when there is a video and the yellow lamp is on during recording.
2	Button	Power switch	Turn on/turn off NVR.
3	Button	Number button	It is used to select the displayed channel screen under the preview status and the displayed channel screen corresponds to the number button pressed; It is used to input numbers and characters under the editing status.
4	Button	Function button	It is used to conduct preset point call, zoom control, focus control, iris control, light control and wiper control under the PTZ status; It is used to conduct manual recording, video playback, main and auxiliary interfaces switching,

			one-key alarm removing and main menu calling.
5	Button	Direction button	It is used to move the action box of menu setting item and select the data of menu setting item under the menu mode; It is used to accelerate and decelerate the play control and select previous/next file, previous/next event, previous/next tag or previous/next day under the playback status.
6	Interface	USB interface	It can be connected with mouse, U disk, mobile hard disk and other external devices.

The front panel of NR50 enhanced series NVR (8 HDD) is shown below:



The front panel of NR50 enhanced series NVR (16 HDD) is shown below:



The functions of front panel status lamps of NR50 enhanced series NVR (8 HDD) and NR50 enhanced series NVR (16 HDD) are shown below:

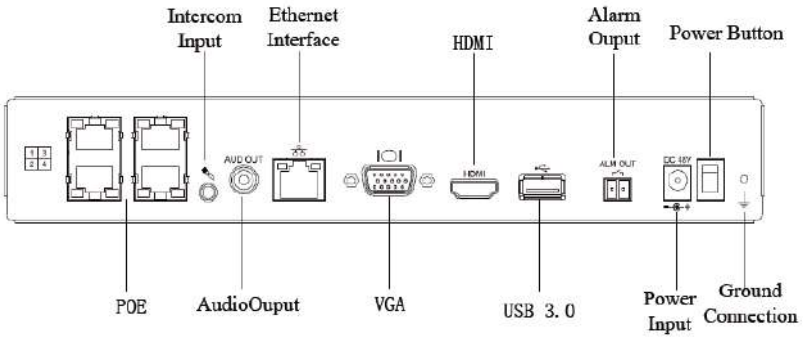
No.	Type	Name	Description

1	Button	POWER	On-off button + power indicator.
2	Status lamp	Alarm lamp	It bright when the device works abnormally.
3	Status lamp	Run lamp	It bright when the device works normally.
4	Status lamp	LAN1	It is the status lamp of network card 1 which flashes under the network communication status.
5	Status lamp	LAN2	It is the status lamp of network card 2 which flashes under the network communication status.
6	Status lamp	Disk error indicator	It becomes red when the disk is abnormal.
7	Status lamp	Disk operation indicator	It becomes green and flashes when the disk works normally.
8	Interface	USB Interface	It can be connected with mouse, U disk, mobile hard disk and other external devices.

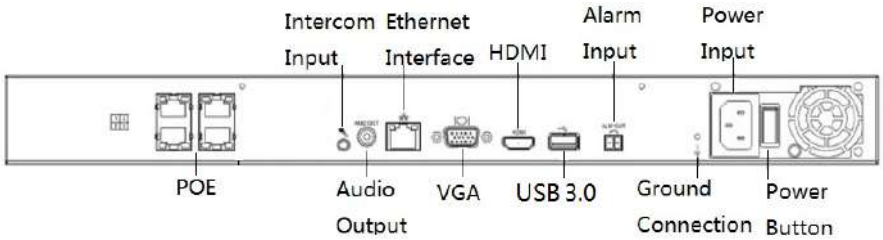
2.2.Introduction and Description of Back Panel

Introduce the descriptions for back panel and interface of device.

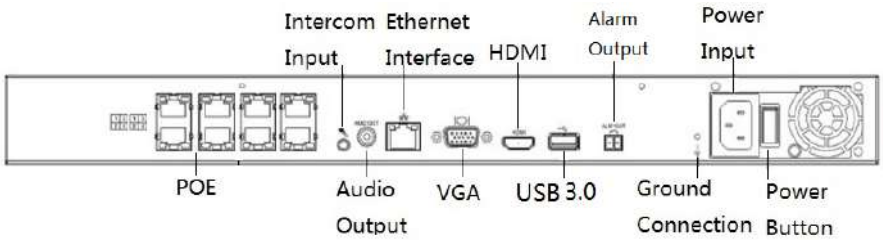
The back panel interface of PSE series NVR (4-channel 1 HDD, 5-channel 1 HDD) is shown below:



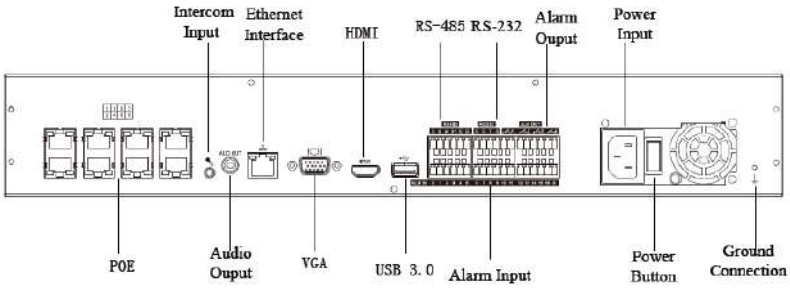
The back panel interface of PSE series NVR (4-channel 2 HDD) is shown below:



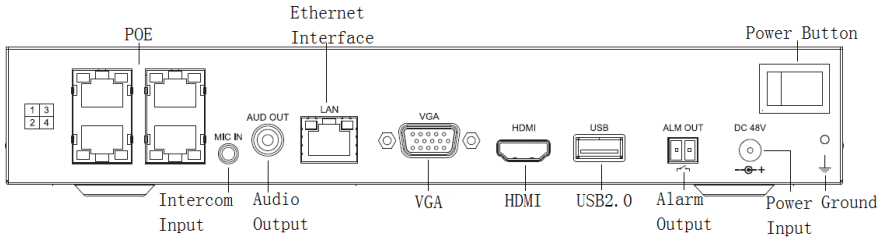
The back panel interface of PSE series NVR (8-channel 2 HDD, 10-channel 2 HDD and 16-channel 2 HDD) is shown below:



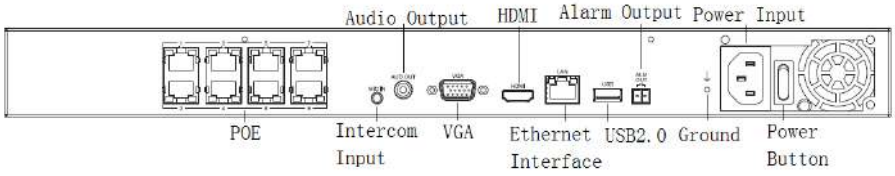
The back panel interface of PSE series NVR (16-channel 4-disk) is shown below:



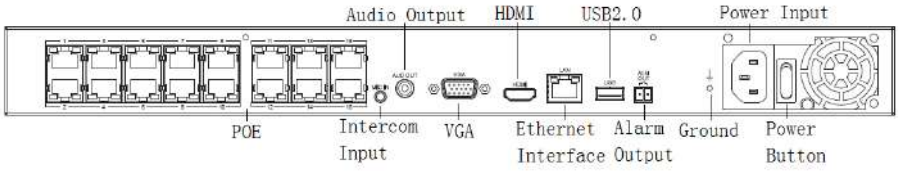
The back panel interface of PSE series NVR (5-channel 1-disk) is shown below:



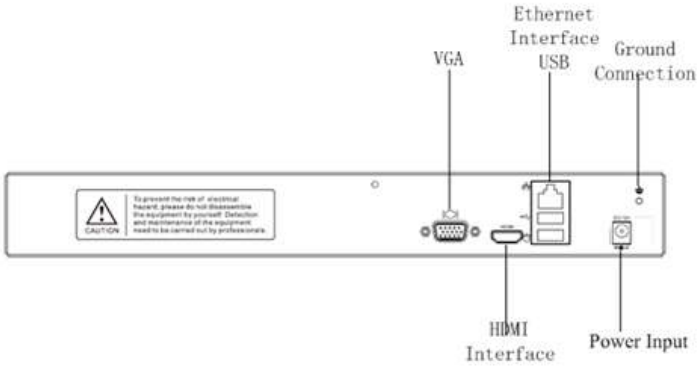
The back panel interface of PSE series NVR (10-channel 2-disk) is shown below:



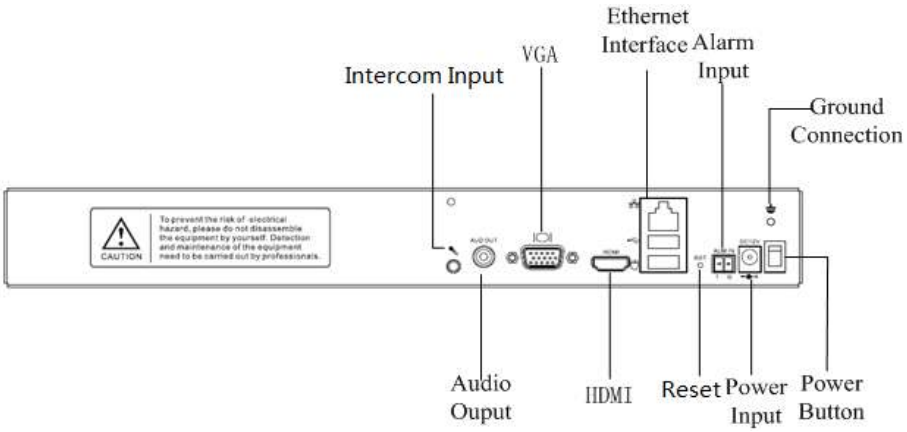
The back panel interface of PSE series NVR (20-channel 2-disk) is shown below:



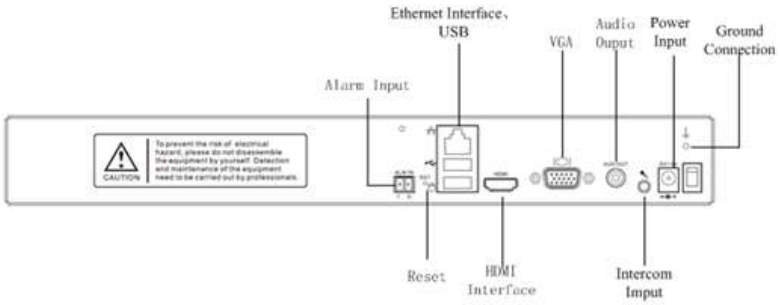
The back panel interface of NR10 standard series NVR (4/8-channel 1 HDD) is shown below:



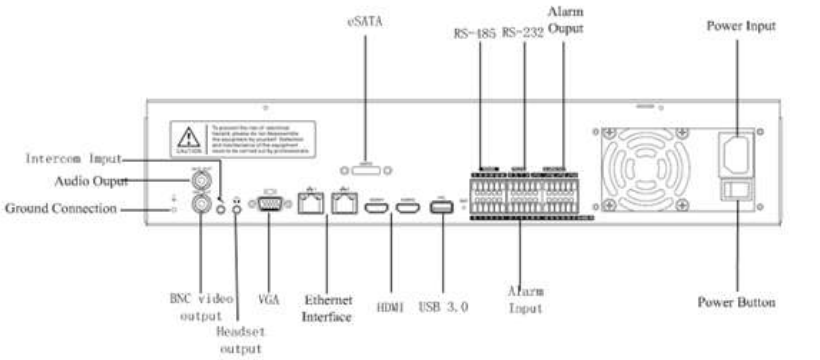
The back panel interface of NR10 standard series NVR (4-channel 2 HDD and 8-channel 2 HDD) is shown below:



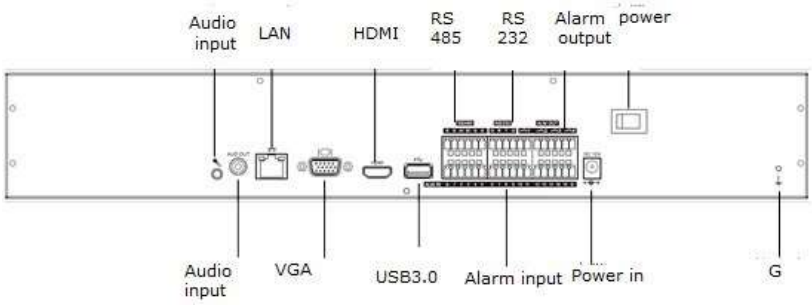
The back panel interface of NR10 standard series NVR (16-channel 2 HDD and 16-channel 4 HDD) is shown below:



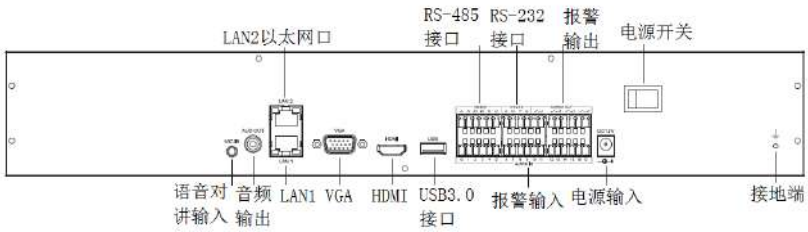
The back panel interface of NR10 standard series NVR (16-channel 8 HDD and 32-channel 8 HDD) is shown below:



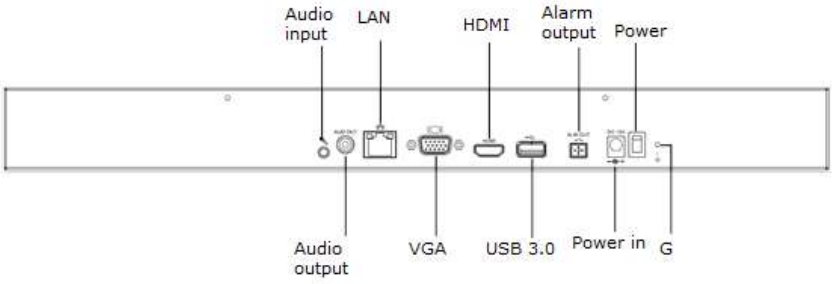
The back panel interface of NR20 standard series NVR (20-channel and 40-channel 4 HDD) is shown below:



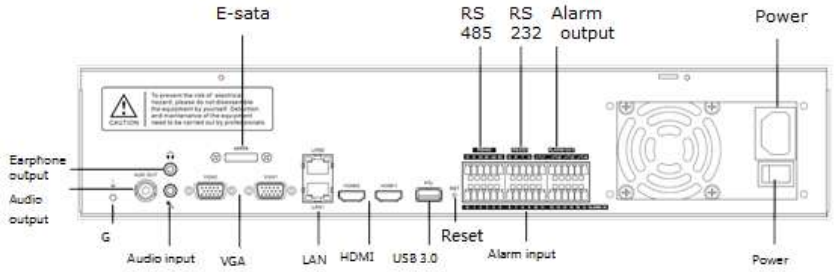
The back panel interface of NR30 standard double Ethernet interface series NVR (20-channel and 40-channel 4 HDD) is shown below:



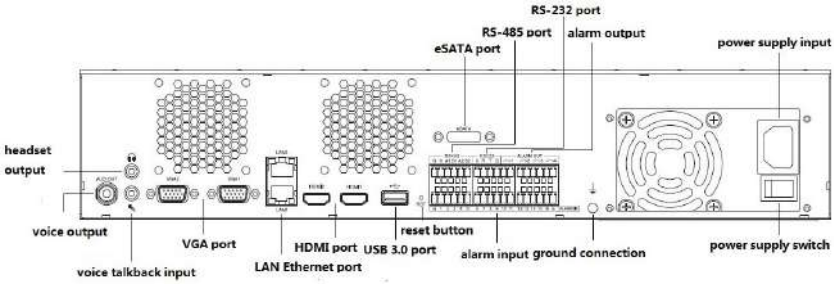
The back panel interface of NR20 standard series NVR (20-channel 2 HDD) is shown below:



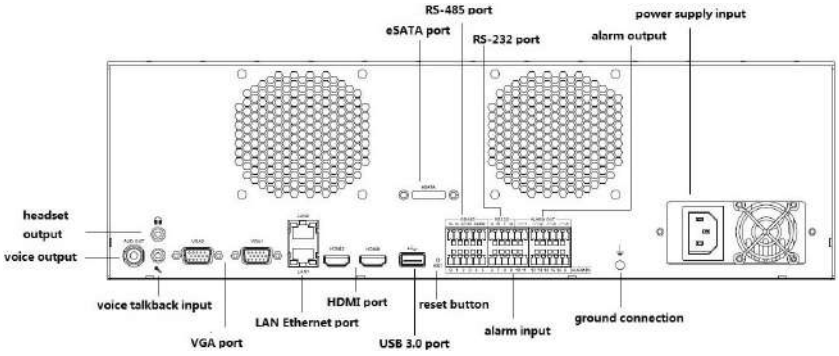
The back panel interface of NR20 standard series NVR (20-channel, 40-channel and 80-channel 8 HDD) is shown below:



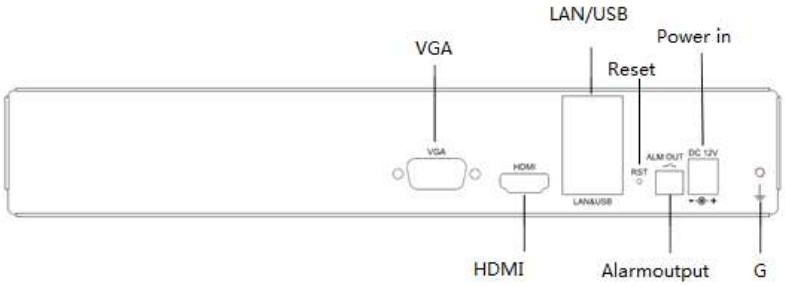
The back panel interface of NR2x enhanced series NVR (20-channel, 40-channel and 80-channel 8 HDD) is shown below:



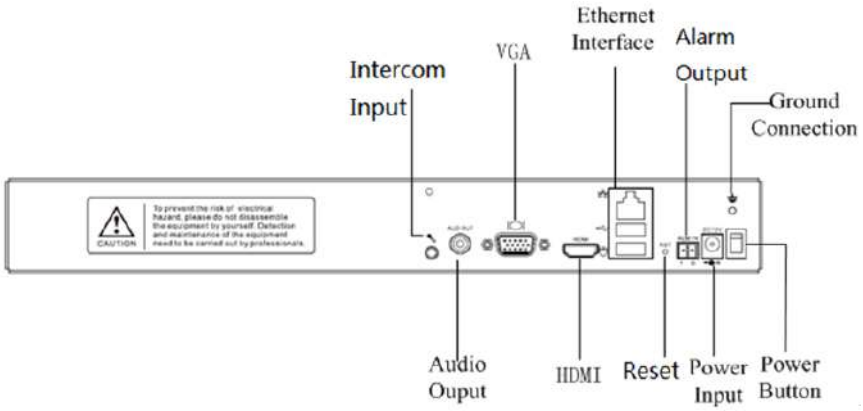
The back panel interface of NR2x enhanced series NVR (80-channel and 160-channel 16 HDD) is shown below:



The back panel interface of NR30 standard series NVR (20-channel, 10-channel and 5-channel 1 HDD) is shown below:



The back panel interface of NR30 standard series NVR (20-channel, 10-channel 2 HDD) is shown below:



Description:

- The diagram only shows the functions of front and back panel interfaces, and the specific chassis size shall be subject to the final product.

2.3.Mouse Operation Description

After the USB interface of device is connected with the mouse, the device can be operated by the mouse. For the specific realizable operations, please refer to the table shown below:

Name	Action	Description
Left button	Click	● Preview: select the screen and display the quickly adding IP

		channel interface (IP device channel is not added). ● Preview: display the preview quitmenu (IP device channel has been added). ● Menu: select and confirm.
	Double-click	● Switch the single-screen, full screen and multi-screen display under the preview and playback status.
	Press and drag	● Turn directions under the PTZ control status. ● Set the area coverage in the mask, motion detection and video mask alarm area setting. ● Drag the scroll bar of channel and time display. ● Exchange positions of two preview screens.
Right button	Click	● Preview: the right-click menu pops up. ● Menu: log out the current menu and return to previous level.
Wheel	Scroll up	● Upper and lower selection box, scroll up option. ● Scroll bar, scroll up page. ● Magnification increases during electronic amplification .
	Scroll down	● Upper and lower selection box, scroll down option.

		● Scroll bar, scroll down page. ● Magnification decreases during electronic amplification.
	Double-click	● Main and auxiliary screens are switched by the mouse.

3.Installation and Connection

3.1.Installation Precautions

Warning:

Improper replacement of battery may cause an explosion danger, so it is not recommended to replace the battery directly by users. If replacement is needed, replace with the same type or equivalent type of battery only.

NVR is a kind of special monitoring device. Please pay attention to the following matters during installation:

- Do not place the container with liquid (such as water cup) on NVR.
- Install NVR at the position with good ventilation. When a number of devices are installed, the space between devices shall be more than 2cm.
- Make NVR work in the allowable temperature (-10℃~+55℃) and humidity (10%~90%) range.
- Make sure to unplug the power line and cut off the power entirely when cleaning the device.
- The dust on the circuit board in NVR will cause shortcircuit after being exposed to moisture, so please regularly use the soft brush to dust the circuit board, connector assembly, chassis and chassis fan. If the dirt is difficult to remove, use a diluted neutral detergent to wipe off the dirt and then wipe it dry.

- Do not use the volatile solvents, such as alcohol, benzene or diluent when cleaning the device; do not use the strong detergent or detergent with abrasiveness which may damage the surface coating.
- Please buy the monitoring hard disk from the formal channels to ensure the quality and operating requirement of hard disk; our company recommends the Seagate monitoring hard disk.
- Make sure that no danger will be caused by uneven mechanical loads.
- Make sure that there is enough installation space for video and audio cables and the bending radius of cable shall not be less than 5 times of external diameter of cable.
- Please make sure that NVR is grounded reliably.

Description:

- When you receive this product, please make an inventory according to the “Packing List of Device” in the packing box. If you find that the articles are damaged or accessories are missed in the packing box, please contact the dealer timely.

3.2.Hard Disk Installation

NVR device does not include the hard disk when leaving the factory and the hard disk needs to be configured and installed according to the recording plan. The disassembly of chassis and installation of hard disk must be performed by the professional personnel.

Precautions:

- Please use the special monitoring hard disk for NVR recommended by the hard disk manufacturer.
- For the maximum number of installed hard disks of device, please refer to the description in the hard disk file part.

- Make sure that the power of device has been cut off before installation.

3.2.1.Hard Disk Capacity Calculation Method

According to the recording requirements (recording type, retention time of recording data), calculate the total capacity needed by a hard disk video recorder and see the specific details in the appendix of this Manual.

Examples:

Bitrate	File size/hour	Bitrate	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

Precautions:

The data provided in the table above are for reference only. There may be deviations between the estimated value of “file size” in the table and actual values, and any loss caused by the deviations shall be undertaken by users themselves.

3.2.2.Installation Steps of Hard Disk

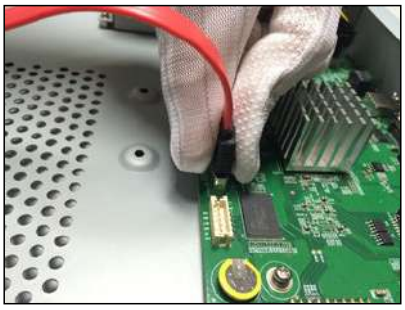
Installation tools

A cross screwdriver.

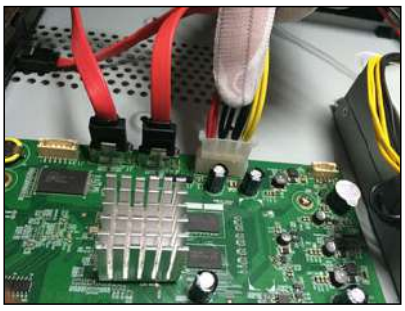
Installation diagrams (I):

1、Unscrew the screws at the back and side of chassis and remove the upper cover.

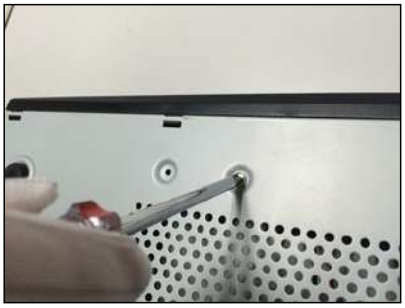
2、Connect one end of hard disk data line to the SATA interface of NVR mainboard and connect the other end to the hard disk.



3、Connect one end of hard disk power line to the SATA interface of NVR mainboard and connect the other end to the hard disk.

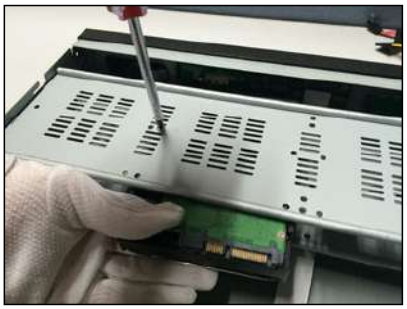


4、Fix the hard disk screw at the bottom of NVR chassis, put the upper cover on the chassis and fix it with screws.

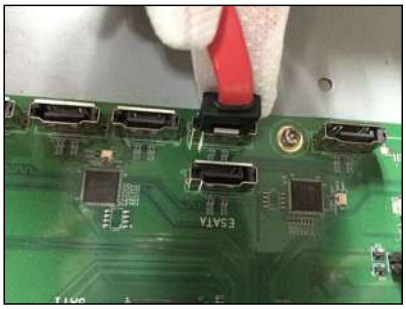


Installation diagrams (II):

1、 Unscrew the screws at the back of chassis, remove the upper cover and fix the hard disk on the hard disk support of chassis.



2、 Connect one end of hard disk data line to the SATA interface of NVR mainboard and connect the other end to the hard disk.



3、 Connect the power line to the hard disk, put the upper cover on the chassis and fix it with screws.

Installation diagrams (III): (Installation diagrams of front hard disk)

1.Install the set screws of hard disk and insert them into the slot positions of corresponding hard disk on the front panel.

4.Local Configuration and Operation

4.1.Startup and Shutdown

4.1.1.Startup

Precautions:

- Confirm that the power required by NVR is used before startup and ensure that the grouding terminal of NVR is good.
- Confirm that the connection between NVR video output and display is good before startup.
- When the power supply is abnormal, NVR cannot work normally and even NVR may be damaged, so the regulated power is recommended for power supply.

1. After the power is plugged in and the power switch on the back panel is turned on, the device will make a “tick” sound and then start normally.

2. NVR will display the following screen in the startup process:

4.1.2.Shutdown

1.Select “Main Menu->” to enter the logout interface, as shown in the figure below.

2.Users can click “Logout”, “Reboot”, “Shutdown” and other icons for operation.

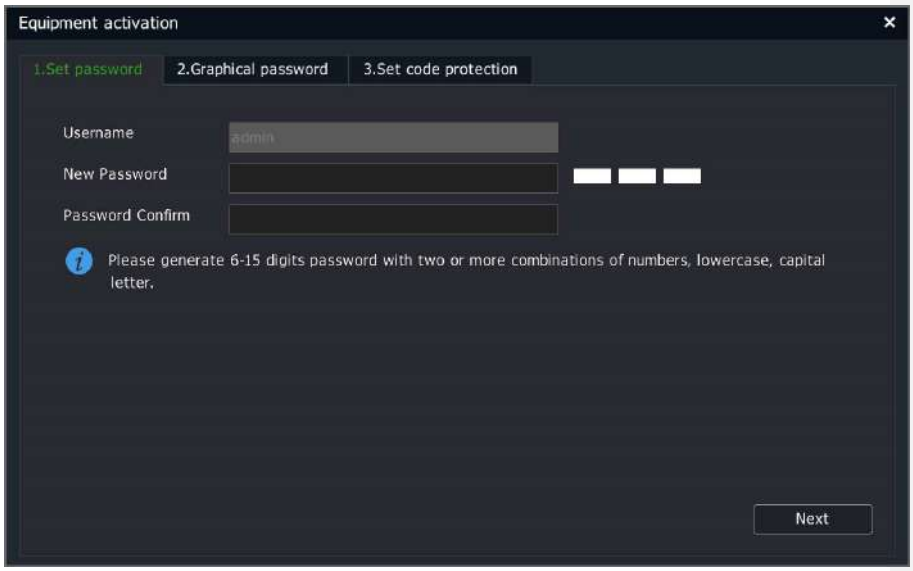
Precautions:

- When the system displays “It is shutting down…”, do not turn off the power.
- Do not cut off the power forcibly when the device is running.

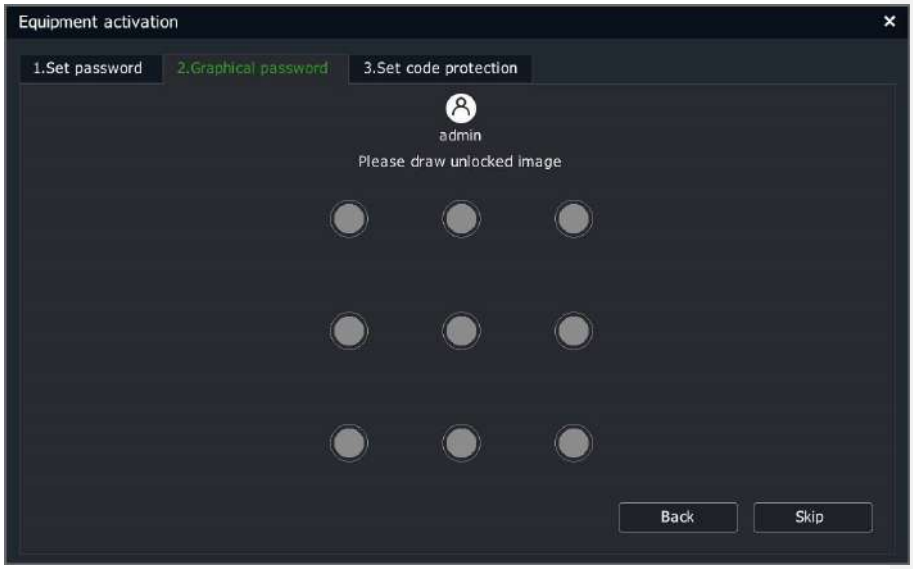
4.2. Equipment Activation

After booting the device, it can be activated to set the device's password and secret security configuration to ensure the device login and password security.

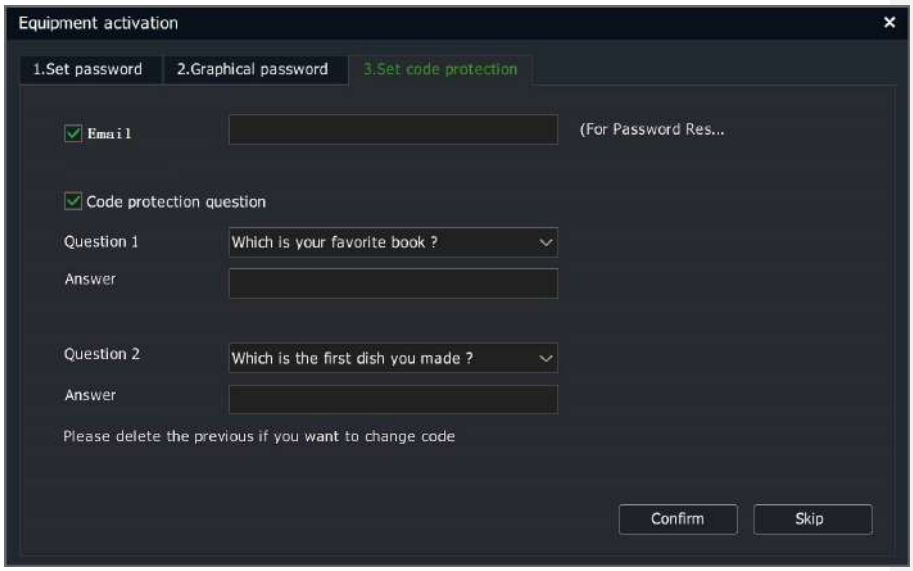
1、 Enter the password setting page firstlly, enter the password twice, and click Next to enter the next interface.



2、 Enter the graphical password setting interface, set the pattern to unlock, then automatically enter the code protection interface. Click back to return to the setup password screen, click Skip no need to set the graphical password.



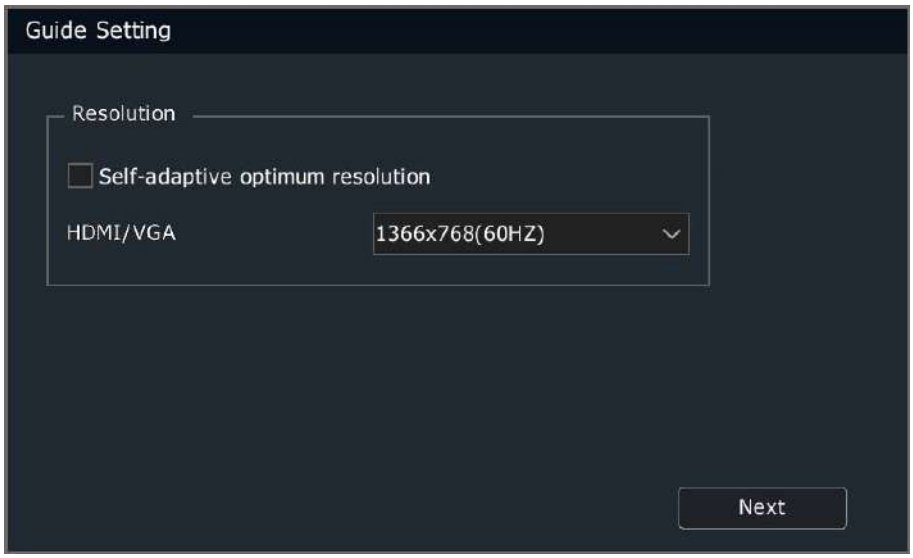
3、 Enter the code protection page, set the reserved email and code protection question. It can been also skip to the guide.



4.3.Startup Guide

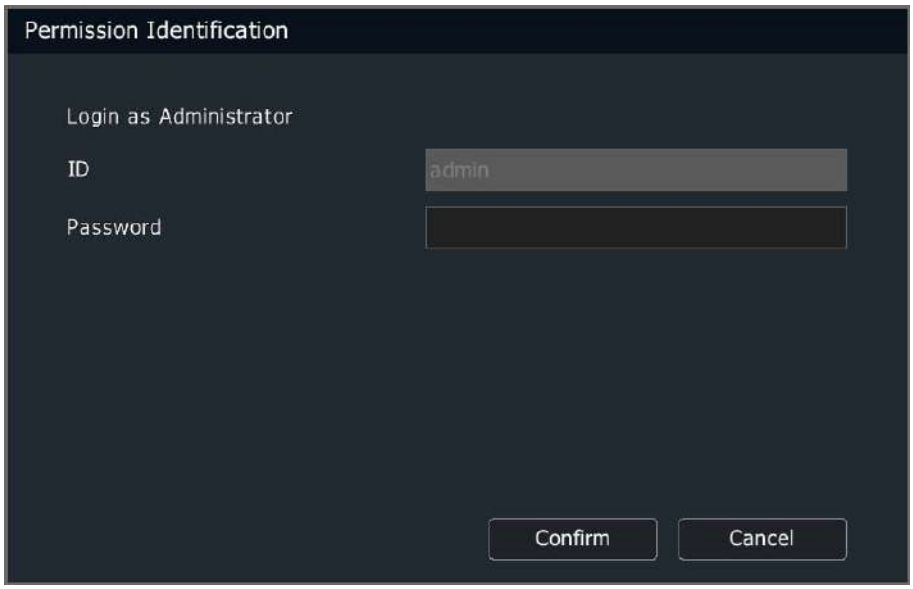
After the device is started, the simple configuration can be conducted for the device through the startup guide to ensure the normal operation of device.

1.Enter the guide setting interface firstly to set the current language and resolution of output device. Click “Next” to enter the next interface.



2.Enter the config guide interface and select whether to run the startup guide. If “Yes” is clicked, enter the next interface; if “No” is clicked, the startup guide will be skipped; if “Never” is clicked, the startup guide will be closed and also it will be skipped during next startup.

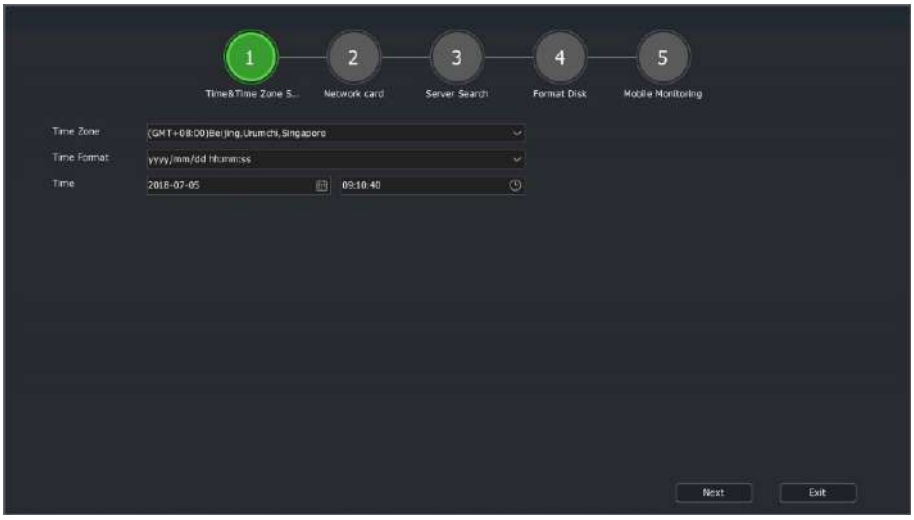
3.After entering the permission identification interface, users shall log in for identification as the administrator “admin” user. Click “Confirm”to conduct ID confirmation and then enter the startup guide after identification is successful; if the identification is wrong for 5 times successively, the device will be locked for 5 minutes; click “Cancel” to skip the startup guide.



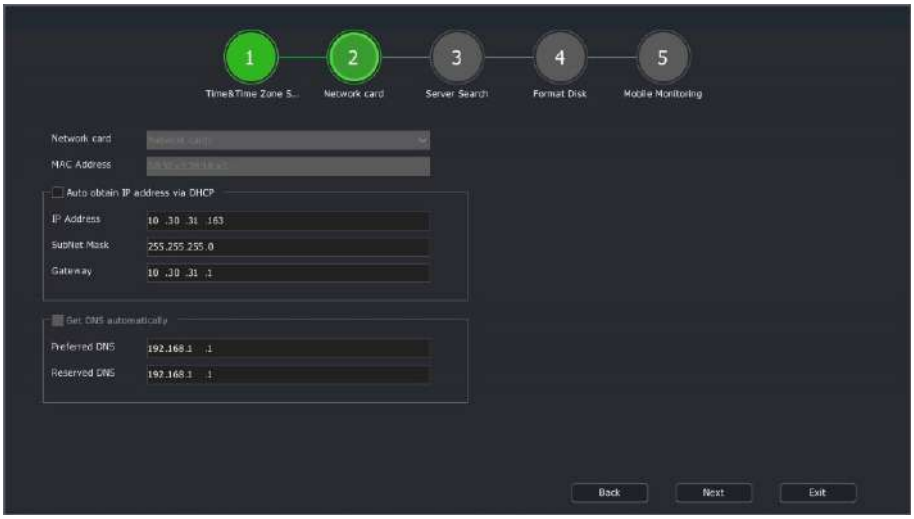
Description:

- Default administrator: admin, default password: admin or 1111.

4.Enter the time & time zone setting interface and click “Apply” to set the time zone, time format and time; click “Next” to enter the next interface; click “Exit” to log out the startup guide.

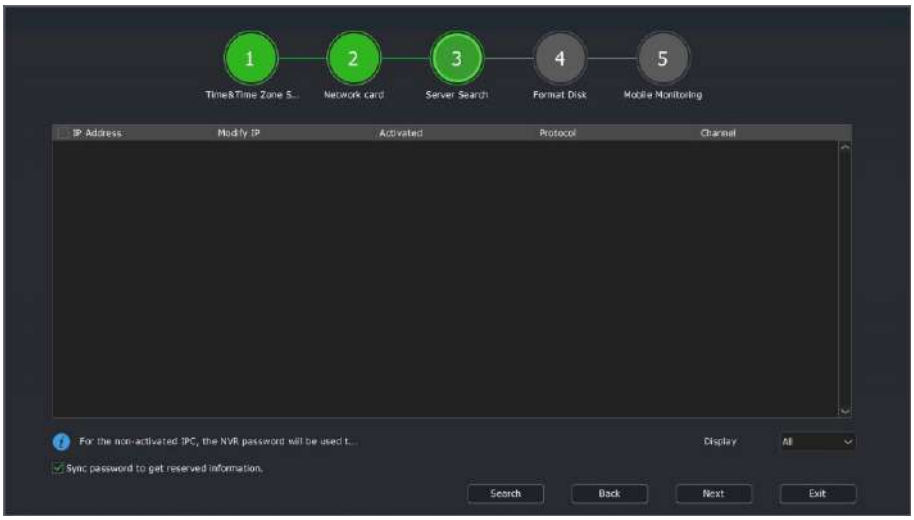


5. Enter network settings interface; clicking “Back” return to previous page; clicking “Next” , going to next page and newwork paramater setting; clicking “Exit” quit boot.

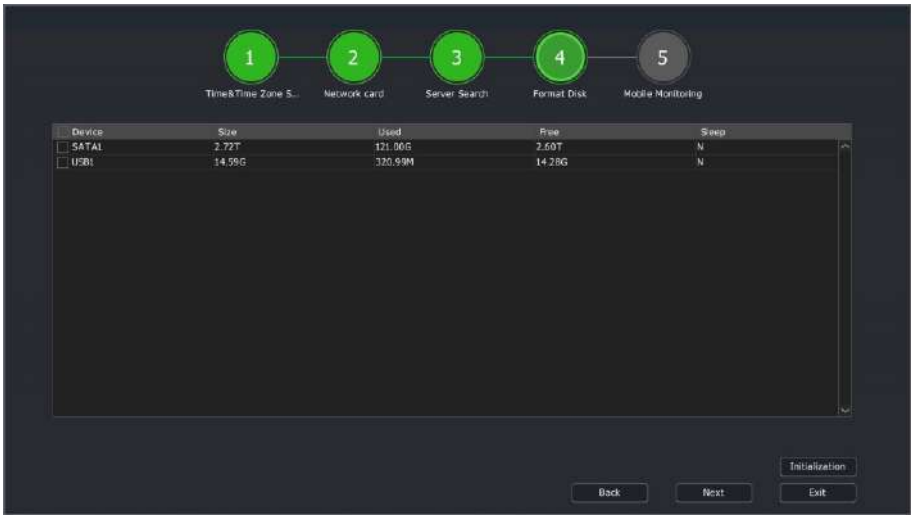


6.Enter the server search interface to conduct configuration for the digital channel. Click “Search” to search the digital channel. Click “Back” to return to the previous interface; click

“Next” to enter the next interface; click “Exit” to log out the startup guide.



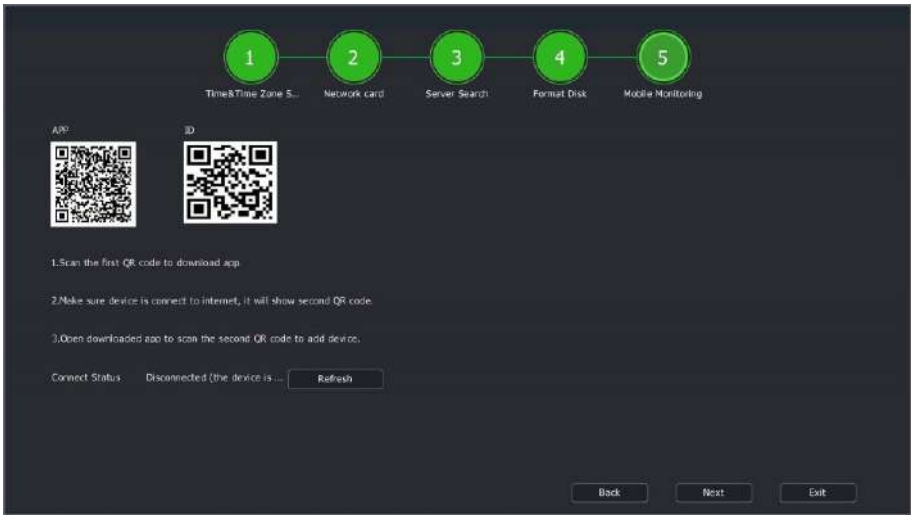
7.Enter the format disk interface and click “Initialization” to conduct the formatting operation for the selected disk; click “Back” to return to the previous interface; click “Next” to enter the next interface; click “Exit” to log out the startup guide.



Description:

- The disk can conduct recording normally after the initialization operation is conducted.

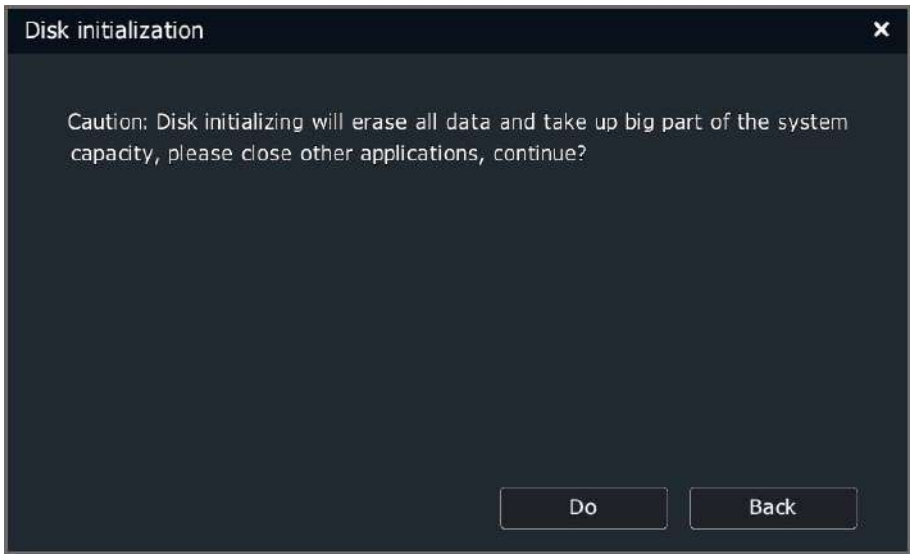
8.Enter the mobile monitoring interface to configure the mobile control device. Click “Back” to return to the previous interface; click “Next” to enter the next interface; click “Exit” to log out the startup guide.



Description:

- The mobile monitoring mode of some device models is QQ, so please in kind prevail.

9.If the disks which have not been formatted still exist in the system, the prompt shown in the figure below will pop up. Click “Do” to conduct formatting operation for the disks which have not been formatted in the system one by one automatically; click “Back” to enter the preview screen directly.

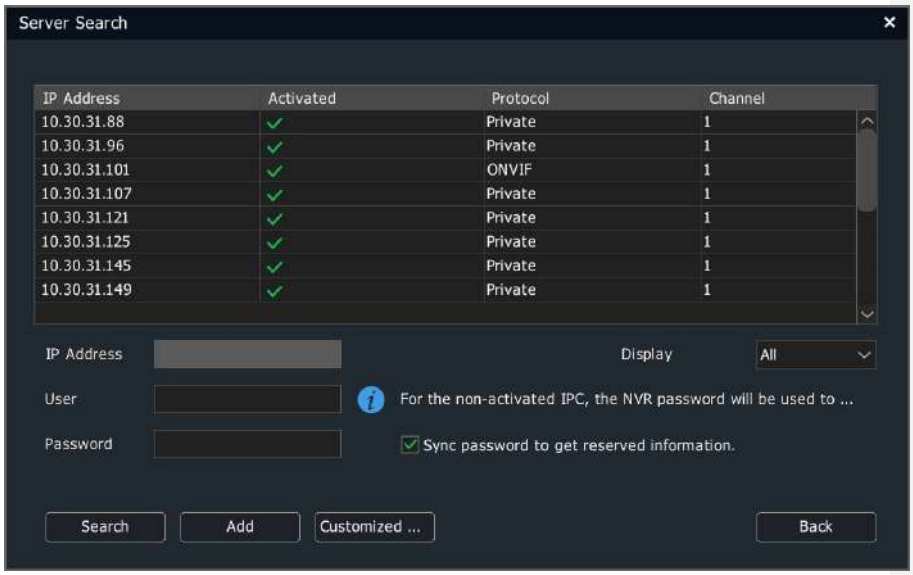


4.4.Channel Management

4.4.1.Shortcut Bar Channel Adding

Users can add an IP channel to the device by the one-key shortcut, and the preview status will be as shown in the figure below if no channel is added to the channel.

1.After entering the preview interface and clicking the channel display “+” mark, the server search window will pop up, as shown in the figure below.

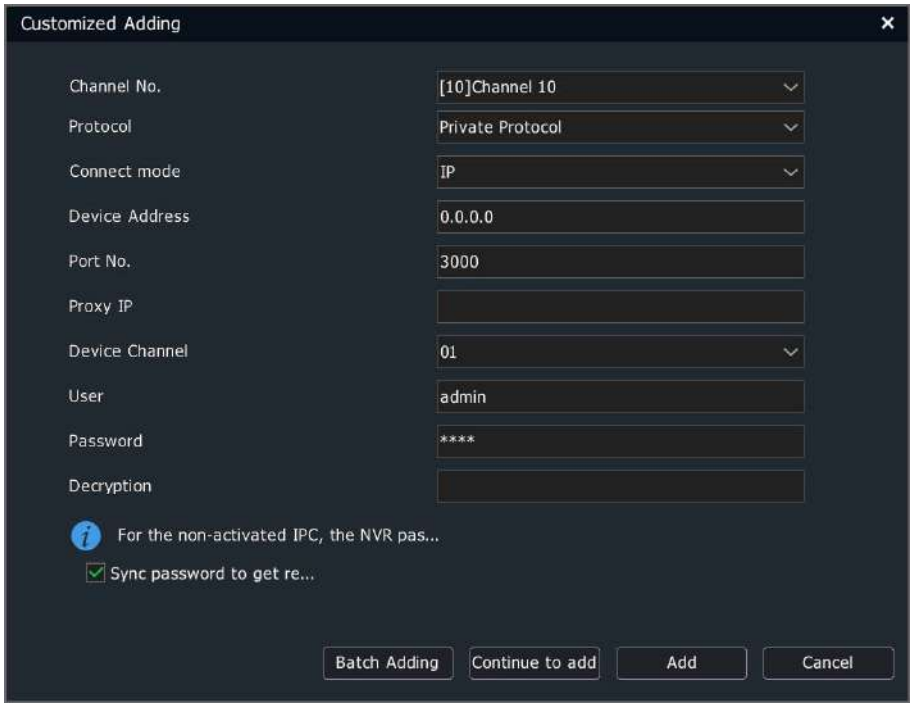


Description:

- Add channels by default port, user name and password; if the information of channel does not meet the default information, users can edit the “Manual Add” to add channels.

2.After the search is completed, the adding can be completed by double clicking on the search list or selecting the channel and click “Add”.

3.Users can also configure parameters by themselves to add number channels. After the “Manual Add” is clicked, the “Digital Channel” window will pop up, as shown in the figure below.



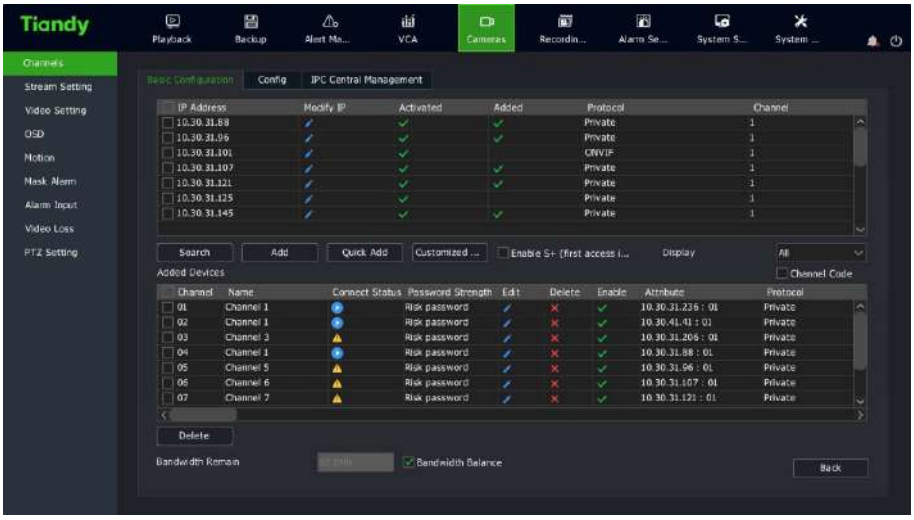
4.The adding can be completed successfully after the front-terminal IP address, port No., user name, password and other information are input.

Description:

- If the channel is the local channel of PSE-NVR is and there is no connection, modify the PSE channel adding mode to manual adding automatically after quick adding. The plug-and-play function is enabled by default on the POE power supply network port of PSE series NVR; do not connect the network port to LAN; otherwise, the IPs of other devices in LAN will be automatically modified.

4.4.2.General Digital Channel Adding

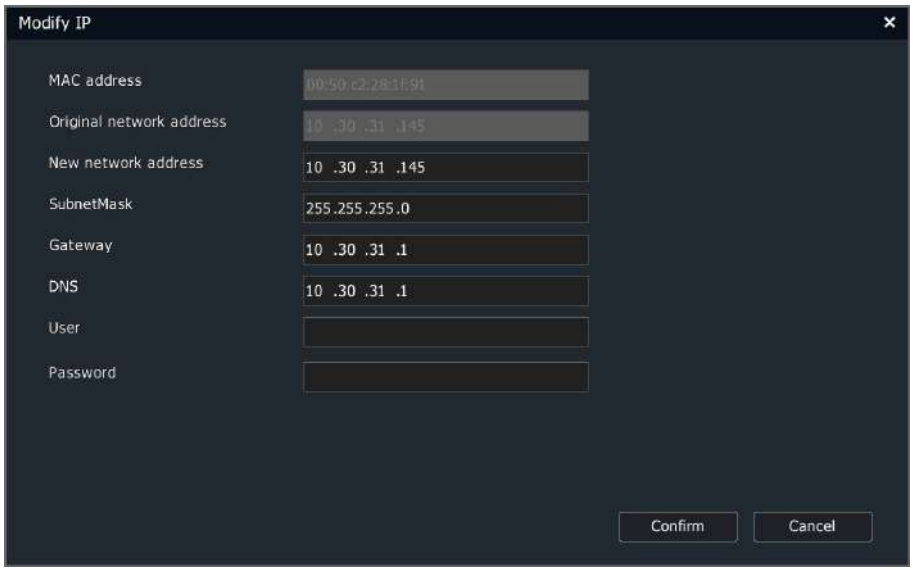
1.Select “Main Menu->Channel Management->Channel Configuration->Basic Configuration” to enter the channel configuration interface, as shown in the figure below.



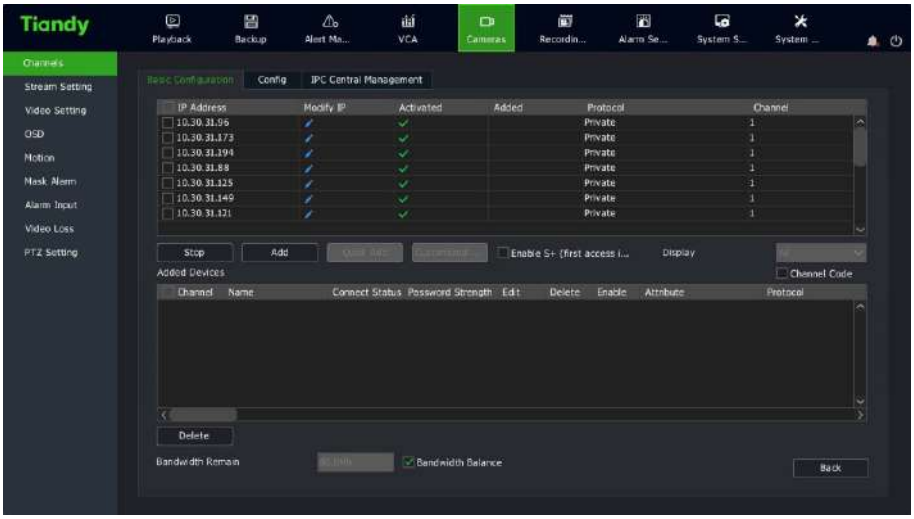
Description:

- The page tag pages of devices of different models are different.
- After the adding is completed, users can view the adding result in the list of added devices.
- Click connection status , users can check the channel preview.
- When the exclamation mark is displayed for the connection status, the cause for connection failure can be displayed when the mouse is moved to the icon.

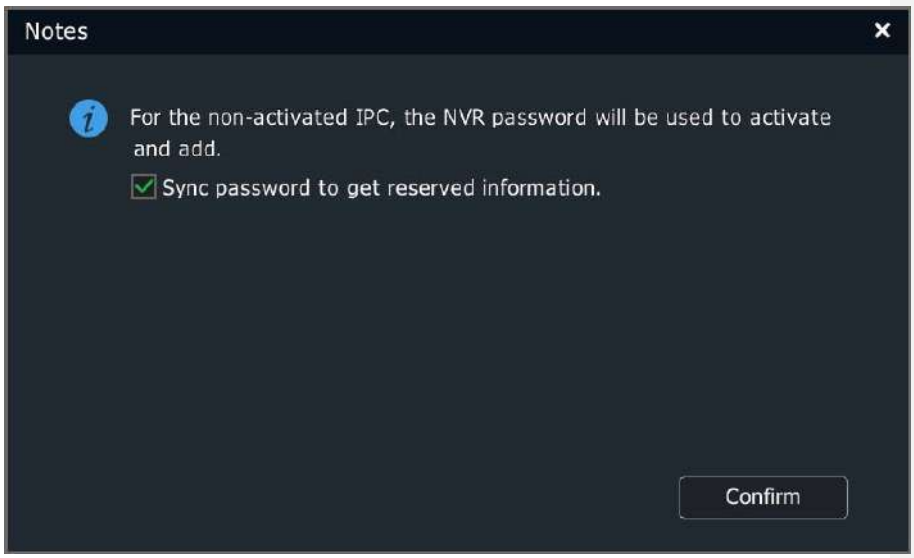
2.After clicking “Search”, the device will start searching. The search results will be sorted automatically according to the IP addresses. The IP front terminal in the list of search results can be modified. After is clicked, the modifying IP interface will pop up, as shown in the figure below.



3.Select the IP channel to be added in the search list, click “Add” or double click the mouse to add the IP device to the idle channel of NVR, and support to select multiple IP channels for adding, channels search as below.



4.When an unactivated ipc is added, the activation prompt will pop up as below.Check the sync password to retrieve it, then synchronize the reserved information to the IPC and activate it.

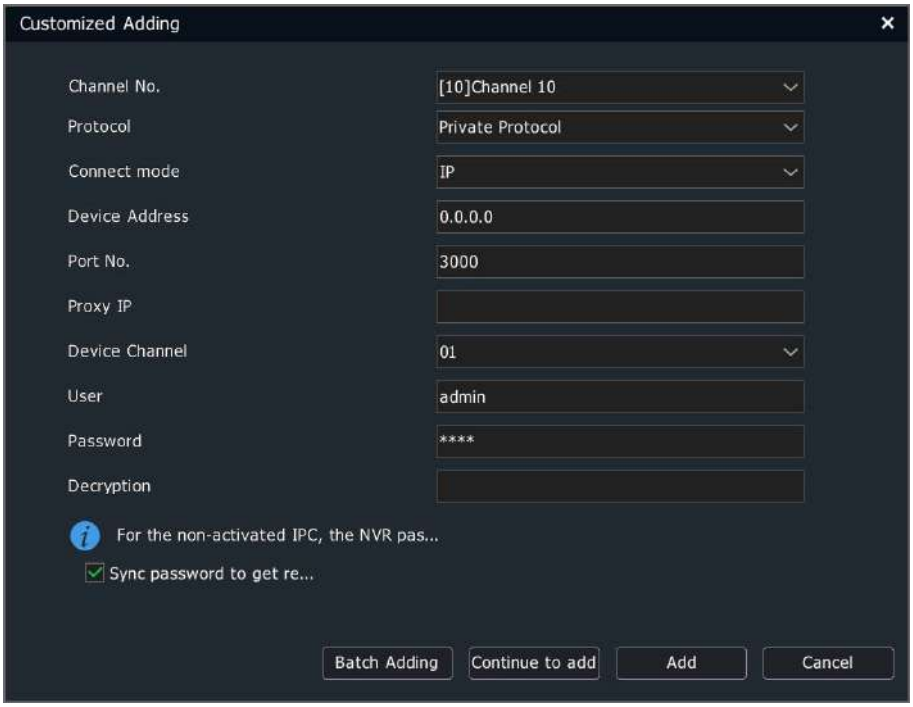


Description:

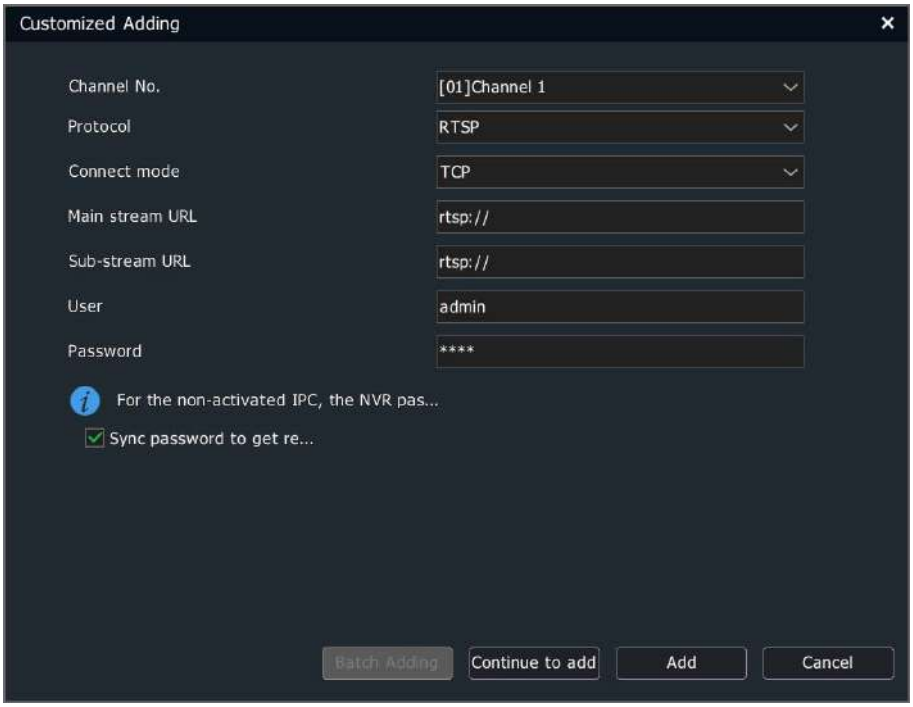
- When the adding mode of digital channel of PSE-NVR is plug-and-play mode, the channel has been occupied.

Customized adding

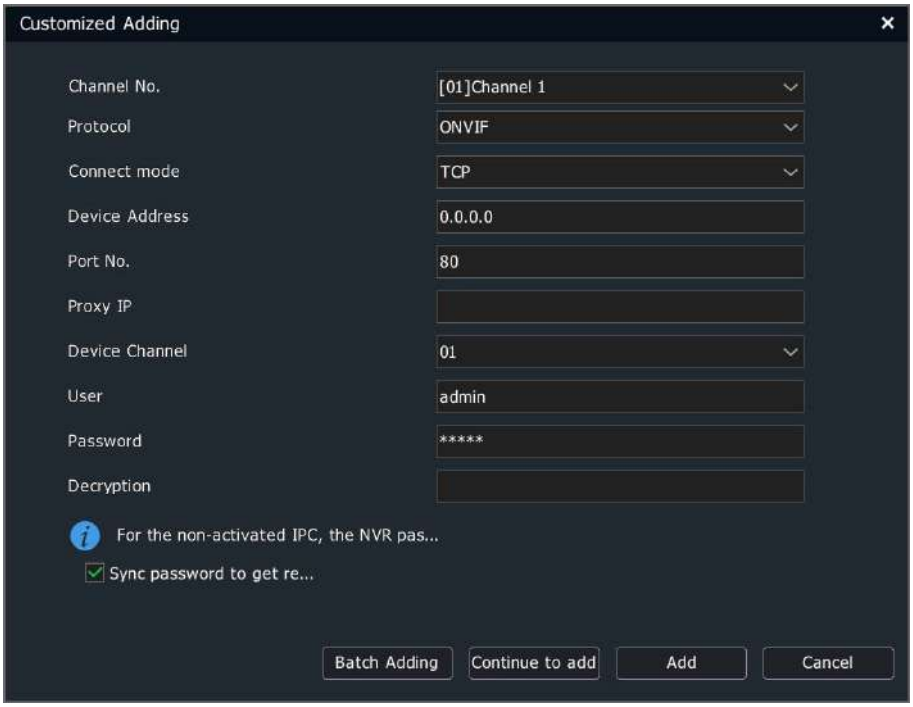
1.In the Channel Configuration->Basic Configuration interface, click “Customized Adding” to enter the digital channel interface; when the device type is private protocol, it is shown in the figure below.



2.Select the channel No. to be added, check “Enable” and select the connect mode according to the device type; when the device type is RTSP, it is shown in the figure below.



When the device type is ONVIF, it is shown in the figure below.



3.Input the IP address or URL address of front-terminal device, input the user name, password and other information, and then click “Confirm” to finish the digital channel adding. Repeat this operation to finish the adding of other digital channels.

Description:

- If the device to be added is a multi-channel NVR, users can select the channel No. to be added in the “Device Channel” and add the corresponding multiple channels of one NVR at the same time.
- Conduct the smart adding, batch adding and adding according to the adding rules and target channel; skip the current channel if the target channel includes the current channel. If users select IP address ascending, the last bit of IP will not increase after it reaches 255.

- When the device type is ONVIF, the port No. defaults to 80 and the user name and password default to admin. The account numbers and passwords of devices from different manufacturers may be different and need to be modified according to the actual situations.

4.4.3.POE Camera Adding

1.In the Channel Configuration->Basic Configuration interface, click  in the list of added devices or double click the PSE channel to enter the digital channel interface.

Channel	Name	Connect Status	Password Strength	Edit	Delete	Enable	Attribute	Protocol
01	Channel 1		Risk password				10.30.31.88 : 01	Private
02	Channel 1		Risk password				10.30.31.96 : 01	Private
03	Channel 3		Risk password				10.30.31.101 : 01	ONVIF
04	Channel 1		Risk password				10.30.31.107 : 01	Private
05	Channel 5		Risk password				10.30.31.121 : 01	Private
06	Channel 1		Risk password				10.30.31.125 : 01	Private
07	channel9		Risk password				10.30.31.145 : 01	Private

2.The “Plug-and-play” and “Manual Add” modes are supported as the PSE channel adding modes:

1) If “Manual Add” is selected, the device shall be connected to the network interconnected with IP channel and other configuration methods are the same as that of general digital channel.

2) If “Plug-and-play” is selected, the front terminal to be added shall be connected to the independent ethernet port of device with POE power supply. The device will finish the connection automatically.

4.4.4.Plug-and-play Setting

By selected “Plug-and-Play” mode to help user to add device automatically in the same network segment.

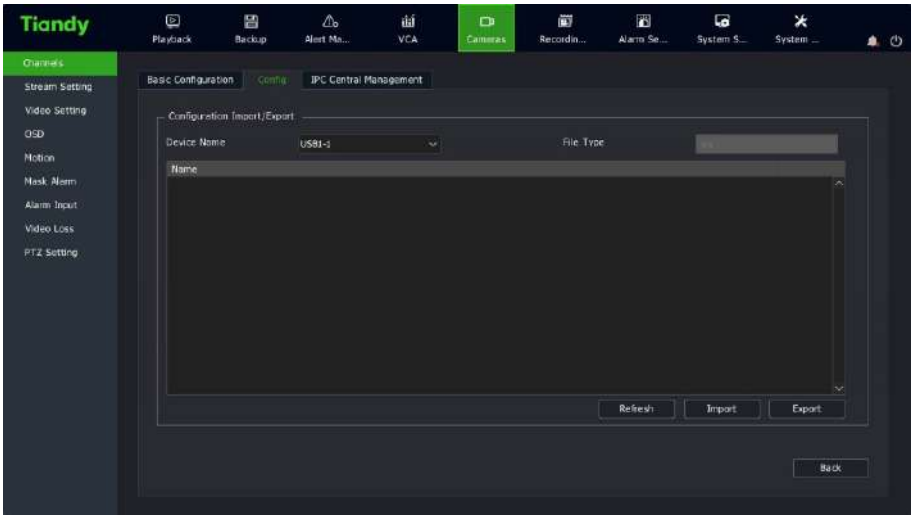
Description:

- “Plug-and-play” is recommended on PSE NVR.
- “Plug-and-play” will automatically search IP cameras and add them to free channel.
- PSE NVR channel list can’t be deleted manually.

4.4.5.Configuration Management

Users can import and export all channel parameter configurations through the configuration management.

1.Select “Main Menu -> Channel Management -> Channel Configuration -> Configuration Management” to enter the configuration management interface; if the mobile storage device has been connected, click Export to export all the channel configuration parameters, and save the exported parameters as .xls files; users can manually edit the exported parameters on the computer and use them as import parameters, as shown in the following figure.



2.The contents of imported and exported .xls files shall meet the following format,

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Chn NO.	Enable	Server Type	Server Url	Server Proxy	Chn Type	Chn NO.	Net Mode	Connect Mod	Server Port	Mult IP	Mult Port	User Name	Password	Decryptrtspurl	Preview Mode	
2	1	1	Private	10.30.31.19		0	3	0	0	3000	0.0.0.0	0	Admin	1111	0.0.0.0	0	
3	2	1	Private	10.30.31.127		0	0	0	0	3000	0.0.0.0	0	Admin	1111	0.0.0.0	0	
4	3	1	Private	10.30.31.203		0	0	0	0	3000	0.0.0.0	0	Admin	1111	0.0.0.0	0	
5	4	1	Private	10.30.31.209		0	0	0	0	3000	0.0.0.0	0	Admin	1111	0.0.0.0	0	
6	5	1	Private	10.30.31.214		0	0	0	0	3000	0.0.0.0	0	Admin	1111	0.0.0.0	0	
7																	

Wherein:

(1) In “Enable Identification”, 0: disable, 1: enable;

(2) In “Stream Type”, 0: mainstream, 1: substream 2: picture stream;

(3) In “Transfer Protocol”, 1: TCP, 2: UDP, 3: multicast

(4) In “Connect mode”, 0: IP, 1: domain name, 2: active mode;

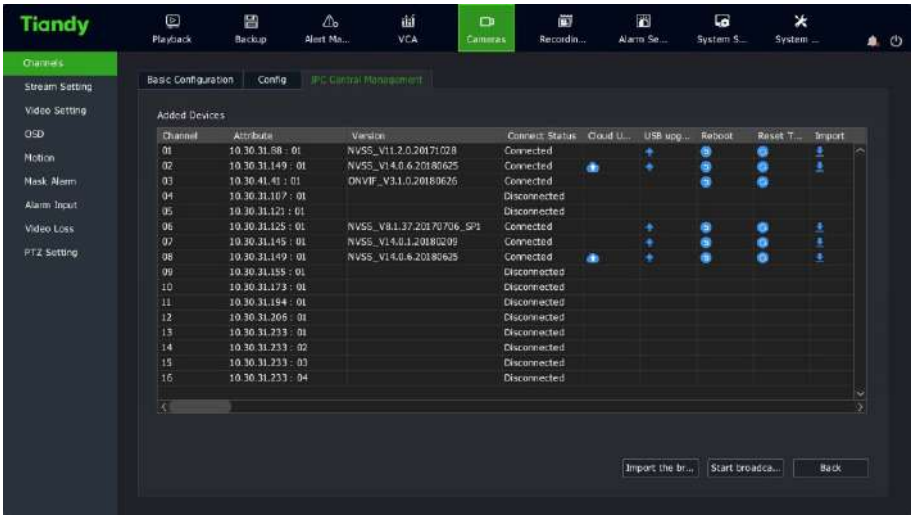
(5) In “Preview Mode”, 0: flat tile on the display area, 1: keep the widescreen proportion display.

3.The format of exported .xls file is word 2003 version and this file can be edited and imported to the device with office 2003 and higher version.

4.4.6.IPC Central Management

Users can conduct the parameter import and export, remote upgrade, IPC reboot and other operations for the added front-terminal device through the IPC central management function.

1.Select “Main Menu -> Channel Management -> Channel Configuration -> IPC Central Management” to enter the IPC central management interface, as shown in the figure below.



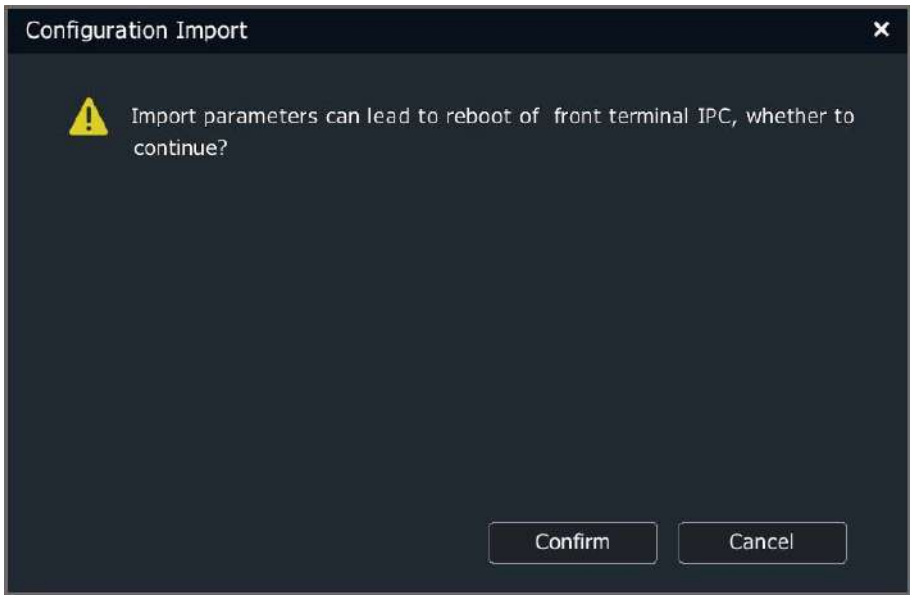
Description:

- The interface can display the channel No., attribute, version number and connection status of added front-terminal device and also the parameter import and export, remote upgrade, IPC reboot and other operations can be conducted.

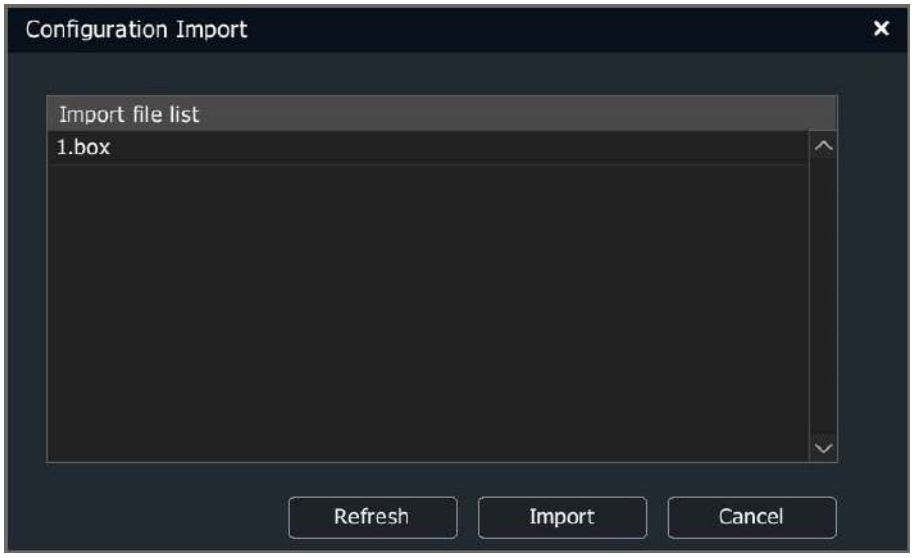
2.Parameter import/export

1) Select the front terminal to be operated in the list of added equipment.

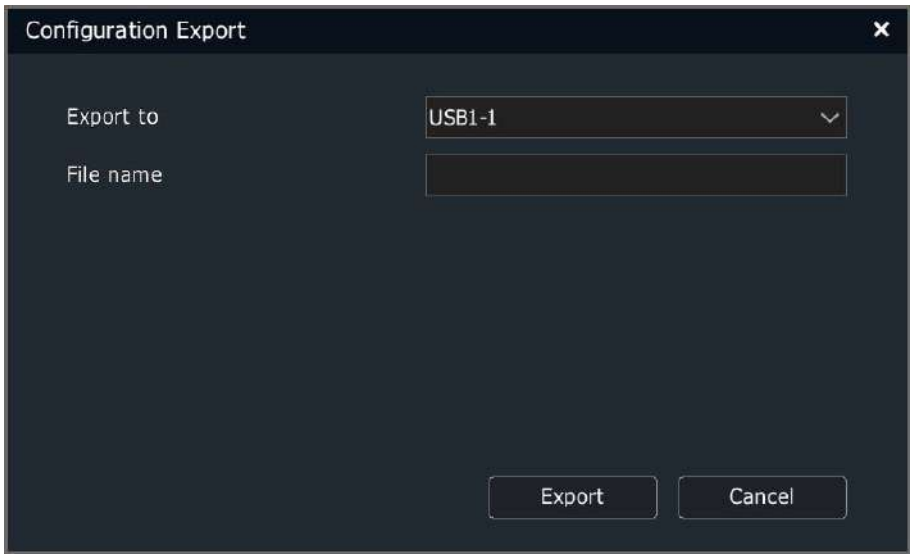
2) After clicking “  ”, the configuration import prompt box will pop up, as shown in the figure below:



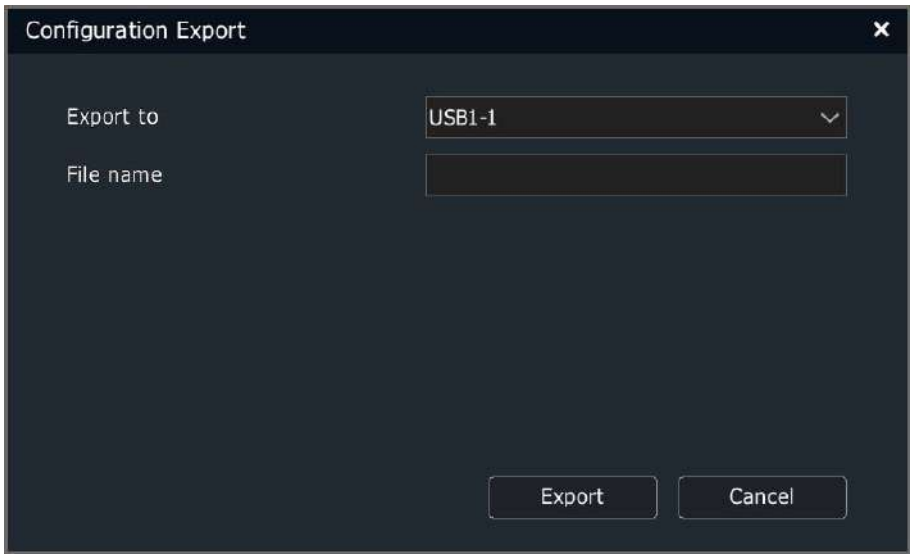
3) Click “Confirm” to enter the configuration import interface, as shown in the figure below:



4) Export the front-terminal configuration parameters and click “Parameter Export” to make the configuration export interface pop up, as shown in the figure below.



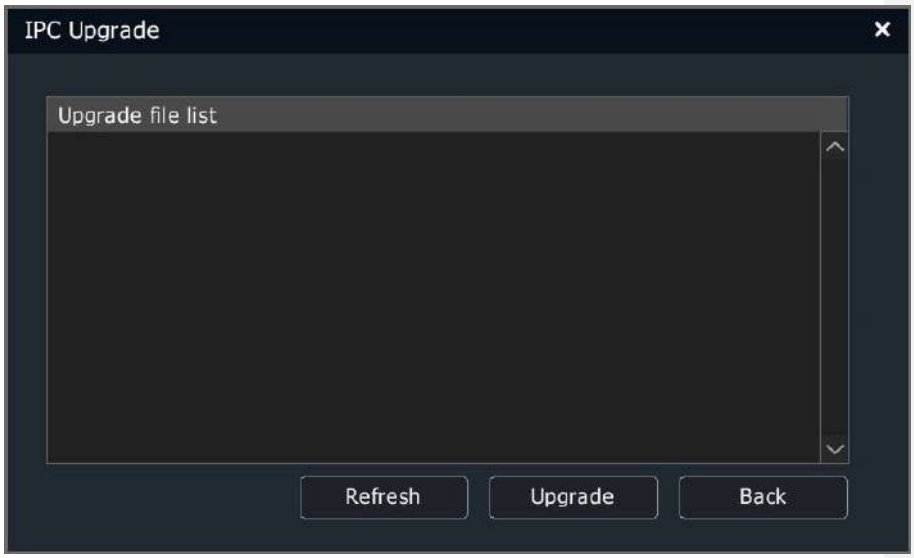
5) Select the storage device, fill in the exported file name and click “  ” to export the front-terminal configuration; after the export succeeds, the prompt window pops up, as shown in the figure below.



3.Remote upgrade and IPC reboot

1) Select the channel to be upgraded or rebooted in the list of added devices.

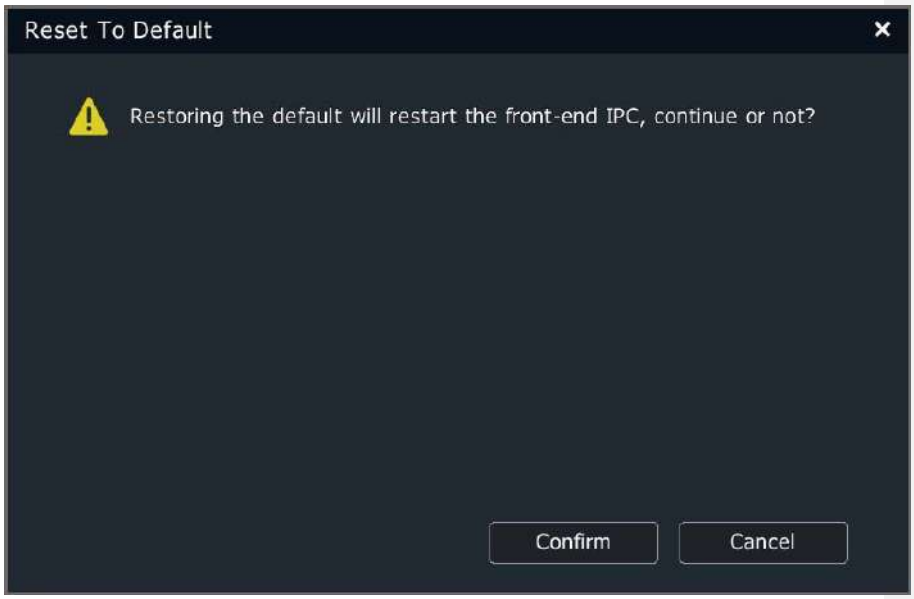
2) After clicking “  ”, the IPC upgrade interface will pops up, as shown in the figure below.



3) Select the configuration file to be upgraded and click “Upgrade” to finish the IPC upgrade.

4) Click “  ” and reboot the selected device remotely.

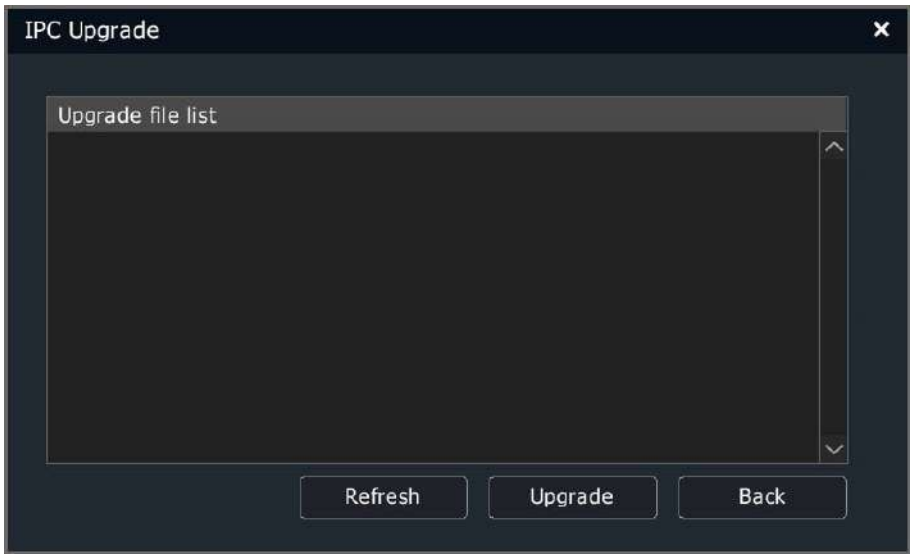
5) Click “  ”, Popup restore default prompt box, as shown below：



6) Click “Confirm”, the selected IPC will revert to default, and restart IPC。

4.Import broadcast/ Start broadcasting

1) Click import broadcast,popup IPC upgrade interface, as shown below.



2）Select the configuration file to upgrade, Click “upgrade” complete IPC upgrade

3）Click the start broadcast button when it is finished, and pop up to start the broadcast box, As shown below：

4）Click Confirm, all ipcs will be start playing import video.

4.4.7.POE Power Information

PSE series NVR has this function and other models do not have this function.

1.Select “Main Menu -> Channel Management -> Channel Configuration -> POE Power Information” to enter the POE power information display interface, as shown in the figure below.

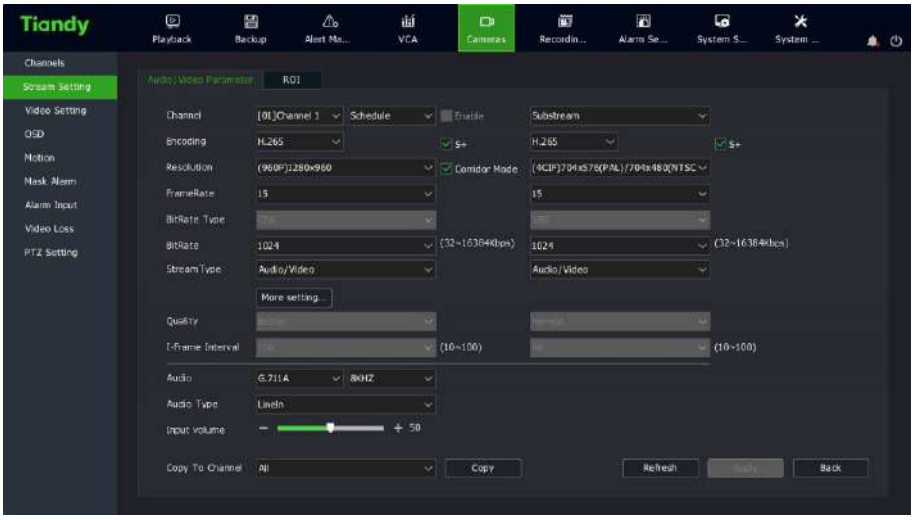
Description:

- “” means that the power supply of POE port is normal and “” means that no camera is inserted into this port or the power supply of this port is abnormal.
- The real-time power information of this POE port is displayed above the port “”.

For POE power precautions, see the interface description.

4.4.8.Encoding Setting

Select “Main Menu -> Channel Management -> Encoding Setting” to enter the encoding setting interface, as shown in the figure below.



Audio/video parameter
Select the channel to be set and set the audio/video parameter:

- Channel No.: select the channel with parameters to be set. The video compression parameter type includes mainstream (general), mainstream (alarm), customization 1 and customization 2.
- Encoding mode: the system supports H.264 and H.265 codes. Three encoding modes (high profile, main profile and baseline) can be selected.
- S+: S+ displays according to if IPC have this fucntion, It distinguishes the main and second streams. After enabling S+ , the compression mode, video quality, and i frame rate, and key areas are unavailable. Some IPC also support S+ and smart analysis mutexes, enabling S+. Smart analysis will be closed.
- Resolution: set the resolution of front-terminal device.
- Enable corridormode: when the resolution is 16:9 (e.g. 1080P), the corridormode can be enabled. After the corridormode is enabled, the resolution of video is adjusted to 9:16.
- FrameRate: the framerate of video refers to the number of video frames per second and it can be selected by pull-down list or edited.

- BitRate Type: “Variable BitRate” and “Constant BitRate” can be selected. The variable bitrate accords with the scene changes and the constant bitrate will encode in accordance with the set bitrate.
- BitRate: it can be selected by pull-down list or edited and the value range is 32-16384Kbps.
- Stream Type: the combined type option provides 2 choices: “Video” and “Audio”. “Audio” includes video and audio information and “Video” only includes video information.
- Click “More Setting” to expand the setting options of quality, I-frame interval, audio code, audio type and input volume.
- Quality: there are 5 levels of quality: best, better, good, normal, worse. The image quality is in direct proportion to the bitrate: the better the image quality is, the higher the bitrate will be.
- I-Frame Rate: I frame is the key frame and it means how many video frames contain a I frame. If I frame rate is 100, there is a I frame in each 100 frames of videos. I frame rate is inversely proportional to the bitrate: the bigger I frame rate is, the smaller the bitrate is. It is recommended that the setting value of I frame rate is the same as that of frame rate.
- Audio code: the system provides 4 audio encoding modes: ADPCM_D(ADPCM_DIV4), G.711A and G.711U. Three audio sampling rates (8K, 32K and 48K) are provided at the same time.
- Audio type: it refers to the audio type used by the front terminal and it supports two types: Lineln and MicIn.
- Input volume: it refers to the input volume of corresponding channel and the range is 0-100.
- Substream can be set separately. Refer to the setting mode of mainstream.

 **Description:**

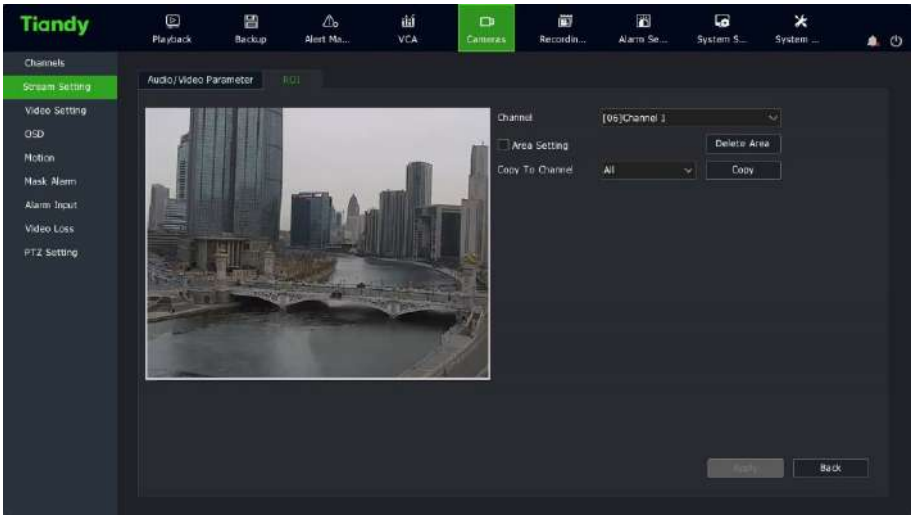
- When the “Constant BitRate” is selected as the bitrate type, the image quality cannot be selected.

- The substream parameters are used for network transmission. When the network environment is not very good, users can use the substream for preview to reduce the transmission bandwidth; the substream is also applicable to the mobile monitoring.
- To open the corridormode, the front-terminal IPC support is needed.
- The encoding parameter templates of front-terminal IPCs of different models are different.
- Click the “More Setting” button to expand and collapse the setting options under the button.

Key area setting

Set the key area here after the front terminal which supports the key area is connected. The image displayed in the key area has higher quality.

1.Select the key area attribute page, as shown in the figure below.



2.Check “Area Setting” to enable this function; press the left mouse button on the video and drag to set the key area. Four key areas can be supported at most. Click “Delete Area” to delete all set key areas.

3.Click “Apply” to save the setting.

4.4.9.Video Setting

In order to obtain good visual effects, users can adjust the parameters of front-terminal video according to the scene; after these parameters are adjusted, they will affect the local preview, recording, network preview and other items.

Select “Main Menu -> Channel Management -> Video Setting” to enter the HD parameter interface, as shown in the figure below.

HD parameter

1.Select the channel to be set.

2.Set the format, video flip, mode and other parameters.

Description:

- Brightness, contrast, saturation and hue can be adjusted from 1 to 100.
- Shutter speed can be adjusted from 1/100000 to 1 and the bigger the setting value is, the faster the response speed is.
- Gain can be adjusted from 0 to 100.

- WDR policy has three options: disable, wide dynamic auto and wide dynamic manual. The wide dynamic level is displayed when the wide dynamic policy is not enabled, and the value can be adjusted from 0 to 100.
- Image enhancement image style, indoor and outdoor model, digital noise reduction and noise level.The image style is adaptive, natural, bright, soft and bright.There are indoor and outdoor modes.Digital noise reduction has three options: turn off, normal mode and expert mode.When selecting normal mode, the noise reduction level can be selected, and the value can be adjusted between 0 and 100.When selecting expert mode, the spatial domain noise reduction level and time domain noise reduction level are selected, and the value is adjustable between 0 and 100.
- The white balance adjustment are automatic, semi-automatic, sunshine, fluorescent lamp, warm lights, incandescent lamp, natural light, lock white balance and manual .Manual and semi-automatic values can be between 0 and 50.
- Users can select the function of "Copy To Channel" to copy the set parameters.
- The video input parameters can be adjusted by the mouse wheel and the values can be increased or decreased by clicking  and  icons.

3.After the setting is completed, click "Apply" to save the setting parameters.

4."Reset To Default" means that the default values of all parameters on this page are restored directly.

Color to grey type

1.Select the channel which needs color to grey setting.

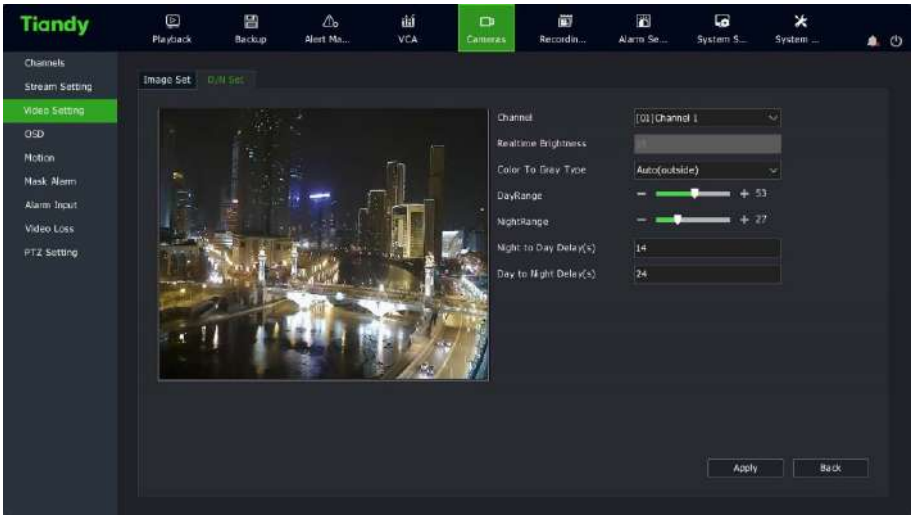
2.The color to grey type includes colored, black and white, inside synchronization, outside synchronization, day/night and self-adaptive modes.

3.The timing is shown in the figure below.

Description:

- The sunrise time and sunset time can be set within the time range of 00: 00~23:59, and the sunset time must be later than the sunrise time.

4.The outside synchronization is shown in the figure below.



Description:

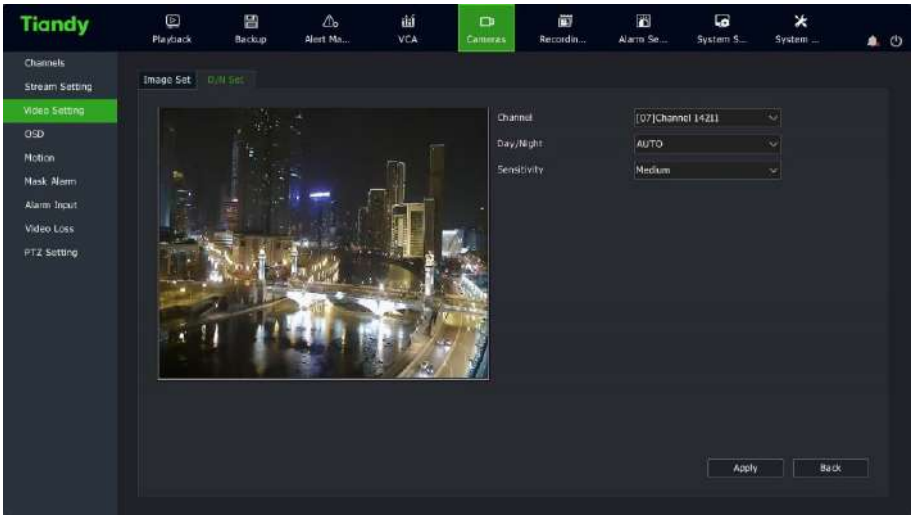
- The brightness value of day and night can be adjusted from 0 to 100 and the values can be increased or decreased by clicking and icons.
- The color to grey delay and grey to color delay can be adjusted from 0 to 120s.

5.The inside synchronization is shown in the figure below.

Description:

- The day and night brightness values can be adjusted from 0 to 100 and the values can be increased or decreased by clicking and icons.
- The color to grey delay and grey to color delay can be adjusted from 0 to 120s.

6.The day/night mode is shown in the figure below.



Description:

- The day/night mode can be divided into 3 modes: auto, day and night.
- The sensitivity can be divided into 3 kinds: high, middle and low.

7.The self-adaptive mode is shown in the figure below

Description:

- The day/night brightness value can be adjusted from 1 to 100.
- The effective delay time of color2 grey/grey2 color is 0-120 seconds.

4.4.10.OSD Superposition Parameter Setting

1.Select “Main Menu” -> Channel Management -> OSD Superposition” to enter the OSD superposition parameter setting interface, as shown in the figure below.

OSD superposition

1.Select the channel which needs OSD setting.

2.Conduct OSD setting for the channel.

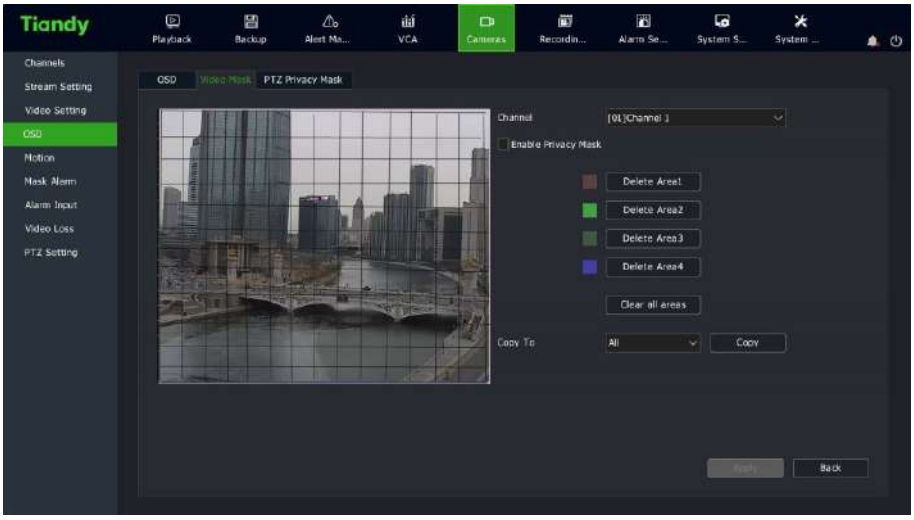
If the OSD position of this channel needs to be changed, you can directly drag the mouse on the OSD box for setting after checking the customized position.

Description:

- OSD position includes channel name, date, week, 12-hour system, date format, time format, OSD color, background color, etc.

Video mask

The video mask function can cover some key areas on the video.



1.Select the channel which needs video mask setting.

2.Drag the mouse to set the video mask area.

Dynamic privacy mask

1.Select the channel which needs dynamic privacy mask setting.

2.Control the PTZ through the shortcut PTZ control panel and switch to the screen you want to cover.

3.Drag the mouse to set the video mask area and click “Add Area”.

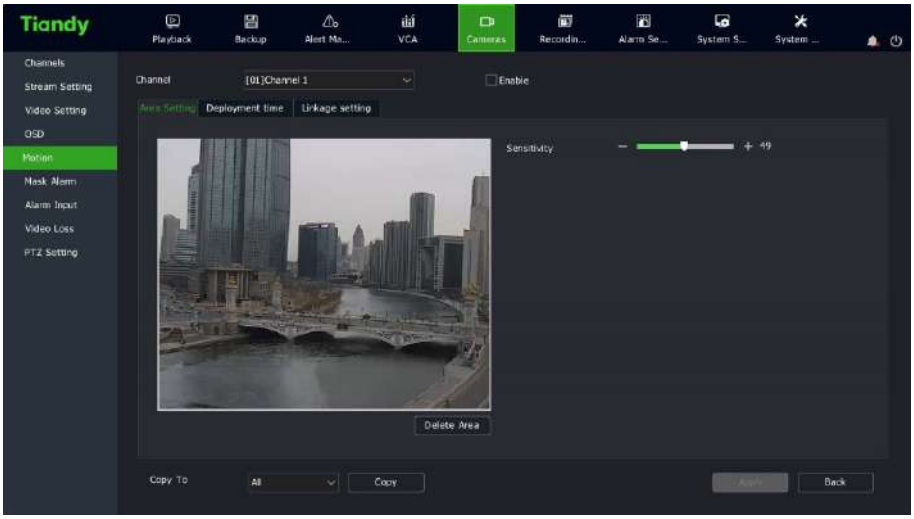
4.The added areas are displayed in the list on the right and they can be deleted by clicking “Delete Area”.

Description:

- The front-terminal IPC which supports this function is needed to be added for this part.

4.4.11.Motion Detection

1.Select “Main Menu -> Channel Management -> Motion Detection” to enter the motion detection setting interface, as shown in the figure below.



2.Select the channel which needs motion detection setting.

3.Set the Deployment time of motion detection, detection area and sensitivity; the operations are as follows:

1) Check “Enable”.

2) Set the arming time of motion detection.

3) Draw the area to be detected on the channel video with the mouse.

4) Adjust the sensitivity by using the sensitivity slider. The greater the sensitivity value is, the more sensitive the motion detection is.

4.Enter “Linkage setting” to set the motion detection alarm link.

1) The alarm link voive prompt, display, email sending, recording, output, snapshot, word plan, single-screen and double lamps can be set.

2) After the setting is completed, the parameter copy can be conducted for other channels.

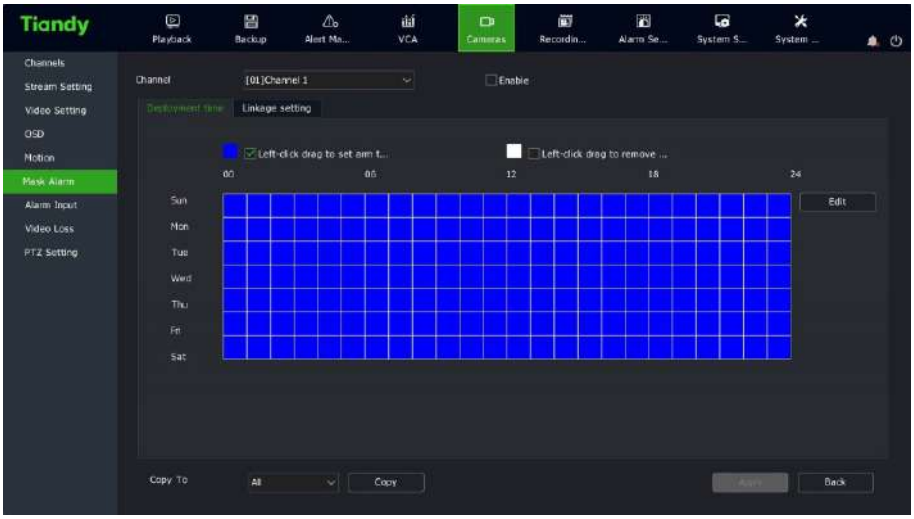
5.Click “Apply” to save the set parameters.

Description:

- The double lamps can be linked after the front terminal which supports the double lamp setting is connected.

4.4.12.Mask Alarm

1.Select “Main Menu -> Channel Management -> Mask Alarm” to enter the mask alarm interface, as shown in the figure below.



2.Select the channel which needs video mask setting.

3.Check “Enable” and enable the mask alarm disposal.

4.Set the arming time.

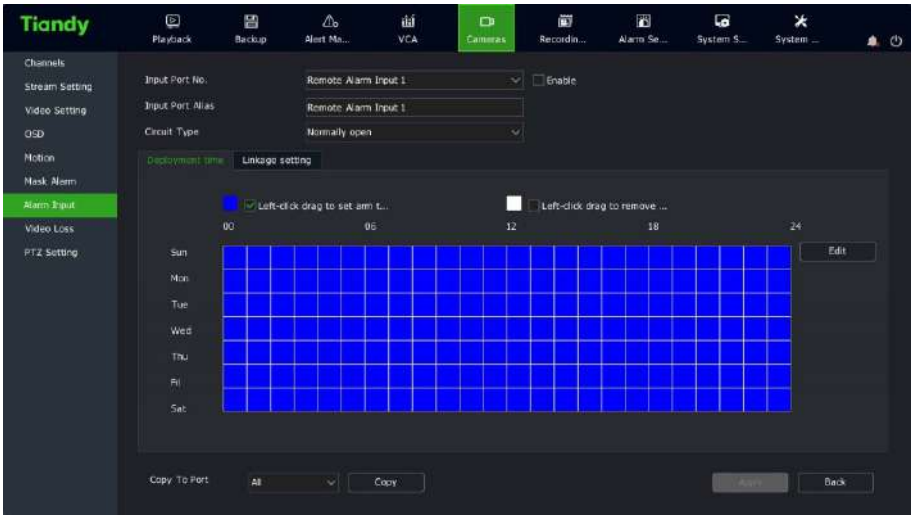
5.Selected the “Linkeage setting”, when an alarm occurs, it can activate voice, screen display, email, recording, output, snapshot, word plan and single-screen.

6.After the setting is completed, the parameter copy can be conducted for other channels. Click “Apply” to save the set parameters.

4.4.13.Alarm Input Setting

By setting the alarm input, the NVR device can be linked for prompting and recording when the alarm input alarm situation occurs in the front-terminal IPC.

1.Select “Main Menu -> Channel Management -> Alarm Input” to enter the alarm input setting interface, as shown in the figure below.



2.Select the input port No. to be set.

3.Select the alarm type.

Description:

- Normally open alarm: an alarm is given when the alarm input port of front-terminal IPC is open.
- Normally closed alarm: an alarm is given when the alarm input port of front-terminal IPC is closed.

4.Check “Enable” and set the arming time of alarm input.

5.Enter “Linkabe setting” to set the alarm link.

1).The alarm link voive prompt, display, email sending, recording, output, snapshot, PTZ, word plan and single-screen can be set.

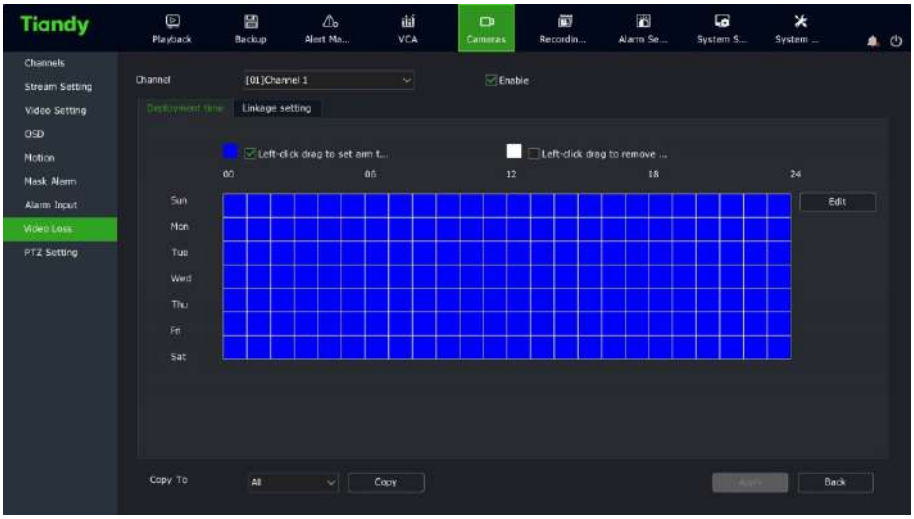
2). After the setting is completed, the parameter copy can be conducted for other channels.

6.Click “Apply” to save the set parameters.

4.4.14.Video Loss Alarm Setting

Set the video loss alarm and link the NVR device for prompting and recording when the video loss occurs in the channel.

1.Select “Main Menu -> Channel Management -> Video Loss” to enter the video loss setting interface, as shown in the figure below.



2.Select the channel which needs video loss setting.

3.Check “Enable” set the arming time of video loss.

4.Enter “Linkabg setting” to set the alarm link.

1) The alarm link voive prompt, display, email sending, recording, output, snapshot, PTZ, word plan and single-screen can be set.

2)After the setting is completed, the parameter copy can be conducted for other channels.

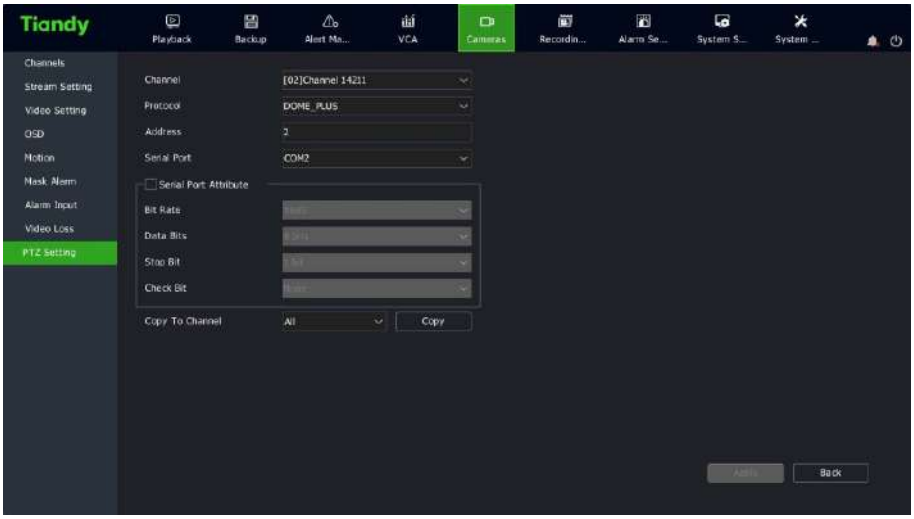
5.Click “Apply” to save the set parameters.

4.4.15.PTZ Control

Set the channel PTZ control protocol, serial port attribute, etc.

1.Select “Main Menu -> Channel Management -> PTZ Setting” to enter the PTZ setting

interface, as shown in the figure below.



2.Select the channel to be set.

3.Select the PTZ control protocol, address and serial port of this channel. After the setting is completed, the parameter copy can be conducted for other channels.

4.Click “Apply” to save the set parameters.

Description:

- Users can customize the attribute of serial port, set the bit rate, data bit, stop bit and check bit of serial port and select to copy parameters to other channels after setting.

4.5.Preview

4.5.1.Preview Interface Status

In the preview interface, the recording and alarm status of each channel can be displayed and distinguished by the icons at the top right of each channel. For the preview status description, please refer to the table below.

Icon	Status Description

	Alarm (Include motion detection alarm, video mask alarm, port alarm, video loss alarm, VCA alarm, etc.)
	Recording (Include timing, manual and all kinds of alarm link recording)
	Face recognition Identity: This channel has face recognition enabled
	This channel is being recorded and an alarm occurs

4.5.2.Descriptions for Right-click Menu of Mouse

In the preview status, users can conduct the preview screen switching, preview settings, channel management, video playback, video opening and other operations through the right-click menu. As shown in the figure below.

Diagram of right-click menu of mainport

Diagram of right-click menu of auxiliaryport

Description for right-click menu item of mainport

Name	Description
Main menu	Enter the main menu of system.
Single-screen	Select the channel through the pull-down menu for single-screen switching.
Multi-screen	Change the preview mode through the pull-down menu options.
Preview settings	Enter the preview settings interface.
Prev page	Switch the previous screen.

Next page	Switch the next screen.
Start switch	Switch the display of next screen constantly according to the preview settings conditions, and start with the first screen after reaching the last screen.
output model	You can set the standard, soft, bright and bright
Auxiliaryport	Switch the mouse operation from mainport to auxiliaryport.
Clear all alarm	Clear all current alarms of system.
alarm information	Check for abnormal alarm and routine alarm
network setting	Enter the network setup interface.(when the device IP conflicts and the network is disconnected, the alarm will be prompted)
Mobile monitoring	Download the mobile monitoring client and QR code of connecting device.
time setting	entry time setting interface
Hide/lock toolbar	hide or lock toolbars
Target detection	Real-time mode can be viewed in real time face detection and face recognition of the alarm picture; historical mode can [increase target detection instructions] View the current hour of insider face detection and face recognition of the alarm picture

Description:

- If the “Customized Preview” operation is needed, please set the configuration of “Customized Preview” in the preview settings in advance.
- If “Start Switch” operation is needed, please set the “Cruise Interval” in the preview settings in advance.
- Through the mobile monitoring, not only the client download of Android and Apple IOS version can be provided, but also the public network connection status can be seen.
- NR1016-S8, NR1032-S8, NR20xx-S8, NR20xx-E8 and NR20xx-E16 models have main and auxiliaryport setting and other models do not have auxiliaryports.

Description for right-click menu item of auxiliaryport

Name	**Description**
Preview settings	Enter the preview settings interface.
Single-screen	Select the channel through the pull-down menu for single-screen switching.
Multi-screen	Change the preview mode through the pull-down menu options.
Prev page	Switch the previous screen.
Next page	Switch the next screen.
Start Switch	Switch the display of next screen constantly according to the preview settings conditions, and start with the first screen after reaching the last screen.
Mainport	Switch the mouse operation from auxiliaryport to mainport.
Set as mainport	Set the auxiliaryport as mainport, which means that the main and auxiliaryports are exchanged.

Customized preview

Users arrange some specific channels on the same screen display in accordance with the number of specific screens in advance according to the needs. After selecting a configuration in the pop-up menu of “Customized Preview”, the preview will become this display interface.

Single-screen

Switch the current screen to a certain specific channel. Select a channel in the pop-up menu of “Single-screen”, which means that the channel is selected for preview.

Multi-screen

Modify the display mode of output device; the system supports 1/3/4/6/8/9/10/13/16/20A/20B/25/32/36/40/64 screen preview; select the multi-screen preview, which means that the preview is conducted according to the number of screens.

Description:

- For NR20-S series and NR20-E series NVRs, except for 20-channel device, VGA1/HDMI1 supports 64 screens at most and VGA2/HDMI2 supports 32 screens at most.

Page up and down

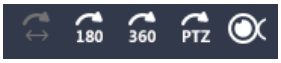
Click the “Prev Page” button on the right-click menu to switch to the previous screen and click the “Next Page” button to switch to the next screen.

Start/stop switch

After the shortcut menu is selected on the mainport/auxiliaryport and then “Start Switch” is selected, the mainport/auxiliaryport will start the switching operation according to the set cruise sequence; if “Stop Switch” is selected, the mainport/auxiliaryport will stop switching.

4.5.3Easy Operation of Preview

1.Enter the preview status and select the channel to be operated by the left mouse button, namely the display shortcut bar below red box, as shown in the figure below.



2.The PTZ control, instant playback, manual snapshot, manual recording, electronic amplification, talkback, channel information editing and other operations can be conducted by using the quitmenu. For specific operations, refer to the figure below.

Button	**Decription**
	PTZ Control
	OSD Superposition
	Instant Playback
	Manual Snapshot
	Start/Stop Manual Recording
	Electronic Amplification
	Start/End Talkback
	Adjust Volume
	Low Delay/High Fluency

	Set preview supported fisheye mode
	View/Edit Channel Information
	View Encoding Parameter
	Enable 3D positioning

Instant playback

Play back the video of this channel within 5 minutes; a prompt of “Instant playback fails” will appear if there is no video of this channel.

Electronic amplification

1.Click  . Enter the electromic amplification interface, as shown in the figure below.

Original video:

Effect screenshot of electronic amplification:

2.Scroll the mouse wheel for amplification or shrinkage; the amplified or shrunk area centers on the current position of mouse.
3.Users can also click the “+” and “-” at the upper left corner of screen for amplification and shrinkage. Amplification and shrinkage are all conducted around the center of current screen.
4.When the video is amplified, the left mouse button can still be used to drag the image to replace the amplified area.
5.Click the right mouse button to log out the electronic amplification.

Description:

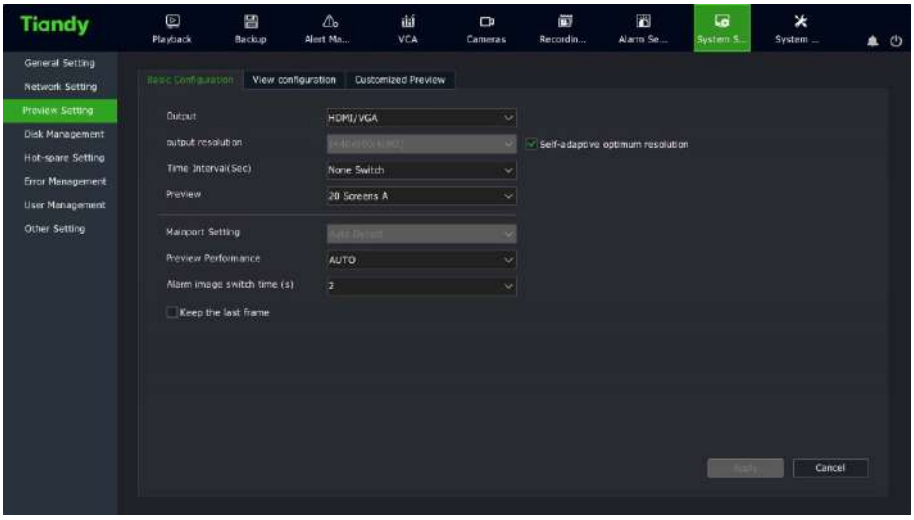
- According to the different disposal capacities of devices, the maximum amplification factor is 8 or 16 times.

High fluency/low delay:

If the high fluency is selected, NVR device will ensure the fluency according to the network situation. If the low delay mode is selected, the video delay will be reduced.

4.5.4Preview Parameter Setting

1.Enter the preview status, select “Preview Setting” through the right mouse button to enter the preview setting interface, as shown in the figure below.

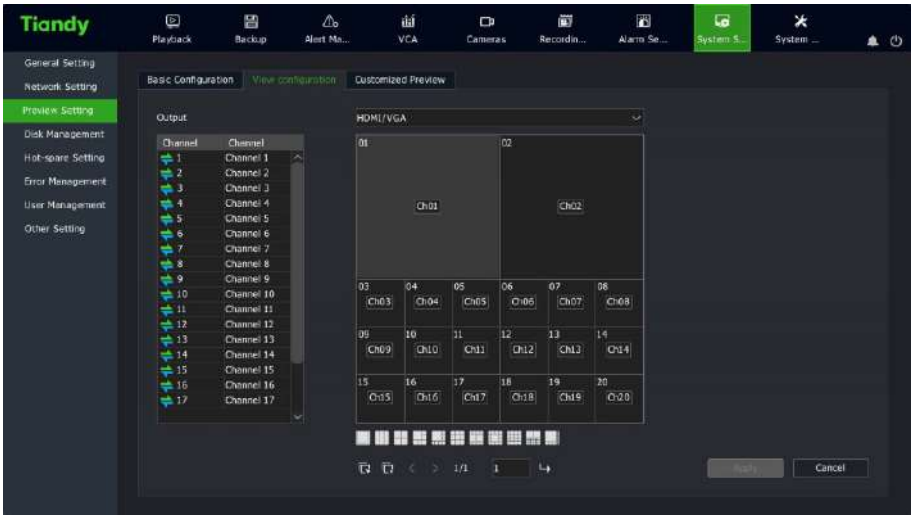


2.Preview Setting->Basic Configuration Interface Description:

- Output device: select a video output device in the pull-down list of “Output Device”, HDMI2/BNC, VGA/HDMI and VC (when the last channel is set as the virtual channel, VC is displayed here).
- Output resolution: 800*600, 1024*768, 1366*768, 1440*900, 1280*800, 1280*720, 1920*1080, 2560*1440, 2560*1600, 3840*2160, etc. There are differences among the items in list due to the differences among devices.
- Automatic detection: optimum resolution of self-adaptive display.
- Cruise interval: set the automatic switch time interval of preview; there are 8 kinds of optional intervals, including no cruise, 2 seconds, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 30 seconds and 60 seconds.
- Preview mode: set the configuration situation of screen quantity, including single-screen, three screens, four screens, six screens, eight screens, nine screens, ten screens, thirteen screens, sixteen screens, twenty screens A, twenty screens B, twenty-five screens, thirty-six screens, forty screens, sixty-four screens, etc. There are differences among the items in list due to the differences among devices.
- Mainport setting: NR1016-S8, NR1032-S8, NR20xx-S8, NR20xx-E8 and NR20xx-E16 models support this setting and other models do not support that.

- Output mode: set the display effect of VGA output; four optional modes are supported: standard, soft, bright and highlight.
- Preview effect: the system selects “Auto” by default, which means that the substream preview will be conducted after startup. Best image quality: to ensure the preview effect, all channels use the mainstream for preview. Maximum preview performance: the system adjusts the mainstream and substream according to the current preview performance.
- Alarm screen switch interval: set the single-screen display time interval of alarm link; there are 5 kinds of optional intervals: 2 seconds, 3 seconds, 5 seconds, 10 seconds and 15 seconds.
- Keep the last frame: configure this item; after the front-terminal camera is offline, the preview will stay at the last frame. Otherwise, “No Video” will be displayed.

3.Preview Setting -> View Configuration interface description

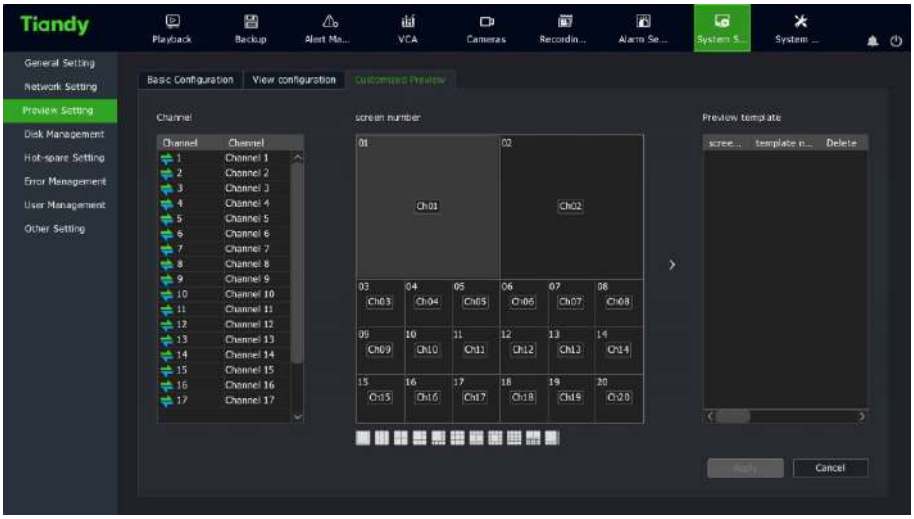


Select the screen number on the right, double click the screen to delete the preview channel and double click the left button on the channel No. of table on the left to configure the channel No. to the specific position. Click the automatic configuration and clear all at the lower right to open or close all preview channels.

Description:

- The output devices of standard series NVR (16 channels and 8 HDD and 32 channels and 8 HDD) model include HDMI2/BNC and VGA/HDMI1.
- The output devices of NR20-S series and NR20-E series NVRs (NR20xx-S8, NR20xx-E8 and NR20xx-E16) models include VGA1/HDMI1 and VGA2/HDMI2.
- When the maximum preview performance is switched from mainstream to substream, there may be no sound for UI preview at this time because the substream is not composite audio by default. Due to the limit of device performance, other streams cannot be linked again when the accessed stream reaches the upper limit of device performance.

4.Preview Settings -> Customized Preview interface description



The application method of left and middle of interface is the same as that of view configuration interface. When the channel is configured, click the arrow between the middle and the right to add the configuration to the preview template. The supported maximum number of templates is 8. After the configuration is completed, click “Apply” at the lower right corner to take effect. The configuration of number of channels and screens can be changed after the preview template is selected and the template name can be changed by

double clicking the preview template. The preview application is used in the right-click menu of preview interface.

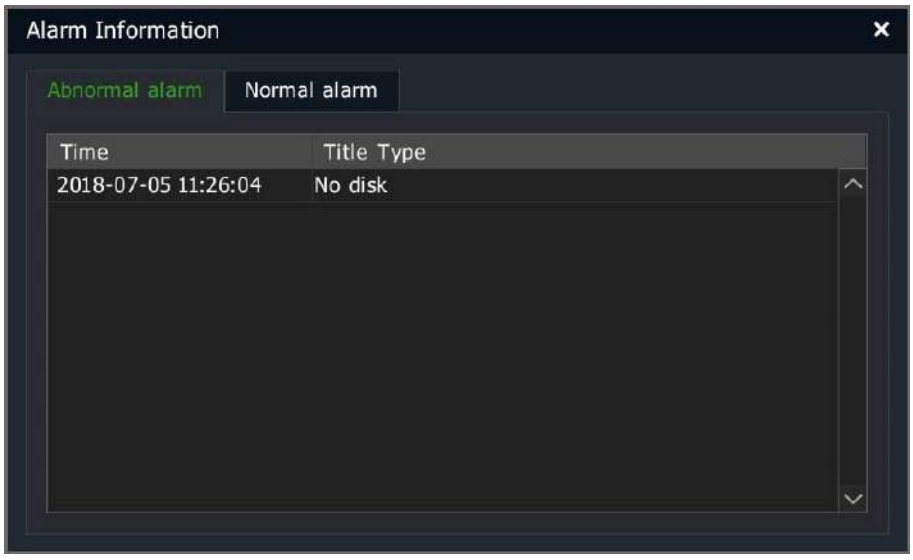
4.5.5Information Prompt on Preview Interface

Restricted decoding performance

When the decoding performance of device reaches the upper limit, the device will display the following prompt: “The decoding performance reaches the upper limit, please disable some channels manually”. Users can configure whether to enable this prompt and the details are shown in System Setting -> General Setting. It is disabled by default.

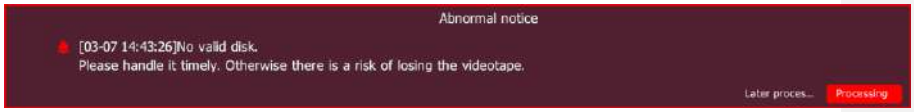
Information prompt of system exception:

When the relevant options in System Setting -> Routine Maintenance -> Network Exception\Storage Exception are enabled and a related exception event occurs, the  icon 会变成  icon, 双击此图标会打开系统通知界面, as shown in the figure below.



Description:

- Users can select “Don’t remind me.” or click “Next” to see the next prompt information.
- When an abnormal notice occurs, a red warning form will pop up prompting the user to handle the abnormal alarm in time, as shown below.



Alarm information prompt:

After the link shout is set for the channel in the VCA, the single-screen of corresponding channel will pop up and the  icon at the top right corner of screen will flash when an alarm occurs; the shout can be opened by clicking the icon and the icon changes to  at this time. Click the right mouse button to log out the alarm.

4.5.6Audio Preview and Talkback

Audio preview

After selecting a video channel using the mouse or remote control, the system will automatically play the audio of this channel.

Voice talkback

Users can use the voice talkback interface of device to realize the talkback function between remote control terminal and device. Before talkback, please connect the pickup and speaker well.

4.5.7Right click back to the preview screen

In the parameter configuration interface, right click to return to the preview interface directly.

4.6.PTZ Control

4.6.1.PTZ Parameter Setting

Description:

- Before controlling the ball machine or PTZ of IP channel, users shall confirm the normal network connection between PTZ decoder and NVR and configure the PTZ decoder parameters in the device.

- The parameter setting of front-terminal IPC serial port is shown in the description of Section 4.3.15.
- The parameter setting of NVR local serial port is shown in the description of system setting.

4.6.2.PTZ Control Operation

1.In the login status, enter the preview status. Click the channel preview screen which needs PTZ control operation by the mouse and click the “PTZ” button in the preview shortcut menu bar to enter the full screen of channel; then the PTZ control window pops up, as shown in the figure below.

2.Select the channel which will conduct PTZ control.

3.Description of PTZ Action Control:

1) PTZ control: click the  button with the mouse to control the upward, downward, left and right actions of PTZ, click the  button with the mouse to control the oblique action of PTZ and click the  button to start or stop the horizontal automatic operation of PTZ.

2) Lens control: the lens iris will be stopped after the button on the left side of “Iris” is clicked and the iris will be opened after the button on the right is clicked; the lens focus will become far after the button on the left side of “Focus” is clicked and the lens focus will become close after the button on the right is clicked; the lens zoom will become small after the button on the left side of “Zoom” is clicked and the lens zoom will become large after the button on the right is clicked;

3) Speed setting: click the progress bar to select the value or scroll the mouse wheel to change the value, and users can also click and icons to increase or decrease the value; the bigger the value is, the higher the speed of PTZ action is; the default value of system is L2.

4) Click icon to set the one-key focus function, click icon to enter 3D positioning function interface and click icon to set opening and closing of front-terminal laser.

5) Click and icons to expand and collapse the control menu on the right side; the control menu on the right is shown in the figure below.

6) Drag icon to drag the PTZ control window.

7) Click  icon to shrink the PTZ control window. In PTZ shrinking status, click 

icon to return the PTZ control window. In PTZ shrinking status, press the left mouse button to control the PTZ direction of ball machine according to the moving direction of mouse.

4.6.3.Preset, Cruise and Track Setting and Call

Preset setting and call

1.Calling preset: select the preset number in the pull-down list of "Preset" or directly input the preset number and then click the "Call" button to call the selected preset.

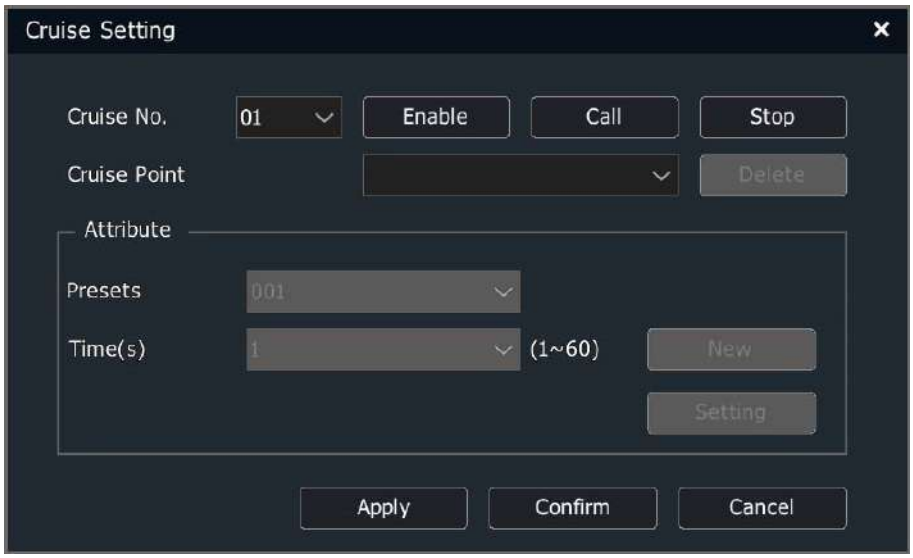
2.Setting preset: after controlling the PTZ action to a specific position, select the preset number in the pull-down list of "Preset" or directly input the preset number; click the "Set" button to complete the preset setting operation of this number.

Track recording and demonstration

After clicking the "Start Track" button, the button prompt information is turned into "End Track" and the system enters the track recording status. At this time, the system will automatically record all operations conducted for PTZ by users before clicking the "End Track" button. After the "End Track" button is pressed, the track recording is completed and the system automatically logs out the track recording status. Users can click the "Demonstrate Track" button to demonstrate the track recorded just now.

Cruise path setting

1.Click the "Cruise Path" button to enter the cruise path setting interface, as shown in the figure below.



2.The cruise path setting description is shown as follows:

1) Cruise path information browsing

Select the cruise path No. in the pull-down list of “Path No.”; after selecting a cruise point, the system will automatically display the corresponding preset of the cruise point and the dwell time of the preset.

2) Editing cruise path

Select the path No. to be edited in the pull-down list of “Path No.”; if the path is disabled at this time, press the “Enable” button to enable the cruise path. Select the preset No. in the pull-down list of “Preset”, press the “Add” button after the time is input; and then the preset is added to the cruise point list of cruising path. After selecting a cruise point in the “Cruise Point” list, click the “Delete” button to delete the cruise point from the cruise point list of cruise path. After selecting a cruise point, select a preset from the pull-down list of preset, enter the time and then click the “Set” button to modify the configuration information of selected cruise point.

3) Enabling/Disabling cruise path

Select the cruise path No. in the “Path No.” list; users can select to enable or disable this path.

4) Calling/Stopping cruise path:

Click the “Call” button to conduct cruise according to the set path; click “Stop” to stop the cruise of current path.

5) Logging out cruise path setting interface

If the “Confirm” button is clicked, all path editing operations conducted after entering the cruise path setting interface will be all saved in the system, and the system will log out the path setting interface simultaneously; if the “Cancel” button is pressed, the system will automatically ignore all editing operations and log out the path setting interface simultaneously.

6) 3D positioning

Users can use the mouse to select any area in the video screen and the system will automatically control the PTZ lens actions to achieve the zoom function of scene (the rectangle will be enlarged if it is drawn from left to right and the rectangle will be shrunk if it is drawn from right to left).

4.6.4.USB Keyboard Control PTZ

1.In the preview mode, use the【↑】【↓】button to select the channel which needs PTZ control operation; after pressing P, the selected channel is diaplayed in the single-screen of system at this time and “PTZ ChnXX” is displayed at the top right corner of screen to remind users that the system is in the PTZ control status of XX channel currently.

2.Control PTZ action description

- PTZ control: in the PTZ control mode, the upward, downward, leftward and rightward actions can be controlled by pressing【↑】【↓】【←】【→】 buttons; when the【Confirm】button is pressed, the PTZ will start horizontal automatic actions; when the 【Confirm】button is pressed again, the PTZ will stop horizontal automatic operations.
- Lens control: in the PTZ control mode, the lens iris will be opened after I or G is pressed and the lens iris will be stopped after Ctrl+I or Ctrl+G is pressed; the lens zoom will be increased after Z or B is pressed and the lens zoom will be decreased after Ctrl+Z or Ctrl+B button is pressed; the lens focus will become far after F or J is pressed and the lens focus will become close after Ctrl+F or Ctrl+J button is pressed.

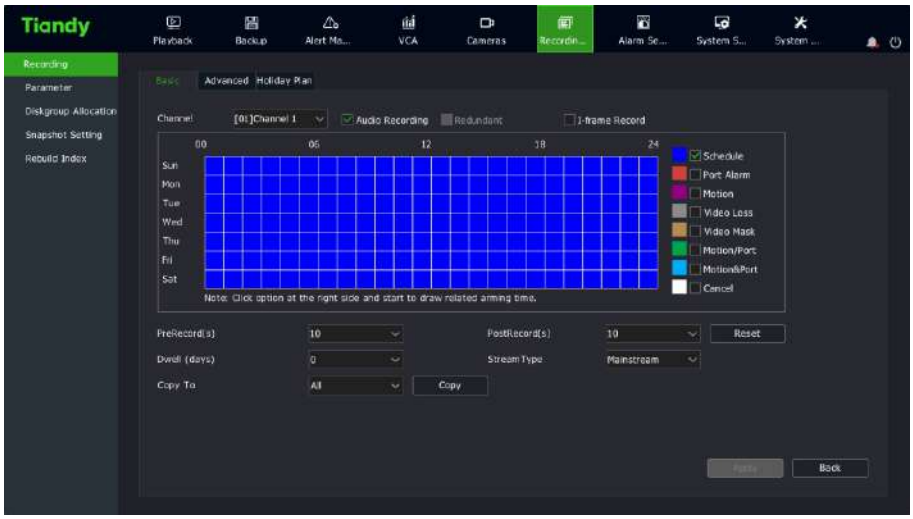
- Preset call: in the PTZ control mode, the system will conduct the corresponding preset call operation after the【Backspace】button,【Number】button and【Confirm】button are pressed in turn.
- Speed setting: in the PTZ control mode, the speed of PTZ action can be set by pressing the number buttons 【1】~【4】.
- Logging out PTZ control mode: click the 【ESC】 button in the PTZ control mode to return to the preview mode.

4.7.Recording

4.7.1.Recording Setting

Basic setting

1.Select “Main Menu->Recording Setting->Recording Template->Baisc Setting” to enter the basic setting interface of recording template, as shown in the figure below.



2.Select the channel to be set.

3.Select whether to conduct “Audio Recording” and enable “Redundant Recording/Snapshot”, “I-Frame Recording” and “Substream Recording”.

- When “Audio Recording” is not checked, only video data is saved in the recording file.

- When there is a redundant disk in the system and the “Redundant Recording/Snapshot” function is enabled in the selected channel, the recording and snapshot image files will be saved in the video disk and redundant disk.
- When “I-Frame Recording” is enabled, the system will conduct frame extraction disposal for recording files, and the hard disk space can be saved greatly for the video of non-key area.

4.Select the recording type. There are seven optional types in the template: “Timed Recording”, “Port Alarm”, “Detection Alarm”, “Loss Alarm”, “Video Mask”, “Detection or Port” and “Detection and Port”. Check “Cancel” to delete the set recording type.

5.By pressing the left mouse button to drag in the time period area, the selected time area will be updated to the established recording type.

6.Set the prerecording and delay time of alarm recording.

- Prerecording time: if it is assumed that the prerecording time set by users is 5S, the system will automatically save the video information within 5S before the alarm occurs in the recording file.
- Delay time: the recording delay time shall be used in the alarm recording; if it is assumed that the delay time set by users is 5S, the system will automatically save the video information within 5S after the alarm is over in the recording file.
- If the prerecording time and recording delay time are used cooperatively, it will be convenient for users to analyze the monitoring information before and after the alarm occurs.

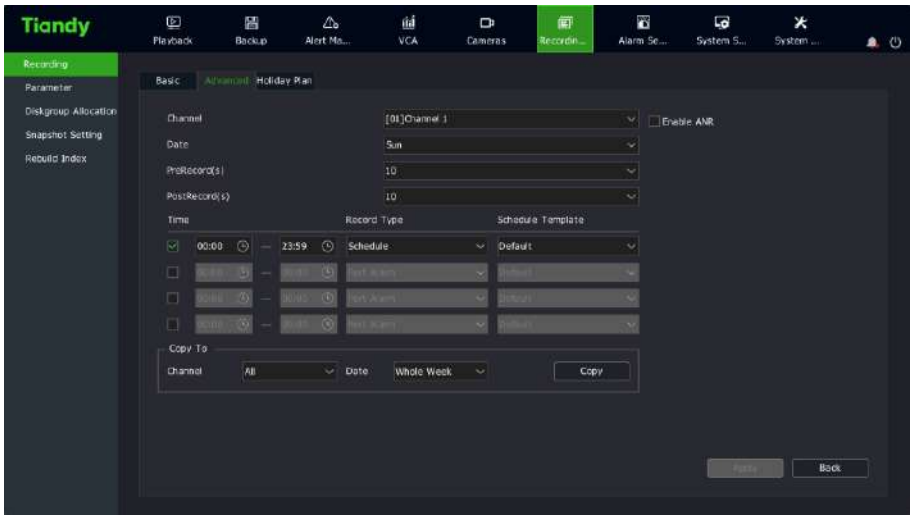
7.Set the maximum video retention time; the unit is day; if it is 0, it means no limit; the maximum value of video retention time is 120.

8.Set recording streaming type, including mainstream, substream, some models support dual stream recording.

9.Click “Apply” to save configuration.

Advanced Setting

1.Select “Main Menu” -> Recording Setting -> Recording Template -> Advanced Setting” to enter the advanced setting interface of recording template, as shown in the figure below.



2.Select the channel to be set.

3.Set whether to enable the ANR function of front-terminal IPC. If it is enabled, IPC will automatically start the local recording when IPC is offline, and it will automatically upload the video saved locally into NVR when IPC is online again.

4.Select the prerecording time in the pull-down list of “PreRecord”.

5.Select the recording delay time in the pull-down list of “Delay”.

6.Set the time period and the recording type within this time period. Click the time period enabling checkbox to make it be selected. Input the start and end time of time period in the time period input box. Select a recording type in the pull-down list of “Recording Type”. Different recording types can be specified for different time periods.

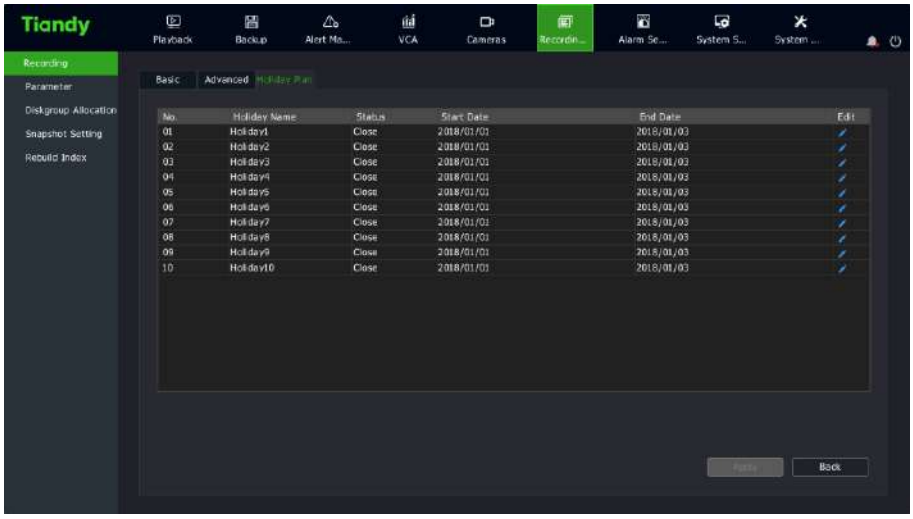
7.Copy the current template parameters to the channel and date.

8.Click “Apply” to save the configuration.

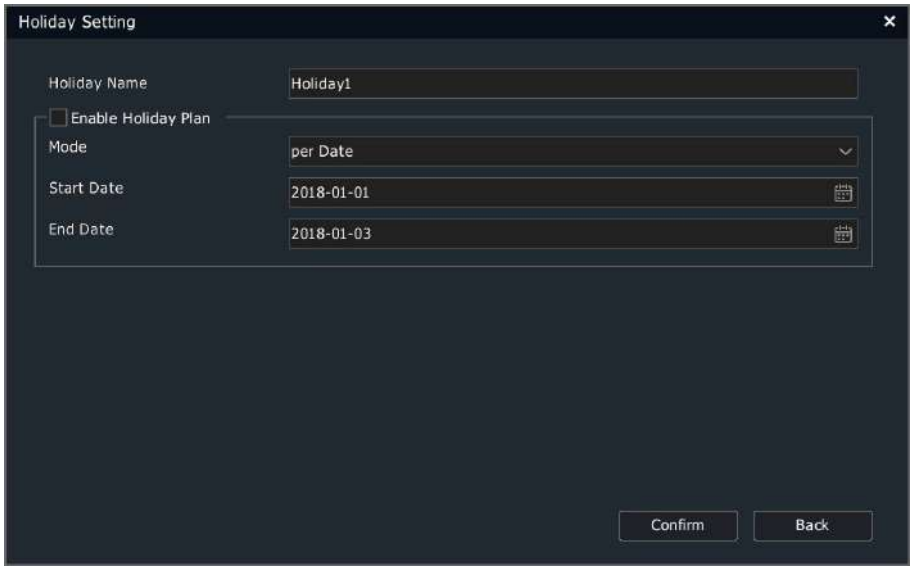
Holidy plan:

The holidy recording plan of current year can be configured. After the holiday plan is enabled, this recording plan is performed preferentially during the holiday.

1.Select “Main Menu->Recording Setting->Recording Template->Holiday Plan” to enter the “Holiday Plan” interface, as shown in the figure below.



2.Click to select a holiday in the list and click “Edit” or double click the left mouse button to enter the “Holiday Setting” interface.



3.Check “Enable Holiday Plan” and select the holiday setting mode: “Per Date”, “Per Month” or “Per Week”. Input the start and end date of holiday. Click “Confirm” to save the configuration.

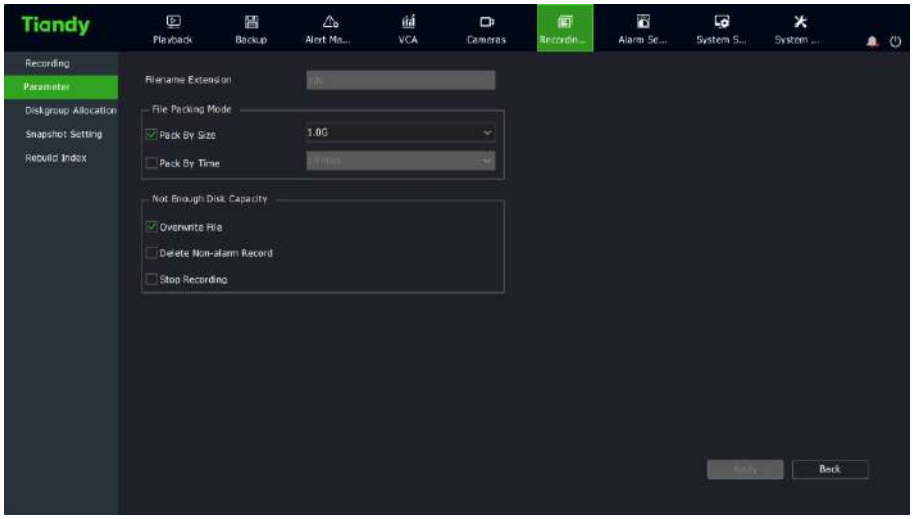
4.After the holiday plan is enabled, the holiday can be selected in “Date” of “Advanced Setting” and the corresponding recording template can be set for the holiday. The recording for all enabled holiday plans shall be conducted in accordance with the template

Description:

- Unless otherwise stated, Sunday is considered as the first day of each week for all configurations per week.

4.7.2.Recording

1.Select “Main Menu->Recording Setting->Recording Strategy” to enter the recording stategy setting interface, as shown in the figure below.

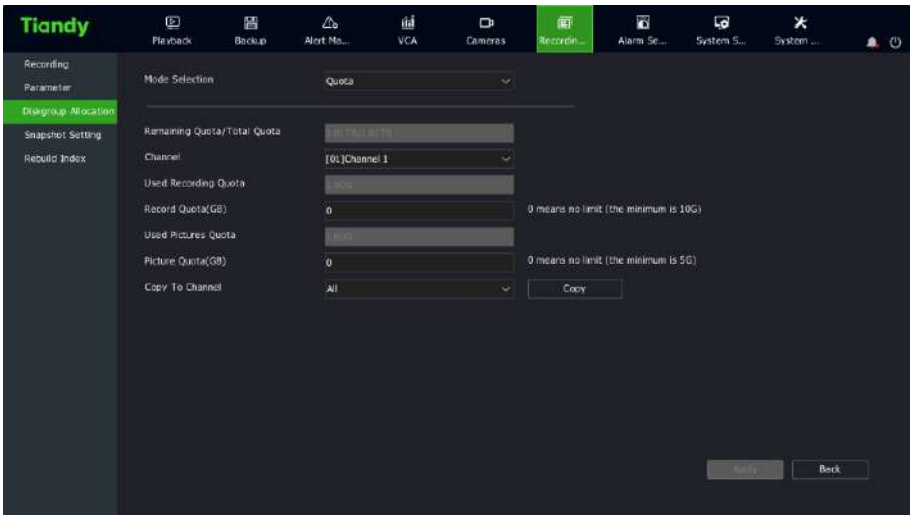


2.Select the disposal mode of system when there is no enough disk capacity: “Overwrite File”, “Delete Non-alarm Recording” or “Stop Recording”.

3.Click “Apply” to save the configuration.

4.7.3.Diskgroup Setting

1.Select “Main Menu->Recording Setting->Diskgroup Allocation” to enter the diskgroup allocation interface, as shown in the figure below.

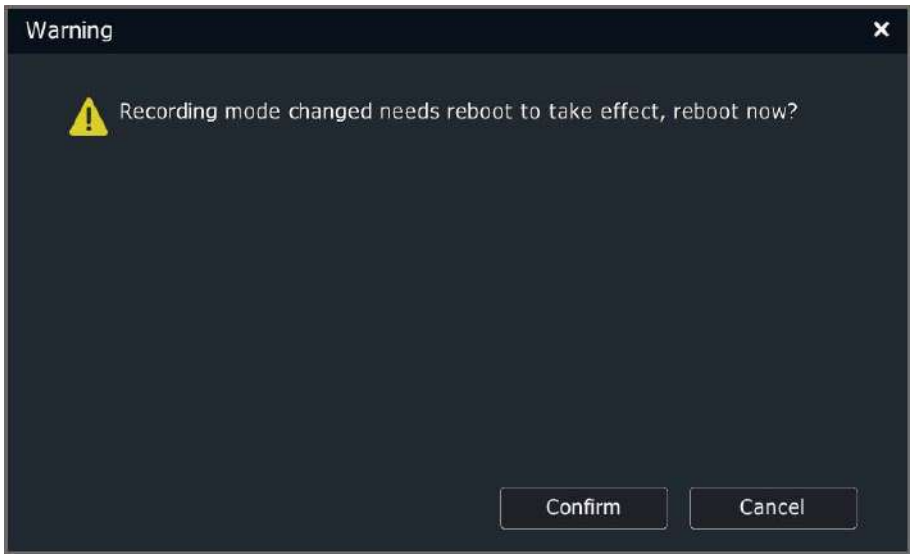


2.Set the disk group or quota.

Disk group: the hard disk attached to NVR can be divided into multiple disk groups and users can specify the disk group where the recording file is located for each channel.

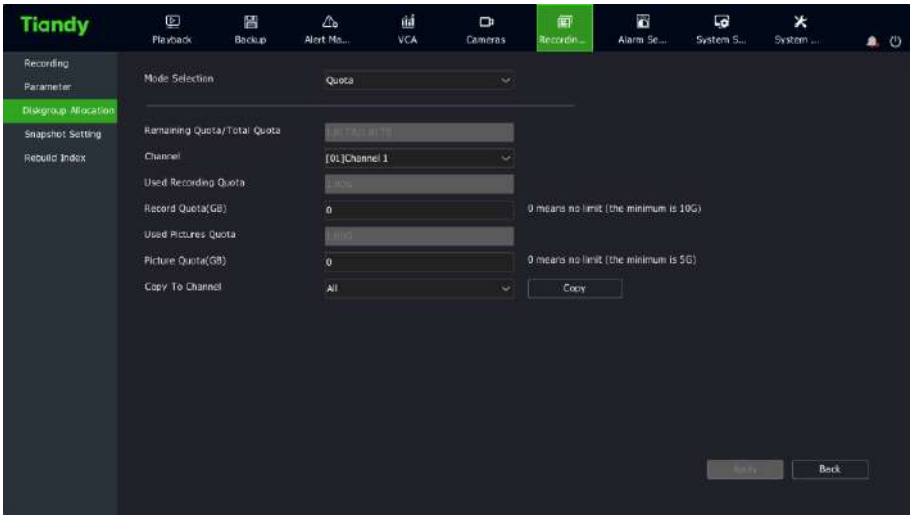
Quota: specify the maximum disk space which can be occupied by the recording file of certain channel; different recording occupation spaces can be configured for different channels.

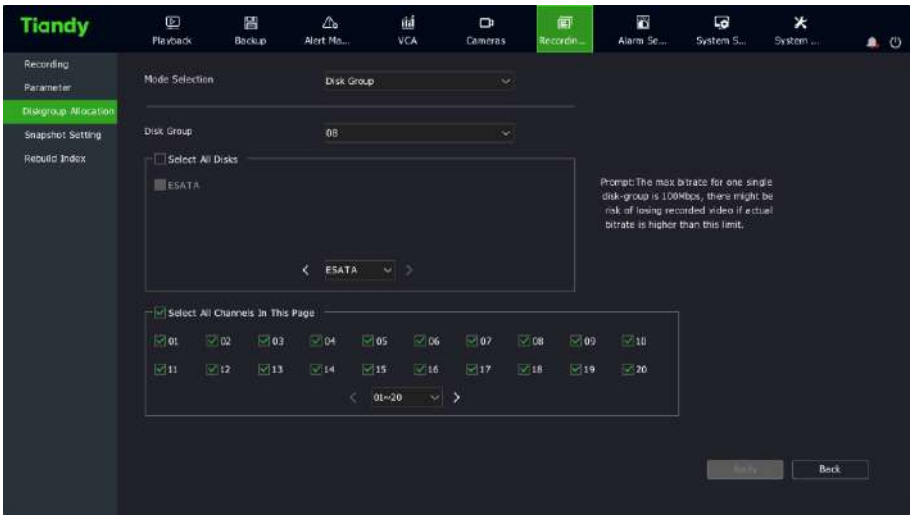
Mode switching requires restart the device.



3.Quota setting.

1) Select “Disk Group” in the “Mode Selection” item.





2) Select disk group. There are eight optional disk groups (1~8) in the pull-down box.

3) Select disk for disk group. Set the disks included in the disk group. Check “Select All Disks” to select all available disk groups. A disk cannot be included in multiple disk groups simultaneously.

4) Select channels for disk groups. Select the channels which can be recorded in this disk group.

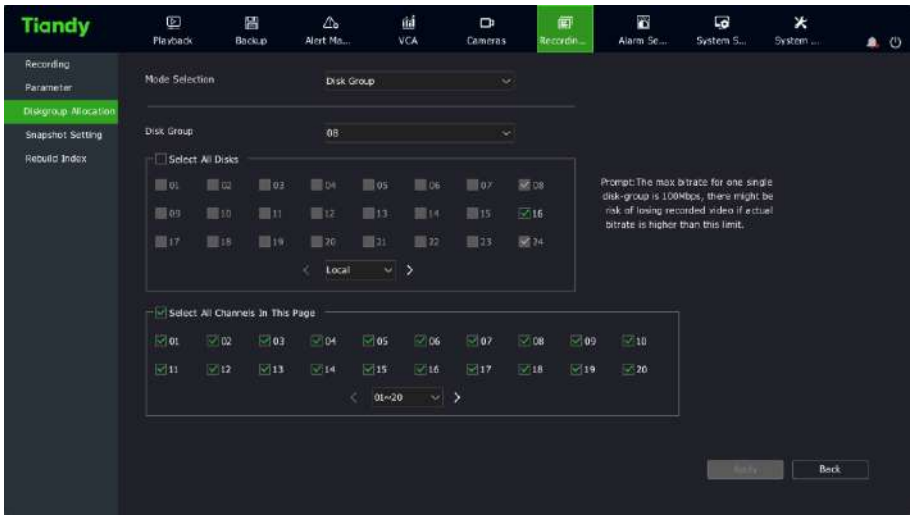
5) Click the “Apply” button to save the setting.

Description:

- The maximum storage bitrate of single disk group is 100Mbps and there may be a risk of losing video if actual bitrate is higher than this limit.
- When ESATA is not backup disk, it will show on disk list for selection.
- NVR defaults to 20 channels, one disk group and so on

4.Quota configuration

1) Select “Quota” in the “Mode Selection” item.



2) Select the channel to be set. Select the channel which needs quota setting in the pull-down box of “Channel”.

3) Set the recording quota. Set the maximum storage space occupied by the recording file of this channel; the unit is GB and 0 means no limit.

4) Set the picture quota. Set the maximum storage space occupied by the picture file of this channel; the unit is GB and 0 means no limit.

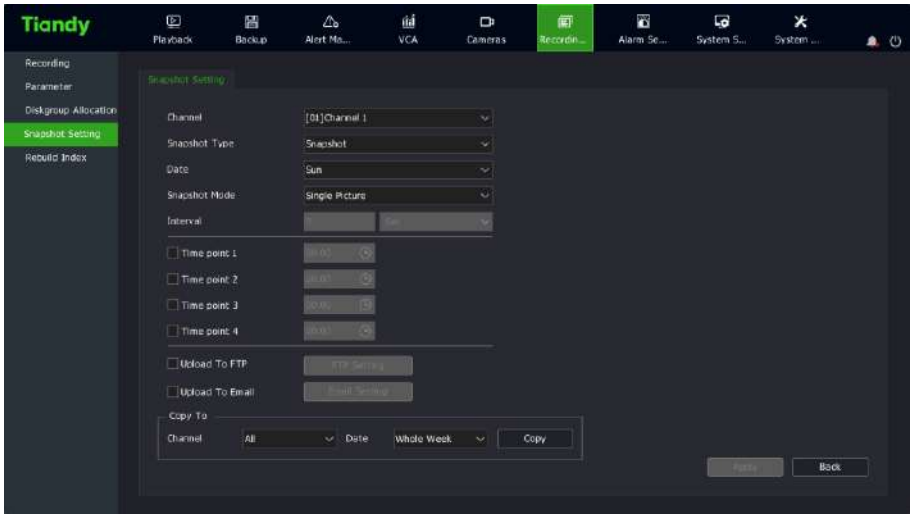
5) Save the setting. Click the “Apply” button to save the setting.

Description:

- The quota mode is not recommended for the devices of above 40 channels.

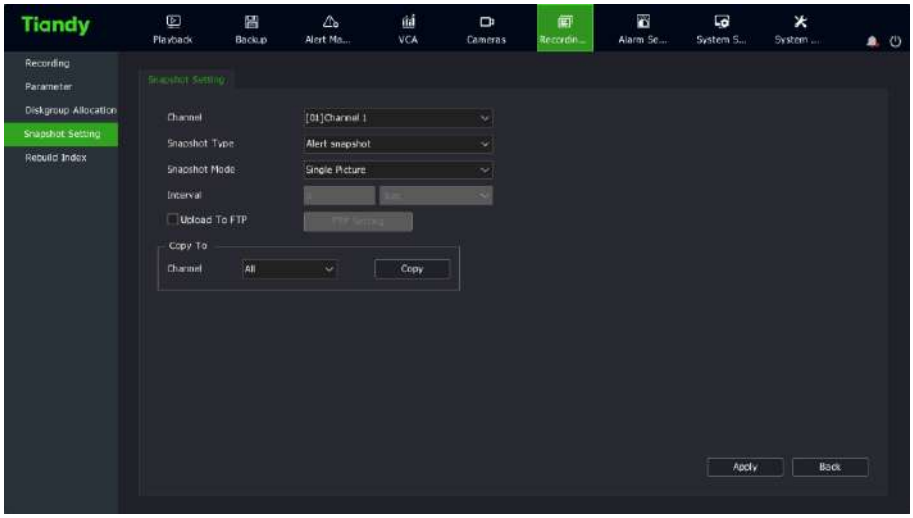
4.7.4.Snapshot Setting

1.Select “Main Menu->Recording Setting->Snapshot Setting” to enter the snapshot setting interface, as shown in the figure below.



1) Select the target channel No. which needs to conduct the snapshot setting operation.

2) Set the snapshot type which can be divided into two types: “Schedule Snapshot” and “Alert Snapshot”. When the alert snapshot is selected as the snapshot type, the snapshot setting interface is shown in the figure below.



3) Set the snapshot mode which can be divided into “Single-picture Snapshot” and “Multi-picture Snapshot”.

4) Set the time interval of snapshot; the unit is second.

5) Select whether to conduct ftp uploading operation for the snapshot picture. Click the “FTP Setting” button to enter the ftp setting interface; the specific FTP setting methods are shown in the corresponding chapters.

6) Select whether to conduct SNMP uploading operation for the snapshot picture. Click the “Email Setting” button to enter the Email setting interface; the specific setting methods are shown in the corresponding chapters. In this interface, the Email setting is not supported by alert snapshot.

7) The snapshot setting parameters of current channel can be copied to the specified channel.

8) Click “Apply” to save the configuration.

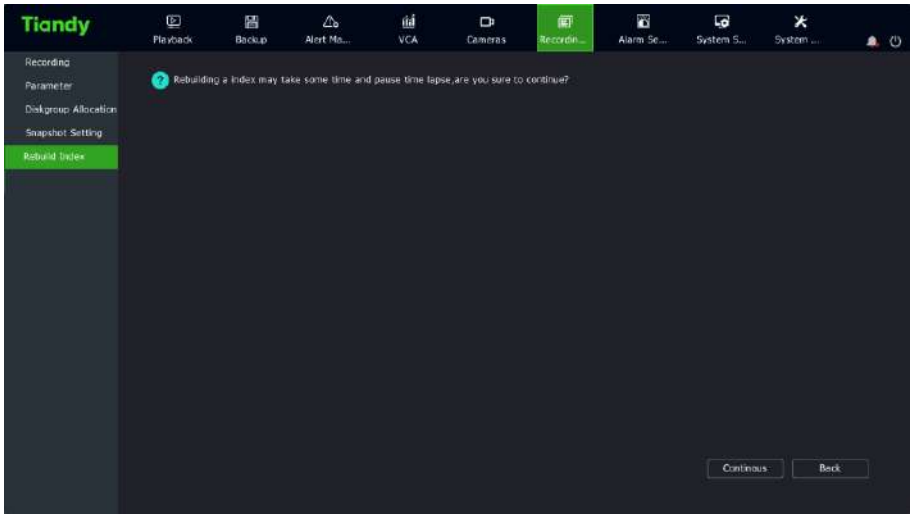
Description:

- The system can capture 2000 pictures within 24 hours in each channel at most and the number of captured pictures shall be reset after the system is rebooted.

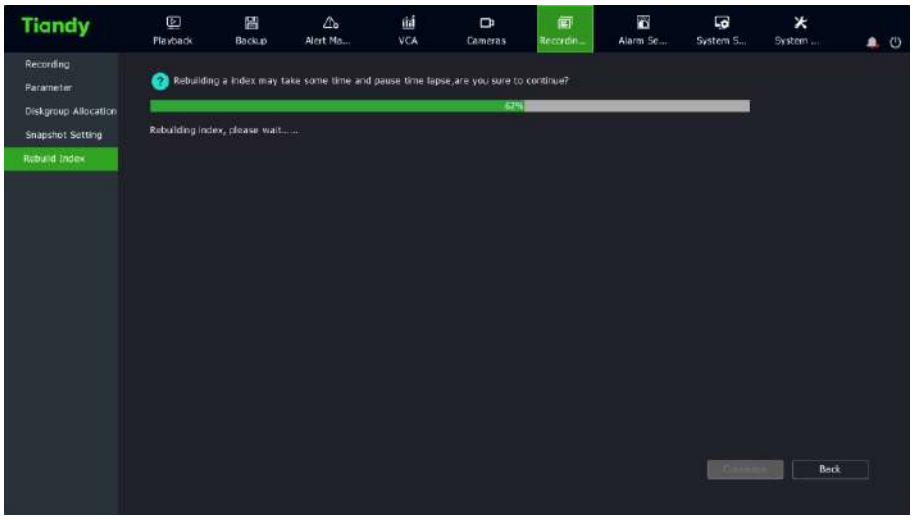
4.7.5.Rebuilding Index

When an exception of hard disk occus or video is lost, the lost records can be found by rebuilding the index.

1.Select “Main Menu->Recording Setting->Rebuild Index” to enter the “Rebuild Index” interface, as shown in the figure below.



2.Click the “Continous” button to start the rebuilding operation.

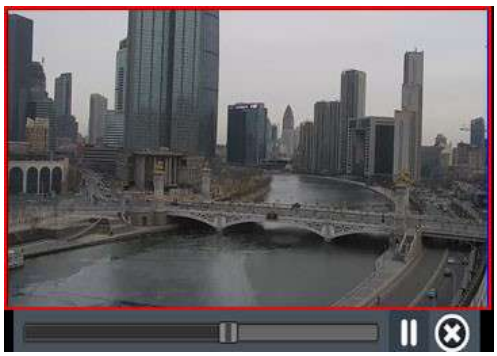


3.In the index rebuilding process, users can log out the interface for other operations, but they cannot conduct the video playback.

4.8.Playback

4.8.1.Instant Playback

In the preview interface, play back and select the recording file of channel within 5 minutes.

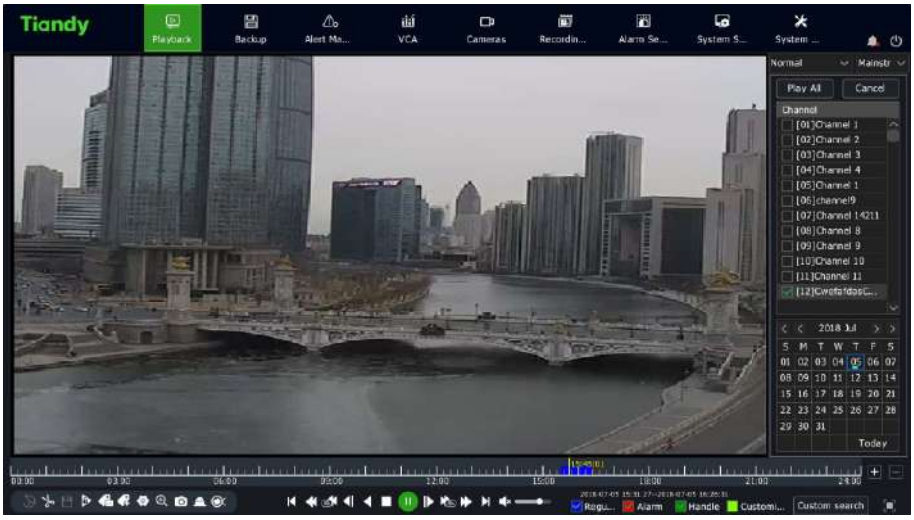


In the preview status, use the left mouse button to select the channel to be replayed, and click the  button on the easy operation menu to enter the “Playback” interface, as shown in the figure above.

4.8.2.Playback Interface Description

Introduce the composition of playback interface and various function modules.

Method to enter playback interface of menu: preview and use “Right-click Menu->Video Playback” to enter the playback interface, as shown in the figure below.



Description of playback control bar

Button	Description	Button	Description	Button	Description
	Open/close sound		Start/end editing		File management
	Save editing		Add default tag		Add customized tag
	Electronic amplification		Smart retrieval		Tripwire/perimeter search
	People counting		Face detection		Confirm/cancel/exit search
	Pause/reverse playback		Pause/forward playback		Stop
	Skip after 30S		Skip before 30S		Fast forward
	Slow forward		Step forward		Step back
	Previous day		Next day		Playback time shaft
	Time shaft enlarging		Time shaft shrinking		Playback position/snapshot
	Snapshot		File locking		

4.8.3.Normal Playback

Retrieve the corresponding recording files according to the channel and date, and play the recording files successively from the generated play bar which meets conditions. Specific playback operation steps are as follows:

1.Select “Main Menu->Playback”. Enter the “Normal Playback” interface, as shown in the figure below.
2.Select the video playback channel; the calendar displays the recording situations of current month automatically.
3.Click the date which needs video playback with the mouse.
4.The system plays the recording files which meet conditions automatically.

5. Other playback operations.
1） Use the “Full Screen” button at the top right corner to enter the full-screen playback.
2） In the playback process, if there is no operation within a period of time, enter the full-screen playback automatically and log out the full screen by operating the mouse or keyboard again.
3） Use the “Fast Forward” or “Slow Forward” buttons to realize the fast playback or slow playback function of video.

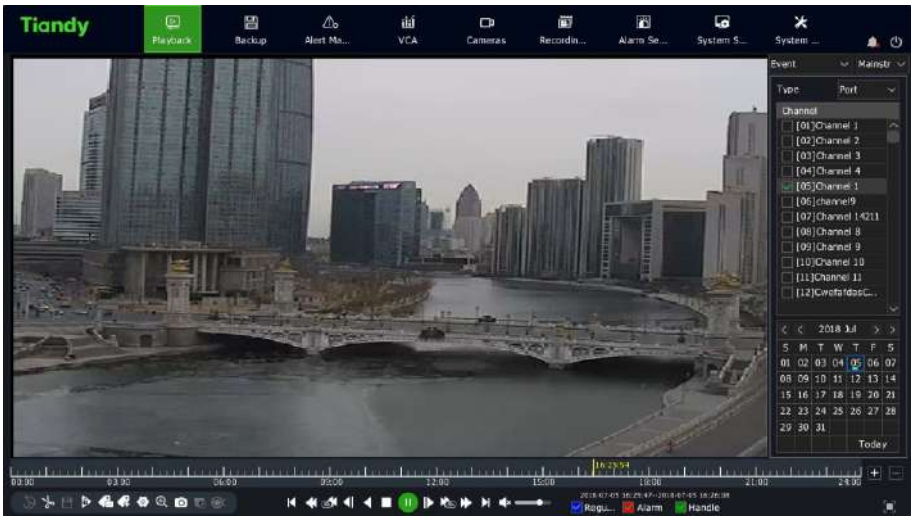
Description:

- 16-channel synchronous playback is supported at most and the playback performance is different according to the differences of device models and videos.

4.8.4.Event Playback

Inquire the recording files of certain channel in a certain period according to the event type (port alarm, motion detection, video loss, video mask and VCA), and play the video from the generated list which meets query conditions. Specific operation steps are as follows:

1.Enter the playback interface and select “Event Playback” as the playback mode.
2.Select the event type at the top right corner of playback interface.
3.Select the channel of video playback.
4.Click the date which needs video playback with the mouse.
5.The system plays the recording files which meet conditions automatically.



Description:

- During the event playback, the player will skip through the video according to the alarm time period of video and skip the time periods without alarm recording.

4.8.5.Tag Playback

The video tag function can help users record the relevant personnel or site information at a certain time point during playing back the video so that the information can be taken out later at any time to conduct search and positioning operation for the video.

Adding/managing tag

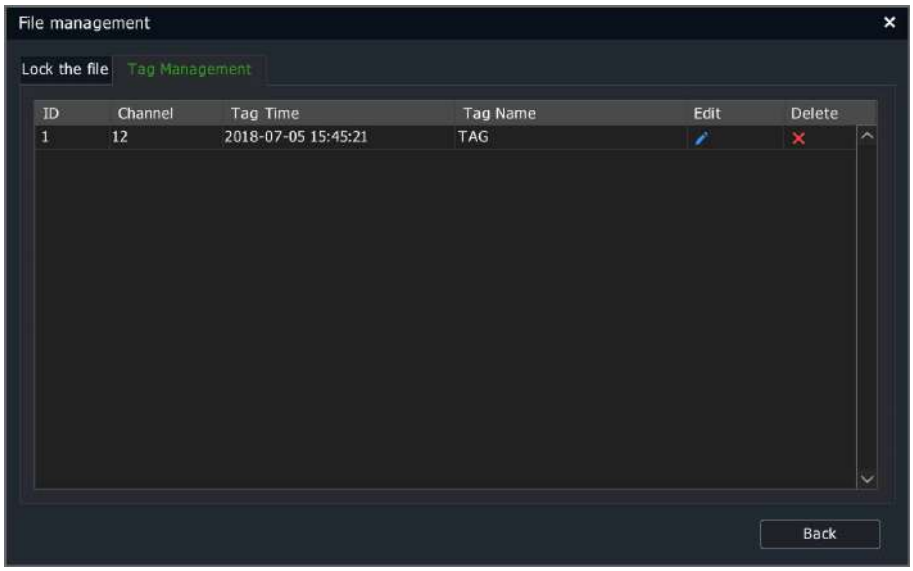
1.Enter the video playback interface

Click  to add the default tag.

Click  to input the tag name and add the customized tag.

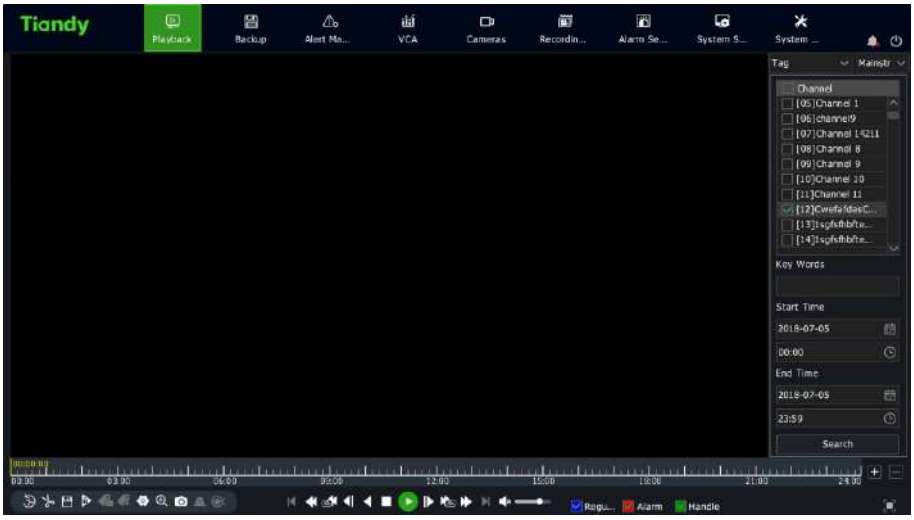
2.Tag management

Click  to enter the “File Management” -> “Tag Management” interface, as shown in the figure below. The viewing, editing and deletion operations can be conducted for the added tag.

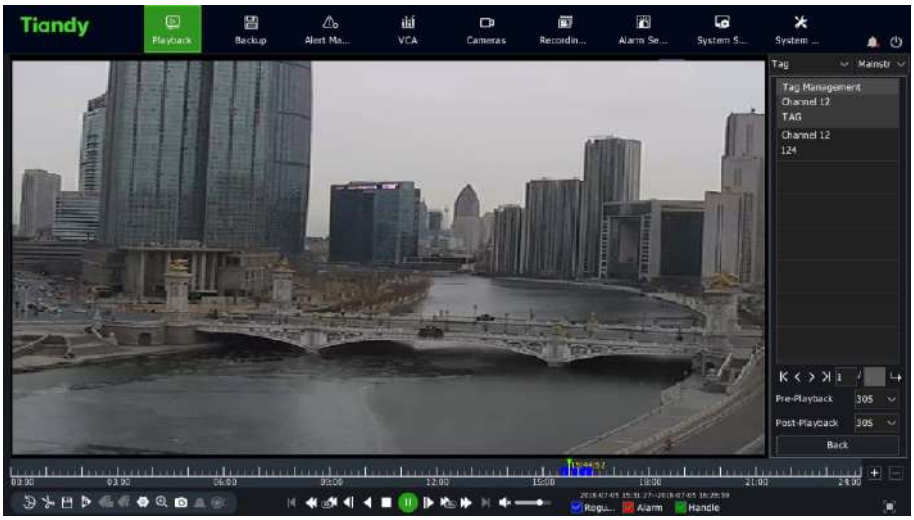


Operation by tag playback

1.Enter the playback interface, select “Tag Playback” as the playback mode and enter the “Tag Playback” interface. As shown in the figure below.
2.Select the channel.
3.Input the tag key work. If key words are not input, search all tags of selected channel in the specified date by default.
4.Select the date.



5.Play back the tag which appears on the progress bar and is indicated by a green inverted triangle. After the mouse is moved to the position indicated by an inverted triangle, the information prompt of tag name will be displayed automatically. As shown in the figure below.



Description:

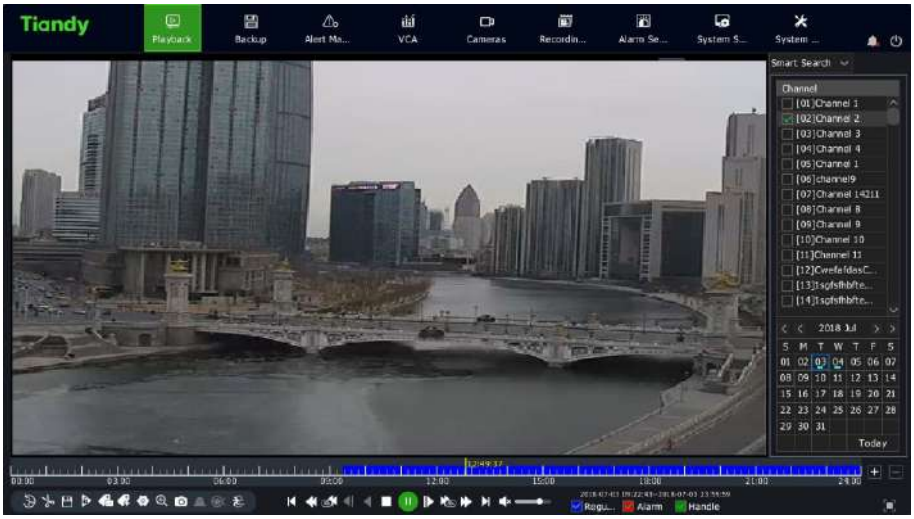
- The playback is started from the value set by “Playback Advance” (the tag adding time is advanced), to the value set by “Recording Delay” (the tag adding time is delayed). After it ends, jump to the next tag for playback automatically.
- The playback advance time and playback delay time can be set by oneself.

4.8.6.Smart Playback

Smart playback means that the VCA operation is conducted for the recording files. Three kinds of VCA operations (“Perimeter Search”, “Tripwire Search” and “Face Detection”) are supported currently.

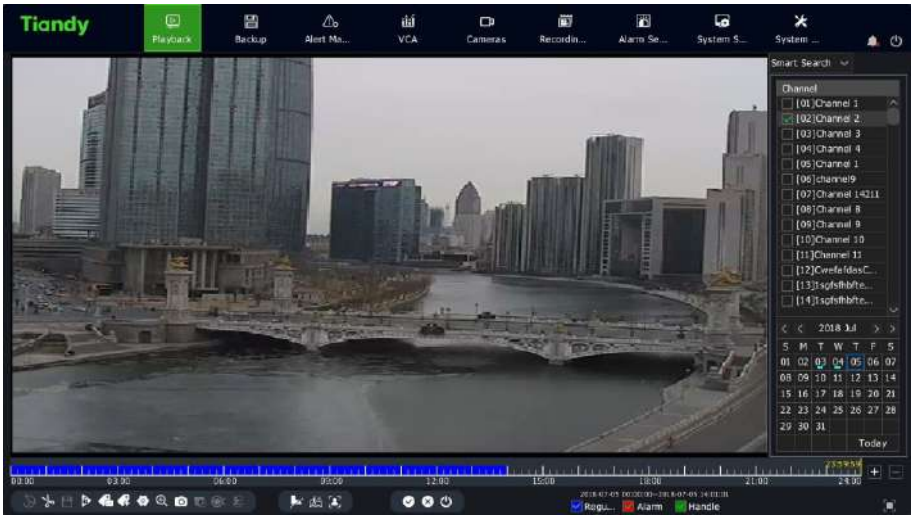
Specific operation steps are as follows:

1.Enter the playback interface and select “Smart Playback” as the playmack mode. As shown in the figure below



2.After the channel and date are selected, the playback operation is started.

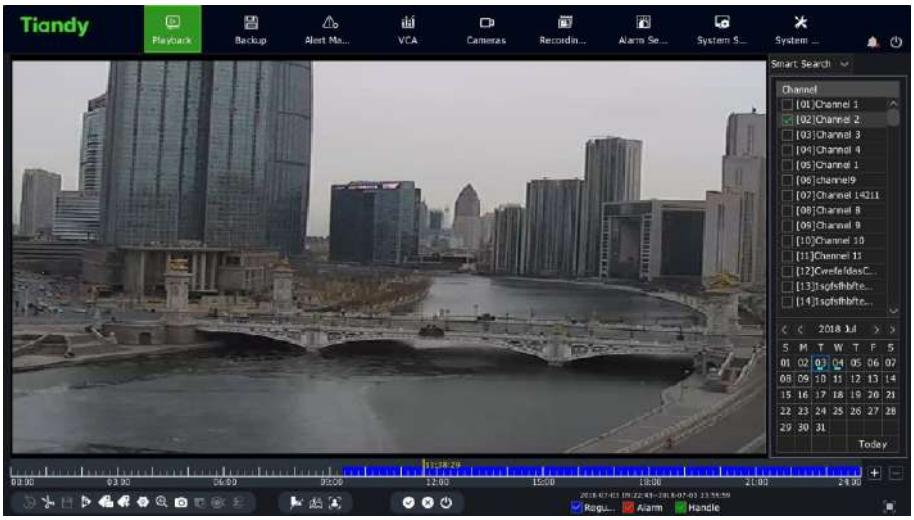
3.Click  at the lower left corner of interface to enter the smart retrieval interface. As shown in the figure.



4.Click the  button at the bottom of interface to select the retrieval type.

4.8.6.1 Tripwire and Perimeter Retrieval

1.Click the  or  button to enter the line drawing interface of smart playback and conduct line drawing operations on the video, as shown in the figure below.



2.Click the button to start search. In the search process, the words of "VCA SEARCHING……" will be displayed at the upper left of screen and also the search progress and result will be displayed on the progress bar simultaneously.

3.In the search process, the system jumps to the search result and start playing automatically.

4.In the search process, the search will stop automatically by clicking other channels or other dates. Users can also click the "Stop Search" button or "Exist" button to manually stop the search or log out the smart retrieval.

4.8.6.2 Face Detection

1.Click to enter the "Face Dection" interface of smart playback, as shown in the figure below.

2.Click the button to start search. In the search process, the words of "VCA SEARCHING……" will be displayed at the upper left of screen, the search progress will be displayed on the progress bar and the face detection search result can be displayed on the right side simultaneously.

3.In the search process, the search will stop by clicking the “Stop Search” button. The video will be positioned to the corresponding position by clicking the search result on the right side.

4.8.7.Video Concentration Playback

Video concentration playback is to concentrate different moving object at different time but in same background in the same video to increase the playback efficiency. It is based on cameras that support VCA function and make sure the VCA of camera is enabled.

Operation steps:

1、 Enter Playback interface, and choose playback of video ads.

2、 Choose target channel, set start and end time, and click “Search” to playback concentrated video.

3、 Double click one of the square in the video at the left side, and the related video will in the upper-right corner will play 30s before and after that square time.

Notes：

- Video at the left side support Pause and Stop operation, support showing progress bar and percentage.
- Video at the upper-right corner support Pause, Stop and support to show and drag the percentage of progress bar, and support to backup the current file.
- Support 4 decoding channels simultaneously. The first channel will be the background, and other channels will be overlapped on the first channel.
- Every decoding channel time period will be averaged as per total time length of all the targets.

4.8.8.Time-phased Playback

Time-phased playback function means that the recording time of certain channel within a day is averaged to multiple screens in accordance with the number of split screens for asynchronous playback, which can effectively improve the playback efficiency.

Specific operation steps are as follows:

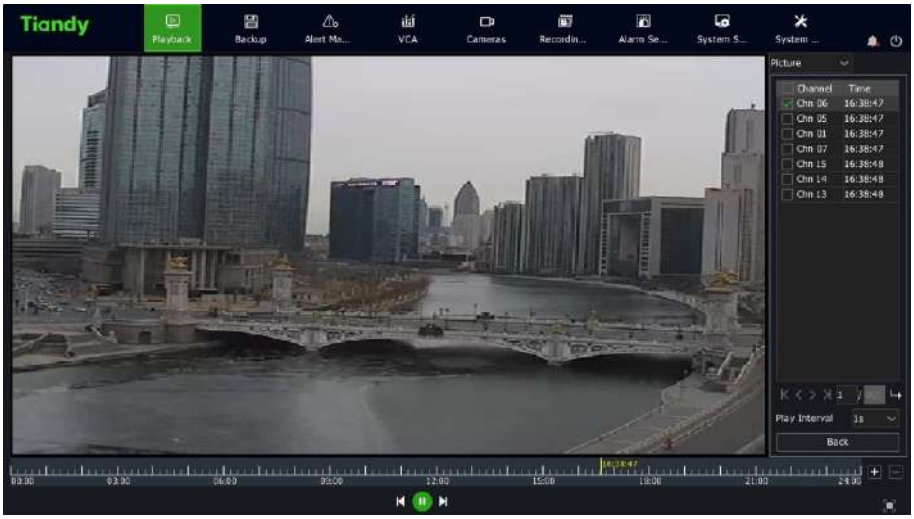
1.Enter the playback interface and select “Time-phased Playback”, as shown in the figure below.

2.Select the playback channel and set the number of split screens; take the 4-split-screen setting as an example.

3.Select the date on the right side or click the “Play” button for time-phased playback.

4.8.9.Picture Playback

Picture playback function means the pictures stored in the hard disk are played back, as shown in the figure below.



Description:

- Users can select the playback interval and play the pictures automatically.
- Users can also suspend the playback and click the left and right sides of picture to display the previous or next picture.

4.8.10.External File Playback

External file playback function means that the recording files stored in U disk or mobile hard disk, light disk and other external storage mediums are played back.

Specific operation steps are as follows:

1.Enter the playback interface and select “External File Playback”, as shown in the figure below.

2.Select “Refresh” and read the external storage mediums.

3.Click the files to be played to conduct the external recording files playback, as shown in the figure below.

Description:

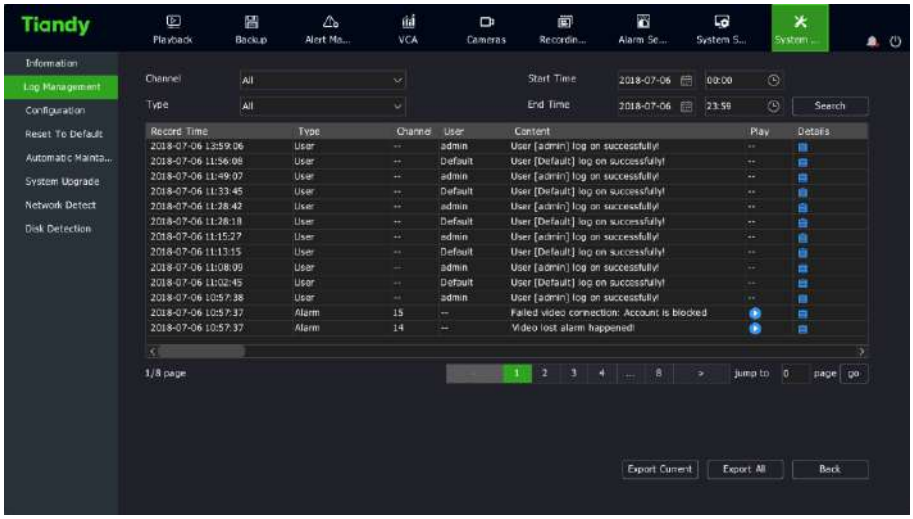
- Please make sure that U disk or mobile hard disk and USB driver have been connected to the device before the external file playback.

4.8.11.Playback by Log Information

Play the recording files corresponding to log information.

Specific operation steps are as follows:

1.Select “Main Menu->System Maintanence->Log Management” to enter the “Log Management” interface, as shown in the figure below.



2.Select “Channel”, “Type” and “Start and End Time” and click “Inquire”.
3.Double click a log in the log list to enter the “Playback” interface, as shown in the figure below.

Description:

- Playback progress can be controlled by the playback time bar at the bottom.
- The channel and time point corresponding to the selected log shall have recording files to play.

4.8.12.Auxiliary Function of Playback

Single-frame playback

When the video is playback, view the detail changes of screen by single-frame playback.

Enter the playback interface and left-click or to adjust the playback speed to “Single Frame”. Each time is clicked, the button steps a frame forward; each time is clicked, the button steps a frame back; the single-frame playback interface is shown in the figure below.

Electronic amplification

Amplify the partial screen of video to full-screen display in the playback process or playback suspension process.

Specific operation steps are as follows:

1.Enter the playback interface.
2.Select the button of playback control bar to enter the electronic amplification interface.
3.The amplification factor can be adjusted by the seekbar at the top left corner or mouse wheel.
4.Press the left mouse button and drag to view different areas.

Snapshot

Conduct the snapshot operation in the video playback process.

Specific operation steps are shown as follows:

1.Enter the playback interface.
2.Select a screen and click the button of playback control bar.

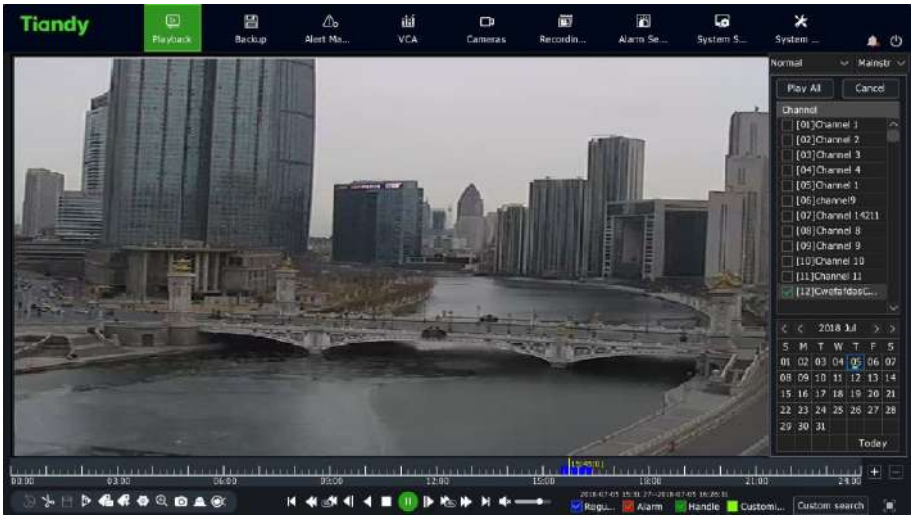
Description:

- In the playback process, the captured pictures need to be saved in the U disk. Make sure that the U disk has been connected to the device correctly when the snapshot operation is conducted.

Progress bar preview

In the playback interface, when the playback mode is normal playback, event playback, or tag playback and single-screen playback, the system will automatically display the images corresponding to this time point and before and after when sliding the playback progress bar with the mouse. Specific operation steps are as follows:

1.Select one of playback modes described above to start the playback.
2.When the mouse stays in a area on the progress bar with video, there will be preview images. As shown in the figure below.
3.Click any one small screen to position to this time point for playback.



Description:

- When it is prompted that the decoding performance reaches the upper limit, the progress bar preview operation cannot be conducted.
- When the current channel does not have video at the selected time point, the progress bar preview operation cannot be conducted.
- There is no progress bar preview during non-single-screen.

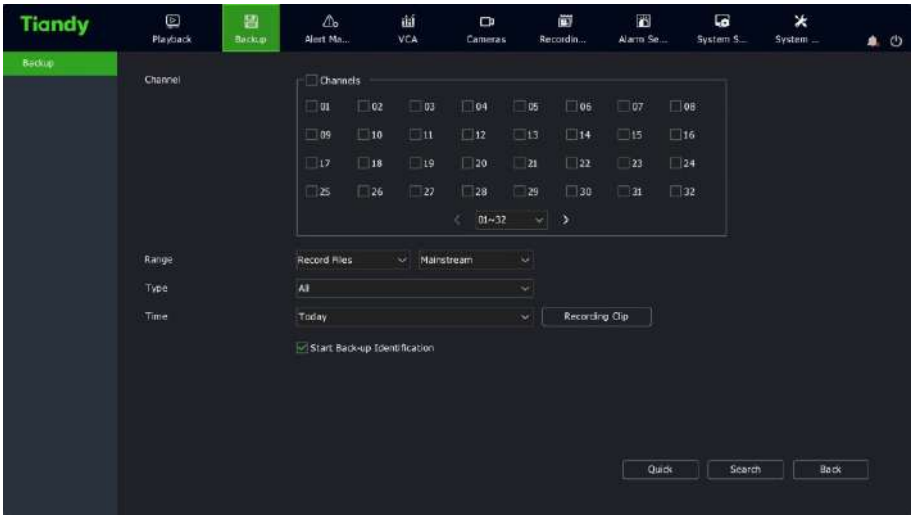
Fast drag playback

During the single-screen playback, the rapid drag operation can be supported by the progress bar playback progress and the rapid playback will be conducted at this time with the drag of progress bar for view purpose.

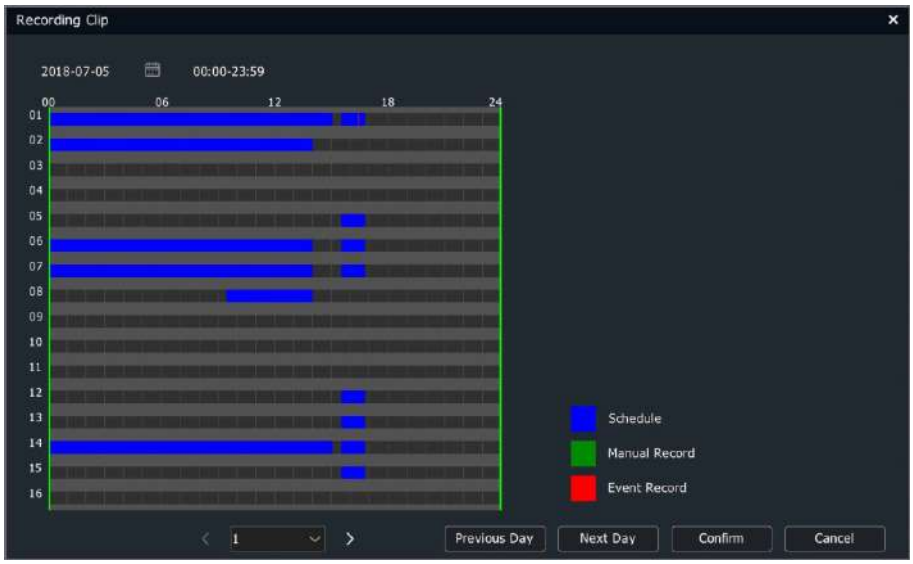
4.9.Backup

Backup means that the recording files in the system can be backed up to backup disk or USB storage devices (U disk, mobile hard disk and esata).

1.Select “Main Menu->Backup” to enter the backup interface, as shown in the figure below.



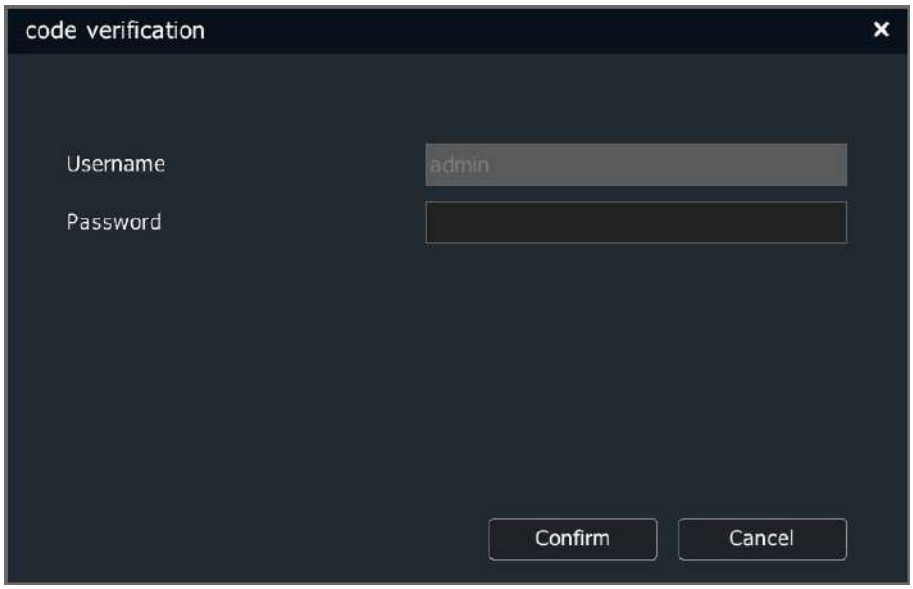
2.Click “Recording Snapshot” to display the recording situation of specified date intuitively. After the date is selected, click “Confirm” to help users select the start time and end time of recording query by date. After returning to the interface of first step, it can be seen at the positions of “Start Date”, “Start Time”, “End Date” and “End Time”.



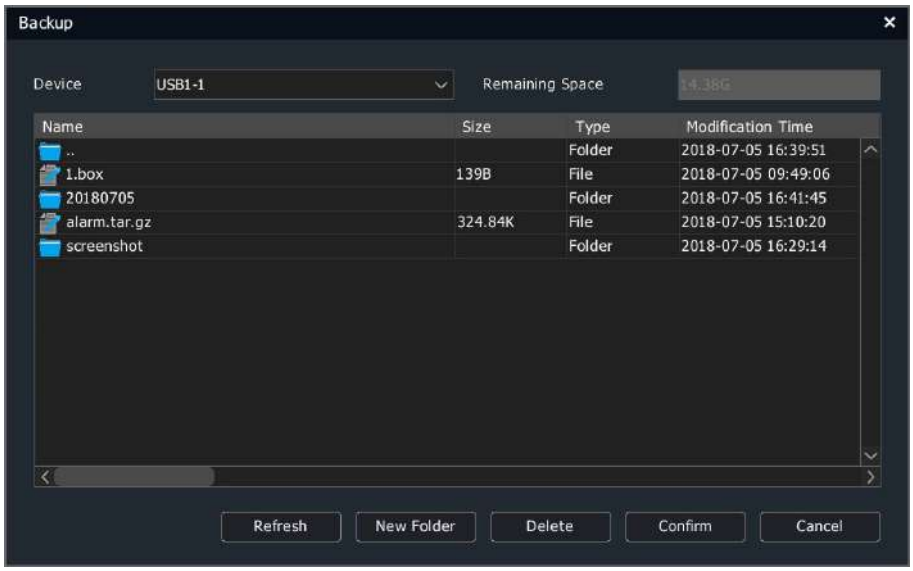
Description:

- The recording snapshot function is not supported by the picture files.

3.After the query conditions are confirmed, if the “Start Back-up Identification” is checked, the identification window will pop up by clicking the “Backup” or “Inquire Backup” buttons, the identity authentication needs to be conducted first and then the next step can be entered.



4.After the query conditions are confirmed, click the “Backup” button to enter the resource manager interface and select the target folder for backup.



5.After the query conditions are confirmed, click the “Inquire Backup” button to conduct the query operation for recording files.

The recording query results can be presented in two modes: list and chart.

List:

Click the “Playback” icon or double click the row the file is in to play this file.

Click the “Lock” icon to conduct locking and unlocking operations for files.

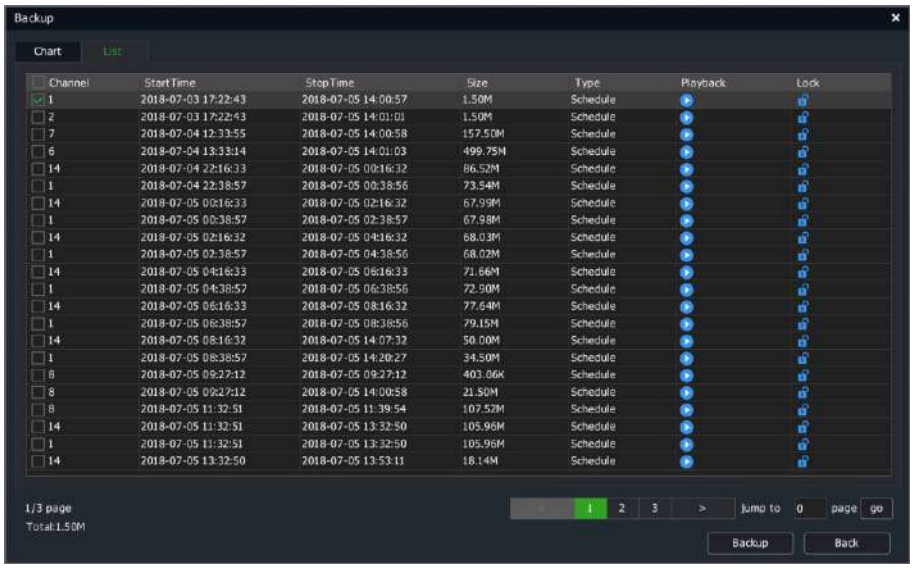
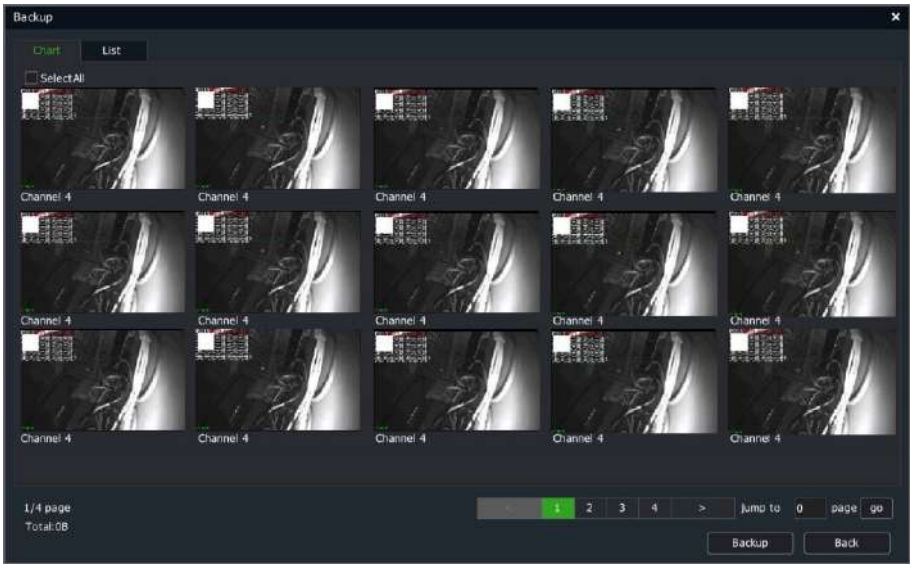


Chart:

After clicking to select a screen, the video of 10S after this time point will be played; double click the preview image to play back the video.

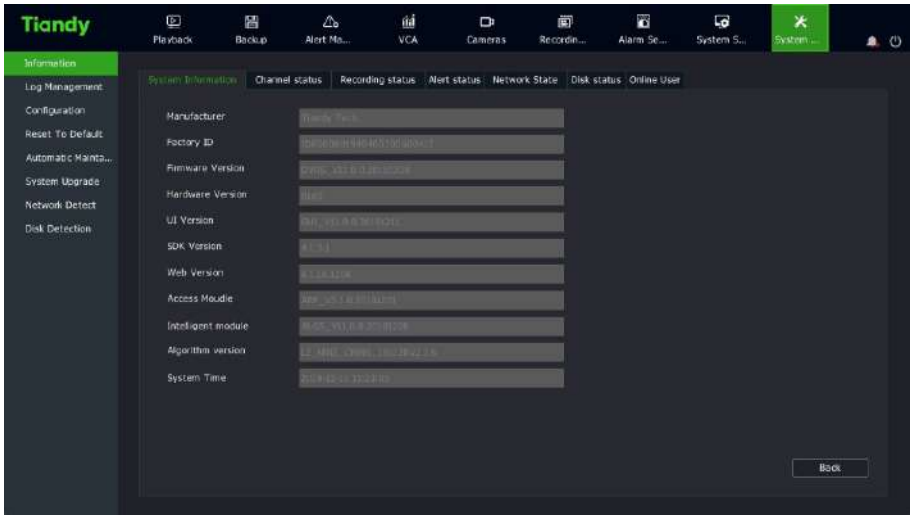


6.Select the recording file to be backed up in the list or chart and click the “Backup” button. Enter the backup interface.

4.10.System Maintain

4.10.1.System Information

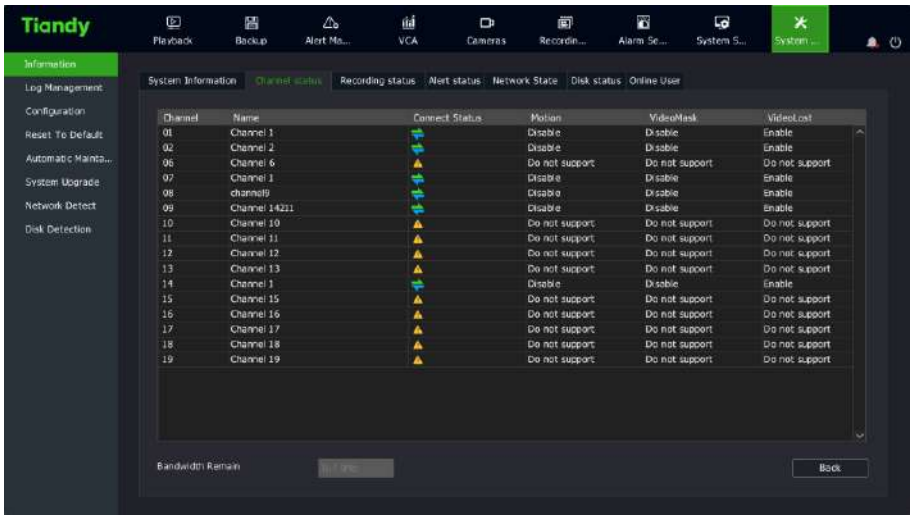
1.Select “Main Menu->System Maintanence-> Information-> System Information” to enter the system information interface, as shown in the figure below.



2.The manufacturer, serial number, kernel version, encoded version, web version, hardware version，UI version, system time and other information can be seen through the system information.

Channel status

1.Select “Main Menu->System Maintanence-> System Information->Channel Status” to enter the channel status interface, as shown in the figure below.



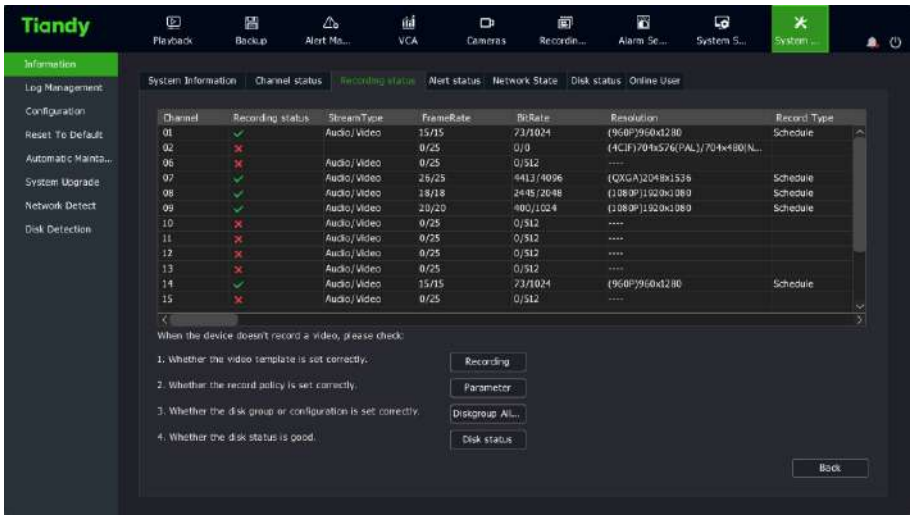
2.The channel No., channel name, connection status, motion detection status, video mask status, video loss status and other information can be seen through the channel status.

Description:

- The video mask bar will not be displayed in the interface for the devices which do not support the video mask alarm function.

Recording status

1.Select “Main Menu->System Maintanence->System Information->Recording status” to enter the recording status interface, as shown in the figure below.

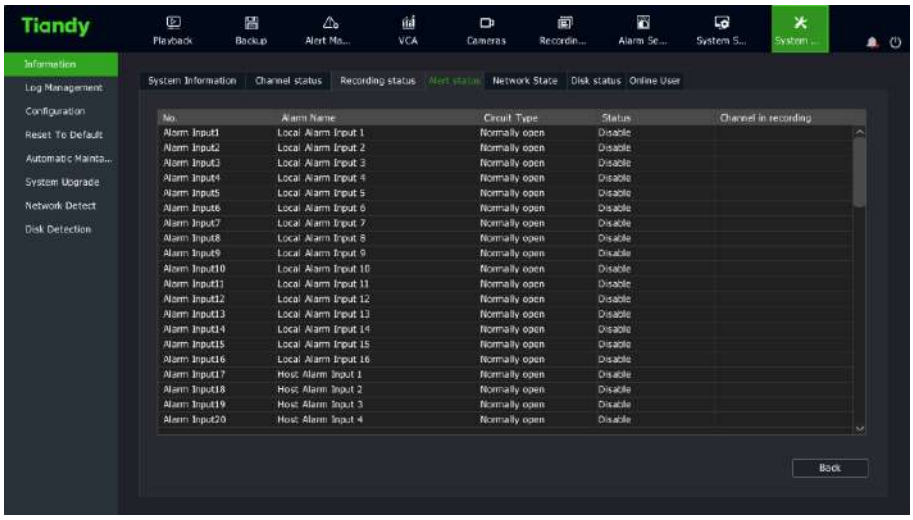


2.The channel No., whether recording is being conducted, stream type, real-time frame rate/set frame rate, real-time bitrate/set bitrate, recording video resolution, recording type, compression parameter, redundancy and other information can be seen through the recording status.

3. Click on the recording template, recording strategy, disk group settings, hard disk status can directly jump to the corresponding interface, view the device configuration status

Alarm status

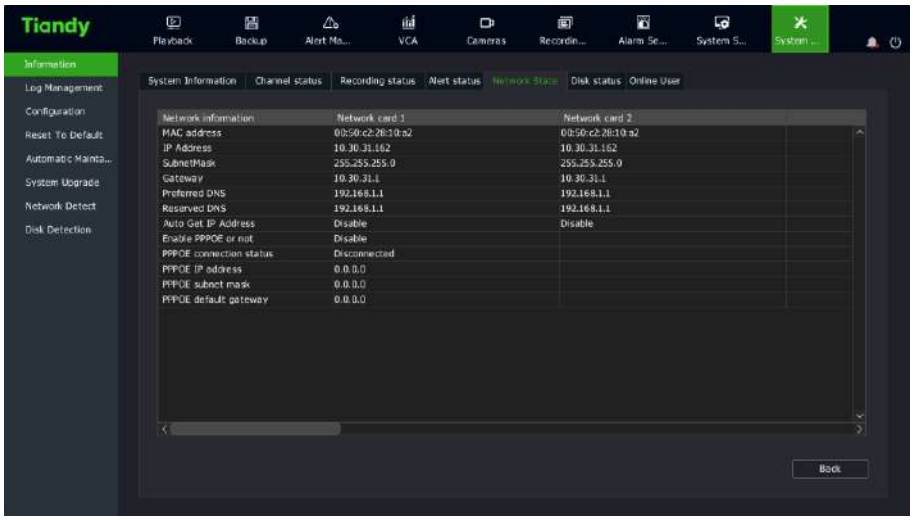
1.Select “Main Menu->System Maintanence->System Information->Alert Status” to enter the alert status interface, as shown in the figure below.



2.The serial number, name, alarm type, whether to open status and activate recording channel and other information of local alarm and alarm host can be seen through the alert status.

Network status

1.Select “Main Menu->System Maintanence->System Information->Network Status” to enter the network status interface, as shown in the figure below.



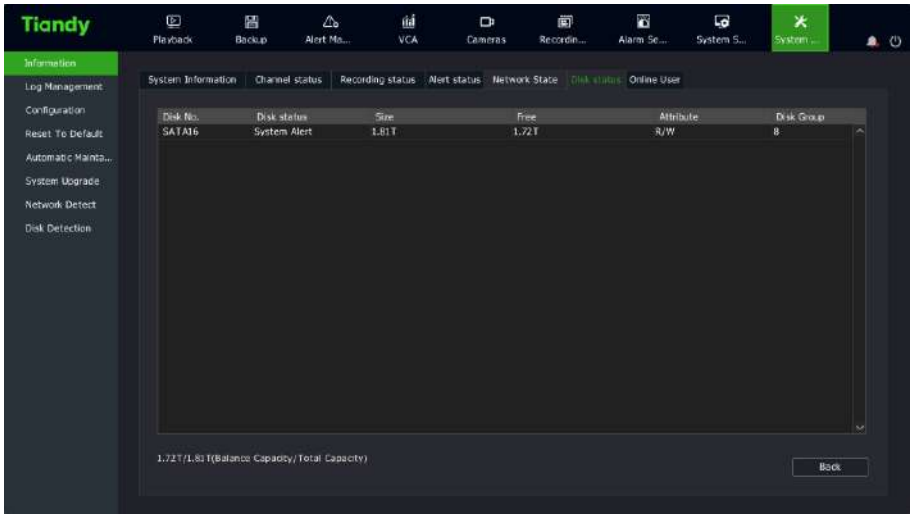
2.The network information related to network card can be seen through the network status.

Description:

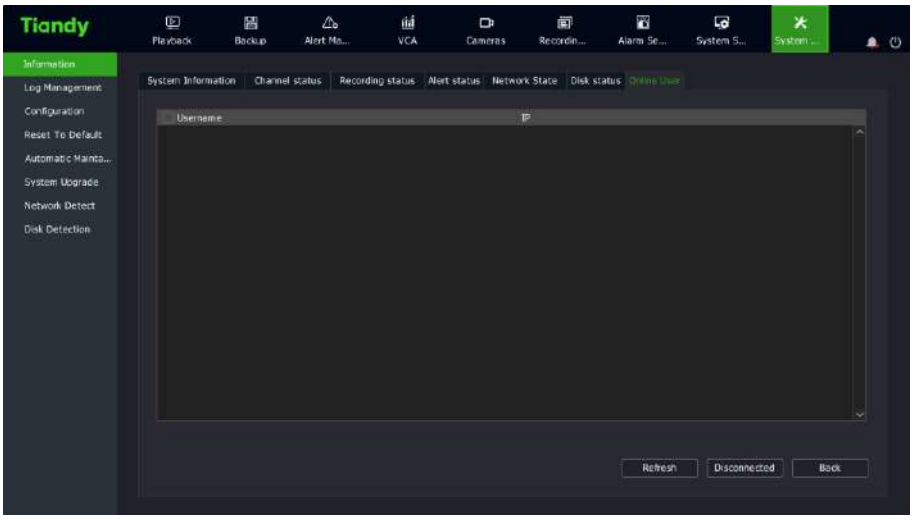
- The NIC 2 bar will not be displayed in the interface for the devices which do not support the double-network-card device.

Hard disk status

1.Select “Main Menu->System Maintanence->System Information->Hard Disk Status” to enter the hard disk status interface, as shown in the figure below.

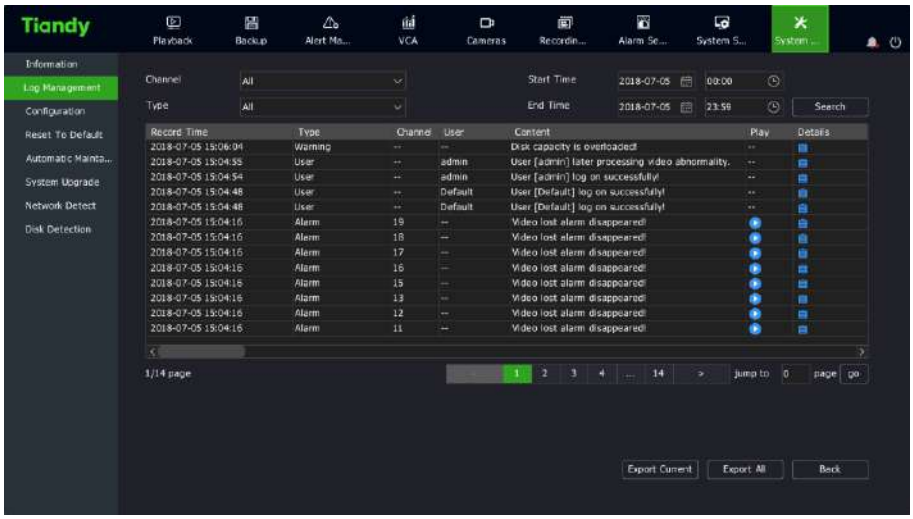


2.The hard disk No., SMART detection status, size, free, attribute, disk group, total remaining capacity and total capacity of all hard disks and other information can be seen through the hard disk status.



4.10.2.Log Management

1.Select “Main Menu->System Maintanence->Log Management” to enter the log query interface, as shown in the figure below.

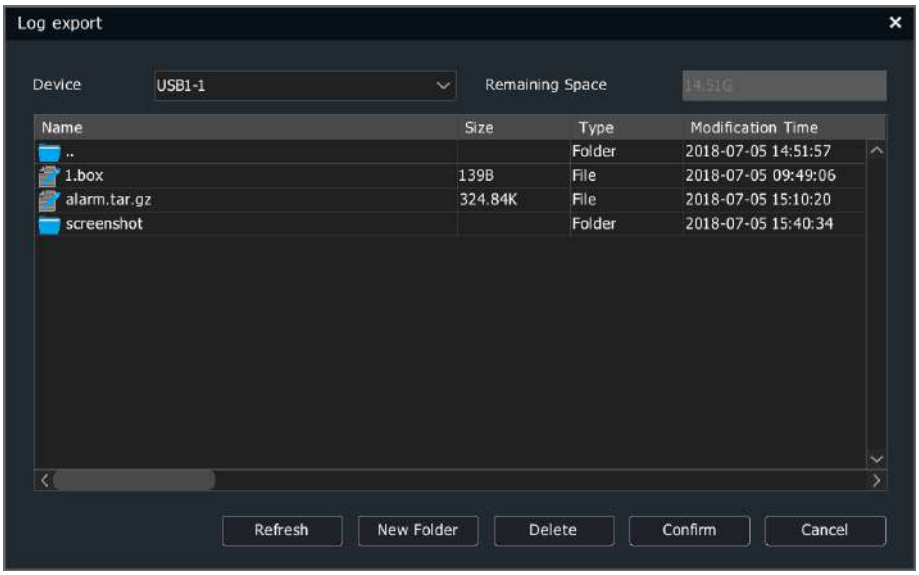


2.After the channel, type, start time, end time and other query conditions are selected, click the “Inquire” button to inquire the logs.

3.After the logs are inquired, the logs can be viewed by selecting page up and page down through buttons, users can also input the page number and then click to skip to this page, and the log details can be viewed by clicking “Details” after the log is selected,click after select record time, you can view the record time video.

4.Log export operation:

1) After the log query is completed, the menu shown below will pop up by clicking “Export Current”; select the path to back up the log of current page to the specified path.



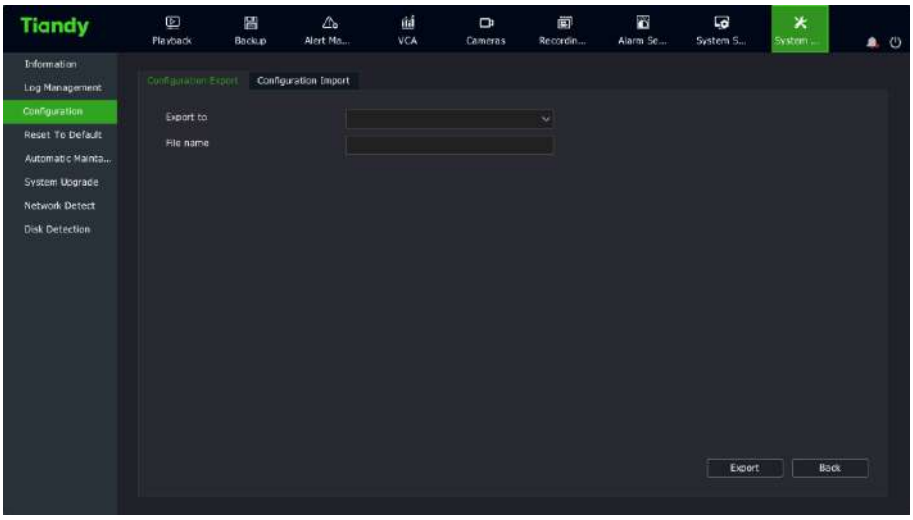
2) Export all: all inquired logs can be exported by clicking “Export All”; the backup path operation is shown above.

4.10.3.Configuration Managemet

Configuration Export

1.Select “Main Menu ->System Maintanence->Configuration Management->Configuration Export” to enter the configuration export interface, as shown in the figure below. Conduct the

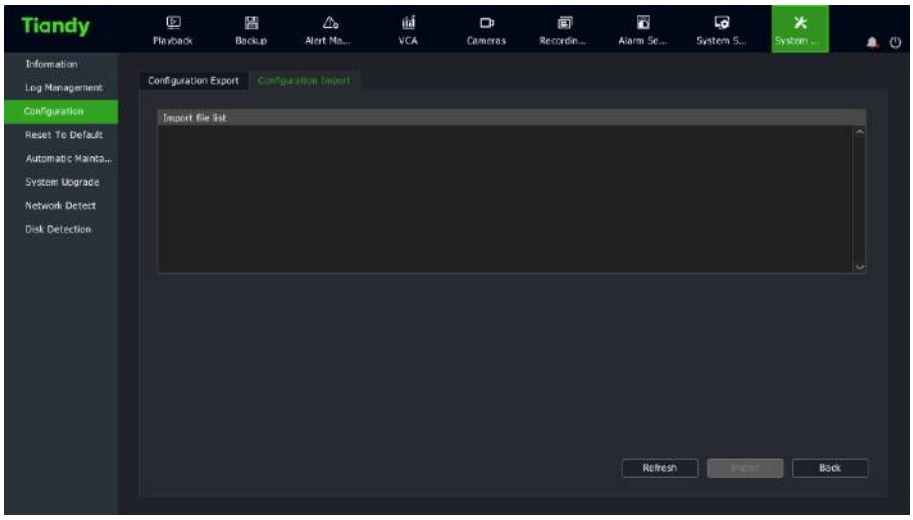
“Export” operations for the configuration files of device so that the configuration files can be backed up timely.



2.Select “Configuration Export” and add the exported file name and path so as to export the device configuration.

Configuration Import

1.Select “Main Menu ->System Maintanence->Configuration Management->Configuration Import” to conduct the import operation. If multiple devices use the same configuration, the device configuration time can be saved by the “Import” operation.

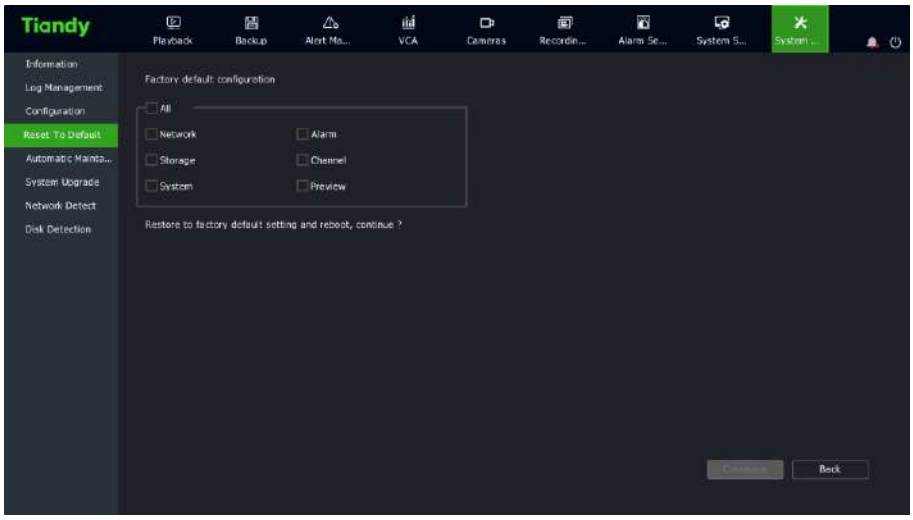


Description:

- Device will reboot automatically after the configuration is imported successfully.

4.10.4.Rest To Defalut

1.Select “Main Menu ->System Maintanence->Configuration Management->Reset to Default” to enter the “Reset to Default” interface, as shown in the figure below.



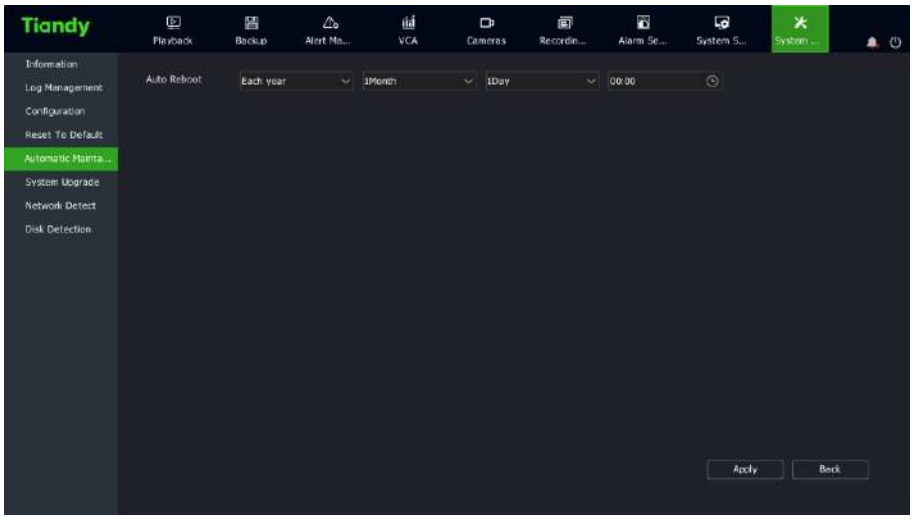
2.Users can select the modules which need factory default configuration according to their needs; after the “Continous” button is clicked, the selected modules will be restored to factory default configuration.

Description:

- Device will reboot automatically after being restored to default.

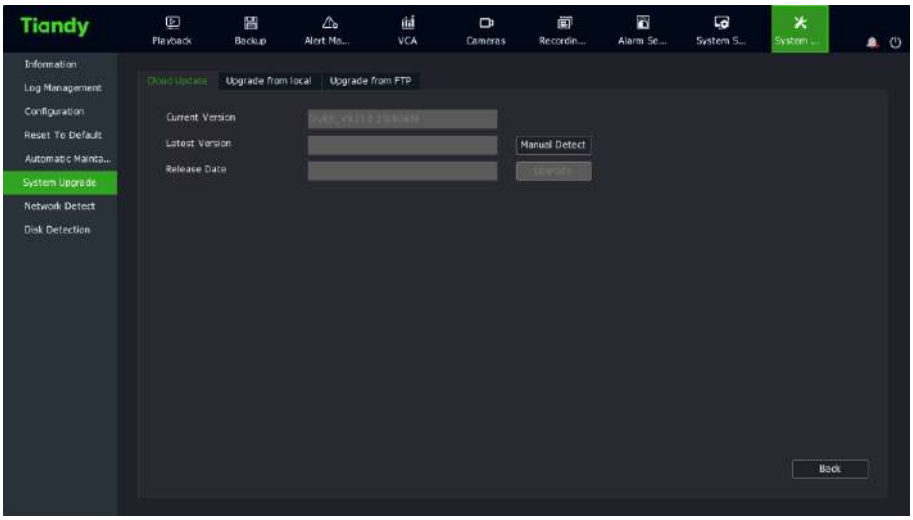
4.10.5.Device Maintenance

1.Select “Main Menu->System Maintanence->Routine Maintenance->Device Maintenance” to enter the device maintenance setting, as shown in the figure below. The device name, number and auto reboot time can be set.



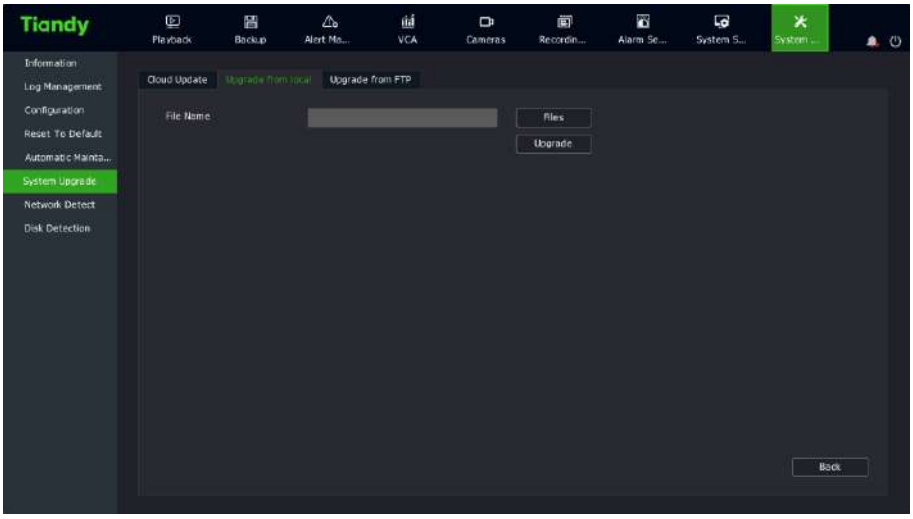
4.10.6.System Upgrade

1.Select “Main Menu->System Maintanence->Routine Maintenance-> Could updates, entry could updates interface, as show below

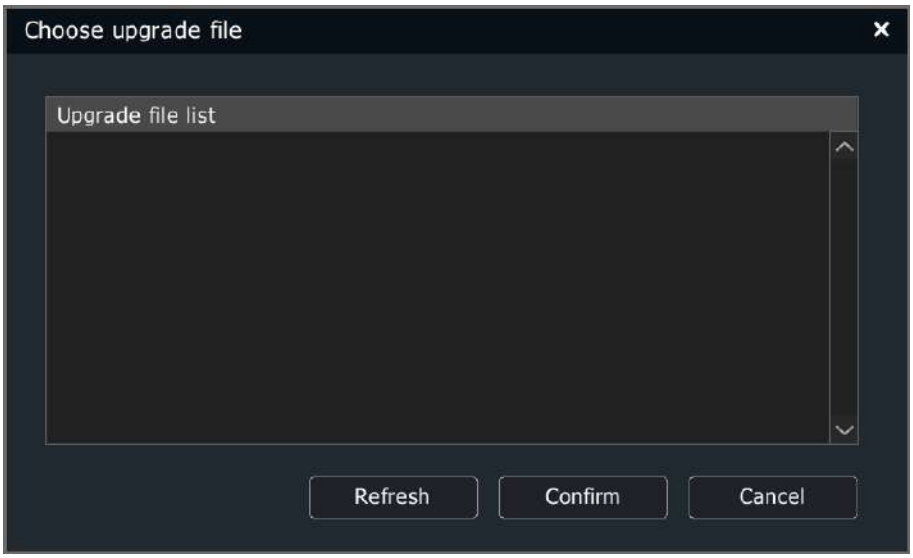


Click manual detection to detect whether there is the latest version to upgrade. If there is a new version to upgrade, click upgrade to upgrade to the new version.

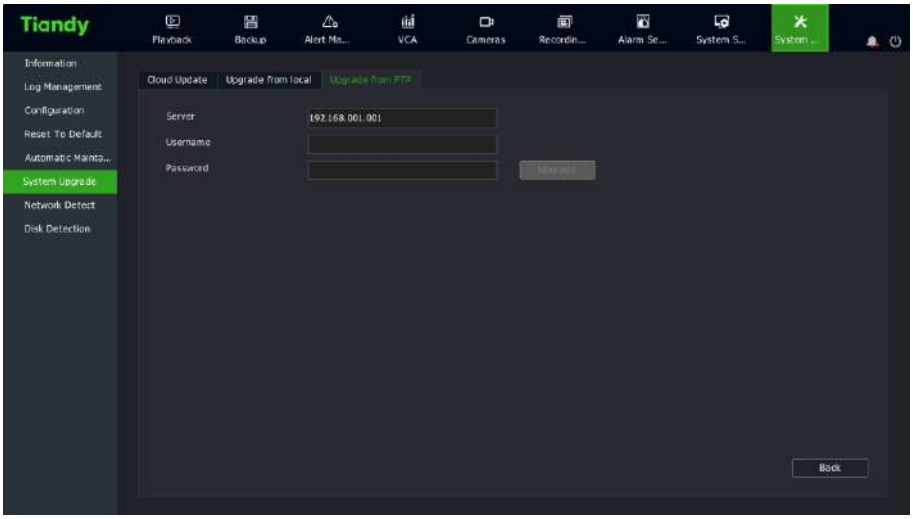
2. “Main Menu->System Maintanence->Routine Maintenance->System upgrade – local file upgrade, entry local file interface, as show below:



3. Click “browse file” choose the file you want to upgrade, and then upgrade, as shown in the figure below



4 .Select the “Main Menu->System Upgrade-> Upgrade from FTP. Show as below interface:

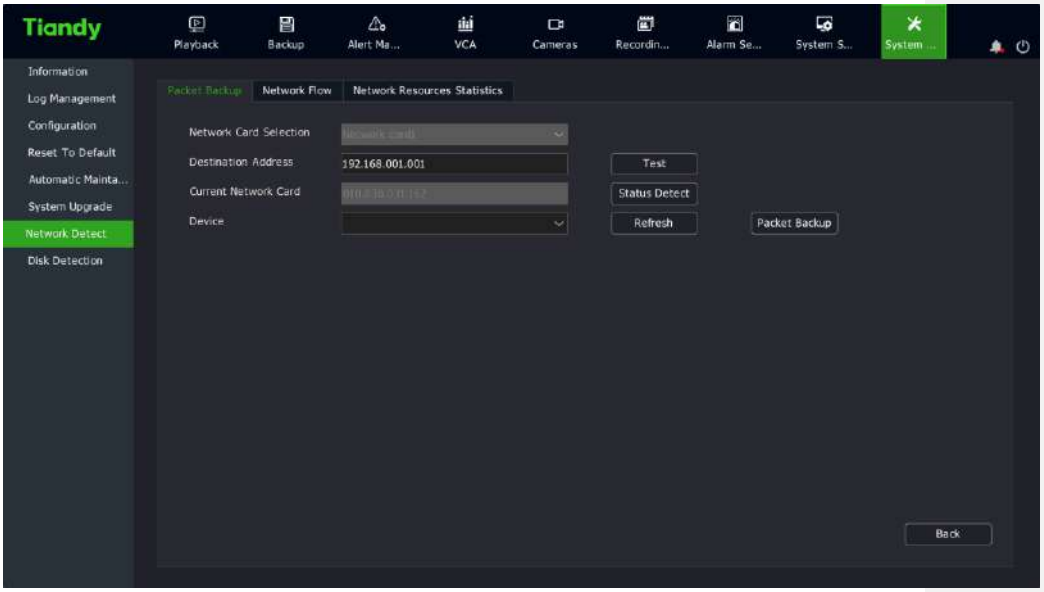


Description:

- After the upgrade is successful, the device will reboot automatically and run the program of new version after reboot.
- If it is prompted that the upgrade fails or the device cannot run normally after reboot, please contact the supplier for processing.
- The device adopts the dual-system mechanism and the kernel file needs to be upgraded twice or once; then click the “Backup Kernel” in the “Main Menu ->System Setting ->Routine Maintenance ->System Upgrade” interface for backup.

4.10.7.Networ Detection

1.Select the “Main Menu->System Maintanence->Routine Maintenance ->Network Detection->Packet backup,make a packet backup setting. Show as below interface:

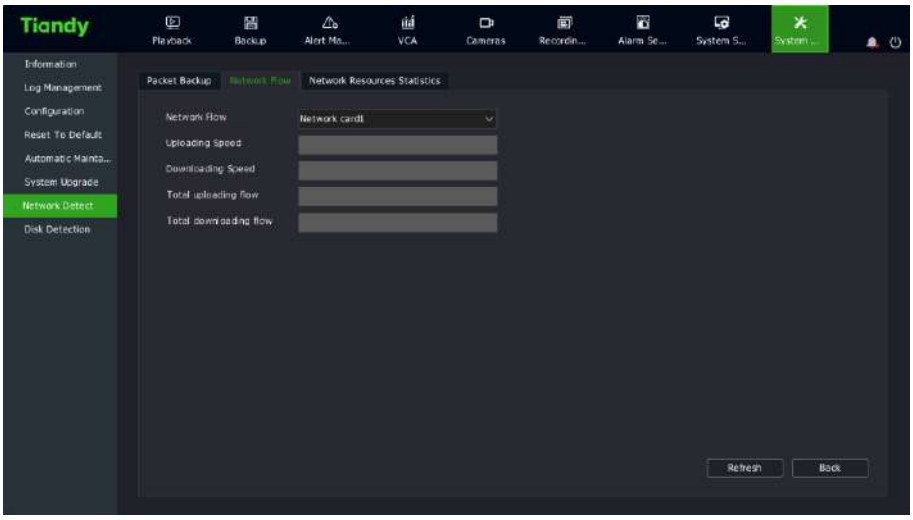


2.Input the destination address in the network test bar to test whether this address can be unobstructed.

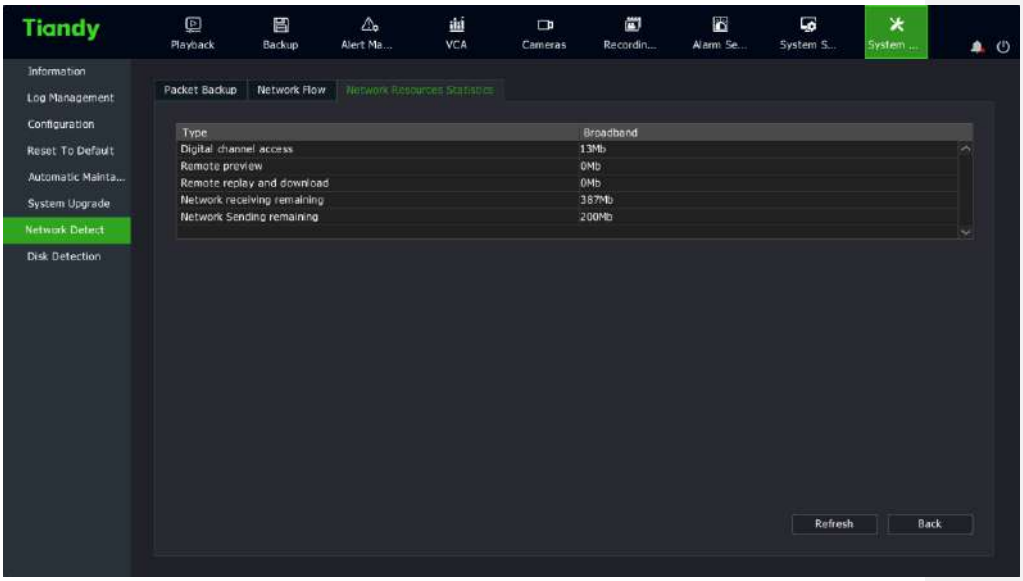
3.Click the “Packet Backup” button, conduct the packet operation for the current network card and save it to the specified storage medium.

4.Click the “Status Detection” button to detect whether the gateway and DNS of current network card can be reached.

5. Select the “Main Menu->System Maintanence->Routine Maintenance ->Network Detection->New work flow, See the real-time network data display, the interface is as follows.

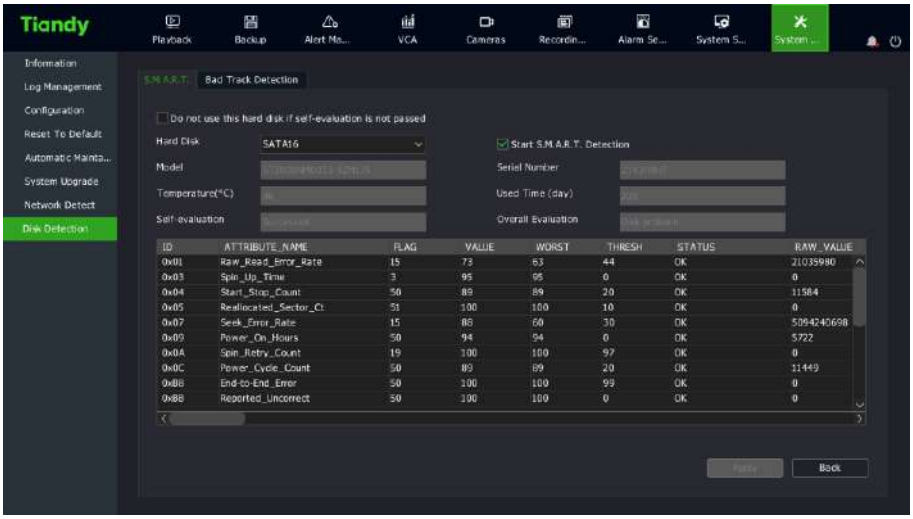


6. Select the “Main Menu->System Maintanence->Routine Maintenance ->Network Detection->network detect – network resources statistics, See how network resources are being used.



4.10.8.Disk Detection

1.Select “Main Menu->System Maintanence->Disk Setting->S.M.A.R.T.” to enter the SMART setting interface.

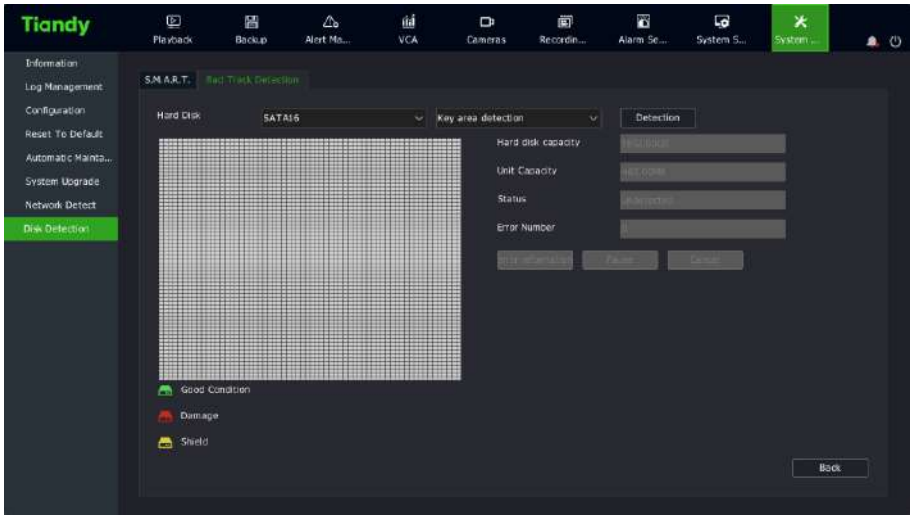


2.Select the disk to be detected, check “Start S.M.A.R.T. Detection” and enable the S.M.A.R.T. detection function of this disk. S.M.A.R.T. detection information is displayed in the corresponding interface.

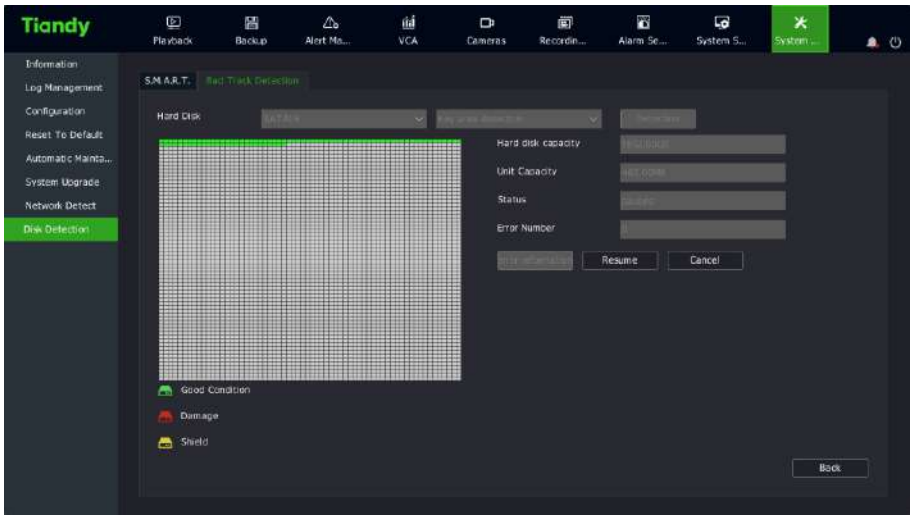
3.When “Do not use this hard disk if self-evaluation is not passed” is selected, do not use this hard disk if there is a problem in self-evaluation after the S.M.A.R.T. detection of hard disk.

Bad track detection

1.Select “Main Menu->System Maintanence->Disk Setting->Bad Track Detection” to enter the bad track detection setting interface.



2.Select the disk and detection mode and click the “Detection” button to enter the detection status.



3.Click “Pause” to make the bad track detection be in the paused status; click “Restore” to continue the bad track detection;

4.Click “Cancel” to cancel this bad track detection;

5.Click “Error Information” to view the bad track of hard disk.

Description:

- “Error Information” can be clicked only when the error number of hard disk is more than 0;
- Stop the bad track detection when the error number of hard disk is equal to 100.
- “  ” means that the corresponding area of hard disk is in good condition, “  ” means that the the corresponding area of hard disk is damaged and “  ” means that the corresponding area of hard disk is shielded.

4.11.System Setting

Manage the attribute of device in the system uniformly.

4.11.1.General Setting

Basic settings

1.Select “Main Menu->System Setting->General Setting->Basic Settings” to enter the basic settings interface, as shown in the figure below. The local output display parameters of device, system time, time zone and NTP timing can be set.

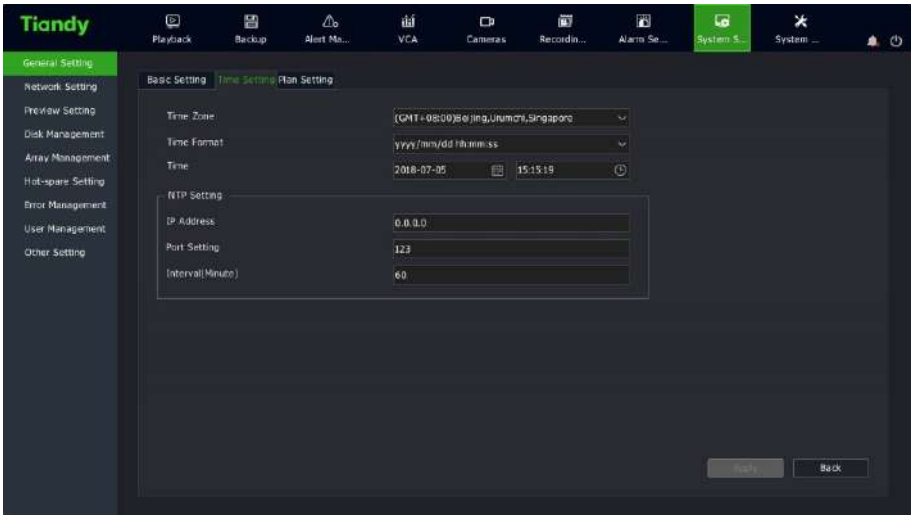
Description:

- Language: select the system language.
- Screensaver time: select the interface timeout.
- Enable startup guide: select whether to start the startup guide setting.
- Press buzzer： Turn on the buzzer when you choose
- Hide Preview Interface video, alarm and face recognition icons: Choose whether to display the display of icons such as video, Alarm, face recognition, etc., in the preview interface。

- Send warning if requipment decoding: Select whether the prompt message will pop up when the device decoding performance reaches the upper limit.
- Mouse cursor speed: select the mouse movement speed and support adjustable 0—100.

Time setting

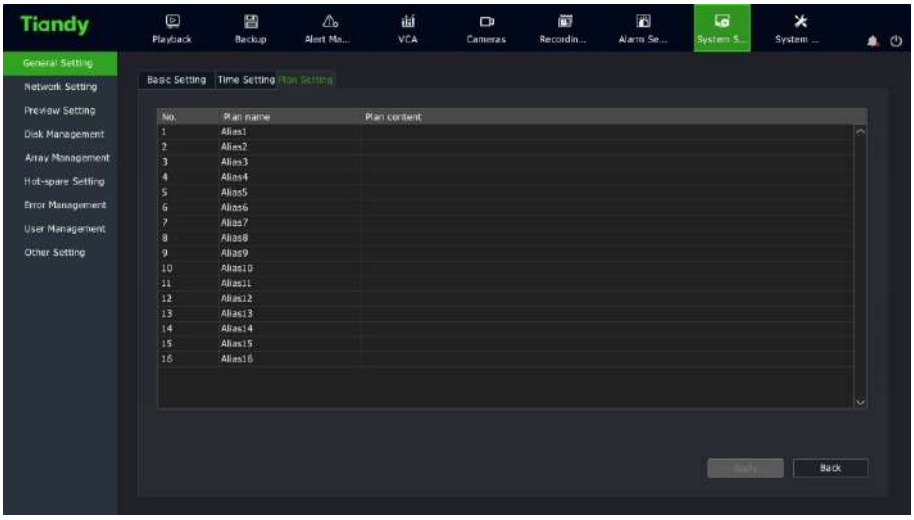
1、select –main menu- system seeting- general setting- time setting, Show as below. Time formate, time zone, and NTP timing parameters can be set



Plan setting

1.Select “Main Menu->System Setting->General Setting->Plan Setting” to enter the plan setting interface, as shown in the figure below. When an alarm occurs, the set link plans are displayed in the preview interface and the personnel on duty conduct the corresponding disposal according to the plan prompts, such as alarm, notice, help and other disposal modes.

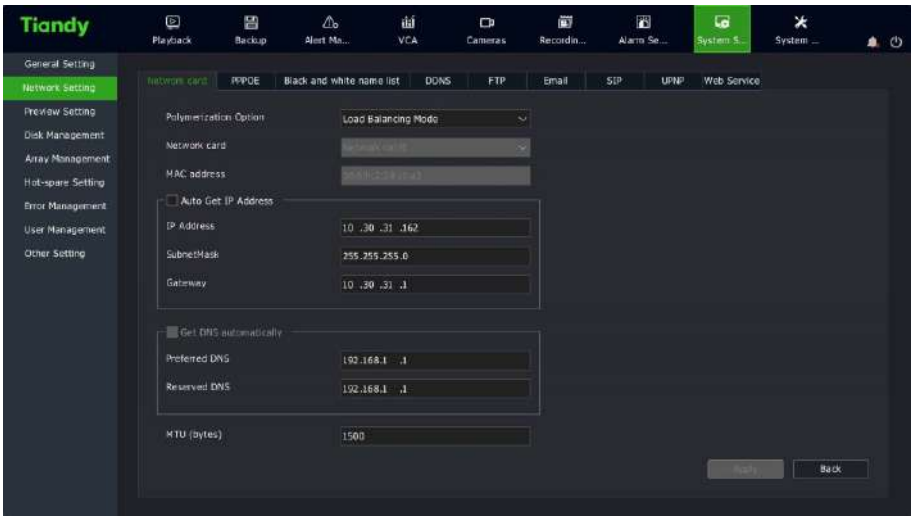
2. Click the plan name or plan content, edit name and content directly, as shown below.



4.11.2.Network Setting

NIC

1.Select “Main Menu->System Setting->Network Setting->NIC 1” to enter the setting interface of NIC .



2.Select “Auto Get IP Address” or “Manual Setting IP Address”. If selecting auto getting, the system will get IP address from the DHCP in network after reboot.

3.When “Manual Setting IP Address” is selected, the IP address, subnetmask, gateway and other information of device shall be specified.

4.There are 3 options in combination：

Multiple：NIC1 and NIC2 work separately.

Balance：NIC1 and NIC2 work together to balance the network load.

Redundant：One NIC is working, the other is at standby mode and will be activated when the first NIC is disabled.

5.If multiple address mode is enabled, the configuration of NIC2 is same as NIC1.

6.After clicking the “Apply” button, it will take effect after the device rebooted.

Description:

- Only the device with double network cards can display this interface.
- Once the polymerization mode is set, the network parameters of second network card will be filled automatically with no need to fill by users.

PSE network card

Description:

- PSE series NVR model supports the PSE network card setting and other models do not support this setting.

1.Select “Main Menu->System Setting->Network Setting->PSE Network Card” to enter the setting interface of PSE network card.

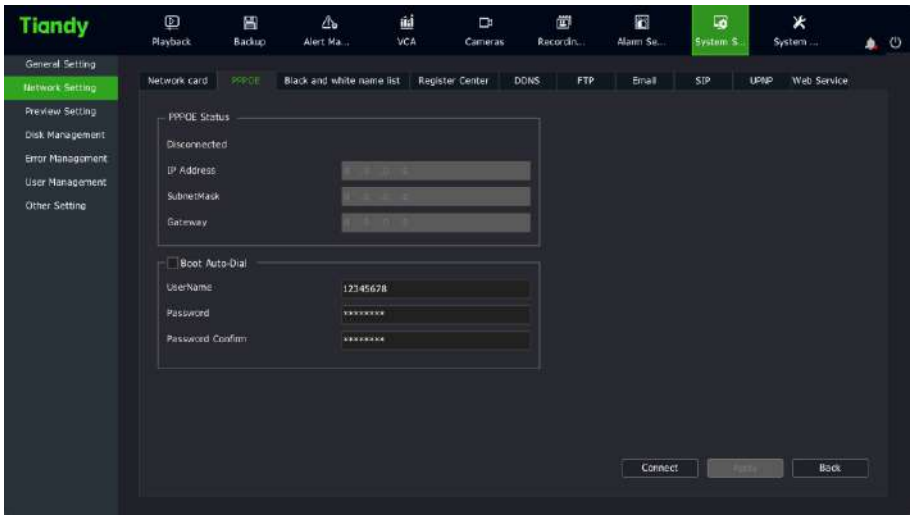
2.After the network address is set, the network address of plug-and-play camer will be set as the address of this network segment automatically.

Description:

- This interface is not displayed for non-PSE devices.

PPPOE

1.Select “Main Menu->System Setting->Network Setting->PPPOE” to enter the PPPOE setting interface.



2.Set whether to boot auto-dial.

3.Input the username and password of PPPOE dialing.

4.Click the “Connect” button to start the PPPOE dialing operation immediately.

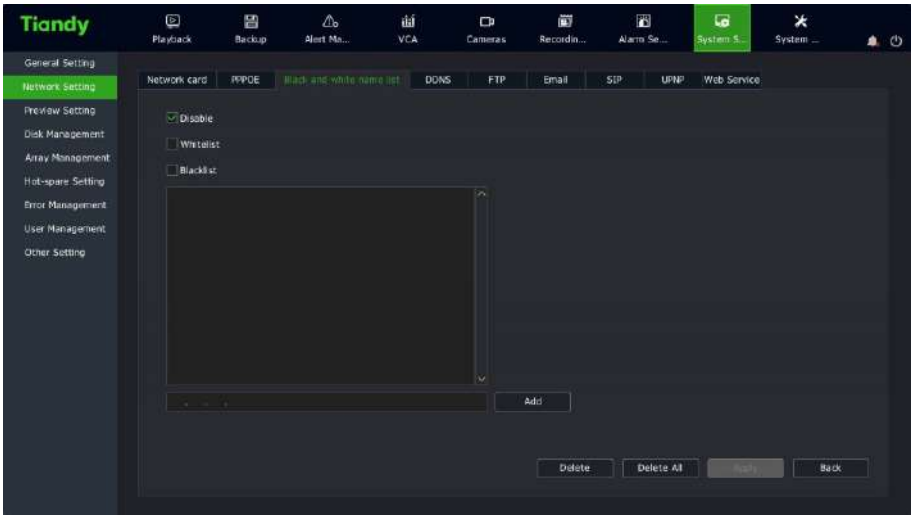
5.Click the “Apply” button to save the setting information of PPPOE dialing in the system. If the “Boot Auto-Dial” is selected, the system will conduct the dialing operation automatically after next startup.

Description:

- This interface is not displayed for the devices which do not support PPPOE.
- If the dialing cannot be conducted normally due to network interruption or replacement of cat, please click the “Disconnect” button manually and then try to dial again.

IP permission

1.Select “Main Menu->System Setting->Network Setting->IP Permission” to enter the IP permission setting interface.



2.Select the application mode of IP permission. “Disable”, “Whitelist” or “Blacklist”.

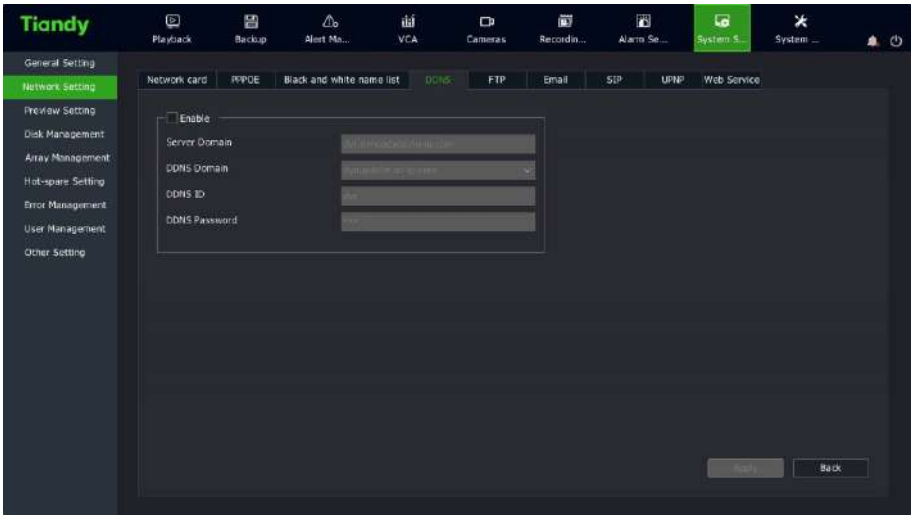
3.Input the IP address which needs to disable access or allows access in the input box of IP address.

4.Click the “Add” button to add the IP address to the list.

5.Click “Apply” to save the configuration.

DDNS

1.Select “Main Menu->System Setting->Network Setting->DDNS” to enter the DDNS setting interface.



2.Set whether to enable DDNS service.

3.Input the domain name of device.

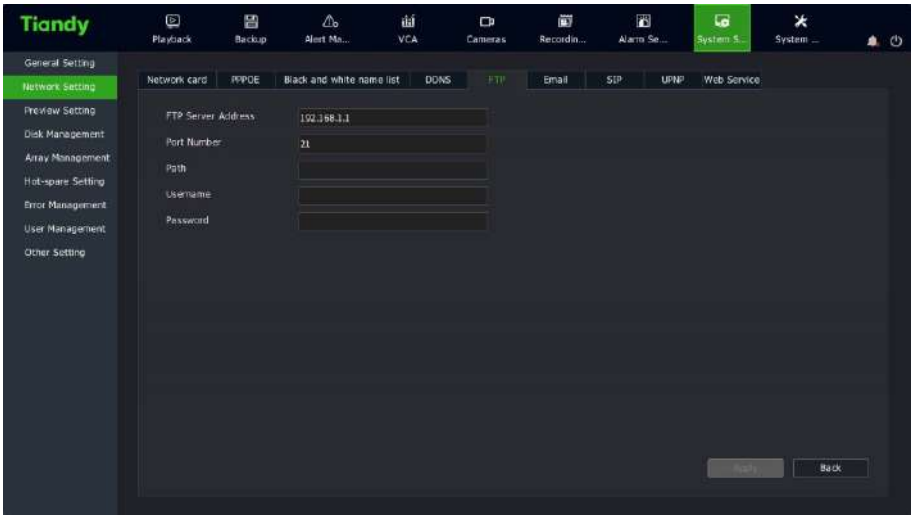
4.Input the domain name or IP address of DDNS server.

5.Input the login ID or password of DDNS server.

6.Click the “Apply” button to save the configuration.

FTP

1.Select “Main Menu->System Setting->Network Setting->FTP” to enter the FTP setting interface.

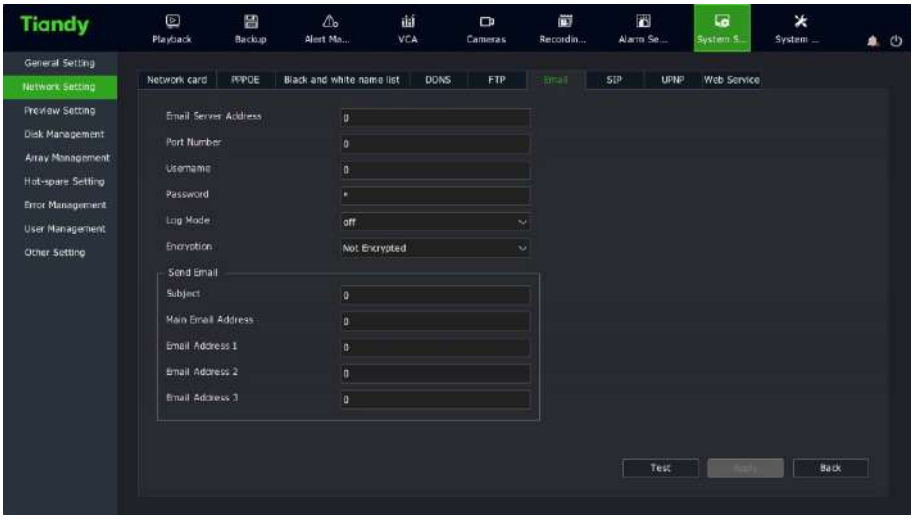


2.Input the server address, port No., username and password of FTP server.

3.Click the “Apply” button to save the configuration.

Email

1.Select “Main Menu->System Setting->Network Setting->Email” to enter the Email setting interface.

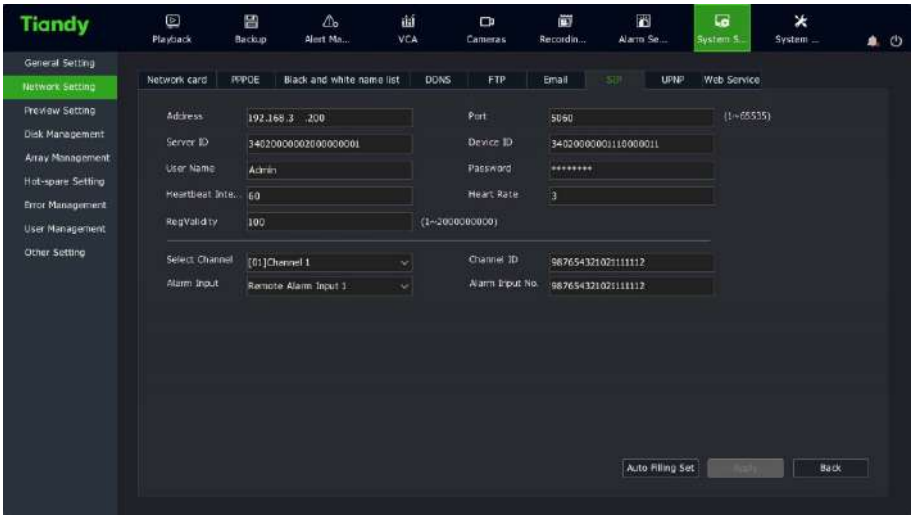


2.Input the Email server address, port No., username, password, encryption mode, recipient address and subject.

3.Click the “Apply” button to save the parameters set currently.

SIP

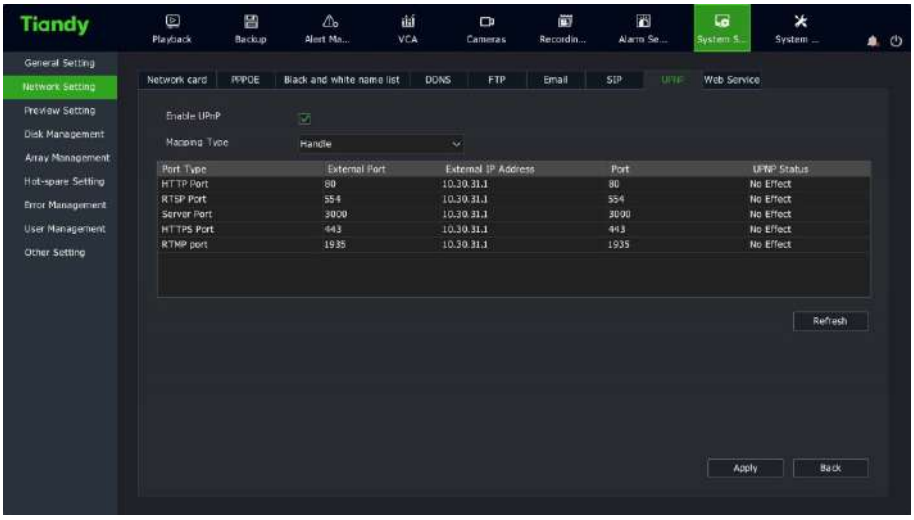
1、 Choose”Menu->System setting->Network setting-> SIP”



2. Enter the address, server ID, account, heartbeat interval, registration expiration date, port, device ID, password, heartbeat count, channel selection, channel number, alarm input, alarm input number.
3. Click the "Apply" button to save the setted parameters.
4. Click the "Auto Fill" button, the channel number and alarm input number will be incremented one by one.

UPNP

1、Select “main menu-system setting- newwork setting-upnp” enter upnp interface.



2、Ticked “Enable UPnP”,can enable “Mapping Type”.

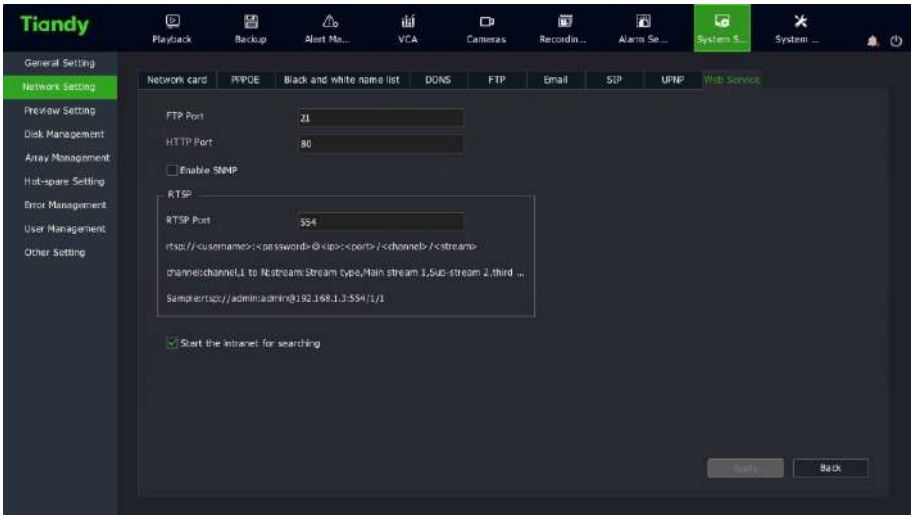
3、When “Mapping Type” automatic, use the default external port for the corresponding service. By the time when it manual, edit external ports, and use the modified external port for the corresponding service.

HTTP port and RTSP external port can support 1-65535, external ports of service ports can suppot 1-65534.

4、Click “Apply” button, save settings.

Web service

1.Select “Main Menu->System Setting->Network Setting->Web Service” to enter the web service interface.



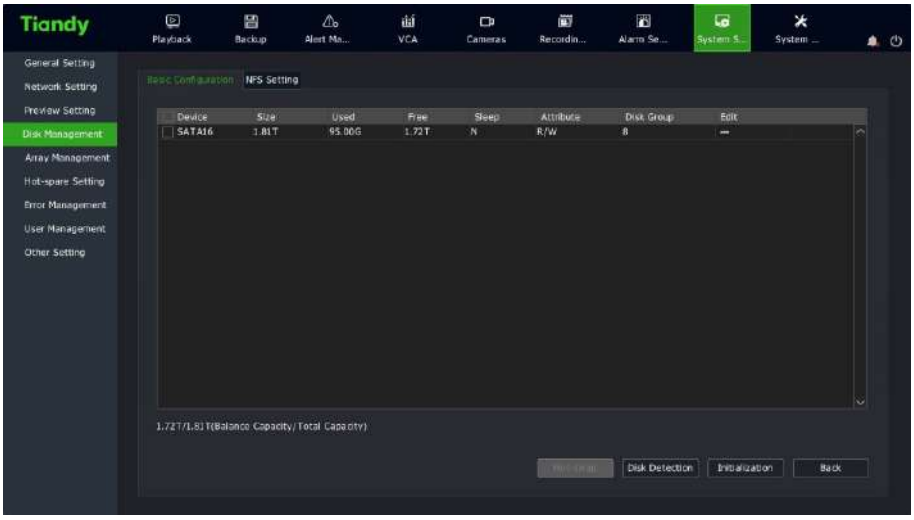
1)The FTP and HTTP port of device can be modified in this interface. And can also set whether to enable SNMP service.

2)Tick “Start the intranet for searching”option can search the same route of different network segment equipment.

4.11.3.Disk Management

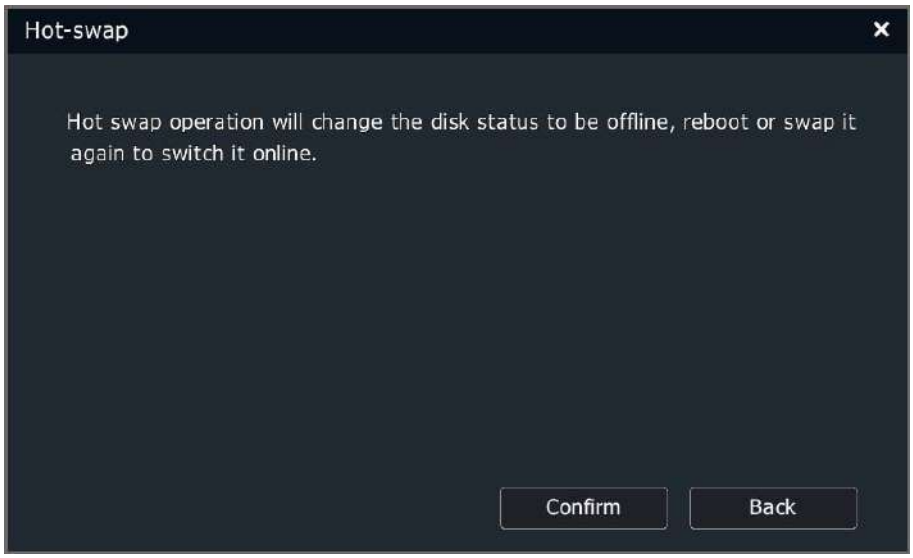
Basic configuration

1.Select “Main Menu->System Setting->Disk Setting->Basic Configuration” to enter the basic configuration interface. When the device is connected the disk group which configured two or more disks , the column appears . Click to modify the disk usage, including read/write, backup, redundant, and read-only.



2.The total remaining capacity and total capacity of current hard disk and virtual disk can be displayed in the interface.

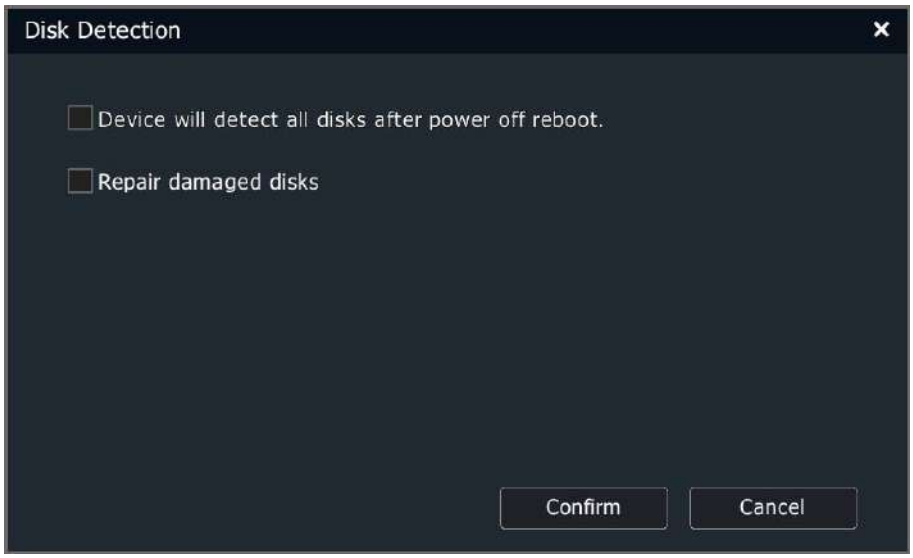
3.Hot-swap. After a disk in the disk list is selected, the “Hot-swap” button is clicked and then the system pops up a prompt shown below; the hot-swap operation can be conducted for this disk after the “Confirm” button is clicked.



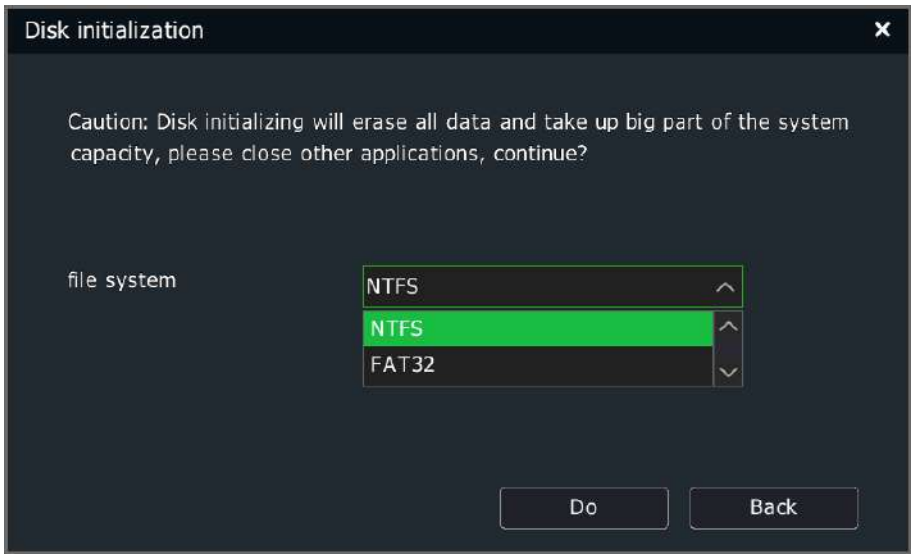
Description:

- The “Hot-swap” button will not be displayed for the devices which do not support the hot-swap function.

4.Disk detection. Set whether to detect all the disks after the device is powered off and rebooted and whether to repair the damaged disks. After the “Disk Detection” button is clicked, the disk detection window will pop up. The interface is as follows



5.Initialization: the initialization operation is conducted for the selected disk and the initialization format can be selected by U disk.

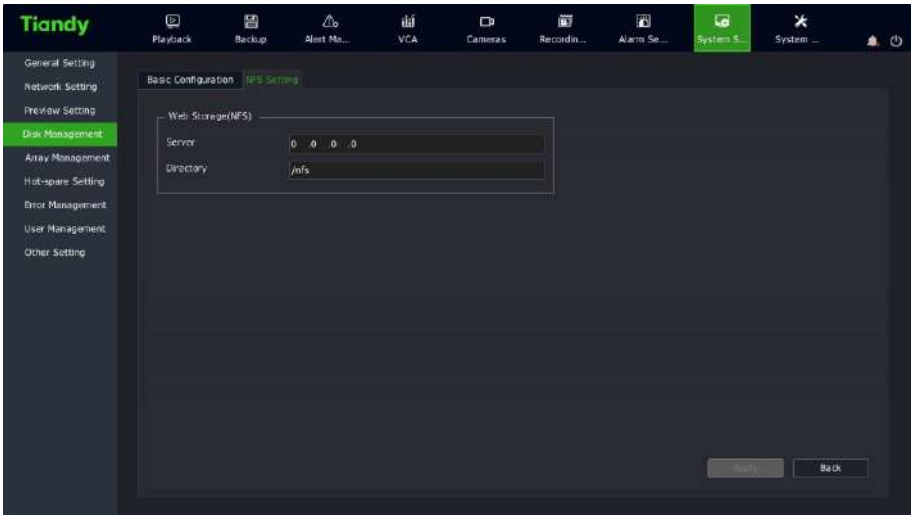


Description:

- The file system will not be displayed for the devices which do not support the initialization format selection function of U disk.

NFS setting

1.Select “Main Menu->System Setting->Disk Management->NFS Setup” to enter the NFS setting interface.



2.Set the IP address (domain name) and directory of “NFS” service.

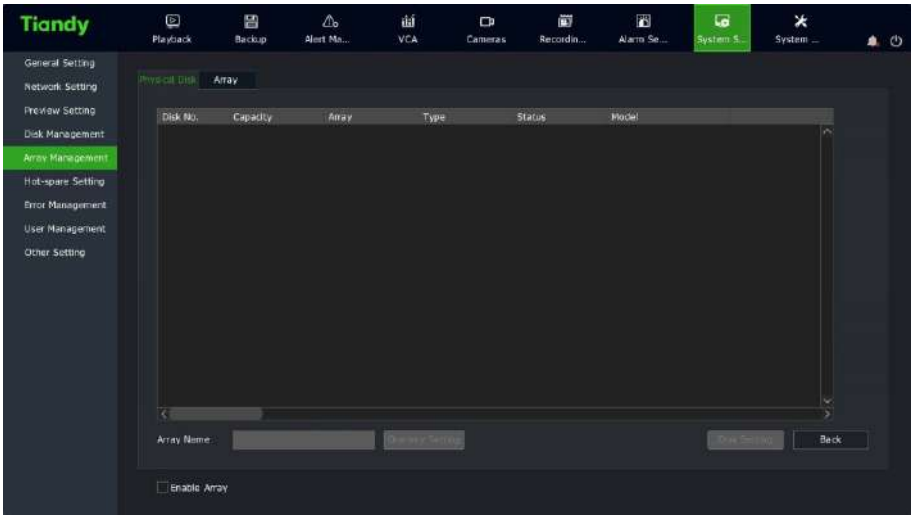
3.Click “Apply” to save the configuration.

4.11.4.Array Management

The devices of NR2020-E8, NR2040-E8, NR2080-E8, NR2080-E16, NR2160-E16, NR2020-S8, NR2040-S8 and NR2080-S8 models support the disk array and the array needs to be set before the disk array is used.

Physical disk

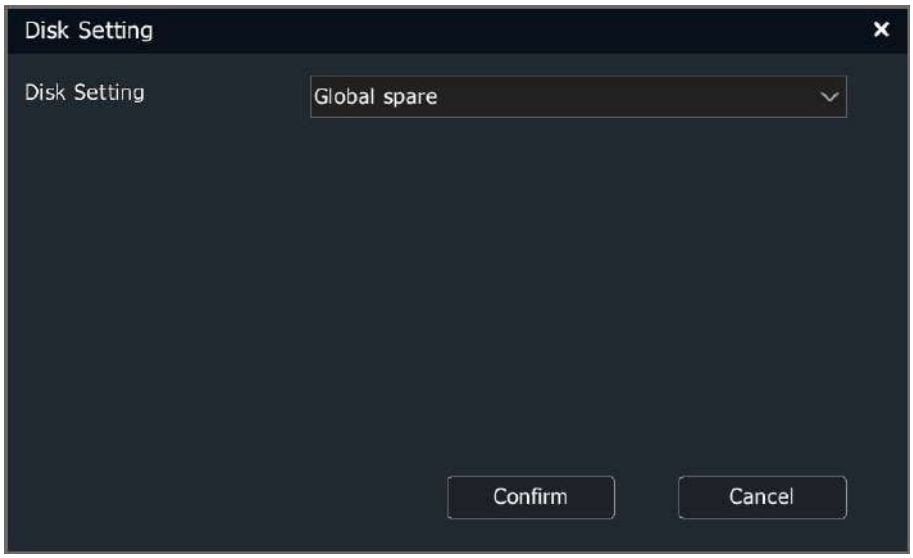
1.Select “Main Menu->System Setting->Array Management->Physical Disk” to enter the physical disk interface and display the basic information of all physical disks of current device. The capacity, affiliated array, disk type, disk status, disk model and other information are included.



2.Enable the array. After “Enable Array” is checked, it will take effect after the device is rebooted.

3.One-key configuration. After “Array Name” is input and the “One-key Configuration” button is clicked, the device will create arrays automatically.

4.Disk setting. After selecting a disk, click the “Disk Setting” button to set the disk as “Free Disk”, “Array Spare Disk” or “Global Spare Disk”.

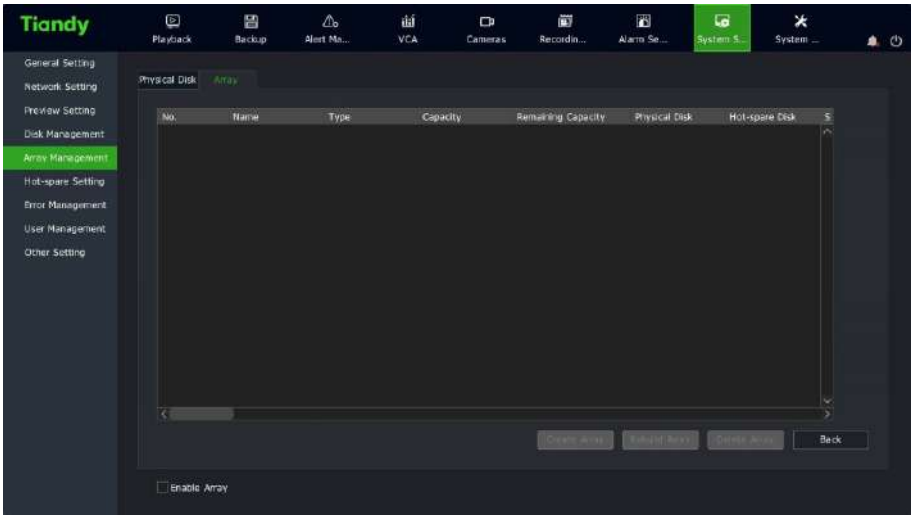


Description:

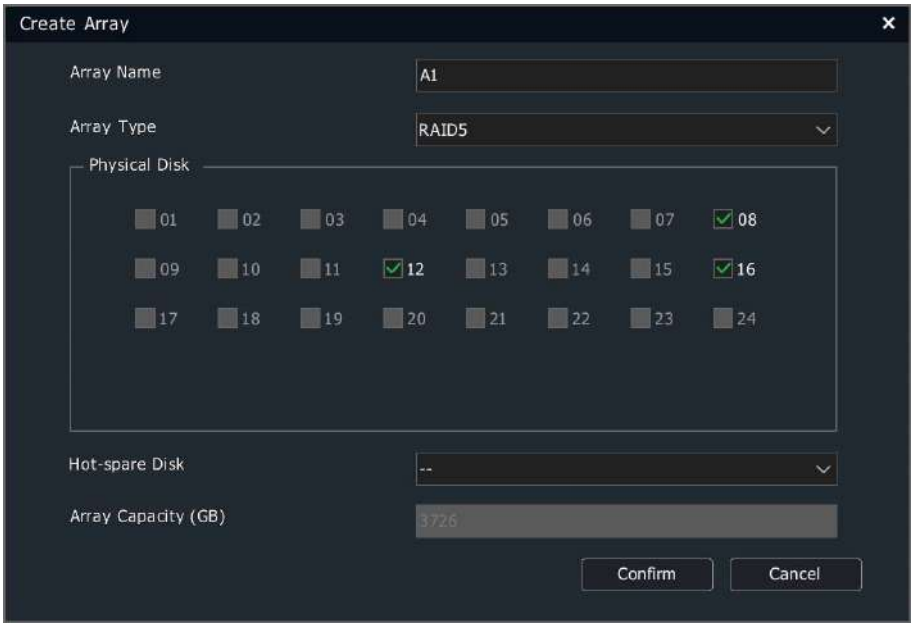
- Configure the array creation rules by one key; the system creates a global spare disk first and then creates at most two RAID5 arrays based on the number of remaining disks. If a RAID5 array is to be created, at least 3 hard disks are needed and at most 5 hard disks are supported; if the number of remaining hard disks is less than 3, the remaining disks are set as free disks.
- Equipment only support one heat standby.

Array

1.Select “Main Menu->System Setting->Array Management->Array” to enter the array interface.



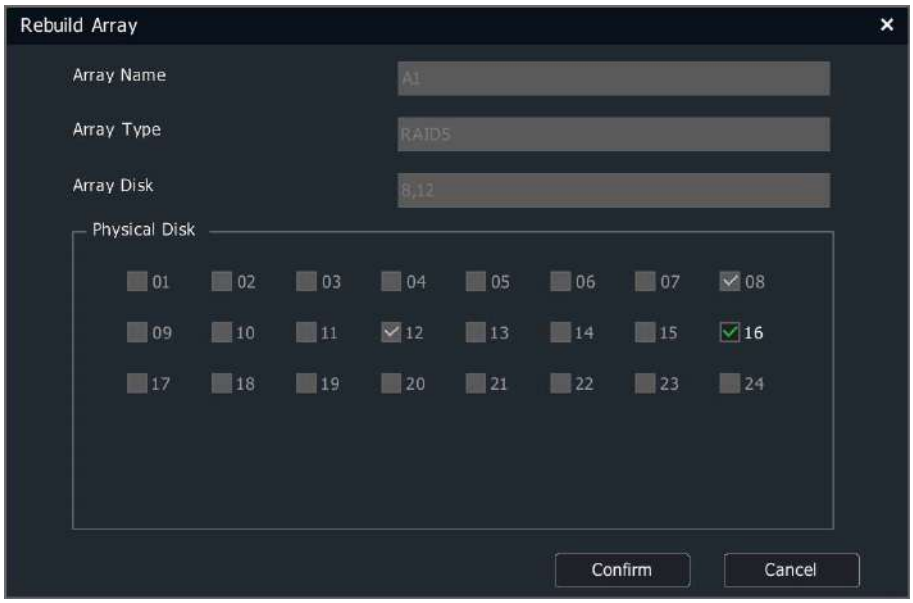
2.Create array. Click the “Create Array”button to enter the array creation interface, as shown in the figure below. The array name, array type and numbers of physical disks and spare disks which form arrays need to be specified for array creation. After all information is set, click the “Confirm” button to start the array creation operation.



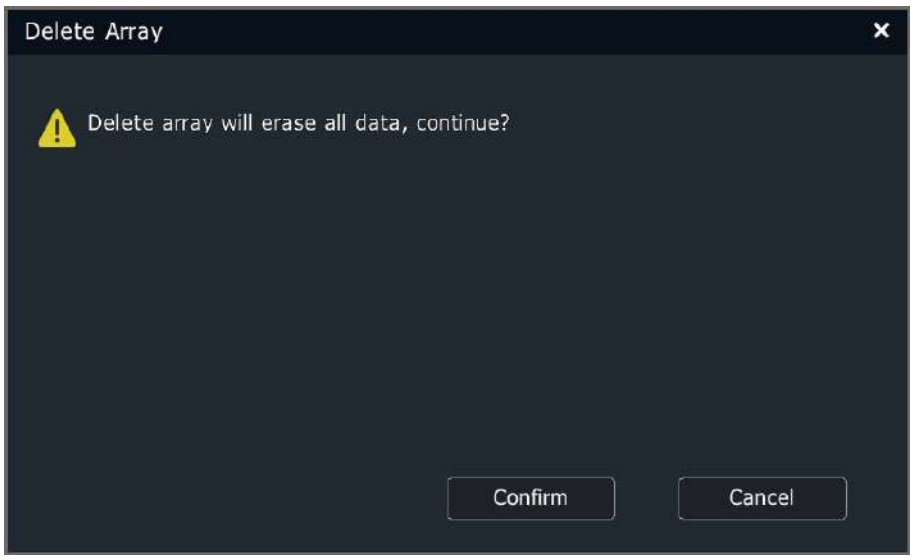
Description:

- JBOD and Raid 0 not support heat standby.
- Each array only allow use one heat standby.

3.Rebuild array. When an array is “Downgraded”, the array can be rebuilt. Select the number of disk which needs to enter the array as an alternate and click the “Confirm” button to start the rebuilding operation.



4.Delete array. Select the array to be deleted in the array list and click the “Delete” button to delete the selected array from the system.



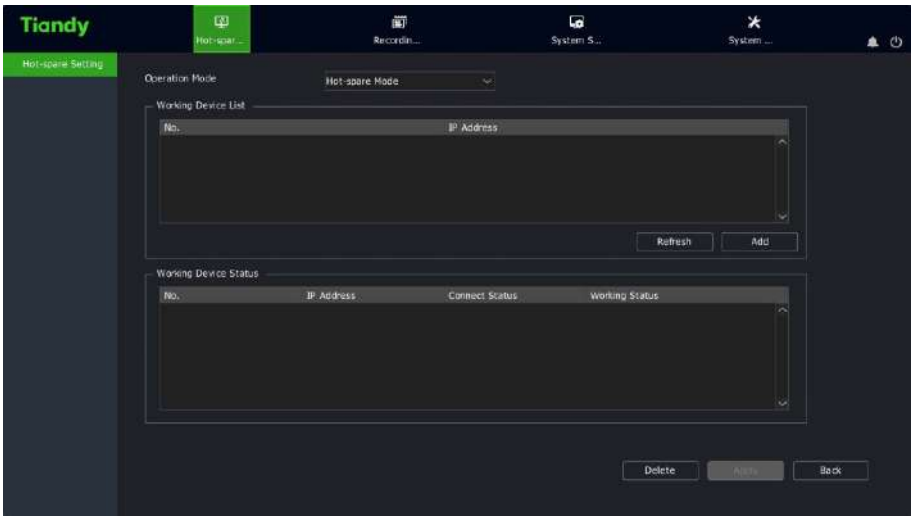
4.11.5.Hot-spare Setting

Enable the hot-spare system (Note: 4-channel and 8-channel NVRs and PSE series NVR do not support the hot-spare function); when a failure happens on a device in the hot-spare system, the system will automatically switches to the hot-spare machine to work so as to ensure the continuity of video.

A hot-spare system consists of several working machines and hot-spare machines and a working machine can set at most 16 hot-spare machines. When the hot-spare machine detects that the working machine is offline, the hot-spare machine will actively connect to the front-terminal IPC connected with working machine and start the video; when the hot-spare machine detects that the working machine is online, it will actively disconnect the connection with front-terminal IPC and upload the video backed up previously to the working machine.

Working machine setting

1.Select “System Setting->Hot-spare Setting” in the main menu to enter the hot-spare setting interface.



2.Select the normal operation mode.

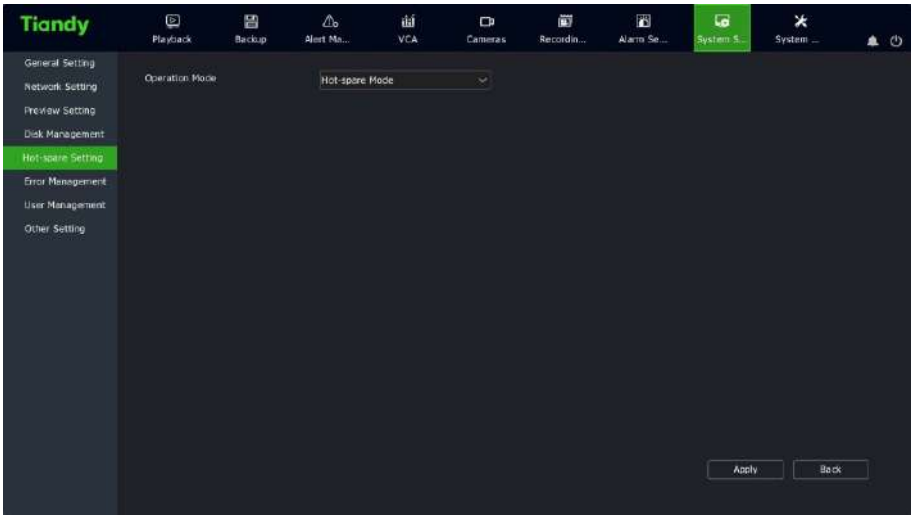
3.Select “Enable Hot Backup”, set the IP address of hot-spare machine and click “Add”; or select the IP to be deleted and click “Delete”.

4.When the specified hot-spare machine is set successfully and connected with the machine successfully, the working status will be updated to “Connection is successful”; when the hot-spare machine actively uploads the backup recording files, the working status is displayed as “Being synchronized” and the percentage progress of synchronization is displayed in the synchronization progress bar.

Hot-spare machine setting

1.Select “System Setting->Hot-spare Setting” in the main menu to enter the hot-spare setting interface.

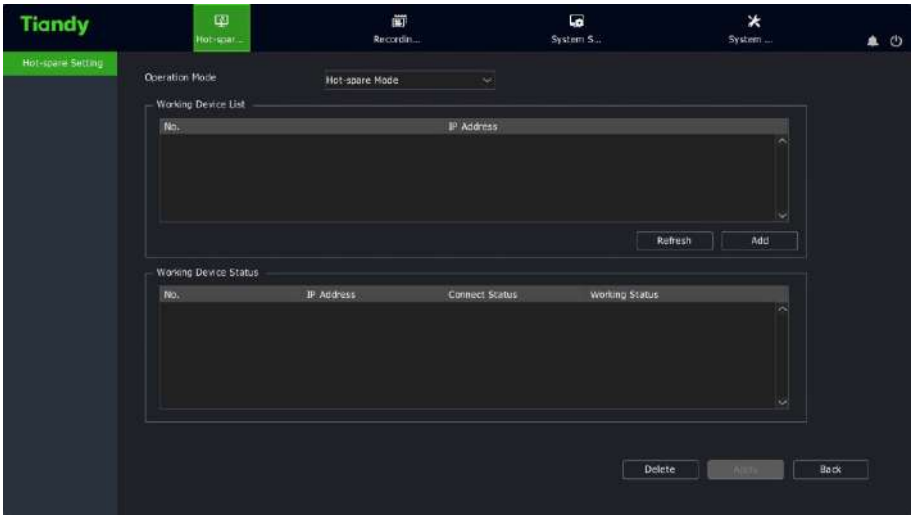
2.Select the hot-spare mode.



3.After the “Apply” button is clicked, the system will prompts that it can take effect after the device is rebooted.

4. After the device is restarted, it enters the hot standby mode. At this point, the main interface of the system will also change correspondingly. Only the hot standby Settings, video Settings, system Settings, user management and shutdown are supported.

5.Select “System Setting->Hot-spare Setting” in the main menu to enter the hot-spare setting interface.



6.After the “Refresh” button is clicked, the working macines which open the hot-spare function are displayed in the working machine list; select the working machine which needs to conduct hot-spare operation.

7.After the “Add” button is clicked, the system will prompt to enter the login username and password of this working machine. After the verification is qualified, the IP and connection status of this working machine will be displayed in the working machine status list; if the password verification is not qualified, the IP of this working machine will also be displayed in the working machine status list, but the hot-spare machine status will be displayed as “Connection Fails” in the working machine.

8.Click “Apply” to save the configuration.

9.In the hot-spare configuration interface of hot-spare machine, select “Normal Mode” to switch the hot-spare machine to working machine for use.

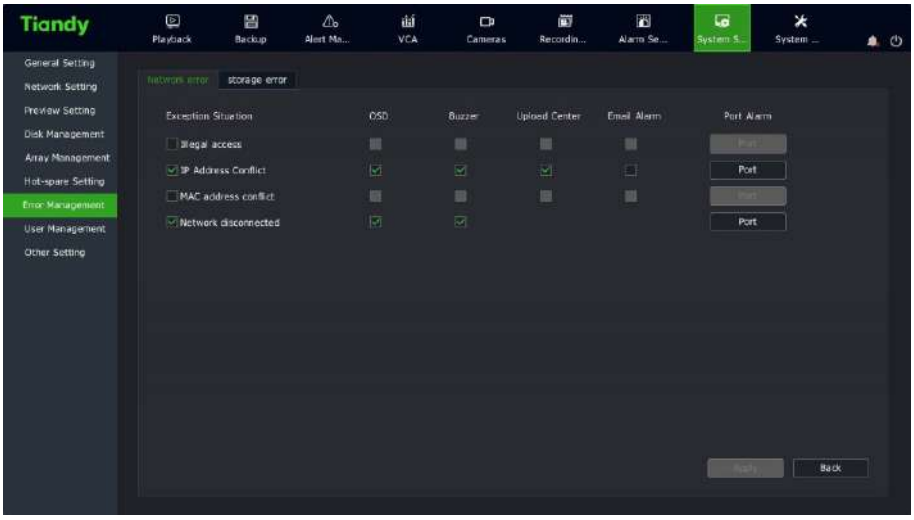
Description:

- After the hot-spare machine is changed to a working machine, the default parameter restoration operation needs to be conducted manually.
- The system time of working machine and hot-spare machine shall be consistent.

4.11.6.Routine Maintenance

Network error

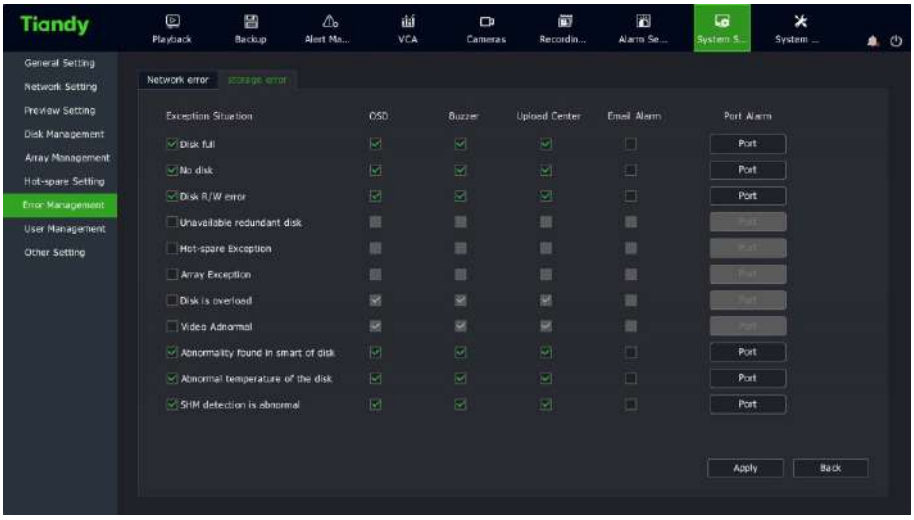
1.Select “Main Menu->System Setting->Error Management->Network error” to enter the network error setting, as shown in the figure below.



2.After the exception situation is checked, the corresponding link actions of system when this exception situation occurs, including OSD, voice prompt and upload center, can be checked.

Storage Error

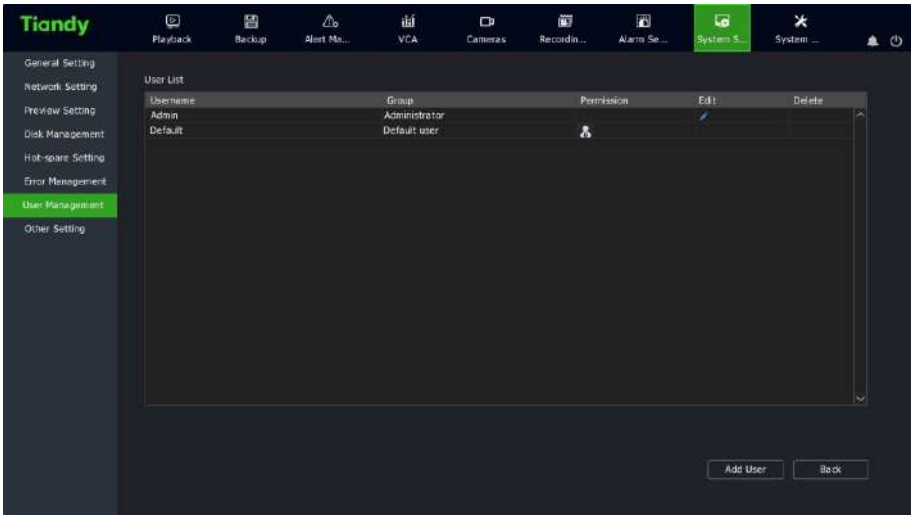
1.Select “Main Menu->System Setting-> Error Management ->Storage error” to enter the storage error setting, as shown in the figure below.



2.After the exception situation is checked, the corresponding link actions of system when this exception situation occurs, including OSD, voice prompt and upload center, can be checked.

4.11.7.User Management

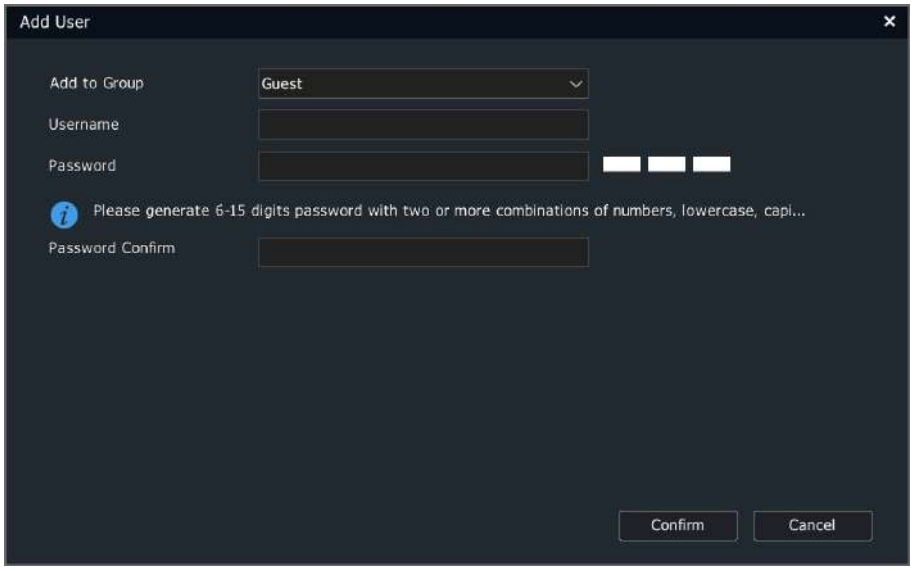
1.Select “Main Menu-> system setting- user management” to enter the user management interface, as shown in the figure below:



Description:

- The Default user is added; after logging out, the user defaults to the default user and only the local preview permission of this user can be configured.

2.Click “Add User” and enter the “Add User” interface to set the affiliated group, username and password of users, as shown in the figure below:



Description:

- After the user is added successfully, the information of added user can be displayed in Basic Configuration->User List.
- At most 16 users can be added.
- There are 3 user groups in the system, including “Default User”, “Normal User”and “Administrator”. The default permission of each user group is shown below

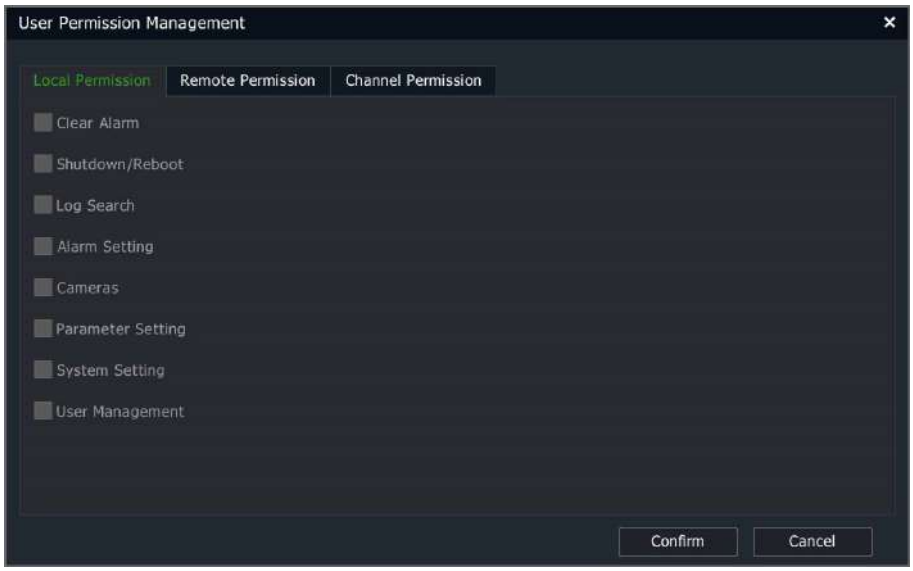
  Default user: video browsing

Normal user: video browsing

Administrator: video browsing+device control+parameter setting+user management

User Permission Configuration

1.Click the in the user list to make the user permission editing window pop up, as shown in the figure below:



2.Permission description:

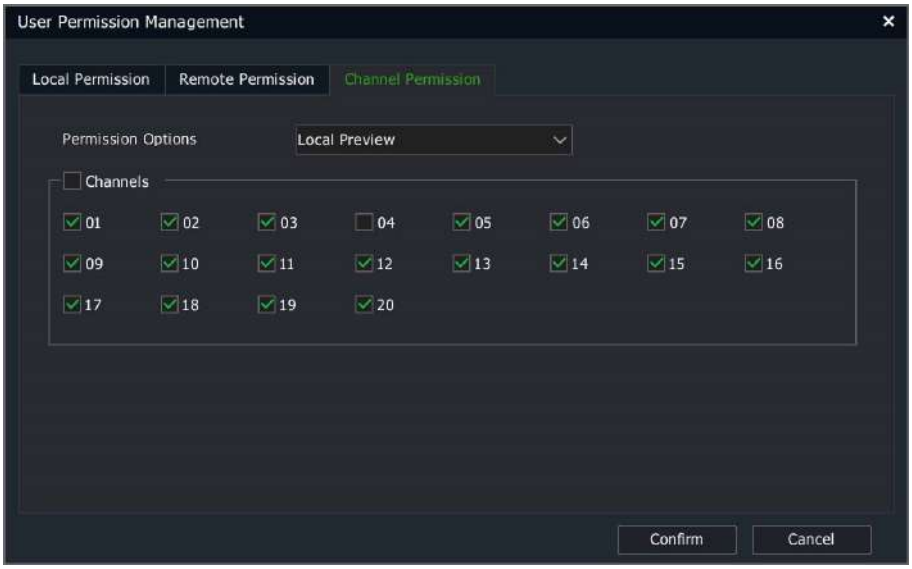
1) Local permission: it refers to the local operation permission, including manual alarm clearing, shutdown/reboot, log search, alarm setting, channel management, parameter setting, system setting and user management.

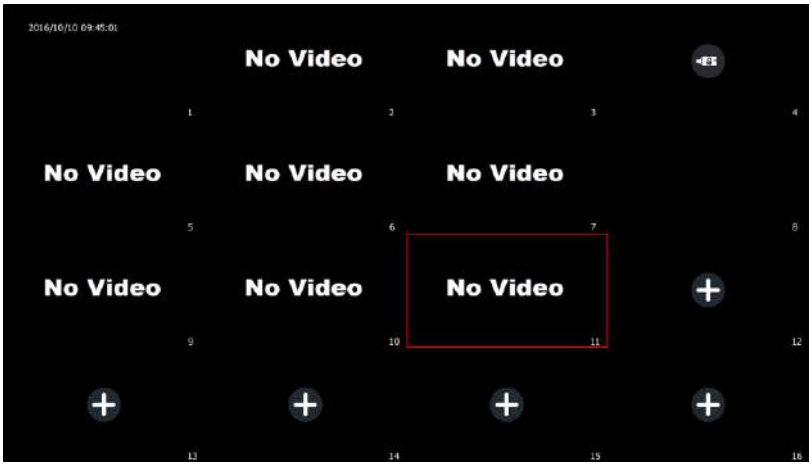
2) Remote permission: it refers to the remote client operation permission, including manual alarm clearing, shutdown/reboot, voice talkback, log search, alarm setting, channel management, parameter setting, system setting and user management.

3) Channel permission: it refers to the channel permission of local preview, remote preview, local playback/captured picture browsing, remote playback/captured picture browsing, local PTZ control, remote PTZ control and other operations.

3.Channel permission description:

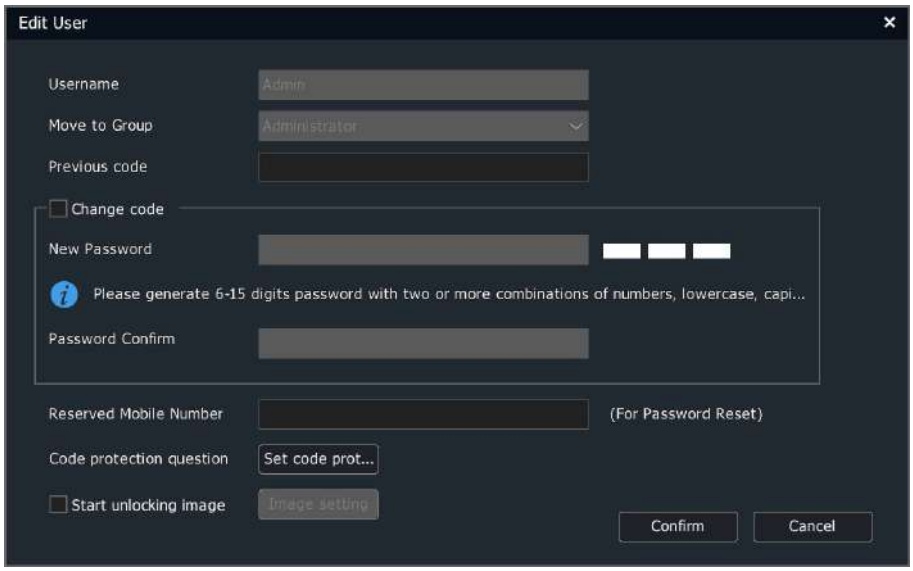
If the current user does not have local preview permission of certain channel, this channel will be unchecked (such as the fourth channel shown in the figure below); if the user has the local preview permission of this channel, the channel will be checked.





User Editing

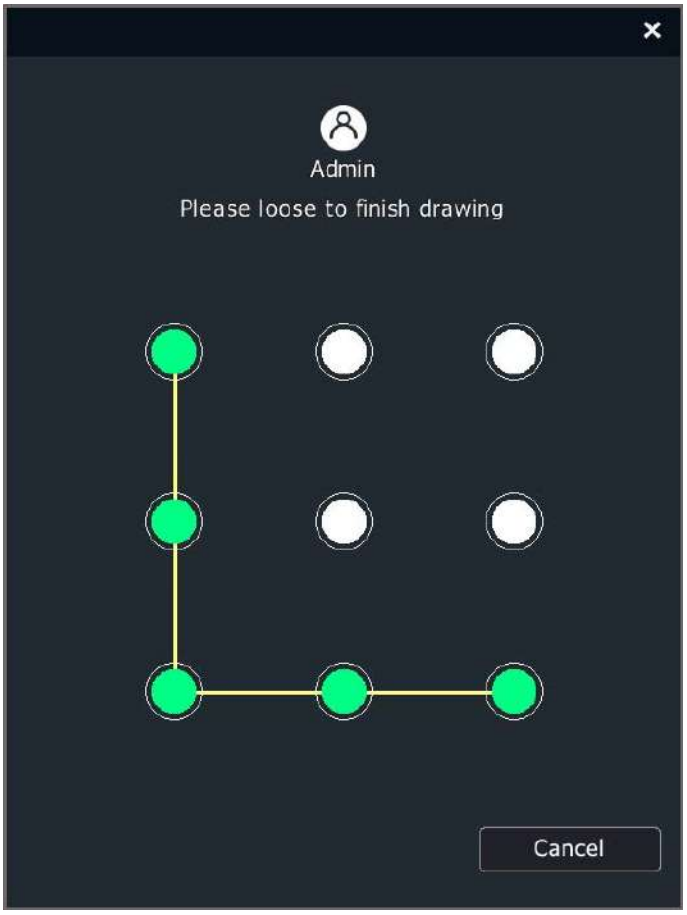
1.Click the in the user list to make the user editing window pop up, as shown in the figure below:



Description:

- There are image unlocking and code protection setting options only when the user is admin; the original password needs to be input first when the admin user is edited and “Confirm” is clicked.

2.Image unlocking



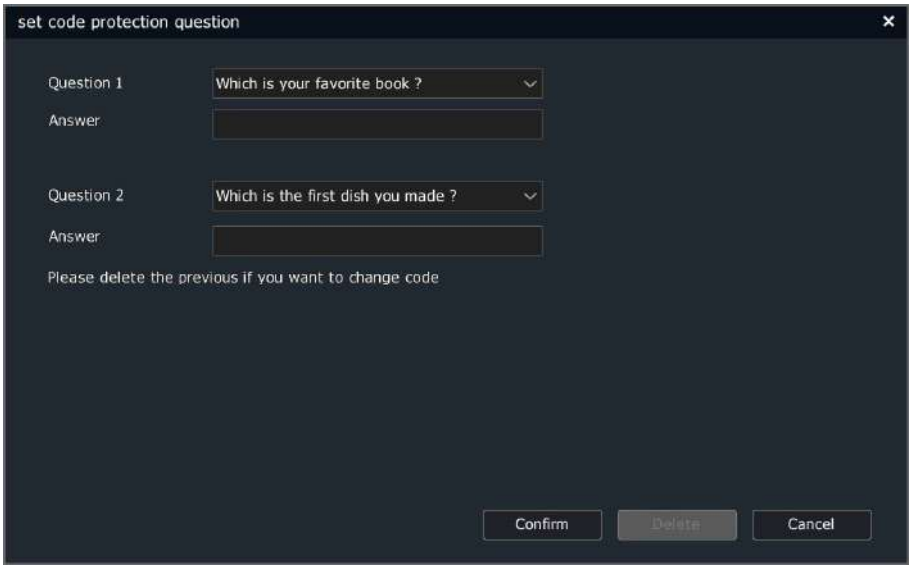
1) After “Start unlocking image” is checked, the window shown in the figure below will pop up; the unlocking image can be set correctly after the same image drawn with more than 4 points is drawn twice according to the prompt.

2) Only the admin user can use the image unlocking.

3) Image unlocking is not enabled by default when startup and the unlocking image can be modified by clicking the image setting after the setting is successfully.

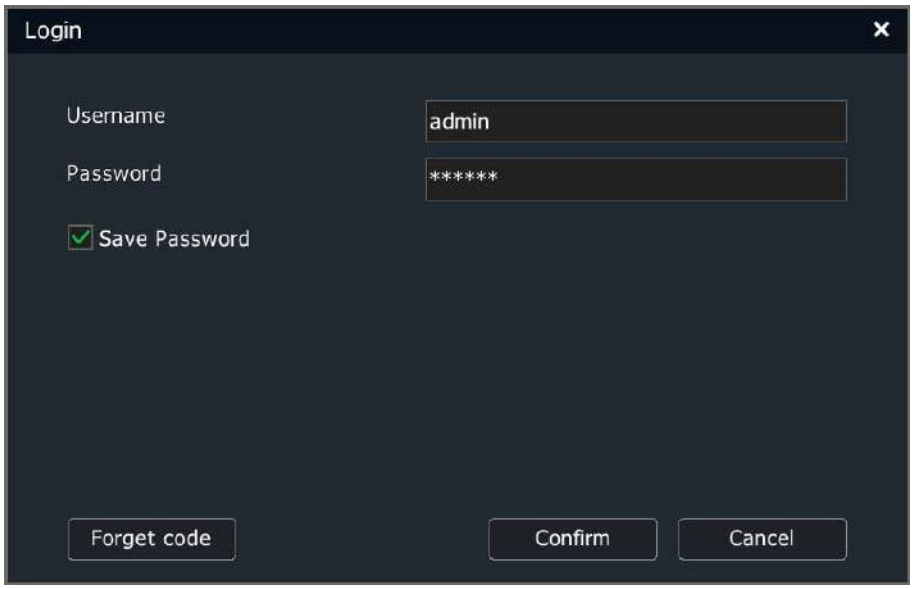
3.Code Protection Question

1) Set the code protection: after the admin user logs in, edit the user and click the “Set Code Protection” button to enter the code protection setting interface, as shown in the figure below:

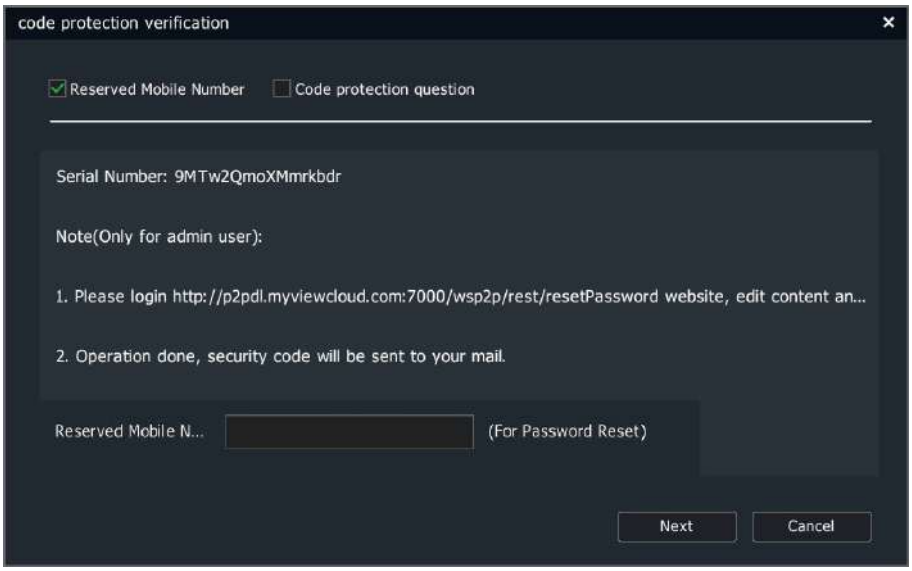


Users can set 2 code protection questions and select the customized question; the question must be filled in and shall not be null.

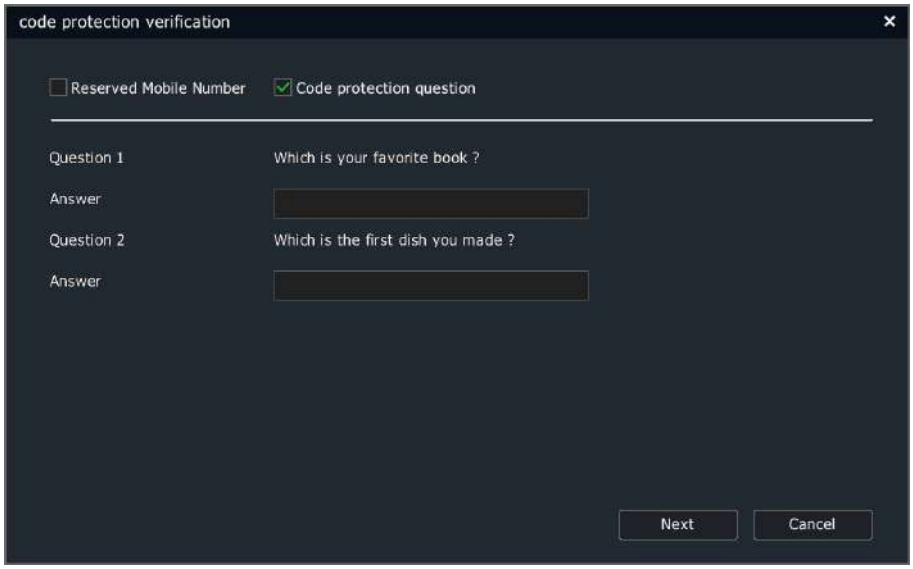
2) Verify code protection: the admin user can click the “Forget Code” button to modify the password when logging in with password. As shown in the figure below:



After the “Forget Code” button is clicked, enter the code protection verification interface. As shown in the figure below:



There are two ways to retrieve passwords: Retrieval of reserved emails and recovery of secret questions.
Reserved emails are retrieved as follows:
1). Log in to http://p2pdl.myviewcloud.com:7000/wsp2p/rest/resetPassword, fill in the information and submit it.
2). Log in to the reserved email to get the security code.
3). Enter the security code in the above figure and click Next to reset the new password.
The code protection question retrieved as follows:



1). Input the rightprotection answer

2).Click nect to reset the new password

After the user inputs the correct code protection answer and new password, the password will be modified. If the new password is not input, the original password will not be modified after the code protection answer is verified.

3) Delete code protection: if the code protection has been set, it will enter the code protection setting interface by clicking the “Set Code Protection” button, the code protection cannot be set at this time and the original code protection needs to be deleted. Click the “Delete” button to delete the original code protection, as shown in the figure below:

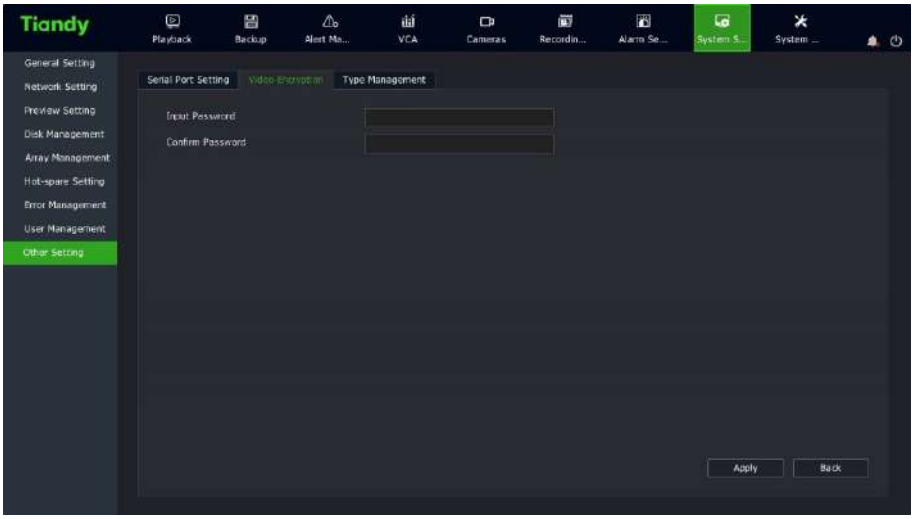
Device Locking

After the password unlocking failed for 5 times, it will enter the device locking interface as shown in the figure below. The locking time is 5 minutes.

4.11.7.Other Setting

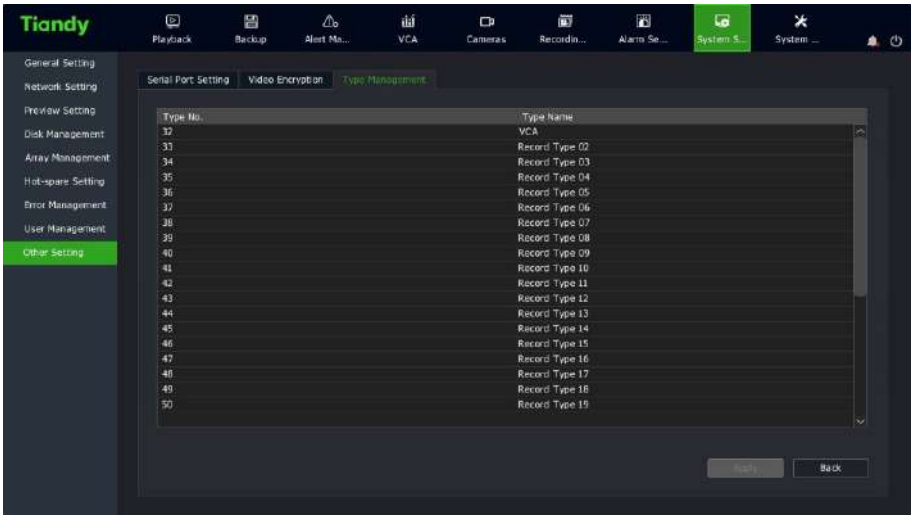
Video encryption

1.Select “Main Menu->System Setting->Other Setting->Video Encryption” to enter the video encryption interface, as shown in the figure below.



Type management

1.Select “Main Menu->System Setting->Other Setting->Type Management” to enter the type management interface, as shown in the figure below. Set the recording type name.

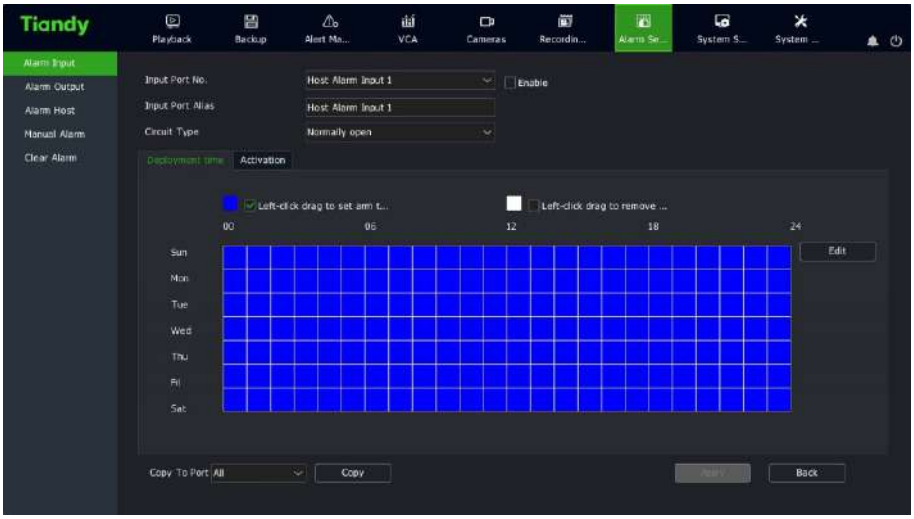


4.12.Alarm Setting

4.12.1.Alarm Input

The prompting and recording can be conducted when an alarm occurs on the local NVR and the alarm situation needs to be input through the alarm input setting.

1.Select “Main Menu->Alarm Setting->Alarm Input” to enter the alarm input setting interface, as shown in the figure below.



2.Select the input port No. to be set. The input port No. of local and host alarm can be set in this interface.

3.Set the input port alias. The customized name can be set for the current input port.

4.Select the alarm type.

Description:

- Open circuit alarm: an alarm will occur when the local NVR alarm input port is open-circuit.
- Closed circuit alarm: an alarm will occur when the local NVR alarm input port is closed-circuit.

5.Check “Enable” and set the alarm input arming time.

6.Enter “Linkage setting” and set the alarm link.

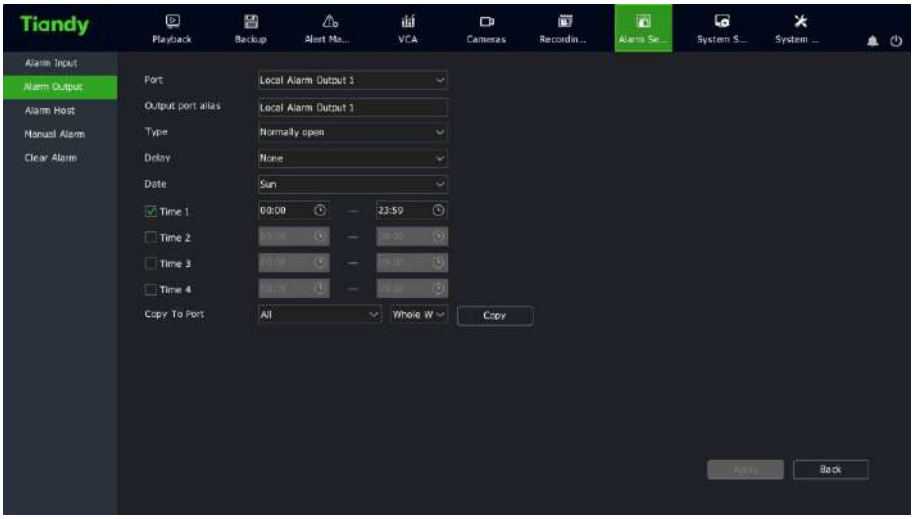
1) The alarm link voive prompt, email, recording, output, snapshot, PTZ, word plan and single-screen can be set.

2) After the setting is completed, the parameter copy can be conducted for other alarm input ports.

7.Click “Apply” to save the set parameters.

4.12.2.Alarm Output

1.Select “Main Menu->Alarm Setting->Alarm Output” to enter the alarm output setting interface, as shown in the figure below.



2.Set the output port No. to be set. The output port No. of local and host alarm can be set in this interface.

3.Set the output port alias. The customized name can be set for the current output port.

4.Select the alarm type; the type requirement must be consistent with that of external device input signal of alarm output port.

Description:

- Open circuit alarm: under normal circumstances, the alarm output port is in closed status; when an alarm occurs in the system and the link output port action is set, the alarm output port is open.
- Closed circuit alarm: under normal circumstances, the alarm output port is in open status; when an alarm occurs in the system and the link output port action is set, the alarm output port is closed.

5.Set the signal delay time. Set the signal delay of alarm output port according to the needs.

6.Set the alarm output arming time. The arming date can be used with time period cooperatively.

7.Copy to port. After the setting is completed, the parameter copy can be conducted for other alarm output ports.

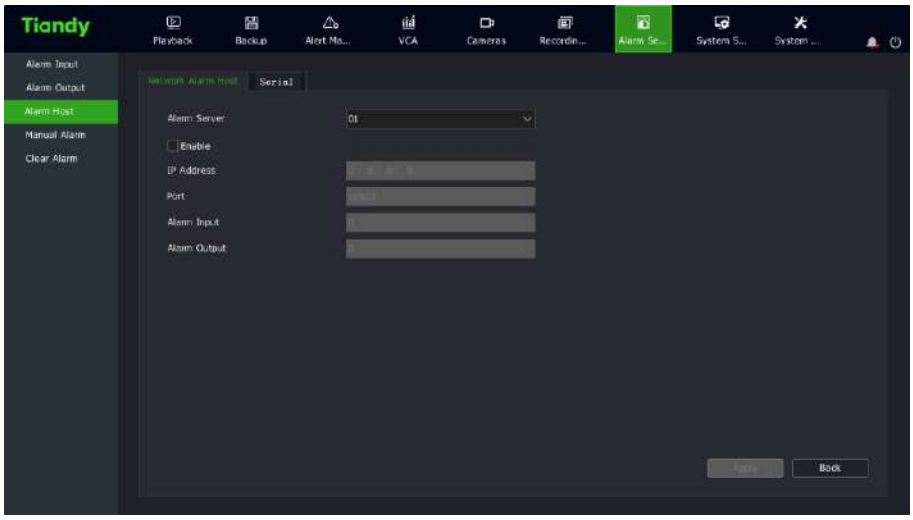
8.Click “Apply” to save the set parameters.

4.12.3.Alarm Host

Alarm host is added to expand the alarm input and output ports of device on the basis of local alarm input and output ports of device. If the network alarm host and serial port alarm host are added at the same time, the port No. of network alarm host is less than that of serial port alarm host.

Network alarm host

1.Select “Main Menu->Alarm Setting->Alarm Host->Network Alarm Host” to enter the network alarm host setting interface, as shown in the figure below.



2.Conduct number setting for network alarm host.

3.Check “Enable” to enable the network alarm host.

4.Set the IP address of network alarm host.

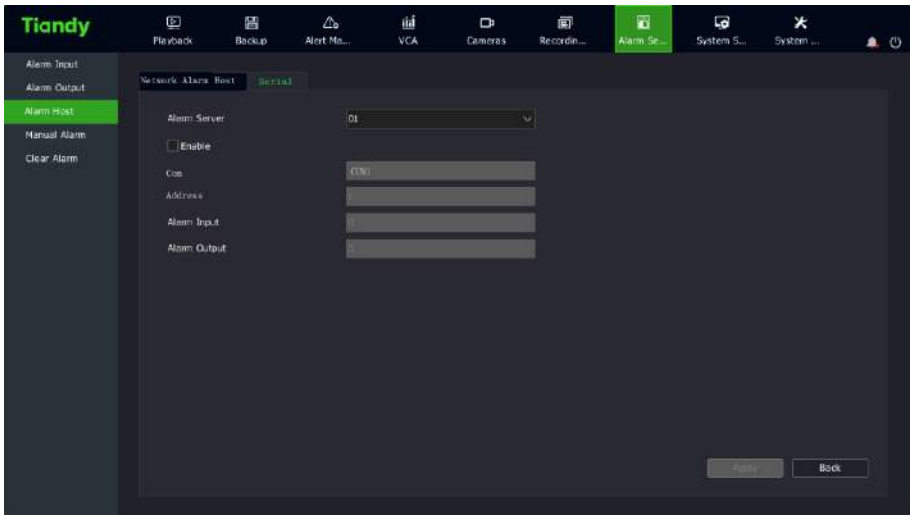
5.Set the communication port of network alarm host and restrict it to 18803; the communication can be conducted normally when the port No. of alarm host in network alarm host IE is set as 18803 simultaneously.

6.Set the number of alarm input ports of network alarm host.

7.Set the number of alarm output ports of network alarm host.

Serial port alarm host

1.Select “Main Menu->Alarm Setting->Alarm Host->Serial Port Alarm Host” to enter the serial port alarm host setting interface, as shown in the figure below.



2.Conduct number setting for serial port alarm host.

3.Check “Enable” to enable the serial port alarm host.

4.Set the serial port No. of serial port alarm host.

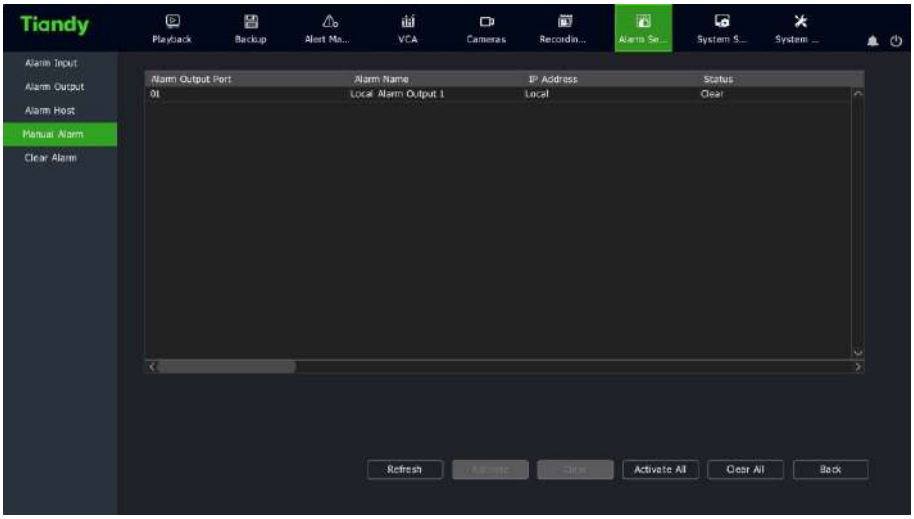
5.Set the address of serial port alarm host.

6.Set the number of alarm input ports of serial port alarm host.

7.Set the number of alarm outnput ports of serial port alarm host.

4.12.4.Manual Alarm

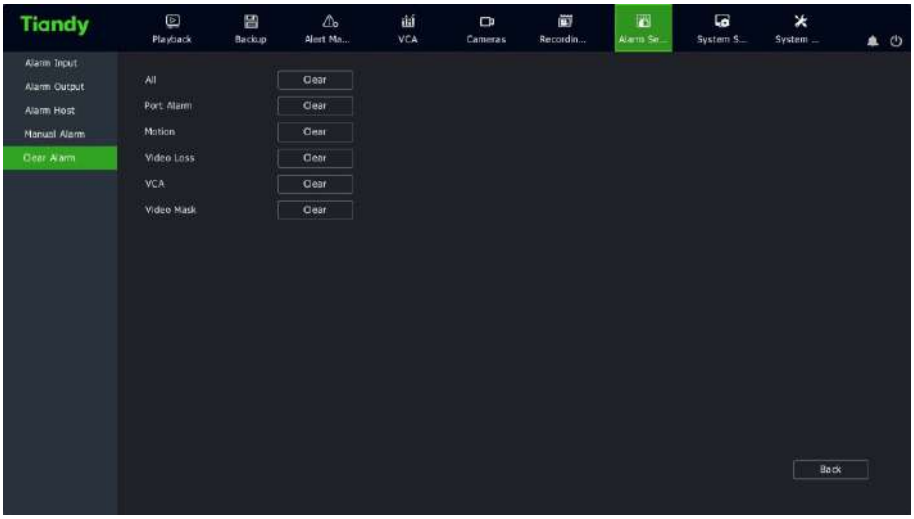
1.Select “Main Menu->Alarm Setting->Manual Alarm” to enter the manual alarm setting interface, as shown in the figure below.



2.Select an alarm output port and click “Activate” or “Clear” to activate or clear the control; the current status of this port is displayed in the status bar of alarm output port; click “Activate All” or “Clear All” to activate or clear the control for all alarm output ports in the list and click the “Refresh” button to get the current attribute and status of alarm output port.

4.12.5.Manual Alarm Clearing

1.Select “Main Menu->Alarm Setting->Clear Alarm” to enter the manual alarm clearing setting interface, as shown in the figure below.

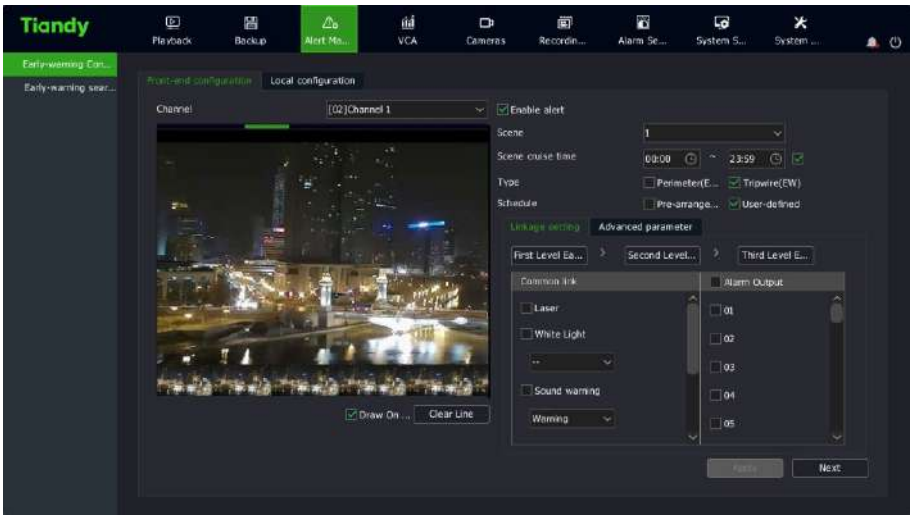


2.In the manual alarm clearing interface, select the alarm type to be eliminated; 6 options, including “All”, “Port Alarm”, “Motion Detection”, “Video Loss”, “VCA” and “Video Mask” are provided for user selection; click the corresponding button to eliminate the alarm of this type.

4.13lert manager

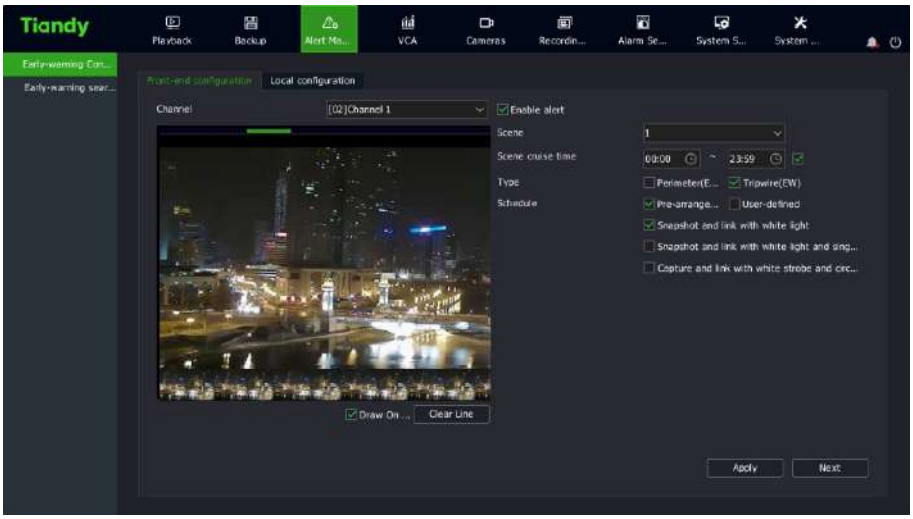
4.14.1 The front-end configuration of the alert configuration

1.Entry” main menu - alert manager - front-end configuration, show as below picture



1、 Users can set alert parameters according to the actual situation or preference

2、 Preplan setup, as shown below



1) Check to enable the active alert algorithm.

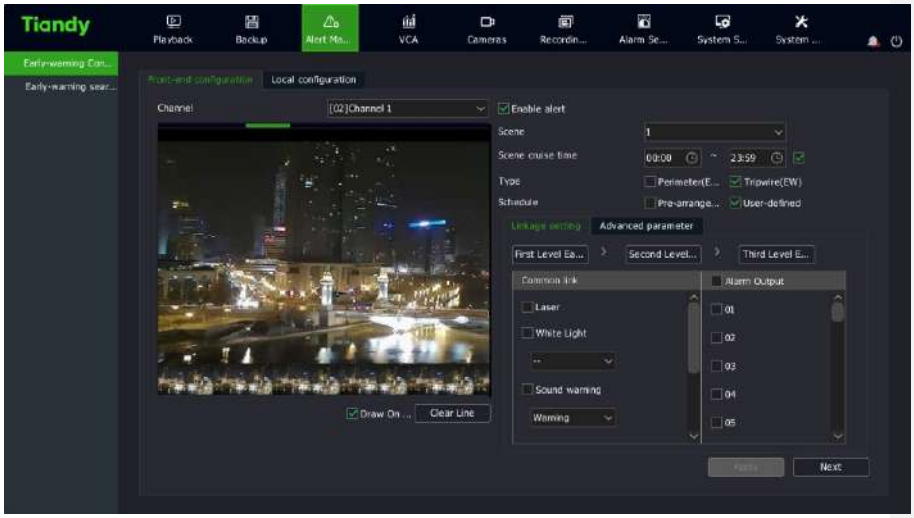
2) Select the alert type: perimeter or tripping, set the effective time of the alert scene

3) adjust the scene and draw the warning area or warning line.Perimeter alert defaults to the entire screen as the alert area. If adjustment is needed, the drawing should be cleared and redrawn.

4) Select a preset alert plan.

5) Click the "save" button to complete the algorithm setting and the exit alert setting interface will take effect

3、Customize the Settings as follows:



1) Check to enable the active alert algorithm

2) select the alert type: perimeter alert or tripping alert, and set the effective time of the alert scene

3) adjust the scene and draw the alert area or alert line

4) Alert template selection custom

5) linkage setting or advanced parameter setting.The linkage setting can be set up to three alarm levels, and each alarm effect can be set separately

6) Click the "save" button to complete the algorithm setting and the exit alert setting interface will take effect.

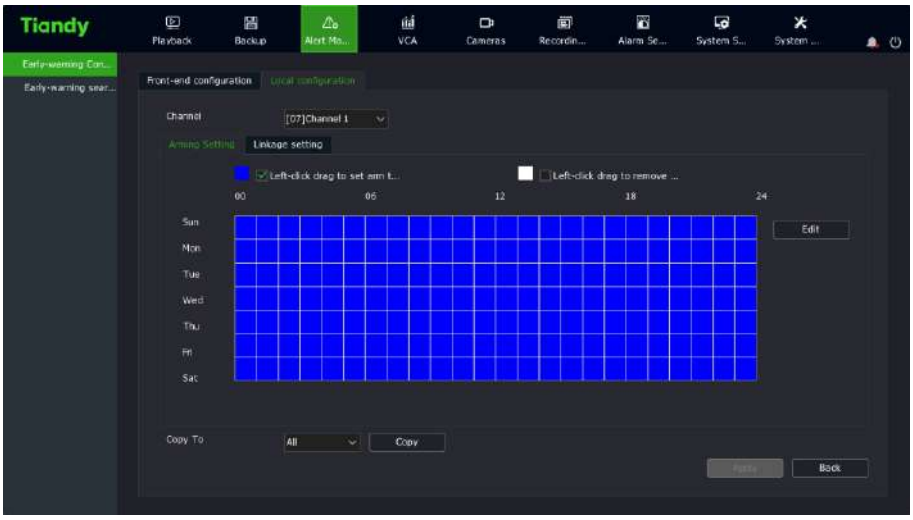
Explain：

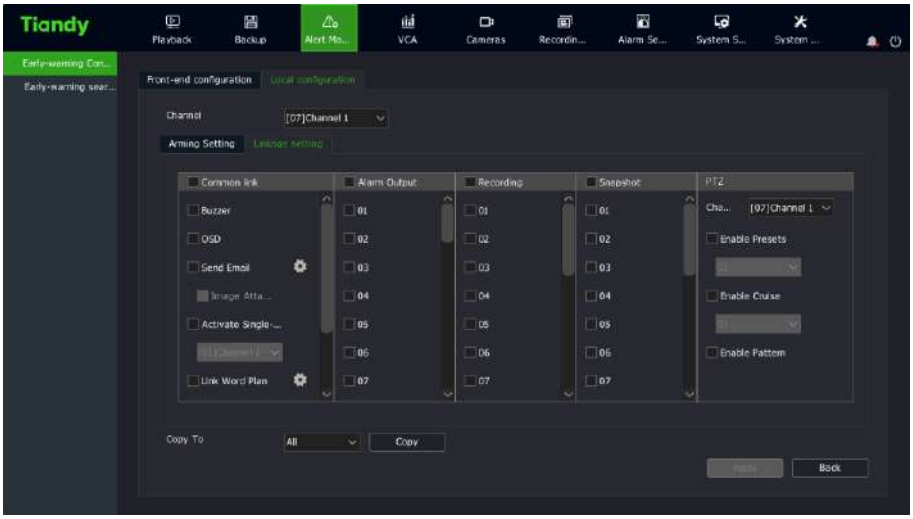
- equipment support set four scenarios.Multiple scenarios can be set up through the above steps, and scene cruise of different warning types or different linkage items can be realized by setting different cruise periods
- perimeter alert "multel level alert" plan is: the target into the alarm zone, white light flashing, build in speaker will be speak, after reaching residence time, it will be into the next level mode, linkage laser open.

- "progressive multistage acousto-optic alert" plan is: the default is divided into three level, the warning effect is enhanced step by step.When the retention time in the upper state is greater than the set value, it will go to the next level.
- custom templates can set up three linkage, linkage set in each level setting can be set up respectively linkage.The linkage tracking and entering the next level of alert are mutually exclusive. When the linkage tracking is selected, it will not enter the next level of alert.When selecting linkage tracking, the tracking multiplier should be set.By adjusting the Angle and the multiplier, an appropriate proportion of the target is determined in the picture where the scene is farthest to be monitored. The recommended target is more than 1/2 of the height of the screen. Click to set the tracking ratio.
- Linkage White light keep on option in the linkage setting. Show turn on the white light when calling the alarm, When the alarm is cancelled, it will disappear automatically
- Advanced parameters in the custom template include: defense week, detection mode, trigger alarm target, trigger sensitivity, maximum tracking time, display rules and setting of target, etc.
- alert types are divided into perimeter alarm and trip wires alert, against invasion area, leave the area and overstepping alert.The perimeter alert is the default intrusion zone alert, and the user can modify the detection mode in the advanced Settings of the custom template
- alert detection target by default is person.The user can go to the custom advanced Settings as needed.
- The longest tracking time activate by linkage track, indicates that the trace action is stopped when the time is reached, Back to the alert monitoring scene. The default is 300 seconds. When set to 0 seconds, the PTZ keeps tracking until the target disappears.

4.14.2、Local configuration of the alert configuration

1、 Entry “main menu - alert manager – alert setting- local configuration



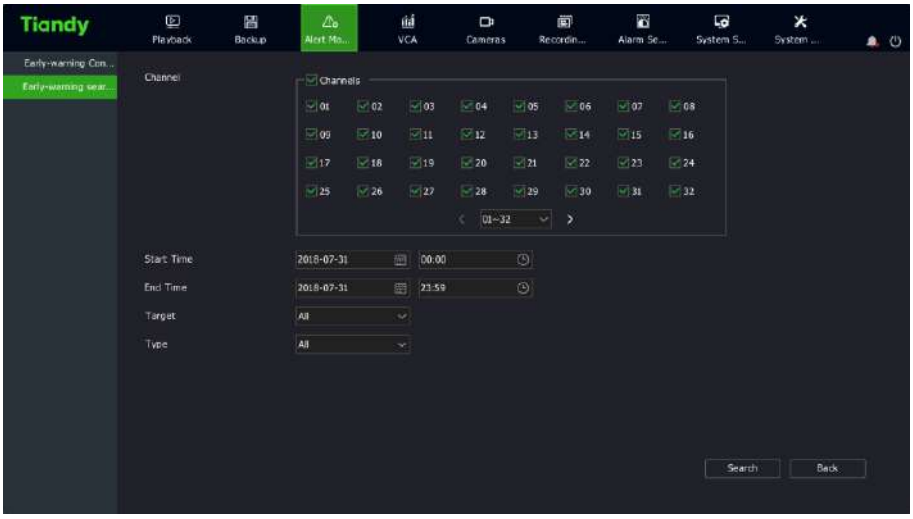


1)The deployment time can be set in deployment setting interface.

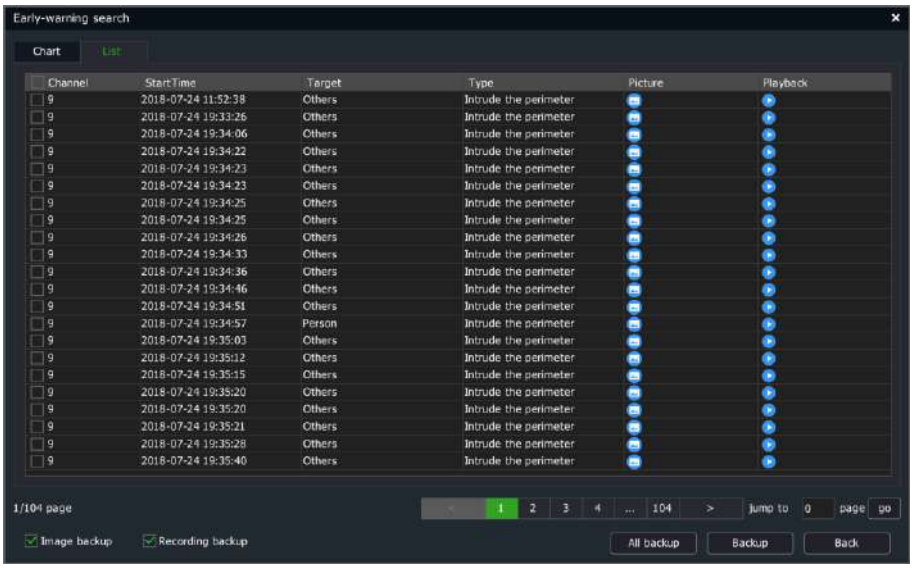
2)Enter the "linkage setting" and set the alarm linkage of alarm. Alarm linkage voice prompt, screen display, linkage video recording, linkage alarm output, linkage PTZ, linkage capture and so on can be set.

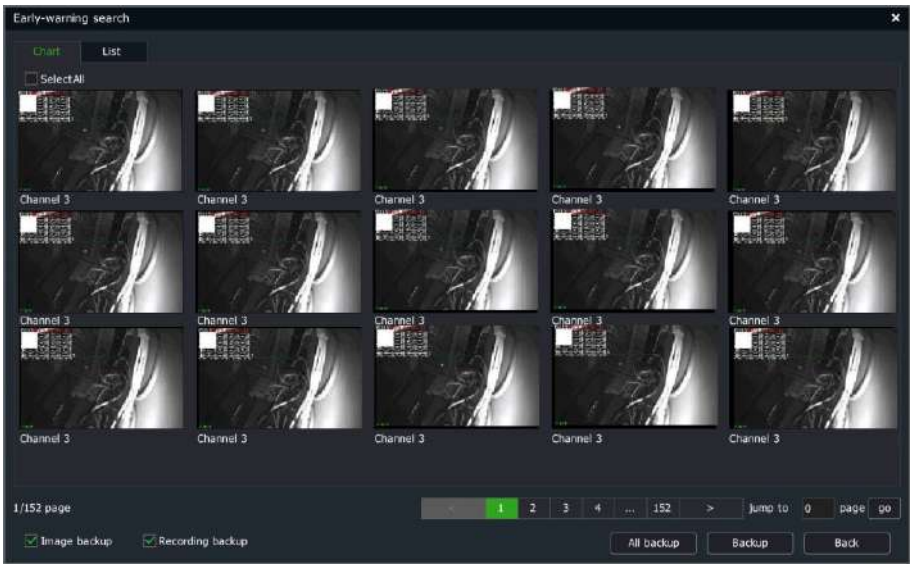
4.14.3、Vigilance allocattion

1. Entry “main menu – alert manager – alert search” show as below



2、 The retrieval target is divided into: all, person, car and others;Type: all, Trip wires, perimeter - invasion, perimeter - leave.Select the corresponding target and type and click the search button to retrieve the corresponding warning data, as shown in the following figure

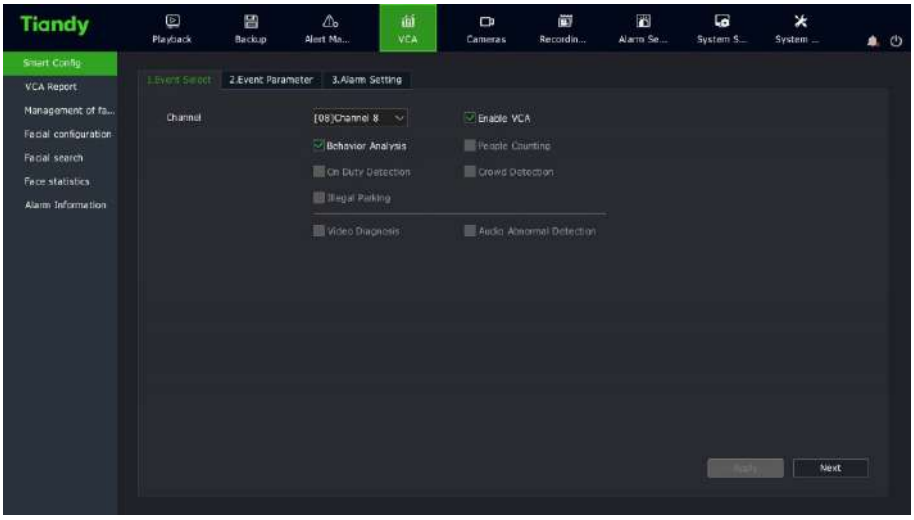

Early-warning search
Chart
List
Channel
StartTime
Target
Type
Picture
Playback
9 2018-07-24 11:52:38 Others Intrude the perimeter
9 2018-07-24 19:33:26 Others Intrude the perimeter
9 2018-07-24 19:34:06 Others Intrude the perimeter
9 2018-07-24 19:34:22 Others Intrude the perimeter
9 2018-07-24 19:34:23 Others Intrude the perimeter
9 2018-07-24 19:34:23 Others Intrude the perimeter
9 2018-07-24 19:34:25 Others Intrude the perimeter
9 2018-07-24 19:34:25 Others Intrude the perimeter
9 2018-07-24 19:34:26 Others Intrude the perimeter
9 2018-07-24 19:34:33 Others Intrude the perimeter
9 2018-07-24 19:34:36 Others Intrude the perimeter
9 2018-07-24 19:34:46 Others Intrude the perimeter
9 2018-07-24 19:34:51 Others Intrude the perimeter
9 2018-07-24 19:34:57 Person Intrude the perimeter
9 2018-07-24 19:35:03 Others Intrude the perimeter
9 2018-07-24 19:35:12 Others Intrude the perimeter
9 2018-07-24 19:35:15 Others Intrude the perimeter
9 2018-07-24 19:35:20 Others Intrude the perimeter
9 2018-07-24 19:35:20 Others Intrude the perimeter
9 2018-07-24 19:35:21 Others Intrude the perimeter
9 2018-07-24 19:35:28 Others Intrude the perimeter
9 2018-07-24 19:35:40 Others Intrude the perimeter
1/104 page
1 2 3 4 ... 104
jump to 0 page go
Image backup
Recording backup
All backup
Backup
Back


Early-warning search
Chart
List
SelectAll
Channel 3
1/152 page
1 2 3 4 ... 152
jump to 0 page go
Image backup
Recording backup
All backup
Backup
Back

4.14.VCA

4.14.1.Enable VCA

1.Enter “Main Menu->VCA->Smart Configuration” and select the “Enable VCA” tag page, as shown in the figure below.



2、 Select the channel to be set.

3、 Select whether to enable camera VCA arithmetic.

4.Click to select rule.

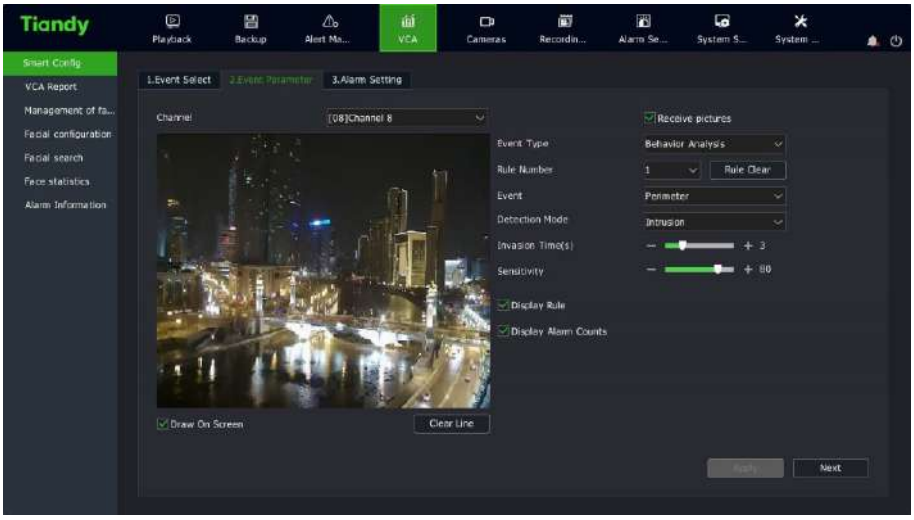
5.Click Save to take affect.

Description:

- Only some of models can support illegal parking, parking guard, linkage track. Specific kind prevail.

4.14.2.VCA Rules Config

1.Eneter “Main Menu-VCA-Smart Configuration”, select arithmetic configuration to select target rule.



2.VCA parameter setting:

- Rule number: select the VCA rule; at most 8 rules are supported in each channel.
- Enable: set whether the rule will take effect.
- Rule name: set the rule name.
- Event: select the VCA events; tripwire, dual-tripwire, perimeter, article leaving, article loss, wandering, running and parking are supported.
- No-alarm color: it refers to the color of sideline of rule area when VCA alarms do not occur.
- Alarm color: it refers to the color of sideline of rule area when a VCA alarm occurs.
- Sensitivity: when the proportion of whole target which enters the alarm area exceeds the set proportion, an alarm will be activated. The sensitivity value is taken from 0 to 100.
- Display rule: display rule is displayed on the video.
- Display alarm counts: alarm counts are displayed on the video and the counts are accumulated once when an alarm occurs.

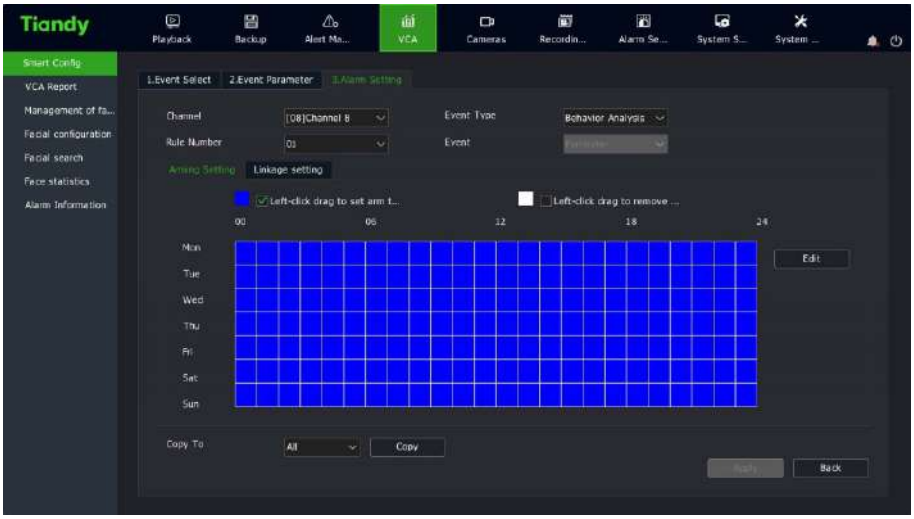
3. Select to enable “Draw on screen”, start drawing area setting according to this rule and click “Clear Line” to clear the sidelines set on the video.

Notes：

- VCA type will change as per the supportive function of different camera.
- The events parameters of face recognition will change base on the algorithm supported by the front end.

4.14.3.VCA Alarm Setting

1. Interface as below:



1) In “arming setting” setting arming time

2) in “ linkage setting” setting linkage item,there are Buzzer, OSD, Email, Word Plan, Single-screen and activate to talk, PTZ, Snapshot, Recording and Alarm Output.

3) When VCA is Heatmap then only arming time period is available to setup.

4) Setup can be copied to other channels after it is finished.

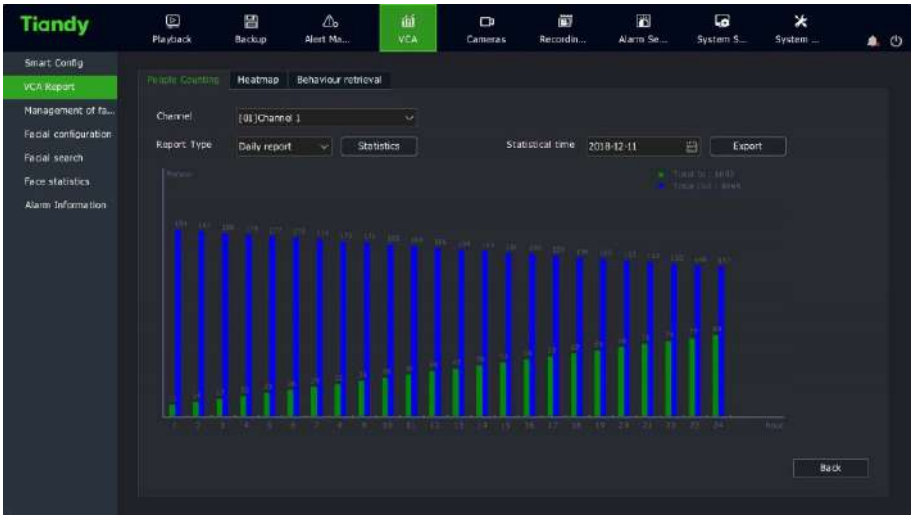
Note：

- Behavior Analysis support to activate speaker or other camera; Illegal parking only support to activate other camera; other algorithm do not support to activate speaker or other camera.
- When speaker activation is enabled, it will activated this camera video on single screen by default.
- Not all cameras support be activate, so when setup please check the camera model and function.

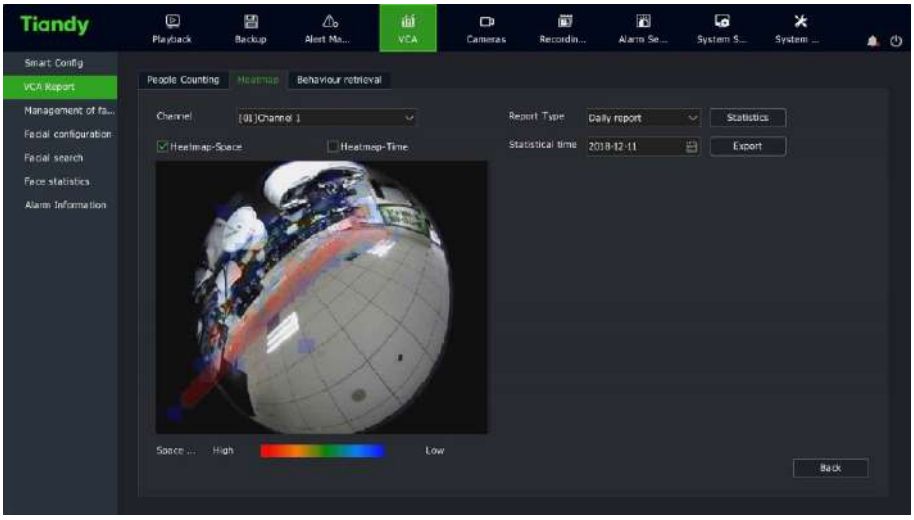
2. Click “Apply” to save parameter.

4.14.4.VCA result search

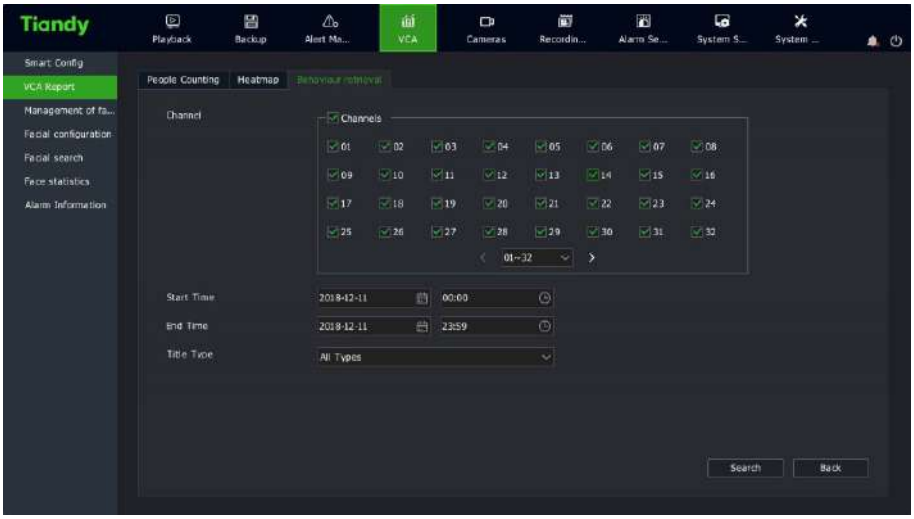
1、Enter “main Menu-VCA-VCA Report”, select “People Counting”, choose channel and report type, click “Statistics”, process people counting,and the statistics bar chart is show, select time, click “Export”the corresponding report.



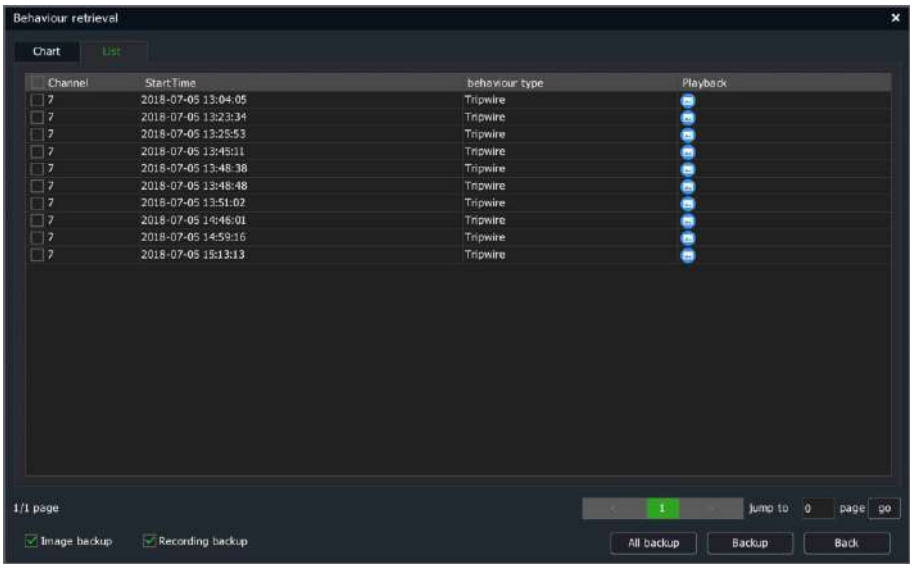
2、Enter “main menu-VCA-VCA Report”, select “Heatmap”as shown below. Choose channel and report type, click “Statistics”, the Space or time of heat map can be calculated separately, and display the image or line drawing. Click “Export”the corresponding report.



3、Enter the " Main menu ->VCA-> VCA Report" and select the "behavior retrieval " Tab, as shown below:

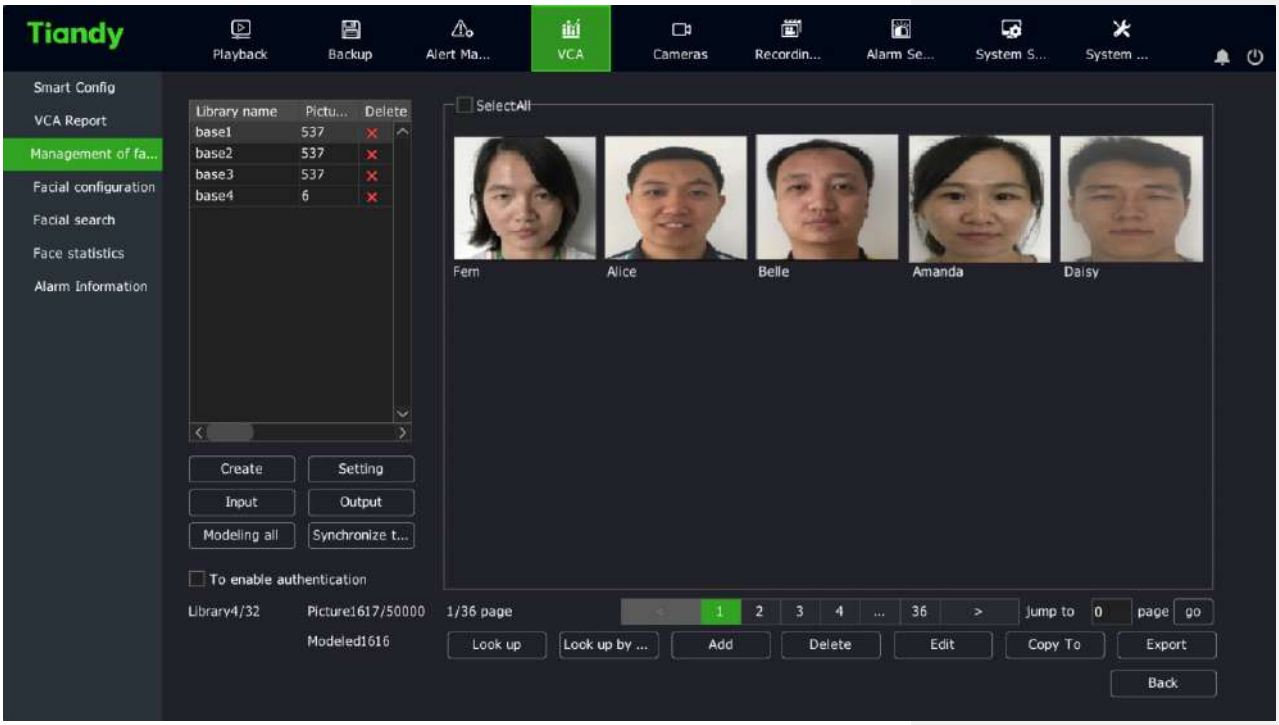


Select channl, set start date and time, select event type, click “Search”, enter “Behavior retrieval” interface, behavior retrieval divide into chart and list pages, You can watch video by clicking any channel once, and double click to zoom the photo; list page playback by one click, can zoom in the photo. As shown below:



4.14.5、Human Face Library management for intelligent analysis

Face Library management for grouping management face base maps, the table shows the existing face library, and the picture shows the base map of the selected face library. The interface is shown in the following figure：



1、In the face library management, you can query out the existing face library data, you can use the "create", "Delete" and other buttons to manage the face bottom map library.

【Create】: Click 【Create】After the button pops up the prompt box to add the name and description of the face library. After adding the new name and description of the face library, click the【OK】button after confirmation

【Delete】: In the face List, select the face image you want to delete and click 【Delete】 to delete it.

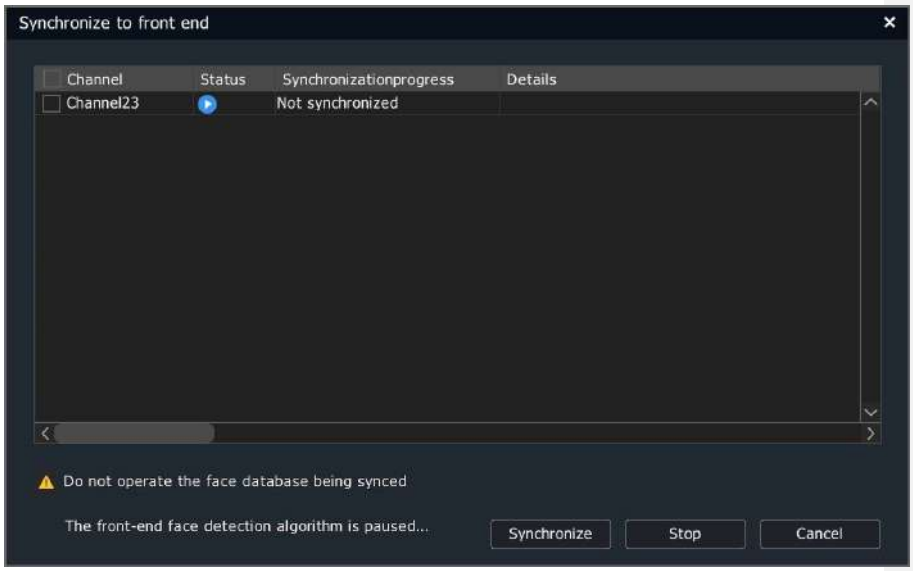
【Setting】： In the face list, click 【Setting】 and then pop up a prompt box to modify the name and description of the face library. After editing the new face library name and description respectively, click the【OK】 button after confirmation

【Input】: In the face list, click【Input】to import a box file containing the face library

【Output】： In the face library List, click 【Export】 to export a box file containing the face library

【Modeling All】： Click on 【Modeling All】 buttons to model the basic face image of face library

【Synchronize to the front end 】: NVR's face library can be synchronized to the selected IPC channel. The interface is shown in the following figure:



【Enabling authentication】： Only administrator users can operate face library

2.【Base image management of face library】 Face bottom image is the basis of face recognition algorithm. Users can manage the bottom image through the following buttons.

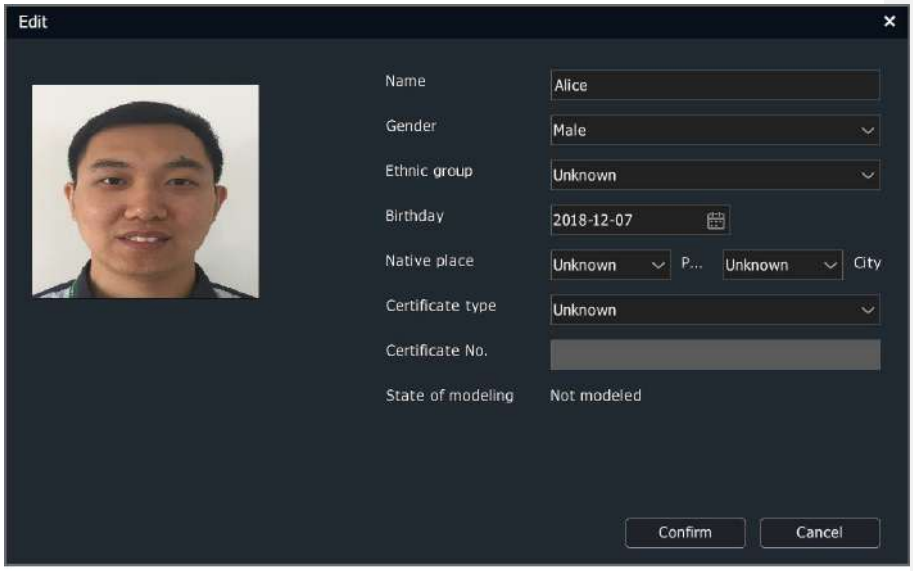
【Search】: Base map information can be used to find the matching information in the face database.

【Search by Image】 Image can be selected from mobile devices such as U-disk, and the corresponding background image can be found in the face library.

【Add】： Images can be selected from mobile devices such as U disk to add to the face library. When selecting a folder, you can add the required image of the entire folder.

【Delete】： You can delete the selected face image from face library

【Edit】： Set the information for the selected face image. The information includes gender, nationality, birthday, place of origin, type of certificate and number of certificate. Modeling state indicates whether the face image has been retrieved and whether face image has been labeled recognition . As shown in the following figure:



【Copy to】: You can copy the selected face image to another face library.

【Output】 The selected face image can be imported into mobile devices such as U-disk.

Explain:

When the device restores the default, the face library remains unchanged.

The resolution of the added base image is required to be above 100*100 and below 1920*1080.

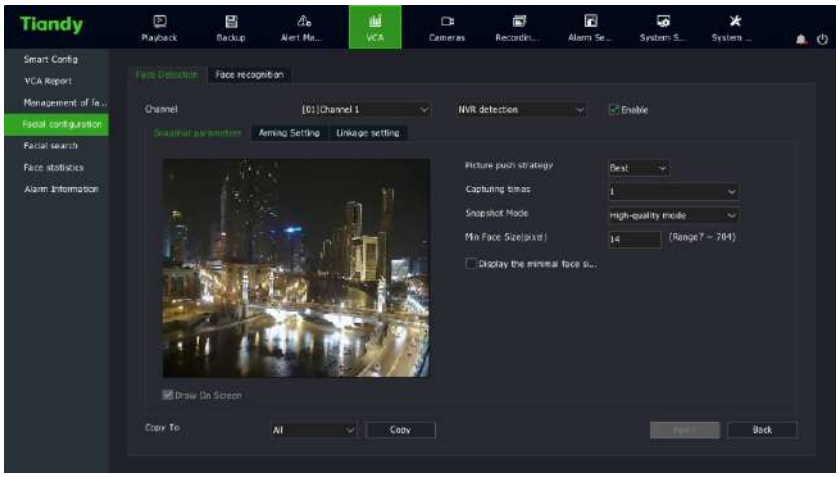
Face library management supports up to 32 face databases, and the maximum quantity of face library is based on the specific model.

To input the face library , you need to connect the hard disk.

It is suggested that the number of base images of a single face library should not exceed 5000.

4.14.6、Face Detection Based on Intelligent Analysis

1.Enter "Main Menu - > Intelligent Analysis - > Face Configuration" and select the "Face Detection" tab as shown in the following figure.



2.Select the type of face detection algorithm and select IPC detection/NVR detection.

3.Setting Capture Parameters

1）Drawing Face Detection Areas: When IPC Detection is performed, the Detection Areas can be set on the screen.

2）Drawing strategy: including the optimal strategy and the fastest strategy. The "best strategy" is the clearest picture of a person from entering to leaving a snapshot. The "fastest strategy" is to detect faces and snap them immediately.

3）Number of snapshots: The number of snapshots taken when a face is detected. Set 1, 2, 3.

4） Capture mode: support full capture mode, high quality mode, custom mode.

"Full-grab mode" means that all pictures are sent to push-map module by default without being controlled by the security boundary and filtering by the threshold of the security boundary.

"High-quality mode" refers to filtering according to the security boundary threshold of the default configuration of the system, and feeding the filtered results into the push chart module.

"Custom mode" refers to filtering according to the user-defined security boundary values, and feeding the filtered results into the push chart module.

5) Set the maximum and minimum face size to represent the percentage of the target width in the picture.

6) Setting sensitivity, the greater the value, the more sensitive, the higher the detection rate, and the higher the false alarm.

4. Setting up the time of deployment.

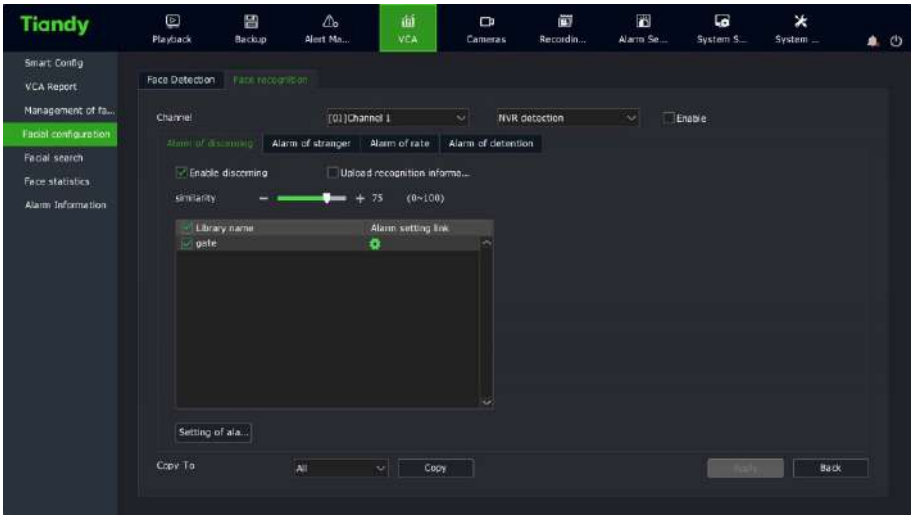
5. Setting up linkage settings. Local alarm linkage for NVR detection can be set up, such as alarm linkage sound prompt, screen display, linkage video, linkage alarm output, linkage PTZ, linkage snapshot, etc.

Explain：

- IPC detection can only be enabled when the current end is a face recognition machine
- NVR detection is based on 1080P video. With the increase of resolution, the number of paths decreases. The maximum quantity of routes to be supported depends on the specific model.
- The capturing parameters detected by IPC are changed dynamically according to the algorithm supported by the front end

4.14.7、Face Recognition Based on Intelligent Analysis

- 1.Enter "Main Menu - > Intelligent Analysis - > Face Configuration" and select the "Face Recognition" tab as shown in the following figure.



- 2.Select the type of face recognition algorithm, select IPC recognition/NVR recognition.

IPC recognition refers to the front-end connection of recognition cameras. The recognition cameras are used to recognize and compare the captured faces. NVR recognition refers to the recognition and comparison of the captured faces by NVR.

3. Comparing alarm and selecting "Comparing alarm" tab, the parameters of comparing alarm can be set.

1) Enable alignment, enable/close the current channel alignment alarm function.

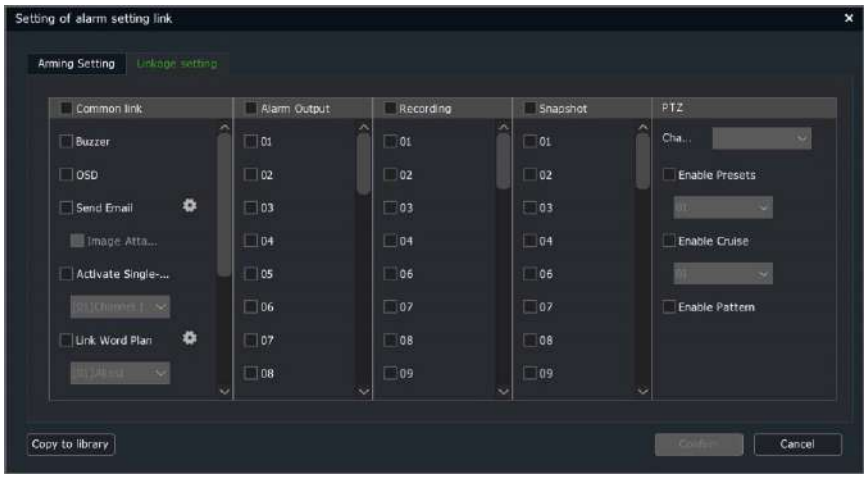
2) Upload identification information and turn on/off the function of uploading identification information.

3) Similarity, set the similarity, the larger the value, the more similar.

4) In the face library table, after selecting the face library, click on the "Organize Defense Linkage Settings" to pop up the prompt box for the Organize Defense Linkage

Settings of the face library. If the face library is not selected, the status of the Organize Defense Linkage Settings will be ashed and cannot be set.

Click on the button to pop up the form of the organize defense linkage settings. It can set alarm linkage sound prompt, screen display, linkage local voice broadcasting, linkage alarm output, linkage video, linkage snapshot, linkage PTZ, etc. As shown in the following figure:



Copy to the database: If in the comparison mode, the selected face database in the face library table can be copied to other faces through this button.

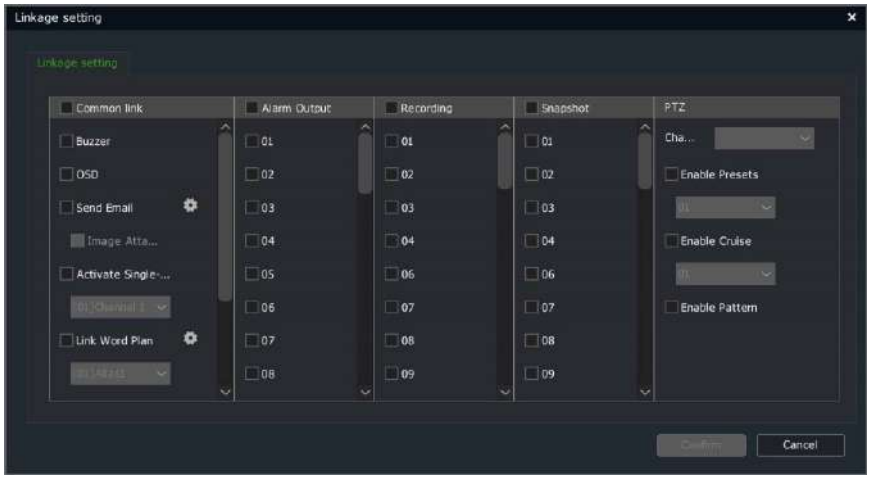
Click on the "OK" button, the data is only temporary storage, you need to go back to the face recognition interface and click the "Application" button to take effect.

4. Alarm strangers, choose the "stranger alarm" tab, can set the parameters of stranger alarm.

1) Enabling strangers, enabling or closing the current channel stranger alarm function.

2) Upload identification information and enable/close the function of uploading identification information.

3) Click on the linkage settings to set the linkage parameters of stranger alarm. The interface is as follows:



4、 Frequency alarm, select the "Frequency alarm" tab, can set the parameters of frequency alarm.

1）Enable Frequency, Enable/Close Current Channel Frequency Alarm Function

2）Upload Recognition Information, Enable/Close Upload Recognition Information Function

3）Similarity, set the similarity, the greater the value, the more similar

4）Time range, set time range 1-24 hours

5）Frequency, set frequency range 1-99

6）When checking the white list database, it will not trigger frequent alarms.

7）Click on the linkage settings to set the parameters of the frequency alarm. The interface is consistent with the comparison alarm.

6、Stay alarm, select "Stay alarm" tab, can set the parameters of stay alarm

1) Enable detention and enable/close the current channel detention alarm function.

2) Upload identification information and enable/close the function of uploading identification information.

3) Similarity, set the similarity, the larger the value, the more similar.

4) The length of detention time is 1-99, and the unit includes minutes and seconds.

5) When checking the whitelist database, no detention alarm will be triggered.

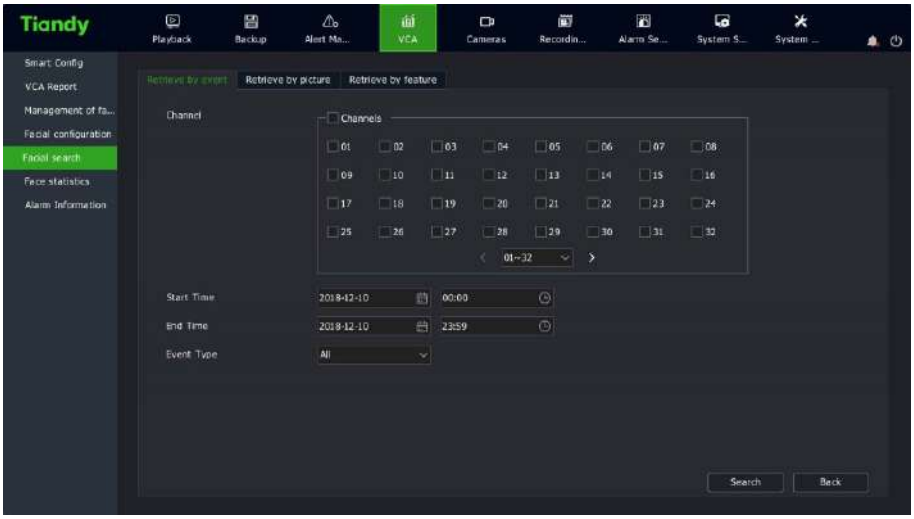
6) Click on the linkage settings to set the linkage parameters of detention alarm. The interface is consistent with the comparison alarm.

Explain：

- Local voice broadcasting does not support uncommon words.
- When selecting the channel for IPC detection, the maximum support is 16 ch NVR identification; when selecting the channel for NVR detection, the maximum support is 8 ch NVR identification; the maximum number of supported paths is based on the specific model.

4.14.8、Face Retrieval Based on Intelligent Analysis

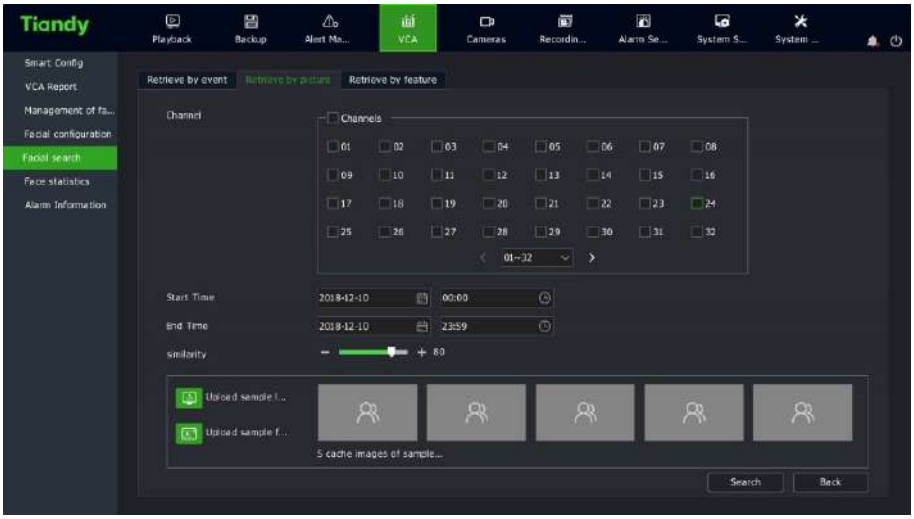
1、Enter "Main Menu - > Intelligent Analysis - > Face Retrieval" and select the "Event Retrieval" tab as shown in the following
figure.



"Search by Event": Users can choose corresponding channels, channel set statistical types: all, face detection, comparison alarm, stranger alarm, frequency alarm, detention alarm, retrieve

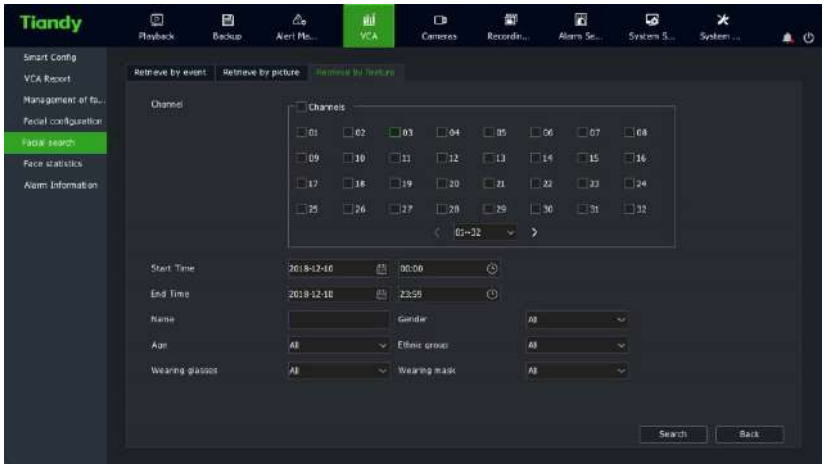
corresponding types of data. The retrieved data is captured face photos, double-click the corresponding images, you can see a large background image.

2、Enter "Main Menu - > Intelligent Analysis - > Face Retrieval" and select the "Retrieval by Picture" tab as shown
below.



"Search by picture": Users can choose the corresponding channel, by setting the channel number, similarity, sample pictures, click the "Search" button to screen out the corresponding similarity alert pictures from all the alarm pictures.

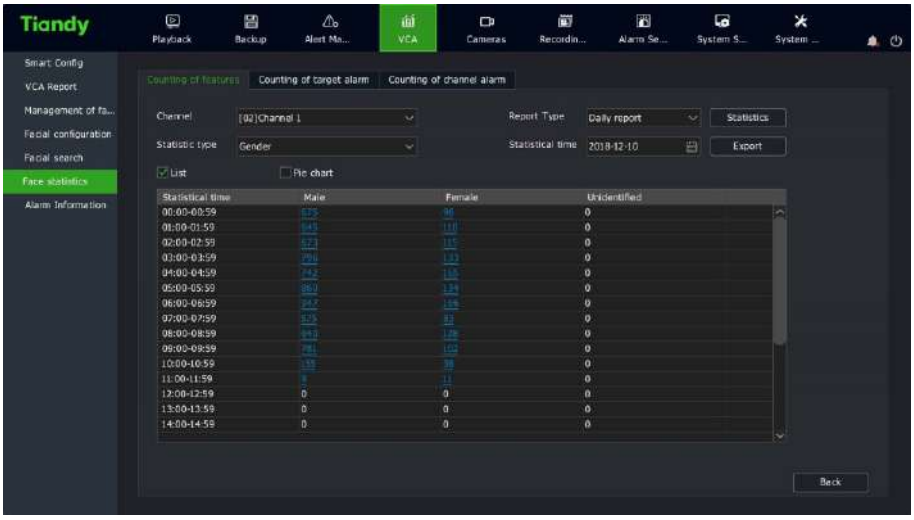
3、Enter "Main Menu - > Intelligent Analysis - > Face Retrieval" and select the "Search by Characteristics" tab as shown in the following figure.



"Search by Feature": Users can choose the corresponding channel, by setting the name, gender, age, nationality, glasses, masks, click the "Search" button to screen out the corresponding features of the alert pictures from all the alarm pictures.

4.14.9、Face Statistics for Intelligent Analysis

1. Enter "Main Menu - > Intelligent Analysis - > Face Statistics" and select the "Feature Statistics" tab. In the "feature statistics" interface, select the channel number, report type, statistical type, and click the "statistics" button for face data statistics. Statistical types are inconsistent, displaying data performance is inconsistent: age, gender, nationality, wearing glasses, wearing masks display list and pie chart,people number display list, column chart, broken line; select statistical time, click "Output", you can derive the corresponding reports. As shown in the following figure:

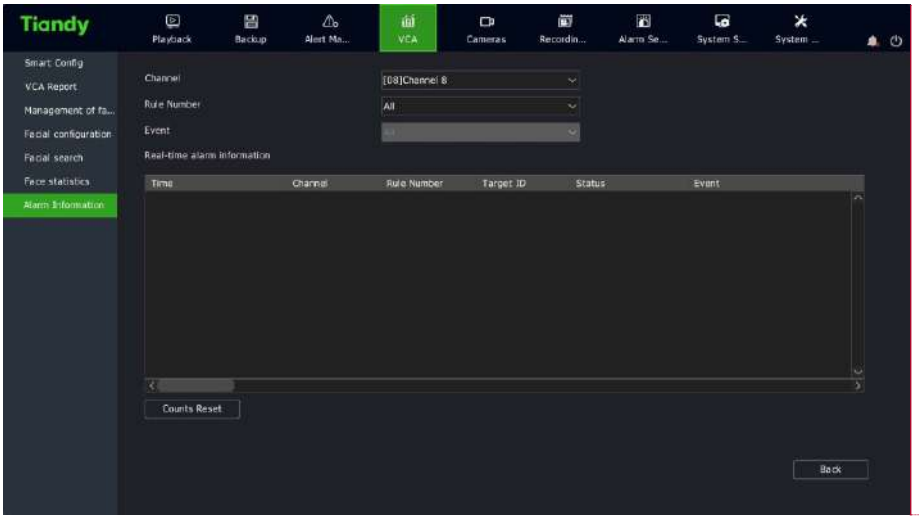


2、Select the Target Alarm Statistics tab. Target alarm statistics can count the alarm counts of corresponding databases within this time interval. Select the target database, report type, statistics time, click "Statistics" to view the data. Click "Output" to export the corresponding report. As shown in the following figure:

3、Select the "Channel Alarm Statistics" tab. Channel alarm statistics can count the alarm counts of corresponding channels within the time interval. Select the channel, event type, report type, statistics time, click "Statistics" to view the data. Click "Output" to output the corresponding report. As shown in the following figure:

4.14.10.Alarm Information

1.Interface is as below:



批注 [贾廷贺1]: 替换图片

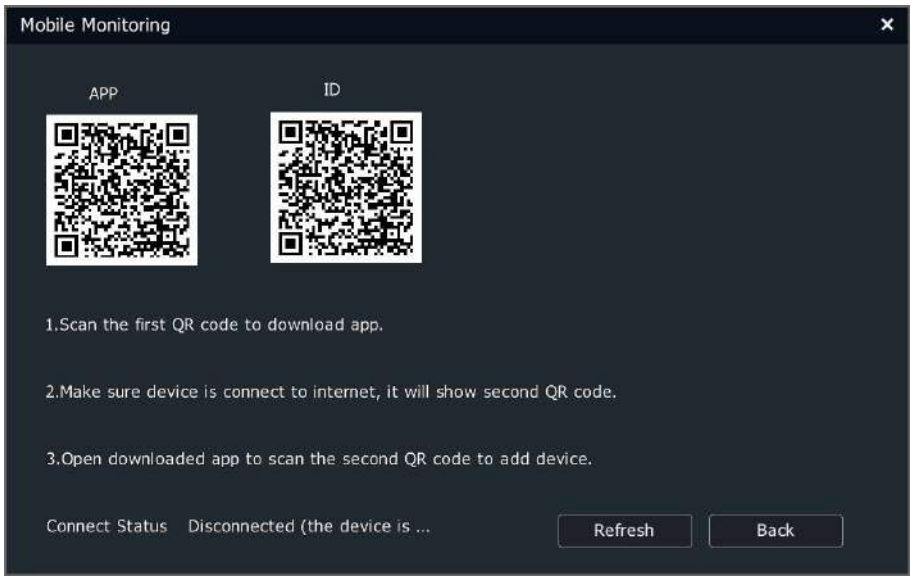
User can find all the realtime alarm information for each channel here.

2.Click “Counts Reset” to remove all the current alarm information.

4.15.Mobile Monitoring

Users can download the mobile client by scanning QR code and input the user ID to conduct mobile video monitoring.

1.Click the right mouse button to enter the right-click menu and select “Mobile Monitoring” to enter the mobile monitoring interface, as shown in the figure below.



2.Users can download app, then scan ID QR code, conduct operation according to the prompt and conduct video preview, control and other operations by phone.

5.WEB Access

5.1.Introduction

The Web service is embedded into the device, and users can input the IP address of device in the browser address bar when the device is connected to network to realize the remote WEB access.

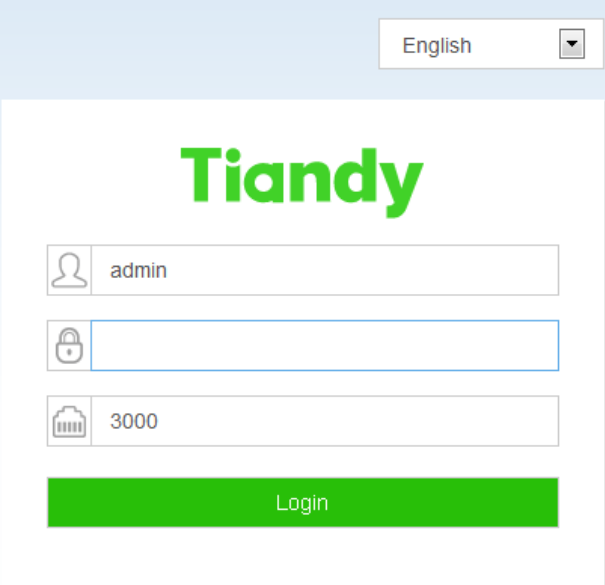
Description:

- WEB service supports the IE browser access.

5.2.Login

Users can access the IE control interface of device through multiple PC terminals simultaneously.

1.Open the browser and input the IP address of NVR device. The “Login” interface pops up, as shown in the figure below:



2.Select the login language.

3.Input the correct user name and password, click “Login” and enter the preview interface, otherwise the prompt of “Login Fails” will occur.

Precaution:

- Use the IE browser and ensure that the version is above 6.0.
- Please do not use other third-party browser and any IE browser shell program, such as Maxthon, TheWindow and other programs; we do not ensure that users can log in the network video server normally by using such software.

5.3.Preview

After logging in the system successfully, enter the preview interface.

The description for the icons in the preview interface is shown in the table below:

Control	Description
	Video is displayed by single-screen.
	Video is displayed by 4 screens.
	Video is displayed by 9 screens.
	Video is displayed by 16 screens.
	Video screen is displayed by a fixed proportion. 

	Video screen is displayed by a proportion which fits into the window. 
	Mobile monitoring QR code. Click the QR code to enter the mobile client download page.
	Voice warning
	Display frame bit rate.
	Connect all. Connect the videos of all channels.
	Previous page.
	Next page.
	Quick remote record.
	Conduct recording operation for the selected channel.
	Conduct snapshot operation for the selected channel.
	Conduct talkback operation for the front-terminal device.
	Electronic amplification. It can be used to amplify a certain area of video.

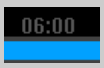
	Display the video of the selected channel in full screen.
	Volume adjustment.

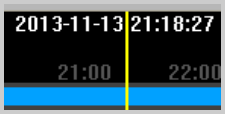
5.4.Playback

1.Click the “Playback” tag page to enter the WEB playback interface.

The video playback control buttons are shown in the list below.

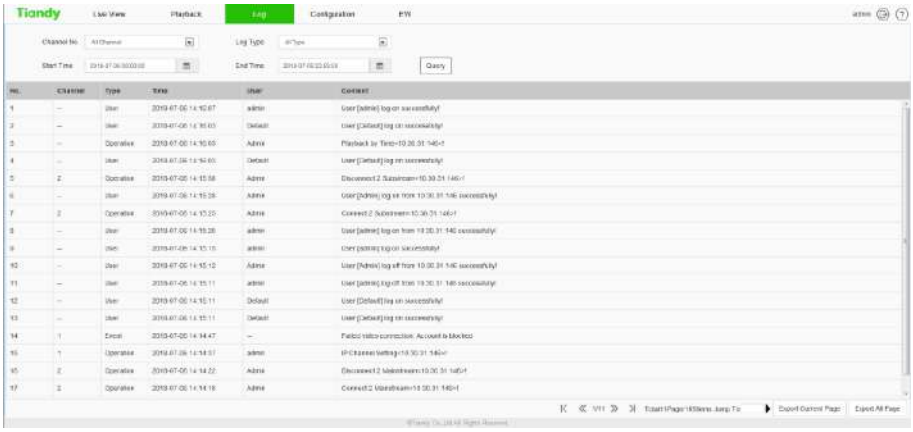
Control	Description
	Browse local downloaded recording file and local recording file
	Play recording file
	Pause playback
	Stop playback

	Single-frame step forward
	Fast forward, multiply playback speed by 2
	Slow forward, divide playback speed by 2
	Playback volume control
	Switch between synchronous playback and asynchronous playback
	Snapshot, click the button to save the video picture of this moment
	Cut recording file
	Cut recording file information list
	Download management
	Single-screen playback
	Four-screen playback
	Full screen display
	Recording snapshot Schedule Timing recording Event Alarm recording Manual Manual recording

	Time shaft displays the current recording file time and it can be dragged to play the recording file of this moment.
	Amplify time shaft
	Shrink time shaft

5.5.Log

1.Click “Log” in the title bar to enter the log query interface, as shown in the figure below.



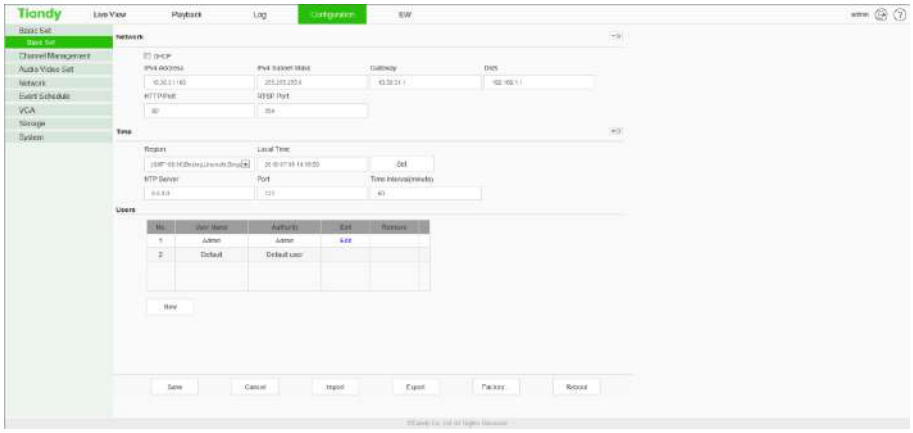
2.The log query can be conducted by inputting query conditions and the query results can be backed up.

Description:

- Save path of log file: D:\NetVideoBrowser.

5.6.Configuration

1.Click “Configuration” in the title bar to enter the configuration interface, as shown in the figure below.

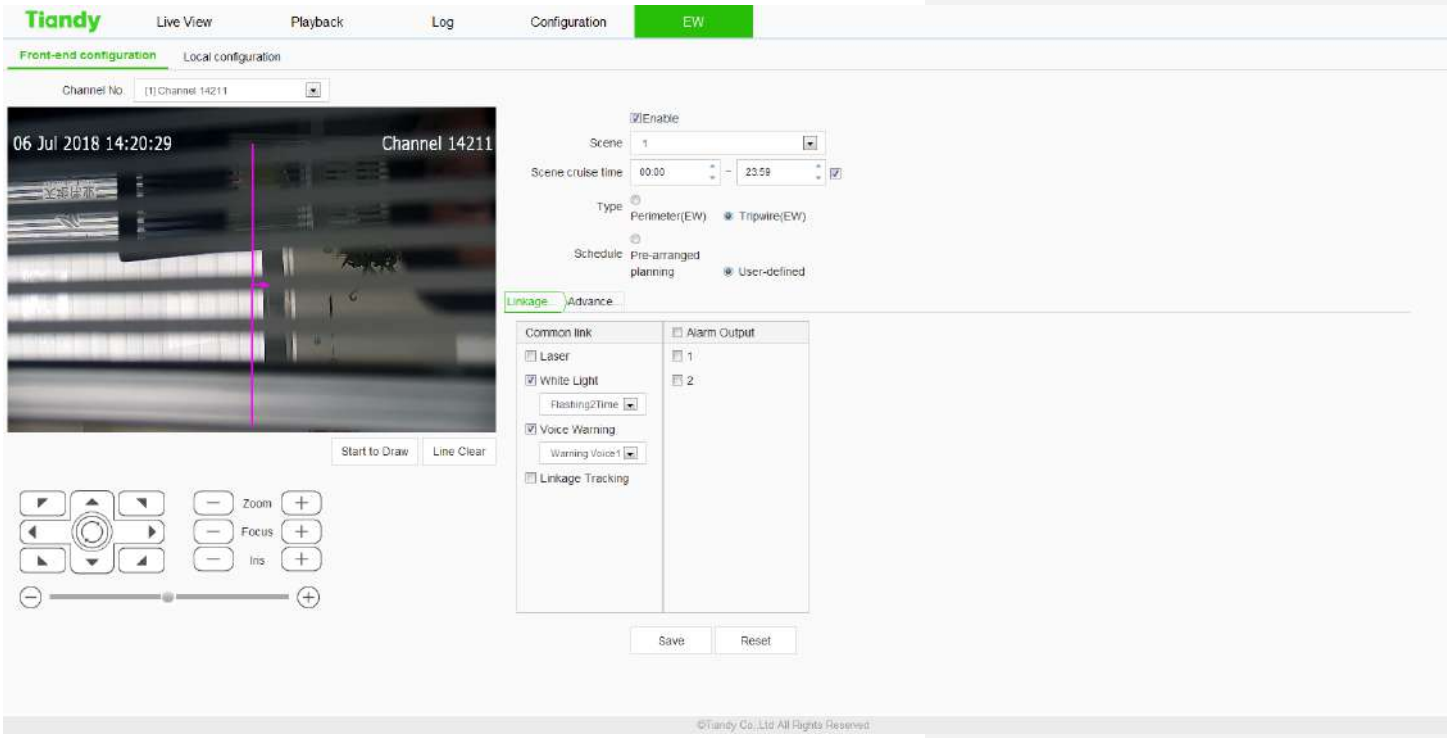


Description:

- After the remote configuration parameters are modified, the local corresponding function configurations will also be modified.

5.7.EW

1、lick "EW" in the title bar to enter the alert interface, as shown in the figure below

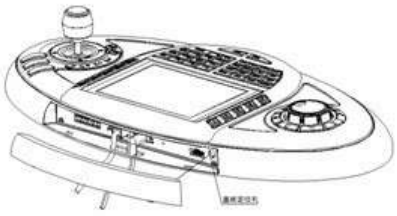


6.Internet Keyboard

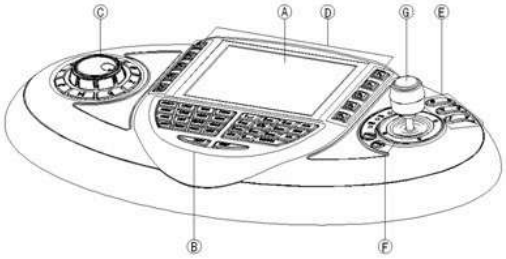
6.1.Keyboard Installation

1.Select the communication port and control the network port needed by embedded DVR.

2.Thread the power lines and control lines through the bottom shell, connect them to the correct positions and install the rubber barrier strip.



6.2.Button Description



A Liquid crystal display:

Blue background light, optional operation interface in Chinese/English and real-time displayed device status/programming information.

B Key button area:

Green button background light

Button “1”: 1/sign

Button “2”: 2/A/B/C

Button “3”: 3/D/E/F

Button “4”: 4/G/H/I

Button “5”: 5/J/K/L

Button “6”: 6/M/N/O

Button “7”: 7/P/Q/R/S

Button “8”: 8/T/U/V

Button “9”: 9/W/X/Y/Z

Button “0”: number 0 or space

ESC: delete the character before the cursor

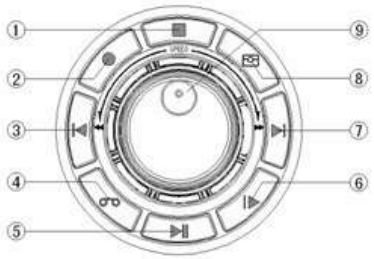
ENTER: confirmation of menu/all setting interfaces

ACK: clear all alarm output manually

PREV: in the synchronous playback full-screen interface, press this button to enter the electronic amplification after entering the full screen by pressing F2.

NEXT: in the multiple-screen synchronous playback full screen, press this button to enter the single-screen full screen after entering the full screen by pressing F2.

C DVR control button area:



When the buttons control the embedded DVR with blue button background light, their functions are shown below:

1.Stop playback of recording file

2.Enter the manual recording setting interface

3.Playback: switch the multiple-screen full-screen synchronous playback red box to the previous small screen

4.Enter the video preview screen setting interface

5.Under the playback mode, control the playback and suspension of recording file

6.Single-frame step forward: one frame is played every time the button is pressed when the recording file is played back

7.Playback: switch the multiple-screen full-screen synchronous playback red box to the next small screen

8.Switch to the video playback interface.

9.Jog shuttle:

Clockwise inner circle of shuttle: control volume of preview/playback, increase

Anticlockwise inner circle of shuttle: control volume of preview/playback, decrease

Clockwise outer circle of shuttle: control fast forward of video playback

Anticlockwise outer circle of shuttle: control fast reverse of video playback

CAM: start recording

MON: stop recording

ALM: snapshot

D Extended function button area:

When the buttons control the embedded DVR with yellow button background light, their functions are shown below:

Button F1: switch to main menu

Button F2: switch to PTZ control status or enter full screen during the non-full-screen synchronous playback

Button F5: quit to previous menu or play back to quit full screen

Button F3: switch input method in numbers/Chinese Pinyin/lower-case English letters/capital English letters

Button F4: switch to logout menu

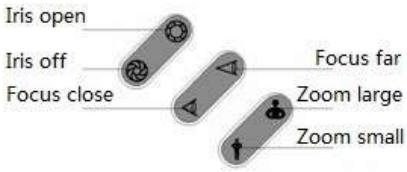
Button F6: talkback (reserve)

Button F7: reserve

Button F8: call out the system information display interface

E Lens control button area:

With blue button background light, these buttons control the actions of lens under the PTZ control mode.



In the electronic amplification interface, the iris switch button can control the amplification and shrinking of electronic amplification area.

F Control device type selection and matrix unauthorized control button area:

Support the button background light display.

【MODE】: control device selection; DVR shall be selected when the embedded hard disk recording host is controlled.

【PRI】: reserve.

G Three-dimension vector gear shift rocker

The functions realized by upward, downward, leftward and rightward actions of rocker include the following items.

Upward:

It is used to select the previous entry in the control menu.

It is used to control the upward action of PTZ in the PTZ control mode.

It is used to select the previous channel in the video preview mode.

Downward:

It is used to select the next entry in the control menu.

It is used to control the downward action of PTZ in the PTZ control mode.

It is used to select the next channel in the video preview mode.

Leftward:

It is used to select the previous entry in the control menu.

It is used to control the leftward action of PTZ in the PTZ control mode.

It is used to page up in the video preview mode.

Rightward:

It is used to select the next entry in the control menu.

It is used to control the rightward action of PTZ in the PTZ control mode.

It is used to page down in the video preview mode.

Appendix 1 Hard Disk Capacity Calculation Reference

Calculate the total capacity needed by a hard disk video recorder according to the recording requirements (recording type and recording data saving time).

Calculation method:

1.Calculate the storage capacity q_i needed by single channel per hour according to Formula (1); the unit is MByte.

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

Wherein: d_i —bitrate, unit: Kbit/s

2.After the recording time requirements are determined, calculate the storage capacity m_i needed by single channel per hour according to Formula (2); the unit is MByte.

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

Wherein: h_i —daily recording time (hour)

D_i —the number of days that video needs to be saved

3.Calculate the total capacity (accumulative) q_T needed when timing recording is conducted for all channels of hard disk video recorder according to Formula (3).

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

Wherein: c —the number of channels of a hard disk video recorder.

4.Calculate the total capacity (accumulative) q_T needed by alarm recording (including motion detection) of all channels of hard disk video recorder according to Formula (4).

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

Wherein: a%—alarm occurrence rate.

Appendix 2 Answer to Common Fault

Fault phenomenon	Possible cause

After 220V power is plugged, the “PWR” lamp of panel (2U chassis is “Ready”) is not on and the chassis fan does not run when the power switch is turned on.	1) Power line is damaged 2) Switch power is damaged
After 220V power is plugged, the “PWR” lamp of panel (2U chassis is “Ready”) is on and green when the power switch is turned on, but the chassis fan does not run.	1) Panel cable is damaged 2) Fan is damaged
After the hard disk video recorder is started up, there is no image on the monitor connected on VOUT.	1) Video line connected with monitor is damaged 2) Interface board of hard disk video recorder is damaged 3) Mainboard of hard disk video recorder is damaged
Hard disk cannot be found when startup.	1) Hard disk cable is damaged 2) Hard disk power line is not plugged 3) Hard disk is damaged
Recording cannot be conducted	1) Hard disk is not hooked on SATA port 2) Hard disk is not formatted 3) Recording template is not enabled or time period is not set correctly 4) Index is being rebuilt currently 5) Application of SATA is not set as recording

Video and audio network transmission cannot be conducted by client.	1) One item or multiple items of IP address of hard disk video recorder, port No., user name and password input in “Local Configuration” in the client interface is/are incorrect 2) Network line is poor 3) Network interface of mainboard is damaged

Appendix 3 Maintenance Description

1.The dust on the circuit board will cause shortcircuit after being exposed to moisture, affect the normal work of device and even damage the device, so please dust the interior of chassis regularly in order to ensure the long-term stable operation of device.

2.Please ensure that the project is well grounded so as to avoid video and audio signals being disturbed and simultaneously prevent the device from being damaged by static or surge voltage.

3.For the audio and video signal lines, RS-485, alarm and other interfaces, please do not plug them in the live status, otherwise the port will be easy to damage.

4.Do not turn off the power switch directly when the device is to be shut down; please use the “Power Off” button on the front panel (hold it for about three seconds) or press the “Power Off” button on the video interface and turn off the power switch after the device is shut down automatically to avoid damaging the hard disk.

5.Please ensure to keep the device away from high-temperature heat sources and places.

6.Please keep the good ventilation around the device chassis to facilitate heat dissipation.

7.Please conduct system check and maintenance regularly.