

SMART NVR2.0

Quick Operation Guide

Product Overview

- This equipment is a digital video surveillance product specially designed for the security field. By using the embedded LINUX operating system to enable the system to operate more stably; besides, with the standard H.264 video compression algorithm, to achieve a high quality, low bit rate, single frame play and other video functions;
- This equipment can be used in banking, telecommunications, power, justice, transportation, intelligent residential areas, factories, warehouses, resources, water conservancy facilities, and other fields.

1 Statement

- Thank you very much for purchasing this NVR product, if you have any question or requirement, please feel free to contact us.
- The company will update the contents of this manual based on the enhancement of product function, and will regularly improve or update the products or processes described in this manual. The updated content will be added to the new version of this manual without prior notice. If the product description does not match with the physical one, all to prevail in kind.

2 Notice:


- The NVR with more than 9 channels must access the gigabit switch, otherwise there will be a loss of video or standstill phenomenon;
- All the IP addresses of the network devices in lan cannot conflict.
- The gateway needs to be set by right IP address.

3 Install Hard Disk

Need to prepare a cross screwdriver. This series of NVR can be installed in the case with 1 to 9 hard disks, and the largest capacity of hard disk could reach to 6TB.

3.1 Hard Disk Installation Steps:

1. Unscrew the screws of the case, open the case cover.
2. Connect the hard disk data cable and power cord.
3. Use the screws to fix the hard disk onto the hard disk screw hole on the baseplate.
4. Cover the case cover, and fixed with a screw.
5. If there is a hard disk box, fix the hard disk into it in the correct direction, can be inserted into the NVR.

 Note: Before the operation of replacing the hard disk, the power of device should be turn off, and disconnect power supply. The device model with a hard disk box supports hot-swap.

4.1 Host Operation


4.1.1 Boot the host

Insert the power line, press the power switch on backboard, and then press the switch button on the front panel to boot the recorder. The video output is the default for the multi- image output mode. If the boot time be in the time of recording which preset before, the system will automatically start the timing recording function.



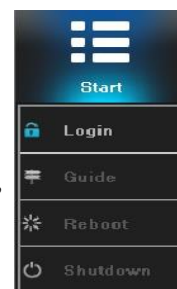
Note: Please use the right power which matching the network digital video recorder, do not use the other type or brand of power instead of the original one.

4.1.2 Login System

After normal boot, click the  icon, or click the right mouse button, there is a shortcut menu, Select Start - login.

Input user name **admin** and initial password **888888** in the dialogue box.

1. Login: click the "**Login**" button, the user can login; click the "**Log out**" button, can log out the current user.
2. Restart: click the "**Reboot**" button, the device automatically restart;
3. Shut down: click the "**Shutdown**" button, the device automatically shut down;

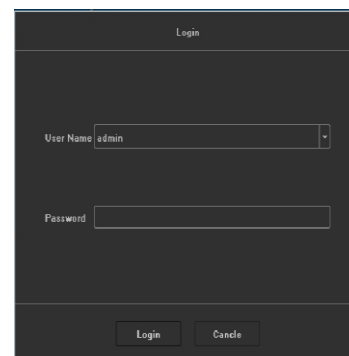


4.1.3 Shutdown

To shutdown, press the power button of the rear panel to shutdown the device.


Click [Start] than [Shutdown], choose [yes], and then turn off the power switch (the user should need to have Shutdown authority).

Tips: It is recommended to use this method when shutdown to prevent damage to equipment during power outages.

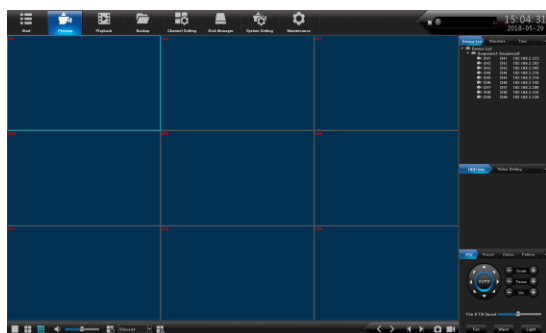


4.2 Display Setup

4.2.1

Click the  icon on the interface:

1. Split screen mode settings: split the screen into 1, 4, 9, 16, 25, 36 parts, or etc. Choose your choice according to the number of NVR channels.
2. Turning patrol interval settings: set the turning interval time; after switching split screen, click " Open Turning Patrol " and the preview screens can automatically be showed turn by turn and turning pages for the rest channel images.



4.2.2 PTZ

4.2.2.1 PTZ Control

1. PTZ

The camera of PTZ could be controlled to move to 8 directions: up, down, left, right, upper left, upper right, upper right and lower right; magnification and reduction of the times; enlargement and narrowing of the focal length; the enlargement of the aperture and the Narrow; tilt speed setting, lights, wipers, fan and other functions. As the figure shown on the right:



2. Preset Position

- Firstly, rotate the camera to the position that need set, and then double click the corresponding No.
- The blank area that besides the corresponding serial number could be set to be the name of preset position , click "Setting" , then it can be set successfully. If you need to change the preset position, you can move the camera directly to the desired location and click "Setting" button again to save, then the preset point will be updated, the max preset position number is limited by the camera.
- Click the "Clear" button clear the preset position.
- Select the serial number, click "Change to", camera will move to the corresponding preset position.




3. Cruise

- Enter the cruise setting interface:
- Double click the blank areas that beside the corresponding No. to select the preset point name, then click “Setting” and pop-up window, enter the cruise name, click "Add cruise", and select the preset point in the drop-down box to set cruise speed and residence time, and the max cruise path number is



determined by the camera. Select the cruise control point, click "Delete cruise", you can delete the added cruise point. After save the setting successfully, click "Call" can be turned on the cruise, click "Stop" can turn off cruise.

4.3 Playback

Left click mouse, click  [Playback] icon, enter the interface shown as below:



4.3.1 Local Record

- Channel Selection:

ch1-ch16 is defaulted according to "Channel List", or you can choose the desired channel for searching video according to "Organization Chart".












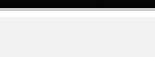
- File Retrieval:

The default time is the date when the equipment is produced, you need to select the date, retrieval methods and retrieval type, and then click the "Search" button at the lower right corner of the interface to search the video met the conditions, the vedio situation will be shown in the strip blank region at the under side of the interface (Note: different types of video correspond to different video bar colors).

- Play Video

Retrieved video bar, can be dragged by the mouse to the left and right, or use the mouse roller to magnify and adjust the time unit scales on the 24 hours time axis. Degrees are: 2 hours, 1 hour, half an hour, 5 minutes, 1 minute; when the mouse center point moves to the color bar of the time axis, it will automatically appear accurate time prompt, accurate to second. Double click on the color bar of time axis can make playback play fast. Adjust the scale according to the requirement of accuracy of playback, so that the playback time will be positioned more accurately.


● Quick Functions

Item	Screenshot	Function Description
Pause / Play		Pause / continue playing the current video
Stop		Stop playing video, screen all closed
Play/ Play Reverse		Play / Play reverse video by time
Single Frame Play		Play video by frames
Skip Forward / Skip Back 30 Seconds		Let the video skip forward / skip back 30 seconds to play
Slow / Fast Play		Let the video played by the speed of 1X / 2X / 4X / 8X / 16X
Split-screen Mode		Switch the playback split-screen mode
Previous / Next Page		Page turning function keys, matching to the split-screen function
Backup		Will pop up a file backup page
Screenshot		Capture the screenshot in the selected channel
Hide/Show Progress Bar		Show / hide the video bar area on the lower side
Audio Switch		Adjust the audio size in the channels
Full screen	-	Click the right mouse button, to enlarge full-screen video screen

4.3.2 Local Screenshot

● Rightside Toolbar:

Switch the playback mode to “ Local Screenshot”, after refresh the interface, click “Search” at the under right corner to search all the screenshots on the day, the screenshots will be ranked as thumbnails by the channel numbers by default.


- Click the “Time” button can rank the screenshots by time order;
- Tik the  on the rightside picture and mark each picture, or you can click “Mark ” button and “Select all / Cancel select/ Inverse/ Rank” all the marked pictures on the popup list;
- “Retrieve By Day” is defaulted as the retrieval condition , or you can choose “Retrieve by time period”;
- “Picture source、Retrieval condition、Retrieval type、Retrieval channel” shown on the rightside picture are

the default values, or you can choose as your requirement.

- Click the “Backup” button on the under right corner, the backup dialog box will popup, then you can backup the marked picture.

- **Underside Toolbar:**


You can play all the retrieved pictures like a slideshow, and all the buttons on the toolbar are the relevant function buttons, of which functions are similar to local video playback.

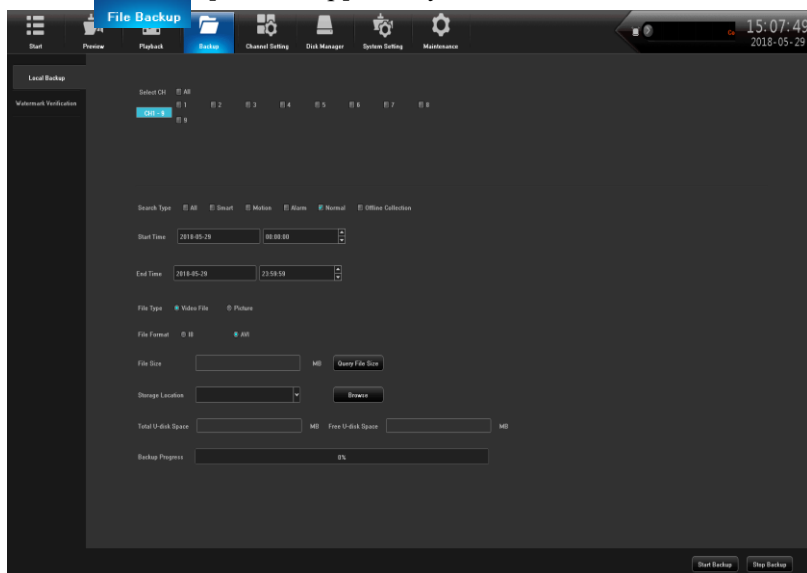
It is important to note that the current playing picture can be marked by click this  button during the play.

4.3.3 External File

- This module is to visit the files in the USB external storage device inserted into the NVR, and all the backup files can be searched in this module.
- Click the “Refresh” button at the under right corner, then the files in the USB external storage device can be retrieved, operate the controls on the toolbar underside the interface, you can do a series of operations to the selected files to play/pause、stop、fast play、audio adjustment. Otherwise, click the “Delete” button at the under right corner can delete the selected files.

4.4 File backup

Click  [file backup] icon by the left mouse button, and enter the interface as shown below:



Insert USB external storage devices, click refresh can detect USB device. It supports I8 and AVI formats for the backup file, and AVI is recommended, as this format can check the backup file by using document management,

and also can be played by computer player. Image backup can save the snapshot backup to mobile devices.




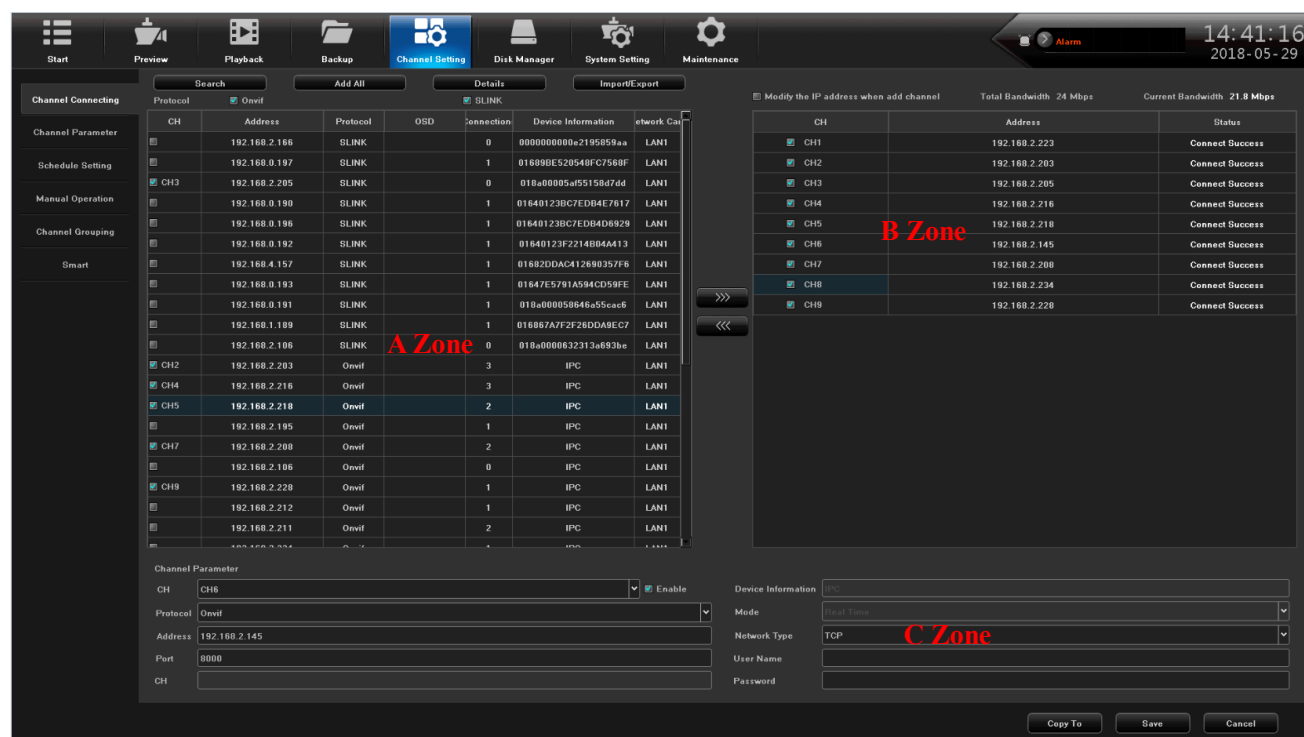
Features:

- Precise backup: the backup time can be arbitrarily selected, the minimum back time can be one second video; file capacity can be viewed immediately;
- Fast backup: high speed transmission, save backup time;
- Accuracy backup: backup video files can be reviewed in NVR local document management folder, to ensure the accuracy of the backup video.

4.5 Channel Setting

4.5.1

Click  [Channel Setting] icon by mouse left button to enter the interface shown as below:



The screenshot displays the 'Channel Setting' interface of an NVR. The top navigation bar includes icons for Start, Preview, Playback, Backup, Channel Setting (active), Disk Manager, System Setting, and Maintenance. The main area is divided into a left sidebar with 'Channel Connecting' and 'Channel Grouping' sections, and a central table of channels. The channels are organized into three zones: A Zone (channels 1-10), B Zone (channels 11-19), and C Zone (channels 20-28). Each channel entry includes its ID, IP address, protocol (SLINK or Onvif), and connection status. The bottom section provides detailed configuration for the selected channel (CH6), including its name, protocol, address, port, and device information.

CH	Address	Protocol	OSD	Connection	Device Information	Network Card
CH1	192.168.2.166	SLINK		0	000000000e2195059aa	LAN1
CH2	192.168.0.197	SLINK		1	016990E520548FC7568F	LAN1
CH3	192.168.2.205	SLINK		0	018a00005a195158d7dd	LAN1
CH4	192.168.0.190	SLINK		1	01640123BC7EDB4E7617	LAN1
CH5	192.168.0.196	SLINK		1	01640123BC7EDB4D8929	LAN1
CH6	192.168.0.192	SLINK		1	01640123F2214B04A413	LAN1
CH7	192.168.4.157	SLINK		1	01682DDAC412680357F8	LAN1
CH8	192.168.0.193	SLINK		1	01647E5791A594C059FE	LAN1
CH9	192.168.0.191	SLINK		1	018a000050646a55cac8	LAN1
CH10	192.168.1.109	SLINK		1	016867A7F2F26DDA9EC7	LAN1
CH11	192.168.2.108	SLINK		0	018a0000632313a693be	LAN1
CH12	192.168.2.203	Onvif		3	IPC	LAN1
CH14	192.168.2.216	Onvif		3	IPC	LAN1
CH15	192.168.2.218	Onvif		2	IPC	LAN1
CH16	192.168.2.195	Onvif		1	IPC	LAN1
CH17	192.168.2.208	Onvif		2	IPC	LAN1
CH18	192.168.2.106	Onvif		0	IPC	LAN1
CH19	192.168.2.228	Onvif		1	IPC	LAN1
CH20	192.168.2.212	Onvif		1	IPC	LAN1
CH21	192.168.2.211	Onvif		2	IPC	LAN1
CH22	192.168.2.212	Onvif		1	IPC	LAN1
CH23	192.168.2.212	Onvif		1	IPC	LAN1
CH24	192.168.2.212	Onvif		1	IPC	LAN1
CH25	192.168.2.212	Onvif		1	IPC	LAN1
CH26	192.168.2.212	Onvif		1	IPC	LAN1
CH27	192.168.2.212	Onvif		1	IPC	LAN1
CH28	192.168.2.212	Onvif		1	IPC	LAN1

Channel Parameter

CH: CH6 ☐ Enable

Protocol: Onvif

Address: 192.168.2.145

Port: 8000

CH:

Device Information

Mode: Real Time

Network Type: TCP

User Name:

Password:

Buttons: Copy To, Save, Cancel

Click “Search”, NVR will search out all the IPC in the same LAN, search time is about 10-15 seconds, all the IPC IP addresses will be listed, enter user name and password, click save after setting successfully and exit. Image will come out in 1-60 seconds.

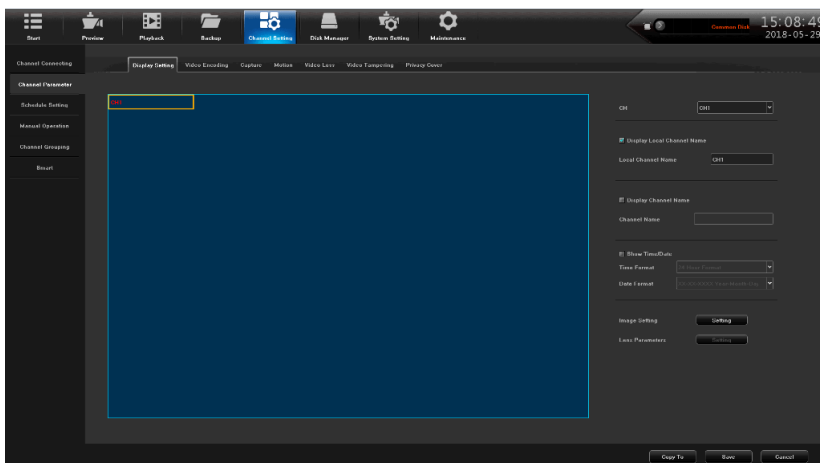
1. Click **search** to search out the IPC IP address in the same LAN;
2. Double click the IP address in the A zone or select the IP address and click “Details”, it will show IPC network parameter, some IP cameras have private protocol with NVR, which can amend IP address directly;
3. B zone is IP cameras channel number setting area;
4. C zone shows the detail information of IP camera, and some parameters can be amended in here, input camera user name and password, save it after finishing setting.

4.5.2.1

Click **Channel Setting**

→ **Channel Parameter**

→ **Display Setting**



Click **Channel Setting** → Channel Parameter, choose channel, its preview image will come out

1. Click Local Channel Name can define local channel's name
2. Click Show Channel Name can define channel's name
3. Click Show Time/Date can modify time and date format
4. Click Image Setting → Setting button can adjust the parameter of channel interface such as brightness, contrast, saturation, chrome, click "Save", then exit
5. OSD Setting: the names of channels and dates are lined out with yellow rectangular frame on the picture, and their positions can be dragged randomly by mouse.
6. Lens Parameters: configurations for basic parameters of IPC lens
7. Copy To: copy the configuration parameters of current channel to other channels
Click "Save" after finish setting and exit

Notice: only the front-end of IPC supports, can the above configurations aimed at the front-end of IPC take effect after being saved!

4.5.2.2 Click Channel Setting → Channel Parameter → Encoding Setting

1. Encoding Setting: can choose main stream, sub stream

Main Stream: double click single channel screen or 4ch split interface image is shown by main stream, playback image is shown by main stream also

Sub Stream: 9、16、25、36 channel split interface image is shown by sub stream, and IE or mobile app remote access image is shown by sub stream also.

2.Stream Type: Composite Stream and Video Stream are for optional, when audio is needed please choose Composite Stream, or else there's no audio when playback video.

3. Resolution: NVR will get IP camera's main、sub stream automatically, please manual adjust resolution when you are not satisfy with it

4. Bit-rates' Type: can set up variable bit rate and constant bit rate

5. Bit-rates' Upper Limit: after choosing encoding setting's main stream bit rate upper limit, stream will in selected value, change will not too big

6. Frame Rate: suggest selecting 25/30

7. Video Quality: suggest selecting highest

When connect IP cameras with the same brand, set up No.1 channel, you may click "copy to" all channels, click "save" and exit.

4.5.2.3 Click Channel Setting → Channel Parameter → Motion Detection

1. Firstly, choose the channel need to be set and detect mode(Front-end detect and NVR local detect)

2. Enable Motion Detection: tick the small squares in front of the **enable motion detection**
3. Device Detect Area: Click Area Setting, enter the interface. Choose motion detect area, according to different IPC, can set up different area number, usually is 4, hold the left mouse button, drag to motion detect area, hold right mouse button, can cancel the selected motion detect area, click Save.
4. Sensitivity: set up motion detect sensitivity, Medium is suggested.
5. Schedule Plan: Click Schedule Plan setting, enter below interface, anytime could be set, default setting is 7x24 hours.

6. Linkage: Click Linkage, enter below interface

- Linkage way introduction:
- Audio Alarm: after ticked, when motion detection trigger the alarm, the buzzer on the main board will ring
- Alarm on Monitor: after ticked, when motion detection trigger the alarm, screen right bottom will appear a movement state red people icon
- Email Linkage: the switch of email linkage, after ticked, please set up on Network Parameter → Email parameter setting

The first three lines: email address, password, confirm password: add sender's email address and password, please click attachment, or email can't receive capture picture.

Recipient: maximum support three recipients

Sending Interval: capture picture sending time interval

SMTP Server、SMTP Port: Provided by mail service, please check sender's email setting, for example, 163.com email should input: smtp.163.com, port: 25

- Upload to Center: ticked, can check alarm information and action on client software and IE browser

- Alarm Output: ticked, when motion detection trigger the alarm, alarm output will ring
- Local Preview: ticked, when motion detection trigger the alarm, will trigger relevant channel preview
- Local Record: ticked, when motion detection trigger the alarm, will trigger relevant channel record, please be sure correspond to relevant channel, or will disorder the recording
- Local Picture Capture: ticked, when motion detection triggers the alarm, will trigger relevant channel capture picture

7. Connect same model IPC on NVR, set up first channel, can click “Copy to” all channel, copy first channel’s setting to others channel, click “Save”, then exit.

4.5.2.4 Click Channel Setting → Channel Parameter → Video Lost

1. Choose the channel need to be set
2. Enable Video Lost: ticked the small squares in front of the enable motion lost, schedule time and linkage please refer to 4.5.2.3 setting
3. Connect same model IPC to NVR, set up first channel, then can click “Copy to” all channels, it will copy first channel’s setting to other channels, click “Save”, and then exit.

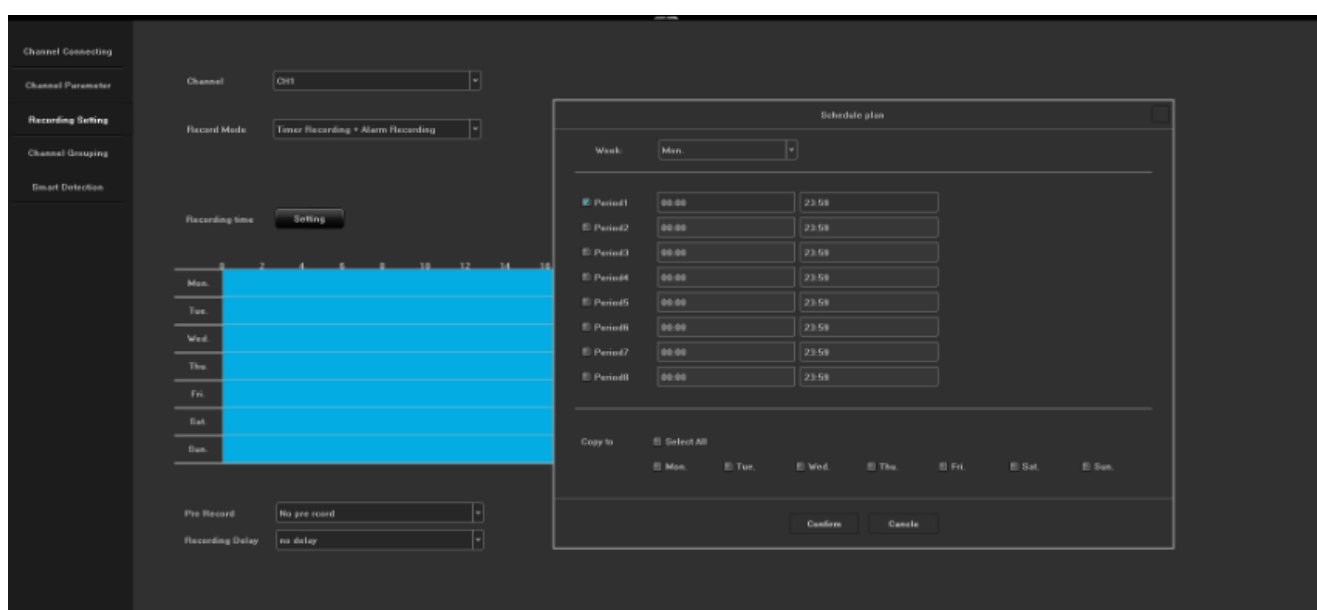
4.5.2.5 Click Channel Setting → Channel Parameter → Mask Alarm


1. Choose setting channel
2. Enable Video Lost: tick the small squares in front of the enable video lost, adjust proper sensitivity, delimit mask area, when someone mask the delimit mask area intentionally, will trigger the alarm
3. Schedule time and Linkage processing setting please refer to **4.5.2.3**
4. Connect same model IPC on NVR, set up first channel, can click Copy to all channel, copy first channel’s setting to other channels, click “Save”, then exit.

4.5.2.6 Click Channel Setting → Channel Parameter → Video Tampering

1. Choose setting channel, tick Enable Video Mask, set up mask area, click Save, then exit, can mask the delimit mask area, also can’t see the mask area in the recording file
2. Connect same model IPC on NVR, set up first channel, click “Copy to” all channel, copy first channel’s setting to other channels, click “Save”, then exit

4.5.3 Click Channel Setting → Channel Connection → Record Setting





Click  Channel Setting icon, click Record Setting, default already set up Schedule Record, 24 hours record, can set up different time period record on each channel based on user demand, after set up can copy to other channels, click “Save”, then exit.

4.5.4 Click Channel Setting → Channel Connection → Channel Grouping

1. Structure






Divide channels into groups, click  add a new group and define its name, tick group in the B area, tick IPC channel  in A area add them into group, multiple groups could be set up under structure, click “Save” after set up finished, then exit. Click Structure in real time preview, choose group, double click mouse left button can browse channel group.

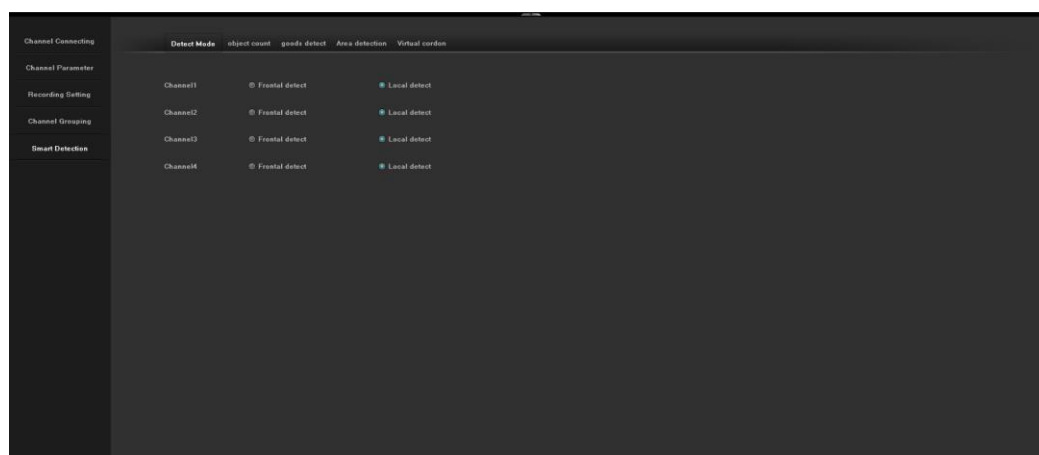
2. Preview Tour

NVR Quick Operation Guide



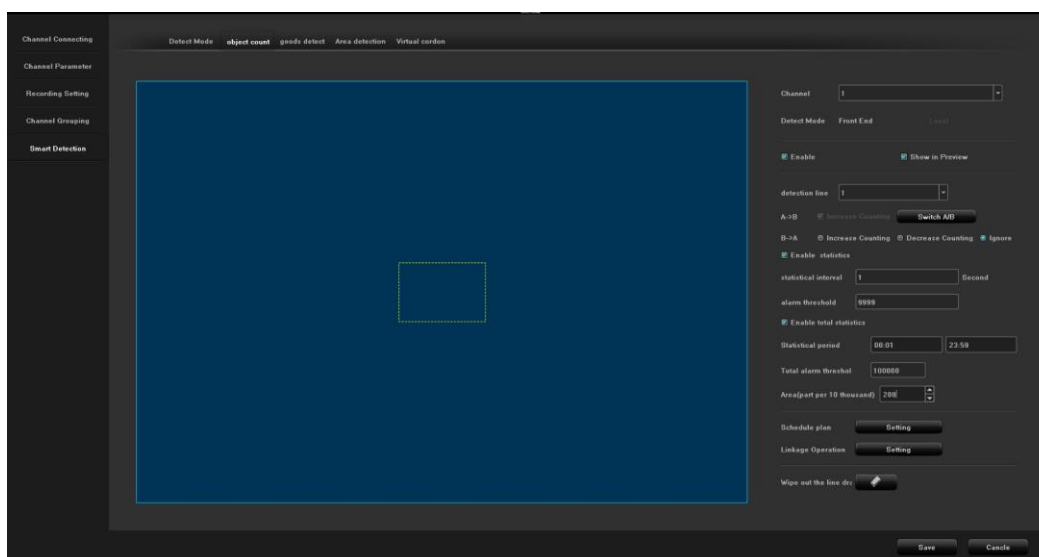
Divide channels into groups, click  add a new group and define its name, tick group in the B area tour, tick IPC channel  in A area and add them into group, can set up multiple groups under tour, click “Save” after set up finished, then exit. Click Structure in real time preview, choose group, double click mouse left button can browse channel group. Set up all channel group, click  can turn on Tour



4.5.5.1 Click Channel Setting → Intelligent Detection → Detection Mode



According to IPC and NVR's function, choose detection mode. IPC is front-end detection mode, NVR is local detection mode.

4.5.5.2 Click Channel Setting → Smart Detection → Object Counting





1. Choose setting channel, detection mode default previous setting, tick **Enable**
2. Tick **Show in Preview** can browse channel setting's detection line, direction and statistical result in real time preview. If **Show in Preview** not be ticked then detection line, direction and statistical result in real time preview could not be seen.
3. Maximum 4 detect line could be set up, click  move the cursor to image area by mouse, click mouse left button to set up initial point, then drag cursor to next preset point, click mouse left button then form a detection line, click mouse right button to finish drawing detection line. Click  to delete detection line by mouse, then can draw a new detection line.
4. Counting number direction A→B / B→A could be switched, counting method when one object cross A→B / B→A detection line, statistical result will add 1. It could be easy set up that Enable **Statistical** and **Total Statistical** based on different demand.
5. Schedule time and Linkage processing setting please refer to 4.5.2.3
6. Click **Save** after finish setting up, then exit.

4.5.5.3 Click Channel Setting → Smart → Abandoned/lost Object Detection

1. Choose setting channel, tick **Enable** to set detection mode be default previous setting
2. Detection line could be browsed when **Show in Preview** be ticked in channel setting, direction and statistical

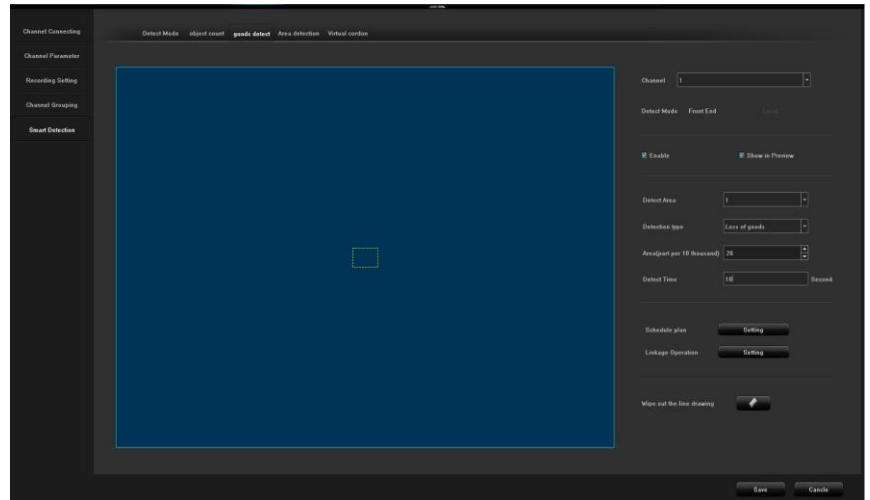
result in real time preview. Detection line could not be browsed when **Show in Preview** not be ticked in channel setting. Direction and statistical result in real time preview either.

3. Maximum can set up 4 detect area, mouse click  move the cursor to image area, click mouse left button to set up initial point, then drag cursor to next preset point, delimitate area close to initial point click mouse left button then form a detect area. Mouse click  to delete detection area, then can draw a new detection area

4. Have 3 detection type, lost object, abandoned object, lost and abandoned object, proportion and define detect time

5. Schedule time and Linkage processing setting please refer to **4.5.2.3**

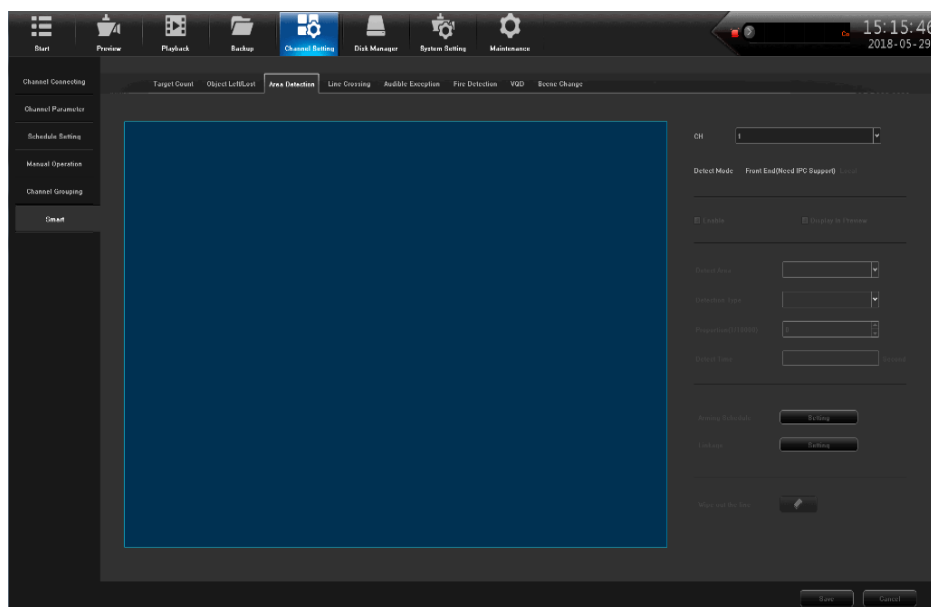
6. Click **Save** after finish setting up, then exit.





4.5.5.4 Click Channel Setting → Smart → Area Detection

1. Choose setting channel, detection mode default previous setting, tick **Enable**

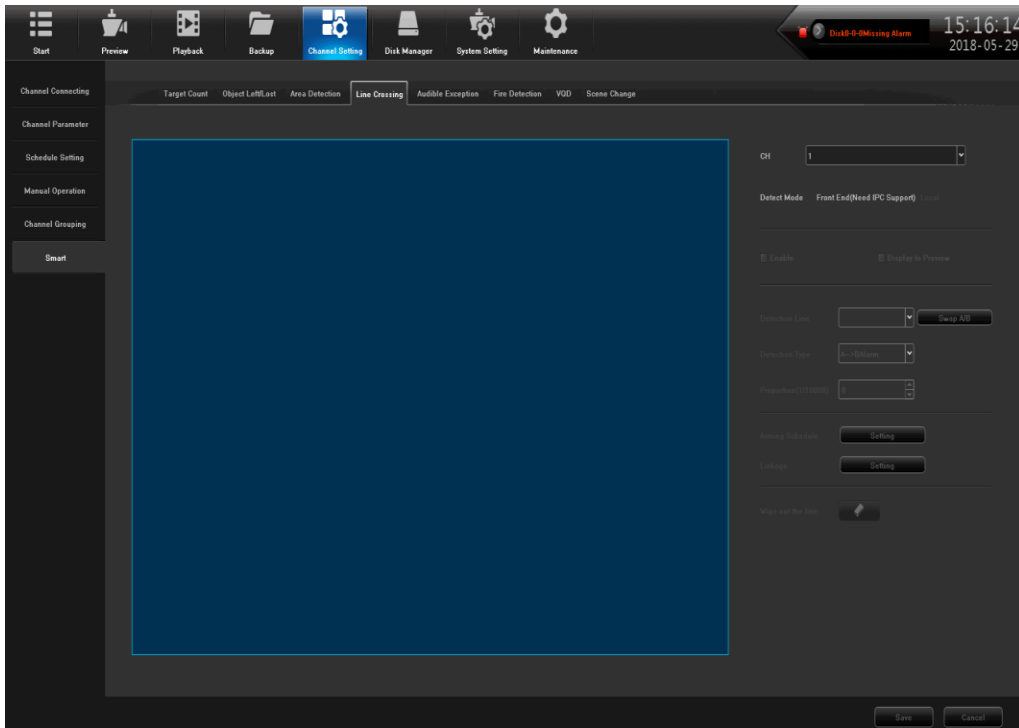
2. Tick **Show in Preview** can browse channel setting's detection area. If not tick Show in Preview can't see detection area in real time preview.





3. Maximum can set up 4 detect area, mouse click  move the cursor to image area, click mouse left button to set up initial point, then drag cursor to next preset point, delimitate area close to initial point click mouse left button then form a detect area. Mouse click  to delete detect area, then can draw a new detection area.
4. Have 4 detect type, object enter, leave, object enter or leave, and object loitering, proportion and define detection time.
5. Schedule time and Linkage processing setting please refer to **4.5.2.3**
6. Click **Save** after finish setting up, then exit.



4.5.5.5 Click Channel Configuration → Smart → Line Crossing

1. Select the channels which require setting, detection mode default settings, check the **"Enable"**.
2. Click the **"Preview display"**, the detection area could be seen in the real time browsing Of the channel.
Not tick means the detection area could not be see in the real time preview.

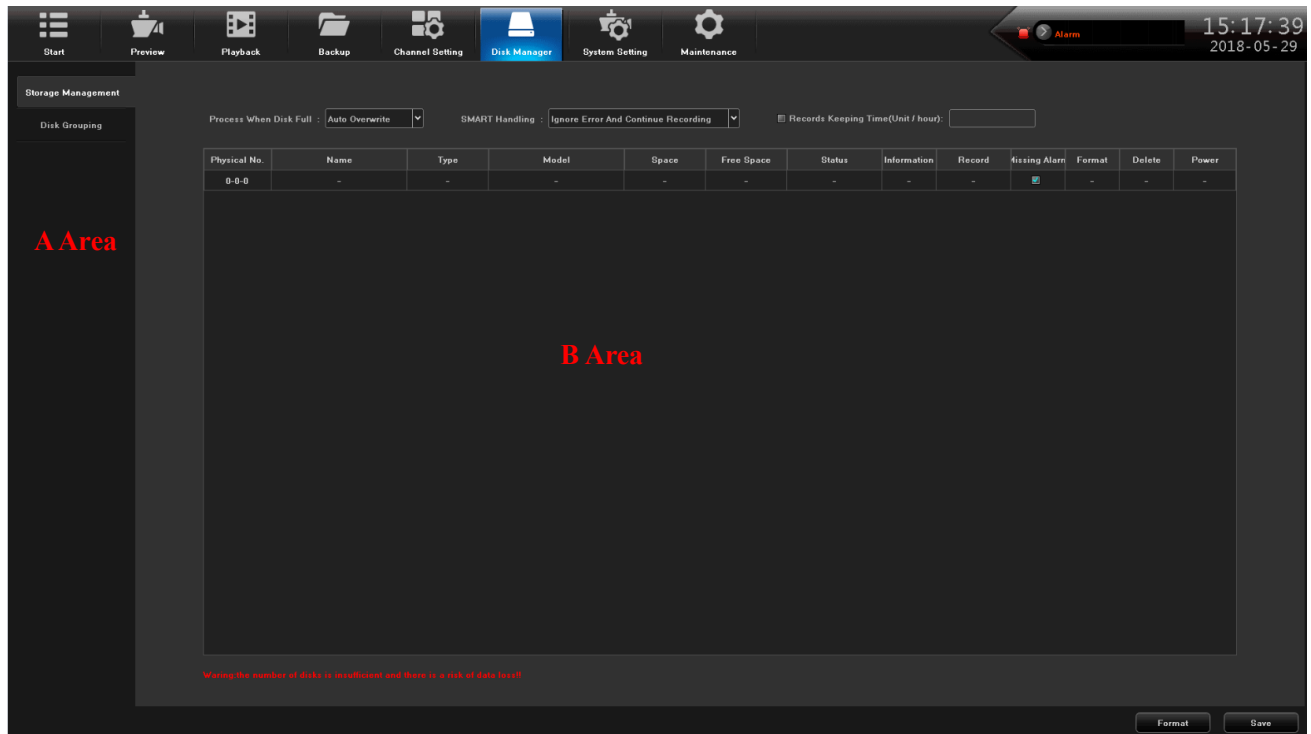


3. Detection area can be set up to four, click  to draw a line, moving the cursor to the area of the image, click the left mouse button to set initial point then drag the cursor to a preset, the delineation of the scope and the initial point closed, click the left mouse button detection area is formed and click the right mouse button end to delineate the region detection. Click  erase to delete the virtual cordon, and then you can re delineate virtual cordon.
4. Detection rule has 2 types of A-> B / A <-> B; object from A to B trigger the alarm and objects from the cordon to the A or B will trigger an alarm, A, B alarm direction can manually switch, detection time and custom can be set manually.
5. Schedule and the linkage refer to 4.5.2.3
6. Click **Save**, Exit.

4.6.1 Disk Management → Disk Format




-  Formatted HDD is needed in the first time in the NVR 2.0. The HDD which be used in other device and other NVR before also need to be formatted when it was connected to NVR 2.0.
-  Note: Please back up the data before formatting the disk to avoid losses caused by the loss of data.

4.6.2 Disk Management→ Disk Group



Select Manual, grouping the channels, click  to add group and custom group name.

In the B disk area grouping the video, in the A area click IPC channel , click  to add into the video group, after the group settings, click "save" to exit.

-  Delete group;
-  HDD quota;
-  Remove the channel which inside the group.

4.6.3 HDD Management → Storage Management

There are two processes: HDD full processing ("automatic elimination" and "stop Recording ") and SMART processing ("Stop recording when there's error or continue recording by ignoring the error ")
SMART information can be used to determine whether there is damage to the HDD, this information will be provided to the relevant HDD technical advice.

4.6.4 Disk Management → Disk Map

Identify the smart information under the motherboard HDD interface and storage management, in order to find the damage of the hard disk quickly.

4.7 System Configuration

4.7.1 System Configuration → Time Settings

1. Modify the device time, Tick "sync to the front" to synchronize the time to the front end; adjust the time zone according to the actual situation.
- 2 Enable NTP, fill in the time server address (available online search local time server address)

4.7.2.1 System Configuration → Network → Basic Setting

The screenshot shows the NVR's web-based configuration interface. At the top, there is a navigation bar with icons for Start, Preview, Playback, Backup, Channel Setting, Disk Manager, System Setting (highlighted), and Maintenance. On the right of the navigation bar, there is a status bar showing a 'Disk 0-0 Missing Alarm' and the time '15:19:10' on '2018-05-29'.

Below the navigation bar, there is a sidebar on the left with a tree view containing 'Time Setting', 'Basic Setting' (selected), 'DDNS Setting', 'Email Setting', 'Advanced Setting', 'Management Platform', 'Telnet Setting', and 'IP Filter'. Under 'Basic Setting', there are sub-items: 'Network Setting' (selected), 'Alarm Management', 'User Management', 'PTZ Setting', and 'Device Setting'.

The main content area is titled 'Network Setting'. It contains the following fields and options:

- Network Card:** A dropdown menu set to 'LAN1'.
- Enable network disconnecting alarm:** A checkbox that is currently unchecked.
- MAC Address:** A text field containing '68:85:00:00:10:0C'.
- Network Status:** A text field containing '100MFull Duplex'.
- DHCP:** A radio button that is selected.
- Static IP:** A radio button that is unselected.
- IP Address:** A text field containing '192.168.2.139'.
- Mask:** A text field containing '255.255.255.0'.
- Gateway:** A text field containing '192.168.2.1'.
- Auto Obtain DNS Address:** A radio button that is selected.
- Use Following DNS Address:** A radio button that is unselected.
- DNS1:** A text field containing '192.168.2.1'.
- DNS2:** A text field containing '2.0.0.0'.
- Default Route:** A dropdown menu set to 'LAN1'.

A 'Save' button is located at the bottom right of the configuration area.

Access the internet line to the NVR, access the LAN switch, after boot, click [System Configuration] - network parameters - basic configuration, enter the network parameters, set network parameters, set up the NVR IP address, sub net mask and gateway. You can use the PC host running the LAN command ping command to ping the IP NVR

to detect whether NVR is connected to the local area network.

⚠ Note: IP address have the risk of conflict, please set the gateway correctly. Otherwise NVR will not work properly, please ensure that all LAN network equipment IP address unique. Device port number settings: the default setting is 5050 for port number, Modify this port when more than NVR in the local area network. This port is IE, CMS remote login NVR use; "HTTP port number" settings: the default port number 80, modification recommend. This port is used when landing NVR IE.

Example: LAN IE preview NVR, in the IE address bar

http://192.168.1.188, download the plug-in, close the browser before installing, open your browser and enter again after the success installation.

http://192.168.1.188. Login window appears, enter device port number 5050, user name: admin, password is blank. Click to login to the remote preview.

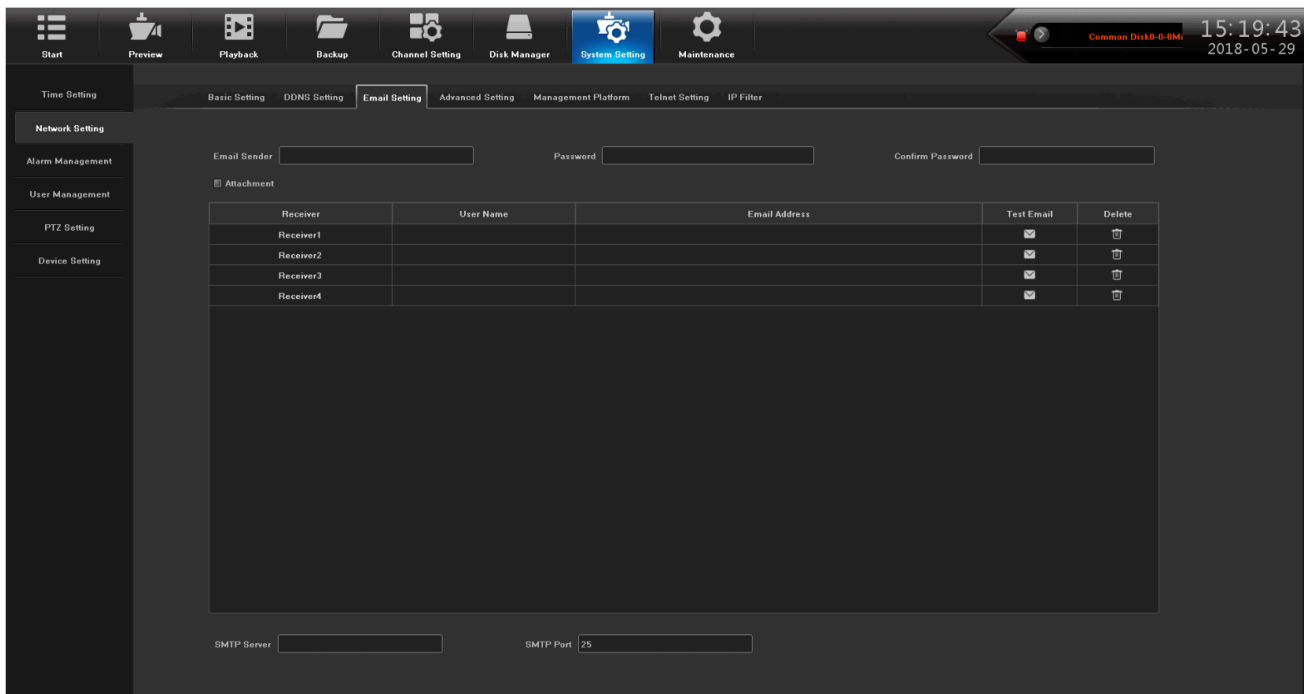
4.7.2.2 System Configuration → Network Parameter → DDNS Setting.



The default status is “Disable DNS”, and all the setting columns are disabled, or you should need to switch to the status of “Enable DNS”. It is need to notice that the device must be sure to normally access the outer network when using this function.

- Server Type: 14 types are defaulted on the list;
- Server Domain Name: each server type has a corresponding default server domain name;
- Port: each server type has a corresponding default port;
- User Name & Password: manually input the correct user name and password;
- Device Domain Name: manually input the correct domain name (after the function works, you can use this domain name to remote access the device)
- Detailed usage please refer to 5.1.2 WAN Setting

4.7.2.3 System configuration → Network Parameters → Mail Setting



Email Parameter Settings.

The first three lines: E-mail address, password, confirm the password: Here add the sender's Email address and password, check attachment, you will receive capture images.

To: up to 3 receiver emails

Send Interval: Send capture photo interval

SMTP server, SMTP port: provided by the mail service provider, check the sender's mailbox settings.

Example: 163 mailbox should be completed as: smtp.163.com, Port: 25.

4.7.2.4 System configuration → Network → Advanced settings

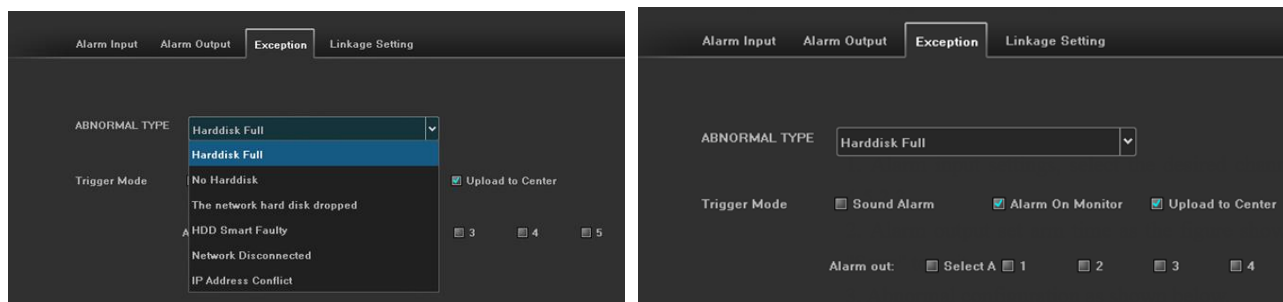
"Device port number" settings: The default port number is 5050, you need to modify the port when there is more than one NVR in the LAN. This port is used for IE and CMS remote access NVR.

"HTTP port number" settings: The default port number is 80, the proposed modification. This port is used for IE remote access NVR.

Enable PPPOE, it can be used with the external network card, dial-up networking.

4.7.3 System Configuration → Alarm Management

1. Alarm input settings, select the desired channel settings, arming linkage processing time and set as reference 4.5.2.3.
2. Alarm output set arm time as the figure shown below, finish setting delay alarm output custom settings, click "Save" to exit.
3. Abnormal configuration as shown below.



The abnormal types includes: smart hard disk errors, missed the hard disk, hard disk error, full hard disk, IP address conflict, disconnected from the network.

Trigger sound alarm on the monitor alarm, upload center, trigger the alarm output.

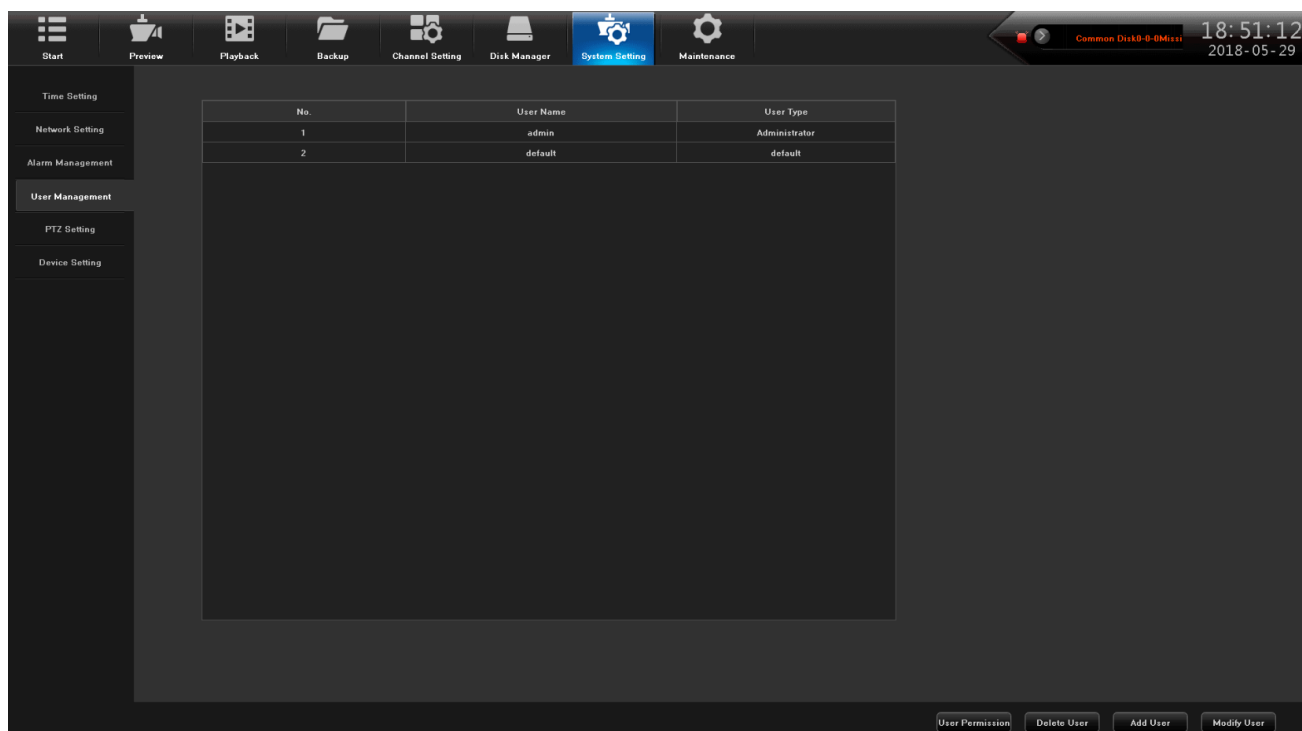
Select the type of configuration required.

4.7.4 System Configuration → User Management

Add the user name and set user permissions.

Administrator "admin" has all permissions.

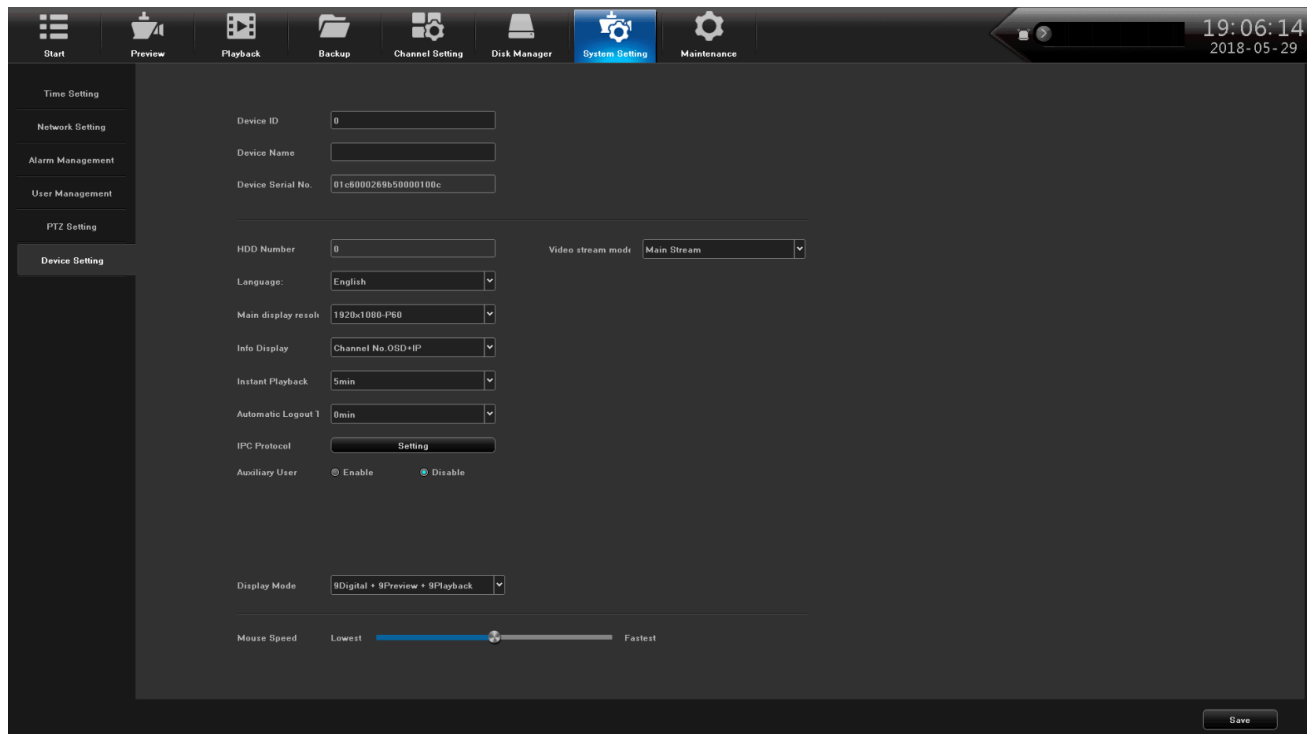
Only the administrator can modify the other users' permissions and change the password.




4.7.5 System Configuration → PTZ


Set up the parameter configuration of external devices

4.7.6 System Configuration → Device Parameters




Click the system configuration icon , click on the device parameters: view and modify the device information, especially the modification of the resolution.

Use mobile software “Goolink” to scan QR code, you can quickly add NVR product serial number. After successfully log in, it will realize remote real-time preview. When you adjust the resolution, make sure not to exceed the display range, or it will turn out to be a blank screen

 **Note:** Select the device capabilities, the above case for example: "36 Preview + Local Smart" indicates that the current path 36 can preview the first 8 while achieving intelligent detection circuit. Select as what you need.

4.8.1.1 System Maintenance → System Information → Device Information

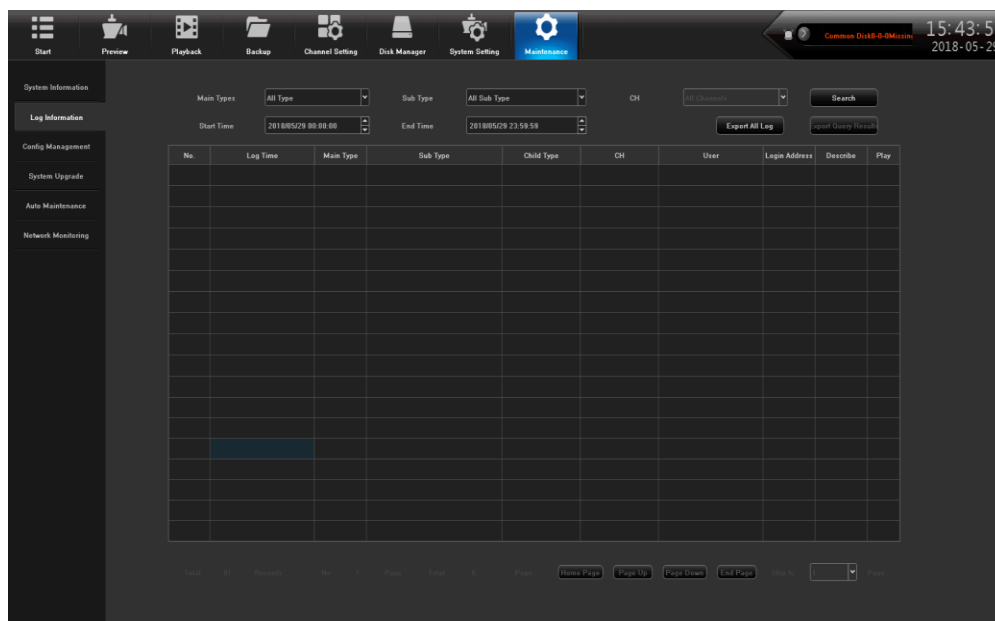
Click system maintenance icon , click "System Information" - "Equipment Information": Check the system version number and version time, it is necessary to verify the upgrade, so as not to cause the failure of the upgrade and return to the factory.

Open stream information, can view real-time main stream and sub stream information and hourly consumption of hard disk storage capacity.


Open the online user, the current users' information can be viewed.

4.8.2 System Maintenance →Log Information

Select the channel to click on the "Query" . The log types are operation, alarm, exception, and all types. Check the motion state informations automatically saved at the current time and on abnormal condition, you can estimate the working state of NVR.



4.8.3 Configuration Management -System Maintenance

Click [Maintenance]  icon, click the "Configuration Management", select "Restore Configuration" shown as above photo.

The import and export configuration can be used in the 2 following situations.

1. Export the configuration before upgrade the software. Import the confirmation when upgrade is finished.
2. If same configuration in multiple NVRs, but different IPC access, in order to reduce the workload of the

tedious configuration

[Export configuration]: export the parameters of the device and saved in U disk specified location;

[Import configuration]: call up the menu, copy the same parameters. Backup in USB device, import in the other NVR.

4.8.4 System Maintenance → System Upgrade

Check the hardware version, software version and serial number.

Note: All the software should be official and under the guidance of the technicians.

4.8.5 System Maintenance → Auto Maintenance

NVR can set up automatic restart of time, maybe one time, one day or one week. After NVR restarts, it deletes the long-running redundant files to ensure the smooth running of the NVR.

5.1 IE Viewing

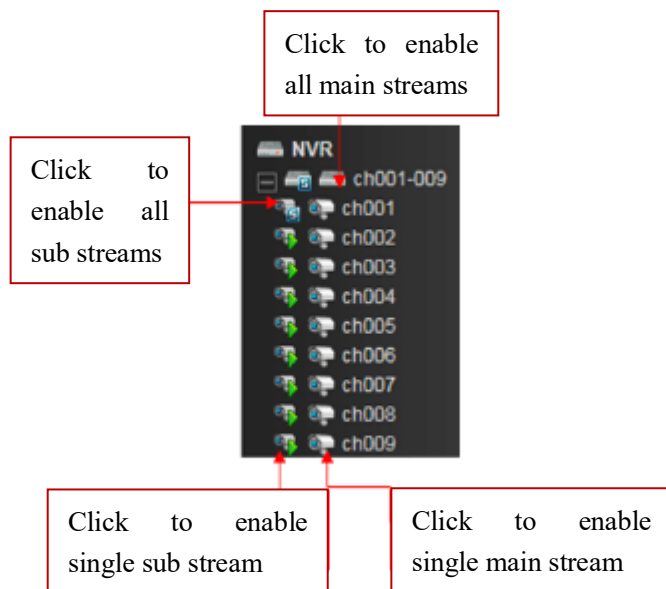
5.1.1 Lan IE browser

1. IE browser address bar enter the IP address of the NVR, you can configure the NVR system → Network → Network Settings view. The default IP address is 192.168.1.188
 2. Download the plug-in, close the browser before installing, open the browser and enter the remote IP address or domain name again after a successful login window appears, enter the device port number, user name and password to connect successfully ejected after the following interface:
- 1) After successfully installing the plug-in, enter the IP address of the NVR in IE browser address bar. Login screen appears, User Name: admin, Password: 88888888. Chinese and English for optional.



2) Non-Active X is optional. Active X needs to be downloaded while Non-ActiveX doesn't. The main difference is Active X can view the full channel of main stream and sub stream with 4ch playback, while Non ActiveX uses Adobe flash play from computer to view 9ch sub stream and 4ch main stream. Non-Active can also apply in Apple browser safari, Firefox, Google browser, IE browser.

3) After the success of the login, open the remote image preview screen, click at the upper left corner of the icon to display a preview image.



5.1.2 WAN IE Browsing

Suggest you to close the NVR and router Upnp, then do port mapping. It will conflict if open Upnp, and do the mapping. The default of NVR Upnp is off.

If you have a fixed IP, then only need to do two rules mapping in the router, the first 5050-5053, corresponding to the IP address of the NVR, secondly, 80 (which modification is strongly recommended), corresponding to the IP address of the NVR, port mapping succeed.

Some routers only by-port mapping, need to map 5050,5051,5052,5053 four ports, Plus HTTP port, otherwise, the image will not be shown. Mobile port is based on the device port + 3.

Besides 80.5050.5051.5052.5053 the five ports, port 1935,843 is also needed to be mapped if using Non-Active X. Then open the IE browser and enter the fixed IP address, access is ok. If you change the HTTP port 80 to 88, should enter http:// fixed IP address:88 (: English characters).

Because routers brand model is various, now we take commonly used TP-link router for example:

1. Open the IE browser, enter the gateways in the address bar, for example: http://192.168.1.1
2. The router login window will pop out, enter the user name and password, the default user name of TP-Link is: admin , password is admin.

3. Click on the "forward rules" on the left toolbar, some router called "mapping port", click on the "virtual server" and click "add new ".

Make the following port corresponding to the IP address of the DVR/NVR, Manually enter the port and click Save.

The port in forwarding rule is same as the “device port and HTTP port “ in the NVR setting. Take P5 6.1 network setting as example , it is 5050-5053,80 After completed, click "make all the entries to take effect.

If no fixed IP address, after port mapping, need to do the dynamic binding domain. Such as 3322, peanut shells, NO_IP site application domains. After applying for good domain, click the NVR system configuration -> network parameters-> DDNS Settings, fill in the user name, password and domain name.

5.1.3 Cloud Server

1) .Mobile Phone Monitoring AEeye


Start AEeye and register an account for login, after that, the addition of equipment will be recorded in this account, and no need to do addition again under this account on other computer. Mode for free login and add device is recorded on this phone only.

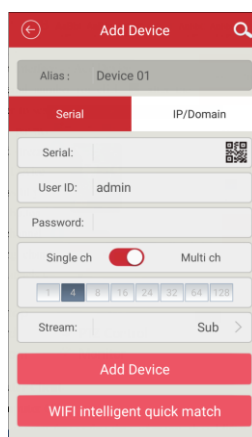
The device defaults to open the phone monitoring feature.


Go to the Main Menu -> Quick Configuration -> Network -> Cloud Service, you can view the QR code, scan to download APP. Scan SN QR code on the APP can quickly add serial number, or you can manually enter.





1. Click the button  to open the device

Management Interface -> Add Device

Enter the serial number (or click  after the serial number to scan QR code to add), enter the user name, password, select the number of channels and stream type according to the device, click [Add Device], hinted that the device is added successfully.



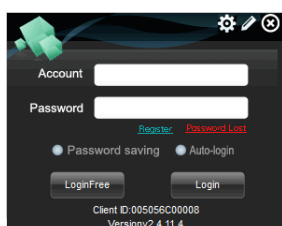
2. Click the button  on the preview screen to select the channel you want to open and the corresponding channel preview will be opened. Up to 16 channels can be previewed at the same time.

-  Play/Stop
-  Screenshot
-  Record
-  PTZ Control
-  Intercom
-  Monitor

2.2 Computer Client

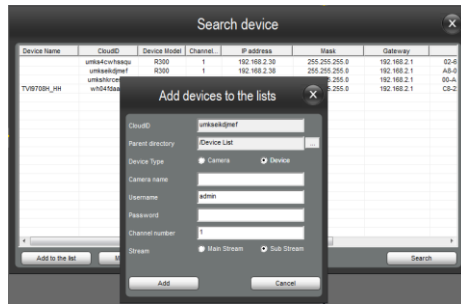
2) . Install Computer Client

Register an account for the first time, after that, the addition of equipment will be recorded in this account, and no need to do addition again under this account on other computer. Mode for free login and add device is recorded on this PC only.



Device added

Enter the software main interface, click the search device, you can find the XVR with AEeye function in current LAN. Select the device to be added, click Add to the list, and then enter the name (custom), user name, password (device password) and channel number (Max 63), the device type select "Device", select the main and sub-stream access according to the network bandwidth and the actual needs.



To add an external network device, click the [Control Panel] - [Device Management] - [Add Camera] menu to add on the software interface.

Device Preview

Double-click the device list channel to open the preview, or click [Play All] to open all fellow previews and click [Stop All] to close all fellow previews.

When preview, click to select the channels with PTZ or the dome camera. Open [PTZ Direction Control] to control the currently selected PTZ or Dome.

[Local Configuration] Set the local recording and screenshots storage path


[Video playback] Play back the local video, front-end video

[View Photo] View the screenshot file

 Turn off / Open Local Video

 Screenshot

 Turn off / Open Intercom

 Turn off / Open Monitor

  Page Up & Down

        Split Screen Switch

5.1.4 IE Access Problem: if IE plug-in can't be installed and no image

Click the NVR System Configuration→Network Parameters→Network Settings, check the IP address, port equipment, HTTP port number. Firstly, the graphics driver must be installed correctly, run dxdiag enter, see the show→DirectX function, if this three accelerations have been started, at least the first two are required to be started.

DirectX Function

DirectDraw Speedup: Enabled

Direct3D Speedup: Enabled

AGP Texture Speedup: Enabled

1) XP system: please install the VC + + 2008, to download and install from Microsoft or 360 Security Guards or QQ housekeeper software download and install.

2) WIN7, WIN8 system: click on "start" to choose the current login user "Administrator", click on the control panel →user accounts→ change user account in control settings", set the permissions to a minimum. Click the Internet

explorer browser tools → Internet options → safe → custom level, remove to enable protection mode in front of the hook, changed the Activex control and the plugin to enable or hints, alone disable "binary and script behavior", with the same setting again on the local Internet, click sure, restart IE browser. Finally click IE browser tools → compatibility view Settings → check "in the compatibility view displays all websites". Restart the IE browser.

3) Note: if the computer is Win7, WIN8, 64-bit operating system, please choose 32-bit IE browser, using 64-bit IE browser will not show the image.

4) Check whether there is installed the plug-in on before, close IE, to Disk C Program Files folder, remove the folder "Activex_new". Windows7、WIN8 System please delete in the Program Files (x86) folder, and install new plug-ins.

5) Clear out the IE cache.

6) When WAN access, port mapping does not complete, need to port mapping on 5050, 5051, 5052, 5053 these four ports, plus the HTTP port, otherwise will appear the situation that when login screen but cannot show the image.

7) When WAN network access, please make sure to choose the IE plug-in, if you need to use free plug-ins, please pay attention to the condition that in the local area network (LAN) only support a NVR to implement free plug-ins, the reason is that free plug-in port cannot be changed, free plug-in mapping in addition to 5050, 5051, 5052, 5053. 80 these five ports, also need to map port 1935, 843.

5.1.5 NVR and IPC synchronize time is not accurate.

When some IPC NTP is not right, it needs to do the adjustment by compared with that in the Onvif Device TestTool and IPC IE or Client-end. Only in this way do NTP then the time is accurate. Please amend the IPC's time zone to match the NVR time zone.

5.1.6 How to set double network port ?

The NVR is unable to search the IPC, which had 9 HDD\25ch or 36ch\double network port, the solution is as follow:

1) Check your NVR Internet cable access is the front-end ports below the USB printed with IPC, or printed with a network of front-end ports on the left.

2) If your access is the front-end ports USB printed with IPC below, please check the System Configuration → Network Parameters → Network Settings Menu, the IP address of the network card 1, whether the gateway is the same network segment with IPC, then check the default route, it must be network card 1.

3) If your access is printed with the NETWORK on the left, please check the System Configuration → Network Parameters → Network Settings Menu, the IP address of the network card 2, whether the gateway is the same network segment with IPC, then check the default route, it must be network card 2. These two network ports' advantages, firstly: split two IP network segments, reduce one to avoid IP address is not enough within a network segment; second: redundancy and insurance, when two network cards are set into different IP addresses of the same network segment, if a front-end port is broken, another network card will still work properly.

6.1 Common Problems And Solutions

● Device cannot start or non-stop restart

Possible reasons:

- NVR updates a wrong routine which leads to the systems software are damaged;
- The main board of NVR has a breakdown, please contact the supplier for maintenance;
- The hard disk has a breakdown, please replace with a new one;
- Panel routine has a wrong choose, “Setting” → “Device Parameters” → “Setting Info” → Panel version.
For aluminium profile panel please choose MINI, other plastic panel please correspondingly choose 01、02、05 etc.
- NVR IP address has a conflict.

● **PTZ cannot be controlled**

Possible reasons:

- RS-485 port cable has been wrong connected, A / B ports has been connected contrary;
- PTZ decoder type/protocol/ baud rate/ address bit has been set wrong;
- RS-485main line has too much connections to PTZ, which leads to signal reflection, and you should install a 120 Ω resistance in parallel at the far-end;
- The port of RS-485 on main board is broken.

● **NVR shows blurred screen when preview image**

Possible reasons:

- The chosen NVR mode mismatches with the IPC. NVR mode is a maximum value, while the image resolutions of main stream and sub stream accessed in IPC exceed the maximum value of mode.
Video input system is mismatching. If video camera is NTSC system, while NVR uses PAL system, the blurred screen will be shown when preview images.

● **NVR shows blurred screen when playback image or cannot search video**

Possible reasons:

- The routine has been read wrong, please try to restart NVR;
- Hard disk data occurred errors due to bad track and bad cluster, please detect the hard disk, replace it if it is broken;
- NVR has hardware fault or software fault, please contact the supplier.

● **NVR cannot be linked by network**

Possible reasons:

- Please check whether the physical network connection is normal;
- Please check NVR network parameters configuration;
- Please check whether there is IP conflict in the network.

● **Downloaded or backup video cannot play normally**

Possible reasons:

- Player is incorrectly installed;
- Backup by USB disk or mobile disk file has occurred error in the system;
- Graphic accelerator above DX9.0 version hasn't been installed.

Attached NVR Common Questions

- ① I have set right in “Motion Detection Alarm”/ “Cover Alarm” / “Video Cover”, but why it still doesn’t work?
Because your IPC uses ONVIF protocol which does not support these functions.
- ② I can’t search IPC, why?
Maybe your NVR or IPC hasn’t been correctly accessed to the network. Please try to use Ping Order to detect whether these devices have been correctly accessed to the network, besides, check whether IP has conflicts.
- ③ It takes a long time to show images.
The time for IPC from saving to showing images is different, due to the brands and models are different, but the time will not pass 1 minute in ordinary, while very few models will take a longer time.
- ④ No images after saving.
Maybe the user name and password are wrong, or the camera gun use proprietary protocol which leads to compatibility problem. It is suggested to use camera guns support i8 protocol of our company and international general ONVIF protocol.
- ⑤ Some image has shown being recording, and shown images after double click, but no images when operate multiple channels preview.
Right click that channel, click “Remote Configuration” on the popup menu, there are drop-down menu options for mode, try to adjust the main stream to sub stream, and then save. If there is still no image in split screen preview, it is possible that the sub stream has been adjusted too high, and it is better to be 1m below.
- ⑥ Some image can be shown in normal when operate multiple channels preview, but it will be blank or stuck when double click, and unable to playback.
Please check whether your IPC is 1080P, if yes, click “Setting” → “Device Parameters” → “Mode”, check whether 1080P mode has been chosen. When the video in 1080P has been accessed to the channel with 720P mode, it can only show sub stream. Please access IPC with 1080P to the assigned channel, choose the right mode and restart.