NVMS

Lite version

User Manual

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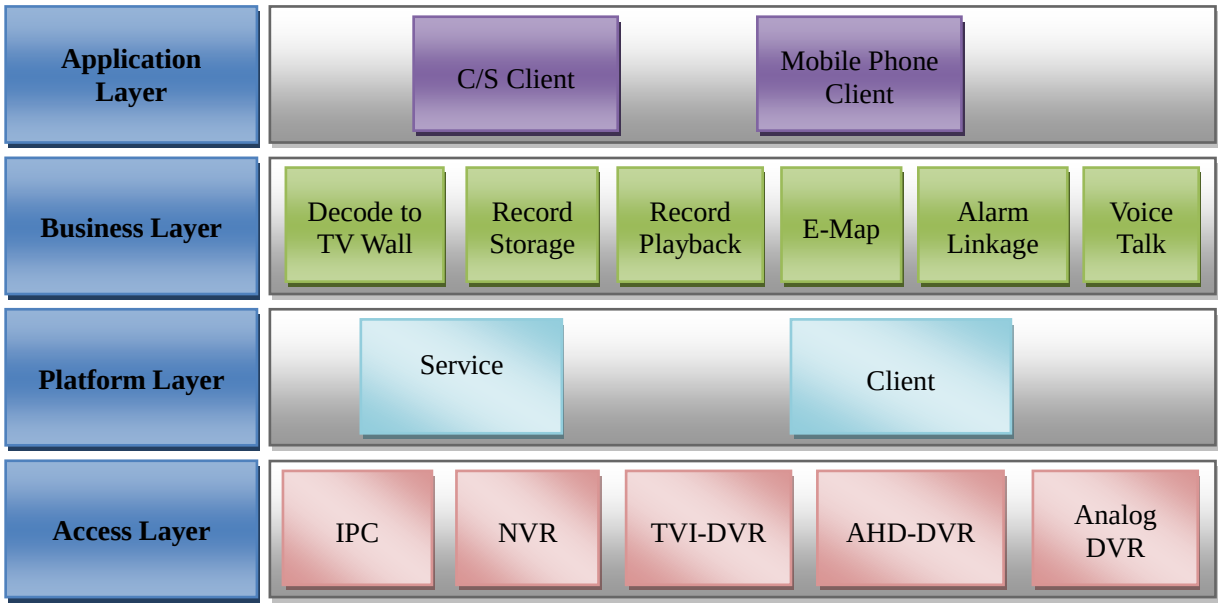
1 Introduction

1.1 Introduction

1.1.1 Summary

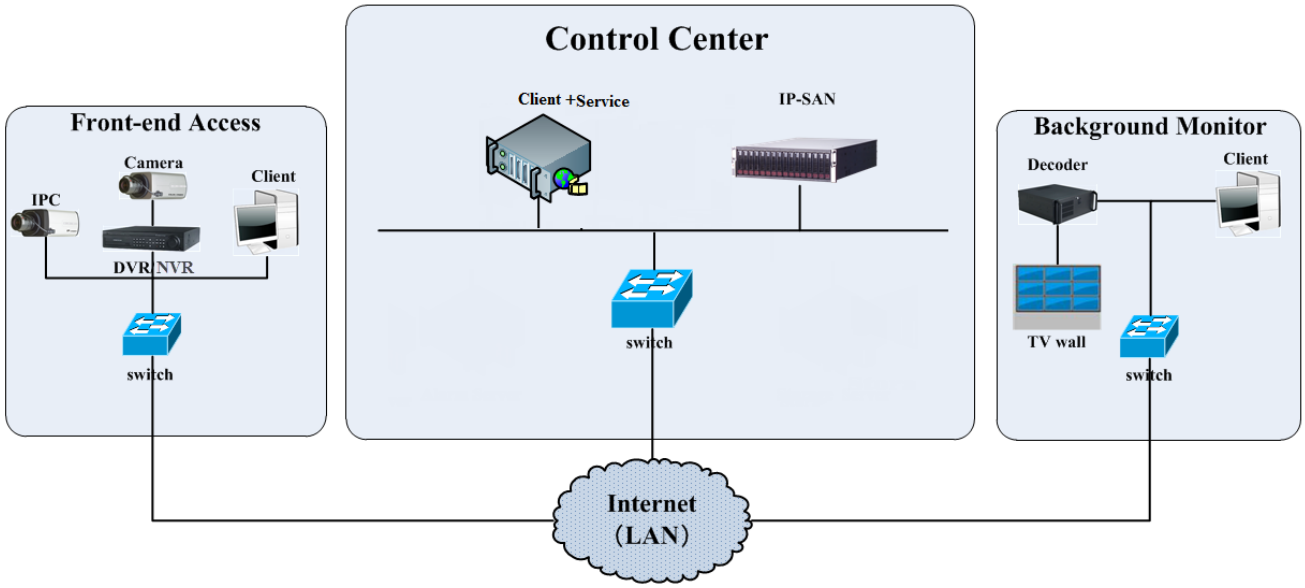
NVMS Lite is a newly integrated security management software released by our company, seamless access to all products of our company and encoding devices of the famous manufacturers in the industry (like Hikvison, Dahua, etc.). With the powerful capability of video surveillance management, real-time preview, record storage, record playback, record download, alarm linkage, decoding on TV Wall and keyboard control are supported. Due to its small, exquisite, flexible and diverse deploy schemes, NVMS2.0 Lite can meet various demands of small-sized projects and can be widely used in the video surveillance of industrial park, education, banking, chain stores, buildings and transportation.

1.1.2 Software Architecture



1.2 System Components

1.2.1 System



1.2.2 Front-end Access

- Front-end devices include IPC, DVR and NVR.
- You need to connect monitor devices such as IPC, DVR and NVR to internet through hubs or routers accessed by Cat5 or Cat5e cables (less than 100 meters) or optical fiber.
- Run monitor client through local PC to configure the local video monitor, monitor devices and so on.

1.2.3 Background Monitor

- Background monitors include TV Wall Client, Configuration Management Center and Monitor Client.
- You can set up the real-time image of display devices, these display devices including TV-Wall (decoding images to show on the TV-Wall through video decoder), digital display screen and so on.
- Run monitor client through local PC to view, playback and remotely configure and manage the real-time video of front-end monitor devices.

1.2.4 Control Center

- In the control center, NVMS lite realizes various services, such as, video transmission, recording, decoding on TV wall, etc.
- In the control center, add IP-SAN storage array to realize centralized storage.
- In the control center, connect servers and IP-SAN storage array to internet through switches.
- Please set up IP addresses in accordance with the actual situation.

Note: If servers are installed in the same PC, these servers shall have the same IP address.

1.3 Version

Version	Signal access on trial	Max signal access
NVMS v2.0	16 channels video signals	128-ch video signals

2 Configuration Requirement

2.1 Software and Hardware Configuration Requirement

2.1.1 S&H Config Requirement for Contorl Center

No.	NVMS components	Recommendation for hardware configuration	Recommendation for software configuration	Number
1	Monitor Client	nter(R) Core(TM)i3 3.40GHzor above /4GB DDR3/NV GT430 or AMD HD6570 or above, 512MB GDDR5or above/500GB SATA/1000M NICs	Windows 7 Professional version SP1(32bit /64bit) or flagship version SP1(32bit/64bit) /Windows 10 professional version (32bit/64bit)	As needed

2.2 Requirement for Firewall

In order to ensure the network security, it is necessary for the system to set up firewall. All monitor ports shall be opened in the installed servers. The open ports are as follows:

Server	Port Type	Port
Authentication Server	Internal Port	6003
Configuration Server	Internal Port	7002
Media Transfer Server	Internal Port	6006
	Auto Report Port	2009
Storage Server (windows version /IP-SAN)	Internal Port	6009
Alarm Server	Internal Port	6033
TV Wall Server	Internal Port	6036

Note: The above-mentioned ports are the default internal ports of servers. If all these ports are modified, these open ports shall be modified accordingly in the firewall configuration.

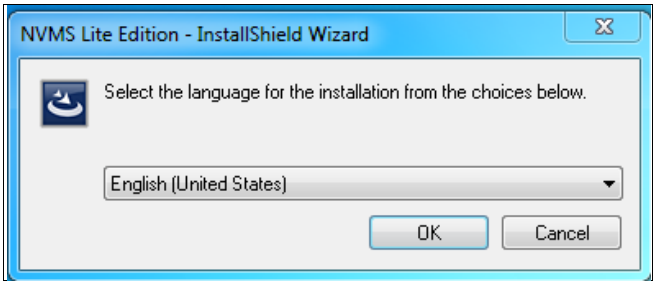
2.3 Confirm Installation Environment

Item	Checkup Standard
Hardware	Check up whether the hardware meets the standard required. (including CPU, memory, HDD, etc.)
Software	Check up whether the software meets the standard required. (including the type and version of the operation system, NVMS version, etc.)
Front-end device	Check up whether the device access is normal.
Firewall setup	Check up whether those open ports of firewall meet the standard required.
Network	Check up whether the networks of front-end devices and center equipments are normal.
TCP/IP config	Check up whether the settings of IP address, subnet mask, gateway and DNS correct.

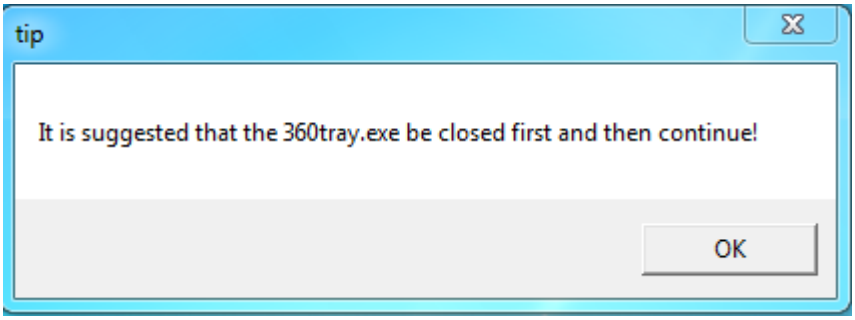
3 Install and Uninstall the Software

3.1 Install the software

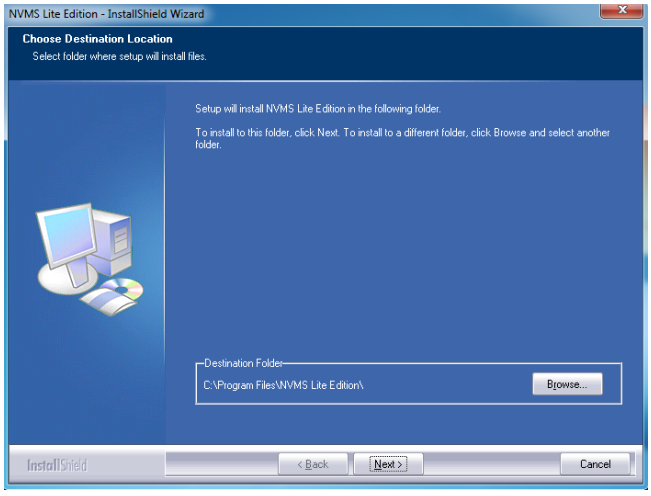
1) Double click “NVMS server.exe”. Select the UI language as needed.



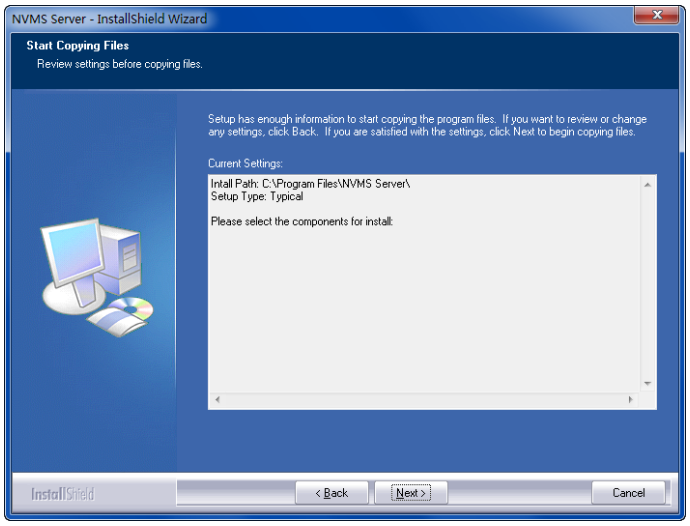
2) A tip will pop up to suggest you to close the antivirus software.



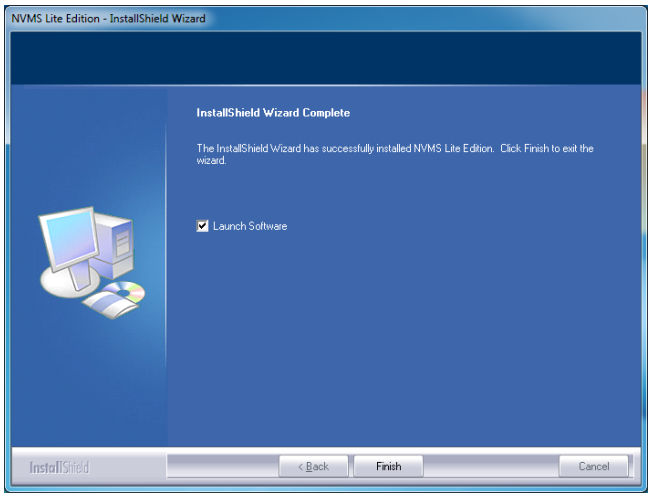
3) Click [Browse] to select the installation location and then click [Next].



4) Click [Next].



5) Check "Launch Software" as needed and then click [Finish]".

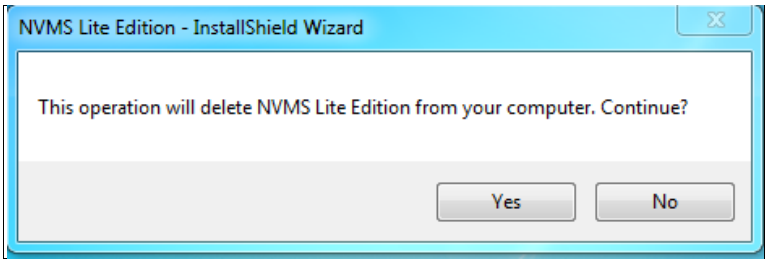


3.2 Uninstall Software

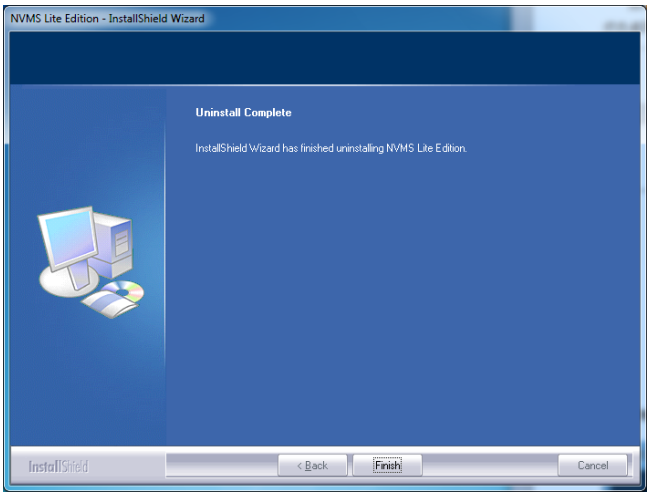
If the new version needs to be installed or there is no necessary to use this software, this software can be uninstalled software. It is strongly recommended to back up the configuration data before installing the new version of NVMS.

The uninstallation steps of the Server are similar to the unistallation of the client.

Click "Start" →All Programs→ NVMS Server→Uninstall to pop up the following wizard. Click "Yes" to confirm.



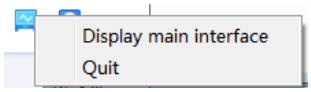
Then click "Finish" button to completely uninstall Authentication Server.

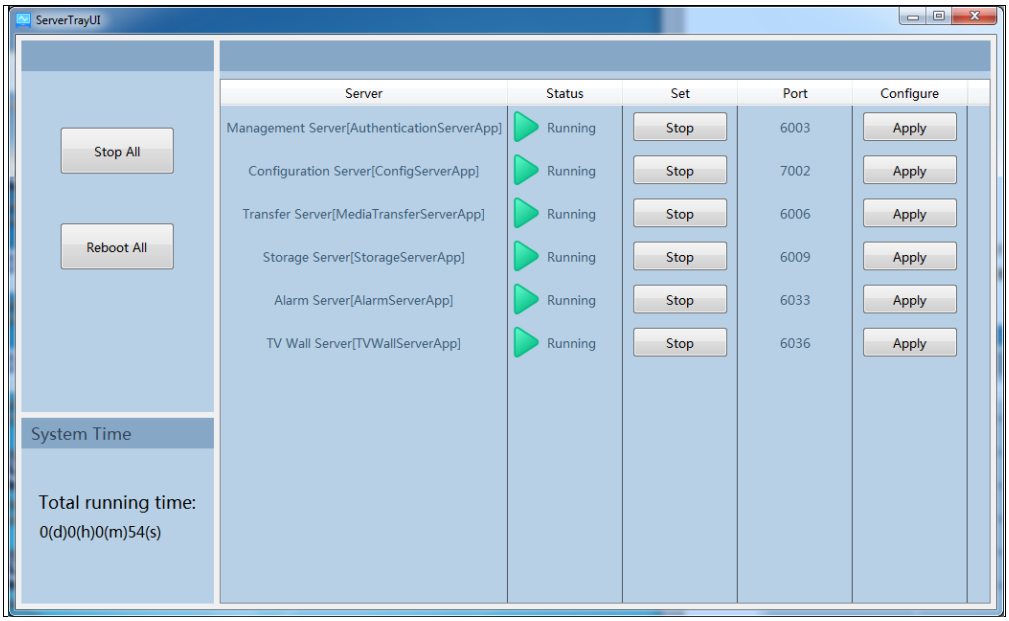

NVMS Lite Edition - InstallShield Wizard
Uninstall Complete
InstallShield Wizard has finished uninstalling NVMS Lite Edition.
InstallShield
< Back
Finish
Cancel

4 Login

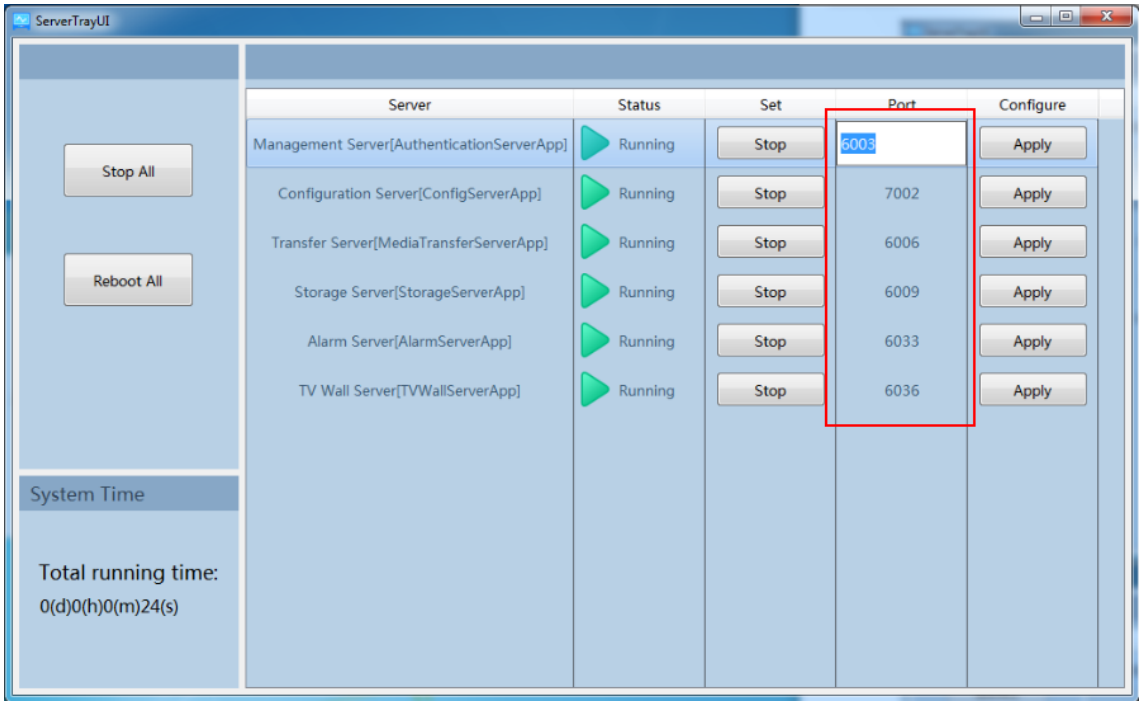
4.1 Run Servers

Before logging onto the client, please ensure all servers are working normally. Having been installed successfully for the first time, the server tray will minimize on the taskbar of the computer. Double click the server tray icon to pop up the server tray interface. You can also right click the server tray icon and select “Display main interface to pop up the server tray interface as shown below.





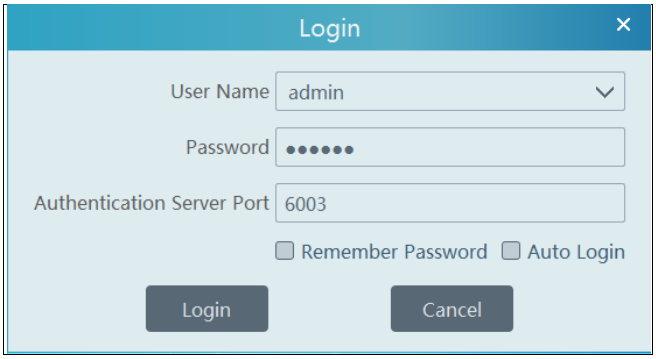
The working status and port can be checked from the server tray. All servers can be stopped and restarted. Additionally, all server ports can be modified as needed. Click the corresponding port number to modify it and the modified port can be saved automatically after you moving your mouse to other place as shown below.



Please set up according to the actual network.

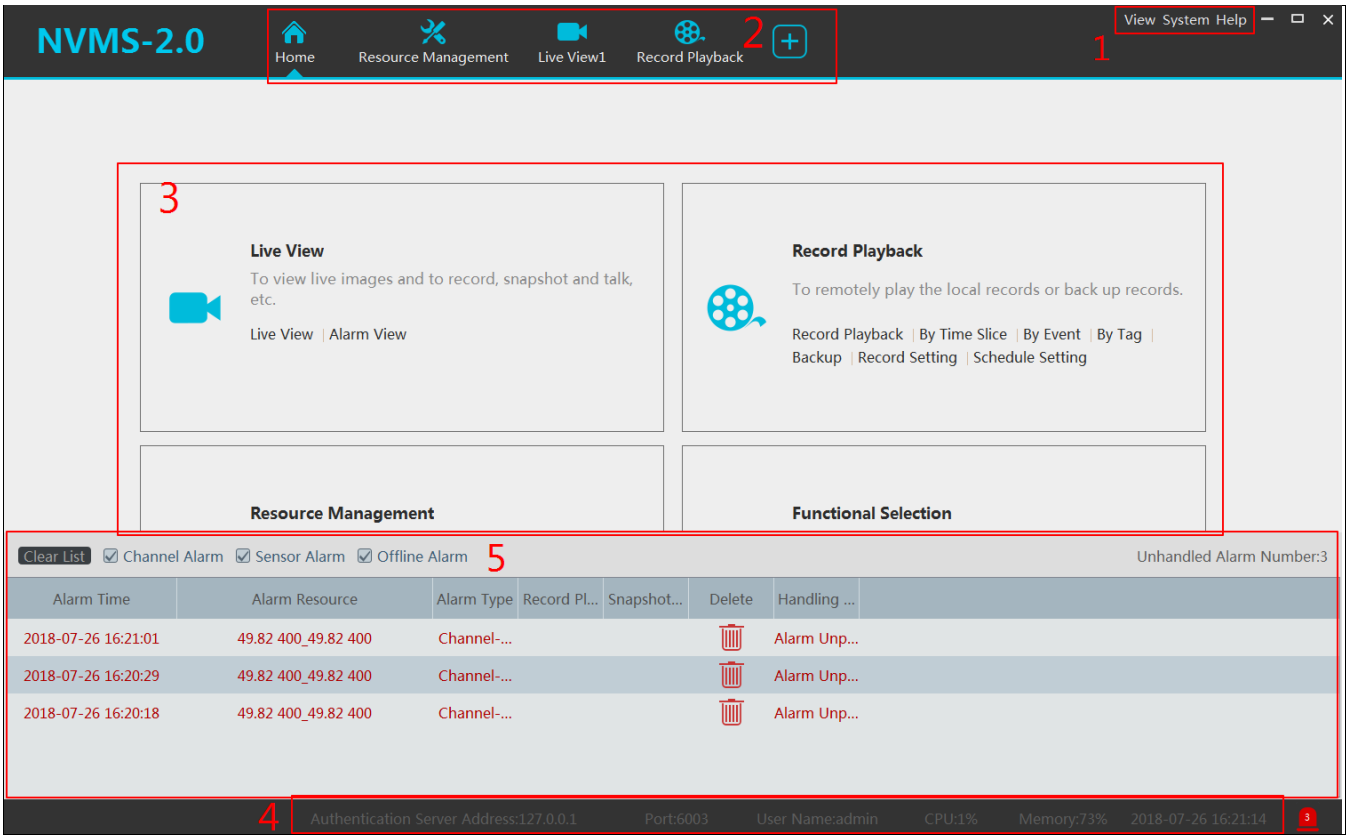
4.2 Login

Double click the shortcut icon of “MonitorClient” to run the software as shown below.



① Enter username and password (the default username is admin; the default password is 123456).
② Enter the port of the authentication server (the default port is 6003).
Check “Remember Password” or “Auto Login” as needed.
③ Click [Login].

4.3 Main Menu Interface Introduction



There are five parts in the main menu interface. The descriptions of each part are as shown below.

Menu Bar

No.	Description	No.	Description
1	Menu Bar	4	Status Bar
2	Tab Bar	5	Alarm Information Bar
3	Functional Areas		

Tab Bar

Menu	Description
View	"Live View", "Edit live view"
System	Including "Live View", "Record Playback", "E-Map", "TV Wall Management", Resource Management", "Account and Permission", "Alarm Center" "Operation and Maintenance Management", etc.
Help	Including "User Manual", "Register license" and "About NVMS"

Functional area

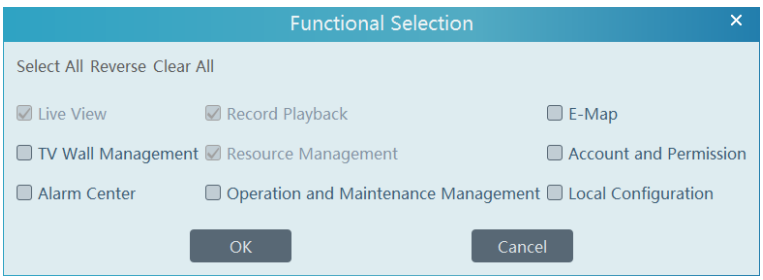
Menu	Description
Live View	To view live images and to record, snapshot and talk, etc.
Record Playback	To remotely play the local records or back up records.
E-Map	To manage and display maps, hot spots, etc.
TV Wall Management	To set TV wall and decoding videos on TV Walls
Resource Management	To add, modify or delete areas, devices or servers.
Account and Permission	To add, modify or delete user account and set permissions for these accounts.
Alarm Center	To set alarm linkage and schedule; To search alarm logs.
Operation and Maintenance Management	To search, export and maintain logs.
Local Configuration	To set record path, snapshot path, system startup and maintenance, overload and alarm view.
Functional Selection	To select common functions displayed on the home page.

Other buttons:

Button	Description
	Click it to hide the interface.
	Click it to zoom in or out the interface.
	Click to exit the software.
	Click it to add the live view page.
	When the tab pages exceed the applicable numbers, this icon will display. Click it to view the hidden tabs.

Functional Selection

In the main menu interface, click "Functional selection" to go to the following interface as shown below.

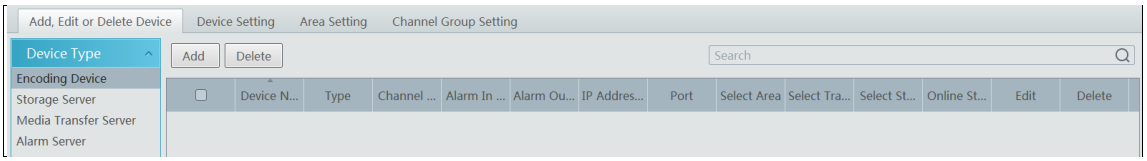


Please select the home page layout as needed.

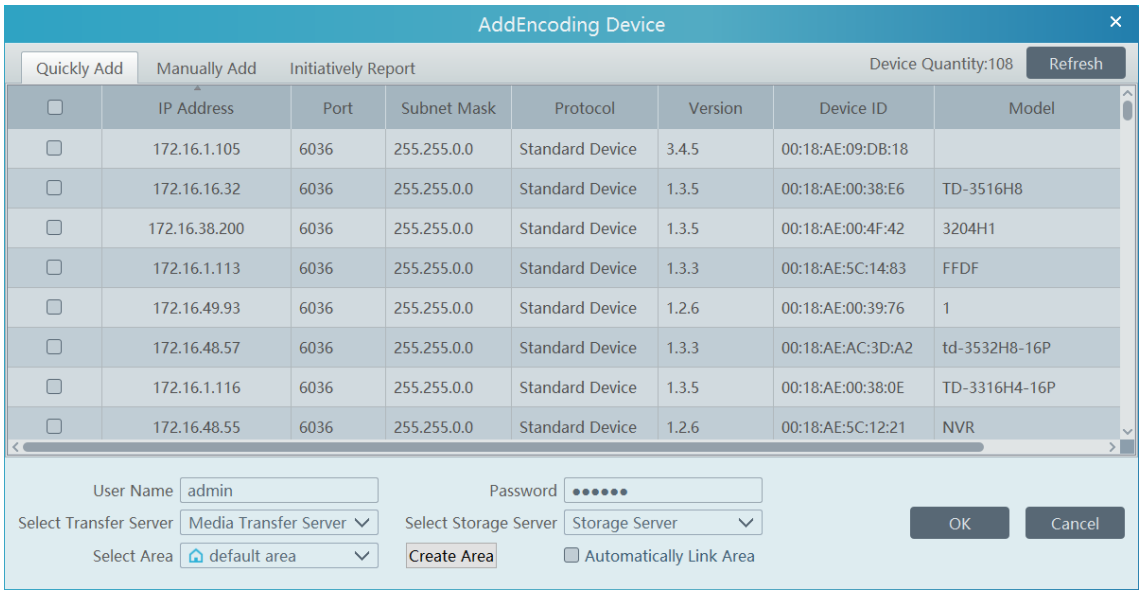
5 Device Management

5.1 Add Encoding Device

In the main menu interface, click “Add, Edit or Delete Device” to go to the following interface as shown below.



Click [Add] as shown below.



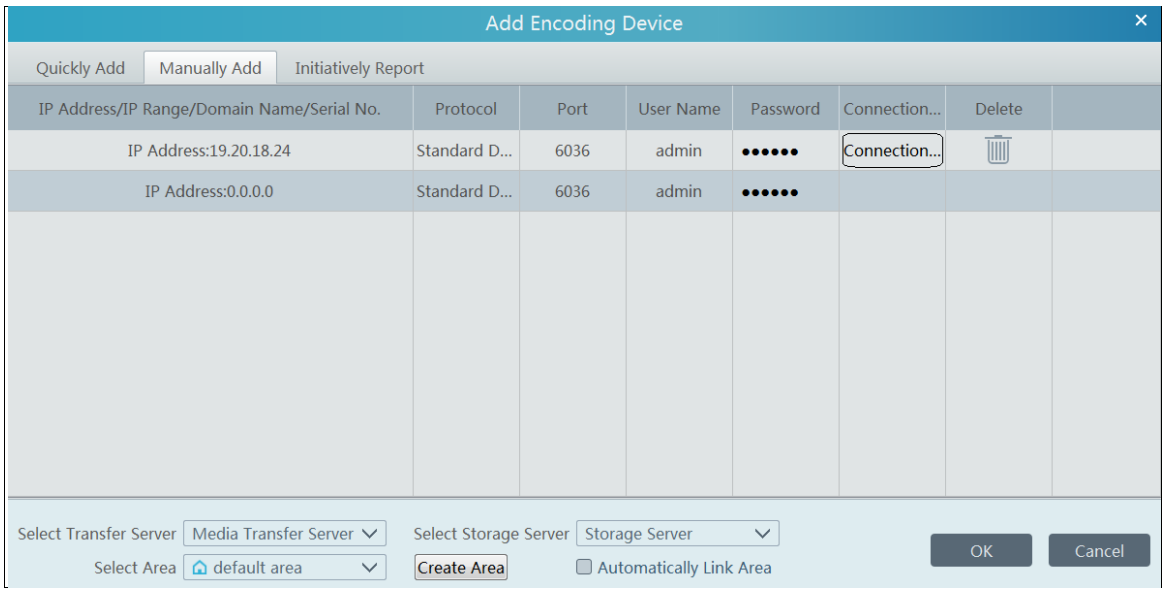
5.1.1 Quickly Add

Click [Refresh] to quickly search devices in the same local network as shown below. Check the device and allocate the transfer server, storage server, area for it. After that, click [OK].

Note: * The default media transfer server and storage server can be selected when adding devices. Users can also create new media transfer server and storage server in advance (see Add Media Transfer Server and Add Storage Server).

***** Area must be set up before adding devices. Click [Add Area] to create an area (See Configure Area).

5.1.2 Manually Add



① Enter IP address/IP range/domain name/serial number, username and password and choose protocol type.

② Click [Connection Test] to test whether the device is connected successfully or not.

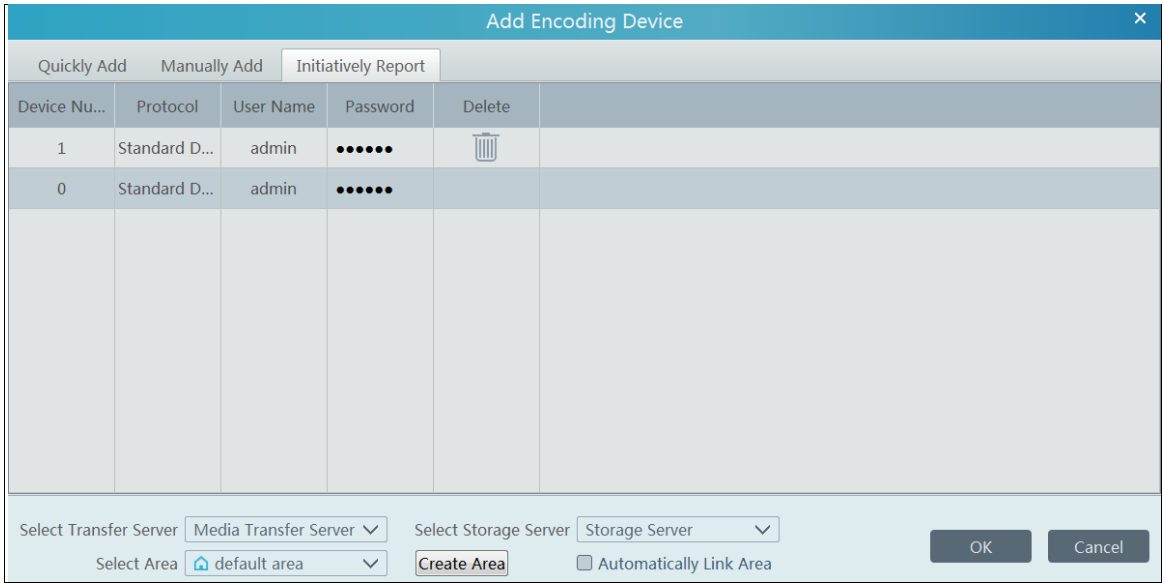
③ Select transfer server, storage server and area and then click [OK].

If the device supports P2P function or NAT function, it can be connected by adding serial number.

Devices can be added in batch by adding IP range.

5.1.3 Initiatively Report

Select the "Initiatively Report" Tab to see the following interface.



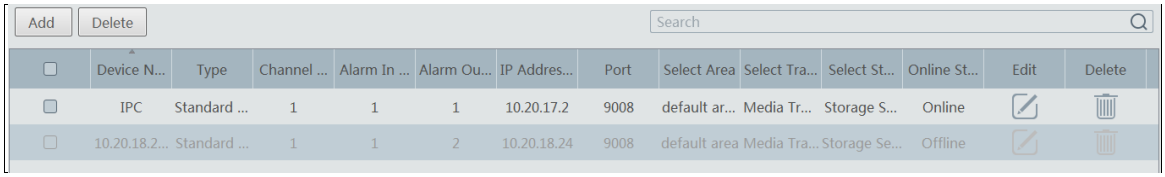
① Enter the device ID set in the DVR/NVR or IP camera and choose the protocol.

- If the DVR/NVR is needed to add, please go to Network→Server interface of the DVR/NVR. Check "Enable", enter the IP address and port (default 2009) of the NVMS and then set the device number of the DVR/NVR.
- If the IP camera is needed to add, please go to Network Configuration→Server Configuration of the IP camera. Check "Do you want IPcamera to connect Server", enter the IP address and port (default 2009) of the NVMS and then set the device number of the IP camera.

② Select the transfer server, storage server, area and then click [OK].

5.2 Modify or Delete Device

After devices are added successfully, they will be listed as below.



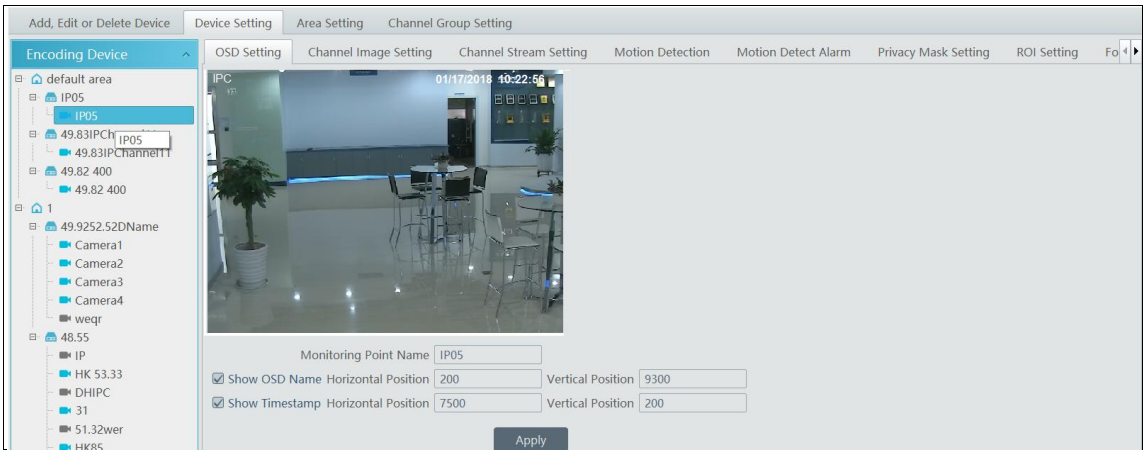
The device channel number, alarm, connection status can be viewed from the above table.

Click to modify the IP address, port and so on.

Click to delete the added device. Check the devices and click [Delete] to delete devices in bulk.

5.3 Device Setting

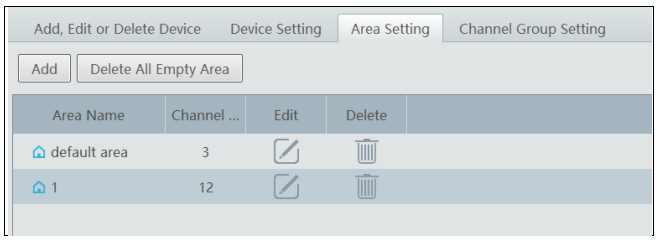
Go to Home→Device Setting interface as shown below. In this interface, the parameters of the device can be set up.

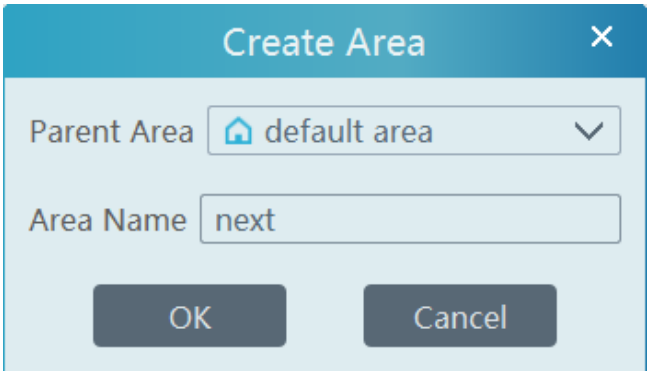


Different devices have different menus. Please configure the device according to the corresponding user manual.

5.4 Area Setting

Go to Home→ Area Setting interface as shown below.



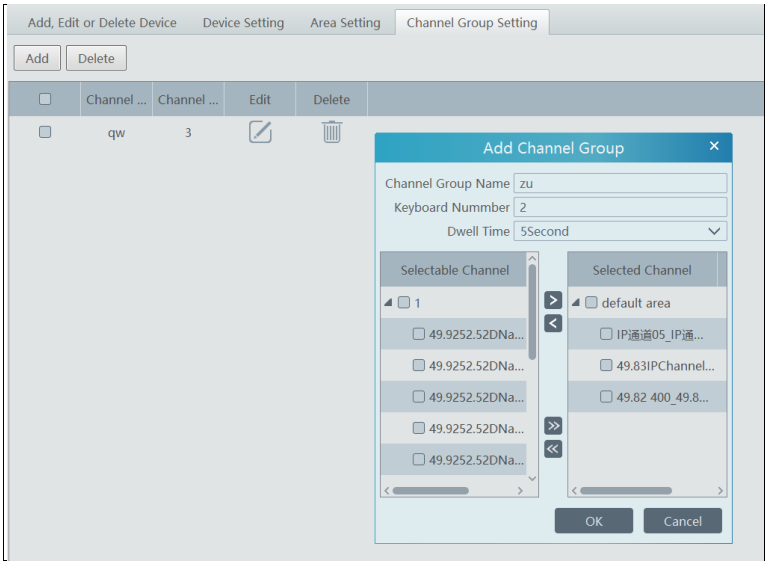


Click [Add] to go to Area adding interface. Enter area name to create parent area. Then click [OK] to save the settings. To create sub area, click [Add], choose the parent area, enter the area name and click [OK].

Click to modify area; click to delete area.

5.5 Channel Group Setting

Go to Home→ Channel Group Setting interface as shown below.



① Click [Add].

② Enter channel group name, keyboard number and dwell time.

③ Add channels to the channel group. Check the desired channels and click to add channels; choose the selected channel and click to remove those channels; Click to add all channels; click to remove all selected channels.

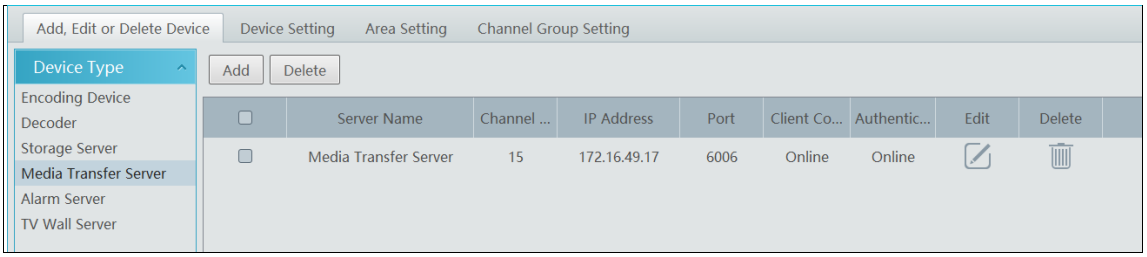
④ Click [Ok] to save the settings.

Select the added channel group and click to modify the channel; click to delete the channel.

5.6 Add Media Transfer Server

Media transfer server is in charge of the video signal reception of the front-end devices (like IPC) and transfers the signal to the client to view or to the storage server to record. The command of viewing the video of the front-end devices sent by the client or storage server is transferred by the media transfer server to the front-end devices.

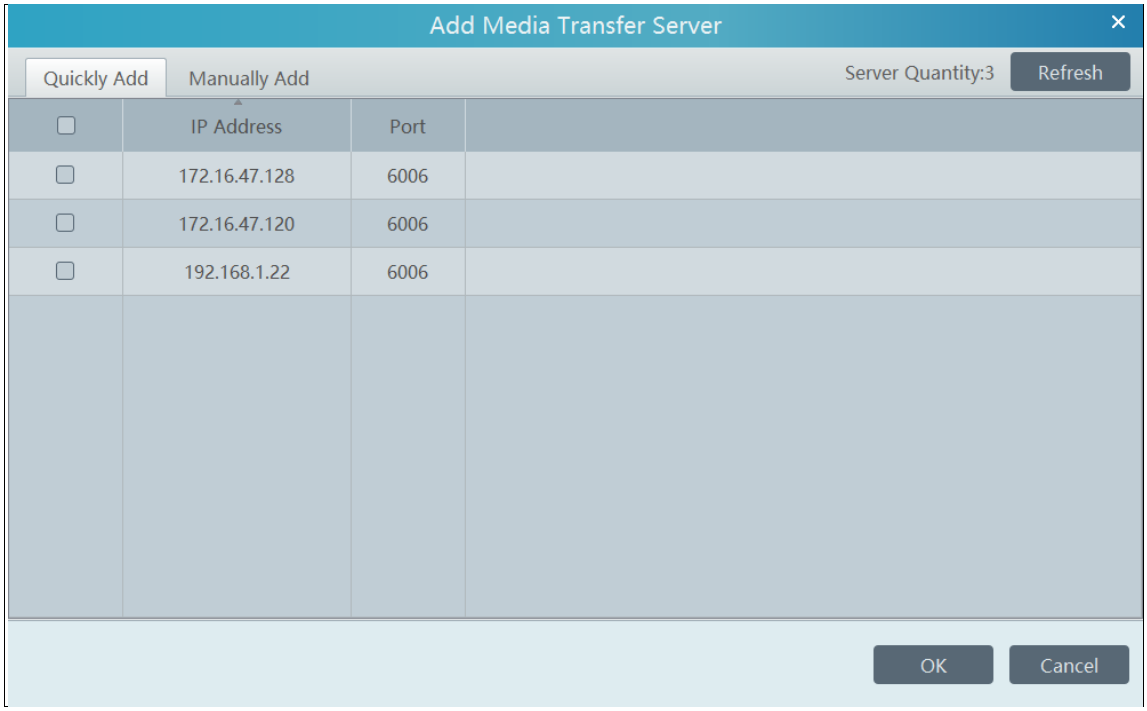
Go to Home→Add, Edit or Delete Device→Media Transfer Server.



Click [Add] to go to media transfer server addition interface. Users can quickly add or manually add media transfer servers.

Select the "Quickly Add" tab and click [Refresh] to quickly search servers in the same local network. Check the desired servers and click [OK] to save the settings.

Select the "Manually Add" tab to go to the media transfer server adding interface. Enter the server name, IP address and port and click [OK] to save the settings.

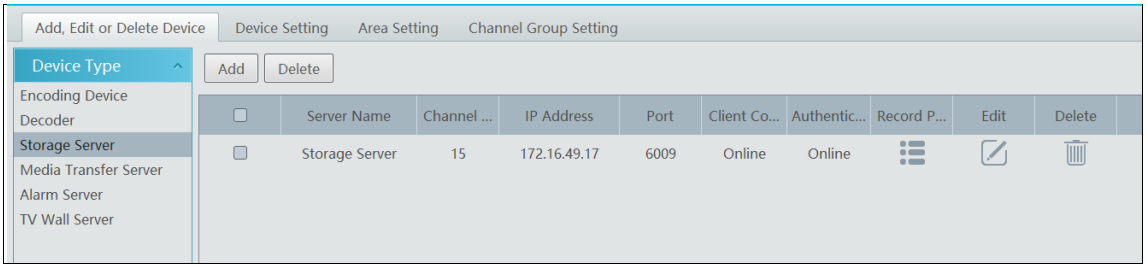


Click to modify the media transfer server; click to delete the media transfer server.

5.7 Add Storage Server

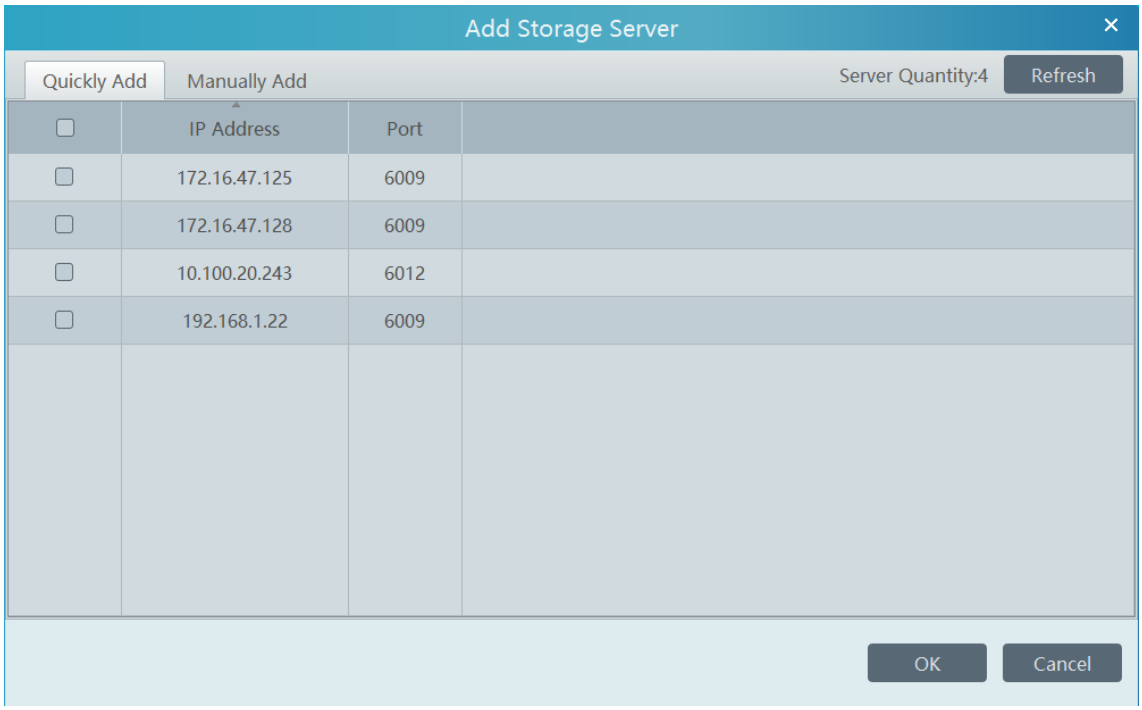
Storage server is in charge of the storage of record information, including the information of schedule record, record based on motion alarm, sensor alarm, smart detection alarm (like object removal detection, line crossing detection, etc.), responding to the search and playback of all storage data. It also supports self-defined storage path settings and IP-SAN access.

Go to Home→Add, Edit or Delete Device.



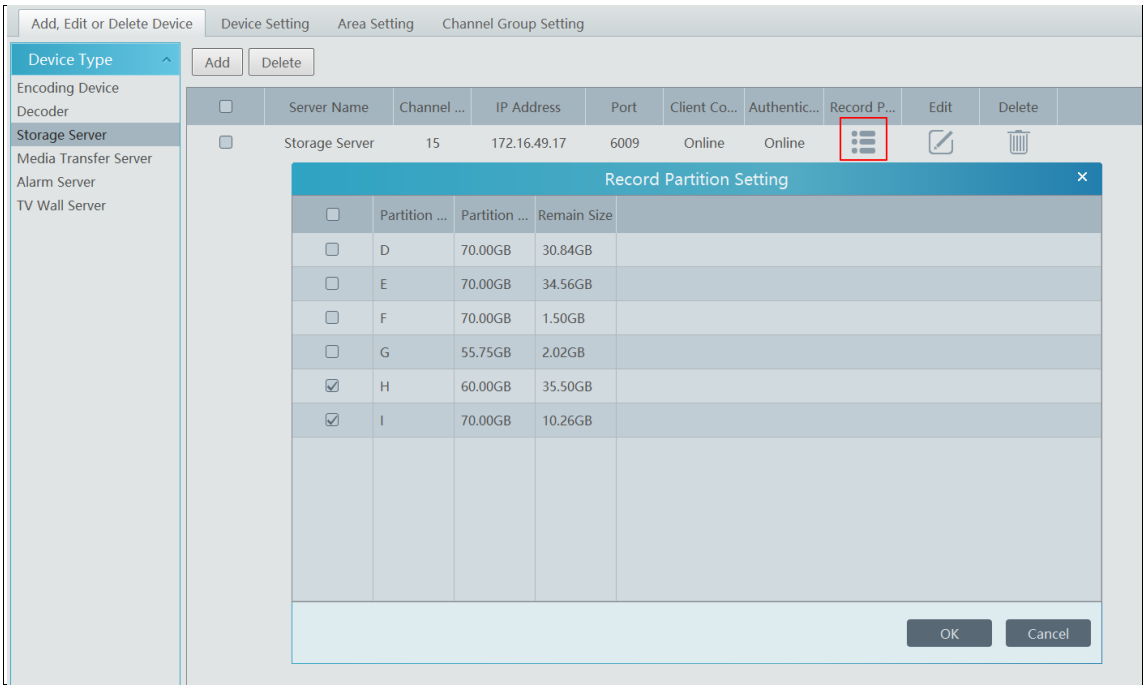
Click [Add] to go to storage server adding interface. Users can quickly add or manually add storage servers.

Select the "Quickly Add" tab and click [Refresh] to quickly search servers in the same local network. Check the desired servers and click [OK] to save the settings.



Select the "Manually Add" tab to go to the storage server adding interface. Enter the server name, IP address and port and click [OK] to save the settings.

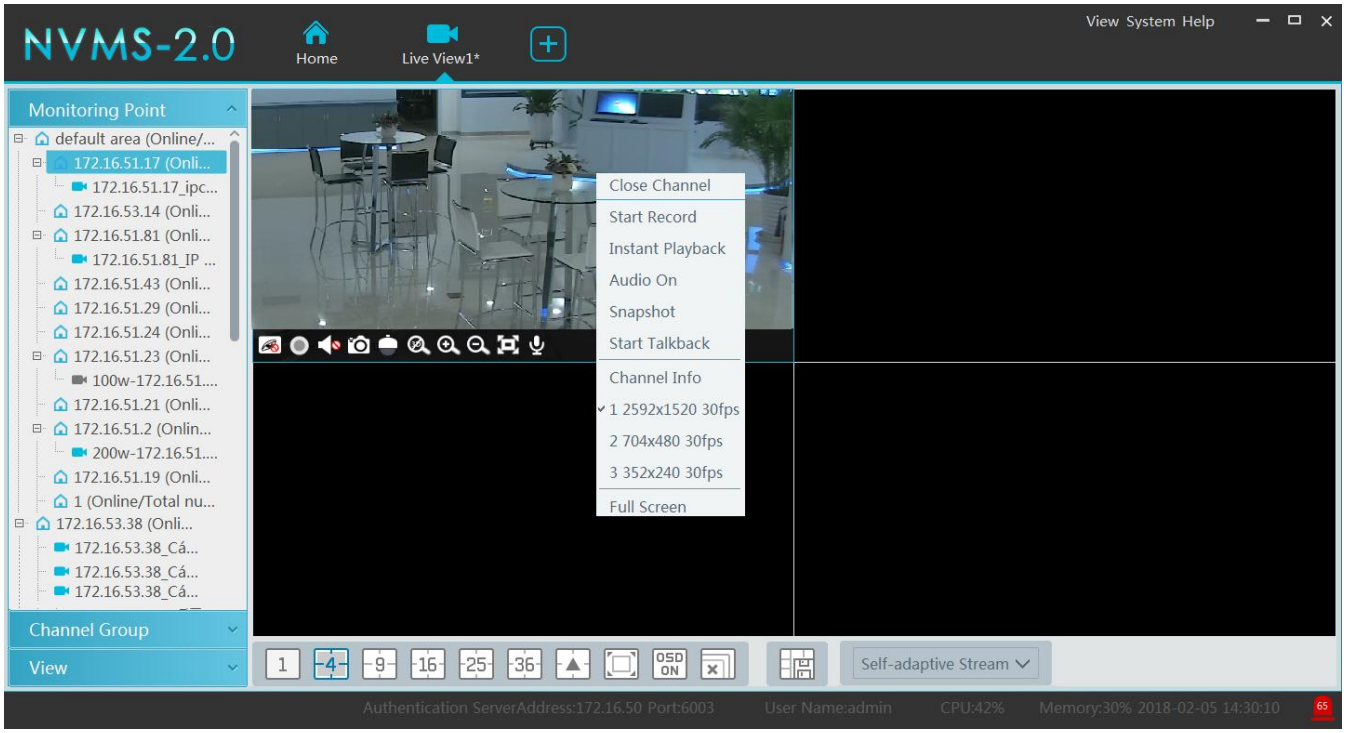
After the storage server is added, click to set record partition. In the record partition setting interface, select the disk and click [OK] to save the settings. Click to modify the storage server; click to delete the storage server.



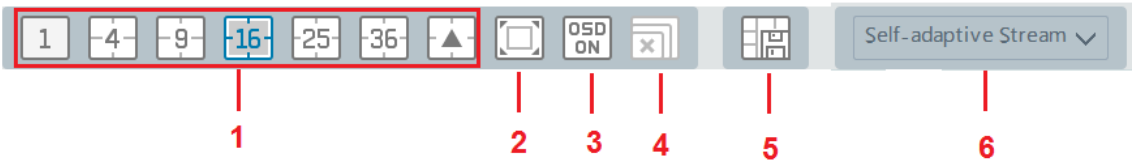
6 Live View

6.1 Live View

Go to Home→Live View interface as shown below.



The descriptions of the live view buttons are as follows.



NO.	Description	NO.	Description
1	Screen display mode	4	Close all channel view
2	Full screen	5	Save the current view mode
3	Enable/disable OSD	6	Choose channel stream

Toolbar on the display window:

Button	Description	Button	Description
	Close image		3D zoom in
	Start/stop recording		Zoom in
	Enable/disable audio		Zoom out
	Snapshot		Fit to window
	PTZ control		Enable/disable talkback

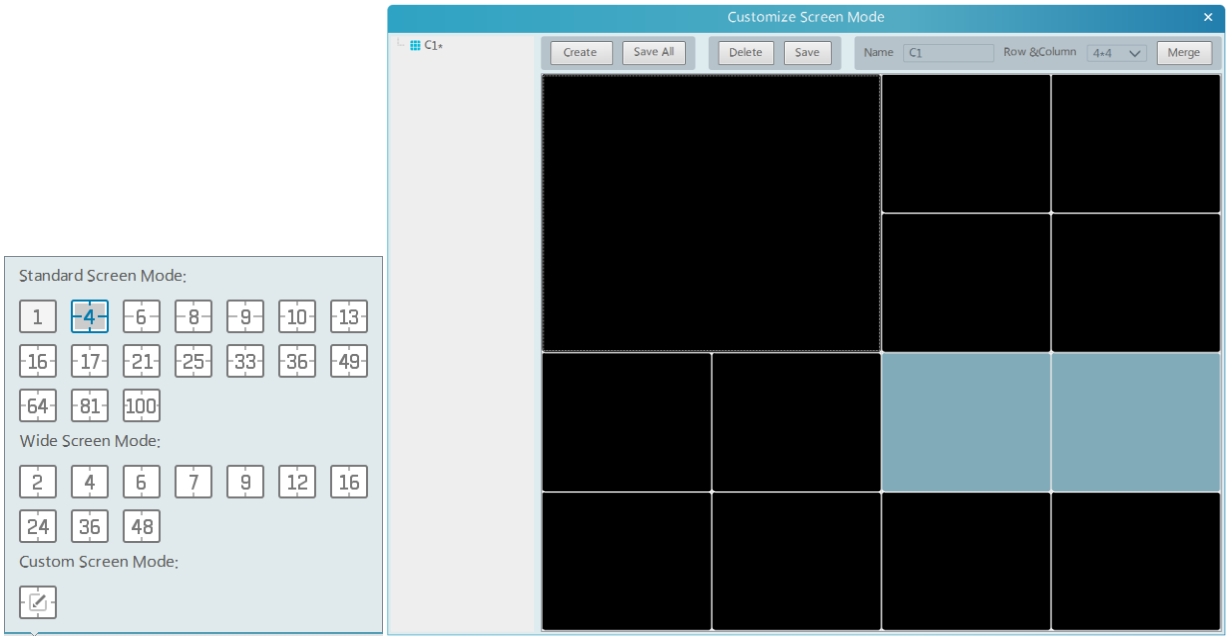
Right-click button function:

Menu	Description	Menu	Description
Close Channel	Close image	**Snapshot**	Capture images
Start Record	Start/stop recording	**Start Talkback**	Enable/disable talkback
Instant Playback	Click it to play back immediately	**Channel Info.**	Display channel name, IP address and the current stream
Audio ON	Enable/disable audio	**Stream**	Choose video stream
PTZ Control	Click it to show PTZ control panel	**Full Screen**	Display image in full screen

6.1.1 View Mode Setting

Users can select the common display mode and self-define the display mode through the buttons on the toolbar.
To customize the display mode

① Click on the toolbar.



② Enter screen display name and select the display row and column. Hold the left mouse button and drag on the screen and then click [Merge] to merge the screens.

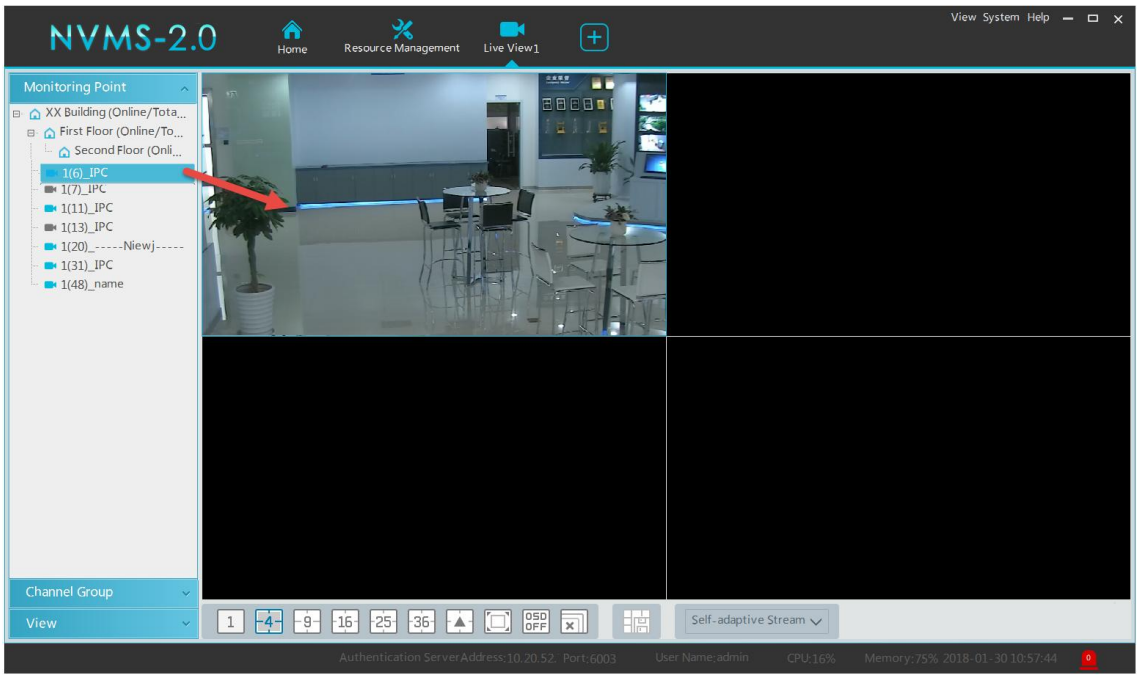
③ Click [Save] to save the settings.

④ Click [Create] to create a new display screen mode. Click [Save All] to save all customized screen display modes.

6.1.2 Monitoring Point View

- **Start View**

  To start live view, please drag cameras from the list to the right display window or select a window and then double click the camera. The image can be dragged to any window at random.

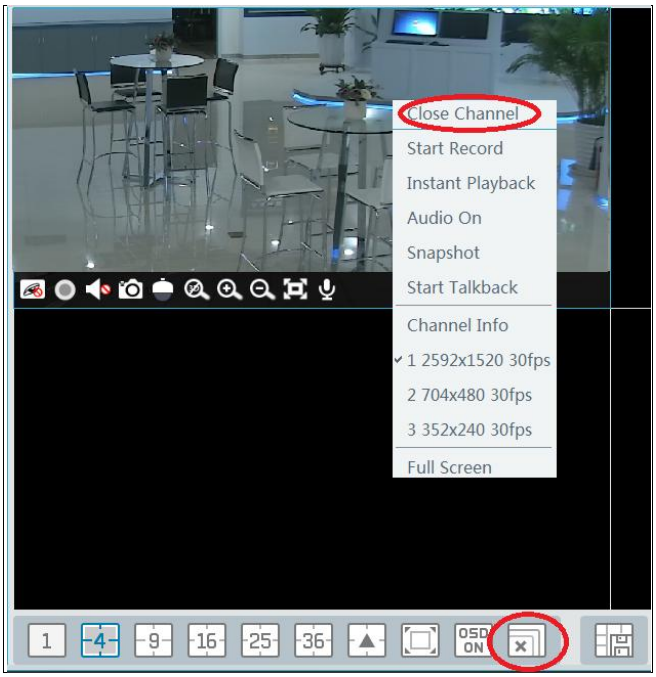


- Stop View

① Place the cursor on the live view window to display the menu toolbar and then click to stop viewing.

② Right click on the live view window and then select "Close Channel" to stop viewing.

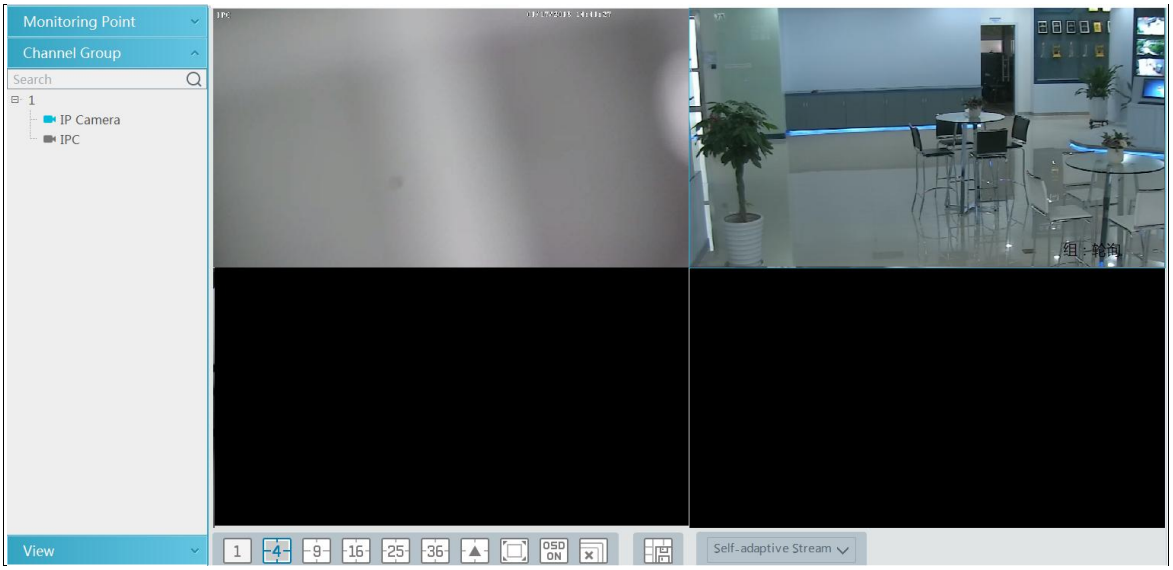
③ Click on the toolbar of the live view interface to stop all live view.



6.1.3 Channel Group View

- Start Channel Group View

After the channel group is set successfully (See Configure Channel Group), go to live view interface as shown below. Choose a channel group and drag it to a window to view. The channels in the channel group will automatically switch in this window. You can also choose a window and then double click the channel group name to play channels in the channel group in sequence. The desired channel in the group also can be played by dragging it to a window or choosing a window and double-clicking the channel name.



- Stop Channel Group View

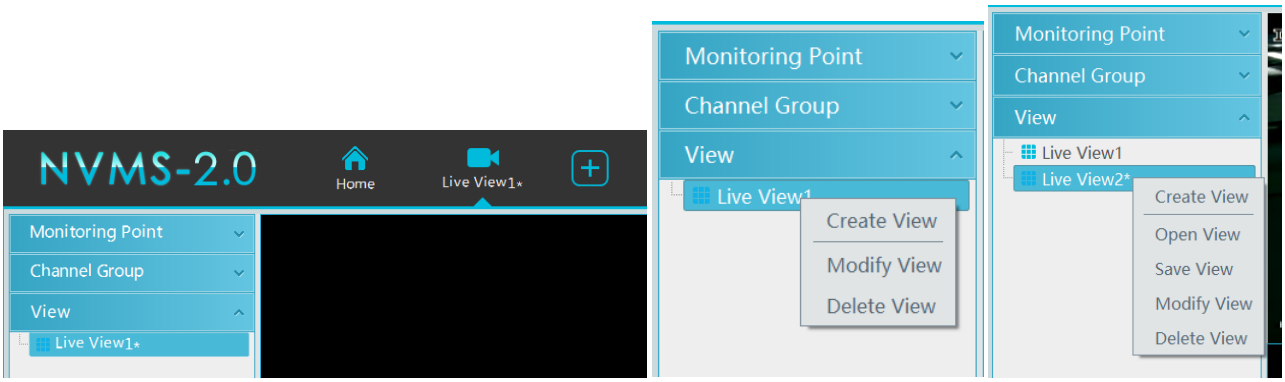
① Place the cursor on the auto-switch window and then click to stop viewing.

② Right click the auto-switch window and then click “Close Channel” to stop viewing.

③ Click on the toolbar of the live view interface to stop all live view.

6.1.4 Plan View

In the live view interface, select “View” on the left menu bar.



- Add View Plan：

① Right click “Live View 1” and then select “Create View” or click to add a new view plan. Clicking “Create View” to prompt an adding view window. Enter the view name and click [OK] to set view plan.

② Select screen display mode and then drag monitoring points or channel group to each window.

③ Click “View” on the left menu and then right click the newly added view name. Select “Save View” on the pop-up menu to save the view plan or click on the live view interface to save the view plan.

Double click view name to call the view plan.

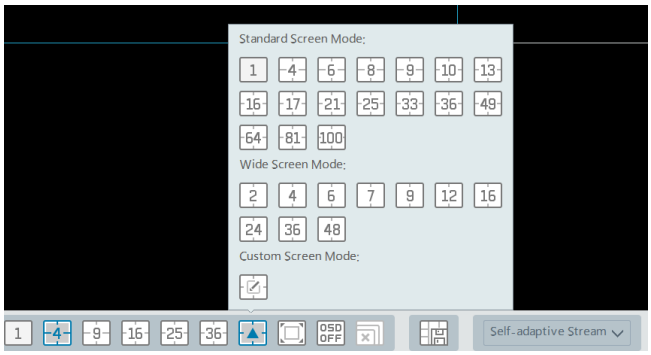
- Modify or Delete View Plan

Select the added view and then right click to prompt a pop-up window. Select “Modify View” or “Delete View” to modify or delete the view plan.

6.2 View Control

- Multi-screen Display

In the live view interface, the screen display mode can be selected as shown below.



- Full Screen Display

In the live view interface, click button on the toolbar or right click on the mouse to select "Full Screen" to display the window in full screen mode. Right click on the mouse to select "Exit Full Screen" on the full screen interface to exit full screen.

- Single Channel Display

Double click a window to view in single channel mode. Double click the window again to recover the window.

- Stream Setting

Right click on the live view window to choose video stream. Or select self-adaptive stream or other stream on the toolbar to set the stream for all channels.

To set streams

Go to Home→Configure Device and Monitoring Spot. Select the device and click "Channel Stream Setting" tab to set streams.

- Audio Control

Right click on the live view window and then choose "Audio On" or click on the toolbar of the window to enable audio.

Note: Only one audio can be enabled at the same time. If the audio of one channel is enabled, the former audio will be disabled automatically.

- Zoom In or Out

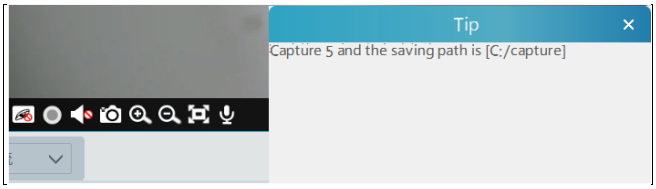
In the live view interface, click on the live view window to zoom in the window and then drag the image to view the whole image; click to zoom out the image; click to restore the image size.

6.3 Snapshot

6.3.1 Snapshot

Select a window in which the video is playing and then click on the toolbar of this window or right click on the window and then select "Snapshot". The image number and storage path will be displayed.

Note: Only when the video is playing in the window, will the snapshot succeed.

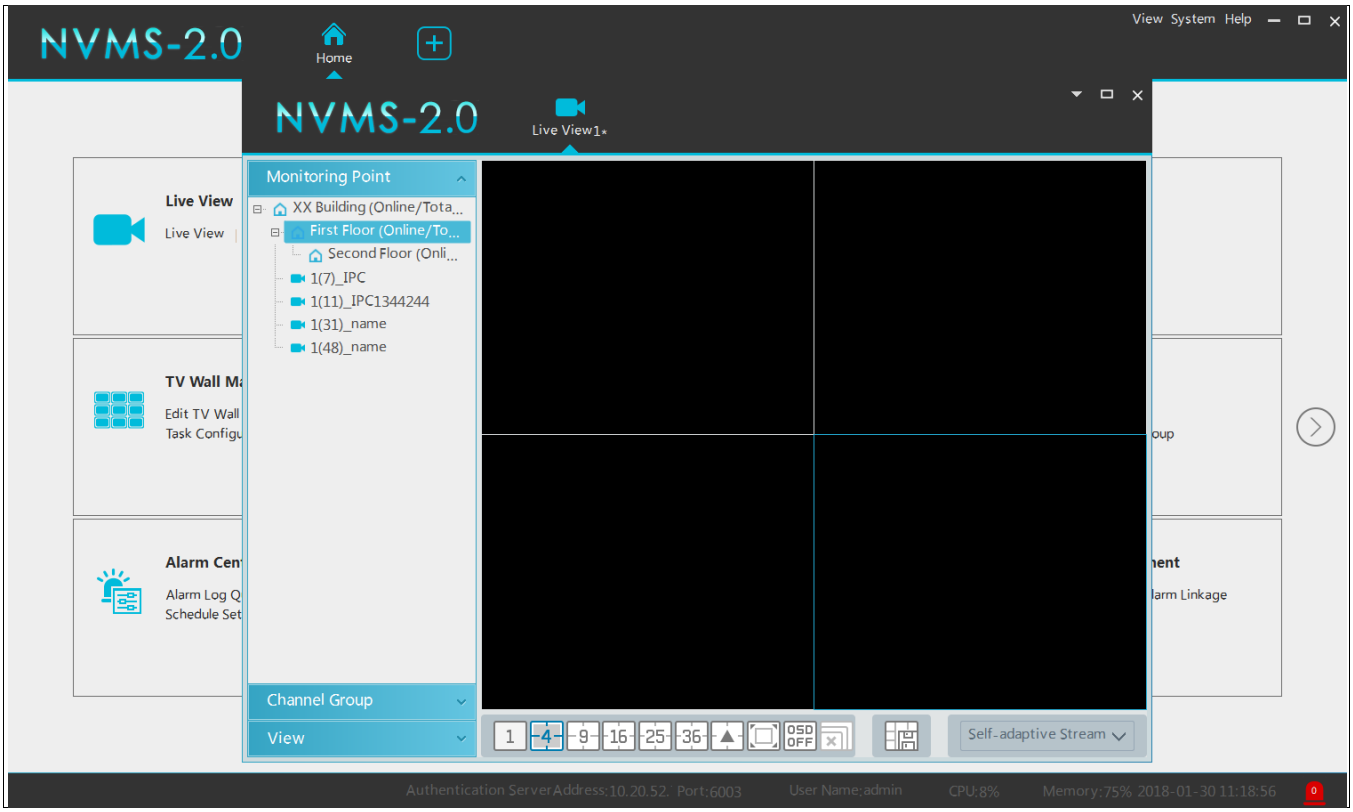


6.3.2 Snapshot Setting

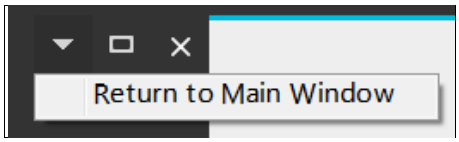
Go to Home→Local Configuration→Record and Snap Setting interface. In this interface, snapshot path and number can be set up.

6.4 Multi-Screen View

In the live view interface, multi-screen view can be realized by holding a tab and dragging it to other monitors (graphics card should support multi-screen output at the same time).



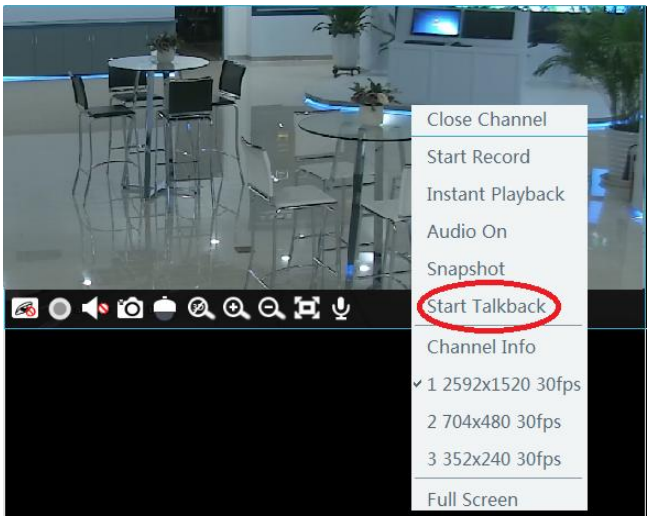
Click on the float window and select "Return to Main Window" to embed this tab in the main interface.



6.5 Talkback

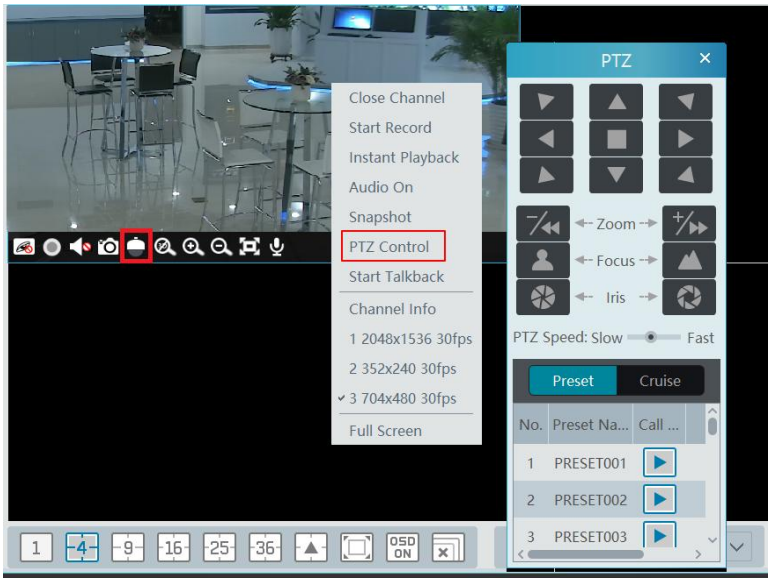
In a live view window, click on the toolbar of this window or select "Start Talkback" on the pop-up menu by right clicking to enable talkback.

Note: Since the software only allows enabling one device's talk at the same time, the system will stop talking with the current device if a new talk is enabled.



6.6 PTZ Control

Click or right click to select “PTZ Control” to enter PTZ control interface. The directions of PTZ, zoom, focus, Iris, preset and cruise can be controlled through PTZ control panel.



7 Record & Playback

7.1 Record Configuration

This software supports many recording types, such as manual recording, schedule recording, motion alarm recording, smart alarm recording, etc.

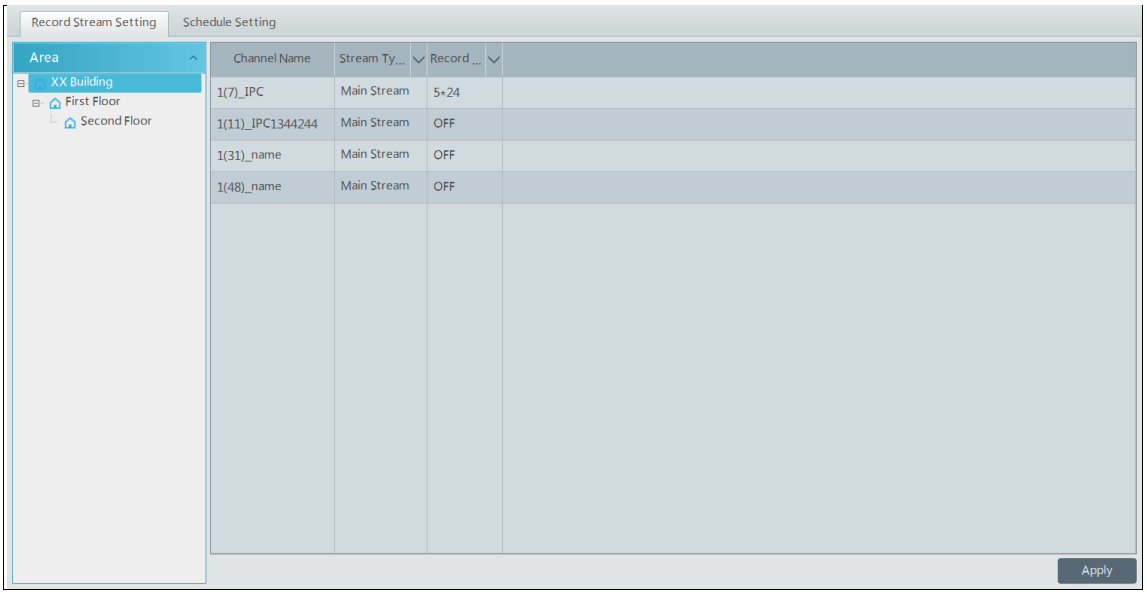
7.1.1 Manual Recording

In the live view interface, select a channel and then click or right click to select “Start record” to start recording. Click this button again to stop recording.

Note: If a channel is recording, closing viewing will stop recording.

7.1.2 Schedule Recording

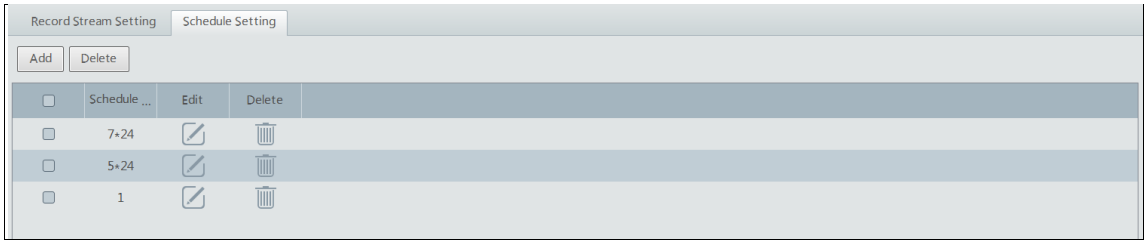
Go to Home→“Configure Record”.



To set schedule recording, select the channel, stream type and schedule. Then Click [Apply] to save the settings.

- To set schedule:

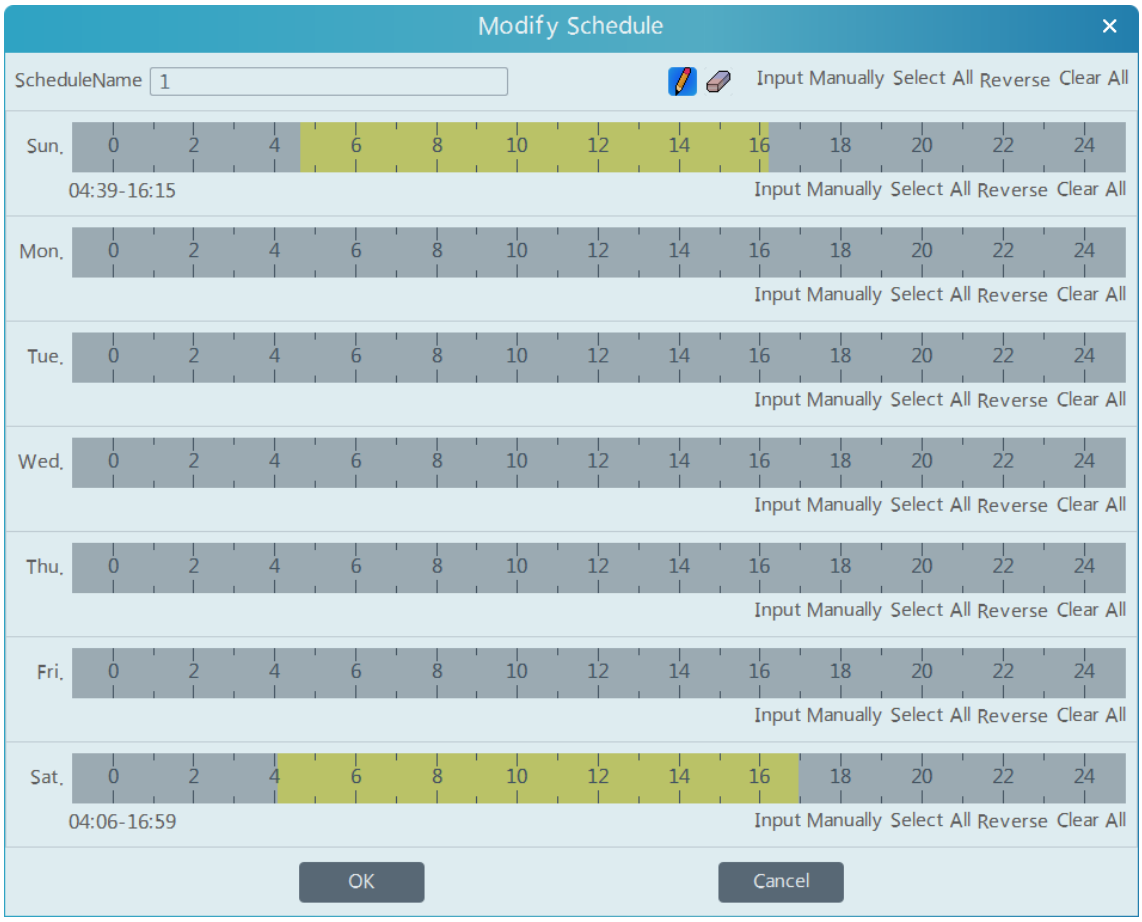
① Click the “Schedule Setting” tab to go to the following interface.



② Click [Add].

③ Enter the schedule name.

④ Set the schedule. Click and then move the cursor to select the time; click and then move the cursor to delete the selected time. Click “Input Manually” to manually enter the time. Click “All” or “Reverse” to quickly select time. Click “Clear All” to clear all schedule.

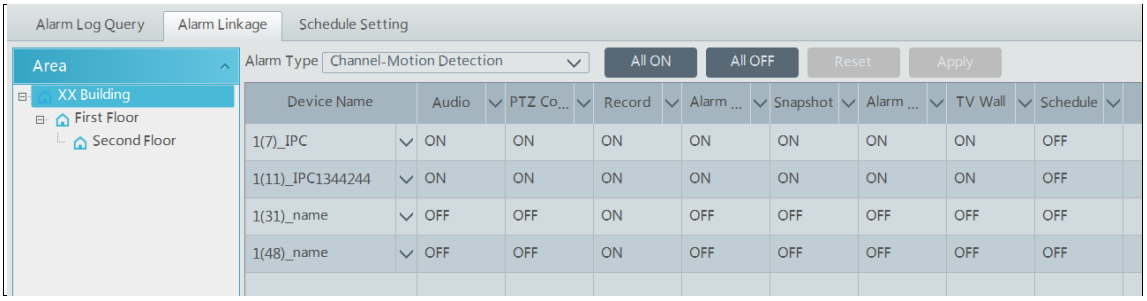


7.1.3 Alarm Linkage Recording

① Go to Home→ Configure Device interface. Select the desired device to enable and set schedules.

② Go to Home→Alarm Center→Alarm Linkage as shown below. Select alarm type, enable record, set linakage channel and set schedules.

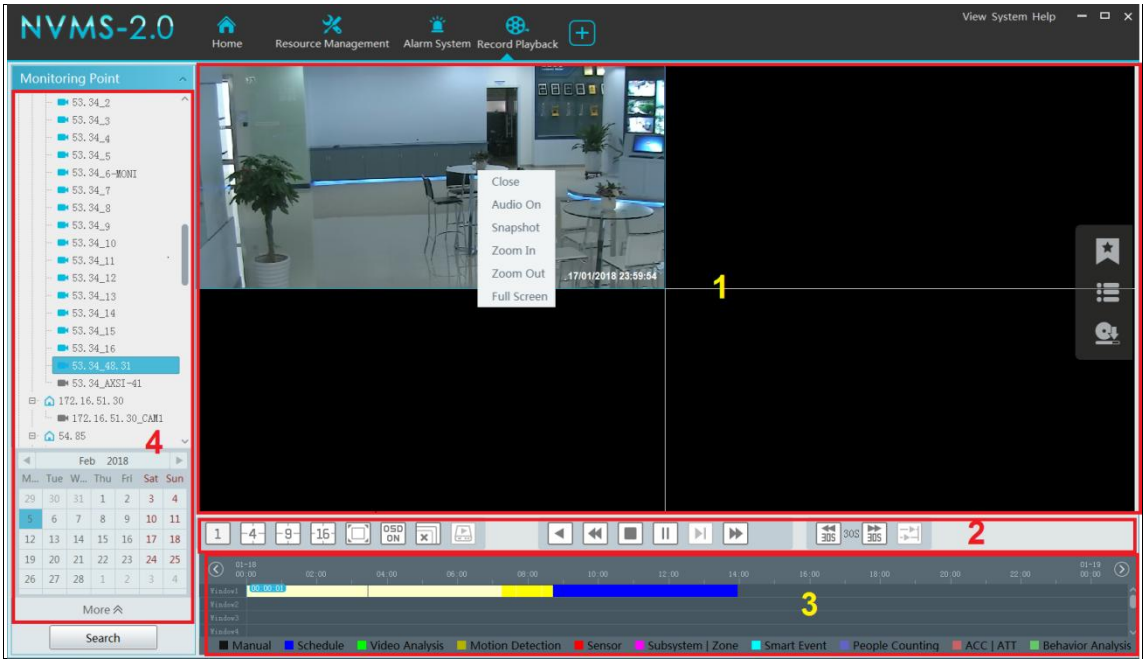
③ Click [Apply] to save the settings.



7.2 Record Playback

In the main menu interface, click “Record Playback” to go to record playback interface. Record files saved on the HDD/ SD card of the devices and storage server can be played.

There are two types of record playback: synchronous playback and asynchronous playback.



Area Description

Area	Description	Area	Description
1	Playback area	**3**	Record timetable area
2	Toolbar	**4**	Time and event search area; resource area

Toolbar on Playback Window

Button	Description	Button	Description
	Stop viewing		Zoom in
	Audio on/off		Zoom out
	Snapshot		Fit to window

Button Descriptions of Area 2：

Button	Description
1 4 9 16	Screen display mode button. 1/4/9/16 screen mode is optional.
	Full screen
OSD ON	Enable or disable OSD
	Close all window viewing
	Get record from network devices
	Get record from storage servers
	Rewind
	Low speed playback
	Stop

	Play/Pause
	Next frame. In the playback mode, click the pause button and then click this button to play frame by frame.
	Click it to select playback speed.
30S	Forward 30s or backward 30s
	Synchronous playback or asynchronous playback

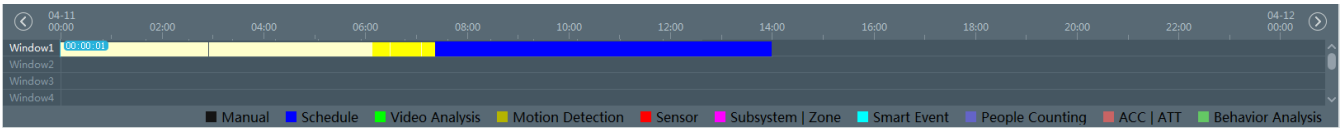
Right-click button menu

Menu	Description	Menu	Description
Close	Close viewing	**Zoom out**	Zoom out the current image
Audio On/Off	Audio on/off	**Full Screen**	Click to enter full screen mode
Snapshot	Snapshot	**Sub stream**	Switch to sub stream playing
Zoom In	Zoom in the current image		

Other buttons

Button	Description	Button	Description
	Add tag		Event list
	Backup		

Set record date, record type (for some devices, "Main Stream" can be selected to play the record, or the record will be played by sub stream if unselected) and the record playback source in the playback interface. Drag the camera on the right side to playback window for playing or double click a desired channel to play or click [Search] to search the record files and then click to play.
Playback record type includes manual recording, motion detection recording, schedule recording, sensor recording, object removal recording, video exception recording, intrusion recording and line crossing recording and so on.
In the timetable, different color bars stand for different record types. For instance, yellow bar stands for motion recording data; blue bar stands for schedule recording data; red bar stands for sensor record data, etc.

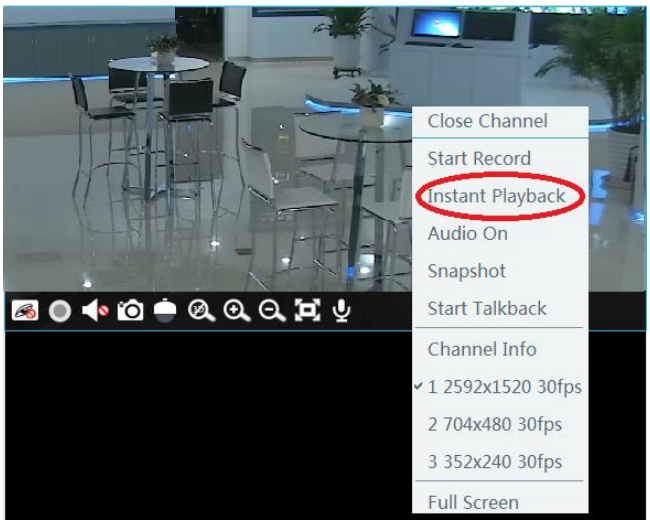


The time scale can be zoomed in by clicking and the time scale can be zoomed out by clicking . The time scale can be restored to 24 hours by clicking . When the time scale is zoomed in, drag the timeline to see the time spots.

7.2.1 Instant Playback

➢ **Instant Playback**

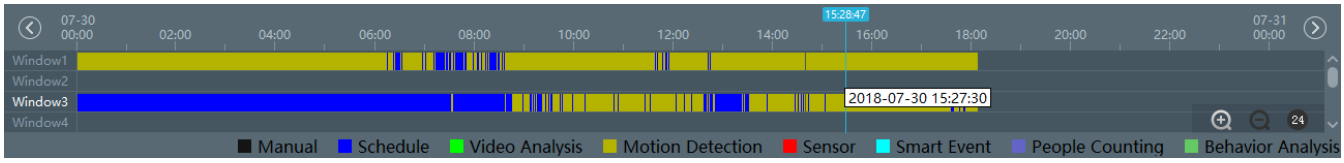
In the live view interface, right clik on a playing channel to select "Instant Playback" and then set the playback time to play the record instantly (the record of the channel in the past five minutes will be searched and played from that time when the record exists).



7.2.2 Synchronous Playback

Synchronous Playback: in a certain time, all channels play back its record at the same time together; if one channel has no record data at this time, this channel will wait.

Click on the toolbar in the playback interface to go to the synchronous playback interface. Please play the record according to the ways introduced as above. The record bar in synchronous mode is as below.

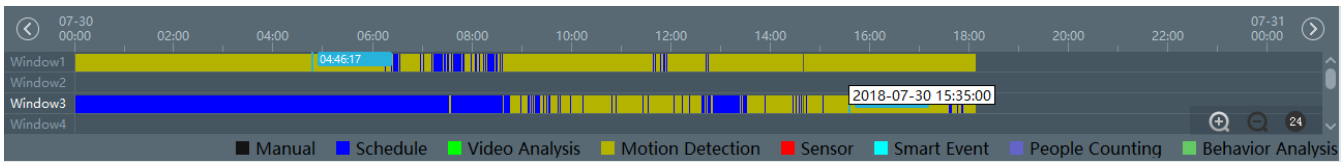


In synchronous mode, one camera can only have one playing window. All cameras' record information can be viewed at the same time. When playing record file in synchronous mode or asynchronous mode, clicking or will be useless unless all the playback windows are closed.

7.2.3 Asynchronous Playback

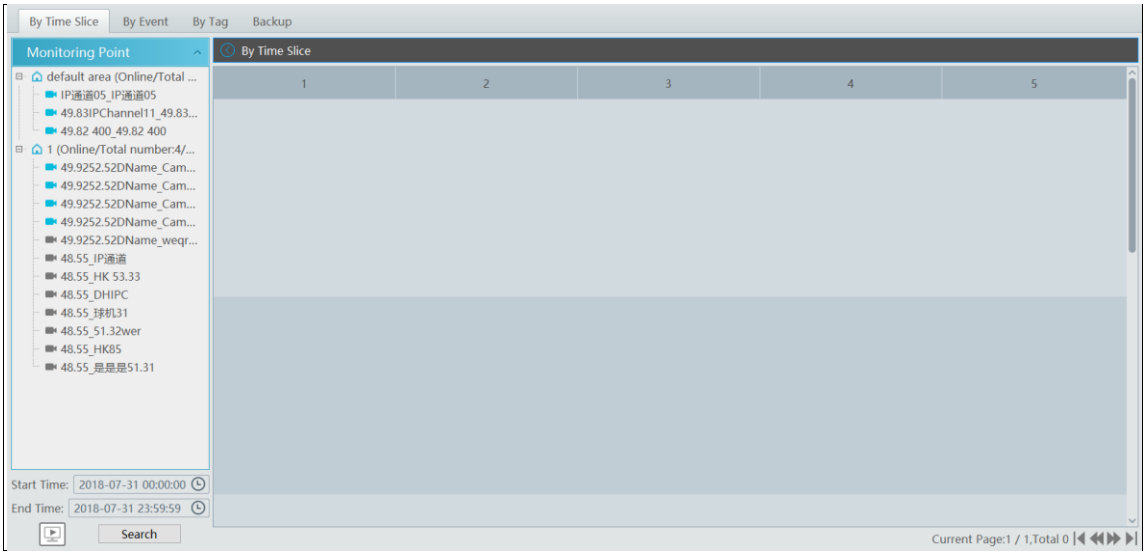
Asynchronous Playback: when playing some channels' record at the same time, each channel is independent from the others and each channel's playback time is different.

Click to go to the asynchronous playback interface as shown below. Please play the record according to the ways introduced as the above. The record bar in asynchronous mode is as below.

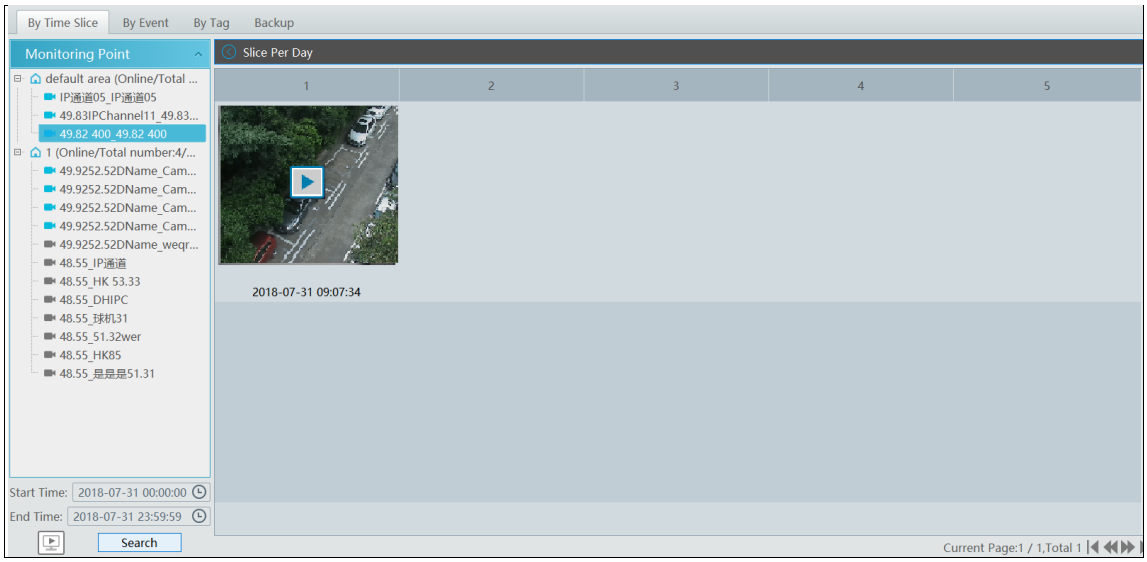


7.2.4 Playback by Time Slice

① Go to Home→By Time Slice interface as shown below.

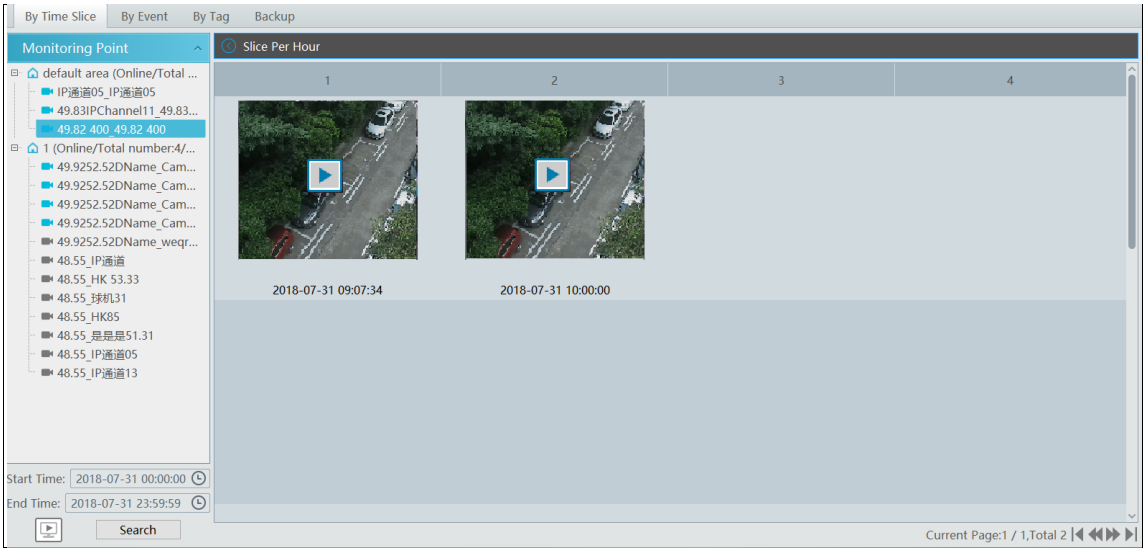


② Select channel (or monitoring point), set the start time and the end time, select the record source and then click [Search].

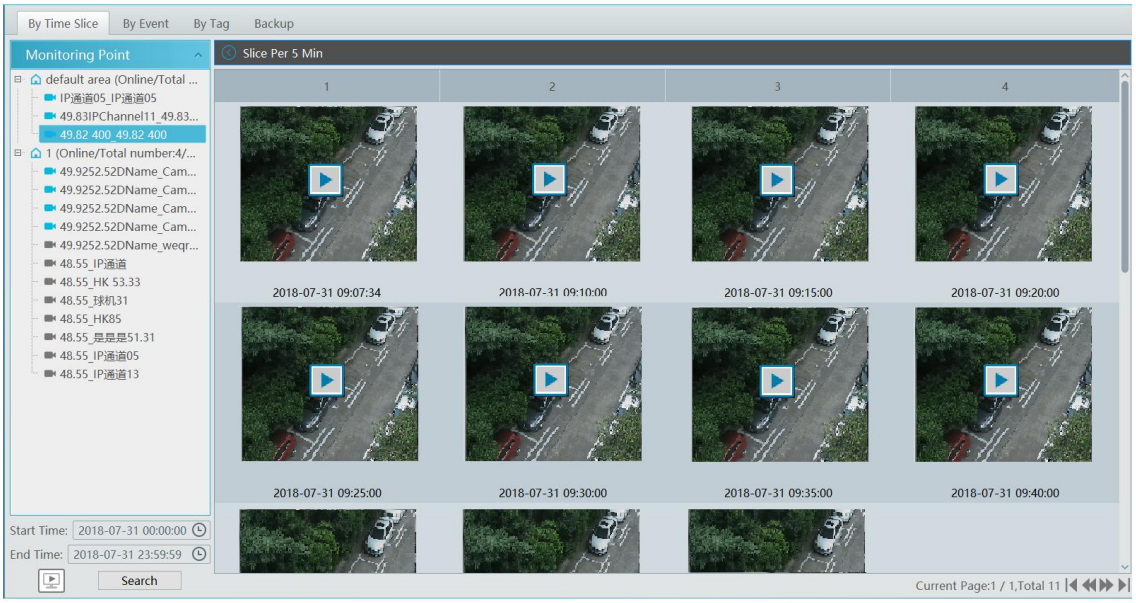


③ Click to play the record.

Double click the image to switch to slice search mode by day. In the above interface, click to switch to slice search mode by hour.



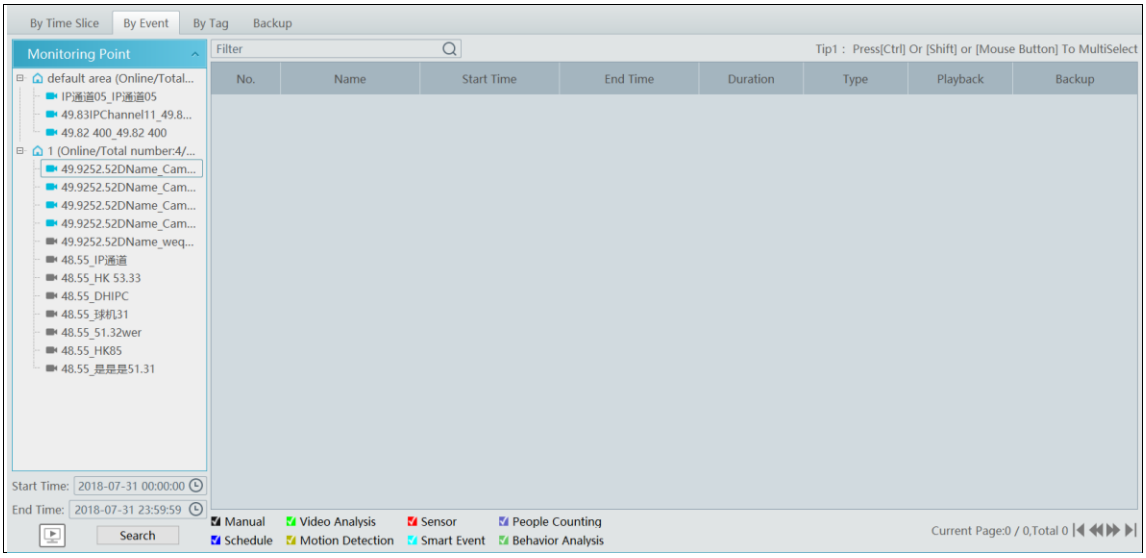
click to return to slice search mode by day; double click an image to switch to slice search mode by 5 minutes.



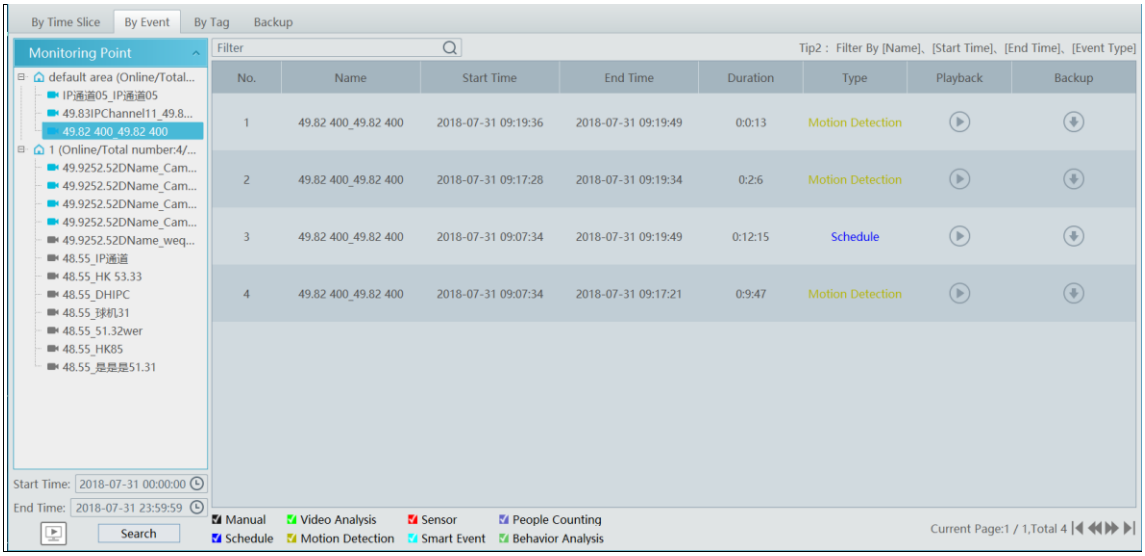
In the above interface, click to return to slice search mode by hour.

7.2.5 Playback by Event

① Go to Home→ By Event interface as shown below.



② Select the desired monitoring point, set the record source, the start time and the end time and then check events.



③ Click [Search]. The searched record data will be listed. Click to play the record; click to back up the record data.

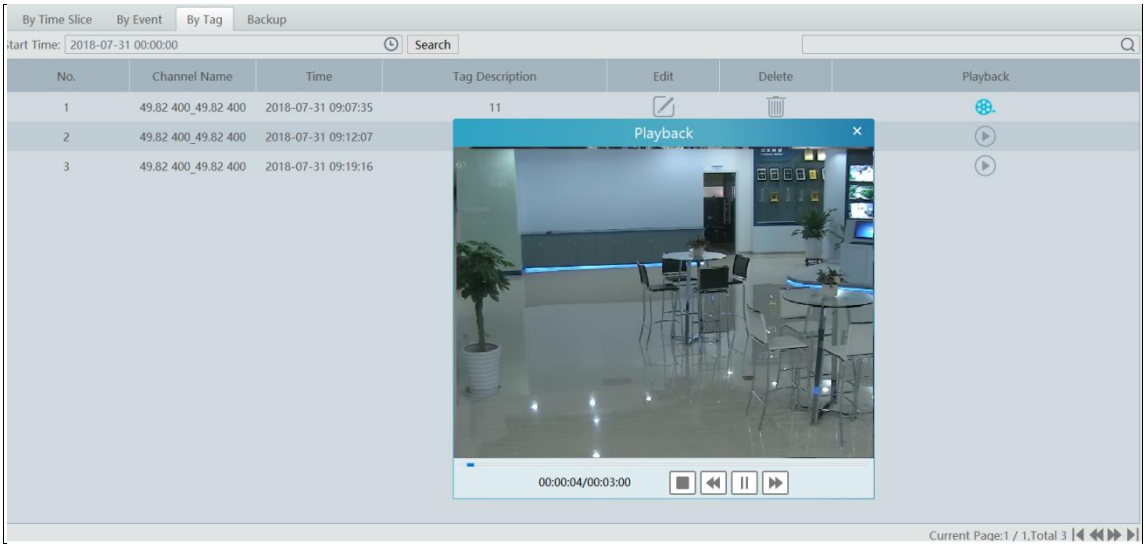
7.2.6 Playback by Tag

① Go to Home→Record Playback interface.

② Select a channel and put the cursor on the right center. Then a tag icon ( ) will appear. Click this icon to add tag.

③ Go to Home→By Tag interface. Select the start time and click [Refresh] to search the added tags.

④ Click in the playback column to play the record.



7.3 Backup

In the main menu interface, click “Backup” to go to the backup interface. The setting steps are as follows:

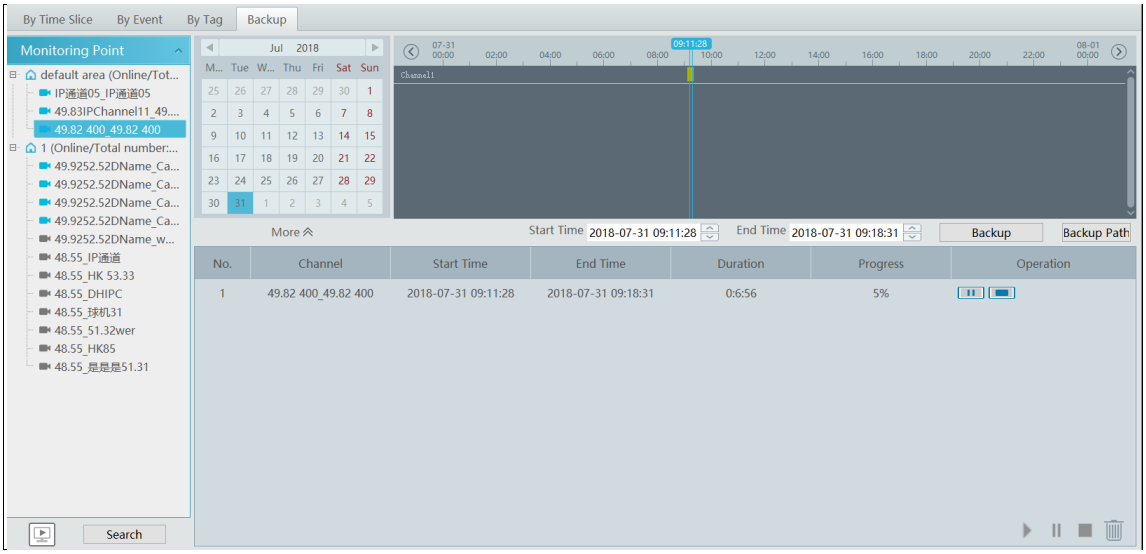
① Select the desired monitoring point.

② Select date and click “More” to select the start and the end time and event type.

③ Click / to get records from device or storage server.

④ Set the start time and the end time of backup. Then click [Backup].

⑤ The backup progress will be seen during backing up the record. Click to pause; click to stop backing up the record; click to clear the backup list.

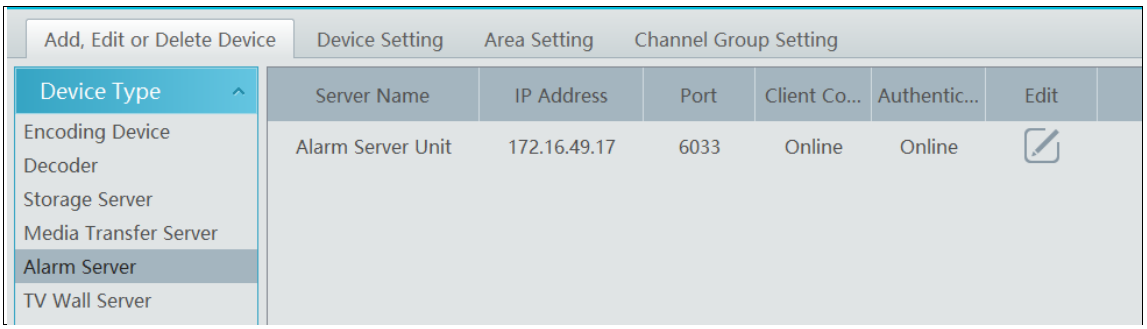

By Time Slice
By Event
By Tag
Backup
Monitoring Point
default area (Online/Tot...
IP通道05_IP通道05
49.83IPChannel11_49....
49.82 400_49.82 400
1 (Online/Total number:...
49.9252.52DName_Ca...
49.9252.52DName_Ca...
49.9252.52DName_Ca...
49.9252.52DName_Ca...
49.9252.52DName_w...
48.55_IP通道
48.55_HK 53.33
48.55_DHIPC
48.55_球机31
48.55_51.32wer
48.55_HK85
48.55_是是是51.31
Search
Jul 2018
M... Tue W... Thu Fri Sat Sun
25 26 27 28 29 30 1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31 1 2 3 4 5
More
07-31 00:00
02:00
04:00
06:00
08:00
09:11:28
10:00
12:00
14:00
16:00
18:00
20:00
22:00
08-01 00:00
Channel1
Start Time 2018-07-31 09:11:28
End Time 2018-07-31 09:18:31
Backup
Backup Path
No.
Channel
Start Time
End Time
Duration
Progress
Operation
1
49.82 400_49.82 400
2018-07-31 09:11:28
2018-07-31 09:18:31
0:6:56
5%

8 Alarm Management

8.1 Alarm Server Configuration

Alarm server is in charge of receiving and recording alarm information of connected devices and then sending the alarm information to the relevant user terminal system or devices in accordance with prior alarm settings. There is a default alarm server.

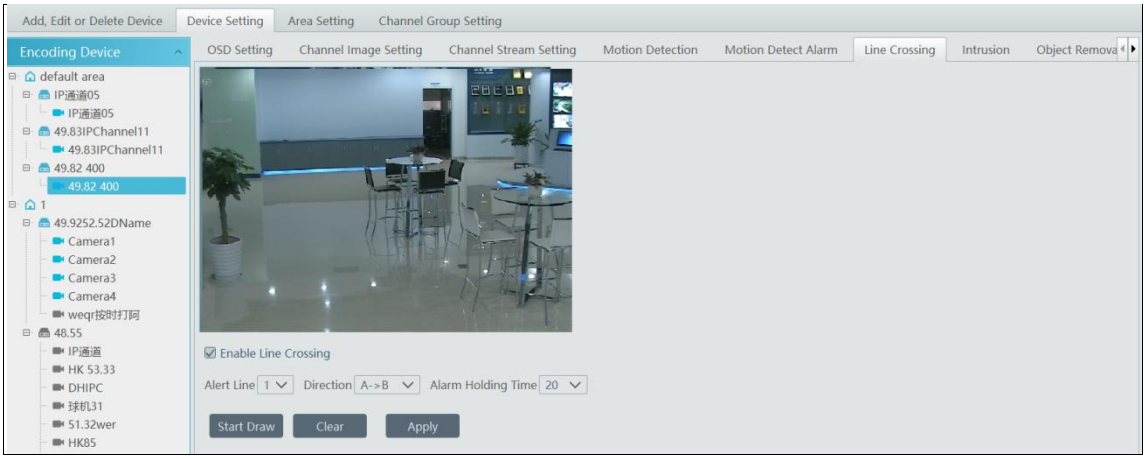
Go to Home→Add, Edit or Delete Device →Alarm Server interface to view the online status of the alarm server. If it is not online, please check its network connection.



Click to modify the added alarm server; click to delete the added alarm server.

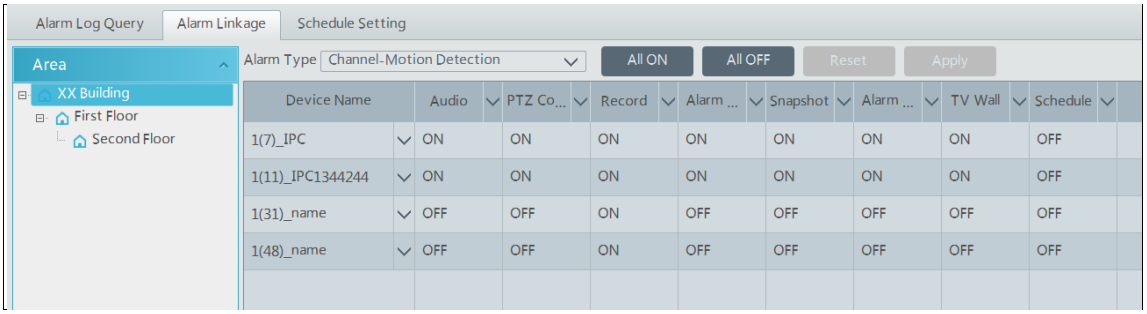
8.2 Alarm Configuration

① Go to Home→ Configure Device interface.



Select the desired device to enable alarms (refer to the user manual of the corresponding device for the detailed settings).

② Go to Home→Alarm Center→Alarm Linkage interface.

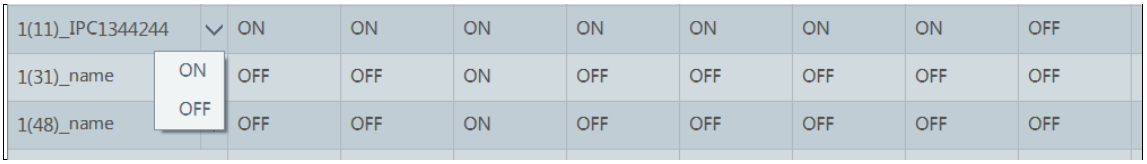


Select area, alarm type and then enable alarm linkages.

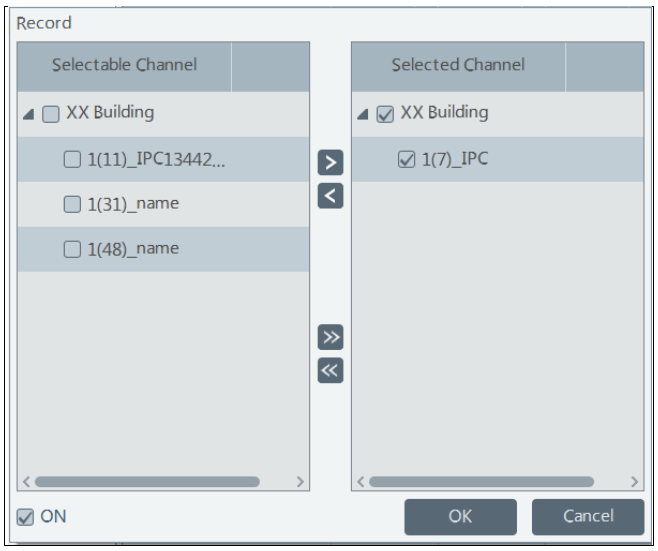
All ON: enable all alarm linkages of the current alarm type and area (schedule excluded).

All OFF: disable all alarm linkages of the current alarm type and area (schedule excluded).

Select beside the device name and select "ON" to enable all alarm linkages of the device (schedule excluded).



Select beside the title (like record) to enable record linkage of all devices (schedule excluded).
The alarm linkage settings of PTZ control, record, alarm view, snapshot, alarm output and TV Wall are the same with each other. Here take record linkage for example to introduce the setting steps.

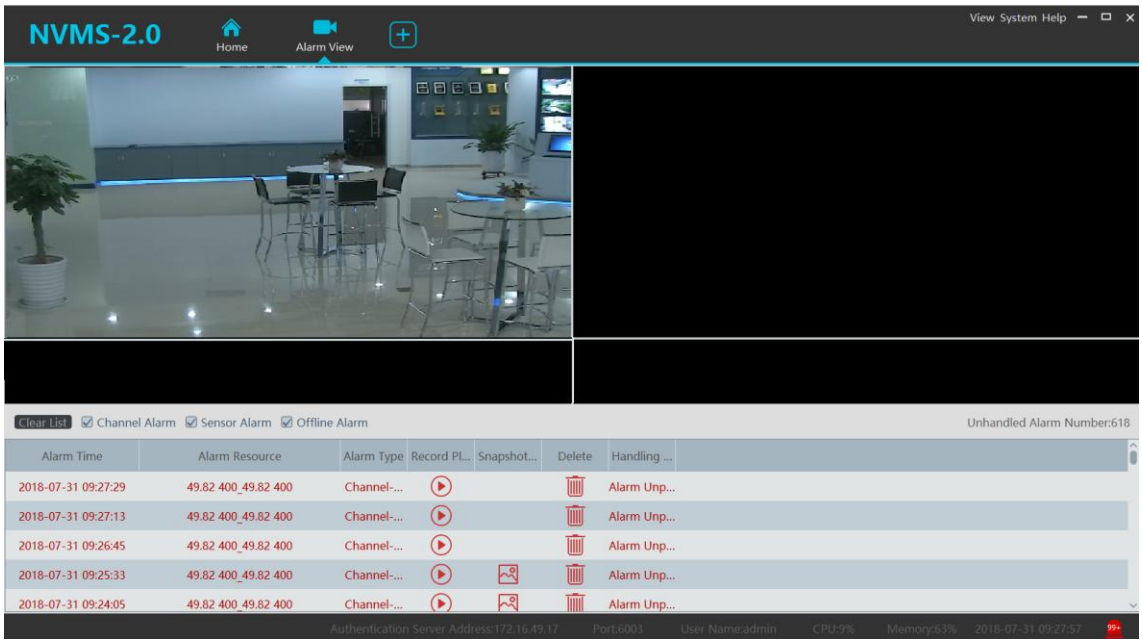


Check the selectable channel and click to select the channel; check the selected channel and click to remove this channel; click to select all channels; click to remove all selected channel.
After the channels are selected, check “On” and then click “OK” to save the settings.

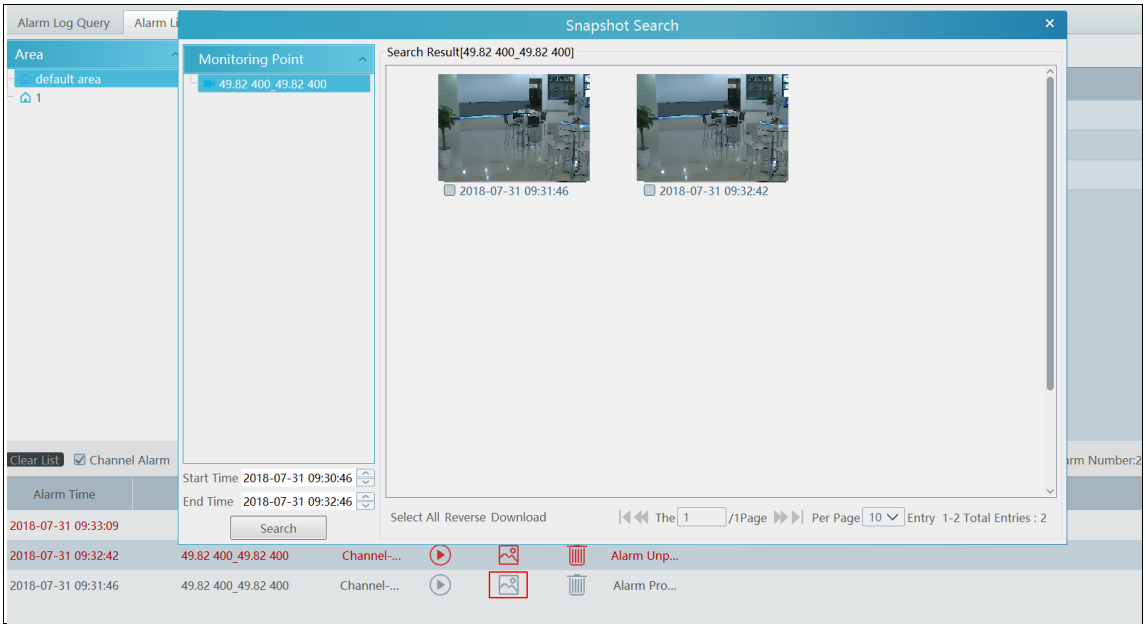
③ Set alarm schedule. Select the schedule of the desired device. 7*24 or 5*24 is the default schedule. Other schedules need to be set in advance. Click the “Schedule Setting” tab to set (See Schedule Recording→To set schedule for details).

8.3 Alarm View

Having set the alarm preview linkage, the alarm view window will prompt when an alarm is triggered.

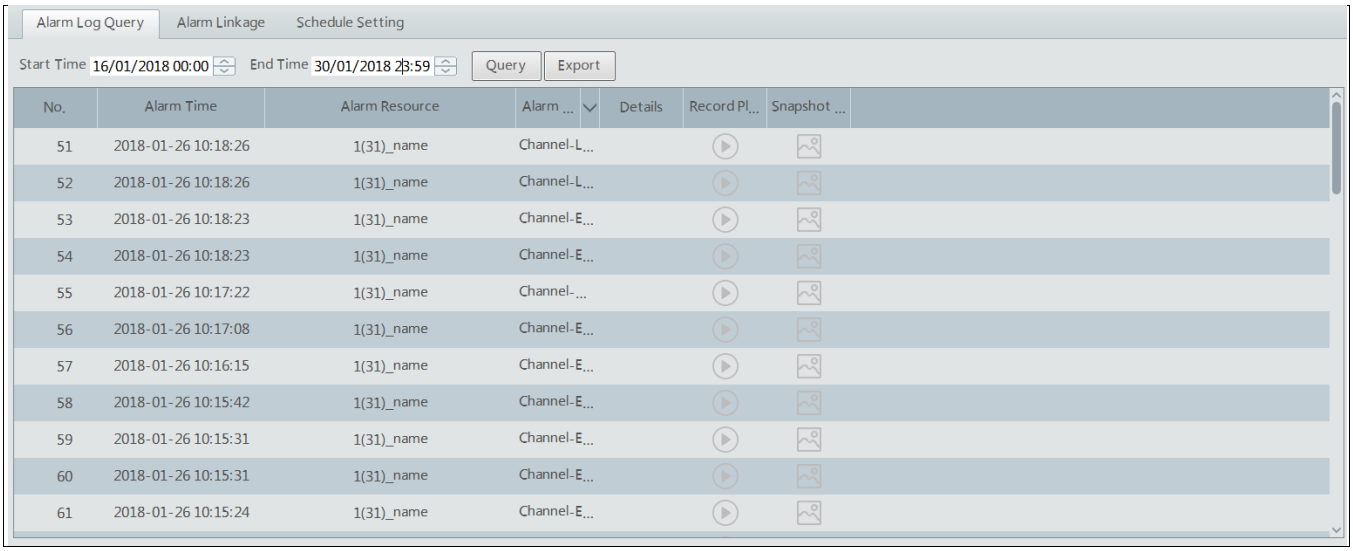


Click or to play the record or captured images; click to delete alarm information.

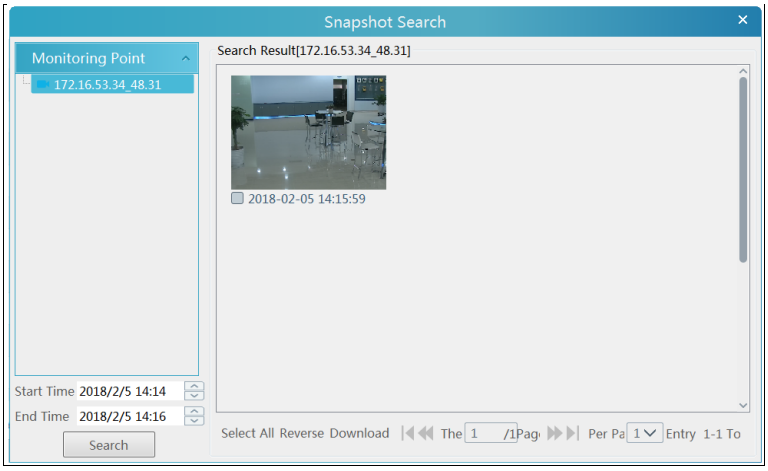


8.4 Alarm Log Query

Alarm logs can be searched and exported by going to Home→Alarm Center→Alarm Log Query interface.



Click to play the record; click to open the snapshot search window as shown below.



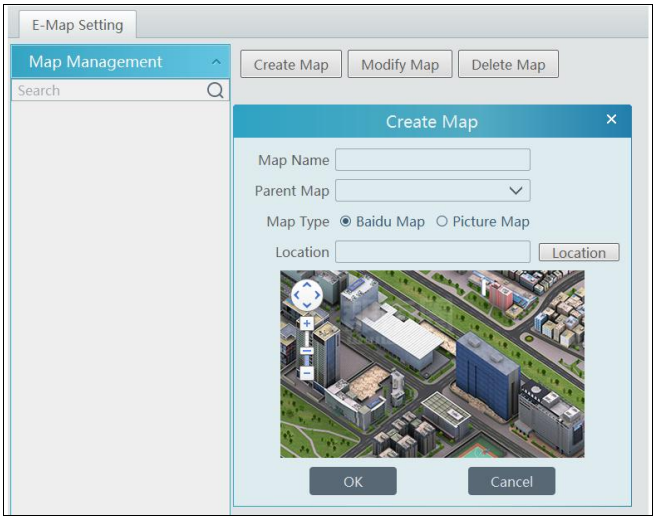
9 E-Map

The e-map service is used to store the e-map information of the system. The client landing anywhere can share the same e-map.

9.1 E-Map Settings

9.1.1 Create E-Map

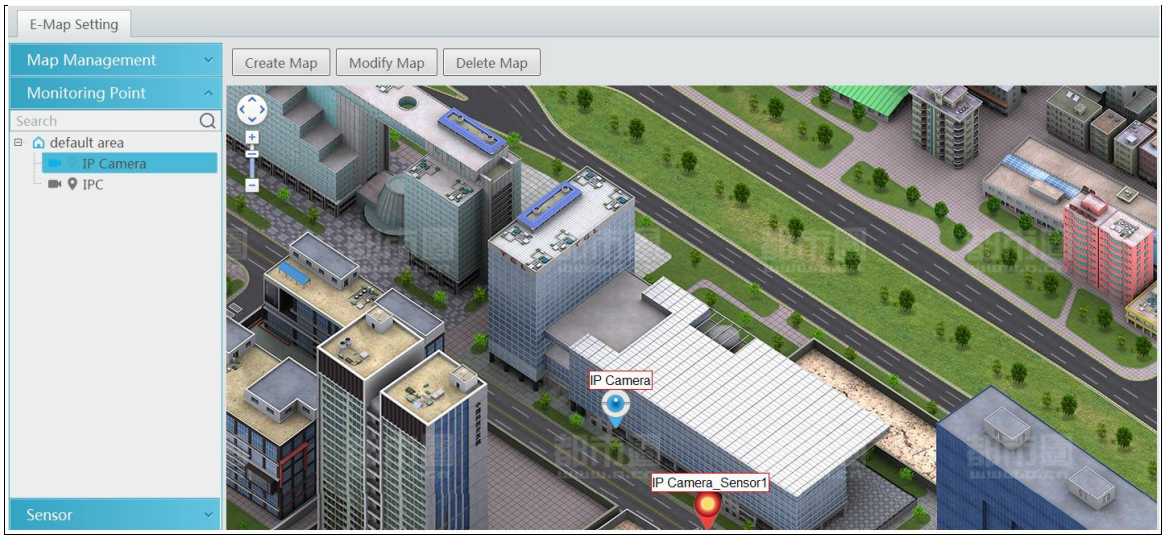
Go to Home→E-Map interface. Click [Create Map] to create a map.



Enter E-map name, select parent e-map and map type. Then click [OK] to save the settings.

9.1.2 Add Hotspot

The hotspots include monitoring points and sensors. Drag a hotspot to the corresponding area on the map as shown below.



Click [Modify Map] to change map name and parent map.
Select [Delete Map] to delete the added map.

9.1.3 E-Map Monitoring

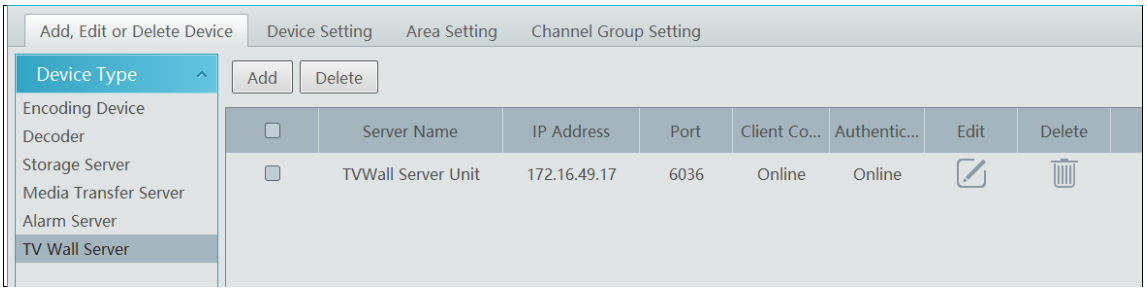
Go to Home→E-Map Monitoring interface. Select a window on the right and then double click the monitoring point to view the real-time image.

Map Management
Technology Park
1(7)_IPC
1(11)_IPC1344244
IPC
Smart IPC
Sensor

10 TV Wall

10.1 Add TV Wall Server

Go to Home→ Add, Edit or Delete Device→TV Wall Server interface as shown below.

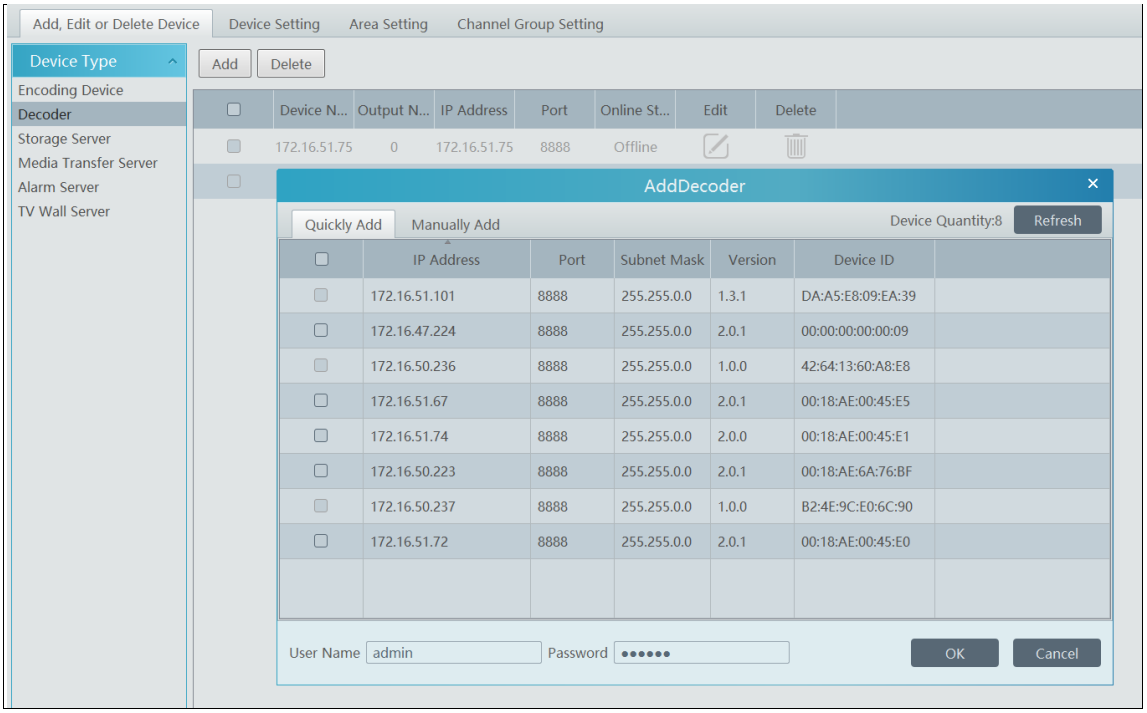


An adding TV Wall window will be prompted by clicking [Add]. Click [Refresh] to quickly add the TV wall server in the same local network, or add the TV wall server by manually entering server name, IP address and port.

Click to modify the added server; click to delete the added server.

10.2 Add Decoder

Decoder is used to decode the video signal transmitted by the transfer server. The decoding output is a standard video signal. The decoder is necessary for decoding videos on the TV wall.
Go to Home→Configure Device→Decoder interface.

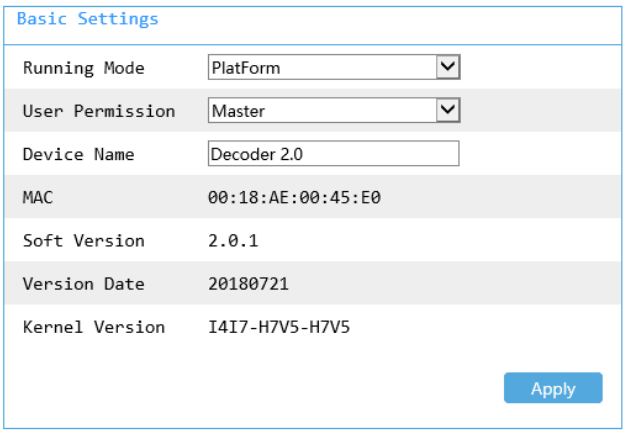


The setting steps of adding decoders are the same as adding encoding device setup (see Add Encoding Device for details).

10.2.1 Create and Connect Decoder

The decoder which needs to be connected to the platform must be the master decoder and in platform mode. Login the web client of the decoder as shown below.

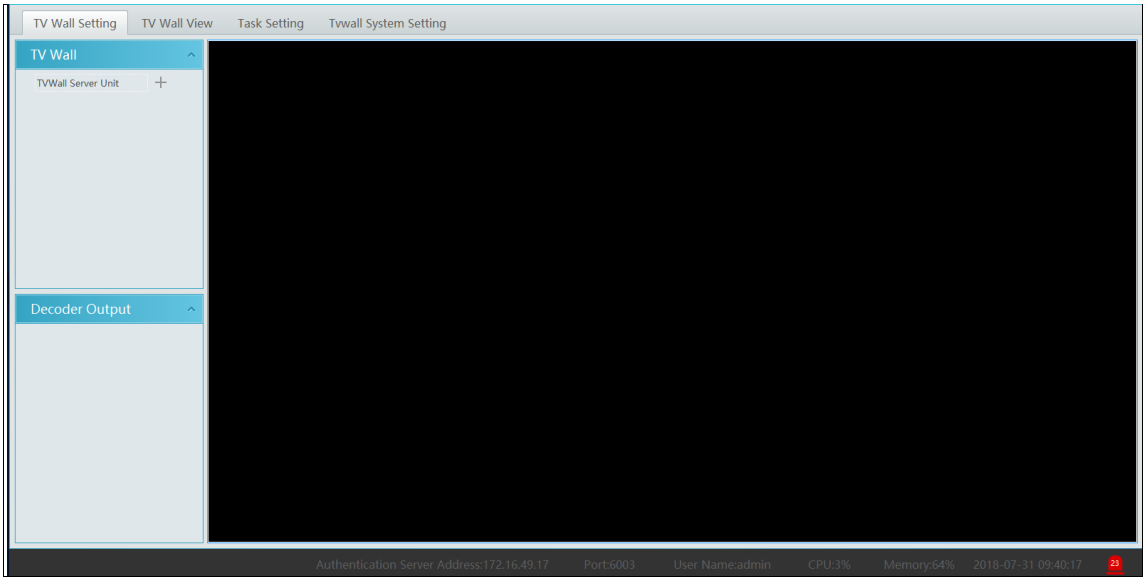
Go to Basic Settings→ System Settings to check the user permission and running mode of the decoder and make sure its user permission is master and its running mode is platform. Then apply the settings and restart the decoder.



After that, go to Home→TV Wall Management→TV Wall System Setting→Decoder Bind Configuration. Then click to bind decoder and TV wall (See Decoder Bind for details).

10.3 TV Wall Management

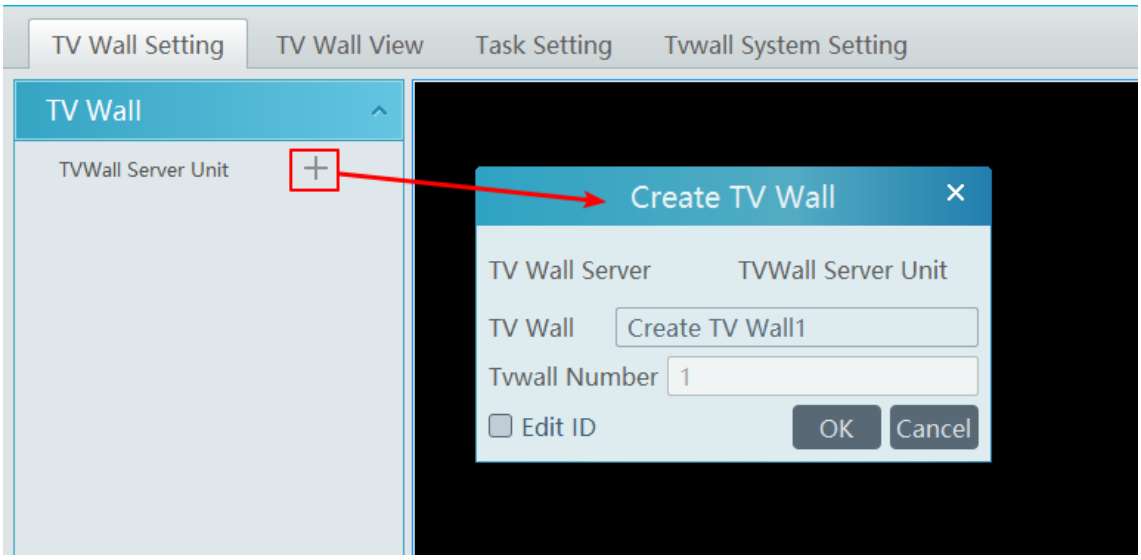
Go to Home→TV Wall Management→Edit TV Wall.



10.3.1 TV Wall Settings

◆ Create TV Wall

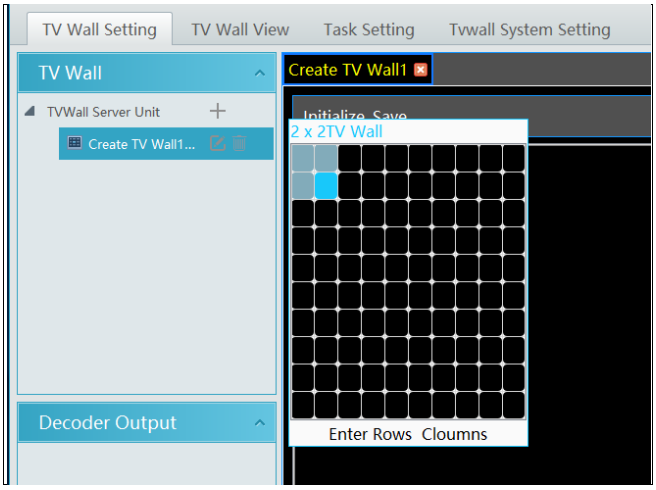
Go to Home→TV Wall Management→Edit TV Wall. Select a TV wall server and then click to create a TV wall.



◆ Initializing

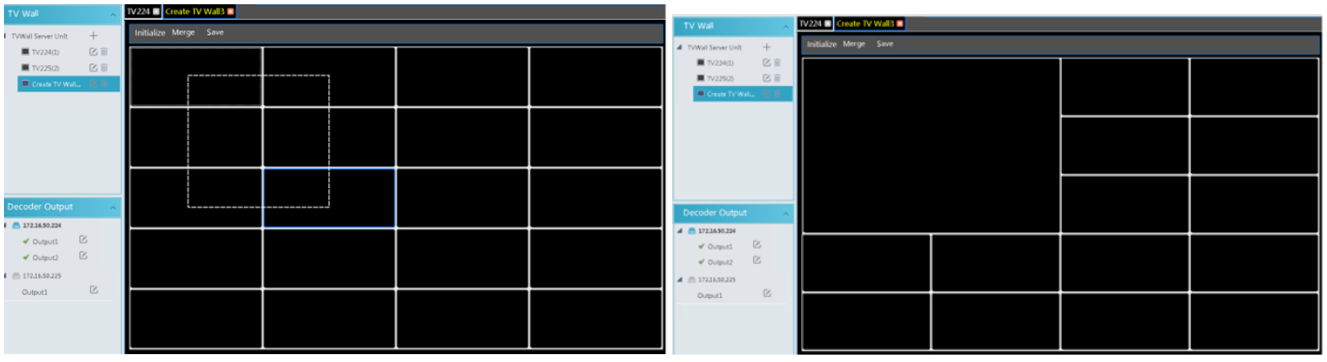
① Double click the created TV wall to prompt a TV wall window.

② Click “Initialize” to create TV wall layout

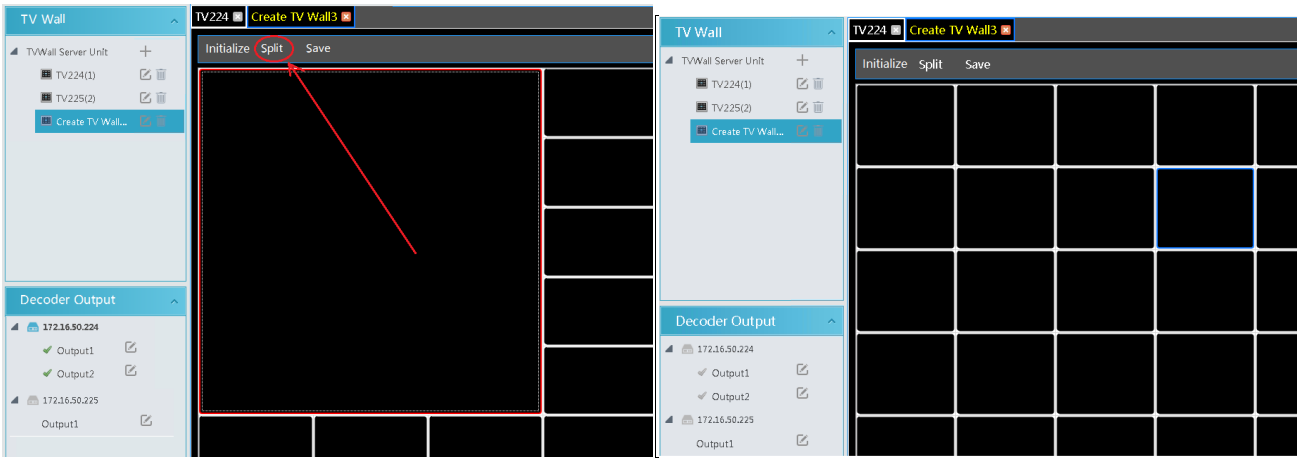


◆ Merging\Splitting

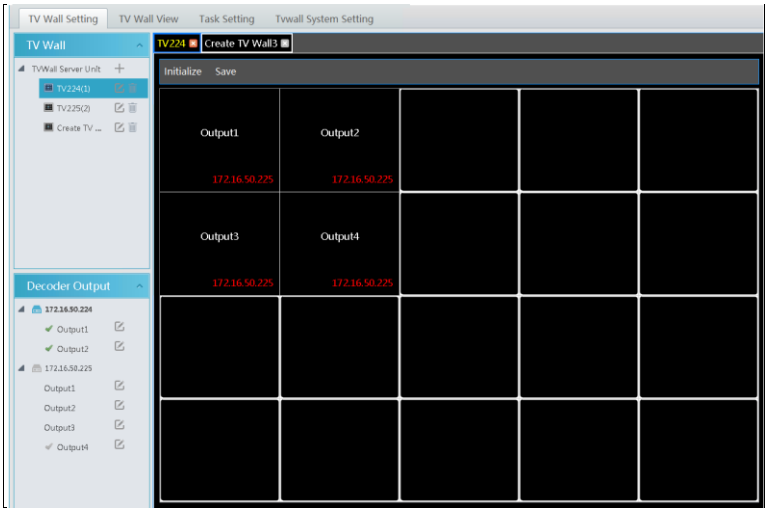
Merging: drag on the screen and then release. The “Merge” button will be shown. Click it to merger these small windows.



Splitting: select the merged window and click “Split” to restore the window to the previous status.

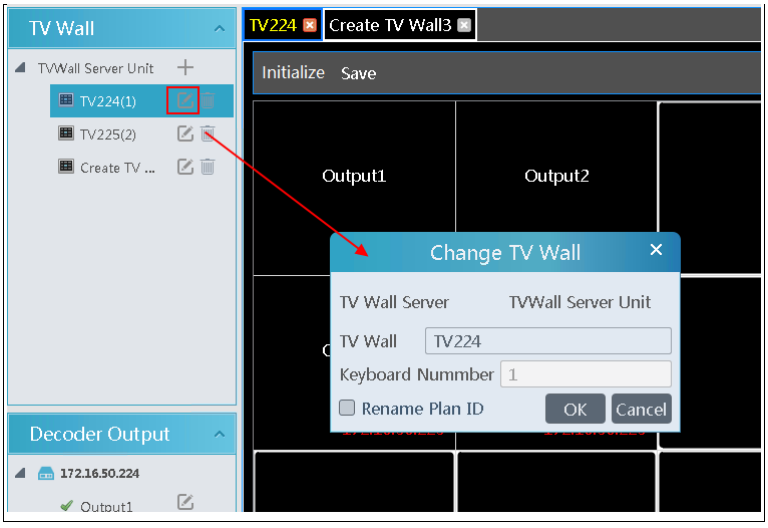


The online decoder displayed in the decoder output list is the binding decoder of this TV wall. Drag the outputs to windows on the right in sequence and then click “Save” to save the settings.



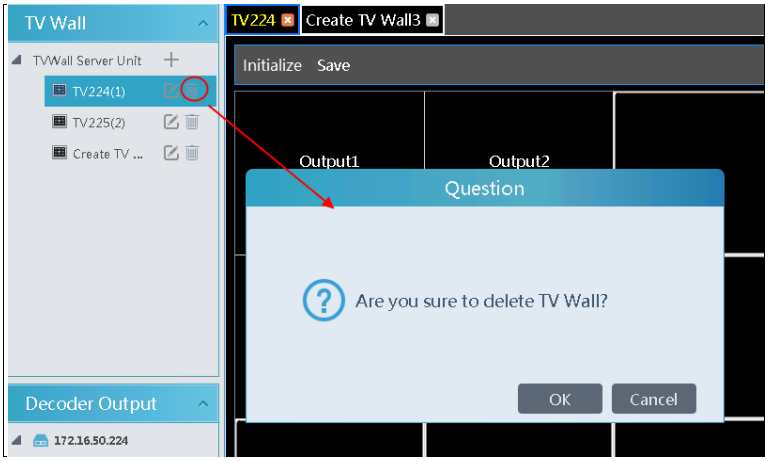
To modify TV wall:

Click beside the TV wall name, enter the new name and then click [OK].



To delete TV wall：

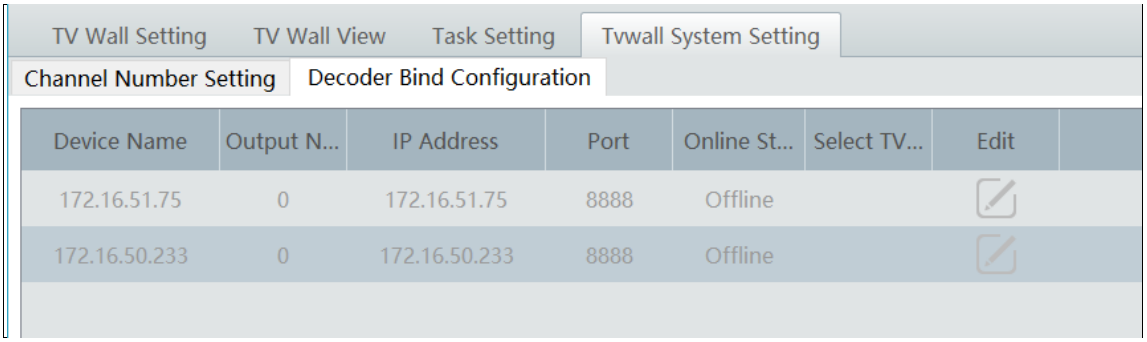
Click behind the TV wall name.



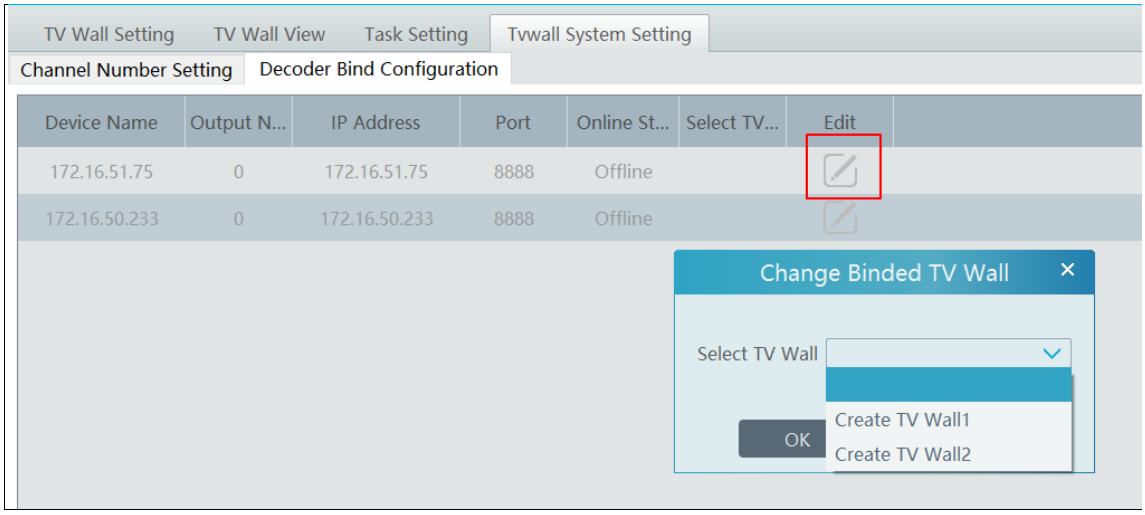
- Decoder Bind

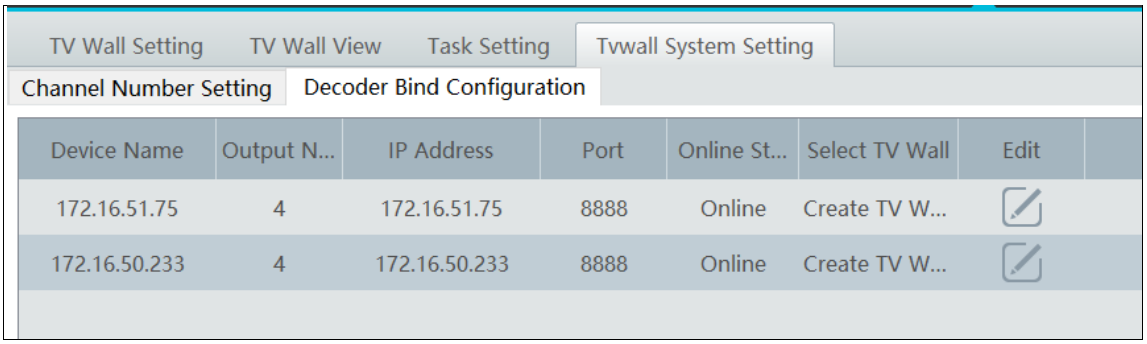
Go to Home→TV Wall Management→TV Wall System Setting interface as shown below. In this interface, decoder bind can be set up.

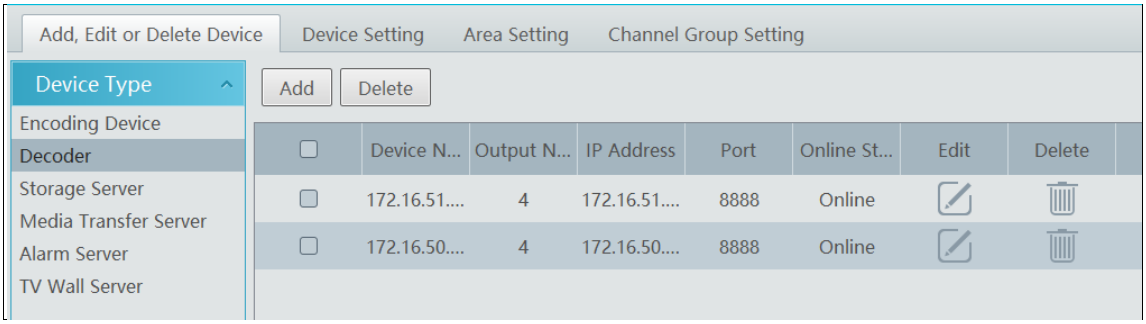
Decoder bind configuration: modify the binding state between decoder and TV wall.



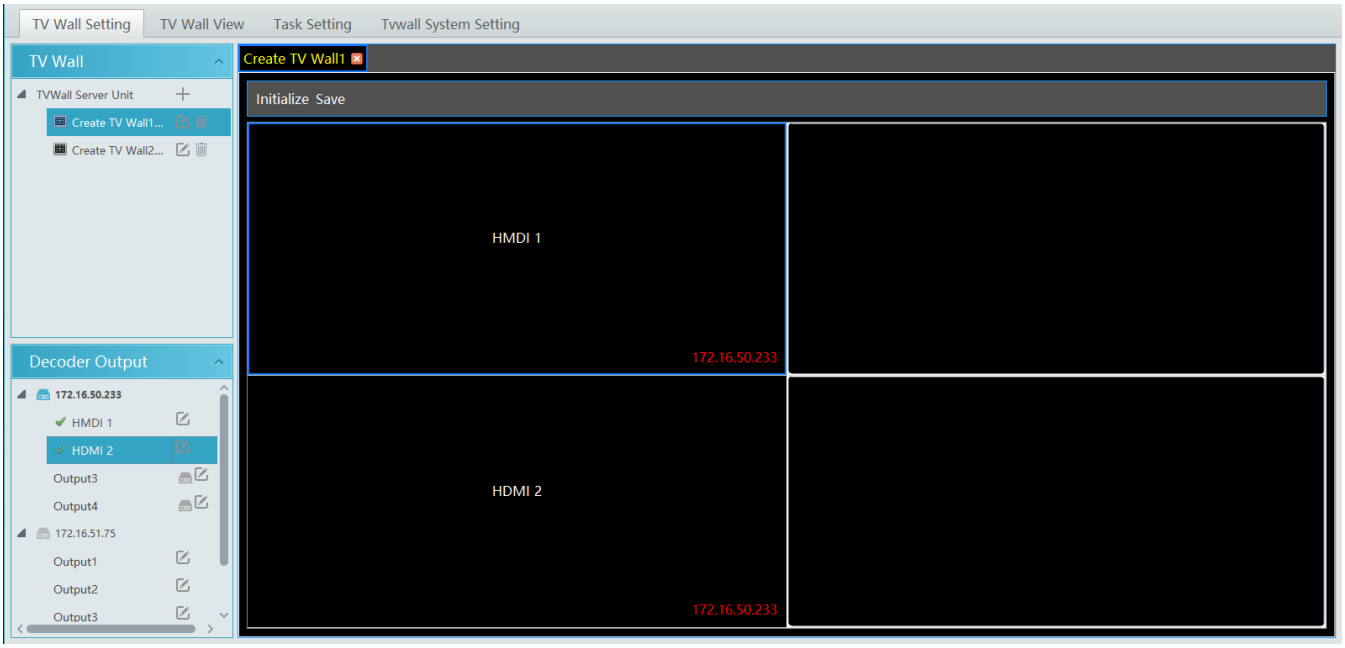
Click to change bound TV Wall.







Return to the decoder management interface as shown above. The online status of the decoder indicates that the decoder is successfully bound with TV wall. Go to TV Wall Setting interface as shown below. Drag the outputs of the decoder to the window on the right and save them to complete output bind.

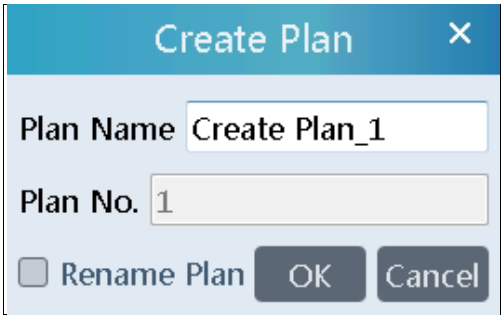


10.3.2 TV Wall View

◆ Create Plan

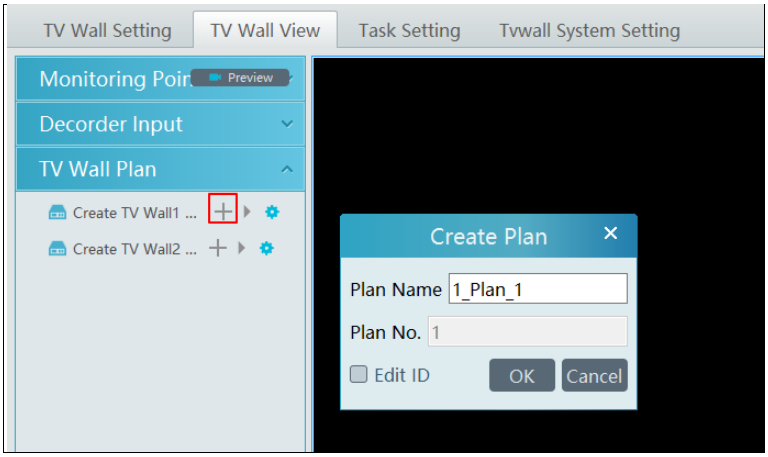
Go to Home→ TV Wall Management→ TV Wall View→TV Wall Plan.

Click + beside the TV wall name to create the TV wall plan name.

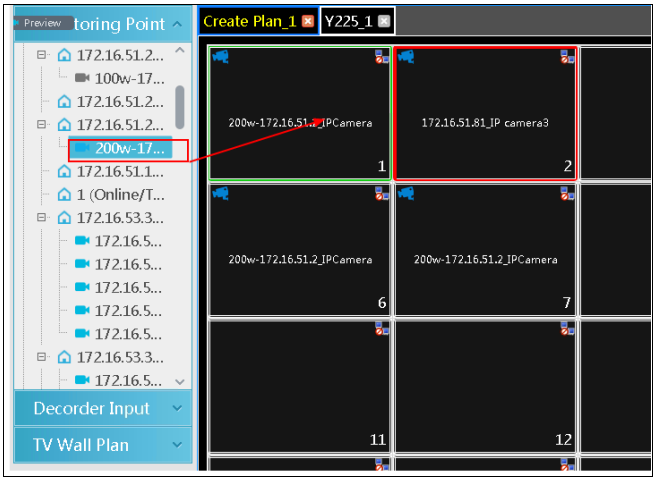


◆ Configure Plan

Double click the plan name to show the plan.

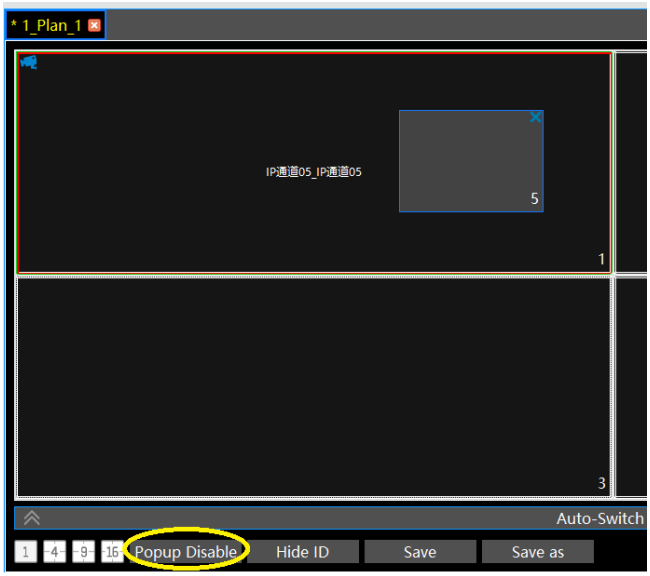


Drag the monitoring points to the corresponding window respectively to decode image.



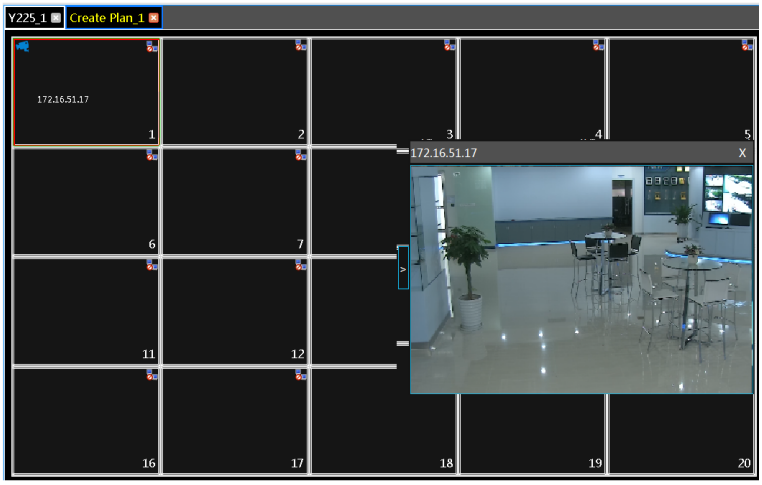
◆ Toolbar Menu

1. Screen mode：1\4\9\16 screen mode is optional.
2. Open Window：Click [Popup Enable] and then drag on a window to open a small window on it. Click [Popup Disable] to stop opening window. The small window can be dragged to anywhere on the big window.

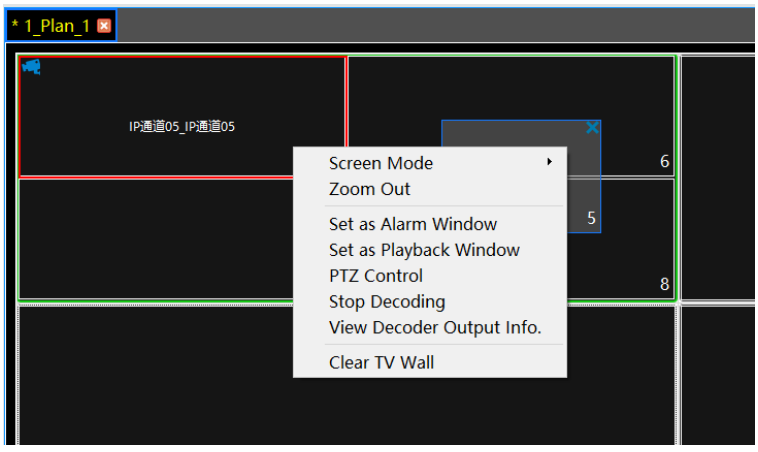


3. Click [Hide ID] to hide the window number; click [Display ID] to display the window number.
4. Click [Save] to save the current plan.
5. Click [Save as] to save it as another plan.

Double click a window to play the video.

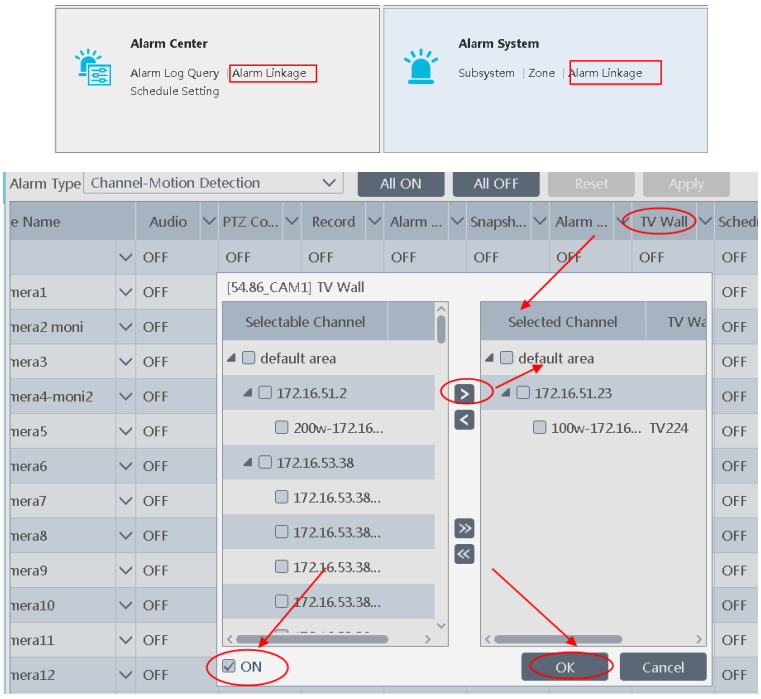


◆ Right-click Menu



1. Screen mode:1\4\9\16 screen mode is optional.

2. Zoom in\out：if the current screen mode is multi-screen display mode, click “Zoom In” to zoom in the current image. Click “Zoom Out” menu again to restore to the previous status.
3. Save as Alarm Window: click it to save the current window as an alarm window. The alarm linkage image will be displayed in this window. Go to Home→ Alarm Center→Alarm Linkage (or Home→Alarm System→Alarm Linkage) interface. Select TV wall linkage item to set alarm linkage.



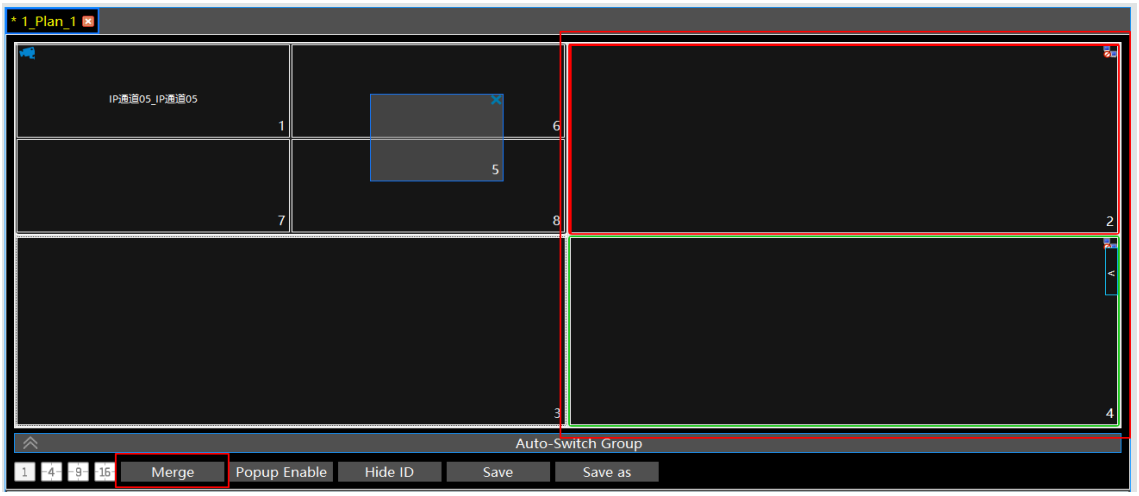
4. Set as Playback Window：when decoding images, click this menu to play the records of the current channel (the record source is the current record source).
5. PTZ Control: click this menu to prompt a PTZ control panel of the current decoding window. Direction control, zooming and focusing, Iris control, speed, preset and cruise calling can be operated through this control panel.

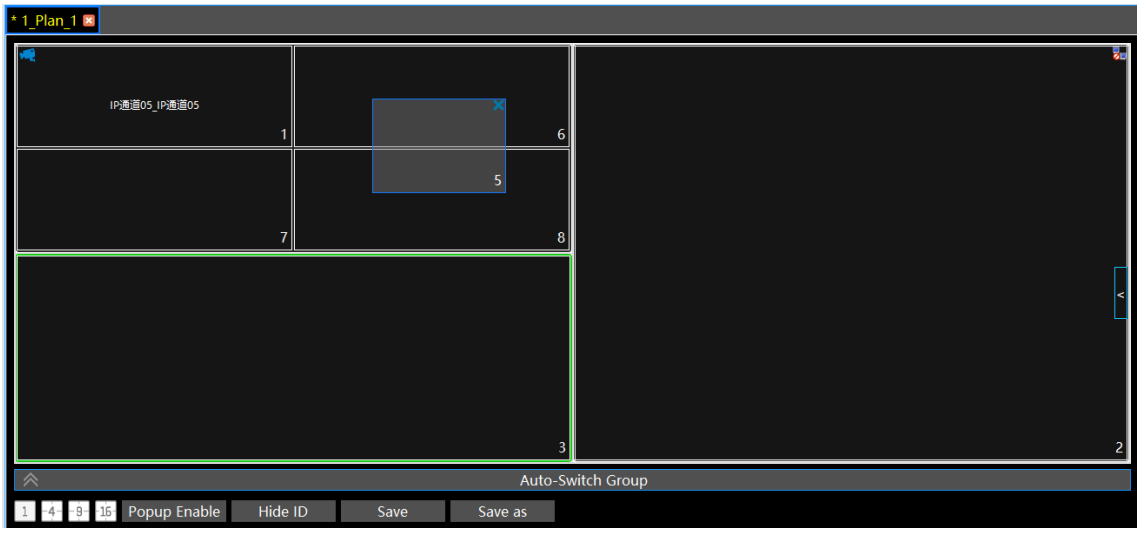
6. Stop Decoding: click it to stop decoding the current image.

7. View Decoder: view the information of the decoder.
8. Clear TV Wall: click it to clear the decoding configuration of the current output.

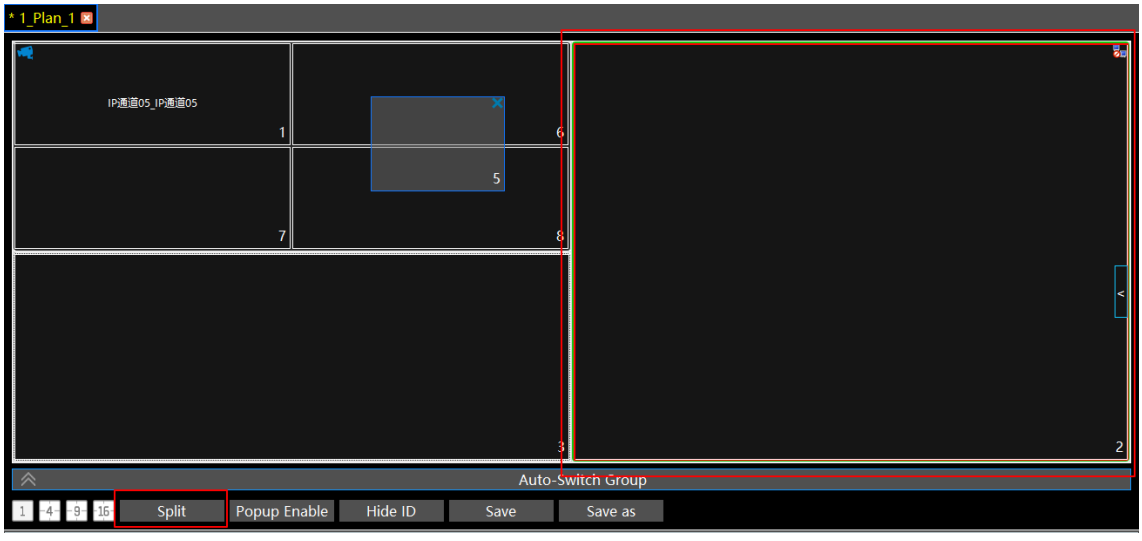
◆ Screen Merging or Splitting

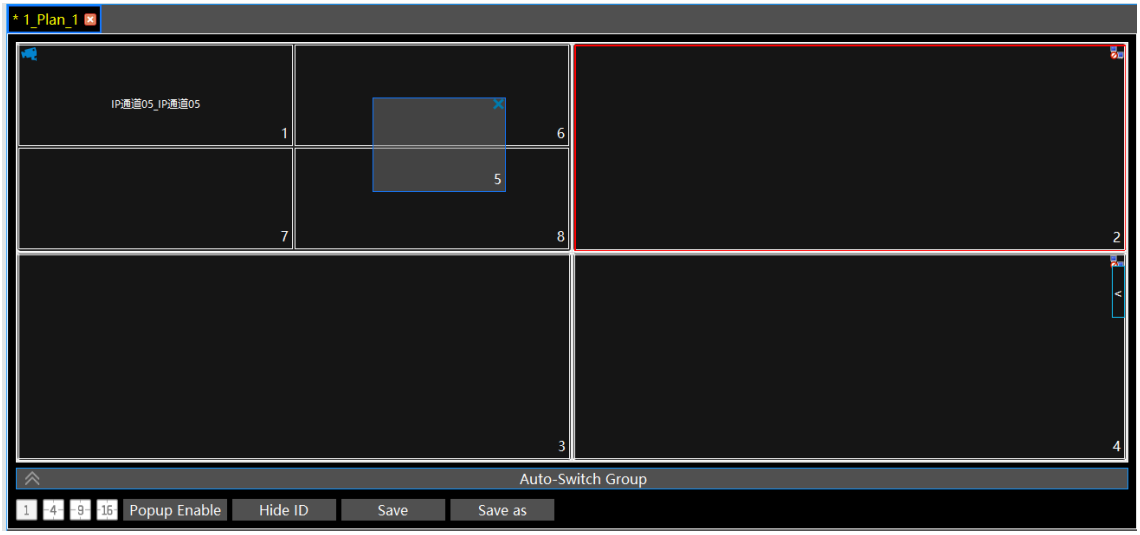
Drag the mouse to select multi-window and then click [Merge] to merge these windows.





Select the merged window and click [Split] to restore the window to its previous status.

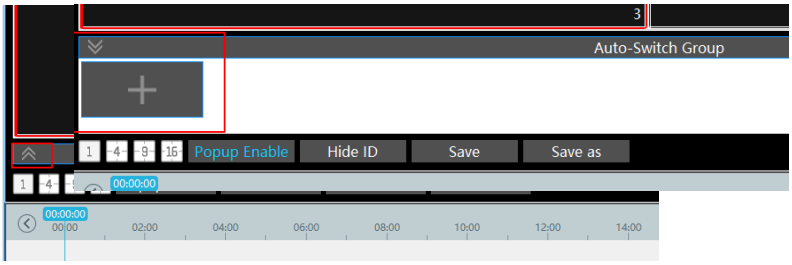




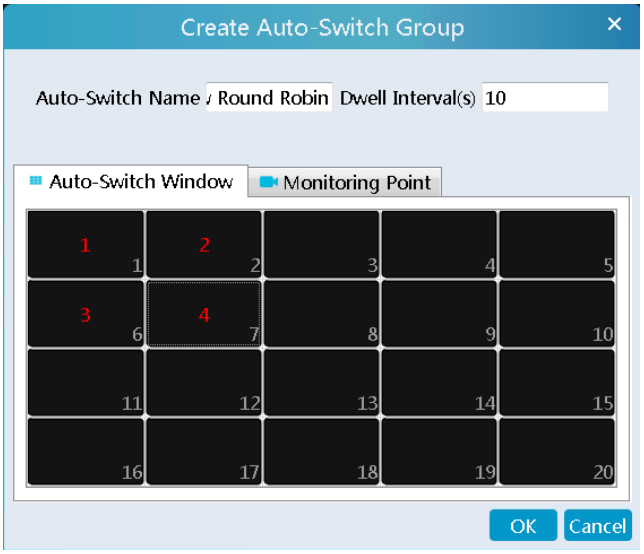
◆ Auto-Switch Group

1. Create Auto-Switch Group

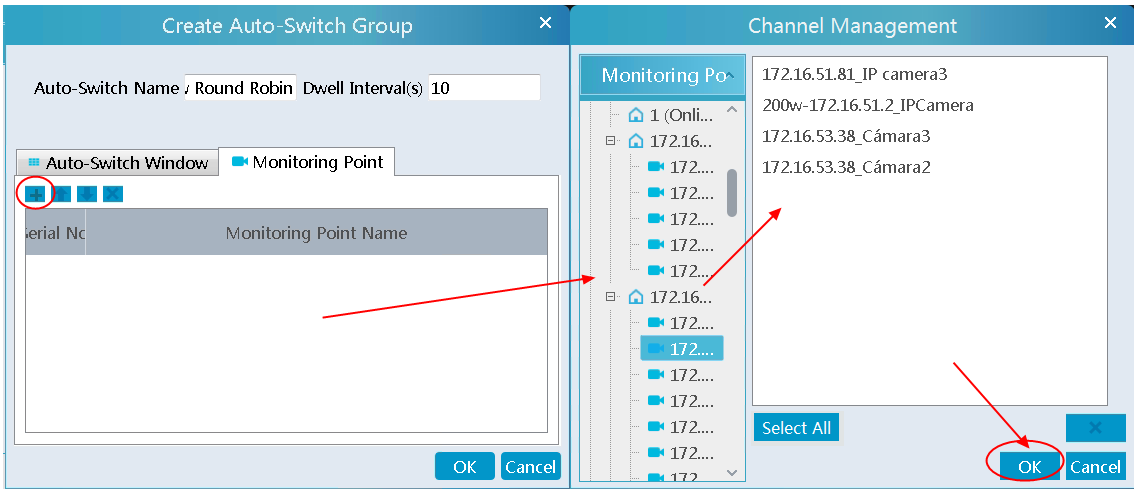
① Click Auto-Switch Group under the screen and then click + to create auto-switch group.



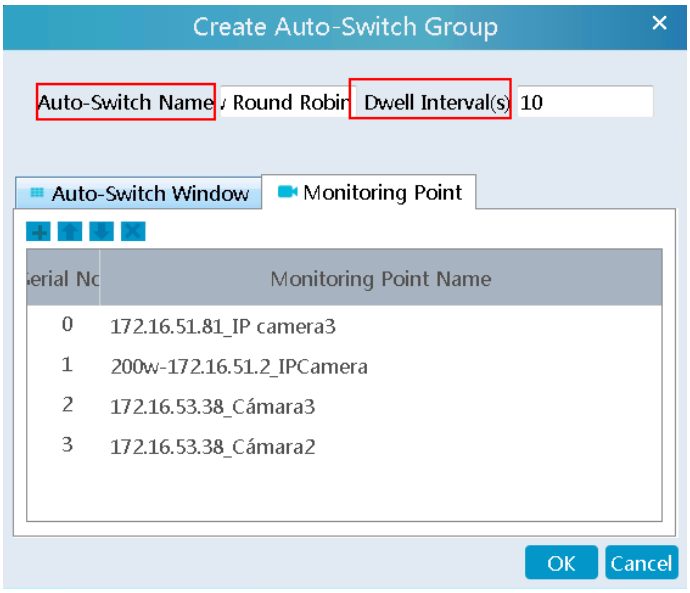
② Select "Auto-Switch Window" to select the window group.



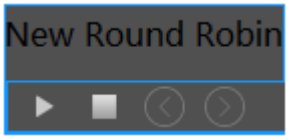
③ Click "Monitoring Point" to select the auto-switch channel group.



④ Enter auto-switch name and dwell time.



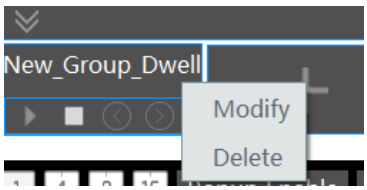
2. Execute auto-switch



Click to execute auto-switch. The specified channel images will be played in the specified windows in sequence.
Click to stop playing the current auto-switch.

3. Modify or delete auto-switch

Right click the auto-switch name and then select Modify or Delete to modify or delete the auto-switch.

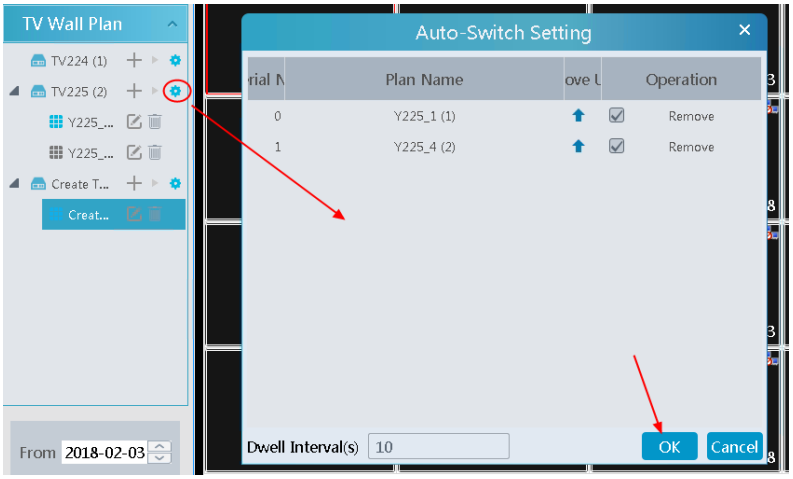


Note: If there are overlapped auto-switch window in a plan, the auto-switch groups will not be executed at the same time.

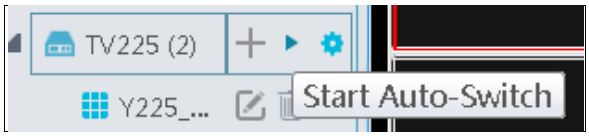
◆ Auto-switch plan

1. Create auto-switch plan

Click behind the TV wall plan name to set the auto-switch. Click "Join in" to select the plan. Then set dwell time and click [OK].



2.Start/stop auto-switch



Click behind the TV wall name to start auto-switch plan. Click the Stop button to stop the auto-switch.

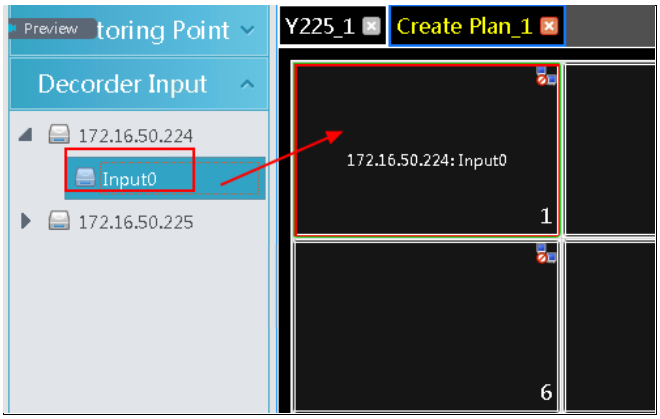
3. Modify auto-switch plan

Click again to modify the auto-switch plan.

Note: If the current auto-switch plan needs to modify, please stop it first.

10.3.3 Decoder Input

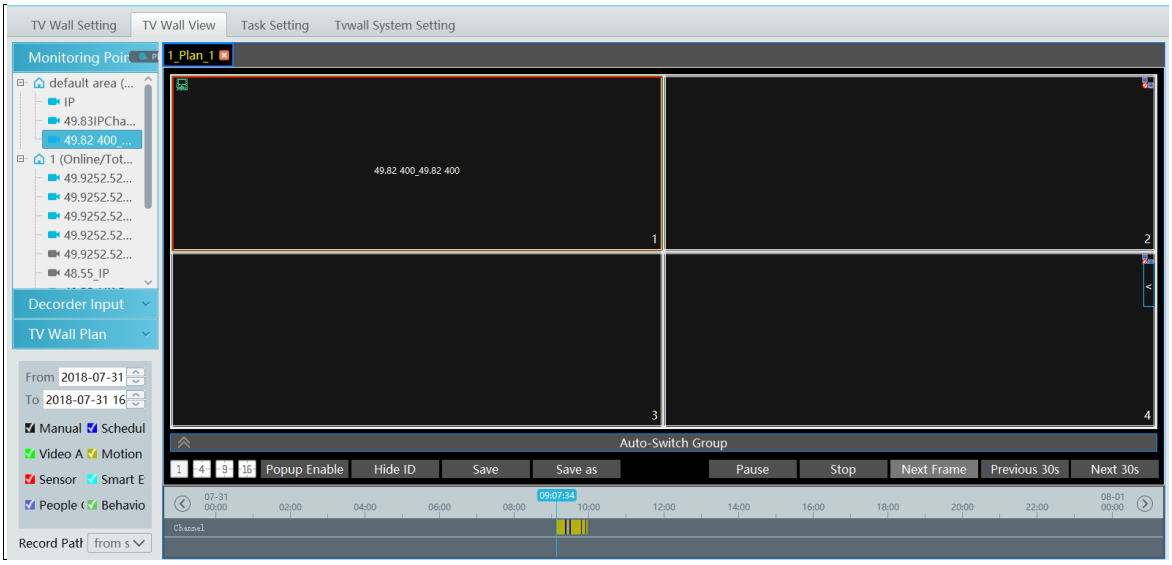
Go to Home→TV Wall Management→Decoding on TV Wall→Decoder Input. Drag an input to a window to execute decoding.



10.3.4 Playback

◆ Playback on TV Wall

Click "Preview" on the left corner. Then this button becomes "Playback". Select "Obtain from storage server or from network device" and then click "OK" to search records, or drag the cameras (or channels) to a window to search and play the records.

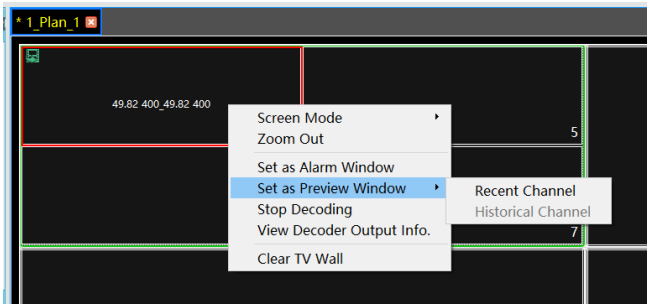


Of course, the specified time and event types can be set to search the specified records.

◆ Playing control

During playback, the record can be controlled by the above buttons.

◆ Right-click menu

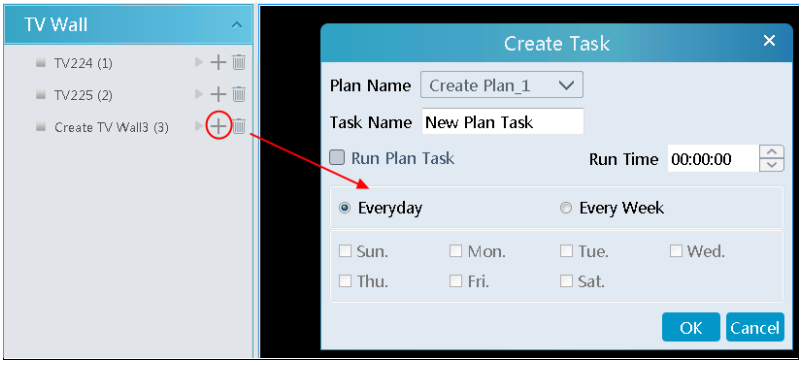


1. Screen mode:1\4\9\16 screen mode is optional
2. Zoom in
3. Save as an alarm window
4. Save as preview window:：the current channel or the historical channel is optional.
5. Playback stream type: main stream or sub stream is selectable.
6. Stop decoding
7. View decoder information
8. Clear TV wall

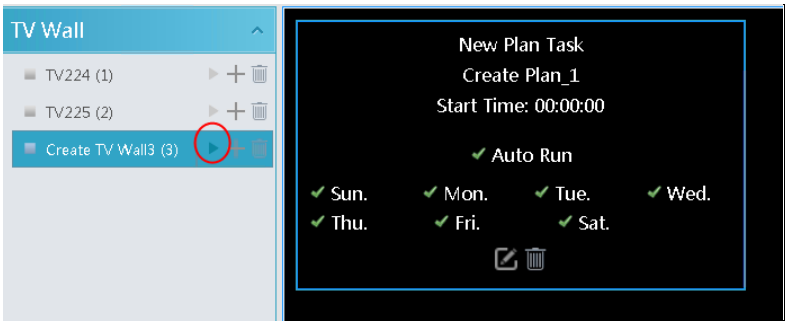
The following picture is an example of TV Wall.

10.3.5 Task Configuration of TV Wall

Go to Home→TV Wall Management→Task Configuration. Click behind the TV wall name.
Select plan name, enter task name, set run time and enable plan task.

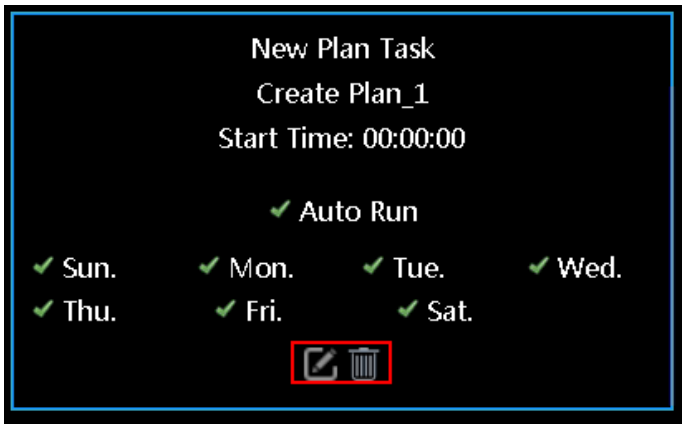


Click to start the task. Click the Stop button to stop this task.



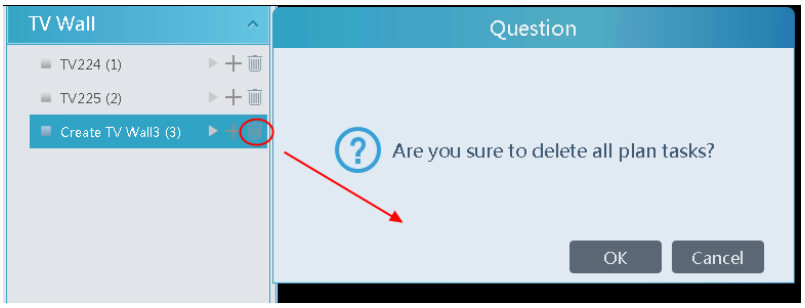
Modify or delete task

Double click the TV wall name and then the tasks will be displayed on the right window.



Click or to modify or delete the task.

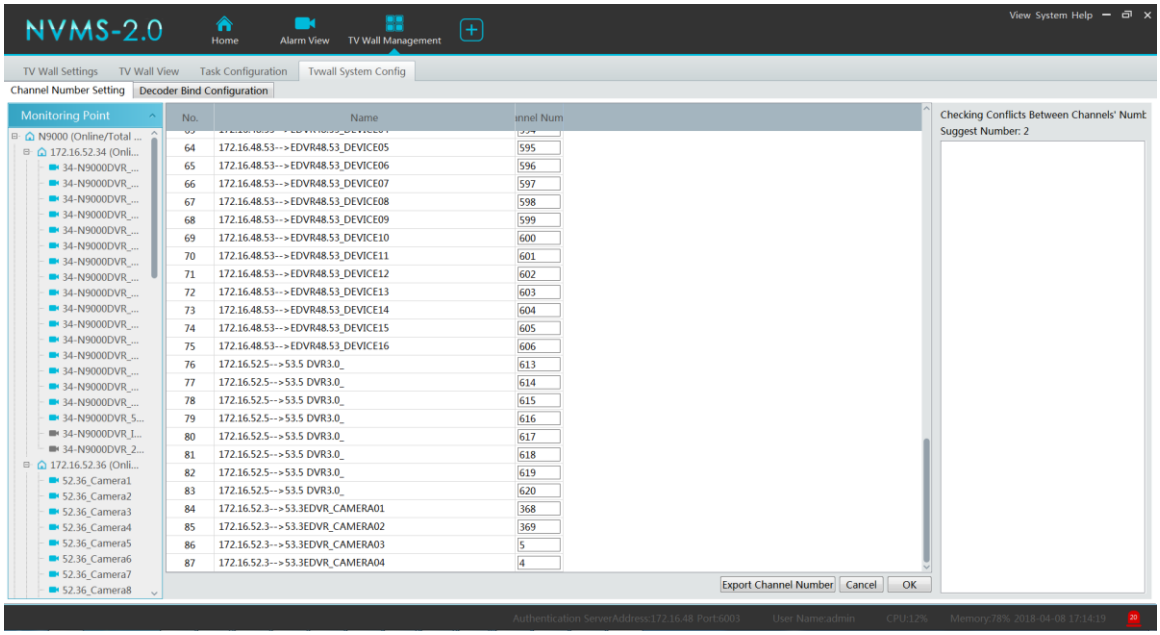
Click behind the TV wall name and then click [OK] to confirm the deletion.



10.3.6 TV Wall System Configuration

Go to Home→TV Wall Management→TV Wall System Configuration interface as shown below. In this interface, channel numbe can be set up.

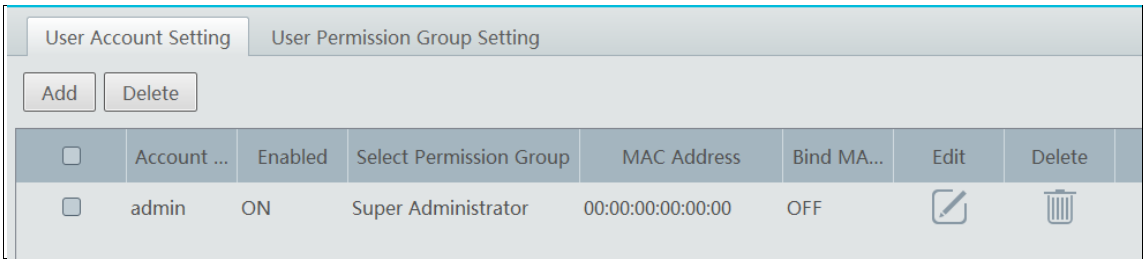
Channel number configuration: set the channel number and make the channel convenient to be controlled by the network keyboard controller. Users can export these channel number in this interface.



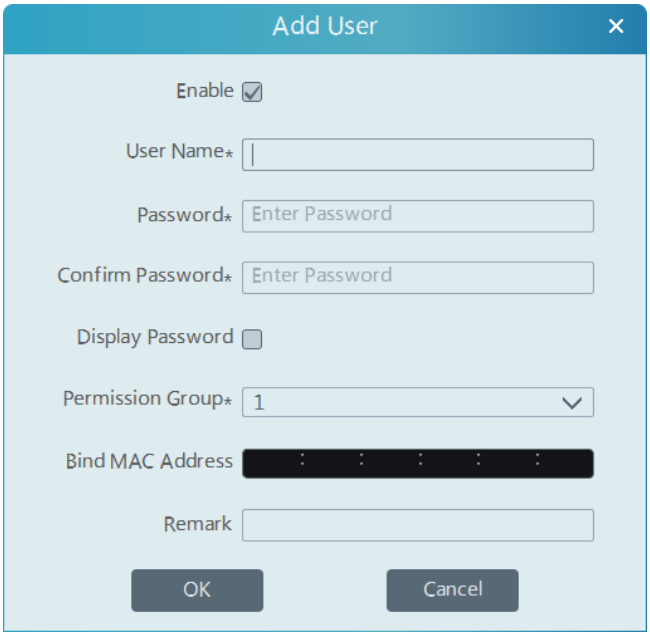
11 Account and Permission

11.1 Create Account

Go to Home→Account and Permission.



There is a default super admin user (the username is admin; the password is 123456). The super admin user cannot be deleted. Click [Add] to prompt an adding user window as shown below.



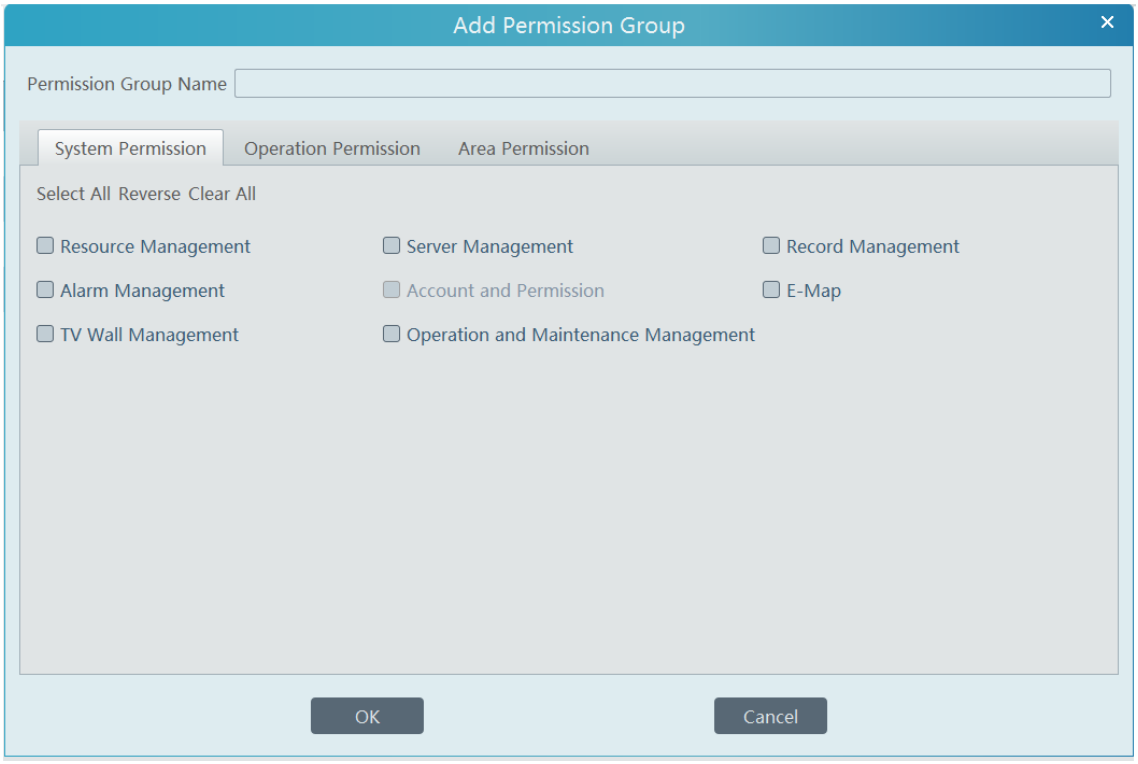
Enter user name and password. Then select permission group (it must be set in advance). Binding MAC address or remark can be filled in as needed. After that, click [OK] to save.

Click to modify the added user; click to delete the added user.

11.2 User Permission Settings

Go to Home→Account and Permission →Configure User Permission Group.

① Click [Add] to create permission group.



② Enter permission group name.

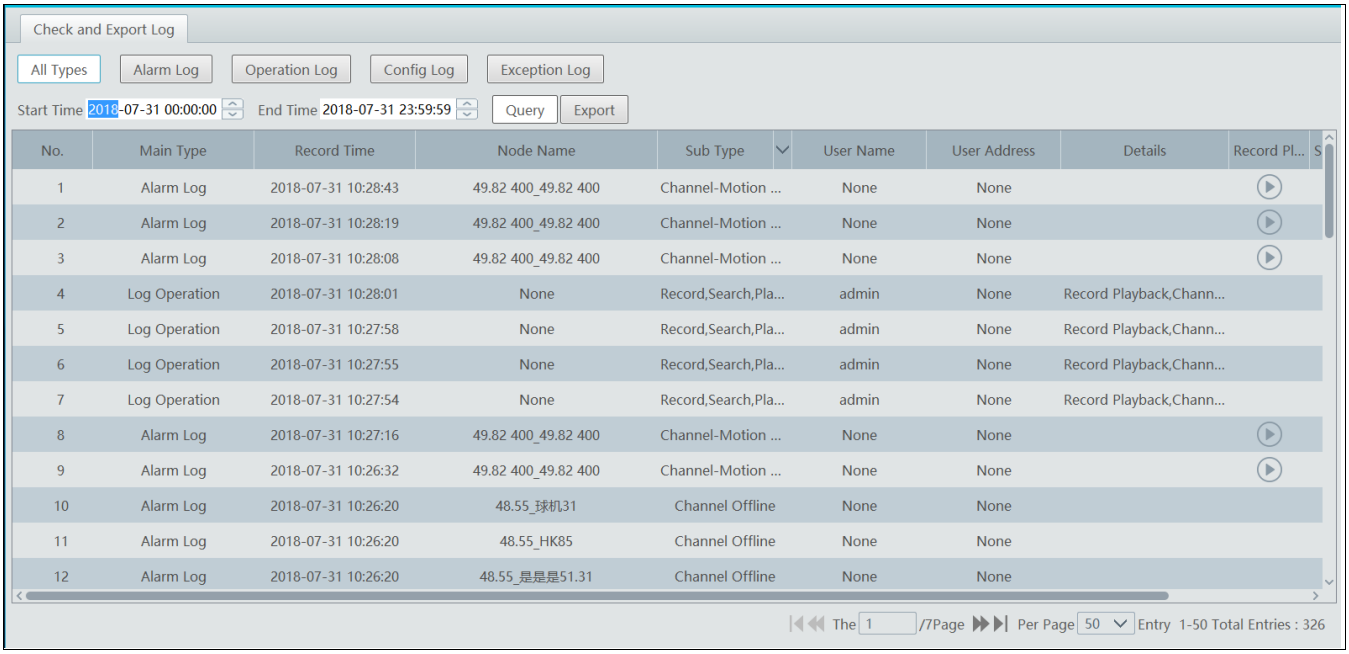
③ Select system permission, operation permission and area permission as needed.

Click to modify the permission group; click to delete the permission group.

12 Operation and Maintenance Management

12.1 Check and Export Log

Go to Home→Operation and Maintenance Management.
Click the "Check and Export Log" tab as shown below. All types of logs can be searhed and exported here.



Select the log type, set the start time and the end time and then click [Query] to search logs. After the logs is searched, click [Export] to export these logs.

13 Local Configuration

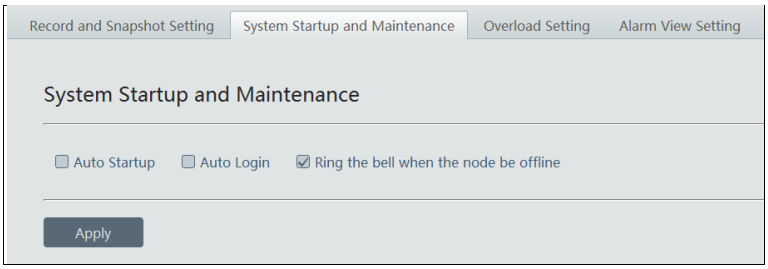
13.1.1 Record and Snapshot Setting

Go to Home→Local Configuration.

In this interface, the storage path of recording files, backup files and snapshots, snapshot number and max file size for manual recording and record backup can be set up here.

13.1.2 System Startup and Maintenance

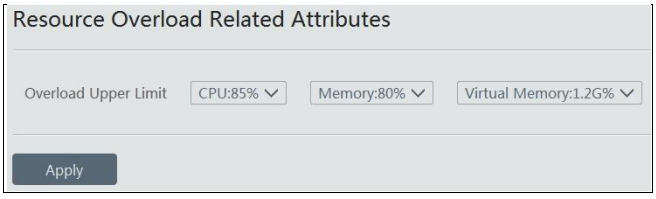
Go to Home→Local Configuration→System Startup and Maintenance.



Auto Login: if enalbed, the system will automatically log in when running this software next time.
Auto Startup: if enabled, the system will automatically start when the computer starts.
Ring the bell when the node be offine: if enabled, the alarm out will be triggered when the node is offline. (please connect tha alarm output device in advance).

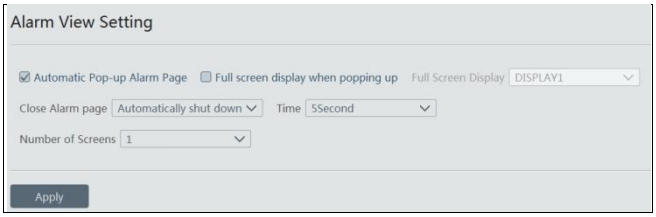
13.1.3 Overload Settings

This system support CPU and memory overload protection. When the system overloads, the monitor client will restrict the new live view and playback operation and the overload tip will prompt. Go to Home→Local Configuration→Overload Setting. Select the overload upper limit and then click [Apply] to save the settings.



13.1.4 Alarm View Settings

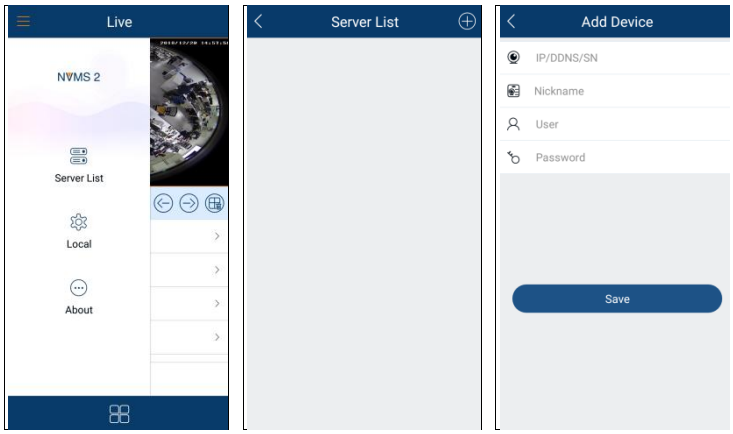
Go to Home→Local Configuration→Alarm View Setting.



In this interface, users can enable “Automatic Pop-up Alarm Page” or “Full Screen Display when Popping up”, set “automatically /manually close alarm page” and select the number of screens (1/4/6/19 optional).

14 Mobile APP Surveillance

① Run “Play Store” or APP store.
② Search “NVMS2” and then install it.
Note: Users can install mobile surveillance APP through iOS or Android OS. The operation steps of both APPs are similar, only some different existing. Here we take the surveillance APP of Android OS for example. Please refer to the actual operation interface for details.
③ Run “NVMS2” to go to the following interface.



In the live interface, click and then select “Server List”. This will take you to the Server List interface.

Then click to add devices.

➢ **Login by domain name or IP address**

Enter domain name or IP address, nickname, username and password.

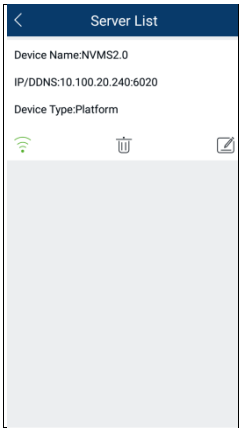
IP address: Enter the IP address of the authentication server plus its port (like 210.21.228.183:6003)

Nickname: Self-define it.

Username/password: Enter the username and password of the NVMS.

Click “Save” to go to the live interface.

Note: This APP only allows adding one platform (NVMS).



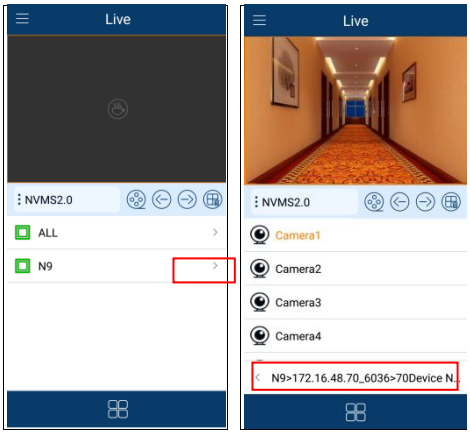
: Green icon means the platform is connected successfully; the flash icon means the platform is being connected; grey icon means the platform is unconnected.

: Click it to delete the platform.

: Click it to modify the platform information.

14.1 Live

In the server list interface, click to go to the following interface as shown below.



Click ">" to expand the hidden menu and then select a camera to view live video.

Click button at the bottom to return to the previous interface.

Double click the window to see full window; double click it again to switch to original status.

Icons in the live interface

: Idle mode

: Remote playback.

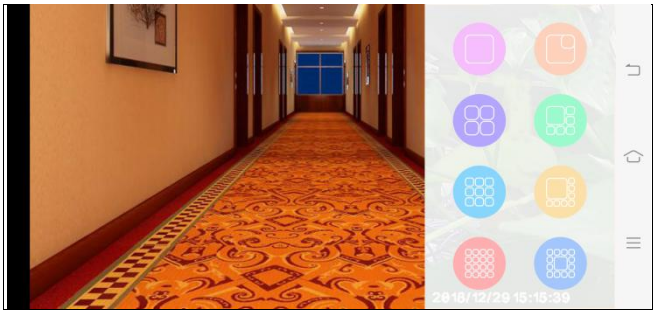
: Click it to play the previous channel group (only available for Android OS).

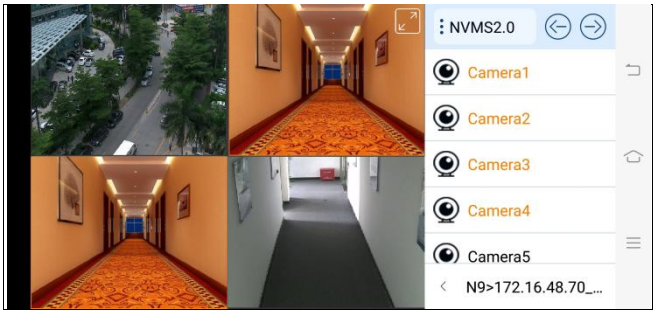
: Click it to play the next channel group (only available for Android OS).

: Close all previews

: Click it to choose 1/4/9/16 screen(s) display mode. Click and hold it to choose more screen display modes.

Turn you phone and make the live image display in landscape mode or go to the full screen mode (only available for Android OS). Then the following icons will be displayed by clicking the current image.

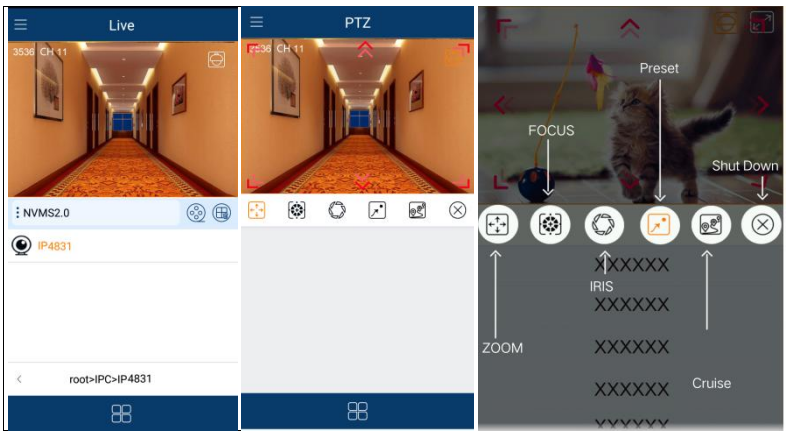




- **PTZ Control**

The added device must support PTZ function, or PTZ mode cannot be enabled. Click button to see the following image.

Click or to return to the live interface.

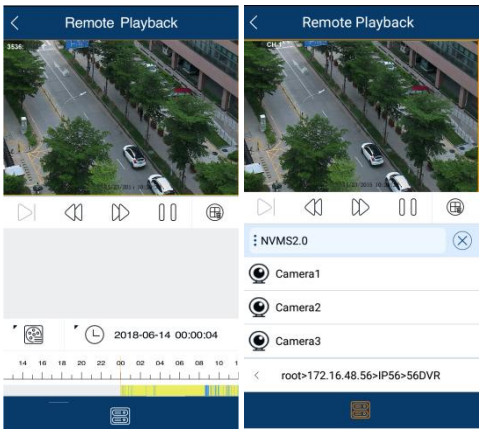


Please control the PTZ by sliding the image in direction of the arrow marked on the image. The PTZ will automatically focus on the little red circle by clicking the image. Then the 3D function can be enabled (the added device must be support 3D function, or this function is ineffective).

14.2 Remote Playback

Records stored in the storage server and device can be played. But some versions of iOS APP cannot play records from devices.
There are two ways to play records.

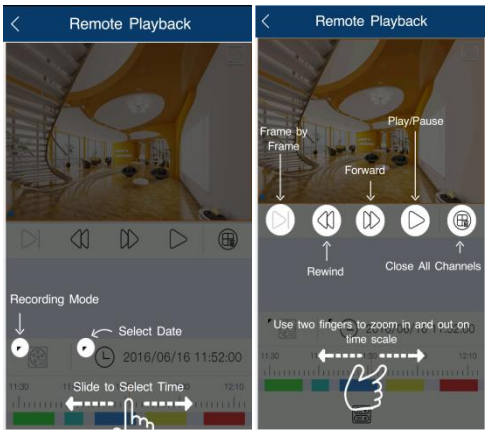
- In the live view mode, click to switch to the remote playback interface. The records of the current channel will be played.
- In the live interface, click to switch to the remote playback interface and then click button to select a camera to play back.



① Select date and event type
② Click the corresponding icons to control playback
③ Click button to finish playing.

Icons in the playback interface.

: Choose the recording mode.
: Click it to choose date.
: Click it to choose the channel.
: Frame. Pause the current play and then click this icon to play the next frame.
: Rewind
: Fast forward
: Play
: Pause
: Stop playback



14.3 Alarm Information

This function is only available for iOS version.

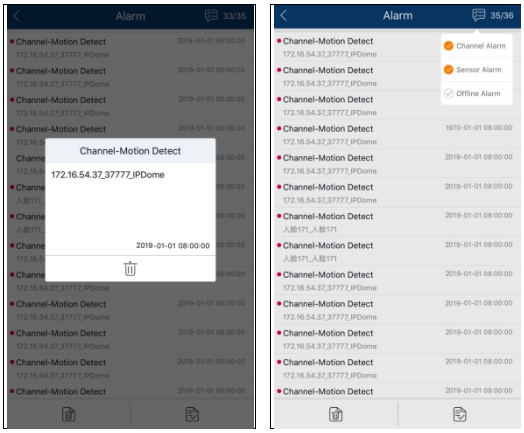
Go to the alarm information interface as shown below.

① In this interface, you can view the alarm information.

② Search alarm information: click to select the alarm type.

③ Click one item of the alarm list to read it.

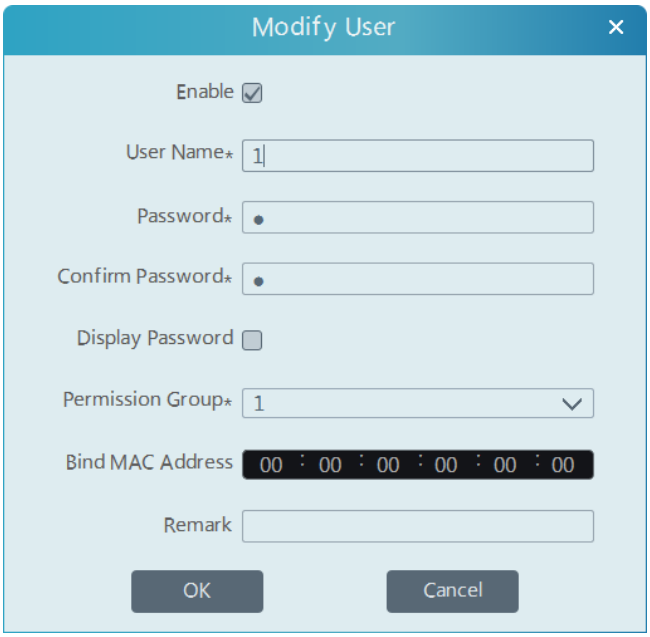
④ Click button to delete the alarm information.



15 Troubleshooting

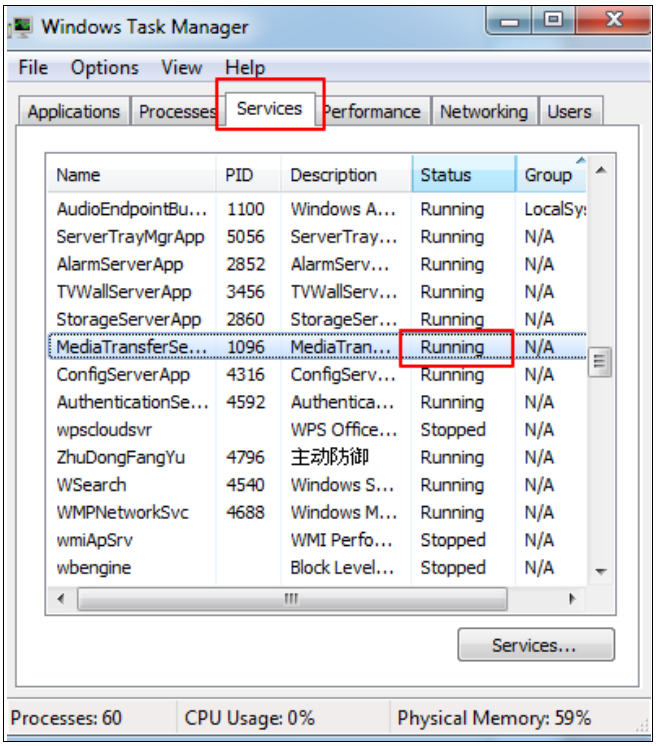
1. How to modify the password by yourself?

Login monitor client and then go to the Account and Permission interface. Select the account and click to modify the password.



2. Unable to work normally after starting server.

1) Please check up whether the port is ocuppied and view the run status of the service as shown below



3. The device information cannot be seen or the device is offline after the user logins to the monitor client.

1) Please check up whether this user account is an administrator account. If this account is an operator account, please check up whether it has the authority to view the device information.

2) Please check up whether the media transfer server of the device has been started.

4. The alarm information cannot be received after the user logins to the monitor client.

1) Please check up whether the schedule of sensor alarm, motion detection alarm and so on are set in the NVMS system.

2) As for remote login device in the monitor client, please check up whether alarms and alarm schedules of the remote login device have enabled.

5. The record cannot playback after the user logins to the monitor client.

1) Please check up whether the storage server is online. If it is online, please check up whether this account logged on has playback permission.

2) Please check up whether the record source selected has record data. If you want to get record data from a storage server, please check up whether to set the record schedule of the storage server or not.

3) Check up whether there are record data in the playback channel and whether the record source and the start time and the end time of the playaback is set up correctly.

4) Please check up the record schedules of the storage server are set correctly.

6. The configuration of devices cannot be modified remotely after the user logins to the monitor client.

1) When the device configuration is required by the monitor client and prompt “Someone is configuring. Please try later”, please open the IE browser to login to the device remotely and then go to “Online user” interface to see if there are any other users logging in.

2) Please go to the live to see whether the device is being set up.

3) If the problem still exists, please contact your device manufacturer.

7. The preview image on the client cannot display fluently.

1) Please check whether the CPU occupancy rate of the client platform is 100% or there still has usable memory. This situation will not emerge when the CPU occupancy rate is less than 75% and there still has usable memory.

2) Please check up whether the network environment is supported, including whether the uplink bandwidth of the device and stream match and whether the downlink bandwidth of the media transfer server and the streams of all channels of devices match.

3) Please check up whether the media transfer server is overload operation.

8. After starting the authentication server and media transfer server, the storage server still cannot save.

1) Please check up whether channels of devices are added to the storage server.