Mini NVMS Server

User Manual

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1 Introduction

1. Introduction

Based on the conception of “AIll-in-One”, the mini NVMS server is a management server specially designed and developed for security surveillance application. Its software is installed before delivery and combines management, video preview and intelligent applications. Due to its low lost, simple deployment, flexible expansion, powerful performance and high reliability, it can meet the requirements of the medium and small-sized security systems.

2. Features

Device Access

- Supports Navaio private protocol, ONVIF protocol, standard RTSP, SDK
- Supports adding devices by manually entering IP address, domain name or IP range, by auto search, or by auto report
- Setting the network of the devices before quick adding them

Resource Management

- Supports channel (or camera) group management and device area management
- Supports centralized management of decoding devices, encoding devices and platform services

Device Configuration

- Supports the basic configuration and user management of the devices
- Supports the date, time and time zone, network, email and DDNS configuration of the devices
- Supports getting the information of the device's HDDs
- Supports multi-OSD setup of one channel
- Supports the camera's ROI, video mask and motion detection settings
- Supports intelligent analytics
- Supports the camera's resolution, frame rate, VBR/CBR, image quality and bitrate settings
- Supports the camera's brightness, contrast, saturation, hue, AZ settings, etc.
- The parameters of multiply devices can be set at one time
- Supports configuring record plan for storage devices

User Management

- Supports multi-user talk
- Supports user MAC address binding
- Supports user lock
- Supports different users and permission
- Supports permission based on resources and operation
- Permission can be assigned to each channel (or camera) of the device

Snapshots

- Supports snapshots in the live view mode and playback mode
- Supports triggering camera snapshot

Live View

- Supports multi-screen display mode:
  Supports 1/2/4/6/8/9/10/16/17/21/25standard screen display mode

  Supports 2/4/6/7/9/12/16/24/36/48 widescreen display mode
- Supports customized screen display mode
- Supports corridor mode
- Supports adding fisheye and panoramic cameras
- Supports channel group auto-switch
- Supports stream self-adaption and one-key stream switch
- Supports steam copy
- Supports multi-monitor display

- Supports instant playback
- Supports decoding with hardware
- Supports device's smart area and result display

Two-way Talk and Broadcast

- Supports remote listening
- Supports two-way talk
- Supports 8K or 16K audio sampling rate
- Supports multiply audio formats: G.711 a-law, G.711 u-law, G.722.1, G.726, ACC, MP2L2, PCM
- Supports voice broadcast and audio file customization

PTZ Control

- PTZ remote control, including preset, track and cruise calling and settings
- Supports zoom in/out and focus+/-
- Supports PTZ protocol configuration
- Supports 3D positioning control (the target can be quickly positioned and captured by box selection
- Support scheduled tasks, one-button guard and one-button cruise configurations

Record Playback and Backup

- Supports multi-channel simultaneous and asynchronous playback
- Supports multiple record source playback
- Supports multi-window playback
- Supports playback by channel, time slice, time, tag and event search
- Supports playback by frame, dragging the progress bar, fast forward or slow speed
- Supports record backup: manual backup, scheduled backup, backup by channel, time, tag and event search; supports cutting records and backup in the playback interface

Alarm

- Supports multiple alarm types: Motion alarm, sensor alarm, smart event linkage alarm, line crossing counting linkage alarm, face match linkage alarm, etc.
- Supports multiple alarm linkages: Platform recording, client message pop-up, client preview, audio, decoding on TV Wall, device recording, device snapshot, local recording, local snapshot and so on
- Supports arming or disarming.
- Supports SOP (alarm handling process) configuration
- Supports alarm information export by time period
- Supports manual alarm output

Decoding On TV Wall

- Supports working with decoders or decoding matrix to control multiple video walls
- Supports12MP/ 8MP/5MP/4MP/3MP/1080P/720P
- Supports decoding on TV wall in the audio format of G.722, G.711A, G.711U or ACC
- Support live view and playback on TV wall
- Supports 1/4/9/16/25/36 screen mode
- Supports window merging and splitting, opening window and roaming
- Supports multiple splicing modes: 1x1, 1x2, 2x1, 2x2, 3x1, 3x2, 3x3, 4x1, 4x2, 4x3, 4x4, 4x5, 4x6, 4x7, 4x8
- Supports picture-in-picture mode and roaming mode
- Up to 999 plans configurable
- Supports channel group and plan sequence view
- Plan task configurable
- Supports triggering decoding on TV wall; customized alarm window (unlimited)
- Supports notification for node offline

Line Crossing Counting

- Supports the threshold settings of people/motor vehicle/non-motor vehicle entering and exiting
- Supports daily, monthly people/motor-vehicle/non motor vehicle flow display by chart
- Supports historical people/motor vehicle/non-motor vehicle counting displayed in a histogram or curve graph and exported to an Excel
- Supports single/multi-channel real-time statistics and daily/monthly/yearly statistics via E-map
- Historical data searched by single/multi-channel, time period and line crossing and exported to a curve graph or histogram, or

an Excel

Electronic Map

- Supports Baidu map and picture map. The picture map supports JPG, BMP, PNG and TIF formats
- Supports multi-level maps; adding, modifying, moving, deleting hot spots (monitoring points, sensor)
- Supports layer edition and display as well as self-defined layer
- Supports alarm linkage, like icon flickering, video pop-up

Face Surveillance

- Support batch adding and importing face pictures; people attribution information configurable
- The match boxes of strangers and people from allow list and block list are displayed with different colors.
- Supports alarm popup-window after face capture or match
- Supports image search and playback by face image (captured face image or uploaded face picture) and all searche d face images can be viewed via the list or track on the E-map
- Supports one-key adding the captured picture to the face database in the image search interface
- Supports the similarity setting of face search
- One-key exporting face pictures of face database

Face Attendance

- Attendance time configurable
- Supports displaying the employee's photo and the compared time on the right panel after successful comparison
- Supports multi-screen display mode (1/4/9/16); the face attendance video can be projected onto a sub-screen
- The attendance record can be viewed and filtered by day, week, month, working day/ non-working day/late/leaving early/overtime working/normal working/check-in /no check-in
- Supports displaying attendance status and overtime working status in the form of a list, which can be exported to an Excel

Face Greeting

- Supports self-defining the style and other configuration items of the greeting interface
- Real-time visitor information display on the client
- The VIP visitor 's photo will be shown on the pop-up window of the sub-screen and the corresponding audio will be broadcast simultaneously
- Single visitor loop play time can be configured in seconds
- Greeting pop-up window quantity, height and duration configurable
- Support visitor access records search

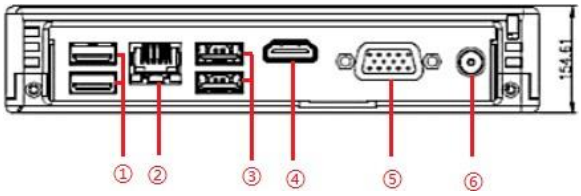
Parking Lot Management

- ANPR camera access
- Total/remaining space display
- Barrier gate control, manual/auto opening
- Historical vehicle entering or exiting information search
- Adding, modifying and deleting vehicle information and their parking permission
- Entrance/exit lane configuration
- Overstaying parking search and self-defining overstaying threshold
- Block list management (adding, modifying and searching
- vehicles to /in the block list)

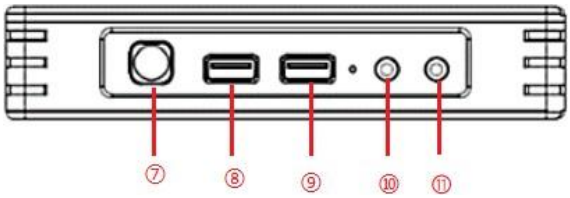
Others

- Supports keyboard control
- Supports overload protection
- Supports operation and maintenance management:
- Operating, system and alarm logs can be searched and exported by time, type and user

1.3 Front and Rear Panel Interfaces



Real Panel



Front Panel

No.	Description	No.	Description
1	USB3.0 *2	7	Power button LED ）
2	Ethernet port LAN ）	8	USB3.0 *1
3	USB2.0 *2	9	USB3.0 *1
4	HDMI output	10	Audio Input
5	VGA output	11	Audio Output
6	DC power supply		

4. System Components

1. 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.

1.4.2 Background Monitor

- Background monitors include TV Wall, Monitor, etc.

●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.

1.4.3 Control Center

- Realize various services, such as, video transmission, recording, decoding on TV wall, etc.
- Add IP-SAN storage array to realize centralized storage.
- Connect servers and IP-SAN storage array to internet through switches.
- Set up IP addresses in accordance with the actual situation.

1.5 Default System

The default network settings are as follows:

The default IP address:**192.168.0.10**；the default HTTP port: **8000**

Web client login: http://192.168.0.10:8000

The default username: **admin**；the default password: **123456**

2 Login

2.1 Login

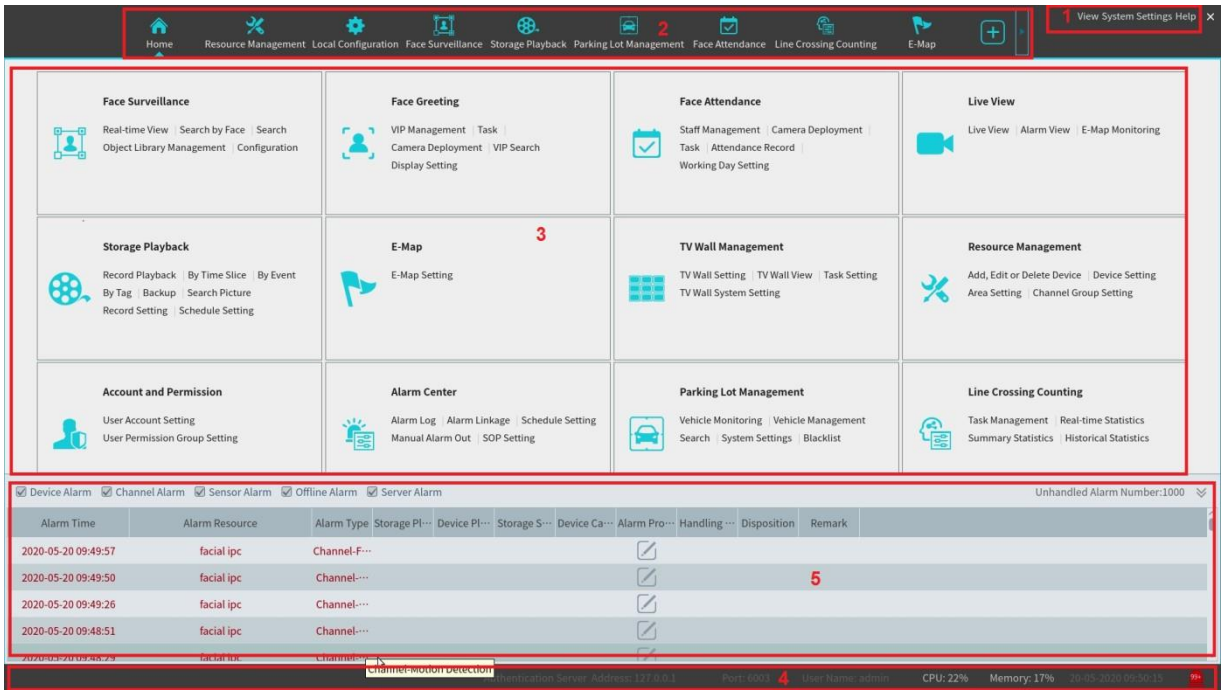
Double click the shortcut icon of "Monitor Client" to run the software as shown below.

① Enter username and password (the default username is admin; the default password is 123456).
② Check "Remember Password" or "Auto Login" as needed.
③ Click [Login].

If you forget the password, please click "Reset password". Then a small window will appear. You can reset the password by answering the pre-defined questions.

If this is the first time for you to log in, it is recommended to set the security questions/answers.

2.2 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", "Change to home page", "Change to smart view page", "Change to smart site page".
System	Including "Live View", "Record Playback", "E-Map", "TV Wall Management", Resource Management", "Account and Permission", "Alarm Center" "Operation and Maintenance Management", "Face Surveillance", "Face Greeting", "Line Crossing Counting", 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.
Face Surveillance	To recognize, compare or search face.
Face Greeting	To welcome visitors based on face recognition technology
Face Attendance	To help to manage staff attendance based on face recognition technology
Parking Lot Management	To manage vehicles in the parking lot
Line Crossing Counting	To monitor and analyze people/vehicle flow in real time
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.

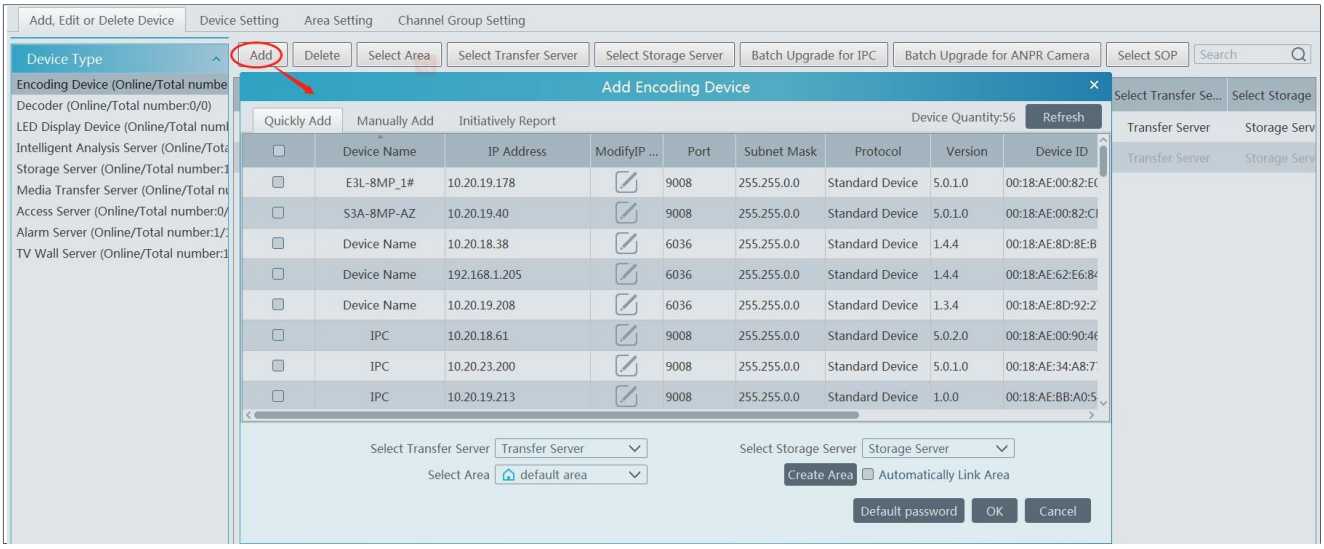
Other buttons:

Button	Description
	Click it to add the live view page.
	When the tab pages exceed the applicable numbers, this icon will display. Click it to view the hidden tabs.

3 Device Management

3.1 Add Encoding Device

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



Then click “Add” to add devices. You can add multiply devices in this interface, such as face detection IPC, face recognition IPC/NVR/box, face recognition terminal, perimeter alert IPC, ANPR camera, etc.

3.1.1 Quickly Add

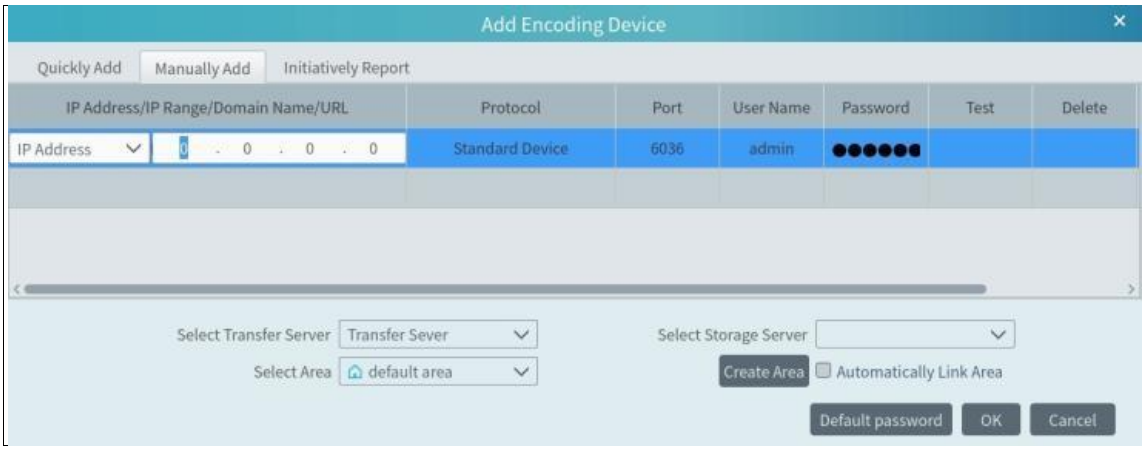
Click [Refresh] to quickly search devices in the same local network as shown below. Check the device and allocate the transfer server, storage server, area for it. After that, click [OK].

Click “Default password” to set the default username and password of the devices from different manufacturers, such as Hikvision, Dahua, PMS, etc. The default username of the standard device is “admin and the default password of the standard device is “123456”.

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 Area Setting).

3.1.2 Manually Add



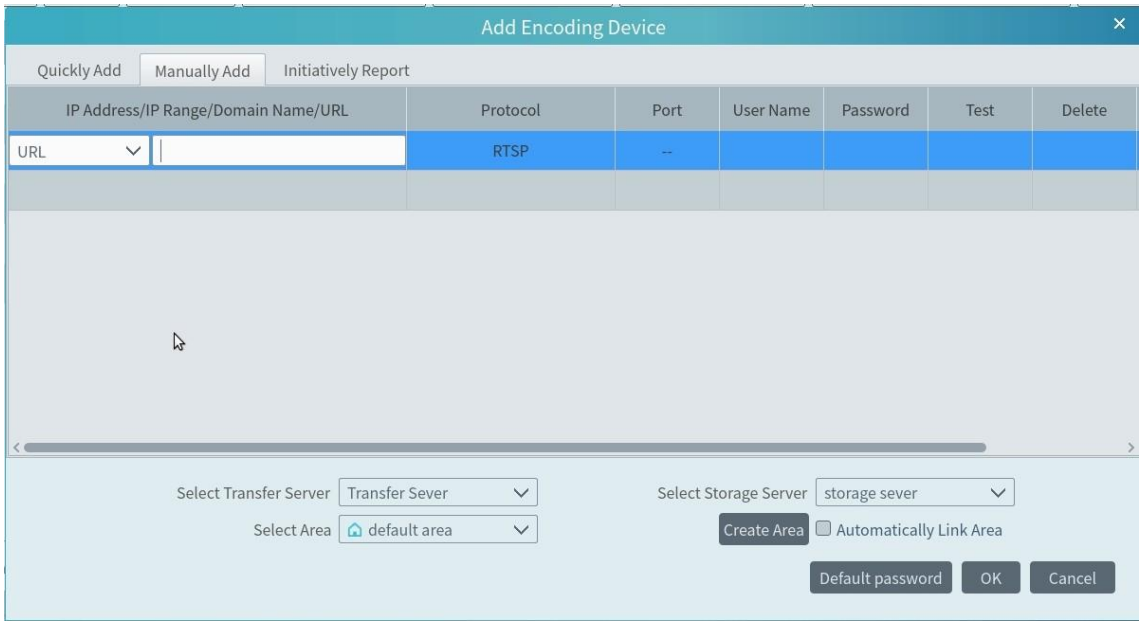
① Enter IP address/IP range/domain name, username and password and choose protocol type.

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

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

Devices can be added in batch by adding IP range.

If “URL” is selected, you shall add the device via RTSP protocol. Enter the URL, username and password of the device and then click [Test] to test whether the device is connected successfully or not.



How to get URL?

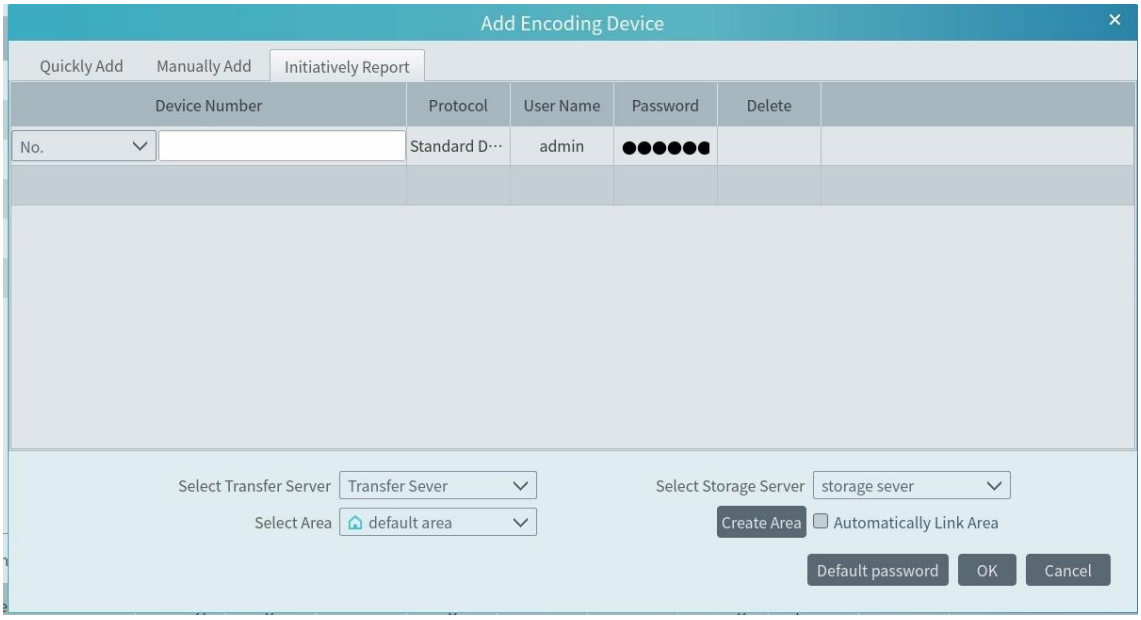
Here we take the IPC of our company for example. Log in to the web client of the IPC and then go to “Config”→ “Network”→ “RTSP” interface to configure RTSP.

The default RTSP port is 554 and the URL format is “rtsp://IP or domain name:port/profile1”. For example: rtsp://192.168.1.1:554/profile1. Profile1stands for main stream; profile2 stands for sub stream; profile3 stands for the third stream.

The URL of the device of other companies, please get the URL from its web client or the third-party tools (like ODM).

3.1.3 Initiatively Report

Select the “Initiatively Report” Tab to see the following interface.



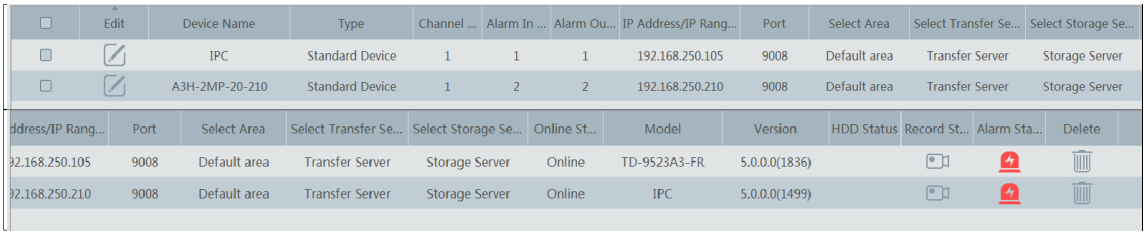
① Enter the device ID set in the DVR/NVR or IP camera and choose the protocol.

- If the DVR/NVR is needed to add, please go to Network→Platform Access 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].

3.2 Modify or Delete Device

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



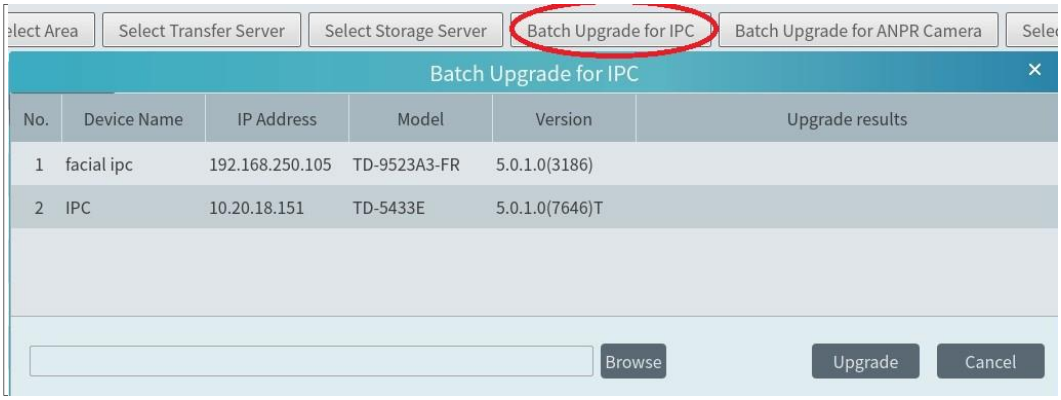
The device channel number, alarm status, online status and record status can be viewed from the above table.

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.

3.3 Device Upgrade

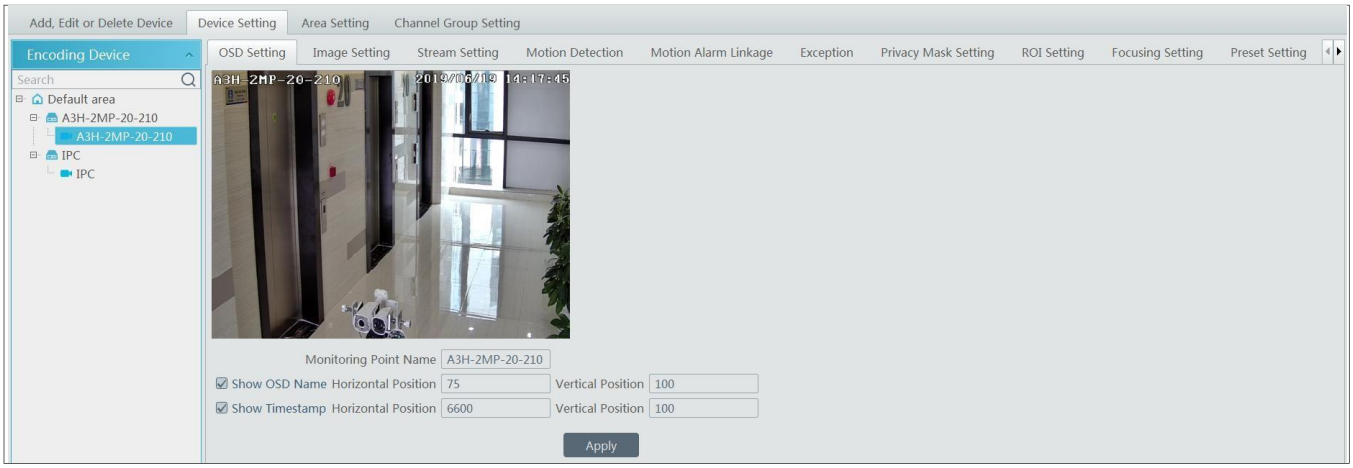
In the "Add, Edit or Delete Device" interface, check the devices you want to upgrade and then click [Batch Upgrade for IPC] to upgrade the firmware of IPC.



Note: When multiple IPCs are upgraded simultaneously, the selected IPCs must be the same series.

3.4 Device Setting

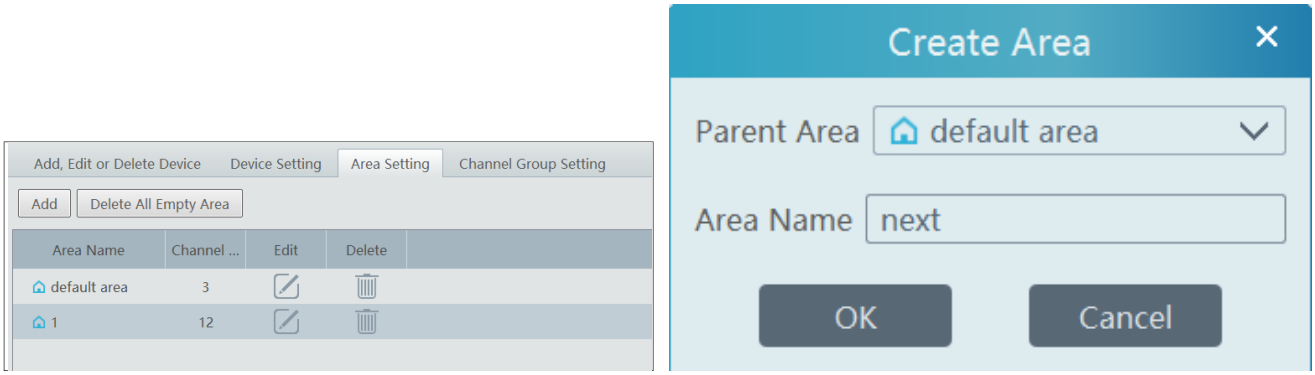
Go to Home→Device Setting interface as shown below. In this interface, the parameters of the device can be set up.



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

3.5 Area Setting

Go to Home→ Area Setting interface as shown below.

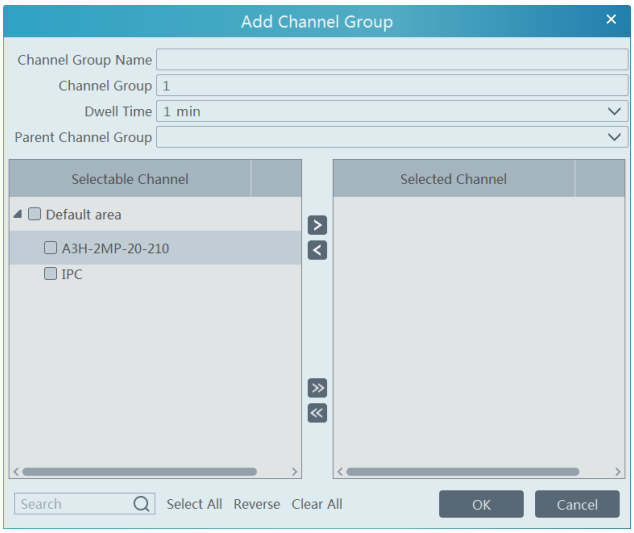


Click [Add] to go to Area adding interface. Enter area name to create parent area. Then click [OK] to save the settings. To create sub area, click [Add], choose the parent area, enter the area name and click [OK].

Click to modify area; click to delete area.

3.6 Channel Group Setting

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



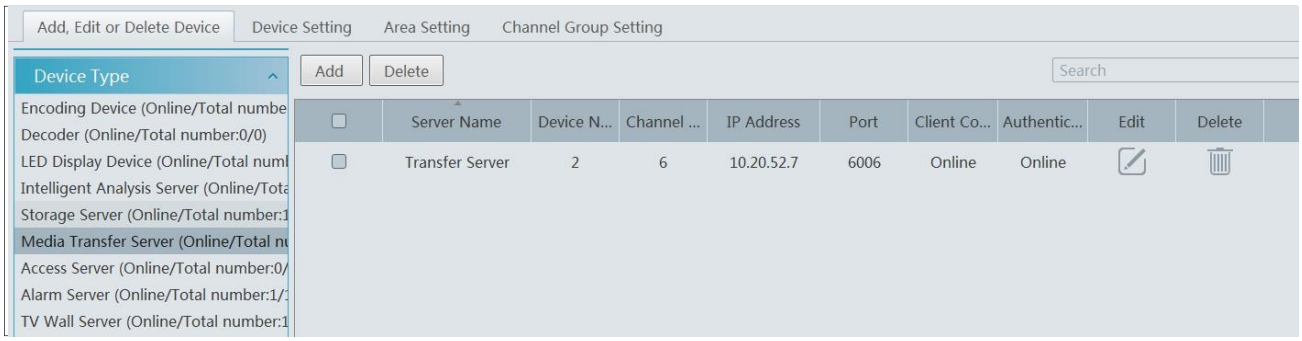
① Click [Add].
② Enter channel group name, channel group and dwell time.
③ Select the parent channel group.
④ Add channels to the channel group. Check the desired channels and click to add channels; choose the selected channel and click to remove those channels; Click to add all channels; click to remove all selected channels. You can also enter the key words to search the channels and then select them.
⑤ Click [Ok] to save the settings.

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

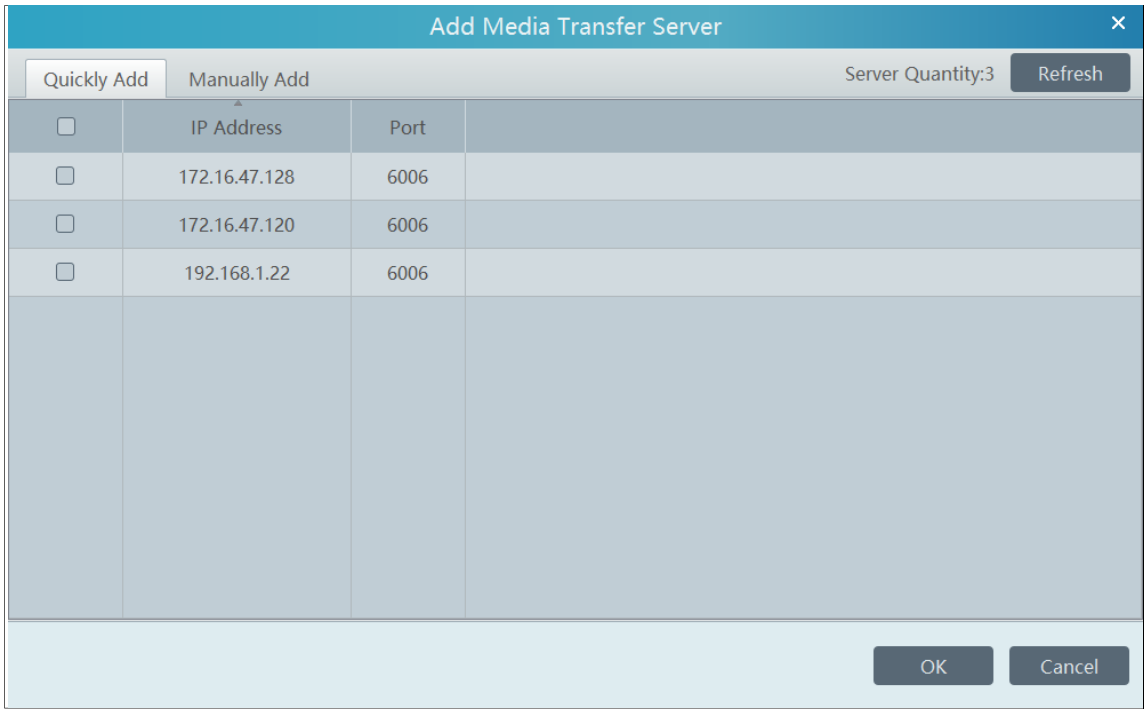
3.7 Add Media Transfer Server

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.

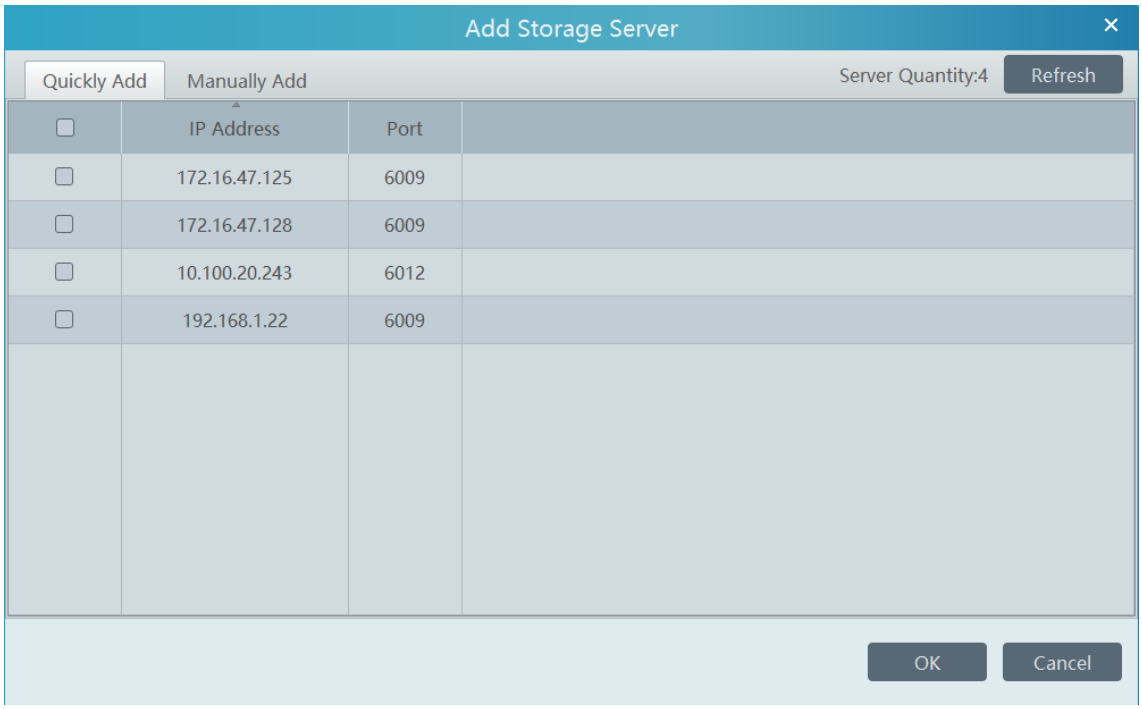


Click to modify the media transfer server; click to delete the media transfer server.

3.8 Add Storage Server

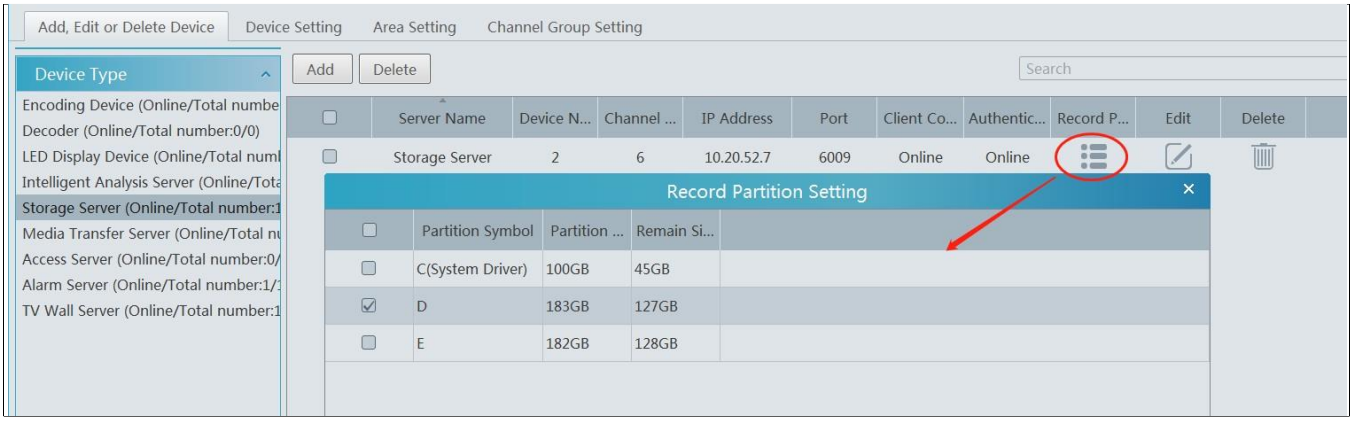
Storage server is in charge of the storage of record information, including the information of schedule record, record based on motion alarm, sensor alarm, smart detection alarm (like object removal detection, line crossing detection, etc.), responding to the search and playback of all storage data. 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.

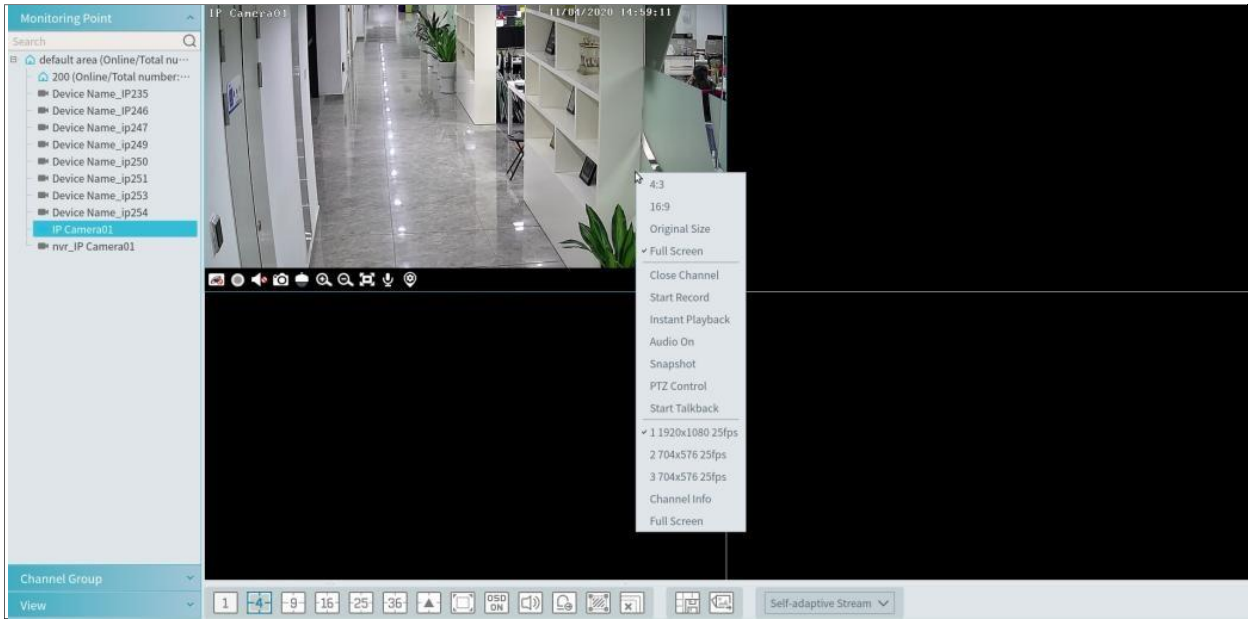
After the storage server is added, click to set record partition. In the record partition setting interface, select the disk and click [OK] to save the settings. Click to modify the storage server; click to delete the storage server.



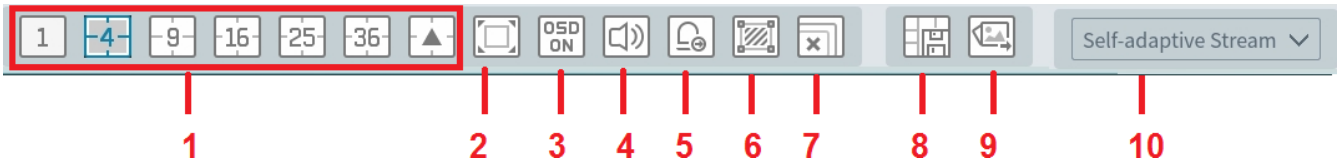
4 Live View

4.1 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	6	Show the smart event detection area
2	Full screen	7	Close all preview
3	Enable/disable OSD	8	Save the current view mode
4	Enable/disable broadcast	9	Image export
5	Manual alarm output	10	Choose the camera stream

Channel stream: main stream, sub stream, third stream and self-adaptive stream can be optional. When the third stream is selected, the system will automatically switch to sub stream if the channel/camera doesn't support the third 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
	Monitoring point setting (camera setting)		

Right-click button function:

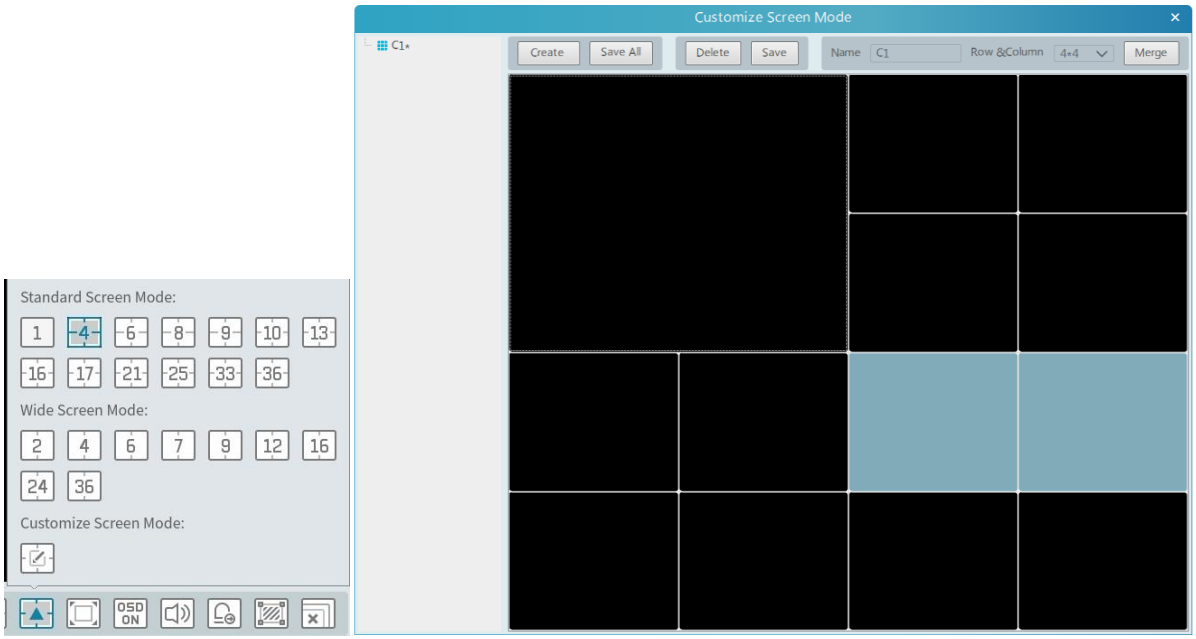
Menu	Description	Menu	Description
Close Channel	Close image	**Snapshot**	Capture images
Start Record	Start/stop recording	**Start Talkback**	Enable/disable talkback
Instant Playback	Click it to play back immediately	**Channel Info.**	Display channel name, IP address and the current stream
Audio ON	Enable/disable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

4:3/16:9/Original Size/Full Screen: screen display proportion; please select it as needed.

4.1.1 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.



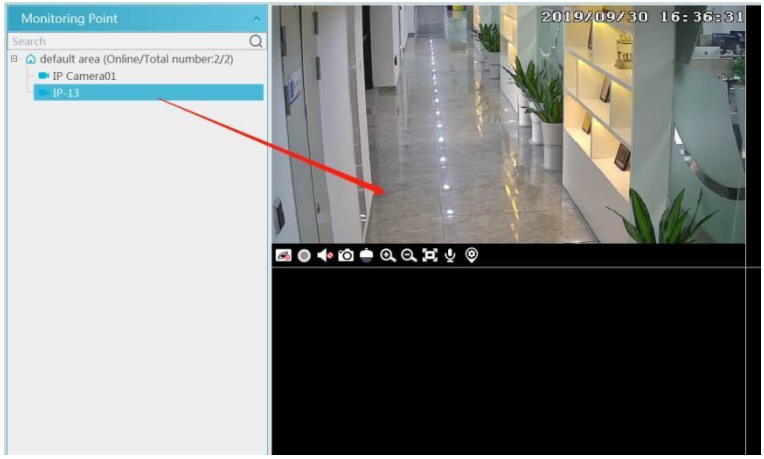
② Enter screen display name and select the display row and column. Hold the left mouse button and drag on the screen and then click [Merge] to merge the screens.

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.

4.1.2 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.

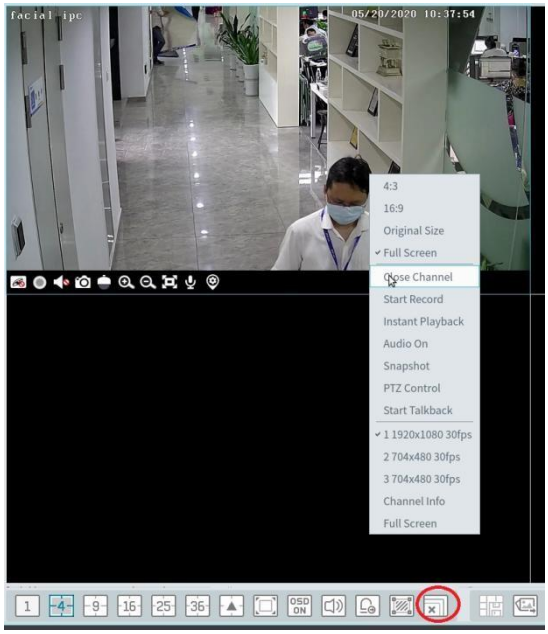


- Stop View

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.

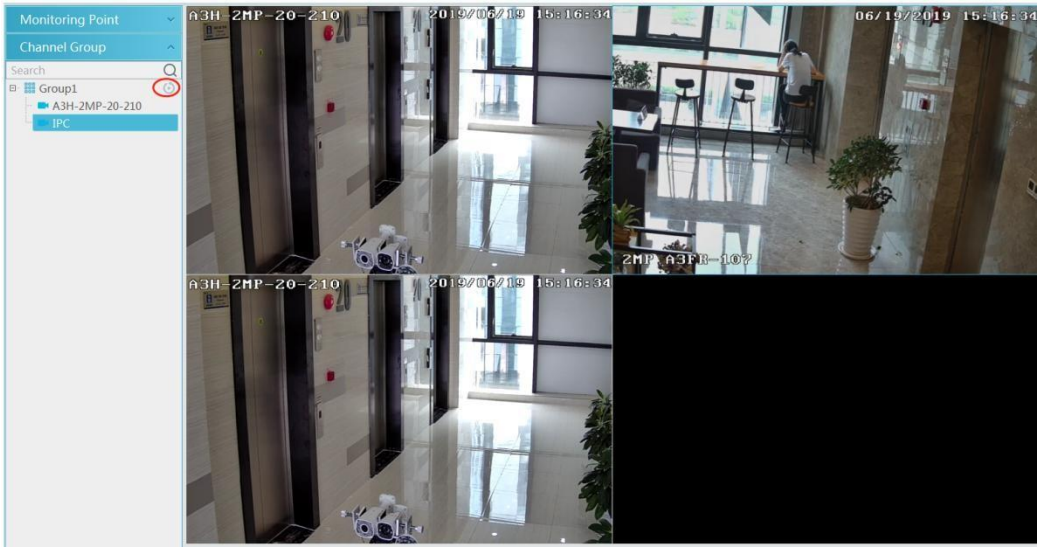
③ Click on the toolbar of the live view interface to stop all live view.



4.1.3 Channel Group View

- Start Channel Group View

After the channel group is set successfully (See Channel Group Setting), go to live view interface as shown below.

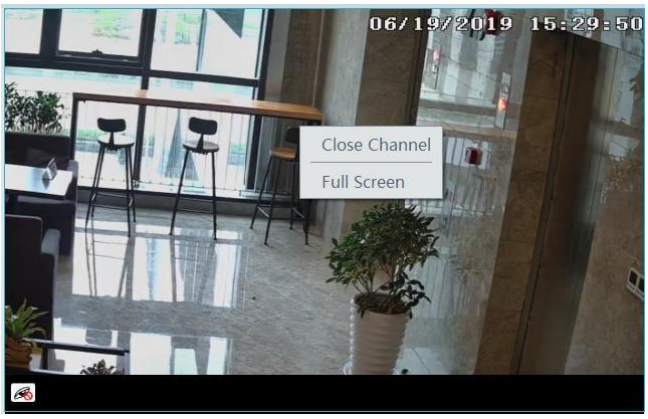


You can start the channel group view as follows.

1. Choose the screen display mode according to the channel number of the channel group. Select a window and then double click the channel group name or dragging the channel group to a window to play all channels in the group.
2. In the current screen display mode, select a window and then click beside the channel group name to play all channels of the channel group in this window in sequence.

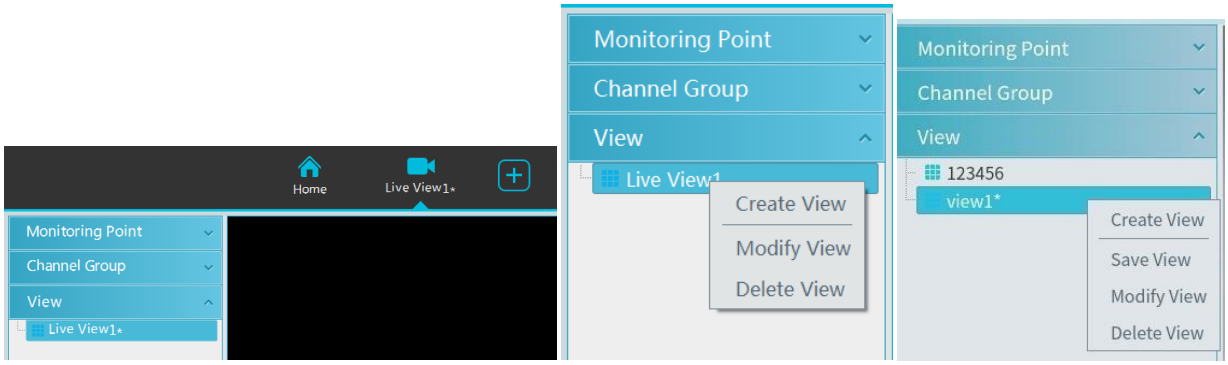
- Stop Channel Group View

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.



4.1.4 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.

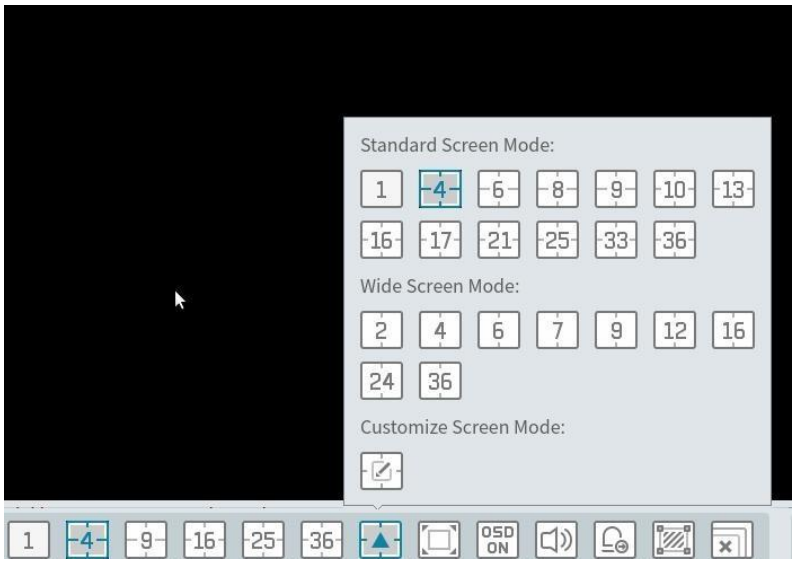
- Modify or Delete View Plan

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.

4.2 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.

- Audio Broadcast

Click to bring audio broadcast box as shown below.

The left device list shows the devices that support audio broadcast. Check the device and click [Add] to add the desired broadcast device. Click [Start Broadcast] and then all added device will start broadcast. Select the added device and click [Delete] to delete the device.

- 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→ Device Setting. Select the device and click “Stream Setting” tab to set streams.

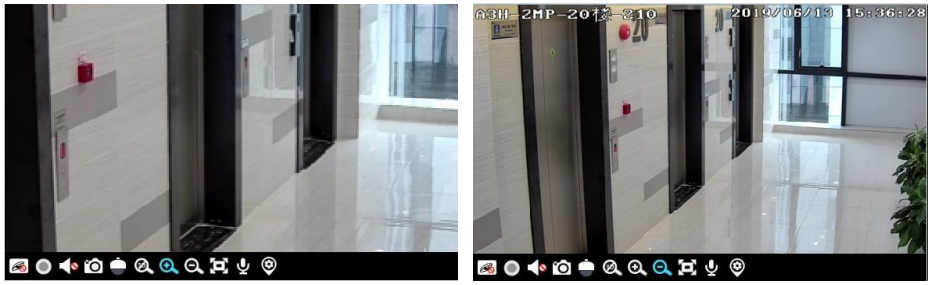
- Audio Control

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

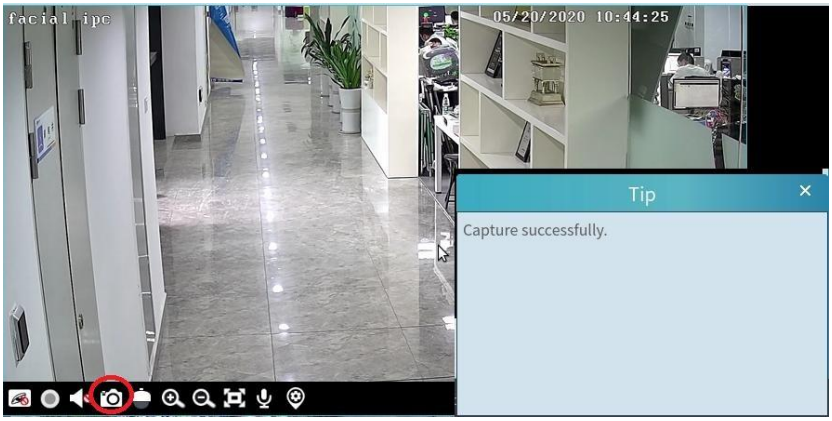
In the live view interface, click on the live view window to zoom in the window and then drag the image to view the whole image; click to zoom out the image; click to restore the image size.



4.3 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.

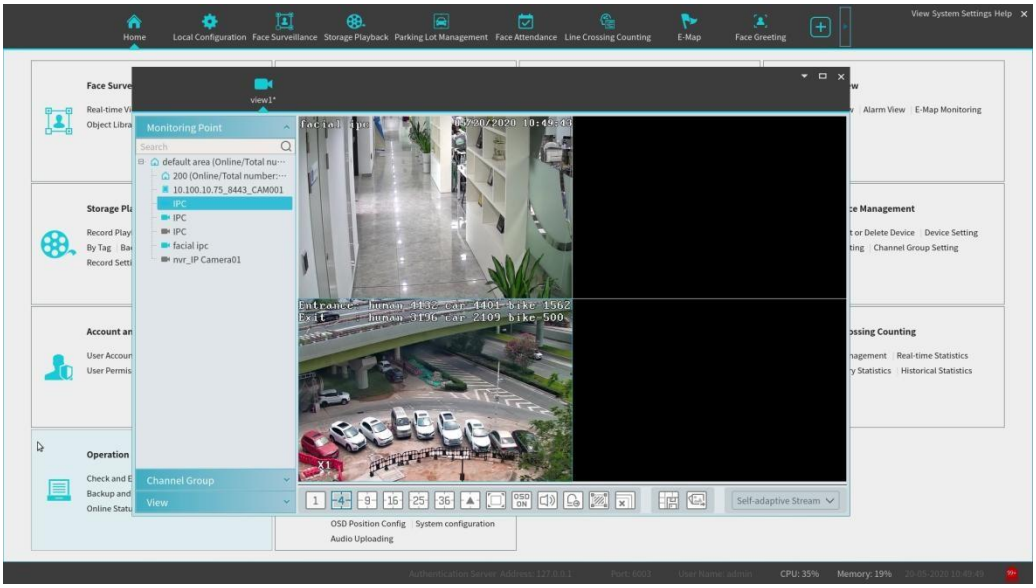
Note: Only when the video is playing in the window, will the snapshot succeed.



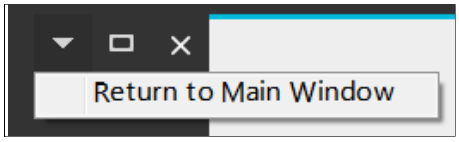
The snapshot will be saved in the Mini NVMS Server by default. A maximum of 100 snapshots can be saved. If more than 100 pictures are captured, some previous snapshots will be overwritten.

4.4 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).



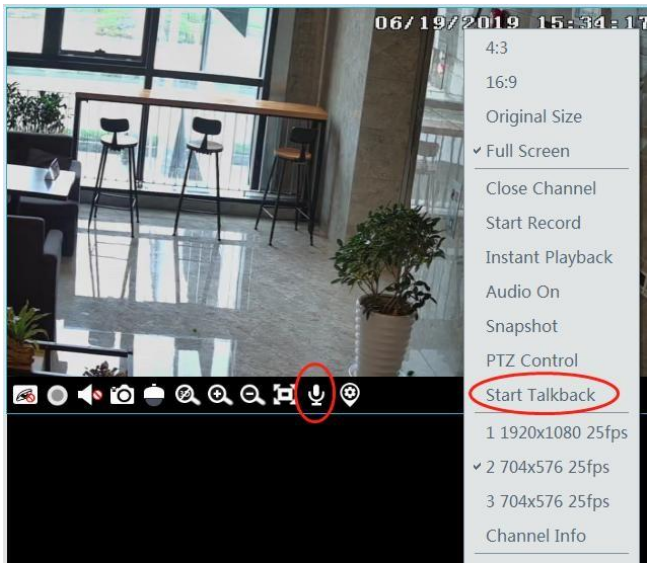
Click on the float window and select “Return to Main Window” to embed this tab in the main interface.



4.5 Talkback

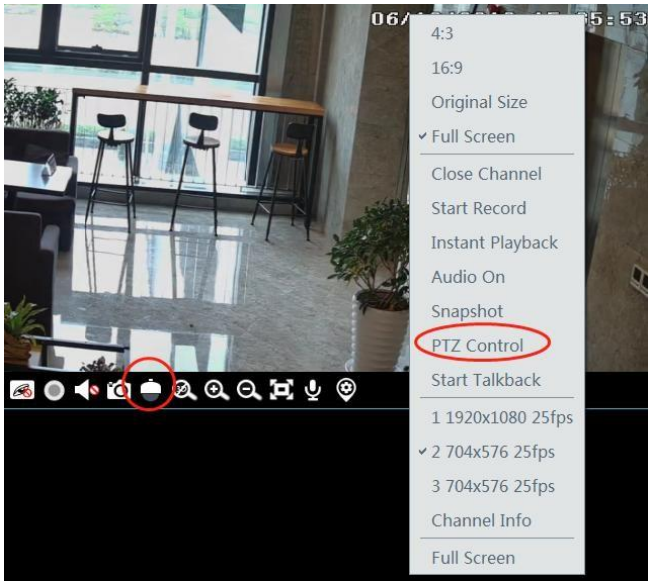
In a live view window, click on the toolbar of this window or select “Start Talkback” on the pop-up menu by right clicking to enable talkback.

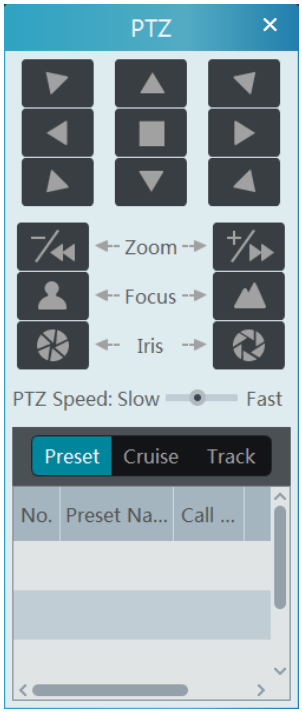
Note: Since the software only allows enabling one device’s talk at the same time, the system will stop talking with the current device if a new talk is enabled.



4.6 PTZ Control

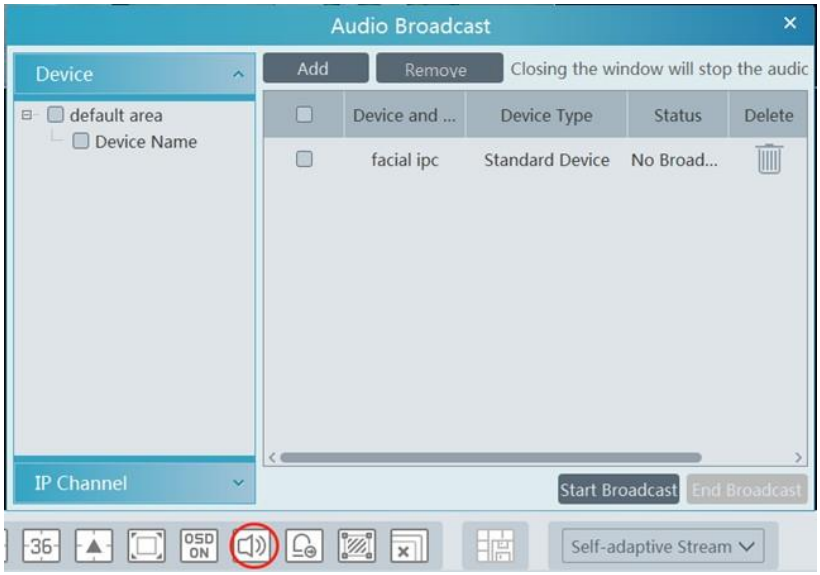
Click or right click to select “PTZ Control” to enter PTZ control interface. The directions of PTZ, zoom, focus, Iris, preset, track and cruise can be controlled through PTZ control panel.





4.7 Audio Broadcast

Click to pop up an "Audio Broadcast" interface as shown below.



Check the left device and then click "Add" to add the device you want to broadcast.

Check the added camera on the right and then click "Start Broadcast".

Click to delete the added device.

Choose multiple devices and then click "Remove" to delete them at a time.

5 Record & Playback

5.1 Record Configuration

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

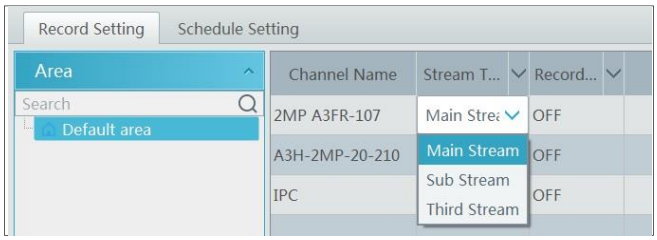
5.1.1 Manual Recording

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, the recording will stop when the viewing window is closed.

5.1.2 Schedule Recording

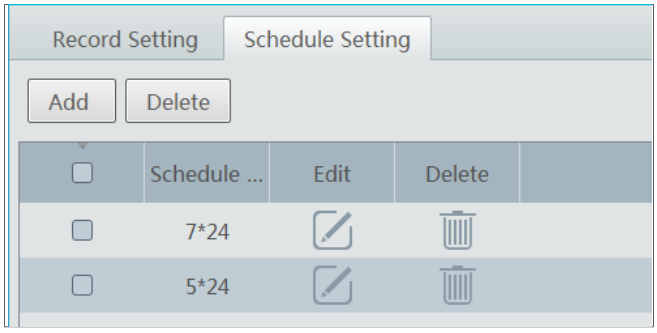
Go to Home→"Record Setting".



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

- To set schedule:

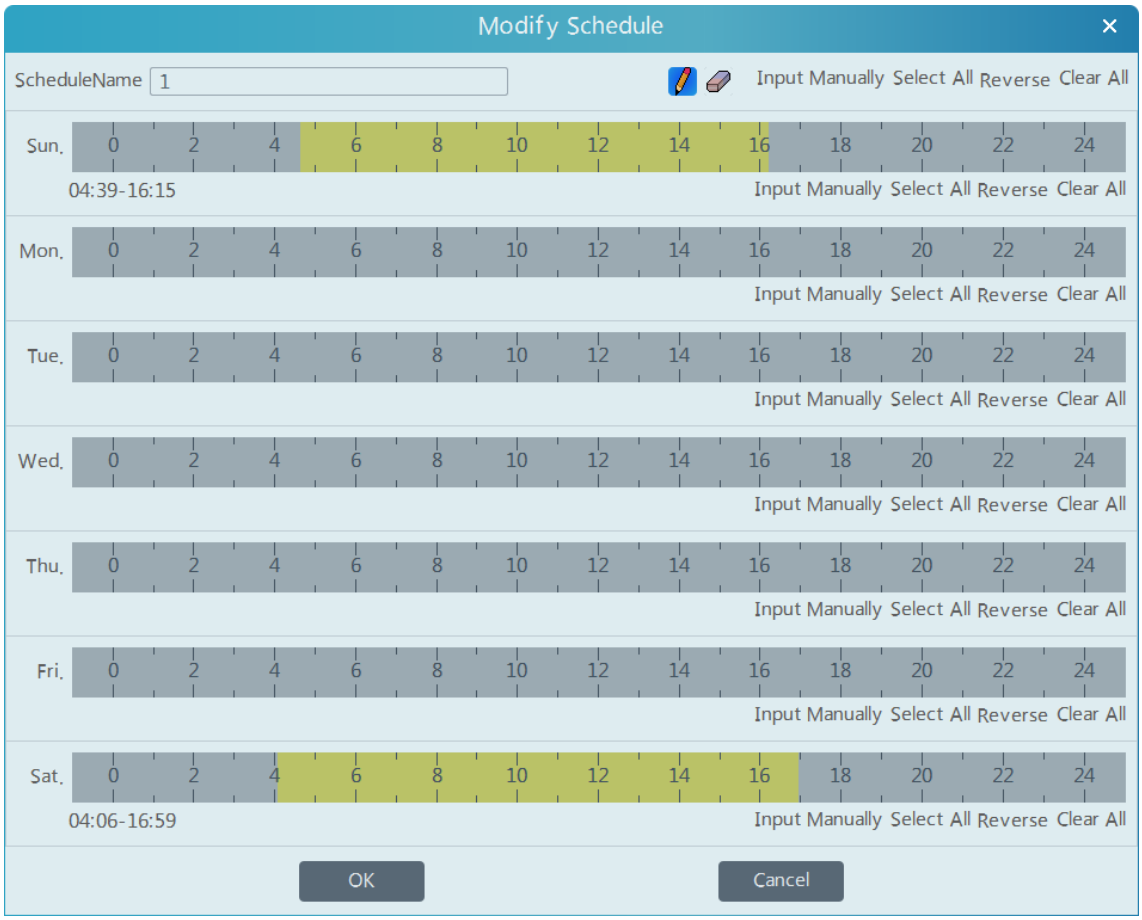
① Click the "Schedule Setting" tab to go to the following interface.



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.

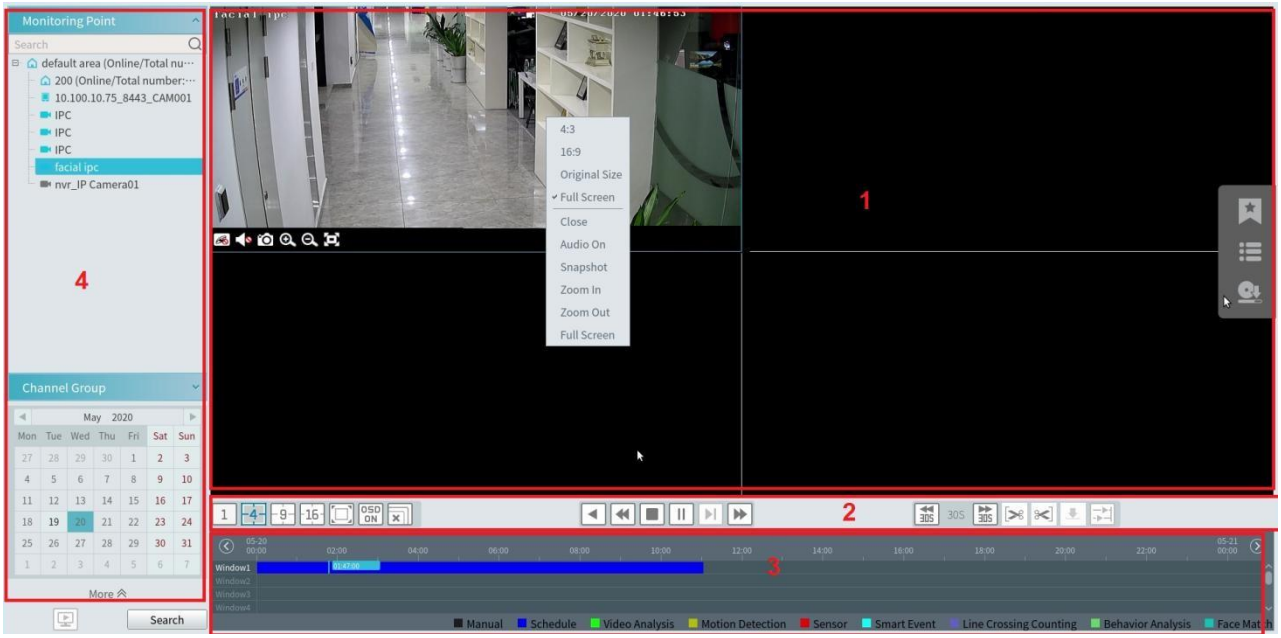


5.1.3 Alarm Linkage Recording

① Go to Home→ Device Setting 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.

5.2 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
	Backup start time
	Backup end time
	Start backup
	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.

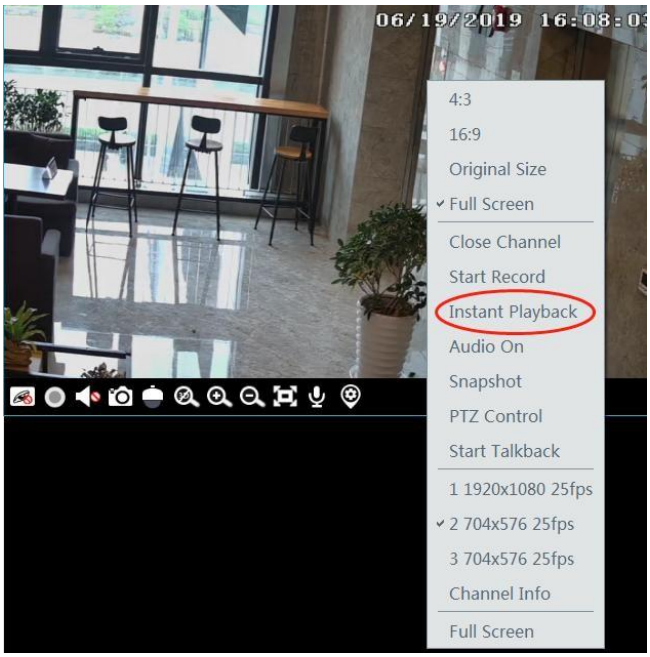
In the timetable, different color bars stand for different record types. For instance, yellow bar stands for motion recording data; blue bar stands for schedule recording data; red bar stands for sensor record data, etc.

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.

5.2.1 Instant Playback

➢ **Instant Playback**

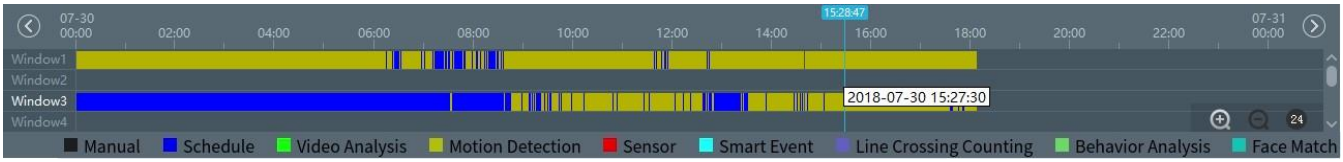
In the live view interface, right clik on a playing channel to select “Instant Playback” and then set the playback time to play the record instantly (the record of the channel in the past five minutes will be searched and played from that time when the record exists).



5.2.2 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.

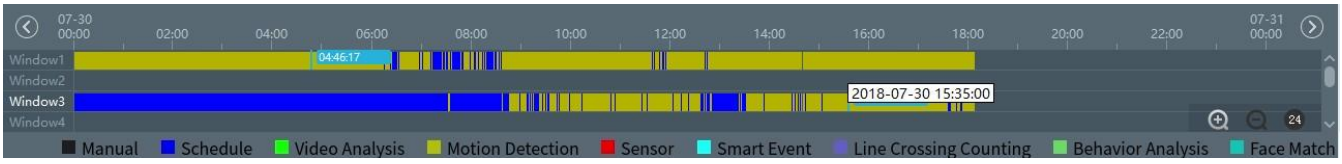


In synchronous mode, one camera can only have one playing window. All cameras' record information can be viewed at the same time. When playing record file in synchronous mode or asynchronous mode, clicking or will be useless unless all the playback windows are closed.

5.2.3 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.

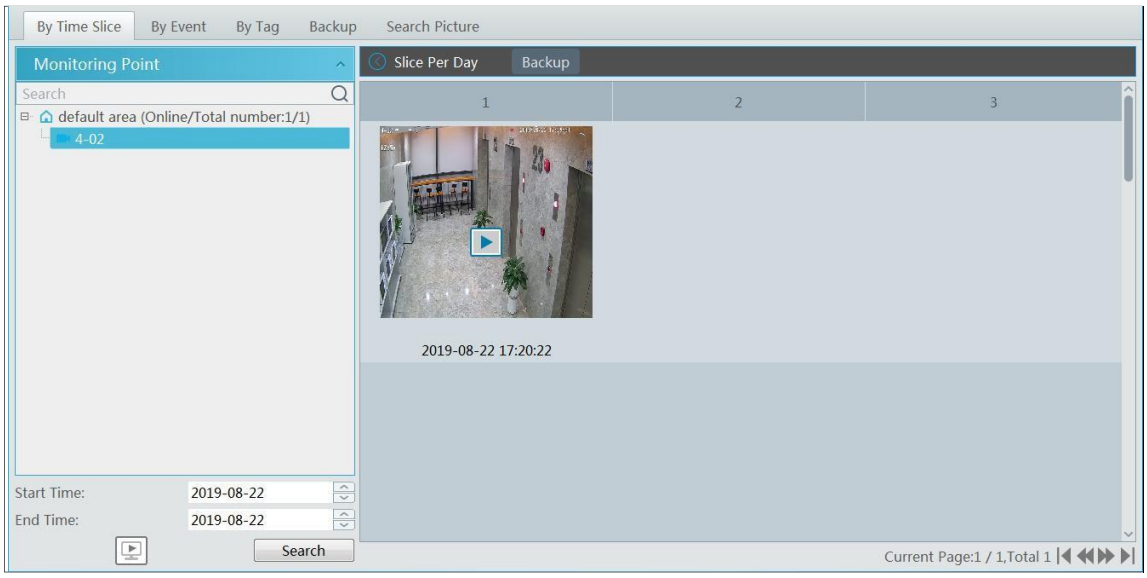
Click to go to the asynchronous playback interface as shown below. Please play the record according to the ways introduced as the above. The record bar in asynchronous mode is as below.



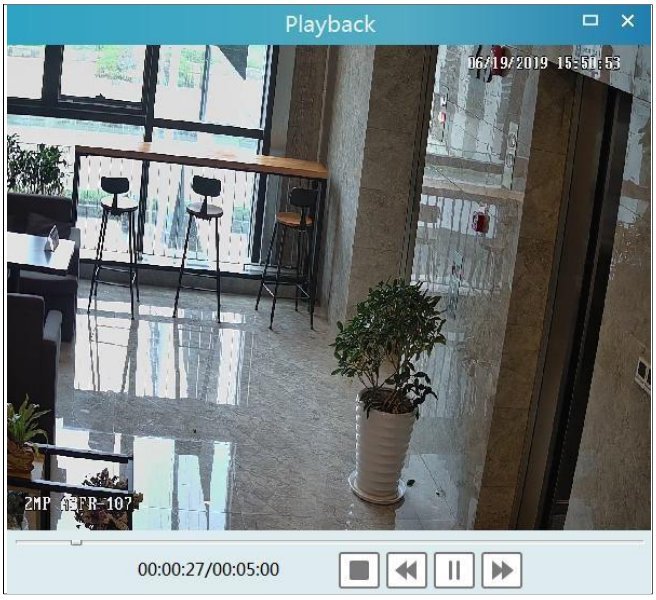
5.2.4 Playback by Time Slice

① Go to Home→By Time Slice interface.

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

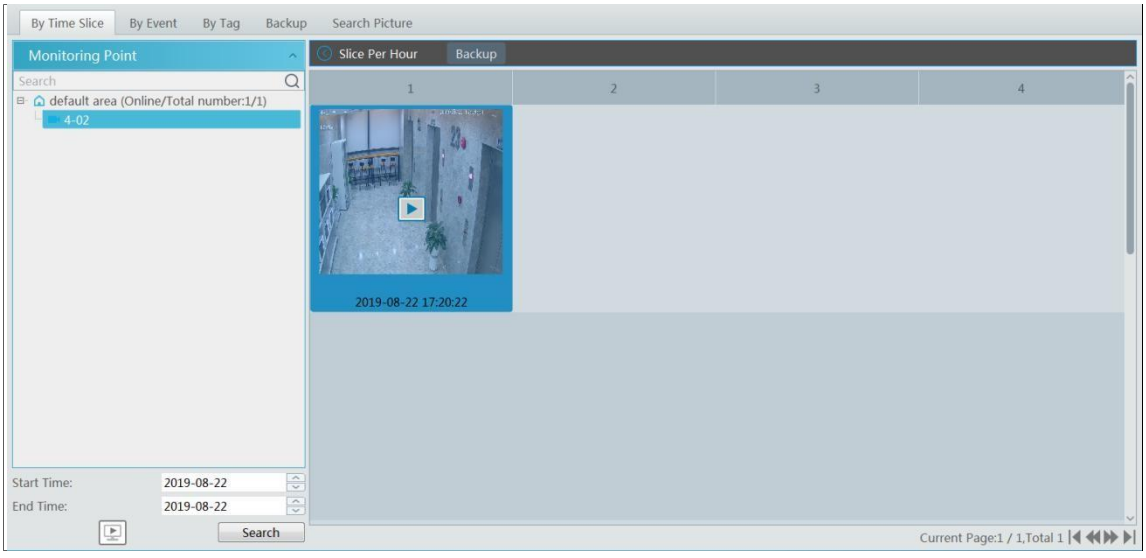


③ Click to play the record.

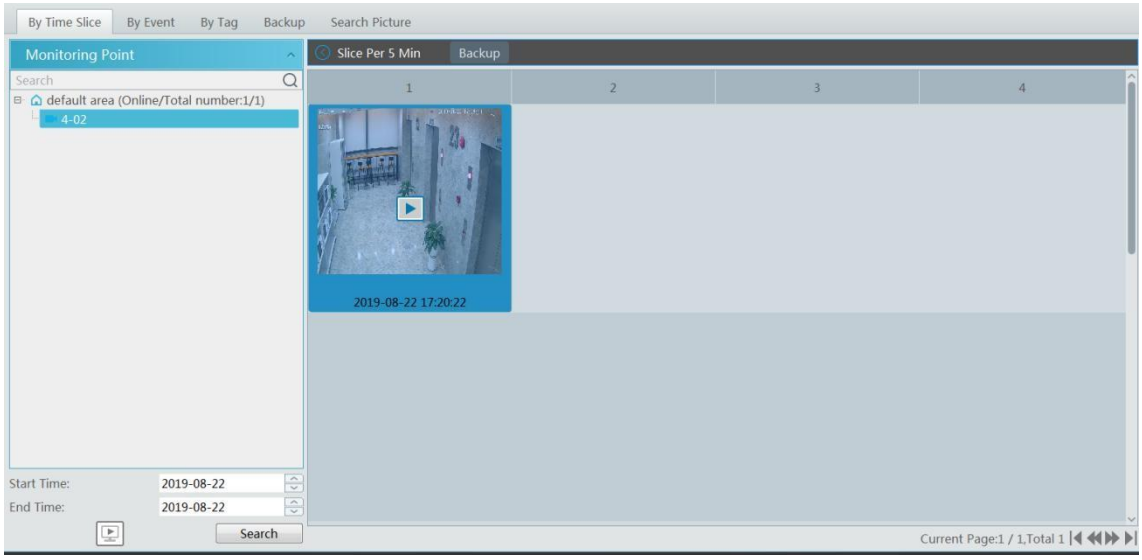


Click button on the top right corner to play in full screen mode.

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.



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



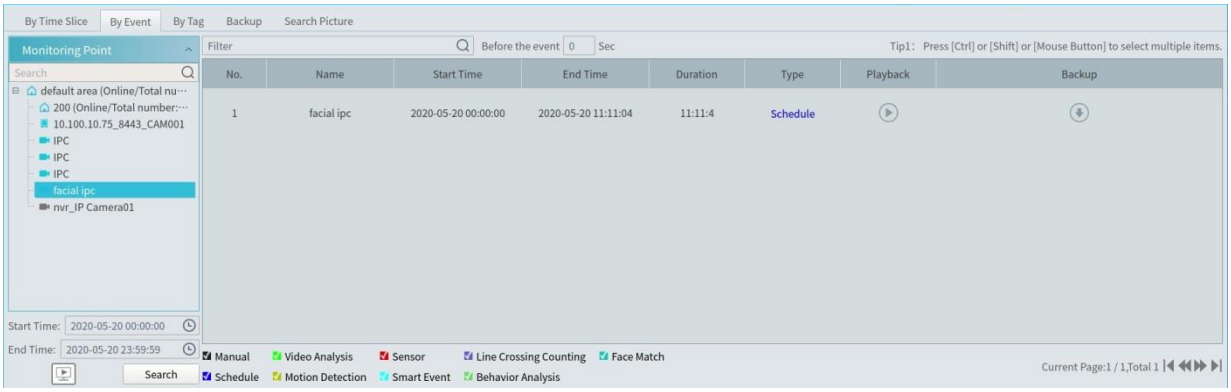
In the above interface, click to return to slice search mode by hour.

Backup: In the Search by Time Slice interface, select a time slice and then click "Backup" to back up the record file during this period quickly.

5.2.5 Playback by Event

① Go to Home→ By Event interface.

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.

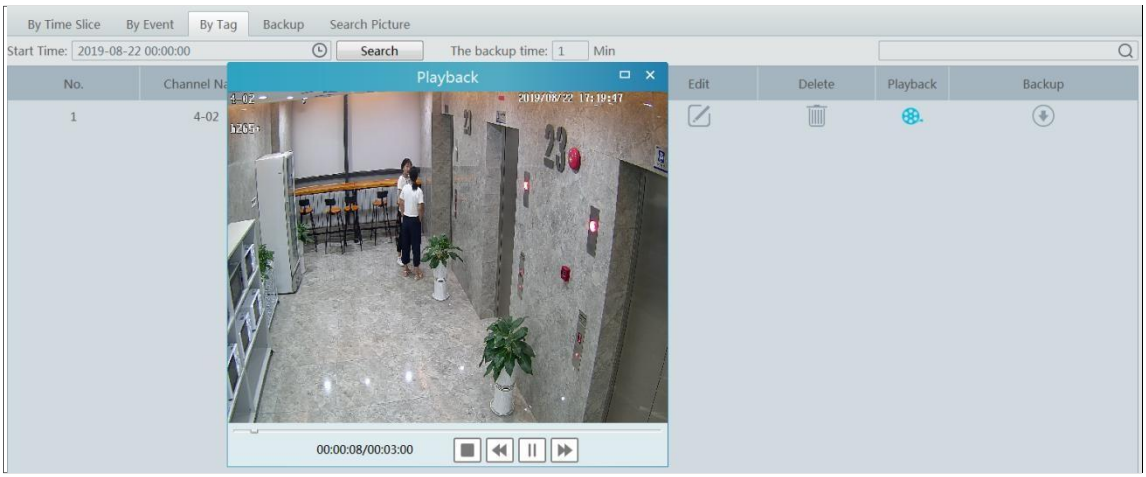
5.2.6 Playback by Tag

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.



5.3 Backup

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

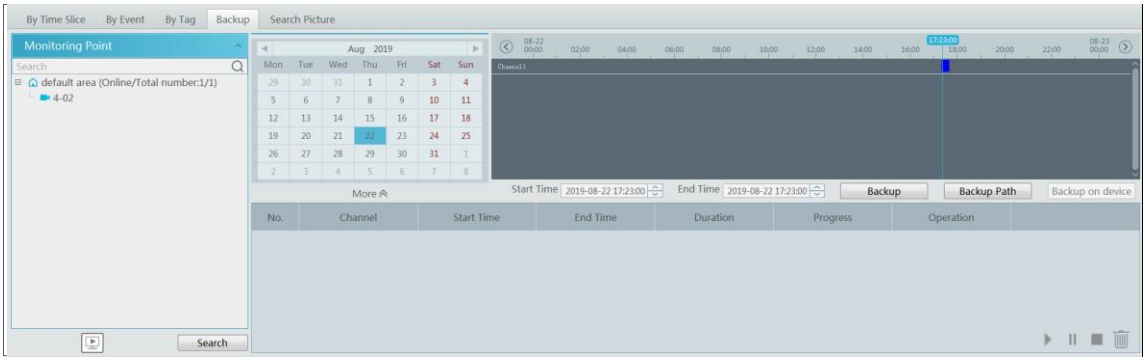
① Select the desired monitoring point.

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].

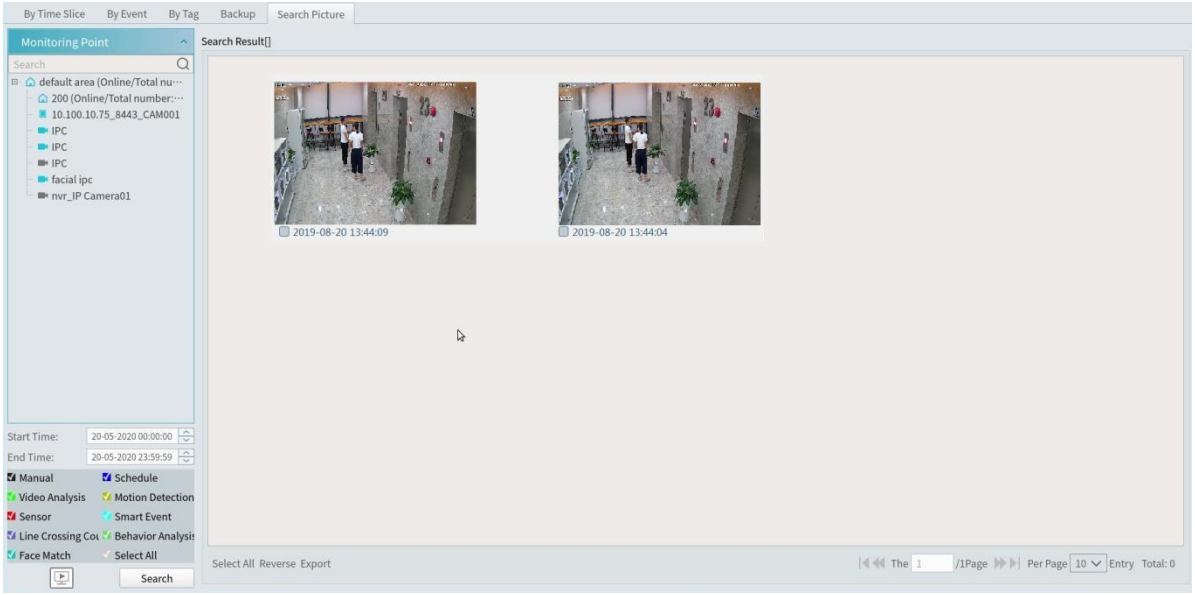
⑤ The backup progress will be seen during backing up the record. Click to pause; click to stop backing up the record; click to clear the backup list.



"Backup on device": This function is applied to the added NVR devices. Search the record from the HDD of the NVR in this interface and then insert a USB storage device into the USB port of the NVR and then click this button. Then the recorded files will be backed up to the USB storage device remotely.

5.4 Search Picture

In this interface, pictures stored on the SD card or storage server can be searched and viewed.



① Select the device.

② Set the start time and the end time.

③ Choose events.

④ Click [Search]

6 Alarm Management

6.1 Alarm Server Configuration

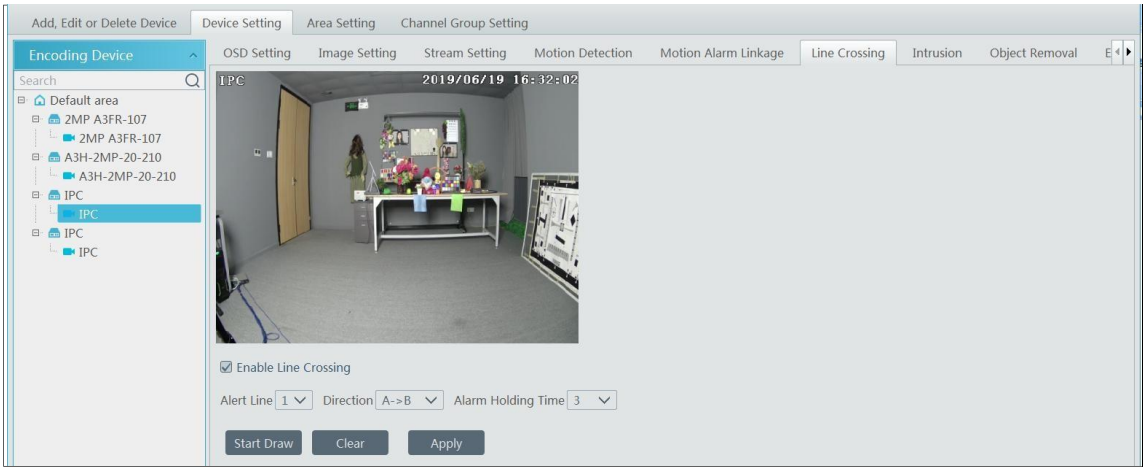
Alarm server is in charge of receiving and recording alarm information of connected devices and then sending the alarm information to the relevant user terminal system or devices in accordance with prior alarm settings. There is a default alarm server.

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.

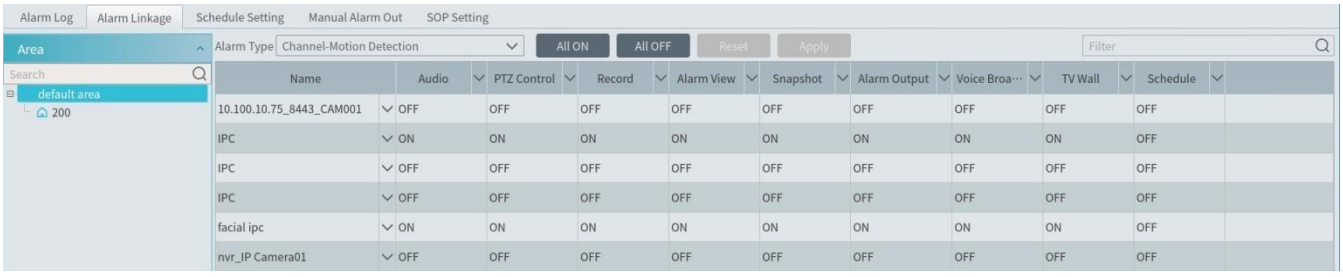
6.2 Alarm Configuration

① Go to Home→Device Setting interface.



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

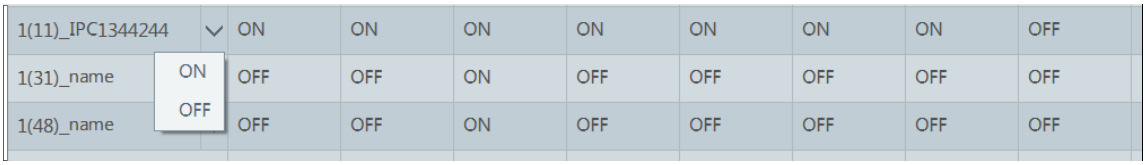
② Go to Home→Alarm Center→Alarm Linkage interface.



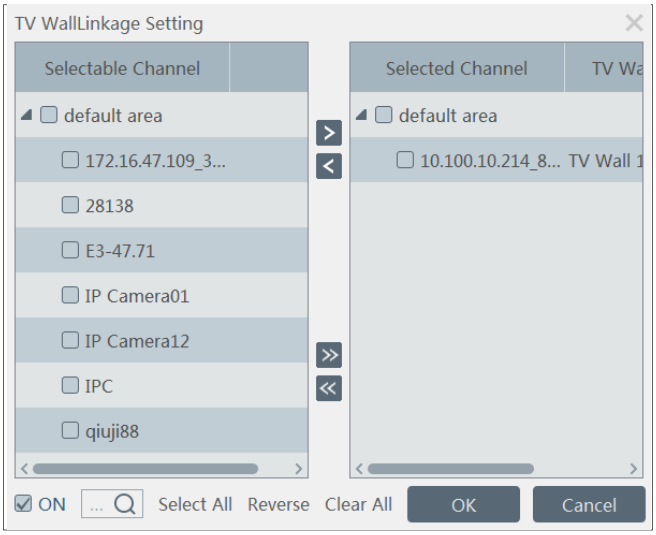
Select area, alarm type and then enable alarm linkages.

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.

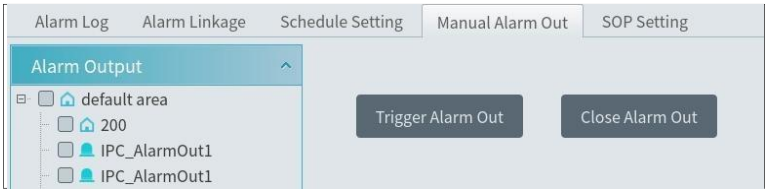


Check the selectable channel and click to select the channel; check the selected channel and click to remove this channel; click to select all channels; click to remove all selected channel.
After the channels are selected, check "On" and then click "OK" to save the settings.

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).

Manual Alarm Out:

Click "Manual Alarm Out" tab to go to the following interface.

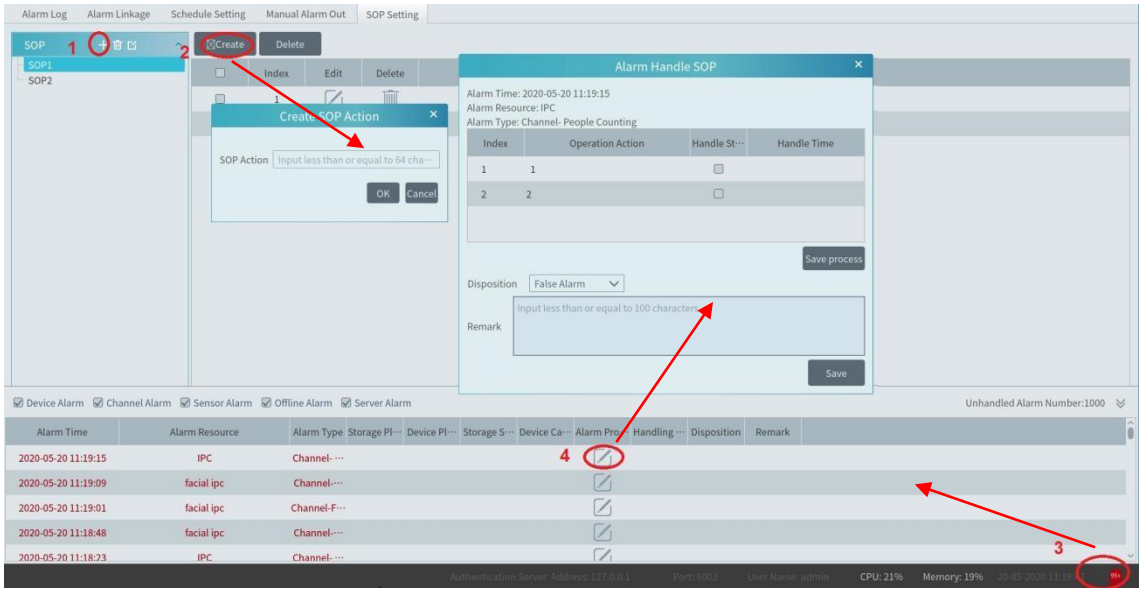


Select the camera and then click [Trigger Alarm Out] to manually trigger the alarm out of the camera; click [Close Alarm Out] to manually turn off the alarm out of the camera.

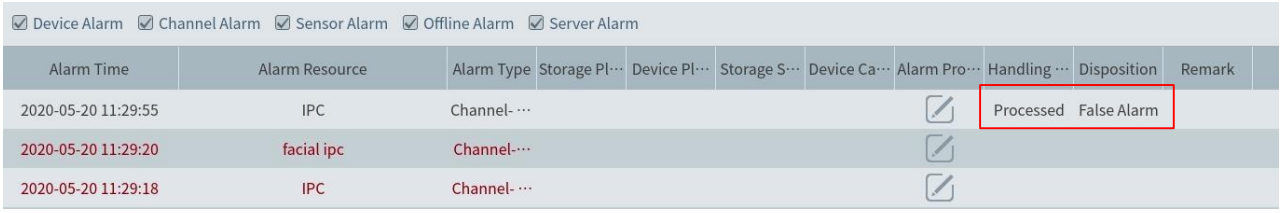
6.3 SOP Settings

Click the "SOP Setting" tab in the alarm center interface to go to the following interface as shown below.

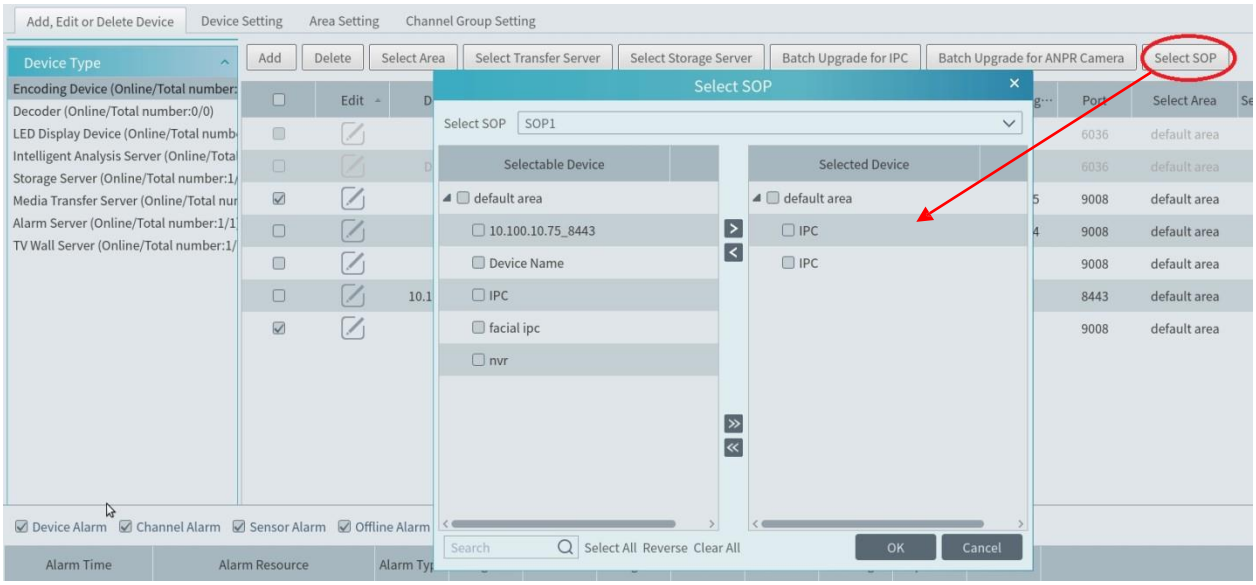
1. Click "+" to add a SOP name. A maximum of 10 SOP can be added.
2. Click "Create" to create a SOP action. Each SOP can create 5 SOP actions.
3. Click to extend the alarm list.
4. Click to handle the alarm. Select the SOP action and then click "Save Process". After that, choose disposition and enter remark as needed.
   The disposition includes: False alarm, true alarm, customer test, technical event, service test.



After the alarm is processed, the alarm handling status and disposition will be shown as below.



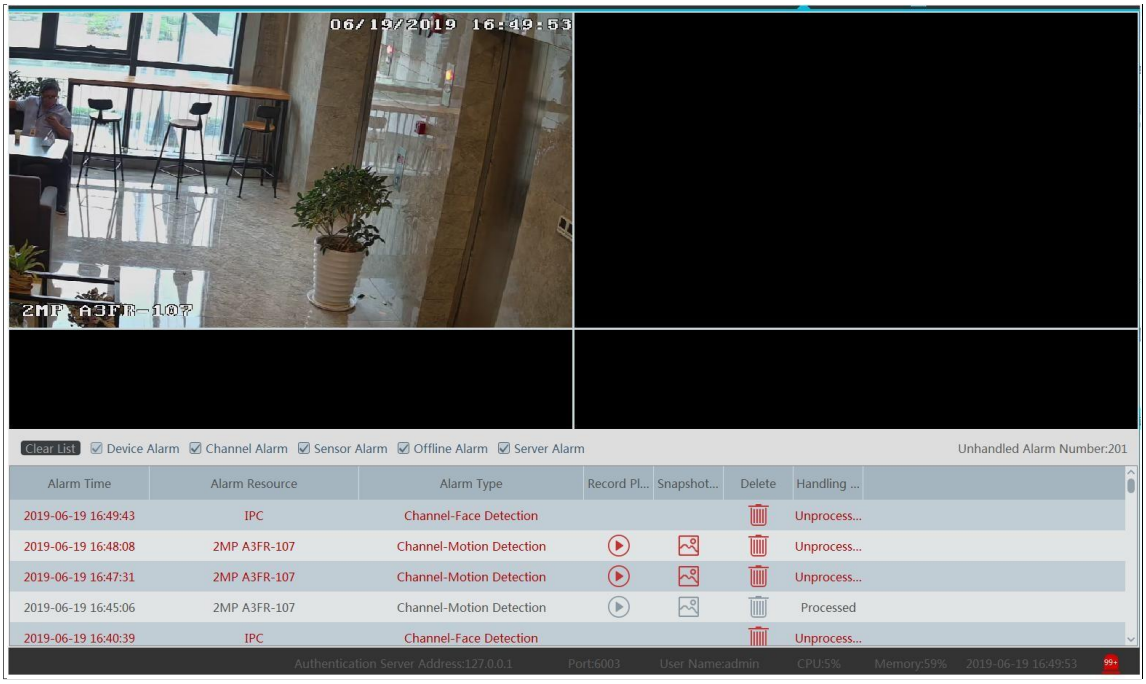
If you create more than one SOP, you can designate the SOP for the added encoding devices. Go to Home→Resource Management→Add, Edit or Delete Device→Encoding Device interface. Then click [Select SOP] to select the SOP and encoding devices.



Select the SOP. Then check the desired device and click > to select it. Finally, click [OK] to save the settings.
After that, you can choose the corresponding SOP action when you handle the alarm of the camera.

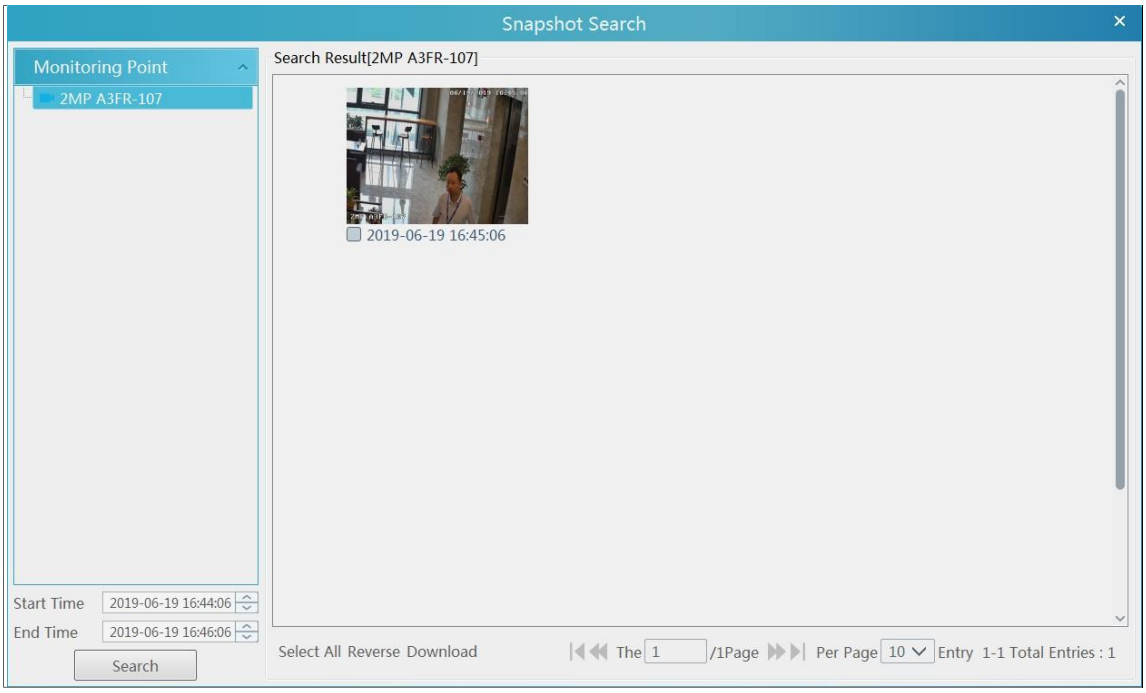
6.4 Alarm View

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



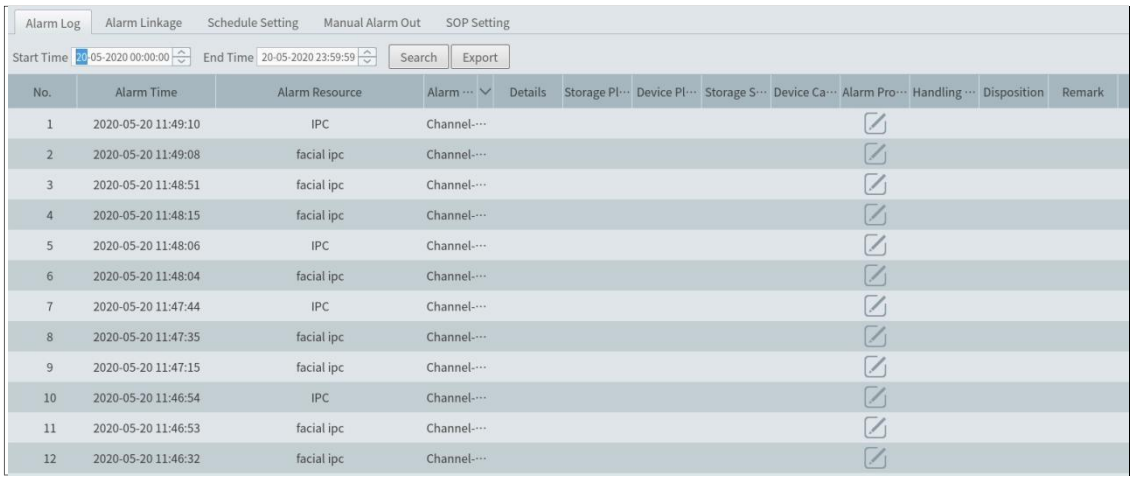
Click on the bottom right corner to expand the alarm list as shown above. Hover the mouse over the top of the alarm list and then a bidirectional arrow will appear. Drag the alarm list up or down to zoom in or out the alarm list.

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

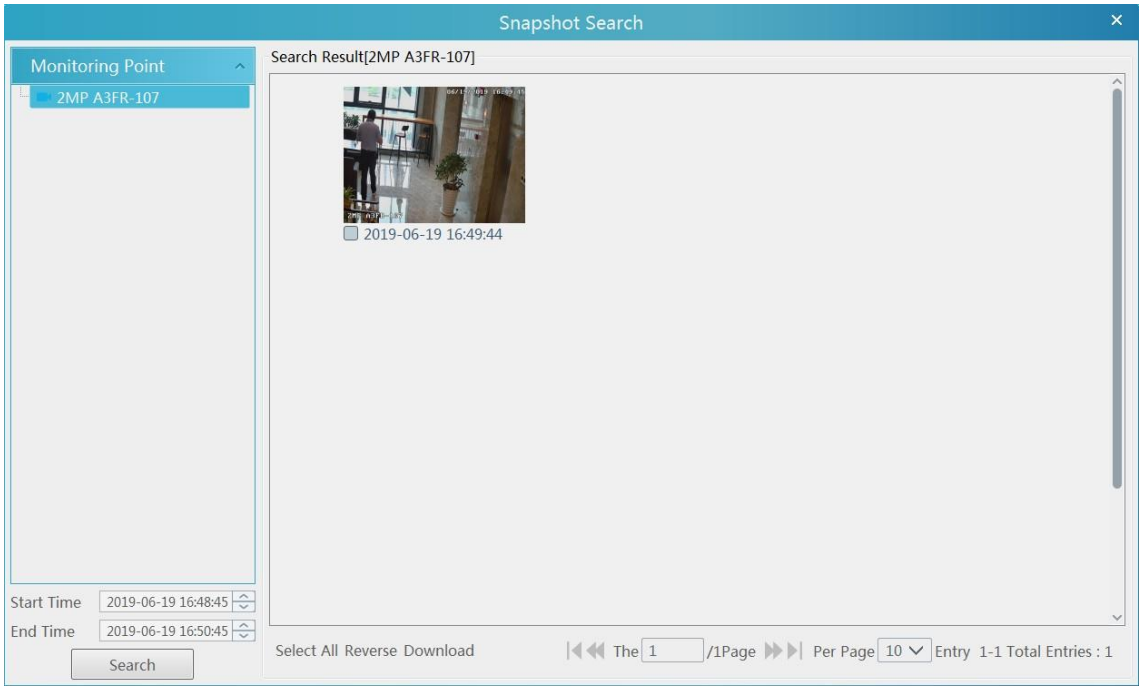


6.5 Alarm Log

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



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



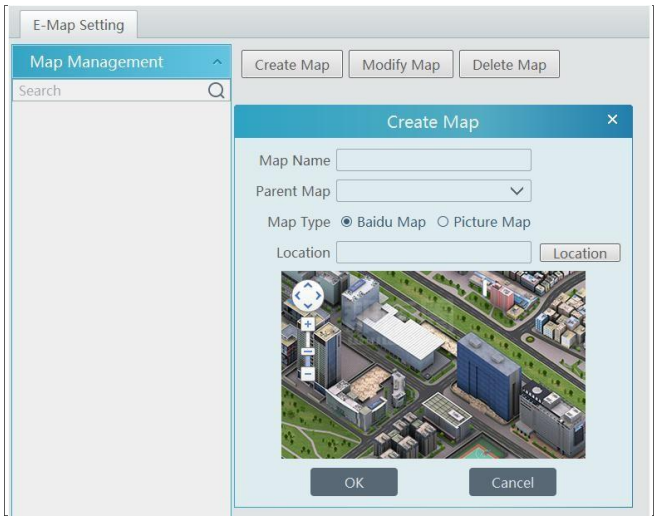
7 E-Map

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.

1. E-Map Settings

1. Create E-Map

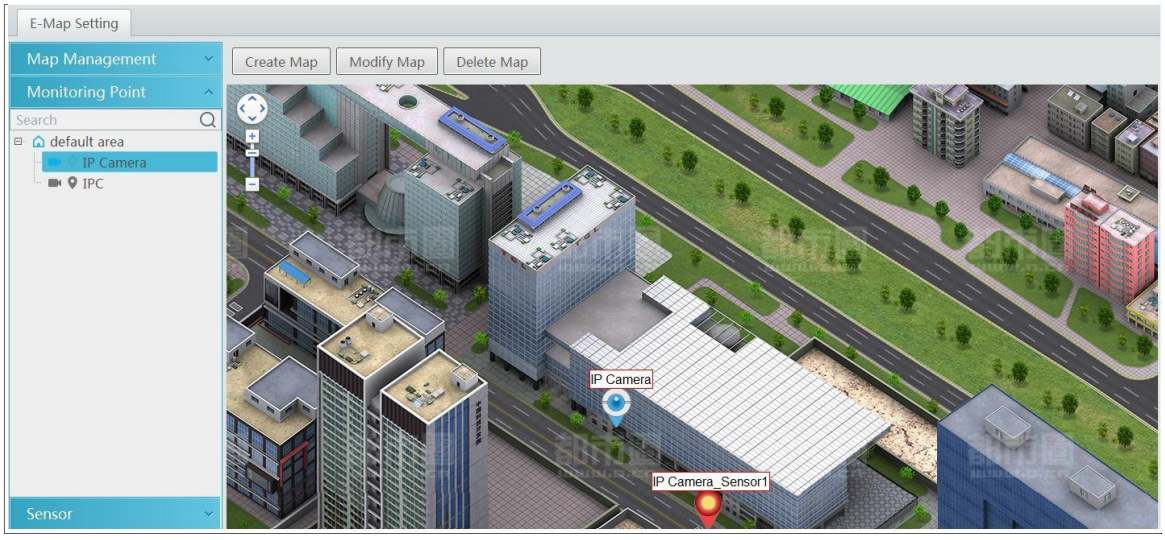
Go to Home→E-Map Setting interface. Click [Create Map] to create a map.



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

7.1.2 Add Hotspot

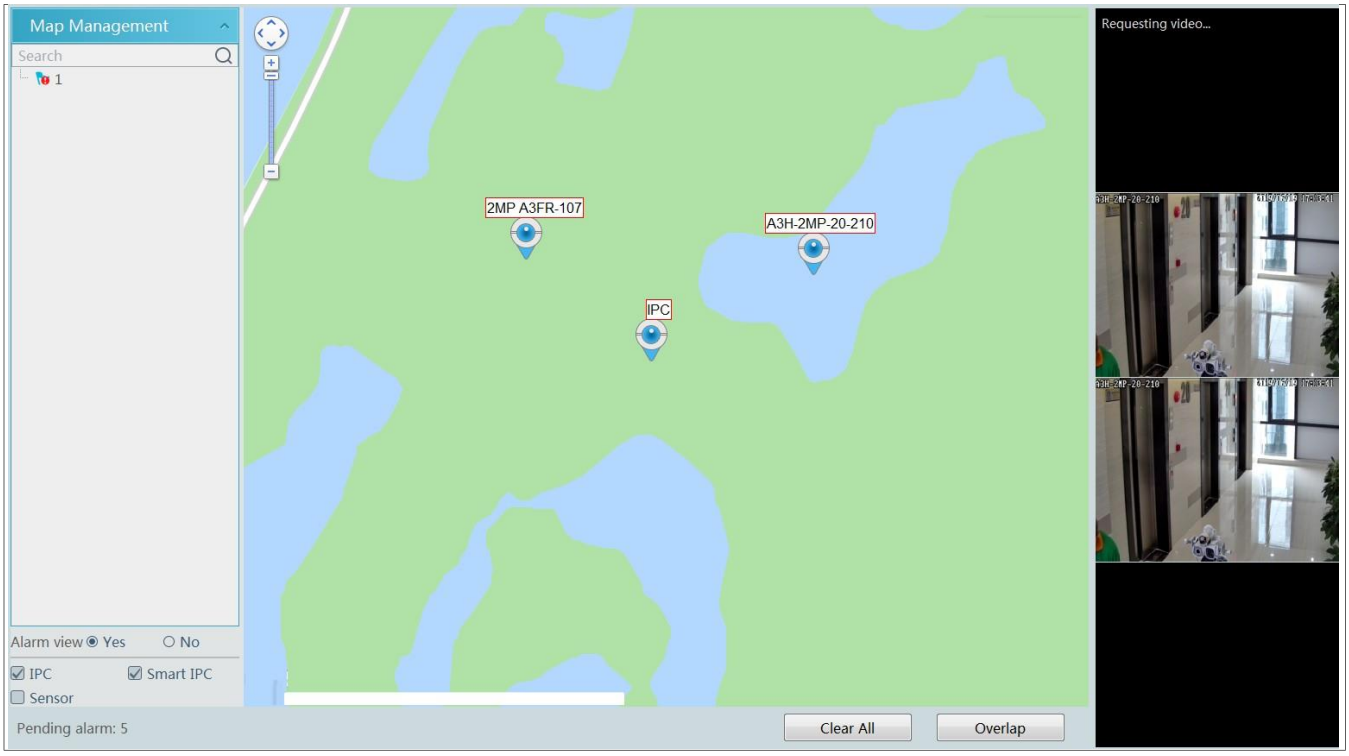
The hotspots include monitoring points and sensors. Drag a hotspot to the corresponding area on the map as shown below.



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

7.1.3 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.

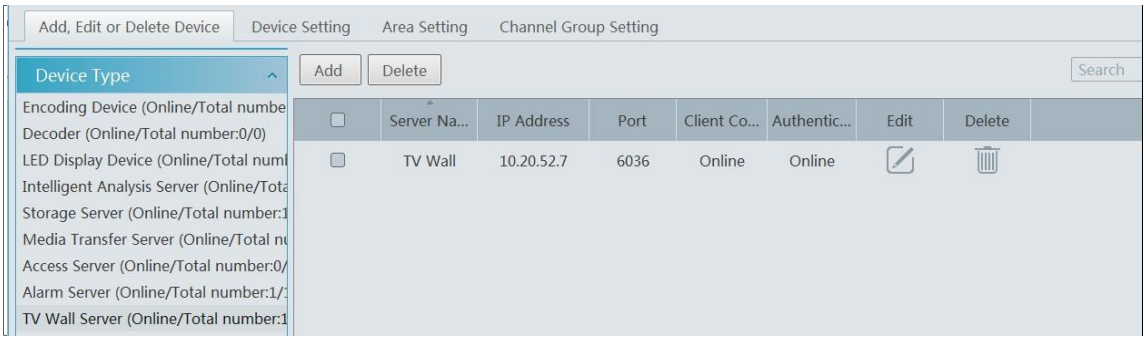


Alarm view: if you select “Yes”, the monitoring video will automatically pop up on the right window when an alarm is triggered.

8 TV Wall

8.1 Add TV Wall Server

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



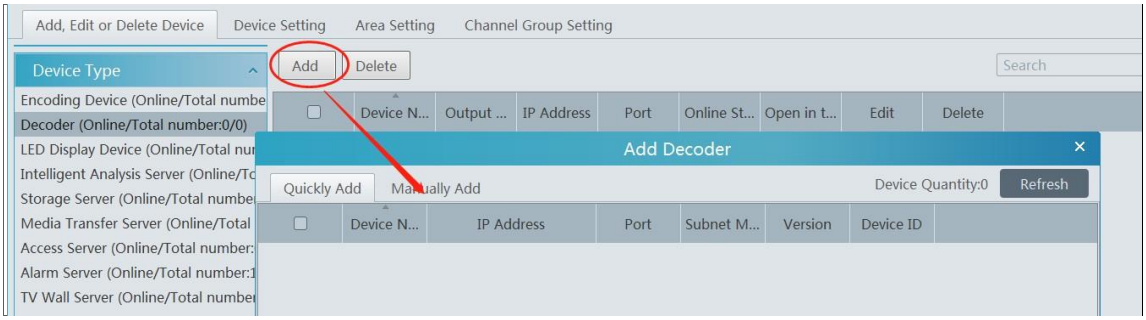
An adding TV Wall window will be prompted by clicking [Add]. Click [Refresh] to quickly add the TV wall server in the same local network, or add the TV wall server by manually entering server name, IP address and port.

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

8.2 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→Add, Edit or Delete Device→Decoder interface.

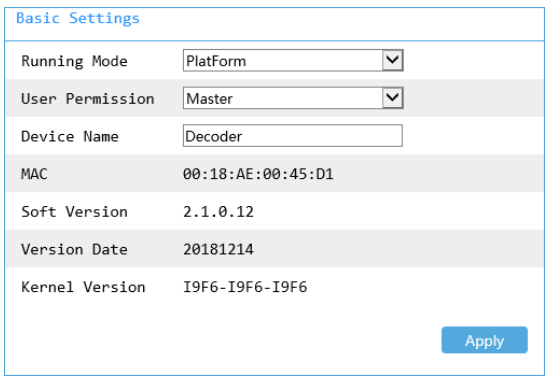


The setting steps of adding decoders are the same as adding encoding device setup (see Add Encoding Device for details).

8.2.1 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.

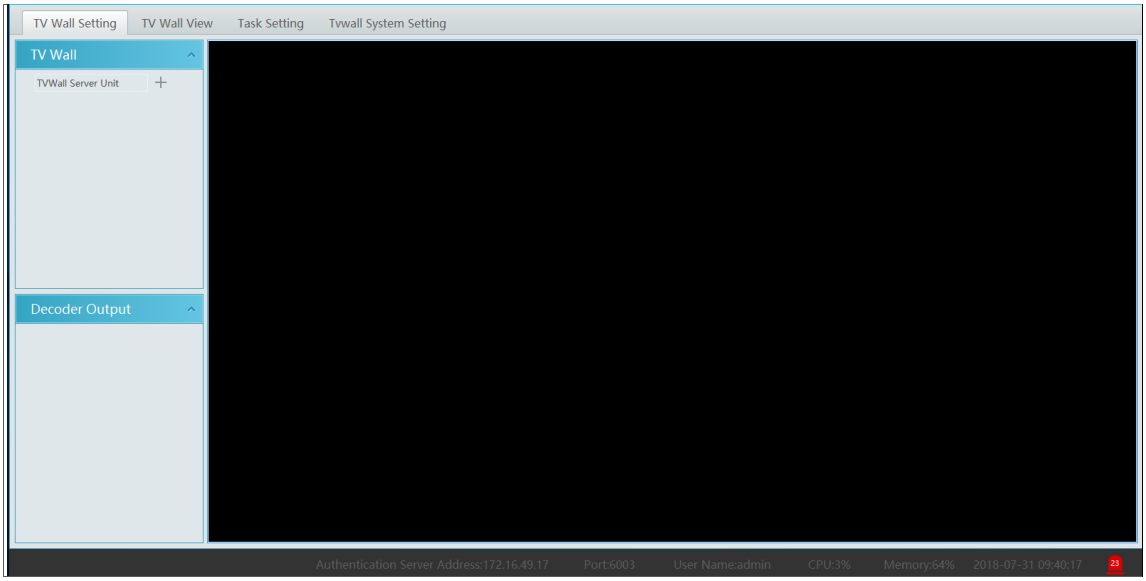
Go to Basic Settings→ System Settings to check the user permission and running mode of the decoder and make sure its user permission is master and its running mode is platform. Then apply the settings and restart the decoder.



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).

8.3 TV Wall Management

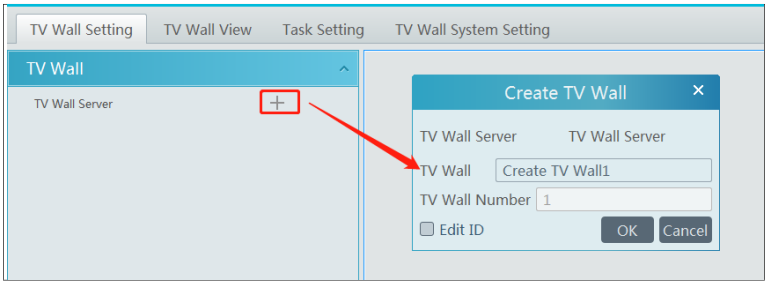
Go to Home→TV Wall Management→ TV Wall Setting.



8.3.1 TV Wall Settings

◆ Create TV Wall

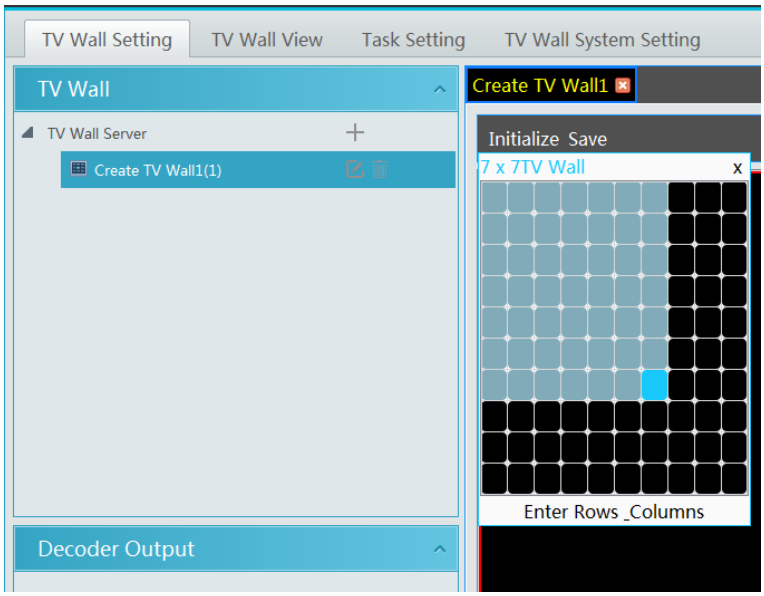
Go to Home→TV Wall Management→Edit TV Wall. Select a TV wall server and then click to create a TV wall.



◆ Initializing

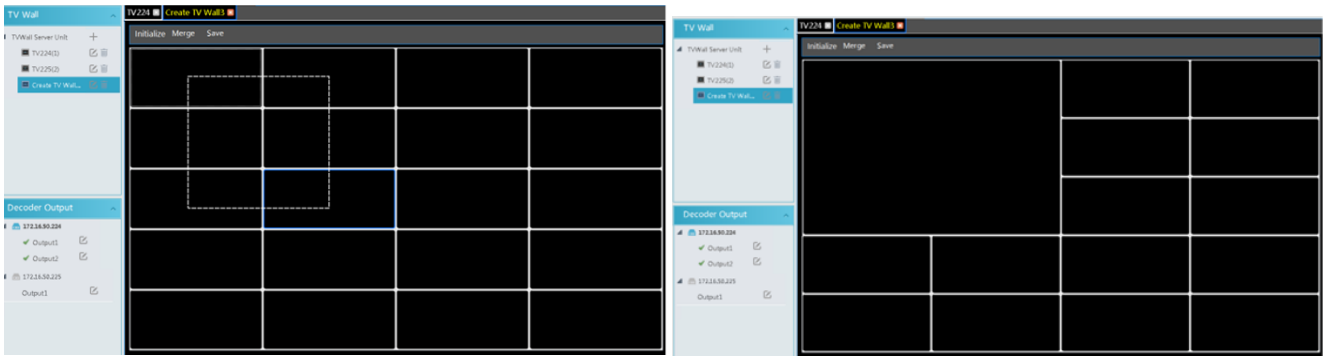
① Double click the created TV wall to prompt a TV wall window.

② Click “Initialize” to create TV wall layout

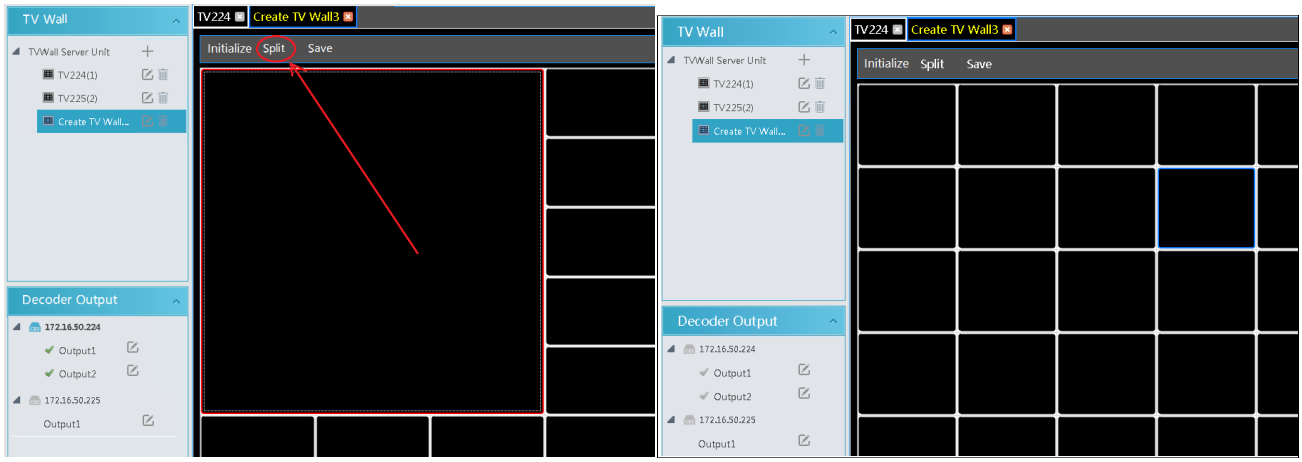


◆ Merging\Splitting

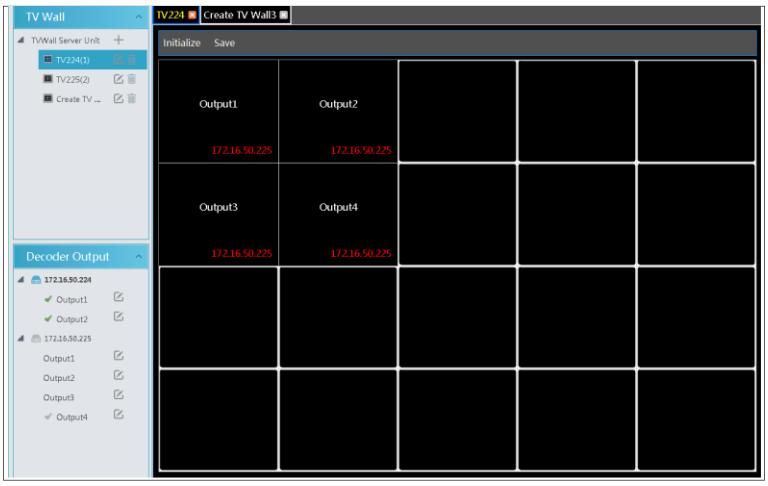
Merging: drag on the screen and then release. The “Merge” button will be shown. Click it to merger these small windows.



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

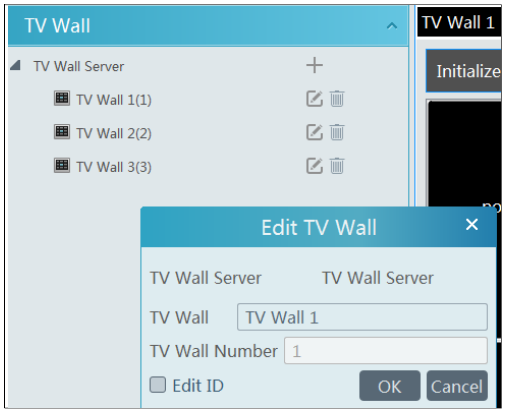


The online decoder displayed in the decoder output list is the binding decoder of this TV wall. Drag the outputs to windows on the right in sequence and then click “Save” to save the settings.



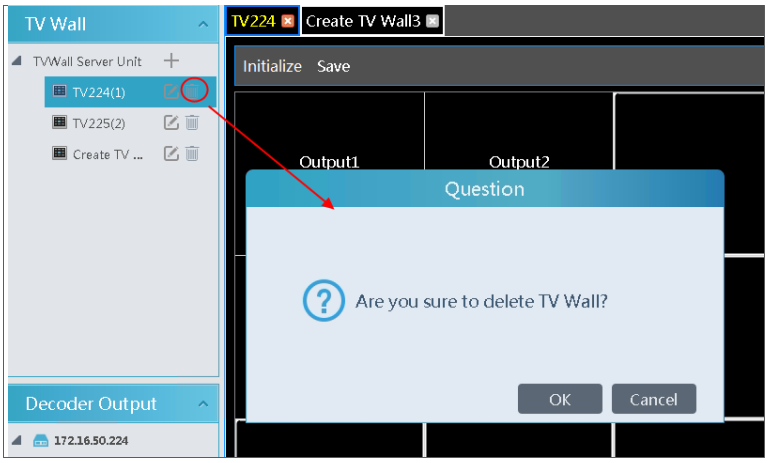
To modify TV wall:

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



To delete TV wall：

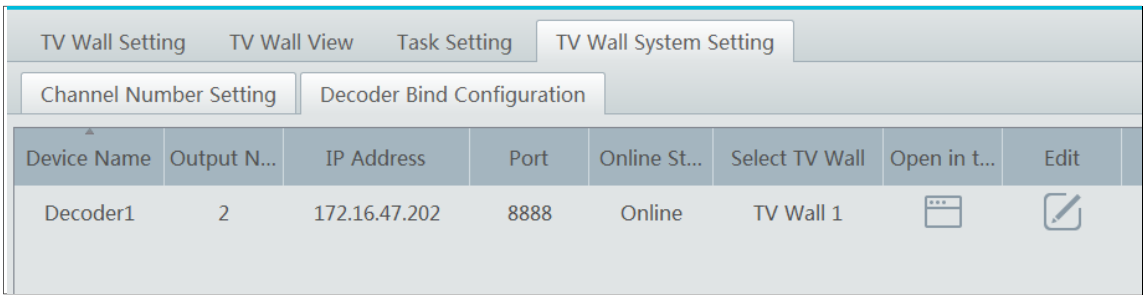
Click behind the TV wall name.



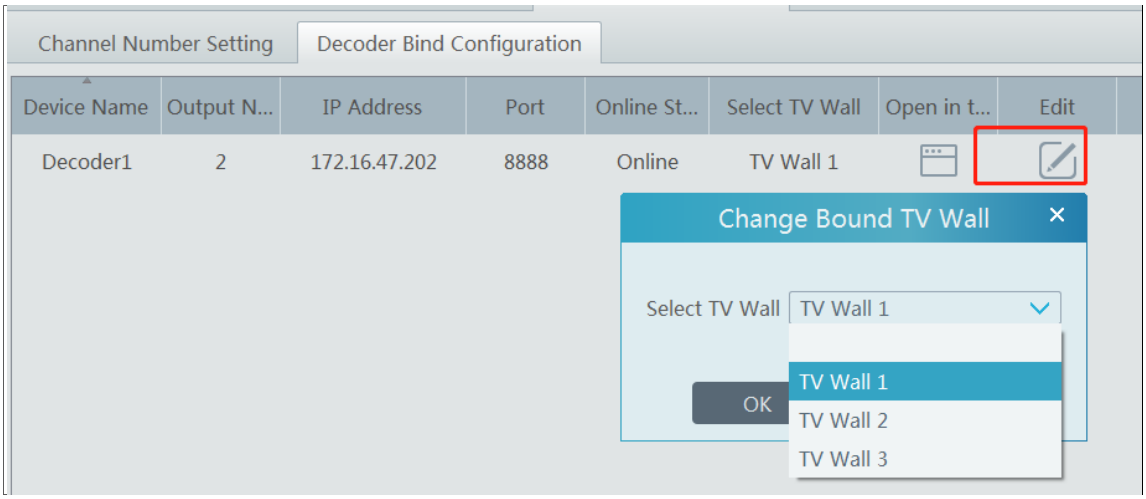
- Decoder Bind

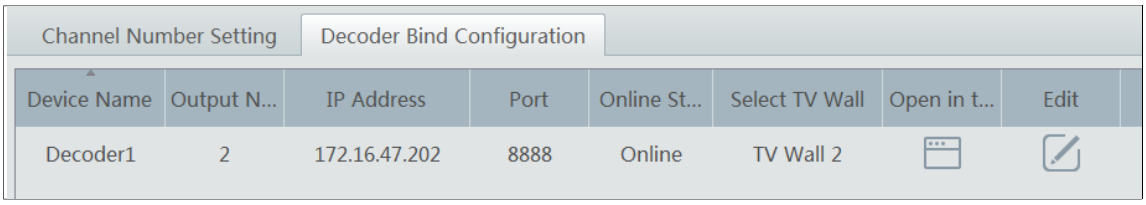
Go to Home→TV Wall Management→TV Wall System Setting interface as shown below. In this interface, decoder bind can be set up.

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

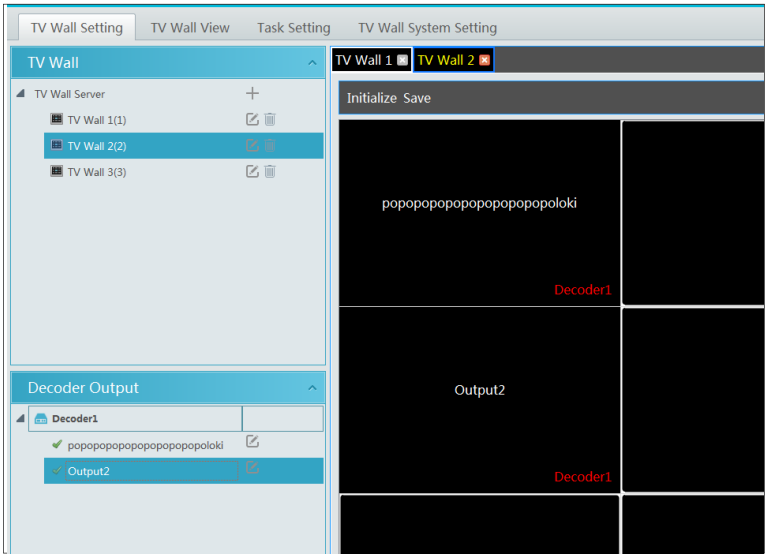


Click to change bound TV Wall.





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.

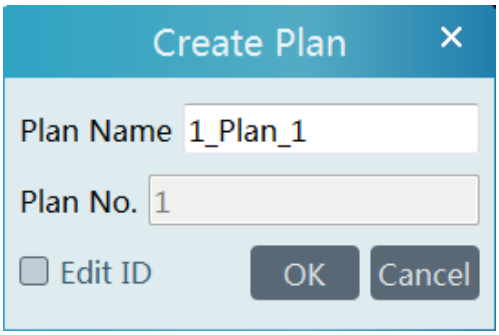


8.3.2 TV Wall View

◆ Create Plan

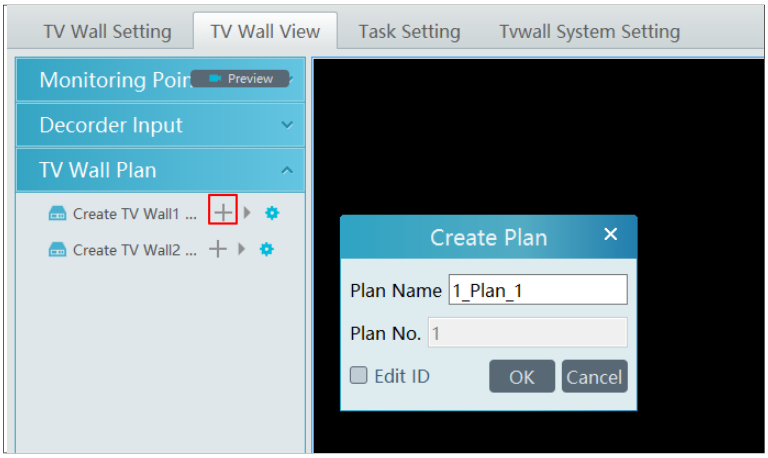
Go to Home→ TV Wall Management→ TV Wall View→TV Wall Plan.

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

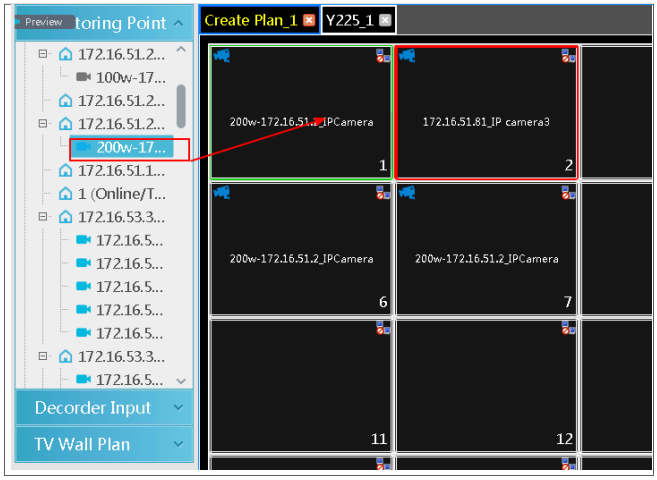


◆ Configure Plan

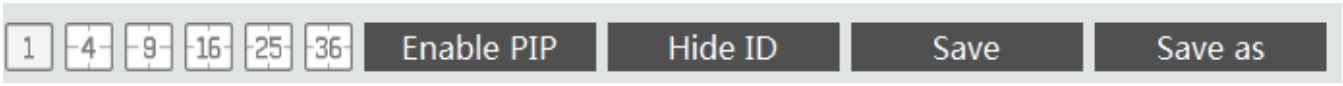
Double click the plan name to show the plan.



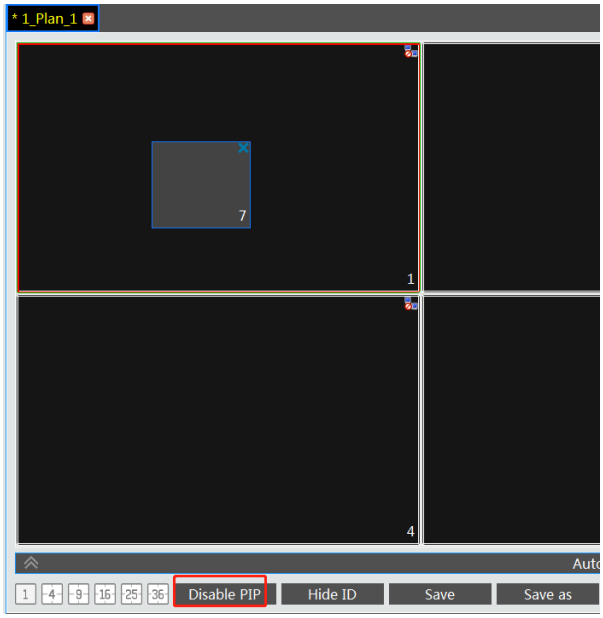
Drag the monitoring points to the corresponding window respectively to decode image.



◆ Toolbar Menu



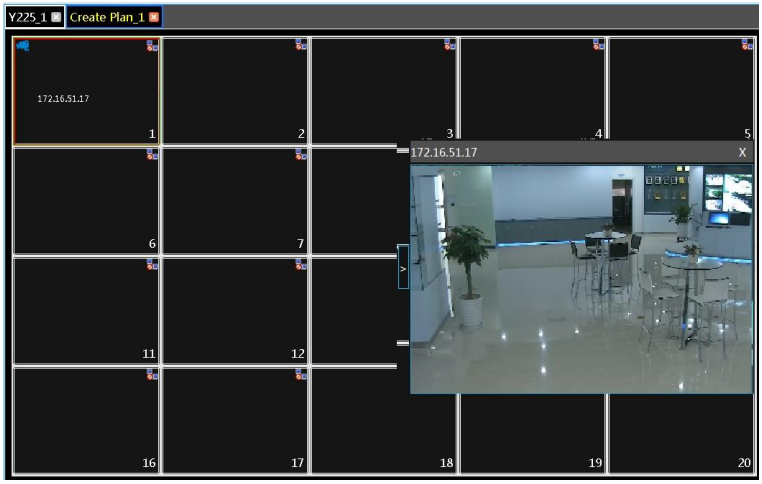
1. Screen mode：1\4\9\16\25\36 screen mode is optional.
2. Open Window：Click [Enable PIP] and then drag on a window to open a small window on it. Click [Disable PIP] to stop opening window. The small window can be dragged to anywhere on the big window.



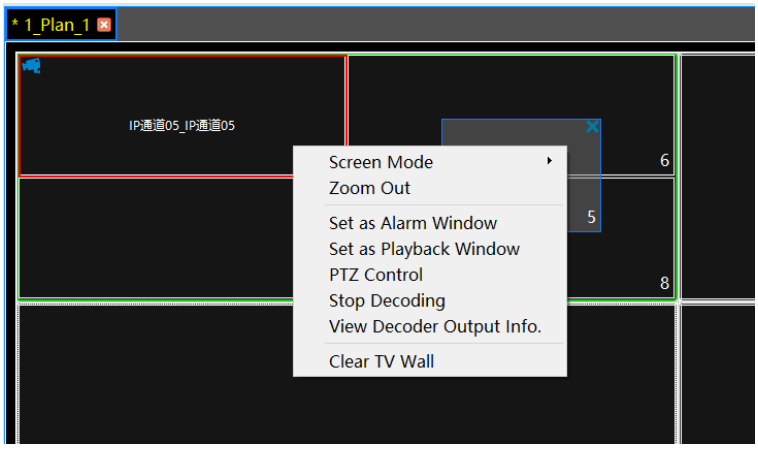
3. Click [Hide ID] to hide the window number; click [Display ID] to display the window number.
4. Click [Save] to save the current plan.

5.Click [Save as] to save it as another plan.

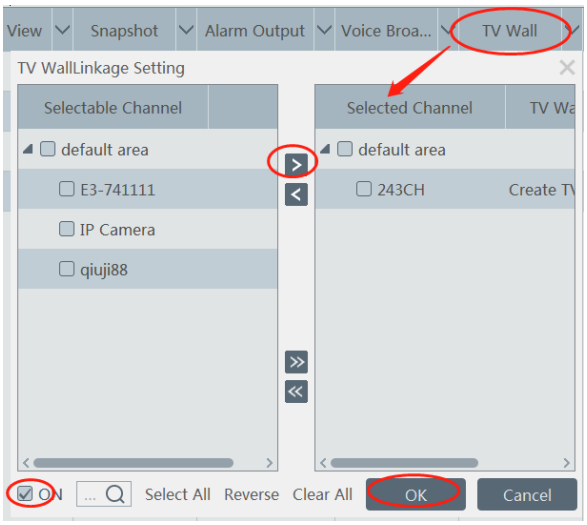
Double click a window to play the video.



◆ Right-click Menu



1. Screen mode:1\4\9\16\25\36 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.



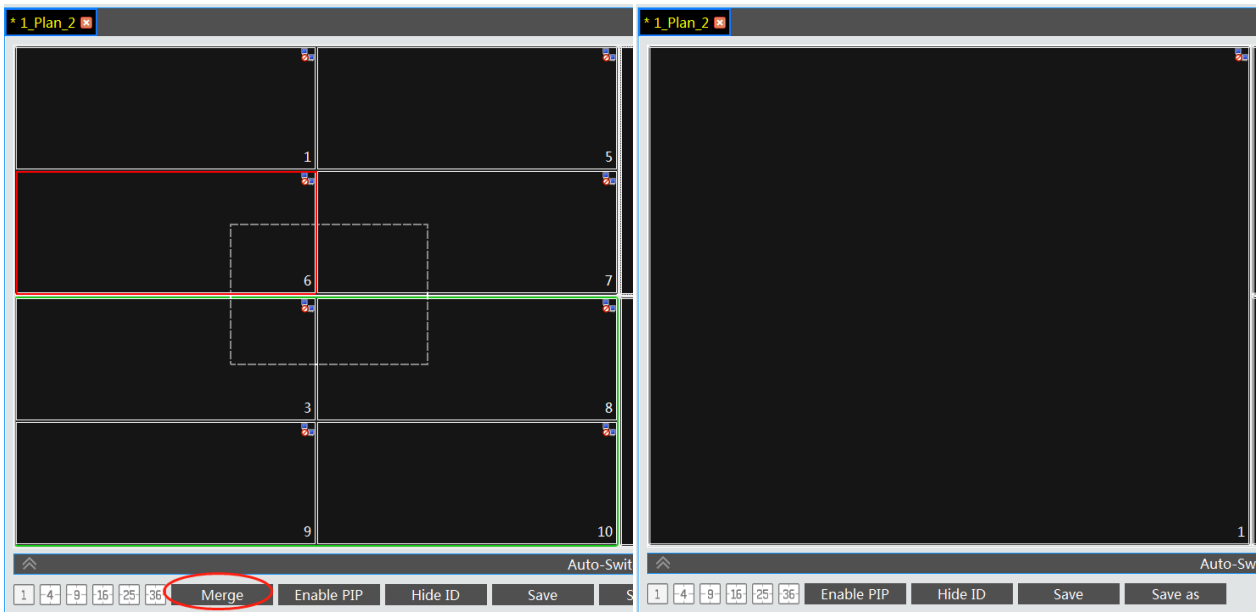
4. Set as Playback Window：when decoding images, click this menu to play the records of the current channel (the record source

is the current record source).

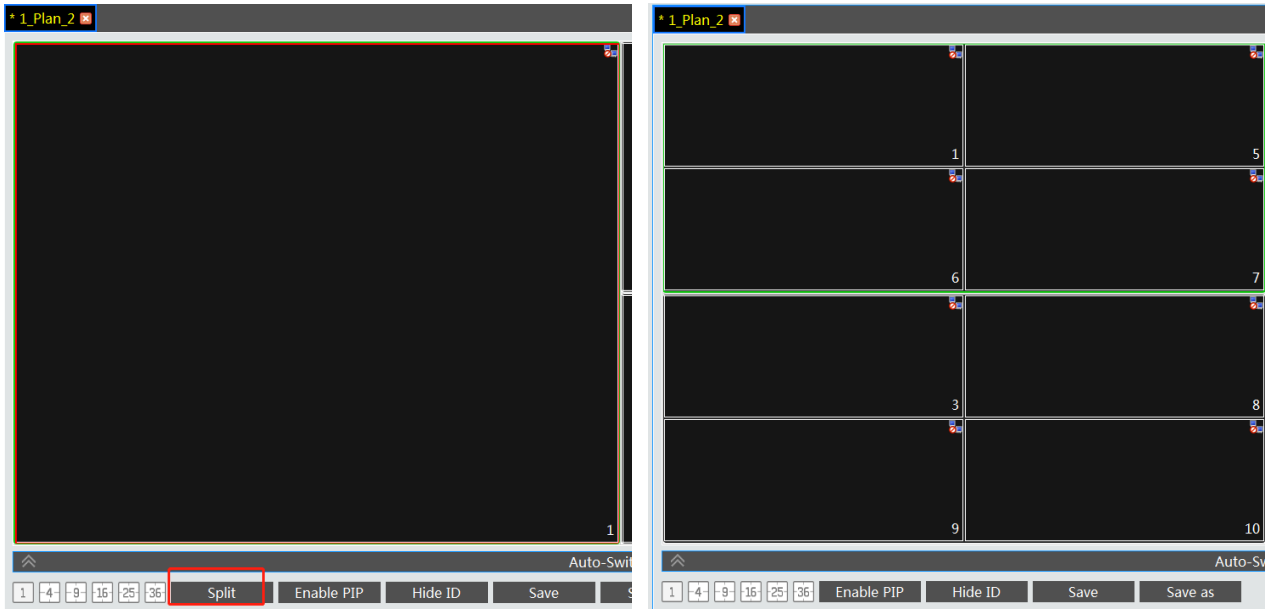
5. PTZ Control: click this menu to prompt a PTZ control panel of the current decoding window. Direction control, zooming and focusing, Iris control, speed, preset, track and cruise calling can be operated through this control panel.
6. Stop Decoding: click it to stop decoding the current image.
7. View 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.



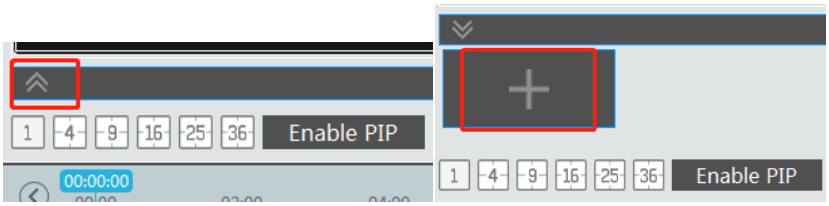
Select the merged window and click [Split] to restore the window to its previous status.



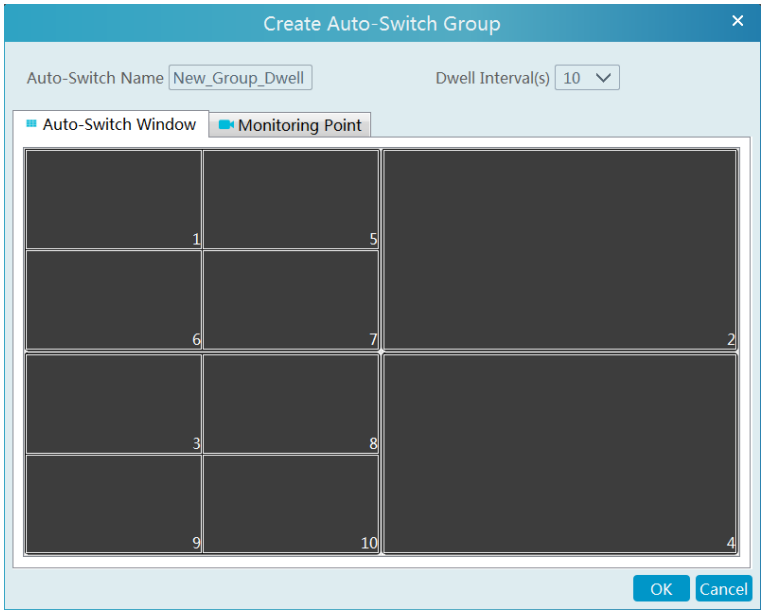
◆ Auto-Switch Group

1. Create Auto-Switch Group

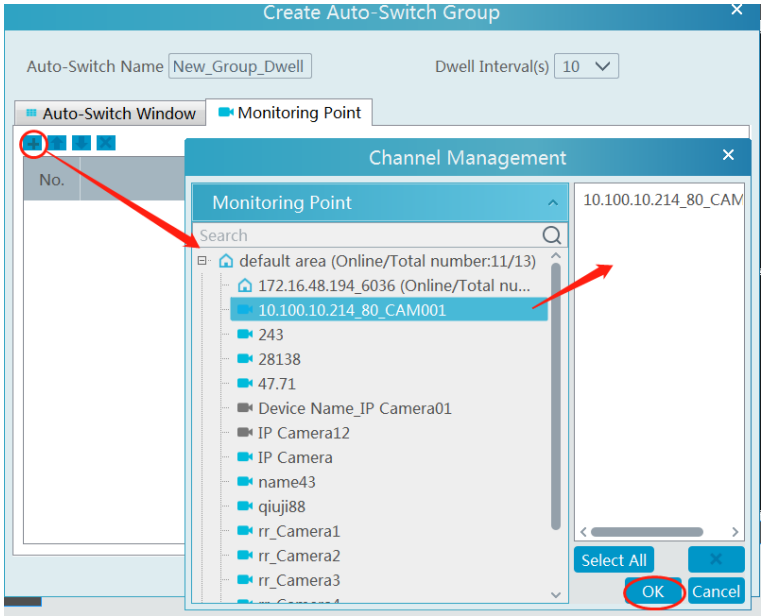
① Click Auto-Switch Group under the screen and then click + to create auto-switch group.



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

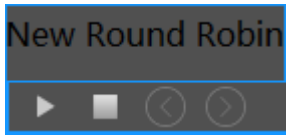


③ Click “Monitoring Point” to select the auto-switch channel group.



④ Enter auto-switch name and dwell time.

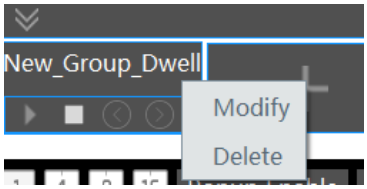
2. Execute auto-switch



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.

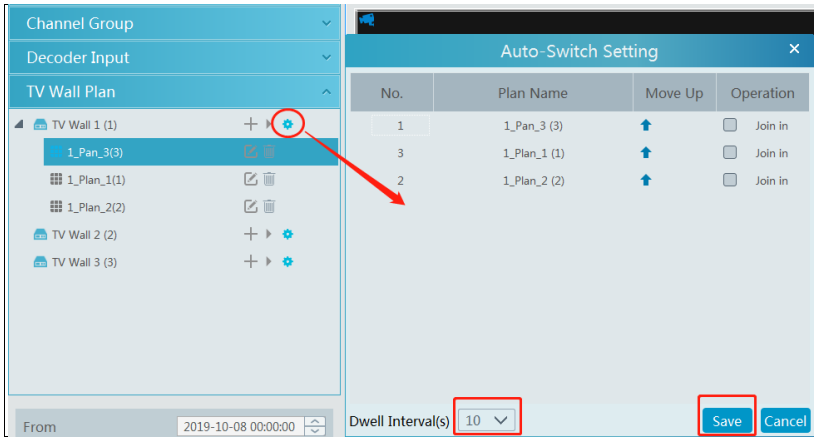


Note: If there are overlapped auto-switch window in a plan, the auto-switch groups will not be executed at the same time.

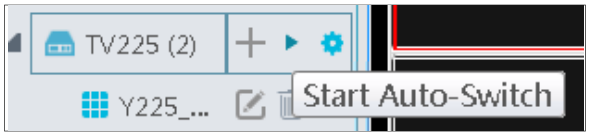
◆ Auto-switch plan

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



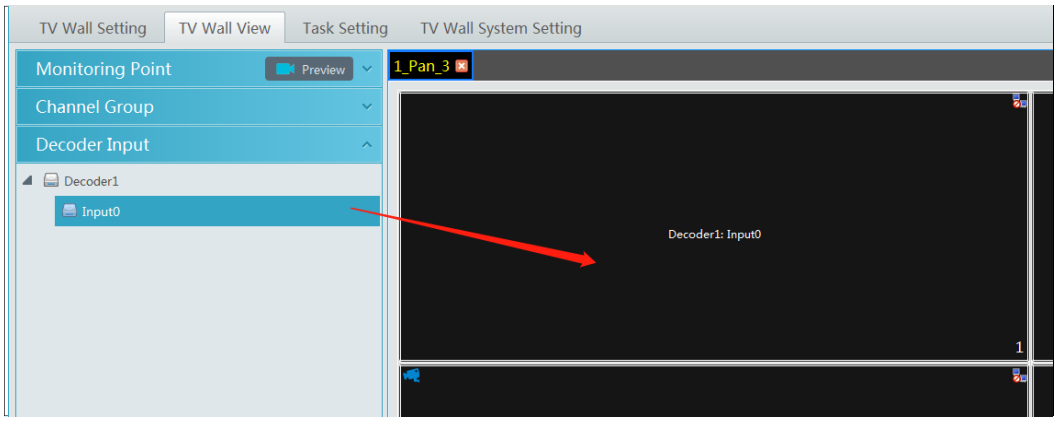
Click behind the TV wall name to start auto-switch plan. Click the Stop button to stop the auto-switch.

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.

8.3.3 Decoder Input

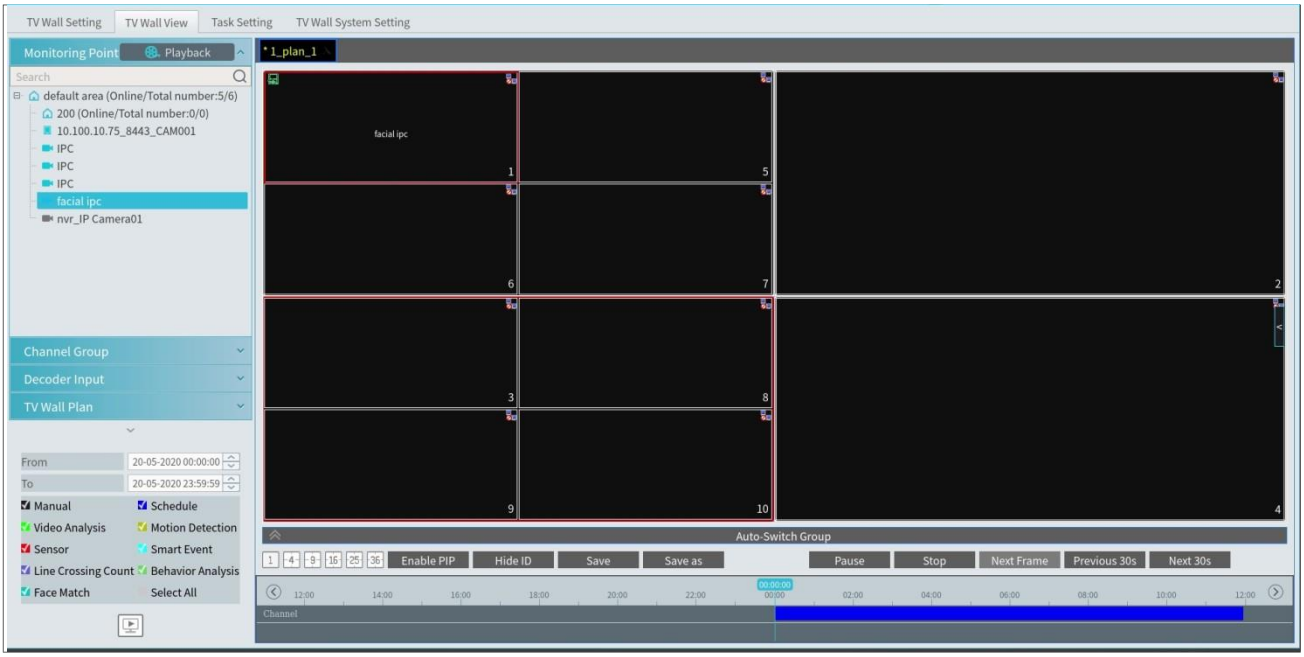
Go to Home→TV Wall Management→Decoding on TV Wall→Decoder Input. Drag an input to a window to execute decoding.



8.3.4 Playback

◆ Playback on TV Wall

Click “Preview” on the left panel. Then this button becomes “Playback”. Click to get records from device or storage server and then click “OK” to search records, or drag the cameras (or channels) to a window to search and play the records.

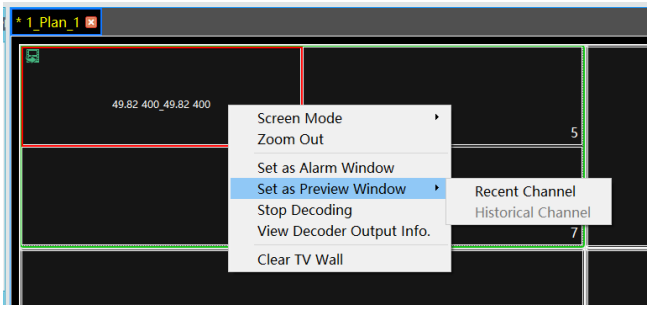


Of course, the specified time and event types can be set to search the specified records.

◆ Playing control

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

◆ Right-click menu

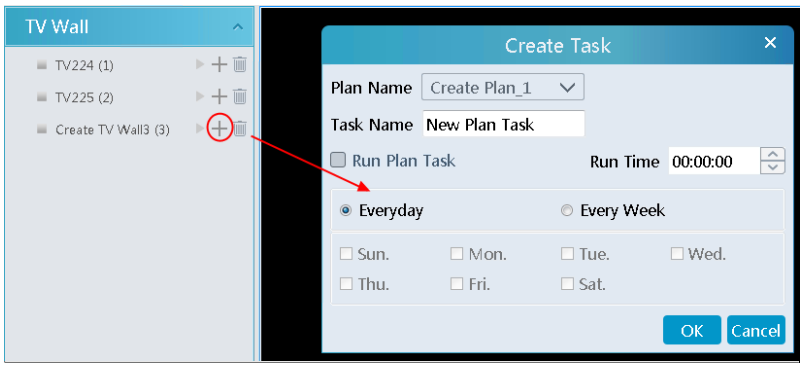


1. Screen mode:1\4\9\16\25\36 screen mode is optional
2. Zoom in
3. Save as an alarm window
4. Save as preview window: : the current channel or the historical channel is optional.
5. Playback stream type: main stream or sub stream is selectable.
6. Stop decoding
7. View decoder information
8. Clear TV wall

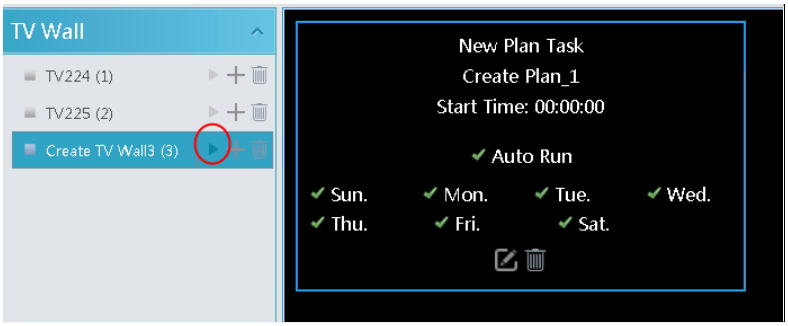
The following picture is an example of TV Wall.

8.3.5 Task Setting of TV Wall

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

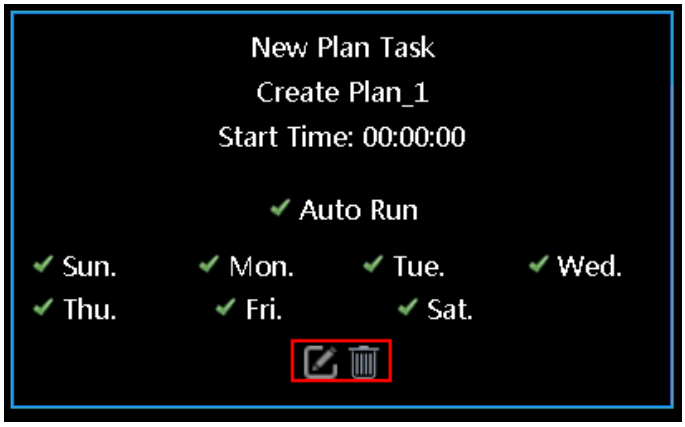


Click to start the task. Click the Stop button to stop this task.



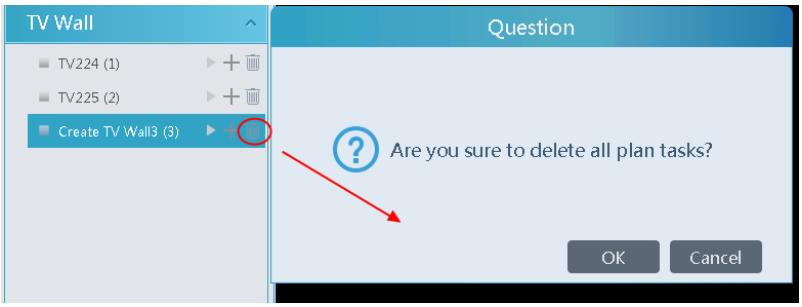
Modify or delete task

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.

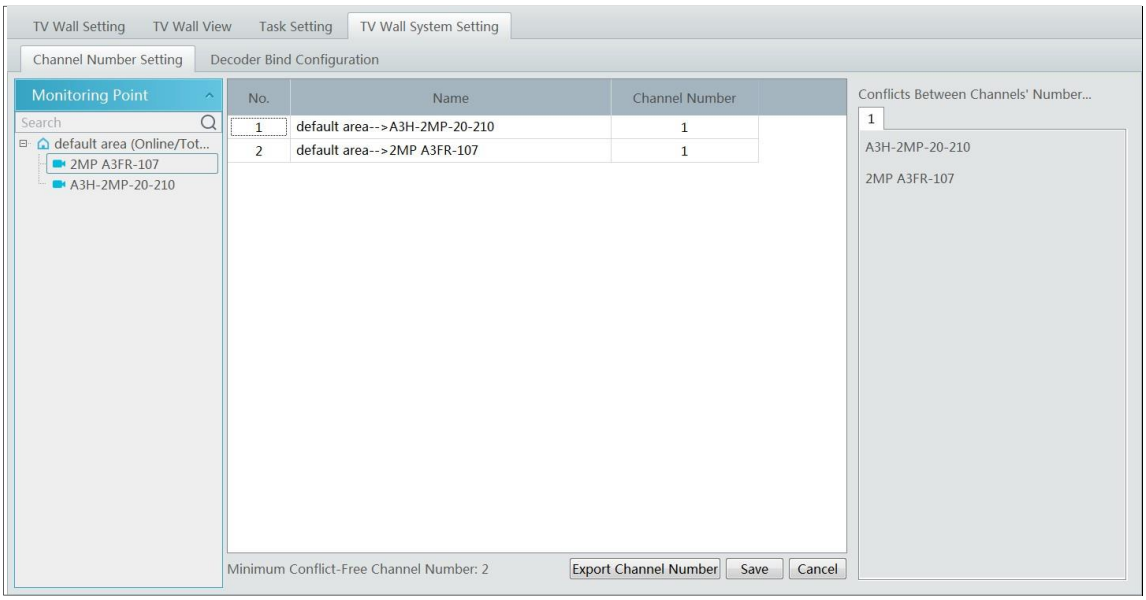
Click behind the TV wall name and then click [OK] to confirm the deletion.



8.3.6 TV Wall System Configuration

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

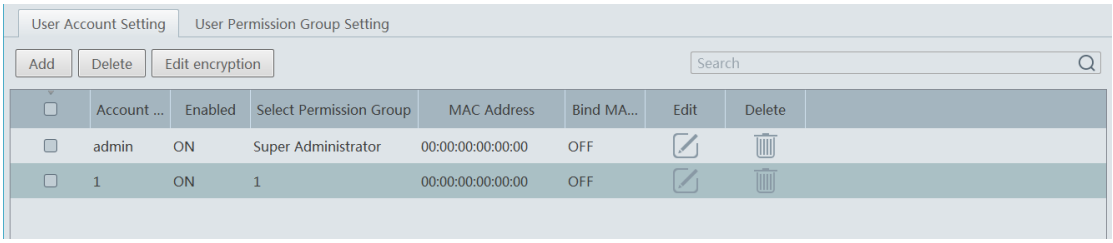
Channel number configuration: set the channel number and make the channel convenient to be controlled by the network keyboard controller. Users can export these channel number in this interface.


TV Wall Setting
TV Wall View
Task Setting
TV Wall System Setting
Channel Number Setting
Decoder Bind Configuration
Monitoring Point
Search
default area (Online/Tot...
2MP A3FR-107
A3H-2MP-20-210
No.
Name
Channel Number
1
default area-->A3H-2MP-20-210
1
2
default area-->2MP A3FR-107
1
Conflicts Between Channels' Number...
1
A3H-2MP-20-210
2MP A3FR-107
Minimum Conflict-Free Channel Number: 2
Export Channel Number
Save
Cancel

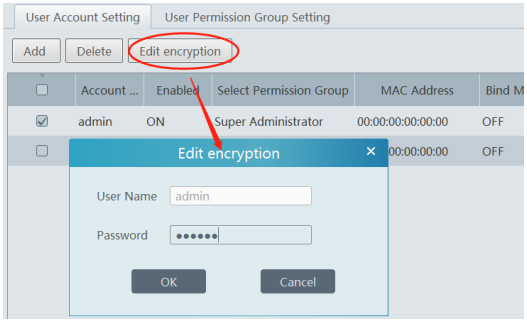
9 Account and Permission

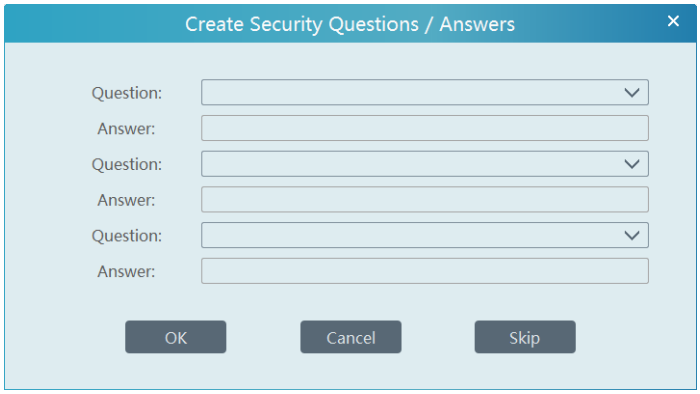
9.1 Create Account

Go to Home→Account and Permission.

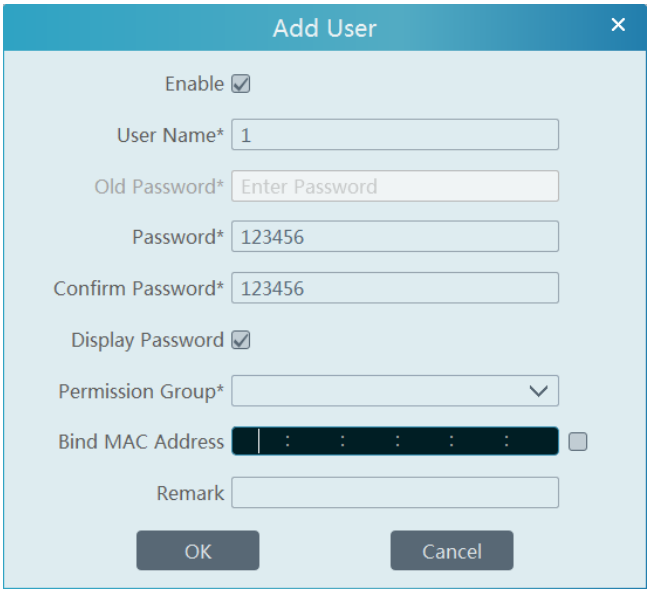


There is a default super admin user (the username is admin; the password is 123456). The super admin user cannot be deleted.
If it is the first time for you to log in, please select the super admin user and then click "Edit encryption" to select the questions and set the answers. It is very important to reset the password if you forget your password.





Click [Add] to prompt an adding user window as shown below.



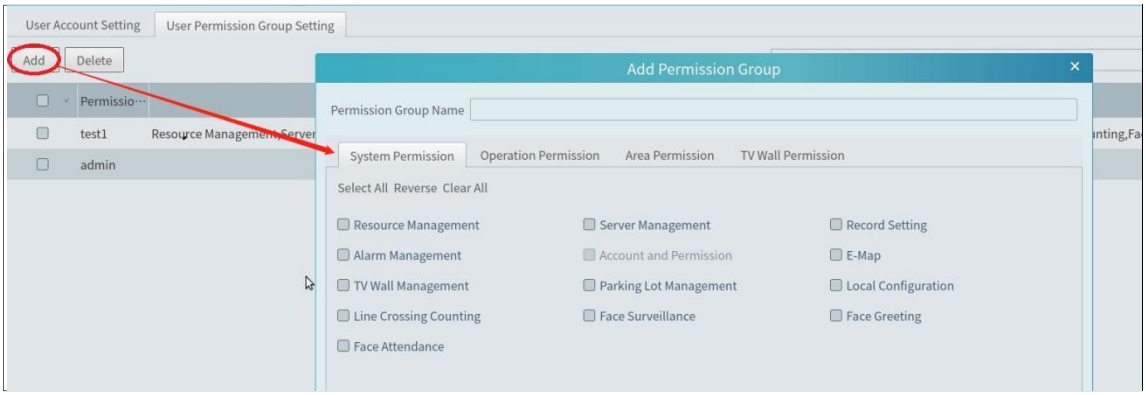
Enter user name and password. Then select permission group (it must be set in advance). Binding MAC address or remark can be filled in as needed. After that, click [OK] to save.

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

9.2 User Permission Settings

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

① Click [Add] to create permission group.



② Enter permission group name.

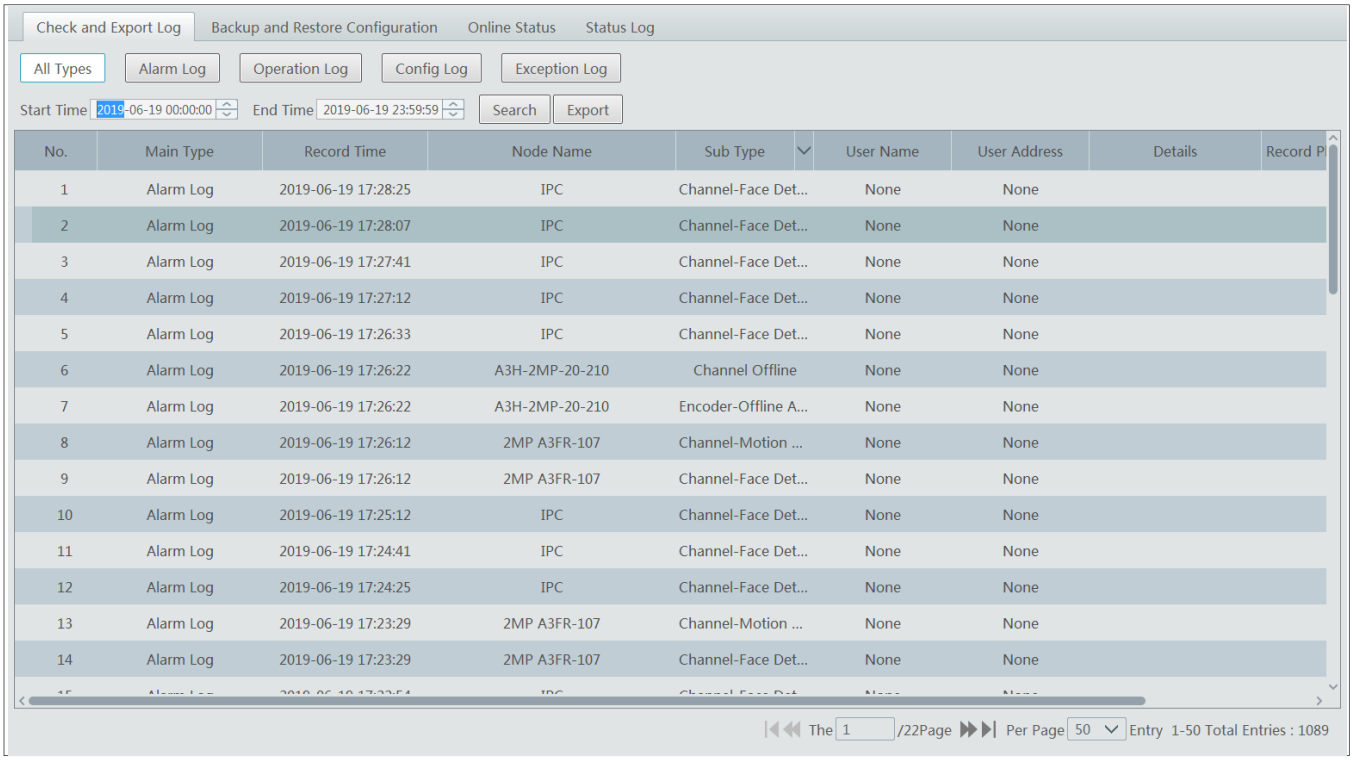
③ Select system permission, operation permission, area permission and TV wall permission as needed.

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

10 Operation and Maintenance Management

10.1 Check and Export Log

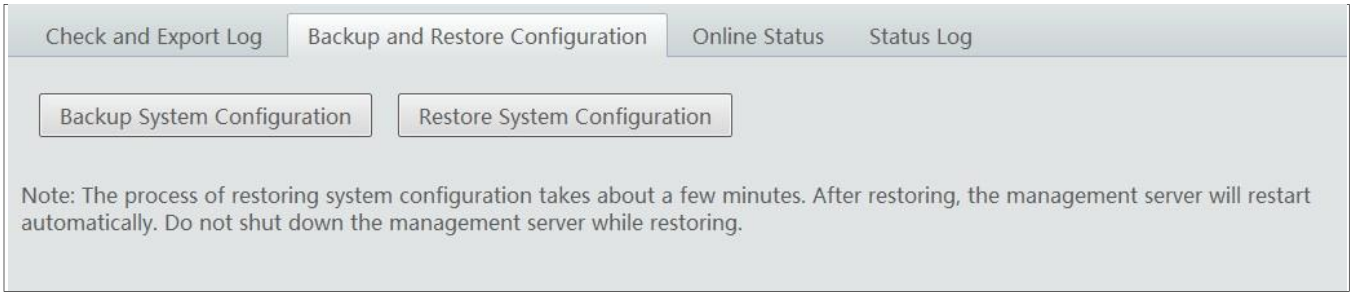
Go to Home→Operation and Maintenance Management.
Click the "Check and Export Log" tab as shown below. All types of logs can be searhed and exported here.



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

10.2 Backup and Restore Configuration

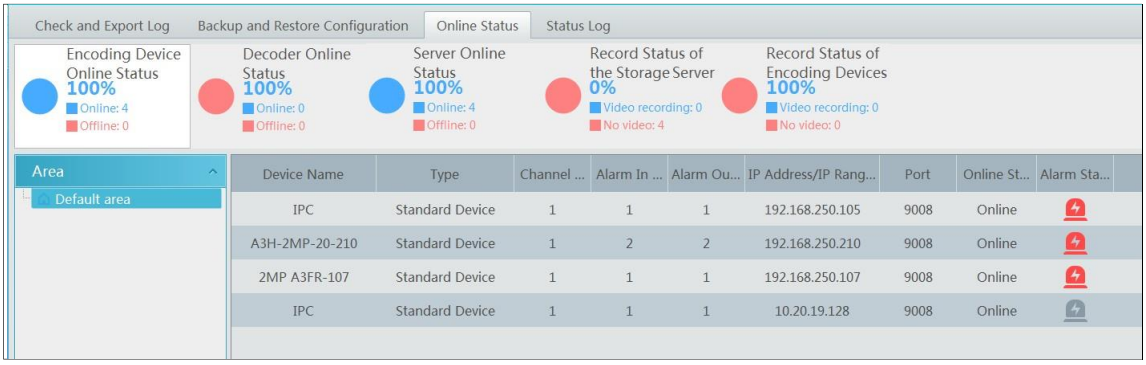
Go to Home→Operation and Maintenance Management. Click "Backup and Restore Configuration" to go to the following interface.



You can import the former system configuration files to the new version. Click [Backup System Configuration] in the last version to backup the system configuration files. Then click [Restore System Configuration] in the new version to restore the system configuration.

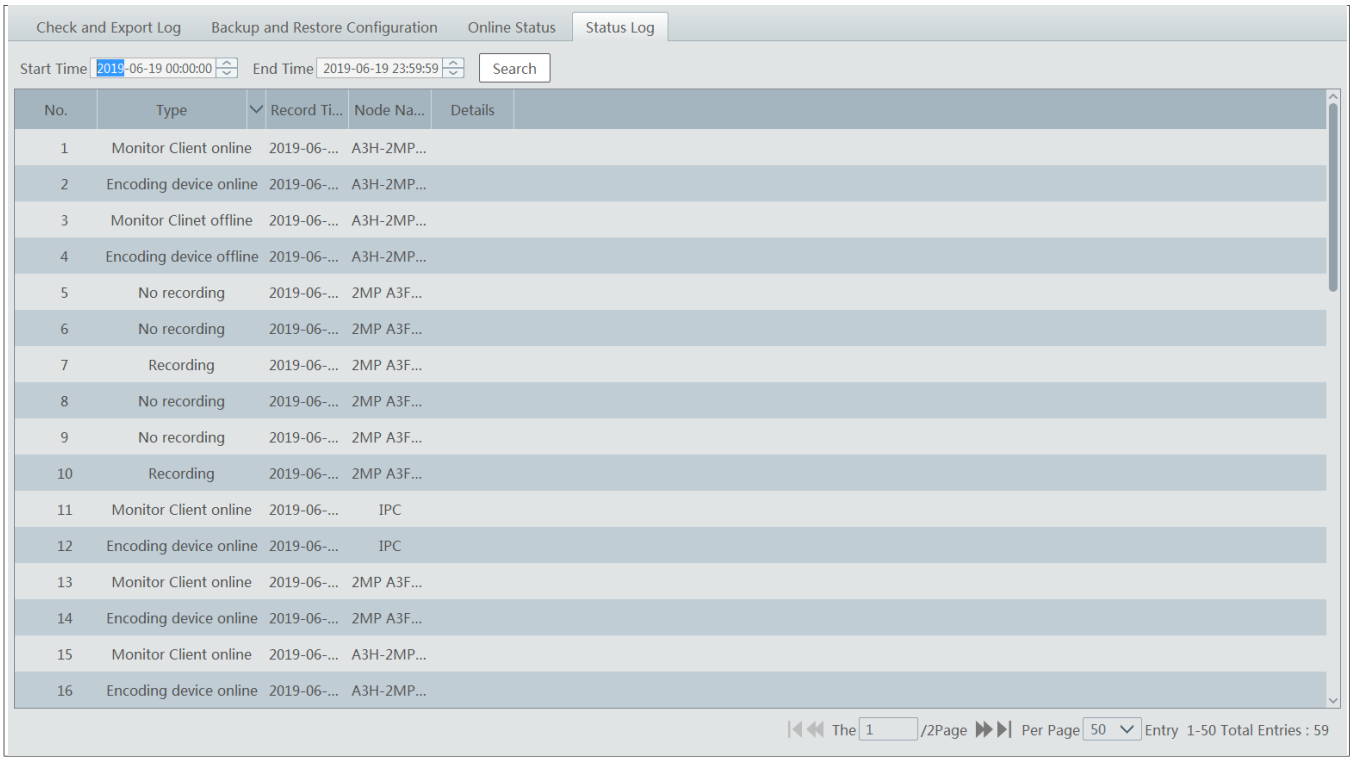
10.3 Viewing Online Status

Go to Home→Operation and Maintenance Management→Online Status interface.
You can view the online status of encoding device, decoders and storage servers and the record status of the storage server and encoding devices.



10.4 Viewing Status Log

Go to Home→Operation and Maintenance Management→ Status Log interface.

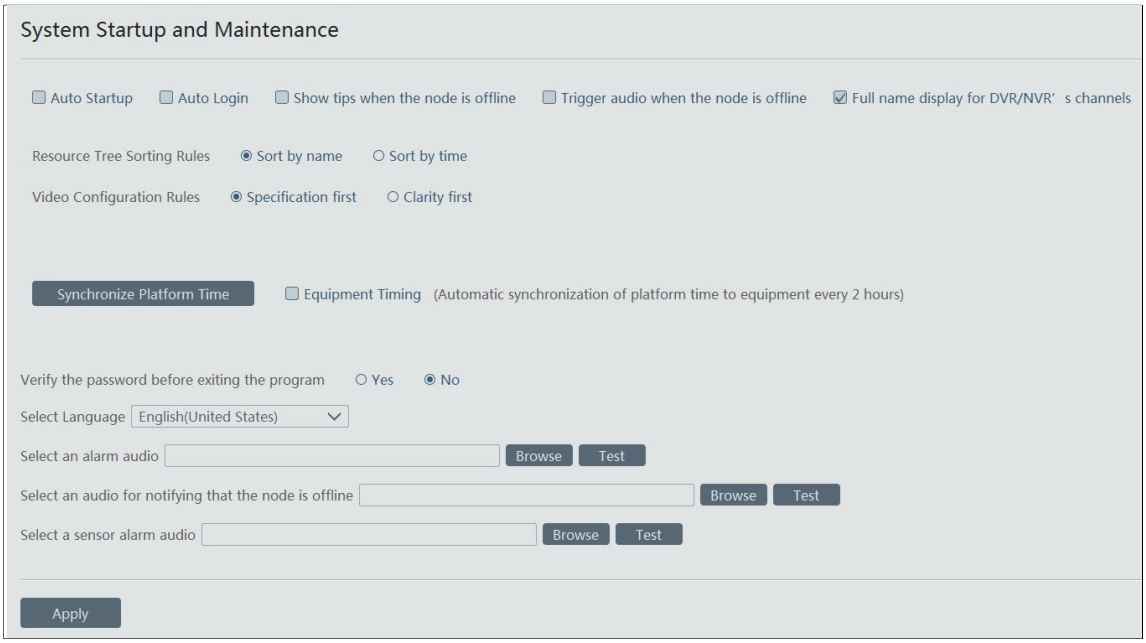


In this interface, record status, online or offline status of servers and monitor client can be viewed.
Set the start time and the end time and then click [Search] to search status logs.

11 Local Configuration

11.1 Local Config

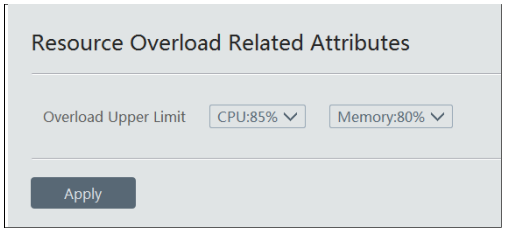
Go to Home→Local Configuration→System Startup and Maintenance.



Auto Login: if enabled 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.
Show tips when the node is offline: if enabled, the system will pop up tips when there is node offline.
Trigger audio when the node is offline: if enabled, the system will trigger audio when there is node offline.
Full name display for DVR/NVR's channels: if enabled, the DVR/NVR's channel name listed in the resource tree will show the DVR/NVR name and the channel name. If disabled, only the channel name is shown.
Verify the password before exiting the program: if enabled, you shall enter the password before exiting the program.
In this interface, you also can select the resource tree sorting rules, video configuration rules, language and upload the various alarm audio files. You can click [Synchronize platform time] to synchronize the time of all devices and the platform.

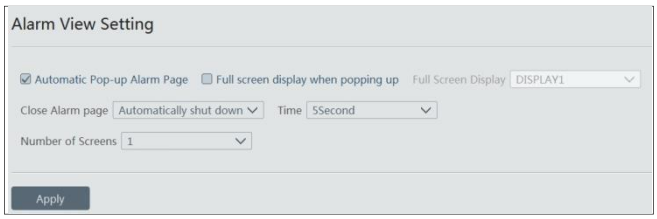
11.2 Overload Settings

This system supports 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.



11.3 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).

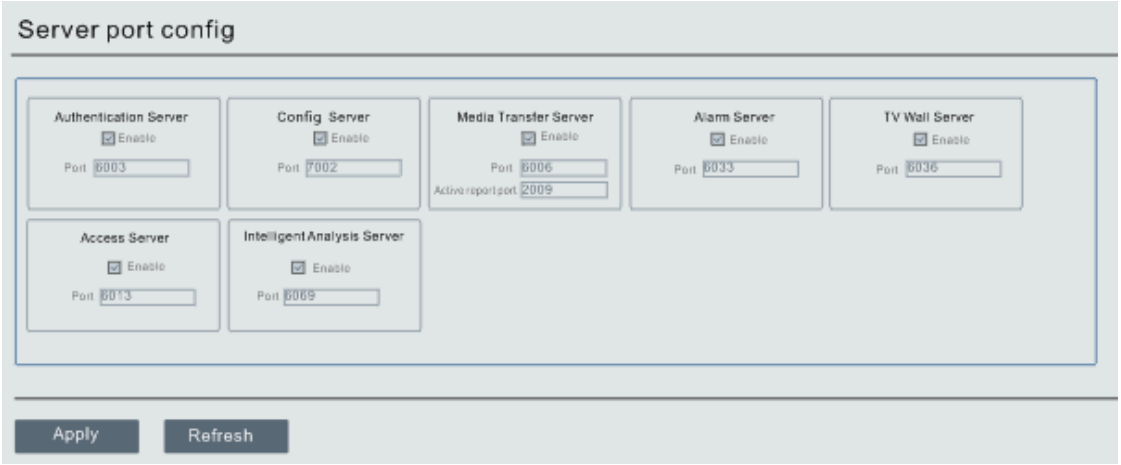
11.4 Network Configuration

Click Home→Local Configuration→Network Config to go to the following interface.

This server only supports one network port. Check "Bind static IP" and then enter the network parameters (including IP address, subnet mask, gateway, and DNS) manually. If "Bind static IP" is not checked, the DHCP function of the router shall be enabled and then the system will get the network parameters automatically.

11.5 Server Port Configuration

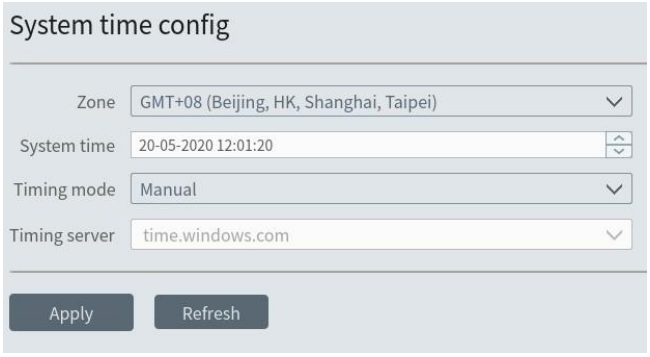
Click Home→Local Configuration→Server Port Config to go to the following interface.



In this interface, you can set the ports of authentication server, config server, media transfer server, alarm server, TV wall server, and intelligent analysis server. The service of all servers is enabled by default. Please set these ports as needed.

11.6 System Time Configuration

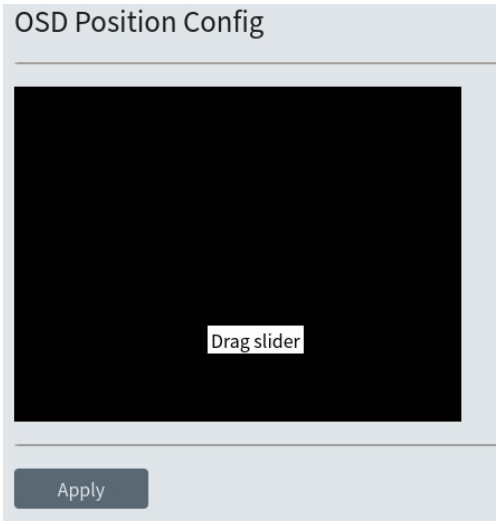
Click Home→Local Configuration→System Time Config to go to the following interface.



Please select the time zone as needed.
You can set the time manually or automatically as needed.

11.7 OSD Position Configuration

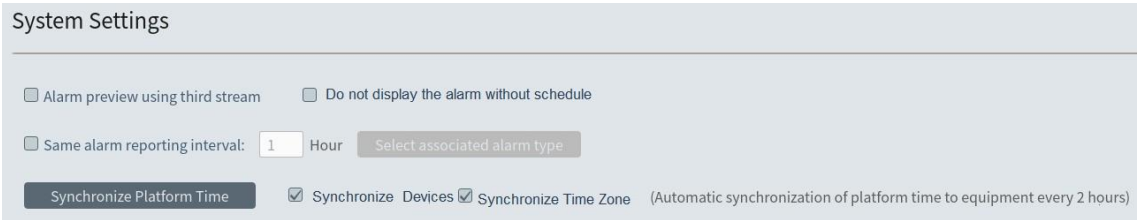
Click Home→Local Configuration→OSD Position Config to go to the following interface.



Drag the slider to the position you want to show the OSD and then click "Apply" to save the settings.

11.8 System Configuration

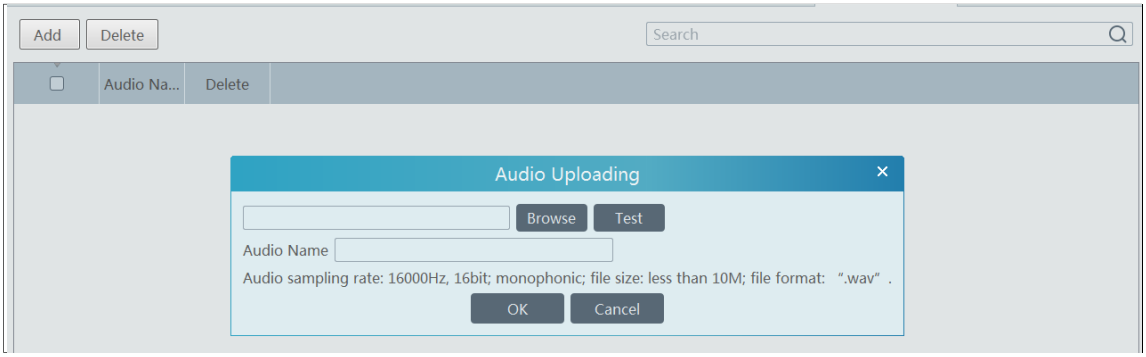
Click Home→Local Configuration→System Config to go to the following interface.



In this interface, you can enable "Alarm preview using third stream" or "Do not display the alarm without schedule".
Enable and set the same alarm reporting interval and its linked alarm type.
Choose "Synchronize devices" and "Synchronize Time Zone" and then click [Synchronize Platform Time] to synchronize the device times with the time of the platform.

11.9 Audio Uploading

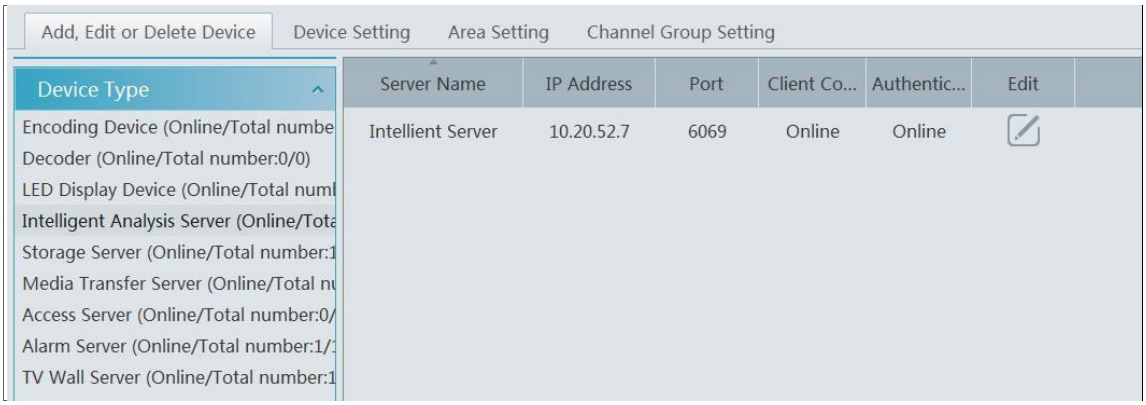
Go to Home→Local Configuration→Audio Uploading.
Click [Add] to bring the following box.



Click [Browse] to choose the audio file and then enter the audio name. Click [OK] to save this audio. After the audio is uploaded successfully, you can listen to it.

12 Intelligent Management

Before using intelligent functions, please confirm the intelligent analysis server has been already created and it is online.
Go to Home→Resource Management→Intelligent Analysis Server. There is a default intelligent analysis server. Please make sure the server is online.



Users can also add a new intelligent analysis server. Click [Add] and then click [Refresh] to quickly search the server in the same local network. Click the "Manually Add" tab to manually add the IP address and port of the server.

12.1 Face Surveillance

If it is the first use of face surveillance function, please configure it in the following order.

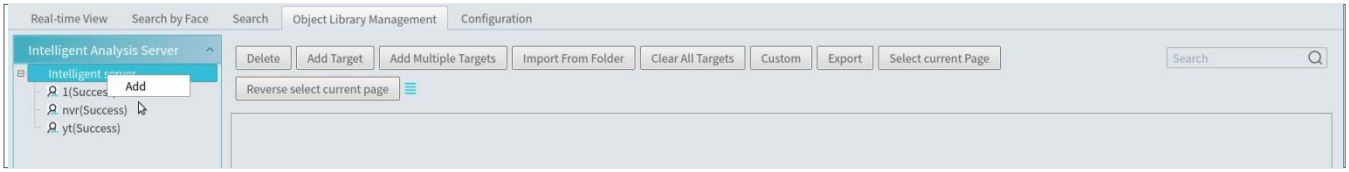
Create a library → Add targets → Configure face capture type → Configure face match type → View face capture & face match result → Search faces

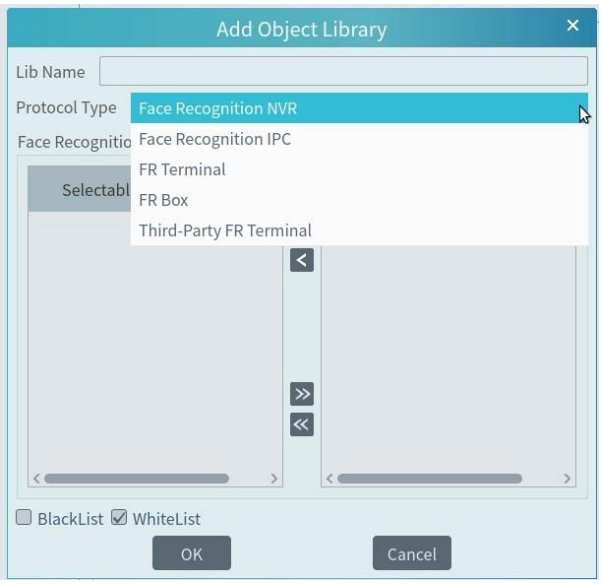
12.1.1 Object Library

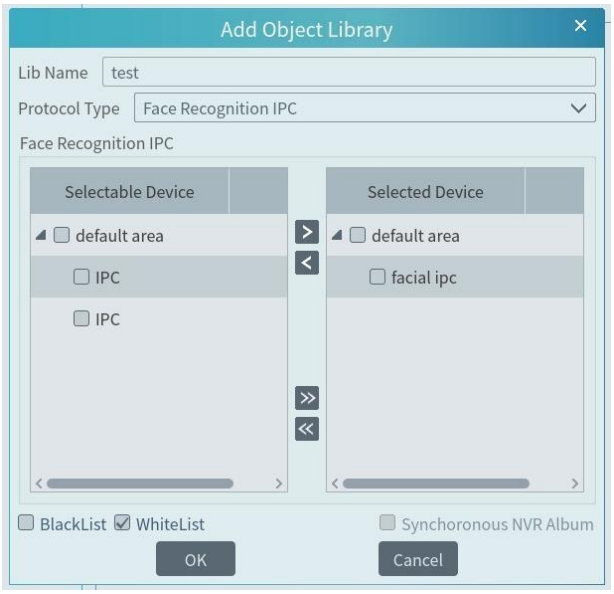
Create and edit object library by going to Home→Object Library.

- **Create Object Library**

Right click the intelligent analysis server to select "Add" to add an object library.



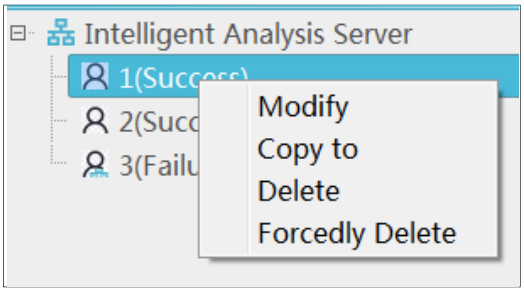




Object Library Name: please enter the object library name as needed.

Protocol Type: face recognition IPC, face recognition NVR and FR Terminal (Face Recognition Access Control Terminal) are optional. If face recognition IPC/NVR/terminal is selected, please select the corresponding device and click > to add the device. Then this library and its targets will be added to the face database of the added device, but the face database and its targets cannot be added to this library.

A menu box will display by right clicking the library name as shown below.



Select "Modify" to modify the library name. Check "Synchronous" and then you can add or delete devices. If adding a device, all targets in this library will be copied to this device. If deleting the added device, all targets of this library will be cleared from this device.

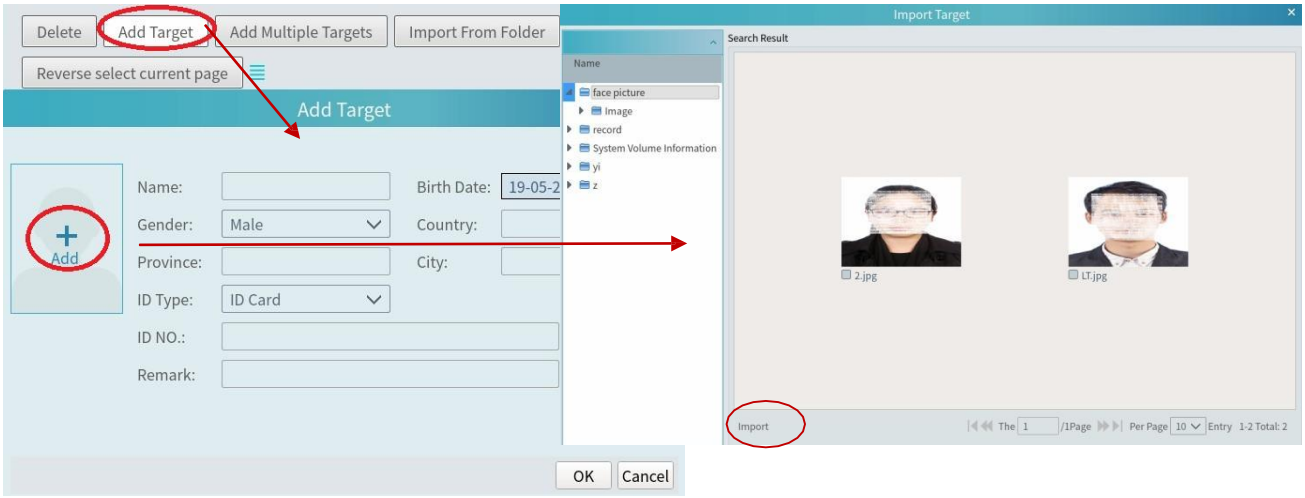
Click "Copy to" to copy the current library (A) and its targets to another library (B) and create library (B). If "Copy to" face recognition NVR/IPC/ terminal is selected, the current library (A) and its targets will be added to the face database of the above-mentioned device.

Click "Delete" to delete the current library.

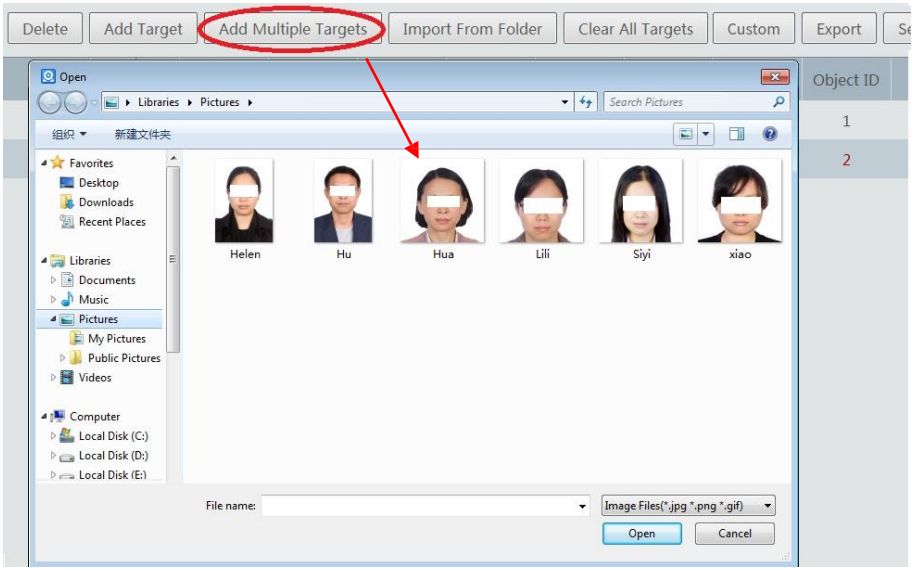
Forcedly Delete: This function is used to delete the library linking the face recognition NVR/IPC/terminal. When the FR NVR/IPC/terminal is offline or disconnected with the intelligent server, you shall select "Forcedly Delete" to delete the relevant library.

- **Add Targets**

Then click this object library and click [Add Target] to create a target.



Adding multiple targets:



Import from folder:

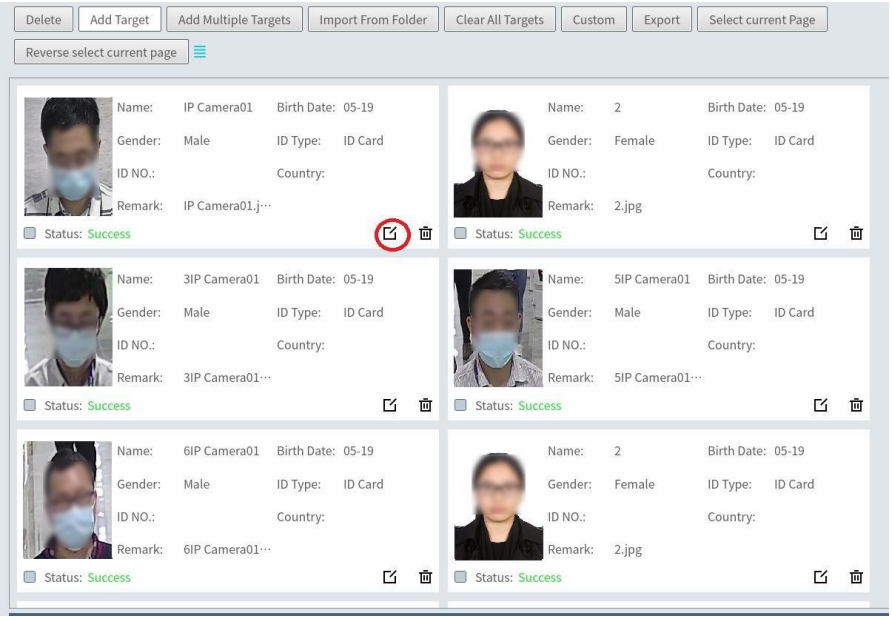
Folder & Subfolders: After clicking [Import from Folder] and choosing "Folder & Subfolders", choose a folder including multiple subfolders and then all pictures in the folder and its subfolders will be imported.

Current Folder: After clicking [Import from Folder] and choosing "Current Folder", choose a folder including multiple subfolders and pictures. Then pictures in the folder will be imported, but pictures in the subfolders will not be imported.

Modify or delete targets:

Click to modify the information of the target. Click to delete the target.

Click [Custom] to customize the target information.



Click to view the list of the target.

12.1.2 Task Management

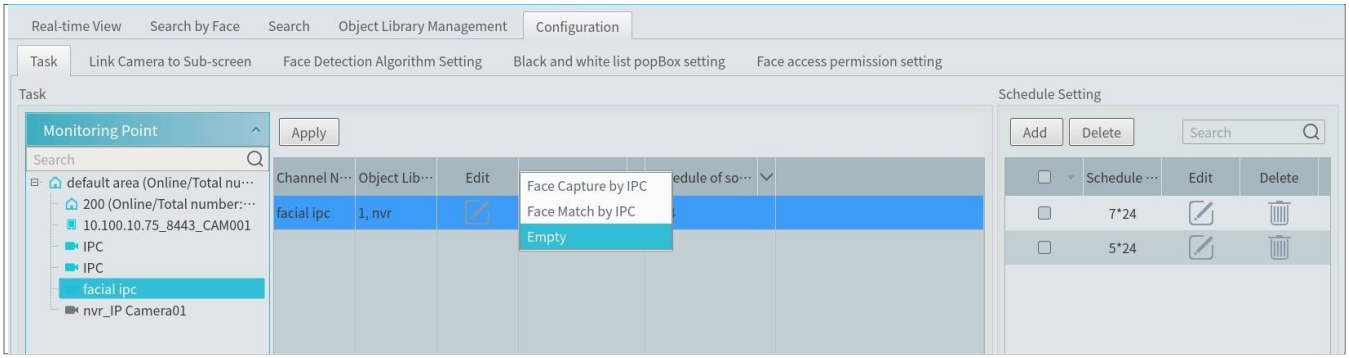
Go to Home→Face Surveillance→Configuration→ Task.

① Select the schedule and face capture type.

There are two face capture types—face capture by IPC, face match by IPC

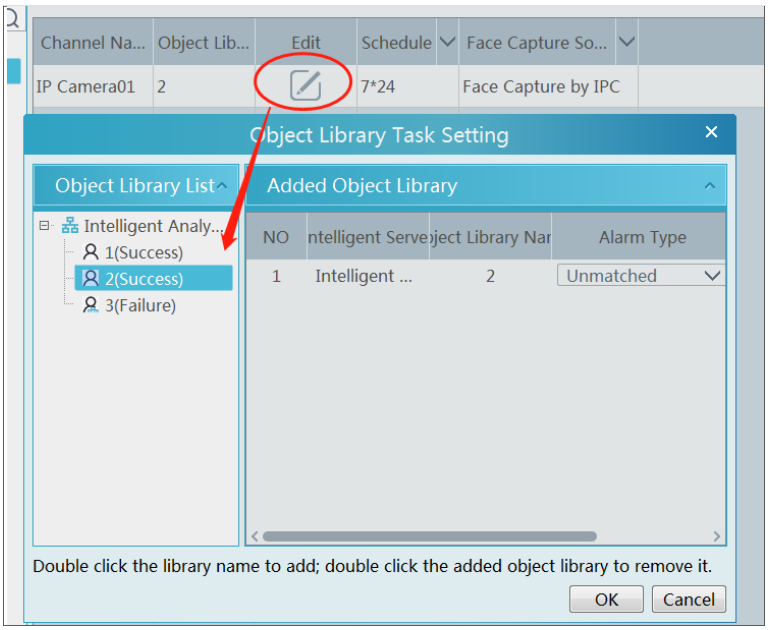
Face capture by IPC: if the IPC is a face detection IPC, please select it. It is selected by default.

Face match by IPC: if the IPC is a face recognition IPC, please select it.

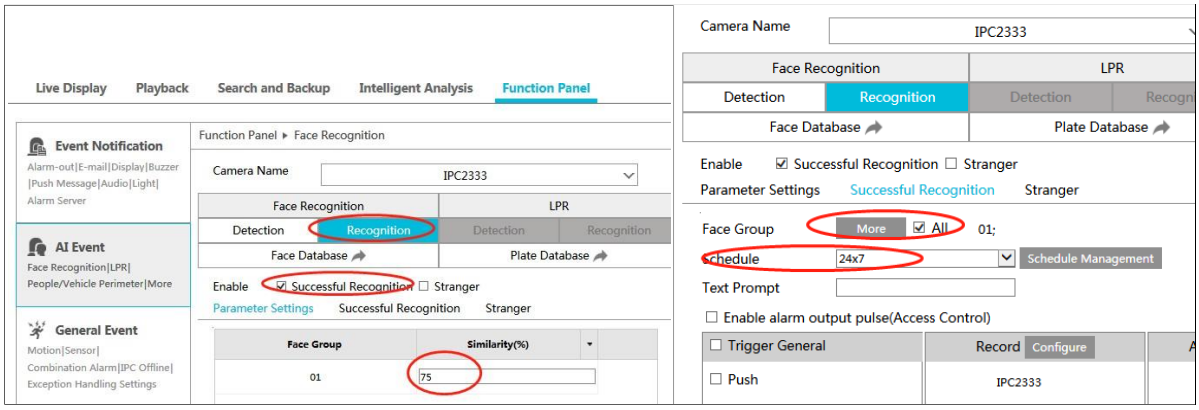


② Set face match type.

Face Match by IPC: select the IPC, click and then double click the library that links the face database of IPC. Make sure this IPC supports face match function.



Schedule and face match configuration of NVR:
You can log in the web client of the NVR and then configure the schedule of face match, select the face group and set the similarity to realize the auto report of the face match result as shown below.



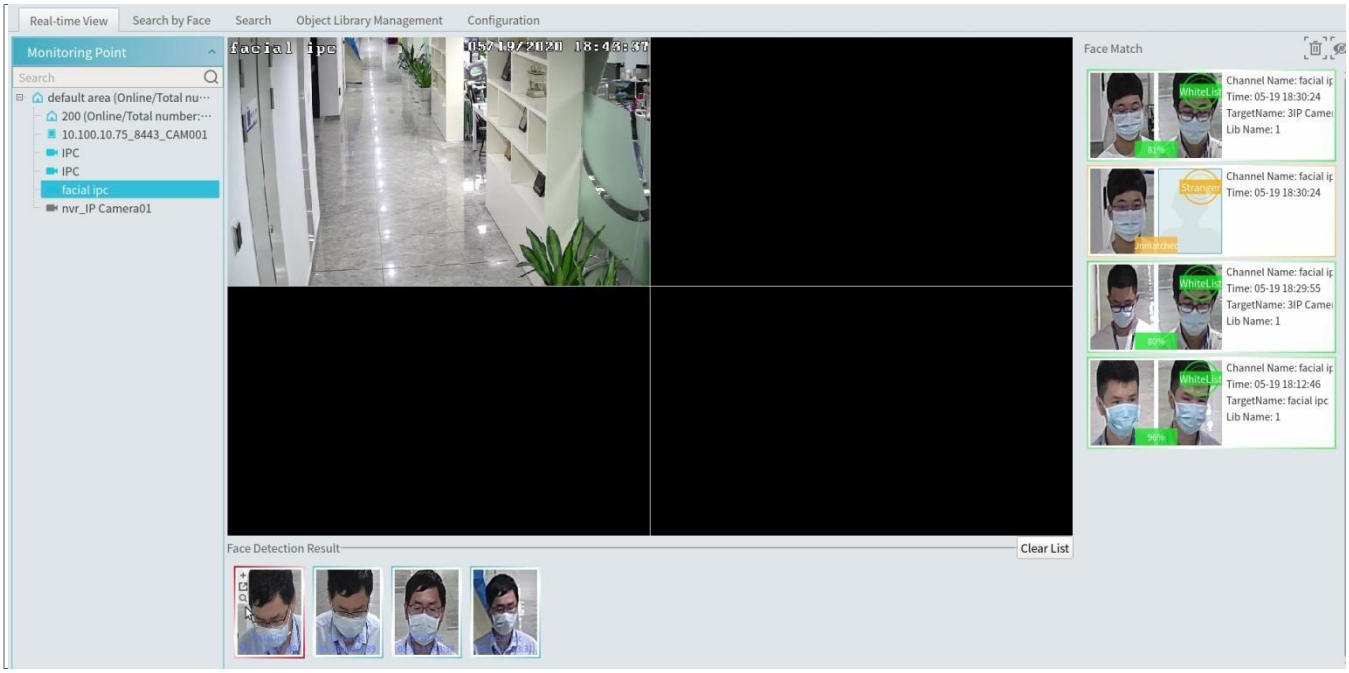
The alarm type: Matched or Unmatched can be optional.
If “Matched” is enabled, a) when the captured face picture is successfully matched, this result will be pushed to the alarm service and then the match pictures will be shown in the Real-time View interface of Face Surveillance module; b) when the captured face picture is unsuccessfully matched, this failure result will be pushed to the alarm service and the picture will be shown in the Real-time View interface of Face Surveillance module too.

If “Unmatched” is enabled, a) when the captured face picture is successfully matched, this result will not be pushed to the alarm service; b) when the captured face picture is unsuccessfully matched, this failure result will be pushed to the alarm service and the picture will be shown in the Real-time View interface of Face Surveillance module.

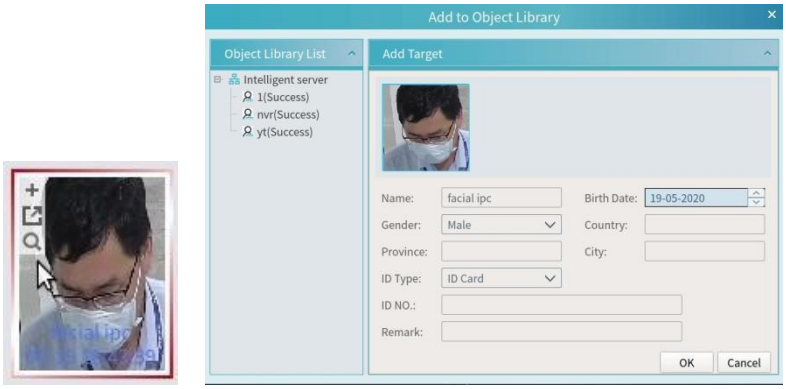
Note: If the schedule is not set, the match result will not be pushed.

12.1.3 Real-Time View

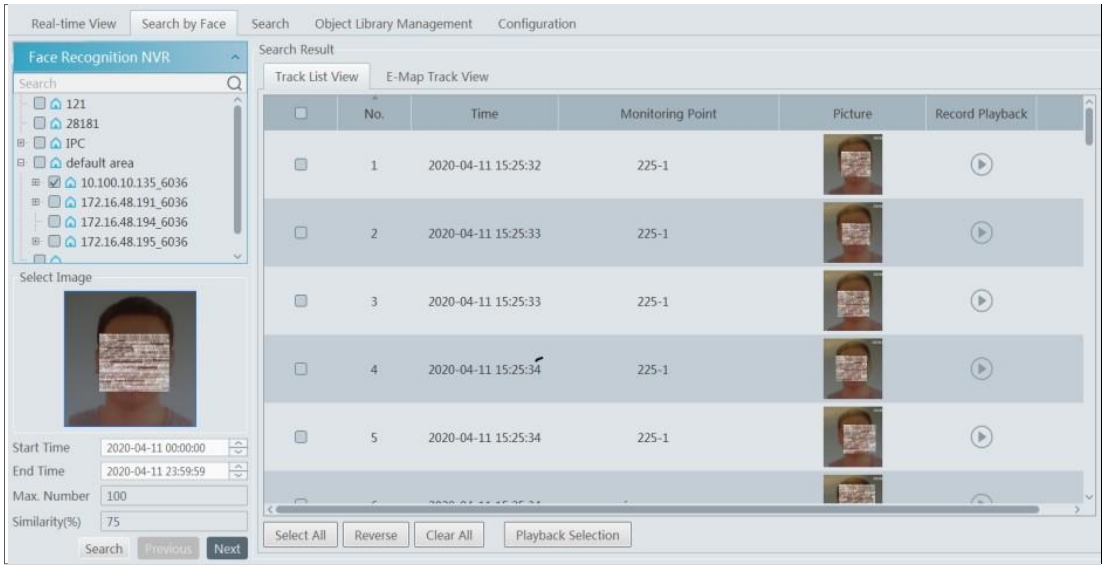
If the IPC supports face detection, you will view the face capture picture.
The screen display mode: 1/4/9/16 can be selected.



Put the cursor on the captured picture and then click + to add the capture picture to the library.
Select the library on the left and then fill out the information of this target. Click [OK] to add.



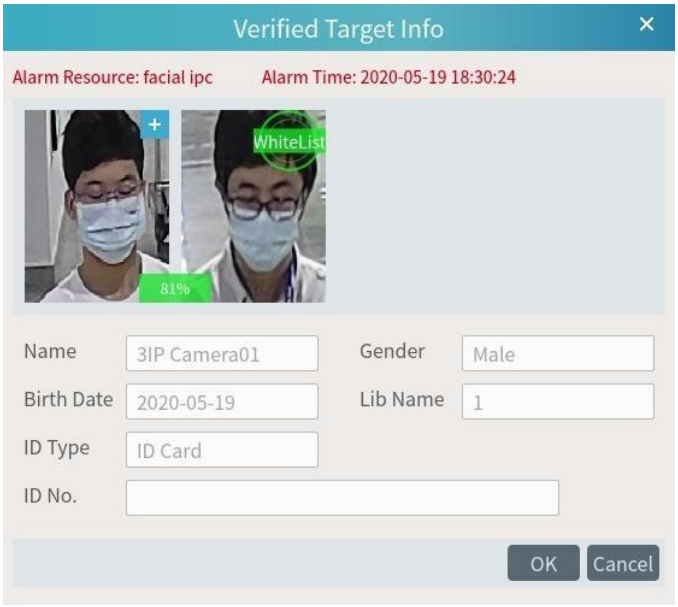
Put the cursor on the captured picture and then click to quickly search images by this picture.



Put the cursor on the captured picture and then click to quickly download the captured picture.

The right panel of the real-time view interface is face match result area.

Click it to view the matched details.

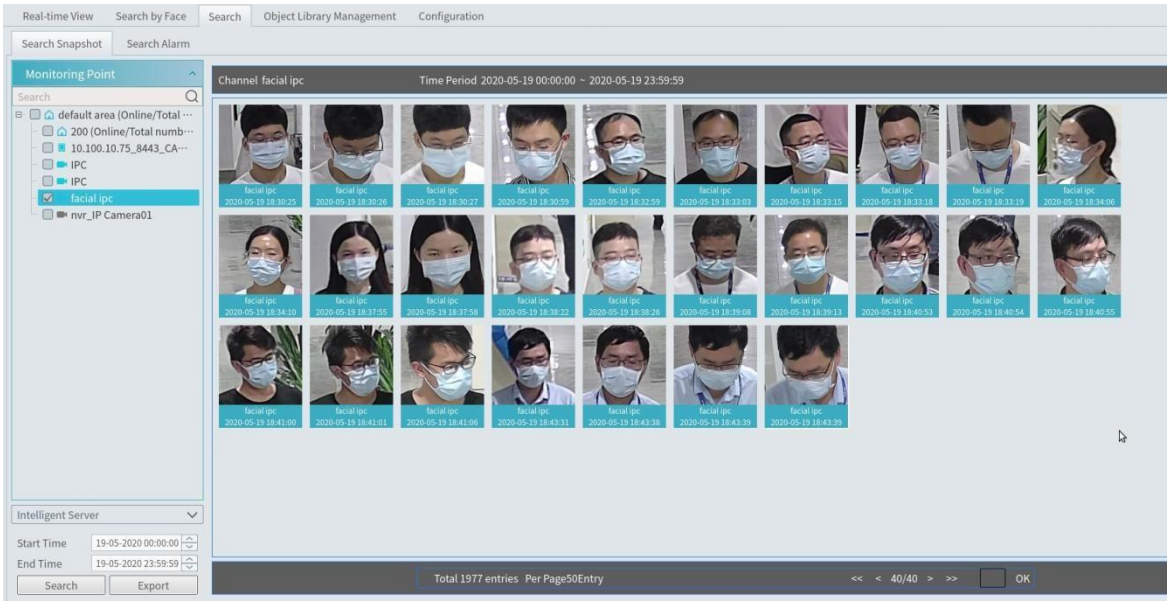


Click to clear all face match result.

Click to hide the unmatched result.

12.1.4 Search

① Go to Face Recognition →Search interface.
② Select the IPC and picture source.
③ Select the captured match pictures from intelligent server or face recognition NVR.
④ Set the start and end time and then click [Search] to search the face pictures.



Put the cursor on the captured picture and then some shortcut buttons will be displayed.

Click + to add the capture picture to the library. Select the library on the left and then fill out the information of this target. Click [OK] to

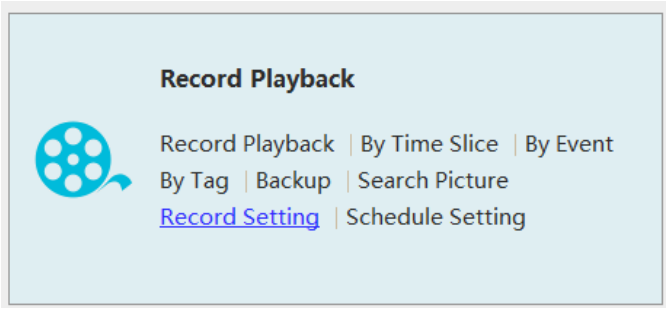
add.

Put the cursor on the captured picture and then click to quickly search images by this picture.

Put the cursor on the captured picture and then click to quickly download the captured picture.

12.1.5 Search Image by Image

① Set the schedule and make sure all channels can be recorded normally.



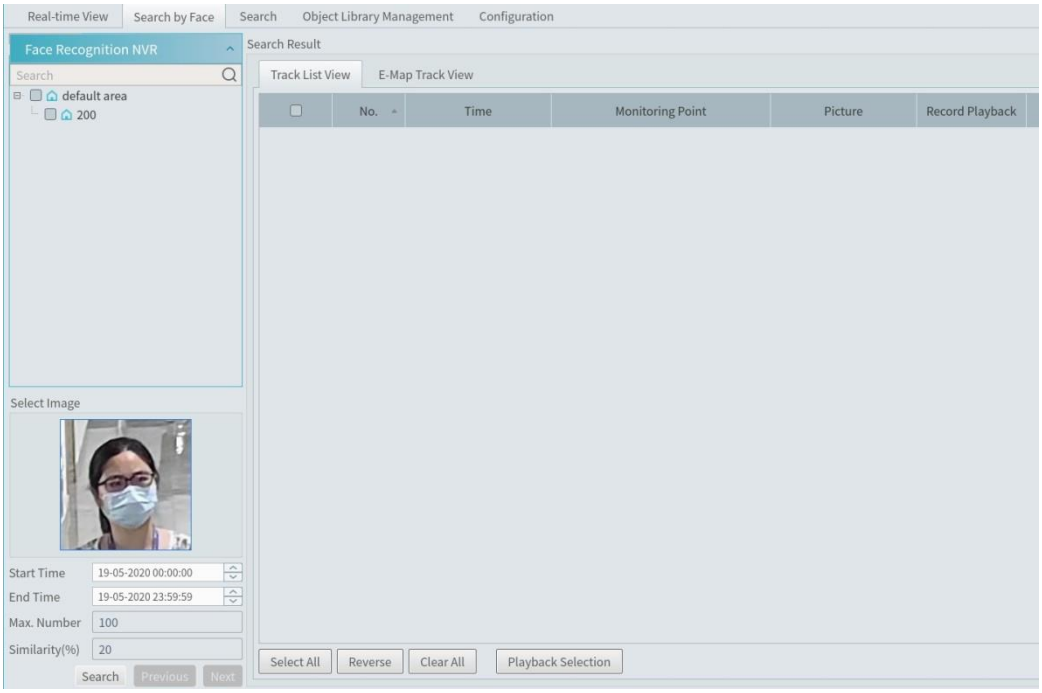
② Select a picture and picture source.

③ Set the start time and the end time.

④ Set the maximum count and similarity.

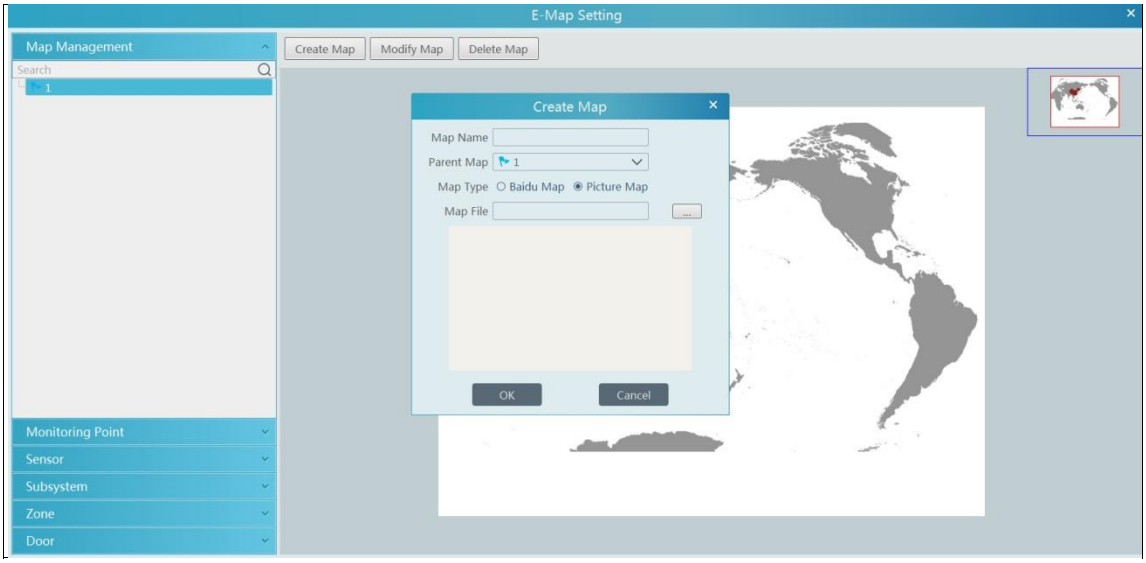
⑤ Click [Search] .

Click to play the record in a small window.



- E-Map Track View:

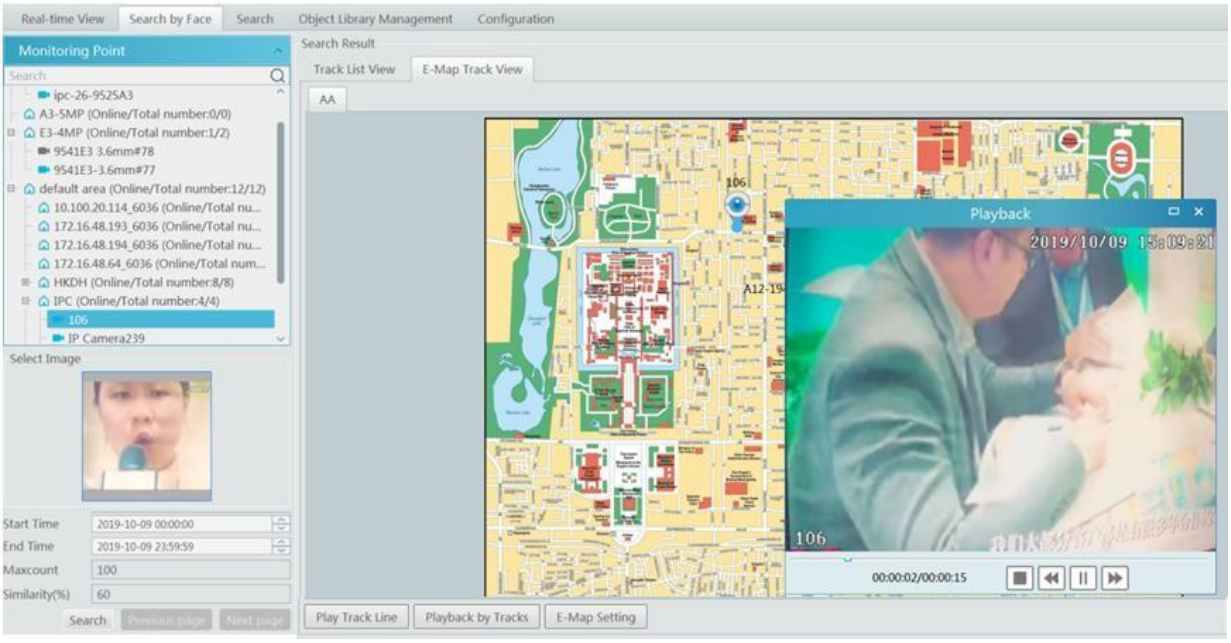
① Create a E-map. You can create or delete an E-map in this interface. The hot spot can be added to the E-map too.



② Search the track

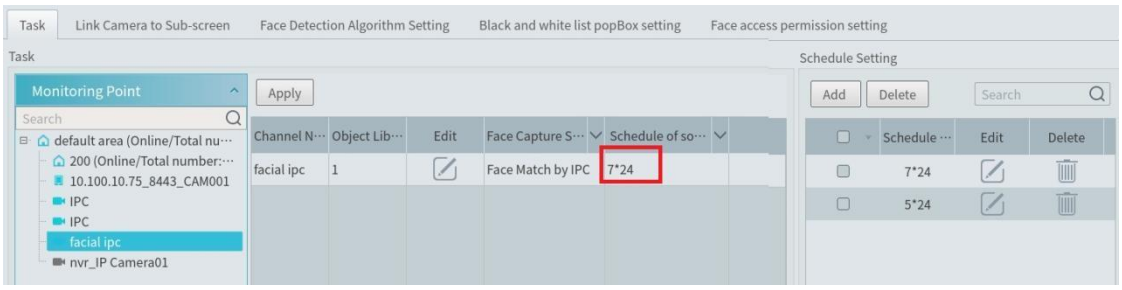
Click [Play Track Line] to play track line.

Click [Playback by Tracks] to play back records as shown below.



12.1.6 Configuration

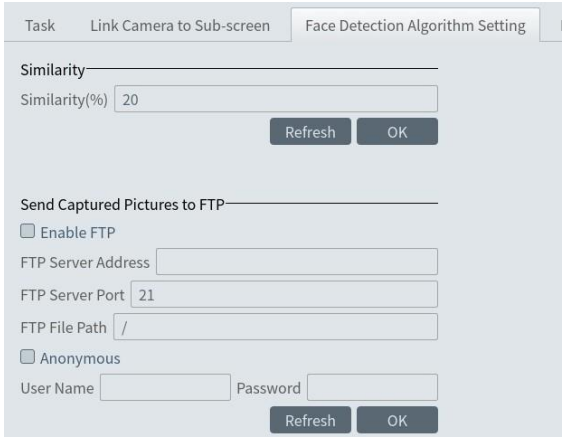
① Set the schedule.



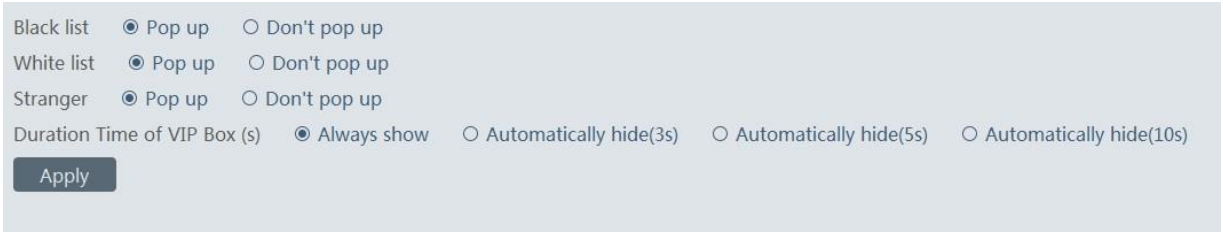
② Face Detection Algorithm Setting

Set the similarity of face match by default and FTP as needed.

If FTP is configured, the captured face pictures will be automatically uploaded to FTP server

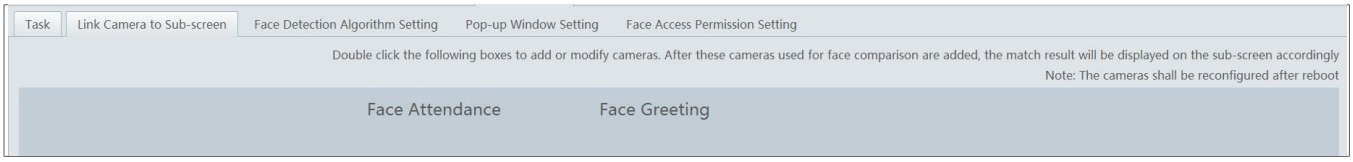


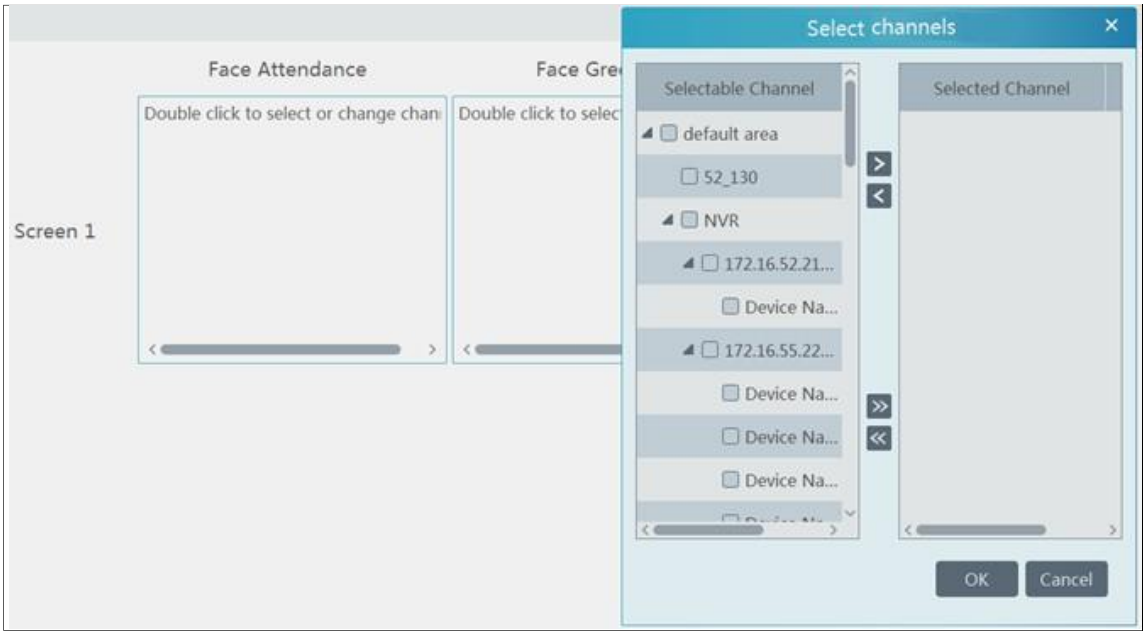
③ Pop-up Window Setting



In this interface, you can choose whether to pop up the window when the camera detects a stranger or the person of blacklist or white list. Additionally, you can choose the duration time of VIP Box(s).

④ Link camera to sub-screen:
If the sub-screen is connected, the system will automatically recognize it. In this interface, you can configure cameras for face attendance and face greeting



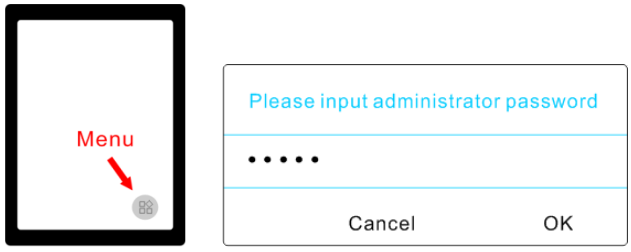


Double click the blank area of the screen box as shown on the above left to pop up a box. Check the channel name and click to add it.

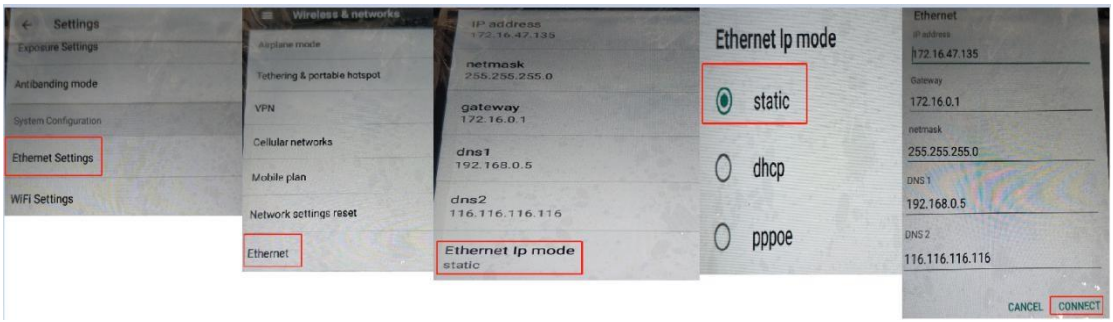
12.1.7 Face Recognition Terminal Access and Configuration

The setting steps are as follows:

1. Log in the Face Recognition Access Control Terminal (FR Terminal): If this is the first use of FR Terminal, please configure its IP address first. Click the menu icon in the bottom right corner of FR Terminal to pop up a login box. Enter the password and click [OK].



2. Modify the IP address of the FR terminal. Click Settings→Ethernet Setting→Ethernet→ Ethernet IP Mode→Static to modify IP address.

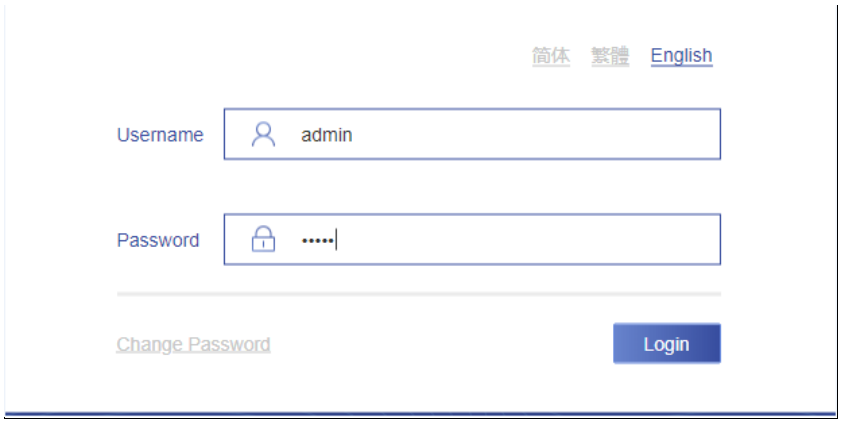


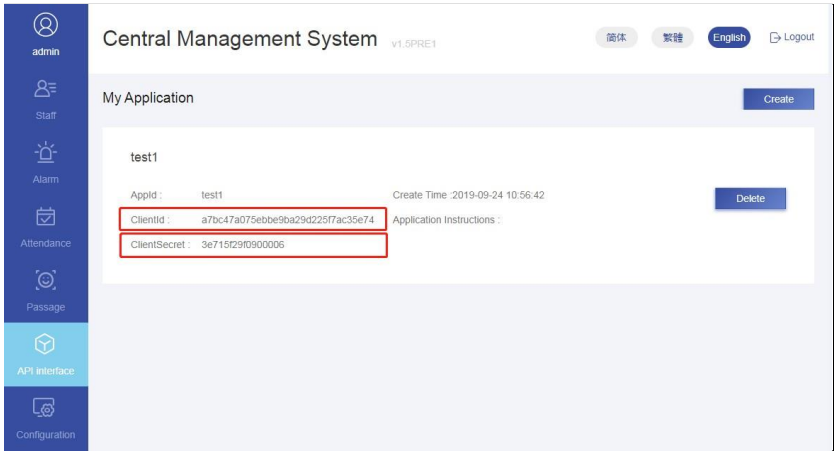
3. Create API in the web client of FR Terminal to get username and password.

Note: Only Google Chrome can be used to log in the FR Terminal. Please enter http://ip:8081 in the address bar of Chrome. The default user name is admin and the default password is admin too.

Go to the API interface to create the ClientID and ClientSecret as shown below.

Self-define the ClientId and ClientSecret.

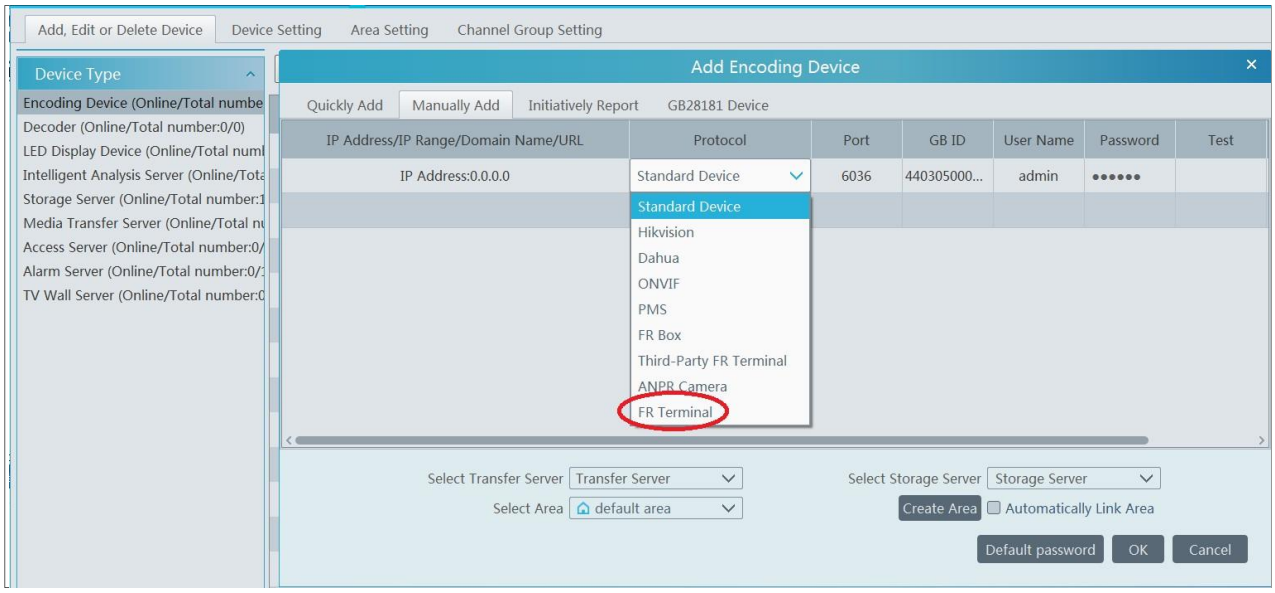


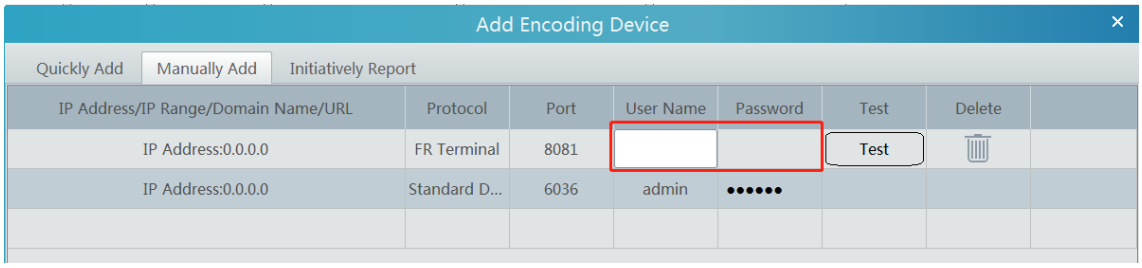


4. Platform access:

Note: The FR terminal only can be controlled by one platform. Please do not connect one FR terminal to multiple management platforms.

Start the monitor client and then go to the "Add, Edit or Delete Device" interface. Choose "Encoding Device" and then click [Add]. Click the "Manually Add" tab to add a FR terminal. The protocol shall be "FR Terminal".





The username must be the same with the ClientId of the FR Terminal.

The password must be the same with the ClientSecret of the FR Terminal.

Please get the ClientId and ClientSecret from the web client of the FR Terminal (See Step 3 for details).

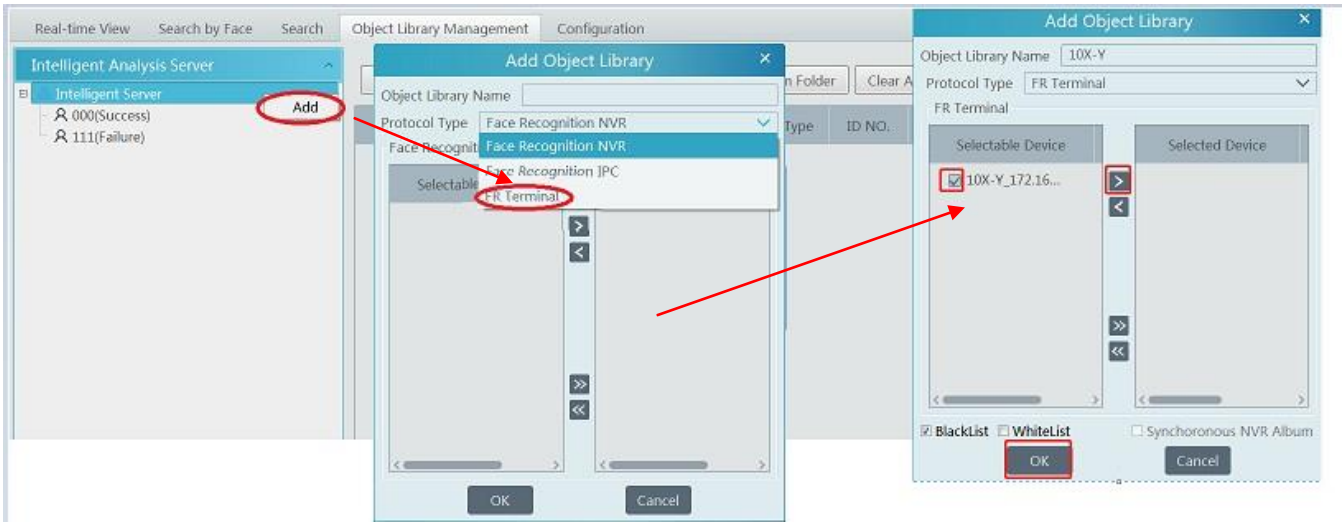
5. Link the FR terminal to a library

(1) Add a library and create a blacklist or white list.

Go to Face Surveillance→ Object Library Management interface. Right click the intelligent server name and then click "Add" to add a library.

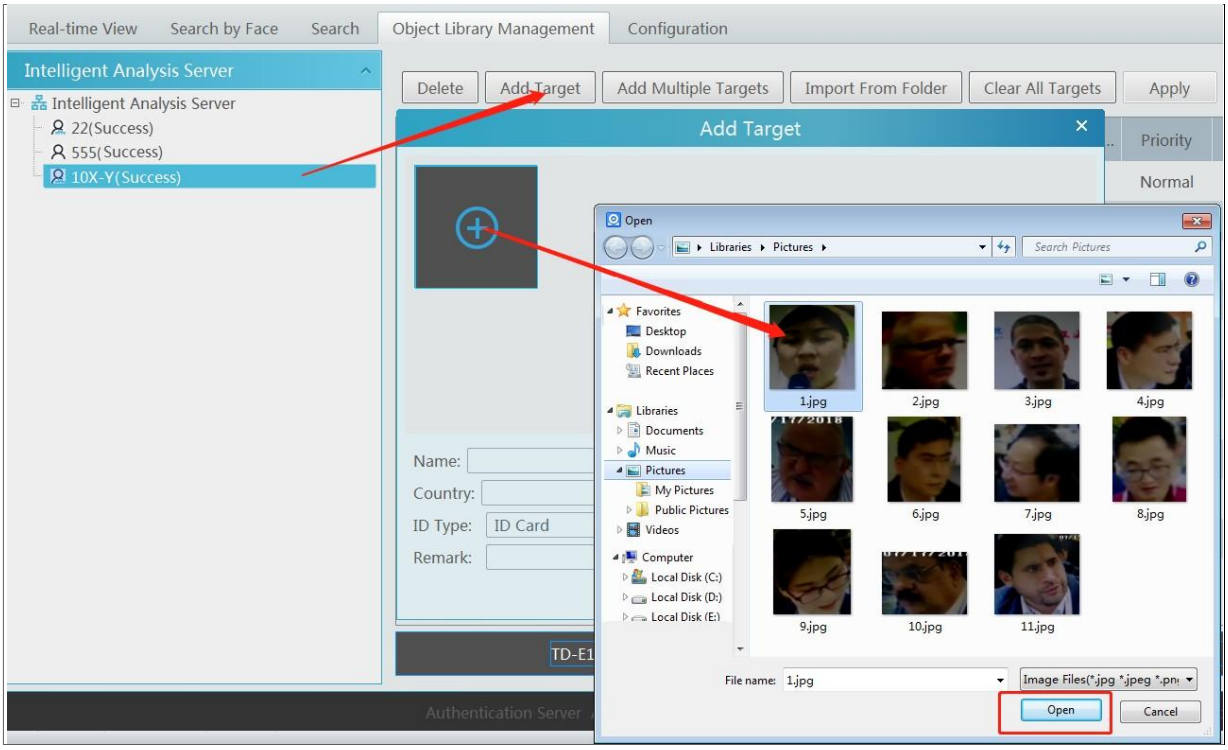
Protocol Type: please select FR Terminal.

Enter the library name and select the FR terminal. Then check blacklist or white list.

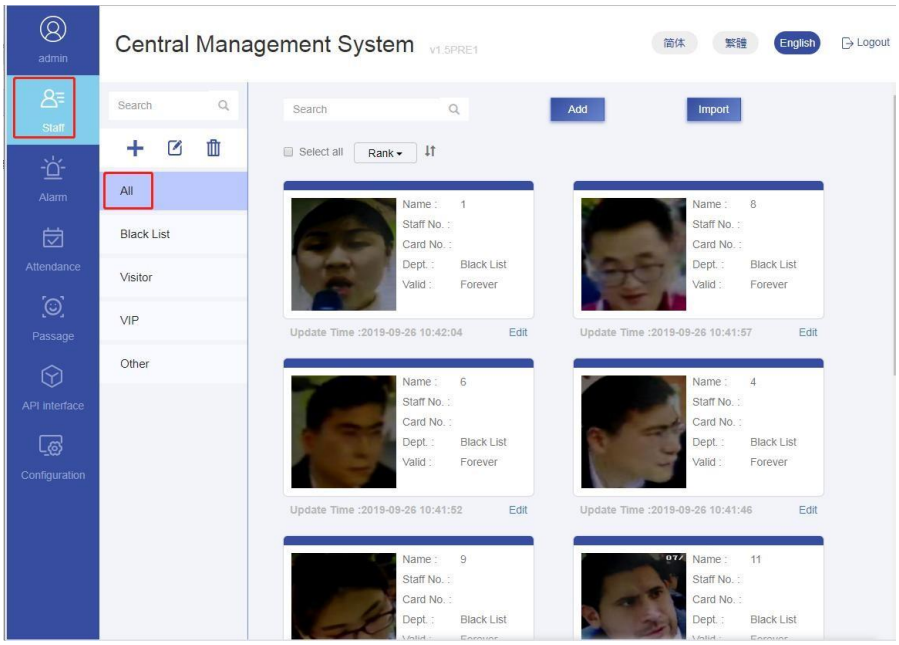


（2） Add targets

Select the library linked to the FR terminal and then click [Add Target] to add targets as shown below.

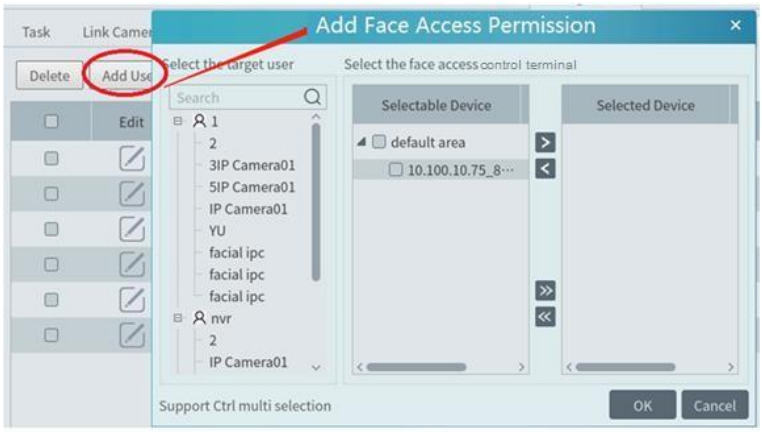


(3) Go to the web client of the FR Terminal to view whether the target pictures are added successfully.



(4) Face Access Permission Setting

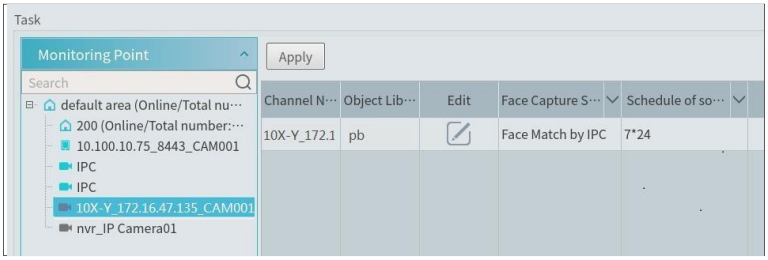
Click Face Surveillance→Configuration→Face Access Permission Setting to enter the following interface and then click [Add User] to bind the user and face access control terminal. Drag your mouse to select the user on the left panel and then select the face access control terminal. Click to select it. Then click [OK] to save the settings.



After that, the user will be listed in the table. Click to change the face access control terminal. Click to delete this user.

(5) Configure the schedule and library.

Click Face Surveillance→Configuration→Task to go to the Task interface as shown below. Select the FR terminal in the monitoring point list and then click to select the object library and alarm type. Then set the schedule and face capture source.



The alarm type: matched or unmatched can be optional.

If “Matched” is enabled, a) when the captured face picture is successfully matched, this result will be pushed to the alarm service and then the match pictures will be shown in the Real-time View interface of Face Surveillance module; b) when the captured face picture is unsuccessfully matched, this failure result will be pushed to the alarm service and the picture will be shown in the Real-time View interface of Face Surveillance module too.

If “Unmatched” is enabled, a) when the captured face picture is successfully matched, this result will not be pushed to the alarm service; b) when the captured face picture is unsuccessfully matched, this failure result will be pushed to the alarm service and the picture will be shown in the Real-time View interface of Face Surveillance module.

If the schedule is not set, the match result will not be pushed.

(6) View the face match alarm information

After you configure the above items, you can view the alarm information in the Real-time View interface of Face Surveillance module. You can also go to the web client of FR terminal to view the alarm information.

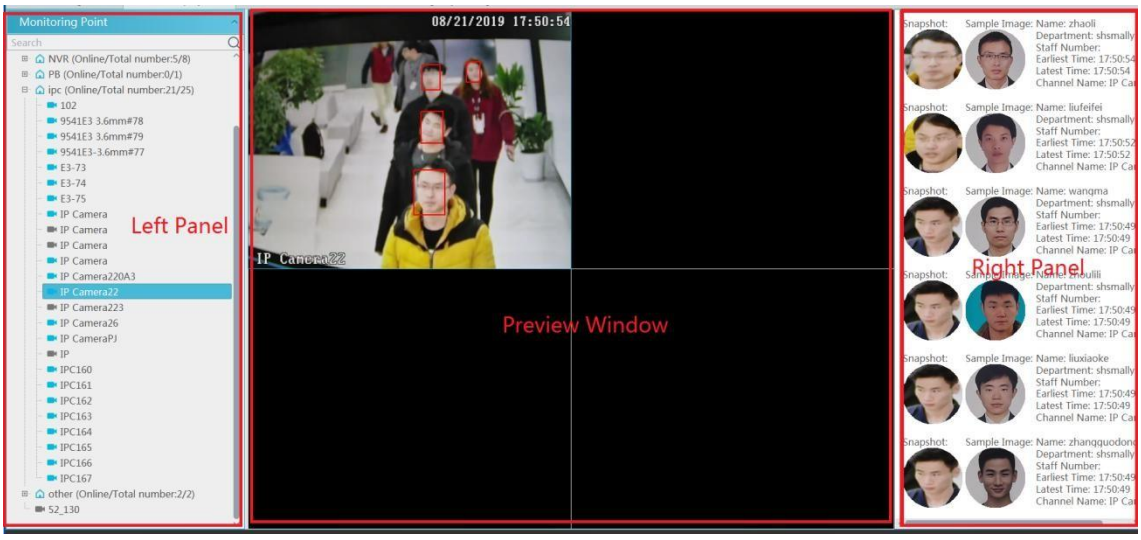
12.2 Face Greeting

Click “Face Greeting” to go to the face greeting interface. The setting steps are as follows:

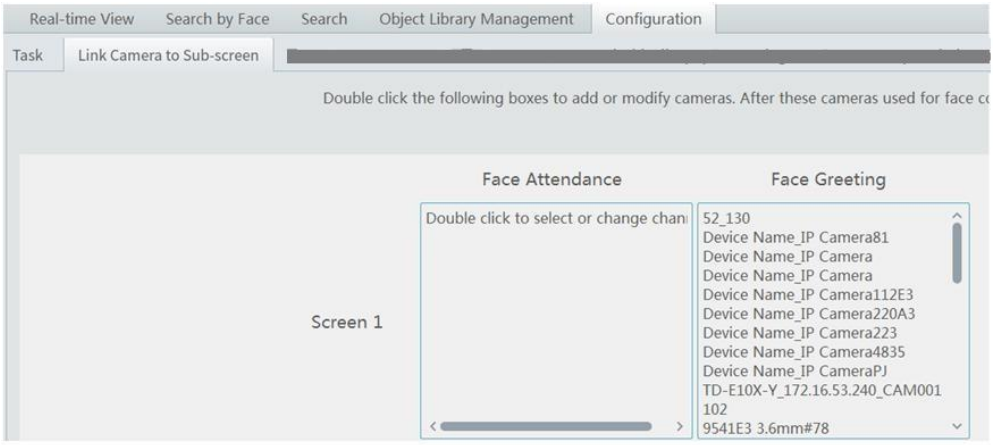
① Create an object library and add targets for this library in the VIP Management interface (See 14.1.1 Object library for details).

② Select the schedule, face capture type and face match type in the Task interface(See 14.1.2 Task Management for details).

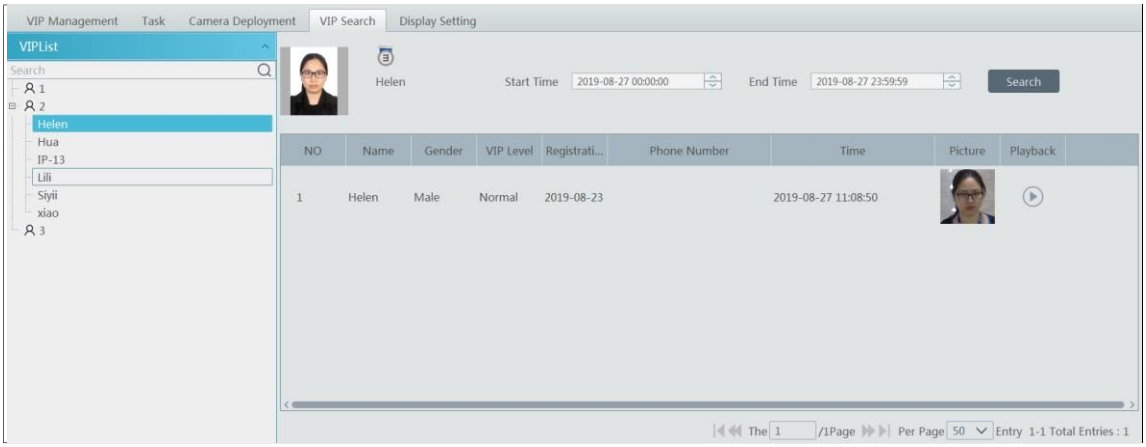
③ Set camera deployment. Drag the camera name to the preview window. When there are targets detected, the match result will be displayed on the right panel.



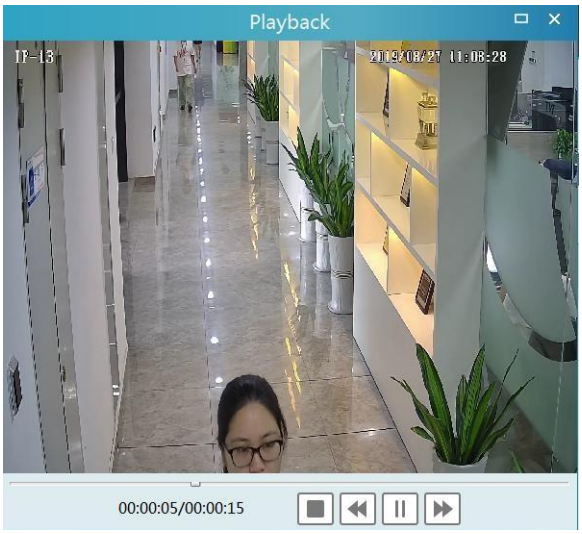
③ View the match result of the greeting screen. Go to Face Surveillance→System→Select projection compare channels to configure cameras used to compare faces. In this interface, right click on the small screen to select “Projection” to select face greeting screen. Then you will see the face display on the face greeting screen as shown on the below.



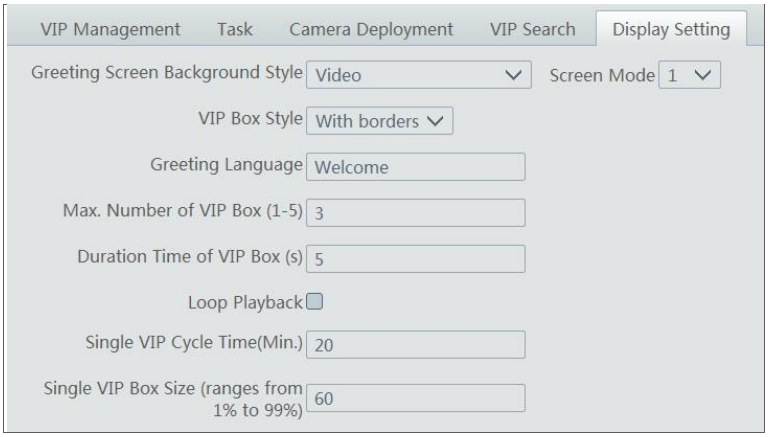
④ Search the face greeting records. Click “VIP Search” tab as shown below.



You can enter the key word to search the target or manually select the target from the library. Then set the start time and the end time and click “Search” to search the record. The detailed information of this target will be viewed. Click to play the record.



⑤ Display Setting. In this interface, greeting screen background style, screen mode, VIP box style, face greeting language and so on can be set up.



Greeting Screen Background Style: three options: Video, Background Picture and Pure Color Background
Screen Mode: 1/4/9/16 screen display mode can be selected.
VIP Box Style: with borders or pure image.
Face Greeting Language: please enter the content as needed.
Max. Number of VIP Box: up to 5 boxes.
Duration Time of VIP Box: set the duration time of VIP box appearing after the captured face is matched successfully.
Loop Playback: if enabled, the VIP name will be broadcasted in a loop.
Single VIP Cycle Time: set the time of the single VIP name broadcasted.
Single VIP Box Size: set the percentage of VIP box size occupying the entire screen.

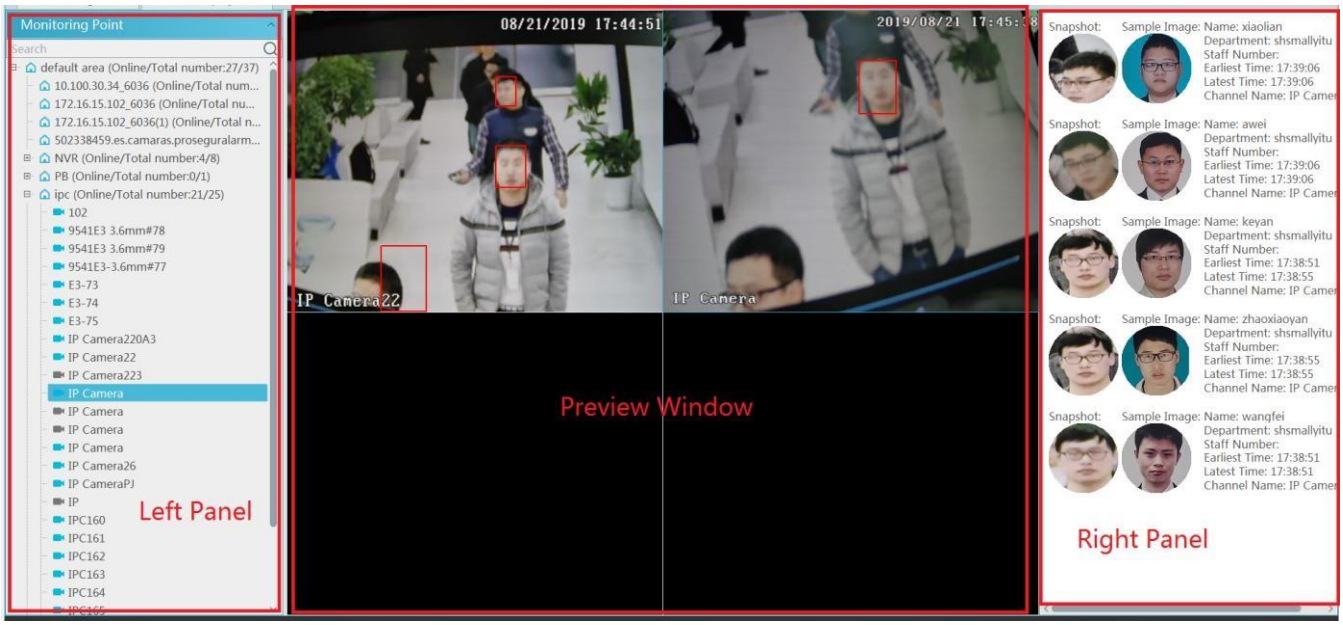
12.3 Face Attendance

Click “Face Attendance” to go to the face greeting interface. The setting steps are as follows:

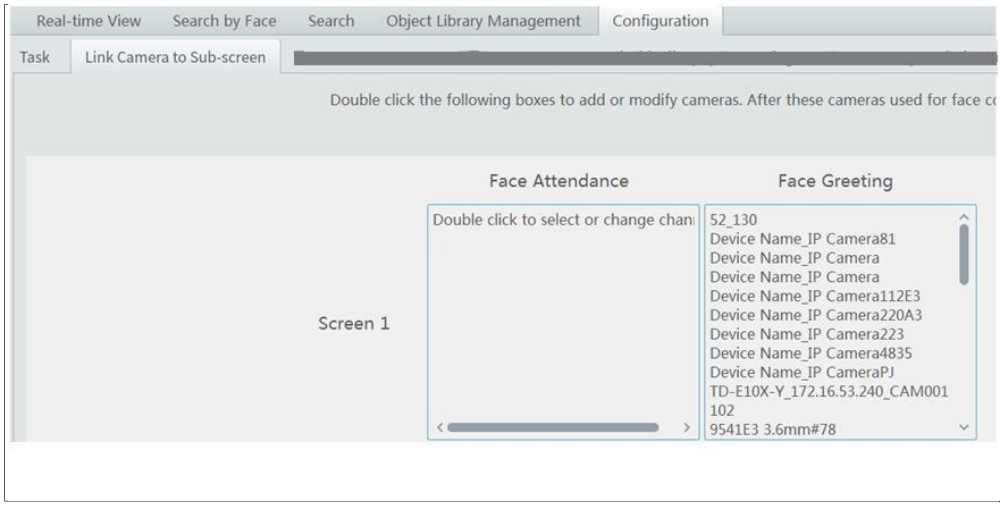
① Click the “Staff Management” tab to create an object library and add targets for this library (See 14.1.1 Object library for details).

② Click the “Task” tab to select the schedule, face capture type and face match type (See 14.1.2 Task Management for details).

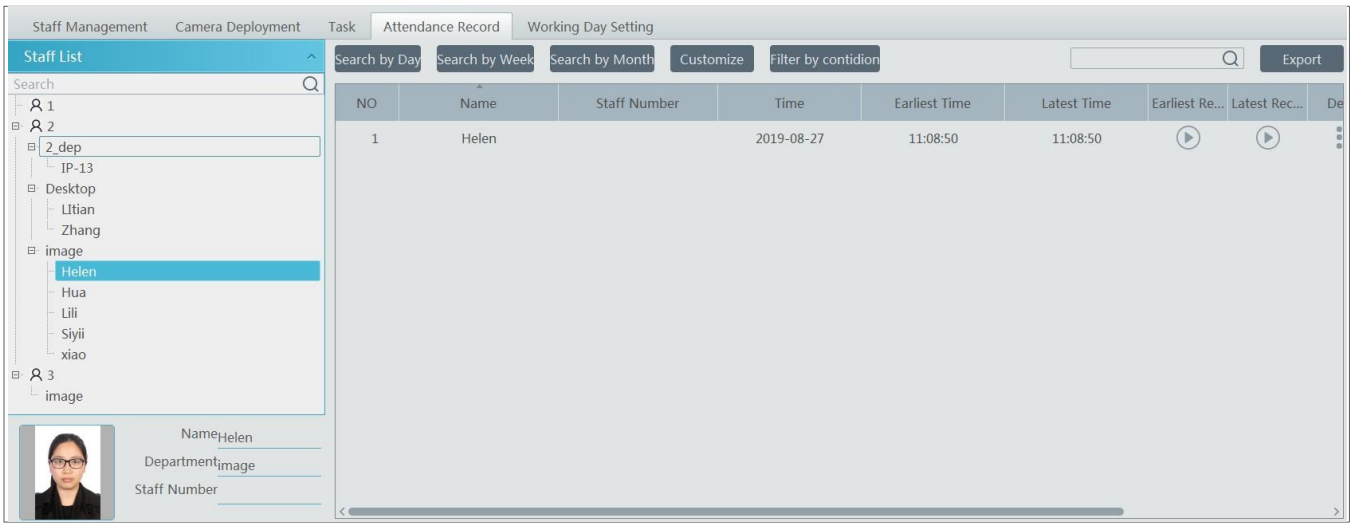
③ Set camera deployment. Drag the camera name to the preview window. When there are targets detected, the match result will be displayed on the right panel.



③ View the match result of the sub-screen. Go to Face Surveillance→System→Select projection compare channels to configure channels used to compare faces. Right click on the screen to select "Project onto" to select sub screen. Then you will see the face display on the sub screen as shown on the below.

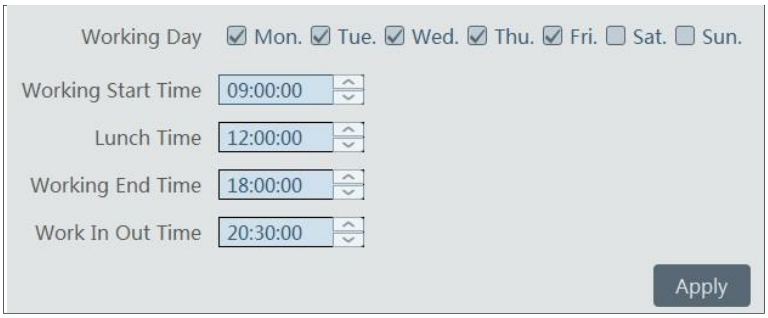


⑤ View the attendance records. Select the target and search condition (by day, by week, by month, etc.) to search the records as below.



Click “Export” to export the attendance record. You can open the exported record file by Microsoft Excel.
The earliest record and the latest record can be played by click the corresponding play button.

⑥ Working day settings

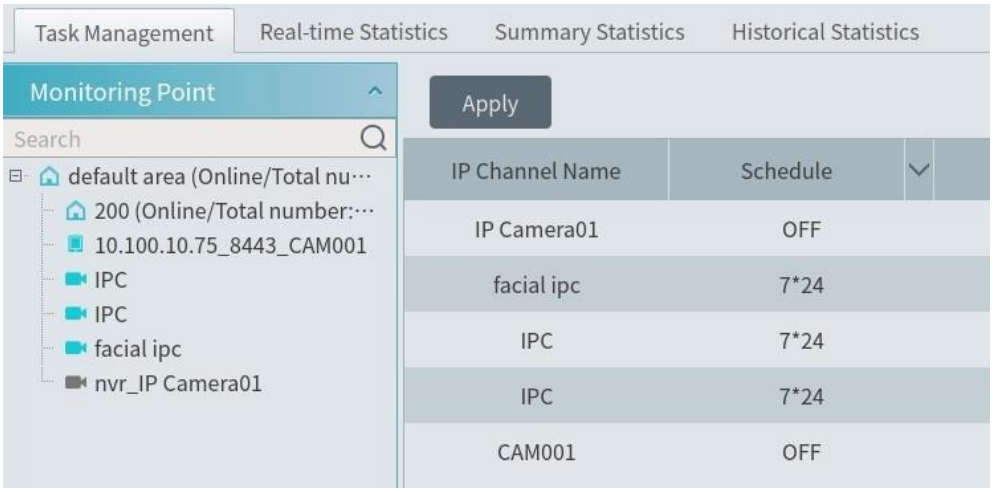


Please set the working day and working time as needed.

4. Line Crossing Counting

1. Task Management

Go to Home→Line Crossing Counting→Task Management. Click the camera with the line crossing counting (or target counting) function and then select the schedule. After that, click [Apply] to save the settings.



12.4.2 Real-time Statistics

Go to Home→Line Crossing Counting→Real-time Statistics. Double click the camera with the target counting function to view the live

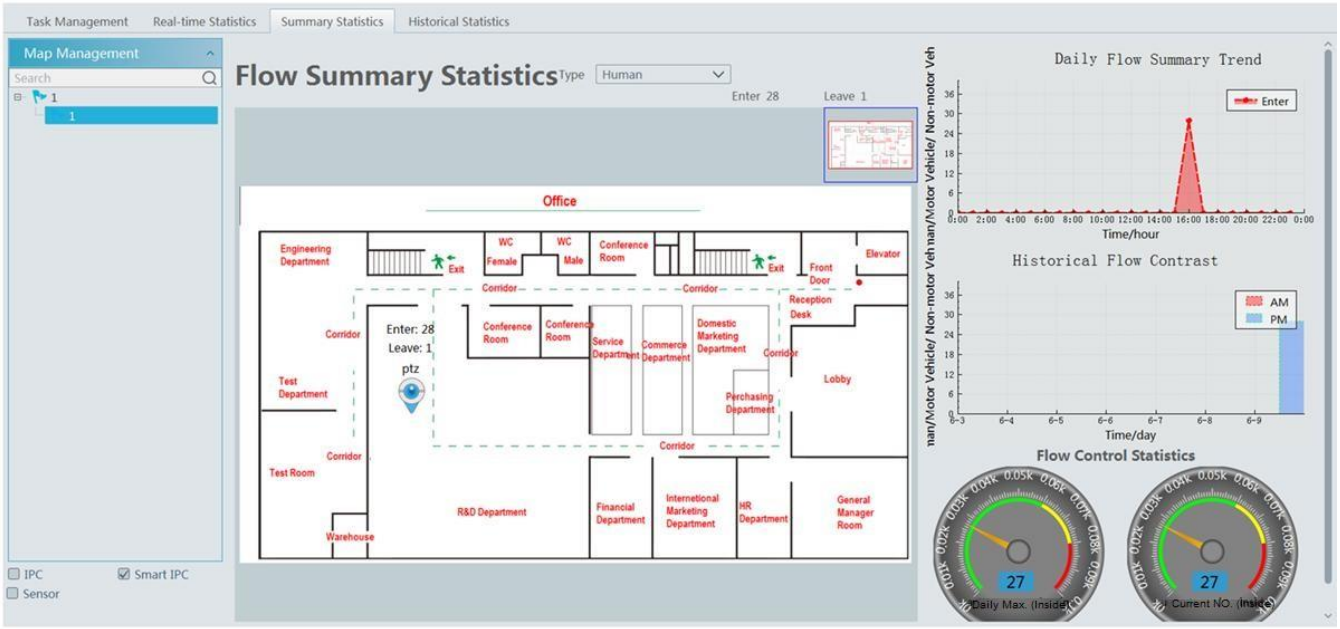
image. The camera will automatically count the number of people/motor vehicle/non-motor vehicle crossing the predefined line and the system will automatically analyze the daily and monthly flow trends.
Before view the statistics, please go to Home→Resource Management→Device Setting→Line Crossing Counting interface to set the alert line, entrance/exit, detection target, etc.

Please select the type as needed to view the flow trend.

12.4.3 Summary Statistics

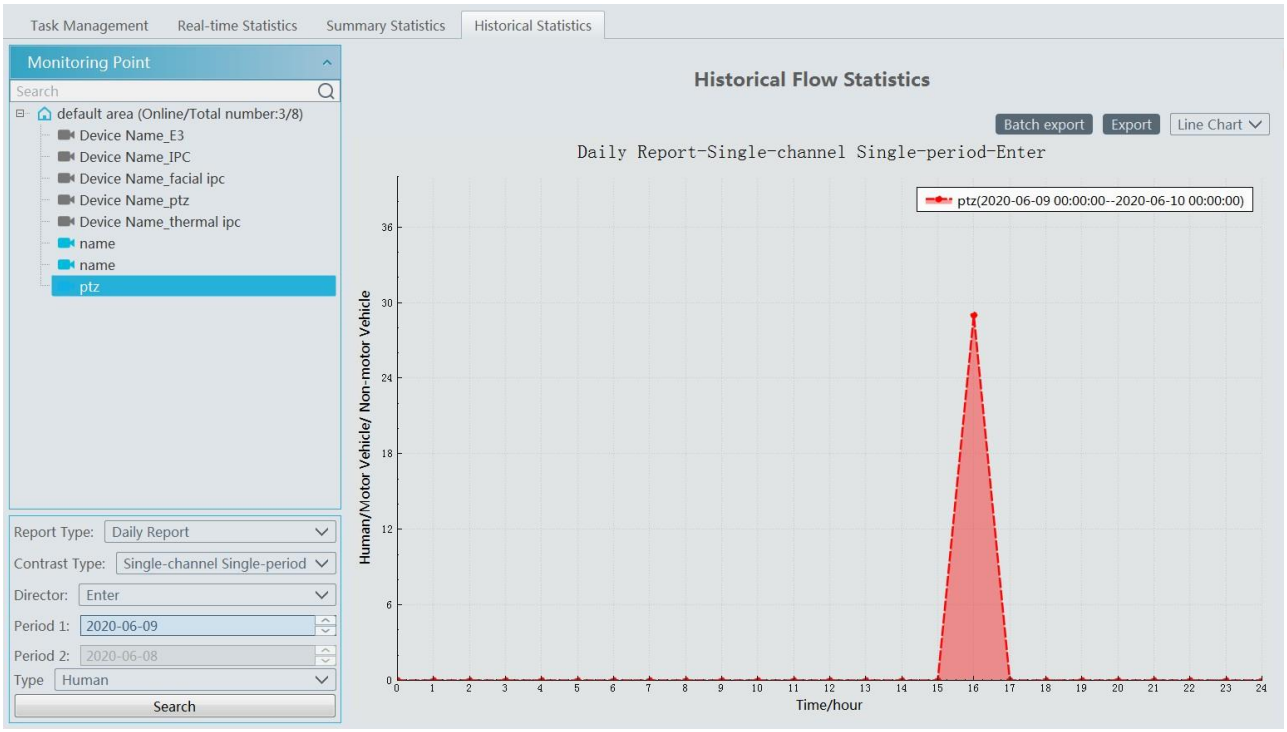
Go to Home→Line Crossing Counting→Summary Statistics.

Before setting summary statistics, please set E-Map by going to Home→E-Map→ E-Map Setting first. Drag the camera with the line crossing counting function to the specified area.
Then return to the summary statistics interface. The results of summary statistics of the specified multi-channel can be viewed.



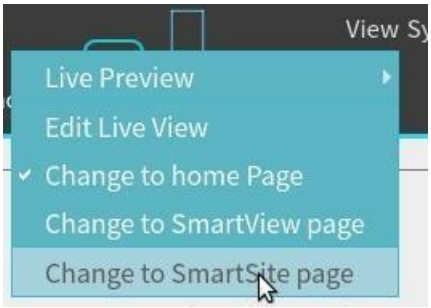
12.4.4 Historical Statistics

Go to Home→Line Crossing Counting→Summary Statistics. In this interface, the statistic results in a long period of time can be searched which can be shown in histogram or curve chart. Additionally, the statistics of different targets can be viewed here.



12.5 Smart Site View

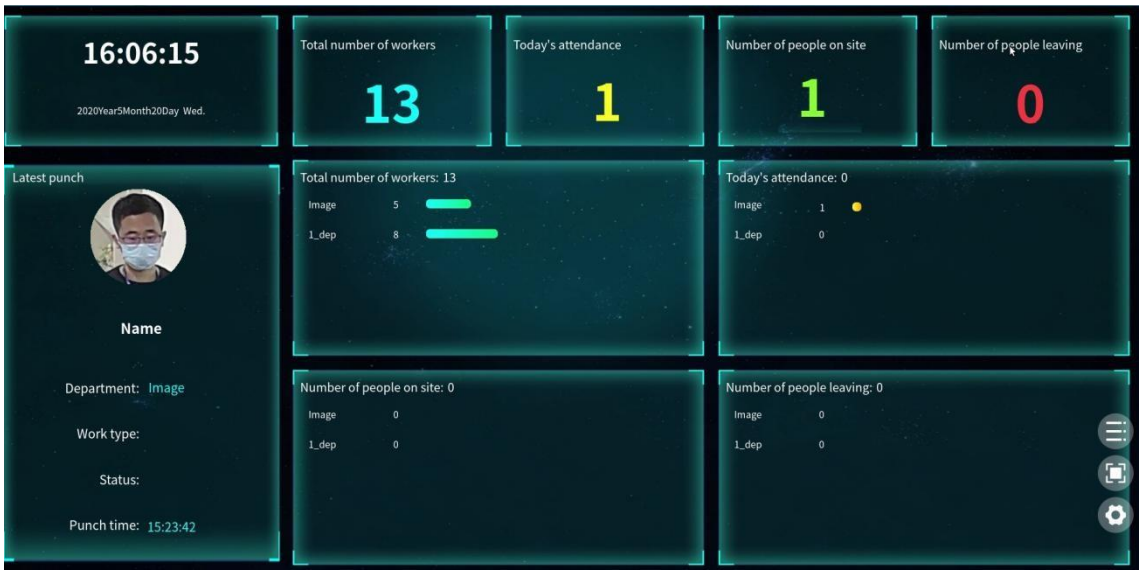
In the home page, click “View” and select “Change to Smart Site Page”.



Face Attendance Settings

1. Click Face Attendance→Task→Attendance Settings to go to the following interface.
2. Select the area and channel.
3. Select entrance or exit.
4. Set the task for each channel. Click the "Task" tab to select the schedule, face capture type and face match type (See 14.1.2 Task Management for details).

After the face attendance settings are finished, the attendance record will be shown as follows



The descriptions of the buttons on the lower left corner

: Click it to change the library.

: Click it to display full screen.

: Click it to enter the staff management interface

12.6 Smart View

In the home page, click "View" and select "Change to Smart View Page".

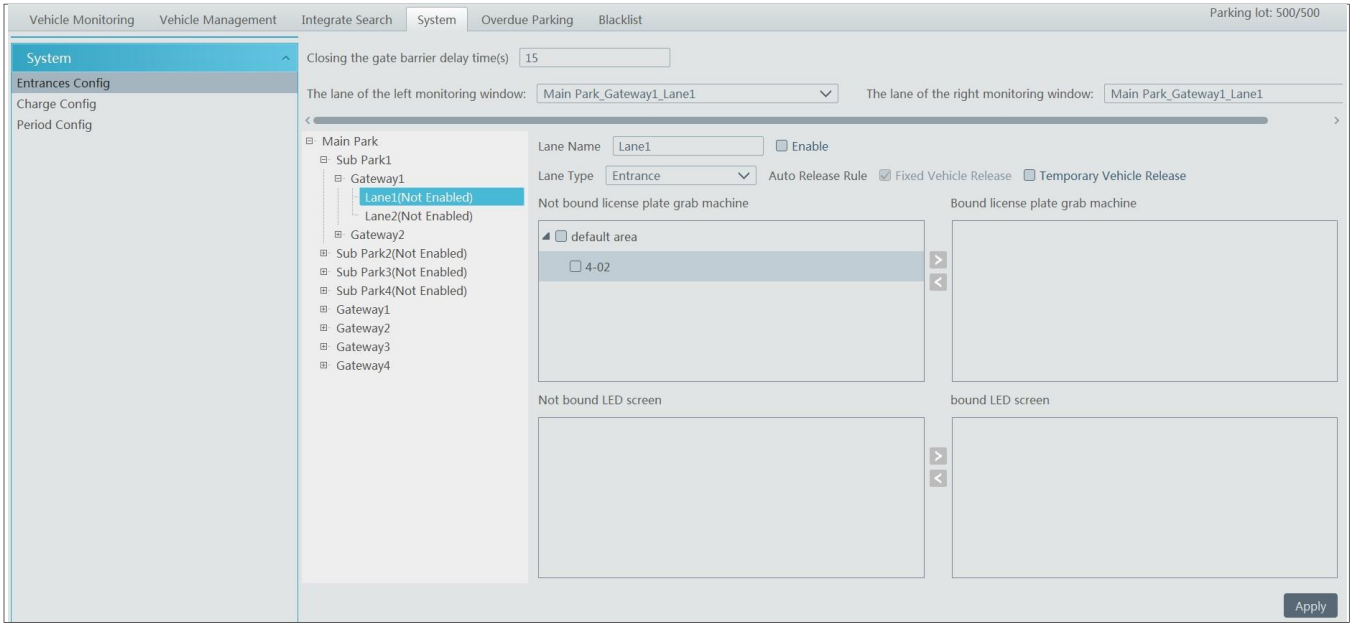
In this page, you can view the statistics of smart events, such as license plate recognition, face recognition, line crossing human/vehicle counting. Click to enter the corresponding intelligent analysis configuration interface.

13 Parking Lot Management

Before using parking lot management module, please add ANPR cameras first in the resource management interface.

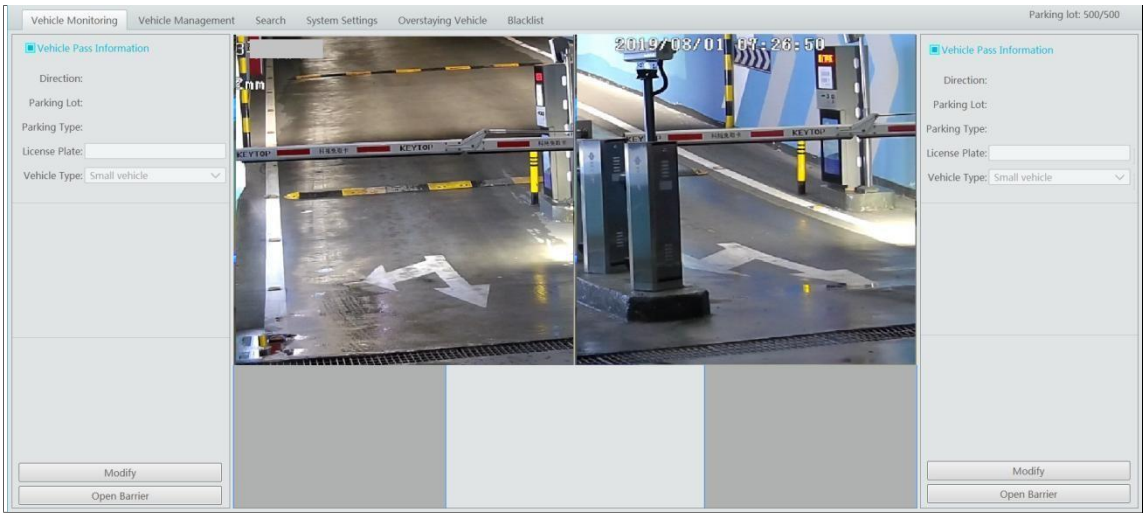
13.1 System Settings

① Enable the parking lot. Go to Home→Parking Lot Management→System menu as shown below. Select Entrances Config tab and then click the main park. Enable this main parking lot, its sub parking lot and gateway and lane.



② Bind the ANPR cameras. Please bind the ANPR cameras to the activated lane. Choose the ANPR camera and then click to add it. Click [Apply] to bind this camera to the lane. Choose the ANPR camera and then click to unbind it.

Set the corresponding lane of the monitoring window. Then click [Apply] to save the settings. After that, you can go to the vehicle monitoring interface to view the live images of the left and right lane.



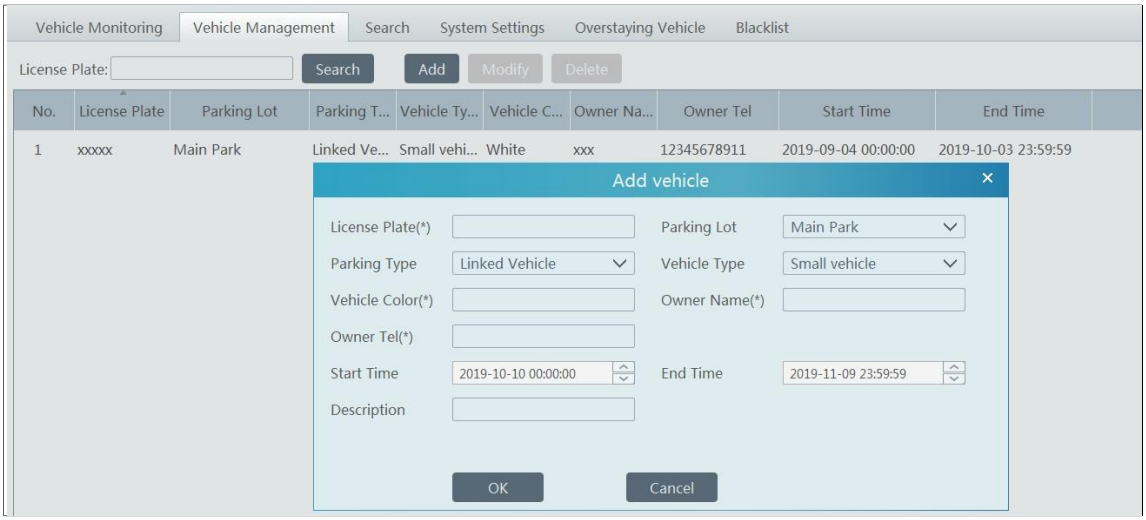
③ Bind LED Screen. Choose the LED screen and then click to add it. Click [Apply] to bind this LED screen. Before binding the LED screen, please go to Home→Resource Management→LED Display Device interface to add LED screen. In the following interface, click [Add] and then enter the IP address port of the LED display screen. Click [OK] to save the settings.

After the LED screen is bound to the corresponding lane, the license plate number will be displayed on this LED screen when there is a vehicle passing.

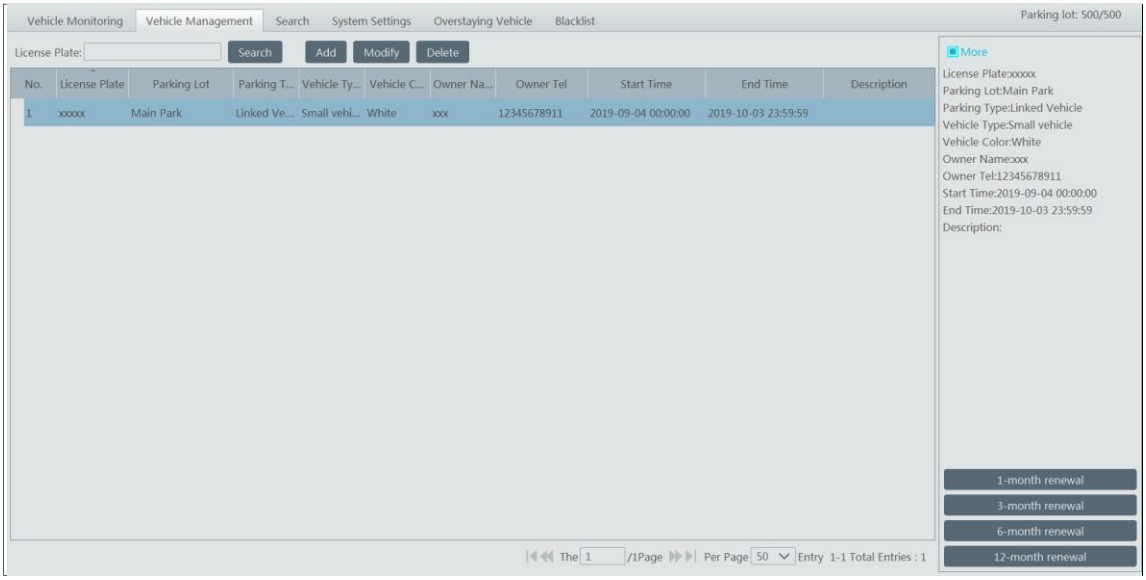
④ Set the delay time of closing the gate barrier. For example, it is set to 15s. Then the gate barrier will be automatically closed after it is opened for 15s. If "Temporary Vehicle" is checked, the gate barrier will be automatically opened when temporary vehicles and non-blacklist vehicles pass the ANPR camera.

13.2 Vehicle Management

① Link vehicles to the parking lot. Go to the vehicle management interface. Click [Add] and then enter the license plate number, vehicle color, owner name and phone number and choose the parking lot, parking type, vehicle type and start time and end time.



After the vehicle information is added, click this vehicle and then its detailed information will be shown on the right. In this interface, you can renew your vehicle, including 1-month renewal, 3-month renewal, 6-month renewal and 12-month renewal.



To modify vehicle information:

Choose the vehicle you want to modify and then click [Modify] to pop up the modification window. Change the information as needed.

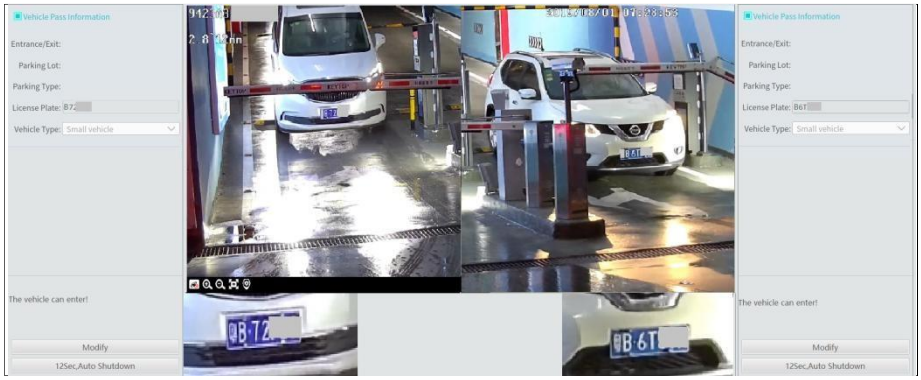
To delete the vehicle information

Select the vehicle you want to delete and then click [Delete] to delete this vehicle from the vehicle list.

If there are so many vehicles added in the current parking lot, you can view the desired vehicle information by filtering license plate number.

13.3 Vehicle Monitoring

After configuring the ANPR camera binding, allocating the corresponding lanes of vehicle monitoring and adding vehicles to vehicle list, the captured vehicle picture and its detailed information will display on the following interface when the vehicle passes the ANPR camera beside the lane and its license plate number is captured and recoginzed accurately by ANPR cameras.

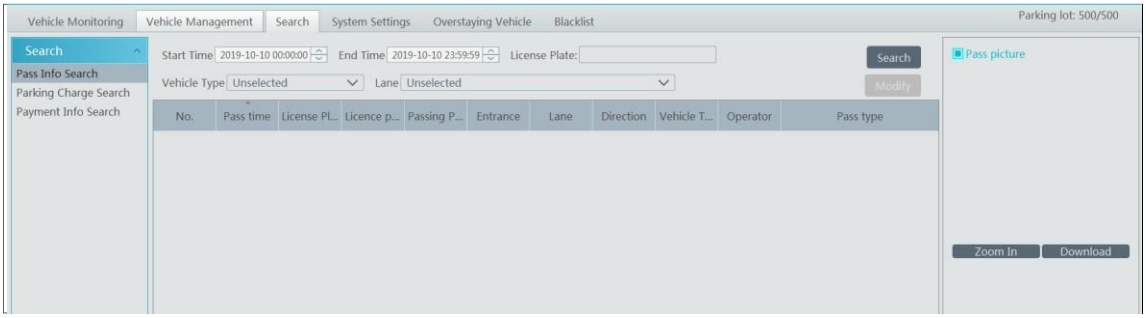


If the vehicle passing the lane is neither added to the linked vehicle list nor added to the blacklist and “Temporary Vehicle” in the automatic pass rule is not selected, this vehicle will not be allowed to pass automatically. You must click [Open Barrier] manually to let it go.

13.4 Search

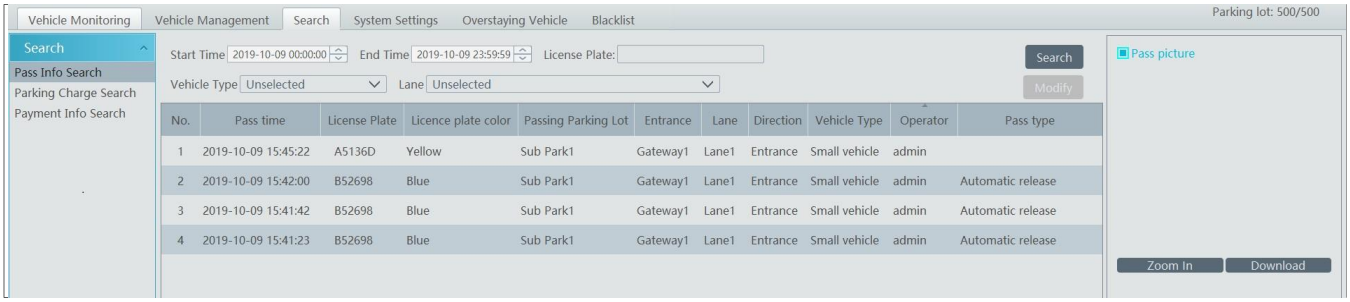
In this interface, the information of the vehicles entering and exiting the parking lot can be searched.

Set the filtering condition, such as the start and end time, license plate, vehicle type and lane.



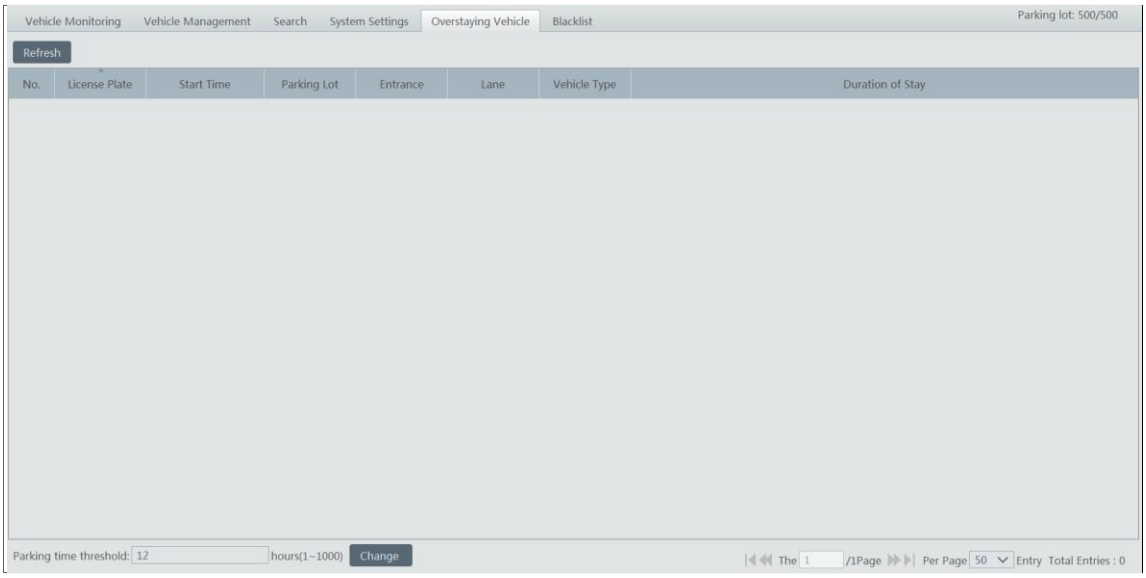
Pass record: including vehicle information, entering/exiting time, parking lot, lane, pass type, etc. The pass record also can be modified as needed. Choose the pass record and click [Modify] to modify it.

Additionally, the captured vehicle picture can be viewed on the right by clicking this record inforamtion. Click [Zoom in] to zoom in the picture; click [Download] to download the picture.



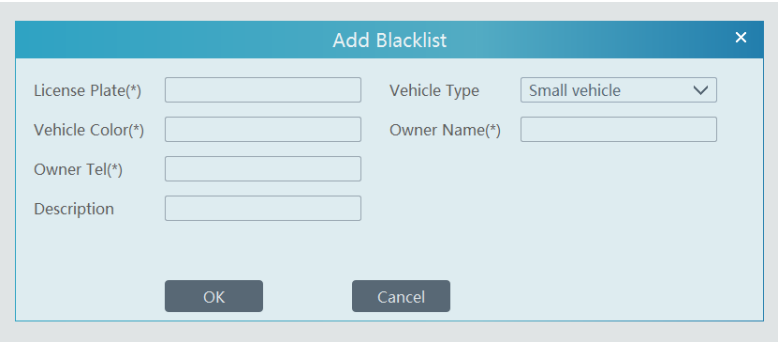
13.5 Parking Overstaying

In this interface, you can check the information of the vehicles which stay in the parking lot longer than the predefined parking duration. Enter the parking duration and then click [Refresh] to display the detail information of overstaying vehicles, such as license plate number, entering time, lane and duration.



13.6 Backlist Vehicle

Add vehicles to blacklist. Click [Add] to pop up an adding window. In this window, you can fill out the detailed information of the blacklist vehicle, such as license plate number, vehicle type, vehilce color, owner name, etc.



To modify vehicle information:

Select the added vehicle and click [Modify] to modify the information of this vehicle.

To delete vehicle information:

Select the added vehicle and click [Delete] to delete it.

To search the vehicle inforamtion:

Enter the license plate number and then click [Refresh] to view the inforamtion of blacklist vehicles.

The vehicles added to balcklist are not allowed to pass, even if the license plate number is captured by the ANPR camera.

Note: The vehicles have been linked to a parking lot can not be added to blacklist, and vice versa.

14 Web Client

14.1 Operating Environment of Web Client

The web client supports IE9/IE10/IE11, Firefox or Google browser. Please make sure that your browser supports the downloading and use of the Web Client. Here we take IE Client for example.

➢ Check whether the IE browser prohibits Active X control from downloading:

Open IE browser, click → Internet Options → Security → Custom level…to pop up a security settings window.Then enable all sub options under "Active X controls and plug-ins".

➢ Check whether there are other components or antivirus to stop downloading Active X control. Please close other components and configure antivirus and firewall to allow the installation of the plugin files.

14.2 Start IE Client

Before starting IE client, make sure all servers must be started first.

❖ **Login**

Input the IP address or domain name of Authentication Server and the web server port, for example: http://192.168.50.3:8088 (In this example, IP address is 192.168.50.3. The default web server port is 8088) to go to IE Client. Then input the user name and password you created in Account and Permission interface, select the language and platform and then click "Login" to login to the IE client.

Please download the relavant Active X controls according to the tips if you login to the IE client for the first time.

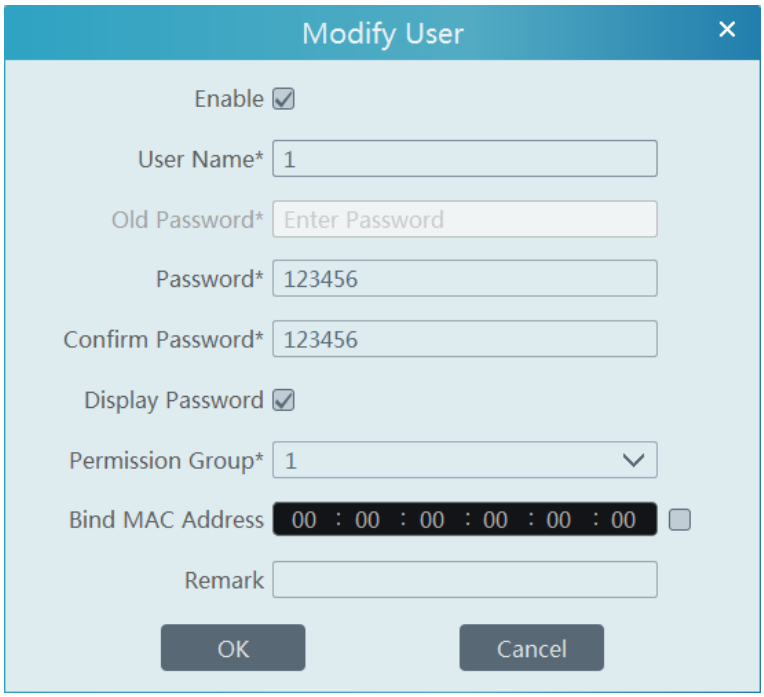
In the platform interface, users can modify the login password and remotely set the monitor client and configuration client. In the web monitor client, click "Return to Configuration" to go to the web configuration client. In the web configuration client, click "Return to Monitor" to go to the web monitor client. In the web monitor client or configuration client, click the platform logo to return to the platform interface.

The operation steps of this web client interface are similar as the monitor client. Please refer to relevant chapter for details.

15 Troubleshooting

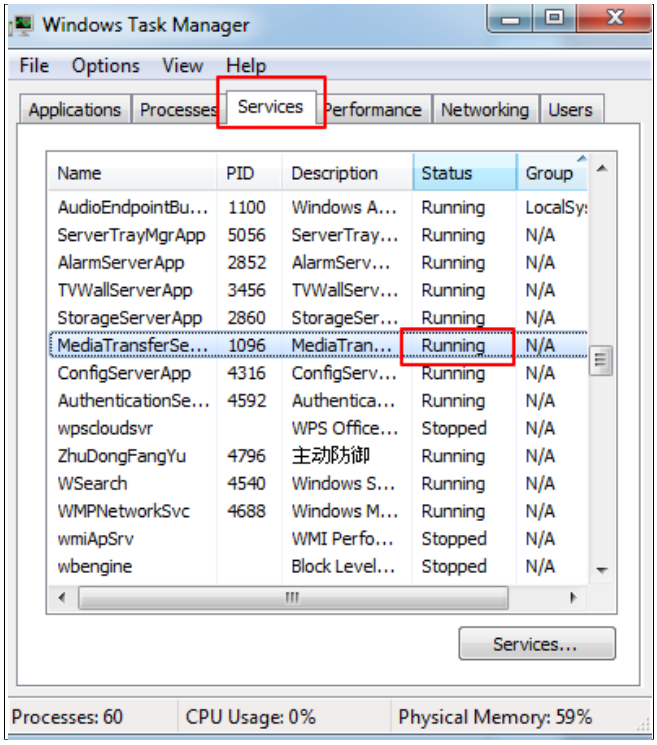
1. How to modify the password by yourself?

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

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

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

3)Check 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 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 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 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 whether channels of devices are added to the storage server.

Notes

1.Please use super administrator or standard user (permission control is set to "Never Notify") to log in operation system, install and use servers and client software.

2. The resolution of the surveillance client's monitor shall be more than 1280*960.

3. If you want to delete the files of a server, please stop the server first.