

NVMS

User Manual



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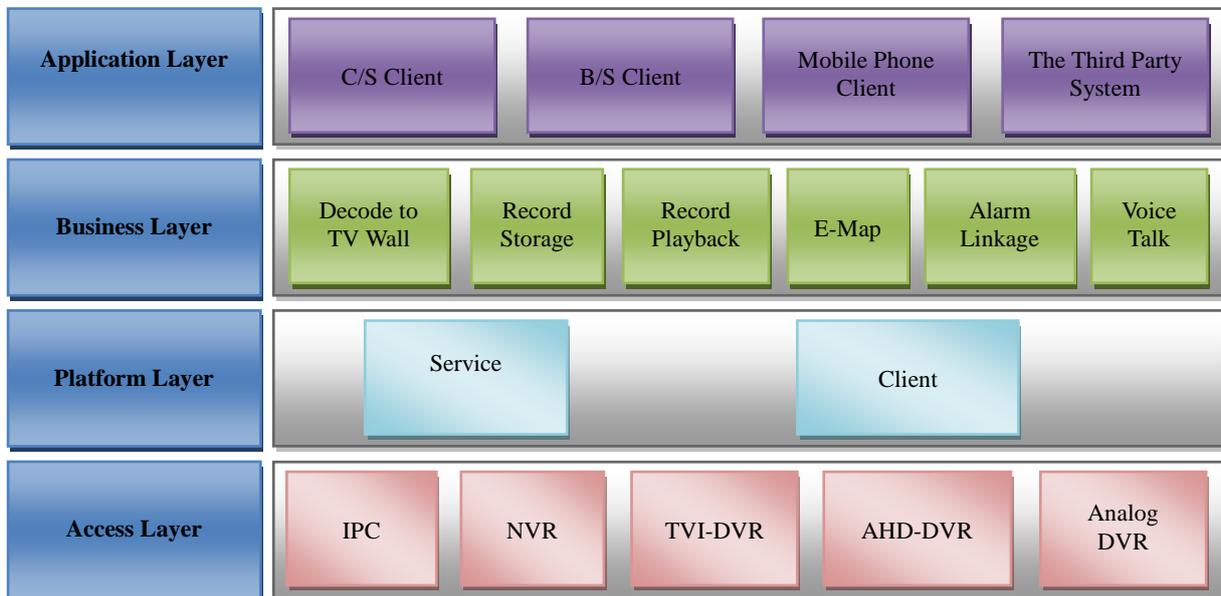
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1 Introduction

1.1 Introduction

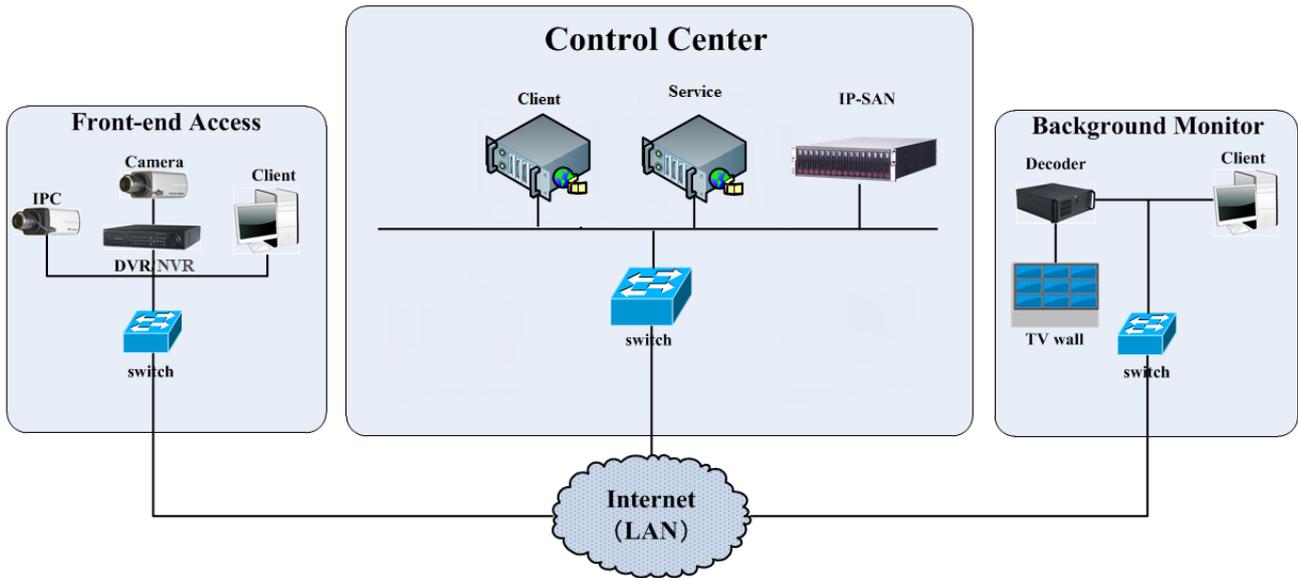
NVMS Standard is a brand new video surveillance management platform released by our company, with the powerful capability of video surveillance management, real-time preview, record storage, record playback, record download, alarm linkage, decoding on TV Wall, keyboard control, vehicle entrance and exit management, temperature screening as well as intelligent analytics. Additionally, due to its open system architecture, its SDK/OCX can be provided to the third party for secondary development. Therefore, NVMS Standard can meet the client's demands of centralized video management and can be widely used in the video surveillance of industrial park, education, banking, chain stores and buildings.

1.2 Software Architecture



1.3 System Components

1.3.1 System



1.3.2 Front-end Access

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

1.3.3 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.

1.3.4 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.

1.4 Version

Name	Signal access on trial	Max signal access
NVMS Standard	32 channels video signals	256-ch video signals

2 Configuration Requirement

2.1 Software and Hardware Configuration Requirement

No.	NVMS components	Recommendation for hardware configuration	Recommendation for software configuration	Number
1	Management Server (including Web Server/Alarm Server/Access server/E-Map Server)	Inter(R) Core(TM) i5 4500 3.0GHz or above /16GB memory /1T SATA/ Gigabit NIC or AMD HD6570 or above, 512MB GDDR5 or above (multi-screen : 1GB GDDR5 memory) /500GB SATA/ Gigabit NIC	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Ultimate	As needed
2	Intelligent Server	CPU configuration: Inter(R) Core(TM)i5 7500 3.0GHz	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Ultimate	As needed
3	Media Transfer Server	CPU configuration: Inter(R) Core(TM)i5 7500 3.0GHz	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Ultimate	It depends on the video format and the number of channel viewing simultaneously
4	Monitor	Inter(R) Core(TM) i5 7500 3.0GHz or above /16GB DDR3 /Intel HD Graphics 530 2GB, /NVIDIA GeForce GTX 1060 6GB or above (multi-screen : 2GB GDDR5 memory) /500GB SATA/ Gigabit NIC	Windows 7 SP1 64bit Professional/Ultimate Windows 10 Professional/Ultimate/ Home 64bit	

Note: Face recognition IPC configuration: the application scenes should be set as “Security Monitoring”, or the snapshot interval should be set to more than 1s.

When all IPCs added to the platform perform face detection or comparison, the number of the captured pictures reported to the platform should not exceed 1,000 pictures per minute.

The recommended 64-bit hardware configurations are as follows.

No.	NVMS components	Recommendation for hardware configuration	Recommendation for software configuration	Number
1	Monitor Client-64bit	Inter(R) Core(TM) i5 7500 3.0GHz or above /16GB DDR3 /Intel HD Graphics 530 2GB, /NVIDIA GeForce GTX 1060 6GB or above (multi-screen : 2GB GDDR5 memory) /500GB SATA/ Gigabit NIC	Windows 7 SP1 64bit Professional/Ultimate Windows 10 Professional/Ultimate/ Home 64bit	As needed

2.2 Requirement for Firewall

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

Server	Port Type	Port
Authentication Server	Internal Port	6003
Configuration Server	Internal Port	7002
HTTP Server	Service Port	8080
Media Transfer Server	Internal Port	6006
	Auto Report Port	2009
Storage Server (windows version /IP-SAN)	Internal Port	6009
Intelligent Server	Internal Port	6069
Alarm Server	Internal Port	6033
TV Wall Server	Internal Port	6036
Application Server	Internal Port	6093

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

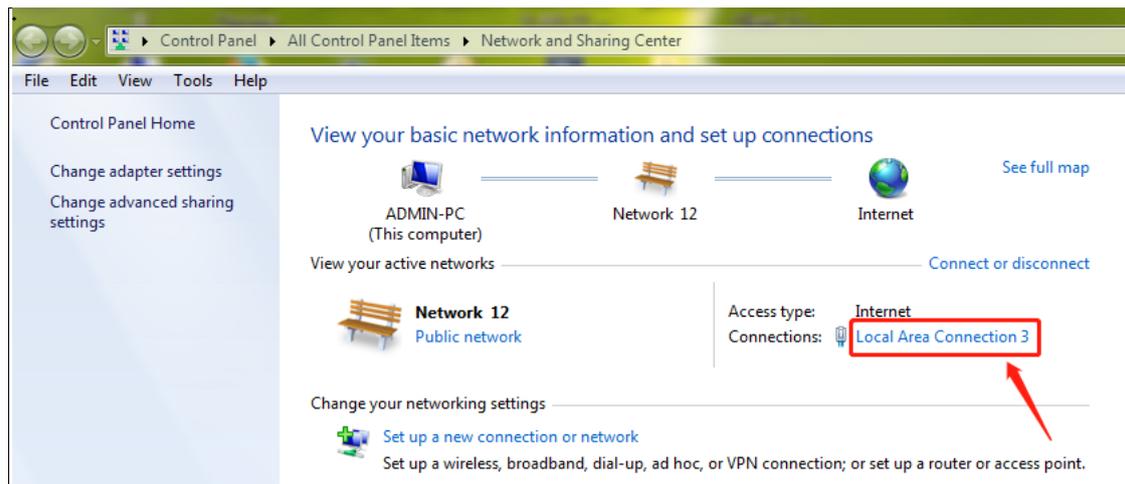
2.3 Checking Installation Environment

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

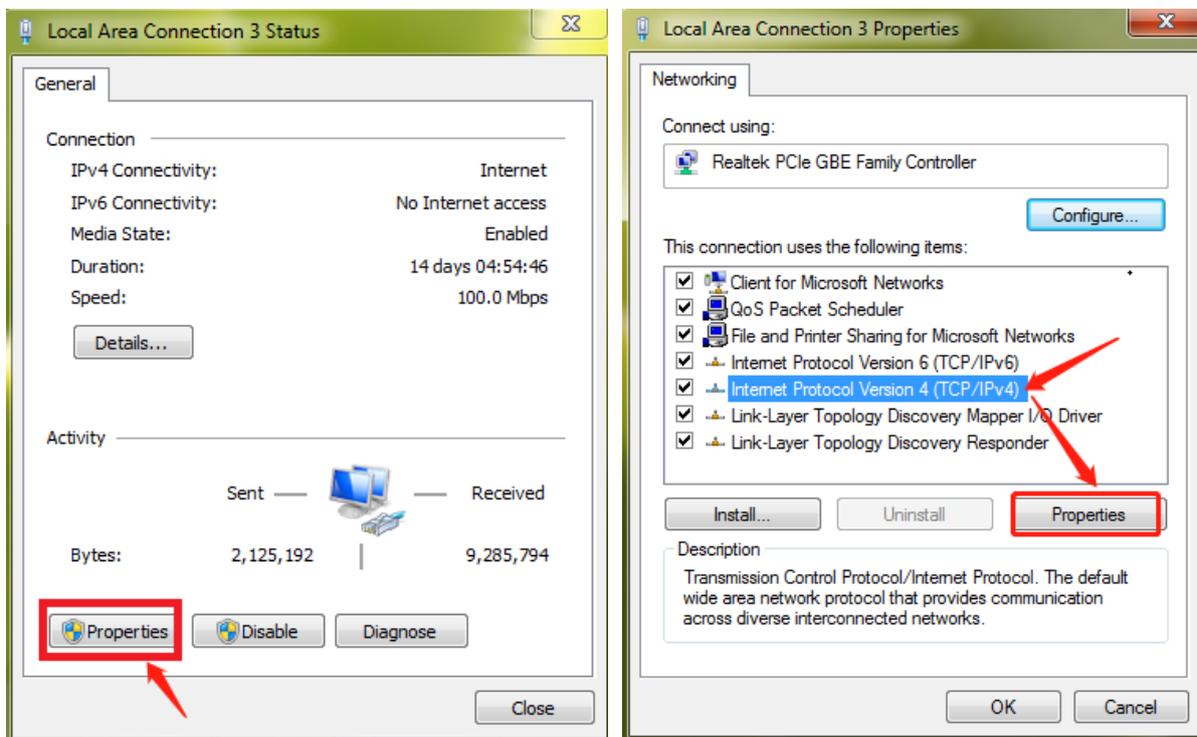
2.4 Configuring Server IP Address

The IP address of the server (computer) is the IP address of the platform. Please make sure the platform and other devices are connected to WAN/LAN. It is recommended that the platform and the devices that are about to be added to the platform are in the same local network segment. Here is how to set the server IP address:

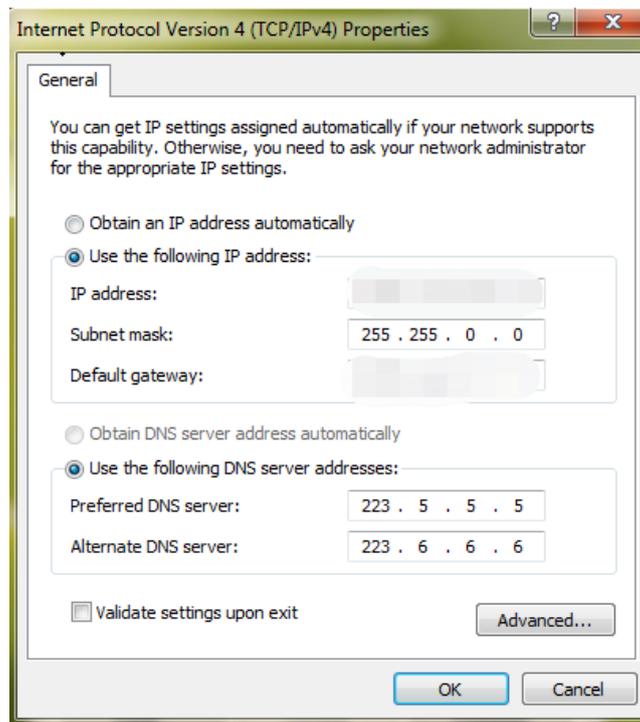
1. Connect the network cable to the server, power on and start the server.
2. Click  at the lower right corner of the computer desktop and then click "Open Network and Sharing Center" as shown below.



3. Click “Local Area Connection x” → “Properties”.
4. Select IPv6 or IPv4 according to the actual network environment. Here we take IPv4 as an example. Then click “Properties” of IPv4.
- 5.



6. Select “Use the following IP address” and then configure the IP address, default gateway and DNS server addresses according to the actual network environment. After that, click “OK” to save the settings.



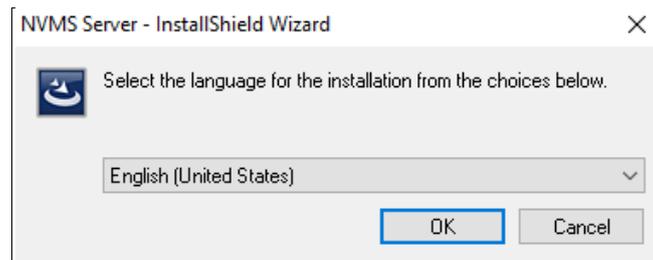
3 Install and Uninstall the Software

3.1 Install the software

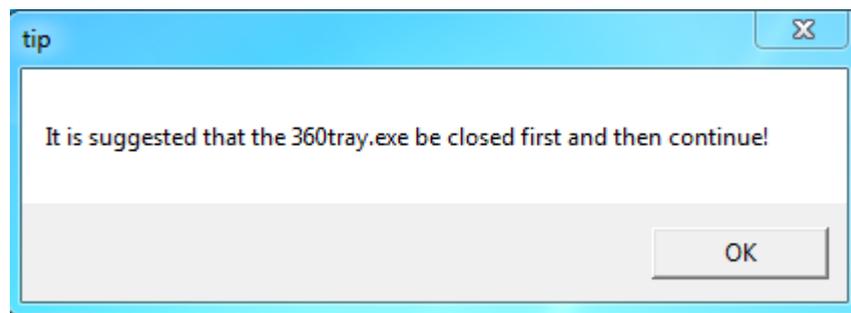
Server and Client need to be installed separately.

3.1.1 Install Server

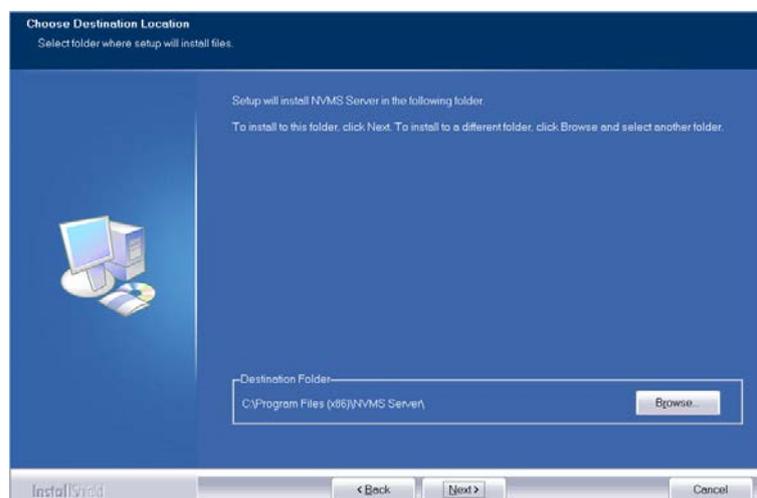
- 1) Double click “NVMS server.exe”. Select the UI language as needed.



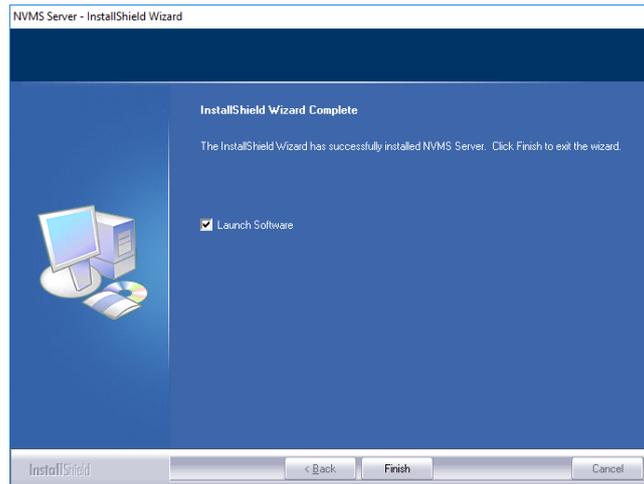
- 2) A tip will pop up to suggest you to close the antivirus software. If no prompt window appears, please skip this step.



- 3) Click “I accept the terms of the license agreement” and then click [Next].
- 4) Click [Browse] to select the installation location and then click [Next].

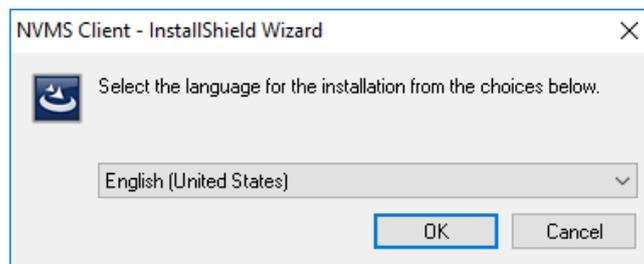


- 5) Check “Launch Software” as needed and then click [Finish]”.

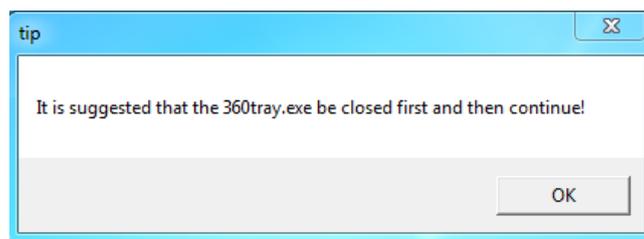


3.1.2 Install Client

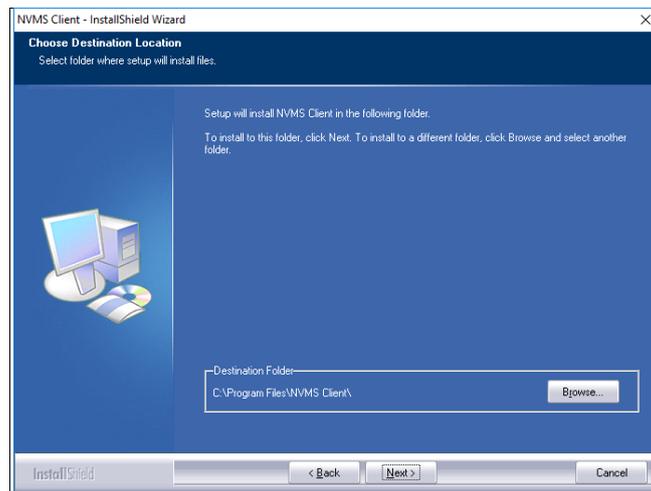
- 1) Double click “NVMS Client setup.exe” and then select the UI language as needed.



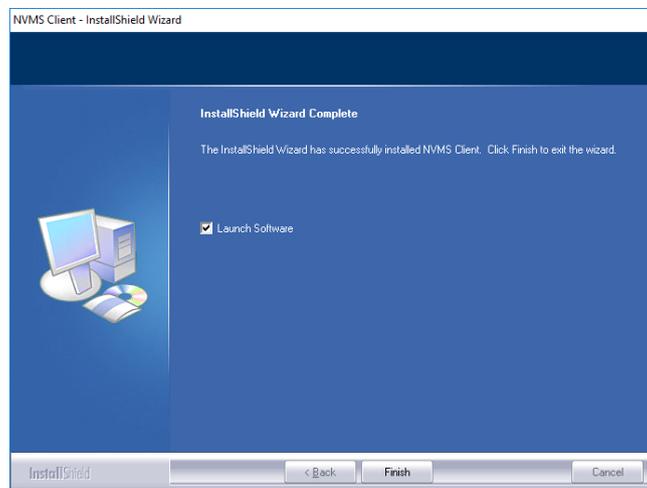
- 2) A tip will pop up to suggest you to close the antivirus software.



- 3) Select “I accept....” and then click [Next] to continue.
- 4) Click [Browse] to select the installation location and then click [Next].



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



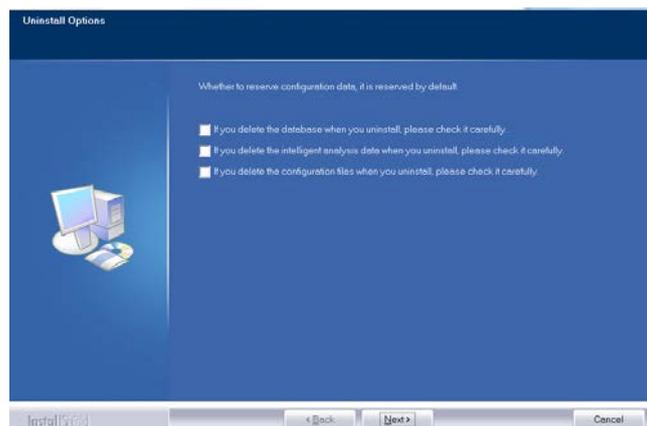
3.2 Uninstall Software

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

The uninstallation steps of the Server are similar to the uninstallation of the client. Here we take Server uninstallation for example.

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

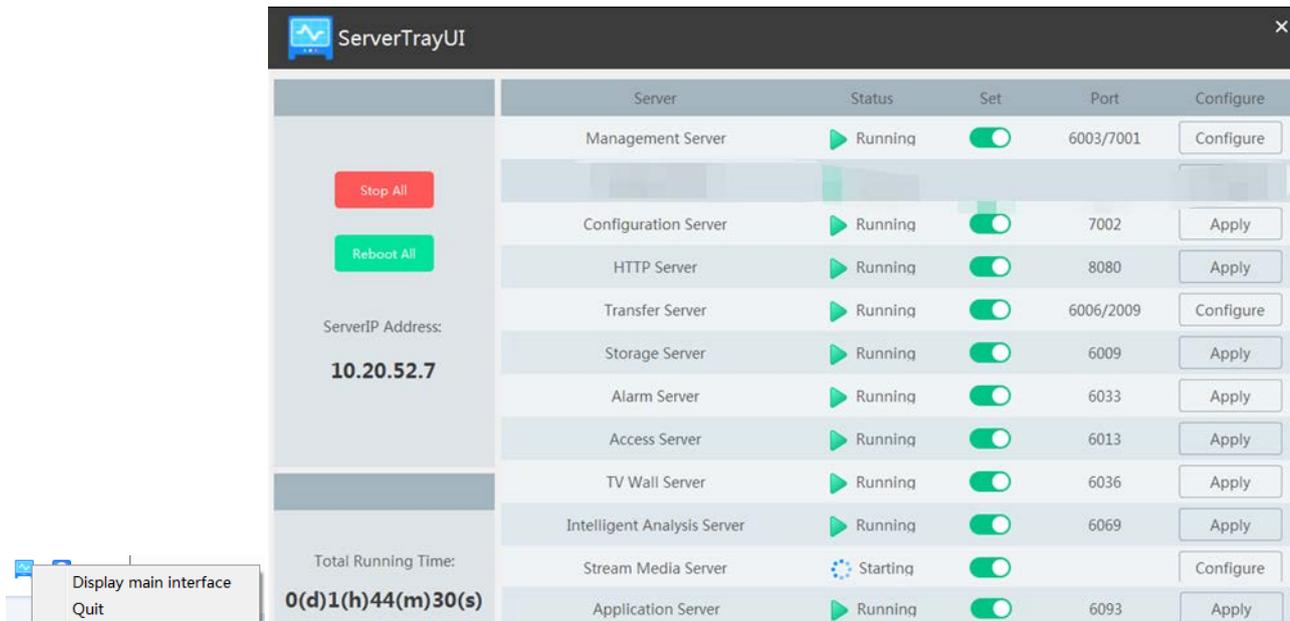
Select whether to delete the database, intelligent analysis data or configuration files as needed. Then clicking the “Finish” button ends the uninstallation.



4 Login

4.1 Run Servers

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



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

Please set up according to the actual network.

How to configure stream media server and get video streams via RTSP/HLS/RTMP protocol? Please refer to Appendix for details.

4.2 Login

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

The login form has the following fields and options:

- User Name:** A dropdown menu with 'admin' selected.
- Password:** A text input field with a lock icon and the placeholder 'Enter Password'. A link for 'Forget password?' is next to it.
- Authentication Server:** A dropdown menu with '10.214.11.98' selected.
- Port:** A text input field with '6003' entered.
- Remember Password:** An unchecked checkbox.
- Auto Login:** An unchecked checkbox.
- Login:** A large blue button at the bottom.

- ① Enter username and password (the default username is **admin**; the default password is **123456**).
- ② Enter the IP address and port of the authentication server (the default port is 6003).
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, please create security questions and answers. (Go to Home → User and Permission → User Management → Edit Security Questions/Answers)

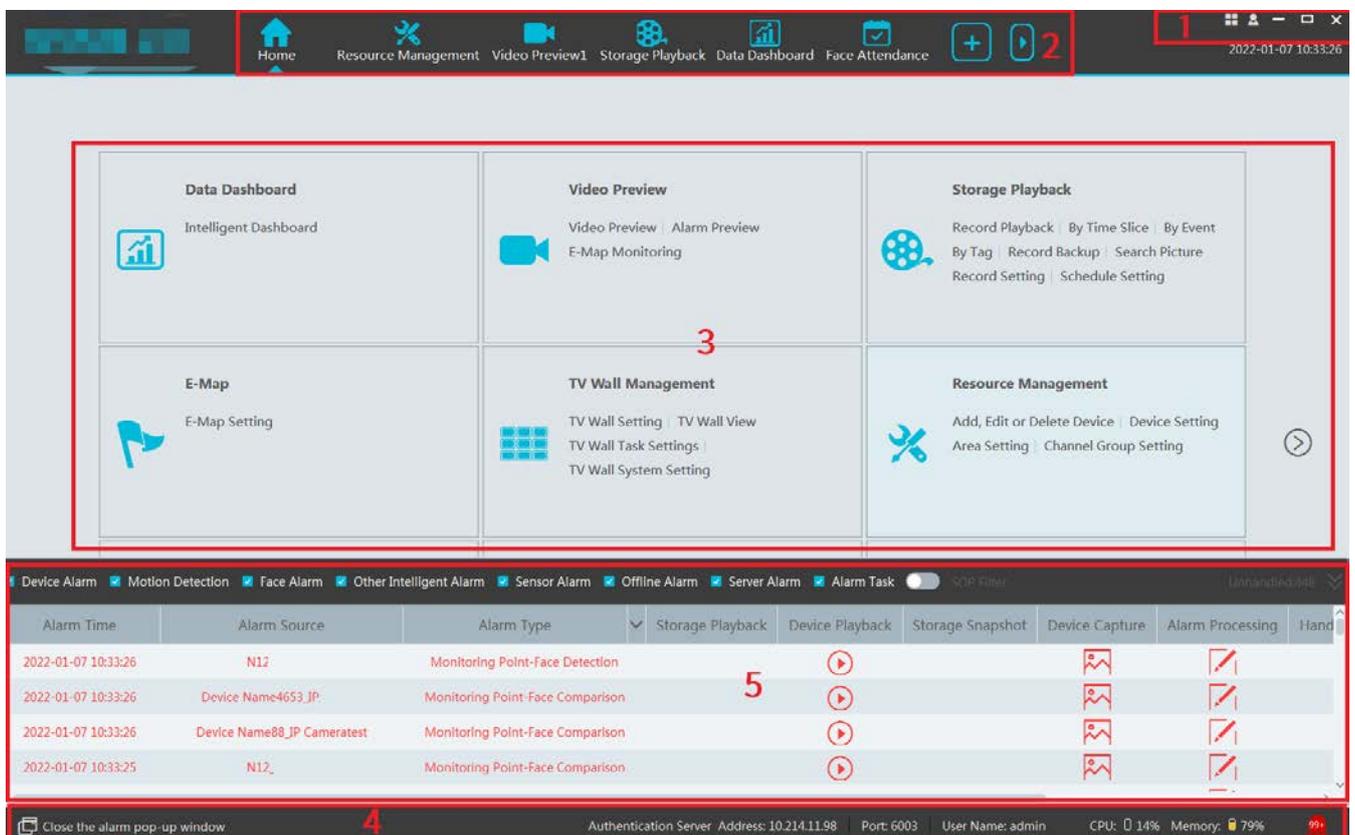
It is important that you remember the answers for these questions or you will not be to reset your password and be locked out.

If you don't set the security questions and answers, you can reset your password by dynamic password. Click “Reset password” and then click “Dynamic Password” to go to the dynamic password page. Search the CPU ID, MAC address and the current time and then send these information to the technical staff to get the dynamic password. Note that the management server and client must be installed in the same server, or the CPU ID, the current time and MAC address cannot be searched.

After you log in, a record partition setting box will pop up. Please select the desired record storage location. Then click [OK] to save the settings.



4.3 Main Menu Interface Introduction



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

Menu Bar

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

Tab Bar

Menu	Description
View	“Live View”, “Edit live view”
System	Including “Switch User” , “Register”, “About”, “Modify Password”, “User Manual” and “Skin”

Functional area

Menu	Description
Data Dashboard	Smart display video window, device status, face comparison, human body temperature screening, E-map, etc.
Video Preview	To view live images and to record, snapshot and talk, etc.
Storage 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.
Group Management	To manage people and assign the access permission
Search	Including image search by face, face comparison retrieval, license plate comparison retrieval, smart snapshot retrieval and visitor record search.
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.
Attendance Management	To set alarm linkage or view logs.
Parking Lot Management	To manage vehicles in the parking lot
Face Greeting	To welcome visitors based on face recognition technology
Face Attendance	To help to manage staff attendance based on face recognition technology
Line Crossing Counting	To monitor and analyze people/vehicle flow in real time
Body Temperature Measurement	To view the statistics of body temperature
Industrial Temperature Measurement	To view the real-time video, analyze data and search records.
Operation and Maintenance Management	To search, export and maintain logs.
Configuration	To set record path, snapshot path, system startup and maintenance, overload and alarm view.
Edit Common Function	To select the functional module you want to display in the home page

Other buttons:

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

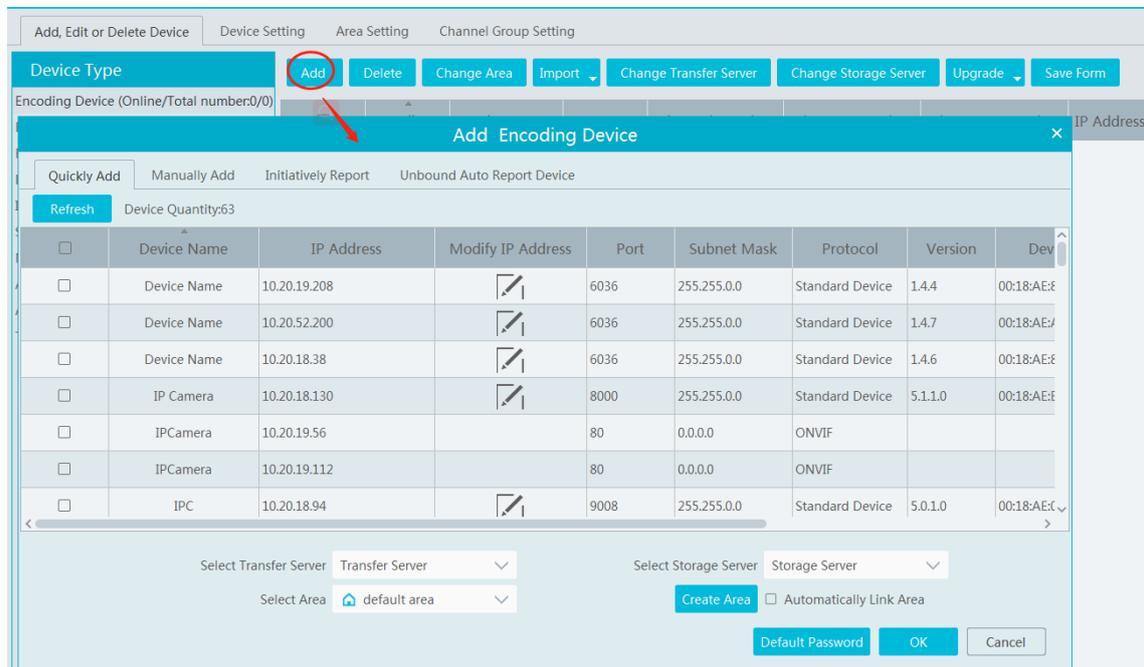
Common buttons:

Button	Description
	Click it to edit the item.
	Click it to delete the item.
	Check the camera and then click it to select
	Check the camera and then click it to remove
	Click it to add all items
	Click it to remove all selected items

5 Device Management

5.1 Add Encoding Device

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



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

5.1.1 Quickly Add

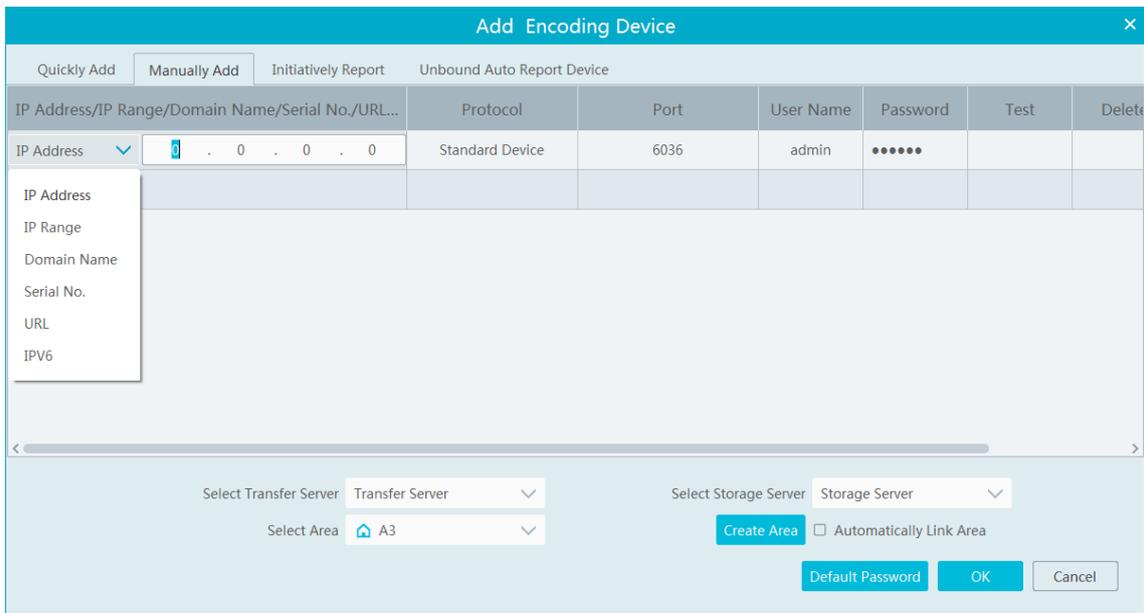
Click [Refresh] to quickly search devices in the same local network as shown below. Check the device and allocate the transfer server, storage server, area for it. After that, click [OK].

Click “Default password” to set the default username and password of the devices from different manufacturers, such as Hikvision, Dahua, 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).

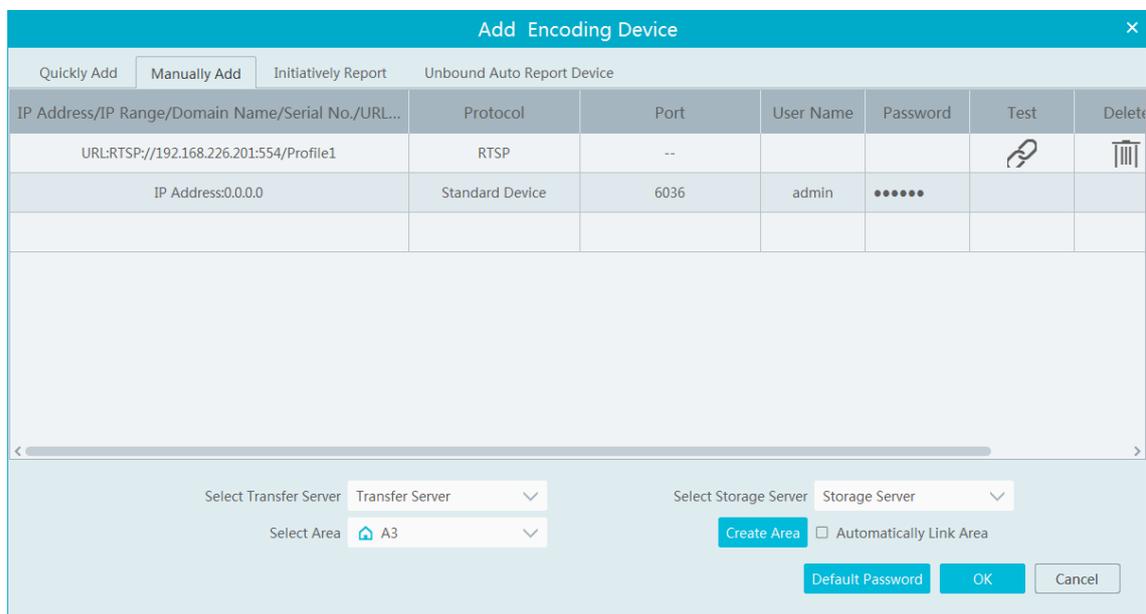
5.1.2 Manually Add



- ① Enter IP address/IP range/domain name/Serial No./URL/IPv6 address, 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 a 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.

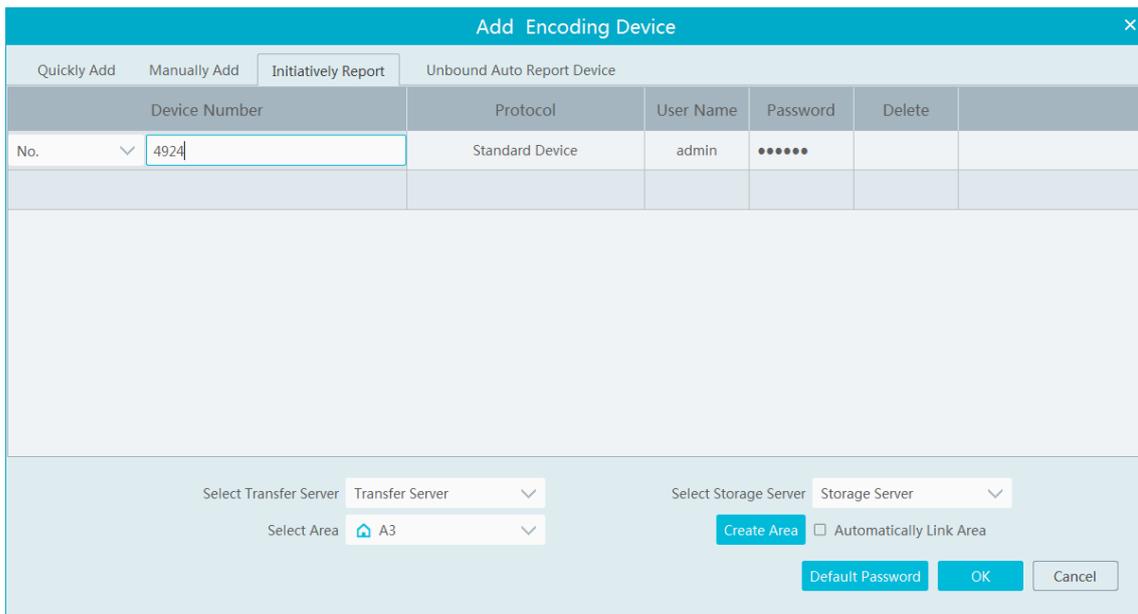
The default RTSP port is 554 and the URL format is “rtsp://IP or domain name:port/profile1”. For example:

rtsp://192.168.1.1:554/profile1. Profile1 stands for main stream; profile2 stands for sub stream; profile3 stands for the third stream.

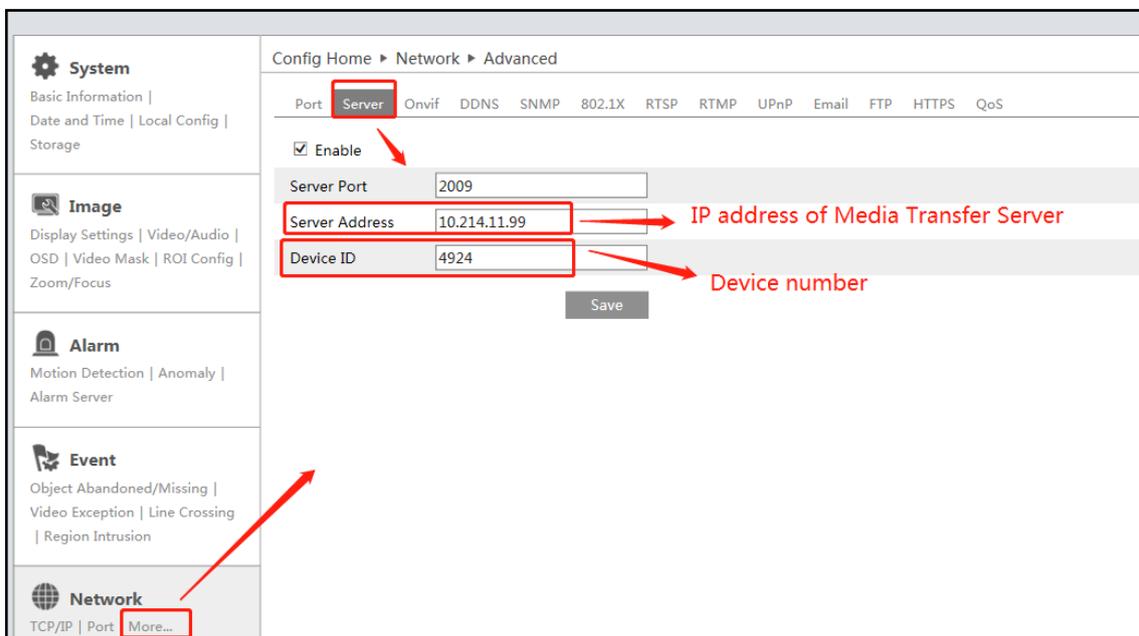
For the URL of a device from other companies, please consult their technical documentation.

5.1.3 Initiatively Report

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



- ① Enter the device ID set in the DVR/NVR or IP camera and choose the protocol.
- If the DVR/NVR is needed to add, please go to Network→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 “Enable”, enter the IP address and port (default 2009) of the NVMS and then set the device number of the IP camera.

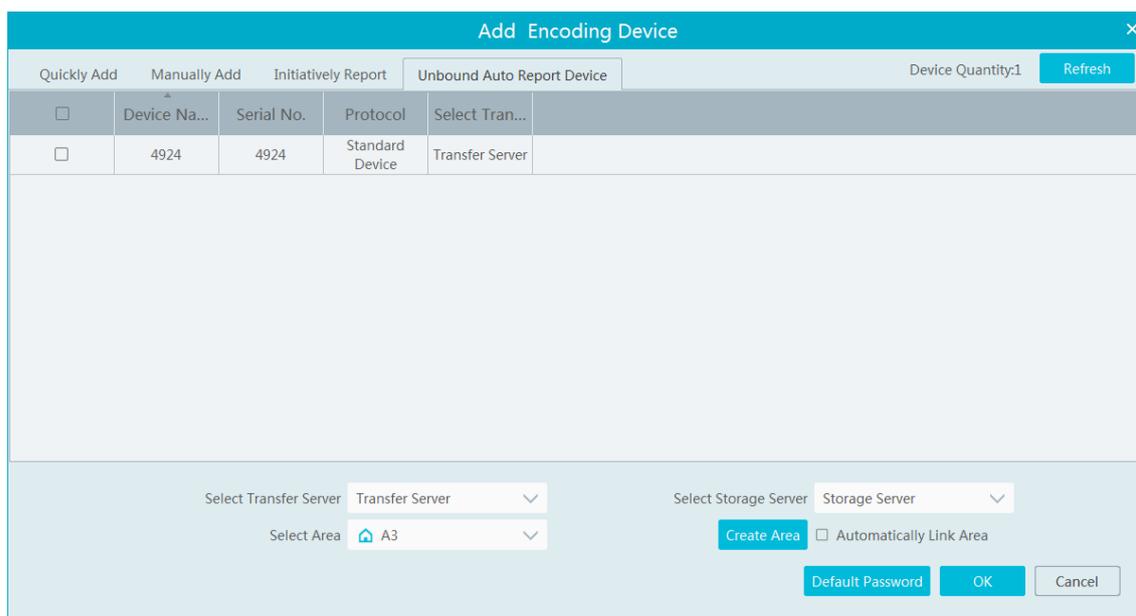


- ② Select the transfer server, storage server, area and then click [OK].

5.1.4 Quickly Add Auto Report Device

For the auto report devices, you can go to the “Unbound Auto Report Device” interface to add them quickly.

Note: please fill out the auto report information in the NVR/IPC in advance and then the device information can be searched in the “Unbound Auto Report Device” interface.



5.2 Modify or Delete Device

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

Device Type	Add	Delete	Change Area	Import	Change Transfer Server	Change Storage Server	Upgrade	Save Form	Search
Encoding Device (Online/Total number:1/1)	<input type="checkbox"/>								
Decoder (Online/Total number:0/0)	<input type="checkbox"/>								
Evacuation System (Online/Total number:0/0)	<input type="checkbox"/>								
LED Display Device (Online/Total number:0/0)	<input type="checkbox"/>								
Intelligent Analysis Server (Online/Total number:0/0)	<input type="checkbox"/>								

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

Click  to modify the device information.

Click  to delete the added device.

Select the desired devices and click [Delete] to delete multiple devices simultaneously.

5.3 Device Area Selection

Select one or more encoding devices and then click [Select Area] to modify the area of the selected devices.

5.4 Batch Import/Export

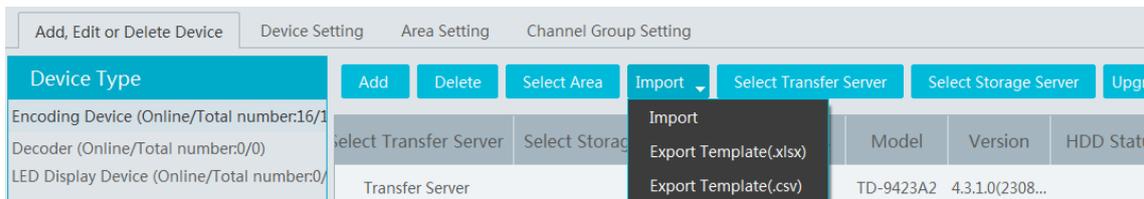
You can import multiple encoding devices (NVR/IPC) in different local network at a time. The setting steps are as follows:

1. Create an Excel file and then edit the device information as follows. Please copy the text of the first line.

A	B	C	D	E
ip	protocol	port	userName	password
10.214.40.88	6036	standard device	admin	123456
10.214.40.89	6036	standard device	admin	123456
10.214.40.90	6036	standard device	admin	123456

Protocol: four protocols can be used here, including “ipc”, “standard device”, “NVR” and “TVT”.

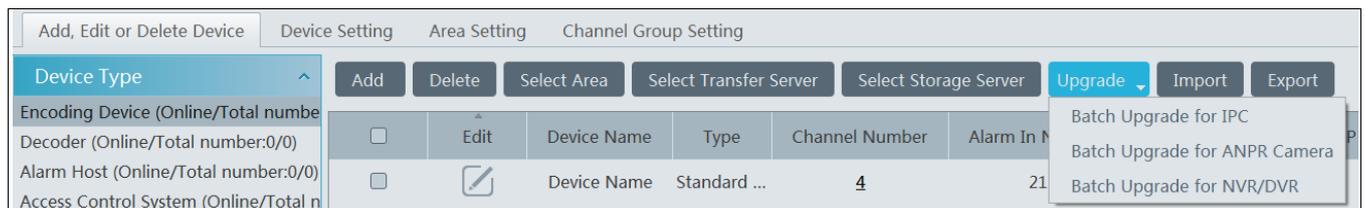
2. Save the file as “.csv” or “.xlsx”.
3. Click Home→Resource Management→Add, Edit or Delete Device. Then click [Import] to import the file.



Export encoding devices: check the device you want to export and then click [Save Form] to export the device list.

5.5 Device Upgrade

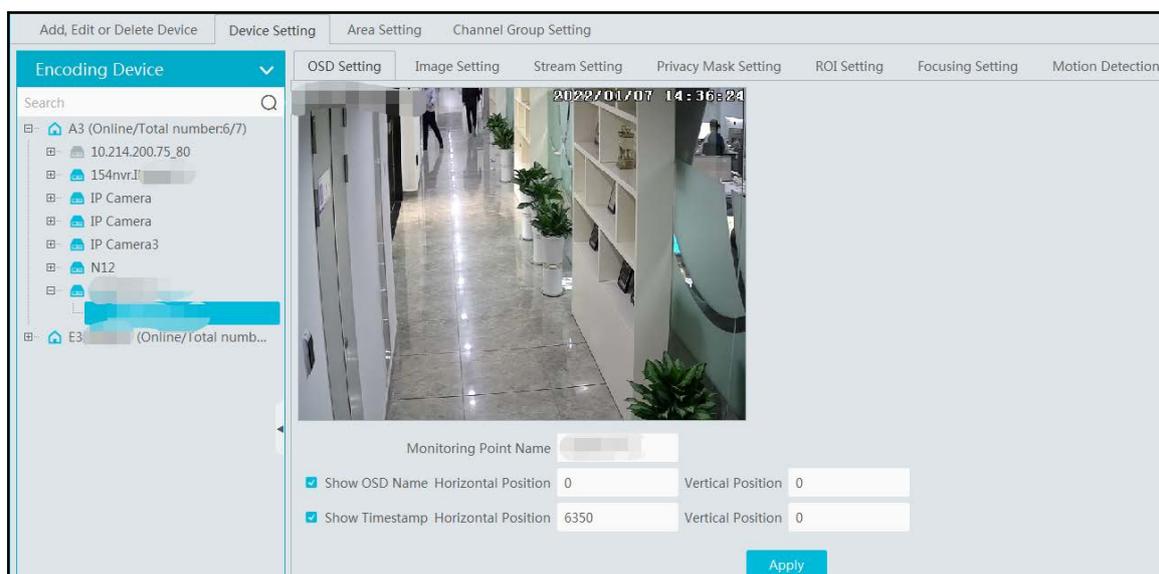
In the “Add, Edit or Delete Device” interface, check the devices you want to upgrade and then click [Upgrade]. Select the upgrade type as needed.



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

5.6 Device Setting

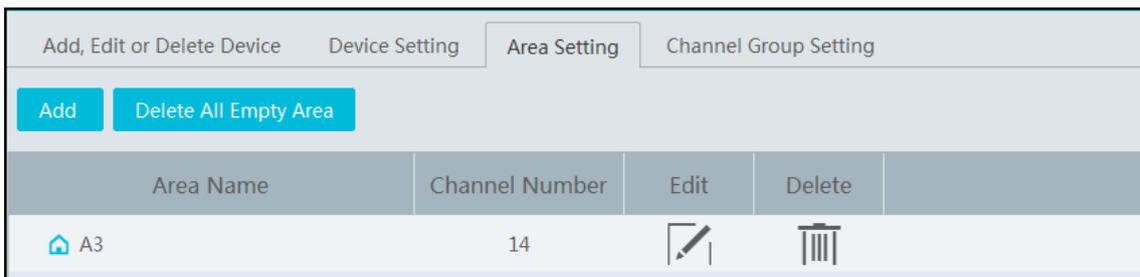
Go to Home→Device Setting interface as shown below. In this interface, the parameters of the device can be set up.



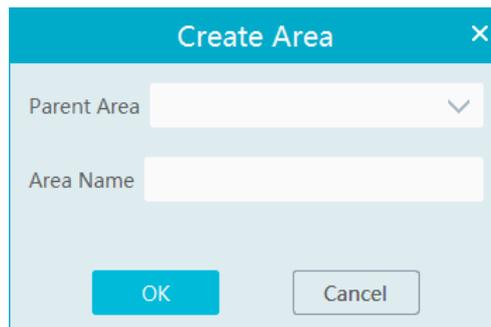
Different devices have different menus. Please configure the device according to the corresponding user manual.

5.7 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].

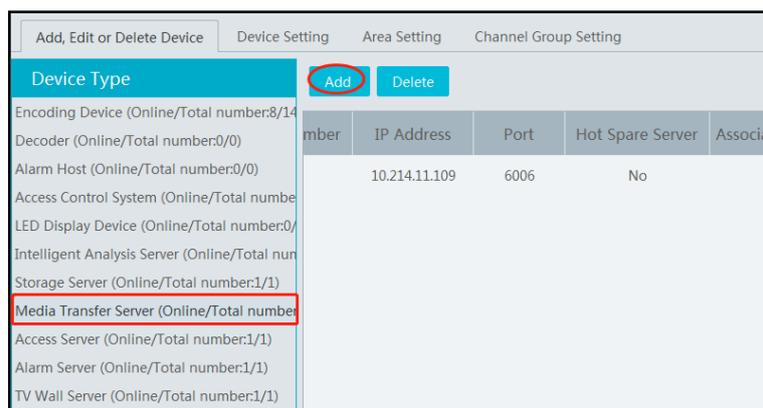


5.1 Server Settings

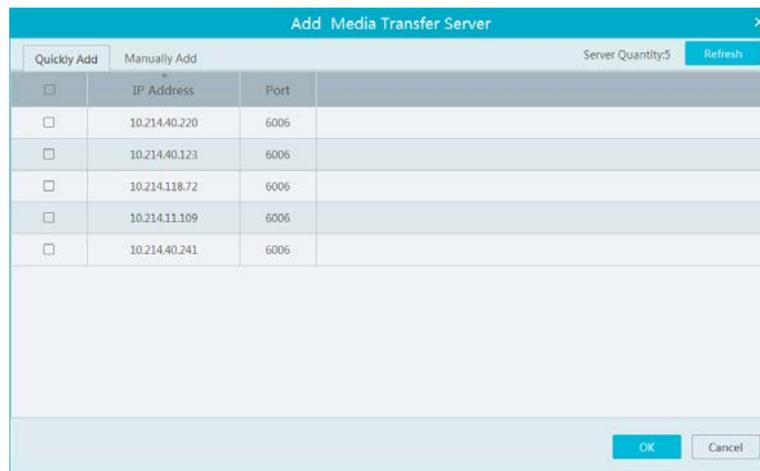
5.1.1 Add Media Transfer Server

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. There is a default transfer server. If you want to add a new transfer server, please follow the directions as below.

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



2. Click [Add] to go to media transfer server addition interface. Users can quickly add or manually add media transfer servers.
3. 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.



When adding the transfer server, you can select it as a hot spare server.

If there are devices under the transfer server, this server cannot be changed to a hot spare server.

If you have added a hot spare server, it will work as follows.

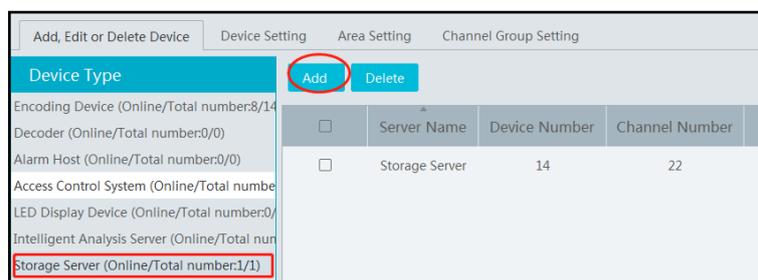
1. When the transfer server of the device is offline and the offline time exceeds the predefined service fault time, the device will be transferred by the online hot spare server.
2. When the original transfer server of the device is online again and the online time exceeds the predefined server fault time, the device will be transferred by the original transfer server.

To set the server fault determination time, please go to Home → Configuration → System Configuration interface to set.

5.1.2 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. There is a default storage server. If you want to add a new storage server, please follow the directions as below.

1. Click Home → Add, Edit or Delete Device → Storage Server.

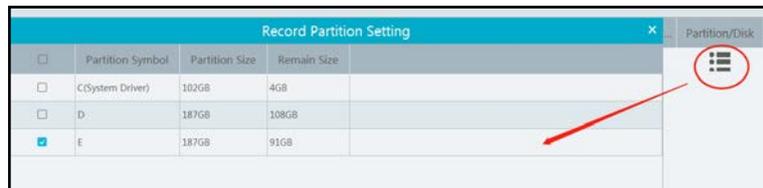


2. Click [Add] to go to storage server adding interface. Users can quickly add or manually add storage servers.
3. Select the “Quickly Add” tab and click [Refresh] to quickly search servers in the same local network. Check the desired servers and click [OK] to save the settings.

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.

When adding the storage server, you can select it as a hot spare server. Once the host server is offline, the spare server will take over.

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.



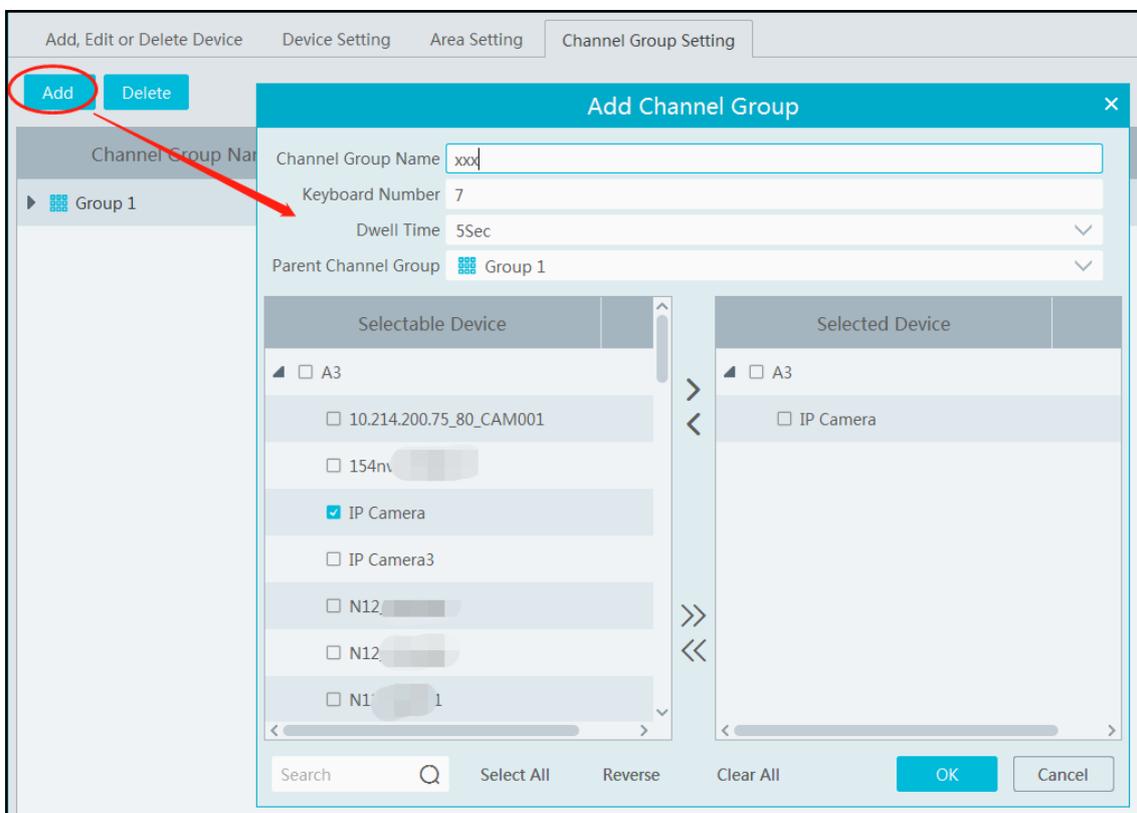
If you have added a hot spare server, it will work as follows.

1. When the storage server of the device is offline and the offline time exceeds the predefined service fault time, the recorded file of the device will be saved by the online hot spare server.
2. When the original storage server of the device is online again and the online time exceeds the predefined server fault time, the recorded file of the device will be saved by the original storage server.

To set the server fault determination time, please go to Home→ Configuration→System Configuration interface to set.

5.2 Channel Group Settings

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.

6 Group Management

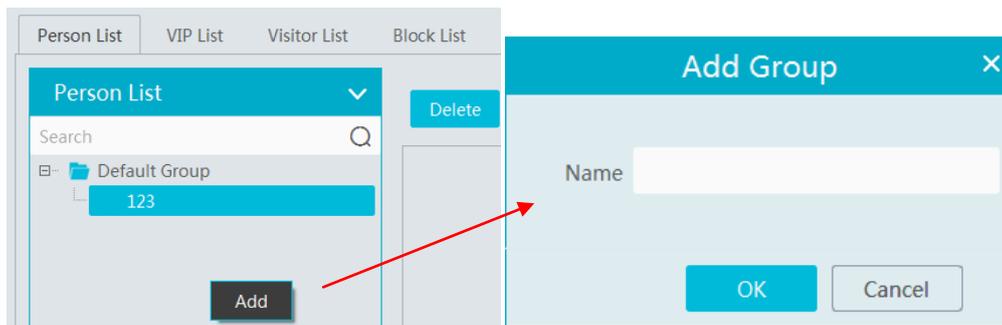
6.1 People Management

You can add group for four libraries—Person list, VIP list, Visitor list and Blacklist. Here taking “Add target to person list” for example

6.1.1 Add Group

- Add the parent group

Go to Home→Group Management→People & Vehicle Management→Person List.



Right click on the blank of the person list column and then the “Add” button will appear. Click it to add the group name.

Note: The added parent group name and face information under it will be synchronized to the face database of the NVR, but the sub group name will not be added to the NVR. The face information under the sub group will automatically be added to its parent group in the NVR. If the parent group fails to synchronize to the face database of the NVR, but the face information of sub group is successfully added to the NVR. Now, the face group name will be named “creation date-intelligent server IP-creation time (s)-list type-parent group name” as shown below.

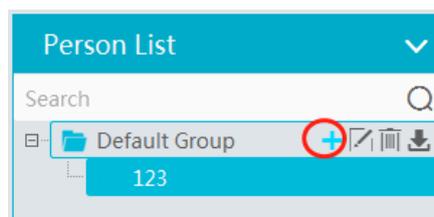
No.	Group
1	2022_4_21_10.214.200.200_32 (3853)
2	2022_4_22_10.214.200.111_1 (1128)
3	2022_4_22_192.168.52.214_47_White_default(0)

Group Name in NVR

For IPC, the added face information under person list and VIP list will be automatically added to the allow/white list of the IPC. The added face information under visitor list and block list will be synchronized to the corresponding list.

- Add the sub group:

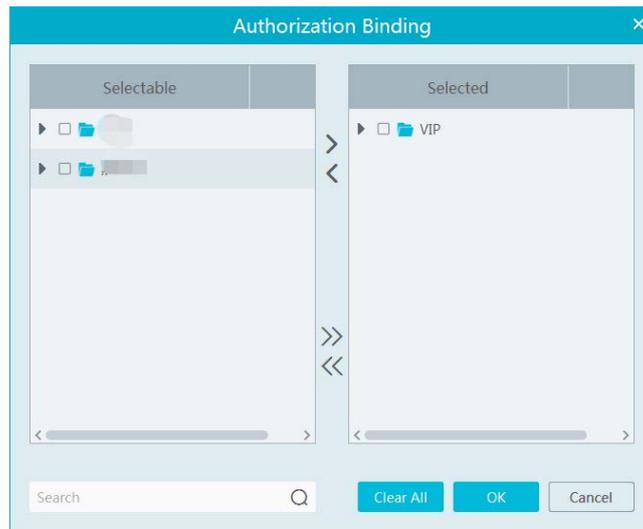
Put the cursor on the parent group name and then you will see the follow buttons. Click “+” to add the sub group name. A maximum of 9 sub groups can be created.



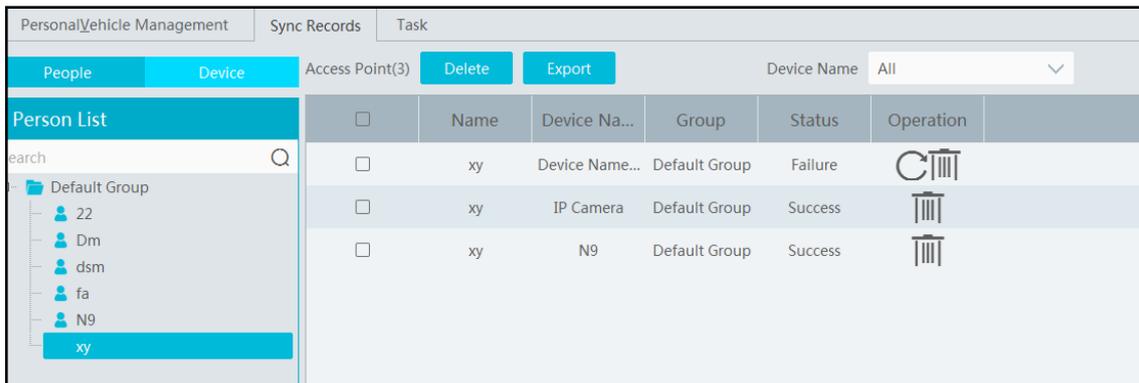
Click  to bind the camera.

Bind the camera to the group: Add the people images of the group to the face database of the binding camera. When the person whose picture has transferred to the face database of the binding camera appears in the detection area, the face comparison result will be sent to the platform.

Note: the added group or person must be bound with one or more cameras, or the face comparison result will not be gotten by the platform.



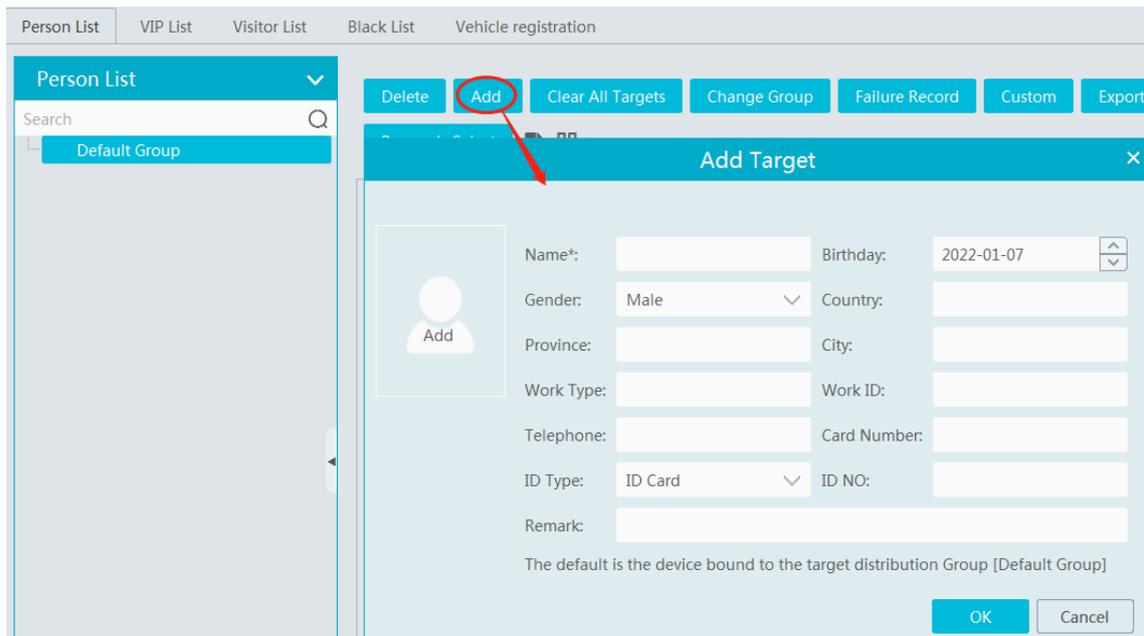
In the people management interface, click “Sync Records” →”People” or “Device” to view the synchronization status.



6.1.2 Add Target

You can add targets for four libraries-- people, VIP, Visitor and Blacklist.

- Add target one by one
Select the group name and then click [Add] to add the target information



Click  and select the face image saved in the local PC. Then fill out the corresponding information and click [OK] to save.

Note: the resolution of the face image shall be less than 3840*3840.

If the target is added to the group of the VIP, register date and VIP level shall be fill in.

● **Batch Import**

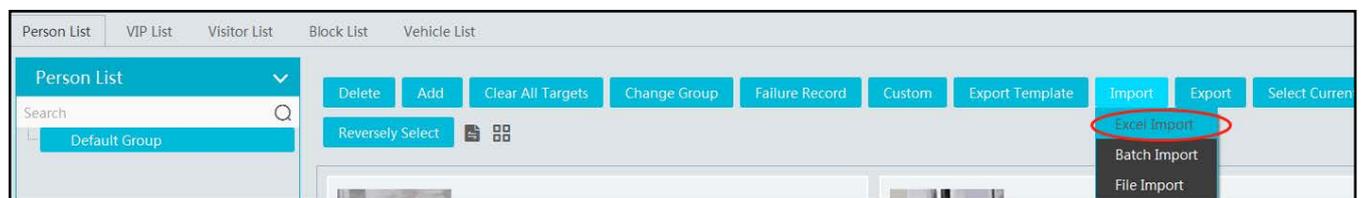
In the above interface, click [Export template] to export an Excel template and then fill out the corresponding information in the table as shown below.

After that, create a file named “Image” and then put the face images under this file.

Name	Birth Date	Gender	ID Type	ID NO	Country	Province	City	Telephone	Remark	VIP Level	Registration Date	Department	Type of work	Staff Number	Picture address
Helen	2020-08-05	Female	ID Card	123	China	Sichuan	Chengdu	13500000000		High	2020-08-05	IT	engineer	011111	Helen.jpg
David	2020-08-05	Male	ID Card	12	China	Sichuan	Chengdu	13500000000		High	2020-08-05	IT	engineer	12222	David.jpg

Put the image file and the personal information file into the same directory.

Click [Import] → [Excel Import]



Click [Import] and then select “Batch import” to import face pictures in bulk, but the target information must be modified manually.

Click [Import] and then select “File import”. You can select whether to search the sub folder.

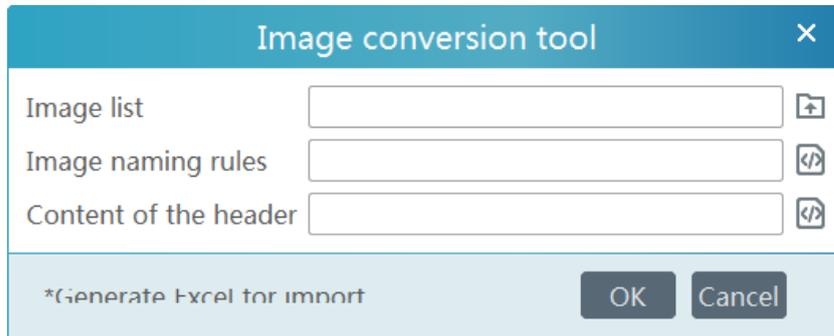
Search Subfolders: choose a folder including multiple subfolders and then all pictures in the folder and its subfolders will be imported.

Not Search Subfolders: the pictures in the folder will be imported, but the pictures in the subfolders will not be imported.

➤ **Convert images to an Excel**

Multiple images also can be converted to an Excel. Then click “Import EXCEL” to add targets. The setting steps are as follows.

1. Name the face images (like David_Male_1989-01-03_Engineer_Group1), separating each field with “_”.
2. Clicking on  displays an image conversion box. Click  to select the desired images.
3. Click  respectively to set the image naming rules and content of the header.



Note:

1. The naming sequence of each image selected must be the same. Please select the image naming rules in accordance with the sequential order of the name of the image.
2. The content of the header must contain those items of the image name and can be selected in any order.
3. The content of the header must contain name and group (face database), which can be entered in the image name in advance and also can be edited in the exported Excel.

● **Modify or Delete Target**



Click  to bind the camera. After you bind the camera, the face image will be added to the face database of the camera.

Click  to view the target list as shown below.

<input type="checkbox"/>	Edit	Name	Birthday	Gender	ID Type	ID NO	Country	Province	City	Group	Work Type	Work ID
<input type="checkbox"/>		xy	2022-01-07	Female	ID Card					Default Gro...		
<input type="checkbox"/>		Dm	2022-01-07	Female	ID Card					Default Gro...		
<input type="checkbox"/>		N9	2022-01-07	Female	ID Card					Default Gro...		
<input type="checkbox"/>		fa	2022-01-07	Female	ID Card					Default Gro...		
<input type="checkbox"/>		dsm	2022-01-07	Female	ID Card					Default Gro...		
<input type="checkbox"/>		22	2022-01-07	Male	ID Card					Default Gro...		
<input type="checkbox"/>		2	2022-01-07	Female	ID Card					Default Gro...		

Click “Custom” to customize the target display information.

Click “Change group” to change the group.

6.2 Vehicle Management

6.2.1 Add Vehicles

Select the desired vehicle list (allow list or block list) and then click [Add] to add the relevant vehicle information.

6.2.2 View, Modify or Delete Vehicles

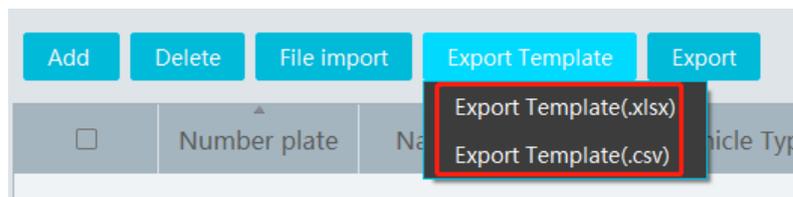
After you add the vehicle, you can view, modify or delete the vehicle information as needed.

	Number plate	Name	Phone	Vehicle Type	Vehicle Color	Description	Operation
<input type="checkbox"/>	A123464	Simon		Small Car	Blue		Modify Delete

Select multiple vehicles and then click the [Delete] button to delete multiple vehicle information at once.

6.2.3 Import or Export Vehicles

Click [Export Template]→Export Template(.xlsx/.csv) to export a template. Then fill out the relevant vehicle information.



After that, click [File import] to import the vehicle information. Click [Export] to export the added vehicle information.

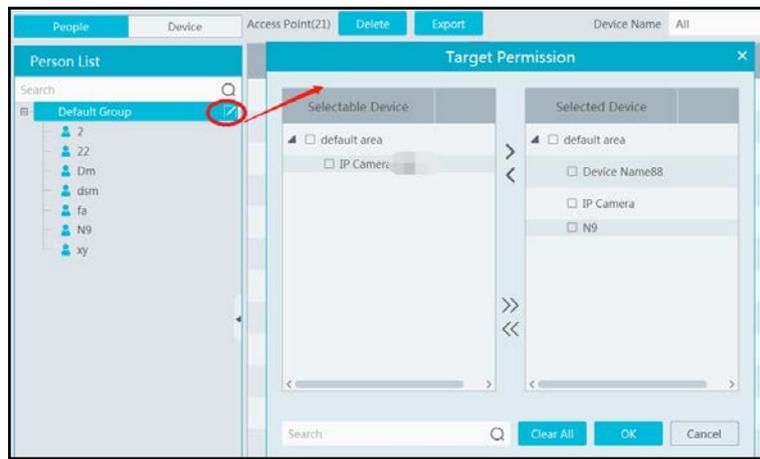
6.3 Sync Records

Click Home→People & Vehicle Management→Sync Records to go to the following interface.

You can view the sync records or bind the camera to the group or people.

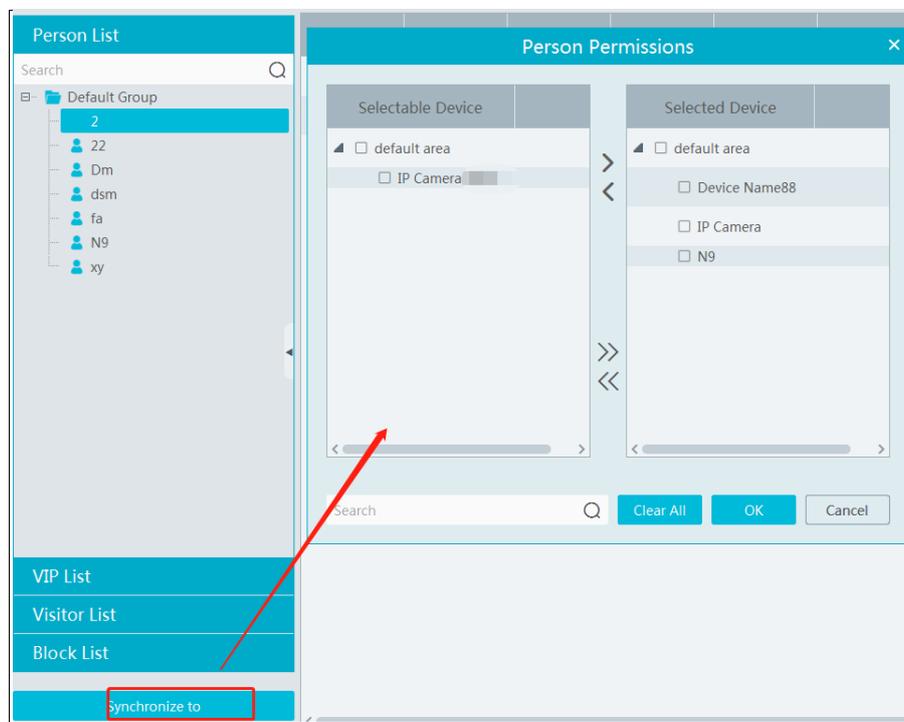
➤ Binding the group to the device

Put the cursor on the group name and then  will be shown. Click it to bind the camera.



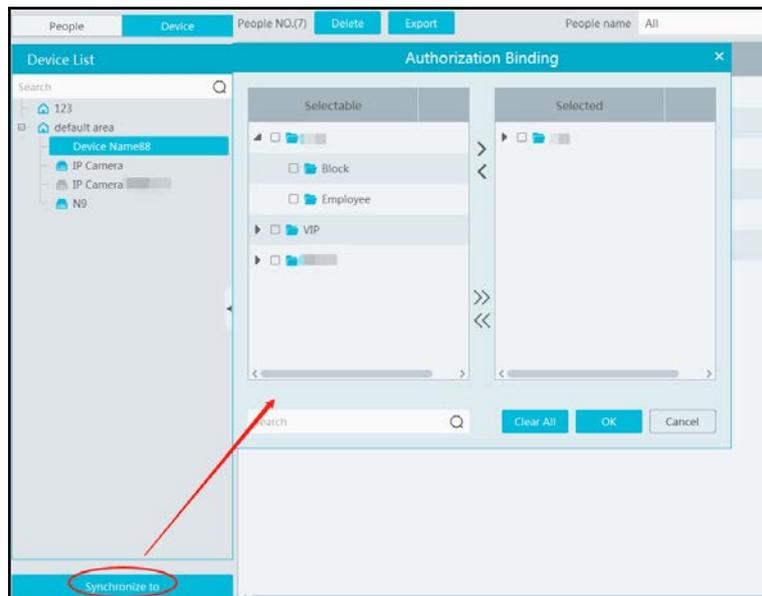
➤ **Binding the person to the device**

Select the person's name and then click "Synchronize to". This will bring a window as follow. Select the camera and then click "OK". This personal information will be synchronized to the selected camera.



➤ **Binding the device to the group or person**

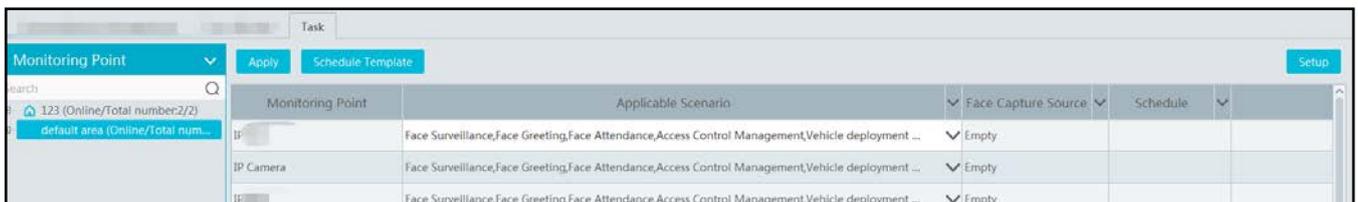
Click the "Device" tag, select the device and then click "Synchronize to". Select the group or person in the pop-up window.



When the device is offline, the target synchronized to it cannot be deleted. Then you can go to the Sync Records interface to delete the synchronization records and then delete the target.

6.4 Task Management

Set the face capture source, schedule and applicable scenario.



Face Capture by IPC: it is applicable to the face detection camera.

Face Match by IPC: it is applicable to the face recognition camera.

Note: Face recognition NVR, Temperature Reading Panel, Thermal network camera and IPC without face detection function cannot set task here.

More parameters about face comparison can be set by clicking [Setup].

Face Comparison Alarm: Select face comparison alarm list. For example, “Visitor” is selected, when a person is detected and is successfully compared with visitor list, alarms will be triggered.

Similarity: Set the similarity of the face comparison.

Intelligent Server Setting: please check “Enable face detection of the face recognition IPC” as needed.

If checked, the intelligent server will get all face capture pictures of the IPC after you configure face comparison parameters and set the schedule for the IPC. All these face snapshots can be searched in the Search interface (Home→ Search).

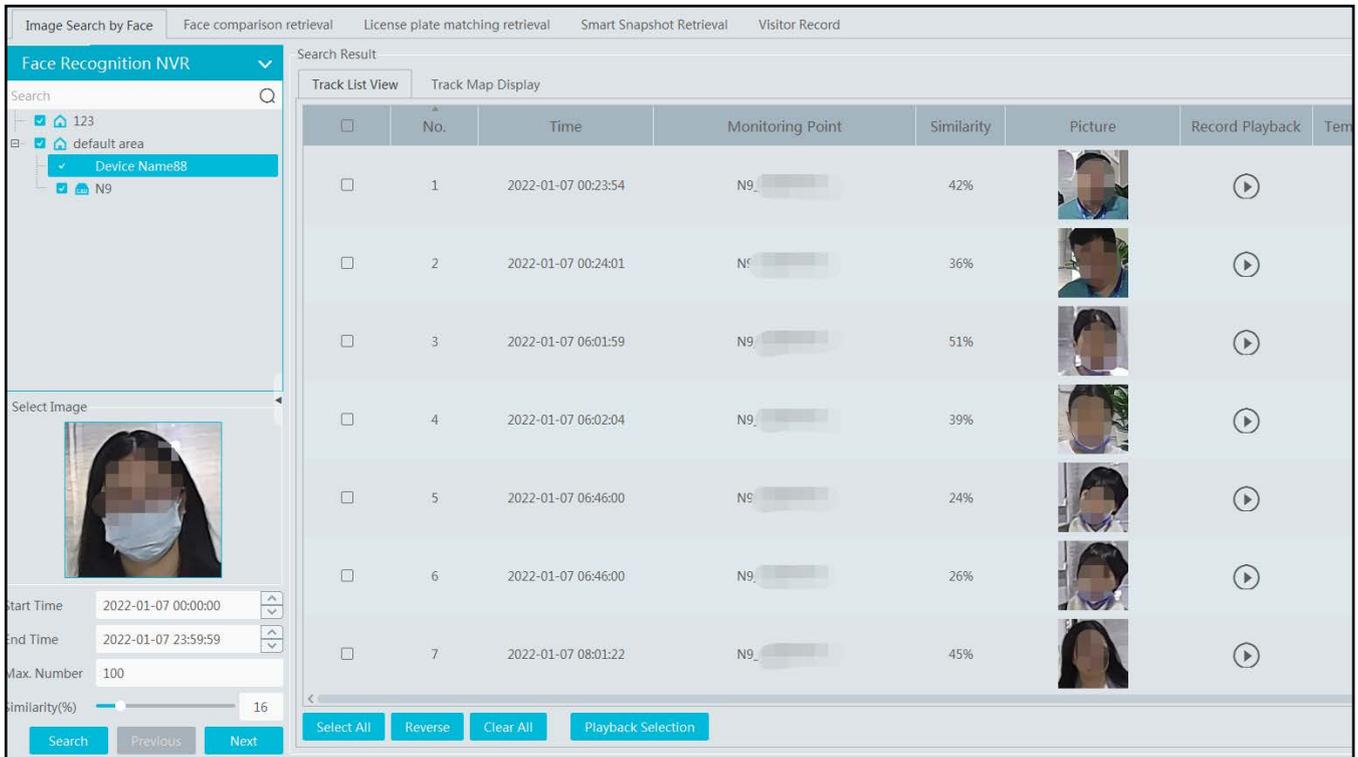
If unchecked, the intelligent server will only get the matched face snapshots after you configure face comparison parameters and set the schedule for the IPC. Only the face snapshots successfully matched with the face database can be searched in the Search interface (Home→ Search).

FTP Settings: Send the captured pictures to FTP. Please set the corresponding parameters according to your FTP server.

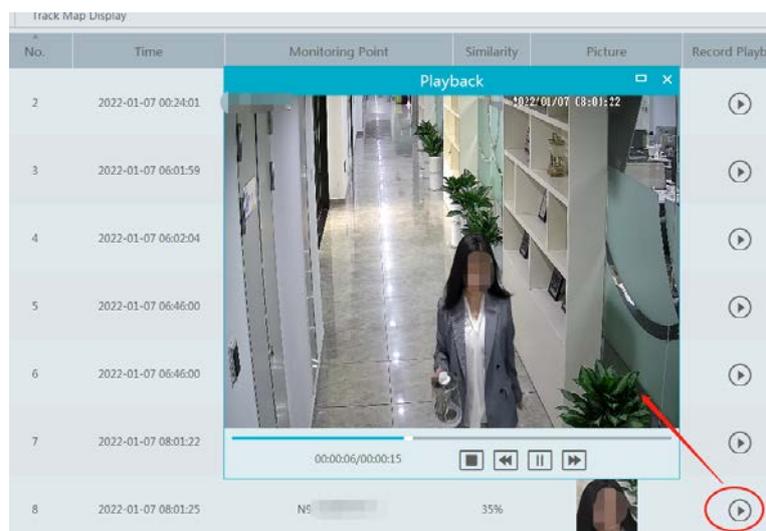
7 Search

7.1 Image Search by Face

- ① Select a picture and picture source.
- ② Set the start time and the end time.
- ③ Set the maximum count and similarity.
- ④ Click [Search].

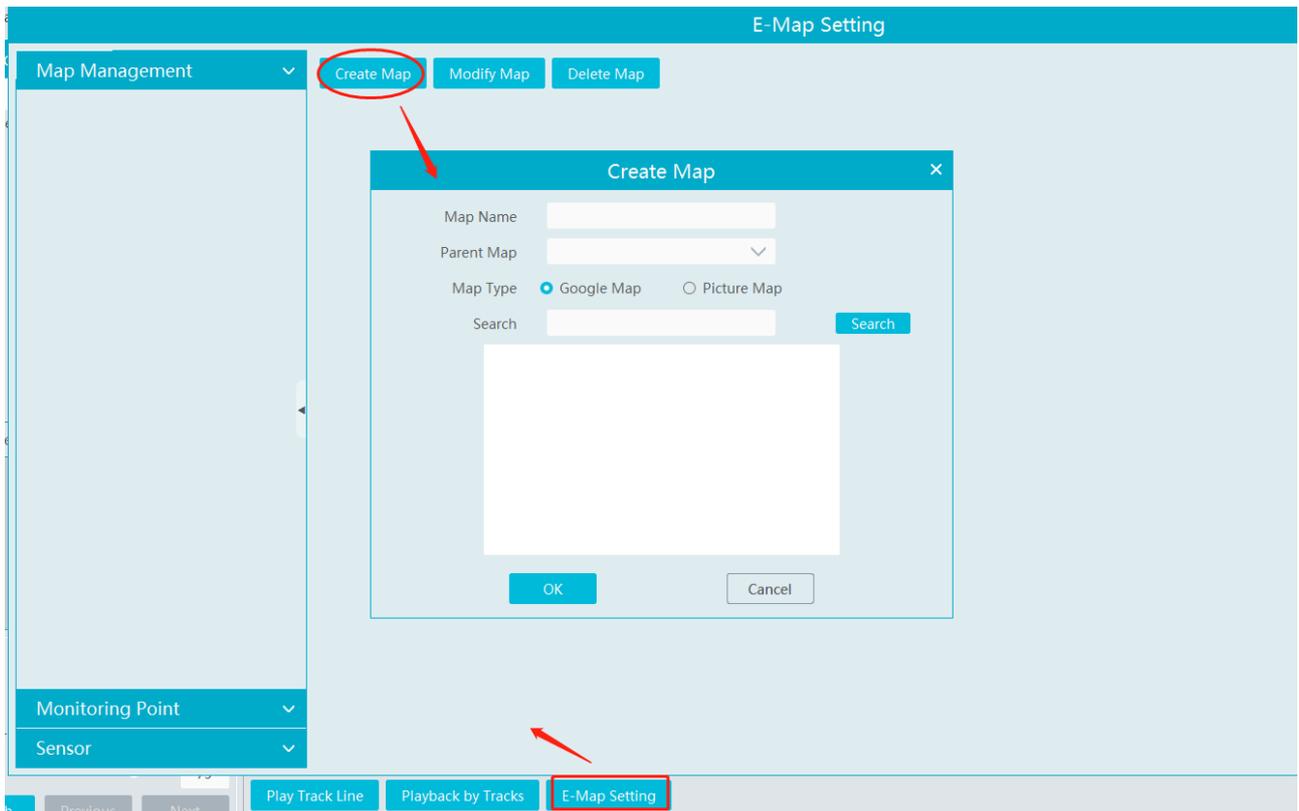


Click to play the record in a small window.



- E-Map Track View:

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

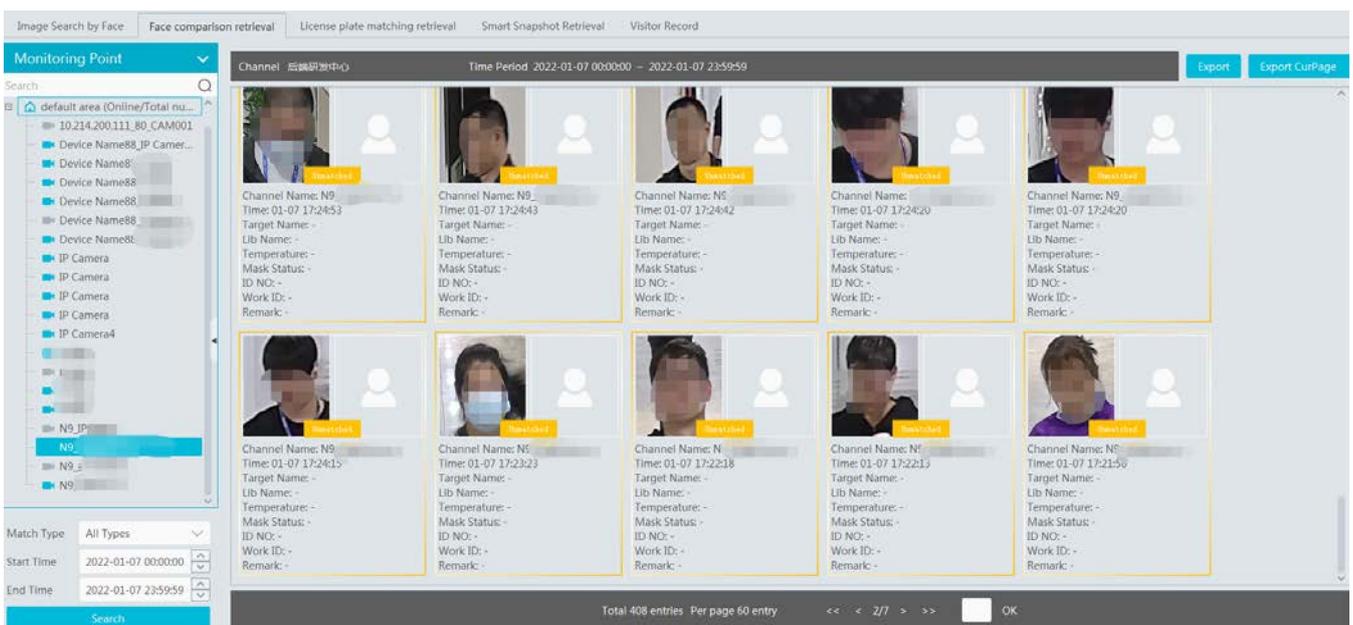


Play Track Line: Click this button to play the track line on a map.

Playback by Tracks: Click this button to play the track video.

7.2 Face Comparison Search

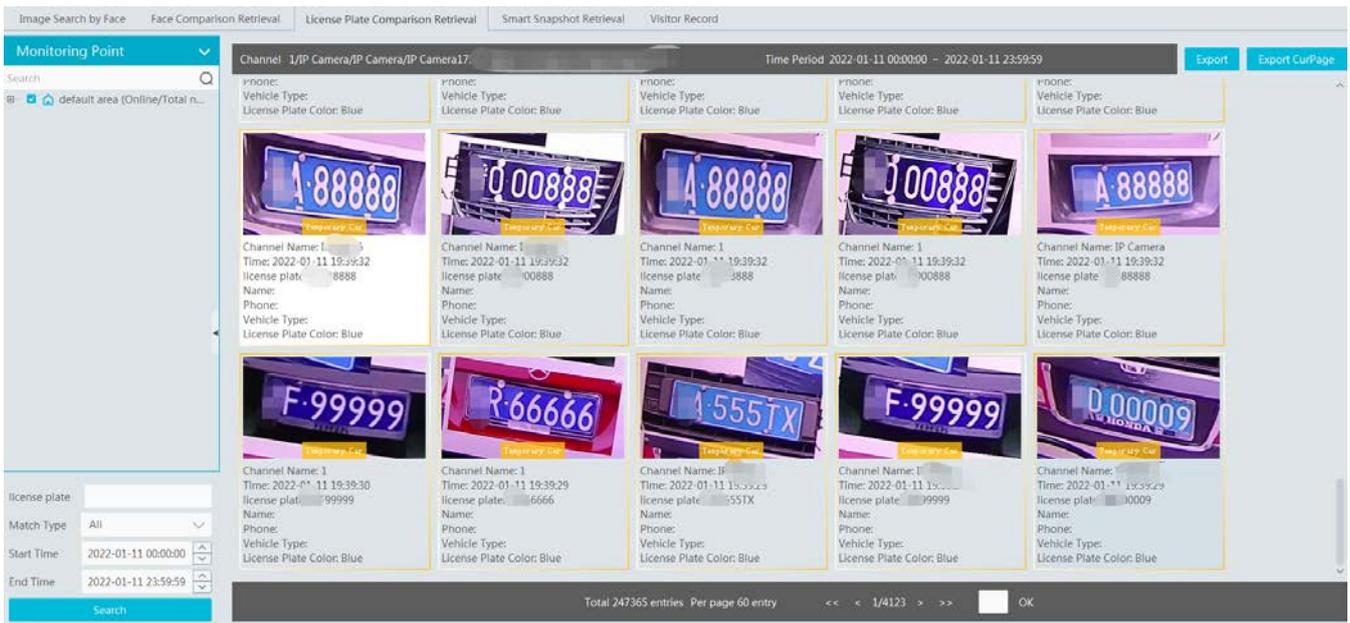
- ① Go to Search → Face comparison retrieval interface.
- ② Select the IPC and match type
- ③ Set the start and end time and then click [Search] to search the face pictures.



7.3 License Plate Comparison Search

1. Select the camera.
2. Enter the license plate and select the match type.

3. Set the start time and end time.
4. Click [Search]

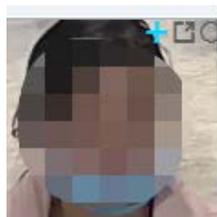


7.4 Smart Snapshot Search

The snapshot results from the intelligent server and face recognition devices can be searched. You can search the snapshots of human face, human body, motor vehicle and non-motor vehicle.



If the snapshot type is human face, put the cursor on the captured picture and then some shortcut buttons will be displayed.



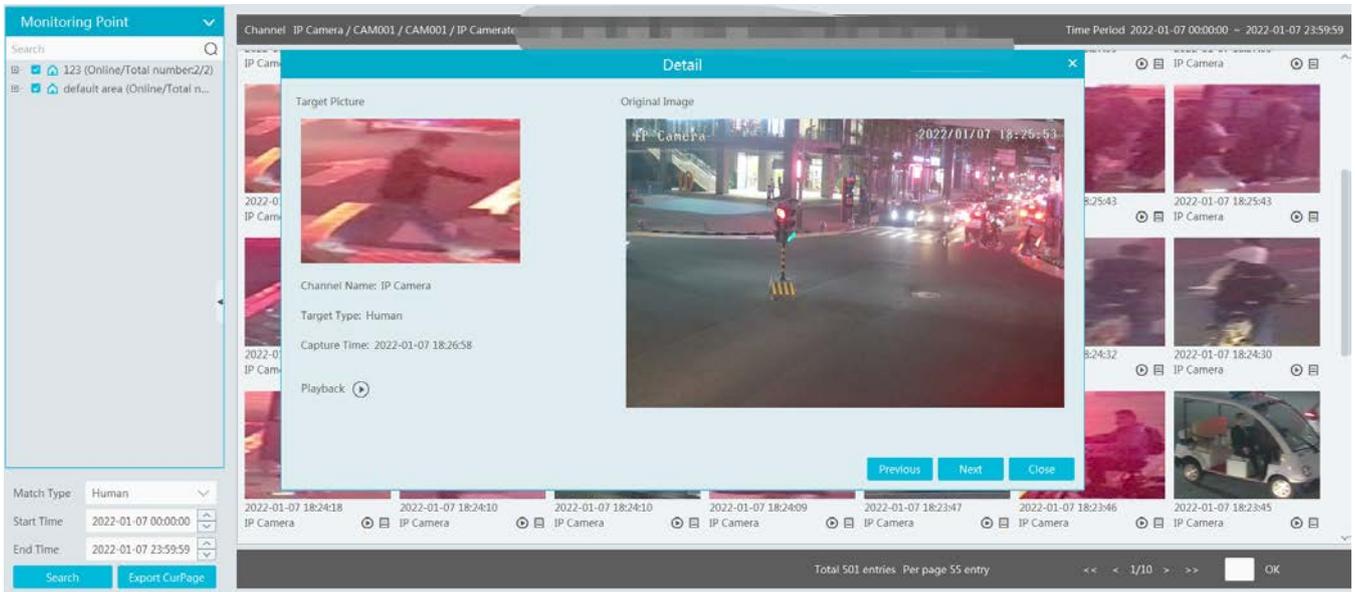
Click + to add the capture picture to the library. Select the library on the left and then fill out the information of this target. Click [OK] to

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.

Human Body/Vehicle Snapshots:



Click  to quickly skip to the playback interface and play the record.

Click  to view the snapshot details, including the original image, target picture, snapshot type, snapshot time and so on.

7.5 Visitor Record Search

Set the start and end time and click [Search] to search the visitor record in the specified time.

You can also enter the key word in the search bar and click  to search the visitor record.

Click [Export] to export the current visit record to EXCEL file (image included). Only super administrator supports visitor record export.

8 Face Greeting

Face Greeting: After successful face comparison, the words/voice of welcome will be heard by the guests and their photos will be shown on the screen.

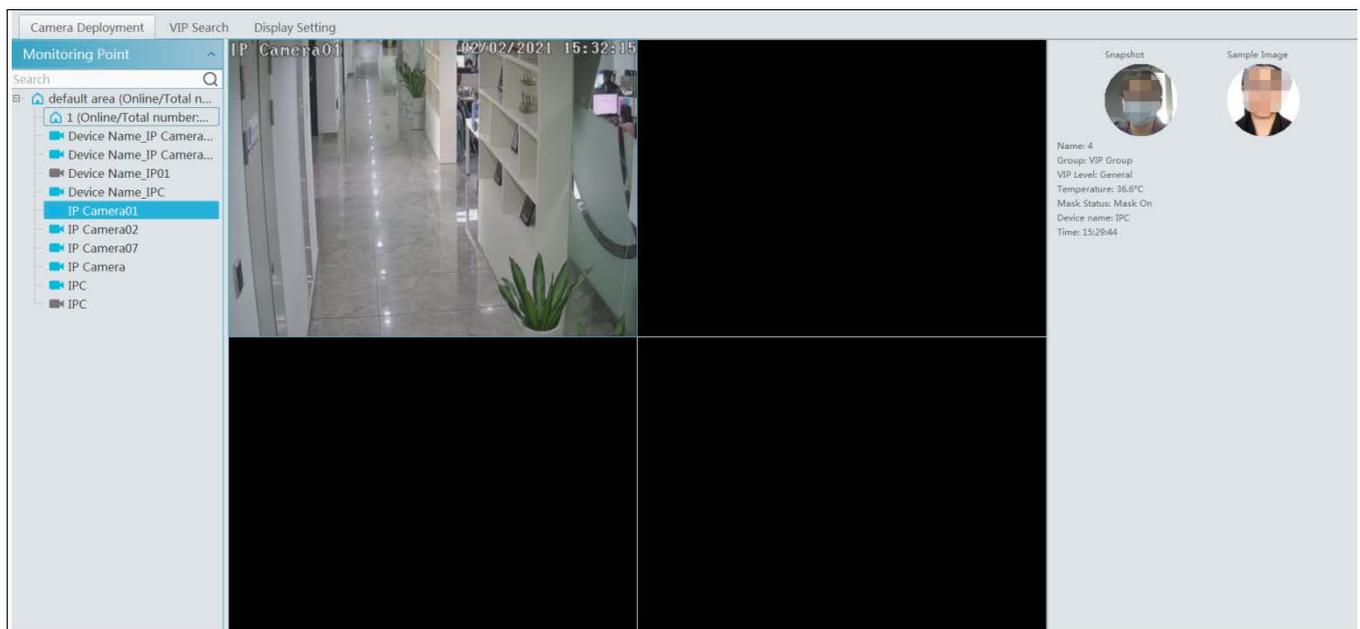
Click “Face Greeting” to go to the face greeting interface. The setting steps are as follows:

① Create a VIP group and add targets for this group in the VIP list interface. Then bind the VIP person and the camera. The setting details are similar to adding targets to the person list. See chapter 6 for details.

Note: the camera for face greeting must support face recognition function, such as face recognition and access control panel, face recognition camera and so on.

② Select the schedule, face match type in the Task interface of the people & vehicle management (See 6.4 for details).

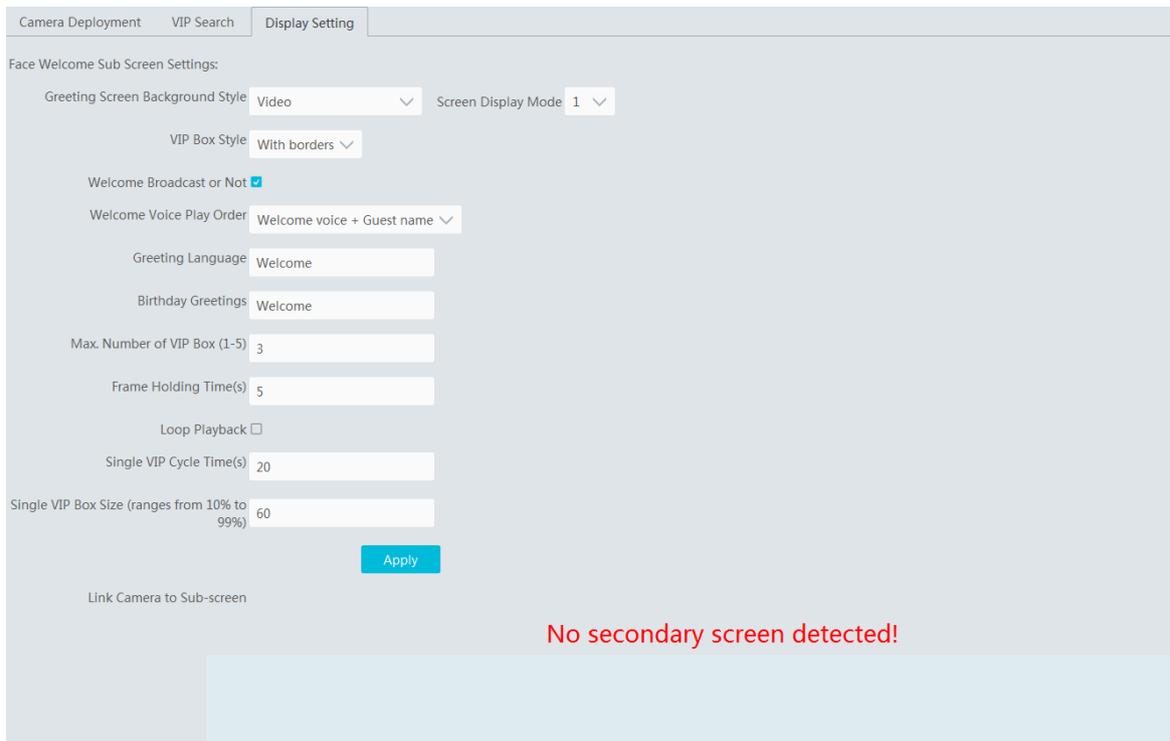
③ Set camera deployment. Drag the camera name to the preview window. When there are targets detected, the match result will be displayed on the right panel.



④ View the match result of the greeting screen. Click the “Display Setting” tab to set the sub screen (greeting screen).

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

Select the sub-screen display channel: double clicking on the sub-screen box as shown below displays a camera selection box. Choose the desired cameras and then click [OK] to save the settings. Multiple cameras can be selected at a time.



Greeting Screen Background Style: three options: Video, Background Picture and Pure Color Background

Screen Display Mode: 1/4/9/16 screen display mode can be selected.

VIP Box Style: with borders or pure image.

Welcome Broadcast or Not: if enabled, the welcome voice will be broadcasted when the VIP person is successfully recognized.

Welcome Voice Play Order: choose which one to broadcast first between welcome voice and guest name

Greeting Language: please enter the content as needed.

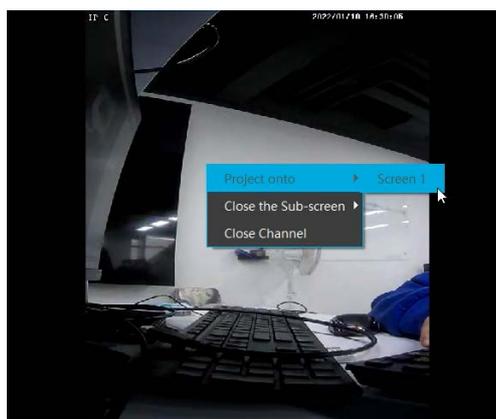
Max. Number of VIP Box: up to 5 boxes.

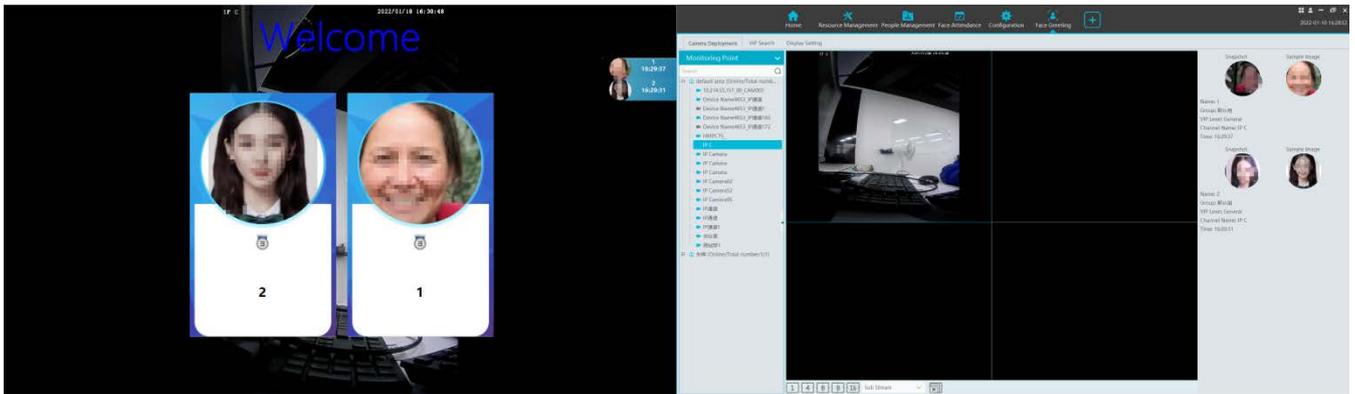
Frame Holding time: set the duration time of VIP box appearing after the captured face is matched successfully.

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.





⑤ Search the face greeting records. Click “VIP Search” tab as shown below.

Camera Deployment | VIP Search | Display Setting

VIPList

Search

VIP Group 4

Start Time: 2021-02-02 00:00:00 End Time: 2021-02-02 23:59:59 Search

NO	Name	Gender	VIP Level	Regdate	Telephone	Time	Monitoring Point	Temperature	Mask Status	Picture	Play
1	4	Female	General	2021-02-02		2021-02-02 15:29:44	IPC	36.6°C	Mask On		
2	4	Female	General	2021-02-02		2021-02-02 15:29:43	IPC		Mask On		
3	4	Female	General	2021-02-02		2021-02-02 15:29:16	IPC		Mask On		

Name: 4
VIP Level:
Phone Nur

The 1 /1Page Per Page 50 Entry 1-3 Total: 3

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 shown. Click to play the record.

9 Face Attendance

The attendance records of the employees can be viewed and traced after adding the persons to the person list and setting the attendance rules.

Flow Chart:

1. Add attendance groups and targets→2. Set the attendance device and configure the device information→3. Set attendance rules (attendance period setting, attendance shift setting, holiday setting, personnel scheduling setting, attendance handling) →4. Search attendance records and export attendance report

9.1.1 Add Attendance Group and Targets

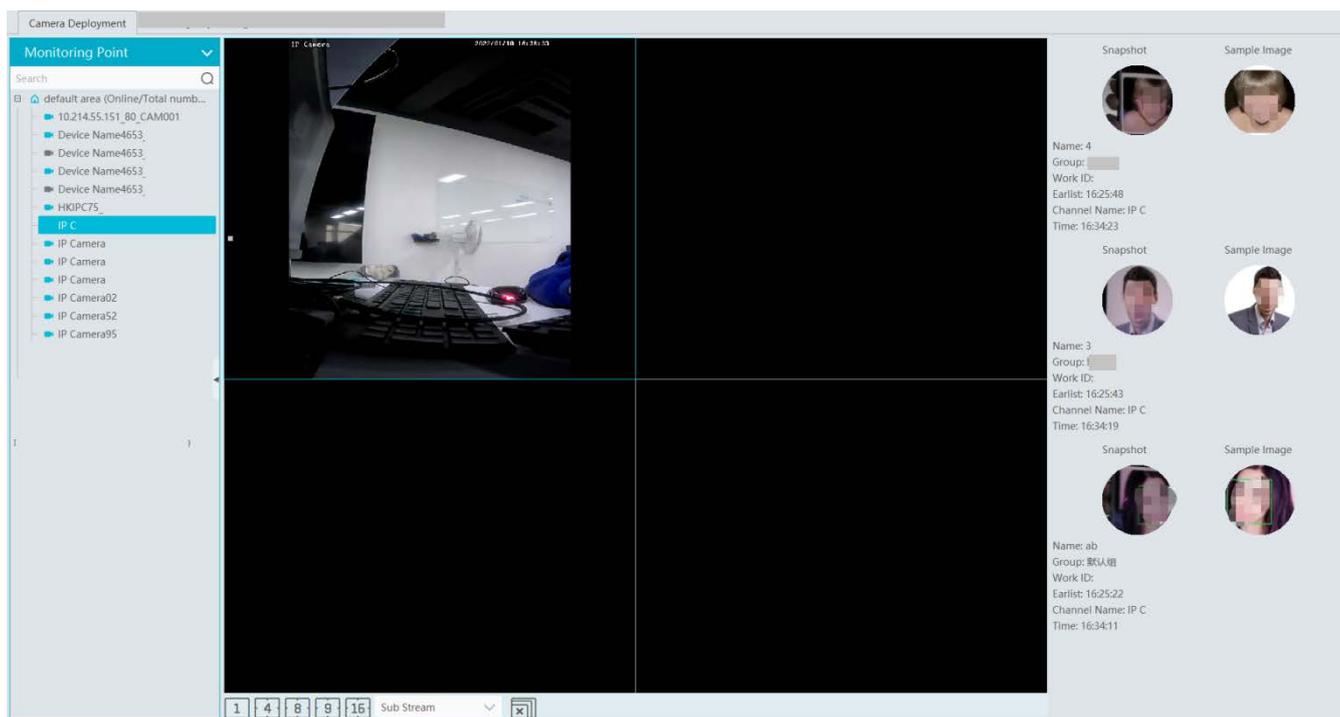
1. Create an attendance group and add targets for this group in the person list interface. Then bind the person and the attendance camera. See chapter 6 for details.

Note: the attendance camera must support face recognition function, such as face recognition and access control panel, face recognition camera and so on.

2. Configure the schedule and face match way of the camera. See 6.4 Task Management for details.

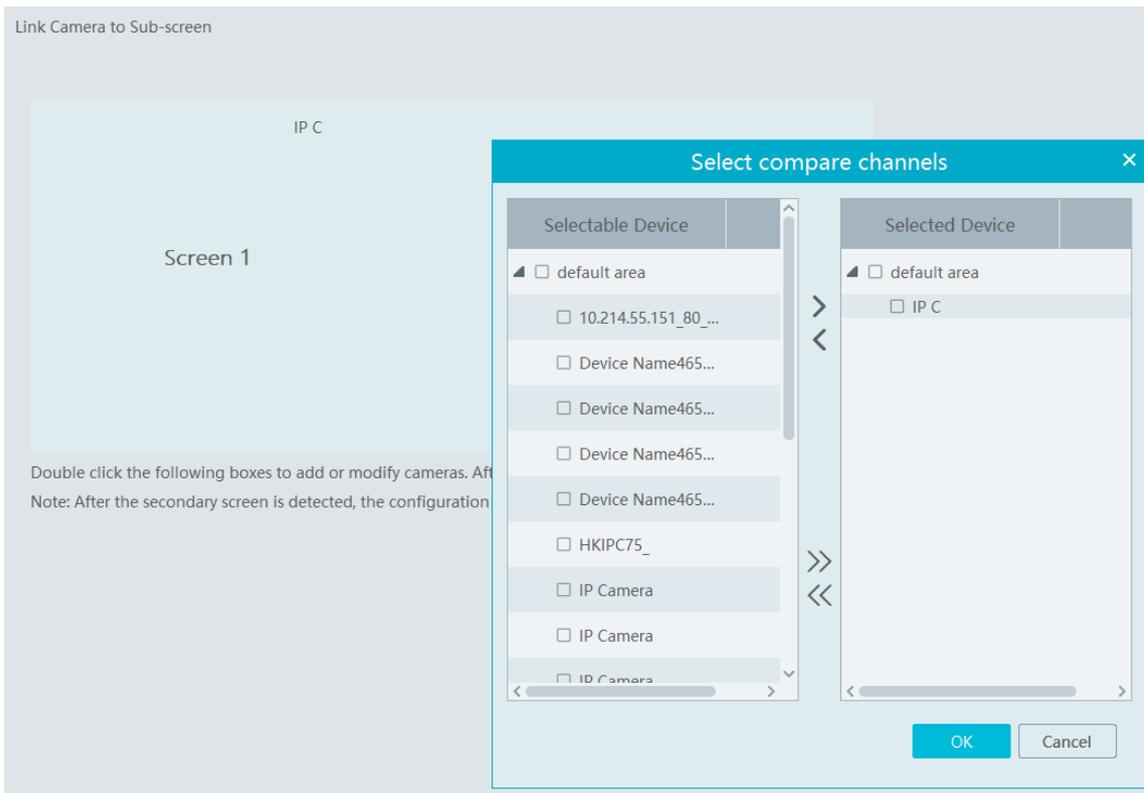
3. Camera Deployment. Go to Face Attendance→Camera Deployment interface. Face comparison information can be viewed after the camera is dragged to the preview window.

Note: The compared person in attendance system shall be added in the person list in advance. One person only can be added in one group. If this person also be added in other groups (like VIP list), the comparison result will not be obtained.

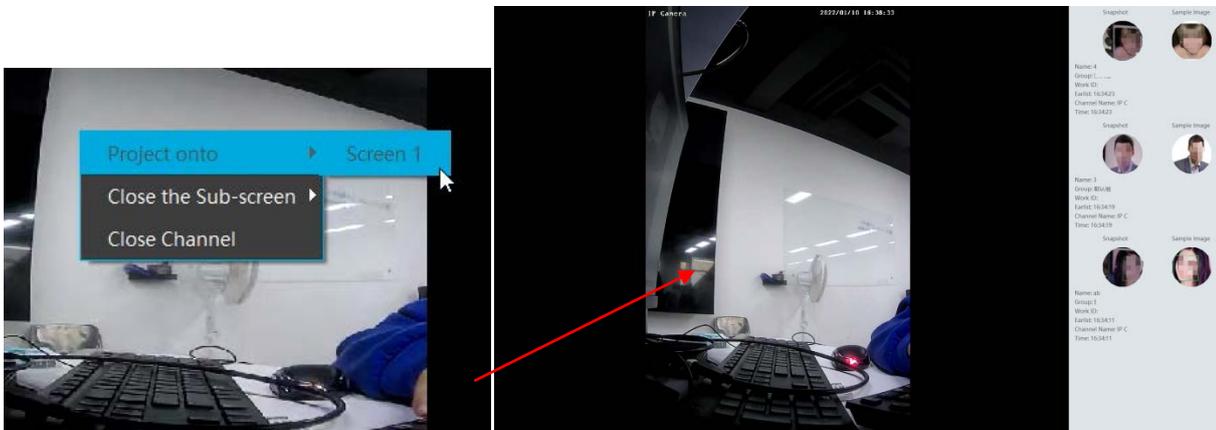


View the match result of the sub-screen:

- ① Click Face Attendance→Working Day Setting→Basic Configuration.
- ② Double clicking on the box displays a camera selection box. Select the desired camera and then click [OK] to save the setting.



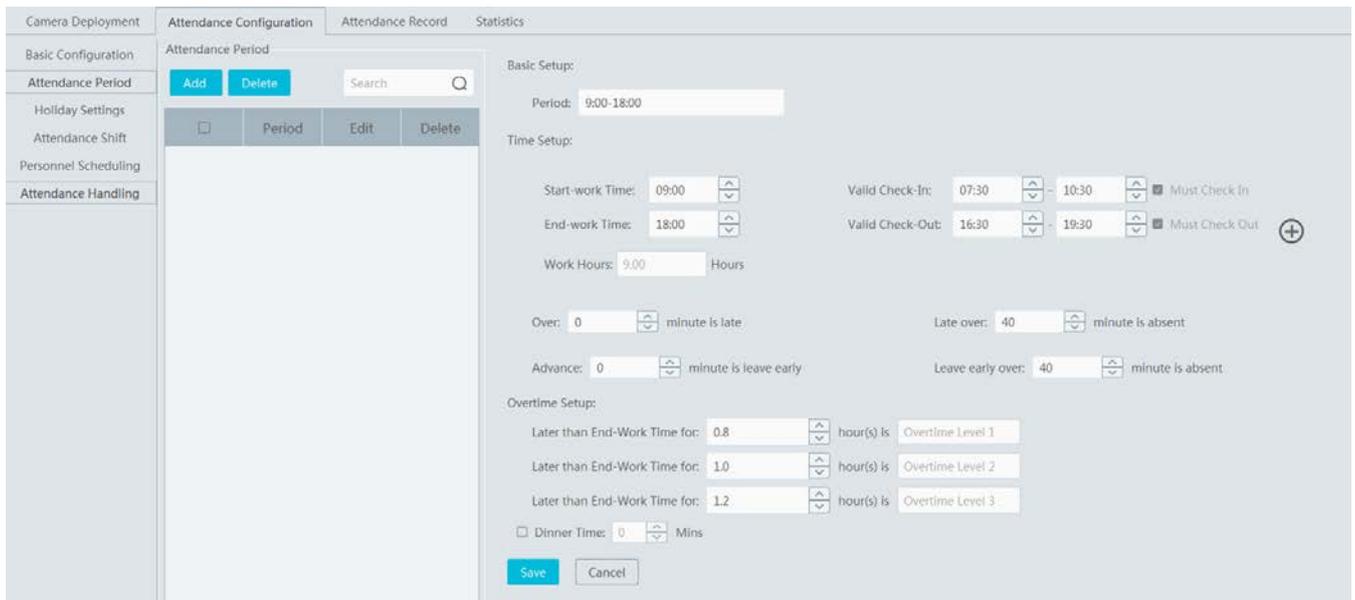
③ Click Face Attendance→Camera Deployment. In the camera deployment interface, right click on the screen to select “Project onto” to select sub screen. Then you will see the face display on the sub screen as shown on the below.



9.1.2 Set Attendance Rules

Go to the Attendance Configuration interface to set different attendance rules. The system will compare the pre-defined attendance time and the actual attendance time and then trigger alarms when an exception attendance event occurs. The attendance rule settings include basic configuration, attendance period setting, attendance shift, personnel scheduling and attendance handling.

1. Attendance Period Settings



If a company has different working time for different employees, you can add different attendance rules.

Click [Add] to set the detailed attendance rule. After that, click [Save] to save the settings.

Basic Setup: set the normal working period.

Start-work time: the normal start-work time

End-work time: the normal end-work time

Valid check-in: Set the valid check-in period. If the employees check in before/after this period, the check-in will be invalid and will be regarded as “Not check-in”.

Work hours: automatically calculate according to the start-work and end-work time.

Clicking on  displays another timetable. You can set the detailed rules for work time.



Must check-in/out: “Must check in” next to the first valid check-in period and “Must check out” next to the last valid check-out period are checked by default. That is to say, in the first check-in period, the employees must check in; in the last check-out period, the employees must check out. During the period that “Must check in/out” is not checked, the employees don’t check in/out, who will not be regarded as “Not check in/out” or “Absent”.

Valid Check-in/out: If the employees don’t check in/out during the valid check in/out period, they will be regarded as “Not check-in/out”.

Allow Late/Leave Early:

Over xx min is late: set the allowable minutes for late. If the employees check in within the period after the start-work time, the status will be “Normal”.

Advance xx min is leave early: set the allowable minutes for leave early. If the employees check out within the period before the end-work time, the status will be “Normal”.

For example: The start-work time is set as 09:00, and the late allowable duration is 20 minutes. If the employee checks in at 9:15, the attendance status will be “Normal”.

Absent:

Late over xx min is absent: if the employees checking in later than this time will be marked as “Absent”. For example: The start-work time is set as 09:00, and the absent allowable duration is 40 minutes. If the employee checks in at 9:45, the attendance status will be “absent”.

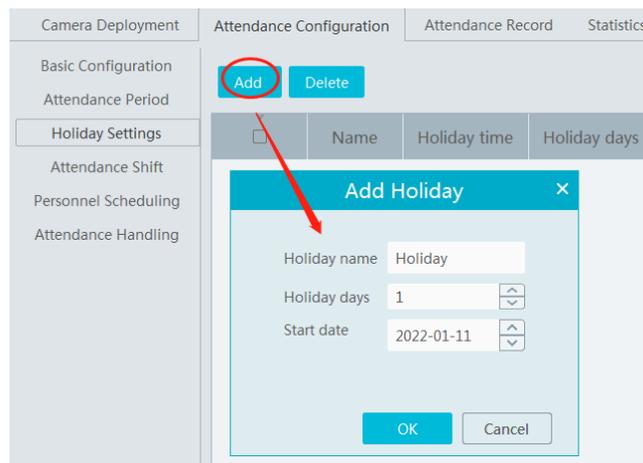
Leave early over xx min is absent: if the employees checking out earlier than this time will be marked as “Absent”. For example: The end-work time is set as 18:00, and the absent allowable duration is 40 minutes. If the employee checks out at 17:19, the attendance status will be “absent”.

Overtime setup: there are three overtime levels. Please set as needed.

Dinner time: if checked, the system will automatically deduct the dinner time from the overtime. The overtime level depends on the time duration after deducting the dinner time.

2. Holiday Settings

You can set a special day as a holiday. The holiday here takes priority over the attendance shift. That is to say, once a day is set as a holiday, there is no need for you to check in even if it is scheduled in the working day.



3. Attendance Shift Settings

Attendance Shift: The employees shall perform their duties according to the shift schedule.

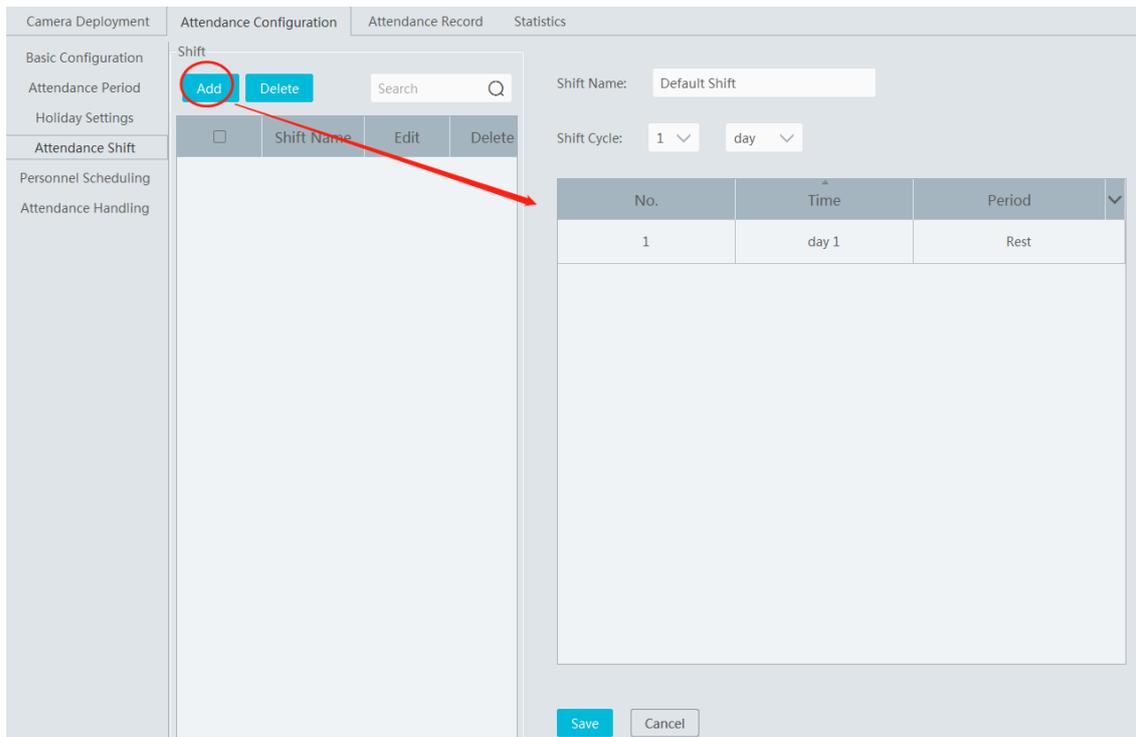
Click [Add] to set the shift name and shift schedule.

Shift cycle can be set by day, week or month. The schedule will automatically repeat according to the set day(s), week(s) or month(s).

Day: You can customize the attendance period of each day. The number of days should be between 1 and 31.

Week: The schedule will repeat every 7/14/21/28/35 days based on the week.

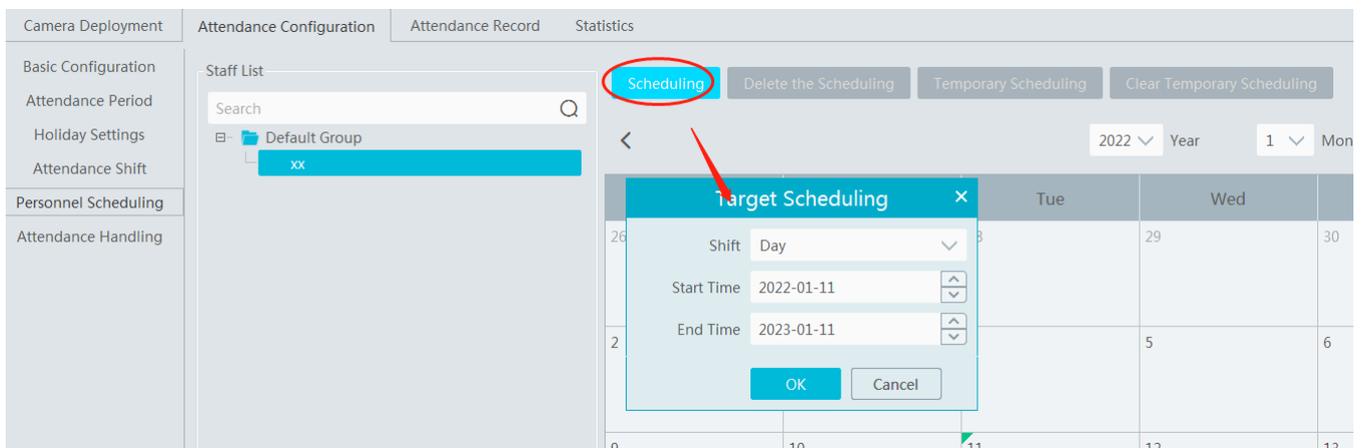
Month: You can customize the attendance period of each month.



After you set the shift schedule, click [Save] to save the settings.

4. Personnel Scheduling

You can set different schedule for different attendance groups or employees.

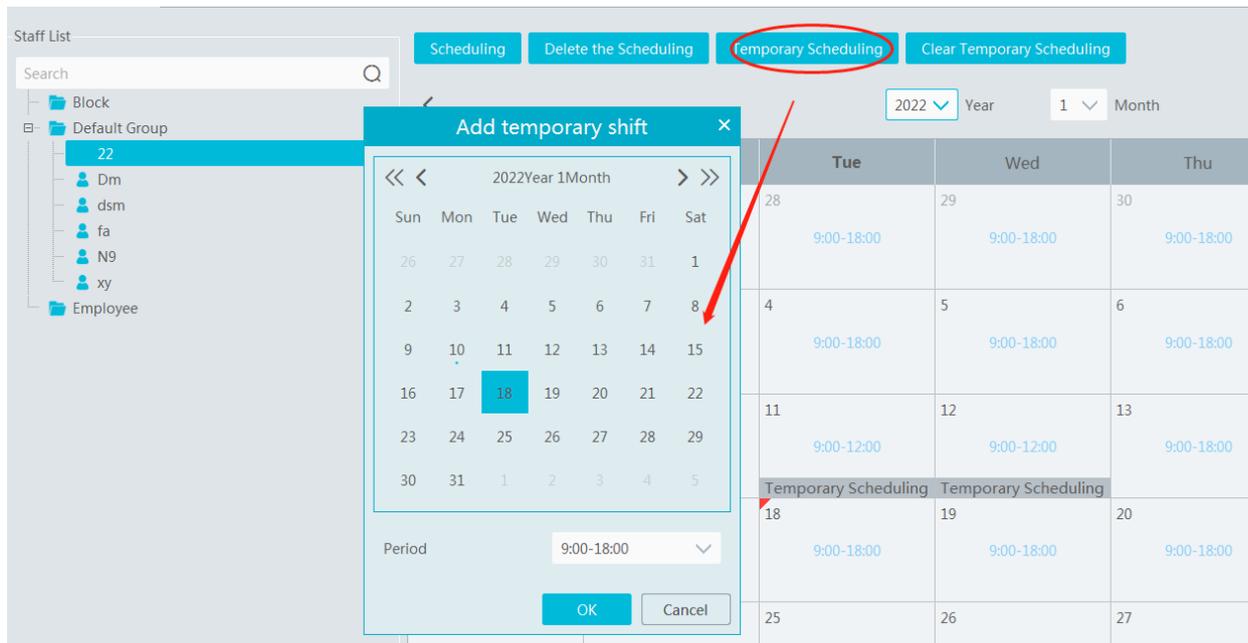


Select the attendance group or employee and then click [Scheduling] to select the shift and schedule start time and end time. Finally, click [Ok] to save the settings.

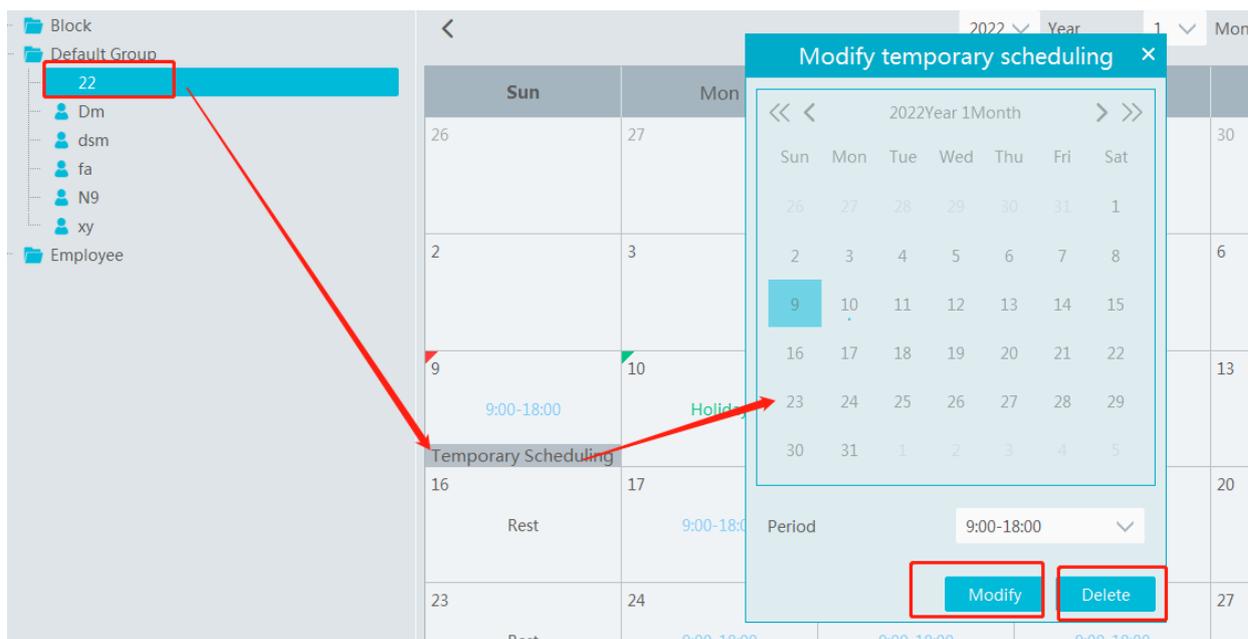
If the schedule for the attendance group or the employee needs to modify, select the group or person, click [Delete the scheduling] to delete the current schedule.

If there is something wrong with the attendance shift, you can select the person or group on the left and click [Scheduling] to modify.

When the temporary scheduling is needed, select the person or group, click [Temporary Scheduling], select date and period. After that, click [Ok] to save the settings.



If you want to modify the temporary scheduling, you can select the person or group and click **Temporary Scheduling** to modify. Click [Delete] to delete the temporary scheduling of the day.



Select the temporary scheduling day and click [Clear Temporary Scheduling] to clear the temporary scheduling.

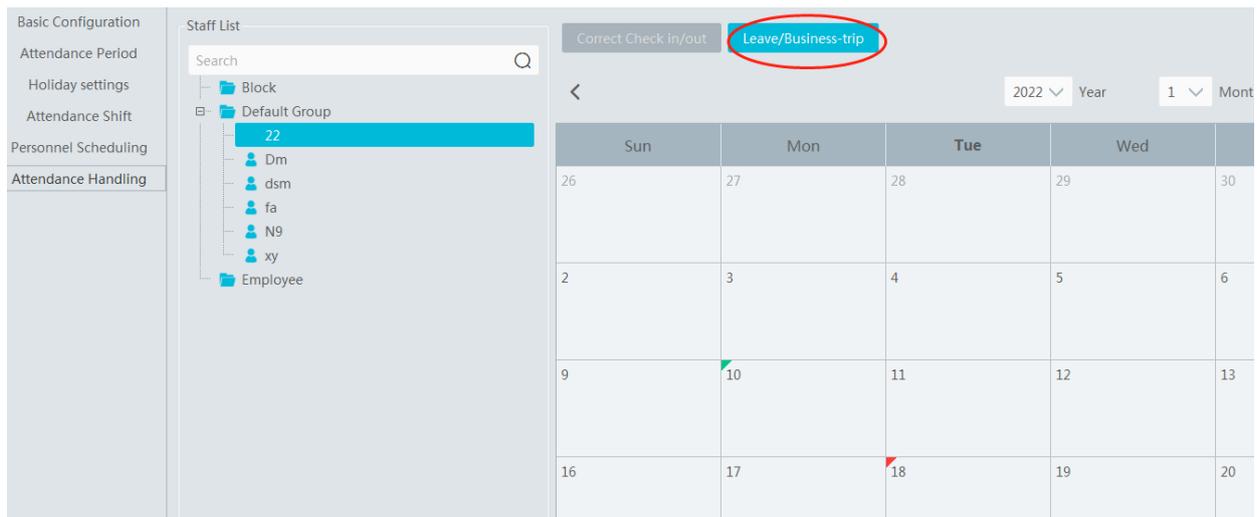
5. Attendance Handling

If someone needs to apply for leave or correct the check-in/out record, you can enter the attendance handling interface to set up.

Leave/Business-Trip Settings:

- ① Select the employee who want to apply for leave or do business trip.
- ② Click [Leave/Business-trip].
- ③ Select the date the employee wants to apply for leave or do business trip.
- ④ Select the type, sub type, leave time and remark.
- ⑤ Click [OK] to save the settings.

 : click it to set the sub type of leave or business trip.



Cancel Leave/Business-Trip:

When the leave or business-trip cancels, you can go to the attendance handling interface to cancel it.

1. Select the person you want to cancel the leave/business-trip and then a timetable will display.
2. Clicking on the Leave/business trip tag will display a Leave/business-trip detail box.
3. Move the slide bar to the right as shown below. Click  to cancel this item.



In addition, you can also correct check-in/out time for the exceptional records according to actual needs.

Correct Check in/out: If the employee actually starts and ends his/her work in the given time but he or she forgets to check in/out, then “Correct Check in/out” function can be used.

Select the person you want to correct the check in/out record, find the desired date and then click [Correct Check in/out]. After that, click the Edit button to correct the check in or out as needed.

You can view the correction information by clicking .

9.1.3 Search Attendance Record

You can search the desired attendance records to view the employee’s attendance status by filtering the conditions, such as attendance group, name, etc.

1. Click Home→Face Attendance→Attendance Record to go to the following interface.
2. Set the search conditions, such as time, group, name, attendance status (abnormal, overtime, business-trip, etc.).
3. Click [Search] to filter the attendance records.

Time	Group	Work ID	Name	Attend Status	Time of Entry	Time of Exit	Standard(hour)	Practical(ho
2022-01-05	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00
2022-01-06	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00
2022-01-07	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00
2022-01-08	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00
2022-01-09	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00
2022-01-10	1		3	Absent	No Check-In/Out Record	16:34:19	9.00	0.00
2022-01-11	1		3	Absent	No Check-In/Out Record	No Check-In/Out Record	9.00	0.00

The attendance detail of each day, abnormal status, overtime and so on can be displayed.

Click [Custom export] to export an Excel of the attendance result. These exporting items can be customized as needed.

Custom Export ✕

Path

Format .xlsx

Items Select All Reverse Clear All

<input checked="" type="checkbox"/> Time	<input checked="" type="checkbox"/> Group
<input checked="" type="checkbox"/> Work ID	<input checked="" type="checkbox"/> Name
<input checked="" type="checkbox"/> Attend Status	<input checked="" type="checkbox"/> Time of Entry
<input checked="" type="checkbox"/> Time of Exit	<input checked="" type="checkbox"/> Standard(hour)
<input checked="" type="checkbox"/> Practical(hour)	<input checked="" type="checkbox"/> Come to Work Late(frequency/hour)
<input checked="" type="checkbox"/> Leave Early(frequency/hour)	<input checked="" type="checkbox"/> Absent(frequency/hour)
<input checked="" type="checkbox"/> Business-trip(frequency/hour)	<input checked="" type="checkbox"/> Leave(frequency/hour)
<input checked="" type="checkbox"/> Paid Leave(frequency/hour)	<input checked="" type="checkbox"/> Overtime(frequency/hour)
<input checked="" type="checkbox"/> Overtime Level	

OK
Cancel

9.1.4 Statistics of Attendance Data

In the statistics interface of Face Attendance, you can view the attendance data in the form of chart.



Granularity: Group or human can be selected. If Group is selected, the attendance data of each group (department) can be viewed.

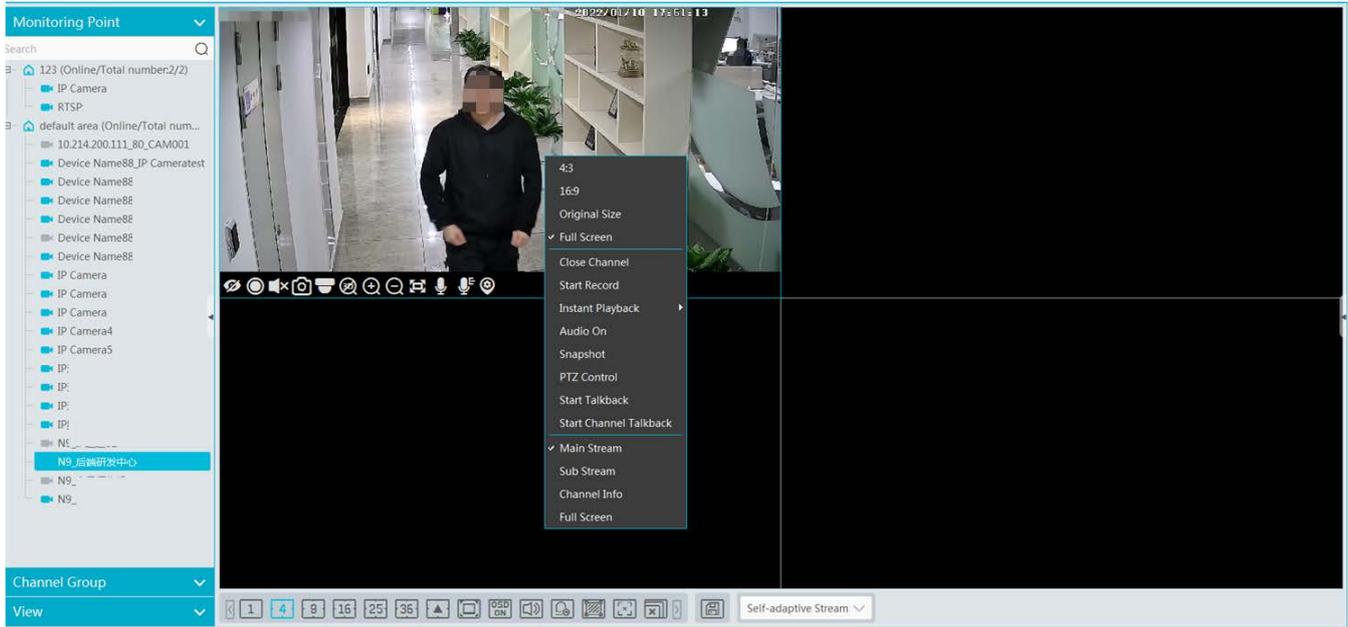
If Human is selected, the attendance data of the employees in the group (department) can be viewed.

You can quickly view the attendance data by week/month/year and also can view the attendance data in a specified period.

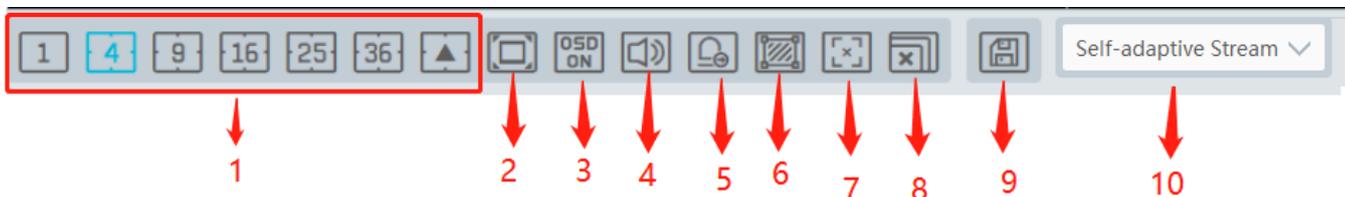
10 Live View

10.1 Live View

Go to Home→Video Preview 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	Show/hide target tracking box
3	Enable/disable OSD	8	Close all preview
4	Enable/disable broadcast	9	Save the current view mode
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.

Note: the platform only can enable audio of one window. If the audio is enabled in one window, the audio in previous window will be disabled.

Monitoring Point Viewing

- **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.



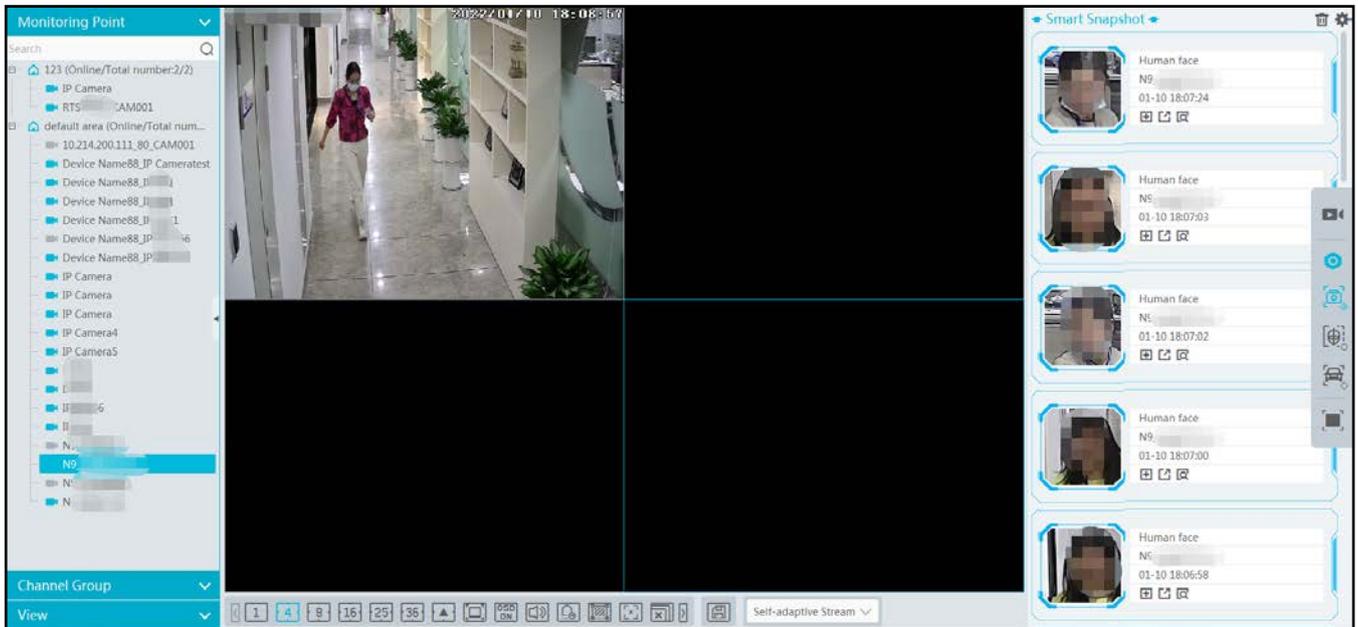
- **Stop View**

- 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.

10.2 Smart View

In the live view interface, click  on the right of the interface. A menu bar will be shown on the interface as shown below. Then you can switch the preview mode between video preview and smart viewing mode.

Note: : it is a smart mode icon but not a functional button. You must click the smart display button under it to show the corresponding results.

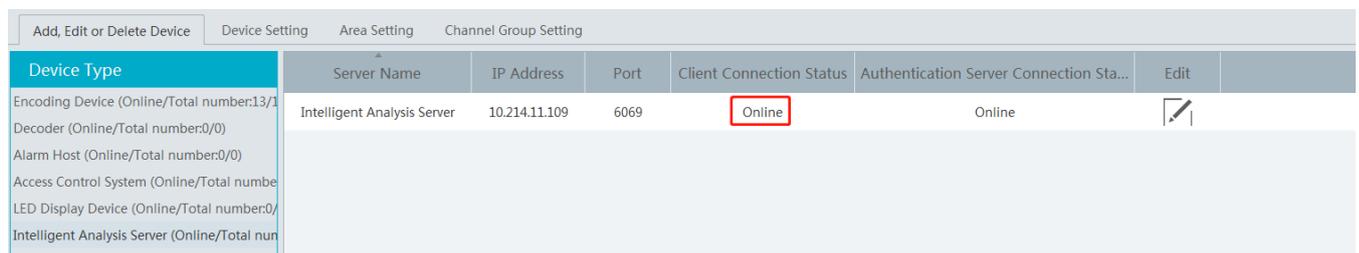


The descriptions of the button on the right:

Button	Description	Button	Description
	Preview only mode		Smart mode icon
	Smart Snapshot: real-time display of snapshots, including face, human body, motor vehicle, non-motor vehicle and vehicle plate.		Face Comparison: Real-time display of face comparison results
	Plate Comparison: Real-time display of license plate comparison results		Full Screen under smart mode

Before using intelligent functions, please confirm the default intelligent analysis server is online.

Go to Home→Resource Management→Intelligent Analysis Server. There is a default intelligent analysis server. Please make sure the server is online.



10.2.1 Face Comparison

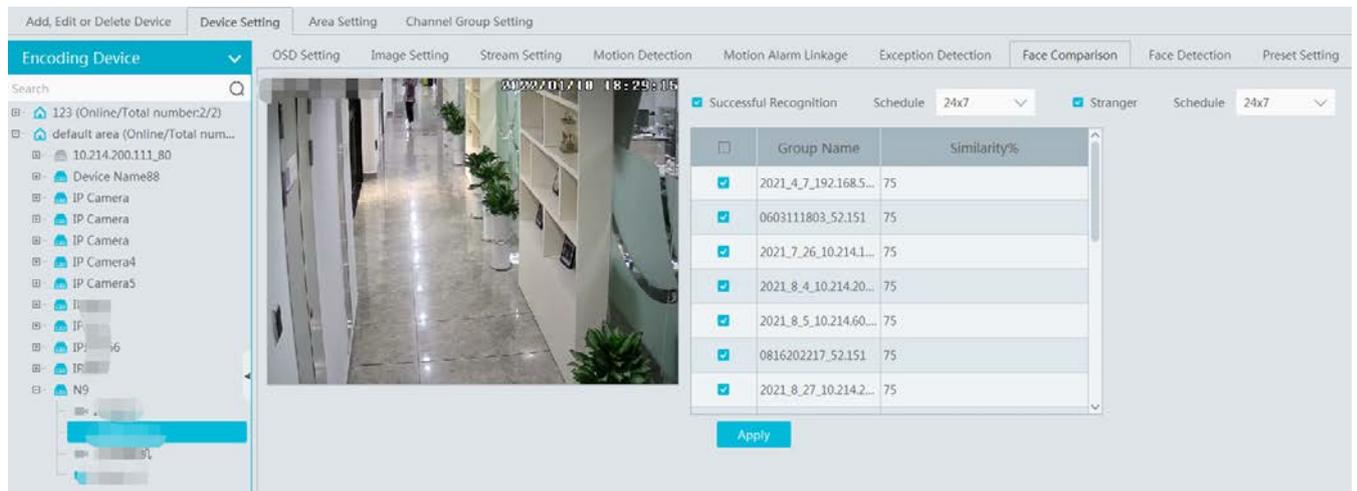
If it is the first use of face comparison function, please configure it in the following order.

Create a group → Add targets to the group → Set task → Real-time View → Search faces

1. Create a group, add targets to the group and set Task. Please refer to chapter 6 People & Vehicle Management for details.

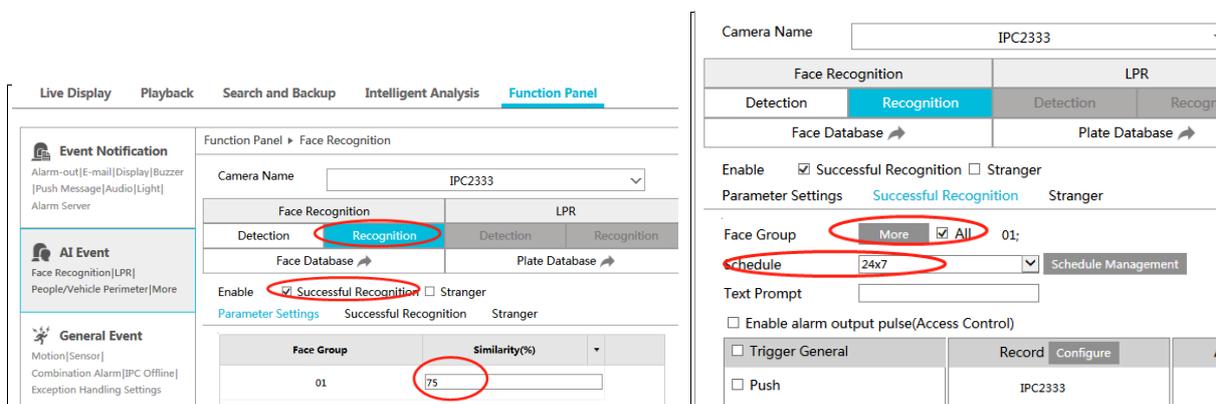
Note: Please remember binding the target with a camera after it is added to a group.

2. For the added NVR with face recognition function please set the face comparison parameters by entering Resource Management → Device Setting interface. Refer to the following interface.

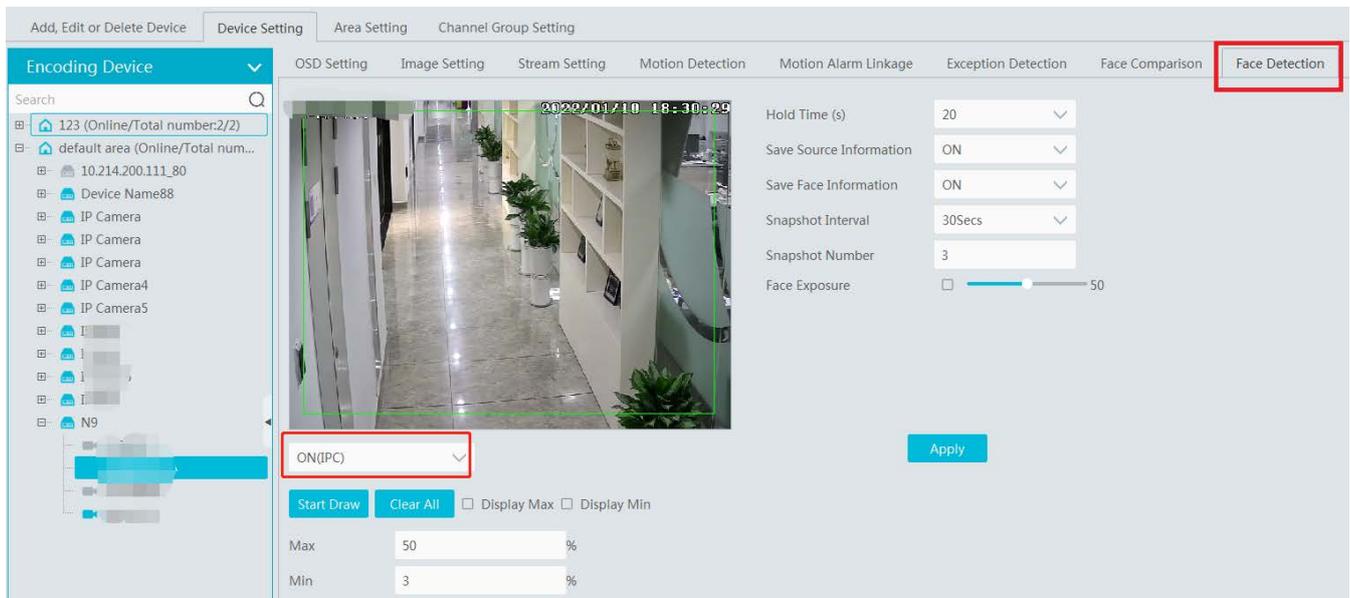


Please select “Successful Recognition” or “Stranger” as needed and then set the schedule separately. After that, check the group and set the similarity. Finally, save the settings by clicking [Apply].

If the face comparison settings cannot be set according to the above-mentioned way, you can log in the web client of the NVR and then configure face recognition to realize the auto report of the face match result as shown below.

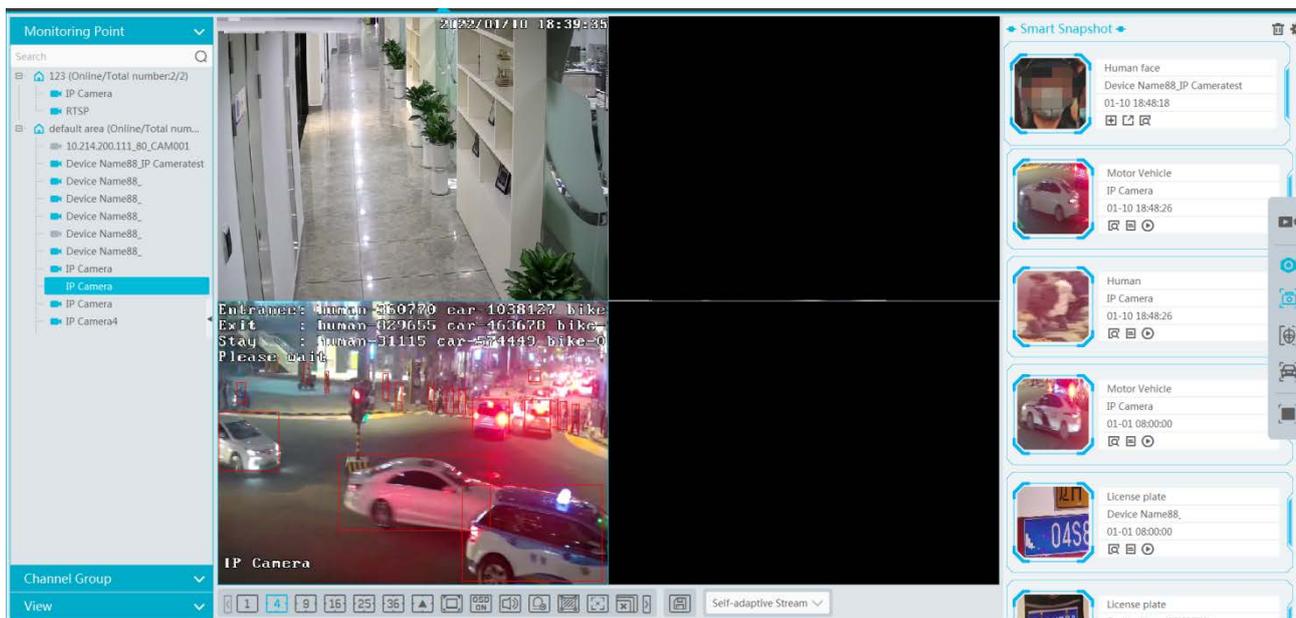


Additionally, please make sure the face detection function is enabled for the AI IPC (click Device Setting → Face Detection).



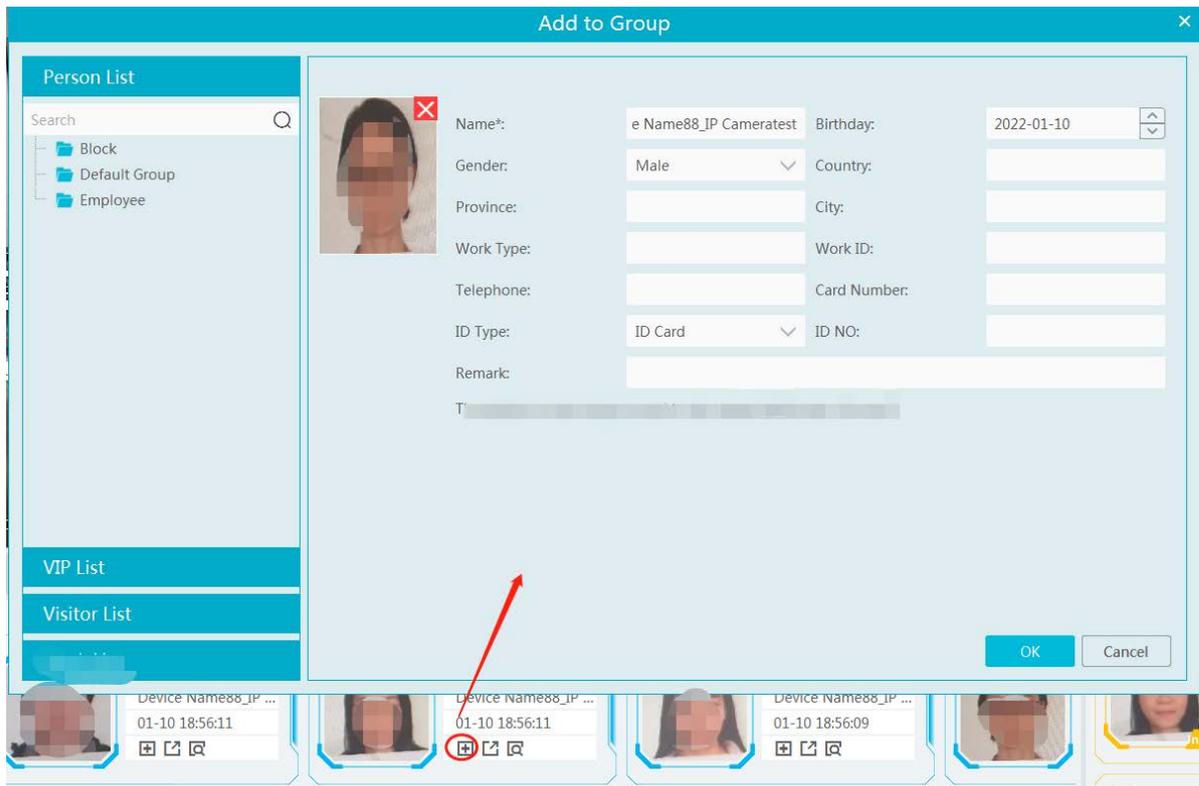
● **View the real-time snapshot and comparison result**

Face capture results can be pushed by the cameras with face detection function. Human body/motor vehicle/non-motor vehicle capture results can be pushed by the cameras with human/vehicle classification function. Face Comparison and license plate comparison result can be pushed after the face/license plate comparison is configured, even if the corresponding cameras are not playing in the live view interface.

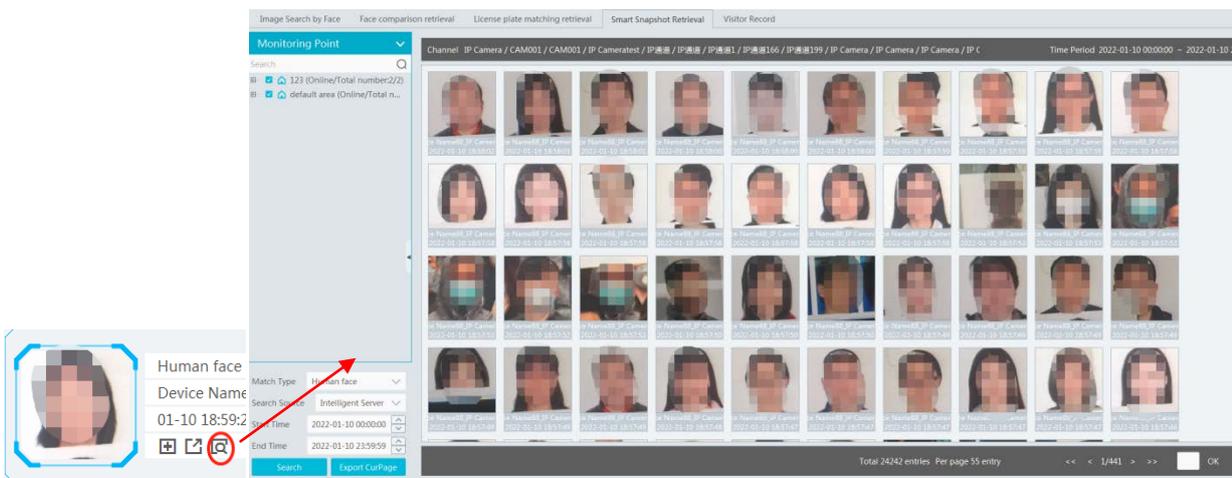


Click **+** to add the captured face picture to the person list.

Fill in the relevant information and then click [OK].

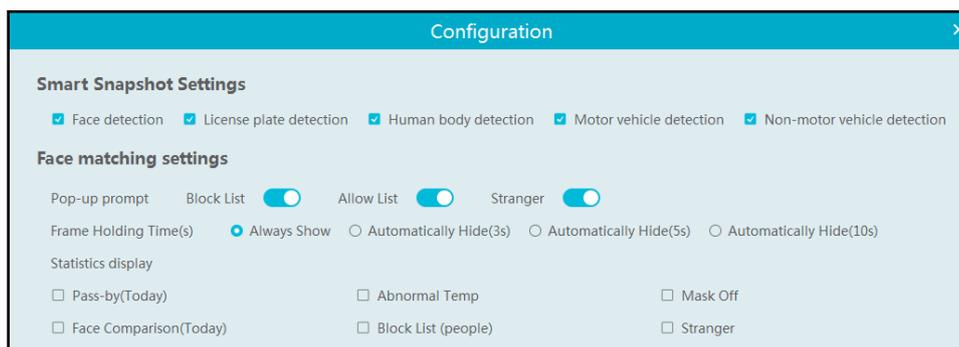


Click  to quickly enter the smart snapshot retrieval interface.



● **Smart snapshot display settings:**

Click  on the right corner of the live interface to display the configuration window as shown below. Please select the smart snapshot display type as needed. One or more items can be selected.

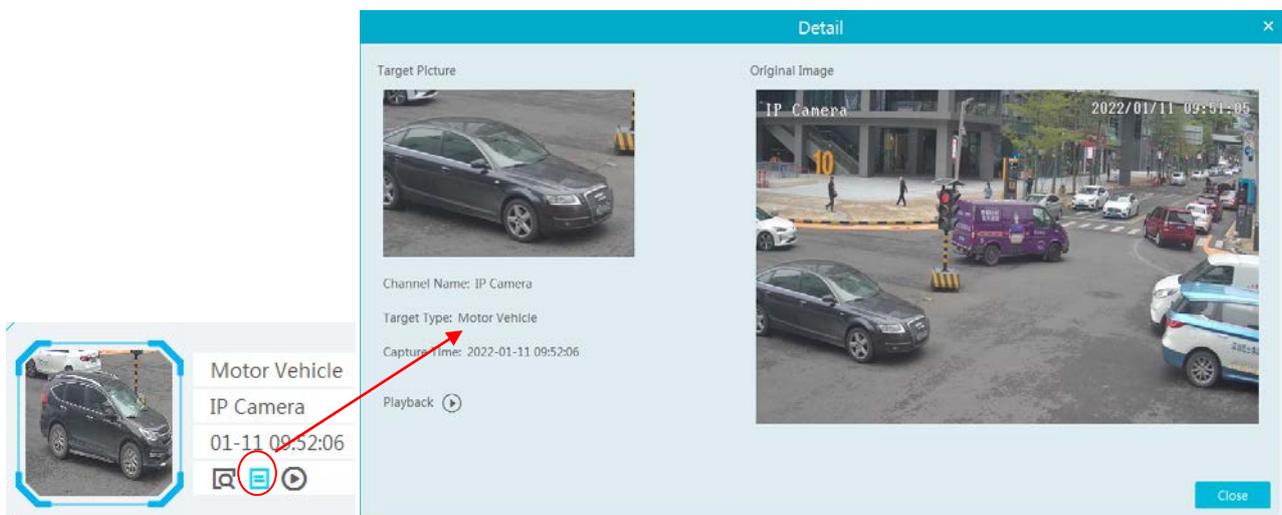


Click  to clear the smart snapshot records.

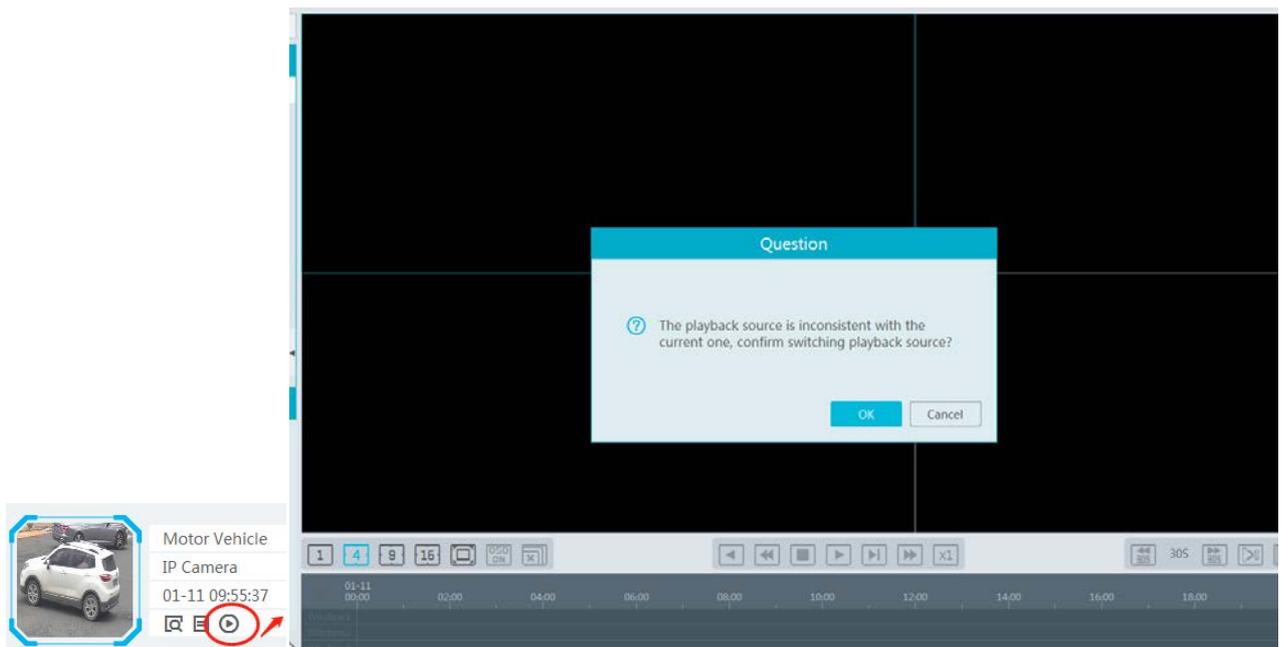


The captured picture can be exported. Click  and then select the export path and then click [OK] to export

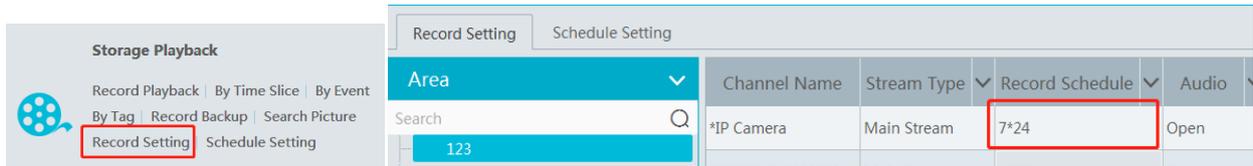
Click  to view the details of the captured picture. Click  to play back the records.



Click the playback button next to . This will take you to the playback interface. Maybe it will pop up the following tips.

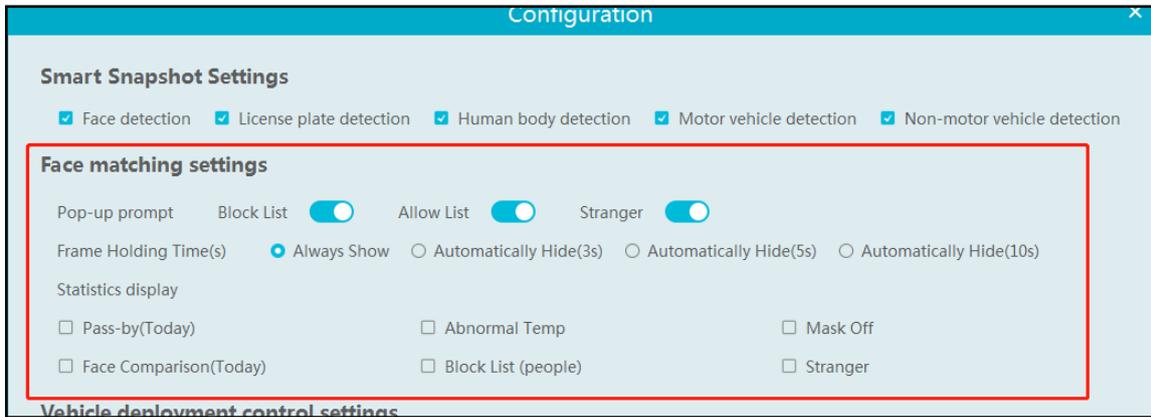


Note: Only when the record schedule is set in advance, can the video be played. Click Home→Record Setting to enter the record setting interface. Select the desired camera and then select the record schedule.



● **Face Comparison Settings**

Pop-up prompt: if enabled, the alarm box of the corresponding face comparison result will pop up. If disabled, the alarm box will not pop up.



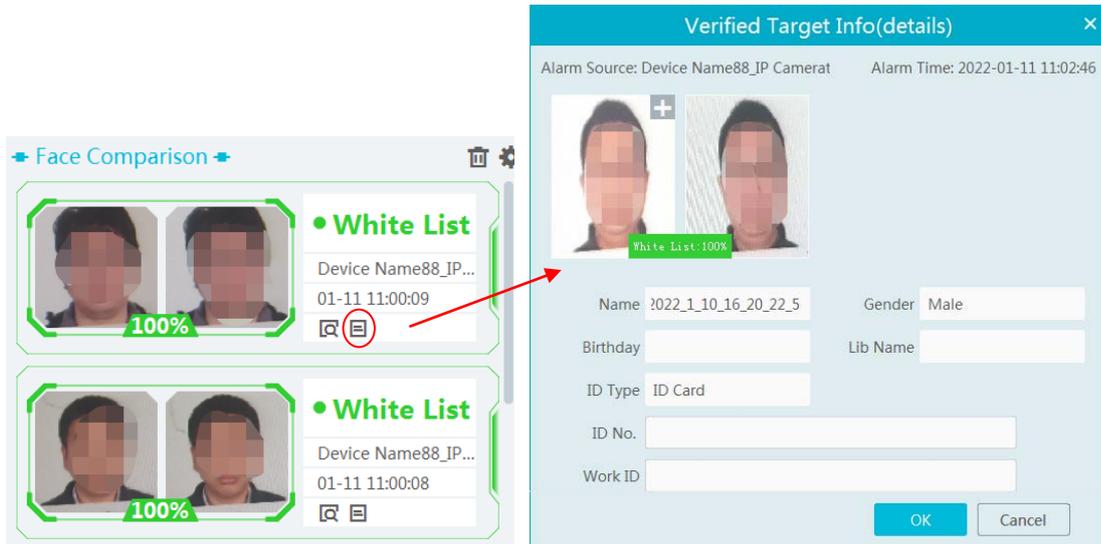
Frame Holding Time: select the alarm pop-up window holding time as needed.

Statistics display: If selected, the corresponding statistical information will displayed on the top of the preview window.



● **Face Comparison Records**

Click  to view the face comparison details. Click  to quickly add the captured face picture to the face database.



Click  to quickly enter the face comparison retrieval interface. Select the camera and click [Search] to search the face comparison results.

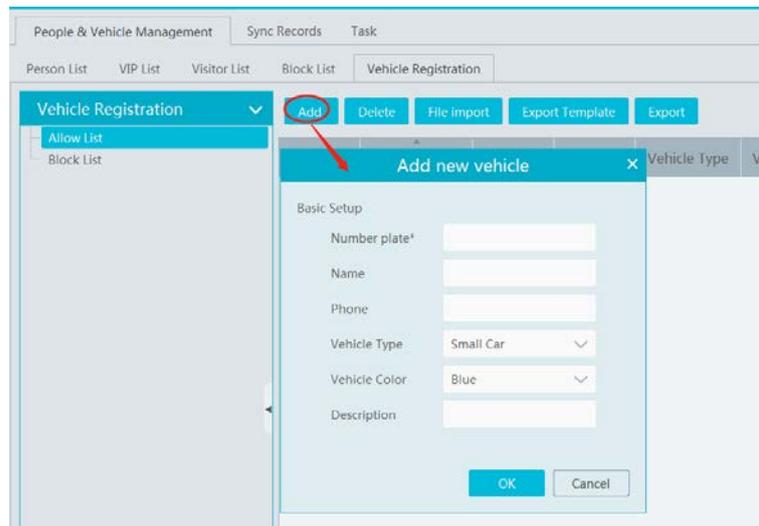


10.2.2 License Plate Comparison

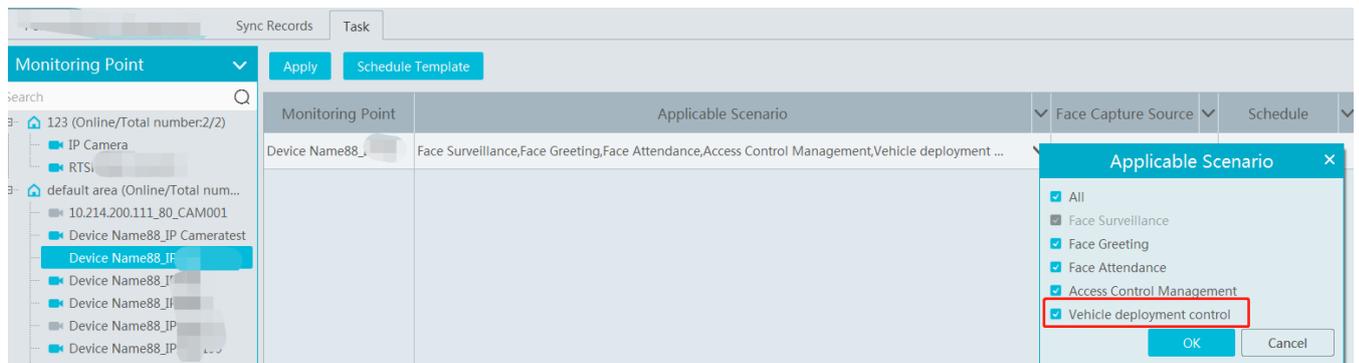
If this is the first time for you to set the license plate recognition function, please follow the procedures.

Enter Group Management → People & Vehicle Management → Vehicle Registration → Add Vehicles → Task Settings → View Real-time License Plate Comparison Results → Search License Plate Comparison Result

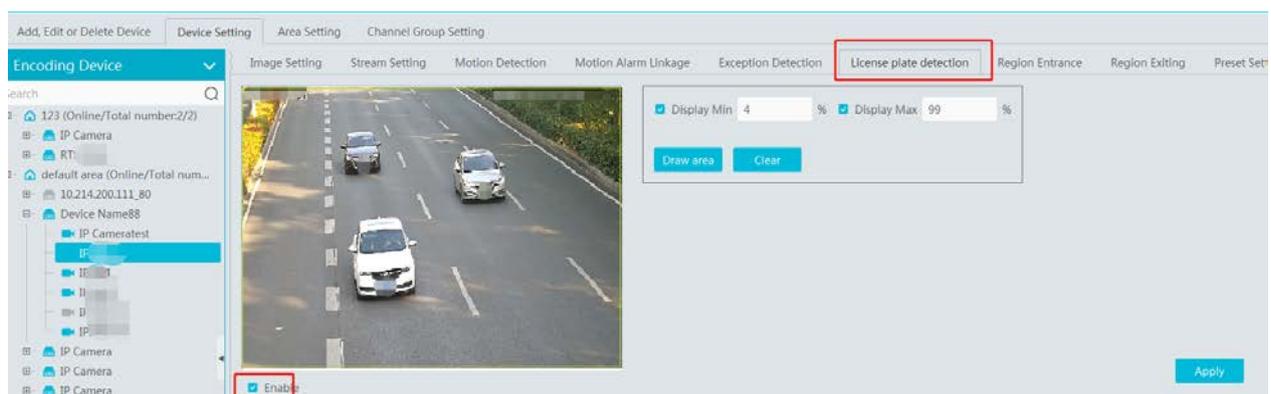
1. Go to People & Vehicle Management → Vehicle Registration interface. Click [Add] to add the vehicle information to Allow List or Block List.



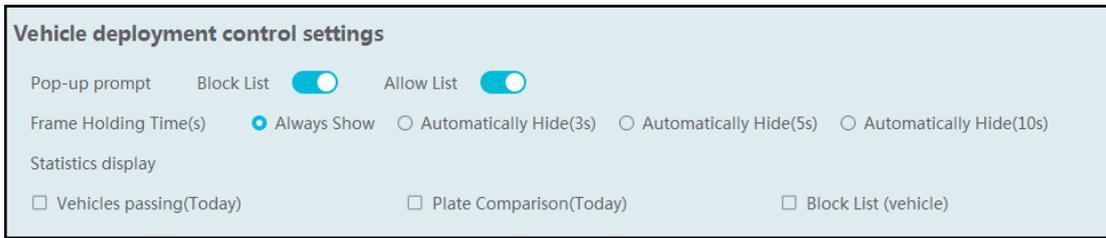
2. Click the “Task” tab to setting license plate recognition task. Select the license plate recognition camera and then click applicable scenario. Select “Vehicle deployment control” and click “OK”.



3. Ensure that the license plate recognition IPC has already enabled the license plate detection function.



- **License Plate Comparison Display Settings**
- Pop-up prompt: if enabled, the alarm box of the corresponding license plate comparison result will pop up. If disabled, the alarm box will not pop up.

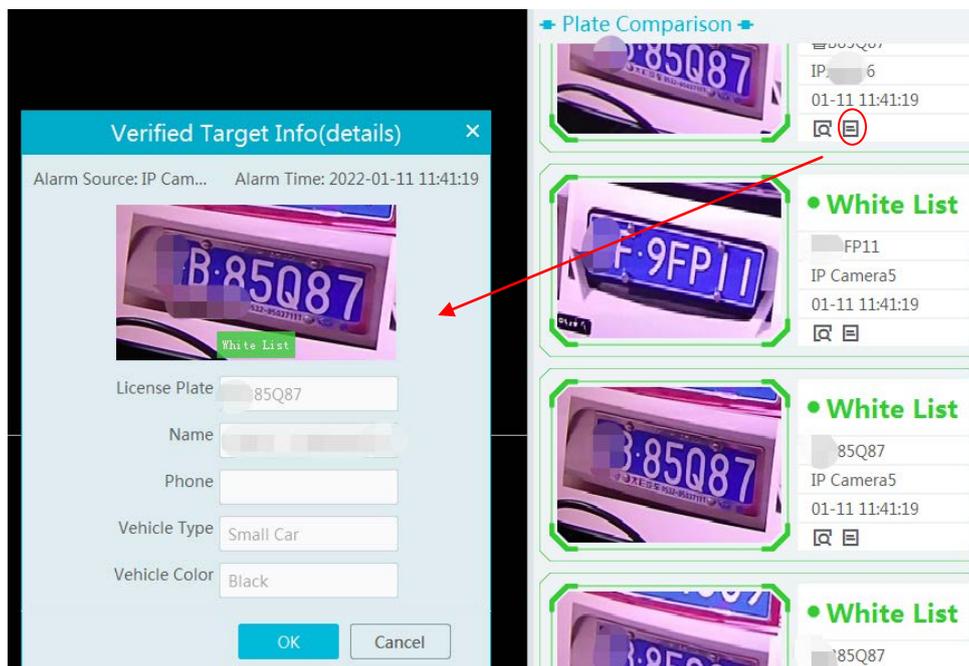


Frame Holding Time: select the alarm pop-up window holding time as needed.

Statistics display: If selected, the corresponding statistical information will be displayed on the top of the preview window.

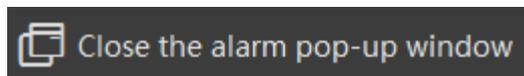
● **License Plate Comparison Records**

Click to view the license plate comparison details.



Click to quickly go to the license plate comparison retrieval interface.

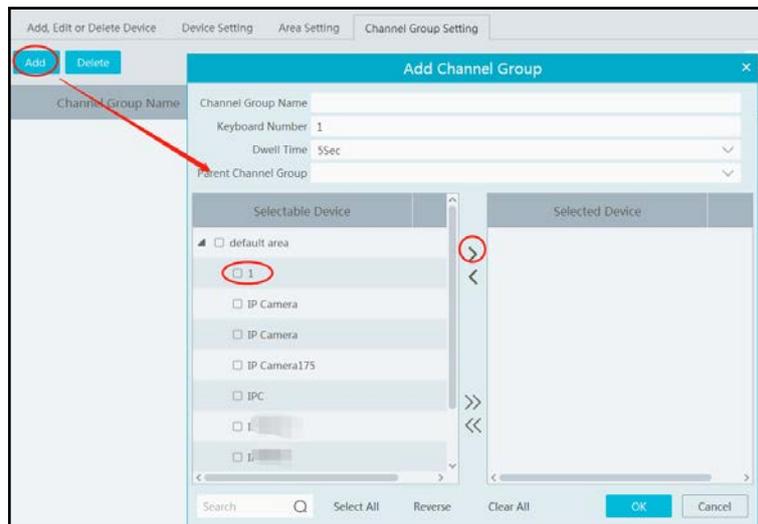
If the alarm window pops up so frequently, you can click [Close the alarm pop-up window] on the bottom left.



10.3 Channel Group View

➤ **Channel Group Setting**

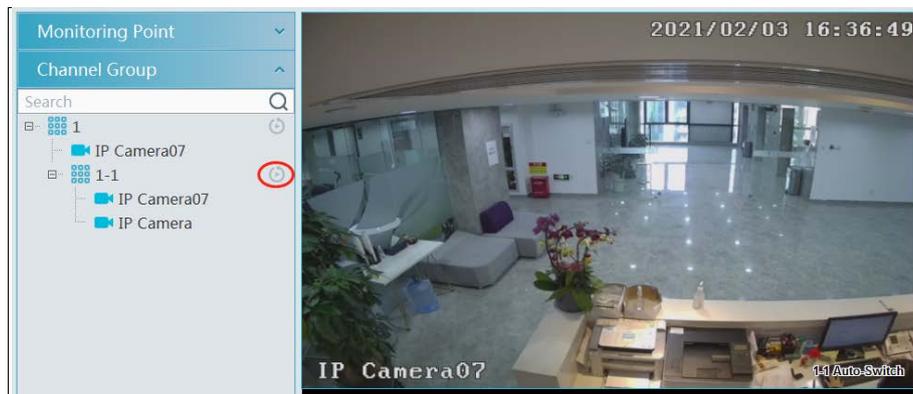
① Go to Home → Channel Group Setting interface as shown below.



- ② Click [Add].
- ③ Enter channel group name, channel group and dwell time.
- ④ Select the parent channel group.
- ⑤ Add channels to the channel group.
- ⑥ Click [Ok] to save the settings.

➤ 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.

If there is only one sub channel group under the parent group, select a window and then click  next to the parent group name to play all channels in the parent group and the sub channel group in the window in sequence.

Select a window and click  next to the sub channel group to play all channels of the sub channel group in this window in sequence.

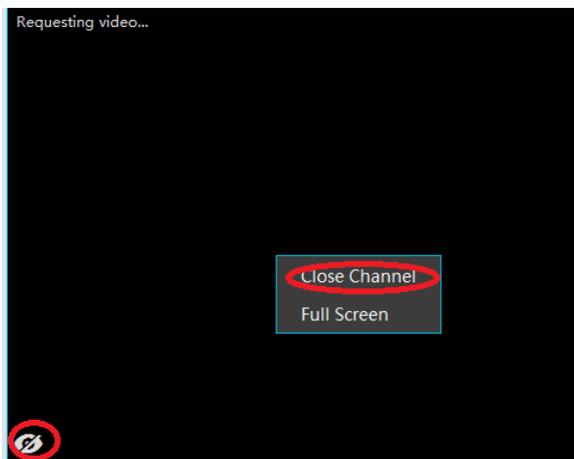
3. If there are several sub channel groups under the parent channel group, click  next to the parent group name and then all sub channel groups will play in sequence. The screen display mode will automatically adapt to the channels of the sub group.



Click to play the previous sub channel group; click to play next sub channel group; click to stop auto switch among the sub channel groups.

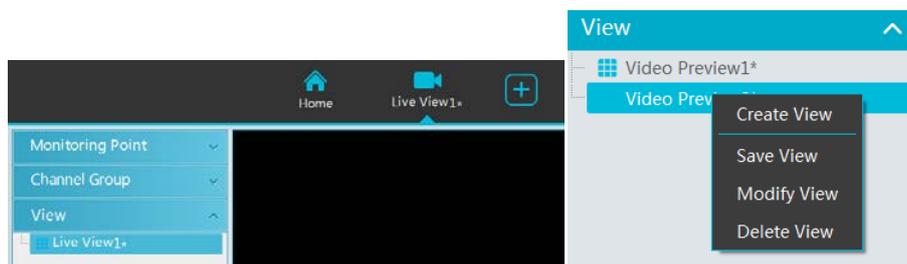
➤ Stop Channel Group View

- 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.



10.4 Plan View

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



● Add View Plan

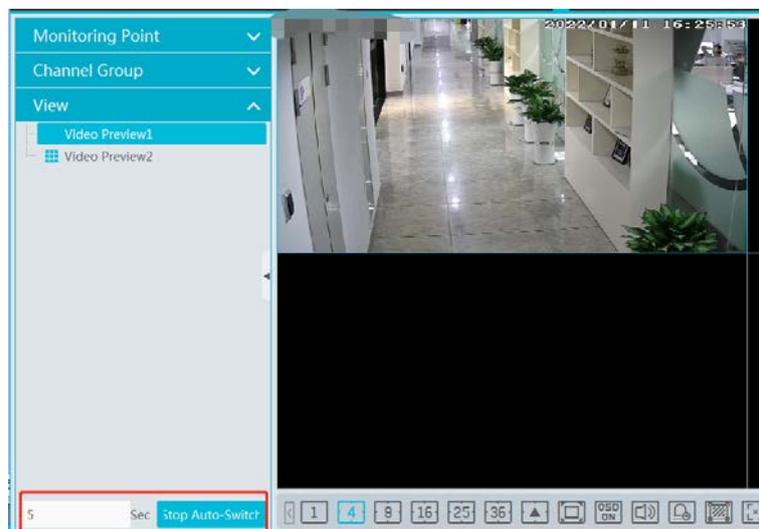
- ① Right click “Live View 1” and then select “Create View” or click  to add a new view plan. Clicking “Create View” to prompt an adding view window. Enter the view name and click [OK] to set view plan.
- ② Select screen display mode and then drag monitoring points or channel group to each window.
- 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.

- **Start/stop auto-switch**

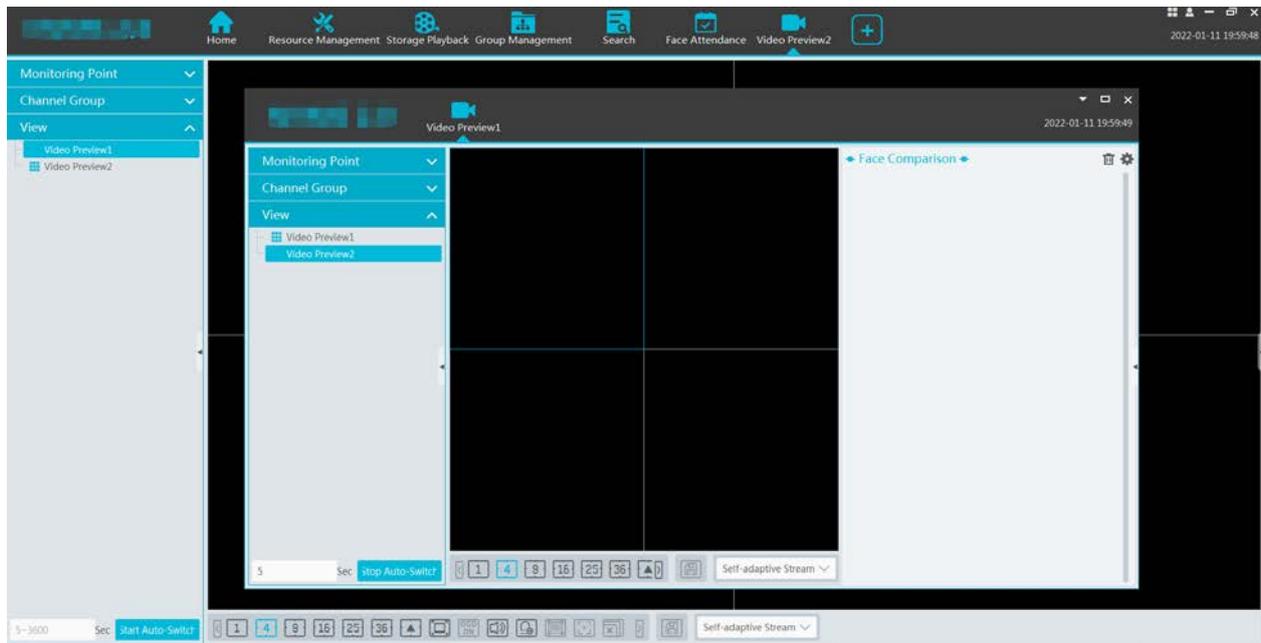
If multiple view plans saved, you can play these views in sequence.



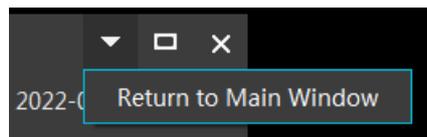
Enter the dwell time (5~3600s) and then click [Start auto-switch] to play these views in sequence. Stop the current auto-switch by clicking [Stop auto-switch].

10.5 Multi-Screen View

In the video preview 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).

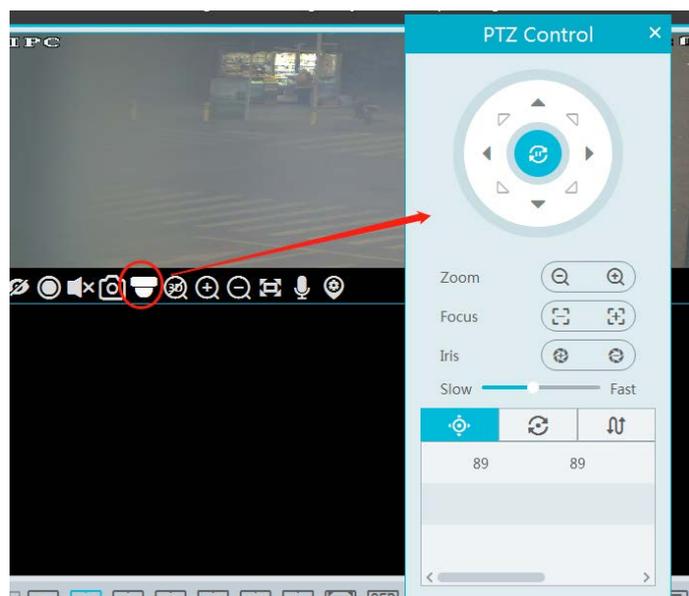


Click  on the float window and select “Return to Main Window” to embed this tab in the main interface.



10.6 PTZ Control

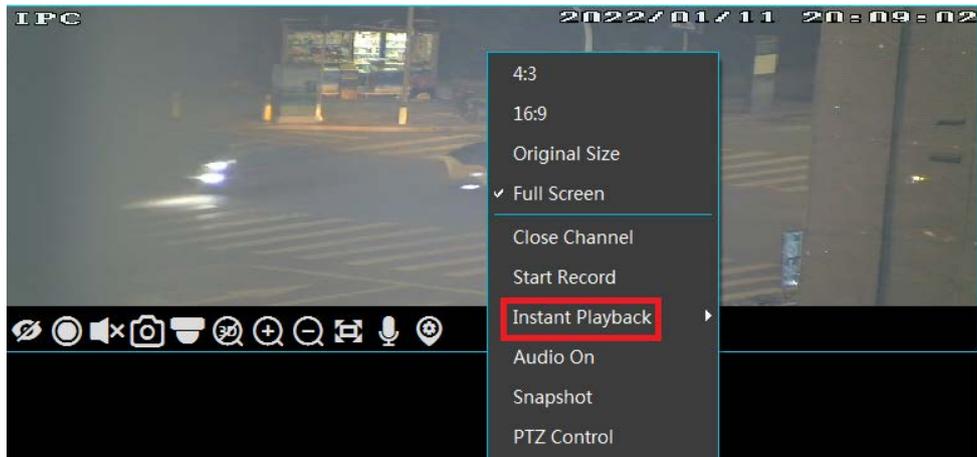
Click  or right click to select “PTZ Control” to enter PTZ control interface. The directions of PTZ, zoom, focus, Iris, preset, track and cruise can be controlled through PTZ control panel.



 : Preset;  : Cruise;  : Trace

10.7 Instant Playback

In the live view interface, right click 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 the time that the record exists).



11 Record & Playback

11.1 Record Configuration

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

11.1.1 Schedule Recording

Go to Home→“Record Setting”.

Area	Channel Name	Stream Type	Record Schedule	Audio	Recording Before Alarm(Sec)	After Alarm Time(Sec)	Expire Time(day)
*1		Main Stream	7*24	Open	0	60	Never Expire
IP Camera		Main Stream	OFF	Open	0	60	Never Expire
IP Camera		Main Stream	OFF	Open	0	60	Never Expire

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

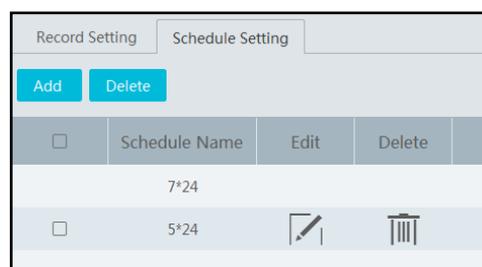
Recording Before Alarm: set the time to record before the actual recording begins.

After Alarm Time: set the time to record after the actual recording is finished.

Expire Time: set the expiration time for recorded video. If the set date is overdue, the recorded data will be deleted automatically.

● To set schedule:

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



② Click [Add].

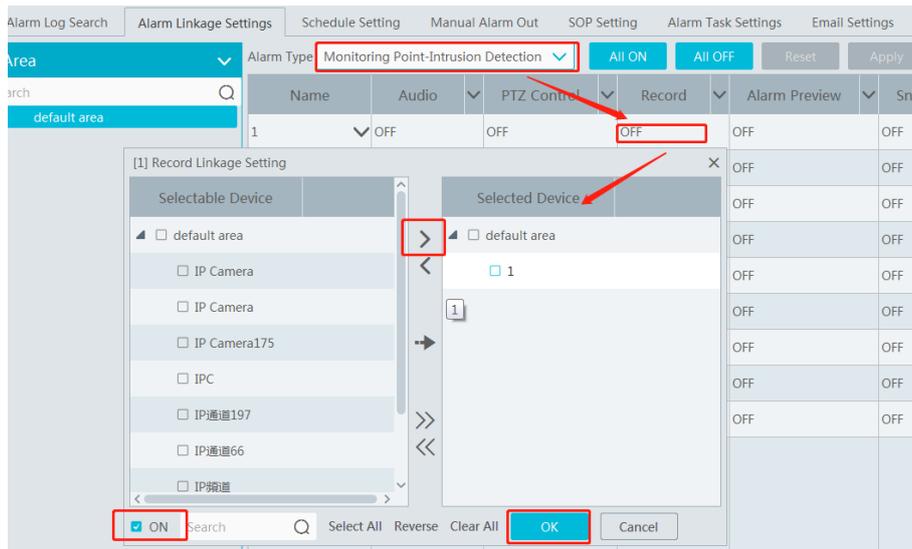


③ Enter the schedule name.

- 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.

11.1.2 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 linkage channel and set schedules.
- ③ Click [Apply] to save the settings.

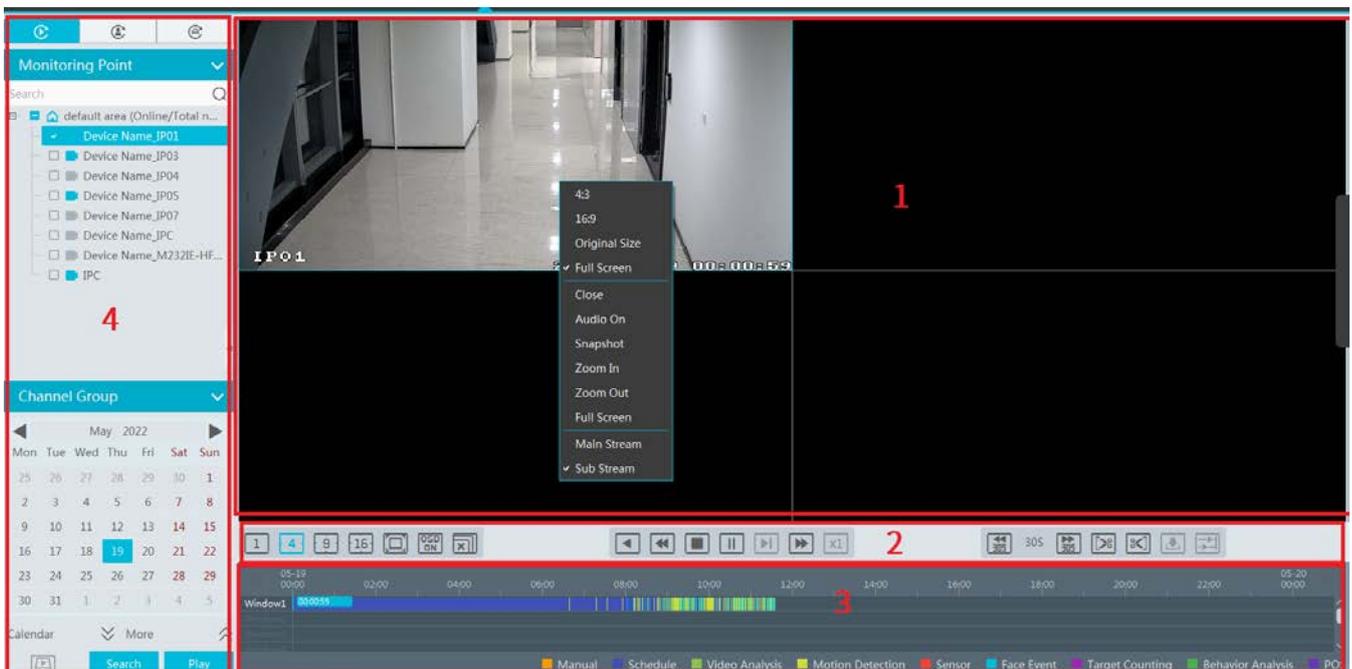


11.2 Record Playback

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 three types of record playback: normal playback, smart playback by face, smart playback by license plate.

11.2.1 Normal Playback



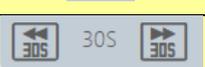
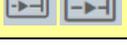
Area Description

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
	Screen display mode button. 1/4/9/16 screen mode is optional.
	Full screen
	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.
	Click it to play in normal speed.
	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.

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.

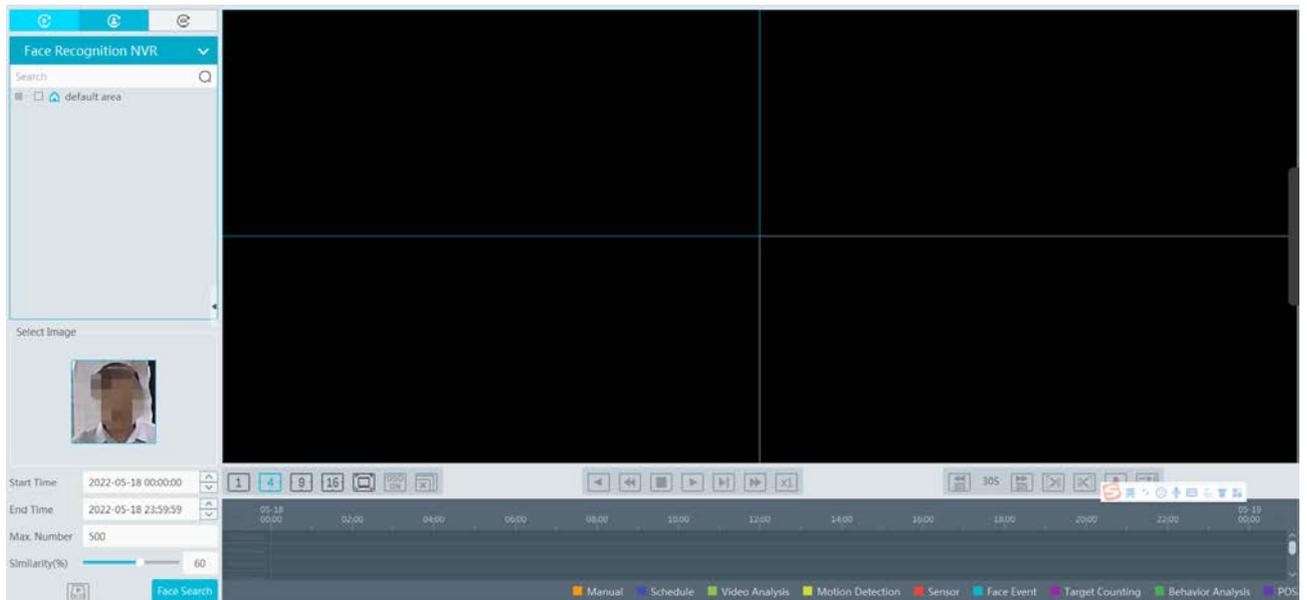
In synchronous mode, one camera can only have one playing window. All cameras’ record information can be viewed at the same time. When playing record file in synchronous mode or asynchronous mode, clicking  or  will be useless unless all the playback windows are closed.

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.

11.2.2 Smart Playback by Face

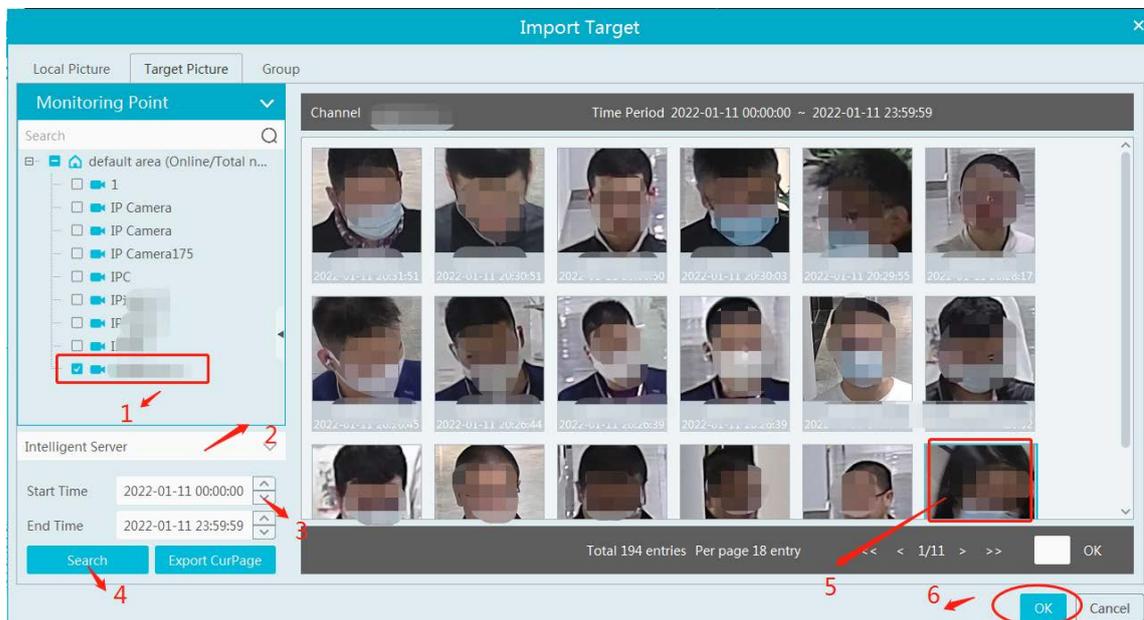
For the added face recognition NVR, you can play back by searching face.



Clicking on  enters the above interface. Select the face recognition NVR and then click  to add a face picture. You can add the face picture from local PC, target picture or group. After that set the start and end time, max. number and similarity and then click [Search] to search the records.

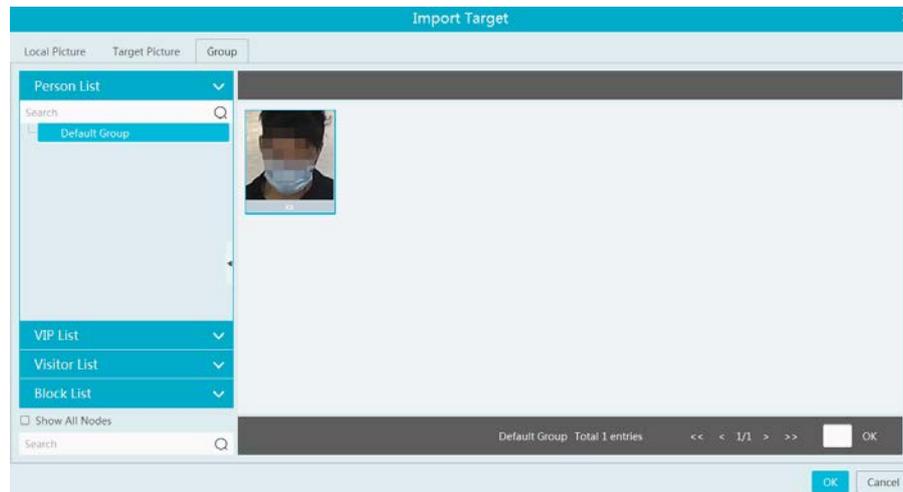
Add a face picture from the local PC: Click  to select the desired face picture in the local PC and then click [OK] to save the settings.

Add a face picture from the target picture: refer to the following picture.



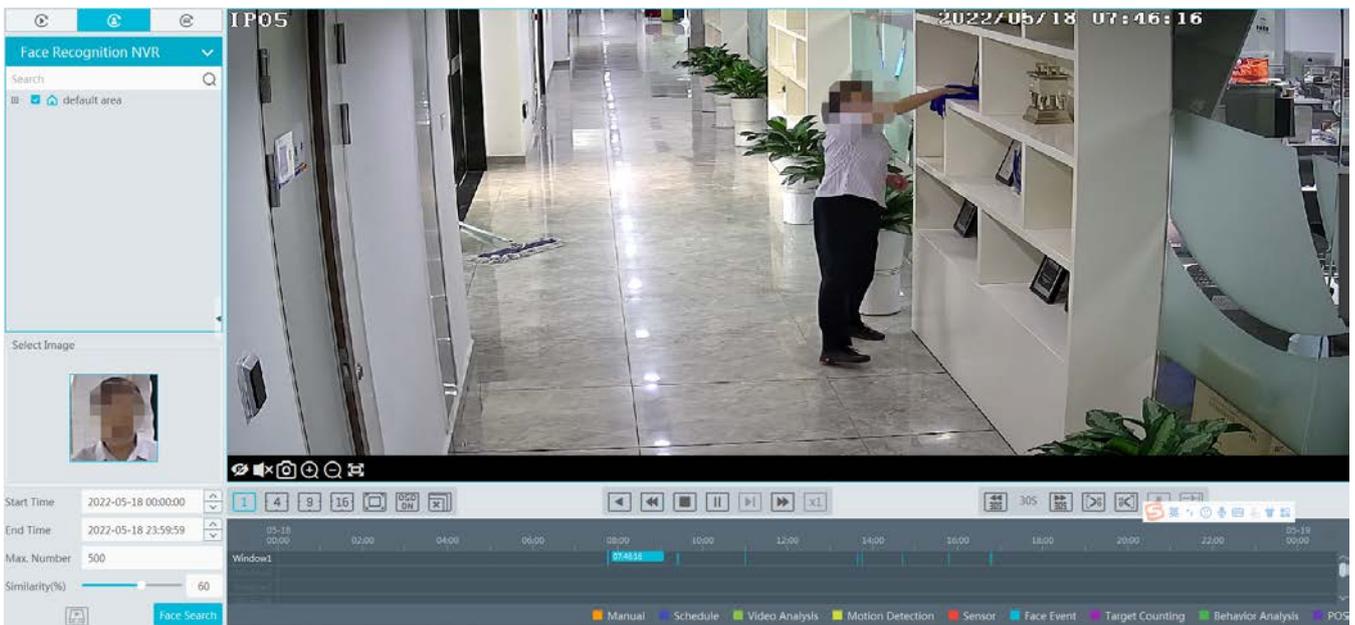
Add a face from the face database:

1. Click the “Group” tab.
2. Select the face picture from the person list, VIP list or visitor list.
3. Click [OK] to save the settings.



The picture must be added to the corresponding list in advance, or no picture can be searched. Refer to Chapter 6 Group Management for details.

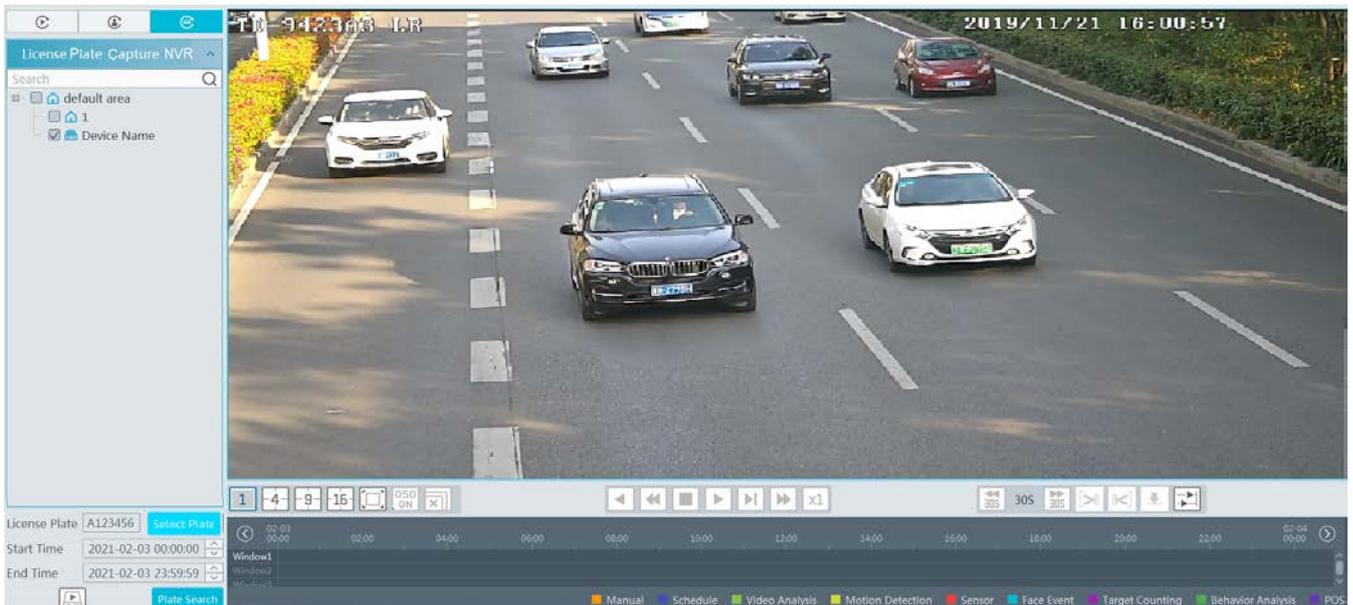
Note: The record source is from the HDD of the face recognition NVR. The comparison record of this person must exist in the HDD, or no record can be played.



11.2.3 Smart Playback by License Plate

The vehicle records can be searched from the NVR or intelligent server. The setting steps are as follows:

1. Select the ANPR camera or NVR.
2. Enter the license plate number or click [Select plate] to select the plate from vehicle database or license plate captured when the vehicle entering or exiting the parking lot.



: select the record source from the storage server. License plate captured by ANPR camera or ANPR camera bound to the lane of the parking lot can be searched.



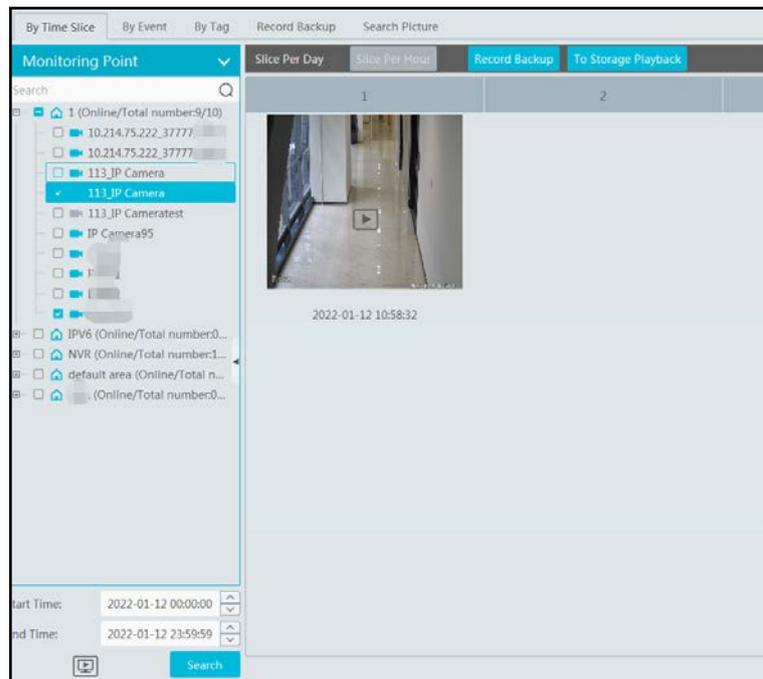
: select the record source from the HDD of the NVR.

Note: before you start searching, the license plate detection must be enabled and corresponding alarm linkages and the schedule must be set in advance.

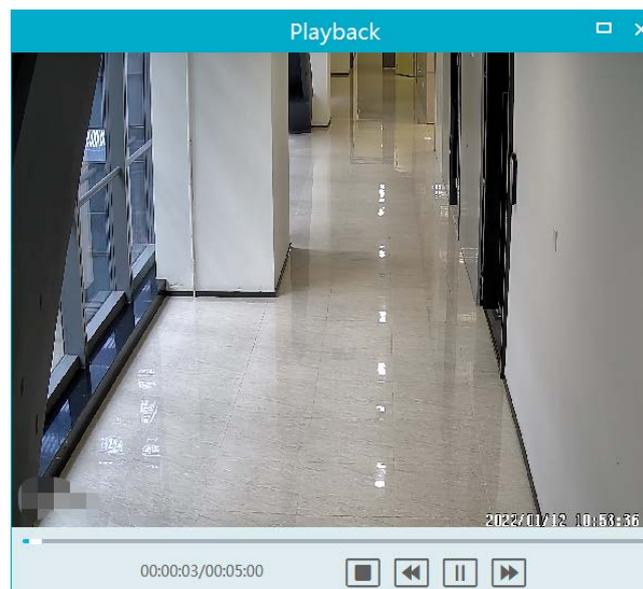
Area	Alarm Type	Record	Alarm Preview	Snapshot	Alarm Output	Voice Broadcast	Open Door	TV Wall	Trigger Email	SOP	Schedule
default area	Monitoring Point-Vehicle control,Black	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	7:24
		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

11.2.4 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.

Double click an image to switch to slice search mode by 5 minutes.

Restart searching or click “Slice Per day” to return to the slice per day interface.

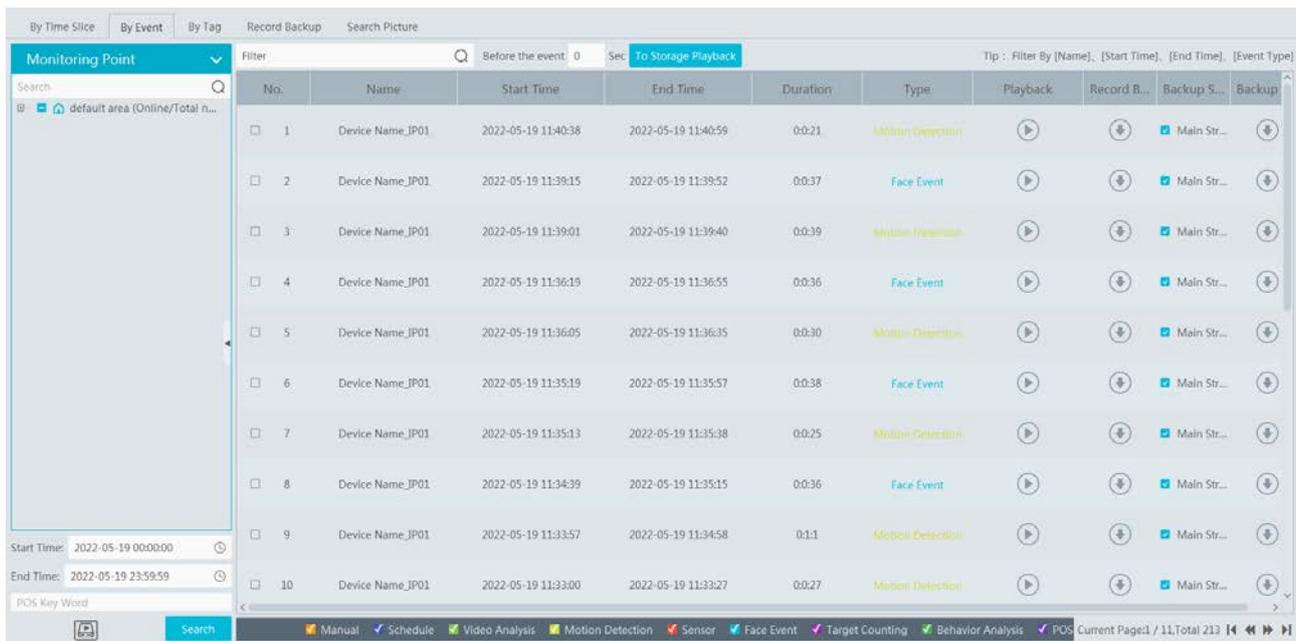
Record Backup: In the Search by Time Slice interface, select a time slice and then click “Record Backup” to back up the record file during this period quickly.

To Storage Playback: In the Search by Time Slice interface, select a time slice and then click “To Storage Playback” to play the record file in the storage playback interface.

11.2.5 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.

11.2.6 Playback by Tag

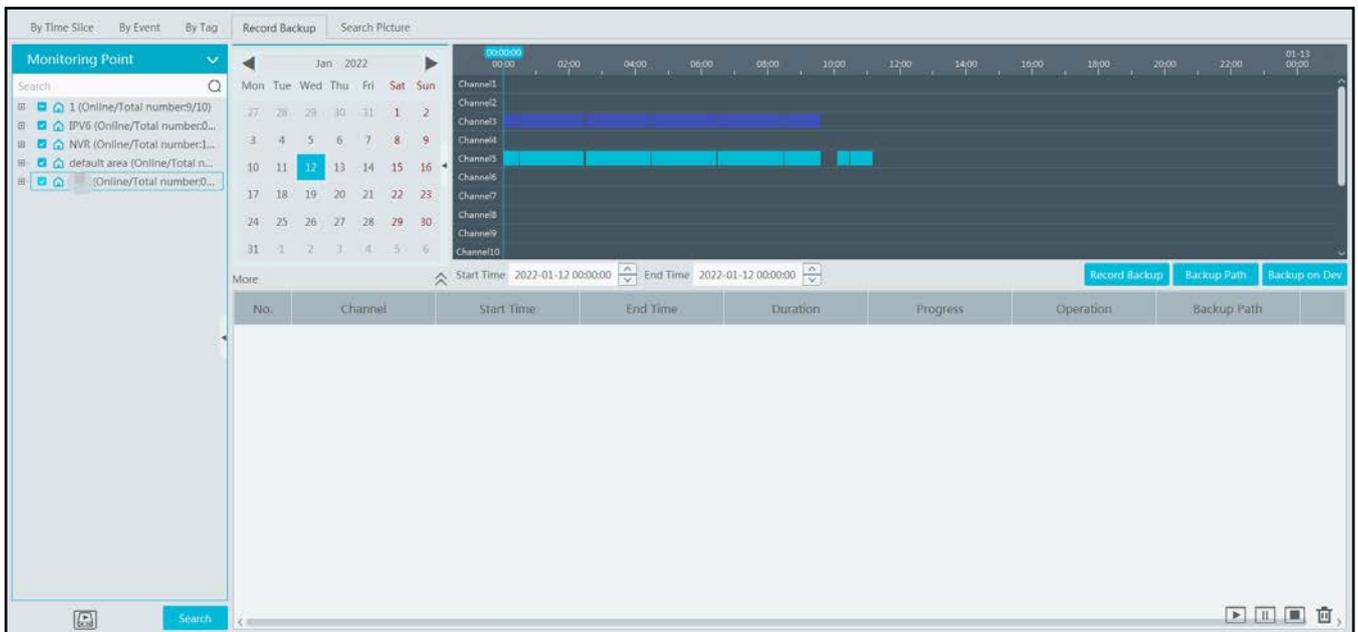
Note: The tag cannot be added to the record from the HDD of the NVR.

- 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.

11.3 Record Backup

In the main menu interface, click “Record 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.

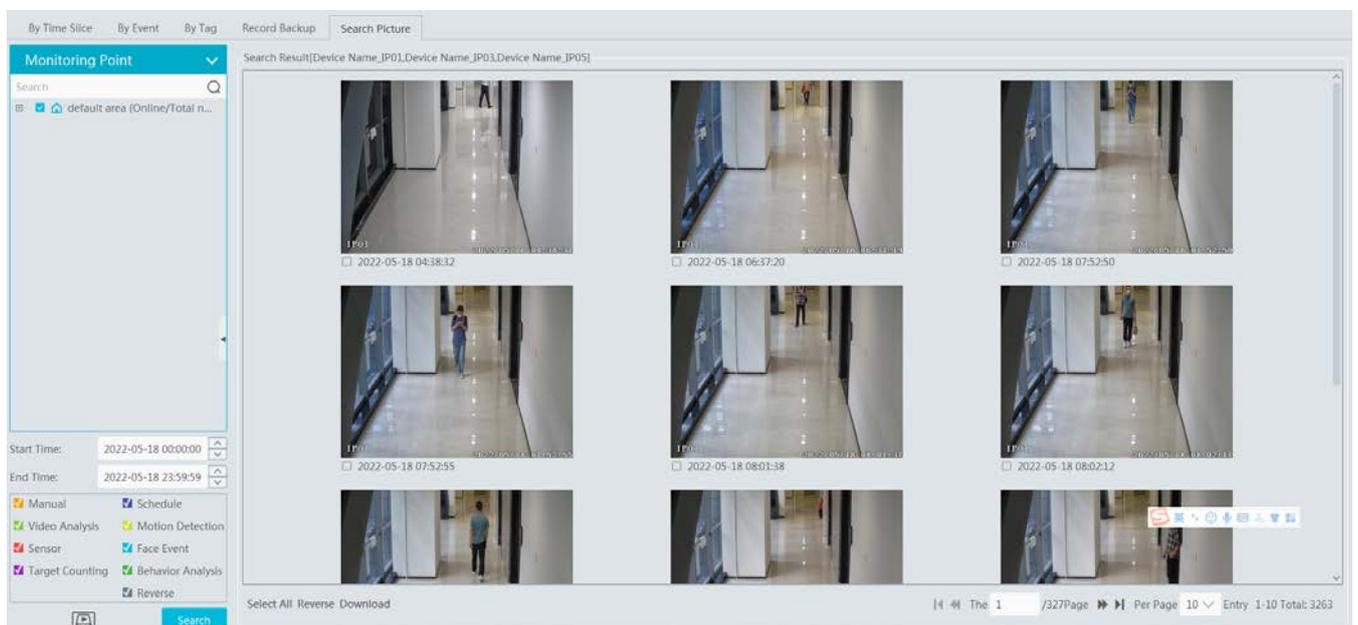


“Backup on device”: This function is applied to the added NVR devices. Search the record from the HDD of the NVR in this interface and then insert a USB storage device into the USB port of the NVR and then click this button. Then the recorded files will be backed up to the USB storage device remotely.

11.4 Search Picture

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

Note: the searched pictures are the snapshots triggered by alarm events (like motion, sensor, smart event, etc.).



- ① Select the device.
- ② Set the start time and the end time.
- ③ Choose events.
- ④ Click [Search]

12 Alarm Management

12.1 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.

Add, Edit or Delete Device							
Device Setting							
Area Setting							
Channel Group Setting							
Device Type	Server Name	IP Address	Port	Client Connection Status	Authentication Server Connection Sta...	Edit	
Encoding Device (Online/Total number:1/1)	Alarm Server	10.214.241.91	6033	Online	Online	✍	
Decoder (Online/Total number:0/0)							
Alarm Host (Online/Total number:0/0)							
Access Control System (Online/Total number:0/0)							

12.2 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.

Alarm Type	Monitoring Point-Motion Detection	All ON	All OFF	Reset	Apply	Filter						
Name	Audio	PTZ Control	Record	Alarm Preview	Snapshot	Alarm Output	Voice Broadcast	Open Door	TV Wall	Trigger Er		
IP 197	OFF	OFF	OFF	Link to itself (On) Link to itself (Off)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
single	OFF	OFF	OFF	Free Choice	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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).

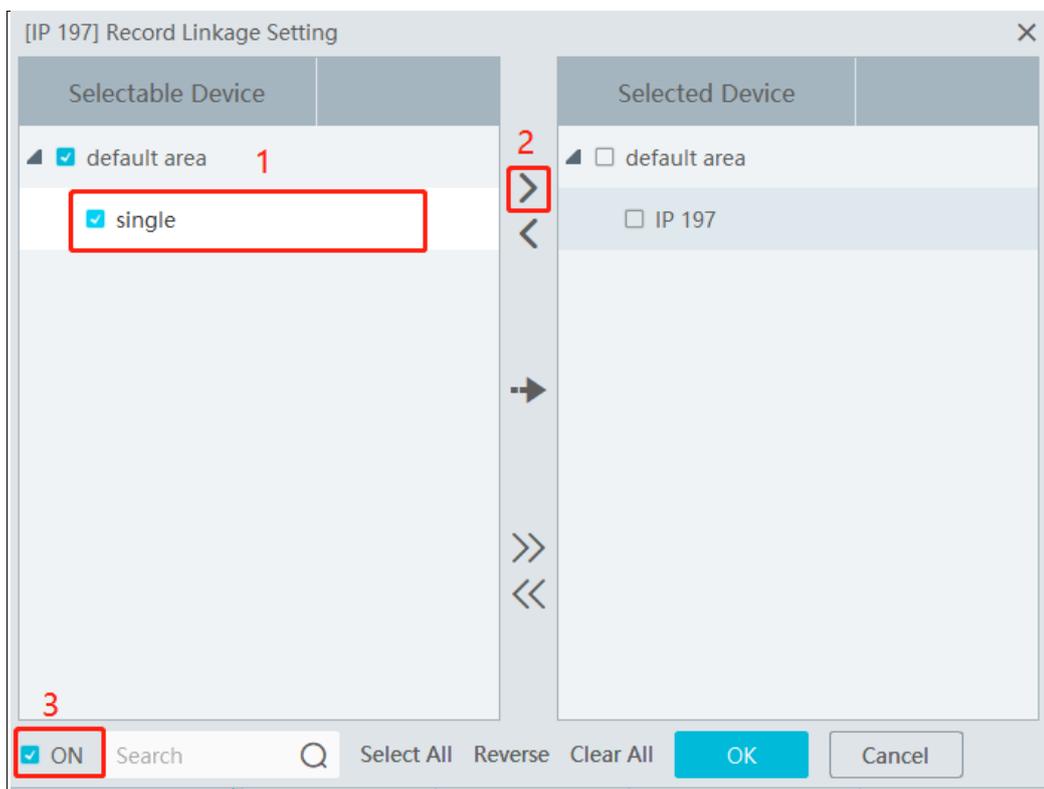
Select beside the device name and select “ON” to enable all alarm linkages of the device (schedule excluded).

Name	Audio	PTZ Control	Record	Alarm Preview	Snapshot	Alarm Output	Voice Broadcast	Open Door	TV Wall	Trigger Er
IP 197	<input type="checkbox"/> OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
single	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Select beside the title (like record) to enable record linkage of all devices (schedule excluded). Select “Link to itself (On)” to quickly select the camera itself as the record camera.

Name	Audio	PTZ Control	Record	Alarm Preview	Snapshot	Alarm Output	Voice Broadcast	Open Door	TV Wall	Trigger Er
IP 197	<input type="checkbox"/> OFF	OFF	<input checked="" type="checkbox"/> Link to itself (On)		OFF	OFF	OFF	OFF	OFF	OFF
single	<input type="checkbox"/> OFF	OFF	<input type="checkbox"/> Link to itself (Off) <input type="checkbox"/> Free Choice		OFF	OFF	OFF	OFF	OFF	OFF

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.

Note: Before checking voice broadcast, please upload the voice first (See chapter 20.7 Audio Uploading for details).

Before checking Email, please set the sender’s email address and the recipient address first (See chapter 10.5 Email Settings for details).

Before checking SOP, please set the SOP first (See chapter 10.3 SOP Settings for details)

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).

Note: 1. For the alarm linkage items related to face recognition, you can set them separately, including face comparison alarm linkage,

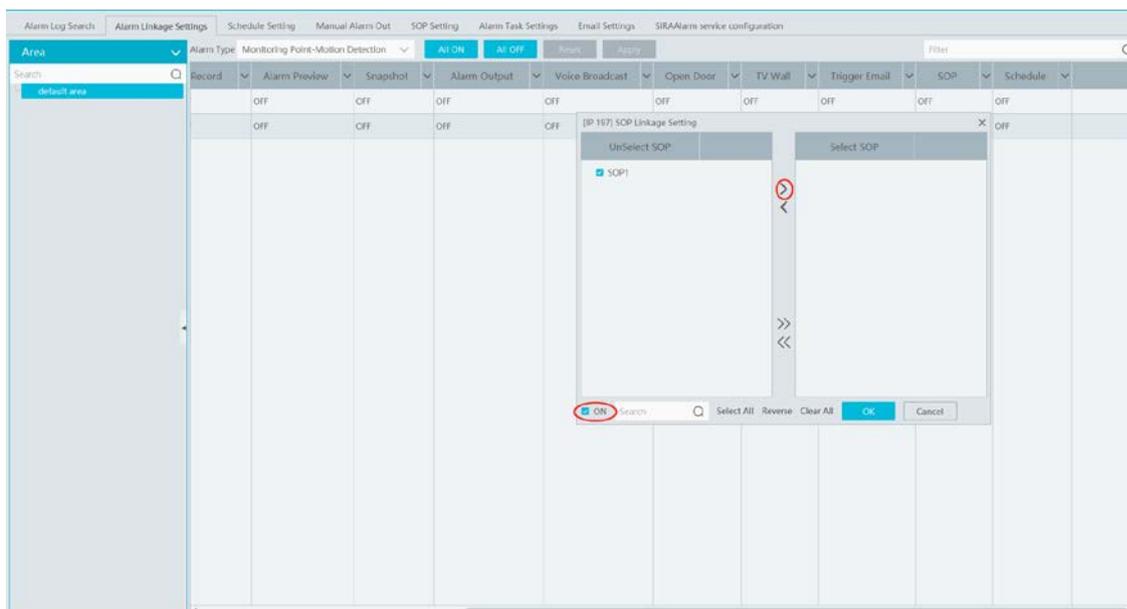
stranger alarm linkage, block list alarm linkage, visitor alarm linkage and VIP alarm linkage.

2. For the combined alarm of DVR/NVR, you can configure the alarm linkage items in the platform. If the combined alarm is set after the NVR/DVR is added to the platform, the platform cannot automatically receive the combined alarm data. Please reboot or reconnect your NVR/DVR and then the platform will display this device under the alarm type of “Encoding device-combined alarm”.

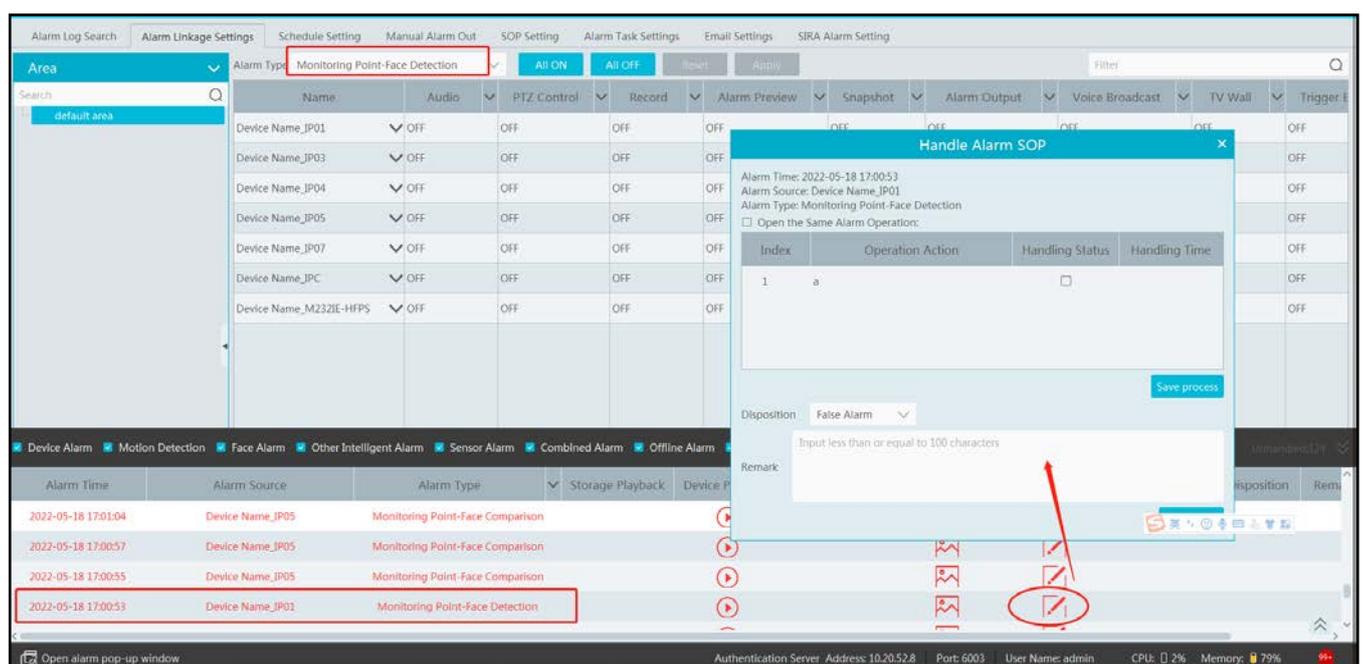
12.3 SOP Settings

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

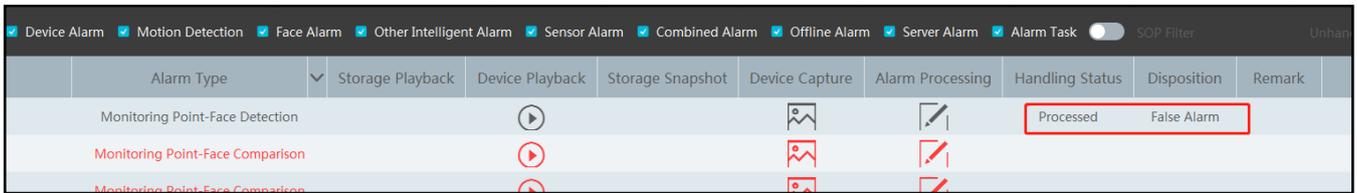
1. Click “+” to add a SOP name.
2. Click “Create” to create a SOP action.
3. In the alarm linkage settings interface, select the alarm event and enable SOP of the relevant device.



4. Click to extend the alarm list.
5. 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 “SOP Filter” is enabled, the alarm events of the channel set the SOP will be listed.

If “Alarm Preview” is set for the monitoring point, select the corresponding alarm items and then right click to choose “Alarm Preview” to jump to the alarm preview interface.



12.4 Alarm Task Settings

In this interface, you can set the leaving alarm task.

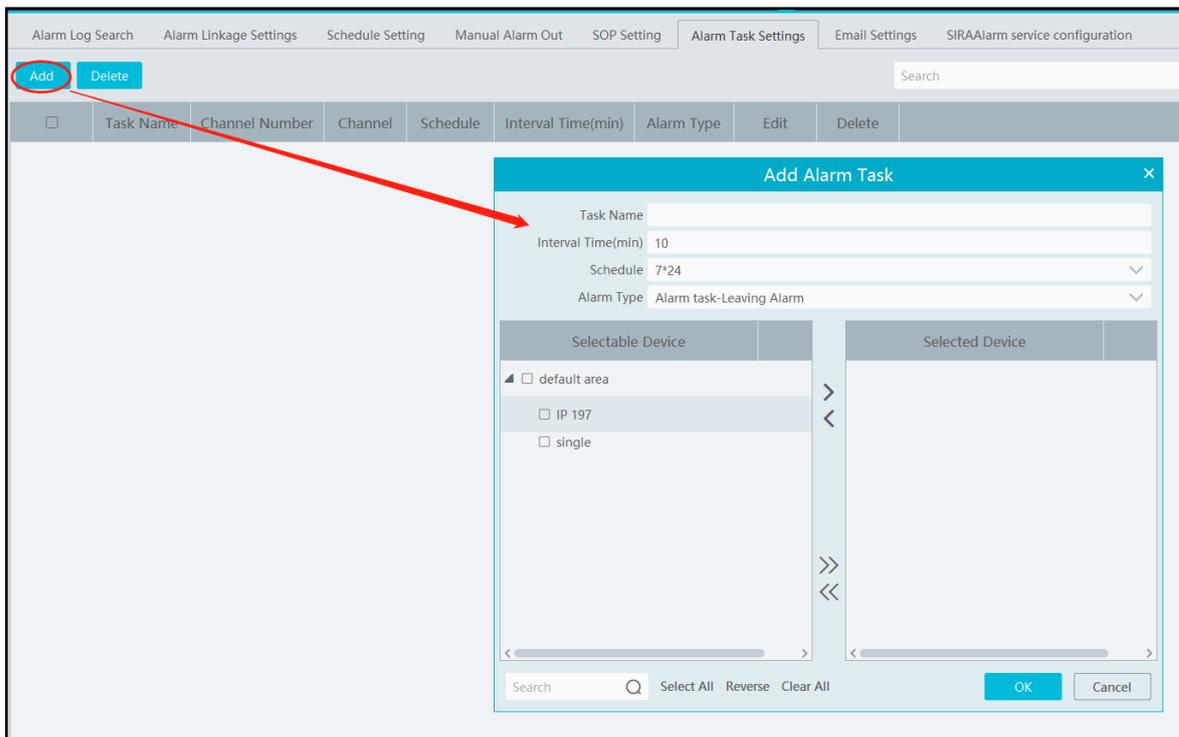
Leaving alarm: When someone leaves the predefined area and doesn't come back within the set time duration, the system will perform alarm linkages.

To set a leaving alarm task:

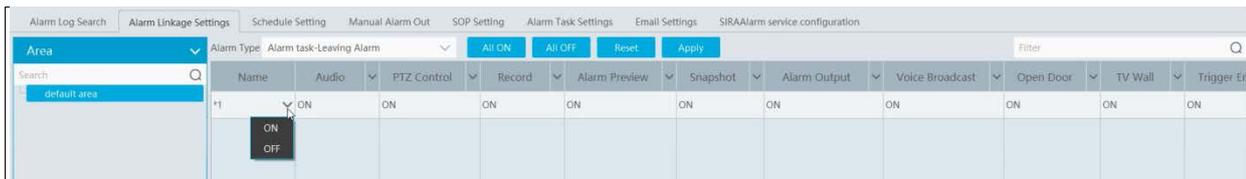
1. Enter the Alarm Task Setting interface.
2. Click [Add] to add the alarm task.

Set the task name, interval time, schedule and choose the camera.

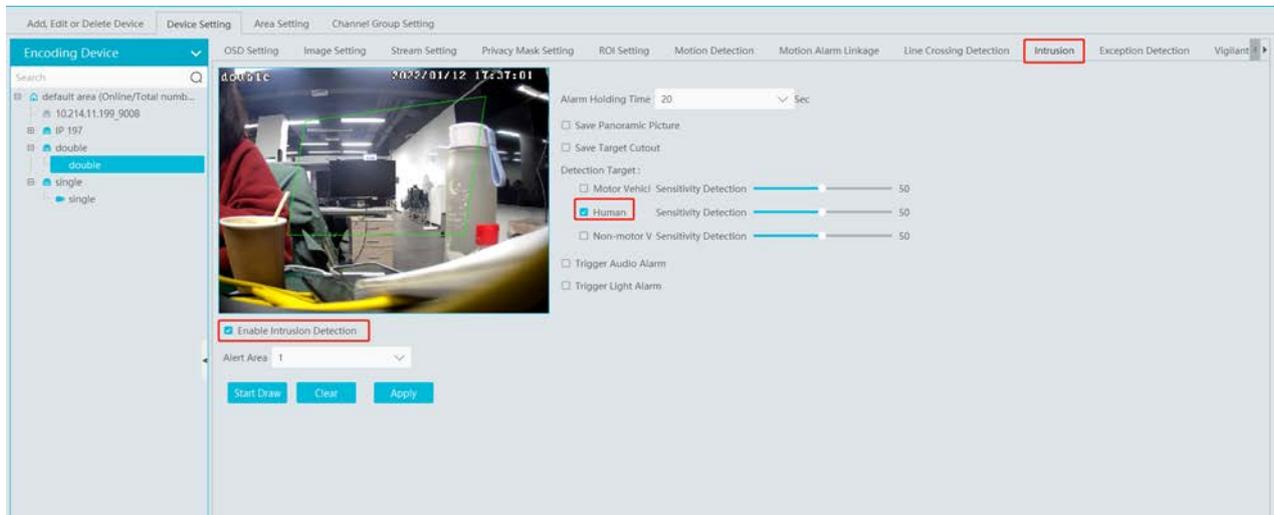
Multiple cameras can be added to an alarm task.



3. Set the alarm linkage items. In the alarm linkage settings interface, select the alarm type as “Alarm task-Leaving Alarm”. Then enable the desired alarm linkage (like “Alarm preview”) and set the schedule.



4. Go to the Device Setting interface to enable Intrusion and set the detected area.



Note:

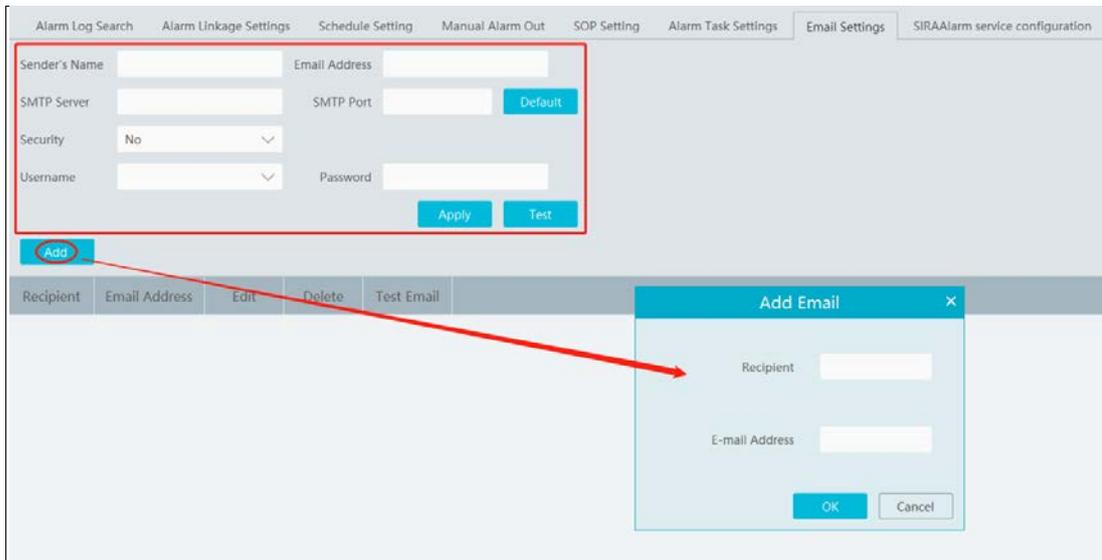
1. The selected camera must support and enable intrusion function, or leaving alarm will not take effect. If the camera supports vehicle/people classification, please check “Human” as the detection target.
2. After the leaving alarm task is set and intrusion is enabled for the camera, when someone enters the predefined area and stays there, this person will be judged as “ON Duty” so that leaving alarm will not be triggered and the intrusion alarm will not be displayed on the alarm list; but when this person leaves and doesn’t return within the set time duration (interval time) or no one appears in the set time duration, leaving alarm will be triggered.

Task Name	Channel Number	Channel	Schedule	Interval Time(min)	Alarm Type	Edit	Delete
1	1	IP 197	7*24	10	Alarm task-Leaving Alarm		

12.5 Email Settings

Alarm information can be received by the specified Email address if the Email parameters have been set in advance.

Click Home→Alarm Center→Email Setting to go to the following interface. Add the sender and recipient’s email information here.

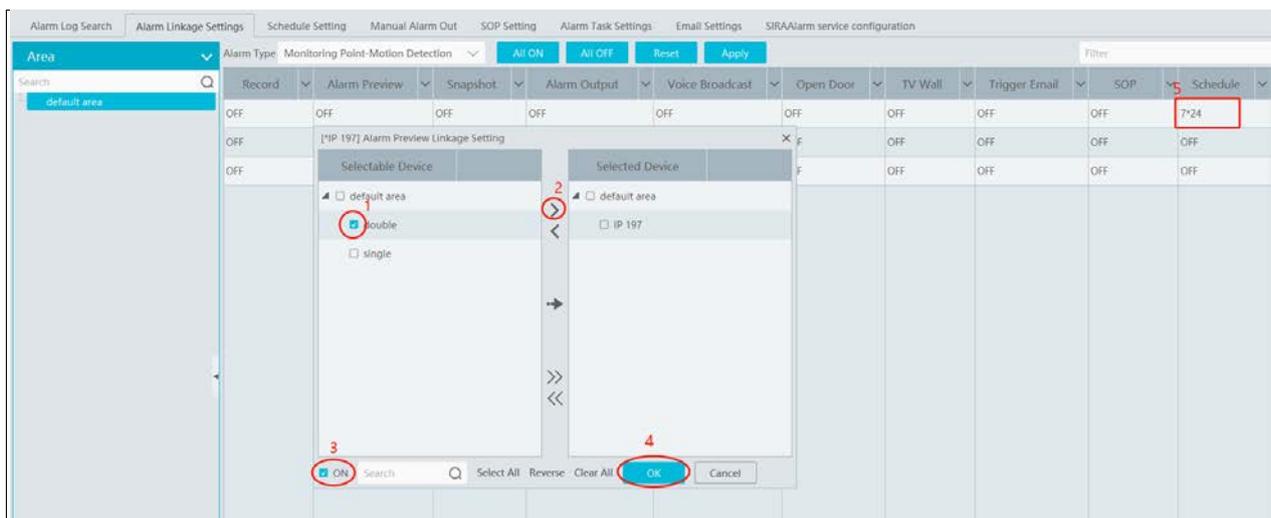


In the sender's Email information area, fill out the corresponding information and then click "Apply" to save the settings. Clicking on the [Add] button adds the recipient information. After that, in the alarm linkage setting interface, you can trigger Email.

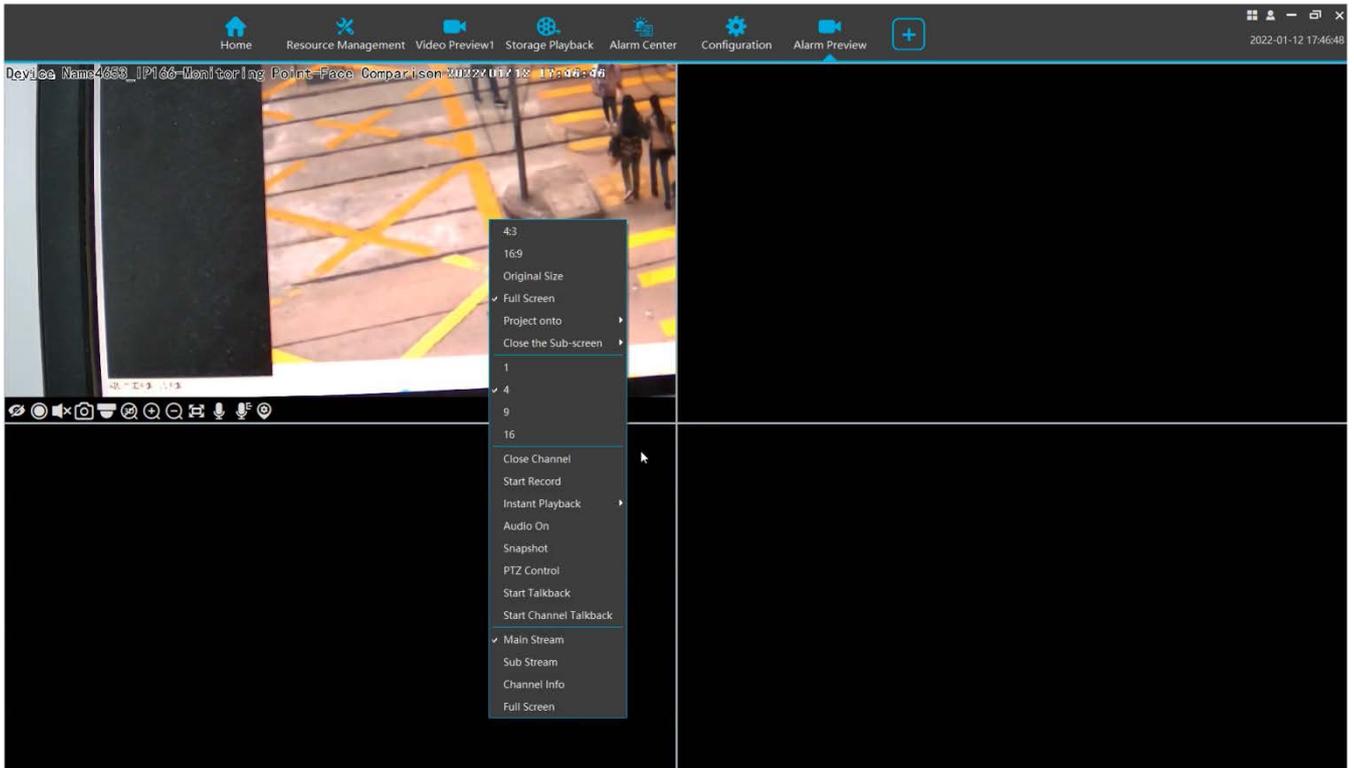


12.6 Alarm View

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



In the alarm preview interface, you can select multi-screen display mode by right clicking on the preview window as shown below.



Click  on the bottom right corner to expand the alarm list as shown above. Hover the cursor on the top of the alarm list and then a bidirectional arrow will appear. Drag the alarm list up or down to extend or shrink the alarm list.

Click  or  to play the record or captured images.

Right clicking on an alarm item displays a menu as shown below. Click “Alarm Preview” to jump to the alarm preview interface.

Alarm Time	Alarm Source	Alarm Type	Storage Playback	Device Playback	Storage Snapshot	Device Capture	Alarm Processing	Handling
2022-05-18 17:05:44	Device Name_IP01	Monitoring Point-Motion Detection						
2022-05-18 17:05:23	Device Name_IP01	Monitoring Point-Face Detection						
2022-05-18 17:05:17	Device Name_IP01	Monitoring Point-Motion Detection						
2022-05-18 17:05:10	Device Name_IP05	Monitoring Point-Motion Detection						

12.7 Alarm Log

No.	Alarm Time	Alarm Source	Alarm Ty...	Details	Storage Playback	Device Playback	Storage Snapshot
1	2022-05-18 17:28:44	Device Name_IP05	Monitoring P...				
2	2022-05-18 17:28:31	Device Name_IP05	Monitoring P...				
3	2022-05-18 17:28:14	Device Name_IP05	Monitoring P...				
4	2022-05-18 17:28:01	Device Name_IP05	Monitoring P...				
5	2022-05-18 17:27:57	Device Name_IP05	Monitoring P...				
6	2022-05-18 17:27:57	Device Name_IP05	Monitoring P...				
7	2022-05-18 17:27:54	Device Name_IP05	Monitoring P...				
8	2022-05-18 17:27:43	Device Name_IP05	Monitoring P...				
9	2022-05-18 17:27:40	Device Name_IP05	Monitoring P...				
10	2022-05-18 17:27:37	Device Name_IP01	Monitoring P...				
11	2022-05-18 17:27:37	Device Name_IP05	Monitoring P...				
12	2022-05-18 17:27:33	Device Name_IP05	Monitoring P...				
13	2022-05-18 17:27:29	Device Name_IP05	Monitoring P...				
14	2022-05-18 17:27:26	Device Name_IP01	Monitoring P...				
15	2022-05-18 17:27:21	Device Name_IP05	Monitoring P...				

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

Snapshot Search
✕

Monitoring Point

Device Name_IP05

Start Time

End Time

Search

Search Result[Device Name_IP05]


 2022-05-18 17:27:54


 2022-05-18 17:28:30


 2022-05-18 17:28:44


 2022-05-18 17:29:01


 2022-05-18 17:29:09


 2022-05-18 17:29:16


 2022-05-18 17:29:23


 2022-05-18 17:29:36

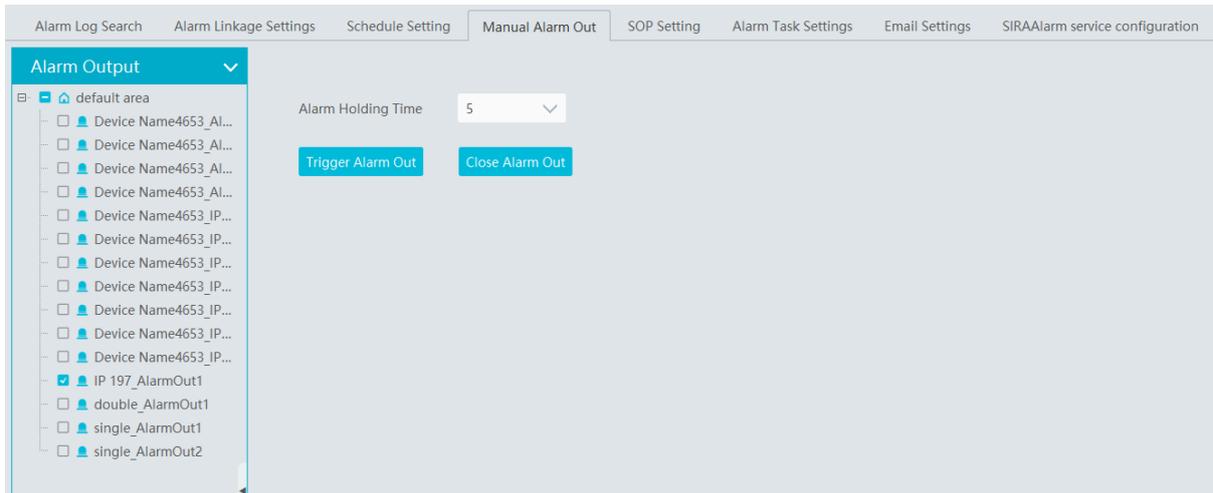
Select All Reverse Download

 The 1 /1Page Per Page 10 Entry 1-8 Total: 8

Check the searched image and then click “Download” at the bottom of the interface to download this picture.

12.8 Manual Alarm Out

Click “Manual Alarm Out” tab to go to the following interface.



Select the camera, set the alarm holding time 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.

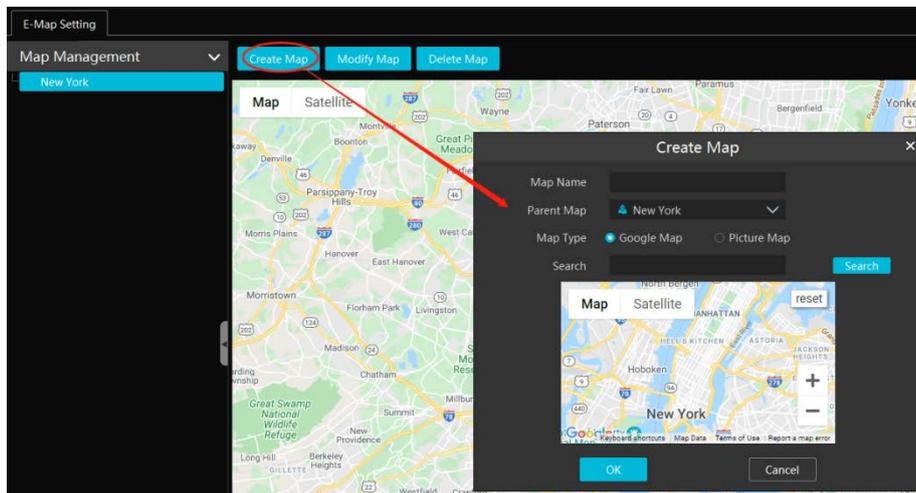
13 E-Map

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.

13.1 E-Map Settings

13.1.1 Create E-Map

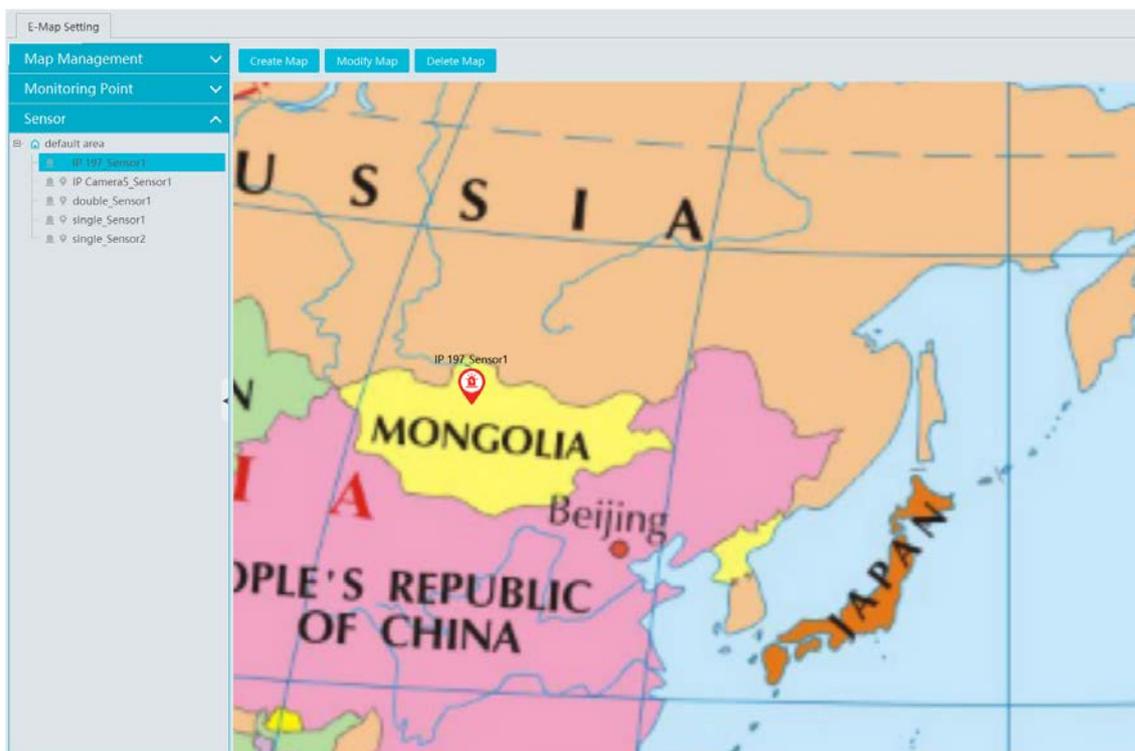
Go to Home→E-Map Setting interface. Click [Create Map] to create a map.



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

13.1.2 Add Hotspot

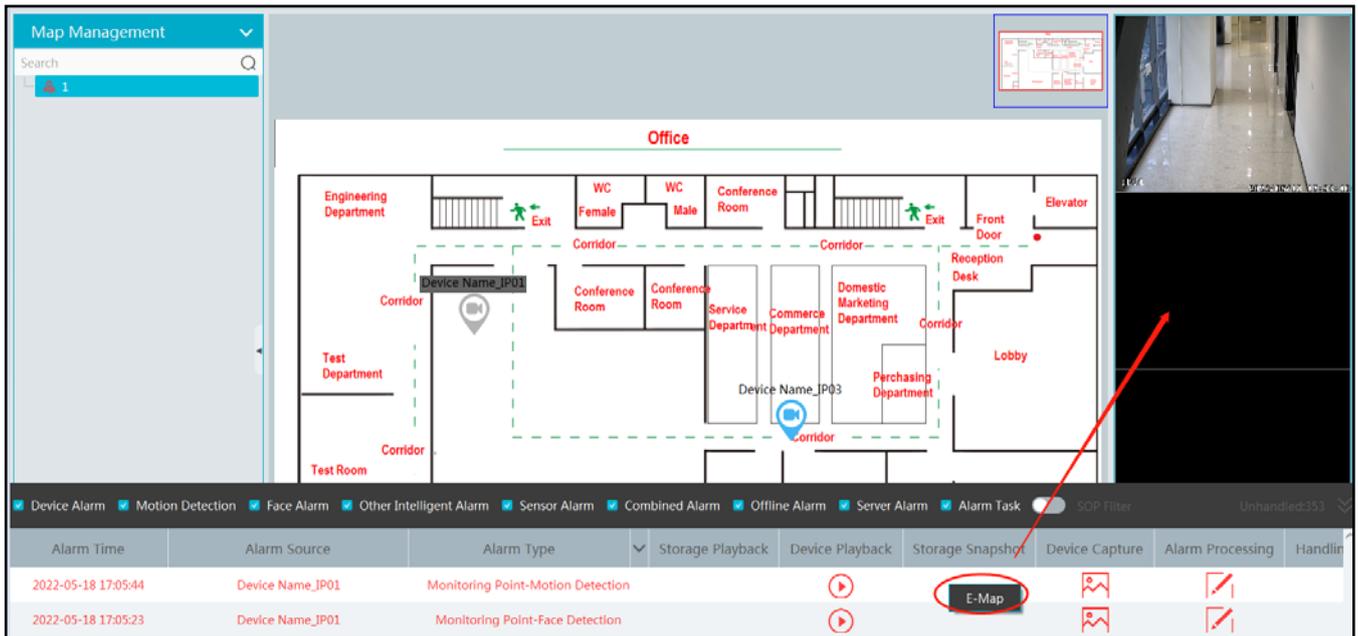
The hotspots include monitoring points and sensors. Drag a hotspot to the corresponding area on the map as shown below.



Click [Modify Map] to change map name and parent map.

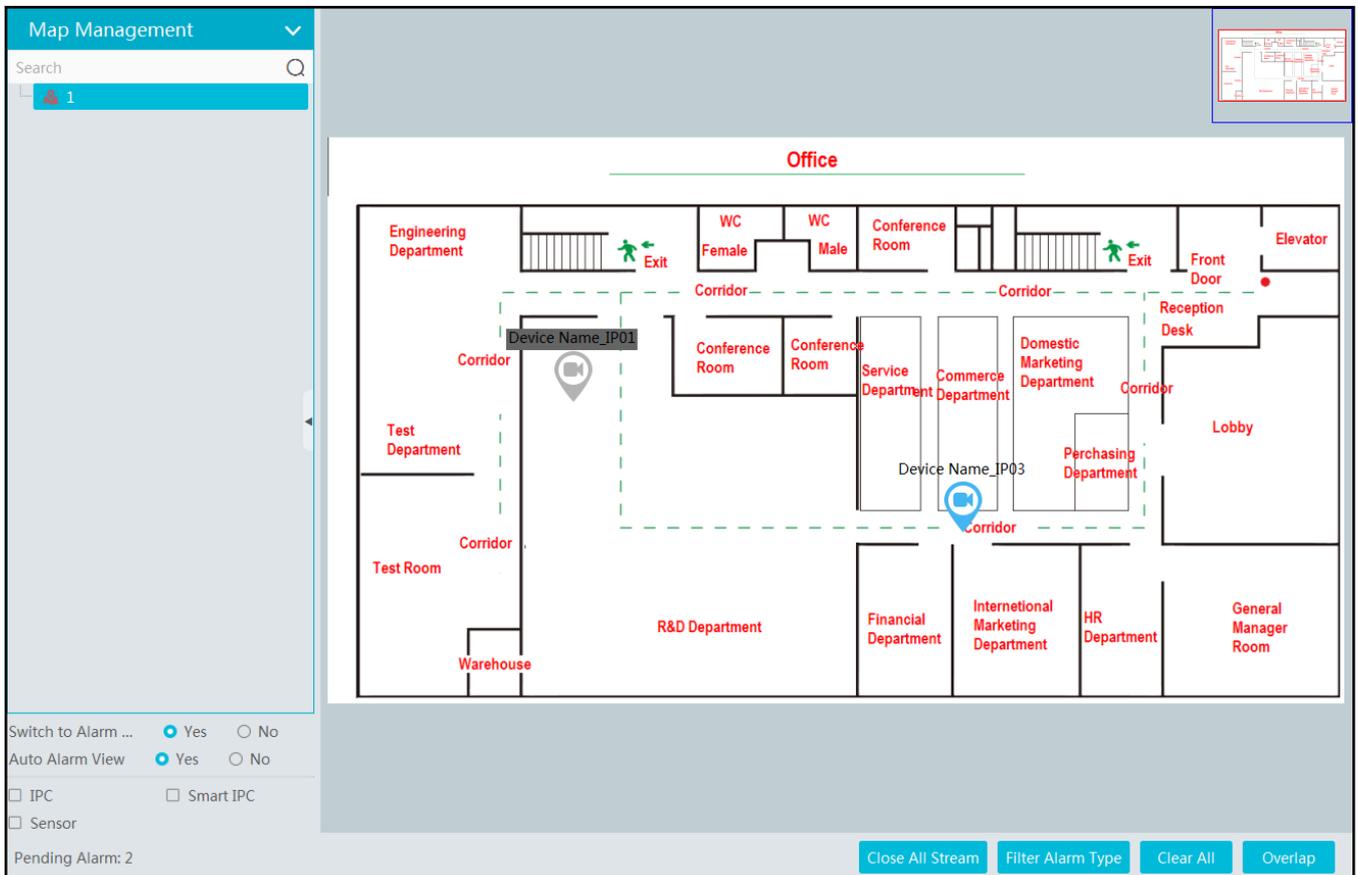
Select [Delete Map] to delete the added map.

Click  at the bottom of the interface and then right click on hotspot alarm item. Select “E-Map” to quickly skip to E-map monitoring interface.



13.1.3 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.



Switch to Alarm EMap: if “Yes” is selected, the system will automatically switch to the E-map on which the alarm occurs.

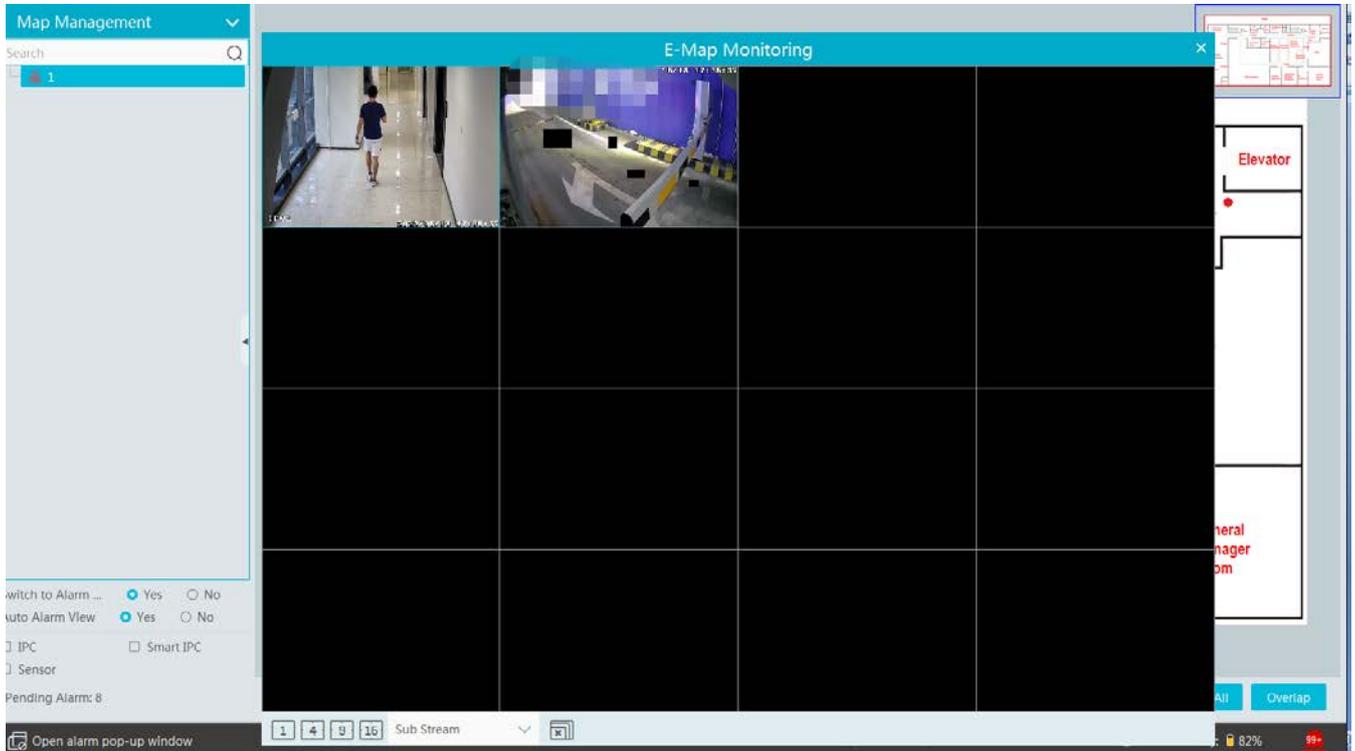
Auto Alarm View

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

Put the cursor on the preview window (right panel) and then a toolbar will display. Clicking on  closes the preview. Click “Close All Stream” to stop all previews. The preview window will be overlaid on the map by clicking “Overlap”.

In addition, click [Filter Alarm Type] to filter the alarm type.

If multiple cameras need to play, you can drag the window on the right panel to the right. Then an independent monitoring interface will display. You can choose the screen display mode as needed.



14 TV Wall

14.1 Add TV Wall Server

Go to Home→ Add, Edit or Delete Device→TV Wall Server interface as shown below. There is a default TV wall server. Please check whether it is online.

Add, Edit or Delete Device								
Device Setting								
Area Setting								
Channel Group Setting								
Device Type	Add		Delete		Search			
Encoding Device (Online/Total number:4/5)	<input type="checkbox"/>	Server Name	IP Address	Port	Client Connection Status	Authentication Server Connection Sta...	Edit	Delete
Decoder (Online/Total number:0/0)	<input type="checkbox"/>	TV Wall	10.214.241.91	6036	Online	Online		
Alarm Host (Online/Total number:1/1)								
Access Control System (Online/Total number:0/0)								

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.

14.2 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.

Add, Edit or Delete Device																																									
Device Setting																																									
Area Setting																																									
Channel Group Setting																																									
Device Type	Add		Delete		Search																																				
Encoding Device (Online/Total number:4/5)	<input type="checkbox"/>	Device Name	Output Number	IP Address	Port	Online Status	Open in the Browser	Edit	Delete																																
Decoder (Online/Total number:0/0)	<div style="border: 1px solid #ccc; padding: 5px;"> <div style="background-color: #00a0c0; color: white; padding: 2px 5px; display: flex; justify-content: space-between;"> Add Decoder × </div> <div style="display: flex; justify-content: space-between; border-top: 1px solid #ccc; border-bottom: 1px solid #ccc;"> Quickly Add Manually Add Device Quantity:7 Refresh </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th><input type="checkbox"/></th> <th>Device Name</th> <th>IP Address</th> <th>Port</th> <th>Subnet Mask</th> <th>Version</th> <th>Device ID</th> <th></th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>Decoder</td> <td>10.214.40.98</td> <td>8888</td> <td>255.255.0.0</td> <td>2.2.0.beta6</td> <td>00:18:AE:96:85:40</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>Decoder</td> <td>10.214.48.253</td> <td>8888</td> <td>255.255.0.0</td> <td>2.1.2</td> <td>00:18:AE:83:79:1C</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>Decoder</td> <td>10.214.40.97</td> <td>8888</td> <td>255.255.0.0</td> <td>2.2.0.beta6</td> <td>00:18:AE:96:85:43</td> <td></td> </tr> </tbody> </table> </div>									<input type="checkbox"/>	Device Name	IP Address	Port	Subnet Mask	Version	Device ID		<input type="checkbox"/>	Decoder	10.214.40.98	8888	255.255.0.0	2.2.0.beta6	00:18:AE:96:85:40		<input type="checkbox"/>	Decoder	10.214.48.253	8888	255.255.0.0	2.1.2	00:18:AE:83:79:1C		<input type="checkbox"/>	Decoder	10.214.40.97	8888	255.255.0.0	2.2.0.beta6	00:18:AE:96:85:43	
<input type="checkbox"/>	Device Name	IP Address	Port	Subnet Mask	Version	Device ID																																			
<input type="checkbox"/>	Decoder	10.214.40.98	8888	255.255.0.0	2.2.0.beta6	00:18:AE:96:85:40																																			
<input type="checkbox"/>	Decoder	10.214.48.253	8888	255.255.0.0	2.1.2	00:18:AE:83:79:1C																																			
<input type="checkbox"/>	Decoder	10.214.40.97	8888	255.255.0.0	2.2.0.beta6	00:18:AE:96:85:43																																			
Alarm Host (Online/Total number:1/1)																																									
Access Control System (Online/Total number:0/0)																																									
LED Display Device (Online/Total number:0/0)																																									
Intelligent Analysis Server (Online/Total number:1/1)																																									
Storage Server (Online/Total number:0/1)																																									
Media Transfer Server (Online/Total number:1/1)																																									
Access Server (Online/Total number:1/1)																																									
Alarm Server (Online/Total number:1/1)																																									
TV Wall Server (Online/Total number:1/1)																																									

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

14.2.1 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.

Basic Settings

Running Mode:

User Permission:

Device Name:

MAC: 00:18:AE:00:45:D1

Soft Version: 2.1.3

Version Date: 20210121

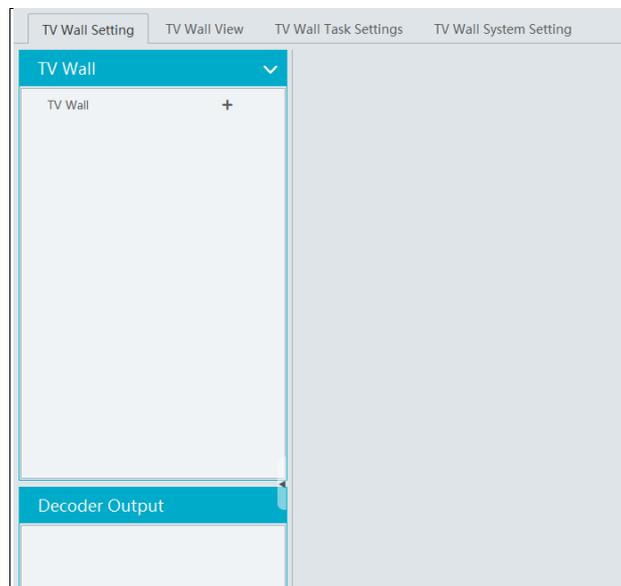
Kernel Version: I4R2-H5F3-H5F3

The decoder will not be online until it is bound to a TV wall. Please create a TV wall first and then bind the decoder to the TV wall. See chapter 12.3.1 for details.

Add, Edit or Delete Device									
Device Setting									
Area Setting									
Channel Group Setting									
Device Type									
<input type="button" value="Add"/> <input type="button" value="Delete"/> <input type="text" value="Search"/>									
Encoding Device (Online/Total number:4/5)	<input type="checkbox"/>	Device Name	Output Number	IP Address	Port	Online Status	Open in the Browser	Edit	Delete
Decoder (Online/Total number:1/1)	<input type="checkbox"/>	Decoder(1)	2	10.214.48.253	8888	Online			
Alarm Host (Online/Total number:1/1)	<input type="checkbox"/>								
Access Control System (Online/Total number:0/0)	<input type="checkbox"/>								

14.3 TV Wall Management

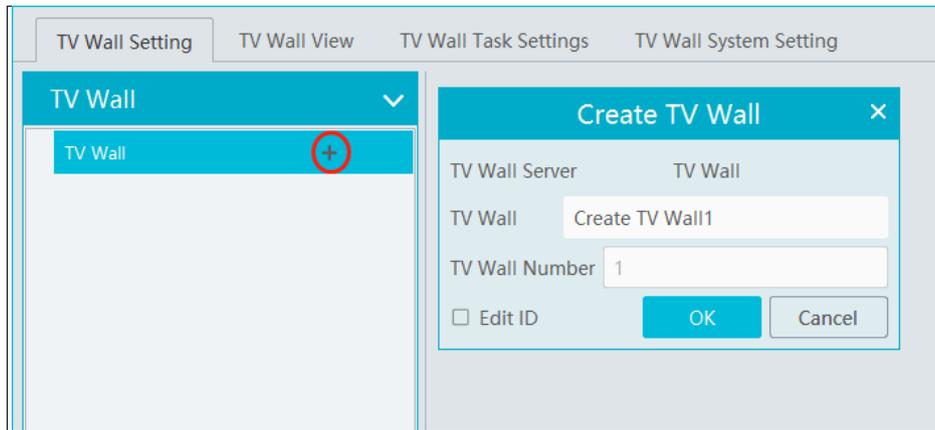
Go to Home→TV Wall Management→ TV Wall Setting.



14.3.1 TV Wall Settings

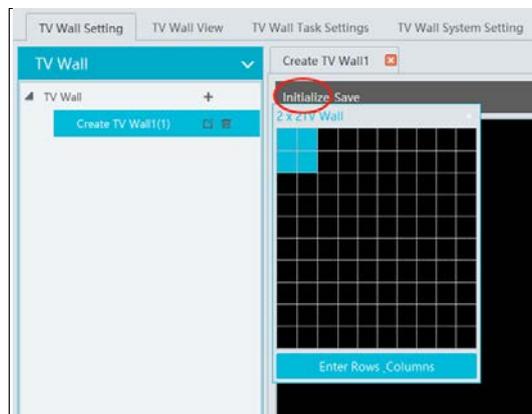
◆ Create TV Wall

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



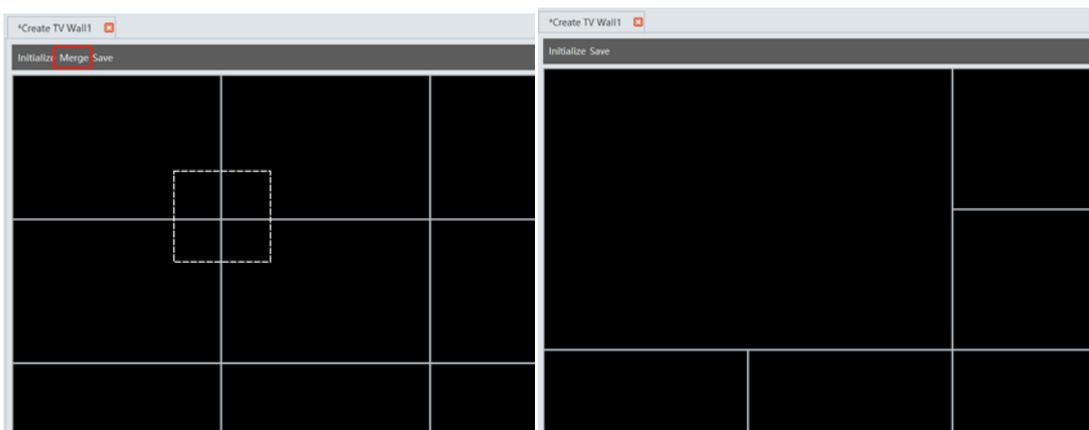
◆ Initializing

- 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.



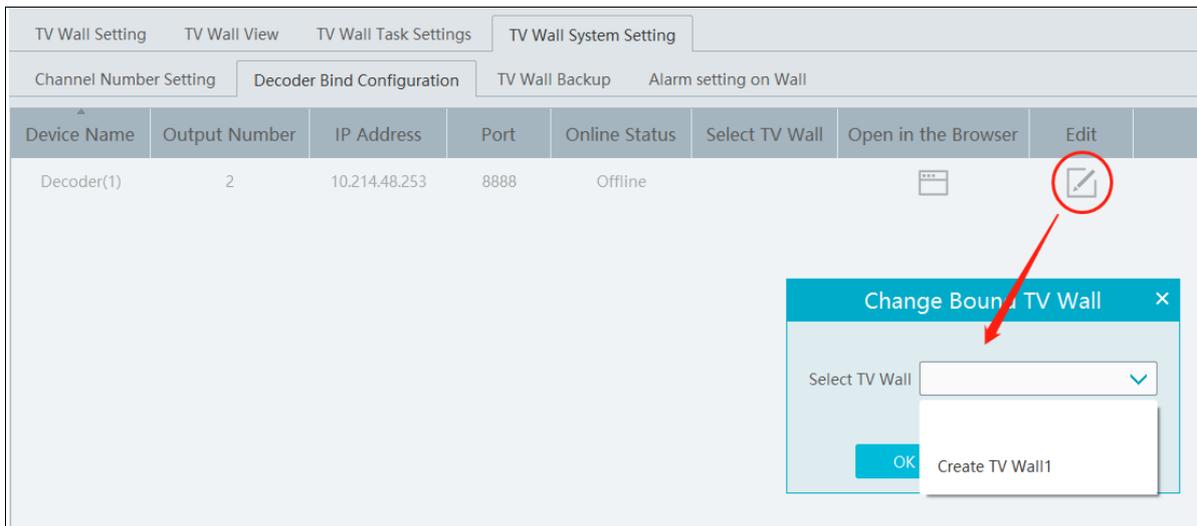
Splitting: select the merged window and click “Split” to restore the window to the previous status.



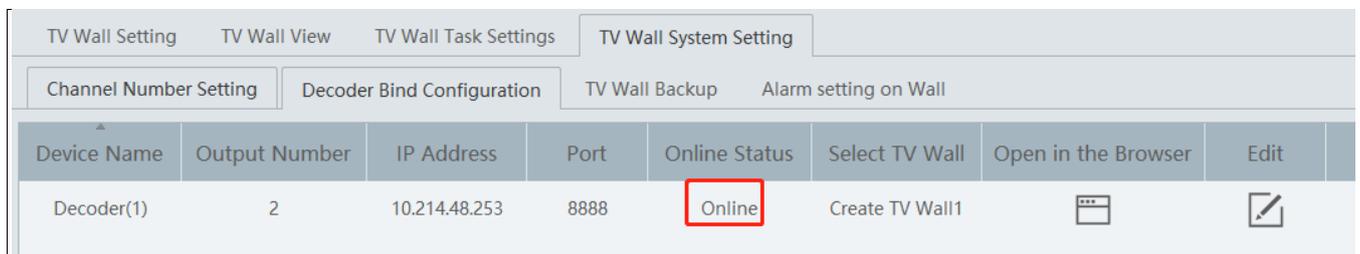
The online decoder displayed in the decoder output list is the binding decoder of this TV wall. Drag the outputs to windows on the right in sequence and then click “Save” to save the settings.

● **Decoder Binding**

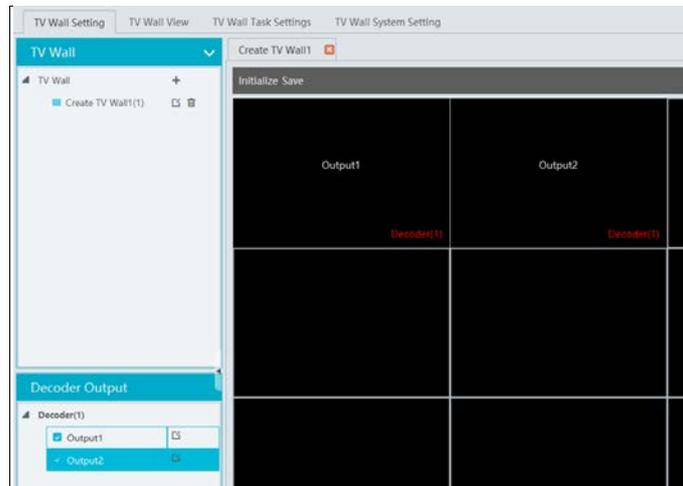
Go to Home→TV Wall Management→TV Wall System Setting interface as shown below. In this interface, decoder bind can be set up. Decoder bind configuration: modify the binding state between decoder and TV wall.



Click to change bound TV Wall. After the decoder is bound to the TV Wall, the online status will be “Online”.

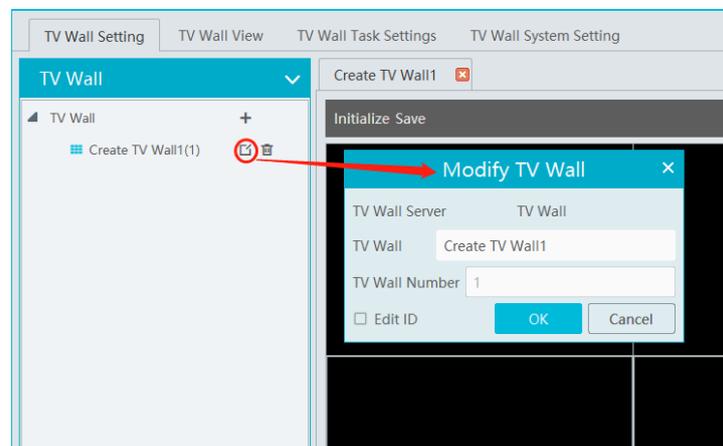


Return to the decoder management interface as shown above. The online status of the decoder indicates that the decoder is successfully bound with TV wall. Go to TV Wall Setting interface as shown below. Drag the outputs of the decoder to the window on the right and save them to complete output bind.



Modify TV Wall:

Click  next to the TV wall name and then modify the TV wall information as needed.



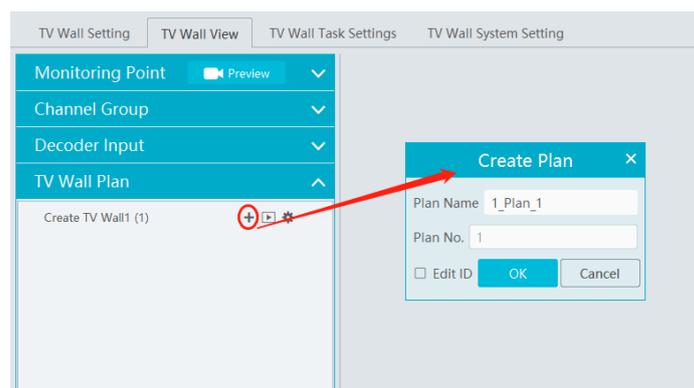
Check “Edit ID” to modify the ID number of the TV wall. Note that the ID number of the TV wall cannot be repeated.

14.3.2 TV Wall View

◆ Create Plan

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

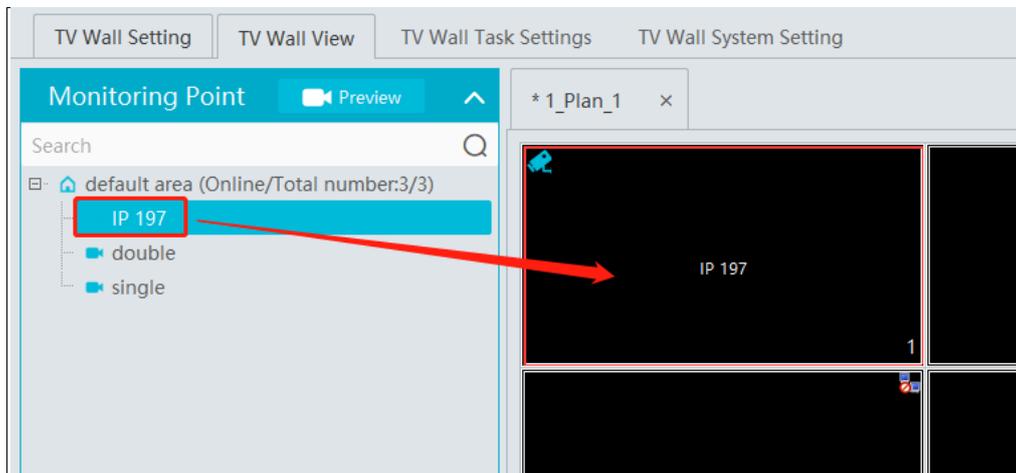
Click  beside the TV wall name to create the TV wall plan name.



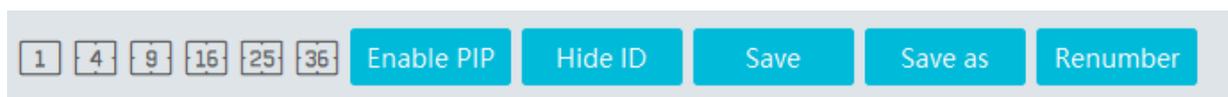
◆ Configure Plan

Double click the plan name to show the plan.

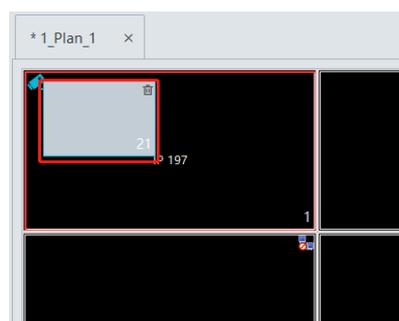
Drag the monitoring points to the corresponding window respectively to decode image.



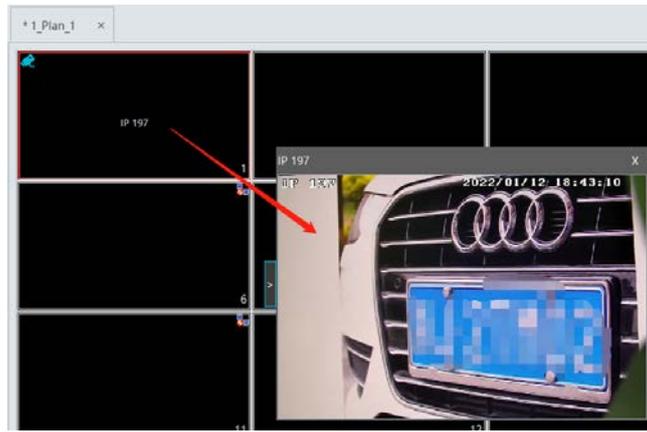
◆ Toolbar Menu



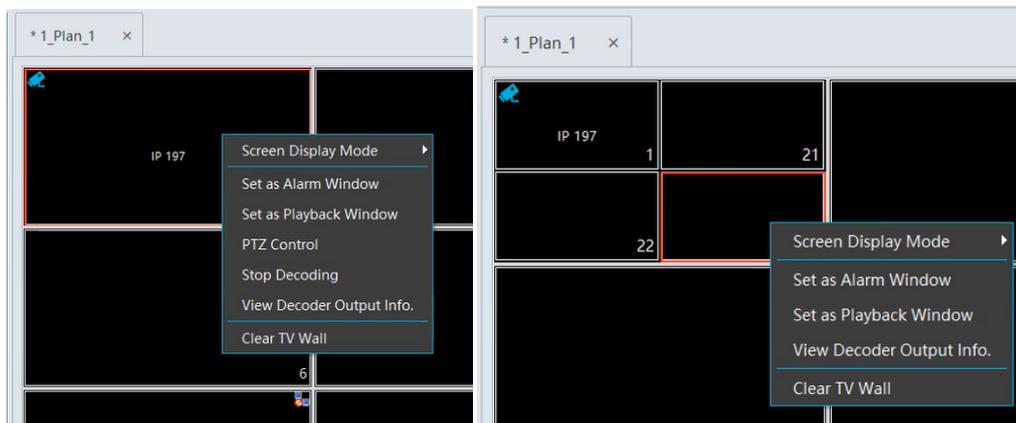
1. Screen mode: 1\4\9\16\25\36 screen mode is optional.
2. Open Window: Click [Enable PIP] and then drag on a window to open a small window on it. Click [Disable PIP] to stop opening window. The small window can be dragged to anywhere on the big window.



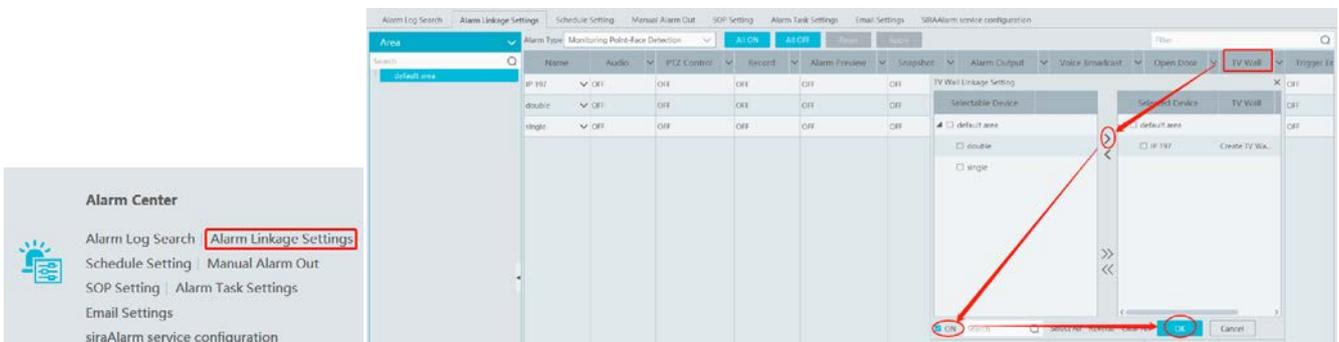
3. Click [Hide ID] to hide the window number; click [Display ID] to display the window number.
4. Click [Save] to save the current plan.
5. Click [Save as] to save it as another plan.
6. Renumber: Click it to renumber the window of the plan from left to right and top to bottom.
7. Select a window assigned a monitoring point and then press the right mouse and drag to another window to copy monitoring point to it.
8. Double click a window to play the video.



◆ Right-click Menu

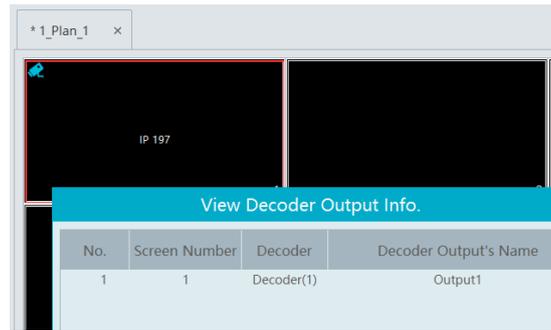


1. Screen mode:1\4\9\16\25\36 screen mode is optional.
2. Zoom in\out: if the current screen mode is multi-screen display mode, click “Zoom In” to zoom in the current image. Click “Zoom Out” menu again to restore to the previous status.
3. Save as Alarm Window: click it to save the current window as 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.

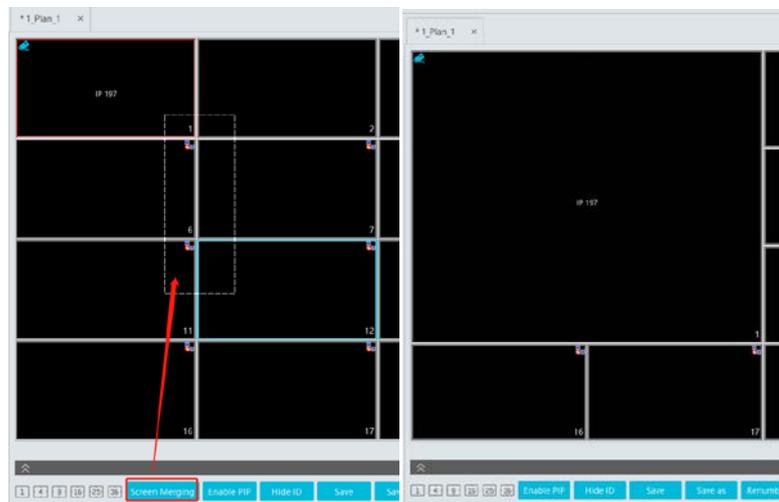
7. View Decoder: view the information of the decoder.



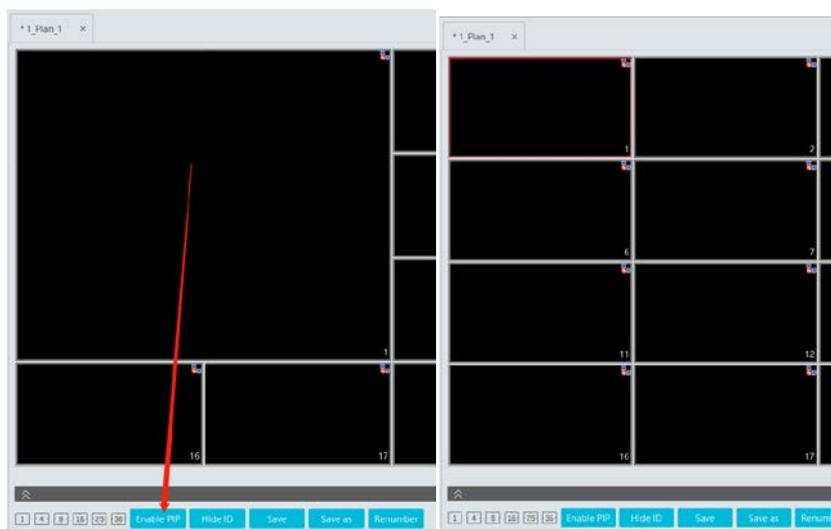
8. Clear TV Wall: click it to clear the decoding configuration of the current output.

◆ 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.



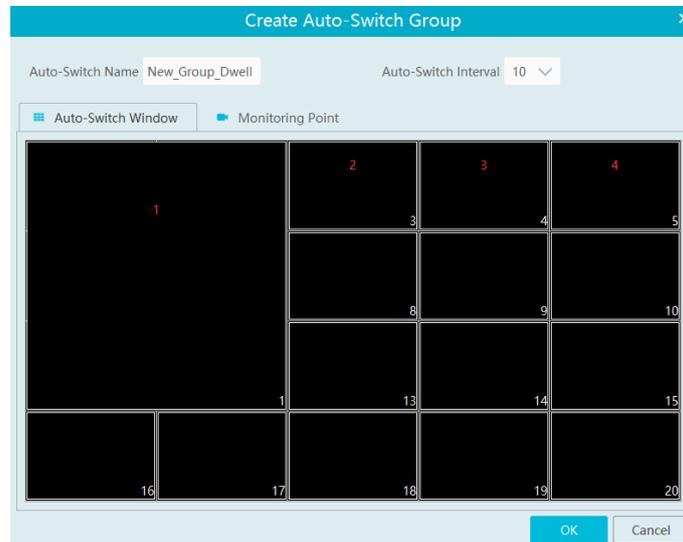
◆ Auto-Switch Group

1. Create Auto-Switch Group

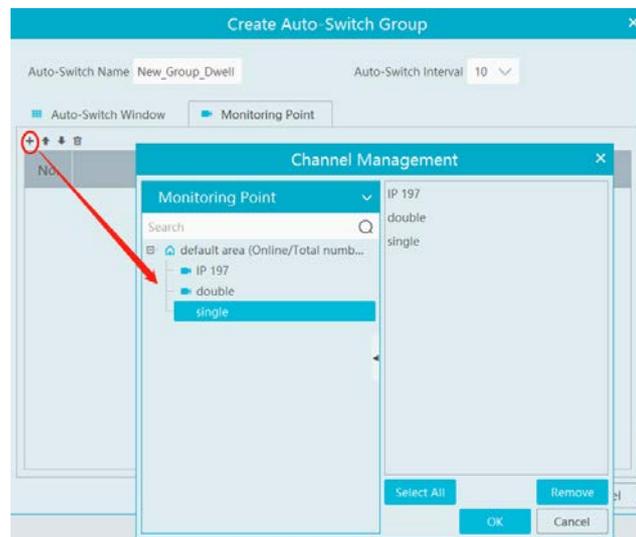
- ① Click Auto-Switch Group under the screen and then click  to create auto-switch group.



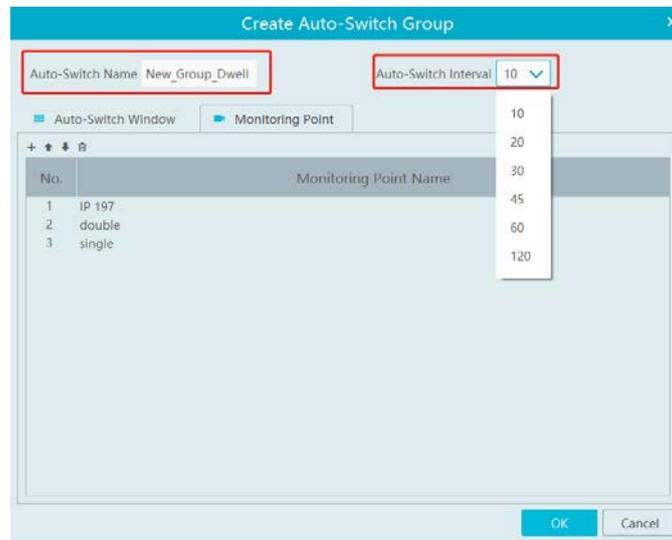
- ② Select “Auto-Switch Window” to select the window group.



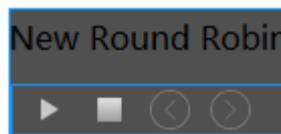
- ③ Click “Monitoring Point” to select the auto-switch channel group.



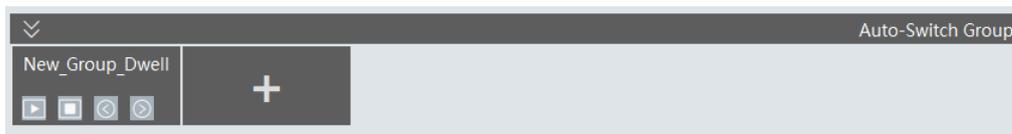
- ④ Enter auto-switch name and dwell time.



2. Execute auto-switch

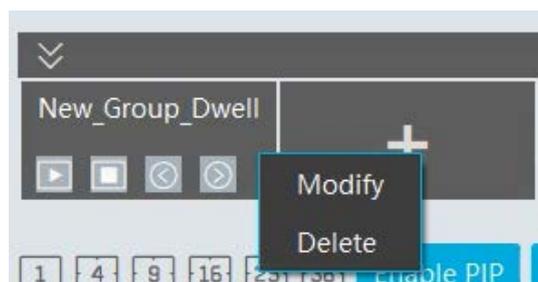


Click  to execute auto-switch. The specified channel images will be played in the specified windows in sequence.
 Click  to stop playing the current auto-switch.



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.

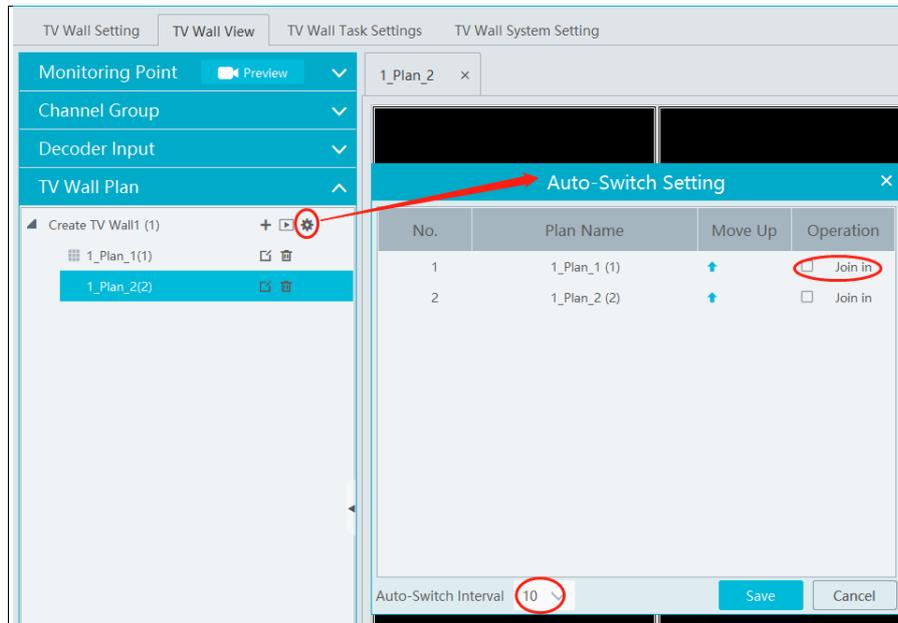


Note: If there are overlapped auto-switch window in a plan, the auto-switch groups will not be executed at the same time.

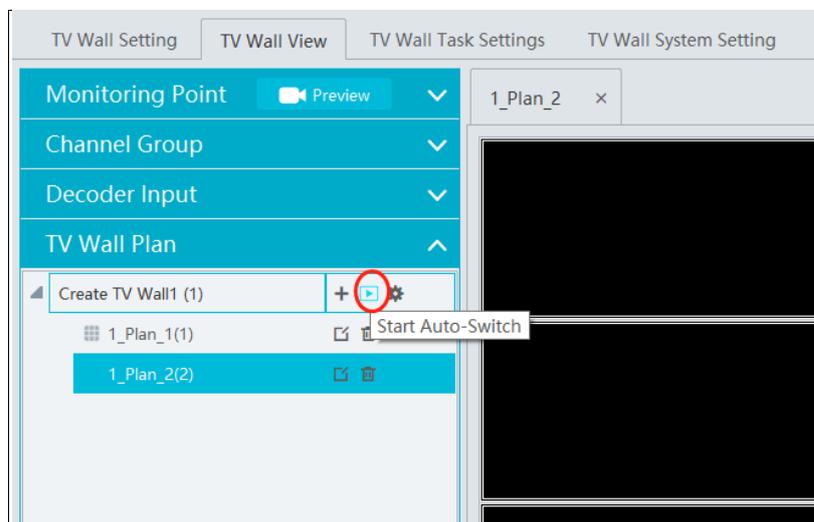
◆ Auto-switch plan

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.

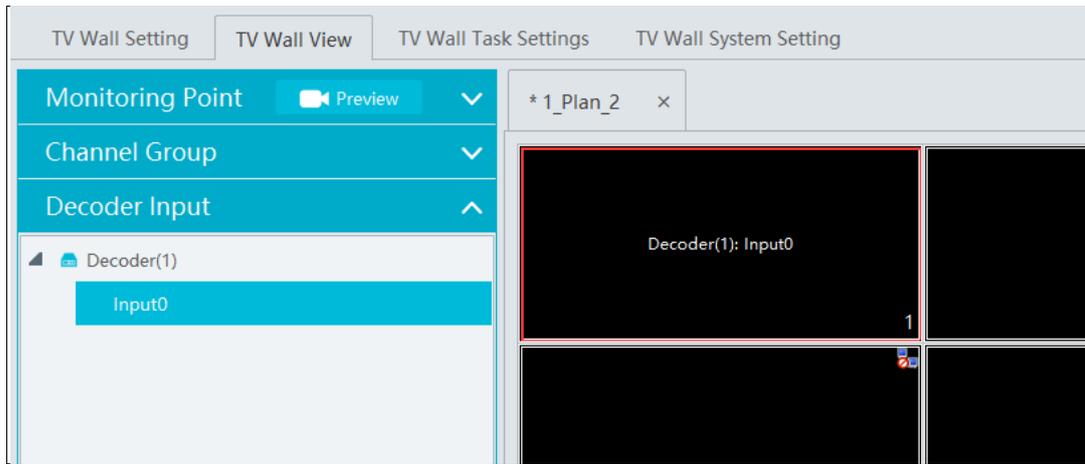
3.Modify auto-switch plan

Click again to modify the auto-switch plan.

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

14.3.3 Decoder Input

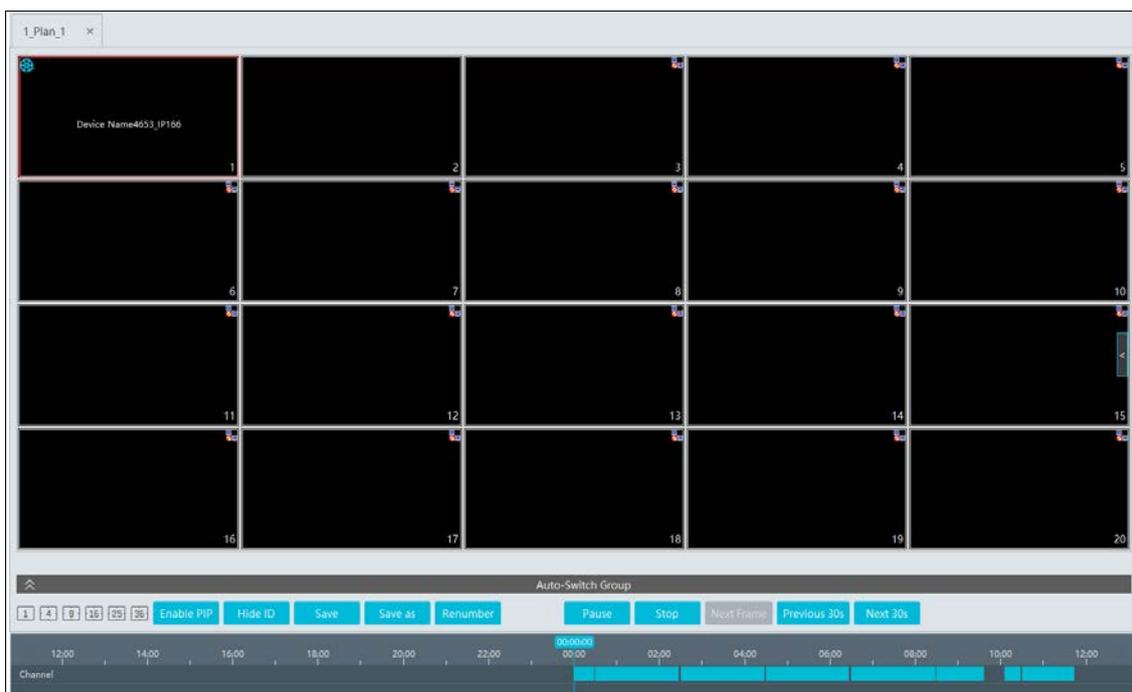
Go to Home→TV Wall Management→Decoding on TV Wall→Decoder Input. Drag an input to a window to execute decoding.



14.3.4 Playback

◆ Playback on TV Wall

Click “Preview” on the left panel. Then this button becomes “Record”. Click  at the bottom of the left panel to extend the filtering condition. Click  /  to get records from device or storage server, check the alarm events and then drag the cameras (or channels) to a window to search and play the records.



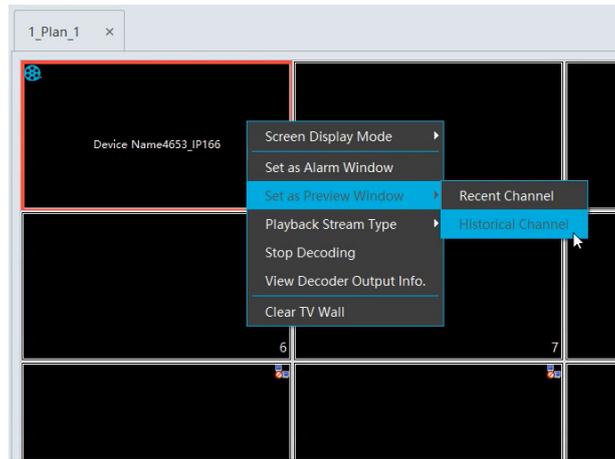
Of course, the specified time and event types can be set to search the specified records.

◆ 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

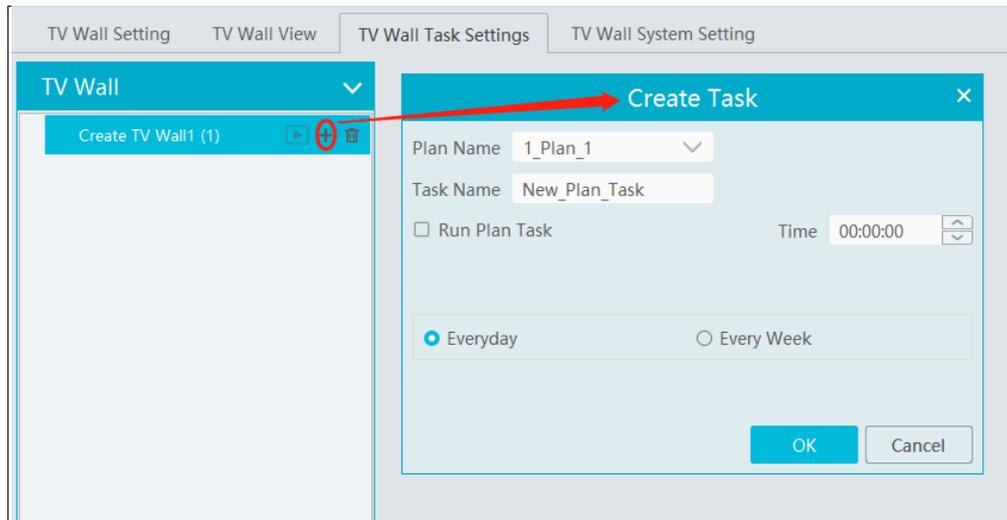
The following picture is an example of TV Wall.



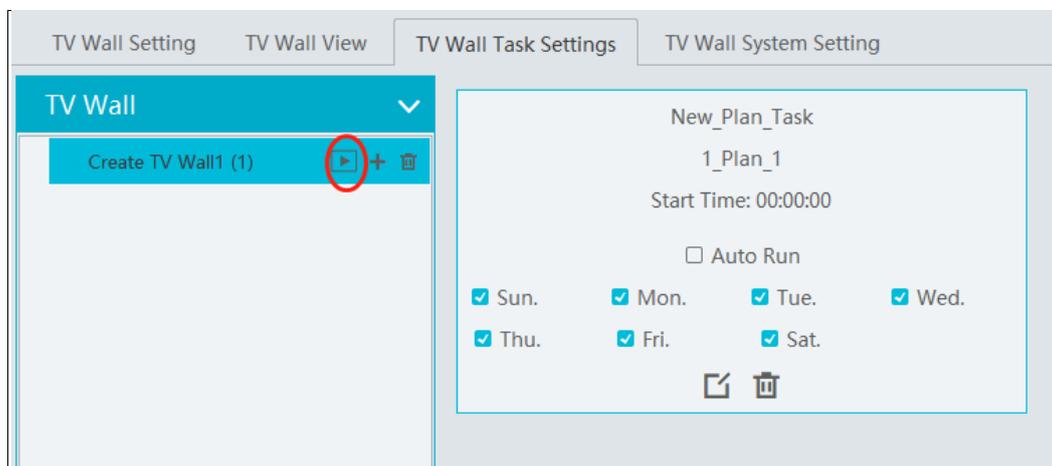
14.3.5 Task Setting of TV Wall

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.

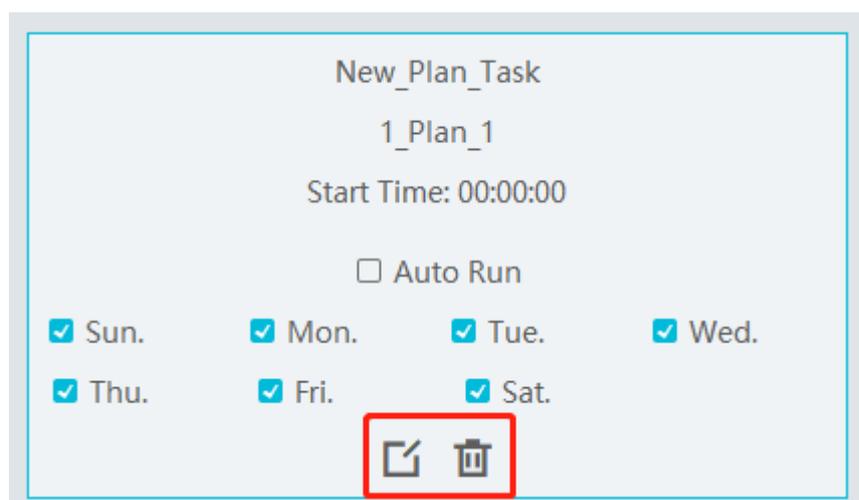


Click  to start the task. Click the Stop button to stop this task.



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.

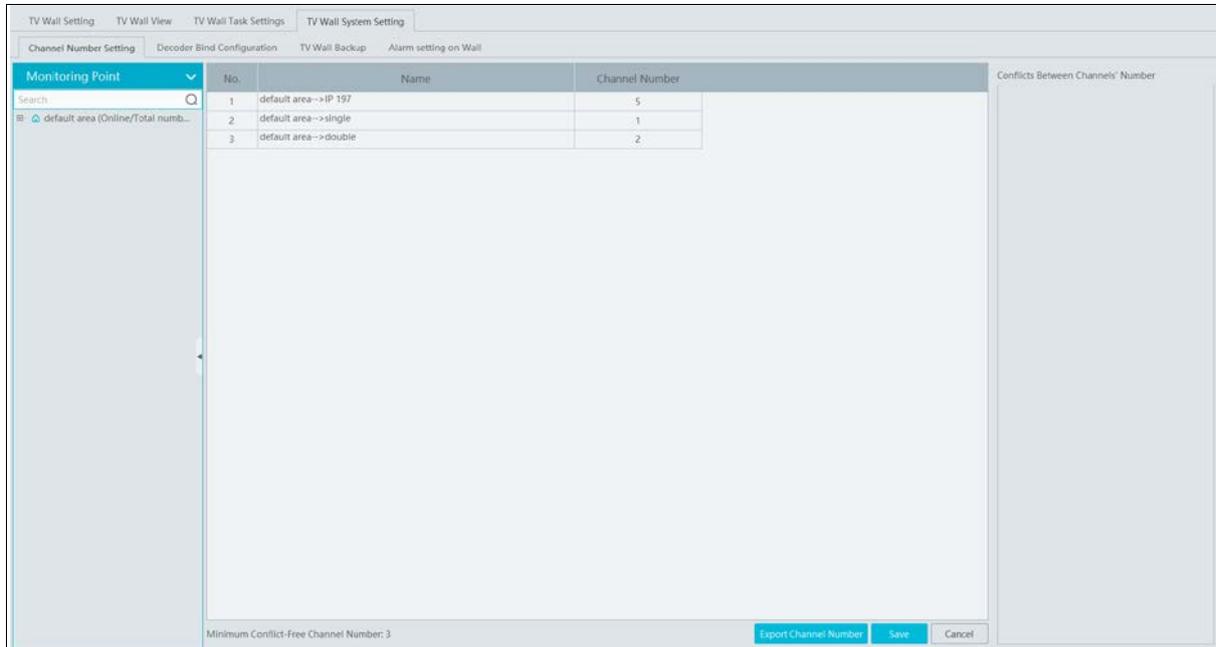
14.3.6 TV Wall System Configuration

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 Settings**

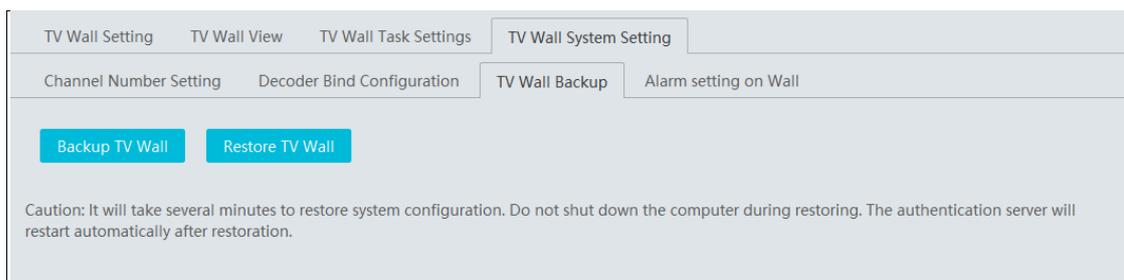
Channel number configuration: set the channel number and make the channel convenient to be controlled by the network keyboard controller. Users can export these channel number in this interface.



➤ **TV Wall Backup**

When importing the former system configuration files to the new version, the TV wall configuration file will not be imported together. So you need to import the TV wall configuration file separately.

Click [Backup TV Wall] in the last version to back up the TV wall configuration files. Then click [Restore TV wall] in the new version to restore it.



➤ **TV Wall Alarm Linkage Settings**

The alarm closing time can be set. If “Automatically closing alarm on Wall” is selected, you can set the time that TV wall alarm automatically turns off. The alarm preview window will automatically turn off the alarm linkage video according to the set time until next alarm is triggered. If not selected, you need to close the alarm preview window manually.

15 Parking Lot Management

15.1 Add ANPR Camera

Before using parking lot system, please add ANPR cameras first. The ANPR camera is use to capture the license plate of the vehicles entering or exiting the parking lot.

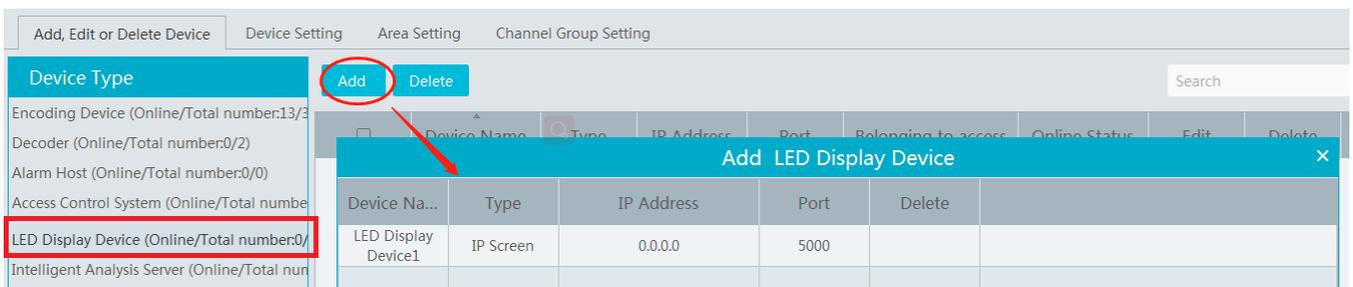
There are two ways to add ANPR camera.

1. Click Home→Resource Management→Add, Edit or Delete Device→Encoding Device to enter the encoding device adding interface.
Click [Add] to add your ANPR camera.
2. Add the ANPR camera to your NVR with license plate recognition function and then add this NVR to the platform.

15.2 Add LED Display Screen

Before using parking lot system, please add the LED Display Screen which is used to display the information of the vehicles entering or exiting the parking lot.

Click Home→Resource Management→Add, Edit or Delete Device→LED Display Device to go to the LED display device adding interface.



Port: the default port is 5000.

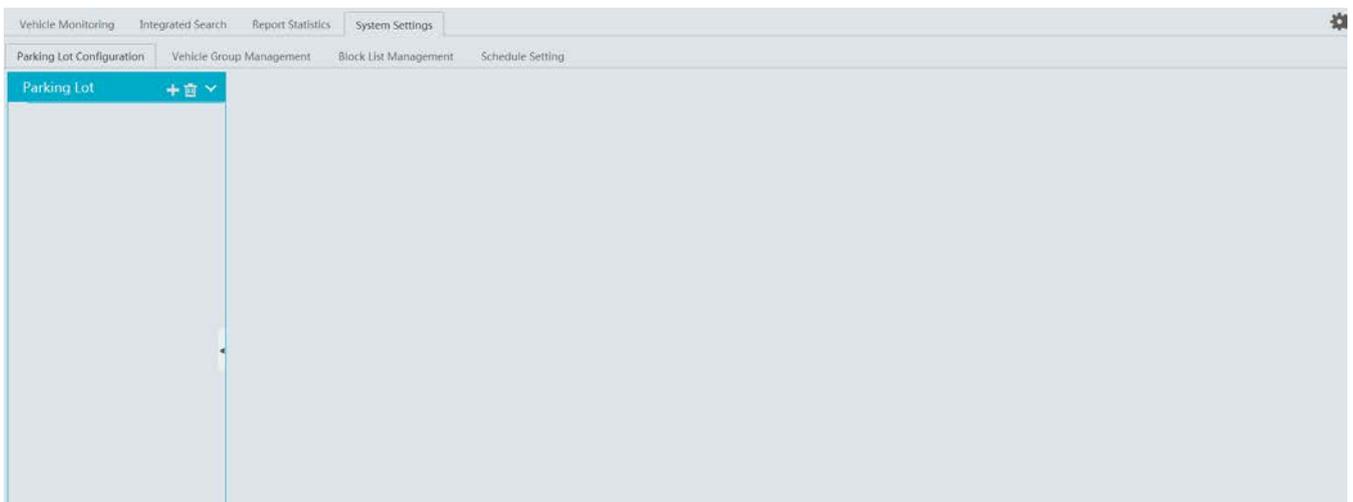
Type: please select IP screen.

IP address: enter the IP address of the IP screen.

15.3 System Settings

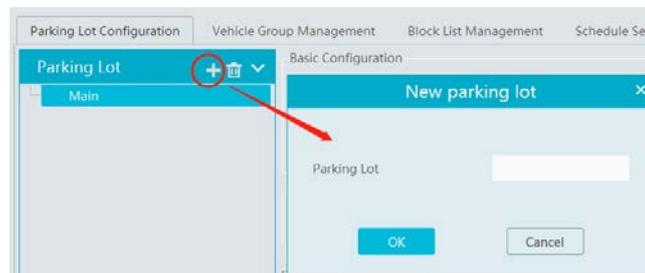
15.3.1 Parking Lot Settings

Go to Parking Lot Management→System Settings→ Parking Lot Configuration as shown below.



● **Add or Delete Parking Lot**

Click  to add a parking lot as shown below.



Select the parking lot and click  to delete it. Note that there must be no entrance or exit or vehicle group under the parking lot, or it cannot be deleted.

● **Basic Configuration**

Select the parking lot and then set the relevant parameters for it. You can modify the parking lot name, set whether to allow temporary vehicle access even if the parking space is full, total parking space, number of the current vehicles (in order to ensure the accuracy counting of remaining parking space, please make sure that no vehicle entering or exiting), remaining parking space, number of overflow vehicles, barrier gate opening duration and repeated license plate waiting time. After that, click [Apply] to save the settings.

Total Parking Space: the set total parking space

Number of the current vehicles: the number of vehicles staying in the parking lot

Remaining parking space: Total parking space minus the number of the current vehicles (if the number of the current vehicles is more than or equal to the total parking space, the remaining parking space will be “0”).

Number of overflow vehicles: the number of the current vehicles minus total parking space (if the number of the current vehicles is less than the total parking space, the remaining parking space will be “0”).

Repeated license plate waiting time: the same license plate will be identified once within the set waiting time

● **Temporary Vehicle Timeout Settings**

Overtime Parking of Temporary Vehicles: if enabled, timeout threshold and daily alarm email sending time should be set. Once the temporary vehicles that stay in the parking lot exceed the set timeout threshold, an email will be sent according to the set time.

● **License Plate Settings**

Local license plate and special license plate can be set (Charge will be made).

● **Entrance and Exit Settings**

Click [Add] next to “Entrance/Exit Setting” to create an entrance/exit. You can directly modify the entrance name and click [Apply] to save the setting.

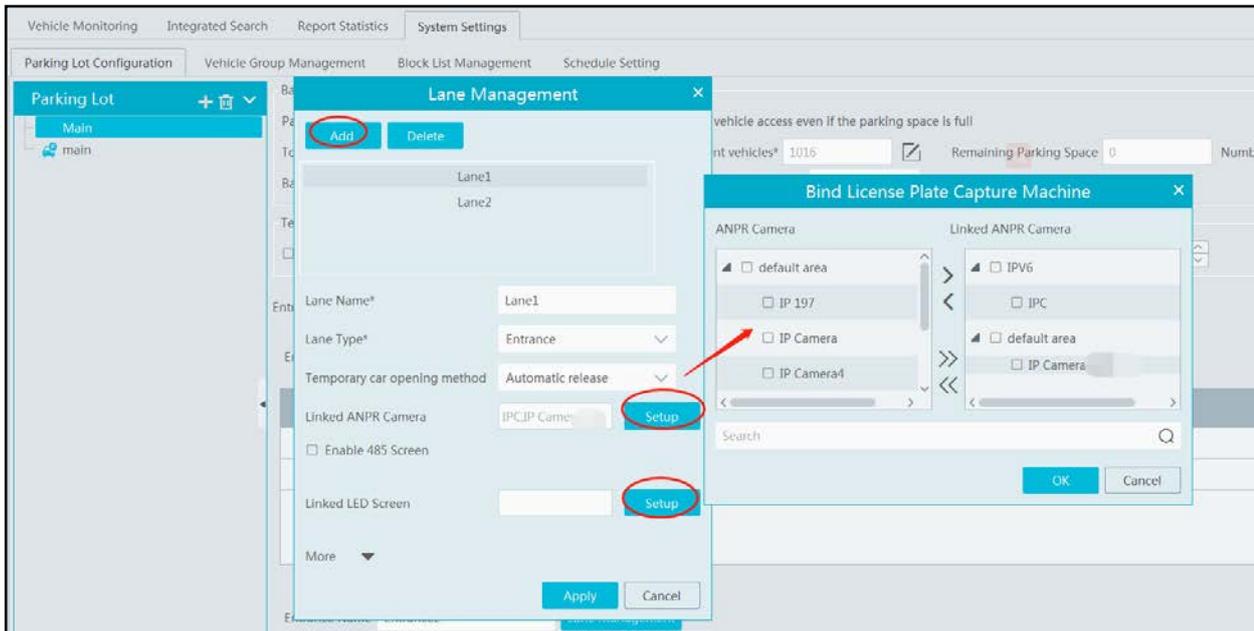
For the added entrance/exit, click  to delete it. Before deletion, please ensure that there is no lane information under it, or it cannot be deleted.

● **Lane Management**

Click [Lane Management] next to the entrance name. This will bring a lane setting window. Click [Add] to add a new lane. Set the lane name, lane type and temporary car release way (manual/auto release). After that, click [Apply] to save the settings.

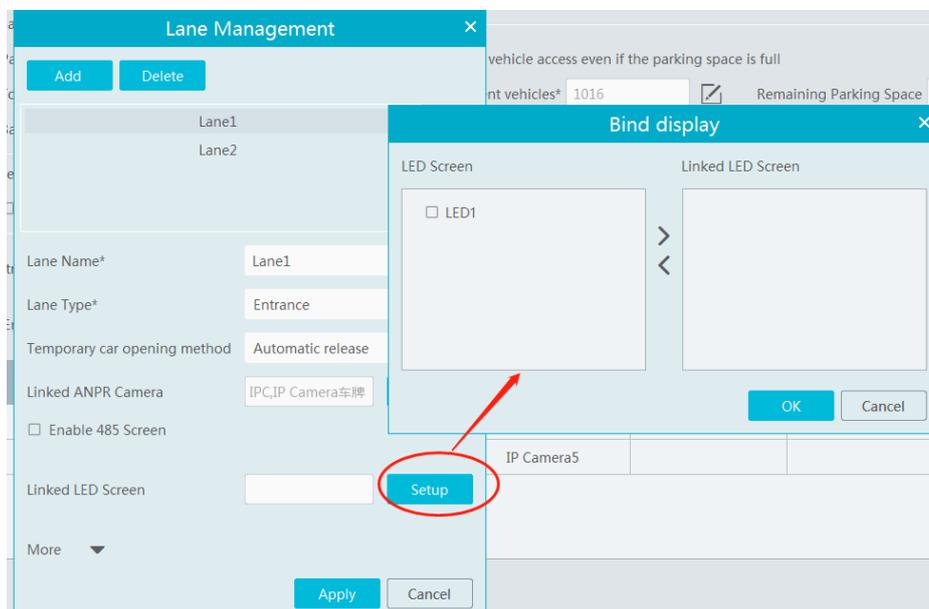
- **Binding ANPR Camera**

In the lane management window, click [Setup] of the linked ANPR camera line to bind the ANPR camera as shown below. Multiple cameras can be bound to one lane.



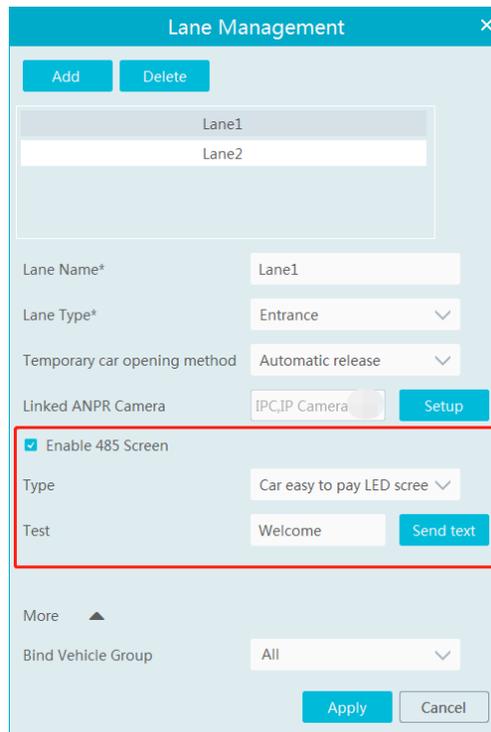
- **Binding LED Screen**

In the lane management window, click [Setup] of the linked LED screen line to bind the LED screen as shown below. One screen can be bound to one lane only.



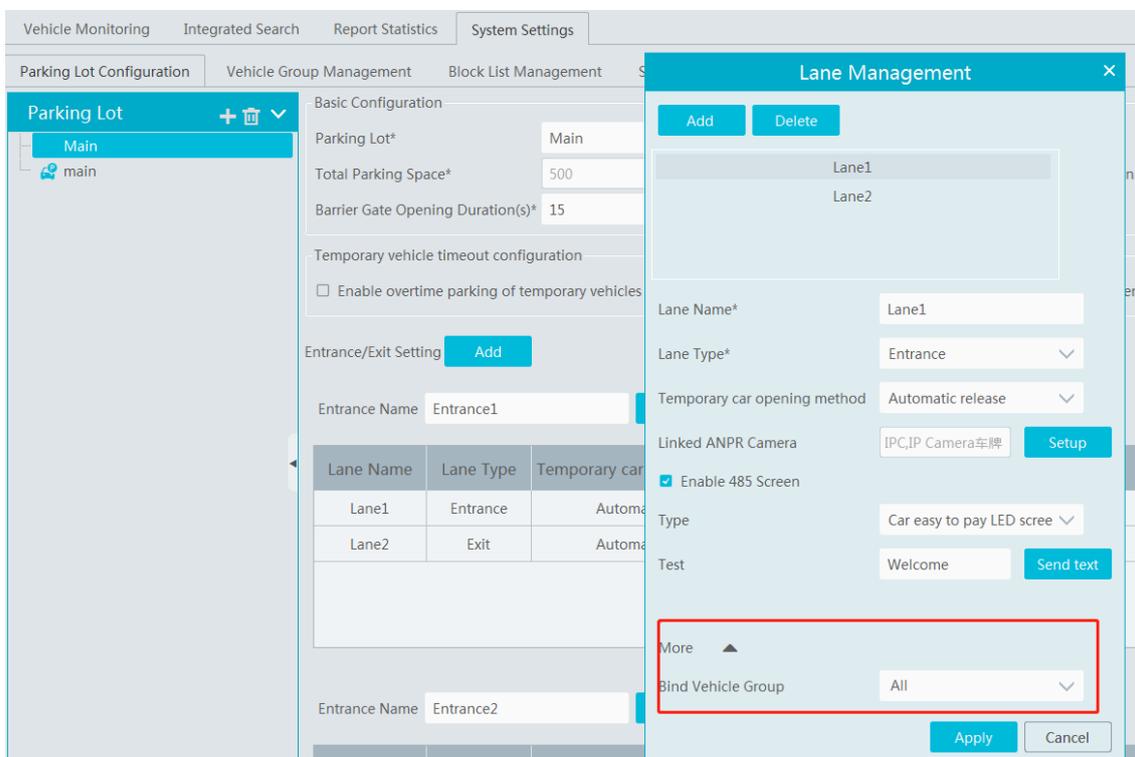
- **Binding RS485 Screen**

In the lane management interface, you can also bind RS485 screen. Enable RS485 screen, select the screen type and then click [Apply]. Before binding RS485 screen, please ensure that the license plate capture camera has been connected to the screen via RS485 interface.



● **Binding Vehicle Group**

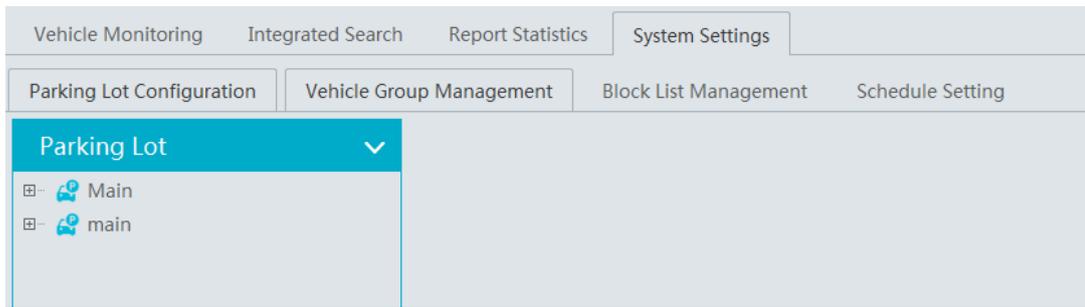
In the lane management window, click “More” to bind vehicle group. Select the vehicle group as needed. Then click [Apply] to save the setting. All vehicles in the vehicle group bound to the lane will be allowed to enter/exit in the parking lot.



Note: A parking lot can add multiple entrances and exits; an entrance/exit can add multiple lanes; a lane can bind multiple license plate capture camera; but one license plate capture camera only can be bound to one lane of the entrance/exit in the parking lot. The name of the parking lot cannot be repeated; the names of entrances/exits in the same parking lot cannot be the same; the names of the lanes in the same entrances/exits cannot be the same.

15.3.2 Vehicle Group Management

Go to Parking Lot Management→System Settings→Vehicle Group Management interface as shown below.

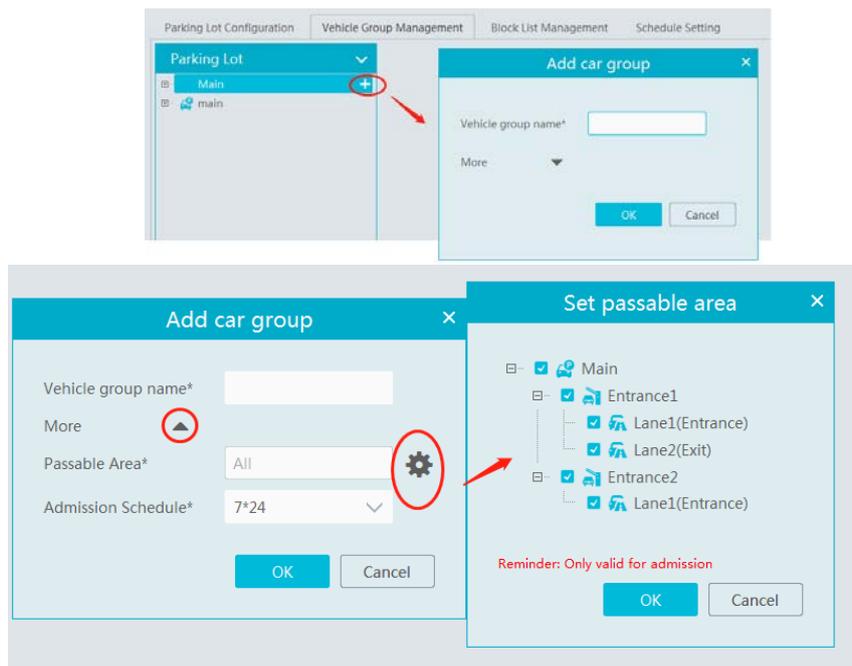


- **Add, Modify or Delete Vehicle Group**

Add Vehicle Group:

Move the cursor onto the parking lot name and then will be shown. Click this icon to add a vehicle group.

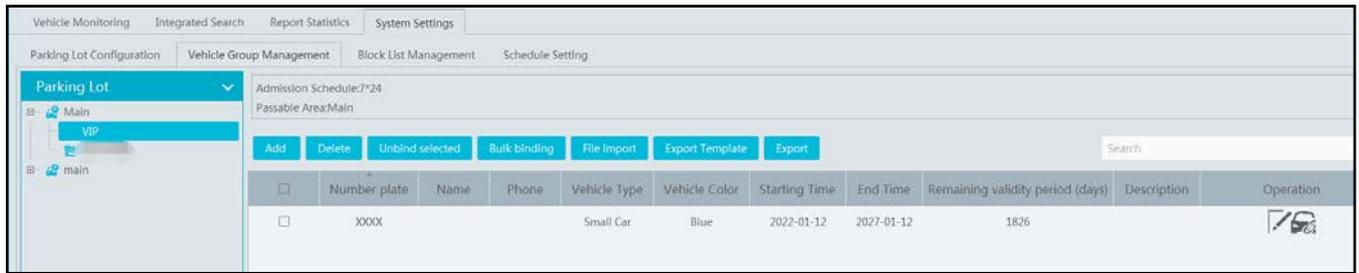
Click to edit the vehicle group. Click to extend the remaining menu and then click to set the passable area of the vehicle group and admission schedule.



Modify or Delete Vehicle Group:

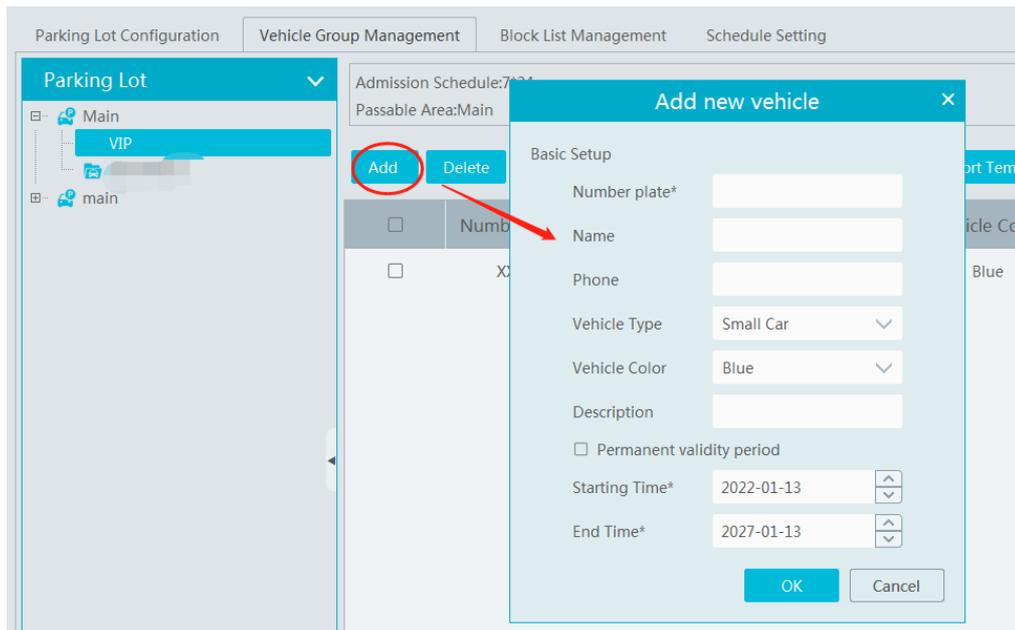
Move the cursor onto the vehicle group name and then will be shown. Click this icon to delete. If there are vehicles added in the vehicle group, it cannot be deleted. You must delete all vehicle information first and then this vehicle group can be deleted.

Move the cursor onto the vehicle group and then will be shown. Click it to modify the vehicle group name, passable area and admission schedule. After that, click “OK” to save the settings.



Vehicle Information Settings

Add Vehicle Information: Select the vehicle group, click [Add] to add a new vehicle. Fill in the relevant vehicle information. The number plate must be entered.



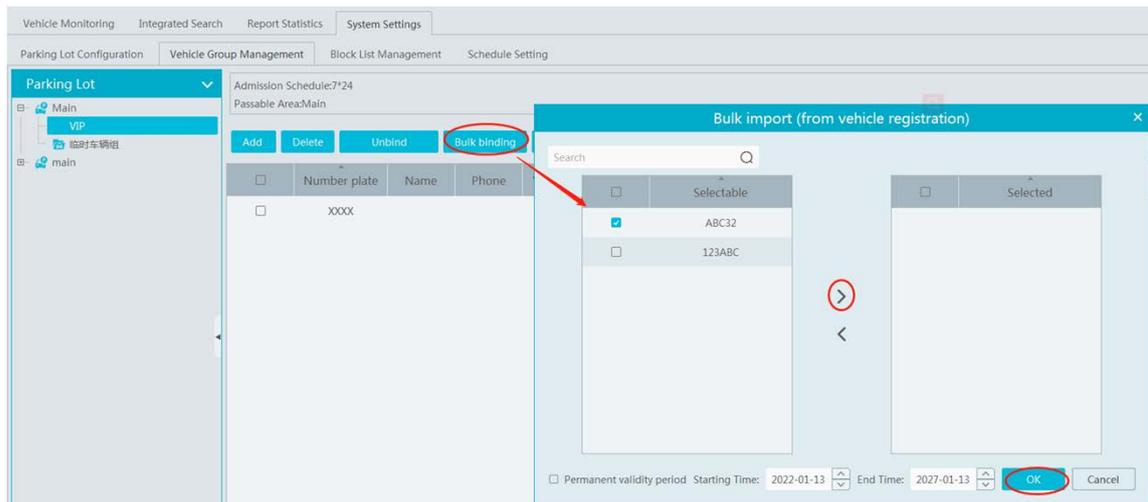
Delete Vehicle Information:

Select the vehicle information and then click [Delete] to delete the vehicle information.

Note: If the vehicle information you want to delete is bound to other vehicle groups, it will be deleted too in other vehicle groups.

Bulk Binding: in the vehicle group management interface, select the vehicle group and click [Bulk Binding] to bind other vehicles to this vehicle group.

Note: one license plate only can be bound to a vehicle group of other parking lots. It cannot be bound to other vehicle groups of the same parking lot.



File Import: Click [Export Template] to export a .csv or .xlsx file. Then open the template, edit all vehicle information and then save it.

Click [File Import] and then select the edited file to import all vehicle information.

.csv template file includes three attributes, including plate number, owner's name, owner's phone.

	A	B	C	D
1	(B1) Number	(B2) Owner	(B3) Owner's Phone	
2	A123456	Simon	11111111111	
3				
4				

.xlsx file includes many attributes, including plate number (compulsory), owner, owner, phone, vehicle color, vehicle type and so on.

	A	B	C	D	E	F	G	H
1	#####							
2	Number plate	Owner's Name	Owner's Phone	Description	Vehicle Type	Vehicle Color	Start Time	End Time
3	A123456	Simon	11111111111	Discription	Small Car	Blue	2022/01/13	2022/01/13
4								
5								

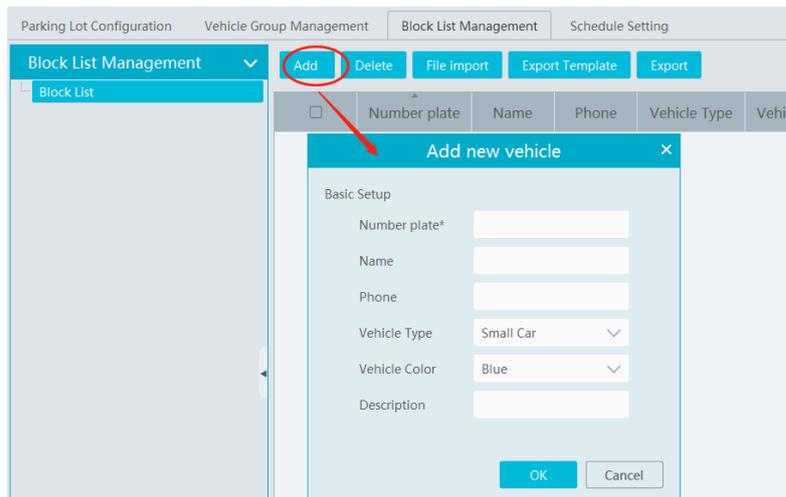
Unbind Vehicle: Select the vehicle you want to unbind and then click [Unbind selected]. In the pop-up window, click [OK]. This vehicle will be removed from the current vehicle group. The vehicle information will not be deleted and the binding relationship between the vehicle and other vehicle groups will not be changed. This vehicle also can be bound to the other vehicle group of this parking lot. You can also click to unbind.

Modify Vehicle Information: in the vehicle group management interface, select a vehicle and then click to change this vehicle information.

Vehicle Search: in the search bar, enter the key words to search the vehicle information.

15.3.3 Block List Management

Go to Parking Lot Management → System Settings→Block List Management interface as shown below.



Block list is created by default. Click [Add] to add the vehicle information. The plate number must be entered. The vehicles added to the block list cannot be added to any other vehicle groups.

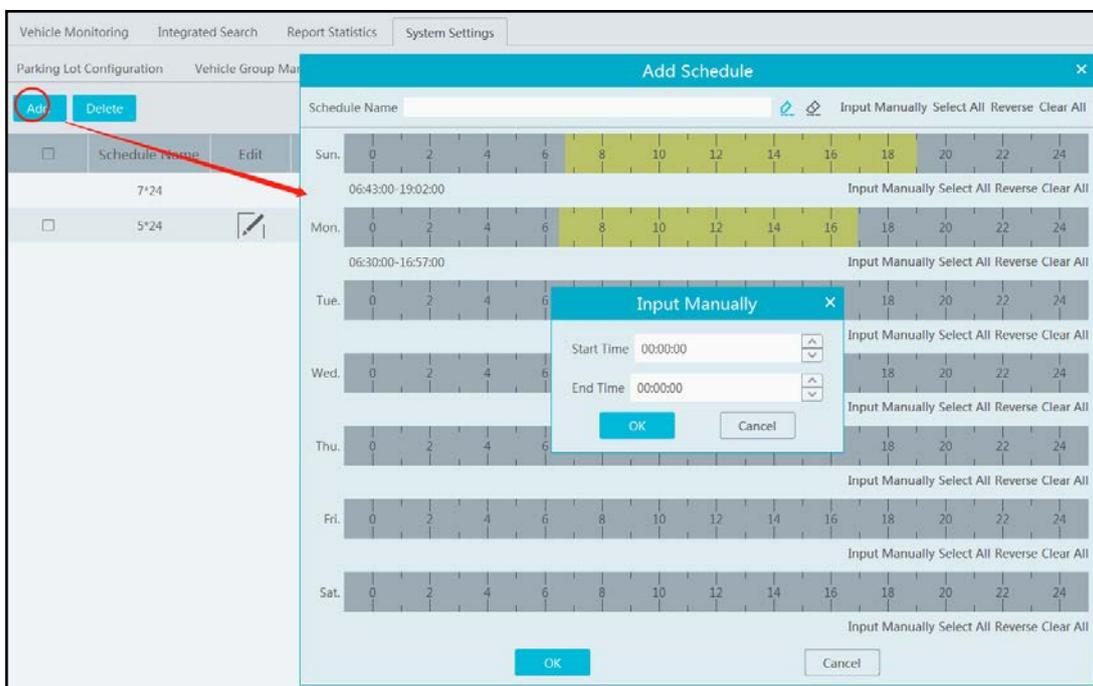
Select the vehicles and then click [Delete] to delete the vehicles from the block list. Import the vehicles to the block list is the same as vehicle import to other vehicle groups.

Click  to modify the vehicle information in the block list. Click [OK] to save the settings.

15.3.4 Schedule Settings

Go to Parking Lot Management→System Settings→Schedule Setting interface as shown below.

Click [Add] to pop up schedule adding window. Click “Input Manually” to enter the start and end time. Then click “OK” to create the schedule. Choose the schedule and then click [Delete] to delete the schedule. Click  to modify the schedule. 7*24 is created by default schedule which cannot be deleted.



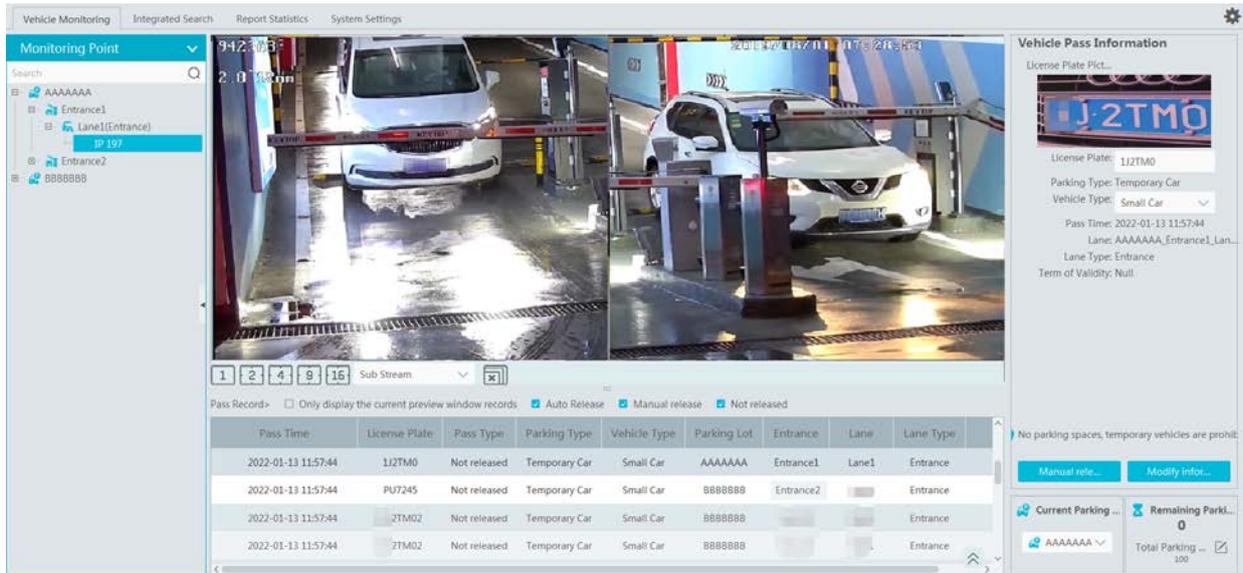
15.4 Vehicle Monitoring

Click Parking Lot Management→Vehicle Monitoring. Then you can view the real-time lane monitoring video, vehicle passing information, remaining parking space and so on.

15.4.1 Real-time Vehicle Preview

Drag the camera on the left panel to the preview window to view the real time video. 1/2/4/9/16 screen display mode and stream can be

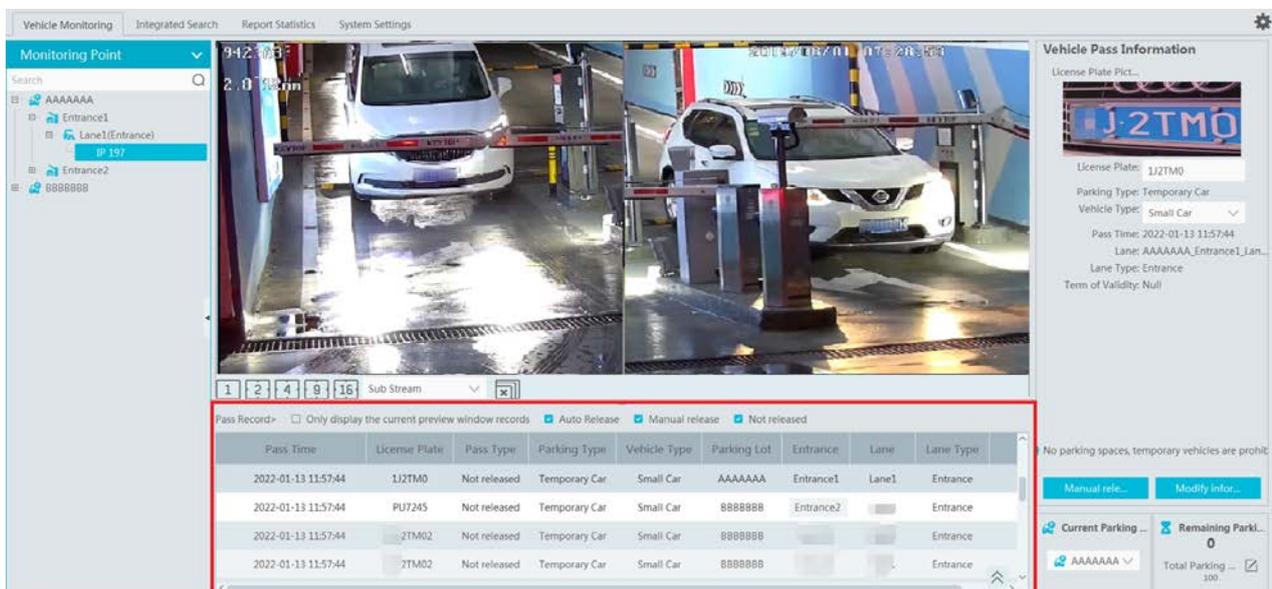
selected. Click  to close all previews.



15.4.2 Pass Records

Under the preview window, you can view the real-time vehicle passing records. If “Only display the current preview window records” is checked, the system will only display the vehicle information identified by the camera that is playing in the preview window. If disabled, the vehicle information identified by all cameras under all parking lots will be displayed. You can also filter the passing record by selecting “Auto Release”, “Manual Release” or “Not Released”.

When the scrollbar on the right of the passing record area is in the top or bottom, the passing record may not refresh; when the scrollbar in the middle, it will stop refreshing and the current passing record page will not change.

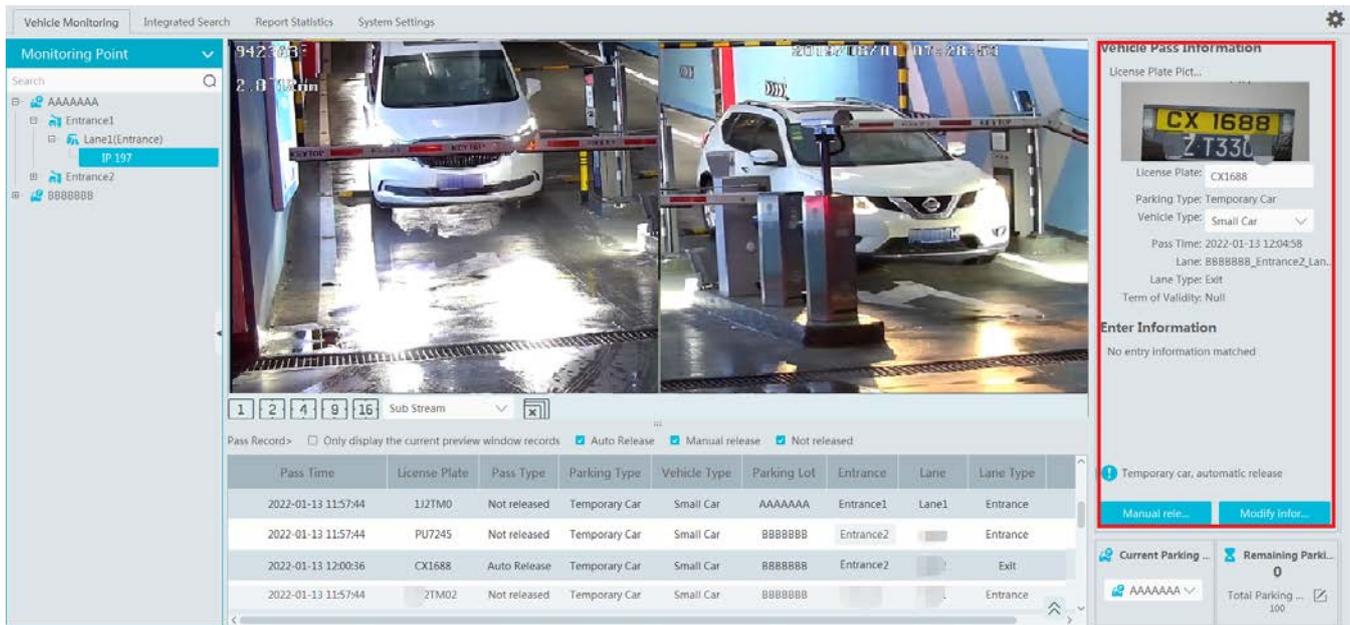


15.4.3 Pass Information

On the right panel of the vehicle monitoring interface, it shows vehicle passing information. In the current area, you can view the vehicle image, license plate, lane type, vehicle type, term of validity, enter information and the vehicle status. You can also modify the information of vehicles unreleased (or manually released), including license plate, vehicle type and so on.

Select a preview window and then the passing record will refresh the vehicle information identified by the camera; Select a passing

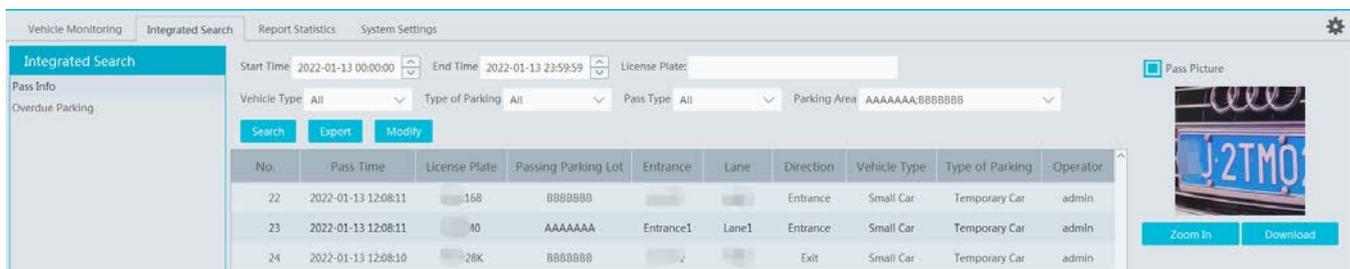
record, vehicle pass information area will display the selected vehicle information and the passing record will not refresh. Re-select the preview window to continue refreshing.



On the lower right of the vehicle monitoring, it is remaining parking space display area. You can select the parking lot as needed. Click to select the parking lot you want to display and then edit the total parking space and remaining parking space. Please make sure there is no vehicle entering or exiting before modification in order to guarantee the accuracy counting of the remaining parking space.

15.4.4 Search Pass Information

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. Click [Search] to search the records. Click a passing record and then the corresponding license plate image will be displayed on the right. You can zoom in and download it. At present, up to 3,000,000 passing records can be stored and 120,000 vehicle passing images can be matched to these passing records. To modify passing record: select a passing record, click [Modify], select the vehicle type and click [OK]. To export the parsing record, search the desired passing record and then click [export] to export the records to the specified file named after "Integrated Search + data" (eg. Integrated Search_20220112_11233555). The export file is .xls file.



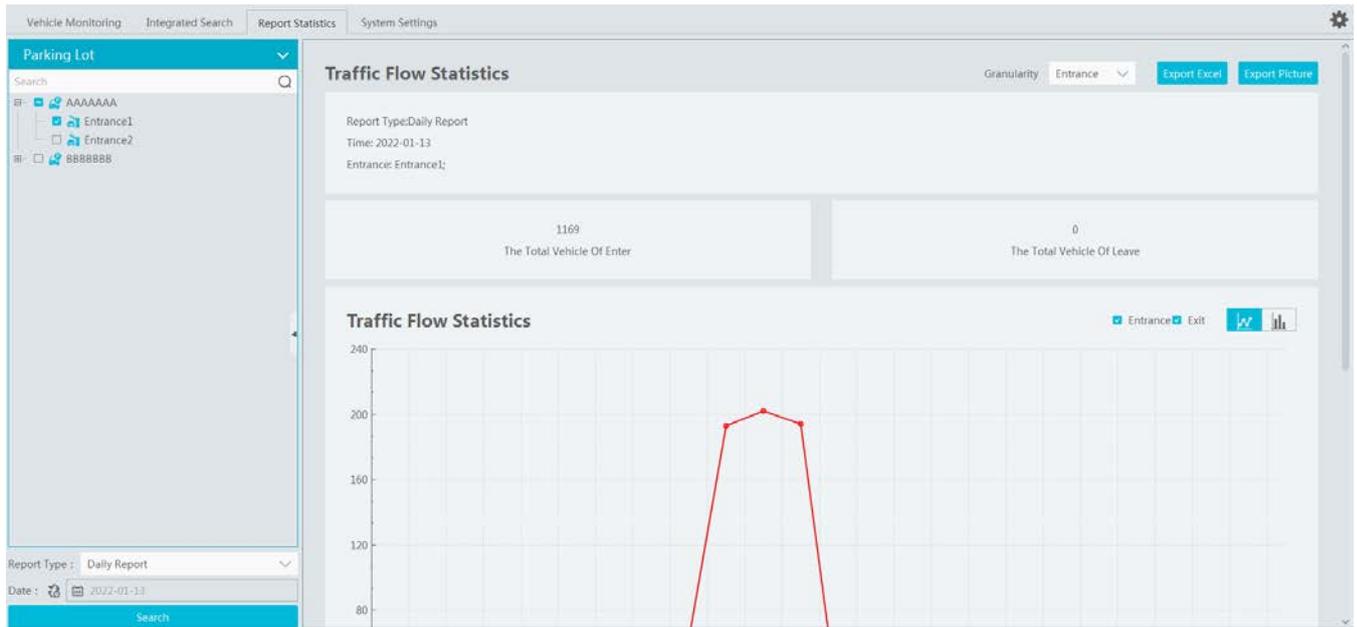
15.4.5 Search Overdue Parking

In this interface, you can check the information of the vehicles which stay in the parking lot longer than the predefined parking duration. Before searching, please make sure you have enabled overtime parking of temporary vehicles in the parking lot configuration interface. (Click Home→Parking Lot Management→System Settings→Parking Lot Configuration)

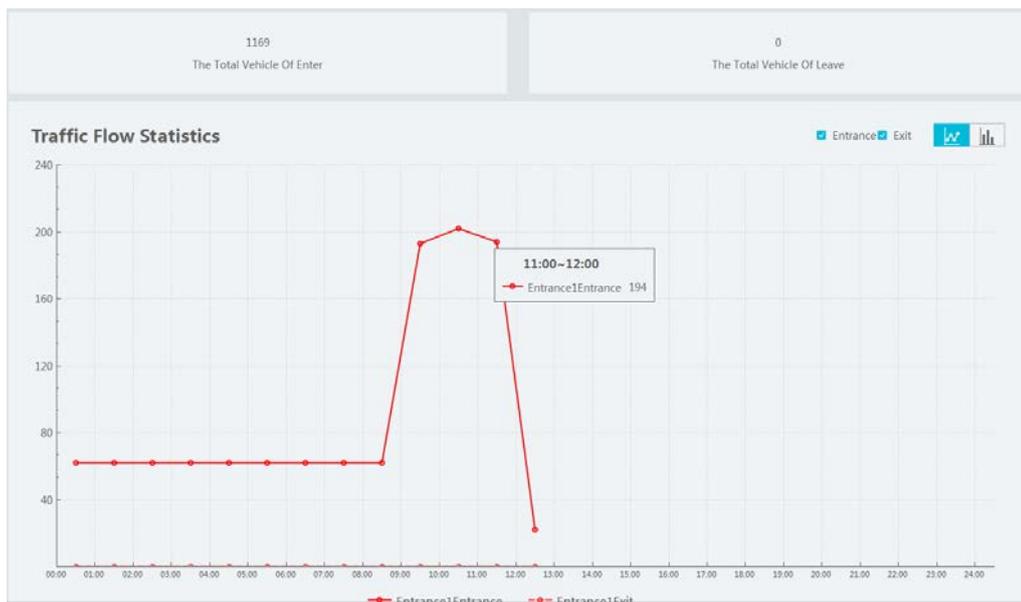
15.5 Report Statistics

Go to Parking Lot Management→Report Statistics interface. In this interface, vehicle flow statistics of all parking lots can be searched and

viewed via line chart, bar graph and pie chart.

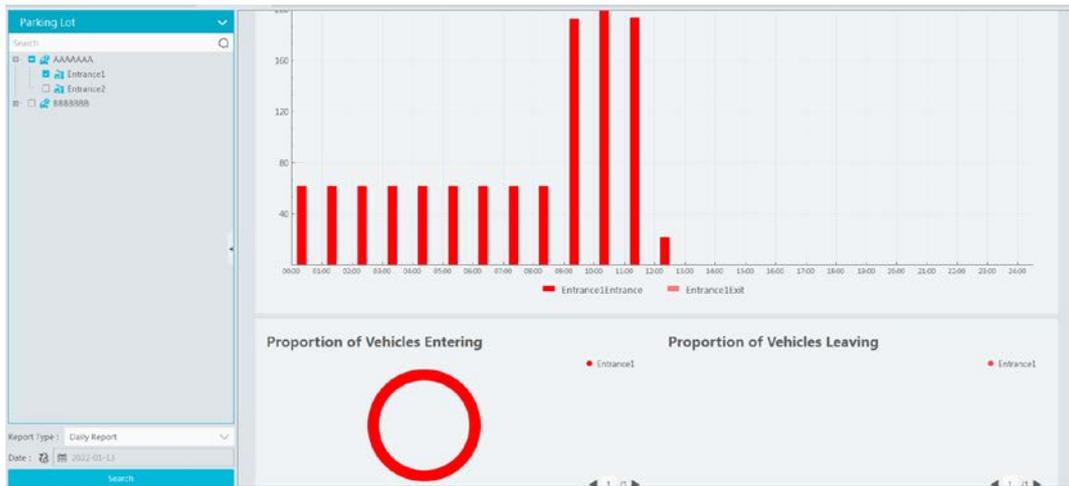


On the left panel, select the parking lot and entrances/exits you want to view the statistical information. Then select the report type and data. Click to select the desired date; click to select the date range. After that, click [search] to display the statistical information.



The default granularity is “Entrance”. You also can select “Parking Lot” and click [Search] to refresh the vehicle flow data. The report type, time and granularity will be shown on the top of statistical information. The total number of vehicles entering or leaving can be viewed too.

Click to view the data statistics in the line chart; click to view the statistics in the bar graph. You can view the entrance or exit information as needed. Put the cursor on the statistic chart/graph to view the detailed information.



Export: You can choose to export Excel or image as needed. Click [Export Excel], select the path and then click “Save” to export the files(.xls). The file name format is “Report Statistics_ Date”.

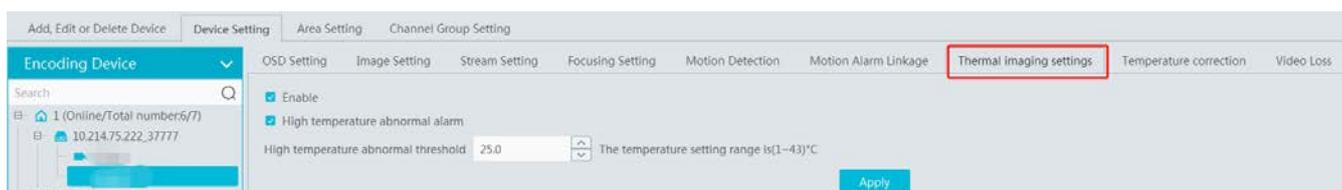
Click [Export Picture] to export pictures (.png format).

16 Body Temperature Measurement

16.1 Add Temperature Reading Devices

This platform supports thermal network camera and temperature measurement panel access.

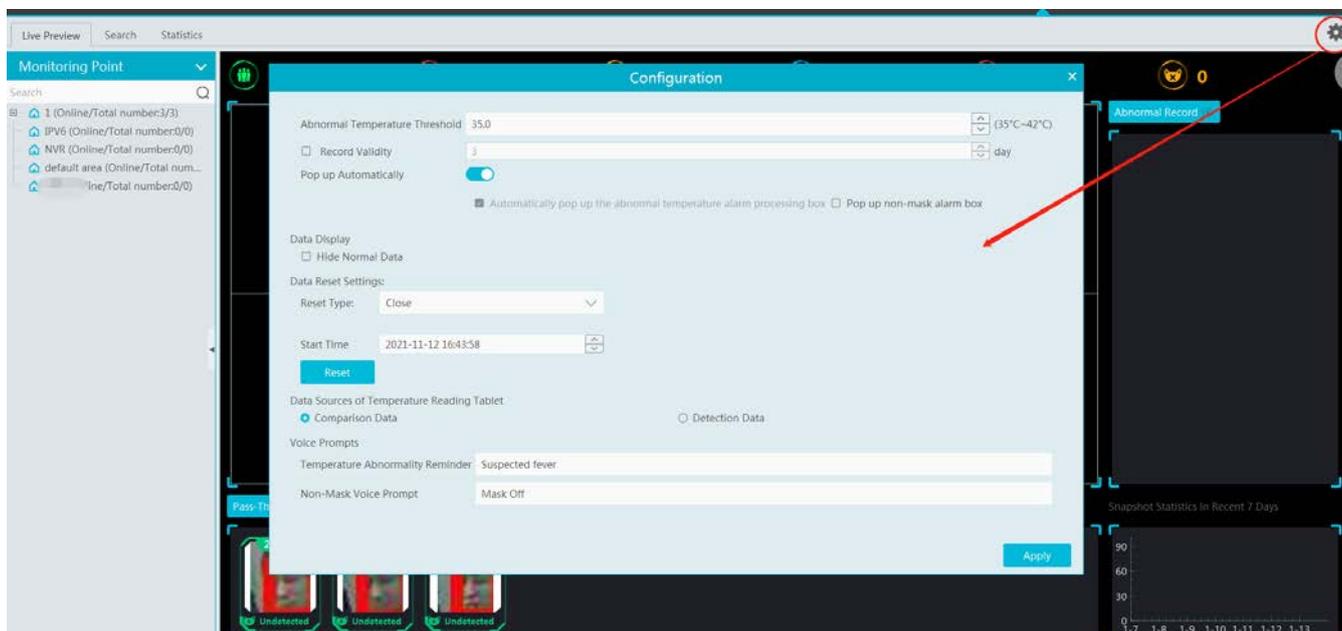
1. Click Home→Resource Management→Add, Edit or Delete Device→Encoding Device to go to the encoding device interface. Click [Add] to add the temperature reading devices.
2. Click Home→Resource Management→Device Setting to go to the device setting interface. Select the temperature reading device and then click the “Thermal imaging settings” tab to enable temperature measurement function.
3. Set the temperature unit, high temperature threshold and low temperature threshold (different devices may have different settings).
4. Click [Apply] to save the settings.



16.2 Temperature Screening

16.2.1 Configuration

1. Click Home→Temperature Measurement→Live Preview→ to go to the following interface.
2. Set the temperature measurement parameters as needed.



Abnormal temperature threshold: please set the value according to the actual condition. When the temperature detected is over than the set value, alarms will be triggered.

Record validity: Set how long the platform will keep the temperature records. If it is enabled, the temperature records will be cleared beyond the set days.

Pop-up automatically: if enabled, the abnormal temperature alarm processing box will pop up automatically. Additionally, you can enable “Pop up non-mask alarm box” as needed.

Data Display: you can choose “Hide normal data”. That is to say, if the temperature of the person scanned is normal and the mask is detected, these data will not be displayed on the client.

Data Reset Settings:

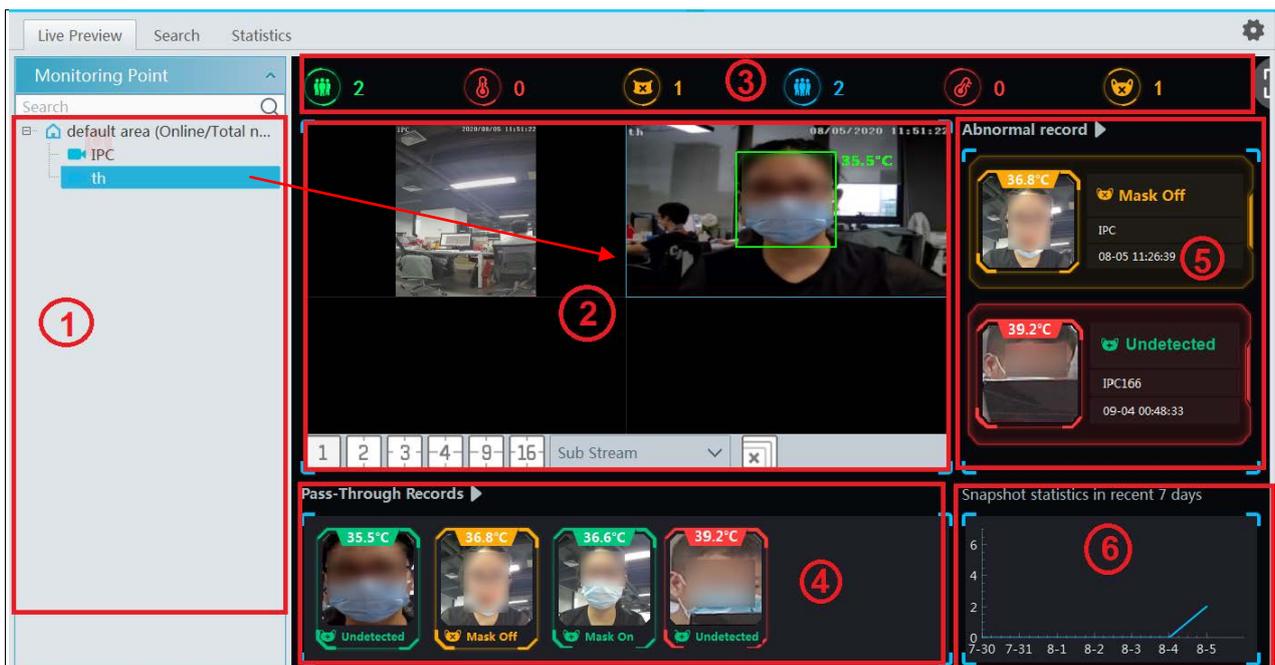
- a. Reset time and type: please reset time of the temperature data as needed. These data can be reset every day, every week or every month.
- b. You can reset the statistics by clicking [Reset].

Data sources of Temperature Reading Table: including comparison data and detection data. If comparison data is selected, the platform will receive the temperature reading result and face comparison result; if detection data is selected, the platform will receive the temperature reading result and face detection result, but it is not sure whether the person is matched with that of the face database

Voice Prompt: Please set the over temp voice prompt and non-mask voice prompt as needed. When no mask or elevated temperature is detected, the set voice prompt will be heard.

16.2.2 Live Preview

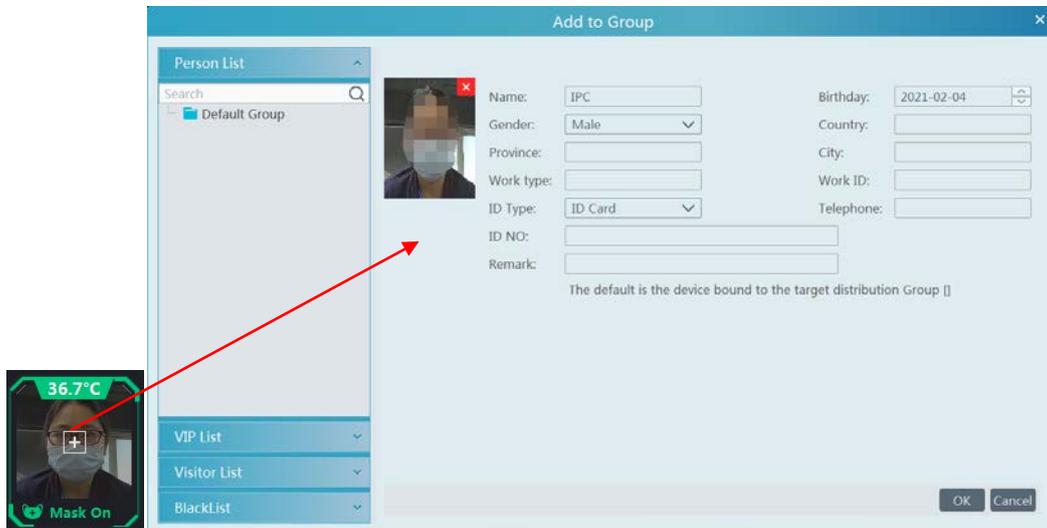
Drag the thermal cameras/temperature measurement and face recognition terminals to the preview window. In this interface, you can view various statistical information, such as total pass-by(today/total), Over-temperature(today/total), mask off (today/total), etc.



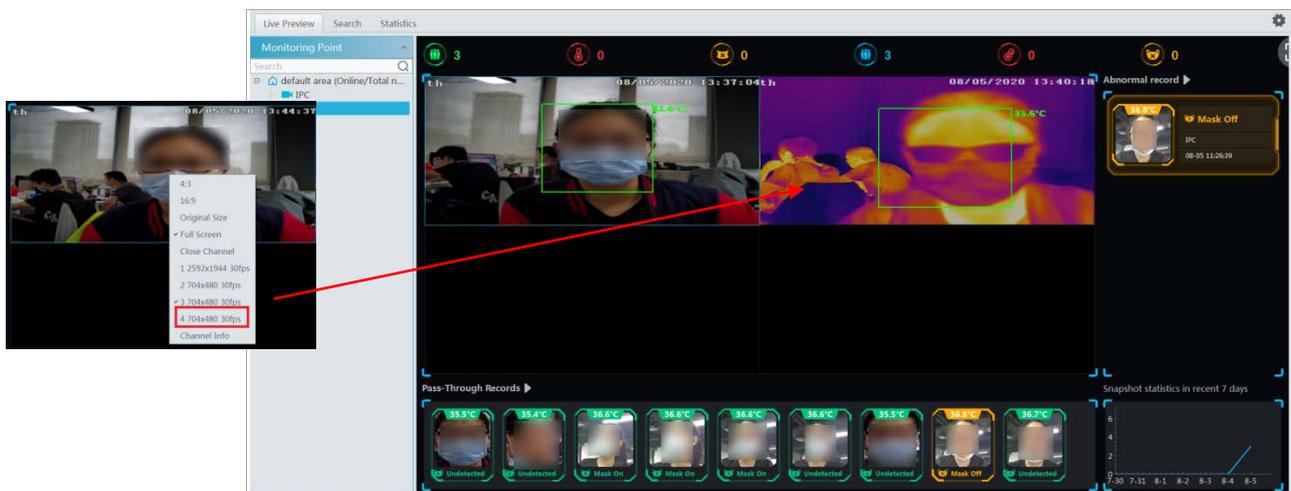
No.	Descriptions
①	Camera list, including temperature measurement terminal/panel and thermal network camera.
②	Preview Area; drag the camera to the preview window to play.
③	Statistical display area, including such as total pass-by counts(today/total), Over-temperature counts (today/total), mask off counts (today/total)
④	Pass-through records (snapshot display area)

⑤	Abnormal record display area, including mask off, over temp
⑥	Snapshot statistics in recent 7 days

Putting the cursor on the snapshot picture appears a “+” icon. Click this icon to add this picture to the group of the face database.



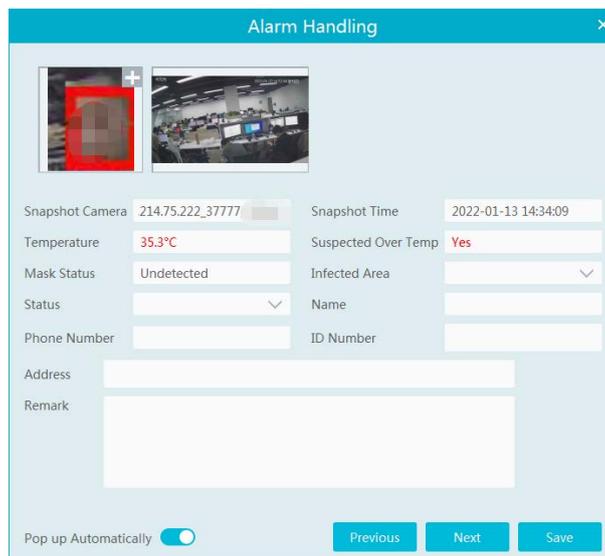
The thermal image and visible light image will be displayed simultaneously if the thermal camera is dragged to the preview area. Right click on the thermal camera window and then select the fourth stream to view the thermal image as shown below.



➤ Alarm Handling

Click the captured image on area ⑤ to pop up an alarm handling box as shown below. You can edit the personal information, including name, phone number, ID number, address, whether to go to the infected area, etc.

Click “+” on the top right corner of the snapshot image to add it to the group of the face database.



Pop up automatically: if enabled, the alarm handling box will automatically pop up on detecting an abnormal event (over temp/mask off).

➤ Full Screen Display

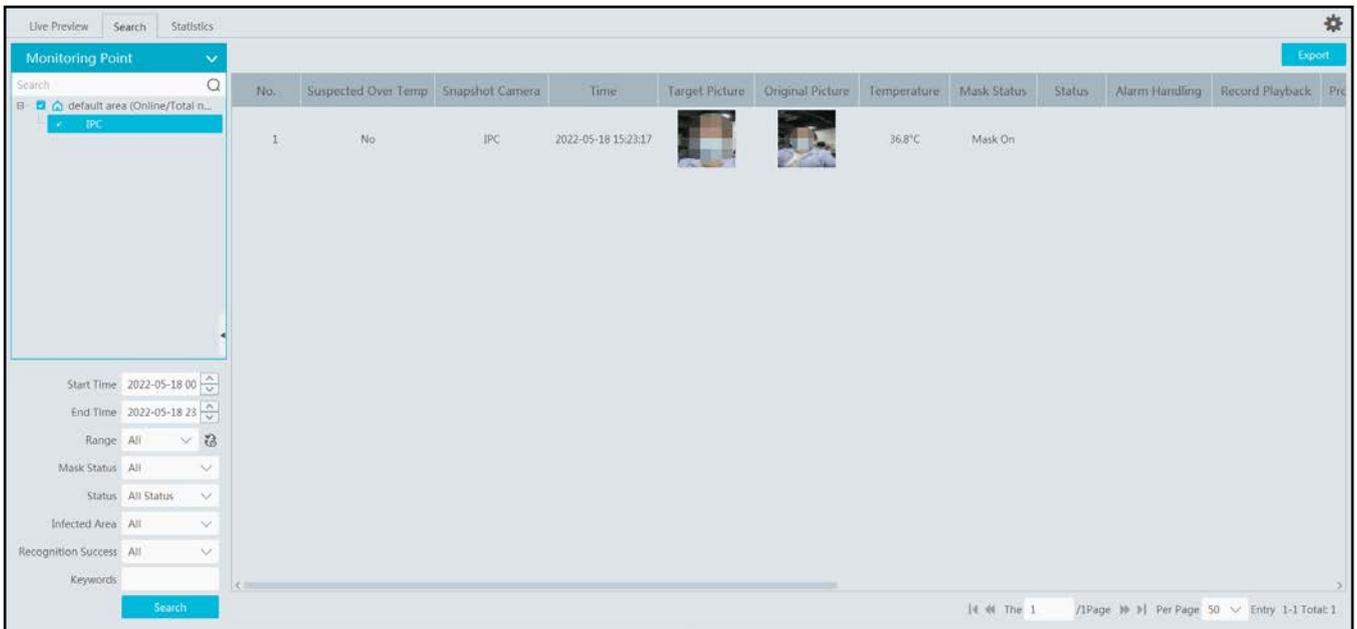
In the temperature measurement interface, click  to enter temperature warning system interface.



Click  to exit the full screen mode.

16.2.3 Record Search

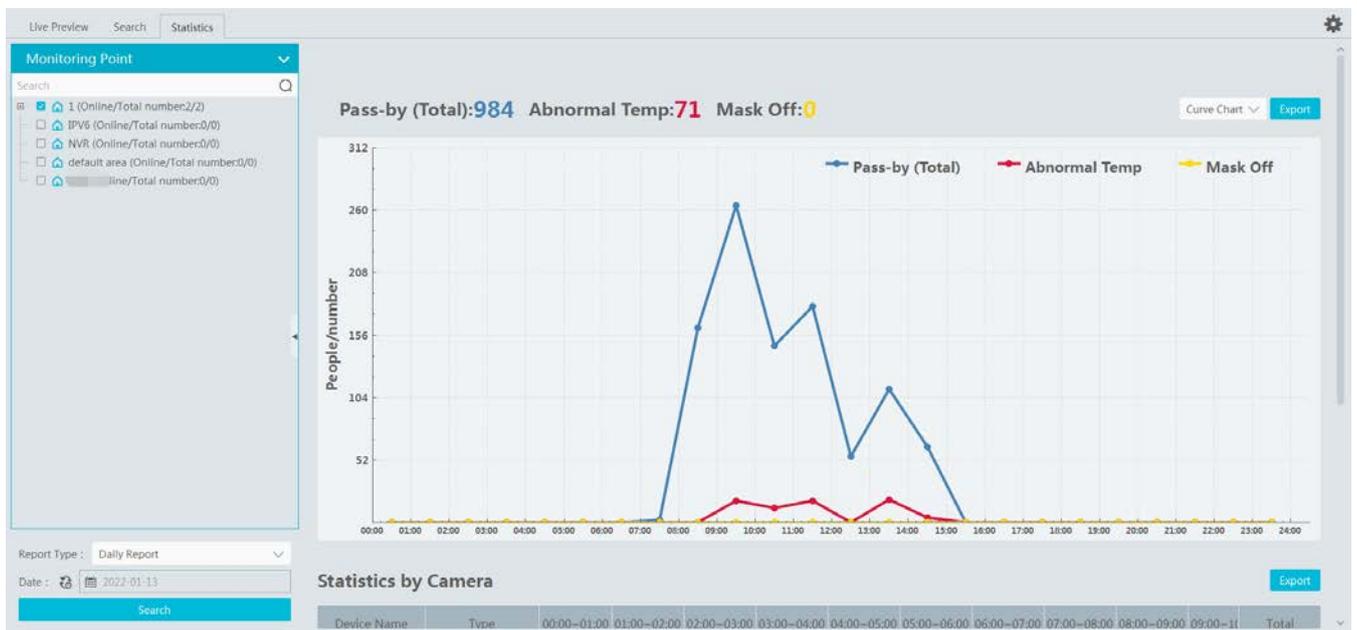
Select the camera and then set the filter condition (like the start and end time, temperature range, keywords, etc.) to search the records.



In the above interface, you can view the target picture and the original picture, body temperature, mask status, alarm handling status, etc.

16.2.4 Statistics

In the statistics interface, you can view the total pass-through counts, abnormal temperature counts and mask off counts.



: Click it to switch between date and date range.

Choose the camera and then set the start time and end time. Click “Search” to view the statistics.

You can view the statistics via a line chart or bar graph. The statistical data can be exported by clicking “Export”.

17 Industrial Temperature Measurement

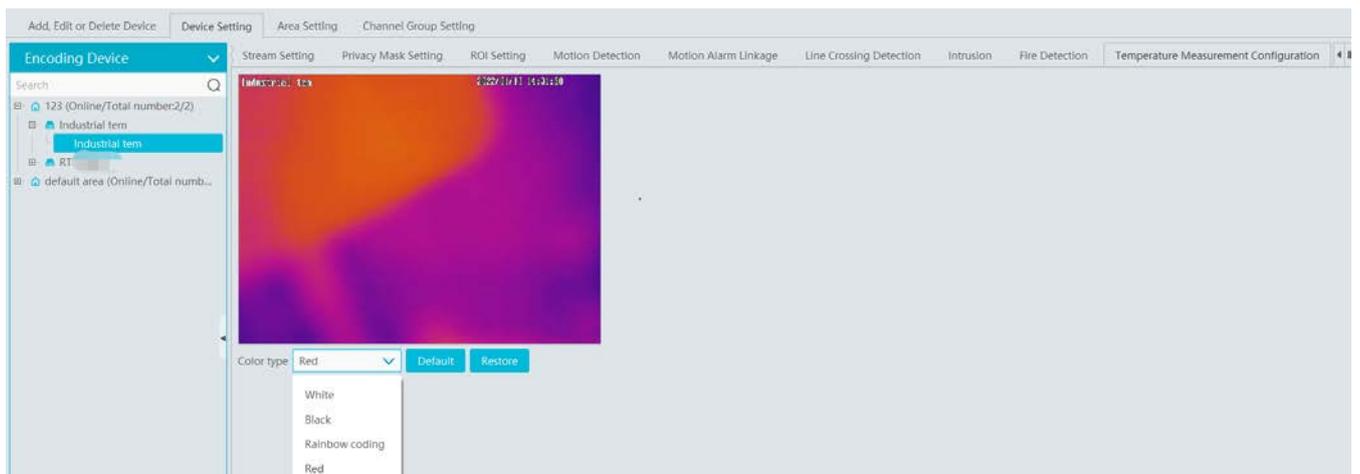
17.1 Thermal Network Camera Settings

Click Home→Resource Management→Add, Edit or Delete Device→Encoding Device to go to the encoding device interface. Click [Add] to add the security thermal network cameras.



17.1.1 Temperature Measurement Settings

After adding the security thermal network camera, click Resource Management→Device Setting→Temperature Measurement Configuration to go to set the temperature measurement parameters.

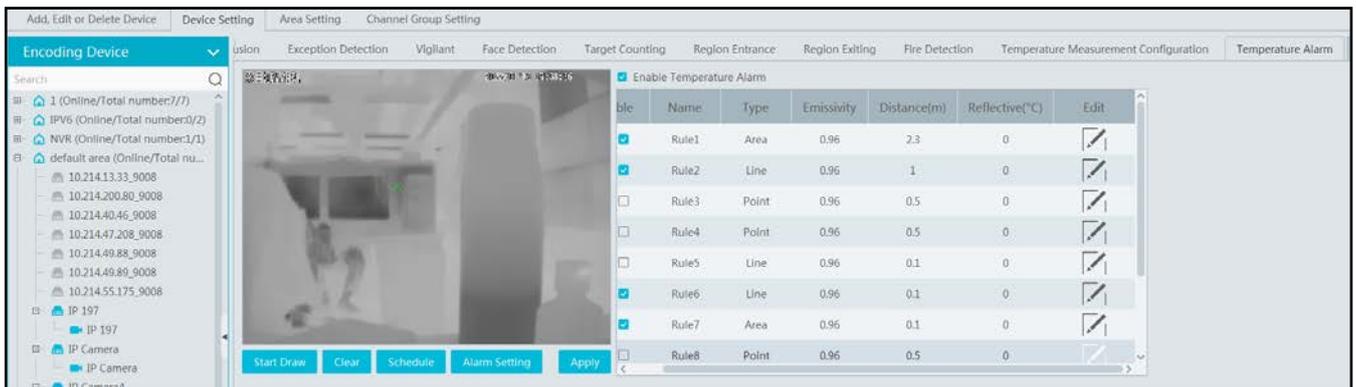


Color Type: White/Black/Rainbow coding/Red

Restore: Click it to restore the set image to the previous image.

17.1.2 Temperature Alarm Settings

In the device setting interface, select the security thermal network camera and then click the temperature alarm tab as shown below.



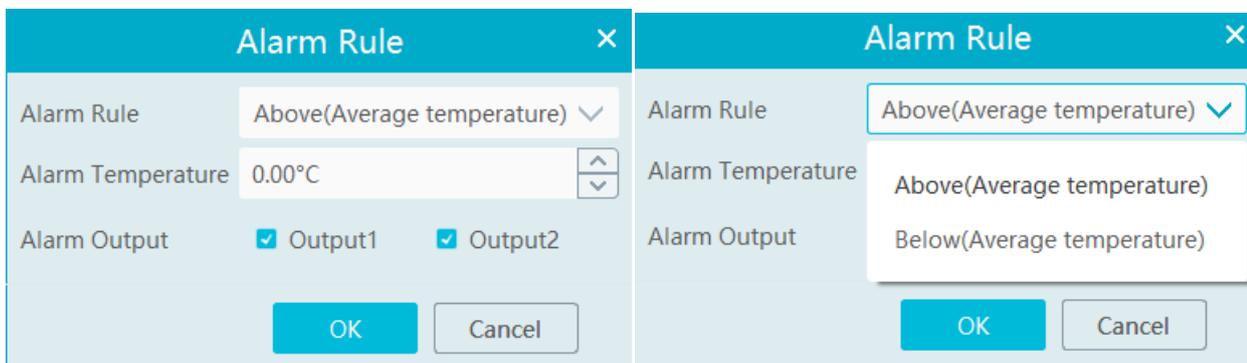
Enable temperature alarm.

Set the rules. Up to 10 rules can be set.

Double click rule name, type, emissivity, distance and reflective temperature of each rule to modify them.

The rule type includes point, line and area.

Edit: set the alarm rule.



After the above alarm rules is set and temperature alarm is enabled, set the alarm linkage items of monitoring point-temperature alarm in the alarm linkage interface. When the detected temperature exceeds the set threshold, the related alarms will be triggered.

Start Draw: select the type and then draw on the image.

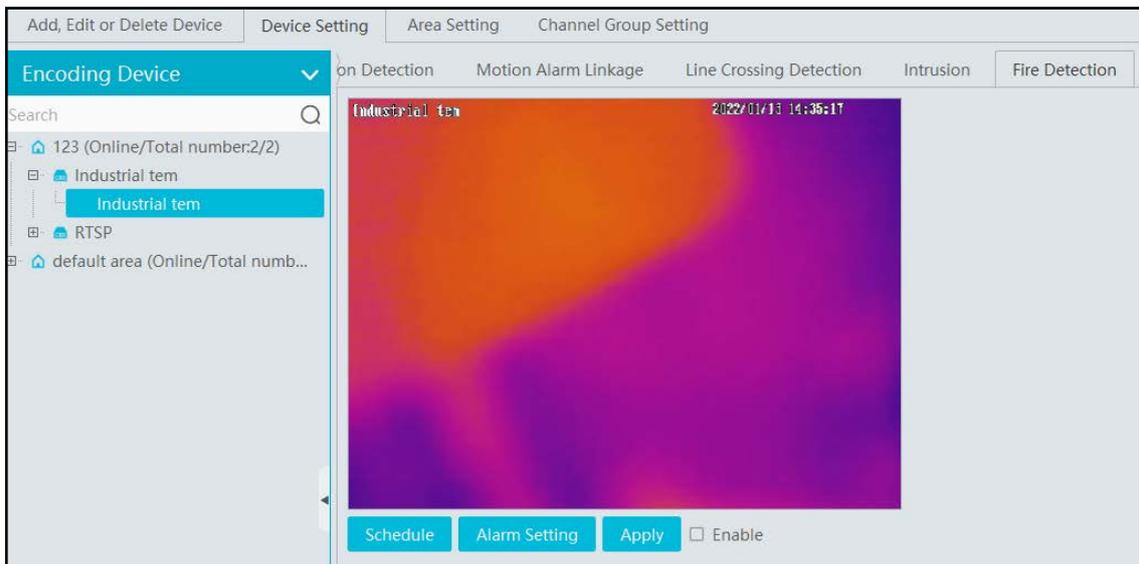
Clear: clear the drawn point/line/area.

Schedule: Set the schedule of temperature alarm.

Alarm Setting: Set the alarm of the IPC.

17.1.3 Fire Detection Settings

In the device setting interface, select the security thermal network camera and then click the fire detection tab as shown below.



Schedule: set the schedule of fire detection, 7*24 by default.

Alarm Setting: set the alarm of IPC.

Apply: Click it to save the settings.

Enable: Check it to enable the fire detection function.

17.1.4 Alarm Linkage Settings

Click Alarm Center→Alarm Linkage Settings→Monitoring Point-Fire detection alarm

Enable the alarm linkage items, like record, snapshot, alarm output, etc.

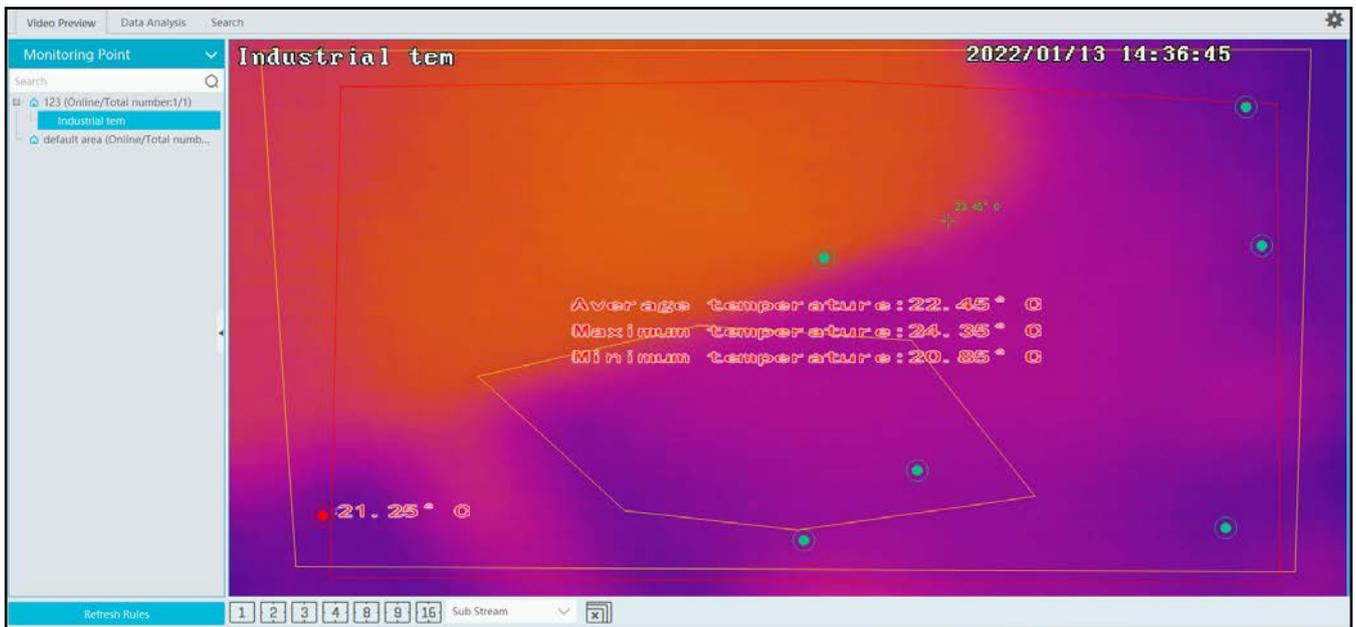
When the detected temperature exceeds the set threshold, alarms will be triggered.

Area	Alarm Type	Monitoring Point-Fire detection alarm	All ON	All OFF	Reset	Apply	Filter		
Name	Audio	PTZ Control	Record	Alarm Preview	Snapshot	Alarm Output	Voice Broadcast	Open Door	TV Wall
Industrial tem	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RTSP测试_CAM001	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

17.2 Temperature Measurement

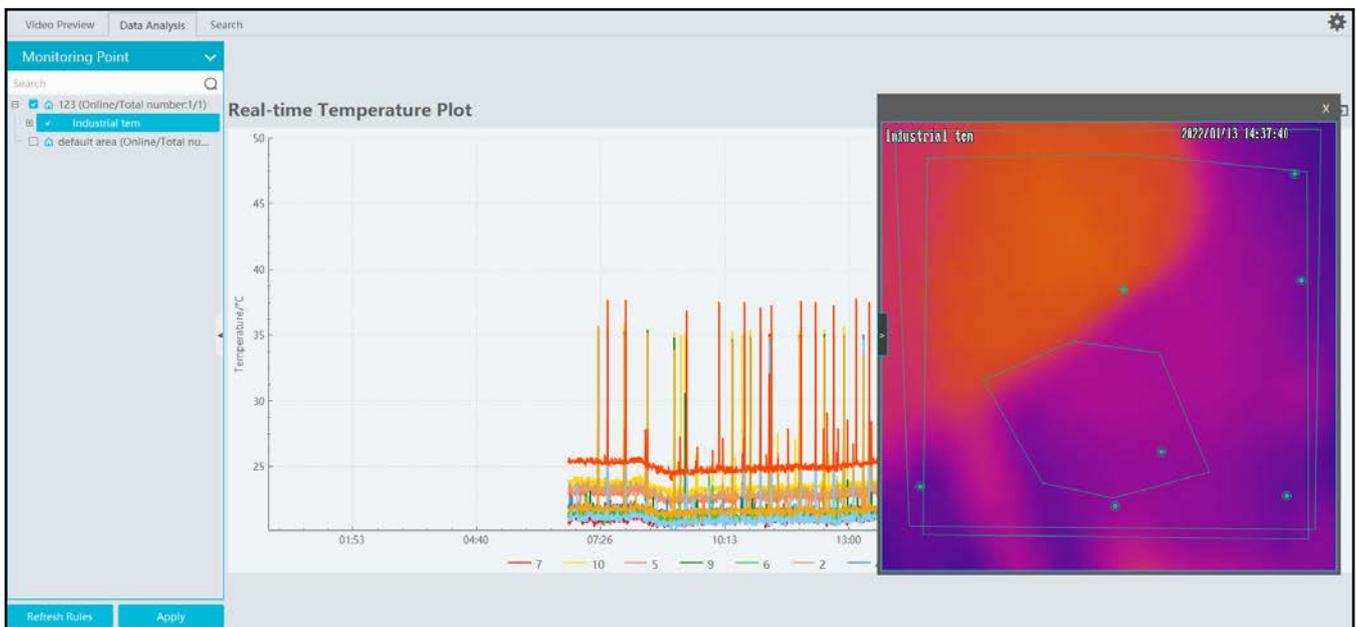
17.2.1 Video Preview

Go to the video preview interface and then drag the thermal camera to the window to play. The default video stream is the fourth stream (thermal imaging stream). You can switch the stream under the preview window. The temperature measurement rule and the current temperature will be displayed in the image. When the temperature alarm is triggered, they will turn red.

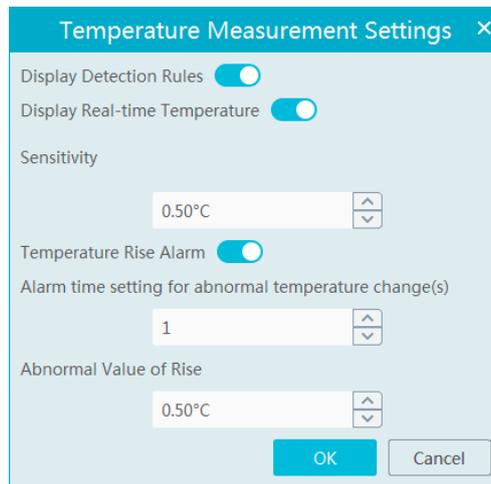


17.2.2 Data Analysis

Select the data analysis tab to enter the following interface. Select the temperature measurement rule (multiple rules can be selected) and click [Apply] to view the real-time temperature reading results and image.



Temperature measurement settings: Click  to open the temperature measurement setting window. You can choose whether to display detection rules and real-time temperature, set sensitivity and temperature rise alarm.



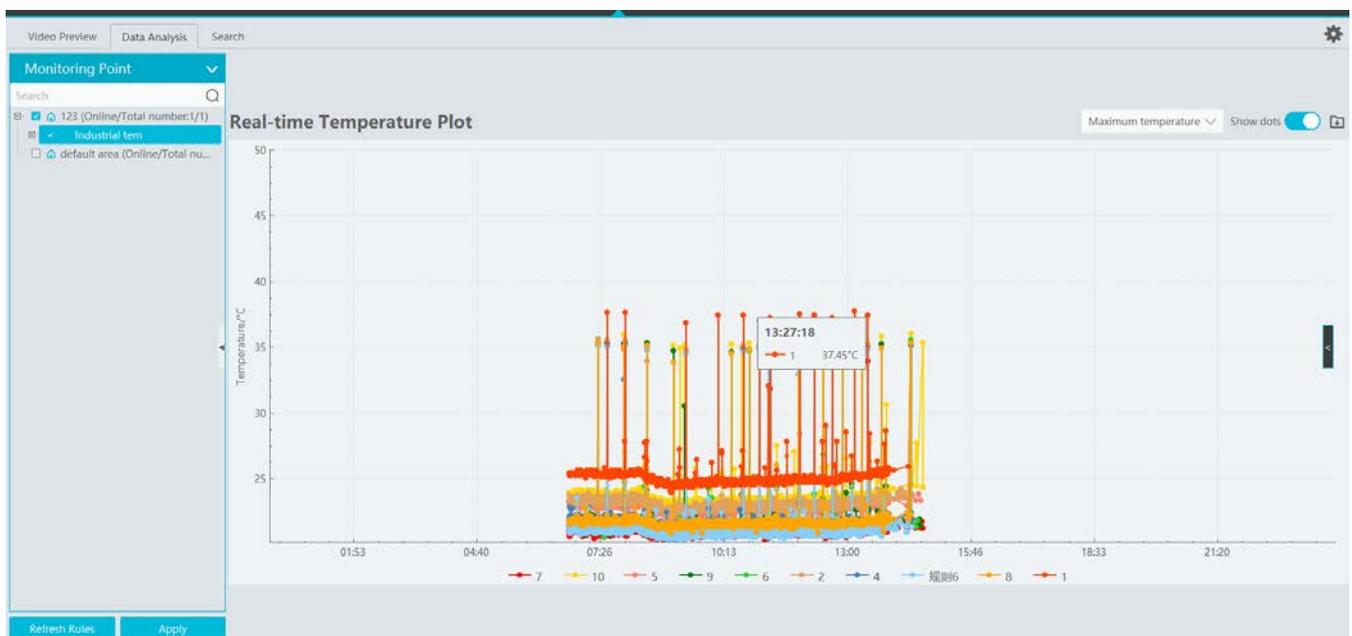
You can set the alarm linkage items of temperature rise alarm. When the rise of the temperature exceeds the set value, the relevant alarms will be triggered. Go to Alarm Center→Alarm Linkage Settings interface and select “Monitoring Point—Abnormal temperature rise” to set the alarm linkage items.

Note: At present, the system will detect the temperature every 10s. If the temperature goes up 0.1°C every one second, the temperature will rise up 0.5°C after 5 seconds, but alarms will not be triggered immediately. Alarms will be triggered when the temperature rises up 0.5°C or higher after 10 seconds.

Different colors stands for different temperature measurement rules. You can view the temperature reading results.

Statistical type: Maximum/average/Minimum temperature.

Show dots: if enabled, the statistical temperature plot will show the dots as shown below. Put the cursor on the dot and then the detailed data will be displayed.



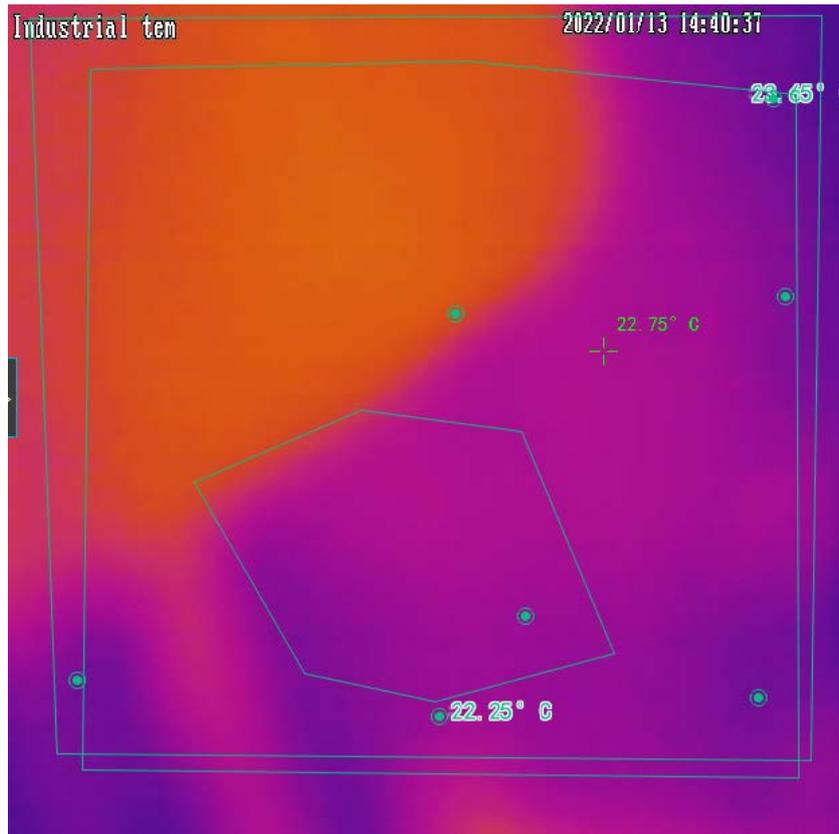
: Click it to export the temperature measurement data to the specified file.

Refresh Rules: Click it to refresh the monitoring points and then select the desired rules

Apply: After you select rules, click it to view the line chart.

Real-time Preview: click  on the right to extend the video preview window. Select a rule on the left monitoring point panel, this rule will be highlighted. Click any point in the preview window to view the real-time temperature.

Note: Dual lens thermal cameras don't support temperature reading by clicking any point.



17.2.3 Record Search

Click Industrial Temperature Measurement → Search to go to the following interface. Select one or more rules, set the start and end time and click [Search] to view the temperature data.

No.	Time	Monitoring Point Name	Minimum temperature	Average temperature	Maximum temperature	Area
7	2022-01-13 14:41:59	Industrial tem	20.85°C	22.45°C	24.35°C	10
8	2022-01-13 14:41:48	Industrial tem	33.25°C	34.55°C	35.35°C	10
9	2022-01-13 14:40:28	Industrial tem	21.75°C	21.75°C	21.75°C	7
10	2022-01-13 14:39:07	Industrial tem	21.25°C	21.25°C	21.25°C	7
11	2022-01-13 14:38:57	Industrial tem	23.35°C	23.35°C	23.35°C	5
12	2022-01-13 14:38:16	Industrial tem	21.45°C	21.45°C	21.45°C	9
13	2022-01-13 14:37:36	Industrial tem	21.95°C	21.95°C	21.95°C	9
14	2022-01-13 14:37:26	Industrial tem	21.75°C	21.75°C	21.75°C	7
15	2022-01-13 14:36:05	Industrial tem	23.85°C	23.85°C	23.85°C	5
16	2022-01-13 14:34:14	Industrial tem	21.85°C	21.85°C	21.85°C	6
17	2022-01-13 14:33:24	Industrial tem	20.95°C	22.55°C	24.45°C	10
18	2022-01-13 14:33:14	Industrial tem	20.95°C	22.75°C	27.75°C	10
19	2022-01-13 14:32:34	Industrial tem	21.35°C	21.35°C	21.35°C	6
20	2022-01-13 14:32:04	Industrial tem	21.25°C	21.25°C	21.25°C	7
21	2022-01-13 14:32:04	Industrial tem	23.35°C	23.35°C	23.35°C	5
22	2022-01-13 14:28:31	Industrial tem	21.45°C	21.45°C	21.45°C	9

Start/End Time: The end time shouldn't be earlier than the start time.

Export: Click [Export] to export the temperature data to the Excel file as shown below.

	A	B	C	D	E	F	G
7	6	2022-01-13 14:41:59	Industrial tem	21.25°C	21.25°C	21.25°C	7
8	7	2022-01-13 14:41:59	Industrial tem	20.85°C	22.45°C	24.35°C	10
9	8	2022-01-13 14:41:48	Industrial tem	33.25°C	34.55°C	35.35°C	10
10	9	2022-01-13 14:40:28	Industrial tem	21.75°C	21.75°C	21.75°C	7
11	10	2022-01-13 14:39:07	Industrial tem	21.25°C	21.25°C	21.25°C	7
12	11	2022-01-13 14:38:57	Industrial tem	23.35°C	23.35°C	23.35°C	5
13	12	2022-01-13 14:38:16	Industrial tem	21.45°C	21.45°C	21.45°C	9
14	13	2022-01-13 14:37:36	Industrial tem	21.95°C	21.95°C	21.95°C	9
15	14	2022-01-13 14:37:26	Industrial tem	21.75°C	21.75°C	21.75°C	7
16	15	2022-01-13 14:36:05	Industrial tem	23.85°C	23.85°C	23.85°C	5
17	16	2022-01-13 14:34:14	Industrial tem	21.85°C	21.85°C	21.85°C	6
18	17	2022-01-13 14:33:24	Industrial tem	20.95°C	22.55°C	24.45°C	10
19	18	2022-01-13 14:33:14	Industrial tem	20.95°C	22.75°C	27.75°C	10
20	19	2022-01-13 14:32:34	Industrial tem	21.35°C	21.35°C	21.35°C	6
21	20	2022-01-13 14:32:04	Industrial tem	21.25°C	21.25°C	21.25°C	7
22	21	2022-01-13 14:32:04	Industrial tem	23.35°C	23.35°C	23.35°C	5
23	22	2022-01-13 14:28:31	Industrial tem	21.45°C	21.45°C	21.45°C	9
24	23	2022-01-13 14:28:11	Industrial tem	21.15°C	22.15°C	23.75°C	2
25	24	2022-01-13 14:27:30	Industrial tem	21.95°C	21.95°C	21.95°C	4
26	25	2022-01-13 14:27:09	Industrial tem	20.85°C	22.65°C	24.55°C	10

Delete: if the rule is deleted, all historical temperature measurement records under this rule will be deleted too.

The screenshot shows the 'Data Analysis' section of the NVMS software. On the left, there is a 'Monitoring Point' tree view with 'Industrial tem' selected. The main area displays a table with columns: No., Time, Monitoring Point Name, Minimum temperature, Average temperature, Maximum temperature, and Area. A 'Question' dialog box is overlaid on the table, containing the text: 'Deleting rules will delete history records together. Do you want to delete?' with 'OK' and 'Cancel' buttons. The bottom status bar shows system information: 'Authentication Server Address: 10.214.11.109 | Port: 6003 | User Name: admin | CPU: 36% | Memory: 62%'.

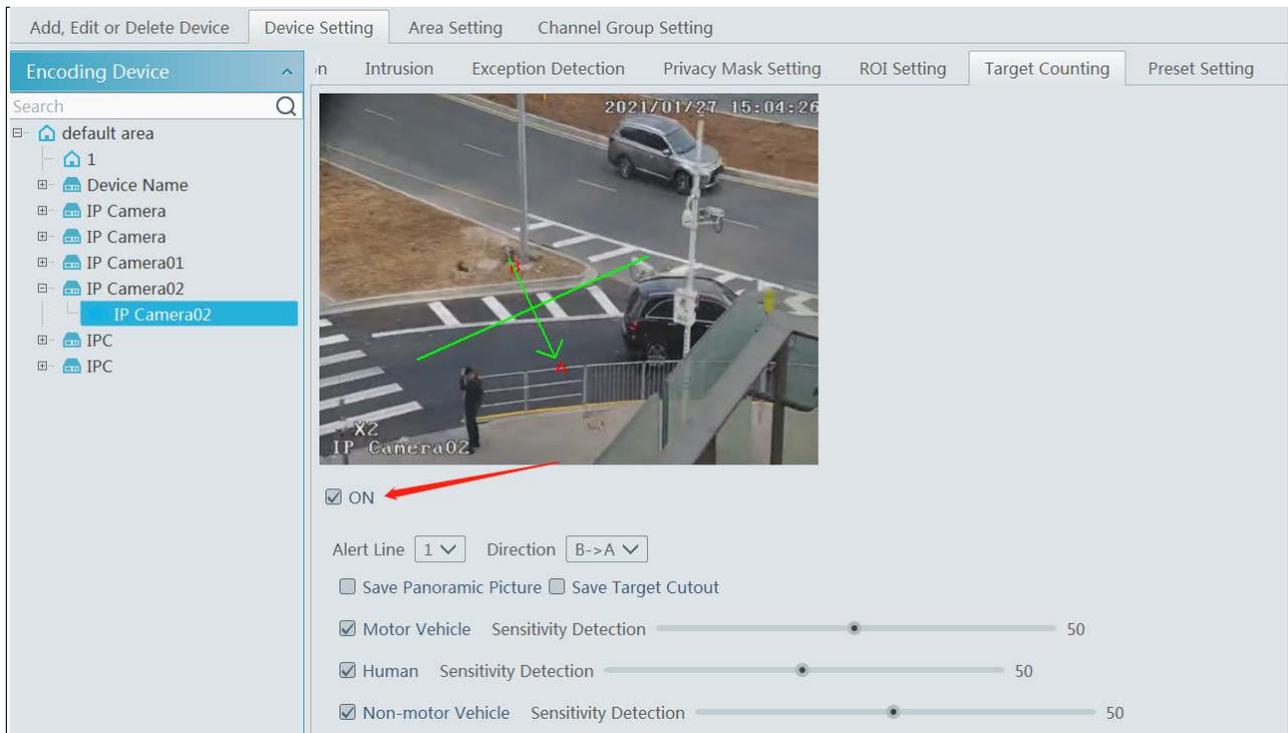
18 Target Counting

18.1 Task Management

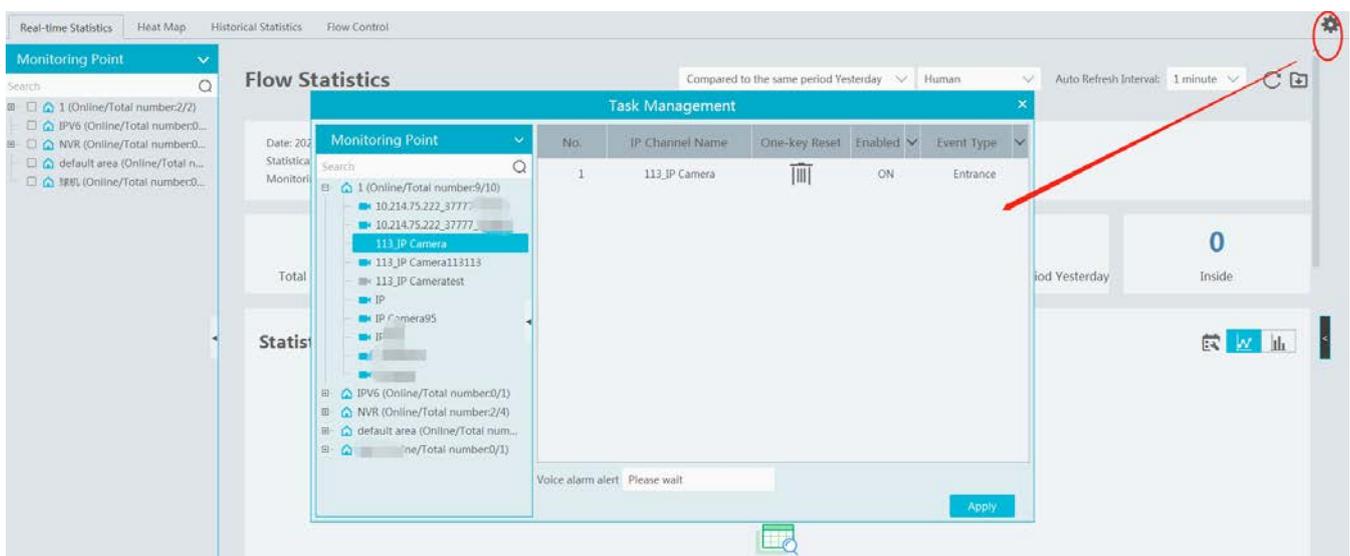
1. Enable “Target Counting” function of the IPC.

Note: the added camera must enable target counting function.

IPC with Target Counting function



2. Go to Home→Target Counting interface. Clicking on  enters the following interface. Double click the camera with the target counting function and then select “ON”. After that, click [Apply] to save the settings.

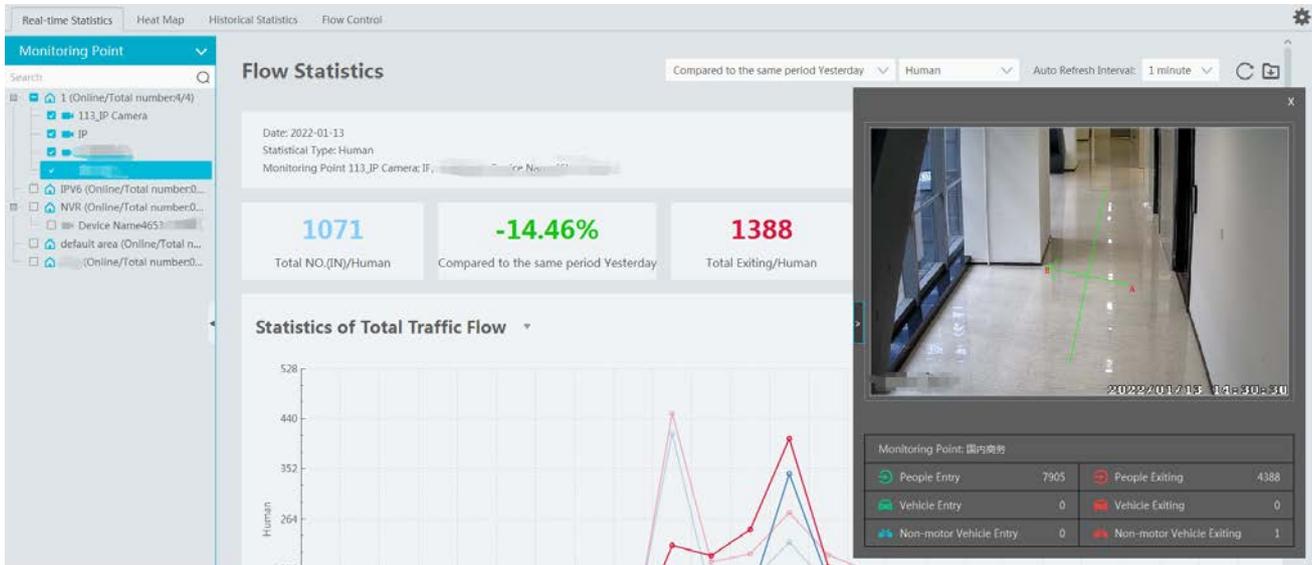


18.2 Real-time Statistics

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

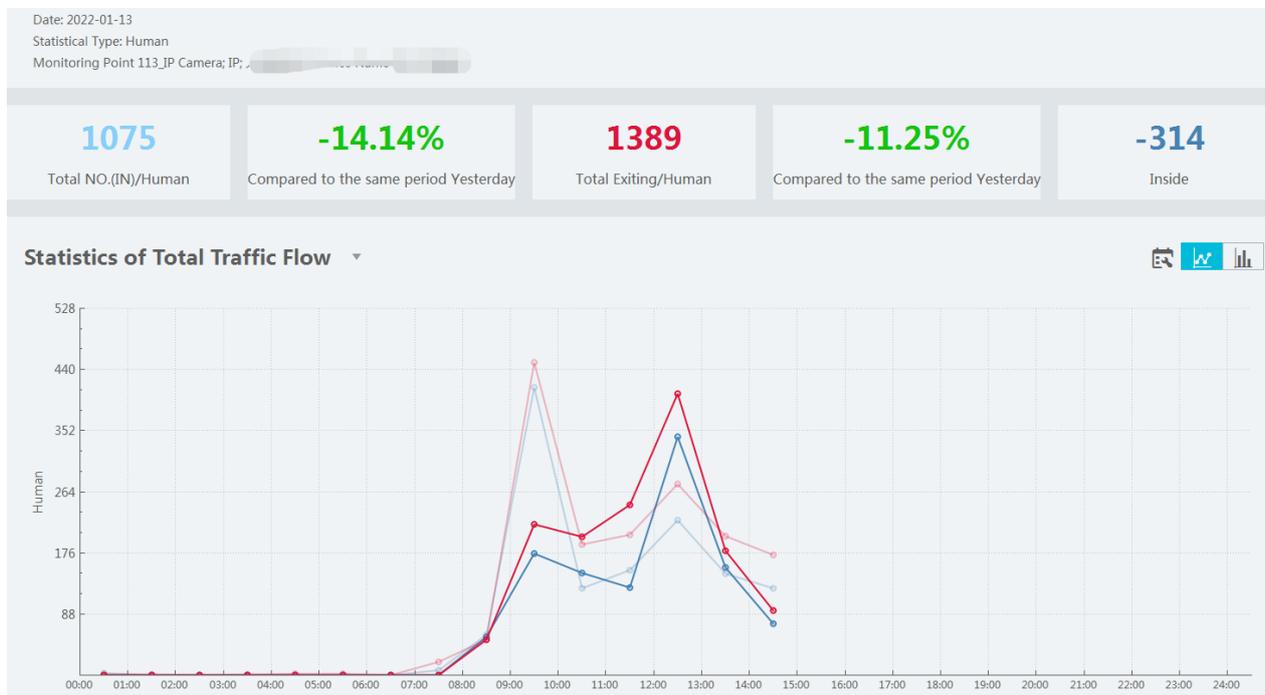
The camera will automatically count the number of people/motor vehicle/non-motor vehicle crossing the predefined line and the system will automatically analyze the traffic flow trends.

Before view the statistics, please go to Home→Resource Management→Device Setting→Target Counting interface to set the alert line, entrance/exit, detection target, etc.

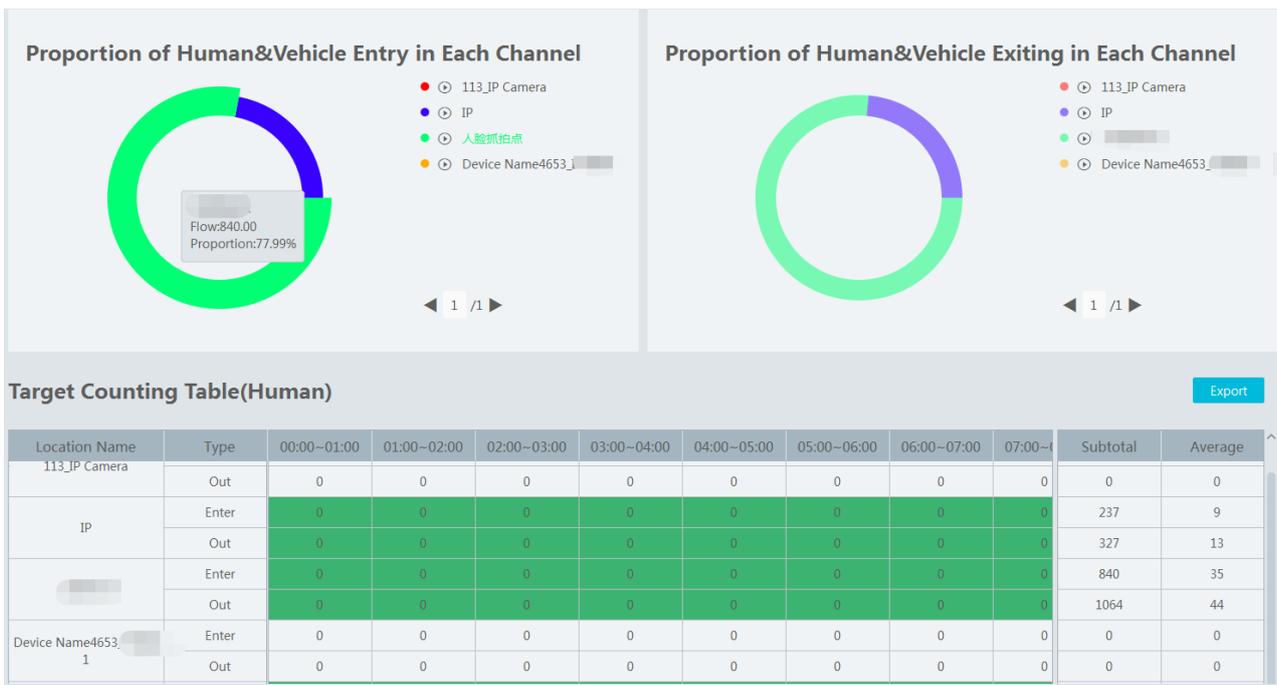


Please select the type as needed to view the flow trend. Click  to refresh the current statistics.

Set the auto refresh interval: The system will automatically refresh the statistics at regular intervals.



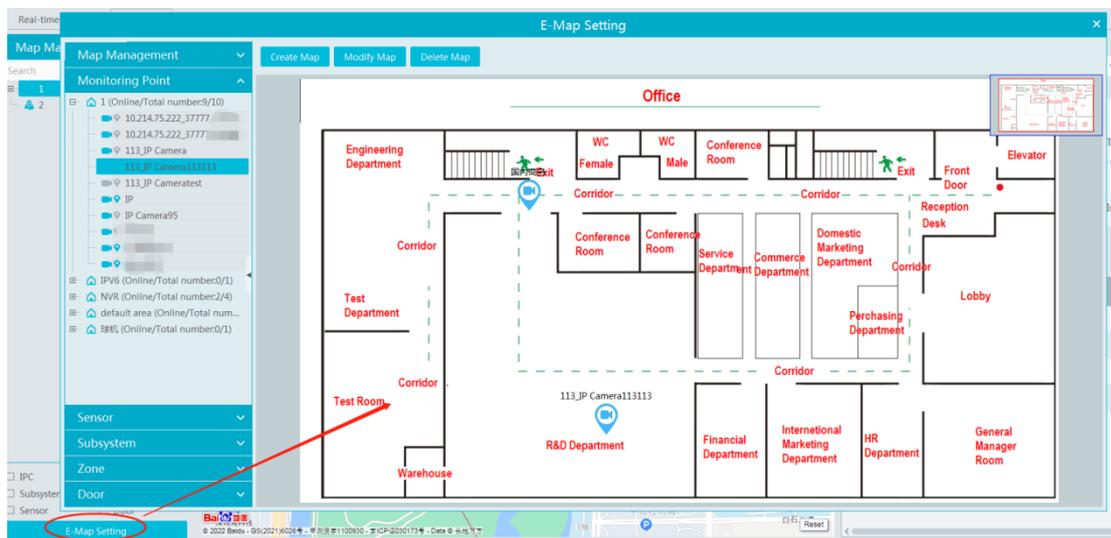
In the above interface, you can view the statistics of people/vehicles entering or exiting. Scroll down to view the traffic flow statistics via pie charts and tables.



18.3 Heat Map

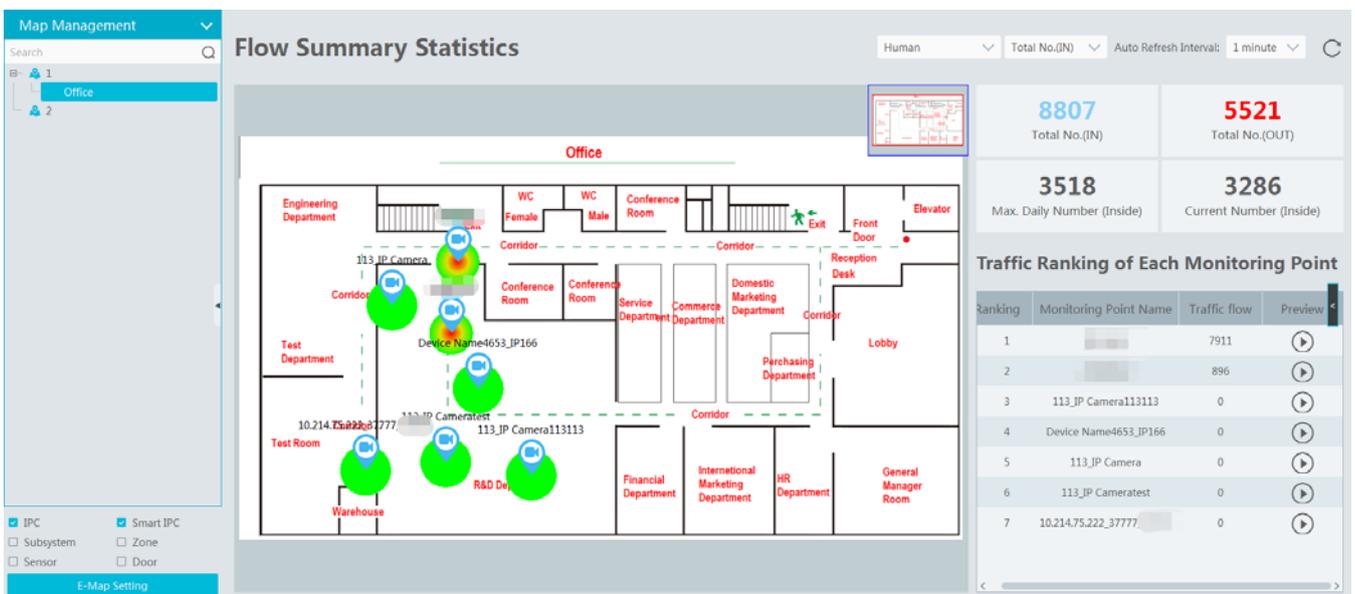
Go to Home→Target Counting→Heat Map interface.

Please create a map first.



Drag the camera with the target counting function to the specified area.

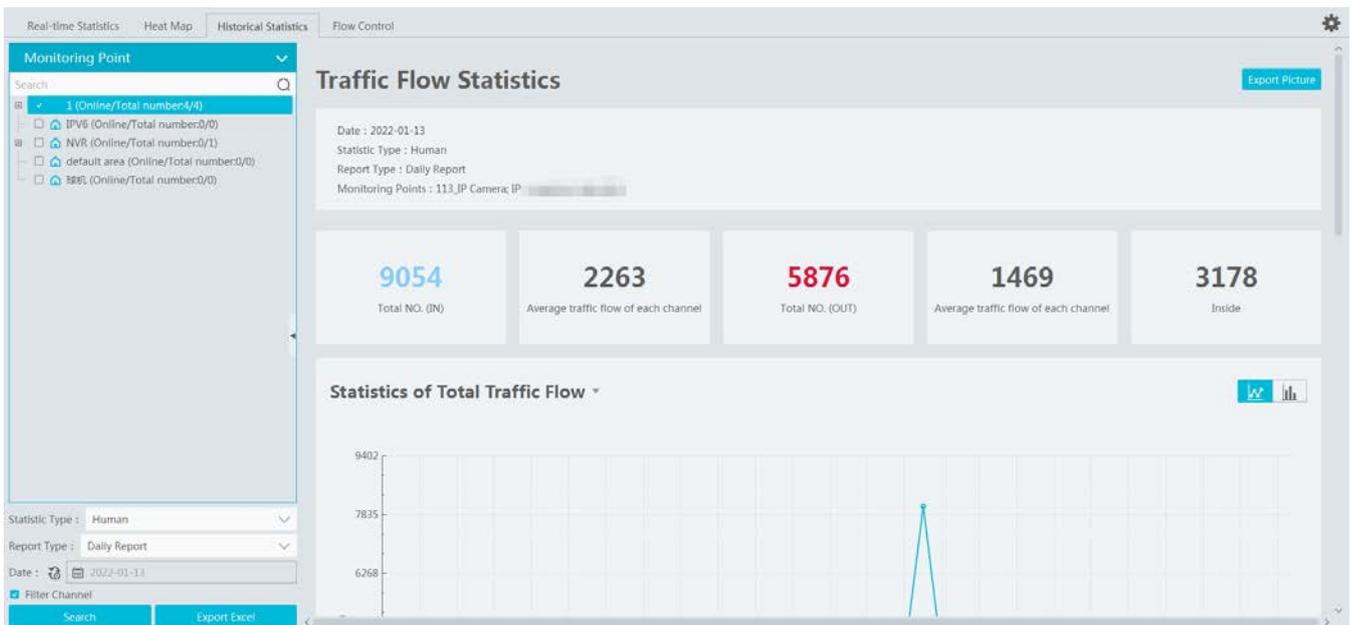
Put the cursor on the camera icon and then you will see the detailed flow statistics.



The deeper the red color is, the more targets (human/vehicle) gather there.

18.4 Historical Statistics

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

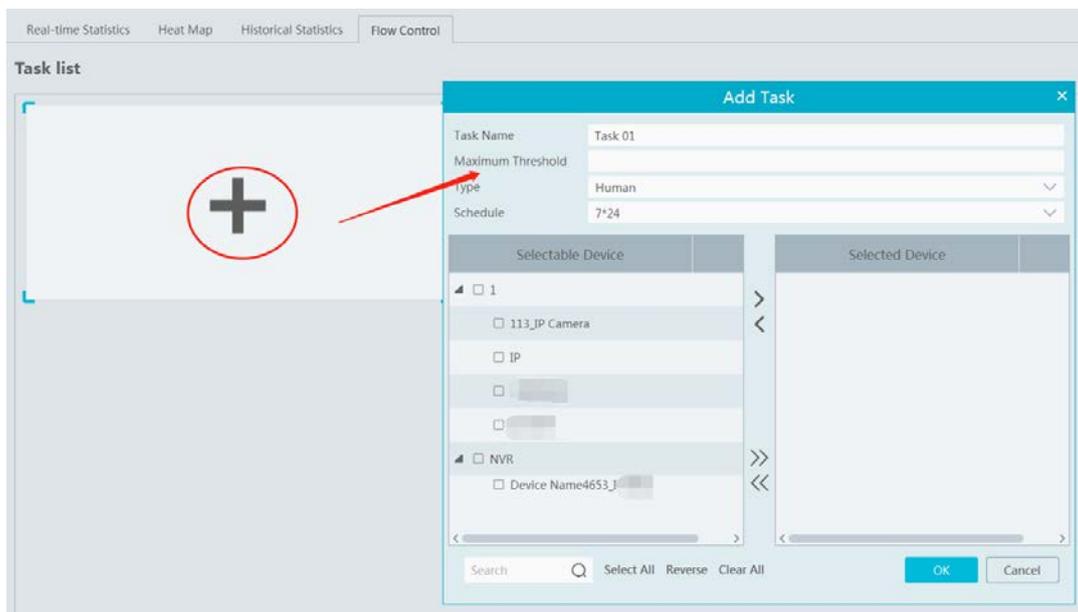


18.5 Flow Control

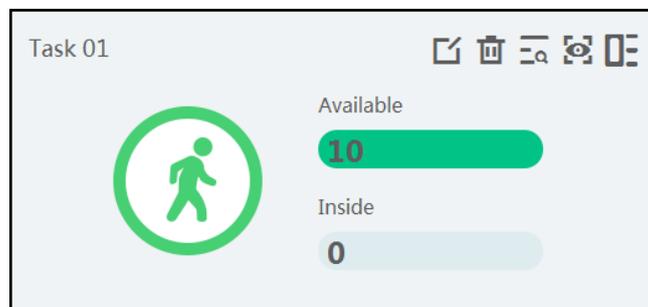
Flow Control: Control the people/vehicles entering or exiting in a specified area to avoid overcrowding. When the people/vehicles stay in the specified area exceeds the threshold, the alarm will be triggered and no entry icon will display.

Click Home→Target Counting→Flow Control to enter the following interface.

Click  to add a task. Multiple tasks can be added as needed.

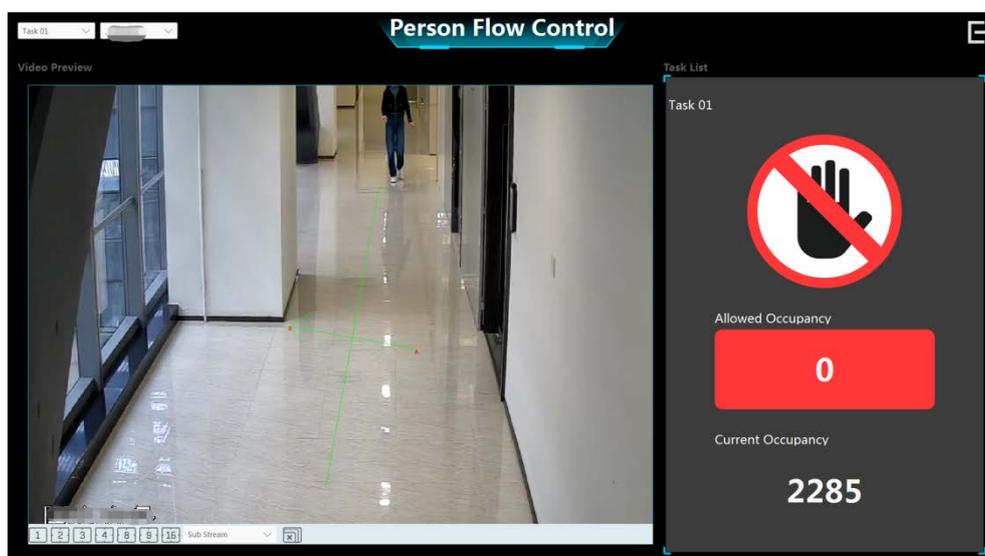


Then the available number and inside number can be viewed as below.

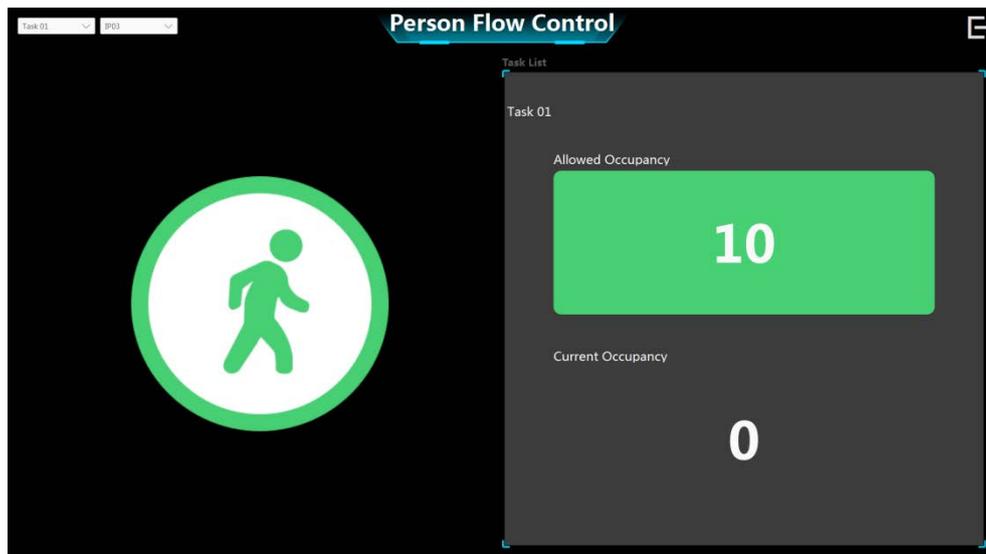


Click  to view the quantities of the people/vehicles entry and exiting.

Click  to enter the flow control preview interface.



Click  to view the access status and the allowed/current occupancy.



In the above interface, you can switch the camera and view the image. When the people/vehicles inside exceed the threshold, the icon will turn red.

Click on  exits the current page.

19 Evacuation System

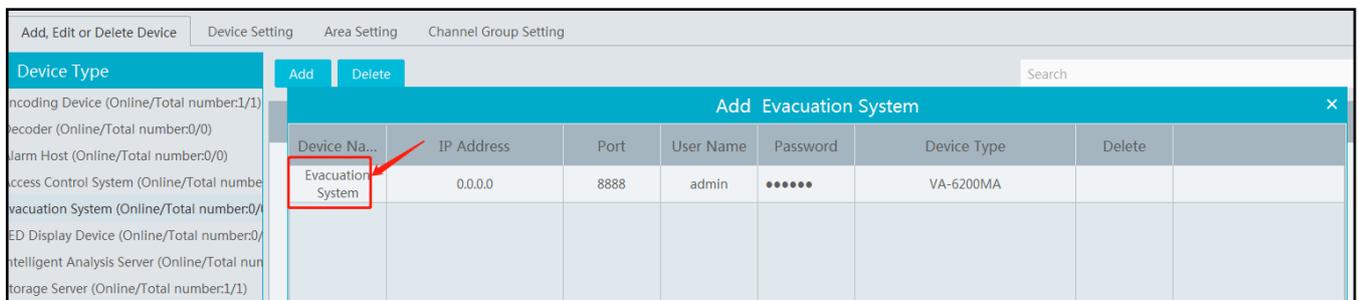
The host status, MICs status and EM MIC status of the evacuation system can be viewed in the platform after the evacuation system is added to the platform.

1. Before using the evacuation system, please make sure whether the access server is online.

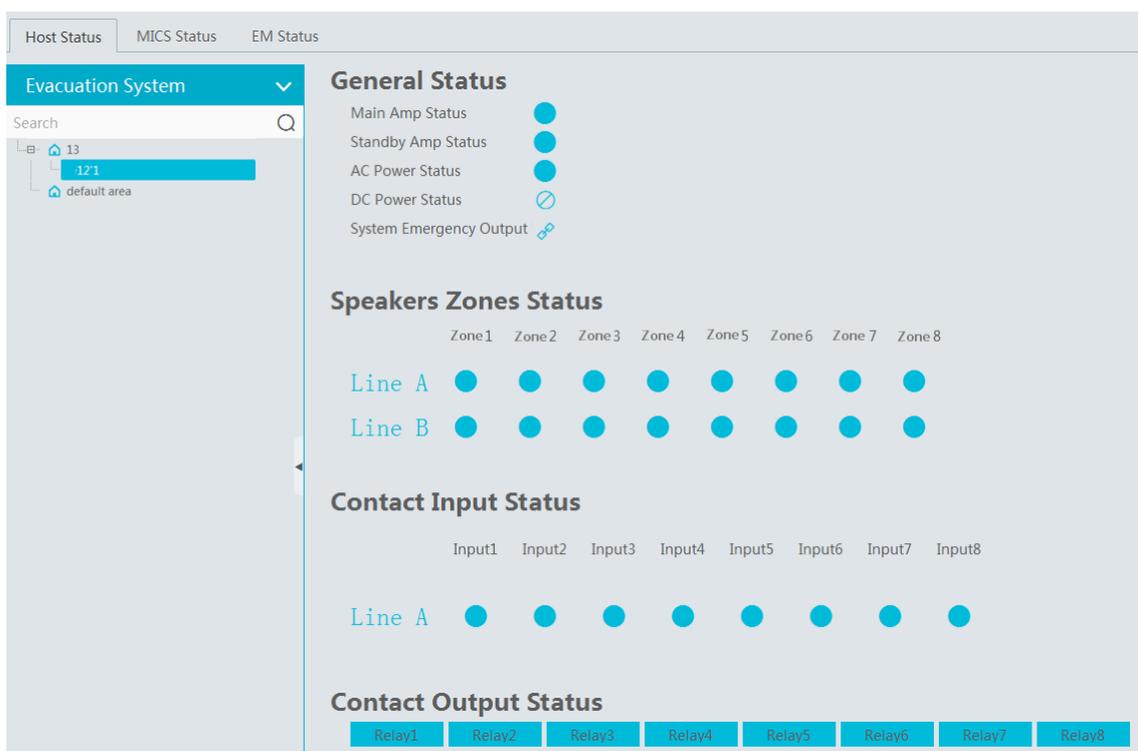
Go to Home→Resource Management→Access Server. There is a default access server which can be modified. Please confirm its online status. A new access server can be added as needed by auto search or manual adding.



2. Go to Home→Resource Management→Evacuation System interface. Add an evacuation system by clicking [Add].

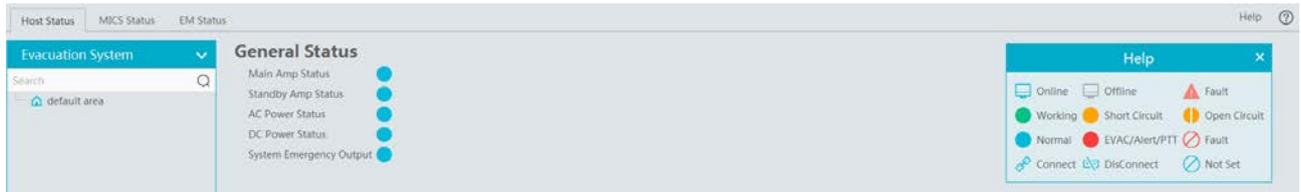


3. Go to Home→Evacuation System.



In the above interface, you can view the host status, MICS status and EM-MIC status. Click  on the top right corner to view the

meanings of each icon.



Status description:

Main amplifier status: Normal or fault

Standby amplifier status: Normal or fault

System Emergency output status: Emergency mode/normal

Partition state: Normal, working, open circuit, short circuit, overload, fire alarm (line A and line B; each line has 8 zones)

AC power supply status: 220V AC normal or fault

DC power supply status: 24V DC normal or fault

Contact input state: normal, short circuit, open or trigger (each host set a total of 8 trigger display)

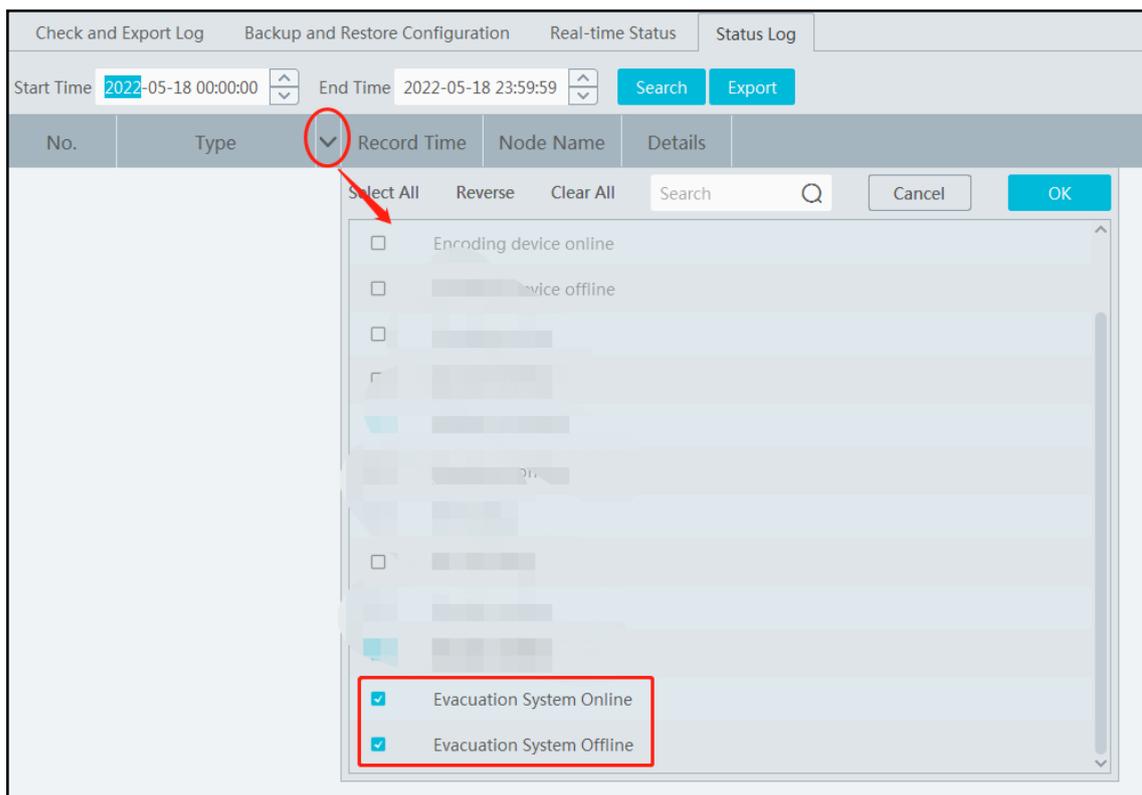
Contact output status: link or close

Remote MIC status: network status (online or offline), device status (normal or fault), computer connection status(normal or fault)

EM MIC status: network status (online or offline), device status (normal or fault), computer connection status(normal or fault)

- Search the online/offline status of the evacuation system

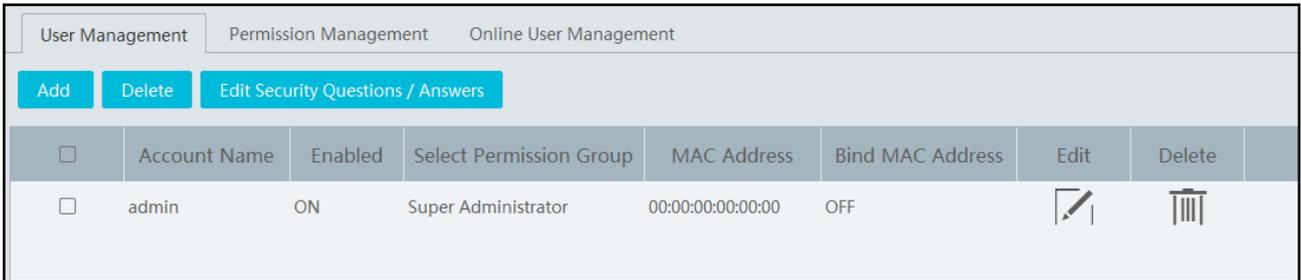
Go to Home→Operation and Maintenance Management→Status Log. Select the type as “Evacuation system online/offline” and then click [OK] to view the online/offline status of the evacuation system.



20 Account and Permission

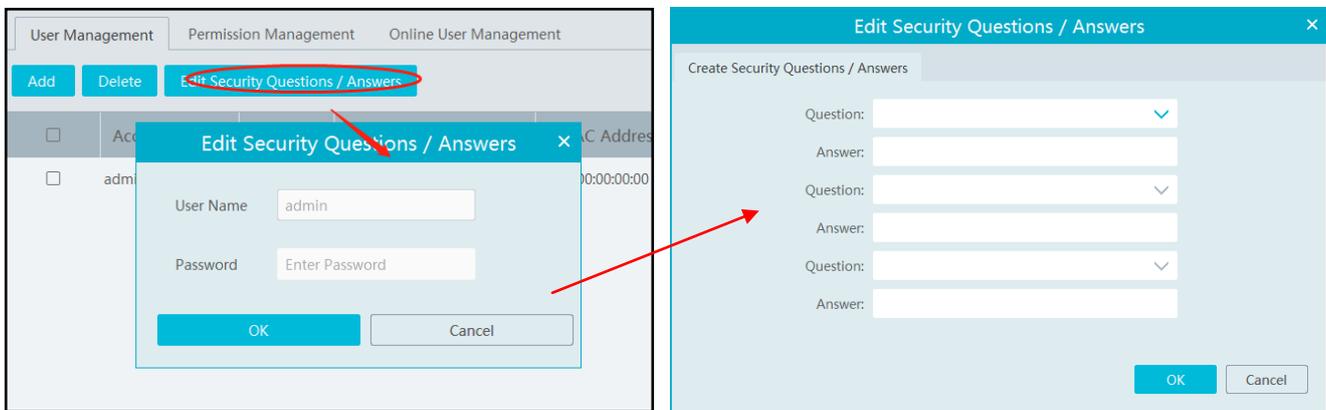
20.1 Create Account

Go to Home→Account and Permission.

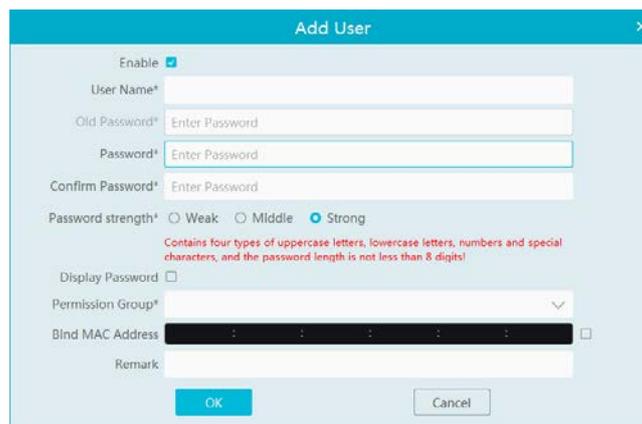


There is a default super admin user (the username is admin; the password is 123456). The super admin user cannot be deleted.

If it is the first time for you to log in, please select the super admin user and then click “Create Security Questions/Answers” to set the questions and 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.

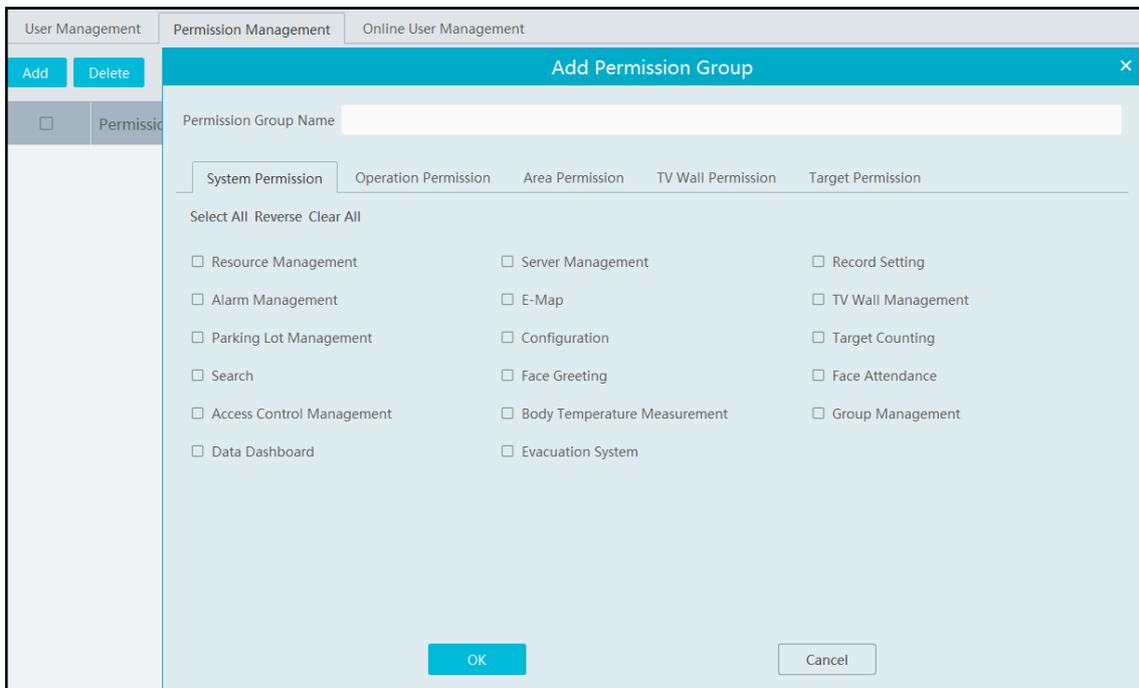


Enter user name and password. Then select password level, permission group (it must be set in advance). Binding MAC address or remark can be filled in as needed. After that, click [OK] to save.

20.2 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.

20.3 Online User Management

In this interface, you can view the online user who log onto the management server. The user type includes monitoring client, web client, platform SDK, APP, etc.

User Management		Permission Management		Online User Management	
No.	Address	User Name	User Type	Level	
1	10.20.52.7	admin	Monitoring client	Super Administr...	

21 Operation and Maintenance Management

21.1 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 searched and exported here.

The screenshot shows the 'Check and Export Log' interface. At the top, there are tabs for 'Check and Export Log', 'Backup and Restore Configuration', 'Real-time Status', and 'Status Log'. Below the tabs, there are buttons for 'All Types', 'Alarm Log', 'Operation Log', 'Config Log', and 'Exception Log'. There are also input fields for 'Start Time' (2022-01-13 00:00:00) and 'End Time' (2022-01-13 23:59:59), along with 'Search' and 'Export' buttons. The main area contains a table with the following data:

No.	Main Type	Record Time	Node Name	Sub Type	User Name	User Address	Details	Storage Playback	Device Playback	Storage
1	Alarm Log	2022-01-13 14:58:56	██████████	Monitoring Point-Fa...	None	None				
2	Alarm Log	2022-01-13 14:58:55	Device Name4653_IP166	Monitoring Point-Fa...	None	None			▶	
3	Alarm Log	2022-01-13 14:58:53	Device Name4653_IP166	Monitoring Point-Fa...	None	None			▶	
4	Alarm Log	2022-01-13 14:58:53	██████████	Monitoring Point-M...	None	None				
5	Alarm Log	2022-01-13 14:58:52	██████████	Monitoring Point-Pe...	None	None				
6	Alarm Log	2022-01-13 14:58:51	██████████	Monitoring Point-Fa...	None	None				
7	Operation Log	2022-01-13 14:58:51	██████████	Barrier Gate	None	None	OFF:██████████			

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.

21.2 Backup and Restore Configuration

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

The screenshot shows the 'Backup and Restore Configuration' interface. At the top, there are tabs for 'Check and Export Log', 'Backup and Restore Configuration', 'Real-time Status', and 'Status Log'. Below the tabs, there are two buttons: 'Backup System Configuration' and 'Restore System Configuration'. Below the buttons, there is a caution message: 'Caution: It will take several minutes to restore system configuration. Do not shut down the computer during restoring. The authentication server will restart automatically after restoration.'

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.

21.3 Viewing Online Status

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

You can view the online status of encoding device, decoders, alarm host and storage servers and the record status of the storage server and encoding devices.

The screenshot shows the 'Real-time Status' interface. At the top, there are tabs for 'Check and Export Log', 'Backup and Restore Configuration', 'Real-time Status', and 'Status Log'. Below the tabs, there are five circular gauges:

- Encoding Device Online Status:** 100% (Online: 1, Offline: 0)
- Decoder Online Status:** 0.00% (Online: 0, Offline: 0)
- Server Online Status:** 100% (Online: 6, Offline: 0)
- Record Status of the Storage Server:** 0% (Video recording: 0, No video: 7)
- Record Status of Encoding Devices:** 42.86% (Video recording: 3, No video: 4)

Below the gauges, there is a table with the following data:

Area	Device Name	Type	Channel Number	Alarm In Number	Alarm Out Number	IP Address/IP Range/Domain Name/Serial...	Port	Online Status
default area	Device Name	Standard D...	Z	24	12	10.20.52.200	6036	Online

21.4 Viewing Status Log

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

Check and Export Log		Backup and Restore Configuration		Real-time Status		Status Log
Start Time	2022-01-13 00:00:00	End Time	2022-01-13 23:59:59	Search	Export	
No.	Type	Record Time	Node Name	Details		
1	Server online	2022-01-13 14:...				
2	Server offline	2022-01-13 14:...				
3	Encoding device online	2022-01-13 14:...	IP			
4	Monitor online	2022-01-13 14:...	IF			
5	Encoding device online	2022-01-13 14:...	IP Camera5			
6	Monitor online	2022-01-13 14:...	IP Camera5			

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.

The searched logs can be exported by clicking [Export].

22 Configuration

22.1 Record and Snapshot Settings

Go to Home → Configuration.

The screenshot shows the 'Record and Snapshot Settings' configuration page. It includes the following settings:

- Playback Source: From Network Device (dropdown)
- Save Recording Files To: C:/record (text input with folder icon)
- Save Backup Files To: C:/backup (text input with folder icon)
- Backup File Format: AVI (dropdown)
- Save Snapshots To: C:/capture (text input with folder icon)
- Snapshot Number: 5 (dropdown)
- Max File Size for Manual Recording and Record Backup: 512MB 1GB 2GB
- Apply button

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

22.2 Local Settings

Go to Home → Configuration → Local Setting.

The screenshot shows the 'Local Settings' configuration page. It includes the following settings:

- Auto Startup:
- Auto Login:
- Trigger audio when the node is offline:
- Show tips when the node is offline:
- Full name display for DVR/NVR's channels:
- Resource tree automatically expands:
- Substream display of new view:
- Show alarm state for the monitoring point:
- Show device name on E-map:
- Verify the password before exiting the program:
- Decoding Mode: Soft Decoding Hardware Decoding
- Resource Tree Sorting Rules: Sort by Name Sort by Time
- Video Configuration Rules: Specification First Clarity First
- Select Language: English(United States) (dropdown)
- Temperature Unit: °C (dropdown)
- Time Display Format: yyyy-MM-dd hh:mm:ss (dropdown)
- Alarm Sound: Default Audio (text input with folder icon and speaker icon)
- Node Dropped Sound: Default Audio (text input with folder icon and speaker icon)
- Sensor Alarm Sound: Default Audio (text input with folder icon and speaker icon)
- Apply button

Auto Startup: if enabled, the system will automatically start when the computer starts.

Auto Login: if enabled the system will automatically log in when running this software next time.

Trigger audio when the node is offline: if enabled, the system will trigger audio when there is node offline.

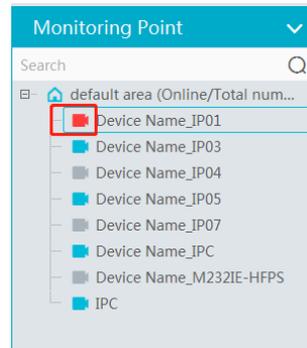
Show tips when the node is offline: if enabled, the system will pop up tips when there is node offline.

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.

Substream display of new view: if enabled, the new view will be displayed at substream.

Show alarm state for the monitoring point: if enabled, the alarm state will be displayed in the monitoring point list as shown below.



Show device name on E-Map: if enabled, the device name will be displayed on the E-Map.

Decoding Mode: Soft decoding or hardware decoding is optional. When the graphics card doesn't support hardware decoding, please select "Soft Decoding" and the video decoding will be taken over by CPU.

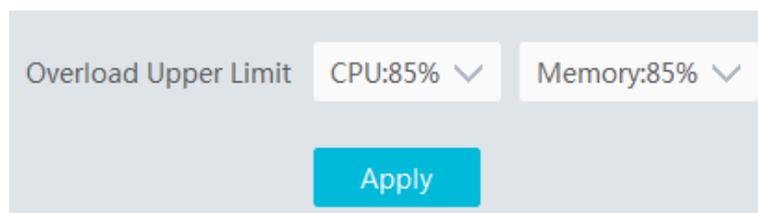
Temperature Unit: °C or °F can be selected

Verify the password before exiting the program: if enabled, you shall enter the password before exiting the program.

In this interface, you can also select the resource tree sorting rules, video configuration rules, language, time display format and upload various alarm audio files.

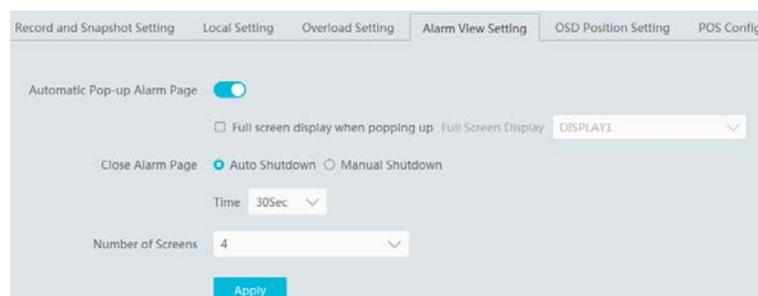
22.3 Overload Settings

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→I Configuration→Overload Setting. Select the overload upper limit and then click [Apply] to save the settings.



22.4 Alarm View Settings

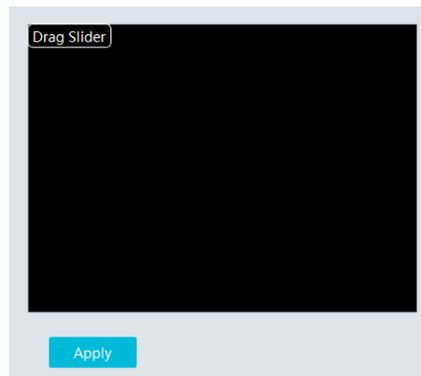
Go to Home→ Configuration→Alarm View Setting.



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).

22.5 OSD Position Configuration

Click Home→ 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.

22.6 System Configuration

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

In this interface, you can enable “Alarm preview using third stream”.

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.

Hide alarms beyond the alarm linkage schedule: Alarms will not be viewed beyond the alarm linkage schedule.

Service fault determination time: set the failure duration time. When the server failure exceeds this period of time, it will be determined as “Offline”. The spare server will take over.

22.7 POS information Settings

Go to Home→Configuration→POS Config interface as shown below. In this interface, you can set the position, display time and quantity of the POS information.

Note: The video files with POS information saved as DAT format can be played with DatPlayer and the POS information will be shown on the screen.

22.8 Audio Uploading

Go to Home → 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.

23 Data Dashboard

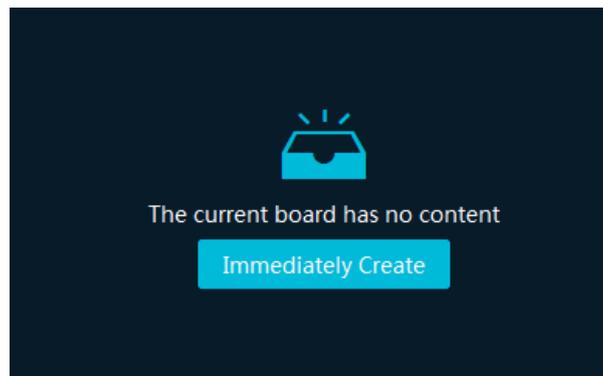
Before opening the data dashboard, please make sure the intelligent server is online.

Go to Home→Resource Management→Intelligent Analysis Server interface. There is a default intelligent server and make sure it is online.

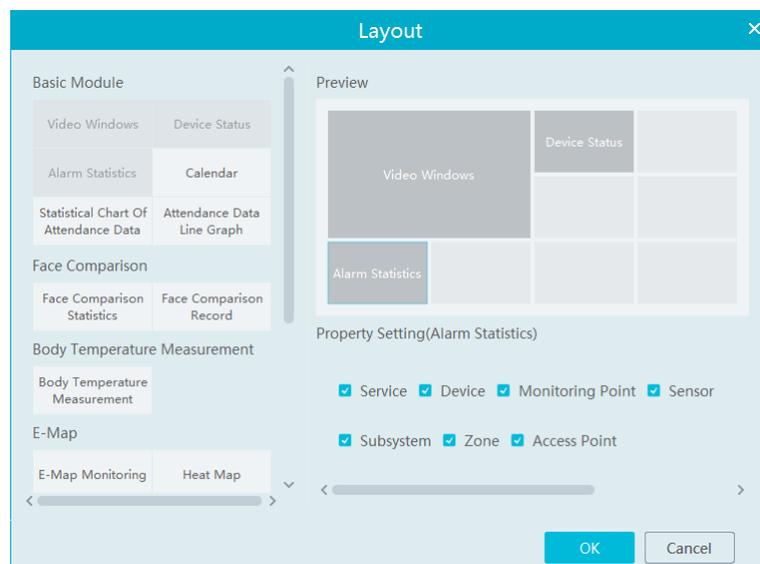
Device Type	Server Name	IP Address	Port	Client Connection Status	Authentication Server Connection Sta...	Edit
Encoding Device (Online/Total number:59/7)	Intelligent Server	10.214.200.200	6069	Online	Online	
Decoder (Online/Total number:0/5)						
Alarm Host (Online/Total number:0/1)						
Access Control System (Online/Total number:0/1)						
LED Display Device (Online/Total number:0/1)						
Intelligent Analysis Server (Online/Total number:1/1)						
Storage Server (Online/Total number:1/1)						

23.1 Create Intelligent Dashboard

Go to Home→Intelligent Dashboard.

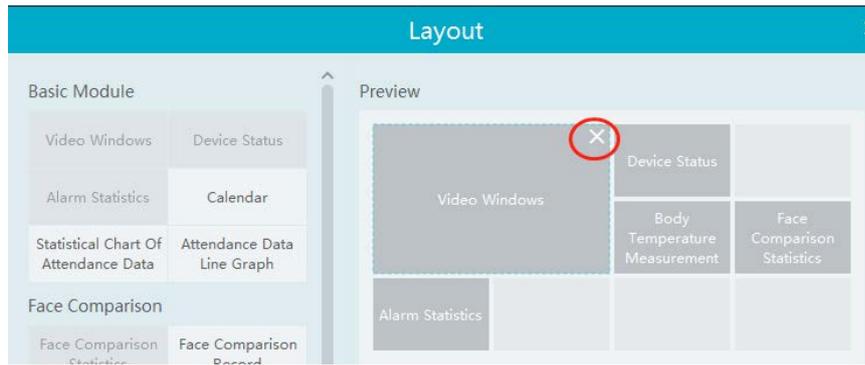


Click [Immediately Create] to create the layout of the data dashboard. Drag the module you want to display to the right preview window as needed. After that, click [OK] to save the settings.

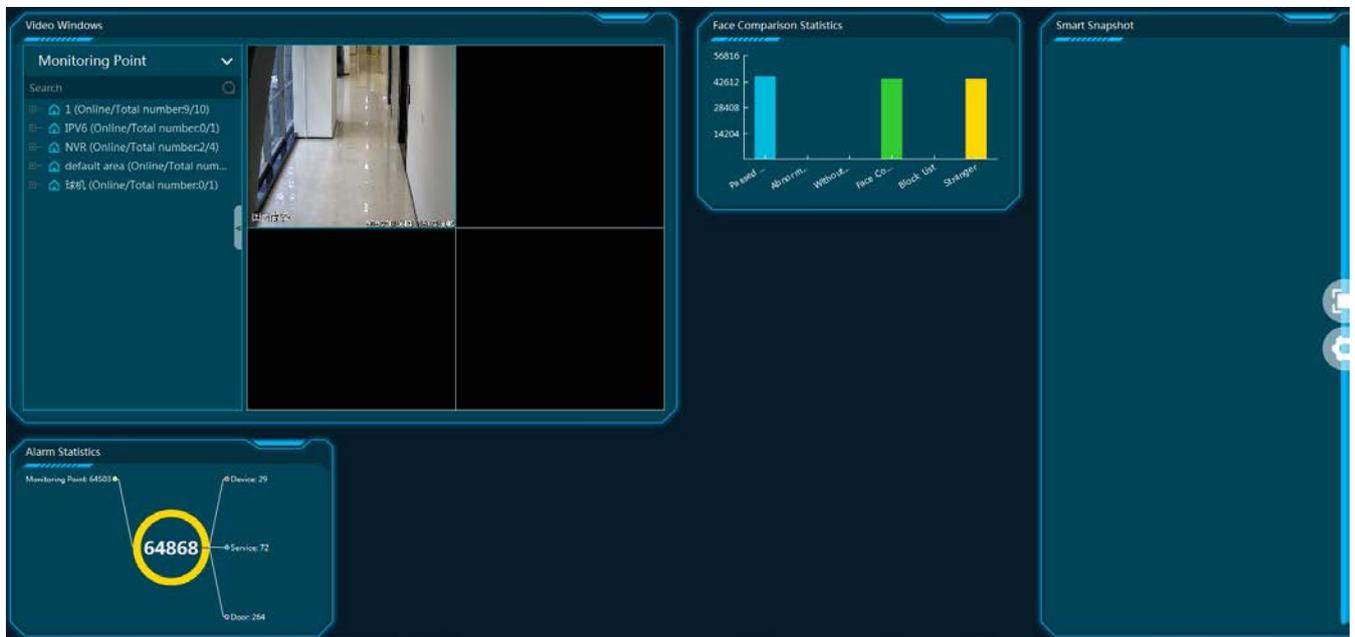


Hover the cursor onto the module in the preview window and then you will see a deletion button (). Click it to remove the module

from the preview window.

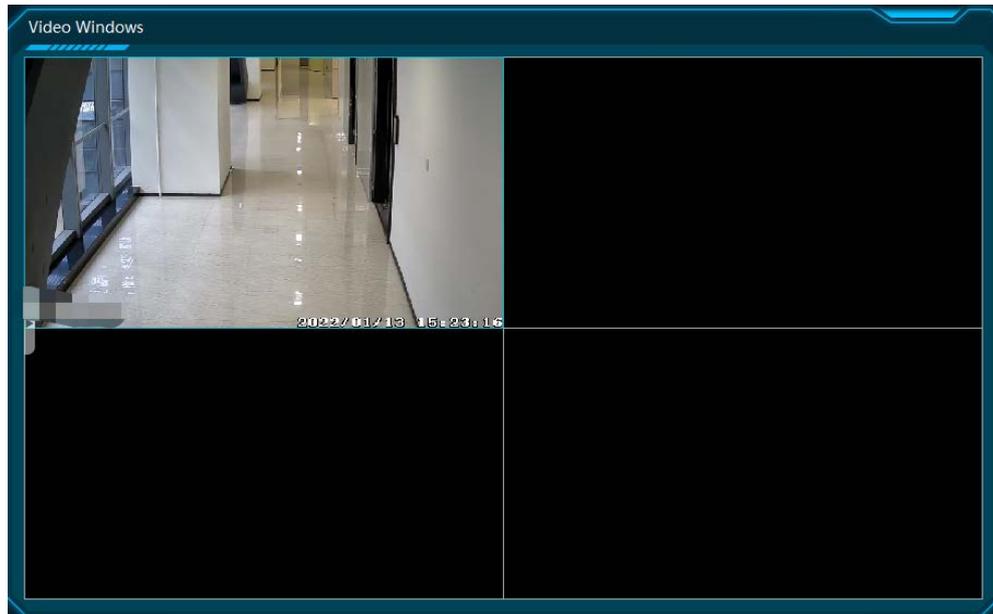


After the data dashboard is created, click  to display it in full screen mode. Click  or ESC to exit the full screen mode. Click  to set the layout of the dashboard.

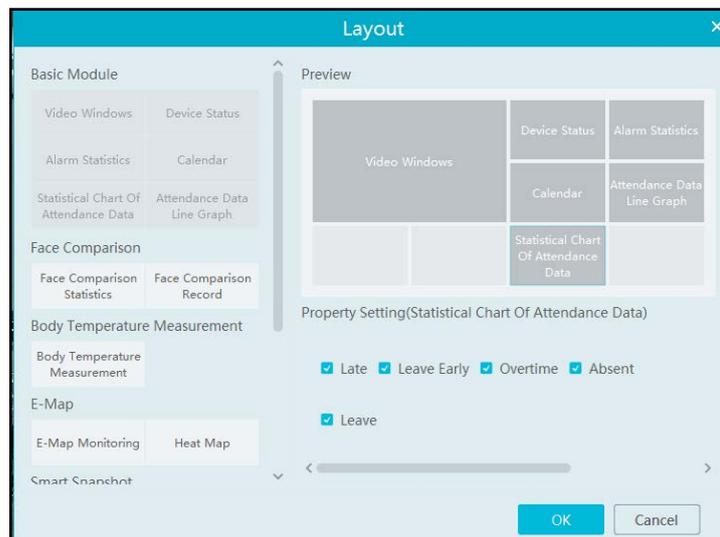


23.2 Basic Module

Video window supports 4-screen display mode. Click  to extend the monitoring points. Drag the camera to the preview window or double click the camera to play the video. You can drag the playing window to other windows.

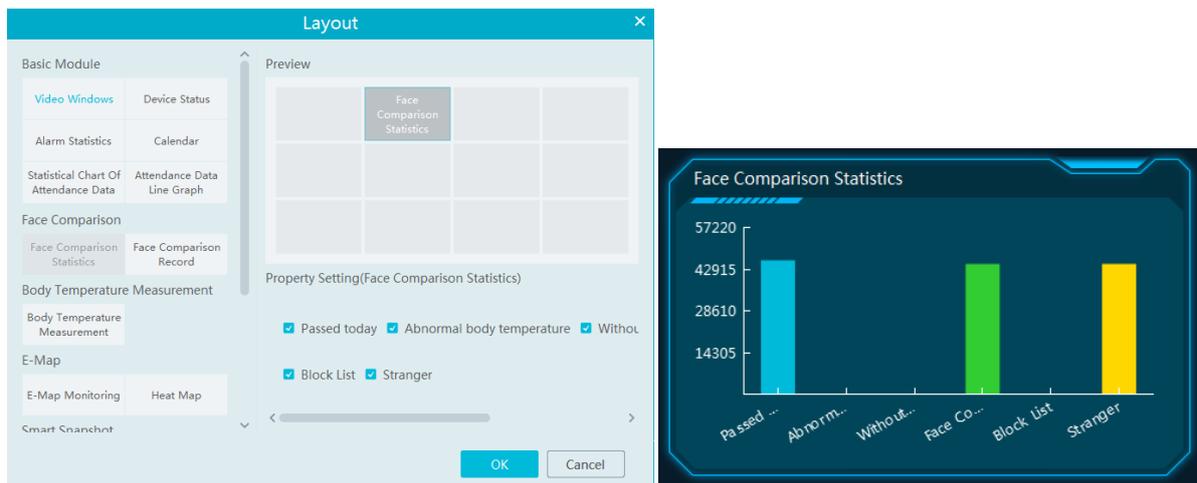


Other modules can set its attributes that you want to display as needed.



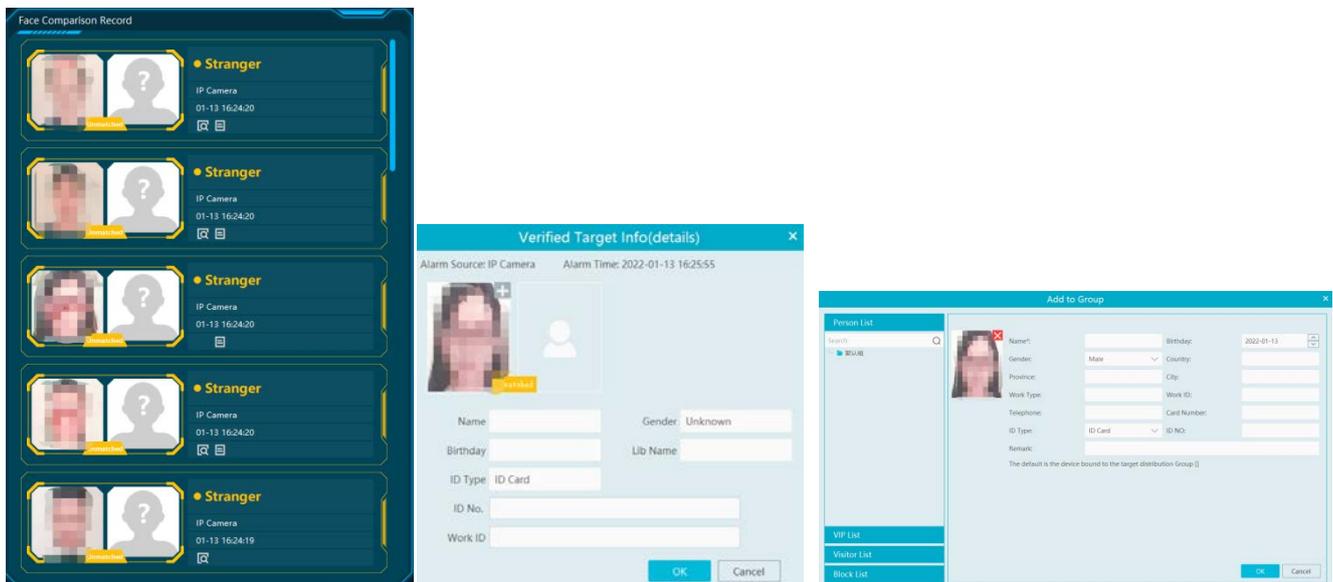
23.3 Face Comparison Display

Face Comparison display includes face comparison statistics and face comparison record display. In the layout interface, drag these two modules to the preview window. Then you can set the attributes as needed.



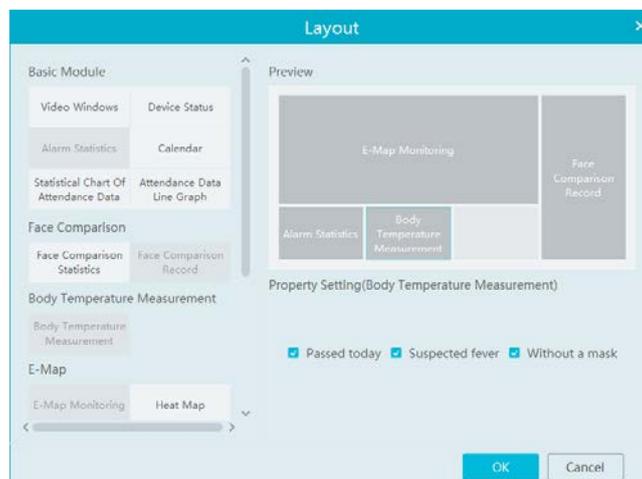
Smart Snapshot module: You can set the snapshot channel and attributes.

In the face comparison records, you can view the comparison similarity. Click to quickly skip to face comparison retrieval interface. Click to pop up the detail box. In this box, you can modify the personnel information; click to add this person to the face database.



23.4 Body Temperature Measurement Display

In the layout interface, select the body temperature module and then set the attributes you want to display as shown below.

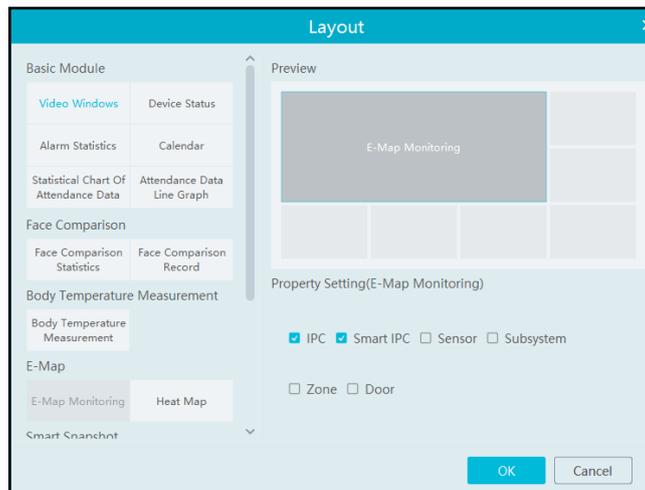


The body temperature measurement of the intelligent dashboard is shown as below.

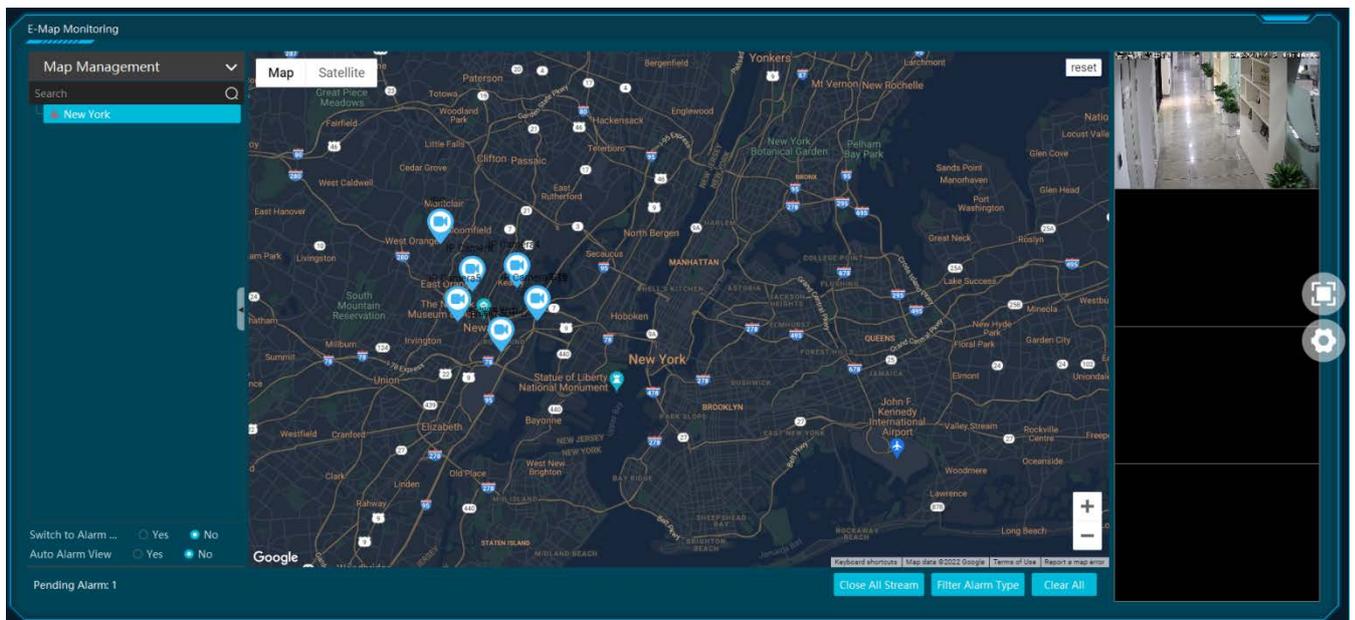


23.5 E-map Display

E-Map includes E-map monitoring and heat map analysis. The layout settings are as follows.

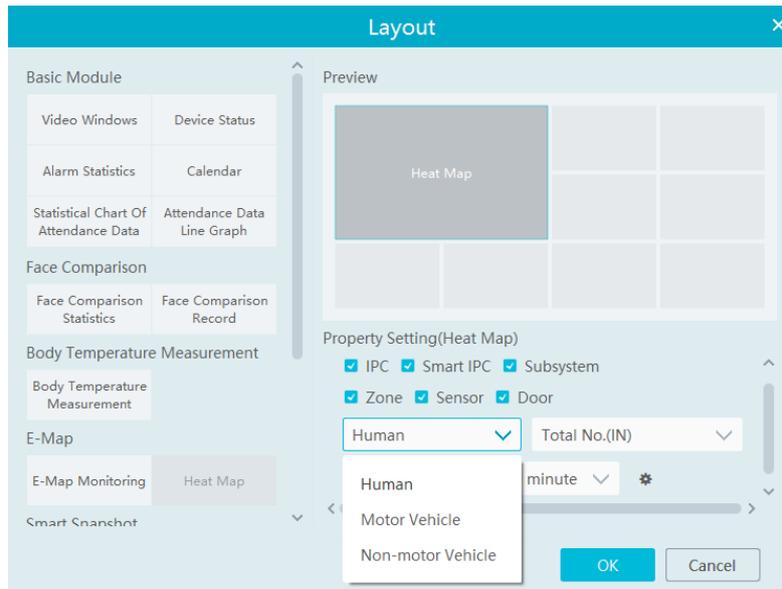


You need to set the hotspots in advance and then you can view here. Please refer to E-Map → E-Map Monitoring for details.

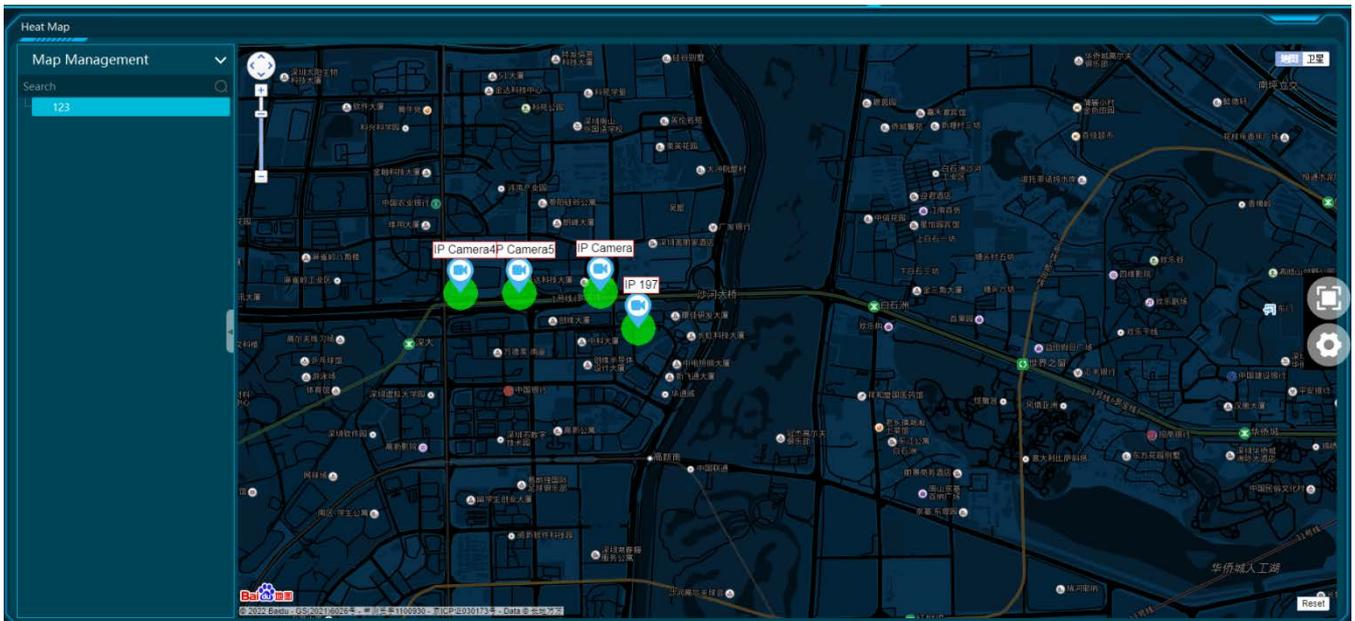


Heat map module: The more people/vehicles enter, the deeper the color is. Move the cursor on the monitoring point to view the current traffic flow. You need to set the E-map and hotspots in advance. Please refer to E-map settings chapter for details.

Besides the above hotspot setting, you can set other parameters as shown below.

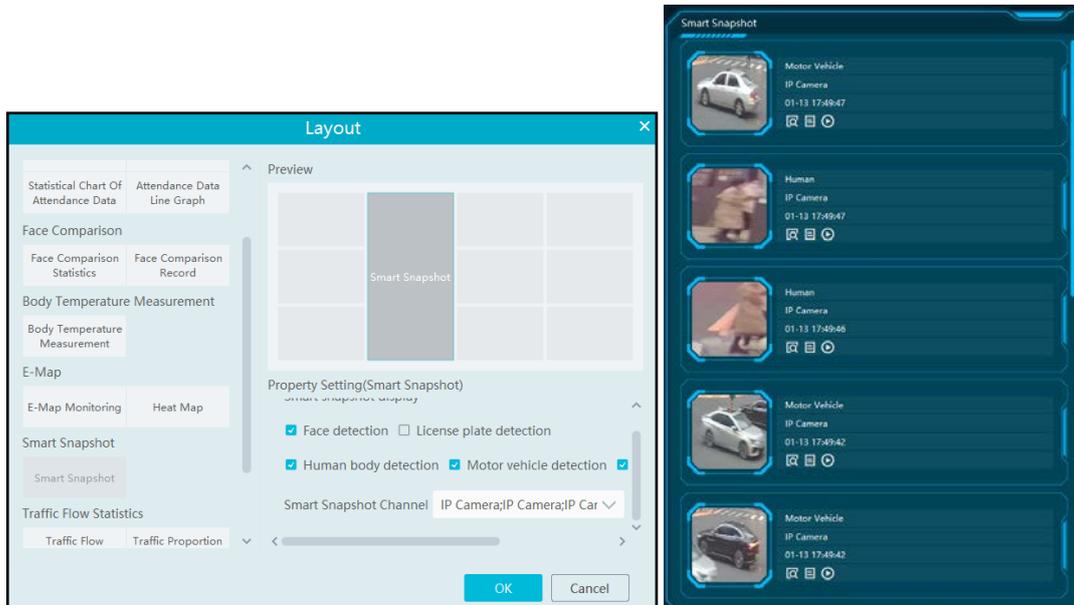


In the heat map module of the intelligent dashboard, you can view the statistics of human/motor-vehicle/non-motor vehicle.



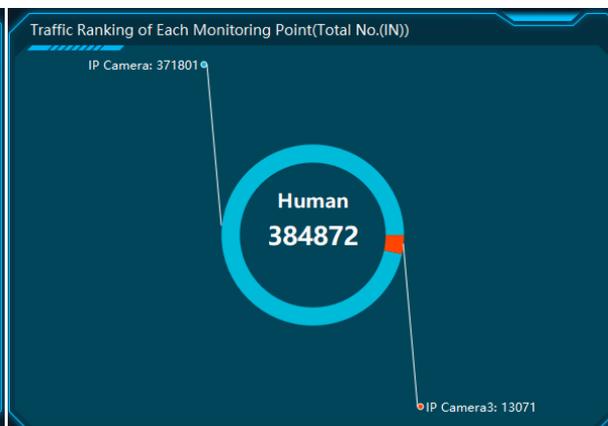
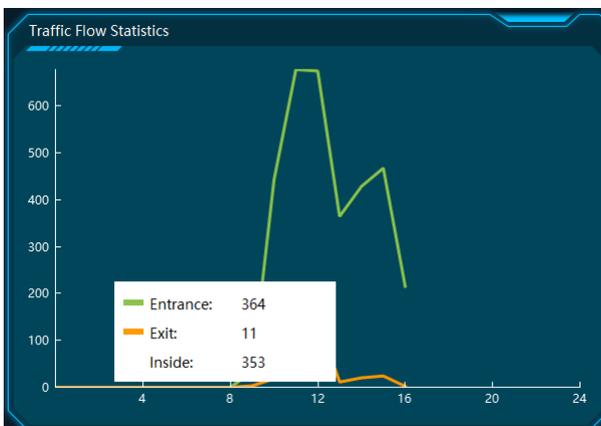
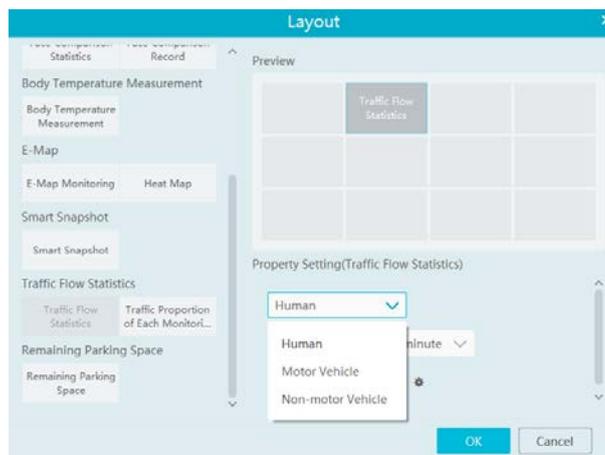
23.6 Smart Snapshot Display

You need to set the snapshot attributes in the layout interface and then the relevant data can be viewed on the dashboard. The smart snapshot type includes face, license plate, human body, motor vehicle and non-motor vehicle. Please select them as needed.



23.7 Traffic Flow Statistics Display

You need to set the statistical type, auto refreshing interval and channel in advance. Please refer to Target Counting →Task Management for details. Then set the layout of traffic statistics and display attributes.



23.8 Remaining Parking Space Display

Select the parking lot in the property area and then you can view the remaining parking lot here.



24 Web Client

24.1 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 plug-in files.

24.2 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 relevant Active X controls according to the tips if you login to the IE client for the first time.

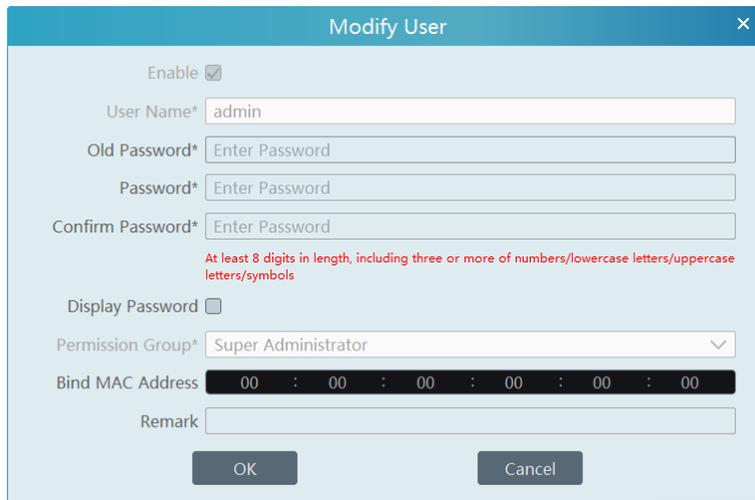
In the platform interface, users can modify the login password and remotely set the monitor client and configuration client. In the web monitor client, click “Return to Configuration” to go to the web configuration client. In the web configuration client, click “Return to Monitor” to go to the web monitor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

25 Troubleshooting

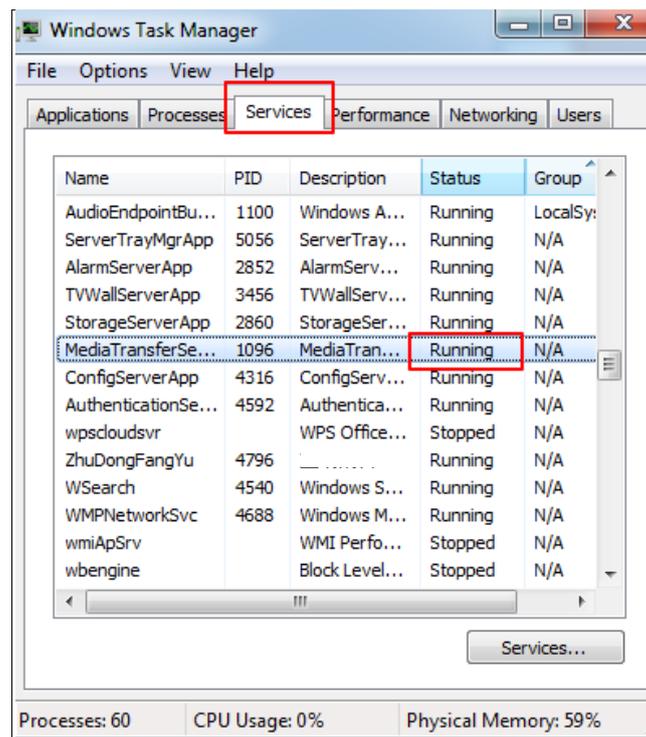
1. How to modify the password by yourself?

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 occupied 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 logs 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 logs to the monitor client.

- 1) Please check whether the schedule of the event (including motion alarm, sensor alarm, line crossing detection, etc.) is 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 playback 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 prompts “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.

Appendix

1. How to get video streams via Media Stream Server

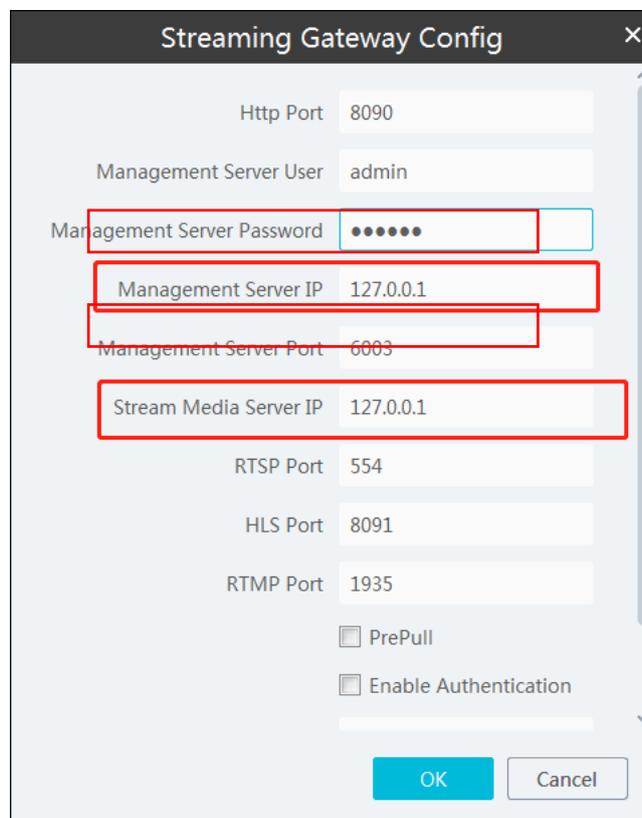
Media stream server is used to get the video stream by the third-party via RTSP/HLS/RTMP protocol.

(1) Configuring media stream server

- Right click the server tray icon and select “Display main interface” to pop up the server tray interface as shown below.
- Click “Configure” of the stream media server.



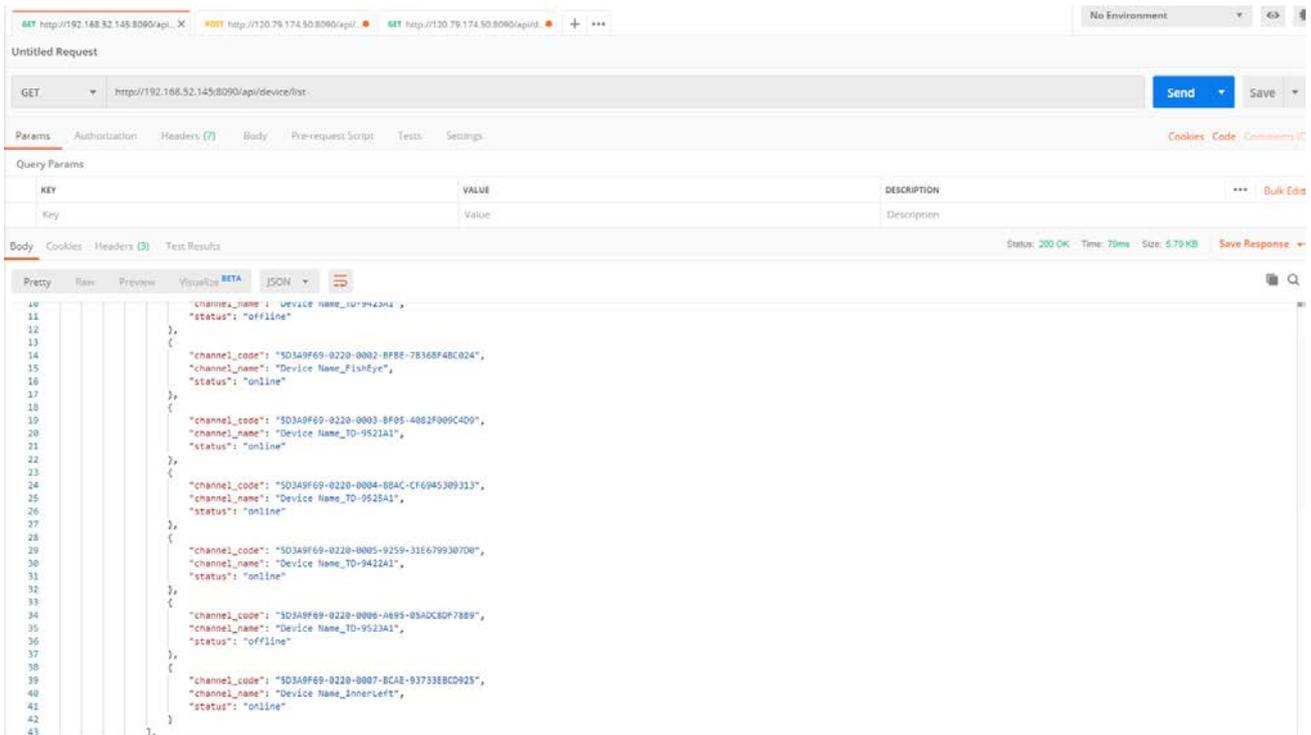
- Confirm the IP address of the management server and stream media server. The default IP addresses of both are “127.0.0.1”. If these two servers are distributed, please enter the IP address according to the actual network parameter.



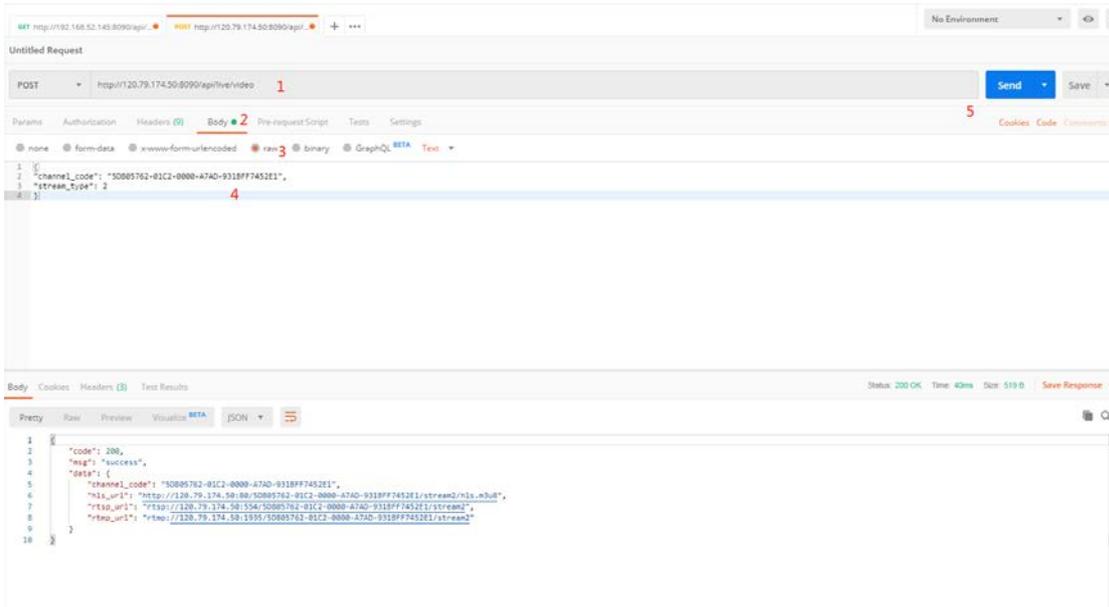
(2) Get URL and test video playing

- Open the postman tool (or use the Google browser) to get the channel code of the camera added to the platform (NVMS).

The format of GET: <http://stream> media server's IP:8090/api/device/list



- Request 3 URL addresses of the camera as shown below. (POST)



The format of 1 marked in the above picture: <http://stream> media server's IP:8090/api/live/video

The format of 4 marked in the above picture:

```
{
  "channel_code": "XXXXXXXX", (copy from the step 1)
  "stream_type": 2
}
```

- Use the VLC player to test video playing. Enter the obtained URL to the VLC player as shown below. In the real application, the third-party can get the channel code and URL address and integrate them to their own platform.

