

NVMS

Pro
User Manual

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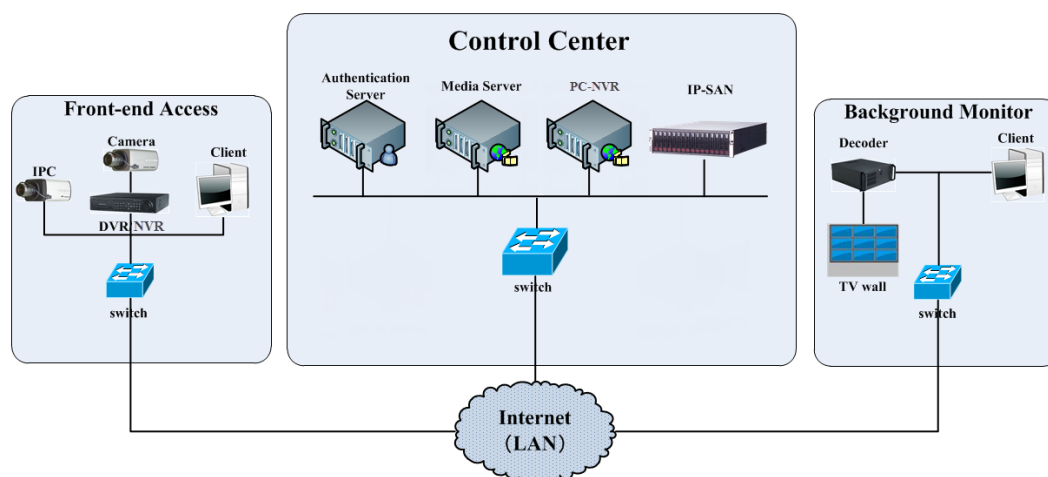
1 Introduction

1.1 Introduction

NVMS Pro is an integrated security management platform released by our company, with the powerful capability of video surveillance management. It supports real-time preview, record storage, record playback, record download, alarm linkage, decoding on TV Wall, keyboard control, vehicle entrance and exit management as well as intelligent analytics. Moreover, multi-subsystem of the third party in the security surveillance industry can be accessed to this platform, such as alarm system, access control system, visual talk-back system, one-key alarm system, e-fence and so on. Additionally, due to its open system architecture, its SDK/OCX can be provided to the third party for secondary development. Therefore, NVMS Pro can meet the client's demands of centralized multi-subsystem management and multi-business convergence and can be widely used in the video surveillance of industrial park, education, banking, chain stores and buildings.

1.2 System Components

1.2.1 System



1.2.2 Front-end Access

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

1.2.3 Background Monitor

- Background monitors include TV Wall Client, Configuration Management Center and Monitor Client.
- You can setup 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 configuration center through local PC to configure and manage the entire system
- Run monitor client through local PC to view, playback and remotely configure and manage the real-time video of front-end monitor devices.

1.2.4 Control Center

- In the control center, configure servers including authentication server and media transfer server to realize various service, such as,

device authentication(including Web), video transmission, image storage, alarm handling, etc.

- In the control center, add IP-SAN storage array to realize centralized storage.
- In the control center, connect servers and IP-SAN storage array to internet through switches.

1.3 Version

Version	Signal access on trial	Max signal access
NVMS Pro	32 channels video signals	10000-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 /1TSATA/ Gigabit NIC or AMD HD6570 or above, 512MB GDDR5 or above (multi-screen : 1GB GDDR5memory) /500GB SATA/ Gigabit NIC	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Enterprise Windows 11 Professional/ Enterprise	As needed
2	Intelligent Server	CPU configuration: Inter(R) Core(TM)i5 75003.0GHz	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Enterprise Windows 11 Professional/ Enterprise	As needed
3	Transfer Server	CPU configuration: Inter(R) Core(TM)i5 75003.0GHz	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Enterprise Windows 11 Professional/ Enterprise	It depends on the video format and the number of channel viewing simultaneously
4	Stream Media Server	CPU configuration: Inter(R) Core(TM)i5 75003.0GHz	Windows Server 2012 /Windows Server 2016 /Windows10 Professional/Enterprise Windows 11 Professional/ Enterprise	It depends on the video format and the number of channel viewing simultaneously
5	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 GDDR5memory) /500GB SATA/ Gigabit NIC	Windows7 (32bit\64bit) or (32bit\64bit) flagship version /Windows8 (32bit\64bit) professional version /Windows10 (32bit\64bit) professional version /Windows11 Professional/ Enterprise /Home	
5	HDD	Capacity:500GB/1TB/2TB/3TB	—	It depends on the stream, channel and time of the storage video
6	IP-SAN	Supports 16/24/28 SATAs	—	It depends on the number of the HDD

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 GDDR5memory) /500GB SATA/ Gigabit NIC	Win10 64bit Win11 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
Http Server	Service Port	8088
Transfer Server	Internal Port	6006
	Auto Report Port	2009
Storage Server (PC-NVR/IP-SAN)	Internal Port	6009
Configuration Server	Internal Port	7002
Alarm Server	Internal Port	6033
TV Wall Server	Internal Port	6036
Access Server	Internal Port	6013
Intelligent Server	Internal Port	6069
Application Server	Internal Port	6093
Media Stream Server	HTTP Port	8090
	RTSP Port	554
	HLS Port	8091
	RTMP Port	1935

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

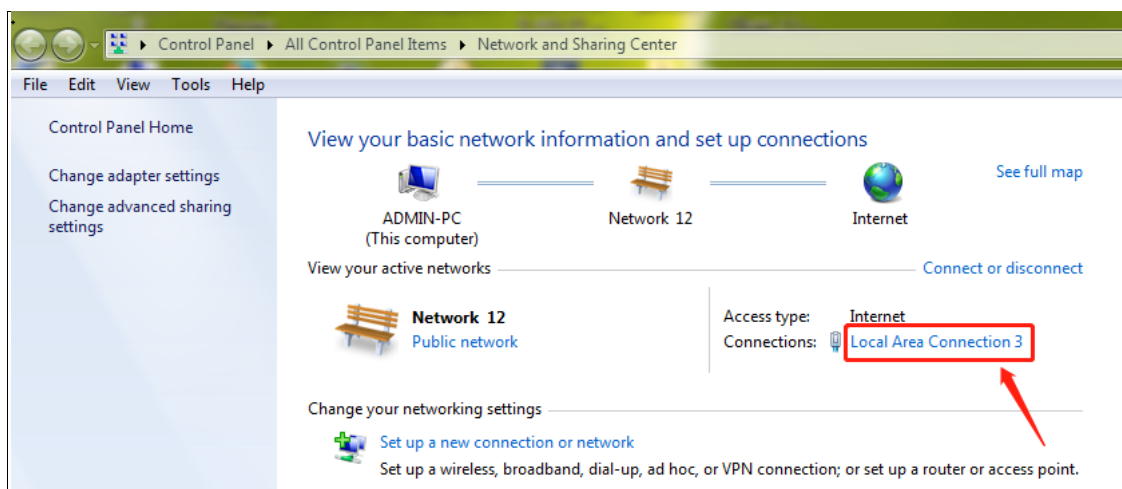
Item	Checkup Standard
Hardware	Check whether the hardware meets the standard required. (including CPU, memory, HDD, etc.)
Software	Check whether the software meets the standard required. (including the type and version of the operation system, NVMS version, etc.)
Front-end device	Check whether the device 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.

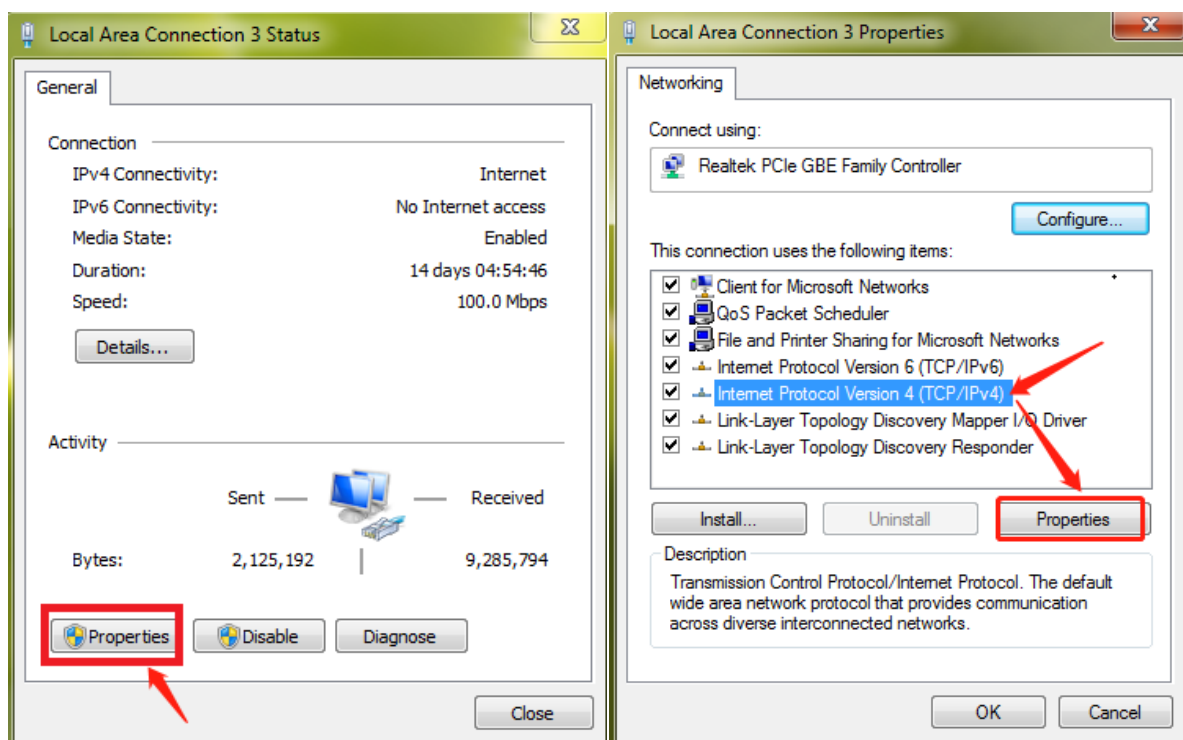
2.4 Configuring Server IP Address

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:

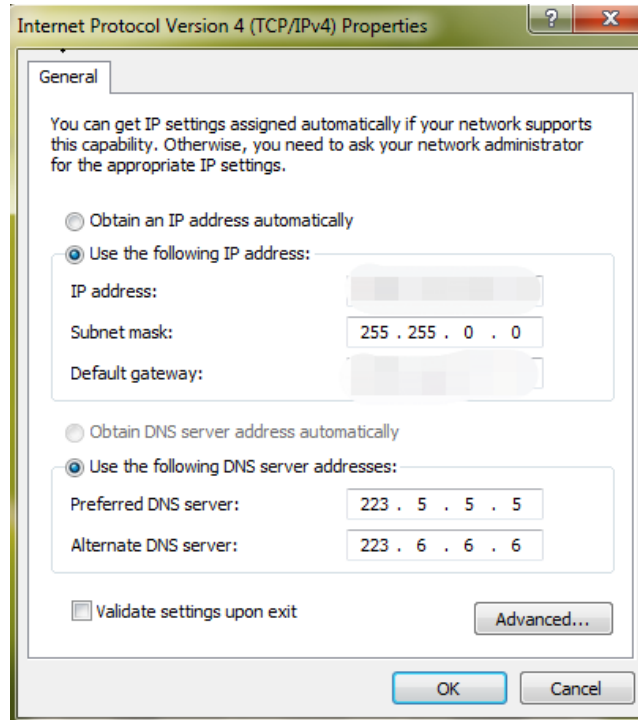
1. Connect the network cable to the server, power on and start the server.
2. Click  at the lower right corner of the computer desktop and then click “Open Network and Sharing Center” as shown below.



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. 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

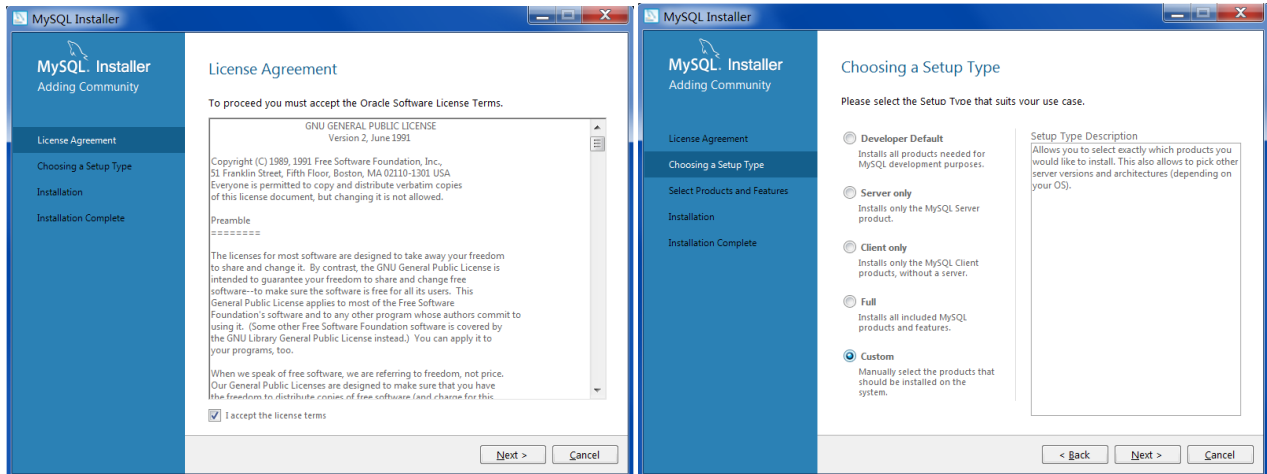
3.1 Install the software

Server, Client and MYSQL need to be installed separately.

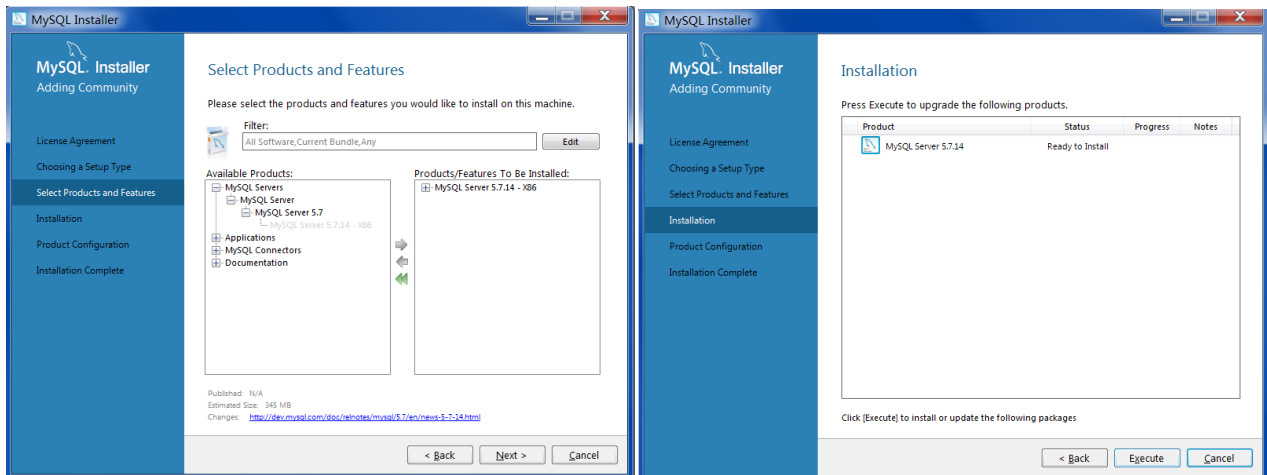
3.1.1 Install MySQL

Double click MySQL.exe to install.

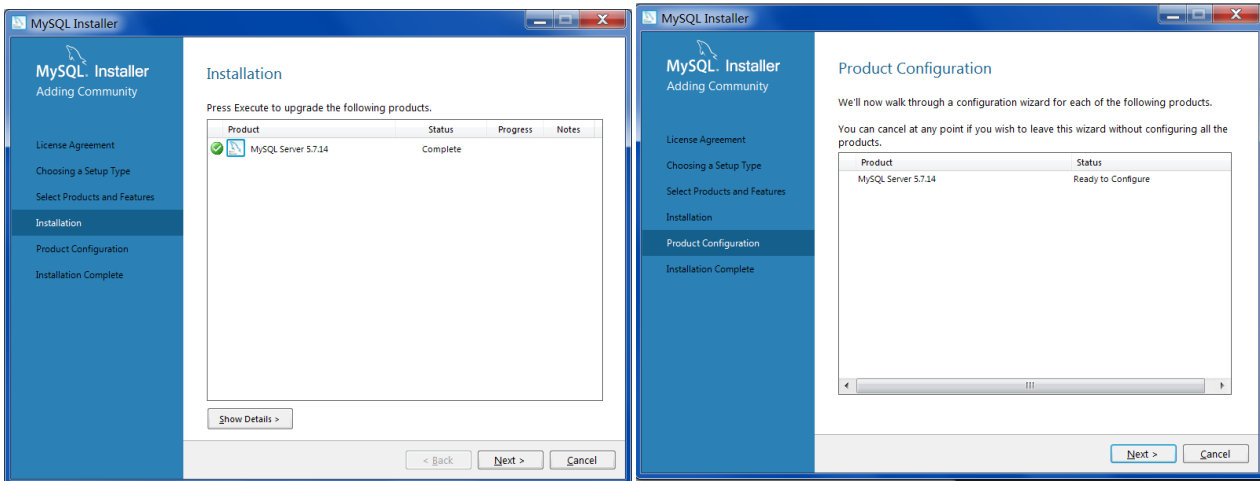
1) Select “I accept the license terms”, Click [Next], select “Custom” and then click [Next];



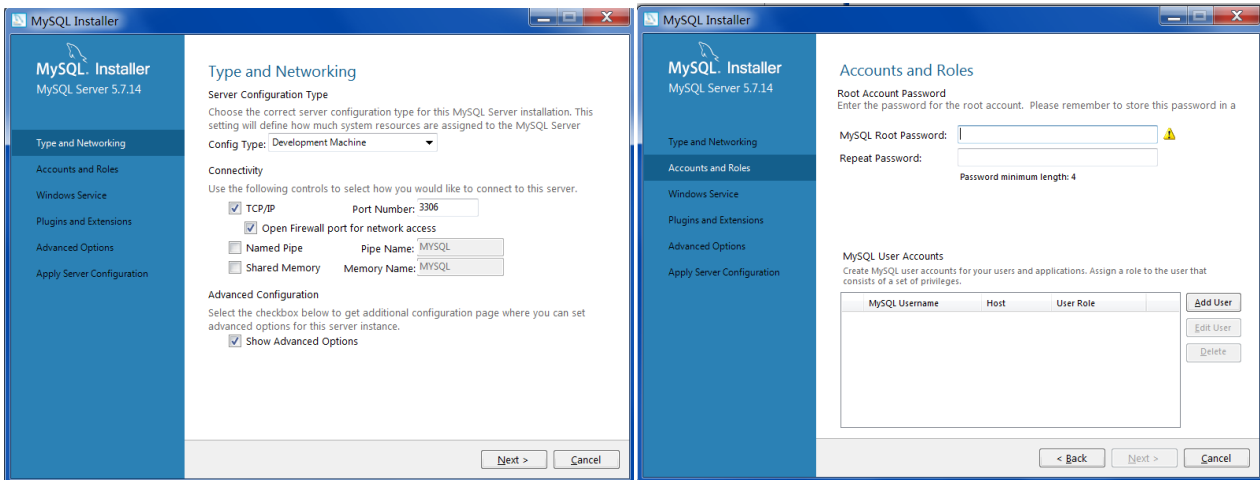
2) Select MySQL Servers, unfold it and select “MySQL Server 5.7”. Click  to add it. Then click [Next] → [Execute];



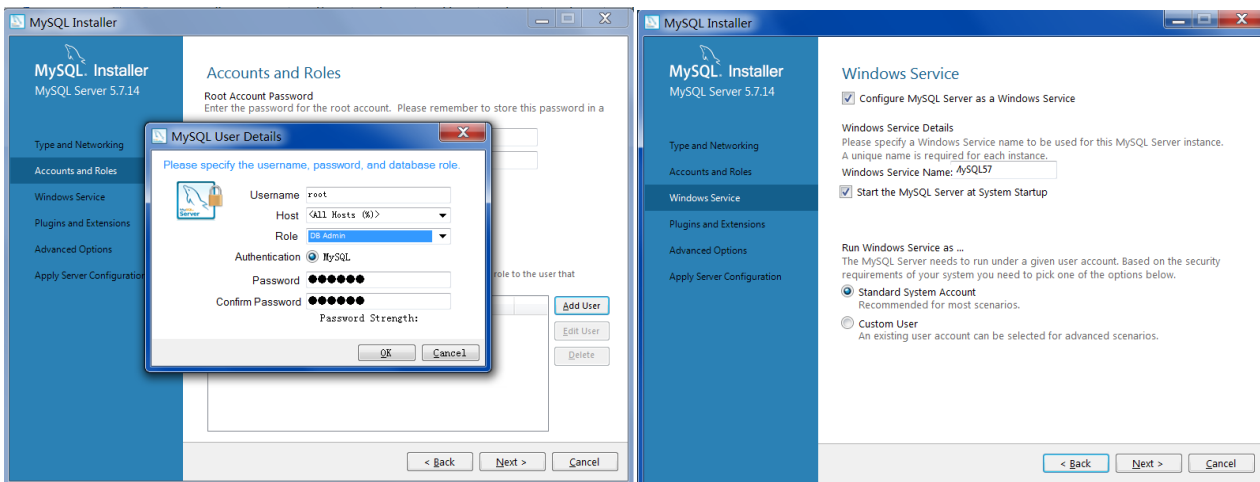
3) Click [Next] → [Next], as shown below.



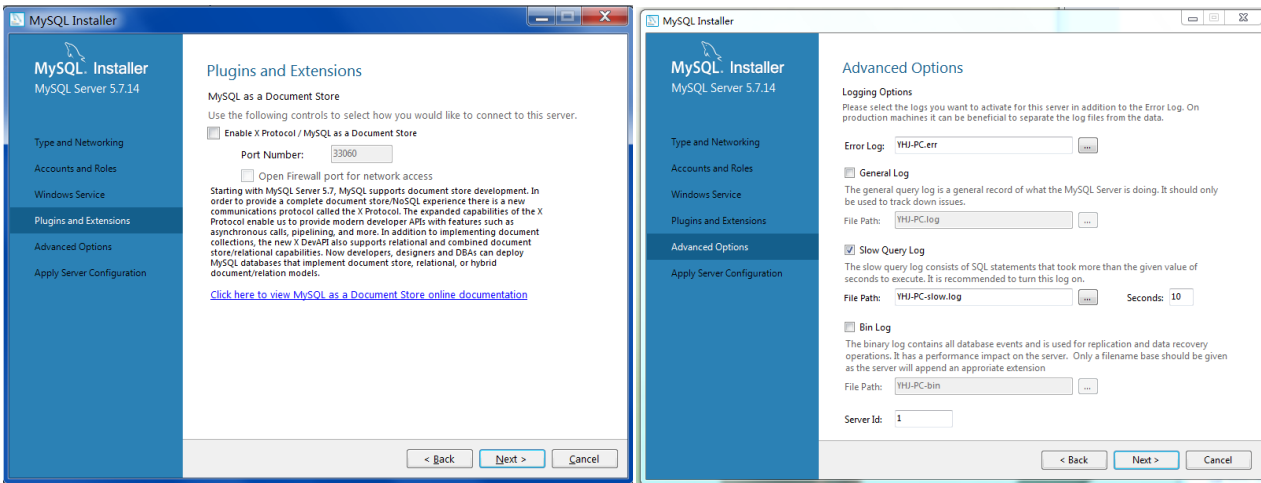
4) Check “TCP/IP”, “Open Firewall port for network access” and “Show Advanced Options” as shown below. Then enter MySQL Root Password, a minimum of 4 letters.



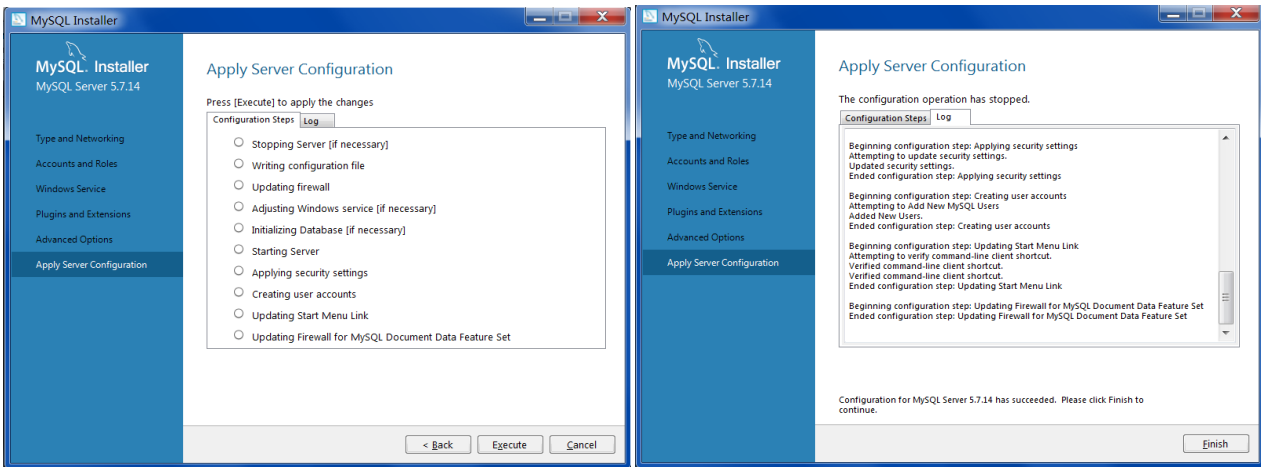
5) Click [Add User] to set username and password. To avoid forgetting, please enter “root” and the above password. Then click [OK]→[Next];



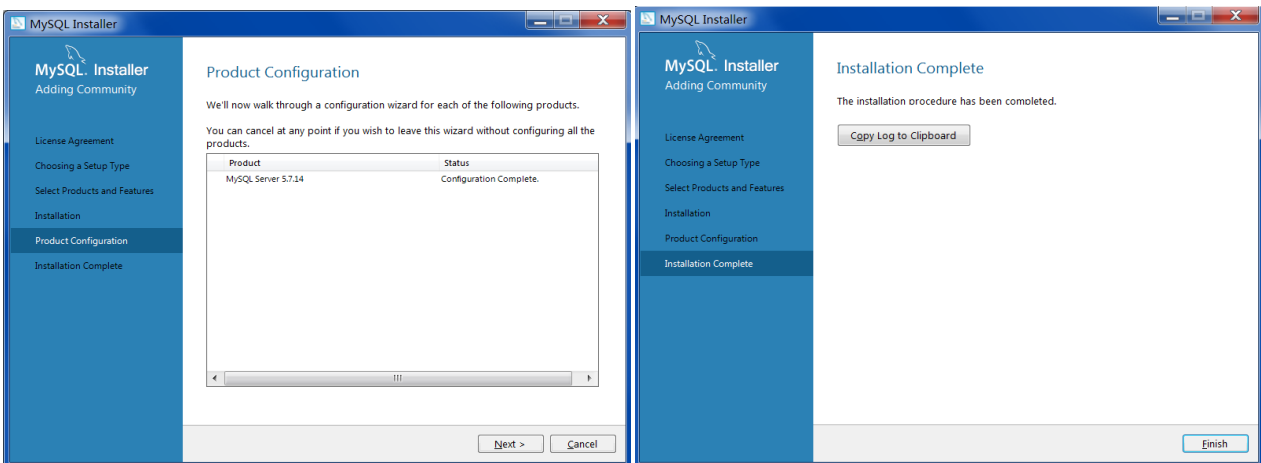
6) Click [Next] to go to “Advanced Options” interface. Please set according to the following picture. Then Click [Next];



7) Click [Execute]→[Finish];

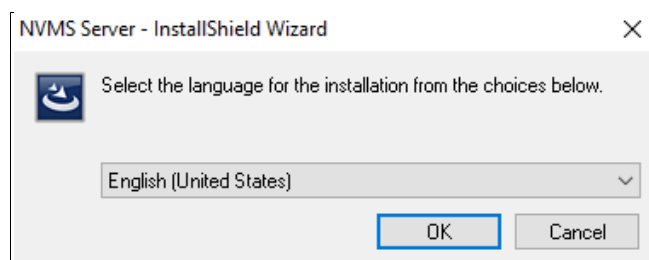


8) Click [Next]→[Finish].

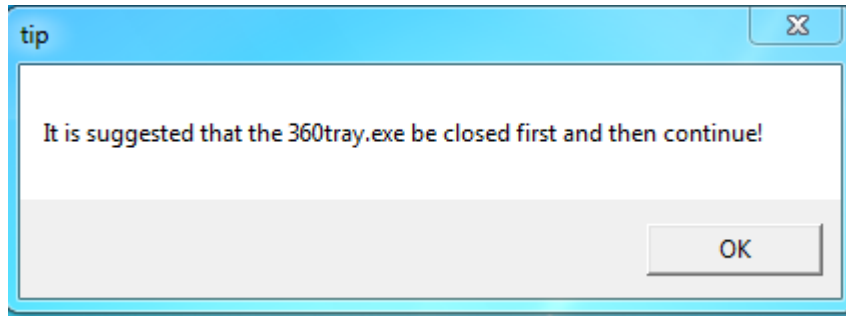


3.1.2 Install Server

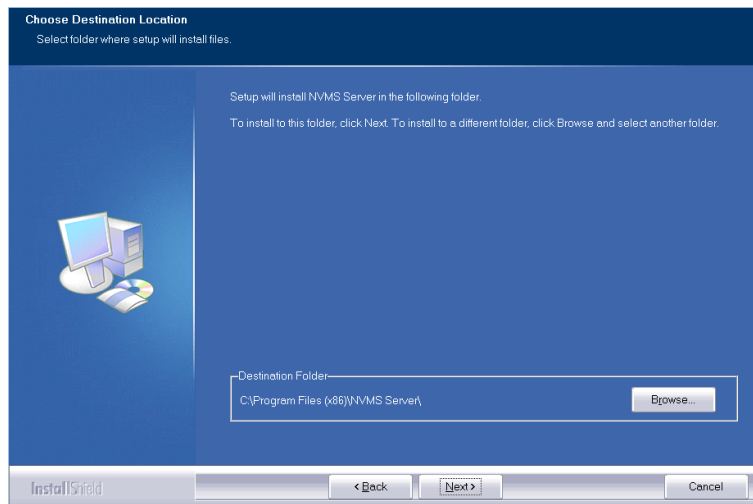
1) Double click “NVMS server.exe”. Select the UI language as needed.



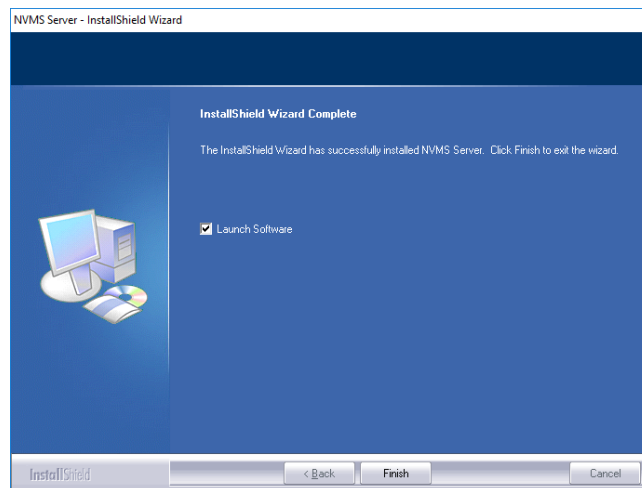
- 2) A tip will pop up to suggest you to close the antivirus software. If no prompt window appears, please skip this step.



- 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].

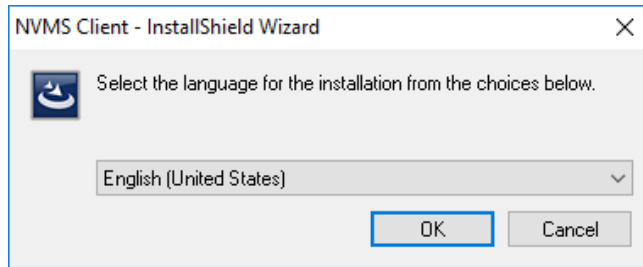


- 5) Check "Launch Software" as needed and then click [Finish]".

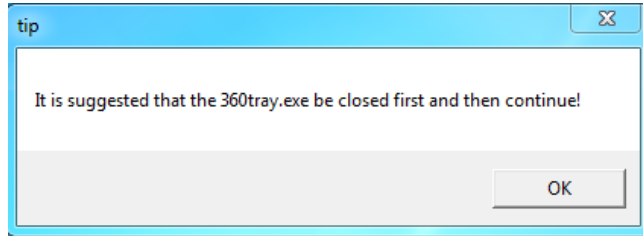


3.1.3 Install Client

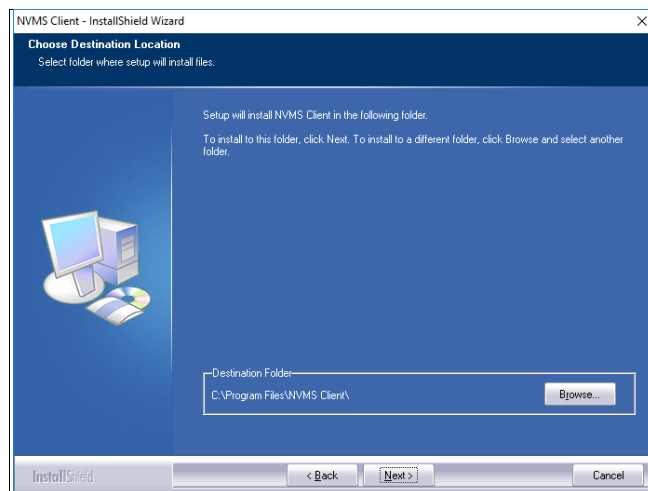
- 1) Double click "NVMS Client setup.exe" and then select the UI language as needed.



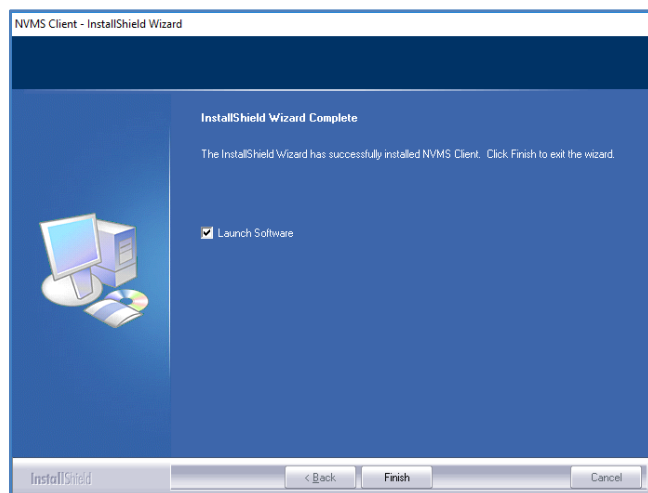
- 2) A tip will pop up to suggest you to close the antivirus software.



- 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

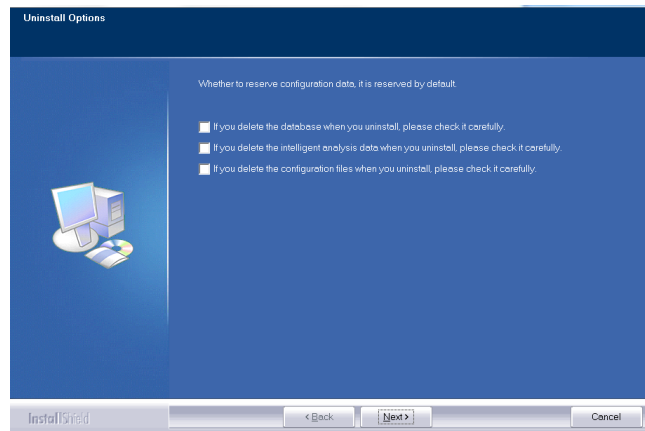
If the new version needs to be installed or there is no need to use this software, this software can be uninstalled. It is strongly recommended to back up the configuration data before installing the new version of NVMS.

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.

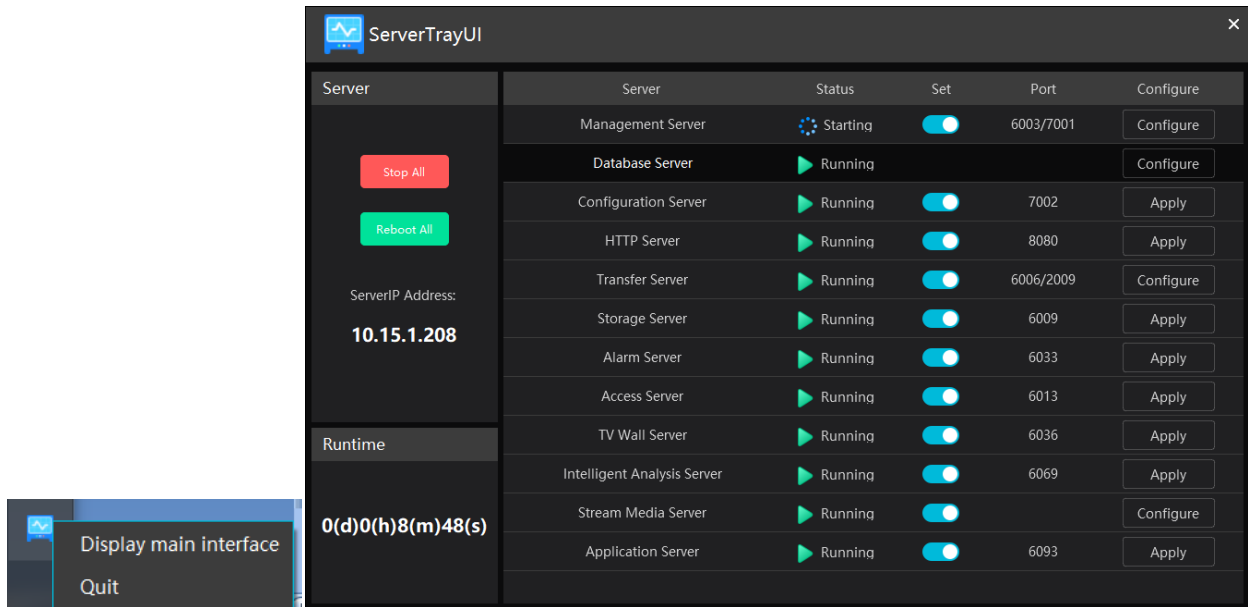
Select whether to delete the database, intelligent analysis data or configuration files as needed. Then clicking the “Finish” button ends the uninstallation.



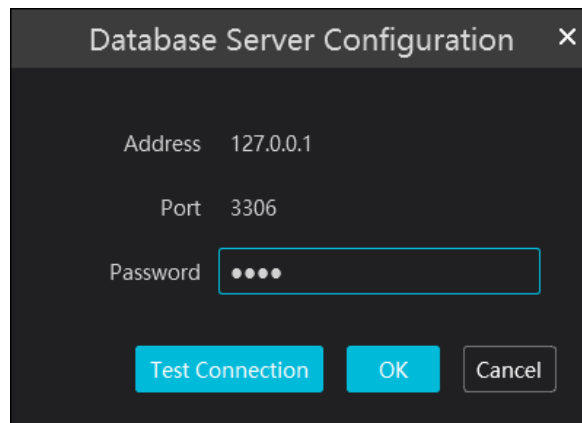
4 Login

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 remember to set the password of the database server to the pre-defined one by clicking [Configure].



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

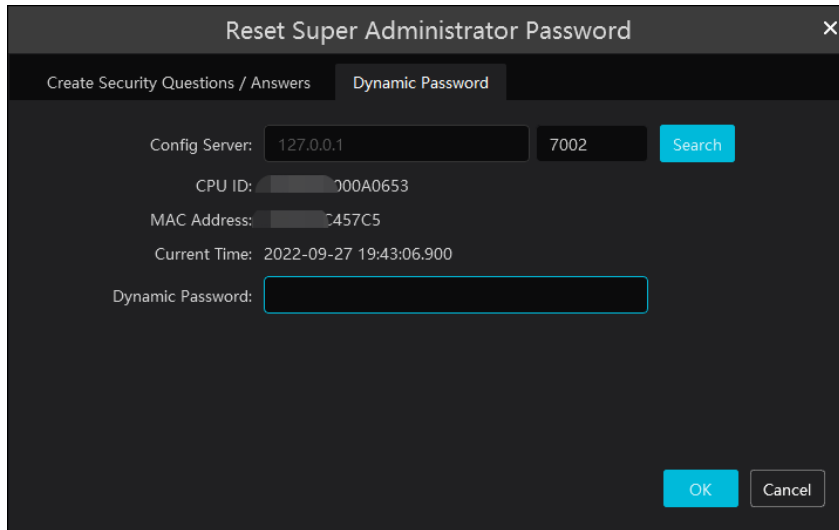
Double click the shortcut icon of “Monitor Client” to run the software as shown below.

- 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 it is the first time for you to login, you should check “I have read and agree Application Privacy Statement”.

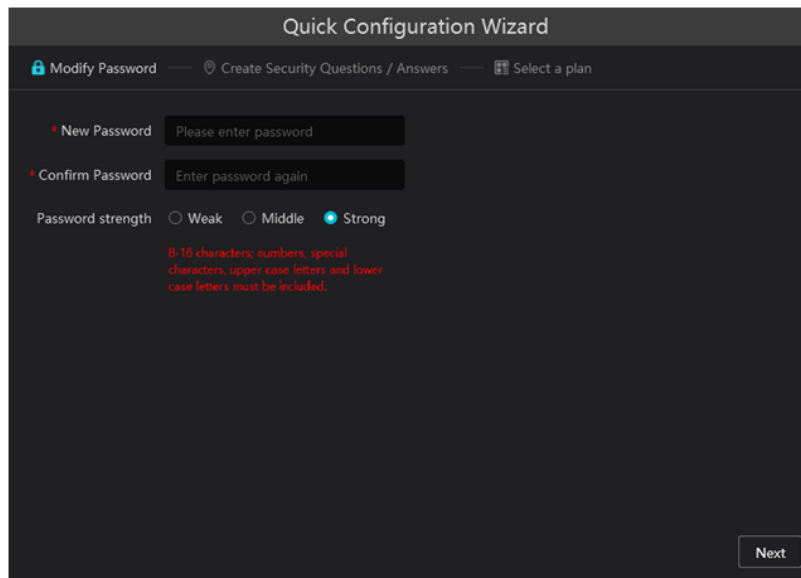
If you forget the password, please click “Forget password”. Then a small window will appear. You can reset the password by answering the pre-defined questions.

If you don't set or forget 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.



4.3 Quick Wizard Settings

After you log in, the system will pop up a wizard and the password modification is required.



If this is the first time for you to log in, it is recommended to create security questions and 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.

Click “Skip” to skip the following wizard setup.

Quick Configuration Wizard

🔒 Modify Password —
 📍 Create Security Questions / Answers —
 📄 Select a plan

Question:

Answer:

Question:

Answer:

Question:

Answer:

No more tips for security questions

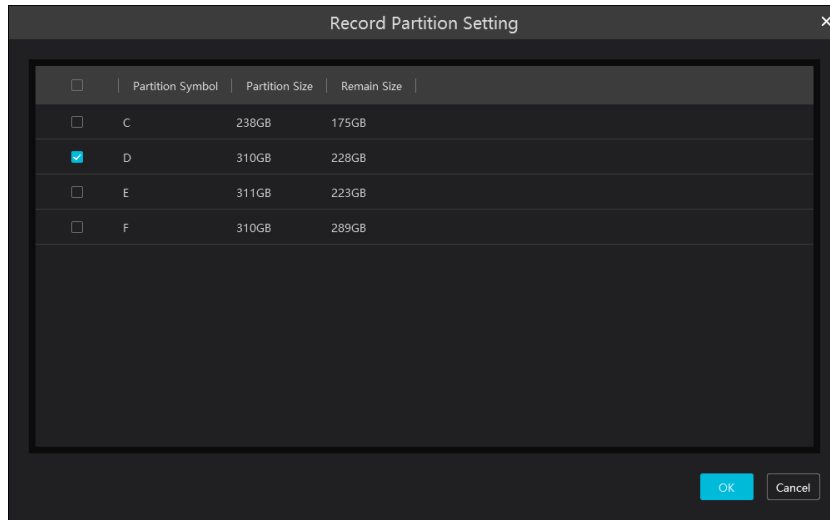
Click "Next". Then you can select the function display module in the home page.

Quick Configuration Wizard

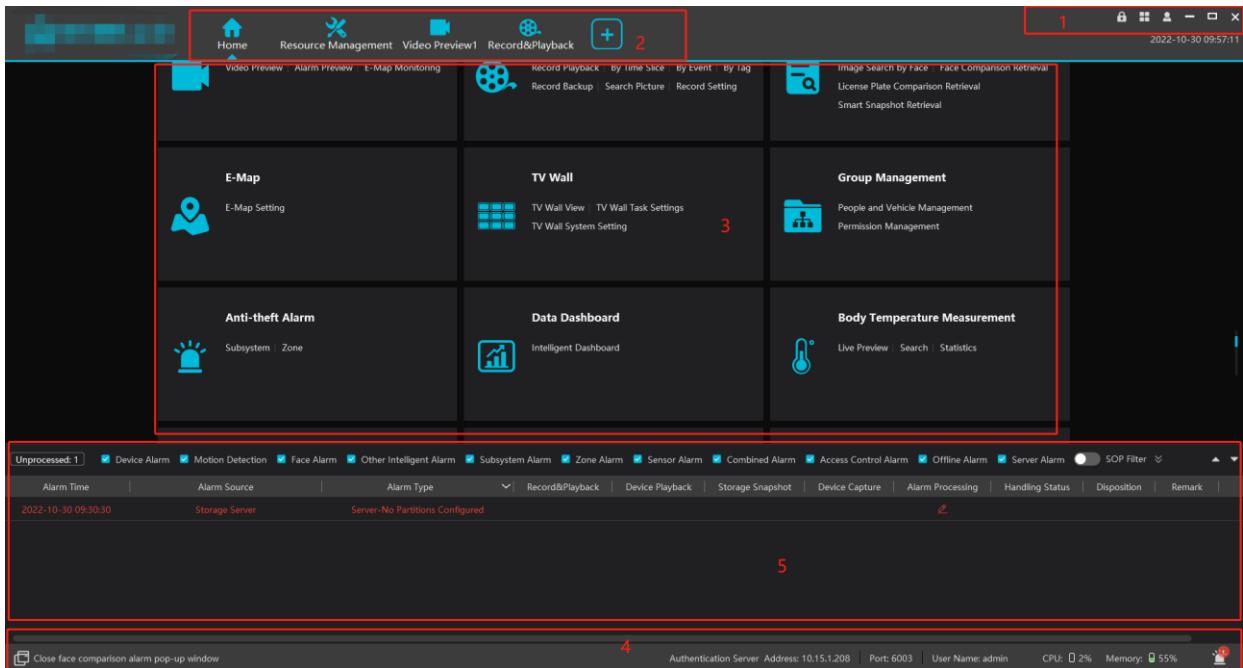
🔒 Modify Password —
 📍 Create Security Questions / Answers —
 📄 Select a plan

<input checked="" type="checkbox"/> Video Monitor	<input checked="" type="checkbox"/> Personnel And Vehicle	<input checked="" type="checkbox"/> Vistor	<input checked="" type="checkbox"/> Face Access Control
<input checked="" type="checkbox"/> Access Control Management	<input checked="" type="checkbox"/> Attendance Management	<input checked="" type="checkbox"/> Target Counting	<input checked="" type="checkbox"/> Body Temperature
<input checked="" type="checkbox"/> Face Greeting	<input checked="" type="checkbox"/> Parking Lot Management	<input checked="" type="checkbox"/> Data Dashboard	<input checked="" type="checkbox"/> Industrial Temperature

After that, a record partition setting box will pop up. Please check the record partition as needed.



4.4 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
	“Live View”, “Edit live view”
	Including “Switch User”, “Register”, “About”, “Switch Plan”, “Modify Password”, “User Manual” and “Skin”



	Click it to lock the operation page. Click “Unlock” and then enter the login password to unlock it.
--	---

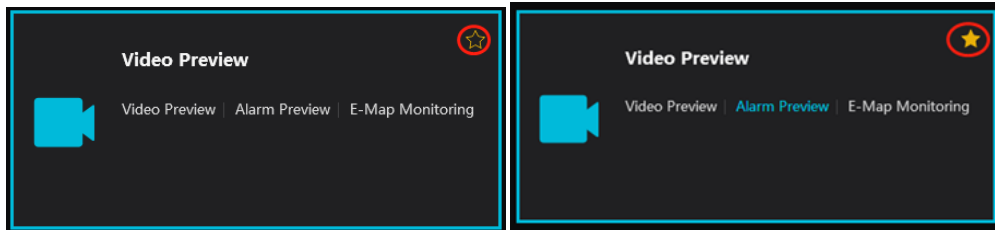
Functional area

Menu	Description
Video Preview	To view live images and to record, snapshot and talk, etc.
Record& Playback	To remotely play the local records or back up records.
Search	Including image search by face, face comparison retrieval, license plate comparison retrieval, smart snapshot retrieval and visitor record search.
E-Map	To manage and display maps, hot spots, etc.
TV Wall Management	To set TV wall and decoding videos on TV Walls
Group Management	To manage people and assign the access permission; To add vehicles
Data Dashboard	Smart display video window, device status, face comparison, human body temperature screening, E-map, etc.
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
Face Access Control	To control people entry via access control panels
Visitor Management	To manage visitors and search the records of visitors.
Anti-theft Alarm	To set alarm subsystem, zones and linkage of the alarm server
Access Control Management	To open the door remotely or set alarm linkages or view e-map or search log.
Target 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.
Resource Management	To add, modify or delete areas, devices or servers.
User Management	To add, modify or delete user account and set permissions for these accounts.
Alarm Center	To set alarm linkage, schedule, SOP, E-mail, SIRA, alarm task and so on; To search alarm logs.
Operation and Maintenance Management	To search, export and maintain logs; To back up or restore configuration; To display device/server/record status
Configuration	To set record path, snapshot path, system startup and maintenance, overload, alarm view and so on.


Common use modules:

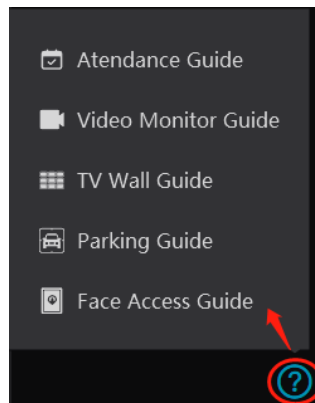
You can move the module which has a high using frequency to the top so that it is convenient to be used.

Place the cursor on the module you want to move to the frequent use module, and then a pentagram icon () will be displayed on the top right corner of the module. Click this icon to move. On the common use display area, click  to make the module return to its original place.








Wizard Settings:










On the bottom right corner of the functional area, click  to show the following wizard guide.



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.

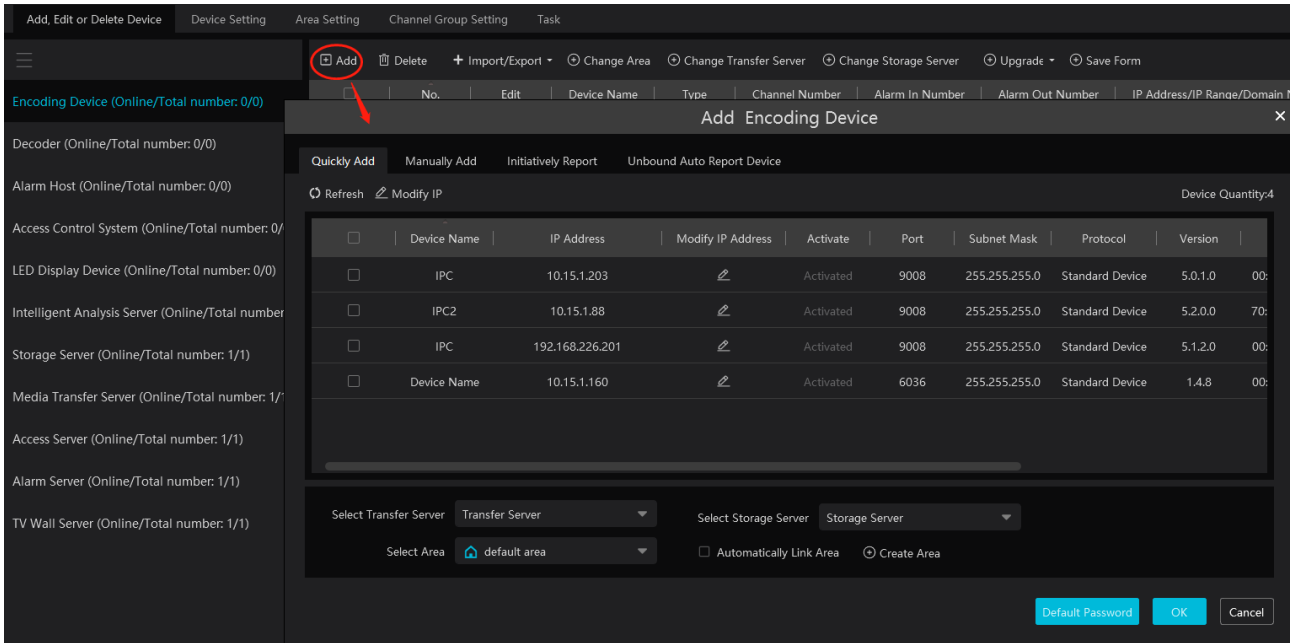
Common buttons:

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
	Click it to link to itself
	Collapse menus
	Expand menus

5 Device Management

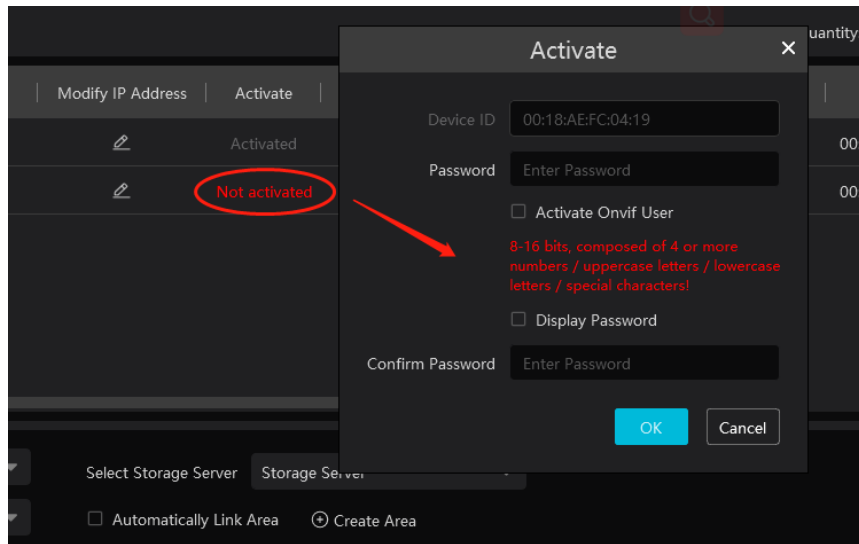
5.1 Add Encoding Device

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



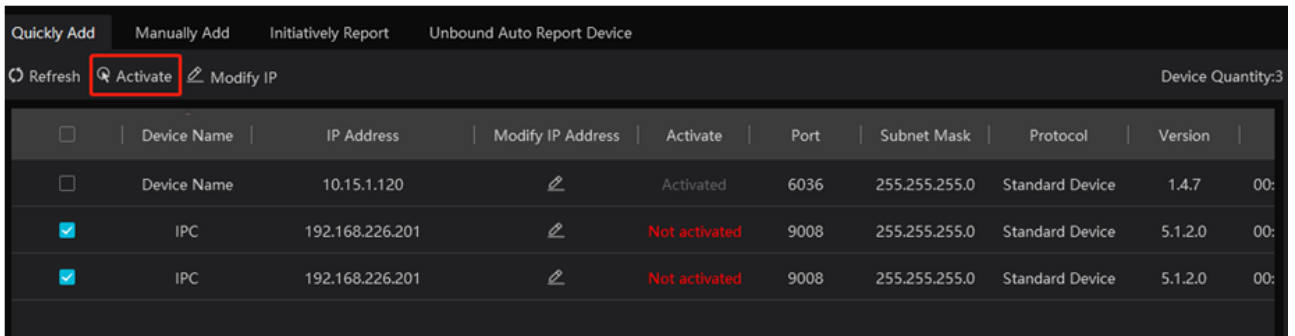
In the adding encoding device interface, you can view the activated device or unactivated device. Click the “Activate” on the table header to sort.

Activation: click “Not activated” and then enter the password of the IPC according to the tip in the pop-up activation box. After successful activation, the IPC can be connected normally.



If “Activate Onvif user” is selected, the password of the IPC connected to the platform via Onvif protocol is the password you entered here.

Batch Activation: check the inactivate devices and then click [Activate] to enter the password of the IPCs in the pop-up activation box. After successful activation, these IPCs can be connected normally.



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].

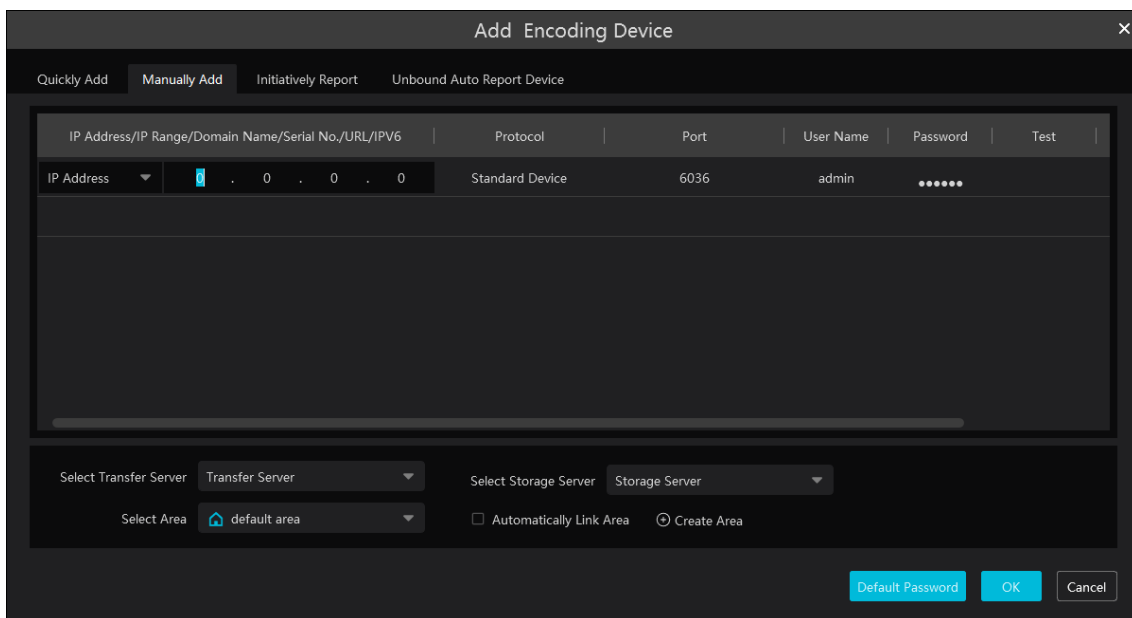
Click “Default password” to set the default username and password of the devices from different manufacturers, such as Hikvision, Dahua, etc. The default username of the standard device is “admin and the default password of the standard device is “123456”.

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).

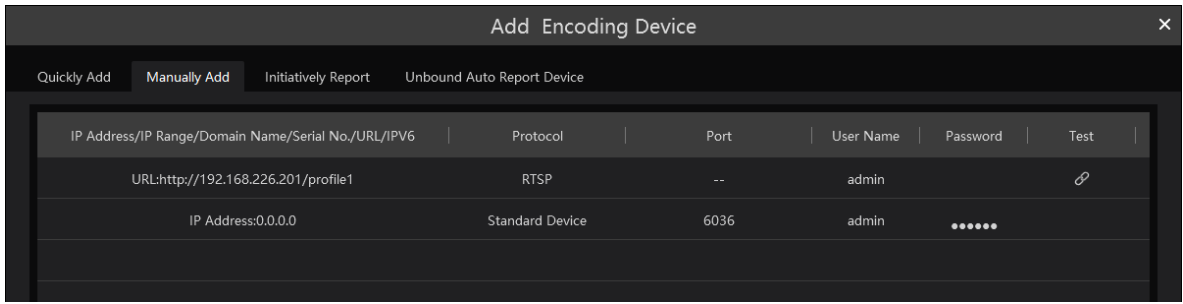
5.1.2 Manually Add



- 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.

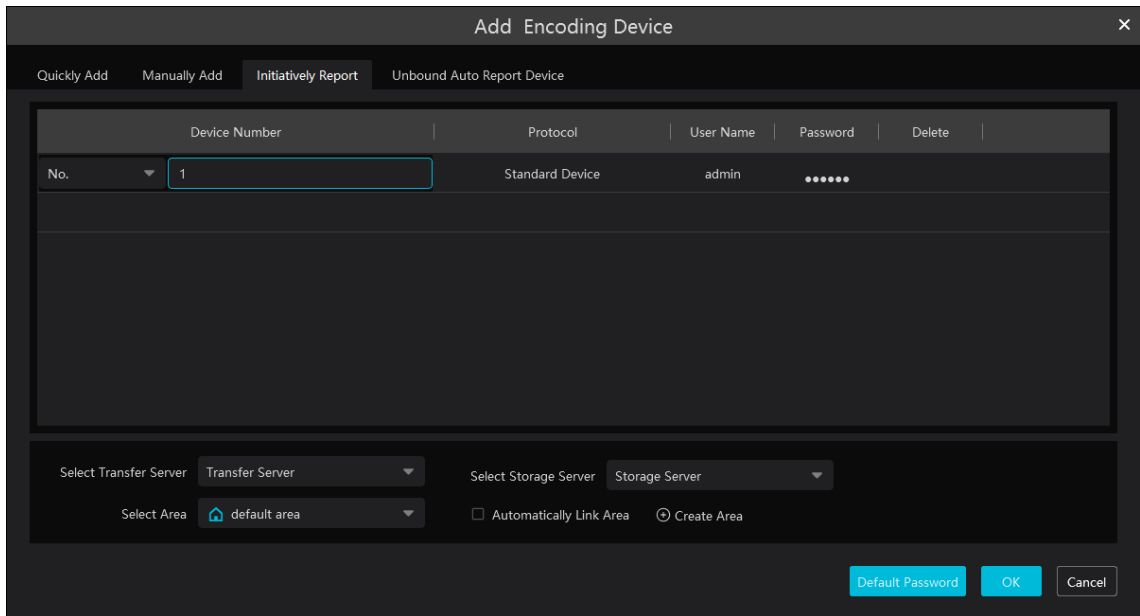
The default RTSP port is 554 and the URL format is “rtsp://IP or domain name:port/profile1”. For example:

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

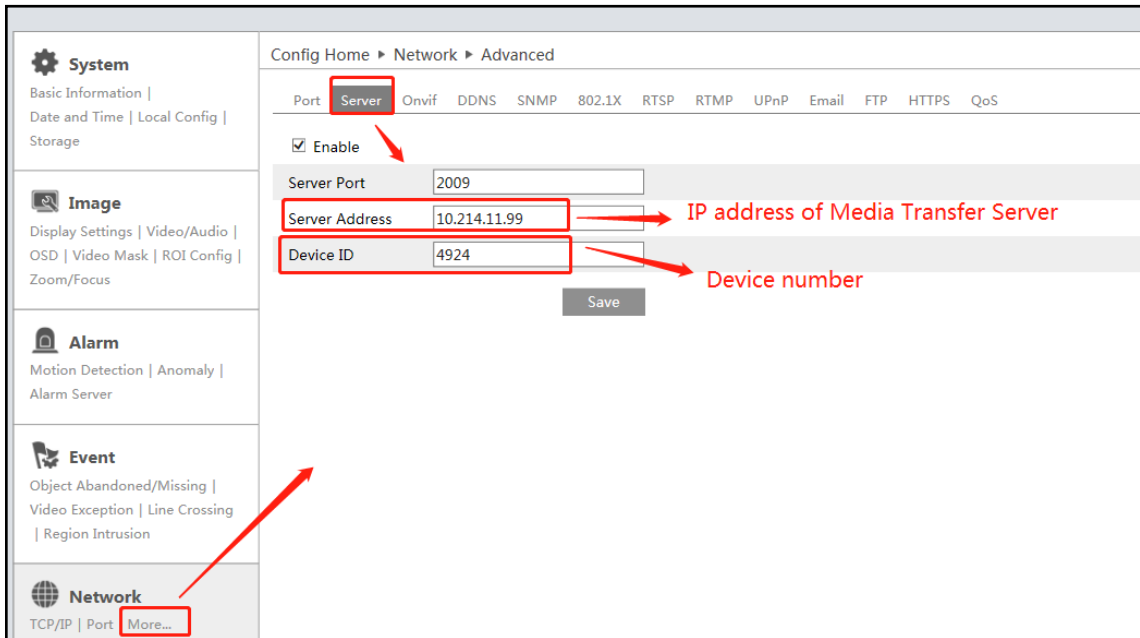
For the URL of a device from other companies, please consult their technical documentation.

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.

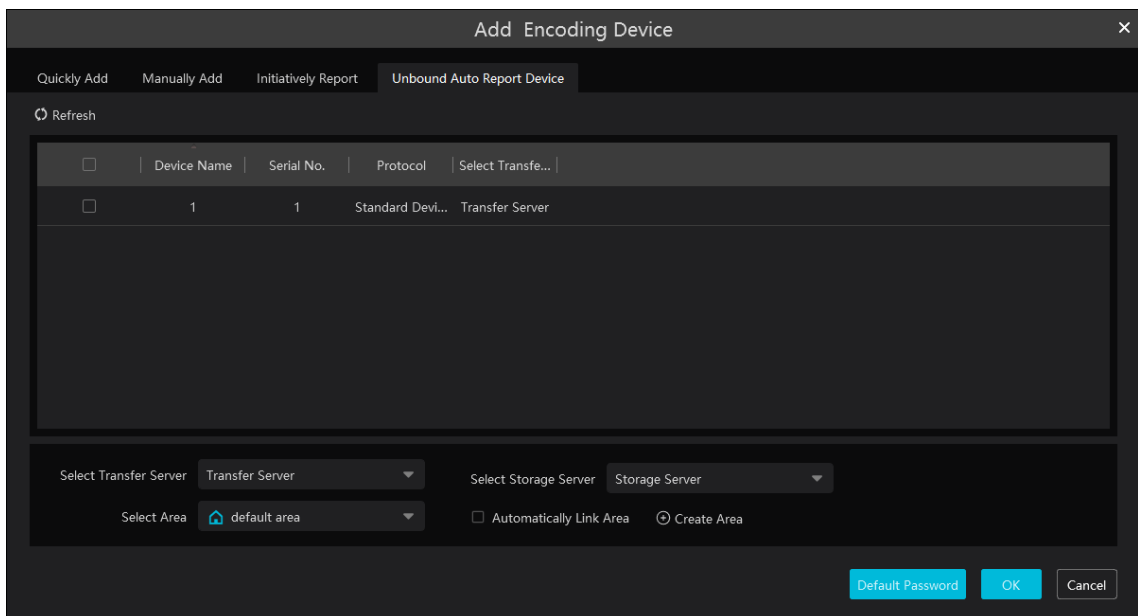


- ② Select the transfer server, storage server, area and then click [OK].

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.

Add, Edit or Delete Device										
Device Setting		Area Setting		Channel Group Setting		Task				
+ Add ✖ Delete + Import/Export ↻ Change Area ↻ Change Transfer Server ↻ Change Storage Server ↻ Upgrade ↻ Save Form										
Encoding Device (Online/Total number: 7/11)										
No.	Edit	Device Name	Type	Channel Number	Alarm In Number	Alarm Out Number	IP Address			
1			Standard Device	1	3	3				
2		Device Name	Standard Device	1	41	5				
3		IPC	Standard Device	1	2	2				

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

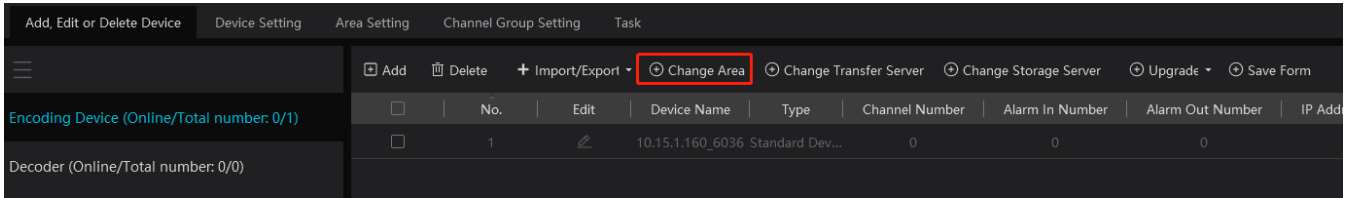
Click  to modify the device information.

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 [Change Area] to modify the area of the selected devices.



5.4 Batch Import/Export

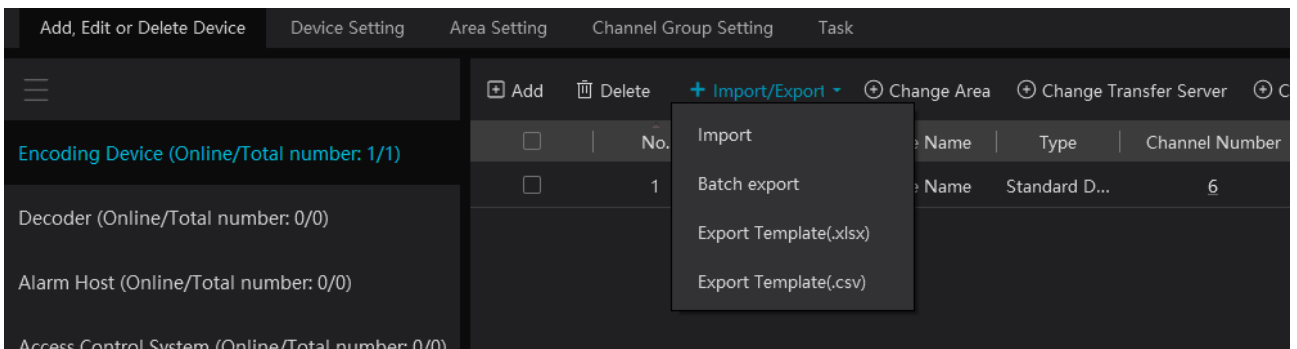
You can import multiple encoding devices (NVR/IPC) in different local network at a time. The setting steps are as follows:

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

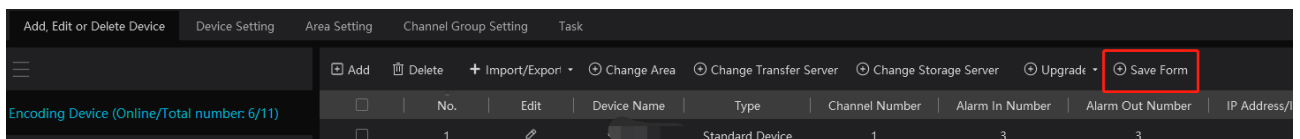
	A	B	C	D	E
1	ip	port	protocol	userName	password
2	10.214.40.88	6036	standard device	admin	xxxx
3	10.214.40.89	6036	standard device	admin	xxxx
4	10.214.40.43	9008	standard device	admin	123456

Protocol: four protocols can be used here, including “Hikvision”, “standard device”, “Dahua” and “ONVIF”.

2. Save the file as “.cvs” or “.xlsx”.
3. Click Home→Resource Management→Add, Edit or Delete Device. Then click [Import/Export] to show a drop-down list. Click [Import] to import the file.



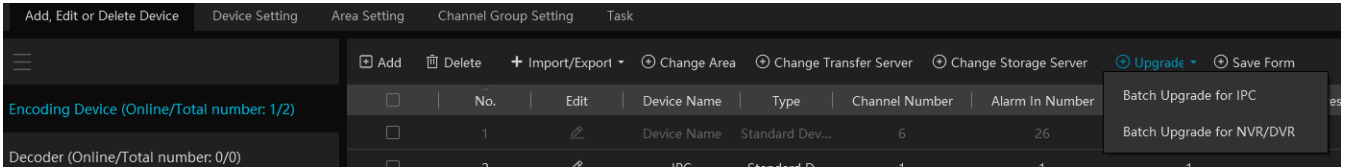
Export encoding devices: check the device you want to export and then click [Save Form] to export the device list.



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

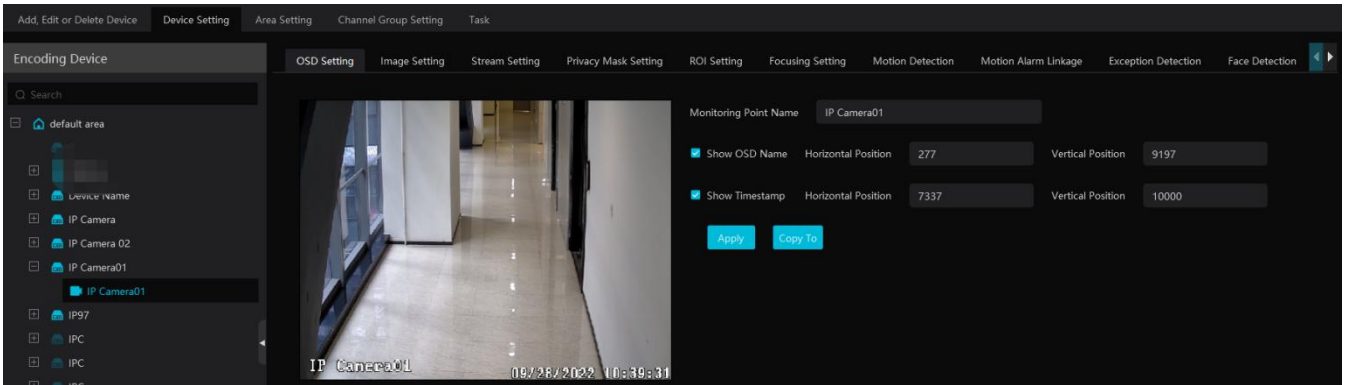
needed.



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

5.6 Device Setting

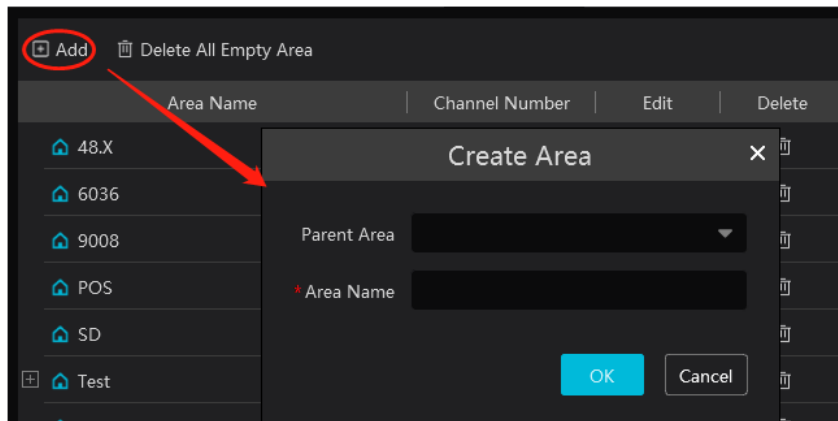
Go to Home→Device Setting interface as shown below. In this interface, the parameters of the device can be set up.



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].

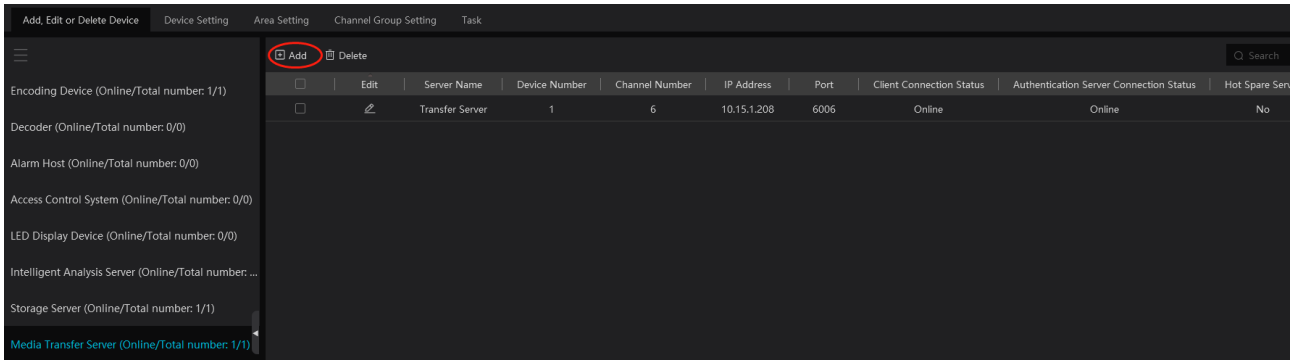
5.1 Server Settings

5.1.1 Add Media Transfer Server

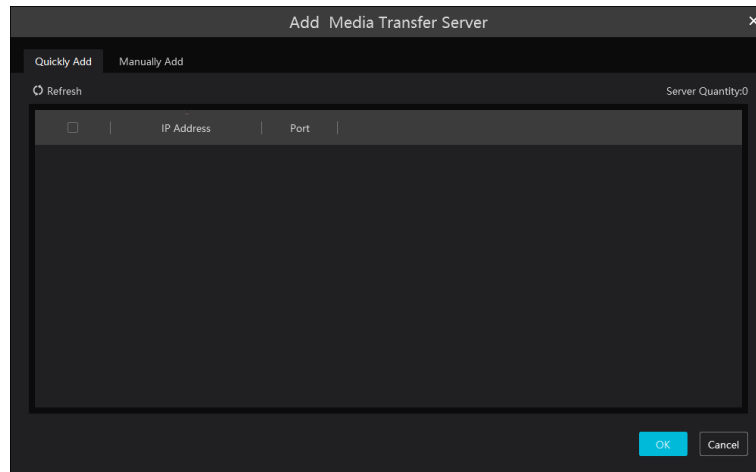
Media transfer server is in charge of the video signal reception of the front-end devices (like IPC) and transfers the signal to the client to view or to the storage server to record. The command of viewing the video of the front-end devices sent by the client or storage server is transferred by the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

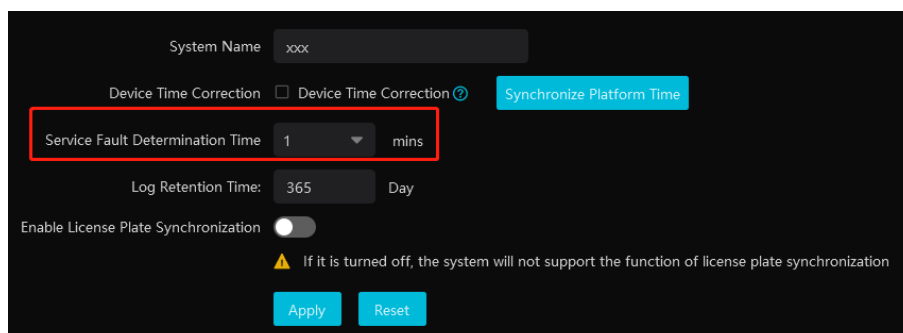
When adding the transfer server, you can select it as a hot spare server.

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.

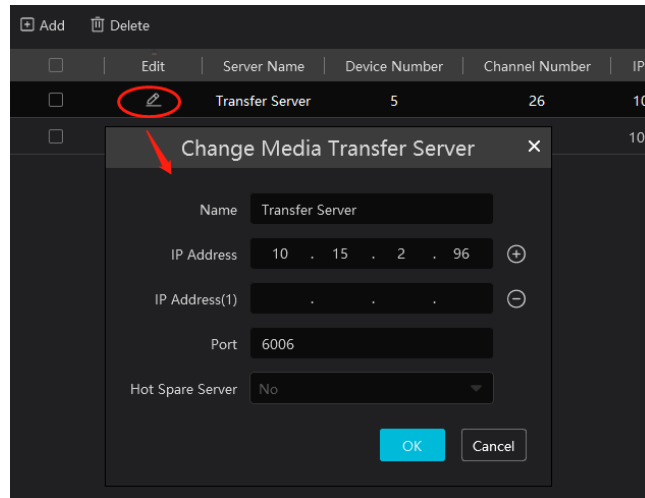
1. When the transfer server of the device is offline and the offline time exceeds the predefined service fault time, the device will be transferred by the online hot spare server.
2. When the original transfer server of the device is online again and the online time exceeds the predefined server fault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



If the added media transfer server has multiple Ethernet ports, you can add multiple IP addresses as needed. The setting steps are as follows.

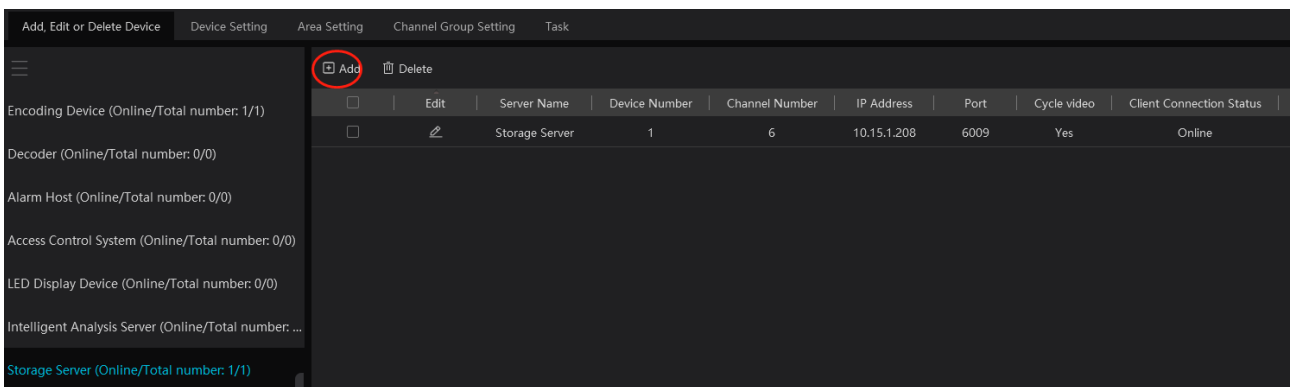
1. Click  to modify the added transfer server.
2. Click  next to the IP address and then enter the IP address you want to add.
3. Click “OK” to save the settings.



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.

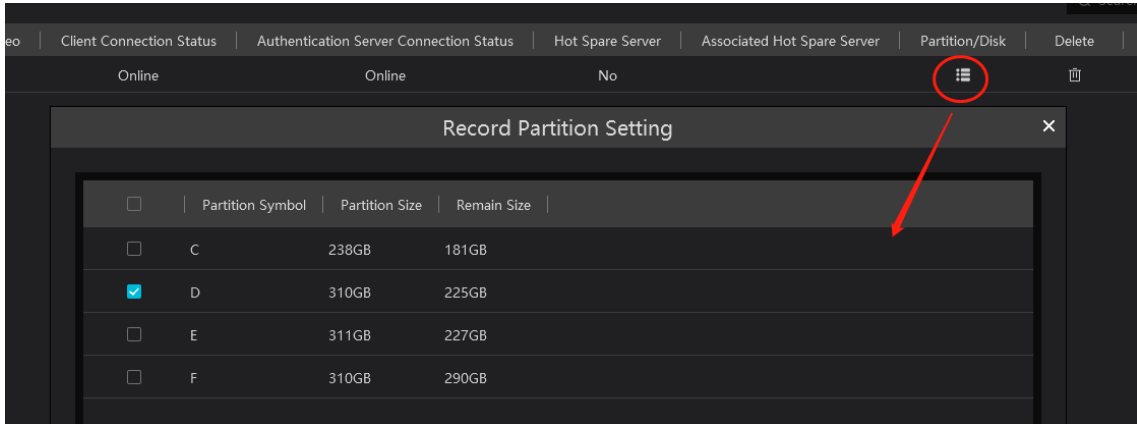


2. Click [Add] to go to storage server adding interface. Users can quickly add or manually add storage servers.
3. Select the “Quickly Add” tab and click [Refresh] to quickly search servers in the same local network. Check the desired servers and click [OK] to save the settings.

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.

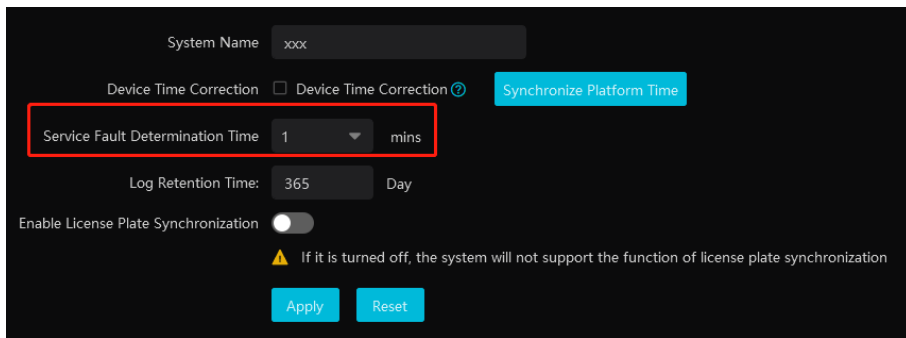
After the storage server is added, click  to set record partition. In the record partition setting interface, select the disk and click [OK] to save the settings.



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

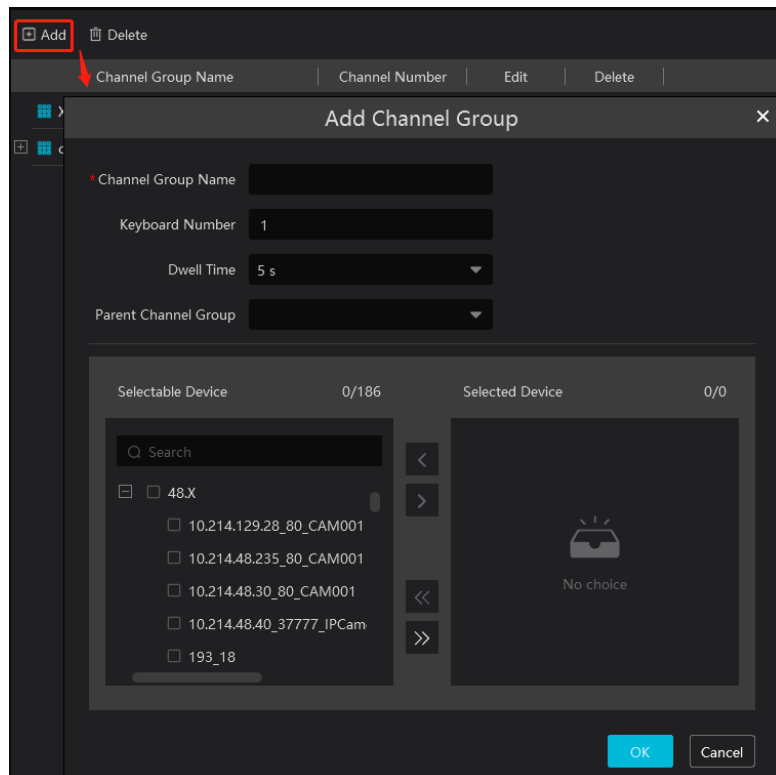
1. When the storage server of the device is offline and the offline time exceeds the predefined service fault time, the recorded file of the device will be saved by the online hot spare server.
2. When the original storage server of the device is online again and the online time exceeds the predefined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

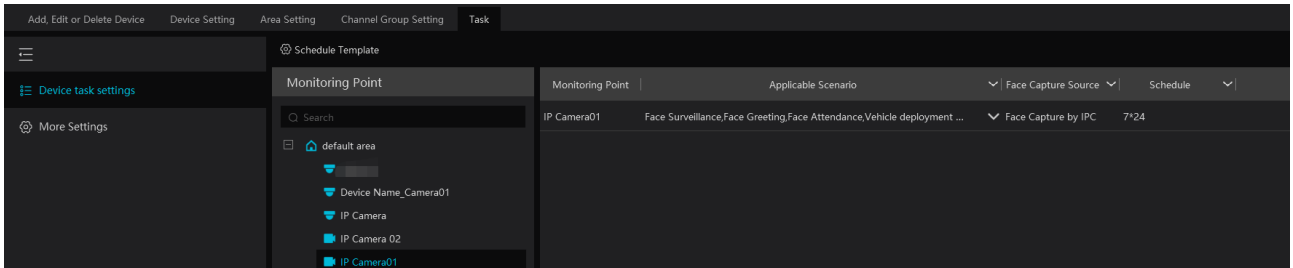
Go to Home → Resource Management → Channel Group Setting interface as shown below.



- 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.

5.3 Task Management

Set the face capture source, schedule and applicable scenario.

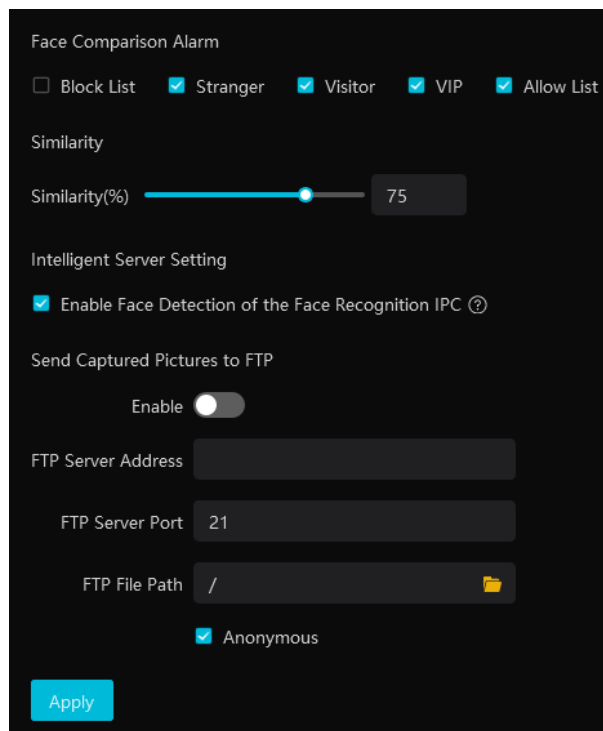


Face Capture by IPC: it is applicable to the face detection camera.

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 [More Settings].



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.

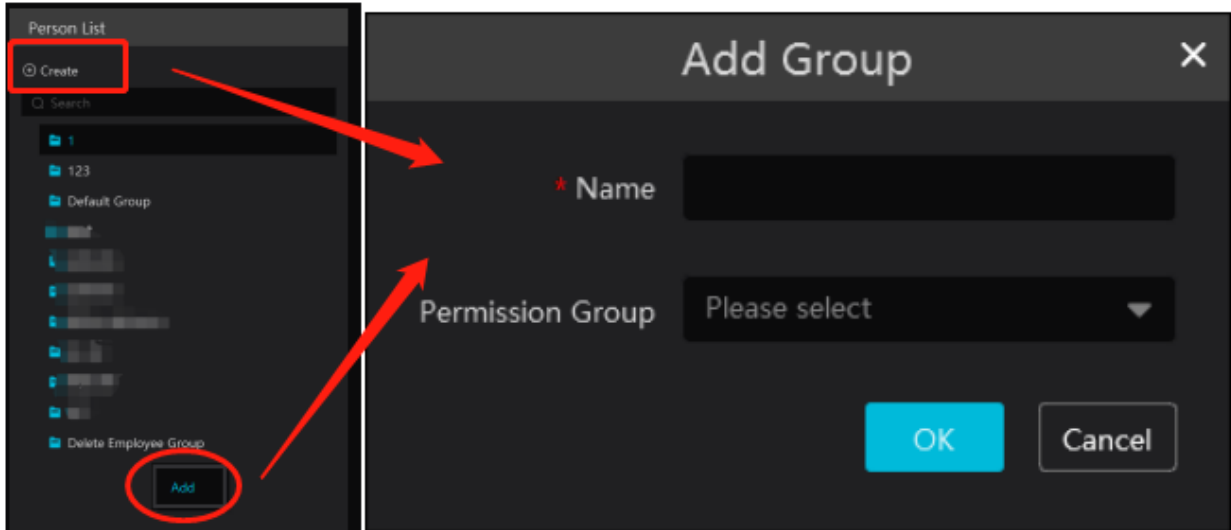
6 Group Management

6.1 People Management

You can add group for three libraries—Person List, VIP List and Block List.
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.



Click [Create] to add a group, or right click on the blank of the person list column and then click [Add] to add the group name.

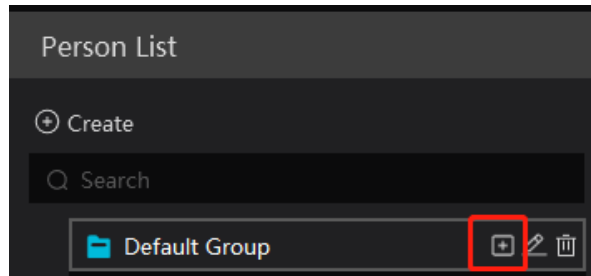
Note: The added parent group name and face information under it will be synchronized to the face database of the NVR, but the sub group name will not be added to the NVR. The face information under the sub group will automatically be added to its parent group in the NVR. If the parent group fails to 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 modify the group name and permission group; Click  to delete the group.

6.1.2 Add Target

You can add targets for three libraries—Person List, VIP List, Block List.

- Add target one by one

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

Click **[Upload]** 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 200KB.

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

If the target you newly add has already existed in the authorized face recognition device, please delete the previous one in the authorized face recognition device in case that the successful match result cannot be pushed to the platform.

- Batch Import

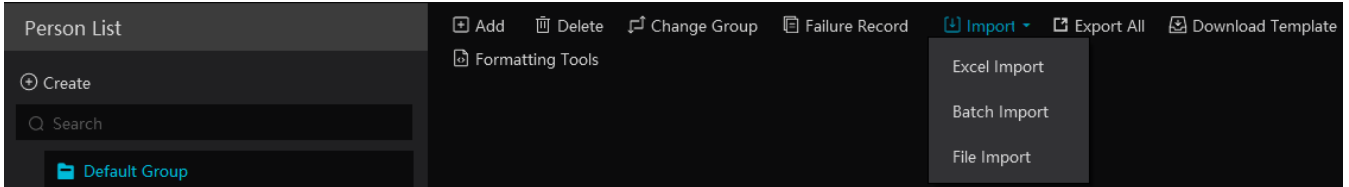
In the above interface, click **[Download Template]** to export an Excel template and then fill out the corresponding information in the table as shown below.

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.

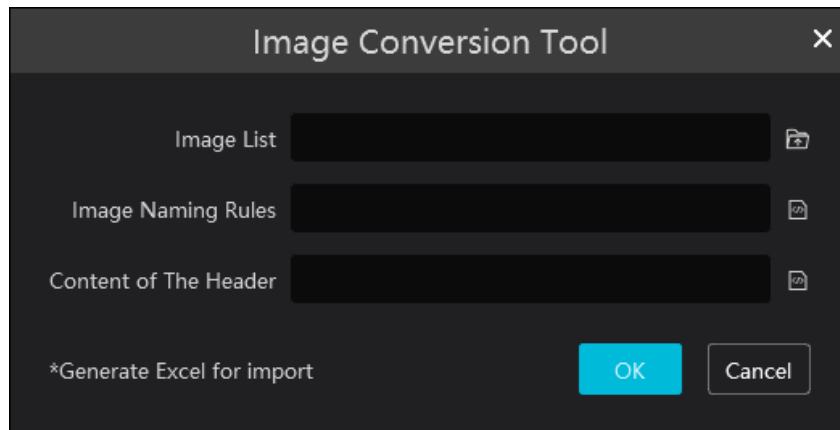
Search Subfolders: choose a folder including multiple subfolders and then all pictures in the folder and its subfolders will be imported.

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.

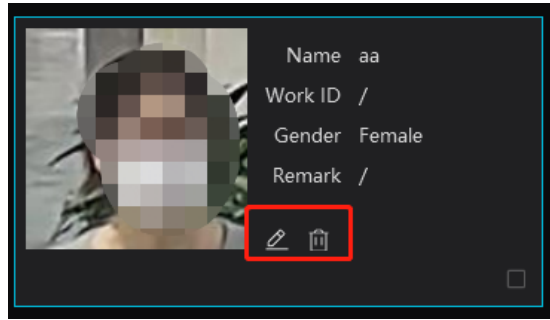
1. Name the face images (like David_Male_1989-01-03_Engineer_Group1), separating each field with “_”.
2. Clicking on [Formatting tools] displays an image conversion box. Click to select the desired images.
3. Click respectively to set the image naming rules and content of the header.




Note:

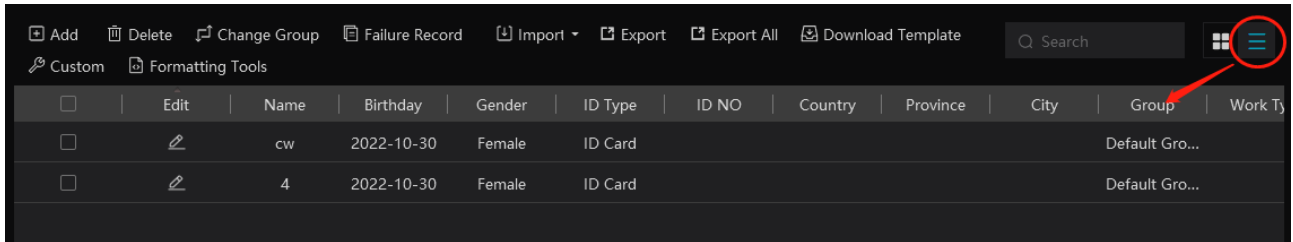
1. The naming sequence of each image selected must be the same. Please select the image naming rules in accordance with the sequential order of the name of the image.
2. The content of the header must contain those items of the image name and can be selected in any order.
3. The content of the header 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



After the target is added, click  to modify; click  to delete.

Click  to view the target list as shown below.



Click “Custom” to customize the target display information.

Click “Change group” to change the group.

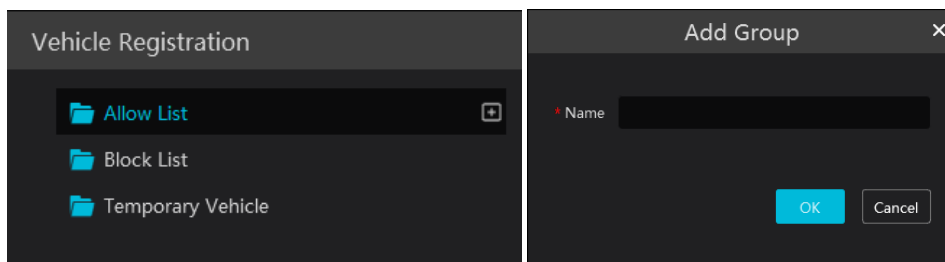
6.2 Vehicle Management

6.2.1 Add Vehicles

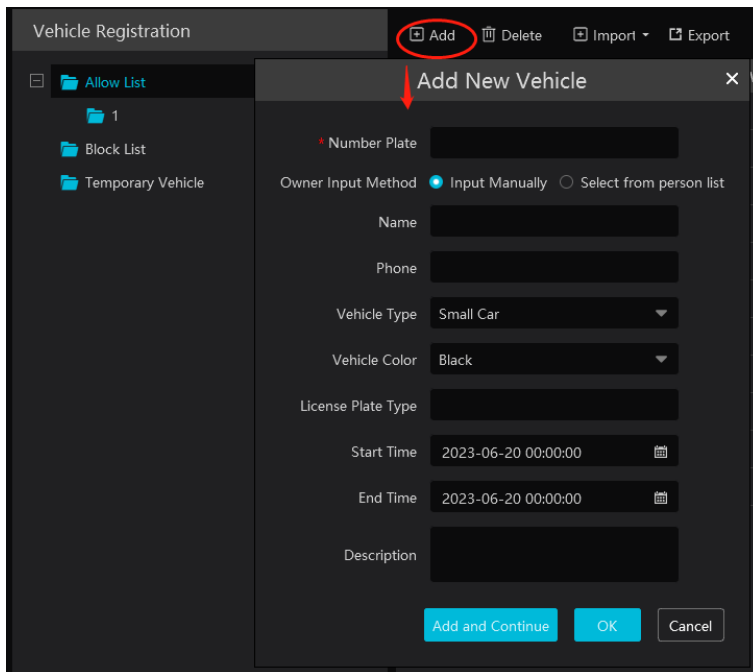
- Add vehicle groups for each vehicle list

Click  on the right of a vehicle list (Allow List/Block List/Temporary Vehicle) to add a vehicle group under the vehicle list as shown below.


Note: If you want to add vehicle groups under a vehicle list, you must enable license plate synchronization function by clicking Configuration→Server Configuration→System Setting first.

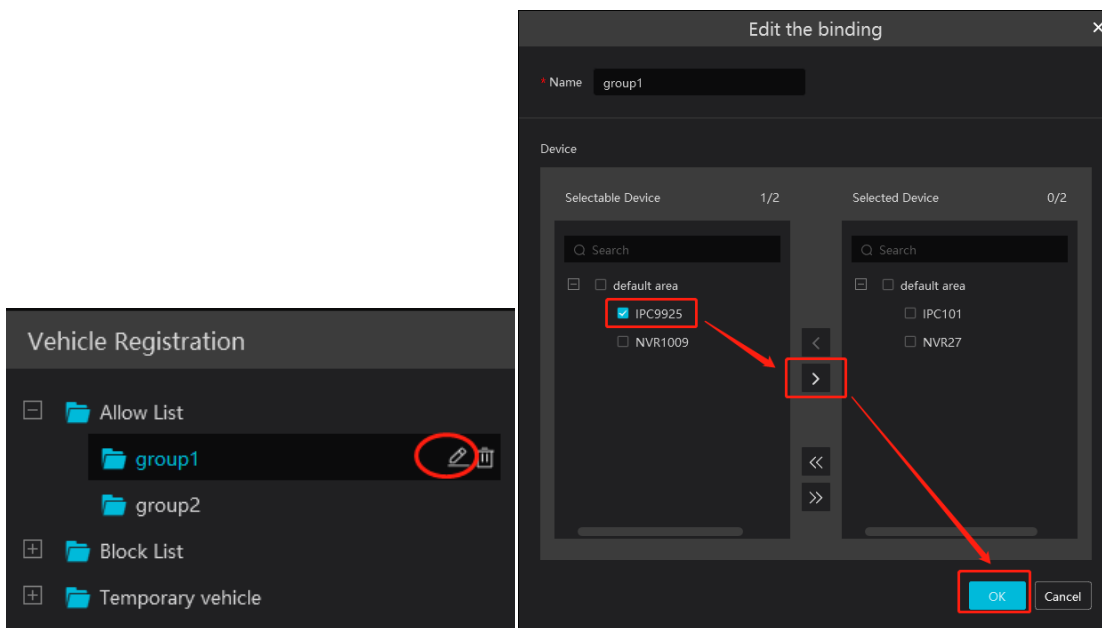


Select the desired vehicle list or vehicle group under a vehicle list and then click [Add] to add the relevant vehicle information.



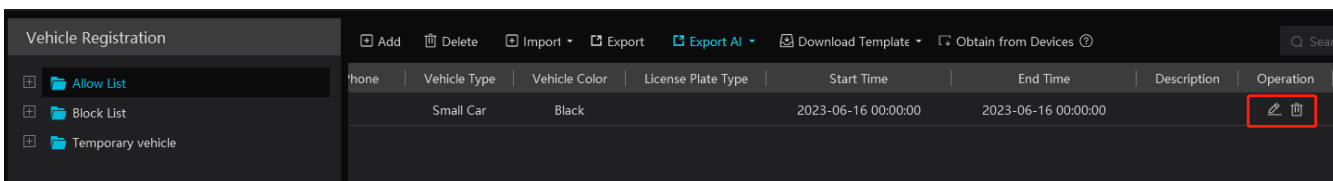
➤ Binding devices for each vehicle group

Click  beside the group name to bind devices for this group. All vehicles under this group can be bound to the selected devices. After these devices are bound to this group, the vehicles you add later will automatically bind these devices.



6.2.2 View, Modify or Delete Vehicles

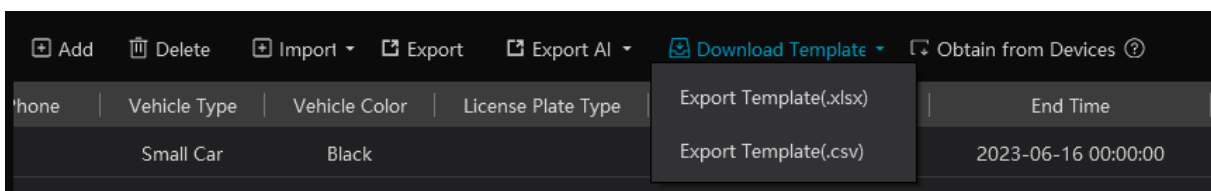
After you add the vehicle, you can view, modify or delete the vehicle information as needed.



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


6.2.3 Import or Export Vehicles

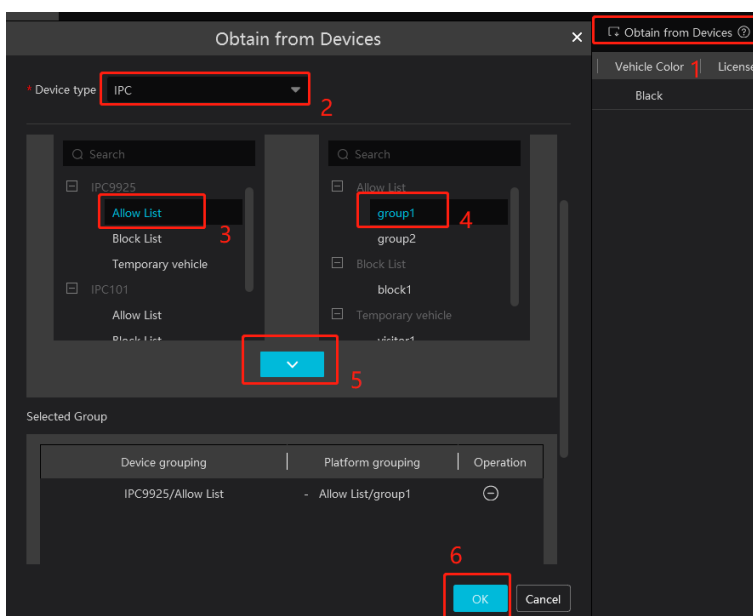
Click [Export Template]→Export Template(.xlsx/.csv) to export a template. Then fill out the relevant vehicle information.



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

You can also get vehicle information from license plate recognition cameras/NVRs. The setting steps are as follows.

1. Click “Obtain from Devices”.
2. Select the device type.
3. Select vehicle list (Allow List/Block List/Temporary List) of the LPR camera/NVR.
4. Select a vehicle group of the platform.
5. Click  to add.
6. Click “OK” to synchronize the vehicle list of the selected device to the corresponding groups of the platform.



Note: If you want to get license plate information from devices, you must enable license plate synchronization function by clicking Configuration→Server Configuration→System Setting first.

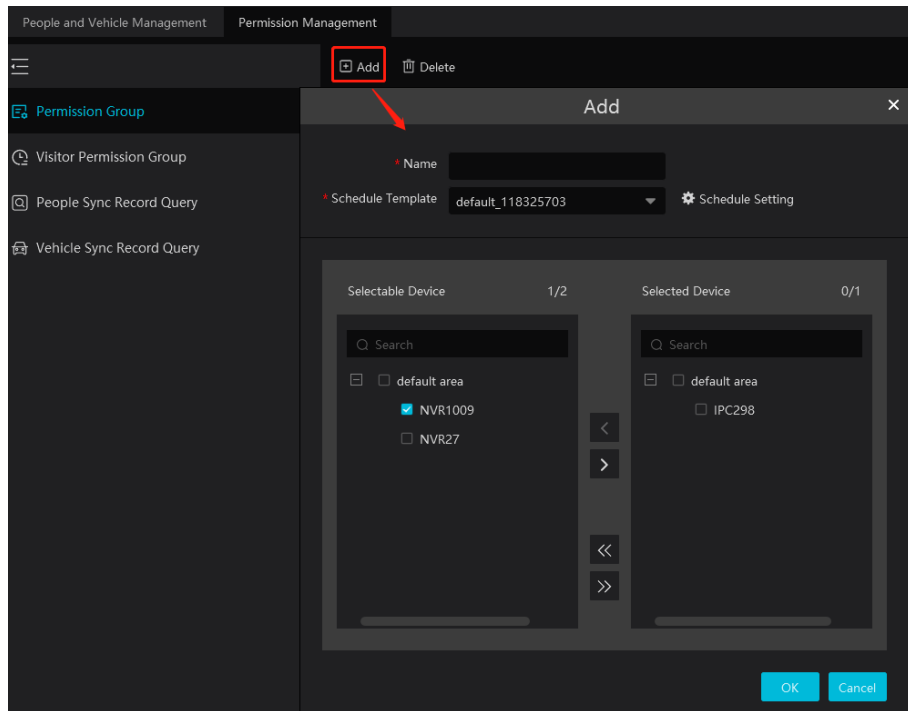
6.3 Permission Management

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

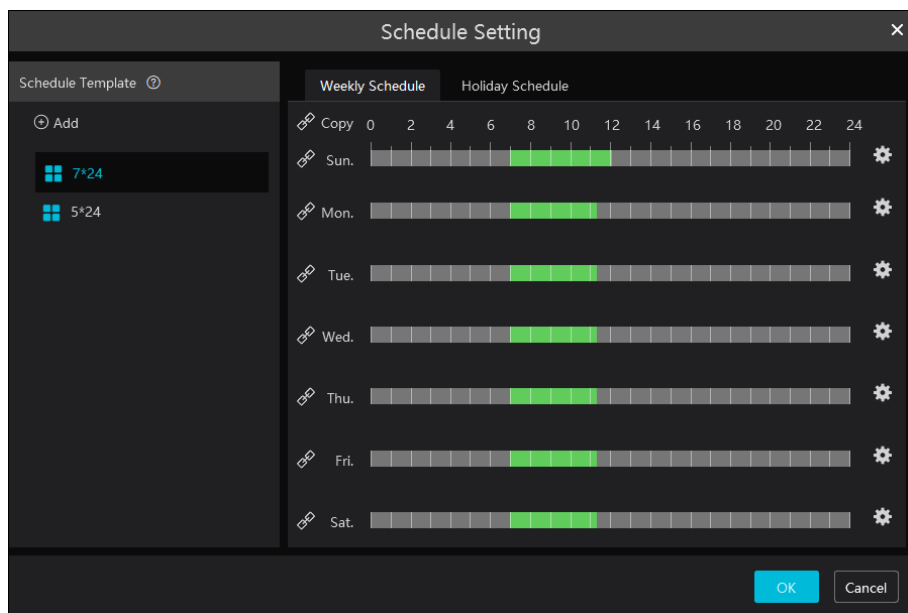
You can view the sync records or bind the camera to the group or people.

➤ Add Permission Group

In the permission group interface, click [Add] to add a permission group. Enter the name and set the schedule and devices as needed.




Click “Schedule Setting” to set the desired schedule. You can set weekly schedule and holiday schedule as needed.




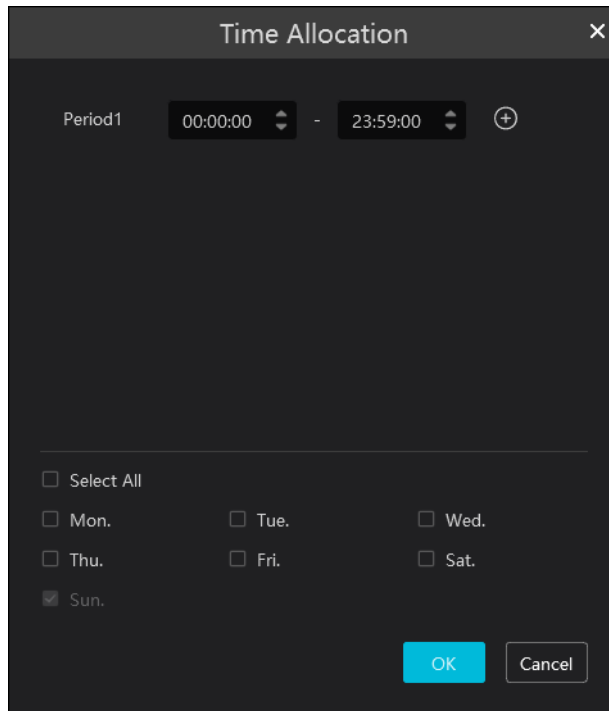
Click [Add] to add a new schedule template name. Double click the schedule name to modify it. Then you can select the schedule and set it as needed.

- **Weekly Schedule:**





Set the scheduled time from Monday to Sunday for a single week. Each day is divided in one hour increments. Green means scheduled. Blank means unscheduled.

Add: Add the schedule for a special day. Drag the mouse to set the time on the timeline. Or click  to manually set the time period;

click  to add new time period.

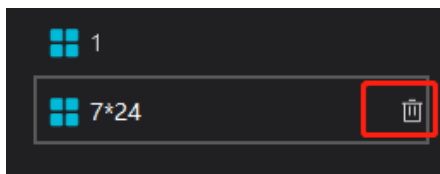


You can copy the above time period to other days by checking the relevant days. After that, click [OK] to save the settings.

Additionally, you can also copy the time period by clicking . For example, click  in front of Sunday, Monday and Tuesday, and then drag the mouse on the timeline of one of them. After that, other days that enable  will automatically copy the set time period. You can also click  next to “Copy” and then drag the mouse on the timeline of one day, and then the other days of the week will automatically copy the set time period.

Erase: Drag the mouse on the scheduled time period to delete the set time.

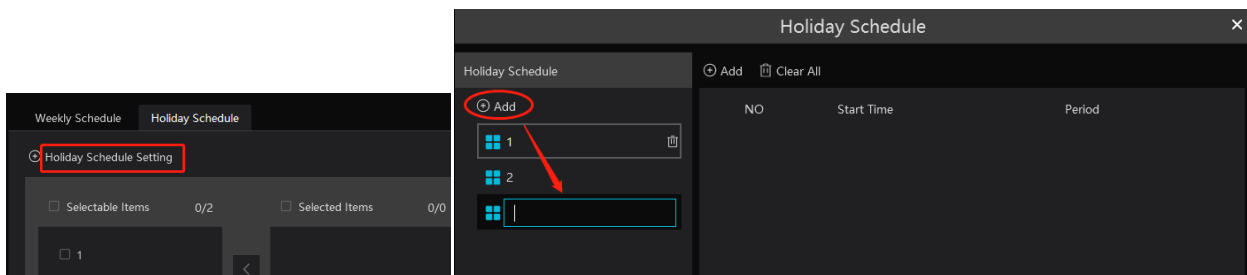
Delete Schedule: Put the cursor on the schedule name and then a deletion icon will appear. Click it to delete the schedule.




● Holiday Schedule

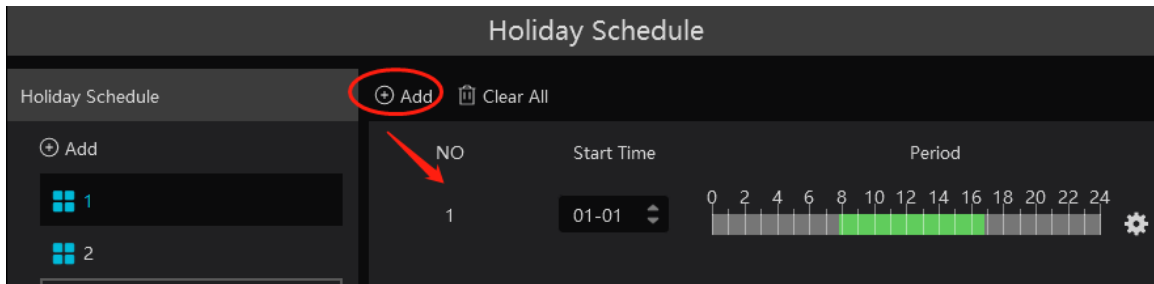
Set the scheduled time for a special day, such as a holiday.

1. Click the “Holiday Schedule” tab to enter the holiday schedule page.




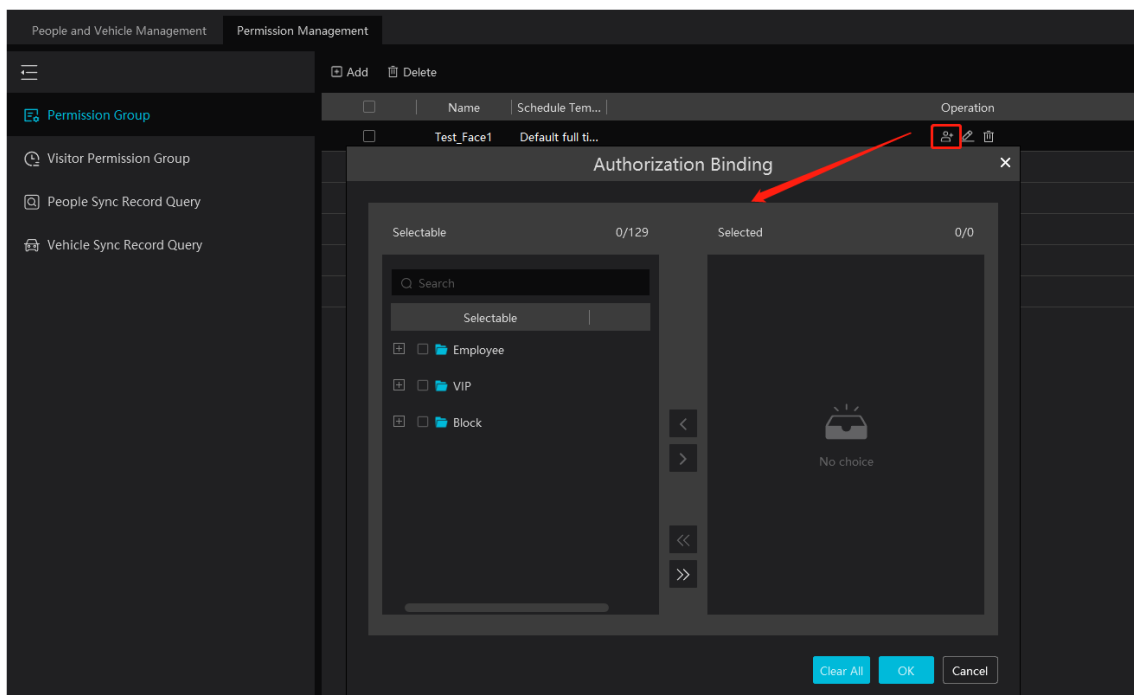
2. Click “Holiday Schedule Setting” to set holiday schedule. Click “Add” on the left panel to add a new holiday schedule. Enter the holiday schedule name as needed.

3. Select the holiday schedule. Click “Add” on the right panel to set date and time period.
4. Drag the mouse on the timeline to set the time period or click  to manually set the time period. Click “Clear” to clear all information of the current holiday schedule.
5. Click [OK] to save the settings.



➤ Permission Binding

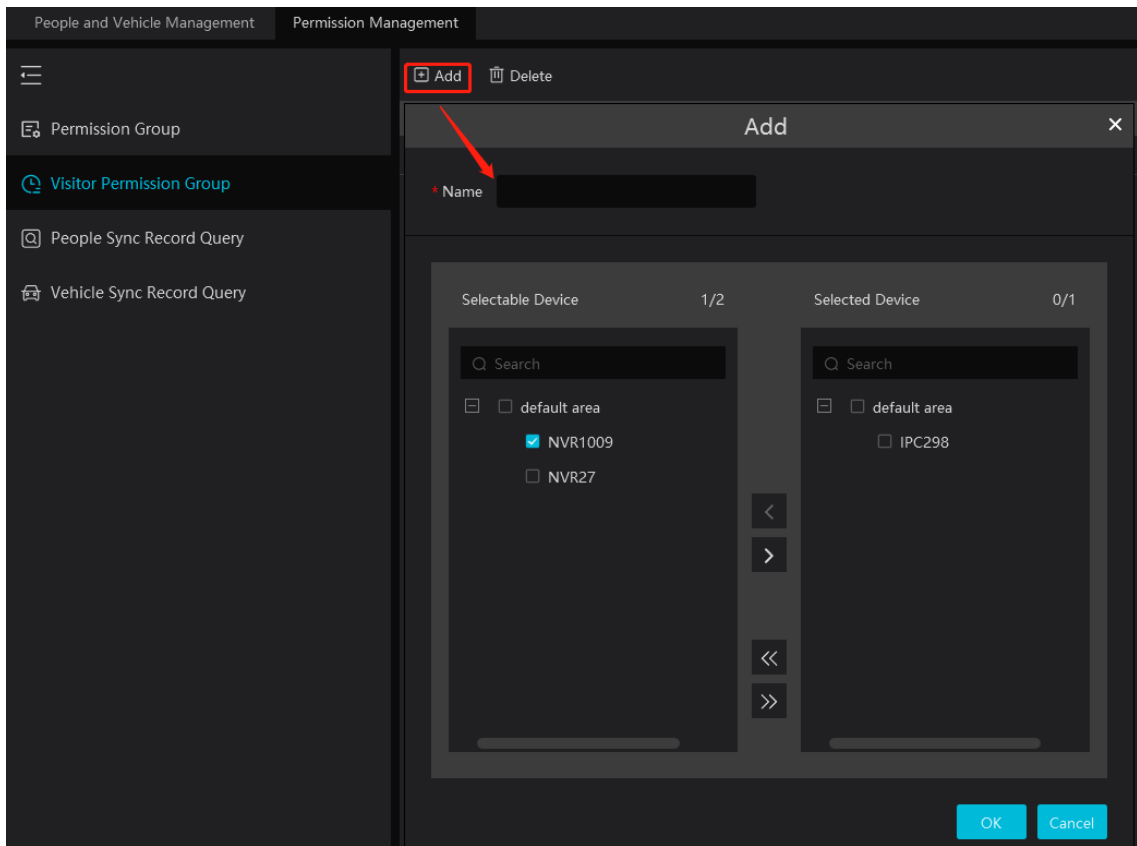
Click  to bind the group or person to the selected devices.



After the binding is complete, you can modify or delete the permission group as needed.

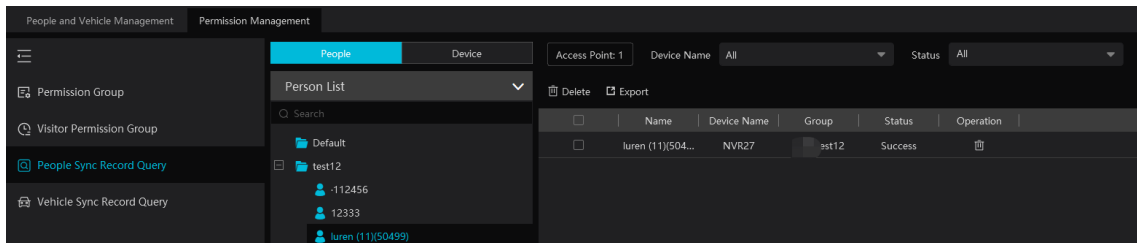
➤ Visitor Permission Group Binding


In the visitor permission group interface, click [Add] to add a visitor permission group.



➤ **People Sync Record Query**

Click “People Sync Record Query” to view the permission binding status of each person.



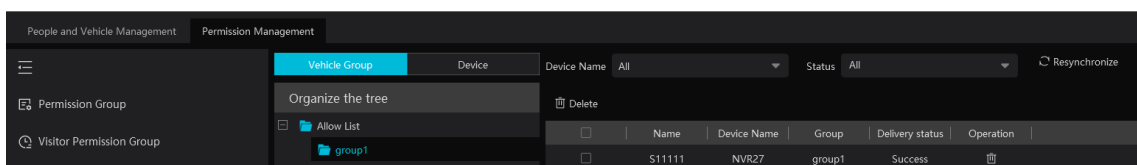
After the permission binding is complete, you can click  to delete the sync record here.

Note: 1. When the device is offline, the target synchronized to it cannot be deleted. Then you can delete the synchronization records here and then delete the target.

2.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.

➤ **Vehicle Sync Record Query**

Click “Vehicle Group” or “Device” to view the sync status of all vehicles under each vehicle group or device.



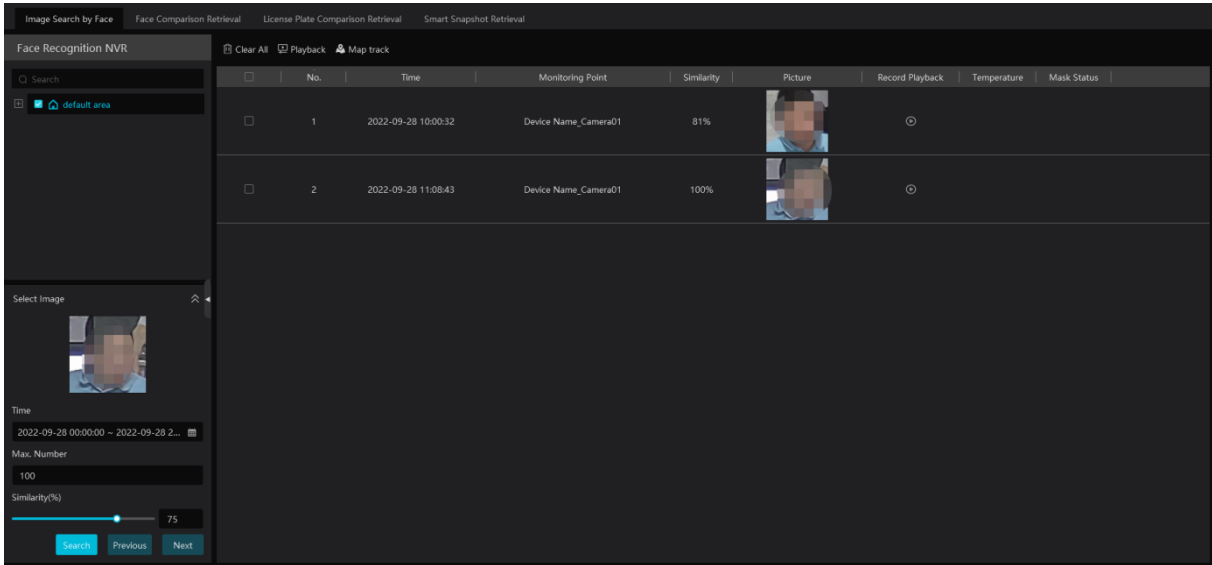
Note: If you want to view the vehicle sync records, you must enable license plate synchronization function by clicking Configuration→Server Configuration→System Setting first.


7 Search

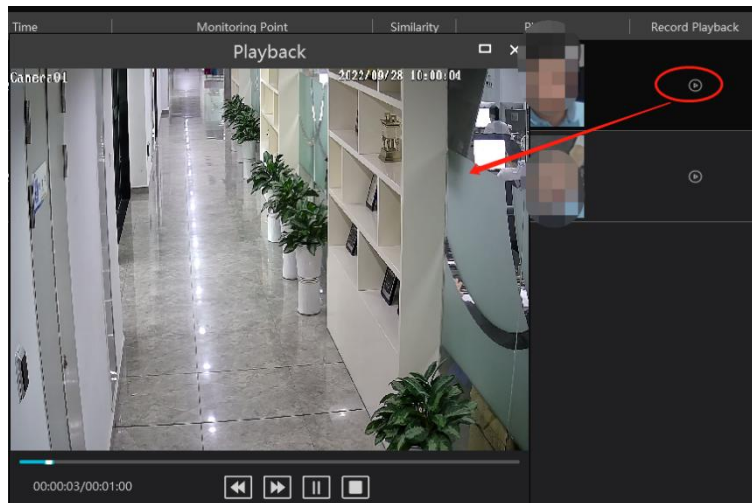
7.1 Image Search by Face

- 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].

Note: Only face recognition NVRs added to this platform support this function.

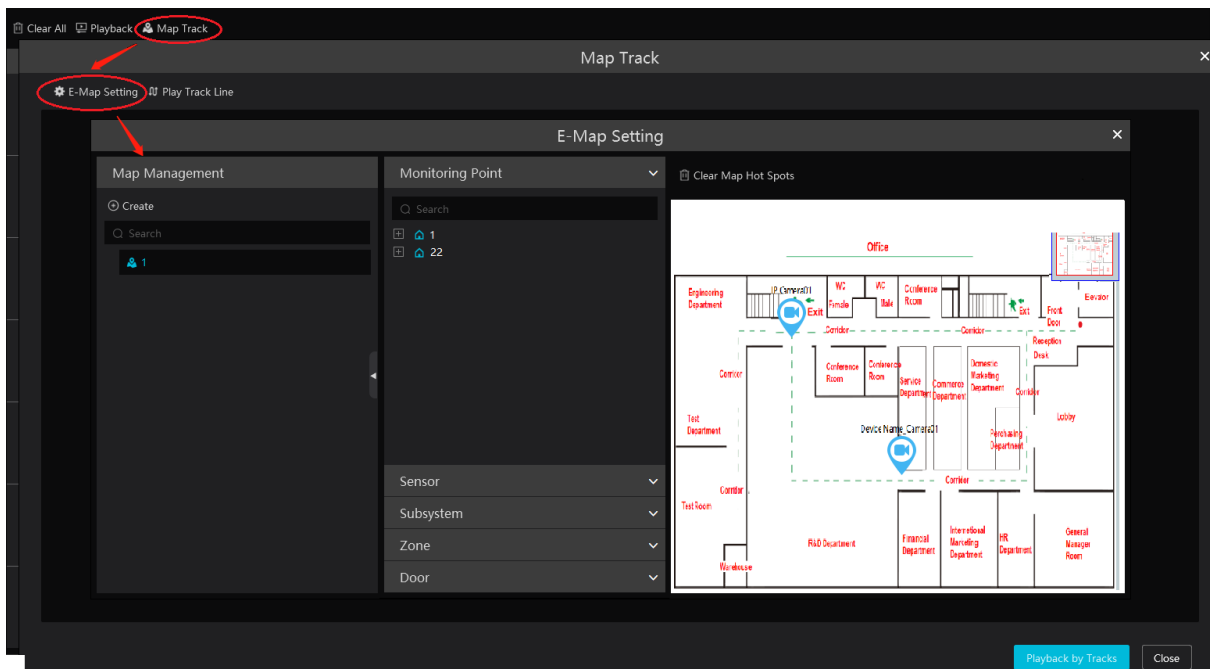


Click  to play the record in a small window.



- 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.

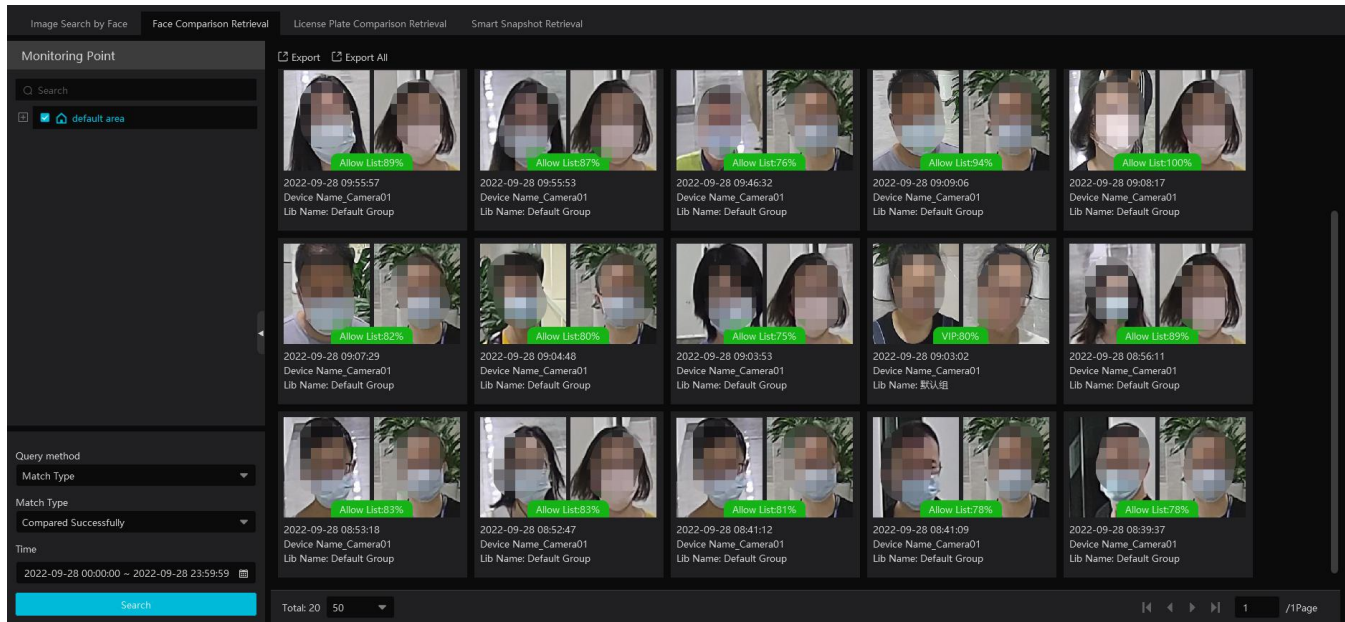


Play Track Line: Click this button to play the track line on a map.

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

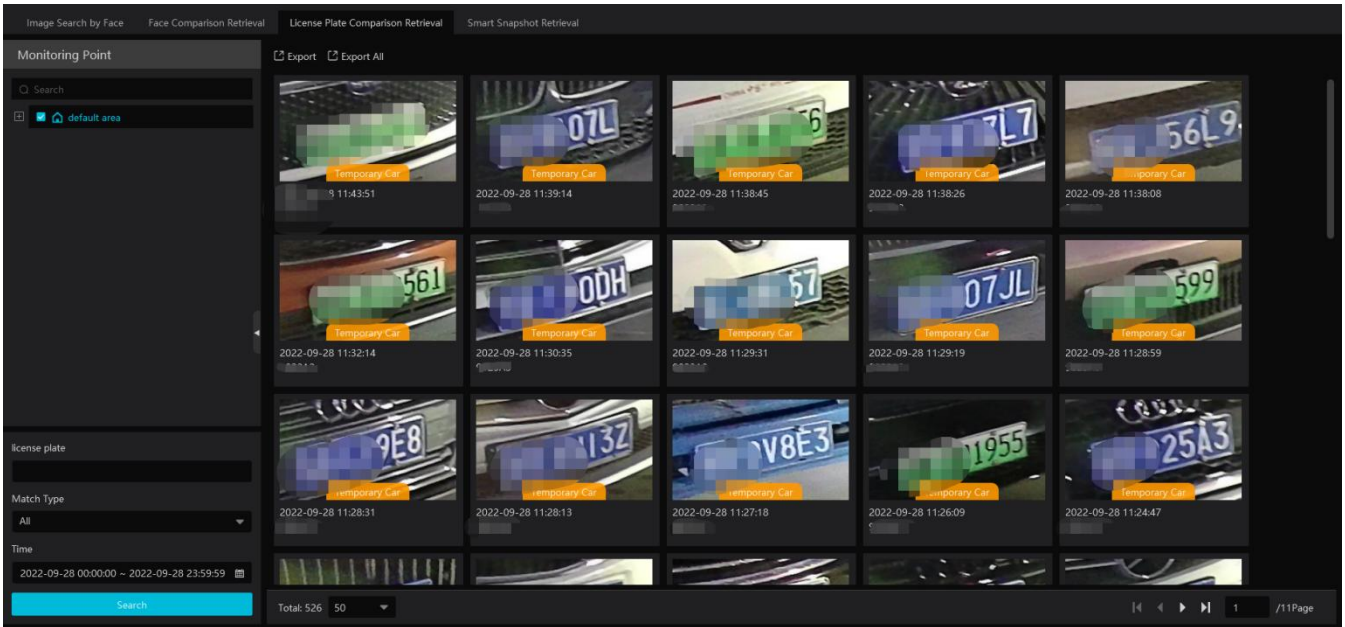
7.2 Face Comparison Search

- ① Go to Search → Face comparison retrieval interface.
- ② Select the IPC and query method. Then select match type or target as needed.
- ③ Set the start and end time and then click [Search] to search the face pictures.



7.3 License Plate Comparison Search

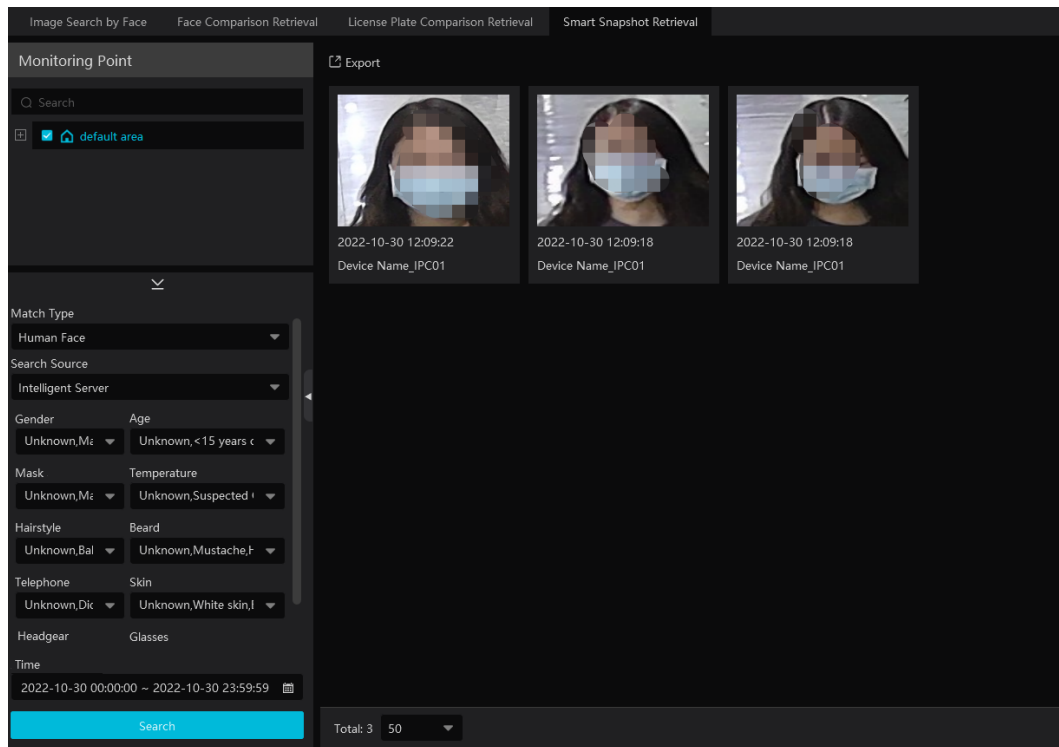
1. Select the camera.
2. Enter the license plate and select the match type.
3. Set the start time and end time.
4. Click [Search]



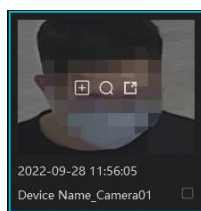
7.4 Smart Snapshot Search


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.

For example: Search faces from intelligent server



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

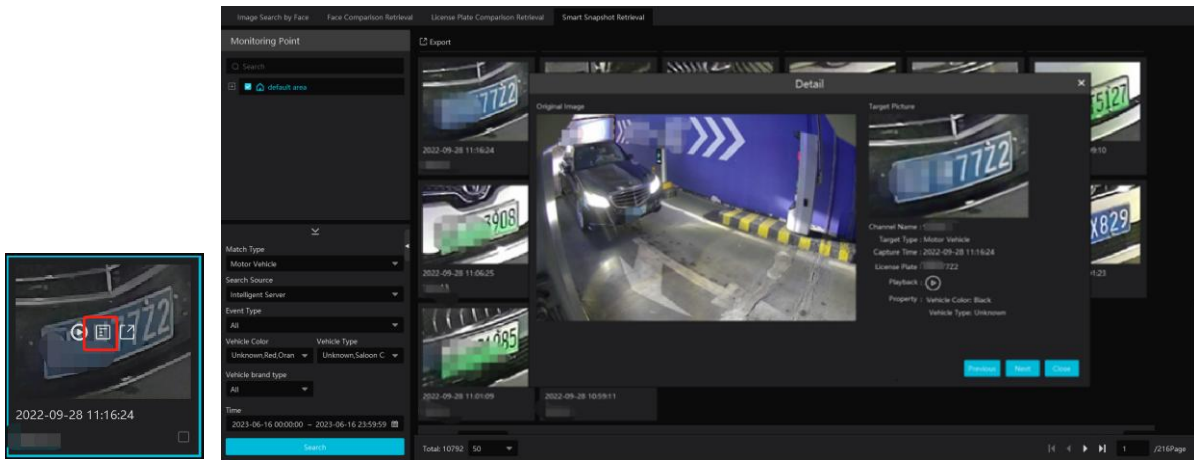



Click  to add the capture picture to the library. Select the library on the left and then fill out the information of this target. Click [OK] to add.


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.

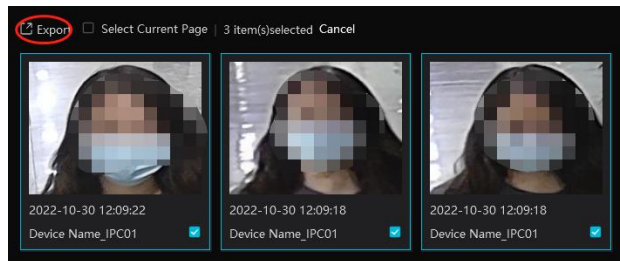
Search vehicles from intelligent server:



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

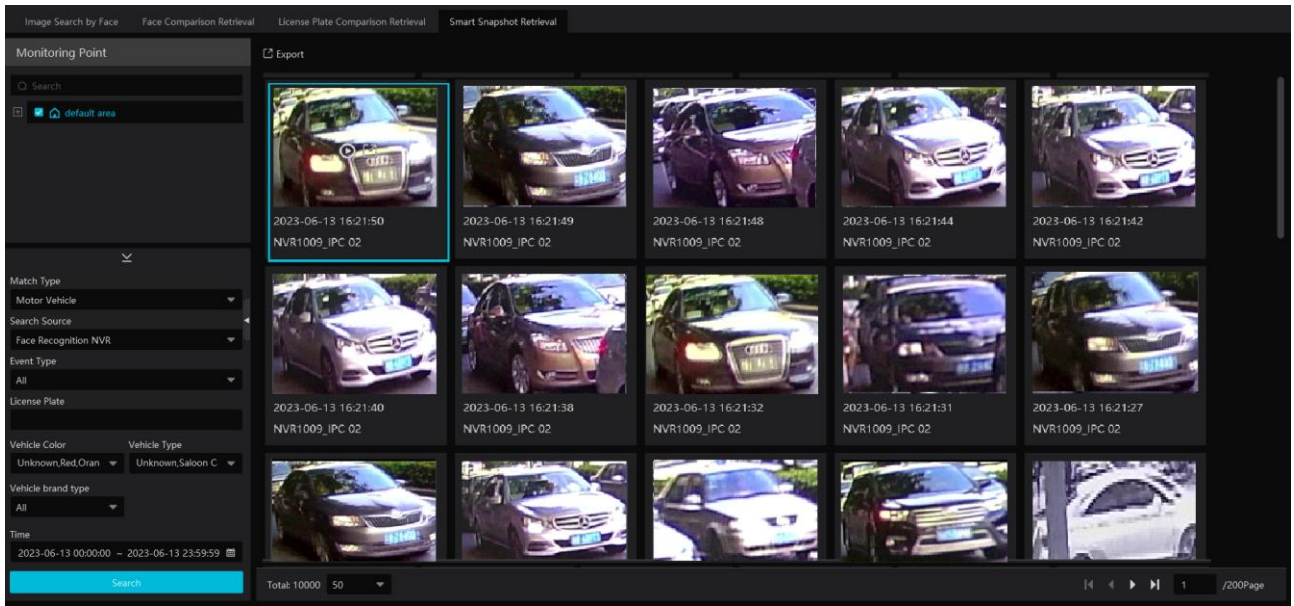
Click  to view the snapshot details, including the original image, target picture, snapshot type, snapshot time and so on.



Select the searched pictures as shown below and click [Export] to export the selected pictures.



You can also export all searched pictures in the current page once by checking “Select Current Page” and clicking [Export].

Search vehicles from face recognition NVR:



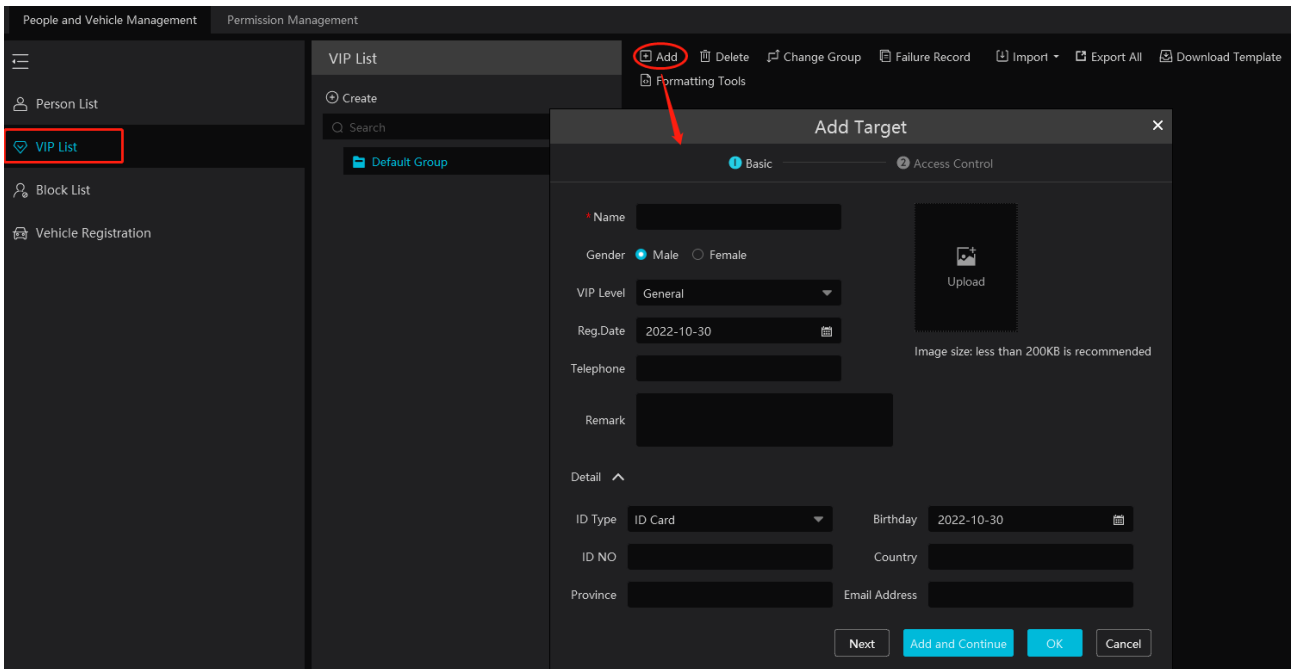
Click  to play back the record in a small window; click  to quickly download the captured picture.

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:

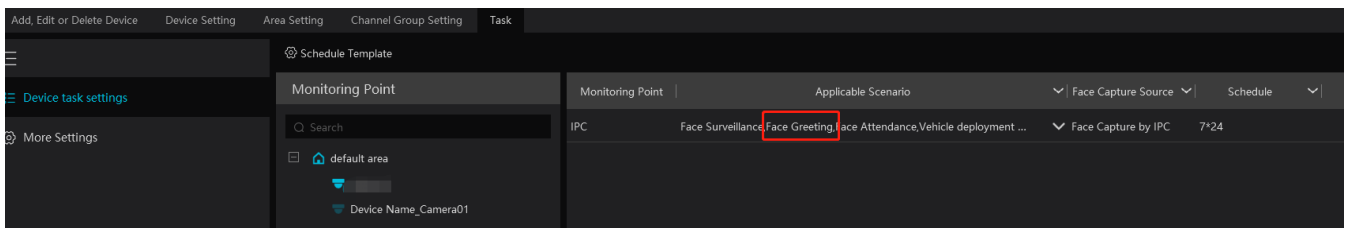
- ① Create a VIP group and add targets for this group in the VIP list interface. Then set a permission group for them. The setting details are similar to adding targets to the person list. See chapter 6 for details.



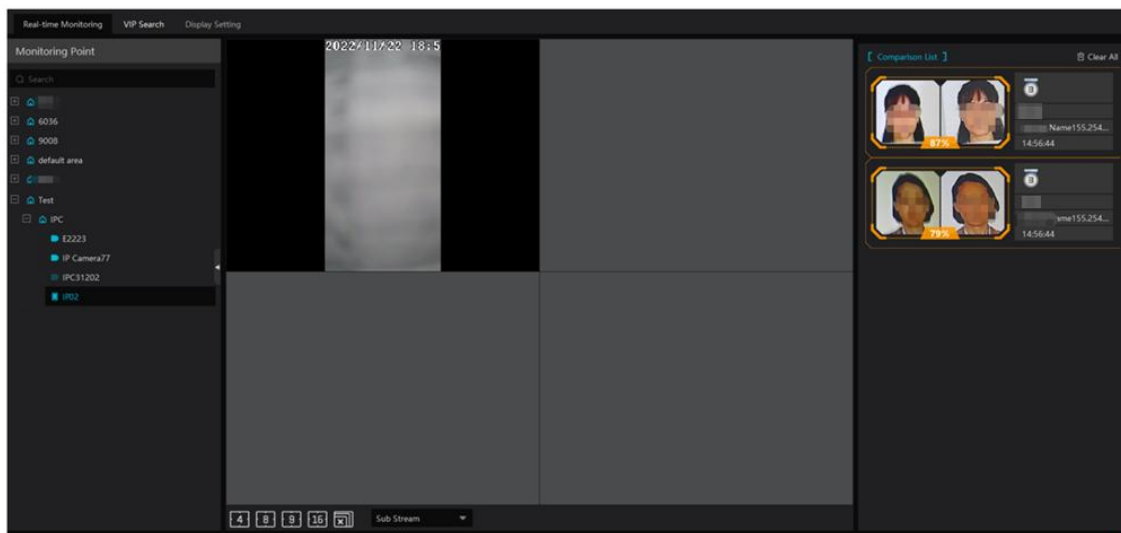
Note: the camera for face greeting must support face recognition function, such as face recognition and access control panel, face recognition camera and so on.

If the person added to the person list adds to the VIP list again, this person may be not recognized as a VIP person. Please delete this person in the person list first.

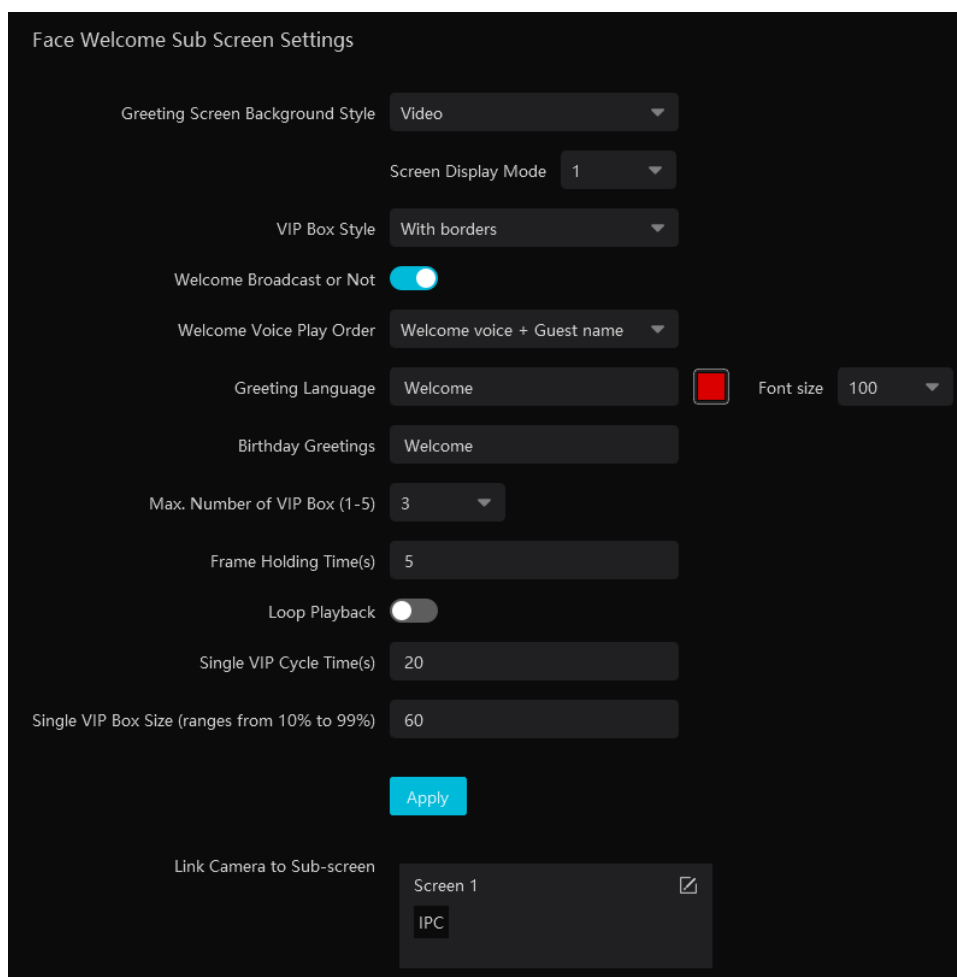
- ② Select the schedule, face match type in the Task interface (See [Task Management](#) for details).

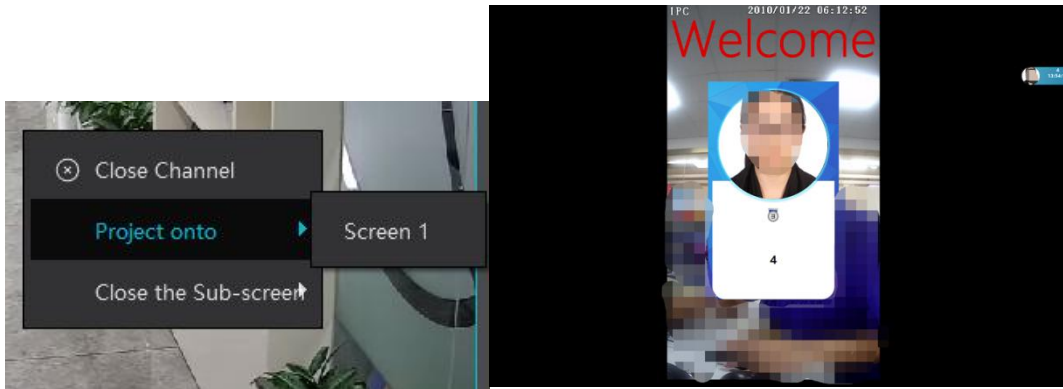


- ③ Real-Time Monitoring. Drag the camera name to the preview window. When there are targets detected, the match result will be displayed on the right panel.



- 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 and select the color as needed.

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

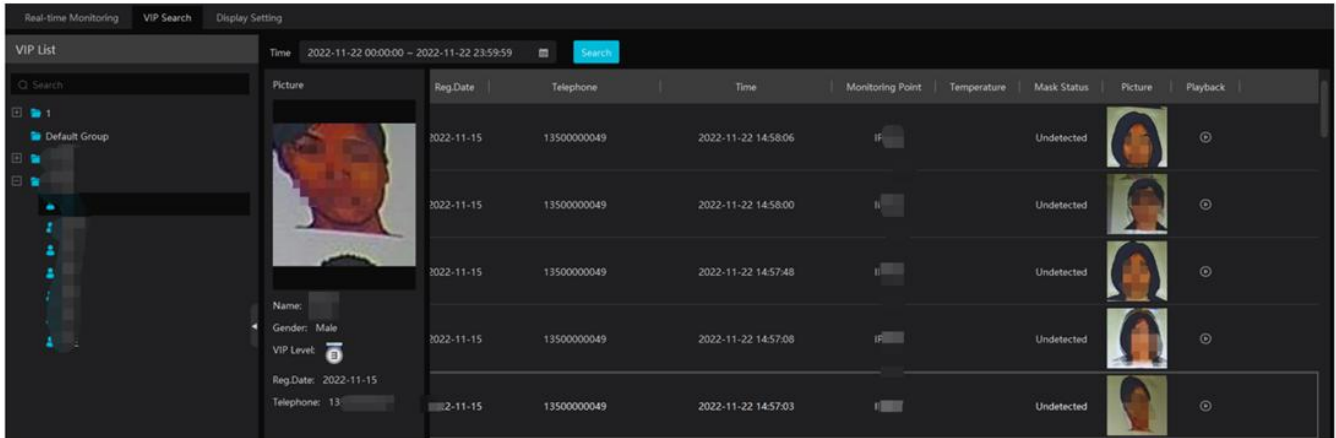
Frame Holding time: set the duration time of VIP box appearing after the captured face is matched successfully.


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.

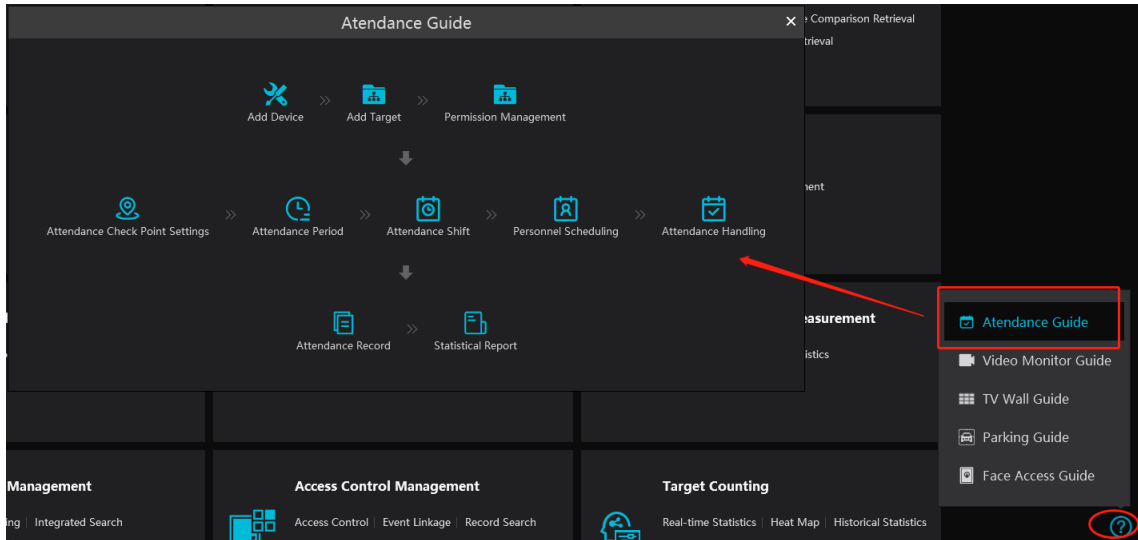
⑤ Search the face greeting records. Click “VIP Search” tab as shown below.



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

Click  at the bottom right corner to select “Attendance Guide” to quickly set the attendance.



In the attendance guide interface, click the corresponding menus in sequence to quickly set the attendance.


9.1 Add Devices and Targets

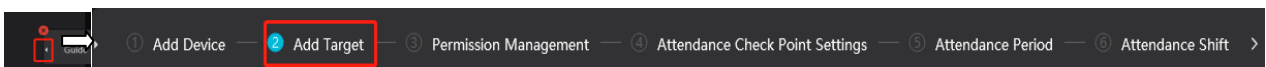
➤ Add Devices

In the attendance guide interface, click “Add Device” to enter the encoding device interface. Click [Add] to add the face attendance device (eg. face recognition panel).

No.	Edit	Device Name	Type	Channel Number	Alarm In Number	Alarm Out Number	IP Address/IP Range/Domain Name/Serial No.	Port
1		ANPR Camera	Standard Device	1	3	3	172.20.74.201	9008
2		Device Name	Standard Device	1	41	5	2	Initiatively Report

➤ Add Targets

After the attendance device is added successfully, click  at the bottom right corner to expand the attendance guide. Click “Add Target” to go to the person list interface.



In the person list interface, add the attendance group and targets as needed. Refer to [People Management](#) for details.

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 attendance comparison result will not be obtained.

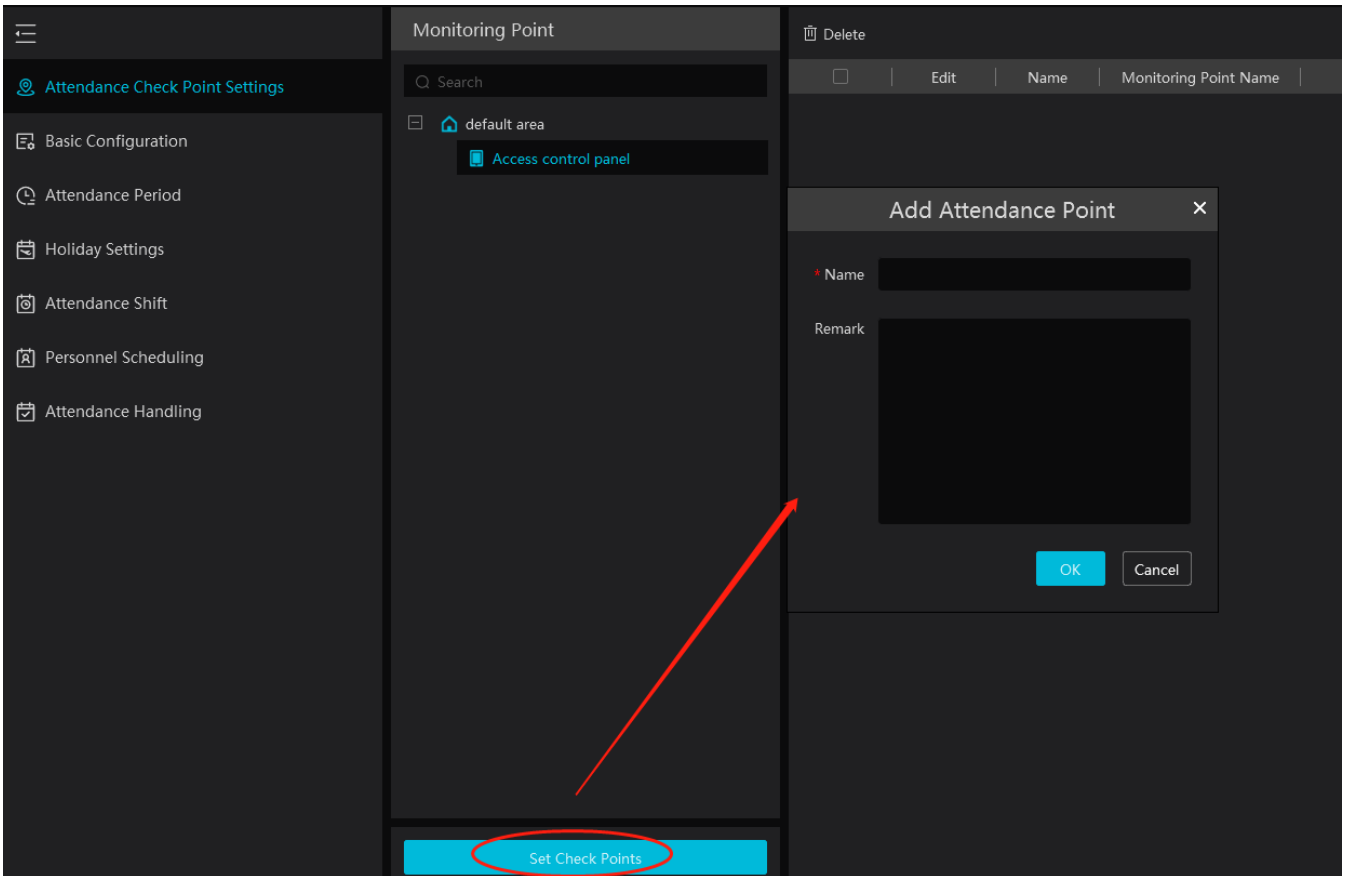
➤ Permission Management

Set the permission for the attendance group or targets. Refer to [Permission Management](#) for details.

9.2 Attendance Configuration

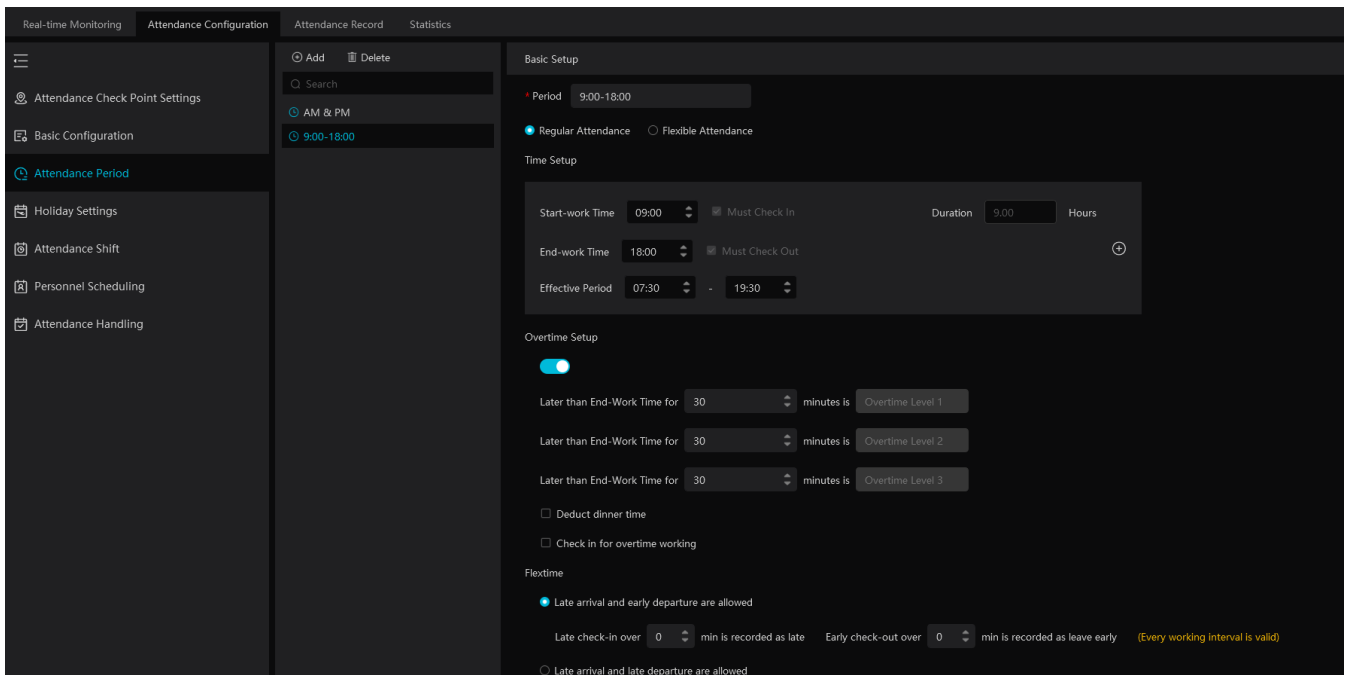
9.2.1 Attendance Check Point Settings

Select the attendance device and then click [Set Check Points]. Enter the name and remarks in the pop-up window. Then click [OK] to save the settings.



9.2.2 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.



➤ Regular Attendance

Set the attendance period name and working time. Then click [Save] to save the settings. Click [Add] again to add next attendance period.

Basic Setup: set the normal working period.

Time Setup:

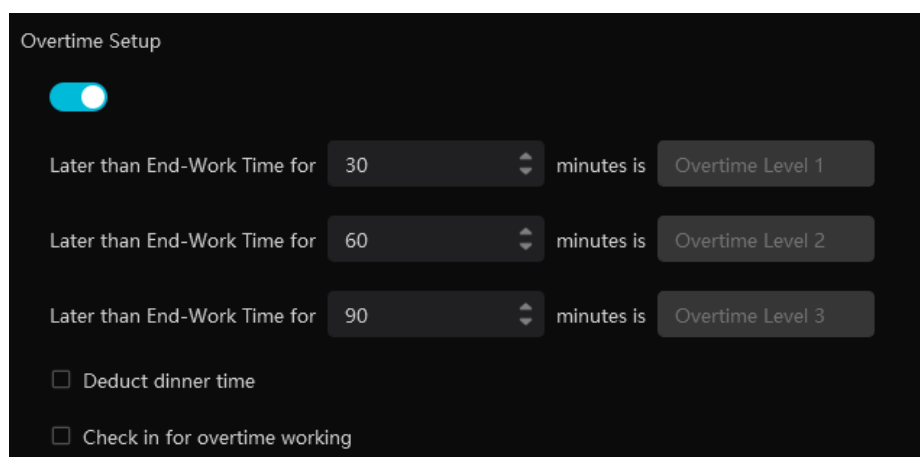
Start-work time: the normal start-work time

End-work time: the normal end-work time

Must check-in/out: “Must check in” next to the first check-in period and “Must check out” next to the last 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”.

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

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



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

Note: The end-work time of overtime setup must be within the effective period of basic setup.

You can deduct the dinner time when counting the overtime. You can also enable “Check in for overtime working” as needed.

Deduct 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.

Flexitime:

You can enable/disable “Late arrival and early departure are allowed” or “Late arrival and late departure are allowed”.

Late check in over xx min is recorded as 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”.

Early check-out xx min is recorded as 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”.

Late arrival and late departure: for example, the limit time is set to 30 minutes and the normal working time is 9:00~18:00. If the employee checked in at 9:30, he/she should check out at 18:30


➤ **Flexible Attendance**

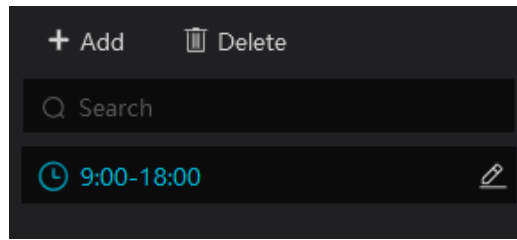
Statistical methods: “Calculate records in pairs” or “calculate the first and last record”

Calculate records in pairs: Add up the time period between each two check records. The time interval of each two records must be more than 1 minute.

Calculate the first and last record: Calculate the time period between the first and last check records.

Work Hours: Set it as needed.

For the set attendance period, put the cursor on the attendance period name and then  icon will appear. Click it to modify the attendance period. Select the attendance period and click [Delete] to delete the attendance period.



9.2.3 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) , month(s) or years.

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.

Year: You can customize the attendance period of each year

Working overtime on days off:

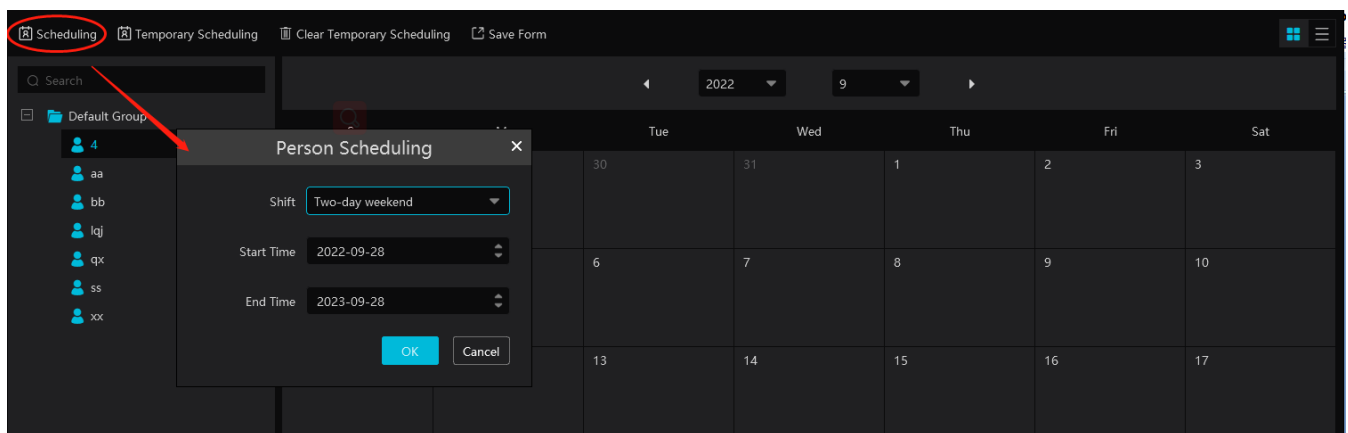
You can set overtime on weekends or holidays.

Work hours: set it as needed. For example: work time is set to 8 hours, the overtime will be calculated as 8 hours even if the actual working time is more than 8 hours. If the actual working time is less than 8 hours, the overtime will be calculated according to the actual working time.

9.2.4 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.

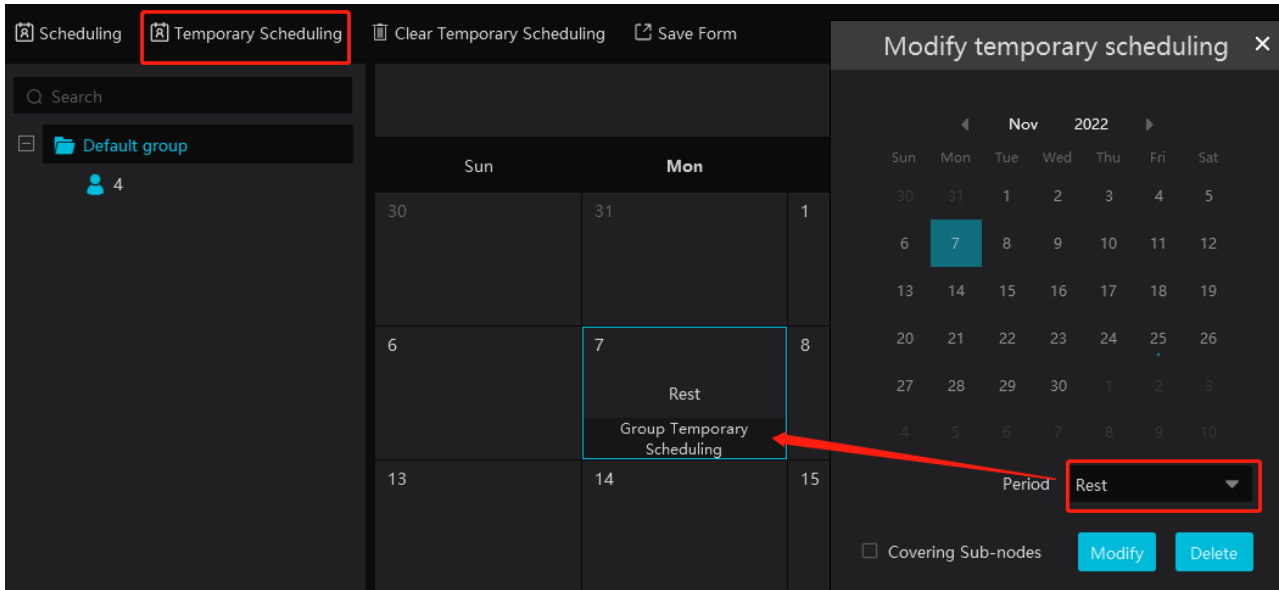


If the schedule for the attendance group or the employee needs to modify, select the group or person, click [Delete the scheduling] to delete the current schedule.

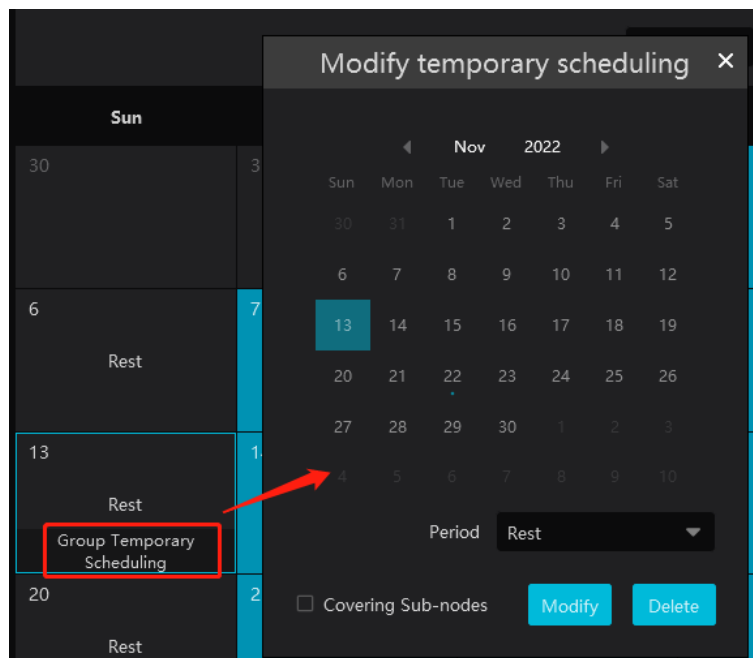
If there is something wrong with the attendance shift, you can select the person or group on the left and click [Scheduling] to modify.

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.

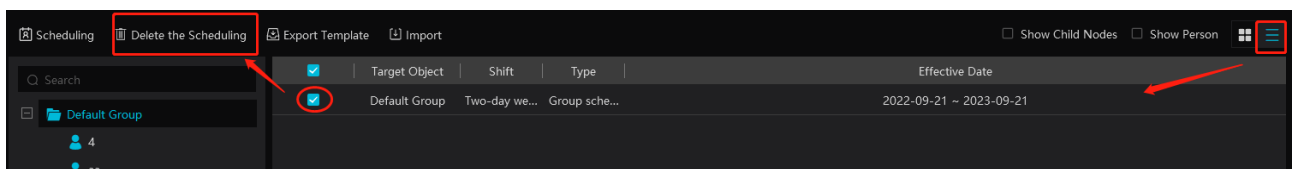


If you want to modify the temporary scheduling, you can select the person or group and click [Temporary Scheduling] to modify. Click [Delete] to delete the temporary scheduling of the day.



Select the group /person and click [Clear Temporary Scheduling] to clear all temporary scheduling of this group/person.

If you want to delete the scheduling, click  at the top right corner. Select the group or person and then click [Delete the Scheduling] to delete the scheduling.



9.2.5 Attendance Handling

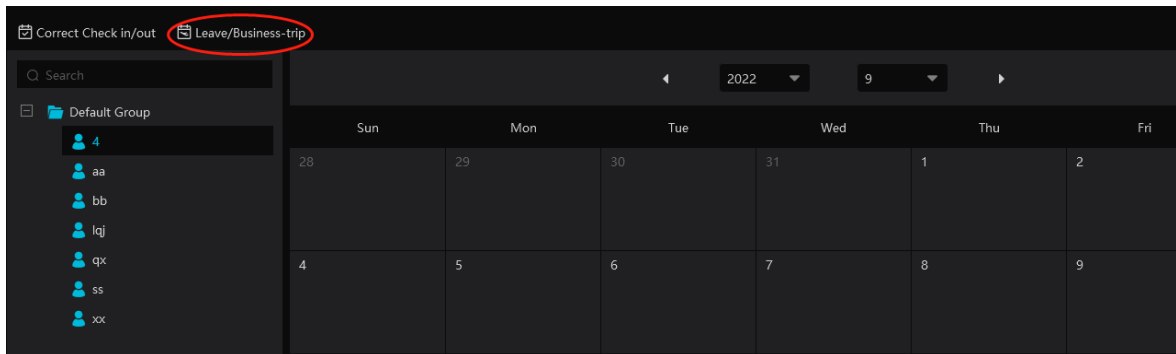
If someone needs to apply for leave or correct the check-in/out record, you can enter the attendance handling interface to set up.

Leave/Business-Trip Settings:

- ① Select the employee who wants 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.




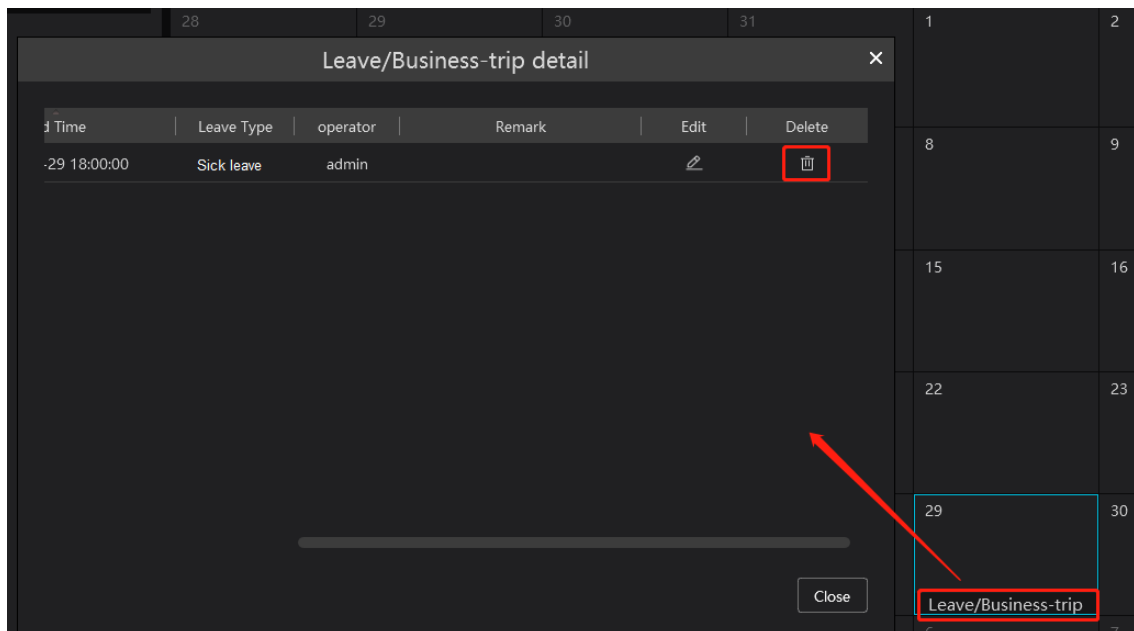
: click it to set the sub type of leave or business trip.



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.

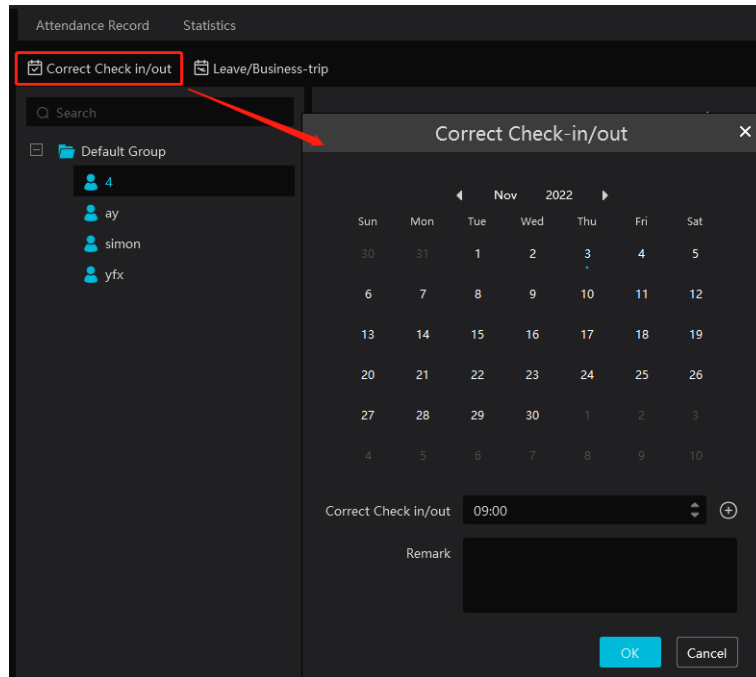


Correct Check-in/out Time:

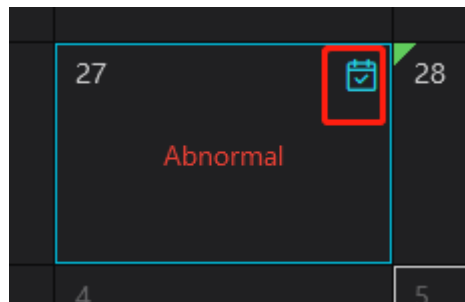
You can correct check-in/out time for the exceptional records according to actual needs. If the employee actually starts and ends his/her work in the normal working time but he or she forgets to check in/out, then “Correct Check in/out” function can be used.

1. Select the person you want to correct the check in/out record.
2. Find the desired date and then click [Correct Check in/out].

3. Correct the check- in/out time as needed.
4. Click “OK” to save the settings.



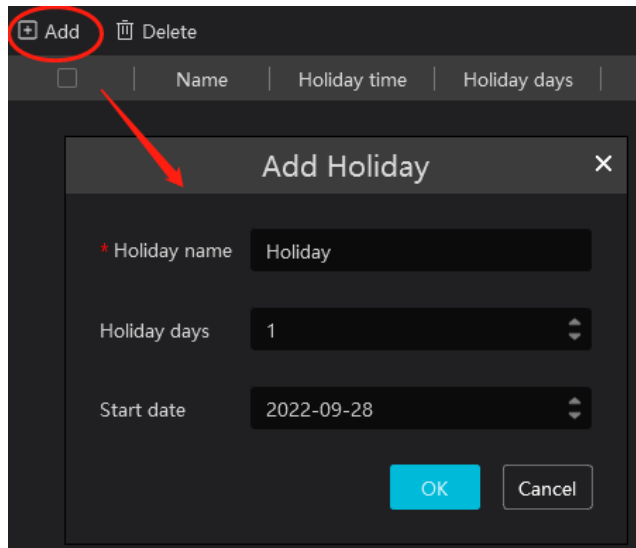
On the day that you correct check-in/out time, an icon (📅) will appear. Click this icon to view the details.



9.2.6 Holiday Settings

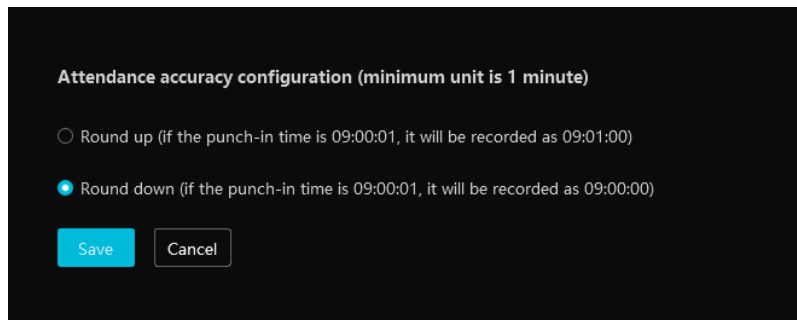
You can set a special day as a holiday. The holiday here takes priority over the attendance shift. That is to say, once a day is set as a holiday, there is no need for you to check in even if it is scheduled in the working day.

In the holiday settings interface, click [Add] to add the holiday as needed.



9.2.7 Basic Configuration

In this interface, you can set the attendance accuracy.



9.3 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.

➤ Statistics by day/month

Click "Statistics by day", select the employee, set the time and click [Search] to view the attendance status of the employee on each day (including late, early leave, absent, overtime, etc.)

Time	Group	Work ID	Name	Attend Status	Attendance Rule
2022-10-31		11010		Normal	9:00-18:00
2022-11-01		11010		Absent	9:00-18:00
2022-11-02		11010		Absent	9:00-18:00
2022-11-03		11010		Absent	9:00-18:00
2022-11-04		11010		Day off	Day off
2022-11-05		11010		Day off	Day off
2022-11-06		11010		Absent	9:00-18:00
2022-11-07		11010		Absent	9:00-18:00
2022-11-08		11010		Absent	9:00-18:00
2022-11-09		11010		Absent	9:00-18:00
2022-11-10		11010		Absent	9:00-18:00
2022-11-11		11010		Day off	Day off
2022-11-12		11010		Normal	9:00-18:00
2022-11-13		11010		Normal	9:00-18:00
2022-11-14		11010		Normal	9:00-18:00
2022-11-15		11010		Normal	9:00-18:00
2022-11-16		11010		Calculating	9:00-18:00
2022-11-18		11010		Day off	Day off

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

Click “Statistics by month”, select the employee, set the time and click [Search] to view the attendance status of the employee in each month (including late, early leave, absent, overtime, etc.)

➤ **Attendance Record**

In this interface, you can search the attendance by temperature and mask-wearing status.

➤ **Export Reports**

In the statistical reports interface, you can generate Excel daily/monthly/abnormal attendance report and export them to the local PC.

➤ **Send Reports Regularly**

You can regularly send the statistical report to the designated email address. The setting steps are as follows.

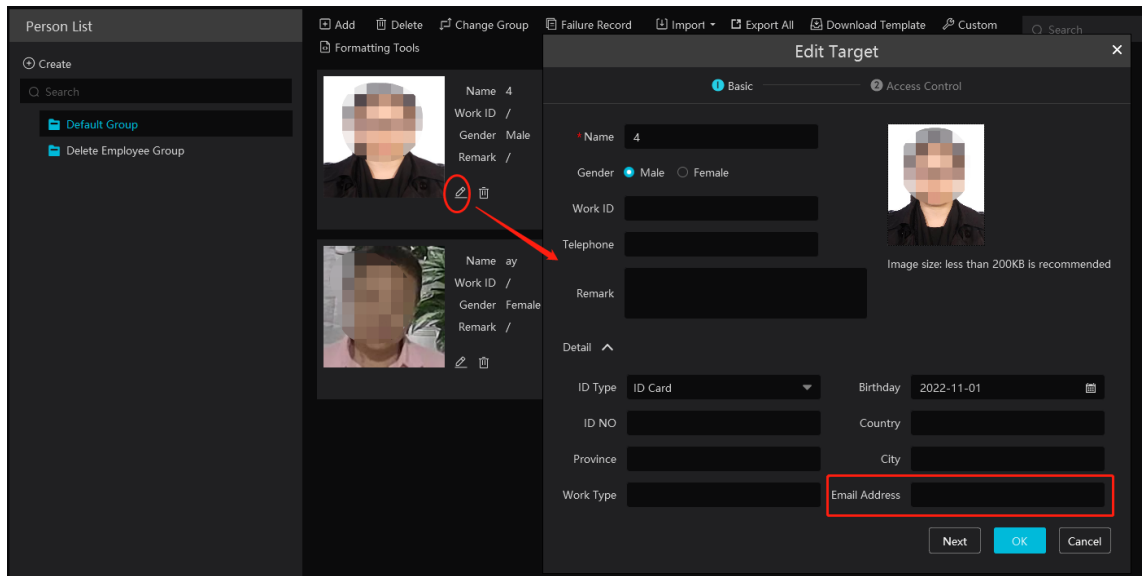
Click “Send reports regularly” and go to its setting interface. Click [Add] to fill out the report type, employee, delivery date, send time, mail title, text and recipient.

Note: At the sending time point, the authentication server (management server) must be online and connected by a monitor client.

Report type: daily report, monthly report and abnormal attendance report.

Delivery Date: Daily report: next day; Monthly report/abnormal attendance report: the first day or the last day of each month

Recipient: The email address of recipient must be added in the person list (Group management→Person List) as shown below. In addition, the email address of the sender has been set in the email settings interface. Please see Email Settings for details.



➤ **Search Attendance Log**

Operator	Object Type	Target Object	Operation Type	Time
admin	Patch	4	Add	2022-09-28 18:34:31
admin	Leave/Business-trip	4	Add	2022-09-28 18:27:59
admin	Attendance Shift	Default Shift	Modify	2022-09-28 17:46:12
admin	Attendance Shift	Default Shift	Add	2022-09-28 17:43:11

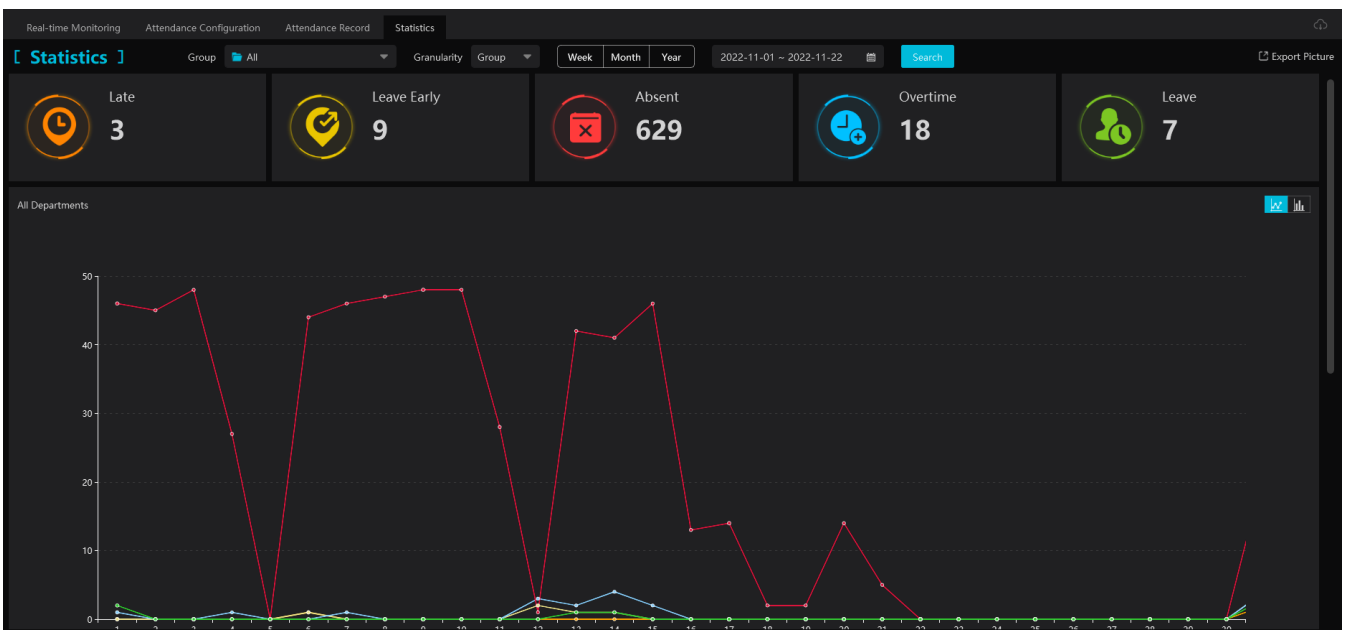
9.4 Statistics of Attendance Data

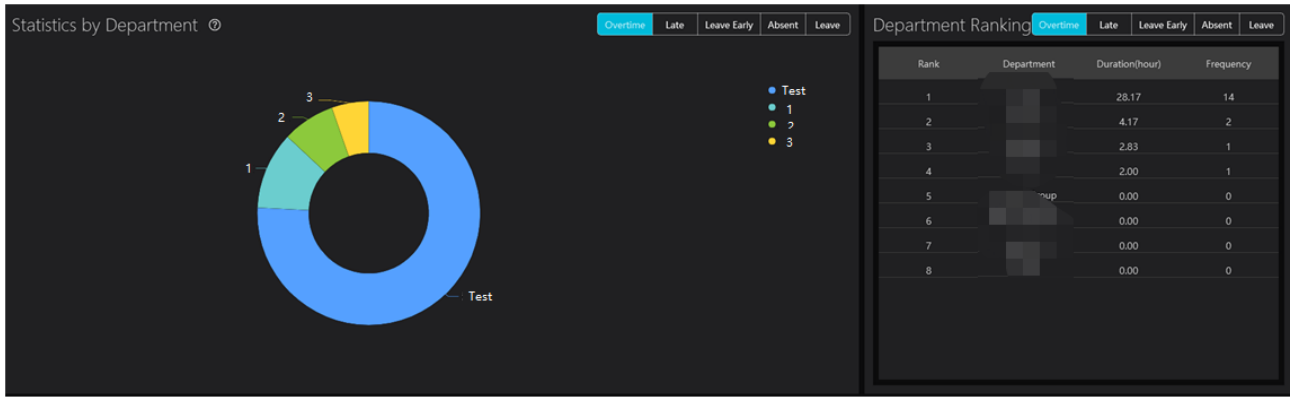
In the statistics interface of Face Attendance, you can view the attendance data in the form of chart.

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.



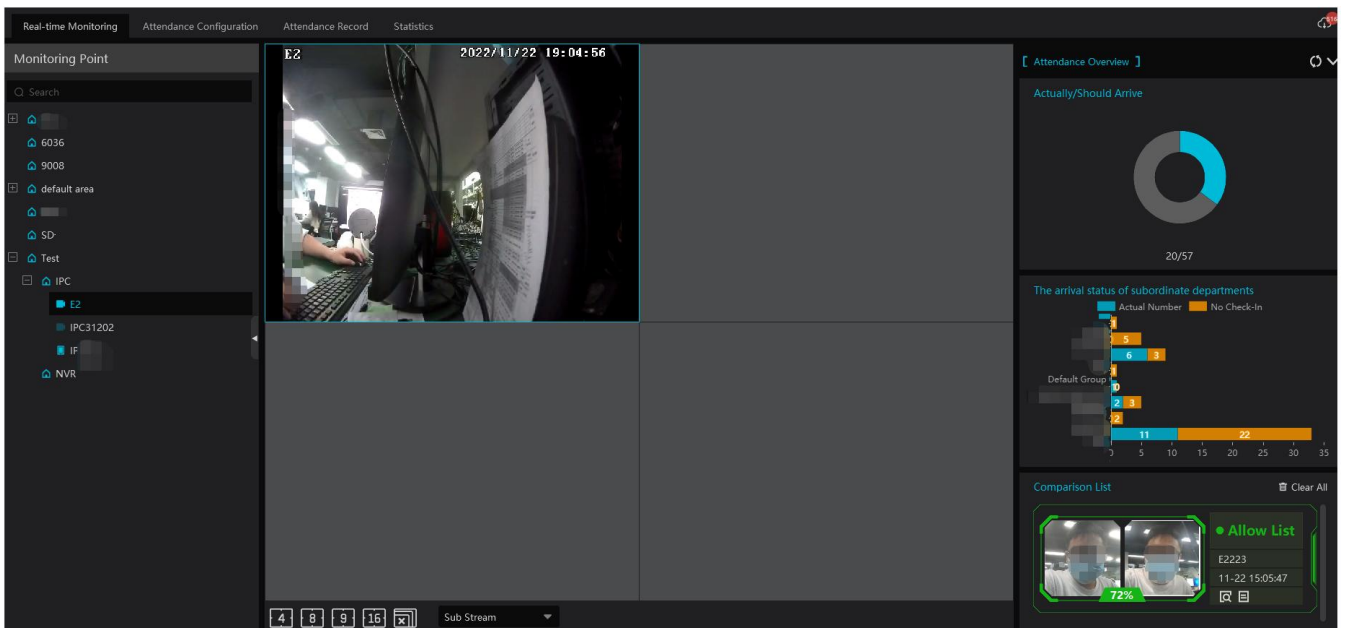


9.5 Real-time Monitoring

9.5.1 Real-time Monitoring

Go to Face Attendance→Real-time Monitoring interface. Face comparison information can be viewed after the camera is dragged to the preview window.

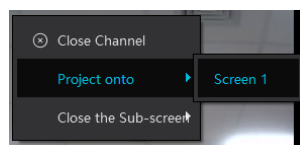
Note: The compared person in attendance system shall be added in the person list in advance. One person only can be added in one group. If this person also be added in other groups (like VIP list), the comparison result will not be obtained.

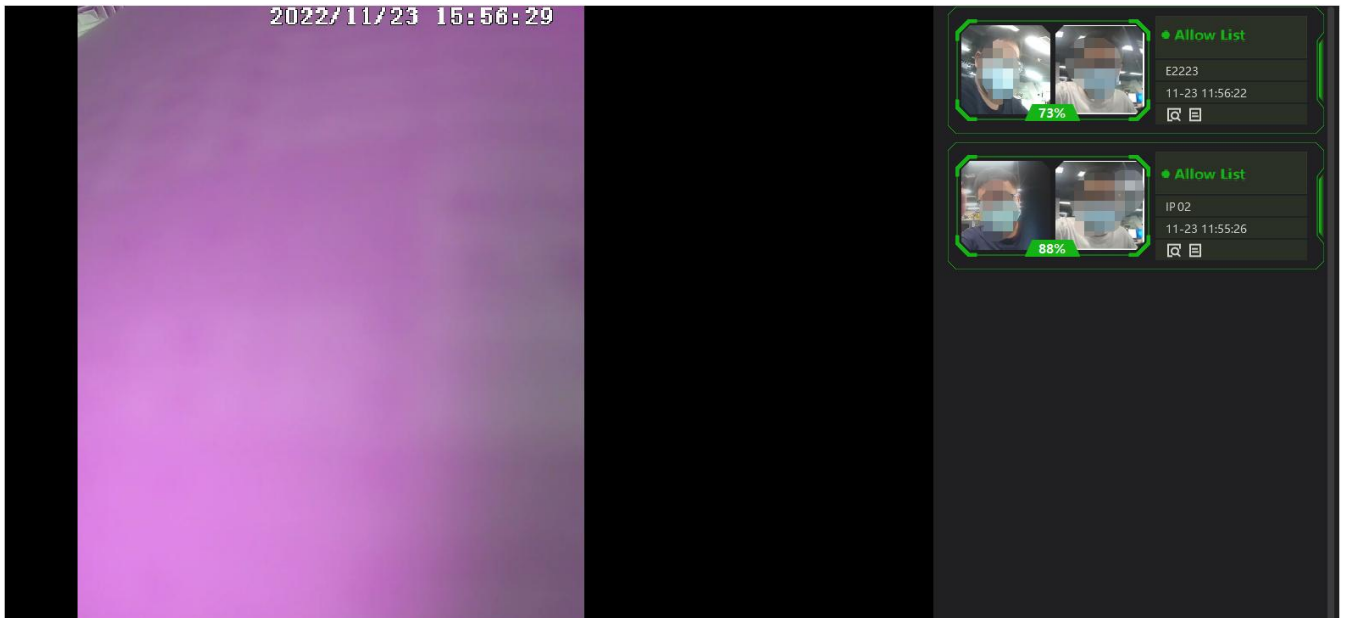


View comparison result via Sub-screen : Go to Face attendance→Attendance Configuration→Basic Configuration to set the channel.

See [Basic Configuration](#) for details.


In the preview window of the camera deployment interface, right click on the image to select “Project onto” to select sub screen. Then you will see the face display on the sub screen.





Attendance overview: you can view the number of people who should arrive or actually arrive.


9.5.2 Data Synchronization

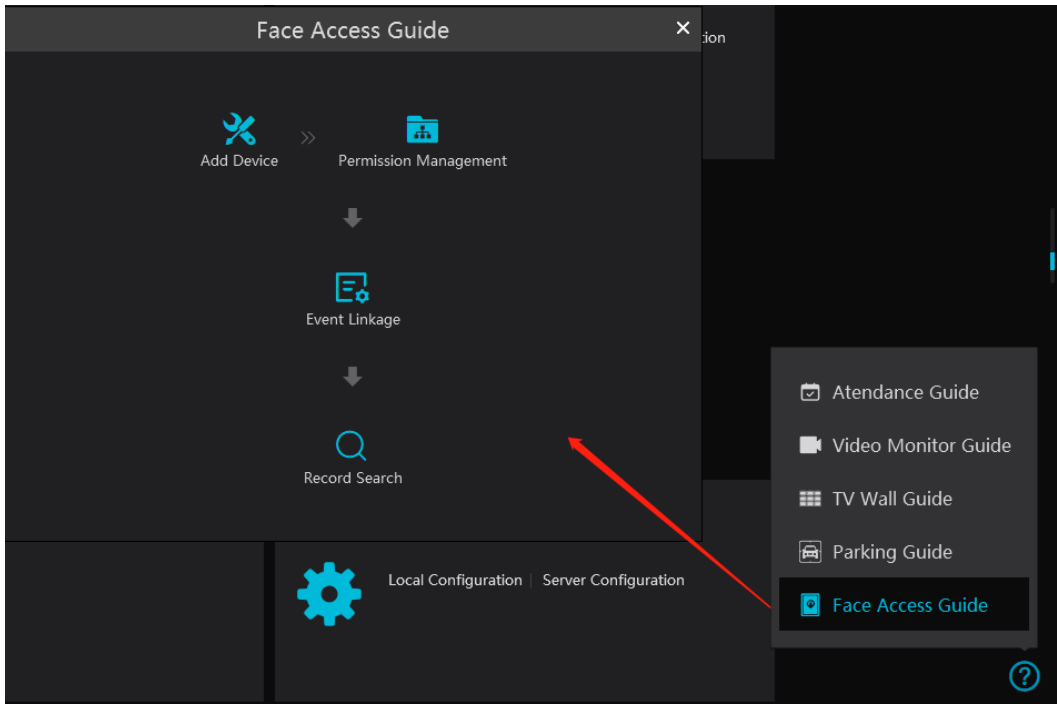
When the attendance device/transfer server/intelligent server is offline within a short time, there are attendance data generated during this time. After the above-mentioned device or server is online, click  at the top right corner of the camera deployment interface and then the synchronizing task will be triggered. Up to 6-hour offline time are supported for the attendance device. So, the system will synchronize the attendance data within 6-hour time to the platform after the device is online

Note: The attendance device must support synchronization function, or this function cannot be used.



10 Face Access Control

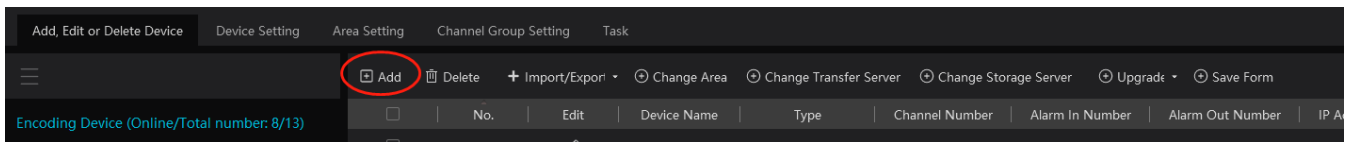
Click  at the bottom right corner to select face access control guide.



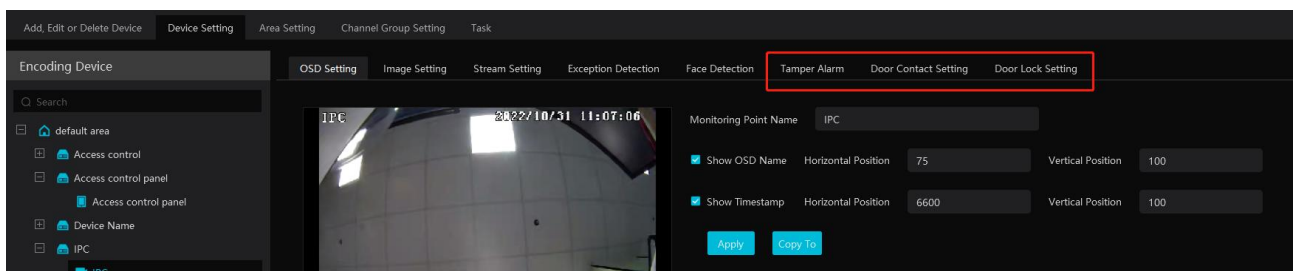
In the face access control guide interface, click the corresponding menus in sequence to quickly set the face access guide.

10.1 Add Face Recognition & Access Control Device

Go to Resource Management → Add, Edit or Delete Device → Encoding Device interface. Then click [Add] to add the face recognition & Access Control device.

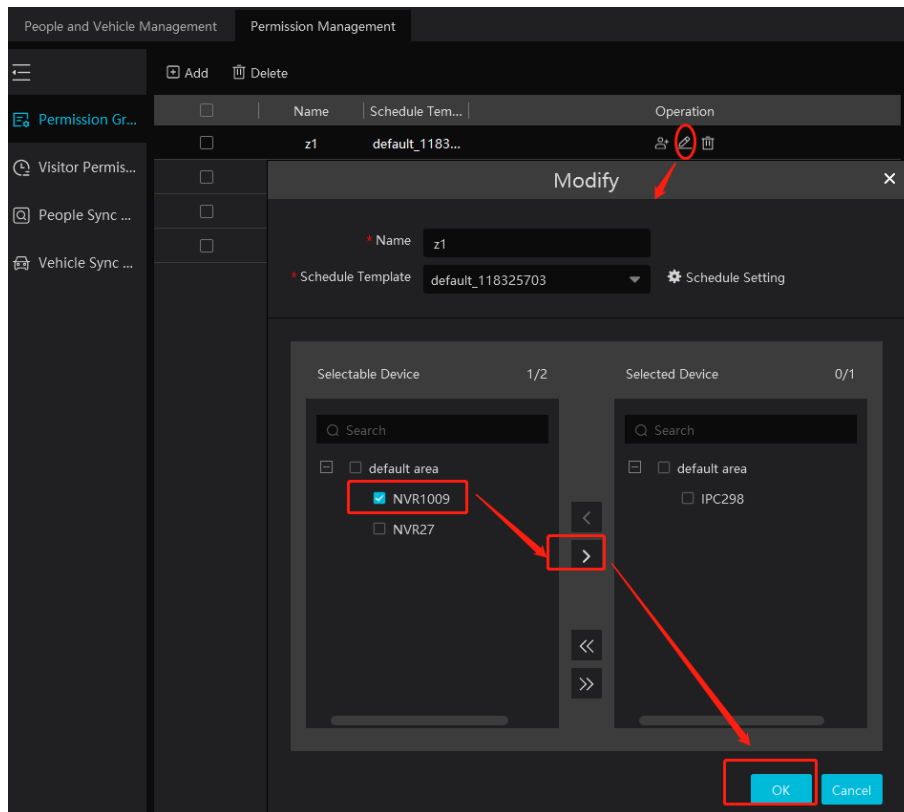


After the face recognition & access control device is added, please enter the device setting interface to configure tamper alarm, door contact configuration, door lock and wiegand configuration.



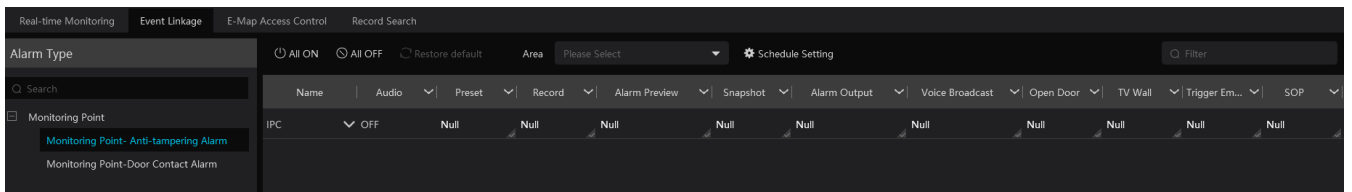
10.2 Permission Settings

Go to the permission management interface. Add a new permission group or add the face recognition & access control device to the added permission group.



10.3 Event Linkage

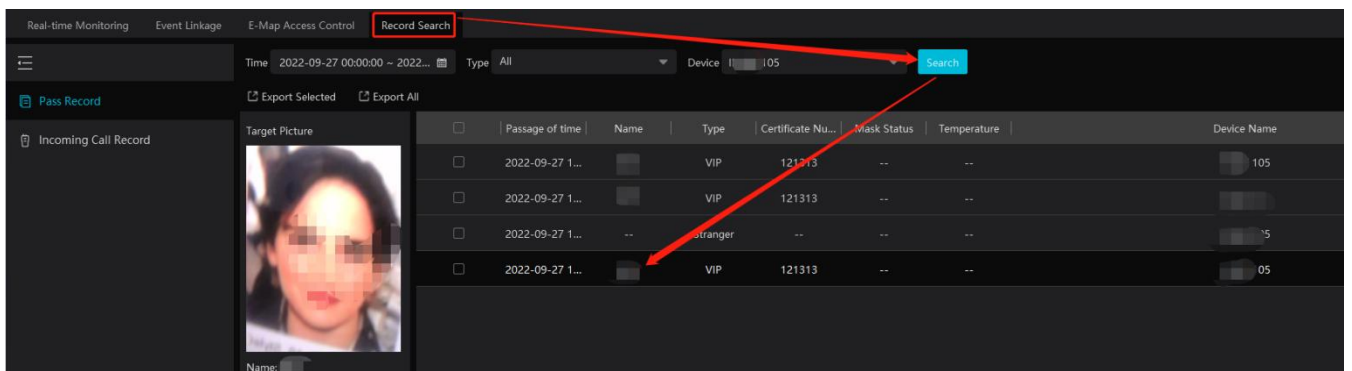
In the event linkage interface, you can set alarm linkage items for anti-tampering alarm or door contact alarm



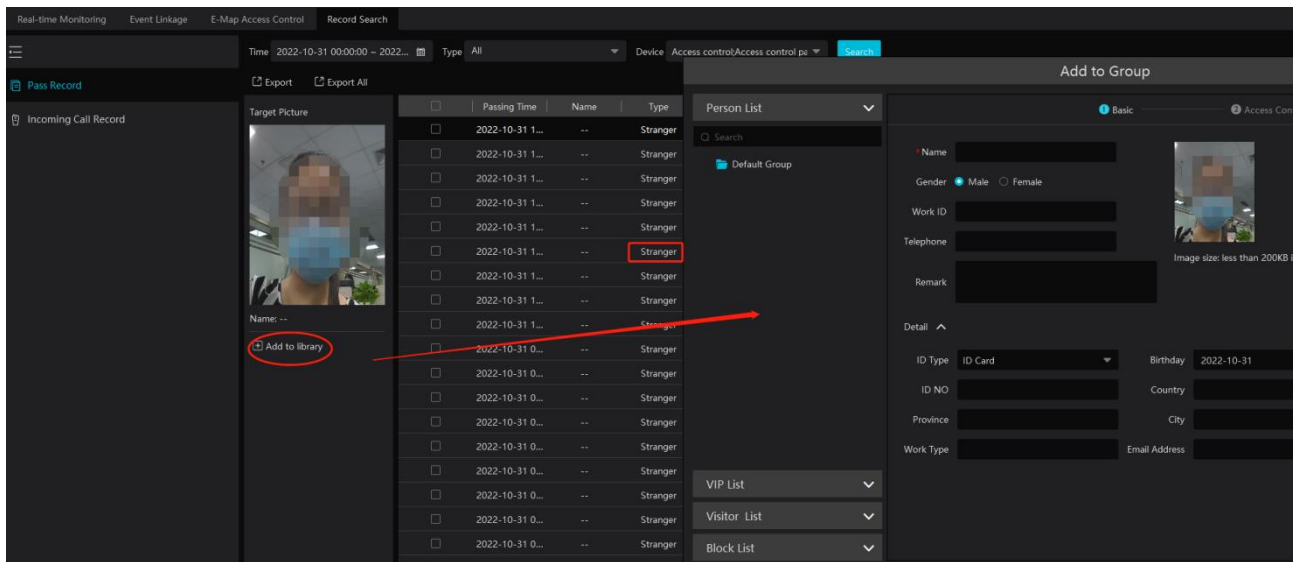
10.4 Record Search

1. Pass Record

In the record search interface, you can search the pass records by time, type and device.



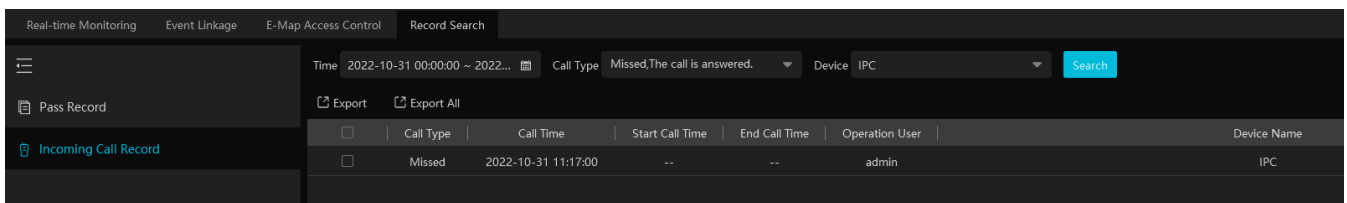
Select the "Stranger" type. Click [Add to library] to add the stranger to the face database.



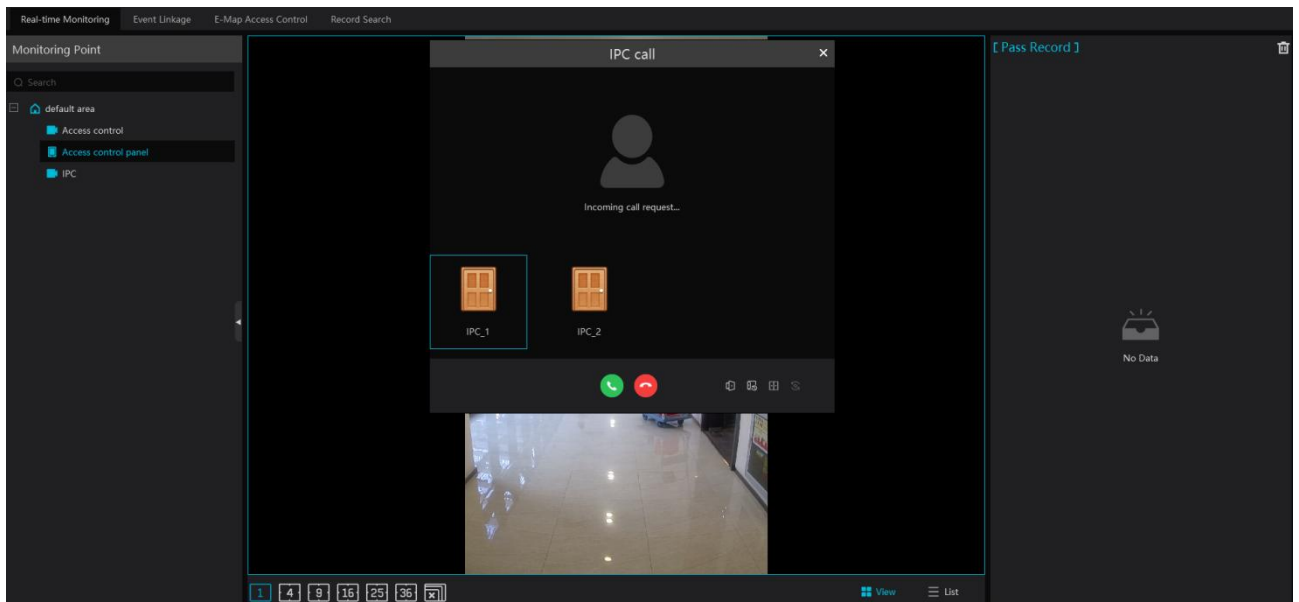
Click [Export] or [Export All] to export the Excel pass records.

(2) Incoming Call record



In the incoming call record interface, you can search the call record between the monitor client and the device.



10.5 Two-Way Talk



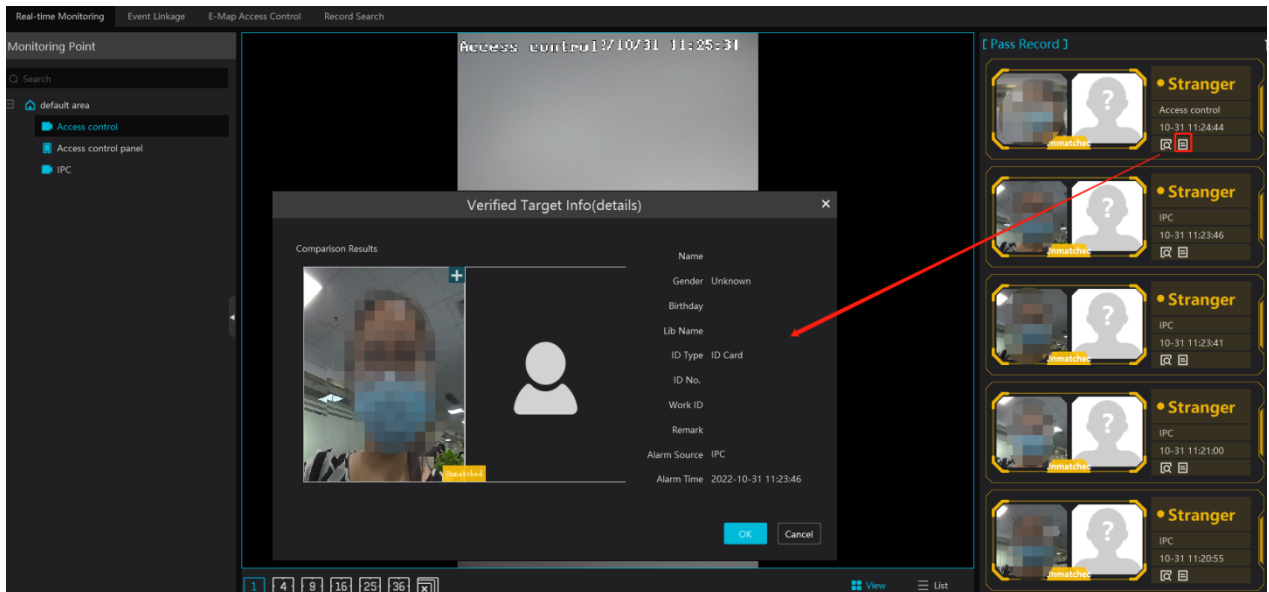
Before using this function, please make sure that the face recognition and access control device is added successfully.

When someone presses the call button in the device, the client will receive the two-way talk request. Click  to answer; click  to hang up. During the two-way talk period, you can control the door contact through the buttons at the bottom of the two-way talk window. These buttons includes “Open door”, “NO”, “NC” and “Recovery to Normal”.

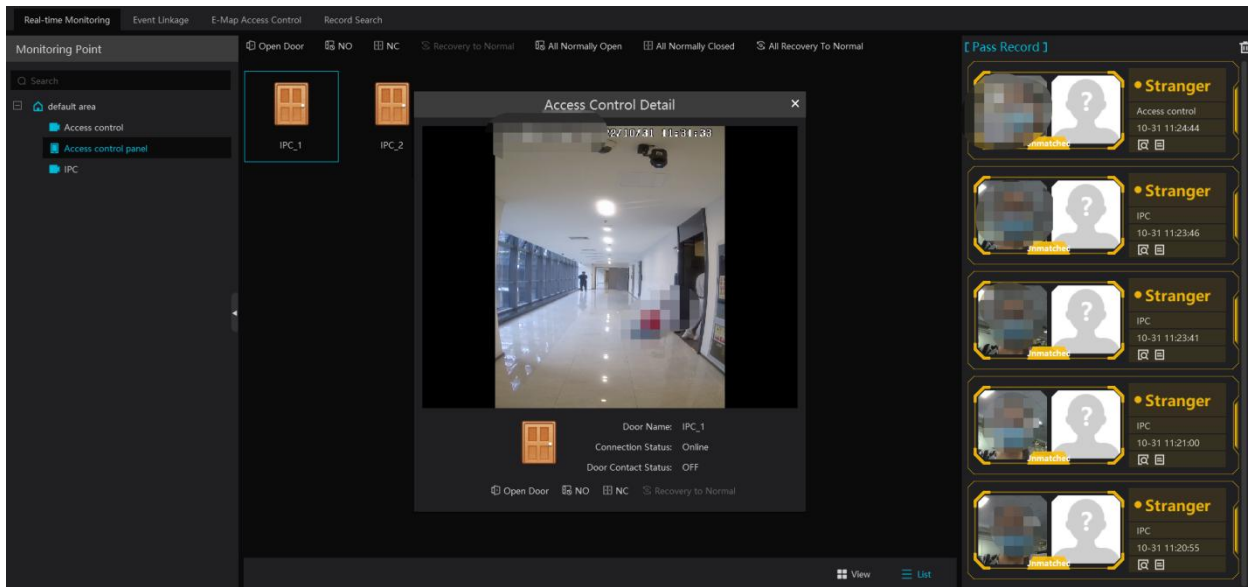
Note: Only one client can answer the call at a time. When another client answer the call, the two-way talk of this client will be hung up.

10.6 Real-Time Monitoring

Go to the real-time monitoring interface and then click “View”. Choose the face recognition & access control panel as shown below.



Click “List” to display the linked access control equipment. Double click the door icon to show the live video. You can do the following operations, including “Open Door”, “NO”, “NC”, “Recovery to Normal”, “All Normally Open”, “All Normally Closed”, “All Recovery to Normal” as shown below.



10.7 E-Map Access Control

Go to the E-Map Access Control interface. You can filter the access control alarm type as needed, including “Monitoring point-tamper alarm” and “Monitoring point-door contact alarm”.

Real-time Monitoring Event Linkage E-Map Access Control Record Search

Map Management Pending Alarms: 0 Switch to Alarm E-Map

Search

1

Filter Alarm Type Clear All

Search

- Select All
- Monitoring Point-Abnormal Temperature Rise
- Monitoring Point-Temperature alarm
- Monitoring Point-Fire detection alarm
- Monitoring Point- Anti-tampering Alarm
- Monitoring Point-Door Contact Alarm
- Monitoring Point-Region Entrance Detection
- Monitoring Point-Region Exiting Detection
- Monitoring Point-visitor alarm

The floor plan shows the following areas: Engineering Department, Test Department, Warehouse, R&D Department, Financial Department, International Marketing Department, HR Department, General Manager Room, Corridor, Conference Room, Conference Room, WC Female, WC Male, Elevator, and Exit. A monitoring point labeled 'IPC01' is located near the Exit. The menu is currently open over the central corridor area.

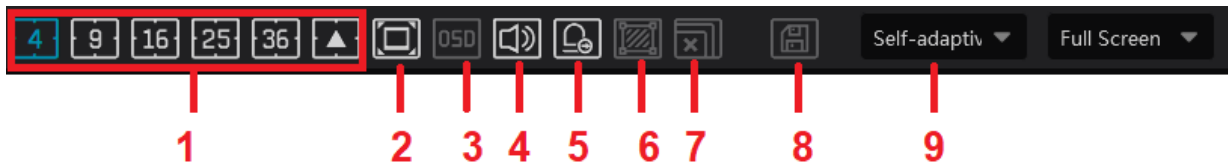
11 Live View


11.1 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; click  to view more screen display modes. Please select as needed.	6	Show/hide target tracking box
2	Full screen	7	Close all previews
3	Enable/disable OSD	8	Save the current view mode
4	Enable/disable broadcast	9	Choose the camera stream
5	Manual alarm output		

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		Zoom in
	Start/stop recording		Zoom out
	Enable/disable audio		Fit to window

	Snapshot		Manual alarm output
	PTZ control		Enable/disable talkback
	Monitoring point setting (camera setting)		Enable/disable channel talkback
	3D zoom in		

If the channel under a DVR/NVR device is set up for two-way audio, click  to enable two-way audio between the DVR/NVR and the monitor client; click  to enable two-way audio between the IPC and the monitor client.

Right-click button function:

Menu	Description	Menu	Description
Close Channel	Close image	Start Talkback	Enable/disable talkback
Start Record	Start/stop recording	Channel Info.	Display channel name, IP address and the current stream
Instant Playback	Click it to play back immediately	Stream	Choose video stream
Audio ON	Enable/disable audio	Full Screen	Display image in full screen
PTZ Control	Click it to show PTZ control panel	Image Adjustment	Set the image's brightness, saturation, contrast and so on
Snapshot	Capture images	Manual Alarm Out	Click it to select alarm output device and then trigger alarm out manually

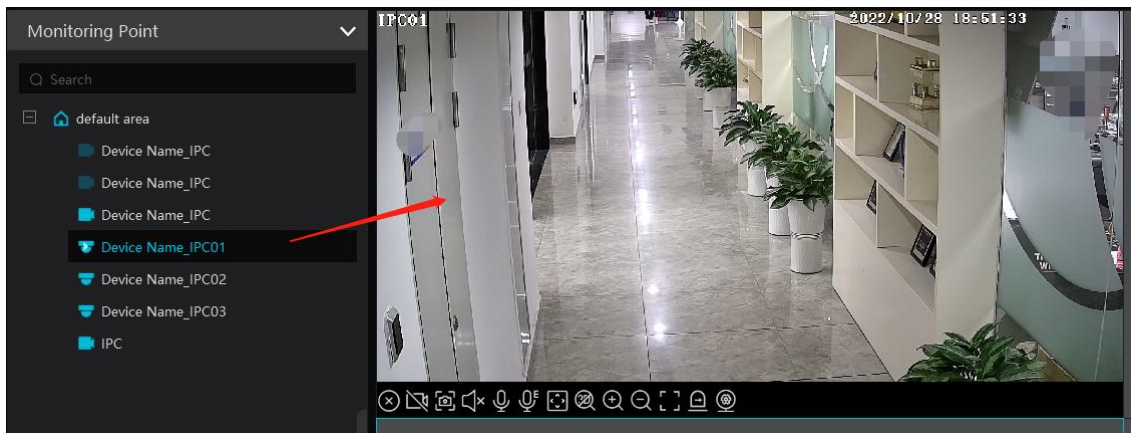
4:3/16:9/Original Size/Full Screen: screen display proportion; please select it as needed.

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.




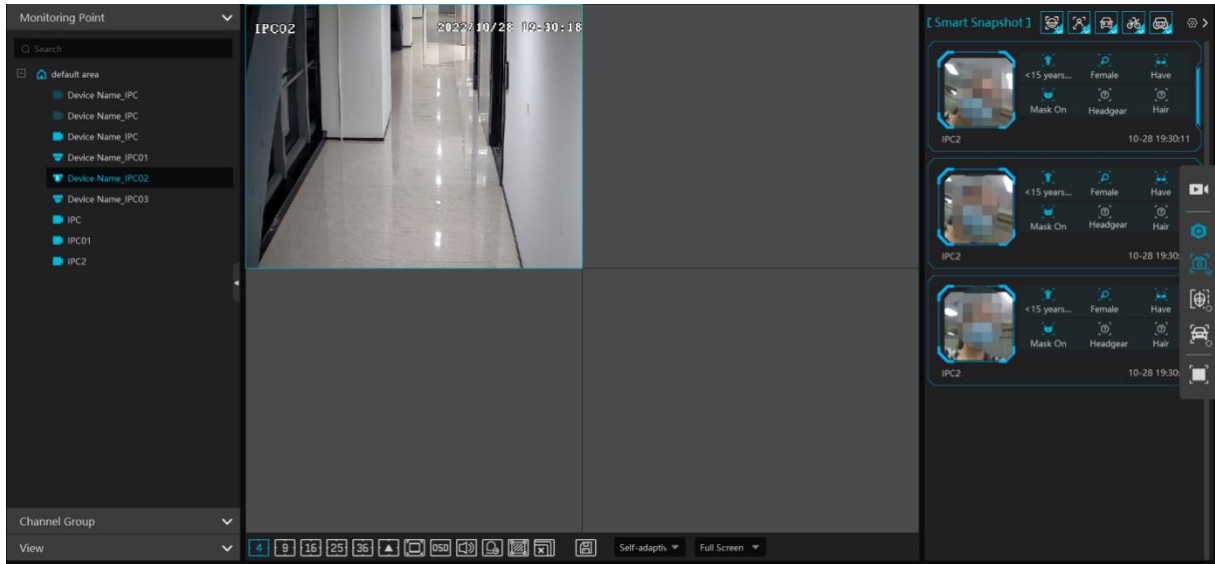
● Stop View

- 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.







11.2 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.

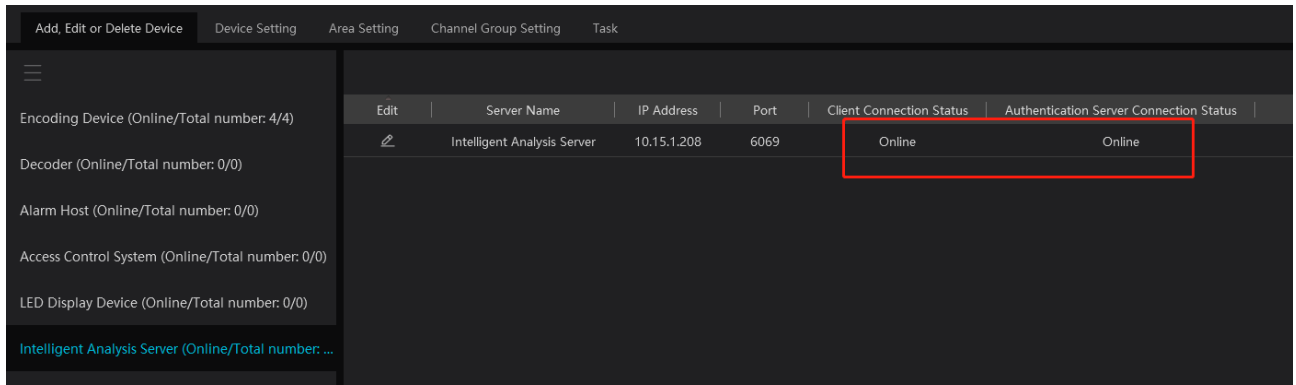


The descriptions of the button on the right:

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.

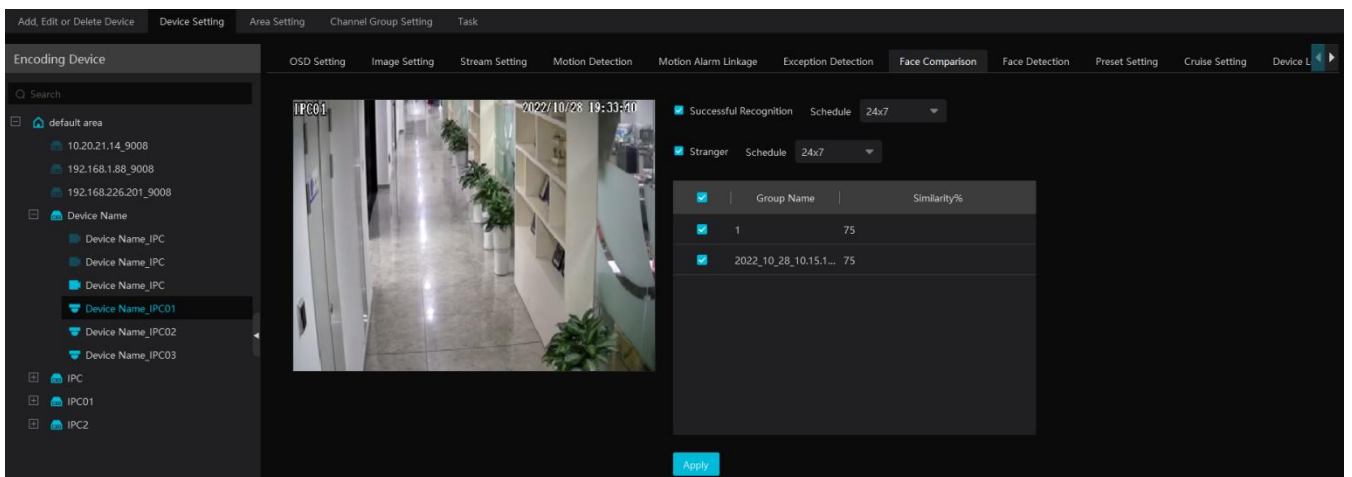


11.2.1 Face Comparison

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

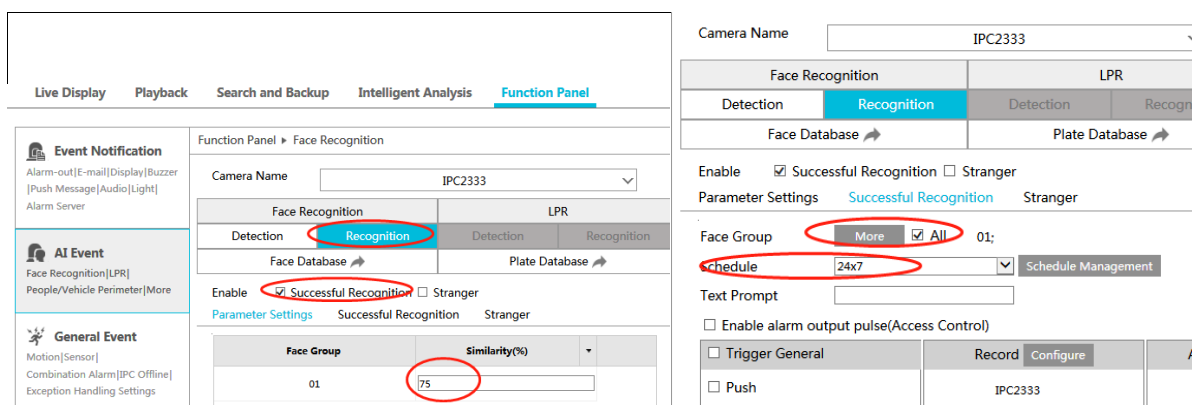
Add face comparison device → Create a group → Add targets to the group → Set task → Real-time View → Search faces

1. Go to Home → Resource Management → Add, Edit or Delete Device interface to add face recognition devices.
2. Create a group, add targets to the group and bind permission for them. Please refer to chapter 6 People & Vehicle Management for details.
3. Set the task for these added face comparison device. Refer to [Task Management](#) for details.
4. 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.

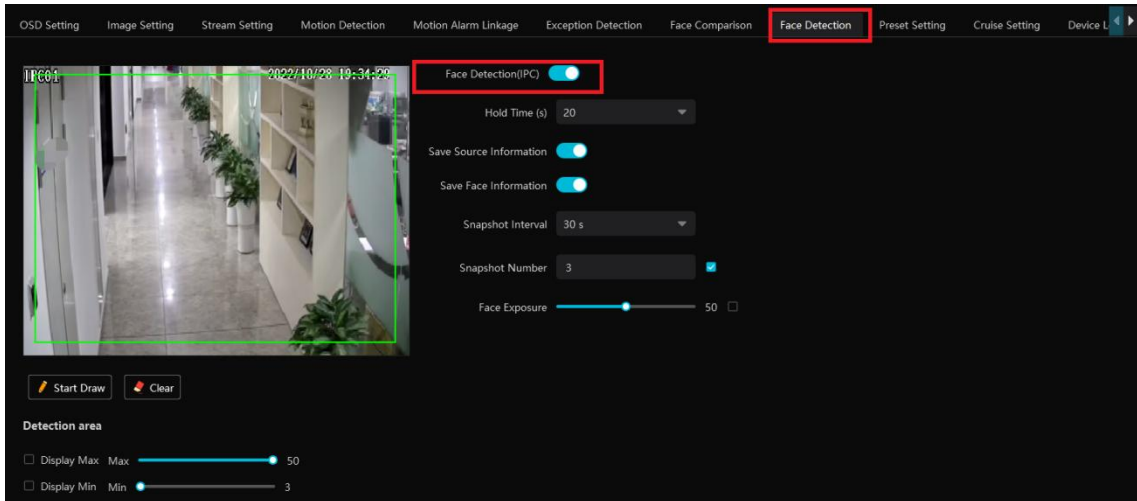


Please select “Successful Recognition” or “Stranger” as needed and then set the schedule separately. After that, check the group and set the similarity. Finally, save the settings by clicking [Apply].

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.

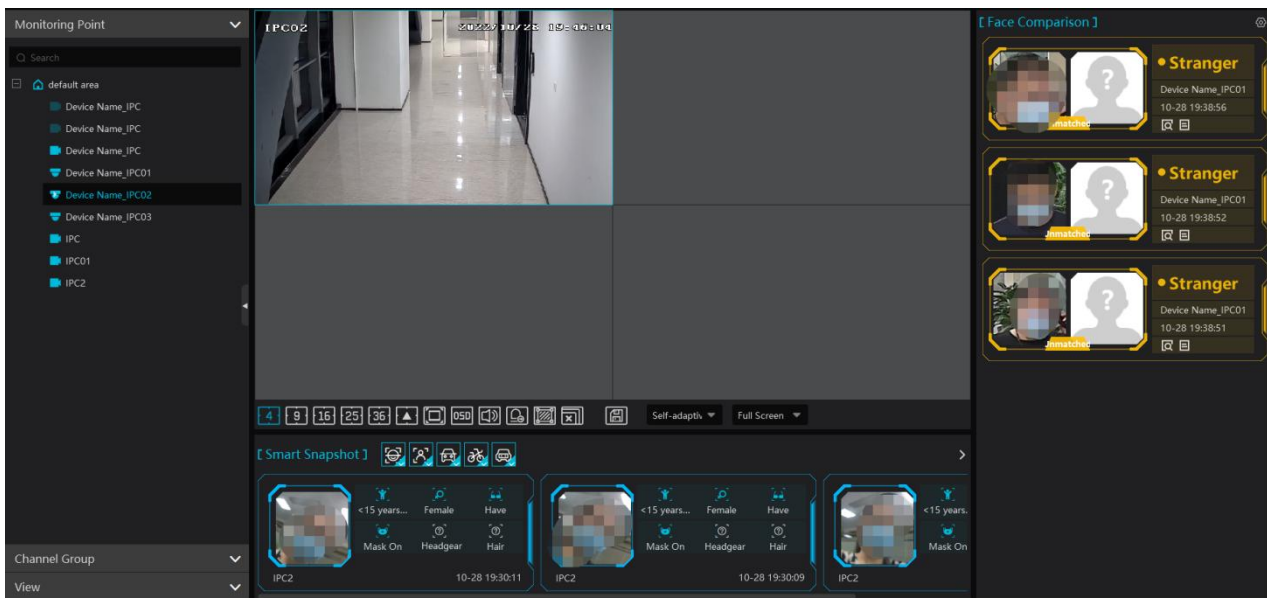


Additionally, please make sure the face detection function is enabled for the AI IPC (click Device Setting→Face Detection).

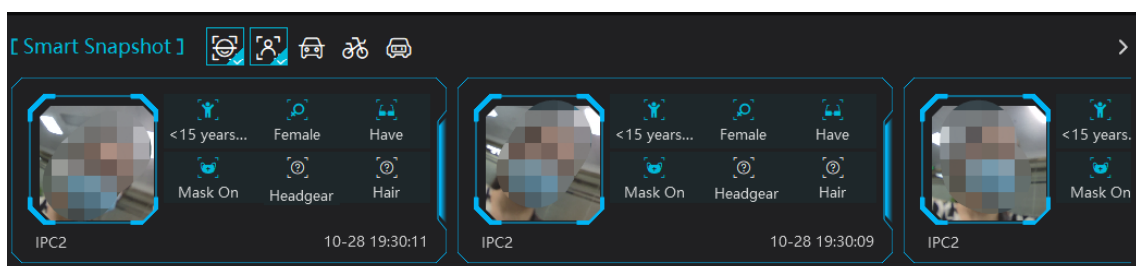


● **View the real-time snapshot and comparison result**

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.



In the smart snapshot area, click the corresponding icon (face/human body/motor vehicle/non-motor vehicle/plate) to filter the display of smart snapshots. Disable the selection and then the corresponding smart snapshots will not be displayed. Click [] button to quickly go to the smart snapshot retrieval interface.

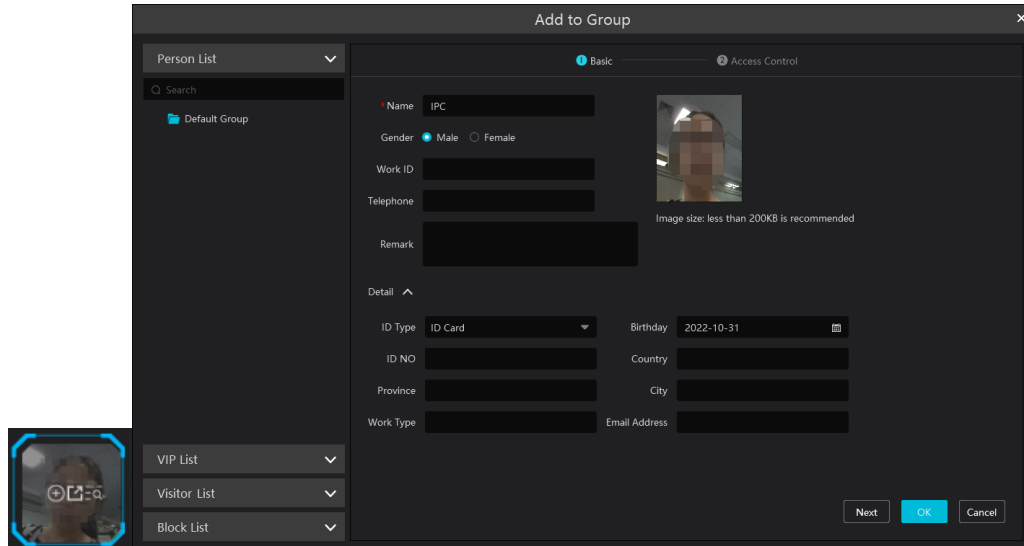


For attribute display settings, please refer to snapshot attribute settings for details.


Note: If you want to view the detailed attribute/feature information of the snapshot images, you should add the AI IPC with video metadata function and this function must be enabled first.

Quickly adding the detected target to the face database:

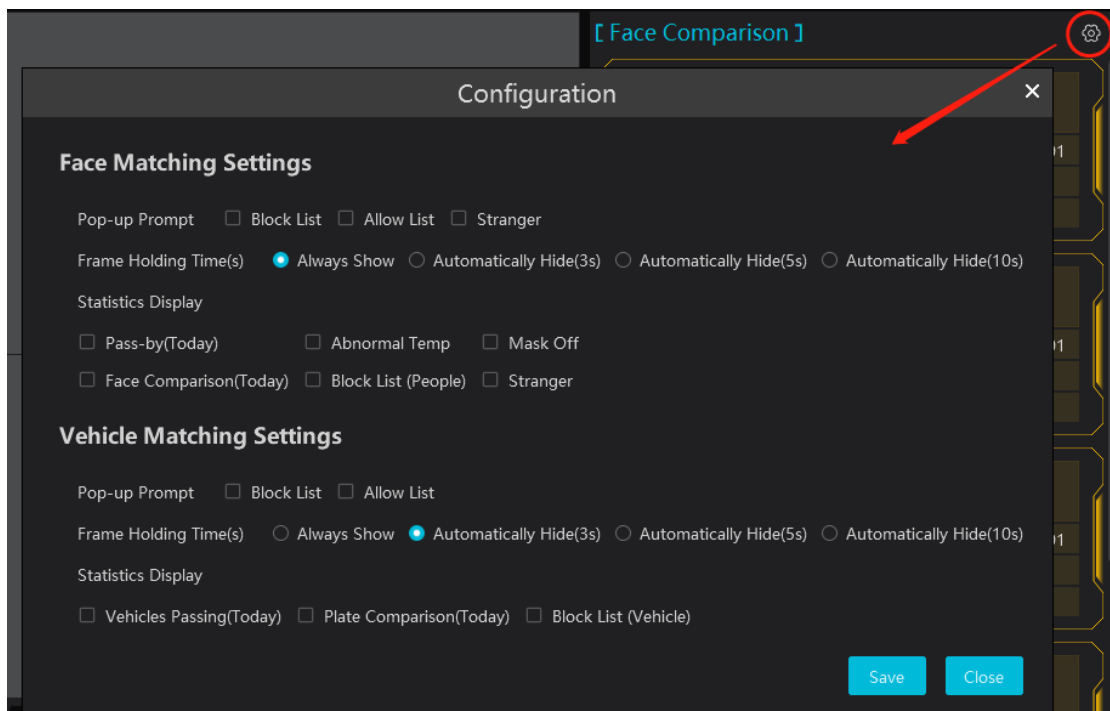
Put the cursor on the face snapshot and then click +. The following window will pop up. Select the group and then fill out the relevant information to add.



● Face Comparison Settings

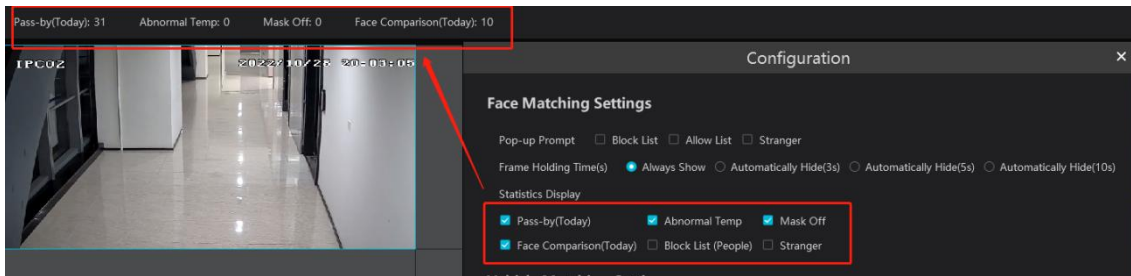
Click  on the right corner of the live interface to display the configuration window as shown below. One or more items can be selected.

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.



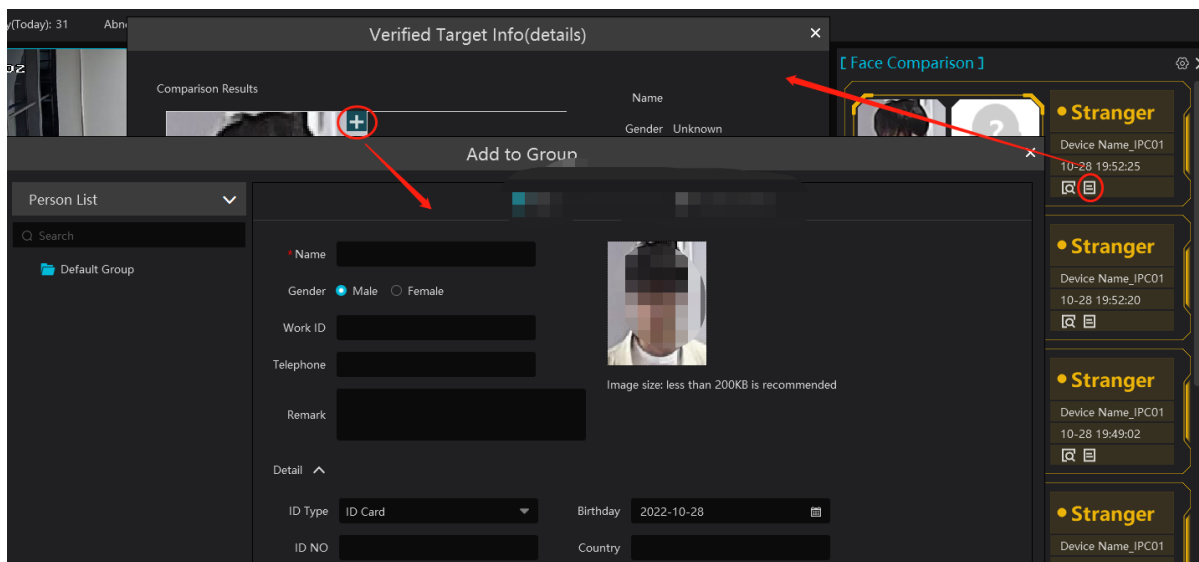
Frame Holding Time: select the alarm pop-up window holding time as needed.

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

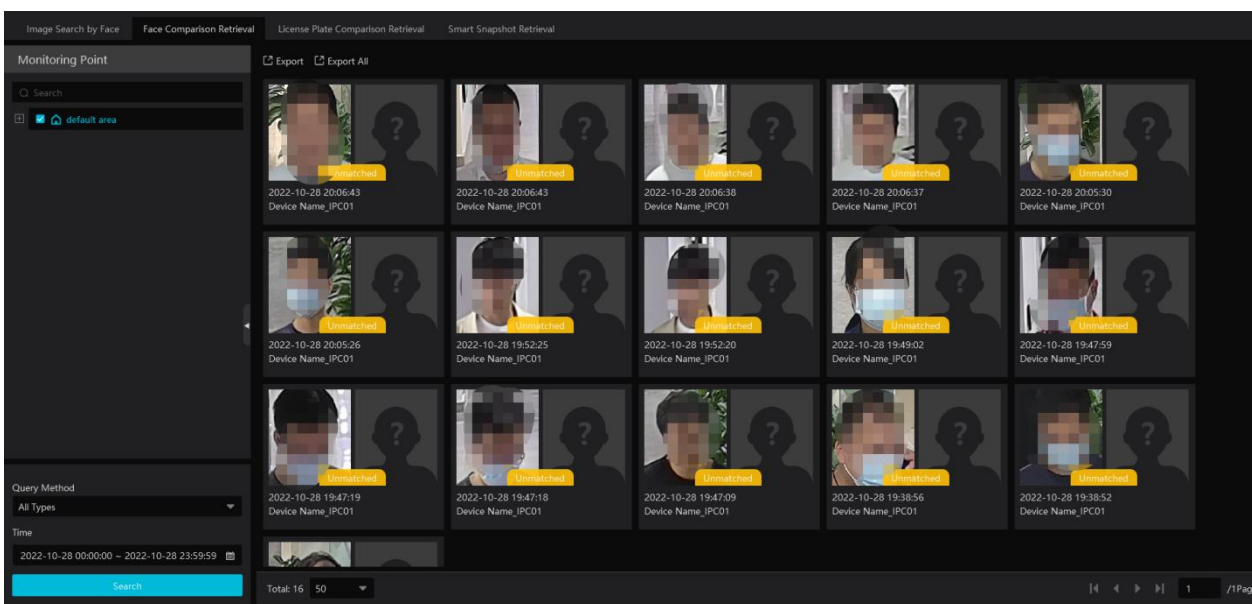


● **Face Comparison Records**

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.

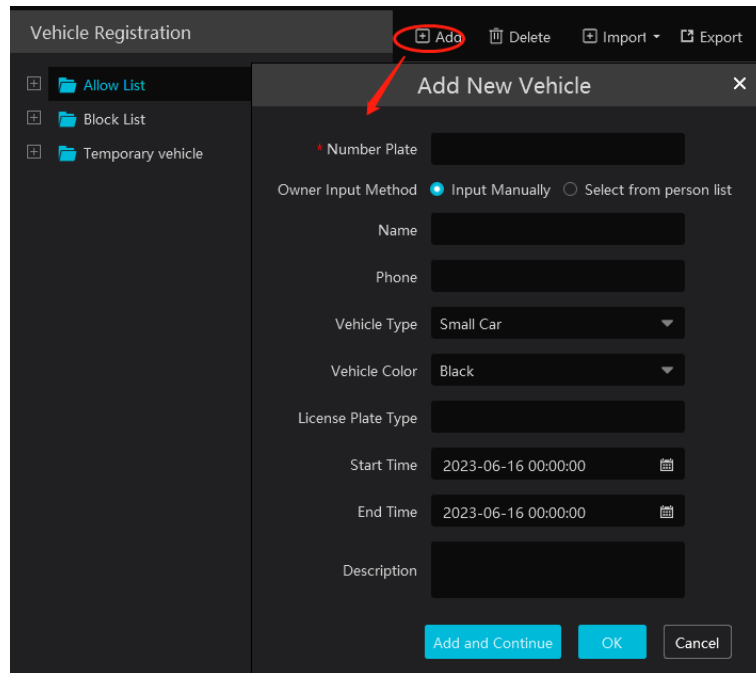


11.2.2 License Plate Comparison

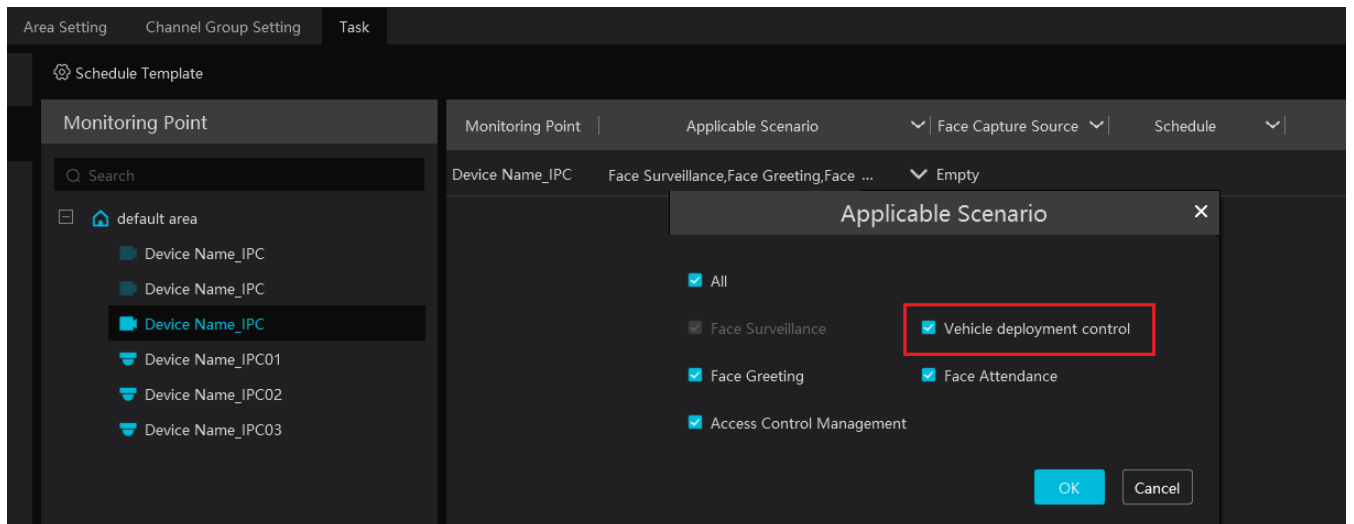
If this is the first time for you to set the license plate recognition function, please follow the procedures.
 Enter Group Management→ People & Vehicle Management→ Vehicle Registration→Add Vehicles →Task Settings→View Real-time

License Plate Comparison Results→Search License Plate Comparison Result

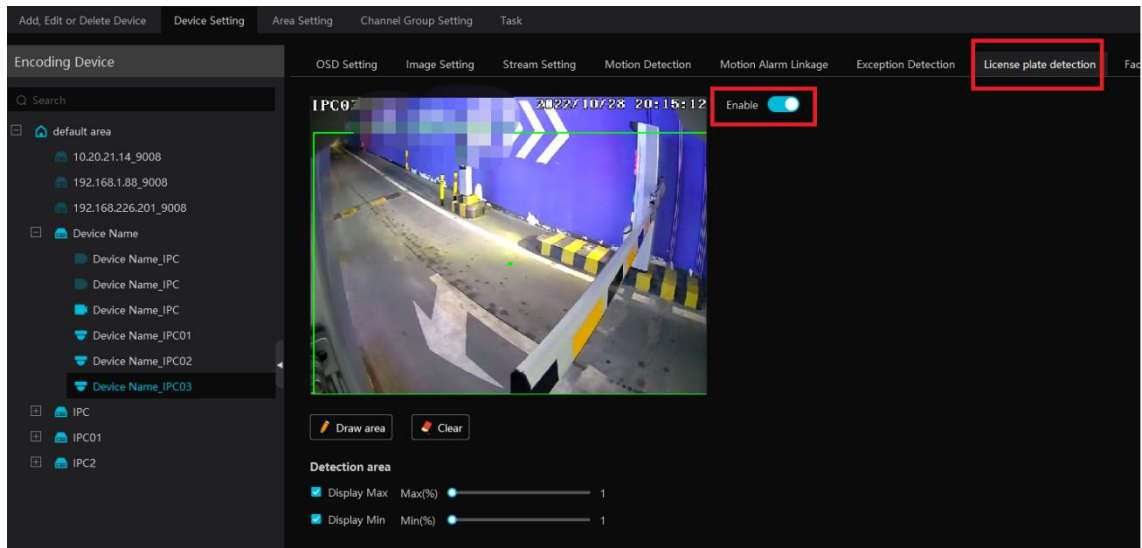
1. Go to People & Vehicle Management → Vehicle Registration interface. Click [Add] to add the vehicle information to Allow List, Block List or Temporary Vehicle.



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”.

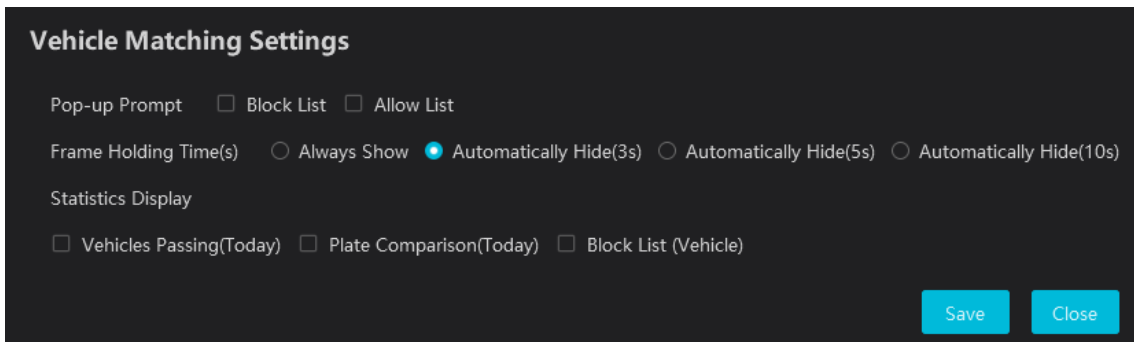


3. Ensure that the license plate recognition IPC has already enabled the license plate detection function.



- **License Plate Capture and Comparison 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.

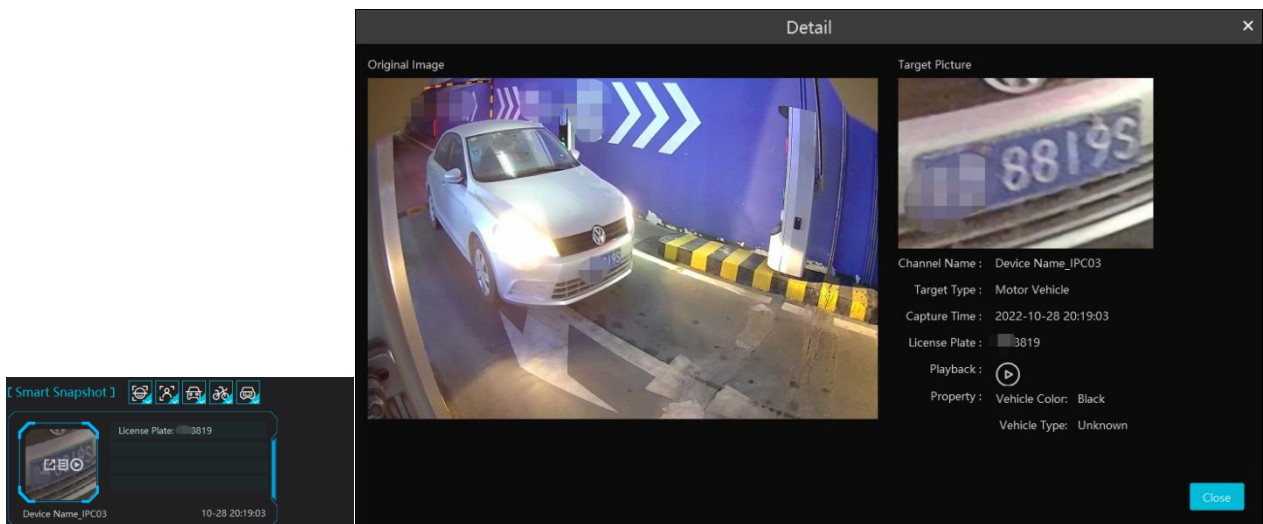



Frame Holding Time: select the alarm pop-up window holding time as needed.

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

- **License Plate Capture Records**


Click  to view the license plate capture details.

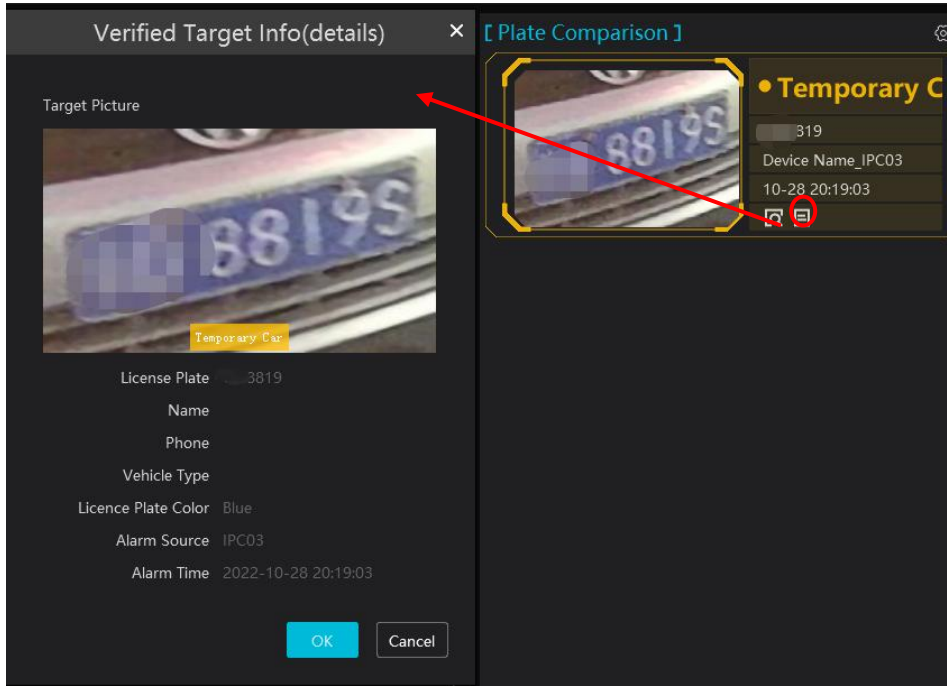



Click  to quickly go to the record playback interface.

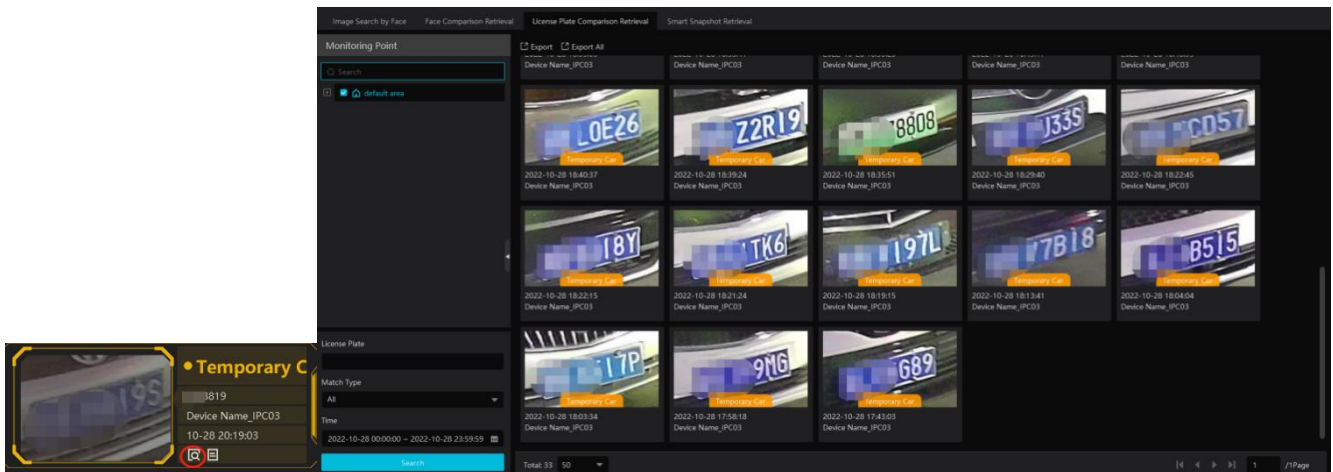
Note: if you don't set the record schedule or record linkage is not configured for the corresponding events, no record will be searched after you enter the record playback interface.

- **License Plate Comparison Records**

Click  to view the license plate comparison details.



Click  to quickly enter the vehicle plate comparison interface. You can search the captured vehicle plate as needed.



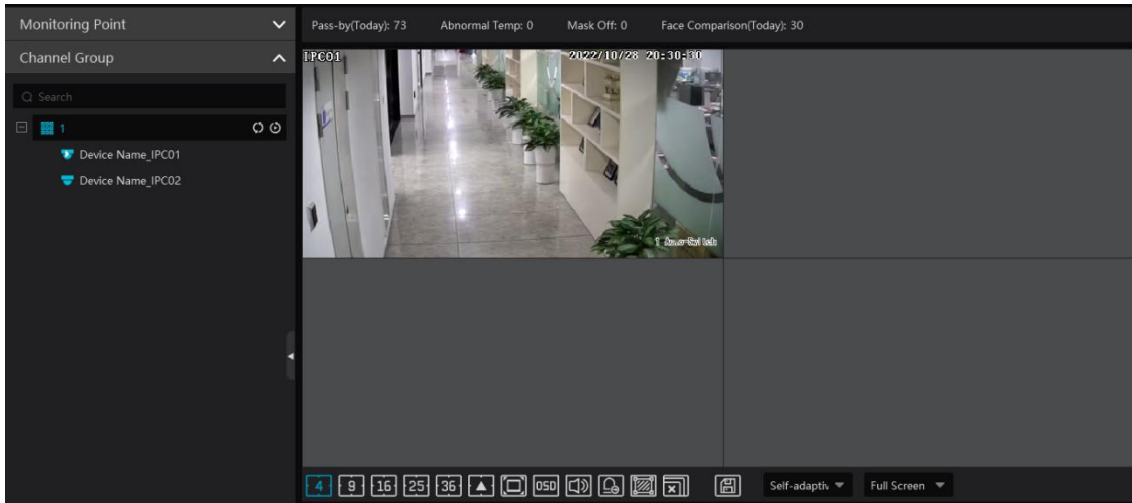
11.3 Channel Group View

- **Channel Group Setting**

Go to Home → Channel Group Setting interface to set the channel group (See [Channel Group Settings section](#) for details).

- **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.

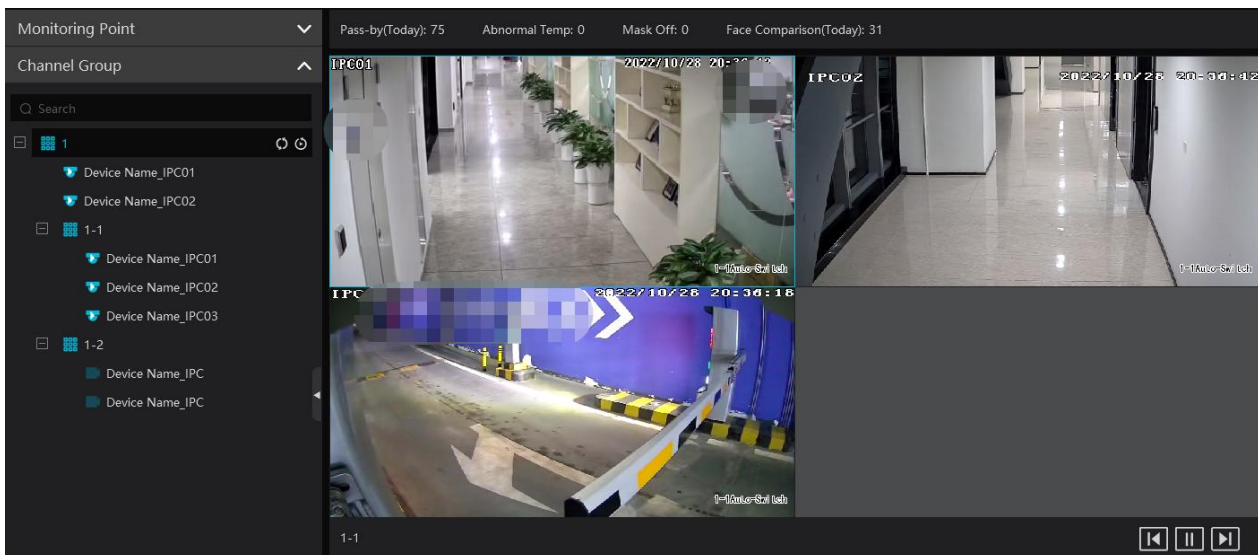
1. Choose the screen display mode according to the channel number of the channel group. Select a window and then double click the channel group name to play all channels in the group.




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 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.

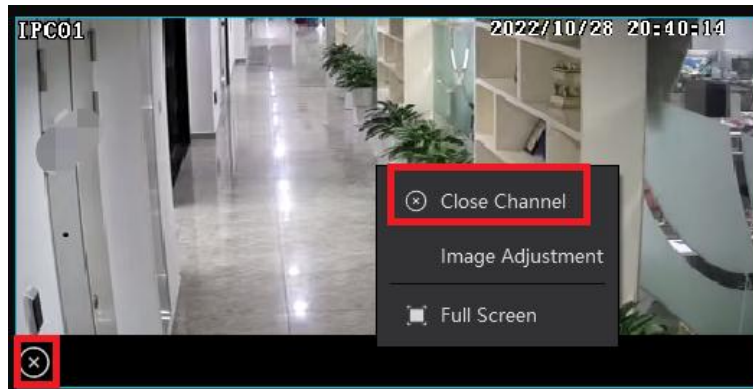
3. If there are several sub channel groups under the parent channel group, click  next to the parent group name and then all sub channel groups will play in sequence. The screen display mode will automatically adapt to the channels of the sub group.



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.

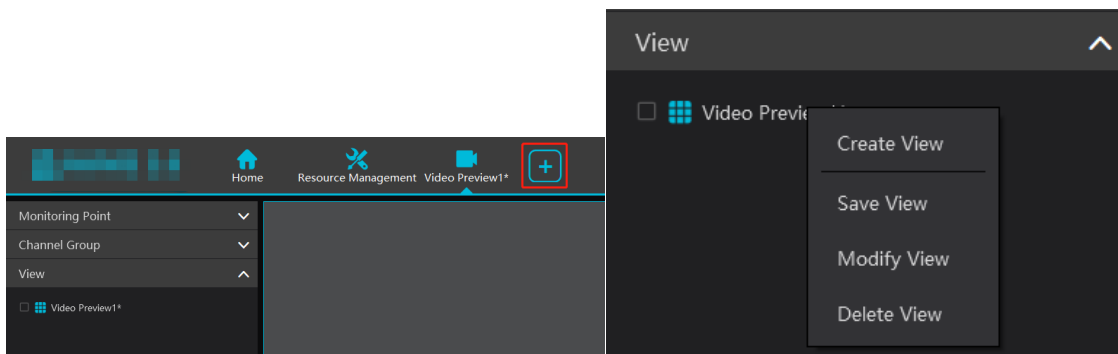
➤ **Stop Channel Group View**

- 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.





11.4 Plan View

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



● Add View Plan

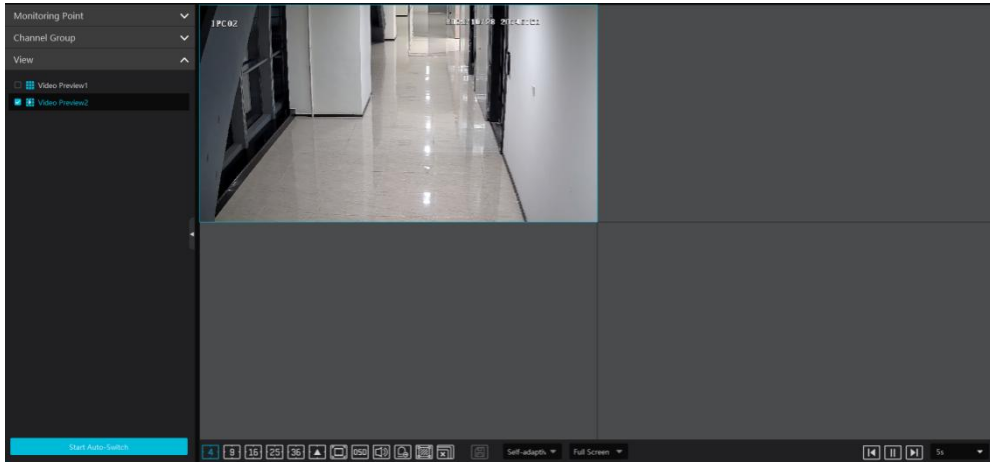
- ① Right click “Live View 1” and then select “Create View” or click  to add a new view plan. Clicking “Create View” to prompt an adding view window. Enter the view name and click [OK] to set view plan.
- ② Select screen display mode and then drag monitoring points or channel group to each window.
-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

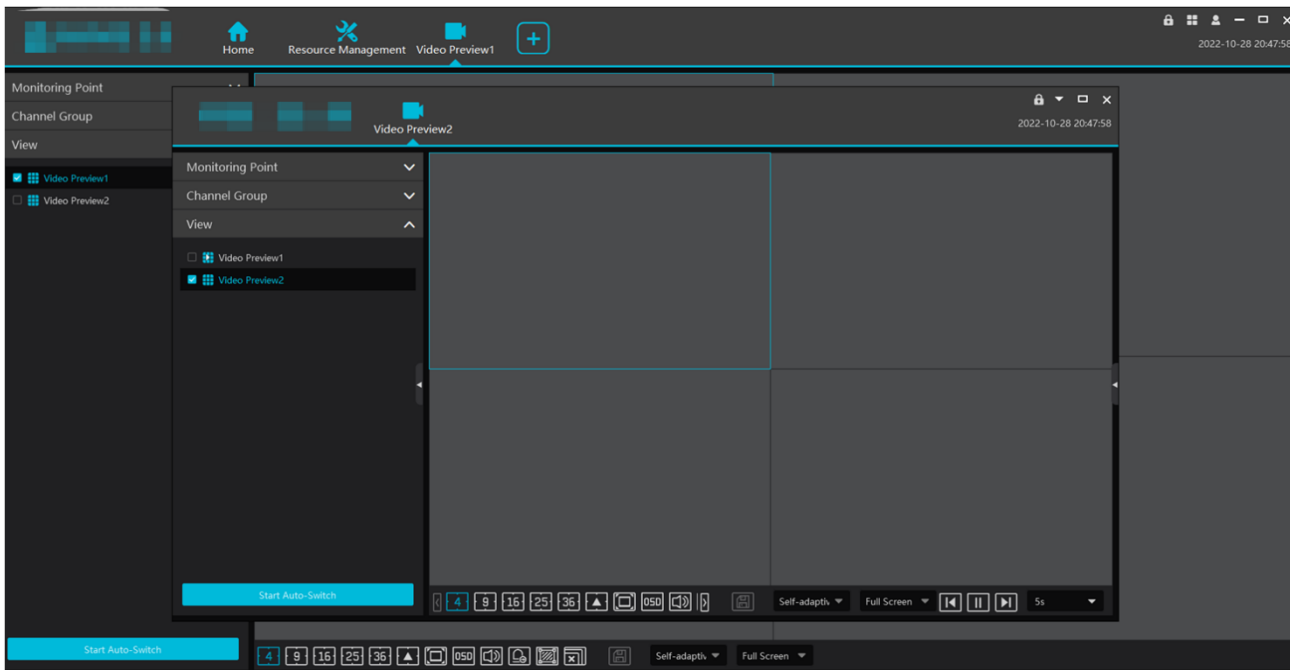
If multiple view plans saved, you can play these views in sequence.



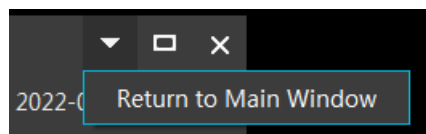
Enter the dwell time (5~3600s) and then click [Start auto-switch] to play these views in sequence. Click  to view the previous view; click  to view next view; click  to pause.

11.5 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).



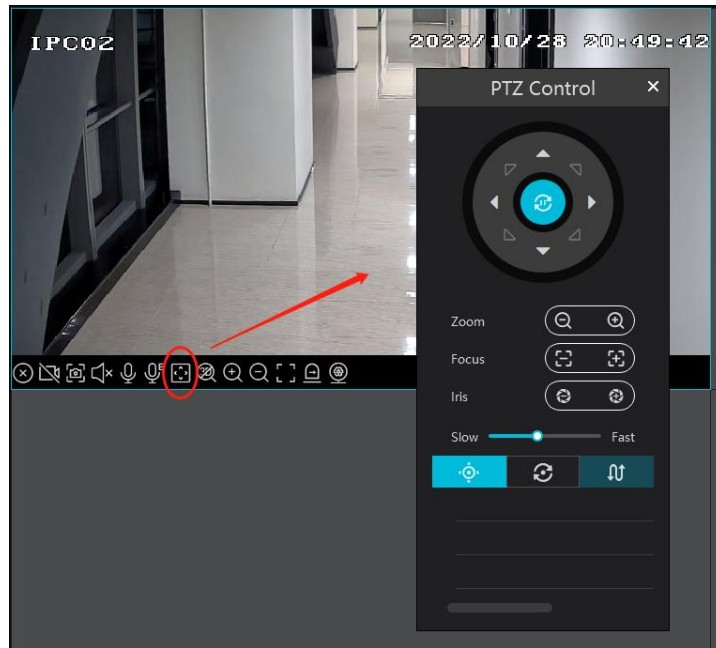
Click  on the float window and select “Return to Main Window” to embed this tab in the main interface.



11.6 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

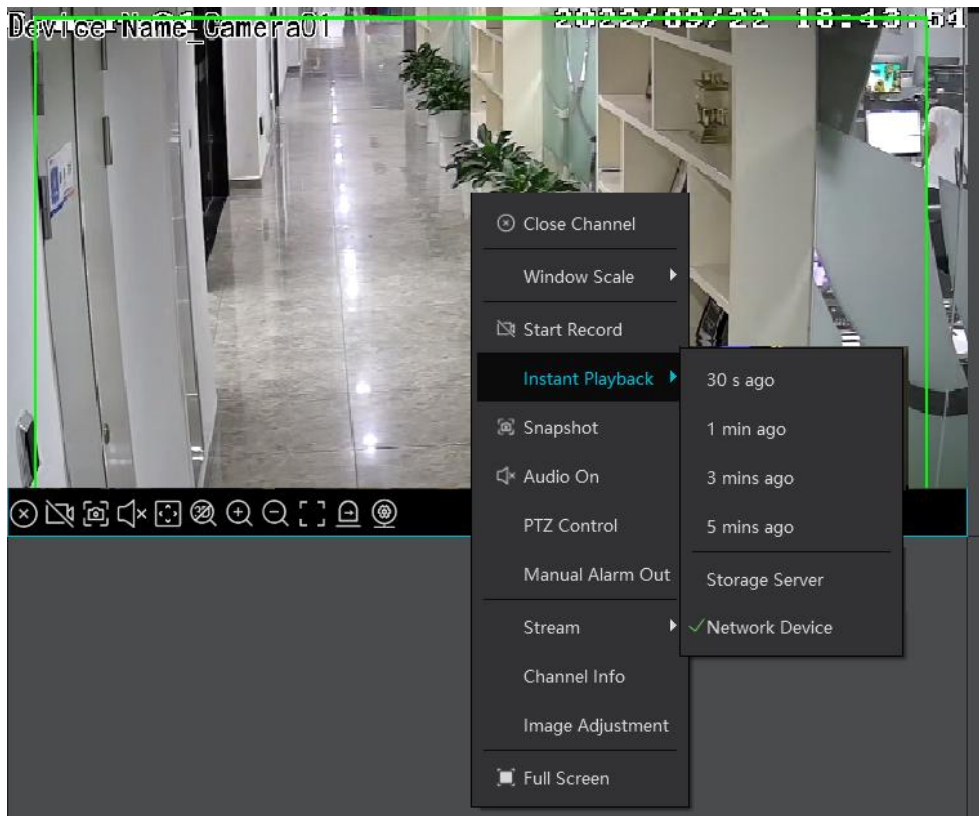
cruise can be controlled through PTZ control panel.



 : Preset;  : Cruise;  : Trace

11.7 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).



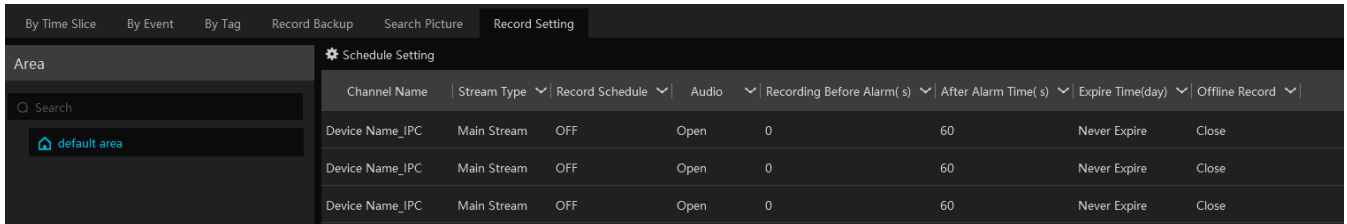
12 Record & Playback

12.1 Record Configuration

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

12.1.1 Schedule Recording

Go to Home→“Record Setting”.



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

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.

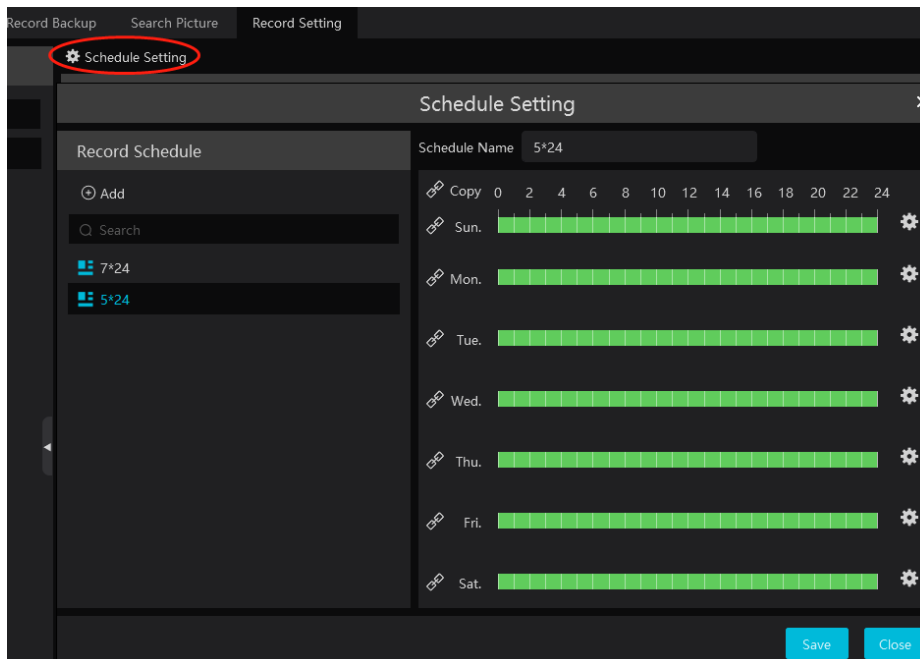
Offline Record: When the IPC/NVR is disconnected with the storage server, the IPC/NVR starts offline record. After the network is connected again, the offline record of IPC/NVR stored on the SD card or HDDs will automatically transfer to the storage server.

Note:

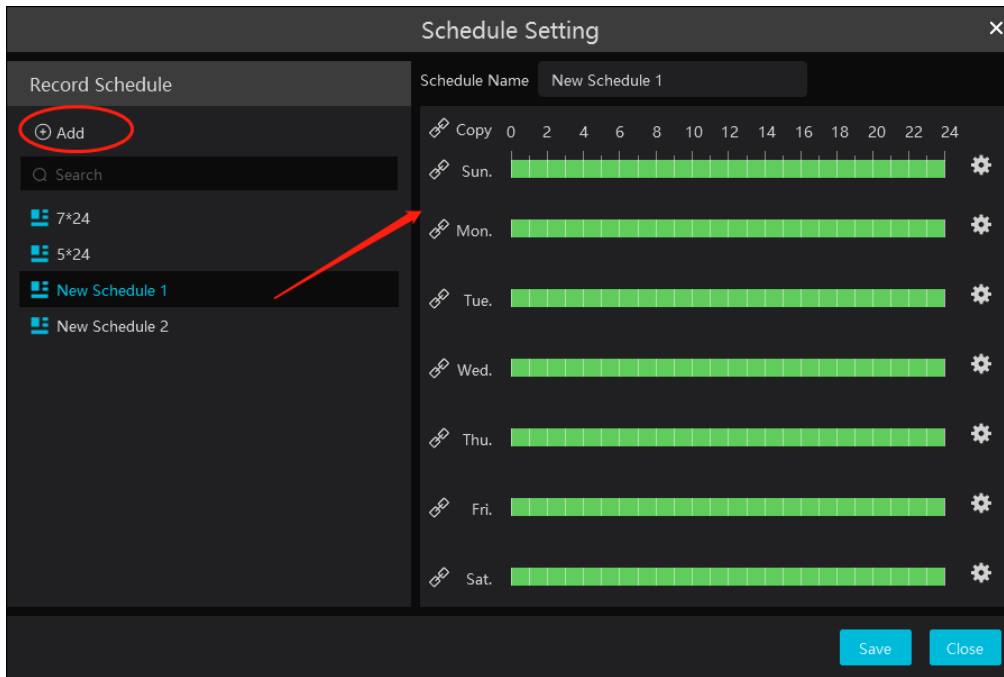
1. The time of the IPC/NVR must be the same as the storage server.
2. A maximum of 8 channels can simultaneously transfer the offline records to the storage server.
3. Due to the limit of the storage capacity, the previous records of the IPC may be overwritten if the disconnection time is too long so that only a part of records can be replenished.
4. Only support the most recent 12-hour record replenishment.



● To set schedule:

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



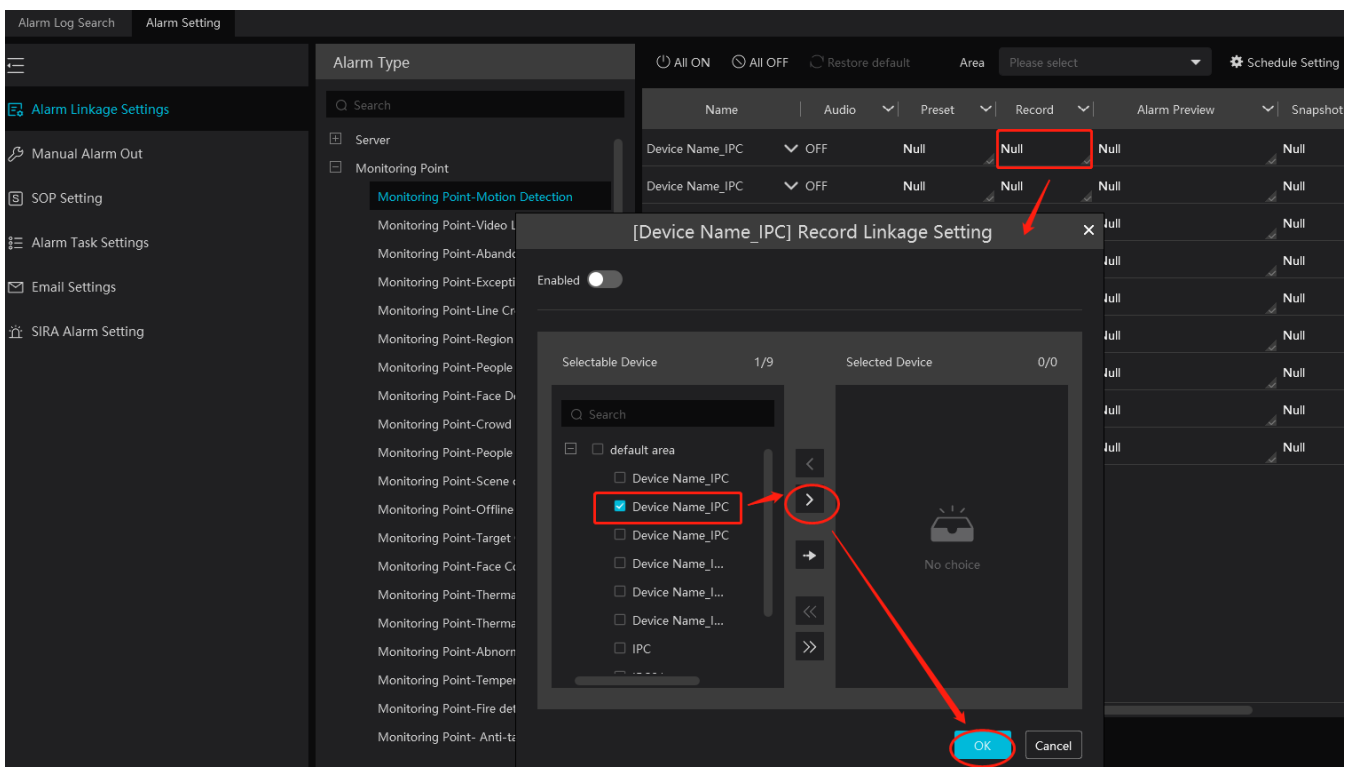
- Click [Add].



- Enter the schedule name.
- Set the schedule. Click  and then move the cursor to select the time; click  to add new time period. Put the cursor on the set schedule name and then a deletion icon will appear. Click it to delete the schedule.

12.1.2 Alarm Linkage Recording

- Go to Home → Device Setting interface. Select the desired device to enable and set schedules.
- Go to Home → Alarm Center → Alarm Linkage as shown below. Select alarm type, enable record, set linkage channel and set schedules.
- Click [Apply] to save the settings.

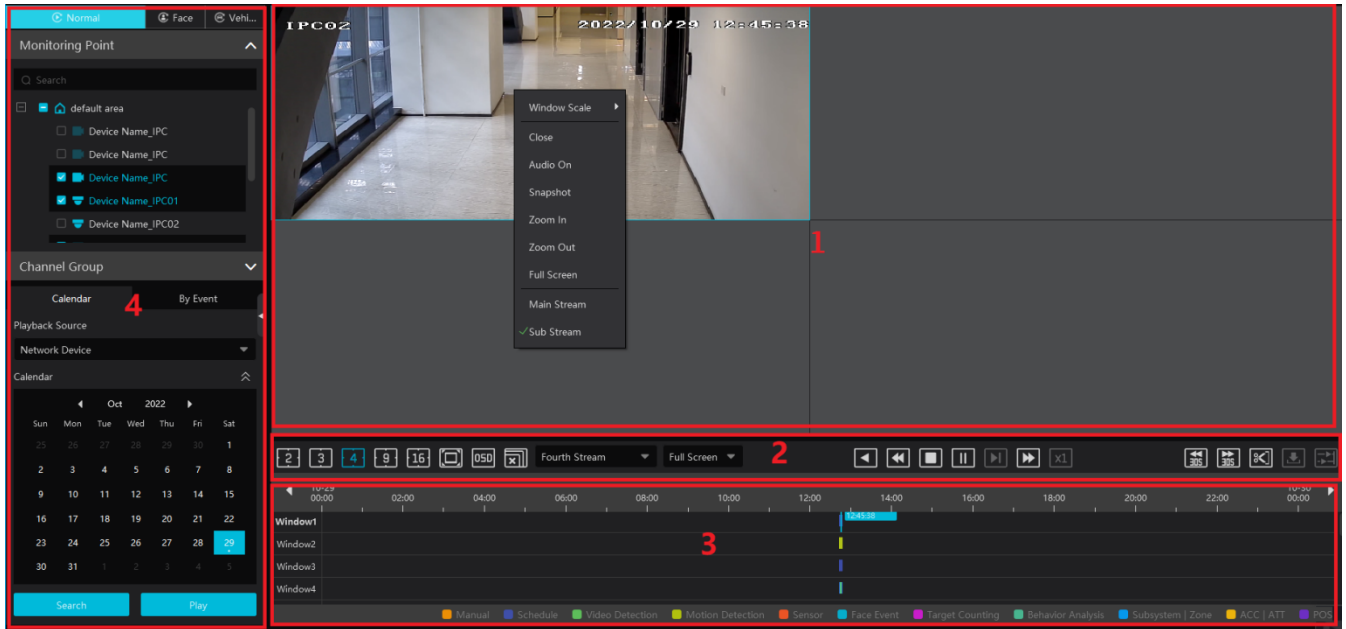


12.2 Record Playback

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.

12.2.1 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

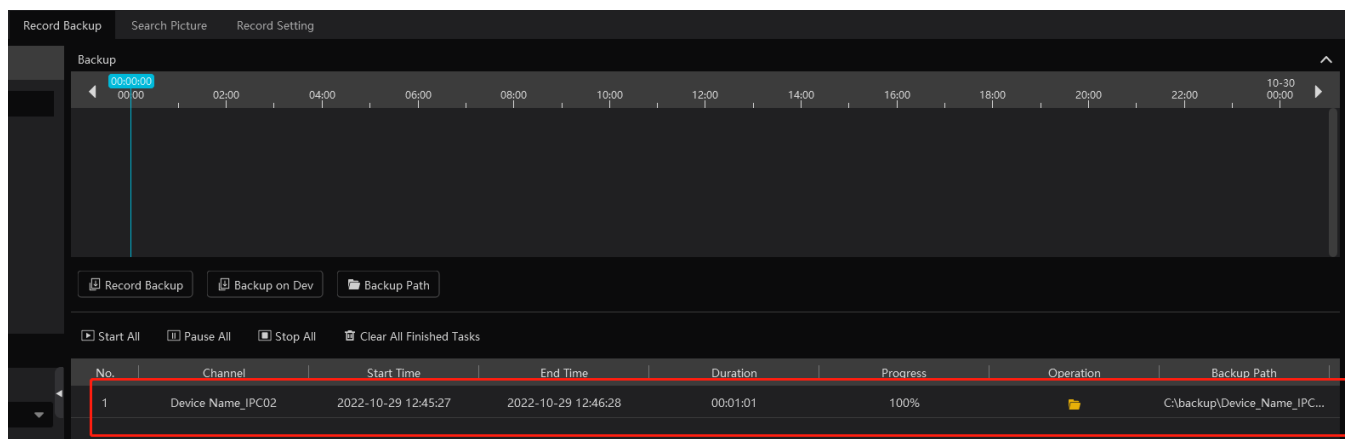
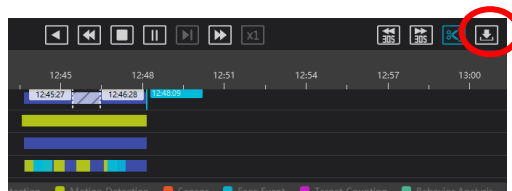
Button Descriptions of Area 2:

Button	Description
	Screen display mode button. 2/3/4/9/16 screen mode is optional.
	Full screen
	Enable or disable OSD
	Close all window viewing
	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
	Click it to edit the start time and the end time of backup
	Download
	Synchronous/ Asynchronous Playback

Clip and backup:




Click  to enter the edition status. On the recorded timescale, select the start and the end time or right click on the timescale and then select [**Change backup time**] to set the backup start time and end time. After that, click  to enter the record backup interface to view the backup file list.




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.

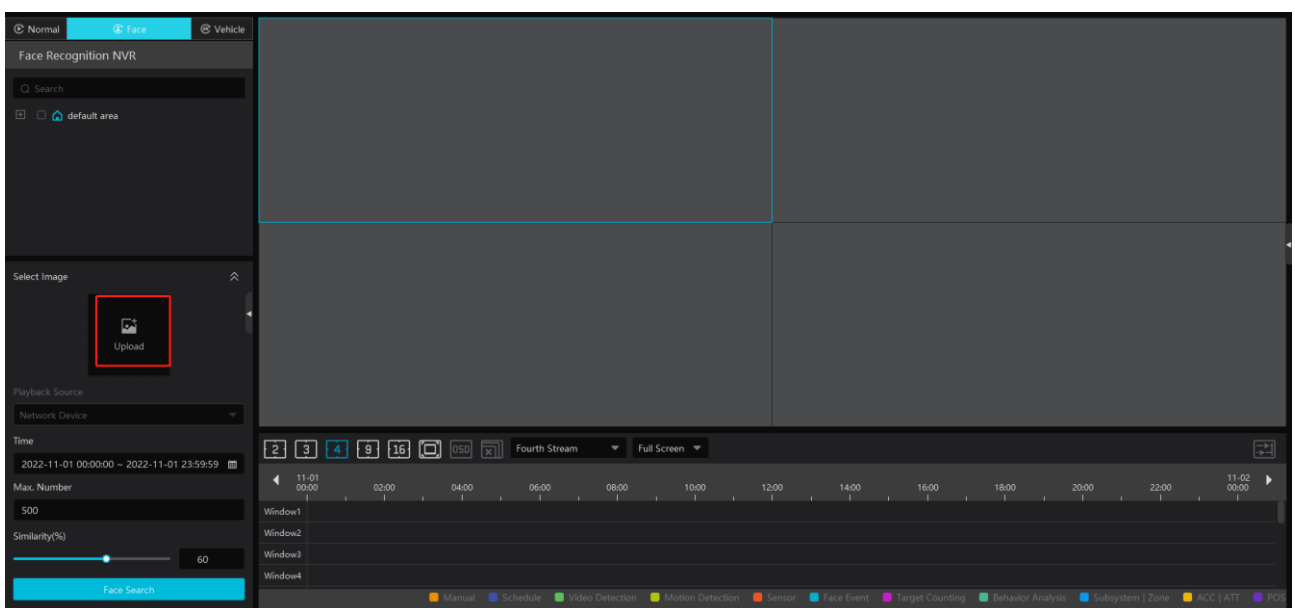
When playing record file in synchronous mode or asynchronous mode, clicking  or  will be useless unless all the playback windows are closed.



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.

12.2.2 Smart Playback by Face

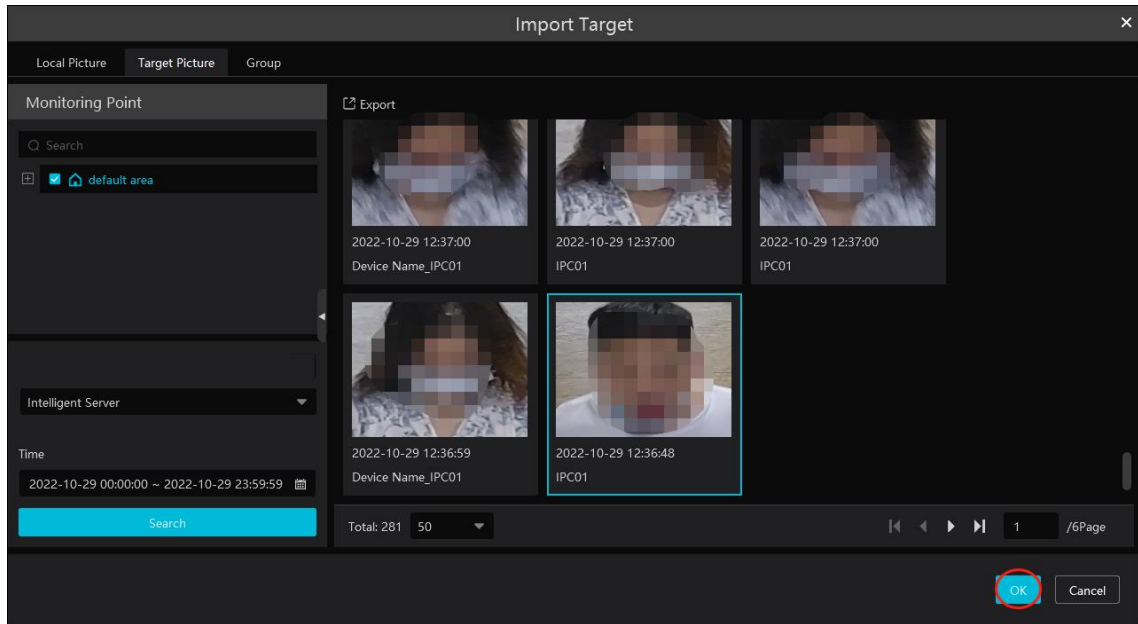
For the added face recognition NVR, you can play back by searching face.



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.

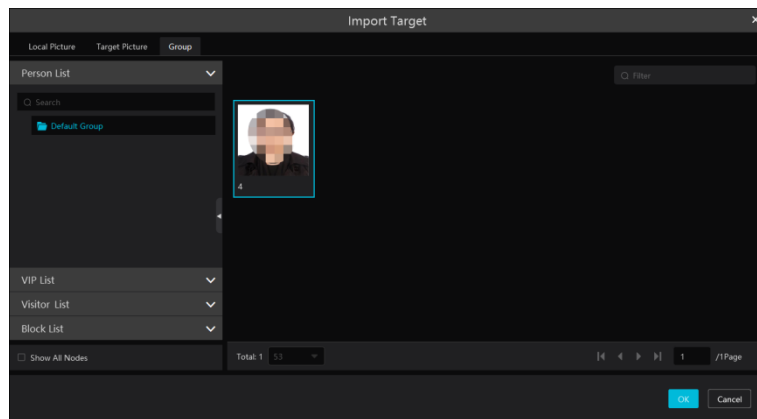
Add a face picture from the local PC: Click  to select the desired face picture in the local PC and then click [OK] to save the settings.

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



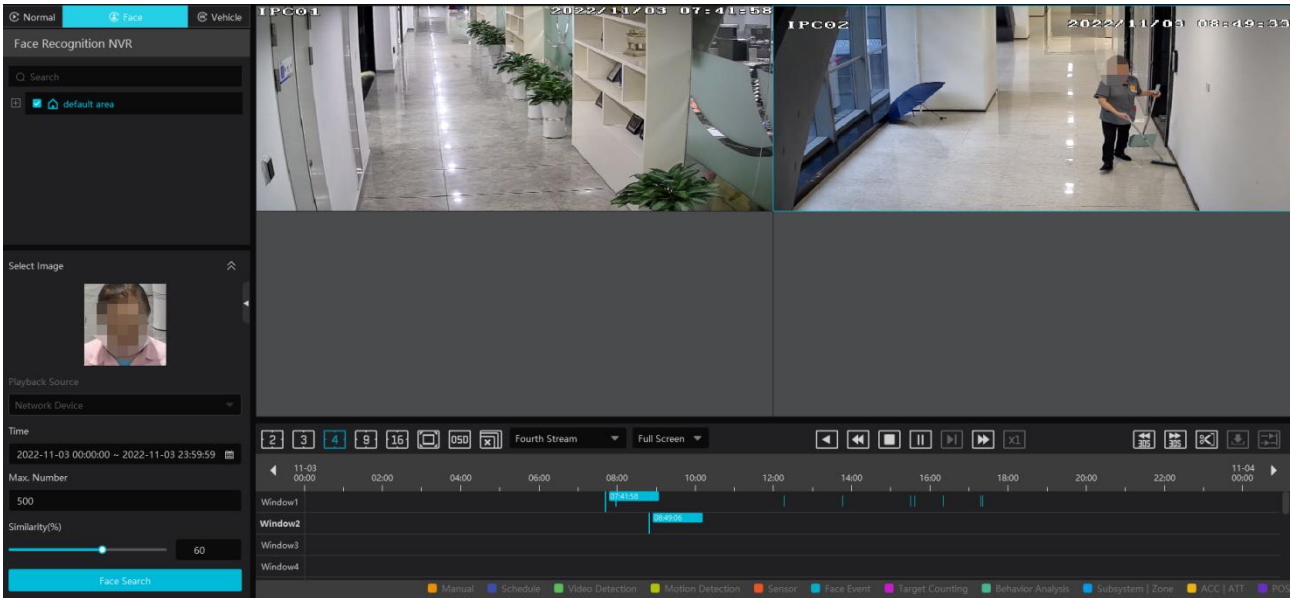
Add a face from the face database:

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.

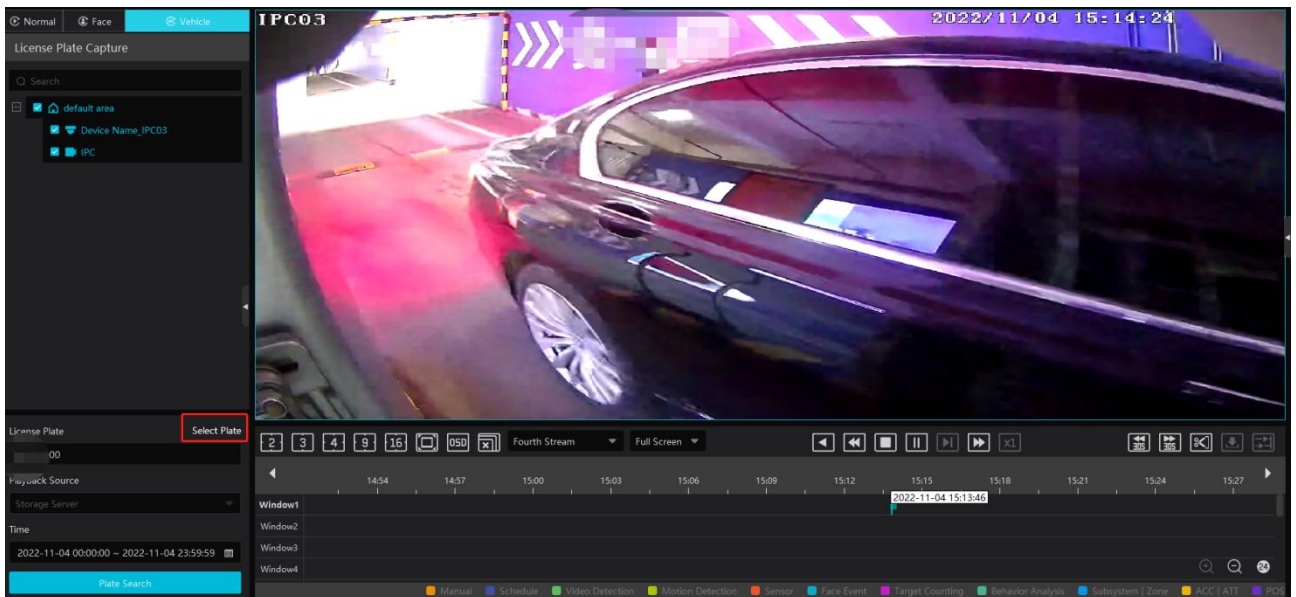
Note: The record source is from the HDD of the face recognition NVR. The comparison record of this person must exist in the HDD, or no record can be played.



12.2.3 Smart Playback by License Plate

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

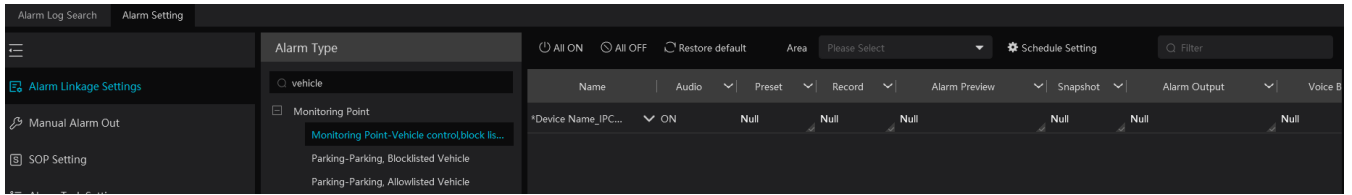
1. Select the ANPR camera or NVR.
2. Enter the license plate number or click [Select plate] to select the plate from vehicle database or license plate captured when the vehicle entering or exiting the parking lot.



Network device: 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.

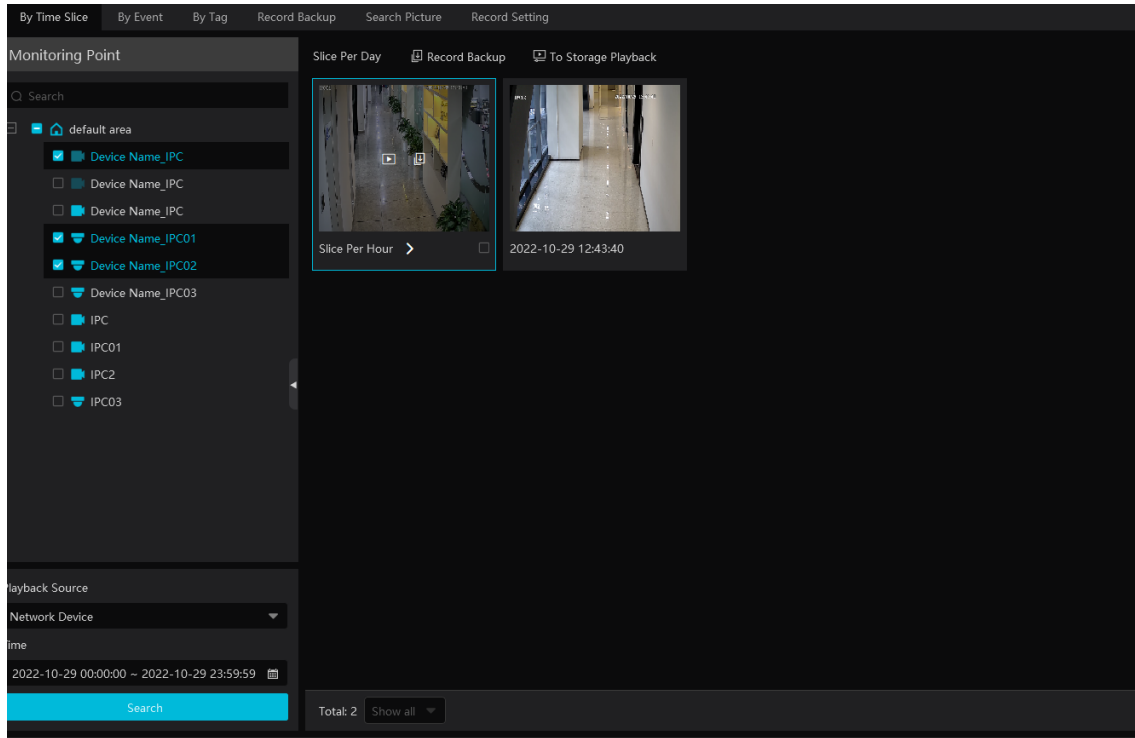
Storage Server: select the record source from the HDD of the NVR.

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

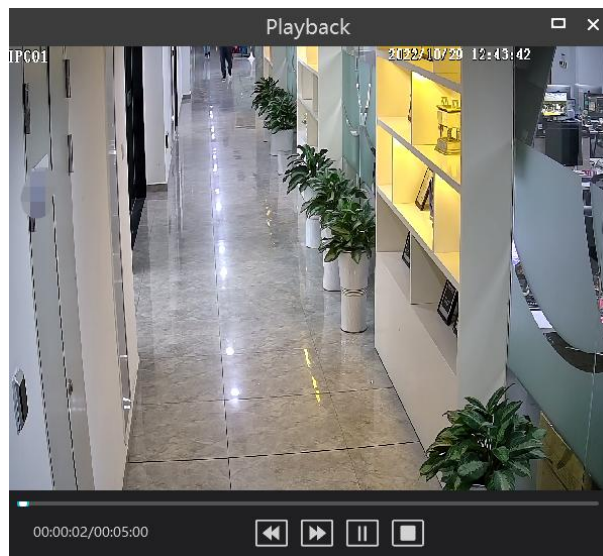



12.2.4 Playback by Time Slice

- 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.

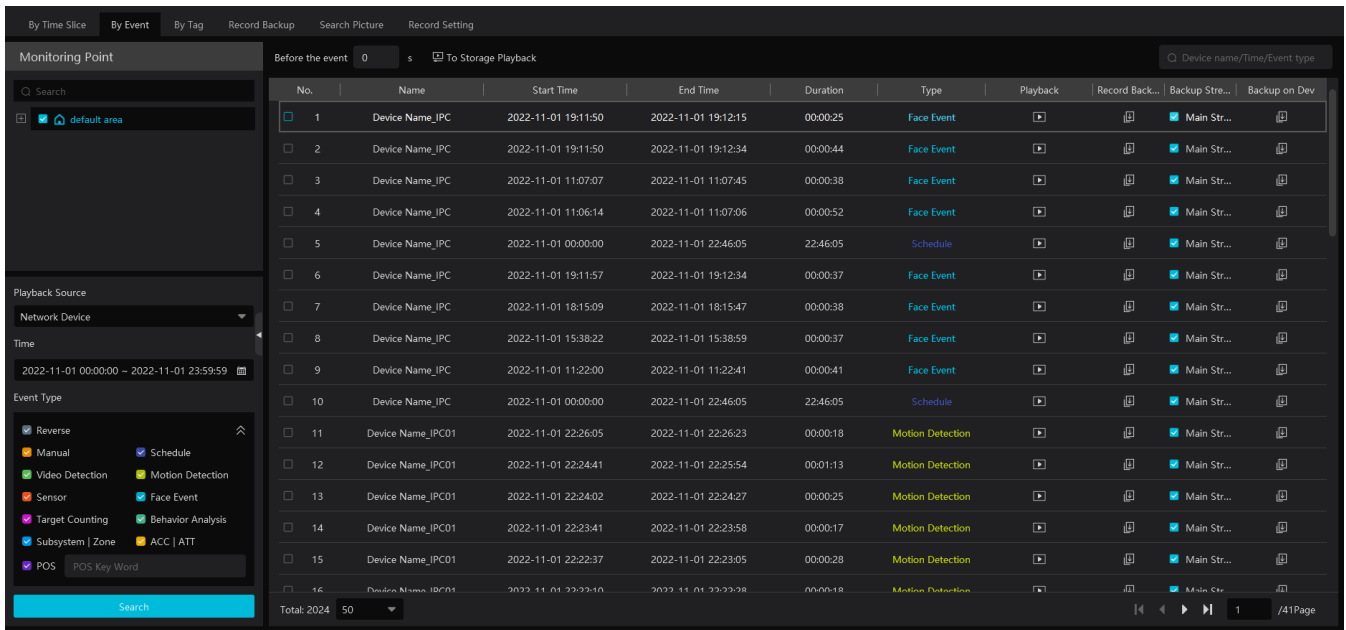
Restart searching or click “Slice Per day” to return to the slice per day interface.

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.

12.2.5 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.

12.2.6 Playback by Tag

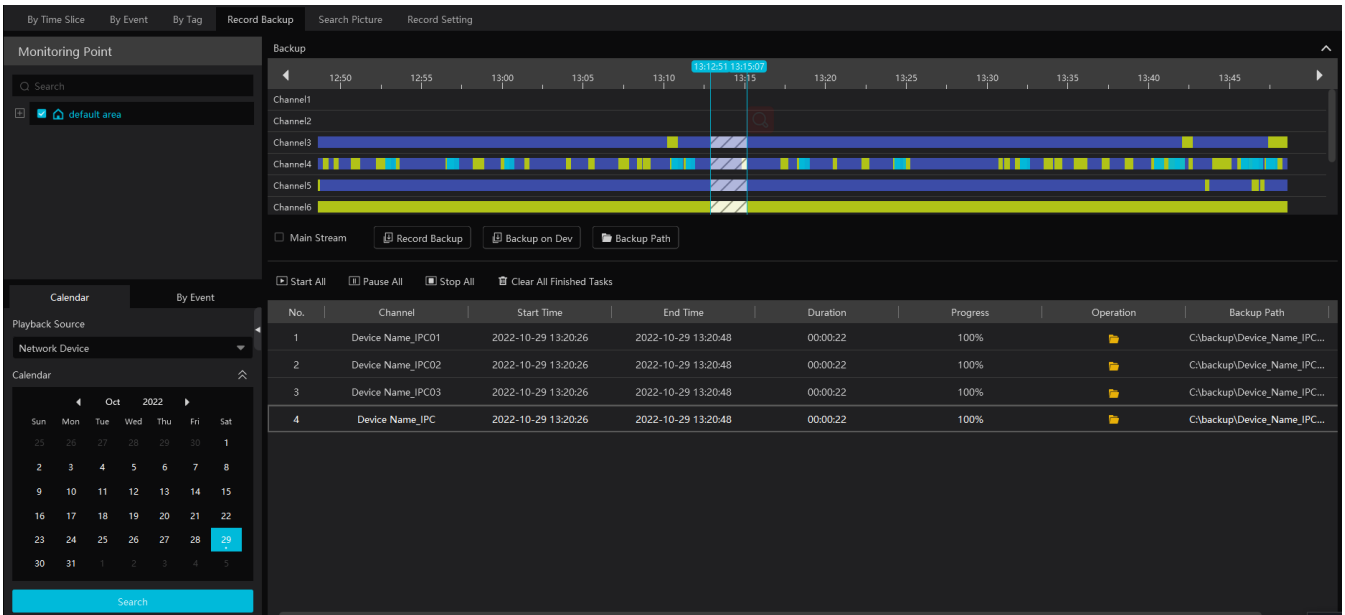
Note: The tag cannot be added to the record from the HDD of the NVR.

- 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.

12.3 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 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; Additionally, you can start/pause/stop all backup tasks or clear all finished tasks in this interface.

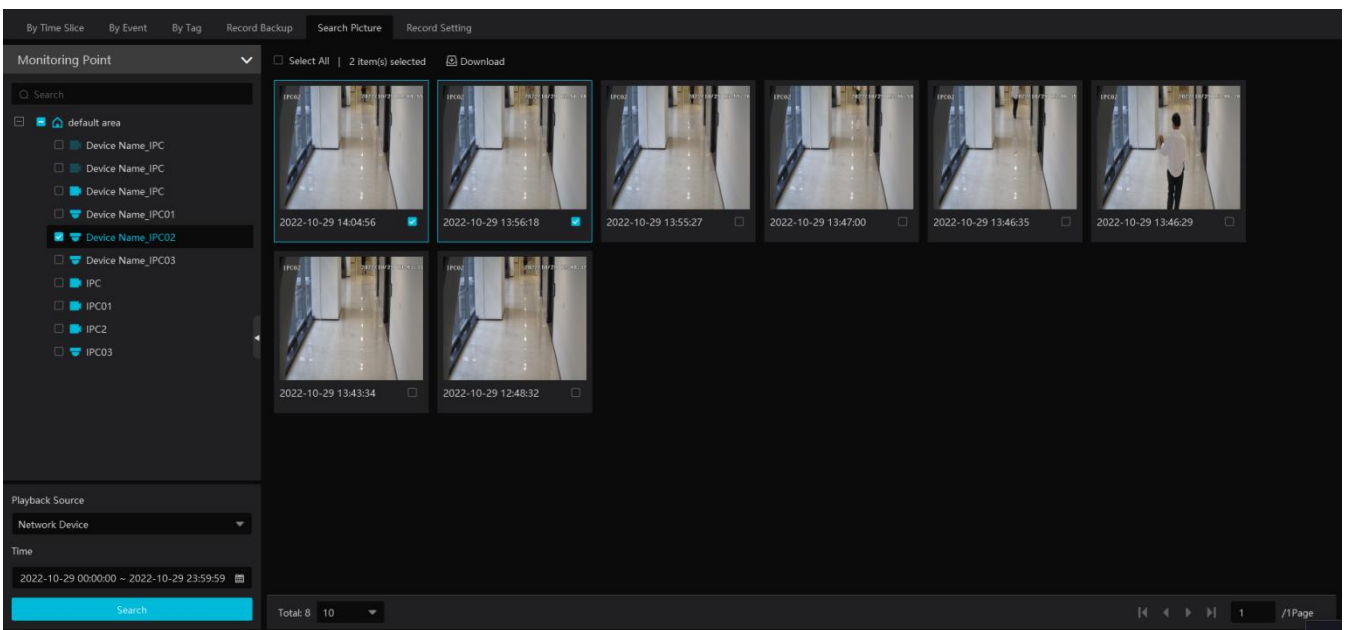


“Backup on device”: This function is applied to the added NVR devices. Search the record from the HDD of the NVR in this interface and then insert a USB storage device into the USB port of the NVR and then click this button. Then the recorded files will be backed up to the USB storage device remotely.

12.4 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]

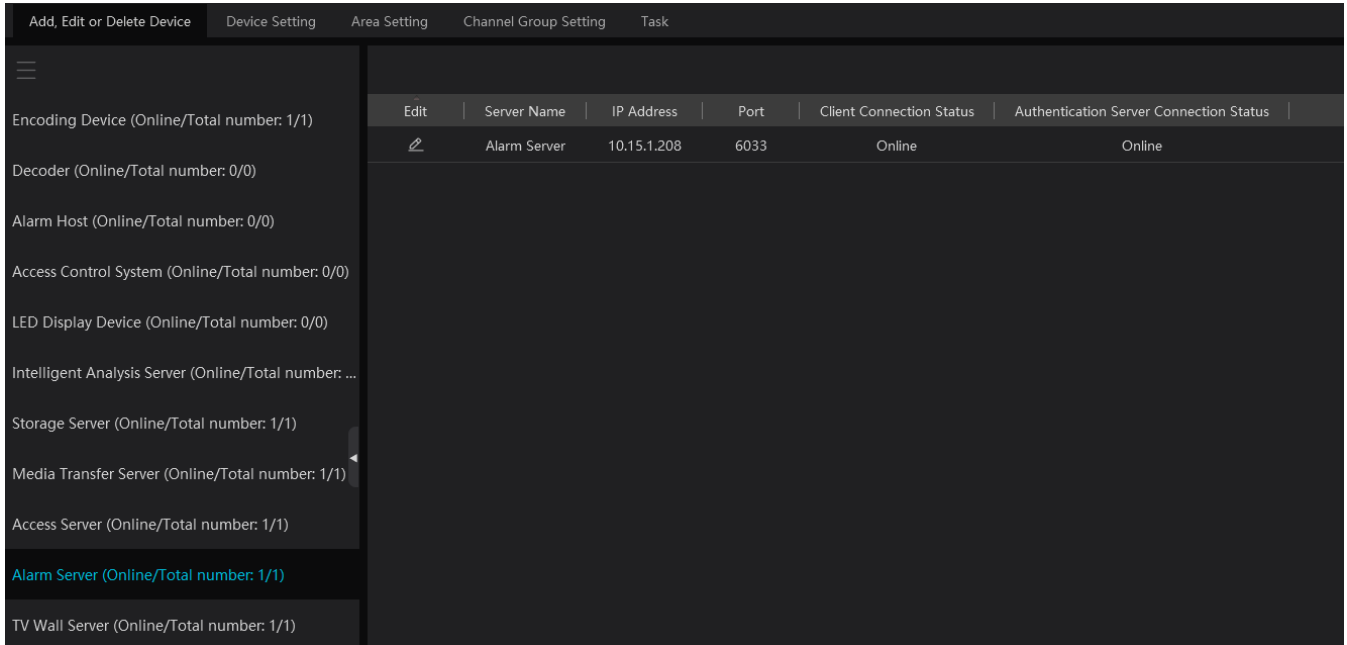
Click the searched picture to zoom in. Click it again to return to its original size. Check the selected picture and click “Download” to export the selected pictures.

13 Alarm Management

13.1 Alarm Server Configuration

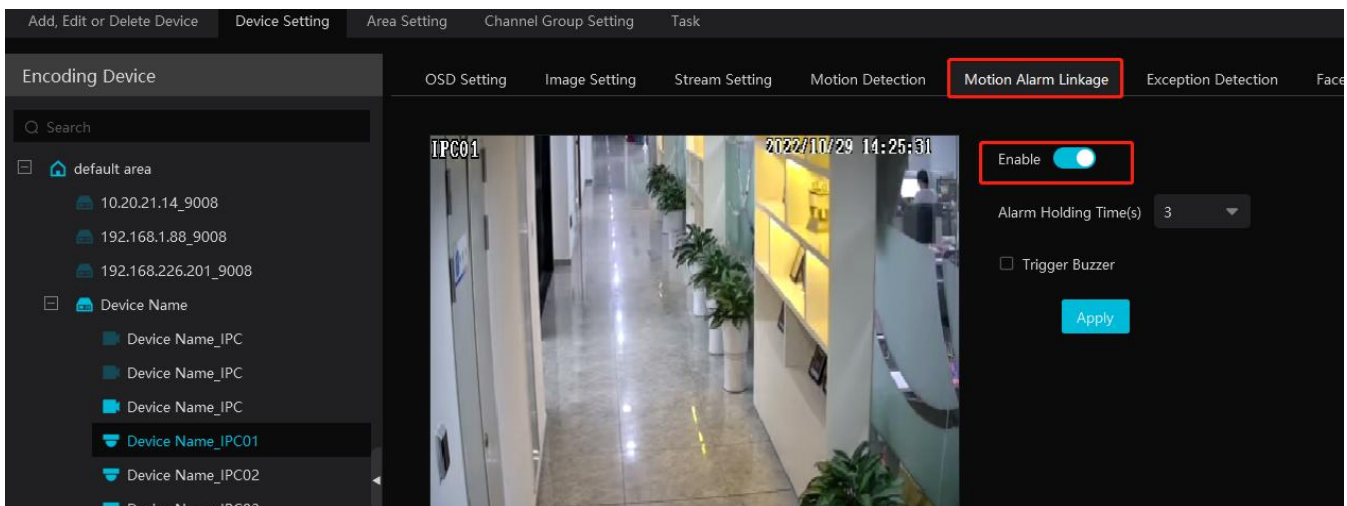
Alarm server is in charge of receiving and recording alarm information of connected devices and then sending the alarm information to the relevant user terminal system or devices in accordance with prior alarm settings. There is a default alarm server.

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.



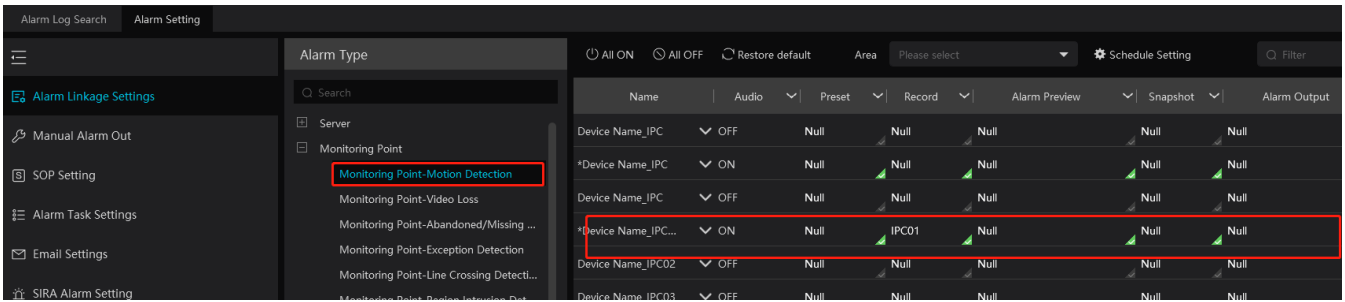
13.2 Alarm Configuration

① Go to Home→Device Setting interface.



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


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




Select area, alarm type and then enable alarm linkages.

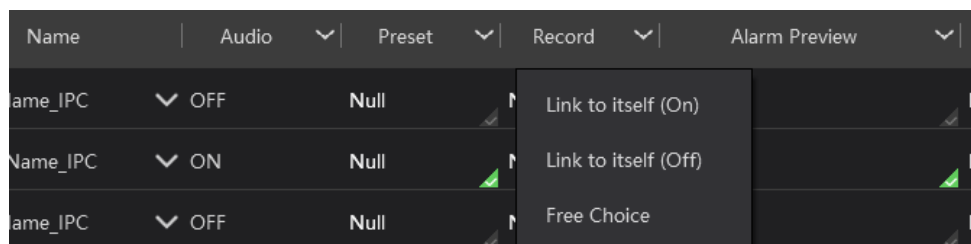
All ON: enable all alarm linkages of the current alarm type and area (schedule excluded).

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

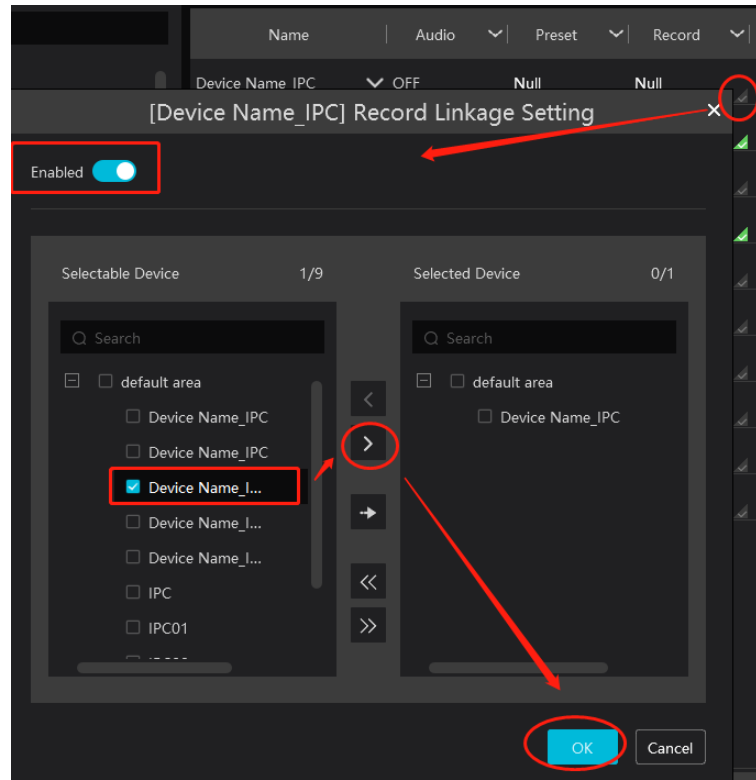
Select  beside the device name and select "ON" to enable all alarm linkages of the device (schedule excluded).







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



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).

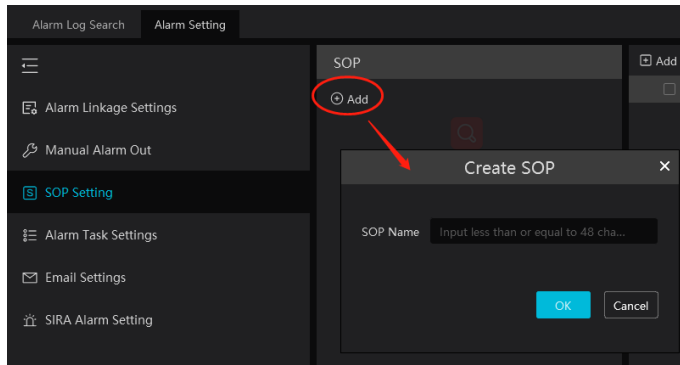
Note: 1. For the alarm linkage items related to face recognition, you can set them separately, including face comparison alarm linkage, stranger alarm linkage, block list alarm linkage, visitor alarm linkage and VIP alarm linkage.

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”.

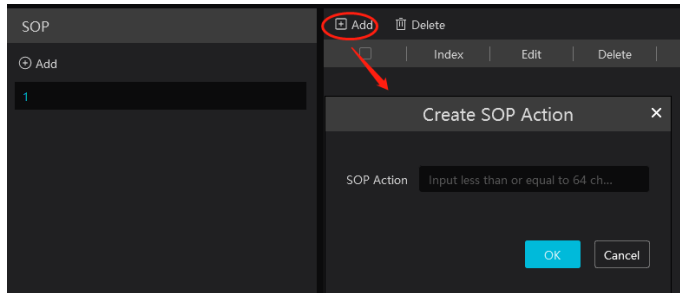
13.3 SOP Settings

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

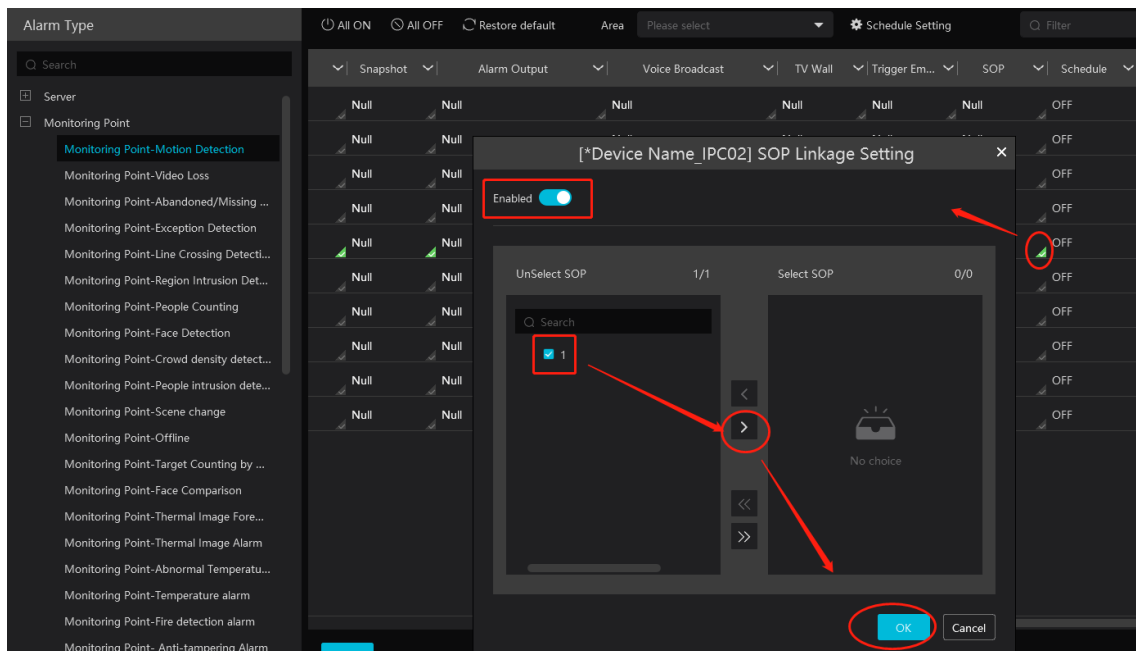
1. Click  Add to add a SOP name.



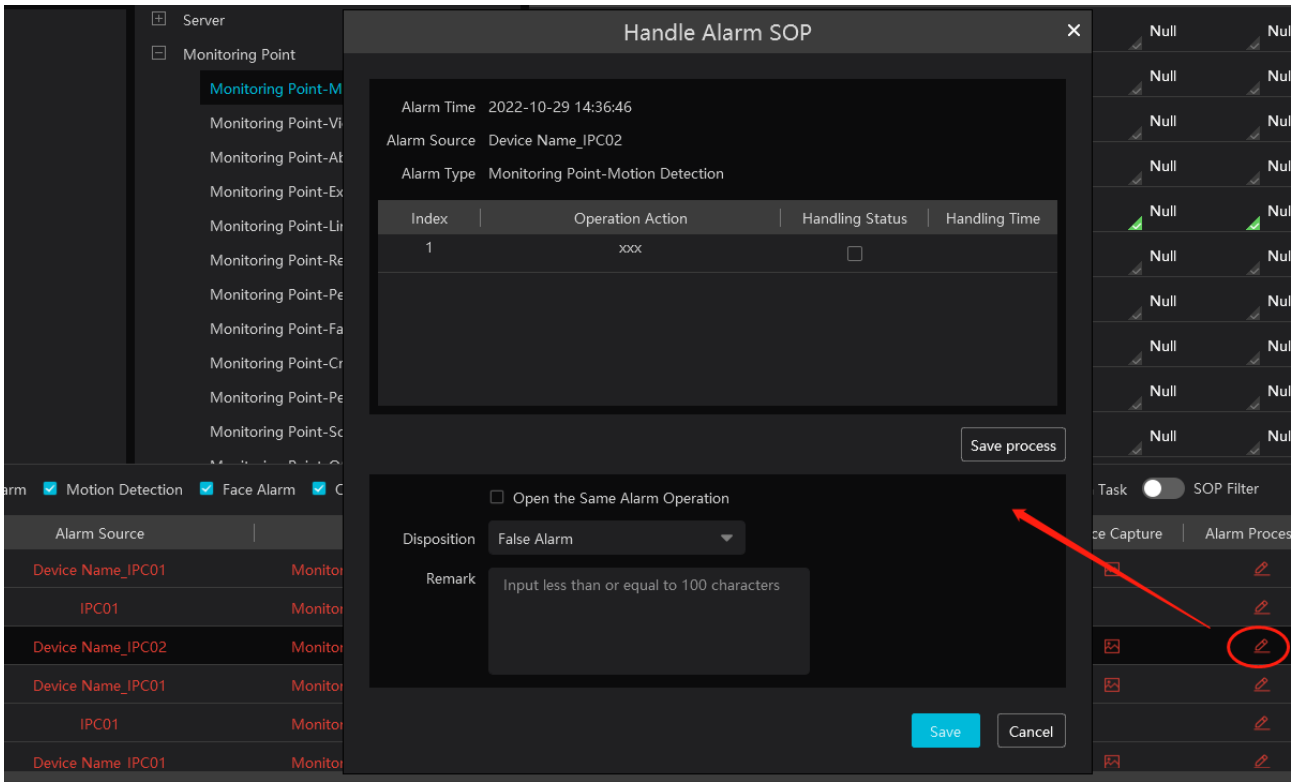
2. Click **Add** to create a SOP action.



3. In the alarm linkage settings interface, select the alarm event and enable SOP of the relevant device.



4. Click **99+** to extend the alarm list.
5. Click **[Pencil icon]** 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.

2022-10-29 14:38:40	Device Name_IPC01	Monitoring Point-Motion Detection	⊙	🗑️	
2022-10-29 14:38:40	IPC01	Monitoring Point-Motion Detection	⊙	🗑️	
2022-10-29 14:36:46	Device Name_IPC02	Monitoring Point-Motion Detection	⊙	🗑️	Processed False Alarm
2022-10-29 14:36:31	Device Name_IPC01	Monitoring Point-Motion Detection	⊙	🗑️	
2022-10-29 14:36:31	IPC01	Monitoring Point-Motion Detection	⊙	🗑️	

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.

2022-10-29 14:38:40	IPC01	Monitoring Point-Motion Detection	⊙	🗑️	
2022-10-29 14:36:46	Device Name_IPC02	Monitoring Point-Motion Detection	⊙	🗑️	Processed False Alarm
2022-10-29 14:36:31	Device Name_IPC01	Monitoring Point-Motion Detection	⊙	🗑️	Alarm Preview
2022-10-29 14:36:31	IPC01	Monitoring Point-Motion Detection	⊙	🗑️	

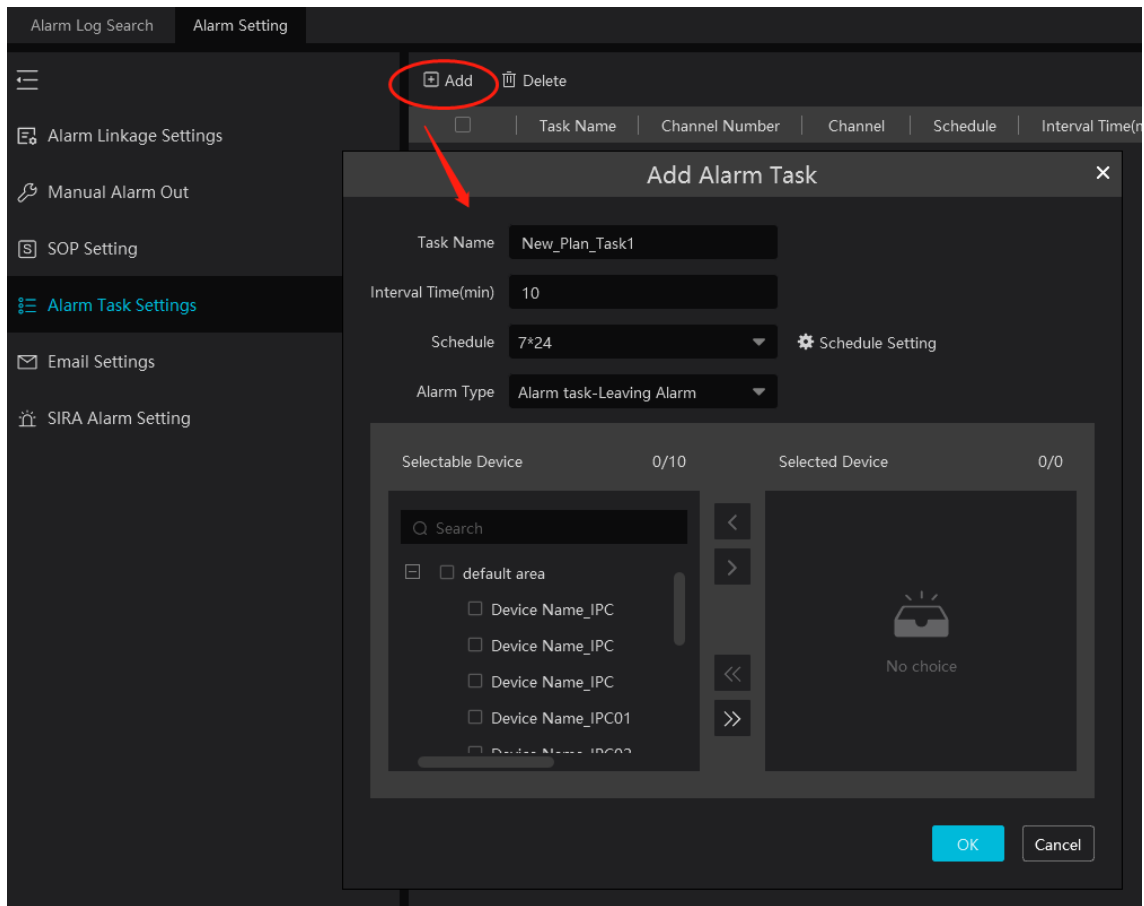
13.4 Alarm Task Settings

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

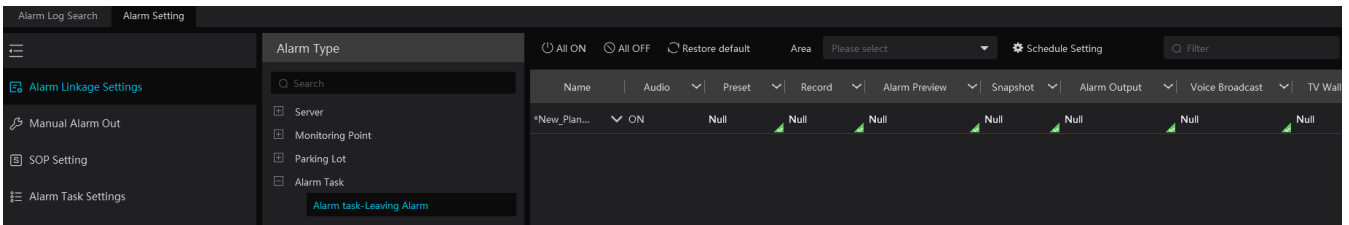
Leaving alarm: When someone leaves the predefined area and doesn’t come back within the set time duration, the system will perform alarm linkages.

To set a leaving alarm task:

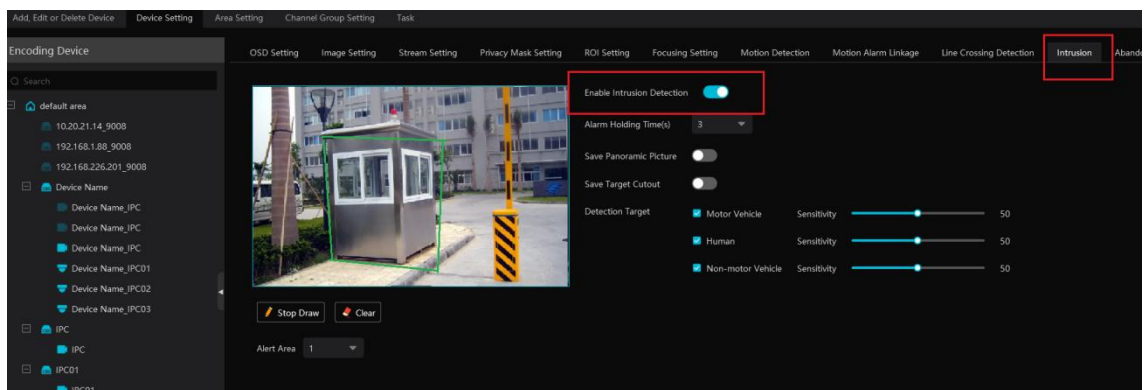
1. Enter the Alarm Task Setting interface.
2. Click [Add] to add the alarm task.
Set the task name, interval time, schedule and choose the camera.
Multiple cameras can be added to an alarm task.



- 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.



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



Note:

- 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.

- 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.

13.5 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.

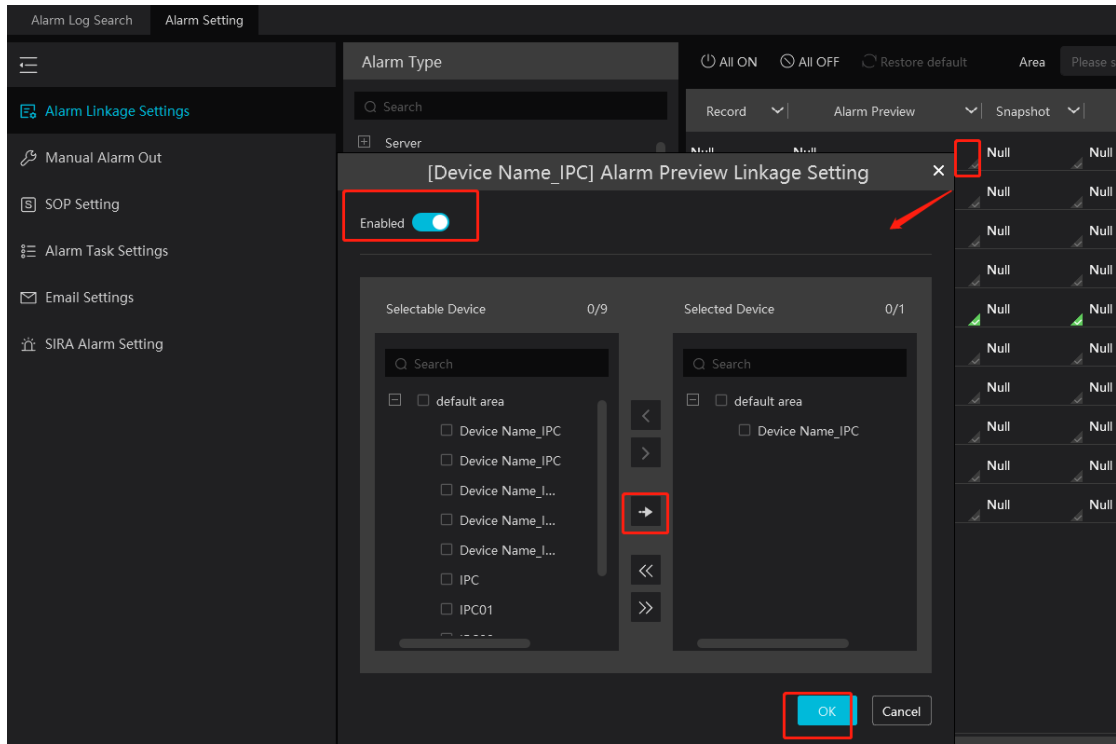
Clicking on the [Add] button adds the recipient information.

After that, in the alarm linkage setting interface, you can trigger Email.

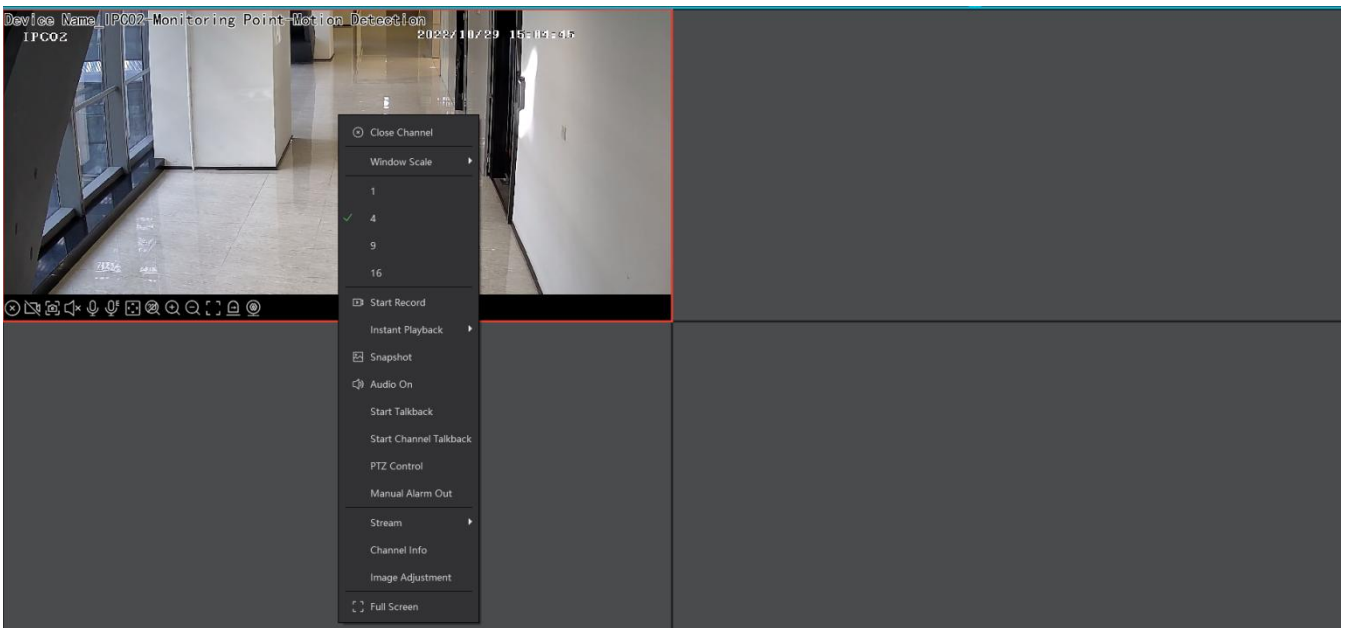
Snapshot	Alarm Output	Voice Broadcast	TV Wall	Trigger Em...	SOP
Null	Null	Null	Null	Null	Null
Null	Null	Null	Null	Null	Null
Null	Null	Null	Null	Null	Null


13.6 Alarm View



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



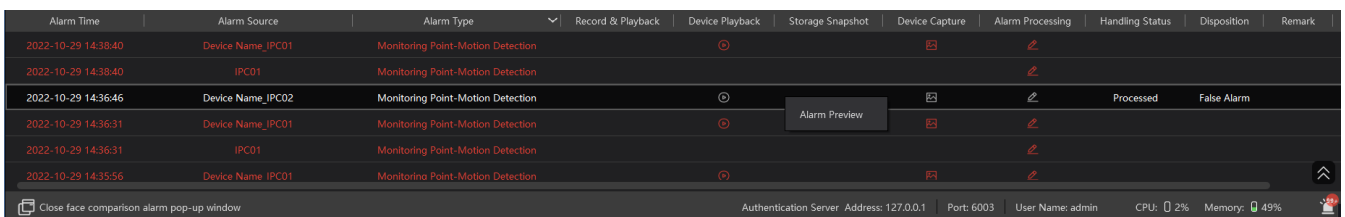
In the alarm preview interface, you can select multi-screen display mode by right clicking on the preview window as shown below.



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.

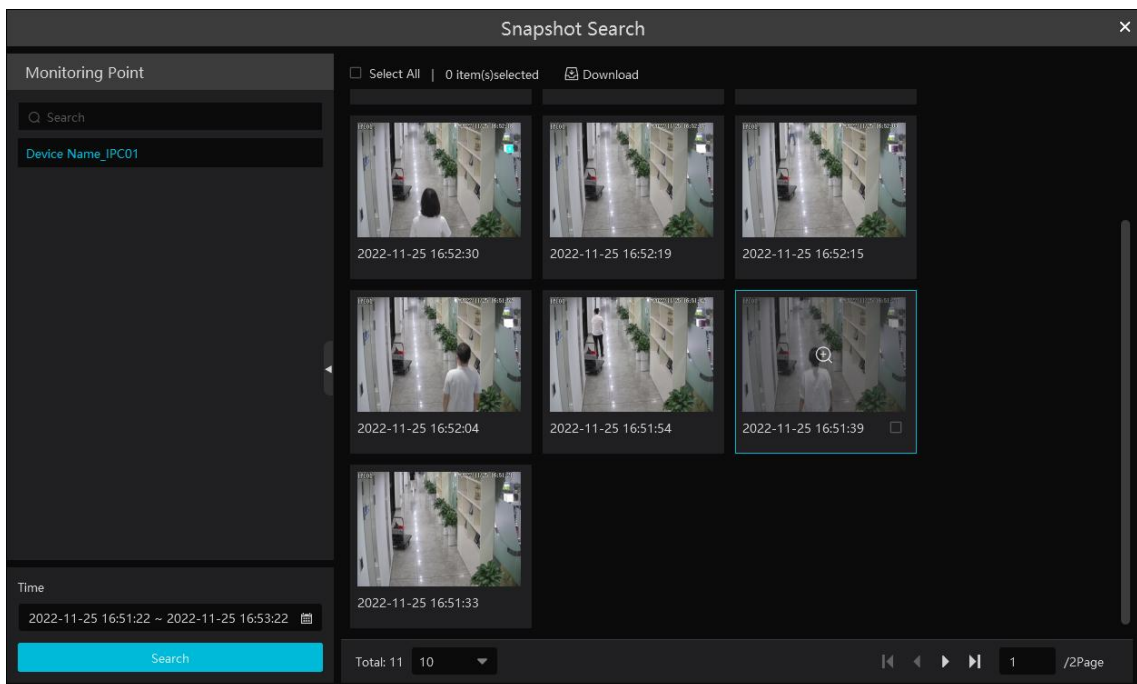
Right clicking on an alarm item displays a menu as shown below. Click “Alarm Preview” to jump to the alarm preview interface.



13.7 Alarm Log

No.	Alarm Time	Alarm Source	Alarm Type	Details	Record & Playback	Device Playback	Storage Snapshot	Device Capture	Alarm Processing
1	2022-11-25 16:52:22	Device Name_IPC01	Monitoring P...						
2	2022-11-25 16:52:17	Device Name_IPC01	Monitoring P...						
3	2022-11-25 16:52:09	Device Name_IPC01	Monitoring P...						
4	2022-11-25 16:52:02	Device Name_IPC01	Monitoring P...						
5	2022-11-25 16:52:02	Device Name_IPC01	Monitoring P...						
6	2022-11-25 16:52:00	Device Name_IPC01	Monitoring P...						
7	2022-11-25 16:51:58	Device Name_IPC03	Monitoring P...						
8	2022-11-25 16:51:49	Device Name_IPC01	Monitoring P...						
9	2022-11-25 16:51:45	Device Name_IPC01	Monitoring P...						
10	2022-11-25 16:51:34	Device Name_IPC01	Monitoring P...						
11	2022-11-25 16:51:24	Device Name_IPC01	Monitoring P...						
12	2022-11-25 16:51:10	Device Name_IPC01	Monitoring P...						
13	2022-11-25 16:51:04	Device Name_IPC01	Monitoring P...						
14	2022-11-25 16:50:48	Device Name_IPC01	Monitoring P...						
15	2022-11-25 16:50:42	Device Name_IPC01	Monitoring P...						
16	2022-11-25 16:50:37	Device Name_IPC03	Monitoring P...						
17	2022-11-25 16:50:23	Device Name_IPC01	Monitoring P...						

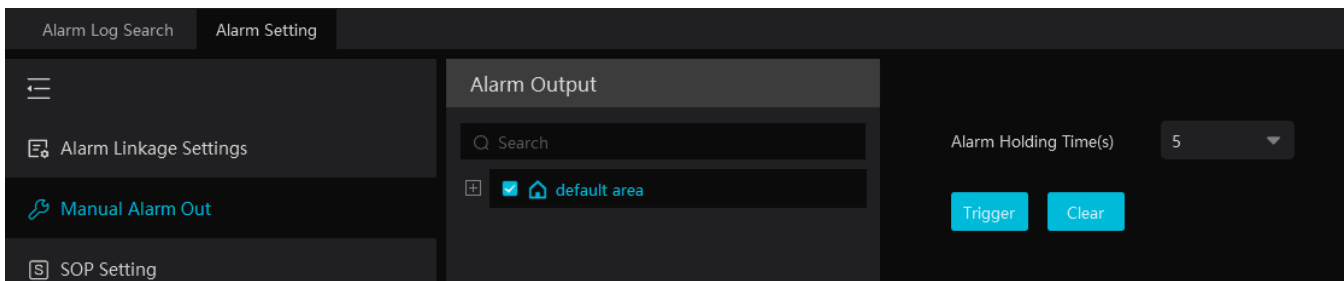
Click  to play the record; click  to open the snapshot search window as shown below.



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

13.8 Manual Alarm Out

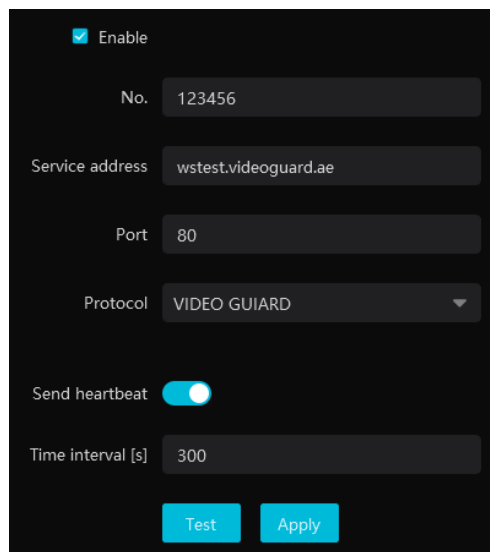
Click “Manual Alarm Out” tab to go to the following interface.



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.

13.9 SIRA Alarm Settings

You can connect the Web Service of SIRA via the alarm server of the platform. After it is connected, the data of the alarm server, including video loss, network disconnection, disk full, disk error, online/offline information of the storage server, will be sent to the web service.

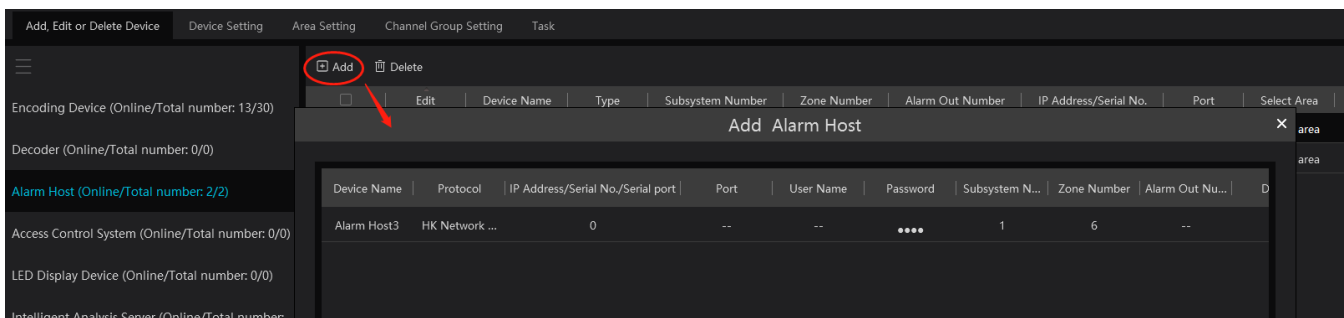


Please fill out the above information according to the corresponding information of the Web Service. After it is tested successfully, click “Apply” to save the settings.

13.10 Anti-theft Alarm System

13.10.1 Add Alarm Host

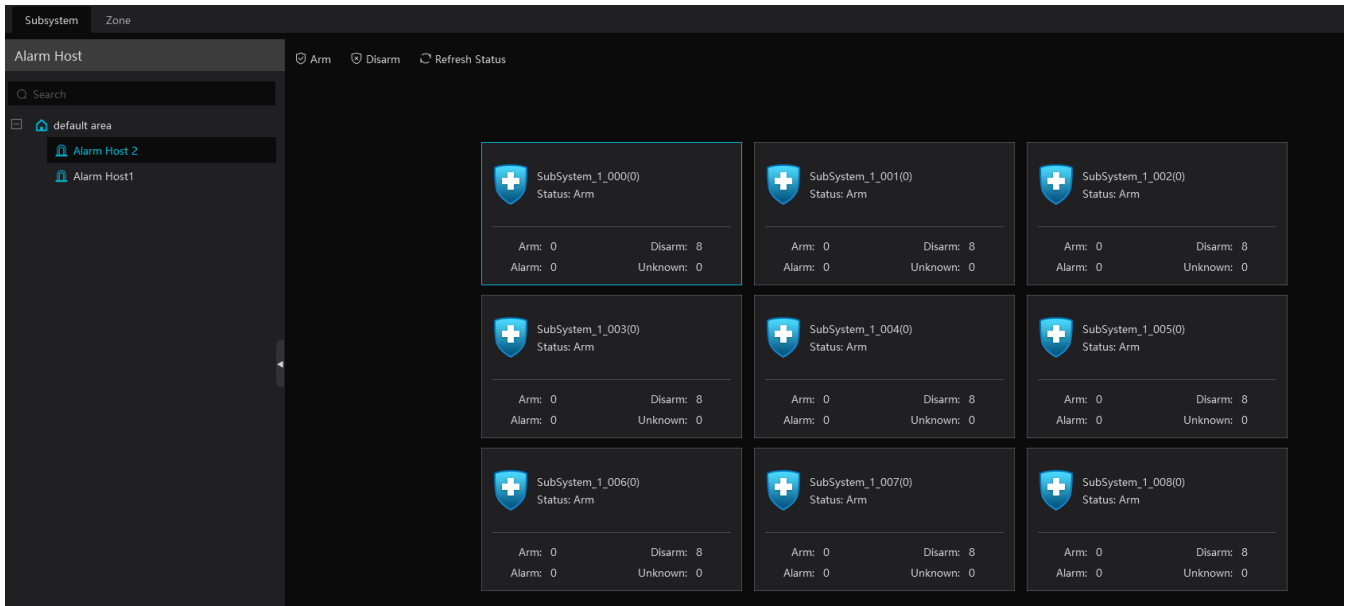
Go to Home→Add, Edit or Delete Device→Alarm Host interface. Click [Add] to prompt the following interface.



Please add the host name, serial number, port, username, password, subsystem number, zone number, area and access server. Then click [OK] to save the settings.

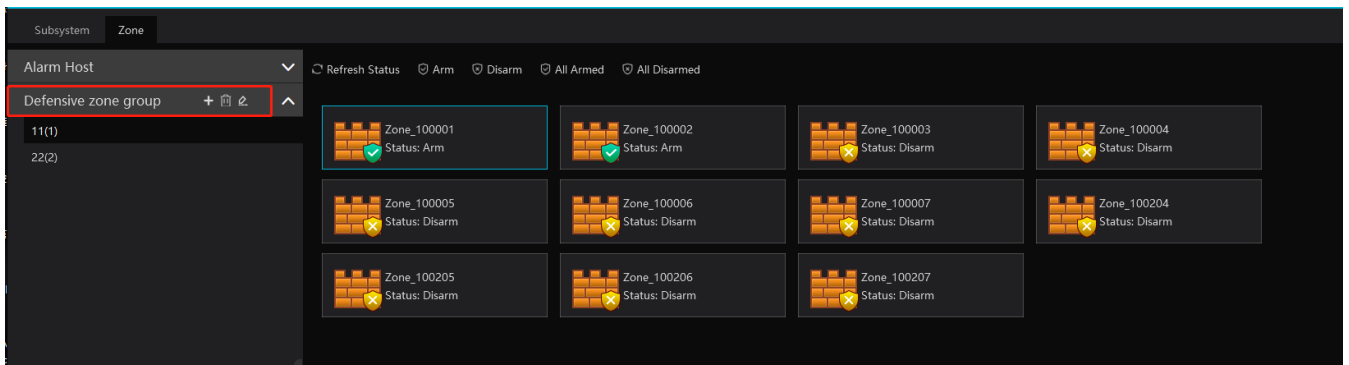
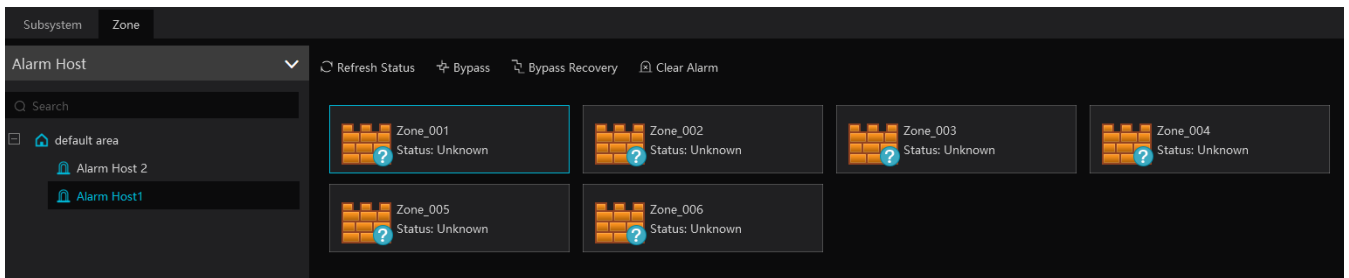
13.10.2 Subsystem Setting

Go to Home→Anti-theft Alarm→Subsystem interface as shown below. “Arm”, “Disarm”, “Clear Alarm” or “Refresh Status” can be operated in this interface.



13.10.3 Zone

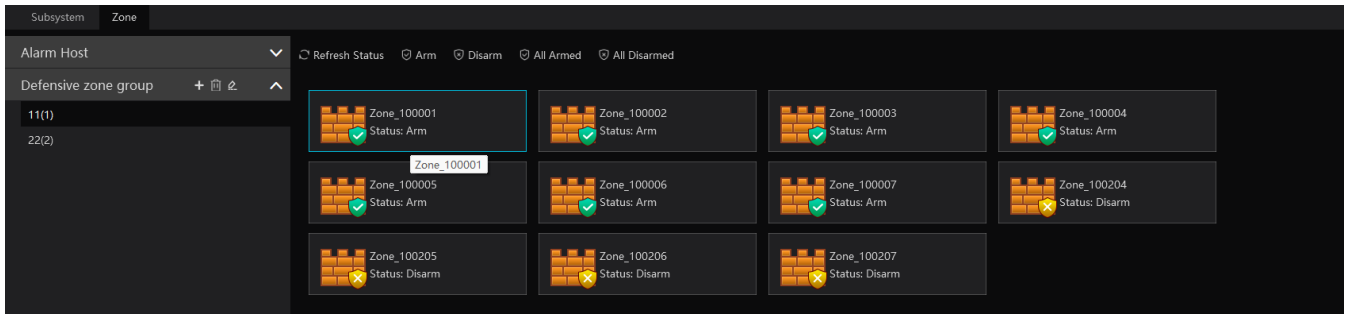
Go to Home→Anti-theft Alarm→Zone. “Arm”, Disarm” and “Refresh Status” can be set up in this interface.



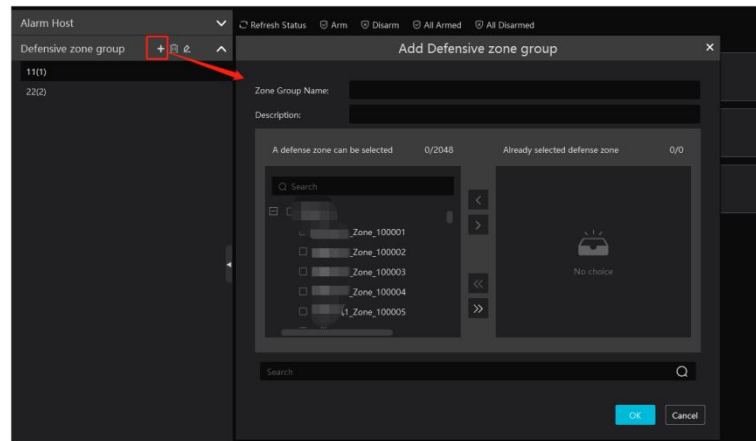
13.10.4 Zone Group

Go to Home→Anti-theft Alarm→Defensive Zone Group interface as shown below.

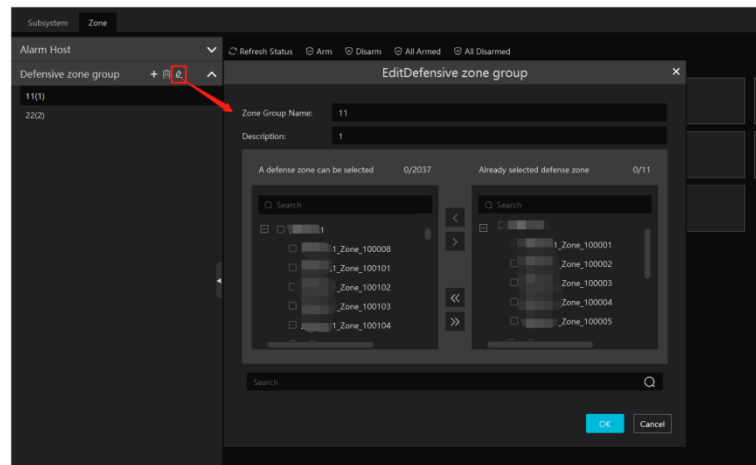
“Arm”, “Disarm”, “All Alarmed”, “All Disarmed” and “Refresh Status” can be set up in this interface.



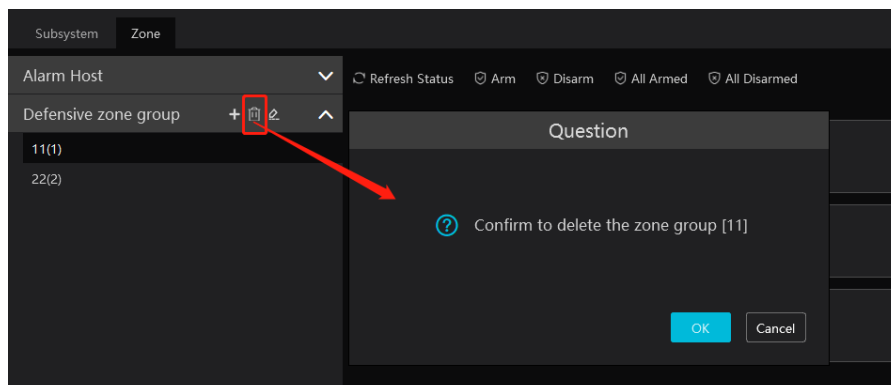
Add Zone Group:



Modify Zone Group:



Delete Zone Group:



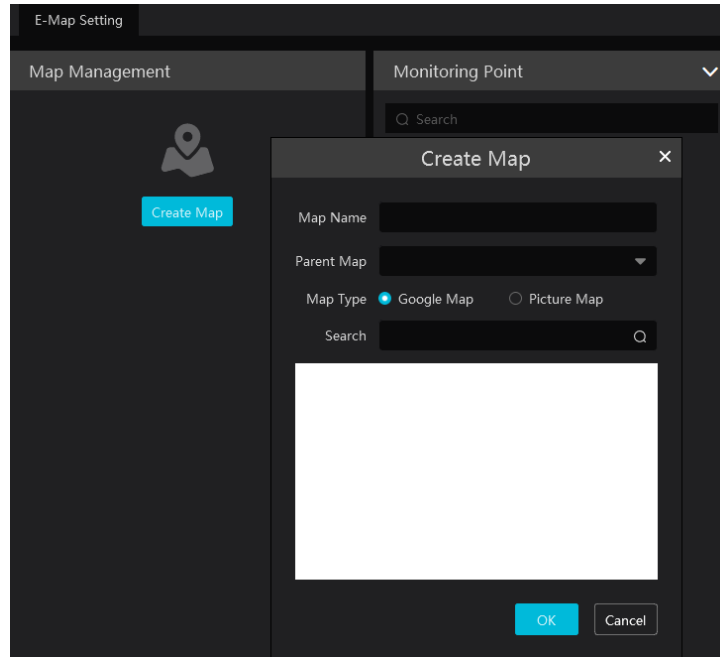
14 E-Map

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.

14.1 E-Map Settings

14.1.1 Create E-Map

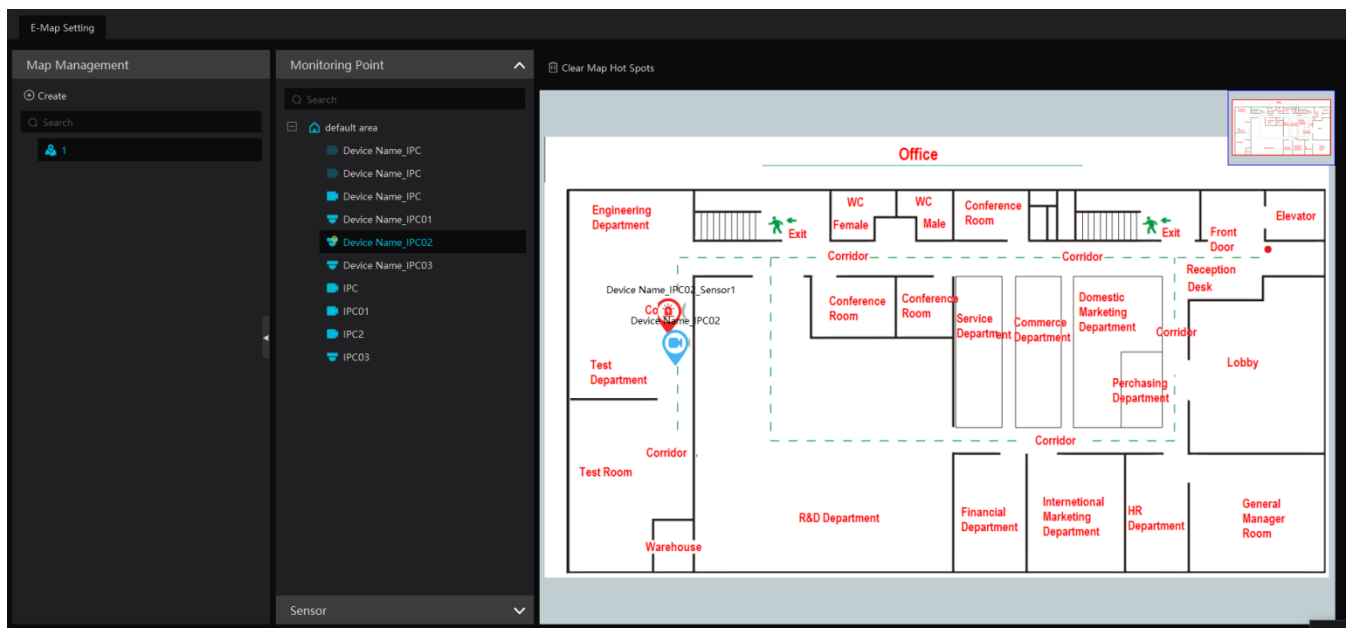
Go to Home→E-Map Setting interface. Click [Create Map] to create a map.



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

14.1.2 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.

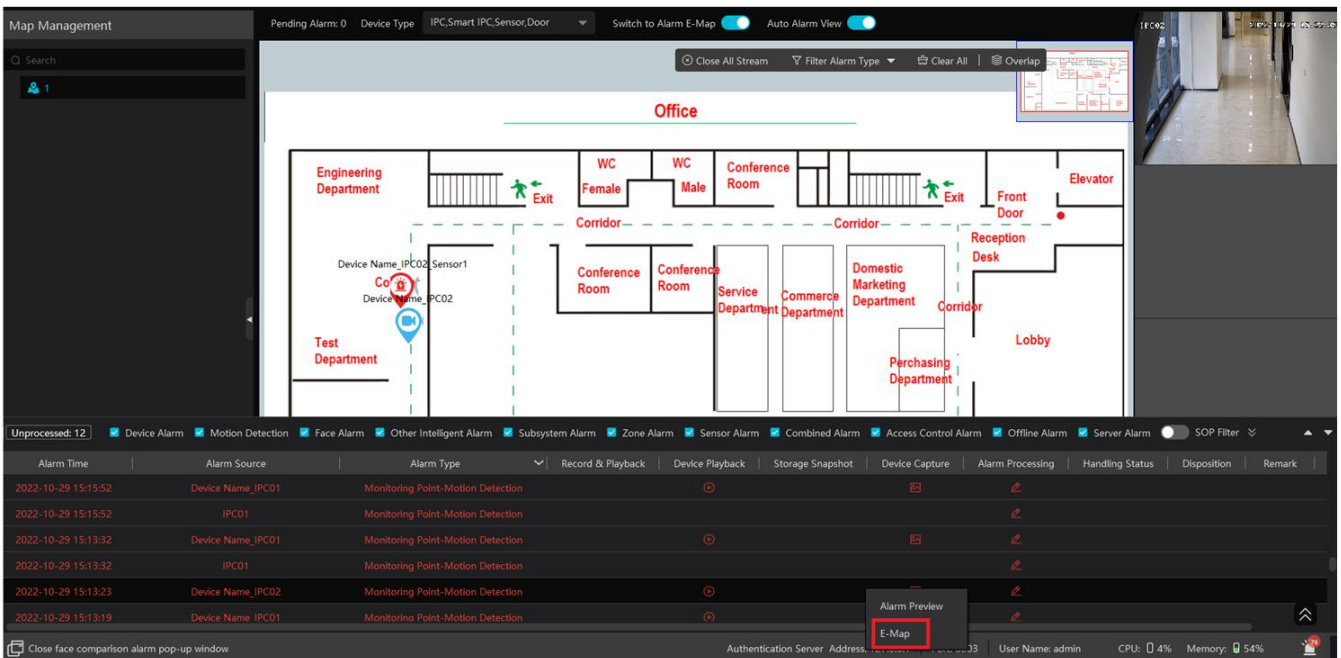
Select [Delete Map] to delete the added map.

Put the cursor on the map name and then some icons will appear. Click  to add its sub map. Click  to modify the map name and change its parent map.



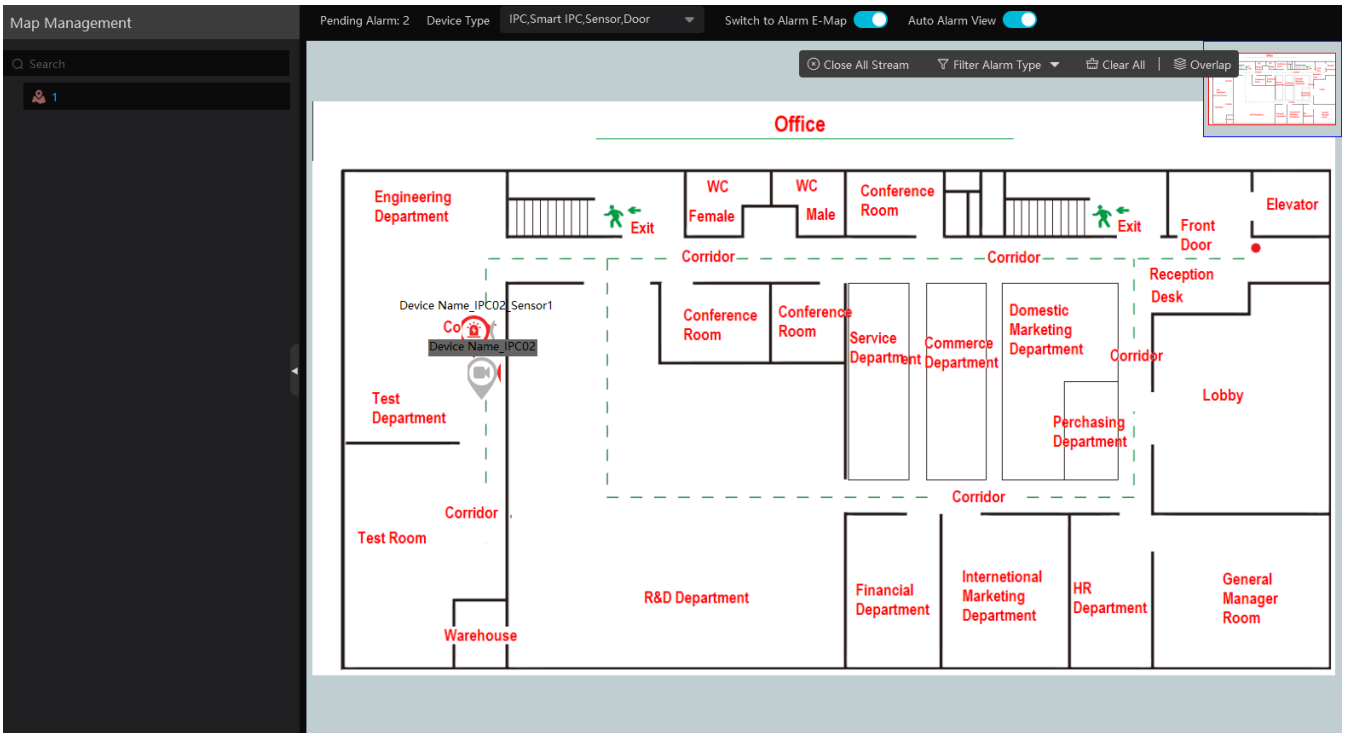
Click  to delete the added map.

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.




14.1.3 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.



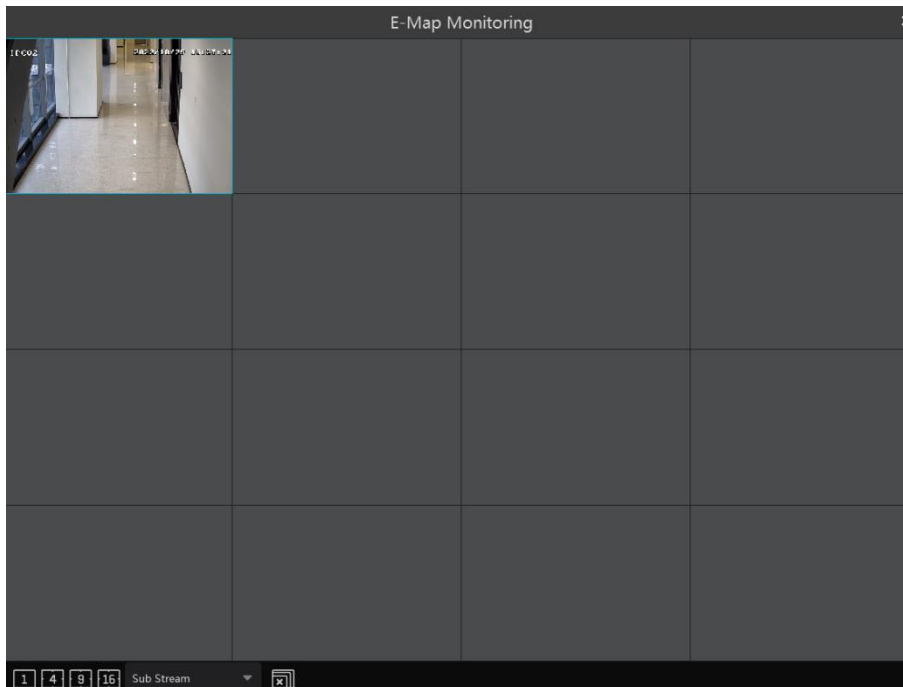
Switch to Alarm EMap: if enabled, tem will automatically switch to the E-map on which the alarm occurs.

Auto Alarm View: if enabled, 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”.

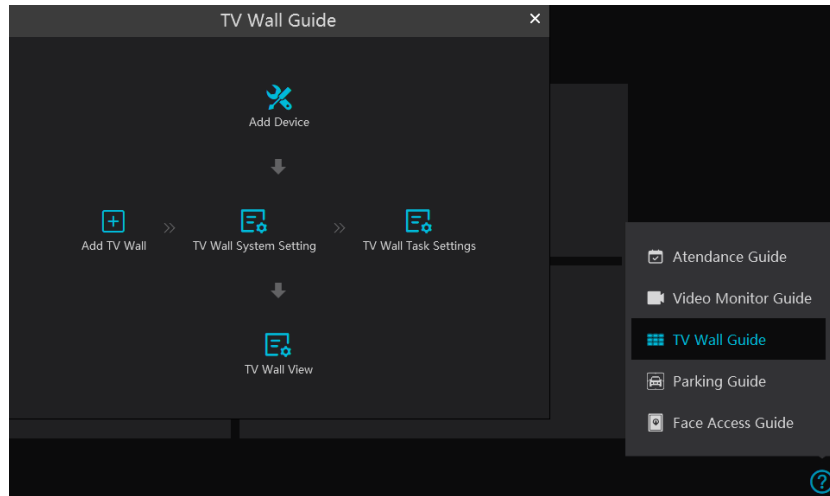
In addition, click [Filter Alarm Type] to filter the alarm type.

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.



15 TV Wall

Click  at the bottom right corner and then select “TV Wall Guide” to quickly set the TV Wall as shown below.

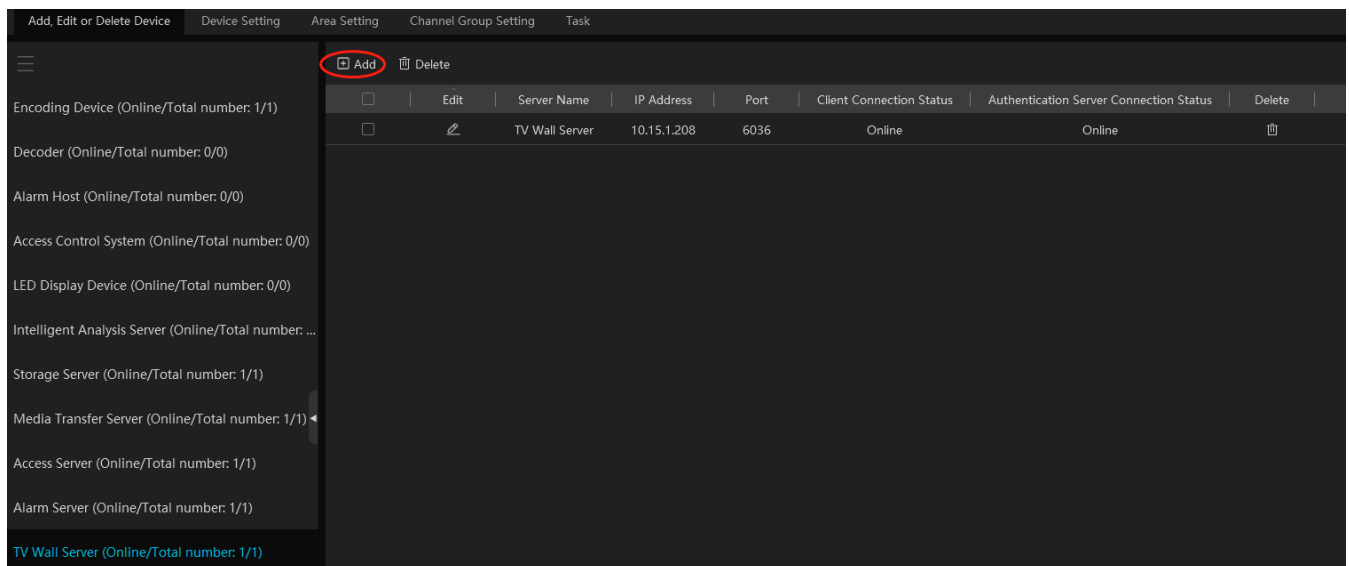


Please follow the guide in sequence to quickly set the TV Wall.

15.1 Add Devices

15.1.1 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.

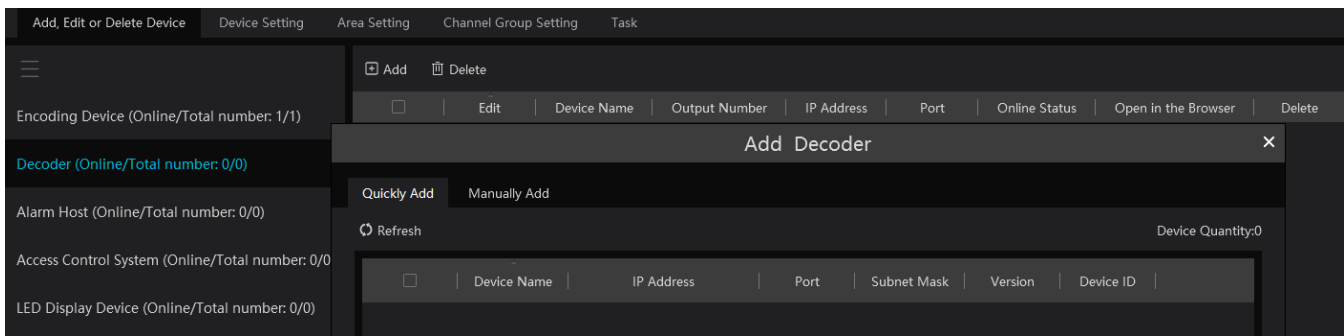


An adding TV Wall window will be prompted by clicking [Add]. Click [Refresh] to quickly add the TV wall server in the same local network, or add the TV wall server by manually entering server name, IP address and port.

15.1.2 Add Decoder

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

Go to Home → Add, Edit or Delete Device → Decoder interface.



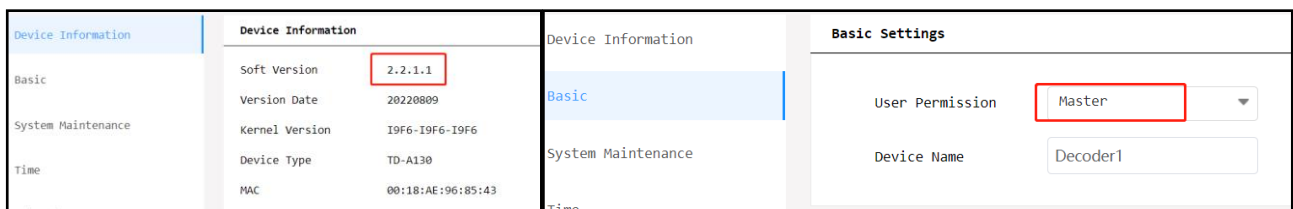
The steps for adding decoders are the same as the setup for adding encoding devices (see Add Encoding Device for details).

15.1.3 Create and Connect Decoder

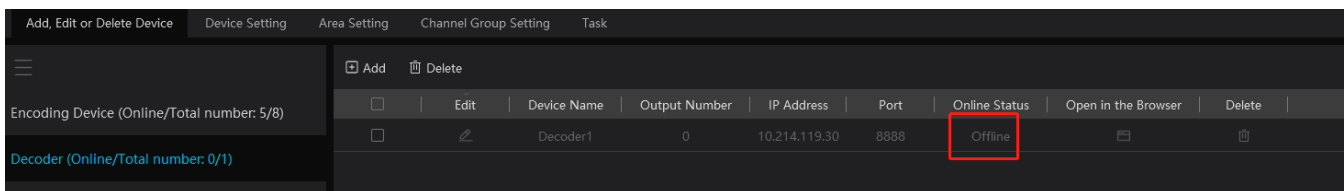
The decoder which needs to be connected to the platform must be the master decoder and in platform mode. Note that the version of the decoder must be compatible with the platform, or the decoder cannot be connected to the platform.

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.



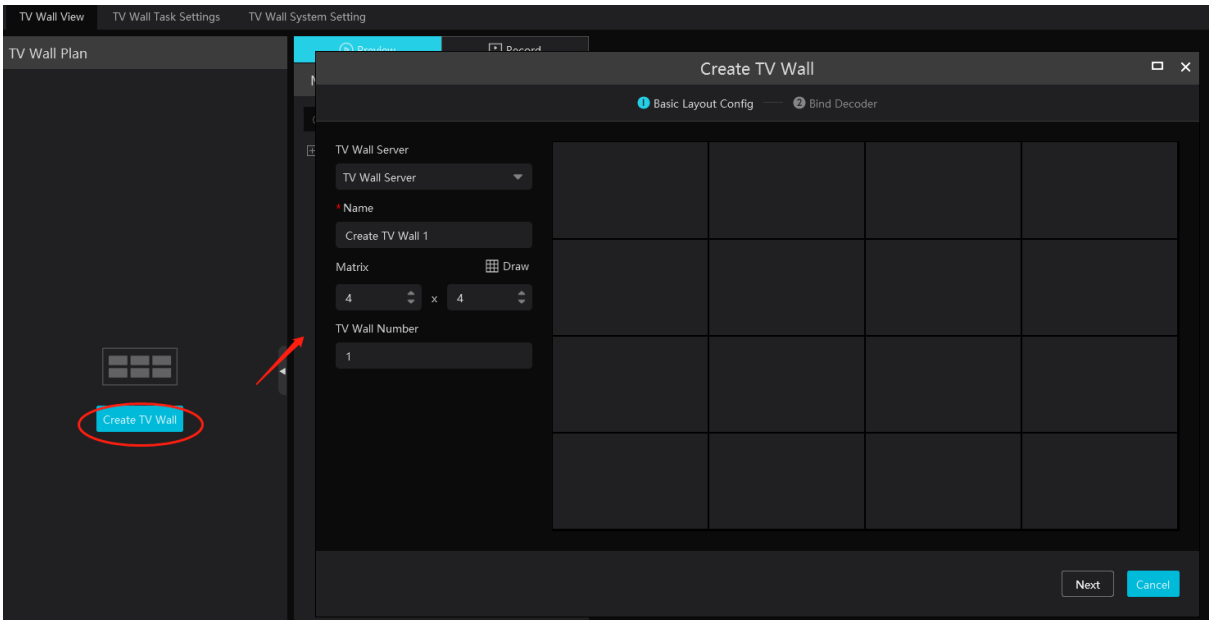
The decoder will not be online until it is bound to a TV wall. Please create a TV wall first and then bind the decoder to the TV wall.



15.2 Add TV Wall

◆ Create TV Wall

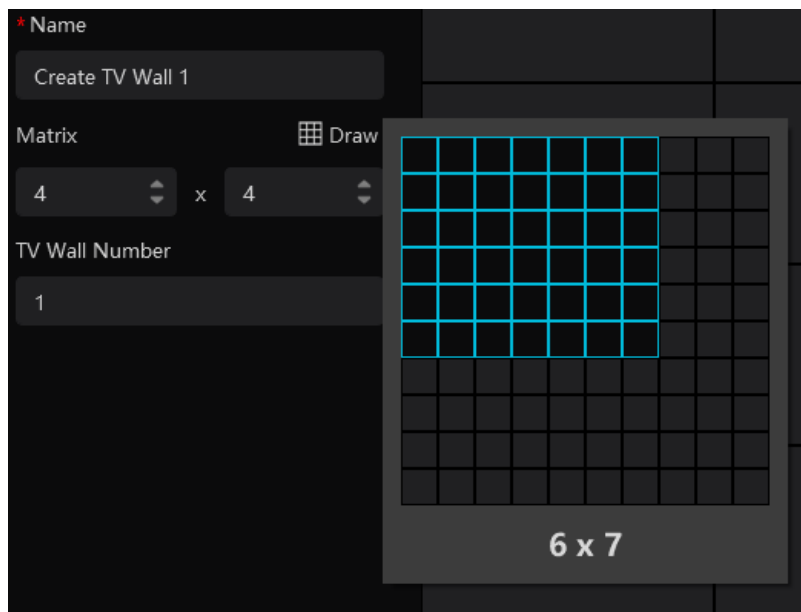
Go to Home → TV Wall Management → Edit TV Wall. Select a TV wall server and then click  to create a TV wall.



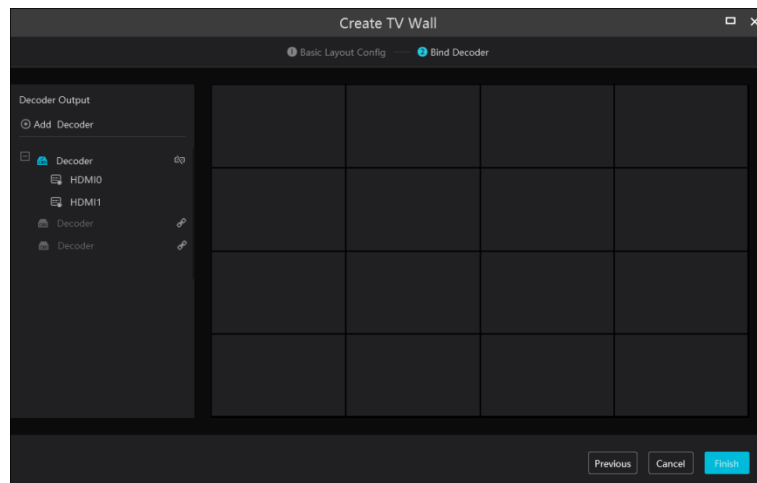
Select the TV wall server and then set the TV wall name, display matrix and TV wall number.




Note: The TV wall number cannot be used repeatedly.

Click [Draw] to draw the TV wall layout manually.

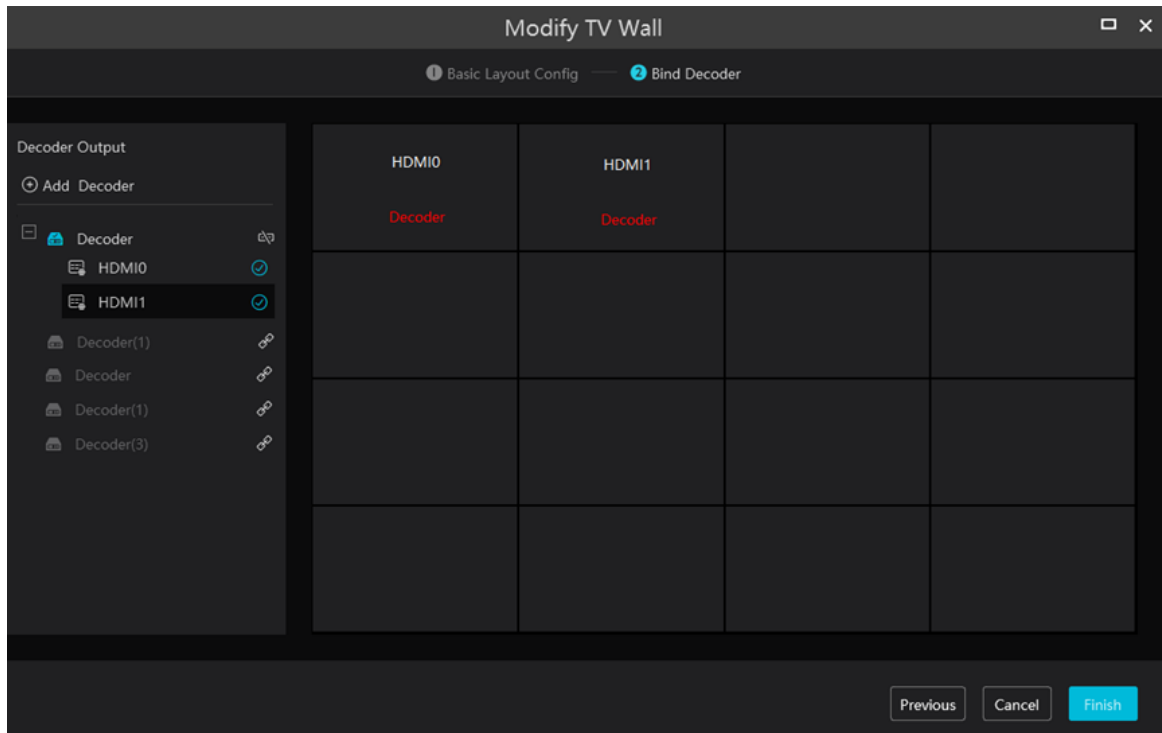


After that, click [Next] to bind decoders.



On the left list, click  to bind the decoder. If there are no decoder to bind, you can click  to quickly jump to the decoder adding interface and then add the decoder as needed. After you clicking , it needs several seconds to connect the decoder. After the decoder is connected, the output will be listed under the decoder name.

If you want to unbind the decode, click  behind the decoder name to unbind it.



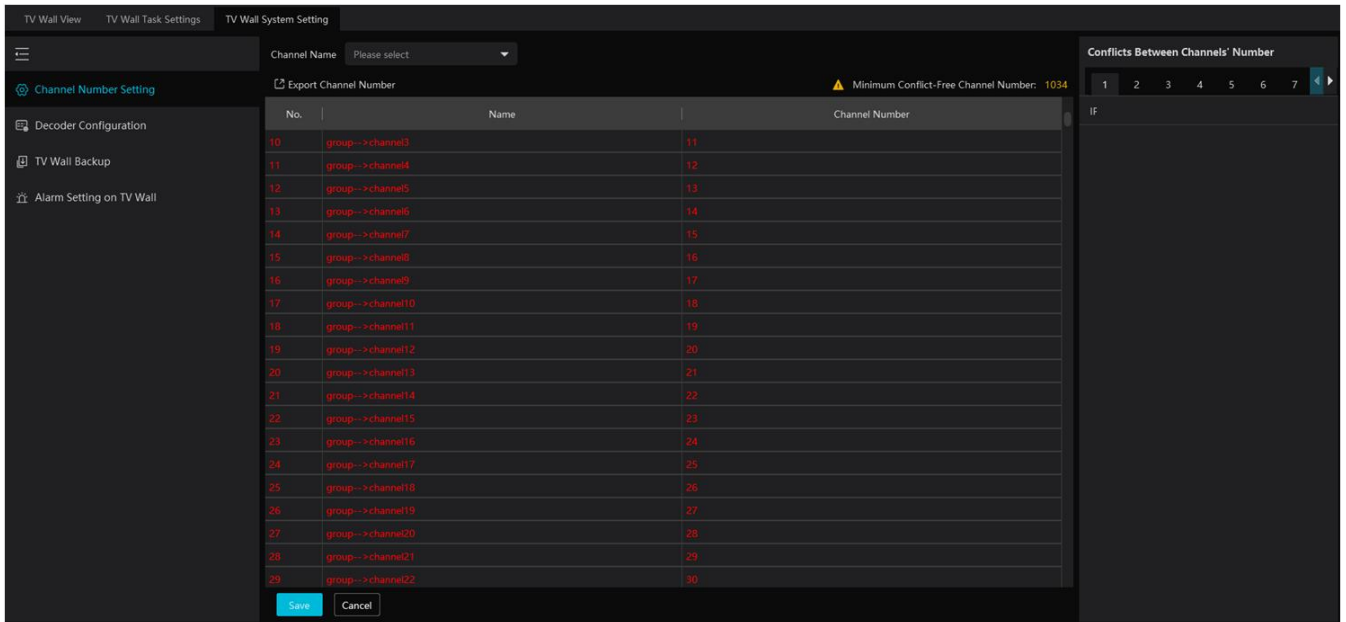
Drag the output to the window to bind the output and the window. After that, click [Finish] to save the setting.

To change the output binding, select the TV wall and click , select  to modify. Click  to delete the TV wall.

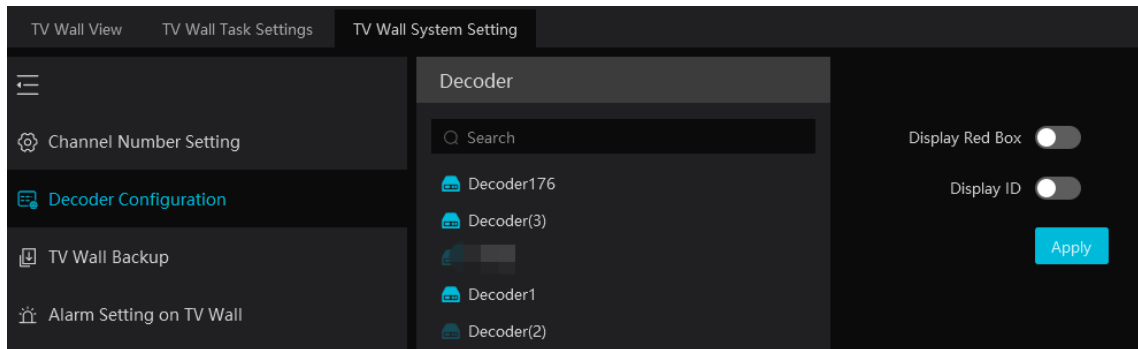
15.3 TV Wall System Settings

15.3.1 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.



15.3.2 Decoder Setting



Display red box: when the decoding channel triggers alarm, a red box will show on the TV Wall.

Display ID: the channel ID will be shown on the channel decoded by the decoder

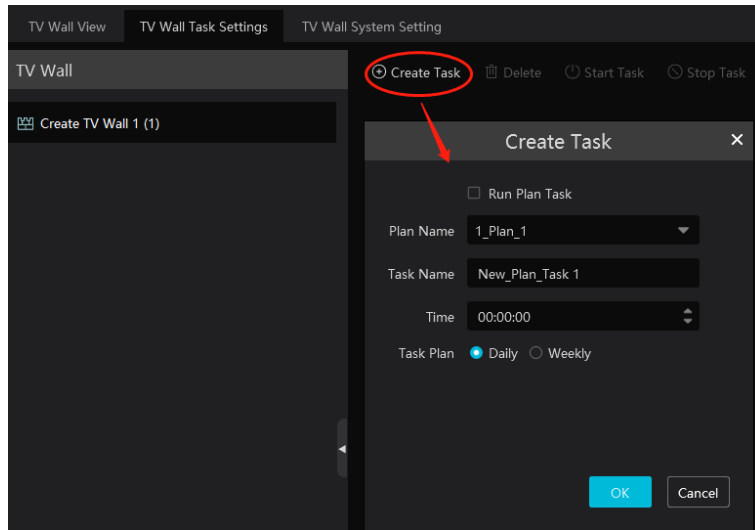
15.3.3 TV Wall Alarm Linkage Settings

Click “Alarm setting on wall” and then 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.

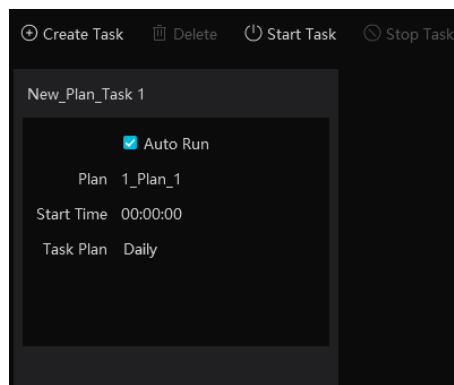
15.4 TV Wall Task Setting

Go to Home→TV Wall Management→Task Setting. Select the TV wall you want to set tasks. Then click “Create Task”.

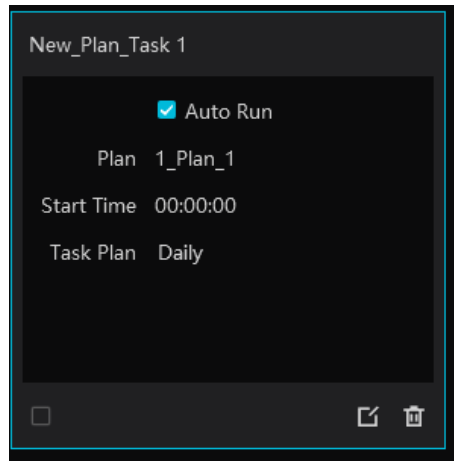
Select plan name, enter task name, set run time and enable plan task.





Click “Start Task” to start the task. Click “Stop Task” to stop this task.

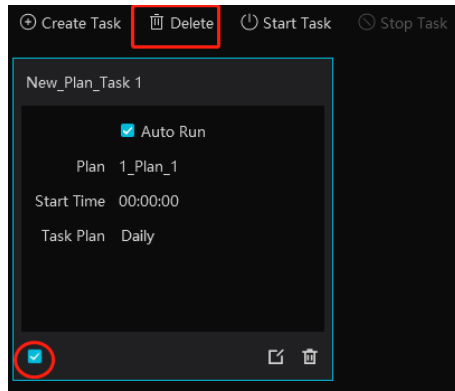


Modify or delete task



Click  or  to modify or delete the task.

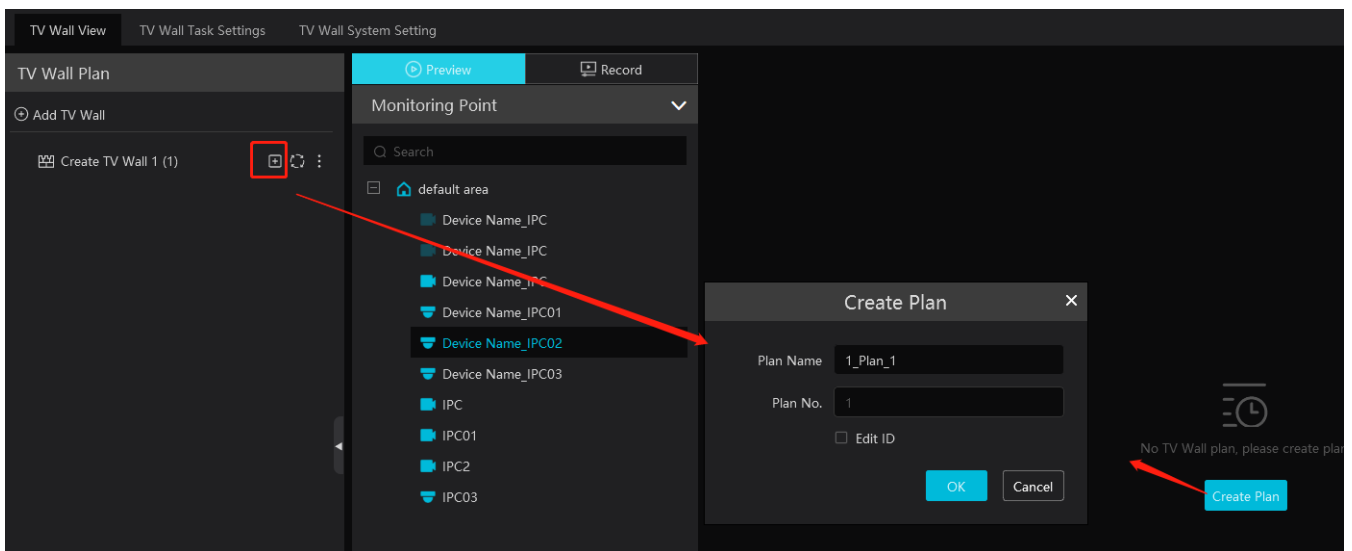
Check the task under the TV wall and then click [Delete] to delete the task as shown below.



15.5 Video Preview

◆ Create a plan

Click  beside the TV wall name or click [Create Plan] to create a new plan for the created TV wall.

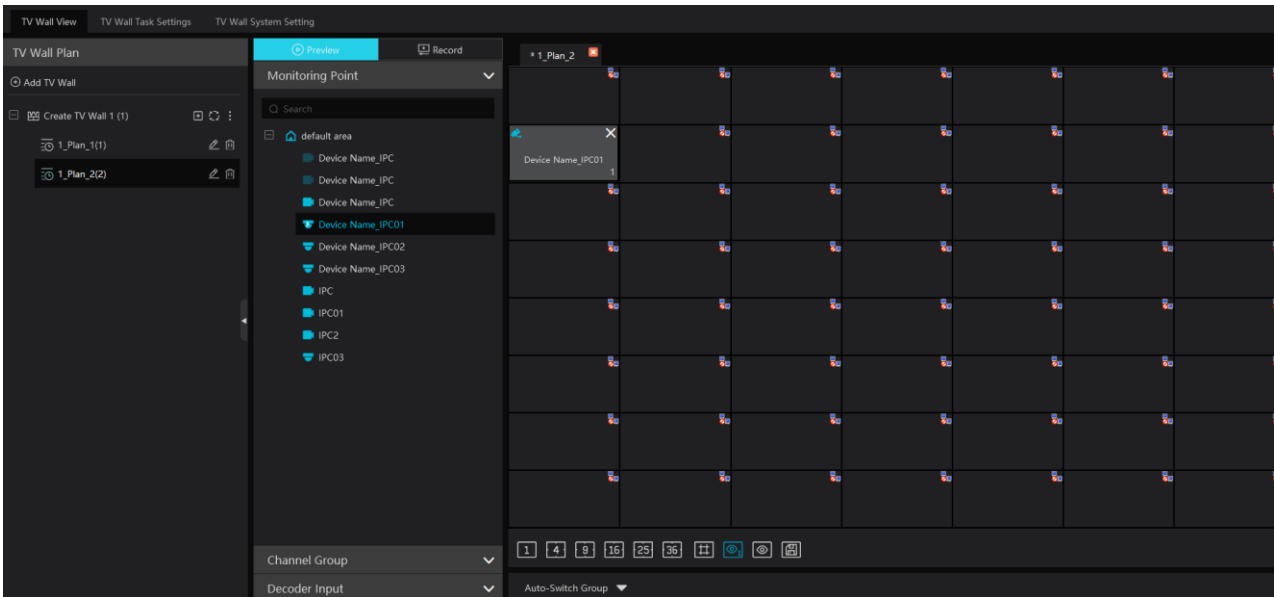


Double click the plan name to show the plan.

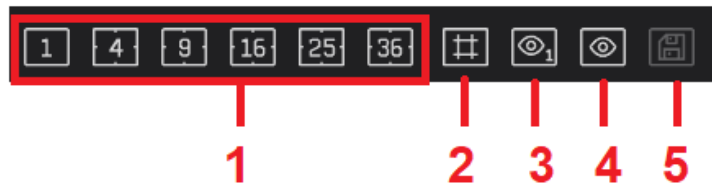
Drag the monitoring points to the corresponding window respectively to decode image. Then click  to save the plan.

◆ Configure Plan

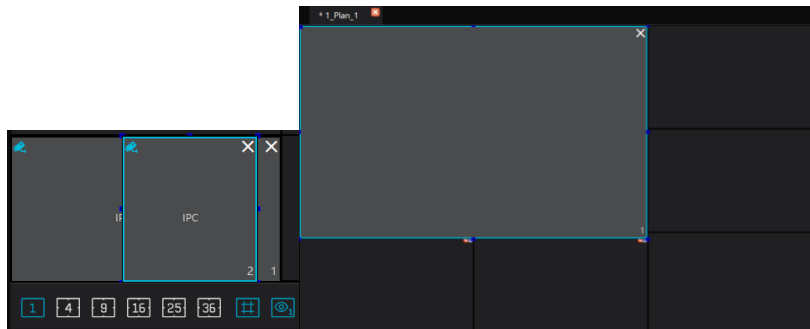
Double click the set plan to display on the left window as shown below. Drag the monitoring point to the window to play.



◆ **Toolbar Menu**

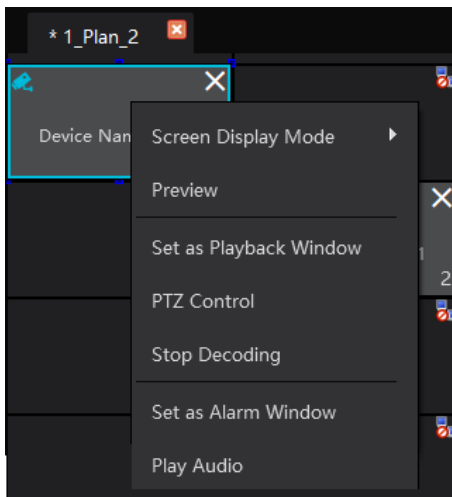


1. Screen mode: 1\4\9\16\25\36 screen mode is optional.
2. Open Window: Click this icon and then drag on a window to open a window on it. The window can be dragged to anywhere on the big window. Click the opened window and then drag the blue side of the window to zoom in/out it. Click this icon again to stop opening other windows.

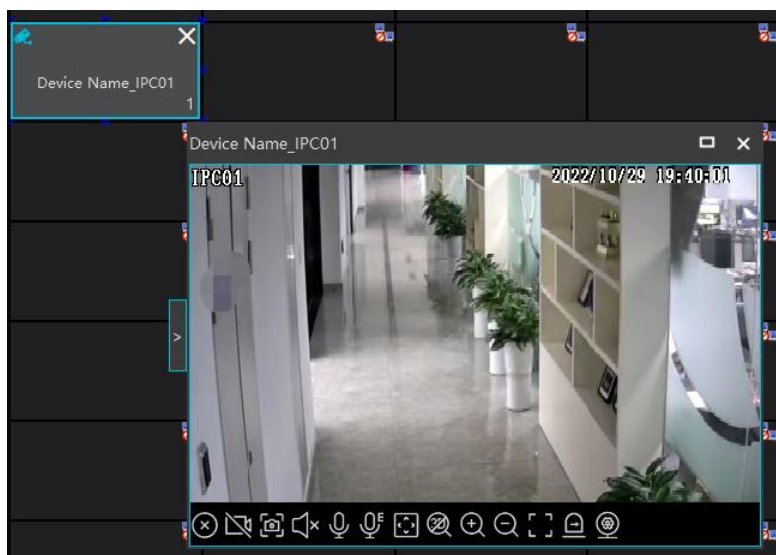


3. Show/hide ID: show or hide all ID number (including all channel numbers of the multi-screen display window).
 4. Show/hide window ID: show or hide the ID number of all windows (Note that the channel numbers of the multi-screen display window are not displayed).
 5. Click [Save] to save the current plan.
- Select a window assigned a monitoring point and then press the right mouse and drag to another window to copy monitoring point to it.

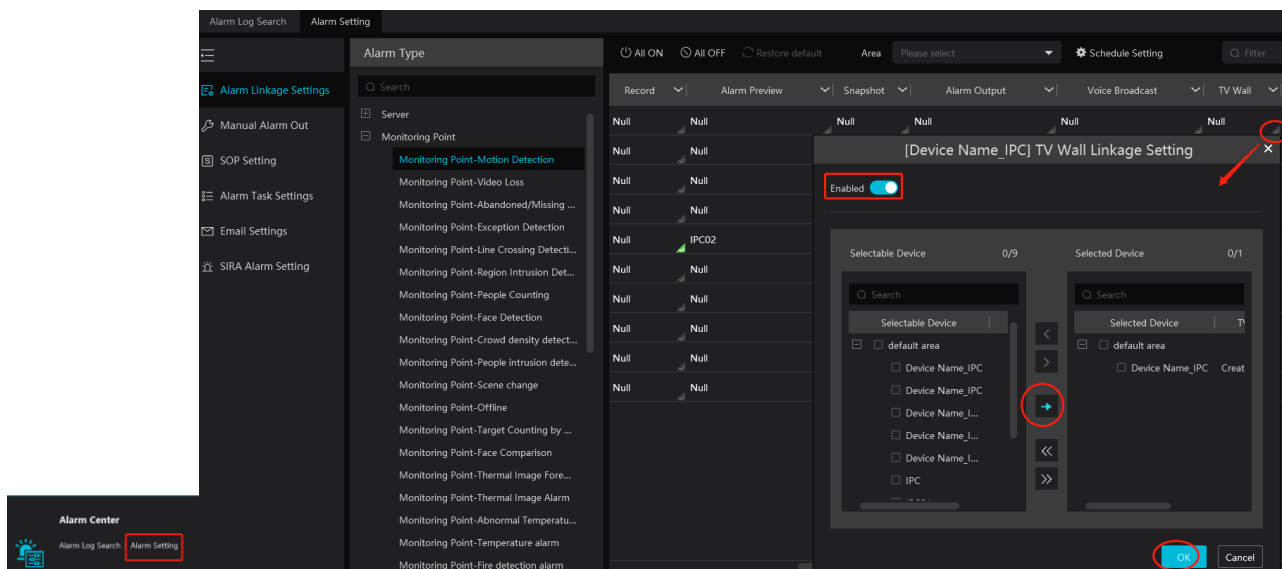
◆ **Right-click Menu**



1. Screen display mode: 1\4\9\16\25\36 screen mode is optional.
2. Preview: click it to view the video.




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 Setting interface. Select TV wall linkage item to set alarm linkage.

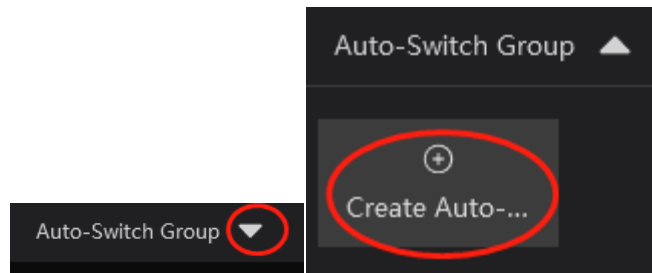


4. Set as Playback Window: when decoding images, click this menu to play the records of the current channel (the record source is the current record source).
5. PTZ Control: click this menu to prompt a PTZ control panel of the current decoding window. Direction control, zooming and focusing, Iris control, 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. Play audio: click it to play live audio. Click “Stop audio” to stop playing.

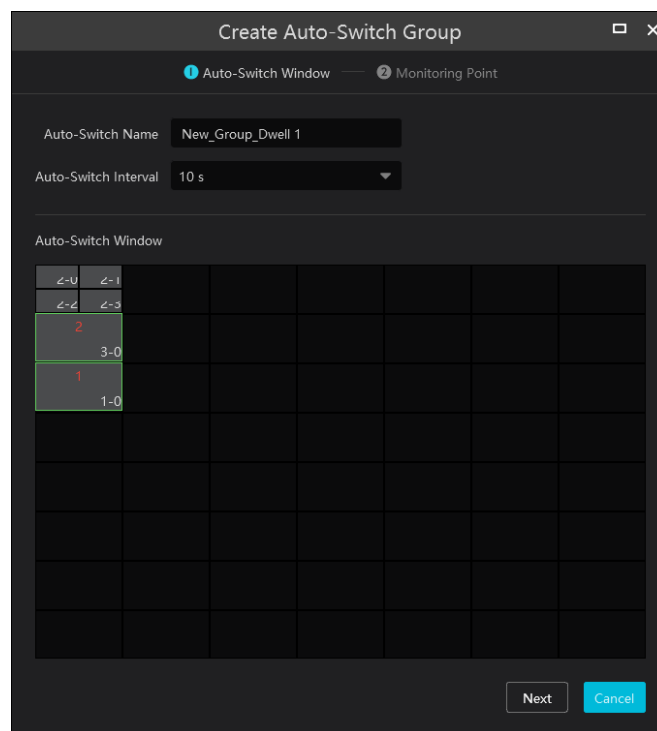
◆ Auto-Switch Group

1. Create Auto-Switch Group

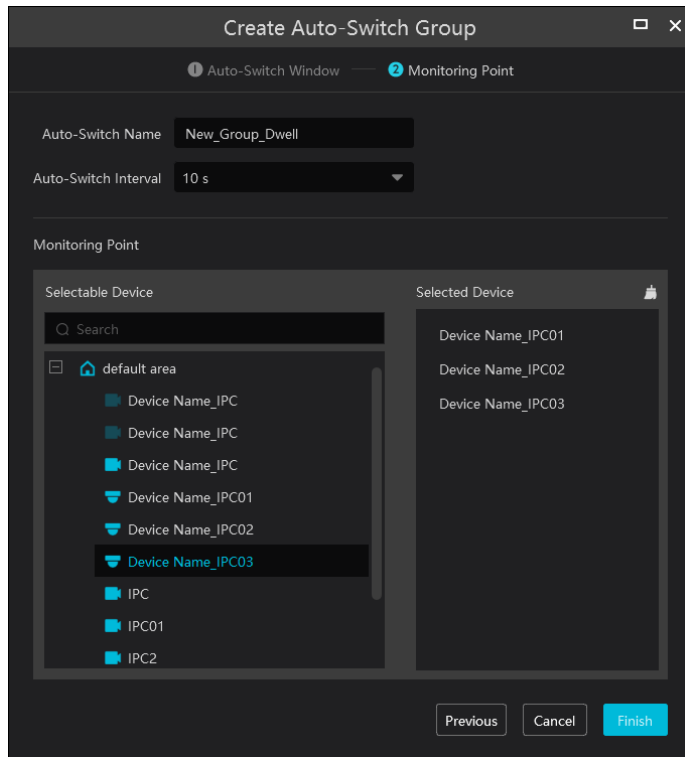
- ① Click Auto-Switch Group under the screen and then click  to create auto-switch group.



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

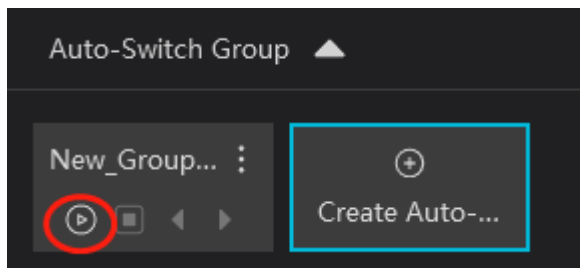


- ③ Click [Next] to select the auto-switch channel group.



④ Enter auto-switch name and dwell time.


2. Execute auto-switch

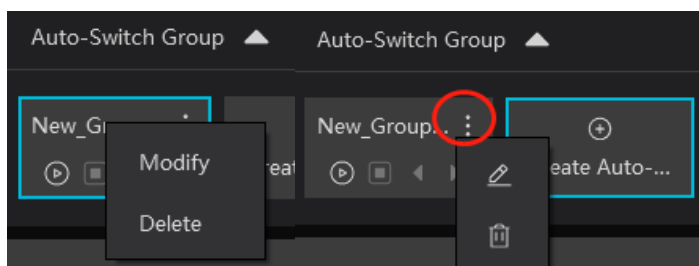


Click  to execute auto-switch. The specified channel images will be played in the specified windows in sequence.
Click  to stop playing the current auto-switch group.

3. Modify or delete auto-switch



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

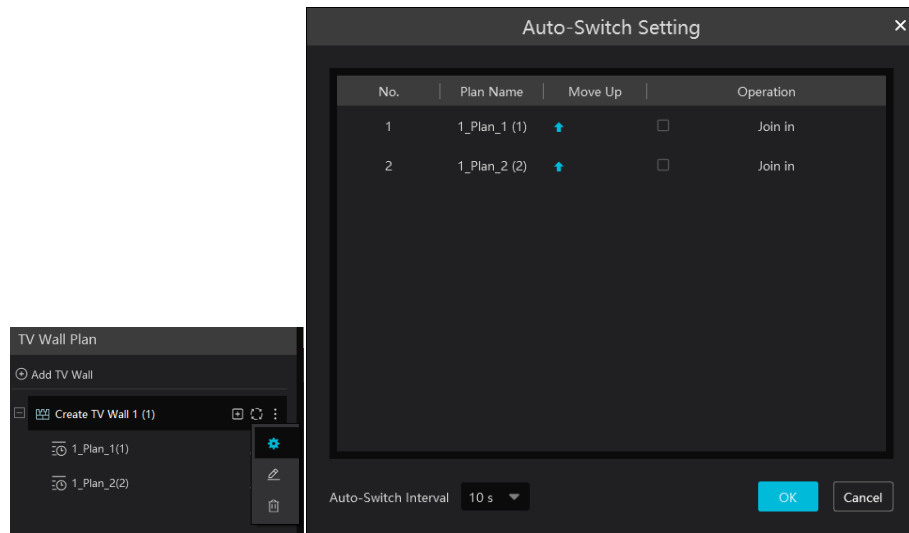
Or click  and then select the corresponding icon to modify or delete the auto-switch.



◆ Auto-switch plan



1. Create auto-switch plan

Click  behind the TV wall plan name and then click  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  to stop the auto-switch.

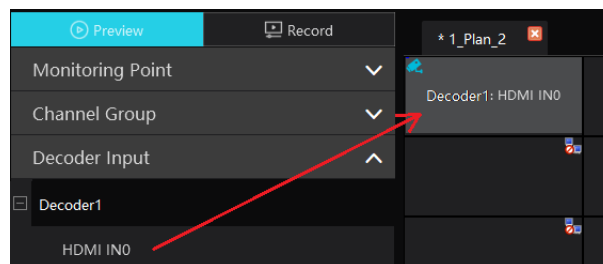
3.Modify auto-switch plan

Click  again to modify the auto-switch plan.

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

15.5.1 Decoder Input

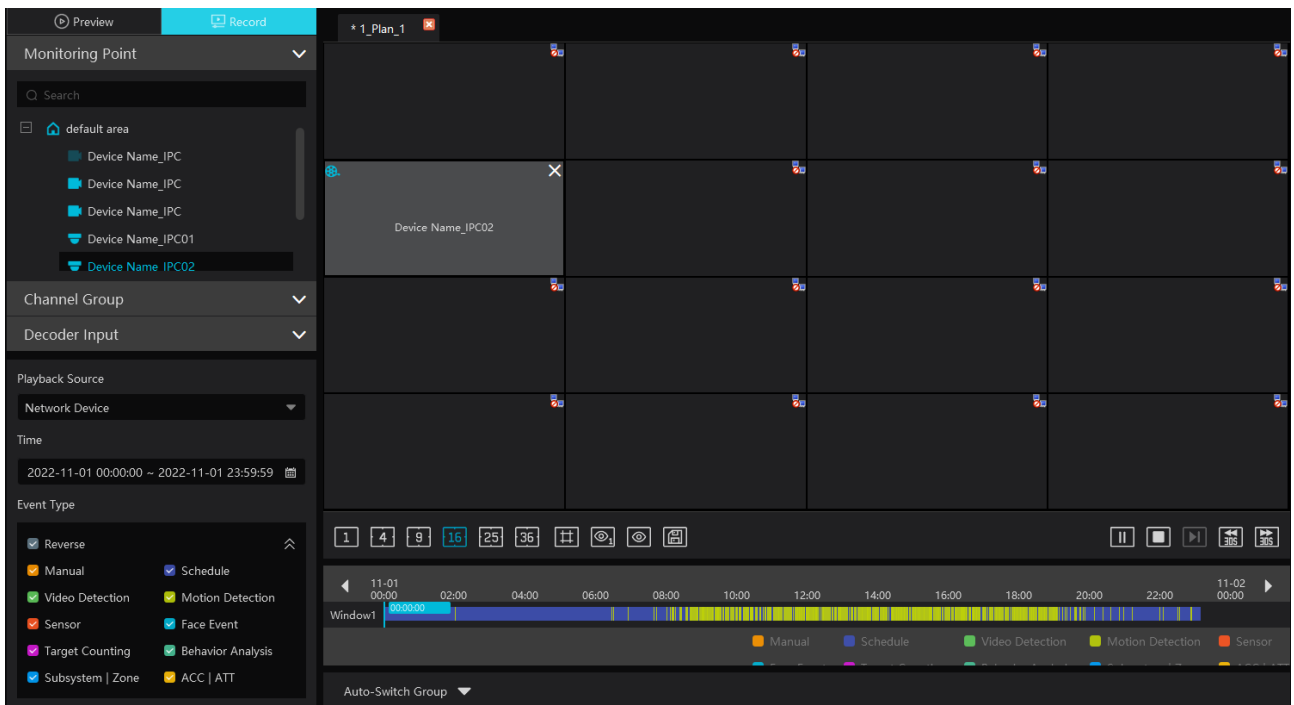
Go to Home→TV Wall Management→Decoding on TV Wall→Decoder Input. Drag an input to a window to execute decoding.



15.5.2 Playback

◆ Playback on TV Wall

Click “Record”, select playback source and time, check the alarm events and then drag the cameras (or channels) to a window to search and play the records.



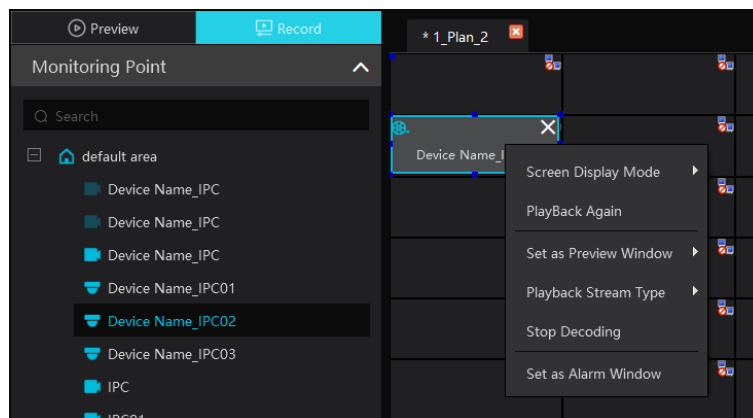
◆ Playing control



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

Note: The frame rate per second will be the same as the set frame rate of the device (Home→Device Setting→Stream Setting→Frame Rate).

◆ Right-click menu



1. Screen Display Mode: 1\4\9\16\25\36 screen mode is optional
2. Save as an alarm window: click it to set the current window as an alarm window. The alarm linkage image will play in this window. Please go to Alarm Center→Alarm Setting interface. Select the alarm type, link the TV wall and set the schedule first.
3. Save as preview window: the current camera or the historical camera is optional. If the current camera is selected, the window will display the live video of the current camera in the record page. If the historical camera is selected, the window will display the live video of the camera decoded in this window last time.
4. Playback stream type: main stream or sub stream is selectable.
5. Stop decoding

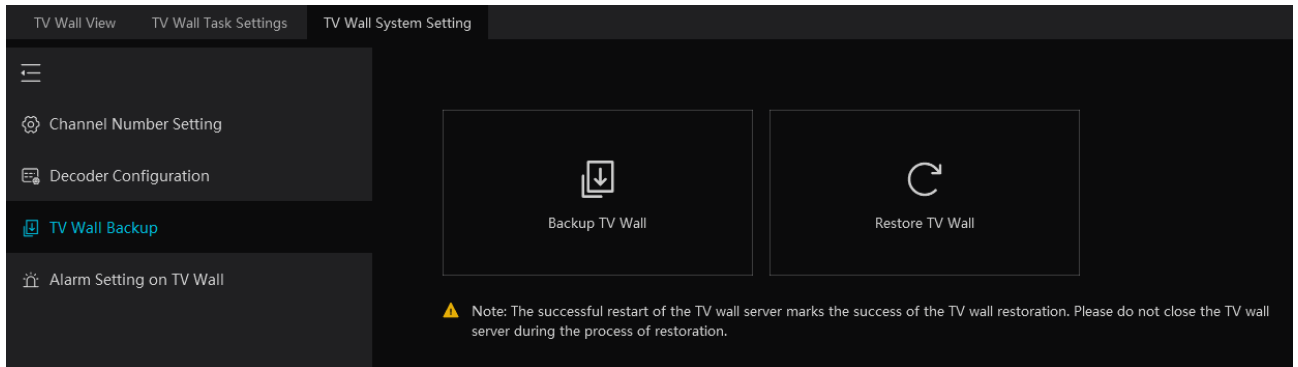
The following picture is an example of TV Wall.



15.5.3 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.

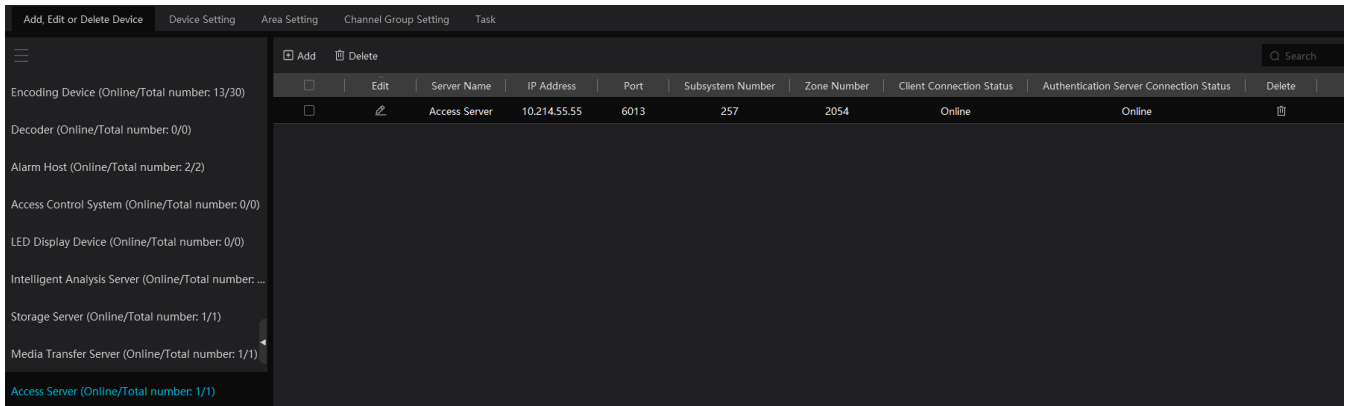
Click [Backup TV Wall] in the last version to back up the TV wall configuration files. Then click [Restore TV wall] in the new version to restore it.



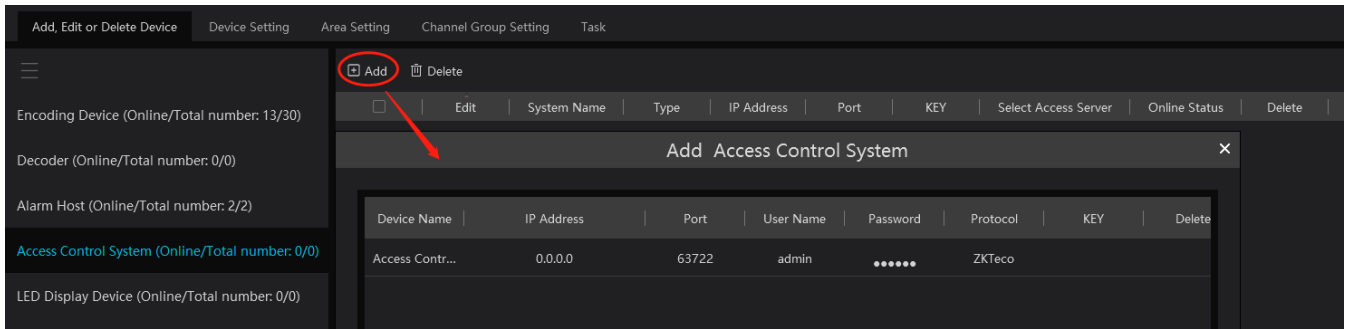
16 Access Control Management

Before using access control management 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 by auto search or manual adding.



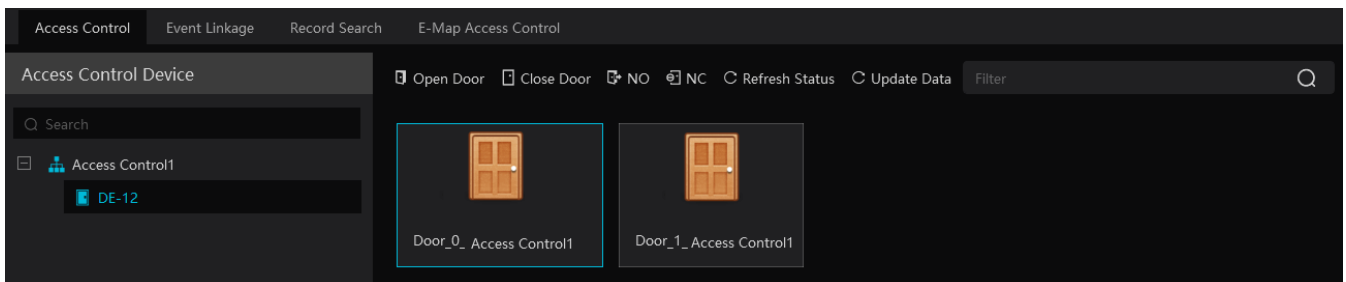
Then add access control system. Go to Home→Resource Management→Access Control System. Then click “Add” to add.



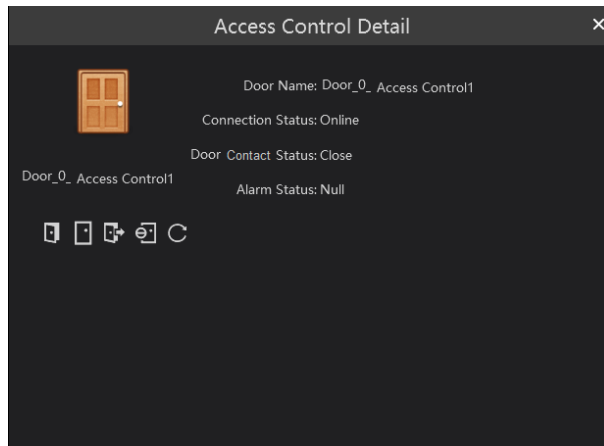
16.1 Access Control

Go to Home→Access Control Management.

The access control devices are listed as shown below. Double click a device to display the doors controlled by this device.



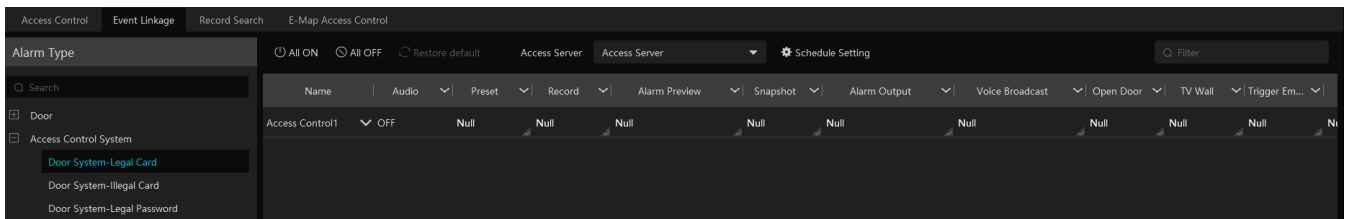
Double click a door icon to view the detailed information of this door. The door can be opened or closed remotely in this interface by clicking the corresponding buttons.



16.2 Event Linkage

Go to Home→Access Control Management→Event Linkage.

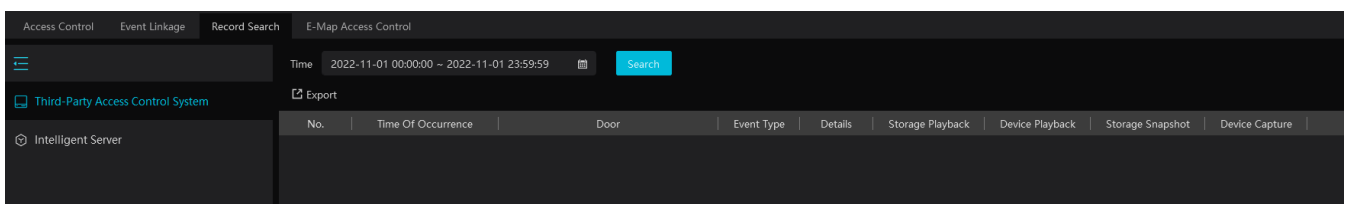
In this interface, the alarm linkage related to the door and access control system can be set up.



16.3 Record Search

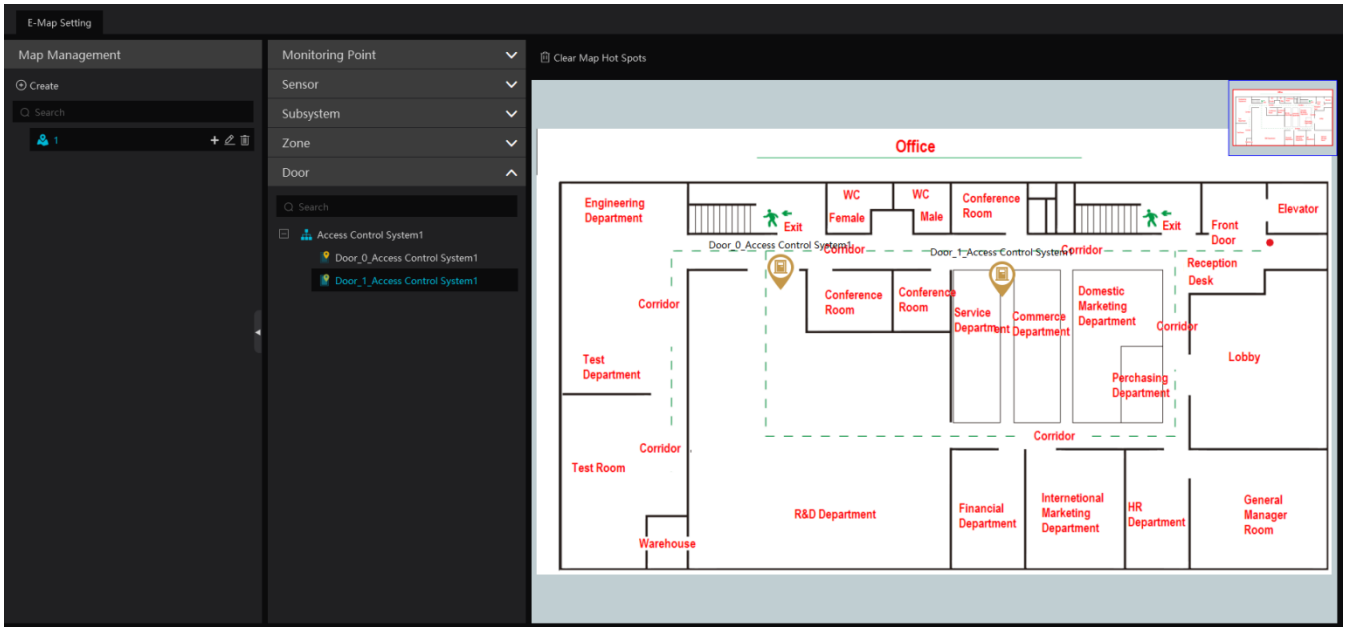
Go to Home→Access Control Management→Record Search.

The alarm information of the access control devices in a long period of time can be searched in this interface. The relevant linkage record and snapshot of the central control system and intelligent server also can be viewed.

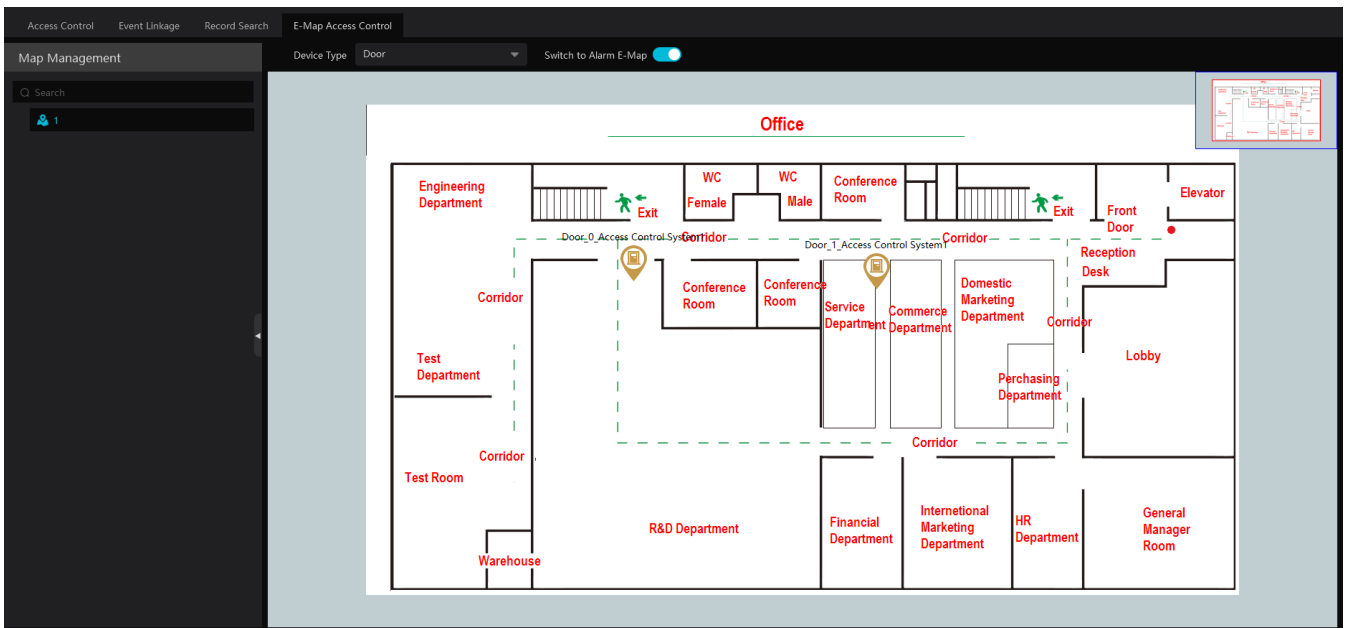


16.4 E-Map Access Control

Before setting E-Map Access Control, the E-map shall be set first by going to Home→E-Map→Door. Drag the access control devices to the specified location of the E-map for monitoring.




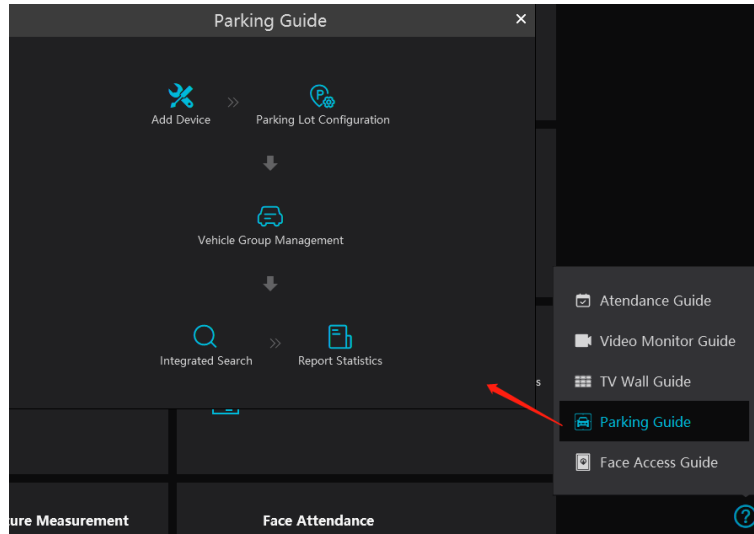
Return to Home→Access Control Management→E-Map Access Control interface to view the current status of these access control devices.



When the access control device trigger an alarm, the door icon on the map will jump and the red exclamation mark icon will display in front of the name of the access control device.

17 Parking Lot Management

Click  at the right bottom corner of the home page. Select “Parking Guide” to quickly view the setting steps of the parking lot management.



In the parking guide interface, click the corresponding menus in sequence to quickly set the parking lot.

17.1 Add Devices

● 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.

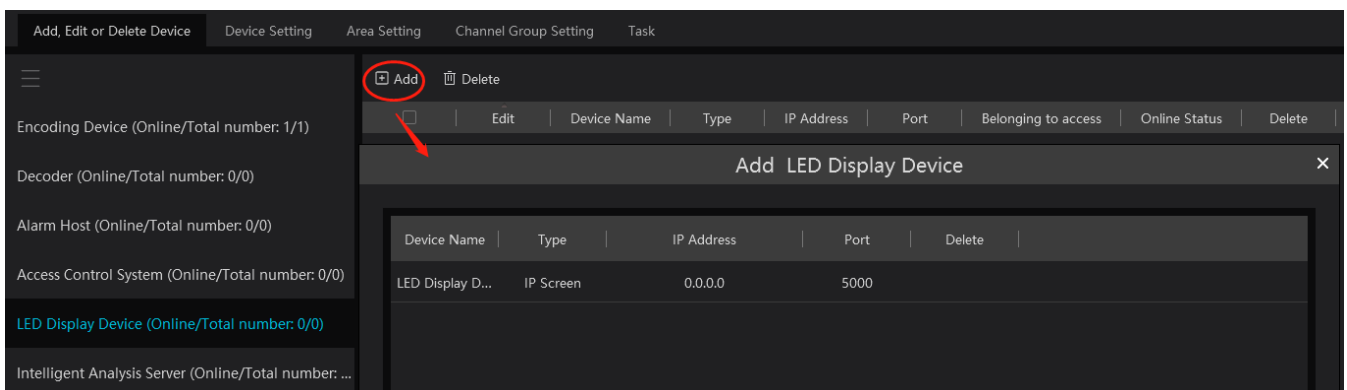
There are two ways to add ANPR camera.

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.

● 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.

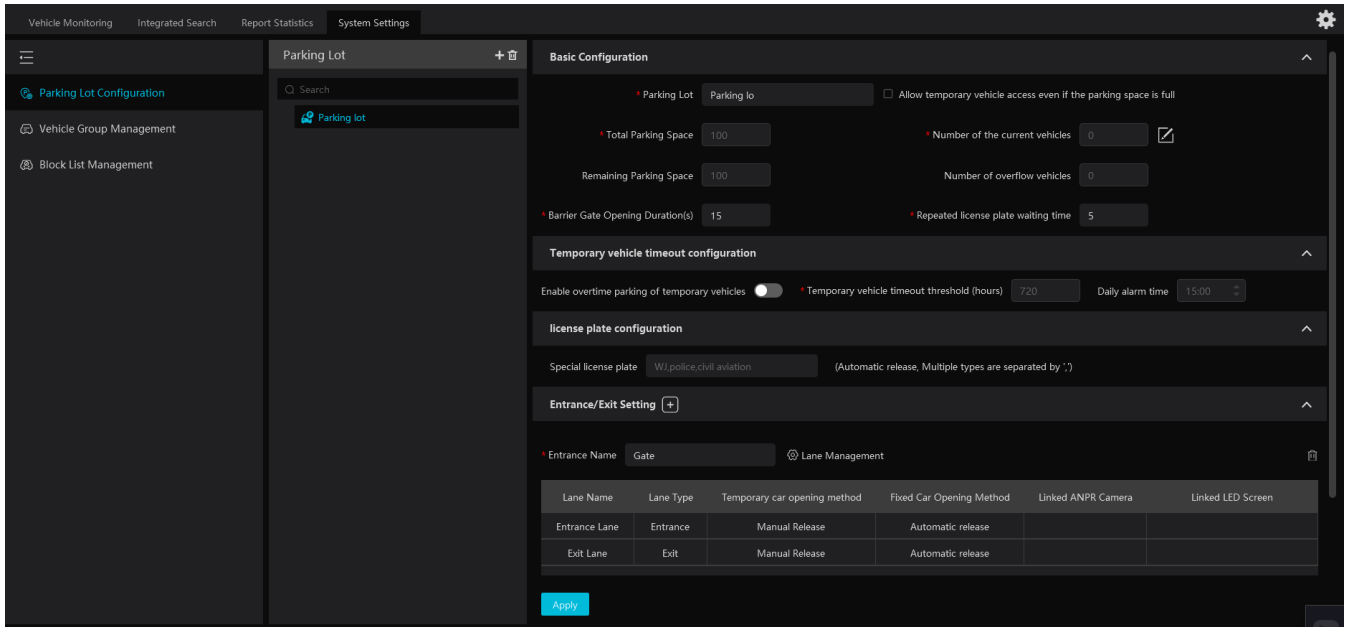
Type: please select IP screen.

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


17.2 System Settings

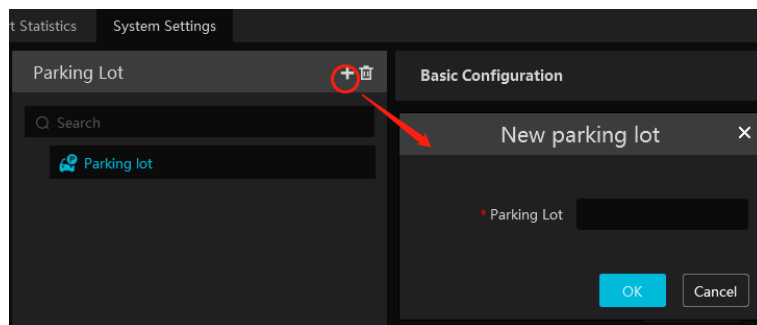
17.2.1 Parking Lot Settings


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.

- **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.

- **License Plate Configuration**

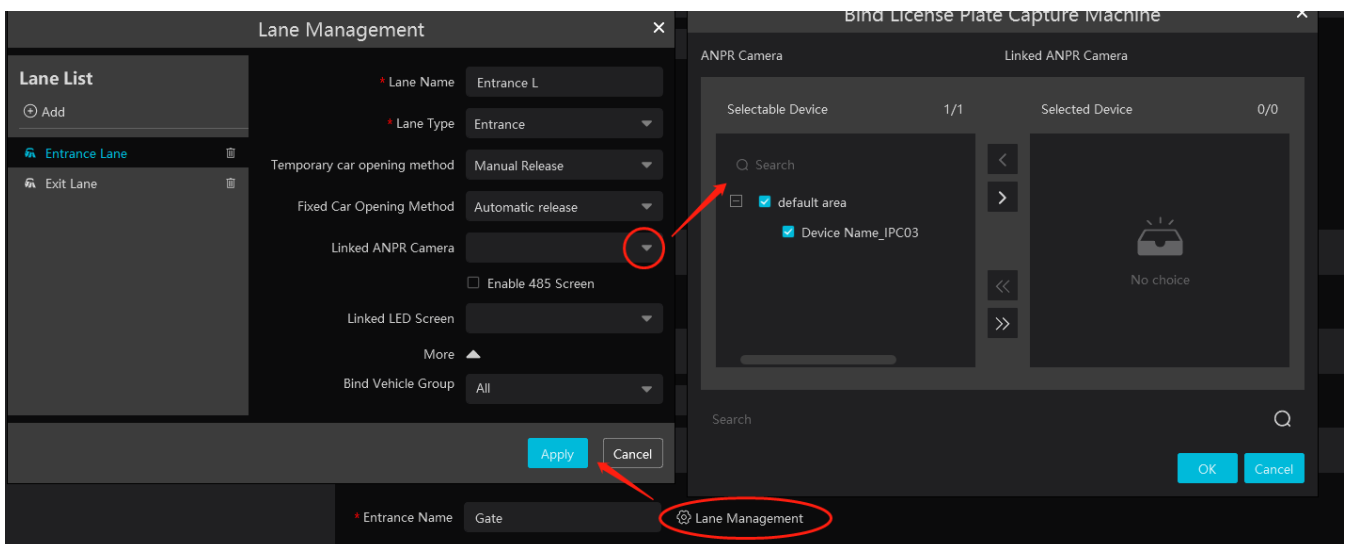
You can enter the special characters. When detecting the license plate including the set special characters, the system will automatically release.

- **Lane Management**

Click [Lane Management] next to the entrance name. This will bring a lane setting window. Click  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.

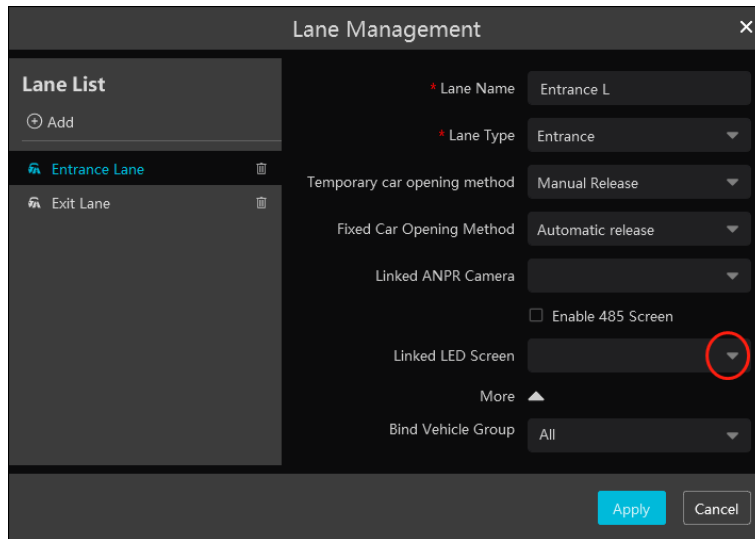
- **Binding ANPR Camera**

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.



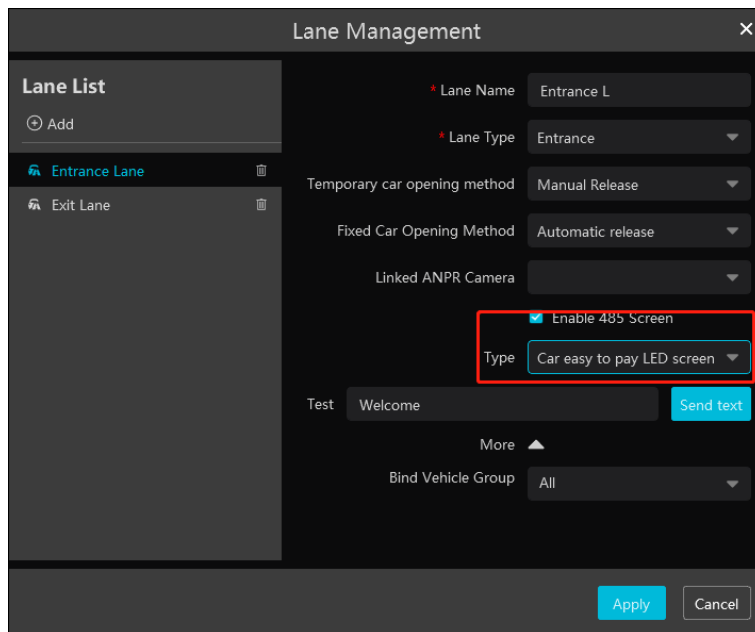
- **Binding LED Screen**

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.



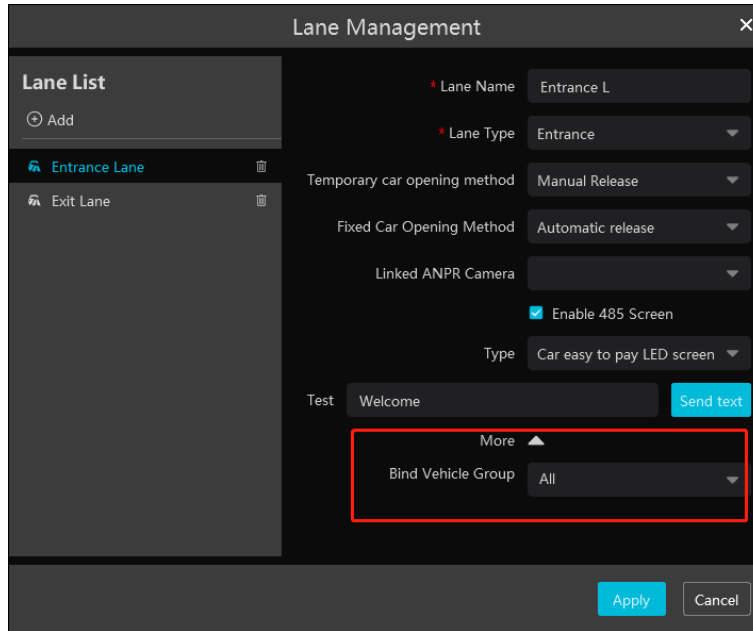
- **Binding RS485 Screen**

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**

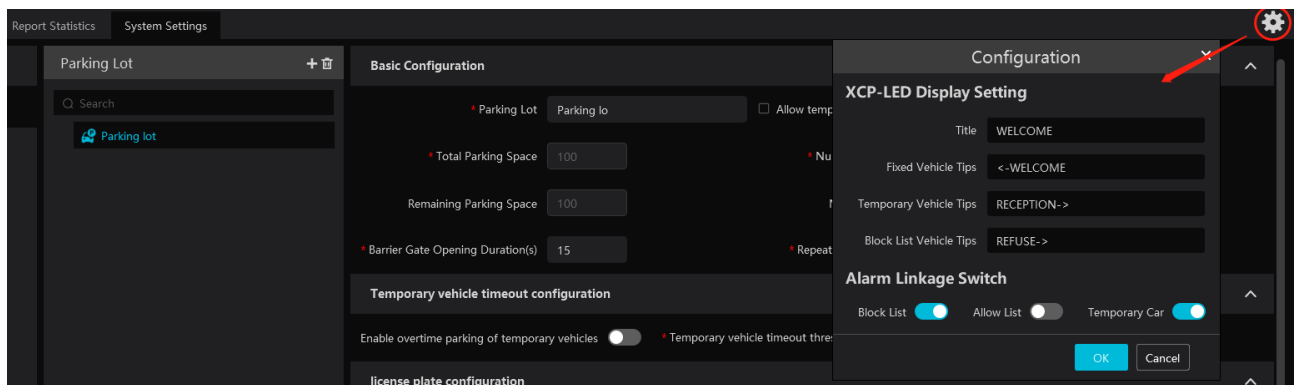
In the lane management window, click “More” to bind vehicle group. Select the vehicle group as needed. Then click [Apply] to save the setting. All vehicles in the vehicle group bound to the lane will be allowed to enter/exit in the parking lot.




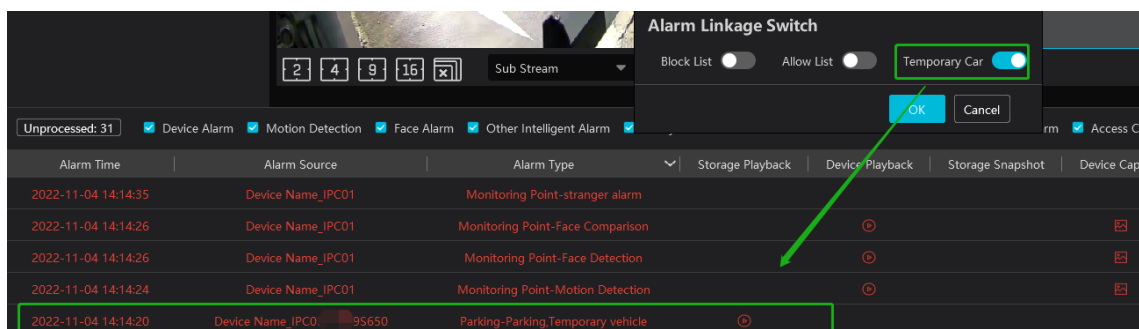
Note: A parking lot can add multiple entrances and exits; an entrance/exit can add multiple lanes; a lane can bind multiple license plate capture camera; but one license plate capture camera only can be bound to one lane of the entrance/exit in the parking lot. The name of the parking lot cannot be repeated;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

➤ Other Settings

In the system settings interface, click  at the top right corner to set the LED display and alarm linkage switch.

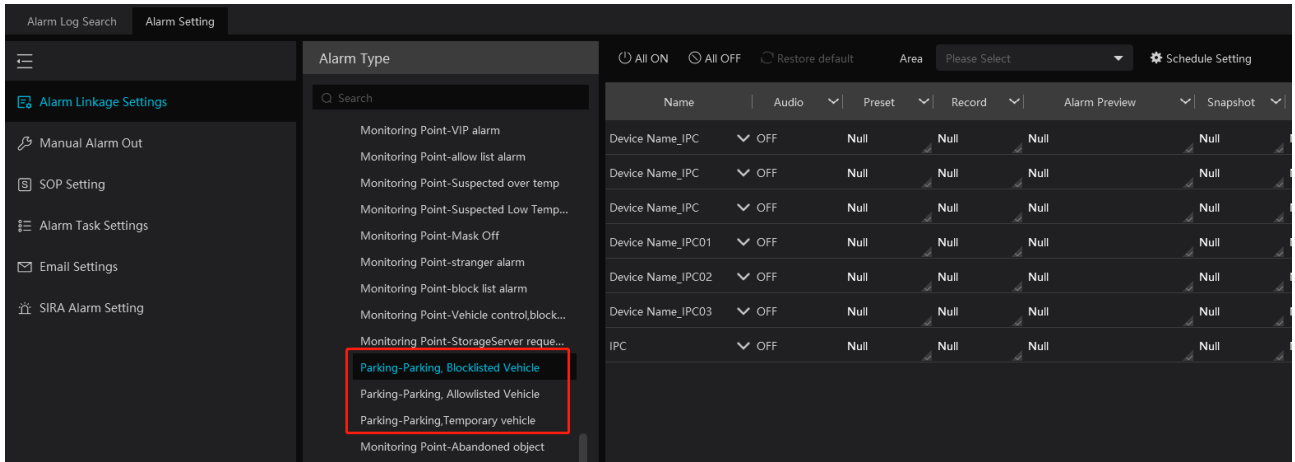


Alarm linkage: please enable “Block List”, “Allow List”, “Temporary Car” as needed. If these alarm linkages are enabled, click  at the bottom right corner to view the corresponding alarm information.



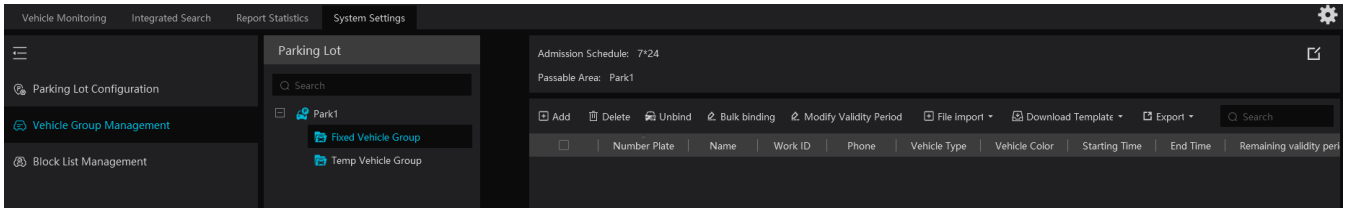
Additionally, only when the above-mentioned alarm linkages are enabled, can the corresponding alarm linkage be set successfully in the alarm center. Go to Home→Alarm Center→Alarm Setting interface, set the alarm type (Parking-Parking, Blacklisted vehicles; Parking-Parking Allow list vehicle; Parking-Parking, Temporary vehicle), select the bound license plate recognition camera (or the bound ANPR camera), enable the desired linkage items and set the schedule.

After that, when detecting the corresponding vehicles, the system will trigger alarms accordingly.



17.2.2 Vehicle Group Management

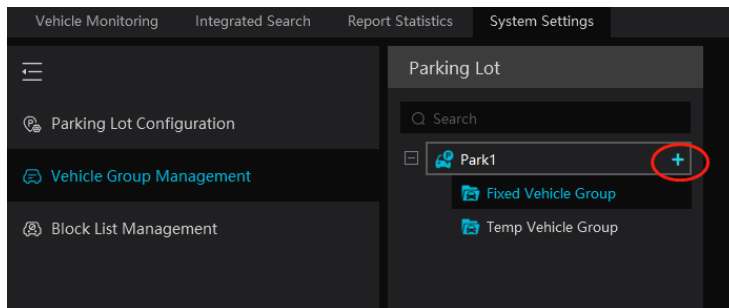
Go to Parking Lot Management→System Settings→Vehicle Group Management interface as shown below.




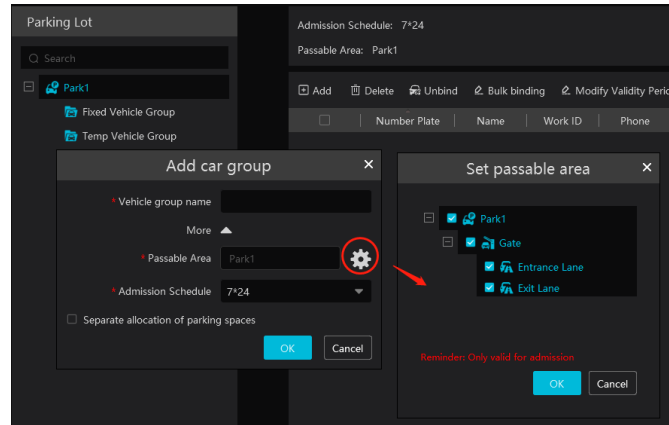
- **Add, Modify or Delete Vehicle Group**

Add Vehicle Group:

Move the cursor onto the parking lot name and then “+” will be shown. Click this icon to add a vehicle group. Enter the vehicle group name and then click “More” to set more parameters.





Click  to set the passable area of the vehicle group and admission schedule.

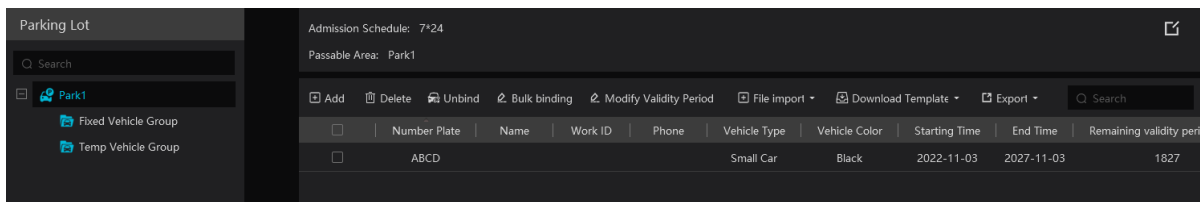


Check “Separate allocation of parking spaces” to separately set total parking spaces and the number of the current vehicles of the vehicle group”.

Modify or Delete Vehicle Group:

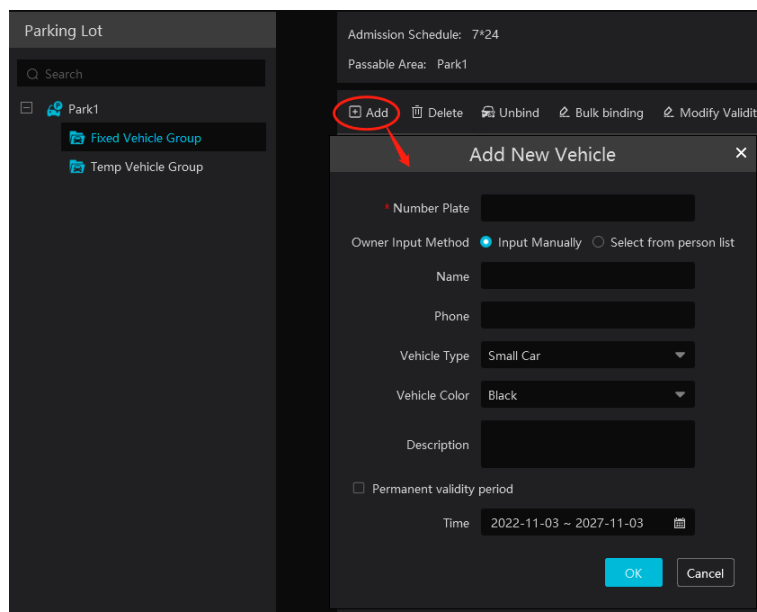
Move the cursor onto the vehicle group name and then  will be shown. Click this icon to delete. If there are vehicles added in the vehicle group, it cannot be deleted. You must delete all vehicle information first and then this vehicle group can be deleted.

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.



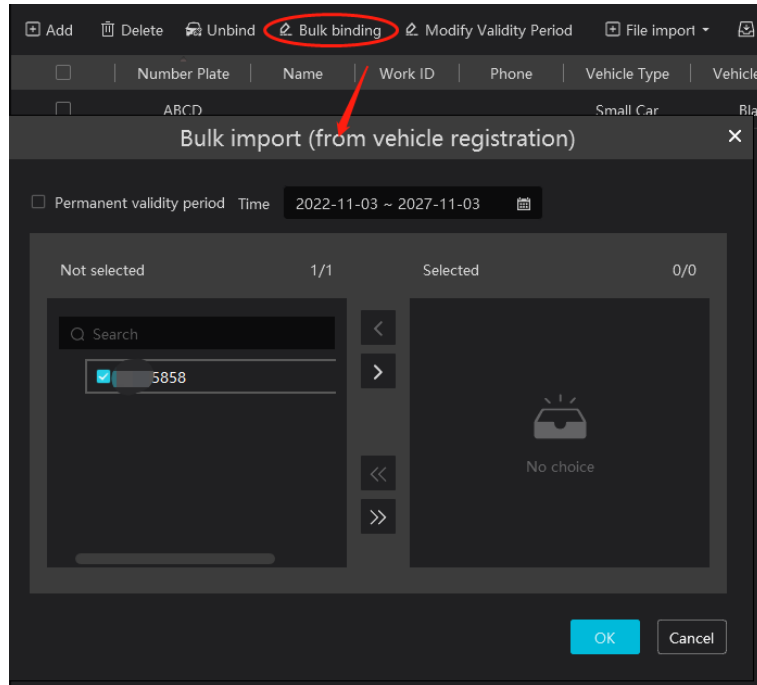
Delete Vehicle Information:

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[Download 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's Name	(B3) Owner's Phone	
2	A123456	Simon	1111111111	
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	1111111111	Discription	Small Car	Blue	2022/01/13	2022/01/13
4								
5								

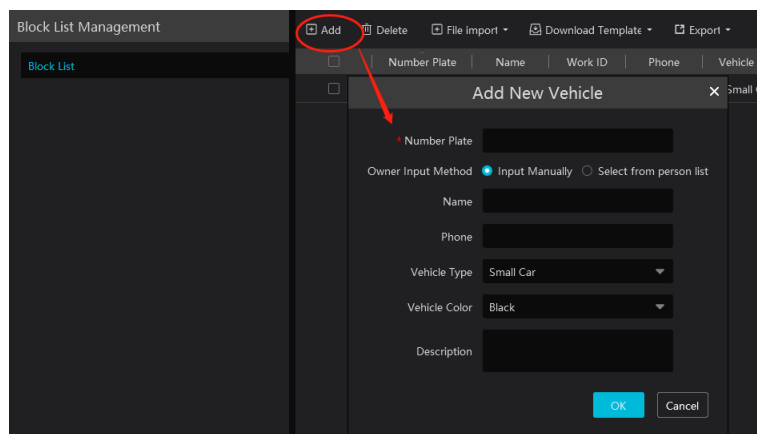
Unbind Vehicle: Select the vehicle you want to unbind and then click [Unbind selected]. In the pop-up window, click [OK]. This vehicle will be removed from the current vehicle group. The vehicle information will not be deleted and the binding relationship between the vehicle and other vehicle groups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


17.2.3 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.

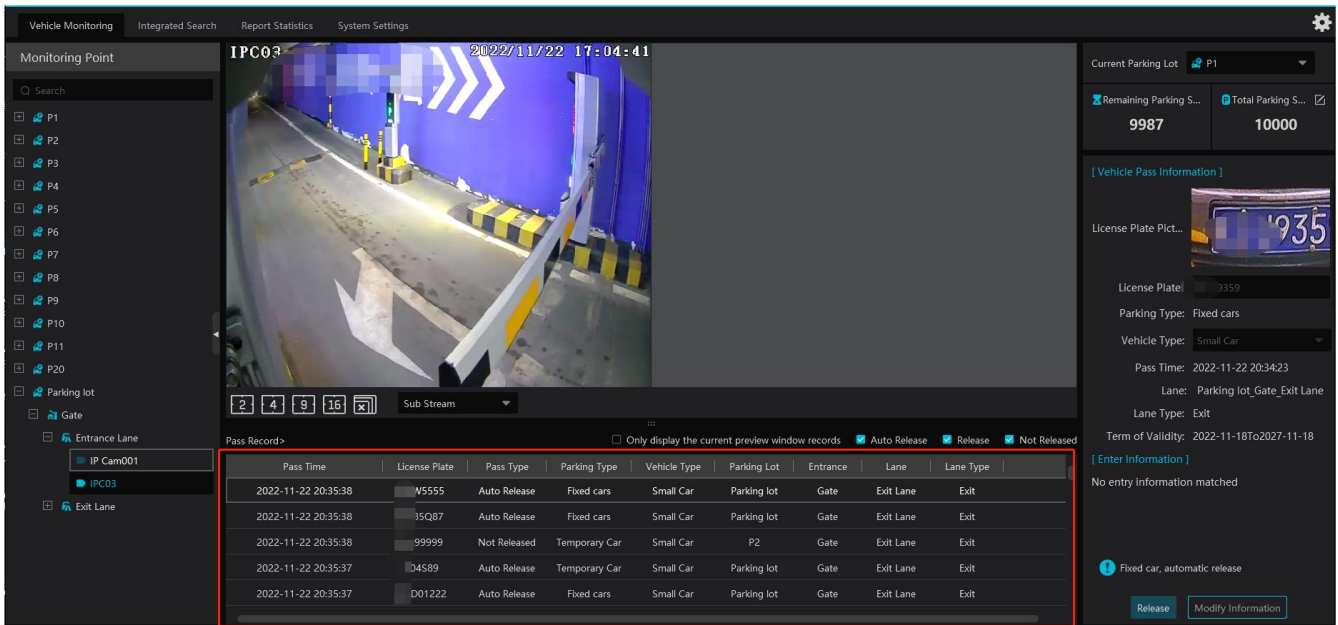
Click  to modify the vehicle information in the block list. Click [OK] to save the settings.

17.3 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.

17.3.1 Real-time Vehicle Preview

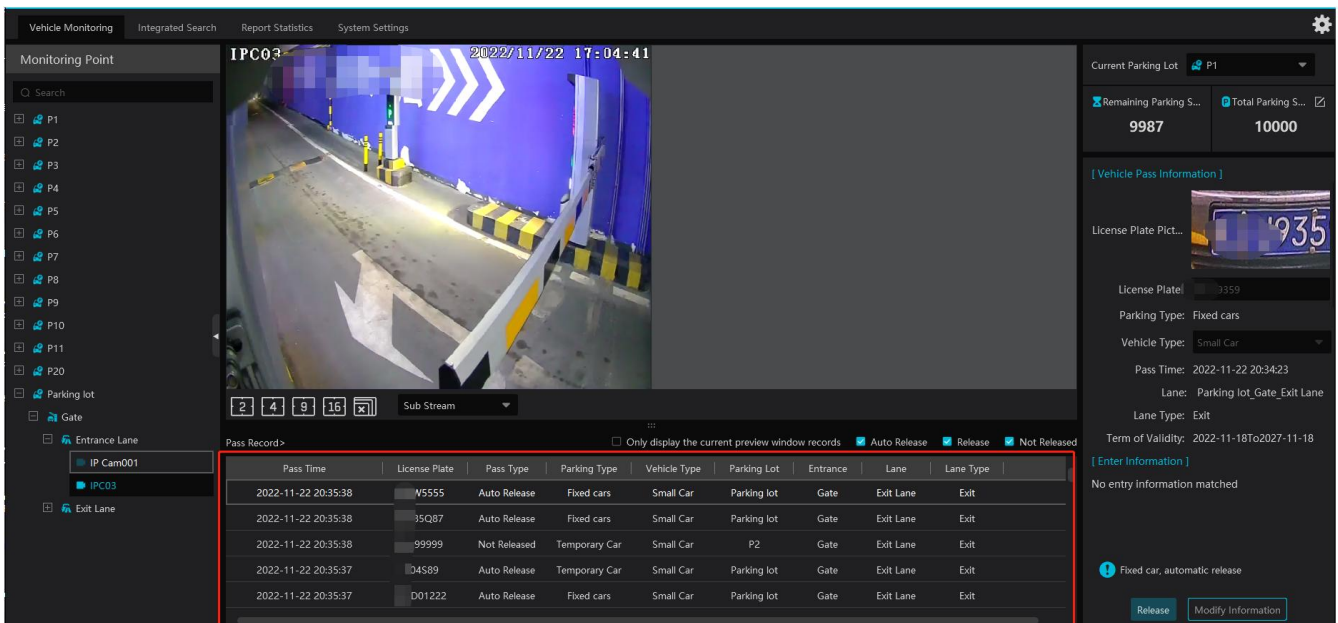
Drag the camera on the left panel to the preview window to view the real time video. 1/2/4/9/16 screen display mode and stream can be selected. Click  to close all previews.



17.3.2 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.

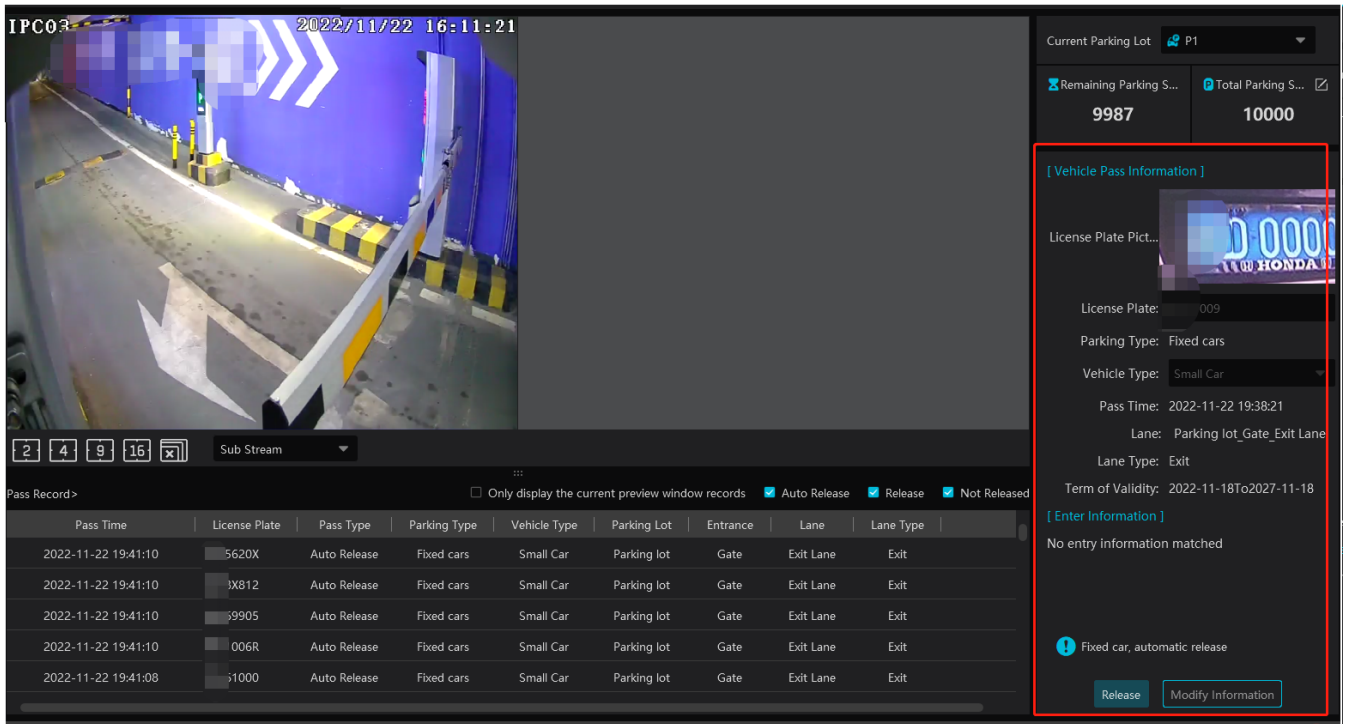



17.3.3 Pass Information

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 area 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 top right of the vehicle monitoring, it is total parking space and remaining parking space display area. Click  to 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.

17.4 Integrated Search

17.4.1 Search Pass Information

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

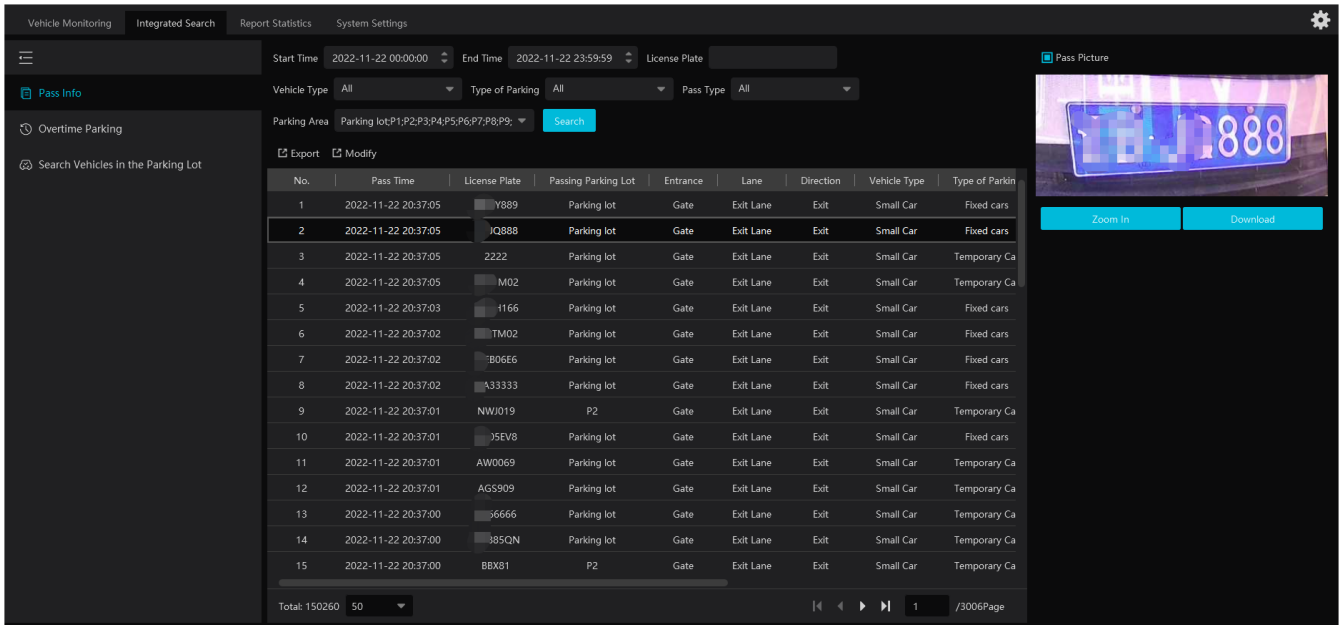
Set the filtering condition, such as the start and end time, license plate, vehicle type and lane. Click [Search] to search the records.

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.

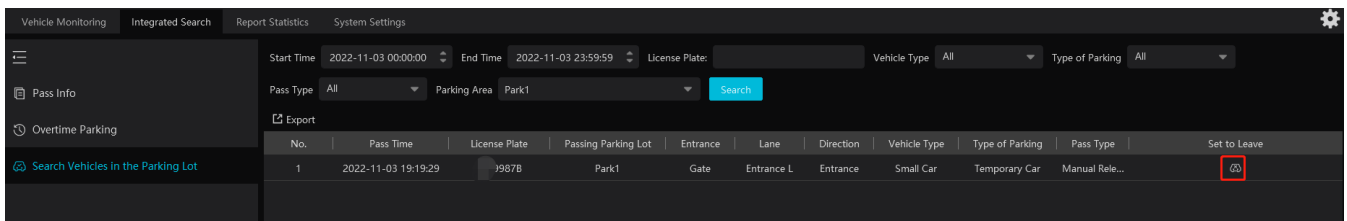


17.4.2 Search Overdue Parking

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)

17.4.3 Search Vehicles in the Parking Lot

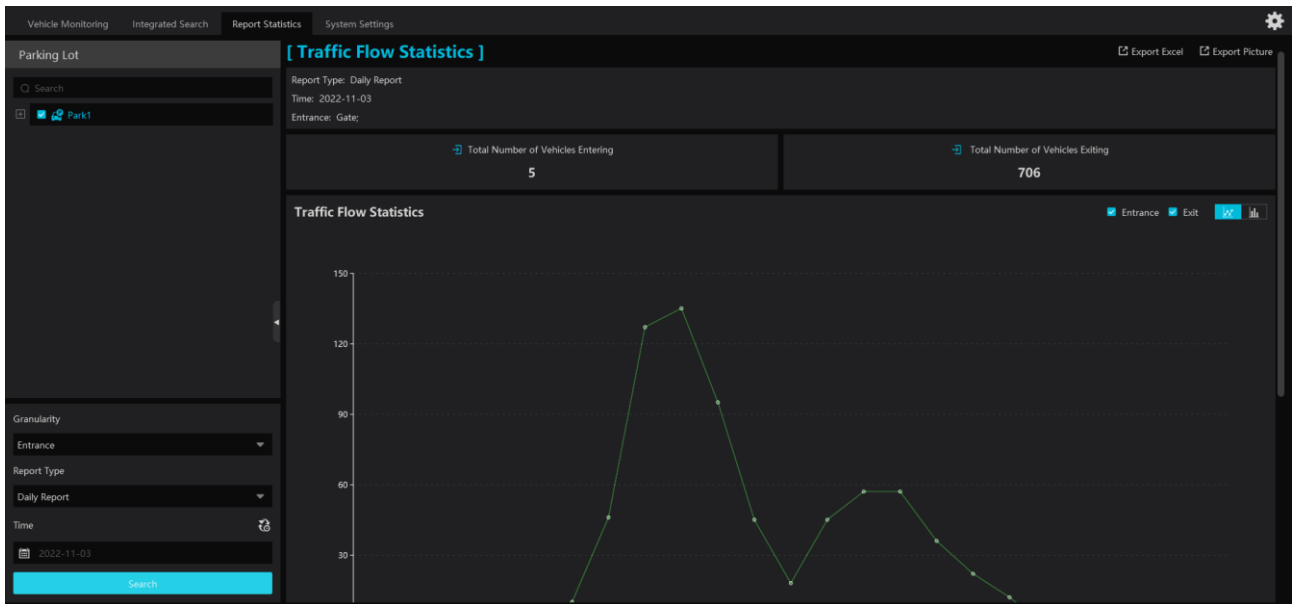
Set the filtering condition (start time, end time, plate number, vehicle type, parking type or parking area), click [Search] to search vehicles in the parking lot. Click [Export] to export the searched vehicle information in the parking lot.



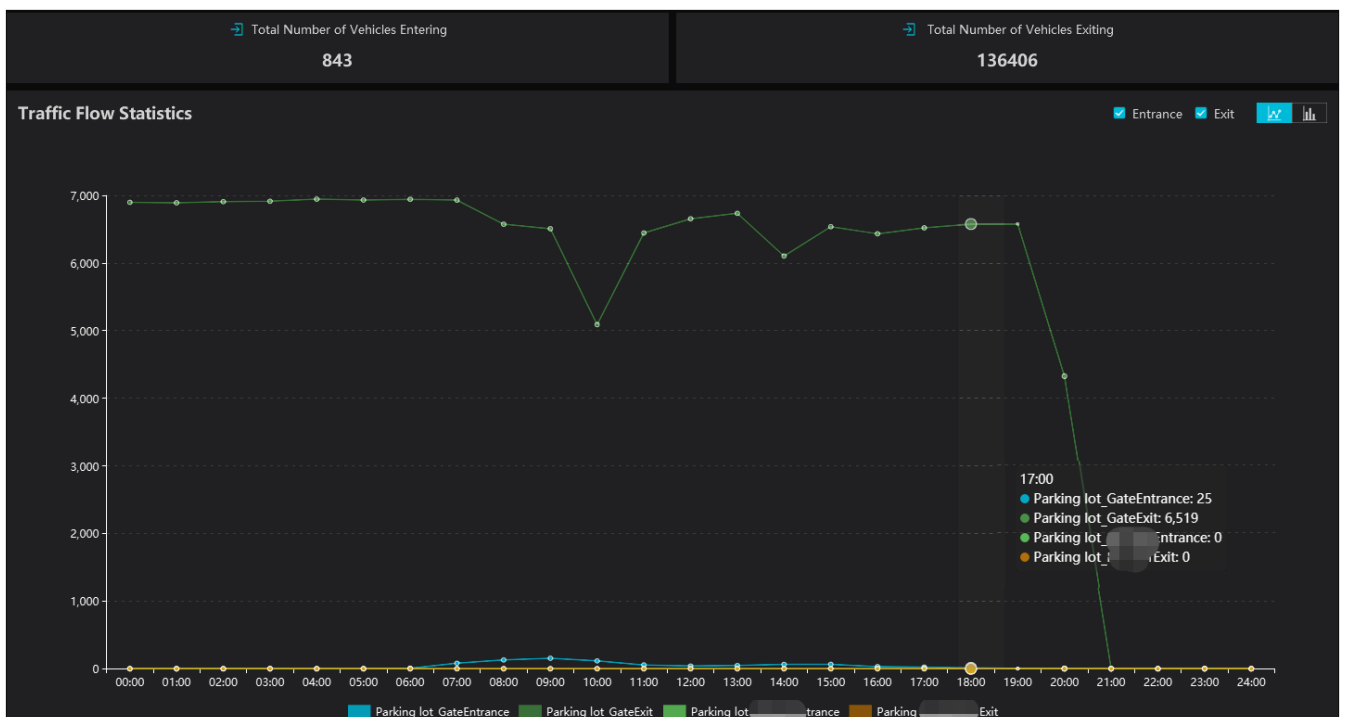
If the searched vehicle has actually been driven away, you can click to correct. Then the vehicle will not be searched in this interface.

17.5 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.

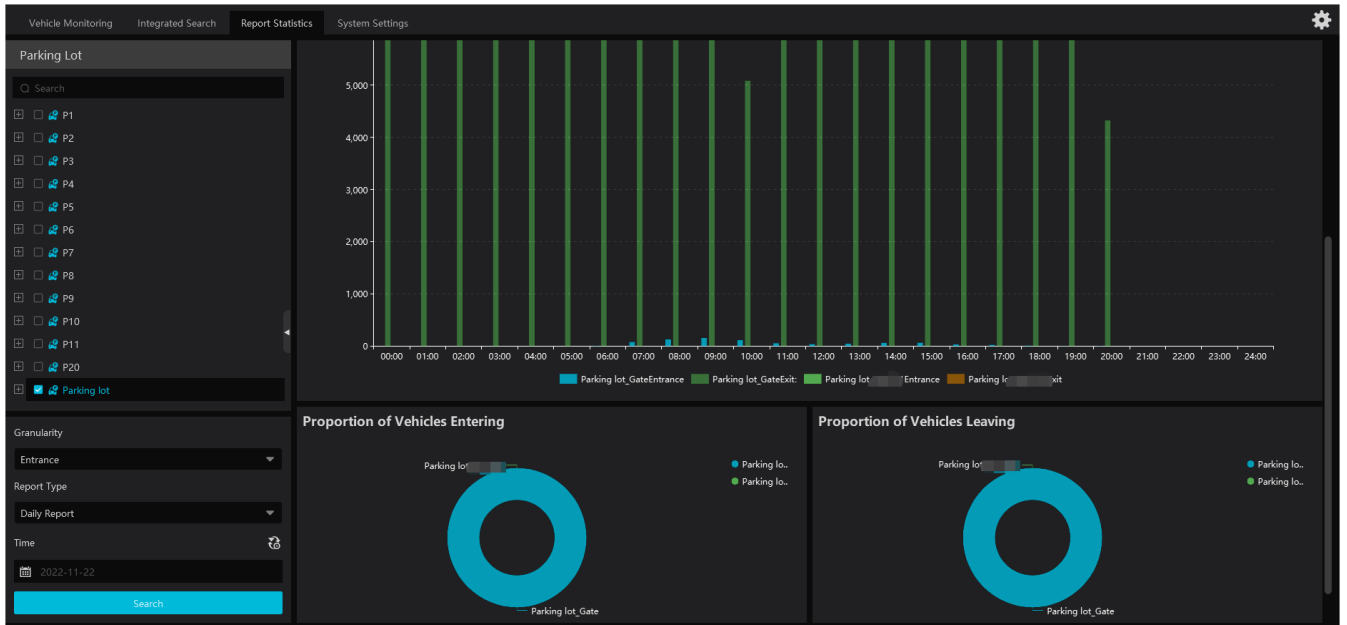


On the left panel, select the parking lot and entrances/exits you want to view the statistical information. Then select the report type and data. Click to select the desired date; click to select the date range. After that, click [search] to display the statistical information.



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”.

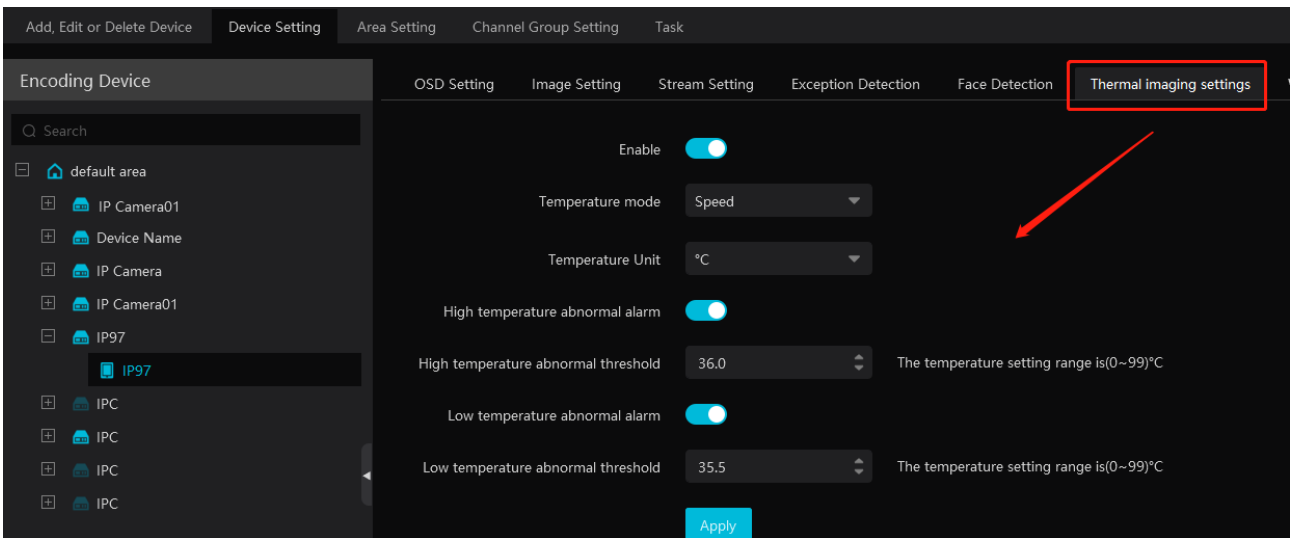
Click [Export Picture] to export pictures (.png format).

18 Body Temperature Measurement

18.1 Add Temperature Reading Devices


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

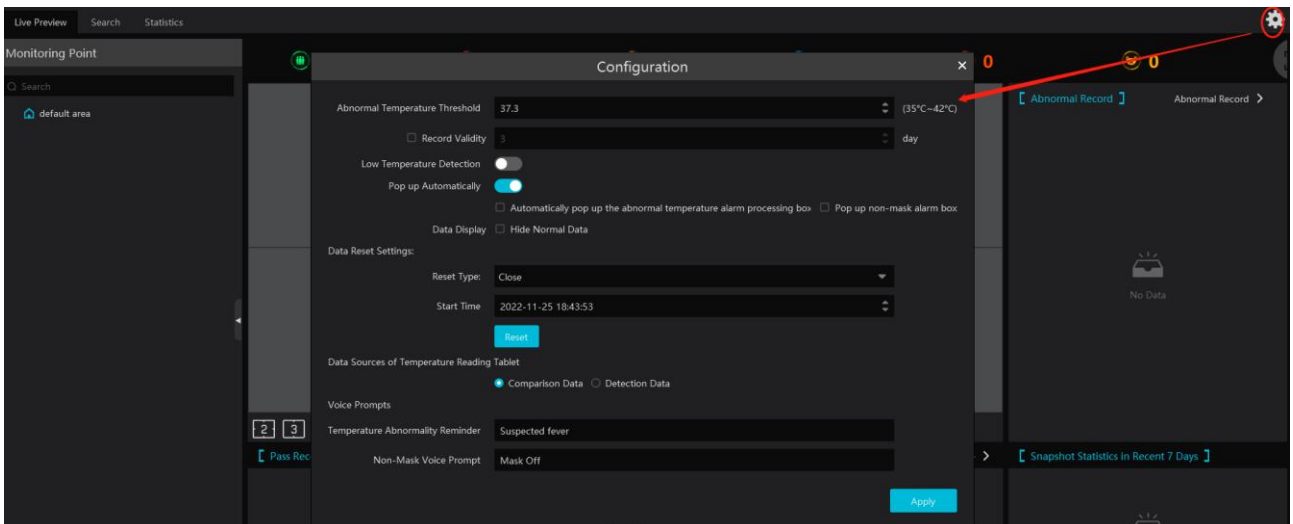
1. Click Home → Resource Management → Add, Edit or Delete Device → Encoding Device to go to the encoding device interface. Click [Add] to add the temperature reading devices.
2. Click Home → Resource Management → Device Setting to go to the device setting interface. Select the temperature reading device 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.



18.2 Temperature Screening

18.2.1 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:

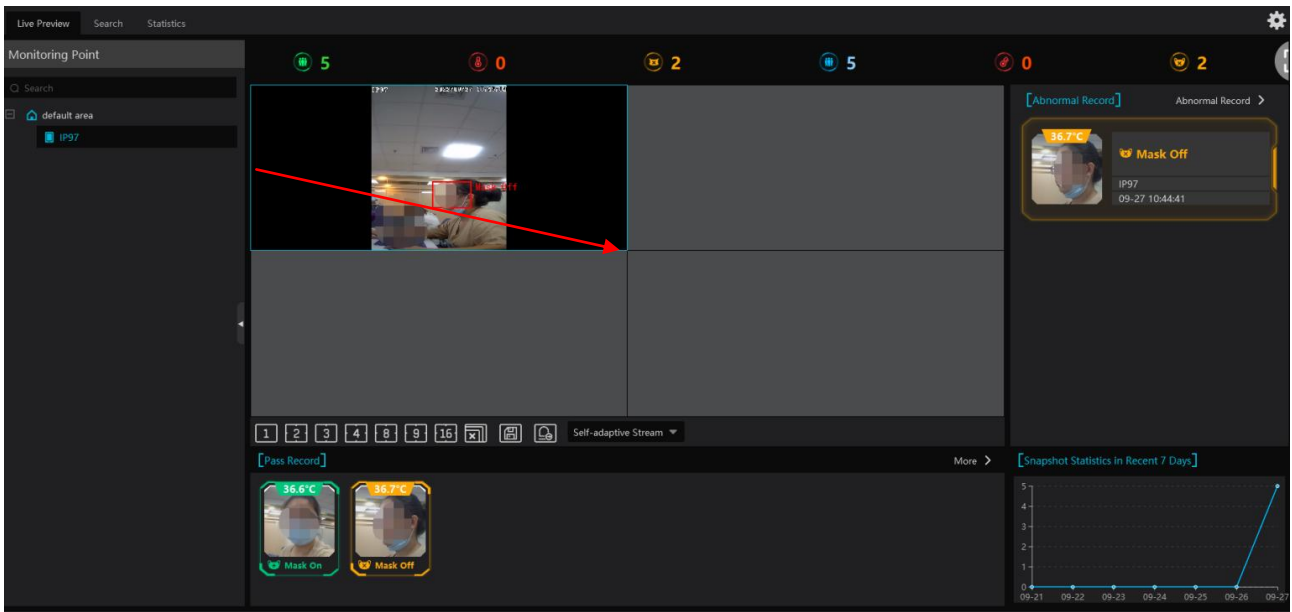
- a. Reset time and type: please reset time of the temperature data as needed. These data can be reset every day, every week or every month.
- b. You can reset the statistics by clicking [Reset].

Data sources of Temperature Reading Tablet: 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.

18.2.2 Live Preview

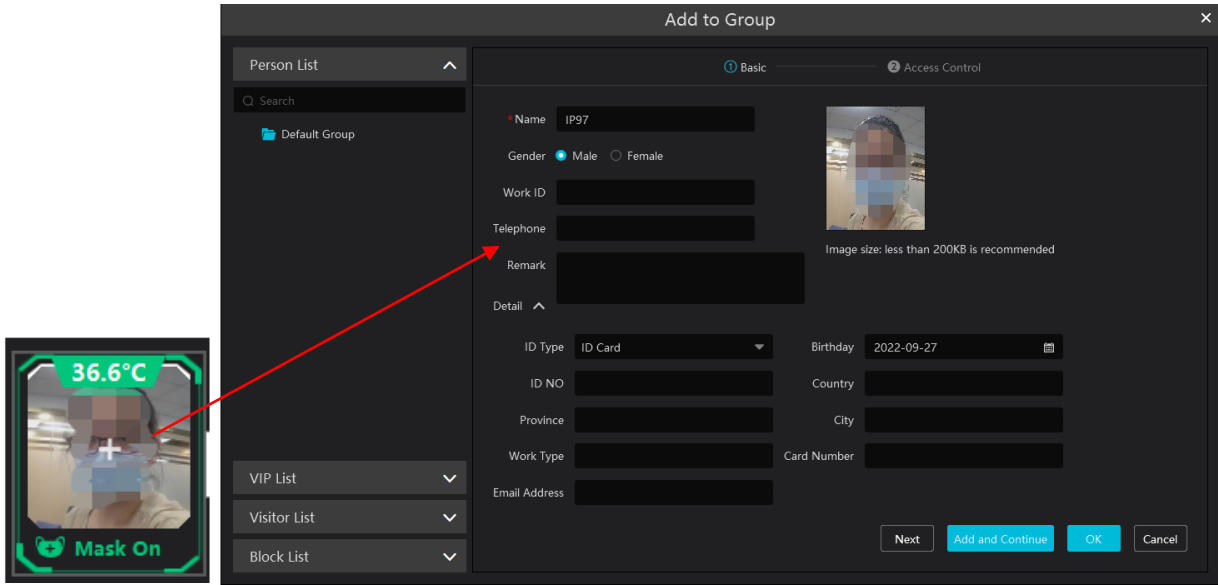
Drag the thermal cameras/temperature measurement and face recognition terminals to the preview window. In this interface, you can view various statistical information, such as total pass-by(today/total), Over-temperature(today/total), mask off (today/total), etc.



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.

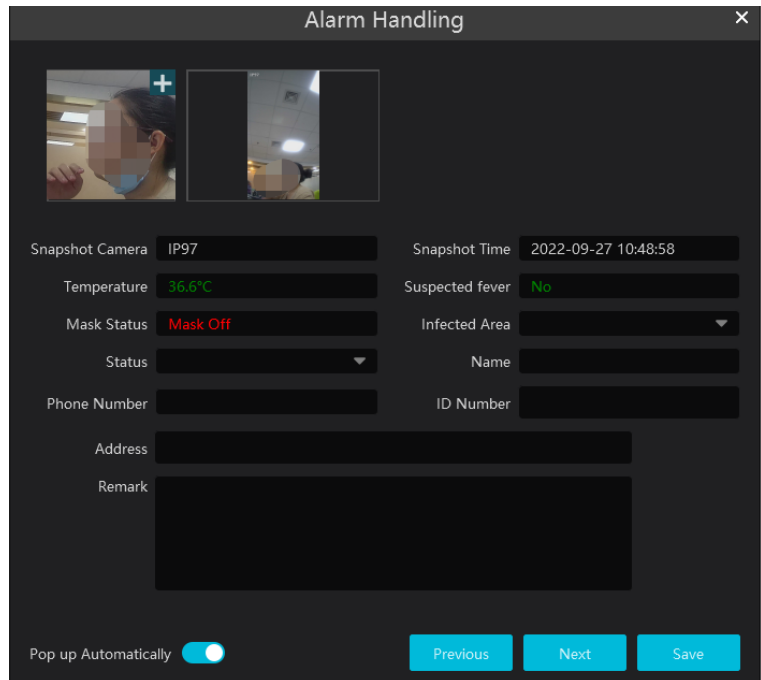


The thermal image and visible light image will be displayed simultaneously if the thermal camera is dragged to the preview area. Right click on the thermal camera window and then select the fourth stream to view the thermal image.

➤ **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**

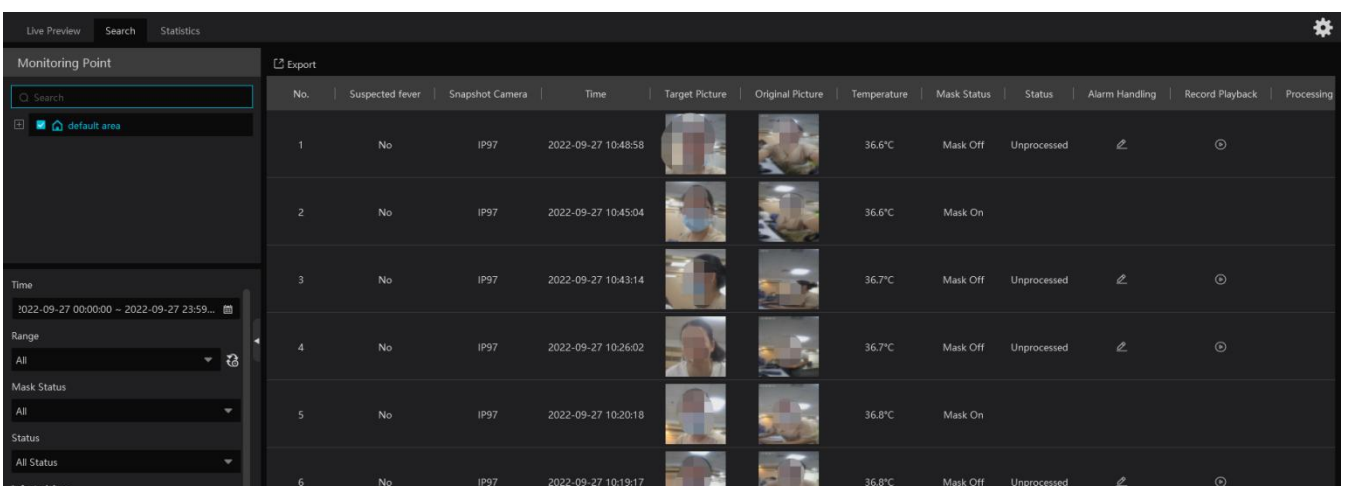
In the temperature measurement interface, click  to enter temperature warning system interface.



Click  to exit the full screen mode.

18.2.3 Record Search

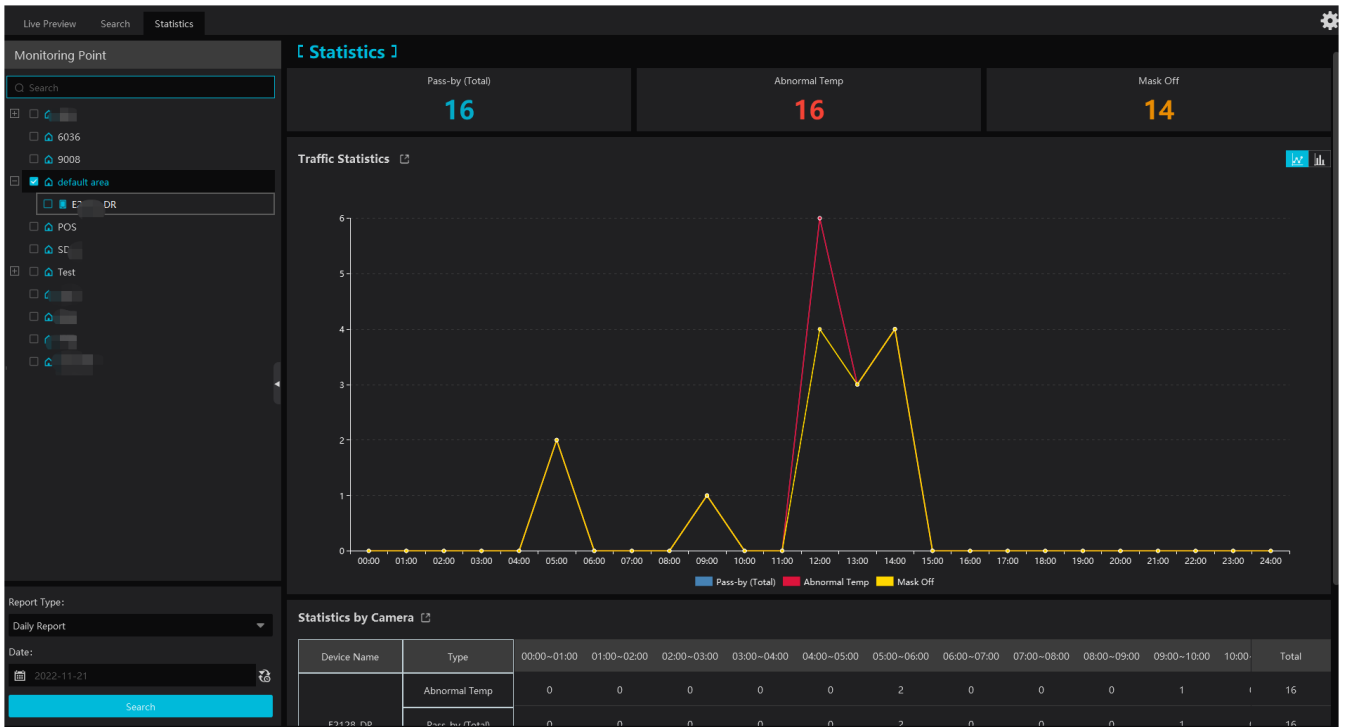
Select the camera and then set the filter condition (like the start and end time, temperature range, keywords, etc.) to search the records.



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

18.2.4 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.

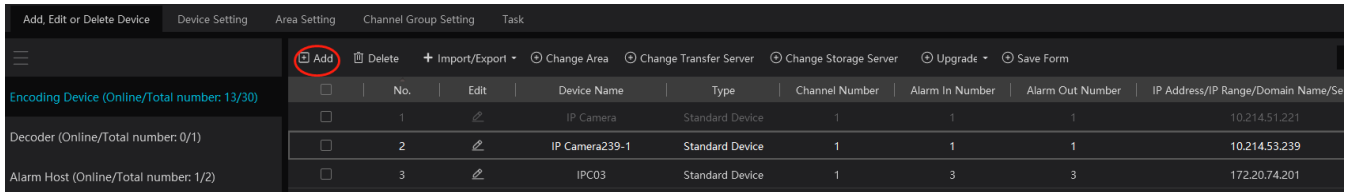
Choose the camera and then set the start time and end time. Click “Search” to view the statistics.

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

19 Industrial Temperature Measurement

19.1 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.

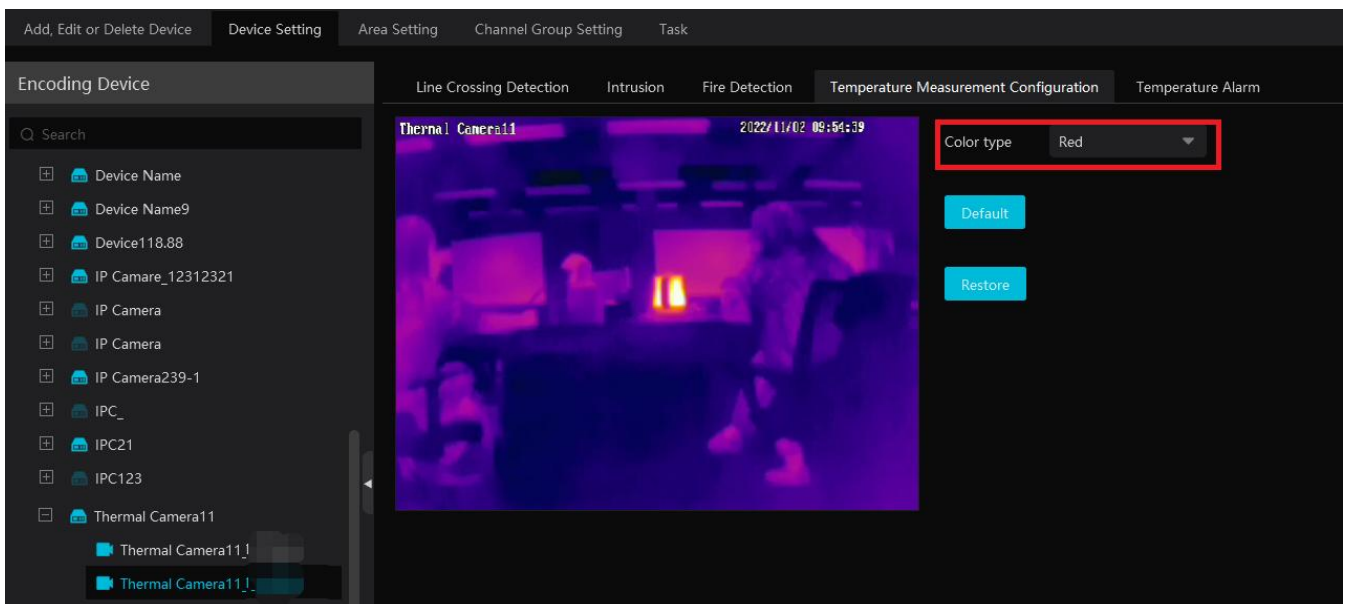


The screenshot shows the 'Add, Edit or Delete Device' interface with a table of devices. The 'Add' button is circled in red. The table has columns for No., Edit, Device Name, Type, Channel Number, Alarm In Number, Alarm Out Number, and IP Address/IP Range/Domain Name/Se.

No.	Edit	Device Name	Type	Channel Number	Alarm In Number	Alarm Out Number	IP Address/IP Range/Domain Name/Se
1		IP Camera	Standard Device	1	1	1	10.214.51.221
2		IP Camera239-1	Standard Device	1	1	1	10.214.53.239
3		IPC03	Standard Device	1	3	3	172.20.74.201

19.1.1 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.

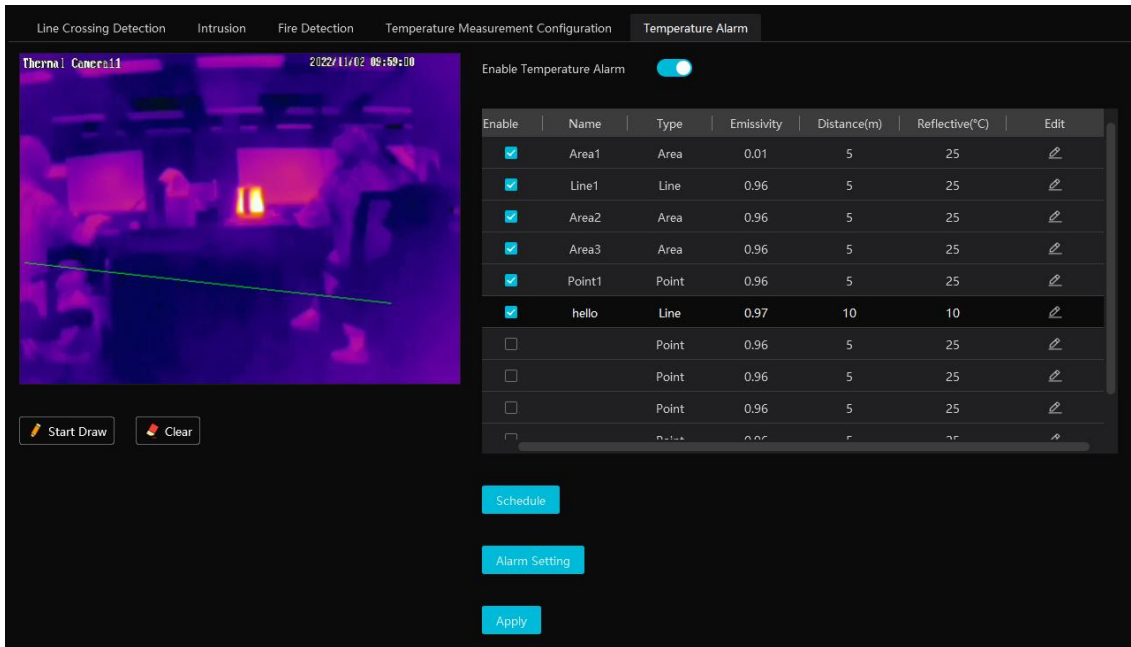


Color Type: White/Black/Rainbow coding/Red

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

19.1.2 Temperature Alarm Settings

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



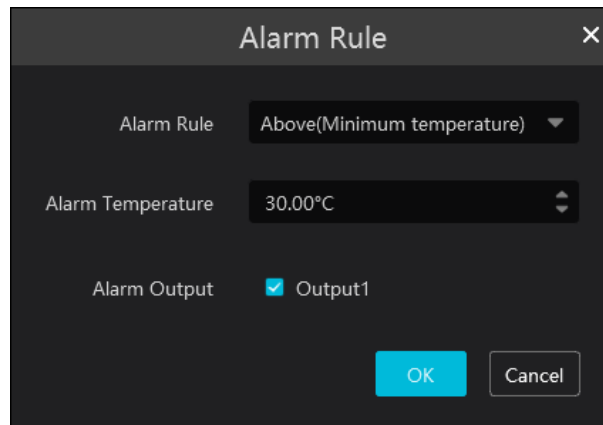
Enable temperature alarm.

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.

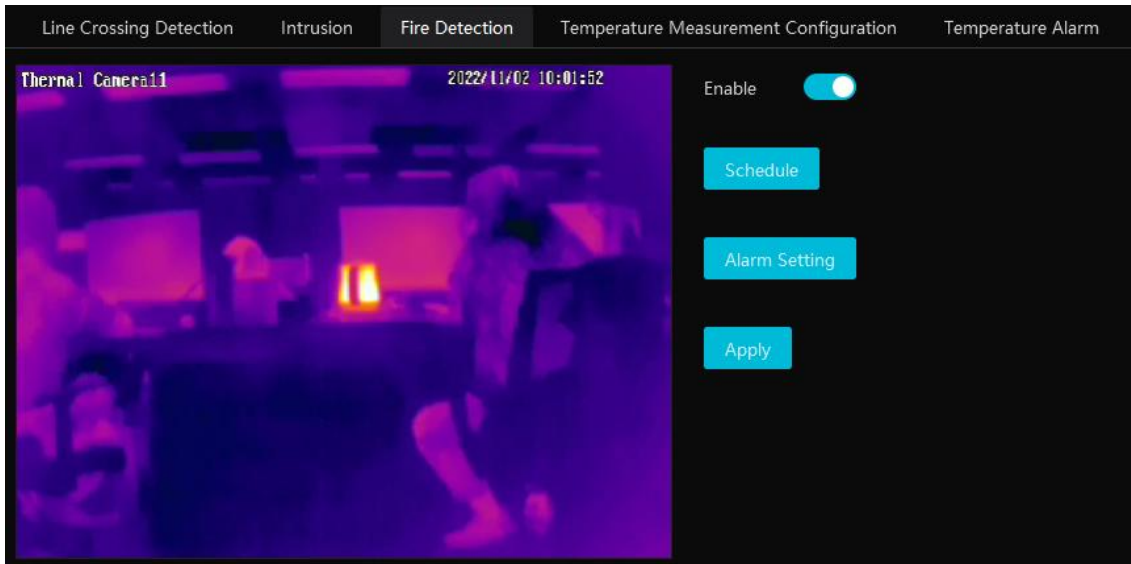
Clear: clear the drawn point/line/area.

Schedule: Set the schedule of temperature alarm.

Alarm Setting: Set the alarm of the IPC.

19.1.3 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.

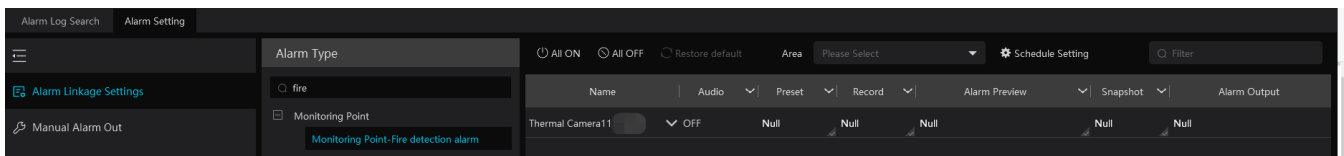
Enable: Check it to enable the fire detection function.

19.1.4 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.



19.2 Temperature Measurement

19.2.1 Video Preview


Go to the video preview interface and then drag the thermal camera to the window to play. 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.

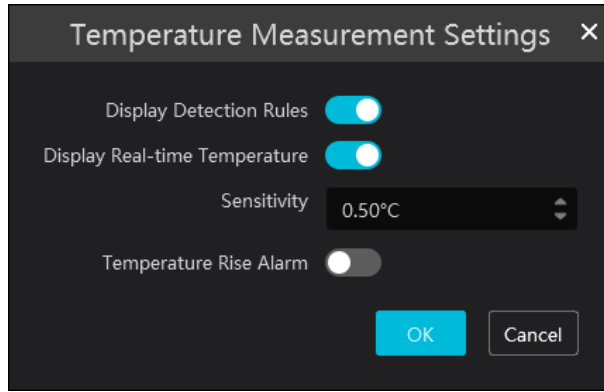


19.2.2 Data Analysis

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.



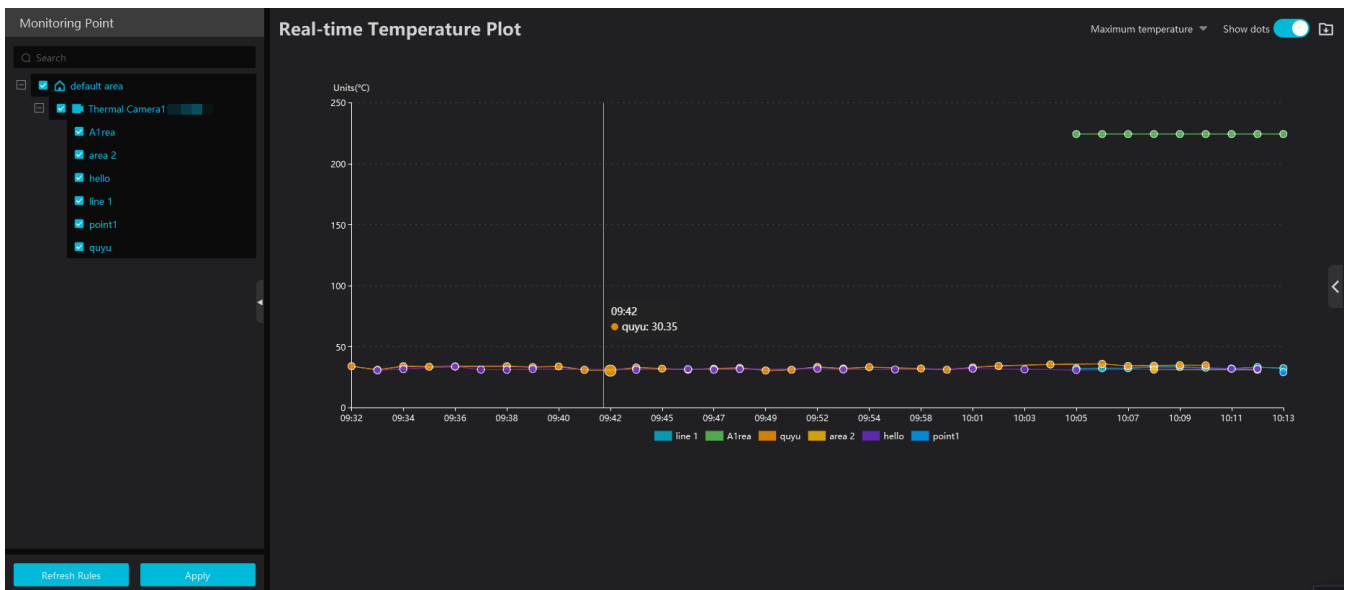
You can set the alarm linkage items of temperature rise alarm. When the rise of the temperature exceeds the set value, the relevant alarms will be triggered. Go to Alarm Center→Alarm Linkage Settings interface and select “Monitoring Point—Abnormal temperature rise” to set the alarm linkage items.

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 1°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.

	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 a software interface for monitoring data. On the left, there is a sidebar with a search bar and a tree view containing folders like 'default area', 'Thermal Camera1', and sub-items like 'A1rea', 'area 2', 'hello', 'line 1', and 'point1'. The main area displays a table with columns: No., Time, Monitoring Point Name, Minimum temperature, Average temperature, Maximum temperature, and Area. A modal dialog box titled 'Question' 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 of the interface shows a time range '2022-11-02 00:00:00 ~ 2022-11-02 23:59:59', a search button, and pagination information 'Total: 381 50 /Page'.

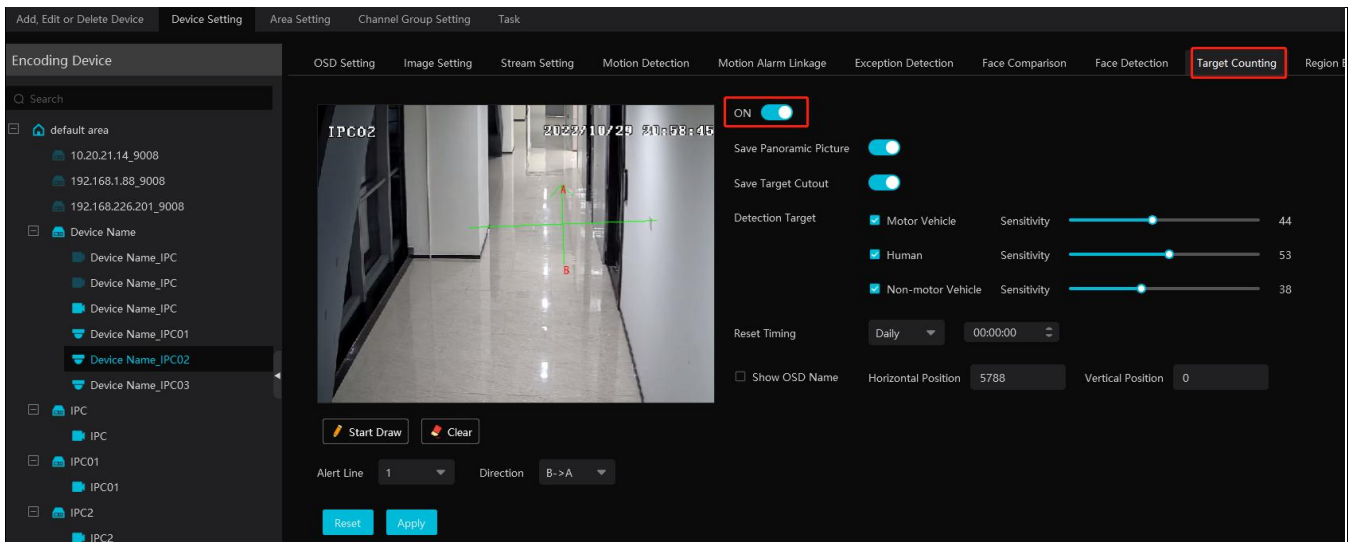
20 Target Counting


20.1 Task Management

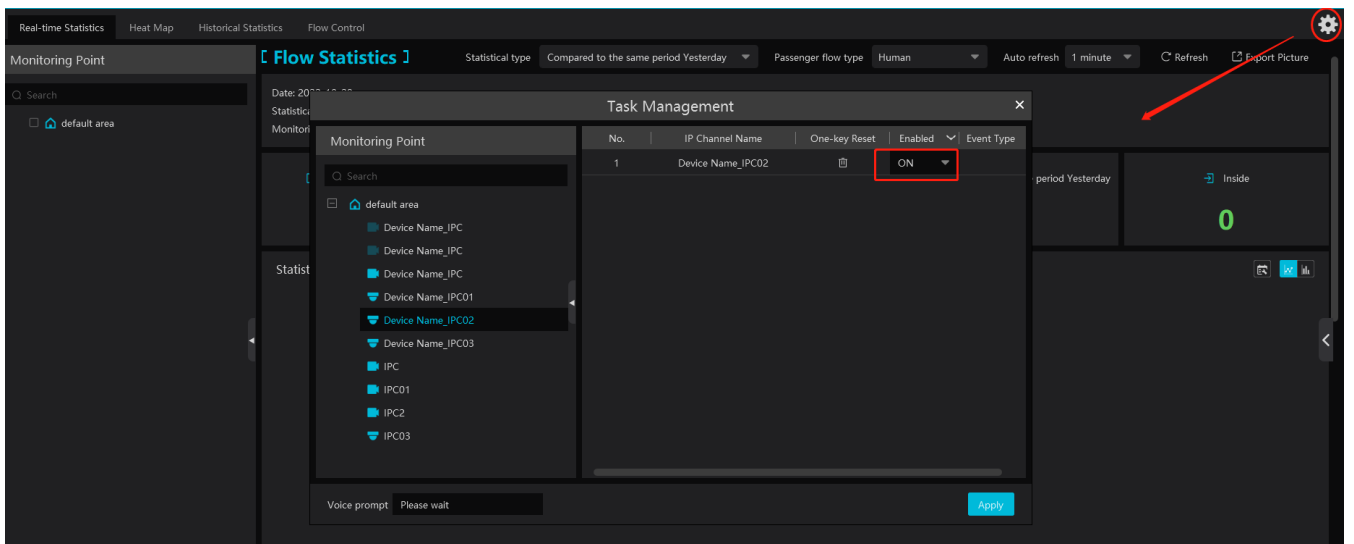
1. Enable “Target Counting” function of the IPC.

Note: the added camera must enable target counting function.

IPC with Target Counting function



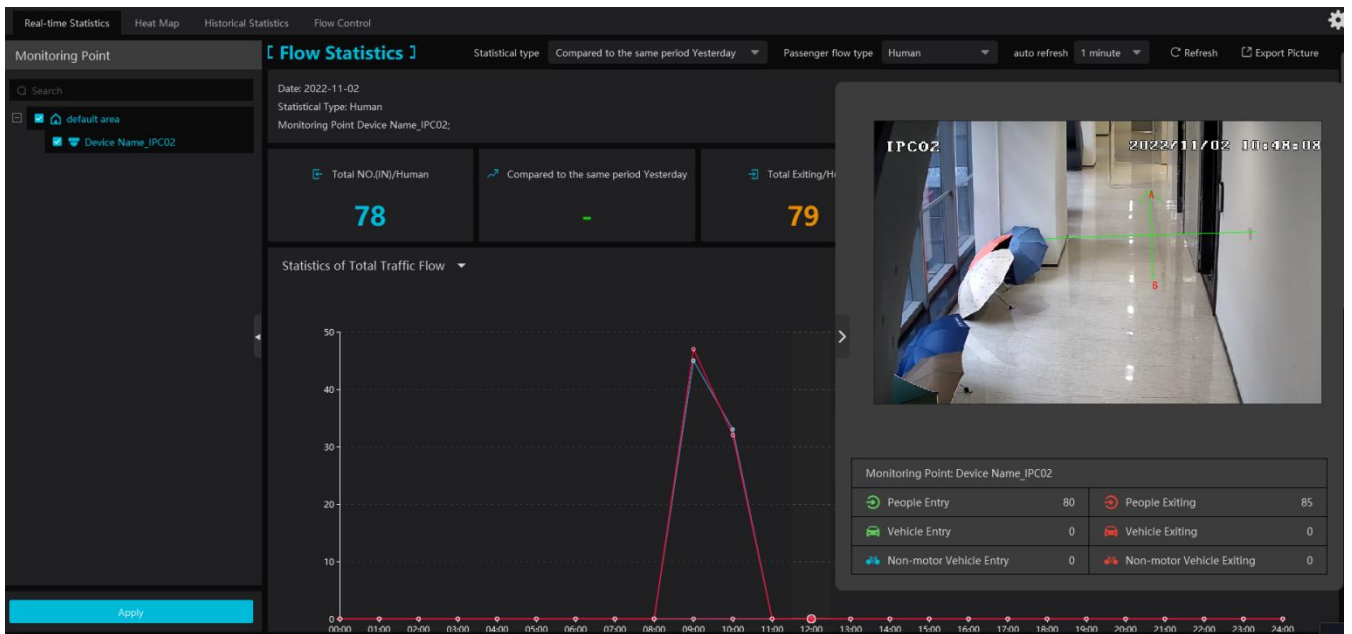
2. Go to Home→Target Counting interface. Clicking on  enters the following interface. Select the camera with the target counting function and then enable it. After that, click [Apply] to save the settings.



20.2 Real-time Statistics

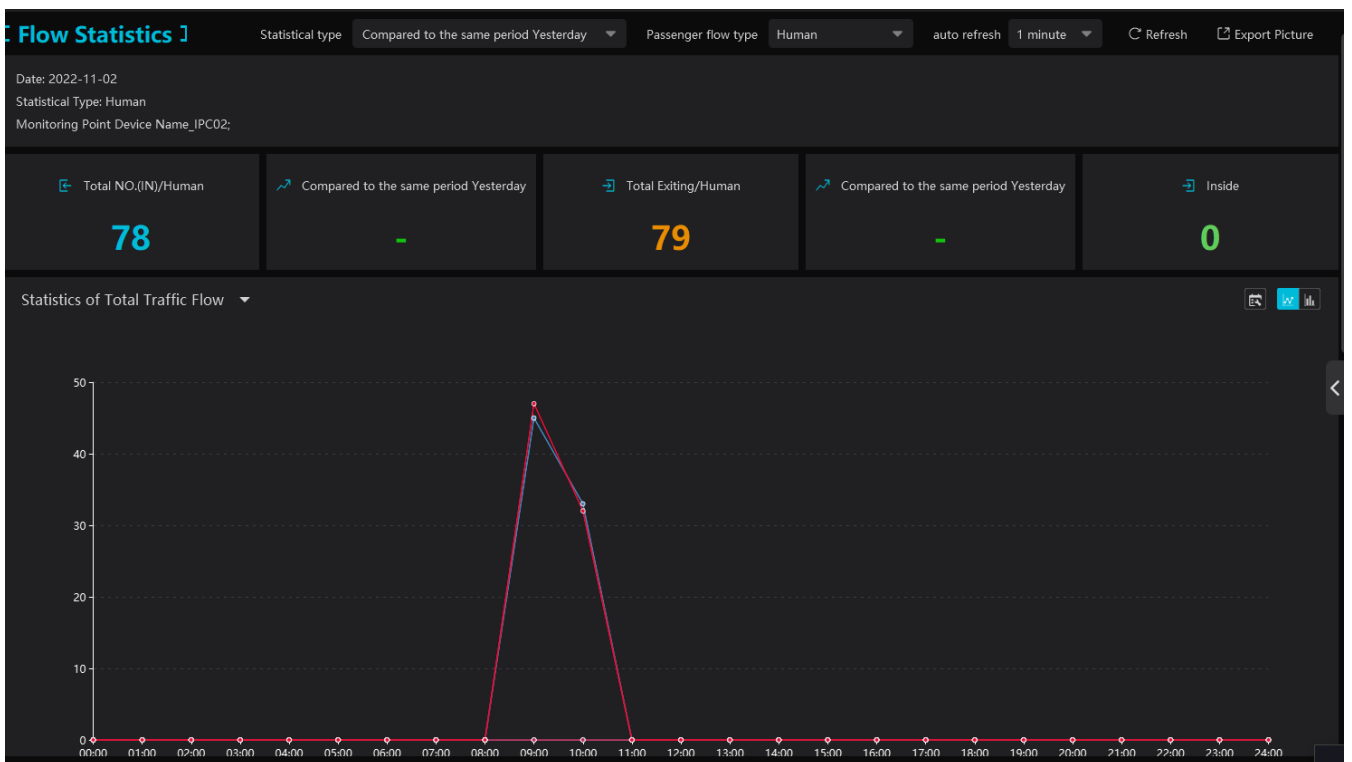
Go to Home→Target Counting→Real-time Statistics. Double click the camera with the target counting function to view the live image. The camera will automatically count the number of people/motor vehicle/non-motor vehicle crossing the predefined line and the system will automatically analyze the traffic flow trends.

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

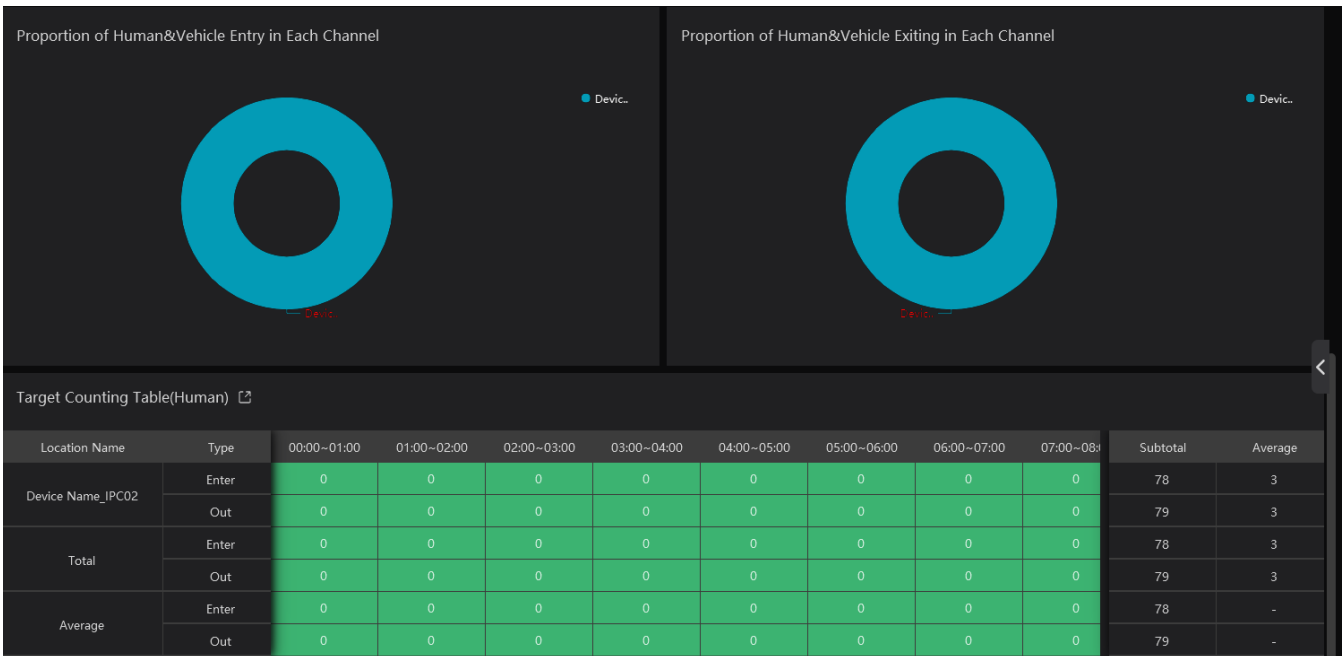


Please select the type as needed to view the flow trend. Click **Refresh** to refresh the current statistics.

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



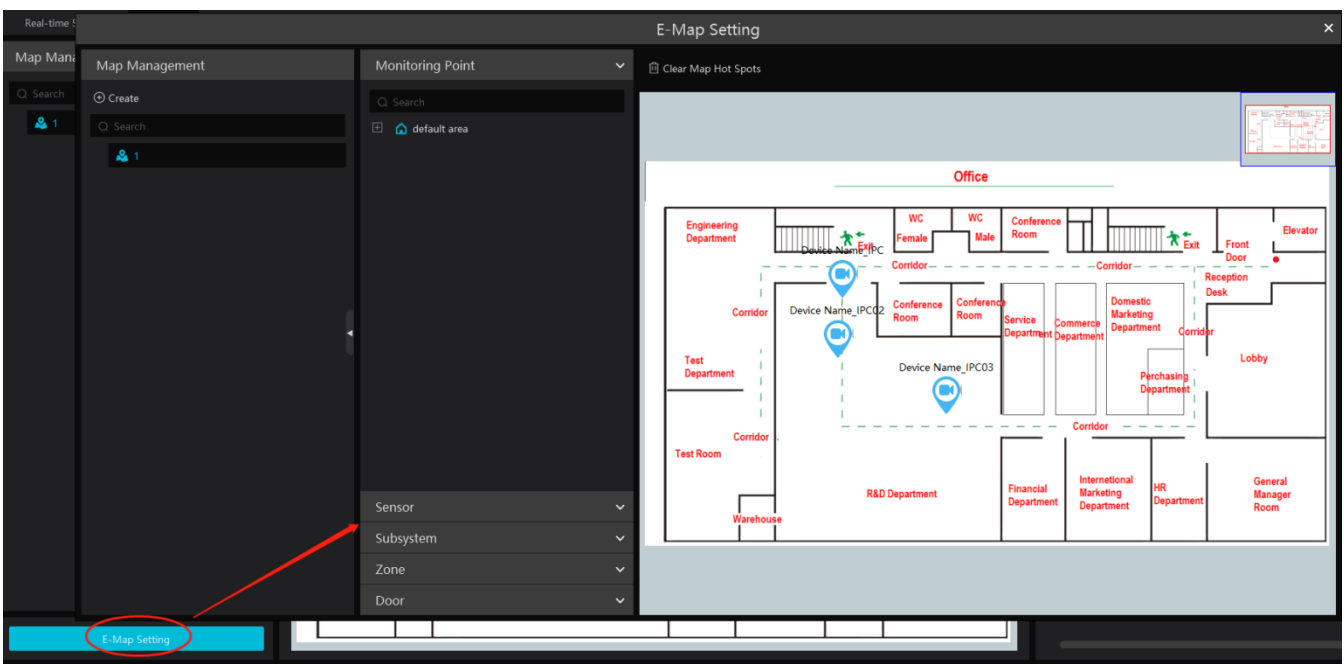
In the above interface, you can view the statistics of people/vehicles entering or exiting. Scroll down to view the traffic flow statistics via pie charts and tables.



20.3 Heat Map

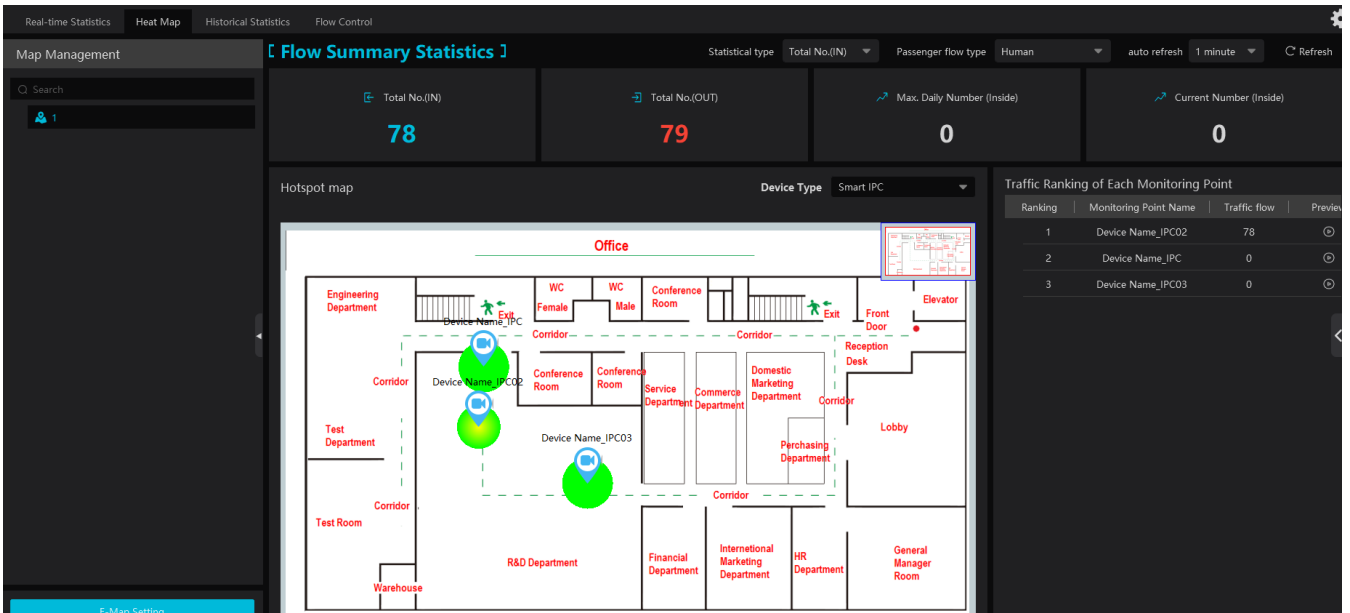
Go to Home→Target Counting→Heat Map interface.

Please create a map first.



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

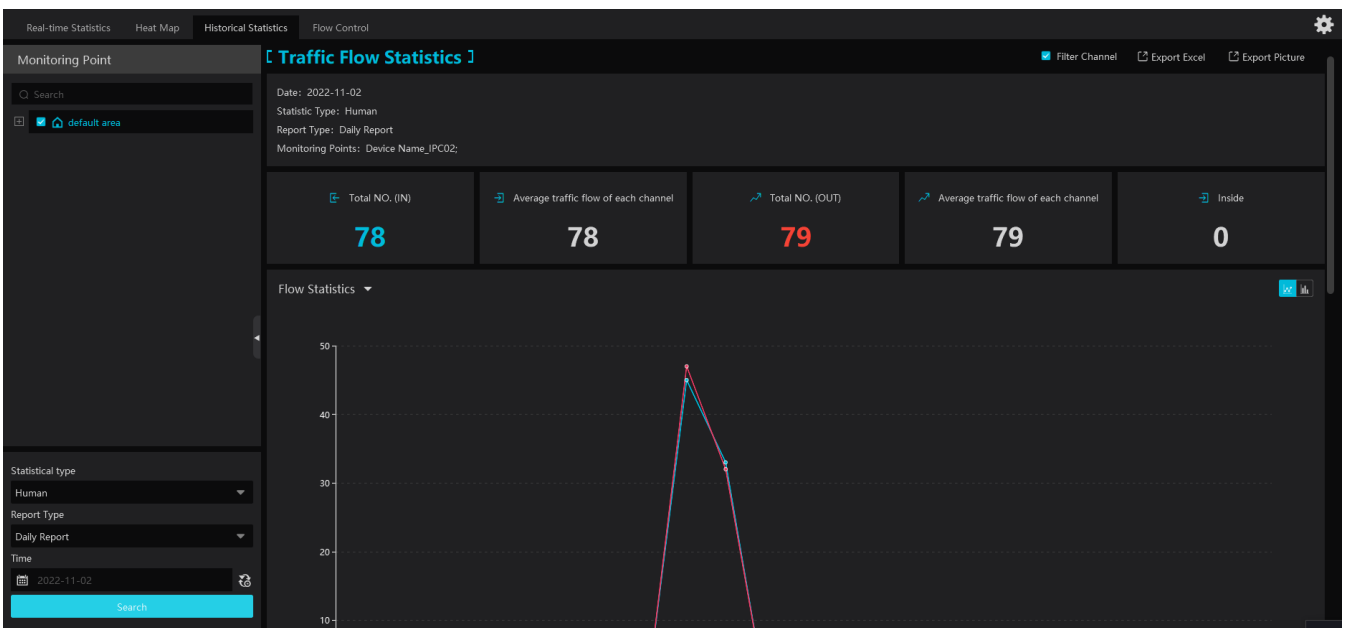
Put the cursor on the camera icon and then you will see the detailed flow statistics.



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

20.4 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.

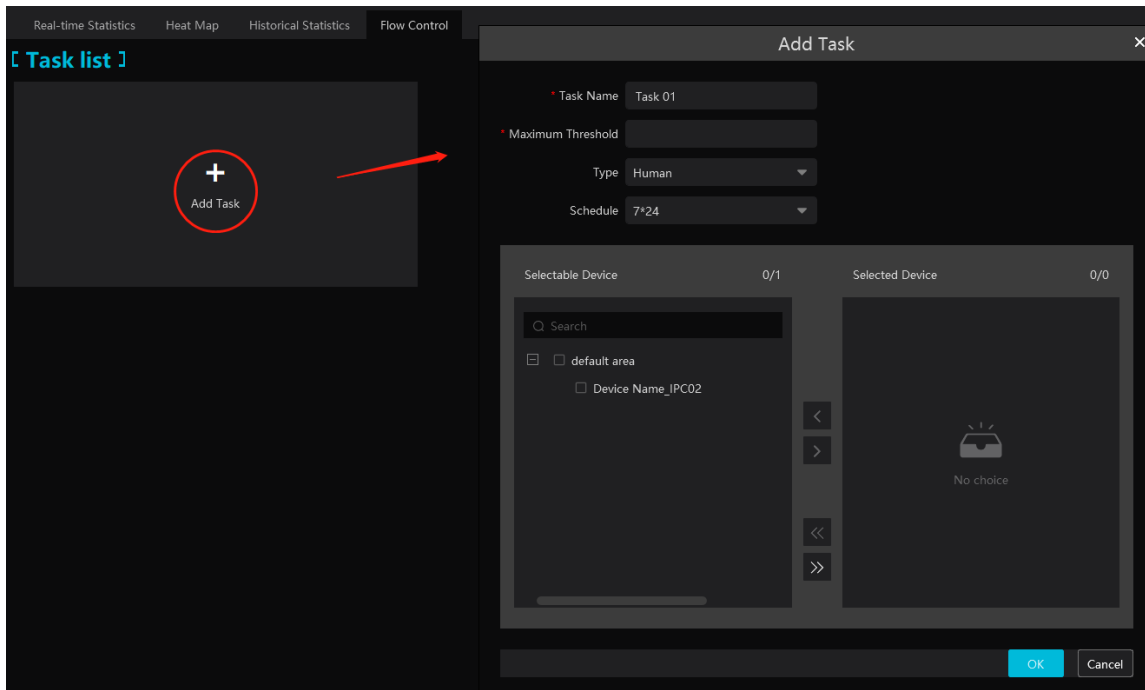


20.5 Flow Control

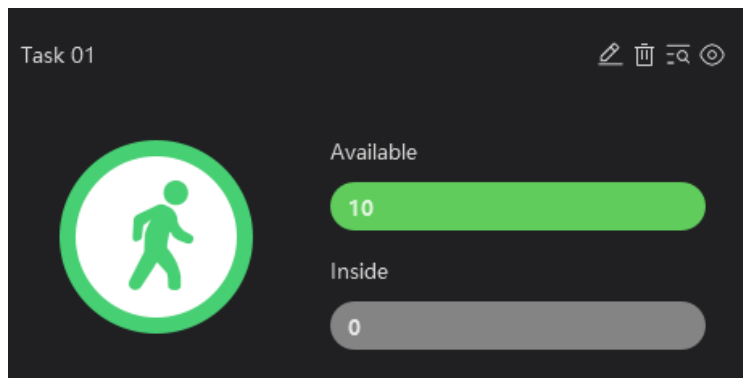
Flow Control: Control the people/vehicles entering or exiting in a specified area to avoid overcrowding. When the people/vehicles stay in the specified area exceeds the threshold, the alarm will be triggered and no entry icon will display.


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


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

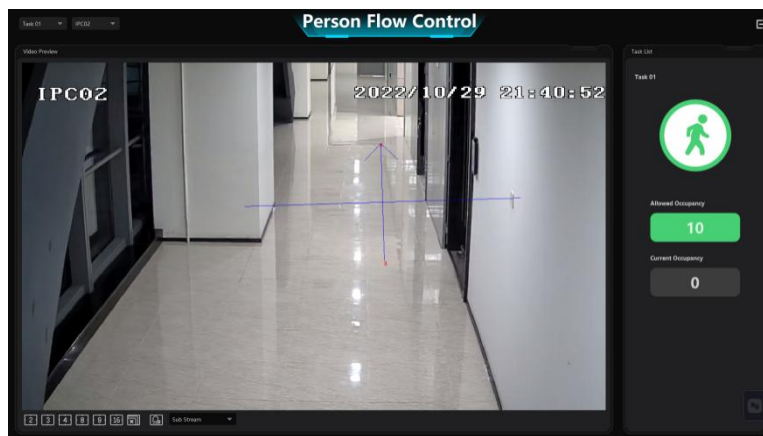


Then the available number and inside number can be viewed as below.

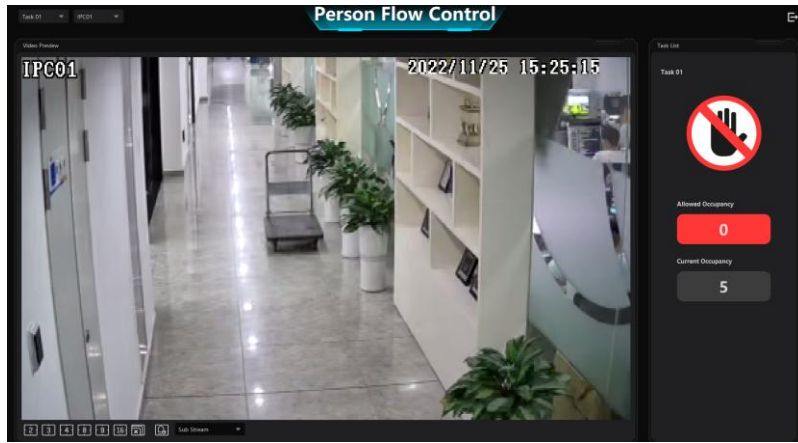



Click  to view the quantities of the people/vehicles entry and exiting.

Click  to enter the flow control preview interface.



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.

21 Visitor Management

The system provides an entire process for visitor management. You can manage visitors through access control devices and this system.

21.1 Add Access Control Devices

You can add a face recognition & access control terminal to manage visitors.

Click Home→Resource Management→Add, Edit or Delete Device→Encoding Device to add face recognition & access control devices.

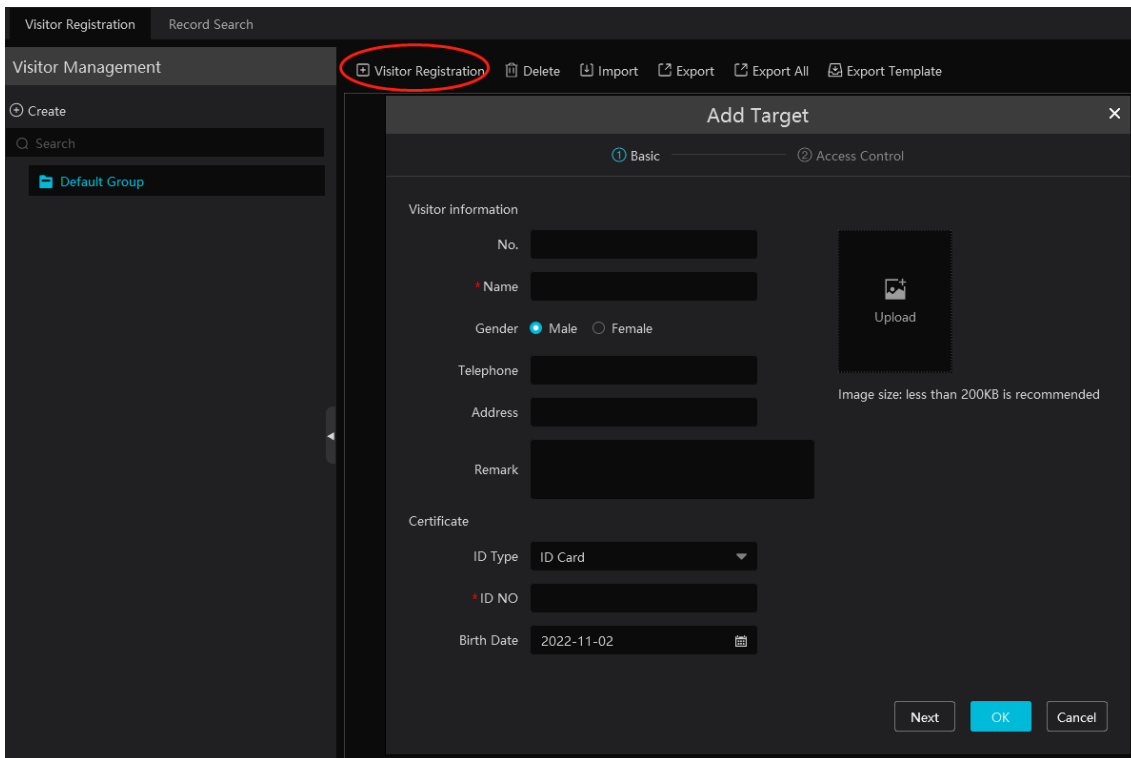
Note: Access control devices includes face recognition & access control terminal, face recognition IPC, face recognition NVR, but the face recognition IPC and NVR only can record the access records of the visitors. Please contact our technical supports to get the detailed models.

21.2 Apply for a Visit

There are two ways to apply for a visit.

1. Go to Visitor Management → Visitor Registration interface. Click “Visitor Registration” to add a visitor.

Fill out the information of the visitor and then select the visitee as needed.

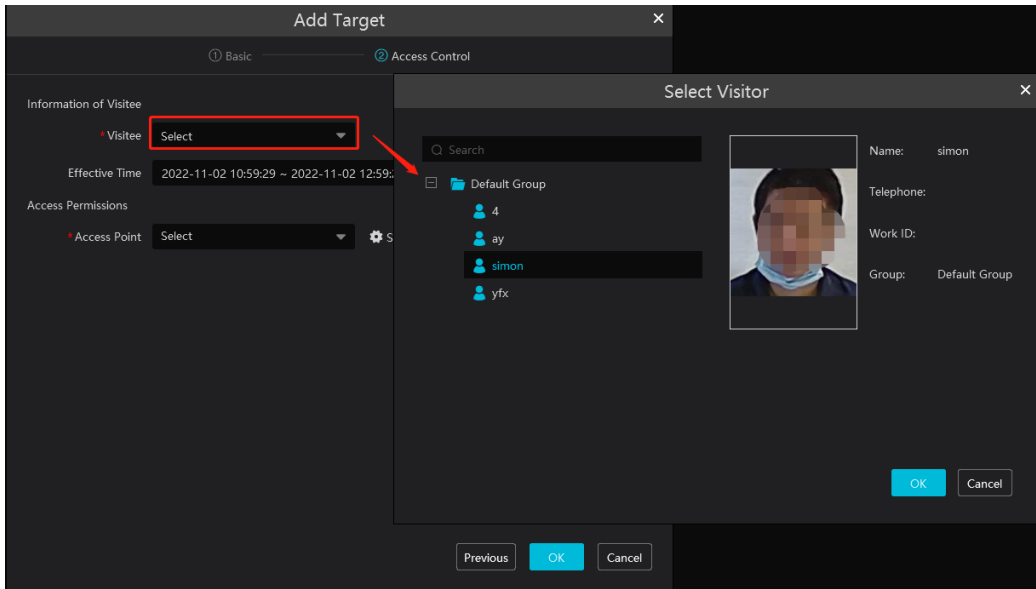


The screenshot displays the 'Visitor Registration' interface. The main window is titled 'Add Target' and has two tabs: 'Basic' (selected) and 'Access Control'. The 'Basic' tab contains the following fields:

- Visitor information:
 - No. [Text Input]
 - Name [Text Input]
 - Gender: Male Female
 - Telephone [Text Input]
 - Address [Text Input]
 - Remark [Text Input]
- Certificate:
 - ID Type: ID Card (Dropdown)
 - ID NO [Text Input]
 - Birth Date: 2022-11-02 (Date Picker)

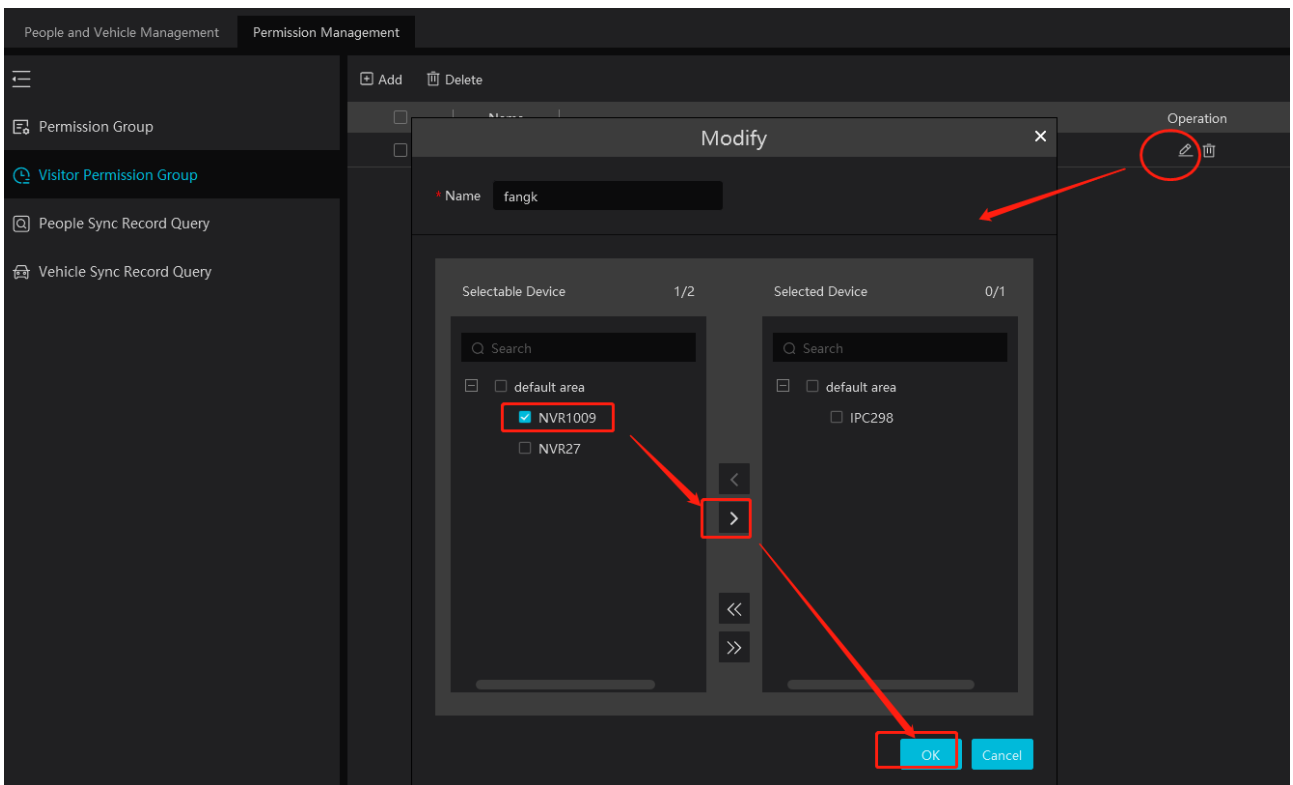
On the right side of the form, there is an 'Upload' button and a note: 'Image size: less than 200KB is recommended'. At the bottom right, there are three buttons: 'Next', 'OK', and 'Cancel'. The 'Visitor Registration' menu item in the top navigation bar is circled in red.

Select the access point.



Visitor Permission Group Settings:

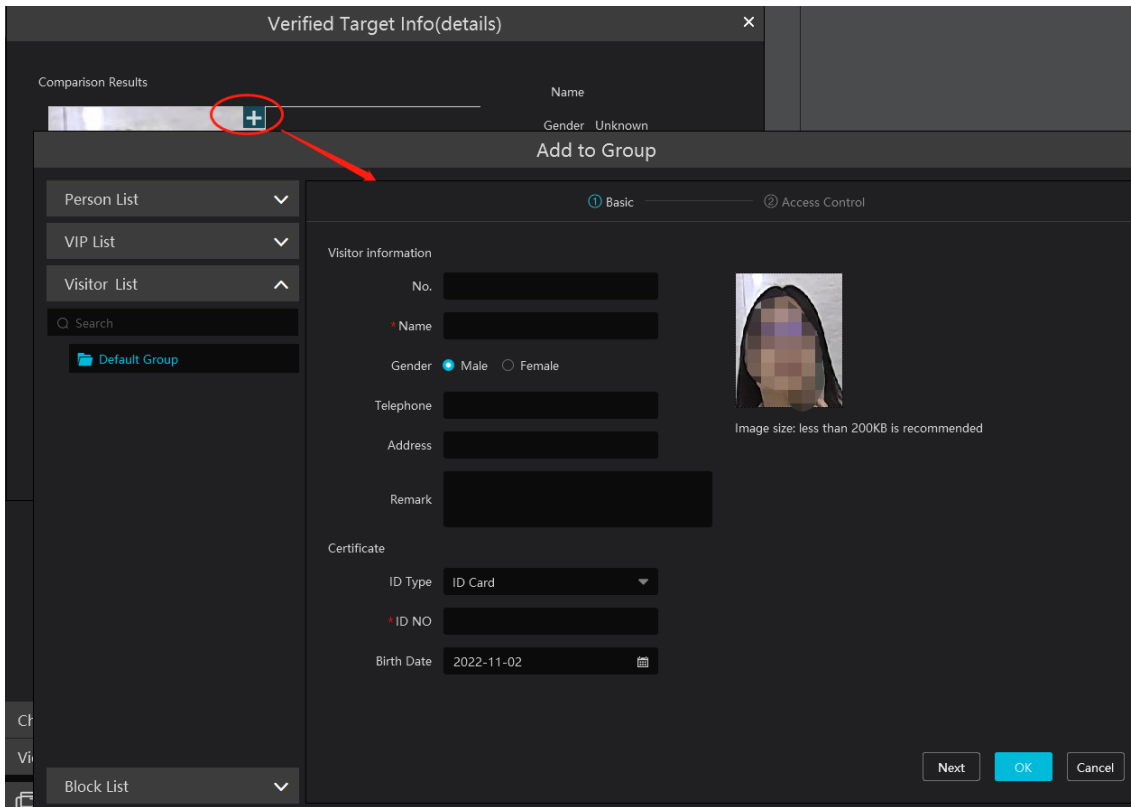
Click “Set the visitor permission group” to skip to the permission management interface. Click “Visitor Permission Group” to set the permission of visitors as shown below.



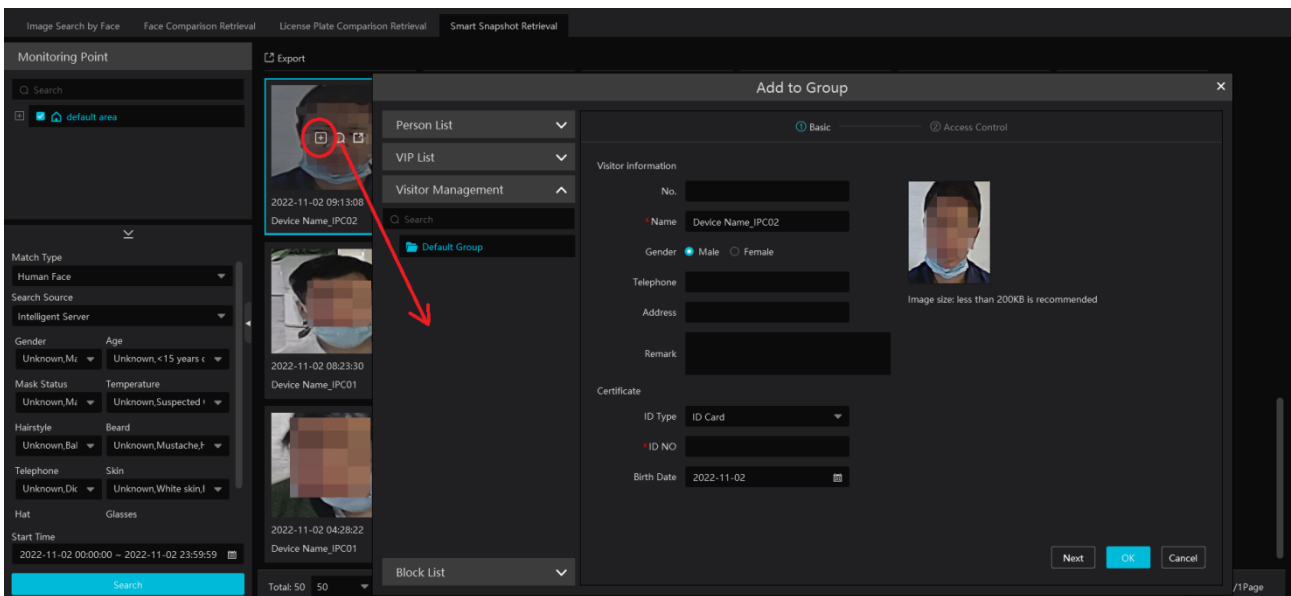
Click [Add] to add a visitor permission group. Set the permission group name and add the access point as needed. You can also modify the permission for the added visitor permission group here.

2. Add a visitor via the shortcut key

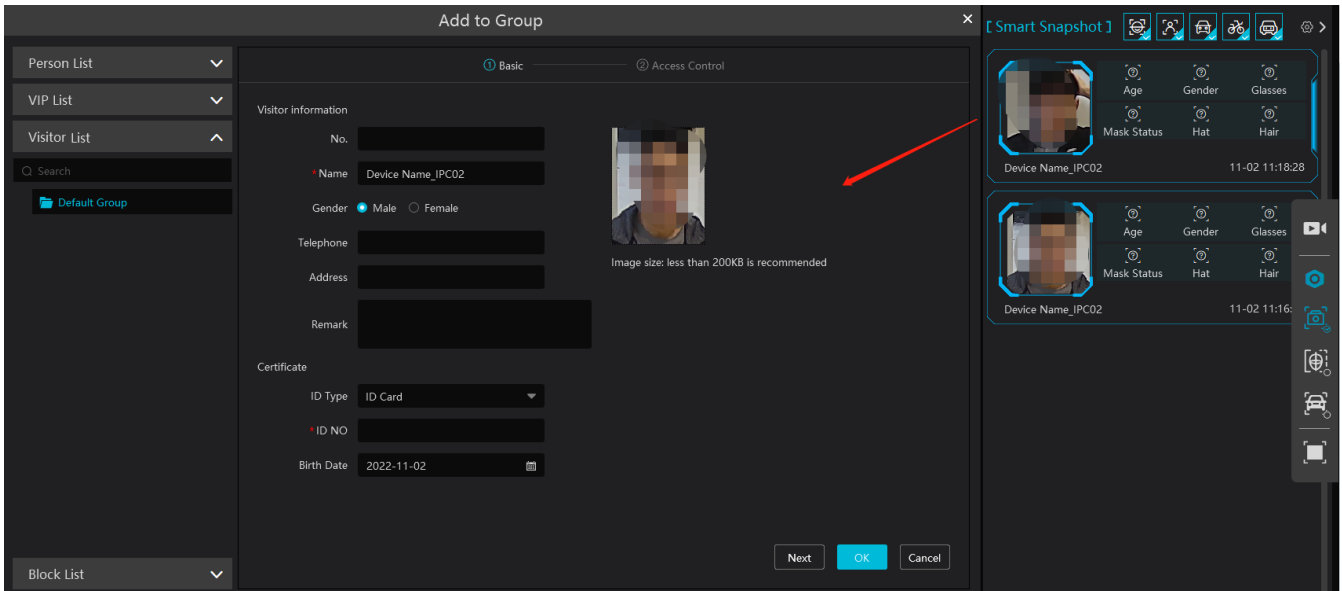
- (1) Add a visitor from the alarm pop-up window of face comparison



(2) Add a visitor from the snapshot from smart snapshot retrieval interface




(3) Add a visitor from the real-time smart snapshot interface



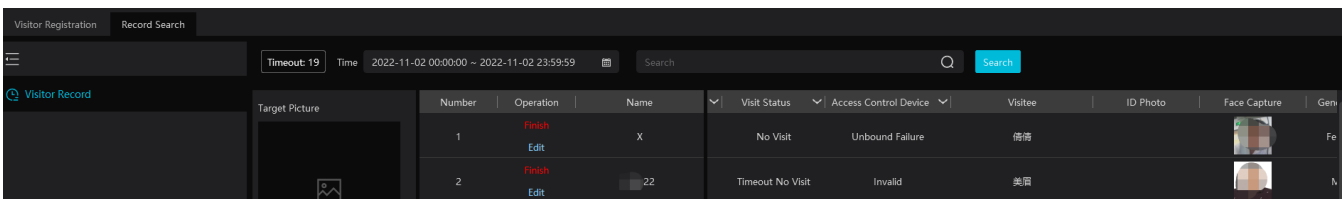
Note: if the operator has no permission of visitor adding, he/she cannot add visitors.

21.3 Search and Export Visitor Record

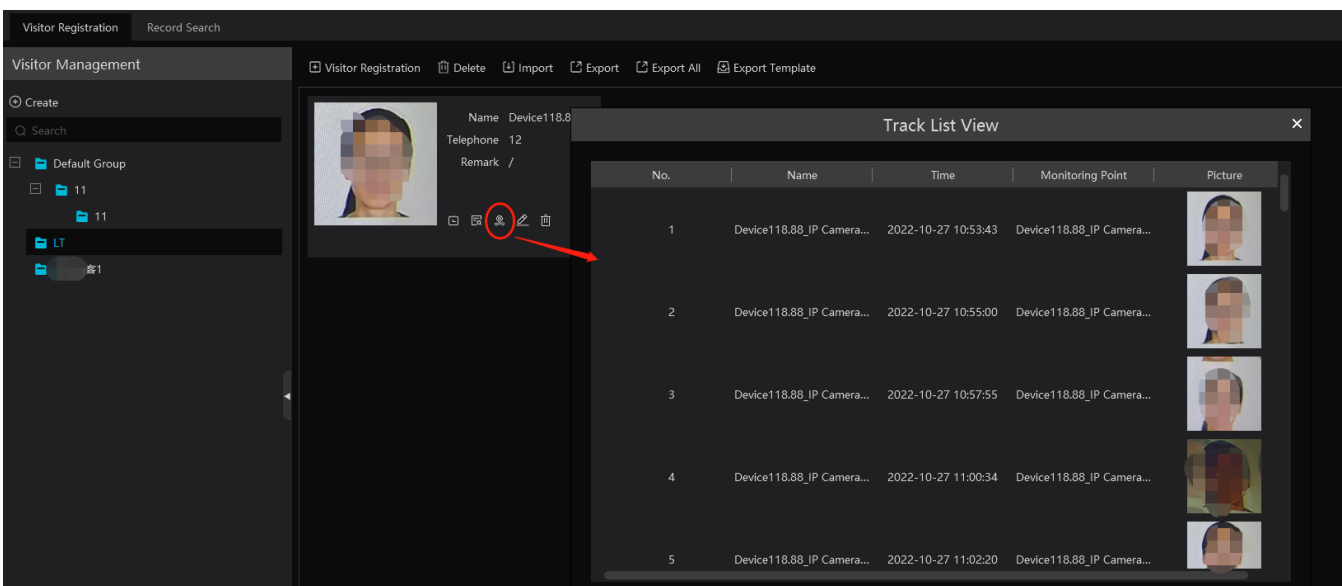
Set the start and end time and then click [Search] to search the visitor record.

You can also enter the key words and click  to search the visitor record.

Click [Export] to export the visitor record to an Excel file. Note that only the super administrator supports visitor record export.



After the access control device is linked to the visitor, the access control device will report the matched information to the platform when the visitor comes.

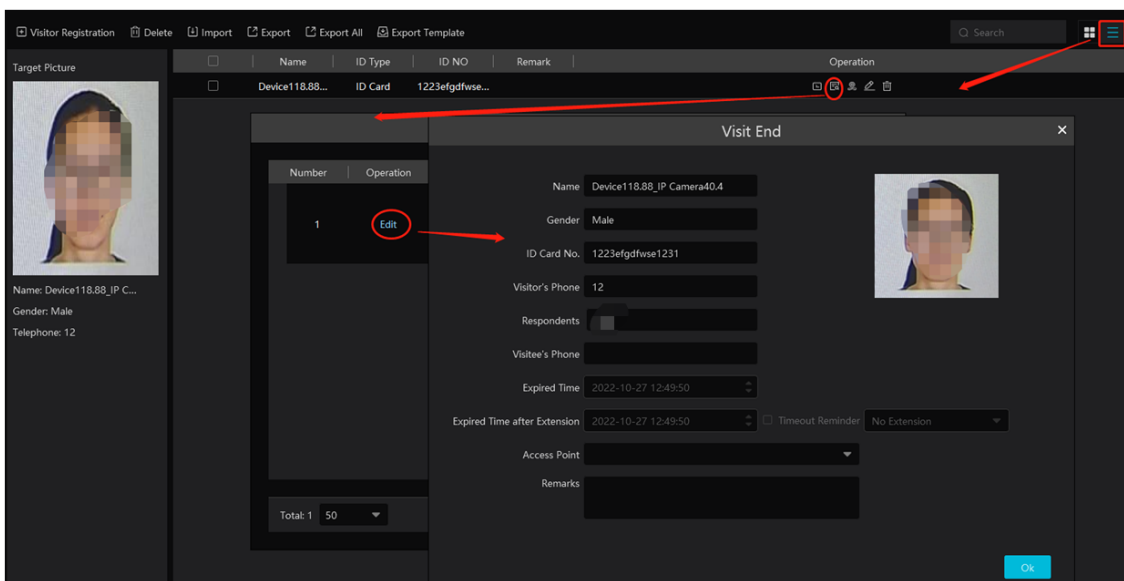
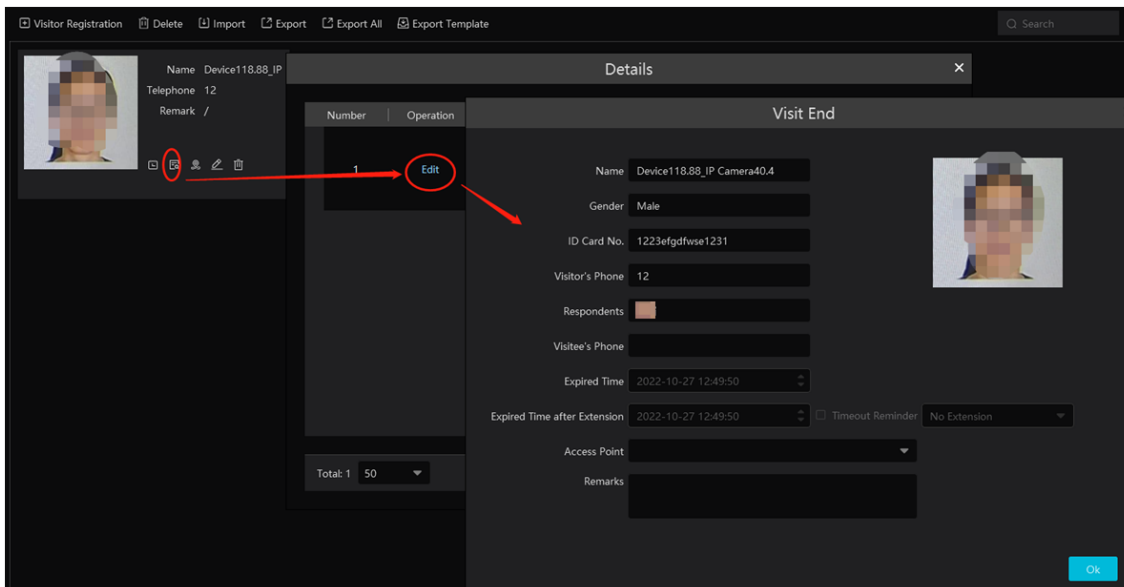


21.4 Exception Handling

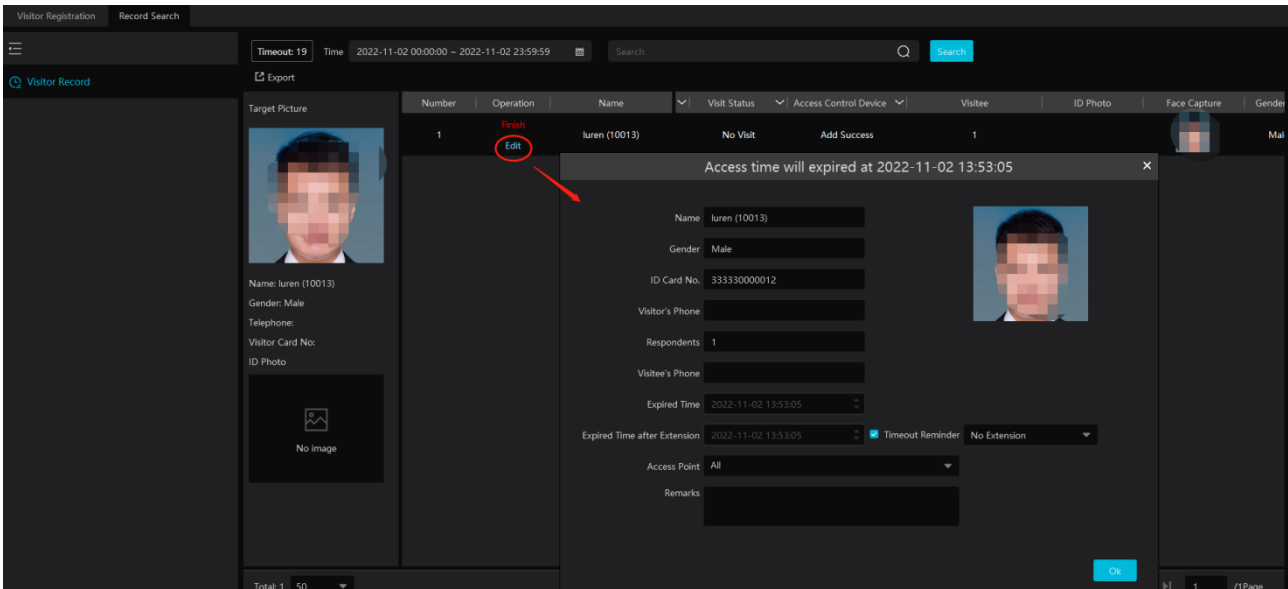
21.4.1 Extending Visit Time or Modify Access Point

There are two ways to handle the exception.

1. Go to Visitor Management → Visitor Registration interface as shown below.



2. Go to Visitor Management → Record Search



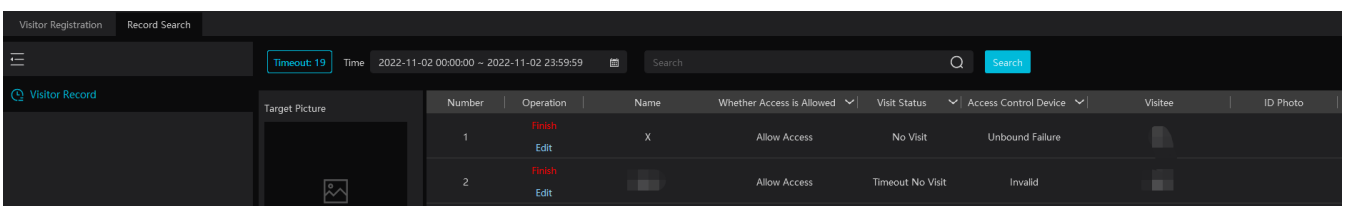
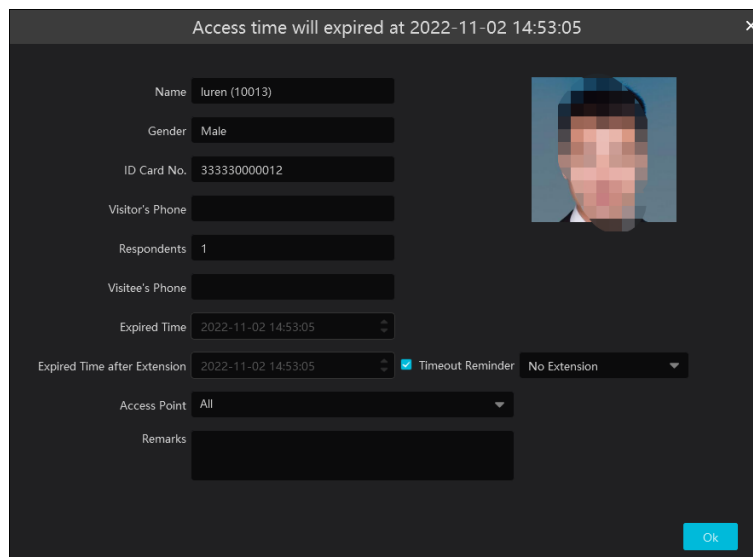
For valid record, you can edit the visit time period and access point.

Please set the expired time or extend the visit time period as needed.

Access Control Permission Group: if the access point or visitor permission group is unbound, the access permission of the corresponding visitors under this access point or visitor permission group will be ineffective.

21.4.2 Not Visiting/Leaving Beyond the Given Time

When someone's visiting is about to exceed the given time or the pre-registered visitor doesn't come within the given time, a prompt window will appear to remind the operator to extend the visit time or take other actions.



If this prompt window is not handled, the visitor will be marked as "Timeout".

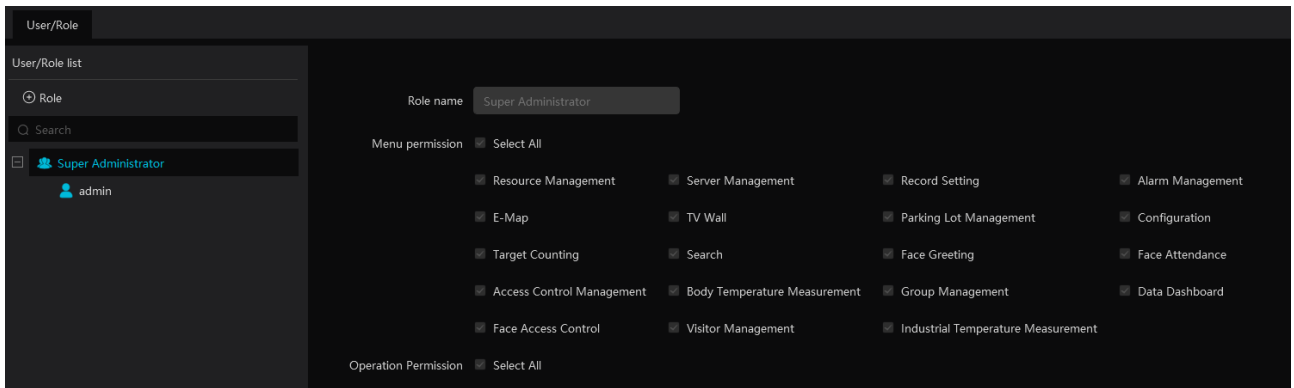
Clicking on the [Timeout] button appears the relevant records

For the timeout record, you can modify the access permission and manually give the permission and extend the expired time.

Click "Finish" to end this record process immediately.

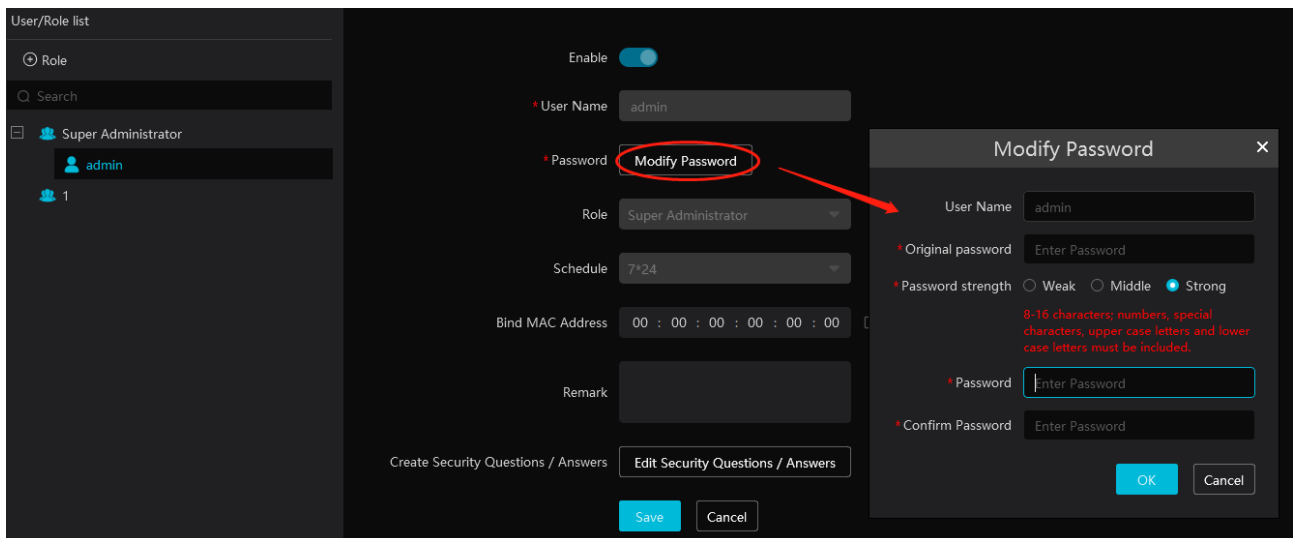
22 User Management

Go to Home→User/Role as shown below.



There is a default super administrator by default. The username is admin; the default password is 123456. The super administrator cannot be deleted.

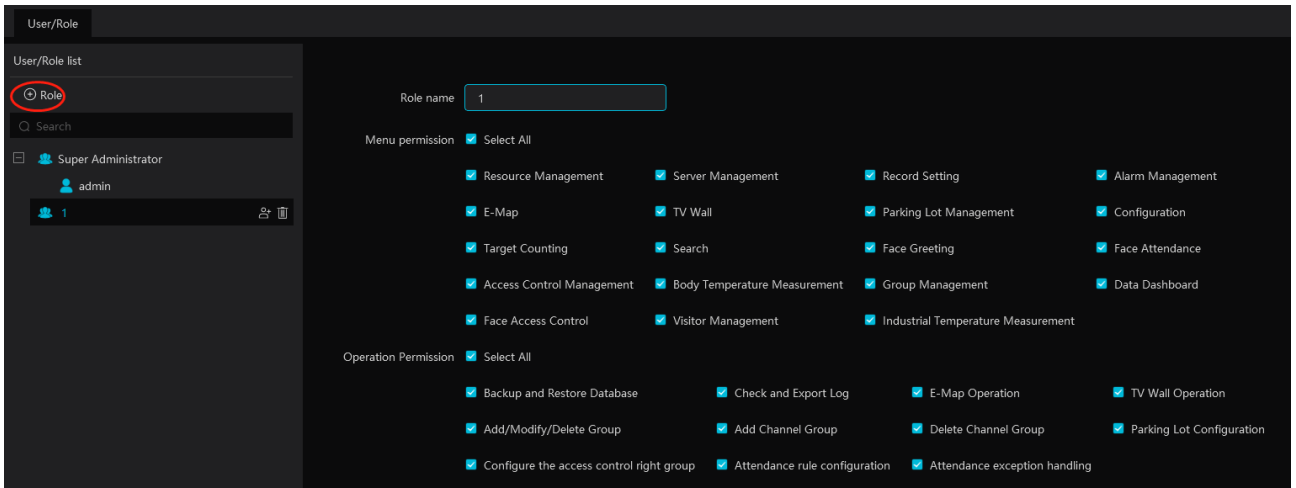
Modify the password of the super administrator:




If it is the first time for you to log in, please select the super admin user and then click [Edit Security Questions/Answers] to set the questions and answers. It is very important to reset the password if you forget your password.

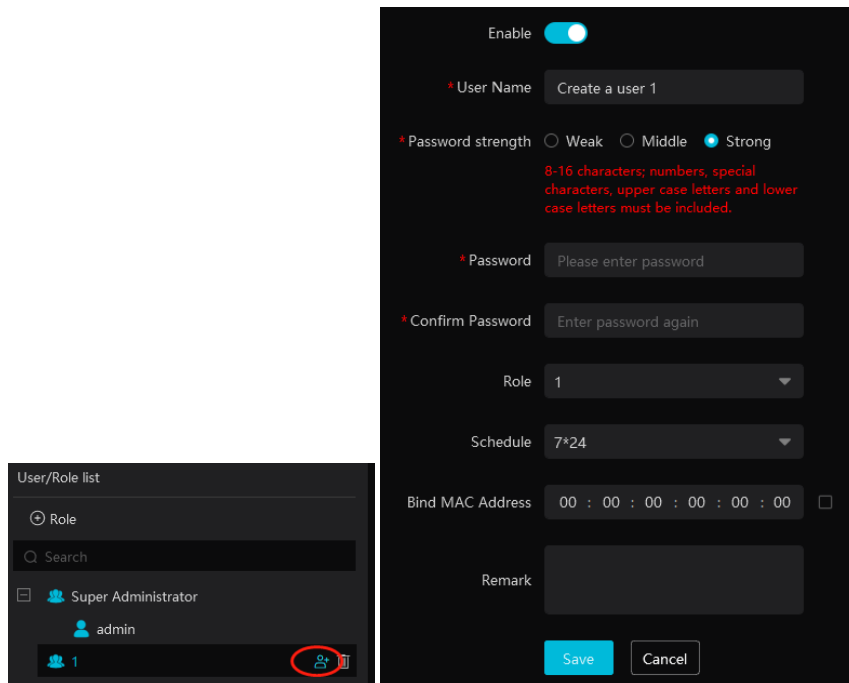
Select the super administrator and then click [Edit Security Questions/Answers] to modify the questions and answers as needed after verifying the username and password.

Click "Role" to pop up the following interface.



Enter the role name and then check the permission as needed.

Put the cursor on the added role. Two icons will appear. Click  to add a user.



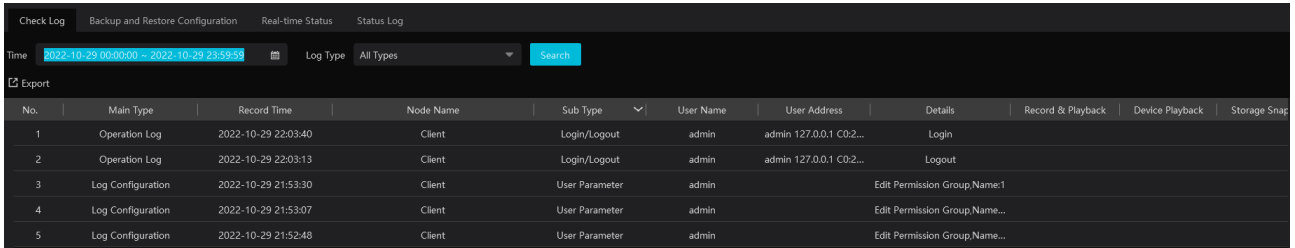
After the user is added under the role, put the cursor on the user name. Then a deletion icon will appear. Click it to delete the added user.

23 Operation and Maintenance Management

23.1 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.



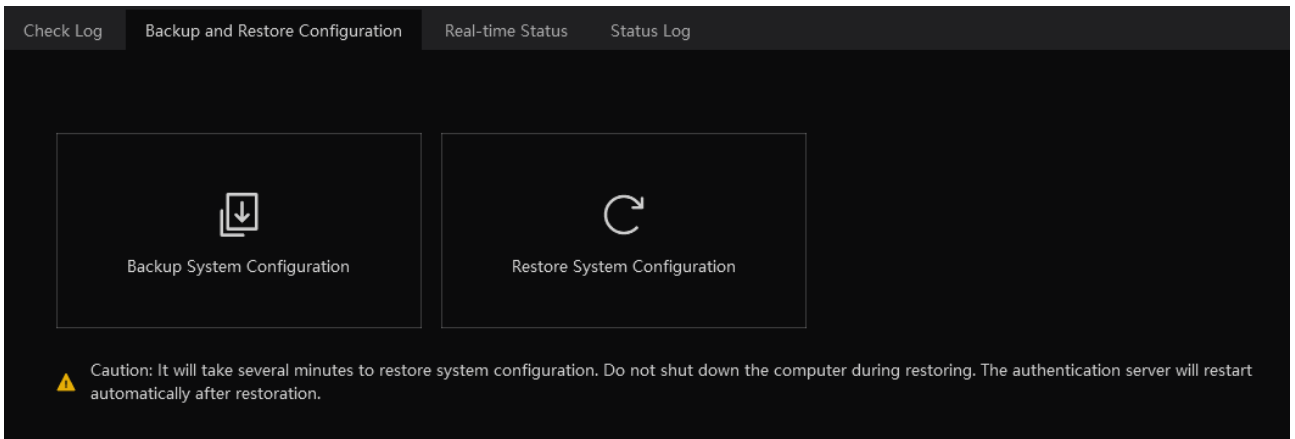
The screenshot shows the 'Check Log' interface with a search bar and a table of log entries. The search bar has a time range of '2022-10-29 00:00:00 - 2022-10-29 23:59:59' and a 'Log Type' dropdown set to 'All Types'. The table has columns for No., Main Type, Record Time, Node Name, Sub Type, User Name, User Address, Details, Record & Playback, Device Playback, and Storage Snap.

No.	Main Type	Record Time	Node Name	Sub Type	User Name	User Address	Details	Record & Playback	Device Playback	Storage Snap
1	Operation Log	2022-10-29 22:03:40	Client	Login/Logout	admin	admin 127.0.0.1 C02...	Login			
2	Operation Log	2022-10-29 22:03:13	Client	Login/Logout	admin	admin 127.0.0.1 C02...	Logout			
3	Log Configuration	2022-10-29 21:53:30	Client	User Parameter	admin		Edit Permission Group.Name:1			
4	Log Configuration	2022-10-29 21:53:07	Client	User Parameter	admin		Edit Permission Group.Name...			
5	Log Configuration	2022-10-29 21:52:48	Client	User Parameter	admin		Edit Permission Group.Name...			

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.

23.2 Backup and Restore Configuration

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



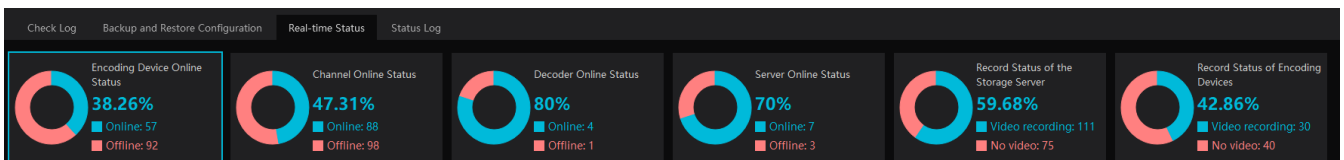
You can import the former system configuration files to the new version. Click [Backup System Configuration] in the last version to backup the system configuration files. Additionally, TV wall configuration also can be backed up as needed. Then click [Restore System Configuration] in the new version to restore the system configuration.

For TV Wall configuration restoration, you need to go to Home→TV Wall Management→TV Wall System Setting→TV Wall Backup interface and then restore TV Wall configuration by clicking [Restore TV Wall].

23.3 Viewing Online Status

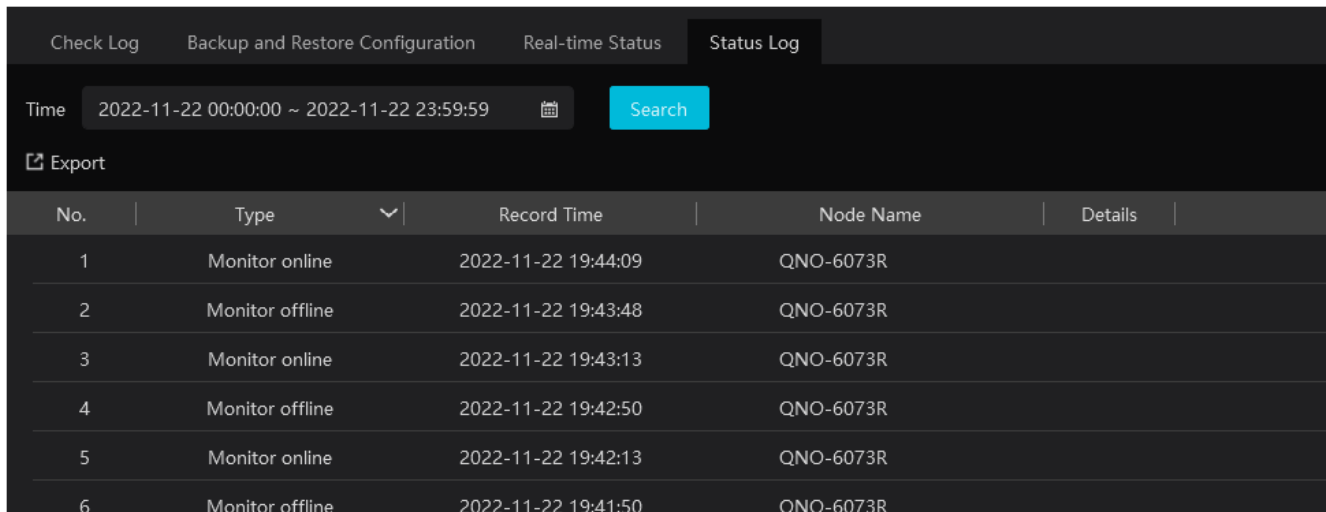
Go to Home→Operation and Maintenance Management→Online Status interface.

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.



23.4 Viewing Status Log

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



The screenshot shows the 'Status Log' interface. At the top, there are navigation tabs: 'Check Log', 'Backup and Restore Configuration', 'Real-time Status', and 'Status Log'. Below the tabs, there is a 'Time' filter set to '2022-11-22 00:00:00 ~ 2022-11-22 23:59:59' and a 'Search' button. An 'Export' button is also visible. The main content is a table with the following columns: 'No.', 'Type', 'Record Time', 'Node Name', and 'Details'. The table contains six rows of data.

No.	Type	Record Time	Node Name	Details
1	Monitor online	2022-11-22 19:44:09	QNO-6073R	
2	Monitor offline	2022-11-22 19:43:48	QNO-6073R	
3	Monitor online	2022-11-22 19:43:13	QNO-6073R	
4	Monitor offline	2022-11-22 19:42:50	QNO-6073R	
5	Monitor online	2022-11-22 19:42:13	QNO-6073R	
6	Monitor offline	2022-11-22 19:41:50	QNO-6073R	

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.

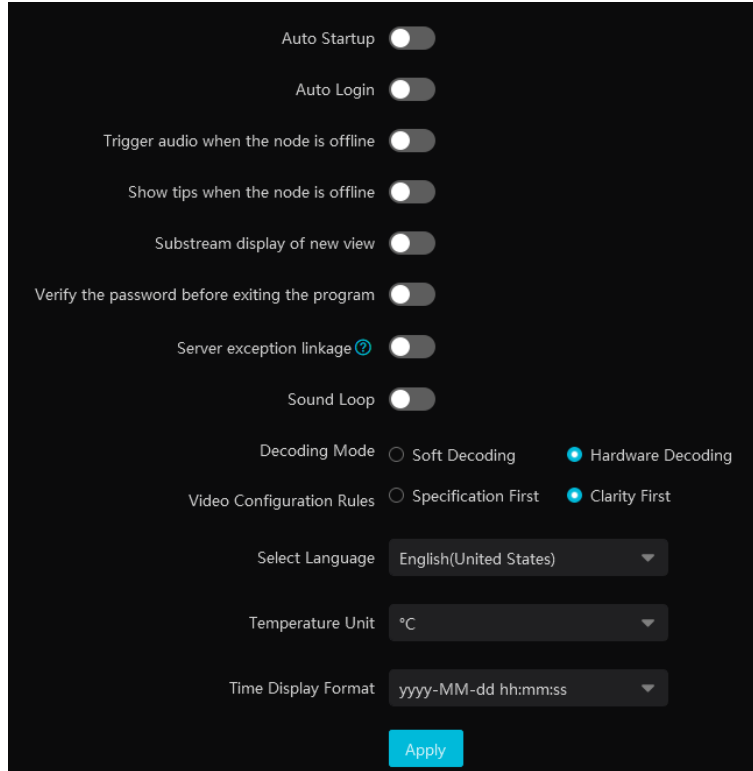
The searched logs can be exported by clicking [Export].

24 Configuration

24.1 Local Configuration

24.1.1 Basic Settings

Go to Home→ Configuration→Local Configuration



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.

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

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

Server exception Linkage: if enabled, the system will skip to real-time status interface when the server error occurs.

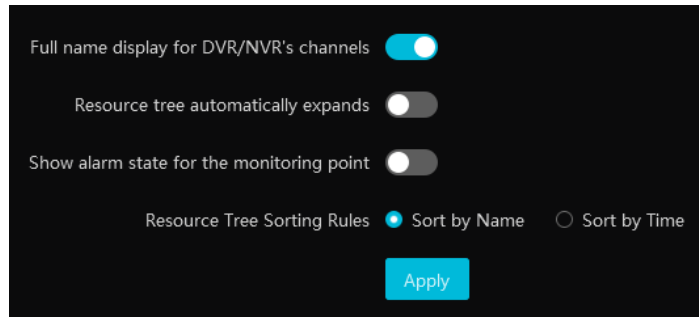
Sound Loop: If enabled, the alarm sound will be repeated continuously.

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

In this interface, you can also set video configuration rules, language, time display format and so on.

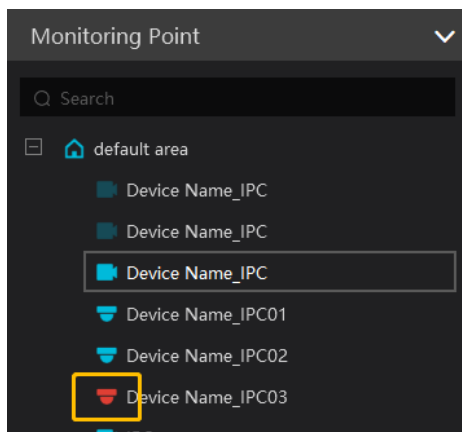
24.1.2 Resource Tree Settings



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.

Resource tree automatically expands: please enable as needed.

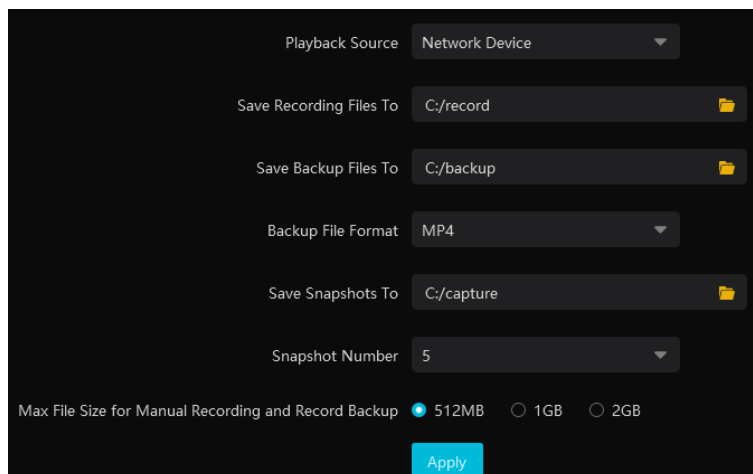
Show alarm state for the monitoring point: if enabled, the alarm state will be displayed in the monitoring point list as shown below.



In addition, you can also select the resource tree sorting rules as needed.

24.1.3 Record and Snapshot Settings

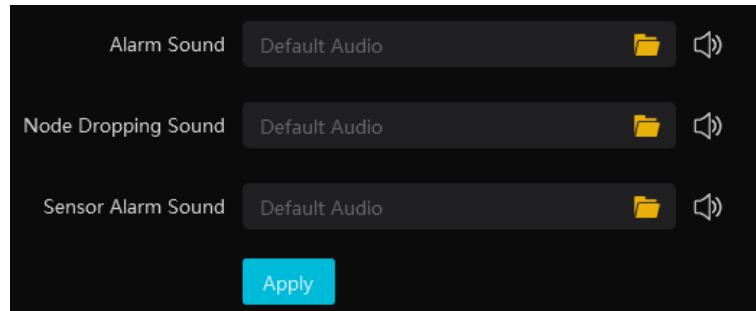
Go to Home → Configuration.





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.

24.1.4 Alarm Sound Settings

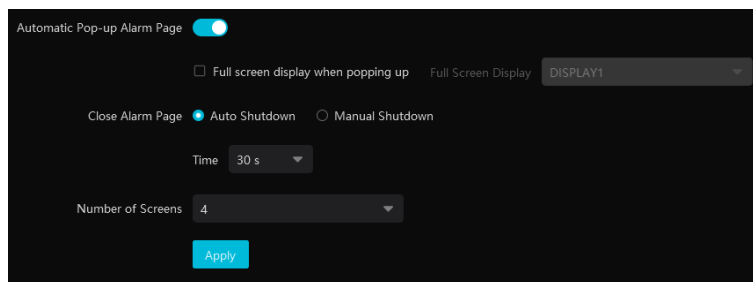
Go to Home→ Configuration→Local Configuration →Alarm Sound Setting



In the alarm audio setting interface, click  to upload the local alarm sound, node dropped sound and sensor alarm sound. After these sounds are uploaded, click  to listen

24.1.5 Alarm View Settings

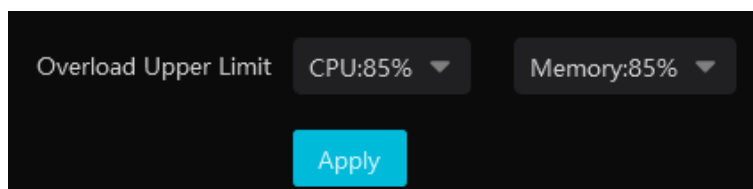
Go to Home→ Configuration→Alarm View Setting.



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).

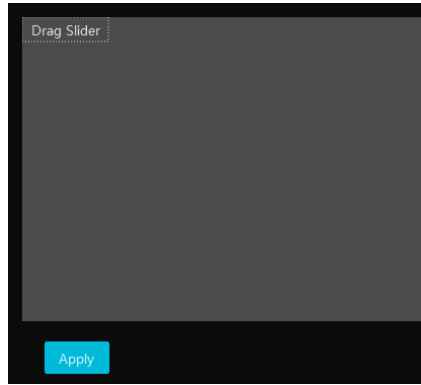
24.1.6 Overload Settings

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



24.1.7 OSD Position Settings

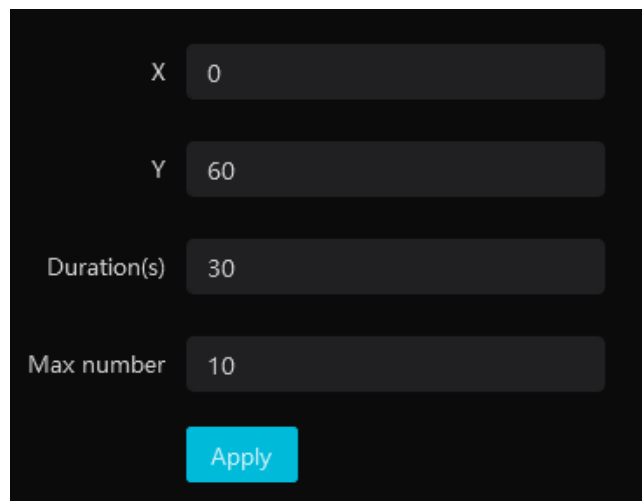
Click Home→ Configuration→OSD Position Setting to go to the following interface.



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

24.1.8 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.



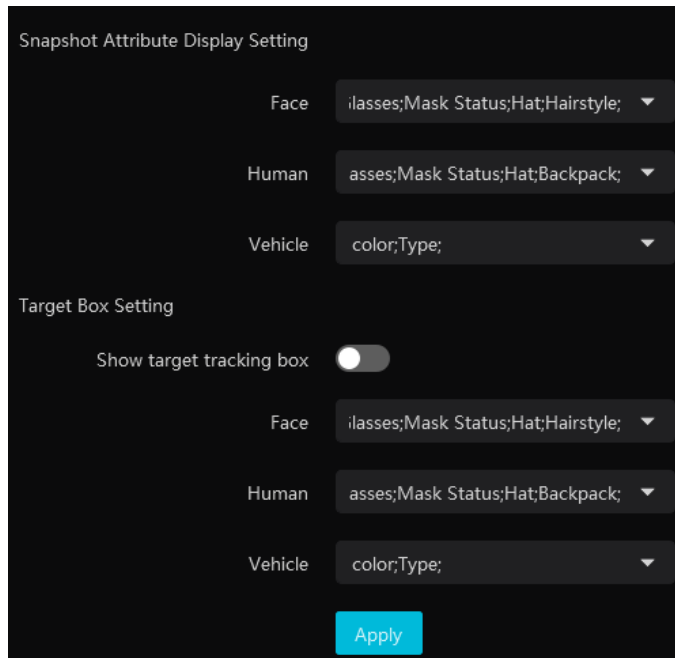
Note: The video files with POS information saved as DAT format can be played with DatPlayer and the POS information will be shown on the screen.

24.1.9 Snapshot Attribute Display Settings

Go to Home→Configuration→Local Configuration→Snapshot Attribute Display Setting interface as shown below.

The snapshot attribute display and target box display can be set here.

Snapshot attribute display setting: you can set the attributes of face, human and vehicle. Please select the corresponding attributes/features as needed. The attributes of smart snapshot picture will be shown accordingly.



Face attributes/features:

Including gender, age, mask status, temperature, hat, hairstyle, beard, glasses, telephone; a maximum of 6 features can be shown in the smart snapshot area.

Human attributes/features:

Including gender, age, hat, glasses, mask status, glasses, backpack, shoulder bag, upper clothing color, lower clothing color, upper clothing type, lower clothing type, dress/skirt, a maximum of 6 features can be shown in the smart snapshot area.

Vehicle attributes/features:

Including color, type, one or two attributes can be displayed in the smart snapshot area.

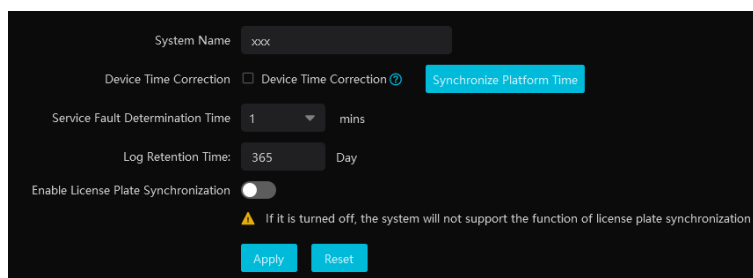
Target tracking box:

If enabled, the target tracking box will be shown on the preview/playback window which is playing the video of the IPC enabled the video metadata function.

24.2 Server Configuration

24.2.1 System Settings

Click Home→ Configuration→Server Configuration→System Setting to go to the following interface.



System Name: Set the platform display name.

Choose “Device Time Correction” and “Synchronize Time Zone” and then click [Synchronize Platform Time] to synchronize the device times with the time of the platform.

Service fault determination time: set the failure duration time. When the server failure exceeds this period of time, it will be determined as

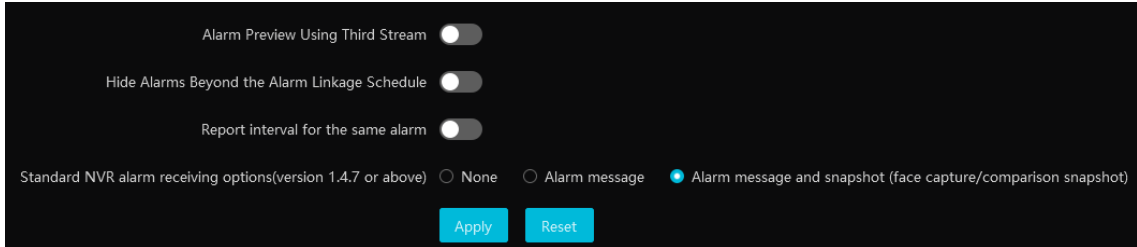
“Offline”. The spare server will take over.

Log Retention Time: set the log storage time.

Enable License Plate Synchronization: if enabled, you can use the relevant license plate synchronization functions. See the tips shown in the interface for details.

24.2.2 Alarm Settings

Click Home→Configuration→Server Configuration→Alarm Setting to go to the following interface.



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

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

Enable and set the same alarm reporting interval and its linked alarm type. After that, the alarm type will automatically report according to the set interval.

Standard NVR alarm receiving options: please select to receive alarm information or snapshot and alarm information of NVR as needed.

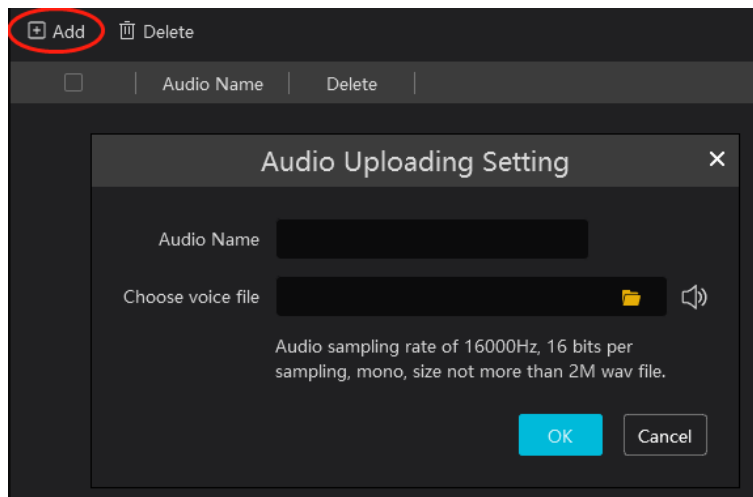
24.2.3 Parking Lot Settings


Set the license language. Default or Arabic can be selected.

24.2.4 Audio Uploading Settings

Go to Home→ Configuration→Server Configuration→Audio Uploading Setting.

Click [Add] to bring the following box.

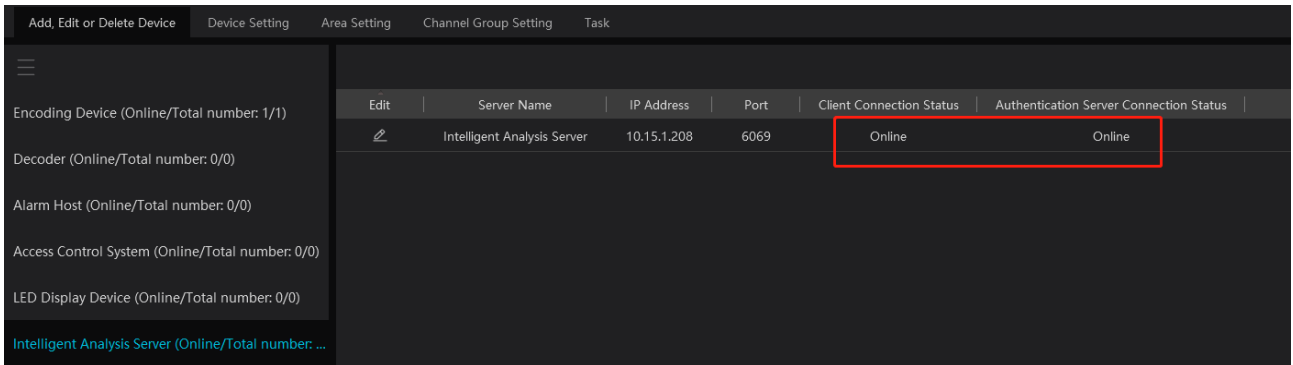


Click  to choose the audio file and then enter the audio name. Click [OK] to save this audio. After the audio is uploaded successfully, you can listen to it.

25 Data Dashboard

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

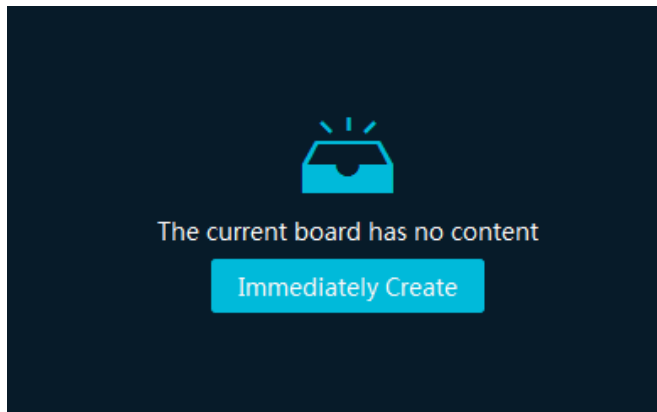
Go to Home→Resource Management→Intelligent Analysis Server interface. There is a default intelligent server and make sure it is online.



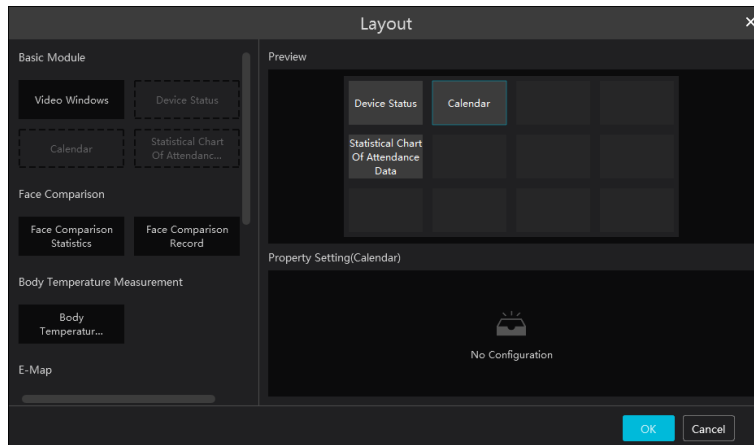
Edit	Server Name	IP Address	Port	Client Connection Status	Authentication Server Connection Status
	Intelligent Analysis Server	10.15.1.208	6069	Online	Online


25.1 Create Intelligent Dashboard

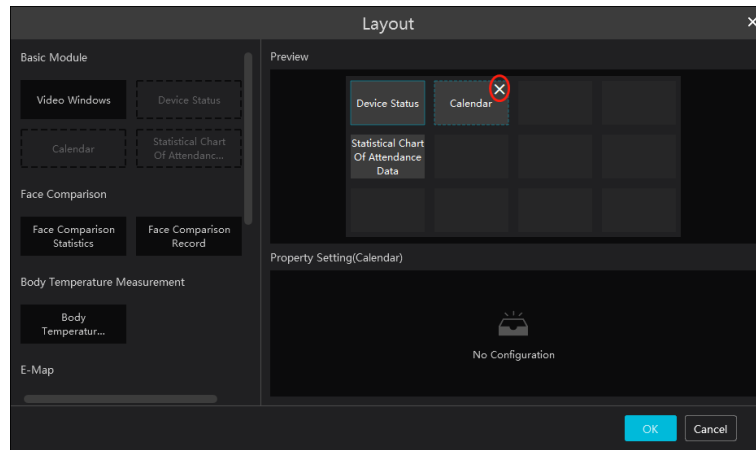
Go to Home→Intelligent Dashboard.






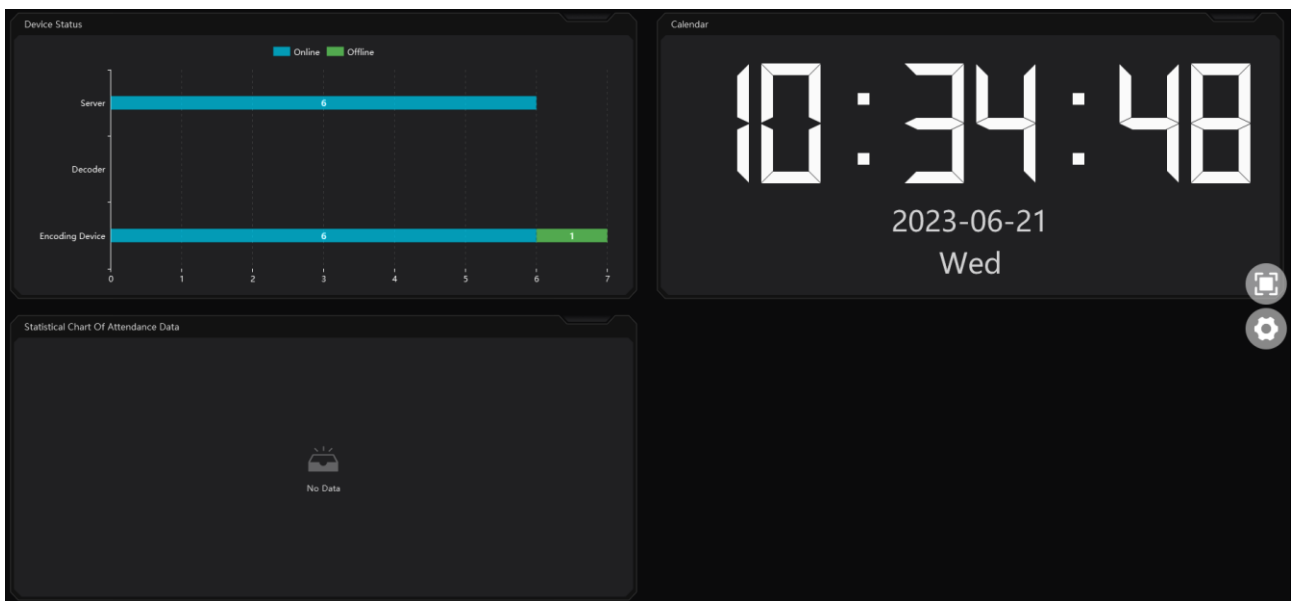
Click [Immediately Create] to create the layout of the data dashboard. Drag the module you want to display to the right preview window as needed. After that, click [OK] to save the settings.




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.

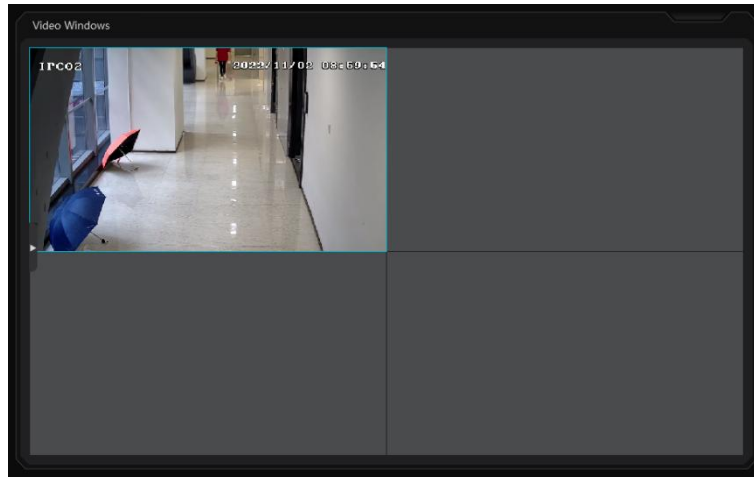


After the data dashboard is created, click  to display it in full screen mode. Click  or ESC to exit the full screen mode. Click  to set the layout of the dashboard.

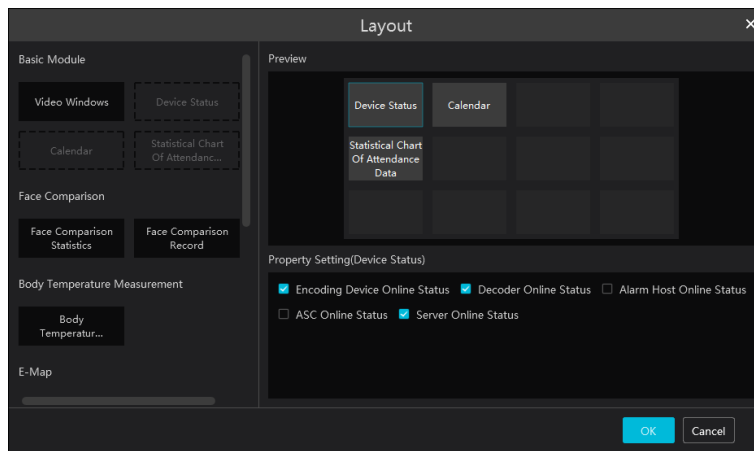


25.2 Basic Module

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.

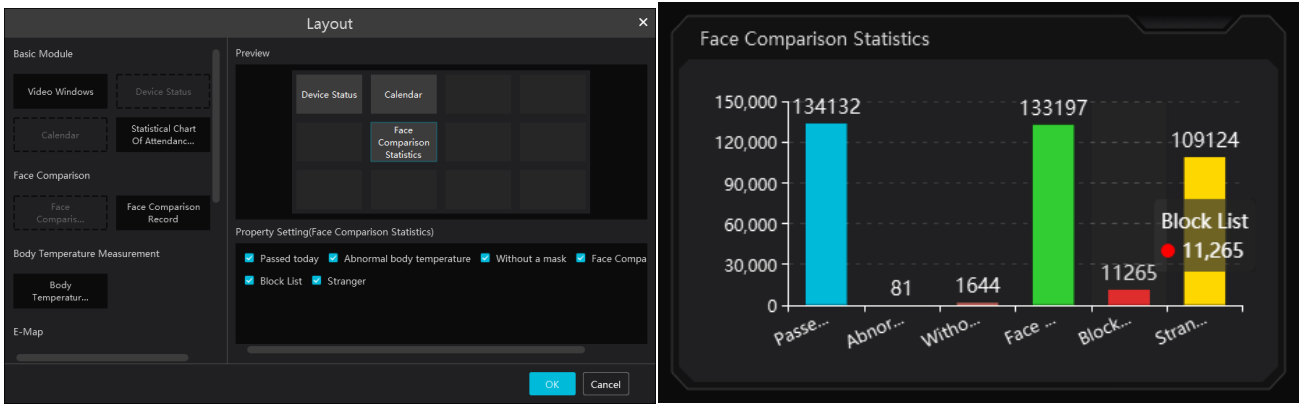


Other modules can set its attributes that you want to display as needed.






25.3 Face Comparison Display

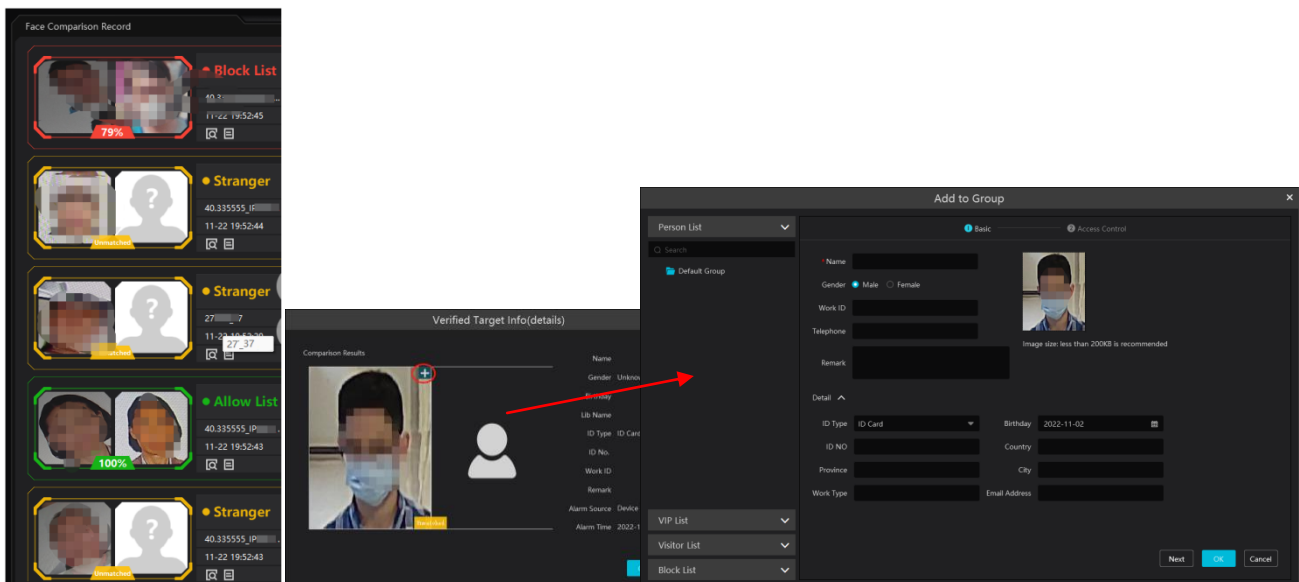
Face Comparison display includes face comparison statistics and face comparison record display. In the layout interface, drag these two modules to the preview window. Then you can set the attributes as needed.



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

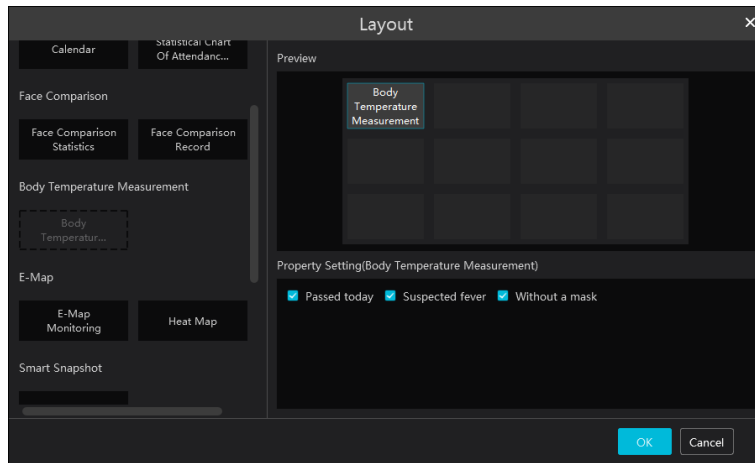
In the face comparison records, you can view the comparison similarity. Click  to quickly skip to face comparison retrieval interface.

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.

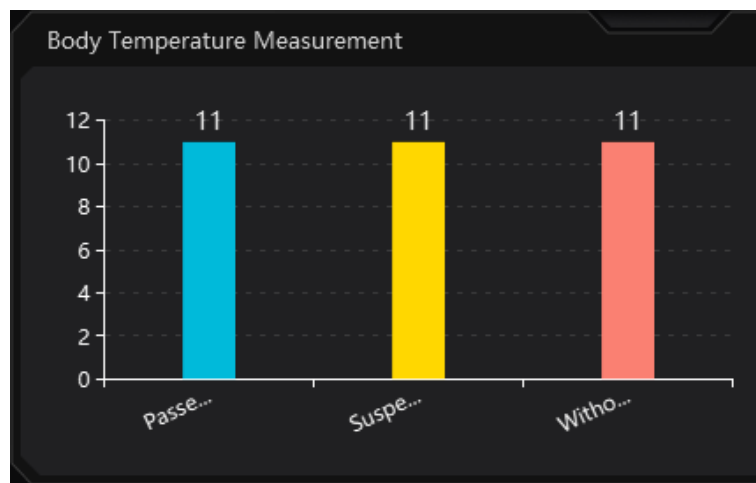


25.4 Body Temperature Measurement Display

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

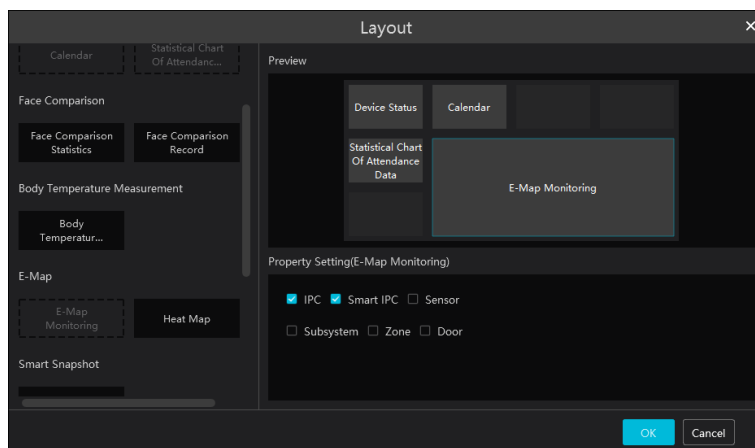


The body temperature measurement of the intelligent dashboard is shown as below.

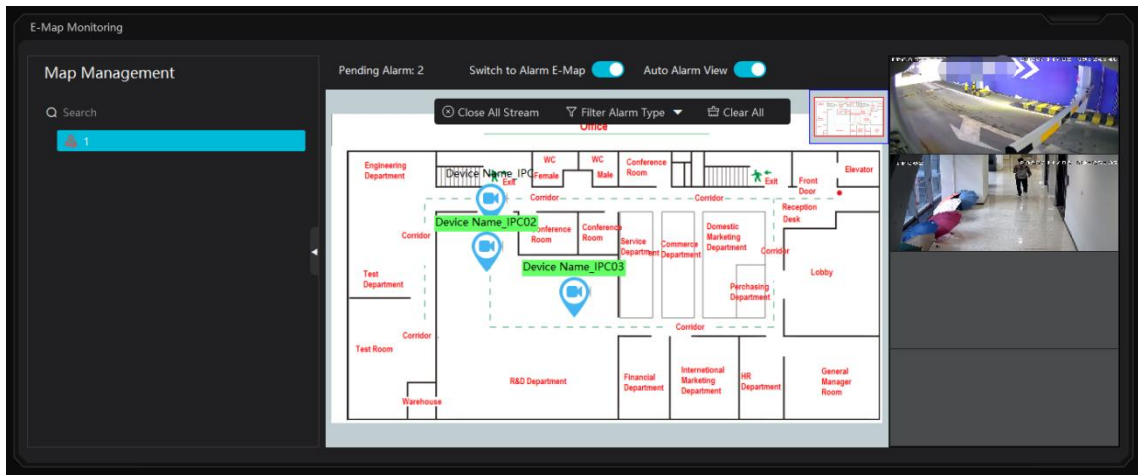


25.5 E-map Display

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

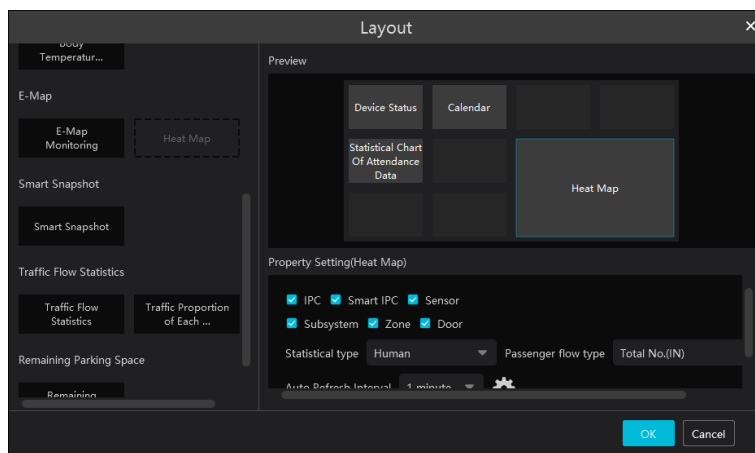


You need to set the hotspots in advance and then you can view here. Please refer to E-Map → E-Map Monitoring for details.

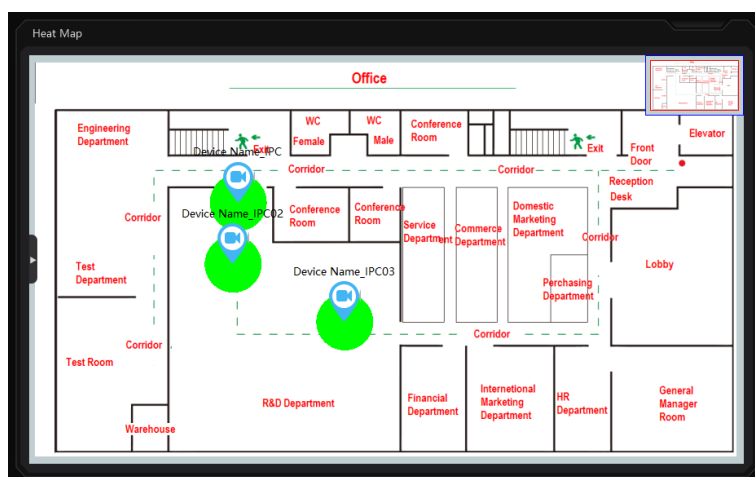


Heat map module: The more people/vehicles enter, the deeper the color is. Move the cursor on the monitoring point to view the current traffic flow. You need to set the E-map and hotspots in advance. Please refer to E-map settings chapter for details.

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

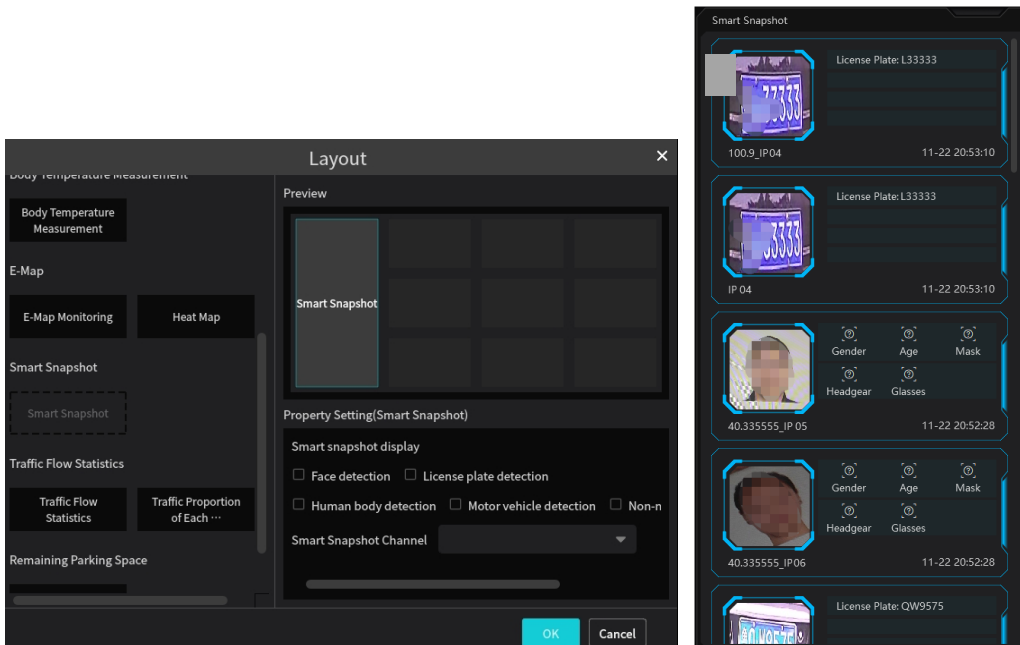


In the heat map module of the intelligent dashboard, you can view the statistics of human/motor-vehicle/non-motor vehicle.



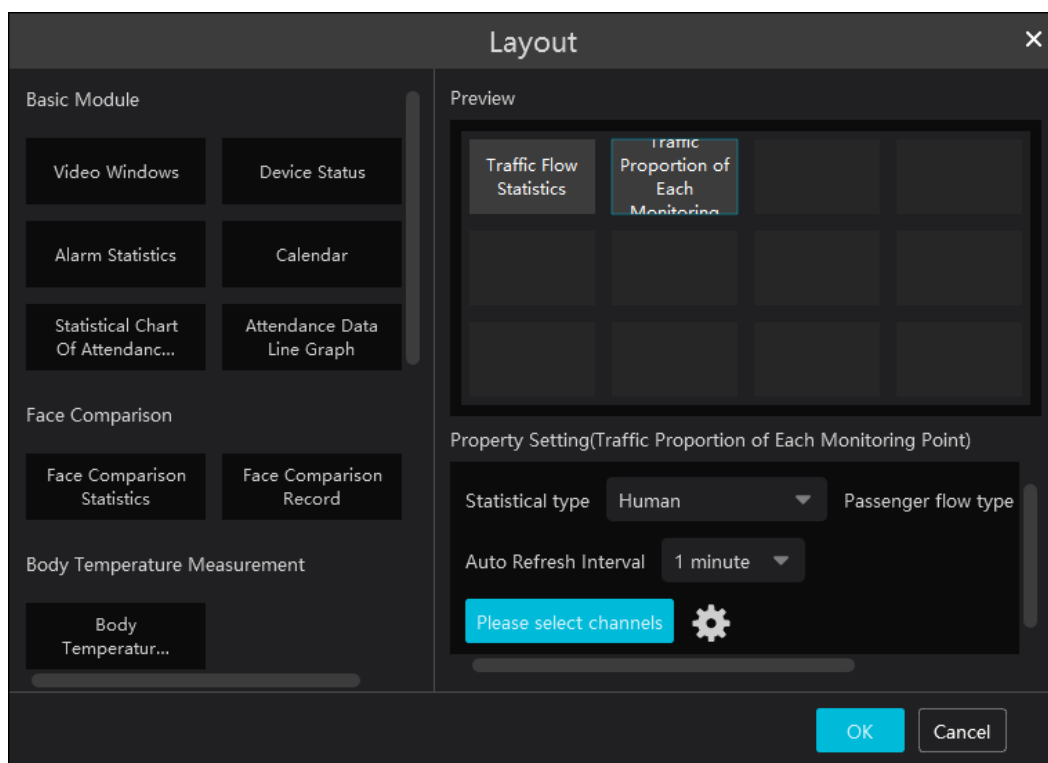
25.6 Smart Snapshot Display

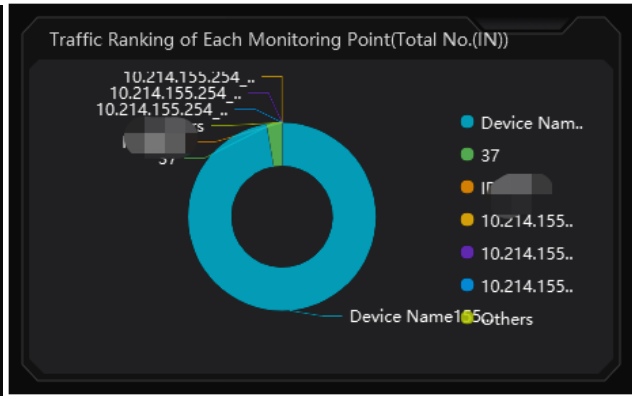
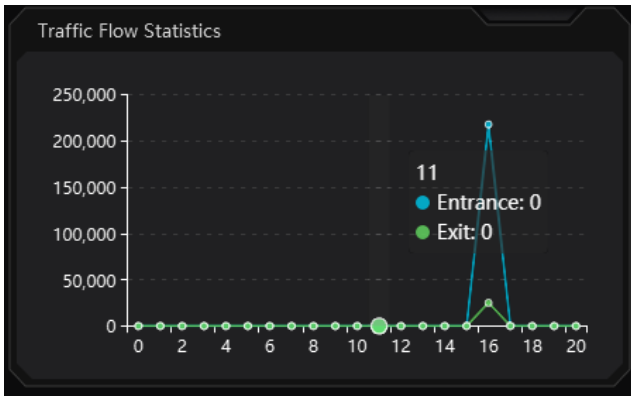
You need to set the snapshot attributes in the layout interface and then the relevant data can be viewed on the dashboard. The smart snapshot type includes face, license plate, human body, motor vehicle and non-motor vehicle. Please select the channel and snapshot type as needed.



25.7 Traffic Flow Statistics Display

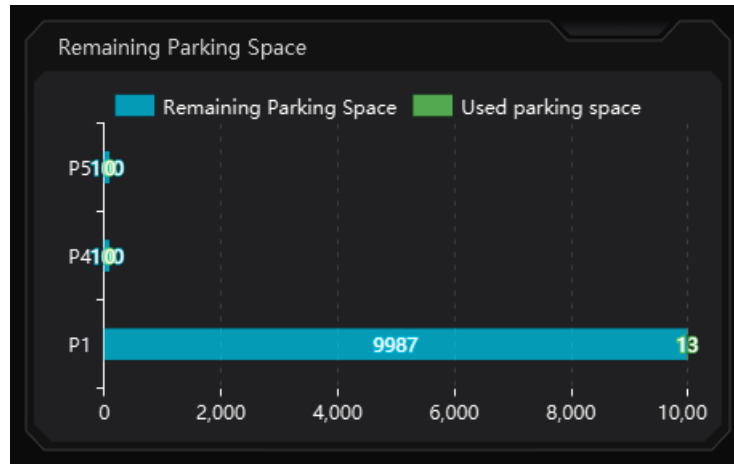
You need to set the statistical type, auto refreshing interval and channel in advance. Please refer to Target Counting → Task Management for details. Then set the layout of traffic statistics and display attributes.





25.8 Remaining Parking Space Display

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




26 Web Client

26.1 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.

26.2 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.

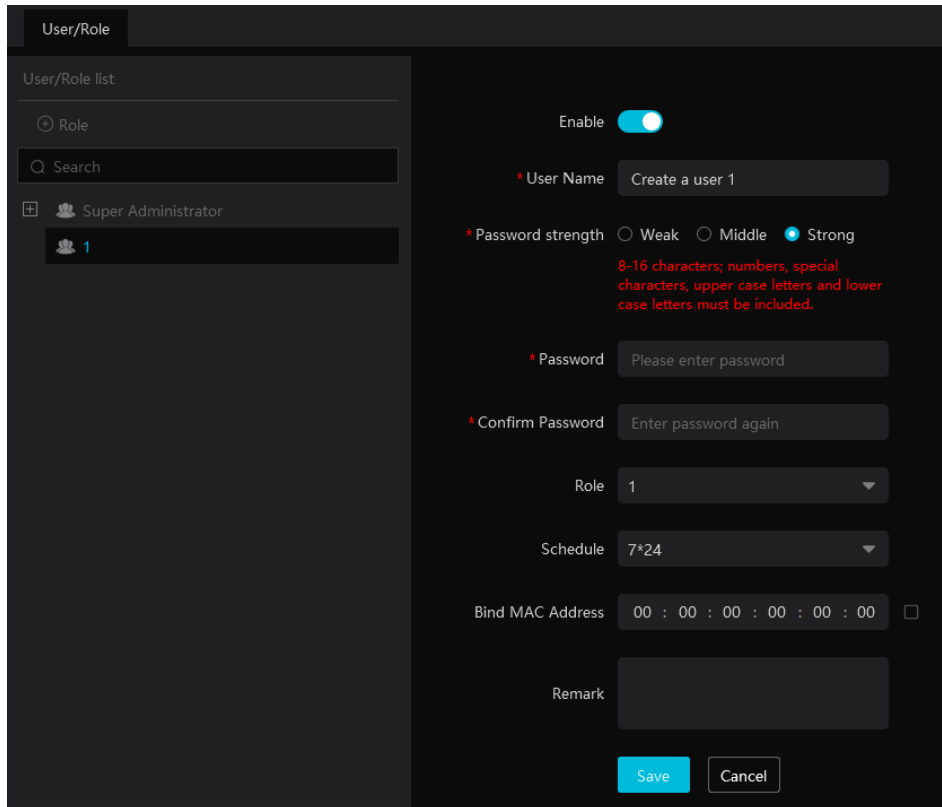
In the platform interface, users can modify the login password and remotely set the monitor client and configuration client. In the web monitor client, click “Return to Configuration” to go to the web configuration client. In the web configuration client, click “Return to Monitor” to go to the web monitor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

27 Troubleshooting

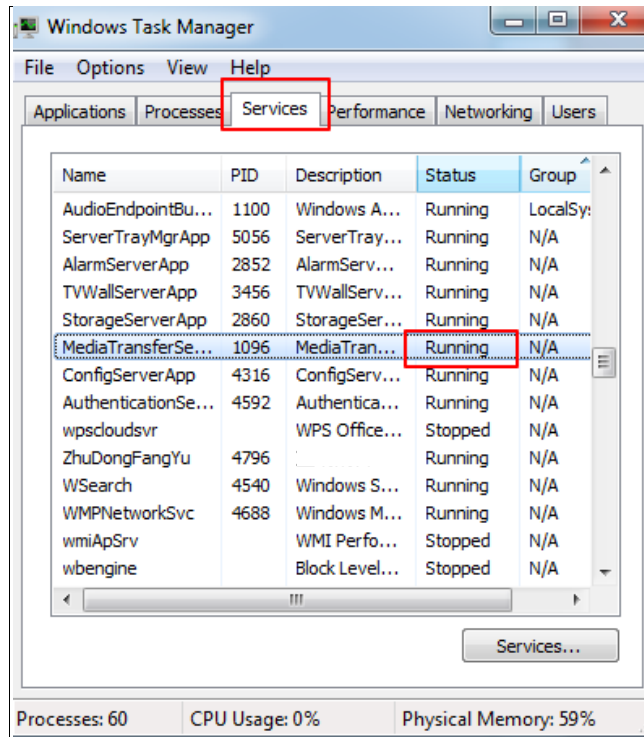
1. How to modify the password by yourself?

Login monitor client and then go to the User Management interface. Select the user to modify the password. Then click [Save].



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 in 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 logs in 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 logs in 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.

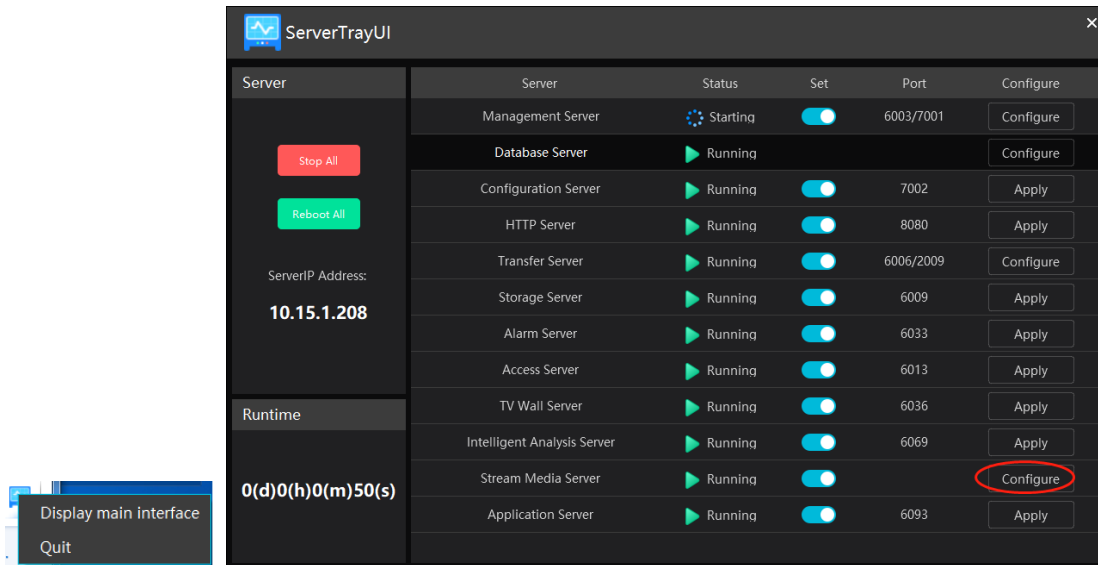
Appendix

1. How to get video streams via Media Stream Server

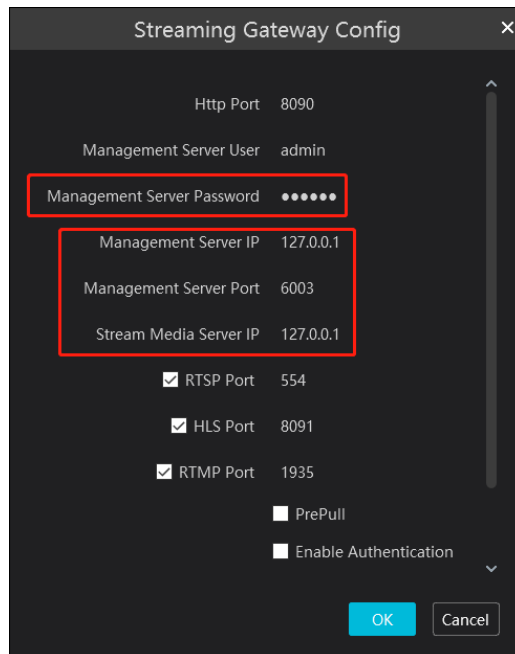
Media stream server is used to get the video stream by the third-party via RTSP/HLS/RTMP protocol.

(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.

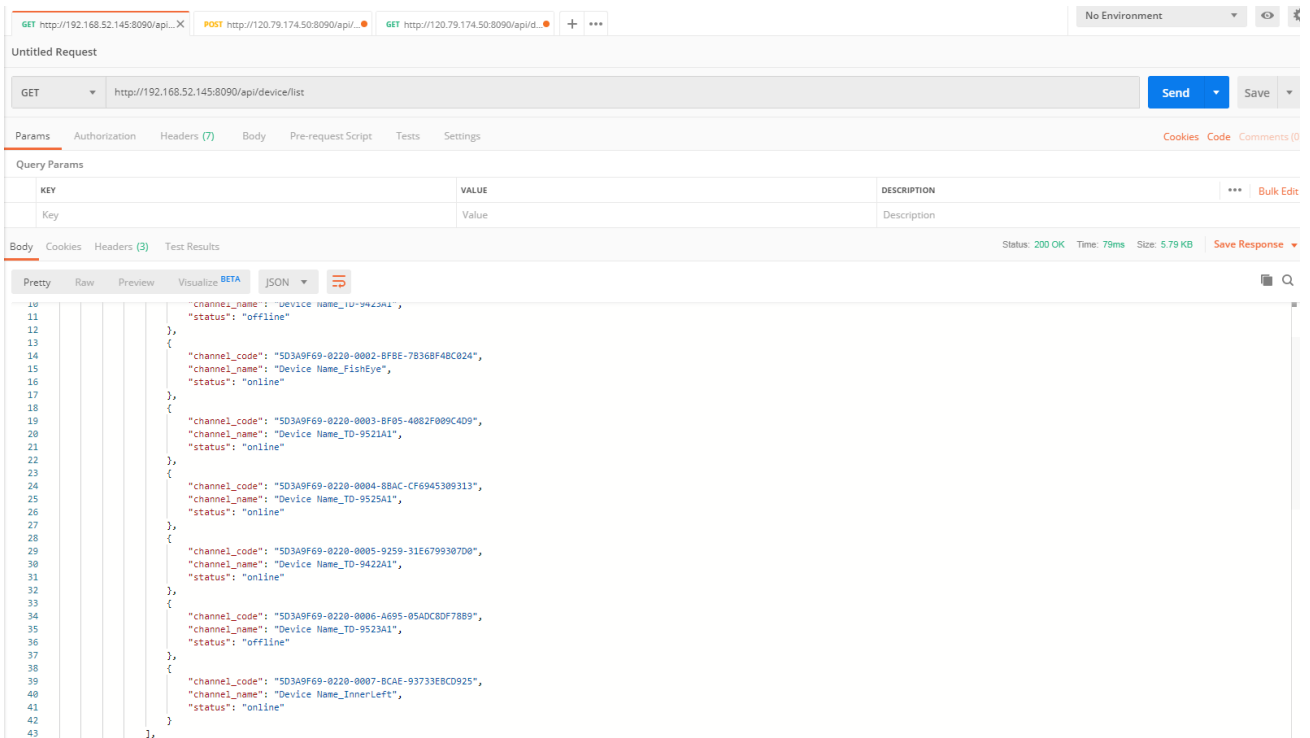


- Confirm the IP address of the management server and stream media server. The default IP addresses of both are “127.0.0.1”. If these two servers are distributed, please enter the IP address according to the actual network parameter.



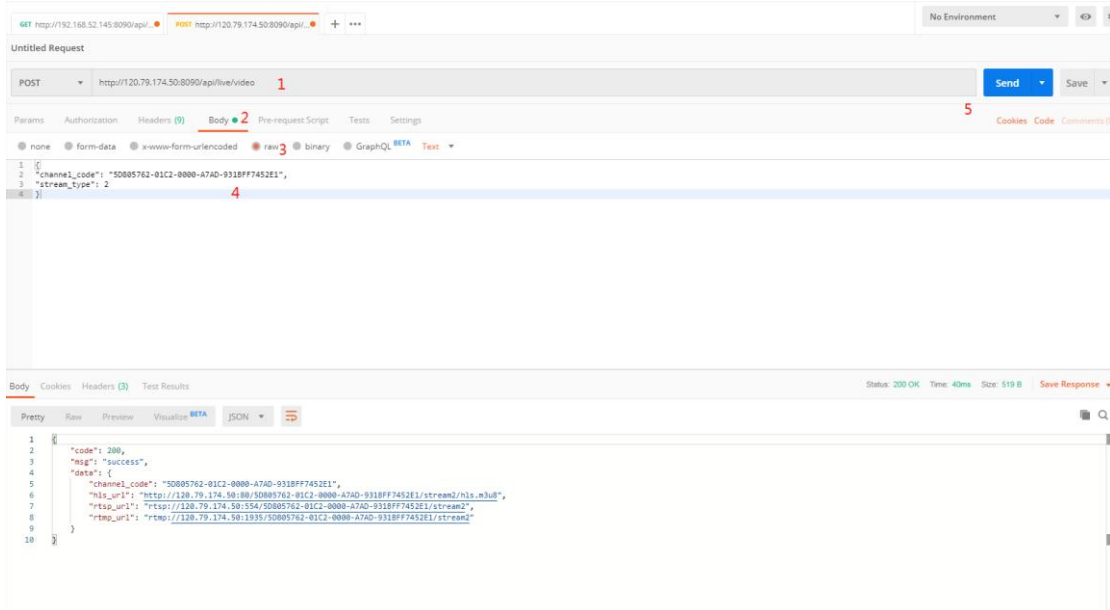
(2) Get URL and test video playing

- 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.

