



DSS Pro
User's Manual

V1.0.2

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Cybersecurity Recommendations

Mandatory actions to be taken towards cybersecurity

1. Change Passwords and Use Strong Passwords:

The number one reason systems get hacked is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

Nice to have recommendations to improve your network security

1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

2. Change Default HTTP and TCP Ports:

- Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.
- These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses, from accessing the system.

5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

6. Forward Only Ports You Need:

- Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.
- You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

7. Disable Auto-Login on DSS:

Those using DSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

8. Use a Different Username and Password for DSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want someone collecting those passwords and trying them out on your video surveillance system. Using a

different username and password for your security system will make it more difficult for someone to guess their way into your system.

9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

10. UPnP:

- UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.
- If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

16. Isolate NVR and IP Camera Network:






The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

General

This user's manual (hereinafter referred to be the Manual) introduces the functions and operations of the DSS general surveillance management center (hereinafter referred to be the Device or the System) and client operations.

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as the emphasis and supplement to the text.

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others' such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures including but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

Revision History

No.	Version	Version Number	Revision Content	Release Time
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No.	Version	Version Number	Revision Content	Release Time
1	V1.0.0	V7.002.0000000	First release	September 2018
2	V1.0.1	V7.002.0000001	<ul style="list-style-type: none"> ● Added new functions such as person management, access control management, thermal, target detection, device config ● Modified contents such as edit device, flow analysis, plate recognition 	December 2018
3	V1.0.2	V7.002.0000002	<ul style="list-style-type: none"> ● Added new functions such as entrance, attendance and video intercom. Modified access control and deleted commercial functions 	March 2019

About the Manual

The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall prevail.

We are not liable for any loss caused by the operations that do not comply with the Manual.

The Manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.

All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Please contact the customer service for the latest program and supplementary documentation.

There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.

Upgrade the reader software or try other mainstream reader software if the Guide (in PDF format) cannot be opened.

All trademarks, registered trademarks and the company names in the Manual are the properties of their respective owners.

Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.

If there is any uncertainty or controversy, please refer to our final explanation.

Important Safeguards and Warnings

This Chapter describes the contents covering proper handling of the Device, hazard prevention, and prevention of property damage. Read these contents carefully before using the Device, comply with them when using, and keep it well for future reference.

Operation Requirement

- Do not place or install the Device in a place exposed to sunlight or near the heat source.
- Keep the Device away from dampness, dust or soot.
- Keep the Device installed horizontally on the stable place to prevent it from falling.
- Do not drop or splash liquid onto the Device, and make sure there is no object filled with liquid on the Device to prevent liquid from flowing into the Device.
- Install the Device in a well-ventilated place, and do not block the ventilation of the Device.
- Operate the device within the rated range of power input and output.
- Do not disassemble the Device.
- Transport, use and store the Device under the allowed humidity and temperature conditions.

Electrical Safety

- Improper battery use might result in fire, explosion, or inflammation.
- When replacing battery, make sure the same model is used.
- Use the recommended power cables in the region and conform to the rated power specification.
- Use the power adapter provided with the Device; otherwise, it might result in people injury and device damage.
- The power source shall conform to the requirement of the Safety Extra Low Voltage (SELV) standard, and supply power with rated voltage which conforms to Limited power Source requirement according to IEC60950-1. Please note that the power supply requirement is subject to the device label.
- Connect the device (I-type structure) to the power socket with protective earthing.
- The appliance coupler is a disconnection device. When using the coupler, keep the angle for easy operation.

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1 Overview

1.1 Introduction



DSS Pro is a type of video surveillance software which is flexible, easily-extendable, highly-reliable and more professional. DSS Pro is able to meet the requirements of large and medium-sized projects via distributed extension and cascade performance. In addition to basic video surveillance business, DSS Pro supports target detection and a series of AI functions, such as face recognition, license plate recognition, people counting, etc. It can also expand functions like transportation and business analysis, access control via value-added modules. These rich functions enable DSS Pro to be widely used in chain supermarket, casino, safe city, road traffic, medium and large-sized campus surveillance and some other scenarios.

1.2 Highlights

- Easily extendable
 - ◇ Supports extension system performance.
 - ◇ Supports cascading system performance.
 - ◇ Supports DSS Pro extension via Add-ons.
- More professional
 - ◇ Supports system operation and maintenance, easily acquire service, system, device, time and some other system info.
 - ◇ Separate Web management end, makes management more convenient and professional.
 - ◇ Supports target detect, face recognition, plate recognition, people counting and other AI functions, access control, retail and transportation functions, makes DSS Pro more powerful.
- Highly reliable
 - ◇ Supports dual hot standby, makes DSS Pro system more stable.
 - ◇ Supports system data auto backup and manual backup, reduce loss caused by system crash.
- More open
 - ◇ Supports connection through standard Onvif protocol and active registration.
 - ◇ Open SDK, the third party platform can be connected via SDK.

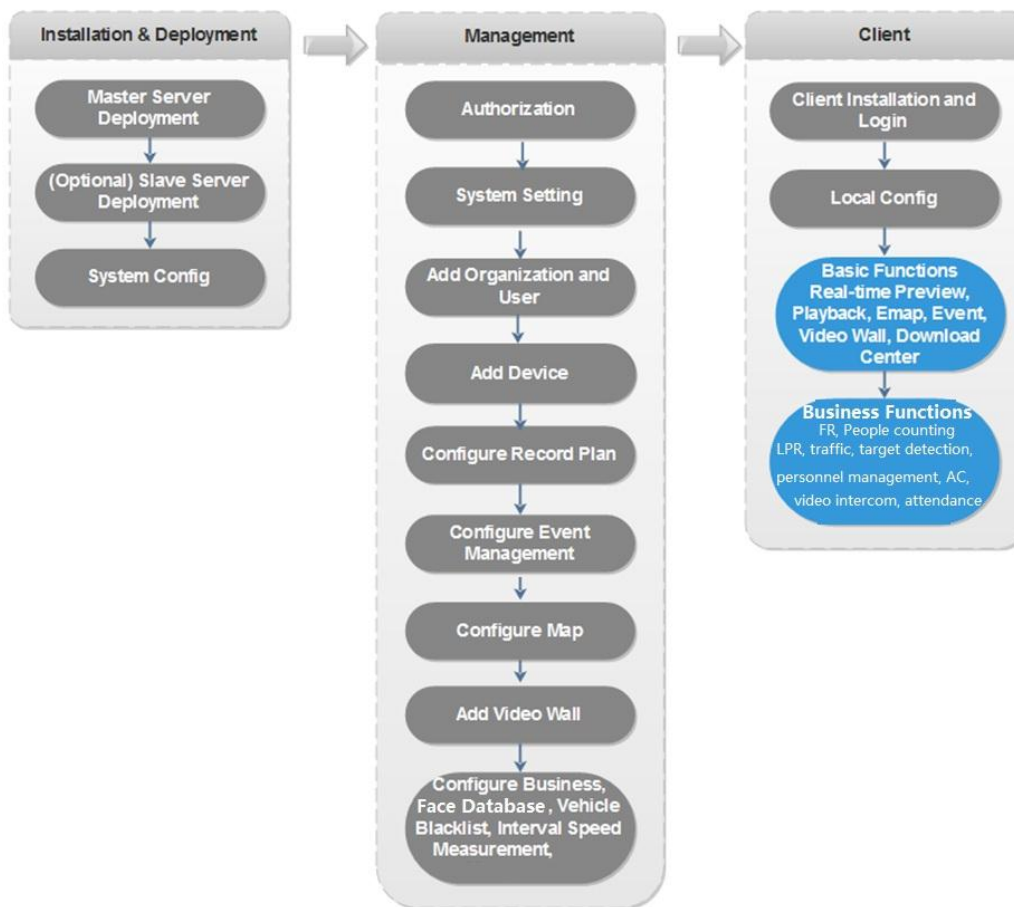
2 Business Flow Chart



In the business flow chart,  shading means config item,  shading means the exact application of business in the client.

The overall flow chart is shown in Figure 2-1.

Figure 2-1



3

Installation and Deployment

DSS platform supports both single server deployment and master/slave distributed deployment.

3.1 Server Config Requirement

Please refer to Table 3-1 for the requirements of server config.

Table 3-1

Parameter	Hardware Requirement
Recommended config	<ul style="list-style-type: none">• CPU: E5-2640 v3@2.60GHz 2.60GHz 8core• RAM: 16GB• Network card: 1Gps• Hard drive type: HDD 1TB• DSS installation directory space: Over 500G
Minimum config	<ul style="list-style-type: none">• CPU: E3-1220 v5 @3.00GHz 3.00GHz 4core• RAM: 8GB• Network card: 1Gps• Hard drive type: HDD 1TB• DSS installation directory space: Over 500G

3.2 DSS Master Server Deployment

3.2.1 Master Server Installation



Step 1 Double click  and enter installation mode.
The system will display the interface. See Figure 3-1.

 **NOTE**

Program name includes version number and program data, please confirm it before installation.

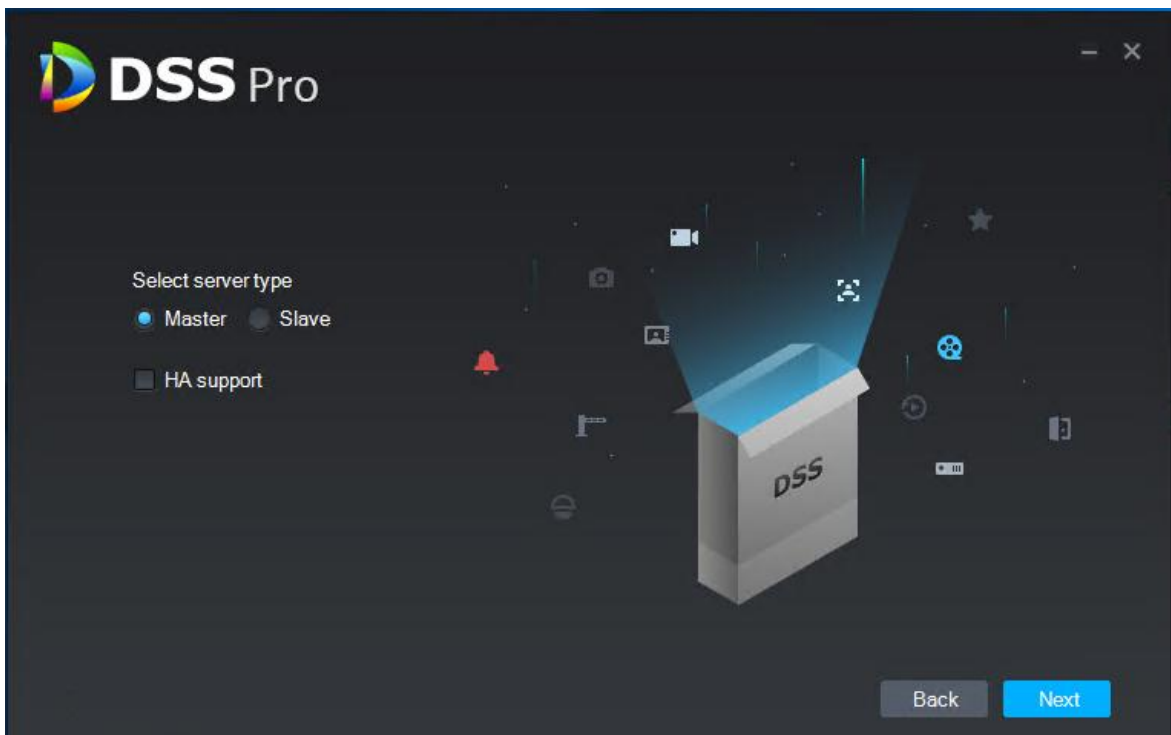
Figure 3-1



Step 2 Click **Agreement Protocol**, read and accept agreement protocol, select **I have read and agree the DSS agreement**, click **Next**.

The system displays the interface. See Figure 3-2.

Figure 3-2

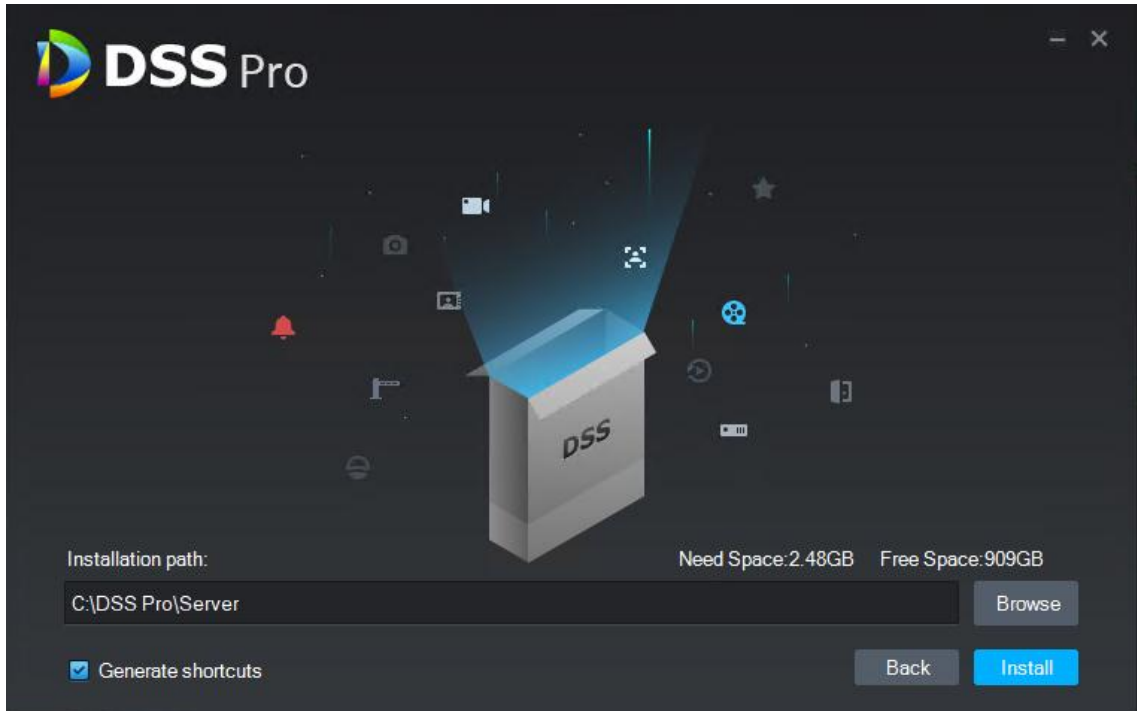


Step 3 Select installation mode as **Master**, make sure if it supports dual hot standby, click **Next**.

Master means master mode; Slave means slave mode; HA means it supports dual hot standby.

The system displays the interface. See Figure 3-3.

Figure 3-3



Step 4 Select installation path, it supports default installation path, you can click **Browse** to customize installation directory.

After selecting installation directory, the system displays need space and free space of installation.

 **NOTE**

If **Install** button is gray, please check if installation directory is correct, or if the available space of installation directory is bigger than the space needed by system.

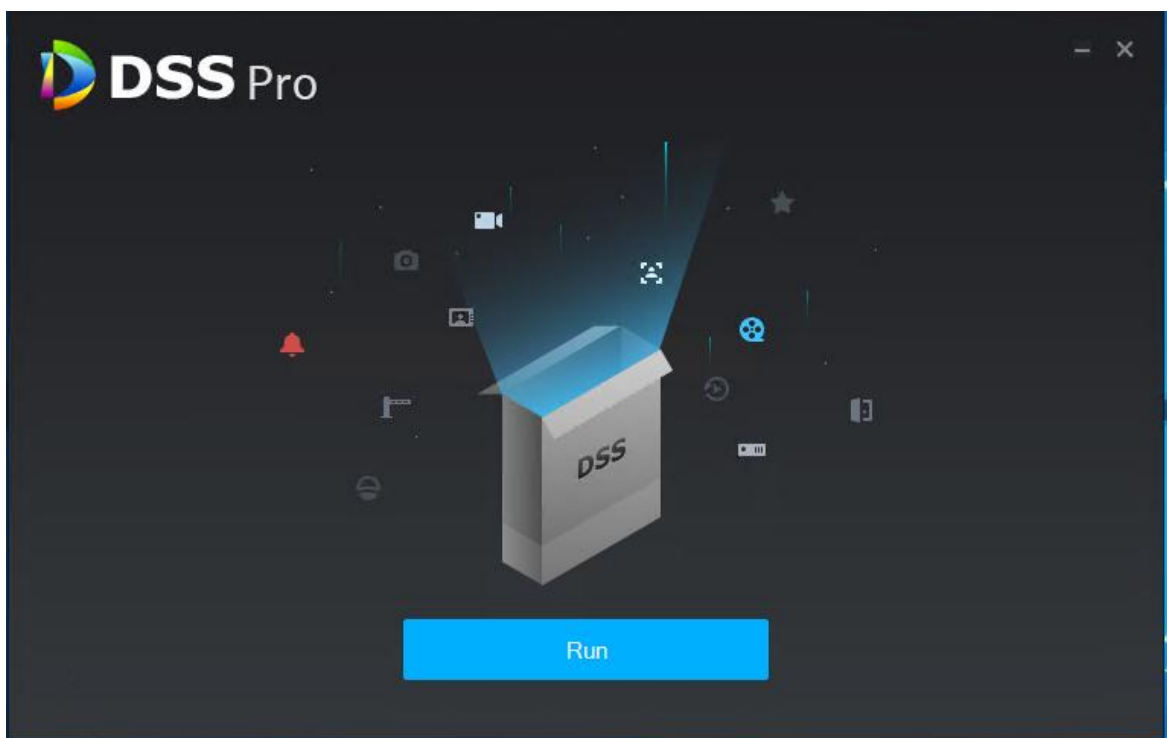
Step 5 Click **Install**.

The system displays the interface. See Figure 3-4. The installation process needs about 3 to 5 minutes, please wait patiently. The interface is shown in Figure 3-5 after installation is completed.

Figure 3-4

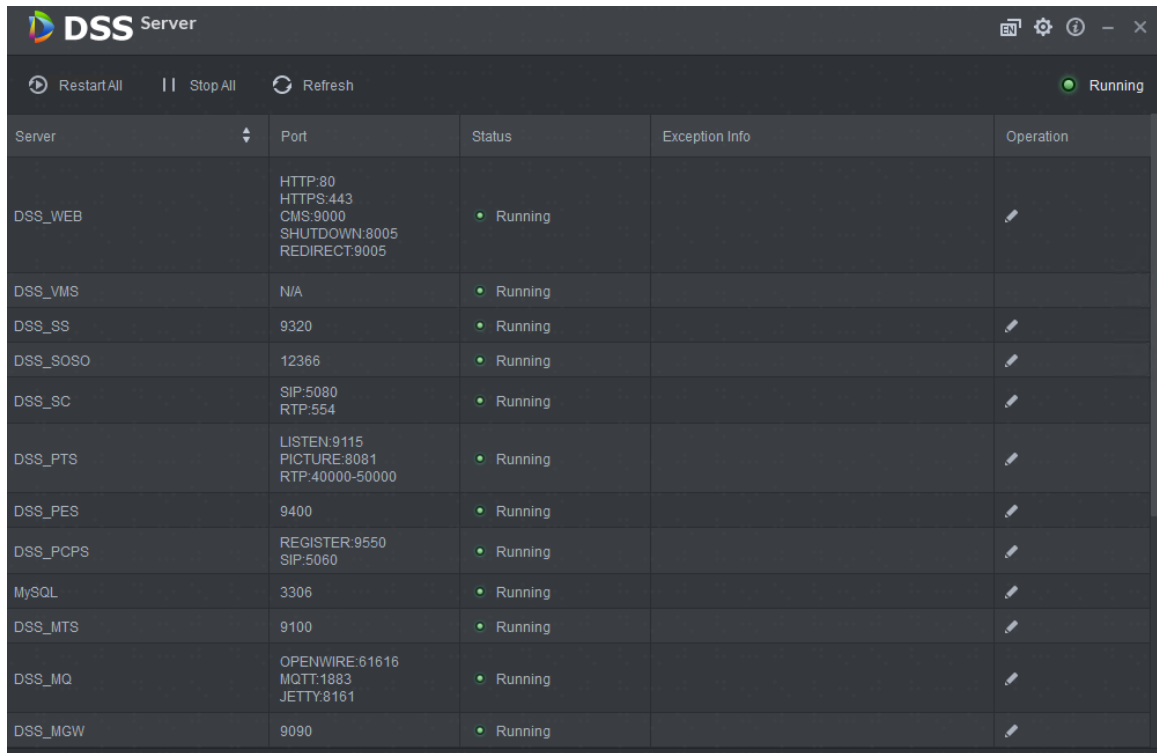


Figure 3-5



Step 6 Click **Run** and it enables service immediately.
The system displays the interface. See Figure 3-6.

Figure 3-6



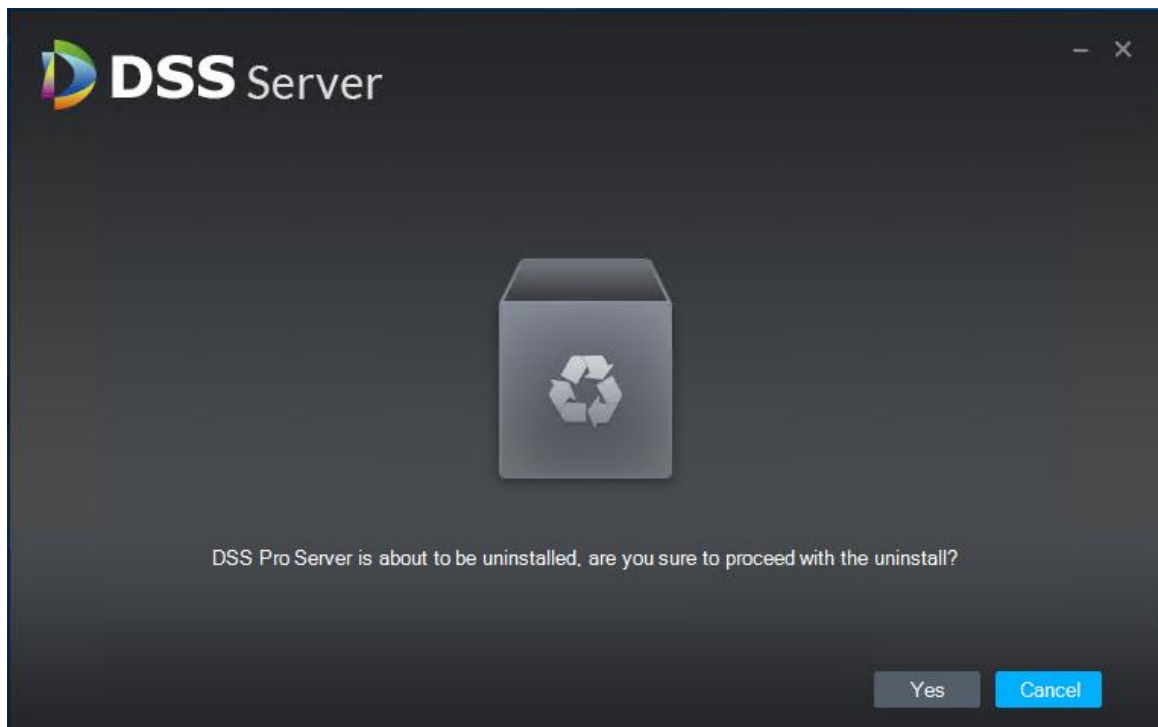
The screenshot shows the DSS Server management interface. At the top, there are buttons for 'Restart All', 'Stop All', and 'Refresh', along with a 'Running' indicator. Below is a table with columns for 'Server', 'Port', 'Status', 'Exception Info', and 'Operation'.

Server	Port	Status	Exception Info	Operation
DSS_WEB	HTTP:80 HTTPS:443 CMS:9000 SHUTDOWN:8005 REDIRECT:9005	Running		
DSS_VMS	N/A	Running		
DSS_SS	9320	Running		
DSS_SOSO	12366	Running		
DSS_SC	SIP:5080 RTP:554	Running		
DSS_PTS	LISTEN:9115 PICTURE:8081 RTP:40000-50000	Running		
DSS_PES	9400	Running		
DSS_PCPS	REGISTER:9550 SIP:5060	Running		
MySQL	3306	Running		
DSS_MTS	9100	Running		
DSS_MQ	OPENWIRE:61616 MQTT:1883 JETTY:8161	Running		
DSS_MGW	9090	Running		

3.2.2 Uninstallation

Step 1 Select **Start > All Programs**, unfold DSS Pro folder, click **DSS Pro Uninstall**. The system displays the interface. See Figure 3-7.

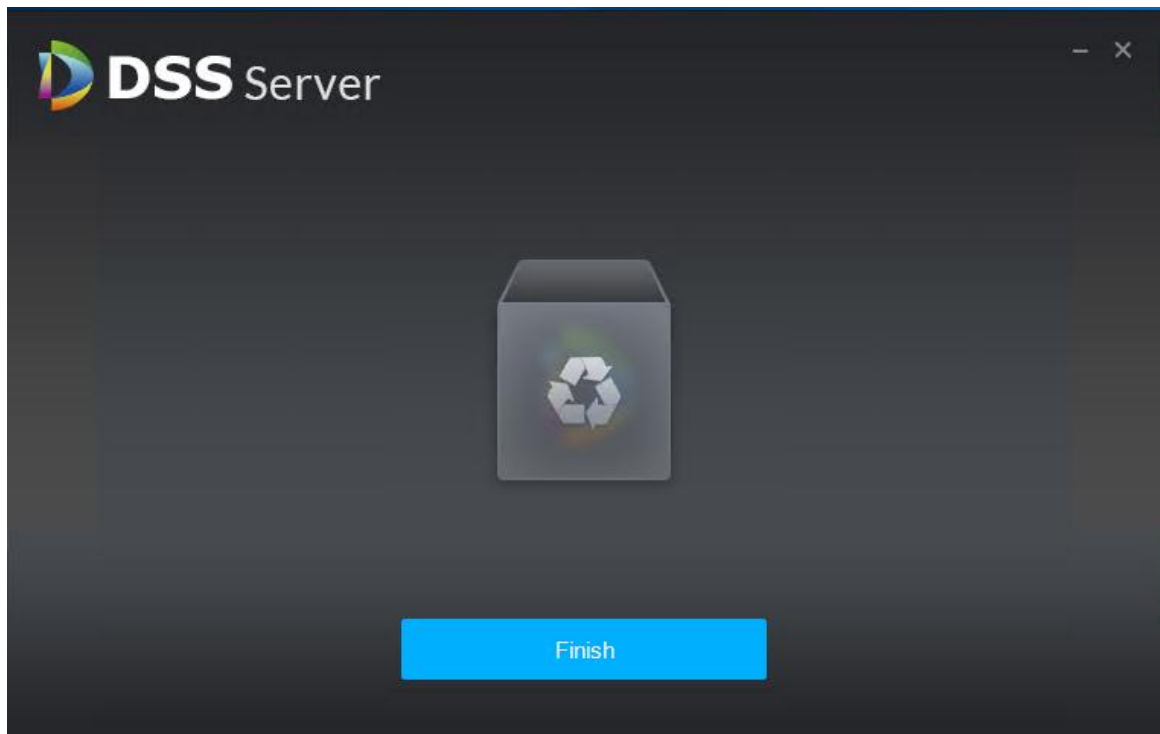
Figure 3-7



Step 2 Click **Continue**.

The system displays uninstallation progress; the system will display the interface which is shown in Figure 3-8 after uninstallation is completed.

Figure 3-8



Step 3 Click **OK** to complete uninstallation.


3.3 Slave Server Deployment

NOTE

Please skip the chapter if it only needs to deploy a single server during distributed deployment.

3.3.1 Slave Server Installation



Step 1 Double click installation program  and enter installation mode. The system displays the interface. See Figure 3-9.

NOTE

The program name includes version number and program data, please confirm it before installation.

Figure 3-9



Step 2 Click **Agreement Protocol**, read and accept agreement protocol, select **I have read and agree the DSS agreement**, click **Next**.

The system displays the interface. See Figure 3-10.

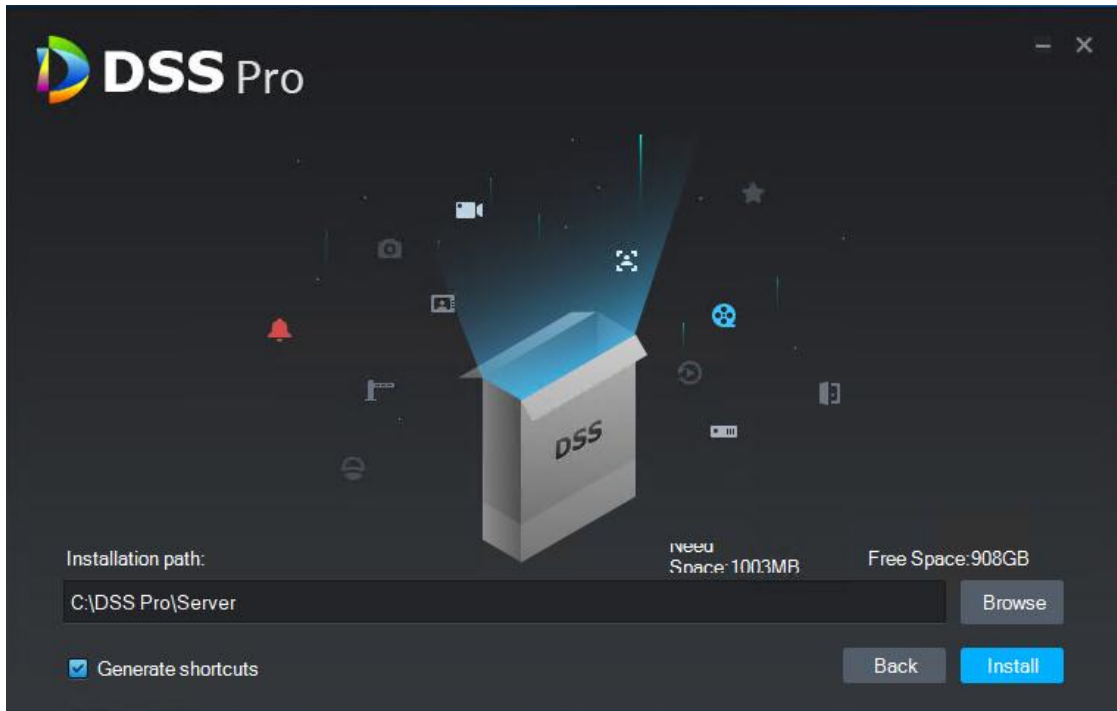
Figure 3-10



Step 3 Select installation mode as **Slave**, click **Next**.

The system displays the interface. See Figure 3-11.

Figure 3-11



Step 4 Select installation path, supports default installation path, click **Browse** to customize installation directory.

After selecting directory, the system displays space needed for installation and available space for selected path.

 **NOTE**

If **Install** button becomes gray, please check if installation directory is correct or available space of installation directory is bigger than space needed by system.

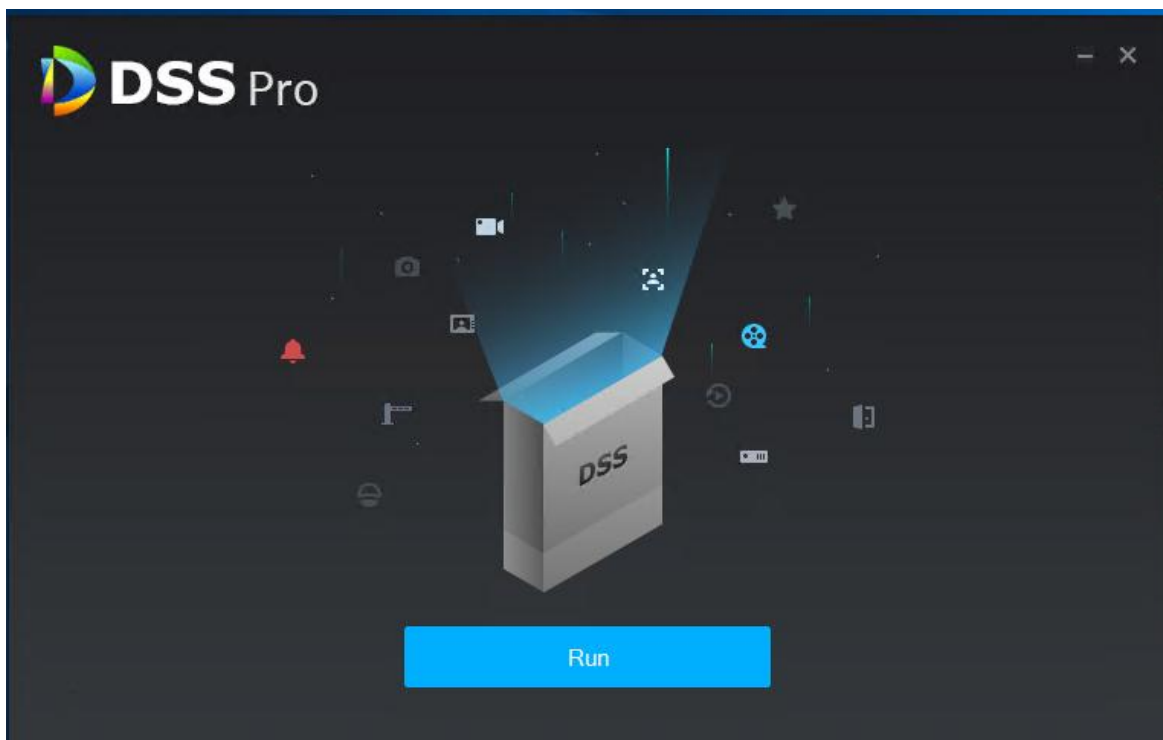
Step 5 Click **Install**.

The system displays the interface. See Figure 3-12. The installation process needs about 3 to 5 minutes, please wait patiently. The interface is shown in Figure 3-13 after installation is completed.

Figure 3-12

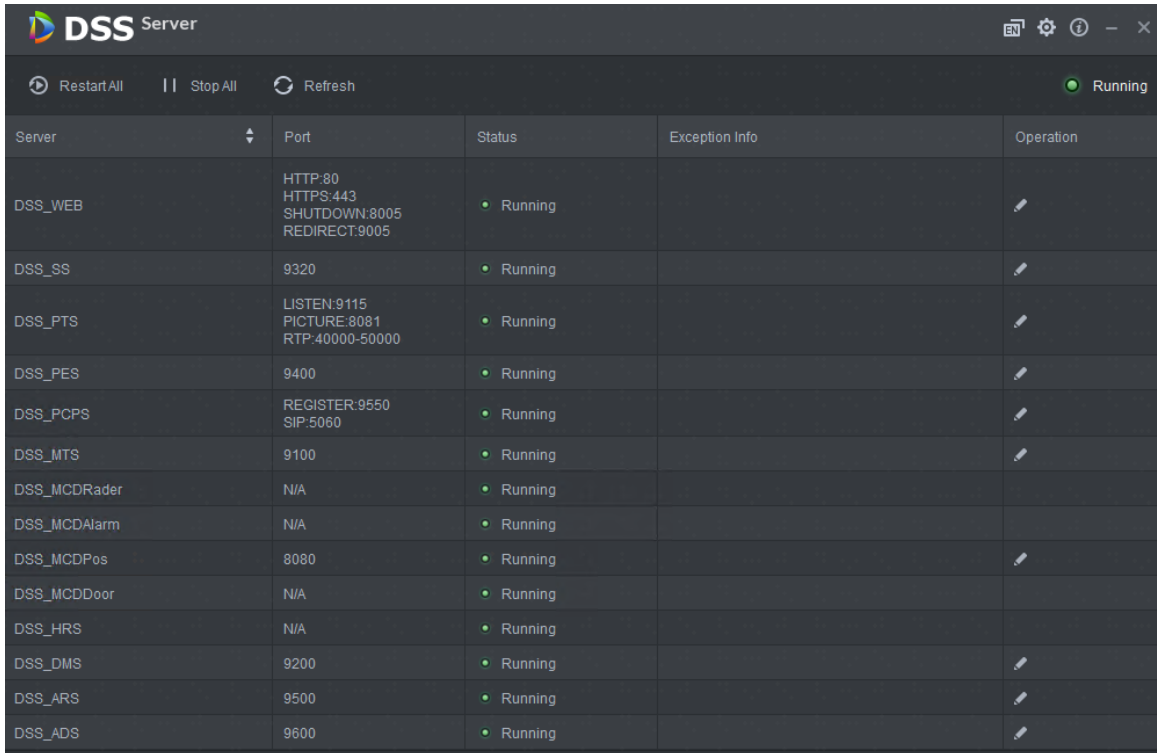


Figure 3-13



Step 6 Click Run to enable server immediately.
The system displays the interface. See Figure 3-14.

Figure 3-14



The screenshot shows the 'DSS Server' management interface. At the top, there are control buttons: 'Restart All', 'Stop All', and 'Refresh'. A green indicator shows the system is 'Running'. Below is a table with columns: Server, Port, Status, Exception Info, and Operation. The table lists 15 services, all with a 'Running' status.

Server	Port	Status	Exception Info	Operation
DSS_WEB	HTTP:80 HTTPS:443 SHUTDOWN:8005 REDIRECT:9005	Running		
DSS_SS	9320	Running		
DSS_PTS	LISTEN:9115 PICTURE:8081 RTP:40000-50000	Running		
DSS_PES	9400	Running		
DSS_PCPS	REGISTER:9550 SIP:5060	Running		
DSS_MTS	9100	Running		
DSS_MCDRader	N/A	Running		
DSS_MCDAlarm	N/A	Running		
DSS_MCDPos	8080	Running		
DSS_MCDDoor	N/A	Running		
DSS_HRS	N/A	Running		
DSS_DMS	9200	Running		
DSS_ARS	9500	Running		
DSS_ADS	9600	Running		

3.3.2 Configuring Slave Server

For slave server, it only needs to configure the master server IP and port, and then it can be registered onto the master server.



Step 1 Double click on the slave server.

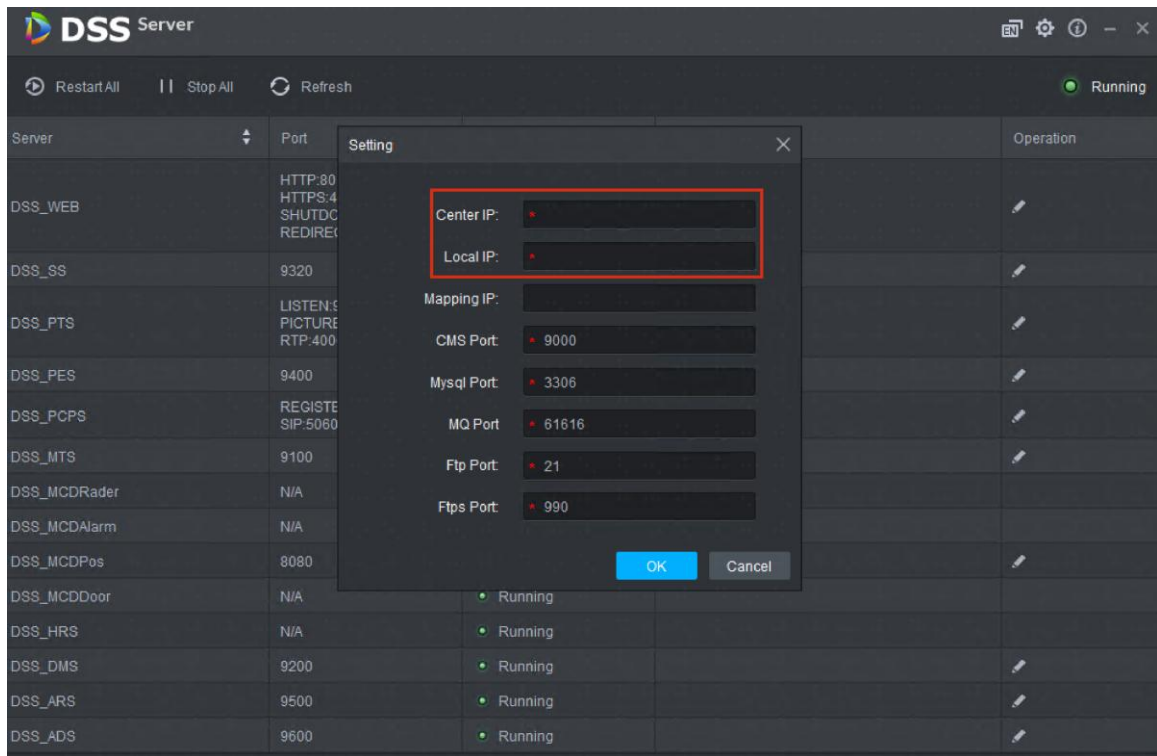
The system displays the interface. See Figure 3-14.



Step 2 Click on the top right corner of the interface.

The system displays the interface. See Figure 3-15.

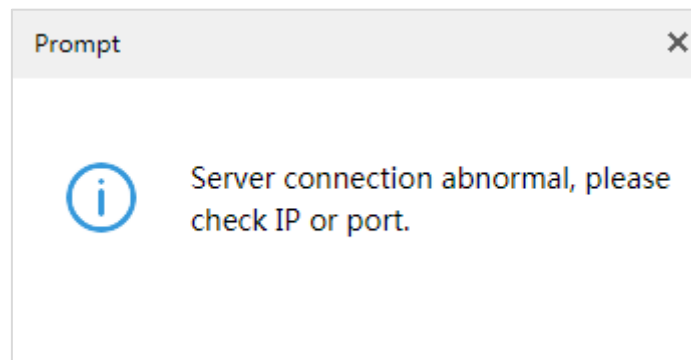
Figure 3-15



Step 3 Set Center IP, Local IP and each port number, click **OK**.

The system auto detects if master server IP and port are valid, it will restart the service of slave server if it is valid, DSS Server will be loaded again; it will pop out the prompt box shown in Figure 3-16 if info detection fails. It needs to reset it.

Figure 3-16



3.3.3 Enabling Slave Server

It can enable server from the platform management end and check the status of each server, please refer to 4.15.1 Server Management for more details.

3.4 Configuring System

It is to introduce the operations of config tool.

Figure 3-17

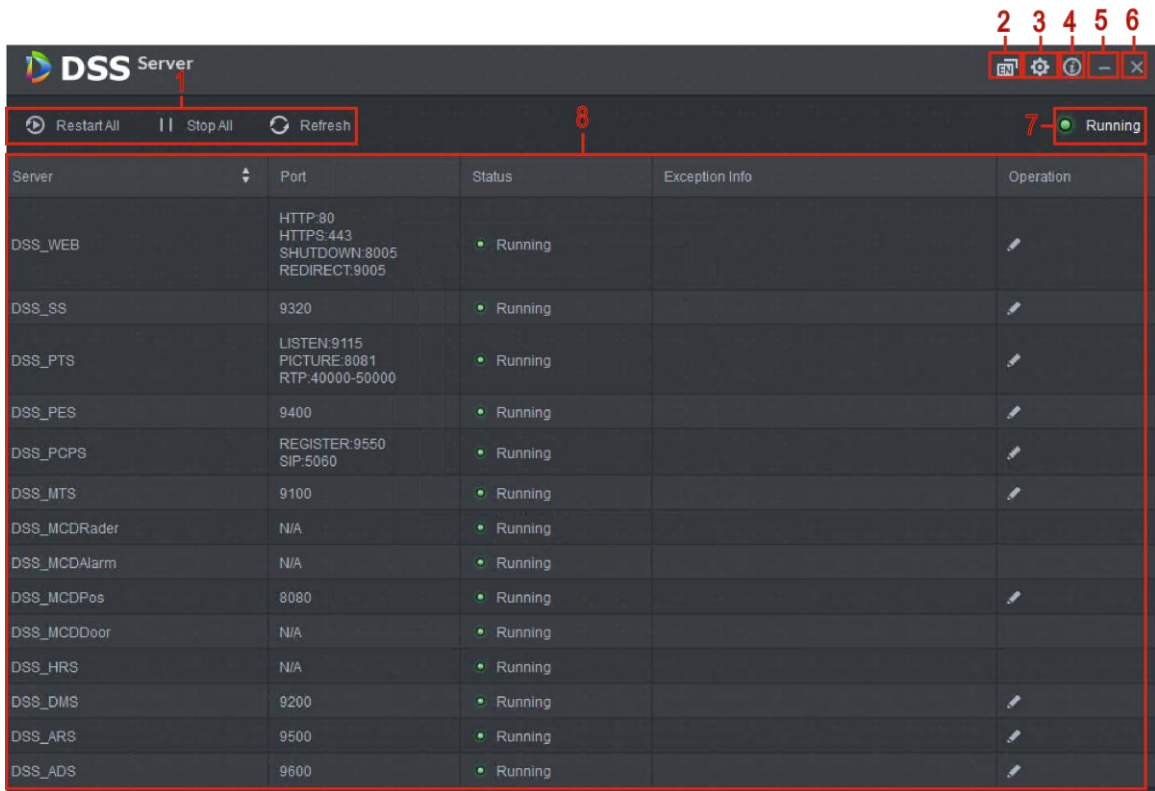
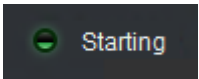
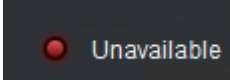
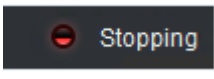
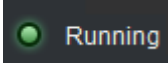
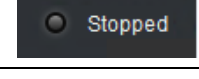



Table 3-2

SN	Function	Note
1	Service Management	<p>Service management, it supports following three types of operation:</p> <ul style="list-style-type: none"> Click to restart all services. Click to stop all services. Click to refresh services.
2	Language	The system supports two languages which are Chinese and English. It supports language switch by click the icon. It needs to restart to make config tool valid after switching languages.
3	Setting	It is to set CMS IP as the IP address of server which installs DSS. If it is in the LAN/WAN environment, then it needs to configure mapping address as WAN IP address.
4	About	Click the icon to check software version and release date.
5	Minimize	Click the icon and it minimizes the config tool interface.
6	Disable	Disable config tool.

SN	Function	Note
7	Service Status Display	<p>It is to display service total status, including:</p> <ul style="list-style-type: none">  Starting  Unavailable: Service abnormality for the server.  Stopping  Running: All the services of the server run normally.  Stopped
8	Service Display	<p>It is to display each service and service status. Click  to modify service port number, the system will restart service automatically after modification.</p>

3.5 Modifying Service Port


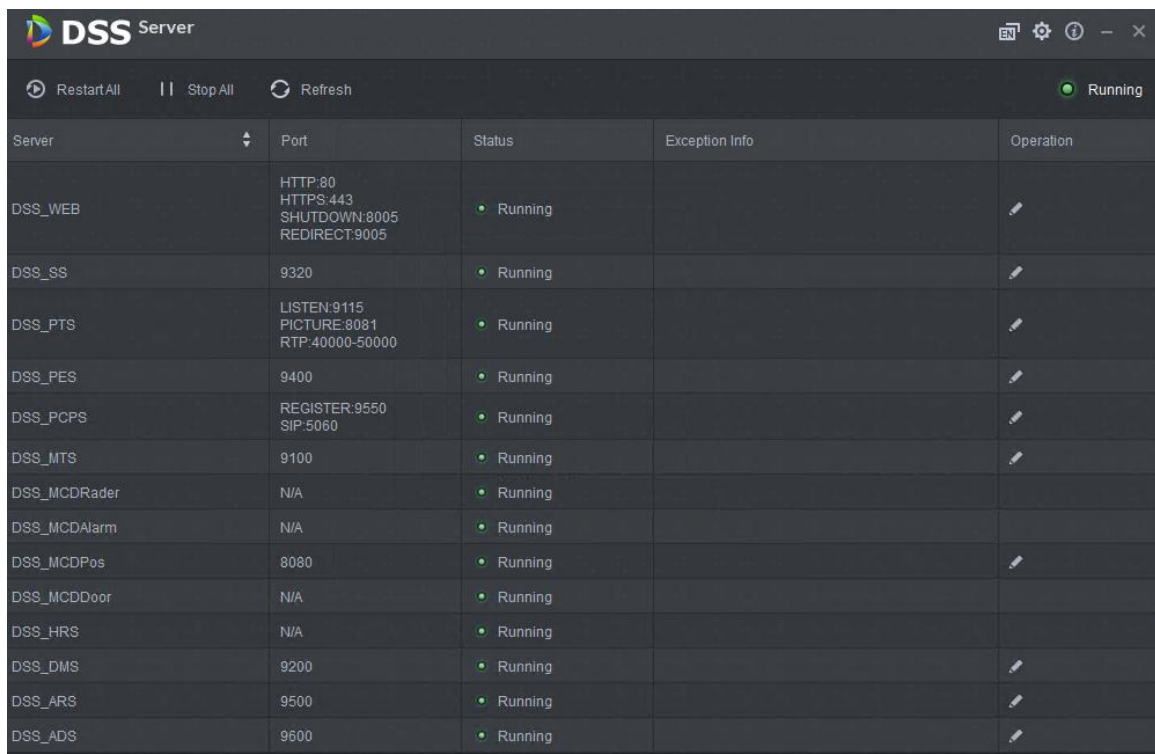











Step 1 Log in DSS and install server, double click . The system displays the interface. See Figure 3-18.

Figure 3-18



Server	Port	Status	Exception Info	Operation
DSS_WEB	HTTP:80 HTTPS:443 SHUTDOWN:8005 REDIRECT:9005	Running		
DSS_SS	9320	Running		
DSS_PTS	LISTEN:9115 PICTURE:8081 RTP:40000-50000	Running		
DSS_PES	9400	Running		
DSS_PCPS	REGISTER:9550 SIP:5060	Running		
DSS_MTS	9100	Running		
DSS_MCDRader	N/A	Running		
DSS_MCDAlarm	N/A	Running		
DSS_MCDPos	8080	Running		
DSS_MCDDoor	N/A	Running		
DSS_HRS	N/A	Running		
DSS_DMS	9200	Running		
DSS_ARS	9500	Running		
DSS_ADS	9600	Running		

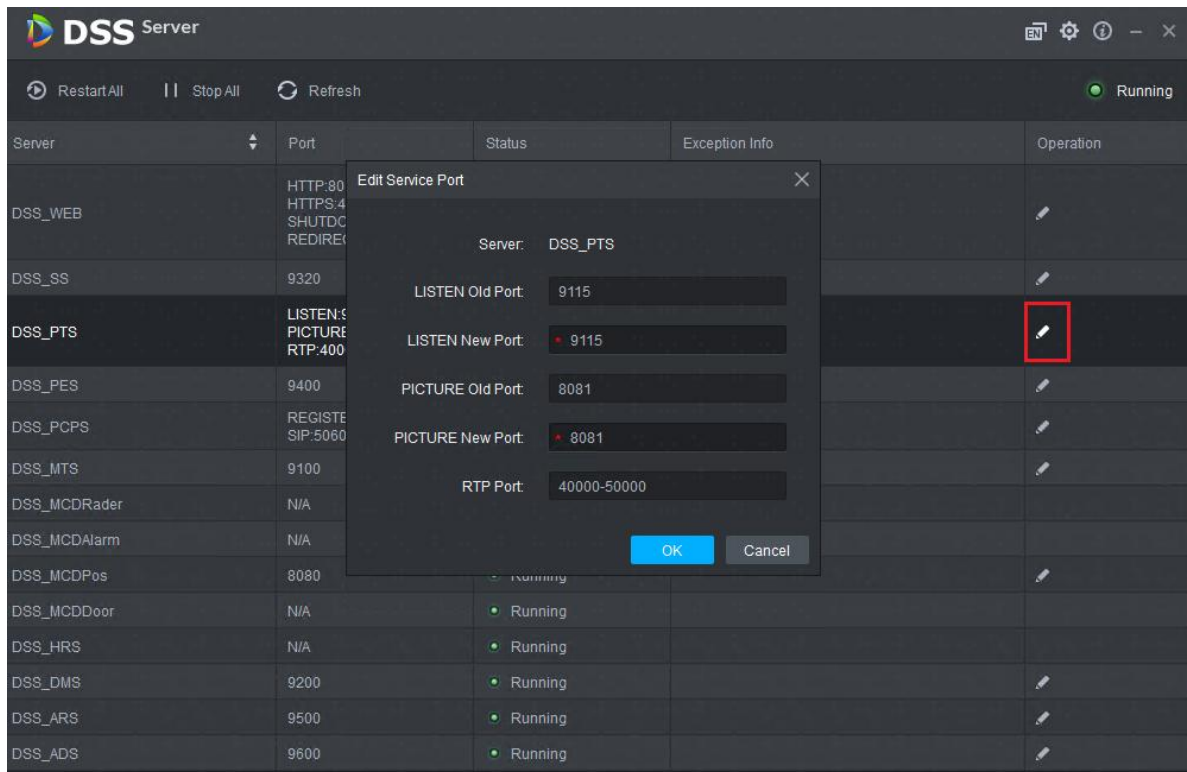
Step 2 Click  and modify the port info of corresponding service. See Figure 3-19.

If there is LAN/WAN config, then LAN/WAN port are modified as the value customized by users.

 **NOTE**

- DSS_PTS service default port is 8081, which can be often occupied; it is recommended to modify the port.
- The system will prompt when the port is occupied, please modify port in time according to the prompt.

Figure 3-19



Step 3 Click **OK** to save config.

The system will restart service after it is successfully modified.

3.6 Configuring LAN/WAN



Now the DSS Server config system does not distinguish between LAN and WAN port of service, port config option is uniform, LAN and WAN port are consistent.

3.6.1 Configuring Router

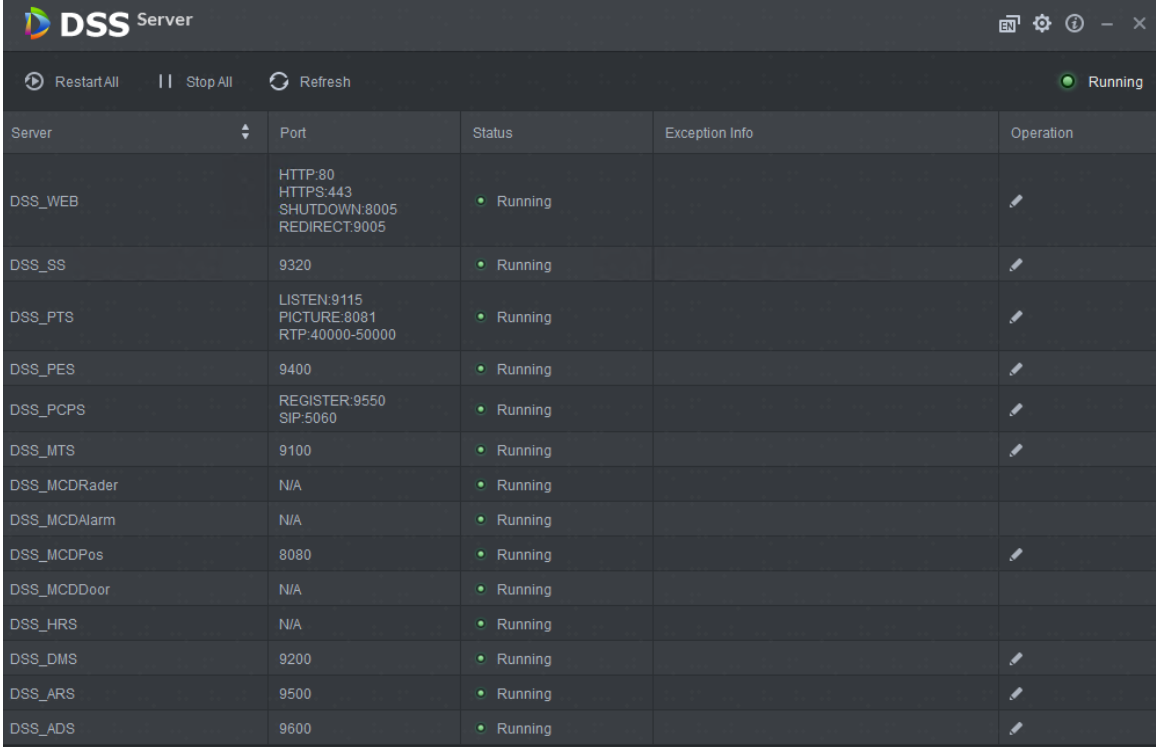
It is recommended to do DMZ mapping, it can do port mapping if it is not allowed by the environment. The ports which need to be opened are 9500, 9200, 21, 990, 9090, 61616, 9100, 3306, 9550, 9400, 80, 5080, and so on. Please refer to Appendix 1 Service Module Introduction for more details about port. If there is port being occupied by other mapping, for example, 80 ports have been occupied and it needs to be modified as 81, then it needs to modify port by referring to 3.5 Modifying Service Port, and then it can add mapping rule onto the router.

3.6.2 Configuring DSS Platform











Step 1 Log in DSS and install server, double click .


The system displays the interface. See Figure 3-20.

Figure 3-20



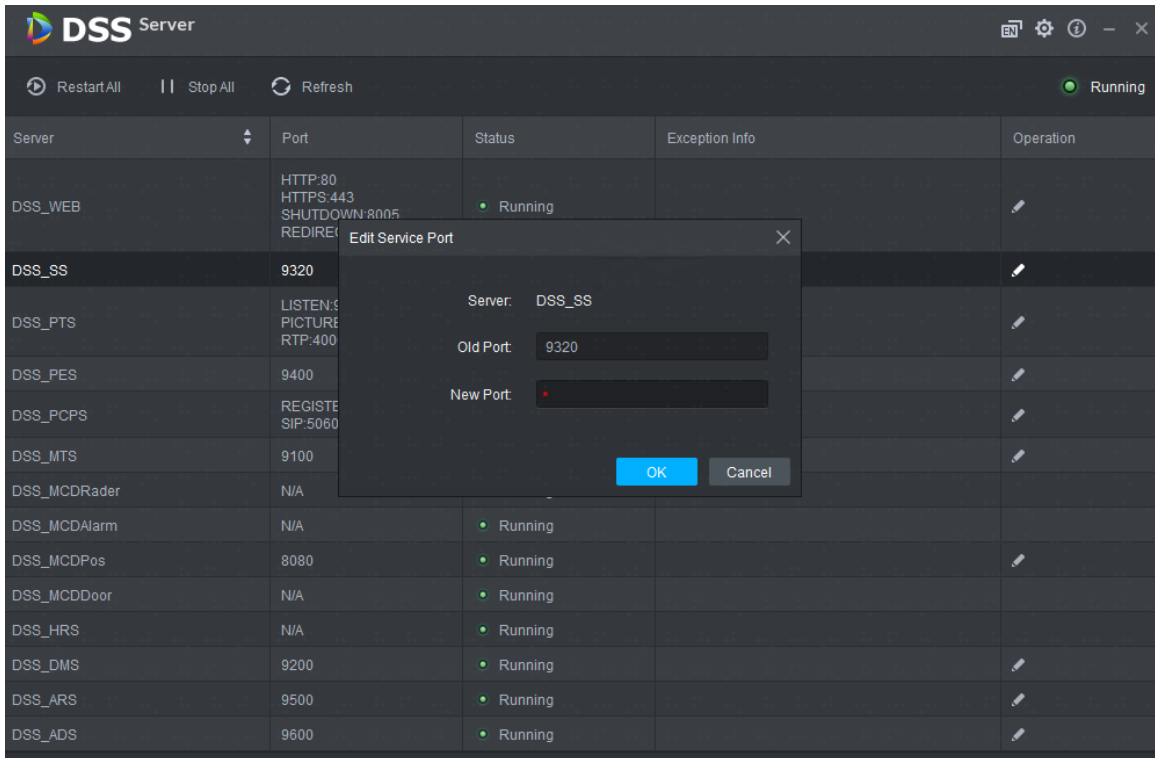
The screenshot shows the DSS Server management interface. At the top, there are control buttons: 'Restart All', 'Stop All', and 'Refresh'. A 'Running' indicator is visible in the top right corner. Below these controls is a table with the following columns: 'Server', 'Port', 'Status', 'Exception Info', and 'Operation'. The table lists various server components, all of which are currently 'Running'.

Server	Port	Status	Exception Info	Operation
DSS_WEB	HTTP:80 HTTPS:443 SHUTDOWN:8005 REDIRECT:9005	Running		
DSS_SS	9320	Running		
DSS_PTS	LISTEN:9115 PICTURE:8081 RTP:40000-50000	Running		
DSS_PES	9400	Running		
DSS_PCPS	REGISTER:9550 SIP:5060	Running		
DSS_MTS	9100	Running		
DSS_MCDRader	N/A	Running		
DSS_MCDAAlarm	N/A	Running		
DSS_MCDPos	8080	Running		
DSS_MCDDoor	N/A	Running		
DSS_HRS	N/A	Running		
DSS_DMS	9200	Running		
DSS_ARS	9500	Running		
DSS_ADS	9600	Running		

Step 2 Click the  on the top right corner.

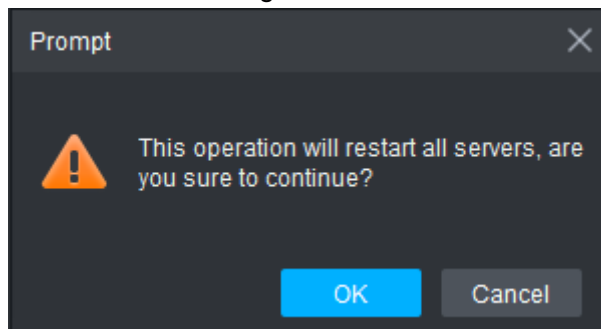
The system displays the interface. See Figure 3-21.

Figure 3-21



Step 3 Set Mapping IP as WAN address, click **OK**.
The system pops out the dialog box. See Figure 3-22.

Figure 3-22



Step 4 Click **OK** and the system restarts service.

4 Manager Operations

DSS Pro Manager (hereinafter referred to as Manager) supports configuring system information, user information and record plan etc. It is recommended to use Google Chrome 40 and newer version, Firefox 40 and newer version.

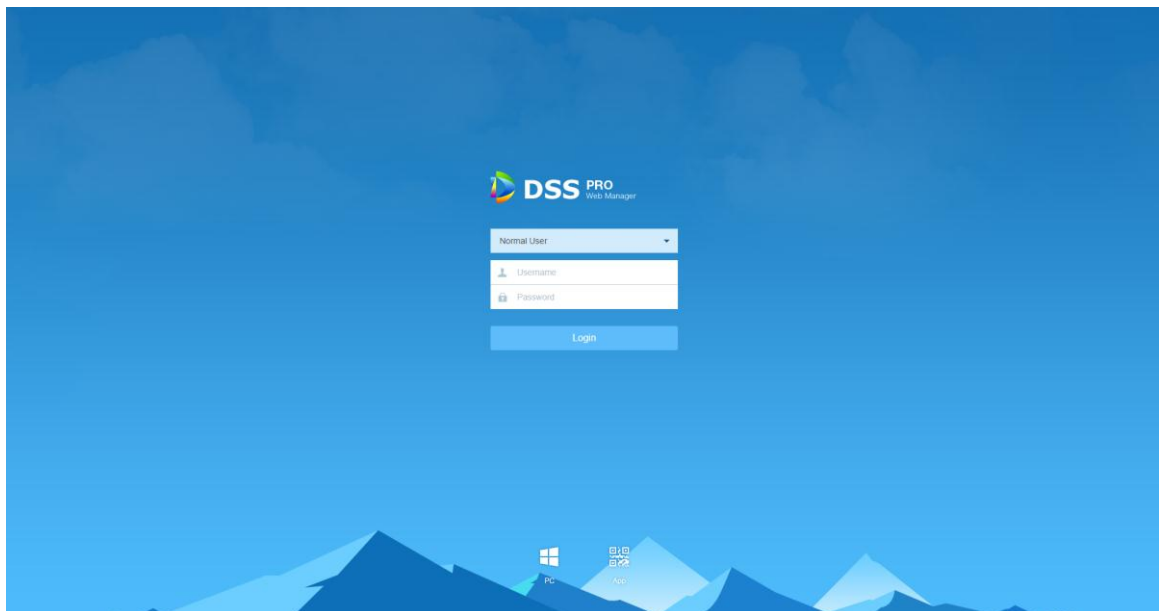
4.1 Logging in Management End

It can log in the management end of platform server via browser, and realize remote config of relevant business by administrator.

Step 1 Enter platform IP address in the browser, press Enter.

The system displays the login interface. See Figure 4-1.

Figure 4-1



Step 2 Enter username and password, click **Login**.

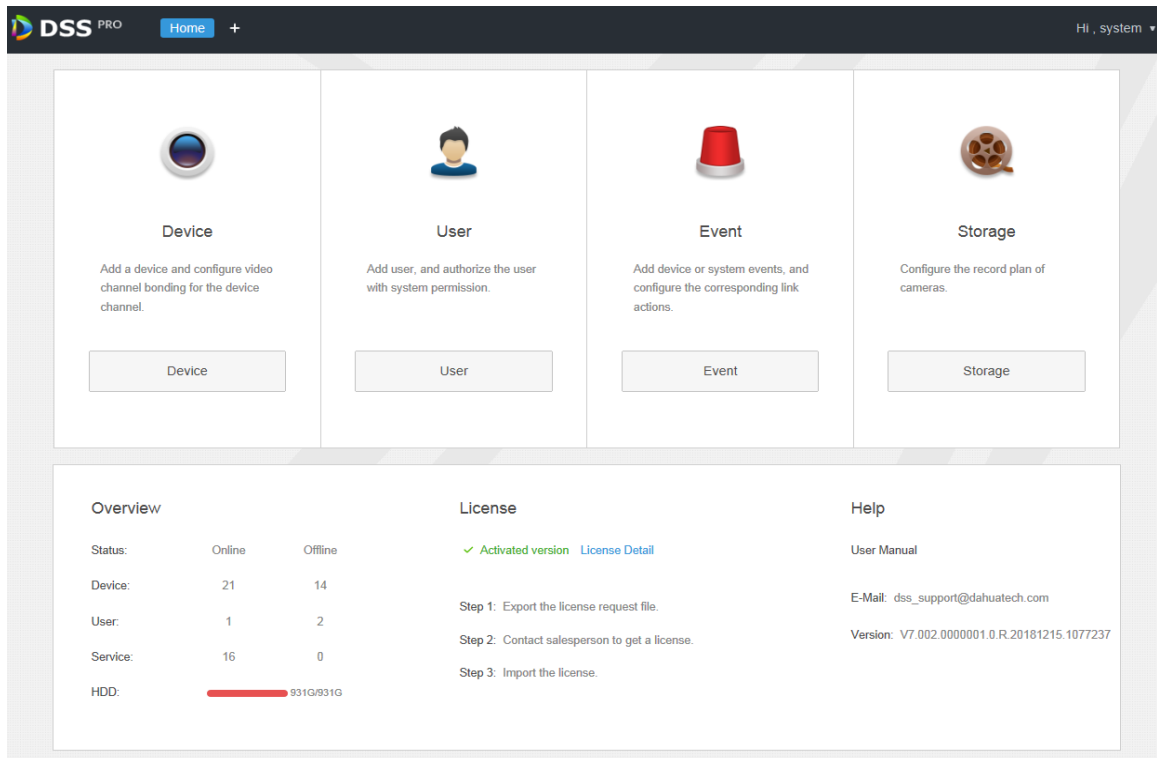
The default username is system.


 **NOTE**

- The system will pop out the interface of modifying password if it is the first time to log in system. It can continue to log in system after the password is modified in time.
- Please add the platform IP address into the trusted sites of browser if it is your first time to log in DSS management end.

It will display the homepage after login. See Figure 4-2.

Figure 4-2



- Place the mouse on the username of top right corner, and then you can modify password or log out current user.
- The shortcut access of general modules is displayed on the top of interface, click  on the homepage to present all the modules and open new modules.
- Overview: It displays the online/offline status of device, user and service, and the usage proportion of hard drive.
- Authorization: Check authorization details, purchase authorization document step by step according to requirements. Please refer to 4.2 Authorization for more operation details.
- Help: Check User's Manual, version information, etc.

4.2 Authorization


4.2.1 License Introduction

Please refer to Table 4-1 for description of probation period, there is no limit for modules and channels (such as alarm input and output) that are not in the table.

The probation period only lasts 90 days, it is recommended to purchase License. It fails to use 'Device, Event, Storage or TV Wall when you log in DSS management without purchasing License after 90-day probation period, and it cannot log in client or mobile APP.

Table 4-1

Function		Performance
Channel	Video (Encoding)	32
	POS	2
	Access Control	64

Function	Performance
Video Intercom	128
ANPR	2  ANPR channels are the total of both ANPR itself and Entrance.
Face Recognition	2
Attendance	4
DSS Mobile For VDP	10
Cascade	0
Module	Traffic
	90 days

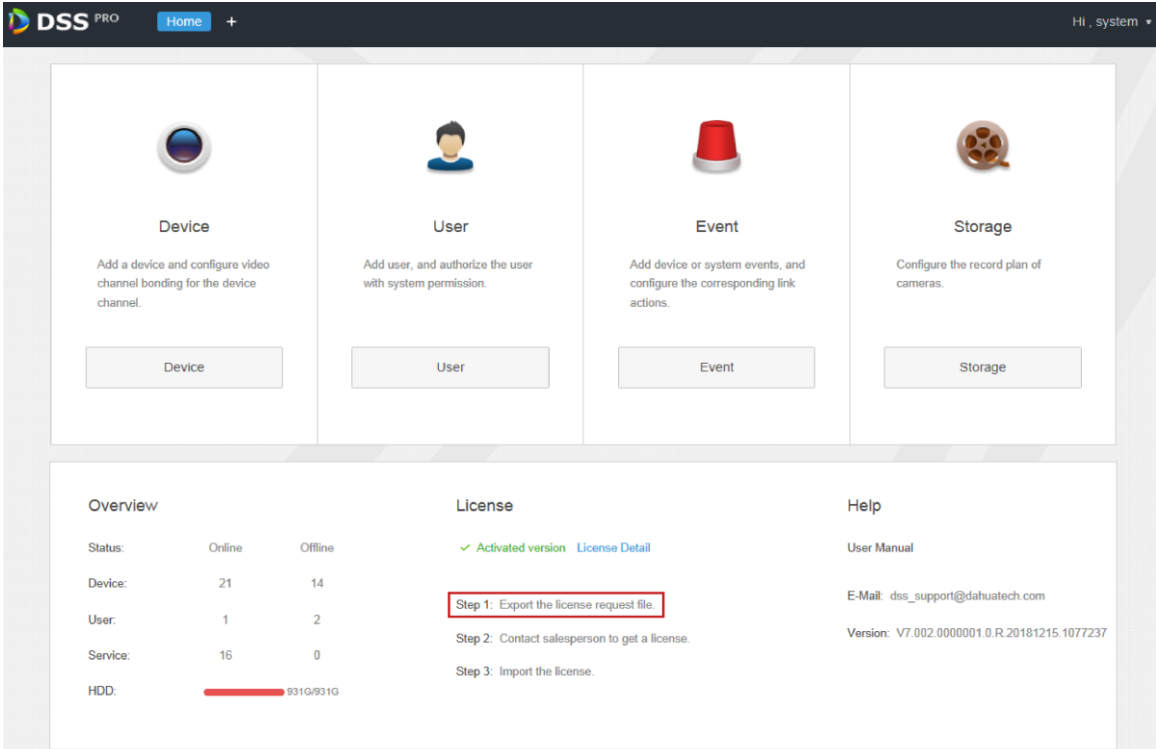
4.2.2 Applying for License

Applying for License includes first application and second application when upgrading License. The quantity of all the authorized channel starts from 0 for the first application, the initial status of module authorization is probation. The authorization status becomes Purchased if it is bought again. The purchase quantity of second purchase means the quantity which needs to be added. If you want to increase to 10 channels after you already own 5 channels, then you only need to purchase another 5 channels.

Step 1 Acquire authorization request file.

- 1) Log in DSS management end.
- 2) Click Step 1 on the Homepage interface, which is shown in Figure 4-3.
The system displays Upgrade interface. See Figure 4-4.

Figure 4-3



The screenshot shows the DSS PRO management interface. At the top, there is a navigation bar with 'DSS PRO', 'Home', and a user profile 'HI, system'. Below the navigation bar, there are four main modules: Device, User, Event, and Storage. Each module has an icon, a title, a brief description, and a button. The Device module description is 'Add a device and configure video channel bonding for the device channel.' The User module description is 'Add user, and authorize the user with system permission.' The Event module description is 'Add device or system events, and configure the corresponding link actions.' The Storage module description is 'Configure the record plan of cameras.'

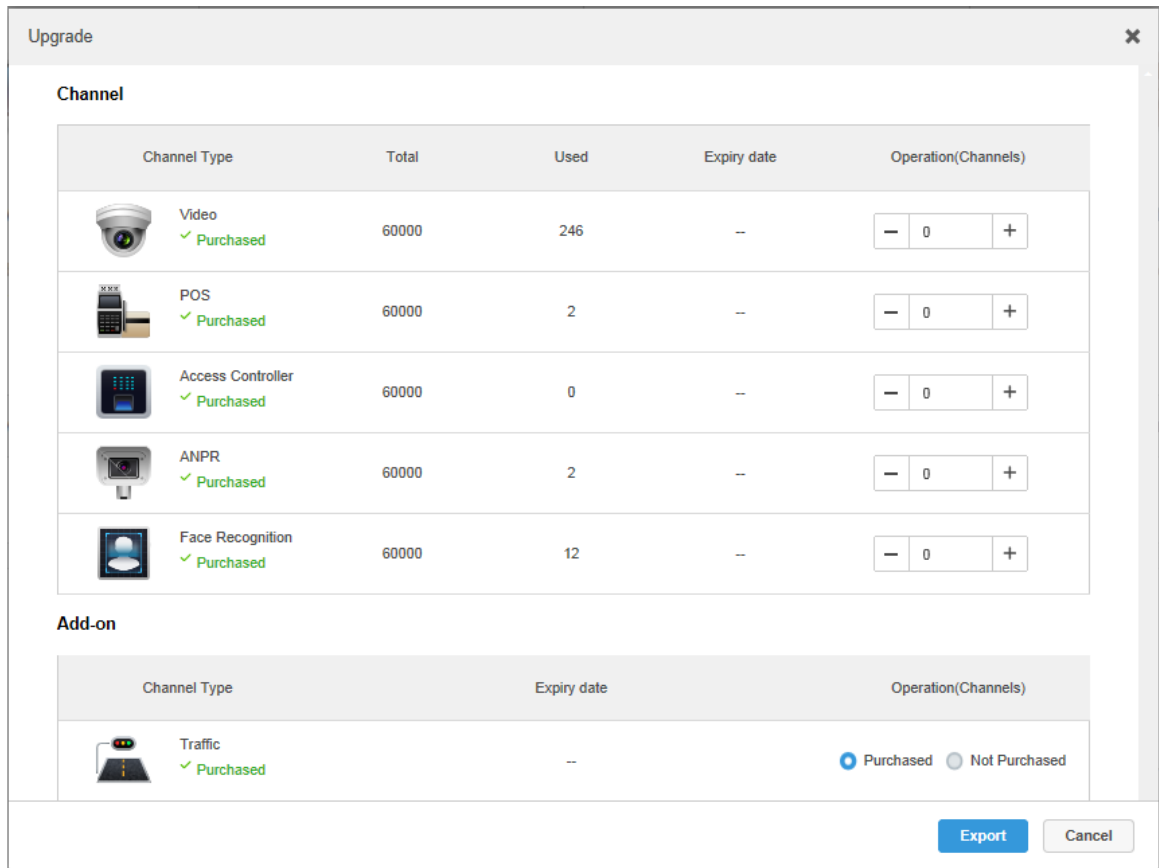
Below the modules, there is a 'License' section. It shows 'Activated version' and 'License Detail'. A red box highlights 'Step 1: Export the license request file.' Below this, there are two more steps: 'Step 2: Contact salesperson to get a license.' and 'Step 3: Import the license.'

On the left side, there is an 'Overview' section with a table showing the status of various components:

Status:	Online	Offline
Device:	21	14
User:	1	2
Service:	16	0
HDD:	931G/931G	

On the right side, there is a 'Help' section with 'User Manual', 'E-Mail: dss_support@dahuatech.com', and 'Version: V7.002.0000001.0.R.20181215.1077237'.

Figure 4-4



- 3) Enter channel number and select module according to actual purchase.
- 4) Click Export, generate zip compression package and save it under the default download path of the browser.

It supports to open, save or save as the export file on the interface after export is completed.

Step 2 Send authorization application file to sales, which is used to acquire authorization file.

4.2.3 Loading License

Please make sure you have made application and acquired License file before loading License.

Step 1 Log in DSS management end.

Step 2 Click Step 3 on the Homepage interface, which is shown in Figure 4-5.

The system displays Upgrade interface. See Figure 4-6.

Figure 4-5

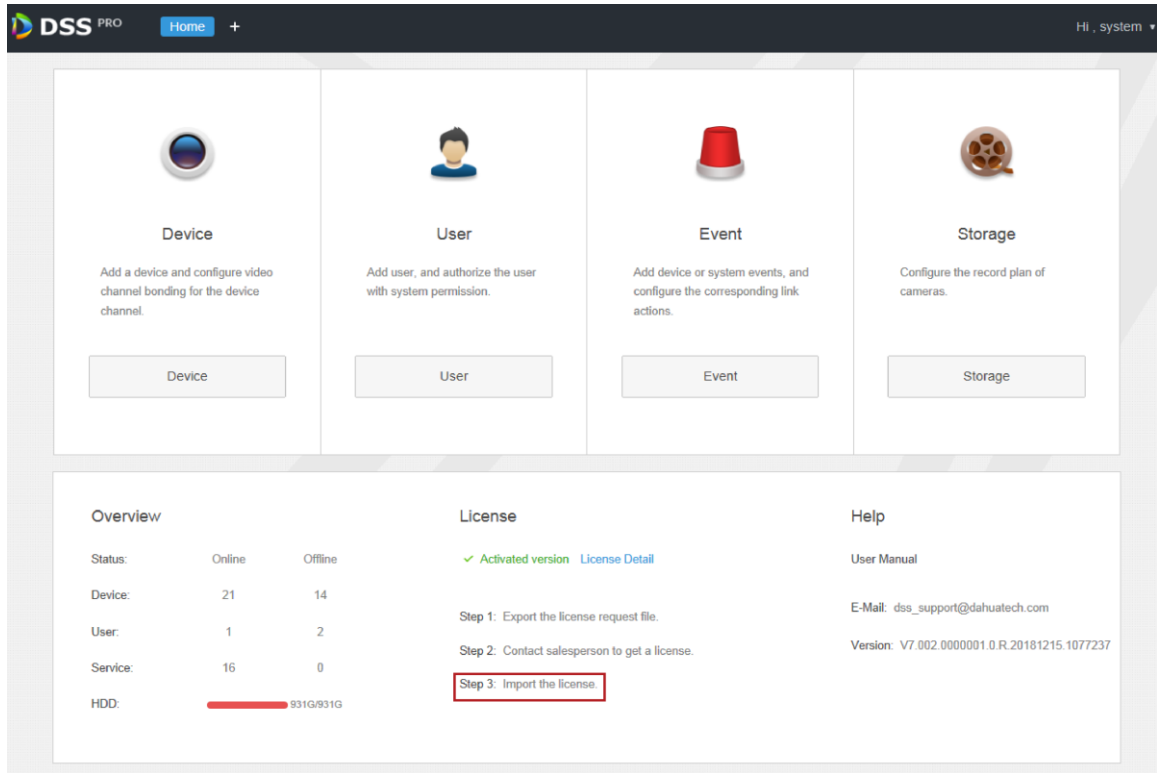
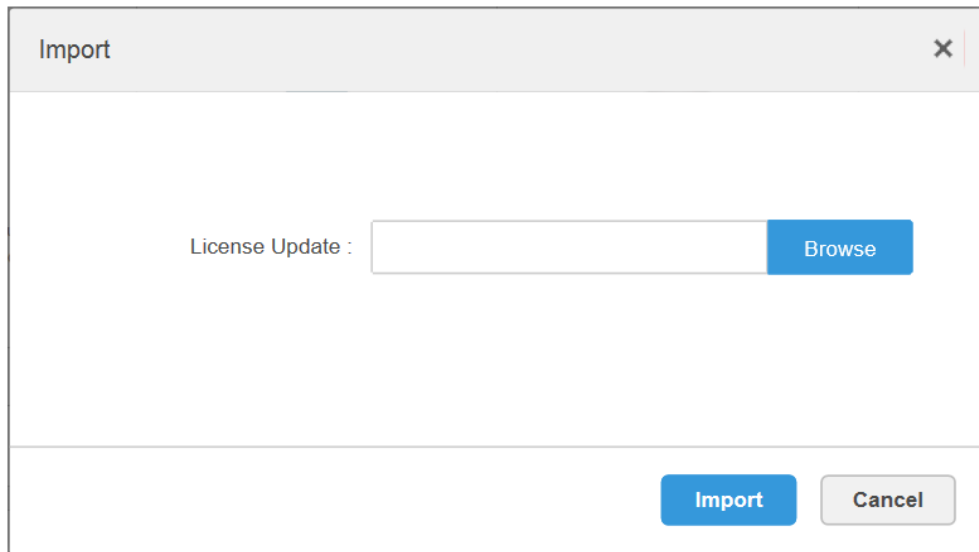


Figure 4-6



Step 3 Click **Browse** and select the uploaded License file.

Step 4 Click Import and complete License loading.

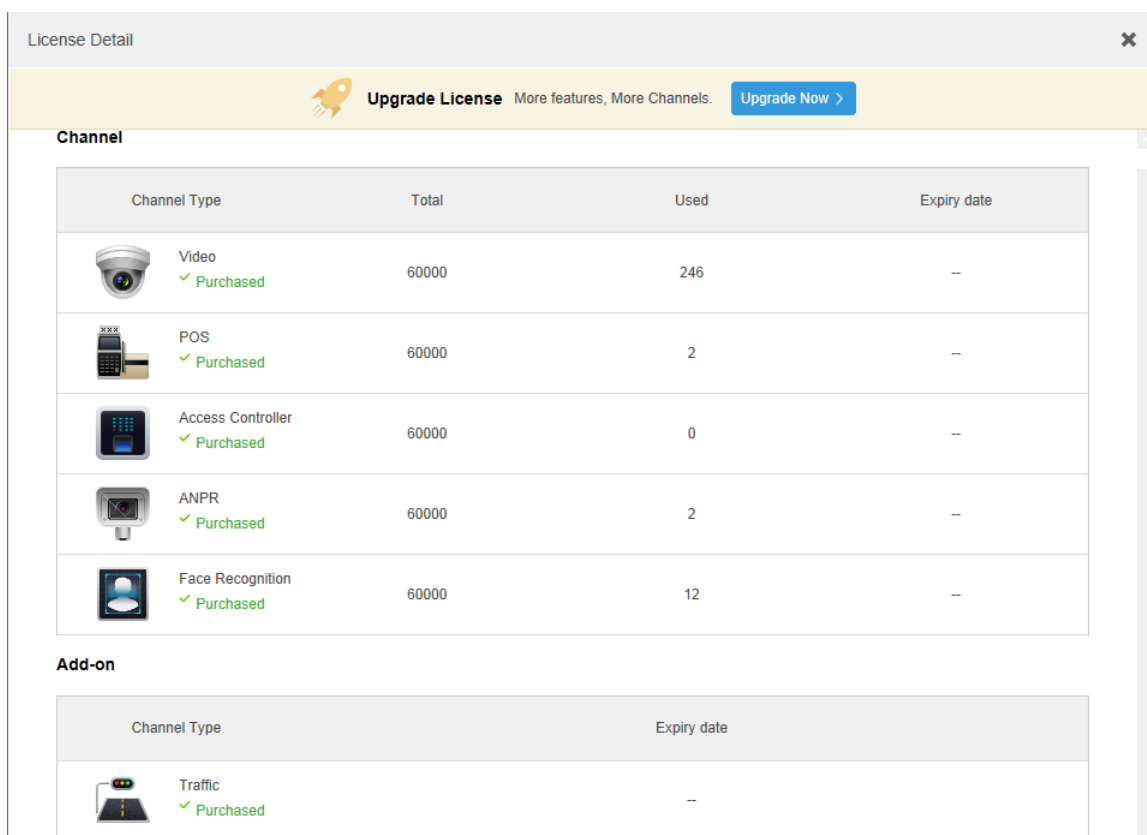
The system prompts that authorization information has changed after loading, and then the program starts again.

Step 5 Log in DSS management end again, click License Details on the Homepage interface, and check License.






 **NOTE**

Click Upgrade Now and skip to Upgrade interface, then you can export authorization application file.


Figure 4-7



The screenshot shows the 'License Detail' interface. At the top, there is a yellow banner with a rocket icon, the text 'Upgrade License More features, More Channels.', and a blue 'Upgrade Now >' button. Below the banner, the 'Channel' section contains a table with the following data:

Channel Type	Total	Used	Expiry date
 Video ✓ Purchased	60000	246	--
 POS ✓ Purchased	60000	2	--
 Access Controller ✓ Purchased	60000	0	--
 ANPR ✓ Purchased	60000	2	--
 Face Recognition ✓ Purchased	60000	12	--

Below the Channel section, the 'Add-on' section contains a table with the following data:

Channel Type	Expiry date
 Traffic ✓ Purchased	--

4.3 System Settings

4.3.1 Setting System Parameters

It needs to configure system parameters when it is first time to log in DSS system, which is to make sure that the system runs normally.

Step 1 Click , select **System** on the **New Tab** interface.

The system displays the interface. See Figure 4-8.

Figure 4-8

Table 4-2

Parameter		Note
Message Storage Time Setup	Log	Sets longest keep time of log, it is 30 days by default.
	Alarm Info	Sets the longest keep time of alarm info, it is 30 days by default.
	GPS Info	Sets the longest keep time of GPS info, it is 30 days by default.
	POS	Sets the longest keep time of POS info, it is 30 days by default.
	Face Recognition	Sets the longest keep time of face recognition info; it is 180 days by default.
	Passed Vehicle Record	Sets the longest keep time of passed vehicle record; it is 180 days by default.
	Access Snapshot	Sets the longest keep time of entrance snapshot record.
	Customer Analysis	Sets the longest keep time of people flow statistics record.
Time Sync	Enable	Check it to enable the function of time sync.
	Start Time	Sets start time of time sync.
	Sync Interval	The time of server shall prevail; synchronize the time of device and server. It is 2 hours by default, the system is based on the server time every 2 hours, and then it is to synchronize the time of both device and server. NOTE The time between device and server is synchronized via SDK.
	Immediately	Click the button to start time sync immediately.

Parameter		Note
Mail Server	-	It is to set mail server IP, port, encryption type, username/password, sender, test recipient etc. It can select to send email to users when the administrator configures the alarm linkage and the client handles the alarm. At this moment, it needs to configure mail server first.
Activity Directory	-	Set domain info.
HTTPS	-	Enable HTTPS security verification.
POS End	-	After setting POS end mark, it will display on the location of POS receipts end.
Picture Storage Setup	Picture Storage Time	Sets the storage time of the picture, unit: day.
	Max Capacity	When the storage space is less than the set value, cyclic overlap will be enabled.

Step 2 Configure corresponding parameters.

Step 3 Click **Save**.

4.3.2 Setting Mail Server

4.3.2.1 Application Scenarios

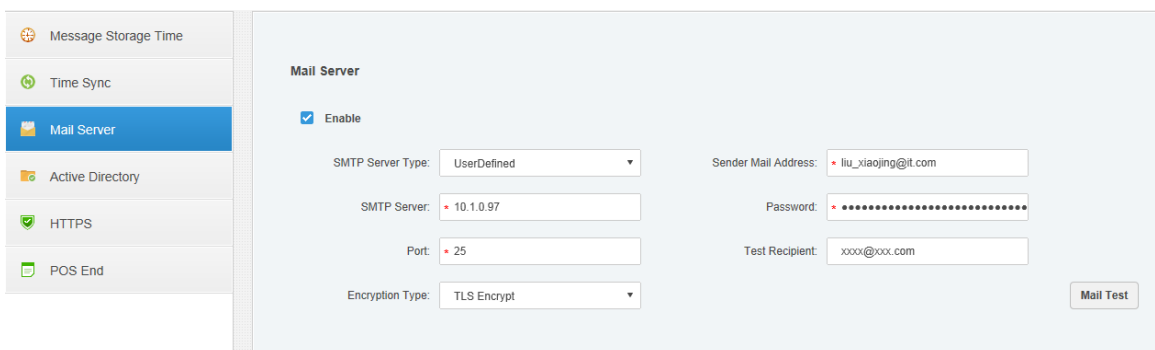
It can select to send mail to user when the administrator is configuring alarm linkage and client handling alarm, at this moment, it needs to configure mail server first.

4.3.2.2 Config Method

Step 1 Click  and select **System** on the New Tab interface.

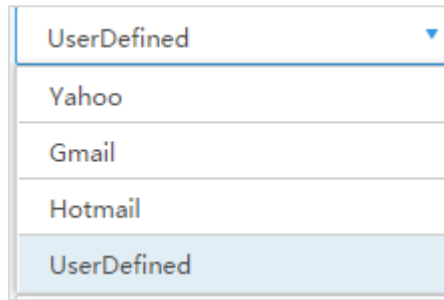
Step 2 Select the **Mail Server** tab, check **Enable** to enable mail config. See Figure 4-9.

Figure 4-9




Step 3 Select the type of mail server in the drop-down box. See Figure 4-10.

Figure 4-10



Step 4 It is to set mail server IP, port, encryption type, username/password, sender and test recipient etc.

Step 5 Click **Mail Test** to test if the config of mail server is valid. Test prompt will be received if the test is successful, and the test account will receive corresponding email.

Step 6 Click  after the test is successful, and then it can save config info.

4.4 Adding Organization

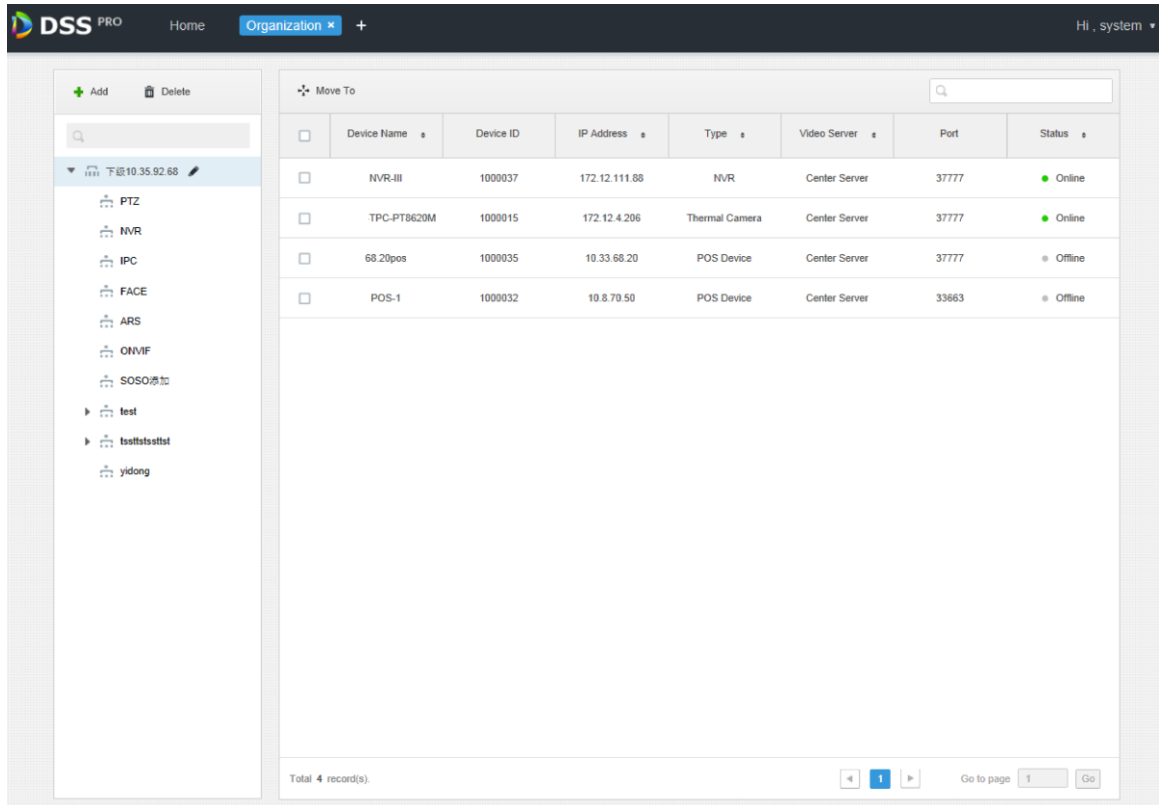
Adding organizations is to deploy the hierarchy of organization or device, which is to make it easy to manage. It doesn't have to add organizations, the added users or devices are classified to the default organization.

The default first level organization of the system is Root, the newly-added organization is displayed at the next level of root.

Step 1 Click  and select **Organization** on the **New Tab** interface.

The system displays the interface of organization. See Figure 4-11

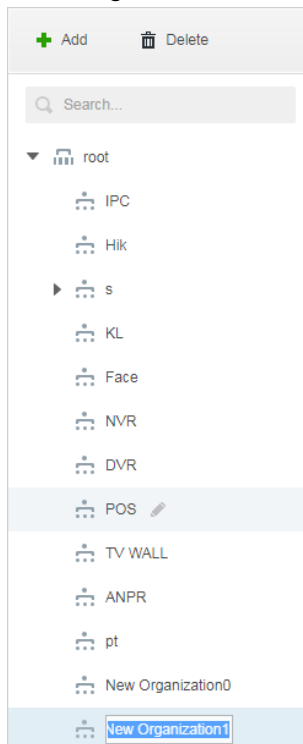
Figure 4-11



Step 2 Select root organization, click **Add**.

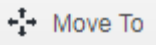


It is to add new organizations under the root organization. See Figure 4-12.

Figure 4-12



Step 3 Enter organization name, press Enter.

Operations

- Move device: Select the device under the root organization, click , select **New Organization 1**, click **OK**.
- Edit: Click the  next to the organization and modify the organization name.
- Delete: Select organization, click  to delete organization.

4.5 Adding Role and User

4.5.1 Adding User Role

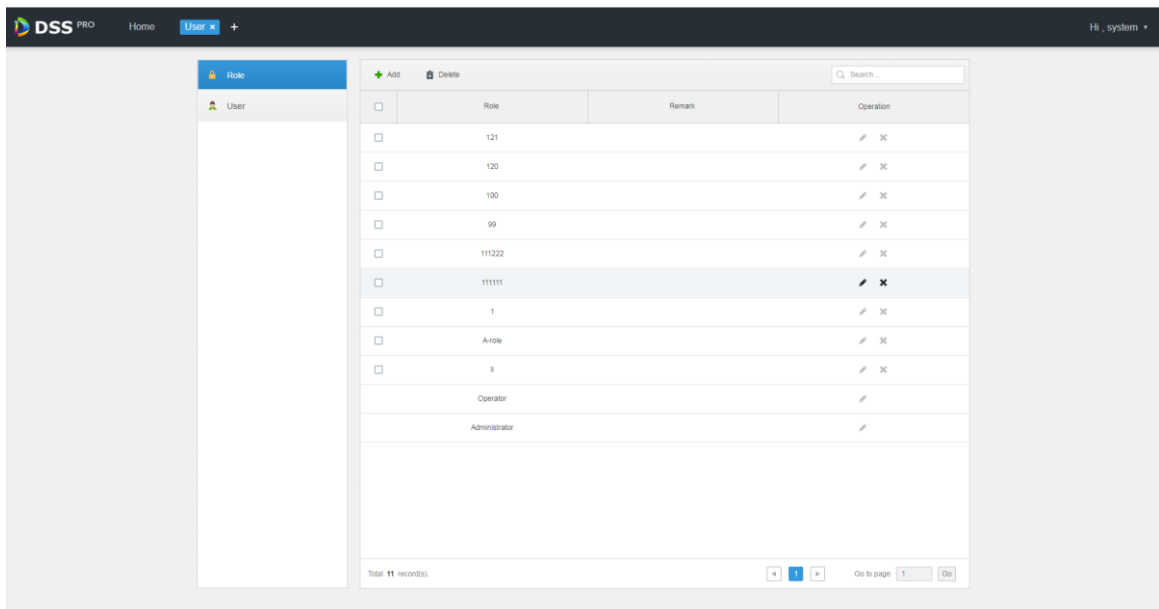
You can create user role and add user. The created user can log in both admin and client. Different user roles decide users to have different operation permissions.

The operation permission of user role includes device permission, management menu permission and operation menu permission. First it needs to grant permissions to these operations and then it can implement corresponding operations.

Step 1 Click  and select **User** on the **New Tab** interface.

The system displays the **User** interface. See Figure 4-13.

Figure 4-13



Step 2 Click **Add** under the **Role** tab.

The system pops out the **Add Role** interface.

Step 3 Enter **Role Name**.

 **NOTE**

If it selects Copy from next to the Role Name and select some role in the drop-down list, then it can copy the config info into the selected roles and realize quick config.

Step 4 Select **Device Permission** and **Operation Permission**.

The system displays the interface. See Figure 4-14.

Figure 4-14

Add Role

Basic Info

Name: * Copy from

Remark:

Device Permissions

Search...

- root
- IPC
- Hik
- s
- KL
- Face
- NVR

Control Permissions

- All Permissions
 - Control Permissions
 - Record
 - Record Lock
 - Record Tag
 - PTZ
 - Audio Talk
 - Menu Permissions

User

<input type="checkbox"/>	Username
<input type="checkbox"/>	system
<input type="checkbox"/>	lmx
<input type="checkbox"/>	21396
<input type="checkbox"/>	chenjie
<input type="checkbox"/>	A

OK **Cancel**



NOTE

If it fails to select corresponding device permission or menu permission, then the users under the role has no corresponding device or menu operation permission.

Step 5 Click **OK** to add the role.

4.5.2 Adding User

You can add the user of the role if you have added the user role.

Step 1 Click **User** tab.

The system displays the interface. See Figure 4-15.

Figure 4-15

<input type="checkbox"/>	Username	Role	Status	User Type	Operation
<input type="checkbox"/>	ym	Administrator	● Online	Normal User	
<input type="checkbox"/>	asd		● Offline	Normal User	
<input type="checkbox"/>	778888111	Administrator	● Offline	Normal User	
<input type="checkbox"/>	778888	Administrator	● Offline	Normal User	
<input type="checkbox"/>	1		● Offline	Normal User	
<input type="checkbox"/>	ll	Administrator,II	● Offline	Normal User	
<input type="checkbox"/>	zhhq	Administrator	● Offline	Normal User	
<input type="checkbox"/>	testfx	Administrator,Operator,II	● Offline	Normal User	
<input type="checkbox"/>	A	A-role	● Offline	Normal User	
<input type="checkbox"/>	chenjie	Administrator	● Offline	Normal User	
<input type="checkbox"/>	21396	Administrator	● Offline	Domain User	
<input type="checkbox"/>	lmx	II	● Online	Normal User	
	system	Administrator,99,100,120,121	● Online	Normal User	

Total 13 record(s).

Go to page 1 Go

Step 2 Click **Add**.

The system will pop out the **Adding User** interface.

Figure 4-16

Add User

Basic Info

Username: * Password Expiry:

Password: * Email Address:

Confirm: * PTZ Control Permission: * 5

MAC Address: Remark:

Role

<input type="checkbox"/>	Rolename
<input type="checkbox"/>	Administrator
<input type="checkbox"/>	Operator
<input type="checkbox"/>	II
<input type="checkbox"/>	A-role
<input type="checkbox"/>	1

Device Permissions

Search...

▼ root

Control Permissions

- ▼ All Permissions
 - ▼ Control Permissions
 - ▼ Menu Permissions
 - ▼ Administrator Menu
 - ▼ Client Menu

OK Cancel

Step 3 Configure user info, select role below, and it will display device permission and operation permission of corresponding role on the right.

NOTE

- The user has no **Device Permission** or **Operation Permission** if it fails to select **Role**.
- You can select several roles at the same time.

Step 4 Click **OK** to add the user.

Operations

- Click to freeze user, the user which logs in the client will quit.
- Click to modify user info except username and password.
- Click to delete user.

4.5.3 Setting Domain User

The setting in this chapter is optional, please select if it is to set domain user according to the actual situation.

4.5.3.1 Application Scenario

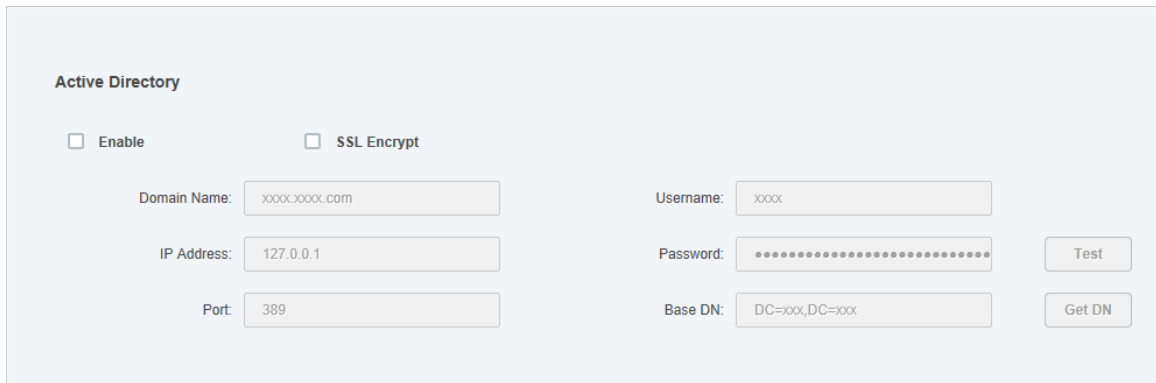
For the companies with domain information and want to use domain users as system login users, using domain user import can improve the convenience of project deployment.

4.5.3.2 Setting Domain Info

Step 1 Click **+** and select **System** on the New Tab interface.

Step 2 Click the tab of **Active Directory** and configure domain info. See Figure 4-17.

Figure 4-17



The screenshot shows the 'Active Directory' configuration page. At the top left, there are two checkboxes: 'Enable' and 'SSL Encrypt', both of which are currently unchecked. Below these are several input fields: 'Domain Name' with the value 'xxxx.xxx.com', 'IP Address' with '127.0.0.1', and 'Port' with '389'. To the right, there are 'Username' (xxxx) and 'Password' (masked with dots) fields. Below the password field is a 'Test' button. At the bottom right, there is a 'Base DN' field with the value 'DC=xxx,DC=xxx' and a 'Get DN' button.

Step 3 After setting domain info, click **Get DN** and it will acquire basic DN info automatically.

Step 4 After getting DN info, click **Test** to test if domain info is available.

Step 5 Click **Save** to save config.

It can import domain user on the interface of **User** after it prompted successfully.

Please refer to the next chapter for more operation details.

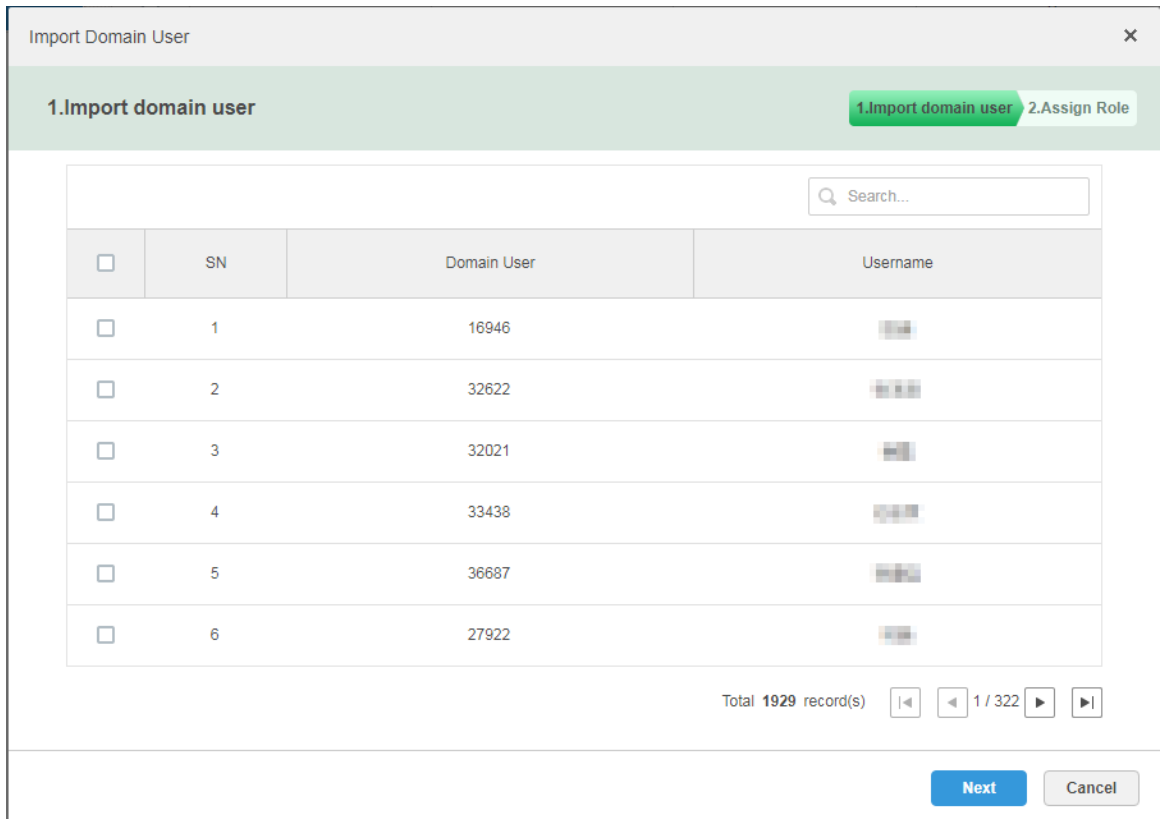
4.5.3.3 Importing Domain User

Step 1 Click **+** and select **User** on the New Tab interface.

Step 2 Select **User** tab, click **Import Domain User** on the right of the interface.

The system will display the interface of **Import Domain User**. See Figure 4-18.

Figure 4-18

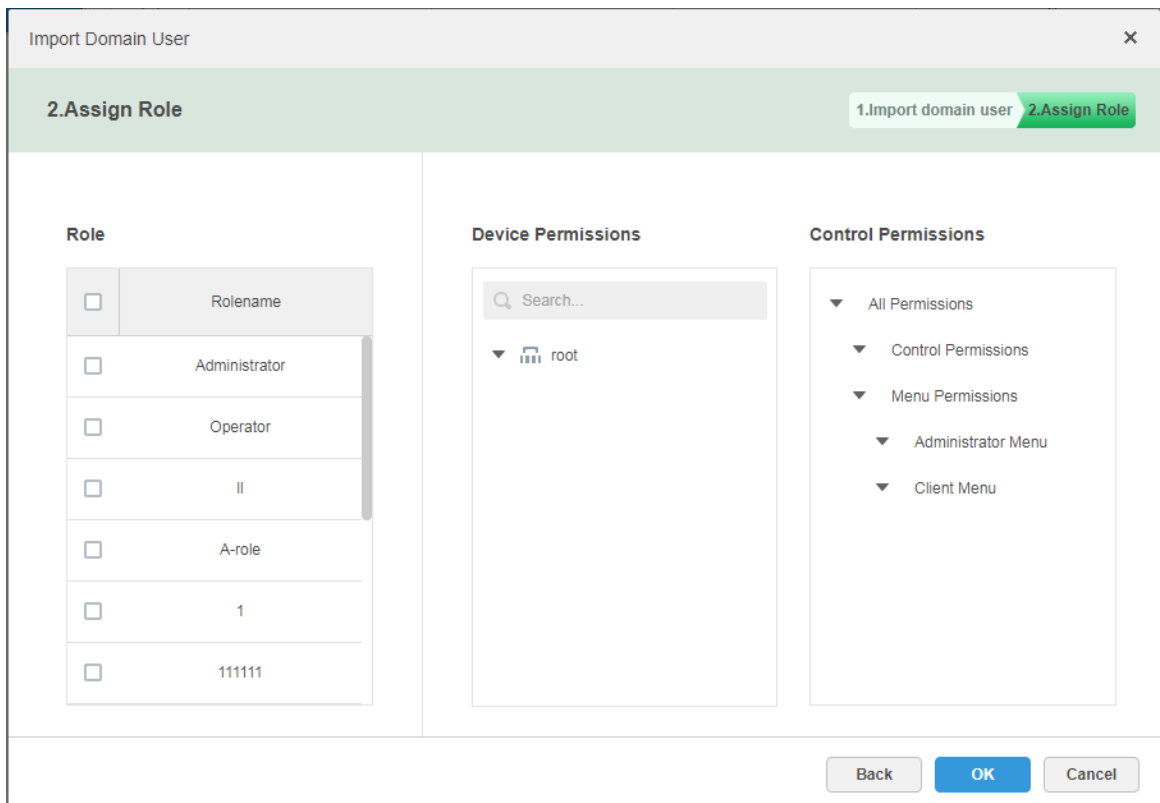


Step 3 Select the users which need to be imported from the acquired domain users. It supports searching users by entering key words in the search box.

Step 4 Click **Next**.

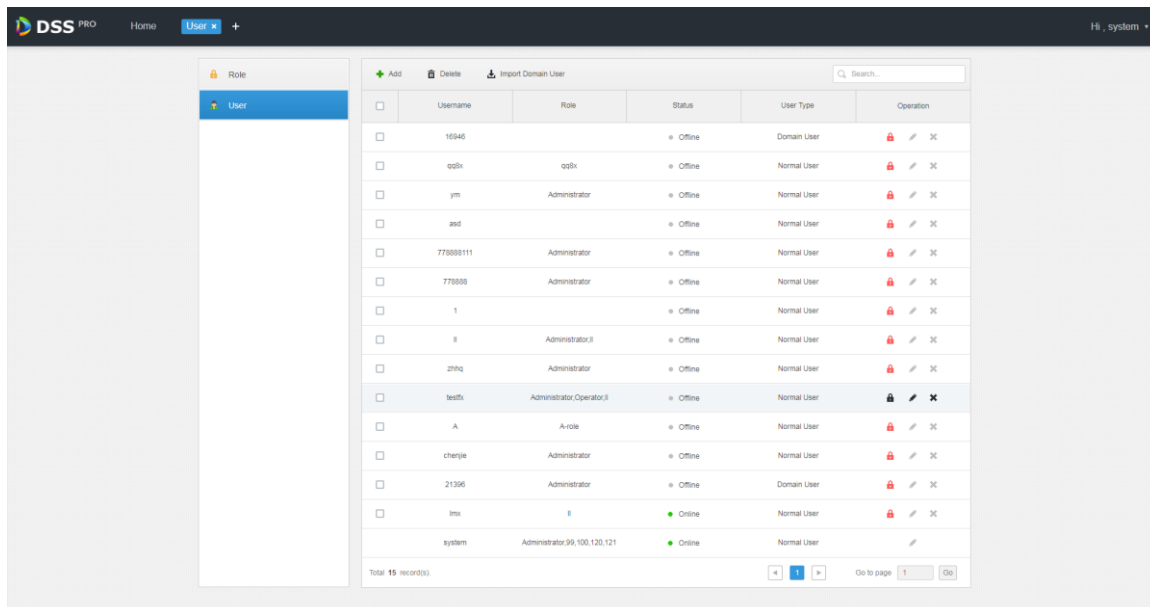
The system displays the interface of **Import Domain User**. See Figure 4-19.

Figure 4-19



Step 5 Select role for domain user, it displays corresponding device info and function permission info on the right of the interface, click **OK** after it is confirmed. Make sure domain user has been successfully imported in **User Info**. See Figure 4-20.

Figure 4-20

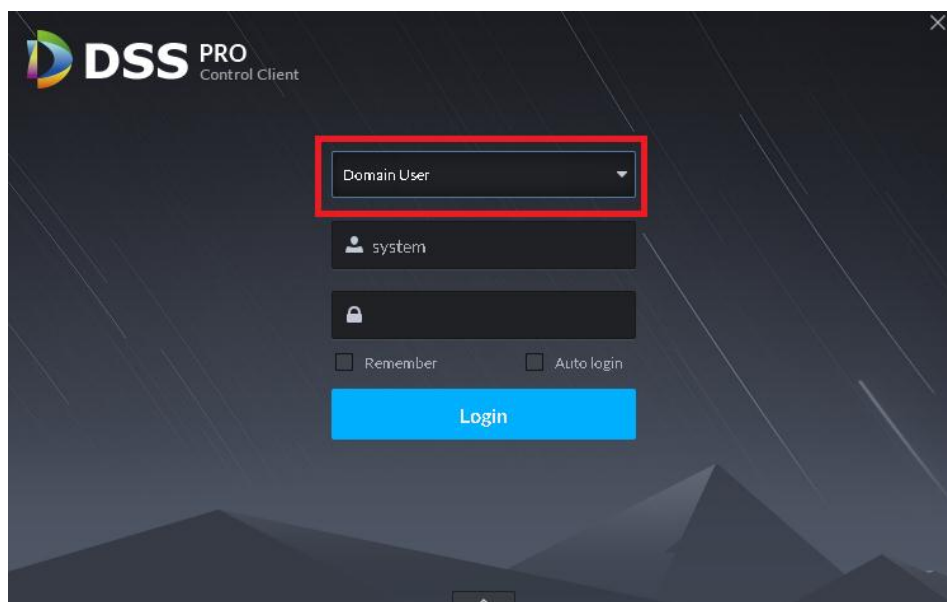


4.5.3.4 Logging in Domain User

It can use domain user to log in client.

Step 1 Select **Domain User** in the drop-down box of **User Type** on the client login interface. See Figure 4-21.

Figure 4-21



Step 2 Enter domain username, password, server IP, port and other info, click **Login**. The interface and function are the same as login via general user after it logged in successfully, which is not going to be repeated here.

4.6 Adding Device

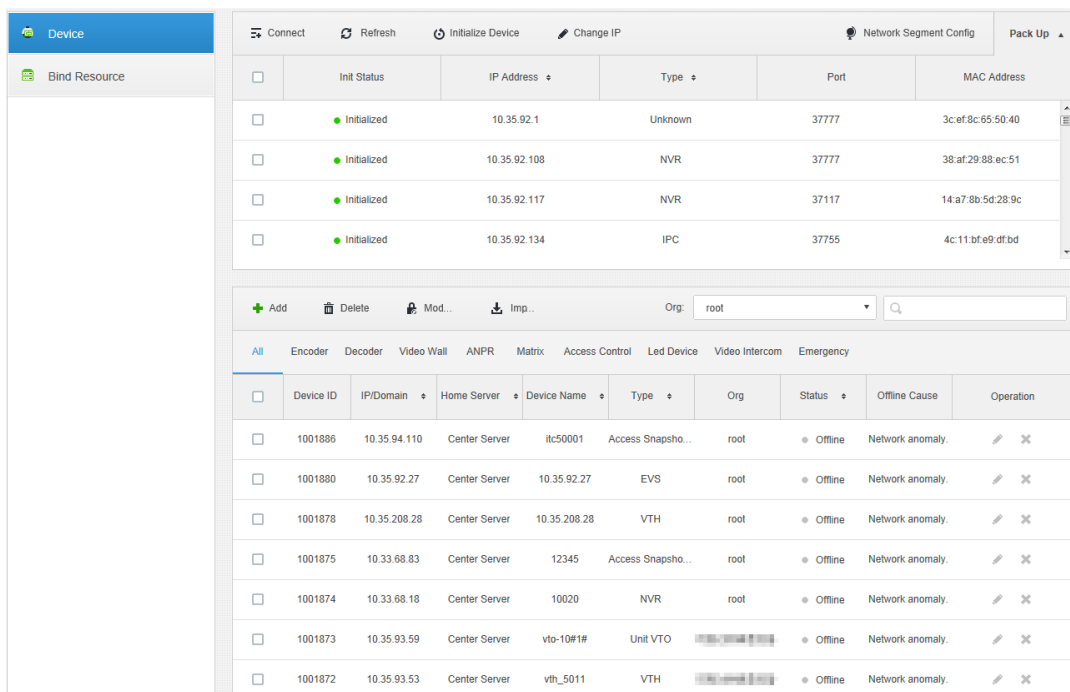
It can add different types of devices according to different business requirements. These devices include encoder, decoder, large display, matrix, ANPR device, access control, LED, video intercom and emergency assistance device etc. In this chapter, it takes adding encoder as an example to introduce configuration. For other devices, the actual configuration interface shall prevail.

4.6.1 Adding Device Manually

Step 1 Click  and select **Device** on the **New Tab** interface.

The system will display the **Device** interface. See Figure 4-22.

Figure 4-22



The screenshot shows the 'Device' management interface. At the top, there are action buttons: Connect, Refresh, Initialize Device, and Change IP. A 'Network Segment Config' dropdown and a 'Pack Up' button are also visible. Below these is a table with columns: Init Status, IP Address, Type, Port, and MAC Address. Four rows of initialized devices are shown. Below the table is a toolbar with 'Add', 'Delete', 'Mod...', and 'Imp...' buttons, along with an 'Org' dropdown set to 'root' and a search box. A filter menu is open, showing categories: All, Encoder, Decoder, Video Wall, ANPR, Matrix, Access Control, Led Device, Video Intercom, and Emergency. Below the filter menu is a detailed table with columns: Device ID, IP/Domain, Home Server, Device Name, Type, Org, Status, Offline Cause, and Operation. The detailed table contains eight rows of device information.

Init Status	IP Address	Type	Port	MAC Address
● Initialized	10.35.92.1	Unknown	37777	3c:ef:8c:65:50:40
● Initialized	10.35.92.108	NVR	37777	38:af:29:88:ec:51
● Initialized	10.35.92.117	NVR	37117	14:a7:8b:5d:28:9c
● Initialized	10.35.92.134	IPC	37755	4c:11:bf:e9:df:bd

Device ID	IP/Domain	Home Server	Device Name	Type	Org	Status	Offline Cause	Operation
1001886	10.35.94.110	Center Server	itc50001	Access Snapsho...	root	● Offline	Network anomaly.	✎ ✕
1001880	10.35.92.27	Center Server	10.35.92.27	EVS	root	● Offline	Network anomaly.	✎ ✕
1001878	10.35.208.28	Center Server	10.35.208.28	VTH	root	● Offline	Network anomaly.	✎ ✕
1001875	10.33.68.83	Center Server	12345	Access Snapsho...	root	● Offline	Network anomaly.	✎ ✕
1001874	10.33.68.18	Center Server	10020	NVR	root	● Offline	Network anomaly.	✎ ✕
1001873	10.35.93.59	Center Server	vto-10#1#	Unit VTO		● Offline	Network anomaly.	✎ ✕
1001872	10.35.93.53	Center Server	vth_5011	VTH		● Offline	Network anomaly.	✎ ✕

Step 2 Click **Add**.

The interface is shown in Figure 4-23.

Figure 4-23

The screenshot shows a dialog box titled "Add All" with a close button (X) in the top right corner. Below the title bar, there are two tabs: "1.Login Information" (which is active and highlighted in green) and "2.Device Information". The main area contains several form fields:

- Protocol: Dropdown menu with "Dahua" selected.
- Manufacturer: Dropdown menu with "Dahua" selected.
- Add Type: Dropdown menu with "IP Address" selected.
- Device Category: Dropdown menu with "Encoder" selected.
- IP Address: Text input field with a red asterisk icon on the left.
- Device Port: Text input field with "37777" and a red asterisk icon on the left.
- User: Text input field with "admin" and a red asterisk icon on the left.
- Password: Password input field with "*****" and a red asterisk icon on the left.
- Org: Dropdown menu with "PTZ" selected.
- Video Server: Dropdown menu with "Center Server" selected.

At the bottom right of the dialog, there are two buttons: "Add" (in blue) and "Cancel" (in grey).

Step 3 Select **Protocol**, **Manufacturer**, **Add Type**, **Device Category**, **Organization**, **Video Server**, input **IP Address**, **Device Port** and **Username/Password** etc.

 **NOTE**

Select different **Protocol**, it will configure different parameters, please refer to the interface for more details.

- When **Add Type** selects **IP Address**, it enters device IP address.
- When **Add Type** selects **Auto Register**, it enters device auto register ID. It can only add encoder via auto register, the ID of auto register has to be in accordance with the registered ID configured at encoder.
- When **Add Type** selects **Domain Name**, the options are from configured domain during deployment.

Step 4 Click **Add**.

The interface is shown in Figure 4-24.

Figure 4-24

The screenshot shows a web-based form titled "Add All" with a close button (X) in the top right corner. The form has two tabs: "1.Login Information" and "2.Device Information", with the second tab selected. The form contains the following fields and controls:

- Device Name:** A text input field with a red asterisk (*) indicating a required field.
- Type:** A dropdown menu currently showing "DVR".
- Device SN:** A text input field.
- Role:** A text input field containing "Administrator, Operator".
- Video Channel:** A text input field with a red asterisk (*) indicating a required field.
- Alarm Input Channel:** A text input field.
- Alarm Output Channel:** A text input field.

At the bottom of the form, there are three buttons: "Back" (disabled), "Continue to add" (disabled), and "OK" (active).

Step 5 Select **Device Type** and enter **Device Name**, **Alarm input/output channel**, and so on.

Step 6 Click **OK**.

Please click **Continue to add** if it continues to add device.

4.6.2 Searching Added Device

Channels on the LAN with the platform server can be added using the automatic search function.

Step 1 Click **+** and select **Device** on the **New Tab** interface.

Step 2 Click **Search Again** on the **Device** interface.

NOTE

Click **Network Segment Config** to configure IP segment again, click **Search Again** to search the devices whose IP addresses are within the range.

Step 3 Select the device which needs to be added, and click **Connect**.

The system will pop out the **Batch Add** interface. See Figure 4-25.

Figure 4-25

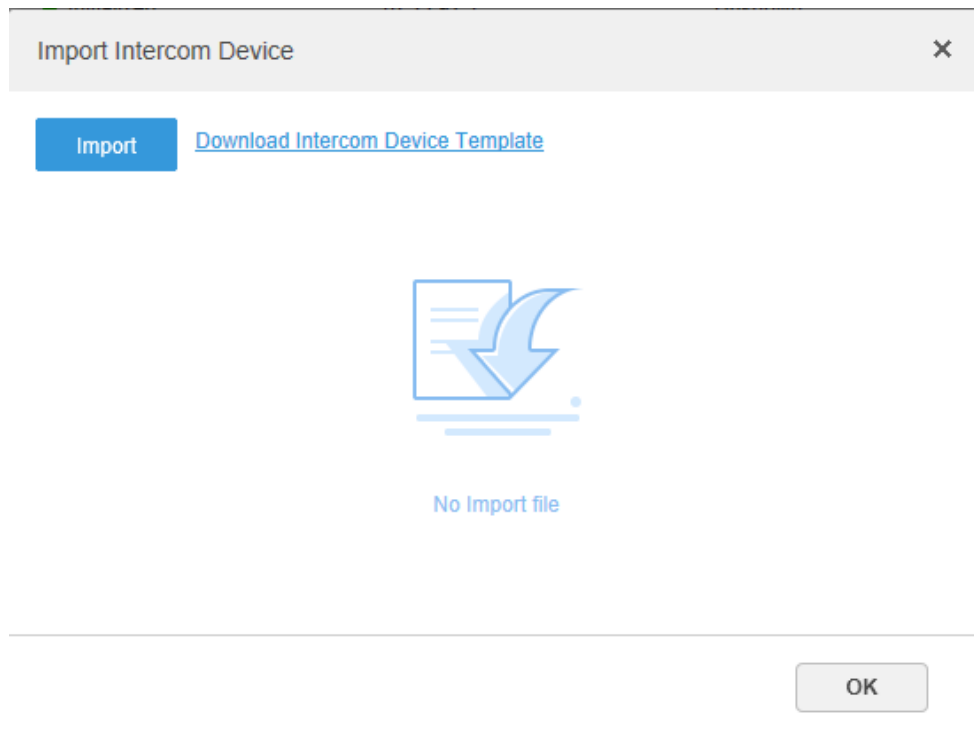
- Step 4** Select **Organization** and **Video Server**, enter **User** and **Password**.
User and **Password** are the username and password which are used to log in the device; both are **Admin** by default.
- Step 5** Click **OK**.
The system will add the devices into corresponding organization.

4.6.3 Importing Video Intercom Device

Fill in intercom device information in the template, you can batch add intercom devices via importing template.

- Step 1** Click **+** and select **Device** on the interface of **New Tab**.
The device management interface is displayed.
- Step 2** Click **Import**.
The interface of Import Intercom Device is displayed. See Figure 4-26.

Figure 4-26

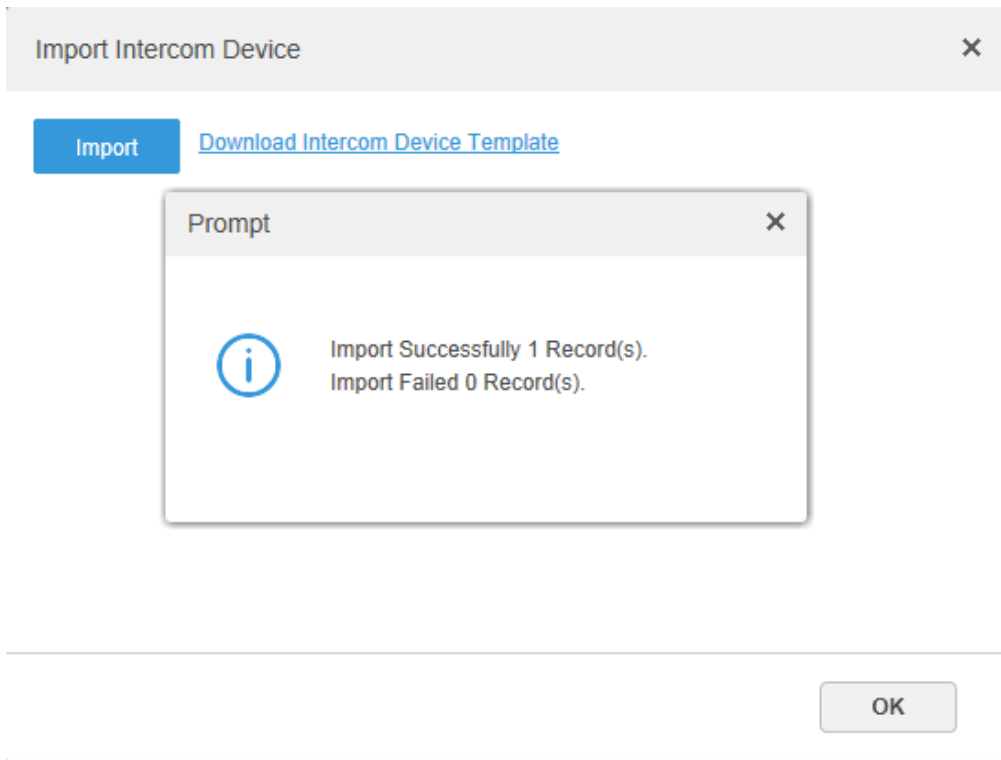



- Step 3** Click **Download Intercom Device Template** and save the template to PC according to interface tips.
- Step 4** Fill in the template according to the actual networking situation and then save the information.
- Step 5** Click **Import** and select the completed template according to interface tips. See Figure 4-27 for import progress and result. You can view the added device in the device list.



If the device is already added to DSS Pro in the template, then the system will prompt if it is to cover the existed device. You can select according to the actual situation.

Figure 4-27



Step 6 Click  and close the prompt box.

Step 7 Click **OK**.

4.6.4 Editing Device

It needs to edit device after adding devices, set relevant channel info.

Step 1 Click  and select **Device** on the New Tab interface.

Step 2 Click the corresponding  of device list.

The system displays the interface of **Edit Device**. See Figure 4-28.

NOTE

Click **Get Info** and the system will synchronize device info.

Figure 4-28

The screenshot shows the 'Edit Device' window with the 'Basic Info' tab selected. The 'Input Info' section contains the following fields:

- Protocol: Dahua
- Manufacturer: Dahua
- IP Address: 88.88.88.88
- User: admin
- Device Port: 37777
- Password: [Redacted]
- Video Server: Center Server
- Org: root

The 'Device Details' section contains the following fields:

- Device Name: 88.88.88.88
- Device SN: [Empty]
- Type: NVD

Buttons at the bottom include 'Get Info', 'OK', and 'Cancel'.

Step 3 It is to modify device basic info on the **Basic Info** interface.

Step 4 Click **Video Channel** tab, set the device channel name, channel function, camera type, SN, keyboard code and face function. The interface is shown in Figure 4-29.

NOTE

Different types of device have different interfaces of channel setting; please refer to the real interface for more details. See Figure 4-29, Figure 4-30, Figure 4-31 and Figure 4-32.

Figure 4-29

The screenshot shows the 'Edit Device' window with the 'Video Channel' tab selected. The 'Channel Amount' is 1 and 'Stream Type' is Main Stream. The table below shows the channel details:

Name	Camera Type	Features	SN	KeyBoard Code
Channel0	Fixed Camera	Intelligent Alarm, Elec...		

Buttons at the bottom include 'Get Info', 'OK', and 'Cancel'. A status bar at the bottom right shows 'Total 1 record(s)' and navigation icons.

Figure 4-30

The screenshot shows the 'Edit Device' configuration window. At the top, there is a 'Basic Info' section with 'Channel Amount' set to 1 and 'Stream Type' set to 'Sub Strea...'. Below this is a table with columns: Name, Camera Type, Features, SN, and KeyBoard Code. The 'Video Channel' section is highlighted in blue. Underneath, the 'Alarm Input Channel' is set to 111, Fixed Camera, and Face Detection. The 'Alarm Output Channel' is empty. At the bottom right, there are navigation buttons and a 'Total 1 record(s)' indicator. At the bottom left, there is a 'Get Info' button, and at the bottom right, there are 'OK' and 'Cancel' buttons.

 **NOTE**

It is to set video channel function according to the actual face recognition plan.

- Encoder has no need to set face function if face detection and recognition are realized by intelligent server.
- Face function shall be set as **Face Detection** if intelligent server realizes face recognition and encoder realizes face detection.
- Face function of encoder channel is set as **Face Recognition** if encoder realizes face detection and recognition.

Figure 4-31

The screenshot shows the 'Edit Device' configuration window. At the top, there is a 'Basic Info' section with 'Channel Amount' set to 1 and 'Stream Type' set to 'Sub Strea...'. Below this is a table with columns: Name, Camera Type, Features, SN, and KeyBoard Code. The 'Video Channel' section is highlighted in blue. Underneath, the 'Alarm Input Channel' is set to xxxxxxxxxxx_1, Speed Dome. The 'Alarm Output Channel' is empty. At the bottom right, there are navigation buttons and a 'Total 1 record(s)' indicator. At the bottom left, there is a 'Get Info' button, and at the bottom right, there are 'OK' and 'Cancel' buttons.

Figure 4-32

Step 5 Click the tab of **Alarm Input Channel**, configure channel name and alarm type of alarm input. See Figure 4-33.



NOTE

Please skip the step only when added devices need to be configured during alarm input.

- Alarm type includes external alarm, IR detect, zone disarm, PIR, gas sensor, smoke sensor, glass sensor, emergency button, stolen alarm, perimeter and preventer move.
- Alarm type supports custom. Select **Customize Alarm Type** in the **Alarm Type** drop-down list. Click **Add** to add new alarm type. It supports max 30 custom newly-added alarm types.



NOTE

Custom alarm supports modification and deletion.

- If custom alarm type is used by alarm plan, then it is not allowed to be deleted but modified.
- It supports deletion if it is not used by alarm plan, after deletion, the alarm type of the alarm input channel configured with this alarm type is restored to the default value.
- When the name of the custom alarm type is modified, the history data remains the original name, while the new data adopts the modified name.
- The alarm input channel of alarm host is **Alarm Host Alarm** by default, the types of other alarm input channel are **External Alarm** by default.

Figure 4-33

Channel Amount:

	Name	AlarmType
Alarm Input Channel	* 86_1	External Alarm
Alarm Output Channel	* 86_2	

Total 2 record(s) |< < 1 / 1 > >|

Get Info OK Cancel

Step 6 Click the **Alarm Output Channel** tab and then modify the name of alarm output channel.

Figure 4-34

Channel Amount:

	Name
Alarm Input Channel	* <input type="text" value="86_1"/>
Alarm Output Channel	* 86_2

Total 2 record(s) |< < 1 / 1 > >|

Get Info OK Cancel

Step 7 Click **OK** to finish modification.

4.6.5 Binding Resource

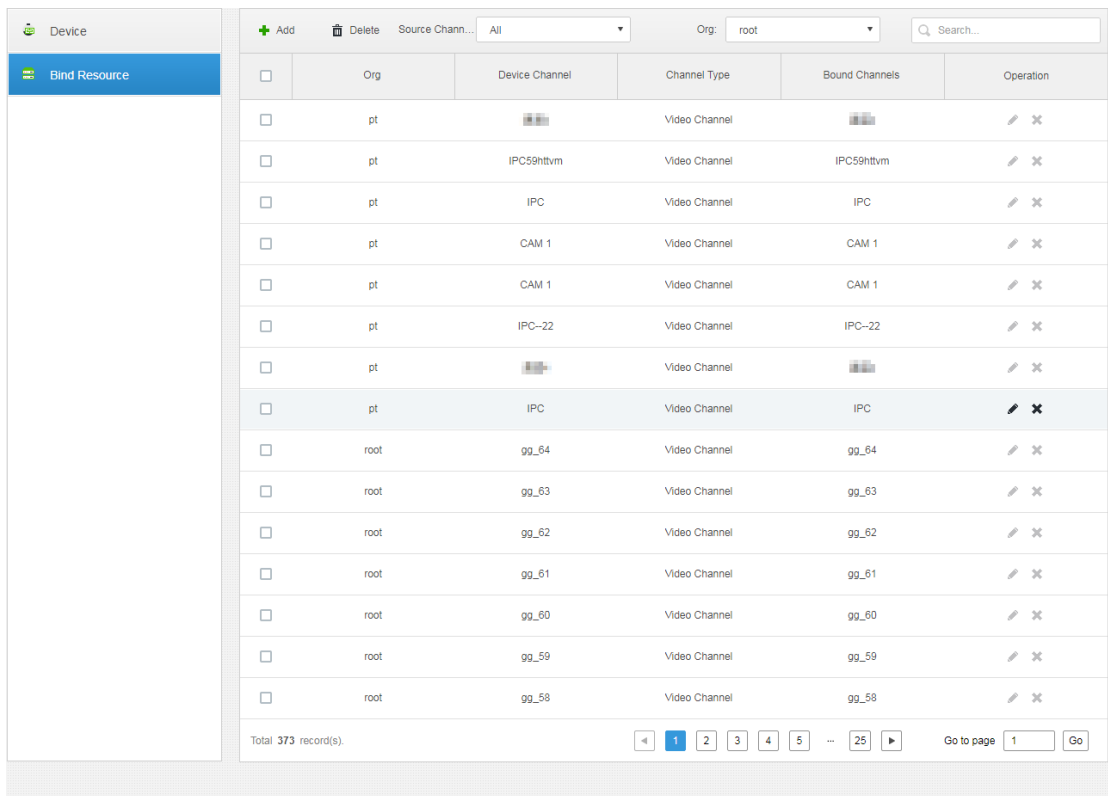
The platform supports setting video channel, alarm input channel, ANPR channel, POS channel, face channel, access control channel and video channel resource binding. It can check bound video via resource bind for businesses such as map, alarm, commercial intelligence and face etc.

Adding Resource Bind

Step 1 Click **Resource Bind**.

The system displays the **Resource Bind** interface. See Figure 4-35.

Figure 4-35



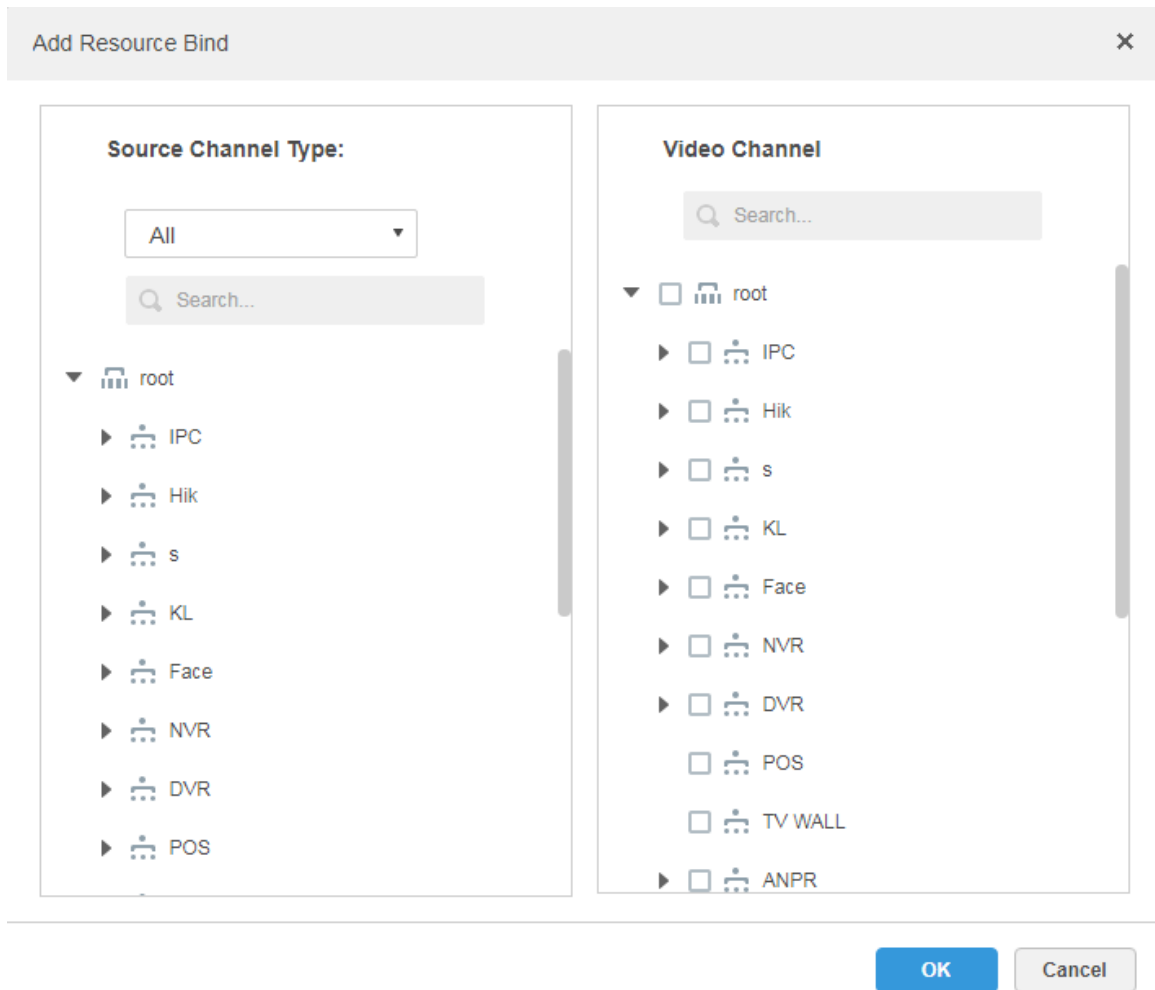
The screenshot shows a web interface for managing resource bindings. On the left is a sidebar with a 'Bind Resource' menu item. The main area contains a table with columns: Org, Device Channel, Channel Type, Bound Channels, and Operation. The table lists various video channels, including those from 'pt' and 'root' organizations. The 'IPC' channel is highlighted in blue. At the bottom, there is a pagination control showing 'Total 373 record(s)' and a 'Go to page' field set to 1.

<input type="checkbox"/>	Org	Device Channel	Channel Type	Bound Channels	Operation
<input type="checkbox"/>	pt		Video Channel		
<input type="checkbox"/>	pt	IPC59htvm	Video Channel	IPC59htvm	
<input type="checkbox"/>	pt	IPC	Video Channel	IPC	
<input type="checkbox"/>	pt	CAM 1	Video Channel	CAM 1	
<input type="checkbox"/>	pt	CAM 1	Video Channel	CAM 1	
<input type="checkbox"/>	pt	IPC--22	Video Channel	IPC--22	
<input type="checkbox"/>	pt		Video Channel		
<input type="checkbox"/>	pt	IPC	Video Channel	IPC	
<input type="checkbox"/>	root	gg_64	Video Channel	gg_64	
<input type="checkbox"/>	root	gg_63	Video Channel	gg_63	
<input type="checkbox"/>	root	gg_62	Video Channel	gg_62	
<input type="checkbox"/>	root	gg_61	Video Channel	gg_61	
<input type="checkbox"/>	root	gg_60	Video Channel	gg_60	
<input type="checkbox"/>	root	gg_59	Video Channel	gg_59	
<input type="checkbox"/>	root	gg_58	Video Channel	gg_58	

Step 2 Click **Add**.

The interface is shown in Figure 4-36.

Figure 4-36



Step 3 Select source channel and video channel respectively, click **OK**.

4.7 Configuring Record Plan

The platform management supports configuring record plan for video channel, which is to make front-end device record during the period which has been set.

4.7.1 Configuring Storage Disk

Add storage disk that can be used to store pictures and videos. The system supports adding net disk and local disk.

4.7.1.1 Configuring Net Disk



- The storage server is required to be deployed.
- One user volume of the current net disk can only be used by one server at the same time.
- User volume is required to be formatted when adding net disk.

Step 1 Click **+** and select **Storage** on the interface of **New Tab**.

The system displays the interface of **Storage**. See Figure 4-37.

Figure 4-37

Record Plan	+ Add - Delete					
Plan Name	Time Template	Position	Status	Operation		
1231	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		
GDPR	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		
123	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		

Step 2 Select **“Storage Config > Net Disk”**

The system displays the interface of **Net Disk**. See Figure 4-38.

Figure 4-38

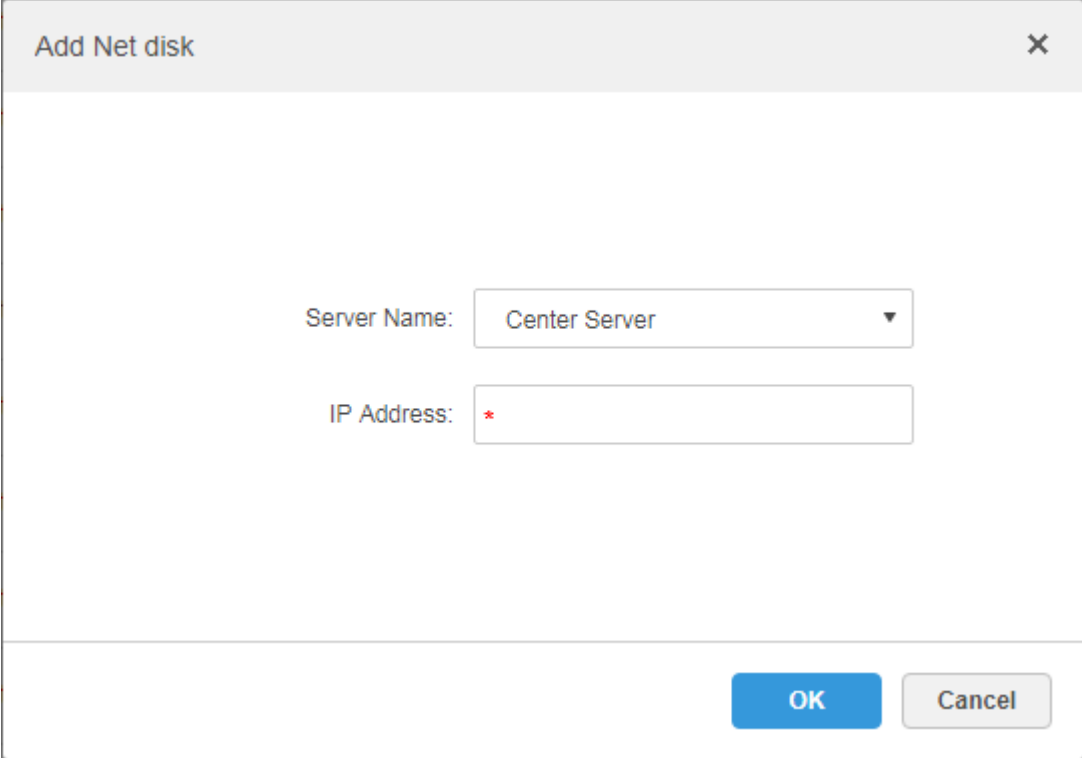
Record Plan	Net Disk Local Disk							
Server Name	IP	Volume Name	Capacity(GB)	Free Capacity(GB)	Disk Type	Disk status	Operation	
Center Server	10.35.92.27	20-pic	50.00	49.97	Picture	Normal		
Center Server	10.35.92.27	20-video	50.00	26.66	Video	Normal		
Center Server	10.35.92.27	26-1	100.00	38.44	Video	Normal		
Center Server	10.35.92.27	26-2	100.00	0.00	Video	Normal		
Center Server	10.35.92.27	26-3	100.00	0.00	Video	Normal		
Center Server	10.35.92.27	26-4	100.00	19.55	Video	Normal		
Center Server	10.35.92.27	26-5	100.00	95.95	Picture	Normal		
Center Server	10.35.92.27	4004-s2-1	300.00	250.67	Video	Normal		
Center Server	10.35.92.27	4004-s2-2	300.00	299.97	Video	Normal		
Center Server	192.168.4.108	e1	32.00	4.05	Video	Normal		
Center Server	192.168.4.108	e10	80.00	0.00	Video	Normal		
Center Server	192.168.4.108	e13	110.00	0.00	Video	Normal		
Center Server	192.168.4.108	e15	110.00	0.00	Video	Normal		
Center Server	192.168.4.108	e16	120.00	0.00	Picture	Normal		

Total 60 record(s). < 1 2 3 4 5 > Go to page 1 Go

Step 3 Click **Add**.


The system displays the interface of **Add Net Disk**. See Figure 4-39.

Figure 4-39



Step 4 Select server name, fill in the IP address of net disk, and click **OK**.

The system will display information of all user volumes on the storage server.


Step 5 Select disk and click **Format** or click the  next to the disk info, which is to format the corresponding disk.

Step 6 Select format disk type according to actual situation, click **OK** to implement formatting.

Step 7 Click **OK** in the prompt box to confirm formatting.

You can check the results of disk formatting after formatting is completed; make sure both disk size and available space are correct.



One user volume can only be used by one server at the same time. If the disk info of the list shows red, then it is already added and used by other server. Click  and take the right to use, then the disk needs to be formatted. It will fail to take the right of use if task manager is enabled.

4.7.1.2 Configuring Local Disk

Configure local disk to store different types of files, including videos, ANPR pictures and general pictures. General pictures are used to store all the snapshot pictures except ANPR pictures. Meanwhile, DSS Pro supports external disk which can be used after formatting.

Step 1 Click  and select Storage on the interface of New Tab.

The system displays the interface of **Storage**. See Figure 4-40.

Figure 4-40

Record Plan		+ Add - Delete					Q
Plan Name	Time Template	Position	Status	Operation			
Backup Record Plan							
Group Quota							
Storage Config							
<input type="checkbox"/>	1231	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	GDPR	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	123	All-Period Template	Store on Server	Enable	<input checked="" type="checkbox"/>		

Step 2 Select “Storage Config > Local Disk”.

The system displays the interface of Local Disk. See Figure 4-41.

Figure 4-41

Record Plan		Net Disk Local Disk						
Backup Record Plan		Format All						
Server Name	Disk Name	Capacity(GB)	Free Capacity(GB)	Disk Type	Health Status	Disk status	Operation	
Center Server	C:\	731.00	562.00	Not set	OK	Normal		
Center Server	D:\	200.00	84.00	Not set	OK	Normal		
Center Server	E:\	465.00	456.00	Common picture	OK	Normal		

Step 3 Configure local disk.

- Click and configure disk type according to interface prompt.
- Select disk and click **Format**, or click next to disk info and format the disk according to interface prompt and configure disk type. Only external disk supports formatting.

4.7.2 Setting Disk Group Quota

Operate on a single server, divide storage disks into several groups, and designate the storage path of the video channel to a fixed packet disk. On the one hand, directional storage is realized through the grouping and binding method; on the other hand, timed storage is realized through the proportional relation between disk capacity and channel.

Step 1 Click the tab of **Group Quota**.

The system will display the online status of server. See Figure 4-42.

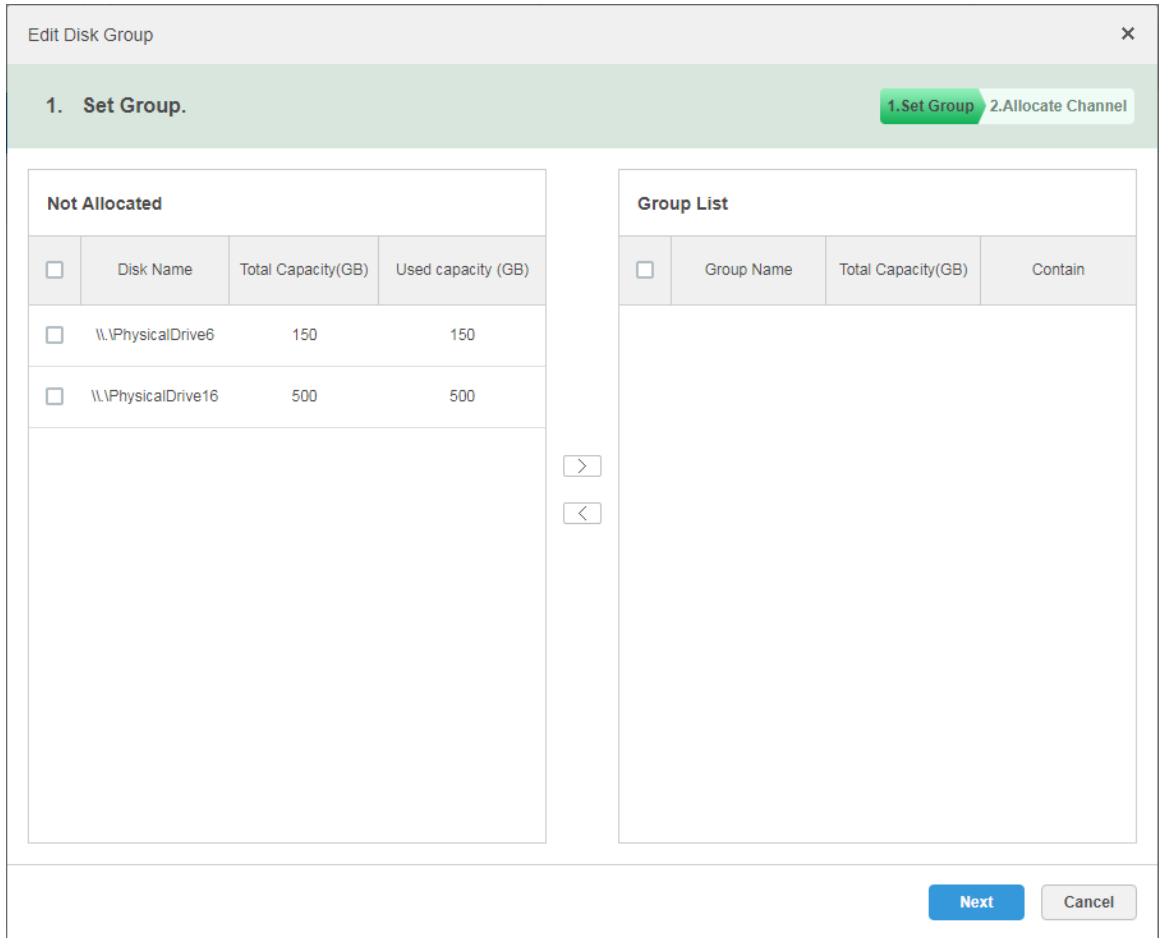
Figure 4-42


Name	Status	Operation
172.22.151.19	● Online	
10.35.92.65	● Offline	
10.35.92.19	● Offline	
Center Server	● Online	

Step 2 Click next to the Online status server.

The system will pop out the interface of **Edit Disk Group**. See Figure 4-43.

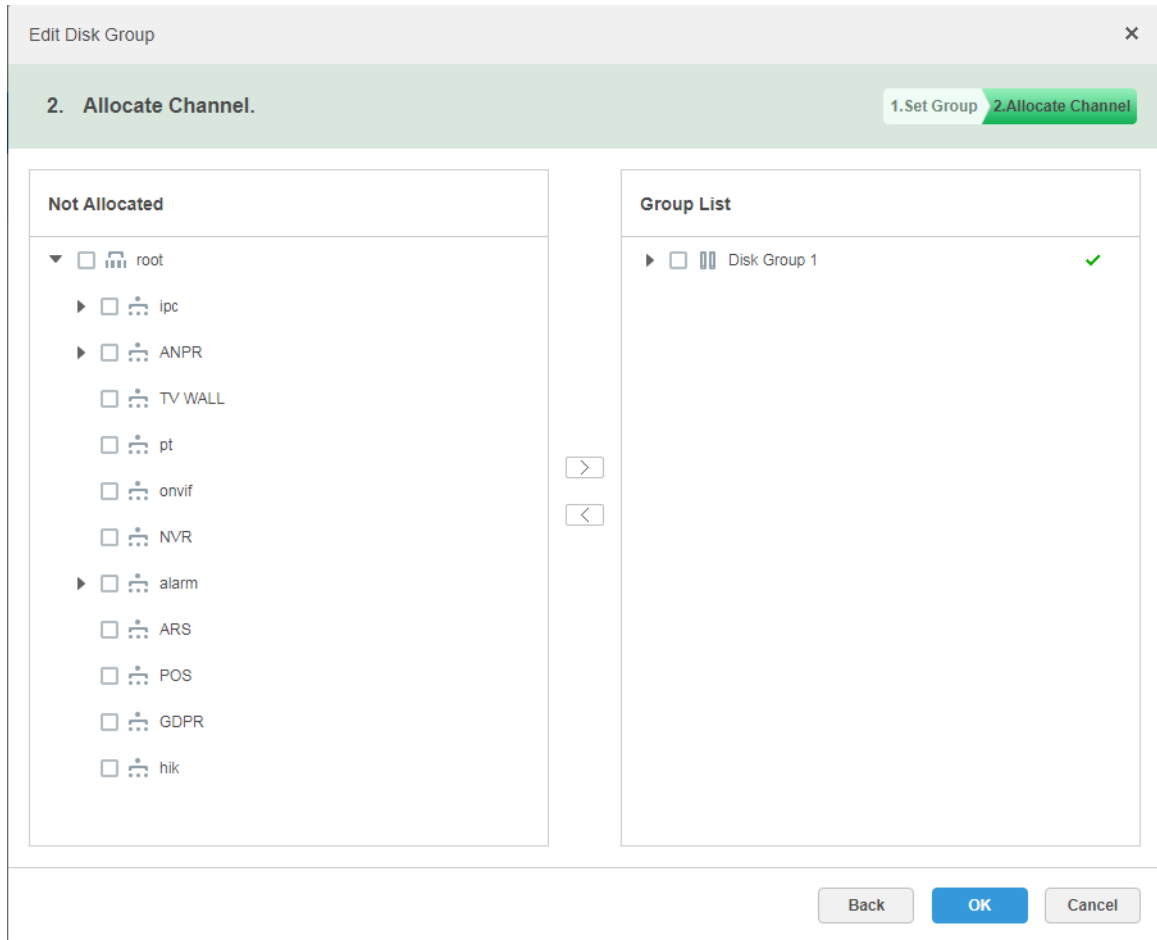
Figure 4-43




Step 3 Select the undistributed disks on the left, click  and add it to the disk group list on the right.

Step 4 Click **Next** to distribute channels for disk group. The interface is shown in Figure 4-44.

Figure 4-44



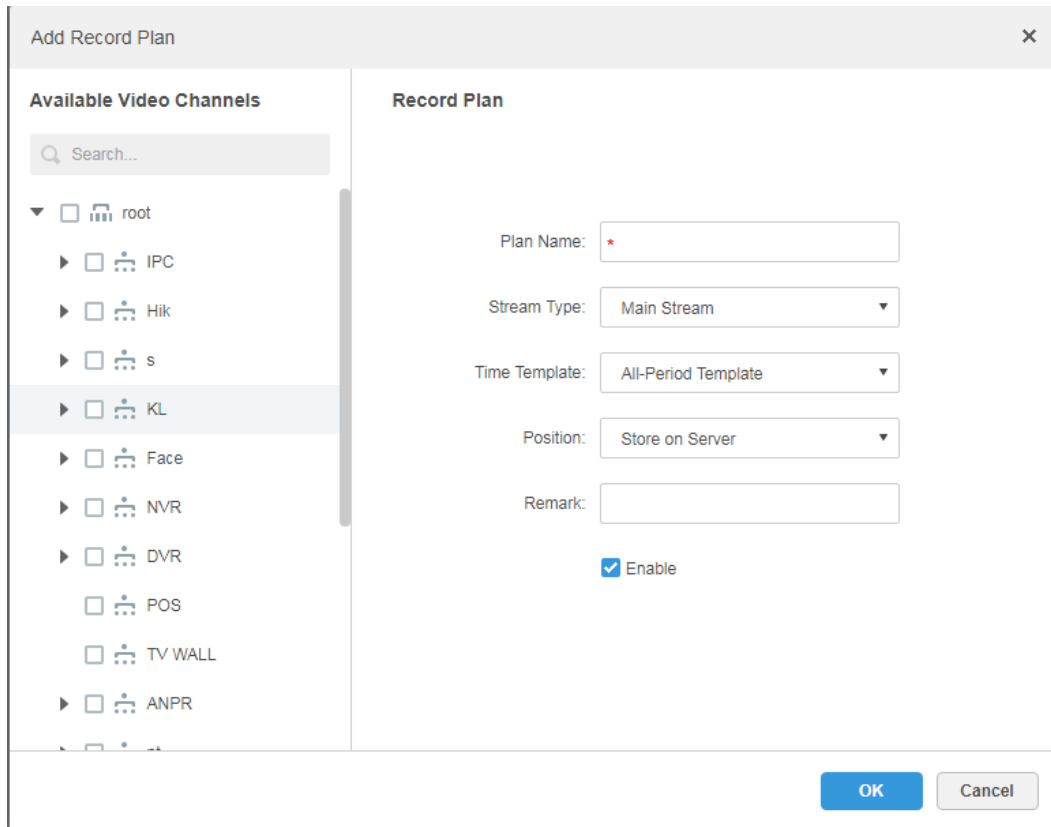
Step 5 Select channels in the device list on the left, click  to add it to the disk group on the right.

Step 6 Click **OK**.

4.7.3 Adding General Plan

Step 1 Click the tab of **Record Plan**, click **Add**.
It is to add record plan. See Figure 4-45.

Figure 4-45



Step 2 Select the video channel which needs to configure record plan, set **Plan Name**, **Stream**, select **Time Template** and **Position**.



 **NOTE**

- Stream type includes: Main stream, sub stream 1, sub stream 2.
- Time template can select the system default template or new template created by users, refer to "4.7.5 Adding Time Template" for details of adding time template.
- Storage position can select server or recorder.

Step 3 Click **OK**.

Operations

- Enable/disable general plan


In the operation column,  means that the plan has been enabled, click the icon and it becomes , and it means that the plan has been disabled.

- Edit General Plan

Click  of corresponding plan to edit the general plan.

- Delete General Plan

◇ Select general plan, click  to delete plans in batches.

◇ Click  of corresponding general plan to delete the individual general plan.

4.7.4 Adding Backup Record Plan

The system supports backup recording over the devices 3 days ago, the implementation time of backup plan can span the day, the condition of backup record is time/Wi-Fi optional.

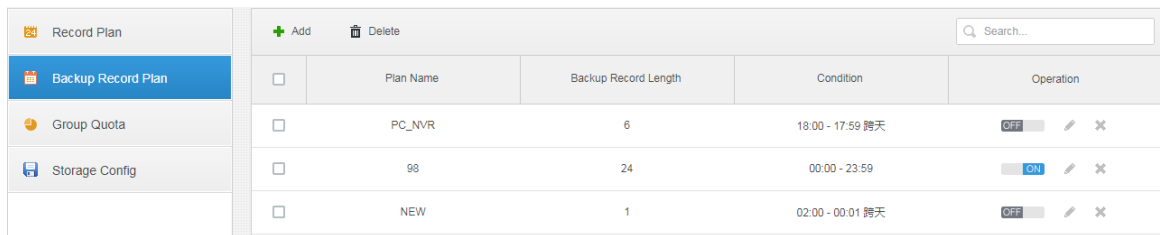
NOTE







- Backup video comes for the local record of the camera.
- Backup Condition can select time and Wi-Fi. If it selects time, sets backup plan time, it will make backup record automatically after the time reaches; If it selects Wi-Fi, then it will make backup record automatically after the device is connected to Wi-Fi mode.

Step 1 Click the tab of **Backup Plan**.

The interface is shown in Figure 4-46.

Figure 4-46



	Plan Name	Backup Record Length	Condition	Operation
<input type="checkbox"/>	PC_NVR	6	18:00 - 17:59 昨天	<input type="checkbox"/> OFF  
<input type="checkbox"/>	99	24	00:00 - 23:59	<input checked="" type="checkbox"/> ON  
<input type="checkbox"/>	NEW	1	02:00 - 00:01 昨天	<input type="checkbox"/> OFF  

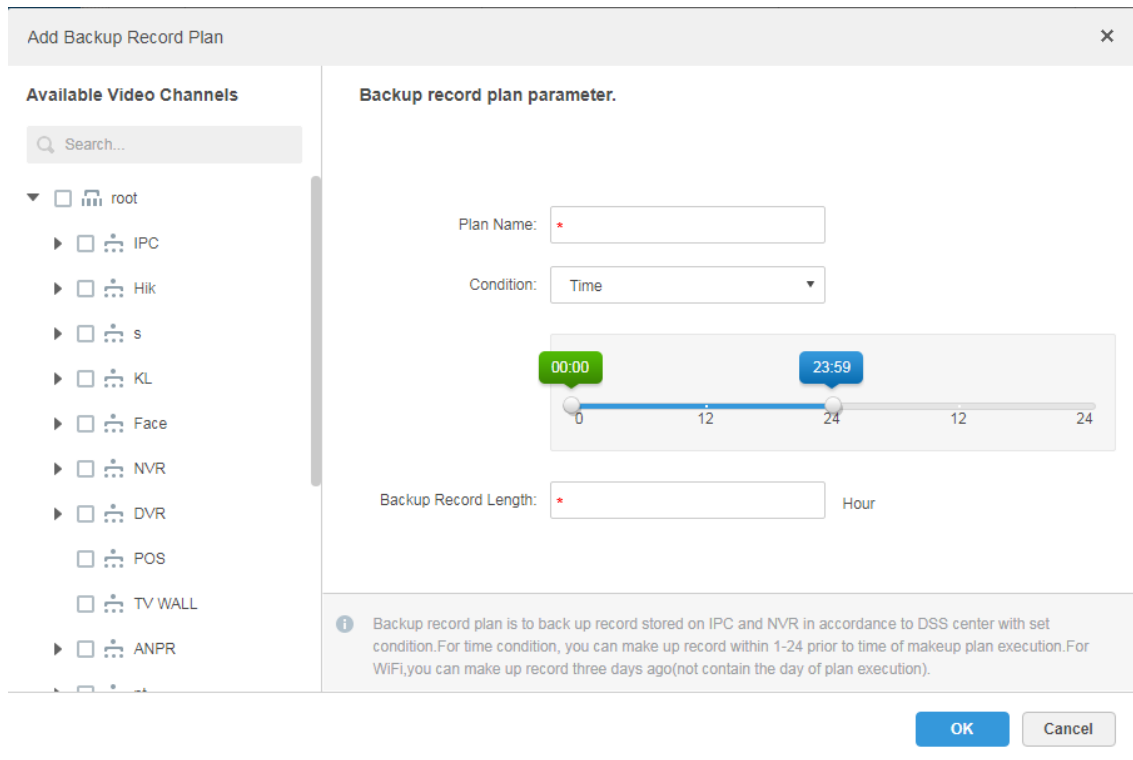
Step 2 Click **Add** to add backup plan.

Step 3 Select corresponding devices on the left device tree, and enter plan name.

Step 4 Set backup conditions.

- Take time as condition.

Figure 4-47



Add Backup Record Plan [Close]

Available Video Channels

Search...

- root
 - IPC
 - Hik
 - s
 - KL
 - Face
 - NVR
 - DVR
 - POS
 - TV WALL
 - ANPR

Backup record plan parameter.

Plan Name: *

Condition: Time

00:00 23:59

0 12 24 12 24

Backup Record Length: * Hour

OK **Cancel**

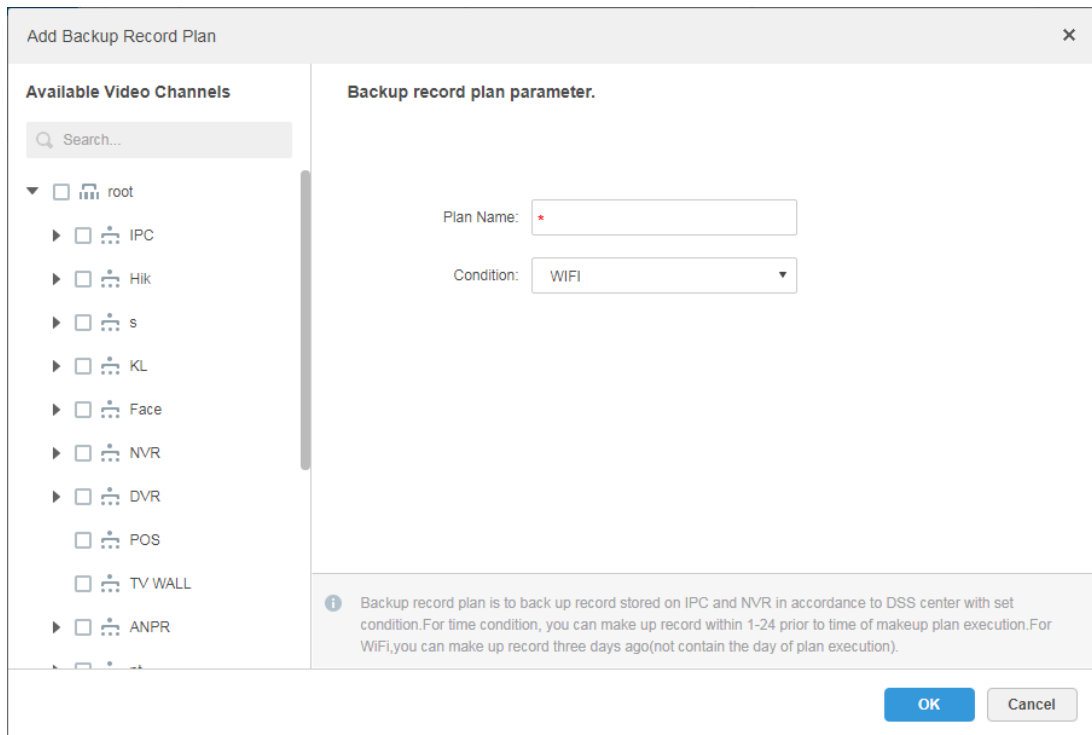
Backup record plan is to back up record stored on IPC and NVR in accordance to DSS center with set condition. For time condition, you can make up record within 1-24 prior to time of makeup plan execution. For WiFi, you can make up record three days ago (not contain the day of plan execution).

- 1) Select **Time** in the backup condition.
- 2) Drag time line and set the time period of backup record plan.
- 3) Enter backup record length, click **OK**.

The time range is 1-24 hours.

- Take Wi-Fi as condition.

Figure 4-48





- 1) Select Wi-Fi in the backup record condition.
- 2) Click **OK**.


It will make backup record automatically when the network of backup device is switched to Wi-Fi.

Operations

- Enable/Disable backup record plan.


In operation column,  means that the plan has been enabled; click the icon and it becomes , it means that the plan has been disabled.

- Edit backup record plan

Click the corresponding  of the plan, and then you can edit the backup record plan.

- Delete backup record plan

◇ Select backup record plan, click  to delete plan in batch.

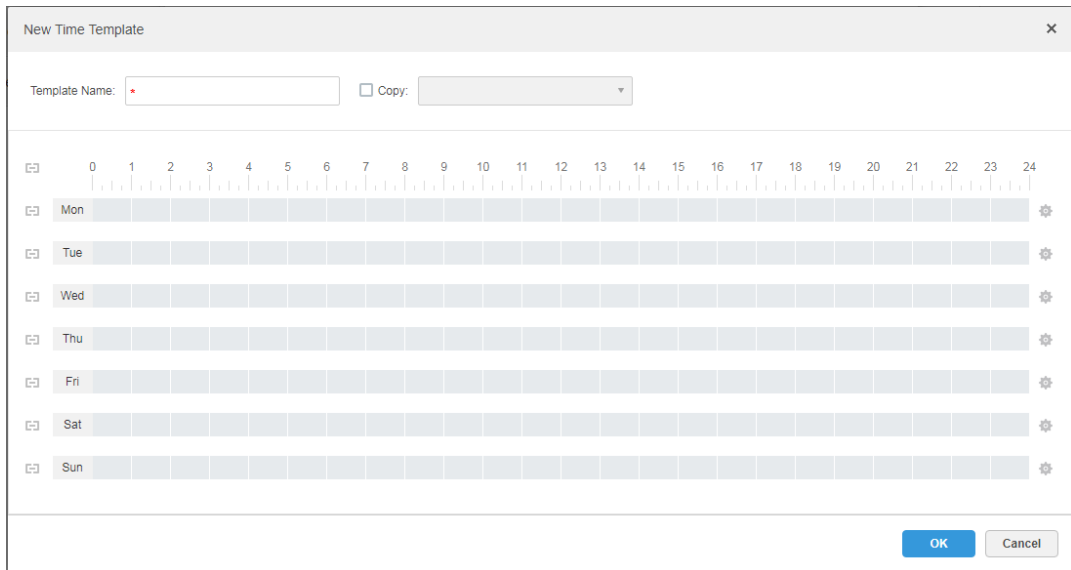
◇ Click the corresponding  of backup record plan, then you can delete the backup plan individually.

4.7.5 Adding Time Template

Step 1 Select **New Time Template** in the drop-down box of **Time Template**.

The system displays the interface of **New Time Template**. See Figure 4-49.

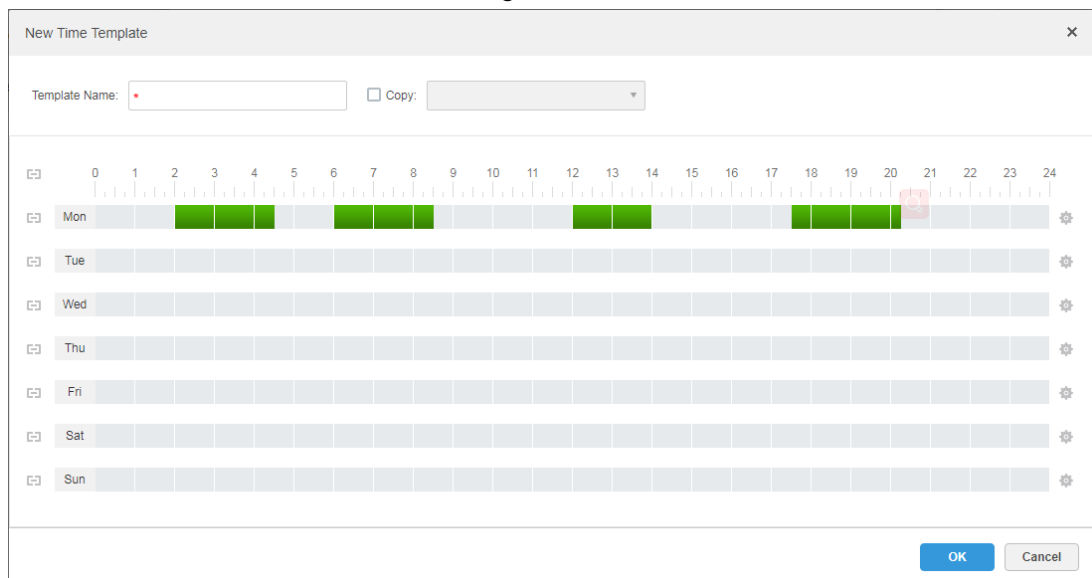
Figure 4-49



Step 2 Sets template name and time period.

- Press the left button and drag it to draw time period on the time line. See Figure 4-50.

Figure 4-50




- Click the  of the corresponding day, set time period on the interface of Period Setup. See Figure 4-51.

Figure 4-51

NOTE

It can set max 6 periods in one day.

Step 3 Click **OK** to save time template.

NOTE

Select **Copy** and select the time template in the drop-down box, then you can directly copy the config of the time template.

4.8 Configuring Event

After configuring alarm plan on the management end, it supports displaying and handling corresponding report events on the client.

4.8.1 Configuring Alarm Source

Alarm source can be video channel, thermal channel and alarm input channel etc. Different encodes are configured with different alarm types, here it is to take IPC as an example to introduce.

NOTE

- Please make sure that IPC alarm input channel has connected to external alarm device before config, otherwise there will be no alarm being uploaded.
- Different devices need to configure different alarm types; it is based on the requirements of actual businesses. Please refer to user manual of each device for config of device end.

Step 1 Log in WEB config interface of IPC, or click next to IPC info line on the interface of **Device** of DSS management end.

Step 2 Select **Setting > Alarm**.


The system displays the interface of **Alarm Setting**. See Figure 4-52.

Figure 4-52




Step 3 Set alarm input info, click **OK**. Please refer to Table 4-3 for more details.

Table 4-3

Parameter	Note
Enable	Select check box; enable the selected alarm input channel.
Alarm Input	
Arm/Disarm Period	Set the time of alarm being reported to IPC.
Device Type	Select NO/NC; make sure it is in accordance with alarm device.
 NOTE Other parameters need to be set according to actual requirements.	

4.8.2 Adding Alarm Scheme

It is to set the reported events displayed on the DSS, it supports setting linkage record, email, capture, display on wall and so on, and set alarm period.

Step 1 Click  on the management end, select **Event** on the **New Tab** interface.

The system displays the interface of **Event**. See Figure 4-53.

Figure 4-53

<input type="checkbox"/>	Name	Plan	Type	Priority	Remark	Scheme Status	Operation
<input type="checkbox"/>	duanxian	All-Period Template	Channel Disconnected	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	lmx	All-Period Template	Tripwire,Intrusion	Medium		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx196	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx195	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx194	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx193	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx192	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx191	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx190	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx189	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx188	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx187	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx186	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx185	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON
<input type="checkbox"/>	fx184	All-Period Template	Tampering	High		Enable	<input type="checkbox"/> ON

Total 200 record(s).

Page navigation: 1 2 3 4 5 ... 14 Go to page 1 Go

Step 2 Click **Add**.

The system displays the interface of **Add Alarm Scheme**. See Figure 4-54.

Figure 4-54

Edit Alarm Scheme
✕

1. Select Alarm Source 1.Alarm Source 2.Alarm Link 3.Alarm Attribute

AlarmType ⓘ

- Device
- Video Channel
- Alarm Input Channel
- Intelligent Channel
- Access Control Normal
- Thermal
- MCS Device
- Traffic Blacklist
- Access Control Abnormal
- Access Control Alarm
- Traffic Violation
- Person Type Matched
- Face Matched

- Video Loss
- Motion Detect
- Tampering
- Channel Disconnected

AlarmSource

- ▶ PTZ
- ▶ NVR
- ▶ IPC
- ▶ FACE
- ▶ ARS
- ▶ ONVIF
- ▶ SOSO

Selected(6)

The remaining 2 steps

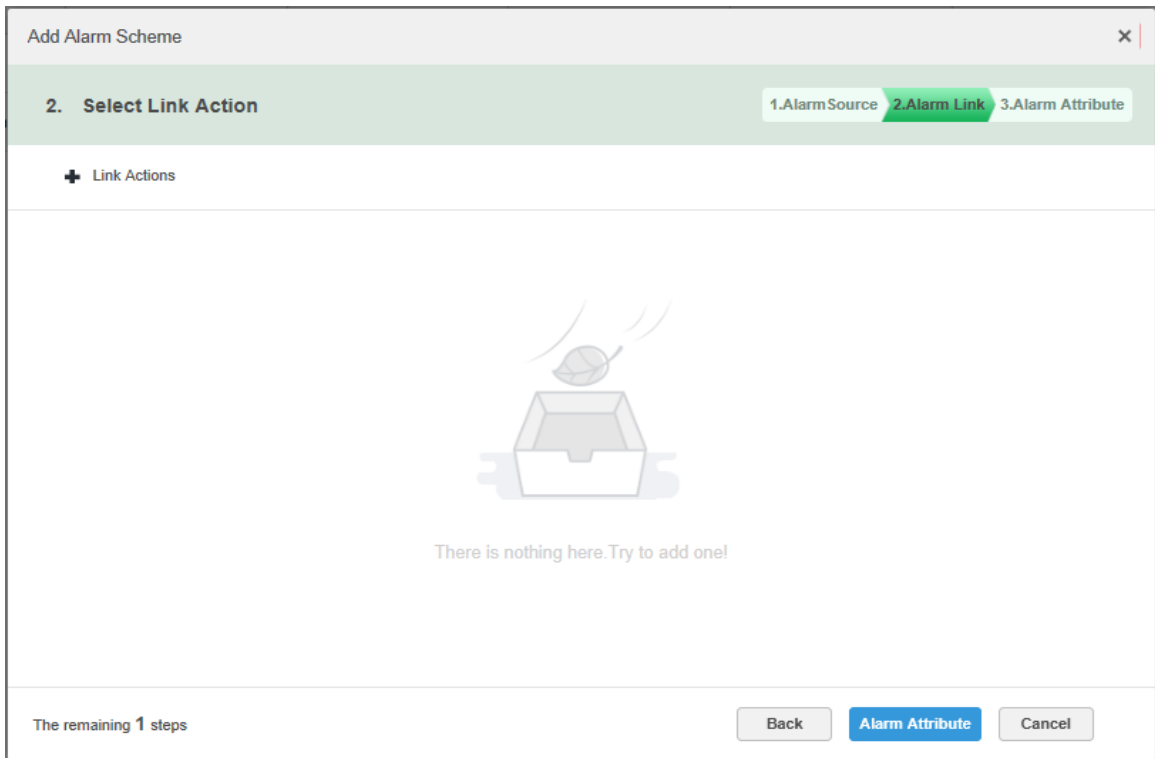
Step 3 Configure alarm source.

- 1) Select alarm type and alarm source.

- 2) Click **Alarm Link**.

The system displays the interface of **Add Alarm Scheme**. See Figure 4-55.

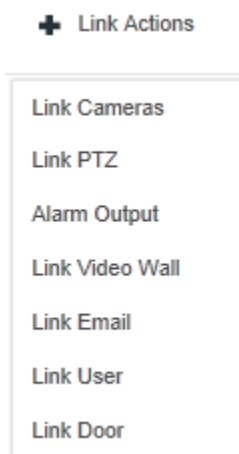
Figure 4-55



Step 4 Configure alarm link.

- 1) Click **+**, the system pops out the list of **Link Actions**. See Figure 4-56.

Figure 4-56



- 2) Select link action, it supports several link actions.
 - ◇ Click **Link Cameras**, set parameters. See Figure 4-57. Please refer to Table 4-4 for more details about parameters.

Figure 4-57

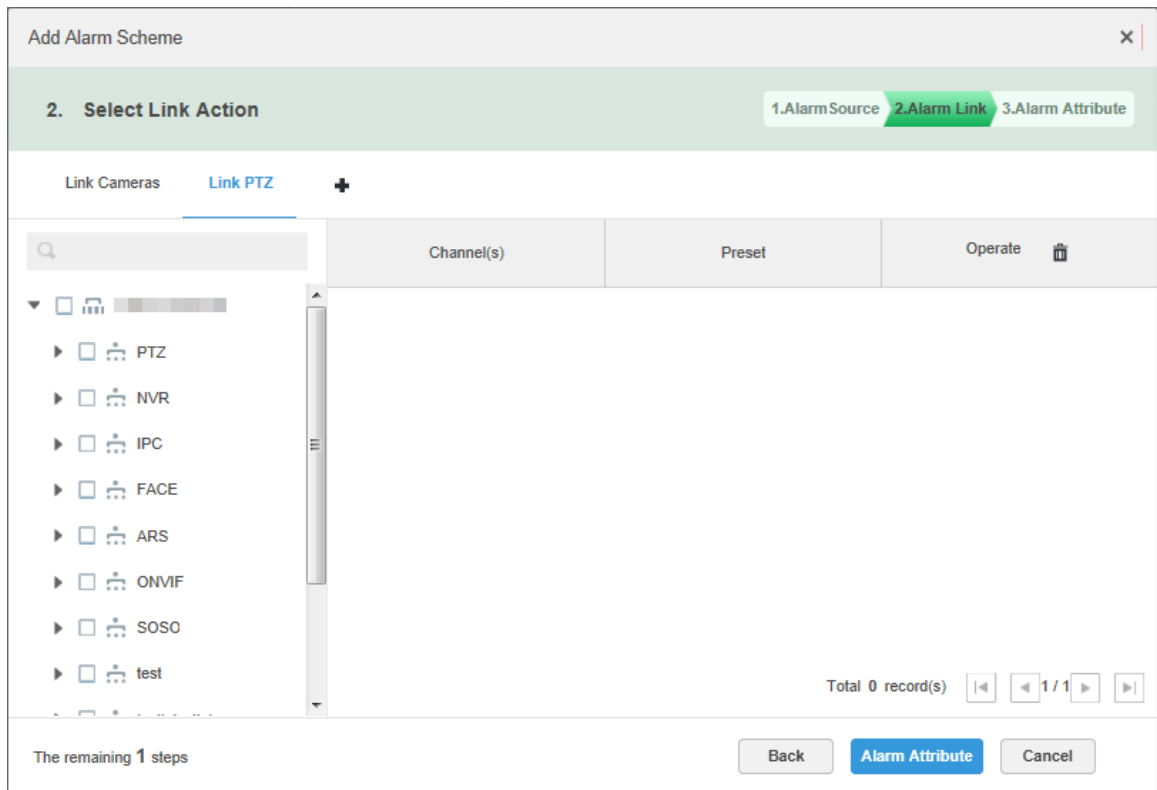
The screenshot shows a configuration window titled "Add Alarm Scheme" with a close button (X) in the top right. The main heading is "2. Select Link Action". A progress bar at the top right shows three steps: "1. Alarm Source", "2. Alarm Link" (highlighted in green), and "3. Alarm Attribute". Below the heading, there is a "Link Cameras" section with a plus sign. Two radio buttons are present: "Link Bind Camera" (selected) and "Select Camera" (with an information icon). A "Link bind camera prompt" section contains the text: "All video channels bind themselves, you can configure the source binding on the device config page." To the right of the radio buttons are several configuration fields: "Position" (dropdown menu set to "Store on Server"), "Stream Type" (dropdown menu set to "Main Stream"), "Record Time" (input field with "s" unit), and "Prerecord Time" (input field with "s" unit). Below these fields are two checkboxes: "Capture a picture of camera when alarm is triggered." and "Open camera video on client when alarm is triggered." At the bottom left, it says "The remaining 1 steps". At the bottom right, there are three buttons: "Back", "Alarm Attribute" (highlighted in blue), and "Cancel".

Table 4-4

Parameter	Note
<ul style="list-style-type: none"> <input checked="" type="radio"/> Link Bind Camera <input type="radio"/> Select Camera ! 	<ul style="list-style-type: none"> ● Link bind camera: Video channel has been bound with alarm source. It is to quickly configure scheme via resource binding of device management. ● Select link camera: It needs link camera to manually select the alarm source.
Position	It is to set whether store the video on server.
Stream Type	It is to set the stream type of recording video. Main stream and sub stream are clear but resource intensive.
Record Time	It is to set the length of video recording.
Prerecord Time	It is the recording time before setting link camera, the selected device is required to support record and it already exists in the device recording.
Capture a picture of camera when alarm is triggered.	Confirm if it captures camera picture.
Open camera video on client when alarm is triggered.	Confirm if it opens camera video window on the client during alarm.

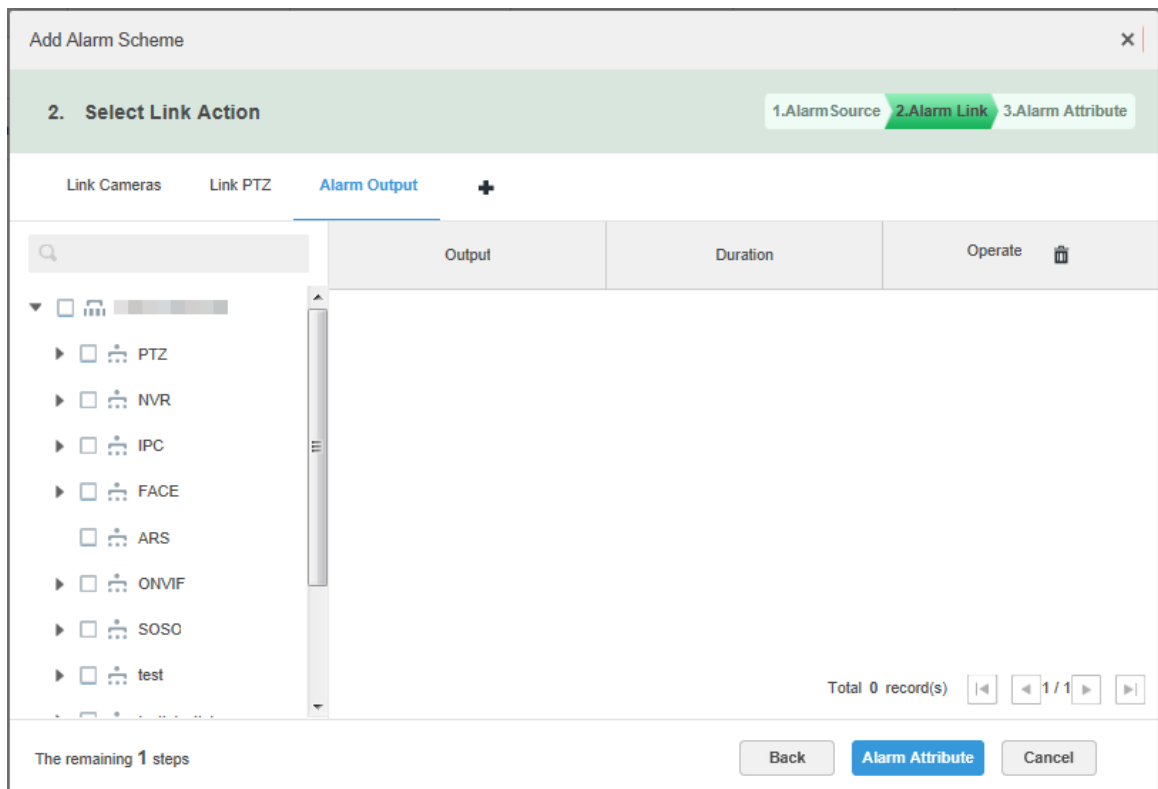
- ◇ Click **Link PTZ**, select the channels which need PTZ to link device, set prerecord actions. See Figure 4-58.

Figure 4-58



- ◇ Click **Alarm Output**, select alarm output channel, set duration. See Figure 4-59.

Figure 4-59



- ◇ Click **Link Video Wall**, select link camera on the left of the interface, select video wall on the right of the interface. See Figure 4-60. When selecting **Link Bind Camera** and **Link Camera**, the interfaces will display differently, please

base on the actual display. Click **Video Wall Alarm Window Setup** to set duration and select the video channel which needs to be displayed on wall. See Figure 4-61.

Figure 4-60

Add Alarm Scheme

2. Select Link Action

1.AlarmSource 2.Alarm Link 3.Alarm Attribute

Link Cameras Link PTZ Alarm Output **Link Video Wall** +

Link Bind Camera
 Select Camera ⓘ

Link bind camera prompt
All video channels bind themselves, you can configure the source binding on the device config page.

Video Wall: 1-4

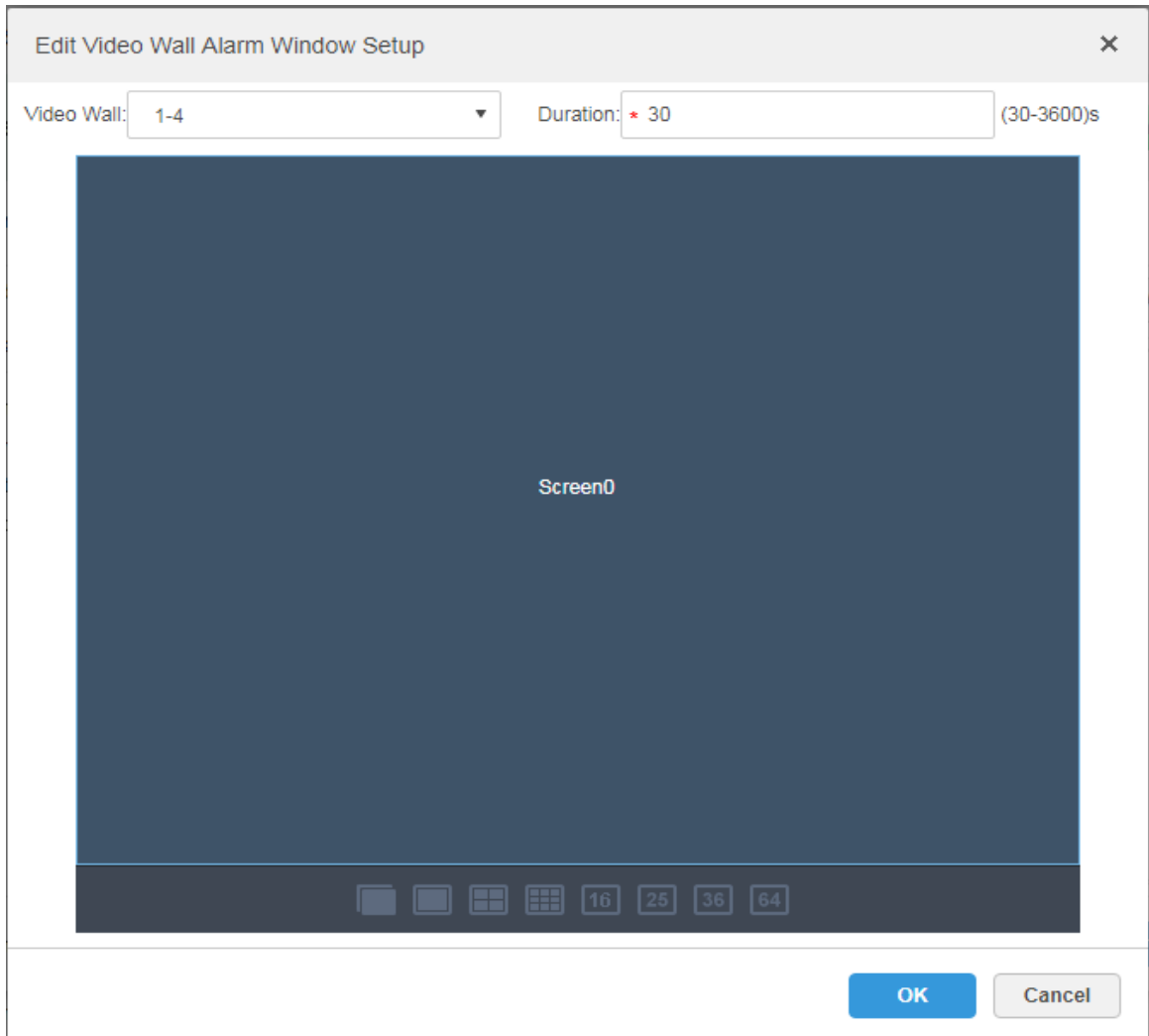
Video Wall Alarm Window Setup

Screen0

The remaining 1 steps

Back Alarm Attribute Cancel

Figure 4-61



- ◇ Click **Link Email**, select email template and recipient. See Figure 4-62. The mail template can be configured, click the ▼ next to **Mail Template** and select **New Mail Template**, set new mail template. See Figure 4-63. Click **Alarm Time**, **Organization** and other buttons to insert buttons into **Email Theme** or **Email Content**.

Figure 4-62

Add Alarm Scheme

2. Select Link Action

1.Alarm Source 2.Alarm Link 3.Alarm Attribute

Link Cameras Link PTZ Alarm Output Link Video Wall **Link Email** +

Email Template: Default

Address: +

Subject: Event time Event source Event type

Send event image

Please pay attention, there is alarm. The following is the details

Time: Event time

Location: Org name

Event Source: Event source

The remaining 1 steps

Back Alarm Attribute Cancel

Figure 4-63

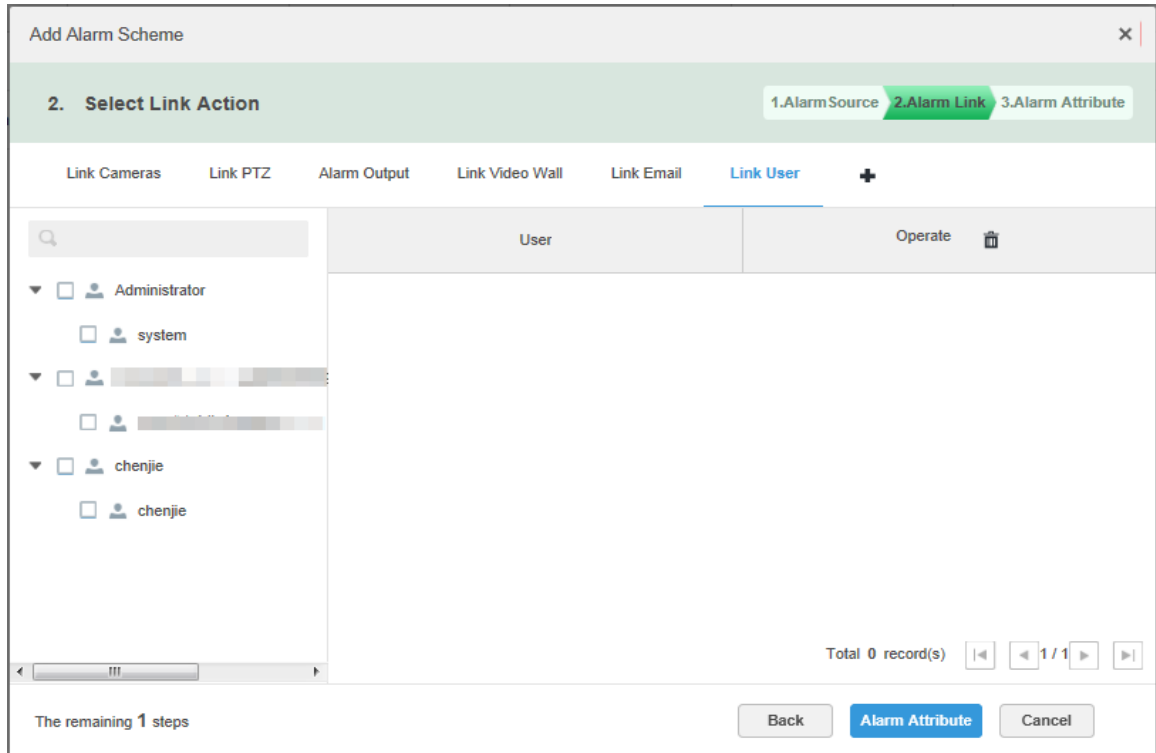
Add Alarm Scheme

Template Name	Mail Content:
Default	Template Name:
test	
12	Event time Org name Event source Event type
+ New Template	Subject:
	Mail Content:

OK Cancel

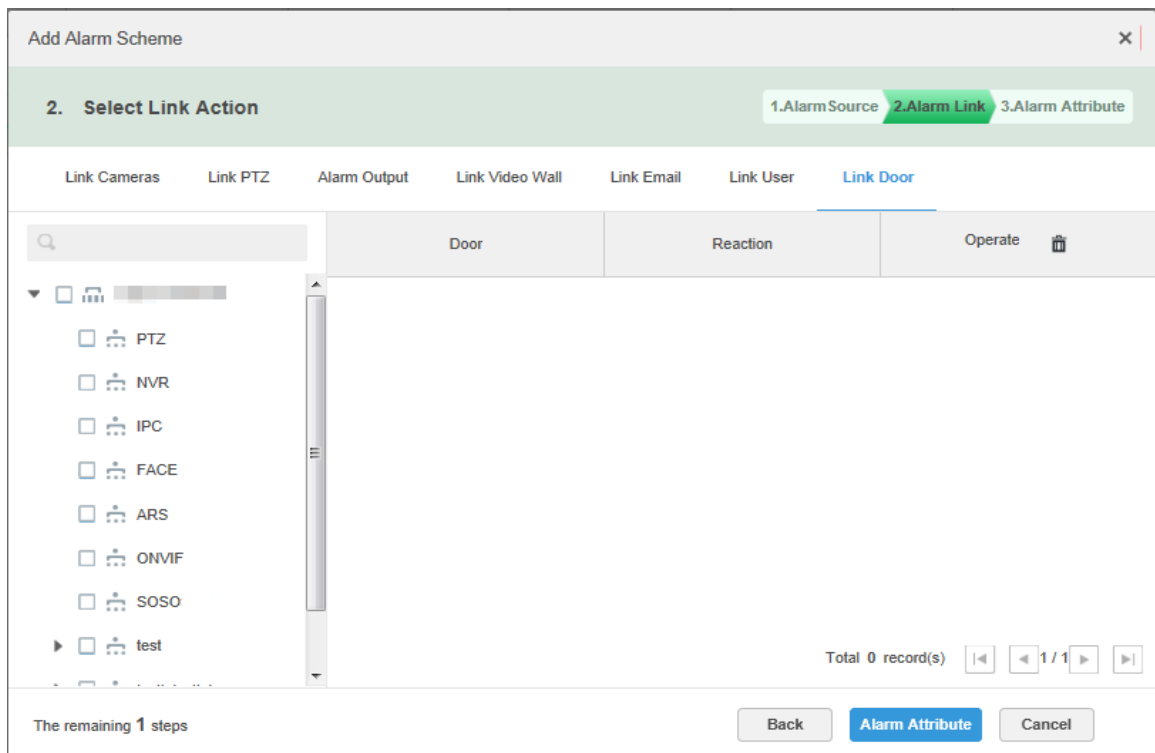
- ◇ Click **Link User**, select the users who need to be informed. See Figure 4-64.

Figure 4-64



- ◇ Click **Link Door**, select the access control device, and set the link action. See Figure 4-65.

Figure 4-65



Step 5 Click **Alarm Attribute**.

The system displays the interface of **Alarm Attribute**. See Figure 4-66.

Figure 4-66

The screenshot shows a window titled "Add Alarm Scheme" with a close button in the top right corner. Below the title bar is a progress indicator with three steps: "1.Alarm Source", "2.Alarm Link", and "3.Alarm Attribute", where "3.Alarm Attribute" is highlighted in green. The main area contains the following fields:



- Name:
- Time Template:
- Priority:
- Remark:

At the bottom left, it says "The remaining 0 steps". At the bottom right, there are three buttons: "Back", "OK", and "Cancel".

Step 6 Configure alarm attribute.


- 1) Set alarm name.
- 2) Select alarm time template and priority.
- 3) Click **OK**.

The system displays the added alarm scheme.

Step 7 In the **Operation** column, click  to enable scheme. When the icon changes into , means that the scheme has been enabled.


Operations

- Edit



Click the  of corresponding scheme, and then you can edit the alarm scheme.

- Delete

◇ Select alarm scheme, click  to delete scheme in batches.

◇ Click the corresponding  of alarm scheme, then you can delete the alarm scheme individually.

- Disable scheme

In the Operation column, click . When the icon changes into , means that the scheme has been disabled.

4.9 Configuring Average Speed

It can refer to the config of this chapter if it is to realize transportation business.

It is to calculate the speed when vehicle passing through the location interval according to $\text{speed} = \text{distance}/\text{time}$.

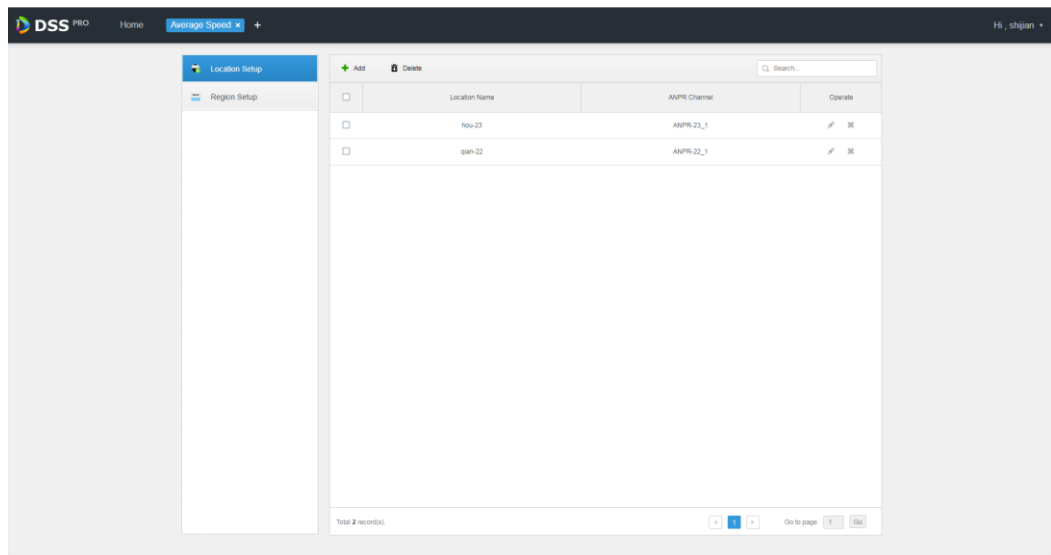
4.9.1 Configuring Location

It is to configure ANPR device as bayonet location, which is for reference of location interval and realize interval speed measurement business.

Step 1 Click **+** on the management end, select **Average Speed** on the **New Tab** interface.

See Figure 4-67.

Figure 4-67



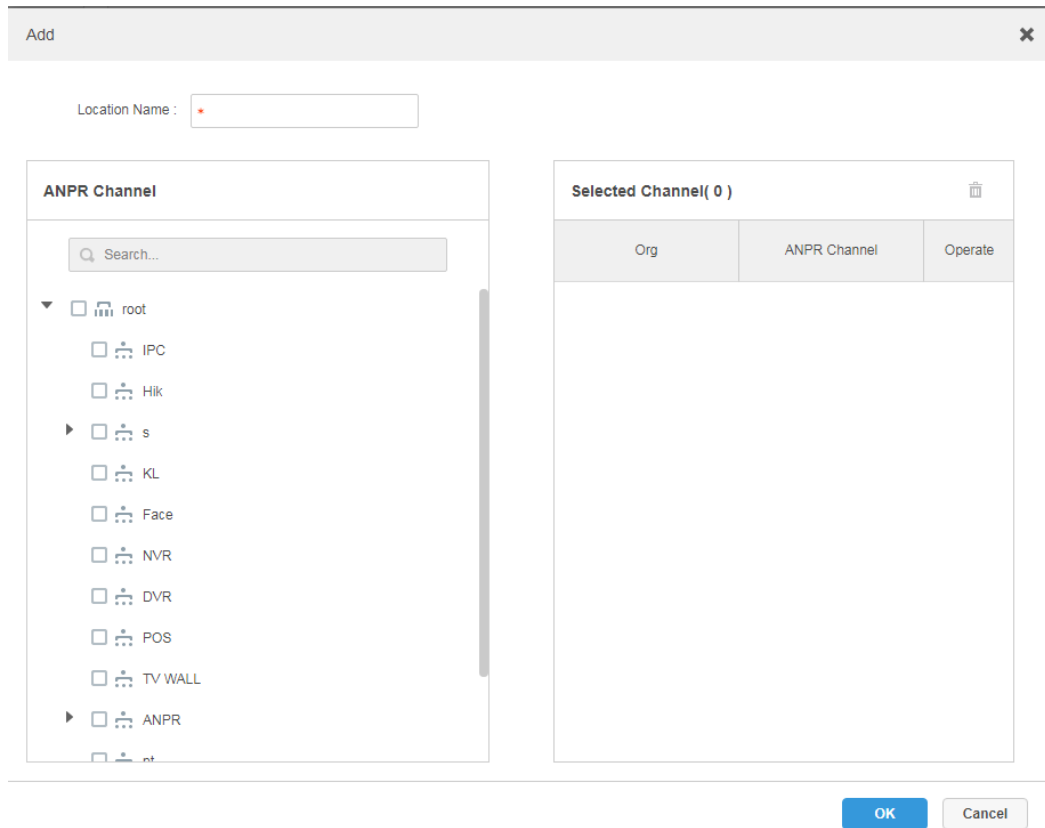
Step 2 Click the tab of **Location Config**.

The system will display the interface of **Location Config**.

Step 3 Click **Add**.

The system will display the interface of **Add**. See Figure 4-68.

Figure 4-68



Step 4 Enter **Location Name**, select one or several ANPR channels (consider vehicle lane changing) as location.

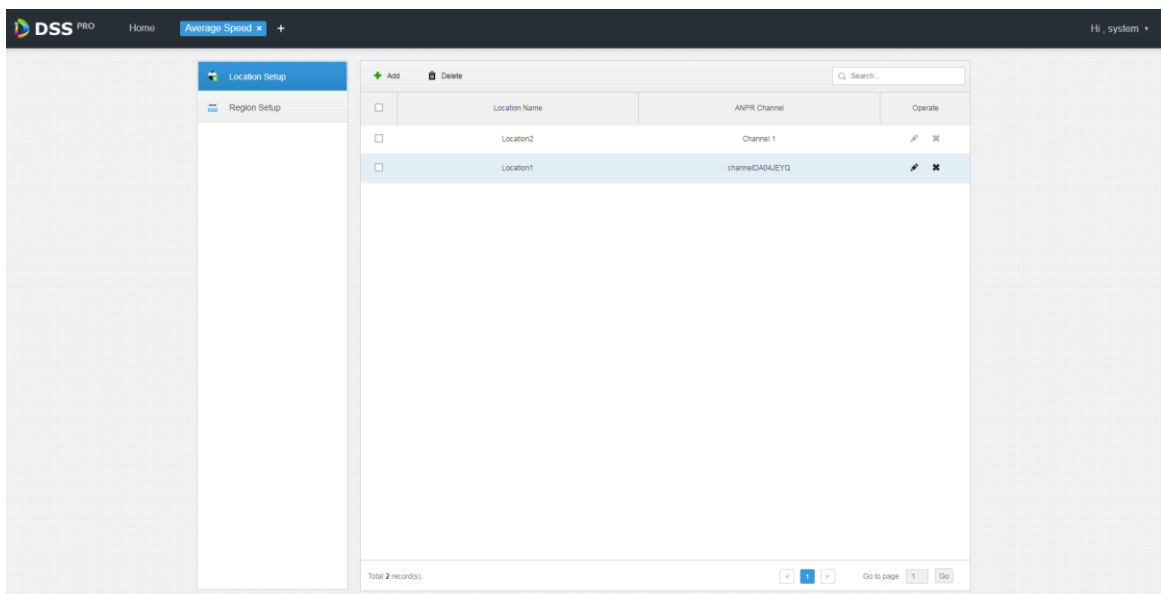
 **NOTE**

One ANPR channel can only exist in one location. The ANPR which has been configured as location cannot be selected again.

Step 5 Click **OK** to complete location config.


The system displays the list of location. See Figure 4-69.

Figure 4-69




Operations

- Edit

Click the corresponding  of location, then you can edit the name and channel of the location.


- Delete

- ◇ Select location in the list, click the  **Delete** above the interface, and then you can delete the location in batches.

- ◇ Click the corresponding  of location in the list, and then delete the location.

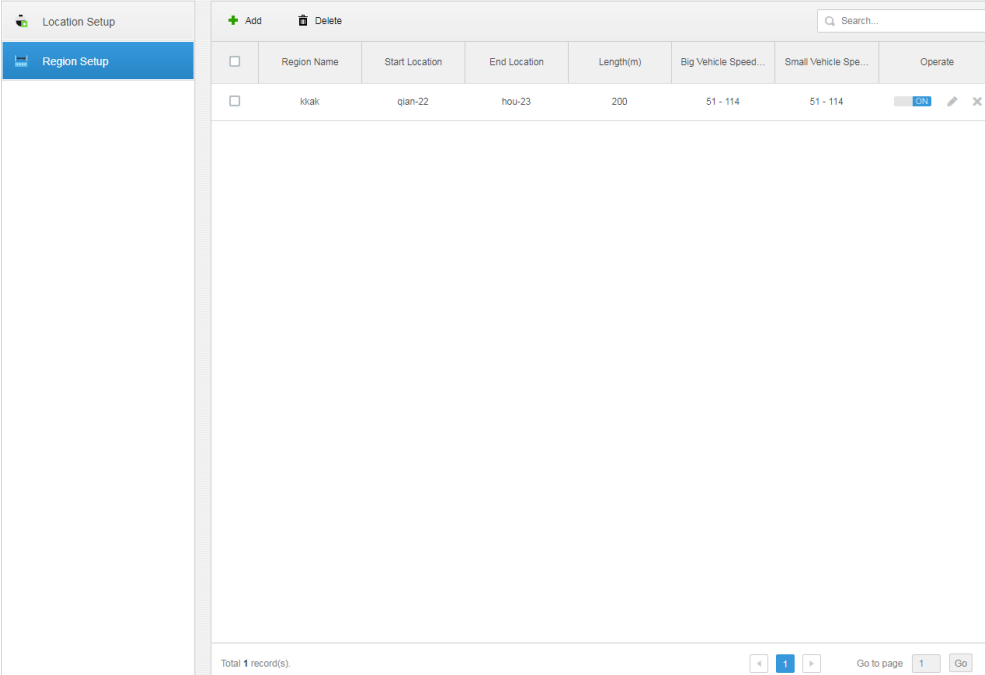
4.9.2 Configuring Location Interval

Configure ANPR device as location, which is for reference of location interval and realize interval speed measurement business.



Step 1 Click  on the management end, select **Region Setup** on the **New Tab** interface.

The system displays the interface of **Region Setup**. See Figure 4-70.

Figure 4-70



The screenshot shows a web interface for 'Location Setup' with a 'Region Setup' tab selected. The main area contains a table with the following data:

<input type="checkbox"/>	Region Name	Start Location	End Location	Length(m)	Big Vehicle Speed...	Small Vehicle Spe...	Operate
<input type="checkbox"/>	kkak	qian-22	hou-23	200	51 - 114	51 - 114	<input type="checkbox"/>  

At the bottom of the table, it says 'Total 1 record(s)'. There are also pagination controls showing '1' and a 'Go to page' field with '1' and a 'Go' button.

Step 2 Click the tab of **Region Setup**.

The system displays the interface of **Region Setup**.

Step 3 Click **Add**.

The system displays the interface of **Add**. See Figure 4-71.

Figure 4-71

The screenshot shows a dialog box titled "Add" with a close button (X) in the top right corner. The dialog contains the following fields and controls:


- Region Name :** A text input field with a red asterisk (*) indicating it is required.
- Start Location :** A dropdown menu with "hou-23" selected.
- End Location :** A dropdown menu with "hou-23" selected.
- Length(m) :** A text input field with a red asterisk (*) indicating it is required.
- Big Vehicle Speed Li... :** A slider control ranging from 0 to 220.
- Small Vehicle Speed ... :** A slider control ranging from 0 to 220.
- Turn On/Off :** A toggle switch currently set to "OFF".

At the bottom right of the dialog, there are two buttons: "OK" (blue) and "Cancel" (grey).

Step 4 Set the parameters of region setup; please refer to Table 4-5 for more details.

Table 4-5

Parameter	Note
Region Name	It is to name the region name, which is used to distinguish different location region.
Start Location	Select location and set region range.
End Location	
Length (m)	Set the length of region section.
Big Vehicle Speed Limit (km/h)	It can set the speed limit of both big and small vehicle. It set min speed and max speed respectively.
Small Vehicle Speed Limit (km/h)	
Turn on/off	Set if it is to enable the region config.

Parameter	Note
	It exceeds max travel time (region section length/min speed limit), the vehicle info will be removed if it fails to pass through end location, and then it will not generate the speed measurement info during this region.


Step 5 Click **OK** to complete the config of location region.

Operations

- Edit

Click the corresponding  of location region and it can delete the info of the region.

- Delete

◇ Select location region in the list, click the  **Delete** above the interface, and then you can delete the region in batches.

◇ Click the corresponding  of the region in the list, and then it deletes the region.

4.10 Configuring Map

Before using the electronic map function, you need to select the map category on the administrative side, including raster map and GIS map, and then drag the video device, alarm device and so on to the map on the DSS management side before you can use the map function on the client side. E-map supports alarm prompts, video viewing and video playback.

- Raster Map

A displayed picture, it is more suitable for indoor scenario. Place the camera in the fixed location indoors, such as parking lot (flat scene), access control, people counting, retail and some other indoor scenarios. The server enables raster map by default.

- Google Online Map

Google online map, it needs network permission of accessing Google map to access the map client, it is to display the map of whole city via network and using the map info of Google online, it can zoom in and out, present the picture of magnificent city and it can be accurate to some spot in the city as well.

- Google Offline Map

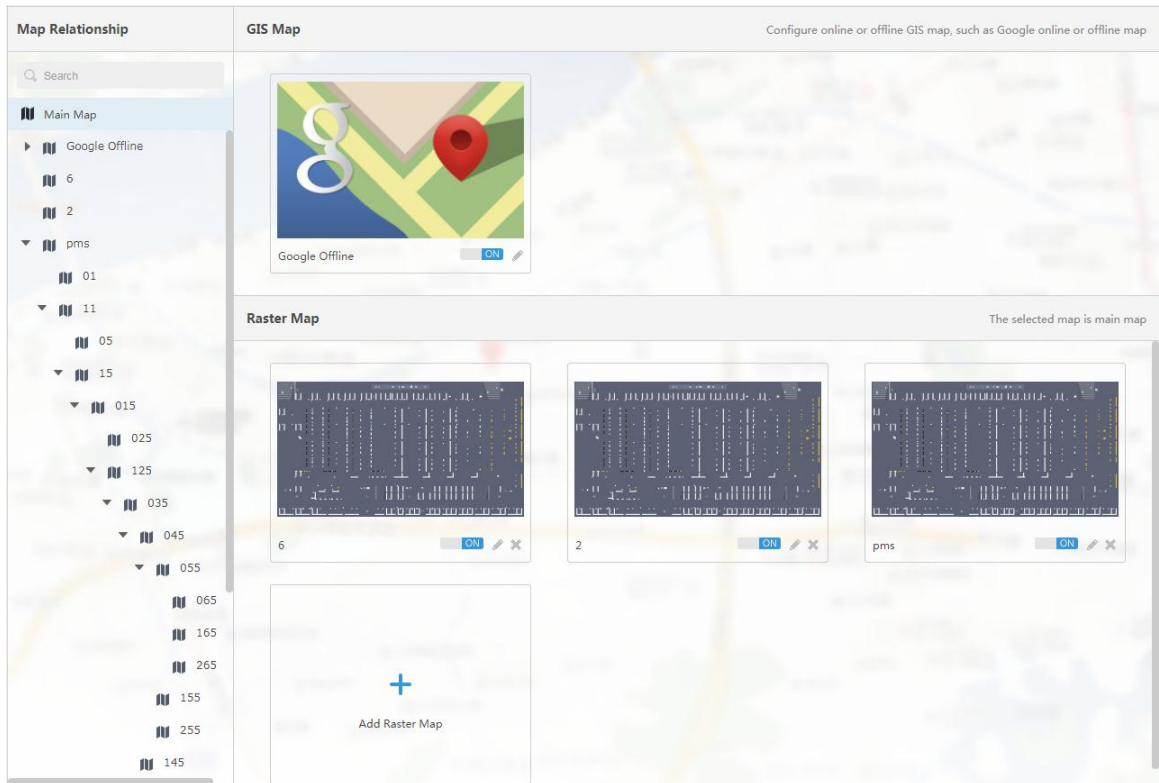
Google offline map, deploy the offline map on other servers. The offline map can be accessed by accessing the client of the map and the server network of Google offline service.

4.10.1 Editing GIS Map

Step 1 Click  and select **Map** on the **New Tab** interface.

The system displays the map interface. See Figure 4-72.

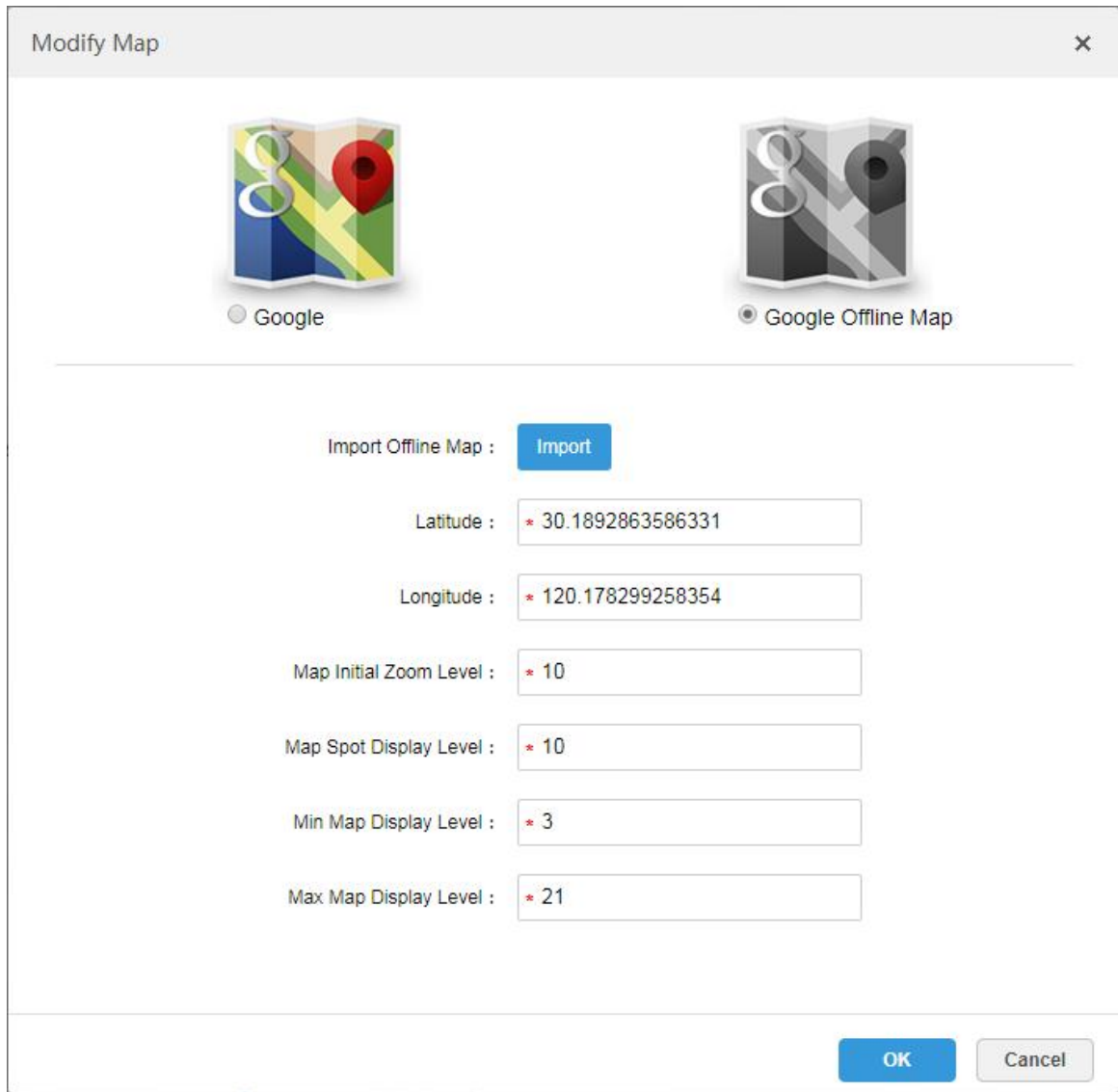
Figure 4-72



Step 2 After click the  above the Google map.

The system pops out the map config interface. See Figure 4-73.

Figure 4-73



- Google online map
 - 1) Select Google online map.
 - 2) Configure map info, click **OK**.
- Google offline map
 - 1) Select Google offline map.
 - 2) Click Import and import offline map.
 - 3) Configure map info, click **OK**.

4.10.2 Adding Hot Zone

It can add raster map as hot area, which is convenient for checking detailed scene picture. For example, it can be used in flat scene like parking lot.

Step 1 Click **Add Raster Map** on the **Map** interface.


The system pops out the interface of **Add Main Map**. See Figure 4-74.

Figure 4-74

Add Main Map ✕

Name:

Picture: Browse

Preview: 

Import raster map, support PNG, JPG, JPEG

Remark:

OK Cancel

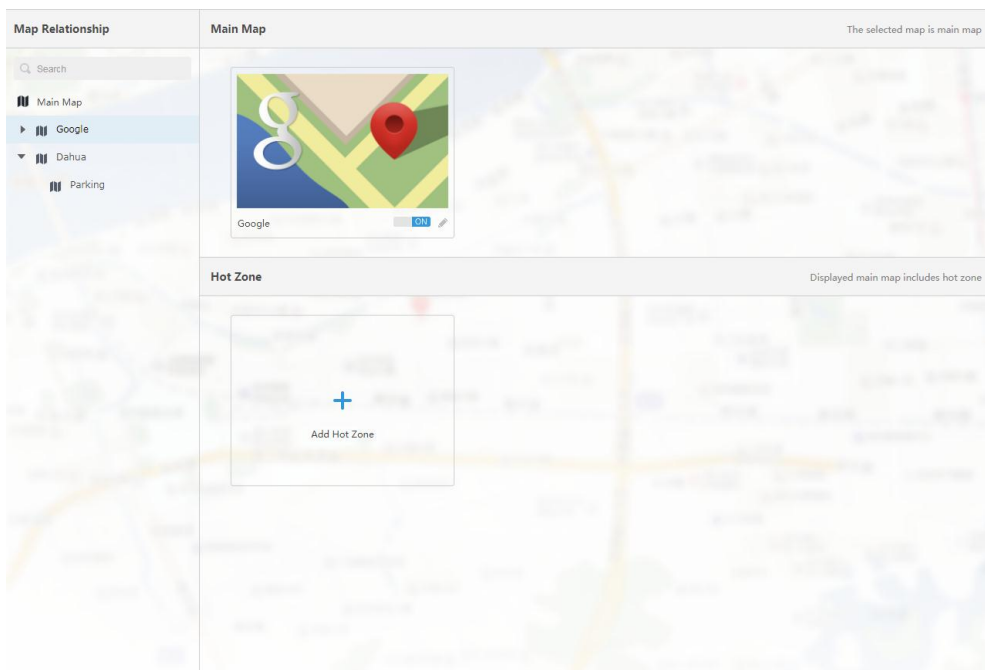
Step 2 Enter **Name**, select upload picture, click **OK**.

You can continue to add several raster maps.

Step 3 Add hot area.

- 1) Click the Google map or raster map on the left, it will display added hot zone module on the right. See Figure 4-75.

Figure 4-75



- 2) Click **Add Hot Area**.

The system displays the interface of **Add Hot zone**. See Figure 4-76.

Figure 4-76

The screenshot shows a dialog box titled "Add Hot Zone" with a close button (X) in the top right corner. The dialog contains the following elements:

- Name:** A text input field with a red asterisk (*) indicating it is a required field.
- Picture:** A text input field followed by a blue "Browse" button.
- Preview:** A rectangular area containing a map icon. Below the icon, the text reads: "Import raster map, support PNG, JPG, JPEG".
- Remark:** A text input field.

At the bottom of the dialog, there are three buttons: "OK" (blue), "Next" (blue), and "Cancel" (gray).

- 3) Enter hot zone name and upload picture, click **Next**.
- 4) Drag icon and confirm hot zone location, and then click **OK**.

4.10.3 Marking Device

It can link the Device to the map by dragging the Device to the corresponding location on the map according to its actual installation location.

Step 1 Click the added main map on the navigation tree on the **Map** interface.

The system will display the map info. See Figure 4-77.

Figure 4-77

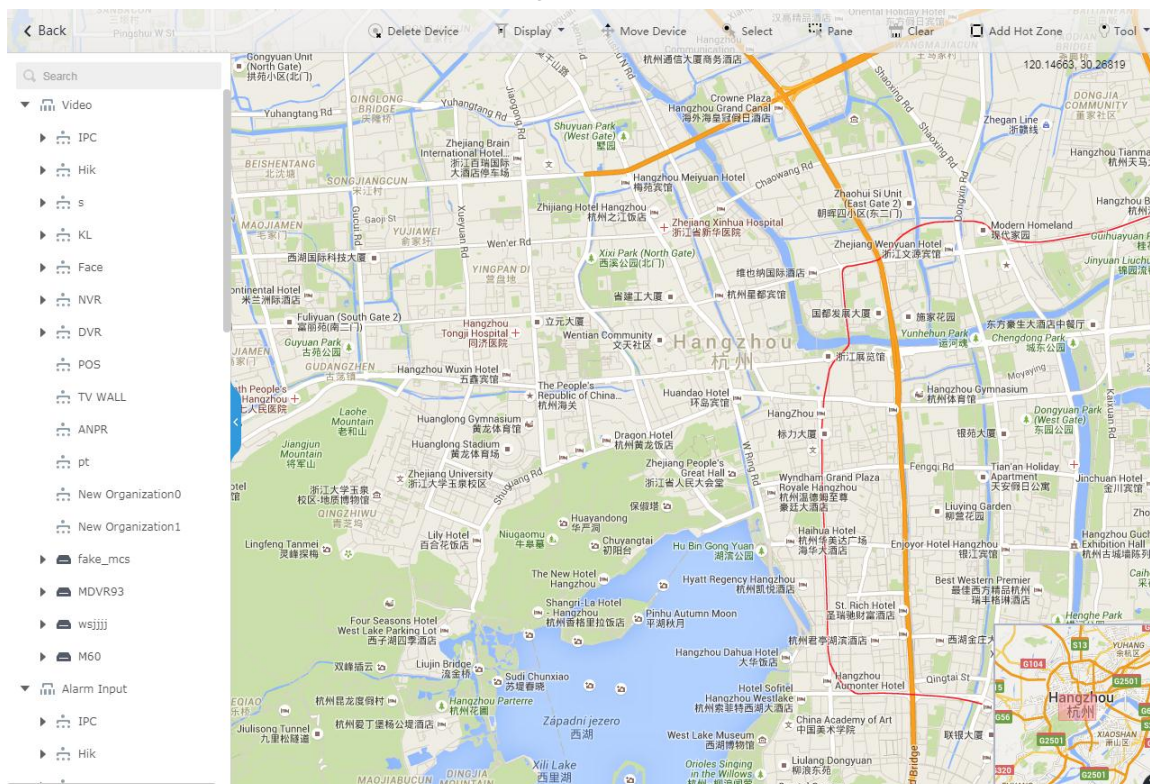
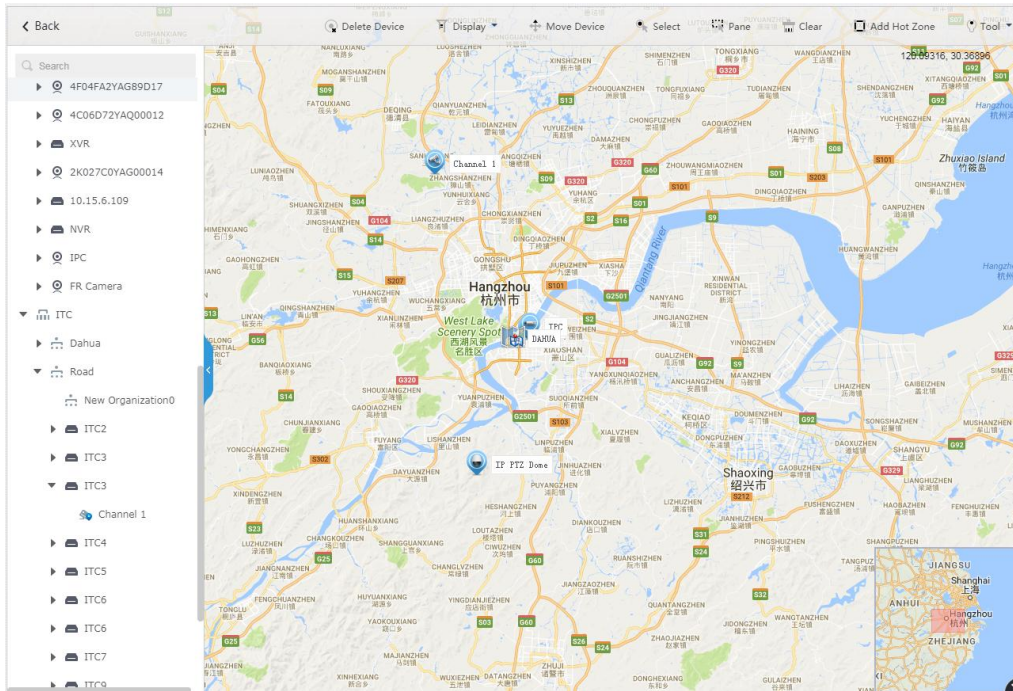


Table 4-6

Parameter	Note
Display	<ul style="list-style-type: none"> ● Raster map displays: video; access control; alarm input; intelligence device ● GIS map displays: video; alarm input; ITC; intelligence device
Delete Device	Click to move the device location on the map.
Select	Select device via clicking on it.
Pane	Select device via box selection.
Clear	Clear the boxing trace on the screen.
Add Hot Zone	Click Add Hot Zone, select location on the map and add hot zone map. After entering hot zone, it can also continue to add lower-level hot zone map. Click hot zone on the client map, the system will automatically link the map to the hot zone map.
Tool	<p>Includes length, area, mark and reset.</p> <ul style="list-style-type: none"> ● Length: it is to measure the actual distance between two spots on the map. ● Area: It is to measure the actual area of the previous area on the map. ● Mark: It is to mark on the map. ● Reset: it is restored back the initial default location of the map.
Others	<ul style="list-style-type: none"> ● Click hot zone, and it can modify the info of hot zone map. ● Double click hot zone, the system will automatically skip to hot zone map, and then it can drag it into the channel on the hot zone map.

Step 2 Drag the device channel from the left device tree to the corresponding location of the map. The interface is shown in Figure 4-78.

Figure 4-78



4.11 Adding Video Wall

It can refer to the content of the following chapter if you want to realize the business of displaying on wall.

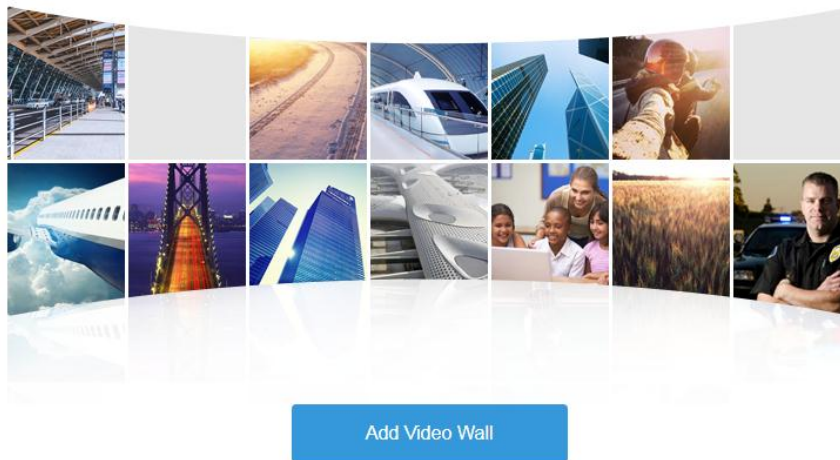
Step 1 Click **+** and select **Video Wall** on the **New Tab** interface.

See Figure 4-79.

Figure 4-79

Video Wall

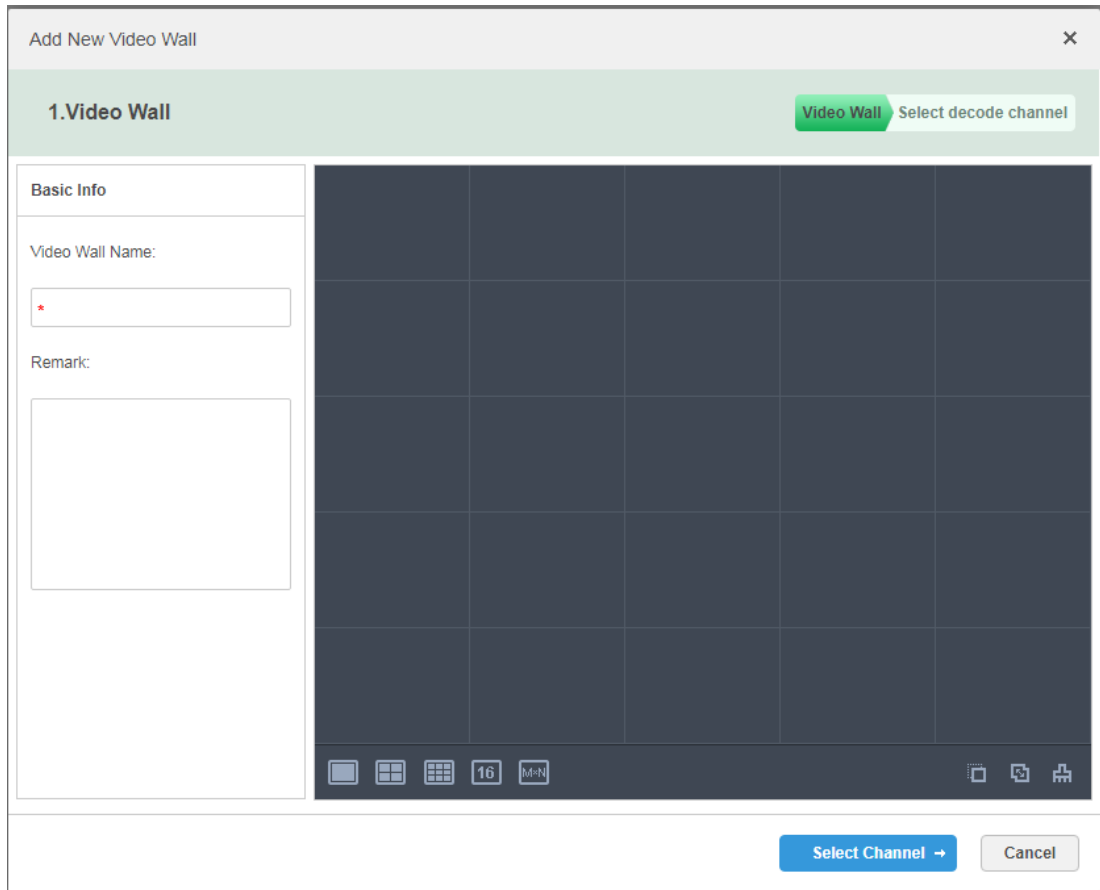
There is no video wall right now, please click the button to setup.



Step 2 Click **Add Video Wall**.

The system pops out the interface of **Add New Video Wall**. See Figure 4-80.

Figure 4-80

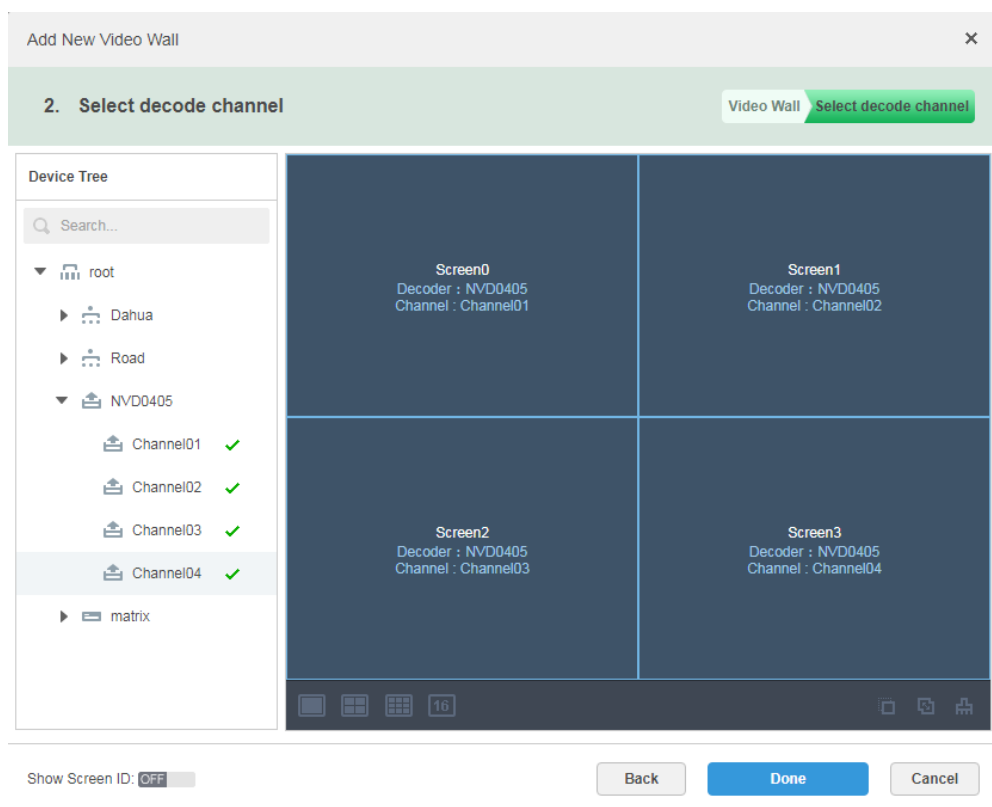


Step 3 Enter **Video Wall Name**, select window distribution.

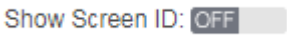
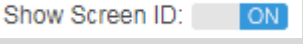
Step 4 Click **Select Channel**.

The system will display the interface of **Select decode channel**. See Figure 4-81.

Figure 4-81



 **NOTE**

It can set if it displays ID in the screen,  means that the screen ID has been disabled; click the icon and it becomes , and then it means that screen ID has been enabled.

Step 5 Select the encoder which needs to be bound in the device tree, and drag it to the corresponding screen.

Step 6 Click Done.

4.12 Configuring Face Recognition

You can refer to the following chapter if it is to realize the function of face recognition.

4.12.1 Creating Face Database

It supports creating face library, managing face info in the library, and add face images to the library as references for comparison.

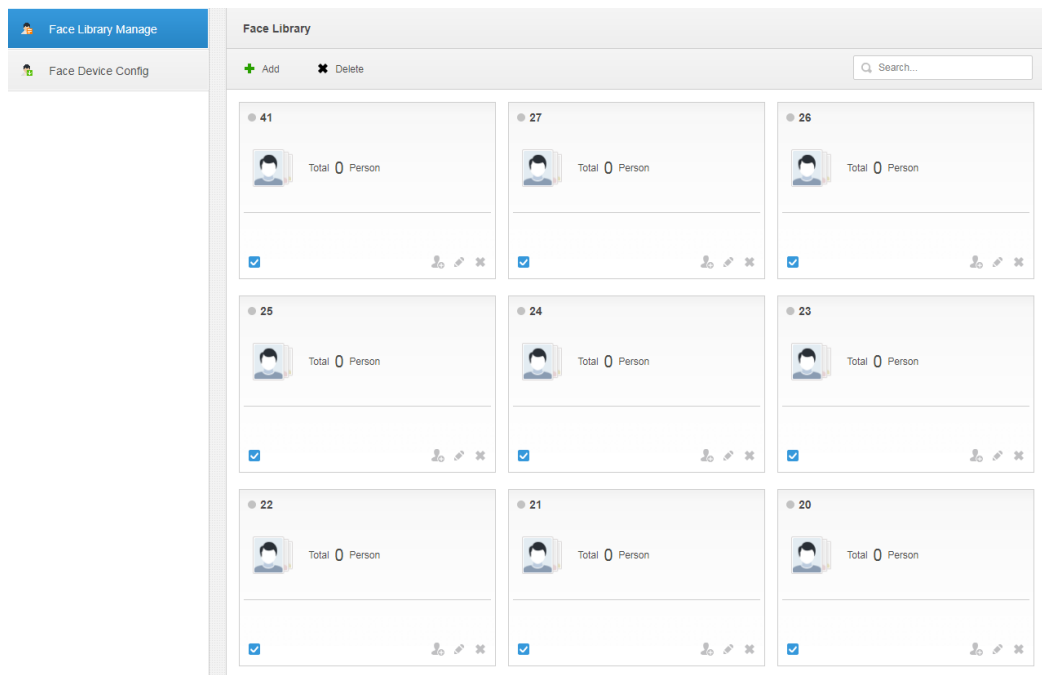
4.12.1.1 Adding Face Library

Face library is used to store staff info, which is convenient to deploy or search staff.

Step 1 Click  and select **Face Database** on the **New Tab** interface.

The system displays the interface of **Face Library**. See Figure 4-82.

Figure 4-82



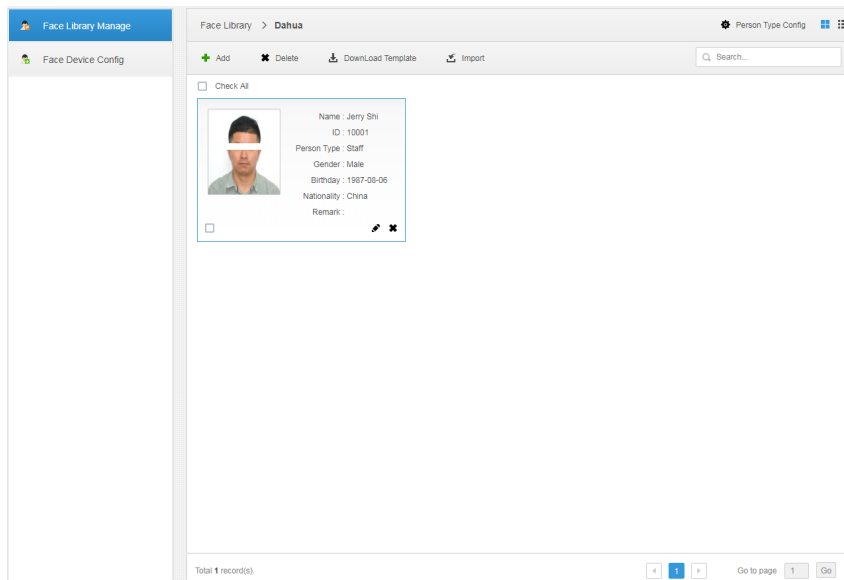
Step 2 Click **Add**.

Figure 4-83




The screenshot shows a dialog box titled "Add Face Library" with a close button (X) in the top right corner. Inside the dialog, there are three input fields: "Library Name" with a red asterisk indicating it is required, "Library Color" with a dropdown menu currently set to "Gray", and "Remark". At the bottom right of the dialog, there are two buttons: "OK" (blue) and "Cancel" (gray).

Step 3 Enter library name, select library color, and then click **OK**.
The interface is shown in Figure 4-84.

Figure 4-84



Operations

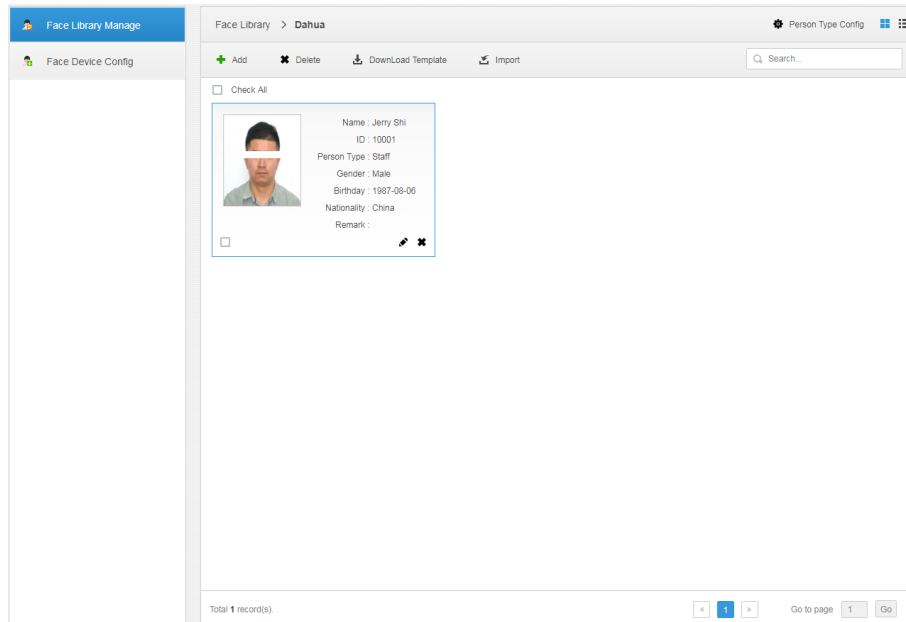
- Search library
Filter the library via face library type or keyword.
- Add face library
Click  to add staff info. Please refer to "4.12.1.3 Adding Face Library Info."
- Modify Staff Library
Click  to modify library name and library description.
- Delete Staff Library
Click  to delete face library only when there is no face info under the library.

4.12.1.2 Configuring person Type

Step 1 Click the face library which needs to be added with person on the interface of **Face Library Manage**.

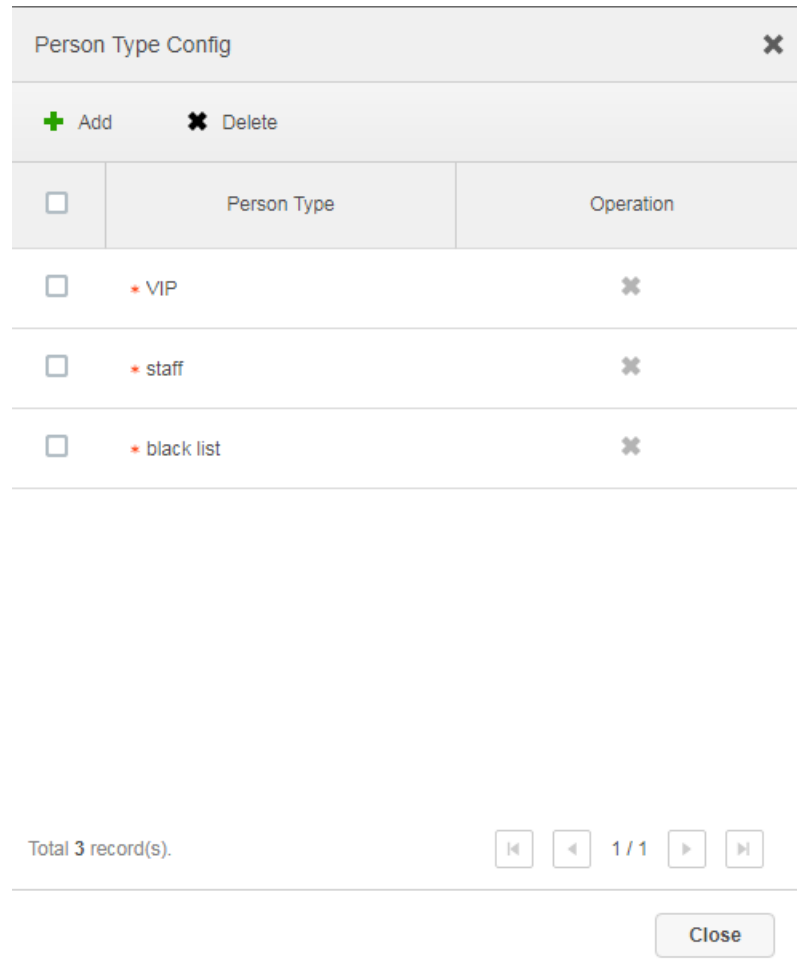
The interface is shown in Figure 4-85.

Figure 4-85




Step 2 Click **Person Type Config**. The interface is shown in Figure 4-86.

Figure 4-86



Step 3 Click **Add** and enter type name in the column of **Person Type**.

Step 4 Click  to disable the window.

4.12.1.3 Adding Face Library Info

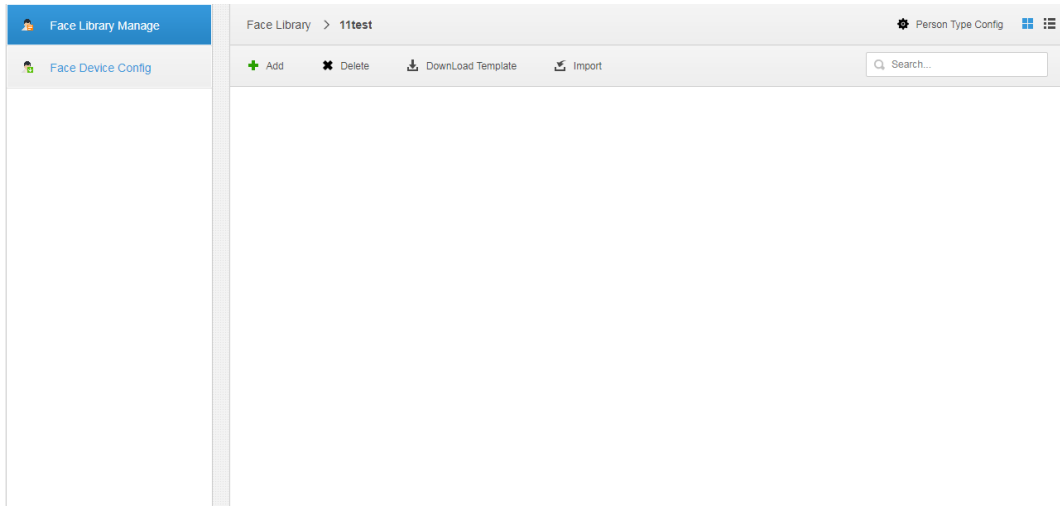
It can add person info via adding individual person and importing in batches.

4.12.1.3.1 Adding Individually

Step 1 Enter the interface of adding person.

- Click the library which needs to be added with person on the interface of **Face Library Manage**. See Figure 4-87. Click **Add**.

Figure 4-87




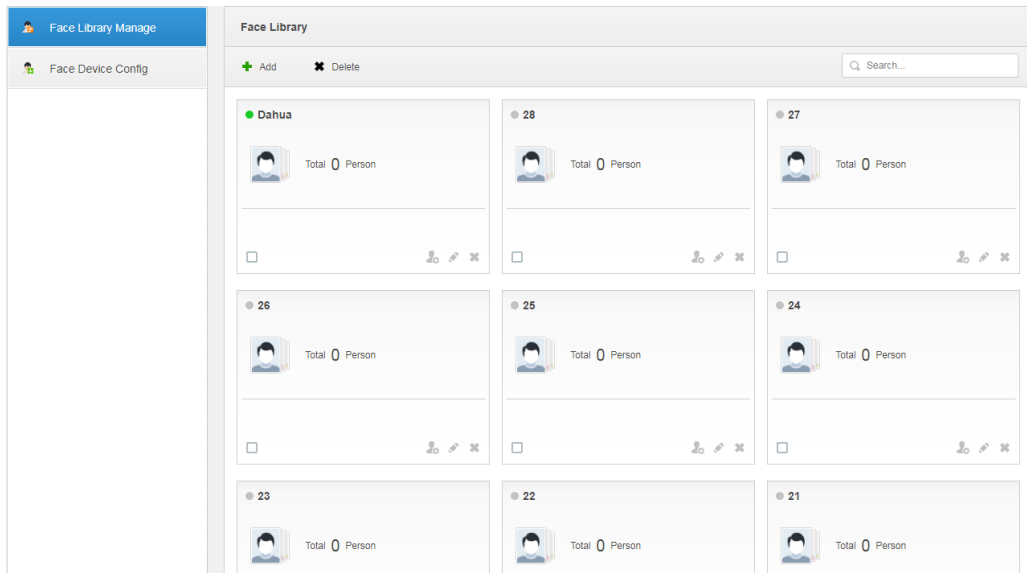
- Click  on the card of person library, the interface is shown in Figure 4-88.

Figure 4-88



Step 2 Enter person info.


Step 3 Click profile photo and upload the picture.

Step 4 Click **OK**.


Click **Continue to add** if it needs to add several persons, save person info and stay on the interface of Add Person, and then you can continue to add person info.

Operations

- Query person

Enter key words into the query text box, press Enter or click  to query person.

- Delete person

◇ Click  on person interface and then you can delete person individually.

◇ Select person, click 'Delete to delete person in batches.

4.12.1.3.2 Batch Import

It needs to prepare person picture in advance if you want to import in batches, and compress it into zip RAR. RAR and excel style are shown in Figure 4-89 and Figure 4-90. Currently batch import supports max 1000 pictures at one time.

Figure 4-89

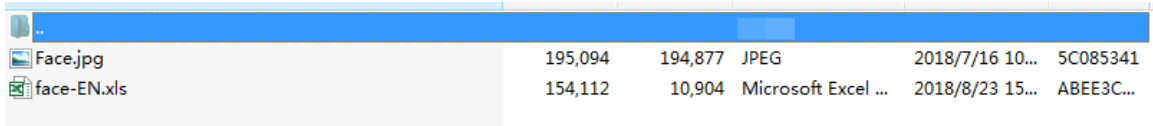


Figure 4-90

The screenshot shows an Excel spreadsheet with two parts. The top part lists 'Fill Requirements' for data import, including rules for Name, ID, Type, Gender, Birthday, Nationality, Remark, and Face Image. The bottom part is a table with columns: Name, ID, Type, Gender, Birthday, Nationality, Remark, and Face Image. The first row contains the data for 'Jerry'.

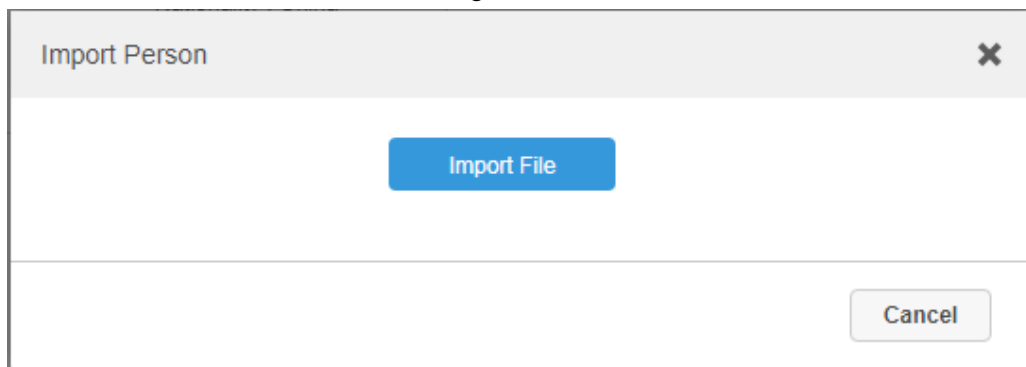
Name	ID	Type	Gender	Birthday	Nationality	Remark	Face Image
Jerry	35125	Staff	Male	2018/05/26	China	Joined on October 2th	Face.jpg

Step 1 Click the library to add person on the interface of **Face Library Manage**.

Step 2 Click Import.

The system displays the interface of **Import Person**. See Figure 4-91.

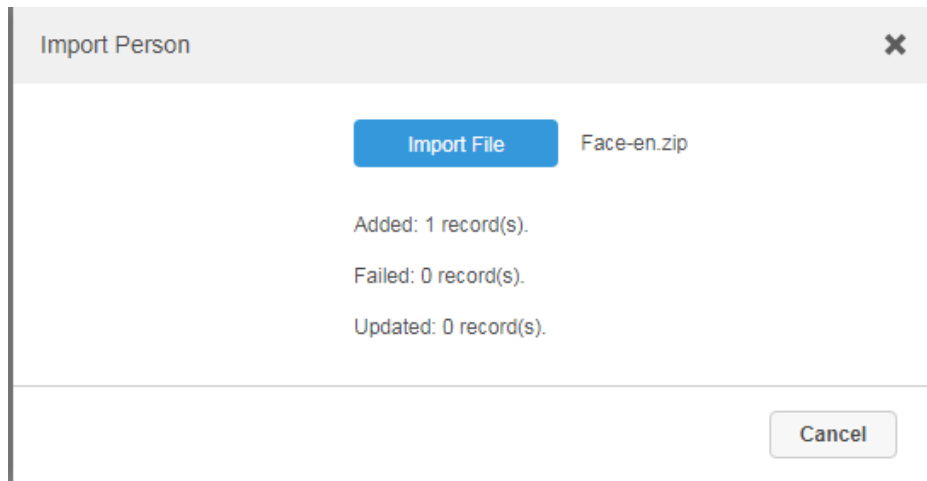
Figure 4-91



Step 3 Click **Import File** and upload compressed package according to prompt.

The system will display import progress, it will display import info after import is completed. See Figure 4-92.

Figure 4-92



Operations

Relevant operation is the same as that in "4.12.1.3.1 Add Individually."

4.12.2 Arm Config

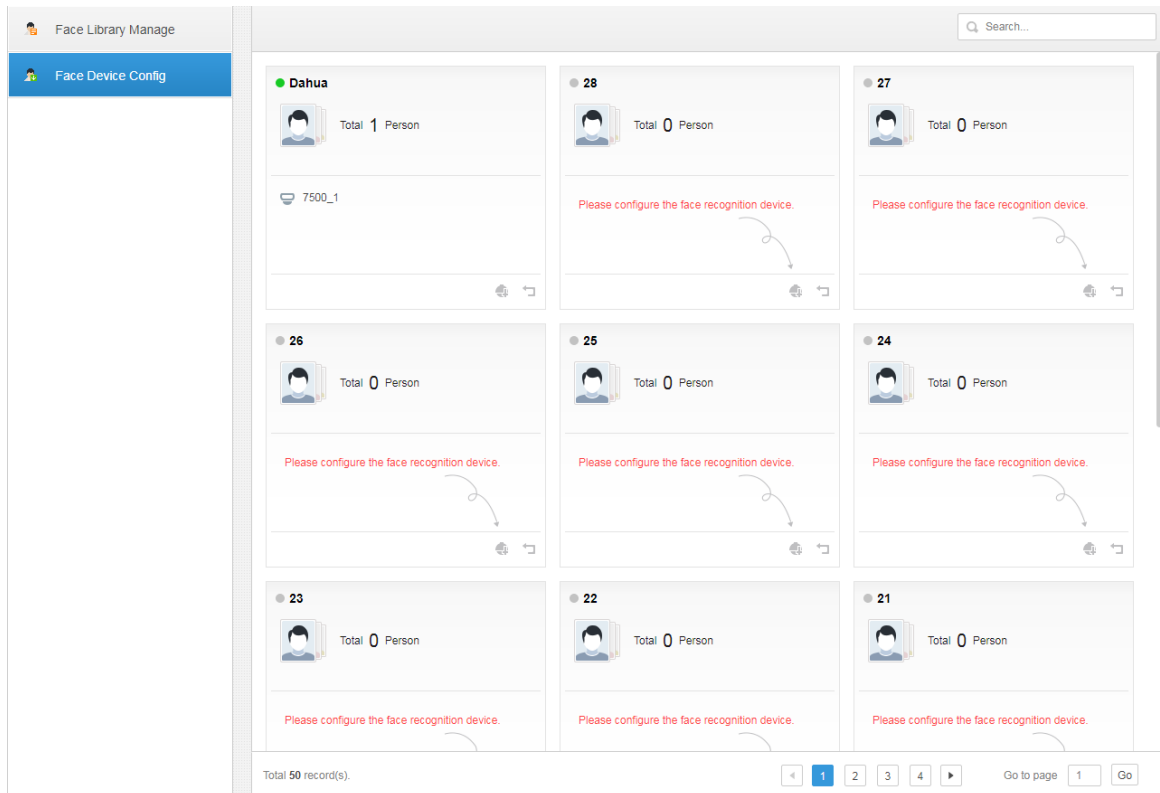
Arm means real-time comparison between capture image and face database image; it will trigger real-time alarm when the similarity reaches the value which has been set. It can make arm upon the face database where the person exists if it needs to take real-time surveillance over the designated person.

Step 1 Click **+** and select **Face Database** on the **New Tab** interface.

Step 2 Click Face Device Config on the left of navigation bar.

The system displays the interface of **Face Device Config**. See Figure 4-93.

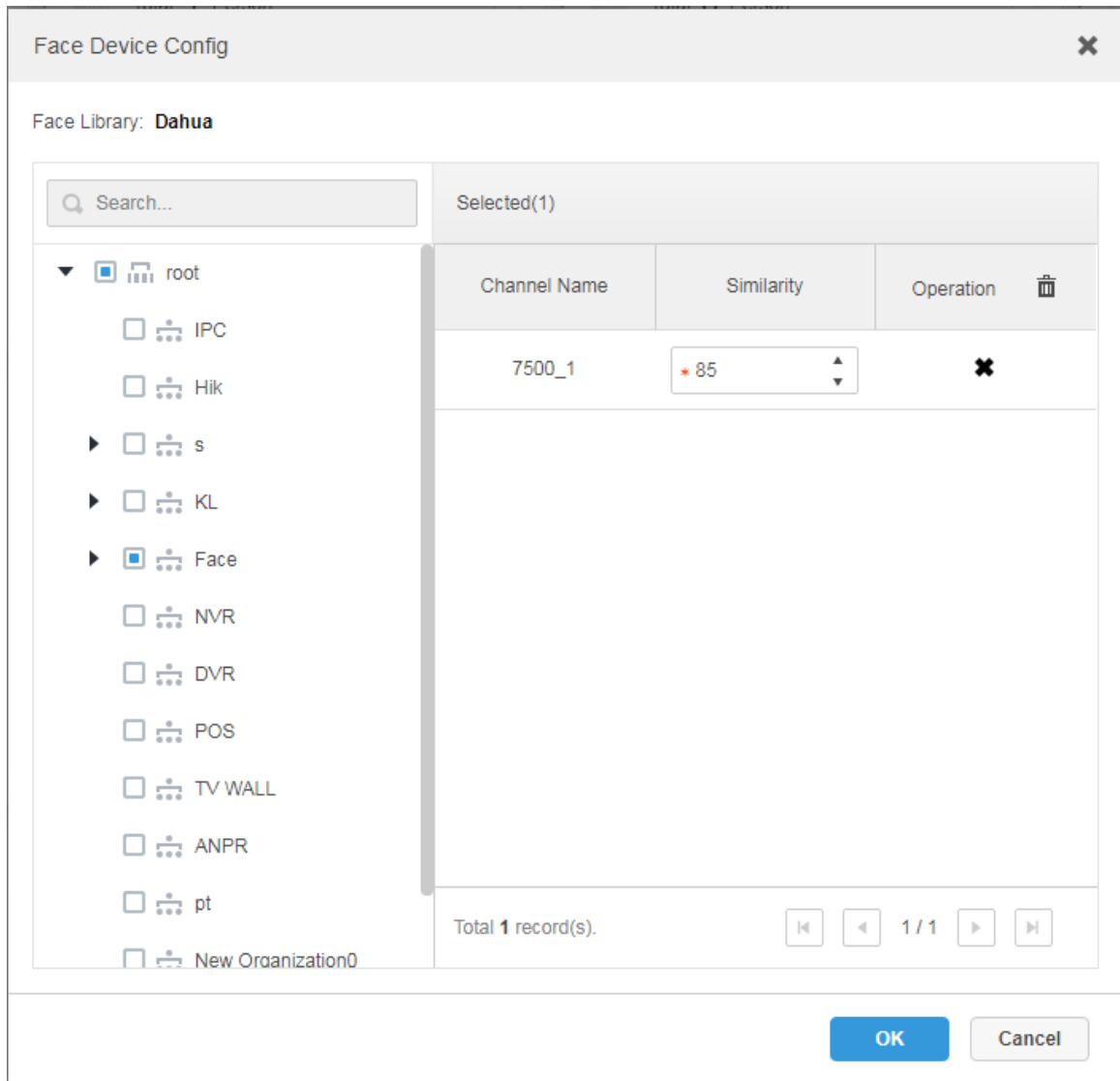
Figure 4-93



Step 3 Click  to start arm.

The interface is shown in Figure 4-94.



Figure 4-94



Step 4 Select arm channel and set similarity.

Step 5 Click **OK** to complete arm.

Operations

- **Modify arm**
Arm has been implemented; click  and it can modify related device and similarity value on the arm interface.
- **Disarm**
Click  on the interface of Arm Manage to disarm.

4.13 Adding Vehicle Blacklist































Arm means monitoring vehicles, it will trigger alarm when it takes snapshot and recognizes the vehicle with designated license plate. Arm management includes adding vehicle blacklist, arming and disarming.

It can refer to the chapter when it needs to realize the business of road surveillance.

Step 1 Click  and select **Vehicle Blacklist** on the interface.

The system displays the interface of **Vehicle Blacklist**. See Figure 4-95.

Figure 4-95

<input type="checkbox"/>	Plate No.	Arm Type	Start Time	End Time	Arm Status	Armed Person	Operate
<input type="checkbox"/>	121111111	Over Speed Vehicle	2018-09-15 11:27:35	2018-10-06 00:00:00	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4999x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4998x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4997x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4996x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4995x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4994x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4993x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4992x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4991x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4990x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4989x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4988x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4987x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  
<input type="checkbox"/>	4986x	Over Speed Vehicle	2018-09-02 20:27:06	2023-10-07 20:27:08	Arming	system	<input type="checkbox"/> ON  

Total 5006 record(s).

Navigation: < 1 2 3 4 5 ... 334 > Go to page 1 Go

Step 2 Click **Add**.

The system displays the interface of **Add**. See Figure 4-96.

Figure 4-96

The screenshot shows a dialog box titled "Add" with a close button (X) in the top right corner. The dialog contains several input fields and dropdown menus:

- Plate No. :** A text input field with a red asterisk (*) indicating a required field.
- Start Time :** A date and time picker field with a red asterisk (*) and a calendar icon.
- End Time :** A date and time picker field with a red asterisk (*) and a calendar icon.
- Vehicle Type :** A dropdown menu with "Not Recognized" selected.
- Plate Color :** A dropdown menu with "Not Recognized" selected.
- Vehicle Logo :** A dropdown menu with "Not Recognized" selected.
- Vehicle Color :** A dropdown menu with "Not Recognized" selected.
- Arm Type :** A dropdown menu with "Over Speed Vehicle" selected.

At the bottom right of the dialog, there are two buttons: "OK" (blue) and "Cancel" (grey).


Step 3 Set armed vehicle info, including plate number, start time, vehicle type, plate color, vehicle logo, vehicle color and arm type.

Step 4 Click **OK**.


The system prompts that it has added successfully. It is armed by default.

Operations

- Modify vehicle blacklist

Click  of corresponding vehicle in the list, and then you can edit relevant info of vehicle arm.

- Delete vehicle blacklist

Click  of corresponding vehicle arm info in the list, or select vehicle arm info, click Delete to delete vehicle arm info.

- Arm/Disarm

- Select vehicle arm info, click 'Arm to arm the vehicle; Click 'Disarm to disarm the vehicle.
- Import
Click Import and it can import vehicle arm info according to template.

 **NOTE**

It can download import template in the Import interface after clicking Import.

- Export
Select vehicle arm info, click **Export Selected** to export the selected vehicle arm info; click **Export All** to export all the vehicle arm info in the list.

4.14 Video Intercom Management

4.14.1 Configuring Building/Unit

It needs to make sure the enable of building and unit is in accordance with the device if you want to use the video talk module of the platform, otherwise, the device is offline after adding device. The setting of building and unit affects the dialing rule. Take room 1001 unit 2 building 1 as an example, the dialing rule is shown as follows after it is enabled.

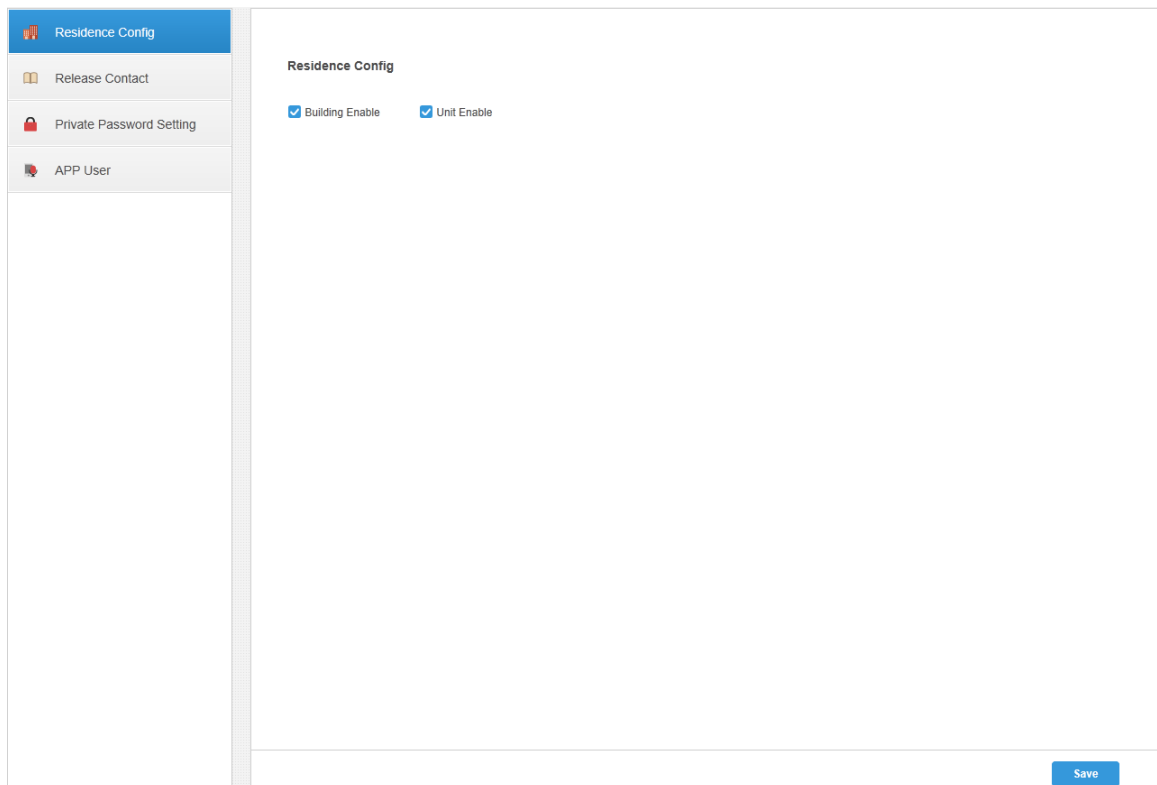
- If building is enabled, unit is not enabled, and then the number is “1#1001”.
- If building is enabled, unit is enabled as well, and then the number is “1#2#1001”.
- If building is not enabled, unit is not enabled either, and then the number is “1001”.

Step 1 Click  and select **Video Intercom Management** on the interface. The system displays the interface of **Video Intercom Management**.

Step 2 Click the tab of Residence Config.

The system displays the interface of Residence Config. See Figure 4-97

Figure 4-97



Step 3 Enable or disable building and unit according to the actual situation, it is required to be in accordance with that of the device, click **Save** and complete config.

4.14.2 Synchronizing Contacts

Synchronize contacts information to VTO and then you can view contacts on the VTO display screen or WEB interface.

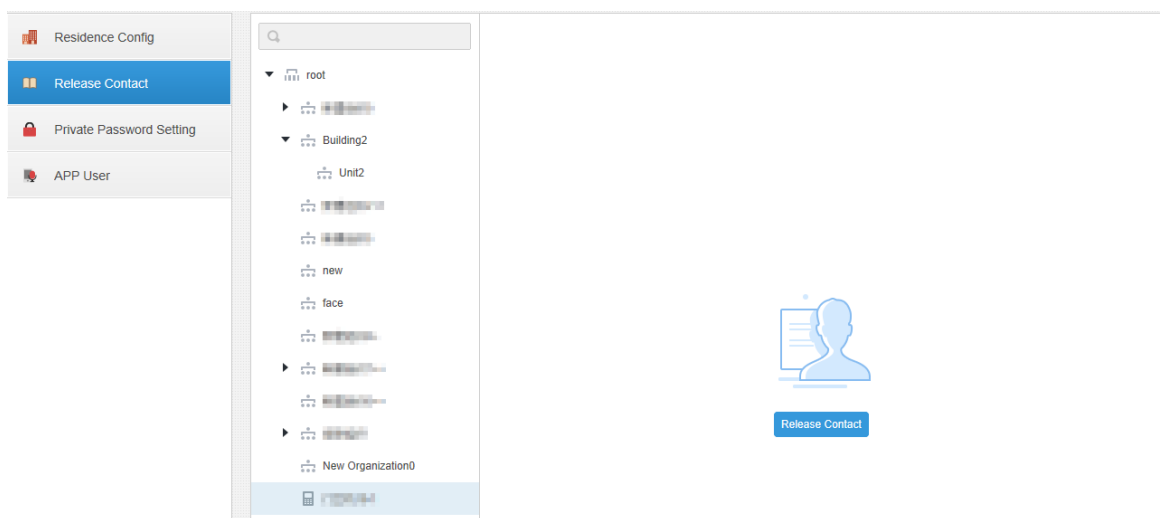
Step 1 Click  and select **Video Intercom Management** on the interface.

The system displays the interface of **Video Intercom Management**.

Step 2 Click the tab of Release Contact.

The system displays the interface of Release Contact. See Figure 4-98.

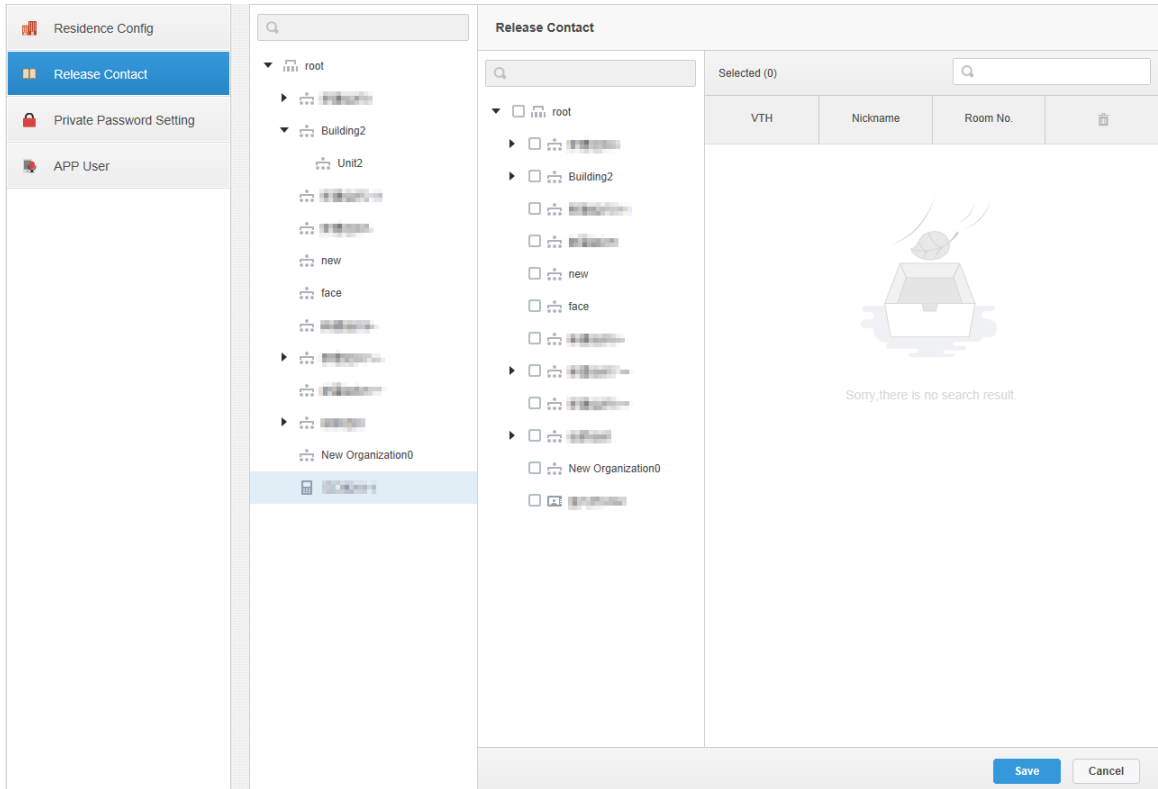
Figure 4-98



Step 3 Select organization node (VTO) and click Release Contact.

The system displays the information of all the VTH bound by VTO. See Figure 4-99.

Figure 4-99



Step 4 Select VTH and click Save.

You can view contact on the VTO display screen or WEB interface after releasing is completed.

4.14.3 Setting Private Password

It sets the unlock password of corresponding VTO bound by VTH.



Contacts is required to be released to VTO, otherwise it fails to set private password.

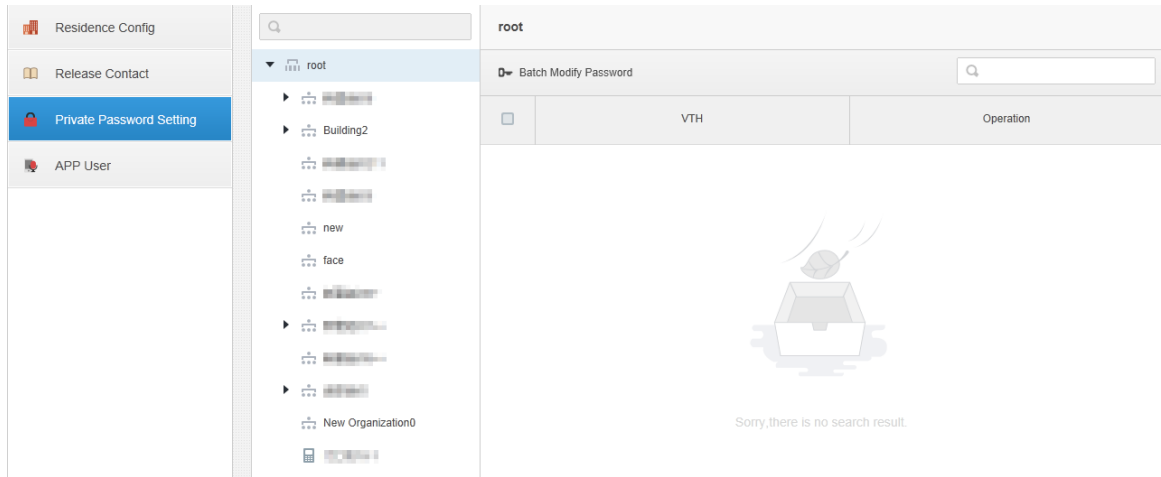
Step 1 Click  and select **Video Intercom Management** on the interface.

The system displays the interface of **Video Intercom Management**.

Step 2 Click the tab of **Private Password Setting**.

The system displays the interface of **Private Password Setting**. See Figure 4-100.

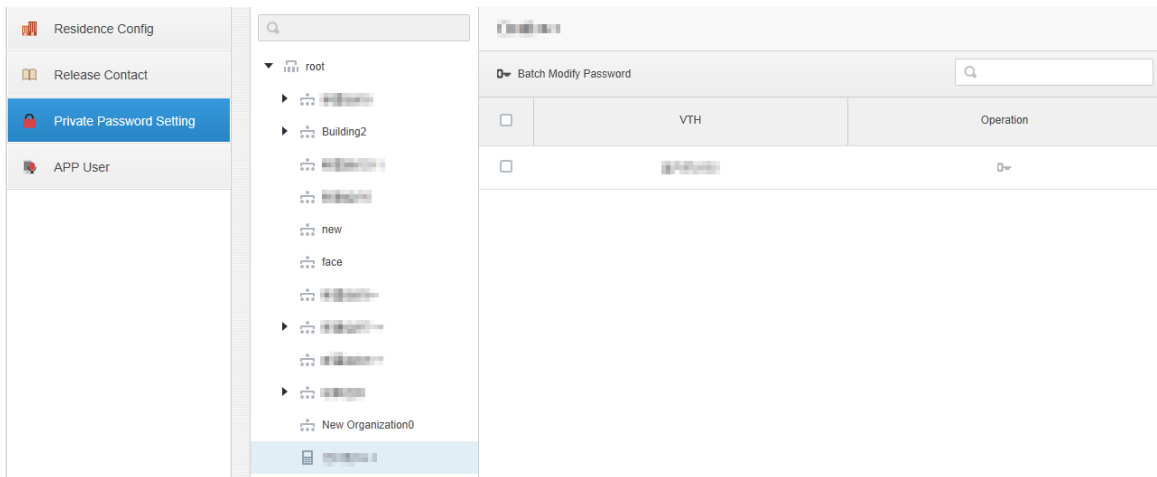
Figure 4-100



Step 3 Select organization node (VTO).

The system displays the information of all VTH bound by VTO. See Figure 4-101.

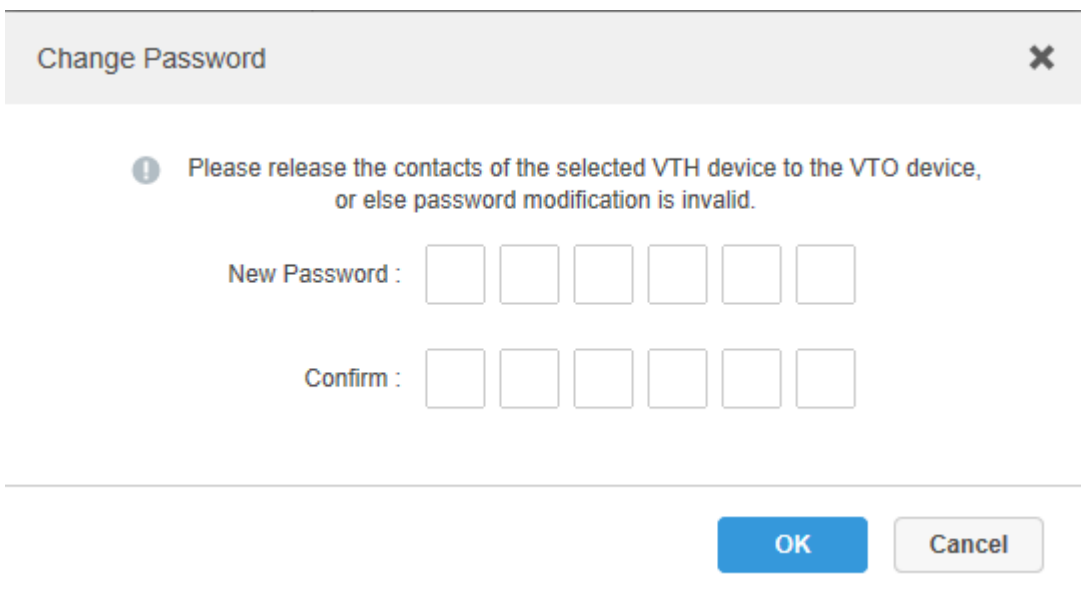
Figure 4-101



Step 4 Select VTH, click  or select several VTH, click Batch Modify Password.

The System displays the interface of Figure 4-102.

Figure 4-102



Step 5 Enter password, click **OK**.

You can use the new password to unlock on the VTO.

4.14.4 APP User

It supports to view information of APP users, freeze user, modify login password and delete user.



APP user can register by scanning QR code on the VTH; refer to APP user manual for more details.

Step 1 Click  and select **Video Intercom Management** on the interface.

The system displays the interface of **Video Intercom Management**.

Step 2 Click the tab of **APP User**.

The system displays the interface of **APP User** and information of all registered APP users. See Figure 4-103. Refer to Table 4-7 for more operation details.

Figure 4-103

Username	VTH Info	SIP Code	Last Login Time	Right Status	Last Password Res..	Operation
lyca		10#1#5502#101	2019-03-25 13:37:15			
lycl		10#1#5502#177	2019-03-25 12:02:48			
zxy		10#1#5502#191	2019-03-26 10:05:23			
zxy1		10#1#5502#130	2019-03-26 11:54:56			
ij1		10#1#5502#139	2019-03-26 11:32:47			

Table 4-7

Operation	Note
Freeze APP user	<p>After APP user is frozen, it fails to log in within 600s.</p> <p> means normal status, means freezes status, both statuses can be switched</p> <p></p> <p>The account will be frozen when invalid password attempts exceeds 5 by APP user.</p>
Modify APP user login password	<p>Click and enter new password on the interface of Reset Password. Click OK.</p> <p></p> <ul style="list-style-type: none"> The password shall be between 8 and 16 characters, including number and letter. means password can be seen while means password is protected. Click icon to switch.
Delete APP user	<p>Click or select APP user (several users can be selected); click Delete and the selected users will be deleted according to the interface tips.</p>

4.15 System Maintenance

4.15.1 Server Management

Server management supports managing server information, adjusting server or superior server of the device.

4.15.1.1 Server Management

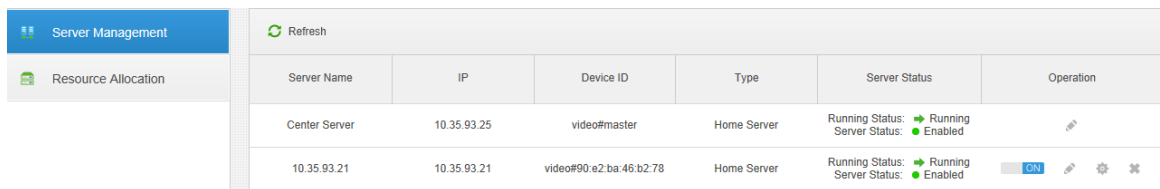
Server management supports a series of operations, such as switching master/spare mode of server, modifying server name, enabling or disabling service etc.

Step 1 Click  and select **Server Management** on the interface of **New Tab**.

Step 2 Click tab of **Server Management**.






The system displays the interface of **Server Management**. See Figure 4-104.

Figure 4-104



Server Name	IP	Device ID	Type	Server Status	Operation
Center Server	10.35.93.25	video#master	Home Server	Running Status: Running Server Status: Enabled	
	10.35.93.21	video#90:e2:ba:46:b2:78	Home Server	Running Status: Running Server Status: Enabled	

Step 3 The management server supports following operations:

- Click  and edit the server information.
-  means the server is not enabled; Click the icon and it becomes , means the server is already enabled.
- Click  and allocate the server type.
- Click  and delete the server information.

4.15.1.2 Resource Allocation

Adjust the device server during distributed deployment.

Step 1 Click  and select **Server Management** on the interface of **New Tab**.

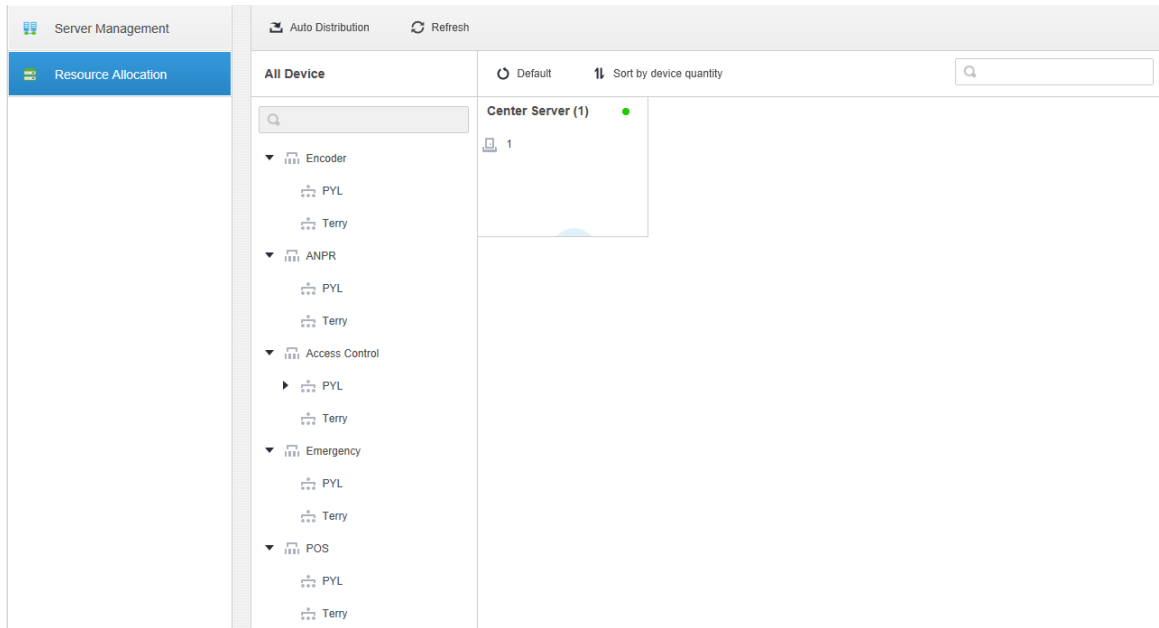
Step 2 Click the tab of **Resource Allocation**.

The system displays the interface of **Resource Allocation**. See Figure 4-105.



- Click Default and the servers will be sorted according to the time when they are added.
- Click Sort by device quantity and the servers will be sorted according to quantity of devices attached to them.

Figure 4-105



Step 3 Adjust the attached server.

- Manual adjustment

Select the device on the left and drag it to the server on the right. The device quantity of attached server will increase while the device quantity of original server will decrease.

- Auto distribution

Averagely distribute the same type of device to the server that is deployed by distribution.

- 1) Click Auto Distribution.

The system displays the interface of **Auto Distribution**. See Figure 4-106.

Figure 4-106

- 2) Select Device Type, several types can be selected.
- 3) Select server where the device will be distributed to, several servers can be selected.
- 4) Click OK and complete config.

4.15.2 Backup and Restore

DSS Pro supports backup of configured information and save it to local PC, meanwhile it supports restoring system via backup file, which is convenient for system maintenance and guarantee system security.

NOTE

Only system user supports backup and restore. It can implement system backup and restore only when it logs in DSS management via system account.

4.15.2.1 System Backup

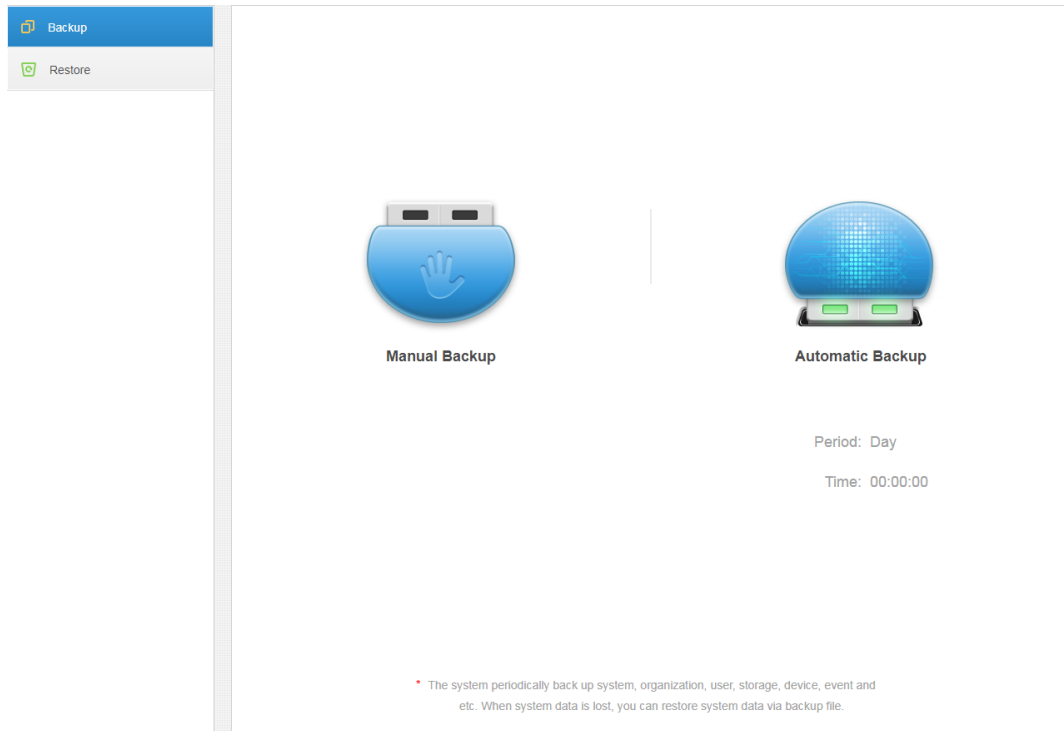
In order to guarantee the security of user data, DSS Pro system provides data backup function. The backup includes manual backup and automatic backup.

Manual Backup

Step 1 Click  and select **Backup and Restore** on the **New Tab** interface.

The system displays the interface of **Backup**. See Figure 4-107.

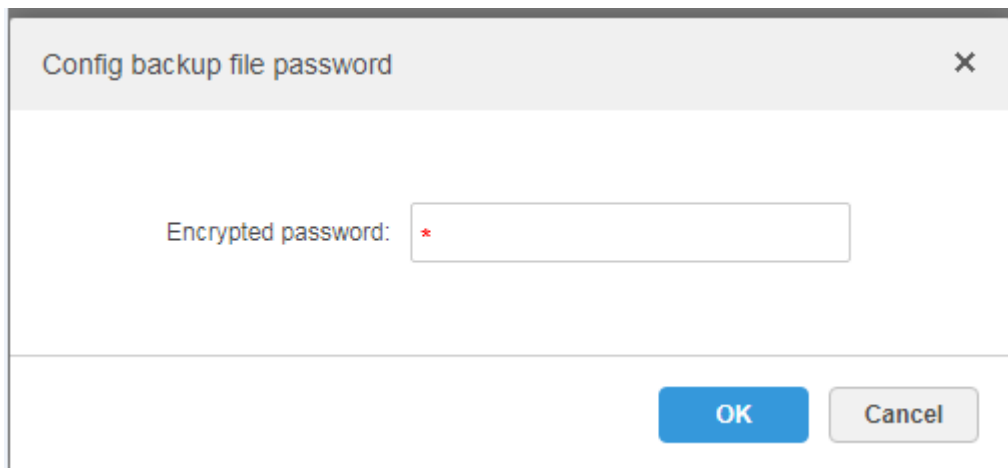
Figure 4-107



Step 2 Click **Manual Backup**.

The system displays the interface which is shown in Figure 4-108.

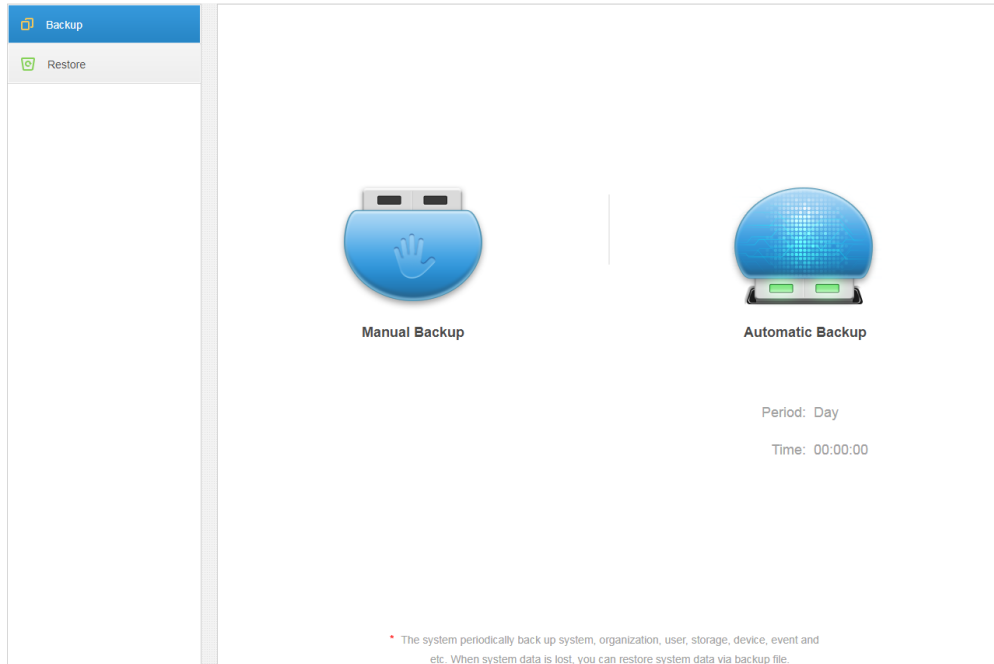
Figure 4-108



Step 3 Enter encrypted password, click **OK**.

The backup result is displayed in Figure 4-109.

Figure 4-109



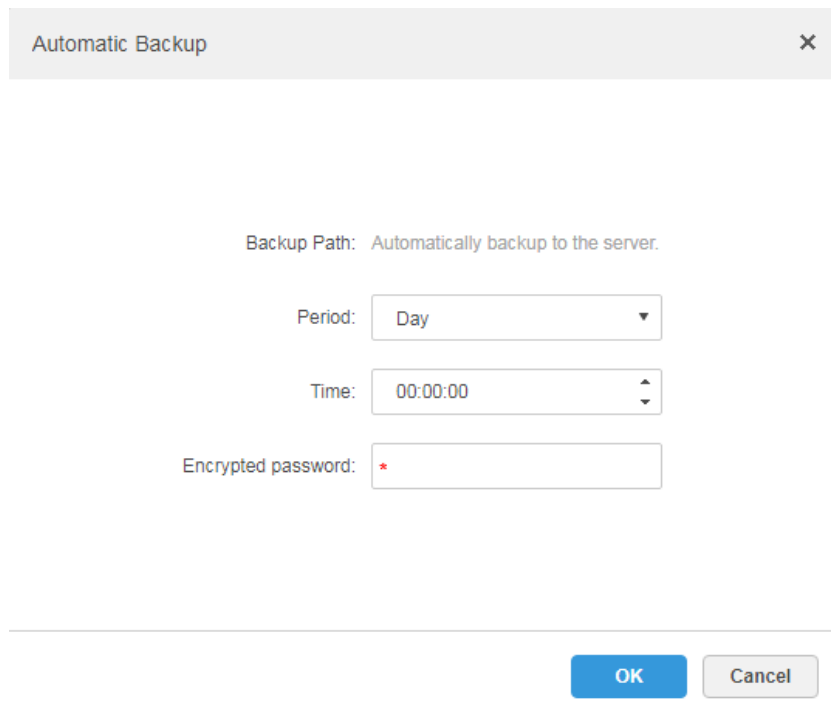
Automatic Backup

Step 1 Click  and select **Backup and Restore** on the **New Tab** interface.

Step 2 Click **Automatic Backup**.

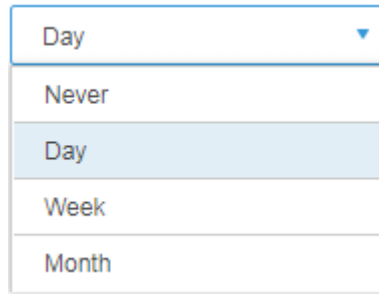
The system pops out the interface of **Automatic Backup**. See Figure 4-110.

Figure 4-110



Step 3 Select backup period, it includes: never, day, week, and month. See Figure 4-111.

Figure 4-111

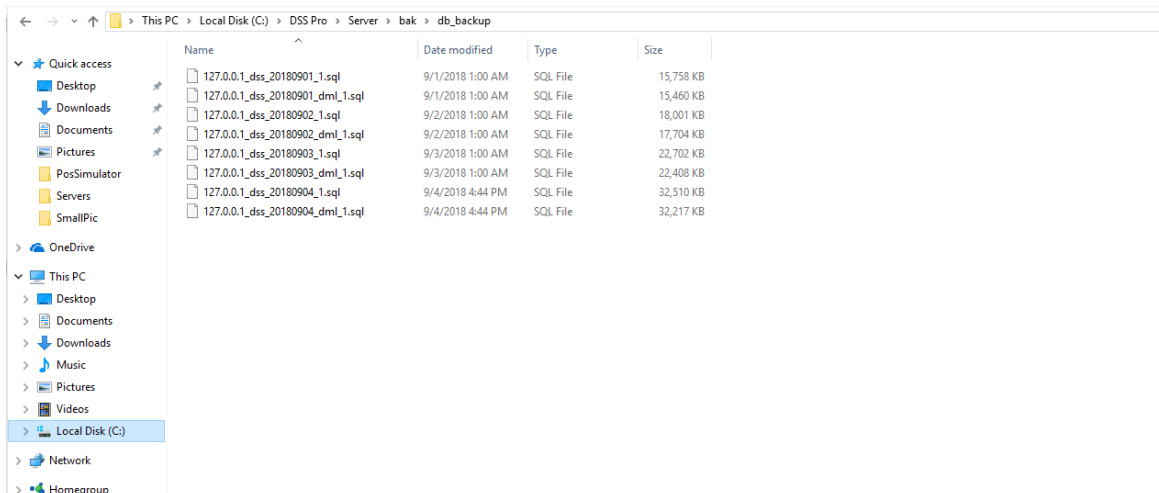


Step 4 Click **OK** to save config.

The system will automatically back up the file onto the server according to the period and time which have been set.

Step 5 Check the auto-backup file on the server, the default backup path is -Servers-bak-db_backup. See Figure 4-112.

Figure 4-112



4.15.2.2 System Restore

It can use system restore function to restore the data back the time point of the latest backup when the user database becomes abnormal. It can quickly restore the user's DSS system and lower user loss.



It needs to stop other users using DSS system when implementing system restore. Please be cautious when using the function because it may change data info.

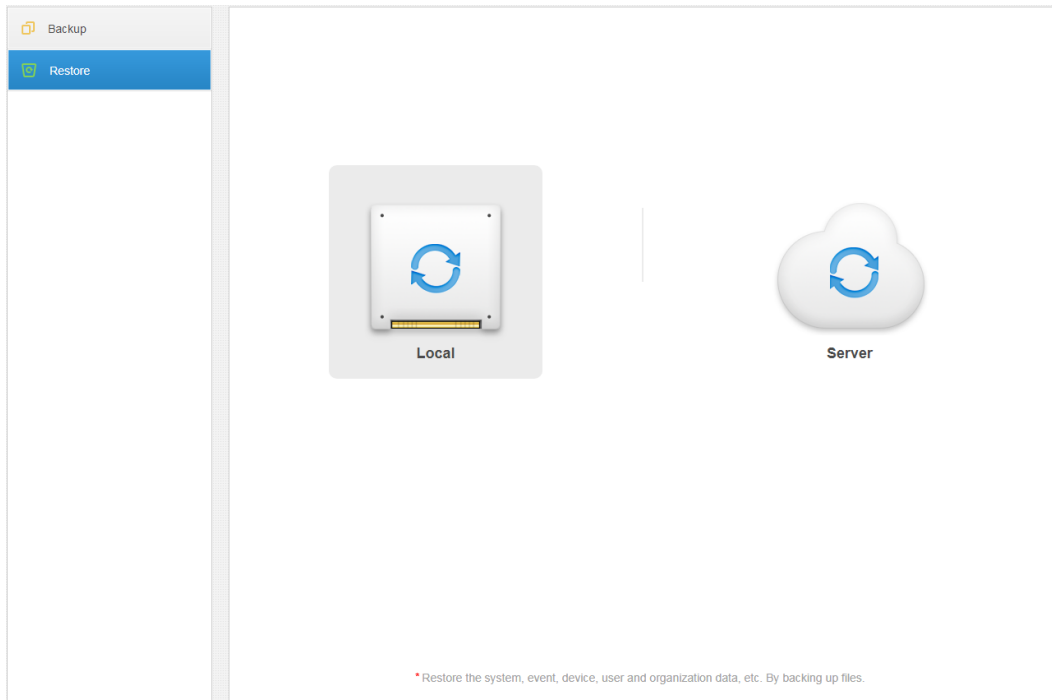
Local

In general, local file restoration means restoring manual backup fills onto the server.

Step 1 Select **Restore** tab.

The system enters the interface of **Restore**. See Figure 4-113.

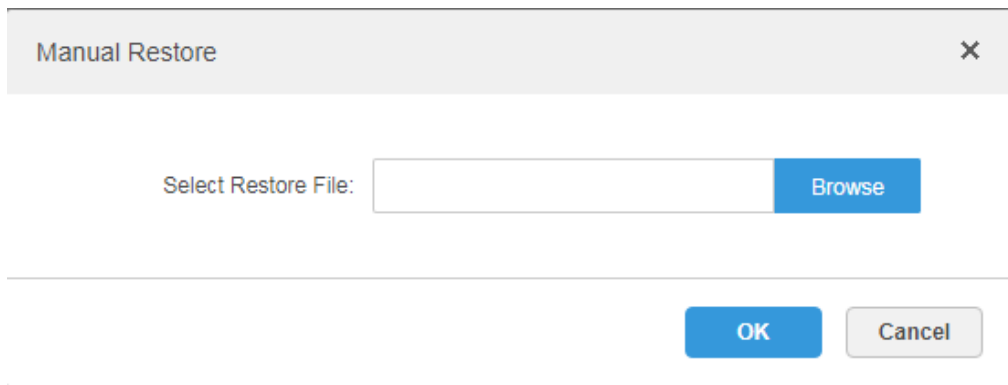
Figure 4-113



Step 2 Click **Local**.

The interface is shown in Figure 4-114.

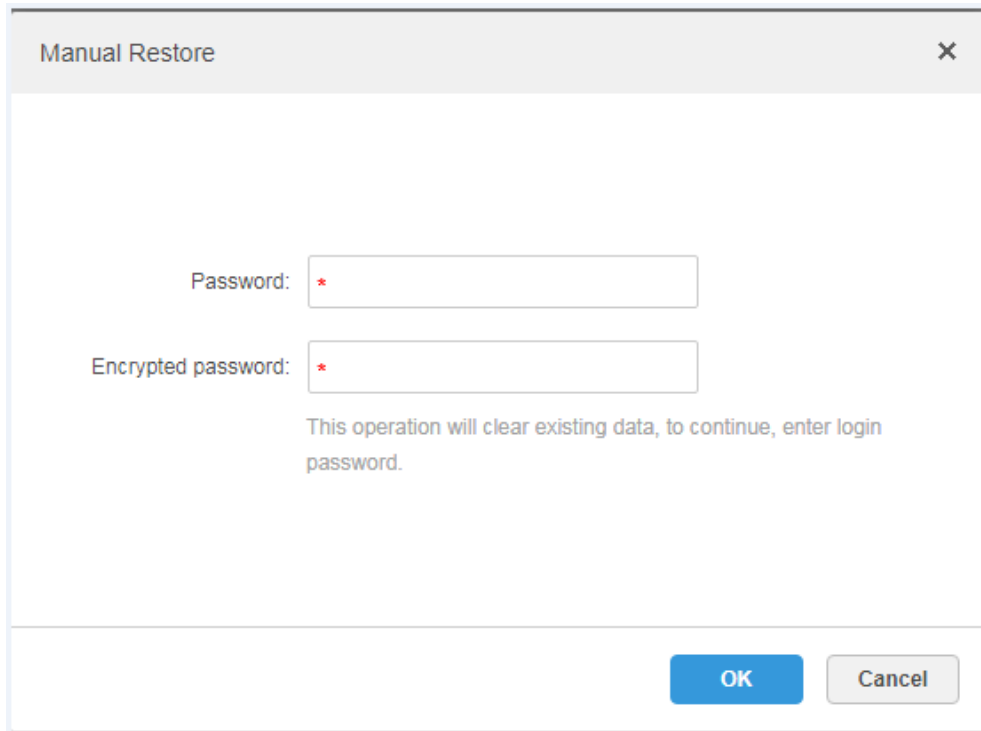
Figure 4-114



Step 3 Click **Browse**, select file and then click **OK**.

Step 4 Enter administrator login **Password** and backup file **Encrypted Password**. See Figure 4-115.

Figure 4-115



The image shows a dialog box titled "Manual Restore" with a close button (X) in the top right corner. Inside the dialog, there are two input fields: "Password:" and "Encrypted password:", both containing a red asterisk. Below these fields is a message: "This operation will clear existing data, to continue, enter login password." At the bottom right of the dialog, there are two buttons: "OK" (highlighted in blue) and "Cancel" (greyed out).

Step 5 Click **OK**.

The data is being restored; it will display the restoration percentage via progress bar. The system will start again after it is completed.

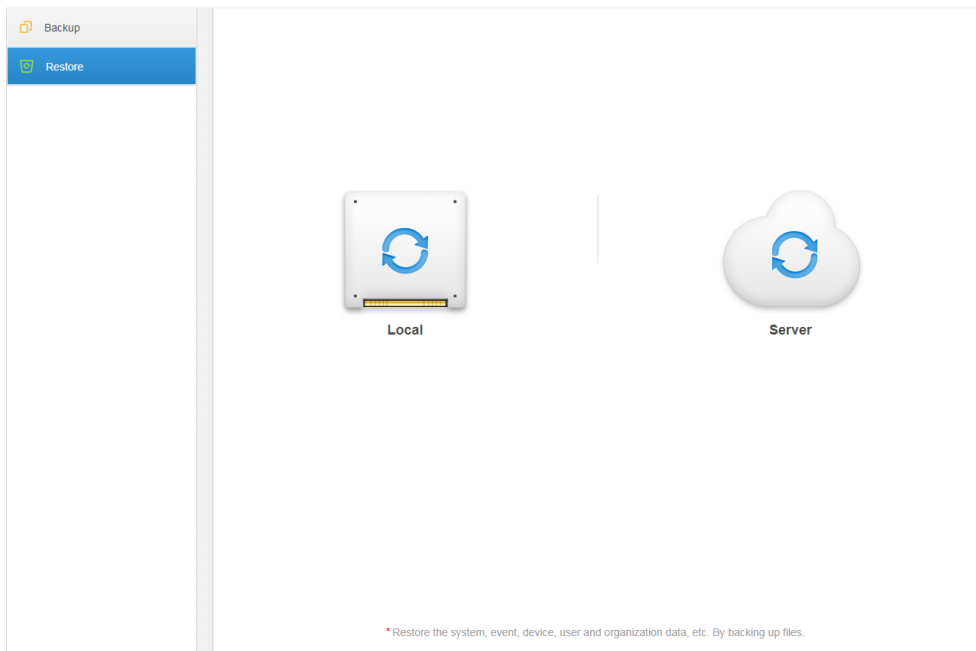
Server


It selects to restore the data from the backup file on the server side. The precondition is that it needs to enable the auto backup function, the server end backs up the database according to the set period and form backup file.

Step 1 Select **Restore** tab.

The system enters the interface of **Restore**. See Figure 4-116.

Figure 4-116



Step 2 Click **Server** and click  from the list and select the file which needs to be restored.

Step 3 Enter admin password, click **OK** and restore.

The system will restart after the data is successfully restored.

4.15.3 Log

The system supports inquiring management configuring log, client setting config and system log. It can filtrate type, select period and search via key word during query. It can inquire log export as well (it is PDF by default).

Take **Management Configuring Log** for an example.

Step 1 Click  and select Log on the **New Tab** interface.

Step 2 Select **Log Type**, **Event Type** or **Query** time.

The system displays query results; it will display the total records on the lower left corner. See Figure 4-117.

Figure 4-117

Time	Username	Event Type	Event Contents	IP
2019-03-26 16:18:34	system	Login	Login	10.33.12.215
2019-03-26 16:13:46	system	Login	Exit	10.33.12.213
2019-03-26 16:07:46	system	Login	Exit	10.33.68.88
2019-03-26 15:52:13	system	Login	Exit	10.33.68.64
2019-03-26 15:52:08	system	Login	Exit	10.33.68.64
2019-03-26 15:38:29	system	Device	Device	10.33.68.64
2019-03-26 15:38:23	system	Device	Device	10.33.68.64
2019-03-26 15:37:04	system	Device	Add Device : 2	10.33.12.213
2019-03-26 15:31:46	system	Login	Login	10.33.12.215
2019-03-26 15:23:29	system	Login	Exit	10.33.68.64
2019-03-26 15:17:37	system	Login	Exit	10.33.68.88
2019-03-26 14:51:42	system	Role	Delete Role : Terry	10.33.12.150
2019-03-26 14:50:17	system	Role	Add Role : Terry	10.33.12.150
2019-03-26 14:49:15	system	Organization	Modify New Organization0 organization name to be Terry.	10.33.12.150

Total 38 record(s).

Step 3 Click **Export** and export log info.

Step 4 Log exports results to check, the currently exported log package is displayed in the lower left corner of the browser, and you can also check it in the download section of your browser.

Step 5 Check log final record results. See Figure 4-118.

Figure 4-118

Time	Username	Event Type	Event Contents	IP
2018-09-04 16:48:43	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:48:20	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:47:29	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:46:50	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:45:45	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:45:17	system	Preview	Request Main Stream video of IPC channel.	10.18.121.52
2018-09-04 16:44:57	system	Preview	Request Main Stream video of	10.18.121.52

4.15.4 Overview

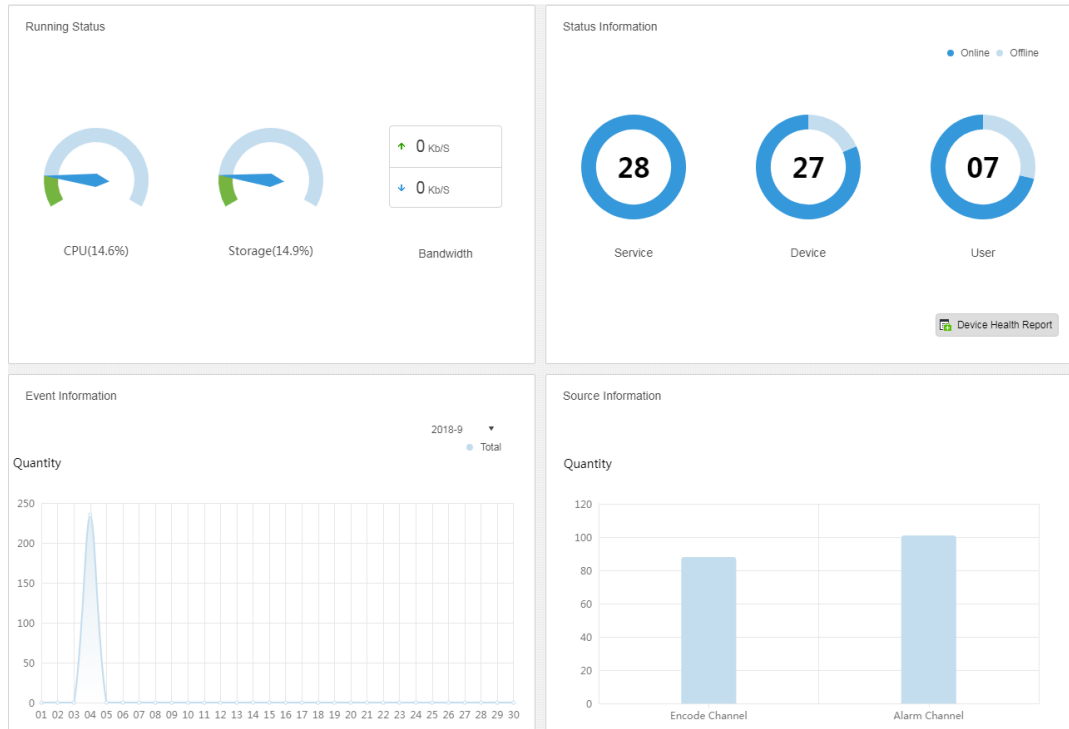
DSS Pro supports function of inquiring system operation and maintenance statistics, which is to know the system running situation in time.

4.15.4.1 Overview

Step 1 Click  and select **Overview** on the **New Tab** interface.

The system displays the interface of **Overview**. See Figure 4-119.

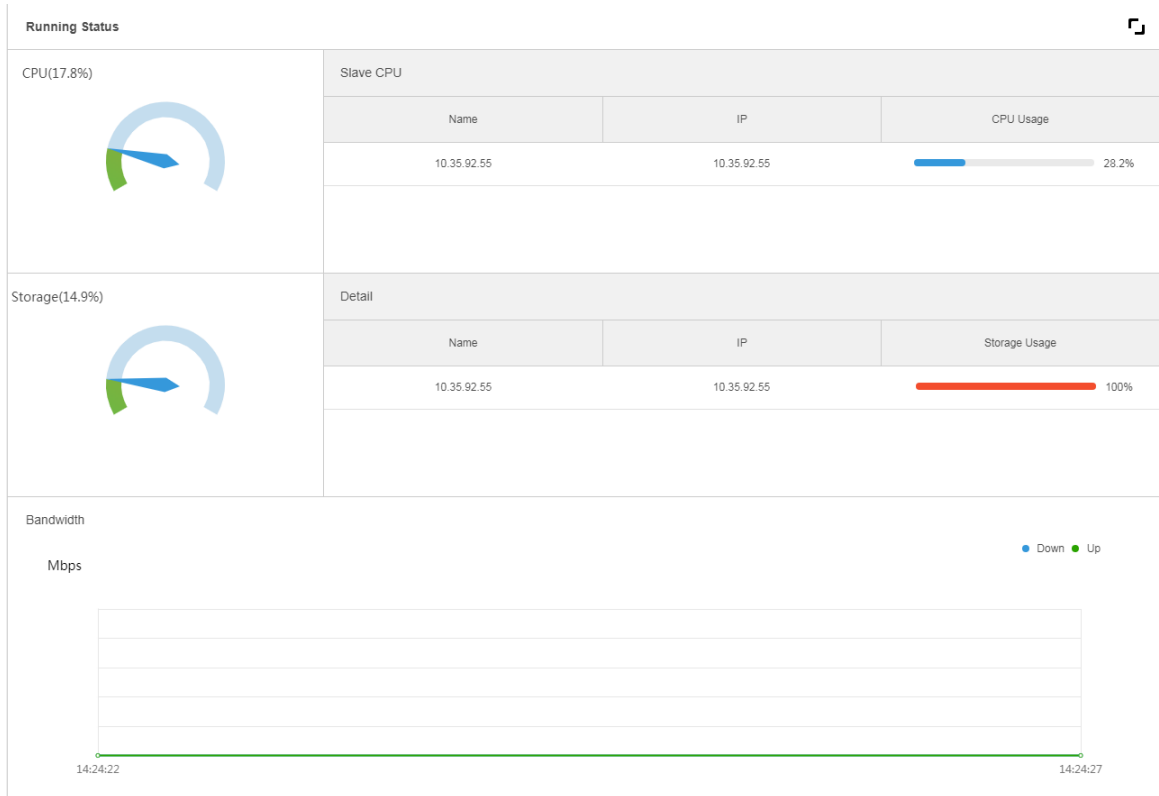
Figure 4-119



4.15.4.2 Running Status

Check CPU, storage, bandwidth and so on; click **Running Status** or the icon below and jump to the detail interface. See Figure 4-120.

Figure 4-120



4.15.4.3 Status Information

Check server, device, user online/offline status statistics, click Status Information or the icon below to jump to the detailed interface.

Service Status Information


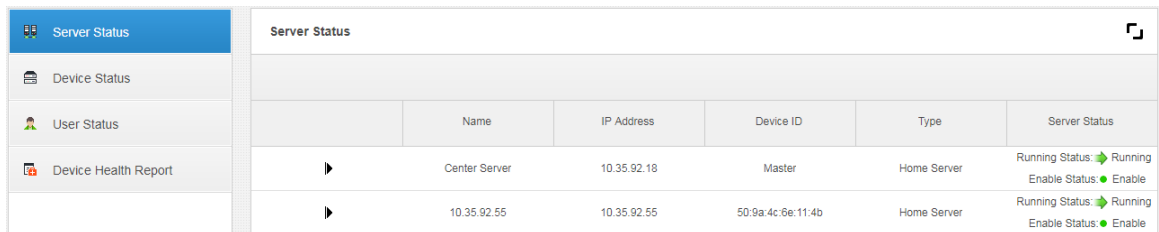
Click  on the Service Status interface, and then the interface displays service details. See Figure 4-121.

Figure 4-121



Device Status Information

Step 1 Click the tab of **Device Status**.

The system will display device real-time status by default. See Figure 4-122.

Figure 4-122

The screenshot shows the 'Device Status' interface. On the left is a sidebar with 'Device Status' selected. The main area has tabs for 'Real Time' and 'History'. Below the tabs is a search bar and an 'Export' button. A table lists device details:

Device ID	Status	Device Name	Org	IP/Domain
1000050	● Online	NVR51	Terry	171.35.0.51
1000049	● Online	VTO63	Terry	171.35.0.63
1000001	● Online	FR Access Standalone	PYL	10.35.163.66
1000048	● Offline	2	root	10.33.12.213
1000024	● Offline	Decoder	root	172.26.1.71

Step 2 Check device status.

- Click the **Real Time** tab on the device status information interface, check device realtime status info.
- Click the **History** tab on the device status information interface, check device history status info. See Figure 4-123.

Figure 4-123

The screenshot shows the 'Device Status' interface with the 'History' tab selected. A date range '2017-04-01' to '2017-04-07' is highlighted in a red box. The table shows historical status changes:

Time	Status	Device Name	Org Name	IP/Domain
2017-04-08 11:51:45	● Online	172.10.1.202	root	172.10.1.202
2017-04-08 11:51:45	● Online	37779	root	172.10.1.201
2017-04-08 11:51:45	● Online	37778	root	172.10.1.201
2017-04-08 11:51:44	● Online	37777	root	172.10.1.201
2017-04-08 11:51:17	● Online	172.10.1.202	root	172.10.1.202
2017-04-08 11:51:17	● Online	37779	root	172.10.1.201
2017-04-08 11:51:17	● Online	37778	root	172.10.1.201
2017-04-08 11:51:16	● Online	37777	root	172.10.1.201
2017-04-07 01:23:22	● Online	172.10.1.202	root	172.10.1.202
2017-04-07 01:19:19	● Offline	172.10.1.202	root	172.10.1.202
2017-04-07 01:19:16	● Offline	172.10.1.202	root	172.10.1.202
2017-04-06 11:46:04	● Online	172.10.1.202	root	172.10.1.202
2017-04-06 11:42:36	● Offline	172.10.1.202	root	172.10.1.202
2017-04-06 11:42:33	● Offline	172.10.1.202	root	172.10.1.202

Step 3 Click **Export**.

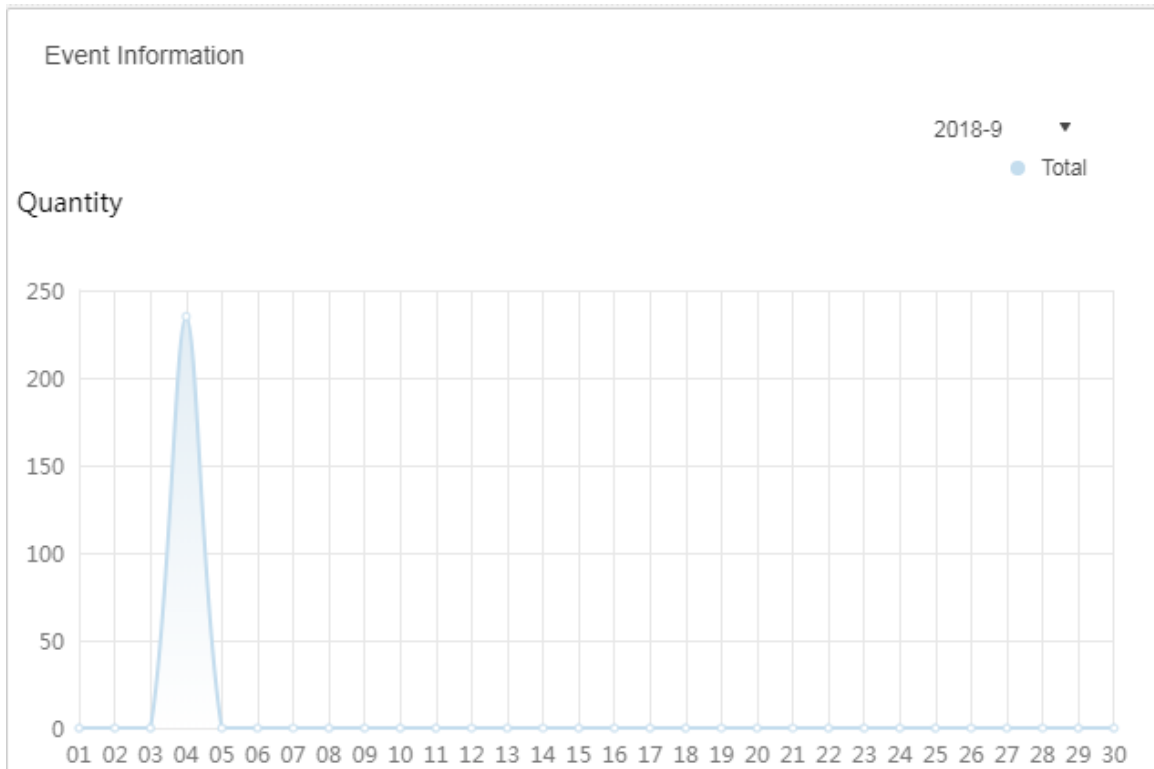
It exports device realtime status information (PDF format).

Step 4 Click **User State** and **Device Health Report** tabs to check corresponding details.

4.15.4.4 Event Information

Check total number of alarm events and processed events according to month. See Figure 4-124.

Figure 4-124



4.15.4.5 Source Information

It is to check the statistics of encoding channel and alarm channel, click Source Information or the icon below to jump to the detailed interface.

- Check video channel details. See Figure 4-125.

Figure 4-125

The screenshot shows the 'Video Channel' management interface. On the left, there is a sidebar with 'Video Channel' (selected) and 'Alarm'. The main area displays a table of video channels. The table has columns for Name, Device, Org, SN, and Camera Type. The table lists 15 channels, including those with IP addresses and device IDs. The bottom of the interface shows pagination controls: 'Total 89 record(s)', page numbers 1 through 7, and a 'Go to page' field with '1' entered.

Name	Device	Org	SN	Camera Type
10.35.92.10IPC	10.35.92.10	KL		Fixed Camera
ONVIF协议_大华_FE_1	LL-91	ANPR		Fixed Camera
37722_1	37722	ANPR		Speed Dome
10.35.92.11IPC	10.35.92.11	KL		Fixed Camera
37723_1	37723	ANPR		Speed Dome
Slot04-01	M70-E	TV WALL		Speed Dome
Slot04-02	M70-E	TV WALL		Speed Dome
Slot04-03	M70-E	TV WALL		Speed Dome
Slot04-04	M70-E	TV WALL		Speed Dome
Slot06-01	M70-E	TV WALL		Speed Dome
Slot06-02	M70-E	TV WALL		Speed Dome
Slot06-03	M70-E	TV WALL		Speed Dome
Slot06-04	M70-E	TV WALL		Speed Dome
10.35.164.140_1	M70-E	TV WALL		Speed Dome

- Click Alarm tab to check the details of alarm channel.

4.16 Configuring Cascade

The system supports cascading. After cascading, platform of higher level can view the live video and video record of platforms of lower level. Configuring cascade refers to adding lower-level platforms to higher-level ones. It supports up to 3 levels.

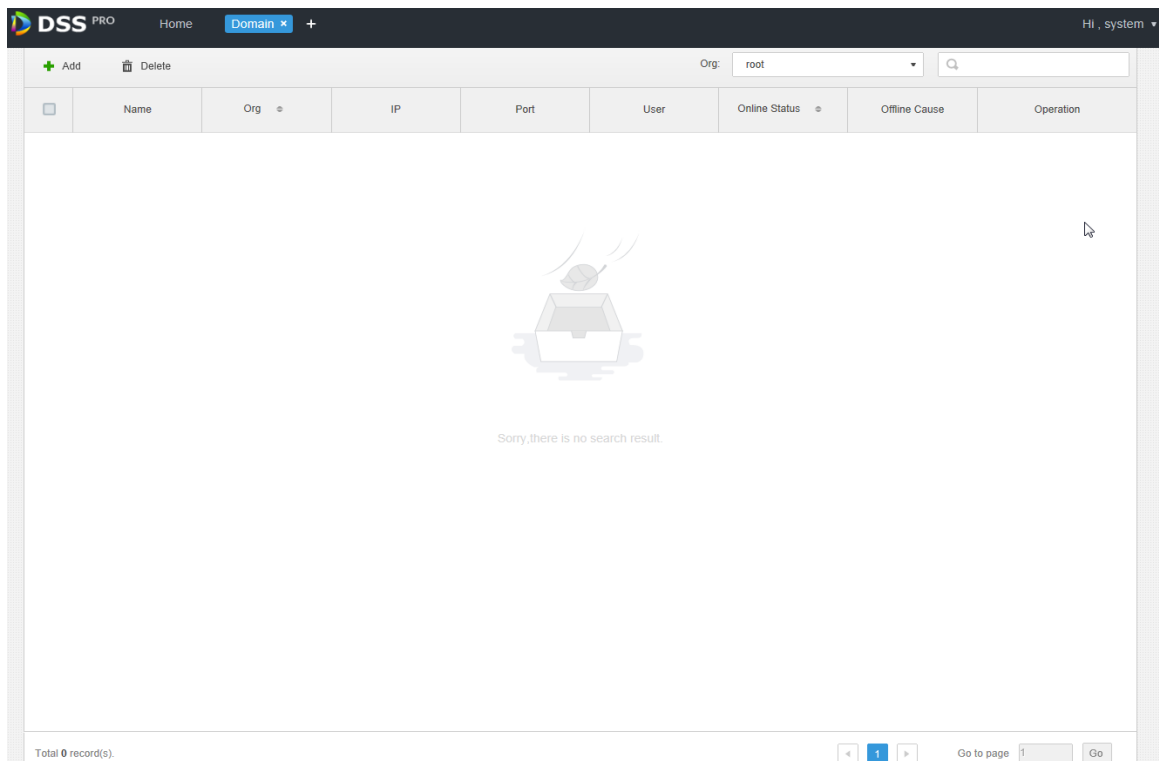
NOTE

- Before configuring, make sure the platform is deployed.
- Currently, the systems supports cascading between Pro and Express platforms. Express can only be lower-level platform.

Step 1 Click , and select **Domain** on the **New Tab** tab.

The Domain interface is displayed. See Figure 4-126.

Figure 4-126



Step 2 Click **Add**, and the **Add Cascading** interface is displayed. See Figure 4-127.

Figure 4-127

The screenshot shows a dialog box titled "Add Cascading" with a close button (X) in the top right corner. The dialog contains the following fields:

- Name :** A text input field with a red asterisk (*) indicating it is required.
- Org :** A dropdown menu with "root" selected.
- Domain Protocot :** A dropdown menu with "Dahua" selected.
- IP Address :** A text input field with a red asterisk (*) indicating it is required.
- Port :** A text input field with a red asterisk (*) indicating it is required.
- Username :** A text input field with a red asterisk (*) indicating it is required.
- Password :** A text input field with a red asterisk (*) indicating it is required.
- Remark :** A text input field.

At the bottom right of the dialog, there are two buttons: "OK" (highlighted in blue) and "Cancel".

Step 3 Configure the parameters, and click **OK** to save the configuration.

Org refers to the higher-level platform that the added platform belongs to.

Step 4 If there is more than one level of platform, repeat this process.

5 Client Functions

Configure various functions and rules by DSS Pro client and then display results, such as attendance management, support configuring attendance rules and searching attendance report. DSS Pro client includes PC client and mobile phone APP. In this chapter, it takes DSS Pro client (hereinafter referred to as client) as an example to introduce each function.

5.1 Client Installation and Login

5.1.1 PC Requirements

To install the DSS Client, the PC shall meet the following requirements shown in Table 5-1.

Table 5-1

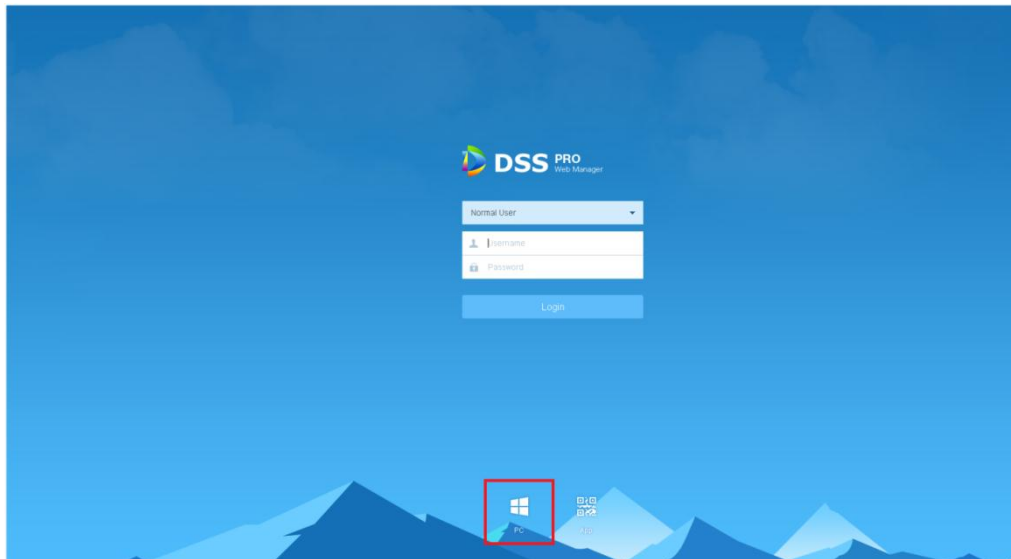
Parameters	Note
Recommended Config	<ul style="list-style-type: none">• CPU: i5-6500• Main frequency:3.20GHz• Memory:8GB• Graphics:Inter HD Graphics 530• Network adapter:1Gbps• HDD Type:HDD 1T• DSS client installation space:200GB
Min. Config	<ul style="list-style-type: none">• CPU:i3-2120• Memory:4GB• Graphics:Inter(R) Sandbridge Desktop Gra• Network adapter:1Gbps• HDD Type:HDD 300GB• DSS client installation space:100GB


5.1.2 Downloading and Installing Client

5.1.2.1 Installing PC Client

Step 1 Input IP address of DSS Pro into the browser and then press **Enter**.
The **Login** interface is displayed. See Figure 5-1.

Figure 5-1



Step 2 Click  to download the client.

System pops up the **File Downloads** dialogue box.

Step 3 Click **Save** to download and save the DSS client software on the PC.

Step 4 Double-click the client setup.exe and begin installation.

Figure 5-2



Step 5 Select language, and check the box of **I have read and agree DSS agreement** and then click **Next** to continue.

Step 6 Select installation path. See Figure 5-3.

Figure 5-3



Step 7 Click **Install** to install the client.

System displays installation process. It takes 3 to 5 minutes to complete. Please be patient. The complete interface is shown as in Figure 5-4.

Figure 5-4



Step 8 Click **Run** to run the client.

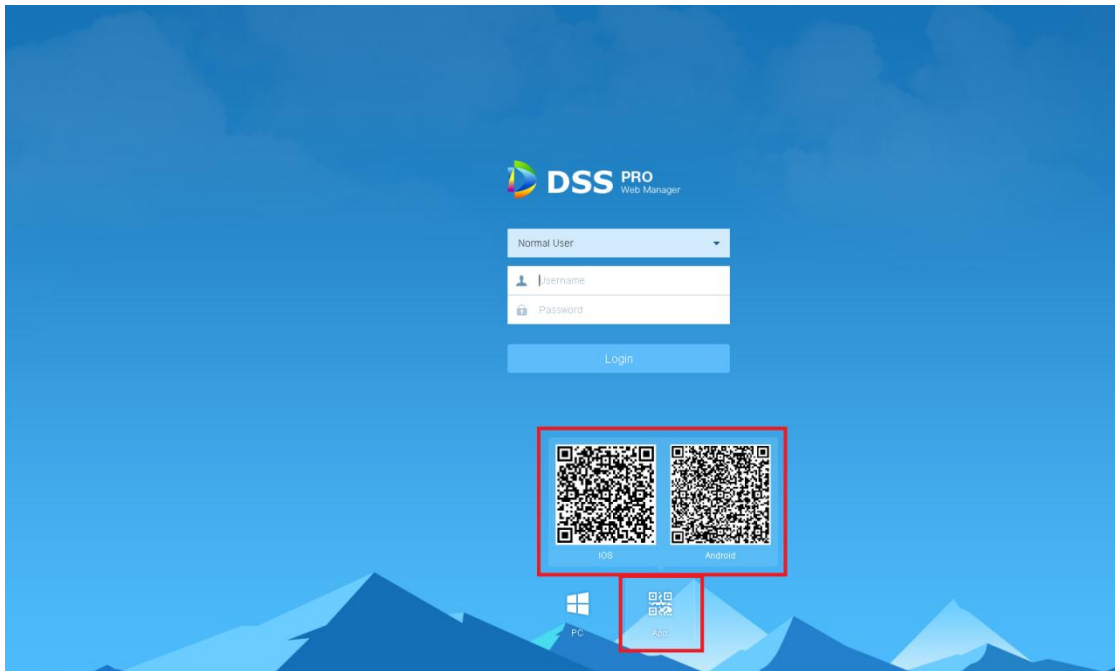
5.1.2.2 Mobilephone App

Step 1 Input IP address of DSS Pro into the browser and then press **Enter**.

Step 2 Click  to view QR code of mobilephone APP. Currently it supports iOS and Android.

See Figure 5-5.

Figure 5-5



Step 3 Scan the QR code and then download the mobilephone App.

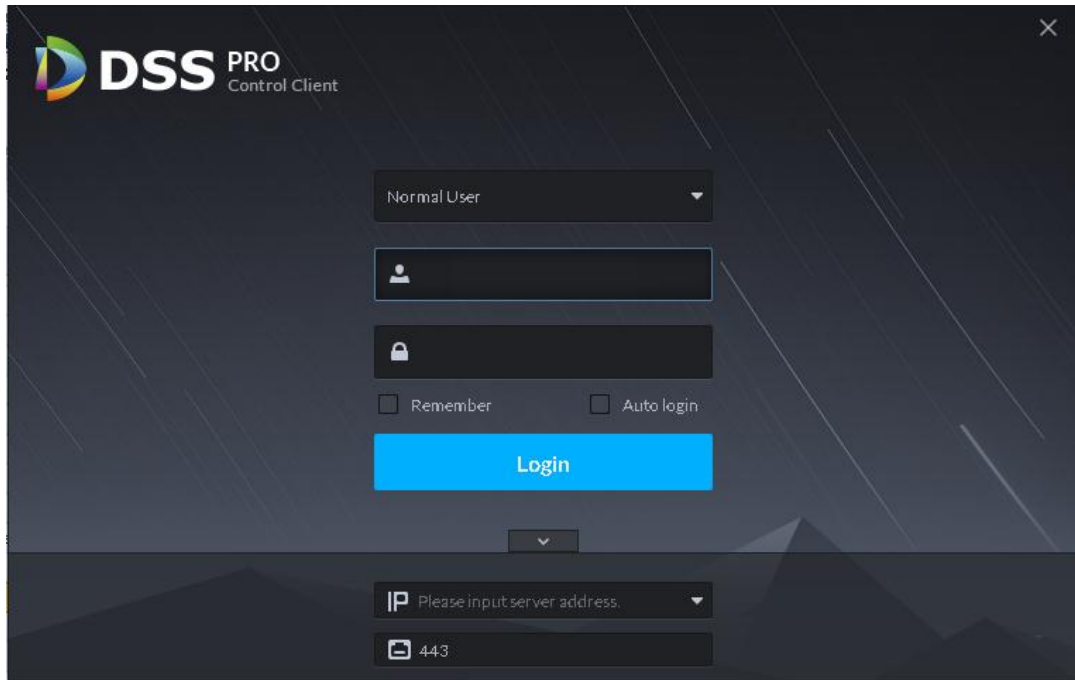
5.1.3 Logging in Client



Step 1 Double click icon  on the desktop.

The client login interface is displayed. See Figure 5-6.

Figure 5-6



Step 2 Enter **Username, Password, Server IP** and **Port**. Server IP means the IP address to install DSS Pro server or PC, Port is 443 by default.

Step 3 Click **Login**.

The **Live** interface is displayed by default. See Figure 5-7.

Figure 5-7

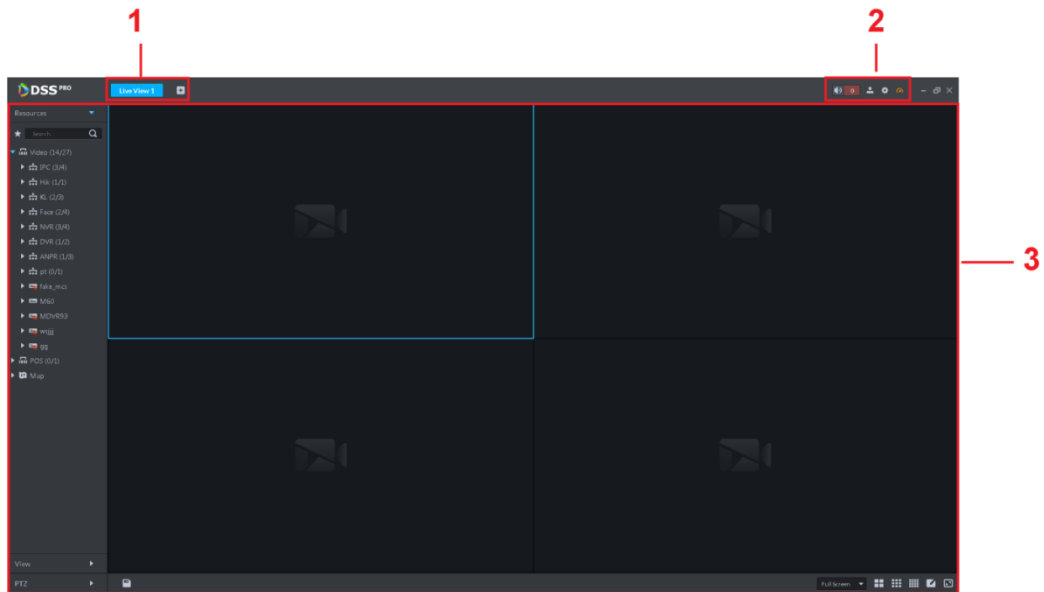








Table 5-2

SN	Name	Function
1	Tab	Display all valid tabs. Click  and you can open the module you want.

SN	Name	Function
2	System operation pane	<p>Refer to the following contents for icon definition.</p> <ul style="list-style-type: none"> ● : Open/close alarm audio. ● : It displays alarm amount. Click an alarm; you can go to Event center interface. ● : User information: click the icon and then select the corresponding function, you can login platform manager, modify password, lock client, view help file, and logout user. <ul style="list-style-type: none"> ◇ Select platform IP address, system goes to platform manager login interface. ◇ Select Modify password, you can change user password. ◇ Select Lock Client, it is to lock the system, you cannot operate on the client. Input the login password again to unlock. ◇ Select About, it is to view version information, released date. ◇ Select Logout, it is to logout the system. System goes back to the client login interface. ● : Local config. It is to set general, video, playback, snapshot, record, alarm shortcut settings. Refer to 5.2 Local Configuration for detailed information. ● : It is to view system status. It includes network status, CPU status, and memory status.
3	Operation area	It is to operate the functions.

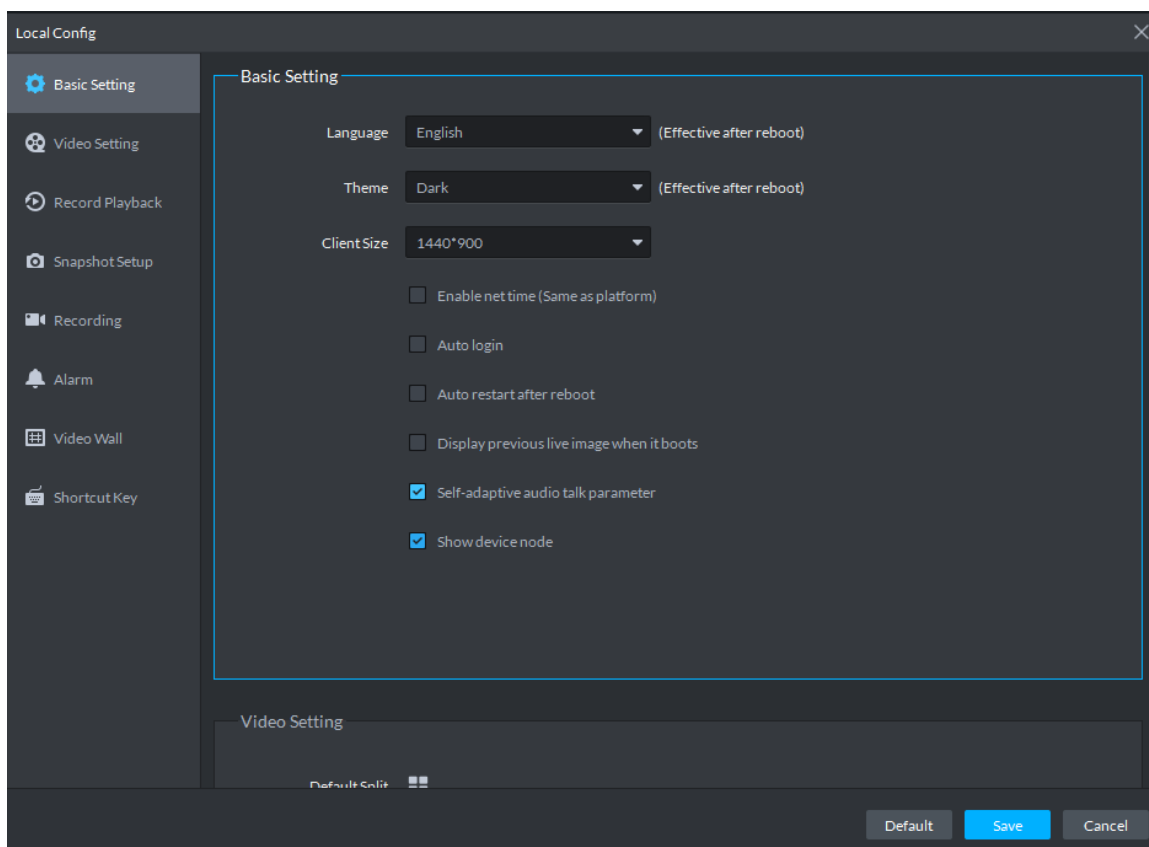
5.2 Local Configuration

After logging into the client for the first time, you need to configure the system parameters. It includes General, Video, Playback, Snapshot, Record, Alarm and the Shortcut Key.

Step 1 Click  at the top right corner on the homepage.

The **Local Config** interface is displayed. See Figure 5-8.

Figure 5-8



Step 2 Click **Video Setting** and set relevant parameters. Refer to Table 5-3 for more details.

Table 5-3

Parameters	Note
Language	Modify the language displayed on client; reboot the client to make it valid after setting.
Theme	Theme color includes dark and white. Reboot the client to make it valid after setting.
Client size	It is to set client display size.
Enable net time	If checked, the client starts to synchronize network time with the server. It is to complete time synchronization.
Auto Login	If checked, auto login is allowed when Client starts running.
Auto Reboot	If checked, auto reboot of the Client is allowed when the PC power is on.
Display Previous live Image when it boots	If checked, system displays the last Live video automatically after rebooting the client.

Parameters	Note
Self-adaptive Audio Talk Parameter	If checked, the system will adapt to Sampling Frequency, Sampling Bit, and Audio Format to the device automatically during audio talk.
Show Device Node	Check the box, system displays device node.

Step 3 Click **Video Setting** to set parameters.

The **Video Setting** interface is shown as in Figure 5-9. Refer to Table 5-4 to set parameters.

Figure 5-9

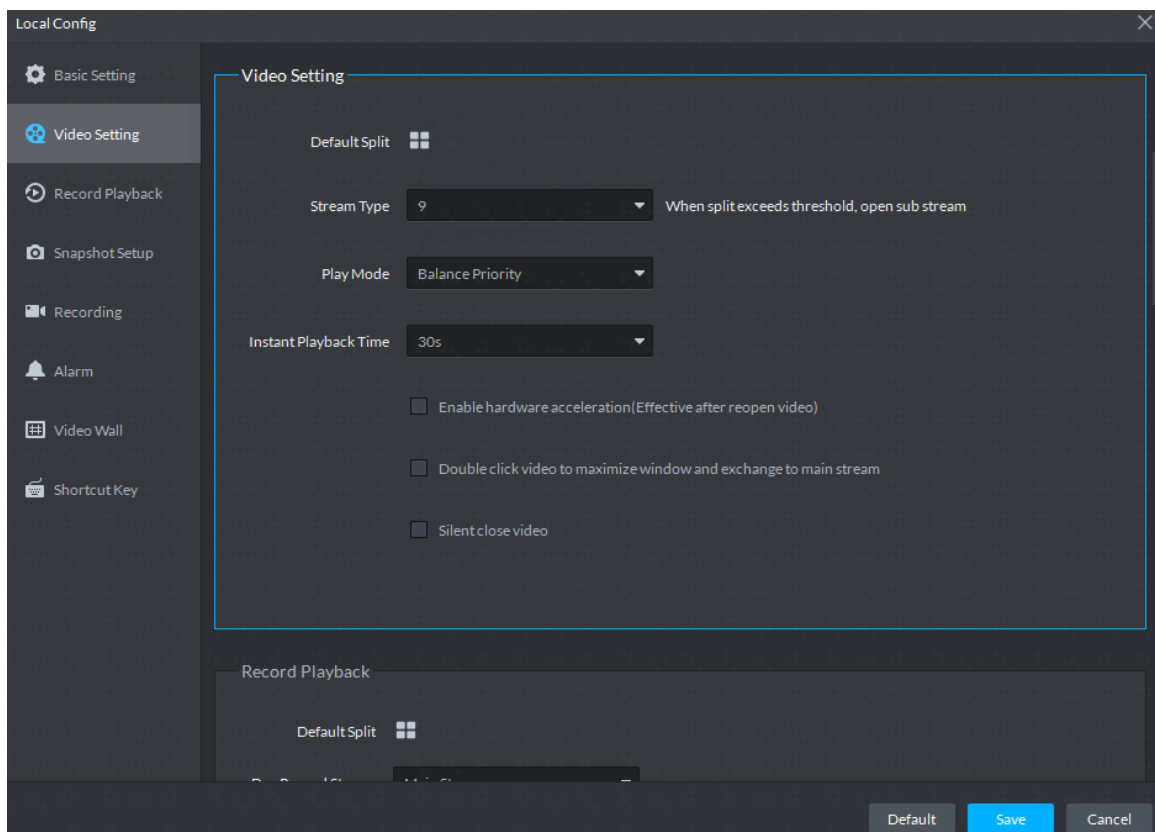


Table 5-4

Parameters	Note
Default Split	Set split mode of the video window.
Stream type	Defines bit stream type for video transmission. With main bit stream as default, the auxiliary bit stream will be used when number of window splits is greater than the value selected here.
Play Mode	Play mode to be selected as required, including Real Time Priority, Fluency Priority, Balance Priority, as well as user-defined modes.

Parameters	Note
Video buffer time	It is to set video buffer time. It is only valid when play mode is customized.
Instant playback time	Select instant playback time and then click Instant playback on the Live view interface, you can view the record of current period.
Enable hardware acceleration (effective after reopen the video)	Check the box to enable the function. It is to use hardware module to enhance acceleration features.
Double click video to maximize window and exchange to main stream	Check the box to enable the function.
Slient close video	After being enabled, if the time of no operation for the Live interface exceeds the set value, the system will close Live automatically.

Step 4 Click **Record Playback** to set parameters.

The **Record Playback** interface is shown as Figure 5-10. Refer to Table 5-5 to set parameters.

Figure 5-10

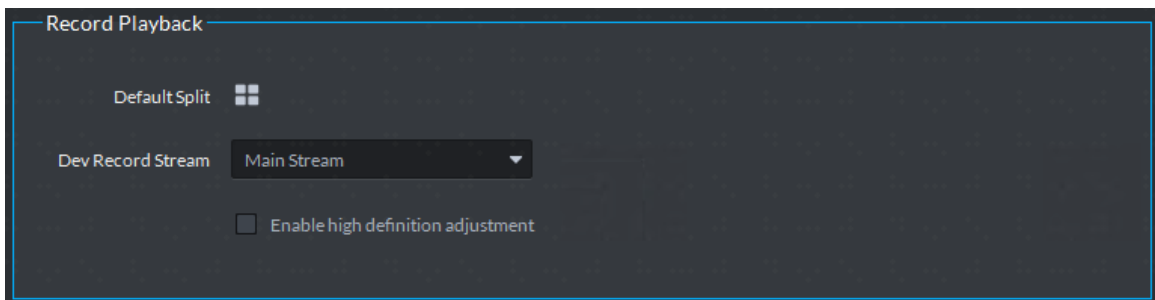


Table 5-5

Parameters	Note
Default Split	Set default split mode of the playback window.
Device record stream	It is to select record playback bit stream.
Enable high definition adjustment	Check the box to enable the function. In high definition, big bit stream playback mode, system reserves I frames only to guarantee video fluency and reduce high decoding pressure.

Step 5 Click **Snapshot Setup** to set parameters.

The **Snapshot Setup** interface is shown as in Figure 5-11. Refer to Table 5-6 to set parameters.

Figure 5-11

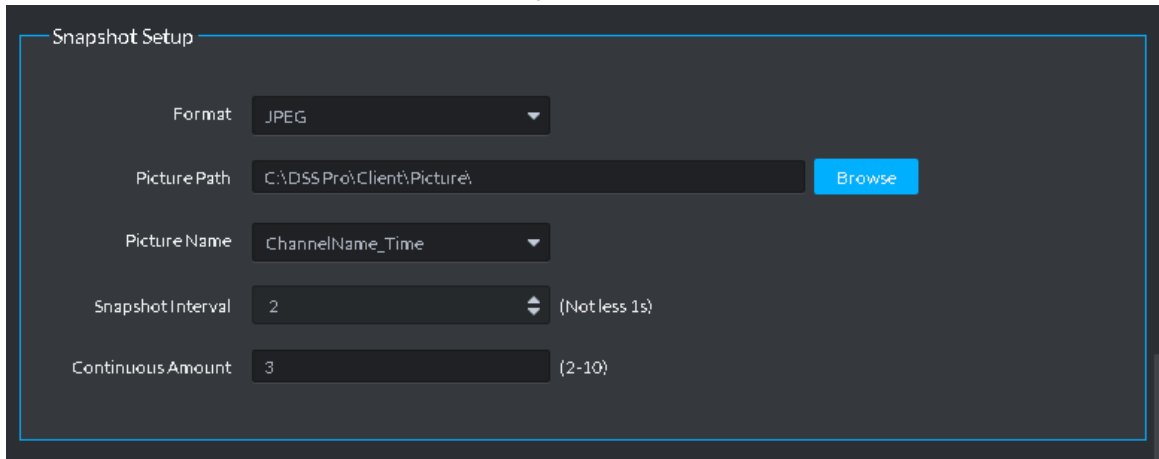


Table 5-6

Parameters	Note
Format	It is to set snapshot image format.
Picture path	It is to set snapshot storage path. The default path: C:\DSS Pro\Client\Picture\.
Picture name	It is to select picture name rule.
Snapshot interval	It is to set snapshot interval. System snapshot once after the specified period.
Continuous amount	It is to snapshot amount at each time.

Step 6 Click **Recording** to set parameters.

The **Recording** interface is shown as in Figure 5-12. Refer to Table 5-7 to set parameters.

Figure 5-12

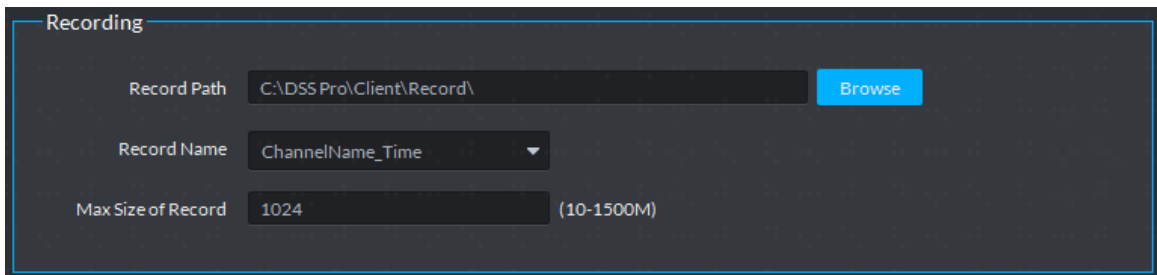


Table 5-7

Parameters	Note
Record path	It is to set record storage path. The default path: C:\DSS Pro\Client\Record\.
Record name	It is to set record file name rule.
Max. record size	It is to set record file size.

Step 7 Click **Alarm** to set parameters.

The **Alarm** interface is shown as in Figure 5-13. Refer to Table 5-8 to set parameters.

Figure 5-13

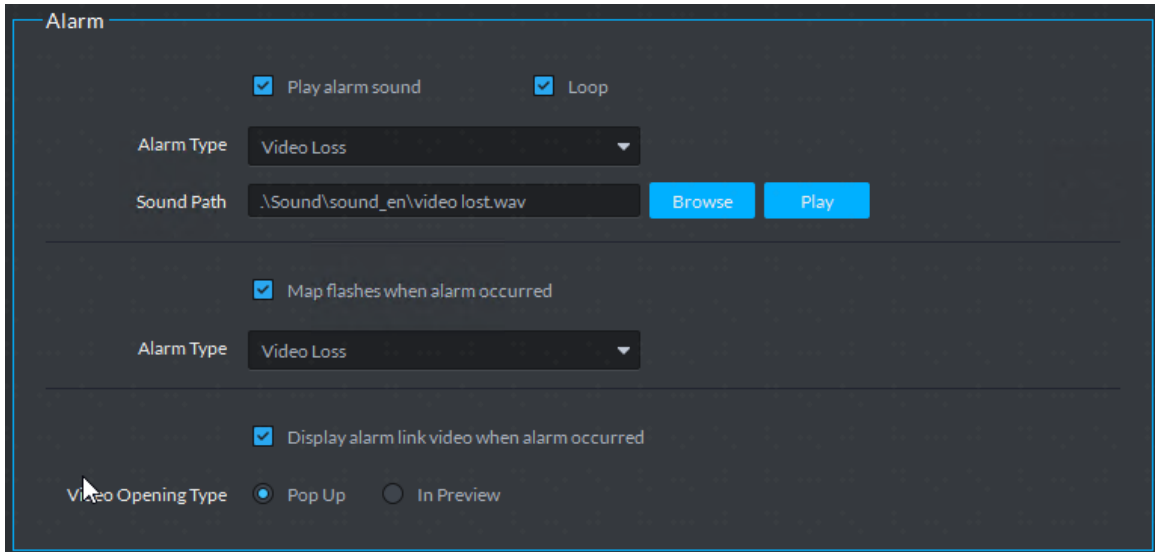


Table 5-8

Parameters	Note
Play alarm sound	Check the box, system generates a sound when an alarm occurs.
Loop	Check the box; system plays alarm sound repeatedly when an alarm occurs. NOTE This item is only valid when Play alarm sound function is enabled.
Alarm Type	It is to set alarm type. System can play sound when corresponding alarm occurs. NOTE This item is only valid when Play alarm sound function is enabled.
Sound Path	It is to select alarm audio file path.
Map flashes when alarm occurred	Check the box and then select alarm type. When the corresponding alarm occurs, the device on the emap can flash.
Display alarm link video when alarm occurred	Check the box, system automatically opens linkage video when an alarm occurs.
Video opening type	System automatically opens linkage video when an alarm occurs. You can view on the pop-up window or on the preview interface.

Step 8 Click **Video Wall** to set parameters.

The **Video Wall** interface is shown as Figure 5-14. Refer to Table 5-9 to set parameters.

Figure 5-14

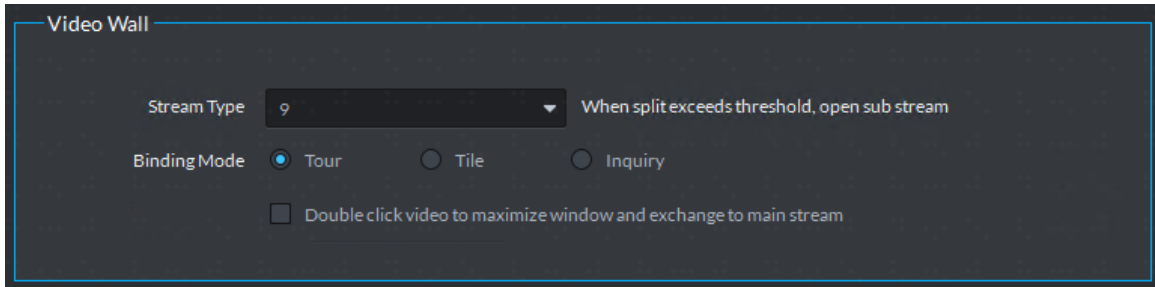


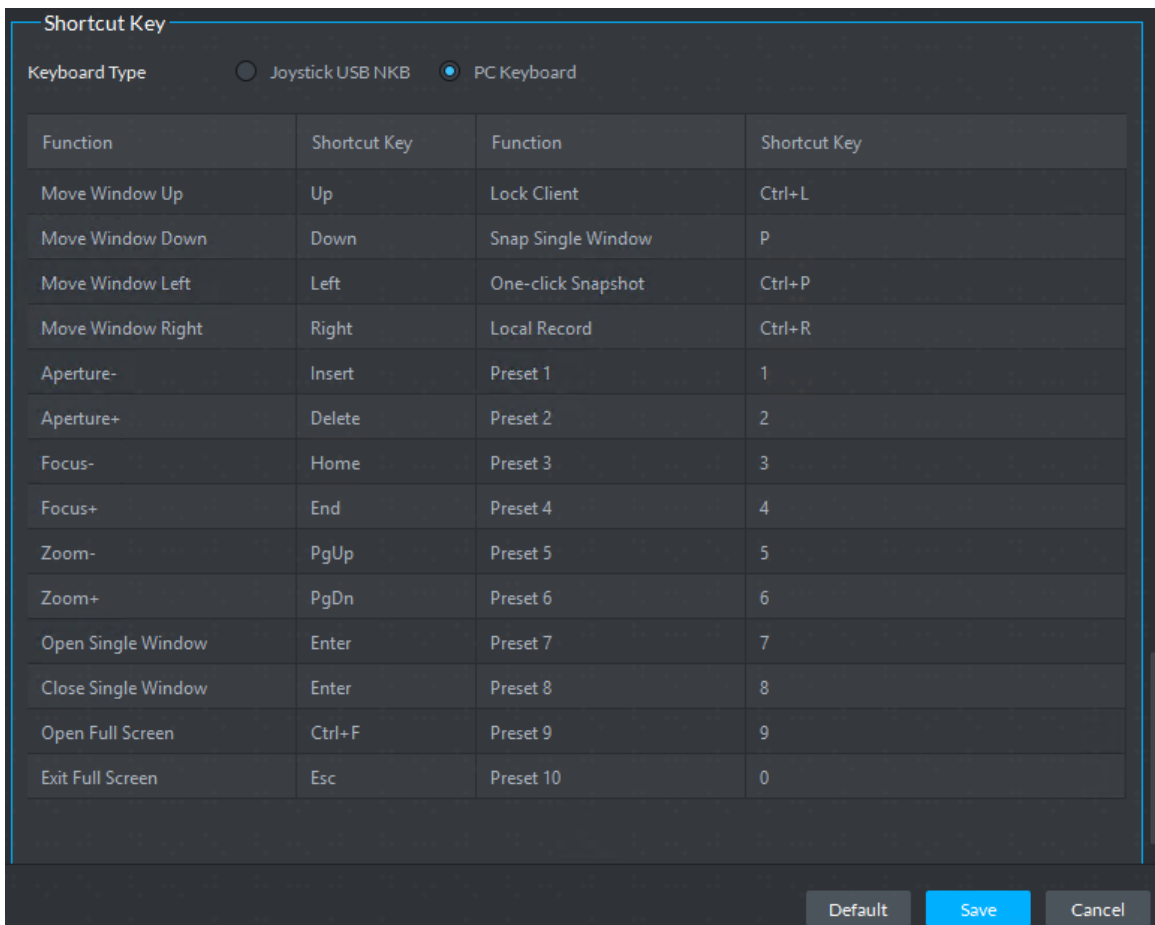
Table 5-9

Parameters	Note
Stream type	When split exceeds threshold, open substream.
Binding mode	<ul style="list-style-type: none"> ● Tour: Device nodes are displayed on 1 window by tour. ● Tile: Device nodes are aredisplayed on windows of current screen by tile. ● Inquiry: When dragging the device nodes to the window, the systems prompts whether tour or tile.
Double click video to maximize window and exchange to main stream	Double-click the video screen to maximize the window, and the stream change to main stream.

Step 9 Click **Shortcut Key** to set parameters.

The **Shortcut Key** interface is shown as in Figure 5-15.

Figure 5-15



Step 10 Click **Save**.

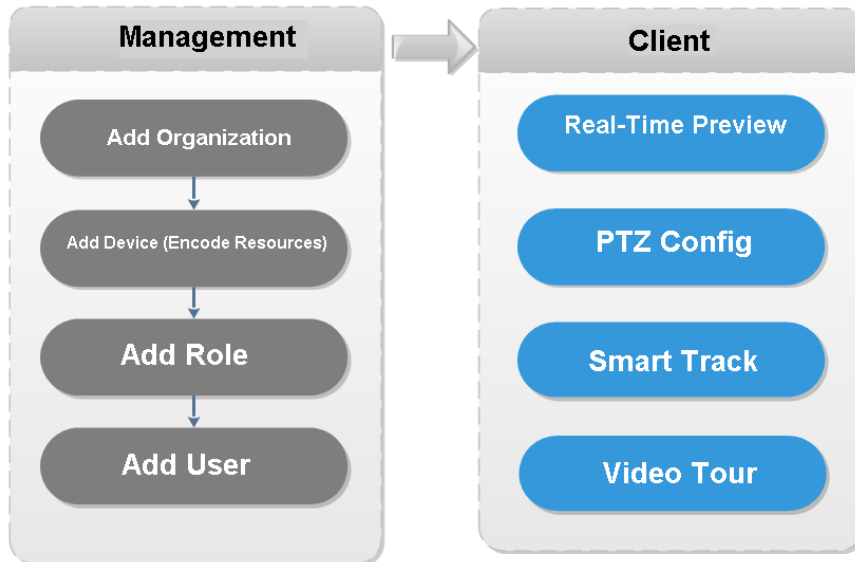
5.3 Video Preview

5.3.1 Preparations

Before the operation, refer to 4.6 Adding Device to add decode device on the manager.

Refer to Figure 5-16 for video preview flows information.

Figure 5-16



5.3.2 Live View

5.3.2.1 Live Video View

Step 1 Click **+** and then on the **New Tab** interface, select Live View, system displays Live view interface by default.

Step 2 View real-time video by:

- Select channel from the device list on the left side of the Live view interface.
- Double-click or drag it to the video window. If you double-click the device, then all channels of the device will be opened.
- Select the preview window(s) on the right side of interface.
- On the device list, right-click to select Tour, and you can choose the time. The system will play (in loops) videos of all channels for selected devices within the set time, which is the play time.

Real-time monitoring interface is displayed in the video window. See Figure 5-17. Refer to Table 5-10 to set parameters.

Figure 5-17

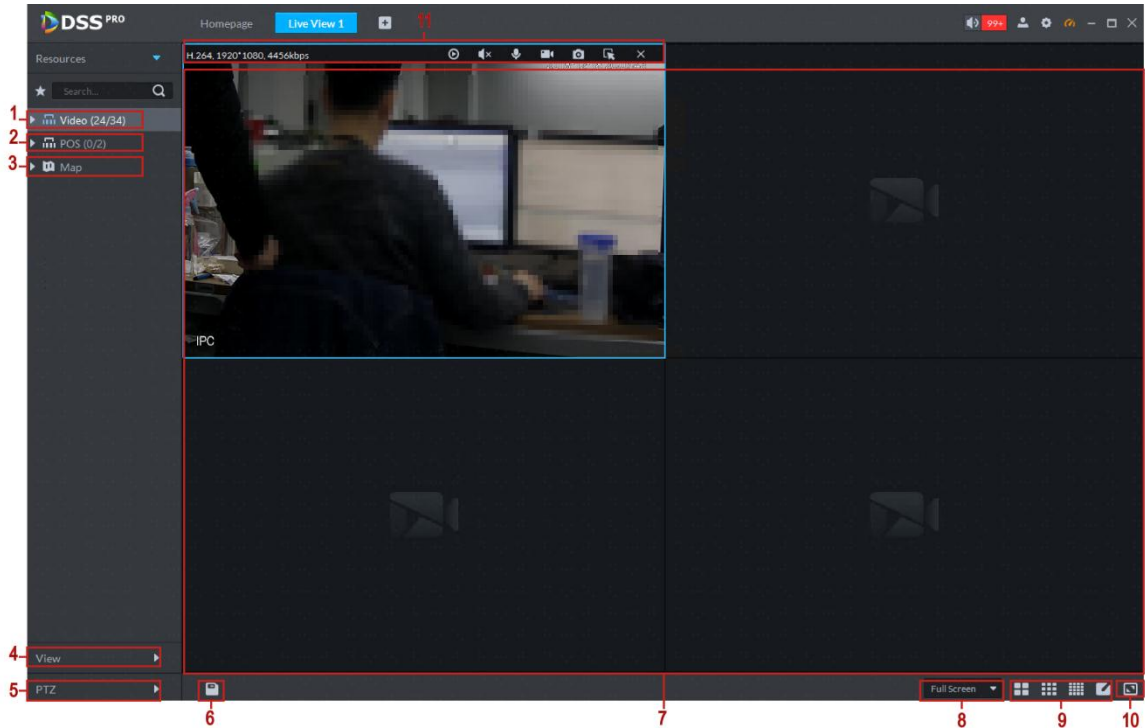





Table 5-10

SN	Name	Function
1	Favorites and Device Tree Search	<ul style="list-style-type: none"> From Local config > General, if you enable Show device node, device tree displays all channels of current device. If you cancel the box, system display all channels of all device. Search is supported by input device name or channel name in <input type="text" value="Search.."/> here. : Add, Delete or Rename Favorite. Favorite Tour supported.
2	POS	It is to open POS and its corresponding video channel on the Live view interface.
3	Map Resource	Map can be opened in preview window, both GIS map and Raster map.
4	View	<ul style="list-style-type: none"> Live video window can be saved as View. Three-level directory is adopted for view, with level one as root node, level two for group and level three for view. Video Tour is supported from root node and group node, with tour intervals selected from 10s, 30s, 1min, 2min, 5min and 10min. Maximum of 100 views can be created.
5	PTZ	More info about PTZ of PTZ camera, refer to 5.3.4 PTZ.

SN	Name	Function
6	Save view	Click  to save current video window as a view.
7	Video play	Displays real-time video play. Put the mouse on the video play window, and you can scroll forward to zoom in and backward to zoom out.
8	Display mode	Aspect ratio of the video window, selected from two modes for video play: actual scale and fit in window.
9	Window Split Mode	Select from modes among 1 to 64 to set window split mode, or click  to define split mode.  If the real-time channel is more than the number of windows, then you can turn page(s) at the bottom-middle side of the interface.
10	Full Screen	Switch the video window to full screen mode. To exit full screen, press the Esc key, or right click to select exit full screen.
11	Bit Stream and Quick Start	It is to display encode format, bit stream information and quick start. Refer to 5.3.2.3 Window Shortcut Menu for detailed information.

5.3.2.2 Right-Click Shortcut Menu

On the **Live View** video window, right click mouse, the interface is shown as in Figure 5-18. Refer to Table 5-11 to set parameters.

Figure 5-18

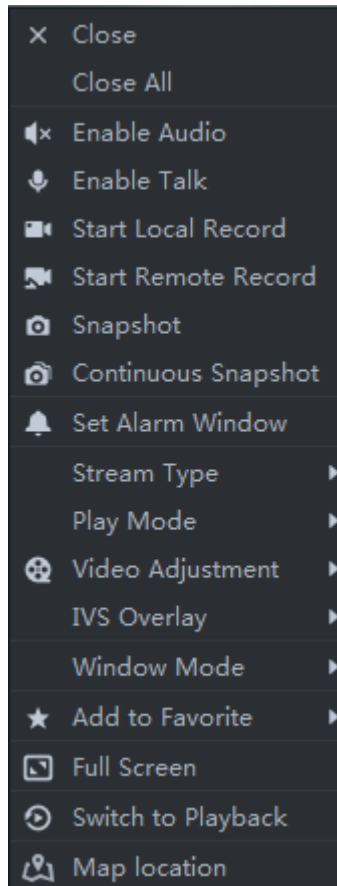










Table 5-11

Parameters	Note
Close Video	Close active video window.
Close All Videos	Close all video windows.
Audio Enable	Same as  , to enable or disable camera audio.
Audio Talk Enable	Same as  , to enable or disable audio talk of corresponding device. Check Self-adaptive Audio Talk Parameters from Local Config > General; when audio talk is on, it will automatically adapt to various parameters without showing a pop-up box.
Start Local Record	Same as  , to record audio/video of the active video window and save them in local PC.
Start remote record	Click to start remote record. The item becomes Stop remote record. Click Stop remote record, system stops record. If the platform has configured video storage HDD, the record file is saved on the platform server.
Snapshot	Same as  , to save image of the active video window as picture (one picture for each snapshot).
Continuous Snapshot	To save image of the active video window as picture (three snapshots each time by default).
Set Alarm Window	Turn on/off alarm output.

Parameters	Note
Switch Bit Stream	Switch among Main stream, Sub stream and Third stream.  NOTE If selecting Sub stream or Third stream, you need to check enable Sub Stream and enable Third Stream in the Bit Stream dropdown list when adding encoder from the Manager.
Play Mode	Switch between the modes of Real Time Priority, Fluency Priority, Balance Priority and custom defined mode.
Video Adjustment	Perform video adjustment and video enhancement.
IVS Overlay	Enable IVS rules and target box, after that IVS rule and target box will be displayed during live view. The config is only valid to the configured channel. The IVS rule and target box are not displayed by default.
Open crowd density map	 NOTE This function is only available for multisensor camera with flow analysis function. After selecting this function, the crowd density will be displayed on the image of the video. Double-click the image to hide it, and people in the video will be shown in blue dots.
Installation mode	 NOTE For fisheye camera only. The installation mode has three types:ceiling mount, wall mount and ground mount. Select corresponding installation mode according to the actual situation, the real-time video can automatically dewarp according to the installation mode.
Fisheye view mode	 NOTE For fisheye camera only. When changing the video stream, the fisheye view mode keeps the configuration before the stream is changed. It refers to current video display mode (system supports original video mode by default.). System supports following display modes according to different installation mode. <ul style="list-style-type: none"> ● Ceiling mount: 1P+1, 2P, 1+2, 1+3, 1+4, 1P+6, 1+8. ● Wall mount: 1P, 1P+3, 1P+4, 1P+8. ● Ground mount: 1P+1, 2P, 1+3, 1+4, 1P+6, 1+8.
Split mode	It supports standard mode, 1+3 mode, 1+5 mode.
Alarm output control	It control alarm input/output.
Add To Favorites	You can add the active channel or all channels into Favorite.
Full Screen	Switch the video window to full screen mode. To exit full screen, double click video window, or right click to select exit full screen.
Switch to Playback	You can switch between live view interface and playback interface quickly, without going back to homepage first.
Map location	After enabling map location, a map that centers on the device will be displayed.

5.3.2.3 Window Shortcut Menu

Move the mouse to the video window, you can see the shortcut menu at the top right. See Figure 5-19. Refer to Table 5-12 for detailed information.

Figure 5-19

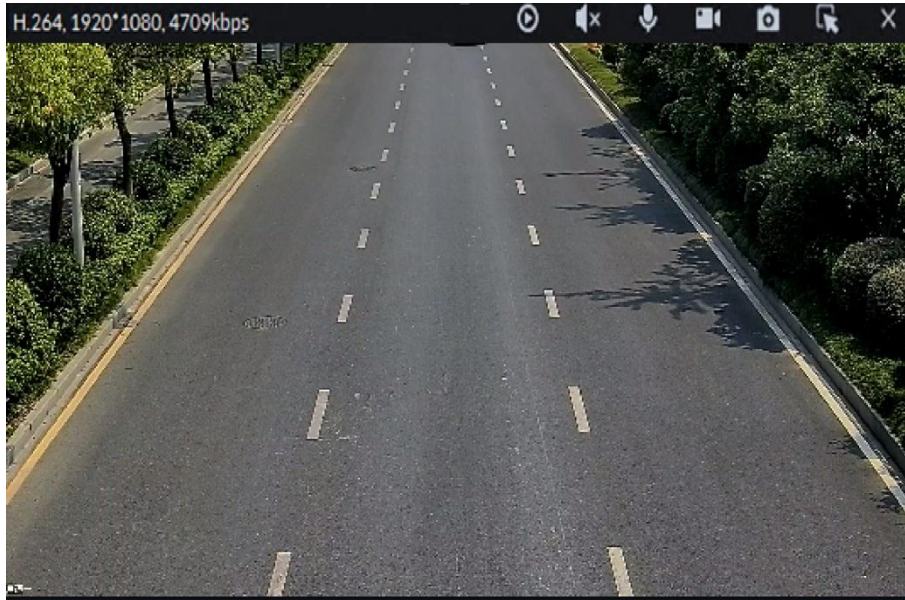


Table 5-12

Icon	Name	Note
	Instant playback	Open/close instant playback. Go to Local config>General to set instant playback time. Make sure there is a record on the platform or the device.
	Audio	Open/close audio.
	Audio talk	Open/close bidirectional talk.
	Local record	Click it, system begins record local file and you can view the record time at the top left. Click again, system stops record and save the file on the PC.
	Snapshot	Click to snapshot once.
	Zoom	Zoom in, and it supports mouse wheel zooming after zooming in the image.
	Close	Click to close video.

5.3.3 Device Config

Configure the camera properties, video stream, snapshot, video overlay, and audio config for the device channel on the platform. Only support configuring the channels added via IP in Dahua protocols.

NOTE

Device config differs by the capacities of the devices. Snapshots in this Manual are taken from IPC-HDW7341X-E2 (Software version V2.622.0000000.4.T). The actual interfaces of other models shall prevail.

5.3.3.1 Configuring Camera Properties

Support configuring the property files in the modes of **Daytime**, **Night**, and **Regular**. The system switches between different modes based on the preset time to ensure image quality collected by the camera.

5.3.3.1.1 Configuring Property Files

Step 1 On the **Preview** interface, right-click the video device and select **Device Config**. See Figure 5-20.

The **Device Config** interface interface is displayed. See Figure 5-21.

 **NOTE**

- For PTZ or speed dome only, the PTZ control interface displays.
- Click More configuration to open the web config interface for the device.

Figure 5-20

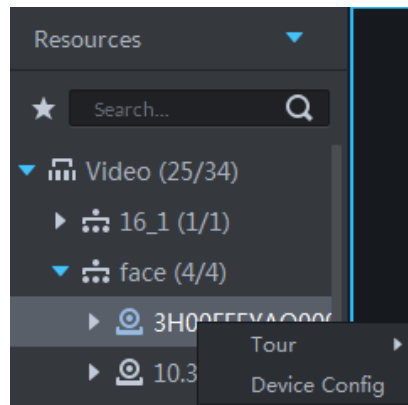
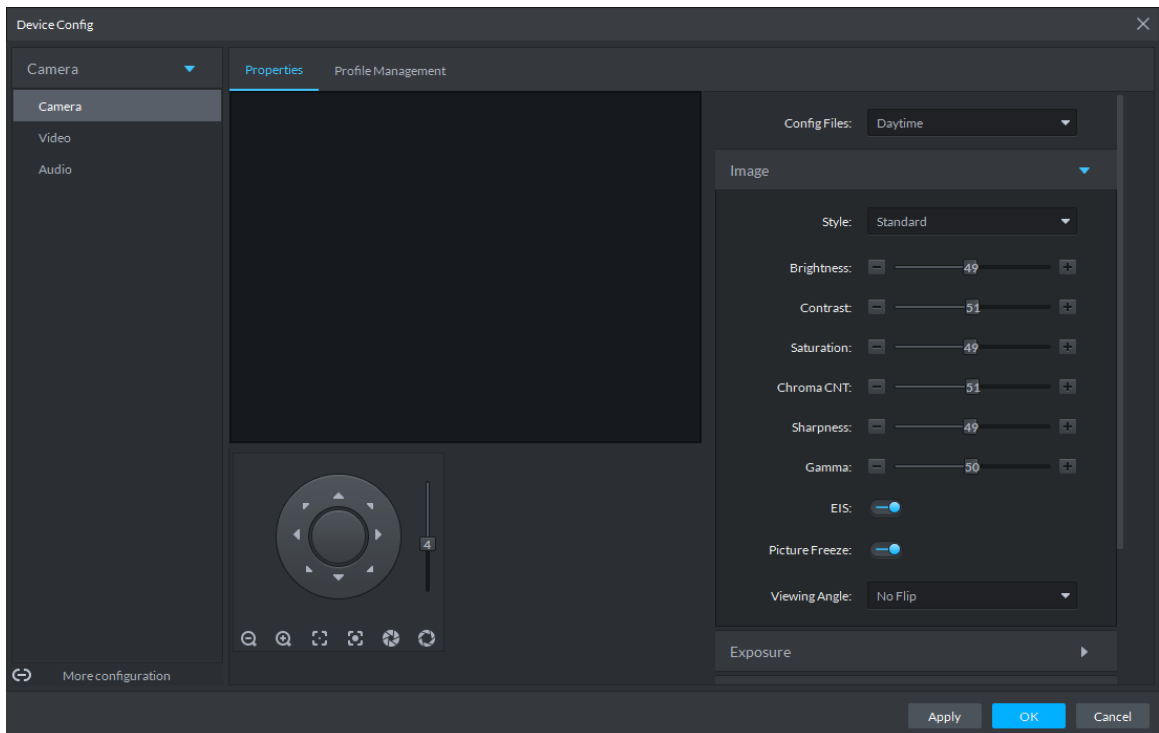


Figure 5-21



Step 2 Select **Camera > Camera > Properties > Image**.

The **Properties** interface is displayed. See Figure 5-21.

Step 3 Select **Profile Management**.

Step 4 Click **Image**. See Figure 5-21. For details of the parameters, see Table 5-13.

Table 5-13

Parameter	Description
Style	You can set the image style to be Standard, Gentle, or Flamboyant.
Brightness	You can adjust the overall image brightness through linear tuning. The higher the value, the brighter the image and vice versa. If this value is set too high, images tend to look blurred.
Contrast	Adjusts the contrast of the images. The higher the value, the bigger the contrast between the bright and dark portions of an image and vice versa. If the contrast value is set too high, the dark portions of an image might become too dark, and the bright portions might be over-exposed. If the contrast value is set too low, images tend to look blurred.
Saturation	Adjusts color shade. The higher the value, the deeper the color and vice versa. The saturation value does not affect the overall brightness of the images.
Sharpness	Adjusts the edge sharpness of images. The higher the value, the sharper the image edges. Setting this value too high might easily result in noises in images.
Gamma	Changes image brightness by non-linear tuning to expand the dynamic display range of images. The higher the value, the brighter the image and vice versa.

Step 5 Click **Exposure** to set up relevant parameters. See Figure 5-22. For details of the parameters, see Table 5-14.



NOTE

If the device that supports real wide dynamic (WDR) has enabled WDR, long exposure is not available.

Figure 5-22

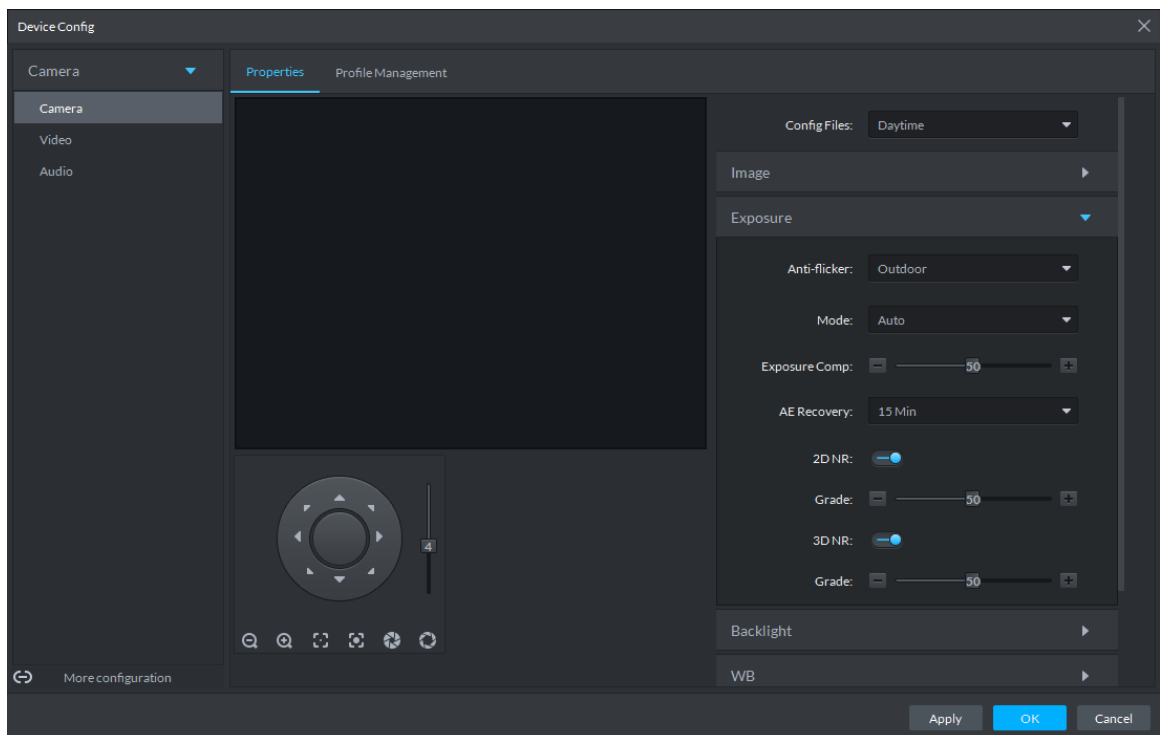



Table 5-14

Parameter	Description
Anti-flicker	<p>You can select from these three modes: 50Hz, 60Hz, or Outdoor.</p> <ul style="list-style-type: none"> • 50Hz: With the 50Hz household power supply, the mode can automatically adjust exposure based on the brightness of the scene to ensure that the image does not yield horizontal stripes. • 60Hz: With the 60Hz household power supply, the mode can automatically adjust exposure based on the brightness of the scene to ensure that the image does not yield horizontal stripes. • Outdoor: In an outdoor scenario, you can switch the exposure modes to achieve your target effect.
Mode	<p>The following options are available for the different exposure modes of the camera:</p> <p> NOTE</p> <ul style="list-style-type: none"> • If the Anti-flicker is set to Outdoor, you can set the Mode to Gain Priority or Shutter Priority. • Different devices have different exposure modes. The actual interfaces shall prevail. • Auto: Auto tuning of the image brightness based on the actual environment. • Gain Priority: Within the normal exposure range, the device adjusts itself automatically first in the preset range of gains as per the brightness of the scenes. If the image has not achieved the target brightness when the gains hit the upper limit or lower limit, the device adjusts the shutter automatically to achieve the best brightness. The Gain Priority mode also allows for adjusting the gains by setting up a gain range. • Shutter Priority: Within the normal exposure range, the device adjusts itself automatically first in the preset range of shutter values as per the brightness of the scenes. If the image has not achieved the target brightness when the shutter value hits the upper limit or lower limit, the device adjusts the gains automatically to achieve the best brightness. • Aperture Priority: The aperture is fixed at a preset value before the device adjusts the shutter value automatically. If the image has not achieved the target brightness when the shutter value hits the upper limit or lower limit, the device adjusts the gains automatically to achieve the best brightness. • Manual: You can set up the gains and shutter values manually to adjust image brightness.
3D NR	Reduces the noises of multiple-frame (at least two frames) images by using inter-frame information between two adjacent frames in a video.
Grade	<p>When 3D NR is On, you can set up this parameter.</p> <p>The higher the grade, the better the noise reduction effect.</p>

Step 6 Click **Backlight** to set up relevant parameters. See Figure 5-23. For details of the parameters, see Table 5-15.

The Backlight mode offers Backlight Correction, Wide Dynamic, and Glare Inhibition features.

- Turning on Backlight Correction avoids silhouettes of relatively dark portions in

- pictures taken in a backlight environment.
- Turning on Wide Dynamic inhibits too bright portions and makes too dark portions brighter, presenting a clear picture overall.
- Turning on Glare Inhibition partially weakens strong light. This feature is useful in a toll gate, and the exit and entrance of a parking lot. Under extreme lighting conditions such as deep darkness, this feature can help capture the details of the faces and license plates.

Figure 5-23

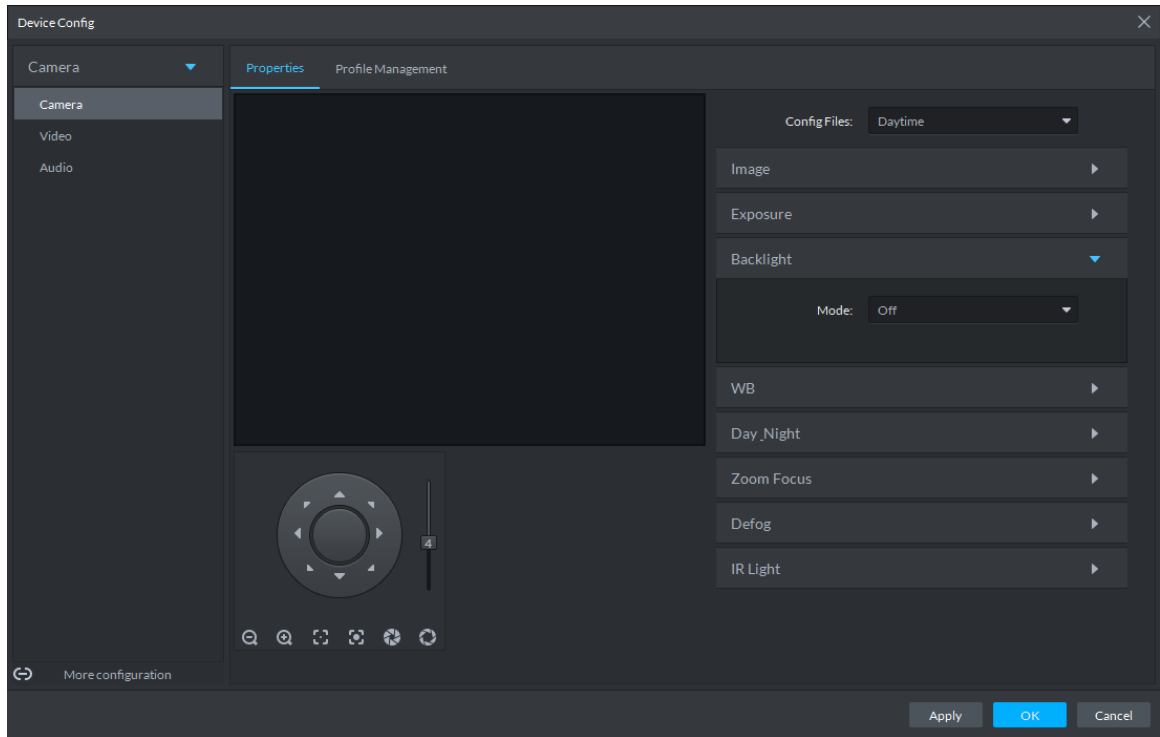


Table 5-15

Backlight mode	Description
SSA	The system adjusts image brightness automatically based on the environmental lighting conditions to show image details clearly.
Backlight Correction	<p>You can select Default mode or Custom mode.</p> <ul style="list-style-type: none"> • When selecting the Default mode, the system adjusts exposure automatically to adapt to the environment and make the images taken in the darkest regions clear. • When selecting the Custom mode and setting up a custom region, the system exposes the selected custom region to give the images taken in this region proper brightness.
Wide Dynamic	<p>To adapt to the environmental lighting conditions, the system reduces the brightness in bright regions and increases the brightness in dark regions. This ensures clear display of objects in both bright and dark regions.</p> <p>NOTE The camera might lose seconds of video recordings when switching from a non-wide dynamic mode to Wide Dynamic.</p>

Backlight mode	Description
Glare Inhibition	The system inhibits the brightness in bright regions and reduces the size of the halo, to make the entire image less bright.

Step 7 Click **WB** to set up relevant parameters. See Figure 5-24. For details of the parameters, see Table 5-16.

The WB feature makes the colors of the images more accurate. In WB mode, white objects in the images appear white in various lighting conditions.

Figure 5-24

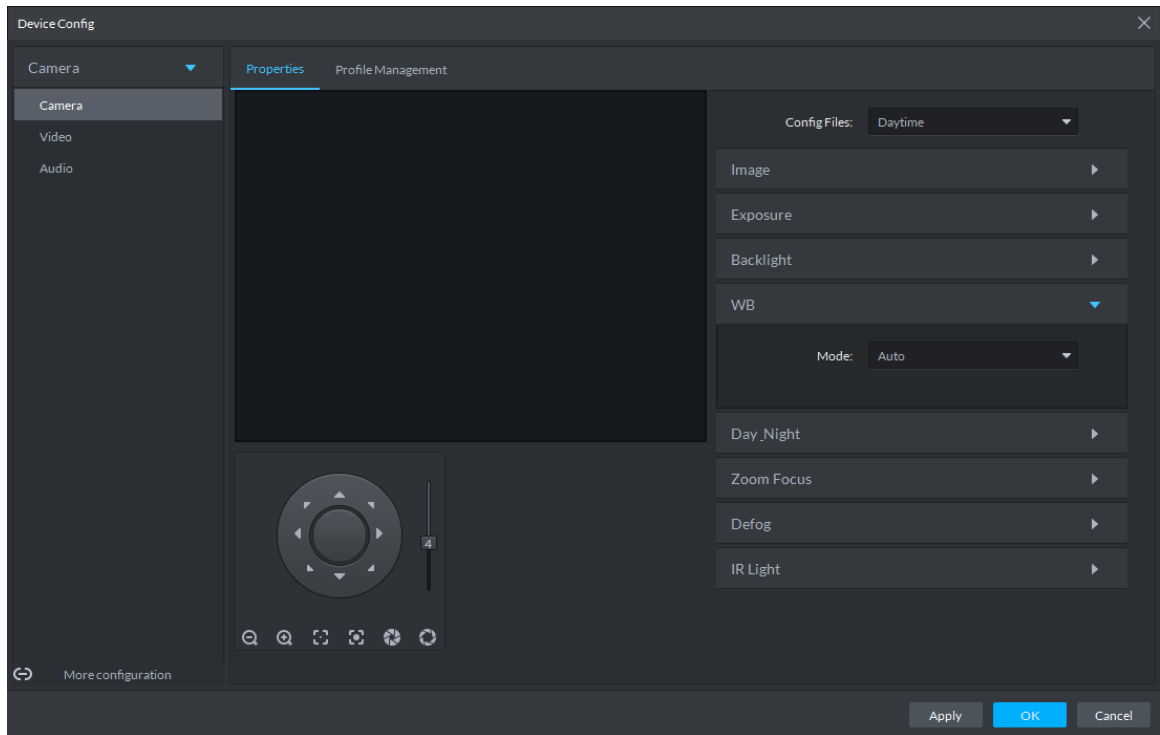


Table 5-16

WB mode	Description
Auto	The system automatically WB corrects different color temperatures to ensure normal display of image colors.
Natural Light	The system automatically WB corrects the scenes without manmade lighting to ensure normal display of image colors.
Street Lamp	The system automatically WB corrects the outdoor scenes at night to ensure normal display of image colors.
Outdoor	The system automatically WB corrects most outdoor scenes with natural lighting and manmade lighting to ensure normal display of image colors.
Manual	You can set up the red gains and blue gains manually for the system to correct different color temperatures in the environment accordingly.
Regional Custom	You can set up custom regions and the system WB corrects different color temperatures to ensure normal display of image colors.

Step 8 Click **Day & Night** to set up relevant parameters. See Figure 5-25. For details of the parameters, see Table 5-17.

You can set up the display mode of images. The system can switch between the Colored mode and the Black&White mode to adapt to the environment.

Figure 5-25

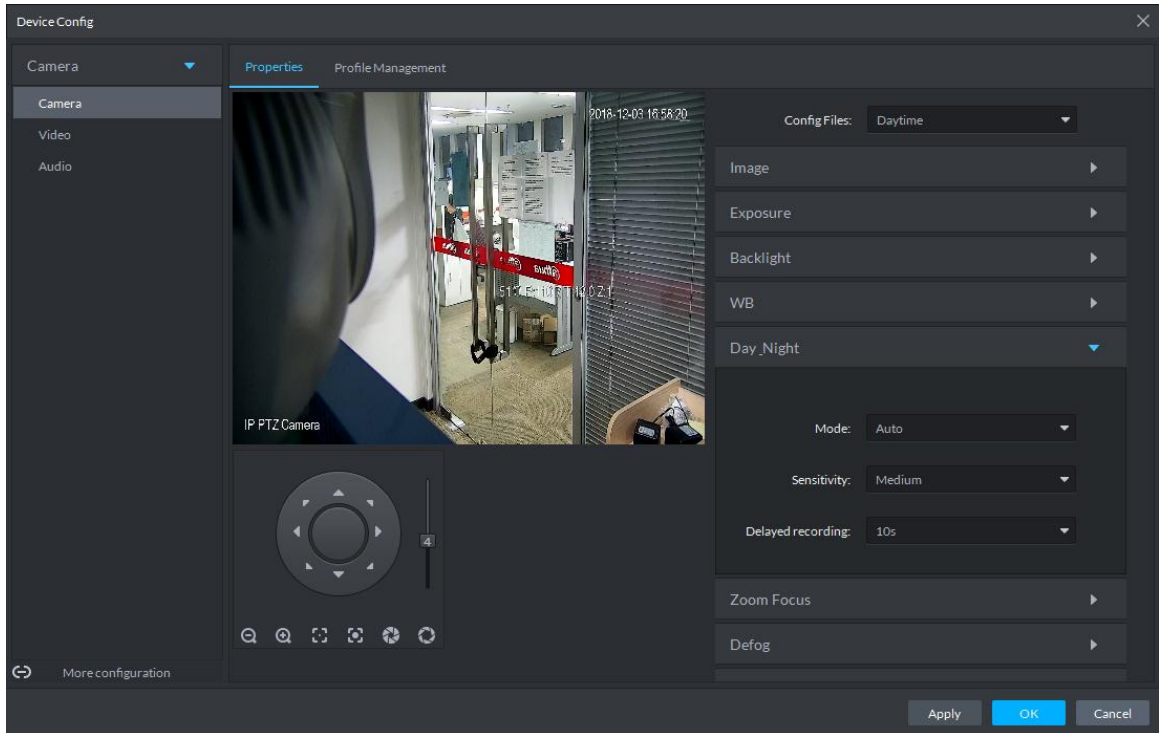



Table 5-17

Parameter	Description
Mode	<p>You can set up the image display of the camera to the Colored mode or the Black&White mode, including the following options:</p> <p> NOTE</p> <p>The Day & Night settings are independent of the Config Files settings.</p> <ul style="list-style-type: none"> ● Colored: The camera displays colored images. ● Auto: The camera automatically selects to display colored or black&white images based on the environmental brightness. ● Black&White: The camera displays black&white images.
Sensitivity	<p>You can set up this parameter when the Day & Night mode is set to Auto. Defines the sensitivity of the camera in switching between the Colored mode and the Black&White mode.</p>
Delayed recording	<p>You can set up this parameter when the Day & Night mode is set to Auto. Defines the delay of the camera in switching between the Colored mode and the Black&White mode. The lower the delay, the faster the switch between the Colored mode and the Black&White mode.</p>

Step 9 Click **Defog** to set up relevant parameters. See Figure 5-26. For details of the parameters, see Table 5-18.

Image quality drops when the camera is placed in the foggy or hazy environment. You can turn on Defog to make the images clearer.

Figure 5-26

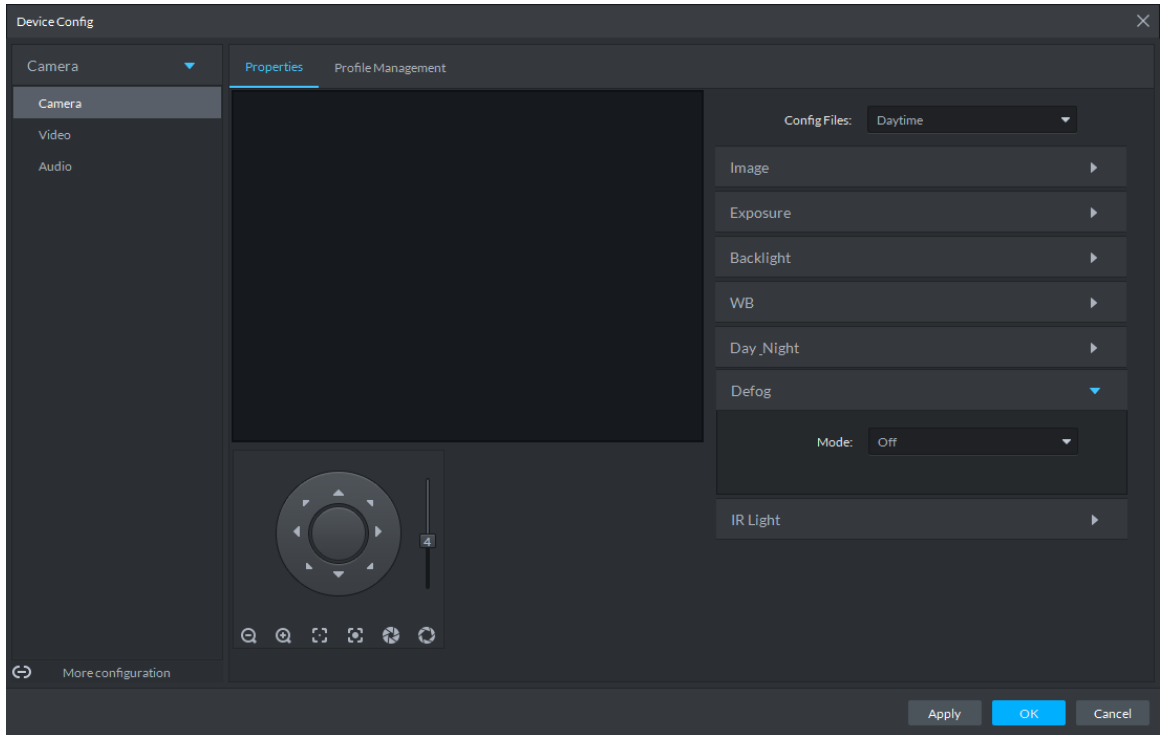


Table 5-18

Defog mode	Description
Manual	You can set up the defog intensity and the atmospheric light intensity manually. The system adjusts the image quality as per such settings. The atmospheric light intensity mode can be set to Auto or Manual for light intensity adjustment.
Auto	The system adjusts the image quality automatically to adapt to the surrounding conditions.
Off	Defog disabled.

Step 10 Click **IR Light** to set up relevant parameters. See Figure 5-27. For details of the parameters, see Table 5-19.

Figure 5-27

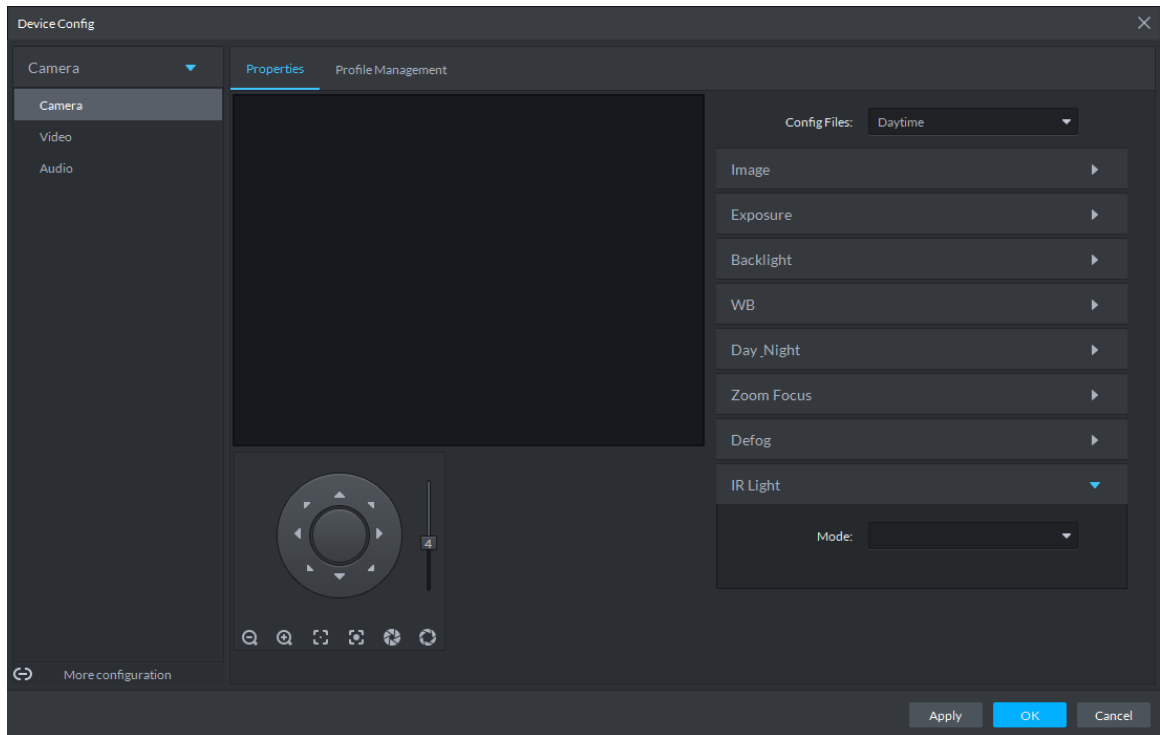


Table 5-19

IR Light mode	Description
Manual	You can set up the IR Light brightness manually. The system fills light for images as per the preset IR Light brightness.
SmartIR	The system adjusts the brightness of the light to adapt to the surrounding conditions.
ZoomPrio	<p>The system adjusts the IR Light automatically to adapt to the brightness changes in the environment.</p> <ul style="list-style-type: none"> When the scene darkens, the system opens the near light first. If the required brightness still cannot be achieved when the near light runs at full power, the system turns on the far light. When the scene becomes brighter, the system reduces the brightness of the far light all the way until it is turned off, before adjusting the brightness of the near light. When the lens focus is adjusted to a certain wide end, the system keeps the far light off to avoid over-exposure at the near end, You can also set up lighting correction manually to fine tune the brightness of the IR Light.
Off	IR Light disabled.

Step 11 Click **OK**.

If you want to set up the Config Files in a different mode, repeat the steps to complete the configurations.

5.3.3.1.2 Applying Config Files

The system monitors the objects in different time periods based on the preset config files modes.

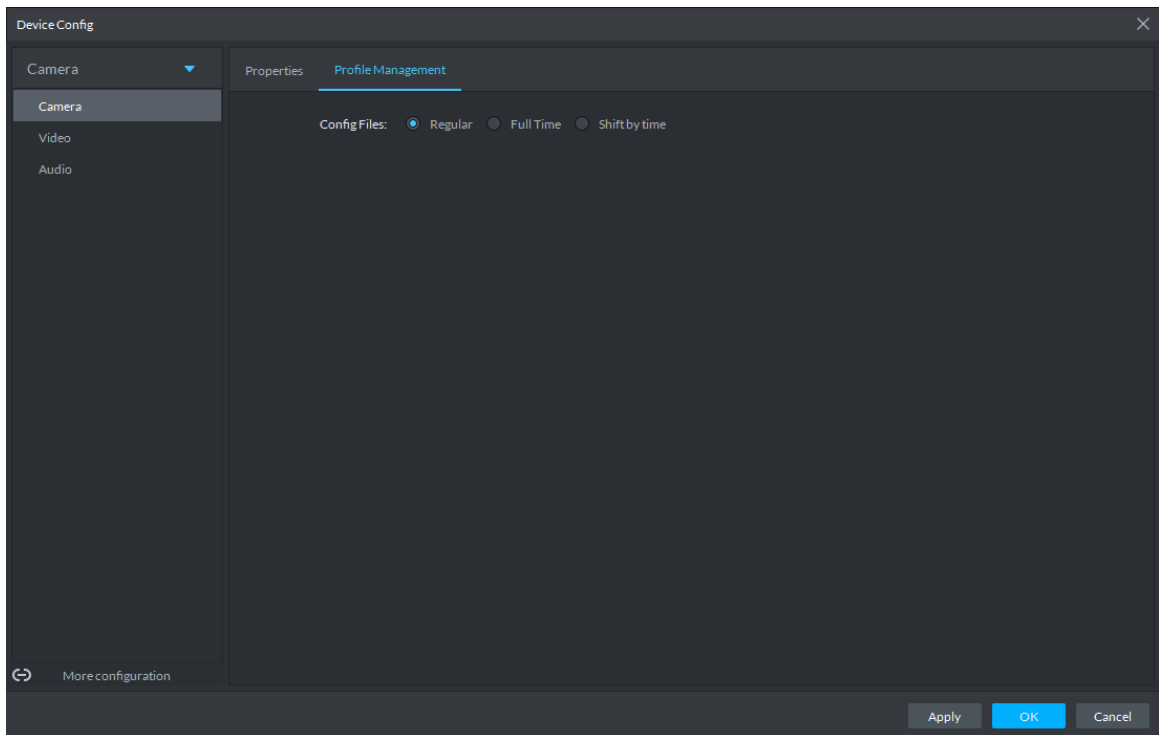
Step 1 Select **Camera > Camera > Properties > Profile Management**.

The **Profile Management** interface is displayed.

Step 2 Setting up config files.

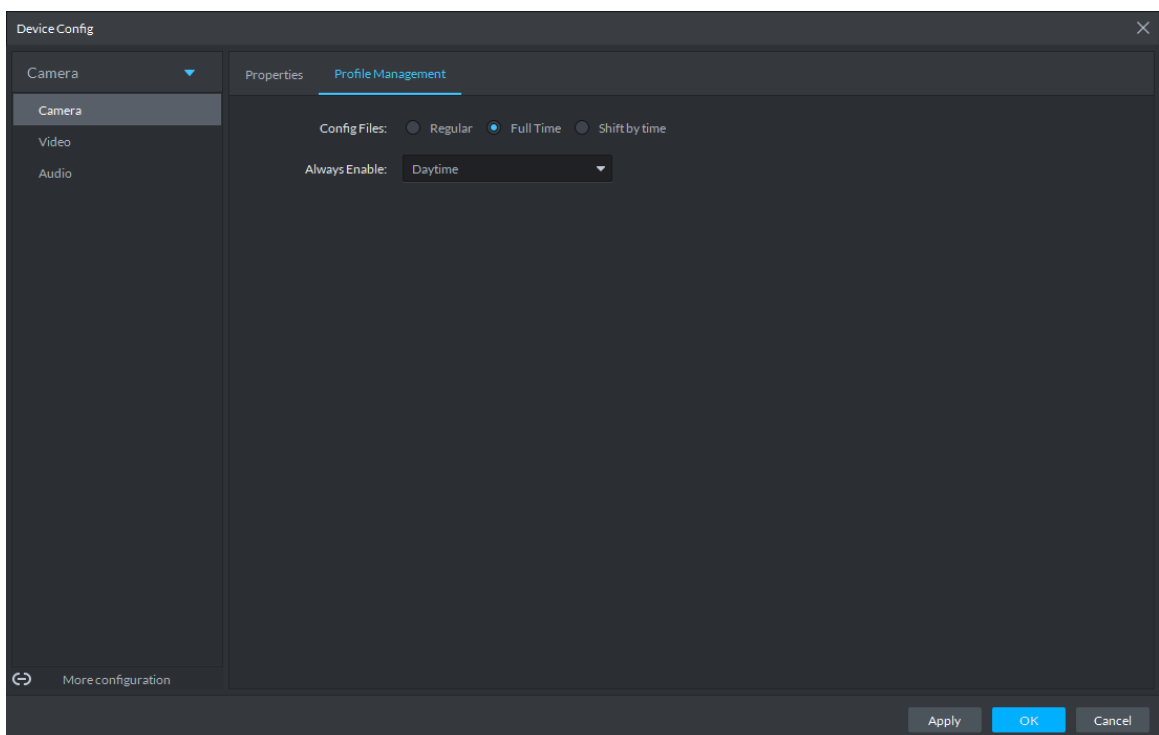
- When **Config Files** is set to **Regular**, the system monitors the objects as per regular configurations.

Figure 5-28



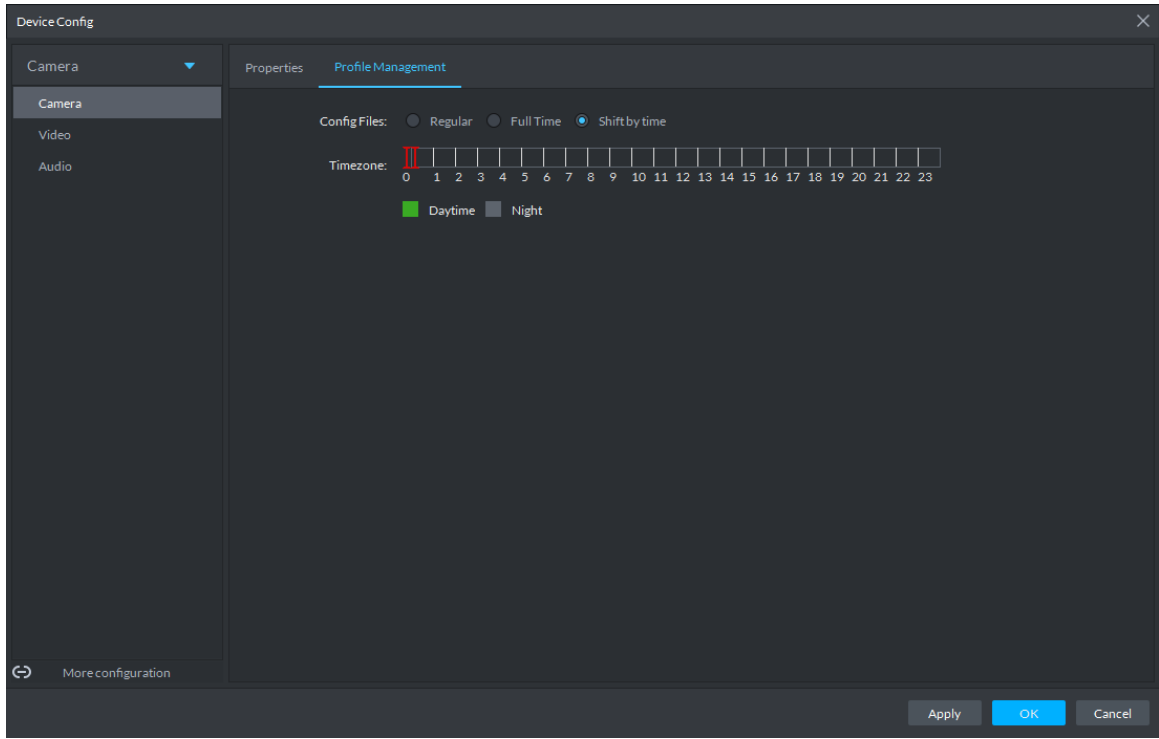
- When **Config Files** is set to **Full Time**, you can set **Always Enable** to **Daytime** or **Night**. The system monitors the objects as per the **Always Enable** configurations.

Figure 5-29



- When **Config Files** is set to **Shift by time**, you can drag the slider to set a period of time as daytime or night. For example, you can set 8:00–18:00 as daytime, 0:00–8:00 and 18:00–24:00 as night. The system monitors the objects in different time periods as per corresponding configurations.

Figure 5-30



Step 3 Click **OK** to save the configurations.

5.3.3.2 Video

You can set some video parameters, including Video Stream, Snapshot Stream, Overlay, ROI, Save Path, and Video Encryption.

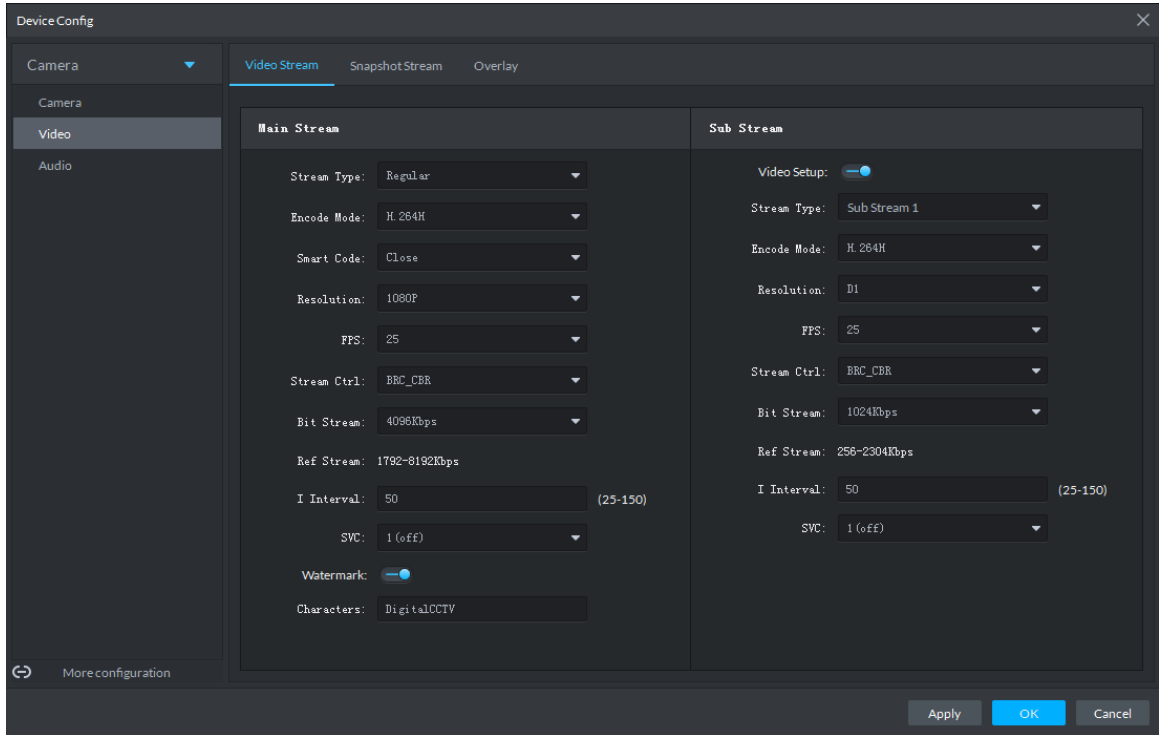
5.3.3.2.1 Video Stream

You can set up some video stream parameters, including Stream Type, Encode Mode, Resolution, FPS, Stream Ctrl, Bit Stream, I Interval, SVC, Watermark, and more.

Step 1 On the **Device Config** interface, select **Camera > Video > Video Stream**.

The **Video Stream** interface is displayed. See Figure 5-31.

Figure 5-31



Step 2 To set up Video Stream, see Table 5-20 for the details of various parameters.

NOTE

The default values of streams might vary in different devices. The actual interfaces shall prevail.

Table 5-20

Parameter	Description
Video Setup	Indicates whether to set up the Sub Stream parameters.
Encode Mode	The following video encoding modes are available: <ul style="list-style-type: none"> ● H.264: Main Profile. ● H.264H: High Profile. ● H.265: Main Profile.
Smart Code	Turning on Smart Code helps compress the images more and reduce the storage space. <p> NOTE When Smart Code is on, the device does not support sub stream 2, ROI, IVS event detection. The actual screens shall prevail.</p>
Resolution	The resolution of the videos. Different devices might have different max resolutions. The actual interfaces shall prevail.
FPS	The number of frames per second in a video. The higher the FPS, the more distinct and smooth the images.
Stream Ctrl	The following video stream control modes are available: <ul style="list-style-type: none"> ● BRC_CBR: The bit stream changes slightly around the preset value. ● BRC_VBR: The bit stream changes according to the monitored scenes. <p> NOTE When the Encode Mode is set to MJPEG, BRC_CBR remains the only option for stream control.</p>

Parameter	Description
Image Quality	This parameter can be set only when Stream Ctrl is set to BRC_VBR . Video image quality is divided into six grades: Best, Better, Good, Bad, Worse and Worst.
Bit Stream	This parameter can be set only when Stream Ctrl is set to BRC_CBR . You can select the proper stream value from the dropdown box based on actual scenarios.
Ref Stream	The system will recommend an optimal range of stream values to users based on the resolution and FPS set up by them.
I Interval	Refers to the number of P frames between two I frames. The range of I Interval changes with FPS. It is recommended to set the I Interval to be two times as the FPS value.
SVC	FPS is subject to layered encoding. SVC is a scalable video encoding method on time domain. The default value is 1, that is non-layered encoding.
Watermark	Turn on Watermark to enable this feature. You can verify the watermark characters to check whether the video has been tempered or not.
Characters	Characters for watermark verification. The default value is DigitalCCTV.

Step 3 Click **OK** to save the configurations.

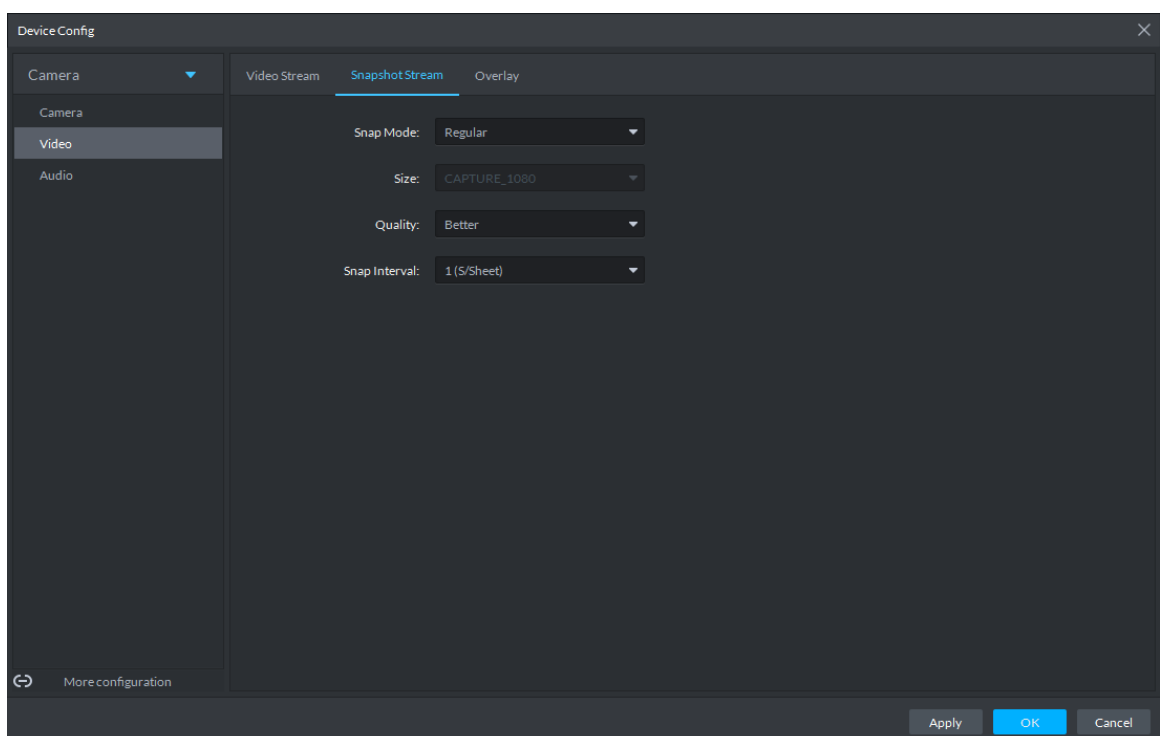
5.3.3.2.2 Snapshot Stream

You can set up some stream parameters for snapshots, including Snap Mode, Size, Quality, and Snap Interval.

Step 1 On the **Device Config** interface, select **Camera > Video > Snapshot Stream**.

The **Snapshot Stream** interface is displayed. See Figure 5-32.

Figure 5-32



Step 2 To set up Snapshot Stream, see Table 5-21 for the details of various parameters.

Table 5-21

Parameter	Description
Snap Mode	It includes Regular and Trigger . <ul style="list-style-type: none">• Regular refers to capturing pictures within the time range set up in a time table.• Trigger refers to capturing pictures when video detection, audio detection, IVS events, or alarms are triggered, provided that video detection, audio detection, and corresponding snapshot functions are turned on.
Size	Same as the resolution in Main Stream.
Quality	Sets up image quality. It is divided into six grades: Best, Better, Good, Bad, Worse and Worst.
Snap Interval	Sets up the frequency of snapshots. Select Custom to manually set up the frequency of snapshots.

Step 3 Click **OK** to save the configurations.

5.3.3.2.3 Overlay

You can set up video overlay, including Tampering/Privacy Mask, Channel Title, Period Title, Geographic Position, OSD Overlay, Font, and Picture Overlay.

Step 1 On the **Device Config** interface, select **Camera > Video > Overlay**.

The **Overlay** interface is displayed.

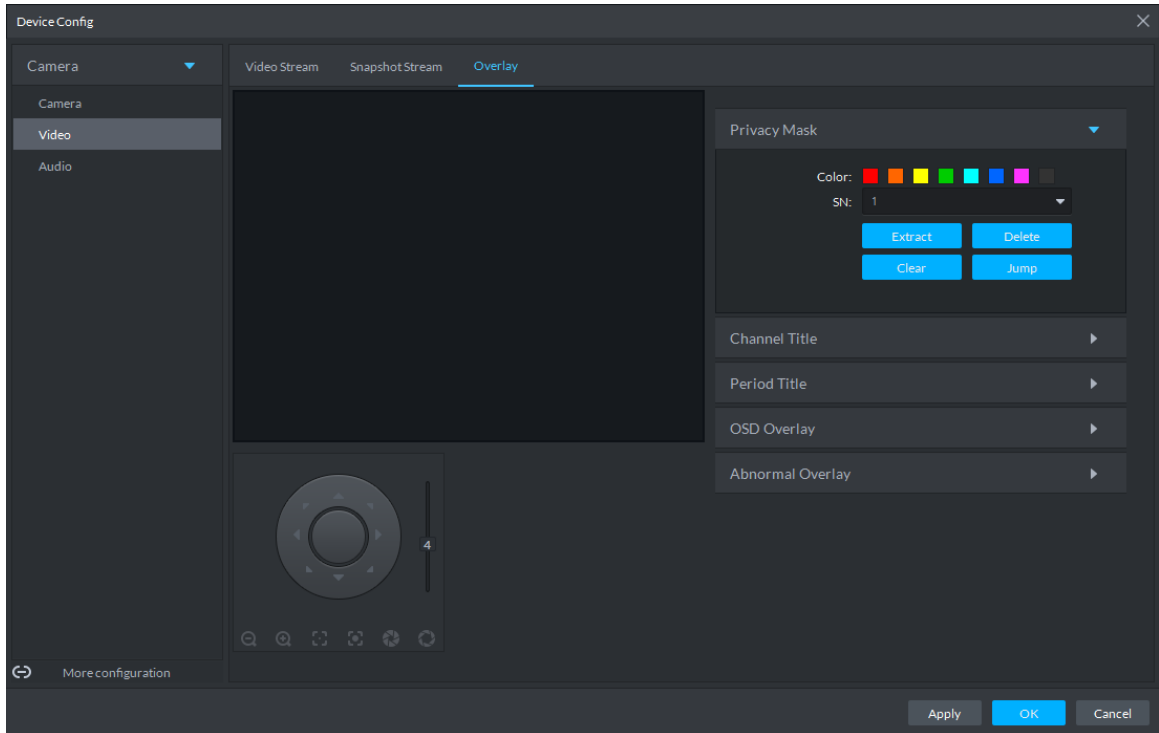
Step 2 (Optional) Set up Privacy Mask.

Tampering is useful in case that privacy protection is needed for some parts of the video images.

1) Click the **Privacy Mask** tab.

The **Privacy Mask** interface is displayed. See Figure 5-33.

Figure 5-33



- 2) Select **Enable** and drag a box to the target area for privacy protection.

 **NOTE**

- You can draw up to four boxes.
- Click **Clear** to delete all boxes; to delete a box, select it and click **Delete**, or right-click and delete the box you want.

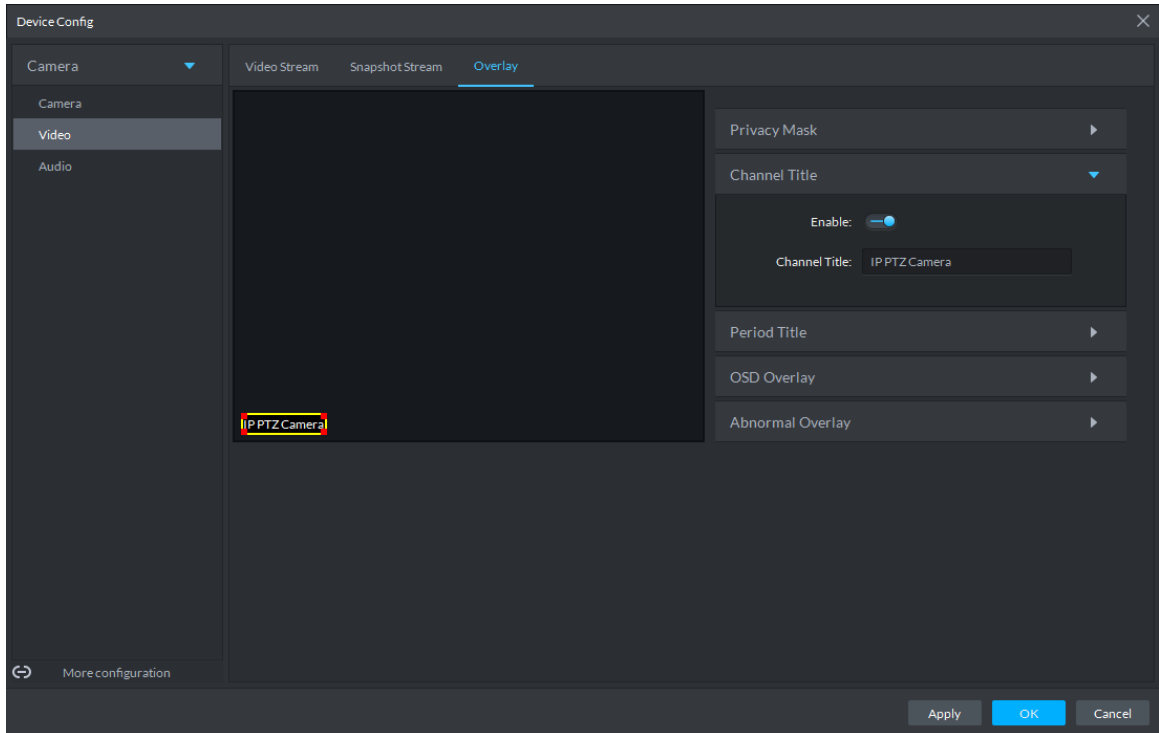
Step 3 (Optional) Set up Channel Title.

You can set up the Channel Title if it must be displayed in video images.

- 1) Click the **Channel Title** tab.

The **Channel Title** interface is displayed. See Figure 5-34.

Figure 5-34



- 2) Select **Enable** and set up the Channel Title, which is then displayed in the video images.

 **NOTE**

In the video image, the channel title box can be moved to a proper position.

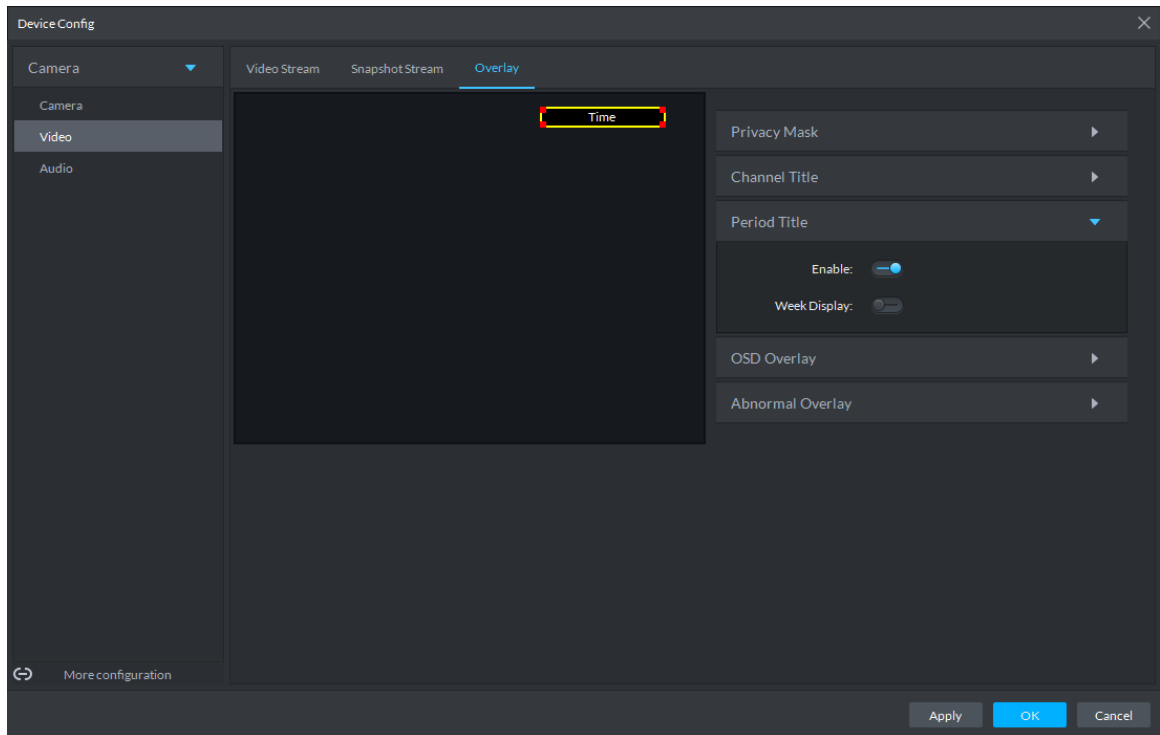
Step 4 (Optional) Set up Period Title.

You can set up the Period Title if it must be displayed in video images.

- 1) Click the **Period Title** tab.

The **Period Title** interface is displayed. See Figure 5-35.

Figure 5-35



- 2) Select **Enable** and the time information is displayed in the video images.
- 3) Select **Week Display** and the week information displays in video images.

 **NOTE**

In the video image, the period title box can be moved to a proper position.

Step 5 Click **OK** to save the configurations.

5.3.3.3 Audio

You can set some audio parameters such as Encode Mode, Sampling frequency, Audio input type, Noise filtering.

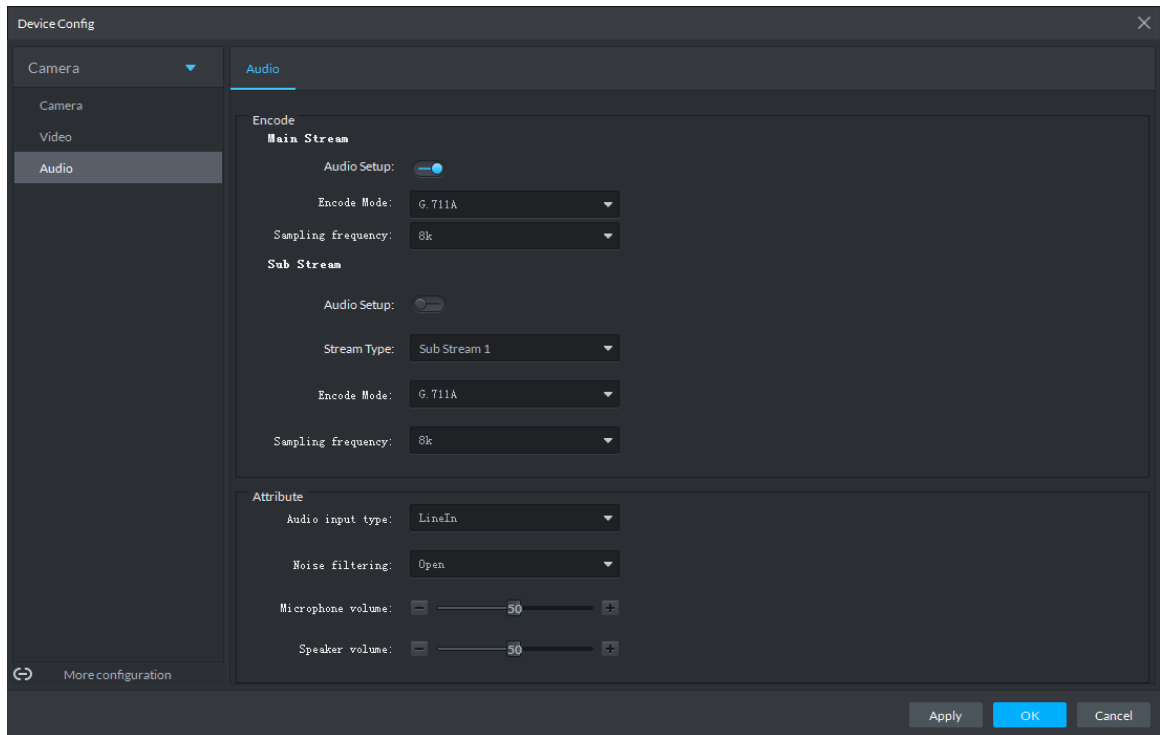
 **NOTE**

Some devices do not support audio functions.

Step 1 On the **Device Config** interface, select **Camera > Audio**.

The **Audio** interface is displayed. See Figure 5-36.

Figure 5-36



Step 2 To set up audio parameters, see Table 5-22 for details.

Table 5-22

Parameter	Description
Enable	Audio cannot be enabled unless video has been enabled. After choosing Enable in Main Stream or Sub Stream sections, the network transmits a mixed flow of videos and audios. Otherwise, the transmitted flow only contains video images.
Encode Mode	The encoding modes of audios include G.711A, G.711Mu, AAC, and G.726. The preset audio encode mode applies both to audio talks and voice talks.
Sampling frequency	Available audio sampling frequencies include 8K, 16K, 32K, 48K, and 64K.
Audio input type	The following types of audios connected to devices are available: <ul style="list-style-type: none"> ● LineIn: The device must connect to external audio devices. ● Mic: The device does not need external audio devices.
Noise filtering	After enabling noise filtering, the system automatically filters out the noises in the environment.
Microphone volume	Adjusts the microphone volume. NOTE Only some devices support adjusting microphone volume.
Speaker volume	Adjusts the speaker volume. NOTE Only some devices support adjusting speaker volume.

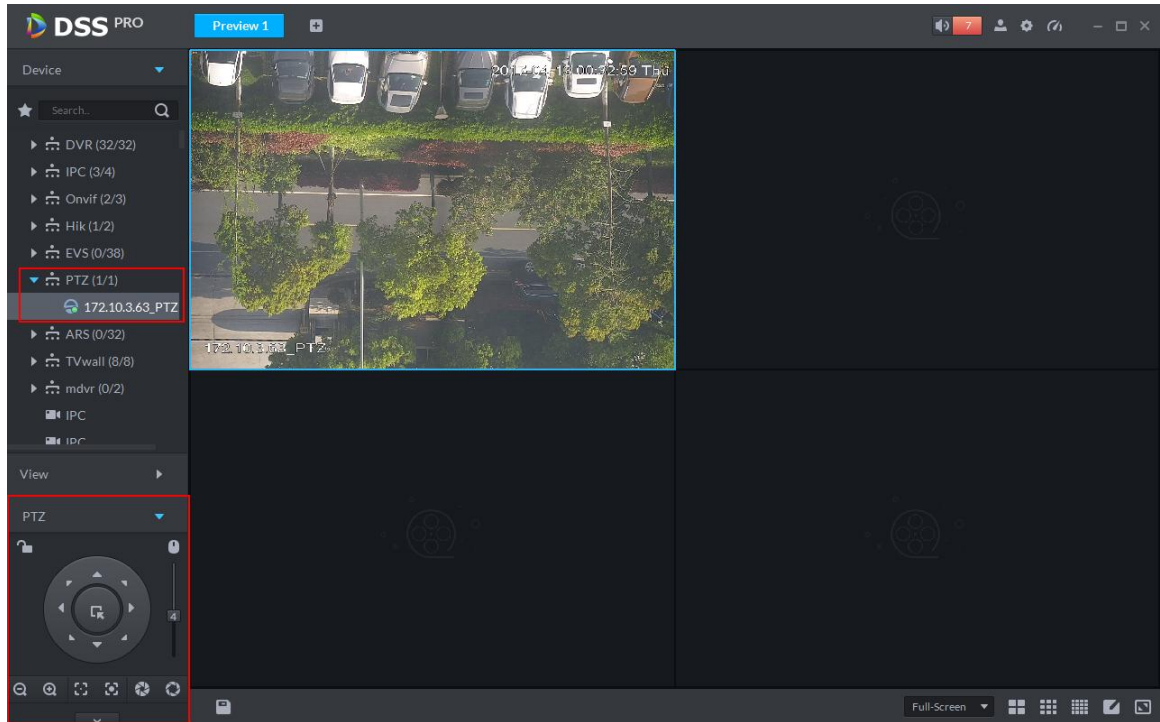
Step 3 Click **OK** to save the configurations.

5.3.4 PTZ

5.3.4.1 PTZ Operation Interface

Step 1 On Preview interface, open video from the PTZ camera, you can see PTZ operation interface on the left. See Figure 5-37.

Figure 5-37




Step 2 Click  at the bottom of the interface to operate. See Figure 5-38.

Figure 5-38

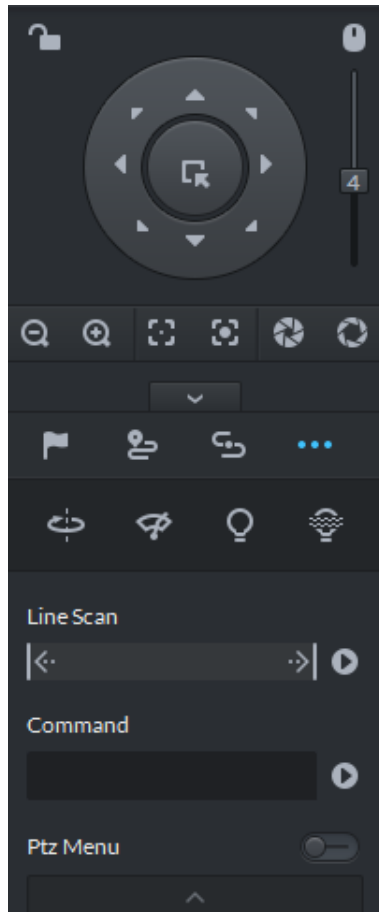
















Table 5-23

Parameters	Note
	<p>Click  to lock the current PTZ. Locked status shows as .</p> <p>Control over PTZ varies depending on user level.</p> <ul style="list-style-type: none"> • When user of low level locks PTZ, user of high level can unlock and enable the PTZ by clicking . • When user of high level locks PTZ, user of low level can't unlock the PTZ, unless PTZ automatically unlock itself. • Users of the same level can unlock PTZ locked by each other. <p> NOTE Default time for automatically unlocking PTZ is 30s.</p>
	<ul style="list-style-type: none"> • Control speed dome with mouse.
Direction Key	<ul style="list-style-type: none"> • Set rotation direction of PTZ, eight directions are available in total: up, down, left, right, upper left, upper right, lower left and lower right.


Parameters	Note
	<ul style="list-style-type: none"> • 3D Location and Partially Zoom In (for Speed Dome PTZ), to zoom in or zoom out the selected area. <p> NOTE</p> <p>This function can be controlled with mouse only.</p>
	From top to the bottom to adjust rotation speed of PTZ, to set the step size chosen from 1 to 8.
	<ul style="list-style-type: none"> • Zoom, to control zoom operation of speed dome.
	<ul style="list-style-type: none"> • Focus, to adjust focus.
	<ul style="list-style-type: none"> • Aperture, to adjust brightness.
 	It is to set preset, tour, pattern, scan, rotation, wiper, light, IR light function, etc. Refer to 5.3.4.2 PTZ Settings for more information.


5.3.4.2 PTZ Settings


5.3.4.2.1 Configuring Preset

By adding preset, you can rotate the camera to the specified position.



Step 1 Click direction key of the PTZ to rotate the camera to the needed place.

Step 2 Click .

Step 3 Place mouse over 1 and click .

Step 4 Input preset point SN, and click .

Adding preset point completed.

To the right of , click , then camera will be rotated to the related position.


5.3.4.2.2 Configuring Tour


Set Tour to enable camera to go back and forth among different presets.

 **NOTE**

To enable tour, at least 2 preset points are required.

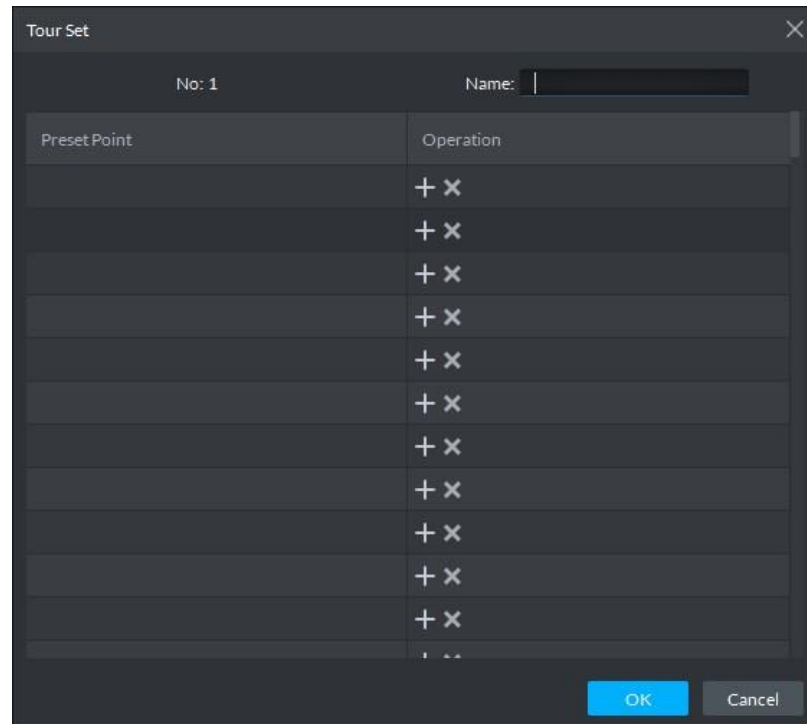
Step 1 Click .

Step 2 Place mouse over 1 and click .
New tour dialogue box pops up.

Step 3 Input name, and click Operation bar .


Choose preset points from the dropdown list on the left. See Figure 5-39.

Figure 5-39



Step 4 Click **OK**.
System prompts Tour Saved Successfully.

Step 5 Click **OK**.


To start tour, place mouse over 1 and click , then camera goes back and forth among the presets of Tour 1.


5.3.4.2.3 Configuring Pattern

Pattern is equivalent to a record process.

Step 1 Click .


Step 2 Place mouse over 1 and click , then operate 8 buttons of PTZ to set pattern.


Step 3 Click  to complete pattern setup.


Step 4 Click , and the camera will rotate following the pattern settings.

5.3.4.2.4 Configuring Scan




Step 1 Click .

Step 2 Click PTZ button, and rotate PTZ toward left to a position, then click  to set left boundary.

Step 3 Continue to rotate PTZ toward right to a position, and click  to set right boundary.




Step 4 Click , to start scan, then PTZ will rotate back and forth within the two boundaries.

5.3.4.2.5 Enable/Disable Pan

Click , and then click , PTZ rotate at 360° by specified speed. Click  to stop camera rotation.




5.3.4.2.6 Enable/Disable wiper

It is to use RS485 command to control the connected peripheral device wiper on/off. Make sure the connected peripheral device supports wiper function.




Click , and then click , it is to enable wiper. After enabling wiper, click  to disable.

5.3.4.2.7 Enable/Disable light

It is to use RS485 command to control the connected peripheral device light on/off. Make sure the connected peripheral device supports light function.

Click , and then click , it is to enable light. After enabling light, click  to disable.

5.3.4.2.8 Enable/Disable IR light

Click , and then click , it is to enable IR light. After enabling IR light, click  to disable.

5.3.4.2.9 Configuring custom commands

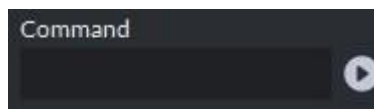
NOTE

Different devices support different customized commands. Contact the manufacture for detailed information.

Step 1 Click .

Step 2 Input command on the customized command interface. See Figure 5-40.

Figure 5-40



Step 3 Click  to display the function of the customized command.

5.3.4.2.10 PTZ Menu

Step 1 Click .

The PTZ menu is shown as in Figure 5-41.

Figure 5-41

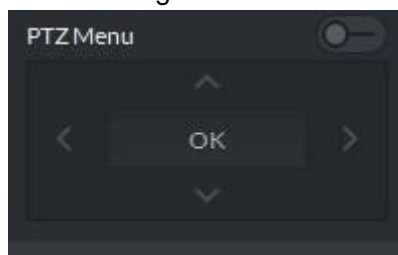








Table 5-24

Parameters	Note
	Up/down button. Move the cursor to the corresponding item.
	Left/right. Move the cursor to set parameters.
	Click  to enable PTZ menu function. System displays main menu on the monitor window.
	Click  to close PTZ menu function.
OK	It is the confirm button. It has the following functions. <ul style="list-style-type: none"> • If the main menu has the sub-menu, click OK to enter the sub-menu. • Move the cursor to Back and then click OK to go to go back to the previous menu. • Move the cursor to Exit and then click OK to exit the menu.

Step 2 Click OK.

The monitor window displays main menu. See Figure 5-42.

Figure 5-42

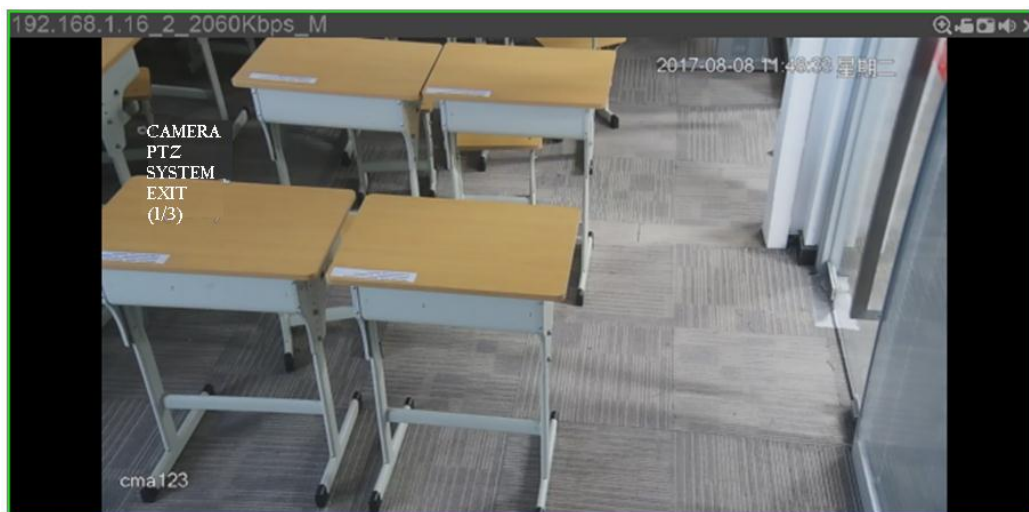


Table 5-25

Parameters	Note
Camera	Move the cursor to Camera and then click OK to enter camera settings sub-menu interface. It is to set camera parameters. It includes picture, exposure, backlight, day/night mode, focus and zoom, defog, default, etc.
PTZ	Move the cursor to PTZ and then click OK to enter PTZ sub-menu interface. It is to set PTZ functions. It includes preset, tour, scan, pattern, rotation, PTZ restart, etc.

Parameters	Note
System	Move the cursor to System and then click OK to enter system sub-menu interface. It is to set PTZ simulator, restore camera default settings, video camera software version and PTZ version.
Return	Move the cursor to the Return and then click OK, it is to go back to the previous menu.
Exit	Move the cursor to the Exit and then click OK, it is to exit PTZ menu.

5.3.5 Smart Track

DSS Client supports smart track which links fisheye speed dome to general speed dome to better control each monitoring position.

5.3.5.1 Preparations


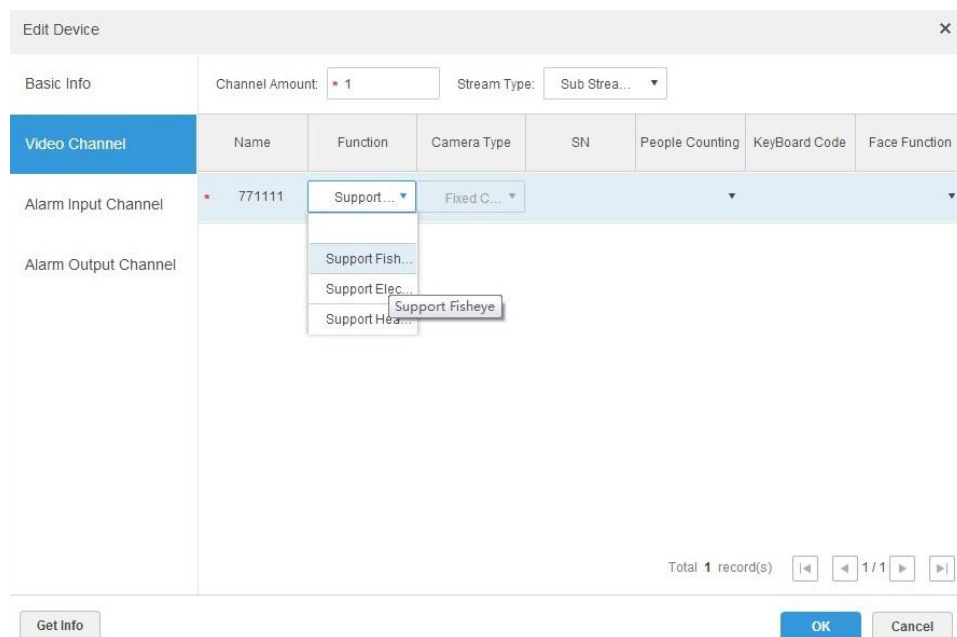
- Before operating smart track, go to Device manager to add fisheye device and PTZ camera first. Refer to **4.6 Adding Device** for detailed information.
- After device is added, click , and select fisheye and general speed dome.

Figure 5-43



5.3.5.2 Adding Smart Track Config

Step 1 Select the fisheye device on the device tree and then right click to select Smart track.

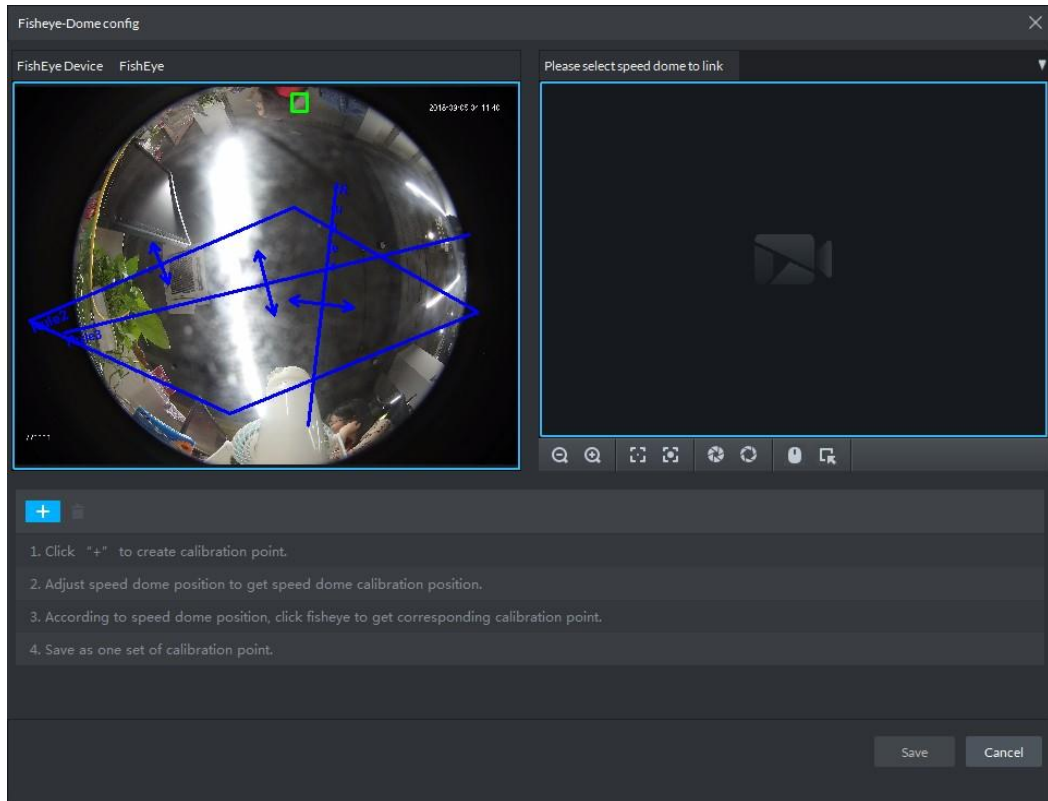



NOTE

If it is not the first time to use smart track function, select the fisheye device and then right click to select Smart track config.

The Smart track interface is displayed. See Figure 5-44.

Figure 5-44



Step 2 Click  after the Select linkage PTZ camera and then select a PTZ camera.

Step 3 Click  and then move the  of the fisheye on the right to select a position.


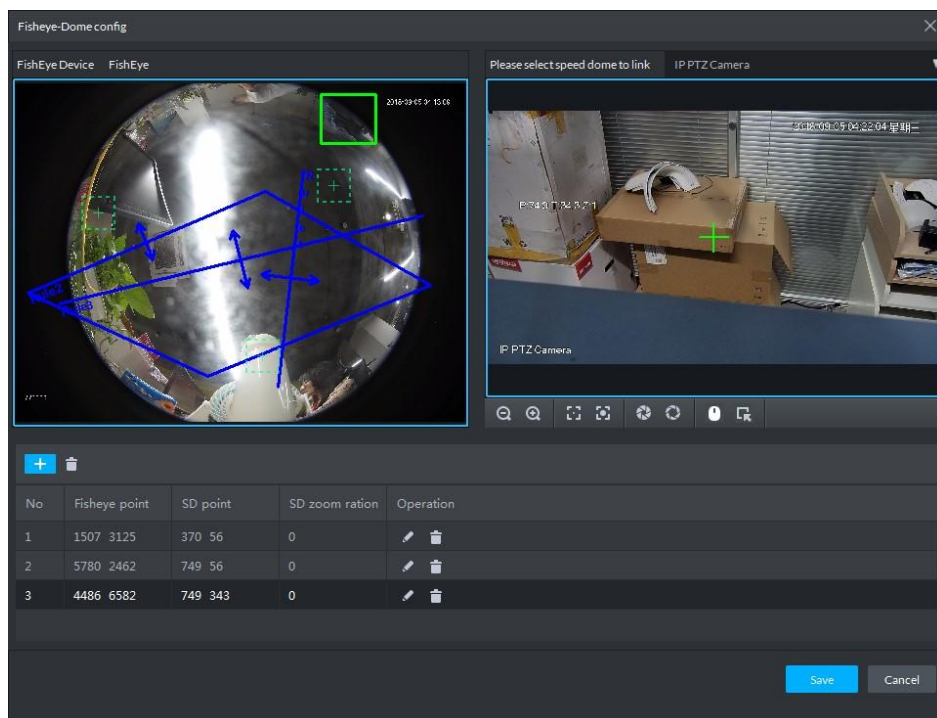



Click  on the general PTZ camera to find the position. Adjust the PTZ camera to find the position and move the PTZ to the center position (The green cross on the image). See Figure 5-45.

Figure 5-45



 **NOTE**

- Select 3-8 mark points on fisheye camera.
- When you find mark point on the left side of general PTZ camera, click  to zoom out PTZ.
- Click  to 3D position, and when you click a certain point on the left side of PTZ camera, it will automatically move to the center.

Step 4 Click  to save the calibration point.

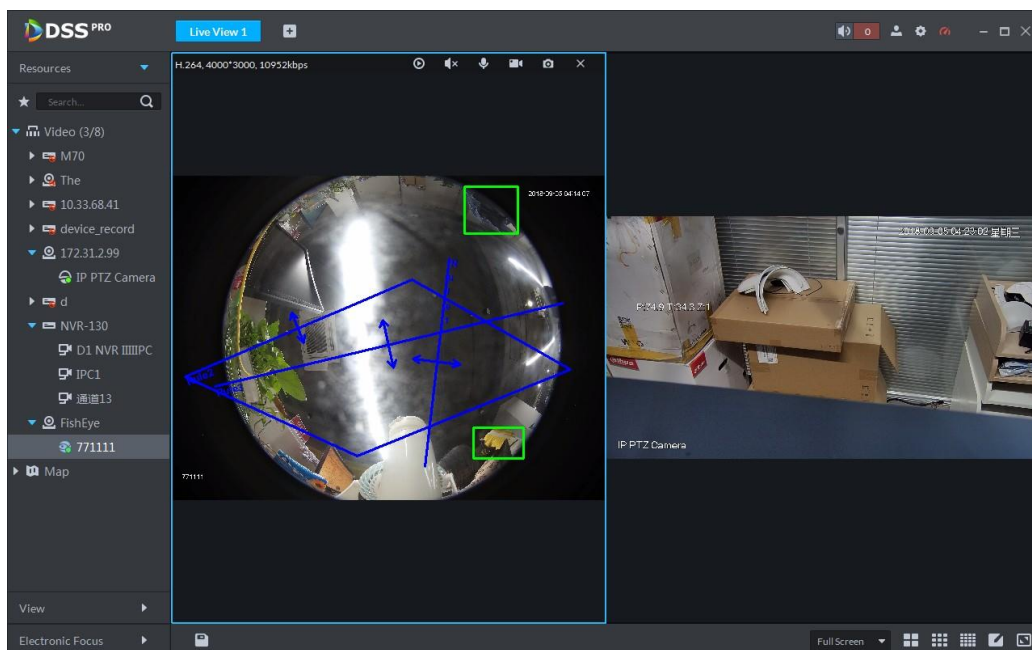
Refer to above steps to add at least three calibration points. These three points shall not be on the same straight line.

Step 5 Click Save.

5.3.5.3 Enable Smark Track Function

Step 1 Select the fisheye device on the device tree and then right click to select Smart track. See Figure 5-46.

Figure 5-46



Step 2 Click any point on the left of fisheye, general PTZ camera on the right will auto link to corresponding position


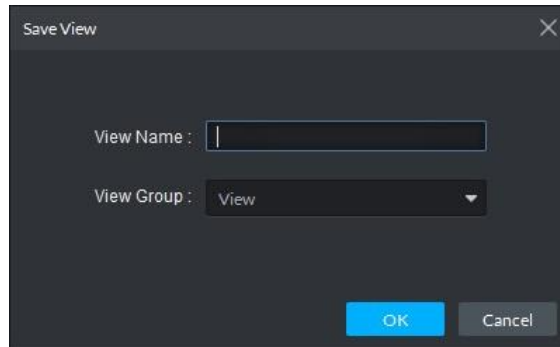
Step 3 Click , system pops up Save View box. See Figure 5-47.

Figure 5-47



A dialog box titled "Save View" with a close button (X) in the top right corner. It contains two input fields: "View Name" with a text input field, and "View Group" with a dropdown menu currently showing "View". At the bottom right, there are two buttons: "OK" (highlighted in blue) and "Cancel".

Step 4 Enter view name, select group, and click OK.

5.3.6 Smart Track

Support smart track which links bullet with PTZ camera, and it is good for panoramic monitoring and details tracking. Currently smart track supports bullet PTZ all-in-one camera and panoramic+PTZ camera etc. Besides, it also supports individual bullet and PTZ camera which have been bound and calibrated.

5.3.6.1 Preparation before Operation


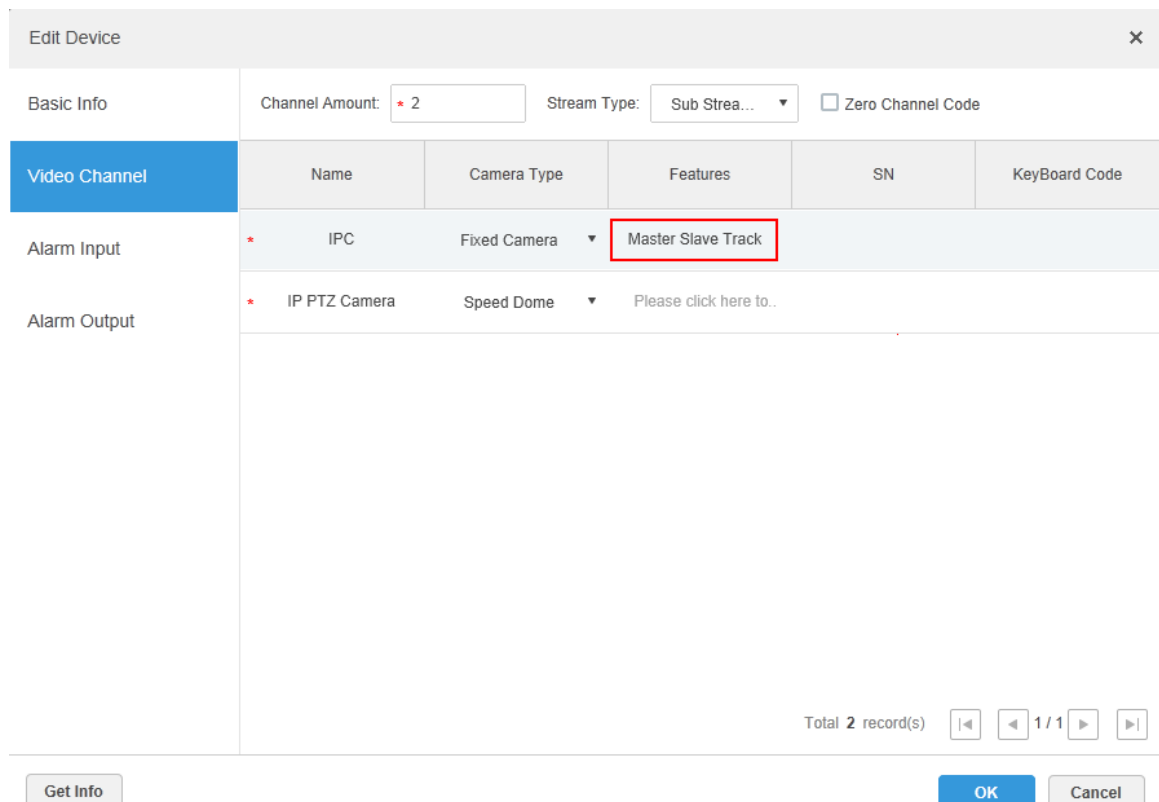
- Before implementing smart track (bullet + PTZ camera), it needs to add bullet and PTZ camera from **Device** on Web interface. For detailed steps, refer to **4.6 Adding Device**
- Click  after adding bullet, and select **Master Slave Track**. Tracking function can be realized after configuring master slave track.

Figure 5-48



The "Edit Device" interface shows a sidebar with "Video Channel" selected. The main area contains a table with columns: Name, Camera Type, Features, SN, and KeyBoard Code. The first row is highlighted and has a red box around the "Master Slave Track" feature. The second row is partially visible.

Name	Camera Type	Features	SN	KeyBoard Code
IPC	Fixed Camera	Master Slave Track		
IP PTZ Camera	Speed Dome	Please click here to..		

Basic Info: Channel Amount: * 2, Stream Type: Sub Strea..., Zero Channel Code

Alarm Input: * IPC, Fixed Camera, Master Slave Track

Alarm Output: * IP PTZ Camera, Speed Dome, Please click here to..

Total 2 record(s) |< < 1 / 1 > >|

Buttons: Get Info, OK, Cancel

- It needs to calibrate bullet and PTZ camera by config tool in advance if you want to add individual bullet and PTZ camera. For detailed operations, refer to config tool user manual.

5.3.6.2 Applying Smart Track

Smart track application includes manual positioning, 3D positioning, manual tracking, auto tracking and preset return.

5.3.6.2.1 Manual Positioning

Click any position on the bullet image, and the PTZ will position the image to the area designated by bullet due to smart track. See Figure 5-49. Click the red spot on the bullet image, and the PTZ central point will move to the corresponding location automatically.

Figure 5-49



5.3.6.2.2 3D Positioning

Select an area on the bullet image, and the PTZ camera will position the image to the corresponding area, meanwhile zoom in or out.

Draw rectangular box from upper left to lower right, zoom in after being positioned by PTZ camera. See Figure 5-50.

Draw rectangular box from lower right to upper left; zoom out after being positioned by PTZ camera. See Figure 5-51.

Figure 5-50



Figure 5-51



5.3.6.2.3 Manual Track



- Bullet PTZ all-in-one camera, panoramic+PTZ camera and individual bullet have been configured with smart rules. For detailed operation, refer to device user manual.
- IVS Overlay is required to be selected on the bullet image, enable target box overlay. Target box will be displayed only when there is moving target appears in the image.
- Manual track priority is higher than auto track.

Click moving target box (valid inside the box as well) in the bullet monitoring image, and the color of target box changes, PTZ camera will track the selected target.

Figure 5-52



5.3.6.2.4 Auto Track

After auto track is enabled, when there is target triggering IVS rule in the bullet image, then PTZ camera will automatically track the target that triggers IVS rule. If there are more than two tracking targets in the image, then it will select tracking target according to trigger time.



- Bullet PTZ all-in-one camera, panoramic+PTZ camera and individual bullet have been configured with smart rules. For detailed operation, refer to device user manual.
- IVS Overlay is required to be selected on the bullet image, enable target box overlay. Target box will be displayed only when there is moving target appears in the image.
- Manual track priority is higher than auto track.

In the device list on **Live** interface, select individual bullet, bullet PTZ all-in-one camera or panoramic+PTZ camera, right click and select Auto **Track** > **On** and enable auto track. When

there is moving target in the image, then PTZ camera will track the target automatically. See Figure 5-53 and Figure 5-54.

Figure 5-53

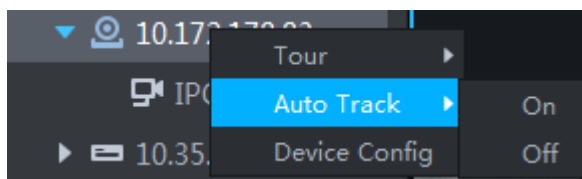


Figure 5-54



5.3.6.2.5 Preset Return

Enable preset return when idle during calibration, in any status, when there is no target triggering track within the specific period on the bullet image, then PTZ image will return to the designated preset.

5.3.7 View Tour

Step 1 On the **Live View** interface, double click a channel on the left side to open the video.


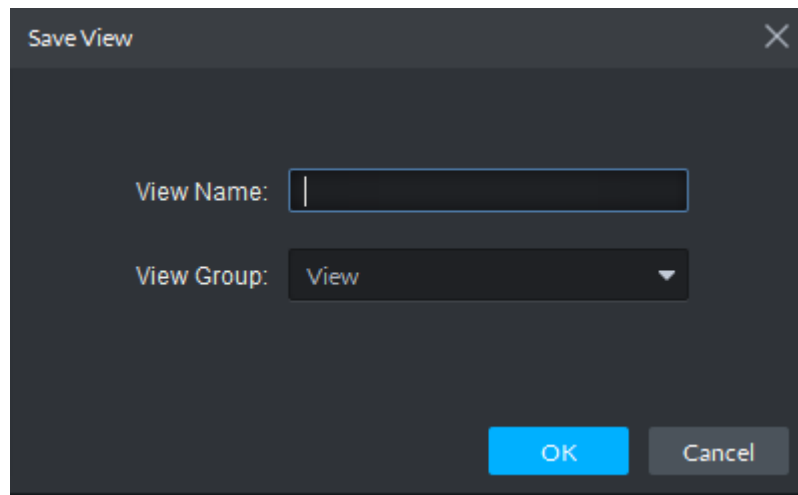
Step 2 Click  in the lower part, system pops up **Save View** dialogue box. See Figure 5-55.

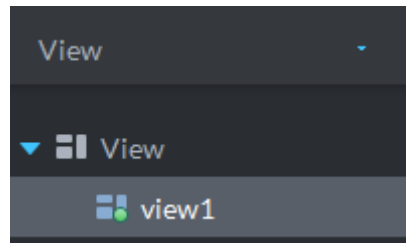
Figure 5-55



Step 3 Input **View Name**, select **View Group** and click **OK**.

Check the added view under View tab on the left. See Figure 5-56.

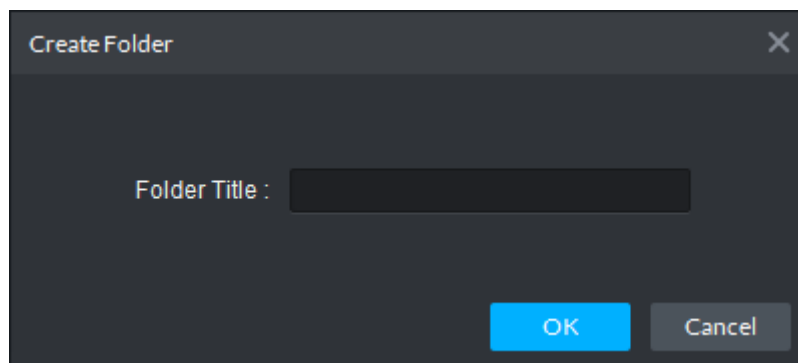
Figure 5-56



Step 4 Select **View** and right click to select **Create Folder**.

Create folder dialogue box is displayed. See Figure 5-57.

Figure 5-57



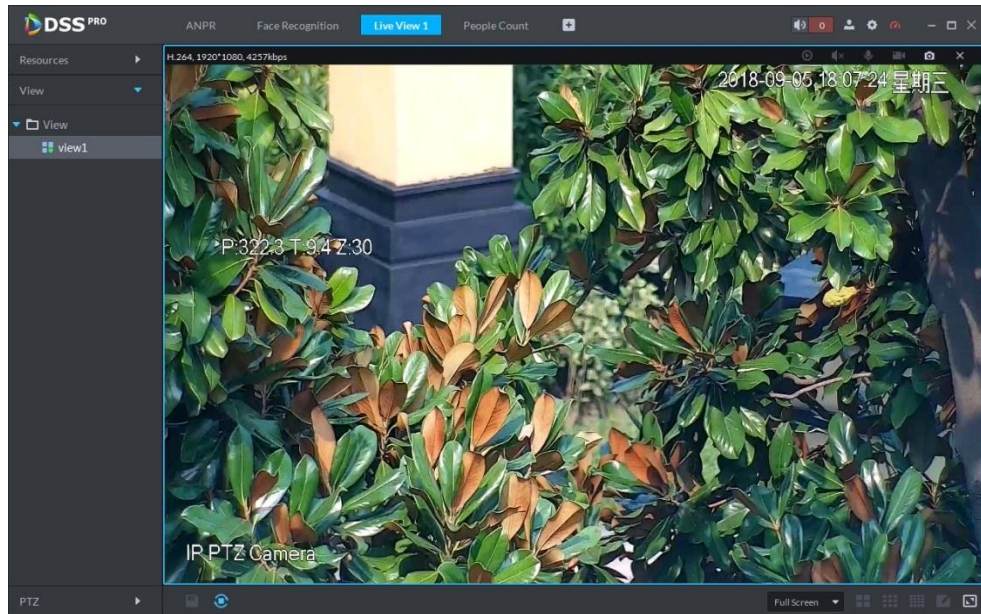
Step 5 Input **Folder Title** and click **OK**.

Step 6 Right click **View** to select **Tour Interval**, for example, 10s.

A View Tour will be initiated at intervals of 10s. See Figure 5-58.

Click  to stop Tour.

Figure 5-58

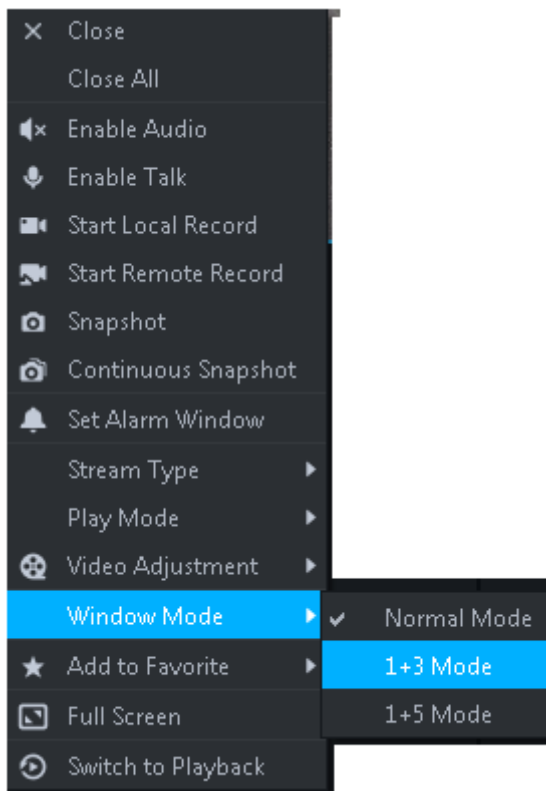


5.3.8 Region of Interest (RoI)

Client Live view window supports Normal mode, 1+3 mode and 1+5 mode.

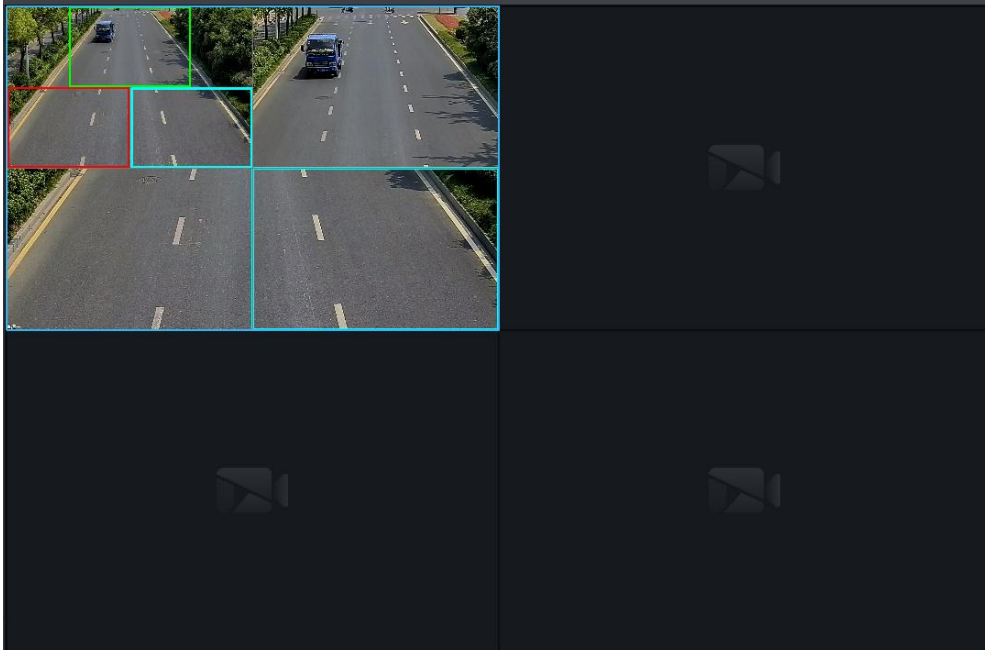
Right click to select Screen Mode in the live view window. See Figure 5-59.

Figure 5-59



For example, select 1+3 mode. See Figure 5-60.

Figure 5-60



5.4 Record

System can search and playback records from the device or center storage media, which enables you to search, playback and download records of different channels, different times and different types from the Client. If there are records, system displays different colors in date selection region.

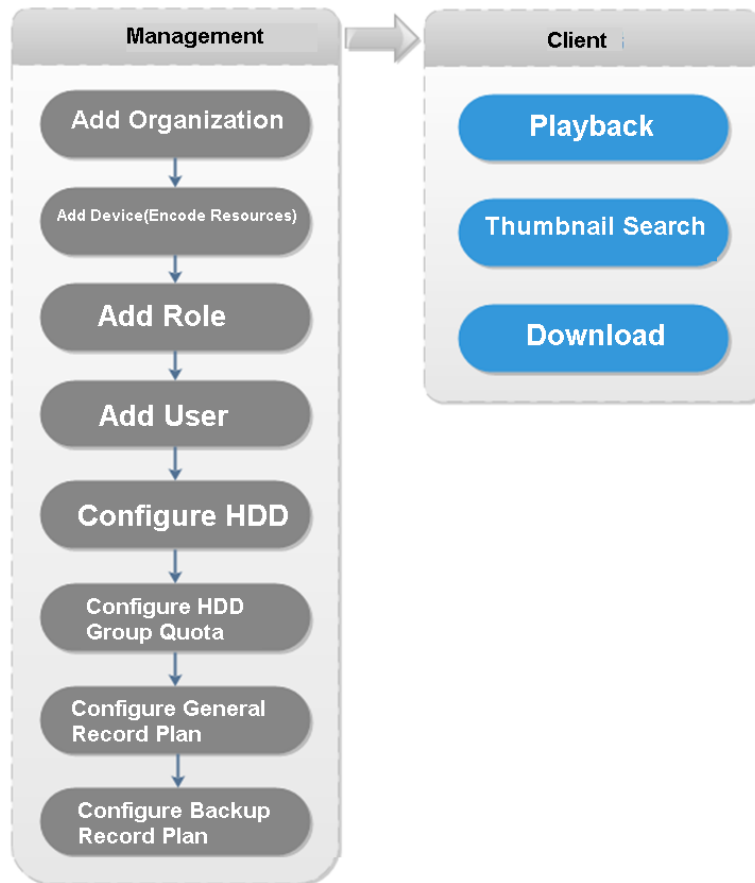
- Device Storage: Record to be stored in front-end SD card, or disks like DVR or NVR. Storage plan is configured on the device.
- Center Storage: Record to be stored in network storage server or DSS disks. For detailed configuration, see Storage config in System Introduction. To play back the record, you need to configure the record plan first, and then system will store the record of the specified period in network storage server.

5.4.1 Preparations

Make sure you have set record schedule on the manager. Contact the admin or refer to 4.7 Configuring Record Schedule for detailed information.

Refer to Figure 5-61 for Playback flows information.

Figure 5-61



5.4.2 Recording during Live View

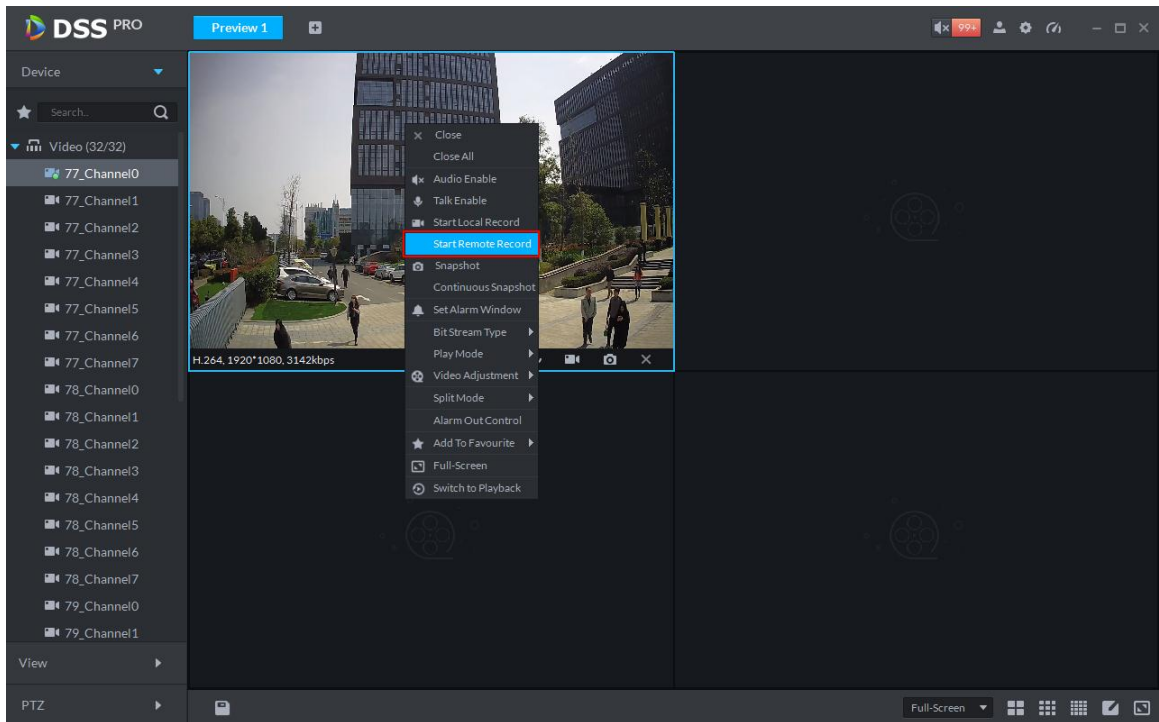
Open video in the preview window of the Client, then you can start center record of the channel from the right-click menu, provided that the center storage disk has been configured and the channel is not configured with a central storage plan.

Step 1 Click **+**, and select **Live View** on the main page.

Step 2 Click the corresponding channel on the left side.

Step 3 Right-click the video window and select **Start Remote Record**. See Figure 5-62.
The system starts to recording.

Figure 5-62



 **NOTE**


- Stop remote record: Select the window that is remotely recording and then right click mouse to select **Stop Remote Record**.
- Once current channel has the record at the same time, the preview window overlays record status.

5.4.3 Record Playback

5.4.3.1 Search Record

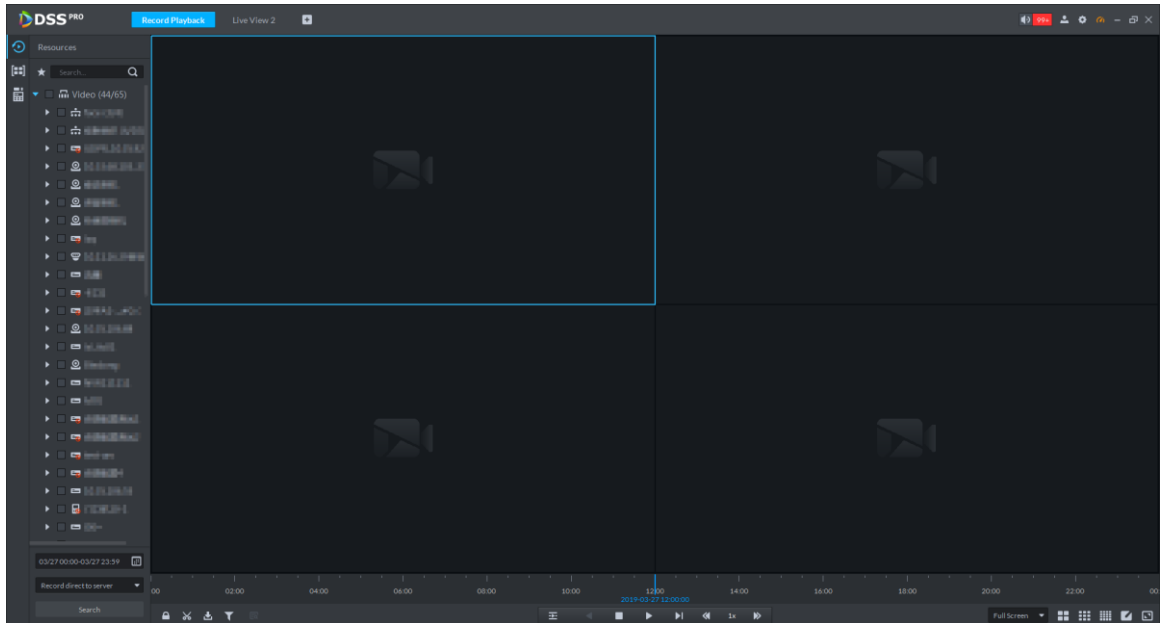
Search record of today, specified date or specified period.

Step 1 Click  on the **New Tab** interface and select **Record Playback**.

Step 2 Click .


The **Record Playback** interface displayed. See Figure 5-63.

Figure 5-63



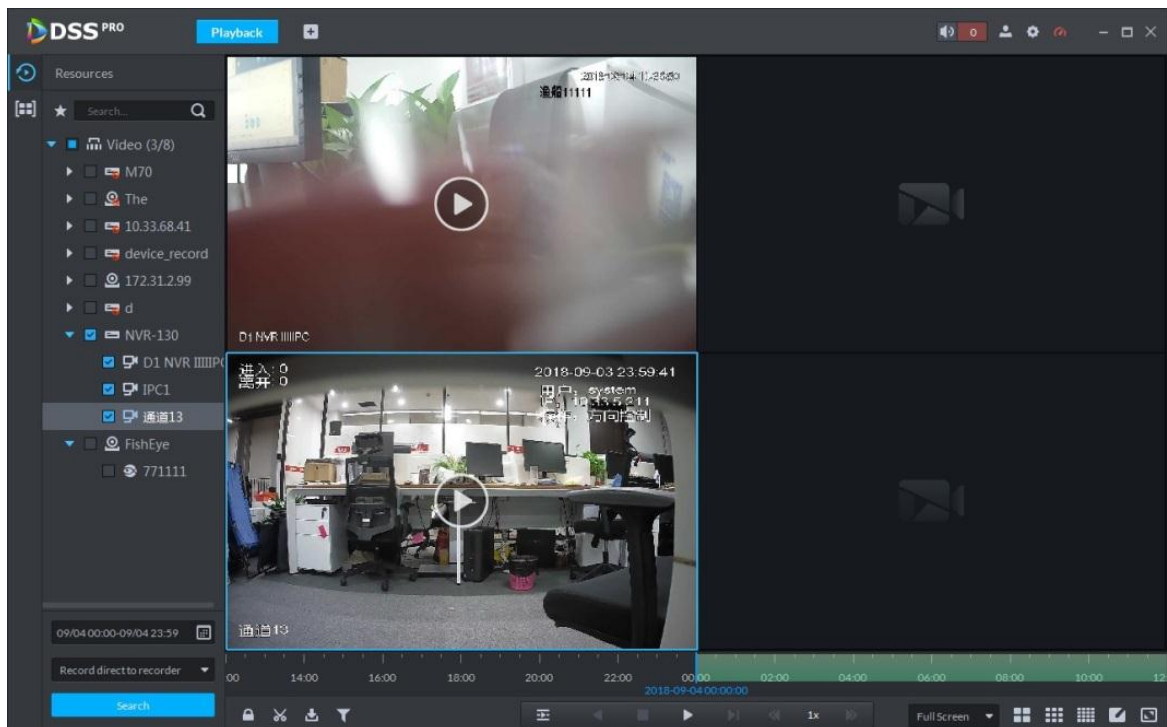
Step 3 Select a channel on the device tree.

Step 4 Select date and record storage position. Click **Search**.

Step 5 Select a video window that has the record and then click .

Corresponding window begins playback the record of current channel. See Figure 5-64.









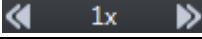
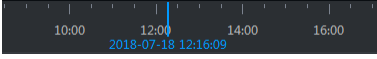
Figure 5-64



5.4.3.2 Record Control

Refer to Table 5-26 for buttons at the bottom of record playback interface and the description.

Table 5-26

Icon	Note
	Lock the video stored on server within some period of designated channel. Locked video will not be overwritten when disk is full.
	Cut video
	Download video
	Filter video according to record type.
	Make dynamic detection analysis over some area of the record image, it only replays the video with dynamic image in the detection area.
	Playback record files of the same period from different channels on selected windows.
	Stop/pause playback
	Frame by frame playback/frame by frame backward.
	Fast/slow playback. Max. supports 64X or 1/64X.
	During playback, you can drag time progress bar to play back record at the specific time.

5.4.3.3 Record Type Filter

Filter video according to record type, record type includes schedule record; alarm record and motion detect record.

Step 1 On **Record Playback** interface, click . See Figure 5-65.

The system displays the interface of **Record Type Filter**. See Figure 5-66.

Figure 5-65

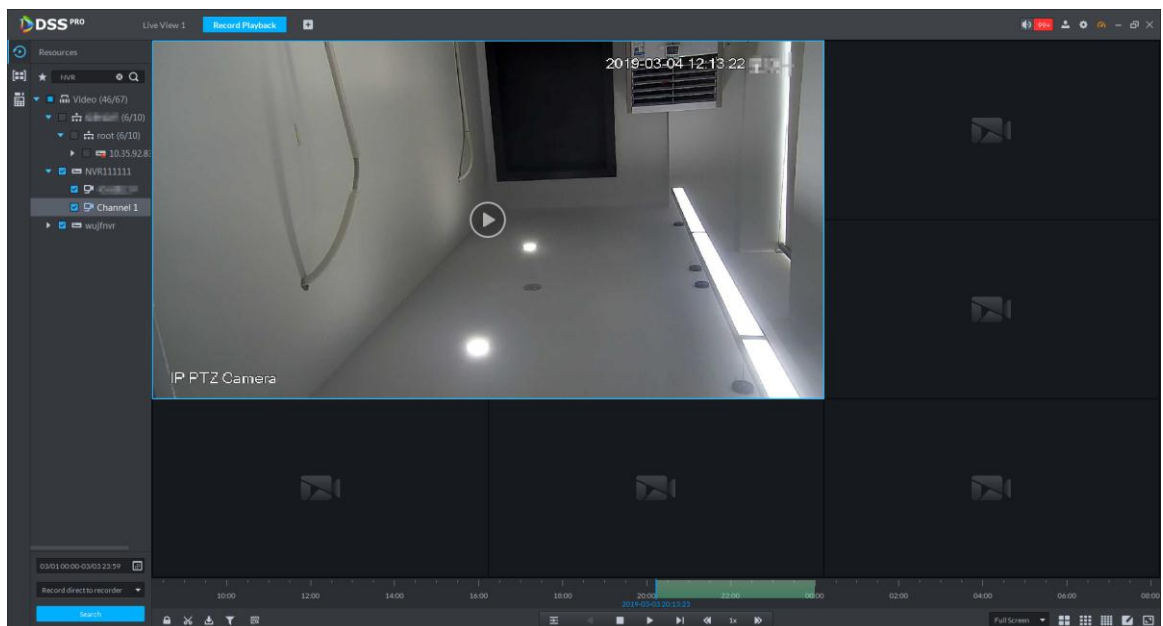
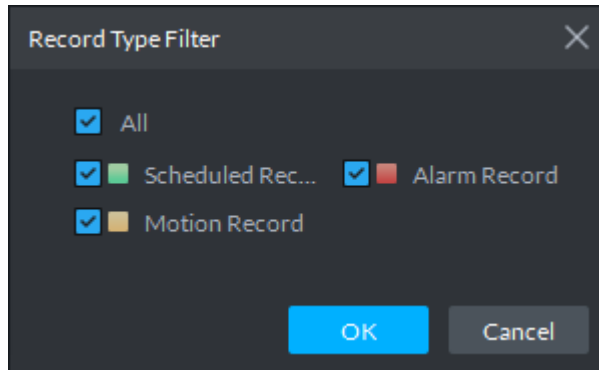


Figure 5-66



Step 2 Select a record type (or types) and then click **OK**.
The system only displays the video of selected type.

5.4.3.4 Smart Search

It makes dynamic detection analysis over some area and only replays the video with dynamic image with the detection area. The added front device is required to support smart search, otherwise the search result will be null.


Step 1 Click  on the interface of **Record Playback**. See Figure 5-67.
The system displays the interface of Smart Search. See Figure 5-68. 22×18 squares are displayed in the window.

Figure 5-67

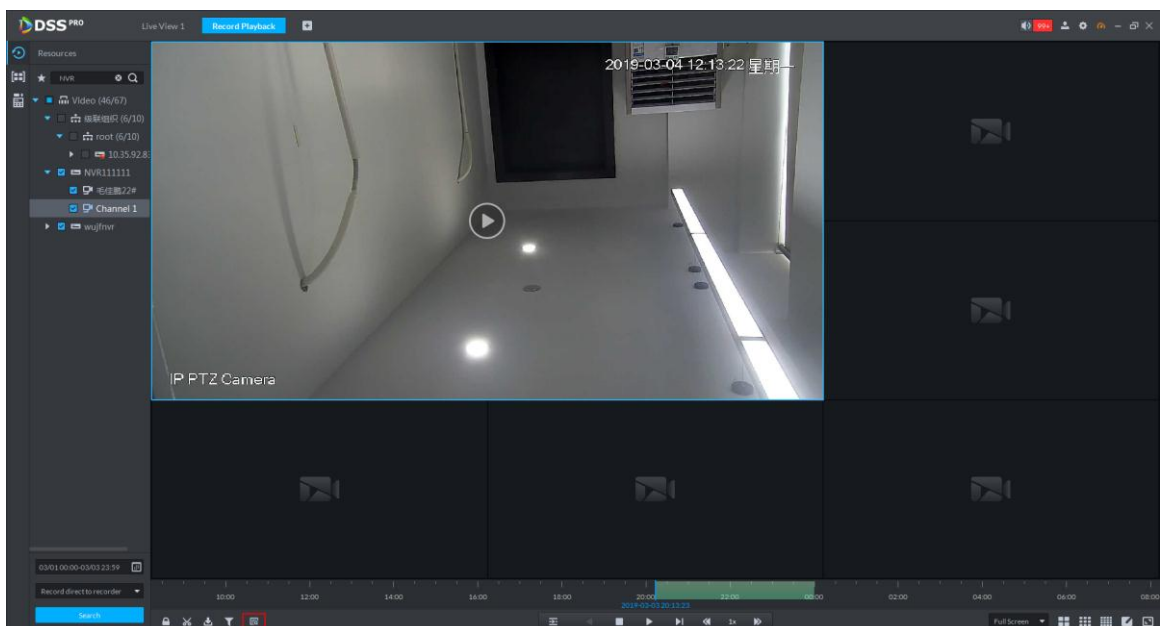
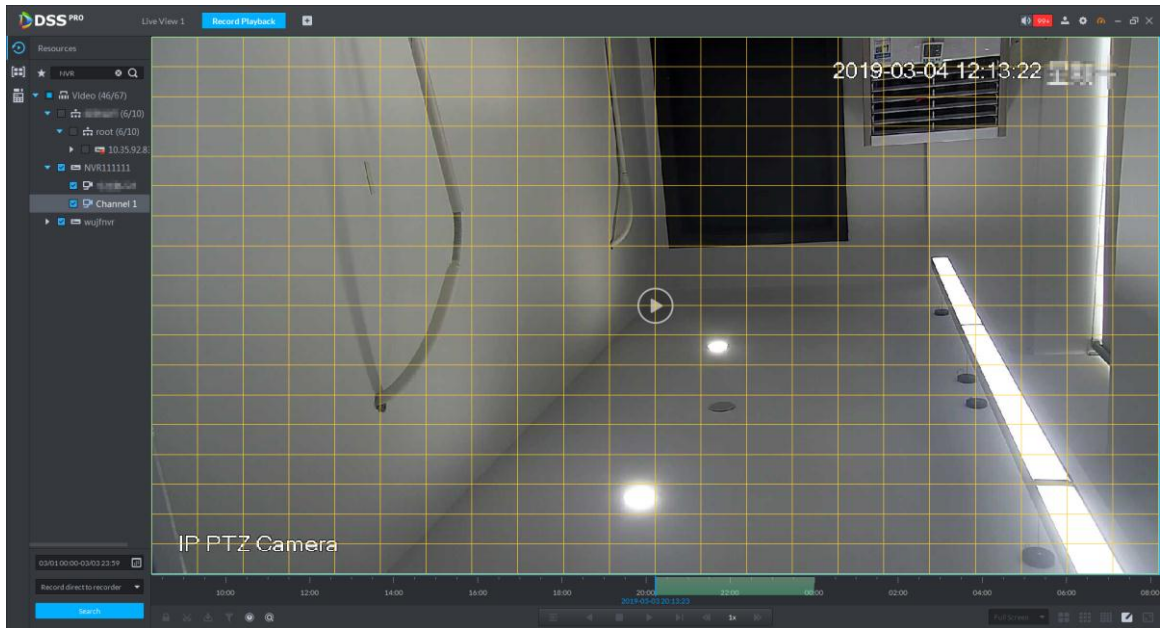


Figure 5-68



Step 2 Click the square and select detection area, you can select several areas.




- Select detection area; move the mouse to image, press mouse left button and drag the mouse to select square.
- For selected area, click again or select square to cancel it.

Step 3 Click  and start smart search analysis.

- If there is search result, the time progress bar will become purple and display dynamic frame.
- If there is no search result, or selected playback device fails to support smart search, then it will prompt that smart search result is null.



Click  and you can reselect detection area.

Step 4 Click the play button on the image or control bar.

The system only replays search result, which is the purple display frame on the time progress bar.

Step 5 Click  and exit smart search.

5.4.3.5 Lock Record

Lock the video stored on the server within some period of specific channel. The locked video will not be overwritten when disk is full.

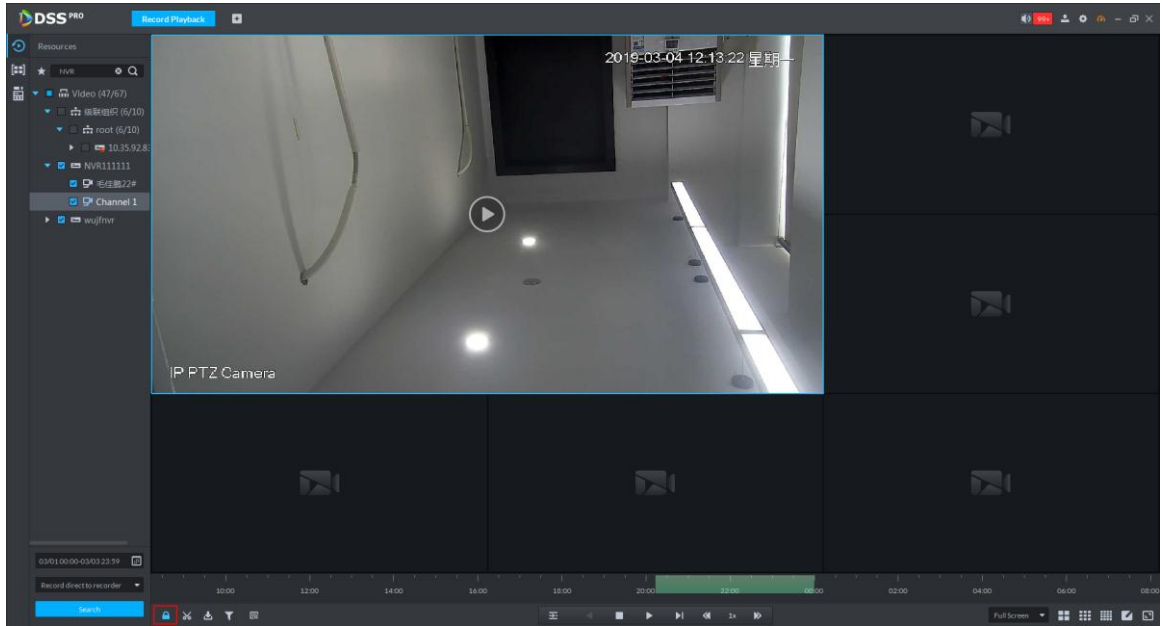


You can only lock the central video stored on the server.

Step 1 Click  at the bottom of the **Record Playback** interface (make sure the window has the record).

Place the mouse to the time progress bar. See Figure 5-69.

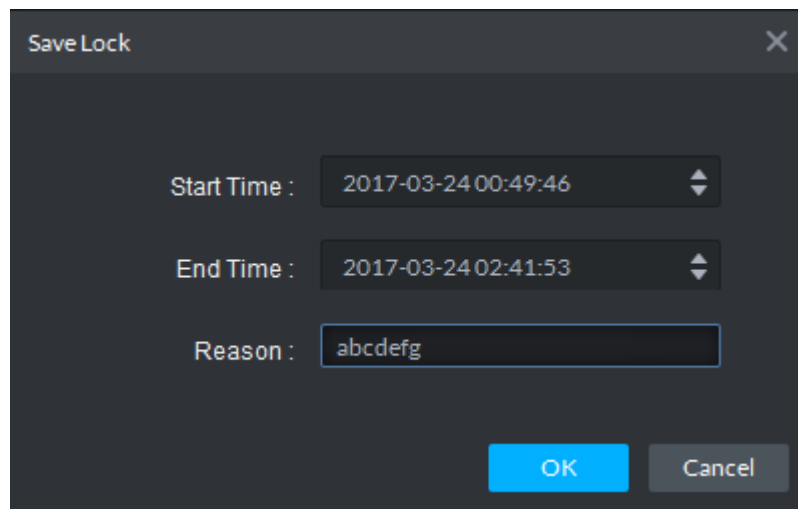
Figure 5-69



Step 2 Click the time progress bar to select lock start time, then drag mouse, and then click to select end time.

System pops up **Save Lock** dialogue box. See Figure 5-70.

Figure 5-70



Step 3 Click **OK**.

5.4.3.6 Add Mark

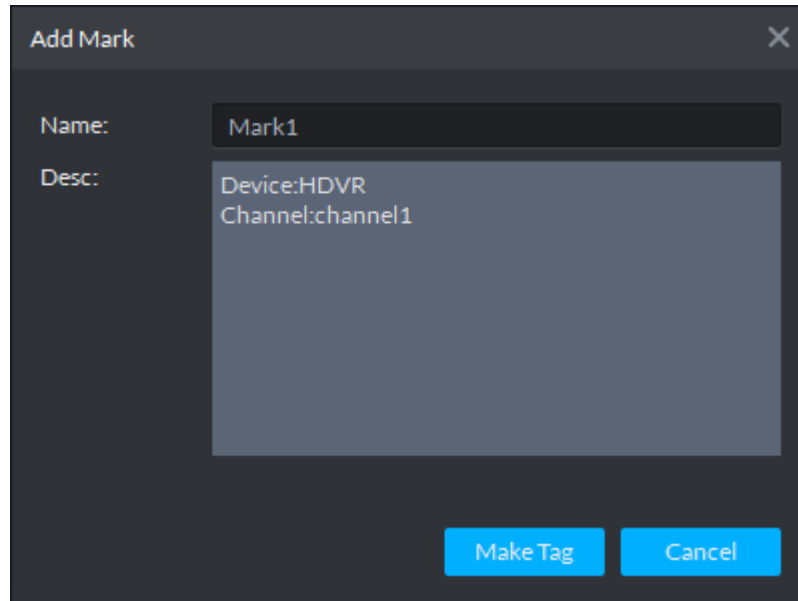
You can mark records that interest you by Add Mark for a subsequent search and location.

Step 1 On **Record Playback** interface, move mouse to the window that is playing record. Click

 at the top left corner.

Add Mark interface is displayed. See Figure 5-71.

Figure 5-71



Step 2 Input **Name** and **Description**, and then click **Make Tag**.

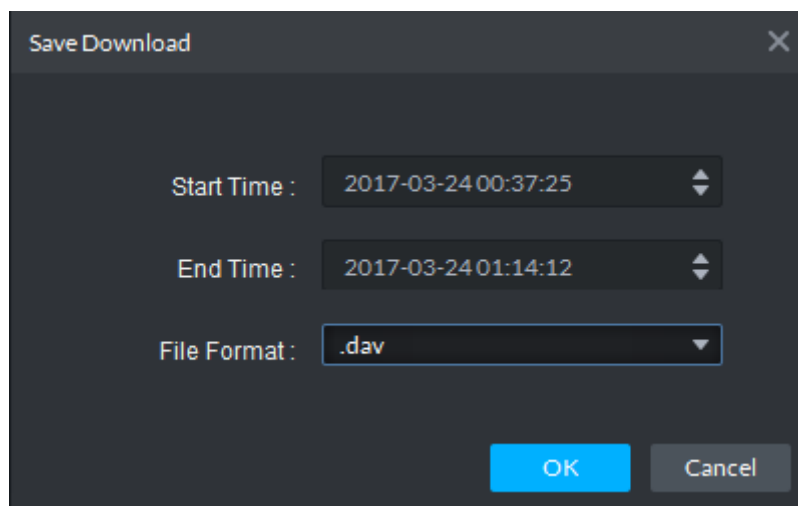
System prompts **Tag Creation Successful**. You can search record via mark in the **Download Center**.

5.4.3.7 Clip Record

Step 1 Click  at the bottom of the **Record Playback** interface (make sure there is record in the window).

Step 2 During the timeline, click to start clip and then drag the mouse, click to stop clip. The **Save Download** interface is displayed. See Figure 5-72.

Figure 5-72



Step 3 Set file format and then click **OK**.

5.4.3.8 Downloading Recording

The system supports downloading the record in the server or the device to the client.

Click  at the bottom side of the **Record Playback** interface, and the **Download Center** interface is displayed. For details, see **5.5 Record Download**.

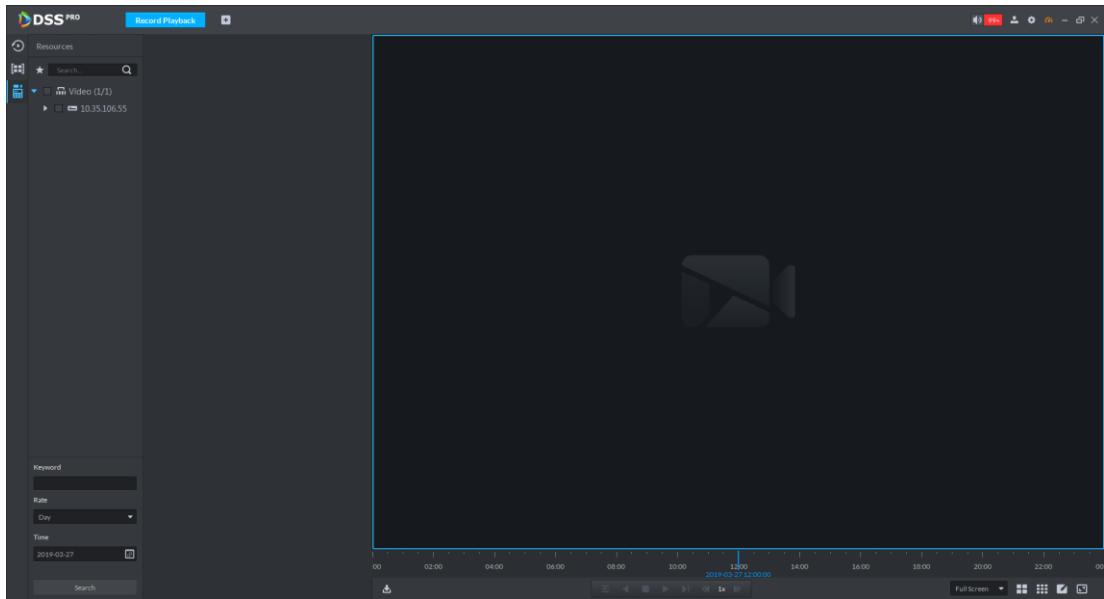
5.4.4 POS Search

Search POS receipt, check related video record. Search the video half an hour before and half an hour after POS receipt is printed, play the video 30s before the receipt is printed.

Step 1 Click  on the interface of **Record Playback**.

The system displays the interface of **POS Search**. See Figure 5-73.

Figure 5-73

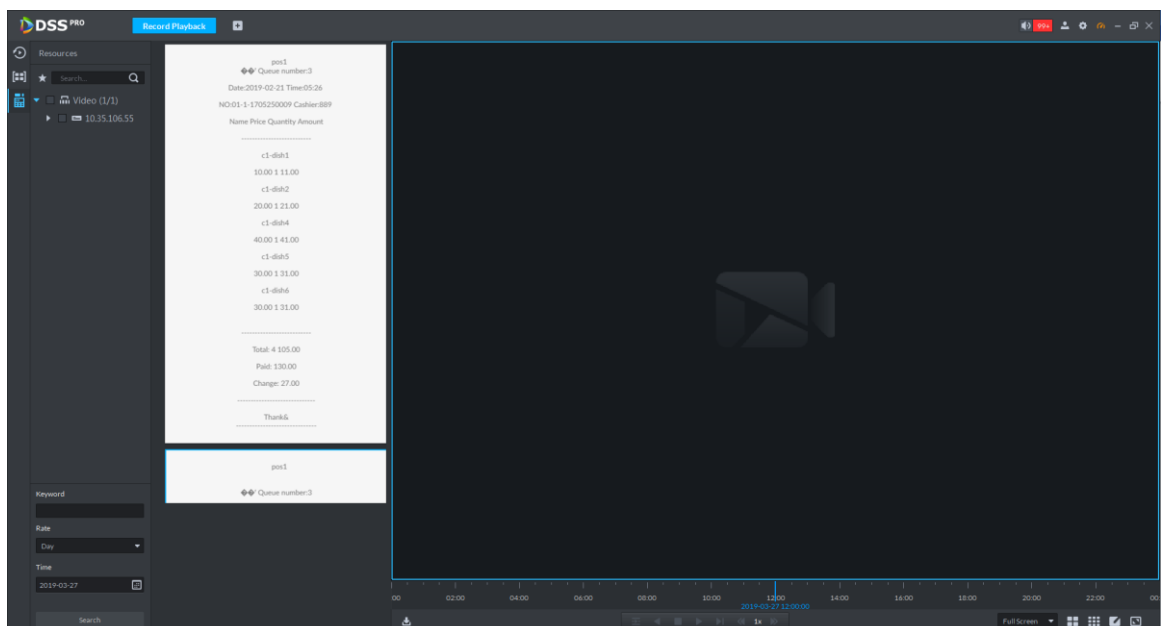


Step 2 Select channel from the device tree.

Step 3 Enter **Keyword**, select **Date** and **Time**, click **Search**.

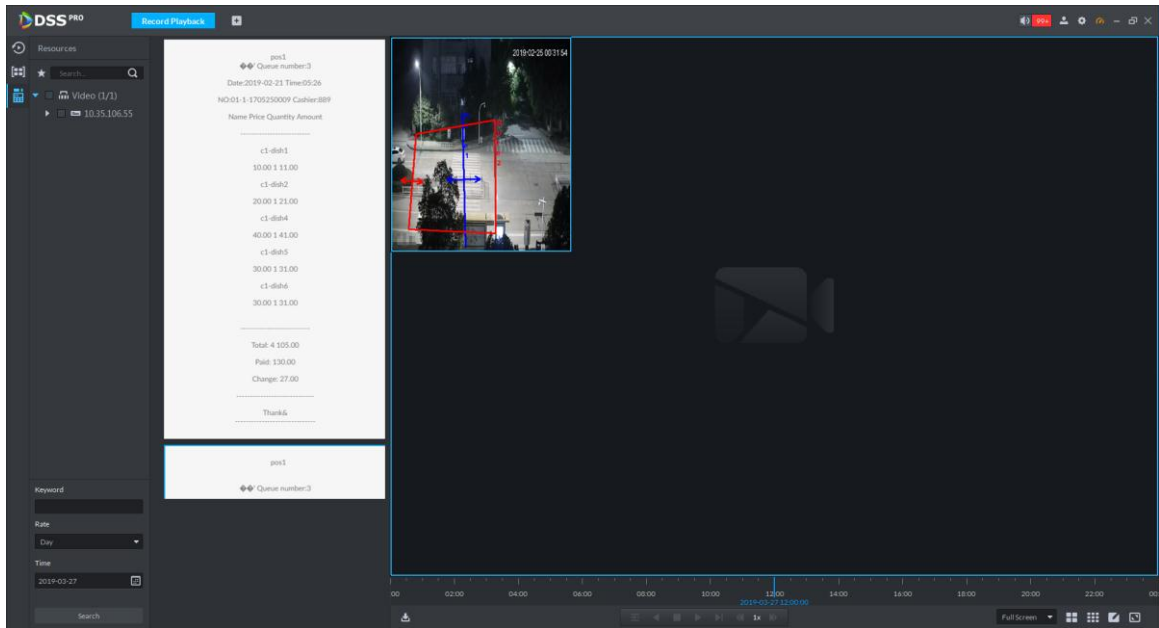
The system displays search result. See Figure 5-74.

Figure 5-74




- Step 4** Double click the POS information to replay related video.
The window will play the related video. See Figure 5-75.

Figure 5-75

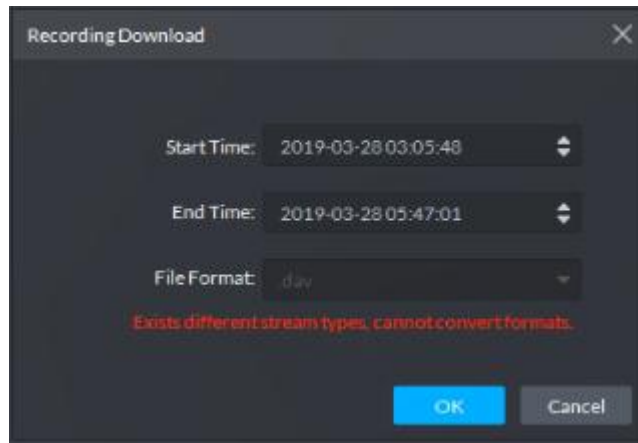


- Step 5** Download record.

1. Click  on the bottom of the interface.

The system displays the interface of **Record Download**. See Figure 5-76.

Figure 5-76



2. Confirm start time and end time, click **OK**.
View download details in the **Download Center**; refer to **5.5 Record Download** for more details.

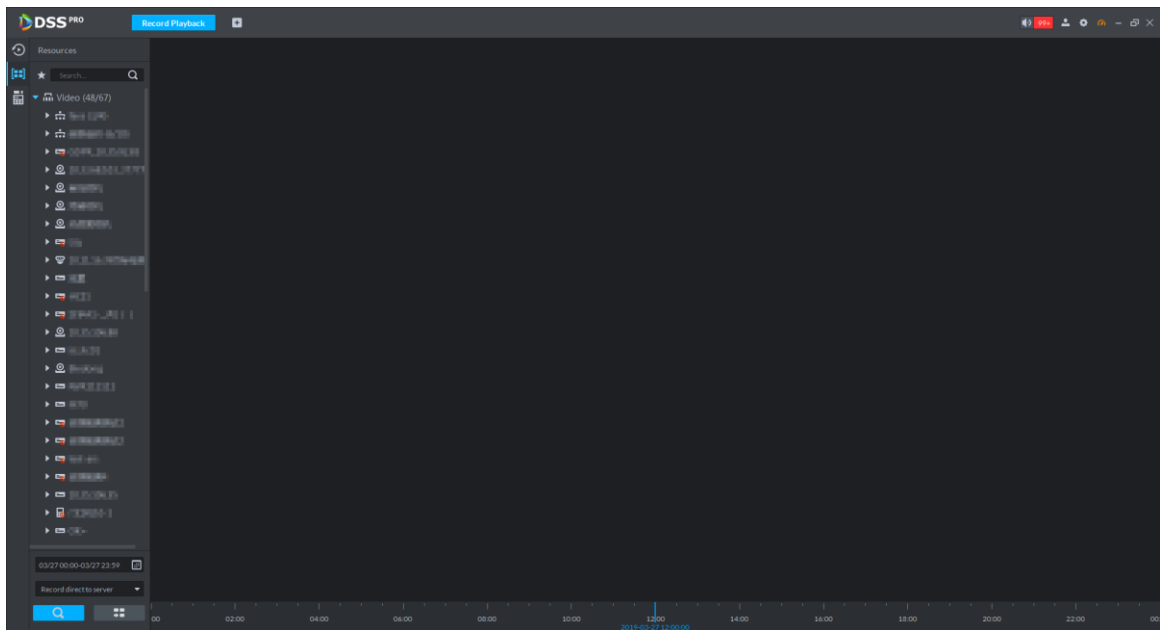
5.4.5 Search Thumbnail


Divide the searched video into levels and display in the form of thumbnail, which is the select ROI. You can view the searched video and image change of ROI at different time, and realize fast search.

- Step 1** On **Record Playback** interface, click .

The system displays the interface. See Figure 5-77.

Figure 5-77



Step 2 In the organization tree, select a video channel and then set search period and record position. Click .



There is a blue dot at the date top left corner if the channel has a record. See Figure 5-78.

Figure 5-78

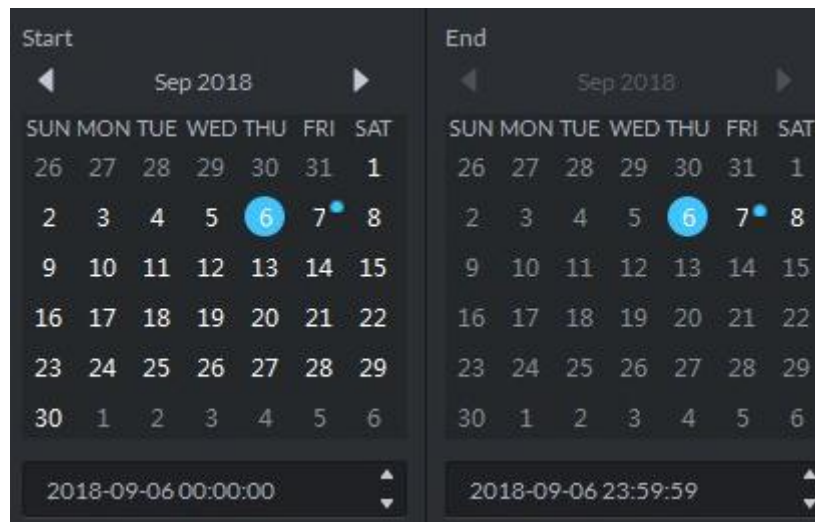
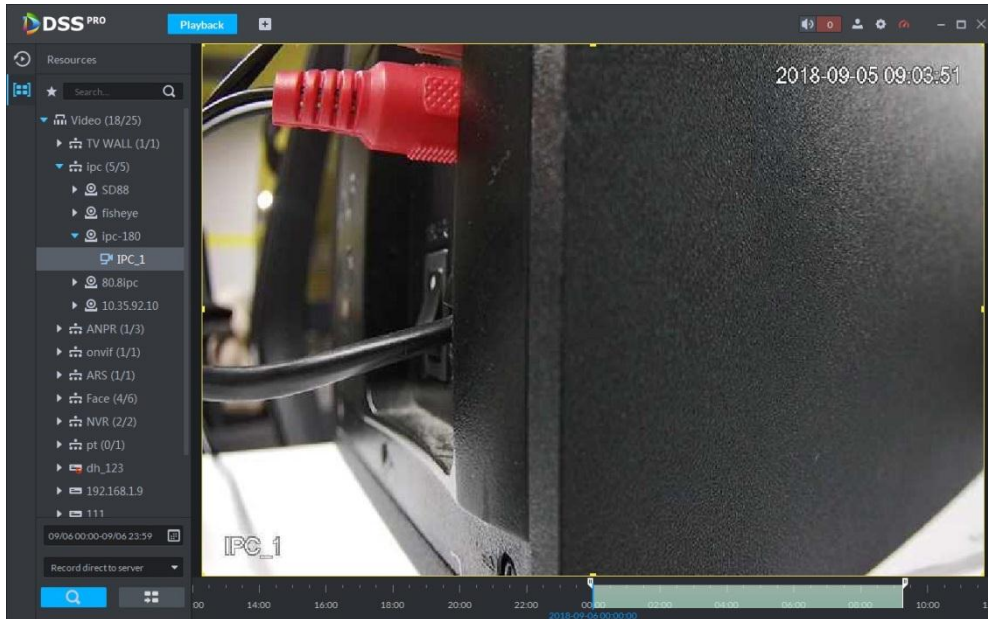


Figure 5-79




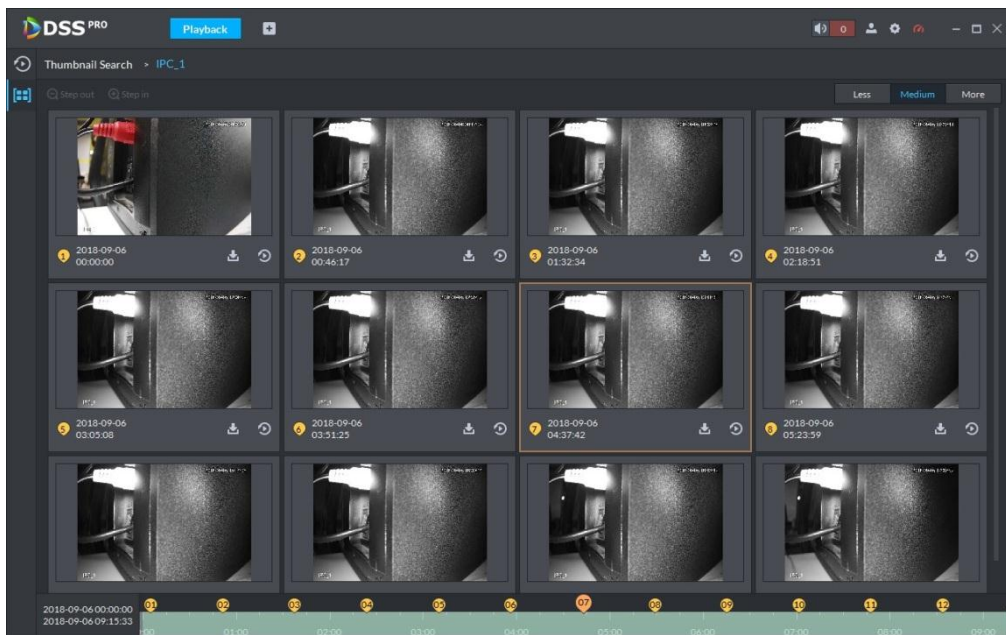
Step 3 Drag the yellow frame on the right to set thumbnail range. Click . System displays the video of current range. See Figure 5-80.

Figure 5-80



- System displays search results in suitable mode by default. Click Less, suitable, more to see proper mode.
- Double click the thumbnail, system search again for the record between current image and the next image.


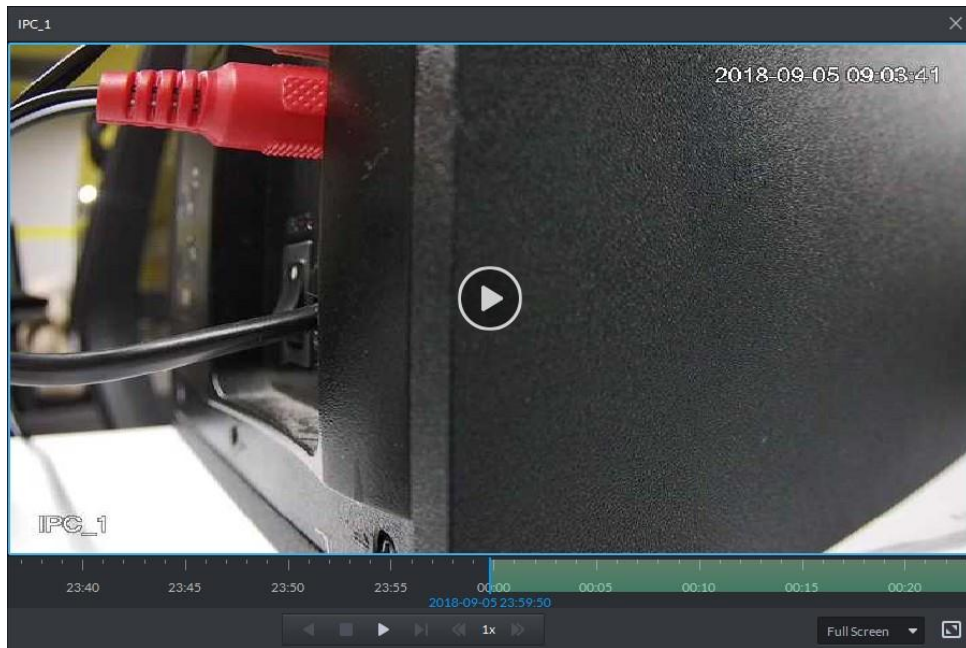
Step 4 Click the  at the bottom right corner of the thumbnail, you can view the corresponding video related to the thumbnail. See Figure 5-81.

Figure 5-81



Step 5 Download Record



If videos of different stream type exist in the download period, then it can only be saved as .dav.


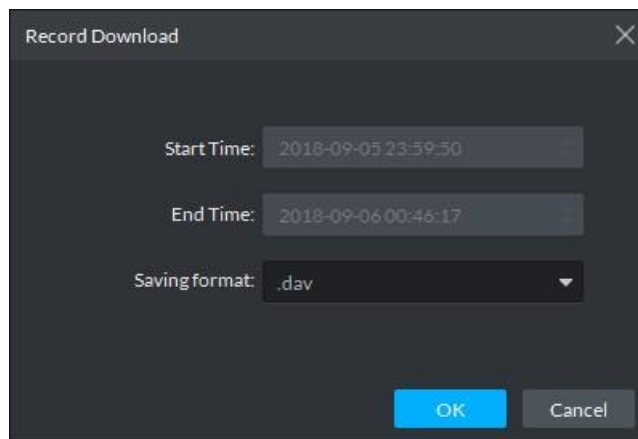
- 1) Click  at the right corner of the thumbnail, system downloads the record between current image and the next image. See Figure 5-82.

Figure 5-82



- 2) Select file format and then click OK.
Go to the Download center to view download detailed information. Refer to **5.5 Record Download** for detailed information.

5.5 Record Download

The system supports three download ways: Timeline, File List and Label.

5.5.1 Preparation

Make sure the record has been saved in the server, or SD card or HDD of device.

5.5.2 Timeline



Download video within some period.



If videos of different stream type exist in the download period, then it can only be saved as .dav.

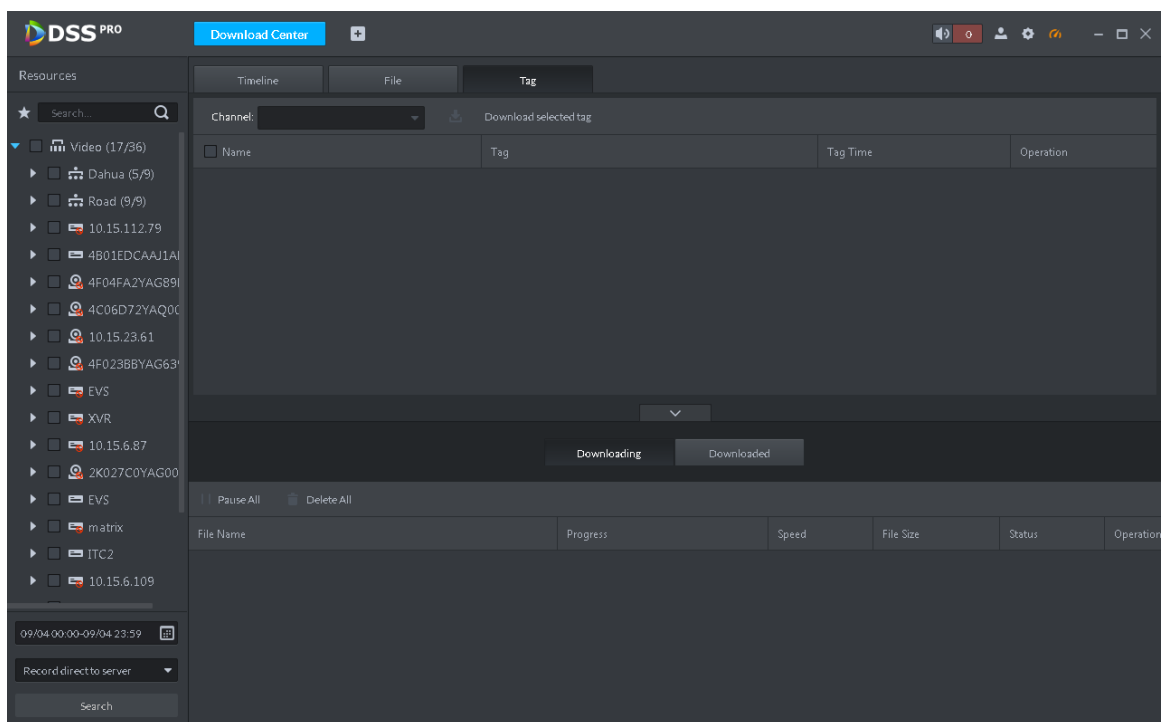
Step 1 Go to **Download Center**.

There are two ways to go to the download center.

- Click  at the bottom of the Playback.
- Click , on the **New Tab** interface, select Download center.

The Download interface is displayed. See Figure 5-83.

Figure 5-83

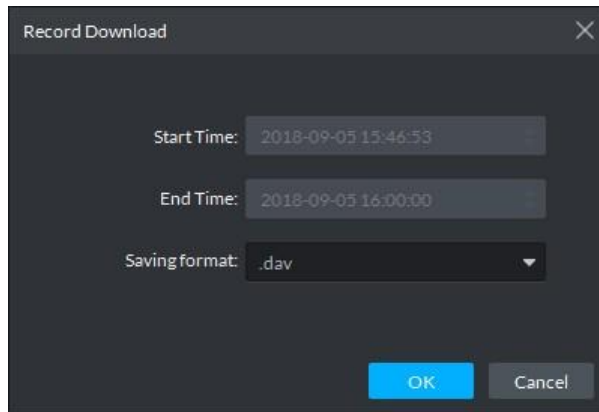


Step 2 Click Timeline.

Step 3 Select device channel, set search period and record storage position. Click Search.

Step 4 Select the period on the timeline, system pops up download dialogue box. See Figure 5-84.

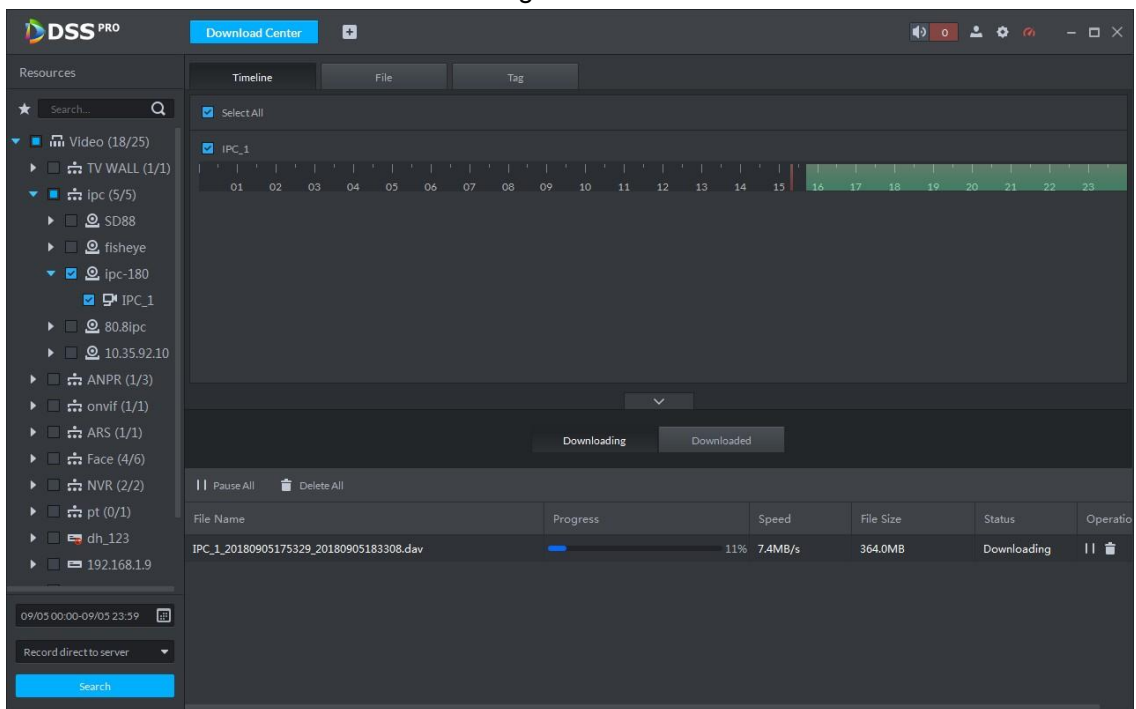
Figure 5-84



Step 5 Set file format and then click OK.

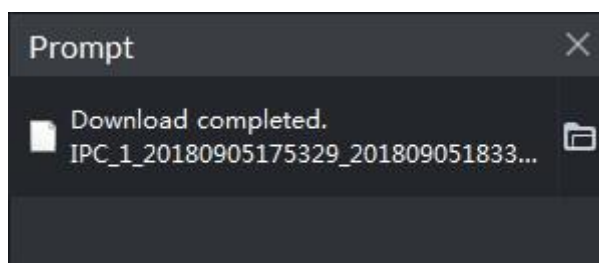
You can view the download process at the bottom of the interface. See Figure 5-85.

Figure 5-85



System pops up the following dialogue box once the download is complete. See Figure 5-86.

Figure 5-86

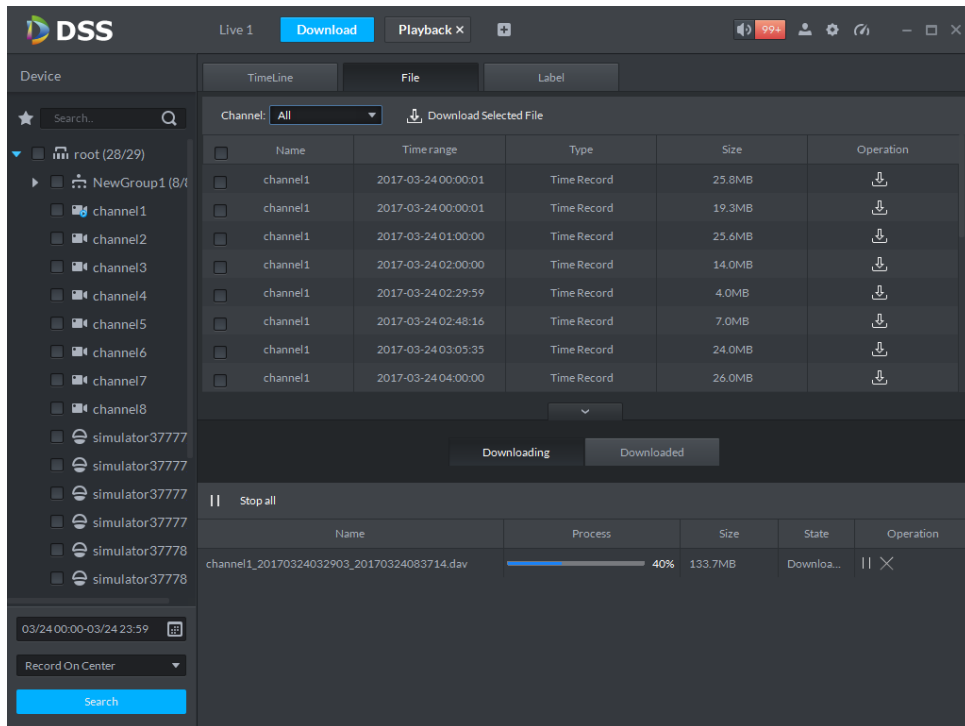



5.5.3 File List

Step 1 On Download interface, click File tab.

System displays record files. See Figure 5-87.

Figure 5-87



Step 2 Directly click  in the record file list, or check multiple files and click Download Selected Files

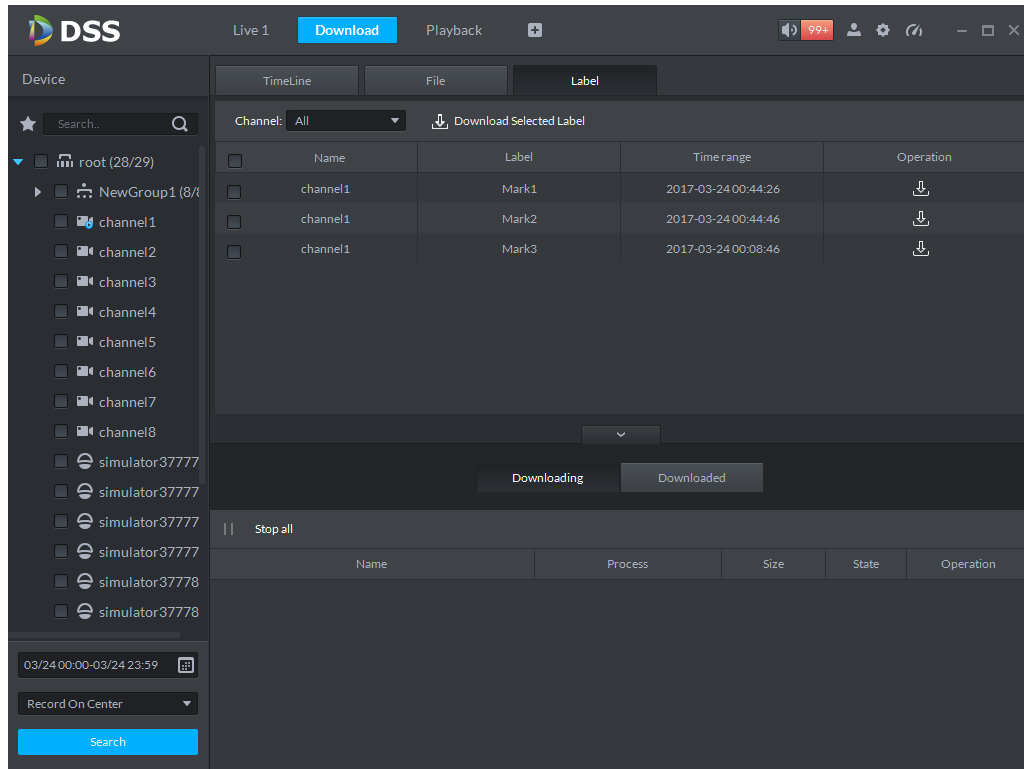
System displays download process at the bottom of the interface. System pops up dialogue box once the download is complete.


5.5.4 Label

Step 1 On Download interface click Label tab.

System displays marked record files. See Figure 5-88.

Figure 5-88



Step 2 Directly click  in the record file list, or check multiple files and click Download Selected Files
System displays download process at the bottom of the interface. System pops up dialogue box once the download is complete.

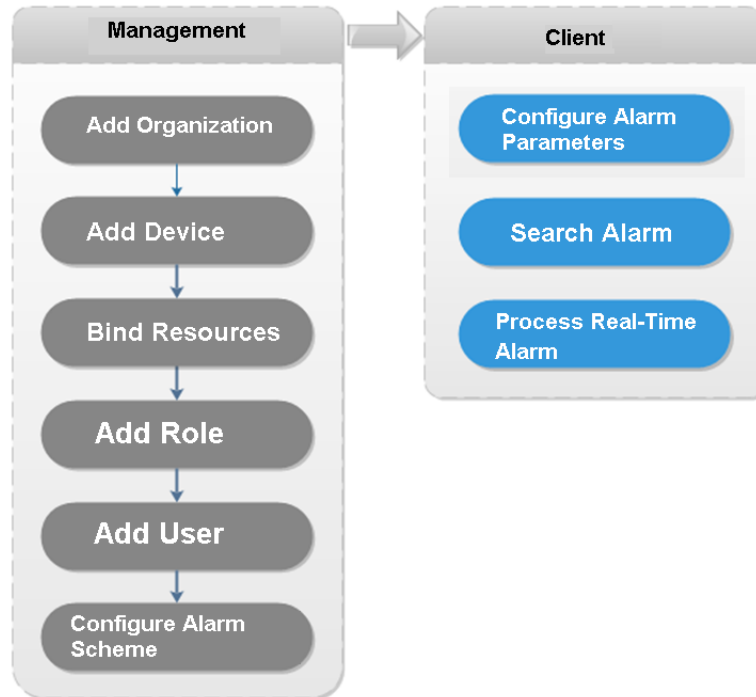
5.6 Event Center

5.6.1 Preparations

- Make sure you have added corresponding devices on the manager. Refer to 4.6 Adding Device for detailed information.
- You have completed event management settings on the manager. Refer to 4.8 Configuring Event for detailed information.

Refer to Figure 5-89 for event management flows.

Figure 5-89



5.6.2 Configuring Alarm Parameters

It is to set alarm mode on the client. It includes alarm audio, alarm flashing on the map or not, etc.


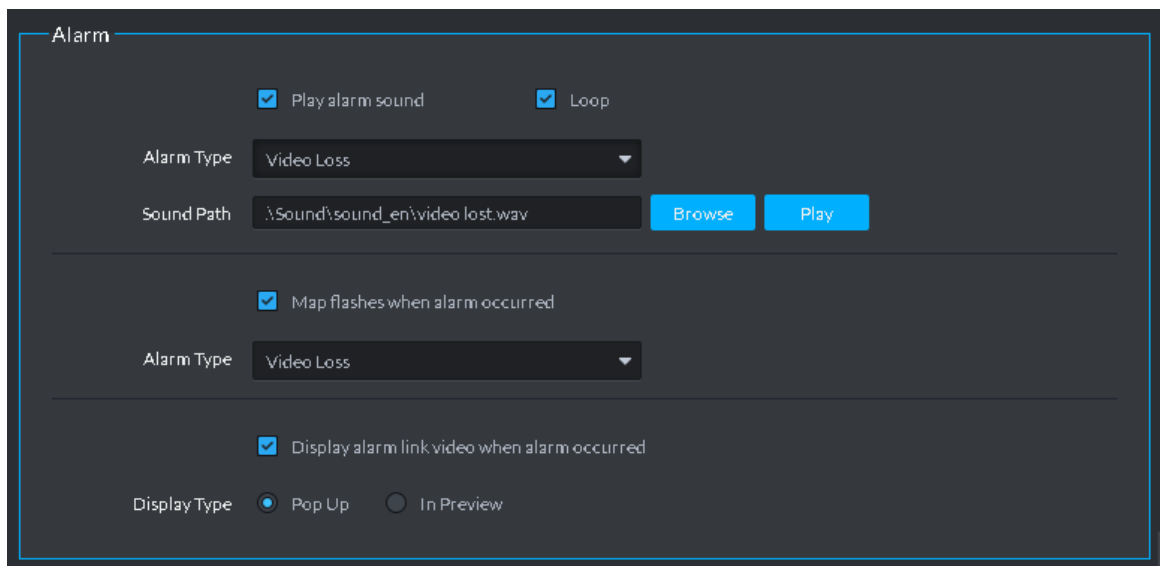
Step 1 Click  at the top right corner, from General > Alarm, the interface is shown as below. See Figure 5-90.



Figure 5-90



Step 2 Set alarm parameters and then click Save. Refer to Table 5-27 for detailed information.

Table 5-27

Parameters	Note
------------	------

Parameters	Note
Play alarm sound	Check the box, system generates a sound when an alarm occurs.
Loop	Check the box; system plays alarm sound repeatedly when an alarm occurs.  NOTE This item is only valid when Play alarm sound function is enabled.
Alarm type	It is to set alarm type. System can play sound when corresponding alarm occurs.  NOTE This item is only valid when Play alarm sound function is enabled.
Sound path	It is to select alarm audio file path.
Map flashes when alarm occurred	Check the box and then select alarm type. When the corresponding alarm occurs, the device on the emap can flash.
Display alarm link video when alarm occurred	Check the box, system automatically opens linkage video when an alarm occurs.
Display type	System automatically opens linkage video when an alarm occurs. You can view on the pop-up window or on the preview interface.

5.6.3 Searching and then Processing Real-Time Alarm

NOTE


The customized alarm supports modification and deletion.

- If the alarm scheme has used the customized alarm type, you can only modify the alarm. You cannot delete it.
- If the alarm scheme has not used the customized alarm type, the alarm input channel and alarm type restores default value if you delete the alarm type.
- Once you modified the customized alarm type, the previous data still uses the original name; the new data uses the modified name.

5.6.3.1 Processing Real-Time Alarm

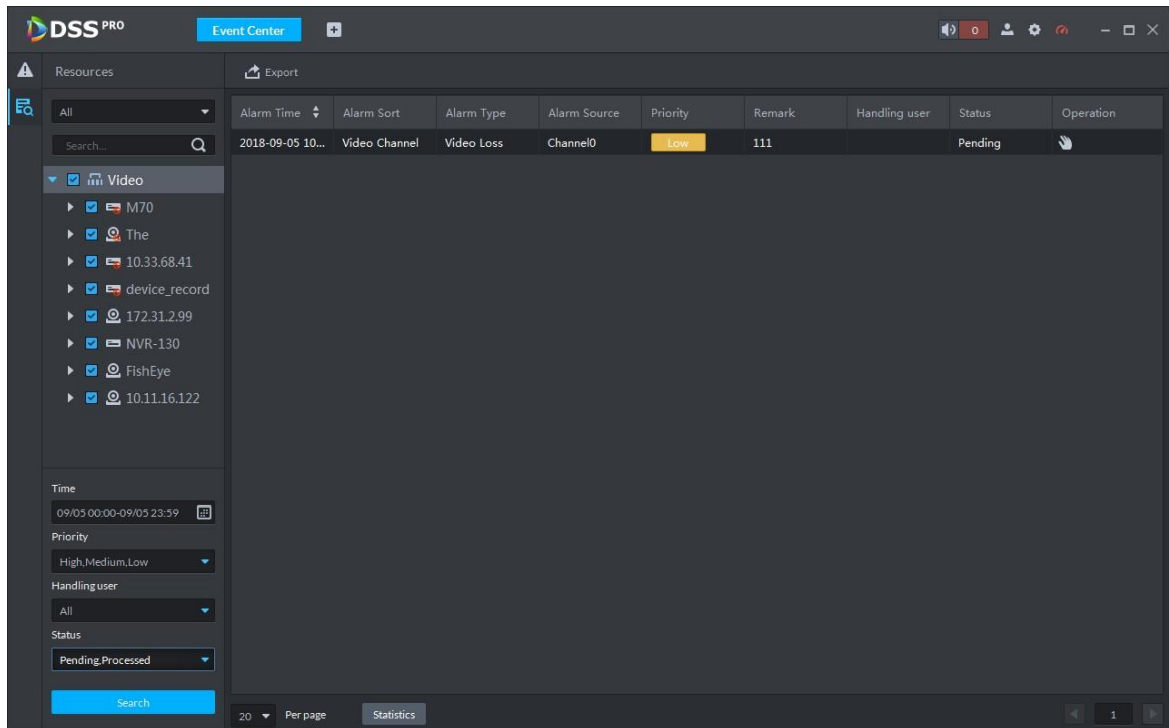
Step 1 Click , on the **New Tab** interface select Event center.

Enter Event center interface.



Step 2 Click  on the left navigation bar.

System displays alarm processing interface. See Figure 5-91.

Figure 5-91



 **NOTE**

System refreshes to display real-time alarm by default. Click  Pause Refresh to pause refresh, click  Refresh to continue refresh.

Step 3 Click  of an alarm item.

The logged in user can claim the alarm. After claimed, the system displays user name on the user column.


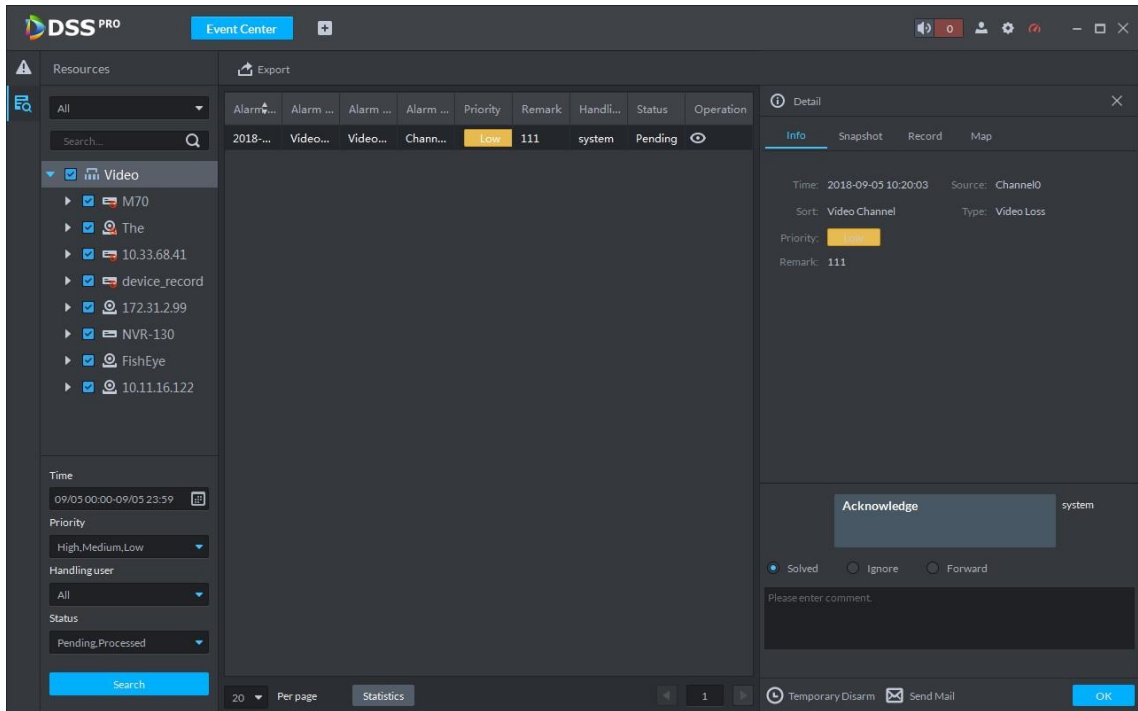
Step 4 Click  to view details and process the alarm. See Figure 5-92.

Figure 5-92



Step 5 Click Message, Snapshot, Record, and Map tag, it is to view corresponding alarm information.

Step 6 Select processing results such as processed, ignored, transferred and then input comments.

 **NOTE**

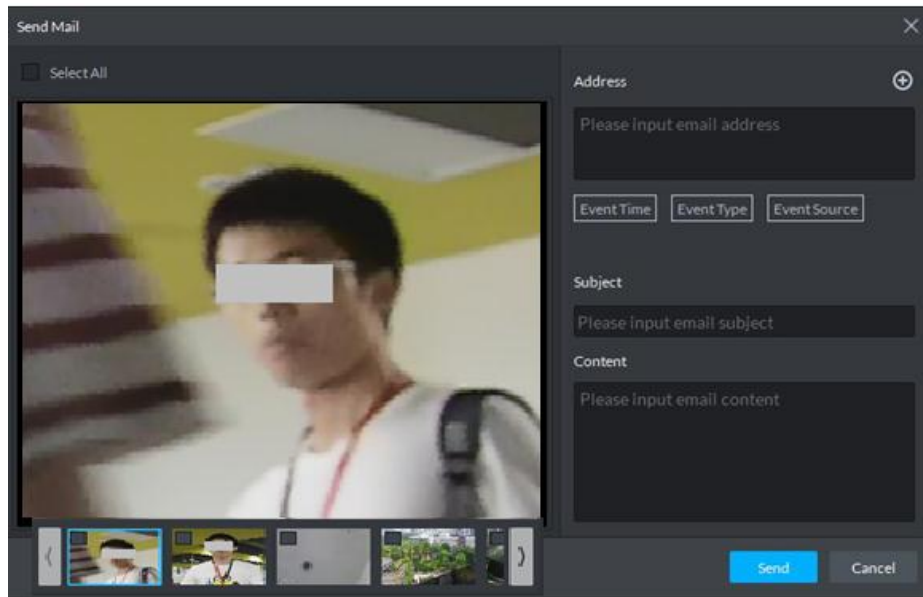
When you are selecting Forward, you can select other user on the dialogue box. It is to send current event to specified user to process.

Step 7 Click OK.

Operations

- Disarm temporarily: Click disarm temporarily, and then set disarm time on the pop-up window. Click OK.
- Send email: Click Send email, and then set email information on the pop-up window. Click Send, the interface is shown as below. See Figure 5-93.


Figure 5-93



5.6.3.2 Searching Alarm Record

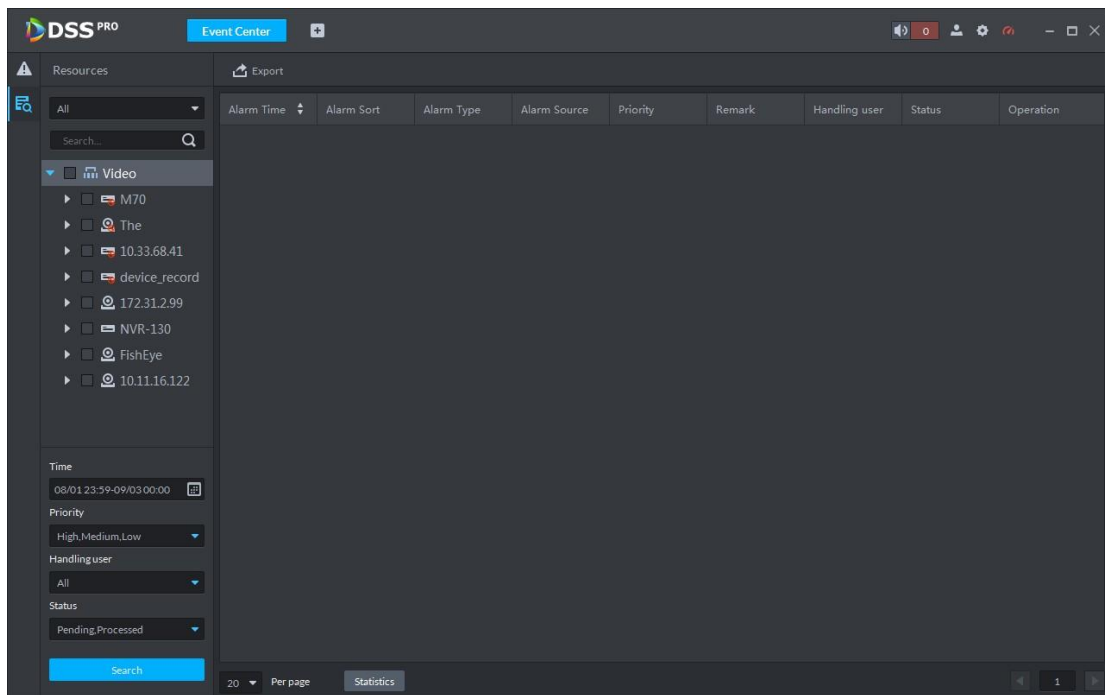
Step 1 Click , on the **New Tab** interface select Event center.

Enter Event center interface.

Step 2 Click  on the left navigation bar.

System displays search interface. See Figure 5-94.

Figure 5-94

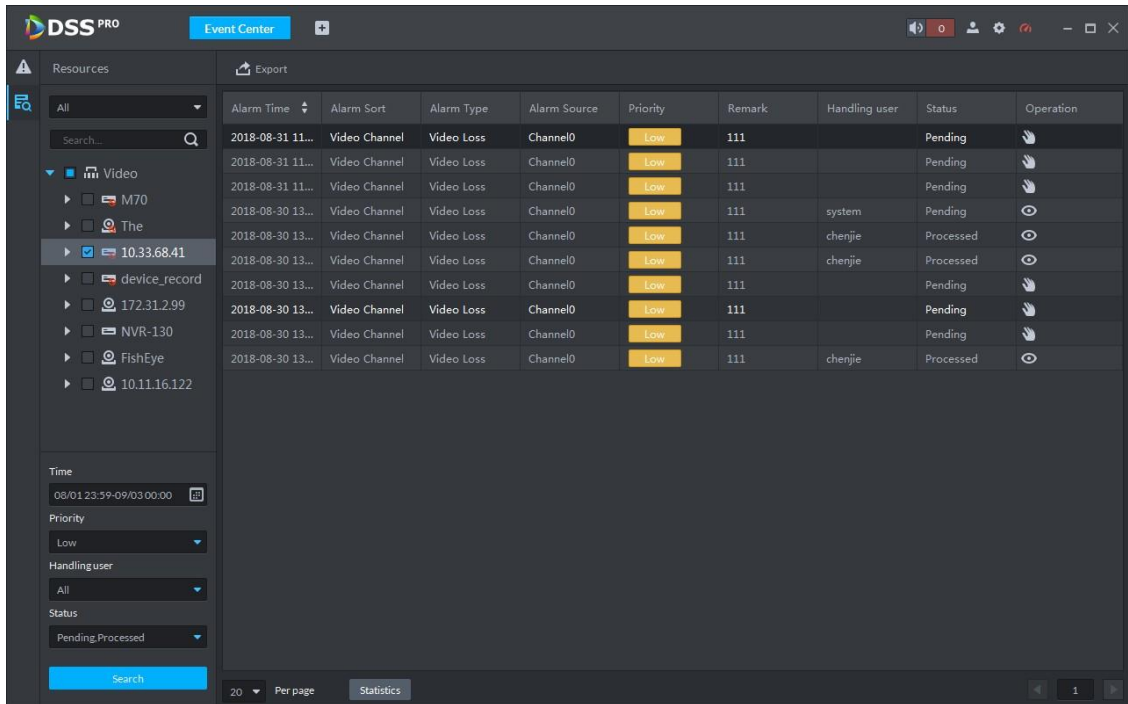


Step 3 Select device channel, search time, alarm level, user or alarm status.

Step 4 Click Search.

System displays corresponding alarm information. See Figure 5-95.

Figure 5-95



Operations

- Select amount on Per page, it is to set displayed alarm message amount each time.
- Click Statistics, it is to display the total alarm message amount of corresponding device.
- Click Export, it is to export device alarm message.
- Click to claim alarm, click to process alarm. Refer to 5.6.3.1 Processing Real-Time Alarm for detailed information.

5.7 Video Wall

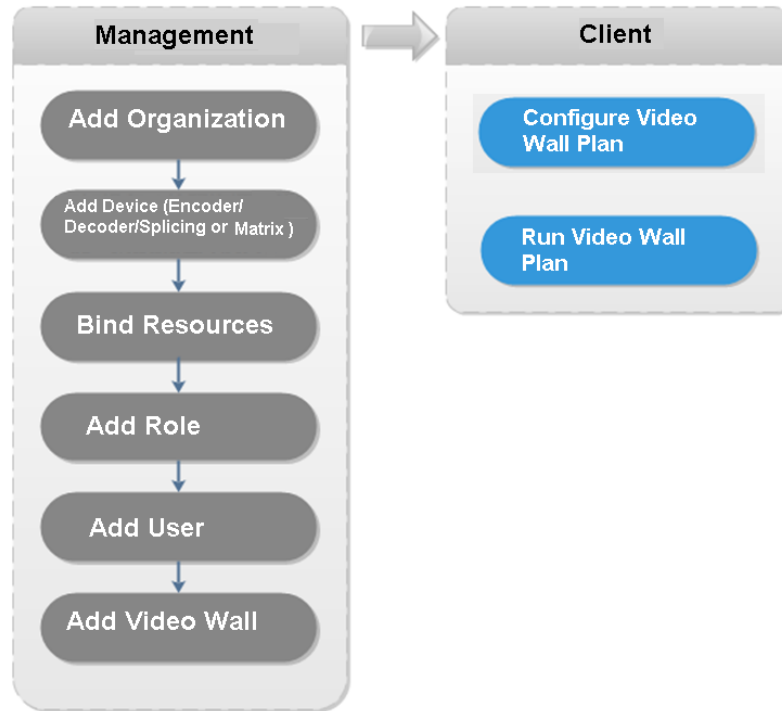
5.7.1 Preparations

It is to view the video on the video wall on the client. It needs to complete the following settings.

- Adding corresponding device: It includes decoder, encoder or matrix device. Refer to 4.6 Adding Device for detailed information.
- Refer to 4.11 Adding Video Wall to add the video wall first.

Refer to Figure 5-96 for video wall flows.

Figure 5-96



5.7.2 Output to the Wall

Step 1 Click **+**, on the **New Tab** interface select Video wall, system displays Video wall interface. See Figure 5-97.

Figure 5-97

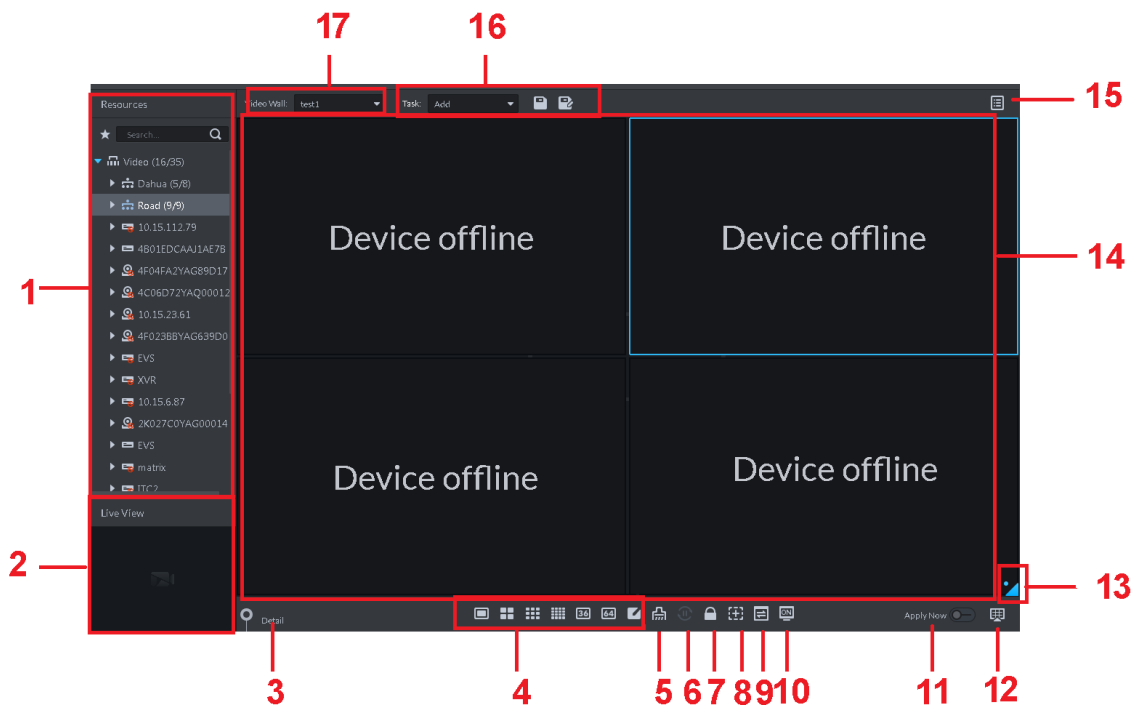

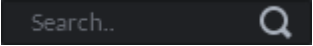







Table 5-28

SN	Name	Function
1	Device tree	<p>From Local config> General, if you enable Show device node, device tree displays all channels of current device. If you cancel the box, system display all channels of all device.</p> <p>Click  to view the channels on the favorites folder.</p> <p>Search is supported by input device name or channel name in  here.</p>
2	Preview	View channel video.
3	Detailed information	<p>Click to view the screen, window, and channel bound information.</p> <ul style="list-style-type: none"> • Click  to preview the video at the bottom left pane. It is to check current channel is what you want or not. • Click  to adjust sequence. • Click  to delete the video channel that adds to current window. • Click Stay time column or click , it is to modify signal interval on current channel when tour. • Click Stream column or , it is to modify video bit stream.
4	Window split	It is to set window split mode.
5	Clear	It is to clear information on all screens.
6	Start/stop all tours	Start or stop all tours.
7	Lock window	Click to lock the window. You cannot operate on the locked window.
8	Add box	You can click to add a box, and click again to cancel box.
9	Back display	It is to view current layout
10	Screen On/Off	In Screen On mode, the system will automatically display the video after configuring the tasks.
9	Apply now	If you enable the function, system automatically outputs the video to the wall after you set the task.
10	Decode to wall	Click to manually output the video to the wall.
11	Eagle eye	View current video wall layout
12	Video wall	Video wall area.
13	Video wall task	It is to schedule task and tour task. Refer to 5.7.3 Video Wall Plan for detailed information.
14	Task management pane	It is to add, save delete task.

SN	Name	Function
15	Video wall selection	It is to select a video wall to configure.

Step 2 Select a video wall and then select a window.

Step 3 Double click the video channel or drag the video channel to the window.
The window displays Bound one video source





NOTE

- Input device name or channel name to search.
- One window can bind several video channels at the same time.

Step 4 Click  to output the video to the wall.

Once one window has bound several video channels at the same time, the window automatically begins tour operation after you output the video to the wall.


- Right click mouse or on the Detail pane, you can modify channel stay time and bit stream.
- Click  to change tour sequence.

Right click mouse and then select Stop all tour, or click  to stop all tour.

5.7.3 Video Wall Plan

5.7.3.1 Configuring Schedule plan

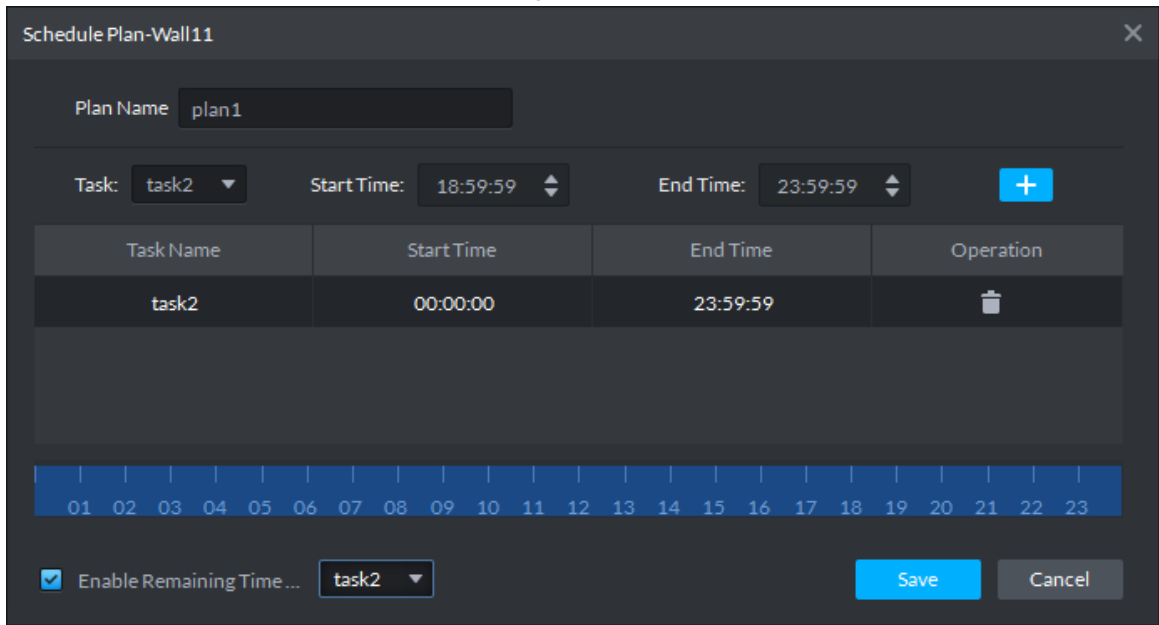
After set schedule plan, you can play video file on the video wall at the specified time.

Step 1 On the Video Wall interface, click  at the top right corner.


Step 2 Select .

Enter Schedule plan interface. See Figure 5-98.

Figure 5-98



Step 3 Input the plan name.

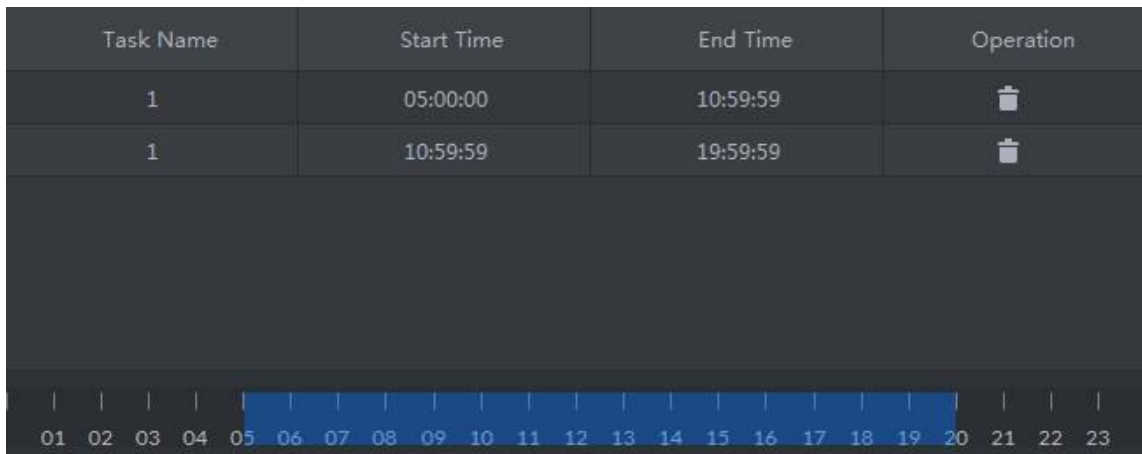
Step 4 Select a video task, and then set start time and end time, click .

The list displays detailed plan information. The specified period on the timeline is highlighted as blue. See Figure 5-99.

 **NOTE**

Check the Enable remaining time schedule function and set the task. The video wall displays corresponding video if it is not in the scheduled plan period.


Figure 5-99



Step 5 Click Save
Enter Video wall interface.

Step 6 Click  to start the plan.


Operations

- Modify plan: Click  of the corresponding plan, it is to modify plan.,

- Delete plan: Click  of the corresponding plan, it is to delete the plan.

5.7.3.2 Configuring Tour Plan

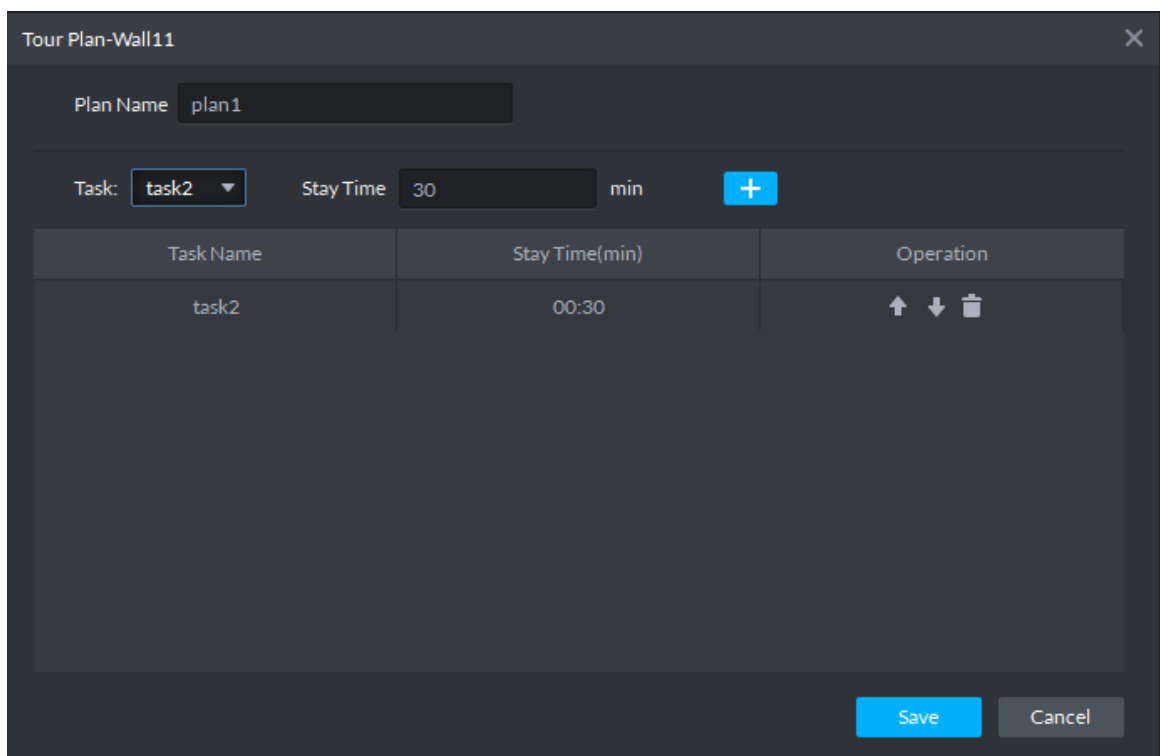
After setting tour plan, you can output several plans to the TV wall.

Step 1 On the Video Wall interface, click  at the top right corner.


Step 2 Click .

Enter Tour plan interface. See Figure 5-100.

Figure 5-100



Step 3 Input task name.

Step 4 Select a video task and then set stay time. Click .

The list displays tour information. See Figure 5-101.

 **NOTE**

Click  to adjust task sequence, click  to delete task.

Figure 5-101



Task Name	Stay Time(min)	Operation
1	00:30	↑ ↓ 🗑️
1	00:30	↑ ↓ 🗑️

Step 5 Click Save.

Enter Video wall plan interface.

Step 6 Click  to start the plan.

Operations

- Modify plan: Click  of the corresponding plan, it is to modify plan.
- Delete plan: Click  of the corresponding plan, it is to delete the plan.

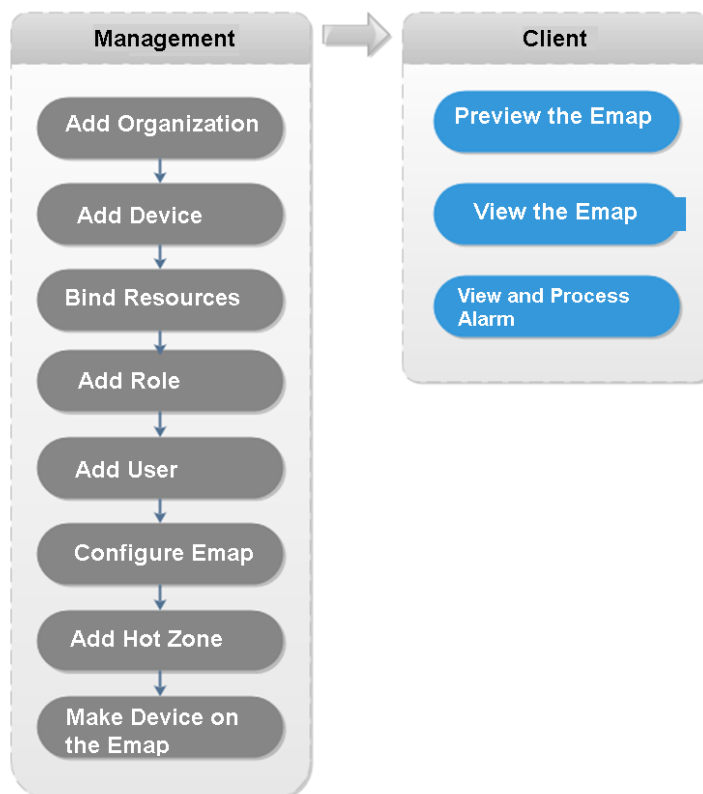
5.8 Emap

On the DSS client, you can view the configured e-map and corresponding device information.

5.8.1 Preparations

Refer to 4.10 Configuring Emap to add emap and hot zone on the platform manager and mark the device on the map. Refer to Figure 5-102 for flows information.

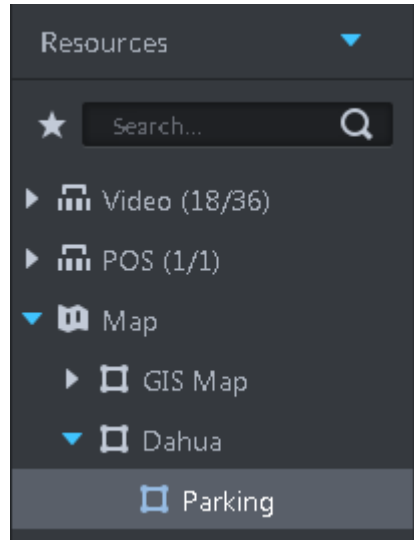
Figure 5-102



5.8.2 Open Emap on the Real-Time Preview

Step 1 On the Live view interface, click the Map at the bottom of the device tree on the left. System displays map and hotspot map on the manager. See Figure 5-103.

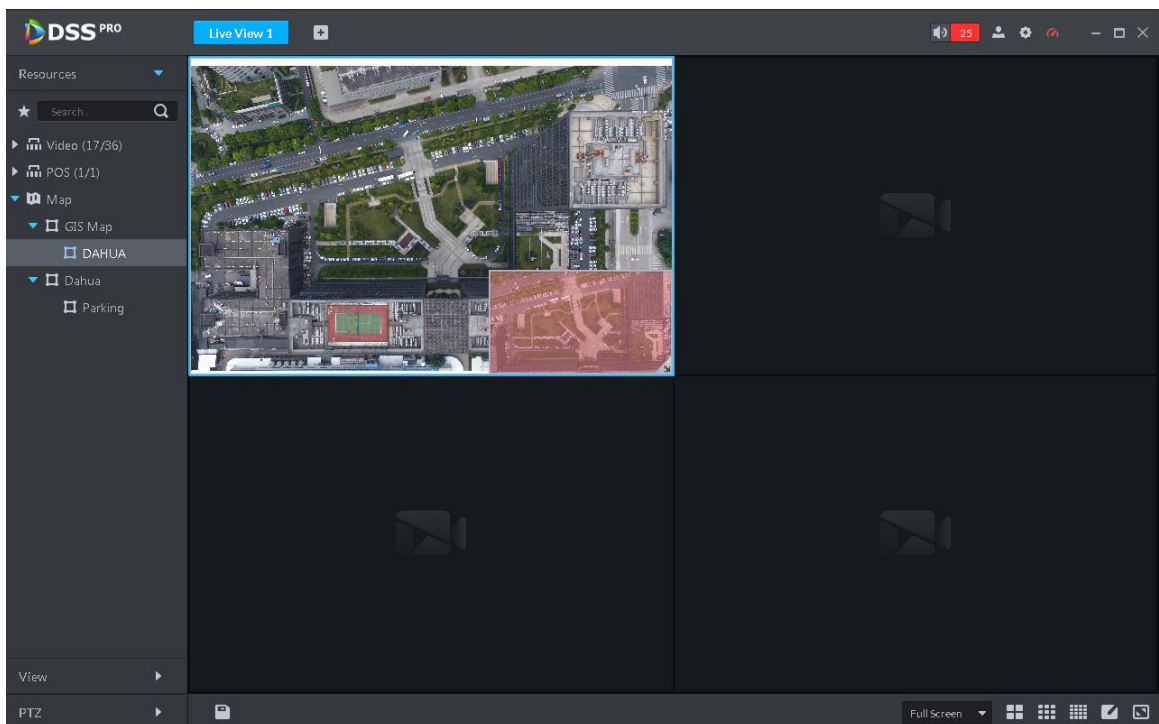
Figure 5-103



Step 2 Double click the map, you can view the map and the added devices.

On the map, you can record real-time video, playback record file, cancel alarm, etc.
See Figure 5-104.

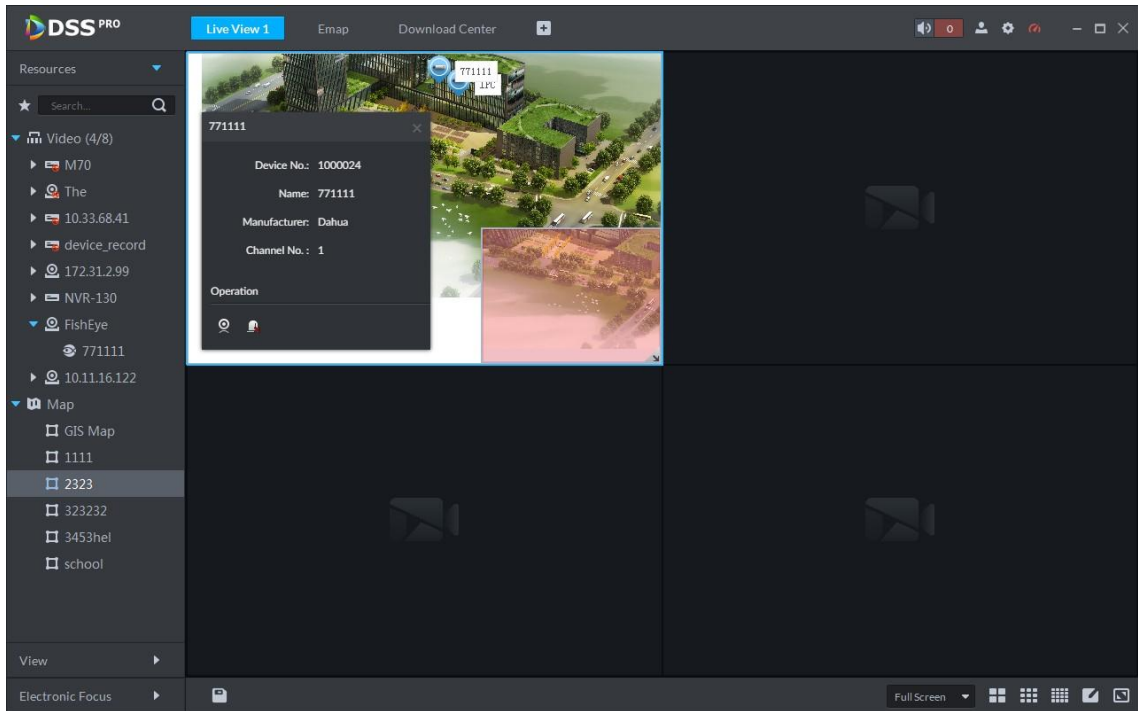
Figure 5-104



Step 3 Click the marked channel.

System displays channel information. See Figure 5-105.

Figure 5-105




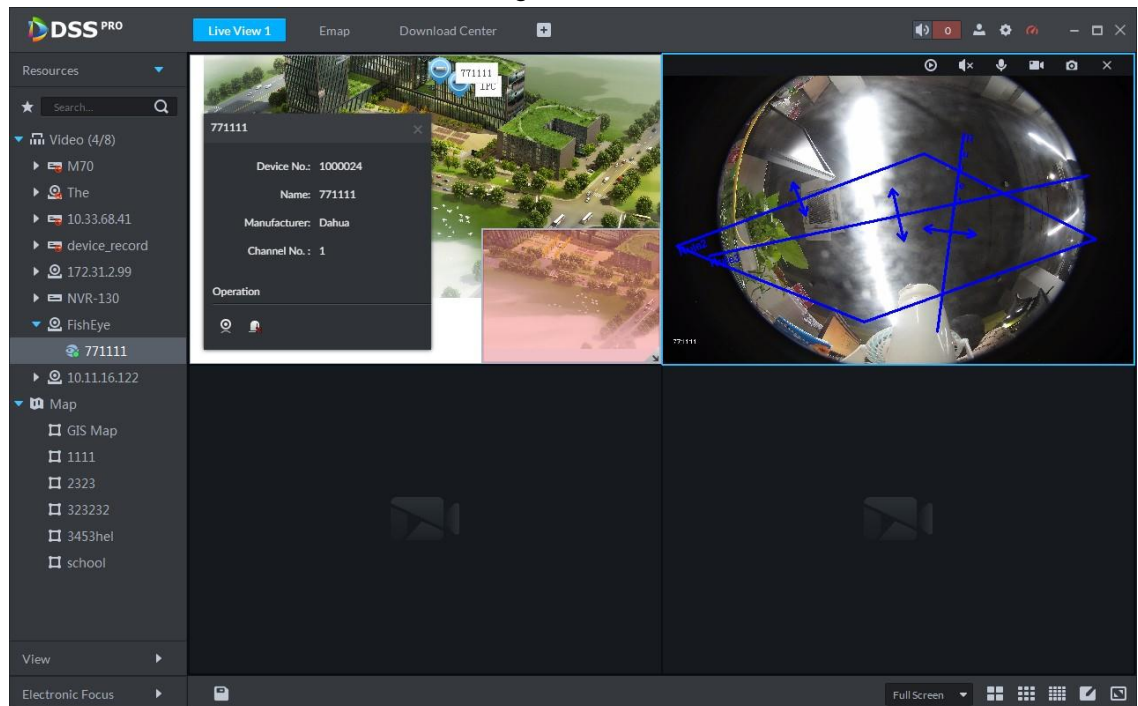
Step 4 Click  to playback real-time video on the window. See Figure 5-106.

Figure 5-106



5.8.3 Viewing Map

It is to display the map setting on the manager. The e-map and the raster map are not the same. Here we use Google map to continue.

Step 1 Click , on the **New Tab** interface select Emap.

Step 2 Select Google map or raster map.
Enter Emap interface. See Figure 5-107.

Figure 5-107

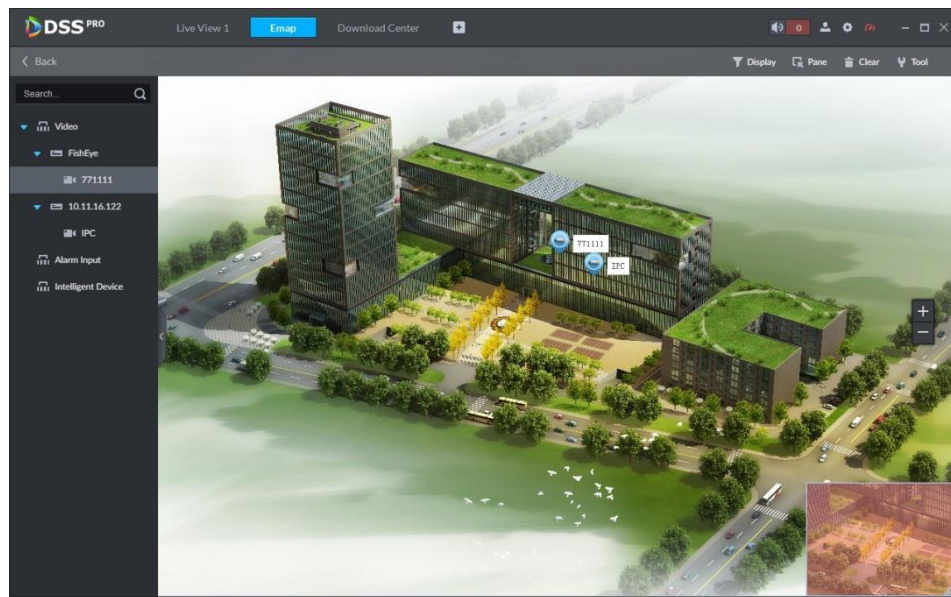


Table 5-29

SN	Name	Note
1	Display device	It is filter to display video device, alarm input channel.
2	Use frame to select	Use frame to select a device.
3	Clear data on the screen	Clear selection track on the screen.
4	Tools	It includes mark, reset, and video relay. <ul style="list-style-type: none"> ● Mark: It is to give a mark on the map. ● Reset: The map restores default position. ● Video relay: This function is null right now.




Step 3 Double click the channel on the device tree on the left, you can view the channel position on the map.

Step 4 Click the channel on the map.

System displays device SN, channel name, manufacture, channel information, etc. See Figure 5-108.


Figure 5-108



- Click  to playback video of current channel.
- Click  to playback record.
- Click  to cancel alarm.

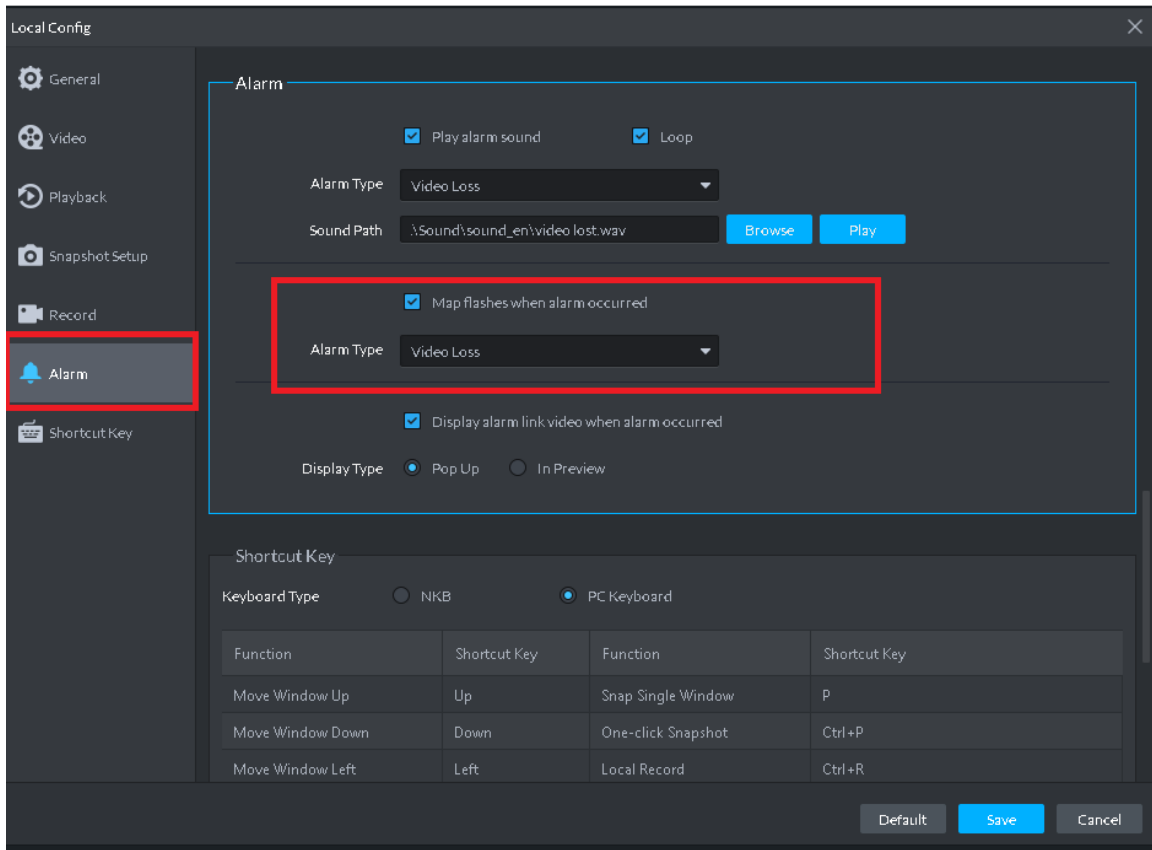
5.8.4 Alarm Flashing on the Map

5.8.4.1 Configuring Alarm Flashing on the Client

Step 1 Click  at the top right corner, it is to open General interface.

Step 2 Click Alarm tab, select Map flashes when an alarm occurs and then set alarm type from the dropdown list. See Figure 5-109.

Figure 5-109



Step 3 Click Save.

5.8.4.2 Client Triggering Alarm

Step 1 Click **+**, on the **New Tab** interface select Emap.

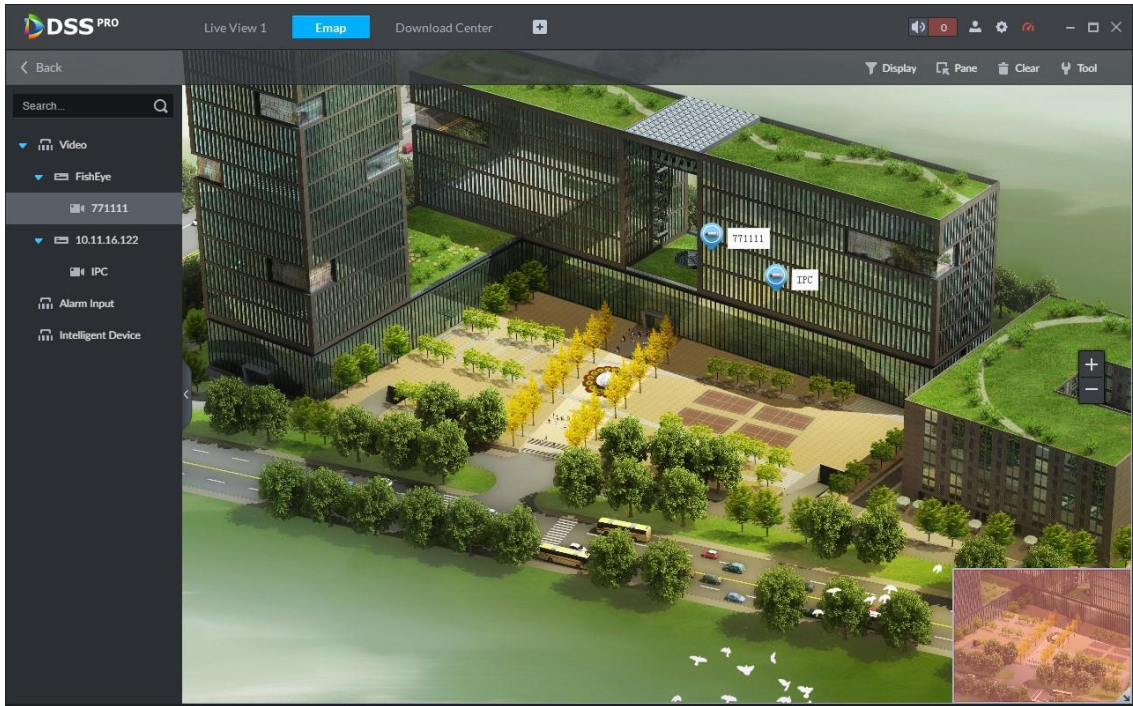
Enter Map interface.

Step 2 Click to go to Google map or Raster map.

Here we use raster map to continue.

Step 3 The channel is flashing when an alarm occurs. See Figure 5-110.

Figure 5-110



5.9 POS

If NVR with POS channel is added on Web, then you can view related video and playback of POS channel on client.

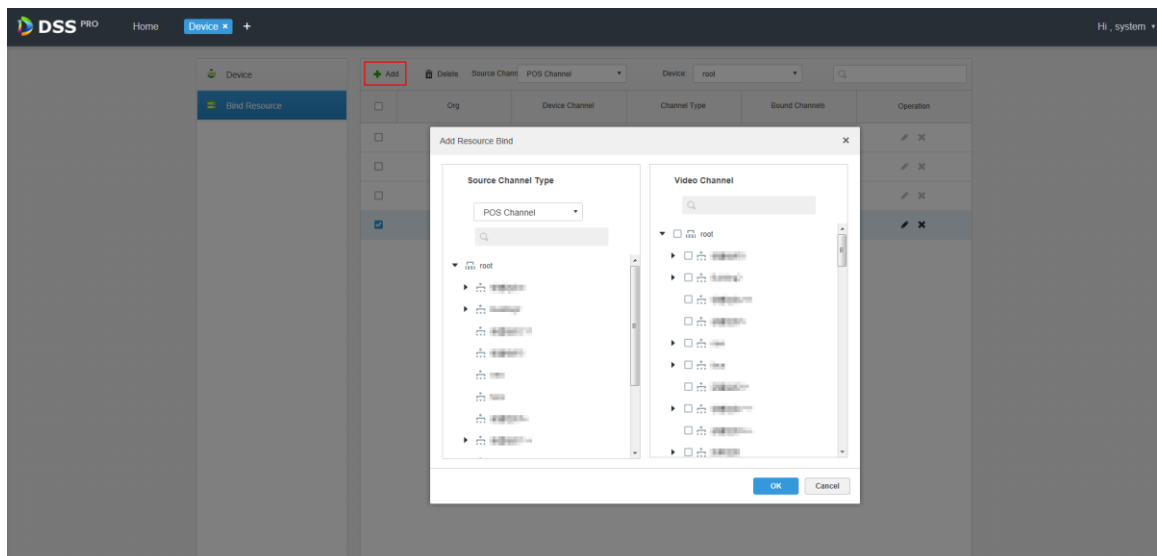
5.9.1 Preparations before Operation

- NVR device with POS channel is already added on Web. On the interface of **Bind Resource**, bind video channel for POS channel. See Figure 5-111.



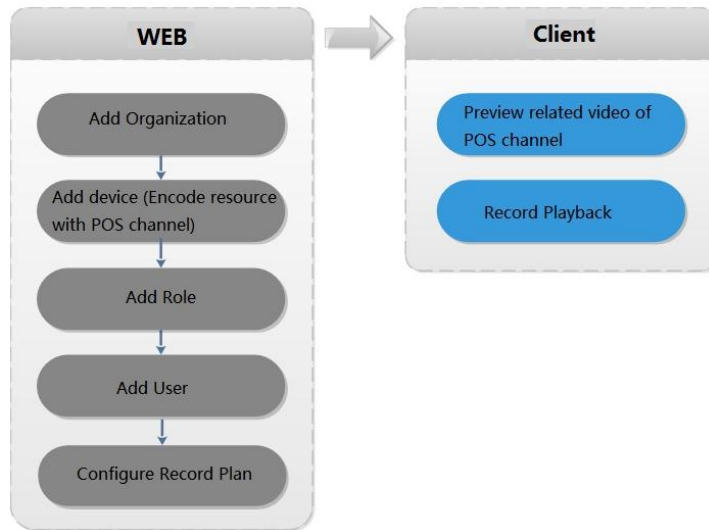
At least one POS channel is bound to NVR which is required to be added.

Figure 5-111



Record plan is already configured on Web. For more details, please contact administrator or see Figure 5-112.

Figure 5-112



5.9.2 Live View

Preview realtime video and POS info of video channel linked to POS channel.

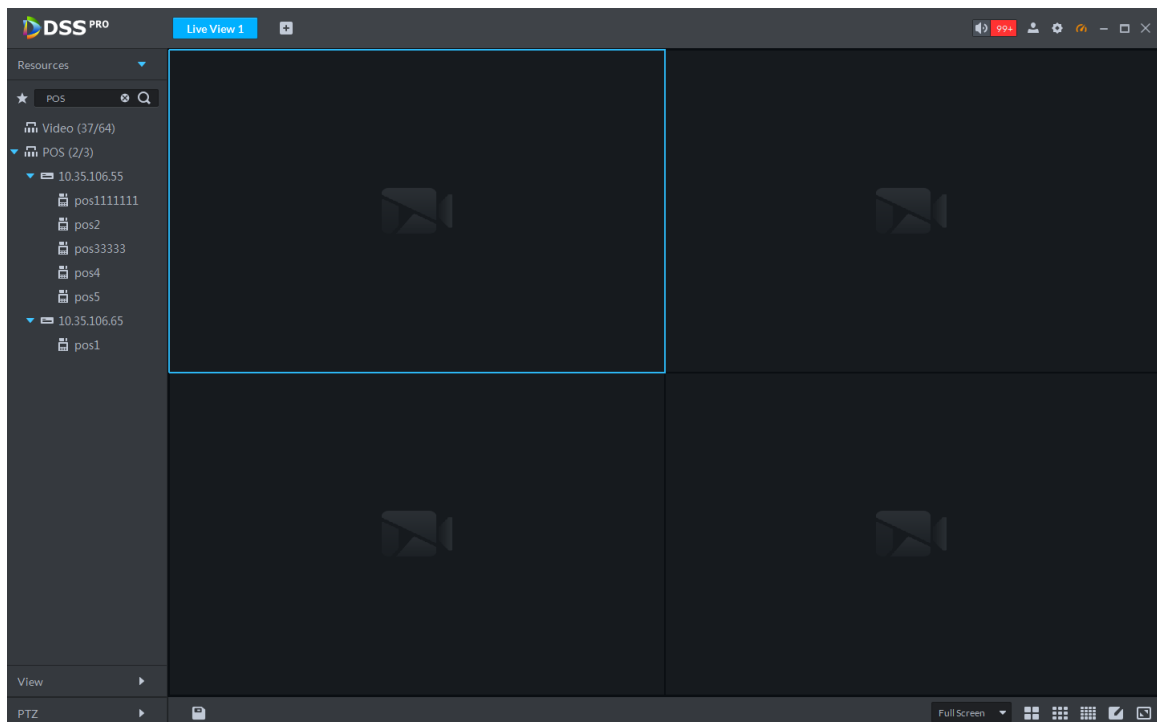


In this chapter, it will introduce how to enable settings of video preview and POS format. For more details, refer to **5.3 Video Preview**.

Step 1 Click  and select **Live View** on the interface of **Homepage**.

The interface of **Live View** is displayed. See Figure 5-113.

Figure 5-113



Step 2 Click  next to POS on the left of interface.

POS channel info is displayed.

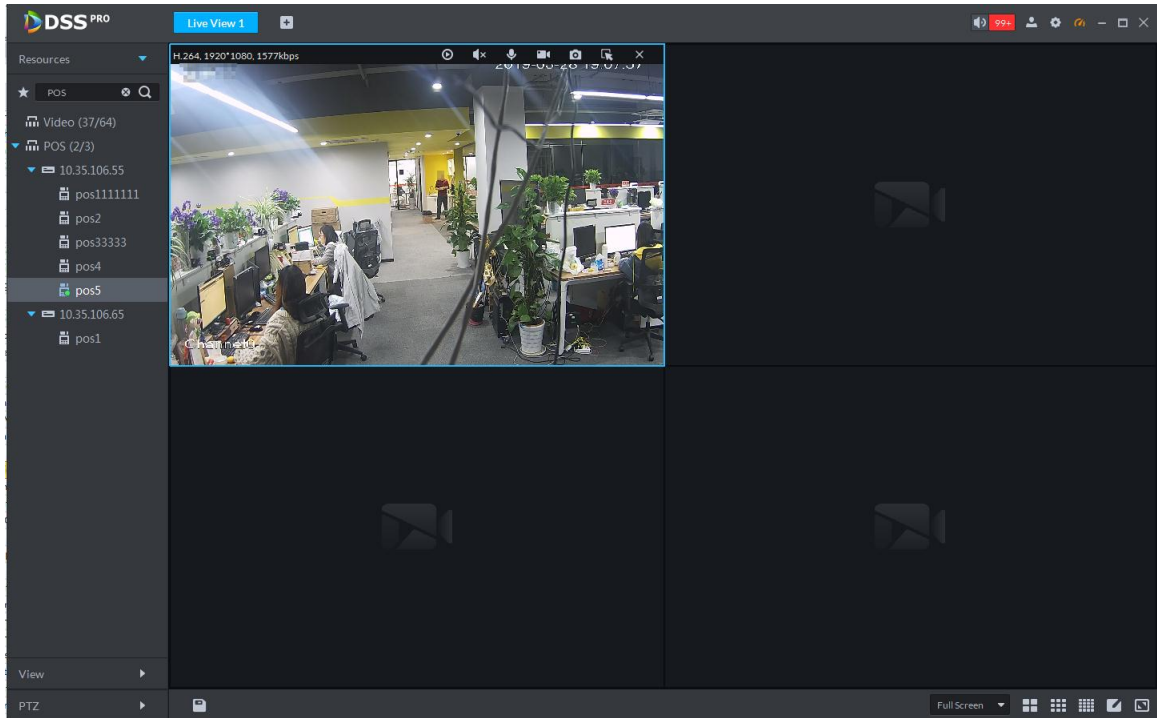
Step 3 Preview realtime channel video linked by POS.

Support following methods to preview.

- Select channel in the POS channel list, double click or drag to window.
- Double click device in the POS channel list, open all the channels of the device.

Corresponding video and POS info of linked channel are displayed. See Figure 5-114.

Figure 5-114

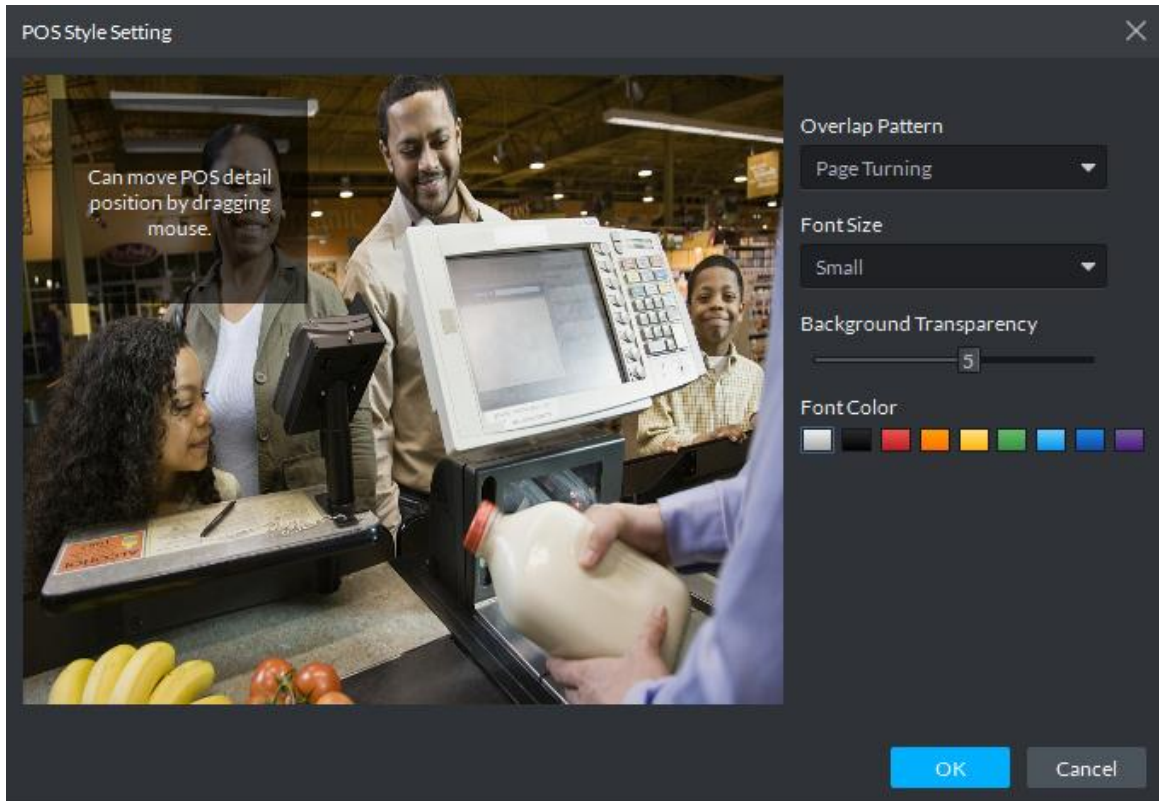


Step 4 Set POS format.

POS overlay info of all windows will be valid after setting POS style.

1. Right click and select **Set POS Style** on the live interface.
The interface of **POS Style Setting** is displayed. See Figure 5-115.

Figure 5-115



2. Set **Overlap Pattern**, **Font Size**, **Background Transparency** and **Font Color**.
3. Move the mouse to POS info overlay area, press mouse left button and move it to adjust POS info overlay position.
4. Click **OK** and save config.


5.9.3 Record Playback

Search POS receipt, view related video of receipt. You can search the video half an hour before and half an hour after the time when POS receipt is printed, and you can start to play video 30s before the time when POS receipt is printed.



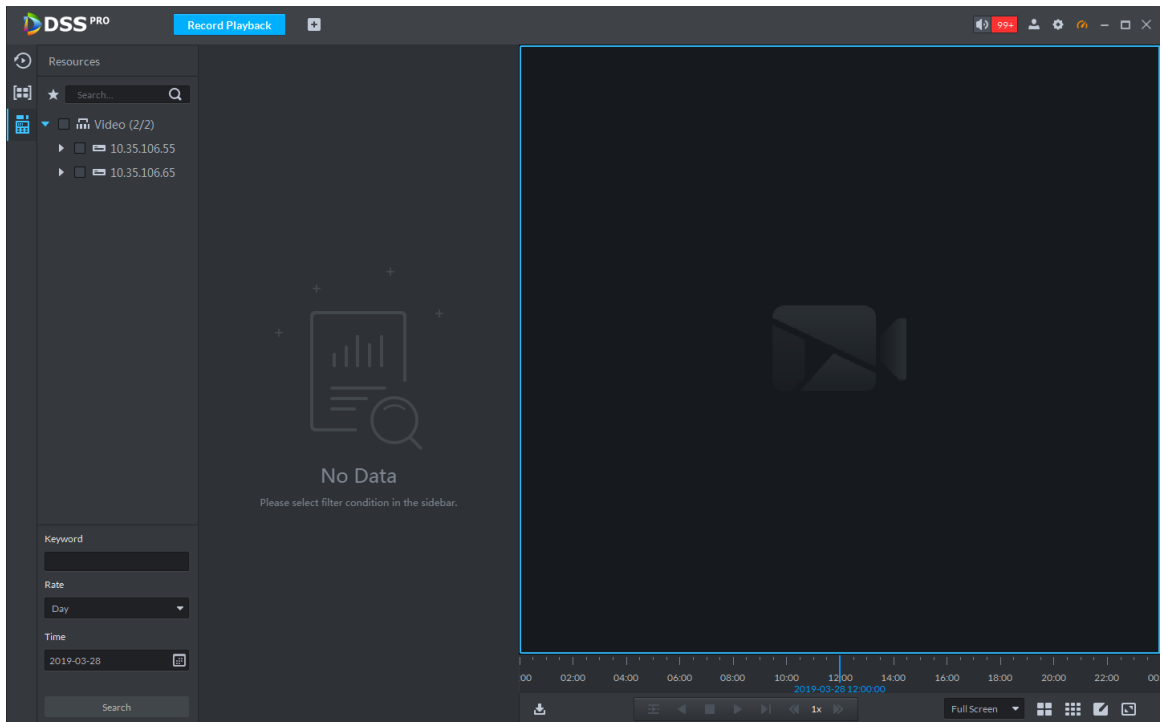
In this chapter, it mainly introduces how to replay related video of POS receipt. For more operation details, refer to **5.4 Record**

Step 1 Click  and select **Record Playback** on the interface of **Homepage**.

Step 2 Click 

The interface of **POS Search** is displayed. See Figure 5-116.

Figure 5-116

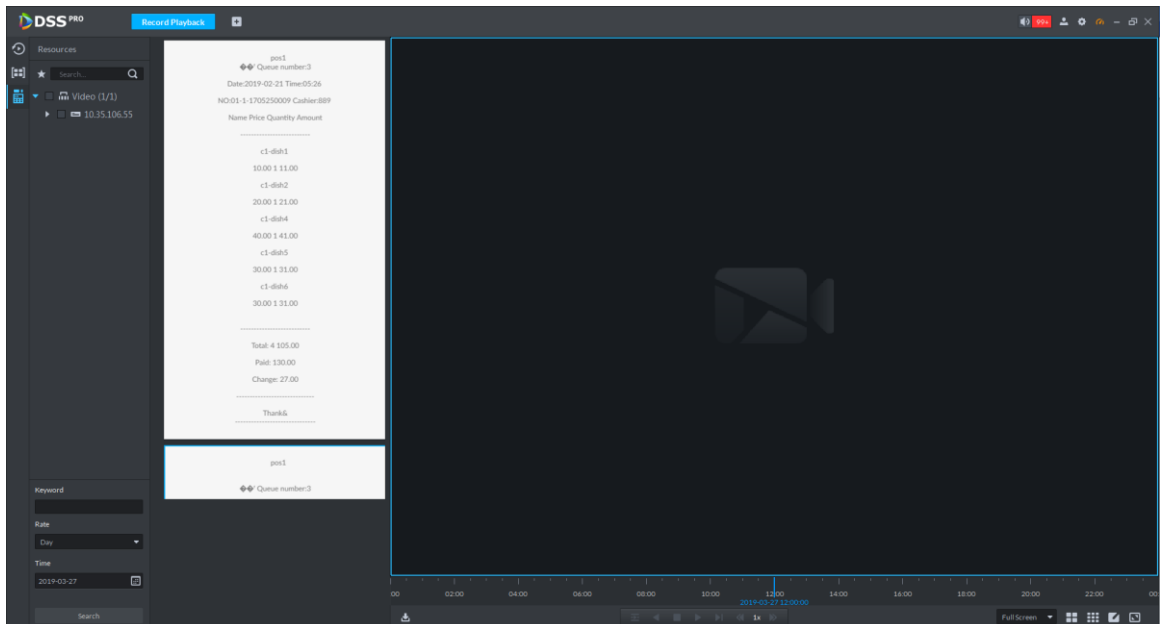


Step 3 Select channel from the device tree.

Step 4 Enter **Keyword**, select **Date** and **Time**, click **Search**.

The search result is displayed. See Figure 5-117

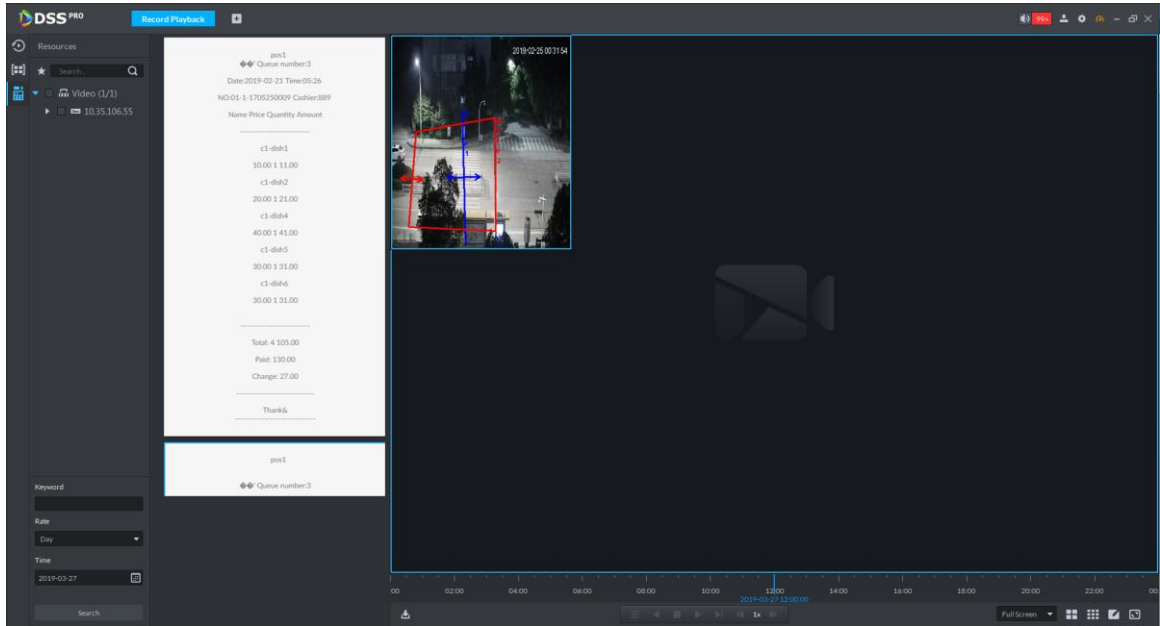
Figure 5-117



Step 5 Double click the POS info of related video that needs to be replayed.

The window will play related video of POS. See Figure 5-118.

Figure 5-118



5.10 People Counting

System supports people counting and heatmap function.

5.10.1 Preparations


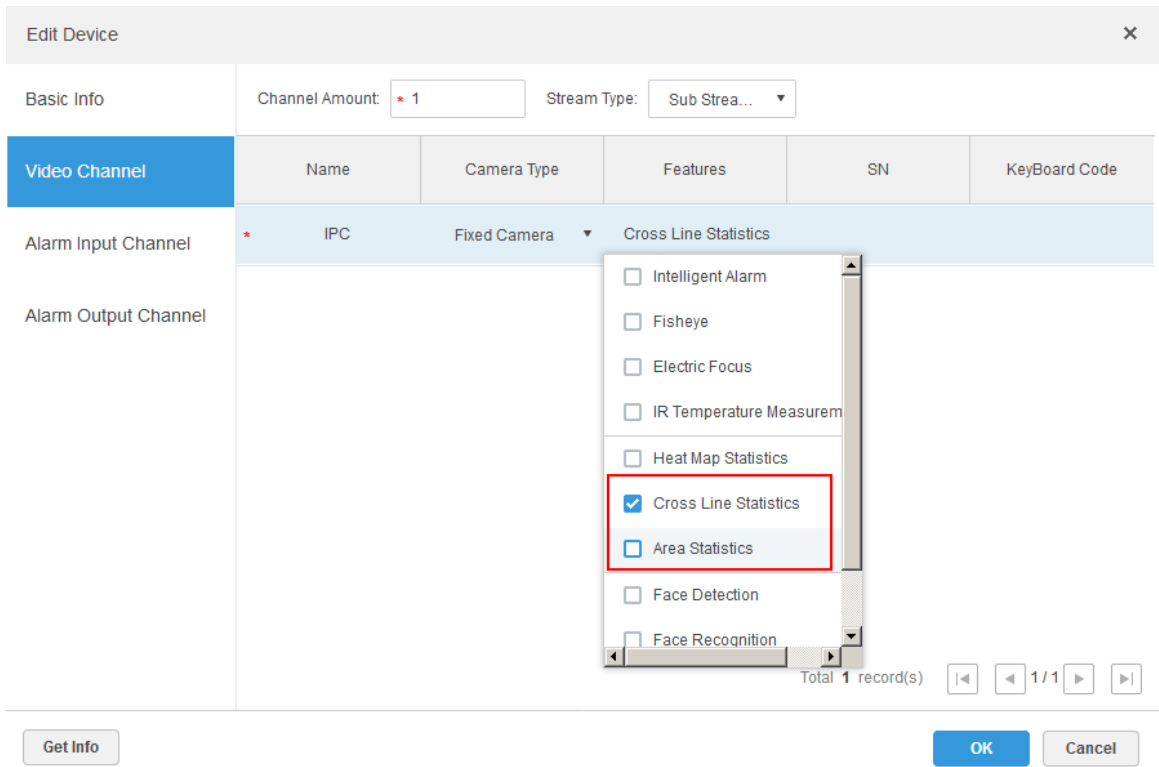
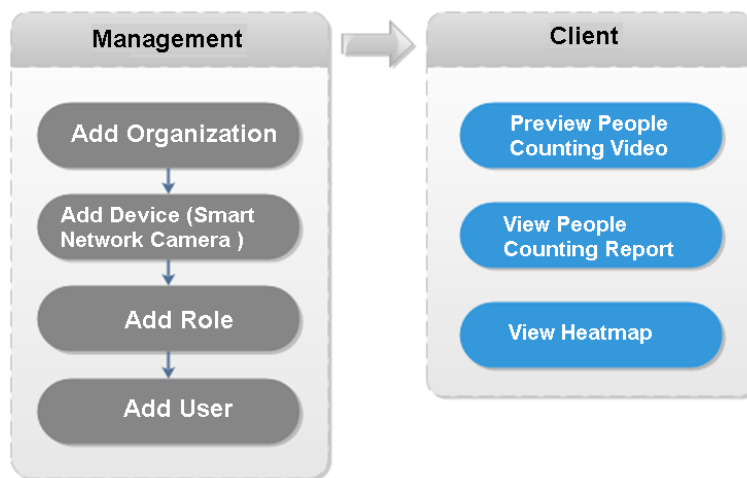
- IPC with people counting or area statistics function is added to the client. Refer to 4.6 Adding Device.
- After adding the IPC, click , and then select the Cross Line Statistics or Area Statistics from the drop-down list according to the requirement. See Figure 5-120.

Figure 5-119



Refer to Figure 5-120 for flows information.

Figure 5-120

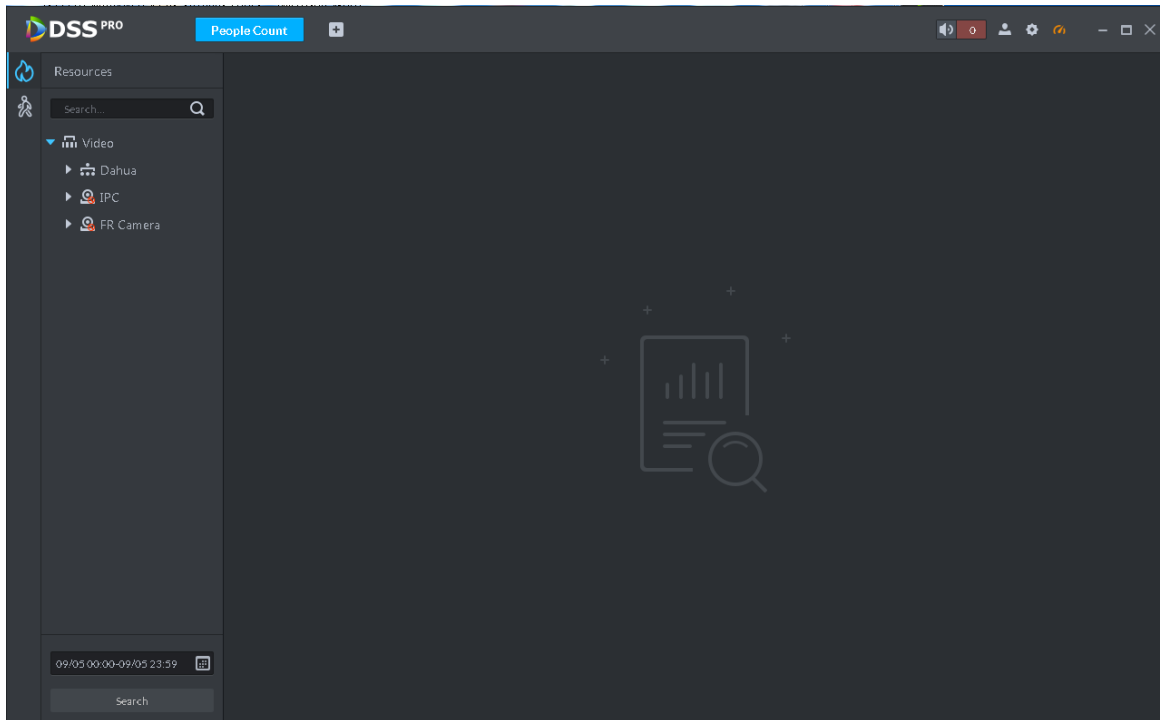


5.10.2 People Counting Report

Step 1 Click **+**, on the **New Tab** interface select People Count.

Enter People counting interface. See Figure 5-121.

Figure 5-121




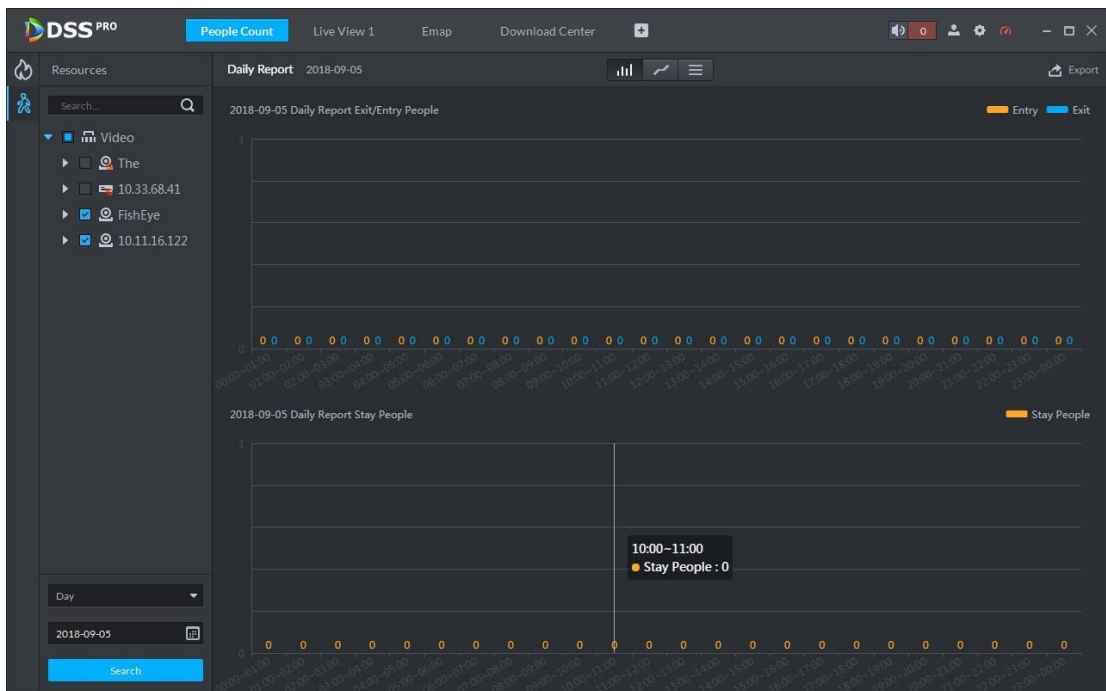
Step 2 Click  on the left and then select a channel, select the report type, statistics time, and then click Search. It is to search people counting report. See Figure 5-122.

Figure 5-122



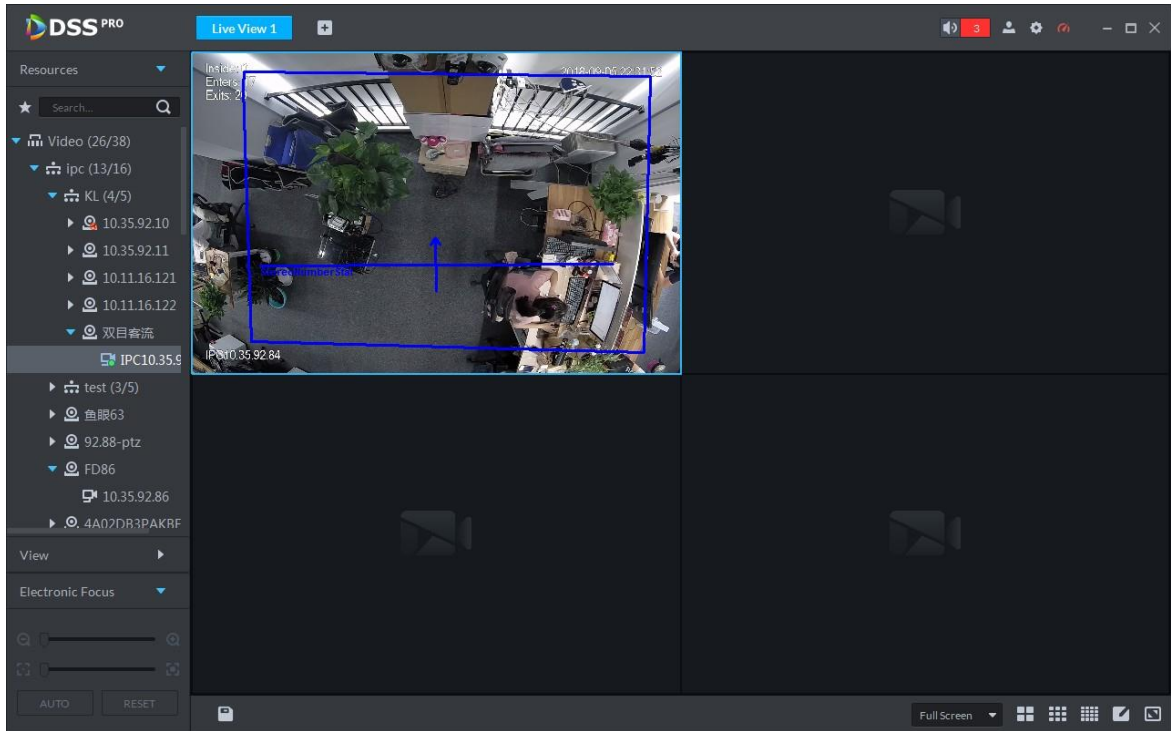
Or you can click  to view line chart, or list.

5.10.3 Viewing People Counting Statistics on Live View Interface

Interface

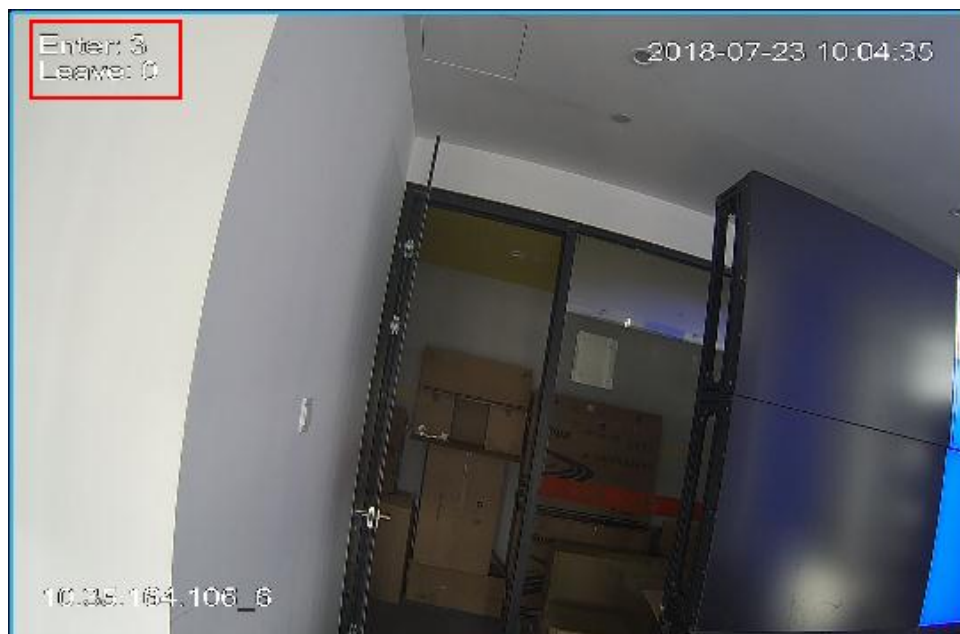
On Live View interface, you can view the video of the smart network camera, and view the statistics people amount at the top left corner. See Figure 5-123.

Figure 5-123



Entry/exit count is shown at the top left corner. See Figure 5-124.

Figure 5-124



5.10.4 Heatmap

Heatmap displays the distribution of moving objects in colors of different shades. It reflects the temperature of regions by different colors, for example, red means the temperature is relatively high, and blue means the temperature is relatively low.

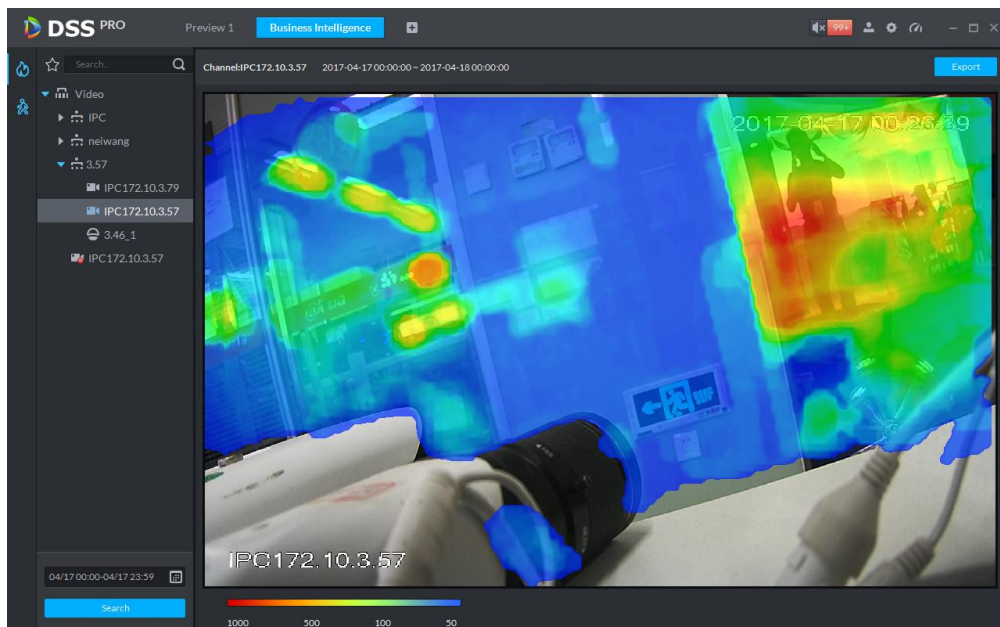
Step 1 Click  tab.

Step 2 Select a channel to show heat map, and select time, click Search
System displays heatmap interface. See Figure 5-125.

 NOTE

The device sends heat map data to platform on a real-time basis. Starting when device is added to platform, you can search heat map data uploaded. Unit of search is week (interval between start time and end time cannot exceed 1 week).

Figure 5-125



Step 3 Click Export at the top right corner, you can export heat map in bmp format.

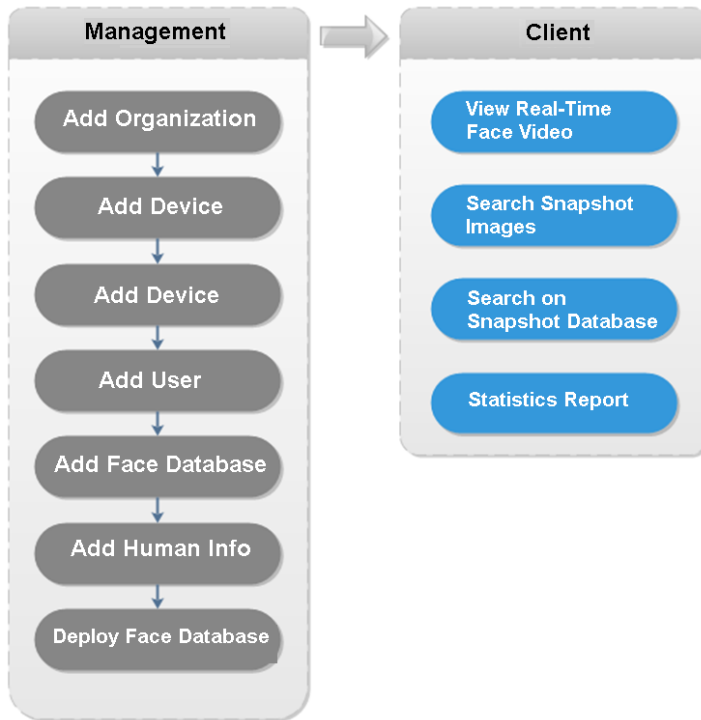
5.11 Human Face Recognition

5.11.1 Preparations

- Refer to 4.12.1 Creating Face Database to create human face database on the manager.
- Refer to 4.12.2 Arm Config to arm human face database on the platform manager.

Refer to Figure 5-126 for flows information.

Figure 5-126



5.11.2 Real-Time Human Face Video

Human face recognition function is applied to real-time video and snapshot human face image.

Step 1 Click , on the **New Tab** interface select Face recognition.

Step 2 Click .

System displays real-time video. See Figure 5-127.

Figure 5-127

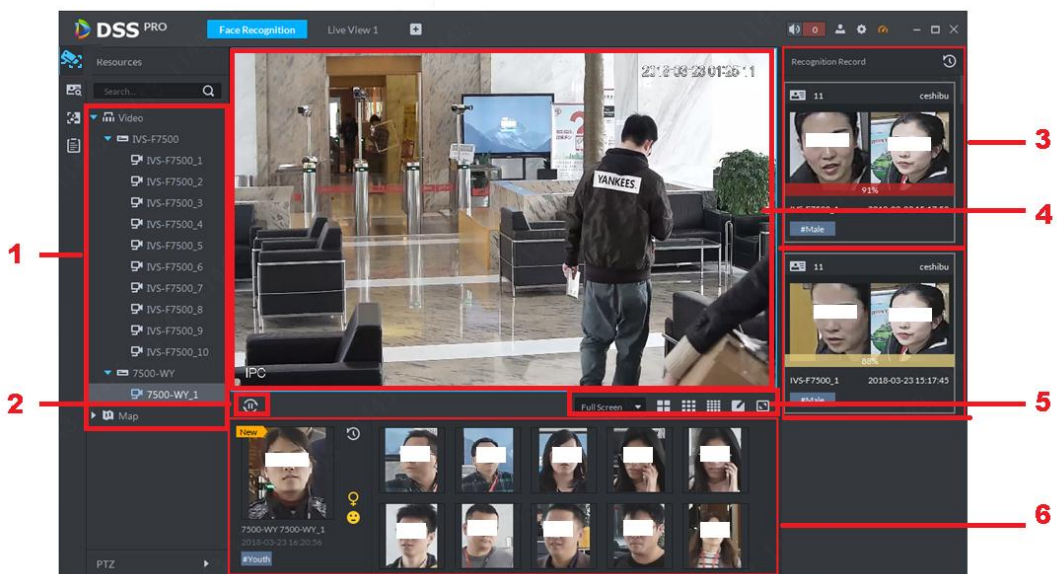


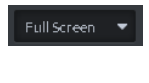




Table 5-30

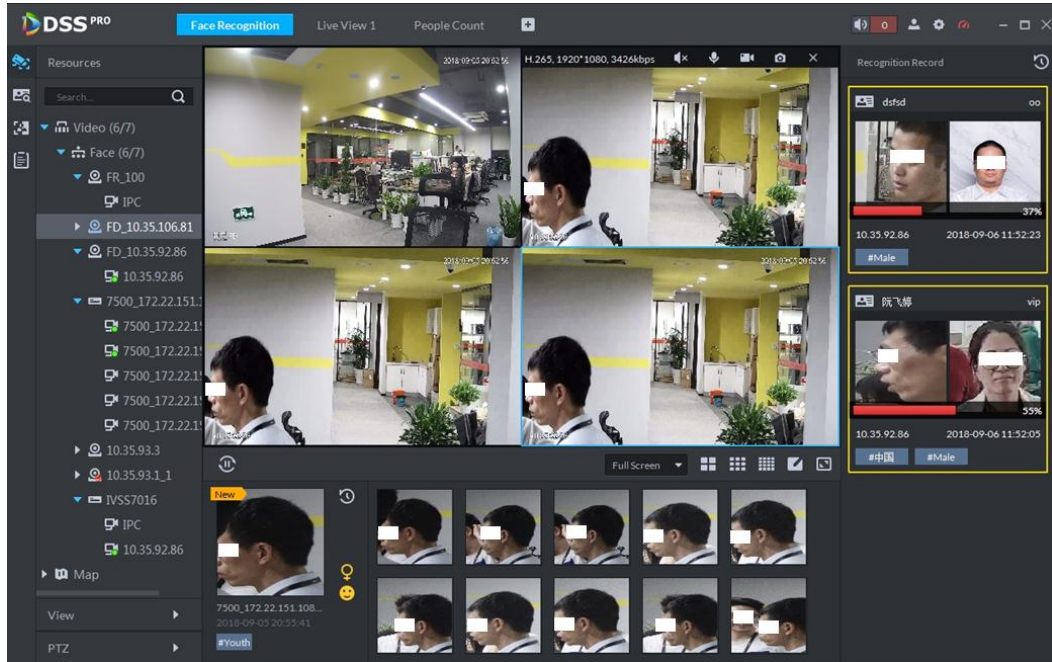
SN	Name	Note
1	Device tree	It is to display device information.
2	Pause refresh/start refresh	<ul style="list-style-type: none"> : When this icon is on the interface, the snapshot display pane does not refresh human face snapshot image. Click the icon, system displays real-time face image. : When this icon is on the interface, the snapshot display pane refresh human face snapshot image. Click the icon, system refreshes human face snapshot image.
3	Recognition history record	It is to display the snapshot human face image of the video.
4	Monitor window	It is to display channel preview video. In multiple-window display mode, double click the window to switch to 1-window display mode. Double click the window again to restore original mode.
5	 Image display rate	<ul style="list-style-type: none"> There are two modes: full screen, original scale. The full screen refers to one window at the full screen.
	 Window split switch	It is to display switched window amount. System supports customized settings.
	 Full screen display	The system displays window at full screen.
6	Snapshot human face image display pane	It is to display snapshot human face image.

Step 3 Enable video preview.

- Select a monitor window (white frame means it is the checked window). Double click a channel or record file to enable real-time surveillance.
- Drag the channel or the video file to the monitor window.

It is to enable video preview interface. See Figure 5-128.

Figure 5-128



- Step 4** Double click snapshot human image.
System displays human detailed information interface.

5.11.3 Searching Snapshot Images

The human face recognition function can search the specified person from the human face database or the snapshot image database. Or you can use the image to search the corresponding person.


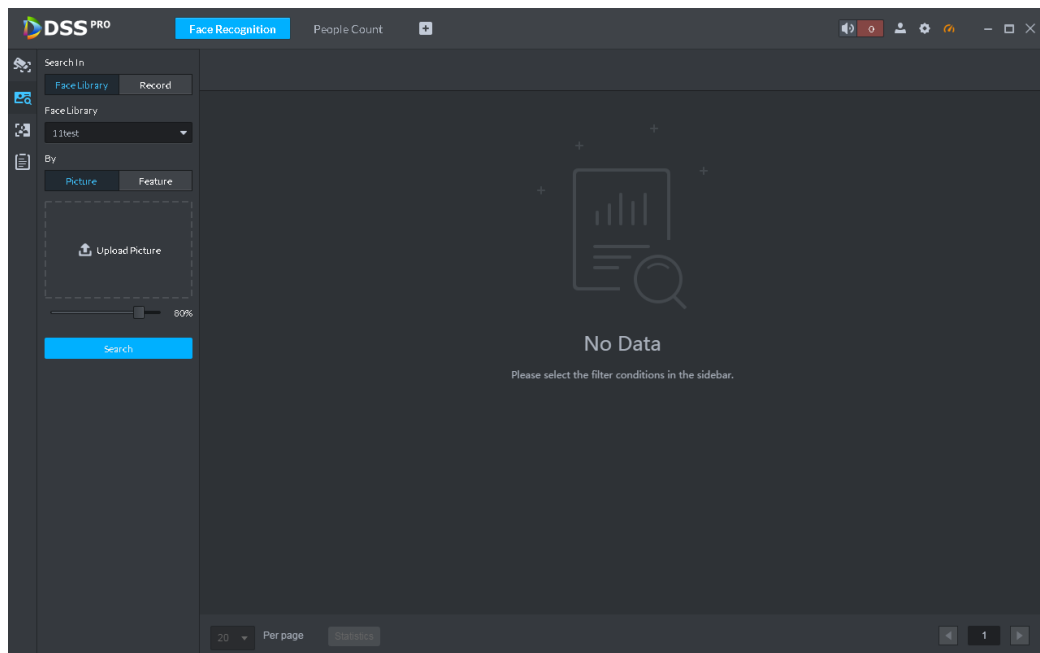
- Step 1** On the Face recognition interface, click .
Enter Search face library interface. See Figure 5-129.

Figure 5-129



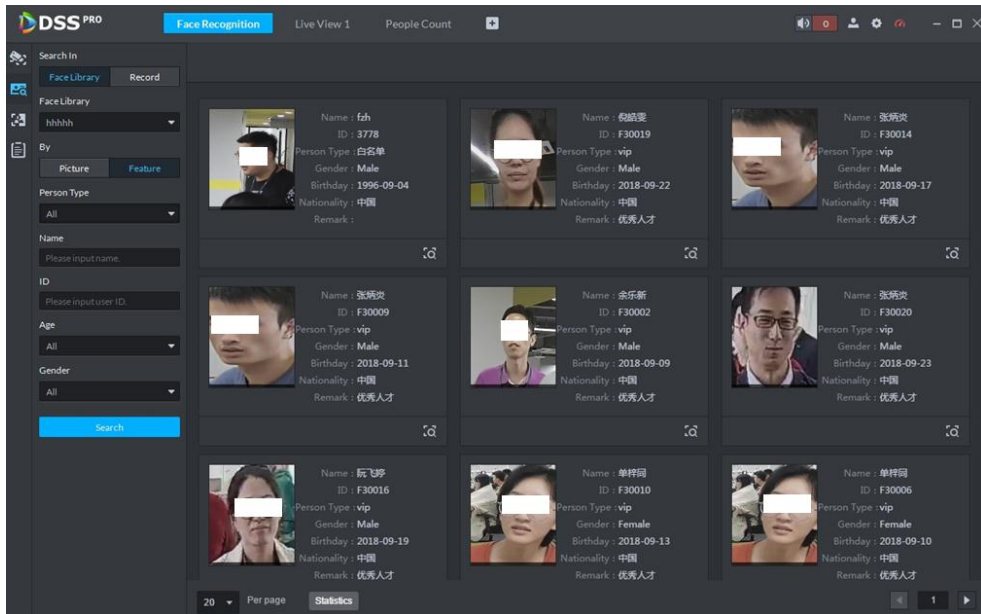
- Step 2** Set search criteria.

- You can search on human face database or records.
- Select a human face database already exists.
- The search criteria can be Picture or Feature.

Step 3 Click Search.

The search interface is displayed. See Figure 5-130.

Figure 5-130



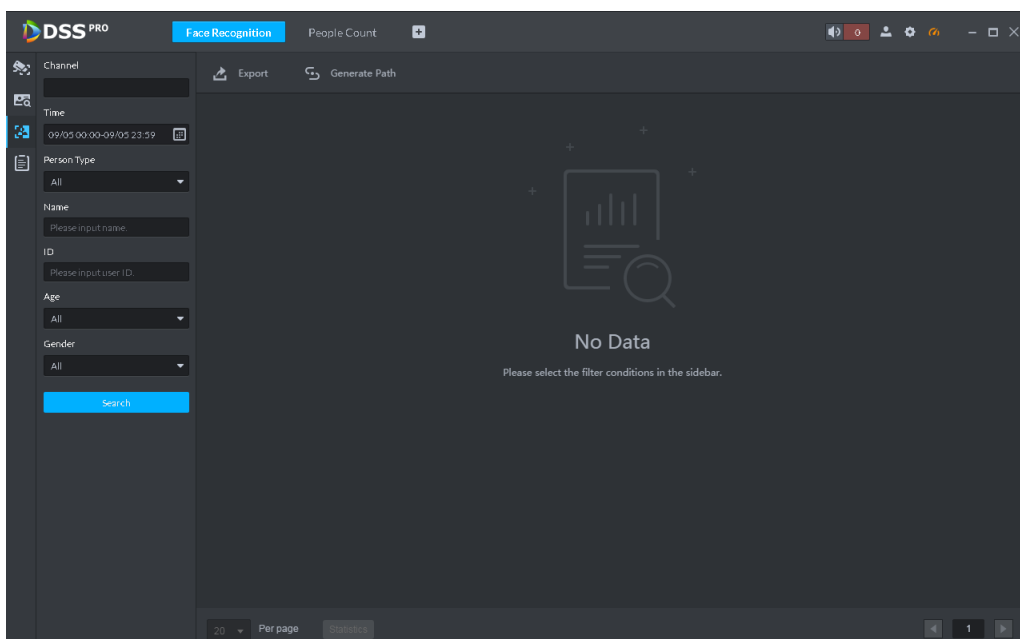
5.11.4 Searching on the Snapshot Database

The human face recognition function can search images of specified period or search the image on the image database.

Step 1 On Face recognition interface, click .

The snapshot database search interface is displayed. See Figure 5-131.

Figure 5-131



Step 2 Set search criteria.

System supports search by channel, time, human face features, name, ID, age, gender, etc.

Step 3 Click Search.

Step 4 Double click the search result

System displays human information. See Figure 5-132. There is no image on the left if you do not upload image when setting search criteria. Refer to Table 5-31 for detailed operation information.

Figure 5-132

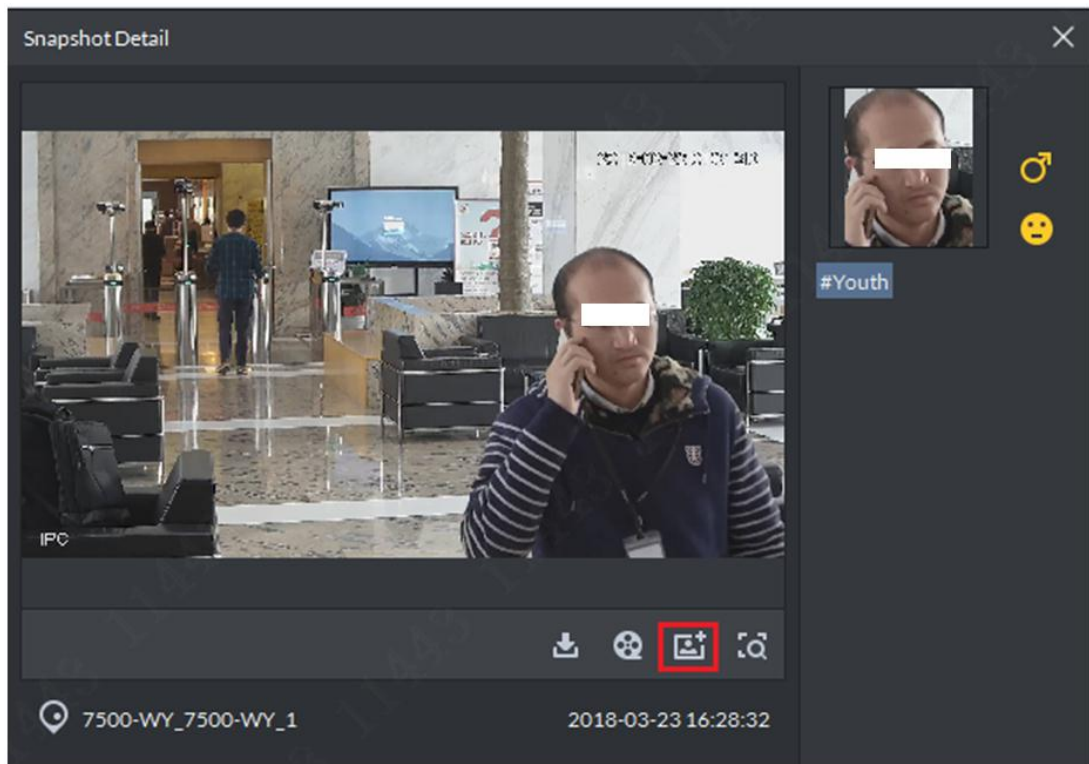






Table 5-31

Operation	Note
Download Record	Click  , it is to save RAR file on the specified path. The .RAR file contains the human face snapshot image and snapshot panorama images.
Playback record	Click  to playback the 15-seconds video record before and after the snapshot.
Add person	It is to add the snapshot person to the database. 1. Click  , system displays View interface. 2. Set person information and then click OK.

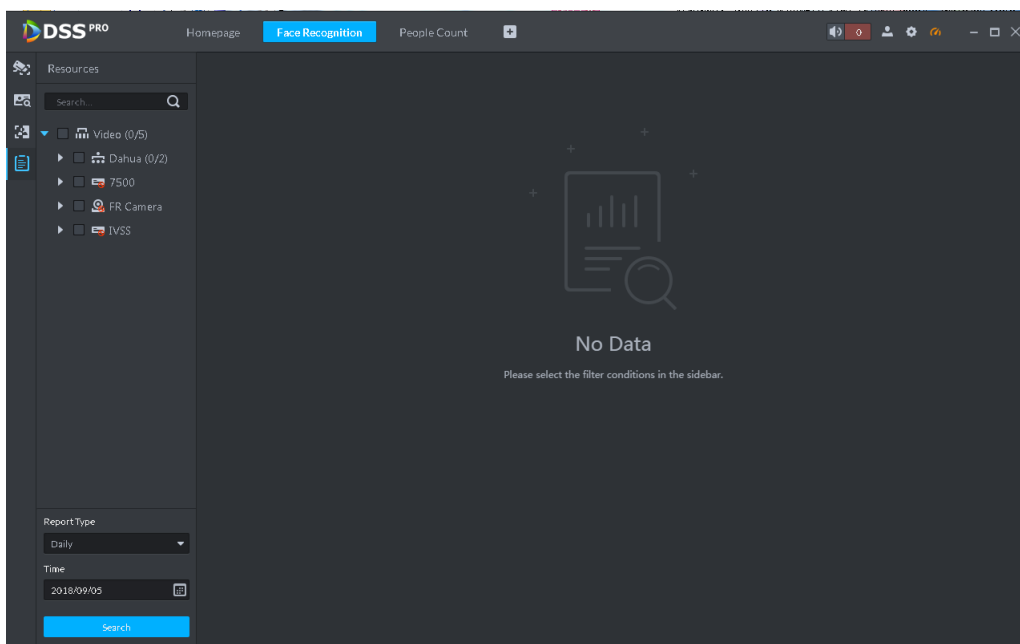
Operation	Note
Search record	<p>You can use the snapshot image to search on the registration database.</p> <ol style="list-style-type: none"> 1. Click , system goes to human face search interface with the snapshot image. 2. Click Search, system displays search result.

5.11.5 Statistics Report

Step 1 On Face recognition interface, click .

Enter Registration database search interface. See Figure 5-133.

Figure 5-133



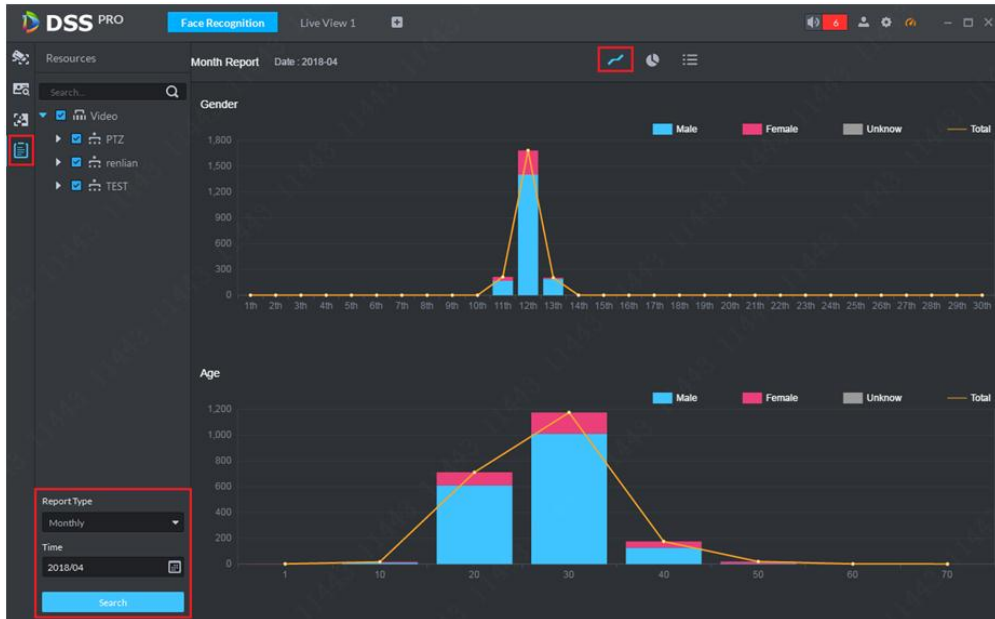
Step 2 Set search criteria.



Set video channel, report type and time.

Step 3 Click Search.

The statistics search result is displayed. See Figure 5-134.

Figure 5-134



- System displays results by line chart.
- Click  to display by pie chart.
- Click  to display by list.
- Click Export, it is to export statistics result to .pdf file.

5.12 Number Plate Recognition Applications

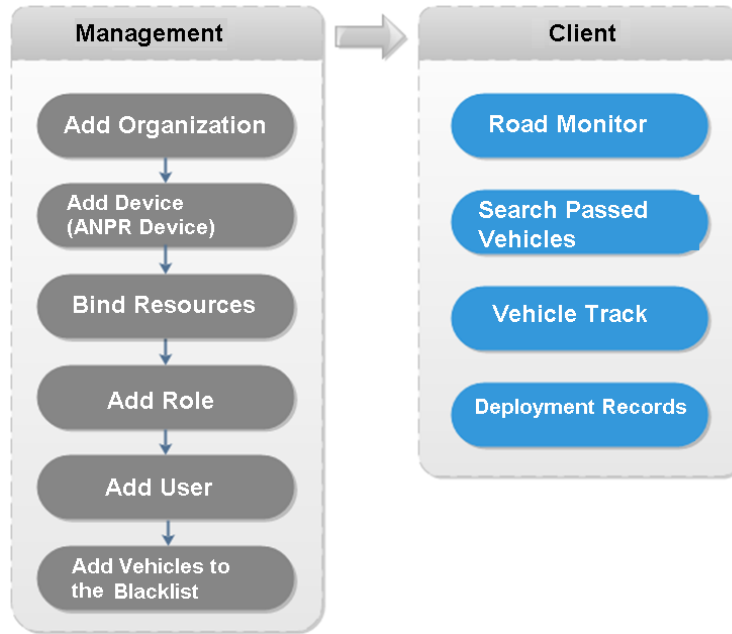
The platform integrates vehicle module. It can search passed vehicles and search violation records and alarm.

5.12.1 Preparations

- Refer to 4.6 Adding Device to add ANR device on the platform manager.
- Refer to 4.13 Adding Vehicle Blacklist to add vehicle blacklist on the platform manager.

Refer to Figure 5-135 for road monitor flows.

Figure 5-135



5.12.2 Number Plate Recognition

Step 1 Click , on the **New Tab** interface select ANPR.


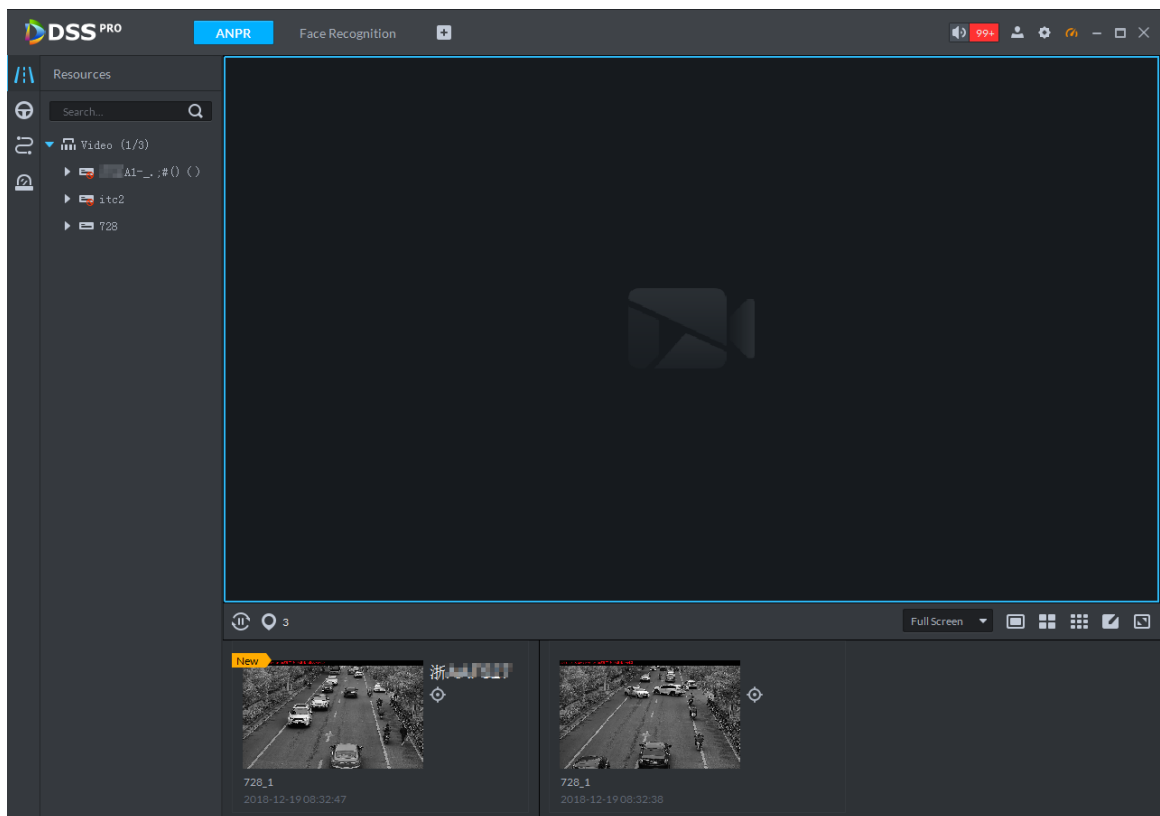
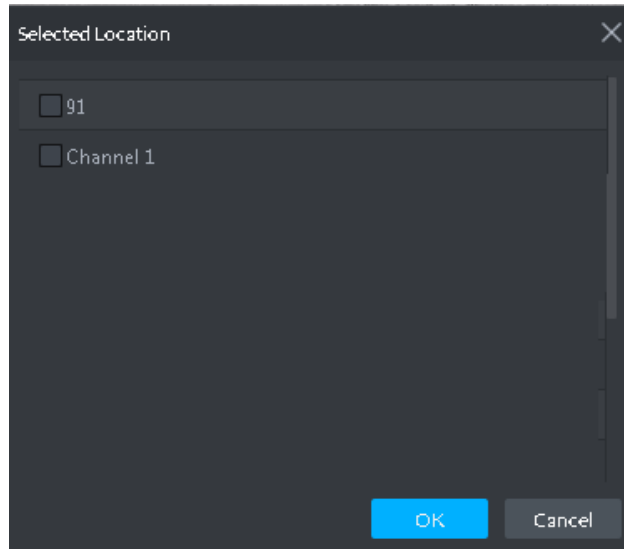
Step 2 Click , system displays ANPR interface. See Figure 5-136.

Figure 5-136



Step 3 Click  to select the ANPR channel. See Figure 5-137.

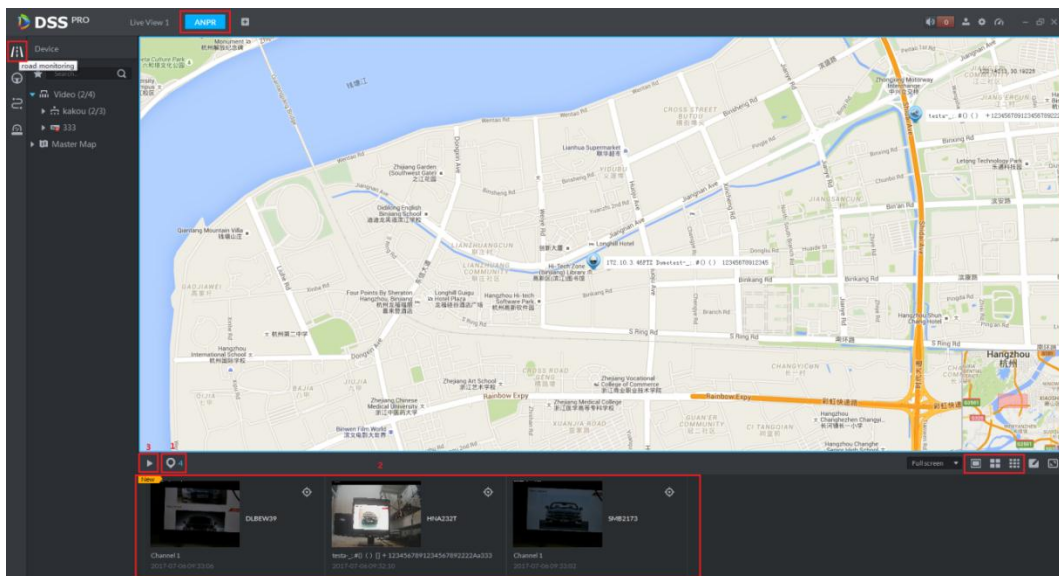
Figure 5-137



Step 4 Select ANPR device and then click OK.

System displays the selected channel amount and the latest passing vehicle image on the rolling pane. See Figure 5-138.

Figure 5-138



Step 5 Double-click the image to view image details. It includes plate number, snapshot time, ANPR channel name, vehicle logo, vehicle color.

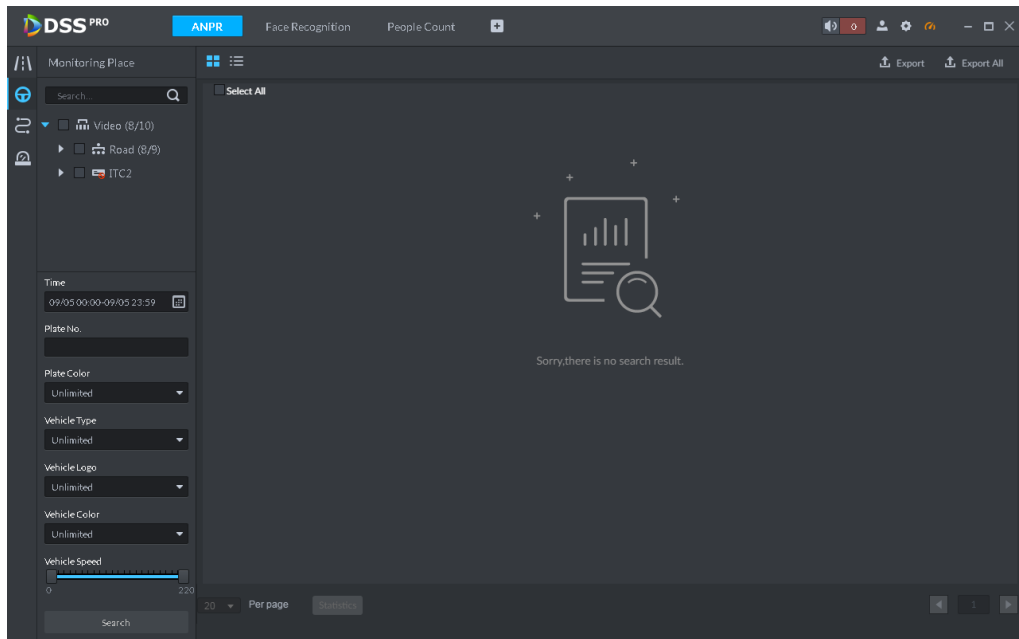
5.12.3 Searching Passed Vehicle

It is to search passing vehicle.

Step 1 Click .

Enter Passed vehicle interface. See Figure 5-139.

Figure 5-139

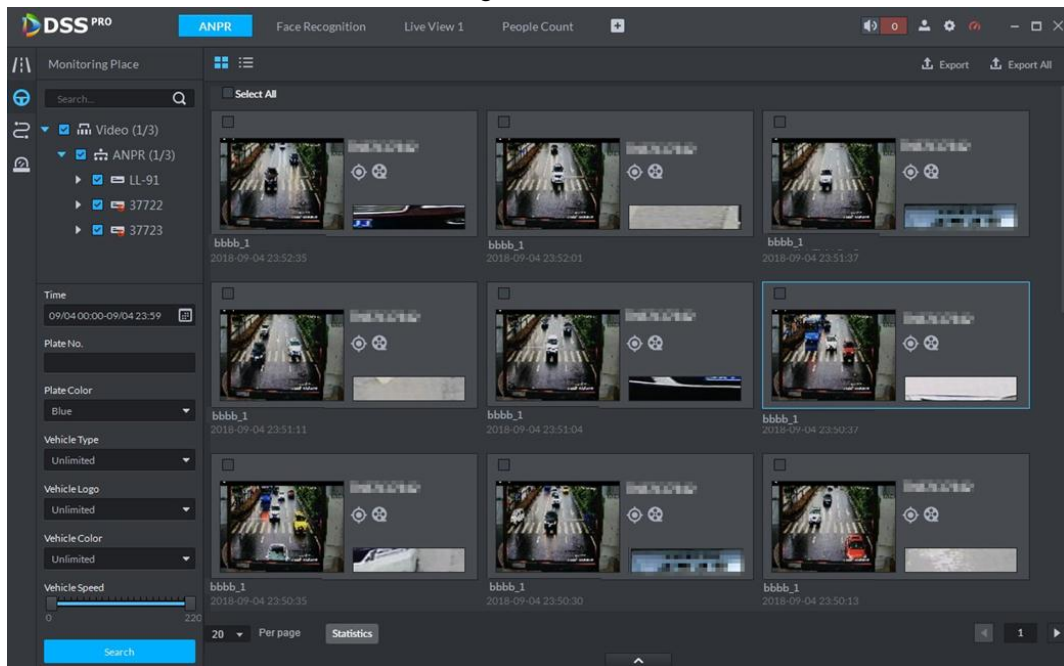


Step 2 Select video channel and search criteria. It includes time, plate number, plate color, plate type, vehicle logo, vehicle body color and lane.

Step 3 Click Search.

System displays search result. See Figure 5-140.

Figure 5-140



For the passed vehicle, you can view its detailed information, record and running track. Refer to the operations listed below.




- Click View mode () or list mode (), it is to select different display mode.
- Select a snapshot image and then click  or double click the image, system displays detailed information. See Figure 5-141. Move the cursor to the middle to select the specified zone, you can zoom in it. See Figure 5-142.

Figure 5-141

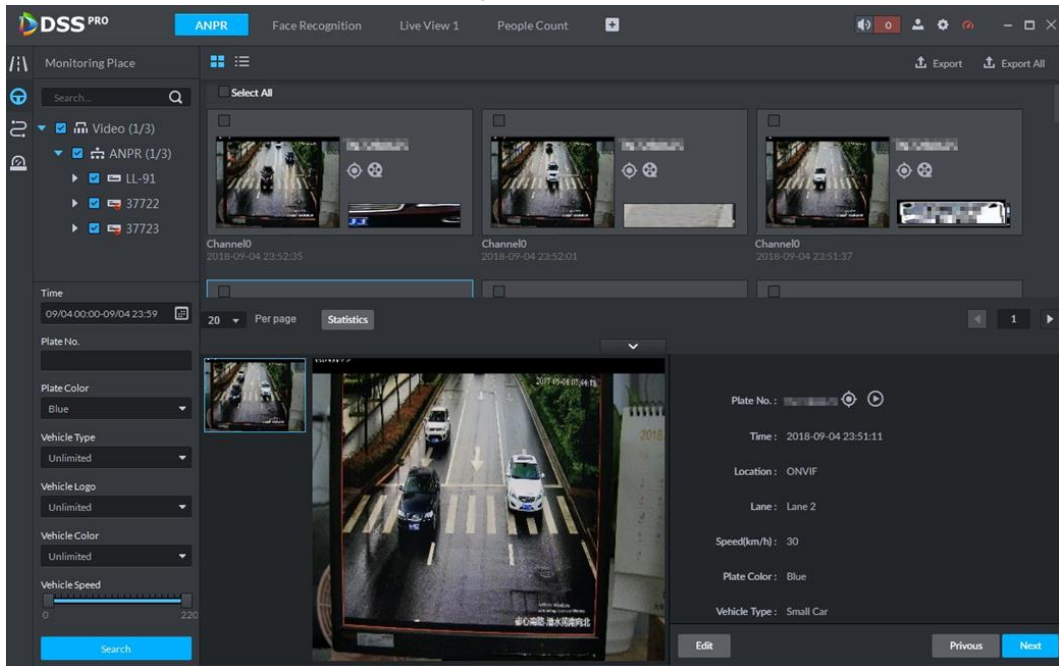
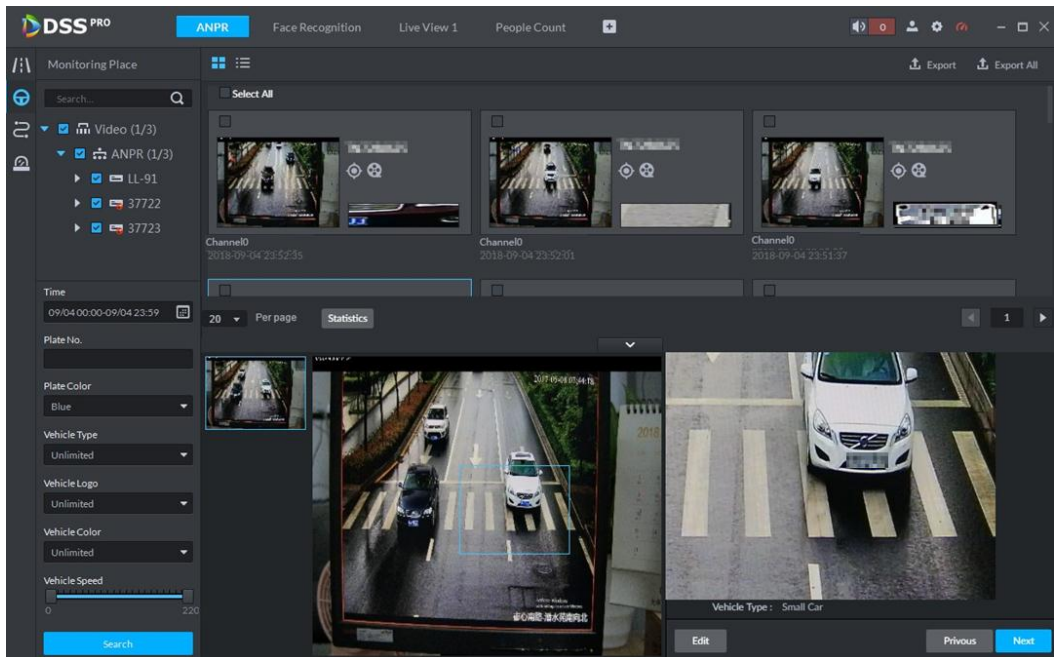


Figure 5-142




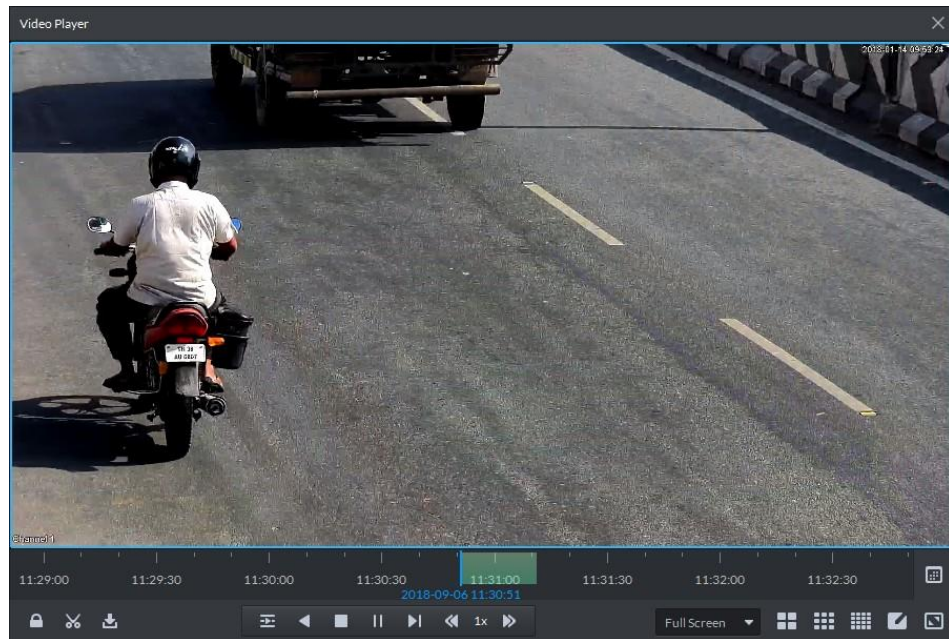


- Click  to playback the 15-second video before and after the vehicle passed time. See Figure 5-143. The video file is total 30 seconds. It is to display the 15-second video before and after the vehicle passed.

Figure 5-143



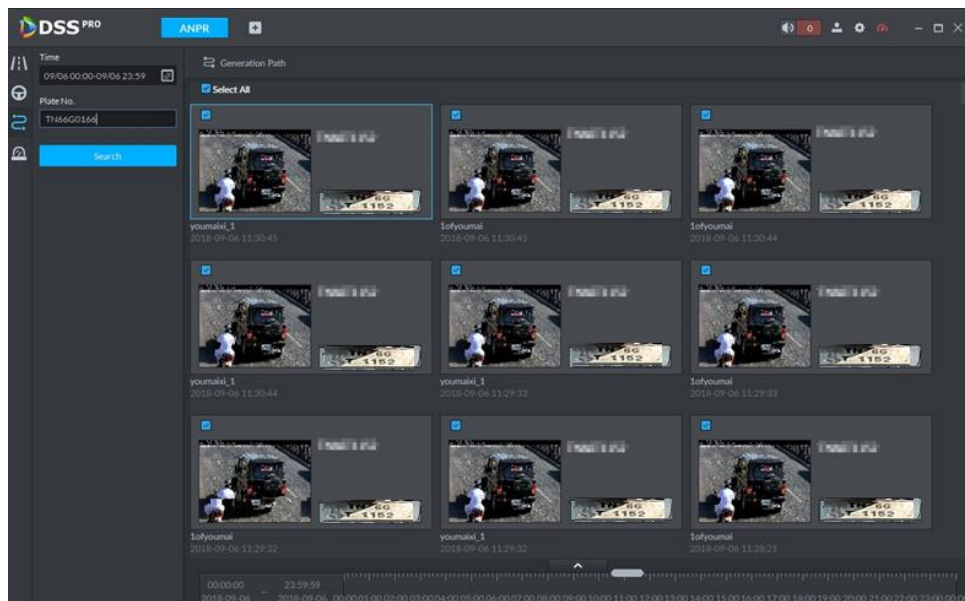
- Click  to view the vehicle running track. Refer to 5.12.4 Vehicle Track for detailed information.
- Export: Select the passed vehicle information and then click Export. It is to export selected passed vehicle. Click Export all, it is to export all searched passed vehicle information.

5.12.4 Vehicle Track

Step 1 Click , system displays Road monitor interface.

Step 2 Select time and then input plate number. Click Search.
Enter Vehicle track search result. See Figure 5-144.

Figure 5-144



Refer to the operations listed below.


- Select the snapshot image and then click  or double click the image, you can view snapshot vehicle detailed information. See Figure 5-145. Move the cursor to the middle to select the specified zone, you can zoom in it. See Figure 5-146.

Figure 5-145

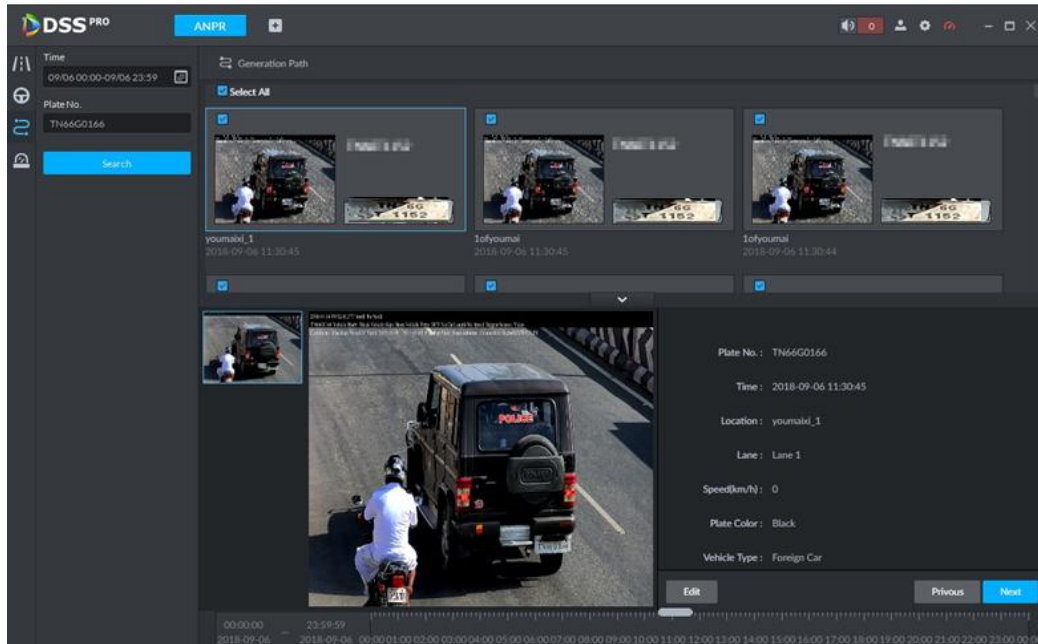
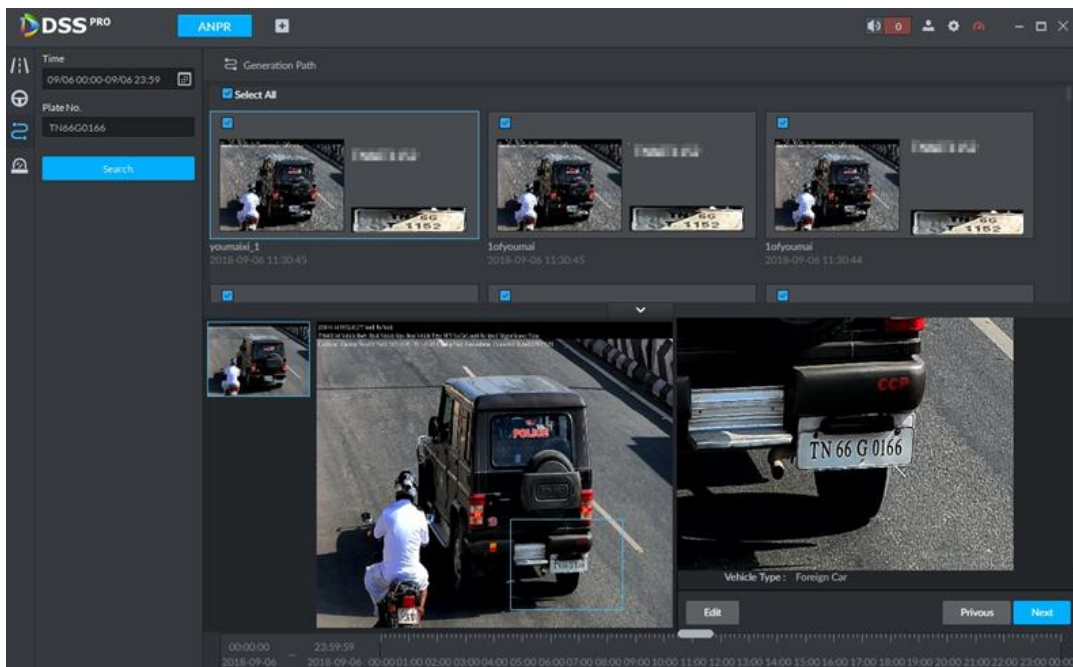
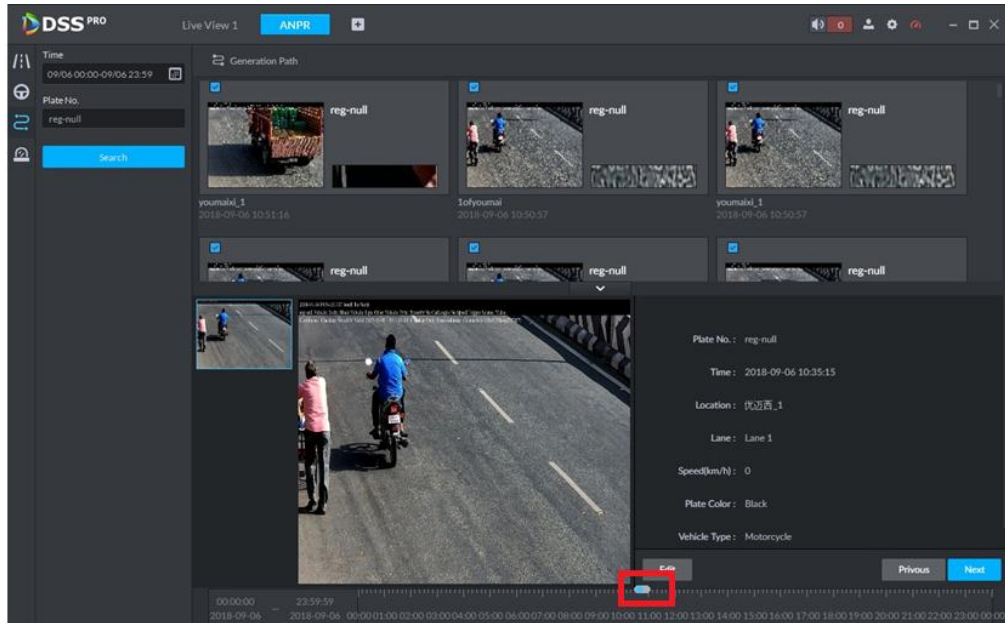


Figure 5-146



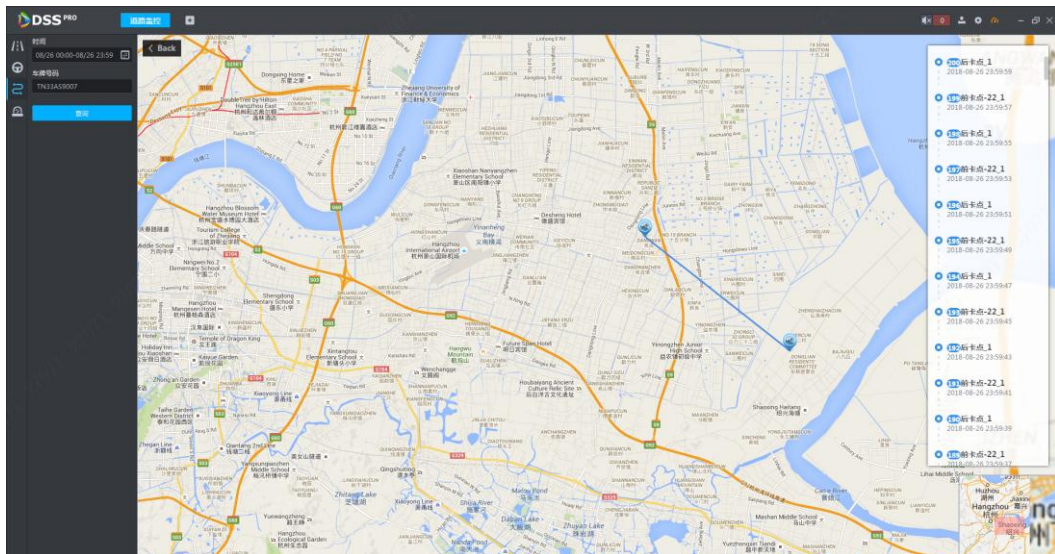
- Click Edit, it is to edit vehicle basic information.
- Click Previous or Next to view the previous or the next search item.
- Click the timeline that has the records, you can view the vehicle information of the specified time. See Figure 5-147.

Figure 5-147




- Select the snapshot image and then click the Generation path (track), you can view the vehicle track on the map. See Figure 5-148.

Figure 5-148



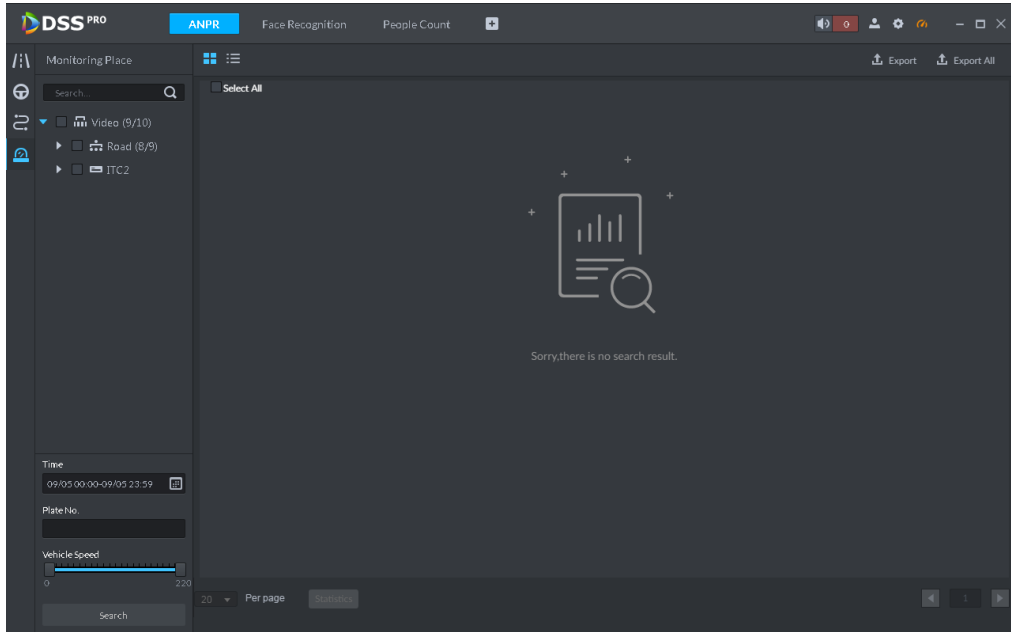
5.12.5 Monitor Place

It is to view and confirm the alarm information.

Step 1 Click .

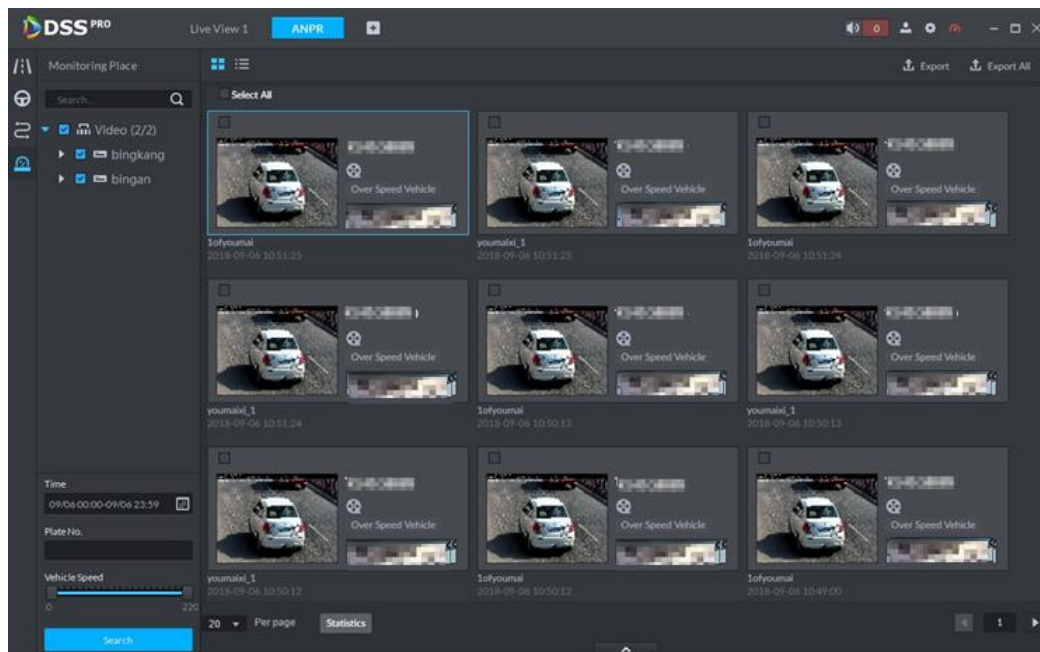
Enter Monitor place interface. See Figure 5-149.

Figure 5-149



Step 2 Select device channel, and then set time, plate number, speed. Click Search. System displays search result. See Figure 5-150.

Figure 5-150



For the monitor record, you can view vehicle detailed information, corresponding video, edit vehicle information. Refer to the operations listed below.




- Click View mode () or List mode (), it is to select different display mode.
- Select the snapshot image and then click  or double click the image, you can view snapshot vehicle detailed information. See Figure 5-151. Move the cursor to the middle to select the specified zone, you can zoom in it. See Figure 5-146.

Figure 5-151

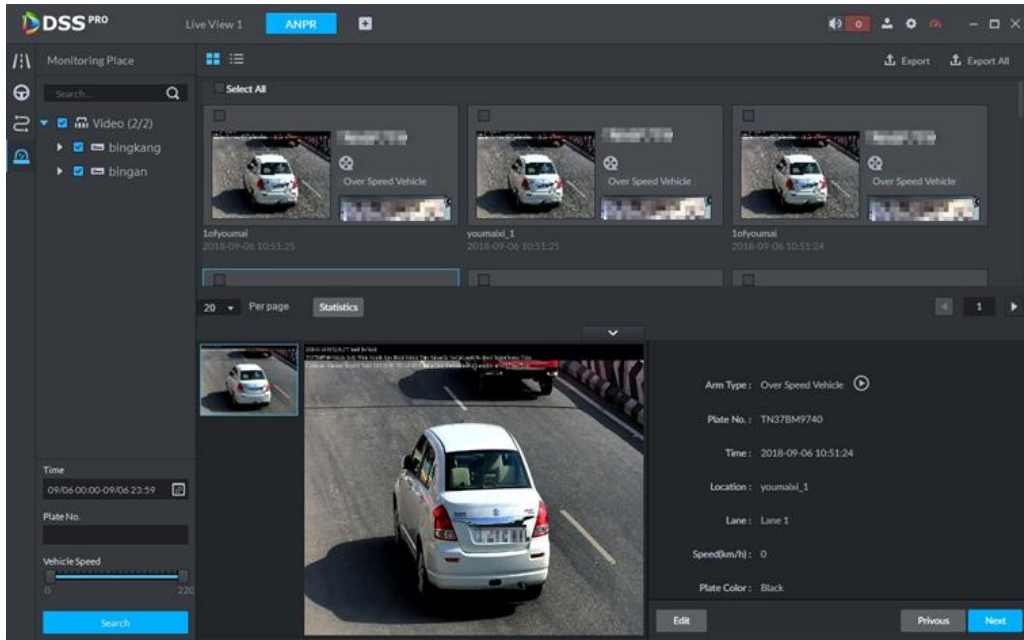
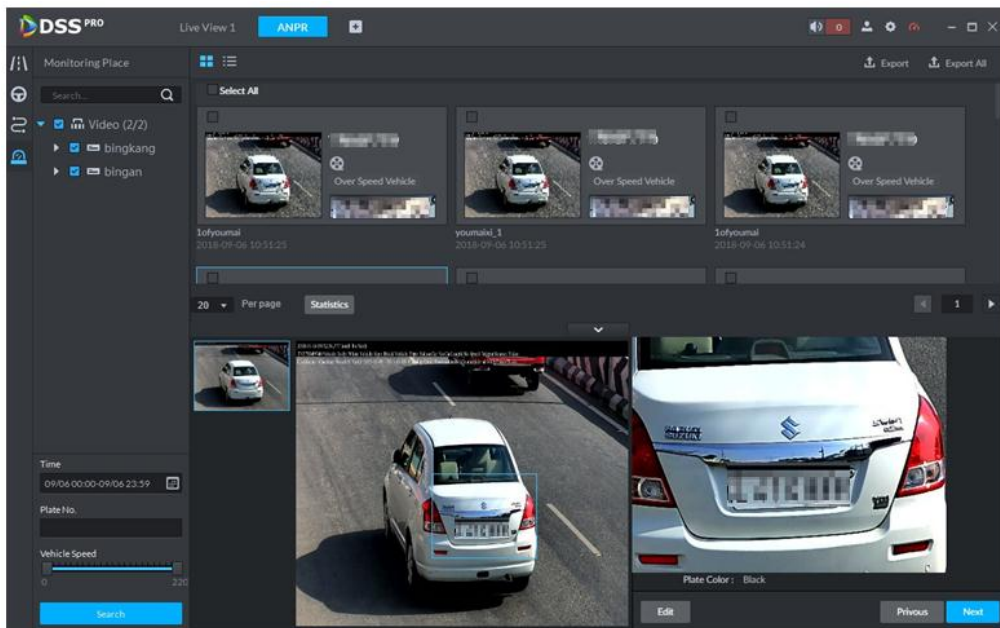


Figure 5-152




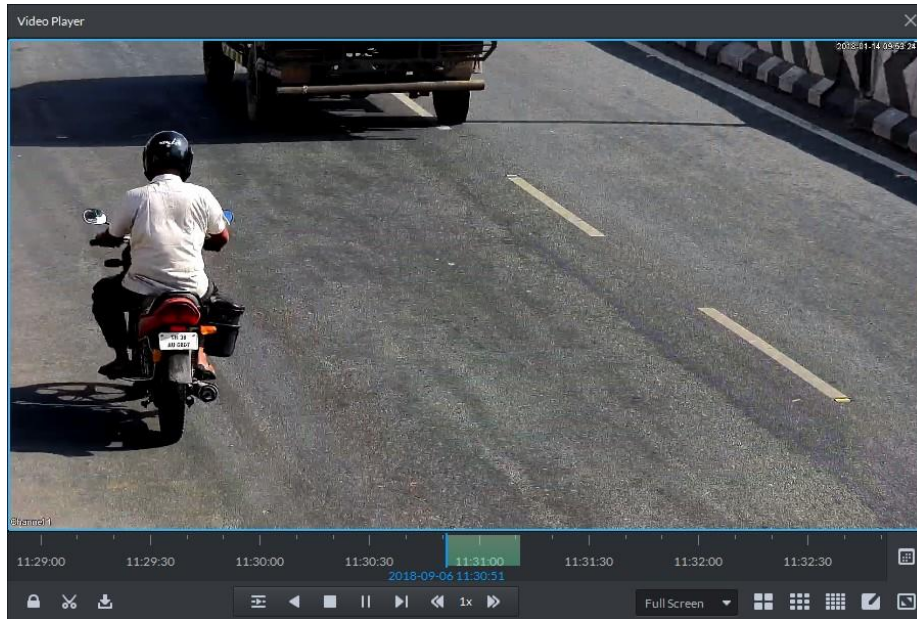

- Click  to playback the 15-second video before and after the vehicle passed time. See Figure 5-153. The video file is total 30 seconds. It is to display the 15-second video before and after the vehicle passed.

Figure 5-153



- Click  to view the vehicle running track. Refer to 5.12.4 Vehicle Track for detailed information.
- Export: Select the passed vehicle information and then click Export. It is to export selected monitor position information. Click Export all, it is to export all monitor position information.

5.13 Traffic

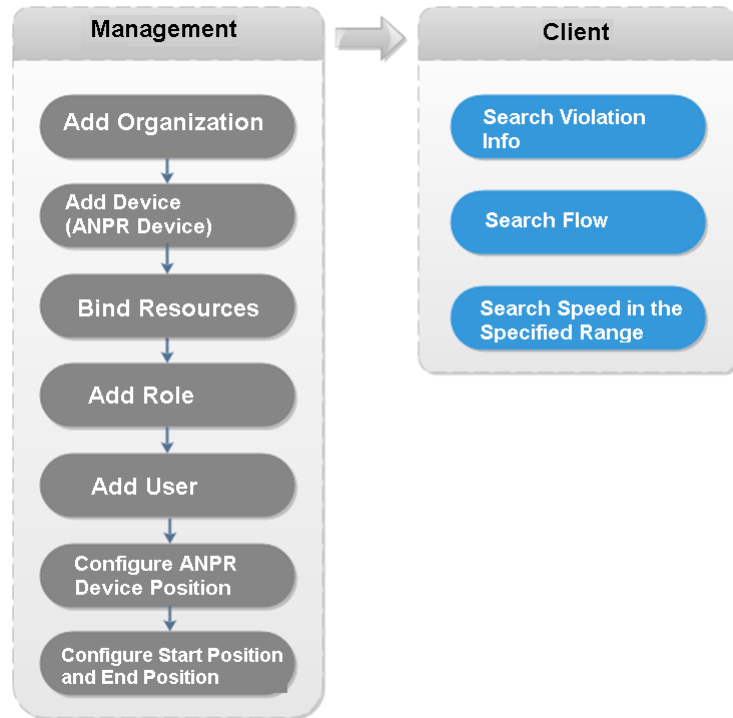
It is to search the vehicle traffic violation information from the ANPR device and vehicle flow statistics. You can search speed measurement result from the specified range.

5.13.1 Preparations

- Refer to 4.6 Adding Device to add ANPR device on the platform manager.
- Refer to 4.9 Configuring Average Speed on the range to set speed measurement positions and its distance.

Refer to Figure 5-154 for flows information.

Figure 5-154




5.13.2 Searching Violation Information

It is to search vehicle violation information. The violation information is from the ANPR camera.

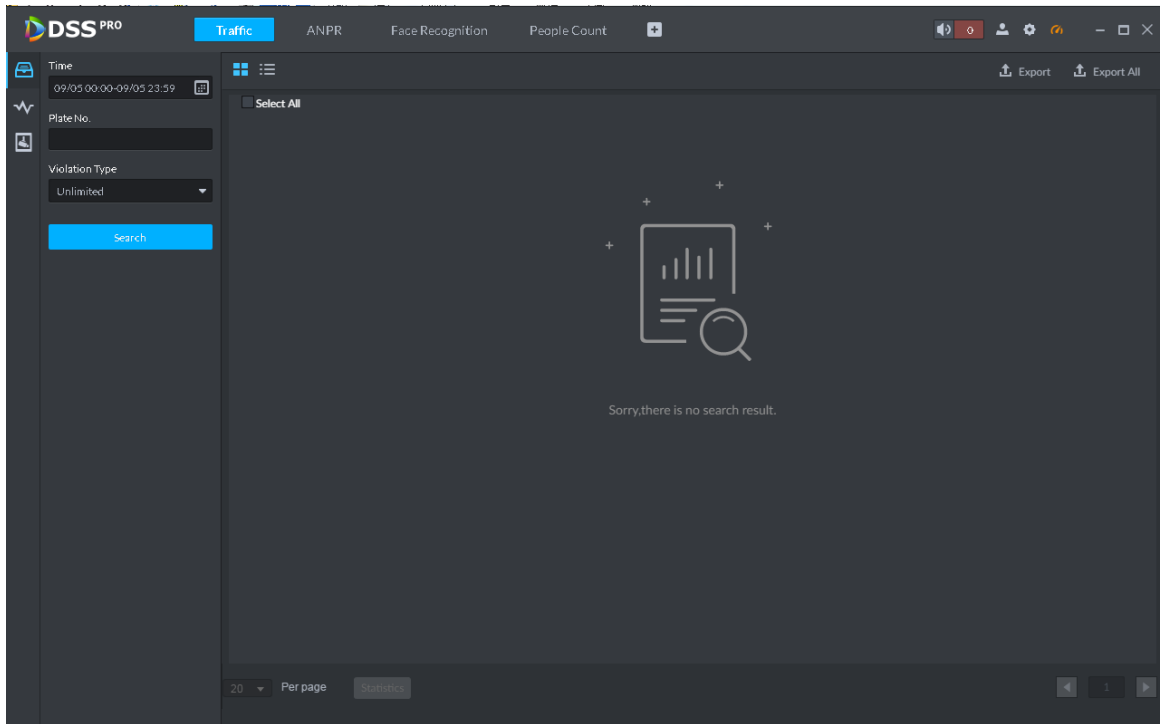
Step 1 Click , on the **New Tab** interface select Traffic.

Enter Traffic interface.

Step 2 Click .

Enter Violation management interface. See Figure 5-155.

Figure 5-155

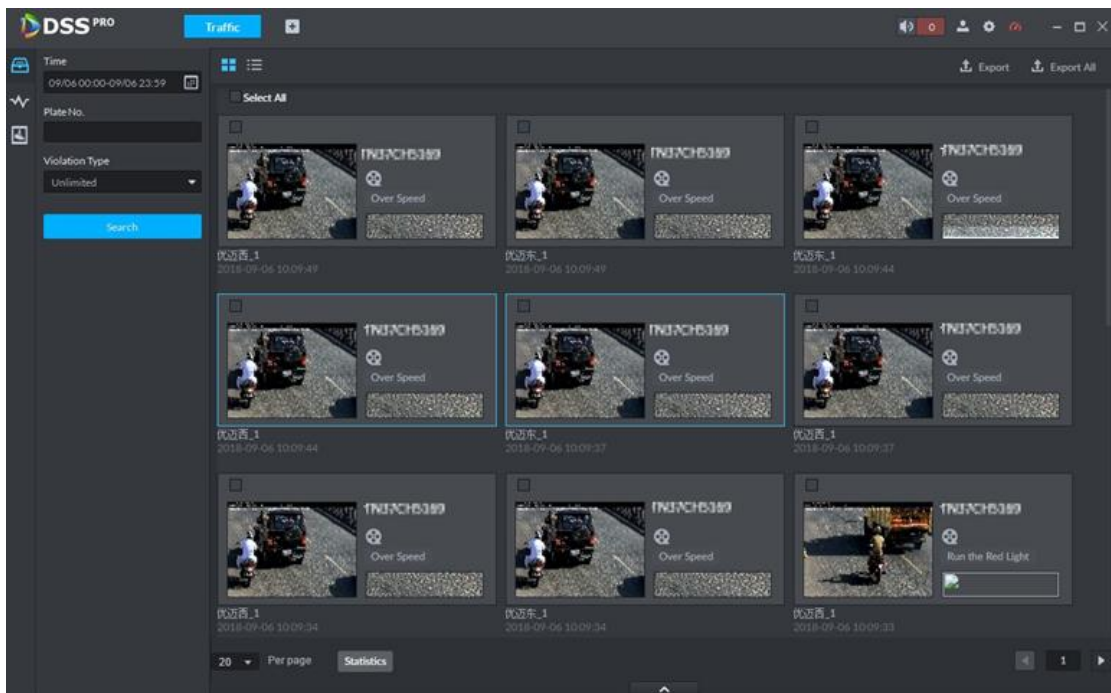


Step 3 Set search criteria. It includes time, plate number, and violation type.

Step 4 Click Search.

System displays search result. See Figure 5-156.

Figure 5-156

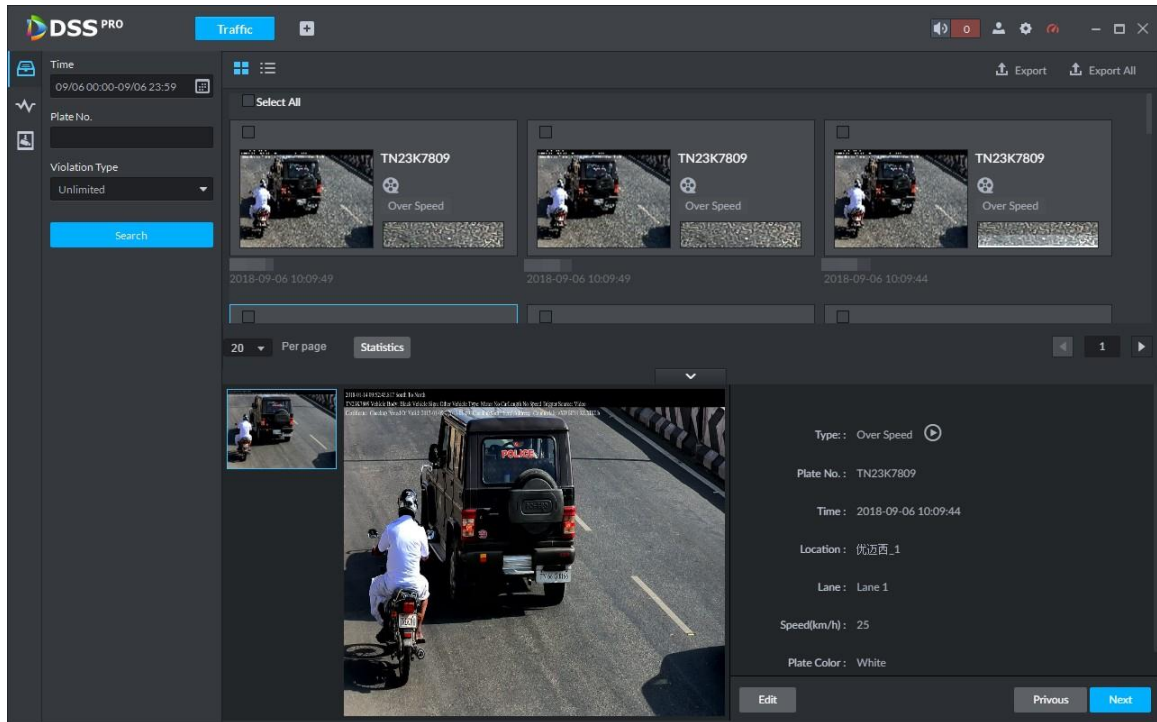


For a violation item, you can view vehicle detailed information and violation record video. Refer to the operations listed below.

- Click View mode () or List mode (), it is to select different display mode.

- Double click a violation item, you can view detailed vehicle information. See Figure 5-157.

Figure 5-157



- Select a violation item and then click Export. It is to export selected violation information. Click Export all, it is to export all searched violation results.

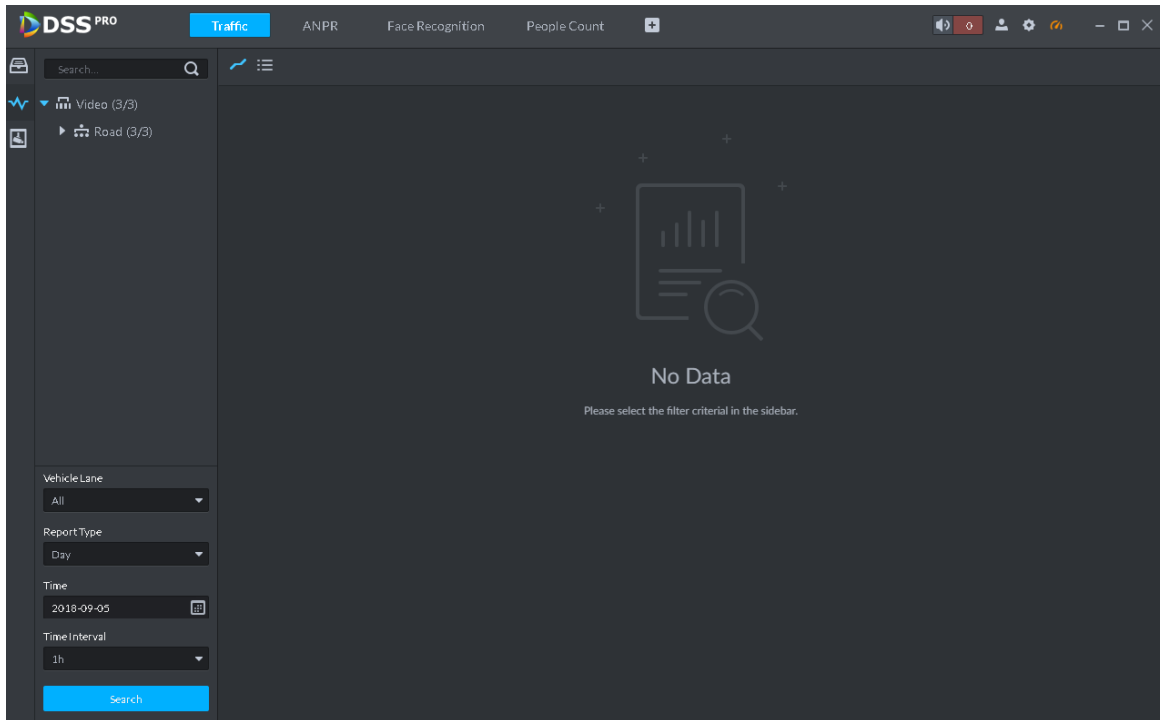
5.13.3 Search Vehicle Flows

It is to search the vehicle flow of one lane of one channel. The violation information is from the ANPR camera. The default upload interval is 1 time/ minute (device supports 1~250 minute(s)/time). The vehicle flows include vehicle total flow, average speed, lane occupation rate, flows of different vehicle types. The vehicle type includes small vehicle, passage vehicle, small van and heavy-duty vehicle. The vehicle flow data can be saved for at least 2 years.

Step 1 Click .

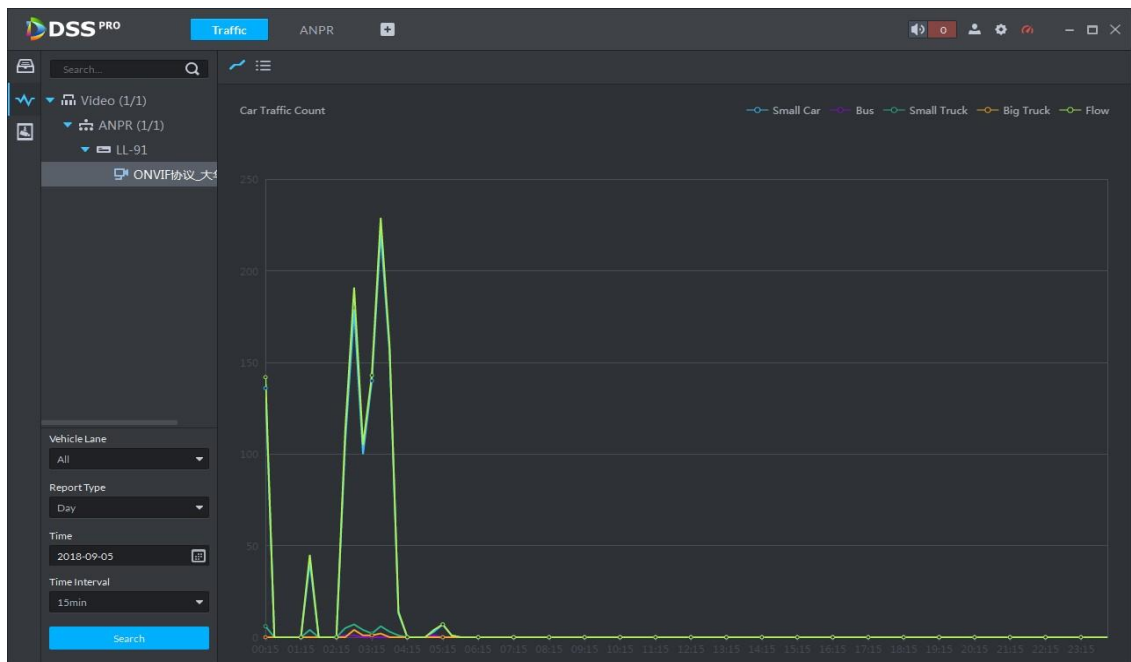
Enter Flow Searching interface. See Figure 5-158.

Figure 5-158





Step 2 Select device channel, plate number, report type, interval, and then click Search. System displays search result. See Figure 5-159.

Figure 5-159



For a flow record, you can view vehicle detailed information and corresponding record file. Refer to the operations listed below.

- Click Line chart mode () or List mode (), it is to select different display mode.
- Click Export all, it is to export all searched flow results.

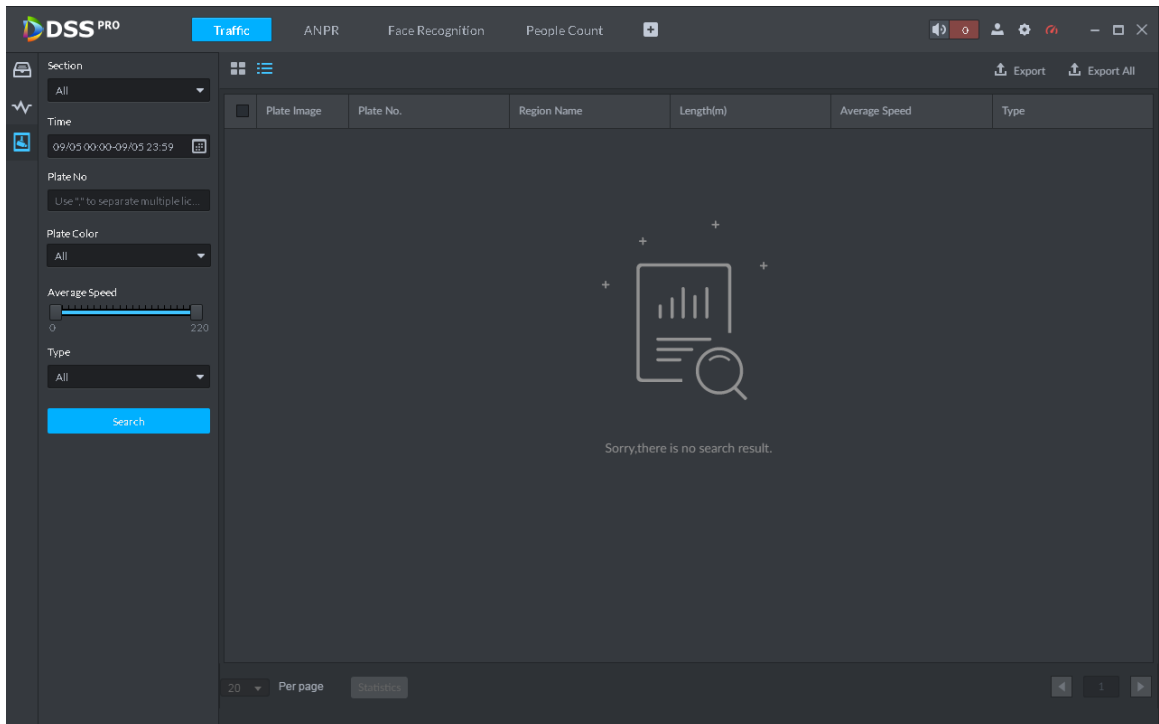
5.13.4 Searching Speed during a Specified Range

It is to search the speed between the specified range.

Step 1 Click .

Enter range speed interface. See Figure 5-160.

Figure 5-160



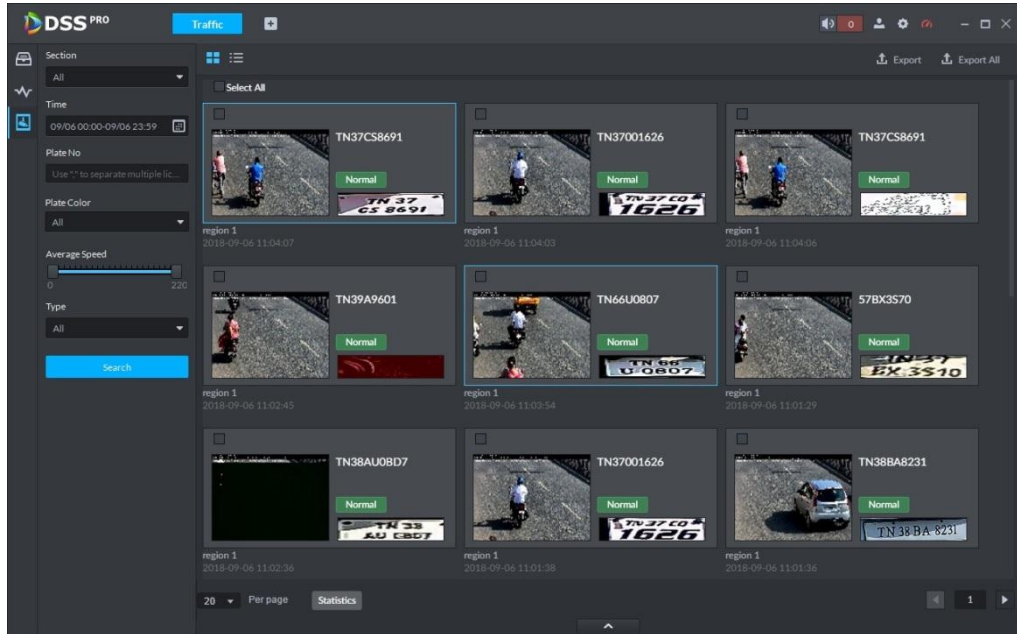
Step 2 Select search range, time, lane number, plate color, average speed, type, and then click Search.

System displays search result. See Figure 5-161.

NOTE

On thumbnail mode, system displays the earliest image of the current range as the master image by default.

Figure 5-161



Refer to the operations listed below.



- Click View mode () or List mode (), it is to select different display mode.
- Double click the range speed measurement, you can view vehicle detailed information. See Figure 5-162. Move the cursor to the middle to select the specified zone, you can zoom in it. See Figure 5-163.

Figure 5-162

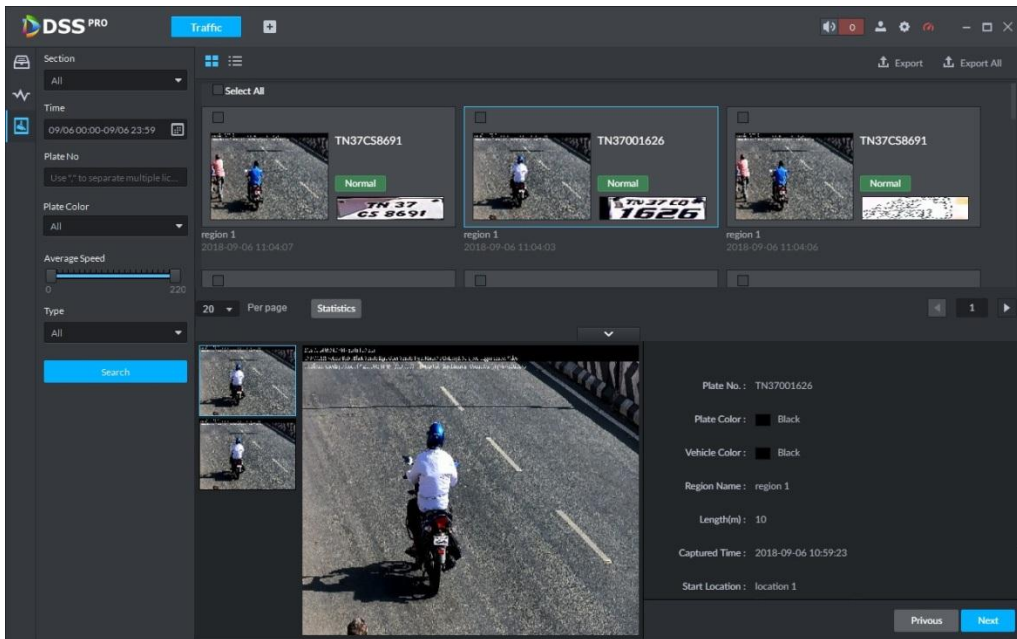
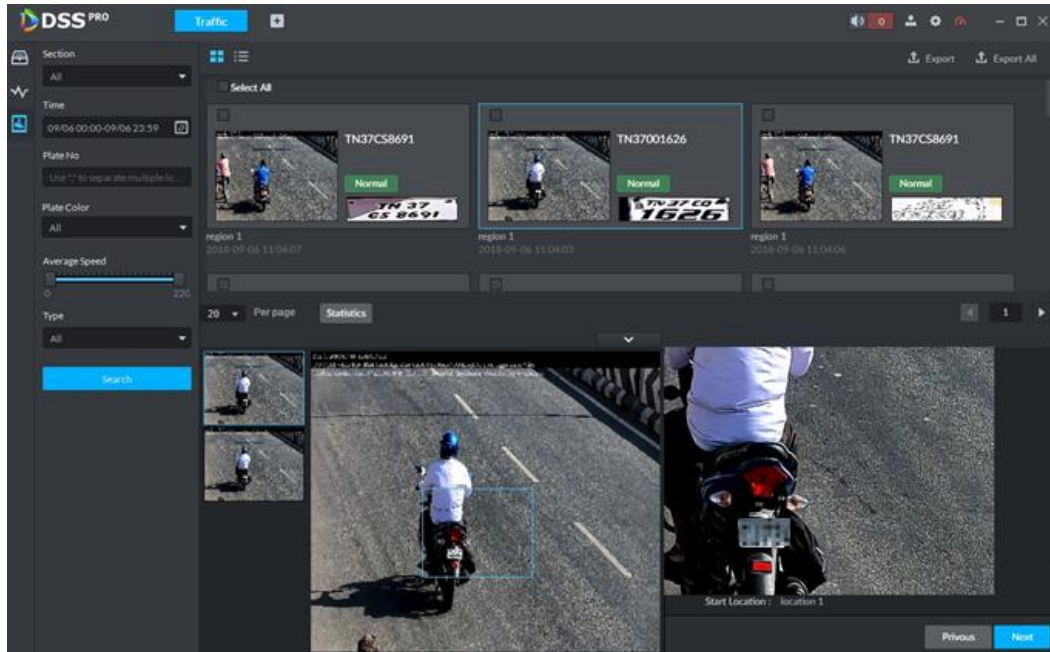


Figure 5-163



- Select a range speed measurement search results, click Export to export selected passed vehicle information. Click Export all, it is to export all searched passed vehicle information.

5.14 Target Detection

5.14.1 Preparations


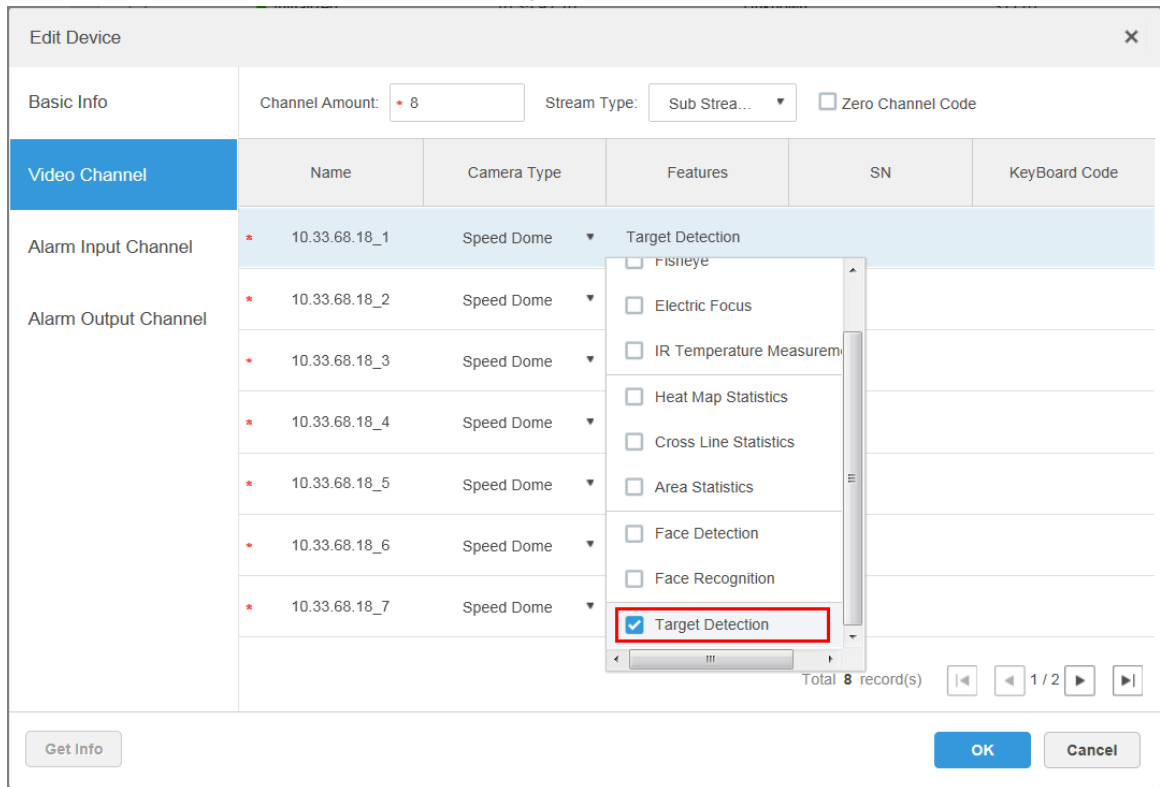
- Cameras with structuring functions have been added to the platform's administrator end. See 4.6 for specific steps.
- After devices are added, click , and select Target Detection from the Features dropdown box. See Figure 5-164.

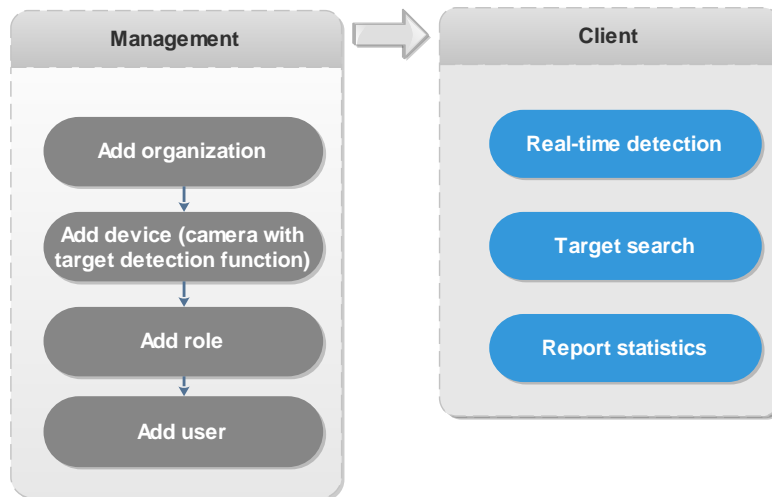
Figure 5-164



- The video structuring IVS rules of the camera have been enabled. See the user manuals of cameras for detailed steps.

Target detection procedures are shown in Figure 5-165.

Figure 5-165




5.14.2 View Real-time Detection

To view the real-time snapshots captured by the cameras, including information about human, motorized vehicles, and non-motor vehicles:

Step 1 Click . On the **Homepage** interface, select **Target Detection**.

The **Target Detection** interface is displayed.

Step 2 Click .

The Live interface is displayed. See Figure 5-166 and Table 5-32.

Figure 5-166

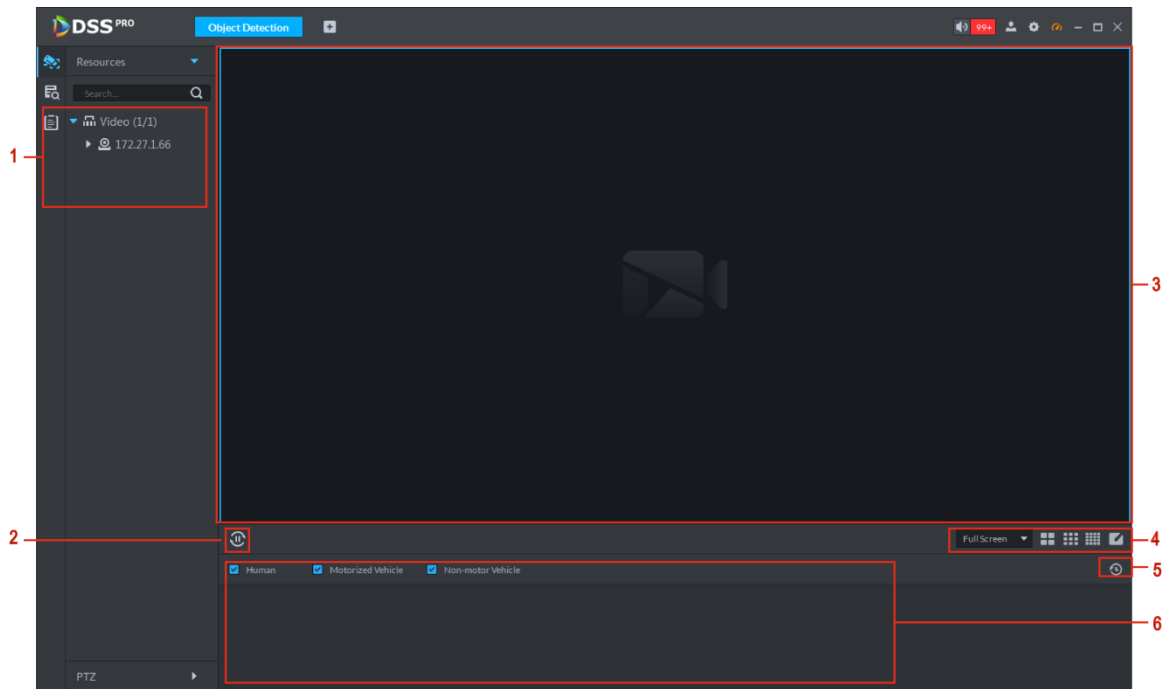


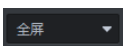



Table 5-32

No.	Name	Description
1	Device Tree	Displays device information.
2	Pause Refresh/Start Refresh	<ul style="list-style-type: none"> If the interface displays this icon , the snapshot display area does not refresh snapshots. Click this icon to refresh face snapshots in real time. If the interface displays this icon , the snapshot display area refreshes face snapshots. Click this icon to stop refreshing snapshots.
3	Monitoring window	Displays the channel preview video. In the multi-window display mode, double-clicking a window switches to single window display. Another double-clicking returns to the original multi-window display mode.
4	 Picture display ratio	Supports Full Screen and Original Scale modes. The Full Screen mode refers to the single window display in full screen.
	 Number of windows	Supports switching the number of display windows, and you can customize the numbers.
5	The button that allows for jumping to the Report Statistics interface.	Click this icon to jump to the Report Statistics interface.

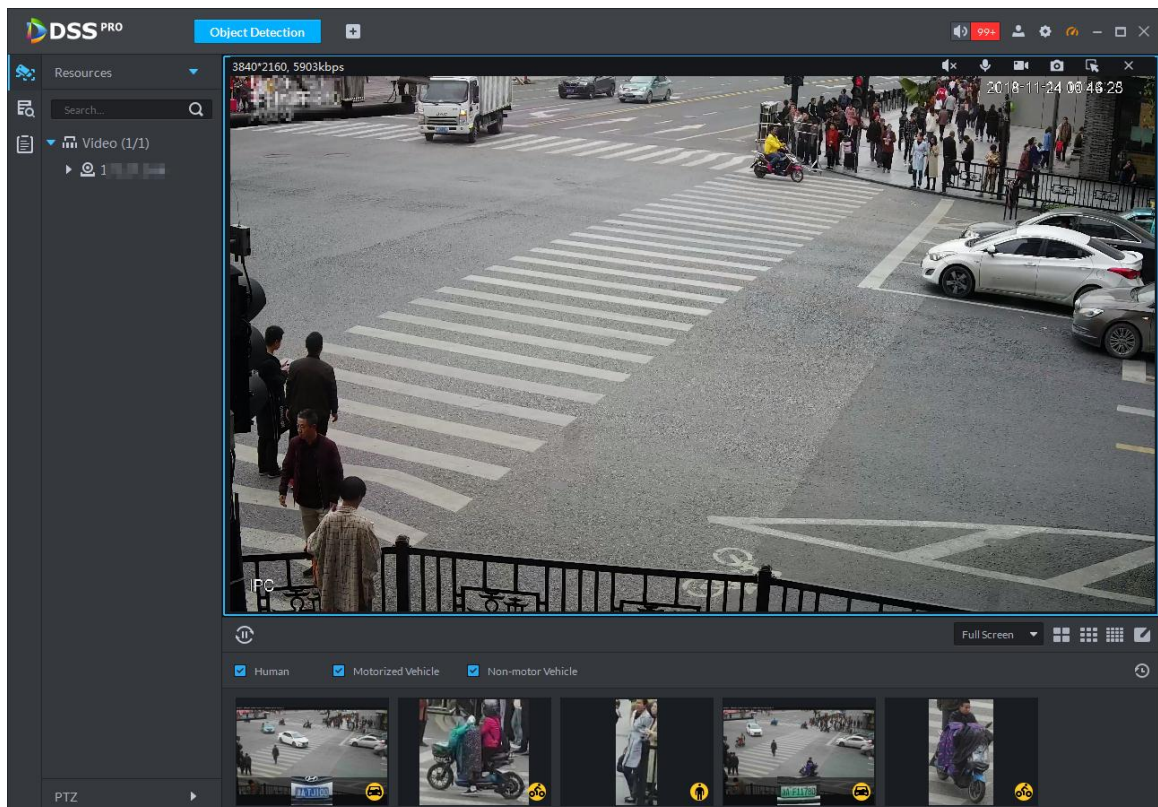
No.	Name	Description
6	Snapshot display area	Displays the captured face snapshots.

Step 3 Turn on video preview.

- Select the monitoring window (a white frame means the window has been selected), and double-click any channel or video recording to enable real-time monitoring.
- Drag the channel or video recording to the monitoring window.

Step 4 Turn on the video preview display. See Figure 5-167. The snapshot display area displays snapshots in real time.

Figure 5-167



Step 5 Double-click the snapshot.

The **Snapshot Detail** interface is displayed. See Figure 5-168 and Table 5-33.

- Human snapshots display body cutout, types of tops, colors of tops, types of bottoms, colors of bottoms, carrying bags or not, wearing caps or not, and the gender. If faces are recorded, the system displays face snapshots, age, facial expression, wearing glasses or face masks. You can zoom in any part of the human body image, jump to the search interface, and view the recordings. You can quickly jump to search by image for human faces.
- Motorized vehicle snapshots display the panoramic view of vehicles, vehicle type, vehicle color, license plate color, and logo. You can view license plate snapshots, play linked videos and zoom in specified parts of the vehicle image.
- Non-motor vehicle snapshots display the panoramic view, vehicle type, vehicle color, and the number of persons involved.

Figure 5-168

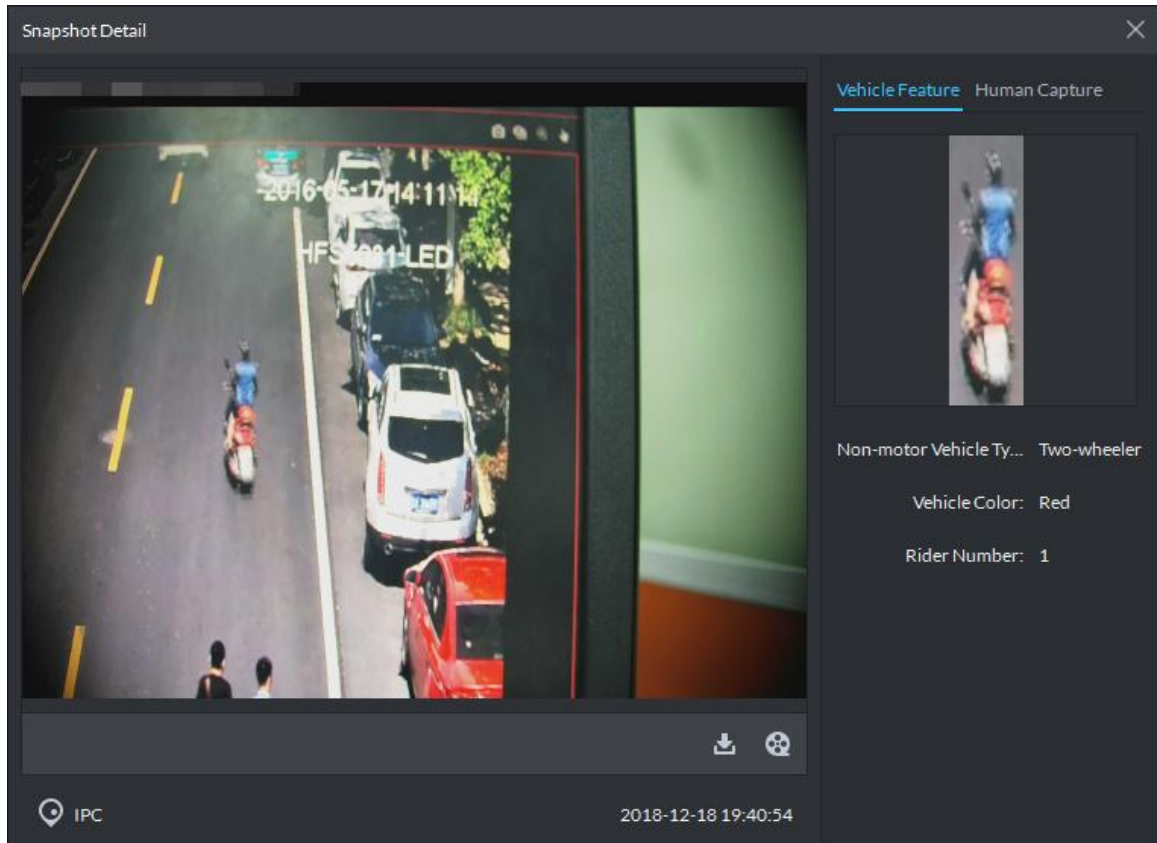




Table 5-33

Operation	Description
Download	Click  and save .rar files in the specified path.
Playback	Click  to play back the video recordings timed before and after the snapshot.

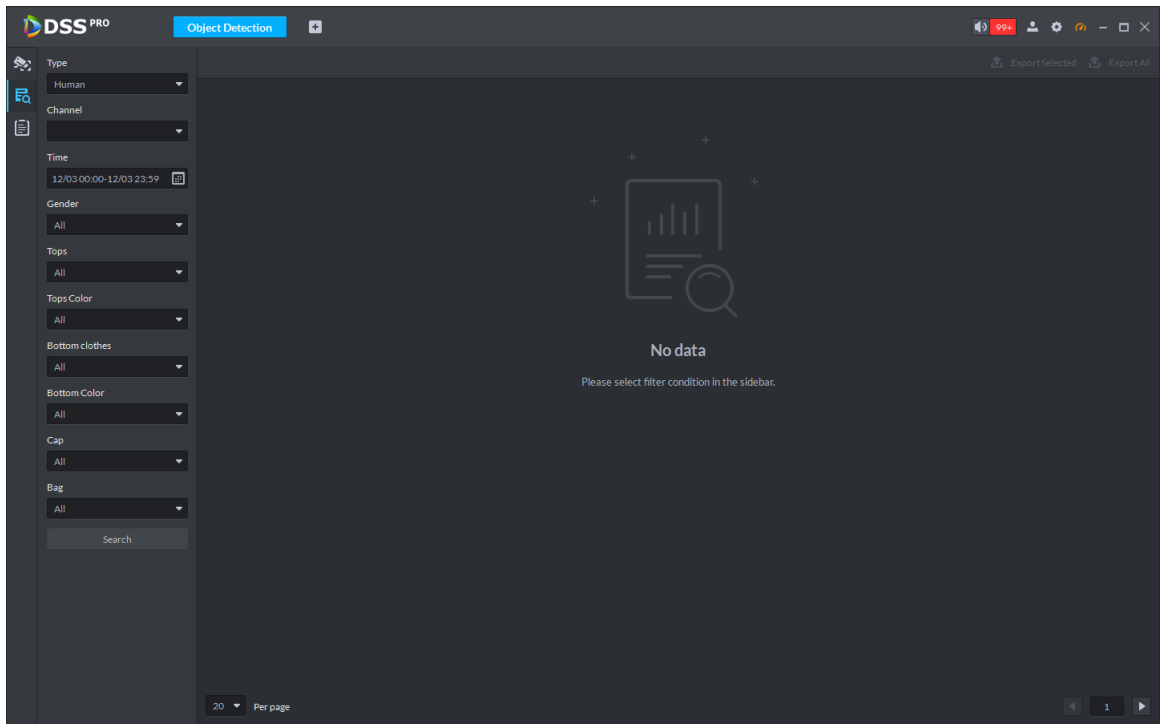
5.14.3 Search for Snapshot Targets

Identifies the targets in the snapshot database quickly by setting up criteria.

Step 1 On the **Object Detection** interface, click .

The **Object Search** interface is displayed. See Figure 5-169.

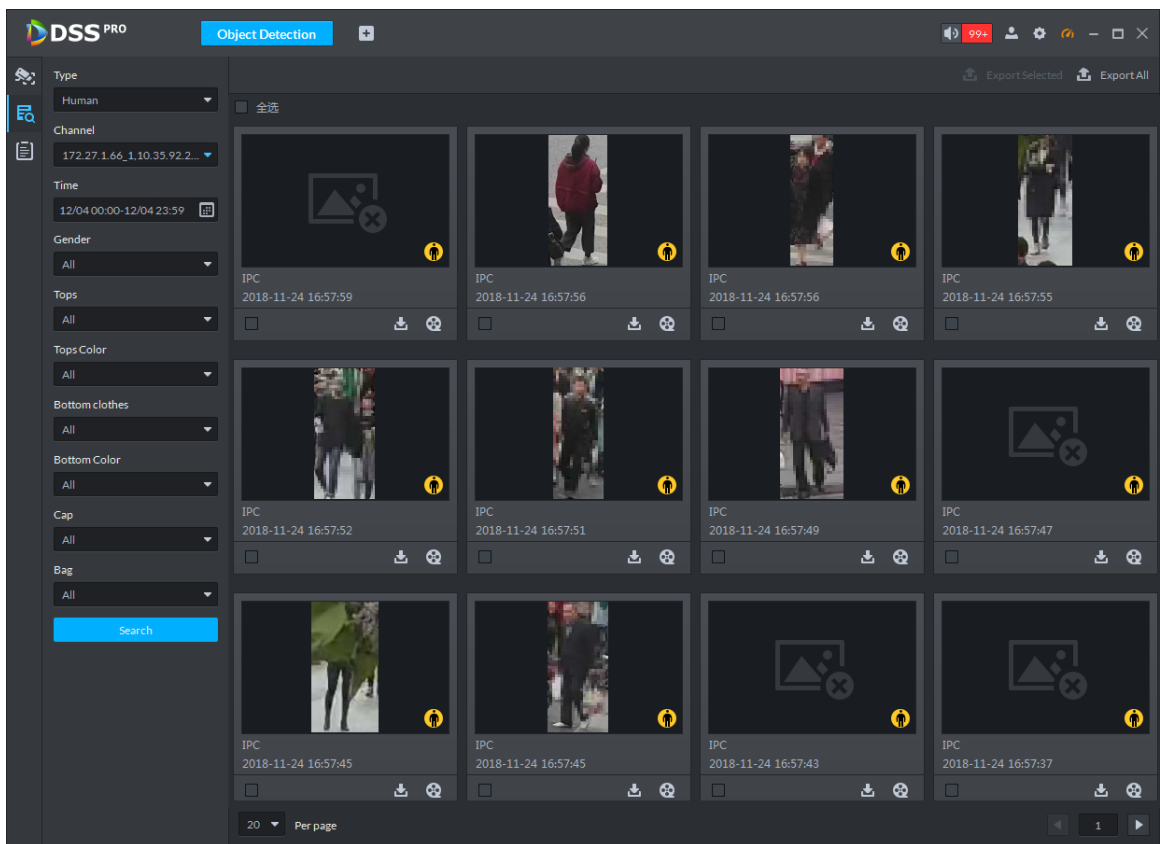
Figure 5-169



Step 2 Set up search criteria and click **Search**.

The system displays search results. See Figure 5-170.

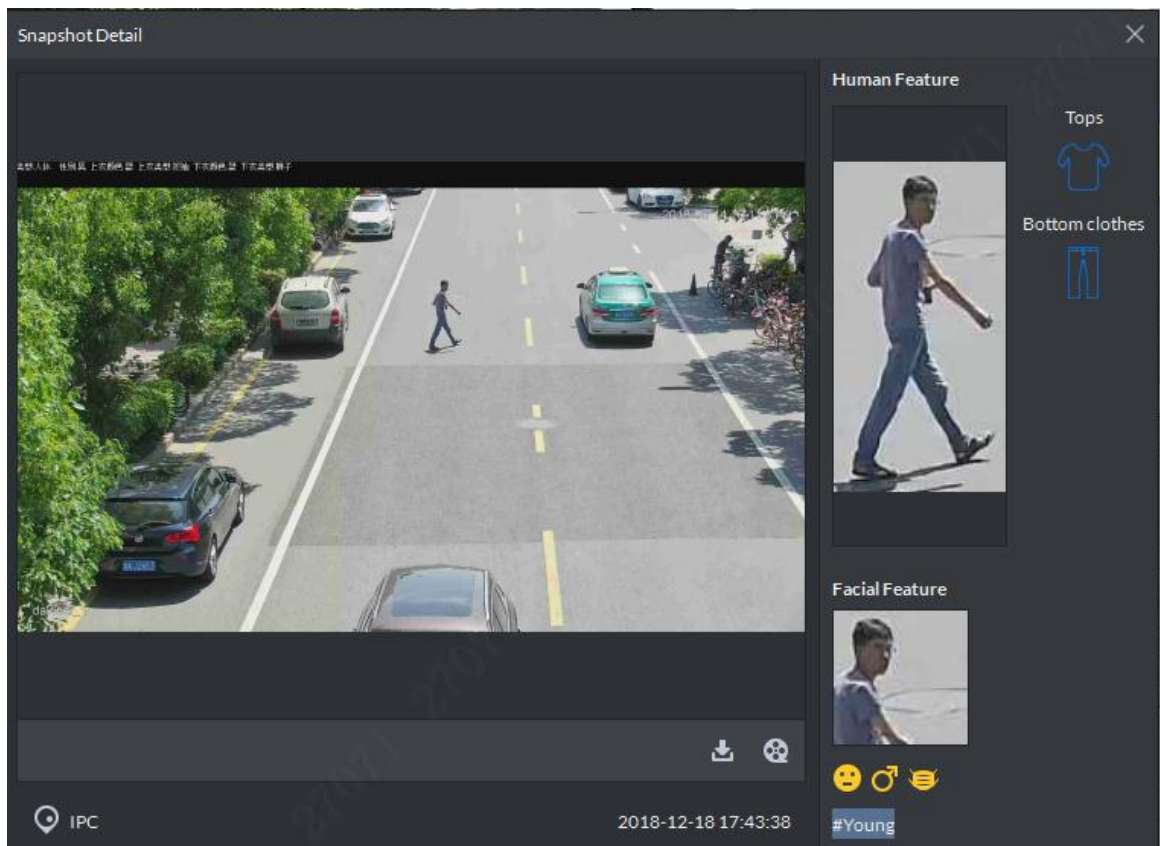
Figure 5-170



Step 3 Double-click the snapshot.

The **Snapshot Detail** interface is displayed. See Figure 5-171.

Figure 5-171

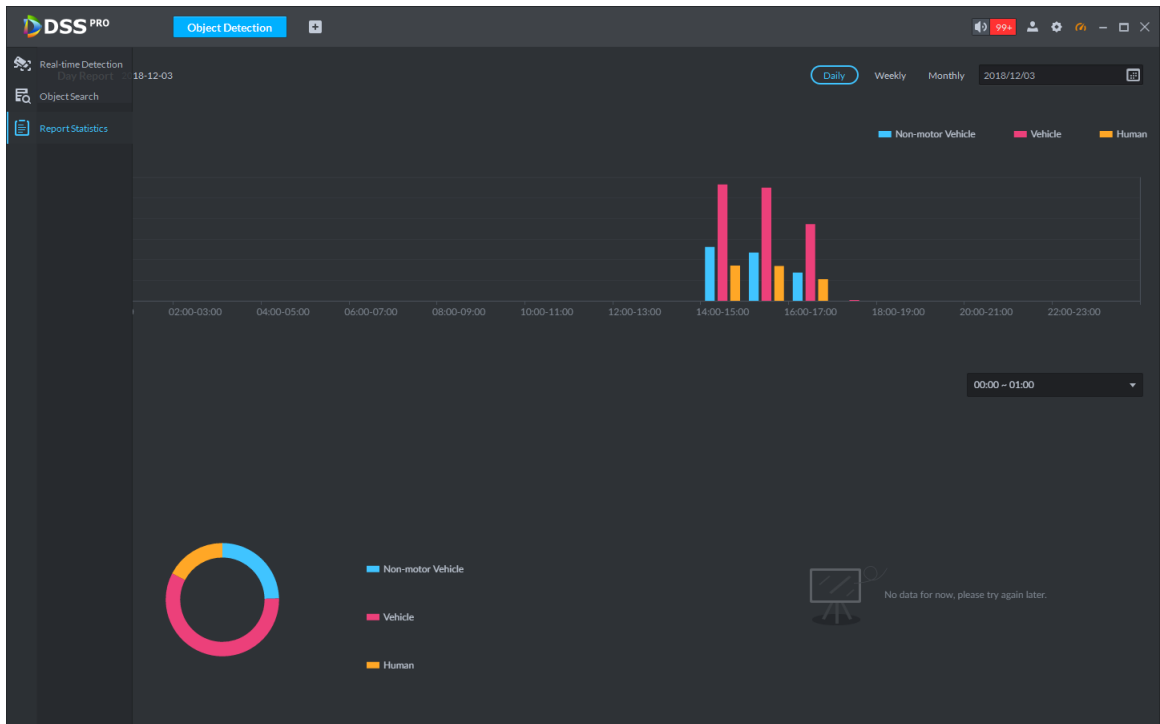


5.14.4 Statistical Report

Step 1 On the **Object Detection** interface, click .

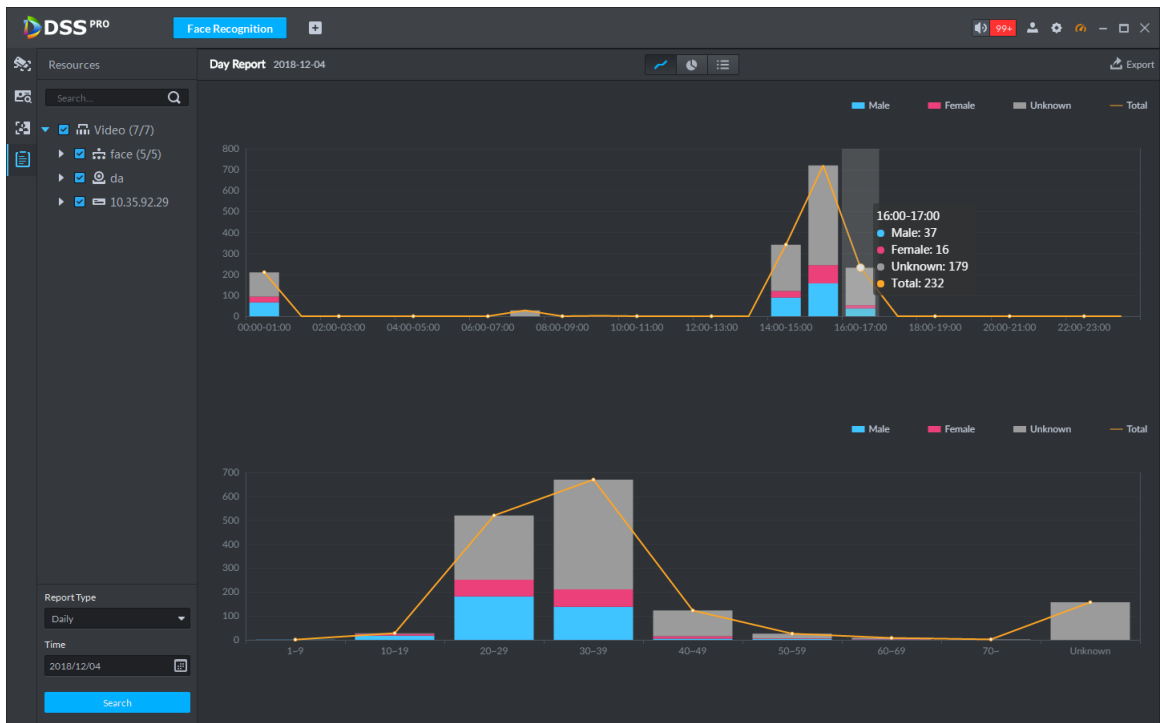
The **Report Statistics** interface is displayed. See Figure 5-172.

Figure 5-172



Step 2 Set up the criteria for the statistics.
 The system displays statistics results. See Figure 5-173.

Figure 5-173



5.15 Thermal

The system comes with a thermal device management module. With a connected thermal camera, you can measure the in-video temperature, analyze local heatmap, and manage the thermal device alarms in real time.

5.15.1 Preparations


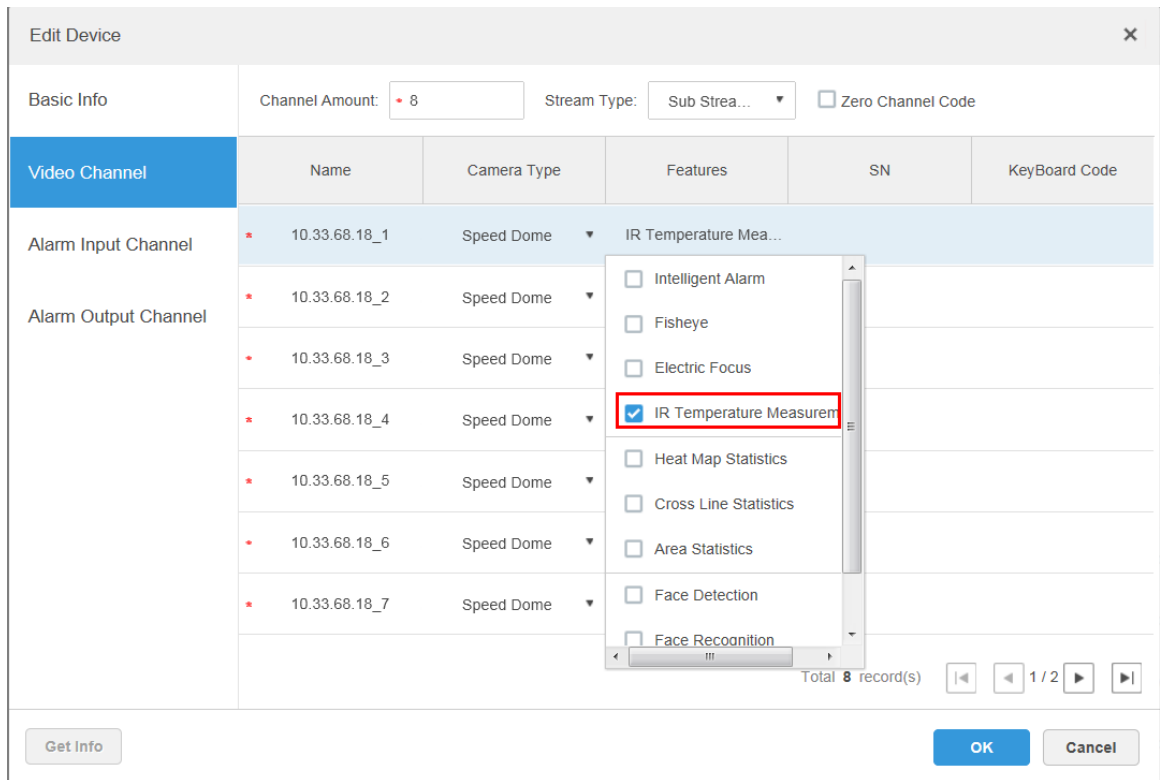
- An encoding device with a **Device Type** of **IPC** has been added in **Device Management** on the platform's administrator end. See 4.6 for specific steps.
- After the device is added, click , and select **IR Temperature Measurement** from the Features dropdown box. See Figure 5-174.

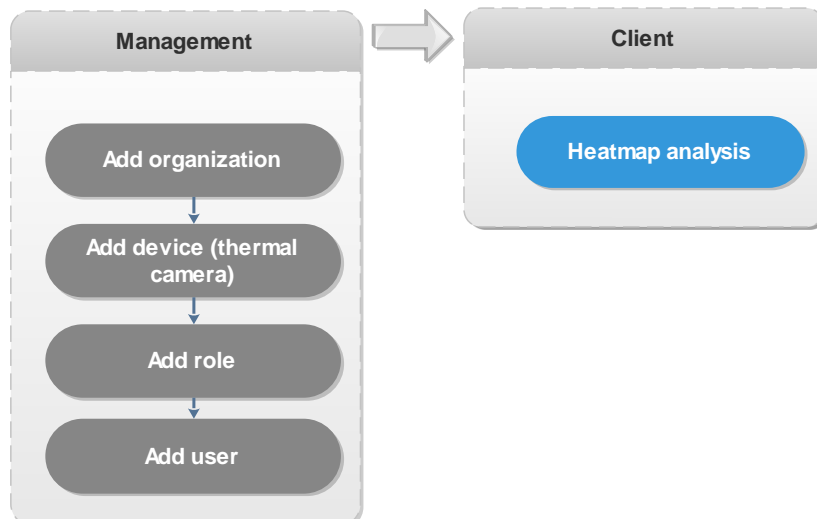
Figure 5-174



- To collect temperature values in real time, the added thermal device must be able to measure temperatures.

The thermal config procedures are shown in Figure 5-175.

Figure 5-175



5.15.2 Interfaces and Functions


On the **Homepage**, click . On the **New Tab** interface, select **Thermal**, and the **Thermal** interface is displayed. See Figure 5-176. For interface descriptions, see Table 5-34.

Figure 5-176

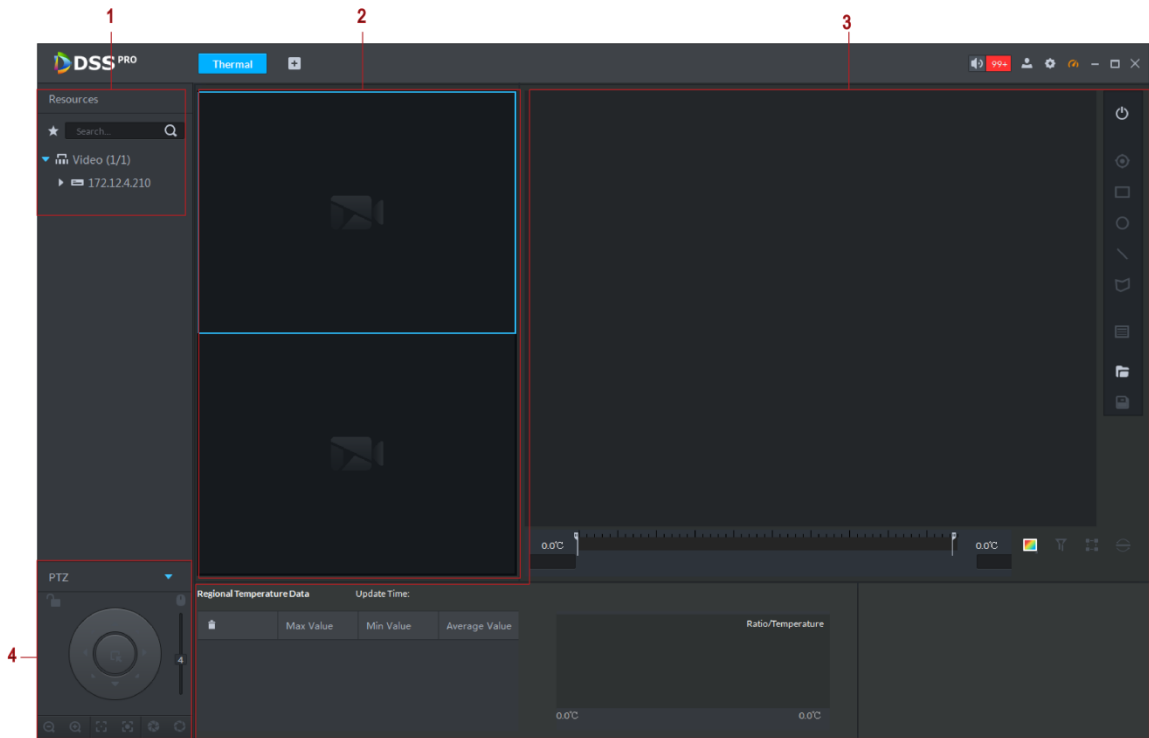
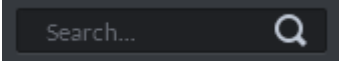


Table 5-34

No.	Module name	Description
1	Device Tree	<ul style="list-style-type: none"> <li data-bbox="564 284 1433 443">• If in Local Config > Basic Setting, you select Show device node, the Device Tree shows the device and the channels under it. If the selection is undone, channels of all devices are displayed. <li data-bbox="564 488 1433 568">• Supports searching and querying in  by organization name, device name, or channel name.
2	Preview	You can preview channel videos. Drag the channel to the window or select the window and double-click a channel to open videos of corresponding channels.
3	Heatmap	The heatmap is formed by capturing the temperature value of each pixel point on the thermal image and can be analyzed on the client. See 5.15.4 Heatmap Analysis for specific steps.
4	PTZ Control	To control the PTZ or speed dome, rotate the device to zoom in/out, change focus and adjust aperture.

5.15.3 Preview

Supports previewing the images of each video channel, turning on/off audios, video recordings, or capturing pictures.

You can drag the video channel in the Device Tree to the Preview section, and the system displays videos of the channel. Click any point on the video to measure temperature in real time. See Figure 5-177.

Figure 5-177



When you place the mouse on any of the preview interfaces, the window menu is displayed above the interface. See Figure 5-178 and Table 5-35.

Figure 5-178



Table 5-35

No.	Icon name	Description
1	Real-time Tagging	<ul style="list-style-type: none"> If in Local Config > Basic Setting, you select Silent Real-time Tagging, the Tagging dialog box does not display at the time of real-time tagging. If Silent Real-time Tagging is not selected, you can edit the tag name.
2	Audio	Turn on or off audio.
3	Intercom	Turn on or off audio talks.
4	Local Record	Click this icon and the system begins recording a local video. Clicking this icon again stops recording and the recorded video file is stored locally.

No.	Icon name	Description
5	Snapshot	Click this icon and the system takes snapshots automatically.
6	Off	Click this icon to turn off this video channel.

5.15.4 Heatmap Analysis

Heatmap of devices can be obtained on the client. The heatmap analysis tools available on the client can generate temperature values and the ratio of each temperature value on the heatmap. You can also select one or more monitored regions on the heatmap. The tools can calculate the max temperature, min temperature, and average temperature within a region, and also temperature differences.

The heatmap and analysis tool interface is shown in Figure 5-179. For interface descriptions, see Table 5-36.

Figure 5-179

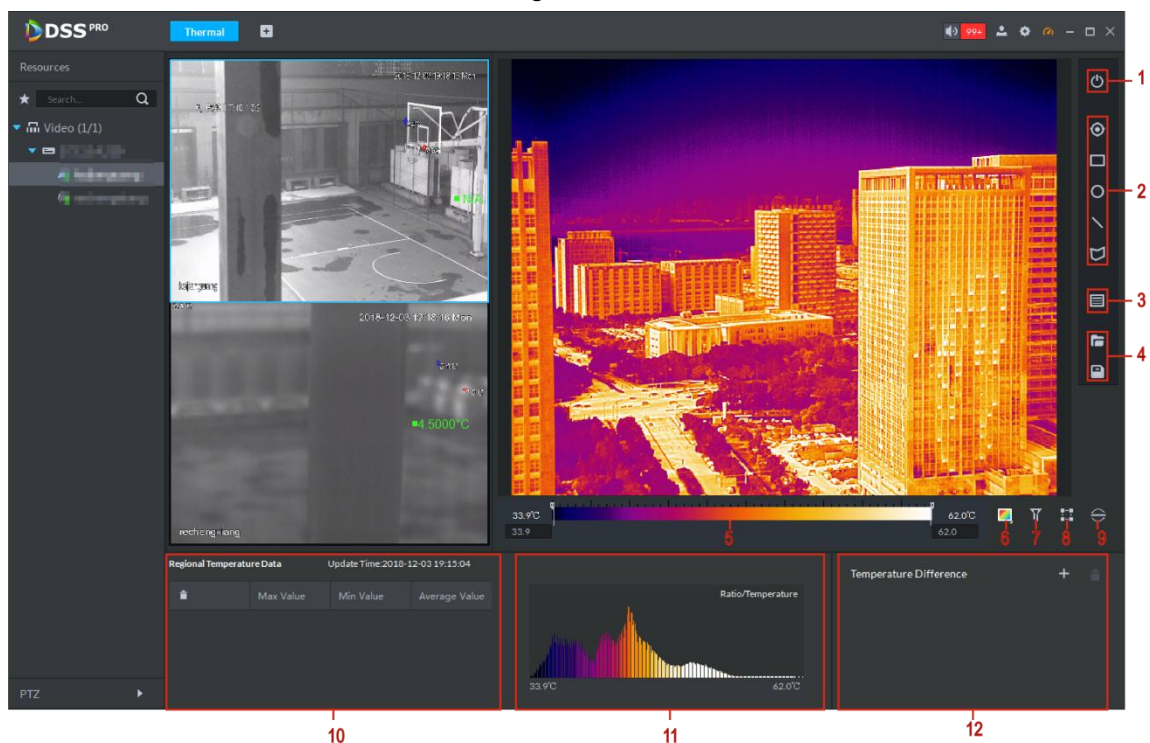


Table 5-36

No.	Module name	Description
1	Query heatmap	You can obtain heatmap manually.
2	Draw a region	You can draw a region on the heatmap to measure the temperature. The region can be a point, a rectangle, a circle, a line segment, or a polygon. See 5.15.4.2 Regional Temperature for specific steps.
3	Mode	Not supported for now.
4	File processing	You can import heatmap processing files (.dtp) to the client for analysis, or generate heatmap analysis reports. See 5.15.4.4 File processing for specific steps.

No.	Module name	Description
5	Temperature display	<p>Generates a bar reflecting the color changes corresponding to different temperature values, based on the rendering plan selected in the heatmap. The data at the two ends defines the temperature range in the heatmap.</p> <ul style="list-style-type: none"> • Temperature-color correlation: When the mouse is placed at a color spot, the temperature of the color spot is displayed. • Enhanced temperature comparison display: After inputting temperature values in the boxes at the two ends of the bar, the heatmap only displays the colors of the regions within this temperature range. Regions with temperatures below the preset min value are displayed in the leftmost color on the bar; regions with temperatures above the preset max value are displayed in the rightmost color on the bar.

No.	Module name	Description
6	Rendering Plan	<p>Click to color the infrared image. 14 color plans are available.</p> <ul style="list-style-type: none"> ● White-heat: In gray-scale images, the parts with higher temperature are brighter. ● Black: In gray-scale images, the parts with lower temperature are brighter. ● Purple-yellow: Colors mostly fall within the purple-red-yellow range. The parts with lower temperatures are purpler, and higher temperatures more yellow. ● Rainbow: Colors mostly fall within the blue-green-red-yellow range. The parts with lower temperatures are bluer, and higher temperatures more yellow. ● Red-yellow: Colors mostly fall within the red-yellow range. The parts with lower temperatures are redder, and higher temperatures more yellow. ● Blue-yellow: Colors mostly fall within the blue-purple-red-yellow range. The parts with lower temperatures are bluer, and higher temperatures more yellow. ● Iron red: Similar colorway to the Blue-yellow plan but less bright. ● Amber: Mainly dark brown. The parts with higher temperatures are brighter. ● Jade: Colors mostly fall within the purple-red-yellow-green-blue range. The parts with lower temperatures are purpler, and higher temperatures bluer. ● Sunset: Colors mostly fall within the blue-red-yellow range. The parts with lower temperatures are bluer, and higher temperatures more yellow. ● Red and Blue: In colored images, objects with higher temperatures are displayed in red, and those with lower temperatures are displayed in blue. Usually used to give warnings. ● Oil painting: Colors mostly fall within the purple-blue-green-yellow-red range. The parts with lower temperatures are purpler, and higher temperatures redder. ● Pomegranate: Mainly burgundy. The parts with higher temperatures are brighter. ● Emerald: Mainly azure green. The parts with higher temperatures are brighter. <p>The default setting is White-heat.</p>
7	Temperature Filter	<p>Filters the temperatures on the heatmap. You can set up a temperature range. The heatmap within this temperature range is displayed in other colors. See 5.15.4.3 Temperature Filter for specific steps.</p>

No.	Module name	Description
8	Select isothermal region	The isothermal lines are mainly used to highlight some parts of the image. The temperature range is around a median temperature, between an upper limit and a lower limit. Those above the lower limit appear in bright colors, and those below the lower limit appear in black & white. See 5.15.4.3 Temperature Filter for specific steps.
9	Auto	Click to delete the isothermal regions already drawn.
10	Regional Temperature Data	On the heatmap, select a region (except for points). The table displays the max temperature, min temperature, and average temperature of the selected region. See 5.15.4.2 Regional Temperature for specific steps.
11	Temperature ratio	It displays the ratios of various temperature values on the heatmap intuitively.
12	Temperature Difference	The differences of max temperature, min temperature, and average temperature within the same region or across different regions can be calculated. See 5.15.4.2 Regional Temperature for specific steps.

5.15.4.2 Regional Temperature

Draw a detection region on the heatmap and you can see the max temperature, min temperature, and average temperature in this region on the client. After adding multiple regions on the heatmap, you can compare the temperature differences across multiple regions.

Draw a Region and Measure the Temperature

Step 1 In the region drawing section, select a shape and draw on the heatmap. See Figure 5-180.

The Regional Temperature Data section is automatically updated with the max temperature, min temperature, and average temperature of the region. See Figure 5-181.



NOTE

- Place the mouse near the edge of the region. When the mouse changes into , moving the mouse changes the size of the regular region.
- Place the mouse within the region. When the mouse changes into , moving the mouse changes the position of the regular region.
- Delete a single regular region: Select a region in Regional Temperature Data section, or a regular region on the heatmap. Right-click and select **Delete** to delete the corresponding regular region.
- Delete all regular regions: In Regional Temperature Data section, click , or select any regular region, right-click and select **Delete All** to delete all regular regions.

Figure 5-180

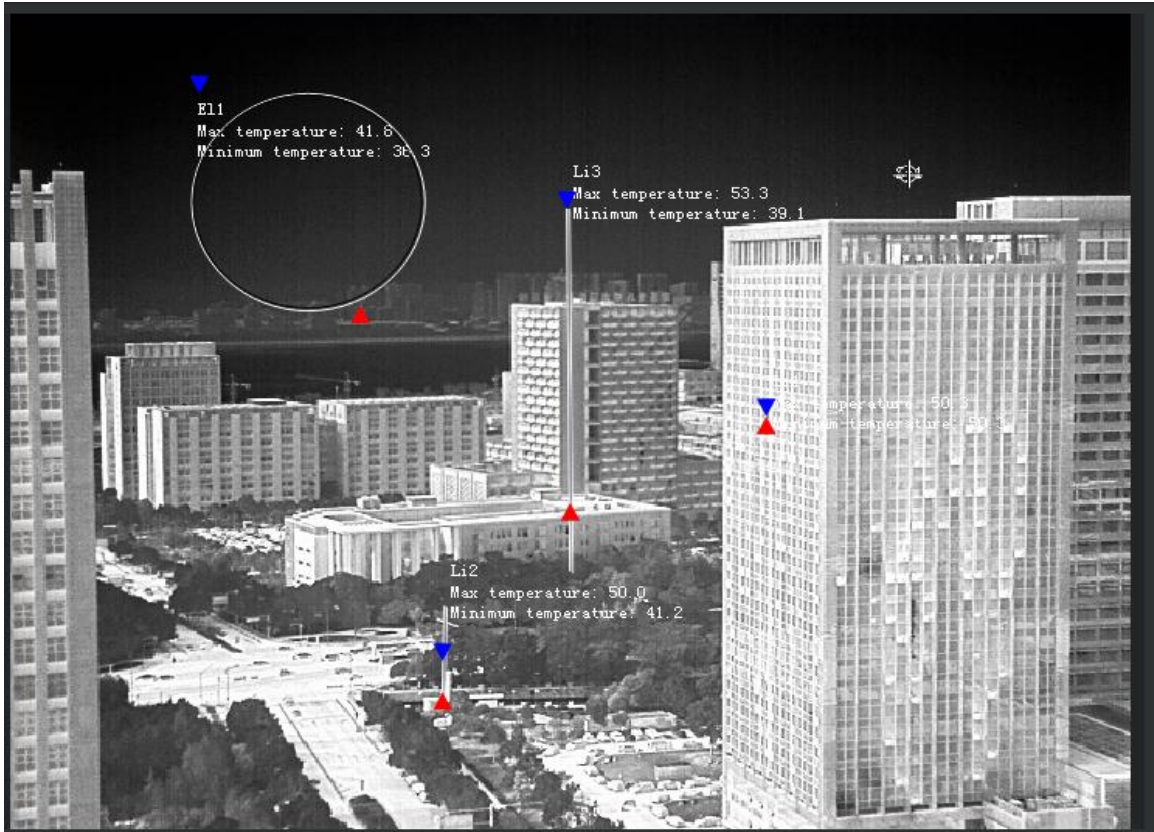


Figure 5-181

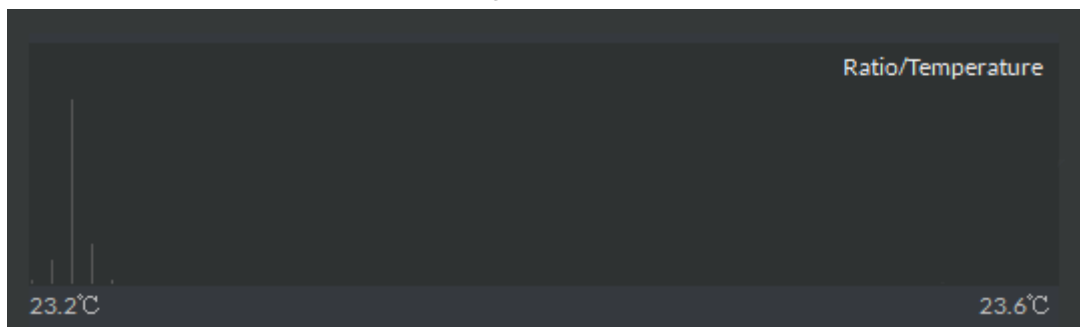
Regional Temperature Data Update Time:2018-12-18 17:55:15

Icon	Max Value	Min Value	Average Value
E11	23.6	23.3	23.4
Rect1	23.6	23.3	23.4
Li1	23.5	23.3	23.4

Step 2 Click any temperature data.

Temperature ratios of the region can be displayed in the gradient graph on the side. Place the mouse on the graph and the temperature range and its ratio on the heatmap can be displayed. See Figure 5-182.


Figure 5-182



Temperature Difference

NOTE

Supports up to 100 temperature difference calculation rules.

Step 1 Click  in the **Temperature Difference** section to add rules for calculating the temperature difference.

The system displays the added temperature difference calculation contents. See Figure 5-183.

NOTE




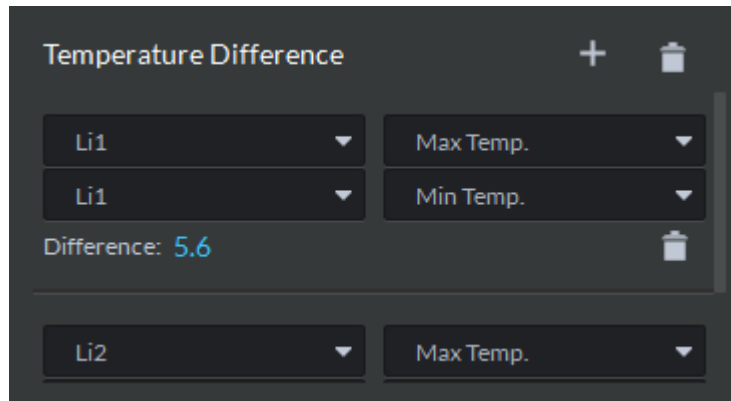
- Click  on the right side of  to delete all temperature difference calculation rules.
- Click  on the right side of each difference to delete the corresponding temperature difference calculation rule.

Figure 5-183

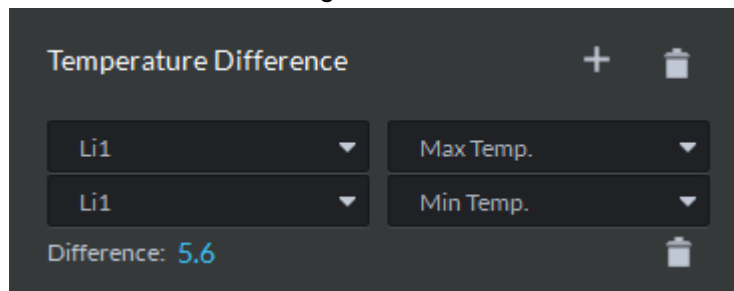


Step 2 Click the dropdown box on the left side and select regions that have been set up, such as Li1, E11.

Step 3 Click the dropdown box on the right side and select the temperature to be compared with, such as the Max Temp., Min Temp., or Average Temp.

The system automatically calculates the temperature difference. See Figure 5-184.


Figure 5-184



5.15.4.3 Temperature Filter

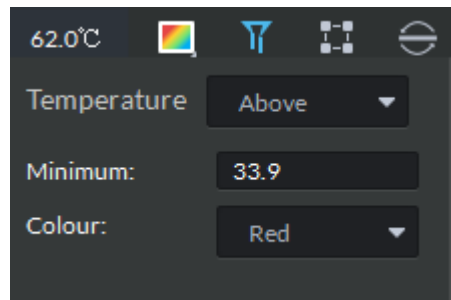
Temperature Filter

To set up temperature limits, and select and highlight regions that fall within the limits on the heatmap.

Step 1 Click  to enable temperature filter.

The Temperature Filter interface is shown in Figure 5-185.

Figure 5-185



Step 2 Select the temperature filtering criteria. Available options include Above, Below, or Between.

Step 3 Input the temperature limits and set up colors.

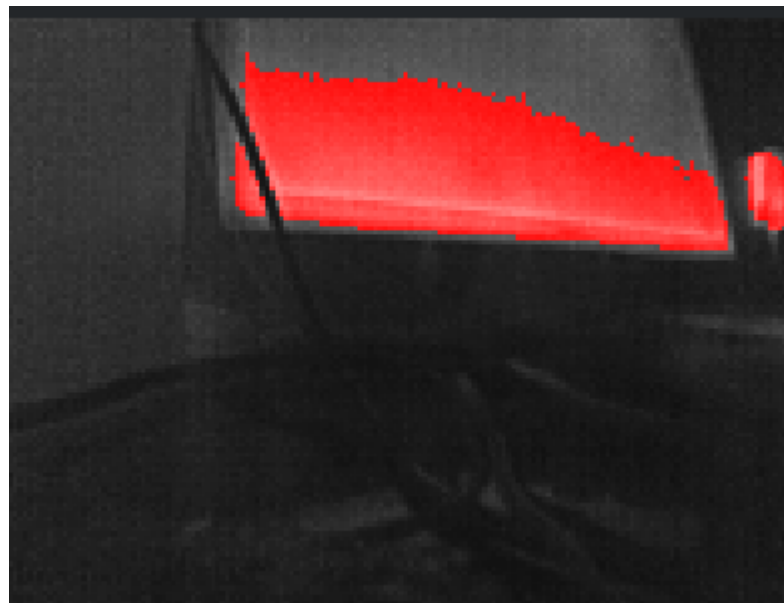
The client displays the temperature filtering results. See Figure 5-186.



NOTE


- When Above or Below is selected as the filtering criteria, just fill in one value as the limit.
- When Between is selected, fill in both the upper limit and the lower limit.

Figure 5-186



Select isothermal region

The isothermal region is mainly used to highlight some objects in the image. With the drawn isothermal region as the benchmark, regions with higher temperatures display in bright colors, and those with lower temperatures display in dark colors.

Step 1 Click  to enable the Select isothermal region.

Step 2 Draw regions on the heatmap.

The color bar below the heatmap only displays the temperatures within the region. See Figure 5-187.

 **NOTE**



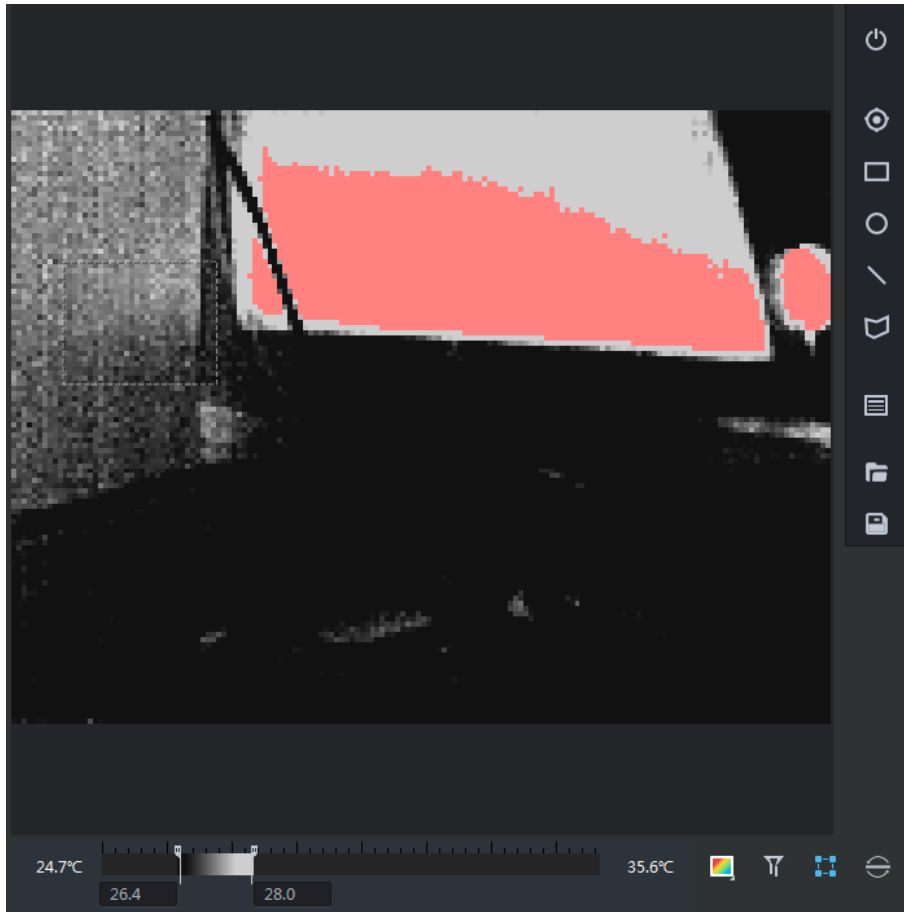

- Place the mouse near the edge of the region. When the mouse changes into , dragging the mouse changes the region size.
- Only one isothermal region is allowed on the heatmap.
- Click  to delete the isothermal regions already drawn.

Figure 5-187



5.15.4.4 File processing

Import Local Heatmap

Step 1 Click .

The heatmap import interface is displayed.

 **NOTE**

The system supports .dtp heatmap file only.

Step 2 Select a heatmap file and follow the instructions on the interface to import it into the system.

Import heatmap files to the client and analyze them.

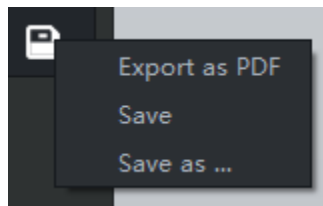
Generate Heatmap Analysis Result

You can generate heatmap analysis reports in .pdf.

Step 1 Click .

The system displays the export interface for the analysis results. See Figure 5-188.

Figure 5-188



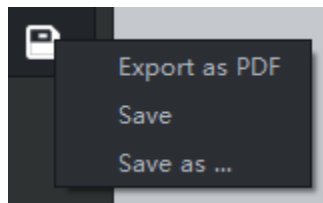
Step 2 Click **Export as PDF** and follow the instructions on the interface to save the exported file.

Save Heatmap

Step 1 Click .

The client displays the export interface for the analysis results. See Figure 5-189.

Figure 5-189



Step 2 Save heatmap.

- Click **Save** to save the rules already set up on the heatmap.
- Click **Save as...**, select the save path in the popup interface, and click **Save** to save the heatmap to a local disk.

5.16 Personnel Management

Personnel refer to the people responsible for access control management. They have the authorization to unlock doors with password, fingerprint, card, or face recognition.

5.16.1 Add Department

Adding department is to manage personnel in the added departments.

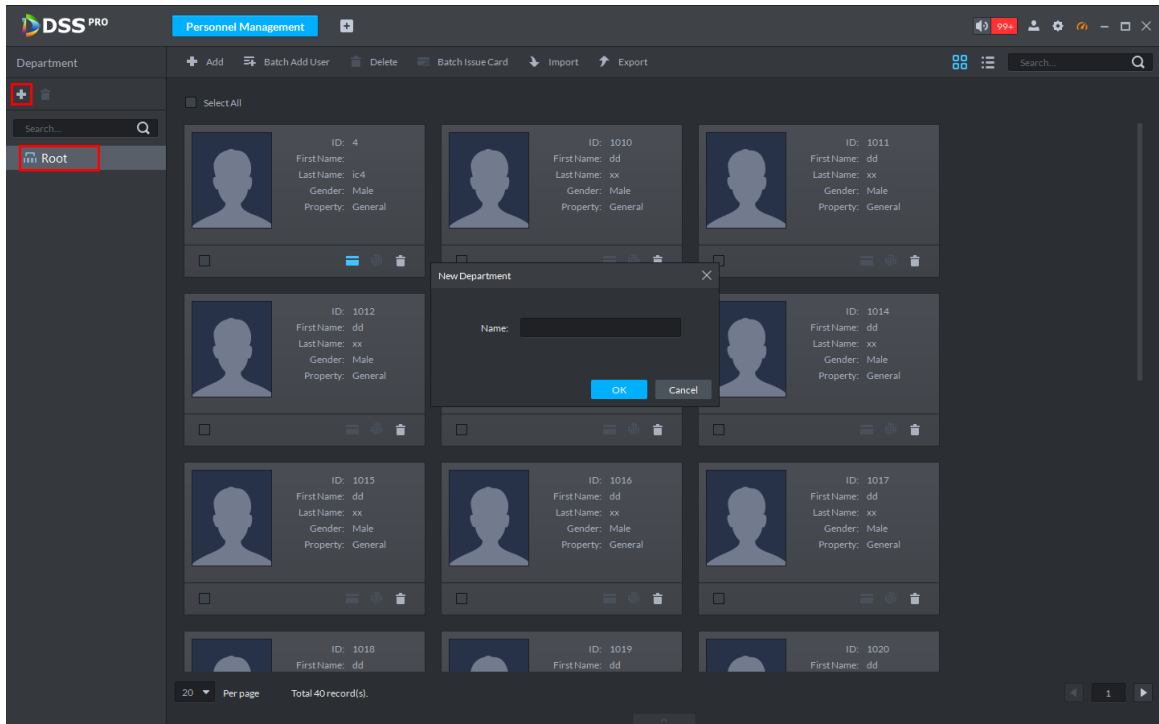
Step 1 Click . On the **Homepage** interface, select **Personnel Management**.

The **Personnel Management** interface is displayed.

Step 2 Select a node from the department list on the left side, and click Add.

Step 3 The **New Department** interface is displayed. See Figure 5-190. The new department is directly under the selected node.

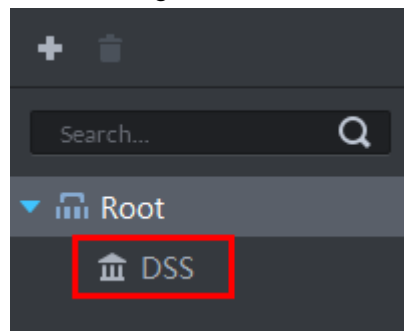
Figure 5-190



Step 4 Input the department name and click **OK**.


Step 5 The newly added department is displayed. See Figure 5-191.

Figure 5-191



 **NOTE**

You can delete or rename a newly added department.

- To delete a department, select it, click , and follow the instructions on the interface. You cannot delete a department with personnel.
- To rename a department, right-click it and select **Rename** to modify the name.

5.16.2 Add Personnel

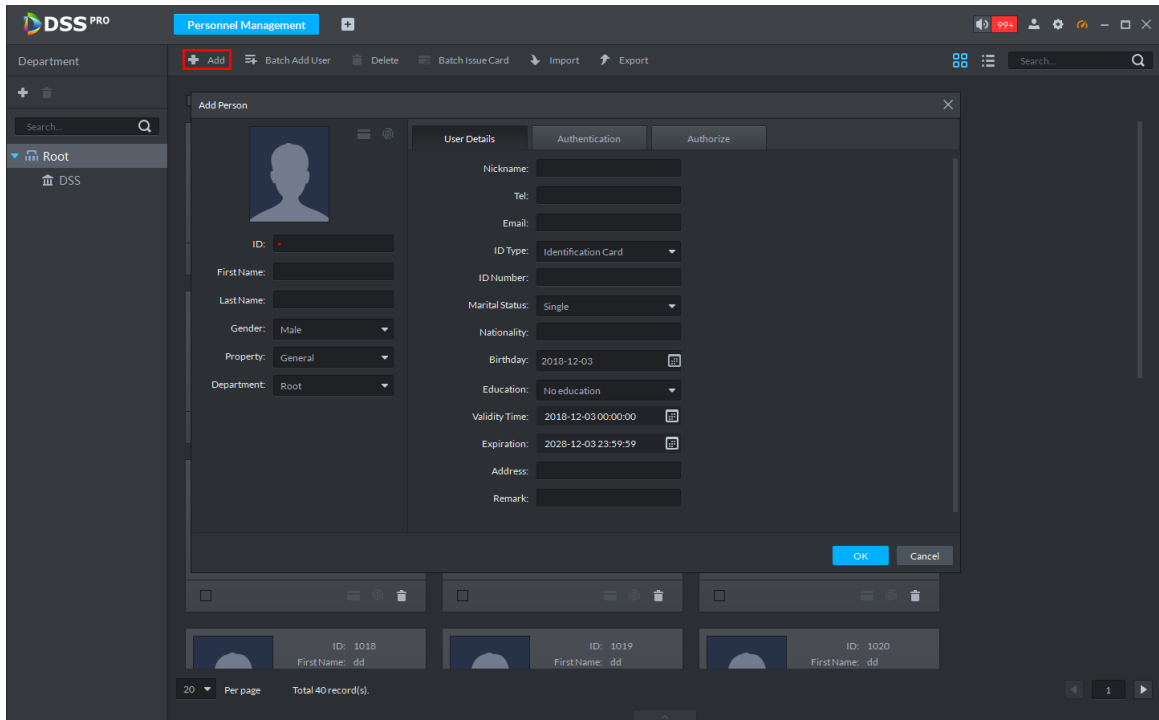
Add personnel and authorize them to unlock doors. When adding personnel, system uploads the collected personnel information to the server for proper protection.

5.16.2.1 Add Person

Step 1 On the **Personnel Management** interface, click **Add**.

Step 2 The **Add Person** interface is displayed. See Figure 5-192.

Figure 5-192



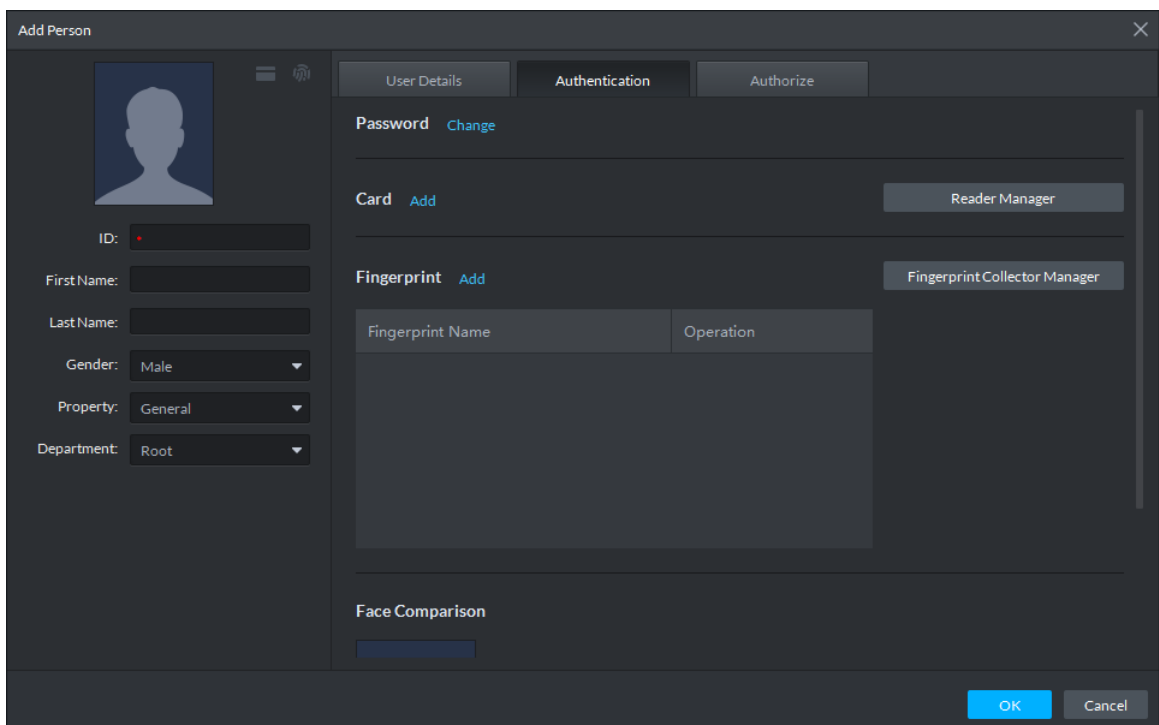
Step 3 Configure personnel details.

- 1) Move the mouse to the picture section, click **Upload**. Follow the instructions on the interface to upload a picture. If the PC comes with a camera, click **Snapshot** to take a face snapshot and upload it.
- 2) Fill in personnel information as necessary. ID is required, and others are optional.

Step 4 Click the **Authentication** tab.

Step 5 The **Authentication** interface is displayed. See Figure 5-193.

Figure 5-193

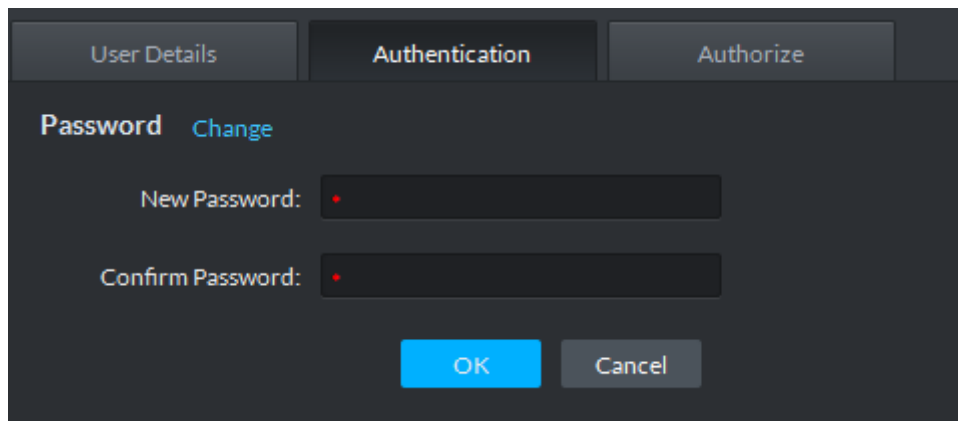


Step 6 Set a password.

- 1) Click **Change**.

The password settings appear. See Figure 5-194.

Figure 5-194



The screenshot shows a dark-themed dialog box with three tabs at the top: 'User Details', 'Authentication', and 'Authorize'. The 'Authentication' tab is selected. Below the tabs, the text 'Password Change' is displayed. There are two input fields: 'New Password:' and 'Confirm Password:'. Each field has a red asterisk icon to its right. At the bottom of the dialog, there are two buttons: 'OK' (highlighted in blue) and 'Cancel'.

- 2) Input a password, and click OK to save the password settings.

Step 7 Issue cards to personnel.

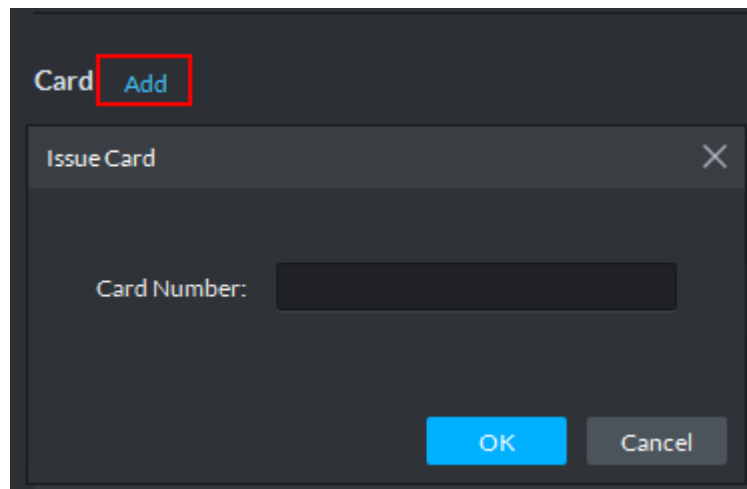
Supports manual input of card numbers or using a card reading device.

- Manual input

- 1) Click **Add** next to **Card**.

The **Issue Card** interface is displayed. See Figure 5-195.

Figure 5-195



The screenshot shows a dark-themed dialog box titled 'Issue Card'. At the top left, the word 'Card' is followed by a blue 'Add' button, which is highlighted with a red rectangular box. Below the title bar, there is a text input field labeled 'Card Number:'. At the bottom of the dialog, there are two buttons: 'OK' (highlighted in blue) and 'Cancel'.

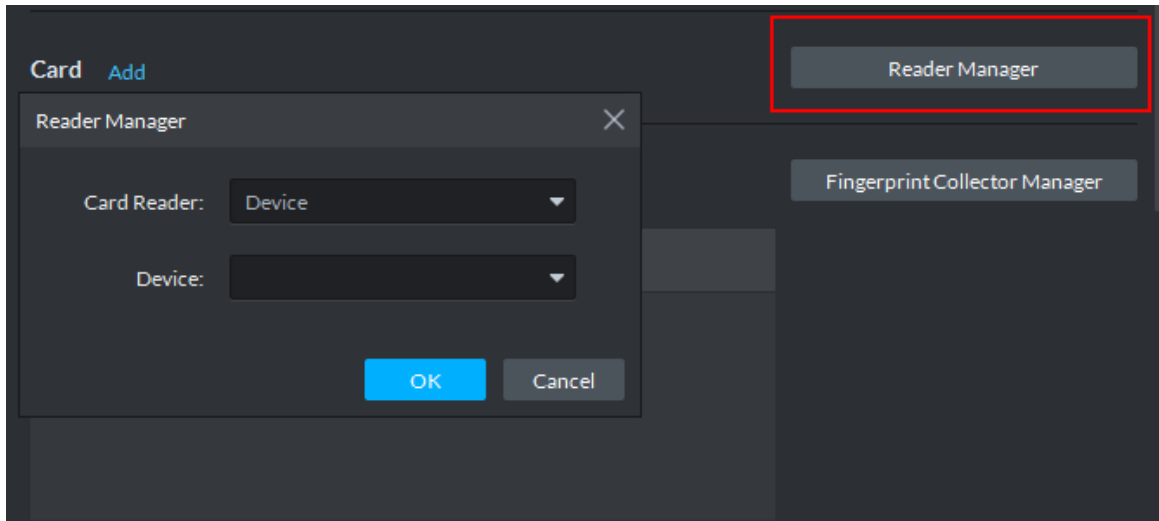
- 2) Input card number and click **OK** to save the card added.

- Via a card reading device

- 1) Click **Reader Manager**.

The **Reader Manager** interface is displayed. See Figure 5-196.

Figure 5-196

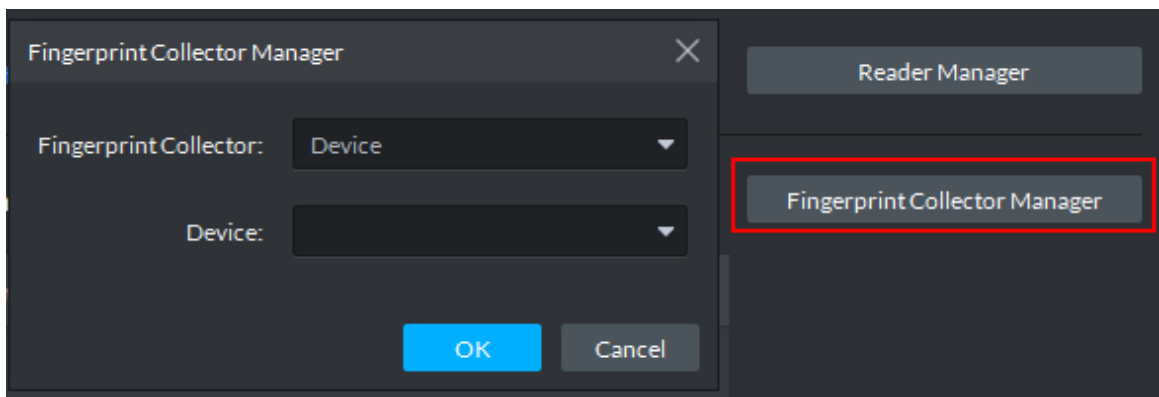


- 2) Select from **Card Reader** or **Device**, and click **OK**.
- 3) Swipe the card on the card reader or device.
Complete issuing cards.

Step 8 Collect fingerprint.

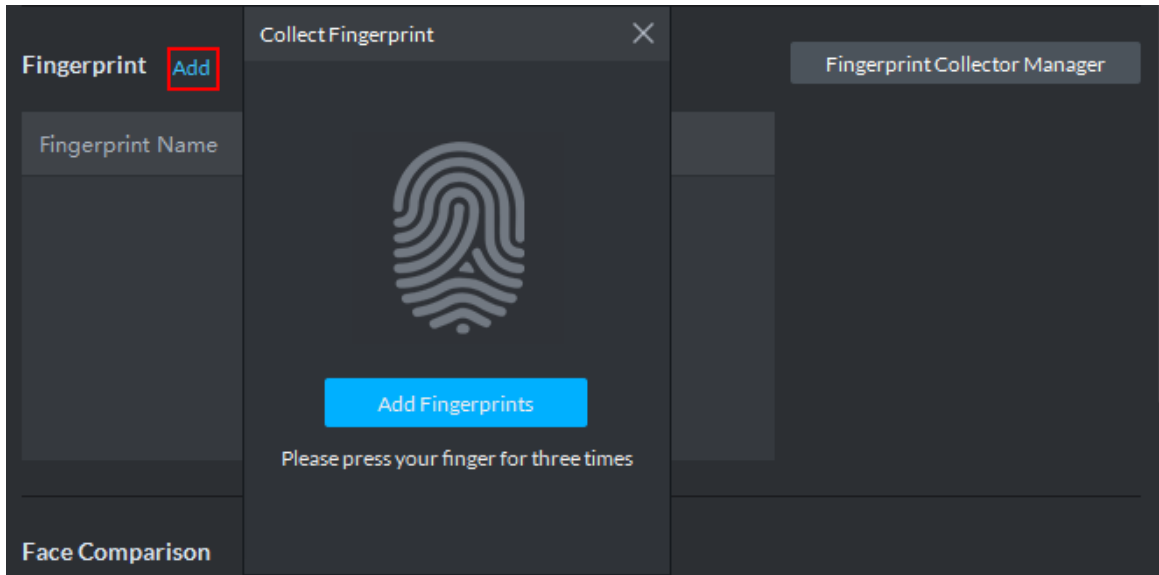
- 1) Click **Fingerprint Collector Manager**.
The **Fingerprint Collector Manager** interface is displayed. See Figure 5-197.

Figure 5-197



- 2) Select from **Fingerprint Collector** and click **OK**.
- 3) Click **Add**.
The **Collect Fingerprint** interface is displayed. See Figure 5-198.

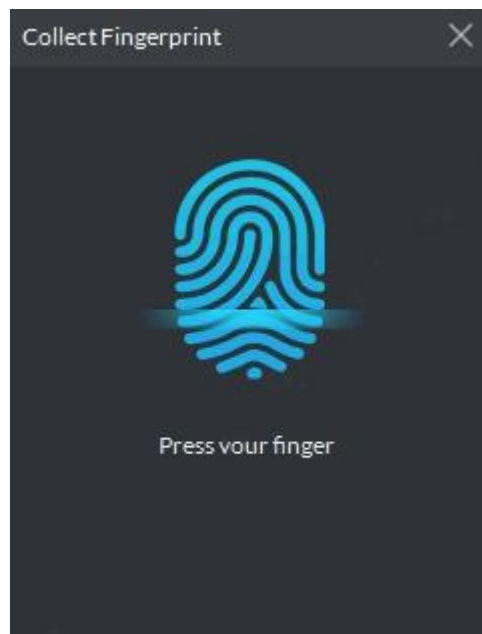
Figure 5-198



- 4) Click **Add Fingerprints**.

The **Collect Fingerprint** interface is displayed. See Figure 5-199.

Figure 5-199



- 5) Records fingerprint on the reader by raising and then laying down the finger upon hearing the beep sound. Repeat this for three times. See Figure 5-200. Complete fingerprint registration and the fingerprint status changes on the client.

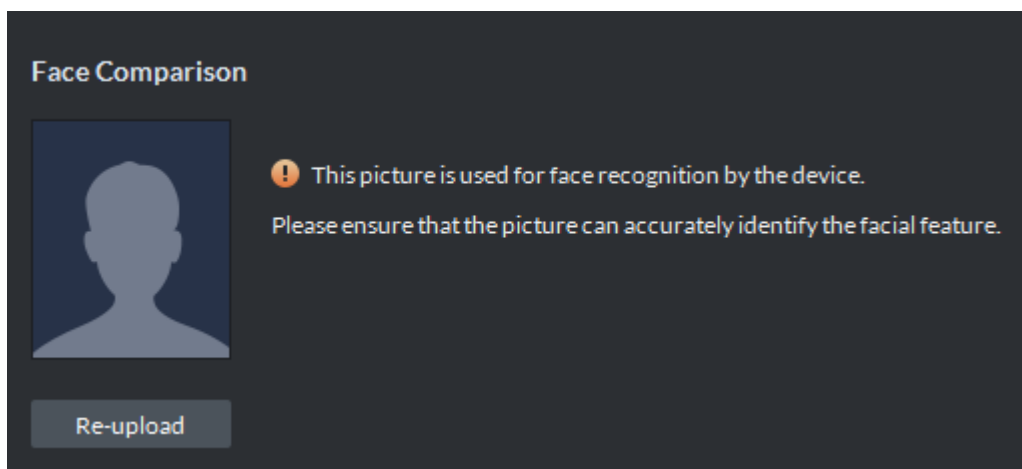
Figure 5-200



Step 9 Upload pictures for face recognition.

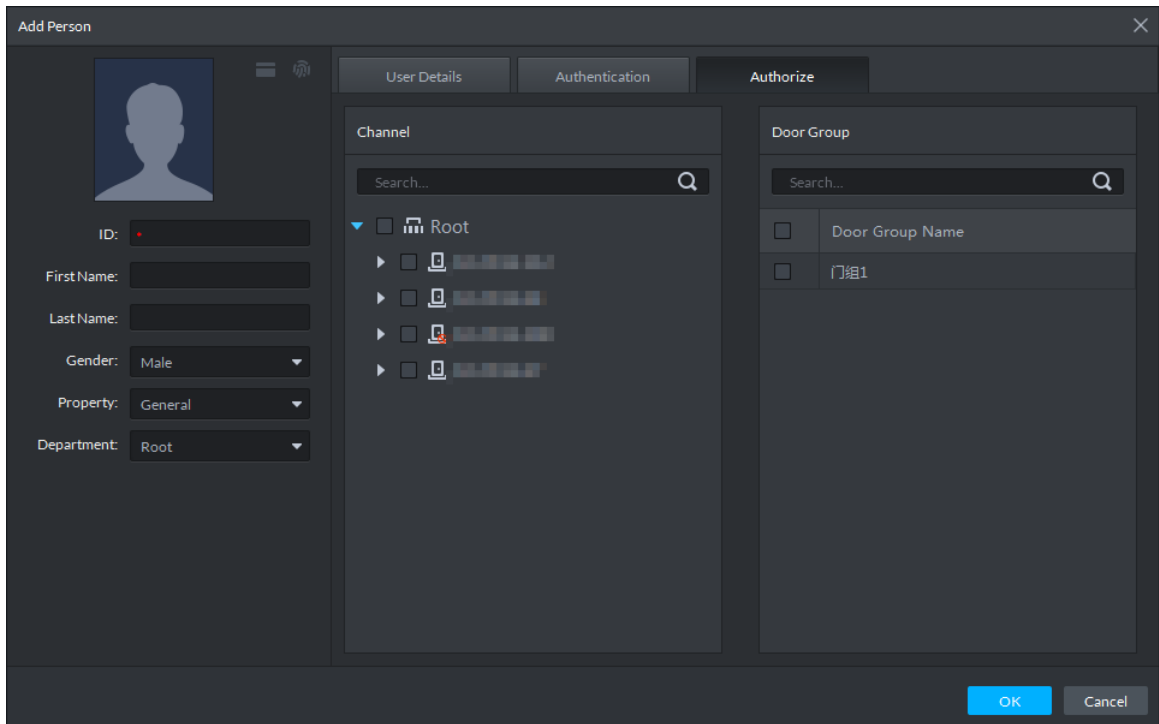
Click **Re-upload**, and follow the instructions on the interface to select and upload face pictures. See Figure 5-201.

Figure 5-201



Step 10 Click **Authorize** and select the channels to which the authorized users can have access. See Figure 5-202.

Figure 5-202



Step 11 Click **OK**.

For the information of the added personnel, see Figure 5-203. If there are authorized fingerprint and card, the corresponding icon displays in blue.

 **NOTE**


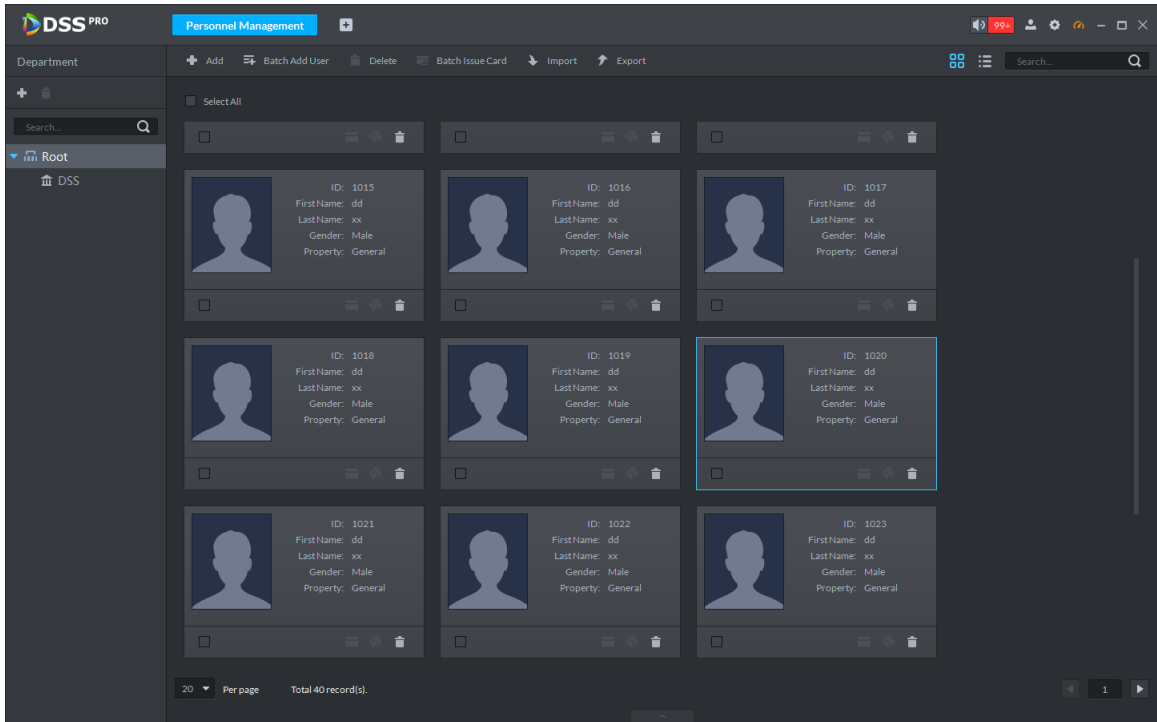
- Double-click personnel information, or select a person and click  to go to the interface for editing personnel information. The system supports modifying personnel information.
- Select a person, click **Delete**, and follow the instructions on the interface to delete the selected personnel. Click **Select All** to quickly delete all personnel on the current page.

Figure 5-203



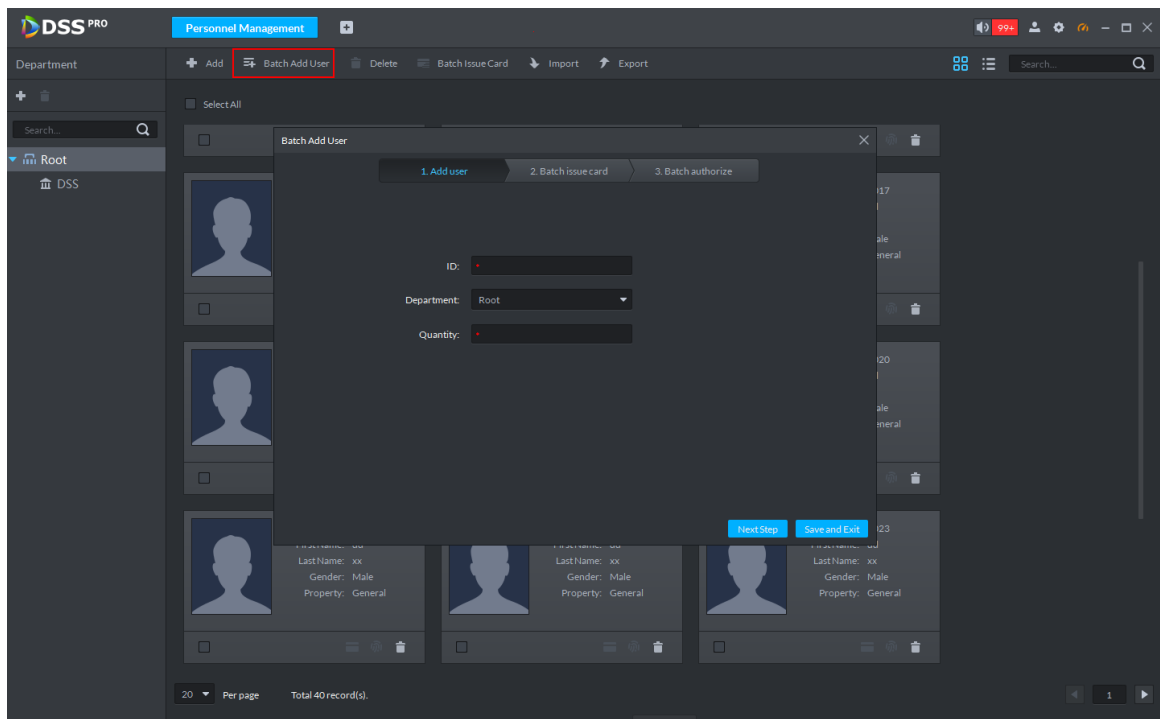
5.16.2.2 Batch Add

If multiple persons are added in one time, you can authorize them by issuing cards only. You cannot authorize password and fingerprint. If necessary, you can edit personnel authorization separately.

Step 1 On the **Personnel Management** interface, click **Batch Add User**.

Step 2 The **Batch Add User** interface is displayed. See Figure 5-204.

Figure 5-204



Step 3 Input the starting ID and user quantity, select their departments, and click **Next Step**.

Step 4 The **Batch issue card** interface is displayed. See Figure 5-205.

Figure 5-205

Batch Add User

1. Add user 2. Batch issue card 3. Batch authorize

Card Number: * Issue Card Reader Manager

Validity Time: 2018-12-03 00:00:00 Expiration: 2028-12-03 23:59:59

Choose

ID	Card No.	Department	Operation
111		Root	🗑️
112		Root	🗑️
113		Root	🗑️
114		Root	🗑️
115		Root	🗑️
116		Root	🗑️
117		Root	🗑️
118		Root	🗑️
119		Root	🗑️

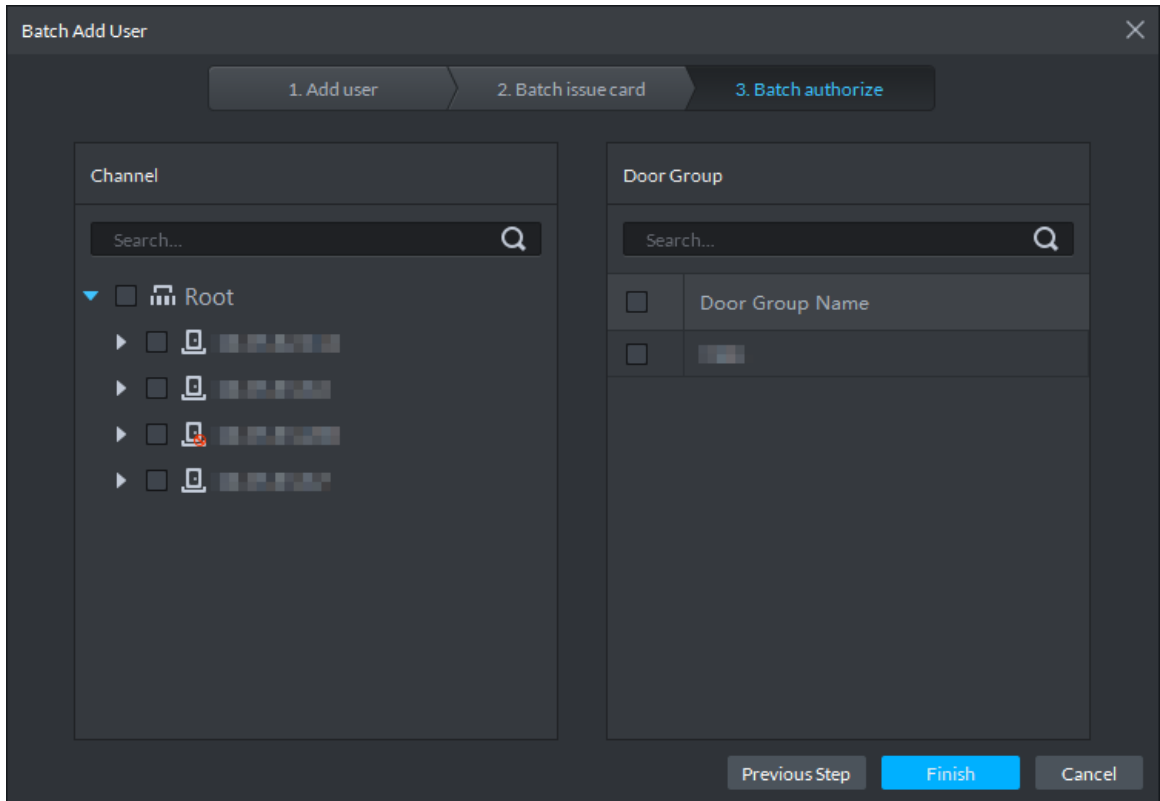
Previous Step Next Step Save and Exit

Step 5 Issue cards to personnel.

Step 6 Supports manual input of card numbers or using a card reading device.

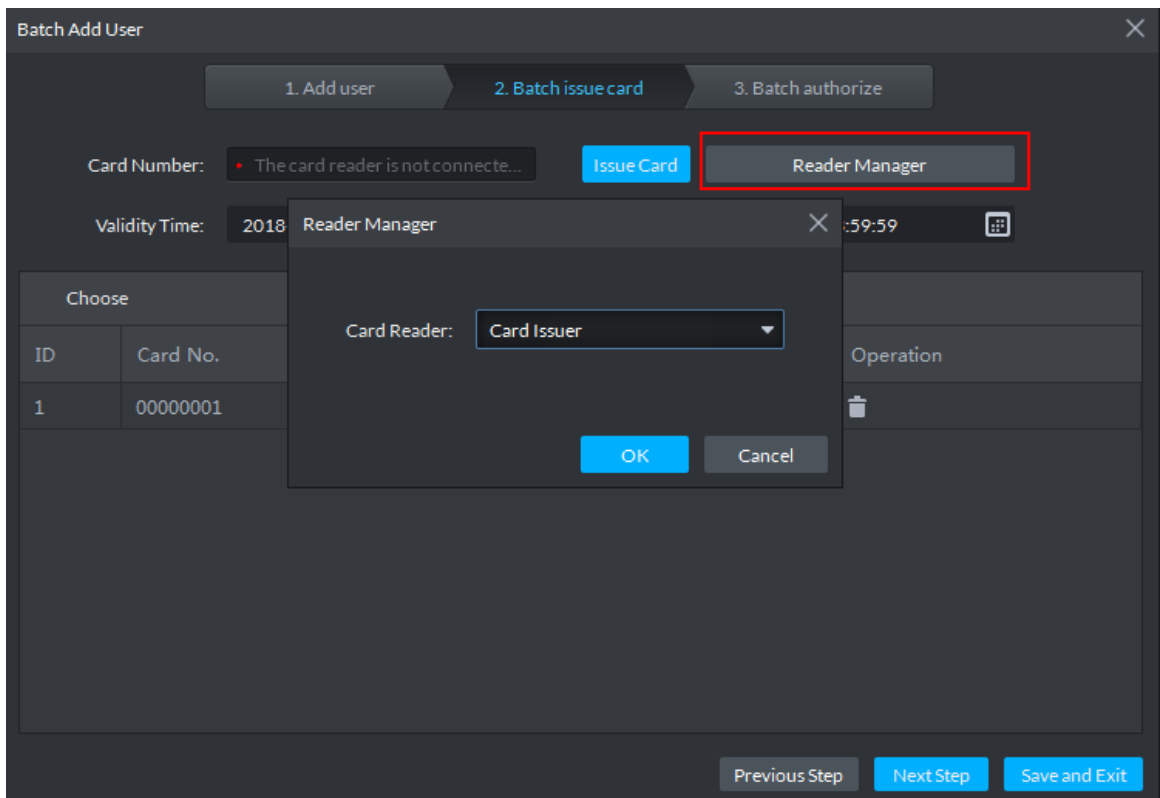
- Manual input
 - 1) Select a person, input the card number, and set up the validity time and expiry time.
 - 2) Click **Issue Card**.
Complete issuing card to the selected personnel, and the interface shows the personnel card number.
 - 3) Repeat the steps until all personnel get their cards.
 - 4) Click **Next Step**.
The **Batch authorize** interface is displayed. See Figure 5-206.

Figure 5-206



- Via a card reading device
- 1) Click **Reader Manager**.
The **Reader Manager** interface is displayed. See Figure 5-207.

Figure 5-207

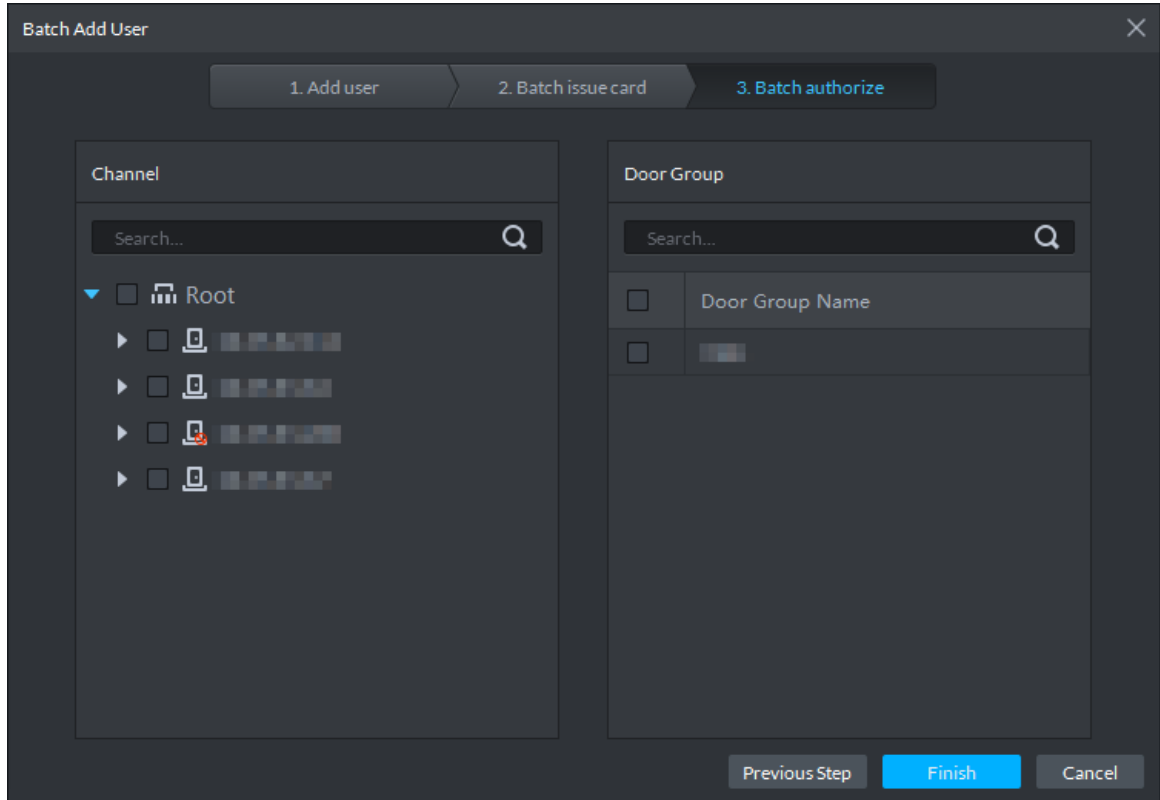


- 2) Select from **Card Reader** or **Device**, and click **OK**.

- 3) Swipe the card on the card reader or device.
- 4) Select a person, set up the validity time and expiry time, and click **Issue Card**.
- 5) Repeat the steps until all personnel get their cards.
- 6) Click **Next Step**.

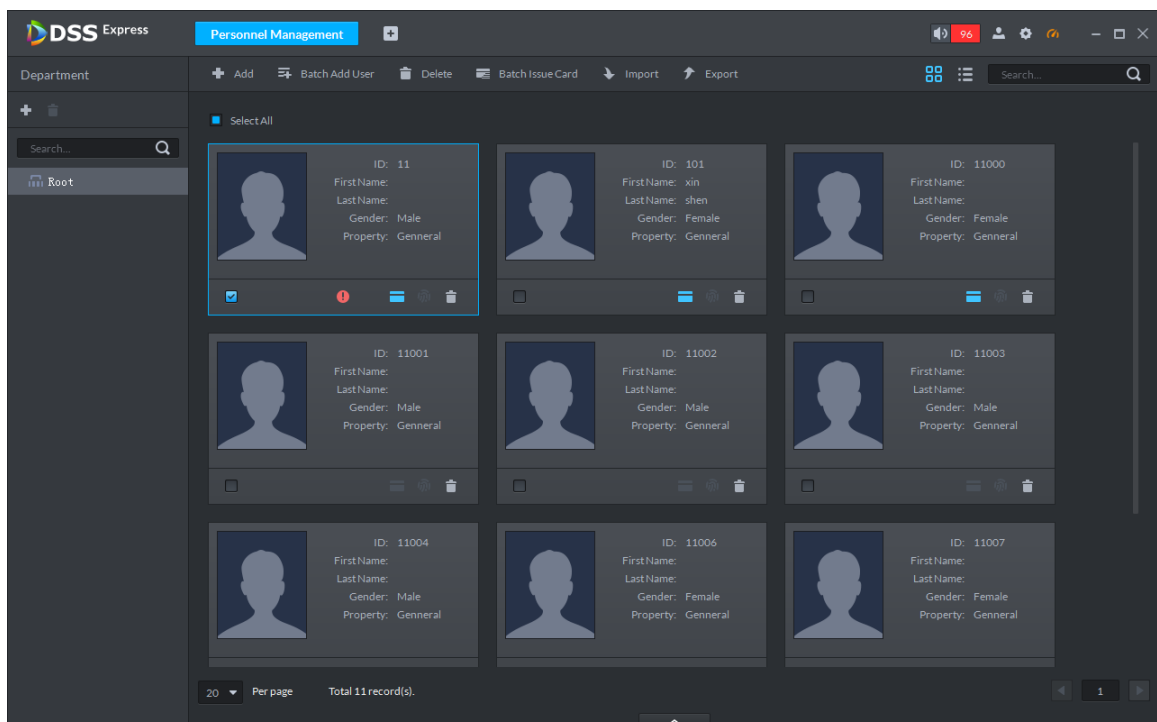
The **Batch authorize** interface is displayed. See Figure 5-208.

Figure 5-208



Step 7 Select the access control channels or door groups to which the personnel have access, and click **Finish**.

Figure 5-209



Step 8 Edit personnel information, such as modifying personnel information, setting up password, and registering fingerprint or face pictures.


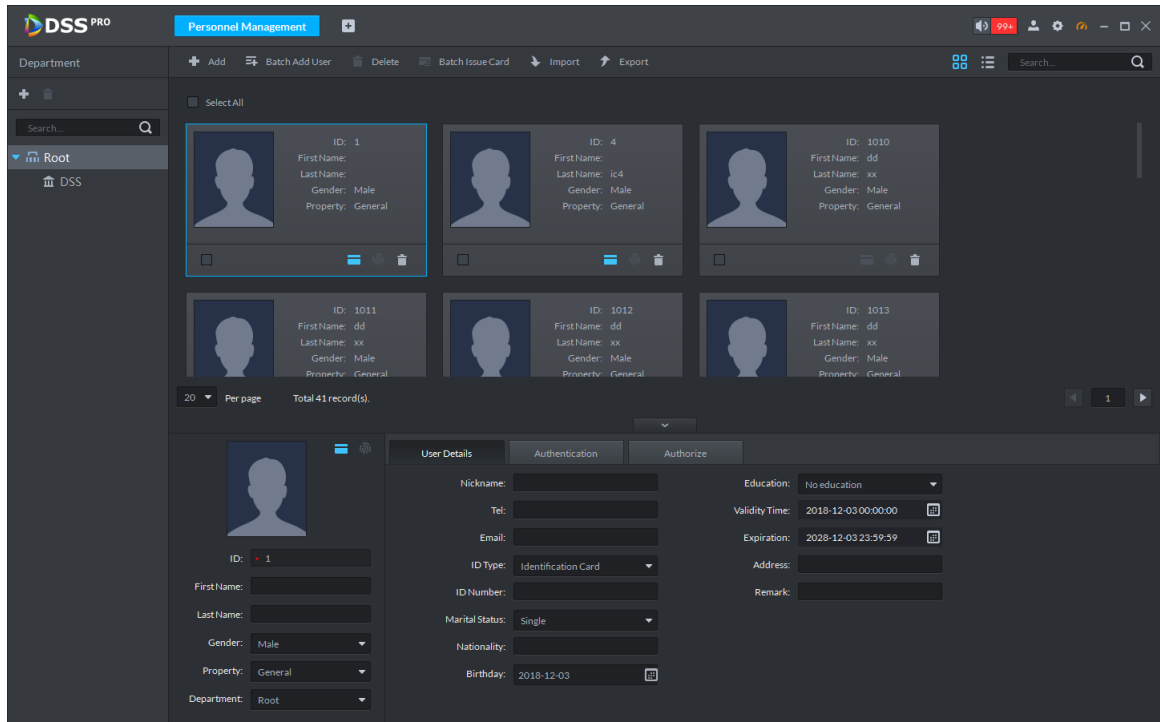
Step 9 Double-click a person, or select a person and click  to go to the screen for editing personnel information, where you can modify the personnel information. See Figure 5-210. Edits take effect immediately.

Figure 5-210



5.16.3 Import/Export Personnel

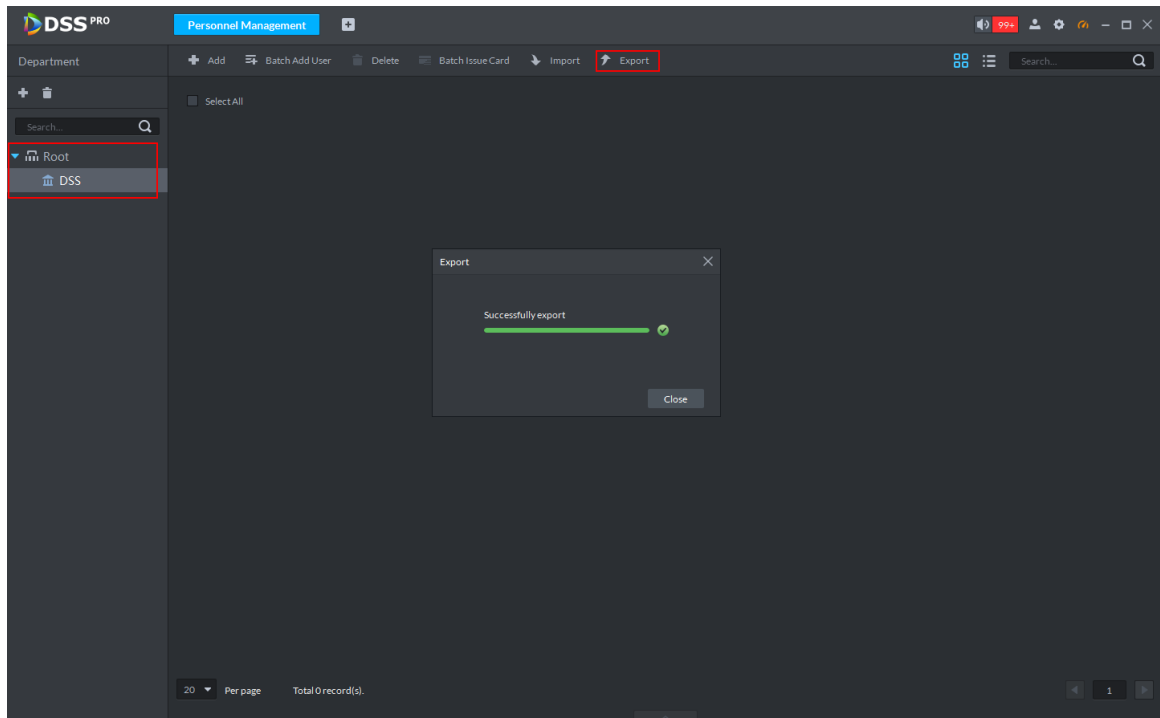
5.16.3.1 Export Personnel

Back up personnel data to restore damaged data or complete personnel configuration on the platform when there is a need for quick import of the personnel information.

Step 1 On the left side of the **Personnel Management** interface, select an organization, click **Export**, and follow the instructions on the interface to save the exported information to a local disk.

The system displays the progress of the export. See Figure 5-211.

Figure 5-211



Step 2 Click **Close**.

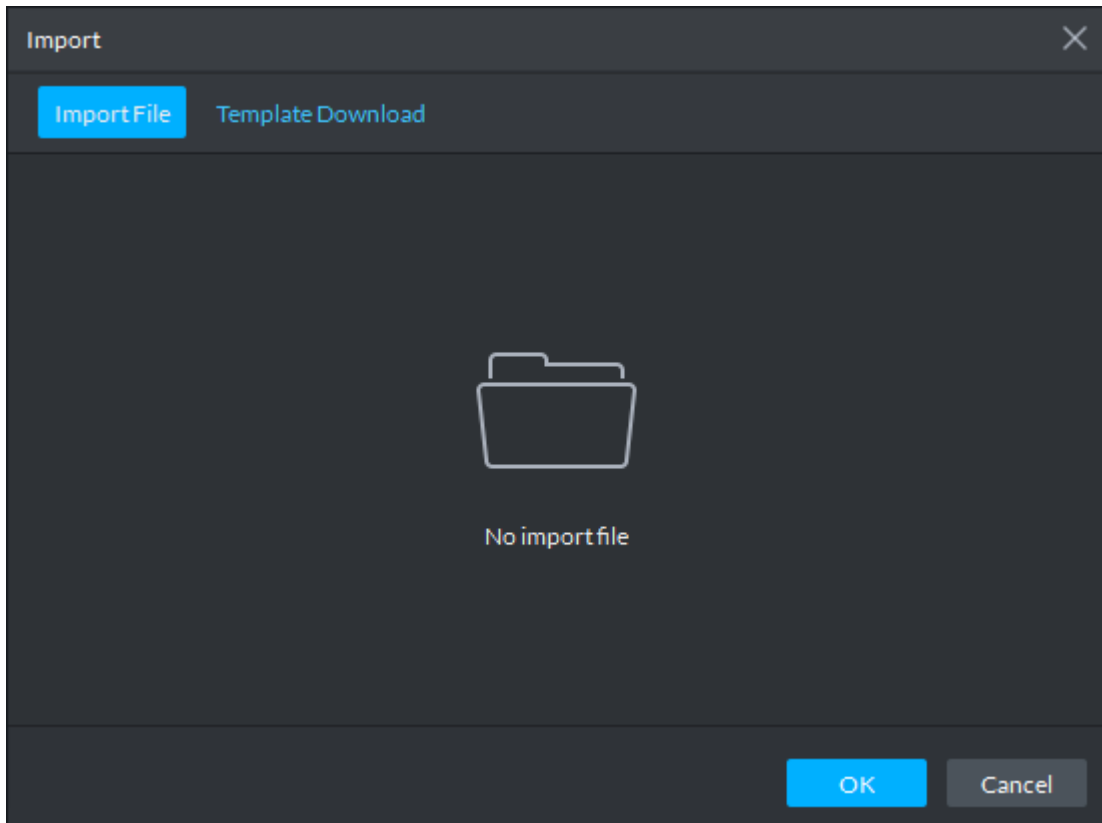
5.16.3.2 Import Personnel

Edit the template or import information of existing personnel to quickly add them. You can import a file in .xls no larger than 1 M.

Step 1 On the **Personnel Management** interface, click **Import**.

The Import interface is displayed. See Figure 5-212.

Figure 5-212



Step 2 Import personnel information files.

- 1) Click **Import**, and follow the instructions on the interface to select the files.

 **NOTE**

If there is no personnel information file, click **Template Download** and follow the instructions on the interface to create personnel information.

- 2) Click **OK**.
Complete the import of personnel information.

Step 3 The following might occur during an import:

- The system prompts that the imported personnel already exist on the platform.
- Personnel ID duplicate in the imported file. If the same ID does not exist, the system accepts it as a new ID; if it already exists, the system gives a prompt.
- The system prompts that the imported personnel information is improperly filled, such as field length exceeding the limit on the client, and timeout resulting in a failure to upload to the database.
- Abnormal default values. The rules are: Gender (male), property (common staff), department (root node), ID type (Identification Card), marital status (null), education (No education). The valid period starts from now and ends in 2028 by default.
- A person does not exist. If the department does not exist, a new department is created under the root node; if the department exists, the person is created under the department; department information matches by name.
- Cannot read the contents with a parsing error reported directly.

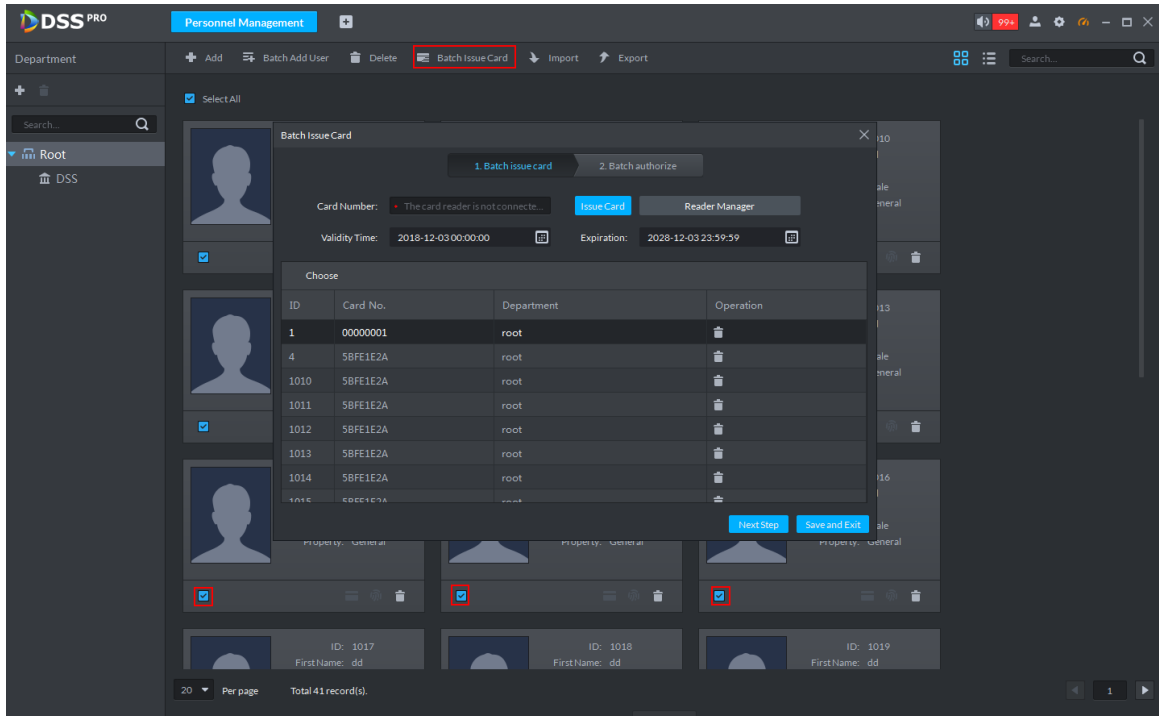
5.16.4 Batch Issue Card

Supports batch issuing cards to personnel to complete access control authorization.

Step 1 On the **Personnel Management** interface, select the personnel to issue card to, and click **Batch Issue Card**.

Step 2 The **Batch issue card** interface is displayed. See Figure 5-213.

Figure 5-213

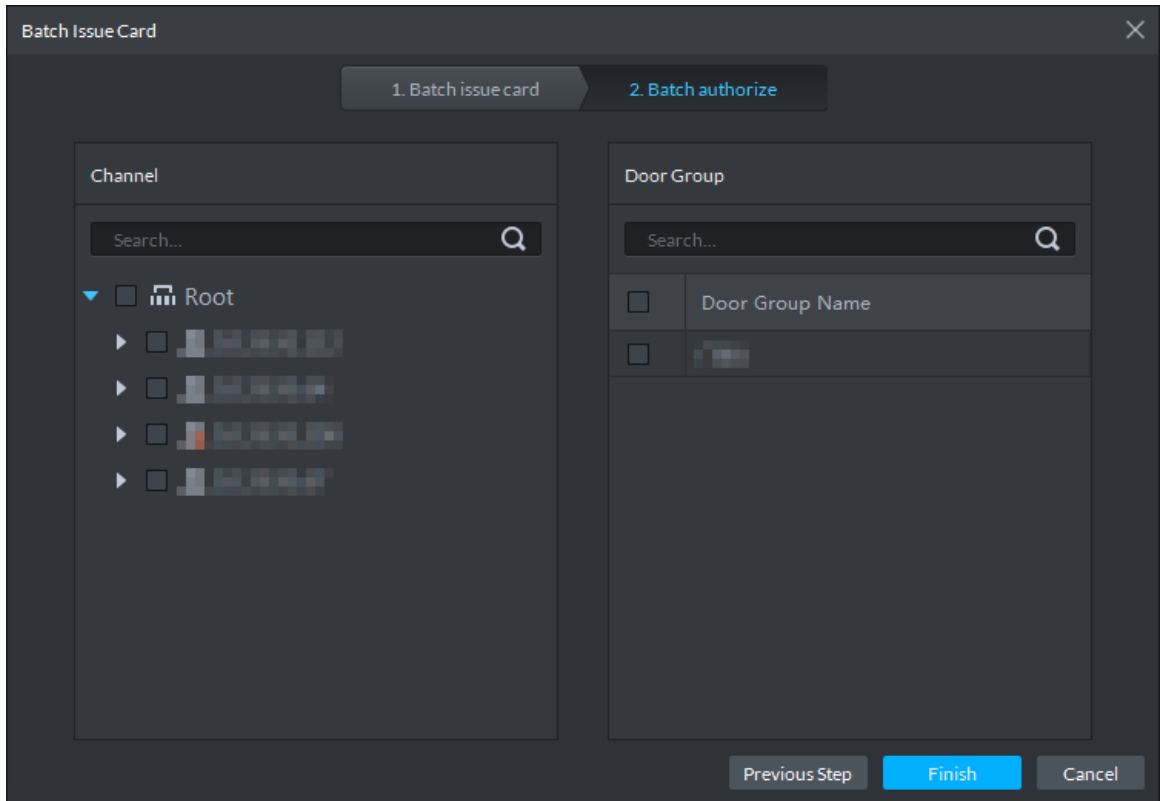


Step 3 Issue cards to personnel.

Step 4 Supports manual input of card numbers or using a card reading device.

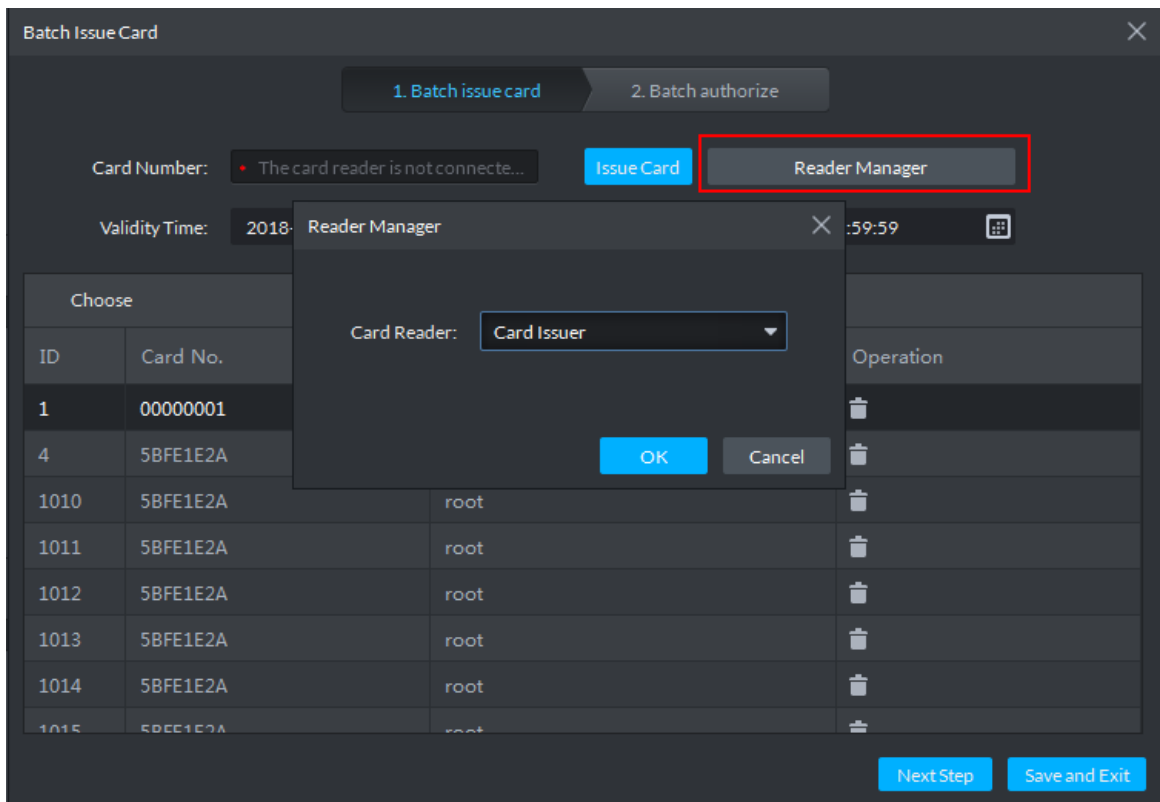
- Manual input
 - 1) Select a person, input the card number, and set up the validity time and expiry time.
 - 2) Click **Issue Card**.
Complete issuing card to the selected personnel, and the interface shows the personnel card number.
 - 3) Repeat the steps until all personnel get their cards.
 - 4) Click **Next Step**.
The **Batch authorize** interface is displayed. See Figure 5-214.

Figure 5-214



- Via a card reading device
- 1) Click **Reader Manager**.
The **Reader Manager** interface is displayed. See Figure 5-215.

Figure 5-215

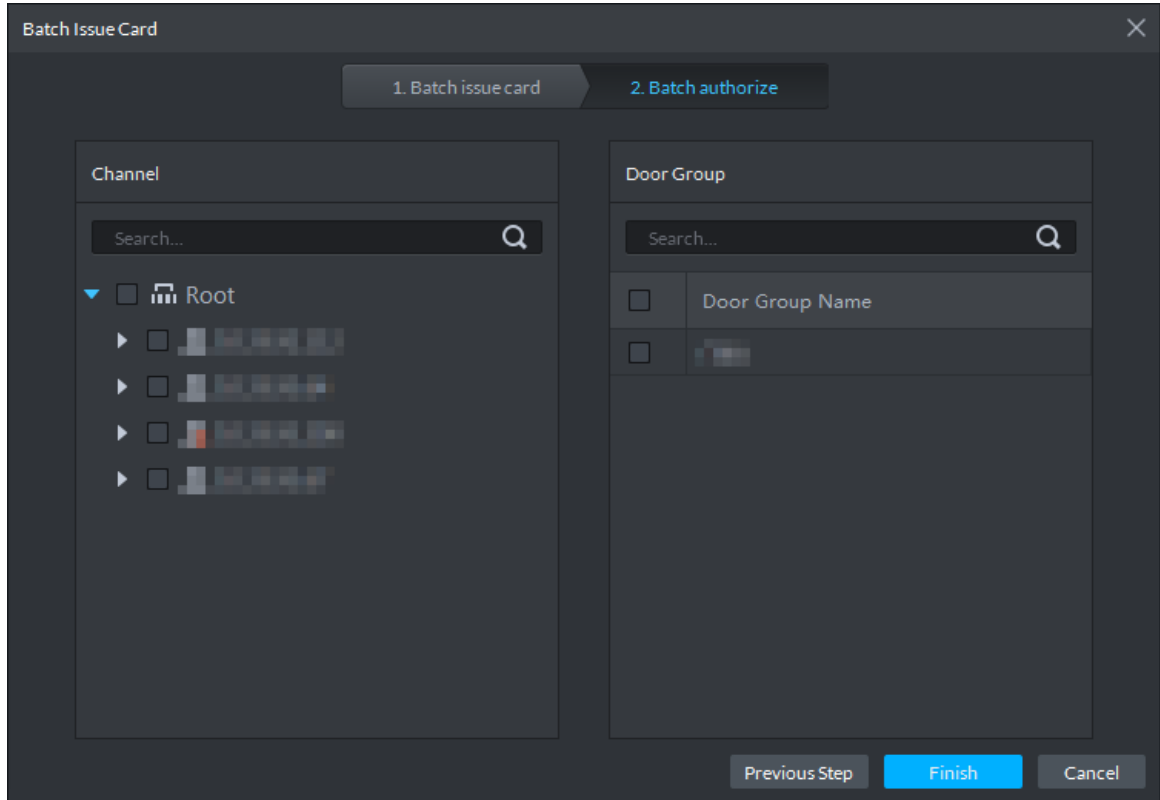


- 2) Select from **Card Reader** or **Device**, and click **OK**.

- 3) Swipe the card on the card reader or device.
- 4) Select a person, set up the validity time and expiry time, and click **Issue Card**.
- 5) Repeat the steps until all personnel get their cards.
- 6) Click **Next Step**.

The **Batch authorize** interface is displayed. See Figure 5-216.

Figure 5-216



Step 5 Select the access control channels or door groups to which the personnel have access, and click **Finish**.

Step 6 The interface displays the card issuing results. See Figure 5-217. The card icon


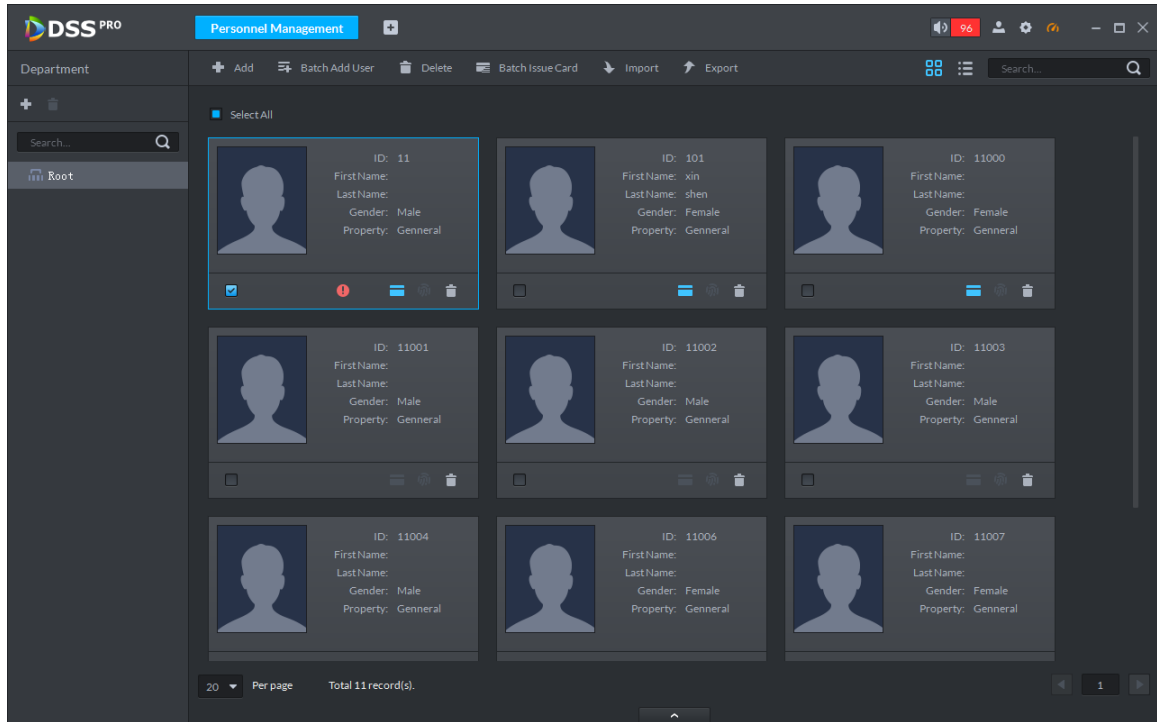
changes into blue, as  and it means that you have issued a card to the person.

Figure 5-217




5.16.5 Generate Path

You can check all door unlocking records by personnel and generate a path.

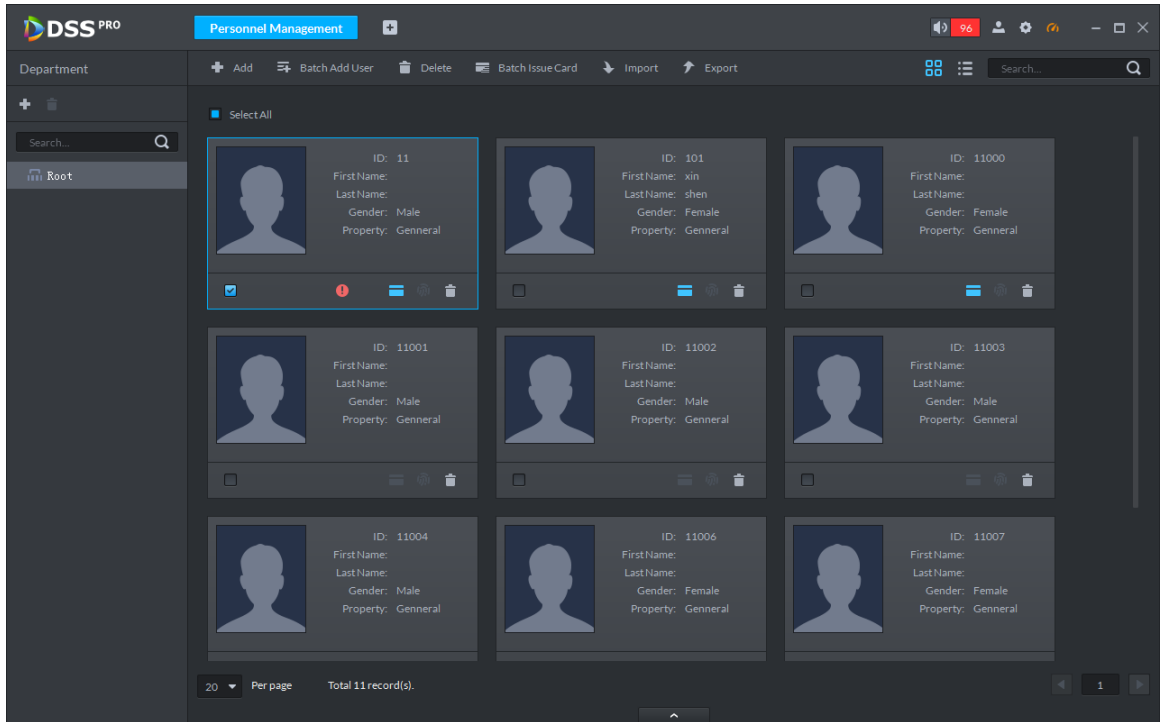
NOTE

To view the generated path, you have to drag the access control device to the map for display first. See [Configure Maps](#) for detailed steps.

Step 1 Click . On the **Homepage** interface, select **Personnel Management**.

The **Personnel Management** interface is displayed. See [Figure 5-218](#).

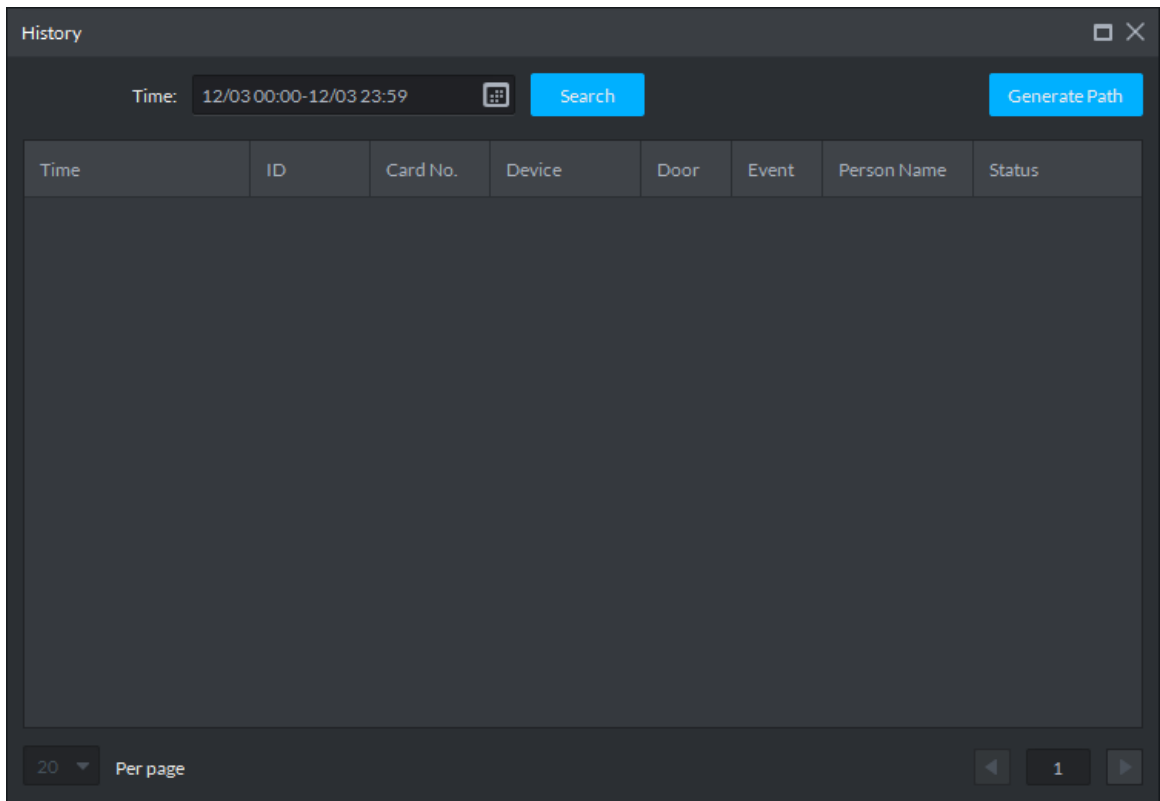
Figure 5-218



Step 2 Click  or  for the person.

Step 3 The **History** interface is displayed. See Figure 5-219.

Figure 5-219



Step 4 Set up time for the search and click **Search**.

The system displays the search results.

Step 5 Click **Generate Path**.

The system displays the map interface to show the activity path of the person.

Step 6 Click **Export**, and drag the mouse on the interface to select a region. Follow the instructions on the interface to save the path as a picture to a local disk.

5.17 Access Control Management

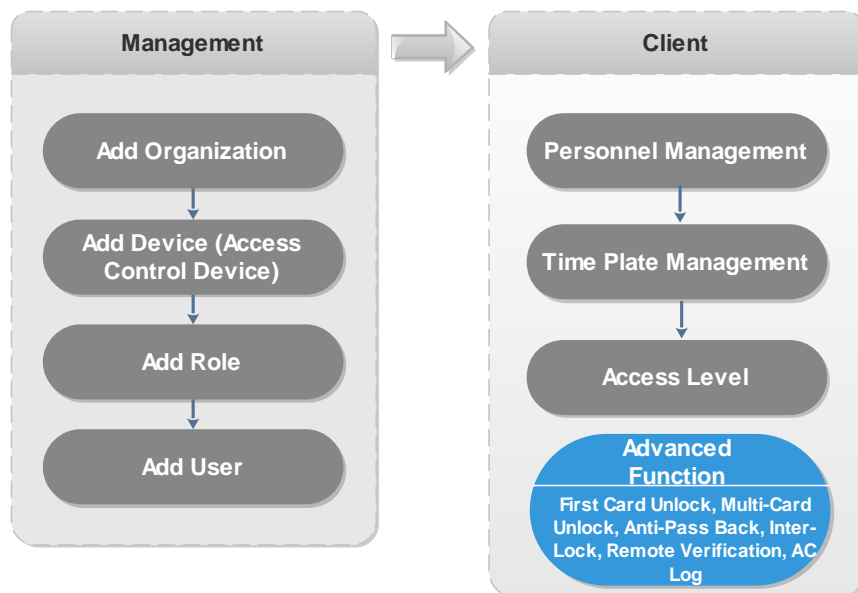
After adding access control devices on Pro, you can control the door locking/unlocking on Pro, view videos and events related to the access control channel, and configure advanced access control functions, such as First Card Unlock and Multi-card Unlock.

5.17.1 Preparations

- You have added ACS on the platform's administrator end and bound resources. See 4.6 for specific steps.
- You have added personnel. See 5.16 Personnel Management for detailed steps.

For the access control procedures, see Figure 5-220.

Figure 5-220



5.17.2 Console

On the console, you can control unlocking and locking of the access control channel, view linked videos and events, and enter the Door Config interface.

5.17.2.1 Configure Door Information

Supports configuring Door Status, NO/NC Period, Alarm Enable, Unlock Length and more.

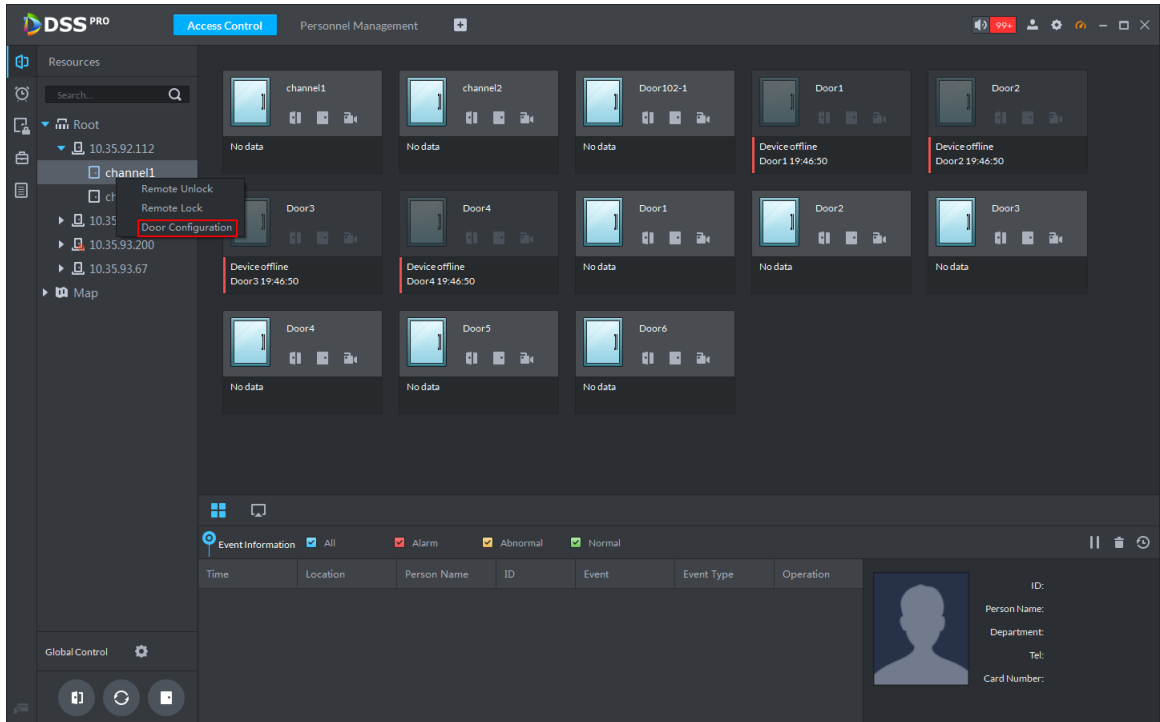
Step 1 Click . On the **Homepage** interface, select **Access Control**.

The **Access Control** interface is displayed.

Step 2 Click .

The **Console** interface is displayed. See Figure 5-221.

Figure 5-221



Step 3 On the left side of the interface, right-click an access control channel in the device tree. In the popup menu, select **Door Configuration**.

Step 4 The **Door Config** interface is displayed. See Figure 5-222.

Figure 5-222

The screenshot shows a 'Door Config' window with the following settings:

- Set reader direction:** In Reader 1 ⇌ Out Reader 2
- Door Status:** Always Open
- NO Period:** Disabled (toggle), All-Period Template
- NC Period:** Disabled (toggle), All-Period Template
- Alarm Enable:** Enabled (toggle)
 - Intrusion
 - Timeout
 - Duress
 - Over Times
- Door Sensor Enable:** Disabled (toggle)
- Unlock Length:** 2 s
- Unlock timeout:** 60 s
- Unlock Method:** or
 - Card
 - Fingerprint
 - Password

Buttons at the bottom: Copy to, Apply, OK, Cancel.

Step 5 Configure door information and click **OK**. For details of the parameters, see Table 5-37.

 **NOTE**

The screenshots might be different for different access control devices connected. The actual interfaces shall prevail.

Table 5-37

Parameter	Description
Set reader direction	Indicates the in/out reader based on the wiring of ACS.
Door Status	Sets the access control status to Normal, Always Open, or Always Close.
NO Period	If enabled, you can set up a period during which the door is always open.
NC Period	If enabled, you can set up a period during which the door is always close.

Parameter	Description
Alarm Enable	<ul style="list-style-type: none"> • If the door is opened not as intended, the door sensor is enabled and triggers an intrusion alarm. • Entry with the Duress Card, Duress Password, or Duress Fingerprint triggers a duress alarm. • Unlock duration exceeding the Unlock timeout triggers a timeout alarm. • Swiping an illegal card for more than five times triggers a malicious alarm.
Door Sensor Enable	Enables the door sensor. The intrusion alarm and timeout alarm take effect only when door sensor is enabled.
Unlock Length	Sets up the duration of door unlocking. The door is automatically locked when the duration is over.
Unlock timeout	Unlock duration exceeding the Unlock timeout triggers a timeout alarm.
Unlock Method	You can use any one of the methods, card, fingerprint, face, and password, or any of their combinations to unlock the door.
Inter-door Lock	Indicates whether to enable Inter-door Lock.
Malicious Alarm	Swiping an unauthorized card for five times continuously within 50s triggers a malicious alarm. In the next 50s, every swipe of the card triggers a same alarm.

5.17.2.2 View Videos Bound to Channels

When adding access control devices, if you have already bound a video channel to the channel, you can preview the real-time videos of the bound video channels on the console. To bind video channels, see Bind Resources.



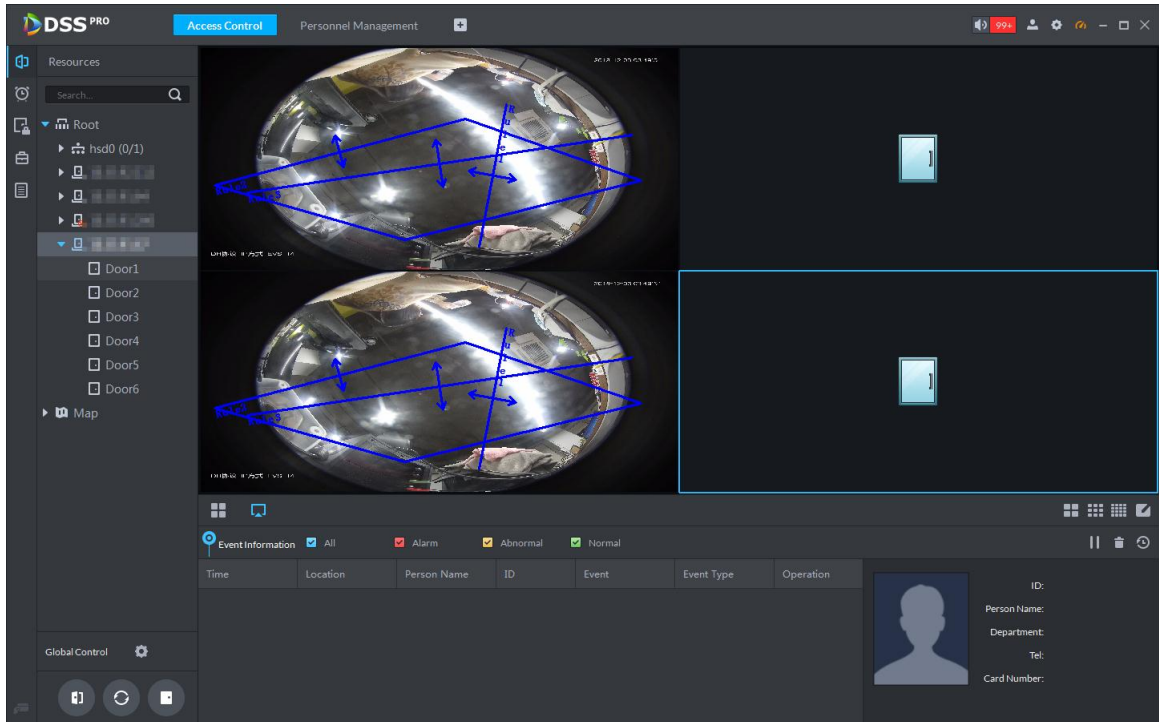
- On the right side of the console interface, click  in the access control channel list. The system displays videos in real time. See Figure 5-223.
- Click  on the console interface. The system displays the video interface. Drag the access control channel on the left side of the screen to the preview interface on the right side. The system displays videos in real time. See Figure 5-223.

Figure 5-223



5.17.2.3 Manual Unlock

In addition to Always Open or linked unlock in specified periods, the console also supports unlocking by manually controlling the access control channel. After unlock, the door automatically locks up after a specified time period (5s by default, and 10s in this example) set up in Door Config.

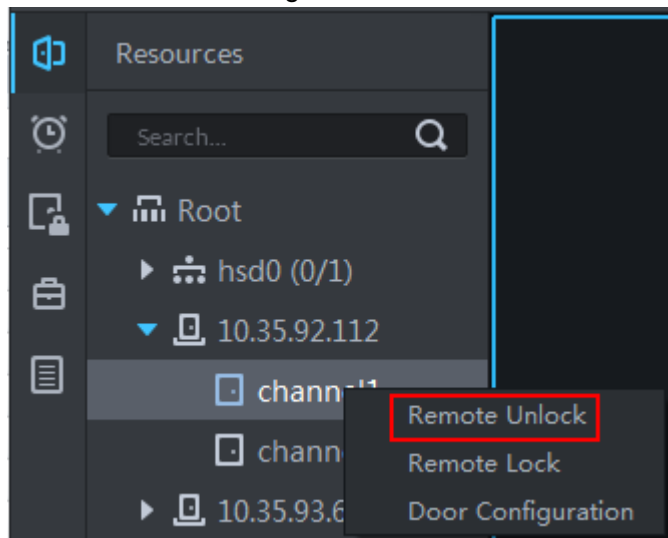
You can unlock the door in the following ways:

- On the left side of the interface, right-click an access control channel in the device list, and select **Remote Unlock** in the popup menu. See Figure 5-224. After unlocking, the door status in the access control channel list on the right side of the interface changes to open,



as

Figure 5-224





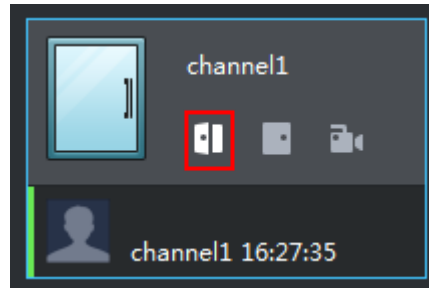
- Click  on the door channel interface to unlock the door. See Figure 5-225. After unlocking, the door status in the access control channel list on the right side of the interface changes to open, as .

Figure 5-225




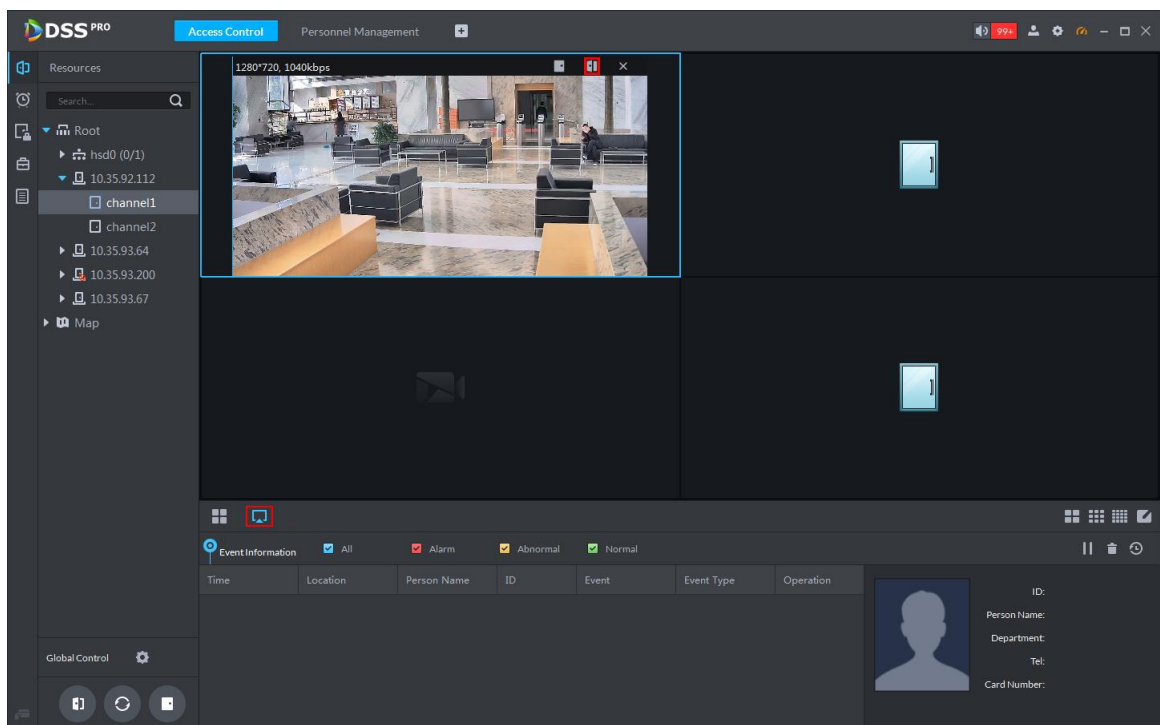
- When viewing videos bound to the channel, click  on the video interface to unlock the door. See Figure 5-226.

Figure 5-226

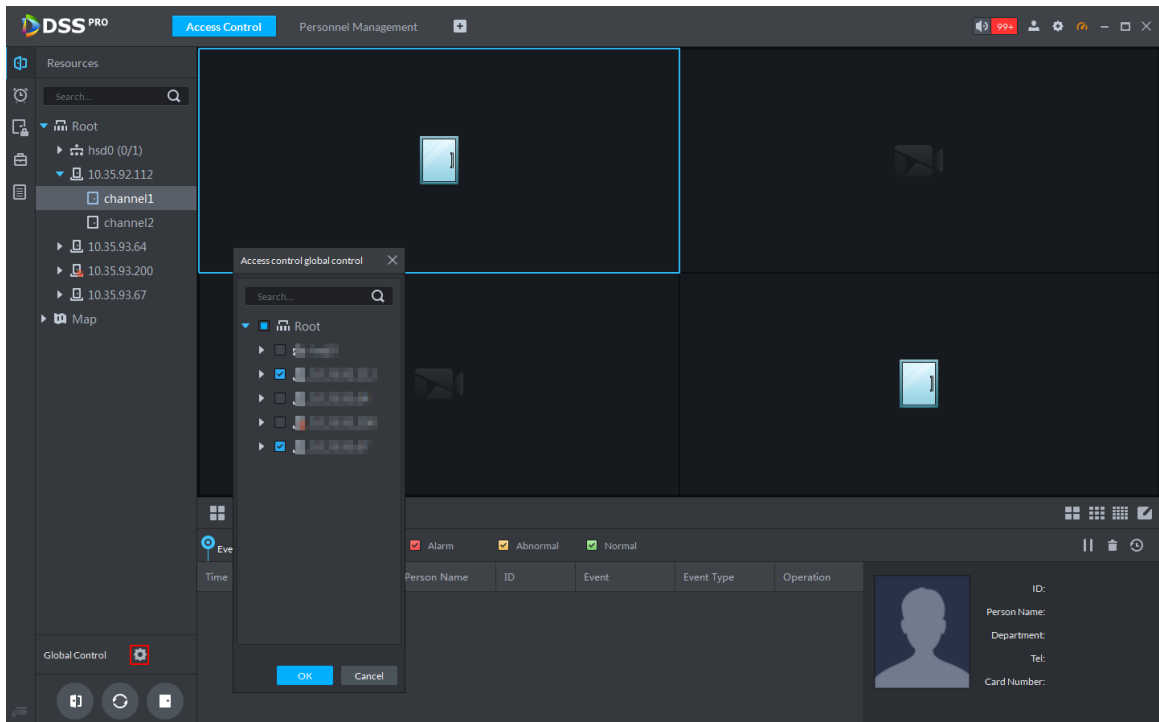


- Temporary Always Open of multiple doors
Select a door channel through global control and you can set the door to be Always Open. Recovery to normal status after unlocking requires manual operations.

Step 1 Click  on the bottom left of the console interface of the Access Control module.

Step 2 The **Access control global control** interface is displayed. See Figure 5-227.

Figure 5-227




Step 3 Select an access control channel to be set to Always Open via global control, and click **OK**.

Step 4 Click **Always Open** on the bottom left of the interface.
The **Password Verification** interface is displayed.

Step 5 Input current user's password, and click **OK**.

Step 6 All the doors of the selected access control channels are set to Always Open. The status of all the doors in the access control channel list on the right side of the interface

changes to open, as . The interface control changes from **Always Open** to **Recover**.

 **NOTE**

Click **Recover** and the doors return to normal status.

5.17.2.4 Manual Lock

In addition to Always Close or linked lock in specified periods, the console also supports locking by manually controlling the access control channel. You can lock the door in the following ways:


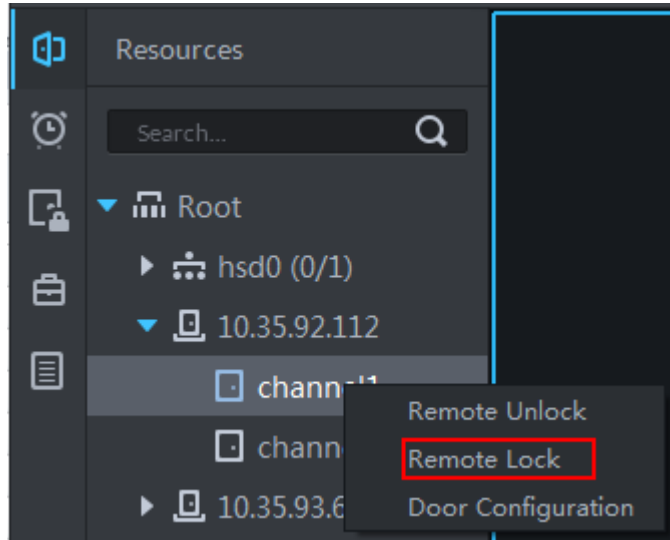
- On the left side of the interface, right-click an access control channel in the device list, and select **Remote Lock** in the popup menu. See Figure 5-228. After locking, the door status in the access control channel list on the right side of the interface changes to closed, as .

Figure 5-228





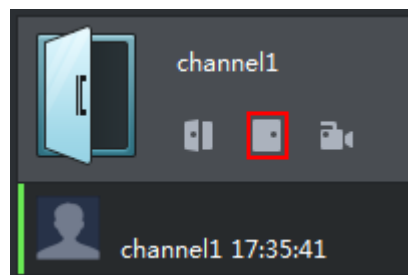
- Click  on the door channel interface to lock the door. See Figure 5-229. After locking, the door status in the access control channel list on the right side of the interface changes to closed, as .

Figure 5-229




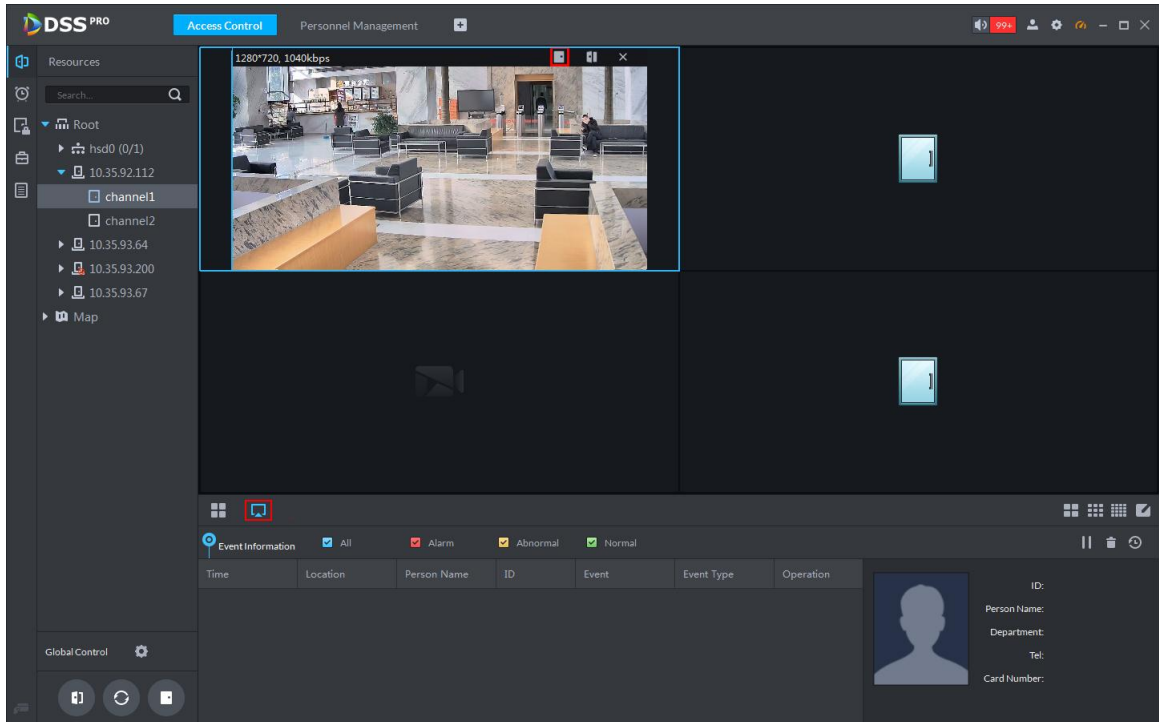

- When viewing videos bound to the channel, click  on the video screen to lock the door. See Figure 5-230.

Figure 5-230

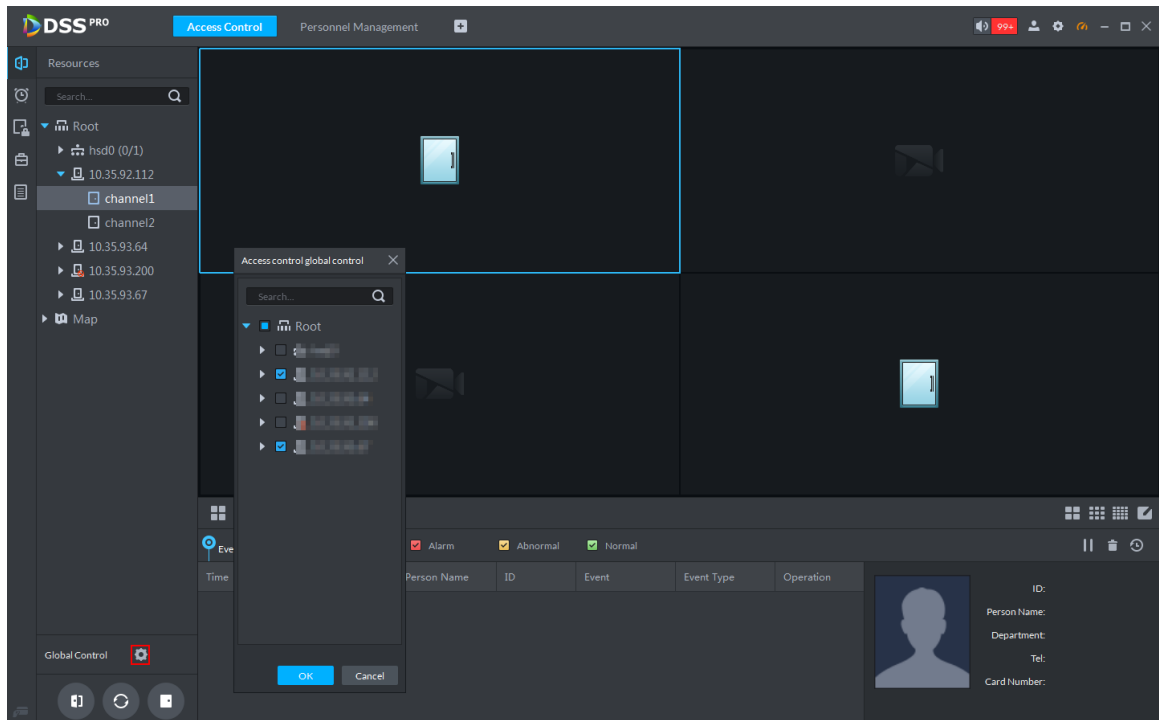


- Temporary Always Open of multiple doors
Select a door channel through global control and you can set the door to be Always Close. Recovery to normal status after locking requires manual operations.

Step 1 Click  on the bottom left of the console interface of the Access Control module.

Step 2 The **Access control global control** interface is displayed. See Figure 5-231.

Figure 5-231




Step 3 Select an access control channel to be set to Always Close via global control, and click **OK**.

Step 4 Click **Always Close** on the bottom left of the interface.

The **Password Verification** interface is displayed.

Step 5 Input current user's password, and click **OK**.

Step 6 All the doors of the selected access control channels are set to Always Close. The status of all the doors in the access control channel list on the right side of the interface

changes to closed, as . The interface control changes from **Always Close** to **Recover**.

 **NOTE**


Click **Recover** and the doors return to normal status.

5.17.2.5 View Event Details

Supports viewing details of the events reported on door locking and unlocking, including: Event Info, Live View, Snapshot, and Recording.

 **NOTE**

- Live View is only available when a video channel is bound to the access control channel. To bind video channels, see Bind Resources.
- When snapshot and video recording require configuring event management, access control-related alarm devices are linked with the camera.
- The console displays all event information except for locking related info, including unlock, duress unlock, invalid swipe.

Step 1 In the event list below the console interface, click  next to the event records.

Step 2 The **ACS Event Info** interface is displayed. See Figure 5-232. See Table 5-38 for more descriptions on the controls.

Figure 5-232

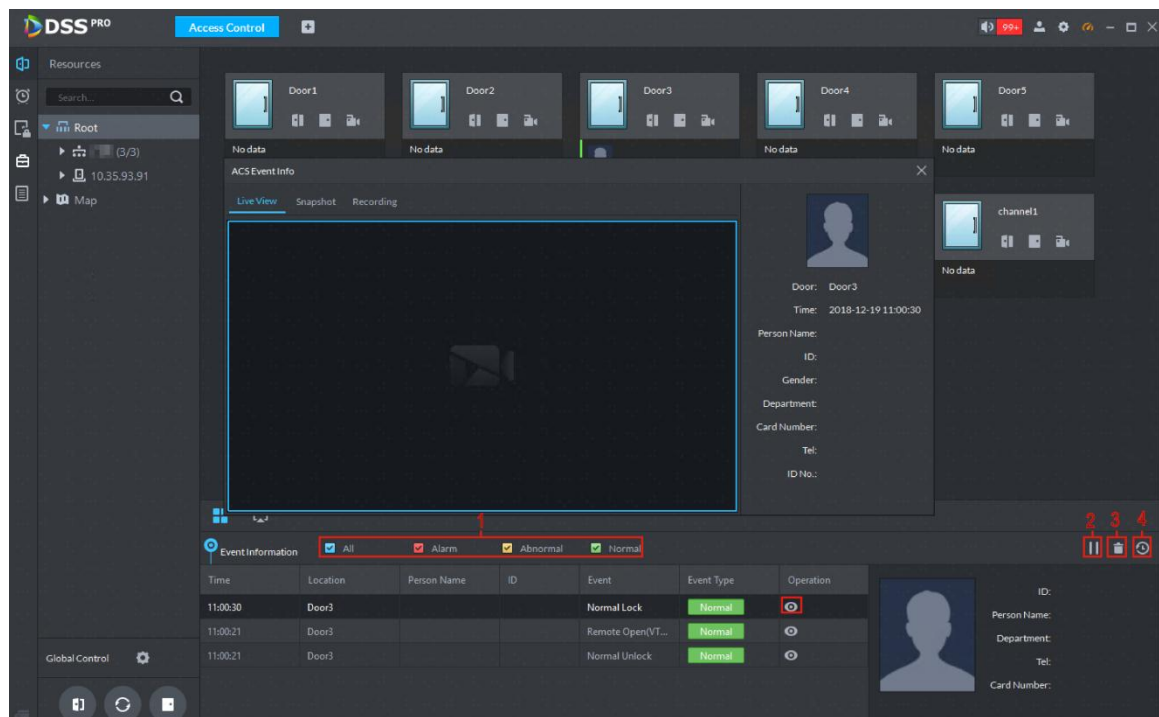






Table 5-38

No.	Description
1	You can choose to view the events of certain event types. For instance, if you select Normal , the list only displays normal events.
2	<ul style="list-style-type: none"> Click  to stop displaying reported event information. In this case, the interface no longer displays the reported new events. After clicking, the button changes to . Click  to start refreshing reported event information. The interface does not display events during the stopping period. After clicking, the button changes to .
3	Clearing the events from the current event list, does not delete them from the log.
4	Click to jump to the A&C Log interface.

Step 3 Click the corresponding tab to view the live view, snapshots, and video recordings of the linked video channel.

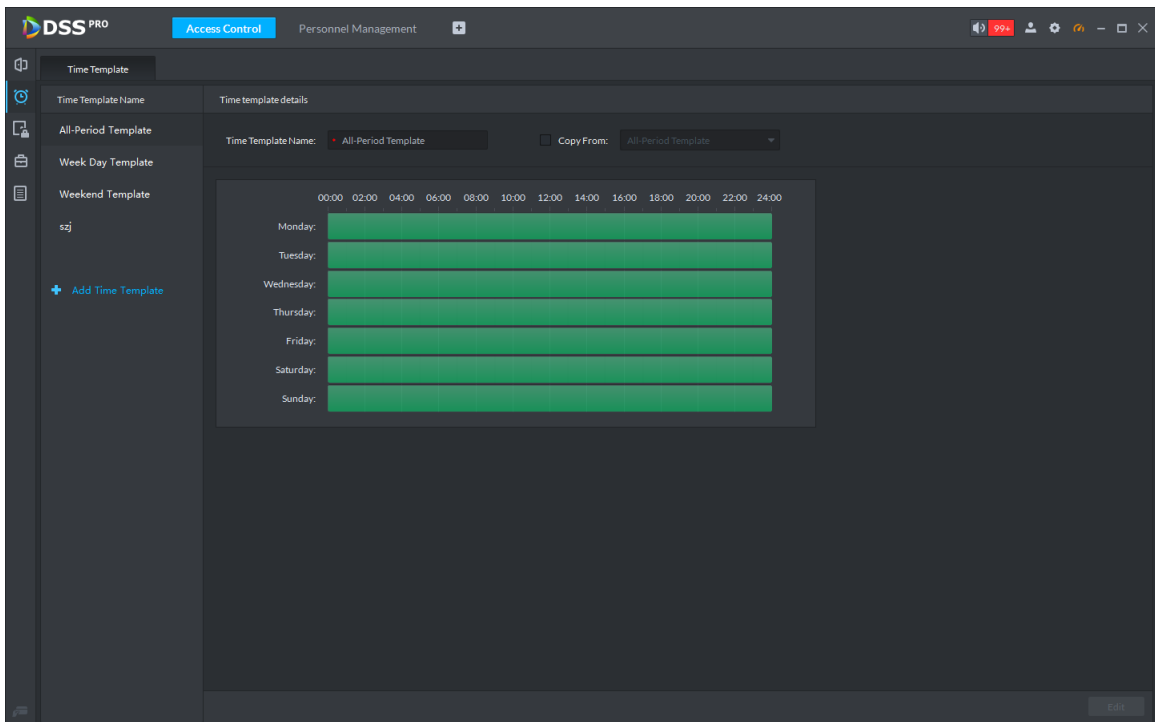
5.17.3 Set up Time Template

You can apply various unlock strategies in the time template. For example, you can use First Card Unlock in the selected time template.

Step 1 On the **Access Control** interface, click .

Step 2 The **Time Template** interface is displayed. See Figure 5-233.

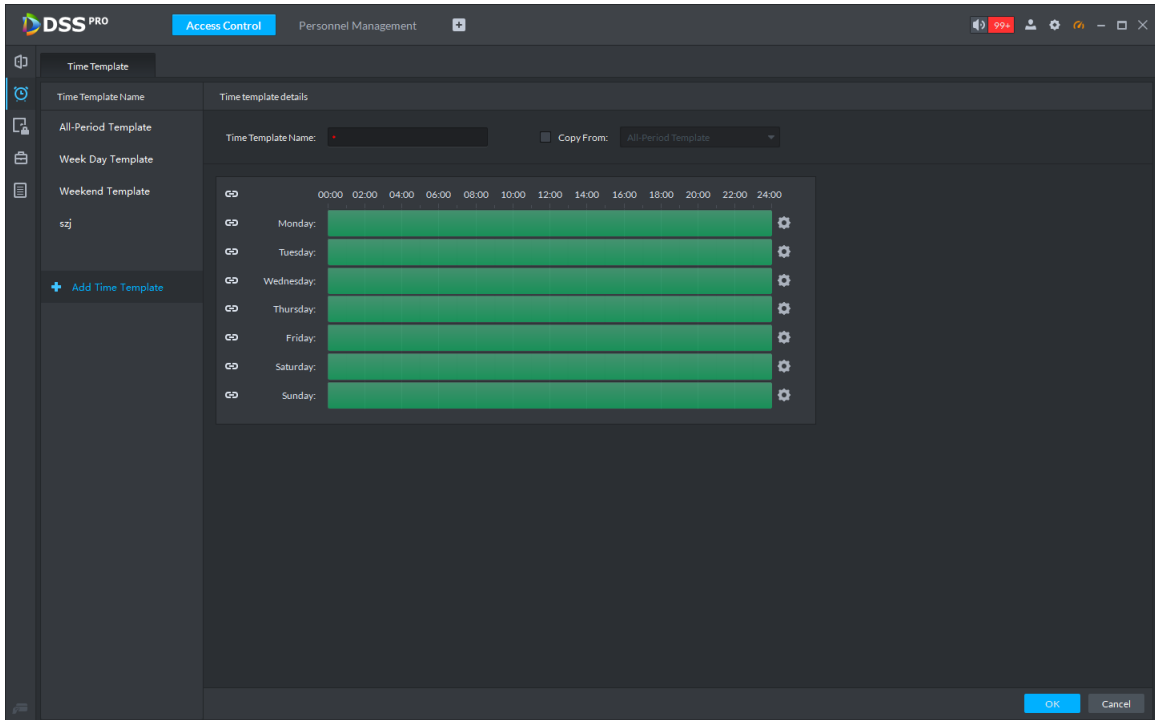
Figure 5-233



Step 3 Click Add Time Template.

The **Time template details** interface is displayed. See Figure 5-234.

Figure 5-234



Step 4 Set up **Time Template Name** and the required time period, and click **OK**.




 **NOTE**


Select **Copy From** and the copied template, and you can use the time periods of the copied template. In this way, you can quickly configure the time periods by modifying the ones of the copied template.

Methods to set up the time period:

- Method I: Press and hold the left button of the mouse. Over the time periods not selected, the mouse displays as a pen, and you can drag the mouse on the setting interface to select a time period. Over the selected time periods, the mouse displays as an eraser, and you can erase selected time periods with it.

 **NOTE**

Click the icons  in front of multiple week numbers one by one and the icons change to . In this way, you can configure the time periods corresponding to the week numbers. You can quickly select all the week numbers by clicking  on the top.

- Method II: Click  and set up the time periods in the popup interface. You can set up six time periods at most.

Step 5 After setting up, the time templates display in the list on the left side.

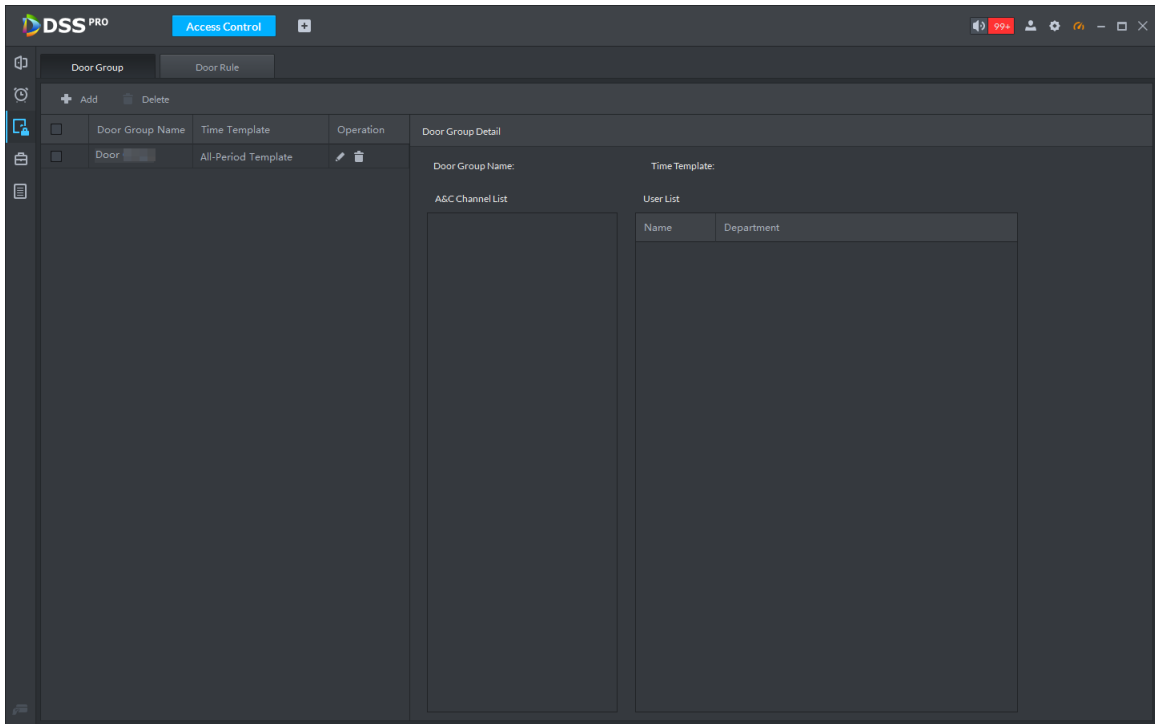
5.17.4 Set up Door Group Permissions

If you manage the doors by groups, you can quickly grant users with the authorizations to unlock the doors in a specific group.

Step 1 On the **Access Control** interface, click .

Step 2 The **Access Level** interface is displayed. See Figure 5-235.

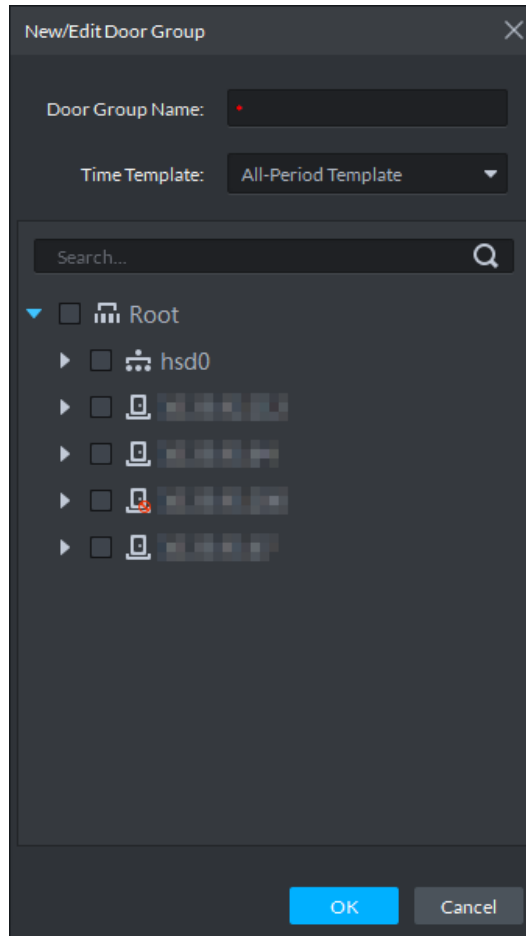
Figure 5-235



Step 3 Create door groups.

- 1) Click the **Door Group** tab.
The **Door Group** interface is displayed.
- 2) Click **Add**.
The **New/Edit Door Group** interface is displayed. See Figure 5-236.

Figure 5-236



- 3) Input **Door Group Name**, select **Time Template** and an access control channel, and click **OK**.

After selecting the time template and access control channel, you can only use the time periods of the selected time template and the selected access control channel when granting authorizations to users. The interface displays the information of the newly created door groups.

Step 4 Authorize users.

- 1) Click the **Door Rule** tab.
The **Door Rule** interface is displayed.
- 2) Click **Add**.
The **Add door rule** interface is displayed. See Figure 5-237.

Figure 5-237

The screenshot shows a dialog box titled "Add door rule". At the top, there are two text input fields: "Door Rule Name:" and "Remark:". Below these are two selection panels. The "Person" panel has a dropdown menu set to "Root" and a search bar. It contains a table with the following data:

ID	Name
1	
4	ic4
1010	dd xx
1011	dd xx
1012	dd xx

Below the table is a "Selected(0)" section with a trash icon. The "Door Group" panel has a search bar and a table with the following data:

Door Group Name	Group1

At the bottom right of the dialog are "OK" and "Cancel" buttons.

- 3) Input **Door Rule Name**, select **Person** and **Door Group**, and click **OK**.
The interface displays the authorization information.

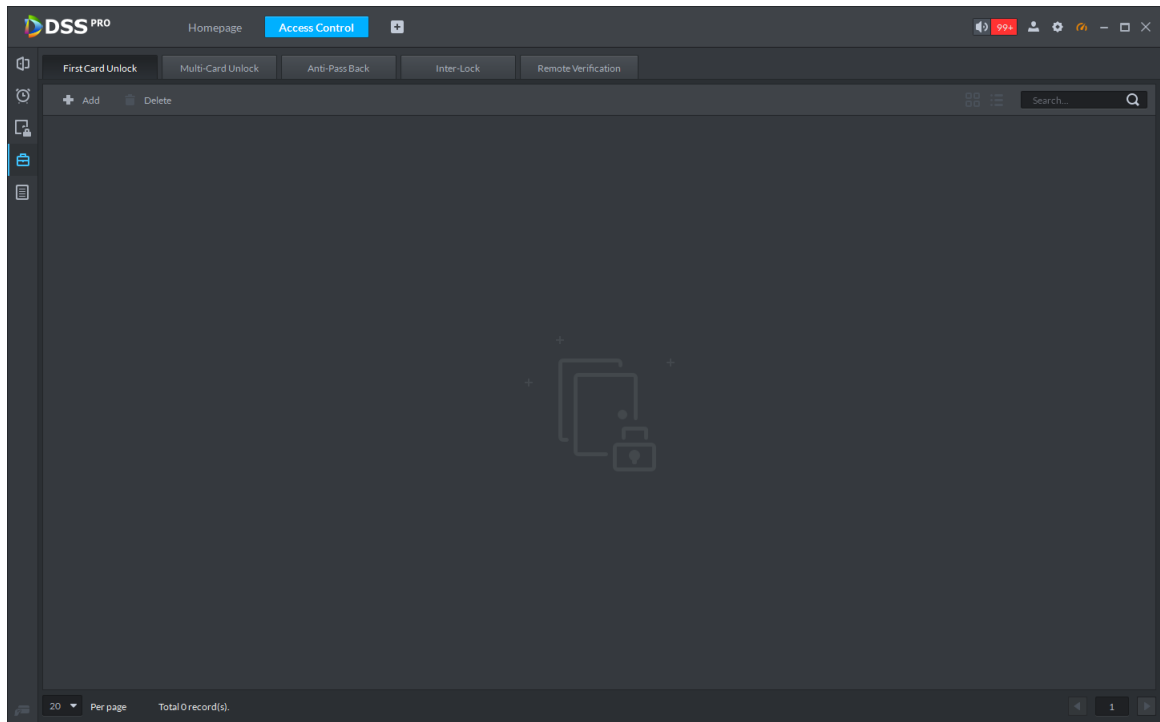
5.17.5 First Card Unlock

Only after the specified first-card user swipes the card every day can other users unlock the door with their cards. You can set up multiple first cards. Only after any one of the users swipes the first card can other users without first cards unlock the door with their cards.

Step 1 On the **Access Control** interface, click .

Step 2 The **Advanced Function** interface is displayed. See Figure 5-238.

Figure 5-238



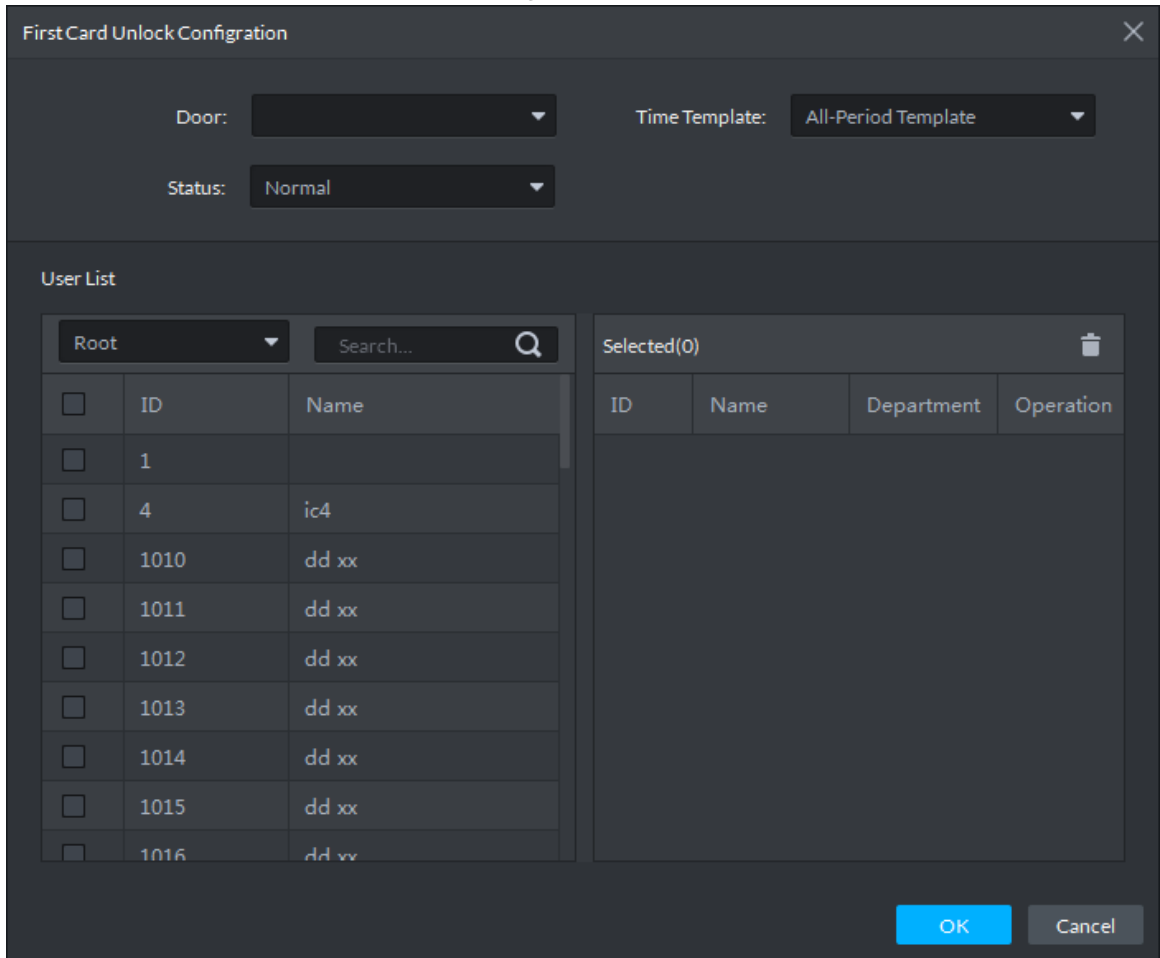
Step 3 Click the First Card Unlock tab.

The **First Card Unlock** interface is displayed.

Step 4 Click **Add**.

The **First Card Unlock Configuration** interface is displayed. See Figure 5-239.

Figure 5-239



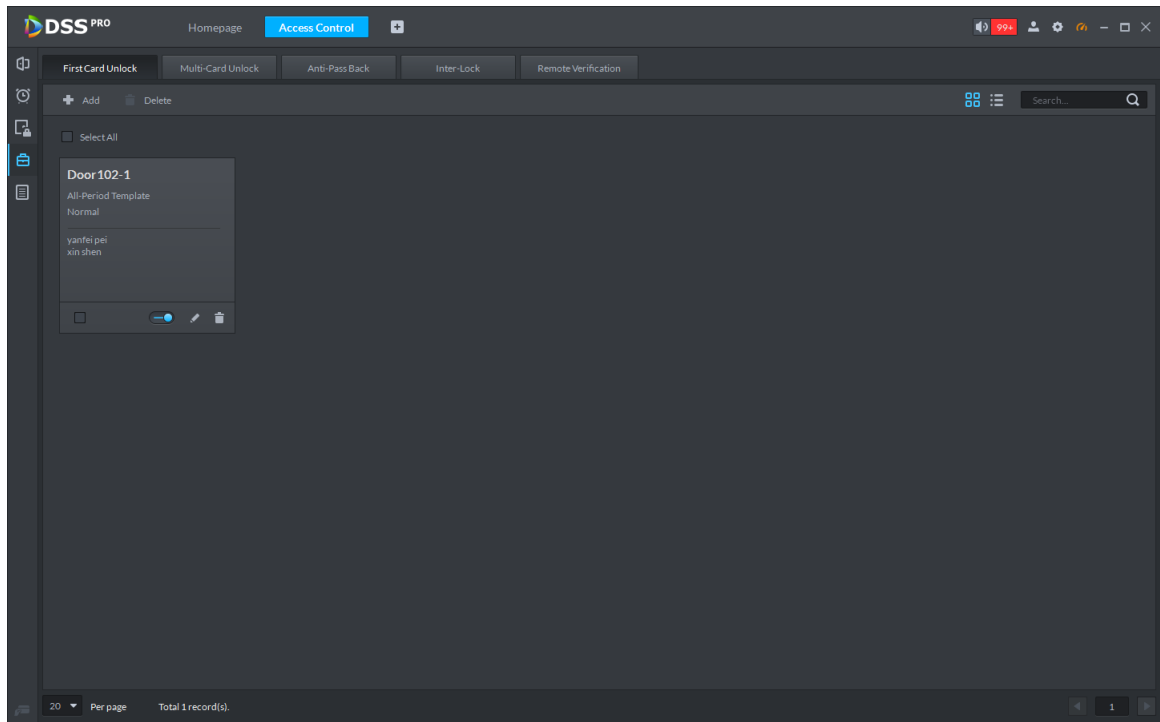
Step 5 Configure the First Card Unlock parameters and click **OK**. For details of the parameters, see Table 5-39.

Step 6 The system displays the First Card Unlock information. See Figure 5-240. First Card Unlock is enabled by default.

Table 5-39

Parameter	Description
Door	You can select the target access control channel to configure the first card unlock.
Time Template	First Card Unlock is valid in the time period of the selected time template.
Status	After First Card Unlock is enabled, the door is in either the Normal mode or Always Open mode.
User	You can select the user to hold the first card. Supports selecting a number of users to hold first cards. Any one of them swiping the first card means first card unlock is done.

Figure 5-240



Step 7 Click .

Step 8 The icon changing into  indicates First Card Unlock is enabled.

5.17.6 Multi-Card Unlock

In this mode, multiple groups of users have to swipe cards for an access control channel in an established sequence to unlock the door.

NOTE

- One group can have up to 64 users.
- With Multi-Card Unlock enabled for an access control channel, it supports up to four groups of users being on site at the same time for verification. The total number of users can be 64 at most, with up to five valid users.

Step 1 On the **Access Control** interface, click .

The **Advanced Function** interface is displayed.

Step 2 Click the **Multi-Card Unlock** tab.

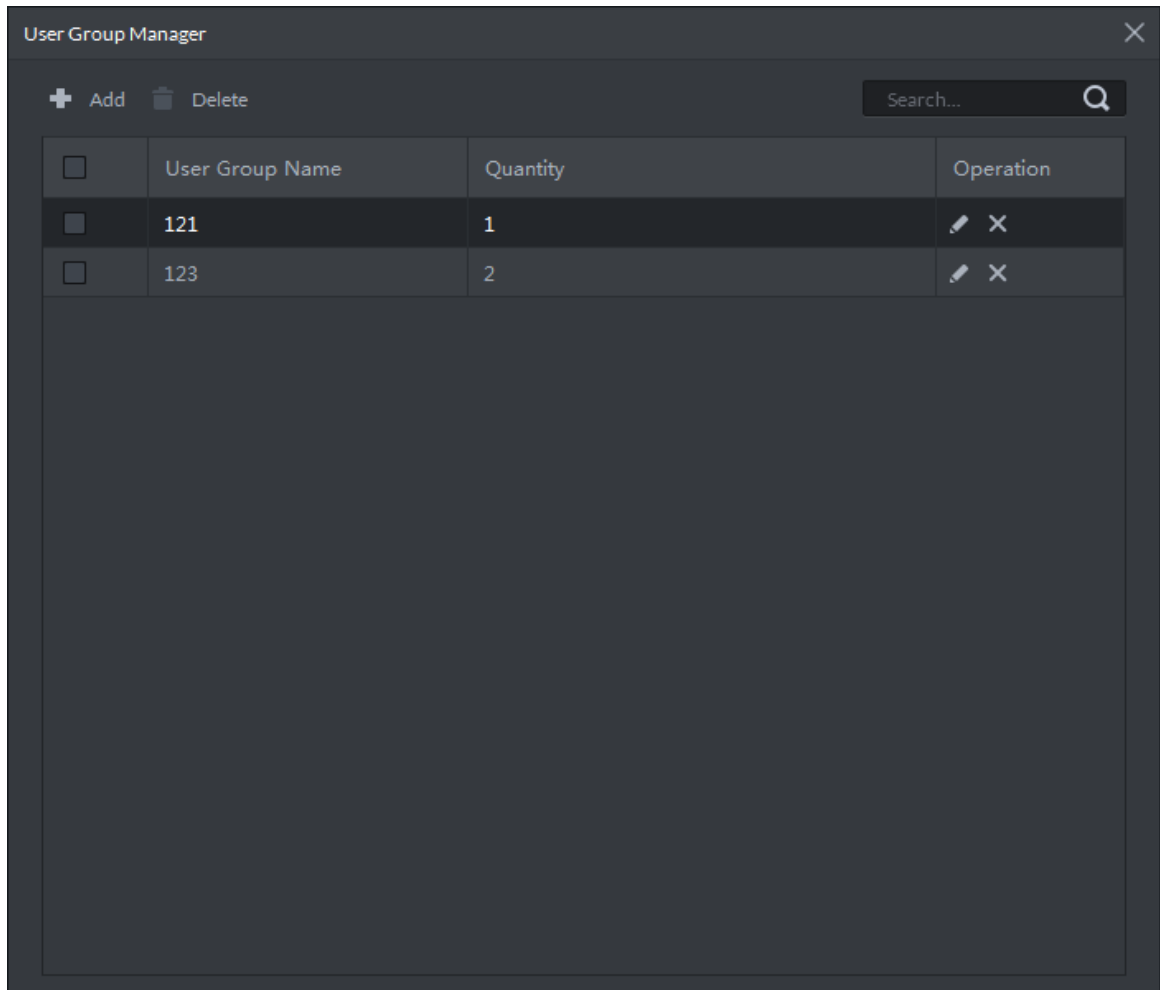
The **Multi-Card Unlock** interface is displayed.

Step 3 Add user group.

1) Click **Person Group**.

The **User Group Manager** interface is displayed. See Figure 5-241.

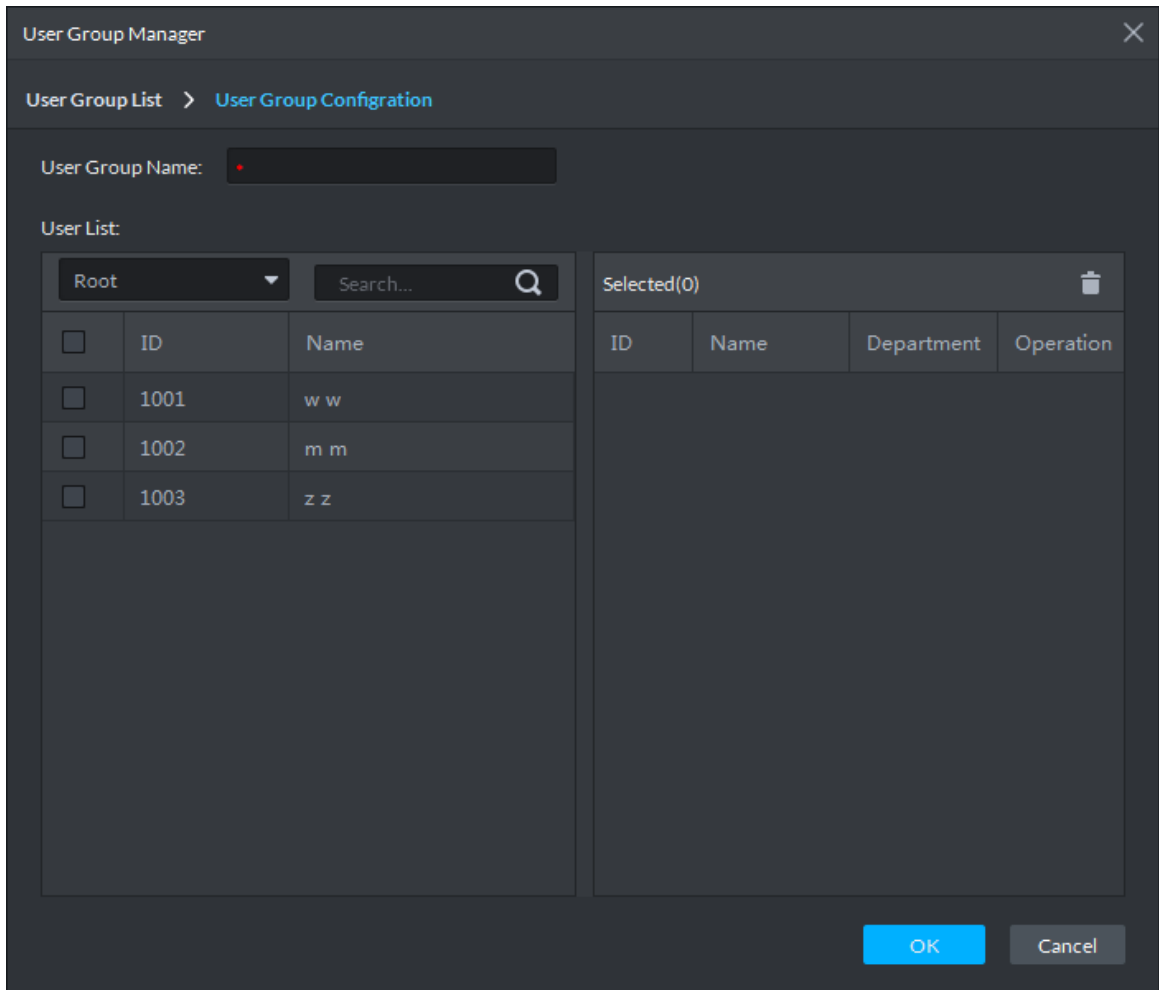
Figure 5-241




2) Click **Add**.

The **User Group Manager** interface is displayed. See Figure 5-242.

Figure 5-242



- 3) Set up **User Group Name**. Select users from **User List** and click **OK**. You can select up to 64 users.
The system displays the user group information.

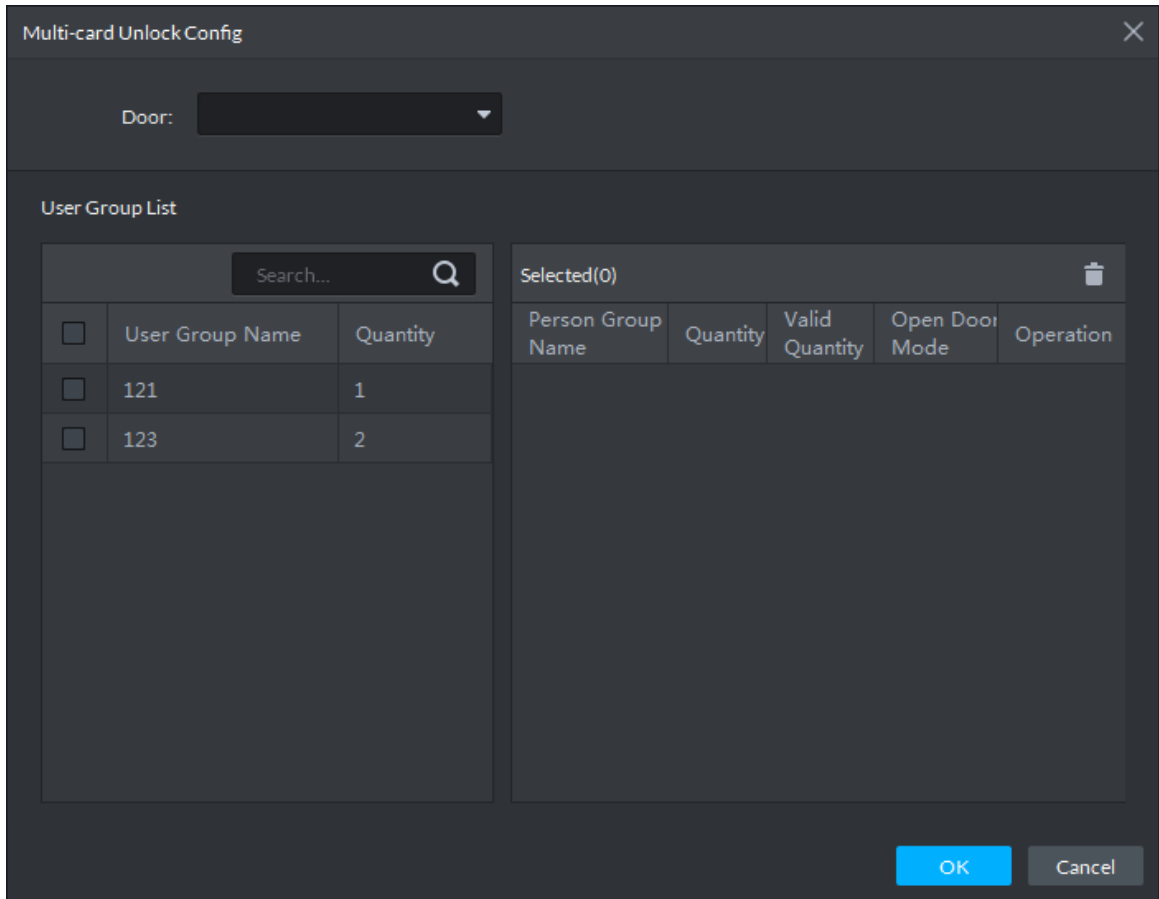
- 4) Click  in the upper right corner of the **User Group Manager** interface.

Step 4 Config Multi-Card Unlock.

- 1) Click **Add**.

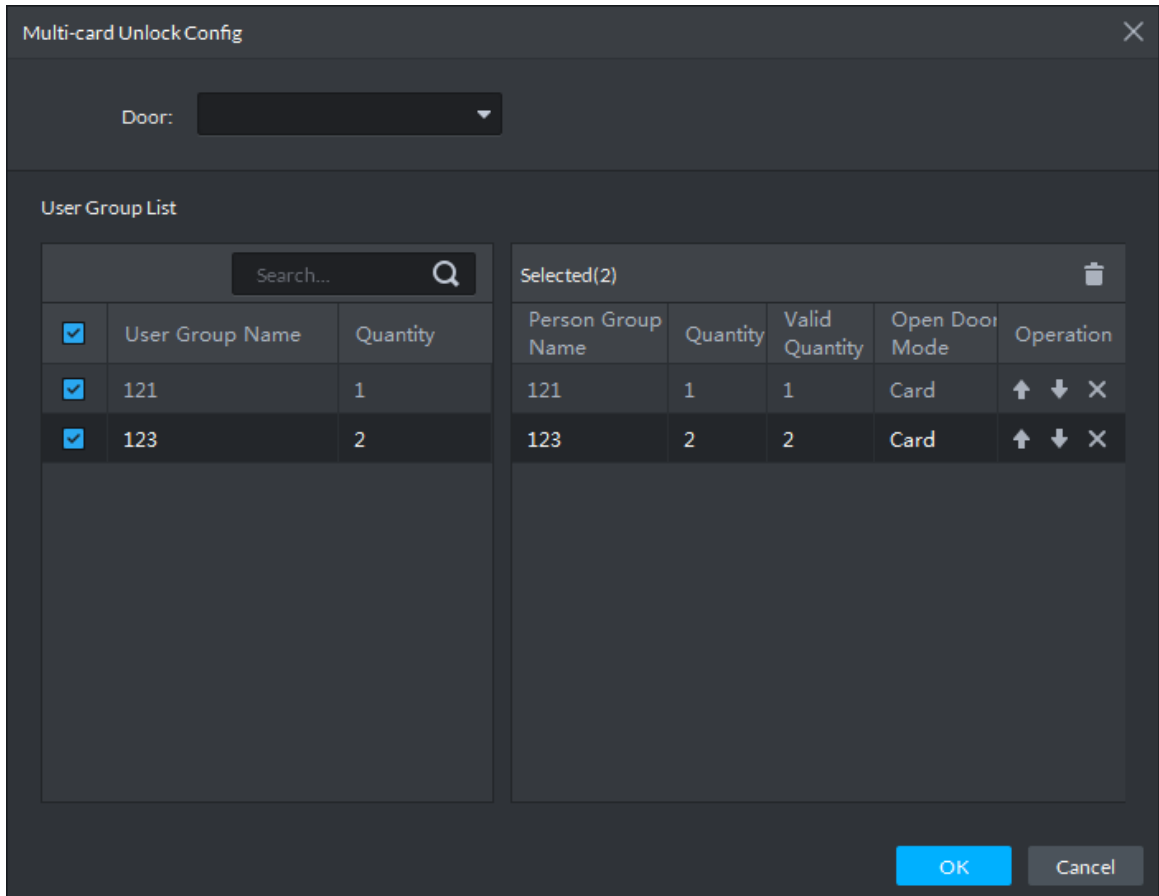
The **Multi-card Unlock Config** interface is displayed. See Figure 5-243.

Figure 5-243



- 2) Select the door to set up Multi-Card Unlock.
- 3) Select the user group. You can select up to four groups.
The system displays the user group information. See Figure 5-244.

Figure 5-244





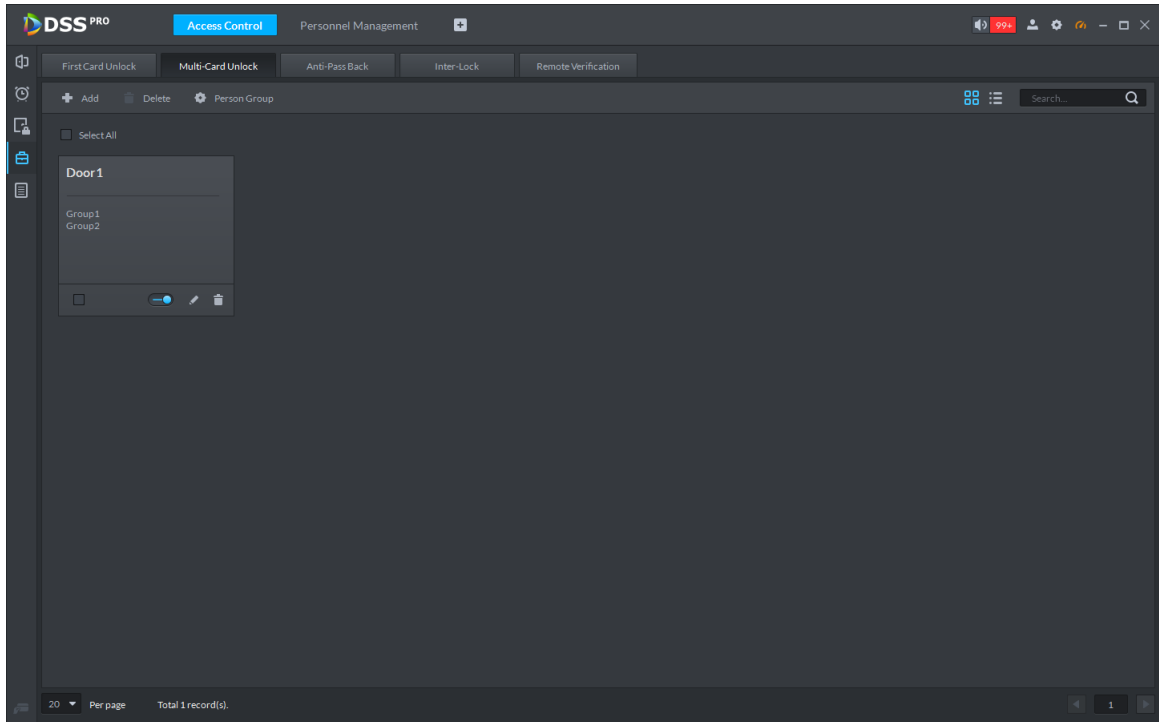

- 4) Fill in the **Valid Quantity** for each group to be on site and the **Open Door Mode**.
 Click  or  to adjust the user sequence for each group to unlock the door.
 The valid quantity refers to the number of users in each group that must be on site to swipe their cards.
- 5) Click **OK**.
 The system displays the Multi-Card Unlock information. See Figure 5-245.

Figure 5-245



6) Click .

Step 5 The icon changing into  indicates Multi-Card Unlock is enabled.

5.17.7 Anti-Pass Back

The Anti-Pass Back feature refers to that a user entering through a door group by verification must exit from the same door group by verification. One entry swipe must have a matching exit swipe. A non-verified user following a verified one to enter cannot pass the verification when taking exit; a non-verified user following a verified one to exit cannot pass verification when taking entry again. The door cannot be unlocked by swiping cards until the reset period on the A&C Central Controller expires.

Step 1 On the **Access Control** interface, click .

The **Advanced Function** interface is displayed.

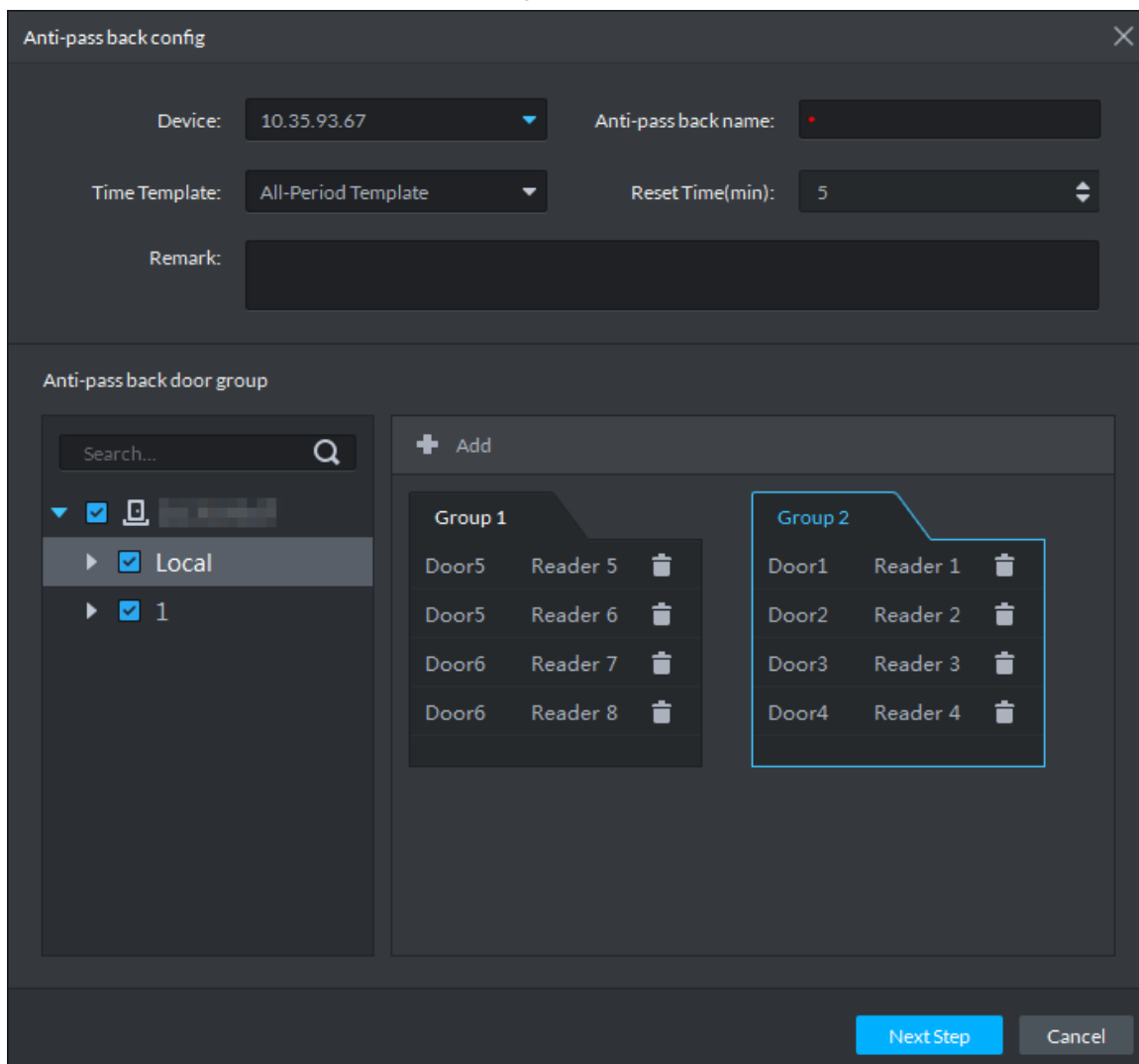
Step 2 Click the **Anti-Pass Back** tab.

The **Anti-Pass Back** interface is displayed.

Step 3 Click **Add**.

The **Anti-pass back config** interface is displayed. See Figure 5-246.

Figure 5-246



Step 4 Configure the anti-pass back parameters and click **Next Step**. For details of the parameters, see Table 5-40.

Step 5 The system displays the user selection information. See Figure 5-247.

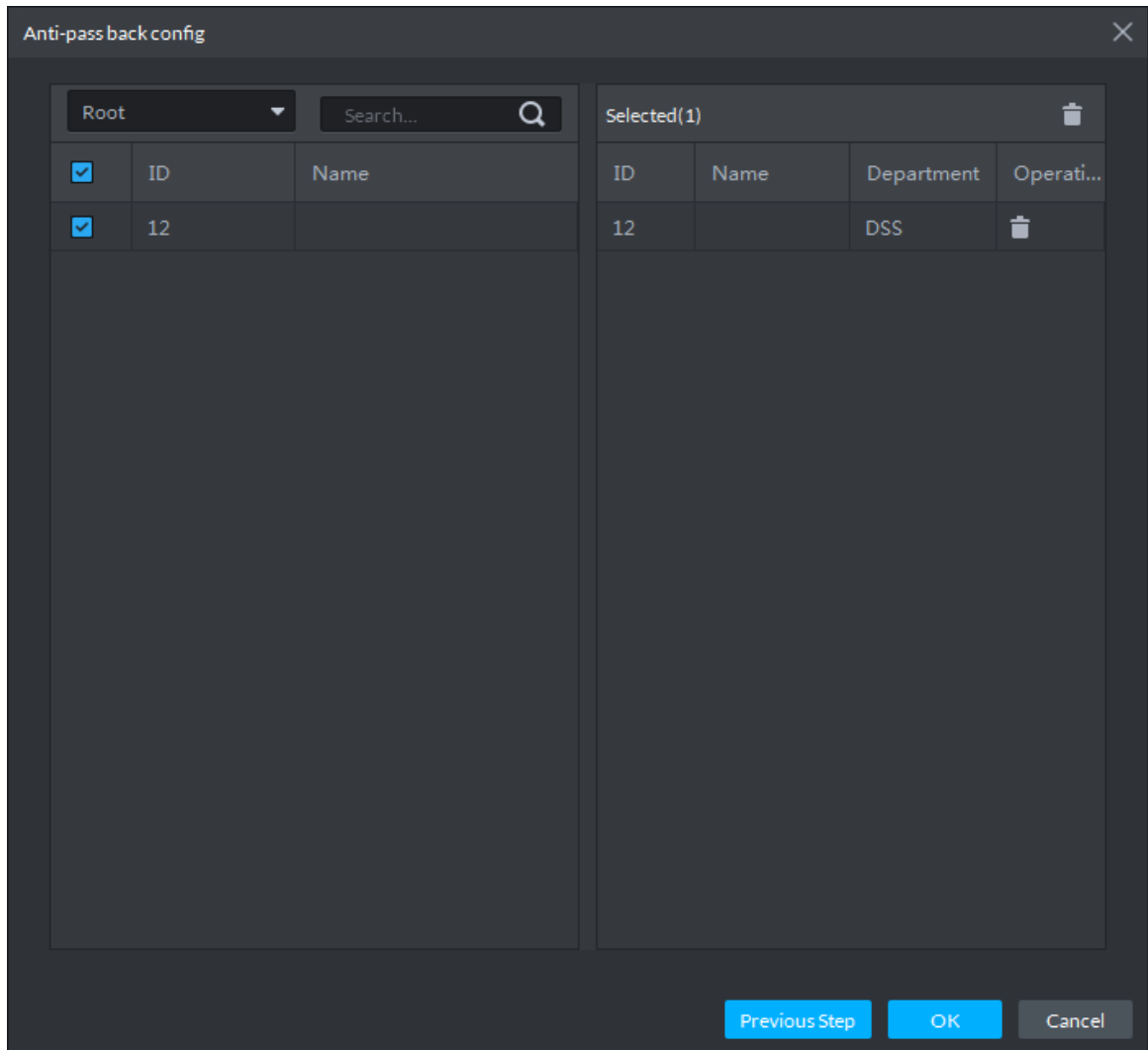
Table 5-40

Parameter	Description
Device	You can select the device to configure the anti-pass back rules.
Anti-pass back name	You can customize the name of an anti-pass back rule.
Reset Time(min)	The access card becomes invalid if an anti-pass back rule is violated. The reset time is the invalidity duration.
Time Template	You can select the time periods to implement the anti-pass back rules.
Remark	Note info.
Group X NOTE X is a number.	The group sequence here is the sequence for swiping cards. You can add up to 16 readers for each group. Each group can swipe cards on any of the readers.

NOTE

When the selected device is a multi-door controller, you must set up these parameters.

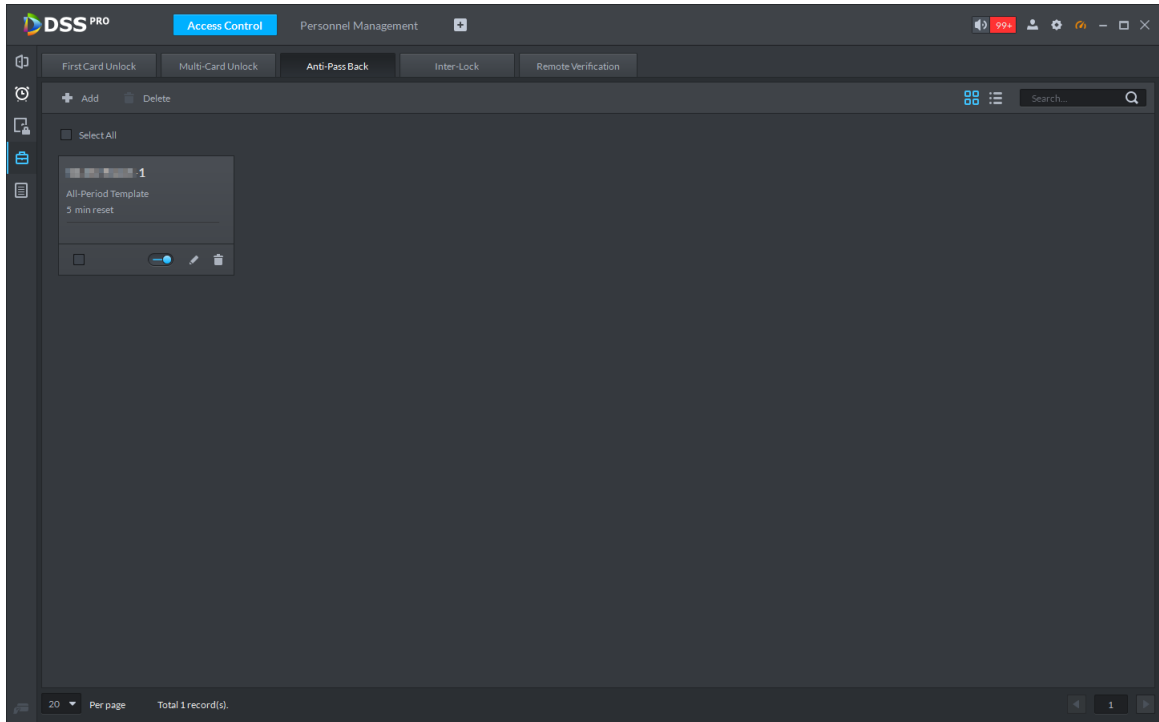
Figure 5-247




Step 6 Select users and click **OK**.

Step 7 The system displays the anti-pass back information. See Figure 5-248.

Figure 5-248



Step 8 Click .

Step 9 The icon changing into  indicates Anti-Pass Back is enabled.

5.17.8 Inter-door Lock

A regular access controller employs inter-lock within the group. When one of the access control channels is opened, other corresponding channels are closed. To open one of the access control channels (under normal access control), other corresponding access control channels must be closed; otherwise the door cannot be unlocked. The A&C Central Controller employs inter-group inter-lock, where the access control channels are independent of the inter-lock and can all be opened. However, whenever an access control channel in a group is opened, no channels of other groups can be opened. The configuration steps in this chapter are for an A&C Central Controller.

Step 1 On the **Access Control** interface, click .

The **Advanced Function** interface is displayed.

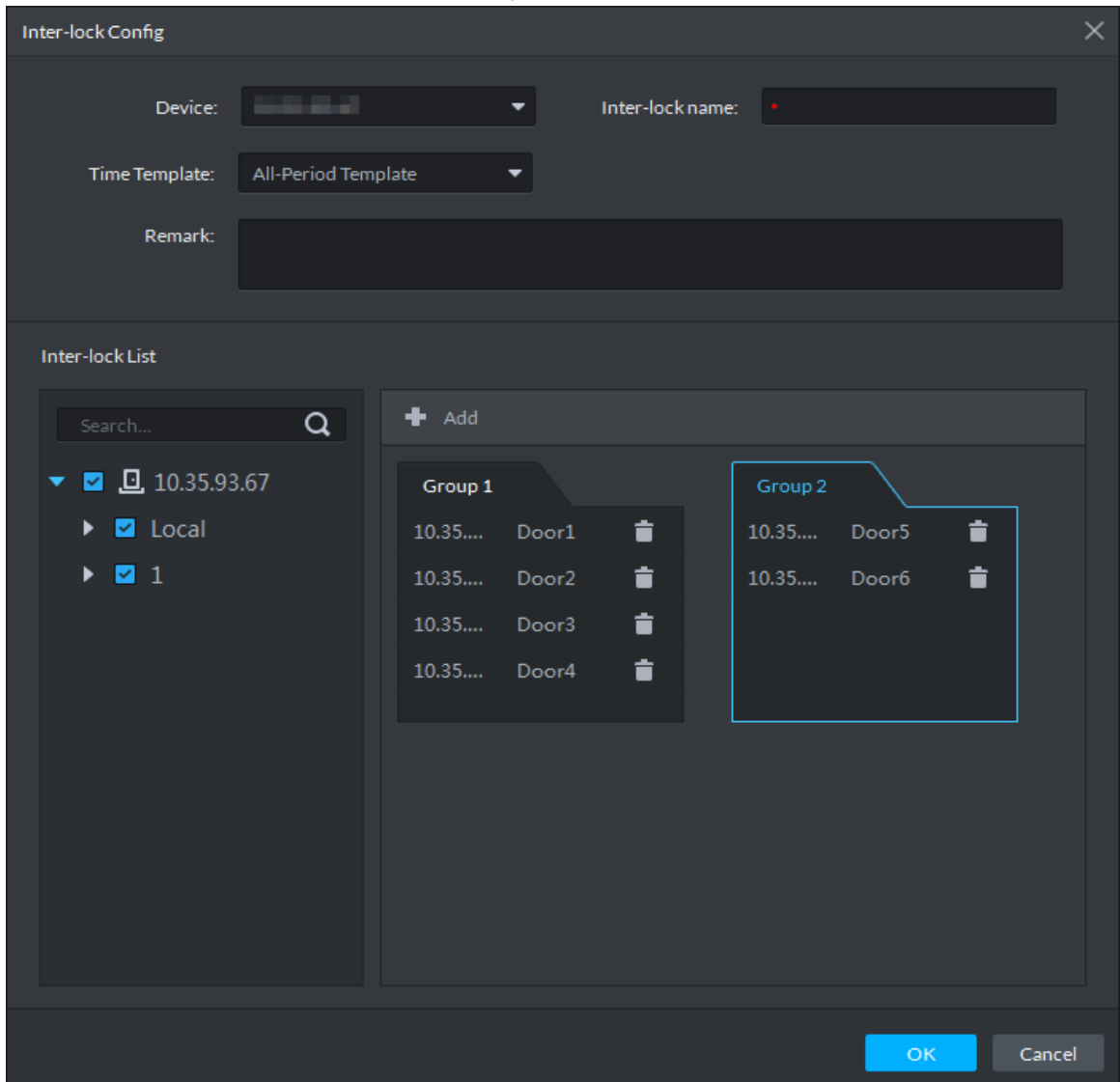
Step 2 Click the **Inter-Lock** tab.

The **Inter-Lock** interface is displayed.

Step 3 Click **Add**.

The **Inter-lock Config** interface is displayed. See Figure 5-249.

Figure 5-249



Step 4 Configure inter-lock parameters and click **OK**. For details of the parameters, see Table 5-41.

Step 5 The system displays the inter-lock information. See Figure 5-250.

Table 5-41



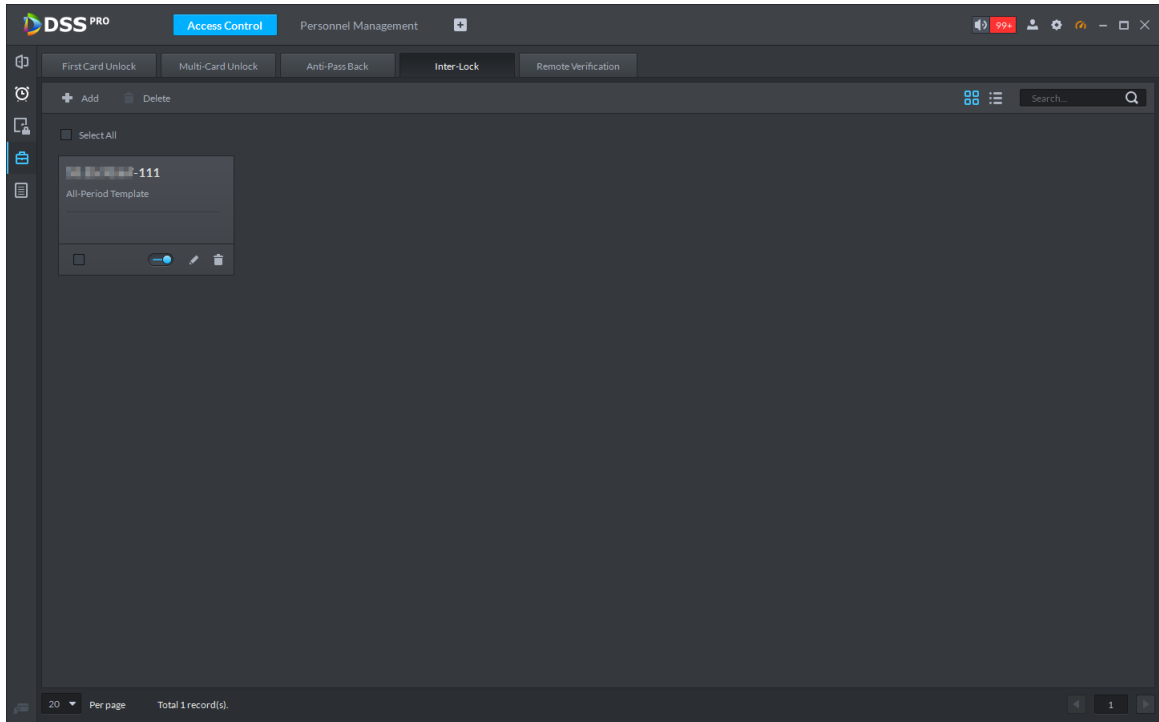
Parameter	Description	
Device	You can select the device to set up inter-lock.	
Inter-lock name	You can customize the name of the inter-lock rule.	
Time Template	You can select the time period to implement inter-lock.	 NOTE When the selected device is a multi-door controller, you must set up these parameters.
Remark	Note info.	
Group X  NOTE X is a number.	You can set up inter-lock across different door groups. If a door in Group 1 is opened, no doors can be opened in Group 2 until all doors in Group 1 are closed. Supports up to 16 door groups, with up to 16 doors in each group.	

Figure 5-250



Step 6 Click .

Step 7 The icon changing into  indicates Inter-Lock is enabled.

5.17.9 Remote Verification

For devices with remote verification, when users unlock the doors with card, fingerprint, or password in the specified time period, it must be confirmed on the platform client before the access controller can be opened.

Step 1 On the **Access Control** interface, click .

The **Advanced Function** interface is displayed.

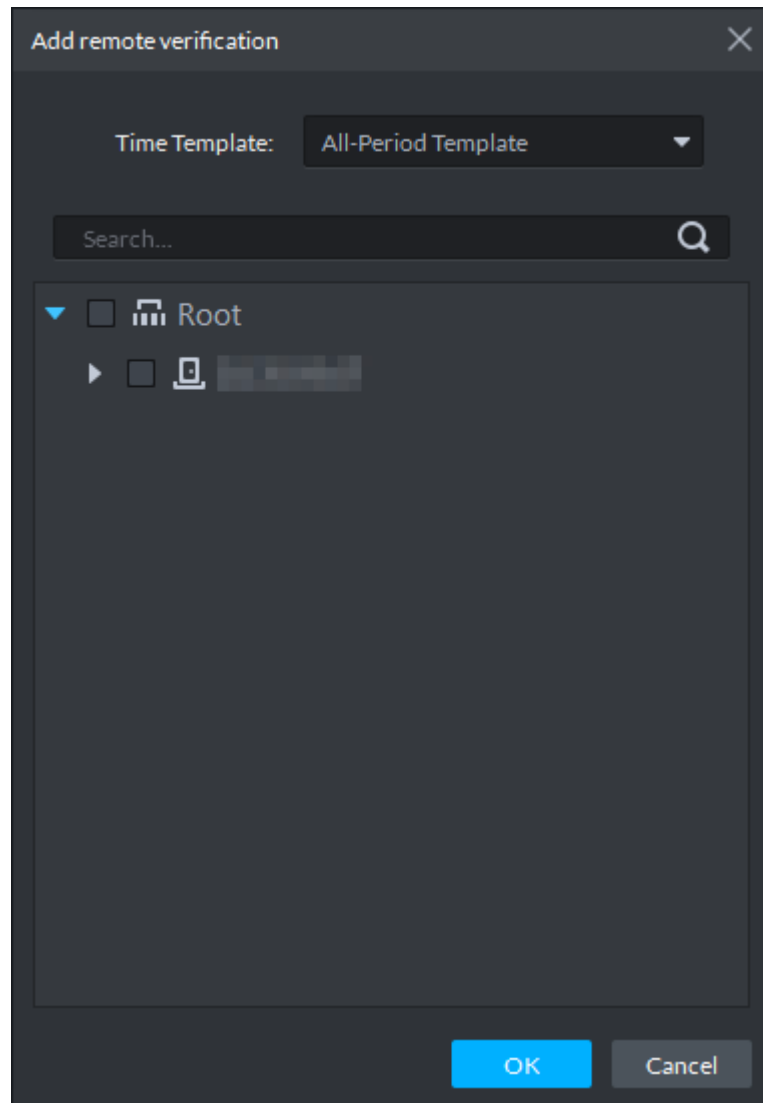
Step 2 Click the Remote Verification tab.

The **Remote Verification** interface is displayed.

Step 3 Click **Add**.

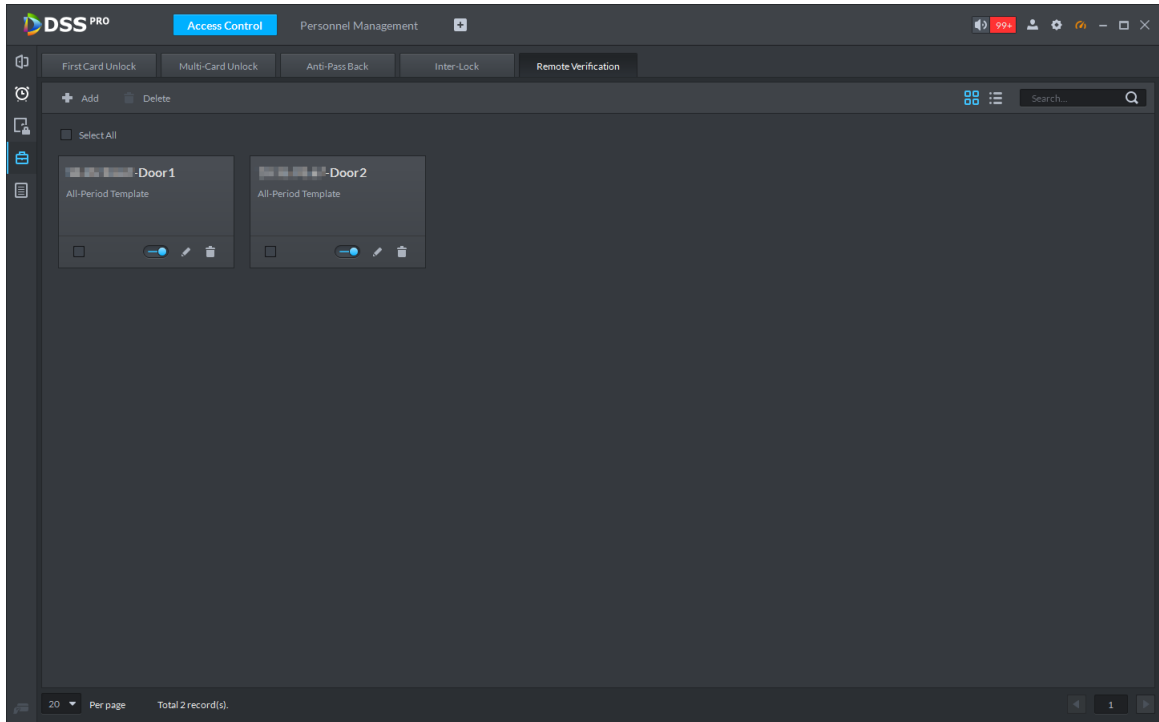
The **Add remote verification** interface is displayed. See Figure 5-251.


Figure 5-251



- Step 4 Select **Time Template** and access control channel, and click **OK**.
The system displays the remote verification information. See Figure 5-252.

Figure 5-252



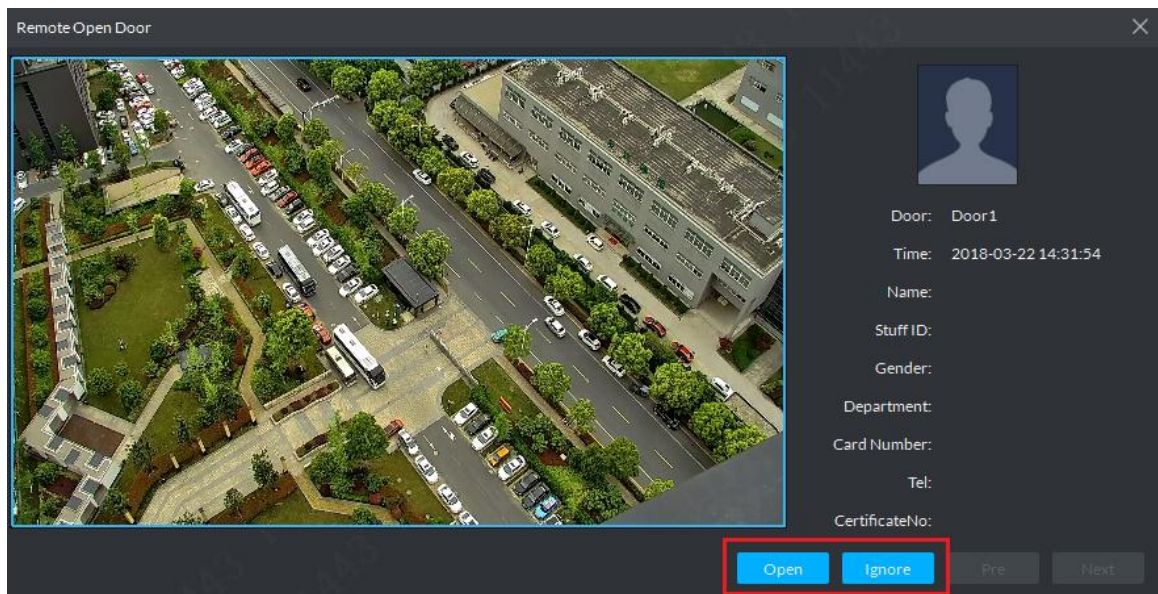
Step 5 Click .

The icon changing into  indicates First Card Unlock is enabled.

Step 6 After the setup, door unlocking by card, fingerprint, or password that takes place in the corresponding access control channel triggers a popup on the client. See Figure 5-253.

Step 7 You can choose to unlock the door or ignore it by clicking the corresponding button, and the popup automatically disappears.

Figure 5-253



5.17.10 Access Control Log Search

You can view the access control log by the following two methods:



- Click  on the console to jump to the access control log search interface, and set up search criteria to search for corresponding log info. See Figure 5-254 and Figure 5-255. Click Export in the top right corner of the interface and save the exported log to a local disk.
- Go to the Access Control module from the Homepage on the client, and click  to go to the access control log search interface. See Figure 5-255. Click **Export** in the top right corner of the interface and save the exported log to a local disk.

Figure 5-254

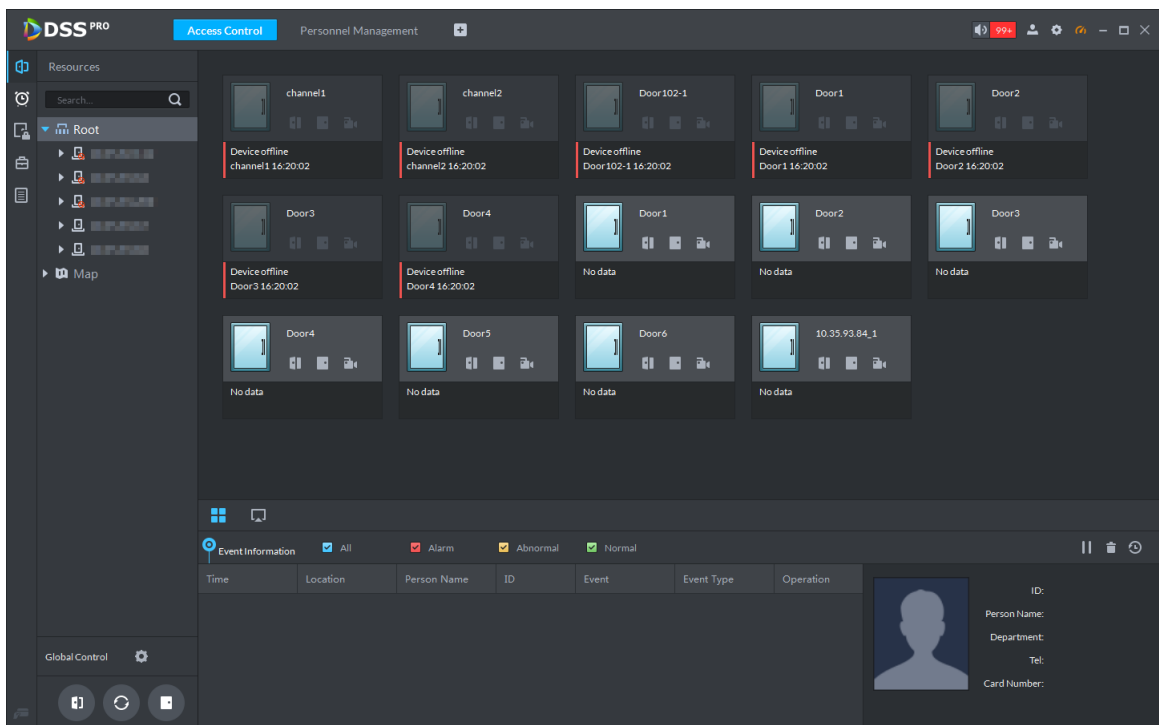


Figure 5-255

Time	ID	Card No.	Device	Door	Event	Person Name	Status	Operation
2018-12-03 21:46:25					Normal Lock			
2018-12-03 21:46:23					Remote Open(VTH/...			
2018-12-03 21:46:23					Normal Unlock			
2018-12-03 20:50:52					Normal Lock			
2018-12-03 20:50:48					Normal Unlock			
2018-12-03 20:50:45	27916	982F232A			Remote Verification	yanfei pei	Out	
2018-12-03 20:50:20					Normal Lock			
2018-12-03 20:50:16	36545	981DB165			Valid Swipe	xin shen	Out	
2018-12-03 20:50:16	27916	982F232A			Valid Swipe	yanfei pei	Out	
2018-12-03 20:50:16					Normal Unlock			
2018-12-03 20:50:12	36545	981DB165			Non-first card (daily)	xin shen	Out	
2018-12-03 20:49:51					Normal Lock			
2018-12-03 20:49:47	27916	982F232A			Valid Swipe	yanfei pei	Out	
2018-12-03 20:49:47					Normal Unlock			
2018-12-03 20:40:12					Normal Lock			
2018-12-03 20:40:08					Normal Unlock			
2018-12-03 18:46:40					Normal Lock			
2018-12-03 18:46:39					Normal Lock			
2018-12-03 18:46:38					Remote Open(VTH/...			
2018-12-03 18:46:38					Normal Unlock			

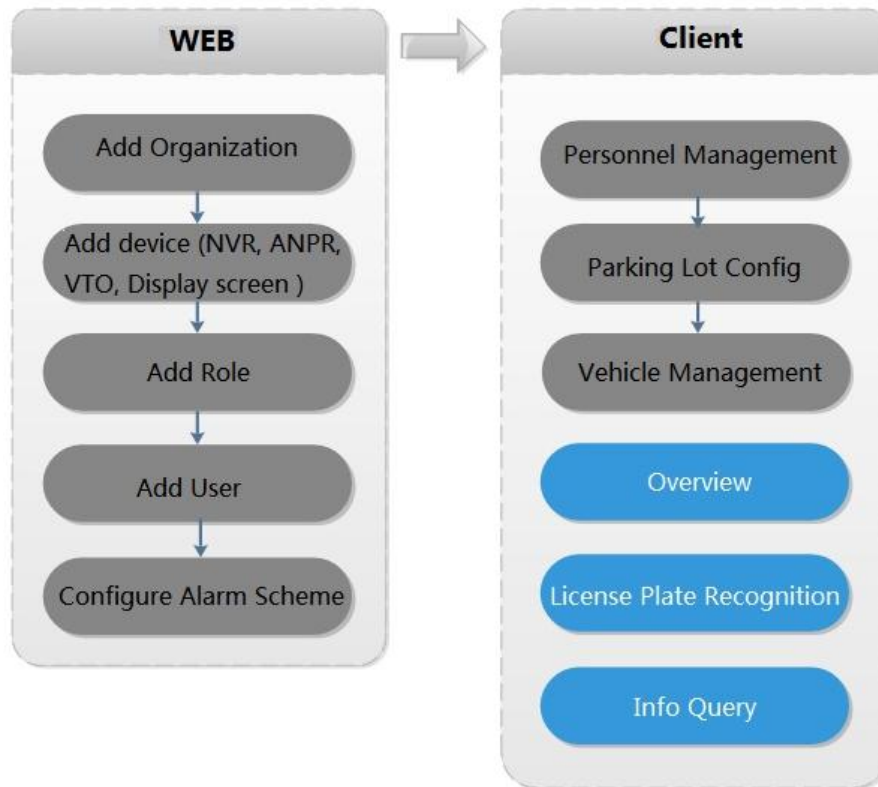
5.18 Entrance

Integrate entrance module, realize entrance and exit recognition barrier unlock, remaining parking space info display, blacklist vehicle alarm, message search and other functions. When it fails to recognize vehicle by entrance, then it can unlock by VTO password, swipe card to unlock, fingerprint unlock and unlock by face recognition to open barrier. The supported VTO unlock mode is based on the performance of accessed VTO.

5.18.1 Preparation before Operation

The flow diagram of entrance is shown in Figure 5-256.

Figure 5-256



5.18.2 Adding Device



If users want to use the new device, it needs to select **User Management > User** on WEB, enter **User** interface, and edit user to make him or her have access to device, otherwise the device cannot be used.

5.18.2.1 Adding ANPR Camera

ANPR device is used to recognize license plate and vehicle info.



- Please make sure ANPR device is fully configured before adding, for example, complete initialization config, and modify IP etc.
- The device category is **ANPR Device**.

Step 1 Add encoder ANPR, for more details, refer to **4.6 Adding Device**.
Modify device type.

1. On the Device interface of Web, click  of added ANPR device. See Figure 5-257. The device displays the interface of Edit Device. See Figure 5-258.

Figure 5-257

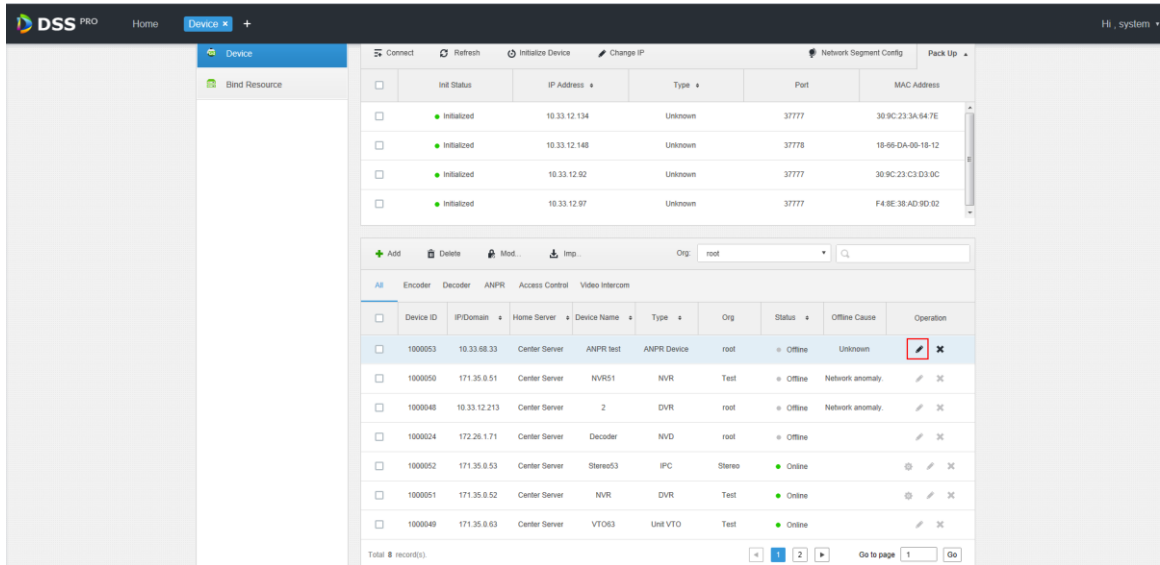
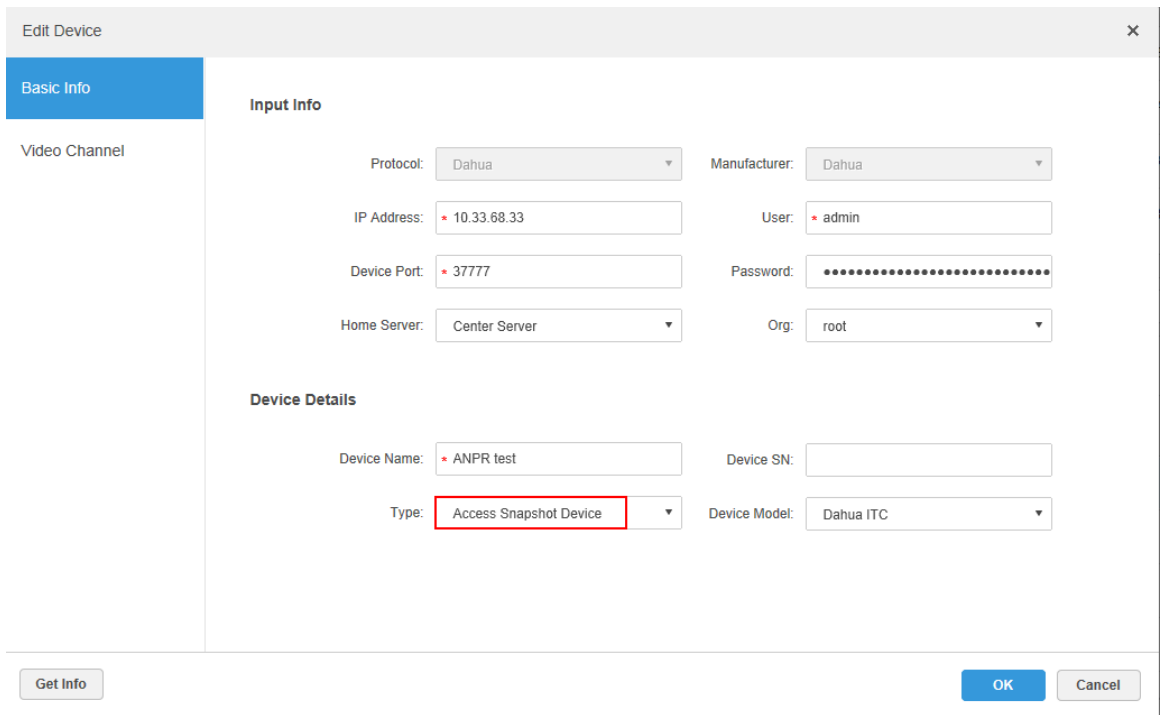


Figure 5-258



2. Set type as **Access Snapshot Device**.
3. Click **OK** and complete config.

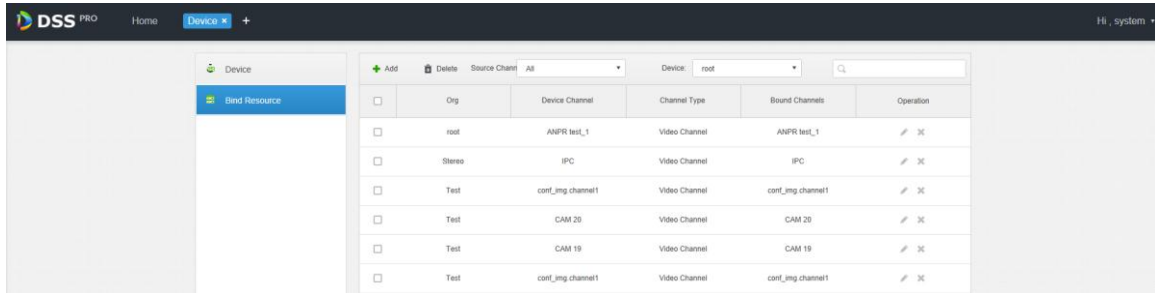
Step 2 Bind Resource

If there is camera installed at the entrance to view entrance panoramic picture, support binding ANPR and video camera. License plate recognition can view realtime video image. You can view video of bound camera.

1. Click **Bind Resource** tab on the interface of **Device**.

The system displays the interface of **Bind Resource**. See Figure 5-259.

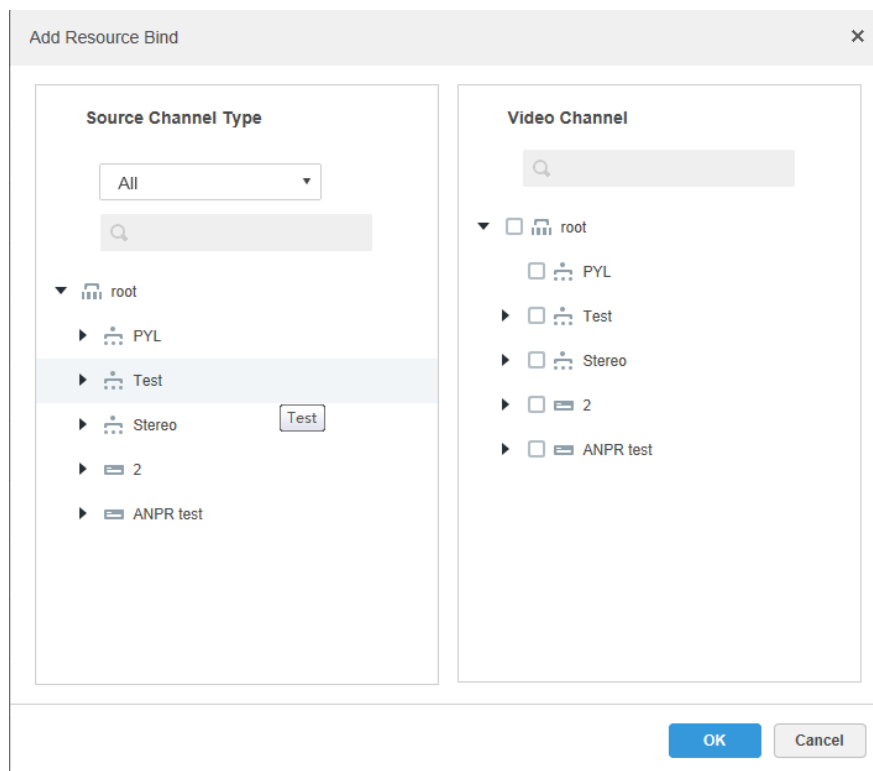
Figure 5-259



2. Click Add.

The system displays the interface of **Add Resource Bind**. See Figure 5-260.

Figure 5-260



3. Select ANPR from the list of **Source Channel Type**, and select video camera from the list of **Video Channel**.

4. Click **OK** and complete config.

5.18.2.2 Adding NVR

NVR is used to connect ANPR and DSS Pro, and realize data transmission.



- Please make sure NVR is fully configured before adding. For example, modify IP address, add remote device.
- NVR device category is Encoder.

Step 1 Add encoder **NVR**, for detailed operation, refer to **4.6 Adding Device**.

Step 2 Modify device capacity set.

1. Click  of added NVR on the **Device** interface on Web. See Figure 5-261.

The system displays the interface of **Edit Device**. See Figure 5-262.

Figure 5-261

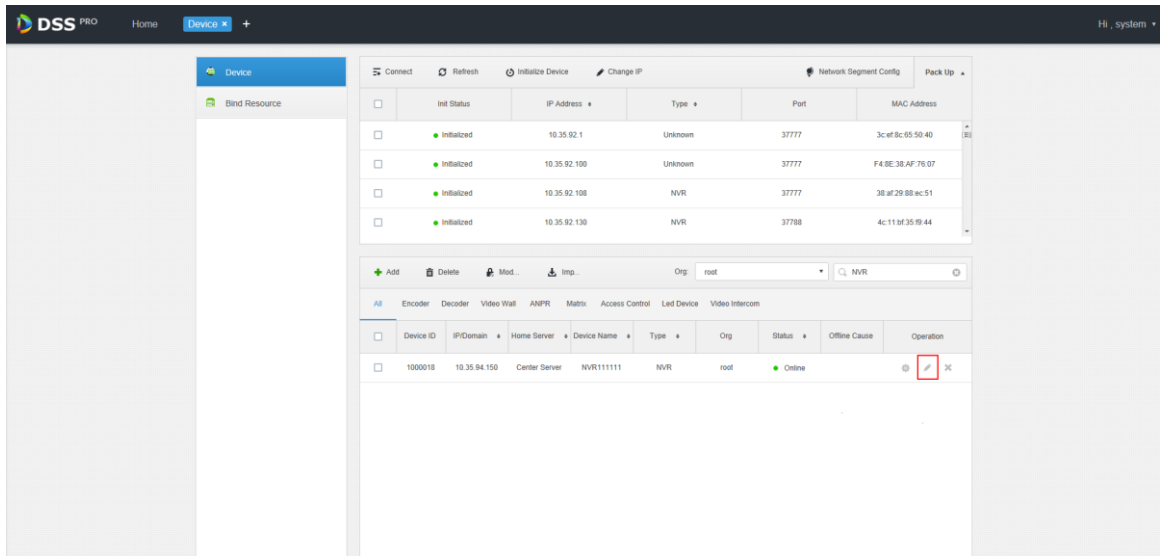
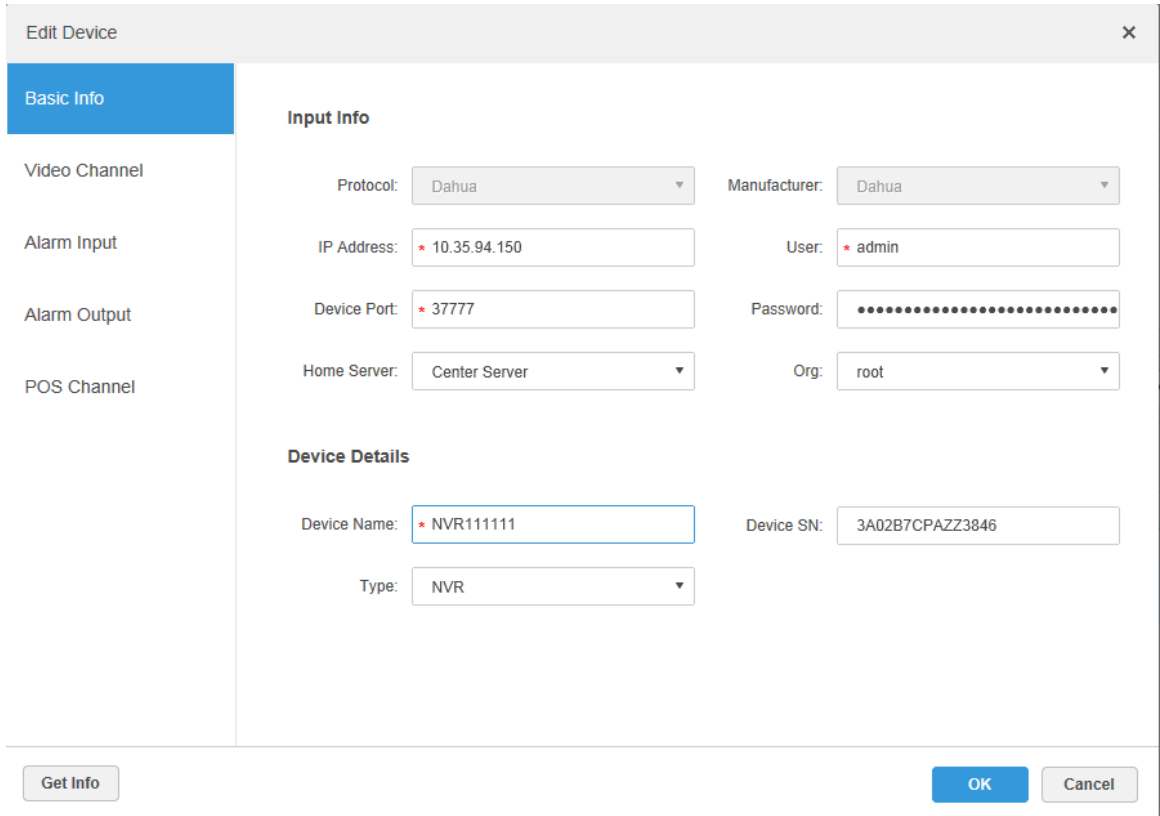


Figure 5-262



2. Click the tab of Video Channel, set features as **Access Snapshot**. See Figure 5-263.
The feature of all the bound ANPR device channel is set as **Access Snapshot**.

Figure 5-263

Basic Info		Channel Amount: * 2	Stream Type: Sub Strea...	<input checked="" type="checkbox"/> Zero Channel Code	
Video Channel	Name	Camera Type	Features	SN	KeyBoard Code
Alarm Input	* 毛住棚22#	Fixed Camera	Electric Focus, Acces...		
Alarm Output	* Channel 1	Fixed Camera	Electric Focus: Electric Focus, Access Snapshot		
POS Channel					

Total 2 record(s) |< << 1 / 1 >> >|

Get Info OK Cancel

3. Click **OK** and complete config.

5.18.2.3 Adding VTO

When ANPR fails to recognize vehicle, you can use VTO to recognize people and unlock barrier or call administrator by VTO to unlock barrier remotely.



- Please make sure VTO is completely configured before adding. For example, modify IP address, configure SIP server info, unit enable, building enable etc.
- Unit enable and building enable of VTO are required to be in accordance with the platform; otherwise it will fail to add VTO.

For more details of adding VTO, refer to 4.6 Adding Device.

5.18.2.4 Adding Remaining Parking Screen


Collect the data of vehicle entrance and exit from ANPR camera; make statistics of parking space quantity, then parking space quantity will be displayed on the screen. Currently the supported brands of remaining parking screen include Dahua and Jiuzhou.



- Please make sure remaining parking space is completely configured before adding. For example, modify IP address.
- The device category of remaining parking screen is **LED Device**.

Step 1 Add remaining parking screen, for detailed operation, refer to **4.6 Adding Device**.

Step 2 Modify the information of remaining parking screen.

1. Click  of added remaining parking screen on the Device interface. See Figure 5-264.

The system displays the interface of Edit LED Device. See Figure 5-265

Figure 5-264

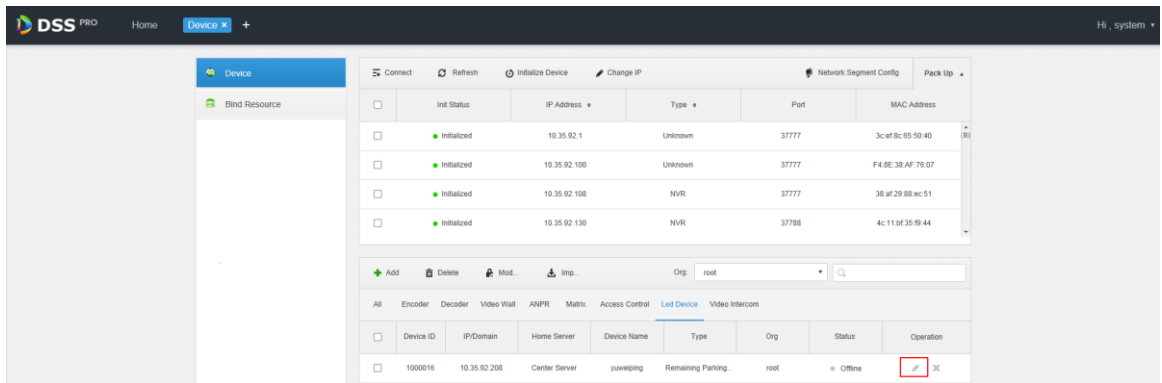
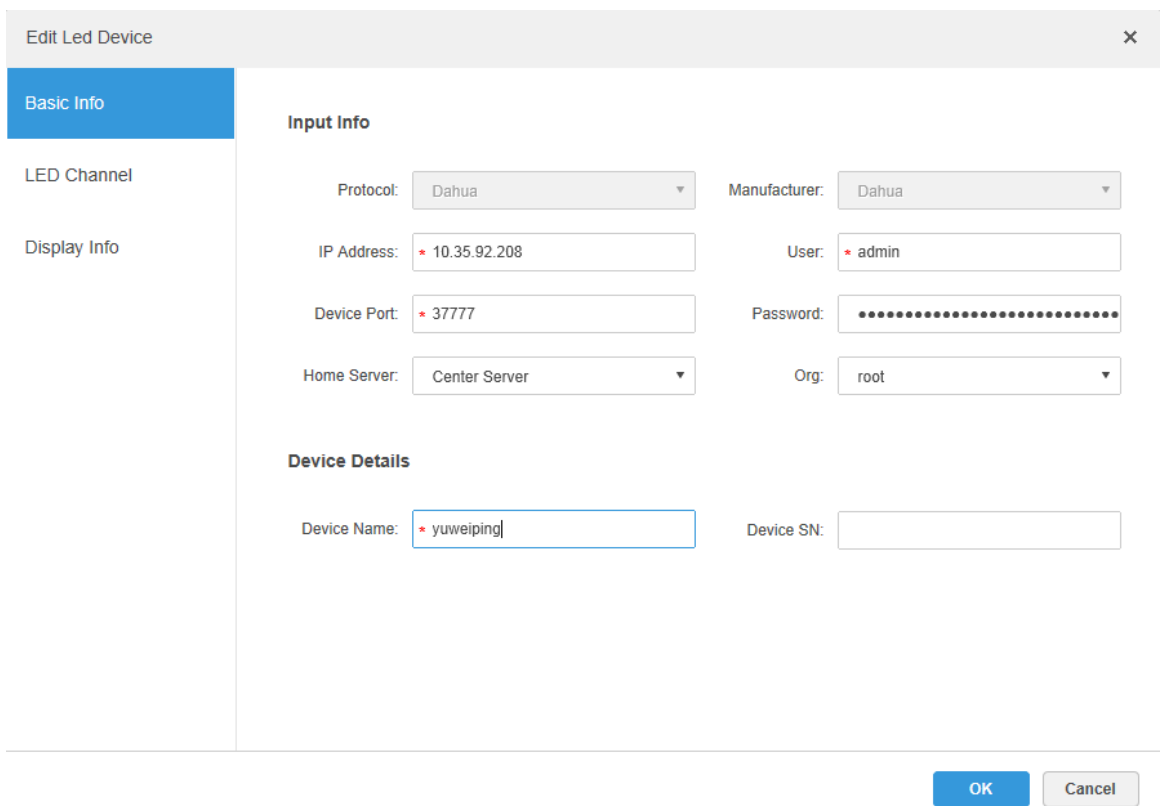
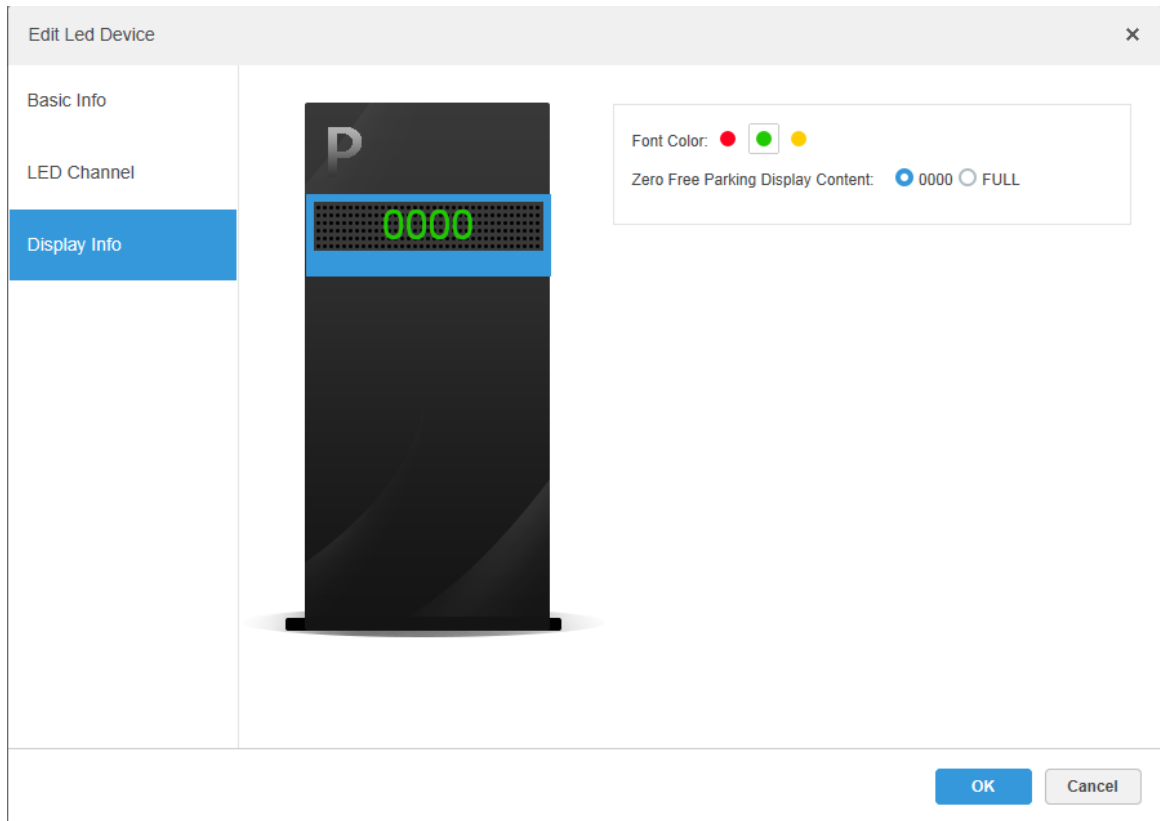


Figure 5-265



2. Click the tab of **Display Info**, select **Font Color** and **Zero Free Parking Display Content**. See Figure 5-266.
Font color is the color of the words displayed on the screen; Zero free parking display content is the information displayed on the screen when there is no parking space available.
3. Click OK to complete config.

Figure 5-266



5.18.3 Personnel Management

It needs to add personnel and authorize them if you want to realize face recognition unlock by VTO. For detailed operation, refer to **5.16 Personnel Management**

5.18.4 Configuring Alarm Scheme

Related alarm schemes of entrance include:

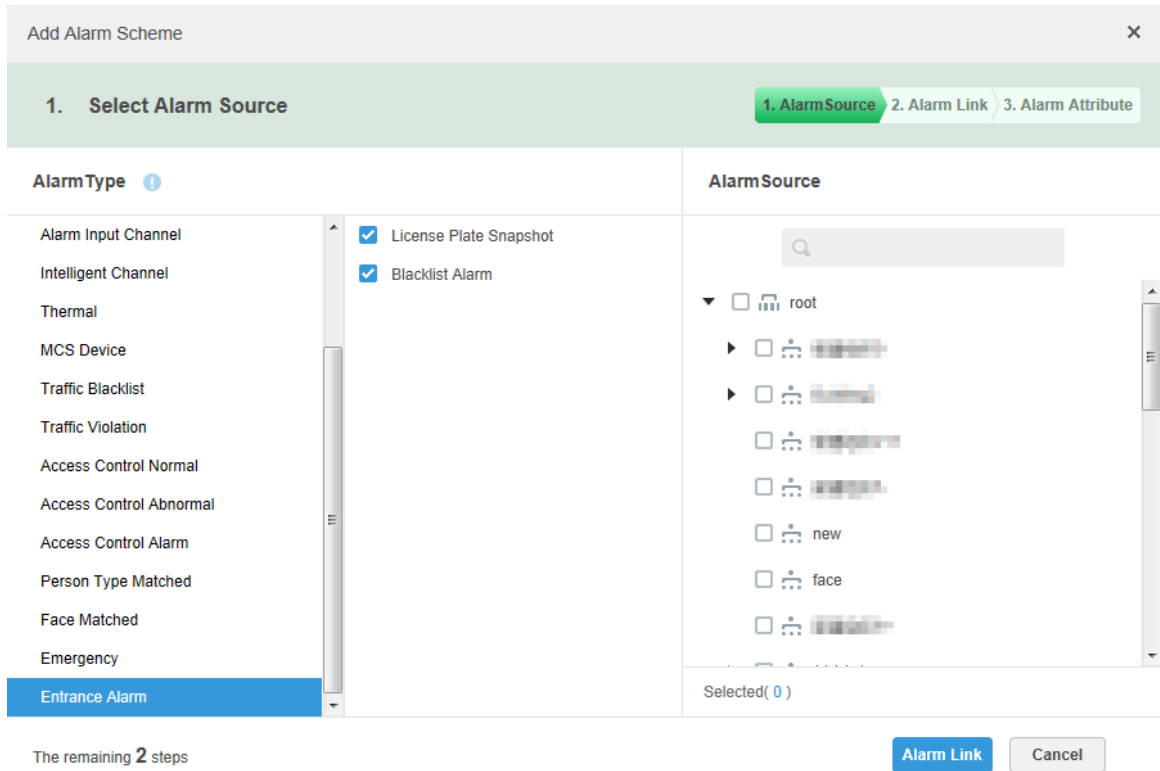
- License plate recognition
When ANPR device recognizes license plate, it will be reported to DSS Pro by NVR, alarm is triggered on DSS Pro, and extract video before and after license plate recognition happens from NVR, save it on the server installed on DSS Pro. Default record time is 20s, 10s before and 10s after alarm is triggered.
- Blacklist Alarm
Mark some plate number as blacklist vehicle, compare the plate number reported by ANPR device with the plate number of blacklist vehicle. It will trigger alarm if it is the plate number of blacklist vehicle.



Refer to **5.18.6 Vehicle Management** for more details.

Add entrance alarm scheme on the **Event** interface of Web. See Figure 5-267. Refer to **4.8 Configuring Event** for more details.

Figure 5-267




5.18.5 Configuring Parking Lot

Generally one parking lot is considered as an area. Parking lot config includes setting parking space quantity, release situation and other information. Bind ANPR device channel and use it to recognize vehicles, bound VTO is used to recognize people.

Step 1 Click  and select **Entrance** on the **Homepage** interface.

The system displays the interface of **Entrance**.

Step 2 Click .

The system displays the interface of **Parking Lot Config**.

Step 3 Configure parking lot information. See Figure 5-268. Refer to Table 5-42 for more parameter details.

Figure 5-268

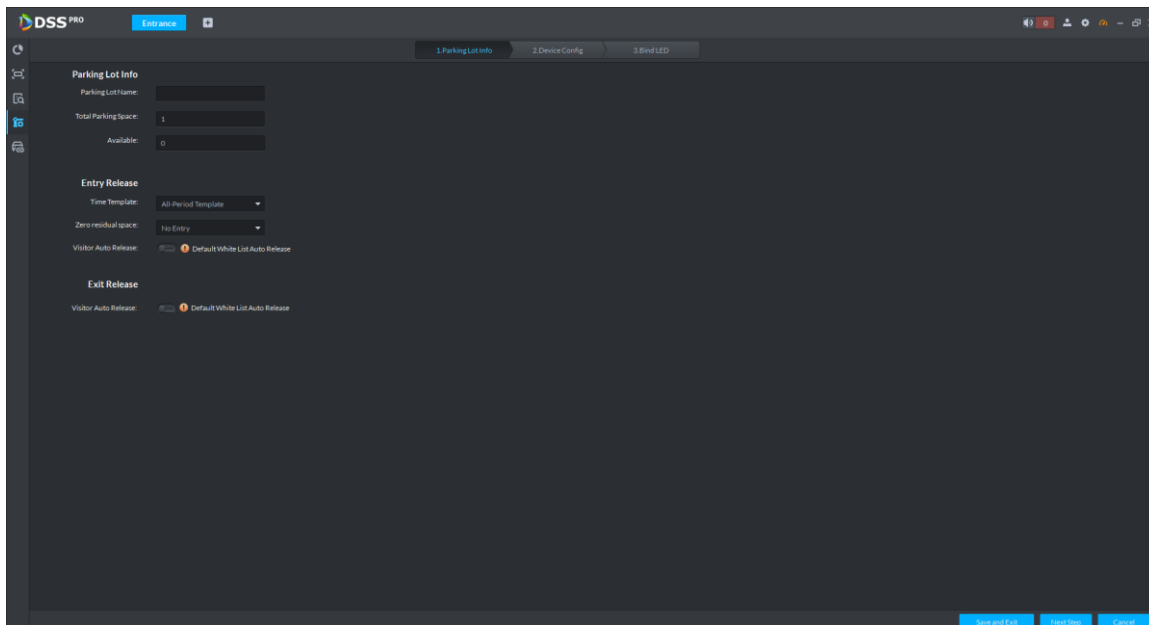









Table 5-42

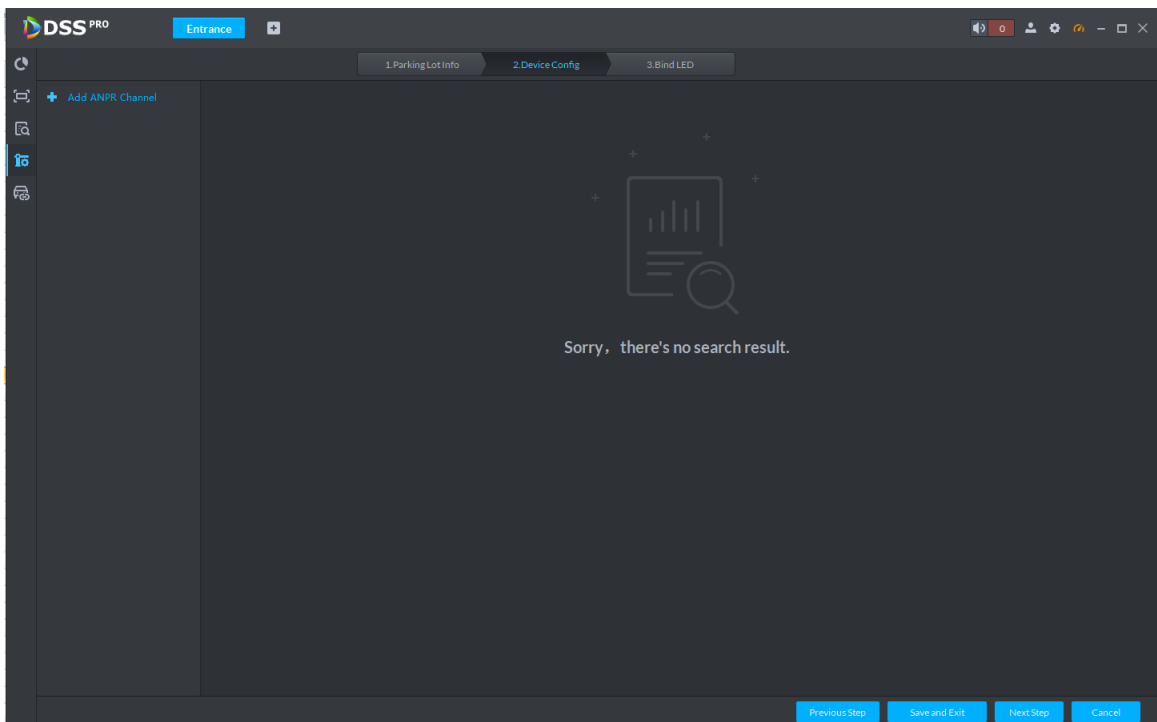
Parameter		Note
Parking lot info	Name	Parking lot name, used to recognize different areas.
	Total parking space	Total available parking space of the area.
	Available	Available parking lot quantity when configuring area.
Entry Release	Time template	Select the time template which conforms to entry release. If default template fails to meet the requirement, you can select Manage Time Template to set custom time template. Default templates include: 1. All-period template: 00:00 to 24:00 daily. 2. Weekday template: 00:00 to 24:00 Mon to Fri 3. Weekend template: 00:00 to 24:00 Sat and Sun
	Zero residual space	Release option when remaining space is zero. 1. No entry. Any vehicle is not allowed to enter. 2. All Any vehicle is allowed to enter. 3. Whitelist Whitelist vehicles include several vehicle types, such as no group, general and VIP. Only three types of vehicle above are allowed to enter when remaining space is zero. 4. VIP Only VIP vehicle is allowed to enter when remaining space is zero.  Vehicle type should be set during vehicle management.

Parameter		Note
	Visitor auto release	Those which are not registered on DSS Pro are considered as visitor vehicles. Confirm if it unlocks barrier automatically when visitor vehicle enters according scenario design. If it is required to release, and then click  , the icon displays as  . Otherwise, it remains as  , and it will not unlock barrier to release when visitor wants to enter parking lot.
Exit Release	Visitor auto release	Those which are not registered on DSS Pro are considered as visitor vehicles. Confirm if it unlocks barrier automatically when visitor vehicle exits according scenario design. If it is required to release, and then click  , the icon displays as  . Otherwise, it remains as  , and it will not unlock barrier to release when visitor wants to exit parking lot.

Step 4 Click **Next**.

The system displays the interface of **Device Config**. See Figure 5-269

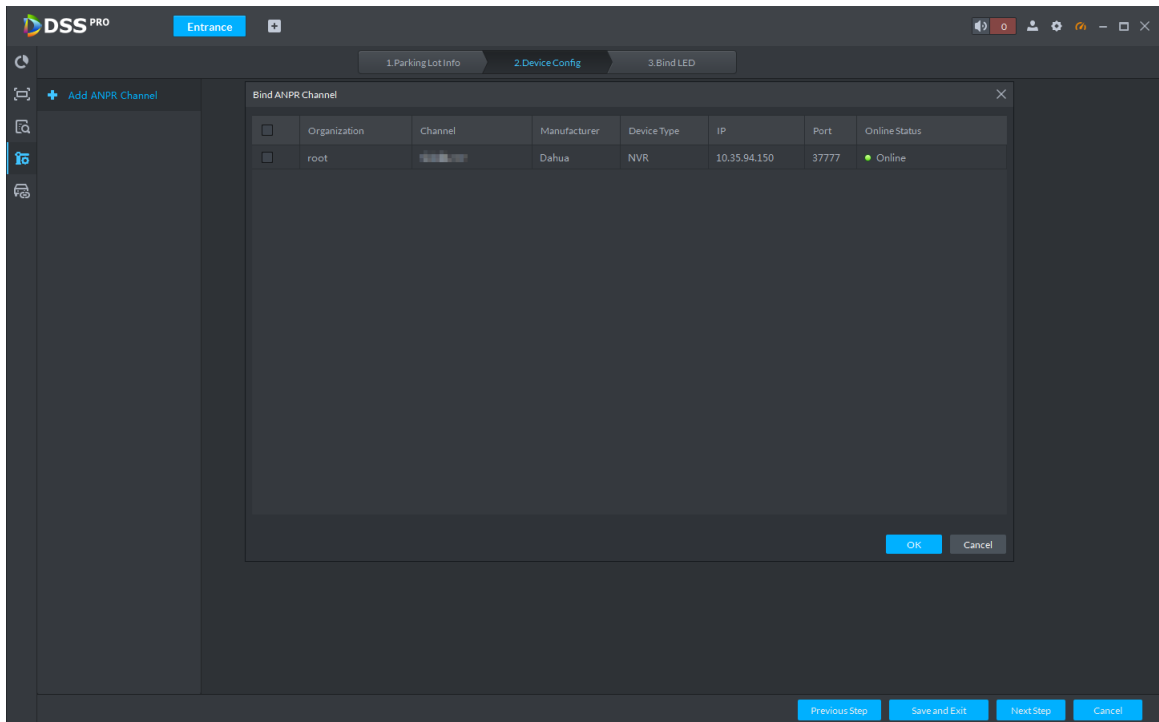
Figure 5-269



Step 5 Add ANPR device.

1. Click Add ANPR Channel and you can select all the ANPR devices deployed at entrance and exit of the parking lot on the interface. See Figure 5-270.

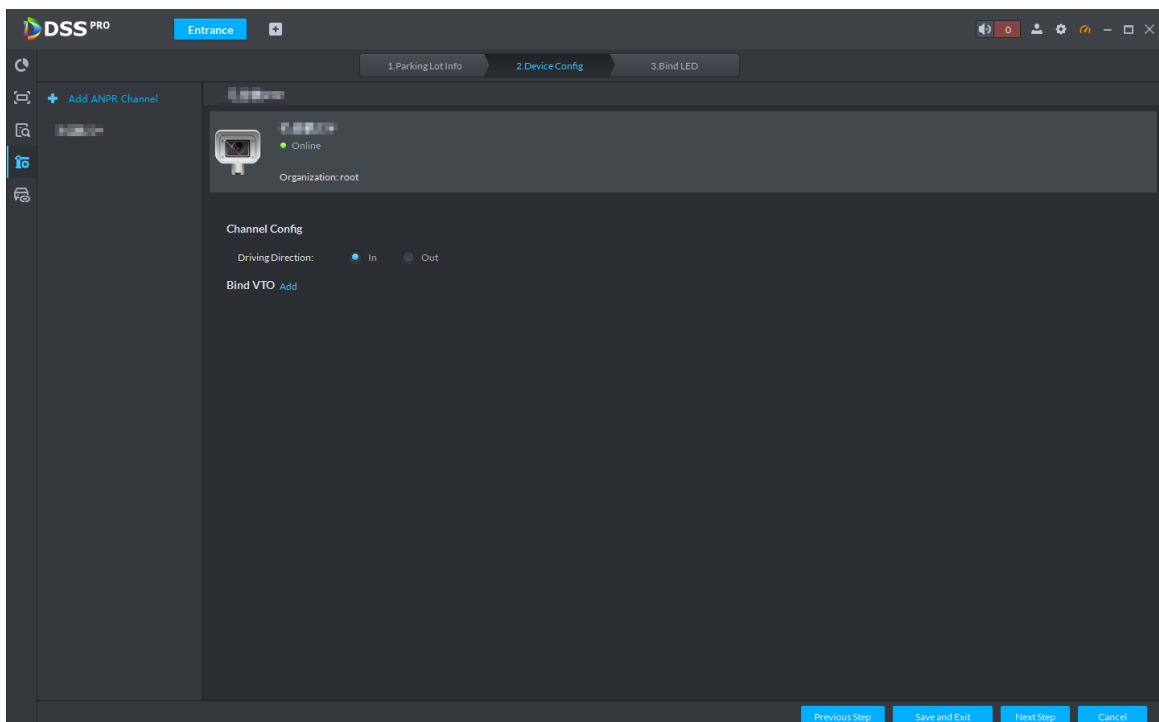
Figure 5-270



2. Click **OK**.

The system displays the information of added ANPR device. See Figure 5-271.

Figure 5-271



3. Select ANPR device from device list in sequence, and set corresponding driving direction.

The default driving direction is **In**.

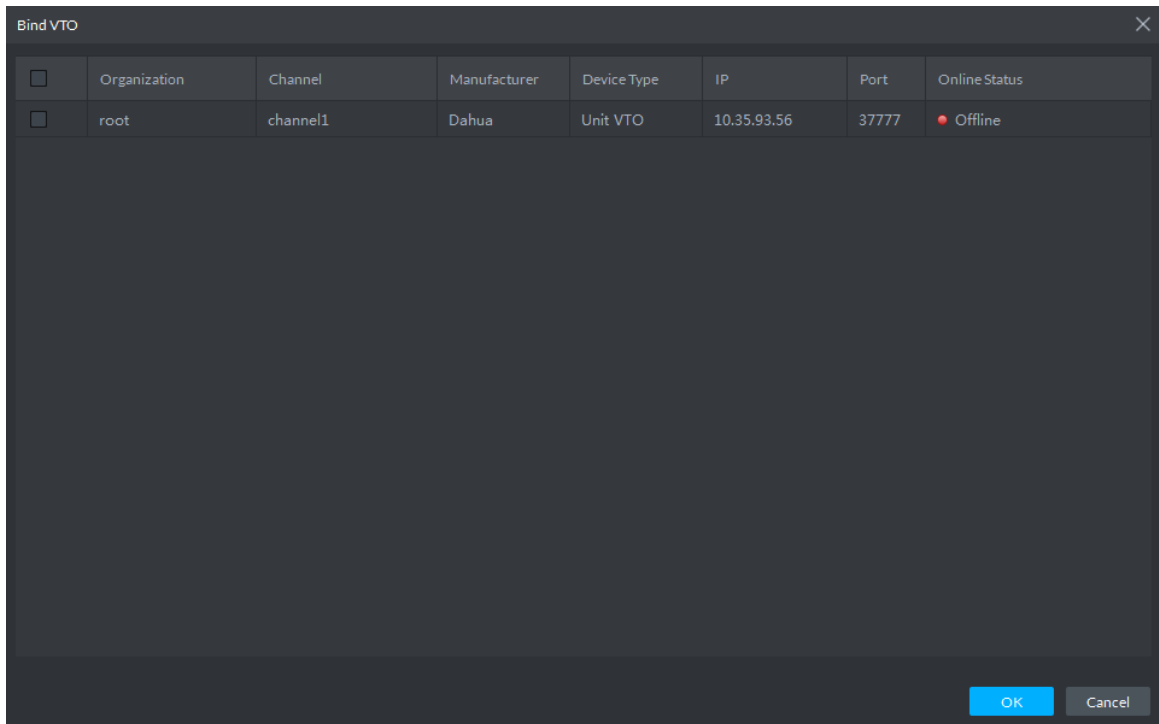
Step 6 Bind VTO device.

VTO device is used to recognize people, and unlock barrier. Please skip this step if there is no VTO in the networking.

1. Click **Add** next to **Bind VTO**.

The system displays the interface of **Bind VTO**. See Figure 5-272.

Figure 5-272



2. Select the VTO that is deployed next to barrier, and click OK.

The interface displays the VTO information.

Step 7 Click **Next**.

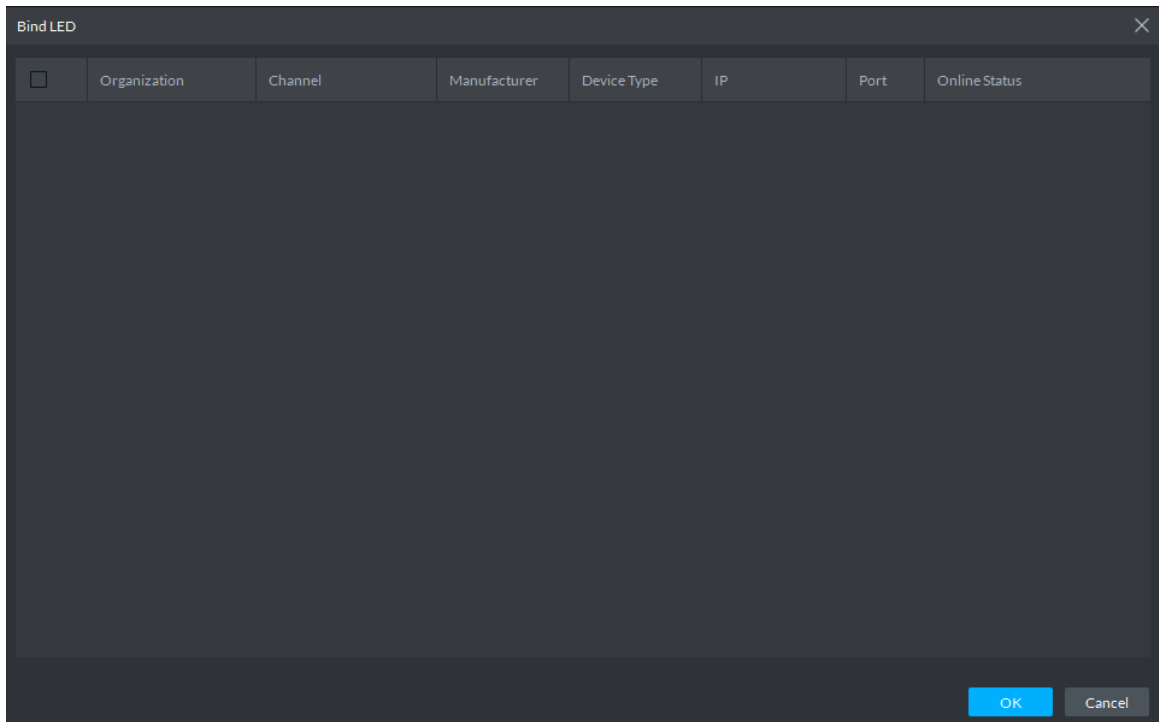
The system displays Bind LED.

Step 8 Add LED.

1. Click Add LED.

The system displays the interface of **Bind LED**. See Figure 5-273.


Figure 5-273



2. Select all the LED of the parking lot and click OK.
The system displays the information of LED.

5.18.6 Vehicle Management

Vehicle info management includes vehicle type, department, related personnel and release ANPR, which are used as judgment basis to confirm if the vehicle can enter some area. Vehicle management can synchronize added vehicle info from personnel management module.

Step 1 Click  on the interface of **Entrance**.

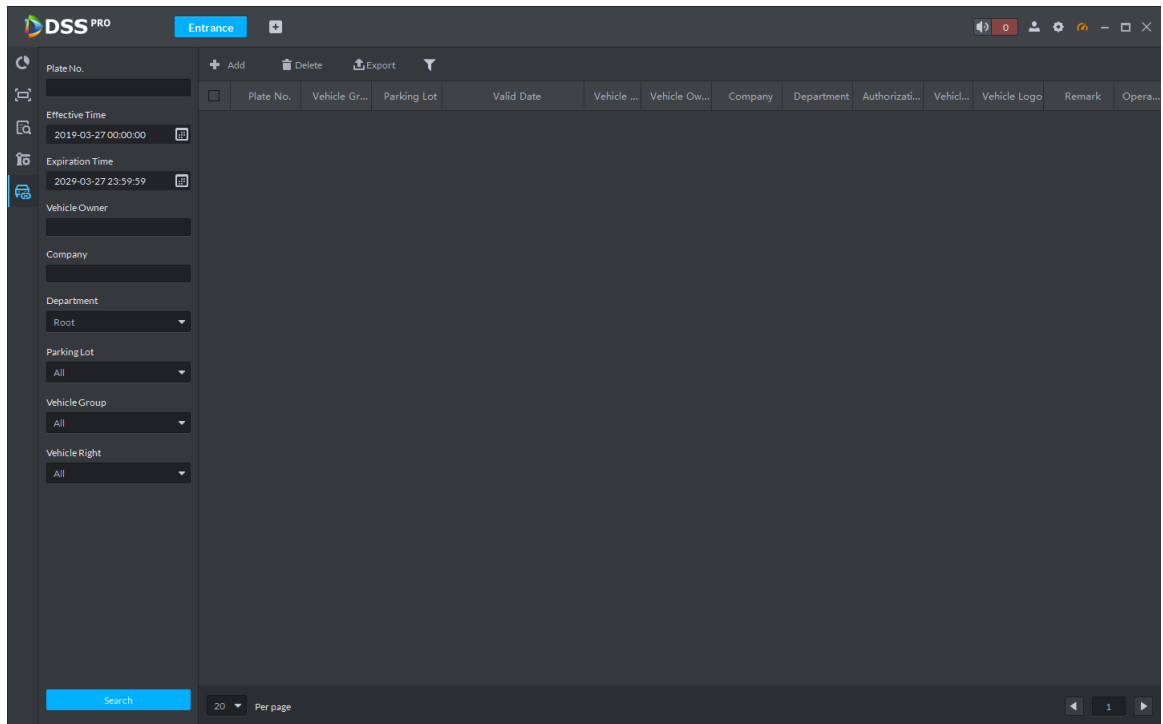
The system displays the interface of Vehicle Management. See Figure 5-274.



You can set search condition, click **Search** and the system displays vehicle info.

Including vehicle information added on personnel management module.

Figure 5-274



Step 2 Click Add.

The system displays the interface of Add. See Figure 5-275.

Figure 5-275

The screenshot shows a dark-themed 'Add' window with three tabs: '1.Vehicle Info', '2.Personnel Info', and '3.Authorization'. The '1.Vehicle Info' tab is active. It contains the following fields:

- Plate No.: [Redacted]
- Vehicle Type: No Group
- Vehicle Color: Other
- Vehicle Logo: Other
- Parking Lot: test,zyl
- Validity Time: 2019-03-27 18:30:37
- Expiration: 2029-03-27 18:30:37
- Remark: [Redacted]

Below the fields is a '+ New Vehicle' button. At the bottom right are 'Save and Exit', 'Next Step', and 'Cancel' buttons.

Step 3 Click the tab of **Vehicle Info** and add vehicle info, click **Next** and the system display the interface of **Personnel Info**. Refer to Figure 5-276. Refer to Table 5-43 for parameter details.

Figure 5-276

The screenshot shows the 'Add' window with the '2.Personnel Info' tab active. A red note at the top reads: '* Personnel info modification will be synchronized to personnel management.' The fields are:

- Person Name: Search...
- Department: [Redacted]
- Gender: Male Female
- Email: [Redacted]
- Remark: [Redacted]
- Spots Available: 1
- Company: [Redacted]
- Tel: [Redacted]

At the bottom are 'Previous Step', 'Save and Exit', 'Next Step', and 'Cancel' buttons.

Table 5-43

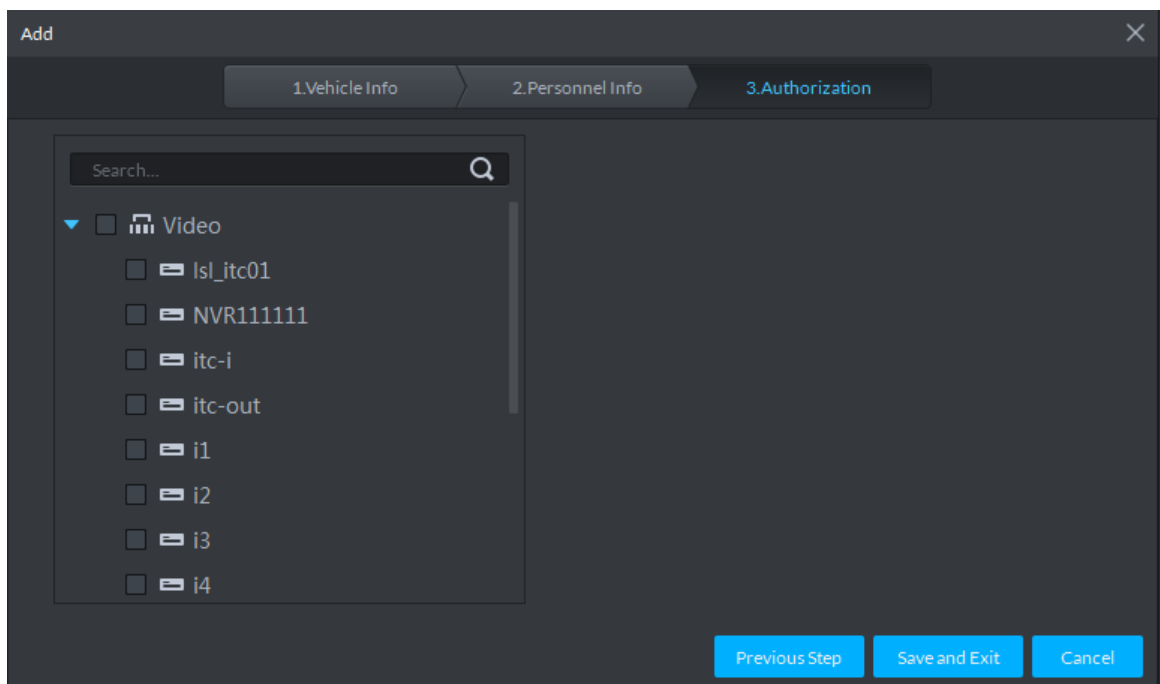
Parameter	Note
Plate No.	The plate number of added vehicle.
Vehicle Type	Include no group, general, VIP and blacklist. The first three types make up whitelist. If blacklist alarm scheme is set, then set vehicle type as blacklist, it will trigger alarm when vehicle is recognized.

Parameter	Note
Vehicle Color	Vehicle color of added vehicle. You can set Not Recognized if vehicle color cannot be recognized. If the color is beyond the selected range, then you can set is as Other .
Vehicle Logo	Main vehicle logos on the market.
Parking Lot	Area where vehicle belongs (required)
Validity Time	Validity period of added vehicle.
Expiration	
New Vehicle	If there are several vehicles, then click the button to add continuously. One person can add up to 5 vehicles.

Step 4 Set vehicle related personnel info, click **Next**.

The system displays the Authorization interface. See Figure 5-277.

Figure 5-277



Step 5 Select all the ANPR devices that allow entrance and exit of the parking lot, click **Save and Exit**. Synchronize vehicle info to corresponding ANPR device, make sure the ANPR device can make judgment if it has to release the vehicle even if ANPR device is disconnected to DSS Pro.

5.18.7 Overview

View the free parking ratio of current parking area; make statistics over realtime quantity and on-site vehicle quantity, view quantity of entrance and exit vehicle within some period.


Click  on the Entrance interface. The system displays the interface of Overview. See Figure 5-278. Refer to Table 5-44 for parameter details.

Figure 5-278

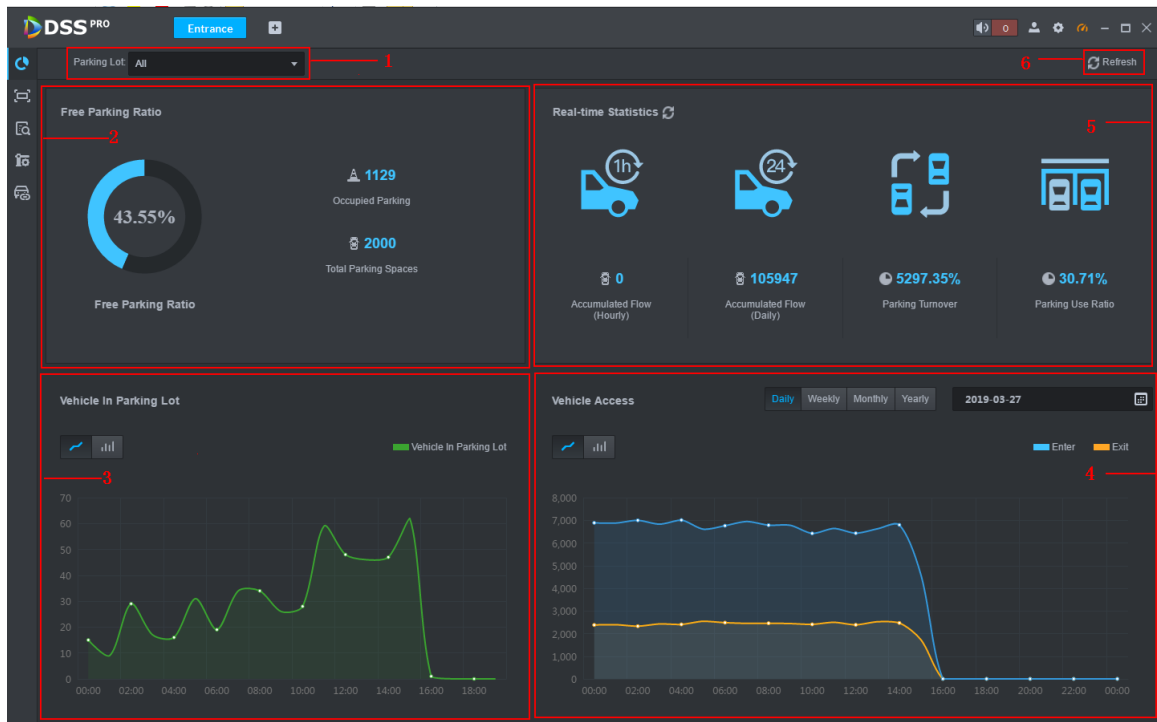


Table 5-44

SN	Note
1	Interface displays the information of selected area; refer to other items for included content.
2	Display total parking spaces, occupied parking and free parking ratio of the selected parking lot.
3	Select occupied parking space quantity of selected area, the result can be displayed by line chart or bar chart. Move mouse on the image and displays corresponding time and occupied parking lot quantity.
4	Select vehicle access quantity of some period, supports day, week, month and year. Select time after period is selected; the system displays vehicle access quantity of selected period within the area. Blue means entered vehicle while orange means exited vehicle. The result can be displays by line chart or bar chart. Move the mouse on the image and display corresponding time and occupied parking space quantity.

SN	Note
5	<p>Display following data.</p> <ol style="list-style-type: none"> Accumulated vehicle flow (hourly) Vehicle flow within current hour (for example, it is 8:42, and then it will make statistics about vehicle flow between 8:00 and 8:42). Accumulated vehicle flow (Daily) Vehicle flow of the day (Start statistics from 00:00) Parking turnover The bigger the parking turnover is, the shorter the vehicle stays in the parking lot, and then parking space reuse ratio is higher. If it is a paid parking lot, then it will make more money. Parking Use Ratio The bigger the parking use ratio is, the average time of vehicle parking is longer.
6	Auto refresh overview info every 5 minutes. Click Refresh to sync realtime data.

5.18.8 License Plate Recognition


Click  on the Entrance interface. The system displays the interface of License Plate Recognition. See Figure 5-279. Refer to Table 5-45 for more parameter details.

Figure 5-279

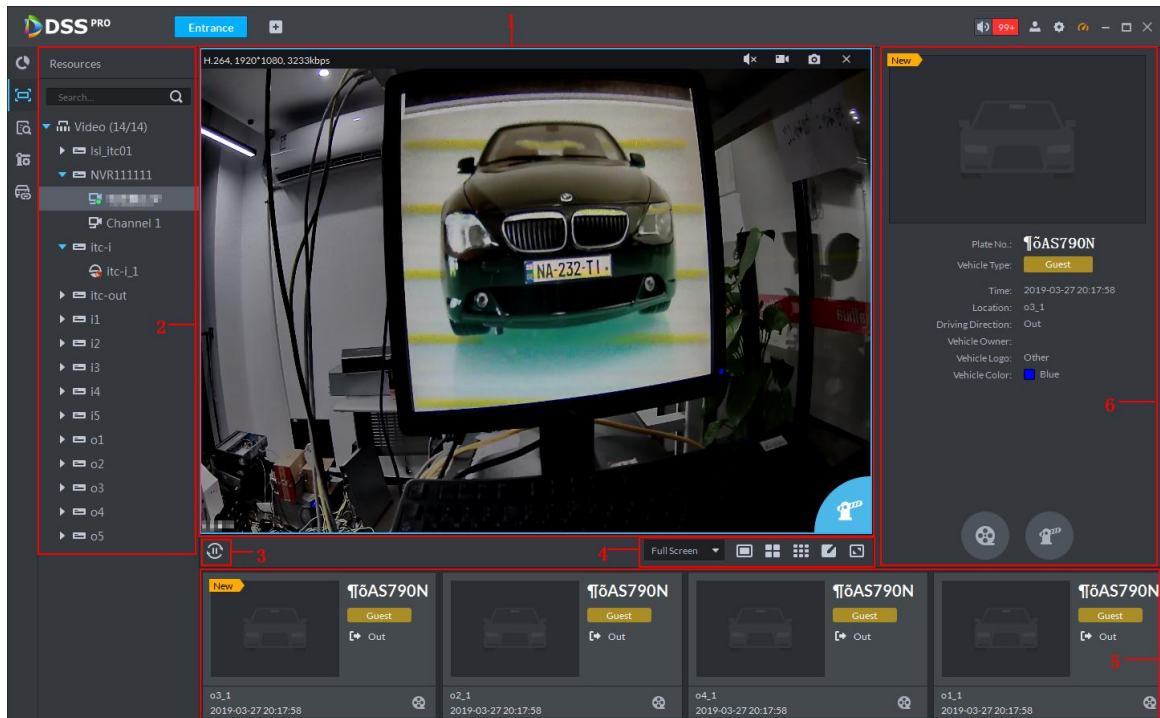




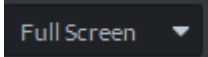









Table 5-45

SN	Note
1	Realtime image display area. Select window, and double click video channel bound by ANPR in the device list, or drag the video channel bound by ANPR to window, and the interface displays realtime image. Move the mouse on the image, interface displays unlock button  , click it to unlock barrier.
2	Device list. Display ANPR device and bound video channel.
3	Click the icon and it becomes  , and the interface will no longer ANPR recognition info. Click  and the icon becomes  , the interface will update realtime ANPR recognition info.
4	<ol style="list-style-type: none"> , set height and width ratio of video window, it plays video by two modes which are original scale and full screen. , used to set image split mode, which includes 1 split, 4 splits and 9 splits, or click  and customize split mode. , switch video window to Full Screen mode. If you want to exit Full Screen, you can also press ESC button or right click to select Exit Full Screen.
5	<p>Display latest 4 snapshots of LPR. More details as follows.</p> <ol style="list-style-type: none"> Double click and display snapshot details, vehicle info, snapshot panoramic picture and vehicle matting. Click  and view video of linked channel.
6	<p>Display license plate snapshot and vehicle which need to be released manually. More operation as follows.</p> <ol style="list-style-type: none"> Click  and unlock barrier to release vehicle. Click  and view video of linked channel.

5.18.9 Info Query

Search accessed vehicle, on-site vehicle and snapshot record.

Step 1 Click  on the **Entrance** interface.

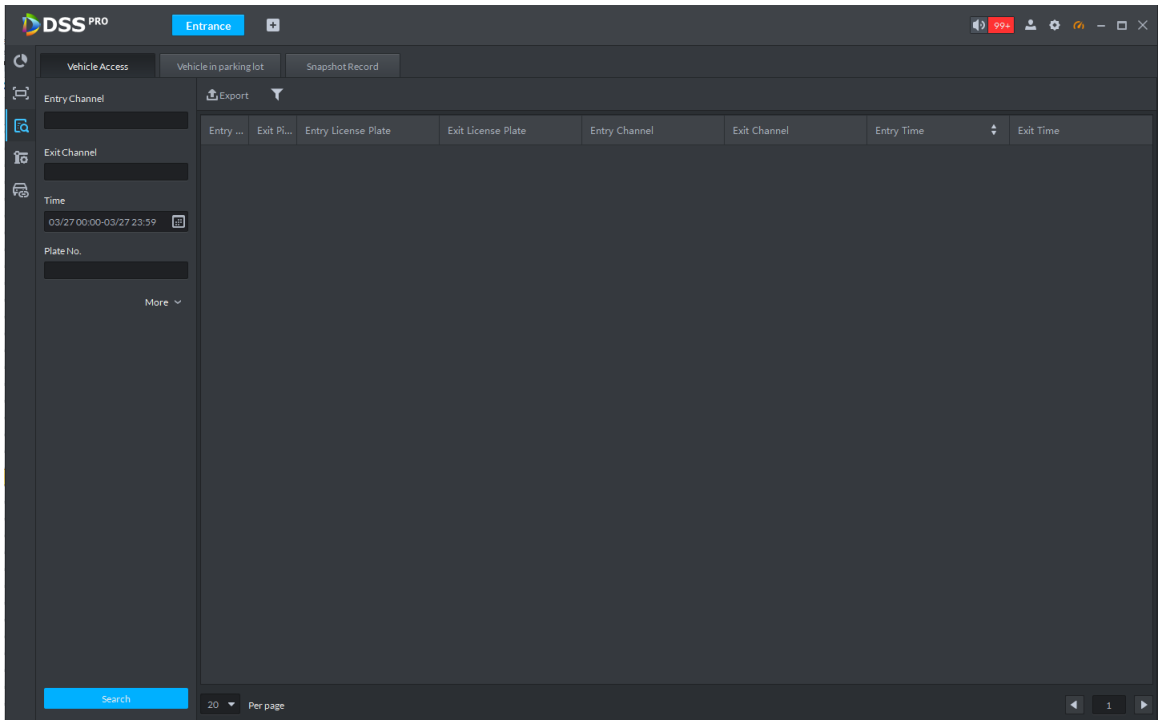
The system displays the interface of **Info Query**.

Step 2 Search vehicle in and out information.

1. Click the tab of **Vehicle Access**.

The system displays the interface of Vehicle Access. See Figure 5-280.

Figure 5-280



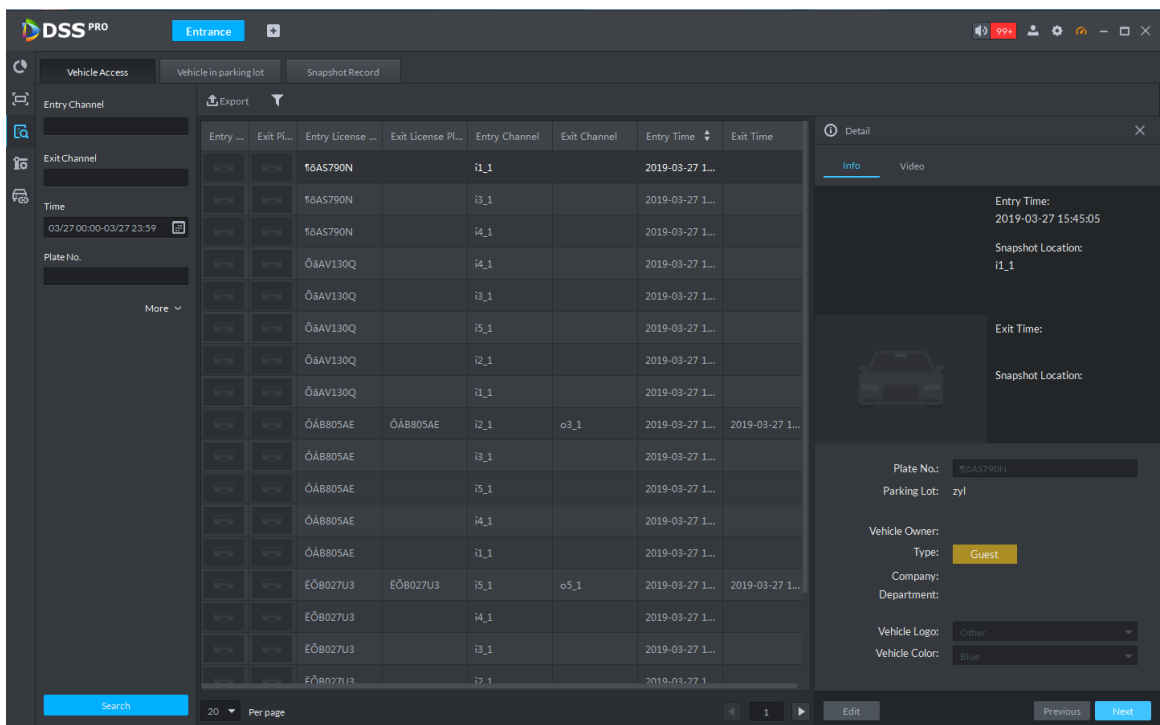
2. Set search condition, click Search.

The system displays search results. See Figure 5-281.



Click **More** and you can search by vehicle owner, department and vehicle type etc.

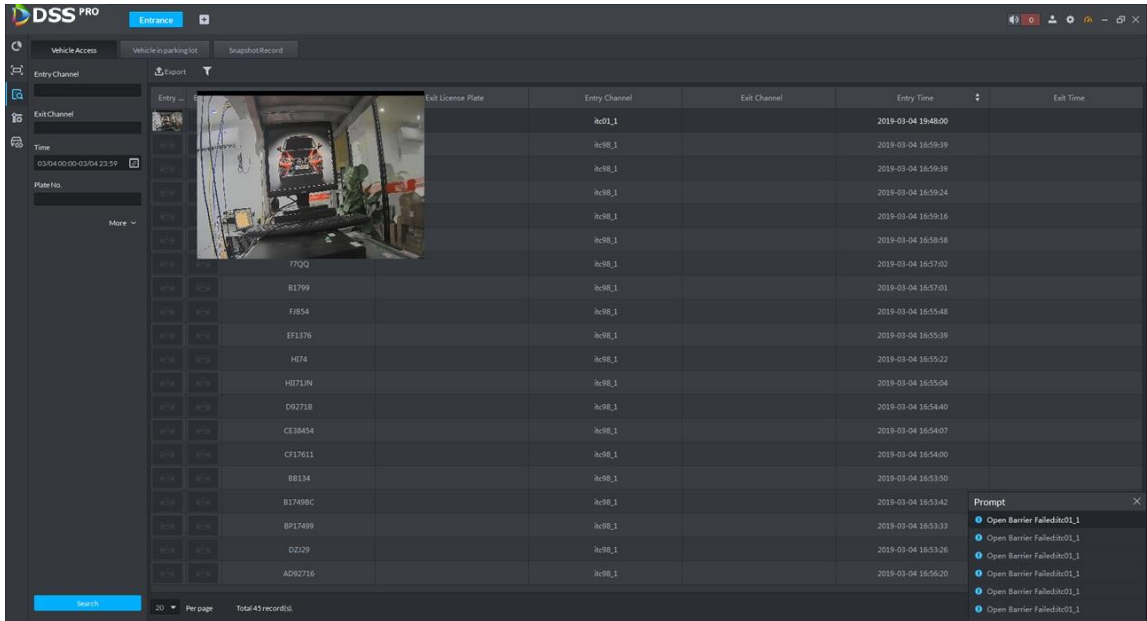
Figure 5-281



3. The related operations of vehicle access are as follows.

- ◇ Move the mouse to the recorded entry picture or exit picture, and the system will display a bigger picture. See Figure 5-282.

Figure 5-282



- ◇ Double click the record, and detailed info is displayed on the right of interface. See Figure 5-283. Double click the picture in the Info, display big picture, drag green box and the big picture will be displayed in the lower right corner. See Figure 5-284. Click **Edit** to modify vehicle info, click **OK** to save config. Click **Video** to view linked video.

Figure 5-283

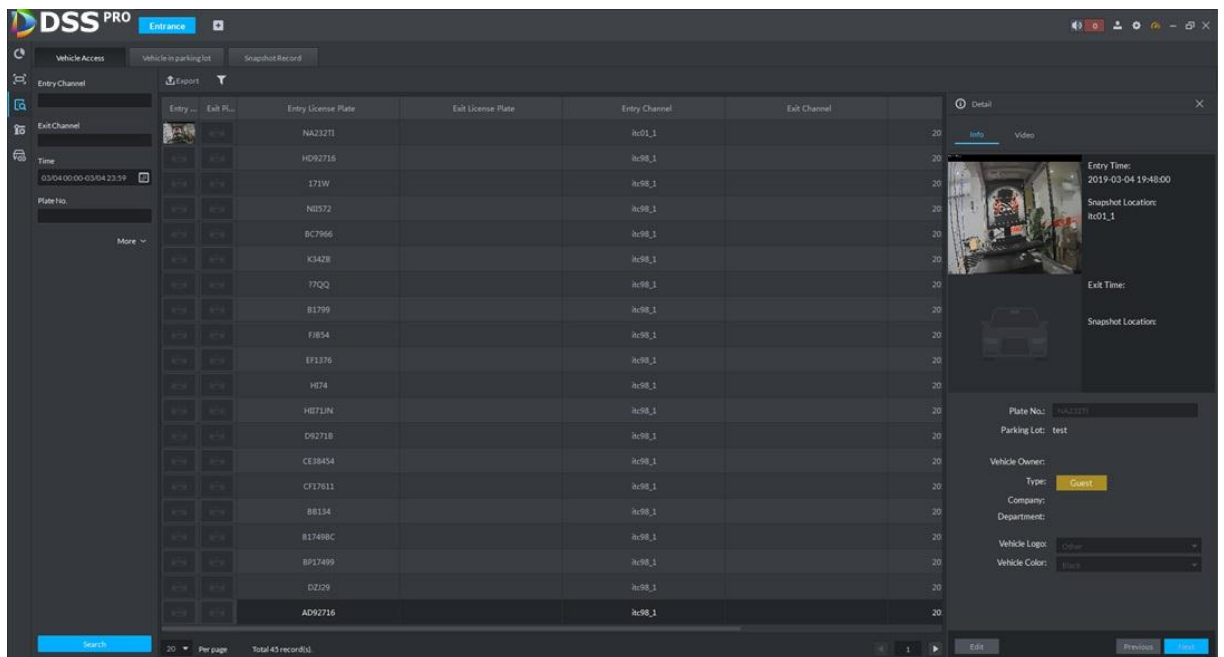
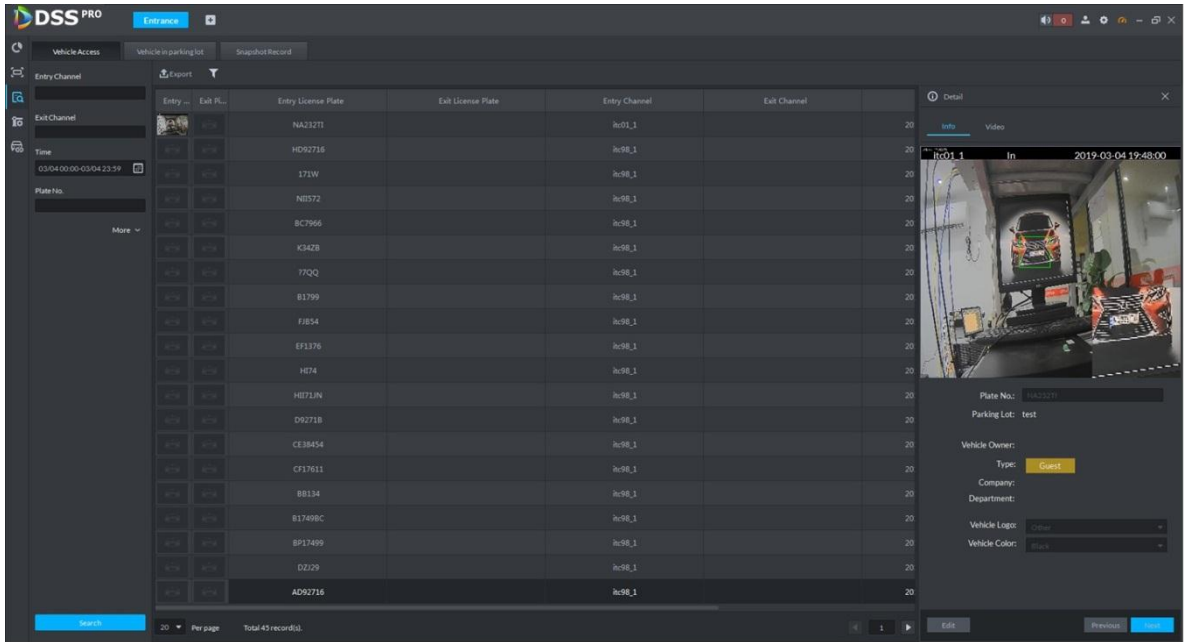



Figure 5-284



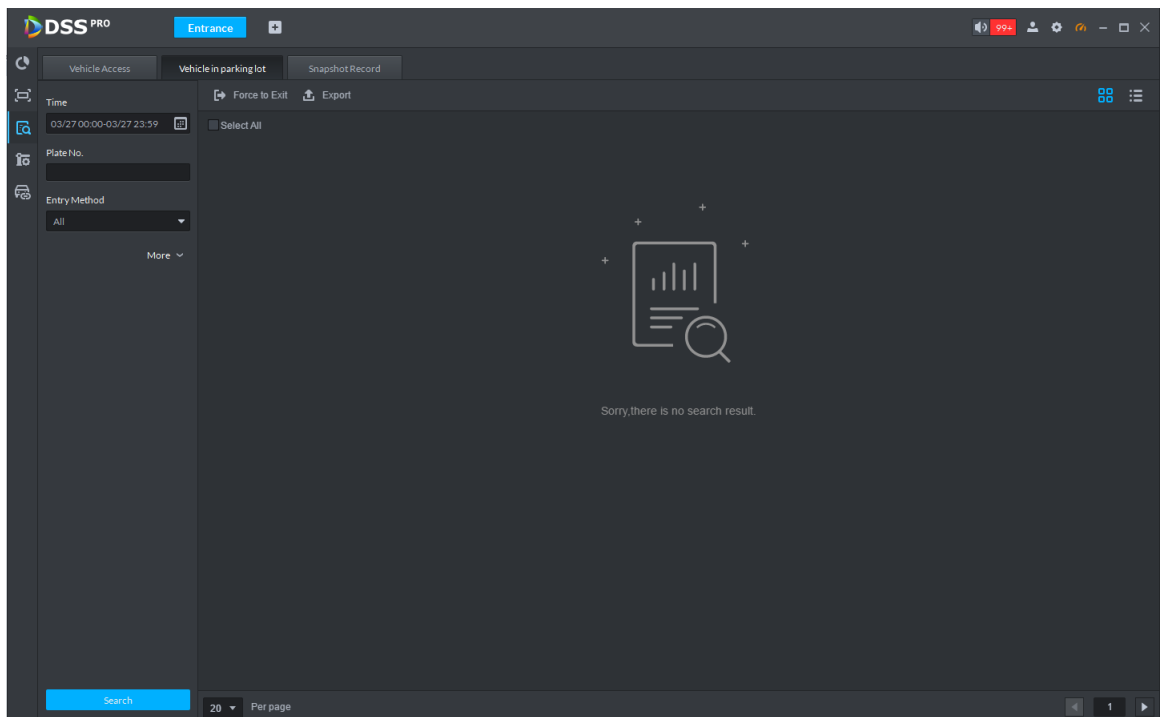
- ◇ Export info. Click **Export** to export all the searched vehicle access info.
- ◇ Set info display item. Click  and select display item.
- ◇ Click **Next** and display next info detail. Click **Previous** and display previous info detail.

Step 3 Search on-site vehicle.

1. Click the tab of **Vehicle in parking lot**.

The system displays the interface of **Vehicle in Parking Lot**. See Figure 5-285.

Figure 5-285



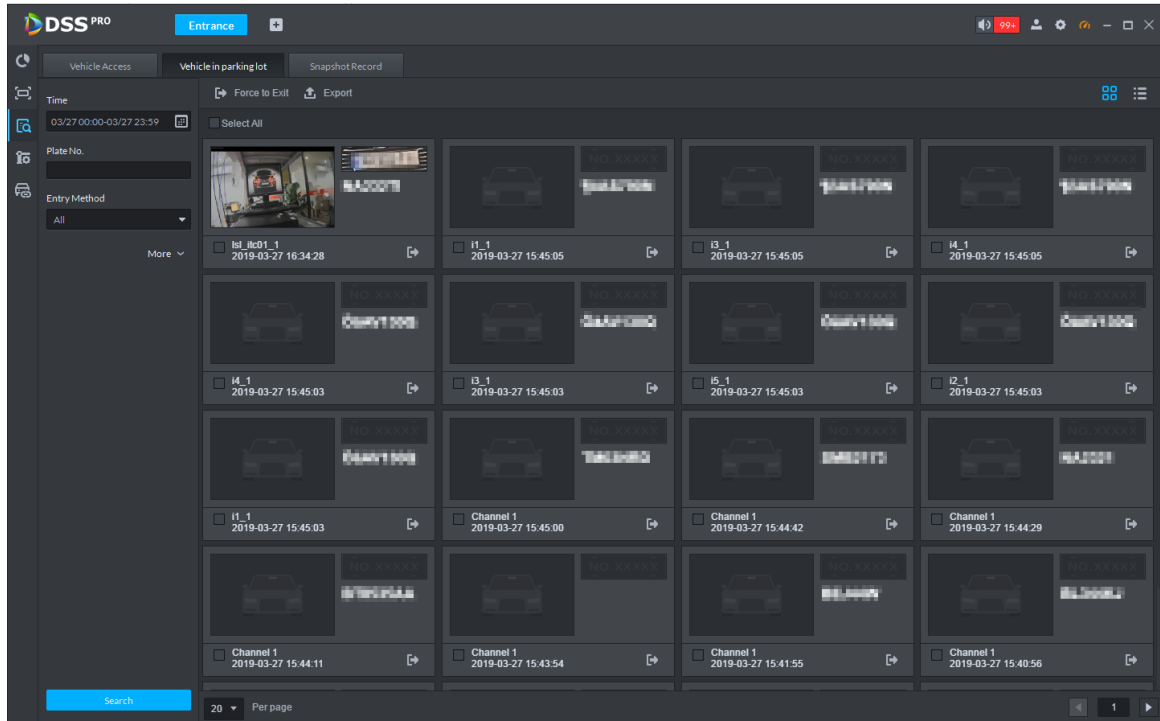
2. Set search condition, Click **Search**.

The system displays the search results. See Figure 5-286.







Click **More** and you can search info via vehicle owner, department and vehicle type etc.

Figure 5-286



3. Related operations of vehicle in and out are as follows.

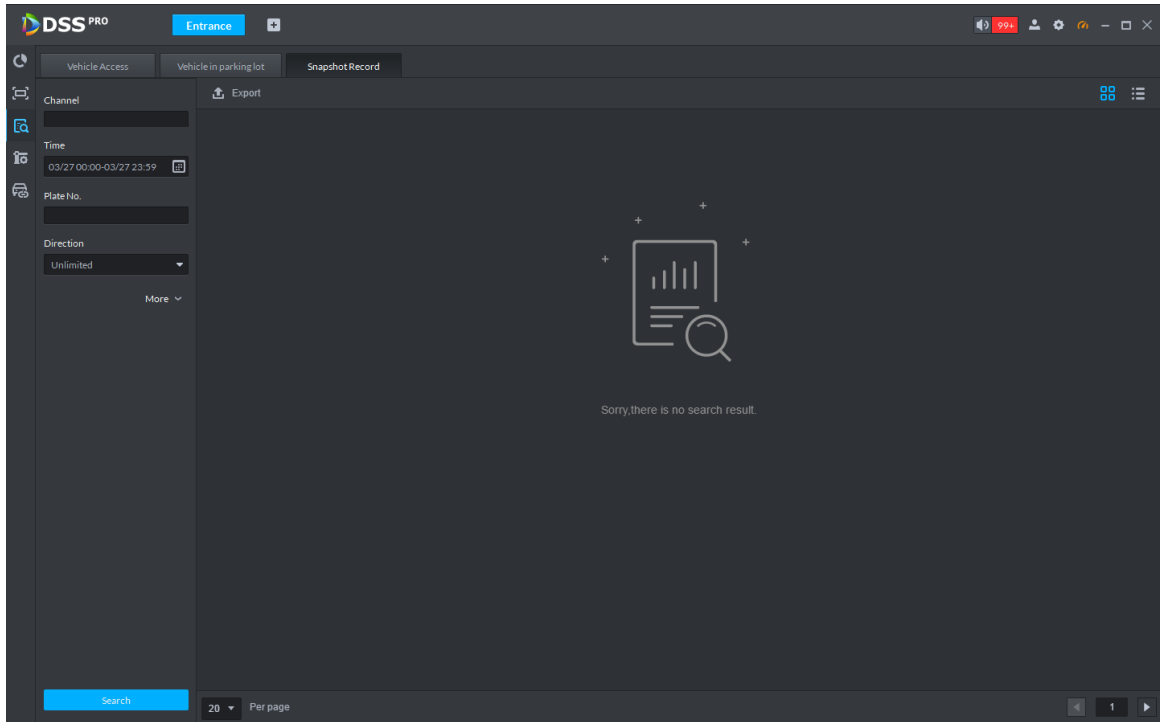
- ◇ If the vehicle is confirmed not to be in the area, then click to select information (several items supported), click Force to Exit or , make sure the vehicle exits by Pro.
- ◇ Export information. Click Export and export all the information of on-site vehicles that can be searched.
- ◇ Set info display item. Click  and select display item.
- ◇ Click view mode () or list mode () to select different display mode.

Step 4 Search Snapshot Record

1. Click the tab of **Snapshot Record**.

The system displays the interface of **Snapshot Record**. See Figure 5-287.

Figure 5-287



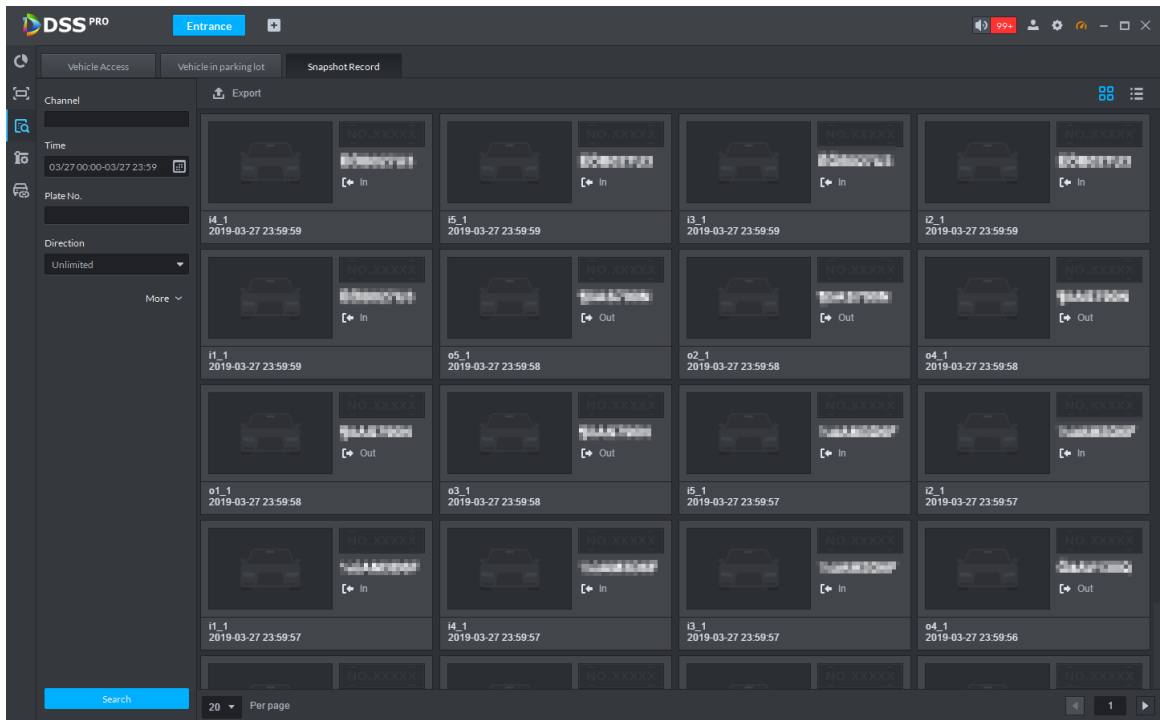
2. Set search condition, click **Search**.

The system displays search results. See Figure 5-288.





Click **More** and you can search info via vehicle owner, department and vehicle type etc.

Figure 5-288



3. Related operations of vehicle snapshot are as follows.

- ◇ Export info. Click Export to export all the info of on-site vehicles that can be searched.
- ◇ Click view mode () or list mode () and select different display modes.

5.19 Video Intercom

After integrating video talk module and adding video intercom device, you can realize device talk, realtime monitoring and issuing info.

5.19.1 Preparations before Operation

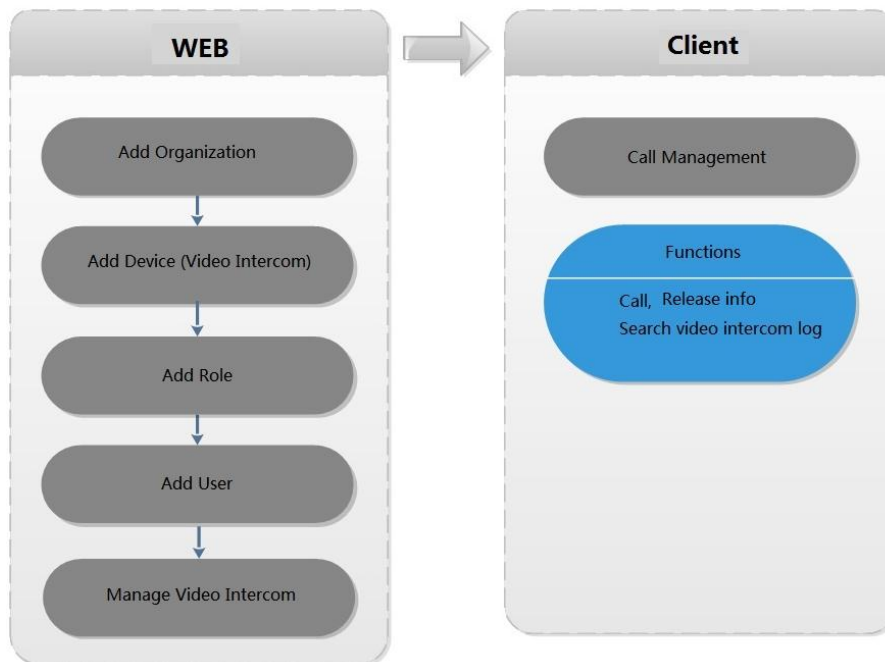
- The video intercom device is already configured before configuring video talk function in Pro. For detailed config, refer to user manual.
- Complete video intercom management on Web; refer to **4.14 Video Intercom Management** for more details.
- Add video talk devices such as unit VTO, VTH and fence VTO etc. Set Device Category as Video Intercom. Refer to **4.6 Adding Device** for more details.



- Add VTH and it will create personnel automatically, extract room number and generate fixed personnel according to VTH SIP; room number can be used as personnel ID. Go to **Personnel Management** and you can view and edit.
- Device will not actively push info to Pro if device config is modified during operation. It needs to enter the device modification interface and manually acquire device info.

See Figure 5-289 for video intercom config diagram.


Figure 5-289



5.19.2 Call Management

Create device group, management group and relation group respectively; realize mutual call in the specific group. Only default system account supports the function.



Click  on the interface of device group, management group or relation group, the system will restore management group and relation group to original status.

5.19.2.1 Device Group Config

It can realize mutual call only when VTO and VTH are added into the same device group. Pro will automatically generate corresponding device group when VTO, verifying VTO and fence station are added to Pro.

- Add VTO and automatically generate a device group, add VTH of the unit into the group, and realize mutual call between VTH and VTO within the group.
- Add verifying VTO and automatically generate a device group, add it to the group together with the VTH of the same room, and realize mutual call between VTH and verifying VTO within the group.
- Add fence station and automatically generate a device group, add all the VTH into the group. Realize mutual call between fence station and all the VTH.
- Add VTH, if the VTH is automatically connected to unit VTO, verifying VTO, fence station, and then it will be automatically added to the device group, and realize mutual call among unit VTO, verifying VTO or fence station.



Call between VTH is not restricted by device group; mutual call can be realized among VTH in different device groups.

5.19.2.2 Adding Management Group

Management group is to make groups for administrators, and realize relation binding of one to one, one to many or many to many. Administrators include Pro administrator and VTS. If there is default management group, VTS will be automatically added to management group when it is added.

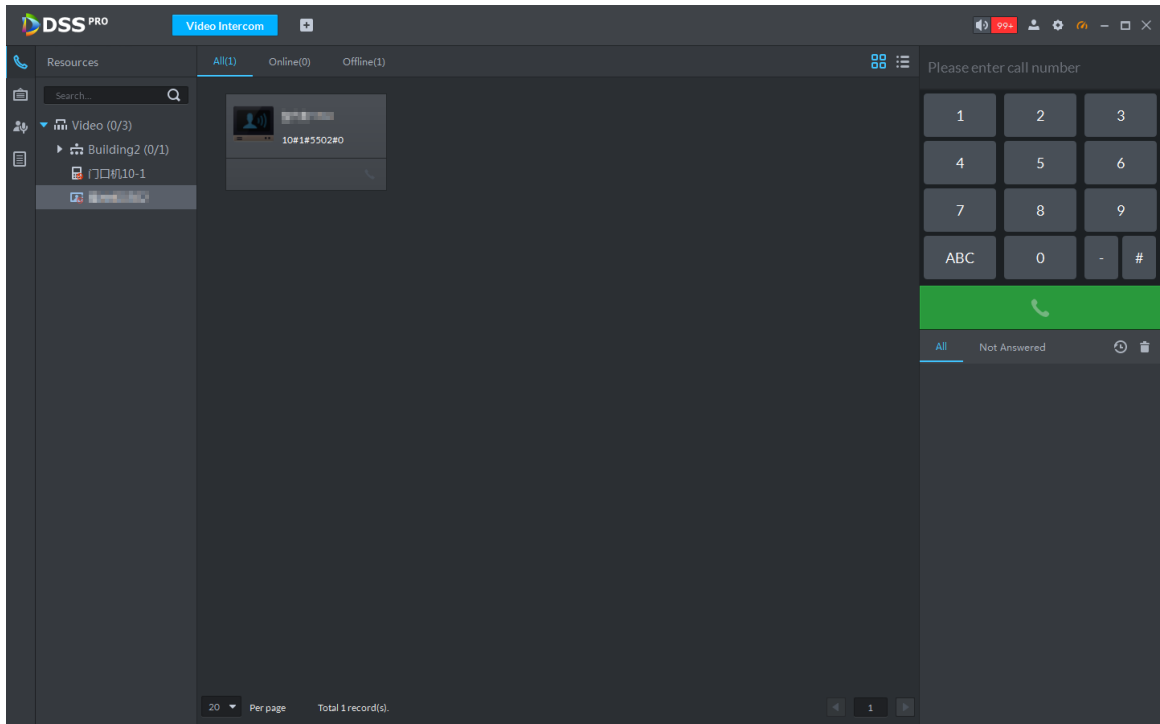



- Before configuring management group, it needs to create user, select video intercom menu permission and device permission, and add new users into management group.
- Use system user to configure group relation, need to switch to new user for login. If system logs onto many devices, then it cannot be used as administrator.

Step 1 Click  and select **Video Intercom** on the interface of **Homepage**.

The system displays the interface of **Video Intercom**. See Figure 5-290.

Figure 5-290



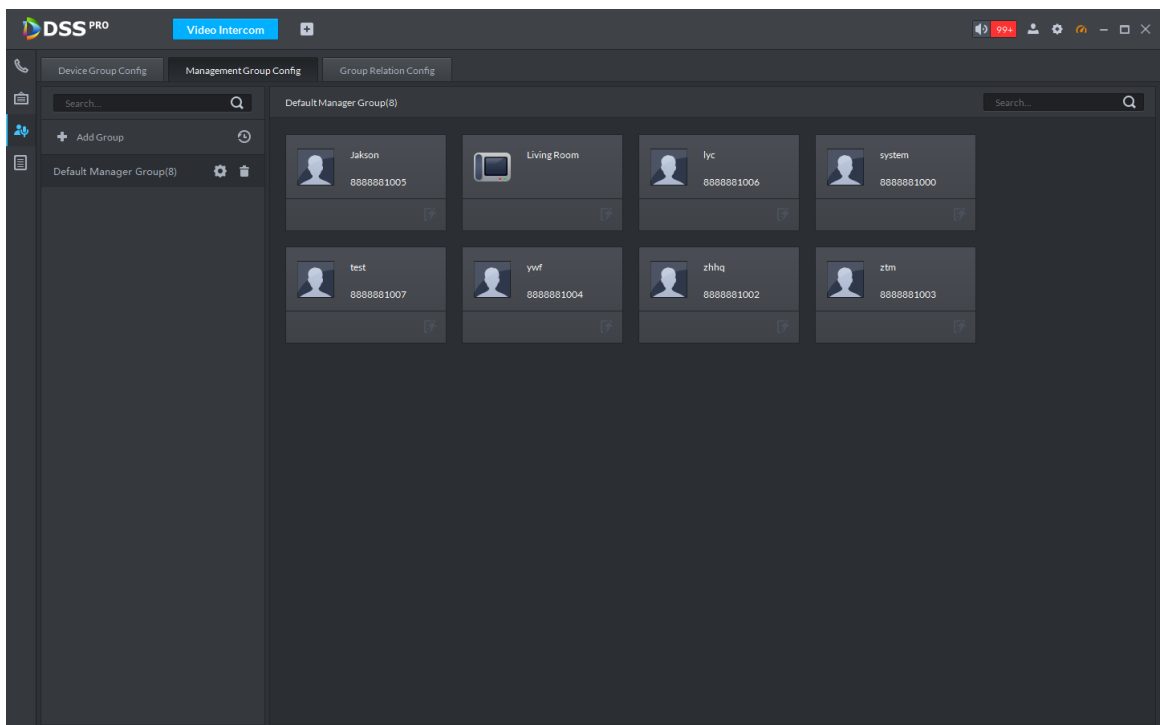
Step 2 Click .

The system displays the interface of **Call Management**.

Step 3 Click **Management Group Config**.

The system displays the interface of **Management Group Config**. See Figure 5-291.

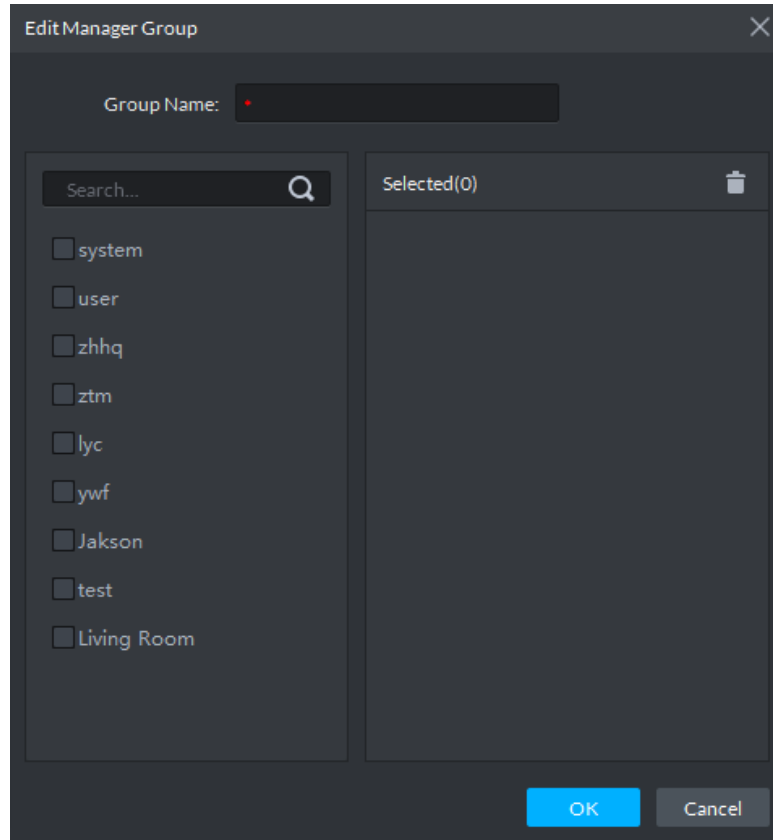
Figure 5-291



Step 4 Click **Add Group**.

The system displays the interface of **Edit Manager Group**. See Figure 5-292.

Figure 5-292



Step 5 Enter group name, select administrator account or VTS, and click **OK**.
The added management group is displayed in the list. See Figure 5-293.



The members in management group support following operation.



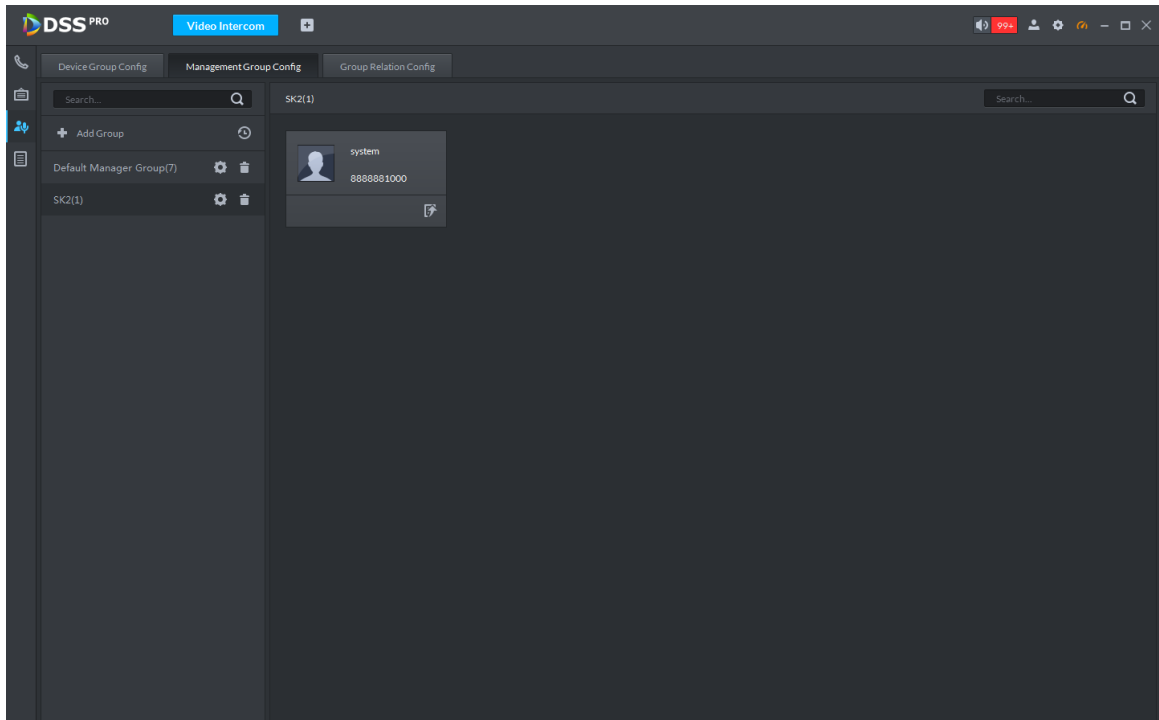
- Transfer members, click  and move the member to the group.
- Manage group members, click  to add or delete group member.

Figure 5-293



5.19.2.3 Group Relation Config

Relation group config means adding both device group and management group to the same relation group, making them related. Realize VTO or VTH only calling administration or VTS within the relation group.

There are two situations for relation binding

- Device group only binds one management group
Any device in the group can call administration with one click, all the bound administrators within the management group will generate ring bell. At this moment, all other ring bell will stop as long as there is one administrator answers. The device call request can be rejected as long as all the administrators reject to answer.
- Device group binds several management groups
There is priority among several management groups. When any device in the group calls administrator with one click, and all the online administrators of management group with highest priority will generate ring bell. If none of these administrators answer, then it will call next management group. The interval between two calls is 30s; it can skip up to one management group. If neither of two groups answer, then the device prompts call overtime, no response.

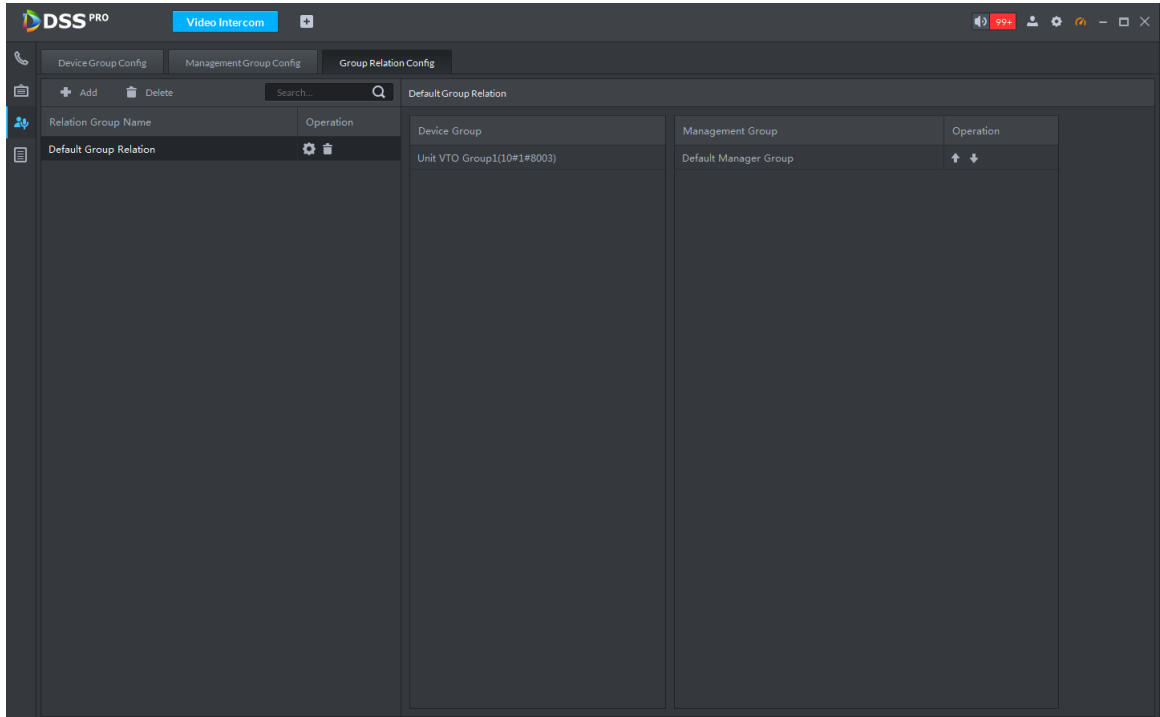
Step 1 Click  on the interface of **Video Intercom**.

The system displays the interface of **Relation Group Config**.

Step 2 Click the tab of **Relation Group Config**.

The system displays the interface of **Relation Group Config**. See Figure 5-294.

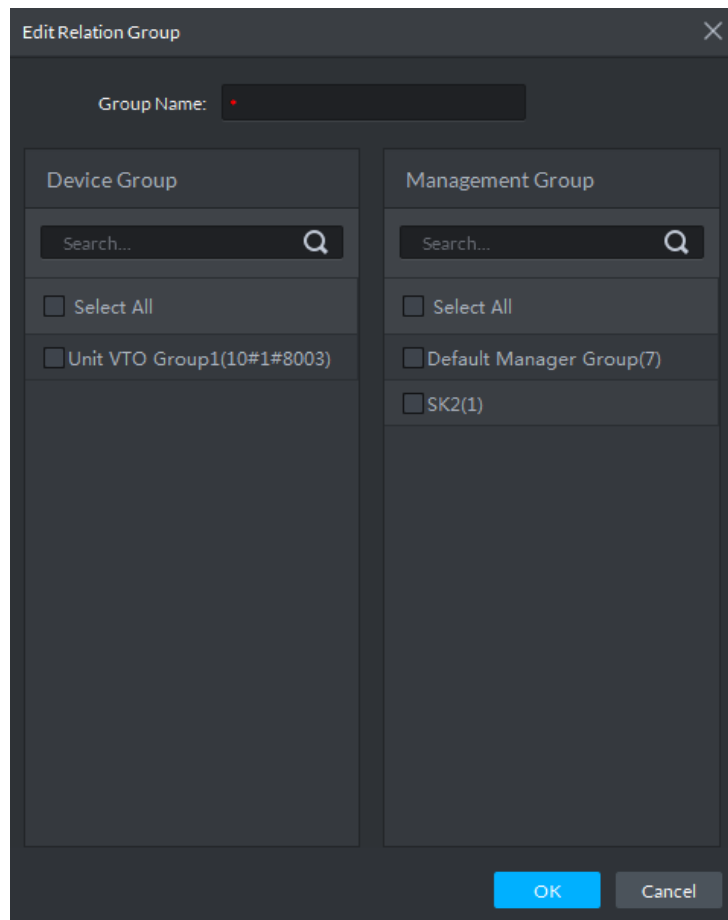
Figure 5-294



Step 3 Click Add.

The system displays the interface of Edit Relation Group. See Figure 5-295.

Figure 5-295



Step 4 Enter name, select device group and management group, Click **OK**.



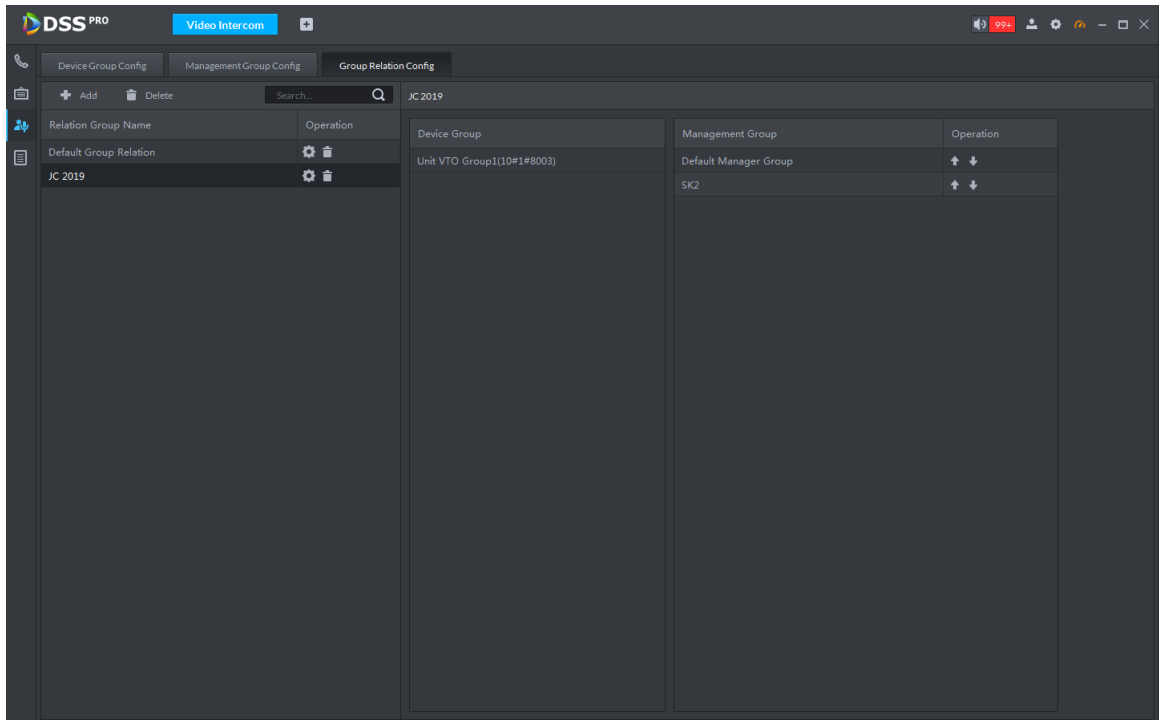
Added relation group is displayed in the list. See Figure 5-296. If there are several relation groups, you can click  or  to adjust priority level. When there is call, the online administrators with high priority will generate ring bell first.


Figure 5-296



5.19.3 Video Intercom Application

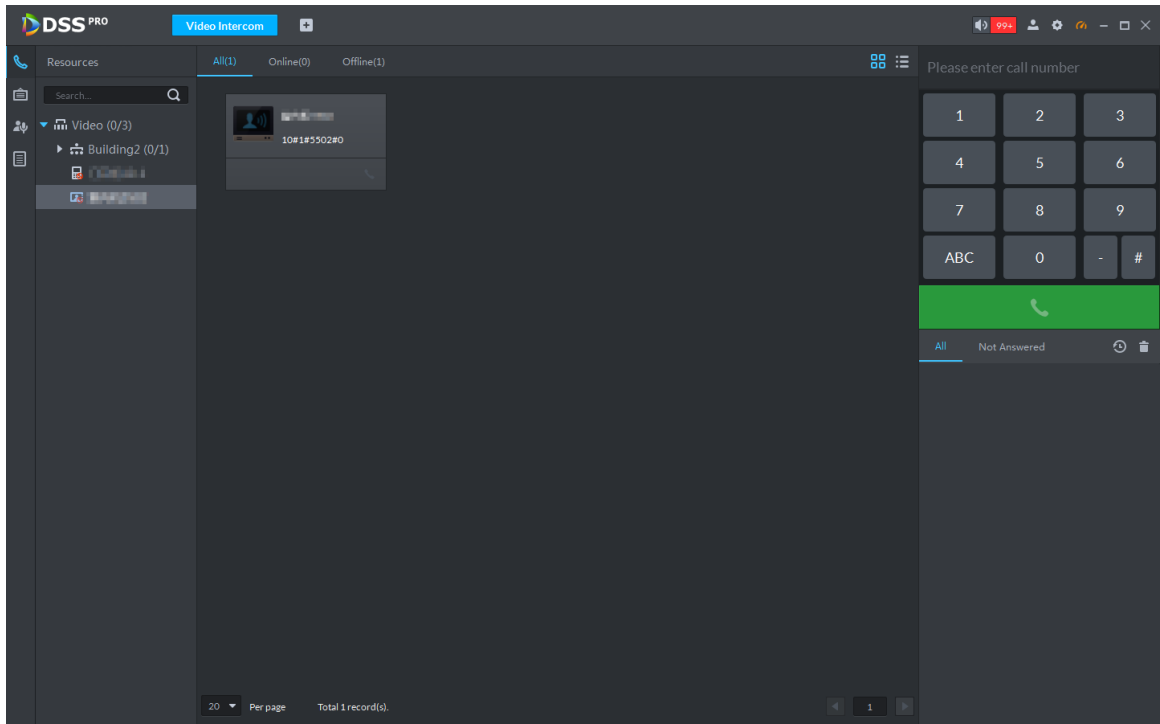
5.19.3.1 Call Center

Realize call among Pro, VTO and VTH.

Step 1 Click  on the interface of **Video Intercom**.


The system displays the interface of **Call Center**. See Figure 5-297.

Figure 5-297



Step 2 You can call VTO and VTH on the interface of **Call Center**.

- Pro Call VTO

Select VTO in the device list; click corresponding  of VTO and call VTO. The system pops out call interface and realize video talk. See Figure 5-298. Following operations are support during call.





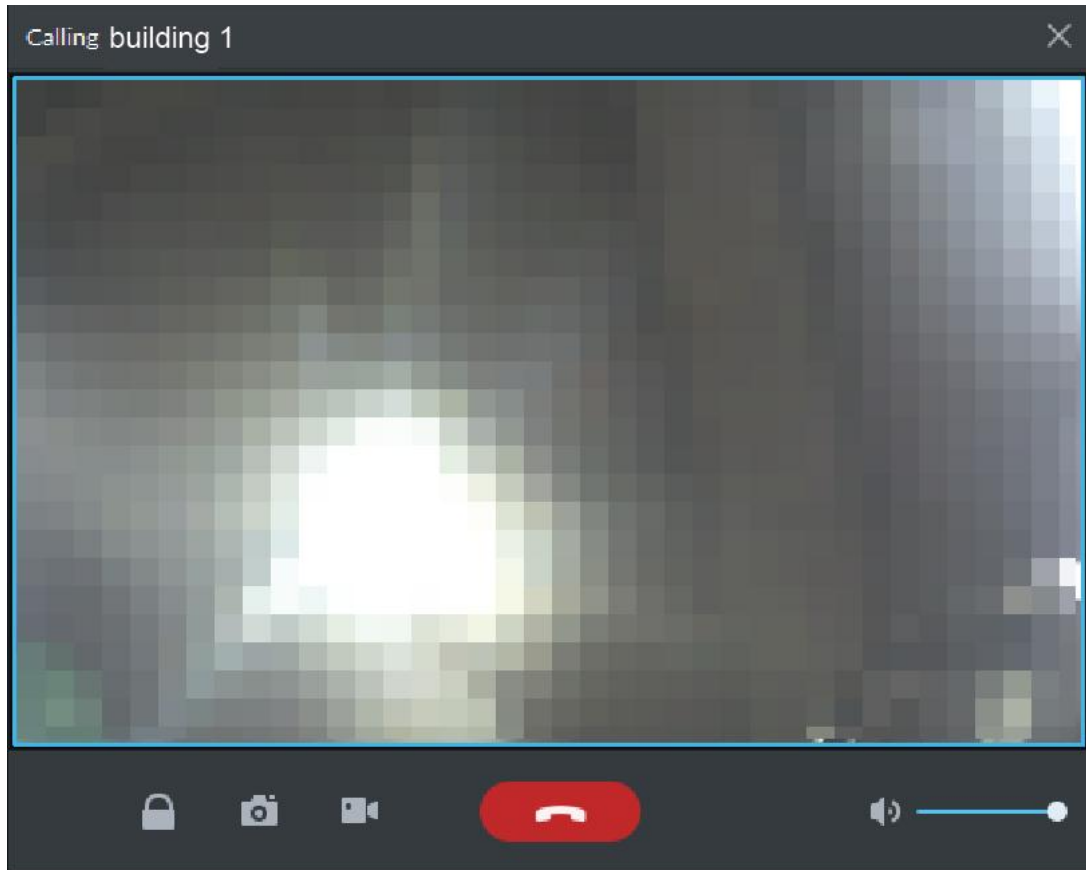

- ◇ , if VTO is connected to lock, click the icon to unlock.
- ◇ , click the icon to capture picture, the snapshot is saved into the default directory installed by client. If you need to modify the save path of snapshot, refer to **5.2 Local Configuration** for more details.
- ◇ , click the icon to start record, click again to stop record. The video is saved in default path installed by client. If you need to modify the save path, refer to **5.2 Local Configuration** for more details.
- ◇ , click the icon to hang up.

Figure 5-298



- Pro Call VTH

Select VTH from the device list, click  on the VTH or dial corresponding VTH on the right (such as 1#1#101). The system pops up the dialog box of **Calling now, please wait ...**, see Figure 5-299. There are two modes for answering the call.


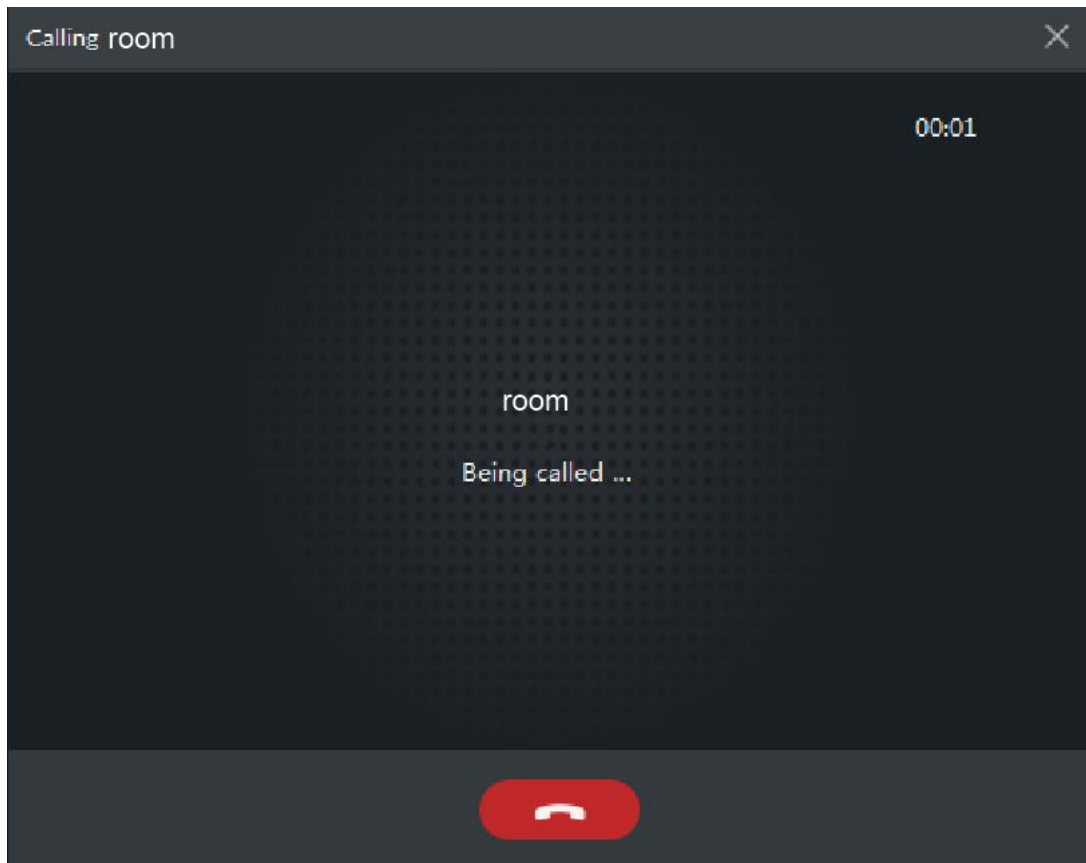
- ◇ Answer by VTH, bidirectional talk between client and VTH. Press  to hang up when you answer the call.
- ◇ If VTH fails to answer over 30s, busy or hang up directly, then it means the callee is busy.

Figure 5-299






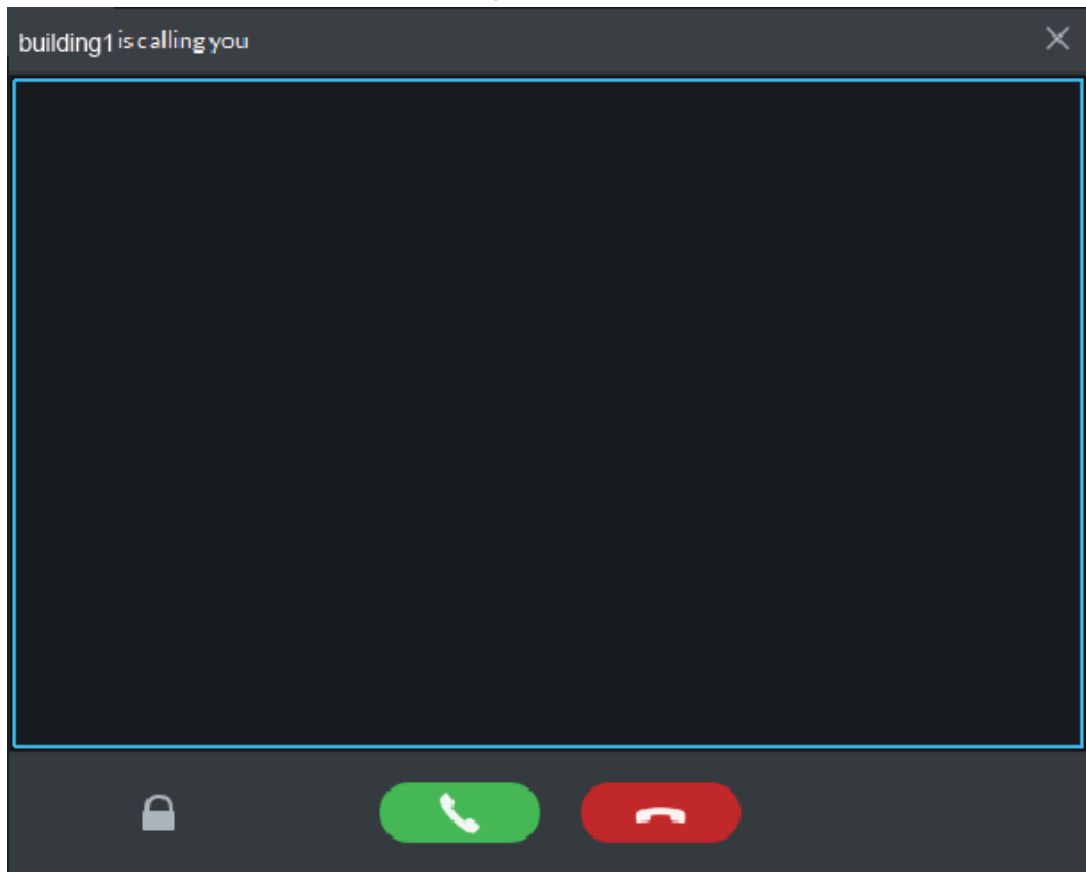

- VTO Call Pro
VTO calls Pro, client pops up the dialog box of VTO calling. See Figure 5-300.
 - ◇  , if VTO is connected to lock, click the icon to unlock.
 - ◇  , click the icon, answer VTO, realize mutual call after connected.
 - ◇  , click the icon to hang up.

Figure 5-300



- If VTH is calling Pro

The client pops out the dialog box of VTH calling. See Figure 5-301. Click  and realize talk with VTH.



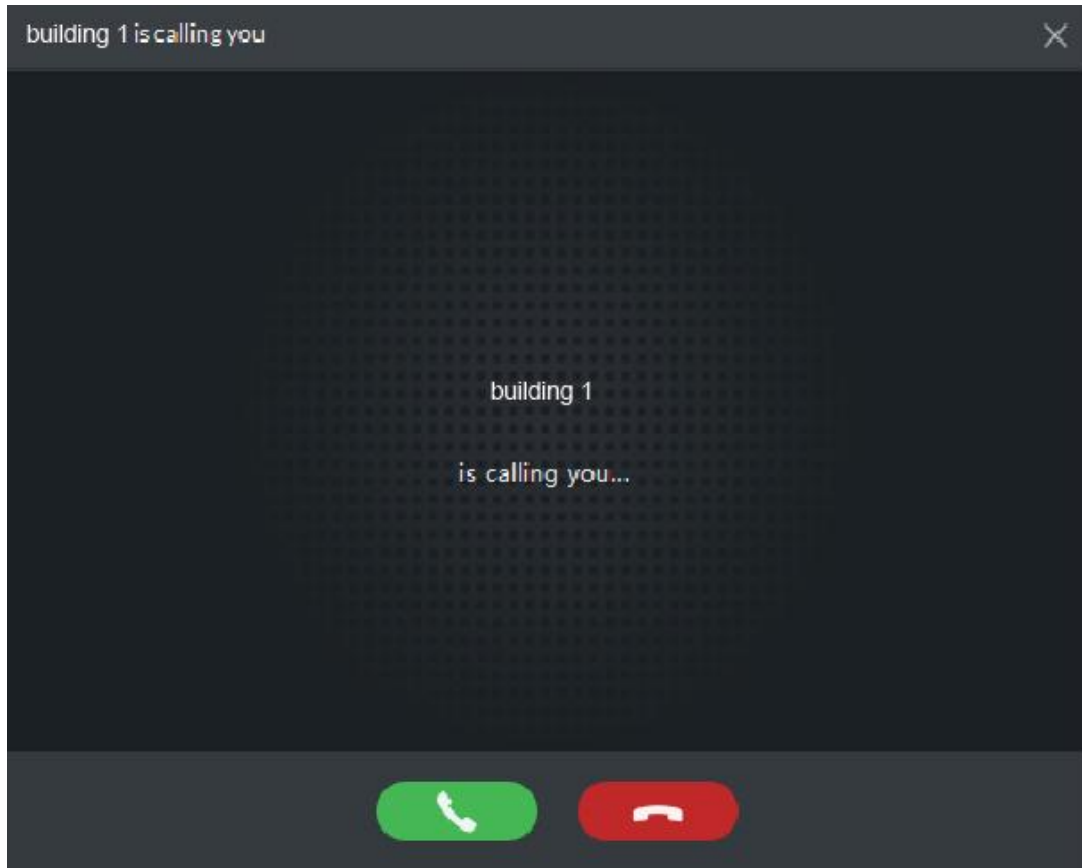
- ◇ , click the icon and answer VTO, realize mutual talk after connected.
- ◇ , click the icon and hang up.

Figure 5-301




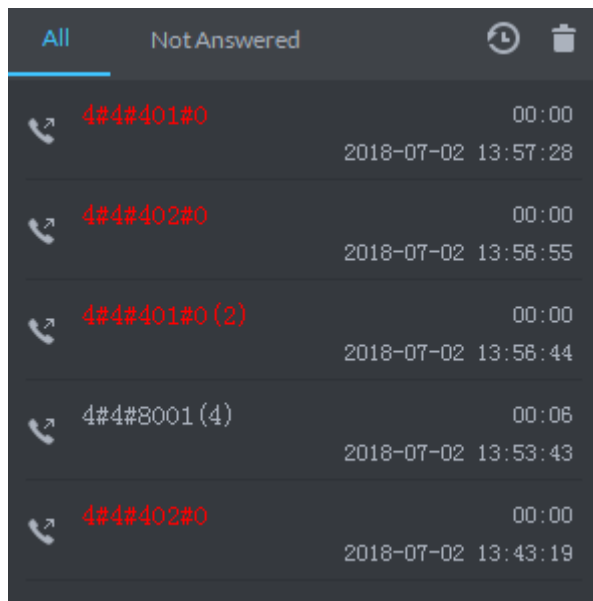

- Call via call record
All the call records are displayed in the **Call Record** in the lower right corner of the interface of **Video Intercom**. See Figure 5-302. Move the mouse to the record, click  and call back.

Figure 5-302



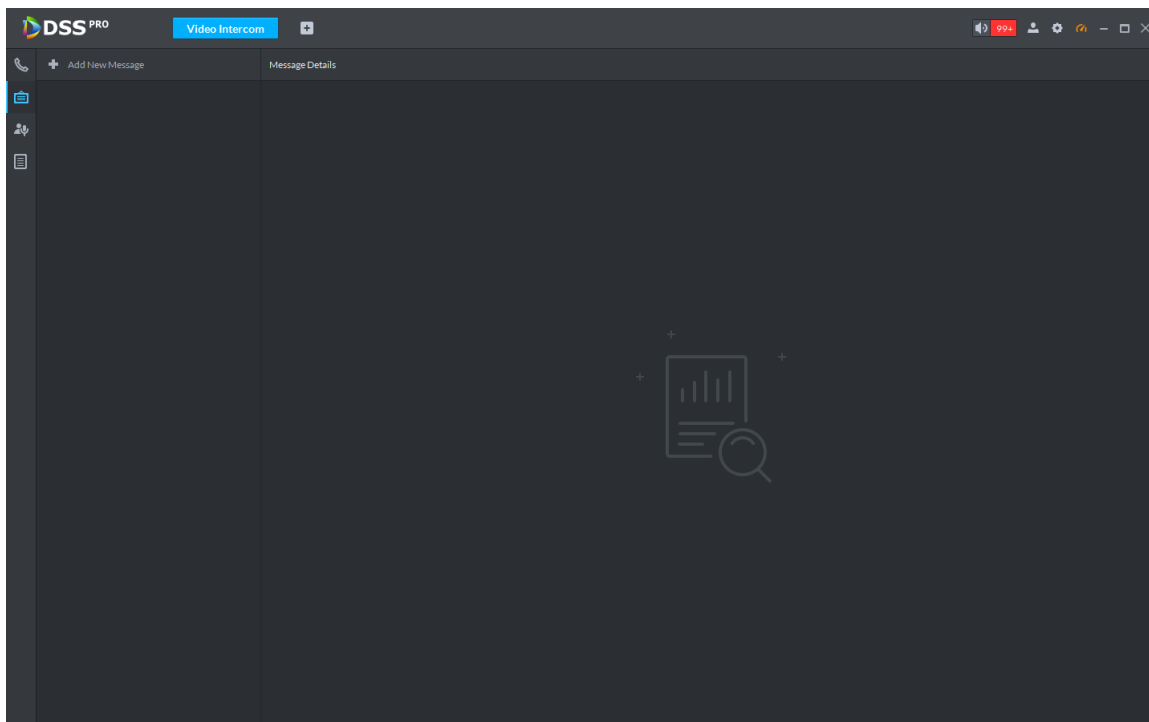
5.19.3.2 Release Info

Send message to designated VTO.

Step 1 Click  on the interface of **Video Intercom**.

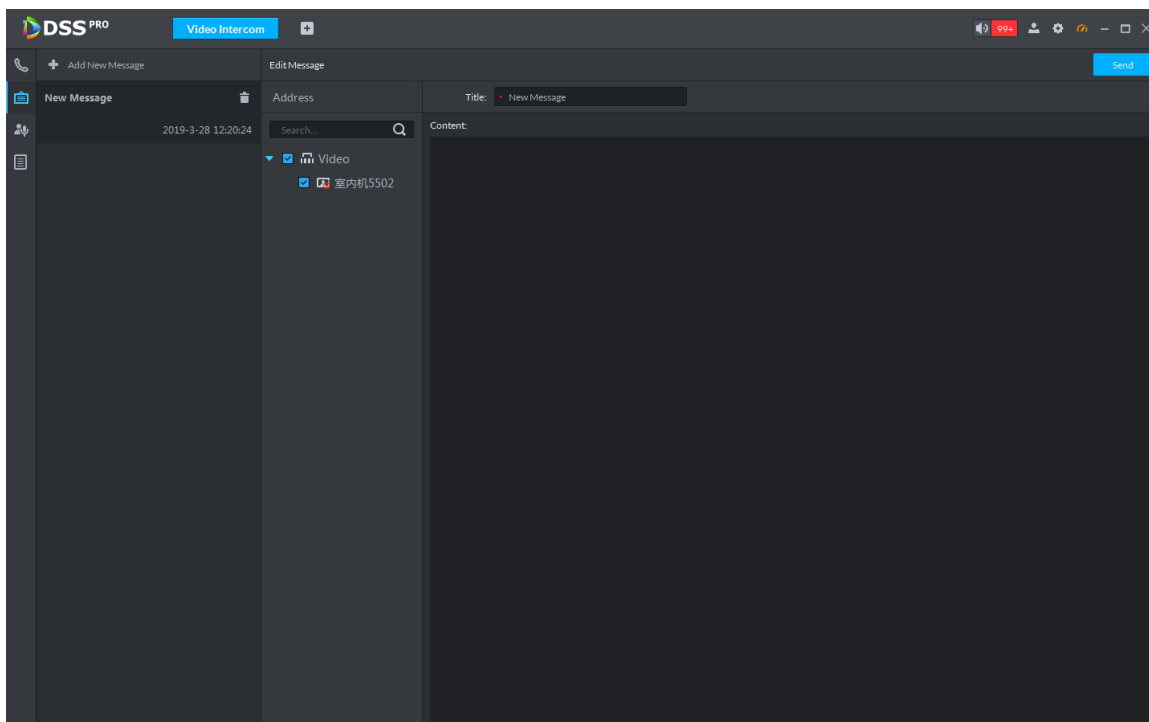
The system displays the interface of **Release Info**. See Figure 5-303.

Figure 5-303



Step 2 Click **Add New Message**, select VTH and add release info. See Figure 5-304.

Figure 5-304



Step 3 Click **Send**.

The VTH will receive the message after it is sent successfully.

5.19.3.3 Search Video Intercom Log

View log records and you can trace recorded calls.

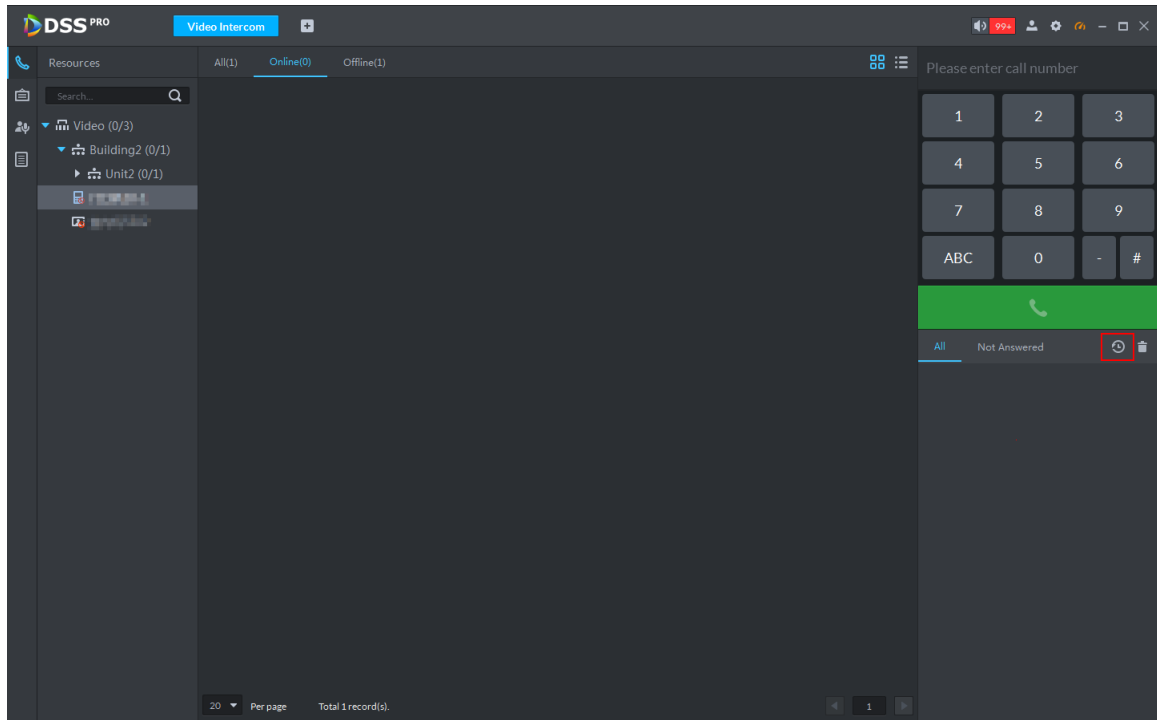
Step 1 Enter the interface of video intercom log.

The system supports following two ways to enter.

Click  on the interface of **Video Intercom**.

Click  and enter console on the interface of **Video Intercom**. See Figure 5-305

Figure 5-305



Step 2 Set conditons, click **Search**.

The system displays the log info. See Figure 5-306

Figure 5-306

Device Name	Call Type	Room No.	Start Time	Talk Time	End Status
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:34:05	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:30:57	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:30:46	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:30:00	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:28:22	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:28:05	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:25:42	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:24:50	00:00	Missed
门口机110-1	Incoming	10#1#8003	2019-03-25 20:24:38	00:09	Received
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:20:50	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:19:55	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:18:34	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 20:18:18	00:00	Missed
室内机S502	Outgoing	10#1#5502#0	2019-03-25 20:02:49	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:55:12	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:55:02	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:54:41	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:48:18	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:48:06	00:00	Missed
室内机S502	Incoming	10#1#5502#0	2019-03-25 19:47:59	00:00	Missed

Step 3 Click **Export** and the logs will be saved locally according to system prompt.

5.20 Attendance Management

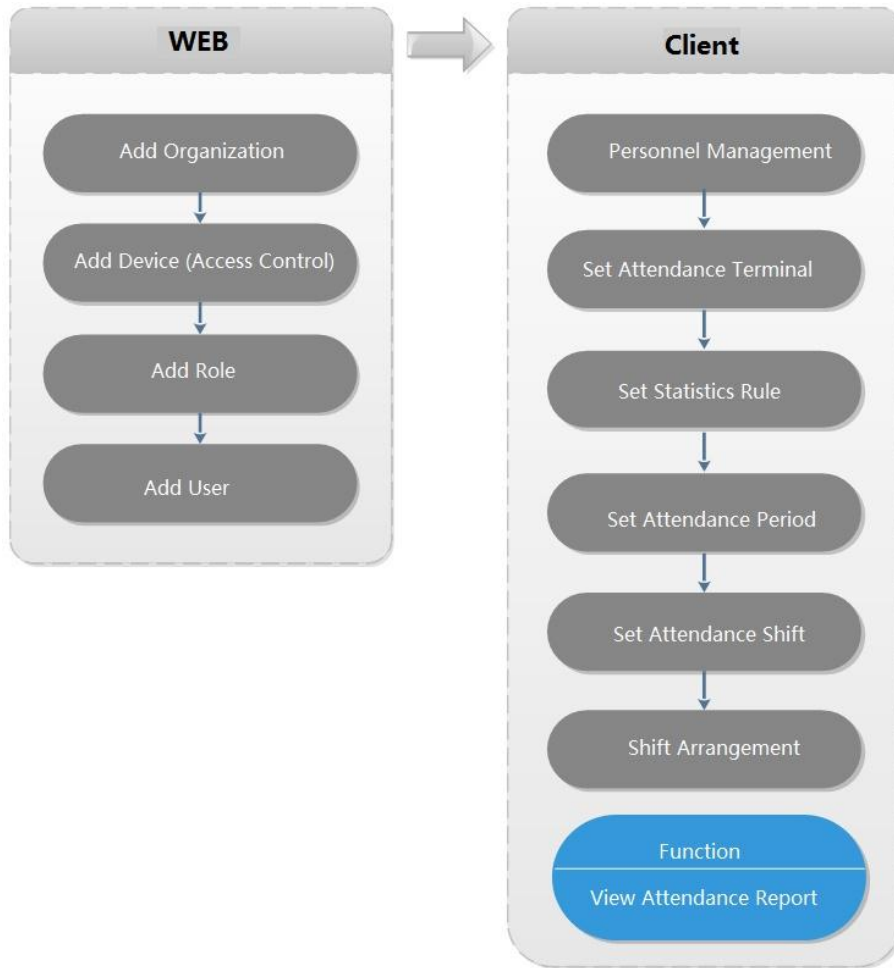
Integrate attendance module, add access control device, manage and configure attendance by Pro, view attendance data.

5.20.1 Preparations before Operation

- Access control is already added on Web, and bound with resource. For details, refer to **4.6 Adding Device**.
- Personnel are already added. For details, refer to **5.16 Personnel Management**.

See Figure 5-307 for attendance management flow.

Figure 5-307



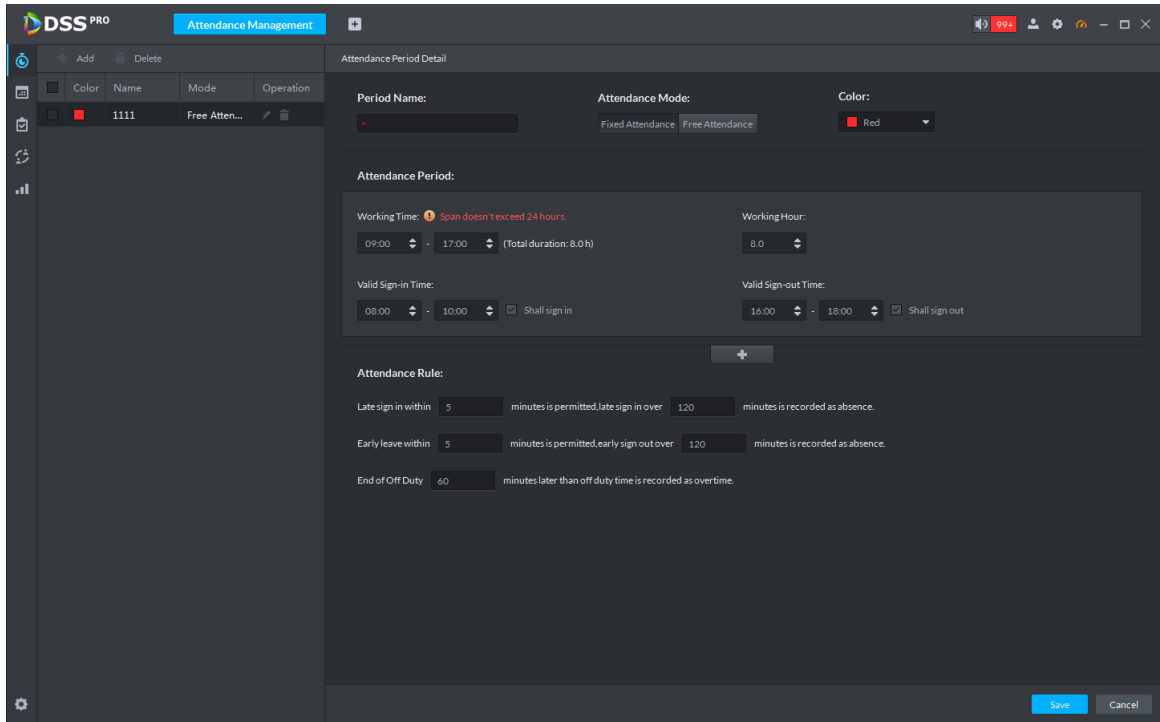
5.20.2 Setting Attendance Terminal

Make sure access control is used as attendance device, used to punch card, record attendance info and upload attendance data.

Step 1 Click  and select **Attendance Management** on the interface of **Homepage**.

The system displays the interface of **Attendance Management**. See Figure 5-308.

Figure 5-308




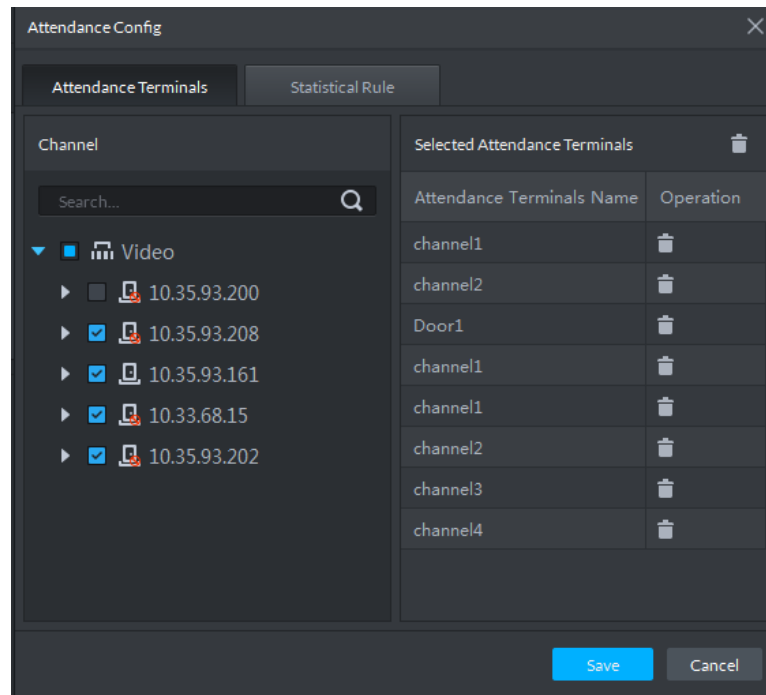
Step 2 Click  on the lower left corner of the interface, select **Attendance Terminal**. The system displays the interface of **Attendance Terminal**. See Figure 5-309.

Figure 5-309



Step 3 Select access control channel from the left list, click **Save**.



You can find needed device by search function, the system supports fast search.

5.20.3 Setting Statistics Rule

Minimum timing unit of swiping card is minute, the statistics rule of dealing with second is round up and round down. For example, swipe card at 09:00:01, if the rule is set as round down, then the time of swiping card is 09:00; if the rule is set as round up, then the time of swiping card is 09:01.


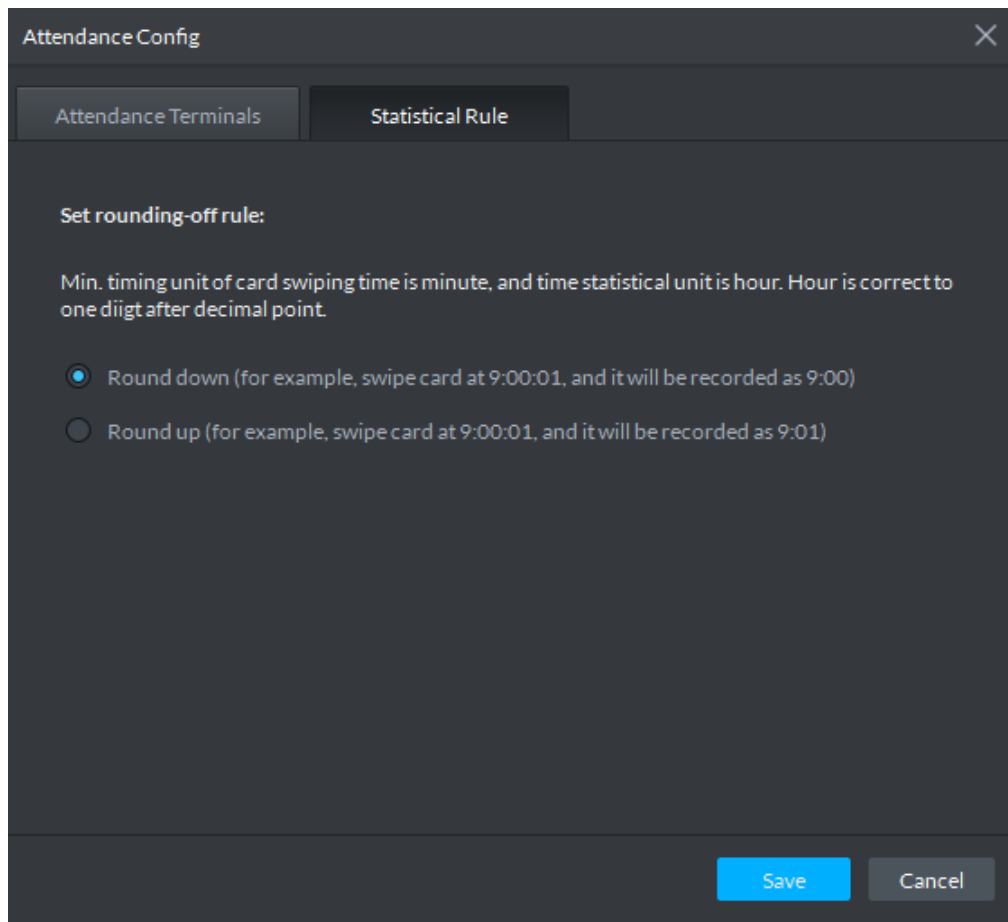
Click  at the lower left corner on the interface of **Attendance Management**, select **Statistics Rule**. The interface of **Statistical Rule** is displayed. See Figure 5-310


Figure 5-310



Step 4 Select rule and click **Save**.

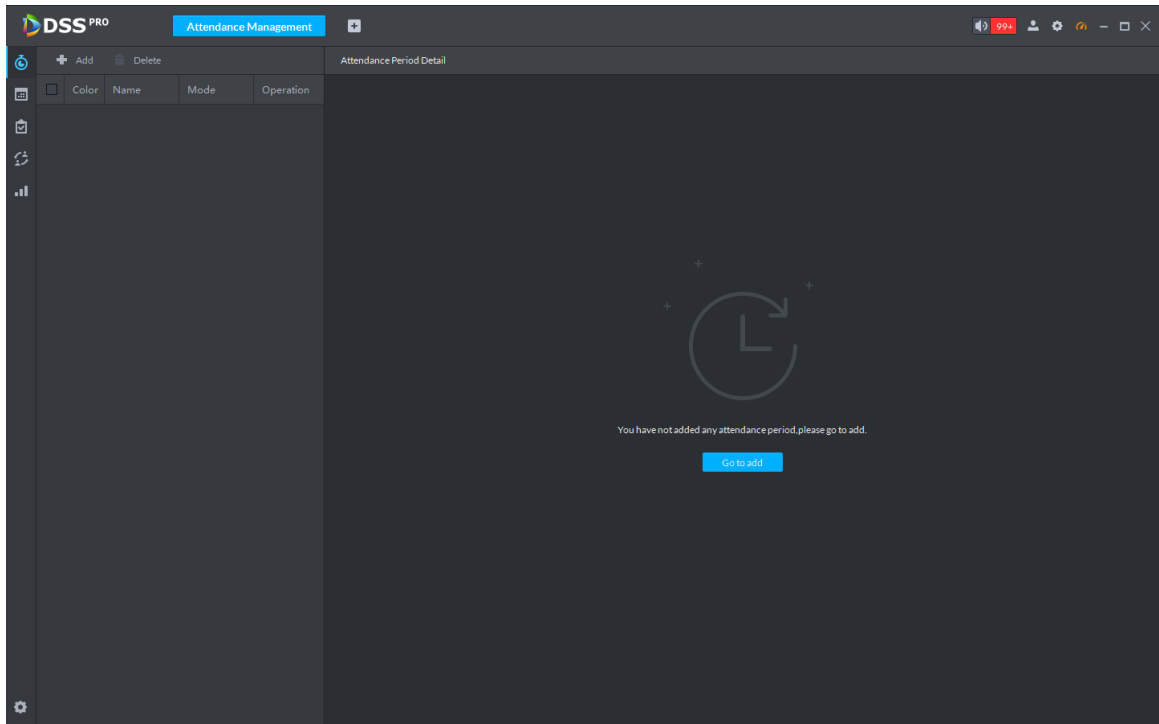
5.20.4 Setting Attendance Period


Set attendance period, which can be used as time evidence to judge if people attend, late or leave early.

Step 1 Click  on the interface of **Attendance Management**.

The interface of **Attendance Management** is displayed. See Figure 5-311.

Figure 5-311



Step 2 Click  on top left corner of the interface.

The new attendance period interface is displayed.

Step 3 Set parameters of attendance period.



The priority of rules set by Pro is higher than that of the device itself.

There are two types of attendance according to different attendance mode and different config.

Fixed attendance requires you to sign in and sign out within the designated period. For config details, see Figure 5-312 and Figure 5-313. For parameter details, see Table 5-46.

Figure 5-312

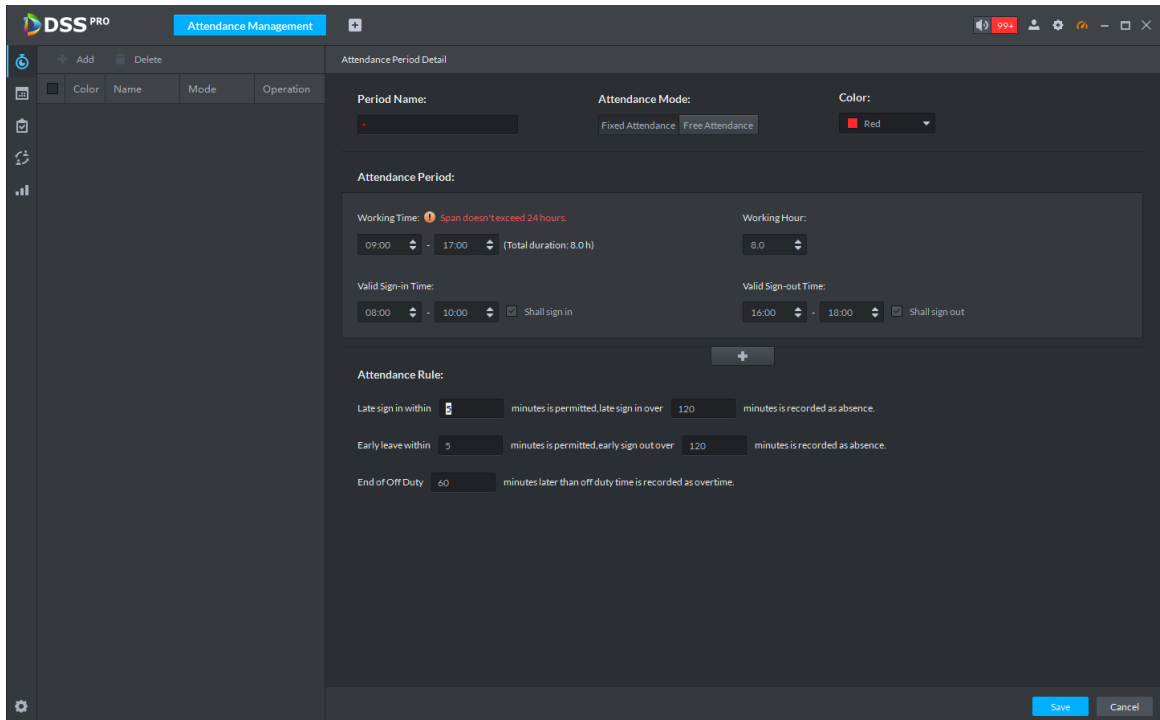


Figure 5-313

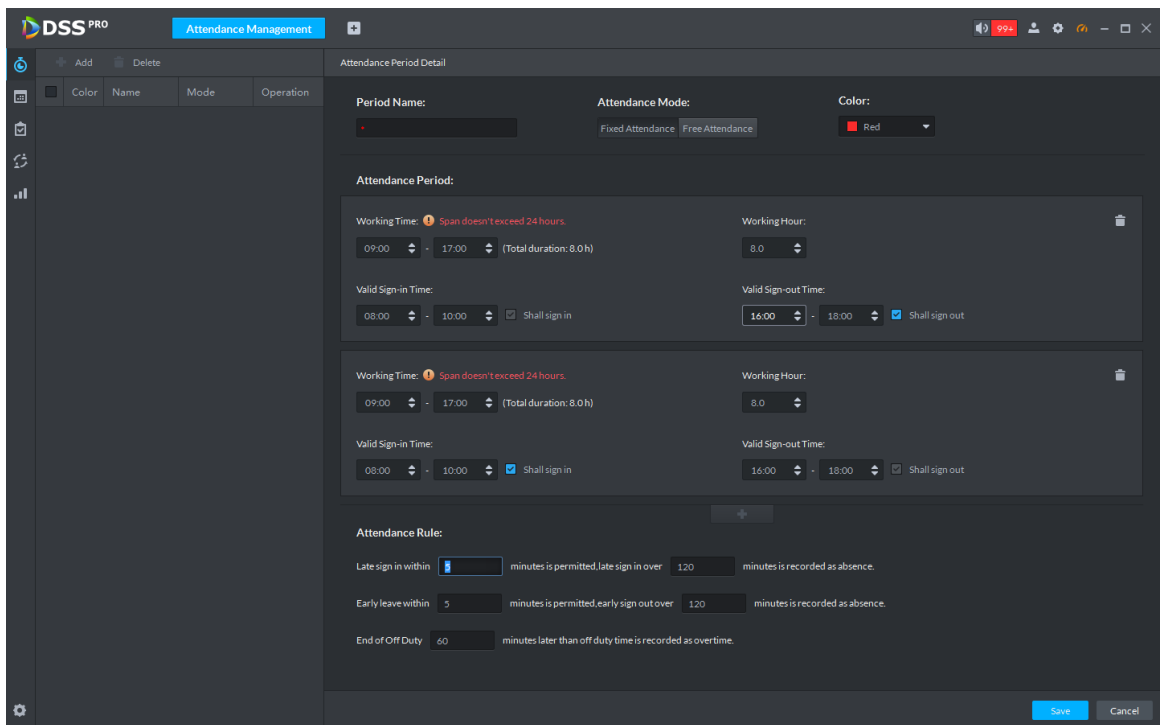




Table 5-46

Parameter	Note
Period name	Custom period name, used to recognize period, such as early shift and night shift.
Color	Set corresponding color of period, corresponding color will be directly displayed on calendar when making shift for personnel, and quickly recognize shift information.
Attendance mode	Set as Fixed Attendance .

Parameter	Note
Working time	<p>Set corresponding working hour of period. Attendance time supports cross-day, but not exceeds 24 hours. One attendance period supports max two types of attendance time.</p>  <ul style="list-style-type: none"> ● If attendance time needs to be split into twice, such as morning and afternoon, then it needs to click , set second working time and sign-in sign-out period. ● If you set two types of attendance time, then it needs to sign in and sign out according to the configured attendance time, which can be considered as normal attendance.
Working hour	Please fill in according to actual situation.
Valid sign-in time	<p>If working time is set from 09:00-18:00, then valid sign-in time can be set as 08:00-10:00, valid sign-out time can be set as 16:00-18:00.</p> <p>Config rules are as follows:</p> <ul style="list-style-type: none"> ● The start time of valid sign-in time is earlier than or equal to start working time (09:00), the end time of valid sign-in time should be later than start working time (09:00), earlier than start time of valid sign-out time. If there are several sign-in records within valid sign-in time, then the earliest record is considered as sign-in time. ● The start time of valid sign-out time is later than the end time of valid sign-in time, earlier than end working time (18:00), the end sing-in time of valid sign-out time is later than or equal to end working time (18:00). If there are several sign-out records within valid sign-out time, then the earliest record is considered as sign-out time.
Valid sign-out time	
Shall sign in	If you set two working time, then the second working time can cancel sign in, you don't have to sign in when you work at the second working time, and the start time of working time can be used as sign-in time.
Shall sign out	If you set two working time, then the first working time can cancel sign in, you don't have to sign out when you finish work at the second working time, and the end time of working time can be used as sign-out time.
Work sign-in over _minutes recorded as late	<p>Define the rules of late, absence and early leave.</p> <p>Suppose set Work sign-in over __minutes recorded as late as 5 minutes; Late sign-in over _minutes recorded as absence is set as 60 minutes; Off duty _ minutes in advance recorded as early leave is set as 10 minutes; Early leave exceeds_ minutes recorded as absebce is set as 30 minutes. Details are as follows.</p>
Late sign-in over _minutes recorded as absence	

Parameter	Note
Off duty_ minutes in advance recorded as early leave	<ul style="list-style-type: none"> ● Late When work sign-in is later than start time of working time, and 5 minutes < period ≤ 60 minutes, then it is recorded as late.
Early leave exceeds_ minutes recorded as absence	<ul style="list-style-type: none"> ● Early leave When off duty sign-out time is earlier than end time of working time, and 10 minutes < period ≤ 30 minutes, then it is recorded as early leave. ● Absence When work sign-in time is later than start time of working time, and period > 60 minutes, then it is recorded as absence. When off duty sign-out time is earlier than end time of working time, and period > 30 minutes, then it is recorded as absence.
Off duty sign-out over_ minutes recorded as overtime	<p>Define overtime rule.</p> <p>Suppose Off duty sign-out over__minutes recorded as overtime is set as 120 minutes, off duty sign-out time is later than end time of working time, and period > 120 minutes, then it is recorded as overtime, overtime period is Period – 120 minutes.</p>

Free Attendance, you are required to sign in and sign out within the specific period. See Figure 5-314. For parameter details, see Table 5-47.

Figure 5-314

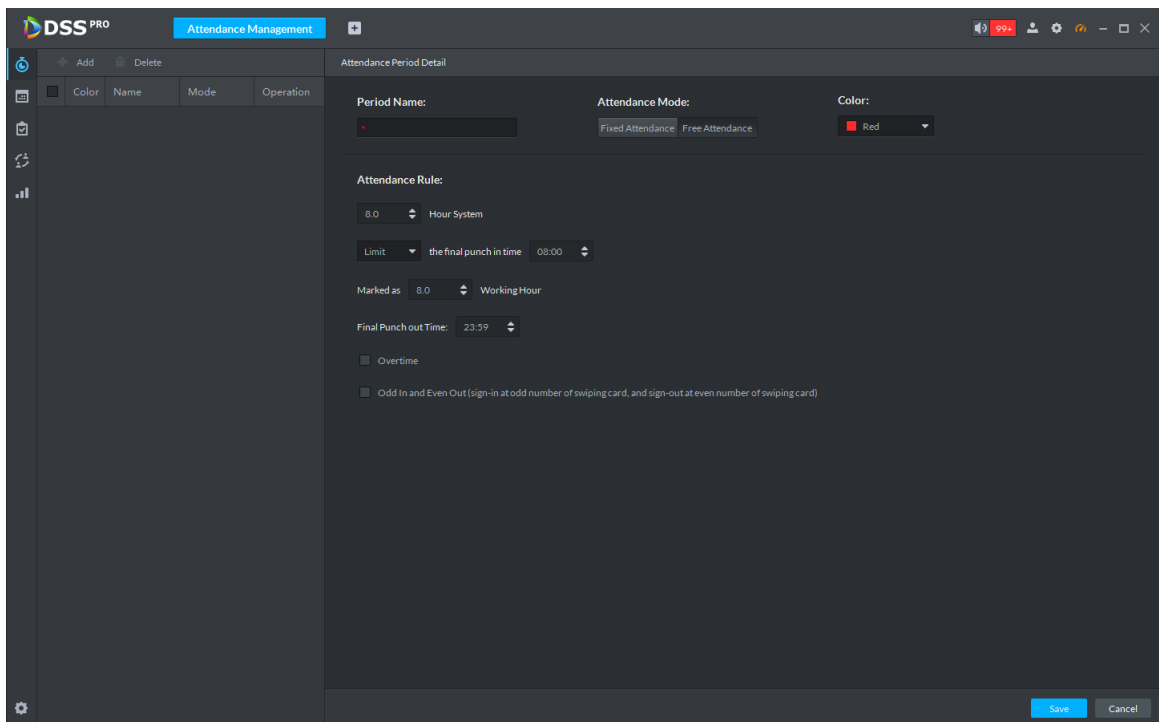


Table 5-47

Parameter	Note
Period name	Custom period name, used to recognize period, such as flexible attendance.
Attendance mode	Set as Free Attendance .

Parameter	Note
Color	Set corresponding color of period, corresponding color will be directly displayed on calendar when making shift for personnel, and quickly recognize shift information.
Hour system	Set how many hours you have to work a day. For example, if you set 8, then it means you are required to work 8 hours.
Final punch in time	Set if it restricts latest punch in time; sign in after restricted time is recorded as late.
Mark as_working hour	Fill in working hour according to actual situation.
Final punch out time	You are required to sign out before the designated time, otherwise no sign out is recorded.
Overtime	Working over__ hours is recorded as overtime. For example, working hour is 8 hours a day, and if you work overtime for 2.5 hours, then it is recorded as overtime, then you can set 10.5 here.
Work over_hours recorded as overtime	
Odd in even out	Swipe card at odd number is recorded as sign in. For example, the first card swiping is sign in. Swipe card at even number is recorded as sign out. For example, the second card swiping is sign out. It is recorded as twice punch card when the interval of continuous twice card swiping is bigger than the threshold.
Continuous twice card swiping interval \geq _minutes	

Step 4 Click **Save** and save period config.



If attendance period is already applied to attendance shift, then before deleting attendance period, first enter the interface of **Attendance Shift**, modify attendance shift, and delete attendance period before removing application of the attendance period.

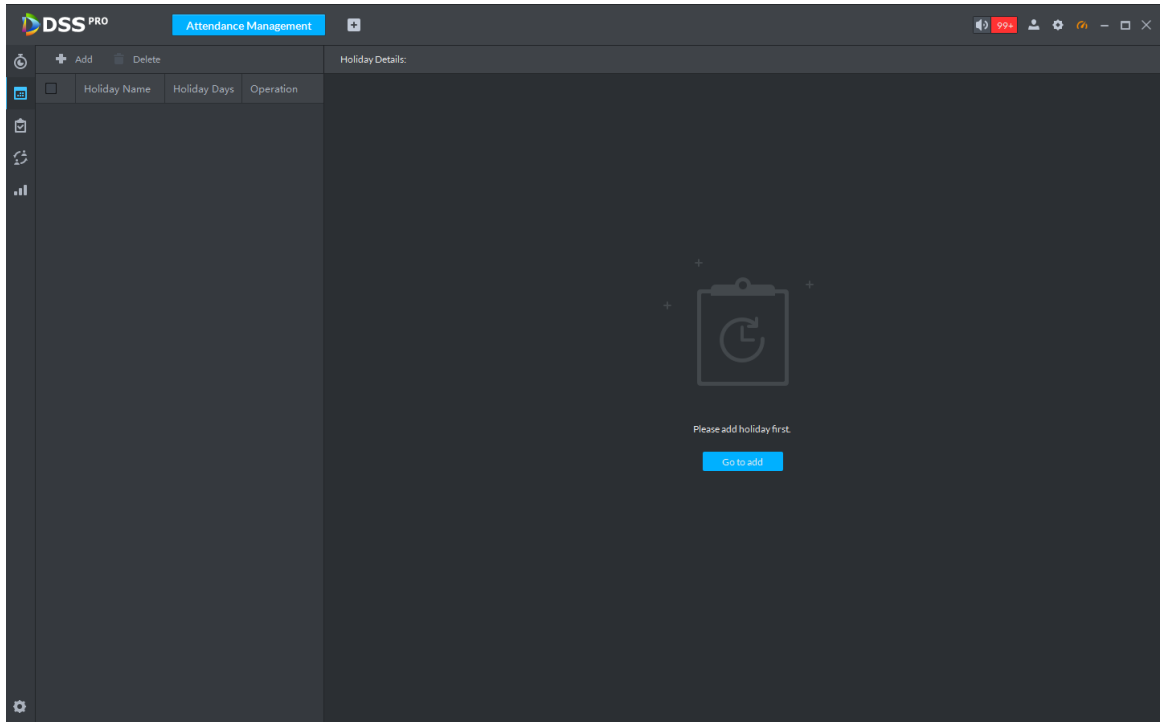
5.20.5 Setting Holiday

Set holiday time, used to judge overtime type during attendance statistics.

Step 1 Click  on the interface of **Attendance Management**.

The interface of **Holiday Management** is displayed. See Figure 5-315.

Figure 5-315




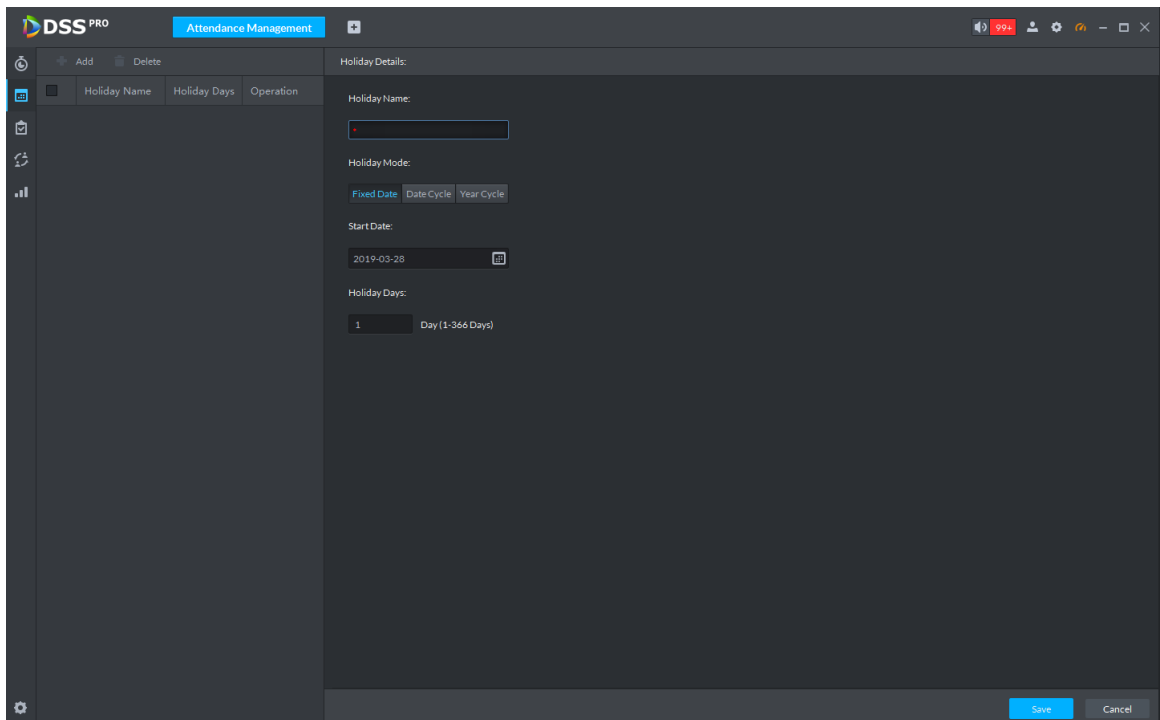
Step 2 Click  on the upper left corner of the interface. The add holiday interface is displayed. See Figure 5-316.

Figure 5-316



Step 3 Set holiday details, three modes available. See Table 5-48 for more parameter details.

Table 5-48


Holiday mode	Note
Fixed Date	Set some specific date as holiday. For example, set June 7, 2019 (Dragon Boat Festival) as holiday, and lasts for 1 day, then set

Holiday mode	Note
	Start Date as June 7, 2019 and Holiday Days as 1.
Date Cycle	If the holiday is the fixed weekday of some week in some specific month, and it cycles according to year, which can be configured as data cycle. For example, if you want to set Mother's Day as holiday, and it lasts for 1 day, then you can set Start Date as the second Sunday in May, and Holiday Days as 1.
Year Cycle	If the holiday is fixed date and it cycles according to year, which can be configured as year cycle. For example, set New Year's Day as holiday, and it lasts for 1 day, then you can set Start Date as January 1 and Holiday Days as 1.

Step 4 Click **Save**.

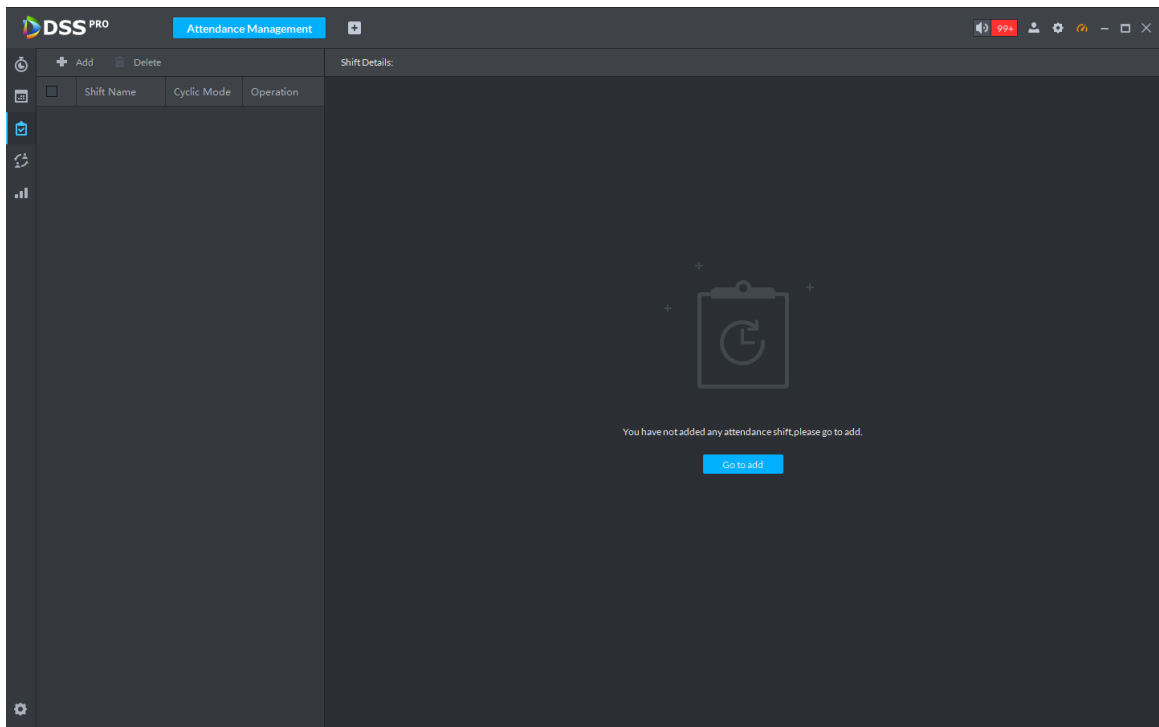
5.20.6 Setting Attendance Shift

Set attendance shift according to attendance period, used for department and personnel shift.

Step 1 Click  on the interface of **Attendance Management**.

The interface of **Attendance Shift** is displayed. See Figure 5-317.

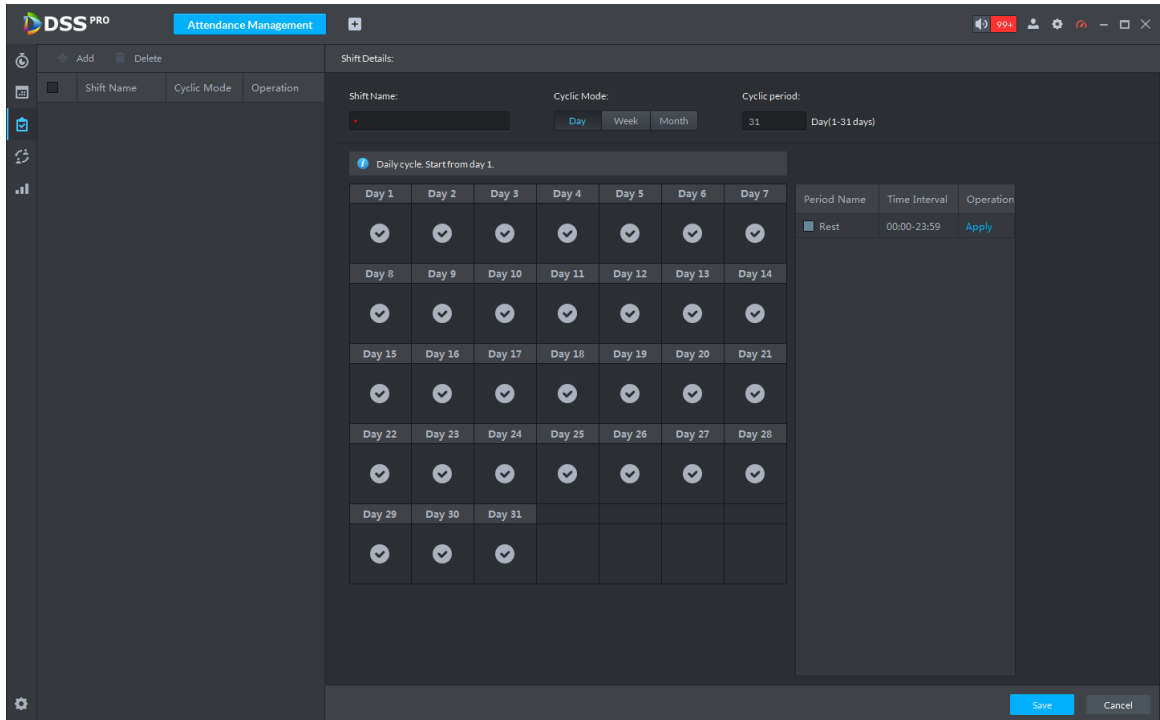
Figure 5-317



Step 2 Click  on the top left corner of the interface.

The add attendance shift interface is displayed. See Figure 5-318.

Figure 5-318



Step 3 Set shift details, select date, click Apply and arrange attendance period for date. See Figure 5-319. For parameter details, see Table 5-49.

Figure 5-319

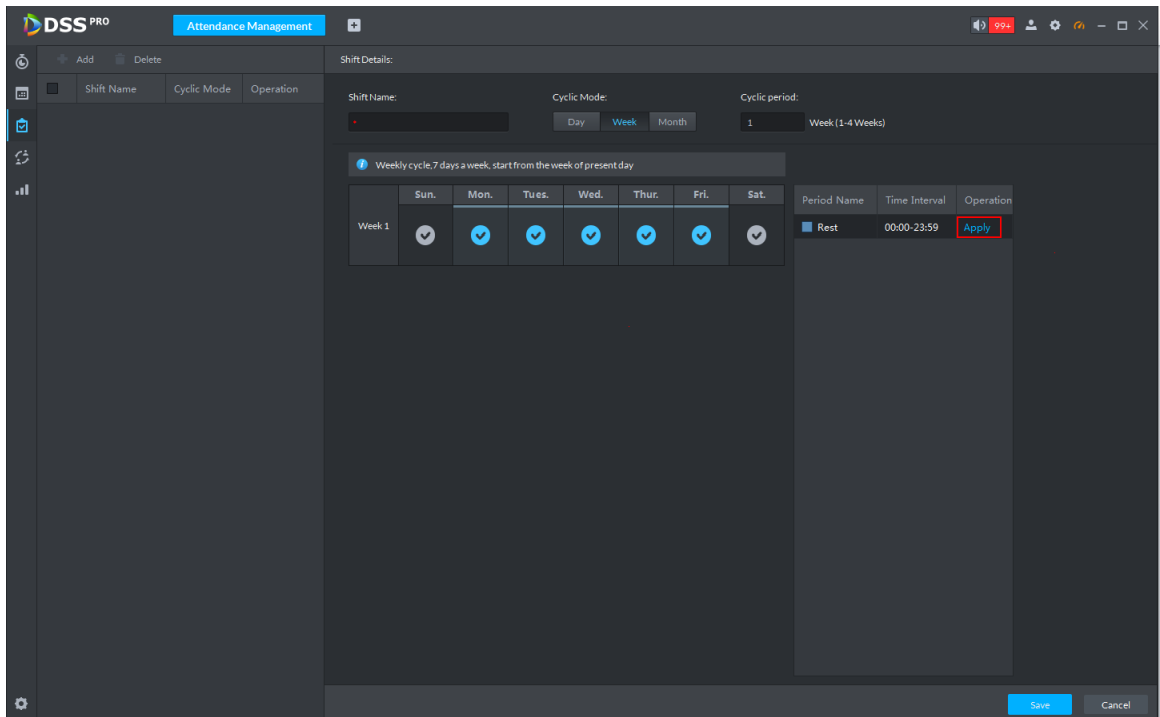


Table 5-49

Parameter	Note
Shift name	Custom period name, used to recognize shift.

Parameter	Note
Cycle mode	Day: Start cycle from the first day, cycle period can be set as any number from 1 to 31 according to day. For example, if you set 2, then the cycle period is 2 days. Week: There are 7 days in a week by default, it starts cycle from Sunday, and so Sunday is required to be set as the first day. Cycle period can be set as any number from 1 to 4. For example, if you set 2, then 2 weeks can be a cycle period.
Cycle period	Month: There are 31 days in a month by default, it starts cycle from the current day (If the date does not exist, then it will be deleted during shift arrangement), cycle period can be set as any number from 1 to 3 according to month. For example, if you set 2, then 2 months can be a cycle period.

Step 4 Click **Save** to save shift config.



Delete in-use attendance shift: Enter the interface of **Personnel Shift Arrangement**, check if there are shifts need to be deleted for all personnel shifts, please delete after remove the relation.

5.20.7 Shift Management

Make shifts for personnel or department, meanwhile it makes temporary shift for personnel. The shift priority is temporary shift > holiday > personnel shift > department shift.

5.20.7.1 Personnel/Department Shift Arrangement

The operations over both personnel shift and department shift are similar, in this chapter; it takes personnel shift as an example to introduce config.

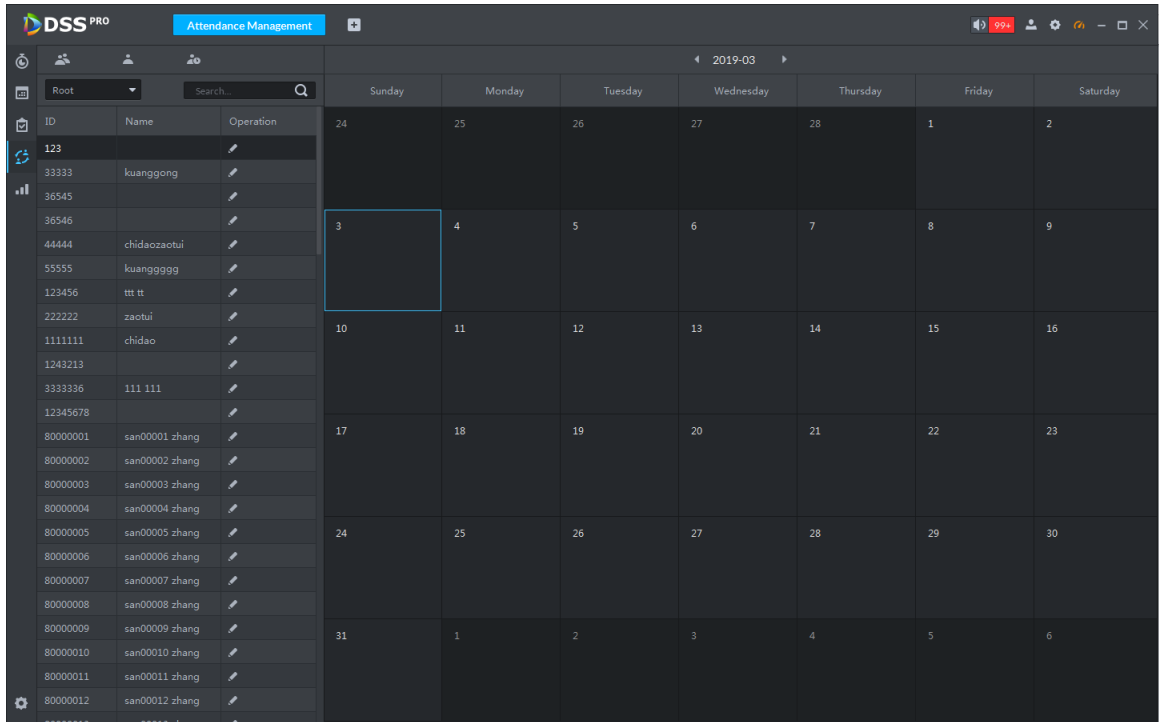



- If you configure department shift, then all the personnel of the department need to conform to the shift.
- If both personnel and department are configured with shift, then the latest personnel shift shall prevail. For example, after configuring the personnel shift, and the corresponding department is configured as well, then personnel shift is based on the latest department shift.
- If the department where new personnel belong is configured with shift, then the shift of new personnel should conform to department shift.

Step 1 Click  on the interface of **Attendance Management**.

The interface of **Personnel Shift Arrangement** is displayed. See Figure 5-320

Figure 5-320



Step 2 Click  on the top left corner of the interface.

The interface of **Personnel Shift Arrangement** is displayed. See Figure 5-321.





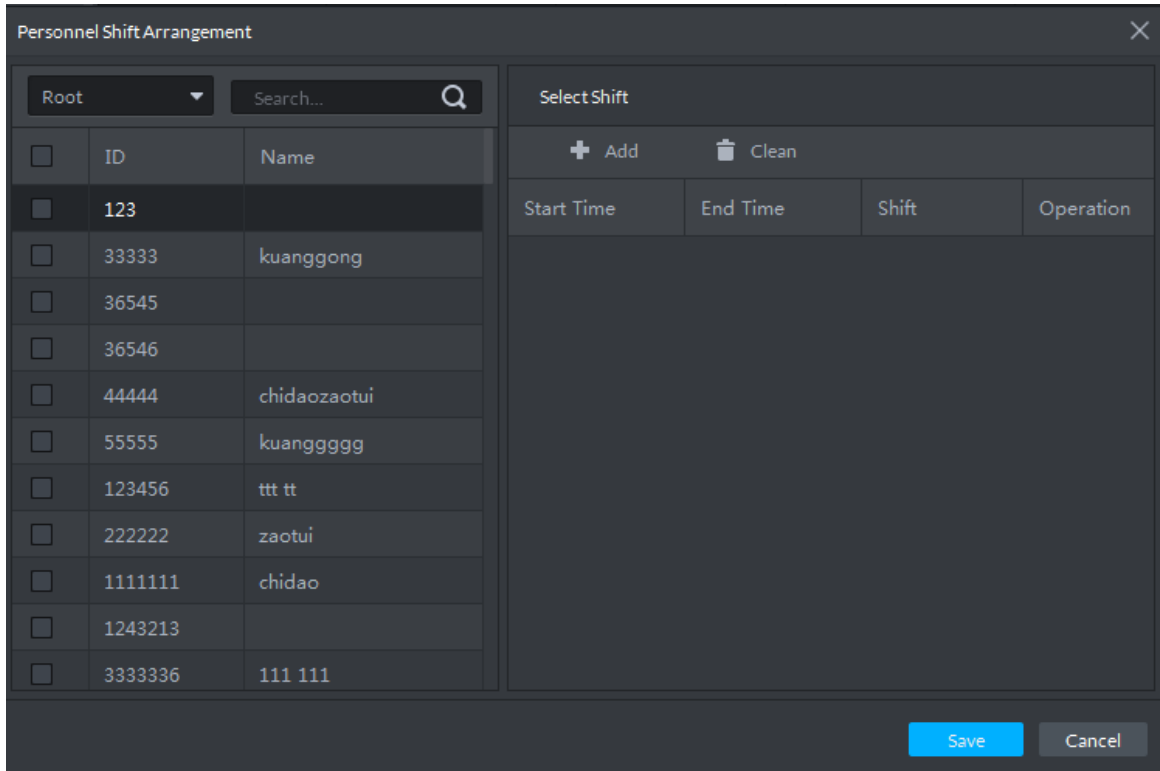
- If you need to configure shift for department, click  on the top left corner and enter the interface of department shift arrangement. The following operation is the same as personnel shift arrangement.
- On the interface of personnel shift arrangement, select personnel and view the shift situation.
- Click  next to the personnel and you can view the shift details.

Figure 5-321




Step 3 Select shift personnel, click  to add shift info. See Figure 5-322. For parameter details, see Table 5-50

Figure 5-322

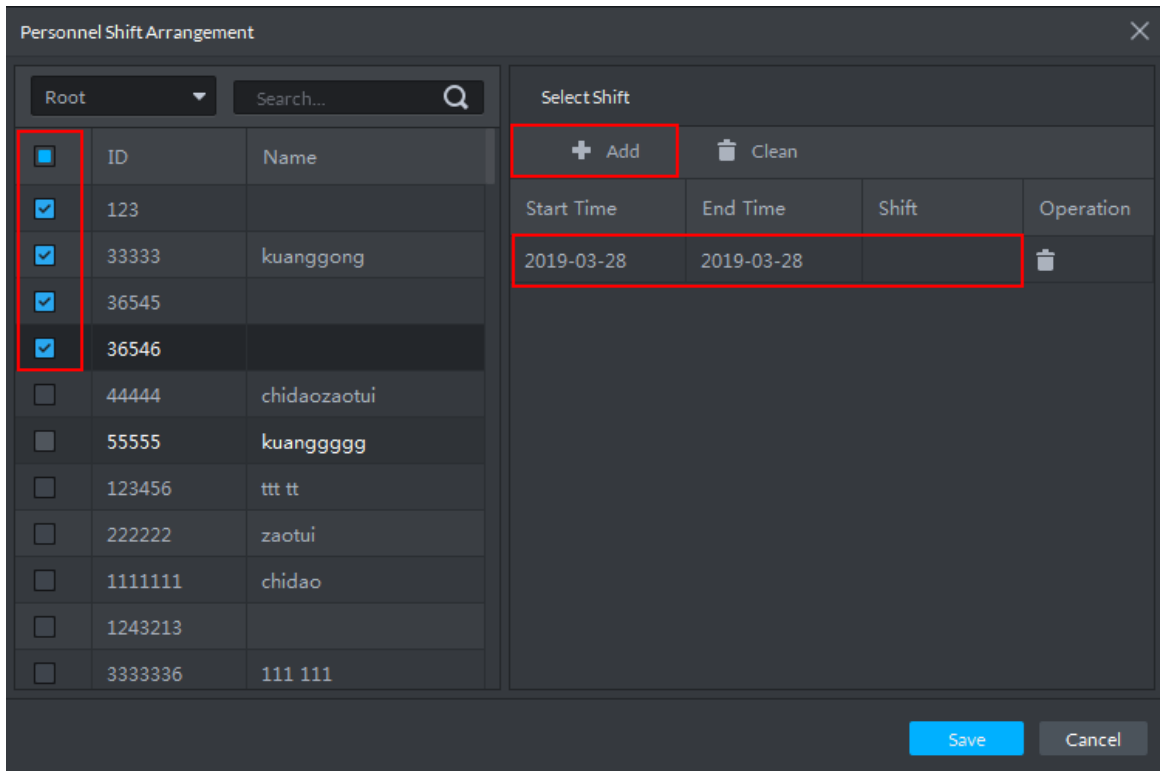



Table 5-50

Parameter	Note
Start time	Set start date and end date of personnel shift. Click the column of Start Time and display calendar, select date and time, and then click OK to complete date setting
End time	
Shift	Select needed shifts. Shift range means all the attendance shifts set in 5.20.6 Setting Attendance Shift

Step 4 Click **Save** to save personnel shift information.

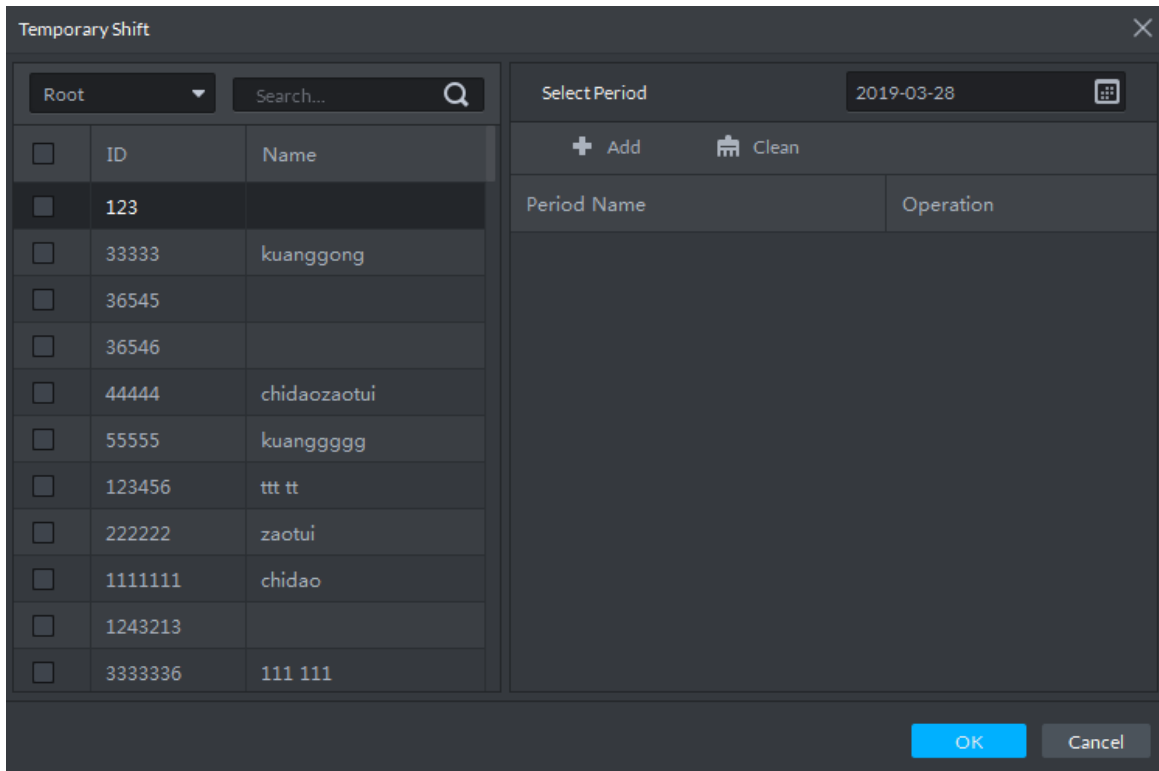
5.20.7.2 Temporary Shift

Temporary shift is needed when work changes temporarily.

Step 1 Click  on the interface of Attendance Management or select personnel on the right, double click date on the left.

The interface of Temporary Shift is displayed. See Figure 5-323.

Figure 5-323




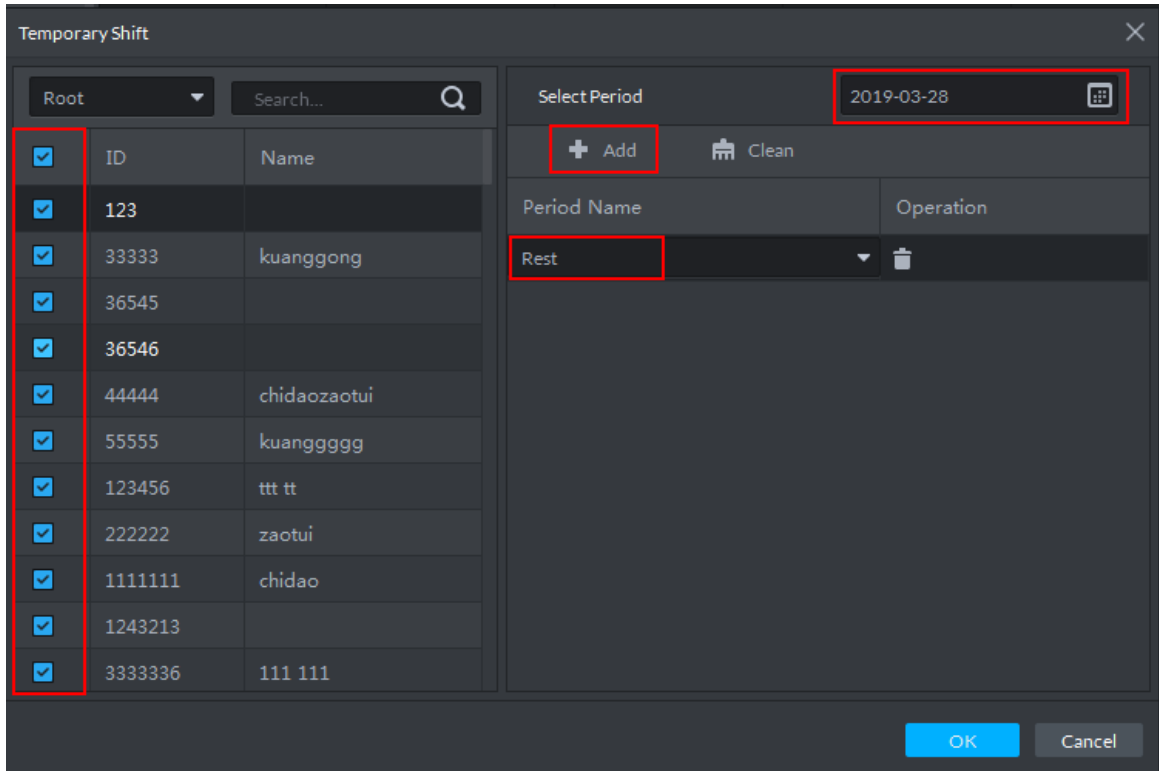
Step 2 Select personnel and date, click  and select temporary attendance period. See Figure 5-324. You can add max. 2 attendance periods and 1 free attendance period.

Figure 5-324




Step 3 Click **OK** and save shift information.



Temporary shift can be deleted, right click the date which is configured with temporary shift, and delete temporary shift according to system prompt.

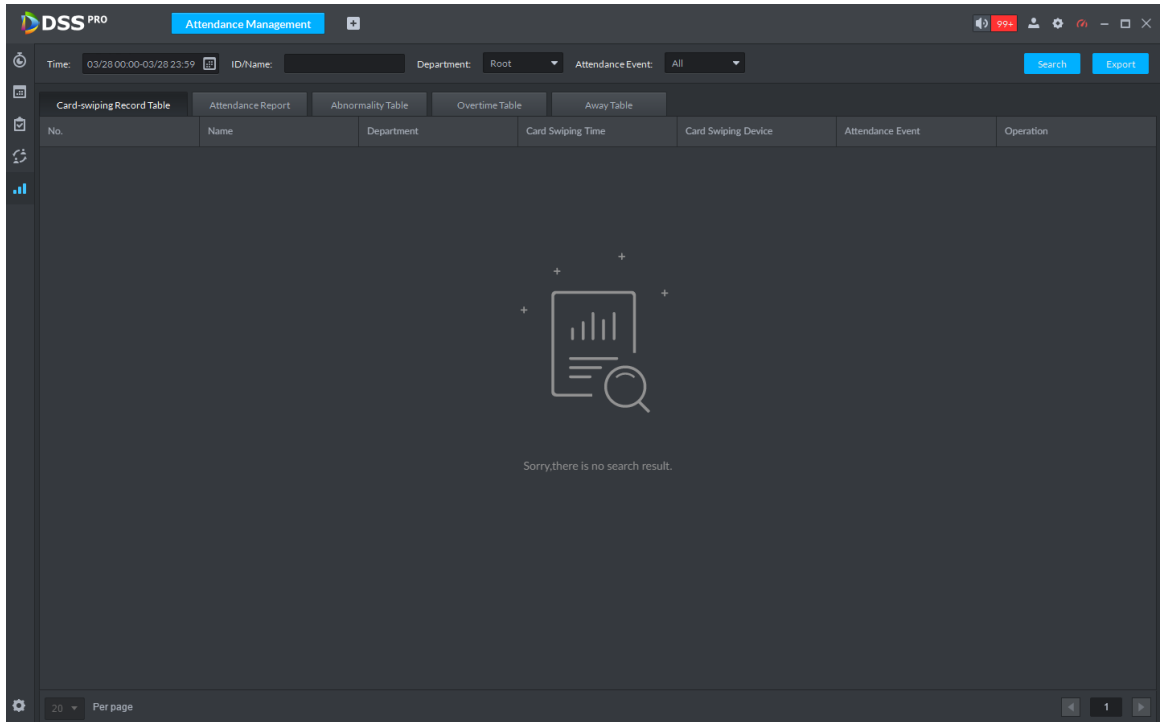
5.20.8 Viewing Attendance Report

View attendance data, displayed in the form of report, including card swiping record table, attendance report, abnormality table, overtime table and away table.

Step 1 Click  on the interface of **Attendance Management**.

The interface of **Attendance Report** is displayed. See Figure 5-325.

Figure 5-325



Step 2 Click corresponding tab, set search condition, click Search.

The search result is displayed, exported by excel and saved locally, it can export up to 10,000 records.


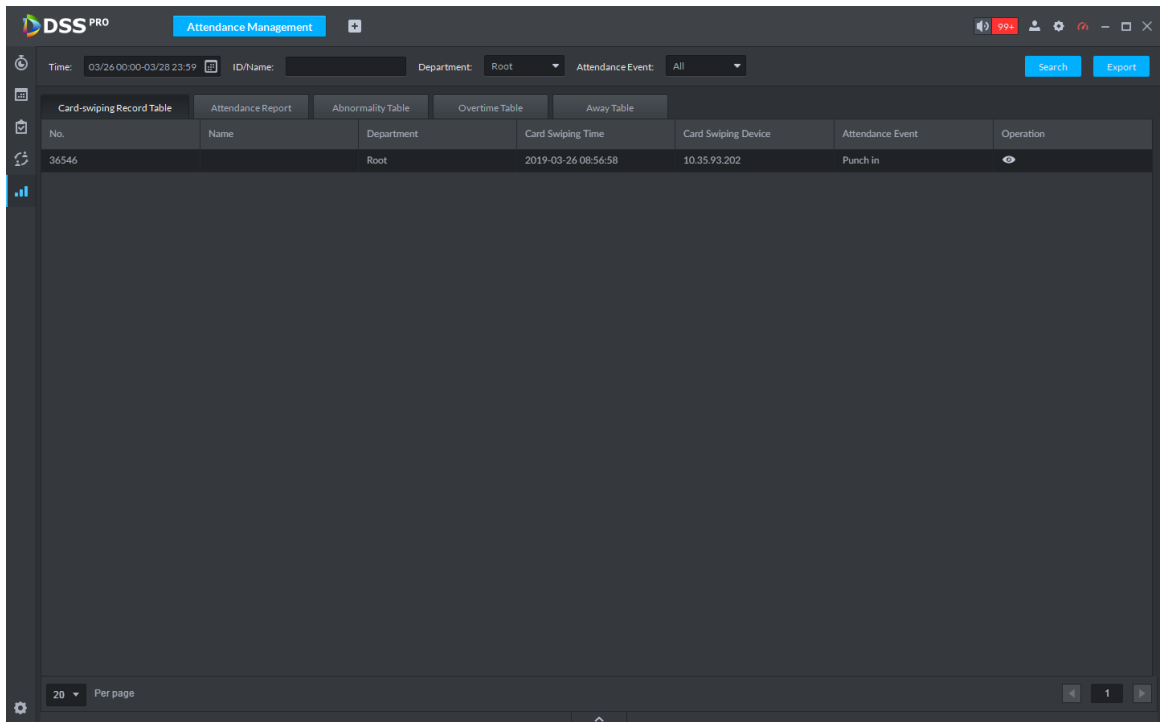
- Card swiping record table is shown in Figure 5-326. Click  and view more details of the person who swipes card.

Figure 5-326



- See Figure 5-327 for attendance report.

Figure 5-327

The screenshot shows the DSS PRO Attendance Management interface. The top navigation bar includes the DSS PRO logo, the title 'Attendance Management', and a user profile icon. Below the navigation bar, there are search and filter options: 'Time: 03/26 00:00-03/28 23:59', 'ID/Name: [input]', and 'Department: Root'. There are 'Search' and 'Export' buttons. The main content area has several tabs: 'Card-swiping Record Table', 'Attendance Report' (selected), 'Abnormality Table', 'Overtime Table', and 'Away Table'. The 'Attendance Report' tab displays a table with the following data:

Date	No.	Name	Department	Sign-in Time	Sign-out Time	Week	Away Duration	Working Period	Overtime Duration
2019-03-26	36546		Root	08:56		Tuesday	0.0 Hour(s)	0.0 Hour(s)	0.0 Hour(s)

At the bottom of the interface, there is a pagination control showing '20' items per page and '1' page.

- See Figure 5-328 for abnormality table.

Figure 5-328

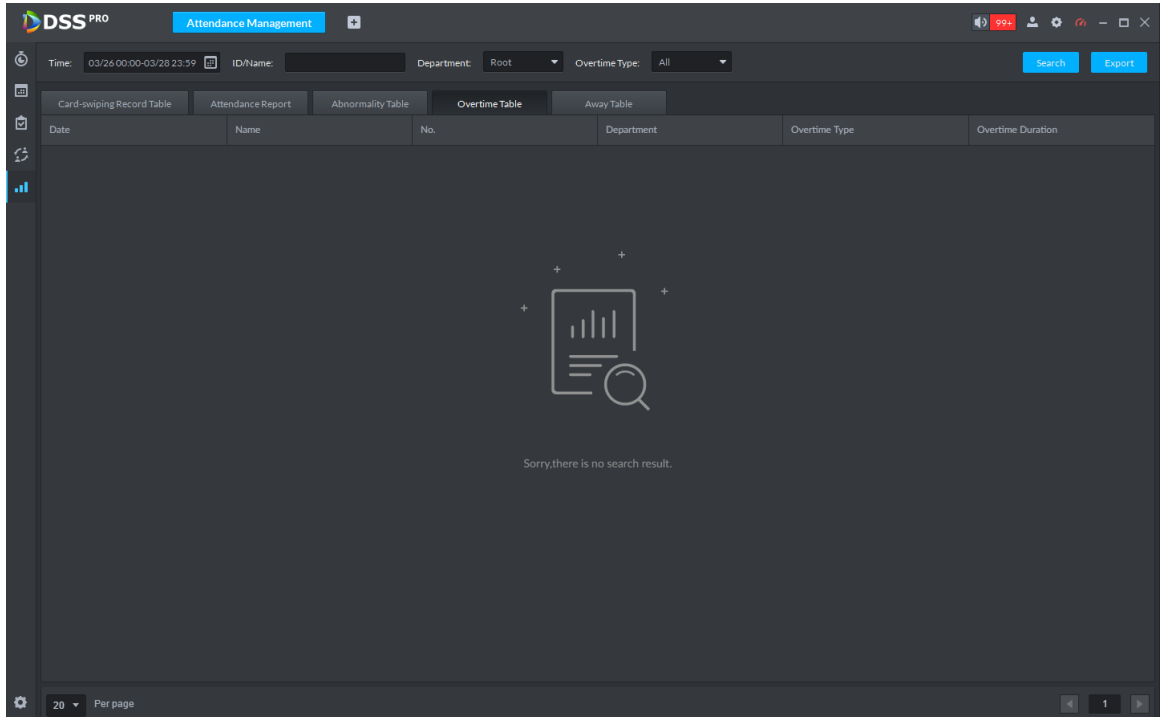
The screenshot shows the DSS PRO Attendance Management interface with the 'Abnormality Table' tab selected. The top navigation bar and search/filter options are the same as in Figure 5-327. The 'Abnormality Table' tab displays a table with the following data:

Date	No.	Name	Department	Sign-in Time	Sign-out Time	Abnormal Type
2019-03-26	36546		Root	08:56		Late

At the bottom of the interface, there is a pagination control showing '20' items per page and '1' page.

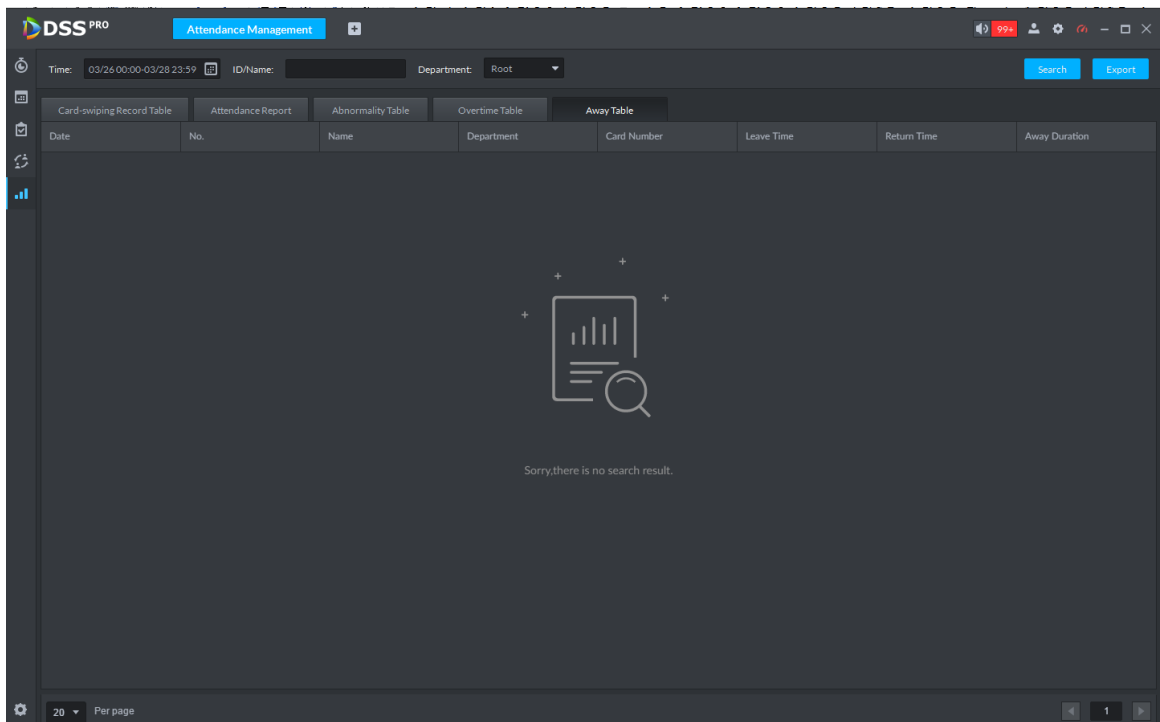
- See Figure 5-329 for overtime table.

Figure 5-329



- See Figure 5-330 for away table.

Figure 5-330



5.21 Time Synchronization

5.21.1 Device Time Synchronization

Device time synchronization is to synchronize front-end device time with platform server. The platform server time is the basic time. DSS platform supports devices of Dahua, and ONVIF

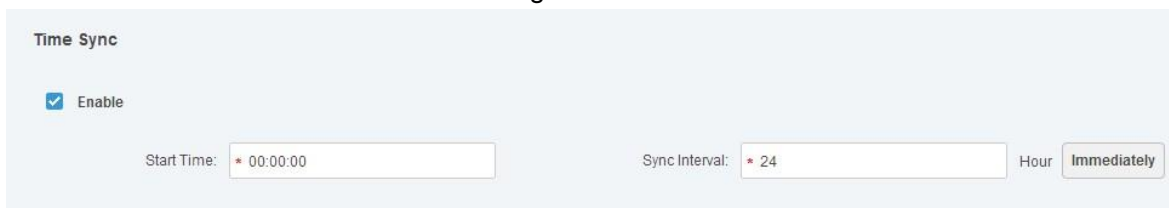
protocol to synchronize time. It supports auto time synchronization function and manual time synchronization function. The auto time synchronization refer to synchronize time with the server at the specified interval and time. Manual time synchronization is to start time synchronization manually, system responds immediately and then execute time synchronization.

5.21.1.1 Auto Sync Time

Step 1 Click  and then on the **New Tab** interface select System settings.

Step 2 Click Time Sync and then check the box to enable the function. Set time synchronization parameters. See Figure 5-331.

Figure 5-331



The screenshot shows the 'Time Sync' configuration panel. At the top left, there is a title 'Time Sync'. Below it, there is a checkbox labeled 'Enable' which is checked. To the right of the checkbox, there are two input fields: 'Start Time' with a value of '00:00:00' and 'Sync Interval' with a value of '24'. To the right of the 'Sync Interval' field, there is a label 'Hour' and a button labeled 'Immediately'.

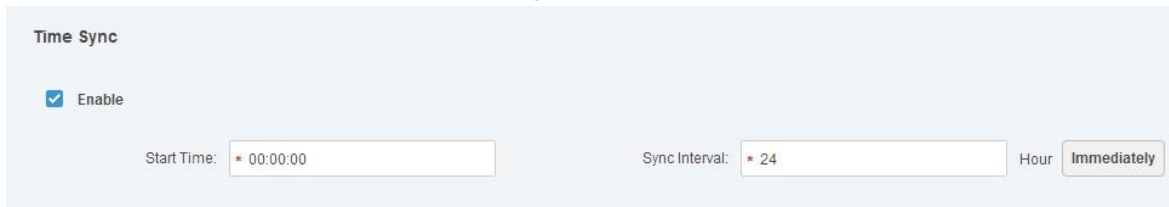
Step 3 Click Save to save configuration information.

5.21.1.2 Manual Sync Time

Step 1 Click  and then on the **New Tab** interface select System settings.

Step 2 Click Immediately box. See Figure 5-332.

Figure 5-332




The screenshot shows the 'Time Sync' configuration panel. At the top left, there is a title 'Time Sync'. Below it, there is a checkbox labeled 'Enable' which is checked. To the right of the checkbox, there are two input fields: 'Start Time' with a value of '00:00:00' and 'Sync Interval' with a value of '24'. To the right of the 'Sync Interval' field, there is a label 'Hour' and a button labeled 'Immediately'.

5.21.2 Time Synchronization on the Client

Time synchronization on the client is to synchronize client installed PC's time with platform server. The platform server time is the basic time. It supports auto time synchronization function and manual time synchronization function. The auto time synchronization refers to server starts time synchronization at the specified interval and time. Manual time synchronization is to start time synchronization manually, system responds immediately and then execute time synchronization.

5.21.2.1 Auto Sync Time

Step 1 Login DSS client.

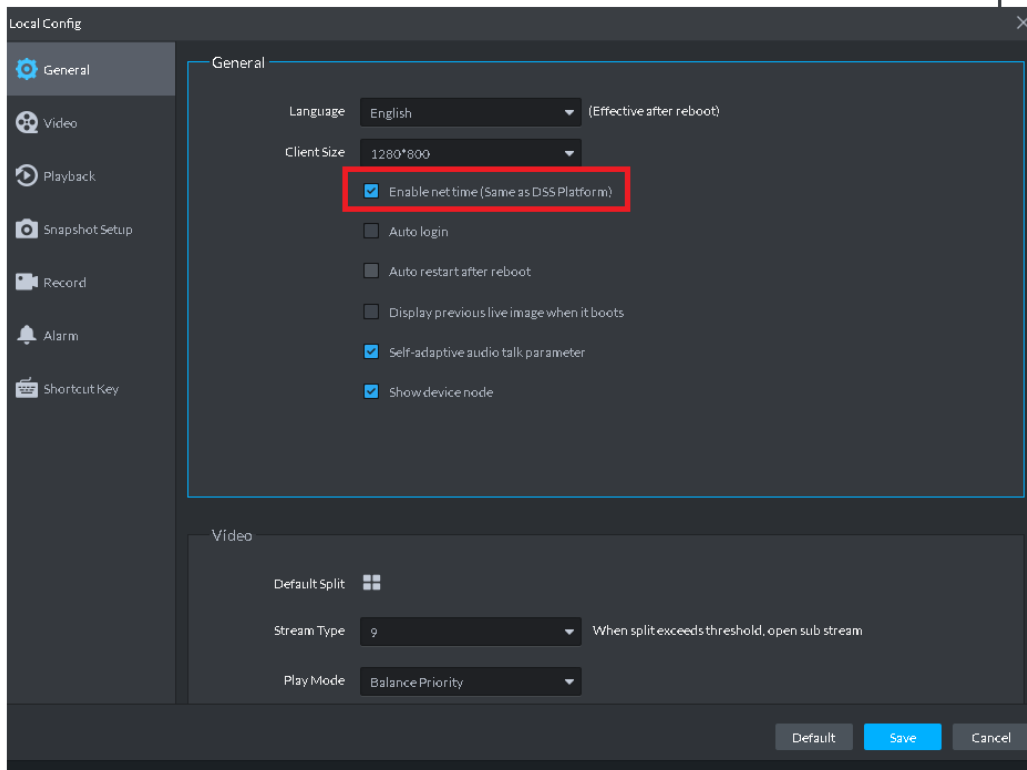
Step 2 Click  at the top right corner. Enter Local config interface.

Step 3 Click General tab and then enable client time sync function. Click Save. See Figure 5-333.

 **NOTE**

After you enabled time sync function on the General interface, client begins the request to the server immediately. It is to complete the time synchronization.

Figure 5-333

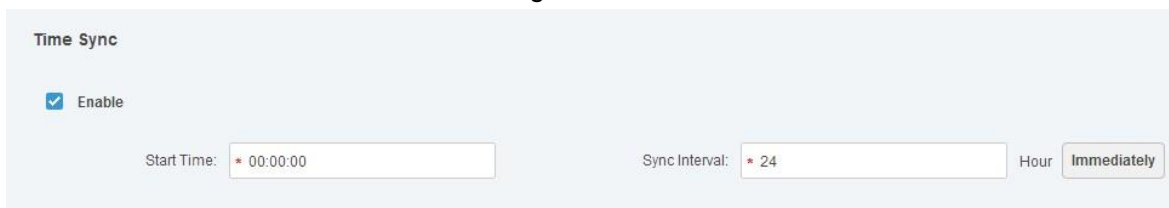


Step 4 Click Save.

Step 5 Login DSS manager, and then on the **New Tab** interface select System settings.

Step 6 Click Time sync and then check the box to enable the function. See time sync parameters. See Figure 5-334.


Figure 5-334



Step 7 Click Save to save configuration information.

5.21.2.2 Manual Time Sync

Step 1 Login DSS client.

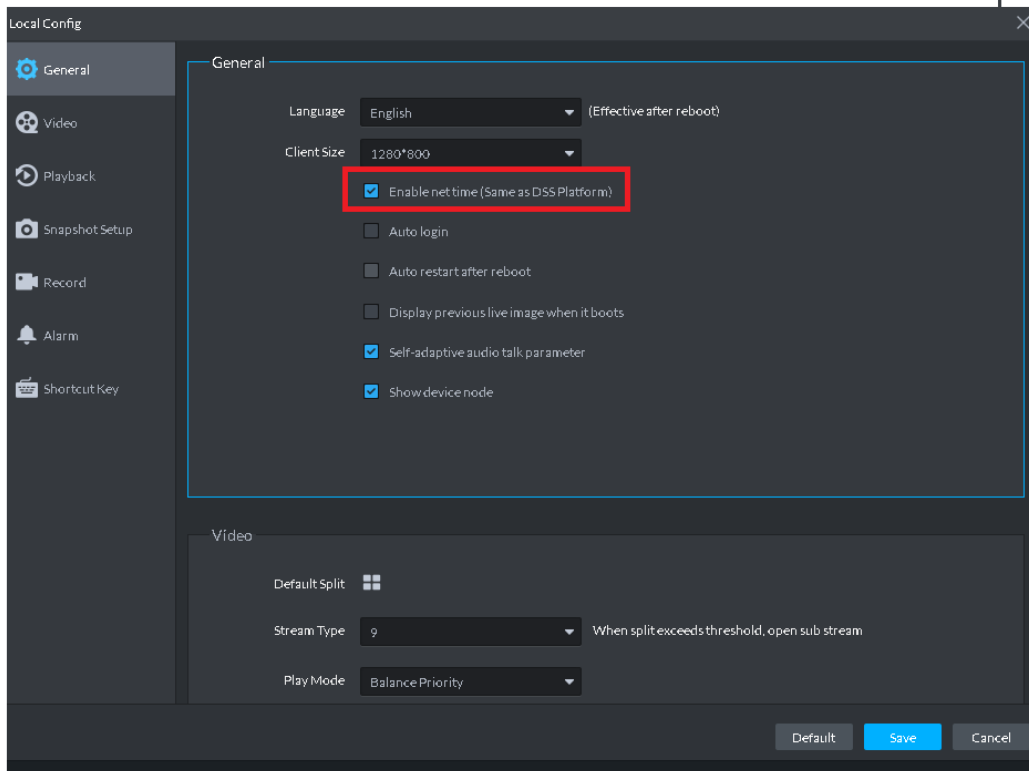
Step 2 Click  at the top right corner. Enter Local config interface.

Step 3 Click General tab and then enable client time sync function. Click Save. See Figure 5-335.

 **NOTE**

After you enabled time sync function on the General interface, client begins the request to the server immediately. It is to complete the time synchronization.

Figure 5-335

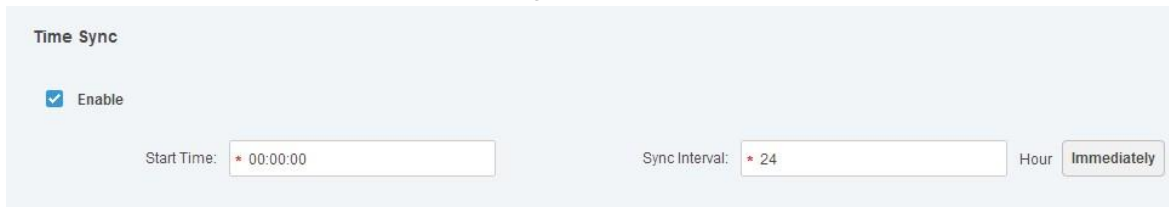


Step 4 Click Save.

Step 5 Login DSS manager, and then on the **New Tab** interface select System settings.

Step 6 Click Immediately box. See Figure 5-336.

Figure 5-336



Appendix 1 Service Module Introduction

Service Name	Service Name	Function Description	Port	Protocol Type
Center Management Service	DSS_WEB	Center management service is to manage each service and provide accessing port.	HTTPS: 443	TCP
Message Queue Service	DSS_MQ	Message queue service is to transfer messages between the platforms.	61616	TCP
DMS (Device Management Service)	DSS_DMS	Device management service is to register front-end encoder, receive alarm, transfer alarm and send out sync time command.	9200	TCP
MTS (Media Transmission Service)	DSS_MTS	Media transmission service is to get the audio/video bit stream from the front-end device and then transfer these data to the SS, client and decoder.	9100	TCP
SS (Storage Service)	DSS_SS	Storage service is to storage/search/playback record.	9320	TCP
VMS (Video Matrix Service)	DSS_VMS	Video matrix service is to login the the decoder and send out task to the decoder to output to the TV wall.	Not fixed, do not need to be mapped to the outside.	TCP
MGW (Media Gateway Service)	DSS_MGW	Media gateway service is to send out MTS service to the decoder.	9090	TCP
ARS (Auto Register Service)	DSS_ARS	Auto register service is to listen, login, or get bit streams to send to MTS.	9500	TCP
PCPS (ProxyList control Proxy Service)	DSS_PCPS	ProxyList control Proxy Service is to login Hikvision device, Onvif device, and then get the stream and transfer the data to MTS.	5060 14509	UDP TCP
ADS (Alarm Dispatch Service)	DSS_ADS	Alarm dispatch service is to send out alarm information to different objects according to the plans.	9600	TCP