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1 Server Installation and Uninstall

Minimum configuration requirements of the server hardware:

Operating system: Windows Server2008 64bit

CPU: Xeon E5 (2.4GHz) or above

Memory: 8G and above

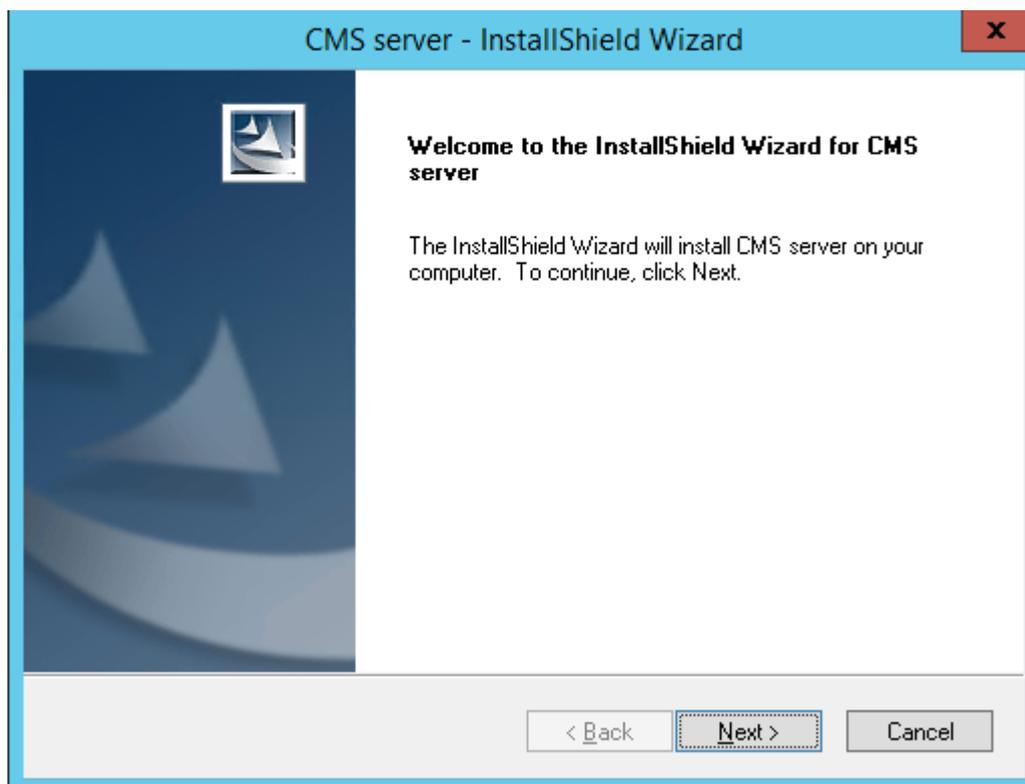
HDD: 500G and above (black box storage, about 50MB per car per day)

NIC: 1000M Ethernet interface is recommended

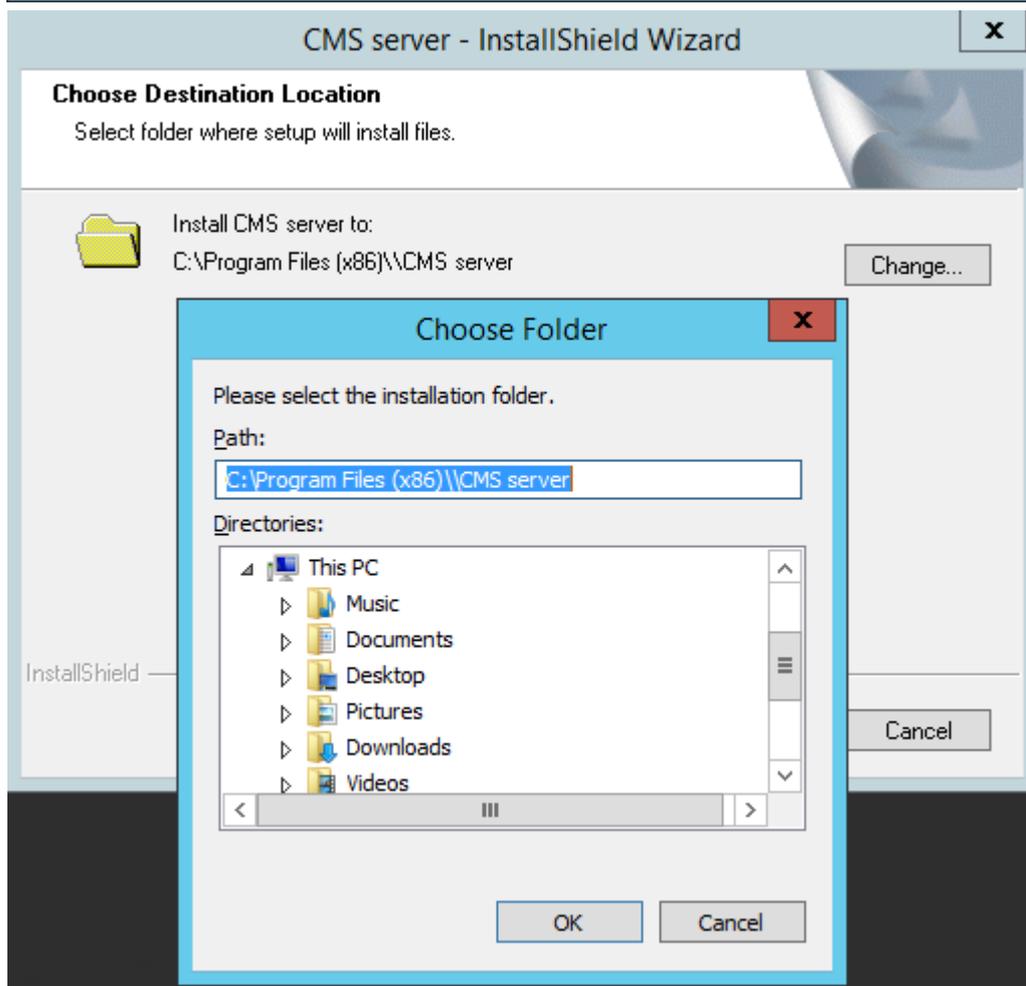
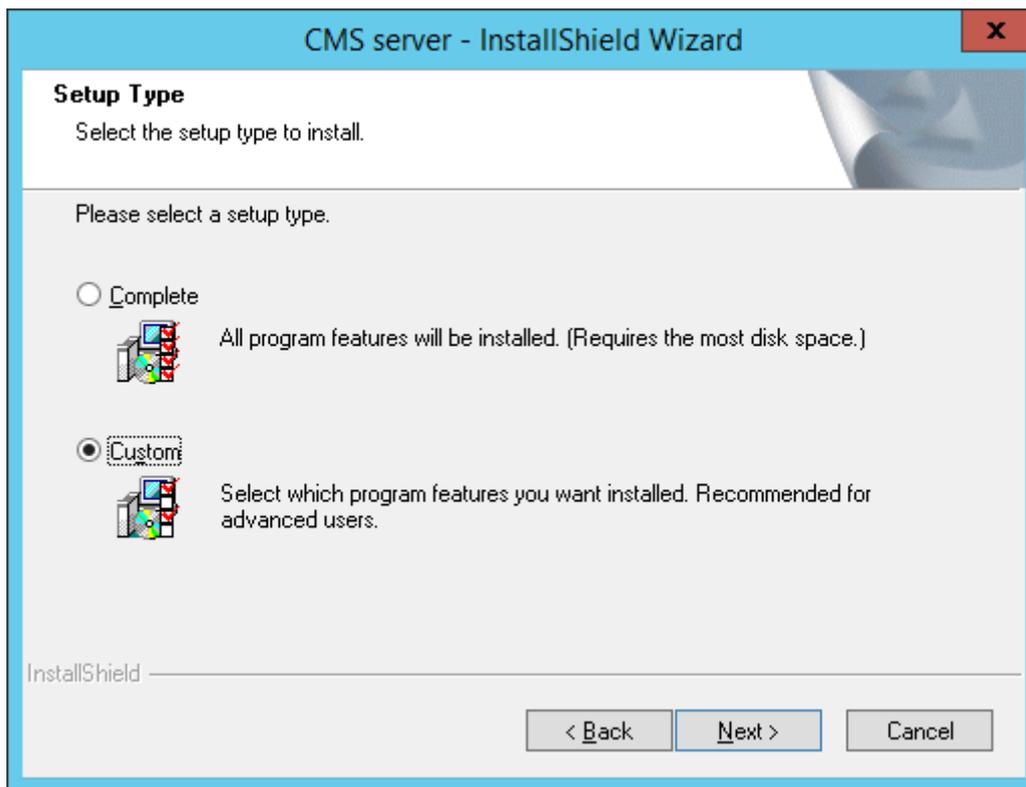
Operating environment: Microsoft .Net Framework v3.5 SP1 or above

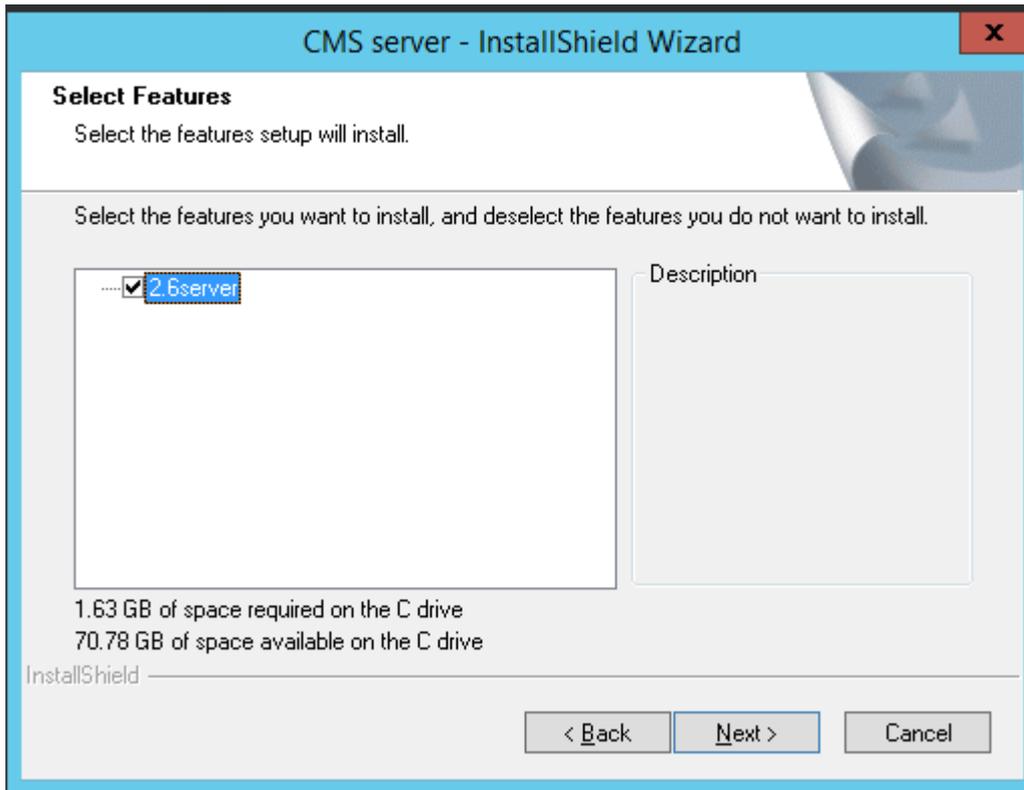
1.1. Software Installation

1. Double-click on the installation package file to bring up a dialog box as shown below, and click Next:



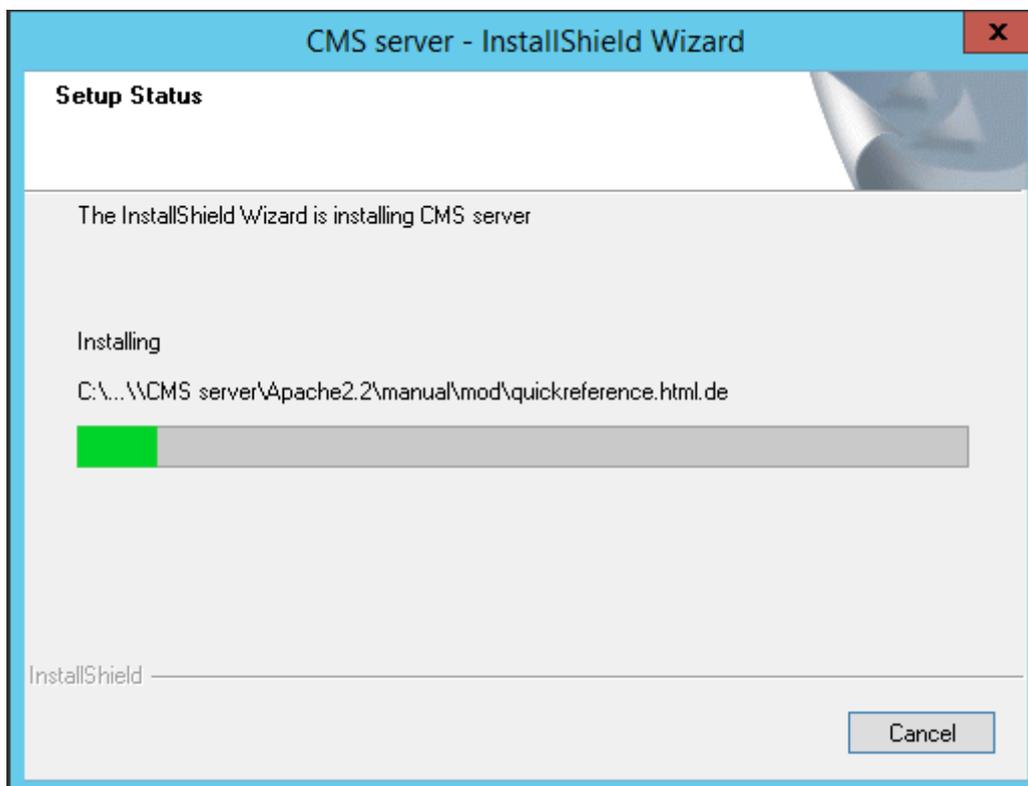
2. Accept the license agreement, and then click Next to enter the installation folder selection window. By default, the software is installed in C drive, and users can change the installation location. Click Next after completion, as shown below:





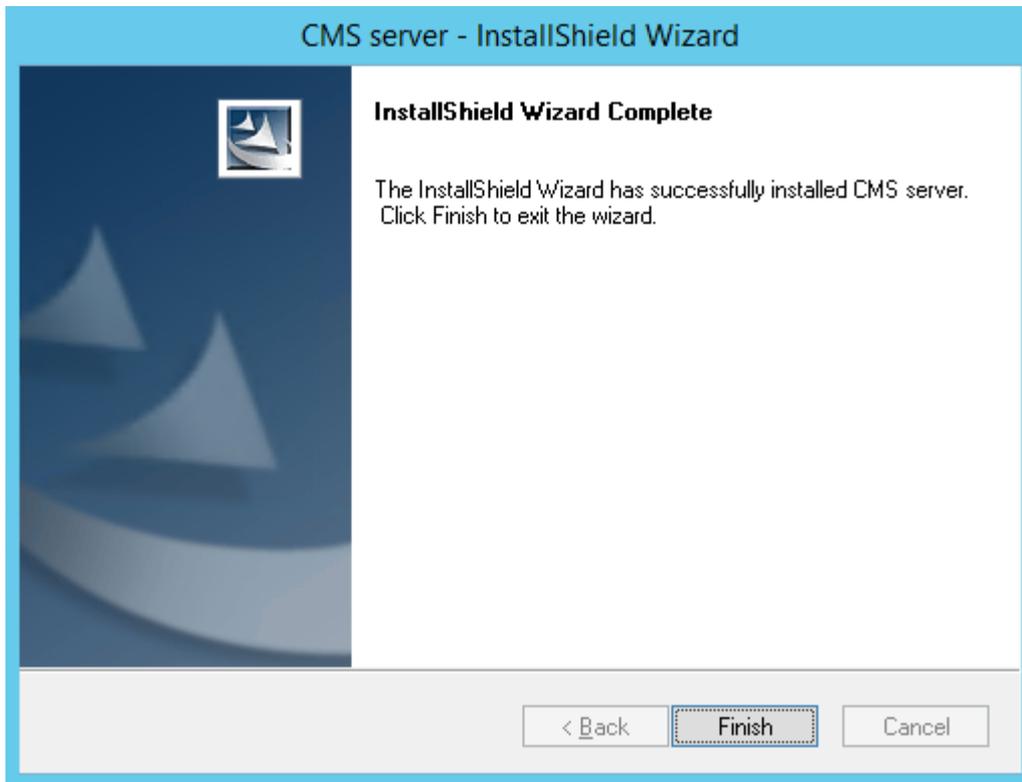
3. Check if the available space of the installation disk can meet the requirement. If the space is enough for installation, click Next and then click Install.

Go to the program installation process, as shown below:

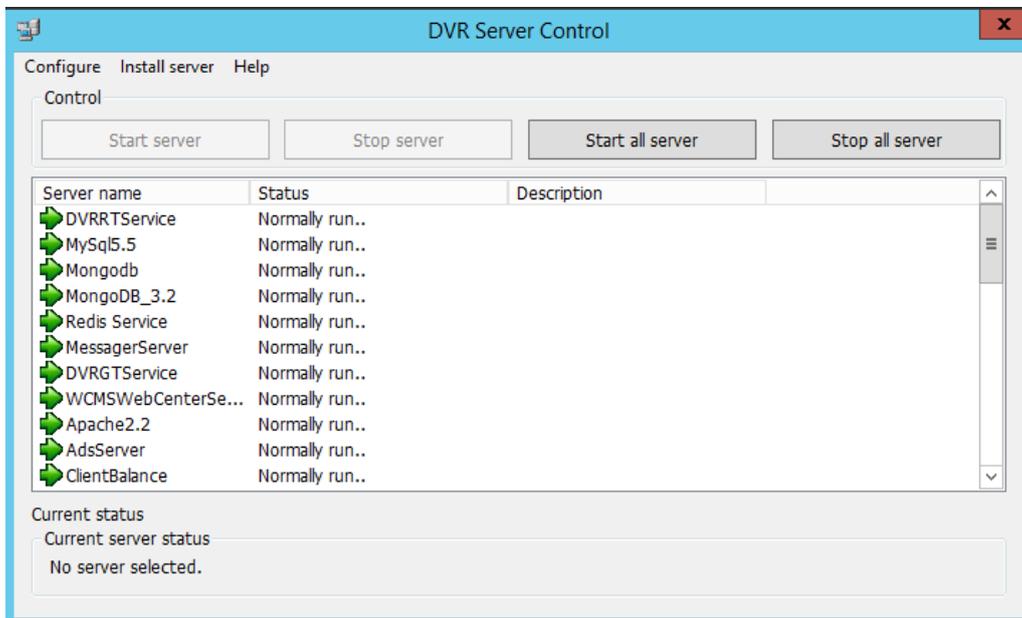


4. After the installation process is completed, it will enter a server port configuration interface. If the

default port is used, no modification is required. If users need to change a port, click Modify. **For IP address, the local static IP address should be filled in.** Then, click Next, as shown below:



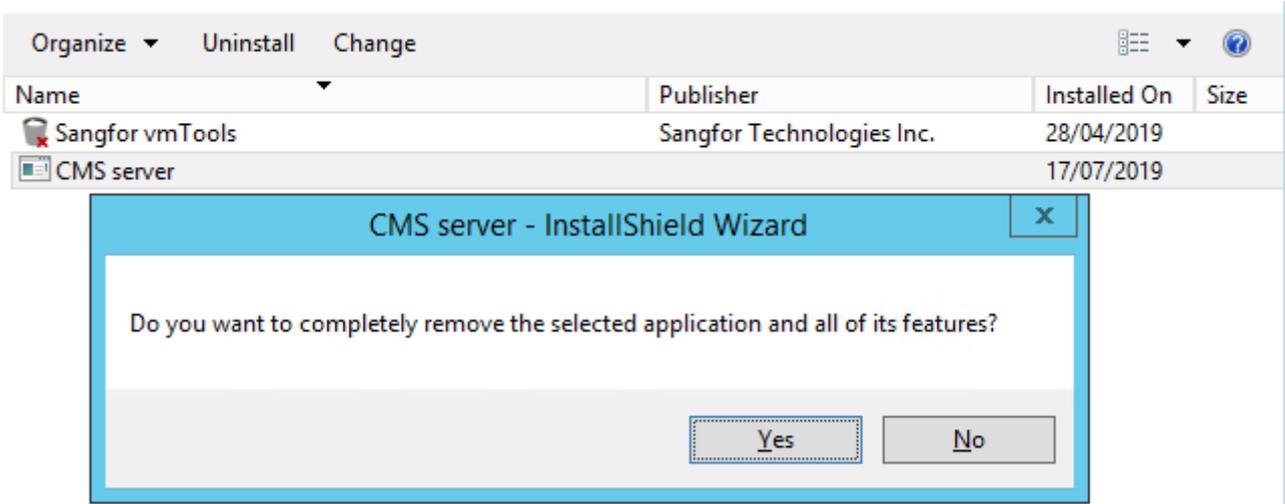
5. Finally, check if the service programs are all running normally, as shown below:



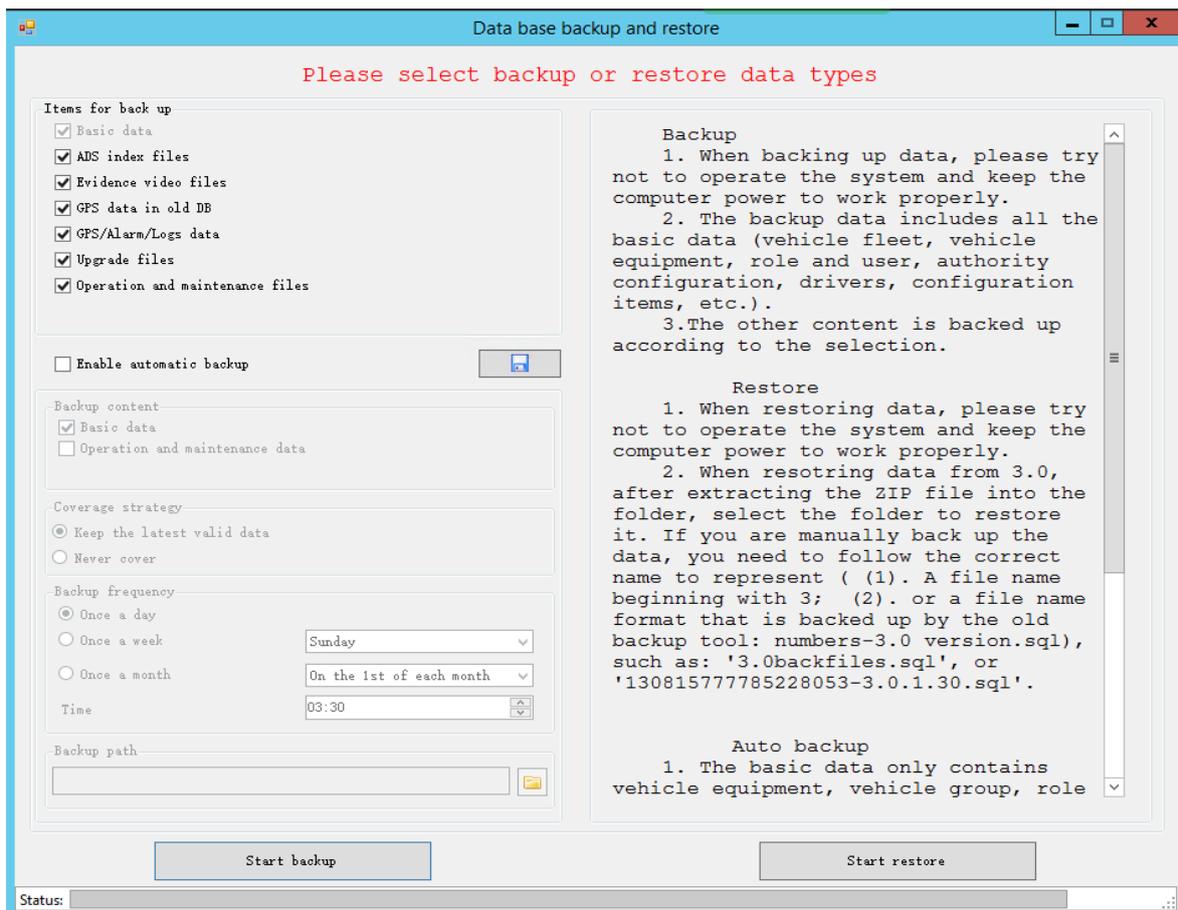
1.2 Software Uninstall

1. Click Start Menu to find the CMS Server folder. Then, click on "Uninstall" under the folder to

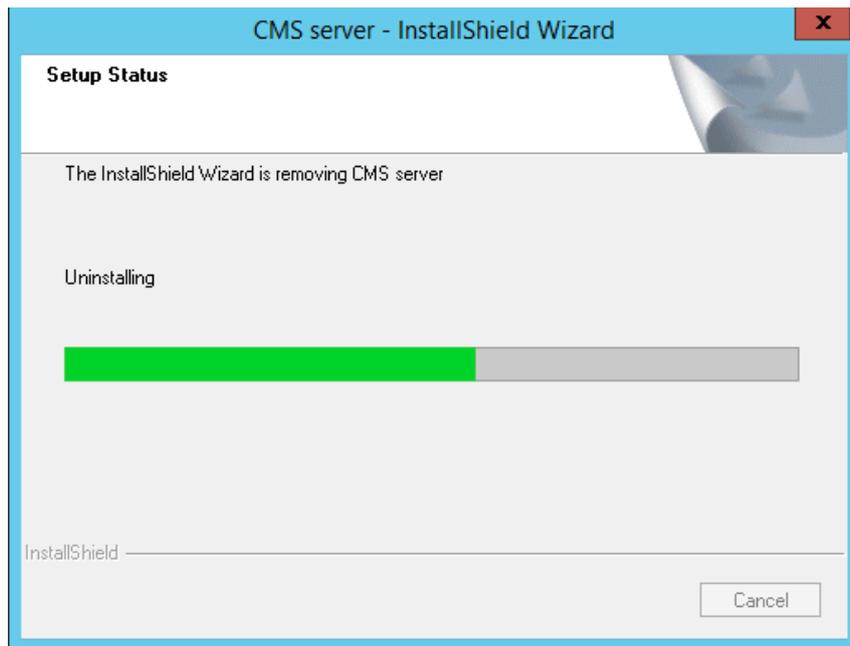
bring up the following dialog box, and select “Delete” to uninstall.



2. Select “Delete” and click “Next”. The corresponding dialog box will pop up. Follow the prompts in the dialog box to handle with caution, as shown below:



Note: When the system is re-installed, if there is user and vehicle data inside, remember to select Backup, otherwise all data will be deleted.



3. After data backup is completed, Complete Uninstall will be reminded; if users re-install the server, please remember to restore the data.

2. Client Installation and Uninstall

Computer configuration requirements:

Operating system: Windows 7, Windows 8 and Windows 10

CPU: Intel i5 or above

Memory: 4G and above

Resolution: 1280*760 and higher

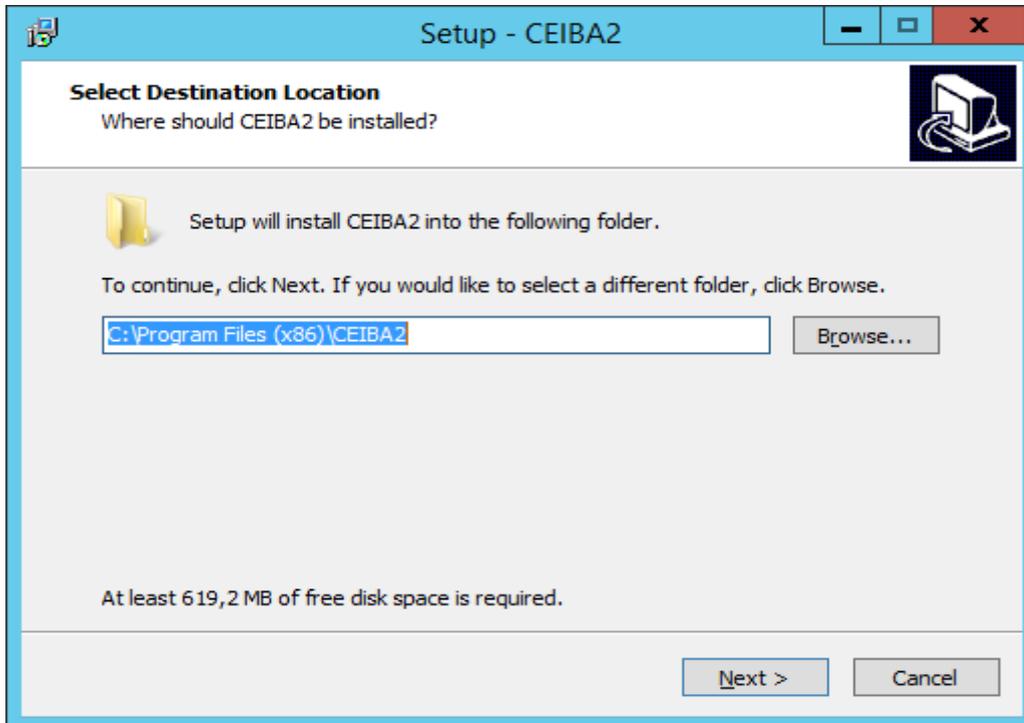
Browser: IE8, IE10 or higher versions are recommended

Other: install flash player

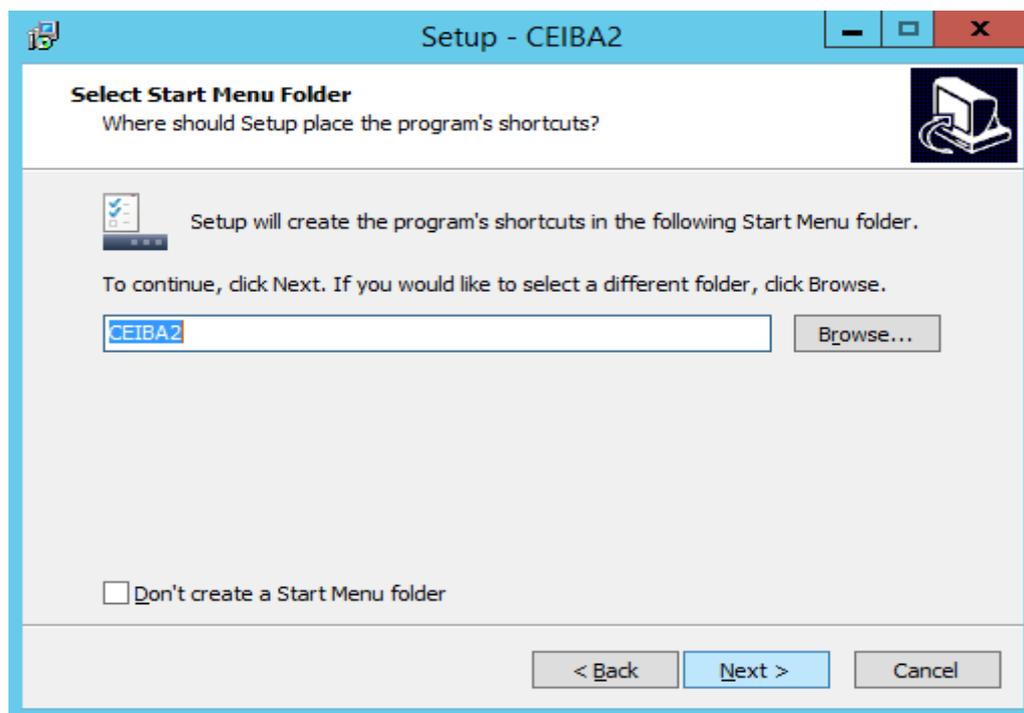
2.1. Software Installation

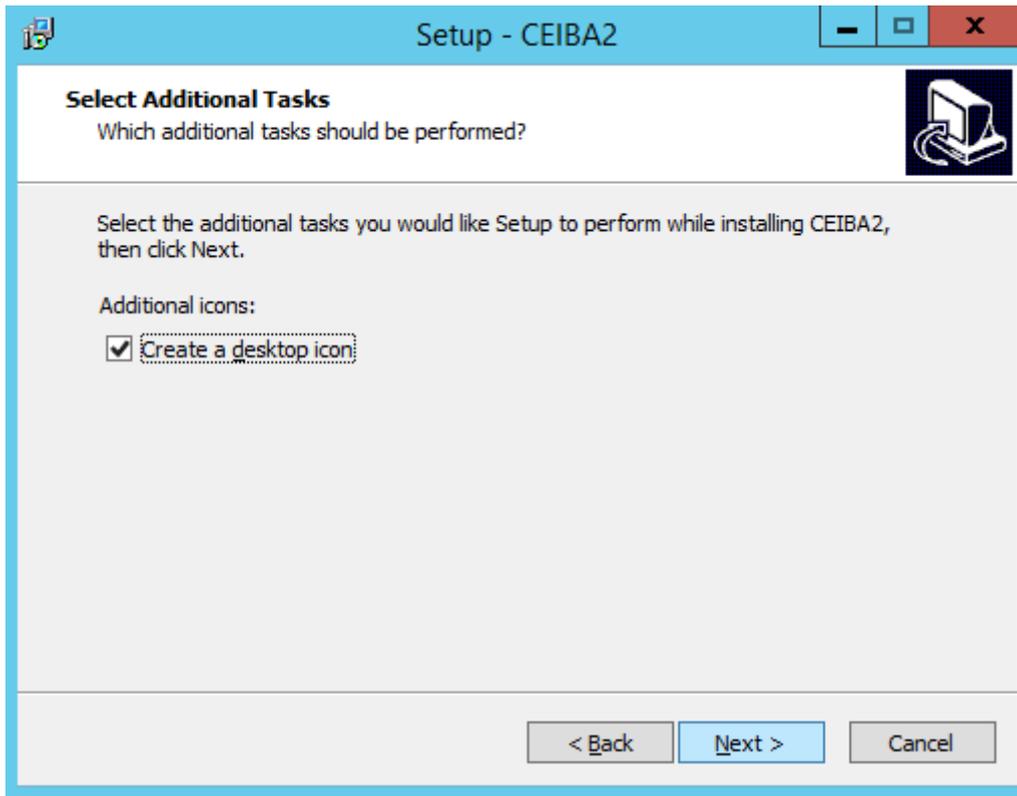
Double-click on the installation package file to bring up a dialog box as shown below and click Next. If a CEIBA2 has been installed, an Uninstall prompt box will pop up. Click “Yes” to start uninstalling the CEIBA2 of previous version. After completion, a prompt box pops up, and click OK to proceed to the next step.

1. Select the installation path, as shown below, which can be changed manually (the default is C drive). Try to select a drive with a large storage space. Click Next to proceed to the next step, as shown below:

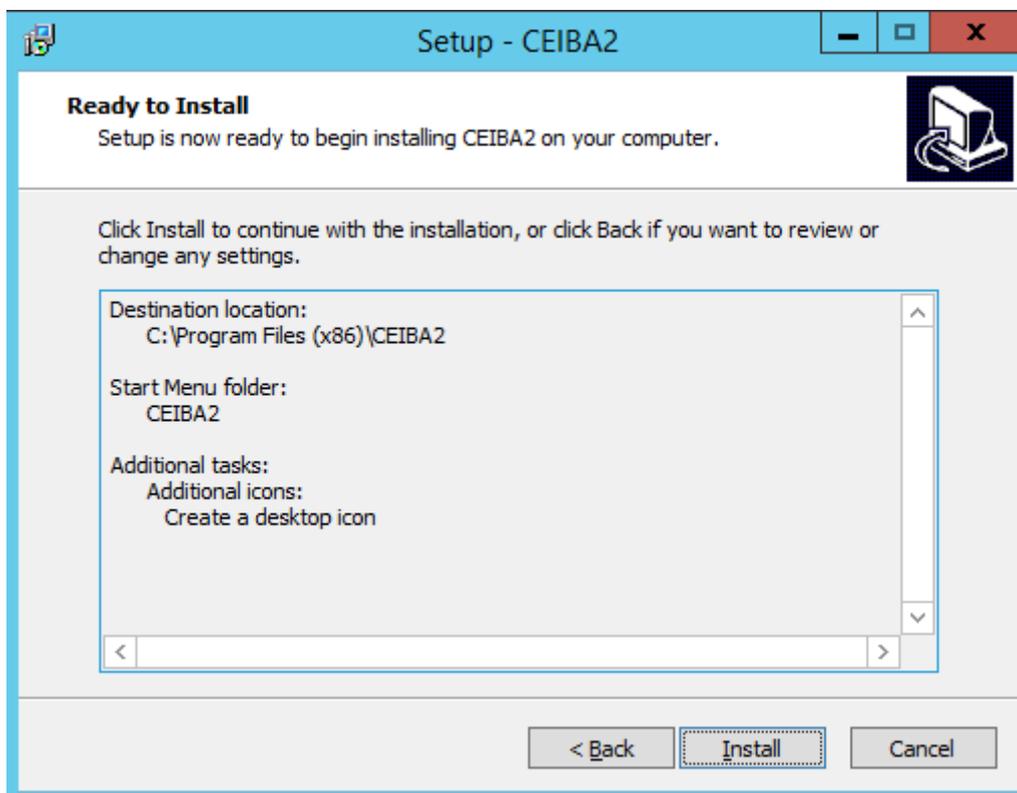


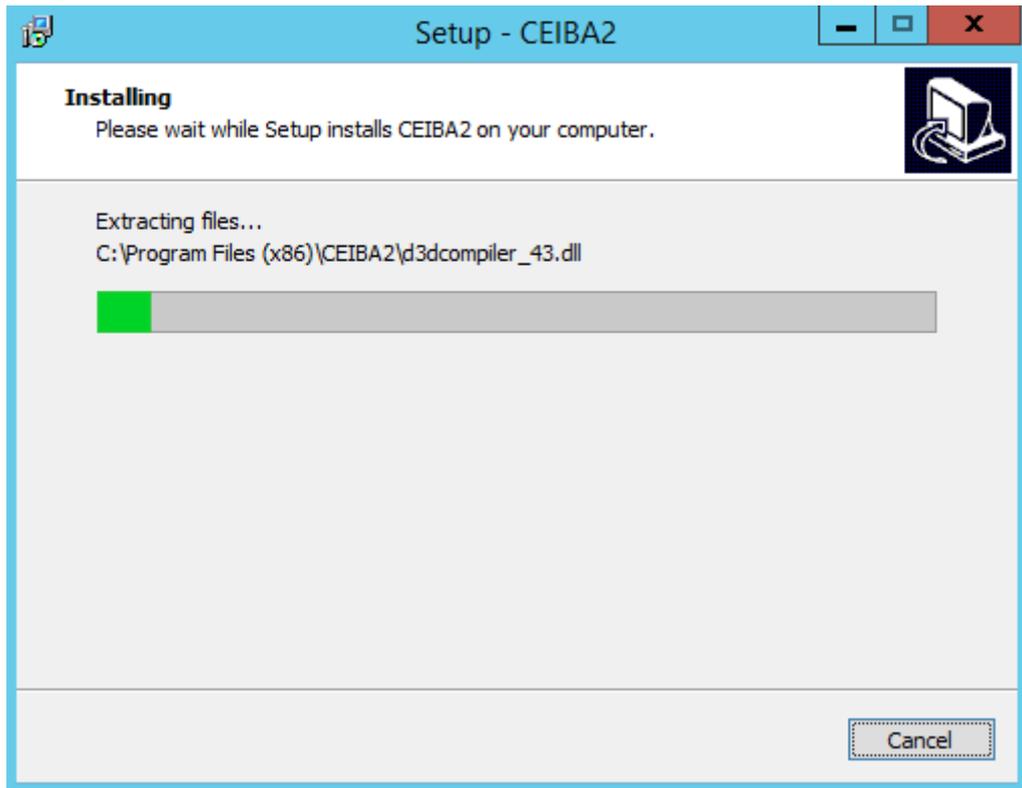
2. Select Start Menu Folder, which can be changed manually. Then, click Next to proceed to the next step, as shown below:





3. After installation is ready, and the installation information is confirmed, click Install to install the software, as shown below:

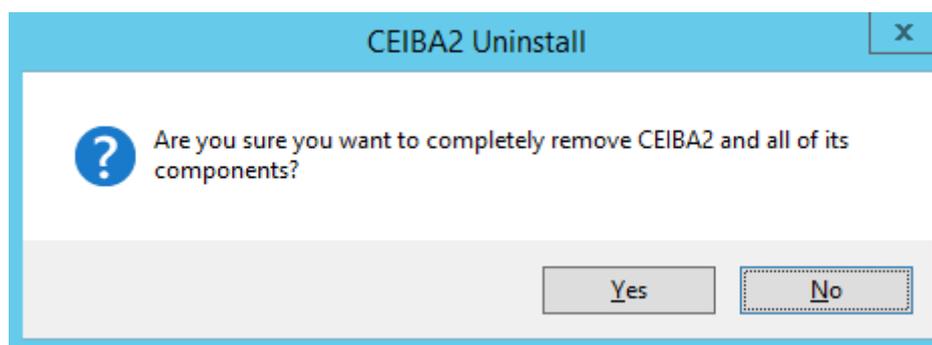




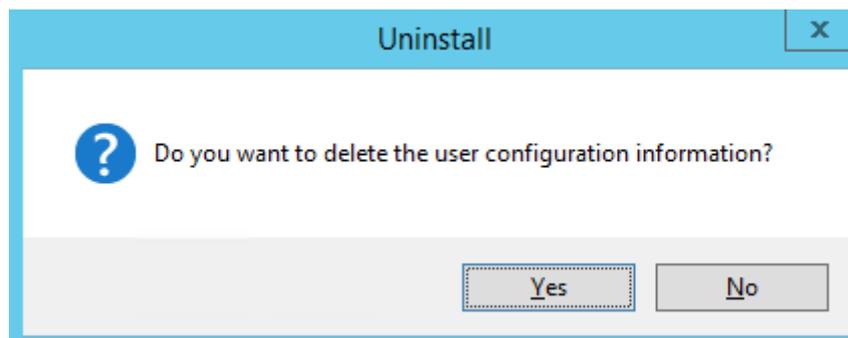
4. After the installation is completed, choose whether to run CEIBA2 and click Finish.

2.2. Software Uninstall

1. Click Start Menu to find the CEIBA2 folder. Then, click on “CEIBA2 Uninstall” under the folder to bring up the following dialog box. Click “Yes” to continue uninstalling.



2. After Uninstall is completed, a box will pop up reminding “Do you want to delete the user configuration information” (The user configuration information mainly refers to the saved user login information and some download tasks. By default, “No” is selected to keep user configuration information).



Note: If CEIBA2 is running while Uninstall starts, you will be prompted whether to delete it.

2.3. Ports description

1. Device port: Device's access via VPN needs to be mapped to a private network port.
2. Client port: The CEIBA2 client needs to be mapped to a WAN port when it is connected through WAN.
3. The CEIBA2 port protocol is a TCP protocol. If a connection through WAN is required, a consistent port number should be mapped.
4. A description table of ports corresponding to services is as follows:

No.	Services	Ports	Remarks	Use
1	Cluster operation and maintenance management server cluster heartbeat	12000		Internal use
2	Cluster broadcast	12001		Internal use
3	Cluster message	12002		Internal use
4	Cluster operation and maintenance management server HTTP message	12003	Used for cluster and operation and maintenance management	Internal use
5	Cluster operation and maintenance server guard service	12005		Internal use
No.	Services	Ports	Remarks	Use
6	Client access	12011		Internal use
7	Alarm push	12012		Internal use
8	client access of alarm server	12125		Internal use
9	Online statistics service	12035		Internal use
10	Mobile phone push service	12030		Internal use
11	Appointment configuration service	12060		Internal use

No.	Services	Ports	Remarks	Use
12	Black box query service	12041	Used to query data in black box	Internal use
13	Black box query service	12042		Internal use
14	Device access	5556	Used for registration on device and server	Used for device
15	Ftp batch upgrade service	21	Used to remotely upgrade download files	Used for device
16	Remote setup of device connection	12051	For remote setup	Used for device
17	Forwarding server MDVR	12091		Used for MDVR device
18	Forwarding server N9M	12092		Used for N9M device
19	One-button alarm media server	12065		Used for device
20	Access load balancing	7264	Used to balance servers	Used for client
21	Client signaling service	12020	Used for client access server	Used for client
22	Client media service	17891		Used for client
23	Black box query service	12040		Used for client
24	Server video playback service	12045	Used for playback of server videos	Used for client
25	Remote setup	12050		Used for client
26	Basic data	12055		Used for client
27		12056	New web port	Web client
28		12070	Pass-through storage	Used for client
29		12047	Web HTTP interface	Web client
30		12048	Web pass-through	Web client
31		12060	Web remote device playback	Web client
32		12061	Web remote device playback	Web client
33		12062	Web remote device playback	Web client
34		12063	Web remote device playback	Web client

Note:

Blue text: port for internal use, with no need of mapping

~~Strikethrough:~~ port not enabled temporarily

Red text: external port, with a need of mapping

Server	Server type code	Server short name (2 bytes)	Server full name	Internal communication port
Cluster operation and maintenance management server	1	om	opmgr	Cluster heartbeat: 12000 Cluster broadcast: 12001 Cluster message: 12002 HTTP message: 12003
Cluster operation and maintenance server guard service	2	od	opdaemon	12005
Device access server	3	dg	dagate	Device access: 5556 Client access: 12011 Alarm push: 12012
Access cluster management dynamic load balancing	4	dm	damgr	7264
Client access server	5	cg	ctgate	12020
Alarm server	20	as	alarmserver	Client access: 12125
Mobile phone push service	22	ps	pushserver	12030
Online statistics service	25	os	onlineserver	12035
Ftp batch upgrade service	30	fp	ftpupgrade	
Black box query service	35			12040 12041 12042
Server video playback service	40			12045
Remote setup	45			Client connection: 12050 Device connection: 12051
Basic data	50			12055
Configuration appointment	55	cd		12060

Server	Server type code	Server short name (2 bytes)	Server full name	Internal communication port
service				
One-button alarm media server	57	ms		12065
Pass-through video storage	60	st		Storage plan configuration: 12070
Forwarding server				Client connection: 17891 MDVR:12091 N9M:12092

3. Server Login

3.1. Login

1. Double-click on the CEIBA2 program to bring up a login dialog box, as shown below:



Description: 1) Type: Server (default) and Local are optional (if Local is selected, only HDD and

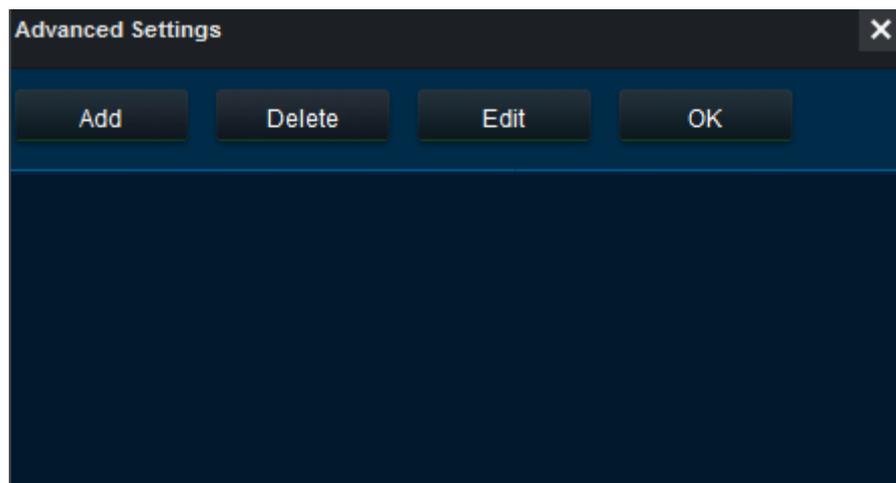
directory retrieval playback are available);

- 2) Server IP: Enter the server IP address (domain name is allowed) or select an added server name;
- 3) Enter correct user ID and password. The default is admin/admin (If Local is selected, the default is admin/null);

Note: Default port of the server is 7264 (for access load balancing, client, Service Proxy exe and client balance). If the default port is modified when the server is deployed, a new port number needs to be added after the IP address is entered.

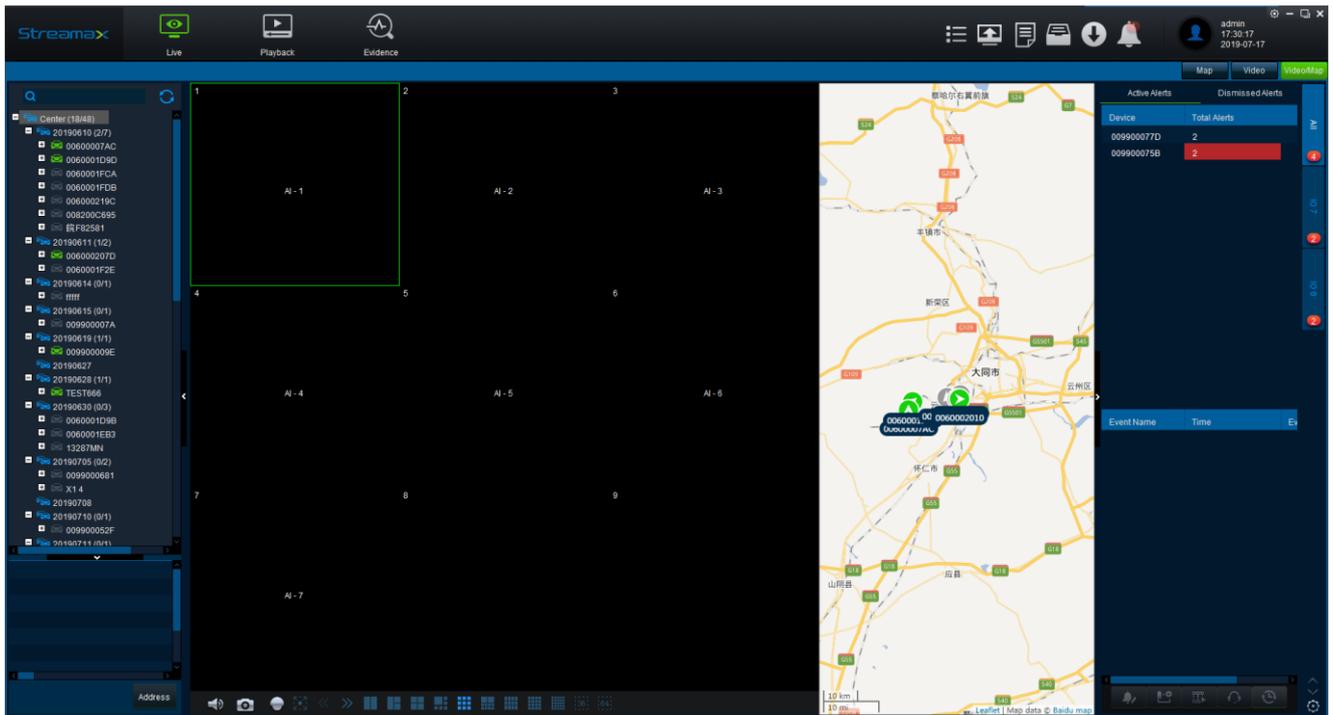
3.2. Advanced Settings

1. In the login dialog box, click “Advanced” to bring up the advanced settings dialog box, as shown below:



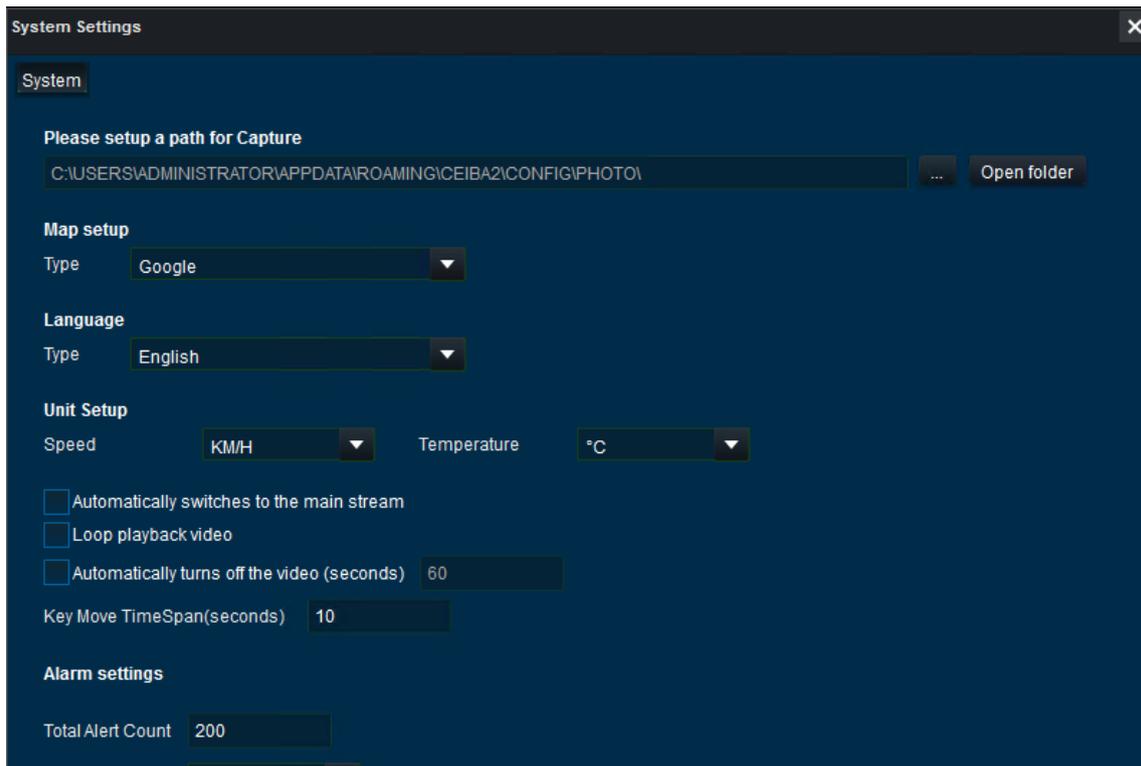
Description: Add: Click Add, enter server alias and IP, and click OK to add a new server address.

4 Function and Business



4.1. System Settings

1. First, click on the button  in the upper right corner to enter the system settings interface, where users can set the a path for capture, select a map, and set language and unit, as shown below:

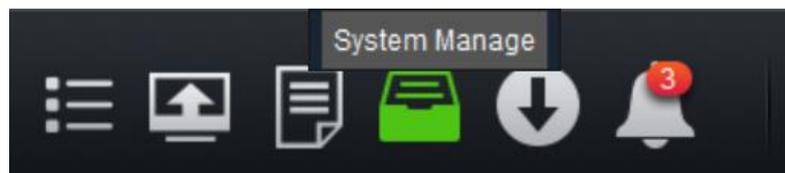


- Description:
- The captured pictures are saved in a folder in C drive by default, and other path can be selected according to the hard drive capacity of the computer;
 - Maps available include Baidu Map and Google Maps (the default is Baidu Map for domestic use);
 - Automatically switch to the main stream (the main stream will be automatically displayed on the live preview screen, so please choose carefully according to network bandwidth and SIM card data);
 - Loop playback video (when playback of a video ends, it will automatically jump to the start point. The video will continue to be played in a loop.);
 - The preview video is saved in a folder in C drive by default, and other path can be selected according to the hard drive capacity of the computer;
 - Other settings can be made according to actual needs, and if there is no special requirement, choose default settings.
- Key move time span (moving left and right while watching video)
 - Preview video path: In the process of watching video, users can click the video recording button in the upper right corner of the video screen.
 - Log in to get alarm history: check alarm records in a certain period of time after opening the

client.

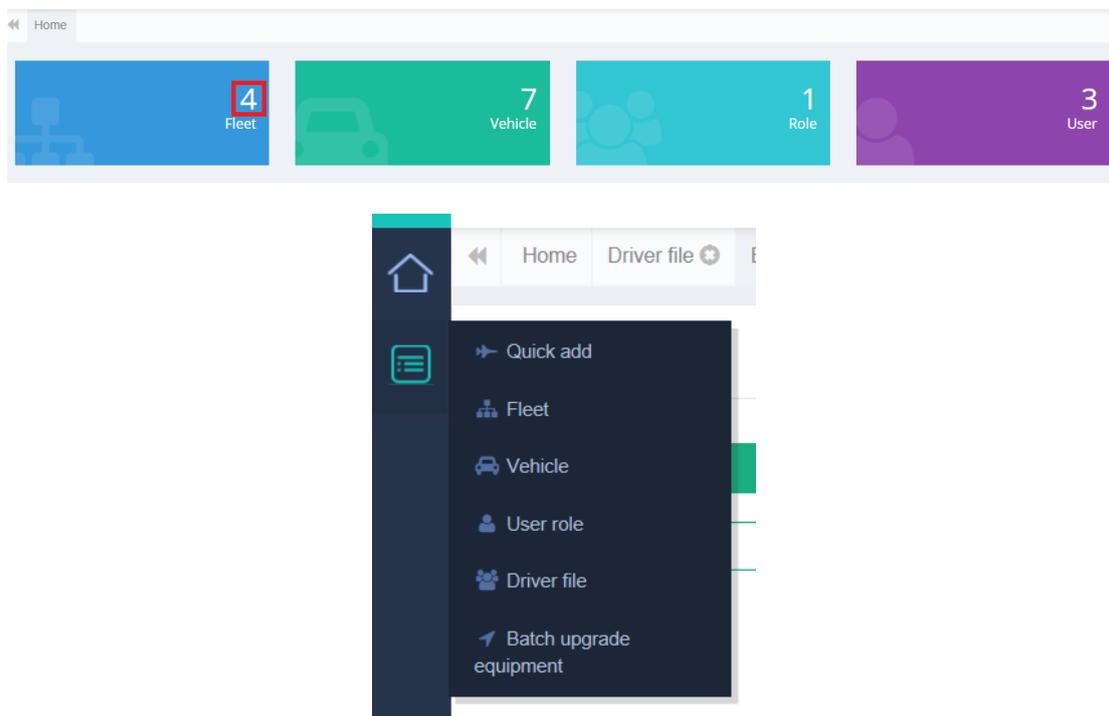
5. Automatically open the last video: Open history channel live view

4.2. Basic Data Management



Click on the icon “System Manage” to enter the WEB client:

The fleet information configuration interface allows users to add, delete and edit fleet name. There are two ways by which users can enter the fleet information configuration interface. First, click the number of fleet on the home page, as shown below:



Quick Add allows users to quickly add information about the entire chain: Fleet, vehicle, role and user (applicable to adding the device of one customer)

4.3.1. Fleet Information Configuration

Add “Fleet”, where the Center cannot be deleted.

Note: You can add, delete, and update the fleet name. When you delete a fleet, the vehicle terminals under the fleet will also be deleted.

4.3.2. Vehicle Device Configuration

First click on the vehicle device configuration button in the menu bar to bring up an interface on which you need to fill in the information. The fields marked with asterisk are required. Do not enter the existing license plate number and device number.

1. Number of channels, forwarding server (when viewing the preview image, forward images on device to the client; device is at left hand side, and client server is at right hand side), forwarding server port, MDVR/N9M (MDVR uses the old protocol CMS, one Standard protocol)
2. Channel: channel enable and name
3. SIM card: IMSI (International Mobile Subscriber Identification Number) is a mark for identification of mobile subscribers; IMEI is an abbreviation of International Mobile Equipment Identity.
4. Delete: Select the vehicle to be deleted and click Delete or directly click the delete button in front of the list.

4.3.3. Role Permissions Configuration

Click the role permissions configuration button (User role) in the menu bar to bring up an interface as follows: (add roles on the left), and then set permissions for a corresponding role a to select the fleet that the role can control, as well as specific camera of the fleet.

		+ Add		+ Flow				
<input type="checkbox"/>	Action	User name	Parent Role	Authority	The maximum channel number	Exclusive login	Flow control	Flow type
<input type="checkbox"/>		admin	System Administrator	Preview	64	No	Unlimited flow	-
<input type="checkbox"/>	  	sdfsdf	System Administrator	Preview	36	No	Unlimited flow	-
<input type="checkbox"/>	  	陈炎平	System Administrator	Preview	36	No	Unlimited flow	-

4.3.4. User Information Configuration

Interface: Add a user on the right

Add: Click the Add button in the menu bar to bring up the following dialog box. Enter user ID, select a role, enter the password, mobile phone number and email address, and then click OK;

Edit: Click the edit button in front of the list to edit the user information;

Delete: First select the user to be deleted and click the delete button. (Note: the initial user cannot be deleted)

4.3.5. Automatic Upgrade

1. It can be viewed in Update as well as in System Manage

Upgrade file management:

The screenshot shows a web browser window with the URL `58.250.161.111:12056/remote-upgrade/default.html?platform=client`. The interface includes a navigation menu on the left with options like 'Task management' and 'File management'. The main content area displays a table of upgrade tasks, all of which have failed. The table has the following columns: Fleet name, Plate No., Serial No., Status, Upgrade file, Create time, Upgrade time, Cause of error, and Download progress.

Fleet name	Plate No.	Serial No.	Status	Upgrade file	Create time	Upgrade time	Cause of error	Download progress
IMF Houston	179	009900024A	Upgrade failed	Nr_AD&IV1_0_V003_TE ST190618.50_E0000_H AC6171	2019-06-19 22:02:06	-	CHECK UPGRADE FILE FAILED	-
IMF Houston	180	009900028E	Upgrade failed	Nr_AD&IV1_0_V003_TE ST190618.50_E0000_H AC6171	2019-06-19 22:02:06	-	CHECK UPGRADE FILE FAILED	-
IMF Houston	178	00990001D1	Upgrade failed	Nr_AD&IV1_0_V003_TE ST190618.50_E0000_H AC6171	2019-06-19 22:02:06	-	CHECK UPGRADE FILE FAILED	-
IMF Houston	177	0099000280	Upgrade failed	Nr_AD&IV1_0_V003_TE ST190618.50_E0000_H AC6171	2019-06-19 22:02:06	-	CHECK UPGRADE FILE FAILED	-
IMF Houston	176	0099000272	Upgrade failed	Nr_AD&IV1_0_V003_TE ST190618.50_E0000_H AC6171	2019-06-19 22:02:06	-	CHECK UPGRADE FILE FAILED	-

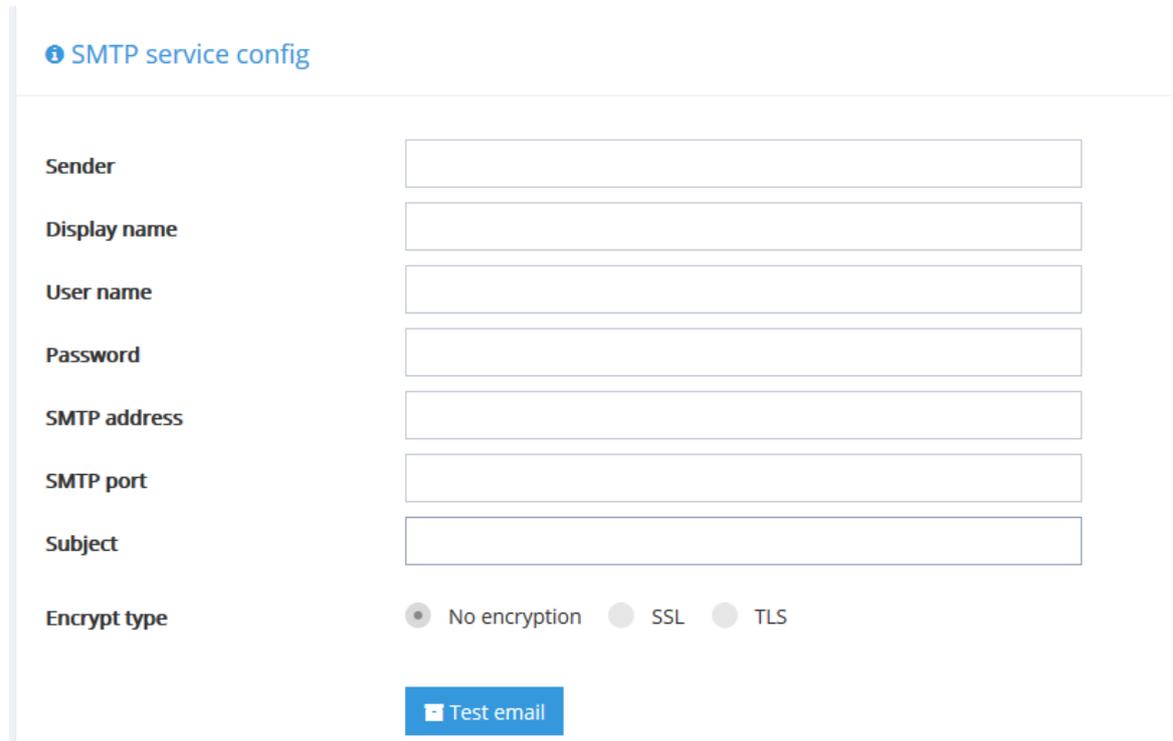
Total: 5, Displaying from 1 To 5

Select the vehicle, task and file. Regardless of WIFI or 4G, once connected, update will be started on time. If no network module is available, USB flash drive or EasyCheck APP is needed.

Upgrade process description:

- 1) Select Add Task and click on the "Execute Task" link. Then the platform will issue an upgrade command to up to 20 vehicles every 5 minutes.
- 2) When the command fails to be issued to a vehicle, it will be issued in the end until all vehicle commands in the task are successfully issued.
- 3) After the device receives upgrade command, it will download a upgrade file from the FTP server.
- 4) After the upgrade file is downloaded, upgrade according to the type of command. Instant upgrade starts as the file is downloaded; appointment:
- 5) After the upgrade file is downloaded, upgrade will start by the appointment time.
- 6) The device returns information about success or failure of the upgrade.

4.3.6. Email Settings



SMTP service config

Sender

Display name

User name

Password

SMTP address

SMTP port

Subject

Encrypt type No encryption SSL TLS

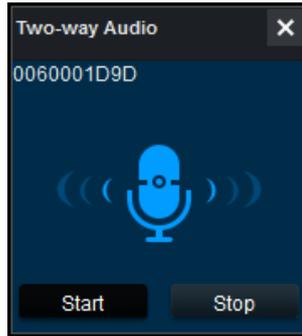
After setting up the email server, users can fill in the sender's address and click Test email to confirm whether the email server has been set successfully.

Note: The latest version requires operations in the settings interface of the WEB client.

4.3. Business Functions

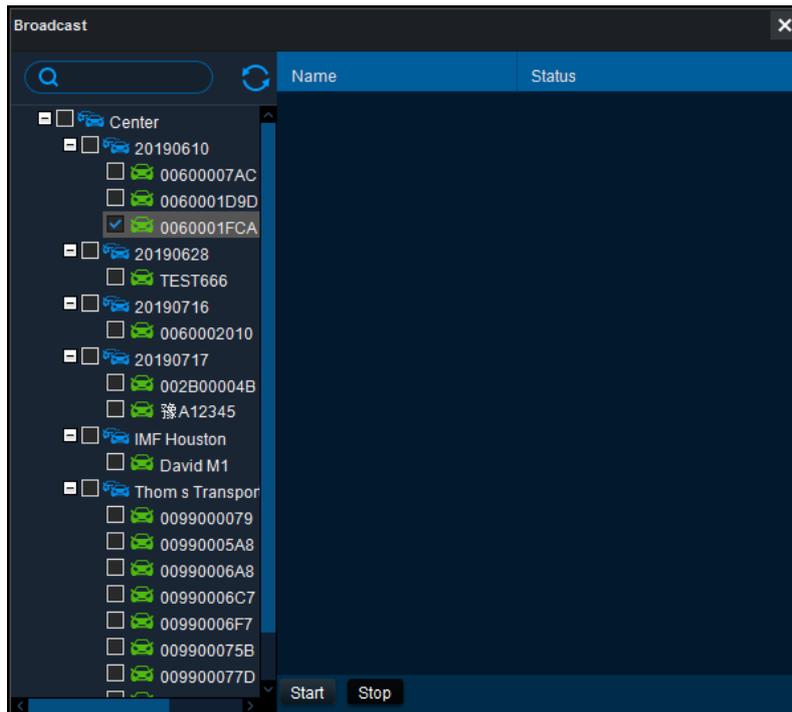
4.3.1. Monitor and Speak

Double-click the camera channel under the vehicle terminal to open the corresponding video. Right click to bring up a Monitor dialog box and click the speak button in the on-board transceiver function dialog box to monitor the sound of the camera of current channel, and realize intercom function between the platform and the on-board FM Transceiver, as shown below:



4.3.2. Broadcast

Click the Broadcast and Settings button in the on-board transceiver function dialog box to bring up corresponding dialog box. The broadcast function between the platform and all on-board transceivers is that: speak on the platform, and all the on-board transceivers are only responsible for receiving what has been spoken, as shown below:



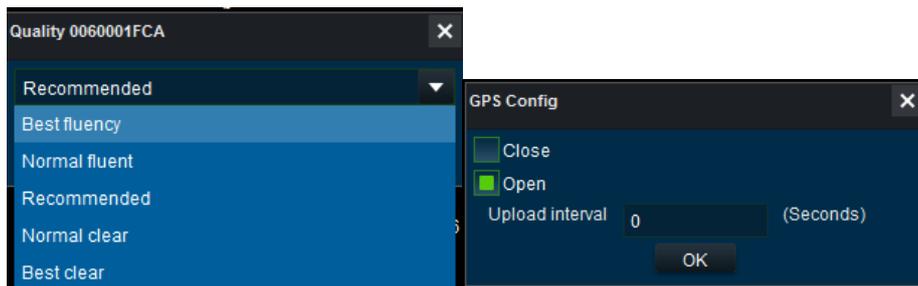
4.3.3. Remote Parameter Settings

Right-click on the green car symbol to bring up a setup window where users can set parameters of the on-board transceiver. For specific setup method, please refer to the “N9M-Standard Product

Function Specification (1.04)”.

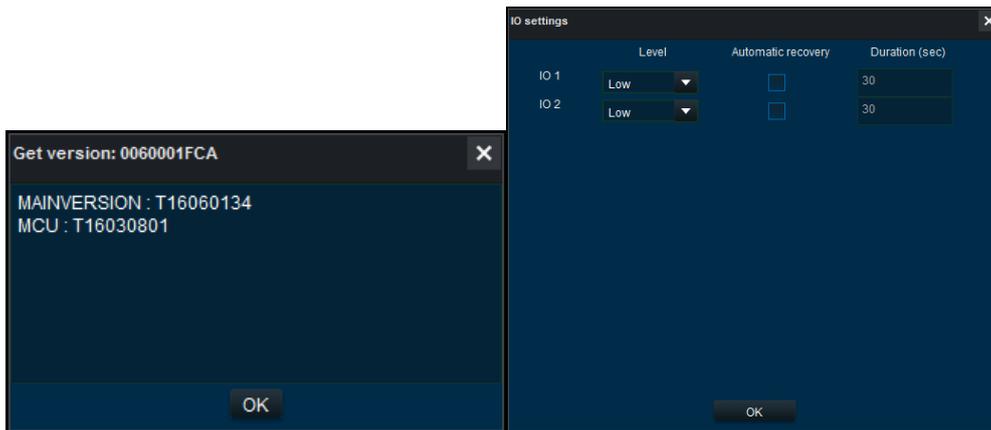
4.3.4. Image Quality and GPS Settings

Click the quality and GPS reporting setup button, and select quality according to the network bandwidth and image quality requirements. Generally, it is recommended to use fluency + clear; set the time interval for GPS reporting according to actual needs and card data traffic (each GPS data is less than 1KB). The following dialog box pops up:



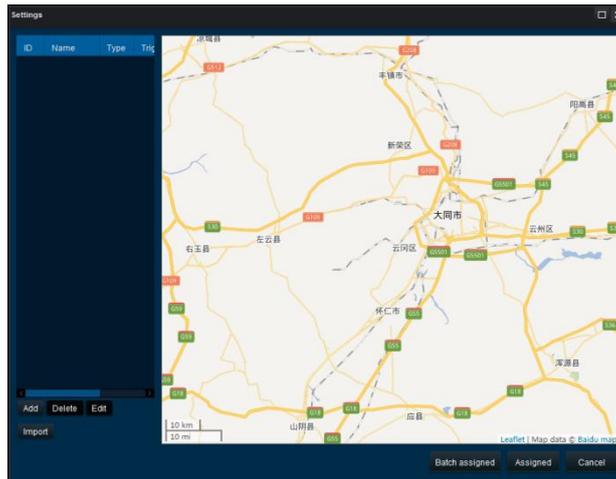
4.3.5. Version Number and IO Settings

Click “Get version”, and click “IO settings” button to view version of the device, which facilitates the update and upgrade of the subsequent version of program; set the alarm output IO 1 and IO 2; the output mode is optional in low level and high level; the duration is 30 seconds by default.



4.3.6. Electronic Fence Settings

Click the electronic fence settings button in the on-board transceiver function dialog box to set it as polygon and circle, and the following dialog box pops up:

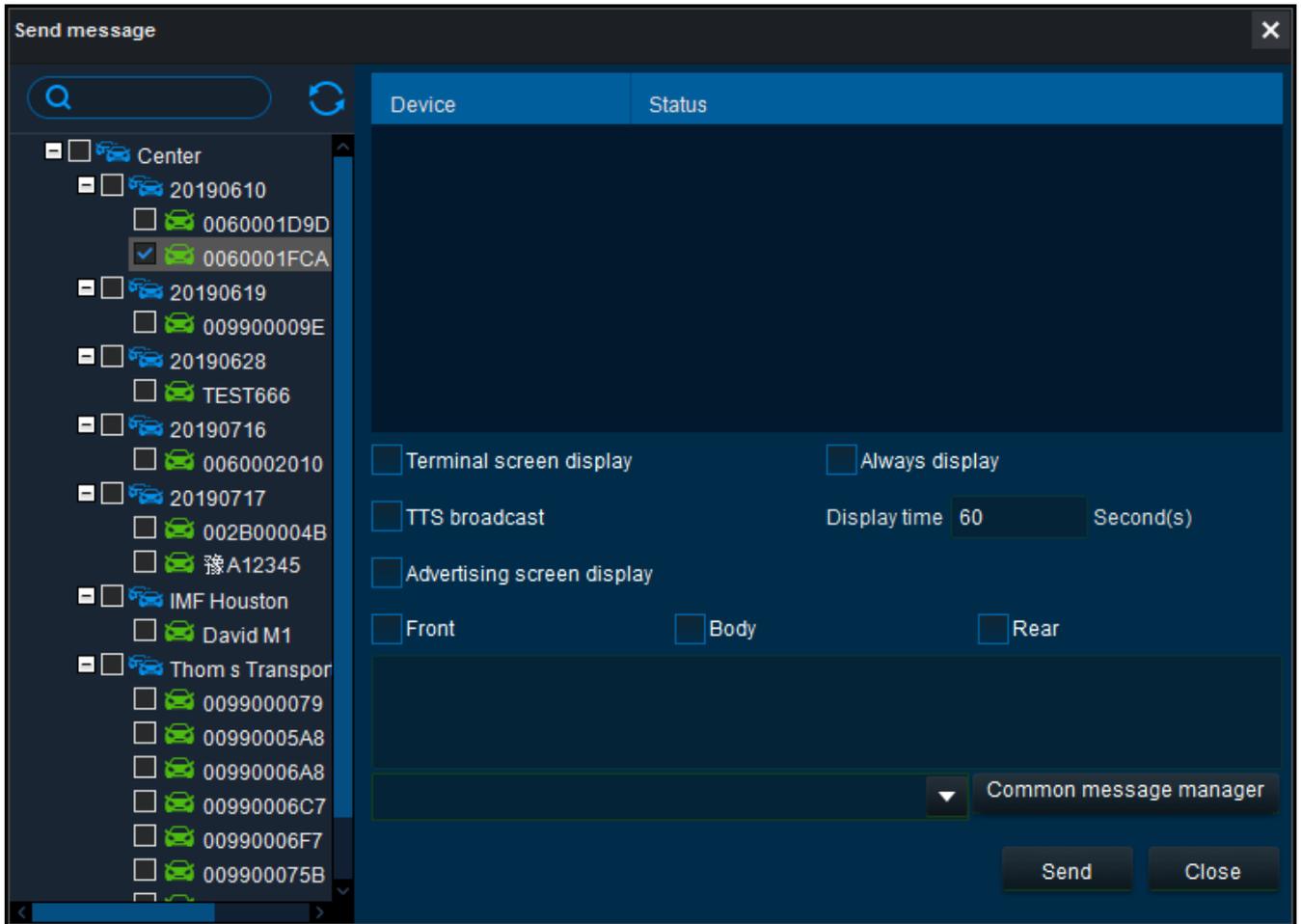


Use mouse to draw a polygon area. The trigger condition can be selected as Enter/Leave/In and Out; use mouse to determine a center point to draw a circular area, and the trigger condition can be selected as Enter/Leave/In and Out. Draw a linear route with mouse clicks, and the trigger condition can be selected as Enter/Leave/In and Out.

4.3.7. Send Text Message

Click the Send Text Message button in the on-board transceiver function dialog box to bring up a dialog box, as shown below.

Select a vehicle and select a needed method of display; users can manually input the message to be sent, or select a saved message in the common message management menu;



4.3.8. Remote Formatting and Restart

Click on Remote Formatting in the on-board transceiver function dialog box to format the device storage.

Click on Restart in the platform function dialog box to restart the device.

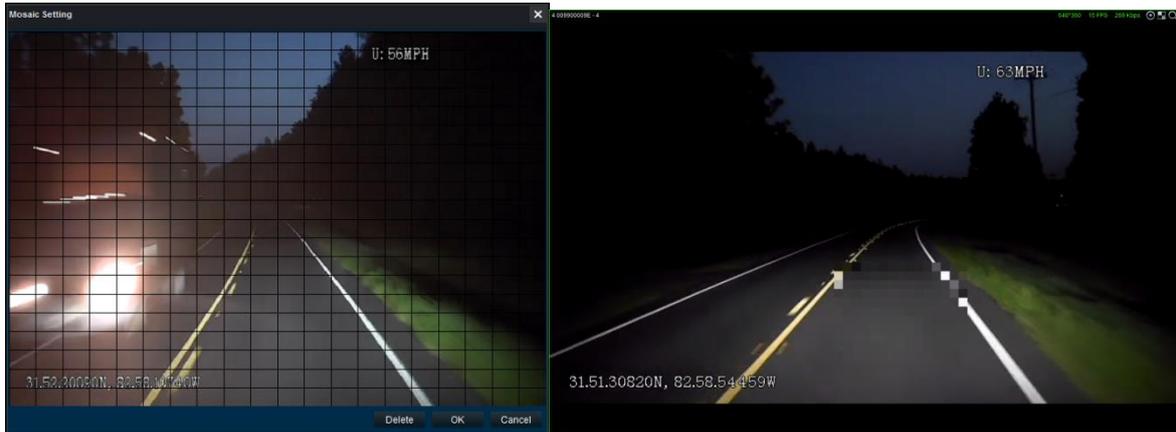
4.3.9. Live Map

1. After users log in the server, Map mode is displayed by default.
2. Double-click on the left vehicle to change to Video/Map mode, and for map switch, refer to system settings;
3. Select a vehicle on the left side, and the map will display the area where the vehicle is located in center, and the license plate number border turns red. Click the green on-board transceiver icon to bring up a dialog box, and switch the satellite mode.

4.4. Live video

4.4.1. Mosaic settings

Click on  to open a settings dialog box, as shown below:

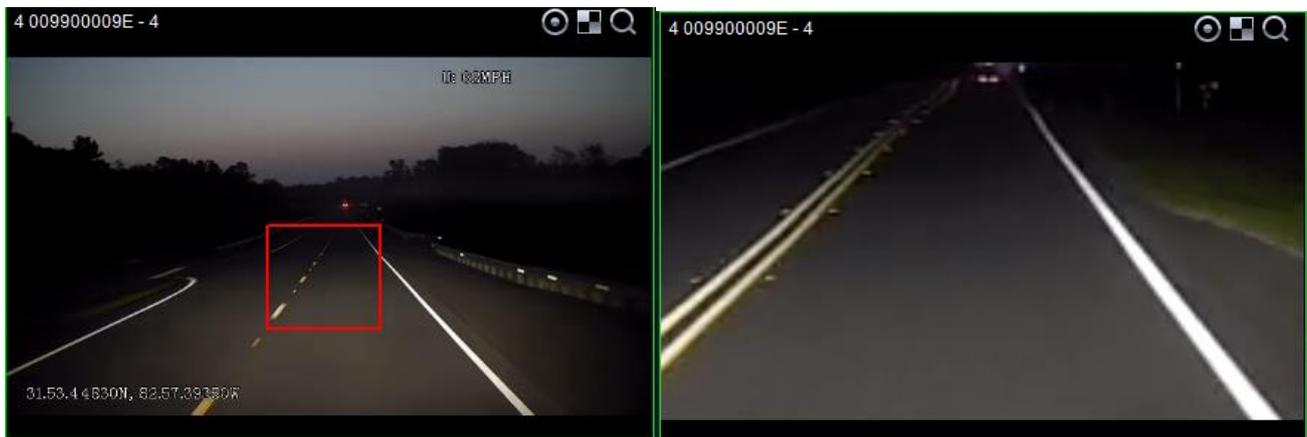


Drag the mouse to set or clear the mosaic area, and each window supports up to 20 points of mosaic;

Clips will not save the set mosaics. They can only be set during video playback or during real-time monitoring. If you want to cancel, click Delete.

4.4.2. Electronic Zoom

Click on  to enter the electronic zoom settings, and double-click to return, as shown below:

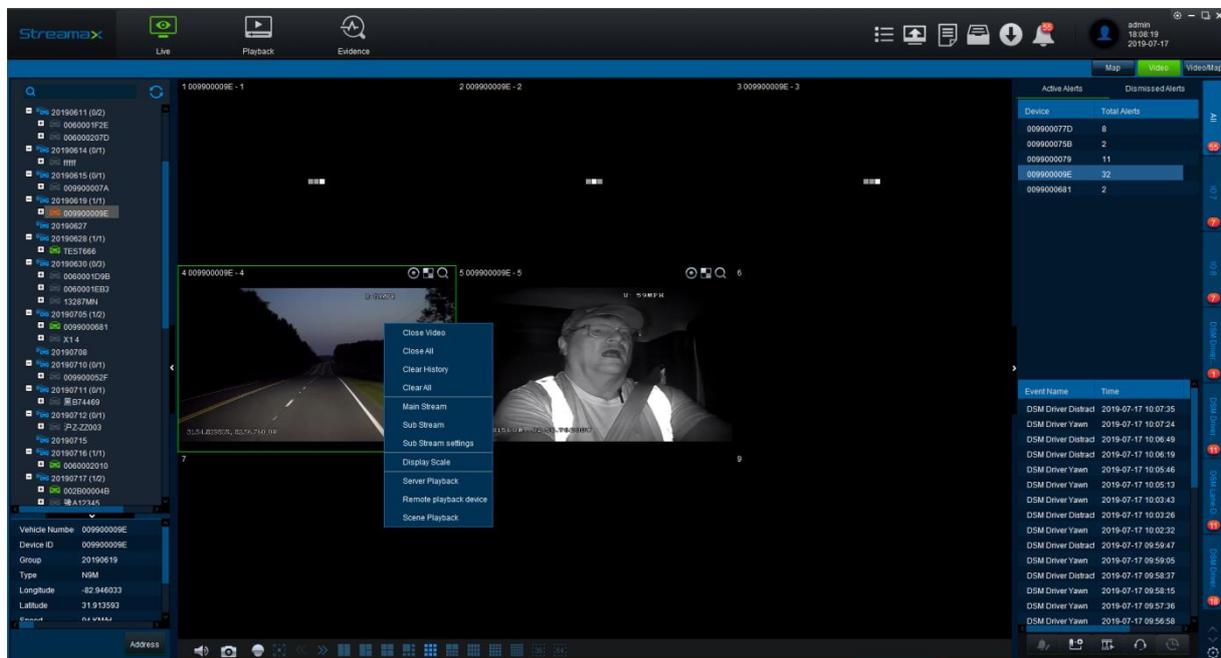


4.4.3. Preview Video Recording

Click on , and when it turns red, recording of preview videos according to the set path starts. Click again to restore the original state and stop recording.

4.4.4. Video Channel Settings

Select one of the channels, right click to bring up a dialog box. Sub-stream settings: HD defaults to VGA format, and VGA/CIF can be set; analog defaults to CIF, and D1/CIF can be set. As shown below:



4.4.5. Real-time alarm

When an alarm occurs, the alarm message will pop up on the right of the screen and the on-board transceiver icon will turn red.

Note: 1) Alarm needs to be set on the device in advance. Refer to the N9M software setup instructions.

- 2) The devices and the number of devices with alarms are displayed on the right of the page;
- 3) Click on the device name to display the name of alarm event and the time of occurrence and related event description;

4) When an alarm occurs, the vehicle icon turns red, and when no alarm occurs, it turns green.

4.4.6. PTZ Control

Sound: on/off;

Capture: Saved in a folder according to the path in system settings, and the default is in the C drive;

 PTZ: Click on the PTZ button to bring up the PTZ operation dialog box (**users need to configure the PTZ parameters through CP4 first**).



Rotation of PTZ can be controlled in all directions;

Automatic diaphragm control;

Automatic focus control;

Zoom in and out control;

Preset points setup;

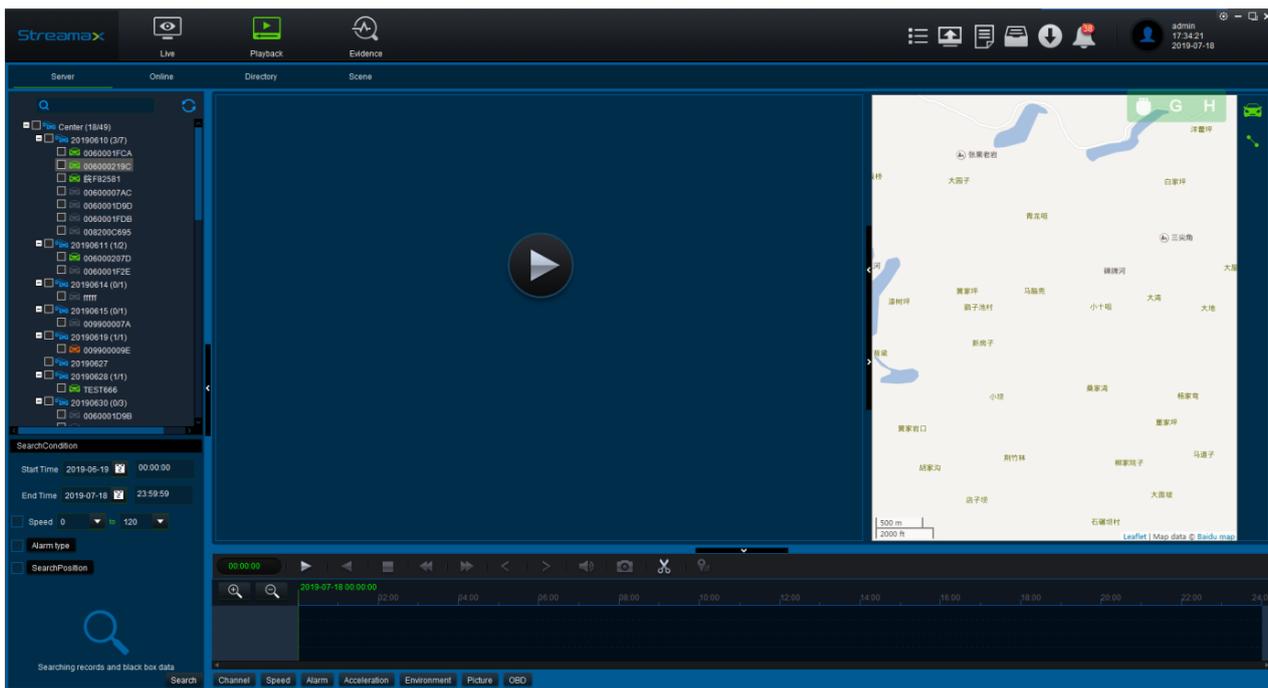
PTZ speed setup.

4.5. Playback

4.5.1. Server playback

The data source for playback on server is videos on the device and black box data automatically downloaded to the server.

Click on the “Playback” icon in the upper left corner to enter the server playback page by default. The left side is the vehicle terminals tree, which only displays the fleet within the management scope and the vehicle terminals under the fleet, as shown below:

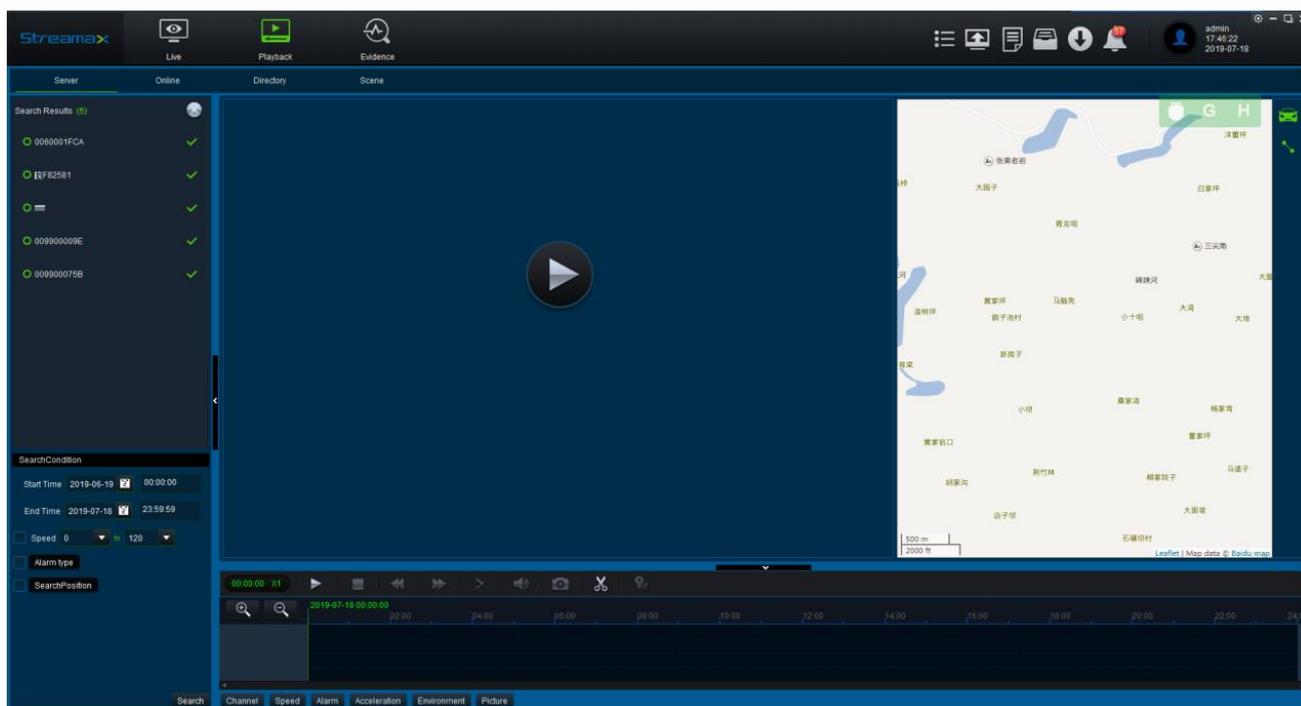


4.5.2. Single Vehicle Search

1. Select one of the vehicles, and then select date (the default is the last 1 month) and conditions;
2. Double-click on the vehicle or click “Search” button. The platform returns the calendar of the current month. If it exceeds the current month, a left and right scroll bar appears.
3. Green on the calendar indicates normal recording; orange indicates alarm recording; red dots indicate black box data; Double-click on a day in the calendar to enter the playback page.

4.5.3. Multiple Vehicles Search

1. Select multiple vehicles, and then select date (the default is the last 1 month) and conditions;
2. Click the “Search” button, and the platform returns 2 pieces of data each time until all data that meets the conditions are returned, as shown in the figure:



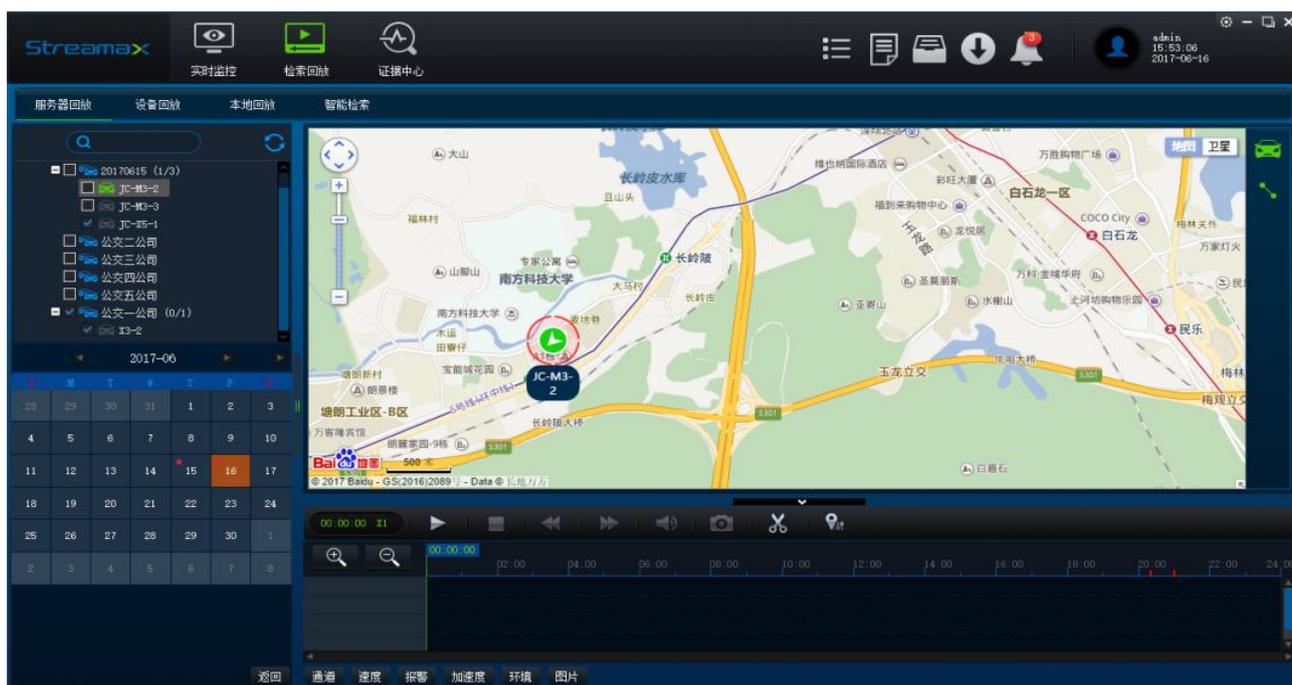
3. Click on the vehicle terminal in the search results, and the platform returns the monthly calendar with data.
4. Double-click on a day in the calendar to enter the playback page.
5. When performing multiple vehicles search, users can no longer operate other pages. Click the  button to end multiple vehicles search.

4.5.4. Playback Screen

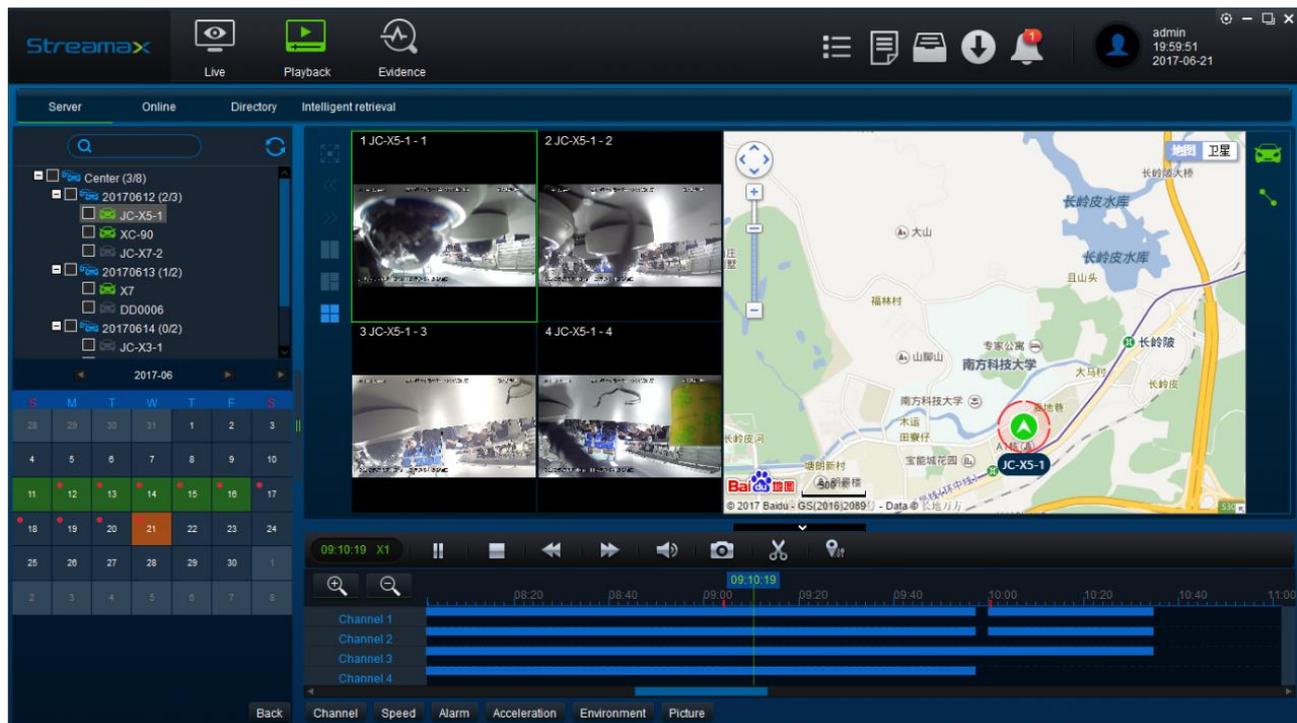
1. After server search is completed, double-click on a date in the calendar; if there is video data, it will enter the channel selection page;



2. Select the channels of interest for playback (all channels with data are selected by default); if there is only black box data, it will directly enter the map page;



3. Click the Play button to enter the video playback page, as shown below:

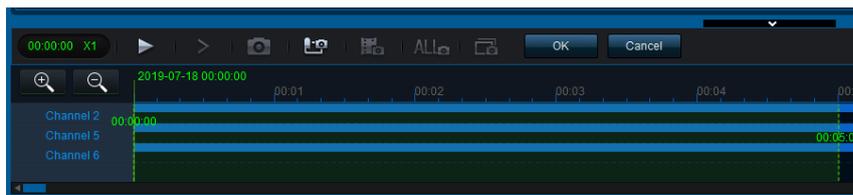


4.5.5. Playback Control

1. Slow: during playback, click on  to slow down (1/2, 1/4, 1/8, 1/16 and 1/32 of normal speed are supported). If the playback only includes black box data, this function is not supported;
2. Speed up: during playback, click on  to speed up (X2, X4, X8, X16 and X32 of normal speed are supported). If the playback only includes black box data, this function is not supported;
3. Sound: during playback, click on  to bring up  which allows users to adjust video volume;
4. Capture: during playback, click on  to capture the image of the currently selected window and save it to the specified folder (default in the C drive). A prompt box in the lower right corner of the window pops up, and will be automatically closed in about 5 seconds.

4.5.6. Playback Clip

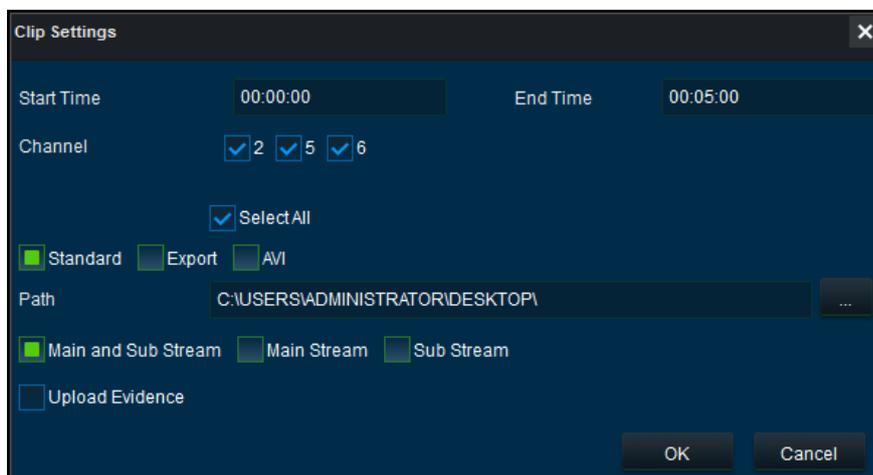
1. Clip: during playback, click on  to make a pause, and the changes will appear in “Curve Control” and “Playback Control Bar”, as shown below:



Note: The leftmost green dotted line is the start time of a clip; the middle green solid line is the playback progress; the rightmost green dotted line is the end time of a clip.

2. Modify clip time: By default, the video of five minutes before and after the current playback time point is selected. Drag the green dotted line at start or end time point to adjust the start and end time of clip;

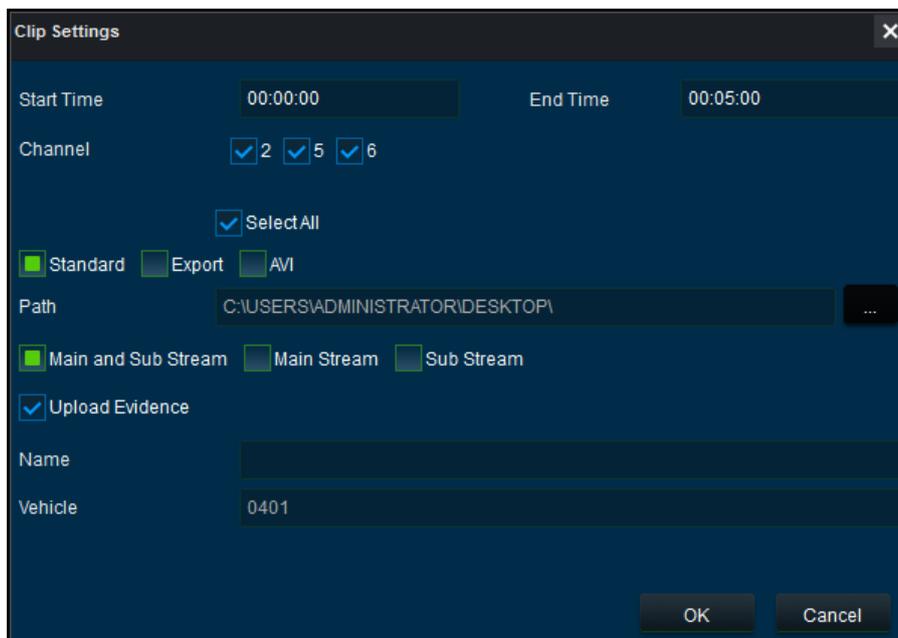
3. Clip settings: After selecting the clip time, click OK to enter the clip settings dialog box, as shown below:



- The default is standard clip. After clip, click OK to download the videos of selected channels to the specified folder.
- By default, all channels with data are selected, and the channels that need clip can also be ticked.
- The local save path can be modified. The default is the desktop folder in C drive.
- Click OK to enter the download interface. You can view the download progress in the local download center;
- Standard Clip only exports video files (in h.264 format), which can be opened by a miniplayer player;
- If you choose Export, in addition to exporting the video file, the miniplayer player file will be exported.

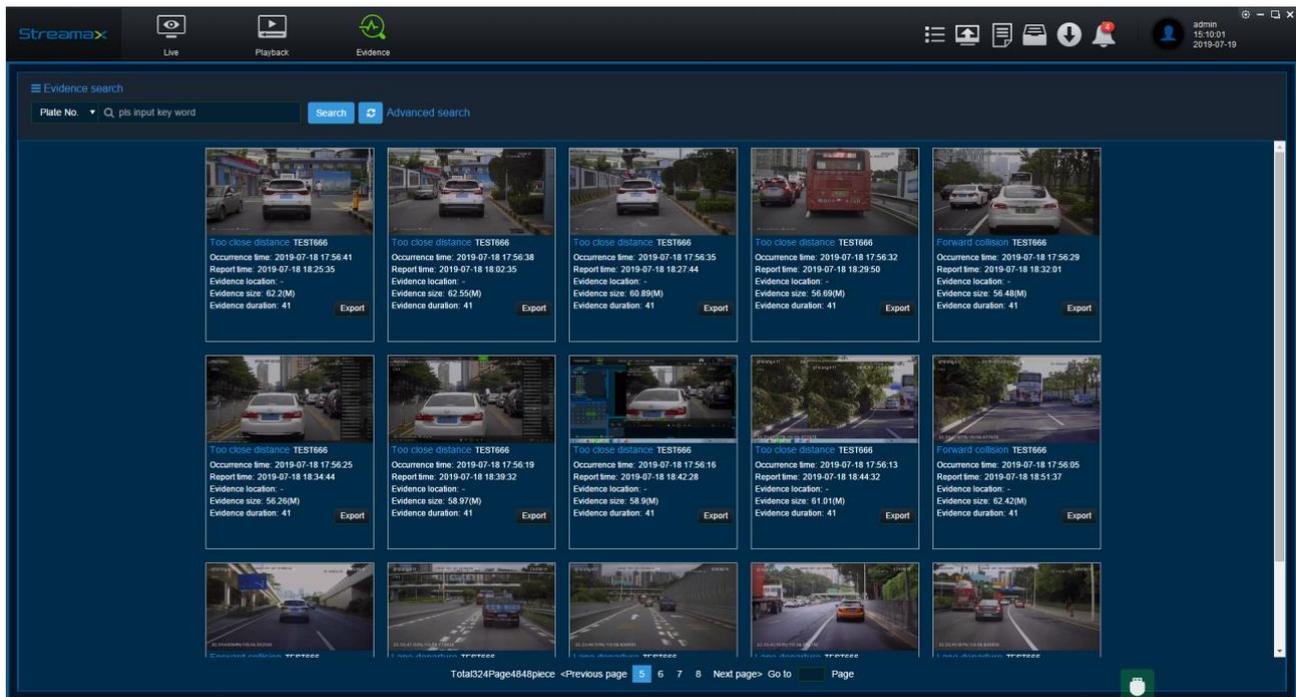
- If you choose Convert to AVI, the video file will be converted to AVI format, which can be opened by a normal player.

4. Upload evidence: Only standard clip allows selection of Upload Evidence, and a Upload Evidence dialog box pops up. When you select Upload Evidence, video files will be downloaded to the evidence center in server. You can search in the evidence center. As shown below:



4.6. Evidence Center

Click to go to the Evidence Center homepage which displays by default the evidence uploaded from current device, including captured pictures, generation time, upload time, vehicle information, exported evidence, etc. Users can view and find the corresponding evidence in detail.

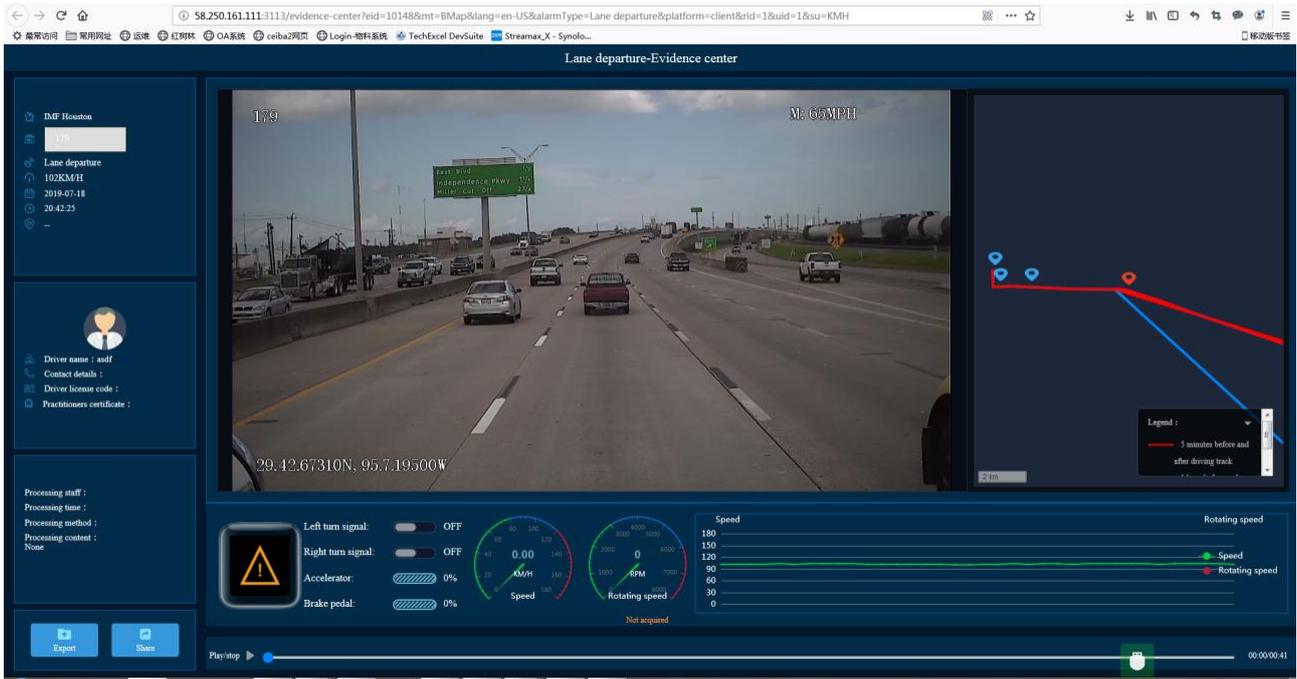


4.6.1. Evidence Search

1. Search by vehicle: Select a vehicle in the “Vehicle” tab on the left to display the evidence of the vehicle, or enter keywords in the upper left corner to search the vehicle;
2. Search by driver: Select a vehicle in the “Driver” tab on the left side to display the evidence of the driver, or enter keywords in the upper left corner to search the driver;
3. Search by date, status, rating, and keywords.

4.6.2. Evidence Playback

On the main page of the evidence center, select the evidence to be played back, and click the “Playback View” link to enter the playback page. The left side of the playback page shows the basic information of vehicle and driver, the vehicle trajectory, and the video evidence of the vehicle and black box data. The evidence can be shared by Email or QR code, and can be exported. The exported file package contains evidence videos in MP4 format and captured images, as shown below:



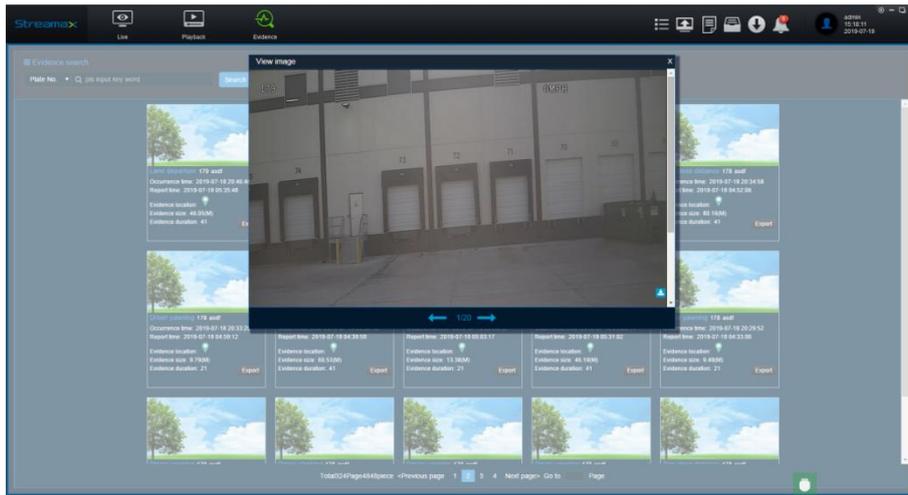
4.6.3. Evidence Sharing

The evidence can be shared by means of Email and QR code.



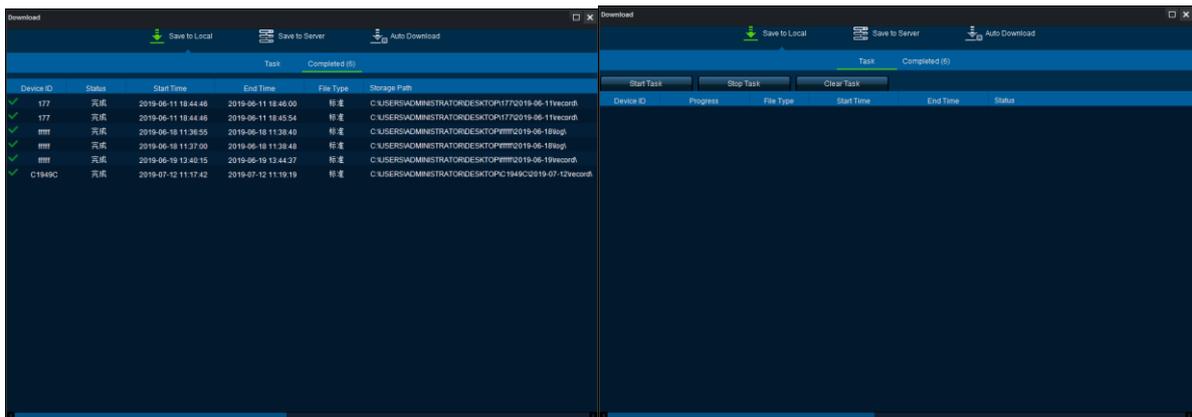
4.6.4. Captured Image Evidence

Click on the small “+” in the evidence center to view the information about a captured image.



4.7. Download Center

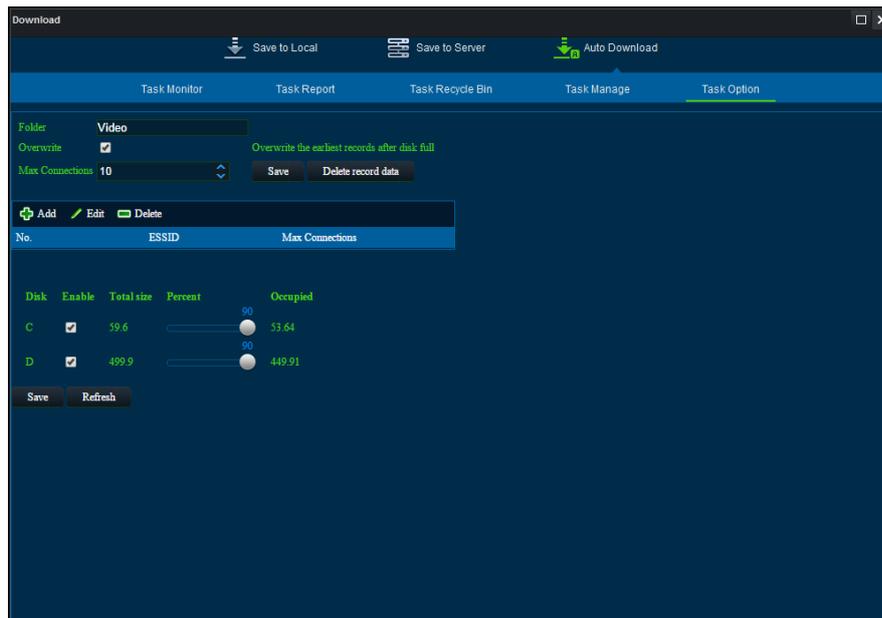
Click on  to enter the download center.



1. The download center is divided into Save to Local and Save to Server.
2. Save to Local only allows download of one record at a time.

4.7.1. Automatic Download

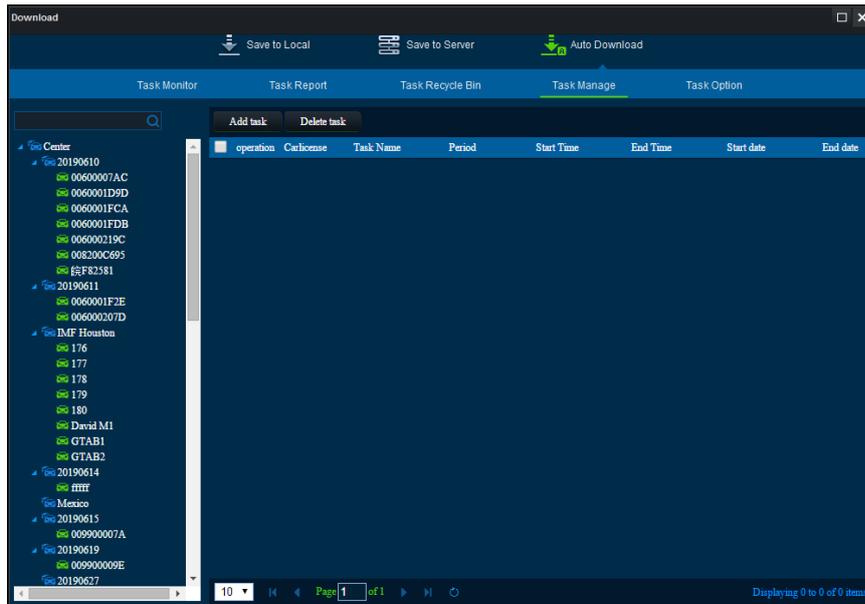
1. Click the Auto Download button on the interface to enter the automatic download page. By default, it will enter the Task Monitor page.
2. On the Auto Download page, click the “Configuration” link to enter the interface as follows:



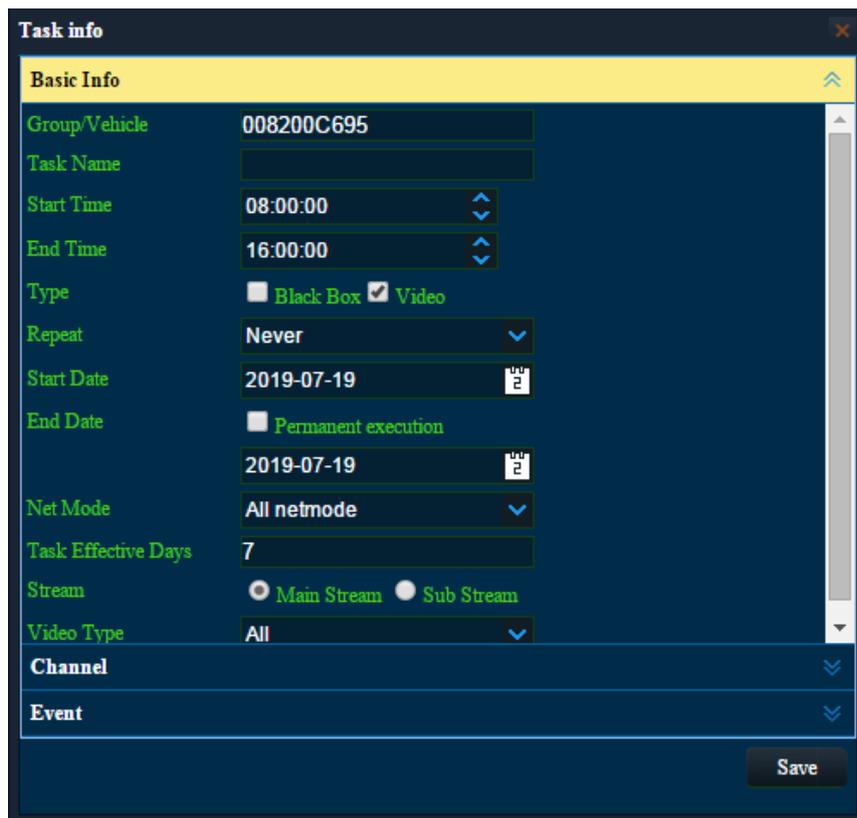
- 1) Basic configuration: Folder is a path for saving the downloaded file. The default is “Video”, which can be changed manually;
- 2) Overwrite: If the disk to be configured is full, the earliest records will be overwritten. If the overwrite is not checked, the oldest records will not be overwritten after the disk is full, but there is no space left to download other files. It is recommended to check Overwrite.
- 3) Max connections: The number of devices for downloading at the same time. Manual download is not restricted. Click the Save button to save the changes.
- 4) Disk configuration: After a disk is selected, the downloaded file will be saved on the disk; the percentage can be adjusted, for example, if the total capacity of a disk is 100G, after adjusted to 50%, there will be 50G space for download; resetting the disk will clear the previously configured data. Click the Save button to save your changes.

4.7.2. Task Manage

Click the Task Manage button in the menu bar to enter the Task Manage page, as shown below:



1. Auto add task: first select a vehicle in the left list, and then click the Auto Add Task button to bring up a dialog box as shown below:

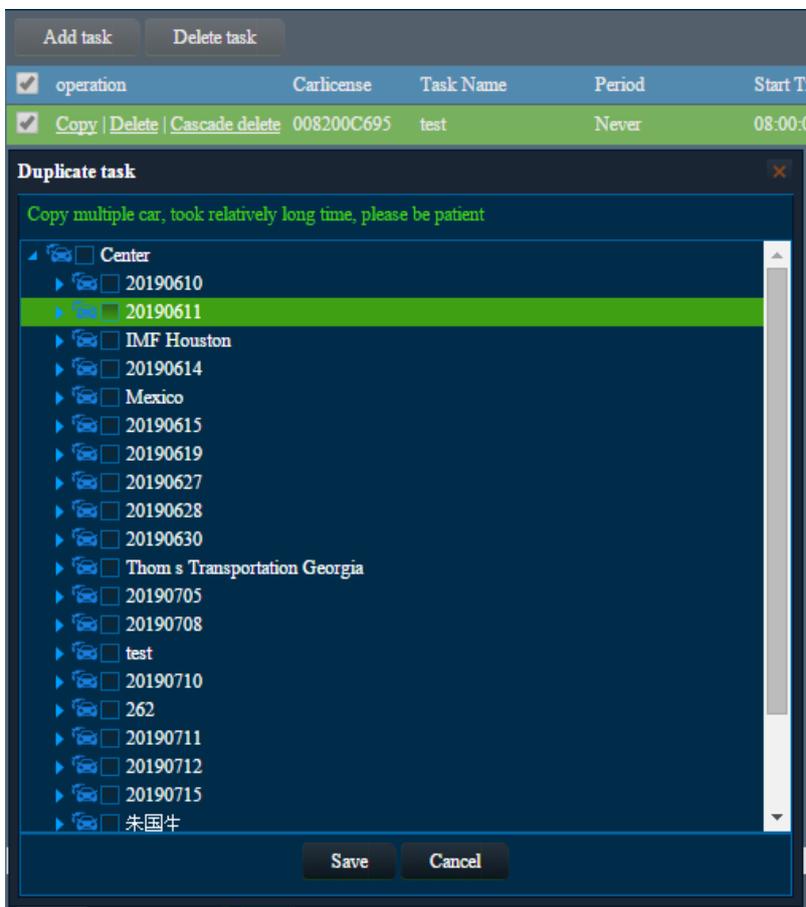


- **Cycle:** divided into single, daily, weekly and monthly; single tasks are only executed once, daily tasks are executed every day on the specified date, weekly tasks are executed on the days selected in the specified date, and monthly tasks are executed on the days selected in the specified date.

- **Permanent execution:** If checked, the task will be executed permanently except for single tasks; if not checked, the task will be executed until the end date.
- **Channel:** Only download the videos of selected channels. The default is to download the videos of all channels.
- **Event:** When Event is selected, only alarm files are downloaded.
- **Task execution** can be seen in the Task Monitor below.

2) Copy: Click the Copy button in the task list to bring up a dialog box as follows, and select the vehicles that needs task copy.

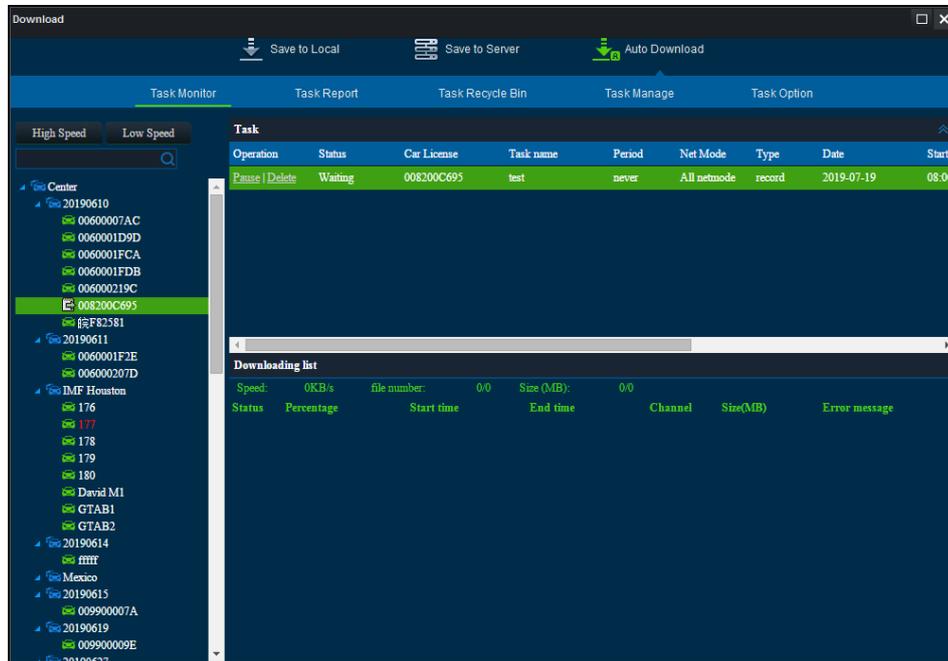
If users select a fleet, tasks are copied to vehicles in the fleet. Click the Save button to quickly copy task to these vehicles, as shown below:



- 3) Delete: Select multiple tasks and then click the Delete button in the menu bar or directly click the Delete button in the task list to bring up a confirmation dialog box and choose OK or Cancel.
- 4) Cascade delete: Click the Cascade delete button in the task list to bring up a confirmation dialog box and pops up, choose OK or Cancel. (Note: Cascade Delete will removes all duplicated tasks, so be cautious)
- 5)

4.7.4. Task Monitor

After a task is added, users can view the download of the task on the Task Monitor interface, as shown below:



1. **Pause:** Click the Pause button in the task list to make the current task pause and put the task in a wait state.
2. **Start task:** After the task pauses, click the Start button in front of the task to continue downloading the task.
3. **Delete task:** Click the Delete button in the task list to bring up a confirmation dialog box and choose Delete or Cancel.
4. **High-speed download:** During task downloading, the device does not take videos.
5. **Low-speed download:** During task downloading, the device takes video while downloading.

4.7.5. Notes for Automatic Download

1. Download priority

Between multiple devices: According to the connections limit, the device that is connected first will download first (in the order that the devices are connected); when the number of connections exceeds the limit, it is in a wait state (Note: the connections limit can be configured in the configuration interface, as mentioned above).

Single device: download according to task type, priority (from big to small): manual task, single task, daily task (weekly task, monthly task) (daily task, weekly task and monthly task have the same priority).

The same-priority tasks download order: start time, end time, task id (for same-priority tasks, those with minimum start time are downloaded first; if with same start time, those with minimum end time are downloaded first; if with same end time, those with minimum task ID are downloaded first).

2. Task start and end time clip rules

If the task start time and end time have intersection with the start and end time of video file, the video file within the task time is taken. Example: The start and end time of the task is 8:01:00-8:02:00; if the start and end time of the video file is 8:00:00-8:03:00, the data in 8:01:00-8:02:00 is taken.

3. Server file storage

Server video file directory storage structure: drive letter: \ user-defined directory \ license plate \ date \ Record \ video file. Overwrite strategy: Each time the software runs, it automatically identifies which disks are available on the server and then lists them for user selection. Users can configure the disk usage as needed, and then define the directory by themselves. This will automatically generate the video file storage structure. When user configuration is completed, the video files can be downloaded normally.

For example: the server has C, D, E drives and the user only selects the C and D drives. At this time, there are only two drives available. First, the video files are saved in C drive. After the specified usage is reached, it is automatically switched to D drive.

4. Situations where videos are not downloaded

After selecting a drive, when the configured usage is less than 500M, videos will not be downloaded; there is no drive available to save the videos at all; if Auto Overwrite is not selected, when the space is less than 1G or greater than or equal to the drive usage subtracting 1G after videos are saved to the drive.

5. Conditions for automatic deletion

When the size of videos saved in a drive is greater than the configured usage subtracting 1G, deletion is started; for example: for a 100G drive letter, the usage is 50%, when 49G has been used, video files will not be saved to it.

When the remaining space for storage of videos is less than the drive usage, that is when the remaining space is less than 1G, deletion is started; for example: for a 100G drive, the usage is 50%, but there are 60G of other files saved in the drive. At this time, only when the remaining space is less than 1G, deletion is started.

When deleting, first search for the earliest video file directory from the drives that allow storage, and then start deletion. When the remaining space does not meet the conditions for deletion after video files are deleted, deletion is stopped; for example: C drive is configured, the D drive size is 100G and usage is 50G. When the C drive space is insufficient, it will switch to the D drive for video storage; when the D drive space is insufficient, deletion is started, and at this time, search for the earliest video files in C drive. Delete the earliest video files. If the available space of the C and D drives is still insufficient, continue to search until there is one drive allowing storage, and then stop deleting.

6. Disk usage

Disk usage: It refers to the space where the videos can be stored. For example, if the usage of a 100G hard drive is 50%, there will be 50G space available for storage of videos.

7. Why deletion is started when 1G is subtracted from the disk usage?

The reason why 1G needs to be subtracted from the usage is that the delete thread is only started when the usage is configured to be 100%, then there is no space for saving video files at the time of deletion, so deletion will start when there is still some space. At this point, it does not affect the saving of video files

8. Earliest directory

The directory with the earliest time found according to the date in the path is defined as the earliest directory. If the time of file directory of all videos is the same, then find the newly created directory to define it as the earliest directory. At this time, the directory and all video files in this directory will be deleted. If the deletion fails, mark the directory and then search for other earlier directories.

9. Task status description

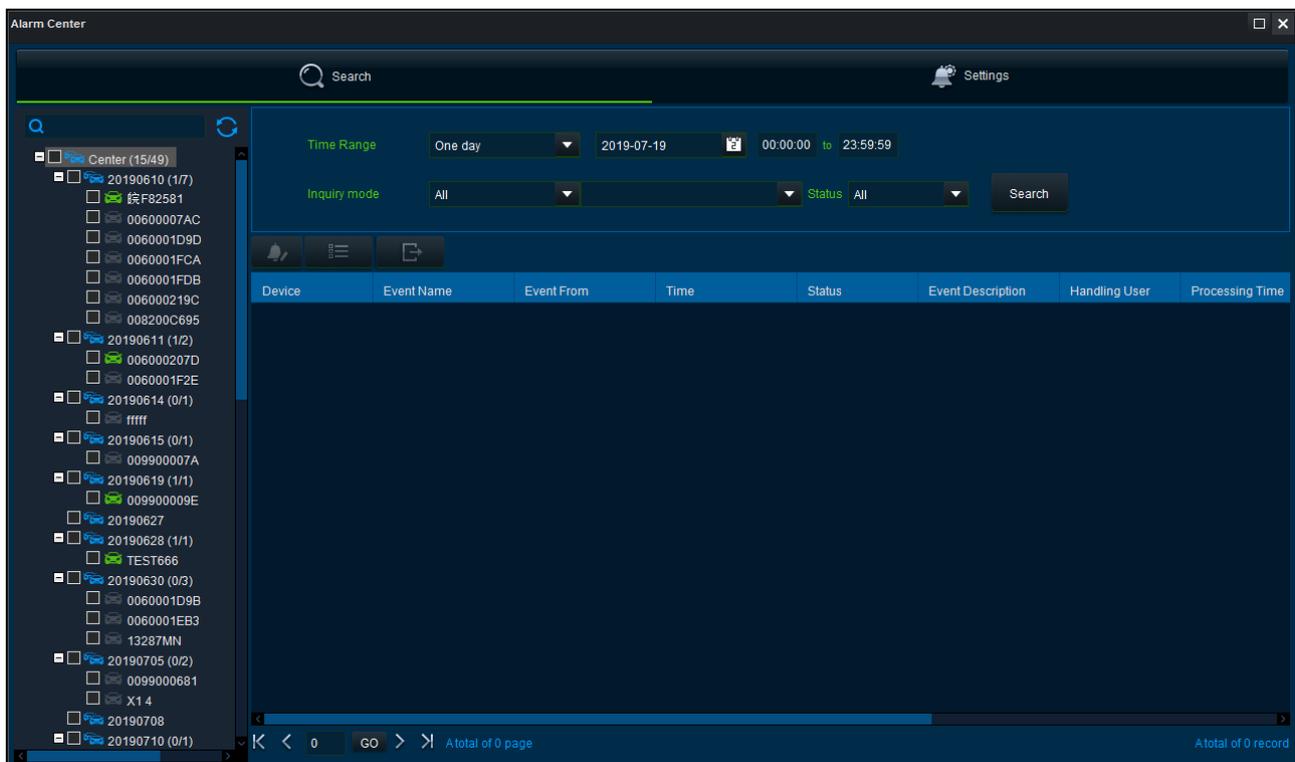
Status	Description
Pause	Task is in a pause
Connections limited	At this time, the vehicles in downloading exceed the limited connections
In parsing	Parse the video files to be downloaded according to task
Task not completed	Task download completed, but the end time is greater than the current

	system time
Insufficient disk space	The disk for videos storage has insufficient space
Waiting	Waiting for download of task
Analysis succeeded	Analyzing the video files to be downloaded is completed
Downloading	Downloading the video files corresponding to the task
No video files	The number of video files parsed according to the task is 0 (there is no video file that meets the conditions)
Download succeeded	Task download is completed and there is no video file that failed to be downloaded
Task failed	There is an exception during task parsing (such as failure to access data, abnormal data, etc.)
Task deleted	Task is deleted by user
Download failed	Task download is completed and there are video files that failed to be downloaded

4.8 Alarm Search

4.8.1 Search History

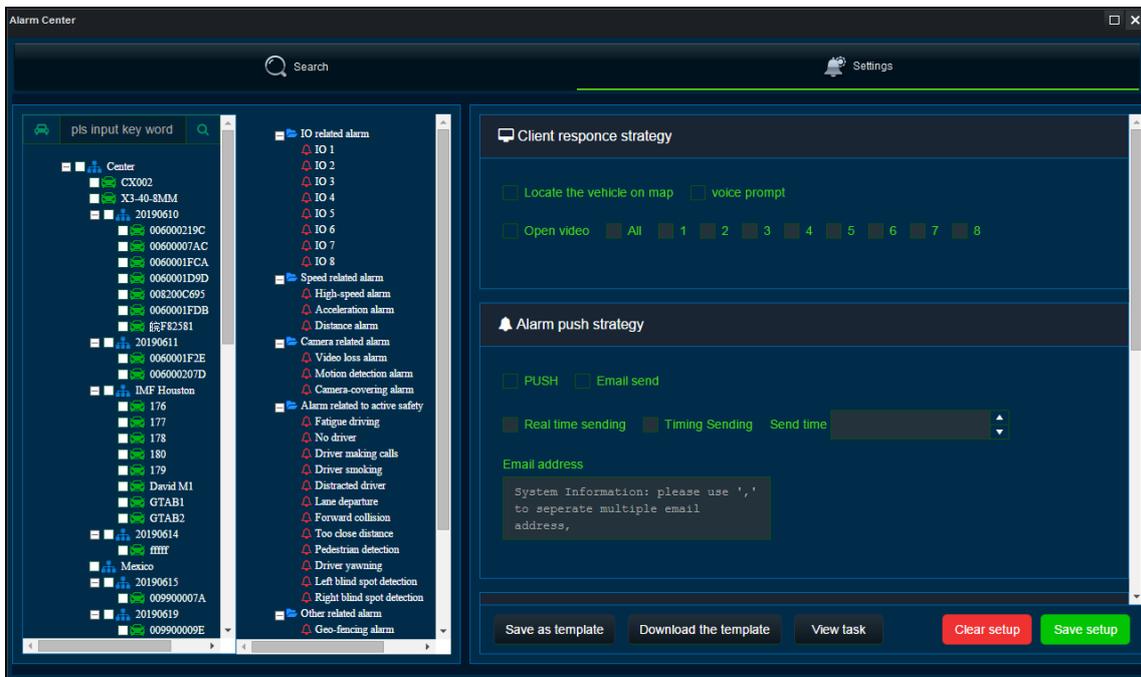
Click on  to enter the alarm center page, as shown below:



4.8.2 Search Conditions

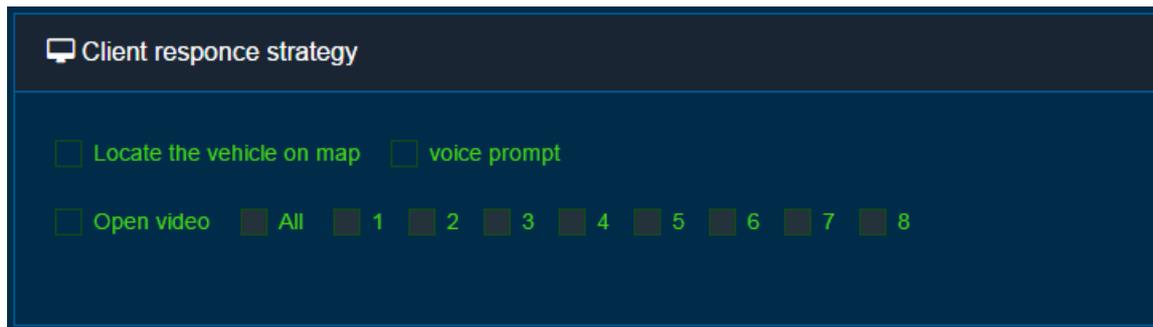
1. Time range: one day, the last 3 days, the last 5 days, the last 1 week, the last 2 weeks, the last 1 month, all and custom;
2. Event name: all, video loss, motion detection, covered camera, storage exception, IO1\IO2\IO3\IO4\IO5\IO6\IO7\IO8 emergency alarm, low speed, high speed, low voltage, acceleration, electronic fence, illegal power off, illegal shutdown;
3. Event status: all, processed, unprocessed;
4. Event handle: handle, batch handle, and export alarm.

4.8.3 Alarm Configuration



4.8.3.1. Alarm strategy

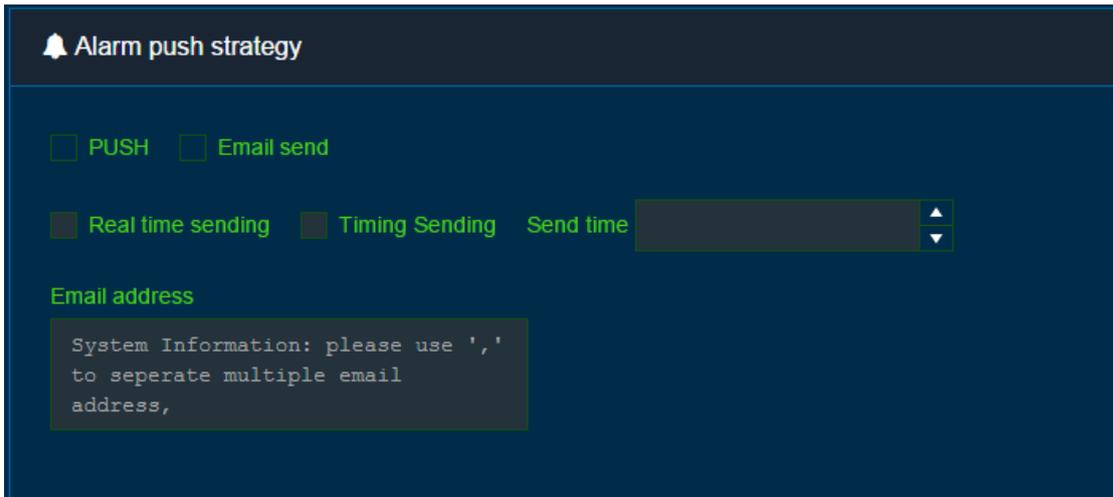
1. Alarm handling method:



- Locate the vehicle on map: when an alarm occurs, the vehicle is automatically located on the map;
- Voice prompt: When an alarm occurs, the alarm sounds
- Open videos of all channels: vehicle alarm linkage device opens all channels;
- Open videos of specified channels: vehicle alarm linkage device opens specified channels;
- Server processing mode: Only administrators have setup permission, and this function is blocked for non-administrator;
- Push: When a vehicle alarm occurs, the linkage device pushes the alarm message to the mobile APP.
- 2. After adding the alarm handling strategy, when the device generates the selected type of alarm, it will locate the vehicle on map or give a voice prompt or open the video according to the strategy.

4.8.3.2. Alarm Email

Select alarm type, associated fleet, send method (real-time sending and timed sending), send time and Email address.



4.9. Device List

Click on  to enter the device list interface to view the information of relevant online vehicles reported to server.

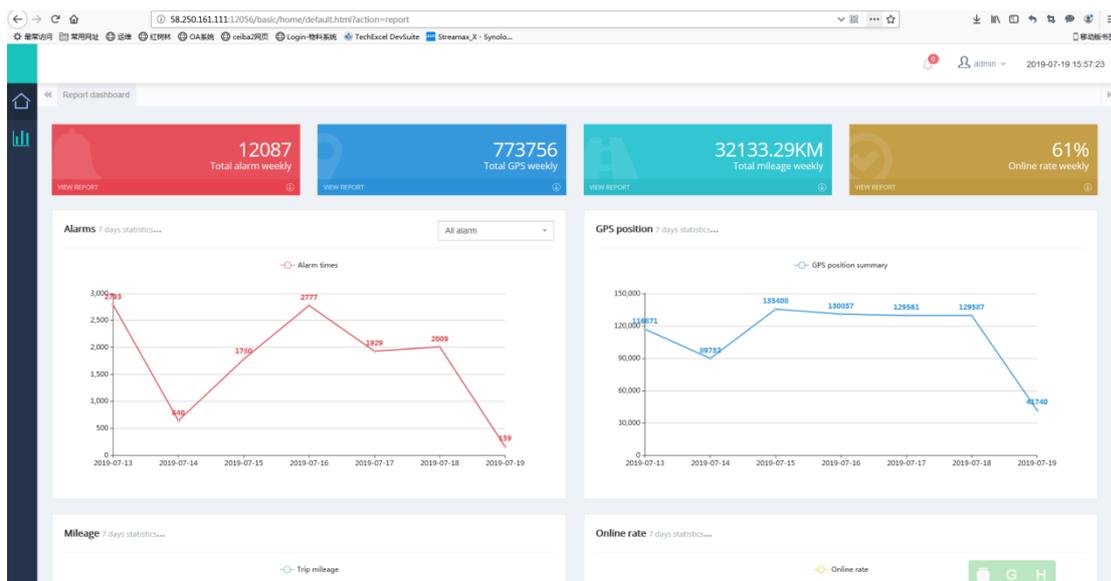
Vehicle traffic status list

Address Total Number: 49 Online: 16 Offline: 33 Alarm: 0

Sequence Number	License Number	Group	Online Status	Data Time	Position	Speed	Alarm
1	006000219C	20190610	Offline	2019-07-19 11:59:32	Longitude 113.035395 Latitude 39.984093	0 KMH	No
2	00600007AC	20190610	Offline	2019-07-19 13:19:52	Longitude 113.206580 Latitude 40.017581	0 KMH	No
3	0060001FCA	20190610	Offline	2019-07-19 11:24:24	Longitude 113.163563 Latitude 40.022721	0 KMH	No
4	0060001D9D	20190610	Offline	2019-07-18 12:21:38	Longitude 113.164030 Latitude 40.009071	0 KMH	No
5	008200C695	20190610	Offline	2019-07-09 16:35:33	Longitude 42.588466 Latitude 18.178773	0 KMH	No
6	0060001FDB	20190610	Offline				No
7	皖F82581	20190610	Online	2019-07-19 15:48:11	Longitude 116.752923 Latitude 33.889175	0 KMH	No
8	CX002	Center	Offline				No
9	176	IMF Houston	Offline	2019-07-18 16:52:07	Longitude -95.170508 Latitude 29.717953	0 KMH	No
10	177	IMF Houston	Offline	2019-07-11 21:01:38	Longitude -94.889170 Latitude 29.778673	0 KMH	No
11	0060001F2E	20190611	Offline				No
12	006000207D	20190611	Online	2019-07-18 17:36:41	Longitude 113.163781 Latitude 40.008968	0 KMH	No
13	X3-40-8MM	Center	Offline				No
14	178	IMF Houston	Offline	2019-07-18 22:22:43	Longitude -94.889321 Latitude 29.778918	0 KMH	No
15	180	IMF Houston	Offline	2019-07-18 12:43:55	Longitude -95.281471 Latitude 29.776103	0 KMH	No
16	179	IMF Houston	Offline	2019-07-18 22:57:10	Longitude -94.889303 Latitude 29.778798	0 KMH	No
17	fffff	20190614	Offline	2019-07-17 01:41:36	Longitude 113.998988 Latitude 22.595570	0 KMH	No
18	009900007A	20190615	Offline				No
19	009900009E	20190619	Online	2019-07-19 07:48:15	Longitude -82.220088 Latitude 31.319006	0 KMH	No
20	TEST666	20190628	Online				No
21	00990006C7	Thom s Transportation Georgia	Online	2019-07-19 07:48:14	Longitude -82.218910 Latitude 31.318991	0 KMH	No
22	0099000079	Thom s Transportation Georgia	Online	2019-07-19 07:48:17	Longitude -82.940211 Latitude 32.460945	93 KMH	No
23	C1949C	Thom s Transportation Georgia	Online	2019-07-19 07:48:22	Longitude -82.833874 Latitude 31.486446	0 KMH	No
24	13287MN	20190630	Offline	2019-07-18 15:36:46	Longitude -73.311136 Latitude 40.745871	0 KMH	No

4.10. Report

Click on  to enter a WEB page to view relevant basic functions and report information, as shown below:



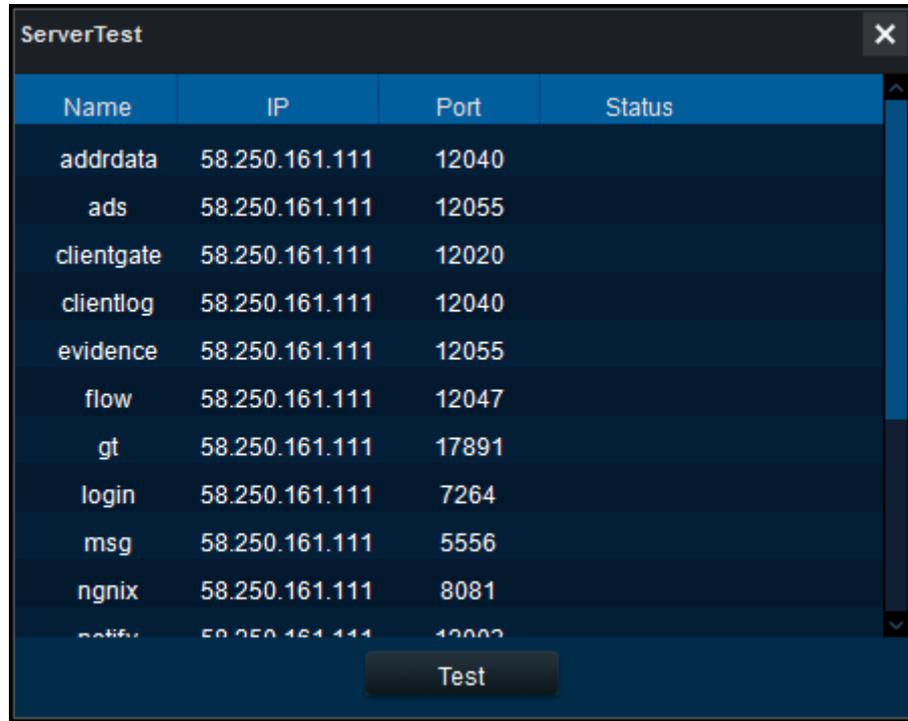
4.11. View Version Information

Click on  to open About, and bring up a dialog box, where users can view the version information, as shown below:



4.12. Server Test

Click on  to open Server Test, and bring up a dialog box, where users can click on Test to view the server connection, as shown below:



The screenshot shows a dialog box titled "ServerTest" with a close button (X) in the top right corner. Inside the dialog is a table with four columns: "Name", "IP", "Port", and "Status". The table lists several server services, all with the IP address 58.250.161.111. A "Test" button is located at the bottom center of the dialog.

Name	IP	Port	Status
addrdata	58.250.161.111	12040	
ads	58.250.161.111	12055	
clientgate	58.250.161.111	12020	
clientlog	58.250.161.111	12040	
evidence	58.250.161.111	12055	
flow	58.250.161.111	12047	
gt	58.250.161.111	17891	
login	58.250.161.111	7264	
msg	58.250.161.111	5556	
nginx	58.250.161.111	8081	
rtmp	58.250.161.111	1935	