



Wireless Video Surveillance Client

User Manual

1 Overview

Wireless video surveillance client(V2.1) is the application specially developed for mobile embedded DVR. It is application to mobile DVR and other normal HIK devices supporting wireless net video transmission.

Management server platform is needed before using client software, and server software should be running. The server setting up and configuration are not in this manual, please inquire the administrator.

Recommended computer disposition: CPU 3.0GHz 1G RAM, 128M Display Memory, 1024*768 Resolution. It will display maximized at other resolutions.

This manual is written according to current software version. Because of software update, modification and device upgrade, there may be technical inaccuracies or imperfect. The contents including description of products and program will be updated without notice.

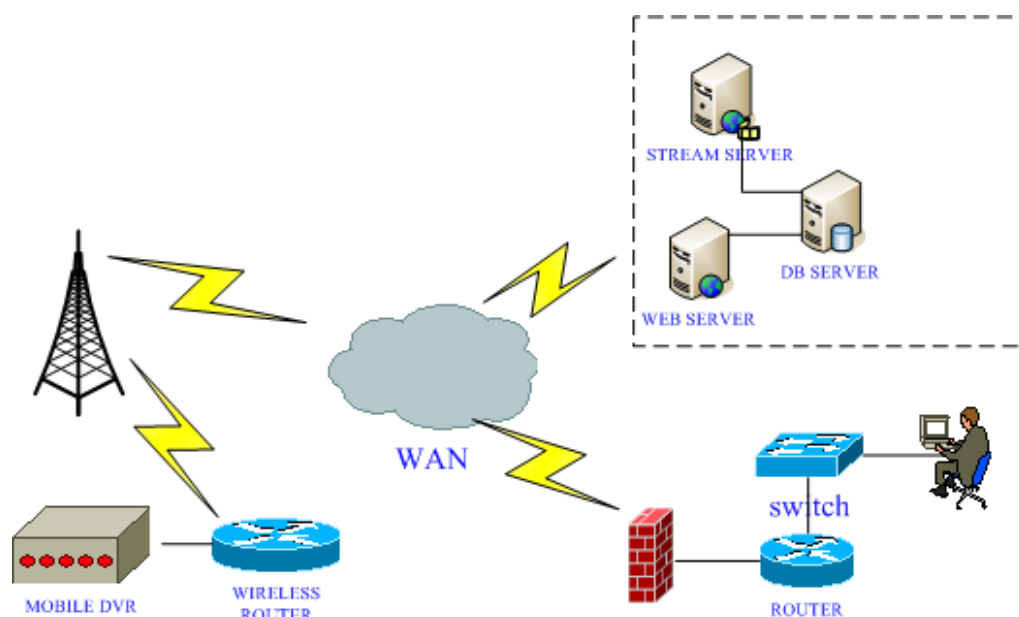


Figure 1.1 Net topology

The topology of the remote surveillance system for the mobile DVR is shown as figure 1.1 above. Device and client software are both needed to register to the forwarding server with WAN IP address and forward function. The communication and data transmission between client and device are forwarded by this server.

2 Software Using

2.1 Software logon

Before using the client software, please login first. The software will run as figure 2.1.1

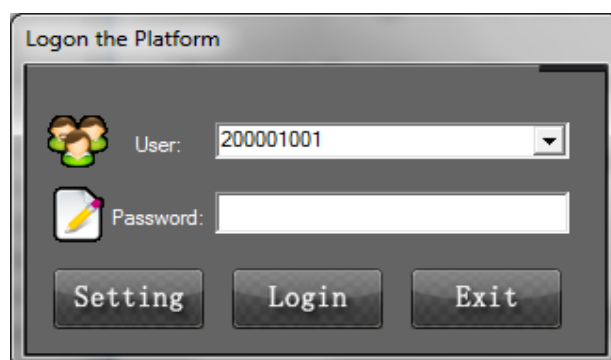


Figure 2.1.1 Logon dialog

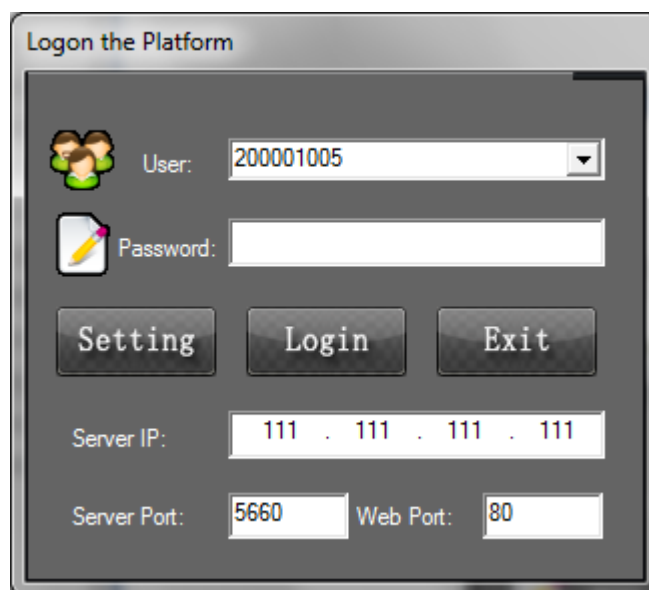


Figure 2.1.2 Net setting

Click [Setting] button, logon dialog will expend this mode as figure 2.1.2. User need to fill in or modify the Server IP, Server Port and Web Port. User can login successfully only if the IP, Port, User name and Password have been filled right. If click the [setting] button again, it will change back to the dialog as figure 2.1.1.

Dialog box can save recent five login usernames automatically. As figure 2.1.3, user can choose one from the pop-down menu or fill in a username.

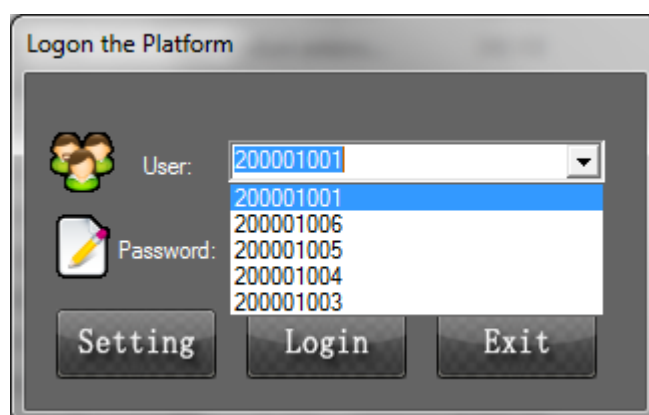


Figure 2.1.3 Choose username

After filled in the username, password, and other settings, click the login button, then it will be as figure 2.1.4 and 2.1.5.



Figure 2.1.4 Login Tip



Figure 2.1.5 Login Tip

After login, the main interface will be as figure 2.1.6:

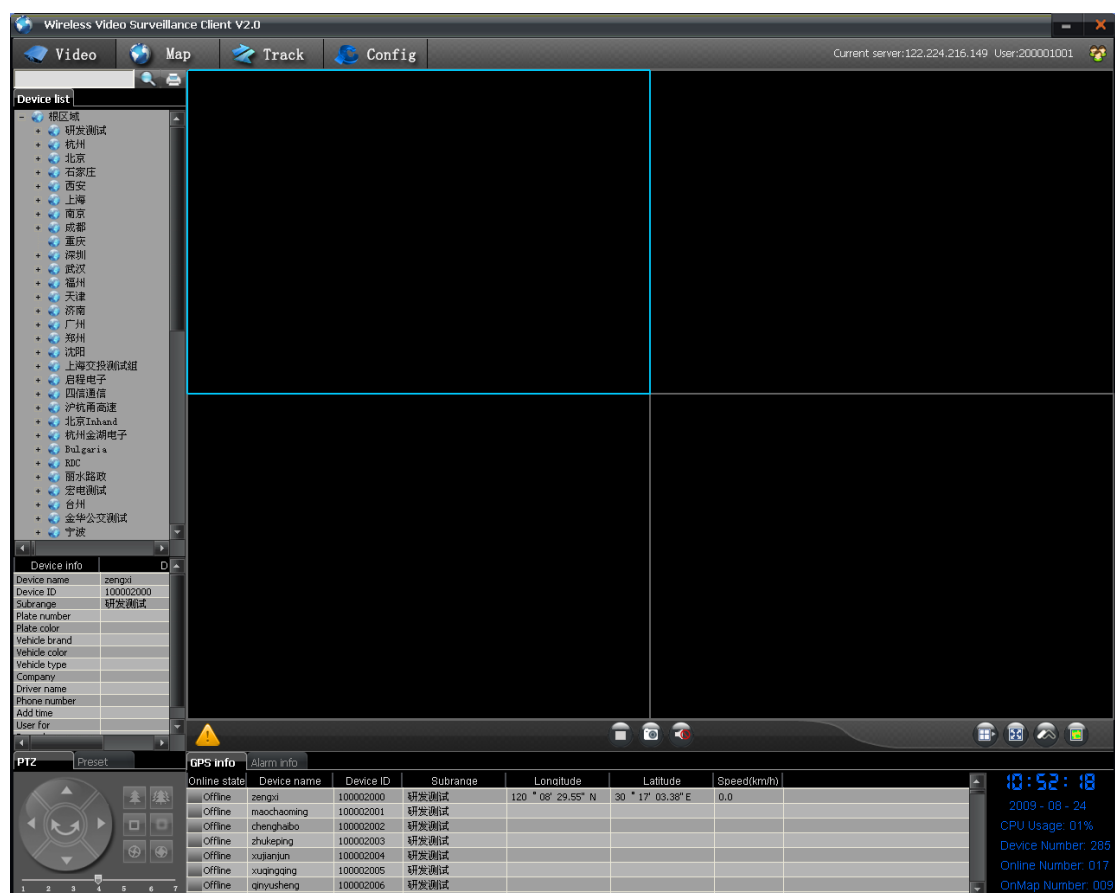


Figure 2.1.6 Main Interface

2.2 Login Errors

User may login failed, it may be these reasons below:

- 1) E-map load failed. Reason: there is lack of e-map resource.
- 2) Connect to load balance server failed. Reason: load balance server configuration error, not startup or crashed.
- 3) Connect to register server failed. Reason: register server configuration error, not startup or crashed.
- 4) Stream media server register failed. Reason: stream media server register failed, not startup or crashed.
- 5) Server overload. Reason: the number of devices and users has

been out of the load range of the server, current the server can bear 800 clients.

- 6) User not exist. Reason: the username has not been registered in the server.
- 7) User already online. Reason: other clients have used this username to login. One username can login by only one client at the same time.
- 8) Password error. Reason: input incorrect password.

Note:

The server IP is recommended to be WAN IP address.

Default server port is 5660. Occurrence number should be the same as the port of load balancing server.

Web port is the management port, it is usually set 80.

Occurrence number should be the same as the port of web server. If the web port set incorrect, program can login but the device list and car information can't be downloaded successfully.

3 Video preview

3.1 Open Video

After login successfully, there will be device list in the left device tree. Click the Video button on the top, it will go to the preview interface as figure 3.1.1.

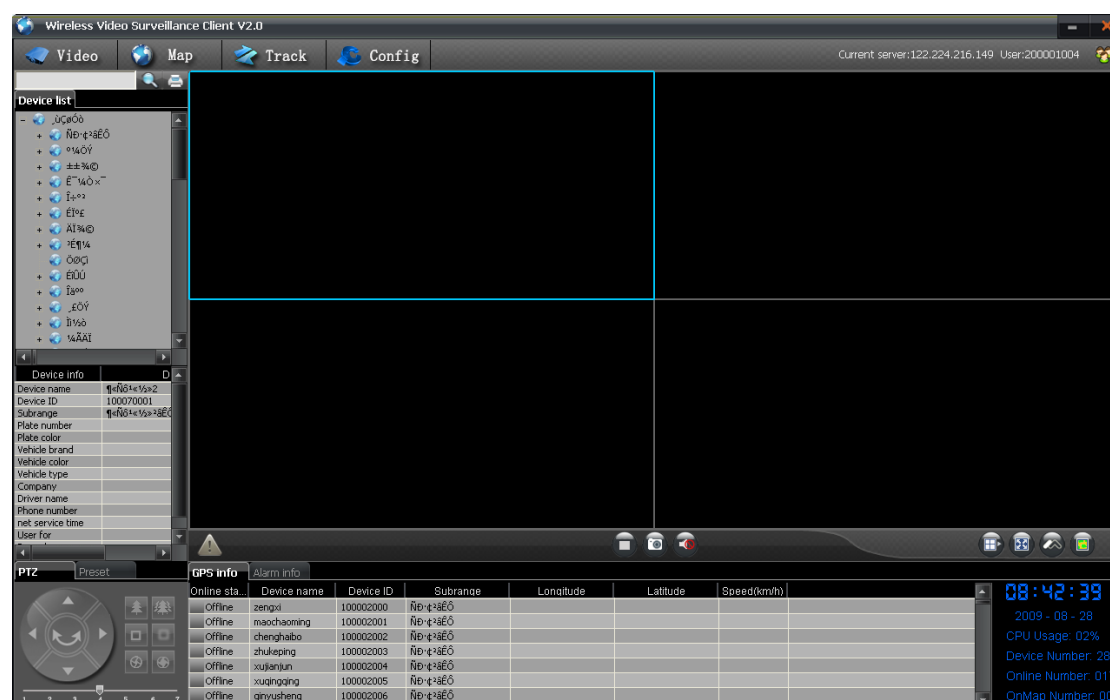


Figure 3.1.1 Preview interface

Click the area, it will display devices in this area. Click a device, it will display channels of this device. As figure 3.1.2

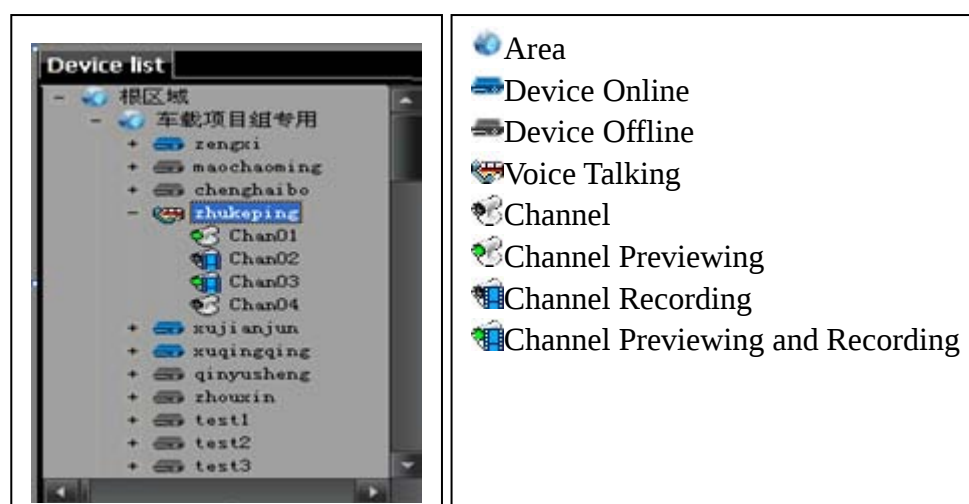


Figure 3.1.2 Device list

Double click icon, the blue frame window which has been chosen will display "Getting stream...." as figure 3.1.3.

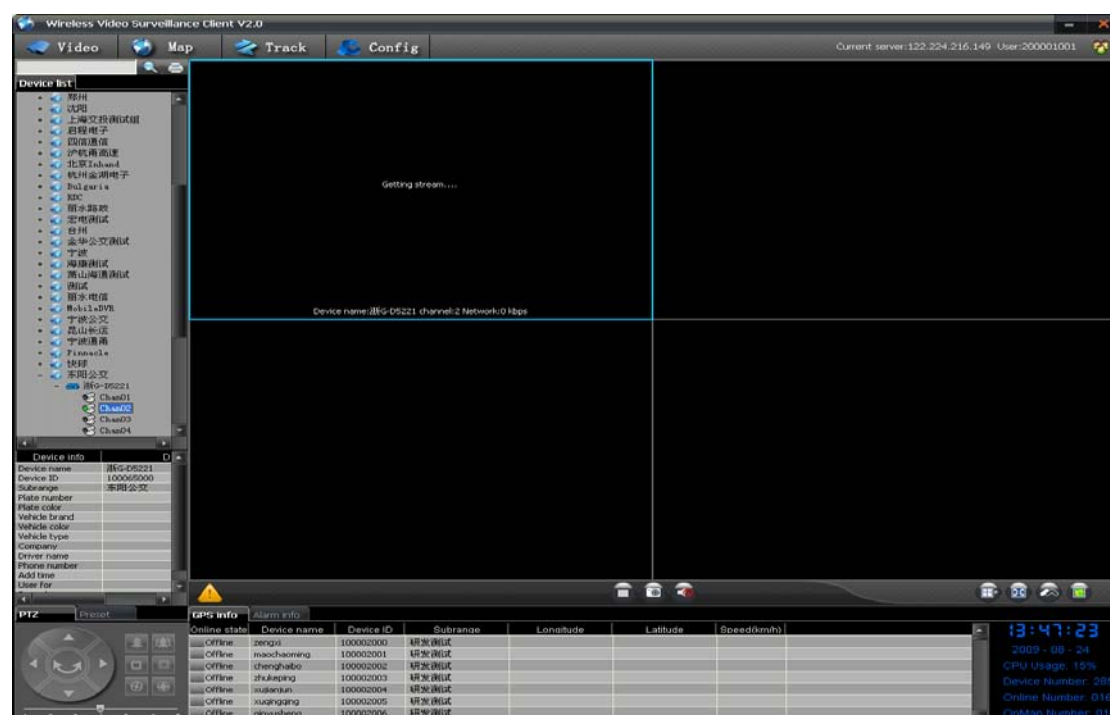


Figure 3.1.3 Getting stream

After previewing successfully, icon will change to , it will display video in the chosen window with network traffic flows. Blue frame will move to next window automatically as Figure 3.1.4.

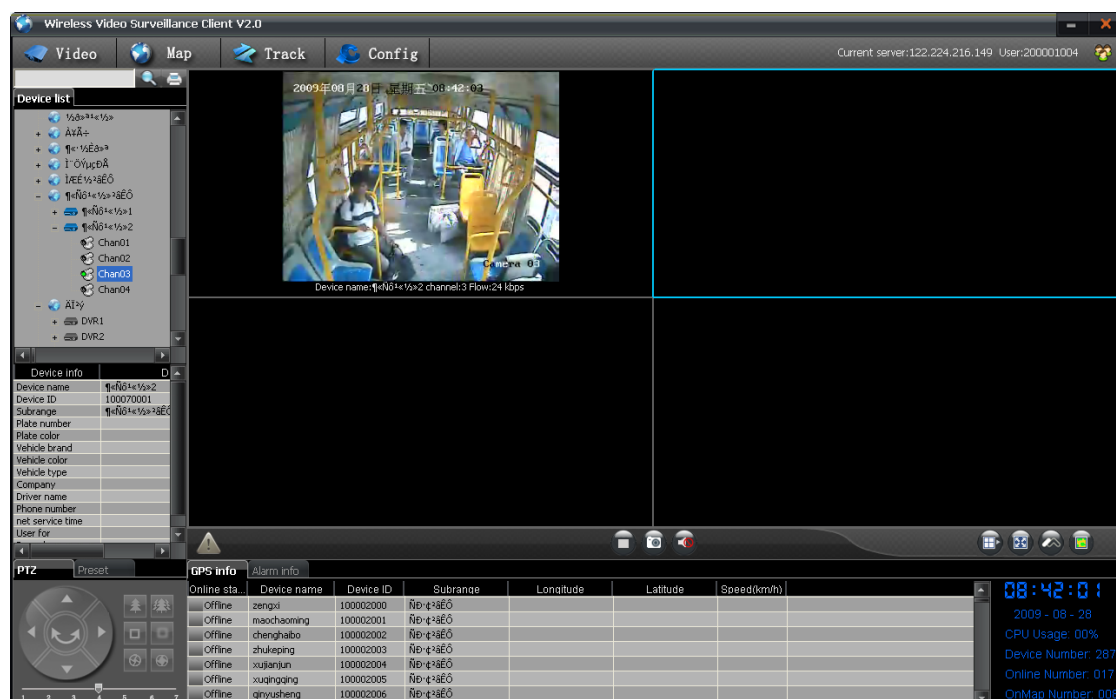


Figure 3.1.4 Getting Video

If the blue frame is displaying video, it will stop current video and

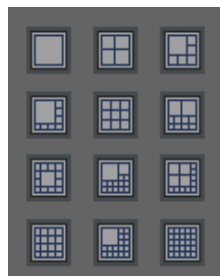
start new video request. If user double clicks the current displaying channel, program will stop current video.

3.2 Drag Preview

Choose one channel, drag it to the play window. The window will display "Getting stream...." If the window is displaying video, program will stop current video and start new video request. If user double clicks the current displaying channel, program will stop current video.

3.3 Pannel Division

Click  [Pannel division] button below the video window, it will pop-up the video division box as figure 3.3.1.



Support 1, 4, 6, 8, 9, 10, 13, 13(1), 14, 16, 17, 25 pannel division mode, default mode is 4 pannel division after program start-up.

Figure 3.3.1 Pannel Division

Click  [Pannel division] button again, it will close the box.

3.4 Multi Screen

Click  [Multi screen] button below the video window, program will be full screen mode with multi screen division.

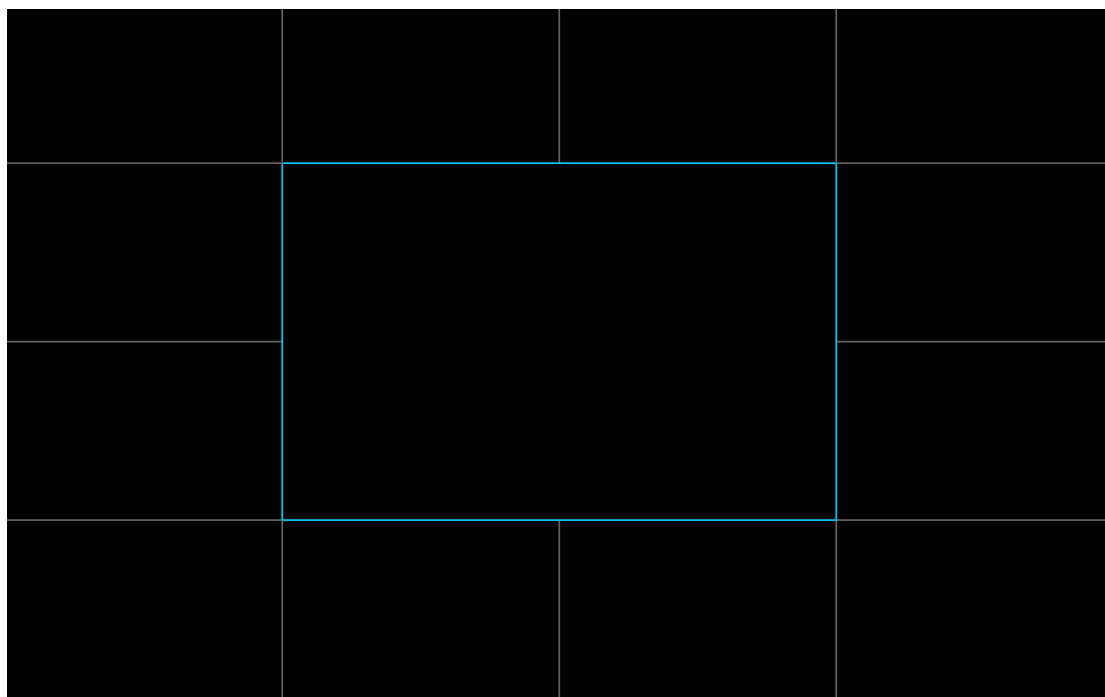


Figure 3.4.1 Multi Screen

Right click the mouse, popup menu will be as figure 3.4.2, if it is multi screen mode, the [Multi screen] option would have been chosen. Click this option, program will go back to normal mode and this option will be canceled. As figure 3.4.3, user can click it to enter multi screen again.

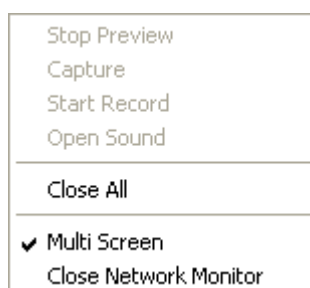


Figure 3.4.2 Full screen mode menu

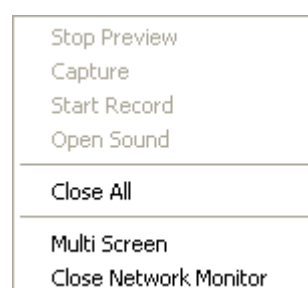


Figure3.4.3 Normal mode menu

3.5 Capture

User can capture pictures of current previewing video, and save them in appointed folder. Default path is "C:\Picture".

Operation: choose one channel video, click  [Capture] button, or right

click the playing video, then click the [Capture] option in the popup menu as figure 3.4.2.

There will be a dialog box to prompt picture saved path, as figure 3.5.1, user can open the picture by clicking the path. Picture naming convention: capturing time + device name + channel number.jpg or capturing time + device name + channel number.bmp

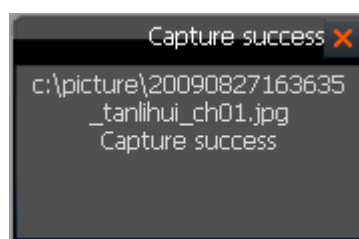


Figure 3.5.1 Capture prompt

Picture saving path can be changed in the "Local config" menu, refer to the chapter "Local config".

3.6 Recording

User can record each channel manually in local disk when device is online. Client software can store the record files in the mpeg4record folder of the pointed disk partition.

Operation: choose one channel of a device, right click a channel, popup menu will be as figure 3.6.1. Click [Start Record] or click the same option in the popup menu as figure 3.4.2.

If record successfully, the icon  will change to ,  change to , and there will be a dialog box prompting the path of the record file, as figure 3.6.2. Click the path, it will open the record file and playback the video record. Record files of the same device are stored in the same folder. The

folder naming convention: device name(device ID), the record files are stored in this folder. The record file name convention: channel number + record time + device name.mp4

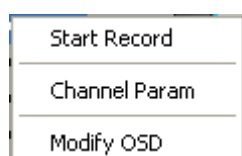


Figure 3.6.1 Start record



Figure 3.6.2 Record success

The record starting disk partition can be configured in the "local config" refer to chapter of "Local config".

3.7 Open Sound

Click the [Open sound] option in the figure 3.4.2, program will play the sound of the video & audio stream. User can configure the stream type to be "Video Stream" or "Video & Audio Stream" in the "Channel Parameter", refer to chapter "Channel parameter".

3.8 Stop preview, Stop record, Close all

Click the [Stop preview] option in the figure 3.8.1, program will close the preview video of current window. Click [Stop record] option in the figure 3.8.1 or 3.8.2, program will stop record of current channel.



Figure 3.8.1

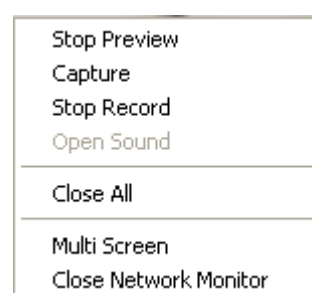


Figure 3.8.2

Click [Close all] option in the figure 3.8.1, program will close all the

video current playing. Click  can realize the same purpose.

3.9 Close, Open Network Monitor

It will show network traffic by default when program startup, as figure 3.9.1, right click the video window, user can choose [Close Network Monitor] option in the figure 3.8.2. Then [Close Network monitor] will change to [Open Network Monitor]. After close network monitor, the playing window is as figure 3.9.2, and after opening network monitor, the playing window will be as figure 3.9.1.



Figure 3.9.1 Open Network Monitor



Figure 3.9.2 Close Network Monitor

4 E-Map

4.1 Instruction

Program is using the e-map of Google

4.2 Vehicle display

Click [Map] button on the top of the program, it will display the e-map as figure 4.2.1.

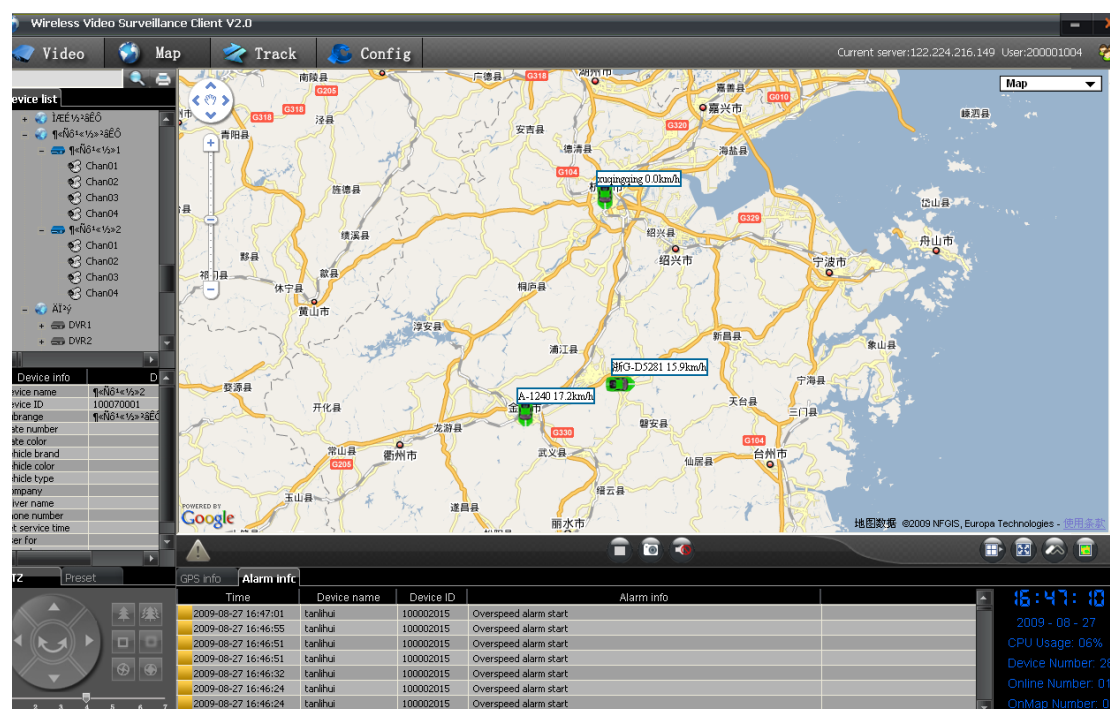


Figure 4.2.1 E-map

If the devices in the list have GPS module, they will send GPS info to the server regularly. Server will forward these GPS information to client. Client can position them on the e-map by longitude and latitude data. It will tag the vehicle with  on the e-map. The icons point the device position and the tag includes: device name + current speed. For example: .

GPS information not only includes longitude and latitude but also speed, direction, longitude hemisphere and latitude hemisphere. The vehicle direction display will renew real-time according to the upload data. There are eight icons to display eight directions of the vehicle. GPS information renews every 10 seconds and can be changed refer to chapter "GPS Interval".

4.3 Map Operation

- 1) E-map zoom in, zoom out.

Double click the e-map can zoom in.

Scroll the mouse wheel, user can zoom in and zoom out. Forward scrolling to zoom in and back scrolling to zoom out.

Click the widget on the left and top corner of the e-map, user can zoom in and zoom out as figure 3.4.1.

2) E-map Movement Operation

Hold on the left button of the mouse and move the mouse, then the e-map will move with the mouse any direction.

Click the widget on the left and top corner of the e-map, user can move the e-map as figure 3.4.2.

3) Map and Satellite switch

Click the menu on the right and top corner, popup the menu as figure 4.3.3, choose the [Satellite] option, it will display satellite map as figure 4.3.4.



Figure 3.4.1 Zoom+/-



Figure3.4.2 Move

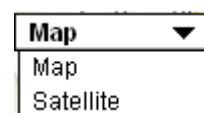


Figure3.4.3 Map Switch

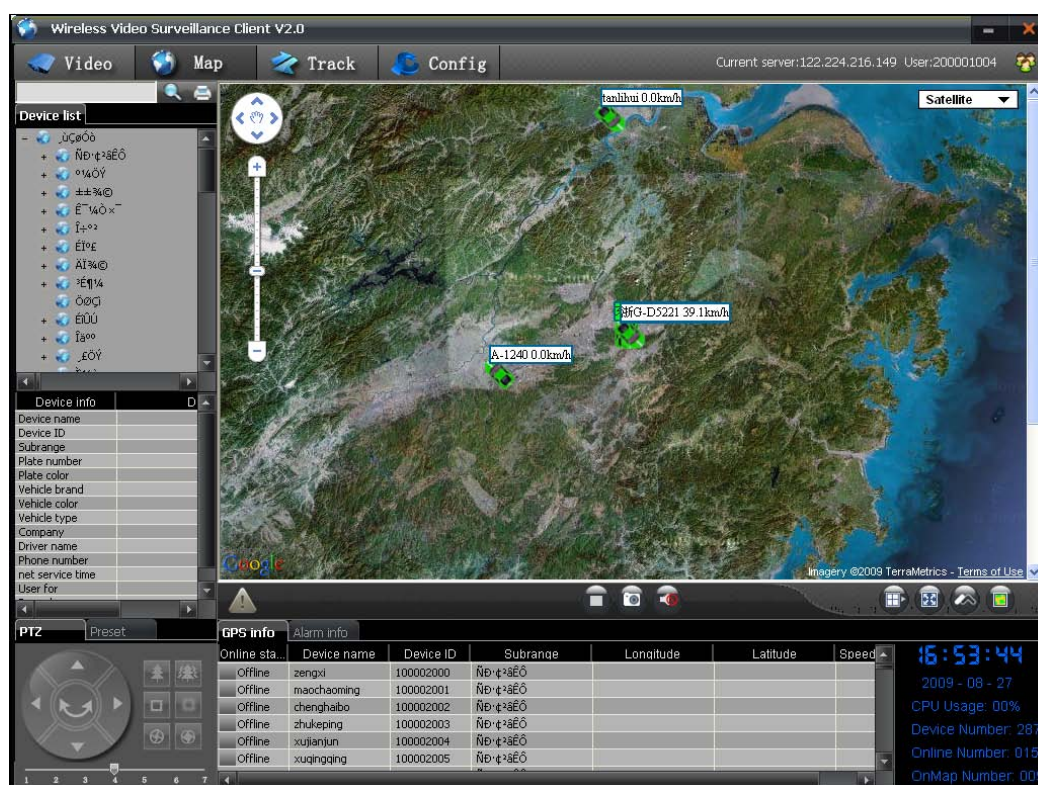


Figure 3.4.4 Satellite

4.4 Pop Map

Click  [Pop Map] button, it will pop an e-map dialog box as figure 4.4.1. User can zoom in and zoom out this map. It can be used in the preview mode.



Figure 4.4.1 Pop map

4.5 Map linkage video playing

Click the vehicle icon on the map, popup an information box as figure 4.5.1. Click the channel on that box, popup the video preview window as figure 4.5.2.



Figure 4.5.1 Information Box

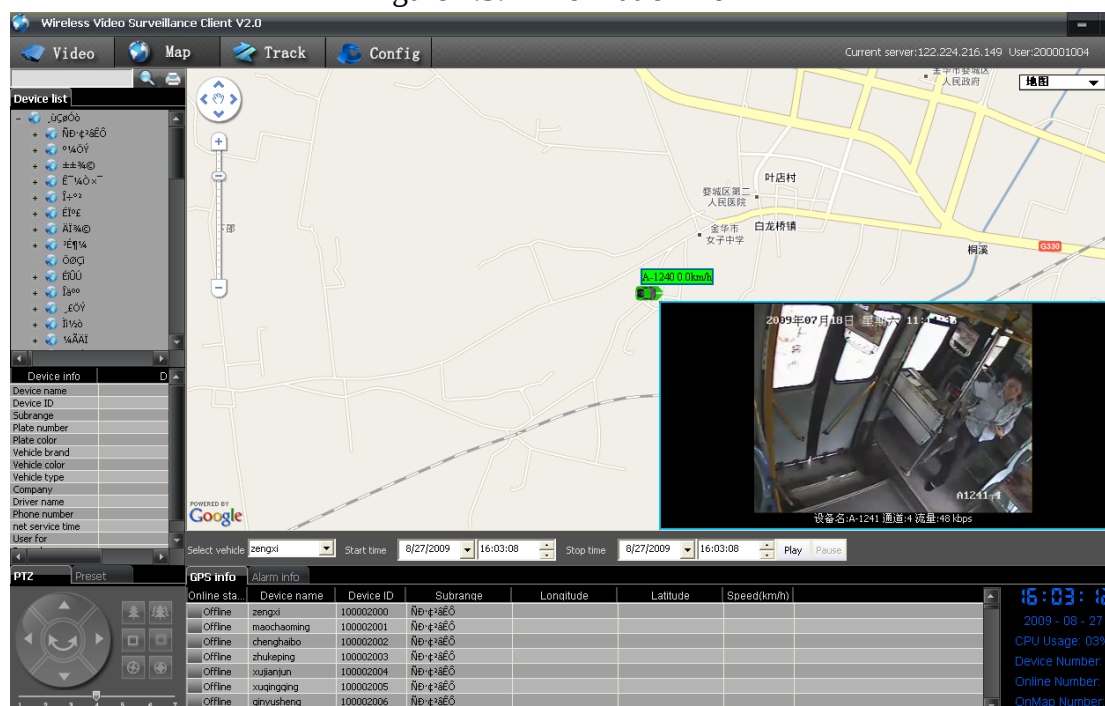


Figure 4.5.2 Map linkage video playing

In the information box of figure 4.5.1, there is the vehicle position in the first line. The result is reversed according to the GPS information. It is

not accurately calculated and may be certain offset or be unknown area. It is normal.

In the figure 4.5.2, user can click  button to close, and click  to open video playing.

4.6 Vehicle quickly locating

User can quickly position the vehicle on the e-map when there are many vehicles.

Method: input device name in the box , click , click  [Search] button, it will quickly locate the vehicle in the device list and position it on the e-map.

4.7 Vehicle following

If user want to make the appointed vehicle display at the center of the e-map when there are many vehicles, it is called vehicle following. The following vehicle icon is , the tag color is green.

To do this there are many methods as:

- 1) Vehicle quickly locating, as chapter 4.6.
- 2) Choose the device icon in the device list. If the vehicle is on the map, it will be following state.
- 3) Directly click the vehicle icon on the e-map.

Cancel vehicle following:

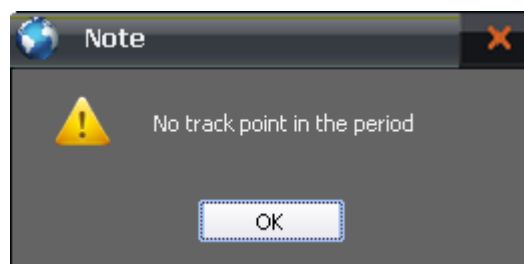


Figure 5.1.2 No track point note

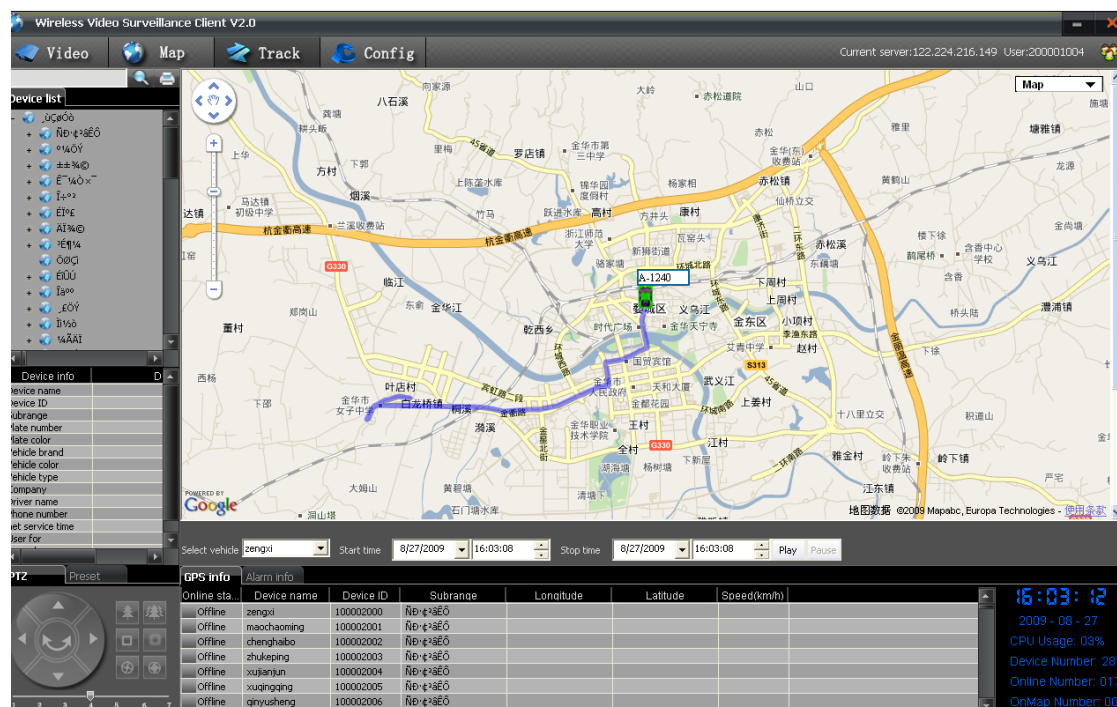


Figure 5.1.3 Track play

The differences between track playback and normal e-map is that, there is a blue track line tag, a line of information including history time point, speed, longitude and latitude of the time.

The vehicle will be at the center of the e-map when it is playing track. Click [Pause] button to pause the playing, and [Pause] change to [Start], click [Start] button, it will go on playing.

Track playback explain: the history points are stored in the database of the server. When track playing, client reads track points, display vehicle position on the e-map. It renews every 1 second and it's different with real

speed because the vehicle default GPS interval is 10 seconds. Server would save GPS data for a week.

6 Config

6.1 Local Config

Local configure includes capture configuration, recording configuration, path configuration and other configuration. Click the [Config] on the top of the program, the interface will be as figure 6.1.1.

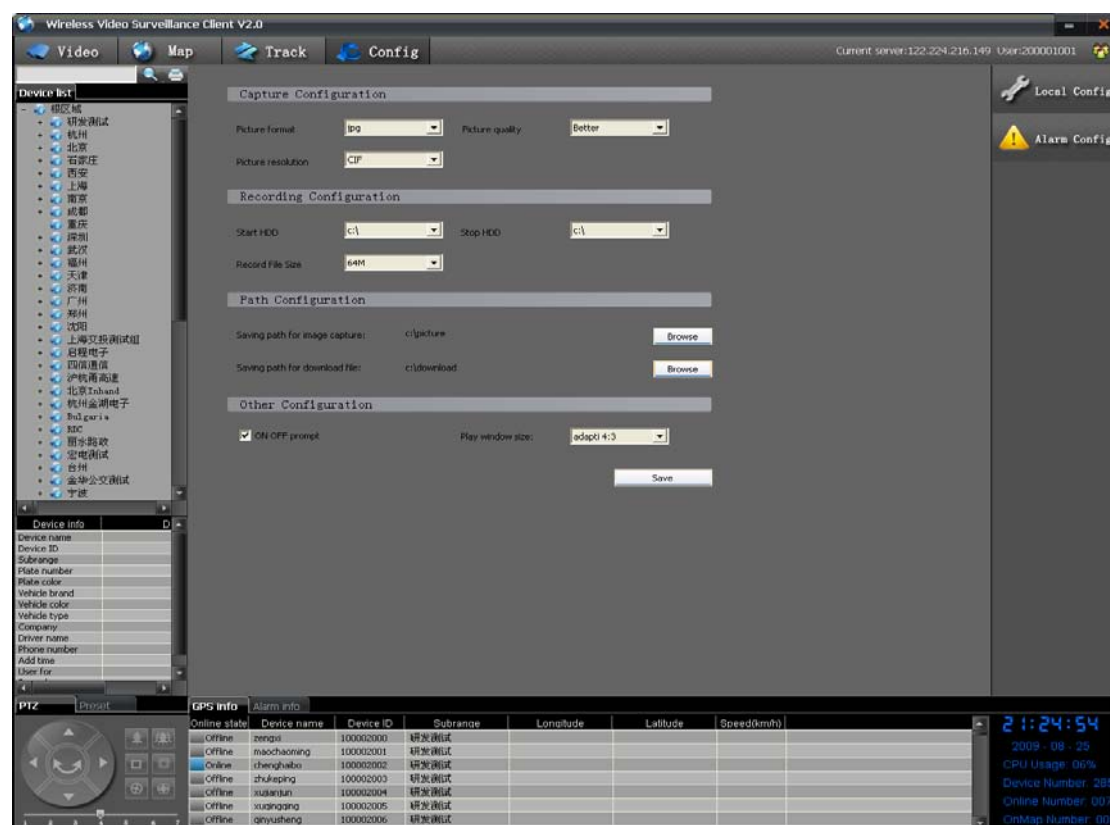


Figure 6.1.1 Local Config

1) Capture Configuration

Picture format: JPG or BMP, the capture pictures will be as the chosen format.

Picture quality: user can choose normal, better and best. The difference is as figure 6.1.2.



Figure 6.1.2 Picture quality from left to right is normal, better and best

Picture resolution: D1 (704*576), CIF (352*288), QCIF (176*144)

2) Recording config

Start HDD and Stop HDD are the partitions of the user's hard disk. If there are three partitions, C, D and E, choose C:\ to be start HDD, E:\ to be stop HDD, program will write files into C:\mpeg4record folder first, after disk C is full, it will write files into D:\mpeg4record, after disk D is full, it write files into E:\mpeg4record, after disk E is full, it will go back to C:\mpeg4record and write over former record files automatically.

Record file size: max record file size. For example, if 64M is chosen, it will write a new file after the first record file reaches 64M.

3) Path configuration

Saving path for image capture: configure the picture capture folder path.

Click [Browse] button, as figure 6.1.3 show, choose the path and click the [OK] to finish path configuration.

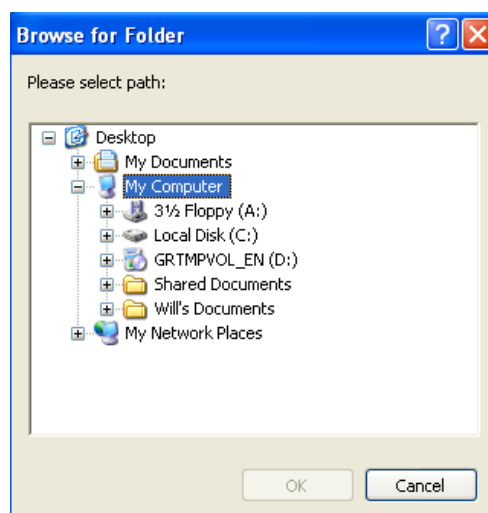


Figure6.1.3 Path Browse

Saving path for download file: it's used to choose the folder path for saving the remote download files. The configuration is the same as the last one.

4) Other Configuration

Prompting: after choosing this option, there will be a dialog box in the right lower corner to prompt user when device online or offline, as figure 6.1.4. Click the device name in the dialog box, user can locate the device in the device list and e-map.

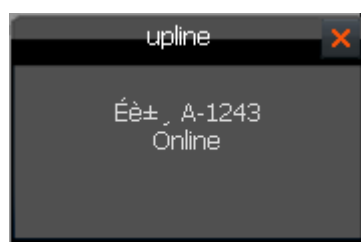


Figure 6.1.4 Online prompt

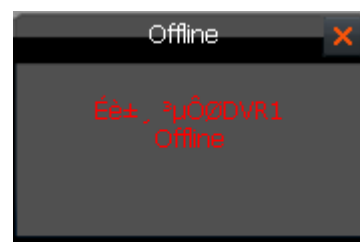


Figure 6.1.4 Offline prompt

Play window size, user can set to be adapt 4:3 or full size of the window, the difference is as figure 6.1.5.



Figure 6.1.5 Adapt 4:3



Figure 6.1.5 Full size

Note:

The record configuration will take effect after restart the client software.

The play window size configuration will take effect after double clicking the video window.

All the configuration will take effect after clicking the [Save] button.

6.2 Alarm Config

Click the [Config] on the top of the program, click the [Alarm Config] on the right top, then the alarm configure interface will be as figure 6.2.1.

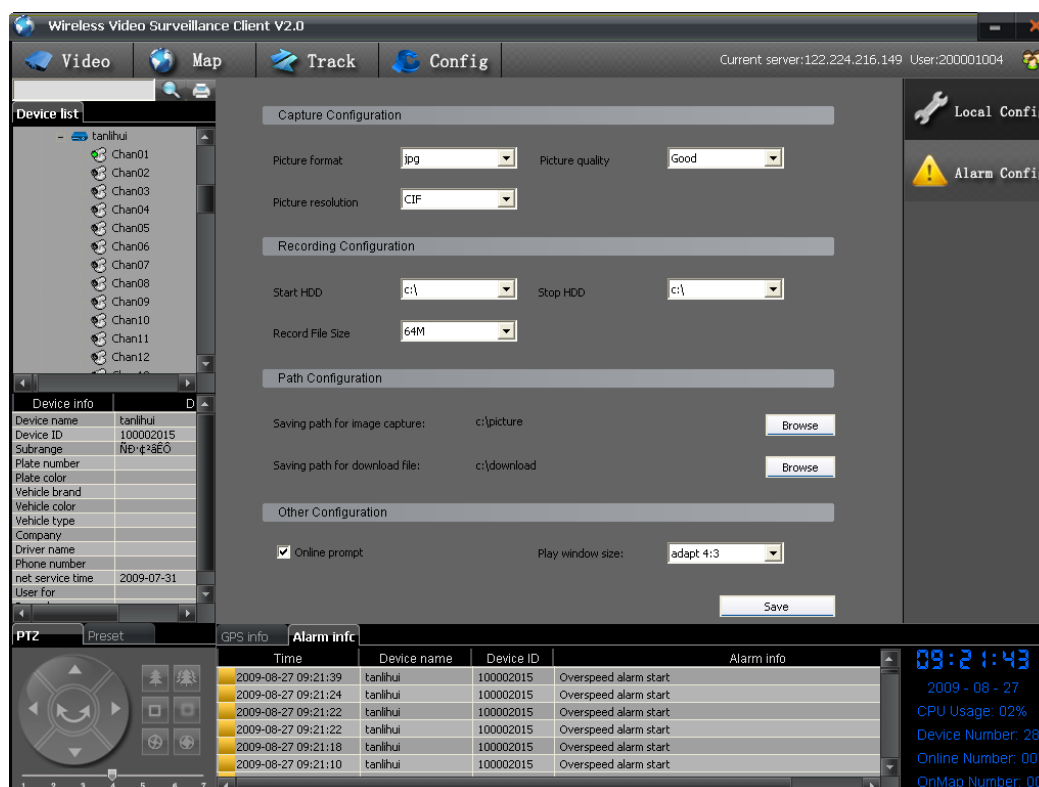


Figure 6.2.1 Alarm Config interface

The alarm type include: external alarm, video lost alarm, disk error alarm and overspeed alarm

External alarm: external device can touch off alarm by connecting alarm switch to the device alarm-in.

Video lost alarm: if the video is lost and there is no signal input, it will touch off alarm.

Disk error alarm: if the disk of mobile DVR has error, it will touch off alarm.

Overspeed alarm: configure the max speed of the car in the device, if the car speed is over that, it will touch off overspeed alarm.

Alarm trigger type include: pop up image when alarm, open sound when alarm, record when alarm and e-map marked when alarm.

Pop up image when alarm: it will pop up the current device video, as

figure 6.2.2, user can change the channel to preview in the right lower corner.



Figure 6.2.2 Pop up image

Open sound when alarm: it will play sound when alarm. User can click the [Browse] button, then choose the wav sound file.

Alarm record: it will record when alarm.

E-map marked when alarm: it will mark the position on the e-map,

such as , and the tag of the alarm vehicle will change to red.

Configuration procedure: choose an alarm type, and then choose an alarm trigger type, finally click [Save], it will take effect.

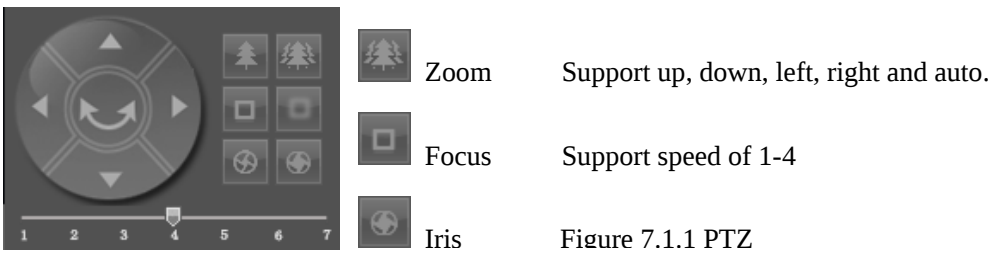
Note: every alarm type need to save one time after finishing configuration.

7 PTZ

7.1 PTZ Control

If there is PTZ connected to the device, user can control the PTZ by the interface as figure 7.1.1. Operation method: open video preview, click

the playing window, and then control the PTZ.



7.2 Preset

Click [Preset] and come into the interface as figure 7.2.1.

Add preset: after adjusting one channel PTZ, user can choose an unused preset number and right click it, as figure 7.2.2, click the [Add] option, pop up the dialog box [Preset name] as figure 7.2.3, input the name and click the [OK] button, there will be the added name in the list.

Modify the preset name: after adjusting the PTZ, choose an exist preset, click the [Modify] option, it will pop up the dialog box as figure 7.2.3, input preset name, then click [OK] button to finish modification.

Delete preset: choose one preset exist in the list and right click it, click the [Delete] option in the pop- up menu.

NO.	Preset name
1	test
2	
3	
4	
5	
6	
7	
8	
9	

Figure7.2.1 Preset



Figure 7.2.2 Preset



Figure 7.2.3 Preset

8 Device Operation

Right click device in the device list then popup menu as figure 8.1.

Refresh Device Status
Playback Local File
Start Voice Talking
Download Record File
Get Device Information
Set GPS Interval
Set Login Param
Upgrade Device
Reboot Device

Figure 8.1 Device Operation menu

8.1 Refresh Device Status

Click [Refresh Device Status], program would send message to server to verify if the device is online.

8.2 Playback Local File

Click [Playback Local File], popup dialog as figure 8.2.1.

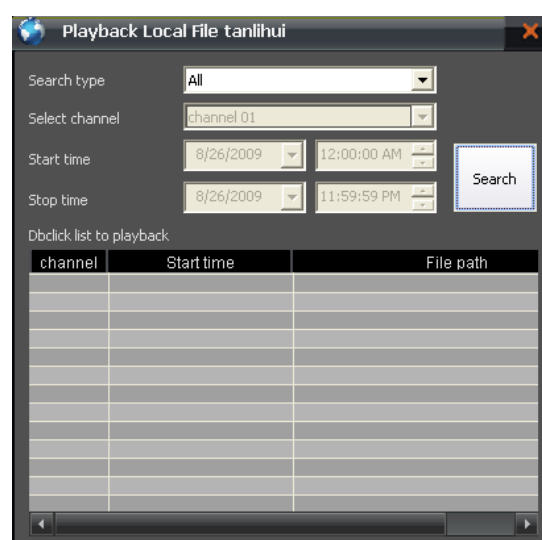


Figure 8.2.1 Playback Local File

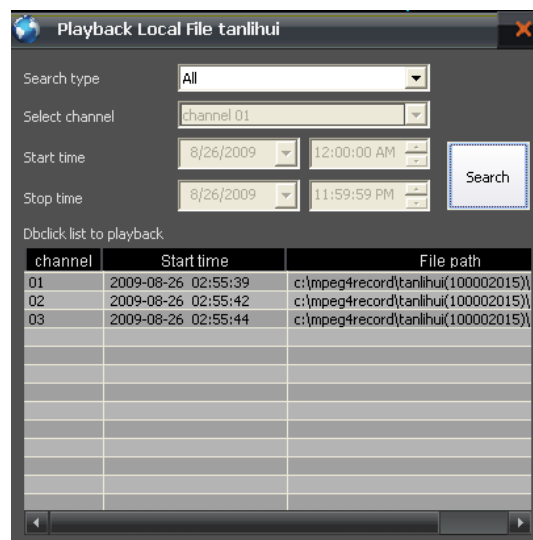


Figure 8.2.2 Search result

Click [Search] button, the search result is as figure 8.2.2.

Search type include: all, display all the local record. By channel, display record file by channel. By time, display record file by time. By

channel & time, display record file by channel and time.

Playback type: double click one result in the list, it would popup the player and play the video record as figure 8.2.3.



Figure 8.2.3 Player interface

8.3 Start Voice Talking

Click [Start Voice Talking], device icon  change to . Then user can start voice talking with front-end. Click [Stop Voice Talking] to end voice talking function.

8.4 Download Record File

Click [Download Record File], popup dialog as figure 8.4.1.

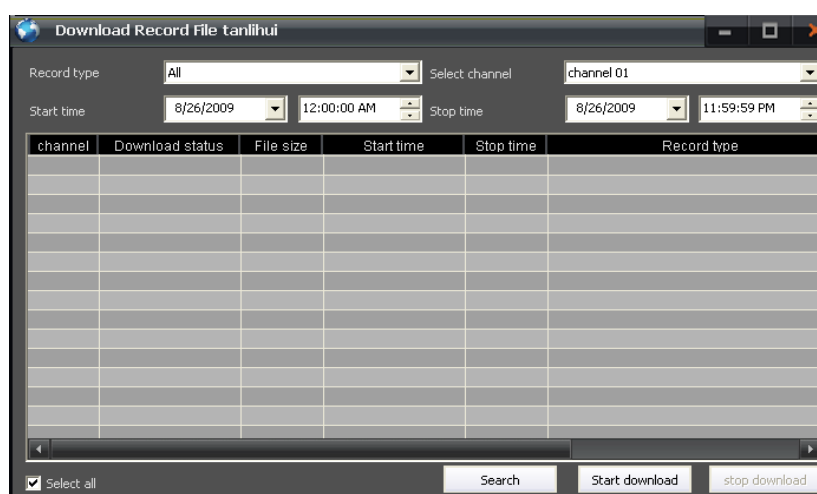


Figure 8.4.1 Download dialog

Configure record type, channel, start time, stop time, then click [Search] button. List will display file information, as figure 8.4.2.

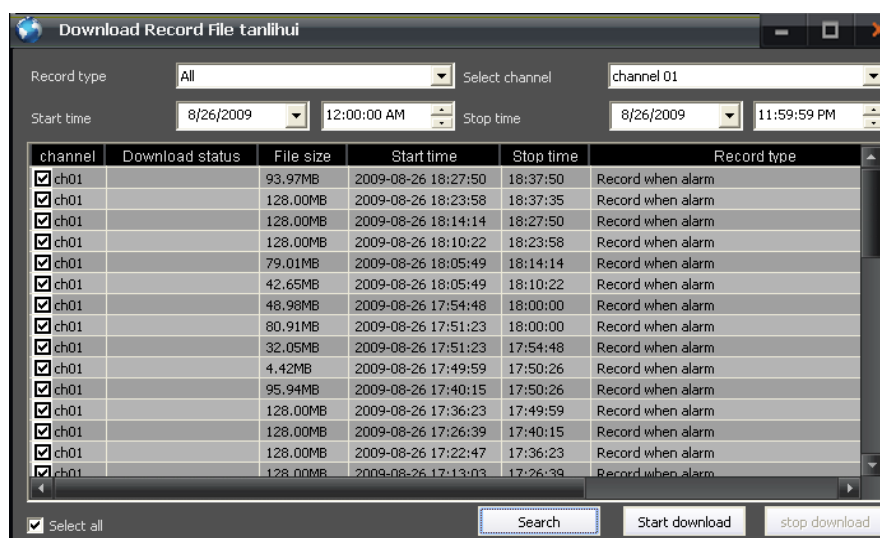


Figure 8.4.2

Choose the files need to download and click the [Start download] button, it will start to download record file. The record saving path can be changed in the Local Config. Click [stop download] to stop it.

User can minimize the download dialog box and do other operation while it is downloading. Record file can be played with the player.

8.5 Get Device Information

Click [Get Device Information], popup the dialog box as figure 8.5.1.

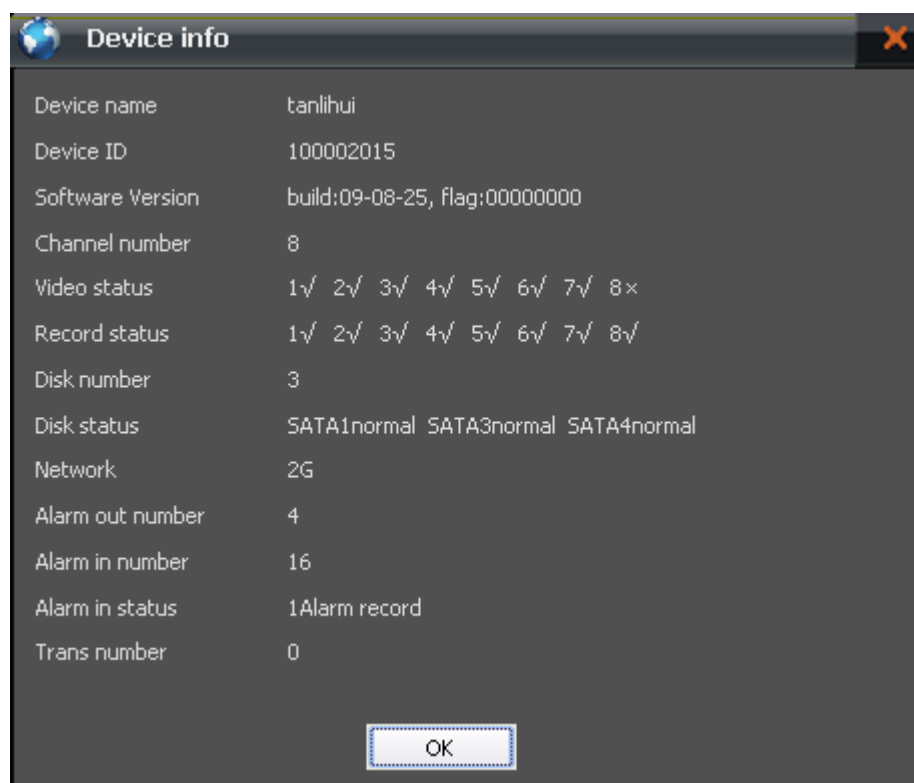


Figure 8.5.1 Device information

Device information include: Device name, Device ID, Software Version, Channel number, Video status(√ means video normal, × means video lost), Record status(√ means recording, × means non-recording), Disk number, Disk status, Network, Alarm out number, Alarm in number, Alarm in status, Transmission number.

8.6 Set GPS Interval

Click [Set GPS Interval], popup dialog as figure 8.6.1.



Figure 8.6.1 GPS Interval

GPS interval is 10 seconds as default, user can modify it. Click [OK] to finish it.

8.7 Set Login Parameter

Click [Set Login Param], popup dialog as figure 8.7.1.

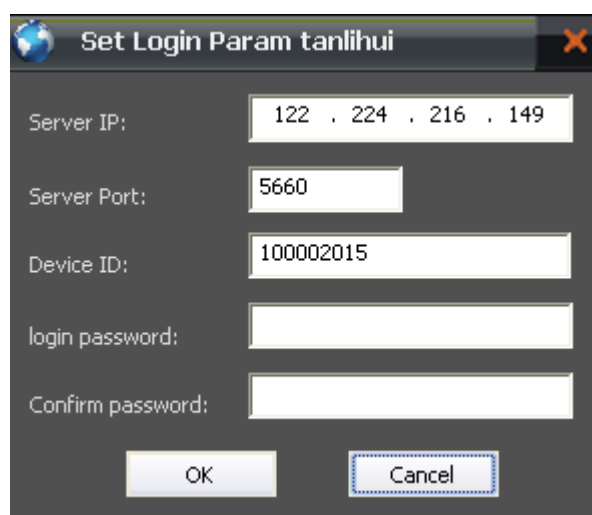


Figure 8.7.1 Set Login Parameter

Devices and server exchange information depend on each other's IP and port. Login parameter is used to configure the server IP and Port in the device. The device ID is a nine-bit integer beginning with 1. Click [OK] to finish configuration, and it will take effect after reboot.

8.8 Upgrade Device

Click [Upgrade Device], popup dialog as figure 8.8.1.

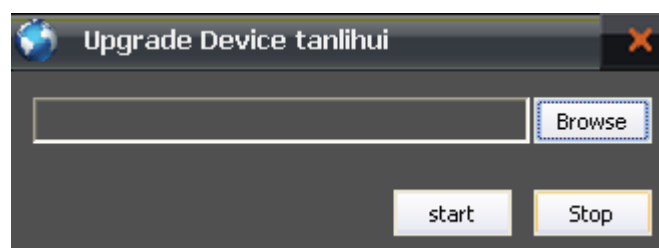


Figure 8.8.1 Upgrade dialog

Click [Browse] button, popup the upgrade file choosing dialog. After that, the upgrade dialog will be as figure 8.8.2.

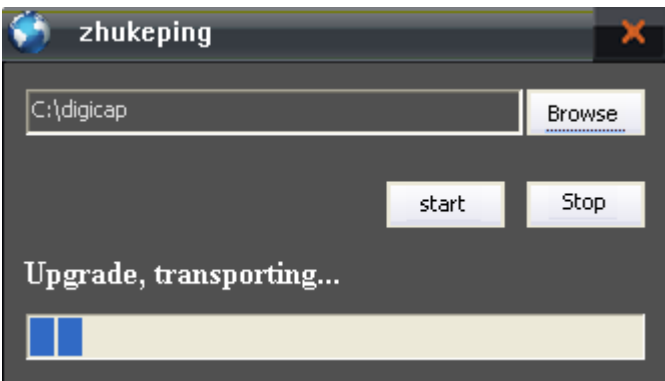


Figure 8.8.2 Upgrade dialog

Click [Stop] button, it will stop upgrading.

8.9 Reboot Device

Click [Reboot Device], popup dialog to prompt reboot or not. After clicking [OK], device will reboot.

9 GPS info, Alarm info

9.1 GPS info

Click the [GPS info] option at the bottom of the program, as figure 9.1.1.

GPS info		Alarm info				
Online sta...	Device name	Device ID	Subrange	Longitude	Latitude	Speed
Offline	zengxi	100002000	ÑĐ·ŧ²âĖÔ			
Offline	maochaoming	100002001	ÑĐ·ŧ²âĖÔ			
Offline	chenghaibo	100002002	ÑĐ·ŧ²âĖÔ			
Offline	zhuokeping	100002003	ÑĐ·ŧ²âĖÔ			
Offline	xujianjun	100002004	ÑĐ·ŧ²âĖÔ			
Offline	xuqingqing	100002005	ÑĐ·ŧ²âĖÔ			

Figure 9.1.1 GPS info

In the GPS info list, it display device Online status (■online and■offline), Device name, Device ID, Subrange, Longitude, Latitude and Speed. The last three renews continually.

Click one line of the info, it will locate the device in the device list and position the device on the e-map.

Right click the info list, it will popup the dialog as figure 9.1.2. User can order the info list by online status, by device name, by device ID and by subrange.



Figure 9.1.2 Order menu

9.2 Alarm info

Click the [Alarm info] option at the bottom of the program as figure 9.1.2.

GPS info		Alarm info		
Time	Device name	Device ID	Alarm info	
2009-08-26 05:58:21	tanlihui	100002015	Overspeed alarm start	
2009-08-26 05:58:14	tanlihui	100002015	Overspeed alarm start	
2009-08-26 05:58:12	tanlihui	100002015	Overspeed alarm start	
2009-08-26 05:57:26	tanlihui	100002015	Overspeed alarm start	
2009-08-26 05:57:11	tanlihui	100002015	Overspeed alarm start	
2009-08-26 05:57:07	tanlihui	100002015	Overspeed alarm start	

Figure 9.1.2 Alarm info

The alarm info list display alarm time, Device name, Device name and Alarm info. It will display alarm info after getting them.

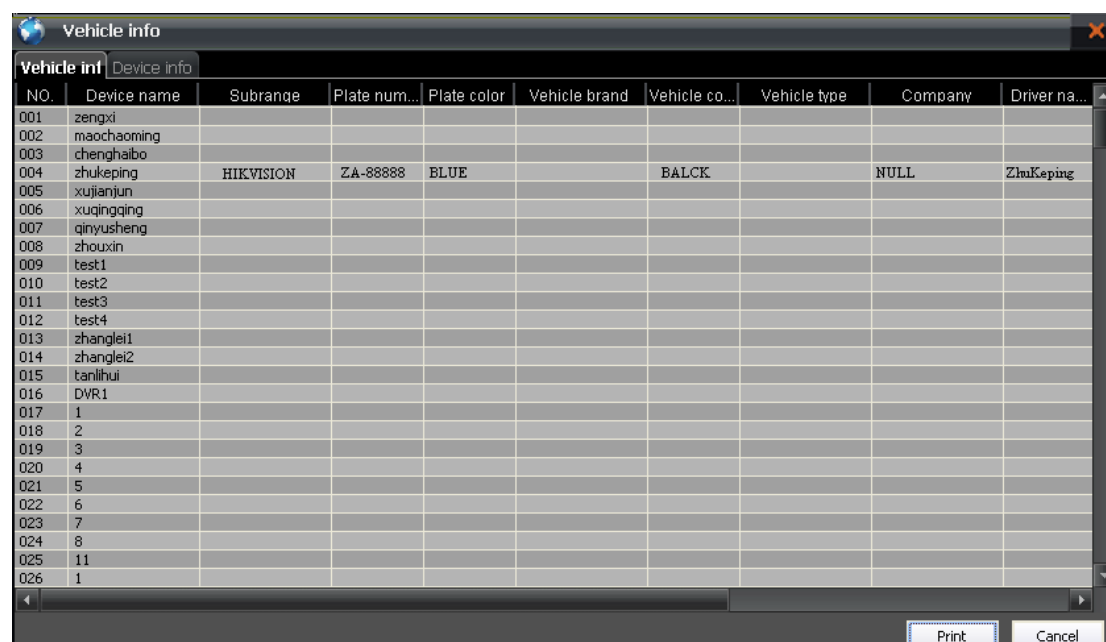
Double click one line of the info list, it will locate the device in the device list and position the device in the e-amp. Meanwhile the icon  will change to , it means disposed.



When program receives alarm info, the icon  above the list will flash on and off. After clicking it, the icon will stop flashing and the alarm info list will be activated.

10 Vehicle info, Device info and Print

Click the  [Print] button besides the search frame, popup dialog as figure 10.1.



NO.	Device name	Subrange	Plate num...	Plate color	Vehicle brand	Vehicle co...	Vehicle type	Company	Driver na...
001	zengxi								
002	maochaoming								
003	chenghaibo								
004	zhukeping	HIKVISION	ZA-88888	BLUE		BALCK		NULL	ZhuKeping
005	xujianjun								
006	xuqingqing								
007	qinyusheng								
008	zhouxin								
009	test1								
010	test2								
011	test3								
012	test4								
013	zhanglei1								
014	zhanglei2								
015	tanlihui								
016	DVR1								
017	1								
018	2								
019	3								
020	4								
021	5								
022	6								
023	7								
024	8								
025	11								
026	1								

Figure 10.1

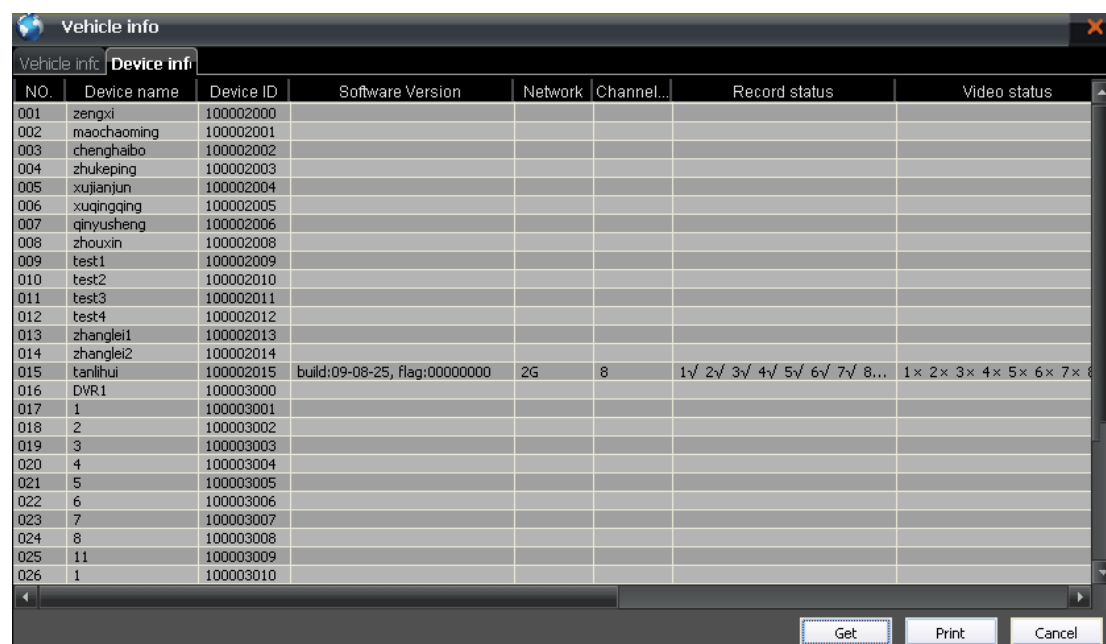
10.1 Vehicle info

Vehicle info include plate number, plate color, Vehicle brand, Vehicle color, Vehicle type, Company, Driver name, Phone number, net service time, user for and Remarks. These information can be added on the server.

Click [Print] button, it will print all the information. Note to choose landscape print.

10.2 Device info

Click [Device info], as figure 10.2.1, click [GET] button, program will get device information. It is the same as that in the chapter 8.5.



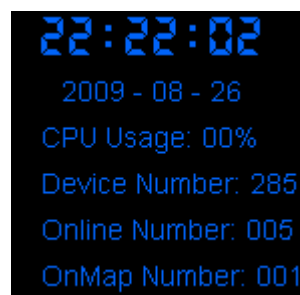
NO.	Device name	Device ID	Software Version	Network	Channel...	Record status	Video status
001	zengxi	100002000					
002	maochaoming	100002001					
003	chenghaibo	100002002					
004	zhuokeping	100002003					
005	xujianjun	100002004					
006	xuqingqing	100002005					
007	qinyusheng	100002006					
008	zhouxin	100002008					
009	test1	100002009					
010	test2	100002010					
011	test3	100002011					
012	test4	100002012					
013	zhanglei1	100002013					
014	zhanglei2	100002014					
015	tanlihui	100002015	build:09-08-25, flag:00000000	2G	8	1√ 2√ 3√ 4√ 5√ 6√ 7√ 8...	1× 2× 3× 4× 5× 6× 7× 8
016	DVR1	100003000					
017	1	100003001					
018	2	100003002					
019	3	100003003					
020	4	100003004					
021	5	100003005					
022	6	100003006					
023	7	100003007					
024	8	100003008					
025	11	100003009					
026	1	100003010					

Figure 10.2.1 Device info

Click [Print] button, then print them, note to choose landscape print.

11 Time, CPU Usage, Number count

In the right and bottom corner, as figure 11.1.



```

22:22:02
2009 - 08 - 26
CPU Usage: 00%
Device Number: 285
Online Number: 005
OnMap Number: 001
    
```

Figure 11.1

It shows: current time, CPU Usage, Device number, Online number and OnMap number.