IVMS Client Manual

V1.0

2014/7/1

INDEX

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1. Installation and un-installation

1.1 Installation

（1）Double click the IVMSClient_WIN_7.0.2_20140703.exe

Figure 1-1

（2）Choose language "Simplified Chinese" or "English"，click "Next"，it will pop up

the Setup Wizard

Figure 1-2

（3）Click "Next"， enter the License Agreement
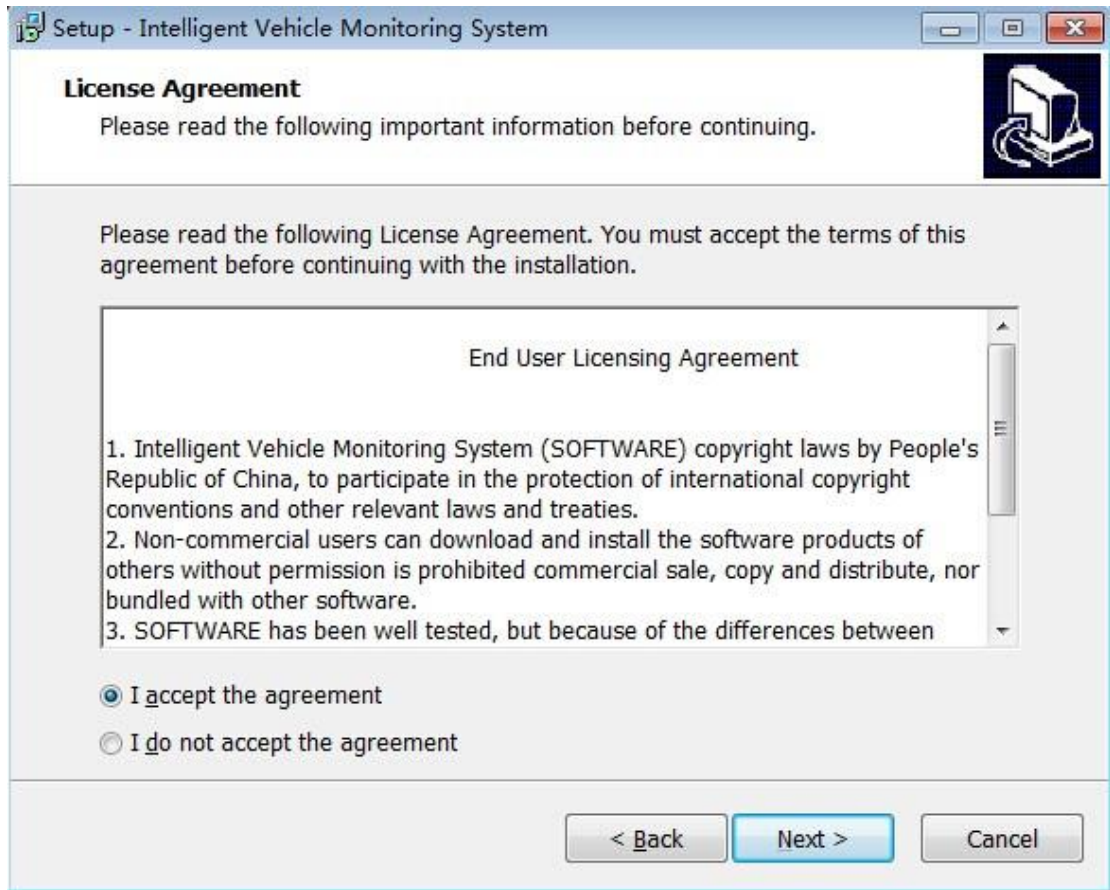
Figure 1-3

（4）Just click "Next", enter the installation Location page（the default path is

C:\IVMS\Client，click the "Browse" if user want to change the path。 PS：if IVMS and

Client folders don't existed, they will automatically created.
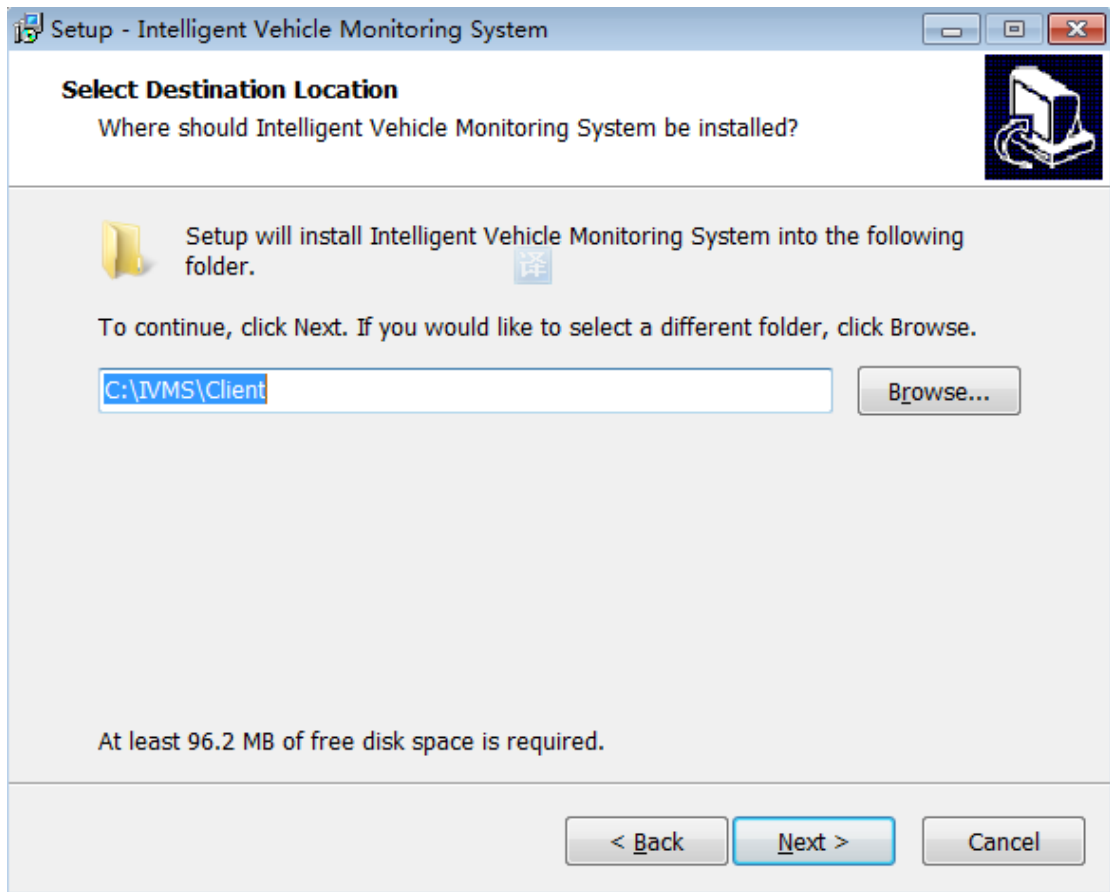
Figure 1-4

（5）Click "Next"，select start menu folder for saving path, if user want to

change the folder, just click "browse".
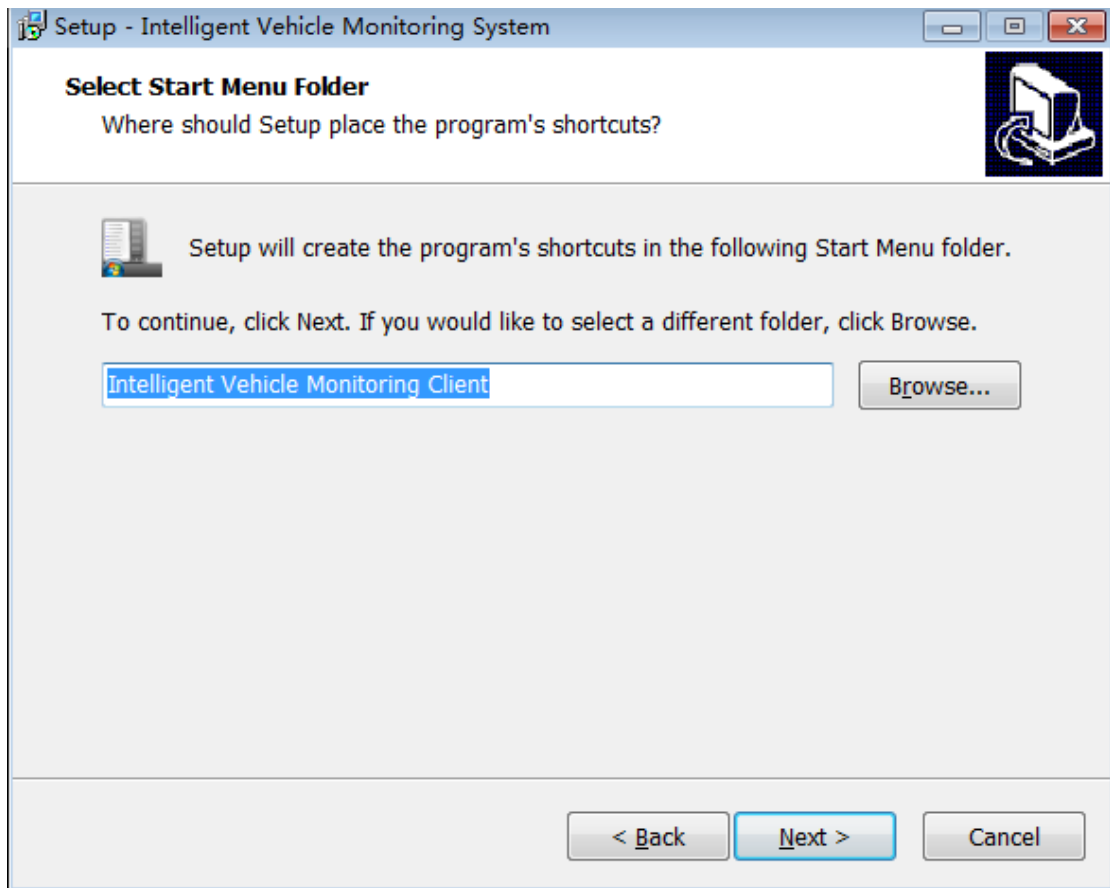
Figure 1-5

（6） Click "Next" to enter the Select Additional Tasks(un-tick the Create shortcut on desktop if user don't want it)
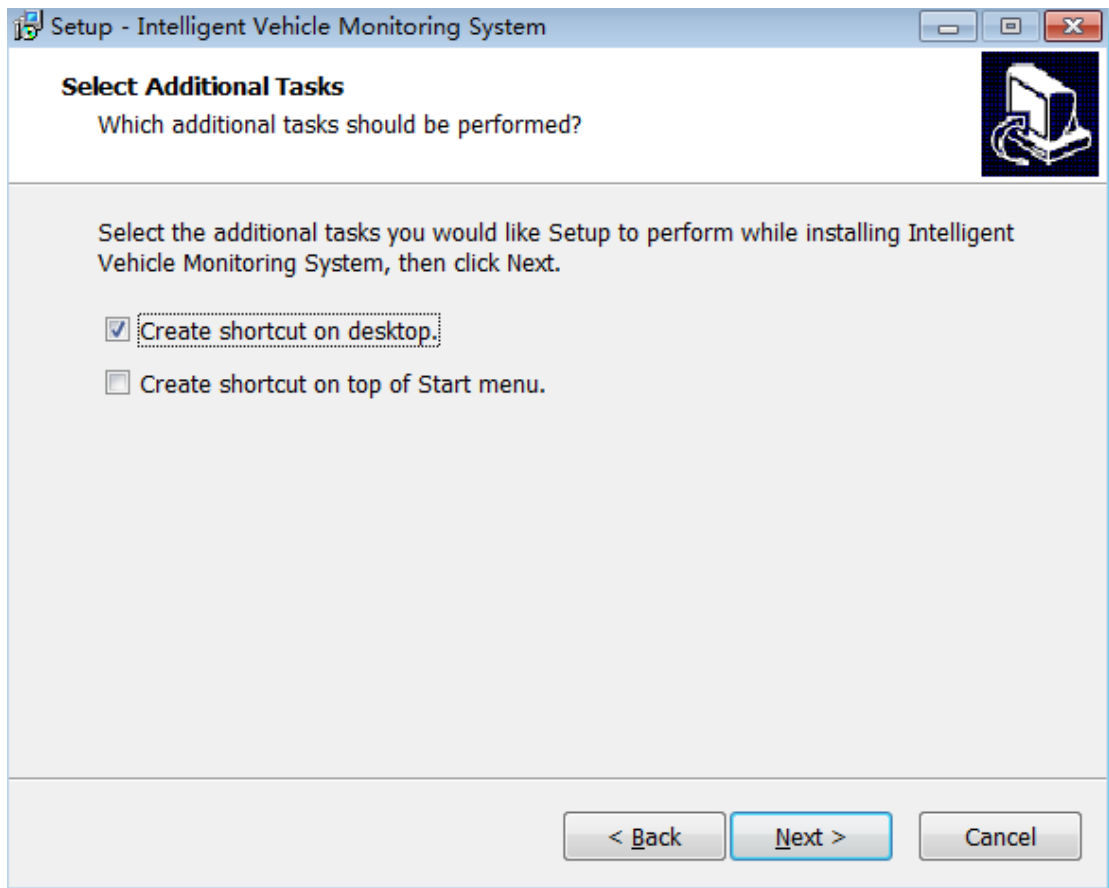
Figure 1-6

（7）Click "Next"，enter "Ready to install" page
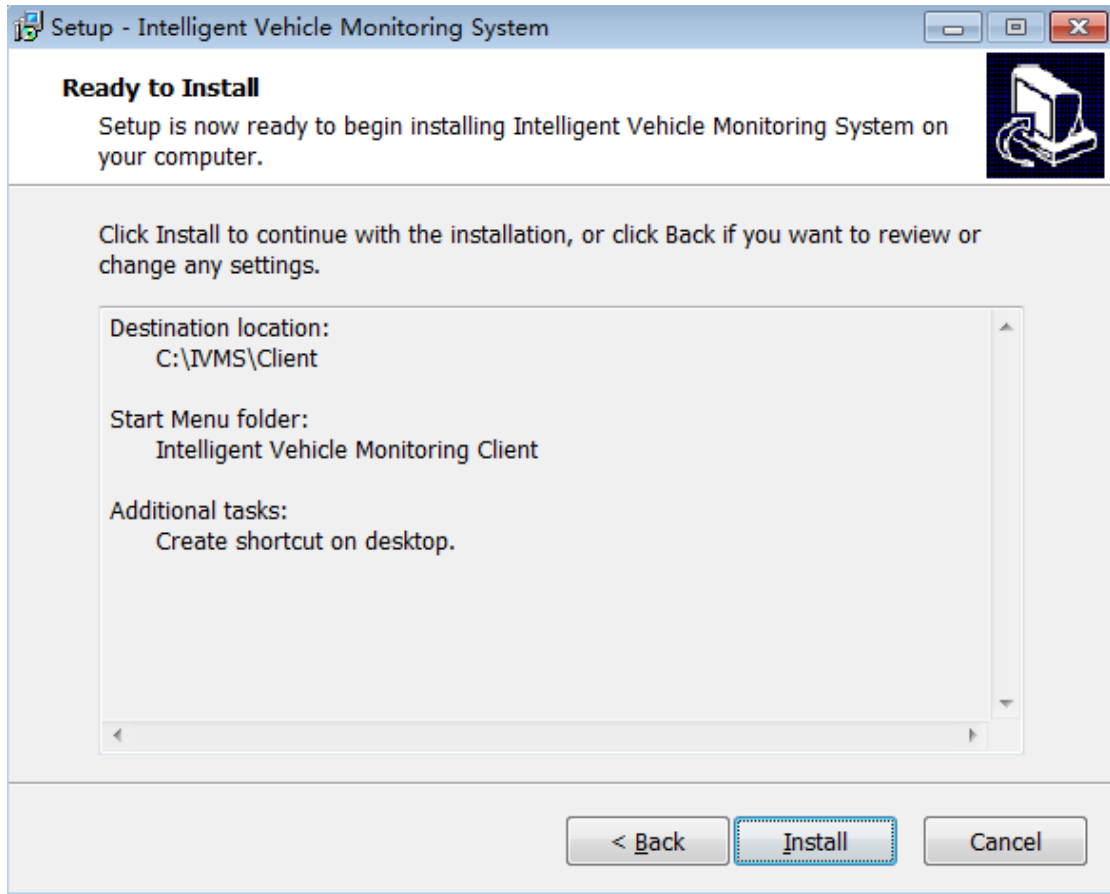
Figure 1-7

（8）Click "Install" for installation
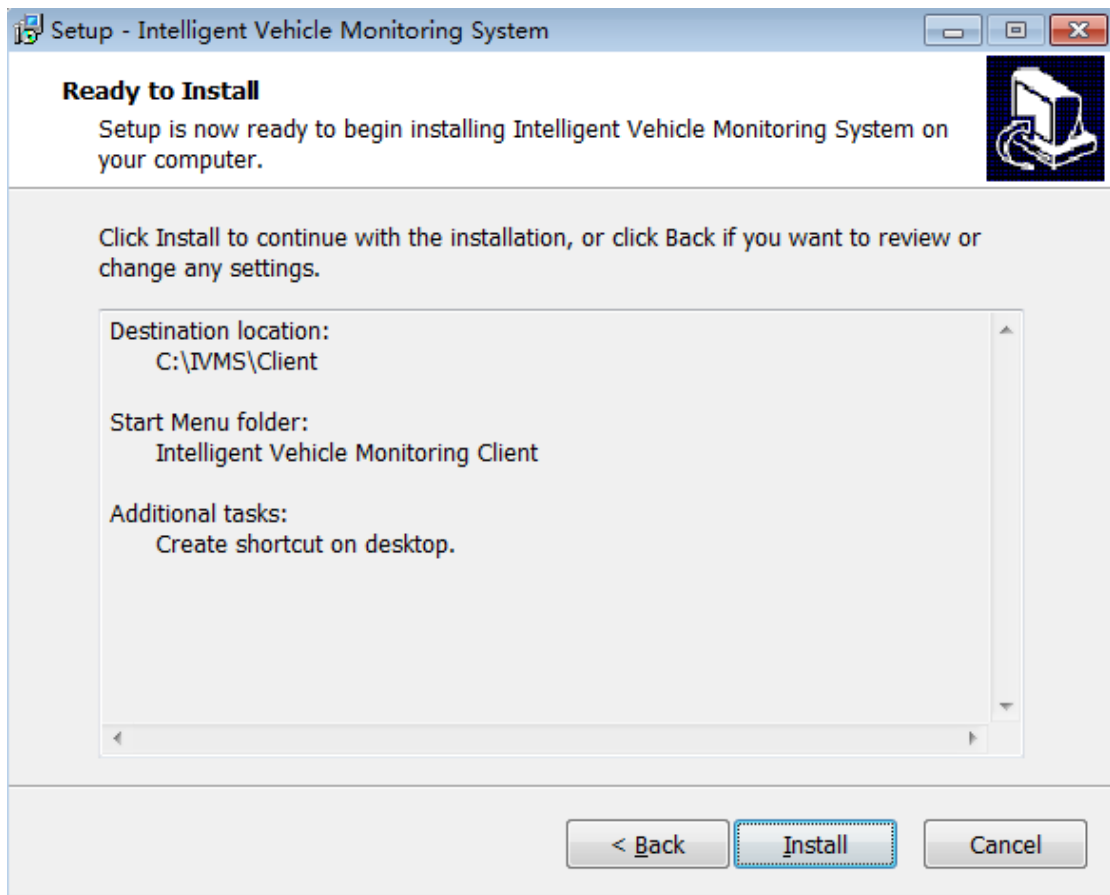
Figure 1-8
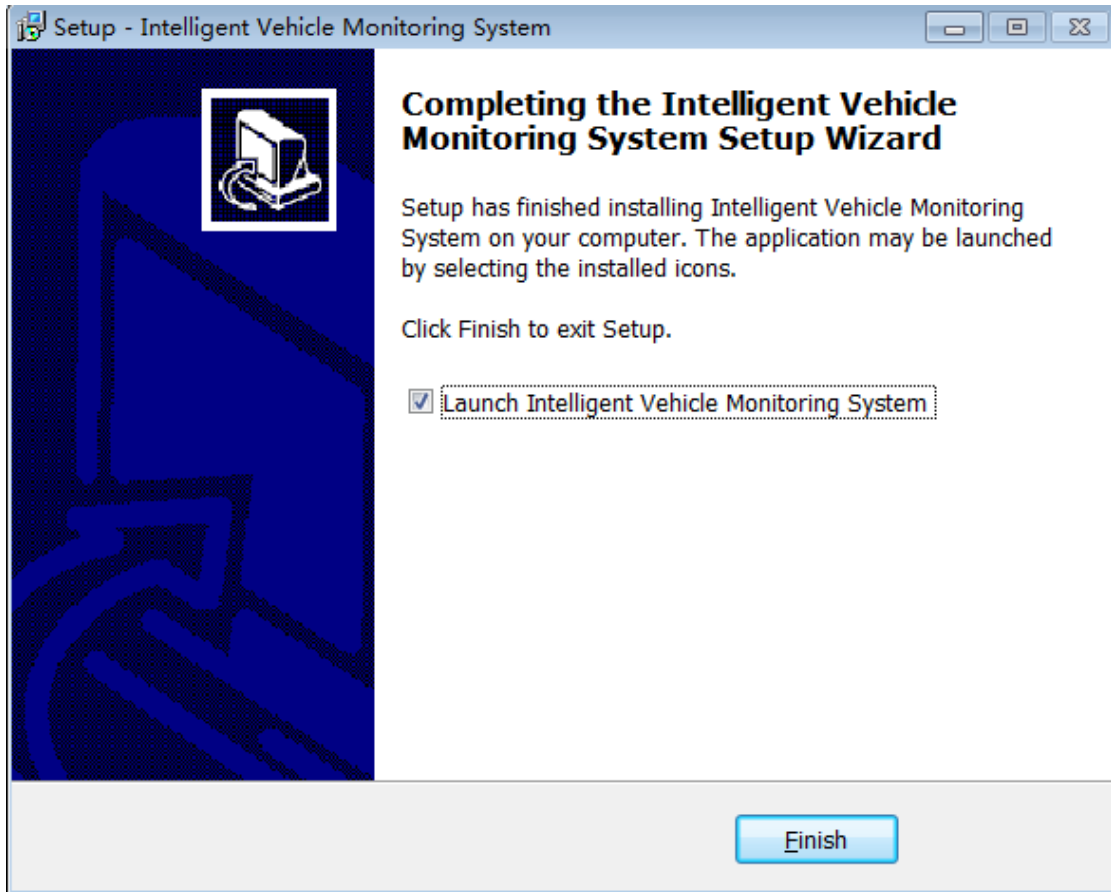
Figure 1-9

（9）Click "Finish"，then the installation is completed。

1.2 Uninstall

Click the Start menu and find the "Uninstall Intelligent Vehicle Monitoring System".
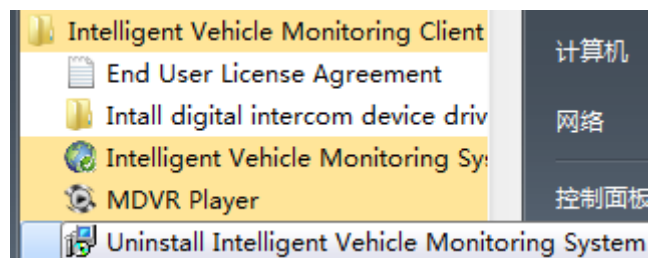
Figure 1-10

PS：install the new version of software will automatically delete the old version Client.

2. CLIENT PLATFORM

2.1 About the System

IVMS is a system applied with GPS location system, internet, mobile communications, cloud computing, etc. Which build customer the device/staff for remote monitoring on different areas, which achieved the dispatch of device /staff and other operations (such as unprofessional device operate, anti-theft and anti-robbery) by acquisition of locations and information (such as image of alarm, video, and audio). Meanwhile, this system can also provide customer the accurate data analysis and specific data reports, so the customer can outputs any data upon their requirements.

2.2 Main Functions of System

IVMS Client supports remote monitoring, GPS map location, trace playback, voice intercom, alarm linkage, remote video storage, remote video download, remote video playback, device in area management, remote upgrade for device etc,.

2.3 Client Interface

This Client has two versions: PC Client and Web Client

2.3.1 PC Client Main forms

Client Main form consisted of six major parts, such as Menu, Toolbar, device list, GPS map location, PTZ, data list, video
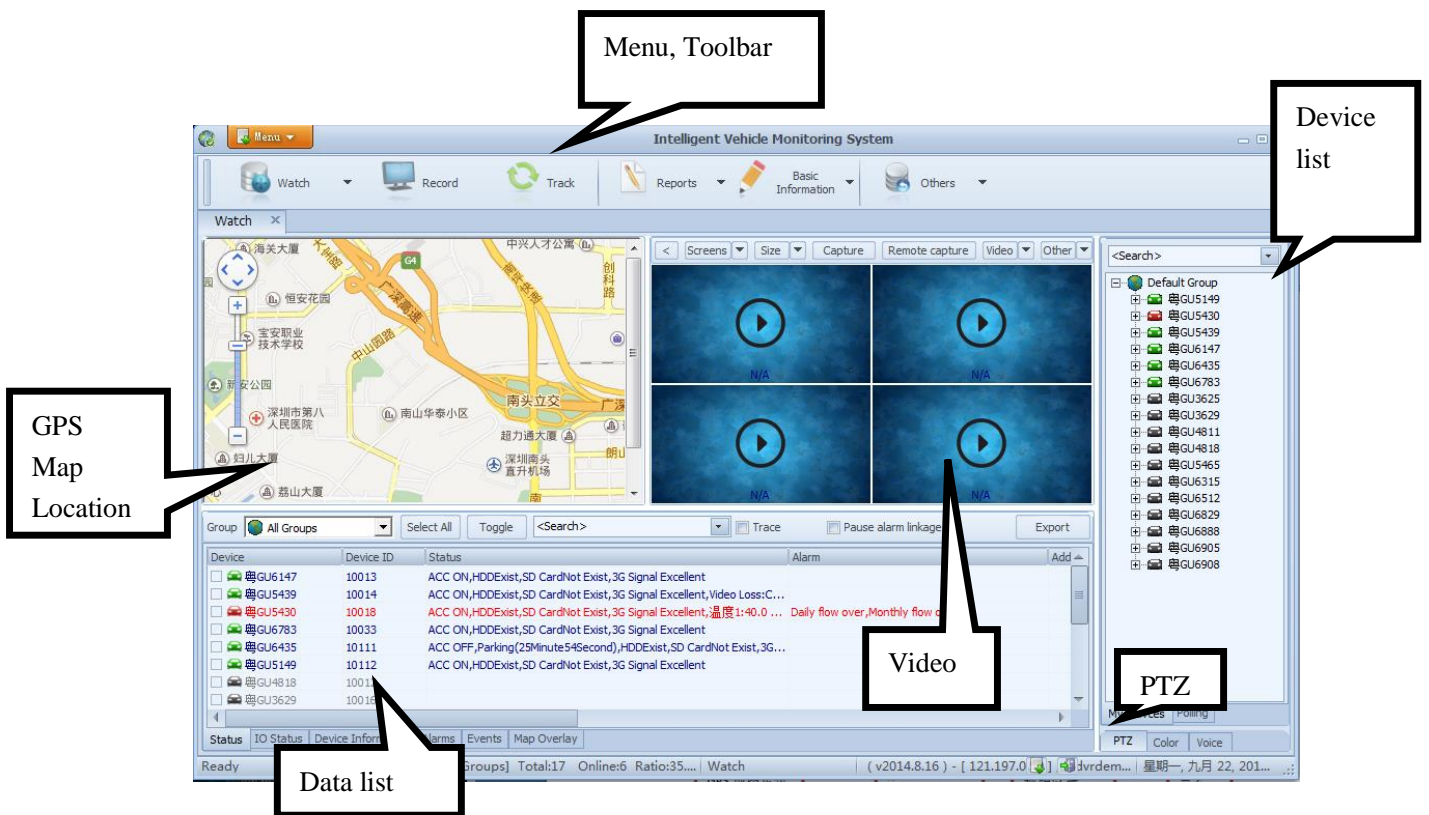
图 2-1

Introduction of Main interface:

Menu：located at top left , including View, Map type, Themes, Configuration directory,

Option, Switch user, Change password, Exit menu and so on.

Toolbar：under the Menu, this is the major control area of system, includes the func-

tions like Watch, Record, Track, Reports, Basic information and Others.

Map display area ：user can find the location and other information of device in map.

Video：user can set up the display number and display size, also with functions like

the PC and remote capture etc,.

Device list（Default group ）：the list information of device.

Polling list： switch a group of self-defined channel video in unit time.

My map：the point, area and surface records marked by user on map.

Status：the current basic information of selected device

PTZ：the operations of PTZ, such as angle rotation, focusing, aperture, light and wind-

shield wiper.

Voice：the intercom，listen and broadcast with device.

GPS monitoring：monitor the real time GPS location, driving speed，alarm and status display of device.

Device information：including Device name, Device ID, SIM, Group, Channel, Balance and play data.

Alarm：the content of alarm

Recent alarm：showing the recent alarm contents.

Event：record the system events like login.

2.3.2 Web Client Main forms
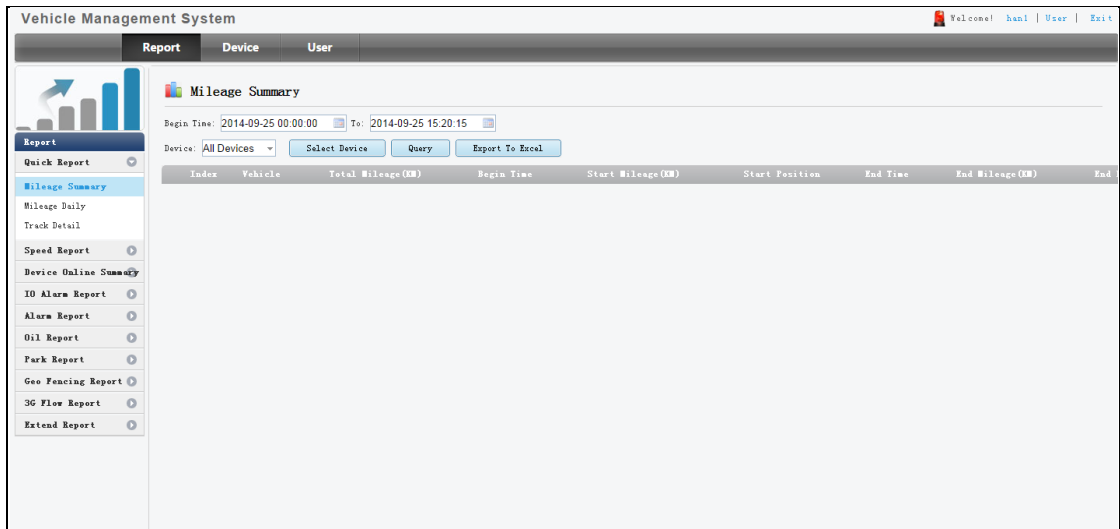
Figure 2-2

This web Client has three major parts: reports, device and user.

Report：Quick reports(mileage summary, daily mileage report and detailed trace)、speed report, device online summary，IO alarm report, alarm report, oil report, park report, geo fencing report, area alarm report, 3G flow report, extend reports, dispatch report.

Device：vehicle parameter, DVS parameter, mobile parameter, device group, fence alarm, Wi-Fi download plan, snapshot plan, record plan, alarm management, driver.

11

User : includes User management(add or delete user), aitjprotu(set up permission

for user), user log management(search and import log)

3. PC Client functions

3.1 Video playback

3.1.1 Video search

Click "Toolbar-Record", the windows in figure 3-1 will show up.

Figure 3-1

(1) Storage

Devices：search the video file in SD card or hard disk

Local hard disk：search the files in computer or the video files already downloaded in local hard disk

Video server：the device has storage plan, search the video file already been stored at server

Download server：search the video file on download server

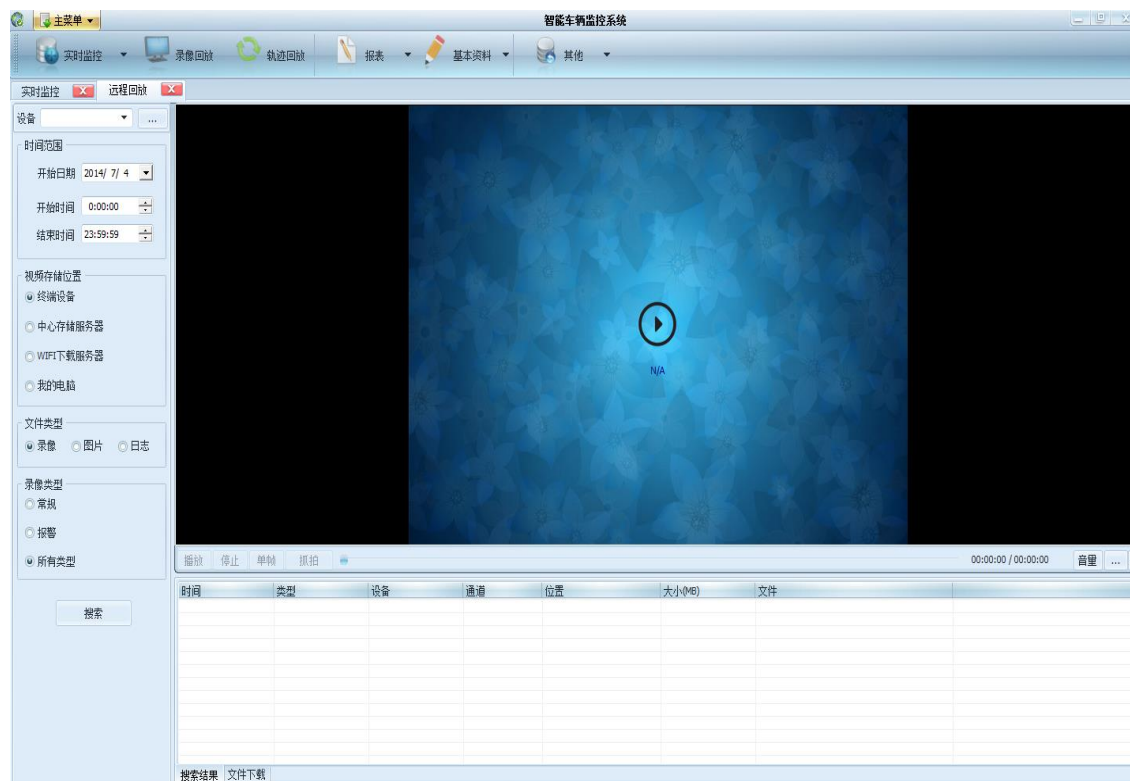**(2) File type**

video：video file

file：the captured image files on storage server；

log： search the saved log information in device, such as operation log, net log, alarm

log and Debug log.

(3) Video type

When searching the video, there are three search types: alarm video, normal video,

and both.

3.1.2 Video search

After selected the search terms, there will be searching files list at below, shown at

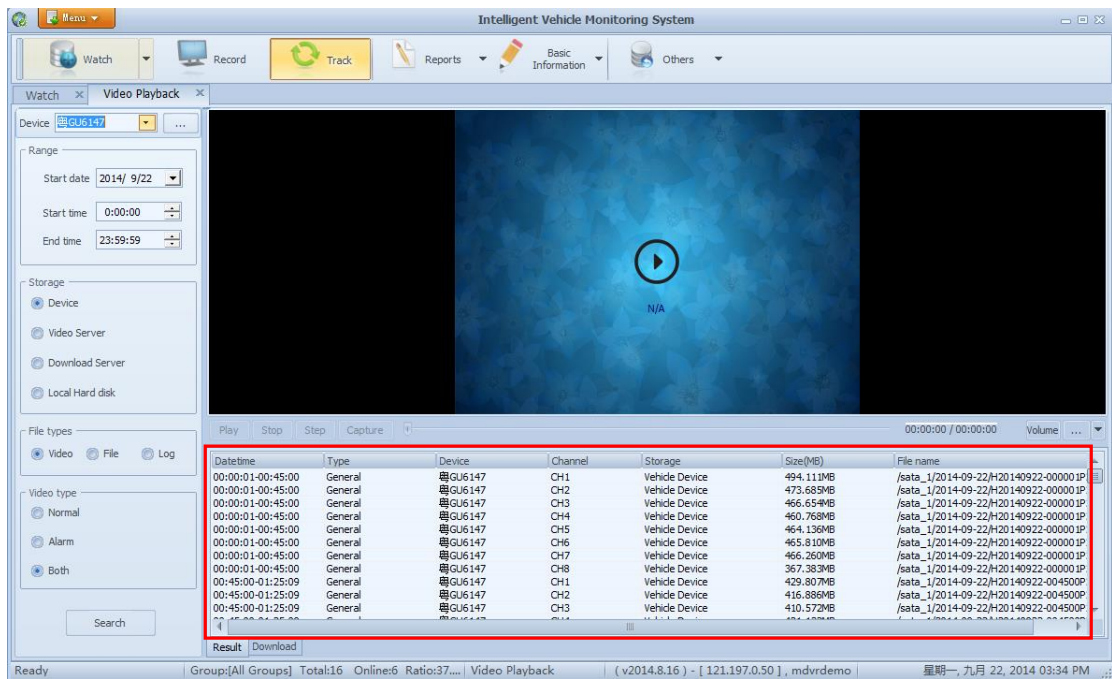figure 3-2.

Figure. 3-2

1. Take the video file in device as example, user can search all the video files in
   same day by click "search"

Select one file and double click it to play; following functions will show up when user

right click on file.

A: Play。 Play video file

B: download。 Download the selected file

C: download all。 Download all of video files in search results at same time.

D: Setting。 Set up the download path of file

2. When playing the video file, user can use actions like pause, Stop, Single frame, Single step, continue play and snapshot.

3. Click this button ![button] when play ， it able to access to functions like aspect ratio, title display, volume adjust , mute, etc.
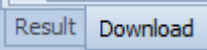
Note：when playing the file on device, it also needs the buffer in order to play.

3.1.3 Video download

(1) Video downloads:

See detail the 1st point at 3.1.2.

(2) Check the download progress

Click the button "Download" ![Result Download] , so user can check the downloading process, as shown in figure 3-3 ，click right button ，user can use actions like cancel download, re-download, open contain directory, delete local file etc,.

Figure 3-3

If the downloading file is too large or the download speed is too slow, it may affect the downloading progress or cause failure. User can still play the file even the file has not completely downloaded.

If user has not exit the Client, user can continue to download the video by click "continue download" at right click menu.

3.2 Trace playback

User can search the trace by specific filters, and import the data by requirements。

The trace playback interface shown in figure 3-4：
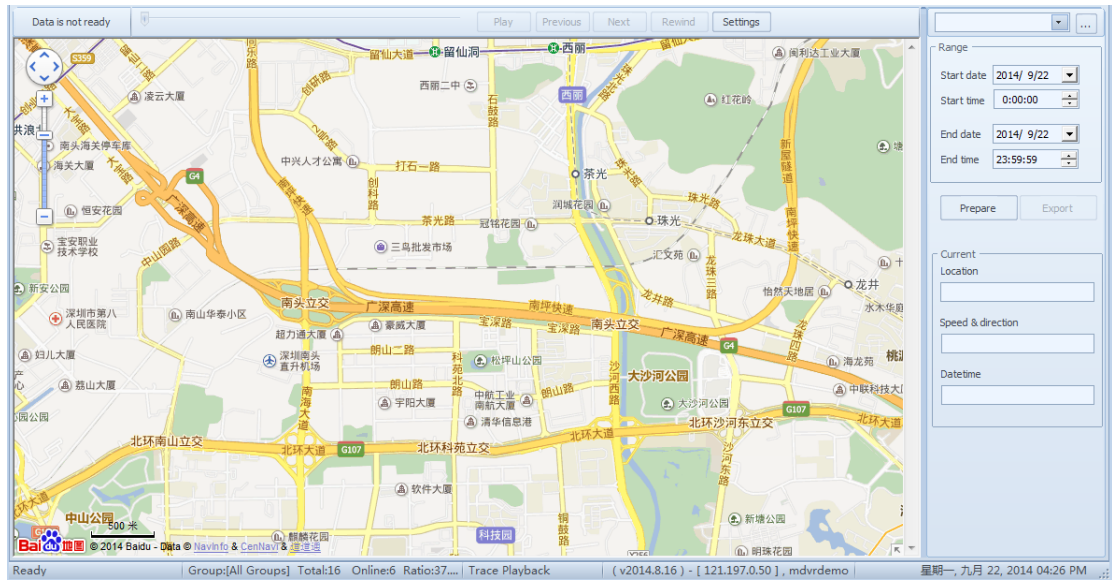
Figure 3-4

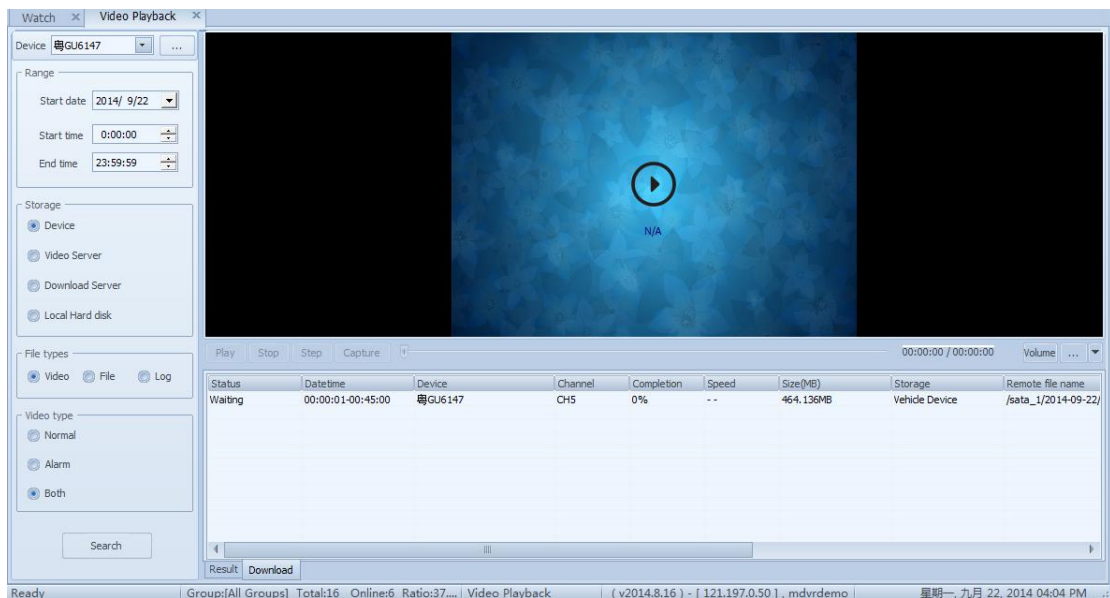After select the device, time range, user can click the "prepare" and export the trace. The file format of export file is xls, the files will including the device ID, deivce name, GPS time, longitude, latitude, speed and driving direction.

when clicking the "prepare", user can also play the trace, and process rewind, setting, previous/next and etc,.

Terms description

a. Setting：as the setting for the play-time interval of trace, unit: second

b. previous/next：previous step / next step；

c. the current location, speed and direction information will also shown in trace playback.

3.3 Basic information

The Basic information including the assign Driver, extra vehicle information and path management.

3.3.1 Assign Driver

This section includes the basic operations of driver's information and searching. And the basic operations consisted of add, edit, delete and export. Search can process by the driver name, employee ID, telephone number and contact address.

Note：there isn't the search button, the research will be automatically active when typing the information, if the driver's information meet the conditions , it will change color to grey. As shown in figure:

司机姓名	司机代码	性别	联系电话	联系手机	联系地址	备注
□莫离	H001	女		15115205823	南山科技园	
□哲名浩	002	男		18688256239	深圳宝安区	
□刘三	k05	女		15683235486	南山桃源	
□匹克	k06	女		1239876547	南山农贸市场	
□jones	H002	女		15526028599	深圳南山区南山大道桃花园小区1栋403	
□lol	001	女				
□刘可可	007	女	0123	15568933662	回沈阳客服让扣	shiyanwu

Figure 3-5

3.3.2 Extra vehicle information

This part contains two parts: basic operations for vehicle information and search. The basic operations including edit, export and toggle. The search can be finish by the input the vehicle number, ID, IU No. and service number.

PS：there isn't the search button in this page, the system will search it automatically after user input relative information. The background color of driver information will turn into grey if it matches the conditions.

3.3.3 Path management

Select a path, the map below will locate to it and connect the path between stations by line.

（1）new and edit

New button is to add new driving path information ；

In addition, the edit button is for edit the path information, such as edit the path name, path number, path color, operational company etc. user can also enter the editing windows by double click the path. The editing window shown in figure 3-6
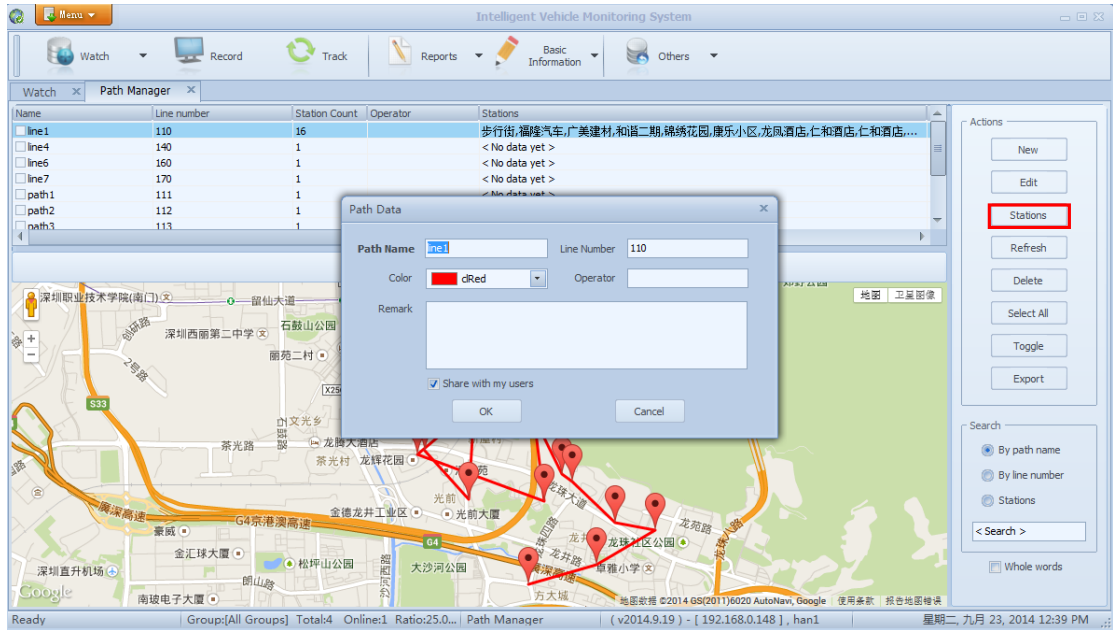

Figure 3-6

（1）station

To add, edit or delete the stations on selected paths.

Click on the map can add the station, and the default name of this station will be #0，the default value of coordinate and address will generated by its real location, where the default station name will name after the address. Meanwhile, user can edit both station name and station description. The Delete button will delete the station if user don't want it 。

Furthermore, the line used to connect two stations does not represent the actual trace; drag the on map will relocate the station.

Use editing the station name as example, input the new station name in "Station Name", click "Finish" and this all done, shown in figure 3-7.
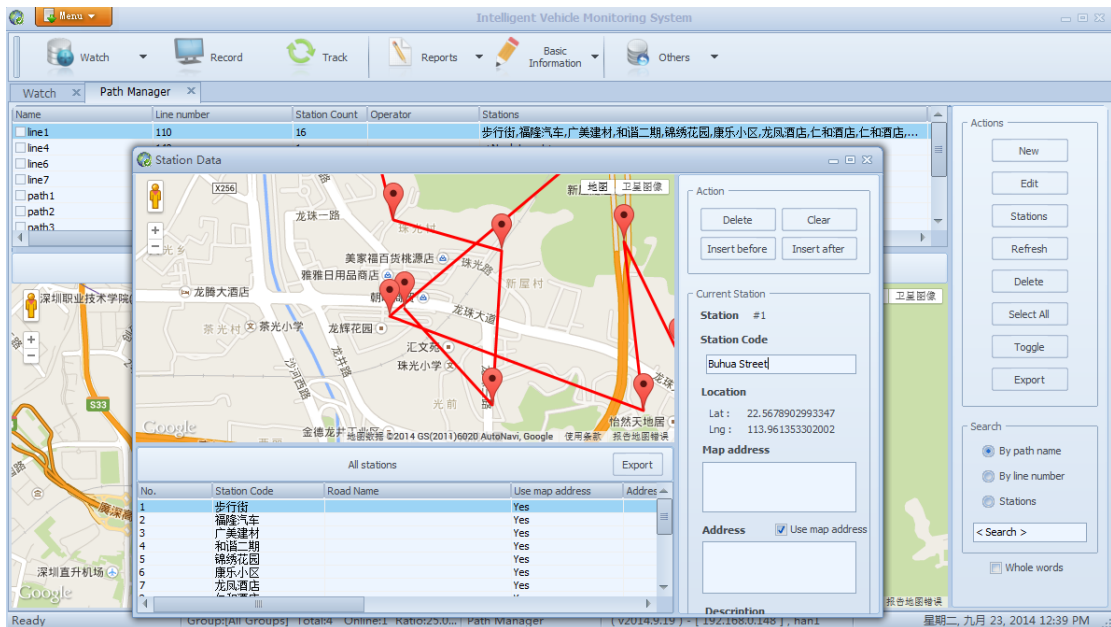
Figure 3-7

（2）Search

User can use path name, line number, and station name to search vehicle-driving path,

Note：if the more than one paths contain the same station name, using same station

name to search the path will come up with the path at top of list

3.3.4　Others（setting）

This part contains different settings for system, including the options (system configuration), alarm shield settings, record settings, alarm setting (alarm linage), MDVR player and web applications.

3.3.4.1 Option (system configuration)

This including the settings likes language, map, video and capture directory.

(1) Language and map setting：

Language：user can choose the display language for this Clients, which has simplified Chinese, traditional Chinese, English , Thai and Turkic.

Map parameter：whether to enable the adjust(automatic).

Speed unit：user can choose from MPH and km/h.

(2) Video settings

19

connection：with TCP or UDP mode

Default request：with main stream and sub stream, where main stream is more high definition than sub stream.

Polling time：unit: second.

(3) Other

User can set up the save path of image capture, and whether to login the IVMS Client automatically.

(4) MDVR player and Web application

For more about the MDVR player, please see MDVR manual。

For more about the Web aaplication, please see Web Client Introduction

3.3.4.2 Alarm shield setting

If user ticked the any alarms in list, and the "Alarm information" bar in Client will not display those alarms anymore.
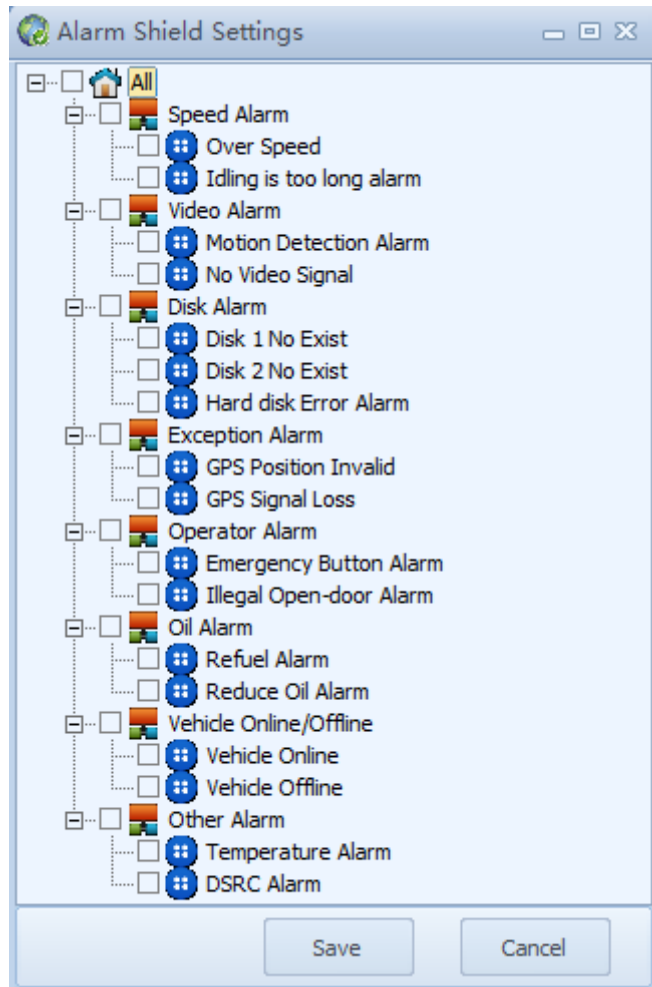
As shown in figure 3-8：

Figure 3-8

Tick the alarms that do not need to upload, and they will not upload to platform anymore.

In addition, if user ticks the "pause alarm linage" at Watch page, then the shielded alarms will continue upload to platform. As shown in figure 3-9。
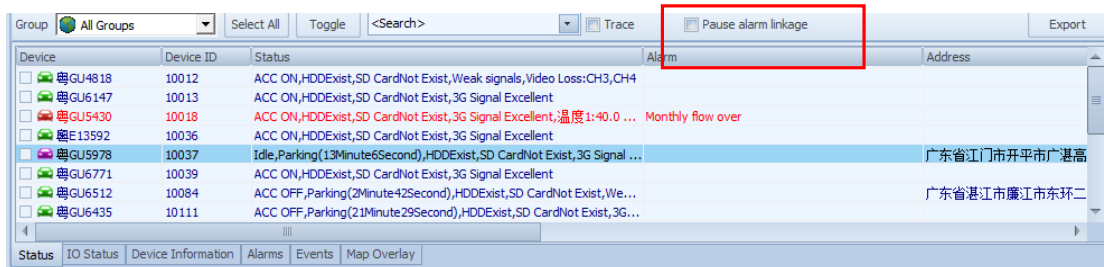

Figure 3-9

3.3.4.3 Record settings

Record settings is about setting of saving the record files on PC by remote
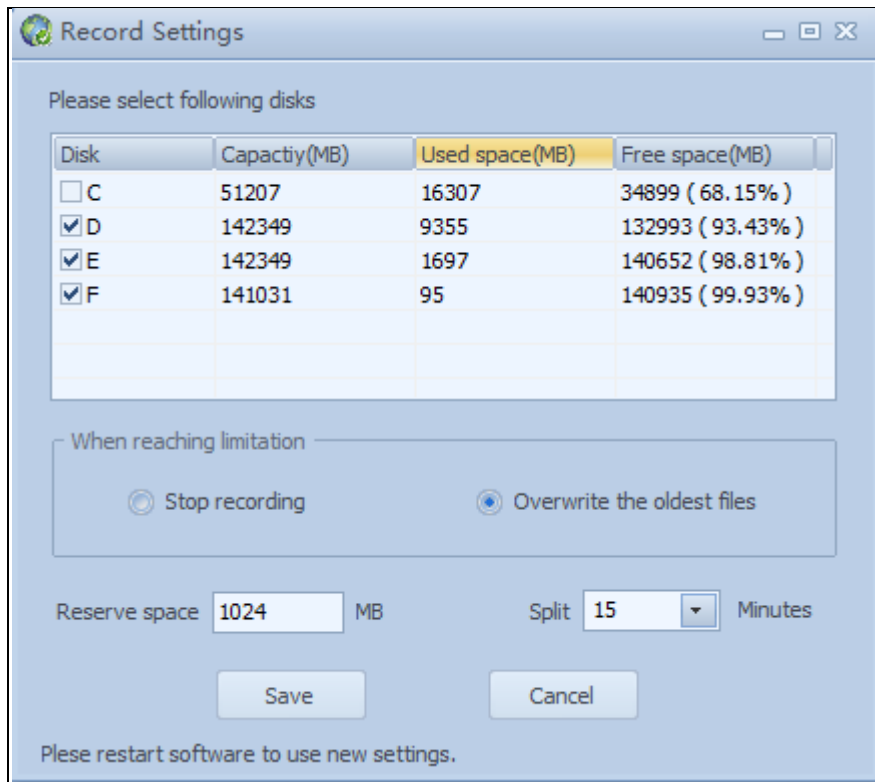
As shown in figure 3-10

Figure 3-10

If the saving space is not enough, user have two options: stop the recording or overwirte the oldest files

a. Reserve space is space for storage video which reserved space size(such as 1024 MB) .

b. Split time is time length of video package.

3.3.4.4 Alarm setting

Click "Others" and choose Alarm setting, the following page will pop up, as shown in figure 3-11
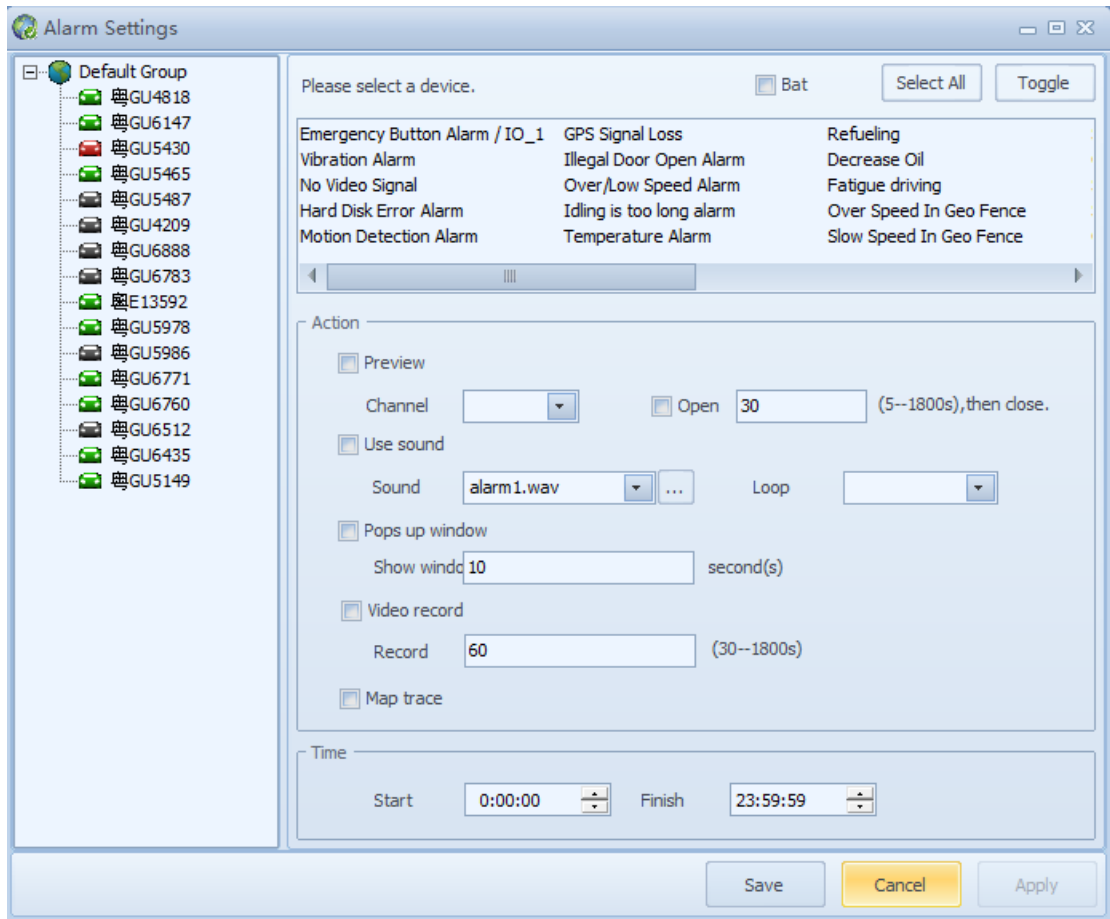

Figure 3-11

User cannot edit the right panel until the user selects the device.

Alarm type : choose the alarm types that match to device alarm, (system will only operate the action when the setting of alarm type here is same as the device alarm type.)。

Preview : when the alarm occurred, the video in this channel of this device will pop up(only support the sub-bitstreams)

Use Sound : setup for alarm sound type and loop of alarm sound

Video record : after alarm linkage occurred, it will upload the alarm video to local PC, and the video time unit is in second.

Map trace : when the device triggered the alarm, the monitored device will be display in map

Time settings : the alarm of device will only works during the chosen time range if user enabled this option.

Save : save all the setting for alarm linkage.

Alarm linkage setting also allow to set up the all of device together at same time (just tick the "select all")

3.3.4.5 MDVR Player

This is a link to MDVR player, for more detail please see MDVR player manual

3.3.4.6 Web Application

This is the link to Web Client, for more detail please see Web Client in chapter 4

3.3.5 TTS Broadcast

Right click the device in device list (right side of Client windows), and click the "TTS broadcast" and user will see the menu below as shown in figure 3-12.
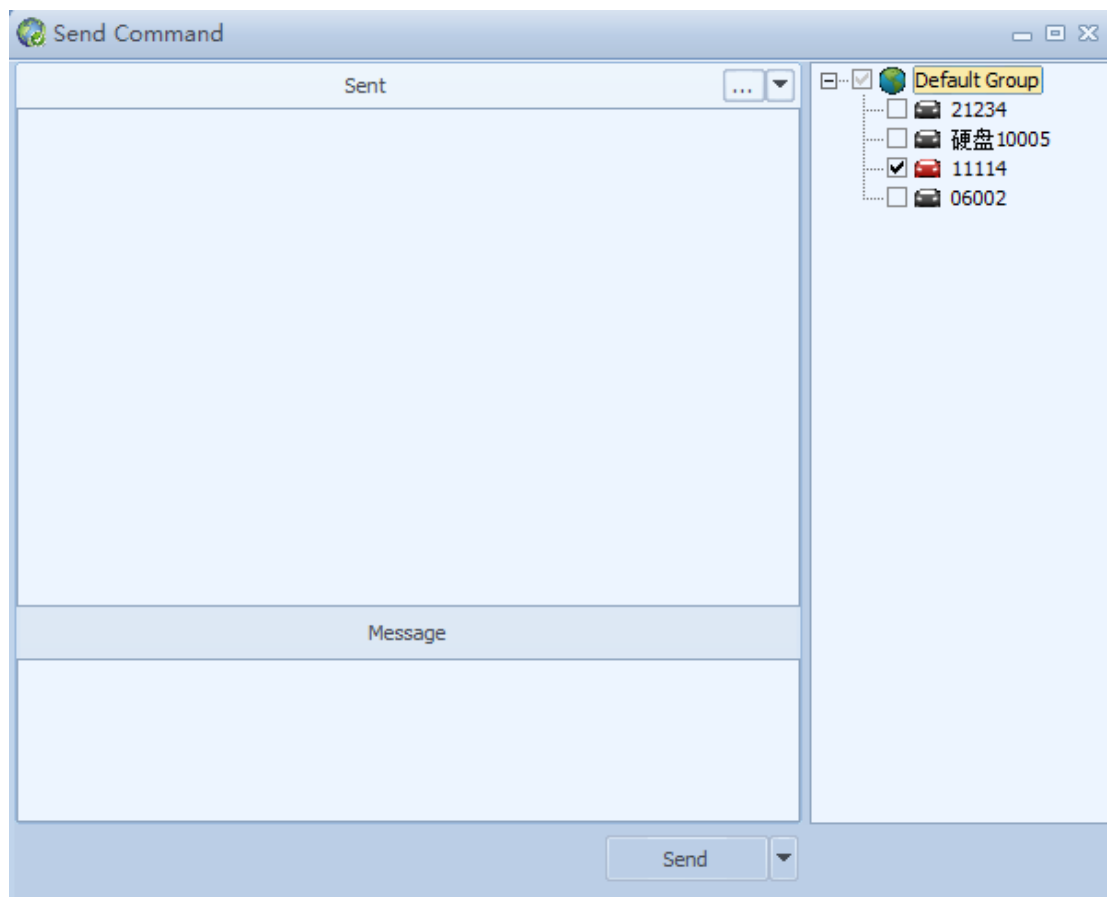
Figure 3-12

User can send the TTS broadcast to one or more devices at same time, for multi devices, user just needs to tick the devices that they want to send the TTS broadcast. User has to connect device to a TTS broadcast equipment to use this feature.

3.4 Reports

This section can divided into device online report, Alarm report, I/O alarm, Speed alarm, Parking alarm , Fence alarm, Oil alarm, Station report, Driver attendence.   As shown in figure 3-13
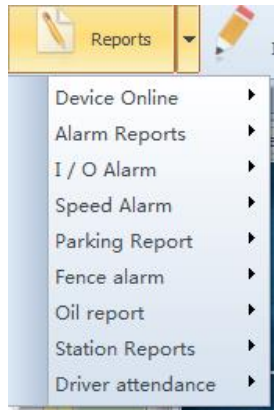

Figure 3-13

Every report has the export function; user will see the windows below when user clicks the export and user can also select options by different requirement. As shown in figure 3-14：
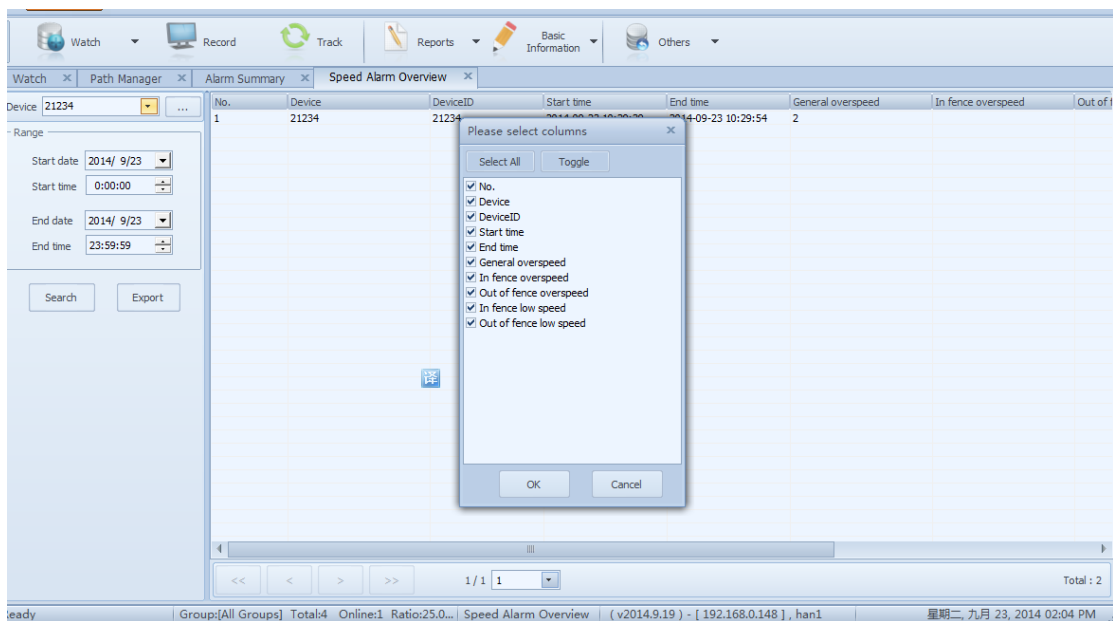

Figure 3-14

The exported file is *.xls file，*.xls will list all the options user ticked in figure 3-14,

Click "Save" and user can access the Excel file under the saving path
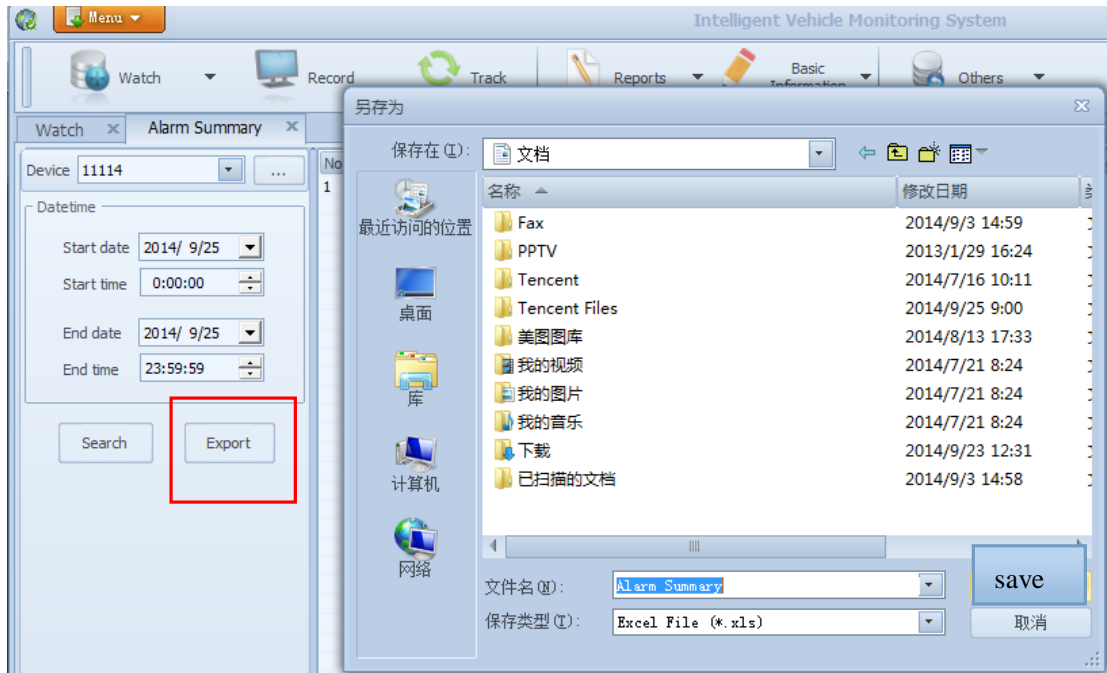
As shown in figure 3-15：

Figure 3-15

3.4.1 Device online

Two parts: overview and detail

a. overview

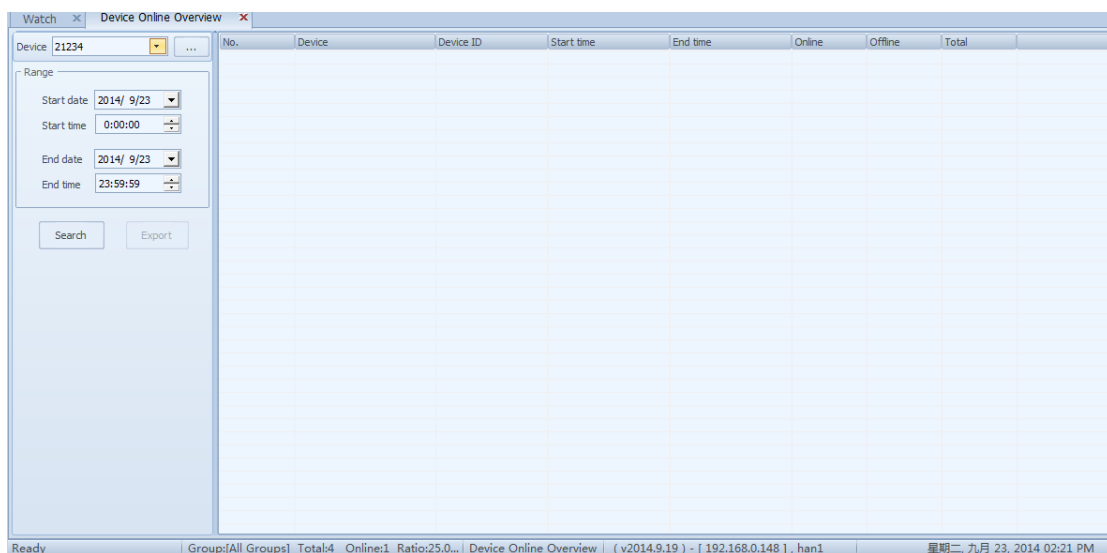Display the online & off line frequency of device at chosen duration.

Figure 3-16

b. Detail

Show the device's timestamp of online and offline and location information in chosen time range
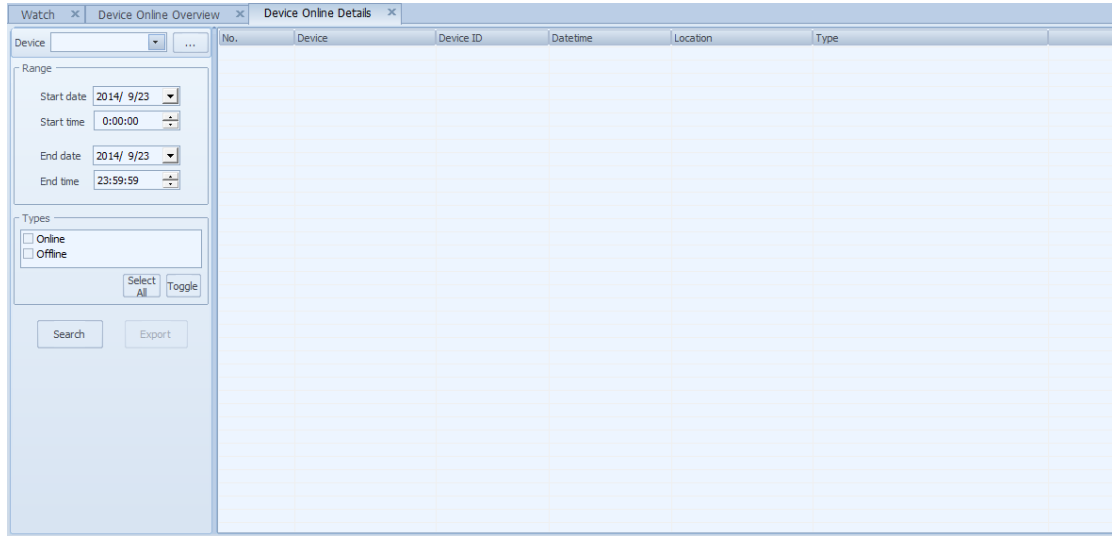

Figure 3-17

3.4.2 Alarm reports

Alarm reports including alarm summary, emergency button, motion detection,video lost, GPS signal loss, hard disk error, illegal door open, fatigue driving and G-sensor alarm.
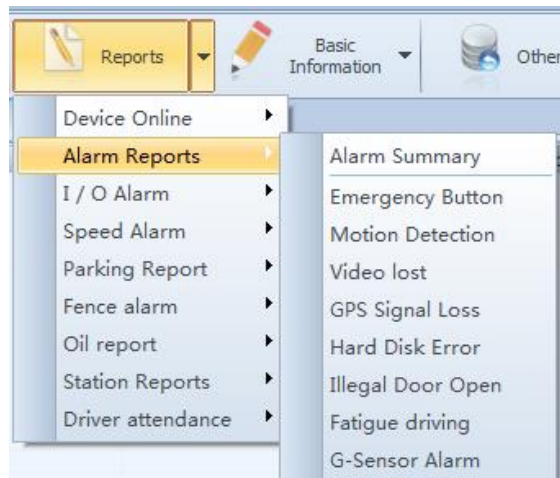
As shown below：

Figure 3-18

a. Alarm summary

Summarize the frequency of alarm in specific time range, such as frequency of GPS lost, frequency of emergency alarm, etc.

b. Emergency alarm

The search results will show start time, end time, location information, etc. of triggered emergency alarm

c. Motion detection

The search results will show the channel number, start time, end time, location information, etc. of active motion detection alarm

d. Video lost alarm

The search results will show the channel number, start time, end time, location information, etc. of triggered video-lost alarm.

e. GPS signal lost

The search results will show the start time, end time and location information when GPS lost signal

f. Hard disk error alarm

The search results will show the start time, end time and location information when the hard disk had error

g. Fatigue driving

If user setups the time length of fatigue driving, the device will upload fatigue driving alarm if the vehicle has derived more than the set time. This report will summarize the fatigue driving time, level, and location information of vehicle in chosen time range.

Note：the level for fatigue driving only has one level for now

h. G-sensor alarm：

This report in used to record the start time, end time direction etc., when the vibrate occurred in chosen time range

3.4.3 IO Alarm

It includes the IO alarm summary and IO detail, since IO1 belongs to emergency alarm button, and those two reports will not have statistics of IO1.

a. IO alarm summary ：

Used to summarize the alarm frequencies that occurred by different IO in chosen time range.

b.　IO detail：

Used to summarizing the start time, end time, location information, etc. of different IO in chosen time range.

3.4.4 Speed alarm

Two parts: overview and detail

a.　Speed alarm overview

Used to summarizing the information of general over speed, in fence over speed, out of fence over speed, in fence low speed and out of fence low speed, such as times, etc.

b.　Speed alarm detail：

Used the record the start time, end time, location information, etc. of general over speed, in fence over speed, out of fence over speed and in fence low speed.

3.4.5 Parking report

This section including parking summary, parking detail, vehicle idling summary, vehicle idling detail, parking overtime summary and parking overtime detail.
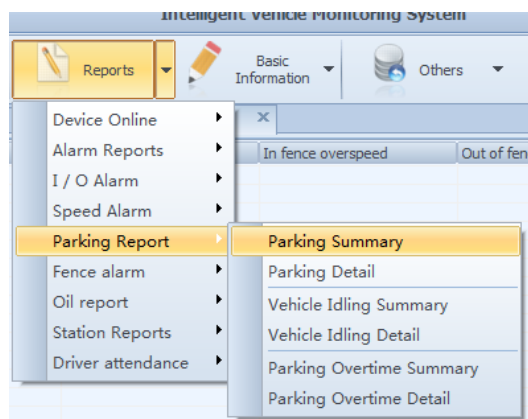

Figure 3-19

a.　Parking summary：

It will summarize the parking frequency, parking length, first parking, last parking, etc. of in chosen time range.

First parking indicates the time of first parking (speed = 0) of vehicle in chosen time range

Last parking indicates the time of last parking (speed>0) of vehicle in chosen time range.

29

b.   Parking alarm detail:

Used to summarizing the start time, end time, location information, etc. of every parking of vehicle in chosen time range.

c.   Vehicle idling summary

When the vehicle's speed is 0 with ACC open, this is idling

Vehicle idling summary is a summary of times of idling, total time, start time, end time, etc. of vehicle in chosen time range.

d.   Vehicle idling detail   :

This used for summary of start time, end time, parking time, location information, etc of vehicle in chosen time range.

e.   Parking overtime summary:

User can set up the time length of overtime alarm in device. It will upload the parking overtime alarm to platform when the parking time of vehicle is longer than set time.

This is a summary of frequency of overtime alarm, time of first alarm, time of last alarm, total time, etc. of vehicle in chosen time range.

f.   Parking overtime detail:

Used to summarizing the information of every parking-overtime of vehicle in chosen time range, such as start time, end time, total time, parking location, alarm threshold, etc.

3.4.6 Fence alarm

Fence alarm is the summary for vehicle entering or leaving the fence, it will show the time of vehicles when leaving or entering the fence. User can use the fence alarm only when user set up the fence area.

3.4.7 Oil report

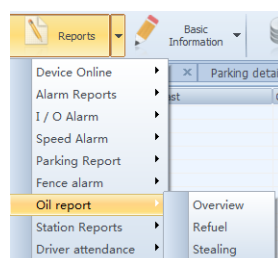It including the records and overview of refuel / fuel stealing

Figure 3-20

a. overview :

The search results show the information of vehicles in chosen time range, such as frequency of refuel, frequency of stealing, etc.

b. refuel :

It will record the refuel amount, fuel level at beginning, location, time, etc of vehicle at chosen time range.

c. stealing :

Used to monitoring the fuel stealing and fuel leak of vehicle at chosen time, it will estimate the stolen fuel amount by count the oil decreasing time, the beginning fuel amount and the last fuel amount.

3.4.8 Station reports

Including overview, detail and stop statistics

In order to upload the station announcement data to the Client, user has to add a path in〝Client- Basic information- path management〞 and make sure the 〝path manage - path number〞 has same path number as the path number selected by vehicle. Meanwhile, user also has to make sure the stations names in 〝path manages – stations〞 are same as the stations names which on the operational path of vehicle.

For how to set up the vehicle path, please see 《BSM bus station announcement system manual .doc》。

a. overview :

To summarize the vehicle's total trip number on specific path in chosen time range and the additional information of vehicle

b. detail :

Detailed records of vehicles. It includes the arriving time at stations, driving direction, arrival detail, departure detail, additional information, etc.

c. stop statistics：

Used to summarizing the information of vehicles, such as parking time at station, direction, station announcement methods, departure time, arrival time, etc.

Furthermore, user can determine whether the bus has detained by set detention threshold.

3.4.9 Driver attendance

It includes the driver attendance overview and driver attendance details

a. driver overview：

Used to summarizing the working time of driver. This search results will list attendance card data when driver scan his card, on duty time, working location, off duty time, off duty location and working hours.

（definition：on duty time is the time when diver scan his card at first time, and the off duty time is the time when diver scan his card at end. Where the working hours is the time between on duty time and off duty time）

b. driver attendance details:

The search results of this report are used to record a time range (from begin to end), timestamps while driver scan the card, attendance card data, location when scan the card, etc.

3.5 Intercom

3.5.1 Intercom device

Intercom device has two parts: intercom device and voice codec

1. intercom

Connect intercom device with RS232 serial port, then plug it into the 24-pin port of MDVR . Login the device, enter "default setting - network setting", make sure the intercom IP and interface setting are same as the intercom server's, such as 121.201.6.34 and 9988； enter the interface of "peripheral" in MDVR and select the COM1 as "inter-

com", then save. User can check whether the intercom device (COM1) is existed in system information page and review the status of intercom link. Successful display of intercom status will indicates the device has successfully connected to the intercom server when the system shows the COM1 is also existed

2. Voice codec

Connect the voice codec to PC Client by plug it into the USB port. User also has to install the "voice device driver", the installation methods shown as below

a. Click the "Start menu - intelligent vehicle monitoring client"

b. Click the "install digital intercom device driver" as shown in 3-21：
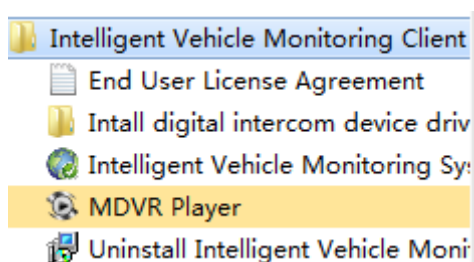
Figure 3-21

c. Choose the Driver base on userr Windows System, such as WIN7 and XP, shown in figure 3-22：
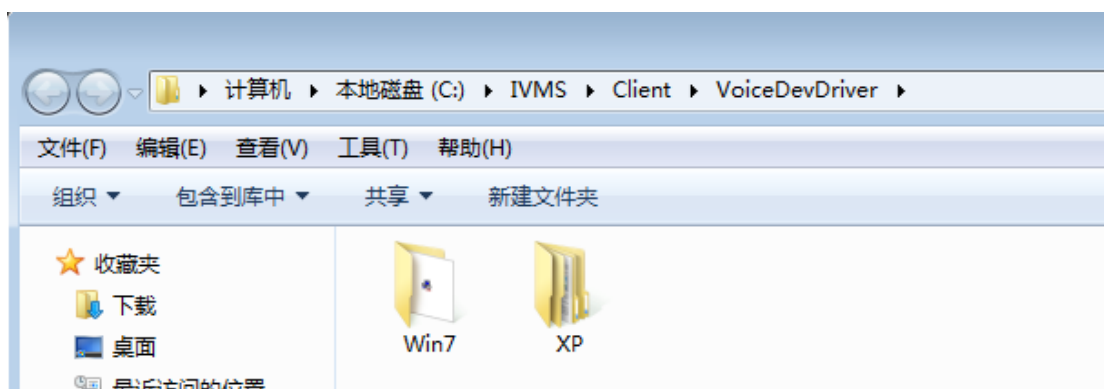
Figure 3-22
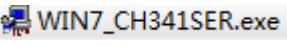
d. Take Win7 as example，double click WIN7_CH341SER.exe ， to open the installation page, as shown in figure 3-23：

Figure 3-23：

e. Click the "Install"，it is finished when system shows up the information bar of suc-
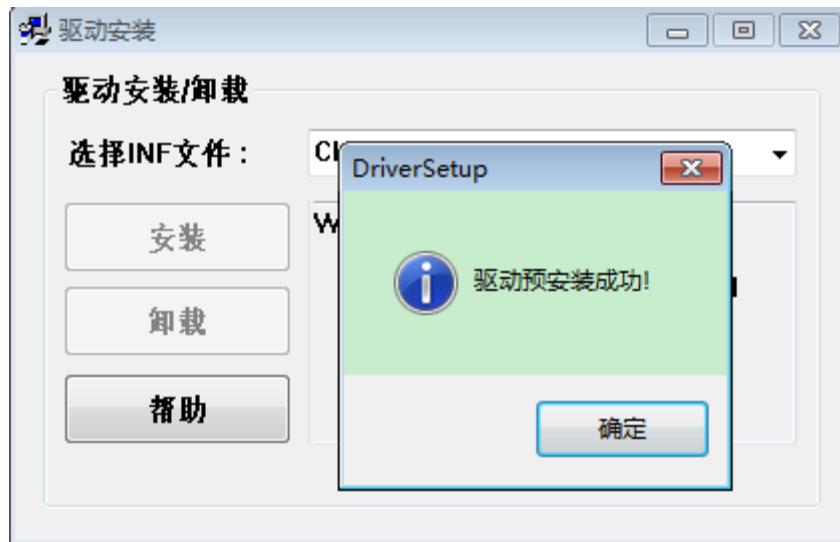
cessful, as shown in 3-24：

图 3-24

3.5.2 Intercom

3.5.2.1 Open intercom

There are two ways to open the Client

1：right click the device in device list, choose the "intercom" in pop up bar

2：click the "voice" bar then click the "intercom"
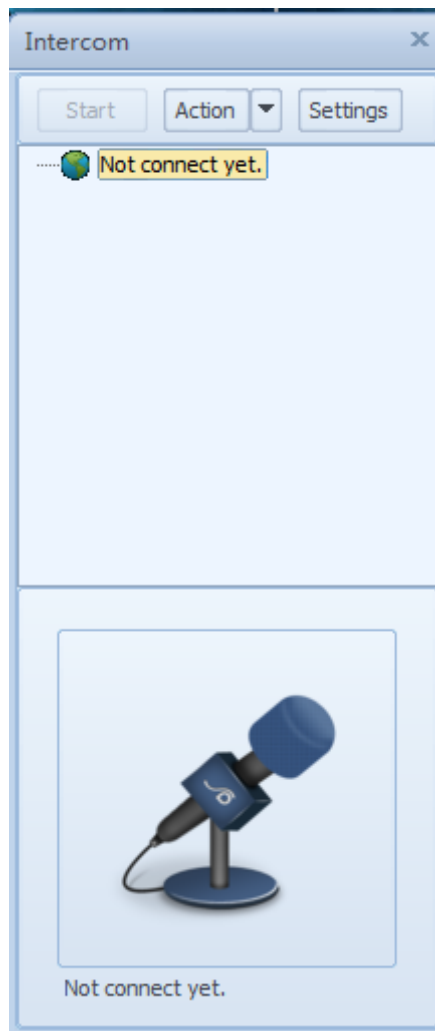
The windows before the intercom has shown in figure 3-25：

Figure 3-25

3.5.2.2 Intercom setting

Click the "Setting" in intercom windows, user are recommended to use parameter

below in figure 3-26 :

Figure 3-26

Call method：mouse move，mouse click and mouse down

Mouse move：when moving the mouse and let mouse hover over at speaker icon

, it will change to icon of , this means "Speaking"

Mouse click： when click the speaker icon , it means "speaking"，click again

will change to "listening"

Mouse down：long press at the icon of , it means "speaking"，release it and it

will change to "listening"

Hang-up Delay： the delay time when changing from "speaking" to "listening"

3.5.2.3 Start the intercom

Click the "Start" after make sure all the setting of parameter are correct, it will display all the devices and dispatches in group. Last four digit of serial number are help to identify the vehicles and dispatches. As shown in 3-27 :
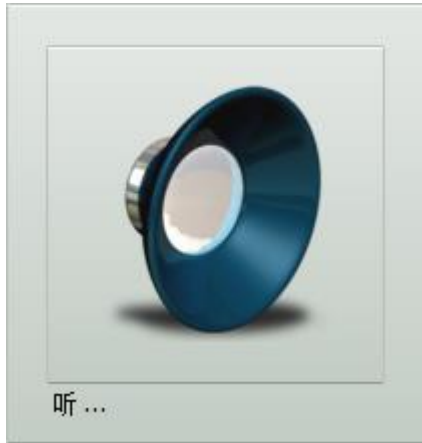

Figure 3-27

The default status of the starting the intercom will be "listening" , which indicates the Client (platform) is listening to the device. The popped up

 will indicates the "Chinese name 0319" is speaking

Dispatcher can talk to device under the status of "speaking"

The icons of "listening" and the "talking"

听 …　　　说 …

It supports one to one mode or one to multi mode, and by default, neither of these modes has selected; user can use both modes by tick one online device to multi online devices. When one device is speaking, the rest of devices and dispatcher can also hear it.

4. Web Client Functions

4.1 Web Client main functions
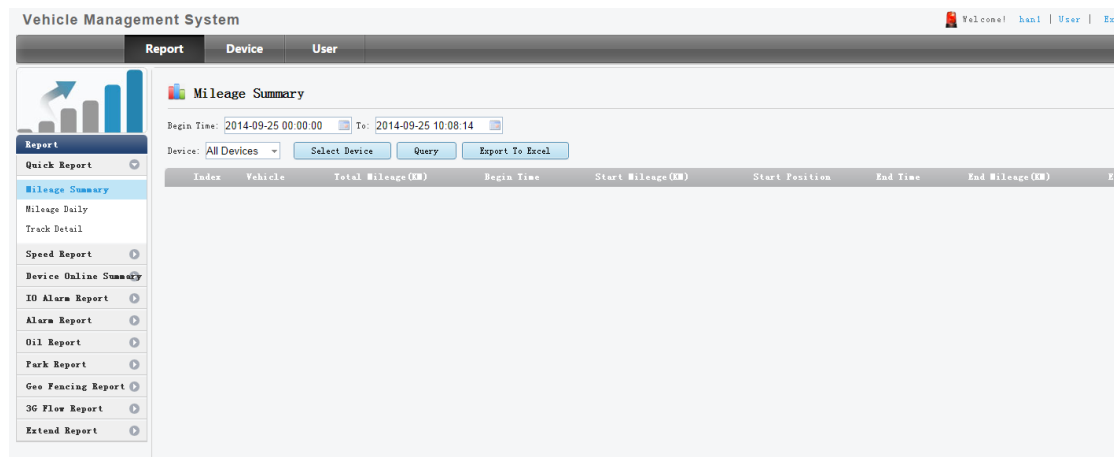
Web Client interface，as shown in figure 4-1。

Figure 4-1

Report :quick report(mileage summary、Mileage Daily、Track detail)、Speed report、

Device online summary、IO alarm report、oil report、park report、Geo fencing report、3G

flow report、Extend report.

Device：Vehicle parameter, Mobile parameter, Device group, Fence alarm, Wi-Fi

download plan, Snapshot plan and record plan.

User：User management and authority.

4.2 User

As shown in figure 4-2。
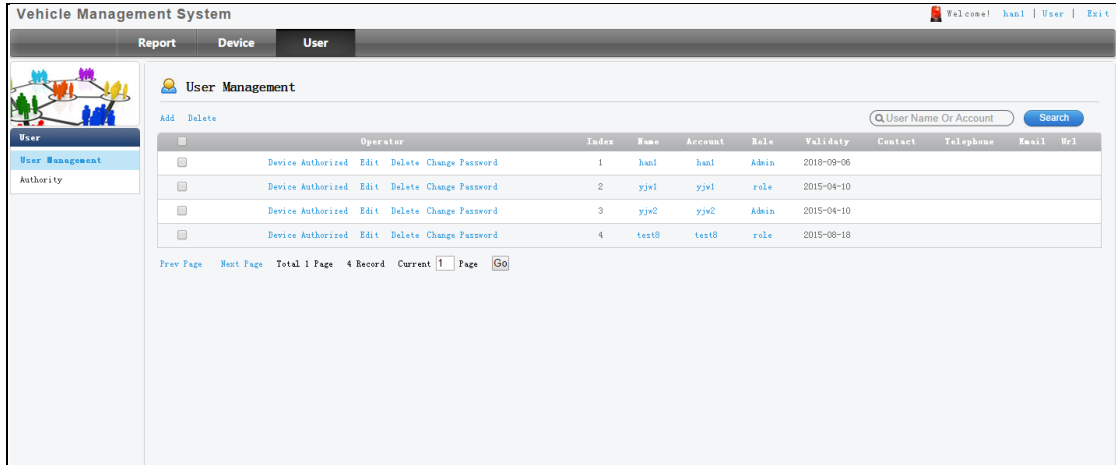
Figure 4-2

4.2.1 Add（authority）

As shown in figure 4-3
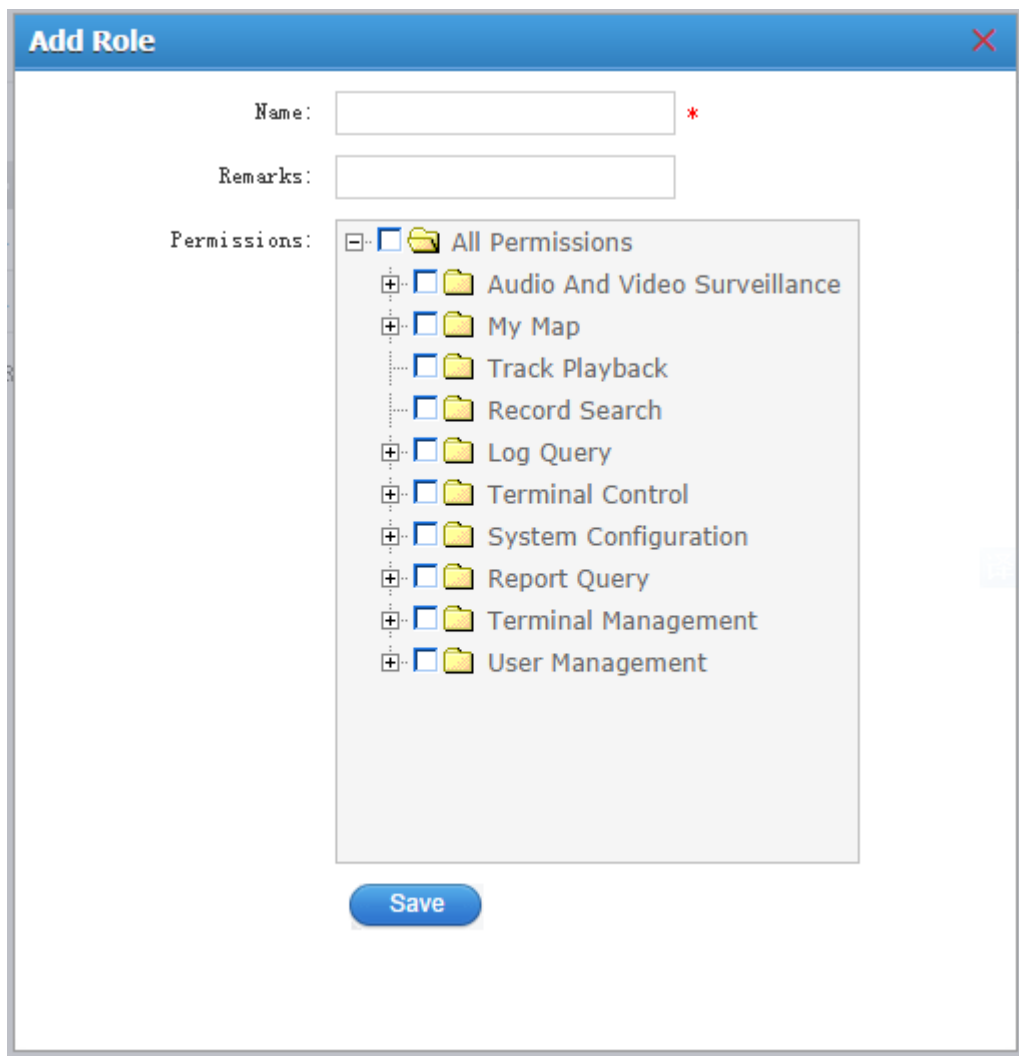
Figure 4-3

Note：when add the role, usually don't tick the option of "user permission" so other users cannot see you.

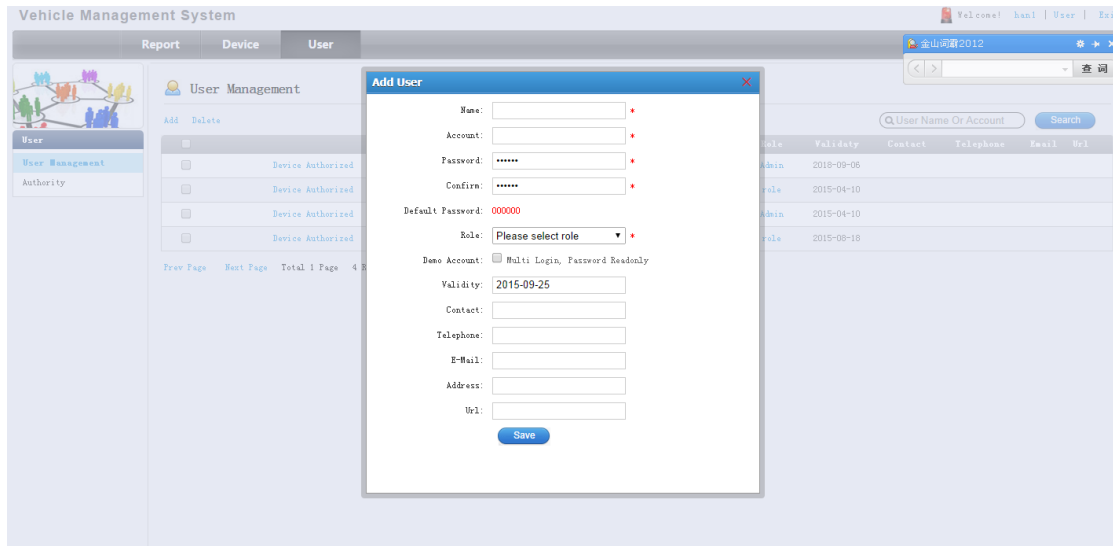## 4.2.2 Add User

As shown in figure 4-4。

Figure 4-4

4.2.3 Device authorized

To connect the device with user, this means assigning user the permission of device management and checking. Users can do so by lick the devices which they want to assign the permissions to. As shown in figure 4-5：
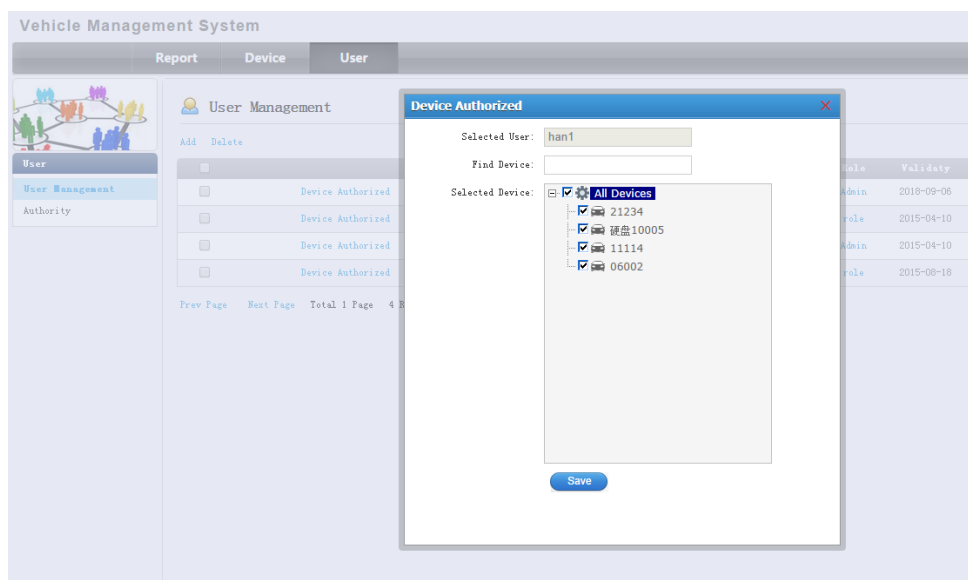
Figure 4-5

4.3 Device

This section including the settings of Vehicle parameter, Mobile parameter, Device group, Fence alarm, Wi-Fi download plan, Snapshot plan and record plan.

4.3.1 Vehicle Parameter

Click to enter the parameter setting page, as shown in 4-6：
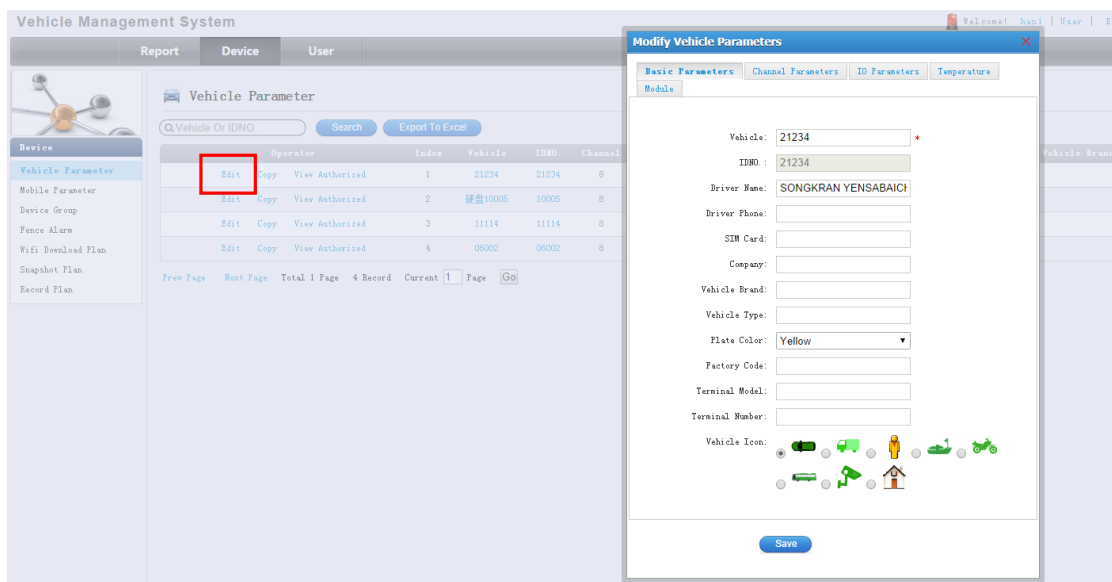

Figure 4-6

（1） Basic parameters

User can change the device name and vehicle icon or add the driver name, telephone number, SIM card number, etc. as shown in figure 4-7：

Figure 4-7

（2） Channel parameter

Define the channel number and change the channel name, as shown in 4-8。

Figure 4-8

（3） IO parameter

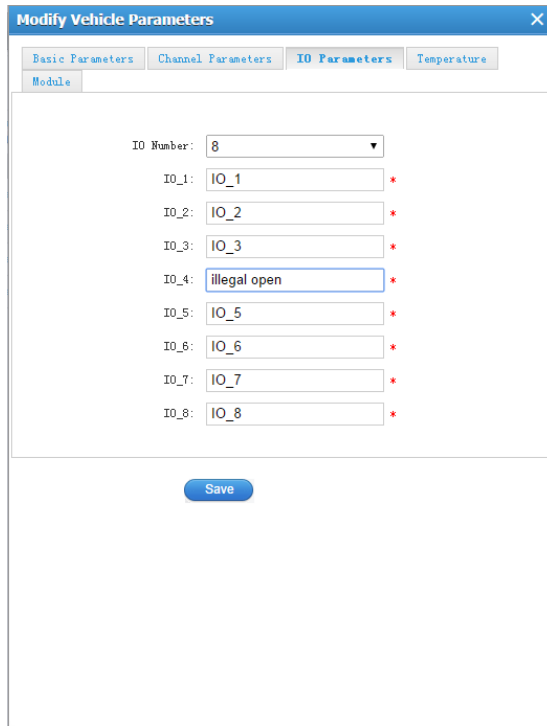Self define the IO number and name, as shown in 4-9：

Figure 4-9

If device want to use IO_4 for illegal open (door), then user can change the name on IO_4 to illegal open. When device operating the IO_4 alarm, the Client will receive the alarm shown as "illegal open"
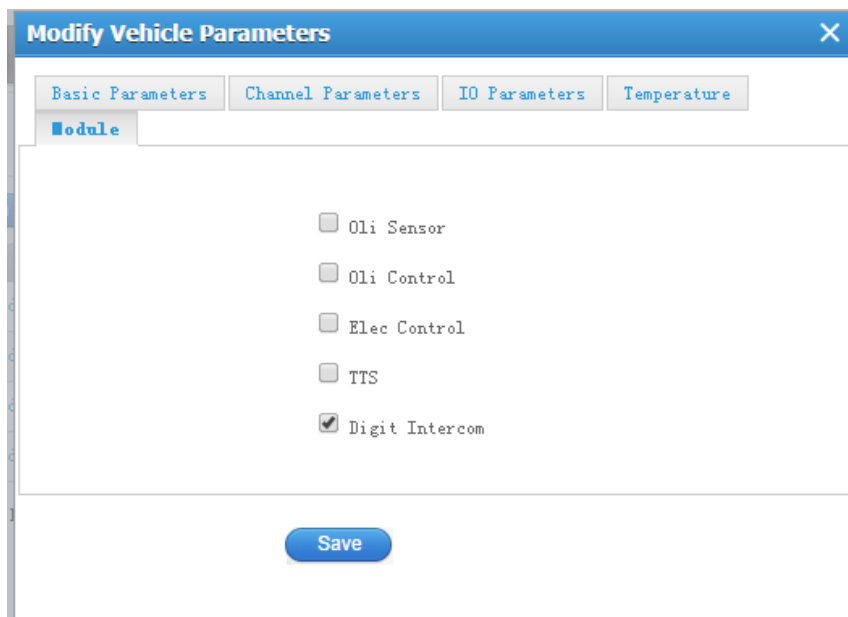
（4）Module

As shown in 4-10 figure：

Figure 4-10

If user wants to check the oil level, send the TTS, remote operation of cutoff the oil and electric and digit intercom, just lick the options here and restart the IVMS Client.

4.3.2 （Vehicle）Device group

User can add, edit, delete, and move the group here. Select the vehicle name, and edit the vehicle by "move group" and "out group" in middle of windows As shown in 4-11：
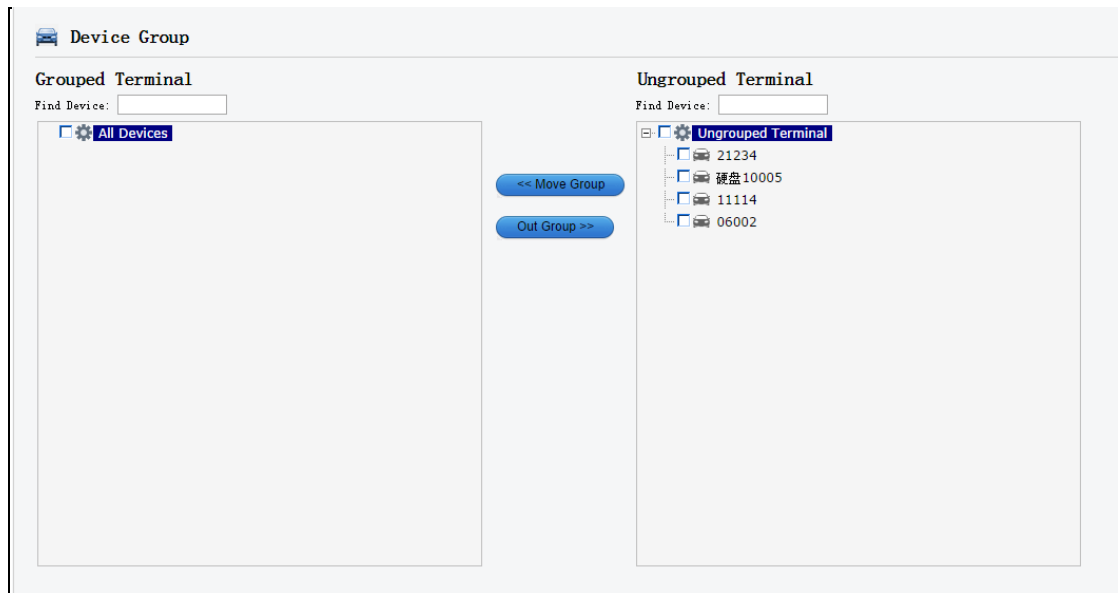

Figure 4-11

Operation steps：

1. Add group

2. Choose the grouped terminal at left then choose the devices that needed to group-ing at right.

3. Click the "move group" button

4.3.3 Fence alarm

Click the "config Fence Alarm" in Fence alarm windows, user can find the settings like region alarm, speed alarm, speed, over speed warning TTS, low speed warning TTS, park delay, alarm time, etc. As shown in figure 4-12：
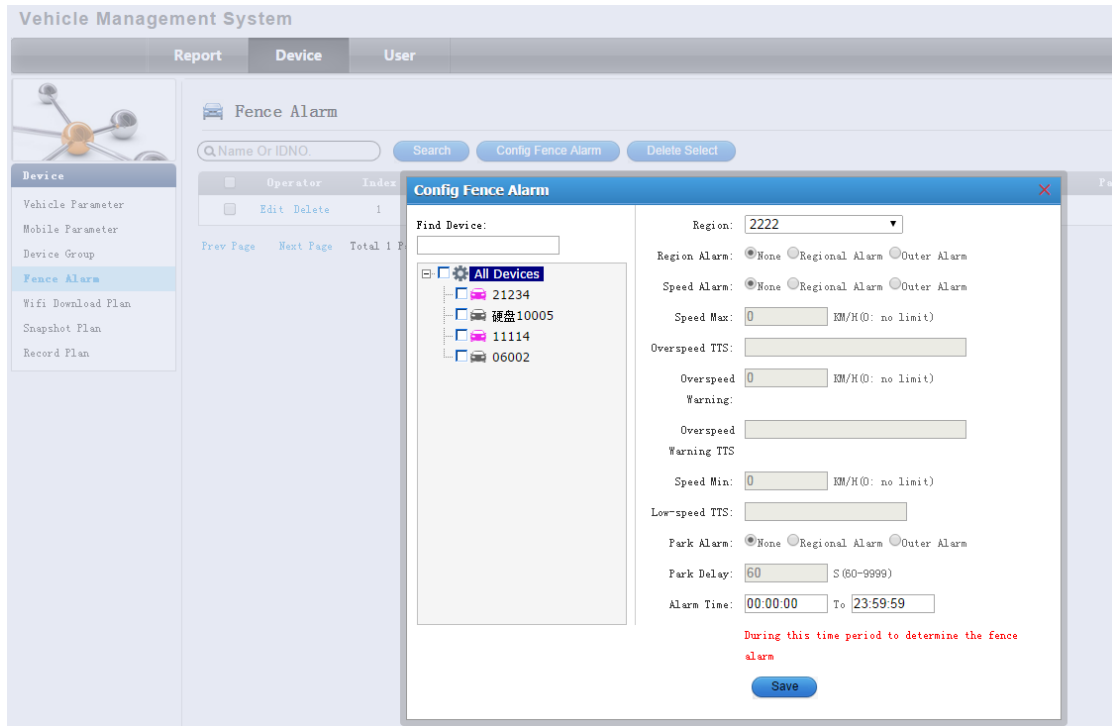
Figure 4-12

Steps：select the vehicle, next, select fence, then user can process the setting. The Client will display relative alarm information once the vehicle triggered the alarm.

The TTS voice will send to device when the vehicle triggered the alarm after configured the TTS notification of high-speed or low-speed,

4.3.4 Snapshot plan

Click the "Setup Snapshot" in the Snapshot plan section, and select the vehicles number(note: user can select multi-vehicles), user can set up the snapshot time, snapshot mode, and interval time, as shown in figure 4-13：
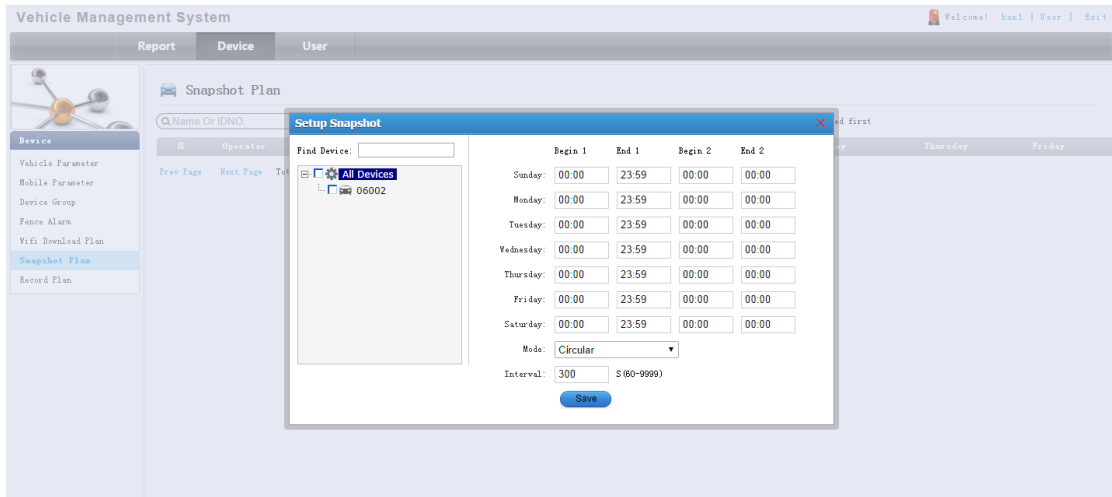
Figure 4-13

4.3.5 Wi-Fi download plan

Please refer to 4.3.4

4.3.6 Alarm management

Click the "alarm linkage configuration" in Alarm management section， select the vehicle device number(multi) and alarm type (multi), then select the receiving methods: email and SMS. When the alarm triggered, the system will send notice to the user by e-mail or mobile phone (note: in order to enable this function, user need to set up the e-mail and SMS in system, see more detail at-). As shown in 4-14：
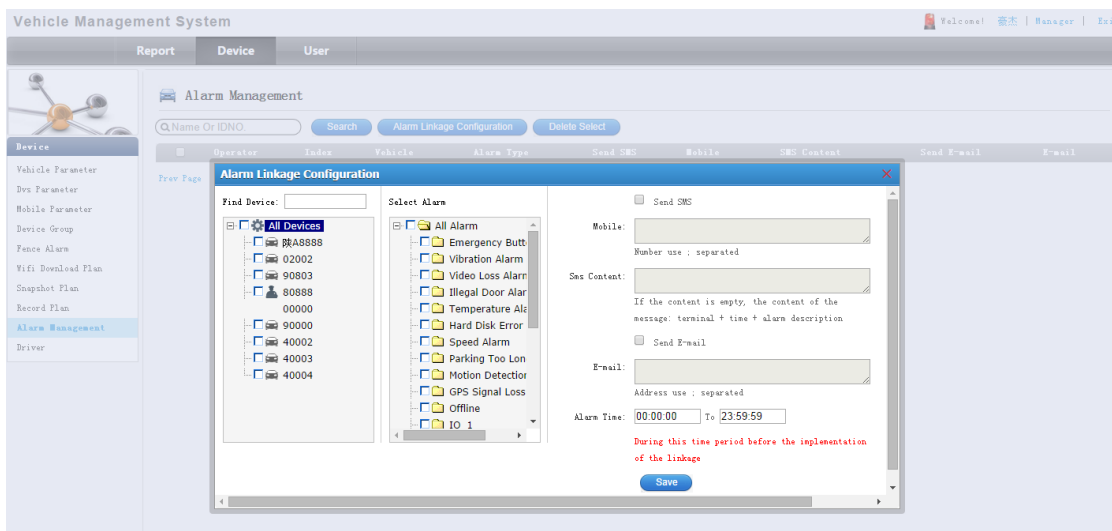

Figure 4-14

4.3.6.1   (server)SMS、E-mail configuration
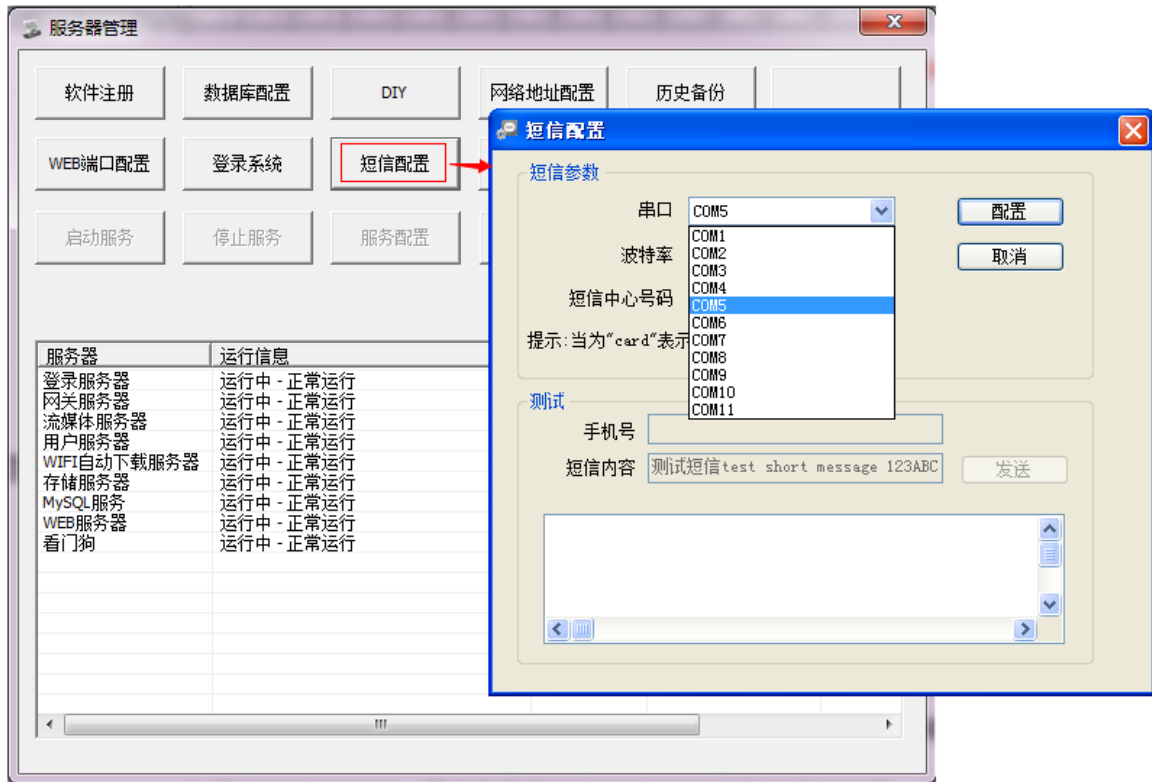
(1) SMS

As shown in figure 4-15

Figure 4-15

When sending the SMS,user need to connect GSM-modem on server and install the

serial driver.   and select the matching serial number. When setting the configuration,

please select the right serial number and click "configure". its inpossible to sending the

SMS   If user don't connect to the GSM-modem,
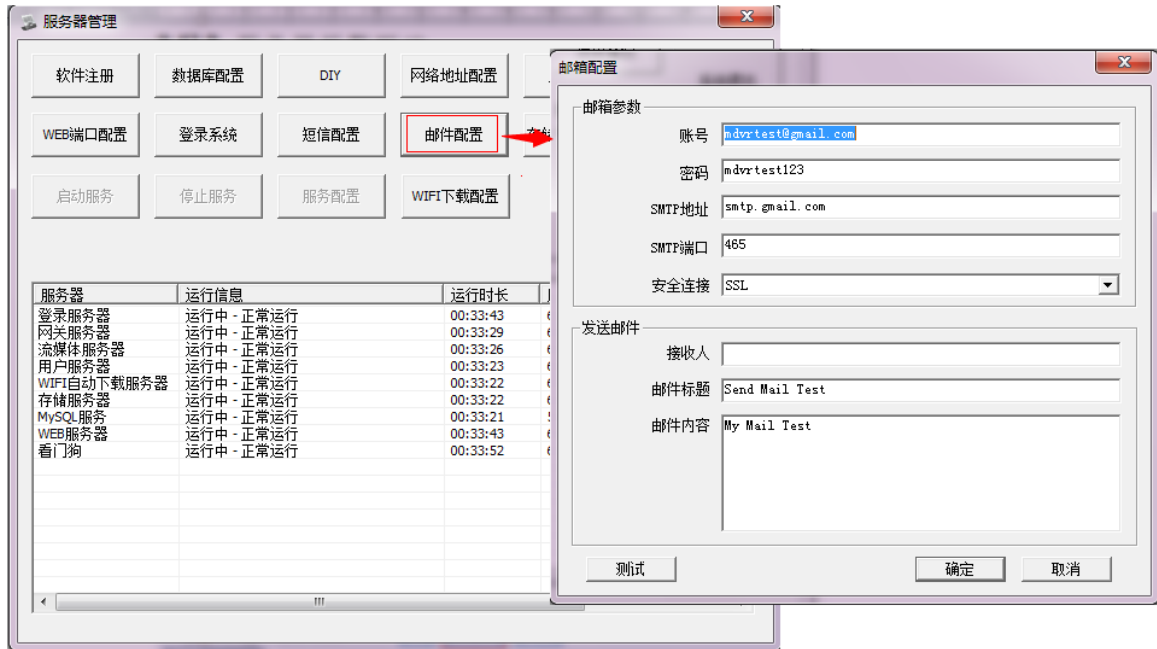
(2) E-mail

As shown in figure 4-16

Figure 4-16

The account and password indicate the e-mail account name and e-mail password

Note：the oversea user cannot use the default e-mail, so the oversea user has to use the local e-mail account and restart the gateway server. The server installed in Hong Kong also has to change the e-mail.

4.4 Reports

The reports section can be classified as quick report, speed report, device online summary, IO alarm report, alarm report, oil report, park report, Geo fencing report, 3G-flow report and extend report.

4.4.1 Quick report

There are three sections under the quick report: mileage summary, mileage daily and track detail.

Mileage summary：this is to record the driving history of vehicle from the start date up to now, and this chart including the plate number, time, mileage, start time, end time, start position, end position, etc.

Mileage daily：this is to record the daily driving history of vehicles

Track detail： this is to record all the track details of vehicles

Note：user can export those charts.

4.4.2 Speed report

This section including the speed alarm summary, speed alarm detail, speed analysis.

Speed alarm summary：this record all the over speed and low speed details of ve-

hicles.

Speed alarm detail：this record the over speed details of vehicles

Speed analysis: this record the driving speed information of single device. This chart

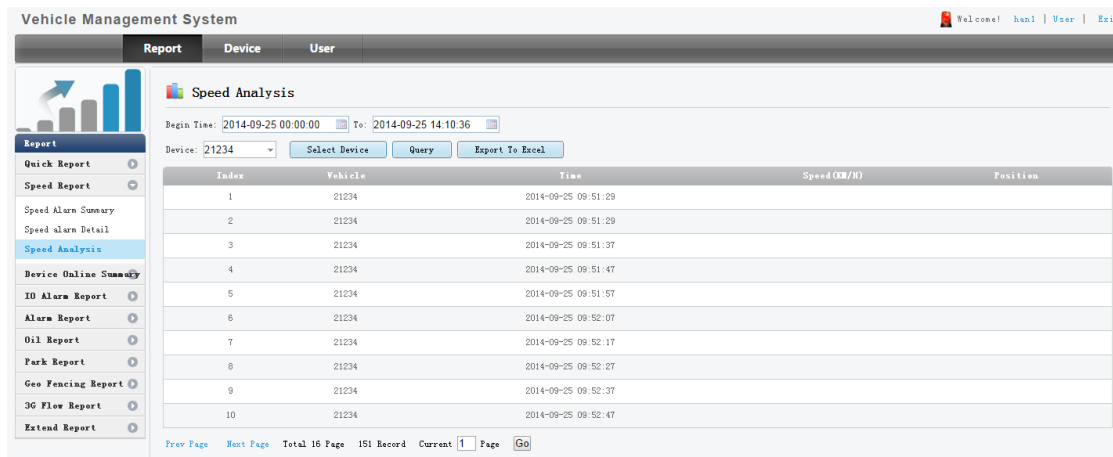also supports the search for multi devices. As shown in figure 4-15：

Figure 4-15

4.4.3 Device online summary

This section can divide into three sectors: Device online stats daily, Device online

summary, and device online detail.

Device online stats daily: this is the online rate of vehicles

Device online summary：the online count and offline count of vehicles in chosen

time range.

Device online detail：the details of vehicle's online and offline in chosen time range.

This chart supports single or multi devices search，as shown in figure 4-16

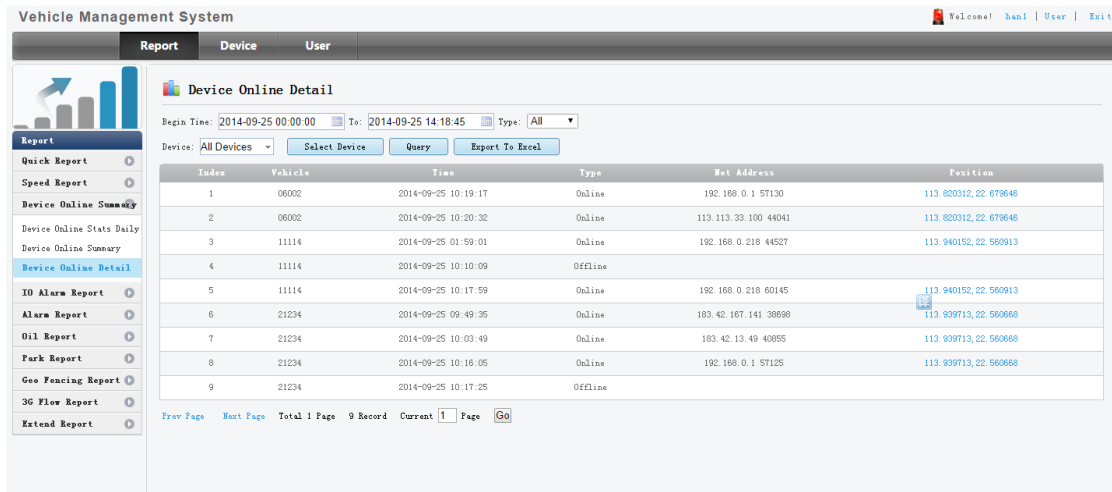Figure 4-16

4.4.4 IO Alarm report

IO alarm report has two sectors:　 IO alarm summary and IO alarm detail

IO alarm summary is about the overall summary of alarm information through the IO

input channel. This chart supports single or multi devices search.

IO alarm detail is summary of different alarms by vehicle IO input channel. This chart

supports the single or multi devices search. Take all vehicles as example, which shown in
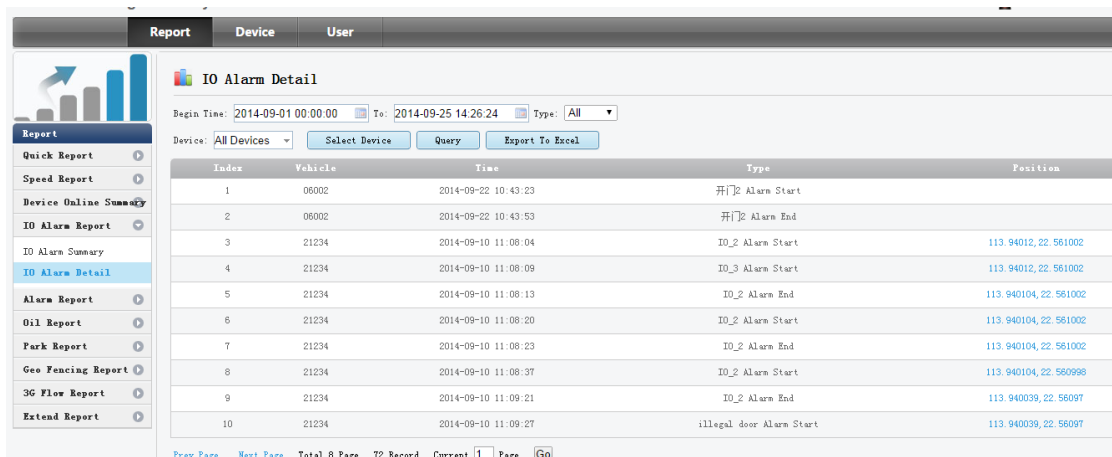
figure 4-17：

Figure 4-17

4.4.5 Alarm report

This section including the ACC alarm search, GPS signal loss alarm, Emergency but-

ton alarm search, Illegal open door alarm search, hard disk error alarm search, motional

detection alarm detail, video loss detail, G-sensor alarm detail, Fatigue detail, and night

driving detail.

G-Sensor Alarm detail： this sector will record the accelerations from different direc-

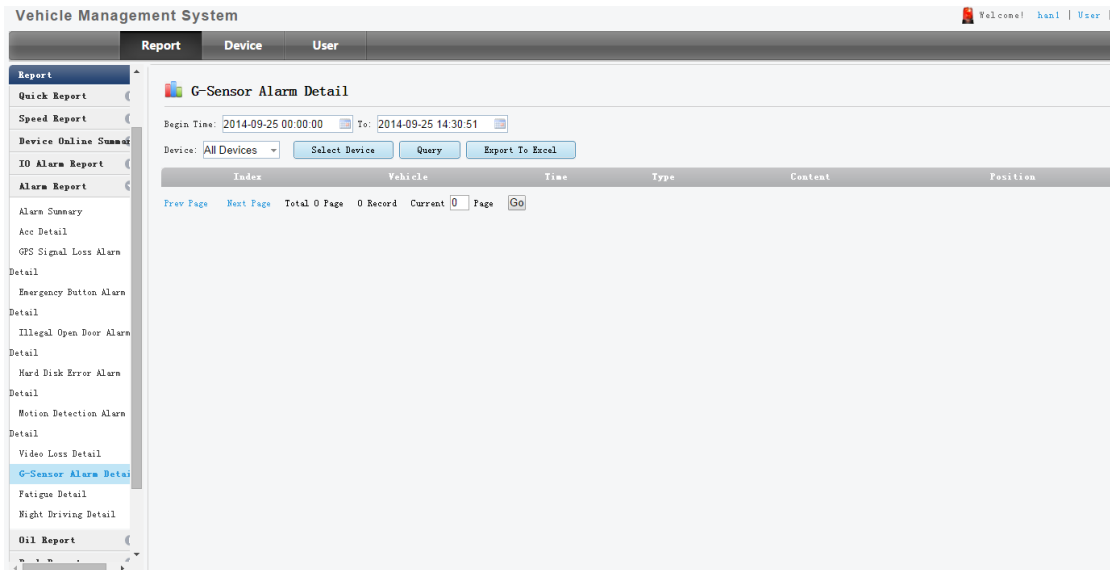tion in three dimensional of vehicles. As shown in figure 4-18：

Figure　4-18

Note：this report will skip the introduction of other sectors under the Alarm report