

Transit gps and alarm from cms to fms manual

Custom protocol GPS / alarm forwarding configuration

manual:

Custom protocol GPS / alarm forwarding configuration;

Steps:

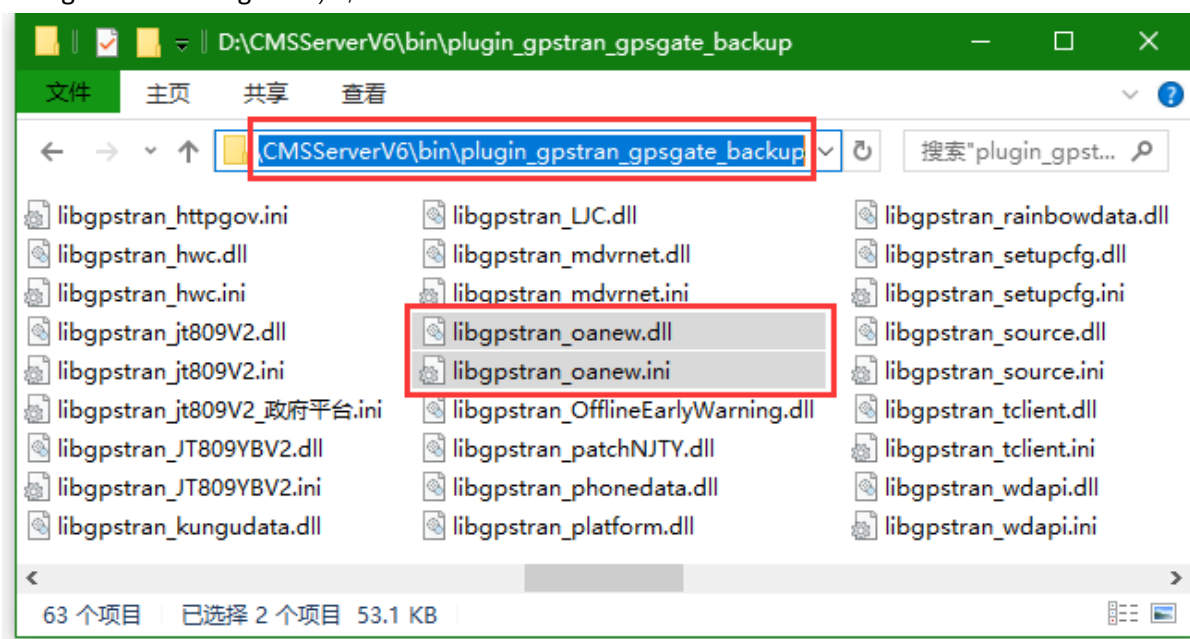
- 1、Get forward plug in;
- 2、Config forward plug in;
- 3、Notice;

Operate manual:

- 1、Get forward plug in;

Path of plug in: 【CMSServerV6\bin\plugin_gpstran_gpsgate_backup】 ;

forward plug in: 【libgpstran_oanew.dll】 【libgpstran_oanew.ini】 ; (Use library file and configuration file together) ;

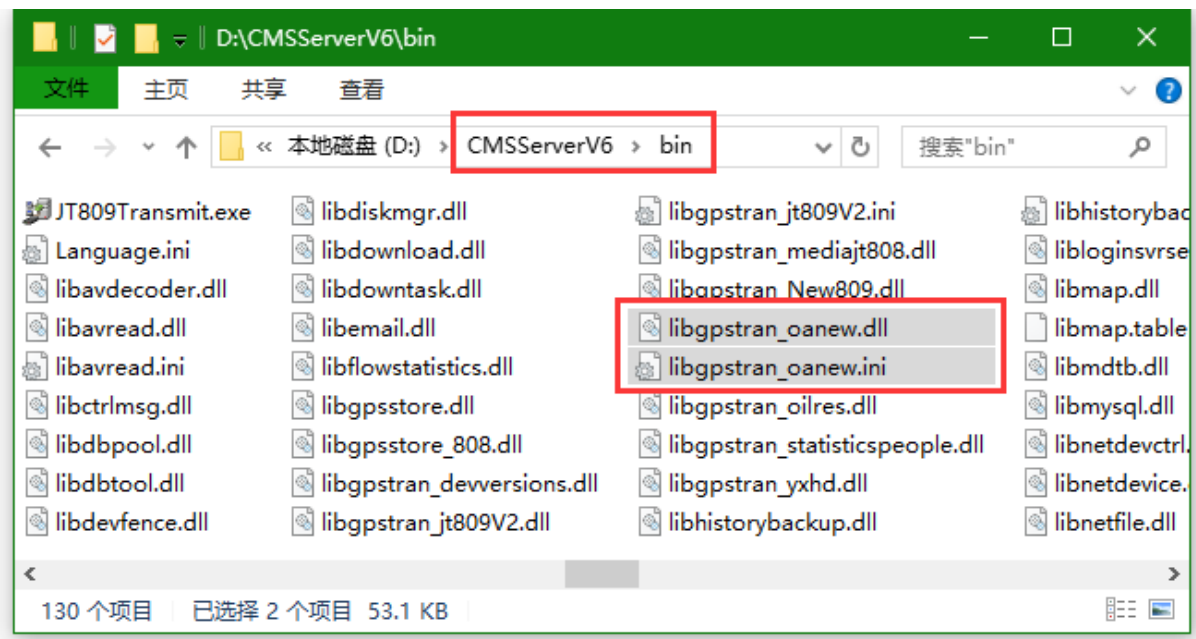


- 2、Config forward plug in;

Path: 【CMSServerV6\bin】

Copy the plug in which get via step 1 copy to bin folder;

Then configure the IP and port provided by the receiving platform to the corresponding configuration item in the INI file;



3、Protocol documents

CMS server -----> fms server CMSserver will actively link to the client server to transmit GPS data information

Data composition:

Package header message type separator data content separator package tail

*#Message type data content * x

Device online status message type: 000

#000| equipment No. | online status|#

Online status: 1 is online and 0 is offline

Data example:

#000|1234|1|#

GPS message type: 007

*#007 | equipment No. | time | longitude | latitude | speed | heading | fuel quantity | mileage |
network type | status bit 1 | status bit 2 | status bit 3 | status bit 4 | temperature sensor 1 |
temperature sensor 2 | temperature sensor 3 | temperature sensor 4 | * x

Data example:

*#007|50008|2016-07-22

12:40:31|113.926611|22.564851|0|160|0.70|10682.48|1|805319043|0|0|0|0|0|0|0|*X

Oil quantity: l

Mileage: unit km

Network type (0-3G, 1-wifi, 2-wired, 3-4g)

Status bit definition

//Vehicle status, each representing the relevant status of the vehicle

//Status bit 1 has 32 bits in total

//0 bit indicates that GPS positioning status 0 is invalid and 1 is valid

//Bit 1 indicates acc status 0 indicates ACC is off and bit 1 indicates ACC is on

//2 bits indicates left turn status 0 is invalid 1 left turn

//3 bits indicates right turn status 0 invalid 1 right turn

//4 bits indicates brake status 0 invalid 1 brake

//5 bits indicates that the positive rotation state 0 is invalid and 1 is positive rotation

//6 bits indicates invalid reverse state 0 1 reverse

//7 bits indicates GPS antenna status 0 does not exist 1 exists

//Bits 8 and 9 indicate that the hard disk status 0 does not exist, 1 exists and 2 is powered off.

//10,11,12 bits indicate that 3G module status 0 module does not exist, 1 has no signal, 2 has poor signal, 3 has general signal, 4 has good signal and 5 has excellent signal

//13 bits for static state 1 for static

//14 bits for overspeed state 1 for overspeed

//15 bits indicates supplementary transmission status 1 indicates GPS supplementary transmission

//16 bit low speed status

//17 bit

//18 bit

//19 bit

//With regard to the parking not flamed out, if the processing is in the static state and the ACC is on, it means the parking is not flameout

//20 Bit indicates IO1 status 1 indicates alarm

//21 Bit indicates IO2 status 1 indicates alarm

//22 Bit indicates IO3 status 1 indicates alarm

//23 Bit indicates IO4 status 1 indicates alarm

//24 Bit indicates IO5 status 1 indicates alarm

//25 Bit indicates IO6 status 1 indicates alarm

//26 Bit indicates IO7 status 1 indicates alarm

//27 Bit indicates IO8 status 1 indicates alarm

//28 bit mean storage disk status 2 status 1 means valid

//29、30 bit means disk 2 status 0 not exist, 1exist, 2 power off

//31 Bit hard disk status (used when GPS device) 1, invalid 0, valid, judge the status of 1, 2 again

// status 2

//0 bit indicates area alarm (generated by terminal)

//1 bit indicates line alarm (generated by terminal)

//2 bits indicates high speed alarm in the area

//3-bit indicates low speed alarm in the area

//4-bit indicates high speed alarm outside the area

//5-bit indicates low speed alarm outside the area

//6-digit indicates parking alarm in the area

//7-digit indicates parking alarm outside the area

//8 digits for daily flow warning

//9 digits indicates that the daily flow exceeds

//10 digit indicates monthly flow warning

//11 bits indicates that the monthly flow exceeds

//12 bit -- the main unit is powered by the backup battery

//13 position - door open

//14 digit - vehicle fortification

//15 bit - battery voltage too low

//16 bit -- battery failure

//17 position - engine

//18 bits -- the last valid GPS information. The status shows that the location is invalid, but the GPS can locate on the map

//19 bits -- 0-no load state 1-heavy load state

//20: operation status; 1: shutdown status (808)

//21: longitude and latitude are not encrypted; 1: encrypted (808)

//22: the oil circuit is normal, 1: the oil circuit is disconnected (808)

//23: circuit OK, 1: circuit off (808)

//24: door unlocking, 1: door locking (808)

//25: Area overspeed alarm (platform generated)

//26: regional low speed alarm (platform generated)

//27: alarm in the access area (generated by the platform)

//28: line offset (platform generated)

//29: time period overspeed alarm (platform generated)

//30: low speed alarm in time period (generated by platform)

//31: fatigue driving (platform generation)

// status 3

//0-7 indicates channel video loss status

//8-15 indicates channel recording status

//16-23 indicates IO input 9-16 status

//24-27 indicates IO output 1-4 status

//28-290 refers to GPS positioning, 1 refers to base station positioning, 2 refers to WiFi Positioning. Mobile phone positioning needs to display this positioning information

// status 4

//0-2 refers to positioning type 0 refers to wsg_84 (standard GPS coordinate system), 1 refers to gcj-02 (Mars coordinate system), and 2 refers to bd09 (Baidu coordinate system)

//3: emergency alarm

//4: Area overspeed alarm

//5: fatigue driving alarm

//6: early warning
//7: GNSS module failure
//8: GNSS antenna is not connected or cut
//9: GNSS antenna short circuit
//10: terminal LCD or display failure
//11: TTS module failure
//12: camera failure
//13: accumulated driving overtime of the day
//14: overtime stop
//15: access area
//16: route
//17: insufficient or too long driving time
//18: route deviation alarm
//19: Vehicle VSS failure
//20: vehicle fuel volume is abnormal
//21: vehicle stolen
//22: illegal ignition of vehicle
//23: illegal vehicle displacement
//24: collision rollover alarm
//25: overtime parking (platform generation)
//26: key point not reached alarm (platform generated)
//27: Line overspeed alarm (generated by platform)
//28: line low speed alarm (generated by platform)
//29: Road overspeed alarm (generated by platform)
//30: indicates area alarm (platform generated)
//31: indicates that the key point does not leave the alarm (generated by the platform)

Temperature sensor in degrees Celsius

Alarm message type: 008

*#008 "equipment number" time "time" longitud "latitude" speed "heading" fuel "mileage" network type "network type" network type "status bit 1" status bit 2 "status bit 2" status bit 3 "status bit 4" status bit 4 "temperature sensor 1" temperature sensor 1 "temperature sensor 2" temperature sensor 3 "temperature sensor 3" temperature sensor 4 "alarm type" alarm sub type "alarm

parameter 1" alarm parameter 1 "alarm parameter 2" alarm parameter 2 "alarm parameter 2" alarm
parameter 2 "alarm parameter 2" alarm parameter 2 "alarm parameter 2" alarm parameter 2 "alarm
parameter 2" alarm parameter 2 "alarm parameter 2" alarm parameter 2 "alarm parameter 2" alarm
parameter 2 "alarm parameter 2" alarm parameter 2 "alarm parameter 2" alarm parameter 2 "alarm
parameter 2" alarm parameter 2 "alarm parameter 2" alarm parameter 2 "alarm parameter 2" alarm
parameter 2 "alarm parameter 2" alarm parameter 2 "alarm parameter 2 alarm parameter 3 | alarm
parameter 4 | alarm description|*#

Data example:

```
*#008|5008|2016-07-29  
11:43:12|113.931852|22.555017|24|85|0.80|12080.30|1|805310851|0|0|0|0|0|0|0.0|19|0|0|0|  
|0|0|0|*X
```

Alarm type definition:

```
#Define GPS_Alarm_Type_Usedefine 1 // custom alarm  
#Define GPS "alarm" type "emergency" button 2 // emergency button alarm  
#Define GPS_Alarm_Type_Shake 3 // vibration alarm  
#Define GPS_Alarm_Type_Video_Lost 4 // no signal alarm from the camera  
#Define GPS_Alarm_Type_Video_Mask 5 // camera blocking alarm  
#Define GPS_Alarm_Type_Door_Open_Lawless 6 // illegal door opening alarm  
#Define GPS_Alarm_Type_Wrong_PWD 7 // three password error alarms  
#Define GPS_Alarm_Type_Fire_Lowless 8 // illegal ignition alarm  
#Define GPS "alarm" type "temperature 9 // temperature alarm alarminfo sensor number (0 for  
sensor 1, 1 for sensor 2), param [0] temperature type (0 for ultra-high temperature, 1 for ultra-low  
temperature), param [1] current temperature 10000 = 100 degrees  
#Define GPS_Alarm_Type_Disk_Error 10 // hard disk error alarm  
#Define GPS_Alarm_Type_Overspeed 11 // overspeed alarm  
#Define GPS_Alarm_Type_Beyond_Borders 12 // out of range alarm  
#Define GPS_Alarm_Type_Door_Abnormal 13 // door alarm  
#Define GPS_Alarm_Type_Park_To_Long 14 // long stop alarm  
#Define GPS_Alarm_Type_Motion 15 // motion detection alarm  
#Define GPS_Alarm_Type_ACC_On 16 // ACC enable alarm  
#Define GPS_Alarm_Type_Dev_Online 17 // device online  
#Define GPS_Alarm_Type_GPS_Signal_Loss 18 // start of GPS signal loss  
#Define GPS_Alarm_Type_IO_1 19 // io_1 alarm
```

```

#define GPS_Alarm_Type_IO_2 20 // Io_2 alarm
#define GPS_Alarm_Type_IO_3 21 // Io_3 alarm
#define GPS_Alarm_Type_IO_4 22 // Io_4 alarm
#define GPS_Alarm_Type_IO_5 23 // Io_5 alarm
#define GPS_Alarm_Type_IO_6 24 // Io_6 alarm
#define GPS_Alarm_Type_IO_7 25 // Io_7 alarm
#define GPS_Alarm_Type_IO_8 26 // Io_8 alarm
#define GPS_Alarm_Type_In_Fence 27 // enter the area alarm
#define GPS_Alarm_Type_Out_Fence 28 // area alarm
#define GPS_Alarm_Type_In_Fence_Over_Speed 29 // high speed alarm in the area
#define GPS "alarm" type "out" fence "over" speed 30 // high speed alarm outside the area
#define GPS_Alarm_Type_In_Force_Low_Speed 31 // low speed alarm in the area
#define GPS_Alarm_Type_Out_Force_Low_Speed 32 // low speed alarm outside the area
#define GPS_Alarm_Type_In_Fence_Stop 33 // parking alarm in the area
#define GPS_Alarm_Type_Out_Fence_Stop 34 // out of area stop alarm
#define GPS_Alarm_Type_Fire 35 // fire alarm
#define GPS_Alarm_Type_Panic 36 //
#define GPS_Alarm_Type_Task_Finished 37 // scheduling task completed
#define GPS_Alarm_Type_Image_Upload 38 // image upload completed
#define GPS_Alarm_Type_Disk1_No_Exist 39 // hard disk 1 does not exist
#define GPS_Alarm_Type_Disk2_No_Exist 40 // hard disk 2 does not exist
#define GPS_Alarm_Type_IO_9 41 // IO_9 alarm
#define GPS_Alarm_Type_IO_10 42 // IO_10 alarm#define GPS_ALARM_TYPE_IO_11
43 //IO_11 alarm
#define GPS_ALARM_TYPE_IO_12
44 //IO_12 alarm
#define GPS_ALARM_TYPE_GPS_UNENABLE
45 //GPS invalid
#define GPS_ALARM_TYPE_REFUEL
46 //add oil AlarmInfo is the Oil quantity (9999=99.99 Litre), Param[0] is oil cost before add oil
#define GPS_ALARM_TYPE_STILL_FUEL

```



```
47 //Steal oil  AlarmInfo is the amount of oil stolen (9999 = 99.99L), param [0] is the oil
consumption before oil theft

#define GPS_ALARM_TYPE_URGENCY_BUTTON_5

48 //Press emergency button(5 seconds)

#define GPS_ALARM_TYPE_FATIGUE

49 //fatigue driver  AlarmInfo meaning  0 , no alarm,  1 level 1 alarm 2  level 2 alarm, 3 level 3
alarm, 4 focus type alarm

50 //face alarm,6 close eye alarm,7 mobile alarm,8 smoke alarm

#define GPS_ALARM_TYPE_END_USEDEFINE

51 //Custom alarm

#define GPS_ALARM_TYPE_END_URGENCY_BUTTON

52 //Emergency button alarm

#define GPS_ALARM_TYPE_END_SHAKE

53 //Vibration alarm

#define GPS_ALARM_TYPE_END_VIDEO_LOST

54 //No signal alarm from camera

#define GPS_ALARM_TYPE_END_VIDEO_MASK

55 //Camera blocking alarm

#define GPS_ALARM_TYPE_END_DOOR_OPEN_LAWLESS

56 //illegal door opening alarm

#define GPS_ALARM_TYPE_END_WRONG_PWD

57 //Three password error alarms

#define GPS_ALARM_TYPE_END_FIRE_LOWLESS

58 //Illegal ignition alarm

#define GPS_ALARM_TYPE_END_TEMPERATOR

59 //temperature alarm

#define GPS_ALARM_TYPE_END_DISK_ERROR

60 //Hard disk error alarm

#define GPS_ALARM_TYPE_END_OVERSPEED

61 //Speed Alarm

#define GPS_ALARM_TYPE_END_BEYOND_BOUNDS

62 //Transboundary alarm
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#define GPS_ALARM_TYPE_END_DOOR_ABNORMAL

63 //Abnormal door opening and closing alarm

#define GPS_ALARM_TYPE_END_PARK_TOO_LONG

64 //Stop too long alarm

#define GPS_ALARM_TYPE_END_MOTION

65 //Mobile detection alarm

#define GPS_ALARM_TYPE_ACC_OFF

66 //ACC turn off alarm

#define GPS_ALARM_TYPE_DEV_DISONLINE

67 //Equipment disconnection

#define GPS_ALARM_TYPE_END_GPS_SIGNAL_LOSS

68 //GPS end of signal loss

#define GPS_ALARM_TYPE_END_IO_1

69 //IO_1 alarm

#define GPS_ALARM_TYPE_END_IO_2

70 //IO_2 alarm

#define GPS_ALARM_TYPE_END_IO_3

71 //IO_3 alarm

#define GPS_ALARM_TYPE_END_IO_4

72 //IO_4 alarm

#define GPS_ALARM_TYPE_END_IO_5

73 //IO_5 alarm

#define GPS_ALARM_TYPE_END_IO_6

74 //IO_6 alarm

#define GPS_ALARM_TYPE_END_IO_7

75 //IO_7 alarm

#define GPS_ALARM_TYPE_END_IO_8

76 //IO_8 alarm

#define GPS_ALARM_TYPE_END_IN_FENCE

77 //Enter area alarm

#define GPS_ALARM_TYPE_END_OUT_FENCE
```

```
78 //Out of area alarm

#define GPS_ALARM_TYPE_END_IN_FENCE_OVER_SPEED

79 //High speed alarm in the area

#define GPS_ALARM_TYPE_END_OUT_FENCE_OVER_SPEED

80 //High speed alarm outside the area

#define GPS_ALARM_TYPE_END_IN_FENCE_LOW_SPEED

81 //Low speed alarm in the area

#define GPS_ALARM_TYPE_END_OUT_FENCE_LOW_SPEED

82 //Low speed alarm outside the area

#define GPS_ALARM_TYPE_END_IN_FENCE_STOP

83 //Parking alarm in the area

#define GPS_ALARM_TYPE_END_OUT_FENCE_STOP

84 //Parking alarm outside the area

#define GPS_ALARM_TYPE_END_GPS_UNENABLE

85 //GPS invalid

//Refueling and stealing are not end

#define GPS_ALARM_TYPE_END_REFUEL

86 //Fueling alarminfo is the quantity of fueling oil (9999 = 99.99L), param [0] is the fuel
consumption before fueling

#define GPS_ALARM_TYPE_END_STILL_FUEL

87 //Oil stealing alarminfo is the amount of oil stolen (9999 = 99.99L), param [0] is the oil
consumption before oil stealing

#define GPS_ALARM_TYPE_END_IO_9

91 //IO_9 alarm

#define GPS_ALARM_TYPE_END_IO_10

92 //IO_10 alarm

#define GPS_ALARM_TYPE_END_IO_11

93 //IO_11 alarm

#define GPS_ALARM_TYPE_END_IO_12

94 //IO_12 alarm

#define GPS_ALARM_TYPE_END_FATIGUE
```

99 //Fatigue driving alarm info indicates alarm level 0, no, 1, level 1, 2, level 2, 3, level 3 , 4, level 4 alarm

#define GPS_EVENT_TYPE_PARK

101 //Parking event param [0] is the number of parking seconds, param [1] is the fuel consumption before parking (9999 = 99.99L), param [2] is the fuel consumption after parking

#define GPS_EVENT_TYPE_PARK_ACCON

102 //Param [0] is the number of seconds to stop, param [1] is the fuel consumption before the stop (9999 = 99.99L), param [2] is the fuel consumption after the stop // the event is generally within a period of time of the stop event, 11:00-11:20 is the stop, 11:00-11:05 is the stop

103 //Flow param [0] is the current time (in seconds, for example: 7206 = 02:06 of the day), param [1] is the upstream flow, and param [2] is the downstream flow

#define GPS_EVENT_TYPE_REFUEL

104 //Fueling alarm info is the quantity of fueling oil (9999 = 99.99L), param [0] is the fuel consumption before fueling

#define GPS_EVENT_TYPE_STILL_FUEL

105 //Oil stealing alarm info is the amount of oil stolen (9999 = 99.99L), param [0] is the oil consumption before oil stealing

#define GPS_EVENT_TYPE_OVERSPEED

106 //Overspeed event alarm info is the speed (999 = 99.9km / h), param [0] overspeed time, param [1] is overspeed type (ultra high speed or ultra low speed, temporarily invalid)

#define GPS_EVENT_TYPE_FENCE_ACCESS

107 //In and out area event param [0] area number, param [1] out area longitude, param [2] out area latitude, param [3] area dwell time (seconds)

#define GPS_EVENT_TYPE_FENCE_PARK

108 //Area parking event param [0] area number, param [3] area parking time (seconds)

#define GPS_EVENT_TYPE_FILE_UPLOAD

109 //Upload picture file or video file

#define GPS_EVENT_TYPE_STATION_INFO

110 //Station information

#define GPS_EVENT_TYPE_SEA_STATUS

111 //State alarm of sea vessel 1: going out to sea 2: entering port 3: Overseas detention alarm 4: end of overseas detention alarm

//#define GPS_EVENT_TYPE_LOCK_STATUS

112 //Electronic lock status

```

#define GPS_ALARM_TYPE_CUSTOM

113    //Custom alarm, alarminfo type

//Param [0] represents parameter 1, param [1] represents parameter 2,Param [2] represents
parameter 3, param [3] represents parameter 4,

//Szdesc represents the content, which is in string format. No '\0' is allowed in the middle. The
maximum length is 256 bytes

#define GPS_EVENT_TYPE_OVERSPEED_WARNING

114    //Speeding warning

#define GPS_EVENT_TYPE_LOWSPEED_WARNING

115    //Speeding warning

#define GPS_EVENT_TYPE_DRIVER

116    //Driver information collection and reporting alarminfo: 1 means login, 0 means sign back,

//Szreserve stands for the driver's name, szdesc stands for the issuing authority, szimgfile: separated
by ';', body certificate number; employment qualification certificate code

#define GPS_EVENT_TYPE_OVER_STATION

117    //Alarm over station

#define GPS_EVENT_TYPE_EXCEED_STATION

118    //Over station alarm, param [0], param [1] previous station reporting time and station

#define GPS_EVENT_TYPE_TASK_READ

121    //The GUID is the corresponding task guid. The person has viewed the scheduling task

#define GPS_EVENT_TYPE_TASK_REPLY

122    //The GUID is the corresponding task guid. The person replies to the scheduled task. Szdesc
is the reply content

#define GPS_ALARM_TYPE_MOBILE_USEDEFINE

123    //Custom alarm


#define GPS_ALARM_TYPE_TALK_BACK_REQ

127    //Vehicle active intercom request, sent in the form of alarm

#define GPS_ALARM_TYPE_DEVICE_INFO_CHANGE

128    //Vehicle information changes, such as user modifying equipment information

#define GPS_ALARM_TYPE_SNAPSHOT_FINISH

129    //The snapshot of storage server is completed and sent to the client in the form of alarm

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#define GPS_ALARM_TYPE_DOWN_FINISH

130    //Download the storage server file task and send it to the client in alarm mode

#define GPS_ALARM_TYPE_DEVICE_INFO_CHANGE_EX

131    //Vehicle information changes, such as user modifying equipment information

#define GPS_ALARM_TYPE_TRANS_PORT

132    //Transparent data

#define GPS_ALARM_TYPE_NIGHT_DRIVING      151    //Night driving alarm

#define GPS_ALARM_TYPE_END_NIGHT_DRIVING  152

#define GPS_ALARM_TYPE_GATHERING          153    //Crowd alarm

#define GPS_ALARM_TYPE_END_GATHERING      154

#define GPS_ALARM_TYPE_USP_CUT            155    //UPS Wire shearing alarm

#define GPS_ALARM_TYPE_END_USP_CUT        156

#define GPS_ALARM_TYPE_HDD_HIGH_TEMPERATURE 157    //
Hard disk overtemperature alarm

#define GPS_ALARM_TYPE_END_HDD_HIGH_TEMPERATURE 158

#define GPS_ALARM_TYPE_BEFORE_BOARD_OPENED 159    //Front panel is pried open

#define GPS_ALARM_TYPE_END_BEFORE_BOARD_OPENED 160

#define GPS_ALARM_TYPE_TURN_OFF           161    //The reason why shutdown reports
alarminfo is: 1. ACC invalid shutdown, 2. Timed shutdown, 3. Software restart, 4. Software abnormal
shutdown, 5. Power down shutdown, 6. Hard disk lock open shutdown

#define GPS_ALARM_TYPE_DISK_SPACE_WARNING 162    //Hard disk space alarm hard disk
space warning, alarminfo is the hard disk number, param [0] indicates the hard disk type TTX - disk
- type - SD, param [1] total space, param [2] remaining space, 16000 indicates the space
is16000MB

#define GPS_ALARM_TYPE_END_DISK_SPACE_WARNING 163    //Hard disk space alarm

#define GPS_ALARM_TYPE_GSENSOR            164    //GSENSOR alarm

#define GPS_ALARM_TYPE_END_GSENSOR        165

#define GPS_ALARM_TYPE_SIM_LOST           166    //SIM Card loss alarm

#define GPS_ALARM_TYPE_END_SIM_LOST       167

#define GPS_ALARM_TYPE_TPMS               168    //Tire pressure alarm / / tire pressure alarm,
alarminfo TPMS alarm type (1 indicates battery voltage alarm, 2 indicates abnormal tire pressure
alarm, 3 indicates abnormal temperature),

//    param[0] Current temperature: 200 = 20 degrees

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//      param[1] Current tire pressure: 25 = 2.5P
//      param[2] The current voltage is as follows: 102=10.2V
//      param[3] Sensor number (01 represents TPMS left 1, 02 represents TPMS left 2, 03
represents TPMS left 3, 04 represents TPMS left 4, 11 represents TPMS right 1, 12 represents TPMS
right 2, 13 represents TPMS right 3, 14 represents TPMS right 4)

#define GPS_ALARM_TYPE_END_TPMS          169    //End of tire pressure alarm

//808 Partial alarm

#define GPS_ALARM_TYPE_AREA_OVERSPEED    200    //Area overspeed alarm
#define GPS_ALARM_TYPE_WARNING           201    //warning
#define GPS_ALARM_TYPE_GNSS_MOD_ERR      202    //GNSS Module failure
#define GPS_ALARM_TYPE_GNSS_WIRE_MISS    203    //GNSS Antenna not connected or cut
#define GPS_ALARM_TYPE_GNSS_WIRE_SHORTAGE 204    //GNSS Antenna short circuit
#define GPS_ALARM_TYPE_VOLTAGE_LOW       205    //Undervoltage of power supply
#define GPS_ALARM_TYPE_POWER_OFF         206    //Power down
#define GPS_ALARM_TYPE_LCD_ERR           207    //LCD Or display failure
#define GPS_ALARM_TYPE_TTS_MOD_ERR       208    //TTS Module failure
#define GPS_ALARM_TYPE_CAMERA_MOD_ERR    209    //Camera fault
#define GPS_ALARM_TYPE_DIRVE_TIMEOUT     210    //Accumulated driving timeout
#define GPS_ALARM_TYPE_AREA_INOUT        211    //

Import and export area

#define GPS_ALARM_TYPE_LINE_INOUT        212    //Import and export lines
#define GPS_ALARM_TYPE_LINE_DRIVE_TIME   213    //Too long / too short driving time
#define GPS_ALARM_TYPE_LINE_DEVIATE      214    //Line departure
#define GPS_ALARM_TYPE_VSS_ERR           215    //VSS fault
#define GPS_ALARM_TYPE_OIL_ABNORMAL      216    //Abnormal oil quantity
#define GPS_ALARM_TYPE_STOLEN            217    //Vehicle theft
#define GPS_ALARM_TYPE_MOVE_LAWLESS      218    //Illegal displacement
#define GPS_ALARM_TYPE_COLLISION         219    //Collision rollover alarm


#define GPS_ALARM_TYPE_END_AREA_OVERSPEED 250    //Area overspeed alarm
#define GPS_ALARM_TYPE_END_WARNING        251    //warning
#define GPS_ALARM_TYPE_END_GNSS_MOD_ERR   252    //GNSS Module failure

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#define GPS_ALARM_TYPE_END_GNSS_WIRE_MISS    253    //GNSS Antenna not connected or
cut

#define GPS_ALARM_TYPE_END_GNSS_WIRE_SHORTAGE  254    //GNSS Antenna not connected
or cut

#define GPS_ALARM_TYPE_END_VOLTAGE_LOW        255    //Undervoltage of power supply

#define GPS_ALARM_TYPE_END_POWER_OFF          256    //Power down

#define GPS_ALARM_TYPE_END_LCD_ERR            257    //LCD Or display failure

#define GPS_ALARM_TYPE_END_TTS_MOD_ERR        258    //TTS Module failure

#define GPS_ALARM_TYPE_END_CAMERA_MOD_ERR     259    //TTSMModule failure

#define GPS_ALARM_TYPE_END_DIRVE_TIMEOUT      260    //Accumulated driving timeout

#define GPS_ALARM_TYPE_END_AREA_INOUT         261    //Import and export area

#define GPS_ALARM_TYPE_END_LINE_INOUT        262    //Import and export lines

#define GPS_ALARM_TYPE_END_LINE_DRIVE_TIME    263    //Too long / too short driving time

#define GPS_ALARM_TYPE_END_LINE_DEVIATE      264    //Line departure

#define GPS_ALARM_TYPE_END_VSS_ERR           265    //VSS fault

#define GPS_ALARM_TYPE_END_OIL_ABNORMAL       266    //Abnormal oil quantity

#define GPS_ALARM_TYPE_END_STOLEN            267    //Vehicle theft

#define GPS_ALARM_TYPE_END_MOVE_LAWLESS      268    //Illegal displacement

#define GPS_ALARM_TYPE_END_COLLISION          269    //Collision rollover alarm

#define GPS_ALARM_TYPE_CMS_AREA_OVERSPEED     300    //Area overspeed alarm
(platform generated) param [0] - position type param [1] - area or line ID param [2] - speed
threshold

#define GPS_ALARM_TYPE_CMS_AREA_LOWSPEED      301    //Area low speed alarm (platform
generated) param [0] - position type param [1] - area or line ID param [2] - speed threshold

#define GPS_ALARM_TYPE_CMS_AREA_INOUT         302    //Access area (platform generated)
param [0] - location type param [1] - area or line ID param [2] - 0: in 1: out

#define GPS_ALARM_TYPE_CMS_LINE_INOUT        303    //Line offset (platform generated)
param [0] - position type param [1] - area or line ID param [2] - 0: in 1: out

#define GPS_ALARM_TYPE_CMS_OVERSPEED          304    //Time period overspeed alarm
(platform generated) param [0] speed threshold

#define GPS_ALARM_TYPE_CMS_LOWSPEED           305    //Time period low speed alarm
(platform generated) param [0] speed threshold

#define GPS_ALARM_TYPE_CMS_FATIGUE            306    //Fatigue driving (platform generation)

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#define GPS_ALARM_TYPE_CMS_PARK_TOO_LONG      307    //Overtime parking (platform
generation)

#define GPS_ALARM_TYPE_CMS_AREA_POINT          308    //Key monitoring alarm (platform
generated) param [0] - position type param [1] - area or line ID param [2] - 0: not arrived 1: not left

#define GPS_ALARM_TYPE_CMS_LINE_OVERSPEED      309    //Line overspeed alarm (platform
generated) param [0] - position type param [1] - line ID param [2] - speed threshold

#define GPS_ALARM_TYPE_CMS_LINE_LOWSPEED       310    //Line low speed alarm (platform
generated) param [0] - position type param [1] - line ID param [2] - speed threshold

#define GPS_ALARM_TYPE_CMS_ROAD_LVL_OVERSPEED  311    //Road level overspeed alarm
(platform generated) param [0] - road level param [1] - city sign param [2] - speed threshold

#define GPS_ALARM_TYPE_END_CMS_AREA_OVERSPEED  350    //Area overspeed alarm
(platform generated) param [0] - position type param [1] - area or line ID param [2] - speed
threshold

#define GPS_ALARM_TYPE_END_CMS_AREA_LOWSPEED   351    //Area low speed alarm
(platform generated) param [0] - position type param [1] - area or line ID param [2] - speed
threshold

#define GPS_ALARM_TYPE_END_CMS_AREA_INOUT       352    //Access area (platform
generated) param [0] - location type param [1] - area or line ID param [2] - 0: in 1: out

#define GPS_ALARM_TYPE_END_CMS_LINE_INOUT       353    //Line offset (platform generated)
param [0] - position type param [1] - area or line ID param [2] - 0: in 1: out

#define GPS_ALARM_TYPE_END_CMS_OVERSPEED       354    //Time period overspeed alarm
(platform generated)

#define GPS_ALARM_TYPE_END_CMS_LOWSPEED        355    //Time period low speed alarm
(platform generated)

#define GPS_ALARM_TYPE_END_CMS_FATIGUE         356    //Fatigue driving (platform
generation)

#define GPS_ALARM_TYPE_END_CMS_PARK_TOO_LONG    357    //Overtime parking (platform
generation)

#define GPS_ALARM_TYPE_END_CMS_AREA_POINT       358    //Key monitoring alarm (platform
generated) param [0] - position type param [1] - area or line ID param [2] - 0: not arrived 1: not left

#define GPS_ALARM_TYPE_END_CMS_LINE_OVERSPEED  359    //Line overspeed alarm
(platform generated) param [0] - position type param [1] - line ID param [2] - speed threshold

#define GPS_ALARM_TYPE_END_CMS_LINE_LOWSPEED   360    //Line low speed alarm
(platform generated) param [0] - position type param [1] - line ID param [2] - speed threshold

#define GPS_ALARM_TYPE_END_CMS_ROAD_LVL_OVERSPEED 361    //Road level overspeed
alarm (platform generated) param [0] - road level param [1] - city sign param [2] - speed threshold

```

Login message type: 013

sample data:

#013|2111001|#

Heartbeat message type: 012

sample data:

#012|2111001|#

After connecting to the server successfully, a login message will be sent, and then a heartbeat message will be sent in 30 seconds

Line low speed alarm (platform generated) param [0] - position type param [1] - line ID param [2] - speed threshold