# GPS Data Transfer Plugin Configuration

## Prepare Configuration File

Create a file named “libgpstran\_client.ini” in {server installation dir}\ , as following

[Settings]

CacheSize=2000

SendToAllSubscribedServers=0

[Server1]

Enabled=1

Server=127.0.0.1

Port=6688

DeviceIDs=50000,50002,50003

DeviceIDFromFile=0

DeviceIDFile=DeviceIDs.txt

SendStatus=1

StatusCmdHeader=$$STATUS

SendAlarm=1

AlarmTypes=<all>

AlarmCmdHeader=$$ALARM

SendTransparentPortData=1

TransparentPortDataTypes=<all>

TransparentPortDataCmdHeader=$$DATA

[Server2]

Enabled=1

Server=127.0.0.1

Port=6689

DeviceIDs=50004,50005,50008-50030

SendStatus=1

StatusCmdHeader=$$STATUS

SendAlarm=1

AlarmTypes=<all>

AlarmCmdHeader=

SendTransparentPortData=1

TransparentPortDataTypes=<all>

TransparentPortDataCmdHeader=

…..

[ServerN]

Enabled=1

Server=127.0.0.1

Port=6690

DeviceIDs=<all>

RawFuel=0

SendStatus=1

StatusCmdHeader=$$STATUS

SendAlarm=1

AlarmTypes=<all>

AlarmCmdHeader=$$ALARM

SendTransparentPortData=1

TransparentPortDataTypes=<all>

TransparentPortDataCmdHeader=$$DATA

**[Settings] section parameter description**

**CacheSize** : The maximum number of GPS message should be cached in plugin , this number should not less than 1/3 of online device number.

**SendToAllSubscribedServers:** Send gps data to all subscribed server or not . 1 yes , 0 no, only the first subscribed server receives the data.

**[ServerX] section parameter description**

ServerX is the subscribed server configuration section, one server per section

**Enabled** : Transfer gps data or not to target subscribed server , 1 enabled, 0 disable;

**Server** :Target server address, IP or domain name .

**Port** : The port that server listens on.

**DeviceIDs** : Device ID list to subscribe (not the device name), this parameter supports following formats:

1. ID list with comma : id1,id2,…idx (all device id in one single line)
2. ID range : id1-id2 (id1 , id2 shall be valid number and id1 < id 2)
3. All devices : <all> (subscribe all devices)

**DeviceIDFromFile :** if value is 1 , load device id from file specified by **DeviceIDFile** key, instead of **DeviceIDs** .

**DeviceIDFile :** if **DeviceIDFromFile** =1, Device IDs list is load from file, all ids are splitted bycomma .

**RawFuel** : if RawFuel=1, fuel value in status message is the fuel sensor raw data, if RawFule=0, fuel value is liter.

**SendStatus** : Send device status data or not ,include gps , fuel , mileage .etc

1 send status , 0 not send.

**StatusCmdHeader :** Custom header of status data, such as **‘**$$STATUS”, it can be empty.

**SendAlarm** : Send device alarm message or not , 1 send ,0 not send

**AlarmTypes** : Alarm type to be sent to target server, it accepts following values

1. <all> : All alarm will be send to target server
2. Type1-Type2 : Alarm type range , in integers , for example 10-30
3. Typp1,Type2,… : Specified alarm to be sent , for example 1,4,10

**AlarmCmdHeader :** Custom message header of alarm, for example $$ALARM

**SendTransparentPortData** : Send transparent port data or not , 1 yes , 0 no;

**TransparentPortDataTypes :** Data type to be sent to target server , it accept following values:

1. <all> : All alarm will be send to target server
2. Type1-Type2 : Alarm type range , in integers , for example 10-30
3. Typp1,Type2,… : Specified alarm to be sent , for example 1,4,10

**TransparentPortDataCmdHeader**: Custom message header for transparent port data , an example is $$DATA

Please notice : Please restart Gateway Server service if configuration file is changed.

## Installation

1 . Stop Gateway Server by using Server Manager

2. Copy “libgpstran\_client.ini” and “libgpstran\_tclient.dll” to the {server installation directory}\bin

3 .Restart Gateway Server

# Message Format

**Status Message:**

see Status data format section.

**Alarm Message** :

Status Message + Alarm Information

**Transparent Port Data Message** :

Status Message + transparent port data information

## Status message format (Report ID=2)

*Device ID, DateTime, Longitude, Latitude, Speed, Heading, Altitude, Satellite, Report ID, Mileage, Status, Analog port 1 (input 1), Analog port (input 2),RFID#*

Description

**Device ID**: The ID of the device. (length is 10 to 16 digits)

**DateTime**: YYYYMMDDhhmmss (GMT)

**Longitude**: WGS-84 coordinate system

**Latitude**: WGS-84 coordinate system

**Speed**: 0~65535 km/h

**Heading**: 0~360 degrees

**Altitude**: Parameter column Reserved (currently showing ‘0’)

**Satellite** : -1 , this number is not available

**Report ID**: xxx. Different report ID indicates different meaning of each returning message, *(For Tracking Set Report ID to 2)*

**Mileage**: the mileage value in kilometer

**Status :** An integer number for device status , detail information please see Device Status section .

**(Analog 1)**: Fuel (L) , this value is 0 if no sensor attached or firmware dose not support.

**(Analog 2)**: Reserved for future use. Currently, the parameter will leave as blink.

**RFID :** 0 for currently

**#** : End flag between messages;

**Example :**

50000,20150623184513,113.828759,22.709578,70,190,0,-1,2,155135681,805327235,1.32,-32.1,0#

## Alarm message format (Report ID=3)

Alarm message has two parts , the first part is status data , indicate the gps and device status , and the second part is alarm data, two parts connected with “,+,”

**Example :**

50000,20150623180210,113.827408,22.702954,61,185,0,-1,3,155086854,805327235,1.37,-32.1,0,+,**132,0,0,16,858534705,741618482,4456|657,Reserve1,Reserve2**#

**Format of alarm part:**

*AlarmType, SubType, Parameter1, Parameter2, Parameter3, Parameter4, Description,Reserved1, Reserved2*

**AlarmType**: An integer indicate the alarm type

**SubType** : Sub type of alarm if exists, or 0.

**Parameter1-4** : Integer data of the alarm description, different alarm type has different meaning.

**Description** : Extra string data of alarm .

**Reserverd1-2** : Reserved field for future use.

## Transparent port data message format (Report ID=4)

Transparent port data message also has two parts , status part and transparent port data part , and connected with “,+,”

**Example :**

50000,20150623184513,113.828759,22.709578,70,190,0,-1,4,155135681,805327235,1.32,-32.1,0,+,**0,15,11212357adfafaf#**

**Format for transparent port data:**

*Type,length,data*

**Type** : An integer indicates transparent port data type

**Length** : length of the transparent port data.

**Data** : transparent port data

# Heart Beats From Server

Server should reply following heartbeat to plugin, not more than 60 seconds.

**$$hb,1#**

If no heartbeat detected in 30 seconds, plugin will disconnect from server and try reconnect server once again.

# Appendix

## Device status

Status in message an integer, there are 32 bits for device status , bit values depends on the outer device attached.

|  |  |  |
| --- | --- | --- |
| **Bit** | **Description** | **Value** |
| 0 | GPS | 0 invalid , 1 valid |
| 1 | Acc | 0 off, 1 on |
| 2 | turn left | 0 invalid , 1 turn left |
| 3 | turn right | 0 invalid , 1 turn right |
| 4 | brake | 0 invalid , 1 brake |
| 5 | forward | 0 invalid , 1 forward |
| 6 | backward | 0 invalid , 1 backward |
| 7 | GPS Antenna | 0 dose not exist , 1 exists |
| 8 | HDD1 | 0 dose not exist, 1 exists |
| 9 | HDD2 | 0 dose not exist, 1 exists |
| 10,11,12 | 3G Module Status | 0 no 3g module, 1 no signal, 2 signal poor , 3 signal normal, 4 better 5 very good |
| 13 | vehicle is not moving | 0 invalid , 1 not moving |
| 14 | overspeed | 0 normal, 1 overspeed |
| 15 | gps data type | 0 real time (currently) 1 delay (early data) |
| 16 | too low speed | 1 too low speed (depends on settings) |
| 17,18,19 | not use |  |
| 20 .. 27 | Io State | IO0—IO8 state , 0 low , 1 hight |
| 28 | HDD2 inavlid | 0 invalid, 1 valid |
| 29,39 | HDD2 status | 0 hdd2 dose not exists, 1 exists , 2 hdd2 power off |
| 31 | no used. |  |

## Alarm Type Supports

**Format of alarm part:**

*AlarmType, SubType, Parameter1, Parameter2, Parameter3, Parameter4, Description,Reserved1, Reserved2*

|  |  |  |  |
| --- | --- | --- | --- |
| **Alarm Type** | **Description** | **Paramenter1-4** | **Description Field** |
| 11317 | Harsh Acceleration begin | Not use | Not use |
| 11318 | Harsh Acceleration end | Not use | Not use |
| 11319 | Harsh deceleration begin | Not use | Not use |
| 11320 | Harsh deceleration end | Not use | Not use |
| 11325 | IButton inserted | Not use | Ibutton ID data |
| 19--26 | IO1—IO8 Alarm | Not use | Not use |