

# JT600 Protocol

## V1.8

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12-07-2012



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# 1 Preface

The preface would be one of the most important part in the user guide. It contains a list of all the commands and protocols which relate to this product.

## 2.Protocol

### 2.1 Protocol type

There are two modes of protocol for JT600: SMS and GPRS(TCP). SMS is suitable for personal monitoring via cellphone, GPRS is suitable for monitoring via a website or a PC based software.

SMS mode: the tracker sends data back via short message.This can be seen on any cellphone.

GPRS mode: the tracker sends data back via TCP.This can be seen using suitable web-based software.

The main difference between SMS and GPRS is the position data sending mode, SMS mode: GPS data would be sent to the mobile phone which defined by the user or sent to a GSM MODEM; GPRS mode: GPS data would be sent to the monitor center in hexadecimal code.

### 2.2 Position data format

#### 2.2.1 SMS

Position data is sent via SMS.Using the format as below:

(A) If GPS signal is valid,the message will be:

3101223002,09-28 12:11:02,Speed:32km/h,Battery:80%,GPS:13, STANDARD,  
<http://maps.google.com/?q=22.549737N,114.076685E>

(B) If GPS signal is invalid,, the message will be :

3101223002,09-28 12:11:02,Speed:32km/h,Battery:80%,Base Station, STANDARD,  
Cell ID:4232,LAC: 10133

Item	Name	Value	Description
1	Unit name/ID	e.g"John"or 3101223002..etc	
2	separator	,	
3	date/time	09-28 12:11:02	Month/Day/hour/minute/second
4	separator	,	
5	speed	Speed:32km/h,	
6	separator	,	
7	Power status	Battery:80%	It will show "Charging" when you charge the battery.
8	separator	,	
9	GPS signal	GPS:13,	1) Number of satellites received; 2) If GPS signal is invalid, this item will be replace with "Base Station". It indicates item 14 is got from Base station.
10	separator	,	
11	Working mode	STANDARD	
12	separator	,	
13	newline	0x0D 0x0A	New line
14	Google map link or (CELL ID and LAC)	e.g: <a href="http://maps.google.com/?q=22.549737N,114.076685E">http://maps.google.com/?q=22.549737N,114.076685E</a>	1)If GPS signal is valid,JT600 repies a Google map link. Click this link to view fix location via mobile phone;  2)If GPS signal is invalid, JT600 repies CELL ID and LAC. CELL ID and LAC are got from Base station and showed in decimal system.  e.g Cell ID:4232,LAC: 10133

### 2.2.2 GPRS

Position data can be sent via GPRS .The format as below:

Original data(HEX):

24311021600111001B16021105591022329862114046227B0598095080012327951435161F

24\_3110216001\_1\_1\_001B\_160211\_055910\_22329862\_114046227\_B\_05\_98\_09\_50800123\_27951435\_16\_1F

Item	name	value	description								
1	Protocol head	24	Fixed value 0x24(HEX), "\$" in ASCII								
2	Tracker ID	3110216001	Tracker ID, fixed length , 5 bytes								
3	Protocol version	1	Protocol version 1								
4	data type	1	1,normal GPS data; 2,history data								
5	data length	001B	data content length, it means the length of the following data is 27 bytes. from No.=6 to No.=16.								
6	date	160211	Day/month/year: means the date is16 th, Feb.,2011								
7	time	055910	hour/minute/second, Greenwich time, 05:59:10								
8	latitude	22329862	22329862, according to the format of DDMM.MMMM, latitude is: 2232.9862.								
9	Longitude	114046227	Equal to the value of the actual longitude multiplies 10000. i.e. 114046227,is actually 11404.6227. It is in the format of DDDMM.MMMM.								
10	Location modifier E/W and N/S	B	<p>B= 1011, GPS location, west longitude, north latitude</p> <table border="1" style="margin-left: 20px;"> <tr> <td>BIT3</td> <td>BIT2</td> <td>BIT1</td> <td>BIT0</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">0</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> </table> <p>BIT3 is fixed value "1".                      BIT2 indicates "E" (1) or "W"(0).                      BIT1 indicates "N" (1) or "S"(0).                      BIT0 indicates valid GPS signal(1) or no signal(0)</p>	BIT3	BIT2	BIT1	BIT0	1	0	1	1
BIT3	BIT2	BIT1	BIT0								
1	0	1	1								
11	Speed	05	0x05 . current speed is 5 Knots, convert to kilometer/hour : 5 * 1.852 = 9.25 kilometer/hour								
12	Direction(heading)	98	0x98(HEX)= 152(ASCII), multiply 2 for heading =304								
13	No. of satellites received	09	0x09(HEX).								
14	status	508C0123	<p>Forth third second first                      50 80 01 23</p> <p>1) The <b>forth</b> byte is battery status,0x50(HEX)=80(Decimal).Therefore 80% remaining; 0xFF(HEX), charging the battery.</p> <p>2) The <b>third</b> byte is 0x80(HEX)=10000000 (binary)</p>								

			<table border="1"> <tr> <td>BIT7</td> <td>BIT6</td> <td>BIT5</td> <td>BIT4</td> <td>BIT3</td> <td>BIT2</td> <td>BIT1</td> <td>BIT0</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </table> <p>BIT7 Moving detection. 1 means Moving; 0 means stopped.</p> <p>BIT6 Geo-fence info. 1 means .self Geo-fence.0 means no Geo-fence</p> <p>BIT5 Battery state.1 means low level; 0 means normal charge.</p> <table border="1"> <tr> <td>BIT4</td> <td>BIT3</td> <td>BIT2</td> <td>Note</td> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> <td>Standard Mode</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>Timing Mode</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> <td>Motion Mode</td> </tr> </table> <p>BIT1 1:Charging via solar charger. 0: Not currently used.</p> <p><b>BIT0 1:locating by Base station,0:locating by GPS satellite.</b></p> <p>3) The second byte and the first byte</p> <p>Elevation above sea level in meters 0x0123(HEX)=291 decimal</p>	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0	1	0	0	0	0	0	0	0	BIT4	BIT3	BIT2	Note	0	0	0	Standard Mode	0	0	1	Timing Mode	0	1	0	Motion Mode
BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0																												
1	0	0	0	0	0	0	0																												
BIT4	BIT3	BIT2	Note																																
0	0	0	Standard Mode																																
0	0	1	Timing Mode																																
0	1	0	Motion Mode																																
15	CELL ID and LAC	27951435	0x2795(HEX) , CELL ID 0x1435(HEX) , location area code(LAC)																																
16	GSM signal strength	16	0x16(HEX)=22 decimal. Maximum value is 31.																																
17	Serial number	1F	Increases by 1 each time GPS data is sent.																																

**2.2.3 Command framework**

Item	name	Length (bytes)	illuminate
1	Packet head	1	Fixed "(" open bracket
2	command	3	Such as P03 ect... See ASCII command below, <b>Section</b>



2.4			
3	Separator	1	“,” Comma
4	parameter	N	Separated by commas
5	Packet end	1	“)” close bracket

## 2.4 ASCII command introduction

**Notice:** Each ASCII command can be sent by SMS or GPRS.

### 2.4.1 P01 Enquire the current firmware version

Command Code : P01

Command function: Enquire the current firmware version

Parameter List: None

Enquire Example: (P01)

SMS to tracker: (P01) ,tracker phone number

Reply : (3101210001,P01,JT600 20101108)

Year/month/date                      2010-11-08

### 2.4.2 P02 Enquire current position

Command Code: P02

Command Function: Send current position via SMS

Parameter List: None

Set Example: None

Enquire Example: (P02)

Reply: Refer to section: [2.2.1 SMS](#)

**Notice:**

If you sent this command by control center(GPRS).JT600 will reply the location message to SMS Center number; If this command is sent by SMS from SMS Primary number or VIP number, JT600 will reply this message to that number.



### 2.4.3 P03 Enquire or Set SMS Primary Number

Command Code: P03

Command Function: .Set SMS Primary number. If you set this number, All alert messages ,location data and reply message will be sent to this number.

Parameter List:

Mode : 1 means setting,0 means enquiring.

PhoneNumber : SMS Primary number. This number should be less than 15 digital numbers.

Also you can add the country code.

Set Example: (P03,1,13919192020)

(P03,1,+8613919192020)

Enquire Example: (P03,0,13919192020)

(P03,0)

Reply: (3101210003,P03,13919192020)

#### Notice:

- 1) If The unit works at GPRS(TCP or UDP) mode, SMS Primary number only be used for sending short message commands and receiving a reply of short message commands.
- 2) If the unit works at SMS mode, SMS Primary number is used for receiving the position data/alert message/reply message.

### 2.4.4 P04 Enquire or Set Data uploading interval

Command Code: P04

Command Function: Set data uploading interval

Parameter List:

Mode : 1 means setting,0 means enquiring.

Interval : Time interval. The unit is seconds.

Working Mode	Data communication	Time interval Range
Standard	SMS	150 ~ 65535
	TCP	5 ~ 65535
Timing	SMS	150 ~ 599
	TCP	5 ~ 599
Vibration	SMS	150 ~ 599
	TCP	5 ~ 599

Count : The amount of GPS data. 0 it means uploading data continuously. Range: 0-65535.

UpMode : Data communication channel. Default channel is TCP.

UpMode	Note
0	SMS
1	TCP

Set Example: (P04,1,30,0,1)

Enquire Example: (P04,0,30,0,1)

(P04,0)

Reply: (3101210003,P04,30,0,1)

30 seconds uploading position data every 30 sec.

- 0 uploading continuously. If you input 20 ,it means uploading 20 pieces of position data, and then stop data transmitting.
- 1 TCP data communication

**Notice:**

- 1) When JT600 works at GPRS mode(TCP or UDP), it will upload Position data in monitoring center. Data format refer to the section : **2.2.2 GPRS**;
- 2) When JT600 works at SMS mode, It will upload location message to SMS Primary number. Data format ,please refer to the section: **2.2.1 SMS**.

**2.4.5 P05 Enquire or Set GPRS network parameters**

Command Code: P05

Command Function: Set GPRS network parameters(IP address, Port ,APN,APN user,APN pass)

Parameter List:

Mode : 1 means setting,0 means enquiring.

IP/Domain : IP address or Domain name. JT600 can automatically identify the setting is IP or domain. For IP, each part of IP was separated by “.”, and extra space or “0” is not permitted here. For domain, it can not over 50 byte, and extra space or “0” is not permitted here.

Port : TCP Port

APN : APN

User:APN username

Pass: APN passname

Set Example: (P05,1,211.154.124.215,8000,CMNET,,)

(P05,1,211.154.124.215,8000,internet,net,net)

Enquire Example: (P05,0,211.154.124.214,8000,CMNET)/(P05,0)

Reply: (3101129003,P05,211.154.124.214,8000,CMNET)

211.154.124.215 IP address

8000 Port

CMNET	APN in china
(3101129003,P05,211.154.124.214,8000,internet,net,net)	
211.154.124.214	Server IP address
8000	Port
Internet	APN
net	APN username
net	APN password

#### 2.4.6 P06 Enable or disable track by calling function

Command Code: P06

Command Function: Make a call to JT600 and it will report with one location message( [Section 2.2.1 SMS](#)).

Parameter List:

Mode : 1 means setting,0 means enquiring.

OnOrOff: 1 enabled, 0 disable.

Set Example:(P06,1,1)

Enquire Example:(P06,0)/(P06,0,1)

Reply: (3101129003,P06,1)

1 enabled this function.

#### Notice:

- 1)The calling number must be authorization numbers(SMS Primary number/VIP numbers).
- 2)The SIM card in tracker must be activated call screening function.

#### 2.4.7 P07 Enquire or Set Working Mode

Command Code: P07

Command Function: Set working mode

Parameter List:

Mode : 1 means setting,0 means enquiring.

Work : working mode. As below:

SN	Working mode	Wakeup condition	GSM Module while sleeping	GPS Module while sleeping	Note
1	Standard	Press any button/coming call/SMS	Sleep	Power on	both GSM and GPS module work properly, the device can be used to call and receive incoming call, send and receive text messages at any time.
2	Timing	Data upload interval timer	Power off	Power off	Preset the time point, the device will wake automatically at this preset time, and works for 10 minutes before getting into the sleep mode. The device supports 48 time points in maximum, but the interval between each two points should be above 30 minutes. GSM and GPS module work properly at the working period, and both are closed in the sleeping period. The device works only 10 minutes in every awoken, so the interval for data uploading should be set less than 10 minutes, otherwise the data cannot be uploaded properly.
3	Motion	Moving	Power off	Power off	Moving awoken, the device will go to sleep in 10 minutes from last motion. Both GSM and GPS module works properly in working period, but both are closed in sleeping period. The device

					works only 10 minutes in every awoken, so the interval for data uploading should be set less than 10 minutes, otherwise the data cannot be uploaded properly.
--	--	--	--	--	---

Set Example: (P07,1,1)

Enquire Example:(P07,0,1)/(P07,0)

Reply: (3101129003,P07,1)

1 Standard mode.

## 2.4.8 P08 Enquire or Set Geo-fence

Command Code: P08

Command Function: Set Geo-fence.This is a rectangular region. Please set Geo-fence by **JT600 Assistant** software. Only when tracker has stayed or left the preset geo-fence for **10 seconds**, There would be a Enter or Exit Geo-fence alert.

Parameter List:

Mode : 1 means setting,0 means enquiring.

ID : Geo-fence ID. JT600 supports 64 fences.

LT\_X : left top longitude. Format: DDDMM.MMMM

LT\_Y : left top latitude. Format: DDMM.MMMM

RB\_X : right bottom longitude. Format: DDDMM.MMMM

RB\_Y : right bottom latitude.

name : Geo-fence name.

Set Example:(P08,1,1,11323.1234,2312.2321,11326.4312,2308.1233,ring road)

Enquire Example:(P08,0,1,11323.1234,2312.2321,11326.4312,2308.1233,ring road)/(P08,0,1)

Reply: (3101129003,P08,1,11323.1234,2312.2321,11326.4312,2308.1233,ring road)

1 it is Geo-fence ID.

11323.1234      left top longitude  
 2312.2321      left top latitude  
 11326.4312      right bottom longitude  
 2308.1233      right bottom longitude  
 ring road : Geo-fence name

### 2.4.9 P09 Enquire or Set Self Geo-fence Radius

Command Code: P09

Command Function: Can only be set when there is a valid GPS signal .and A circular geo-fence will be generated centred on the current position. The User sets the radius with this command.

Parameter List:

Mode : 1 means setting,0 means enquiring.

Radius : Radius, unit is meter.

Set Example:(P09,1,300)

Enquire Example:            (P09,0,300)

(P09,0)

Reply: (3101210003,P09,300,E,11323.4230,N,2314.3231)

300                      Radius  
 E                        E means East longitude ,W means West longitude.  
 11323.4230            Current longitude  
 N                        N means North latitude ,S means South latitude  
 2314.3231            Current latitude

**Notice:**

When User exits this Geo-fence, there will be a alert .and this Geo-fence will be invalid and must be set by User again.

#### 2.4.10 P10 Enquire or Set Low battery alert

Command Code: P10

Command Function: Set low battery alert

Parameter List:

Mode : 1 means setting,0 means enquiring.

Battery\_Low :The power percentage of battery.

Set Example: (P10,1,20)

Enquire Example: (P10,0,20)

(P10,0)

Reply: (3101210003,P10,20)

20 20% when the battery charge is low than this value, there is a low battery alert.

#### 2.4.11 P11 Enquire or Set VIP numbers

Command Code: P11

Command Function: Set VIP numbers.

Parameter List:

Mode : 1 means setting,0 means enquiring.

Index : the index of VIP numbers. From 1 to 5.

PhoneNumber : cell phone number which will receive reply message/alert message from

JT600. Also you can add the country code.

Set Example: (P11,1,1,13910102345)

(P11,1,1,+8613910102345)

Enquire Example: (P11,0,1,13910102345)



(P11,0,1)

Reply: (3101210003,P11,1,13910102345)

1 The first VIP number

13910102345 cell phone number

**Notice:**

VIP numbers	1	Send command, receive alert message/reply message, CALL I number.
	2	Send command, receive alert message/reply message,CALL II number
	3	Send command, receive alert message/reply message
	4	Send command, receive alert message/reply message
	5	Send command, receive alert message/reply message

**2.4.12 P12 Enquire or Set time difference**

Command Code: P12

Command Function: Set time difference.JT600 outputs Greenwich time. It has to be adjusted to local time.

Parameter List:

Mode : 1 means setting,0 means enquiring.

TimeDifferent : Time difference .unit is minute.

Set Example: (P12,1,480) (P12,1,-360)

Enquire Example: (P12,0,480)

(P12,0,-360)

(P12,0)

Reply: (3101210003,P12,480)

480 60\*8 =480 china time



**Notice:**

To set time zone behind GMT use -(Minus sign)

**2.4.13 P13 Request SOS LED flashing**

Command Code: P13

Command Function: Request SOS LED flashing

Parameter List:

Mode : 1 means setting,0 means enquiring.

OpenOrClose : 1 means open the SOS LED ;0 means close the SOS LED.

Set Example:(P13,1,1)

Reply: (3101210003,P13,1)

1 Flashing

**2.4.14 P14 Enquire or Set the ring volume**

Command Code: P14

command function: Adjust the volume when calling.

Parameters list:

Mode : 1 means setting,0 means enquiring.

Volume :. From 1 to 7. 1 it indicates minimum volume. 7 it indicates maximum volume.

Set Example: (P14,1,5)

Enquire Example: (P14,0,5)

(P14,0)

Reply: (3101210003,P14,5)

### 2.4.15 P15 Request Listen-in Remotely

Command Code: P15

command function: Listen-in feature.

Parameters list:

PhoneNumber :. couldn't over 15 digit

Set Example:(P15,13919192020).

13919192020      cell phone number

#### Notice:

After you sent this command,JT600 will call this number.

### 2.4.16 P16 Enquire the current Battery Capacity

Command Code: P16

Command Function: enquire the current battery capacity

Parameters list: None

Set Example: None

Enquire Example: (P16)

Reply: (3101210003,P16,60)

60      Means battery capacity remain 60%.

### 2.4.17 P17 Enquire or Set Another name

Command Code: P17

Command Function: Set another name

Parameters list:

Mode : 1 means setting,0 means enquiring.

Name : Another name. couldn't be over 15 byte

Set Example : (P17,1,joint\_1)

Enquire Example: (P17,0,joint\_1)

(P17,0)

Reply: (3101210003,P17,joint\_1)

joint\_1 Device's current name

#### Notice:

After you set another name, The short message will begin with this name but not unique ID.

e.g:

normally, The short message is:

3101223002,09-28 12:11:02,Speed:32km/h,Battery:80%,GPS:13, STANDARD,  
http://maps.google.com/?q=22.549737N,114.076685E

after set another name:

**joint\_1**,09-28 12:11:02,Speed:32km/h,Battery:80%,GPS:13, STANDARD,  
http://maps.google.com/?q=22.549737N,114.076685E

### 2.4.18 P18 Enquire or Set Keep Alive procedure

Command Code: P18

Command Function: In order to keep connection in GPRS network, the unit can be set to send short keep alive report to the server in order to prevent the disconnection from the mobile service provider. Some GSM provider might cut connection, if there is no data within certain time.

Parameters list:

Mode : 1 means setting,0 means enquiring.

Upinterval: The time interval of keep alive report in seconds. From 30 to 7200.

0 means disable this function.

Set Example : (P18,1,600) (P18,1,0)

Enquire Example: (P18,0,600)

(P18,0)

Reply: (3101210003,P18,600)

600 The unit sends a keep alive report every 600 seconds to center server.

**Notice:**

The keep alive package is "(310121003,H01)". Exclude "".

**2.4.20 P20 Restore factory setting**

Command Code: P20

Command Function: Restore factory settings. It will clear all parameters(such as Geo-fence/working mode) except IP address,Port,SMS Primary number,VIP numbers,APN,APN account,Another name and time difference.

Parameters list: none

Set Example : (P20)

Enquire Example: none

Reply: (3101210003,P20)

**2.4.21 P21 Enquire or Set Position data uploading at preset intervals**

Command Code: P21

Command Function: You can set the tracker to upload position data at pre-determined intervals. At other times, JT600 will be in sleep mode. This function can only be used in Timing mode.

Parameters list:

Mode : 1 means setting, 0 means enquiring.

Count: The total number of the time points. Maximum value is 48.

ClockList: The list of each time point in one day. The unit is minutes. From 1 to 1439.

The interval between each two points should be above 30 minutes.

e.g. If you want JT600 uploads data at 8:00.  $8*60=480$  so the time point is 480. Likewise: 15:36  $15*60+36=936$ ;

Set Example : (P21, 1,5,485,540,780,1080,1212)

Enquire Example: (P21,0)

Reply: (3101210003,P21,5,485,540,780,1080,1212)

5 set 5 time points

485,540,780,1080,1212 JT600 will uploads data When the time point are

8:05(485) ,9:00(540),13:00(780),18:00(1080),20:12(1212)

#### Notice:

- 1) The time point list must be in order. From small to large.
- 2) Before you use this function, Please change the working mode to **Timing**. At the first fix time, you must make JT600 get fix position once or it cannot go to sleep.
- 3) You need set the time difference (**P12**) also.
- 4) The device will wake automatically at the preset time, and works for 10 minutes before getting into the sleep mode. The device supports 48 time points in maximum, but the interval between each two points should be above 30 minutes. GSM and GPS module work properly at the working period, and both are closed in the sleeping period. The device works only 10 minutes in every awoken, so the interval for data uploading should be set less than 10 minutes, otherwise the data cannot be uploaded properly.

#### 2.4.22 P22 Enquire or Set VIP numbers to receive different SMS alert

Command Code: P22

Command Function: Set VIP numbers to receive different SMS alert

Parameters list:

Mode : 1 means setting, 0 means enquiring.

Index : Index of the VIP numbers. From 1 to 5.

Geofence\_Alarm: 0 disable , 1 enable the function to receive geo-fence SMS alert.

Self-Geofence\_Alarm: 0 disable , 1 enable

Battery\_Alarm: 0 disable , 1 enable

SOS\_Alarm: 0 disable , 1 enable

Set Example : (P22,1,3,0,1,1,0)

*Set VIP number 3 only receives self geo-fence and Low Battery SMS alert.*

Enquire Example: (P22,0,3)

(P22,0,1)

Reply: (3101210003,P22,3,0,1,1,0)

- 3 VIP number 3.
- 0 Disable this VIP number to receive Enter/Leave geo-fence SMS alert.
- 1 Enable this VIP number to receive self geo-fence SMS alert.
- 1 Enable this VIP number to receive Low battery SMS alert.
- 0 Disable this VIP number to receive SOS SMS alert.

#### 2.4.23 P23 Read IMEI number

Command Code: P23

Command Function: Read current JT600's IMEI number. (**International Mobile Equipment Identity**)

Parameters list: none

Set Example : (P23)

Enquire Example: none

Reply: (3101210003,P23,012207004451636)

012207004451636 IMEI number.

#### 2.4.24 P24 Reboot the device remotely

Command Code: P24

Command Function: Reboot the device remotely

Parameters list: none

Set Example : (P24)

Enquire Example: none

Reply: (3101210003,P24)

#### 2.4.25 P25 Enquire or Set automatic answer the call

Command Code: P25

Command Function: Enable or disable Automatic answer the call function.JT600 will answer the call after ring 3 times.

Parameters list:

Mode : 1 means setting,0 means enquiring.

OnOrOff: 1 enable, 0 disable.

Set Example : (P25,1,1)

Enquire Example: (P25,0) or (P25,0,1)

Reply: (3101210003,P25,1)

#### Notice:

1)The SIM card in JT600 must be activated call screening function.

#### 2.4.27 P27 Enquire or Set locating by Base Station function

Command Code: P27

Command Function: JT600 will get the latitude and longitude by Base Station when GPS signal is invalid. This command will effect GPS data's latitude and longitude.

Parameters list:

Mode : 1 means setting,0 means enquiring.

BaseStation: 1 enable, 0 disable.Default is disable.

Set Example : (P27,1,1)

Enquire Example: (P27,0) or (P27,0,1)

Reply: (3101210003,P27,1)



#### 2.4.28 P28 Enquire or Set time correction function.

Command Code: P28

Command Function: When GPS is invalid, The device can't get a correct time. In order to make the device working at the preset time point instantly, So clients need to do this time correction. and this function only effects timing working mode.

Parameters list:

DATEIME: GMT. the format is day/month/year/hour/minute/second.

Set Example : (P28,1, 210612163459)

21-06-12 16:34:59      21th June 2012 16:34:59      it's GMT.

Reply: (3101210003,P28,1)

1 Did time correction successfully;

0 the device has already got GPS signal.No need do time correction.

#### 2.4.29 P29 Enquire or Set time interval of history data save

Command Code: P29

Command Function: Set time interval of history data save. Normally, when the device is working ,it will save the history data every 1 minute.

Parameters list:

Mode : 1 means setting,0 means enquiring.

TIME: time interval in seconds.default is 60 seconds.[30,65535]

Set Example : (P29,1,60)

Enquire Example: (P29,0) or (P29,0,60)

Reply: (3101210003,P29,60)

### 2.4.30 P30 Get the history data remotely

Command Code: P30

Command Function: Center server send this command to collect the history data in device.

Parameters list:

Mode : 1 means setting,0 means enquiring.

START\_TIME: Beginning time. GMT. the format is day/month/year/hour/minute/second.

END\_TIME: ending time. GMT. the format is day/month/year/hour/minute/second.

Set Example : (P30,1,210612081555,230612182544)

210612081555 21th June 2012 8:15:55

220612182544 22th June 2012 18:25:44

Reply: (3101210003,P30,2040,10,1,21061208171022329862114046227B059809508001232795143516,2,21061209171022329862114046227B059809508001232795143514, ...,10,21061209171022329862114046227B059809508001232795143514)

2040 total of history data from beginning time to ending time.

10 there are 10 pieces of history data in this packet.

1 The first history data. From 1 to 10.

21061208171022329862114046227B059809508001232795143516 history data in hex code.

Refer to 2.2.2 GPRS page 5 from item 6 to 16. 27 bytes.

#### Notice:

**About** ,Escape character

If the history data includes special characters. The character must be converted to another character.

The rules are as below:

0x28 -> 3D15

0x29 -> 3D14

0x3D -> 3D00

0x2C -> 3D11

e.g.

### Original history data

28 06 12 08 29 10 22 32 98 62 11 40 46 22 7B 05 98 09 50 80 01 23 27 95 14 35 16

Convert it and get the data showing in P30 command.

3D 15 06 12 08 3D 14 10 22 32 98 62 11 40 46 22 7B 05 98 09 50 80 01 23 27 95 14 35 16

When clients analysis this history data in P30 command, Please recover it to original history data.

### 2.4.31 P31 Enquire or Set G-sensor parameter

Command Code: P31

Command Function: Set the G-sensor's motion acceleration threshold, So the device will detect this moving status.

Parameters list:

Mode : 1 means setting,0 means enquiring.

Acceleration: Motion acceleration threshold .range[63, 8000] . unit as mg.

g--- acceleration of gravity      1 g=1000mg.

Set Example :      (P31,1,630)

Reply:      (3101210003,P31,630)

630                      630 mg

#### Notice:

The acceleration resolution of this G-sensor is 63 mg. So when change the acceleration threshold, It's better to set a integral multiple of this acceleration resolution value.

### 2.4.32 P32 Enquire or Set data uploading parameters when moving

Command Code: P32

Command Function: Set data uploading parameters when the device is moving(judge by G-sensor).This function only works **at Standard working mode**.

Parameters list:

Mode : 1 means setting,0 means enquiring.

Interval: Uploading data time interval . unit as seconds.

Count: total of times . [0, 4095] 0 indicates disabling this function.

4095 indicates every time when the device moving ,it will upload 4095 pieces of GPS data  
exclude real time GPS data

Set Example : (P32,1,30,20)

Reply: (3101210003,P32, 30,20)

30 30 seconds

20 when the device is moving ,it will upload 20 pieces of GPS data, and send each  
one data every 30 seconds.

#### 2.4.34 P34 Enquire or Set history data uploading automatical

Command Code: P34

Command Function: set the device uploading history data automatical.

Parameters list:

Mode : 1 means setting,0 means enquiring.

OnorOff: enable or disable this function. 1 indicates enable; 0 disable. Default is disable.

Set Example : (P34,1,1)

Enquire Example: (P34,0) or (P34,0,1)

Reply: (3101210003,P34, 1)

#### Notice:

The history data sending to center server is the same as GPS data just the data type is different.

So this function is different from the **P30 Get the history data remotely function.**

## 2.5 Alert Report

There are two parts of Alert:

1. SMS Alert information;
2. GPRS Alert information.

Using GPRS function, the device can send SMS Alert information but also can send Alert via GPRS. The two kinds of Alert are sent to different receivers, and the protocol of this two kinds of Alert are different.

## 2.5.1 SMS Alert information

If JT600 can't get the valid GPS signal. It will replace the google map link with CELL ID.

### 2.5.1.1 Enter Geo-fence

ALM,Enter fence:geo1,3101223002,09-28 00:02:39,Battery:60%,GPS:3, STANDARD,http://maps.google.com/?q=22.549737N,114.076685E

### 2.5.1.2 Exit Geo-fence

ALM,Exit fence:geo1,3101223002,09-28 03:21:45,Battery:50%,GPS:3, STANDARD,http://maps.google.com/?q=22.549737N,114.076685E

### 2.5.1.3 Exit self Geo-fence

ALM,Exit Self fence,3101223002,09-28 04:31:32,Battery:70%,GPS:3, STANDARD,http://maps.google.com/?q=22.549737N,114.076685E

### 2.5.1.4 Low battery alert

ALM,Low battery,3101223002,09-28 05:41:27,Speed:0km/h,Battery:80%,GPS:3, STANDARD,http://maps.google.com/?q=22.549737N,114.076685E

### 2.5.1.5 SOS alert

ALM,SOS,3101223002,09-28 05:08:36,Speed:0km/h,Battery:80%,GPS:3, STANDARD,http://maps.google.com/?q=22.549737N,114.076685E

Item	Name	Value	Note
1	Alert name	ALM,Enter fence	
2	Alert content	Name:home	
3	Separator	“ ” “ , ”	
4	Device name/ ID	e.g "John"/3100701003 ect...	
5	Separator	“ ” “ , ”	
6	Date time	08-28 12:03:43	month/day/ hour/minute/seconds

7	Separator	“ ” “ ”	
8	Speed	Speed:32km/h	(Because the length of SMS content is limited, So when geo-fence alert, Doesn't show this field)
9	Separator	“ ” “ ”	
10	Battery capacity	Battery:80%	
11	Separator	“ ” “ ”	
12	GPS signal	GPS:13	1)Number of satellites received; 2) If GPS signal is invalid, this item will be replace with “Base Station”. It indicates item 14 is got from Base station.
13	Separator	“ ” “ ”	
14	Working mode	STANDARD	
15	Separator	“ ” “ ”	
16	New line	0x0D 0x0A	
17	Longitude/Latitudo field link	e.g :http://maps.google.com/?q=113.12323N,23.1233E	1)If GPS signal is valid,JT600 repies a Google map link. Click this link to view fix location via mobile phone;  2)If GPS signal is invalid, JT600 repies CELL ID and LAC. CELL ID and LAC are got from Base station and showed in decimal system. e.g Cell ID:4232,LAC: 10133

### 2.5.2 GPRS Alert information

GPRS Alert information command format as following:

e.g:



Tel:+86-755-83237778 83236778 Fax:+86-755-83282631 P.C.:518028 Mail:hkczy@vip.sina.com  
Website:www.joint-tracking.com Add:5th Floor,404Bldg,Shangbu Industry Zone, Futian District, Shenzhen, P.R.C.

(3110312099,W01,11404.6204,E,2232.9961,N,A,040511,063736,4,7,100,4,17,1,1,company)

Item	Field name	e.g	Explain
1	Packet head	(	
2	ID	3100808321	
3	Packet type	W01	It means Alert
4	Longitude	11323.4221	
5		E	EAST/ WEST longitude, here means EAST longitude
6	Latitude	2312.3221	
7		N	South/North Latitude, here means North Latitude
8	Valid Sginal	A	A=Valid V=Invalid
9	Date	120211	12-02-11 Day/month/year
10	Time	093021	09:30:21 hour/minute/second
11	Speed	30	KM/H as unit  Notice: It is different from the section :2.2.1 GPRS
12	Direction(Heading)	329	Degree (different from the section :2.2.1 GPRS)
13	Current battery capacity	70	70%
14	GPS signal Strength	9	No. of satellites received.
15	GSM signal Strength	23	Max 31
16	Alert ID	4	See table below
17	Alert content		See table below

18	Packet end	)	
----	------------	---	--

GPRS Alert information's "Alert ID" and Alert content as following table:

Alert ID	Alert name	Alert information
1	Enter Geo-fence Alert	1,1,home 1 Alert ID 1 Geo-fence ID home Geo-fence name
2	Leave Geo-fence Alert	2,1,home 2 Alert ID 1 Geo-fence ID Home Geo-fence name
3	-Reserved	- Reserved
4	leave Self Geo-fence Alert	4 Alert ID
5	Low battery Alert	5,30,20 5 Alert ID 30 the low battery threshold value.30% 28 the current battery charge.20%
6	SOS	6 6 Alert ID

### 3 Updates





Serial Number	Content	Date
1	Documentation release	12-22-2011
2	Update working mode (P07)、 Add P14、 P18 command Modify SMS and GPRS alert format.	02-26-2011
3	Modify GPRS data (field 14)	04-26-2011
4	Add P20,P21,P22,P23 command	07-13-2011
5	Add CELL ID - <a href="#">2.2.2 GPRS</a>	08-30-2011
6	Add P24 command ,Modify SMS standby mode(GPS module Open) Add CELL ID in SMS position data when GPS signal is invalid.	09-17-2011
7	Modify P07 command- simplify working mode. Modify P04,P05,P21 commands. Edit status - <a href="#">2.2.2 GPRS</a>	10-19-2011
8	Add P25,P27. Modify P05	11-14-2011
9	Add P28,P29,P30,P31,P32,P34	07-12-2012