

GPRS protocol between tracker and server

(V2.0)

catalogue

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Modification	engineer	time
1. upgrade versions number to be 2.0	Dusy	2012-5-14
2. separate LBS packet and normal GPS packet in protocol		

一. Key instruction

1. # is the control unit in this protocol , pls try to avoid using # during setting 。
2. All the command sent to device will receive reply by return as following 。

&IMEI&user name&command&status&&

For example

From server to device: #710#13800138000#0000##

Reply by return: &135790246811222&13486119277&710&0&&

Status description

Status	Description
0	config ok
1	password error
2	invalid command code
3	...

3. the device is with same command definition and same format either by SMS or GPRS.
4. all the device are coming with unique 15 digits IMEI number as device ID
5. the device with LCD support, the default time zone is E8, user could modify from manue or by command 896

二. unit report server

1.for JS19D, senior phone tracker , watch tracker , mini vehicle tracker :

(1) . Valid gps report

#356823032089950##0#0000#AUT#1#24900FFB#11351.4634,E,2234.5076,N,001.66,347#290312#072851##

item	specification	note
#	1 byte, packet header	
Imei	15 byte。 Ascii,	
#	1 byte	
Username	The UNIT ID in alphanumeric string, which can be as long as 15 characters.	

	For example, Globaltrack00001, or 1234567890...	
#	1byte	
ACC status	1byte, 0 or 1 0=ACCOFF,1=ACCON	For vehicle tracker only
#	1byte	
extend byte	4byte,	
#	1byte	
Data type	3 types including AUT(auto interval report) , LDP(low power report) , SOS(SOS alarm report),Out (out of Geo-fence report)	
#	1byte	
Extend byte	1 byte	
#	1byte	
LBS	8byte, HEX, This string will be only LBS or V. If it is V, it means that the GPS data is valid. If it is LBS, then the current GPS data is LBS data. .	
#	1byte	
LOC	39byte . The string contains the GPS location .for example: 11351.4797,E,2234.5008,N,000.00,137.41 latitude, East, longitude , North ,speed ,direction	
#	1byte	
date	6byte: day /month/year	
#	1byte	
time	6byte , hour/minute/second GMT Greenwich Mean Time)	
##	2byte. End byte	

(2) invalid gps report

#356823032089950##0#0000#AUT#1#V#11351.4634,E,2234.5076,N,001.66,347#290312#072851##

V	1 byte, means GPS is valid . no LBS data reported	
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2. For JS820, and JS810

(1) .Invalid GPS report

#356823038097544##0#0000#AUT#1#4600#24900FFB#11351. 4372, E, 2234. 54525, N, 000. 00, 332#020212#070001##

Report type (3 new report added)	3 byte	AUT: report by interval
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	For example : AUT from the above report	SOS: SOS report LPD: lower power report OUT: Geo-fence out report ZD: vibrate alarm report SF: set anti-theft function JX: cut line report
GSM Country code	For example : 46000 is china code	
LBS data	1 byte. Means gps is valid . no LBS data reported	
LOC	Invalid GPS data	

(2) .valid gps data

#356823038097544##0#0000#AUT#1#46000#V#11351. 4372, E, 2234. 54525, N, 000. 00, 332#020212#070001##

Report type	3 byte	AUT: report by interval SOS: SOS report LPD: lower power report OUT: Geo-fence out report
GSMcountry code	5byte	
V	1 byte , valid gps data .	
LOC	Valid GPS data	

3.LBS tracker JS816 and JS818

#IMEI#username#status#password#AUT#groupnumber#MCC+MNC#LBSdata#latitude,

latitudedirection,longitude,longitude direction,speed,direction#date#time##

example :

#356823031035830##0#0000#RTC#1#46000#24900E6C-23,24900E6B-12,24900E09-12,24900E07-11,24900E6D-10,24900E61-9,24900E62-8#,,,,,#010110#000952###356823031035830##0#0000#AUT#1#46000#24900E6C-23,24900E6B-11,24900E09-10,24900E07-10,24900E6D-10,24900E61-9,24900E62-9#,,,,,#311209#160958##

item	byte	Description	note
#	1byte,	It is the packet header and in ASCII	
imei	15byte	Each device is with one unique 15 digits IMEI number as device ID	
#	1byte	List separator	
User name	0-11 byte,	It can be set as empty	
#	1byte	List separator	
Status code	1 byte	1 means ACC on ,0 means	No meaning here

		Acc off	
#	1byte	List separator	
password	4byte	Default password is 1234	
#	1byte	List separator	
Data type	3byte,	It indicate the data type	(1) RTC (time adjustment) 2,AUT(report by interval) 3,SOS, (SOS report) 4,LDP (low power reprot
#	1byte	List separator	
1	1byte,	Extended code	
#	1 byte	List separator	
Country code	5byte		
#	1 byte	List separator	
LBS data and signal strength	11 byte	decimal	24900E6C-23 “2490” is LAC, “OE6C”is Cell id, -is list separator , 23 is the signal strength
#	1byte	List separator	
, , , , ,	5byte		Coordinates data if with gps chipset built in
#	1 byte	List separator	
data	6byte		
#	1byte	List separator	
time	6 byte		
##	2 byte	Packet end byte	

三. Command list from server to tracker

Command from server to tracker	Description
#710#centre number1# centre number2# centre number3#password##	Set Center authorized phone number : Description : center number is from 4-20 byte . For example : #710#1066512000#0000## After setting successfully , the center number is 1066512000 #711#134xxxxxxxx#158xxxxxxxx#150xxxxxxxx#0000## (this is to set 3 authorized number)
666+0000 (0000 is default password)	Single location query ; a message including the latitude and longitude will be returned.
988+0000	single location query;

	<p>a message with detailed address will be returned . out of china , it will reply as a google link(pls be sure the device is in English mode .</p>
555+0000	<p>Wiretapping function After sending command to device , device will immediately call back, once the phone is connected ,which means the wiretapping function is active . Pls note : the center number must be set</p>
#567#year month day#hour minute second#password##	<p>Time setting example: #567#110513#125820#0000## through this command ,the user could modify the upload time when the user push the key in the device .</p>
#770#new password#old password##	<p>Changing password : Description: After the instruction is executed, the terminal will change the user password according to the user's requirements. After successful setting, "770 CONFIG OK" will be returned to the phone; if the password is wrong, "770 PASSWORD ER" will be returned. e.g.: #770#1111#0000##. After the instruction is executed, the user password changes from 0000 to 1111.</p>
#801#letters or numbers (0-20 digits)#user password	<p>Change the user name under the GPRS mode Description: After the instruction is executed, the user name of the terminal under the GPRS mode will be set according to the requirements. After successful setting, "801 CONFIG OK" will be returned to the phone; if the password is wrong, "801 PASSWORD ER" will be returned. e.g.: #801#13900139000#0000## After the instruction is executed, the user name is 13900139000.</p>
#802#APN (letters or numbers, 4-20 digits)#login user name (letters or numbers, 4-20 digits)#login password (letters or numbers, 4-20 digits)#user password##	<p>Set the APN Description: After the instruction is executed, the terminal APN under the GPRS mode will be set according to the requirements. After successful setting, "802 CONFIG OK" will be returned to the phone; if the password is wrong, "802 PASSWORD ER" will be returned. e.g. 1: #802#CMNET###0000##. After the instruction is executed, the terminal APN is CMNET, the login user name and password are blank. e.g. 2: #802#CCDLLEN#QIUXIA.21#RX#0000##. After the instruction is executed, the APN is CCDLEN, the login user name is QIUXIA.21 and the login password is RX. Note: The default APN of this product is CMNET.</p>
#803#fixed IP address#port number#user password ##	<p>Set the server address under the GPRS mode. Instruction for setting 988 server address: #988#www.gps02.com#80#user password## This instruction is used to set the GPRS center server address. The server address can either be a fixed IP, whose format is xxx. xxx. xxx. xxx; or a domain name, whose length is less than 64 bytes. After</p>

	<p>successful setting, “&803& CONFIG OK &&” will be returned to the phone; if the password is wrong, “&803& PASSWORD ER &&” will be returned.</p> <p>e.g.: #803#119.149.149.114#30000#0000##</p> <p>It can also be set through the domain name:</p> <p>e.g.: #803#jk.jy100.com#30000#0000##</p> <p>Note: This product has a factory-set server address, and the instruction shall be used with caution.</p>
#751#fence radius (meter)#sampling interval (minute)#latitude#longitude#user password##	<p>Set the electronic fence.</p> <p>Description: After successful setting, “751 CONFIG OK” will be returned; if the password is wrong, “751 PASSWORD ER” will be returned.</p> <p>e.g.: #751#5000#5#2232.6208N#11354.6378E#0000##</p> <p>After the instruction is executed, the fence of 5 km radius is set for the terminal; when the terminal leaves the area, the fence alarm message will be sent to the center number.</p>
#752#user password##	<p>Read the electronic fence</p> <p>After the instruction is successfully sent, the terminal reads the work status data of the fence and returns it to the phone. If the password is wrong, “&752& PASSWORD ER &&” will be returned.</p> <p>e.g.: #752#0000##</p> <p>The following will be returned: #open:1#lat:22.54368N#lng:113.91063E#distance:500#time:5#status:2</p> <p>Wherein, open:1 refers to the activation of the fence, open:0 refers to the deactivation of the fence.</p> <p>lat: 22.54368 refers to the latitude (N/S).</p> <p>lng: 113.91063 refers to the longitude (E/W).</p> <p>distance: 500 refers to the radius of the fence.</p> <p>time:5 refers to the sampling interval.</p> <p>status:2 refers to that the terminal gets valid satellite data, and the fence works normally.</p> <p>status:1 refers to that the fence is activated, but the terminal fails to get valid satellite data.</p> <p>status:0 refers to that the electronic fence is not set.</p>
#760#user password##	<p>Cancel the electronic fence</p> <p>Description: After the instruction is executed, the terminal cancels the fence function. After successful setting, the terminal returns “760 CONFIG OK” to the phone. If the password is wrong, “760 PASSWORD ER” will be returned.</p> <p>e.g.: #760#0000##</p>
223+password	Enable imbolization
233+password	Disenable imbolization

#901##	<p>Read user parameters</p> <p>After sending this command , the device will reply by following information :</p> <p>#center number#password#user name#userpassword#authorized phone number1#authorized phone numebr2#authorized phone number3#authorized phone number4#IMEI##</p> <p>example:</p> <p>#134xxxxxxx#0000#13900139000#0000#@134xxxxxxx ####356823032080264##</p>
#902##	<p>Read preset GPRS parameters</p> <p>#mode#interval#intervalgroup@APN#APN username#APNpassword#IP#port#version number</p> <p>example:</p> <p>#5#0#0@CMNET###121.9.206.148#30000##2011/09/02 18:36CRT810_V1.XX</p>
#920#password##	<p>Language select</p> <p>Convert between Chinese and English 。</p>
#15-digit EMI code#user name#status bit#password#SOS#data size#base station information#latitude, longitude, speed, course#data#time##	SOS alarm function, and it is an SOS alarm message
#15-digit EMI code#user name#status bit#password#LPD#data size#base station information#latitude, longitude, speed, course#data#time##	low-voltage alarm message.
#15-digit EMI code#user name#status bit#password#OUT#data size#base station information#latitude, longitude, speed, course#data#time##	It is an alarm message indicating the vehicle is out of the fence.
#904##	Connect GPRS
#905##	Disconnect GPRS