



GSM/GPRS/GPS Tracker **GL500** Manage Tool User Guide

TRACGL500MT002

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1. Revision History

Revision	Date	Author	Description of change
1.0	2012-9-17	Alan.zhang	Initial
1.1	2012-11-20	Alan.zhang	Add AT agreement command
1.2	2013-7-16	Alan.zhang	Increase the PIN function

2. GL500 Manage Tool Interface

GL500 manage tool is PC software which can be used to configure GL500 through UART. It is easy for the backend server developers to configure GL500 with manage tool, which has friendly user interface. The correct command messages sent to GL500 will be displayed on the manage tool. (These messages can also be sent by SMS or GPRS)

The administrators can also use the manage tool to configure GL500 before selling. But it is strongly recommended to establish a backend server and implement the way to control GL500 by SMS or GPRS. Please refer to “*GL500 @Tracker Air Interface Protocol*” for detail.

Before using the manage tools please install driver for the USB data cable (GL500_DATA CABLE). After that a new COM port can be found in the PC system, and then please follow the steps as below:

1. Connect GL500 to 5VDC power supply and GL500 will power on.
2. Connect GL500 to PC with USB data cable (GL500_DATA CABLE).
3. Run “**GL500 Manage Tool Vx.xx.exe**”.

2.1. System Requirements

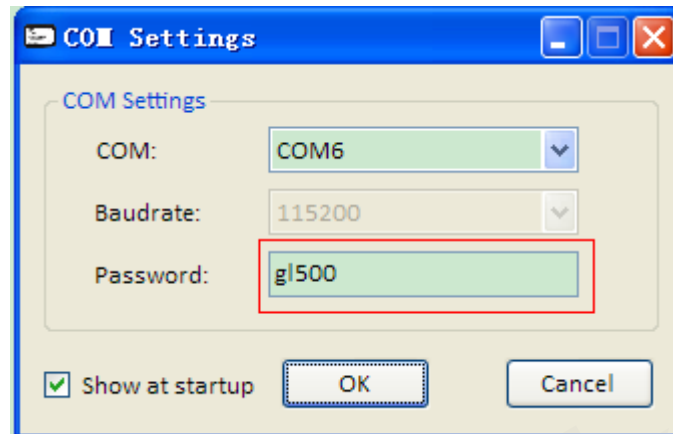
In order for this manage tool to run on your computer, you must use it in below operating system:

- ◆ Windows 98SE;
- ◆ Windows ME Windows 2000 SP4;
- ◆ Windows XP SP2 and above (32 & 64 bit);
- ◆ Windows Server 2003 (32 & 64 bit);
- ◆ Windows Server 2008 (32 & 64 bit);
- ◆ Windows Vista (32 & 64 bit);
- ◆ Windows 7 (32 & 64 bit);

Supported System Environments:

- ◆ Microsoft .NET Framework 2.0 or higher

2.2. COM Setting



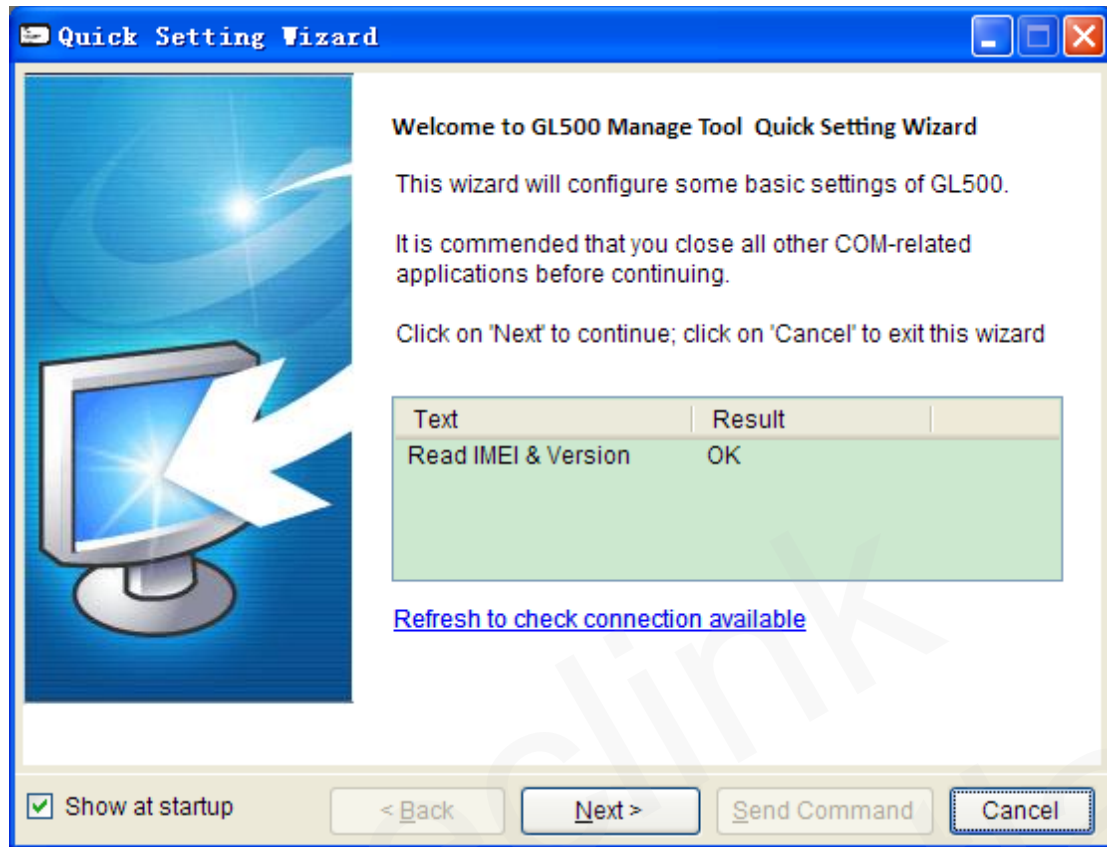
Select the COM port and baud rate (115200bps in default), input the password (“gl500” in default), and click “OK” button, then setting window will display.

2.3. Quick Setting Wizard

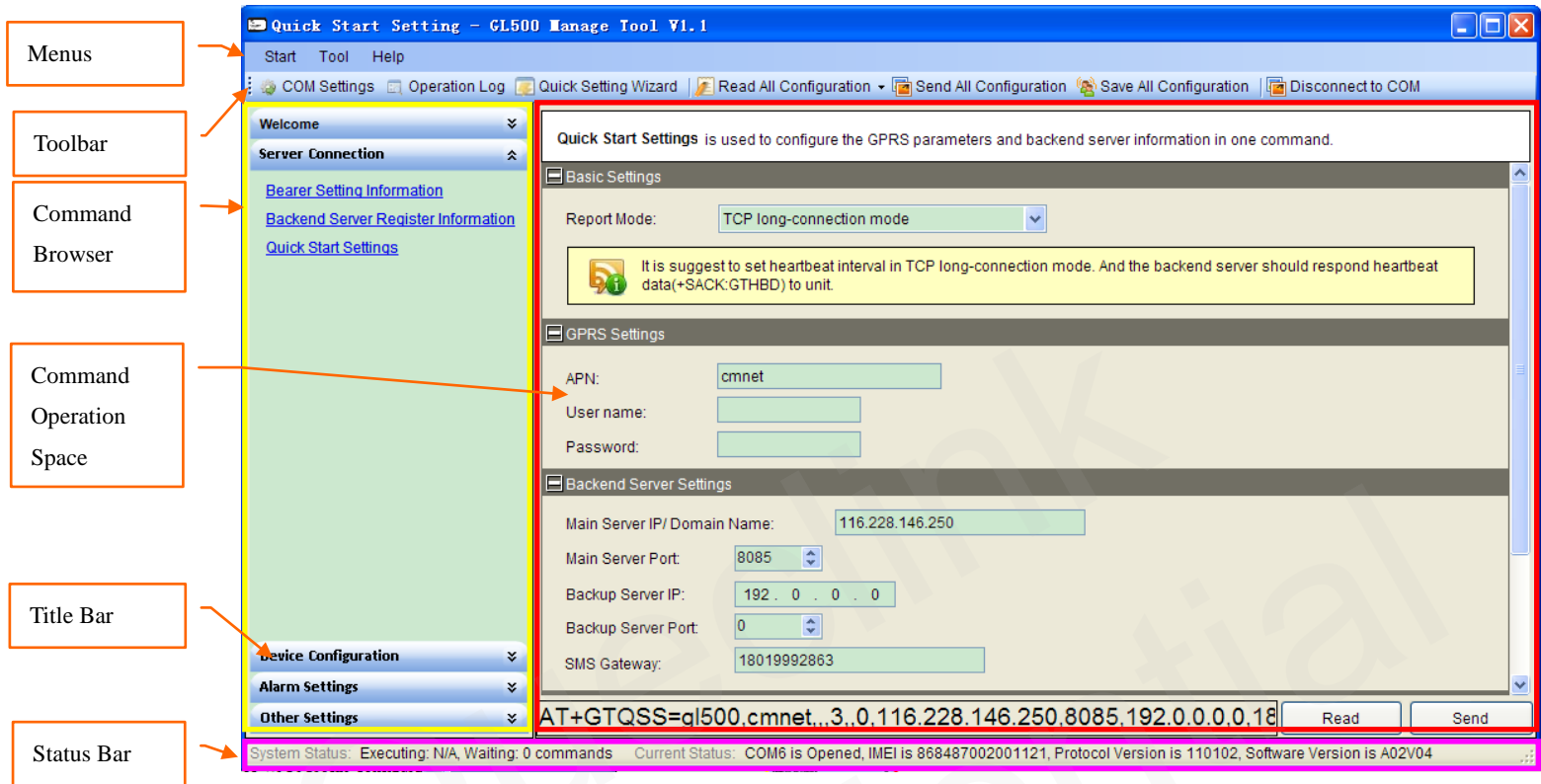
The quick setting wizard gives a basic setting for device. If you want use more functions of GL500, please change to enter professional setting mode.

Before you enter quick setting wizard, you must make sure the COM connection is OK.

Please refer chapter 3.1 for the detail of setting with quick setting wizard.



2.4. Professional Setting Windows



2.4.1. Title Bar

Title Bar indicates current operational command title and the name of manage tool.

2.4.2. Menus

It include “Start”, “Tool”, “Help” menu in menus.



2.4.2.1 Start Menu

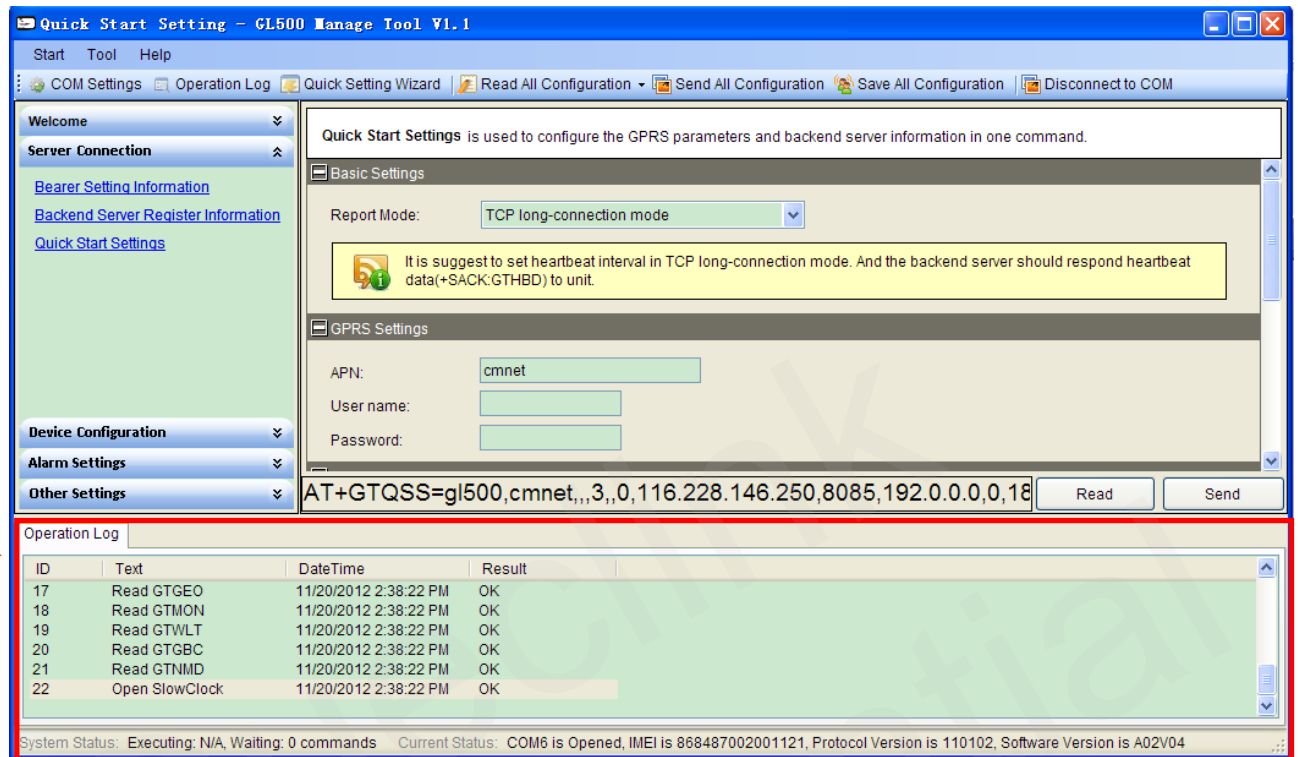
Start menu include “COM Settings”.

[COM Setting]: It is used to set the COM information and password Setting details please refer to chapter 2.2

2.4.2.2 Tool Menu

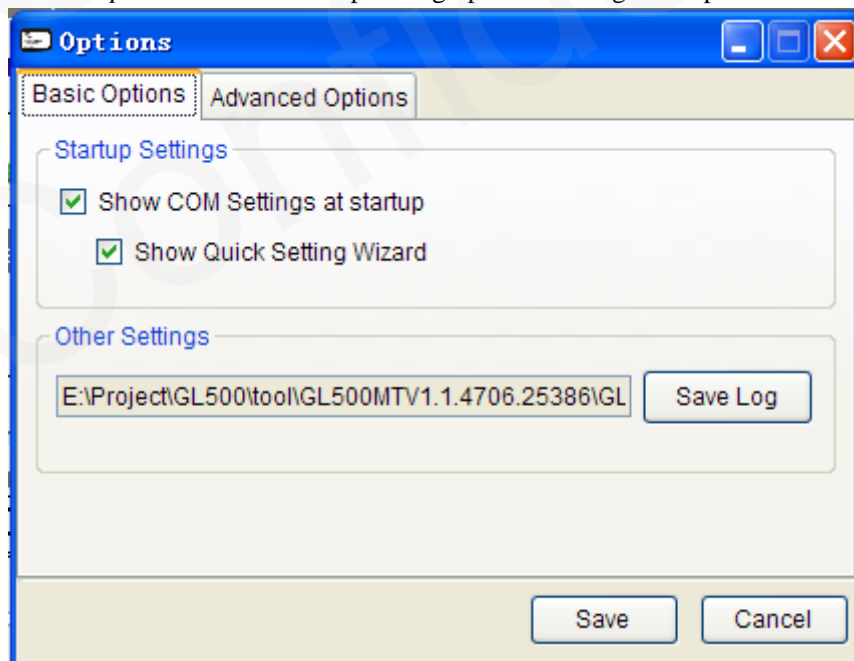
Tool menu include, “Operation Log”, “Options” setting.

[Operation Log]: It is used to display/hidden the operation log.



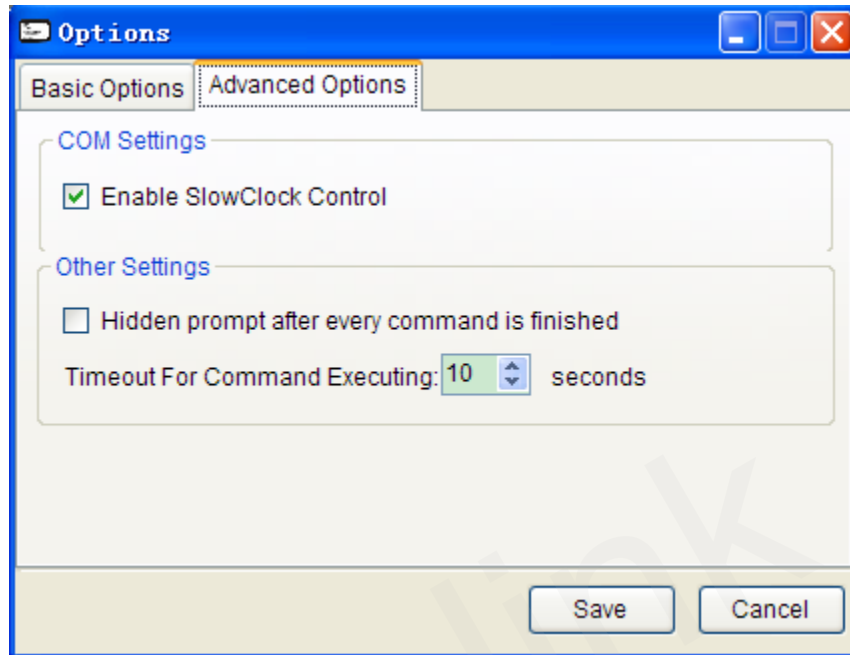
[Options]: It is used to set the basic setting of manage tool.

“Basic Options” include startup setting options and log save option.



“Advanced Options” include COM settings and other settings.

COM Settings is used to set COM setting. It is recommended using default setting for these settings.



2.4.2.3 Help Menu

[About]: Select “About”. Then the following pop up window will display.



“Manage Tool Version” indicates the version of this manage tool.

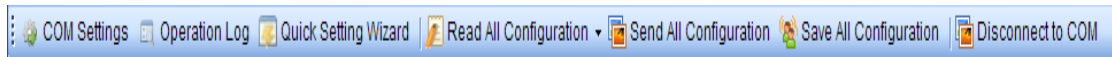
“Support Version” indicates the firmware which this manage tool used for.

“Device Version” indicates the firmware which connects to the PC. It is recommended using the same version of support version. If it is different between support version and device version, the new character of device can not be used in this tool.

2.4.3. Toolbar

It include “COM Setting”, “Operation Log”, “Read All Configuration”, “Save All Configuration”,

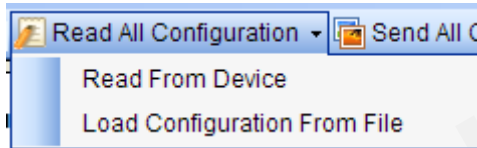
“Connect/Disconnect to COM”.



[COM Setting]: It is used to set the COM information and password. Setting details please refer to chapter 2.2.

[Operation Log]: It is used to display/hidden operation log.

[Read All Configuration]: It is used to display/hidden read and load.

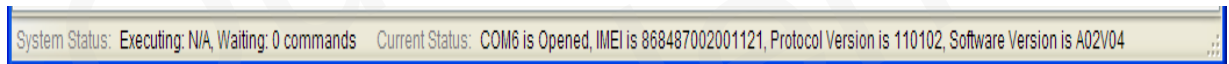


“Load Configuration From File”: It is used to load configuration file to the manage tool.

[Save All Configuration]: It is used to save all configurations in Command Operation Space to file.

[Connect/Disconnect to COM]: It is used to Connect/Disconnect to COM manually.

2.4.4. Status Bar



There is system status and current status in status bar.

[System Status]: It indicates the count of commands which are waiting and executing to set.

[Current Status]: It indicates current COM status, IMEI, protocol version and software version which read from device.

2.4.5. Command Browser and Command Operation Space

This area is mainly read and set parameters of device.

2.4.5.1 Command Brower

Command Brower separates all @Tracker Protocol command to several parts. Click Function in command Brower, reference parameters of this command will be shown in command operation space.

Command Brower	Function Description	Relative Command
----------------	----------------------	------------------

Server Connection	Bearer Setting Information	GTBSI
	Backend Server Register Information	GTSRI
	Quick Start Settings	GTQSS
Device Configuration	Global Basic Configuration	GTGBC
	Time Adjustment	GTTMA
	Non movement detection	GTNMD
	Auto-unlock PIN	GTPIN
Alarm Setting	Geo-Fence Configuration	GTGEO
Other Settings	White Call List Configuration	GTWLT
	Real Time Operation	GTRTO

2.4.5.2 Command Operation Space

The screenshot shows the 'Quick Start Settings' configuration page. It includes sections for Basic Settings (Report Mode: TCP long-connection mode), GPRS Settings (APN: cmnet, User name, Password), Backend Server Settings (Main Server IP/Domain Name: 116.228.146.250, Main Server Port: 8085, Backup Server IP: 192.0.0.0, Backup Server Port: 0, SMS Gateway: 18019992863), and Other Settings (Heartbeat Interval: 360 minutes, Buffer Mode: 0: Disable, Protocol Format: ASCII). At the bottom, a command display area shows the generated AT command: AT+GTQSS=gl500,cmnet,,3,,0,116.228.146.250,8085,192.0.0.0,0,18019992863,360,0,0,,FFFF\$. Callouts on the left identify the 'Command Description' (top text), 'Parameters Area' (input fields), and 'Command Display' (bottom text area).

[Command Description]: There is a short description for reference command.

[Parameters Area]: Set/Read parameters of this command in this area.

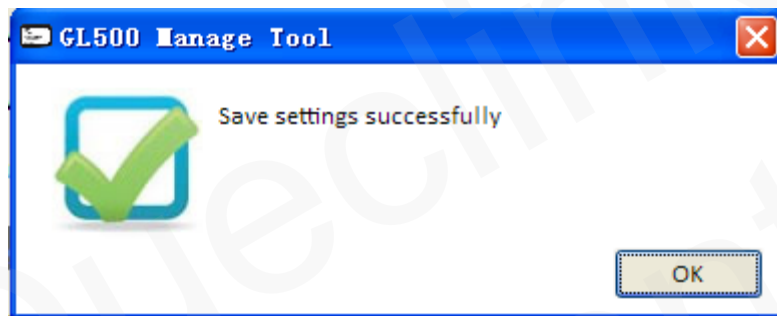
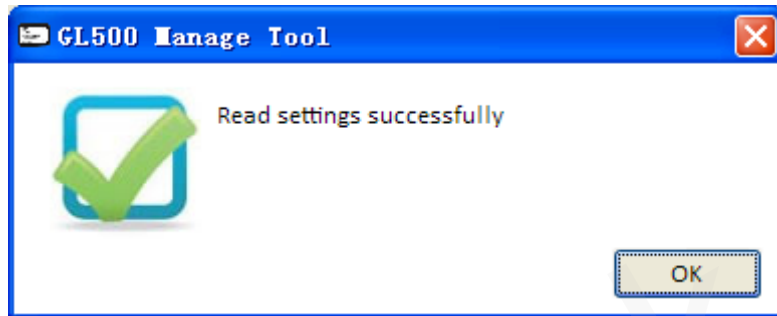
[Command Display]: Command with parameters in parameters area display in this area.

[Read]: Click this button to read this command from device.

[Send]: Click this button to send this command to device.

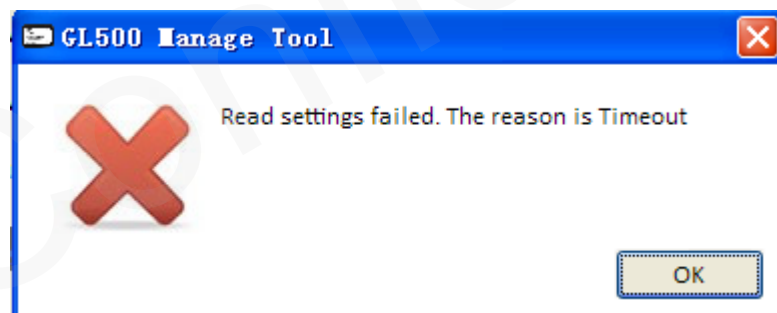
2.5. Operation Result Interface

2.5.1. Operation Successfully Interface

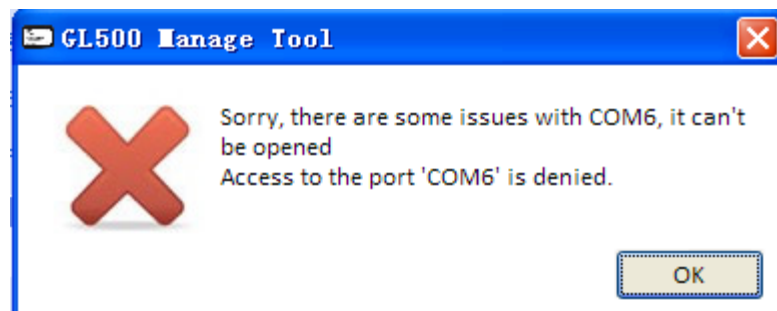


2.5.2. Operation Failed Interface

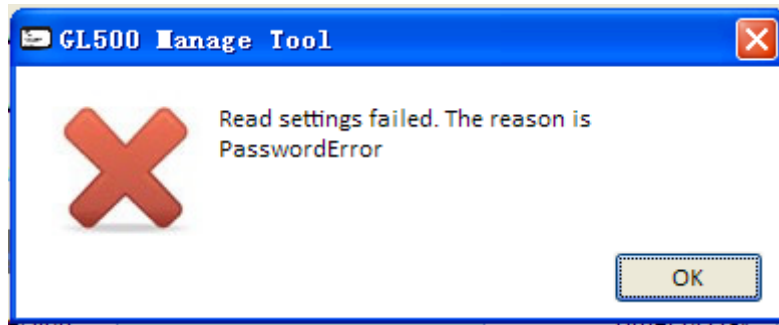
There should be COM port connection problem if the fail reason is timeout.



There should be COM port is occupied. Please close all other COM-related applications.



Please change to correct device password if Password Error.



3. Operation Instruction

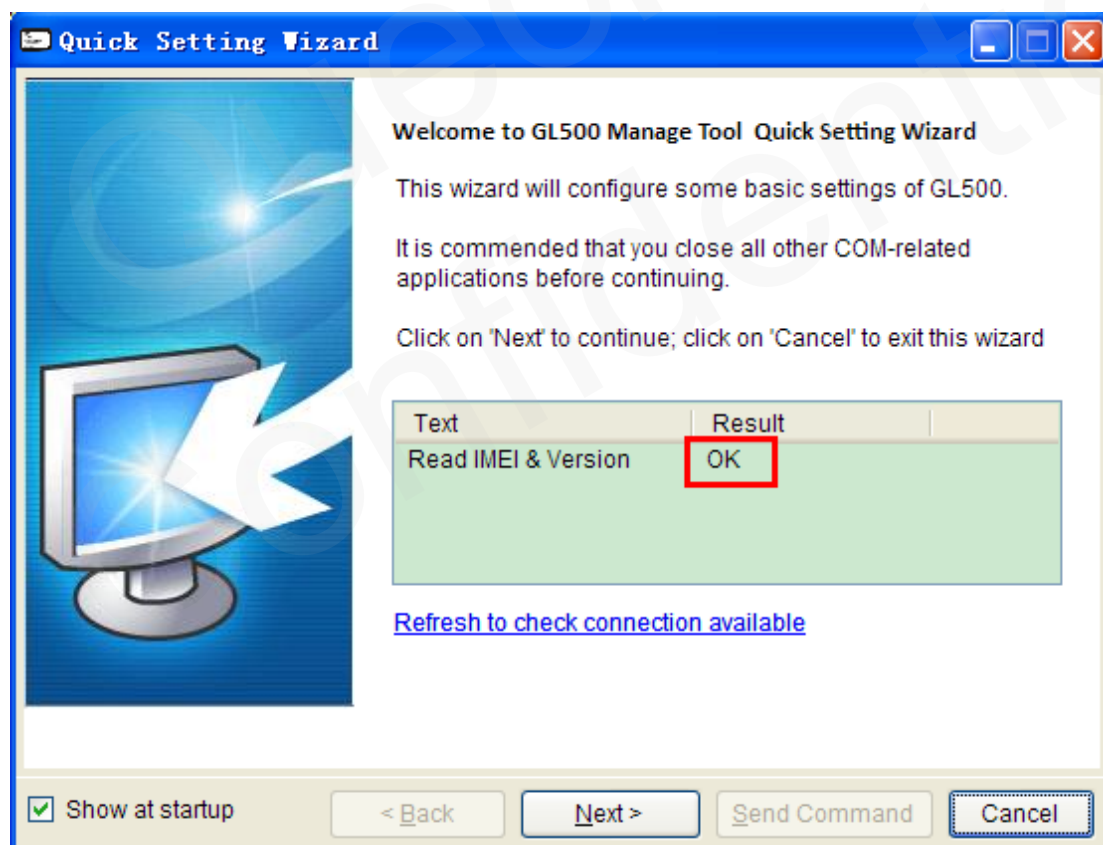
3.1. Device Configuration with Quick Setting Wizard

The manage tool is developed based on the @Track Air Interface Protocol. Please refer to “GL500 @Track Air Interface Protocol” for detail.

The quick setting wizard gives a basic setting for device. If you want use more functions of GL500, please change to professional setting mode.

3.1.1. Welcome to Quick Setting Wizard

Click “*Quick Setting Wizard*” in toolbar, open quick setting wizard. If the “Result” in this window is OK, click “*Next*”. If the “Result” is not OK, please check the COM port connection till the result is OK.



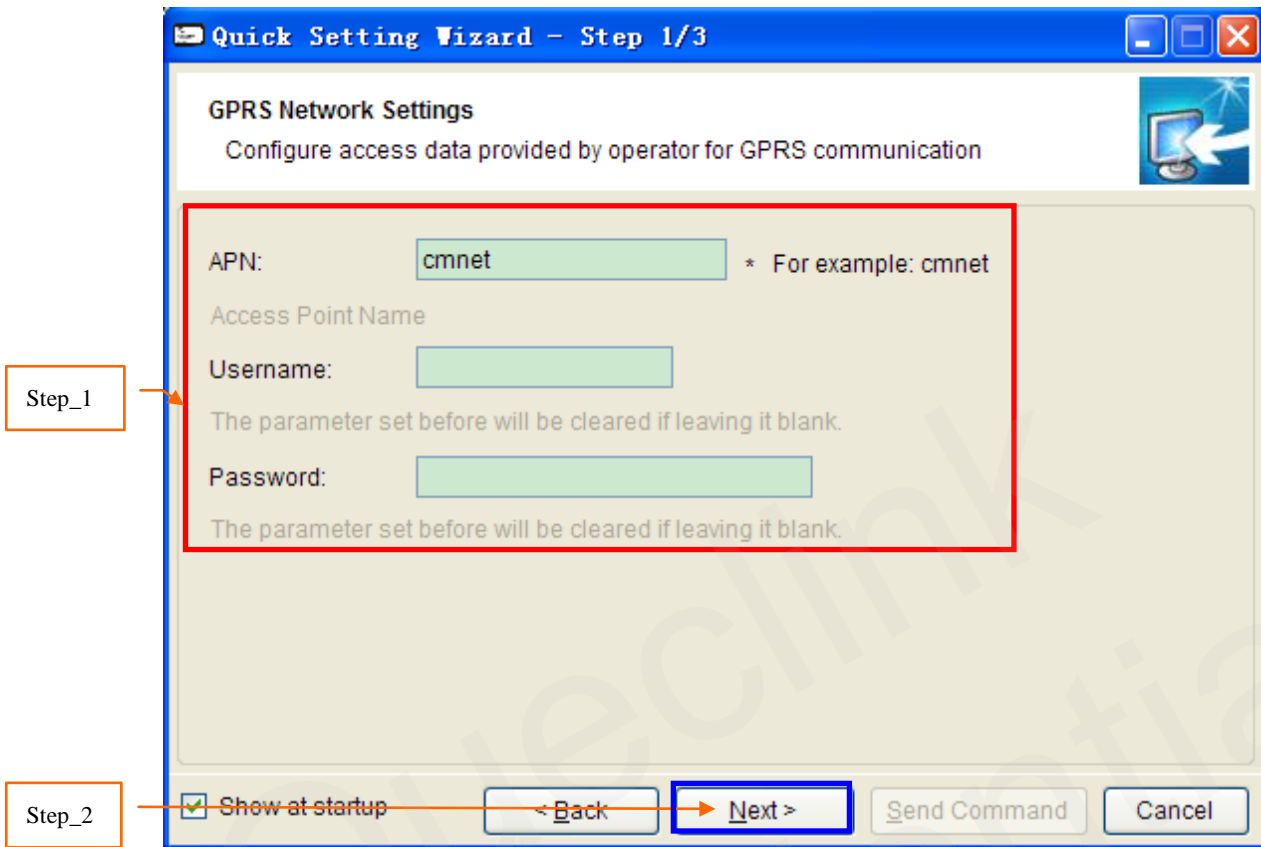
Welcome to Quick Setting Wizard

3.1.2. GPRS Network Setting

Step_1: Set APN, APN user name and password in this window. The meaning of these parameters,

please refer to the “GL500 @Tracker Air Interface Protocol” for detail.

Step_2: Then click “Next”.

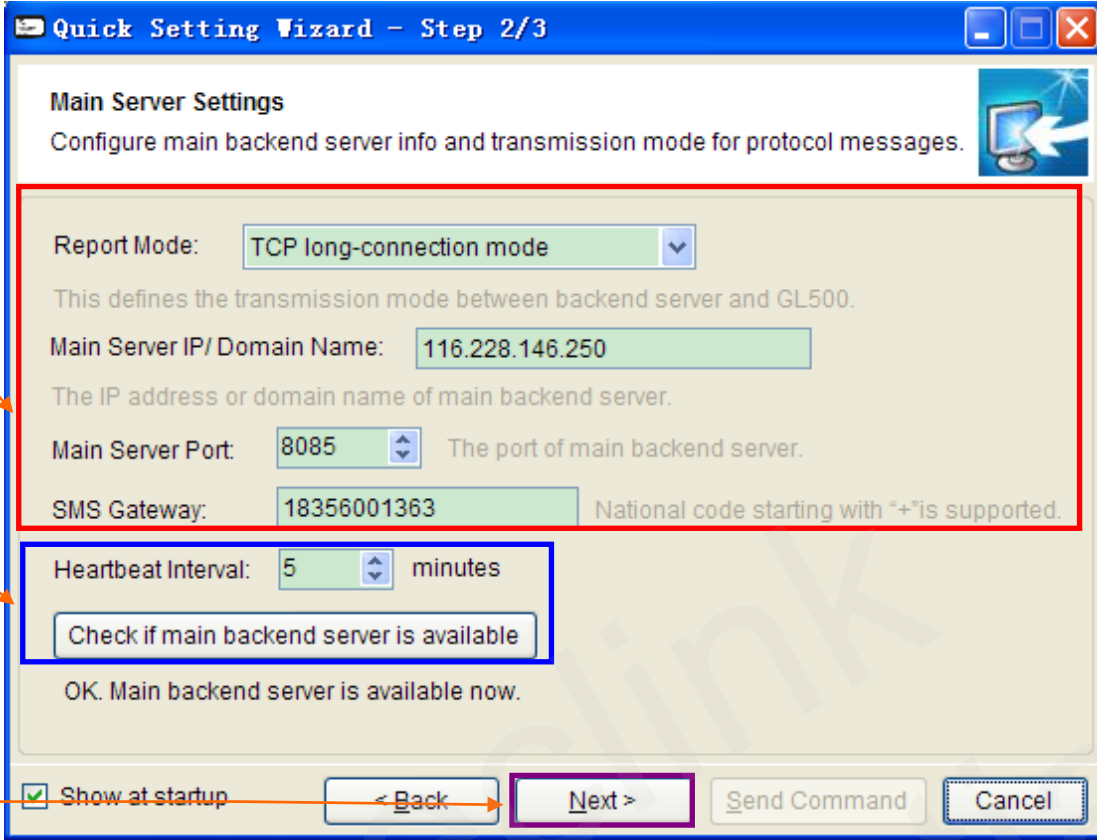


3.1.3. Main Server Setting

Step_1: Set report mode, main server, main server port, and SMS gateway in this window. The meaning of these parameters, please refer to the “GL500 @Track Air Interface Protocol” for detail.

Step_2: Click “Check if main backend server is available” to check if main server IP and port is valid in network. If the result is ERROR, please check the server connection. You cannot get report from server if the server connection has problem.

Step_3: Click “Next”.



Quick Setting Wizard - Step 2/3

Main Server Settings
Configure main backend server info and transmission mode for protocol messages.

Report Mode: TCP long-connection mode

This defines the transmission mode between backend server and GL500.

Main Server IP/ Domain Name: 116.228.146.250
The IP address or domain name of main backend server.

Main Server Port: 8085 The port of main backend server.

SMS Gateway: 18356001363 National code starting with "+" is supported.

Heartbeat Interval: 5 minutes

Check if main backend server is available

OK. Main backend server is available now.

Show at startup < Back Next > Send Command Cancel

3.1.4. Send Command to Device

Step_1: Click "Send Command". Command *GTBSI*, *GTSRI*, and *GTFRI* will send to device.

Step_2: If the settings download successfully, the result returns OK. Click "OK", the result windows closed. Quick setting is completed.

Quick Setting Wizard - Step 3/3

Please click on 'Send Command' to save settings to

Text	Result
Write GTBSI	Pending
Write GTSRI	Pending

Show at startup < Back Next > **Send Command** Cancel

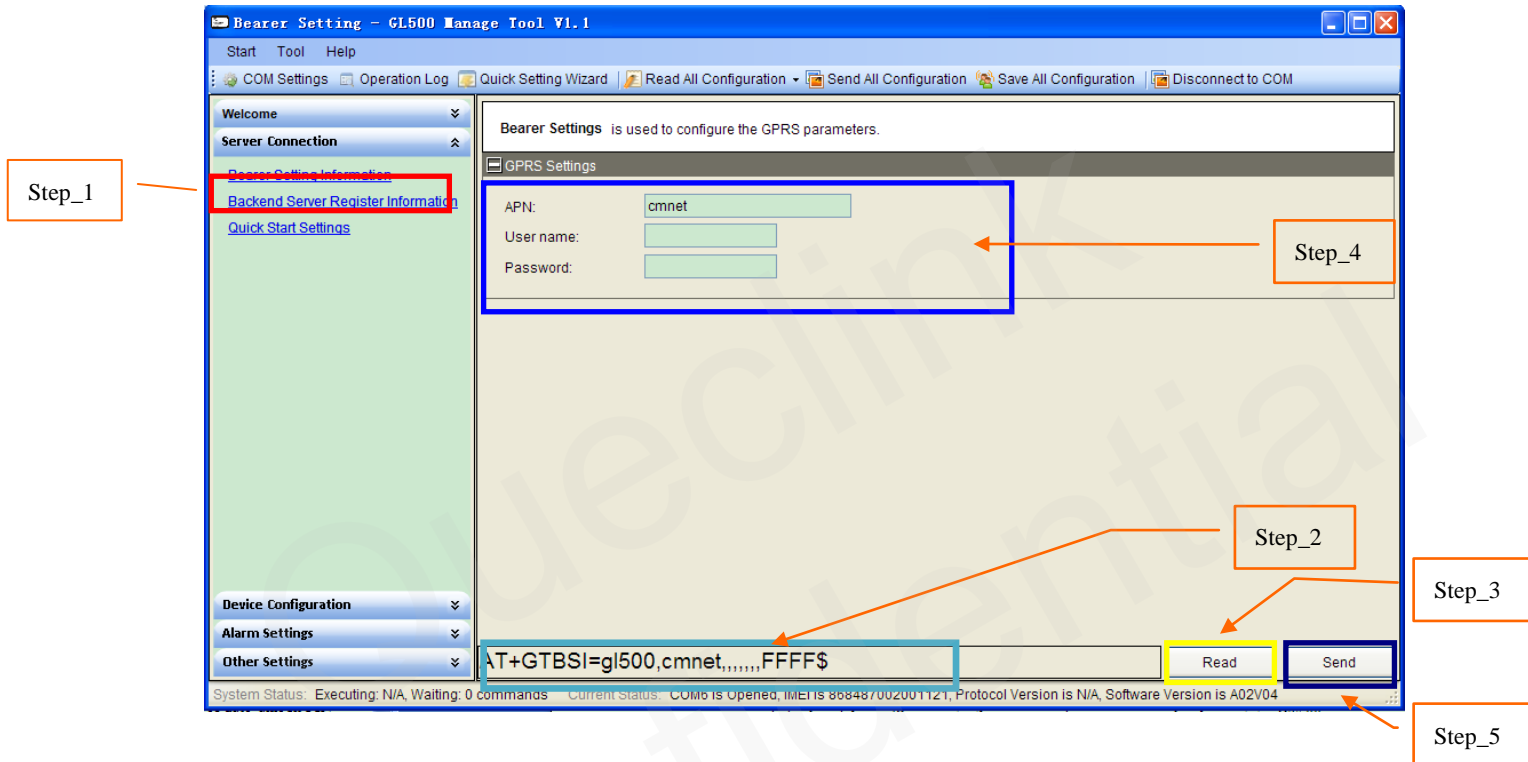
Step_1

3.2. Device Configuration in Professional Setting Mode

The manage tool is developed based on the @Track Air Interface Protocol. Please refer to “GL500 @Track Air Interface Protocol” for detail.

Following is a general procedure to configure GL500 with manage tool.

3.2.1. Set the parameters of bearer setting information



Step_1: Select “*Bearer Setting Information*”, after that the parameters of GTBSI show in Command Operation Space.

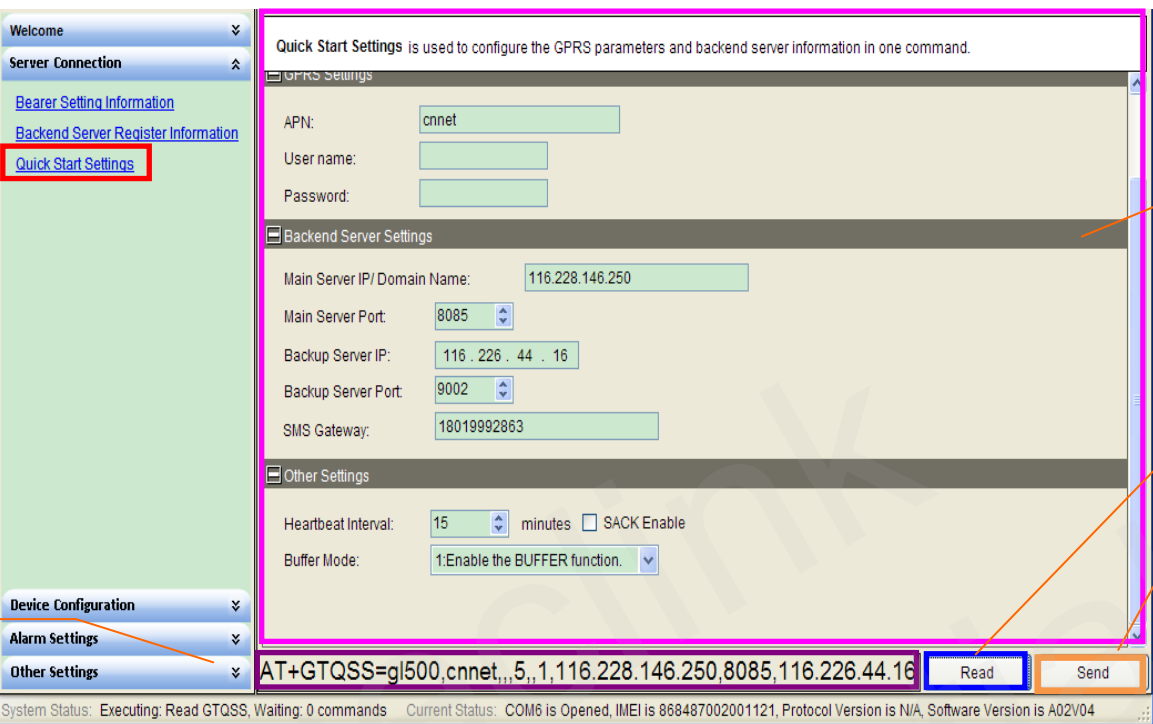
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set APN parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “*Send*” button; download the parameters of GTBSI to GL500.

3.2.3. Set the parameters of quick start setting



Step_1: Select “*Quick Start Settings*”, after that the parameters of GTQSS show in Command Operation Space.

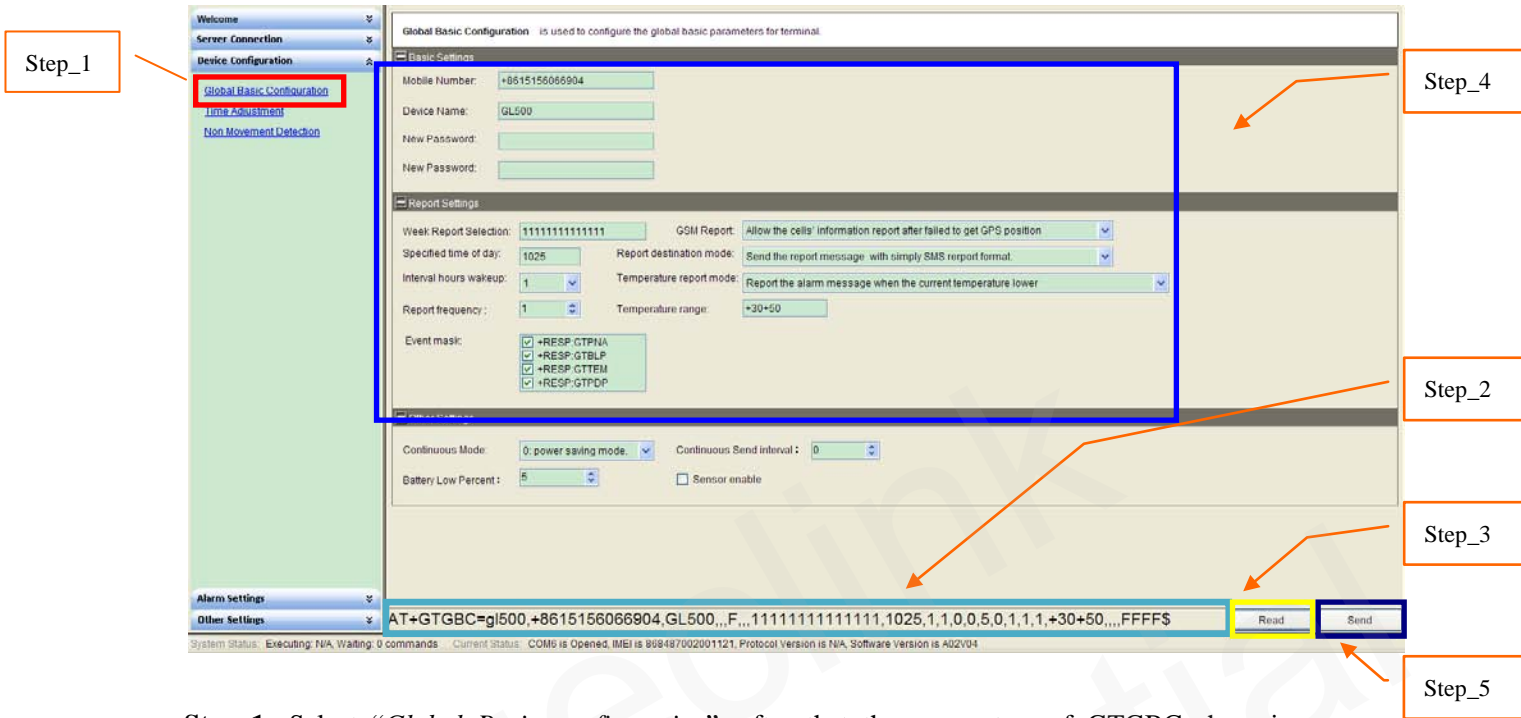
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the GPRS and backend server information parameters. Please refer to “*GL500 @Track Air Interface Protocol*” for the meaning of each parameter.

Step_5: Click the “*Send*” button; download the parameters of GTQSS to GL500.

3.2.4. Set the parameters of global Basic configuration



Step_1: Select “Global Basic configuration”, after that the parameters of GTGBC show in Command Operation Space.

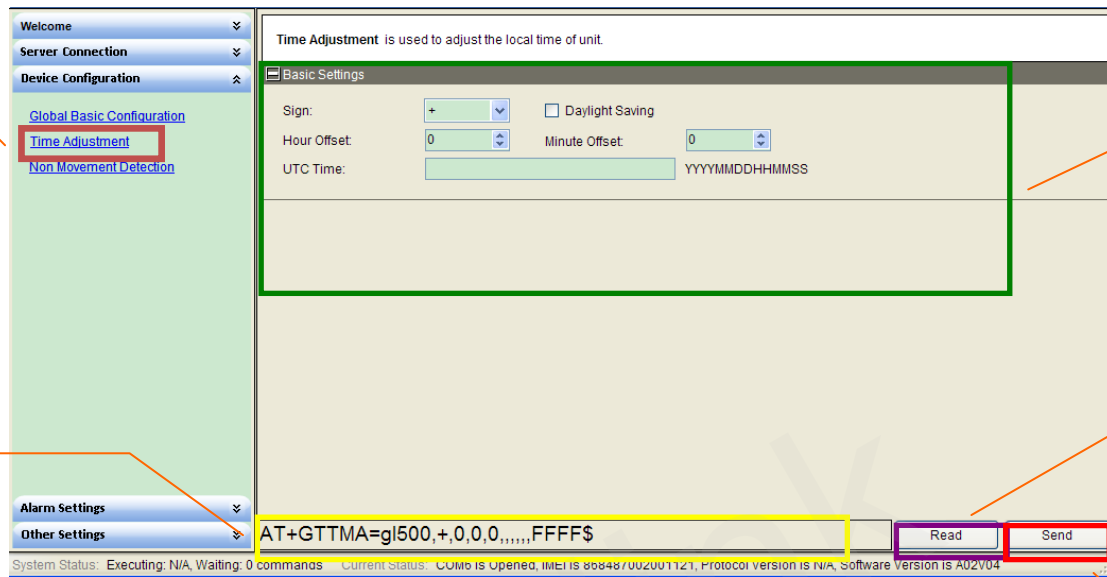
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set backend server information parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “Send” button; download the parameters of GTGBC to GL500.

3.2.5. Set the parameters of time adjustment



Step_1: Select “Time Adjustment”, after that the parameters of GTTMA show in Command Operation Space.

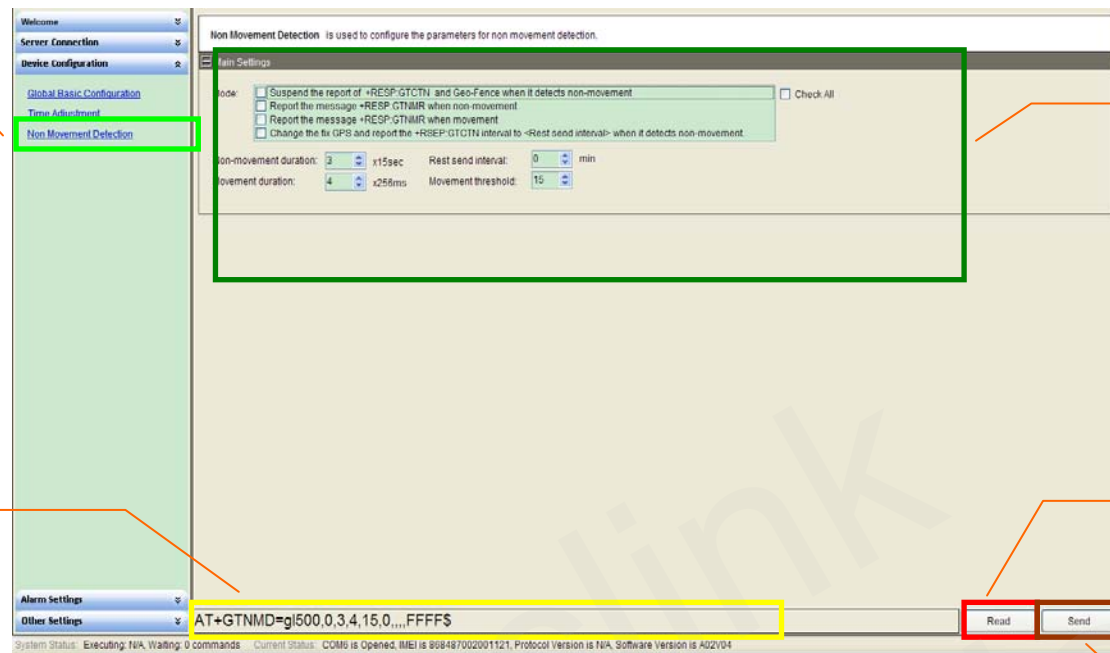
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the time adjustment parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “Send” button; download the parameters of GTTMA to GL500.

3.2.6. Set the parameters of non movement detection



Step_1: Select “*Non Movement detection*”, after that the parameters of GTNMD show in Command Operation Space.

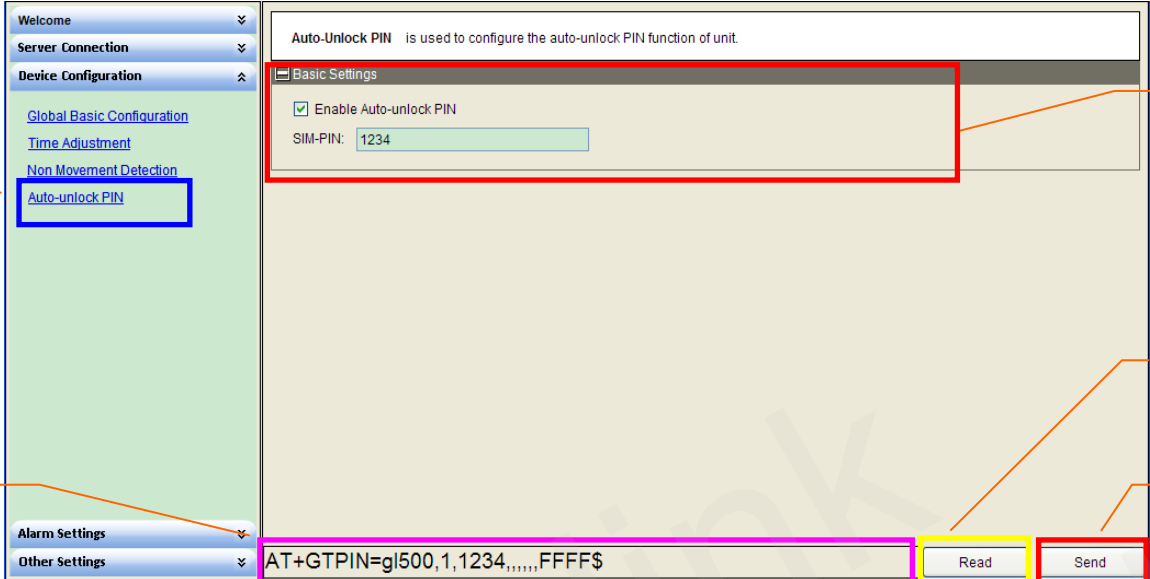
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the non movement detection parameters. Please refer to “*GL500 @Track Air Interface Protocol*” for the meaning of each parameter.

Step_5: Click the “*Send*” button; download the parameters of GTNMD to GL500.

3.2.7. Set the parameters of auto-unlock PIN



Step_1: Select “Auto-Unlock-PIN”, after that the parameters of GTPIN show in Command Operation Space.

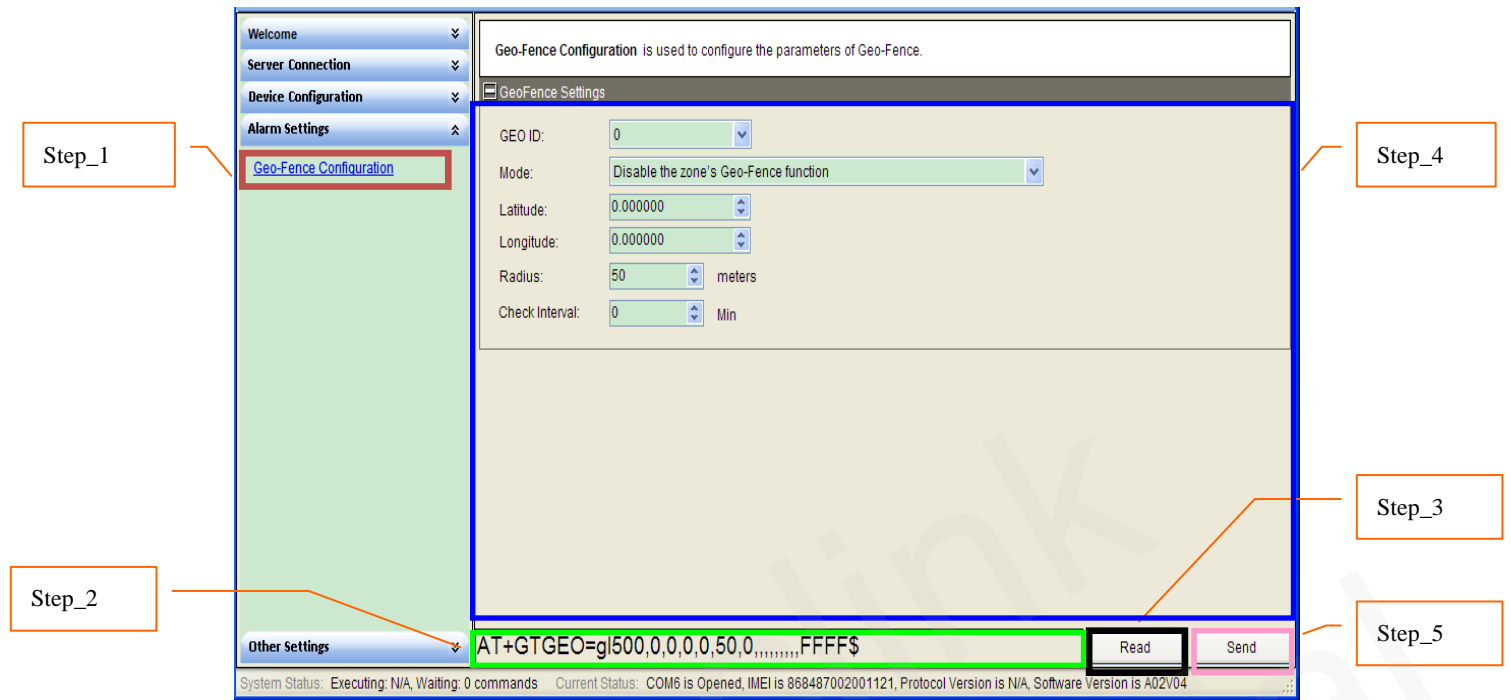
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the auto-unlock PIN parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “Send” button; download the parameters of GTPIN to GL500.

3.2.8. Set the parameters of Geo-fence information



Step_1: Select “Geo-Fence Configuration”, after that the parameters of GTGEO show in Command Operation Space.

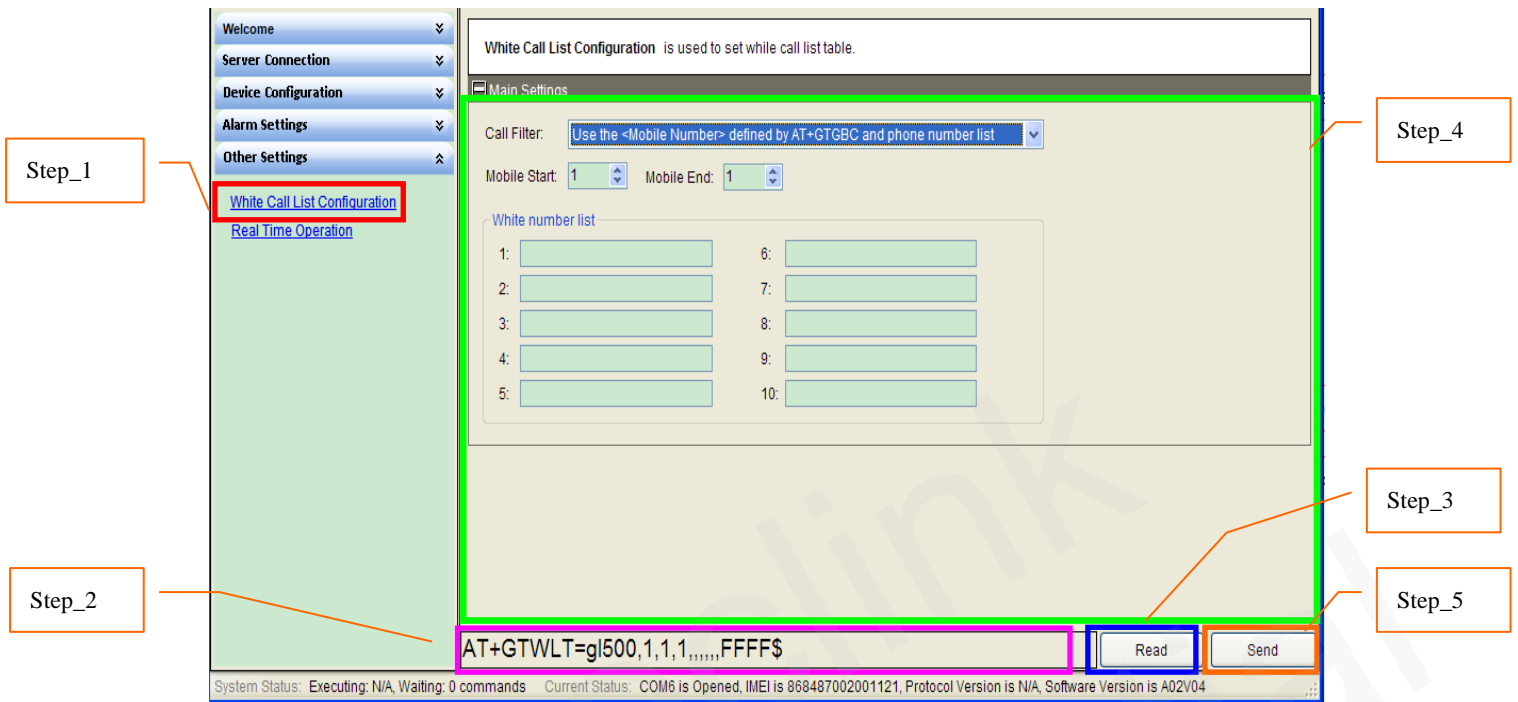
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the Geo-Fence parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “Send” button; download the parameters of GTGEO to GL500.

3.2.9. Set the parameters of white call list configuration



Step_1: Select “White Call List Configuration”, after that the parameters of GTWLT show in Command Operation Space.

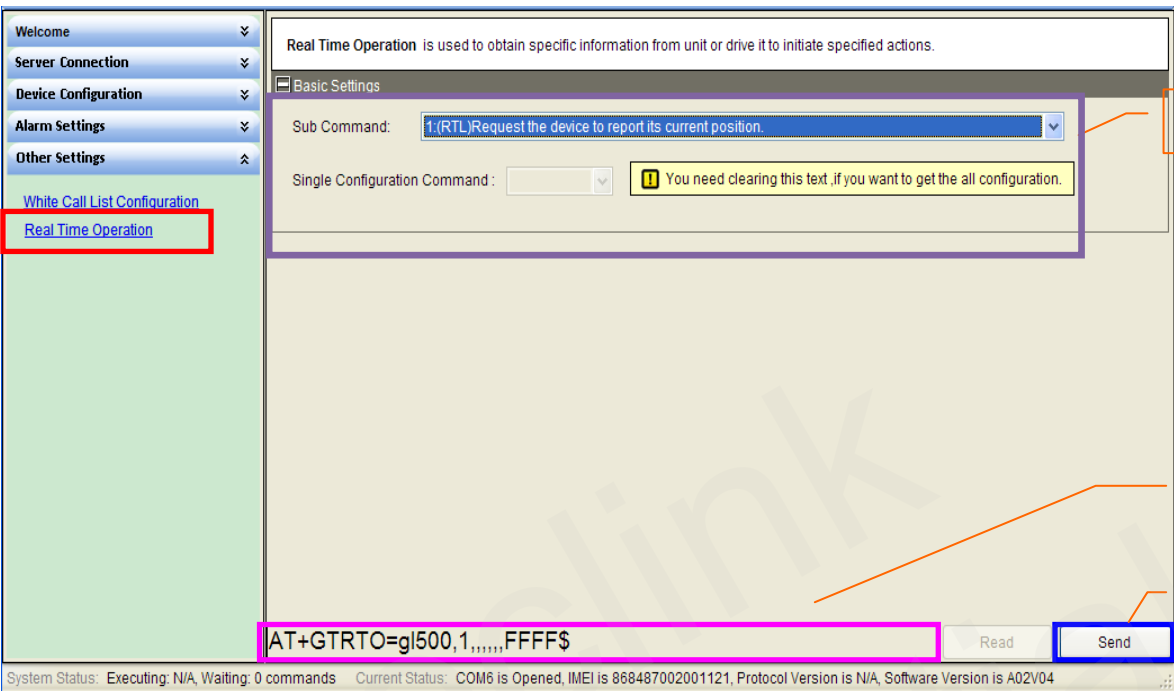
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: It is recommended to read the parameters from GL500 and edit based on them.

Step_4: Set the white call list configuration parameters. Please refer to “GL500 @Track Air Interface Protocol” for the meaning of each parameter.

Step_5: Click the “Send” button; download the parameters of GTWLT to GL500.

3.2.10. Set the parameters of real time operation



The screenshot shows the 'Real Time Operation' configuration screen in the GL500 Manage Tool. The interface includes a left sidebar with navigation options, a main configuration area with a sub-command dropdown, a command input field, and a 'Send' button. Annotations labeled Step_1 through Step_4 point to specific elements:

- Step_1:** Points to the 'Real Time Operation' option in the left sidebar.
- Step_2:** Points to the command input field containing the text `AT+GTRTO=gl500,1,,,,,FFFF$`.
- Step_3:** Points to the sub-command dropdown menu showing '1.(RTL)Request the device to report its current position.'
- Step_4:** Points to the 'Send' button.

Step_1: Select “*Real Time Operation*”, after that the parameters of GTRTO show in Command Operation Space.

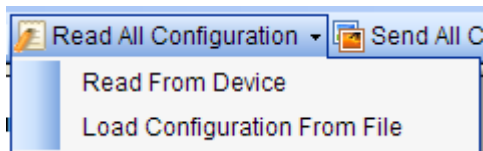
Step_2: The command message which shall be sent to GL500 will be generated based on input and displayed here. Please note this command message can also be sent to GL500 through SMS or GPRS.

Step_3: Set the real time operation parameters. Please refer to “*GL500 @Track Air Interface Protocol*” for the meaning of each parameter.

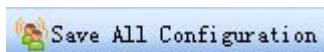
Step_4: Click the “*Send*” button; download the parameters of GTRTO to GL500.

3.3. Read/Save All Configuration

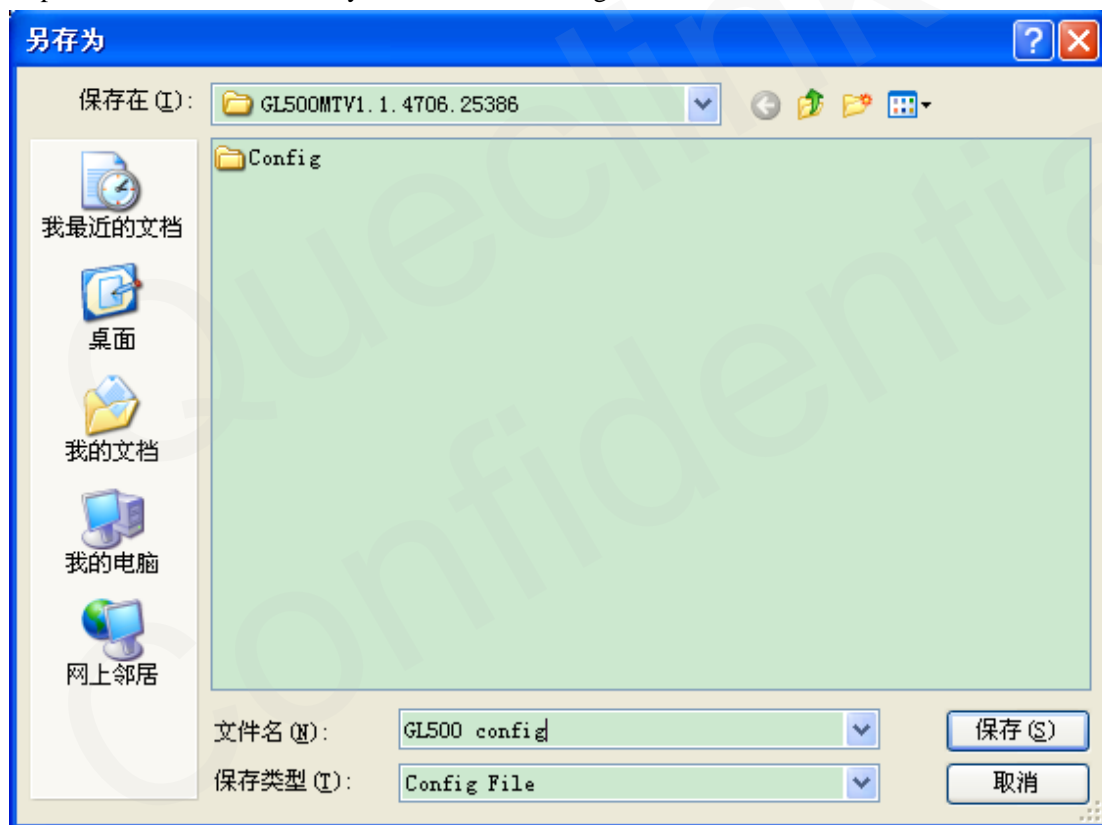
Step_1: It is recommended to read all configurations from device before save the configuration. Select “*Read All Configuration*”→”*Read From Device*”.



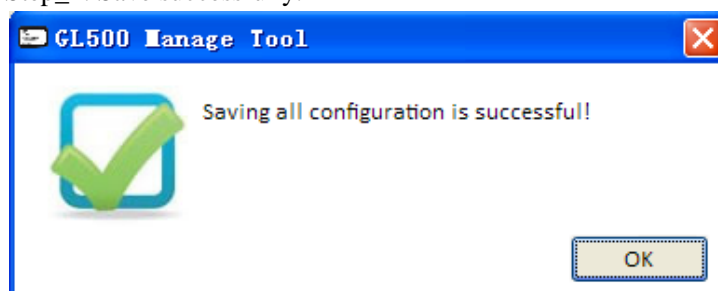
Step_2: After read successfully, click “*Save All Configuration*” in toolbar.



Step_3: Select a folder, and key in the name of configuration file, then click “*Save*” button.

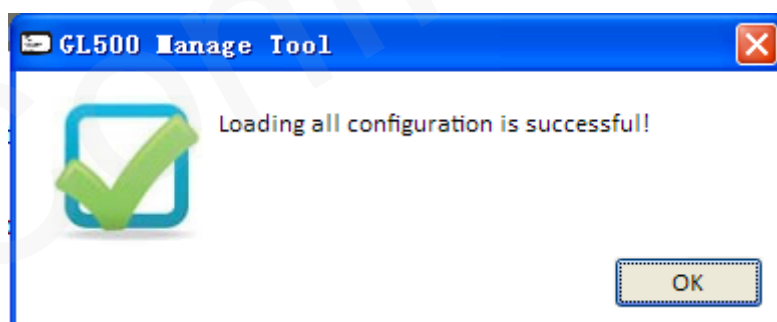
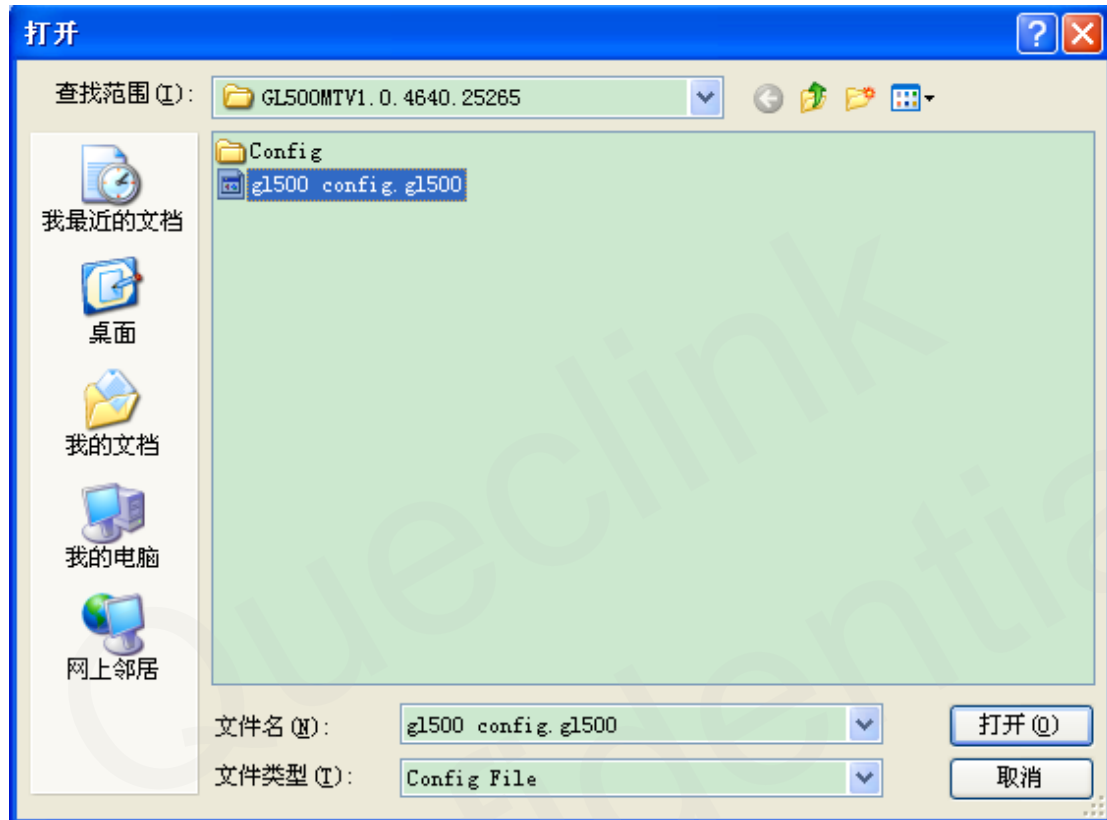


Step_4: Save successfully.



3.4. Load/Send All Configuration

Step_1: Before send all configurations, please load the configuration file or set all parameters in commands. To load configuration file, please select “*Read All Configuration*” → “*Load Configurations From File*”. And then select the configuration file you needed.



Step_2: You can set the parameters in commands base on the configuration file, and then click “*Send All Configuration*” in toolbar.



Step_3: Manage Tool will send all commands to device.

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