GV500MAP Manage Tool User Guide

EGPRS/LTE Cat-M1/LTE Cat-NB1/GNSS Tracker

TRACGV500MAPMT004

V4.00



Driving Smarter IoT

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History

Version	Date	Author	Description of Change
1.00	Sep 9, 2019	Abbott Zhang	Initial.
2.00	Oct 29, 2022	Issa Li	Added **GTBTS** and **GTBSF** commands.
3.00	Mar 19,2024	Issa Li	Added **GTBAS ,GTUDF** and **GTCMD** commands.
4.00	July 22,2024	Issa Li	Added **GTSVR**

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1. GV500MAP Manage Tool Interface

The GV500MAP Manage Tool is a PC software which can be used to configure the GV500MAP through UART. Configuration is easy for the backend server developers as the tool has a user-friendly interface. The correct command messages sent to the GV500MAP will be displayed on the Manage Tool. (These messages can also be sent by SMS, LTE or GPRS).

The administrators can also use the Manage Tool to configure the device before sale. We recommend to establish a backend server and use the device by SMS, LTE or GPRS. Please refer to GV500MAP @Track Air Interface Protocol for details.

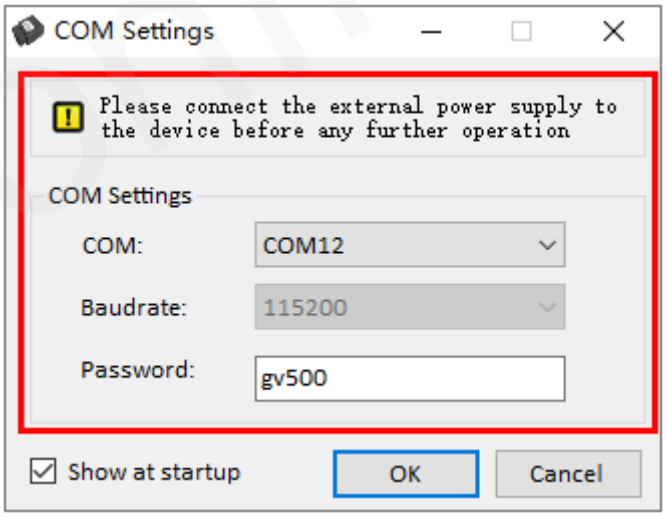
To get started, please install the driver for the USB data cable (Data_Cable_MC5). Then, find the new COM port in your PC system and follow the steps below:

1. Connect the device to PC by using the USB data cable (Data_Cable_MC5).
2. Run Queclink_GV500MAP_Manage_Tool_Rx.xx.exe.

1.1. System Requirements

The tool can run on all Windows operation systems, for example, **.NET Framework 3.5** (and above).

1.2. COM Setting

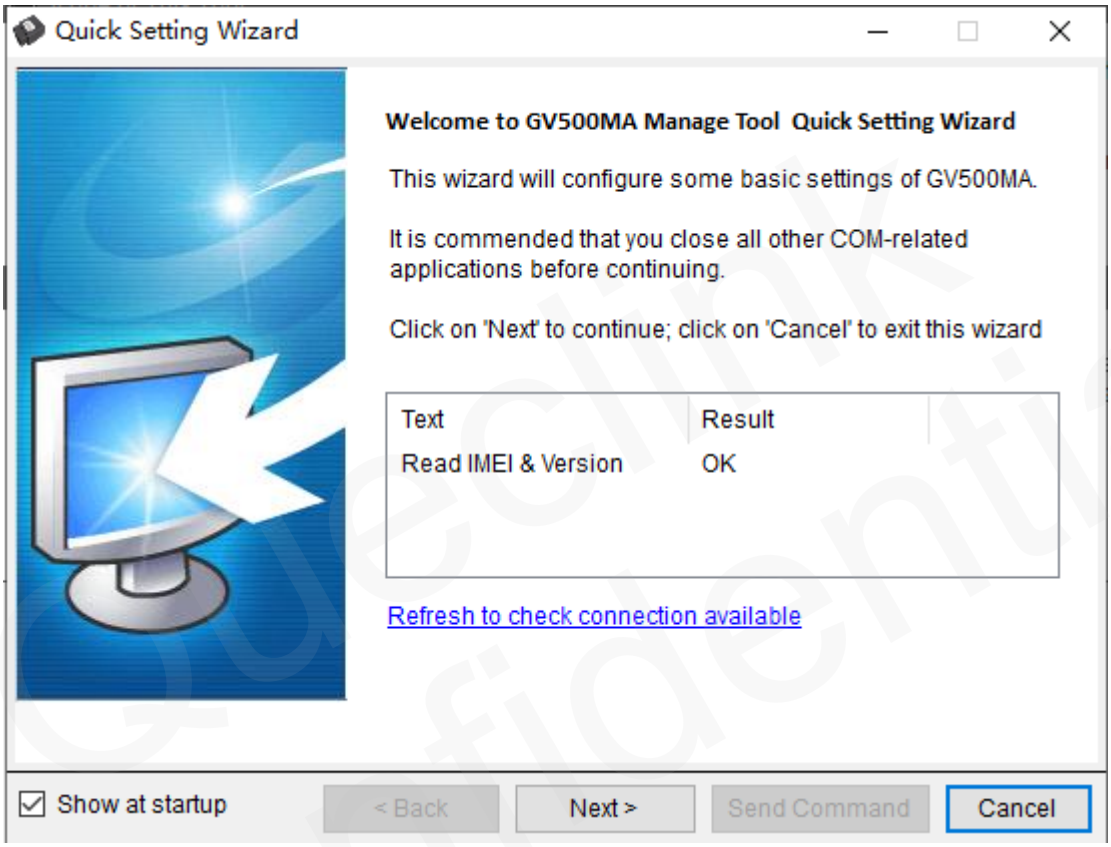


Select the COM port and Baudrate (115200bps by default), enter the password **gv500** by default, and click **OK**. Then the setting window will be displayed.

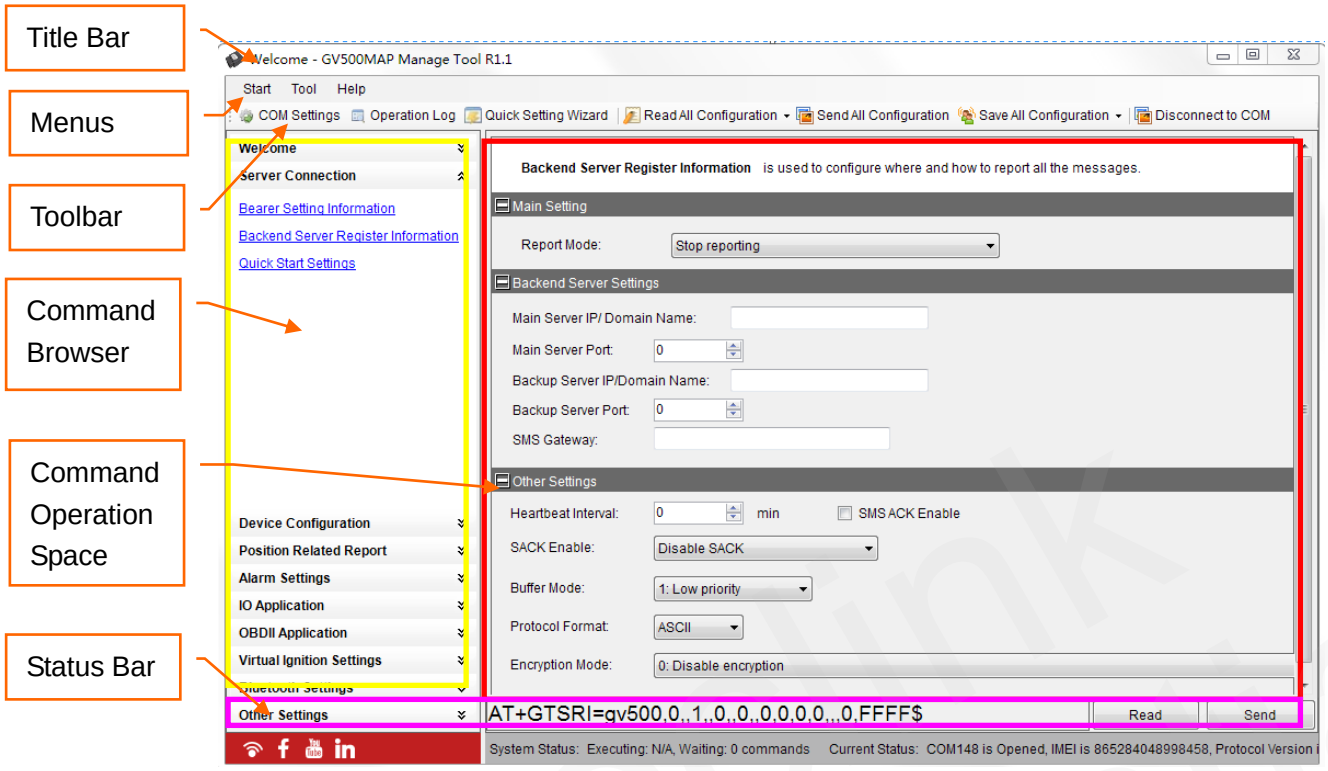
1.3. Quick Setting Wizard

The Quick Setting Wizard allows you to set basic settings for the device (Please refer to Chapter 2.1 for the instructions). If you want to use more functions of the device, select **Cancel** on the Quick Setting Wizard page to enter professional setting mode.

Note: To enter the Quick Setting Wizard page or the professional setting interface, please configure the COM setting first.



1.4. Professional Setting Interface

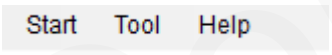


1.4.1 Title Bar

It indicates the version of the Manage Tool.

1.4.2 Menus

It includes “Start”, “Tool”, and “Help”.



1.4.2.1 Start Menu

It includes “COM Settings”.

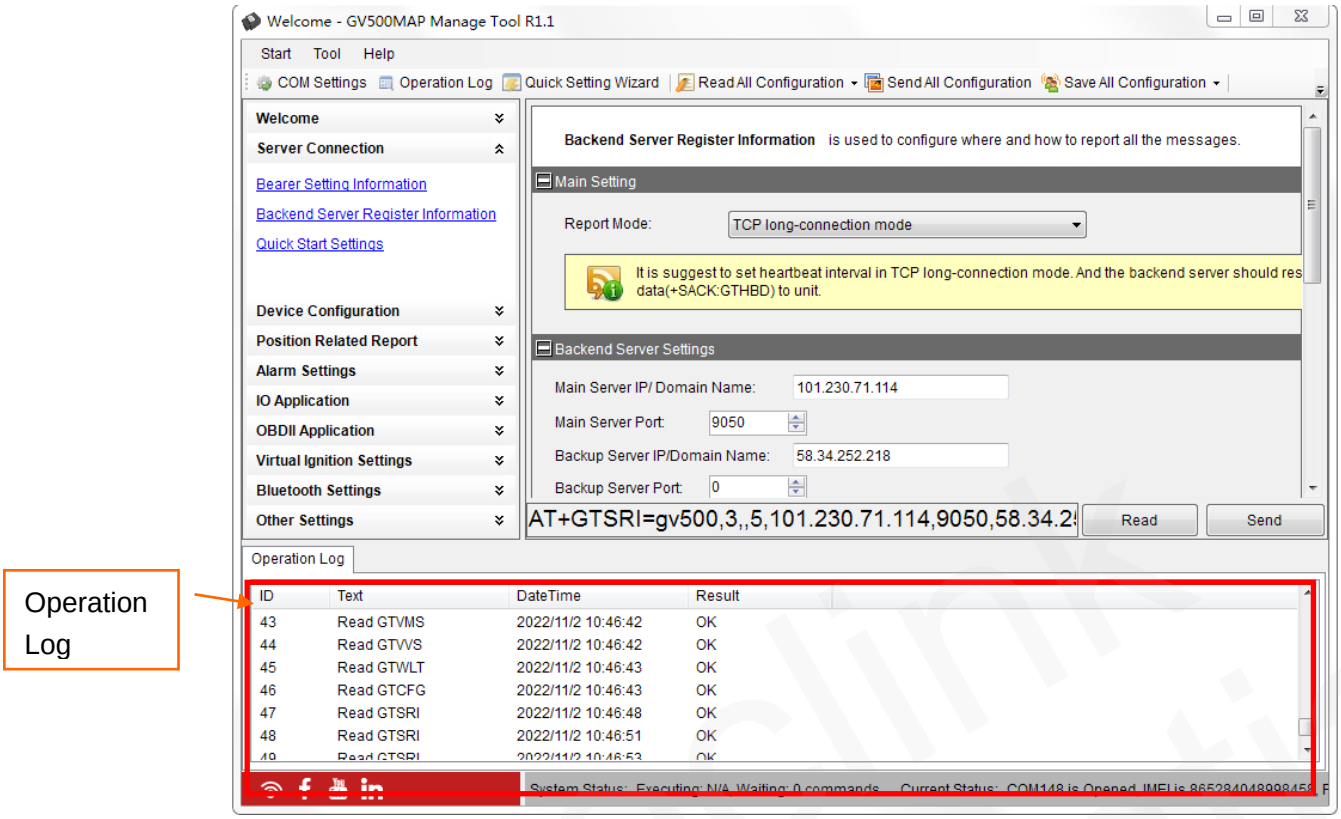
[COM Setting]: It is used to set the COM information and password. For setting details, please refer to Chapter 1.2.

1.4.2.2 Tool Menu

It includes “Quick Setting Wizard”, “Operation Log”, and “Options”.

[Quick Setting Wizard]: It is used to open Quick Setting Wizard directly. Please refer to Chapter 2.1 for details.

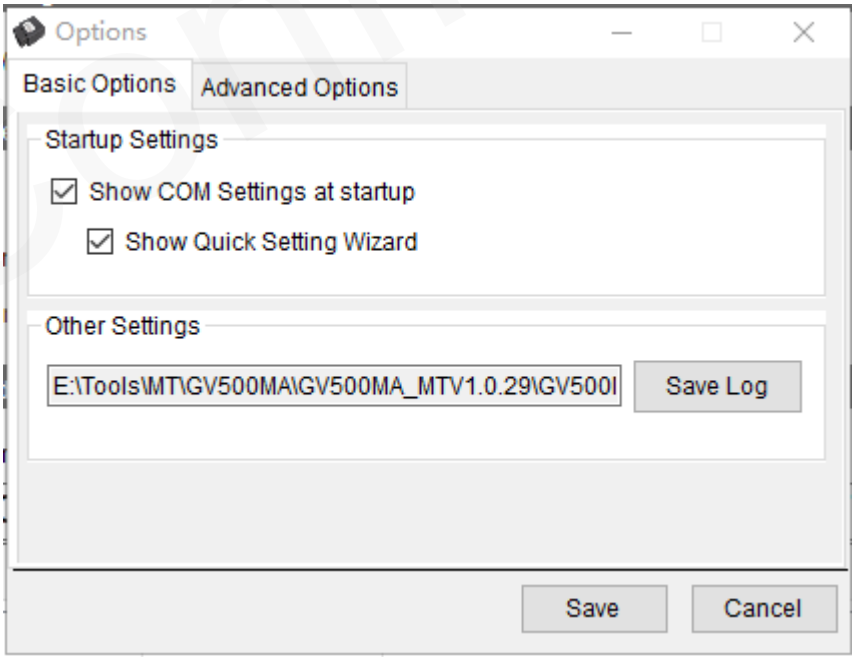
[Operation Log]: It is used to display/hide the operation log.



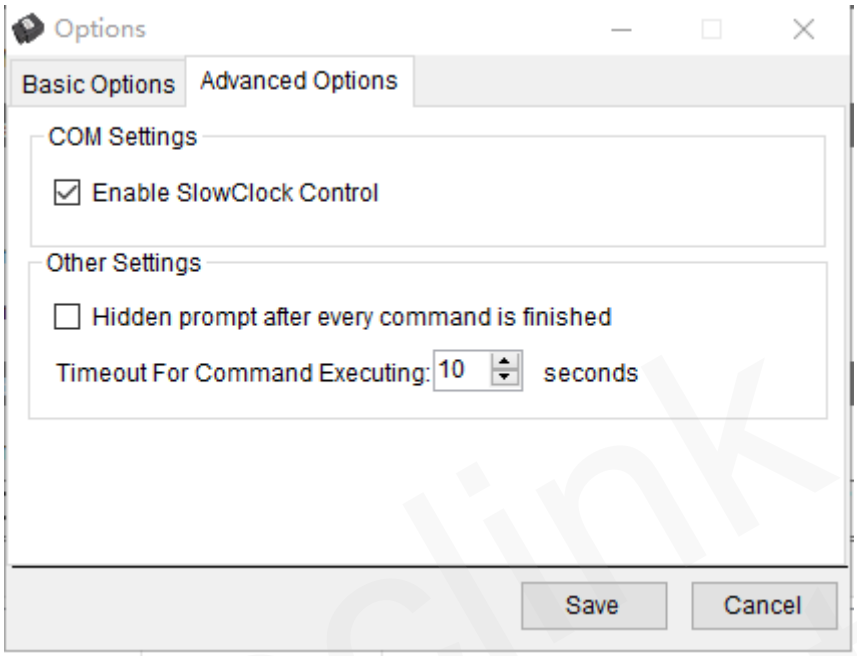
Operation Log

[Options]: It is used to configure the basic settings of the Manage Tool, which includes "Basic Operations" and "Advanced Operations".

Basic Options includes "Startup Setting" and "Other Settings". "Startup Setting" is used to configure whether to show COM settings at startup. "Other Settings" is used to select the address where you want to save the file.



Advanced Options includes “COM Settings” and “Other Settings”. “COM Settings” is used to configure the COM settings. We recommend to use the default settings. “Other Settings” is used to configure the Timeout For Command Executing.



1.4.2.3 Help Menu

[About]: Select **About**. Then the following pop-up window will be displayed.

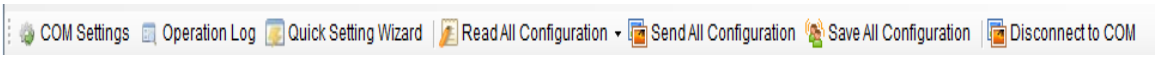


“*Manage Tool Version*” indicates the version of this Manage Tool.
“Support *Protocol Version*” indicates the protocol version which this Manage Tool is used for.
“APP Version” indicates the firmware version of the device which connects to PC.
“*Mcu Version*” indicates the MCU version of the device which connects to PC.
“*Hw Version*” indicates the hardware version of the device which connects to PC.

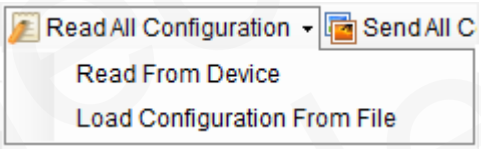
"*BLE Version*" indicates the Bluetooth version of the device connected to the PC.

1.4.3 Toolbar

It includes "COM Setting", "Operation Log", "Quick Setting Wizard", "Real All Configuration", "Send All Configuration", "Save All Configuration", and "Connect/Disconnect to COM".



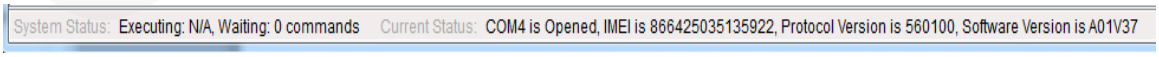
[COM Setting]: It is used to set the COM information and password. For setting details, please refer to Chapter 1.2.
[Operation Log]: It is used to display/hide the operation log.
[Quick Setting Wizard]: It is used to open Quick Setting Wizard directly. Please refer to Chapter 2.1 for details.
[Read All Configuration]: It is used to display/hide "Read From Device" and "Load Configuration From File". "Read From Device" is used to read all configurations (except the commands AT+GTRTO and AT+GTORR) from the device which connects to PC. "Load Configuration From File" is used to load configuration file to the Manage Tool.



[Send All Configuration]: It is used to send all configurations (except commands **AT+GTQSS, AT+GTRTO**, **AT+GTORR** and **AT+GTUPC**) in Command Operation Space.
[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 COM manually.

1.4.4 Status Bar

There are system status and current status in Status Bar.



[System Status]: It indicates the count of commands which are waiting and being executed.
[Current Status]: It indicates the current COM status, IMEI, protocol version and software version read from the device.

1.4.5 Command Browser and Command Operation Space

It is mainly used to read and set parameters of the device.

1.4.5.1 Command Brower

All @Track protocol commands are divided into several parts. Select a command in Command Brower, then the parameters of this command will be shown in Command Operation Space.

Command Brower	Function Description	Related Command
Server Connection	Bearer Setting Information	**AT+GTBSI**
	Backend Server Registration Information	**AT+GTSRI**
	Quick Start Settings	**AT+GTQSS**
Device Configuration	Global Configuration	**AT+GTCFG**
	Time Adjustment	**AT+GTTMA**
	Outside Working Hours	**AT+GTOWH**
	Protocol Watchdog	**AT+GTDOG**
	Settings for Preserving Device's Specified Logic States	**AT+GTPDS**
	Over-the-air Configuration Update	**AT+GTUPC**
	Hex Report Mask	**AT+GTHRM**
Position Related Report	Fixed Report Information	**AT+GTFRI**
	Emergency Report Mode	**AT+GTEMG**
Alarm Settings	Tow Alarm Configuration	**AT+GTTOW**
	Geo-Fence Configuration	**AT+GTGEO**
	Roaming Detection Configuration	**AT+GTRMD**
	Speed Alarm	**AT+GTSPD**
	Excessive Idling Detection	**AT+GTIDL**
	Start/Stop Report	**AT+GTSSR**
	Harsh Behavior Monitoring	**AT+GTHBM**
	Crash Detection	**AT+GTCRA**
	Three-Axis Self-Calibration	**AT+GTASC**
IO Application	External Power Supply Monitoring	**AT+GTEPS**
OBDII Application	OBDII configuration	**AT+GTOBD**
	OBDII Real Time Request	**AT+GTORR**
	OBDII Status Monitoring	**AT+GTOSM**
Virtual Ignition Settings	Voltage Virtual Ignition Setting	**AT+GTVVS**
	Accelerometer Virtual Ignition Setting	**AT+GTAVS**
	Virtual Ignition Mode Selection	**AT+GTVMS**
Bluetooth Setting	Bluetooth Setting	**AT+GTBTS**
	Bluetooth Specific Format	**AT+ GTBSF**

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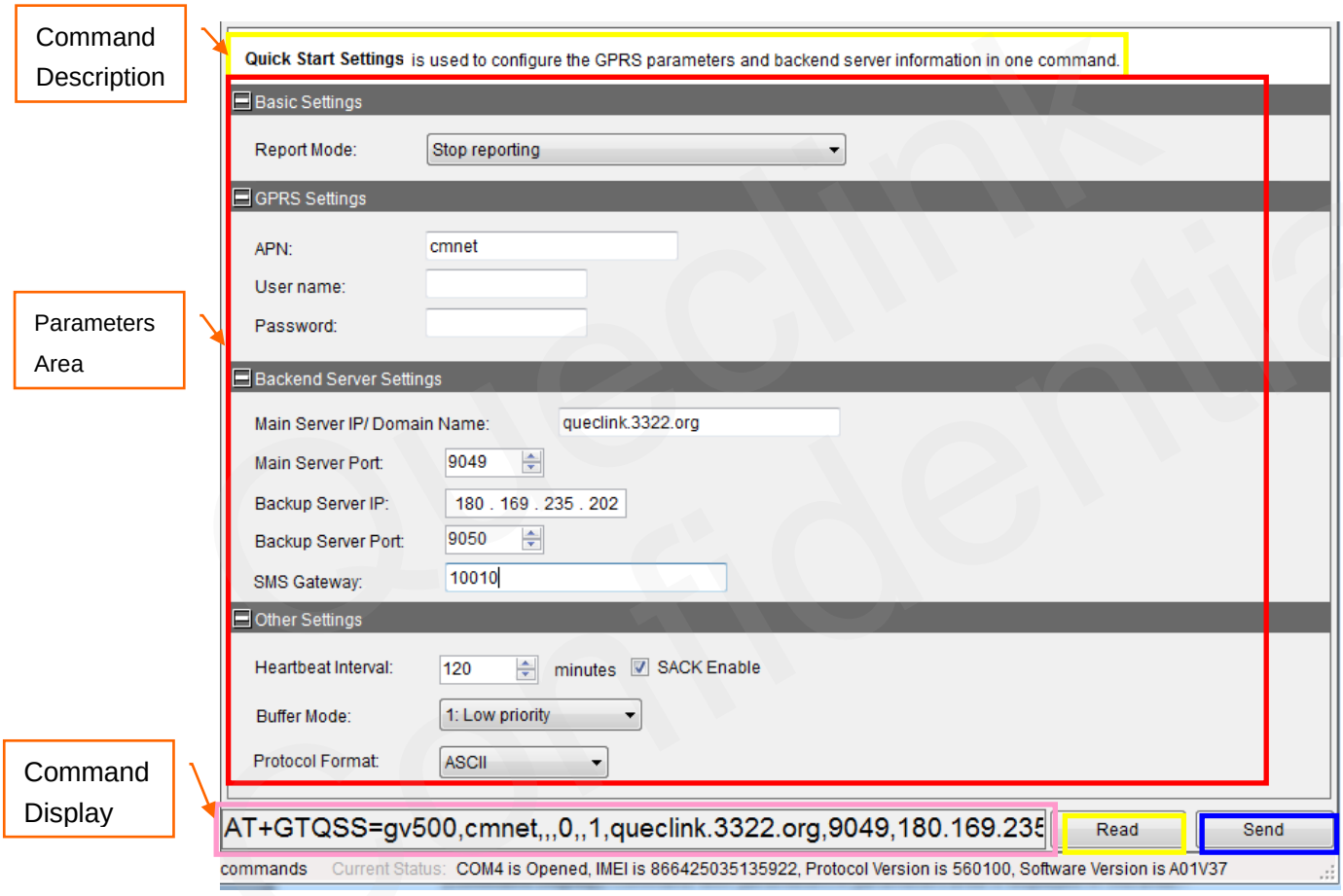
	Bluetooth Accessory Setting	**AT+ GTBAS**
	Primary Stolen Vehicle Recovery	**AT+ GTSVR**
Other Settings	Real Time Operation	**AT+GTRTO**
	Hour Meter Counter	**AT+GTHMC**
	White List	**AT+GTWLT**
	GNSS-Assisted Motion Measurement	**AT+GTGAM**
	Configuration File Version	**AT+GTFVR**
	Command String Storage	**AT+GTCMD**
	User Defined Function	**AT+GTUDF**

1.4.5.2 Command Operation Space



[Command Description]: It is a short description for the related command.

[Parameters Area]: It indicates the area where to set/read parameters of the related command.

[Command Display]: It indicates the area which displays the related command with set parameters.

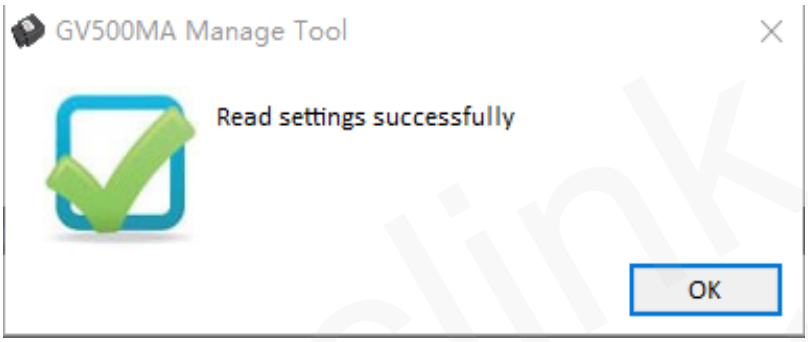
[Read]: It is a button to read this command from the device.

[Send]: It is a button to send this command to the device.

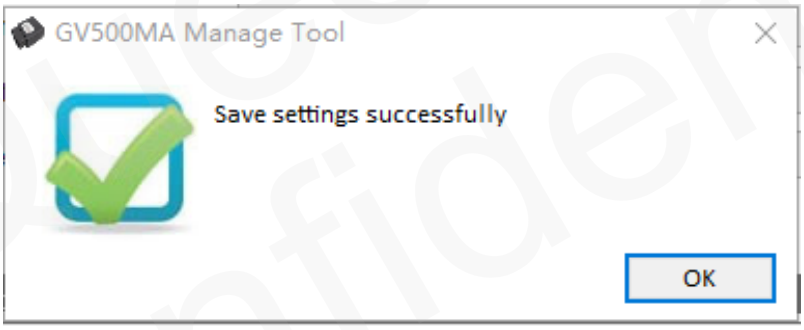
1.5. Operation Result Interface

1.5.1 Operation Successful Interface

The following shows that the command is read successfully.

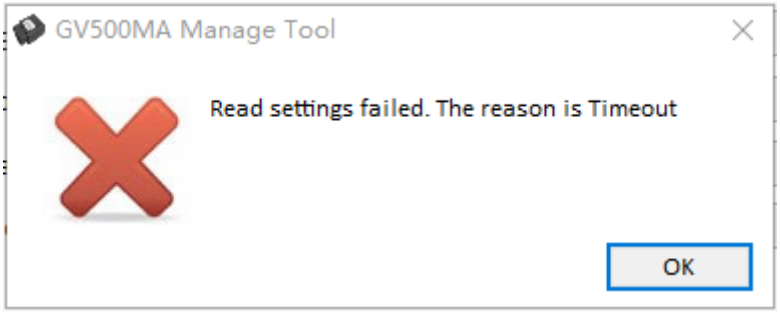


The following shows that the command is sent successfully.

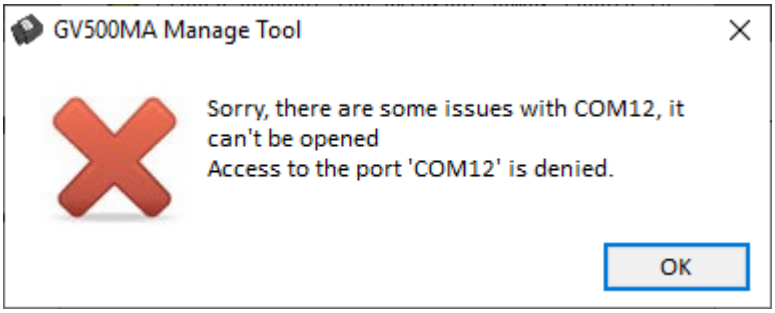


1.5.2 Operation Failed Interface

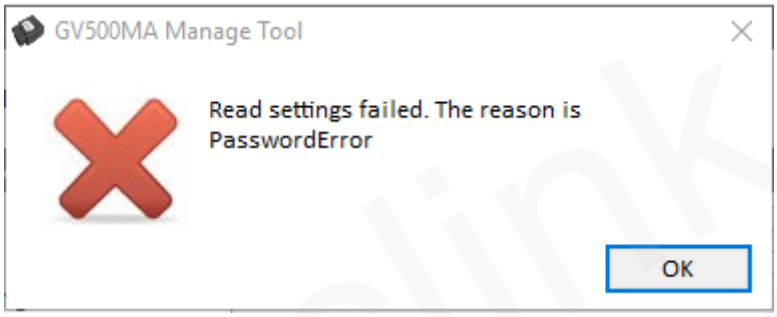
There should be something wrong with COM port connection if the failure reason is timeout.



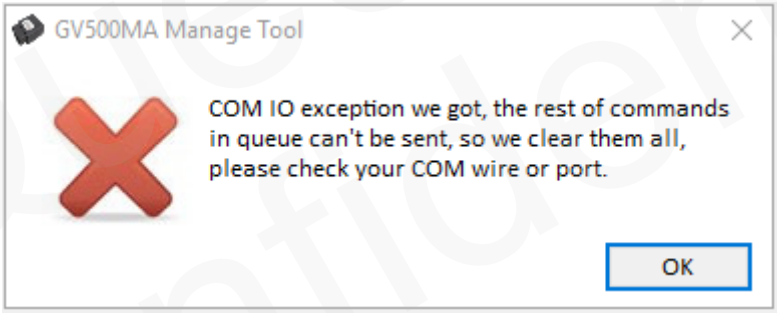
The COM port should be occupied. Please close all other COM-related applications.



Please enter the correct device password if Password Error occurs.



There should be something wrong with this COM. Please check your COM wire or port.



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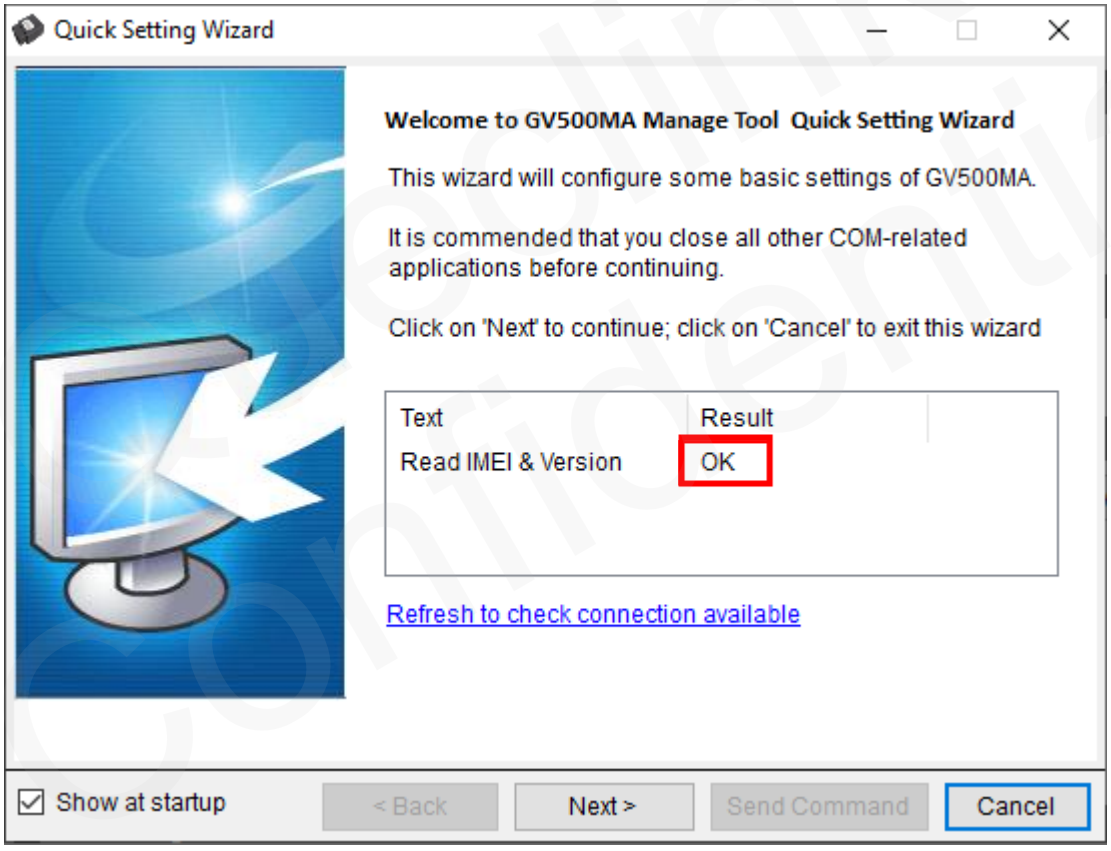
2. Operation Instructions

The Manage Tool is developed based on the @Track Air Interface Protocol. Please refer to GV500MAP @Track Air Interface Protocol for details.

2.1. Device Configuration with Quick Setting Wizard

2.1.1 Welcome to Quick Setting Wizard

Select **Quick Setting Wizard** in toolbar. If **Result** in this window is OK, click **Next**. If not, please check the COM port connection till the result is OK.



Welcome to Quick Setting Wizard

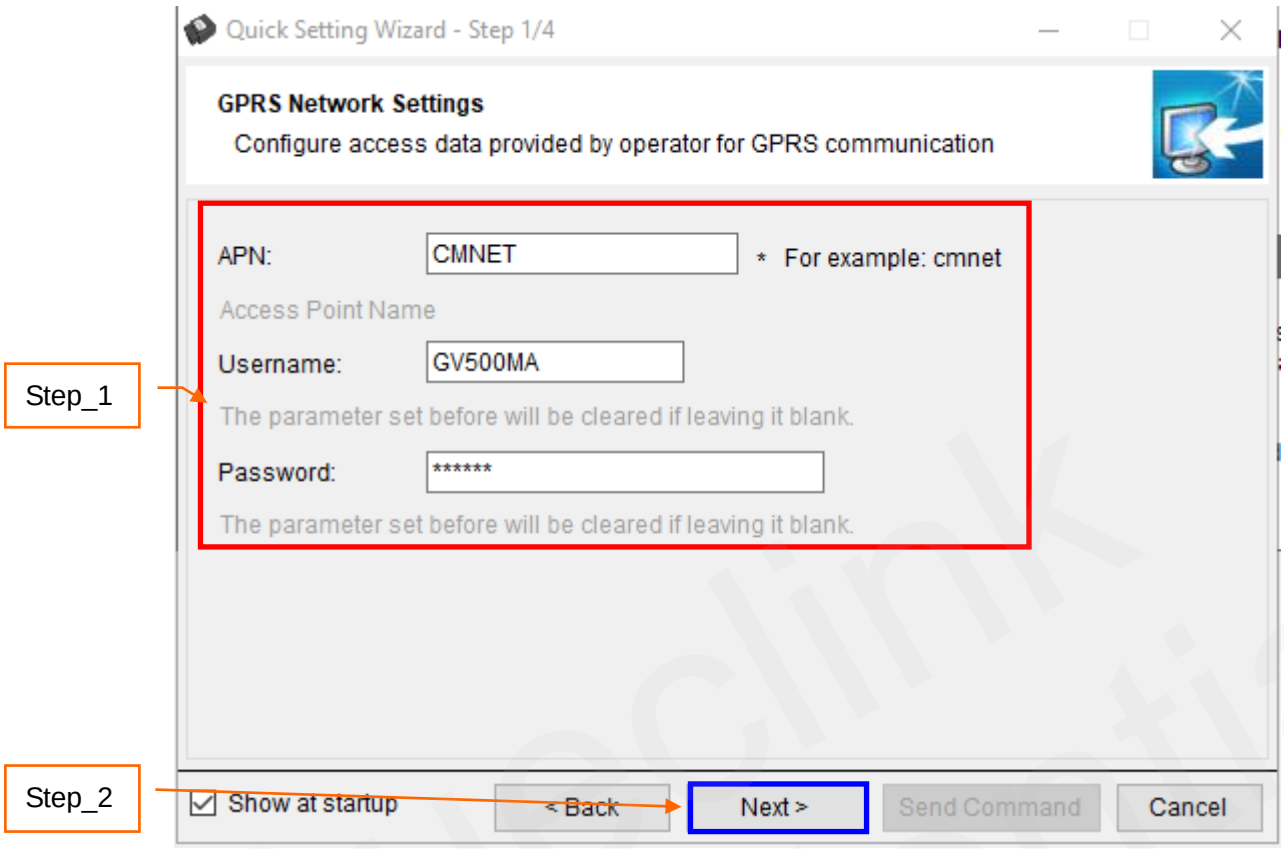
2.1.2 GPRS Network Setting

Step 1

Enter the APN, APN user name and password in this window. Please refer to GV500MAP @Track Air Interface Protocol to set these parameters.

Step 2

Click **Next**.



2.1.3 Main Server Setting

Step 1

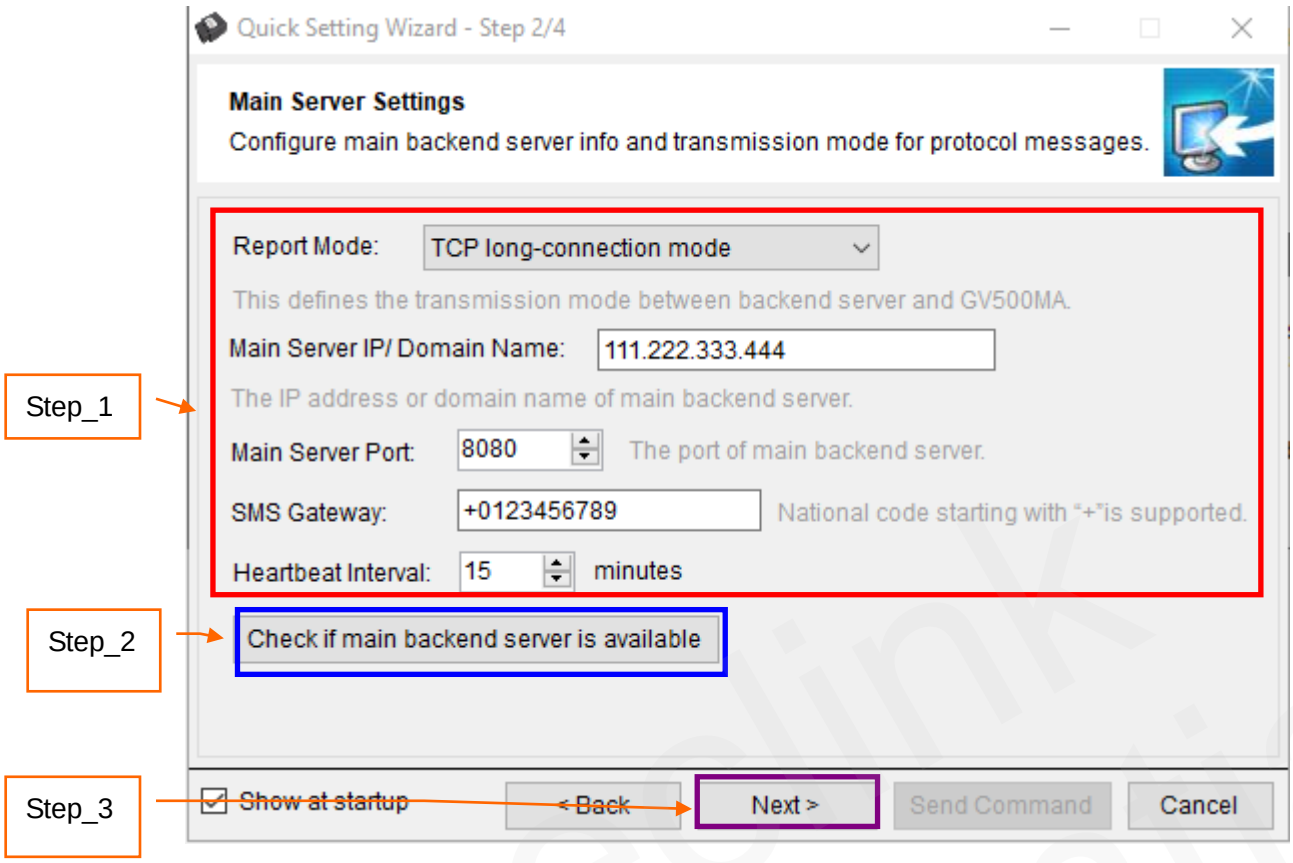
Set the report mode, and enter the main server IP/ domain name, main server port, and SMS gateway in this window. Please refer to GV500MAP @Track Air Interface Protocol to set these parameters.

Step 2

Select **Check if main backend server is available** to check if the main server IP and port are valid. If the result is “Error”, please check the server connection. You can’t get report from server if there is a backend server connection problem.

Step 3

Click **Next**.



2.1.4 Fixed Time Report Setting

Step 1

Set the send interval and click **Discard No Fix** (or not) in this window. Please refer to GV500MAP @Track Air Interface Protocol to set these parameters.

Step 2

Click **Next**.

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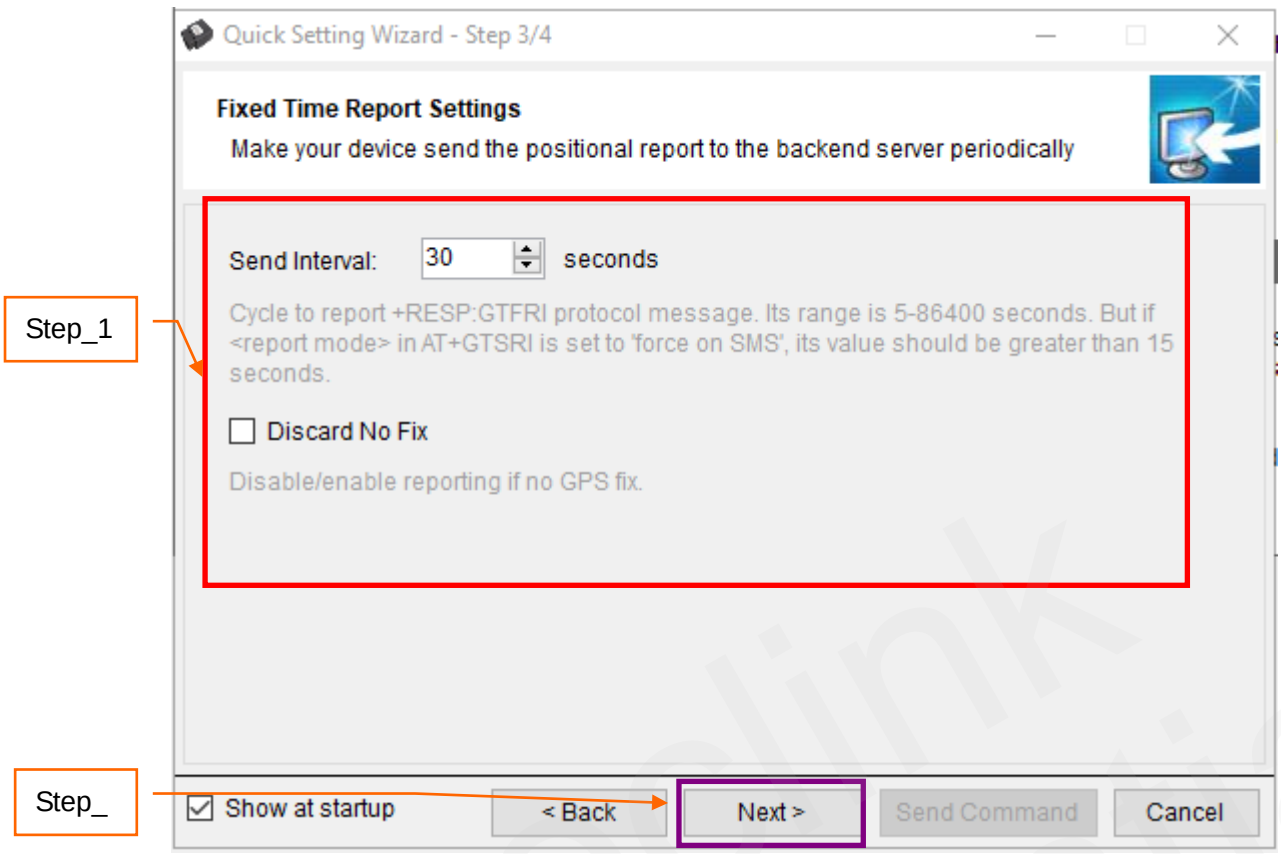

2.1.5 Sending Command to Device

Step 1

Select **Send Command**. The **AT+GTBSI**, **AT+GTSRI** and **AT+GTFRI** commands will be sent to the device.

Step 2

If the settings are downloaded successfully, select **OK** on the Save All settings successfully pop-up window. The quick setting is completed.

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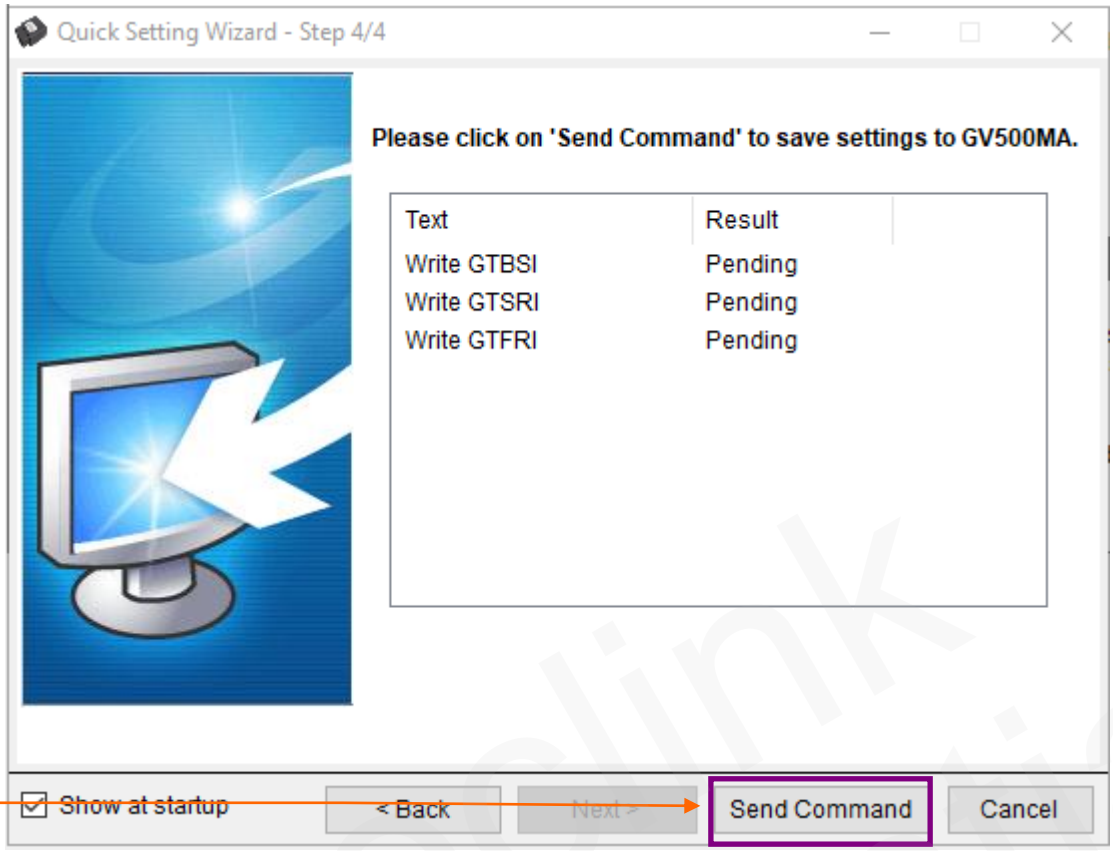
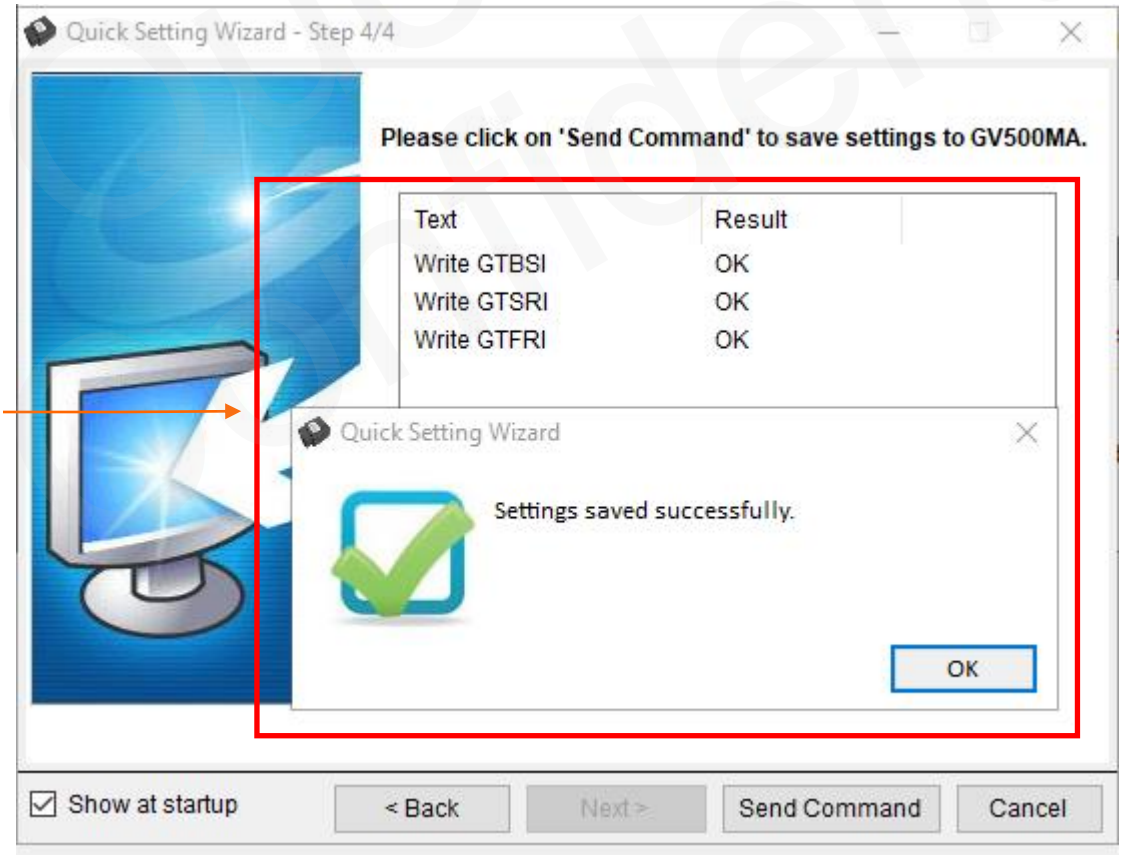

Quick Setting Wizard - Step 4/4
Please click on 'Send Command' to save settings to GV500MA.
Text
Result
Write GTBSI
Pending
Write GTSRI
Pending
Write GTFRI
Pending
Show at startup
< Back
Next >
Send Command
Cancel

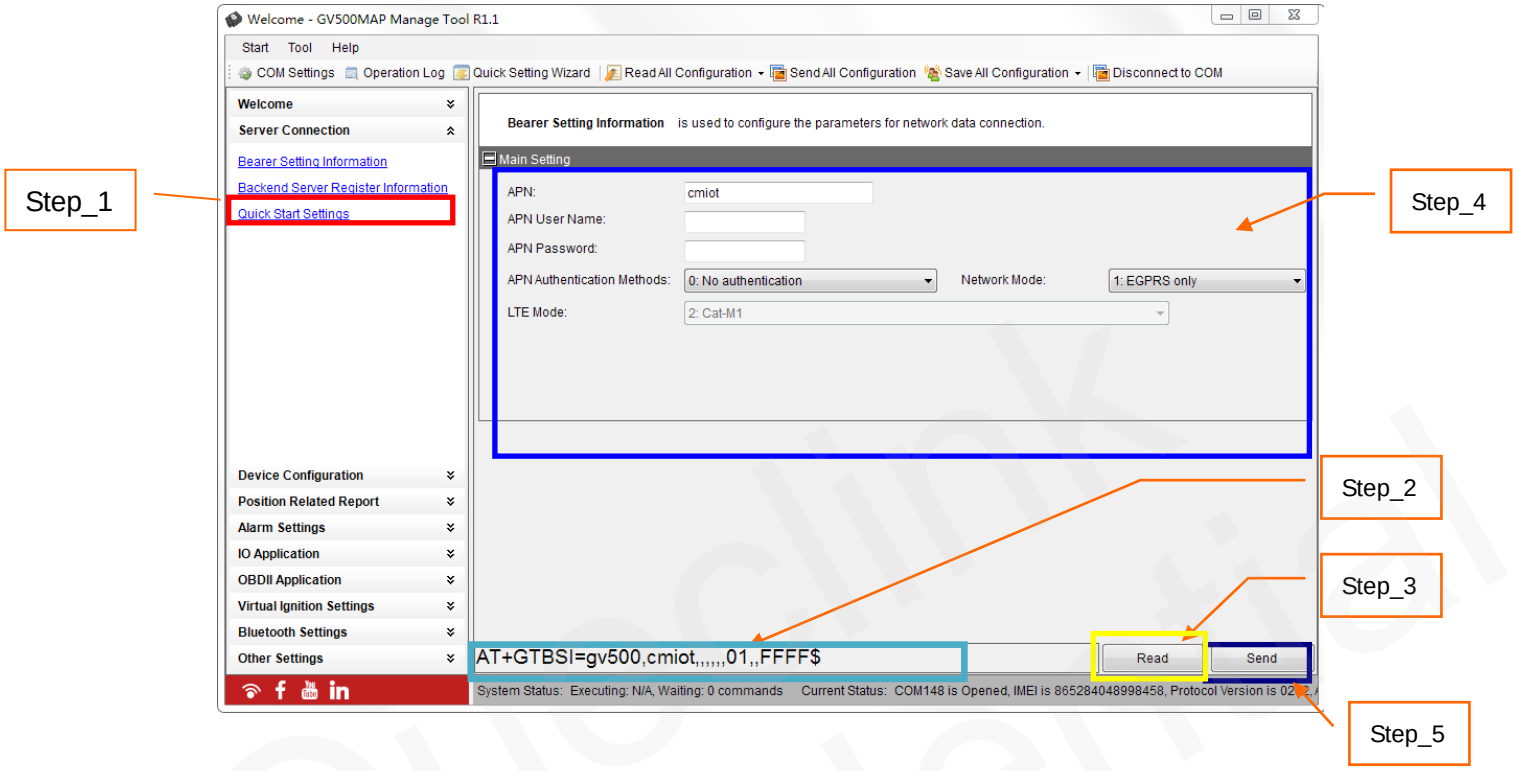
Step_1


Quick Setting Wizard - Step 4/4
Please click on 'Send Command' to save settings to GV500MA.
Text
Result
Write GTBSI
OK
Write GTSRI
OK
Write GTFRI
OK
Quick Setting Wizard
Settings saved successfully.
OK
Show at startup
< Back
Next >
Send Command
Cancel

Step_2

2.2. Device Configuration in Professional Setting Mode

The following is the general instruction which shows how to configure the device by the Manage Tool in professional setting mode.



Step 1

Select **Server Connection**>**Bearer Setting Information**. The corresponding parameters of the **AT+GTBSI** command are shown in Command Operation Space.

Step 2

The command message which shall be sent to the device will be generated based on input and be displayed in Status Bar. Please note this command message can also be sent to the device through SMS, LTE or GPRS.

Step 3

We recommend to read the parameters from the device and then configure settings.

Step 4

Set **Main Settings**. Please refer to GV500MAP @Track Air Interface Protocol to set these parameters.

Step 5

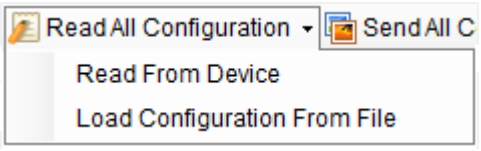
Select **Send** and the **AT+GTBSI** command will be sent to the device.

Note: The parameters of the **AT+GTSRI** and **AT+GTBSI** commands will be changed when the parameters of the **AT+GTQSS** command change.

2.3. Read/Save All Configurations

Step 1

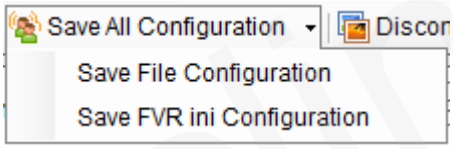
We recommend to read all configurations from the device before saving all configurations to file. Select **Read All Configuration**>**Read From Device**.



Note: For Read From Device, the commands **AT+GTRTO** and **AT+GTORR** won't be read from the device by using the Manage Tool.

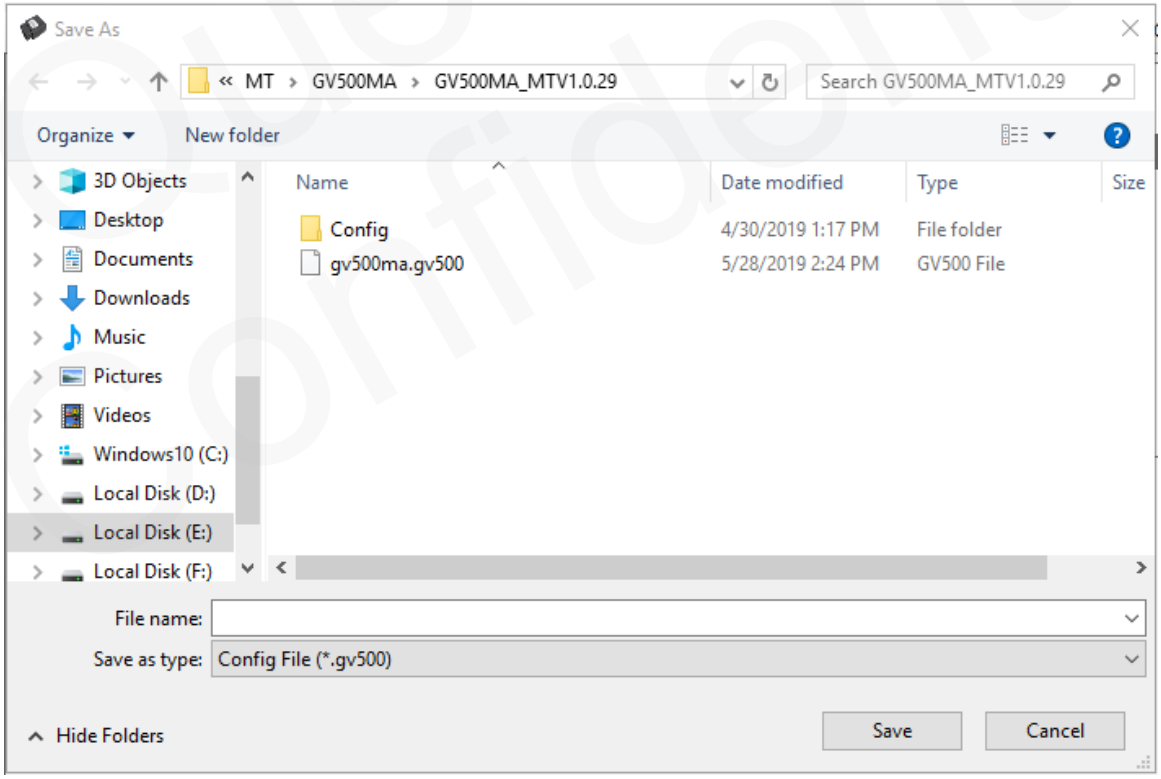
Step 2

After reading successfully, select **Save All Configuration**>**Save File Configuration**.



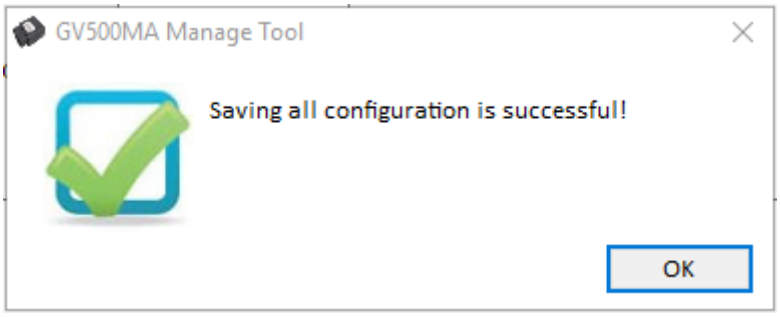
Step 3

Select a folder, type the name of the configuration file, and then click **Save**.



Step 4

Saving all configuration is successful.



Note: The Manage Tool will generate a configuration file with parameter configuration and an .ini file with AT commands (which the Manage Tool has saved except the **AT+GTRTO** and **AT+GTORR** commands). The name of the .ini file is composed of the configuration file name and "_at".

For example, if you click **Save All Configuration** and type the name of the configuration file with "GV500MAP", it will generate a "GV500MAP" configuration file and a "GV500MAP_at" .ini file.

We recommend to save all configurations before sending commands, especially the **AT+GTCFG** command, whose <*New Password*> can change the existing password and may affect the following configuration if you forget the new password.

2.4. Load/Send All Configurations

Step 1

Before sending all configurations, load the configuration file or set all parameters in commands. To load configuration file, please select **Read All Configuration**>**Load Configurations From File**. Then select the configuration file you need.

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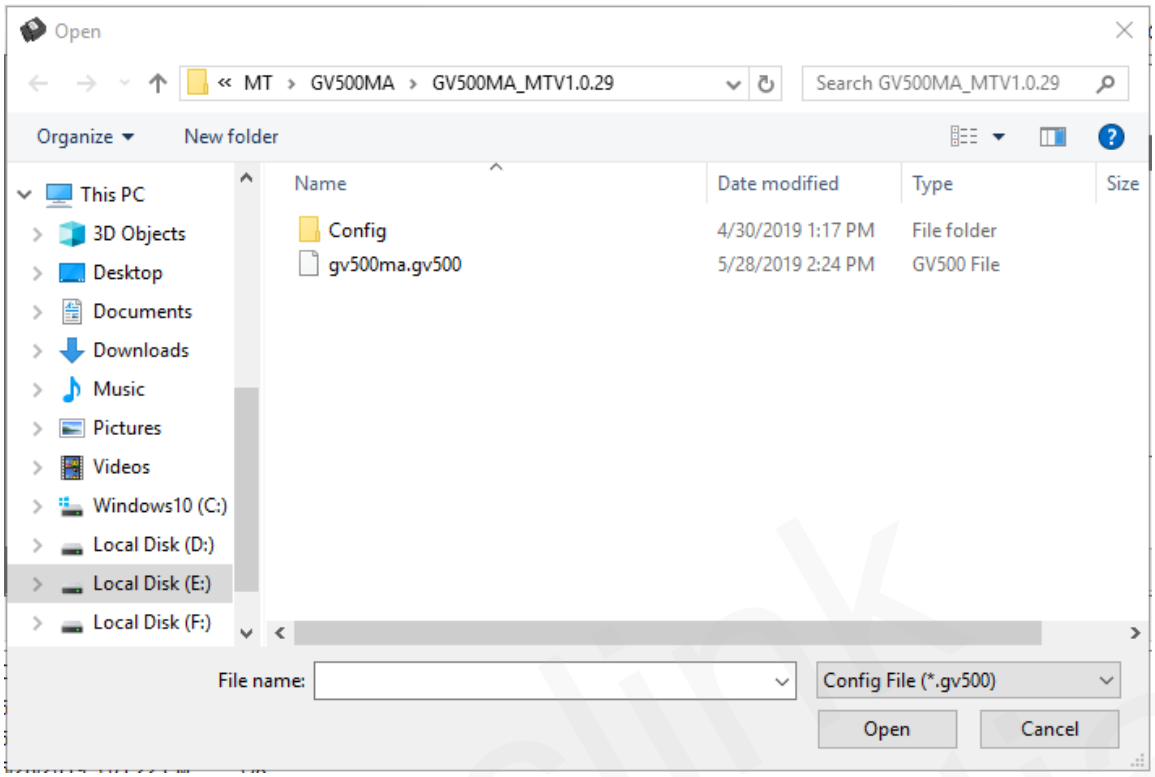
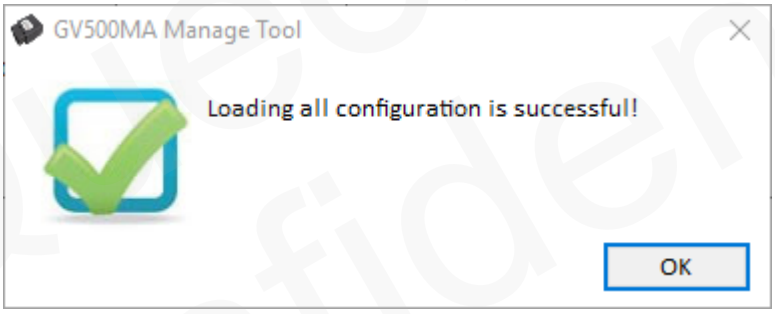
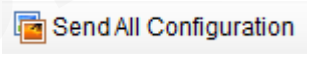




Step 2

You can set the parameters in commands based on the configuration file, and then click **Send All Configuration**  in the toolbar.

Note: For Send All Configuration, the **AT+GTQSS**, **AT+GTRTO**, **AT+GTORR** and **AT+GTUPC** commands won't be sent the device by using the Manage Tool.

Step 3

The Manage Tool will send all commands to the device.