



GV50M Series Manage Tool User Guide

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

QSZTRACGV50MMT0104

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0. Revision History

Version	Date	Author	Description of Change
1.01	2017-10-01	Amy Shi	Initial
1.02	2017-11-20	Amy Shi	Released
1.03	2018-04-02	Louis Wang	Updated
1.04	2019-10-10	Paul Luo	Updated Chapter 3 Device Upgrade

1. GV50M Manage Tool Interface

GV50M Manage Tool is used to configure parameters for GV50M through USB cable (Data_Cable_M). It is easy for developers to configure GV50M with it for the interface is simple and functional. All commands can also be sent via SMS or network.

The administrators can also use the Manage Tool to configure GV50M before delivery to its customers. But it is recommended for the customers to establish a backend server and to control GV50M via SMS or network. Please refer to “GV50M @Track Air Interface Protocol” for details.

Before using the Manage Tool, please find “PL2303_Prolific_DriverInstaller_Vxxxx” in SDK and install the driver firstly. After that a new COM port will be found in your computer, and then please refer to the following steps:

- (1) Power on GV50M.
- (2) Connect GV50M to PC with USB Cable (DATA_CABLE_M).
- (3) Run “Queclink GV50M_Manage_Tool_Vx.xx.exe”.

1.1. System Requirements

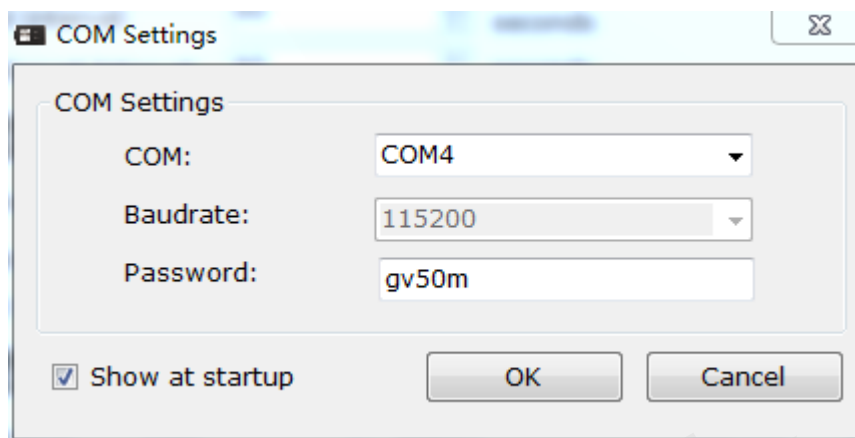
Before using the Manage Tool, please make sure the computer system meets the following configurations:

- ◆ 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);
- ◆ Windows 8 (32 & 64 bit);

Supported System Environments:

- ◆ Microsoft .NET Framework 2.0 or higher

1.2. COM Settings



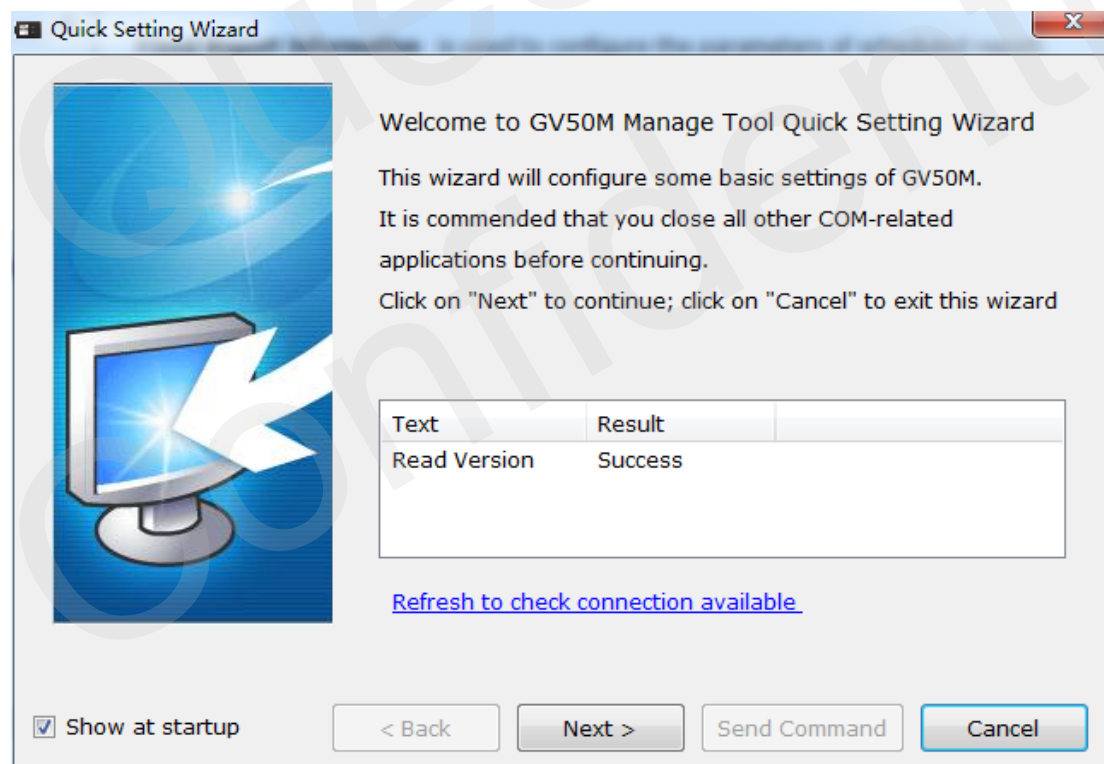
Select the COM port (the port that your device connects to), input the password “gv50m”, and the main window will be displayed.

1.3. Quick Setting Wizard

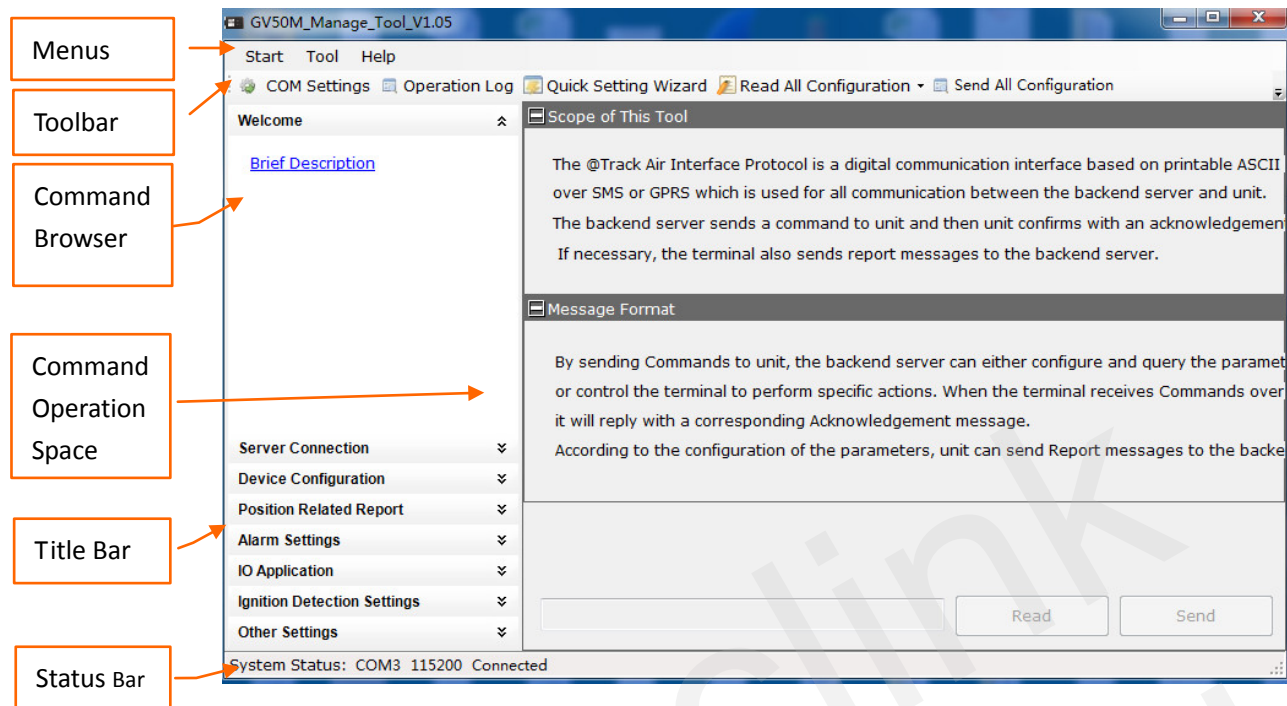
The Quick Setting Wizard is used to configure basic settings for the device. Select professional setting mode if more functions are required.

Make sure the COM connection is OK before using Quick Setting Wizard.

Please refer to Chapter 2.1 for details of the device configuration with Quick Setting Wizard.



1.4. Professional Setting Window



1.4.1. Title Bar

Title Bar indicates the command that is currently being operated.

1.4.2. Menus

There are menu options including “Start”, “Tool”, and “Help”.

Start Tool Help

1.4.2.1. Start Menu

Start menu contains “COM Settings”.

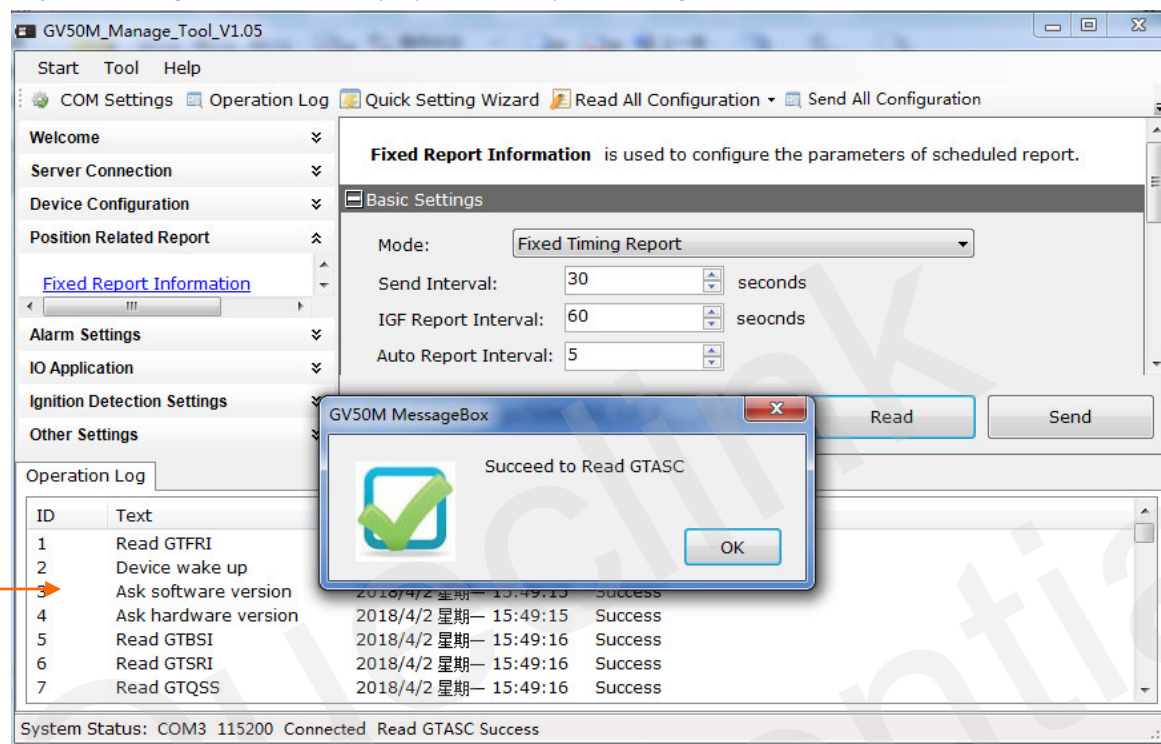
[COM Setting]: It is used to set the COM information and password. Please refer to Chapter 1.2 for more information.

1.4.2.2. Tool Menu

Tool menu contains “Quick Setting Wizard”, “Operation Log” and “Options” settings.

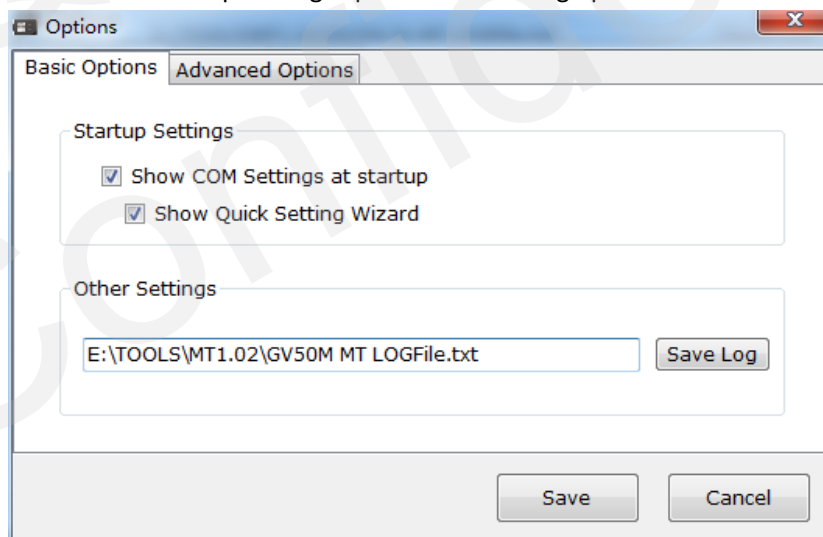
[Quick Setting Wizard]: It is used to open Quick Setting Wizard directly. Please refer to Chapter 2.1 for details.

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



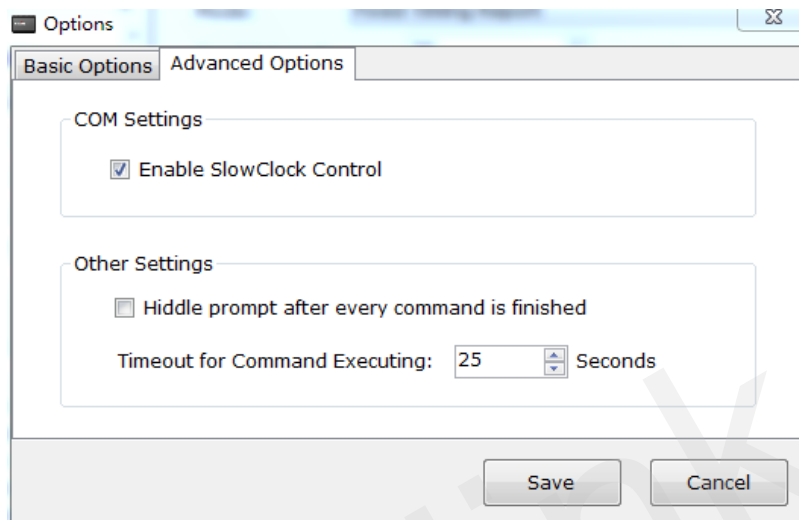
[Options]: It is used to configure the basic settings for the Manage Tool.

“Basic Options” includes Startup Settings option and Save Log option.



“Advanced Options” includes COM Settings and Other Settings.

COM Settings is used to enable/disable slow clock control. It is recommended to use default settings.



1.4.2.3. Help Menu

Help menu contains the option of “About”.

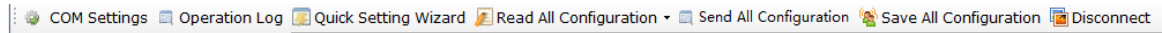
[About]: The following window will pop up upon selecting “About”.



- “Tool Version” indicates the version of the Manage Tool.
- “Support Version” indicates the firmware which the Manage Tool is used for.
- “MCU Version” indicates the firmware which connects to the PC. It is recommended to use the same version as Support Version. If the MCU Version is different from Support Version, new feature(s) of the device cannot be used with this tool.

1.4.3. Toolbar

Toolbar contains “COM Setting”, “Operation Log”, “Quick Setting Wizard”, “Read All Configuration”, “Execute All Configuration”, “Save All Configuration”, and “Connect/Disconnect to COM” as shown below.



[COM Setting]: It is used to set the COM information and password. For 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]: There are two options as shown below: “Read Configuration From Device” and “Load Configuration From File”.



“Read Configuration From Device”: It is used to read all configurations from the device.

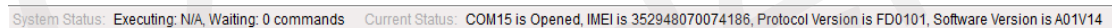
“Load Configuration From File”: It is used to load configuration file to the Manage Tool.

[Send All Configuration]: It is used to execute all parameter configurations in Command set except **GTRTO**.

[Save All Configuration]: It is used to save all parameter configurations to file.

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

1.4.4. Status Bar



The Status Bar will display system state and current state.

[System Status]: It indicates the serial number of commands which are waiting to be executed.

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

1.4.5. Command Browser and Command Operation Space

This area is mainly used to read and set the parameters for the device.

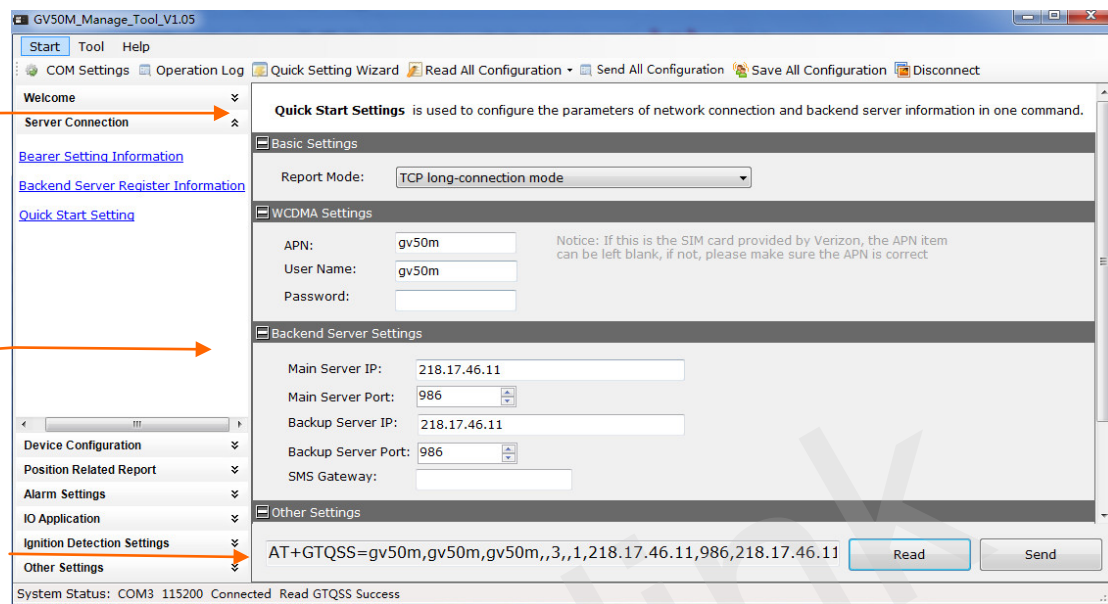
1.4.5.1. Command Browser

Command Browser divides all @Track protocol commands into several parts. Click Title Bar in Command Browser, parameters of this command will be shown in Command Operation Space.

Command Browser	Function Description	Command
Server Connection	Bearer Setting Information	GTBSI
	Backend Server Register Information	GTSRI
	Quick Start Settings	GTQSS
Device Configuration	Global Configuration	GTCFG
	Auto-Unlock PIN	GTPIN
	Software Protocol Watchdog	GTDG

	Outside Working Hours	GTOWH
	Time Adjustment	GTTMA
	Preserve Special Device Logical State	GTPDS
	Hex Report Mark	GTHRM
	PPP Connection Setting	GTPCS
Position Related Report	Fixed Position Report	GTFRI
	Frequency Change of Fix Report Information	GTFFC
Alarm Settings	Geo-Fence Configuration	GTGEO
	Tow Alarm configuration	TGTTOW
	Speed Alarm	GTSPD
	SOS Alarm	GTSOS
	Excessive Idling Detection	GTIDL
	Harsh Behavior Monitoring	GTHBM
	Start Stop Report	GTSSR
	Buzzer Alarm Configuration	GTBZA
	Over speed Alarm	GTSPA
	Polygon Geo-Fence	GTPEO
	Roaming Detection Configuration	GTRMD
	Start and Drive Report	GTSDS
	Stop Event Report	GTSTP
	Crash Detection	GTCRA
IO Application	Digital Output Port Settings	GTOUT
	External Power Supply Monitoring	GTEPS
	Digital Input Port Settings	GTDIS
	Input/output Port Settings	GTIOB
Ignition Detection Settings	Virtual Ignition Mode Selection	GTVMS
	Ignition Detection by Voltage Settings	GTVVS
	Accelerometer Virtual Ignition Setting	GTAVS
Other Settings	Real Time Operation	GTRTO
	Hour Meter Counter	GTHMC
	White List	GTWLT
	Google Link SMS Configuration	GTGLM
	Update Configuration Over The Air	GTUPC
	Command String Storage	GTCMD
	User Defined Function	GTUDF
	G-Sensor Self-Calibration	GTASC
	Emergency Release	GTEMR

1.4.5.2. Command Operation Space



Command Description

Parameters Area

Command Display

Quick Start Settings is used to configure the parameters of network connection and backend server information in one command.

Basic Settings

Report Mode: TCP long-connection mode

WCDMA Settings

APN: gv50m
User Name: gv50m
Password:

Backend Server Settings

Main Server IP: 218.17.46.11
Main Server Port: 986
Backup Server IP: 218.17.46.11
Backup Server Port: 986
SMS Gateway:

Other Settings

AT+GTQSS=gv50m,gv50m,gv50m,,3,,1,218.17.46.11,986,218.17.46.11

Read Send

System Status: COM3 115200 Connected Read GTQSS Success

[Command Description]: It is, as indicated above, a short description of a command.

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

[Command Display]: It shows the command and the corresponding parameter in Parameters Area.

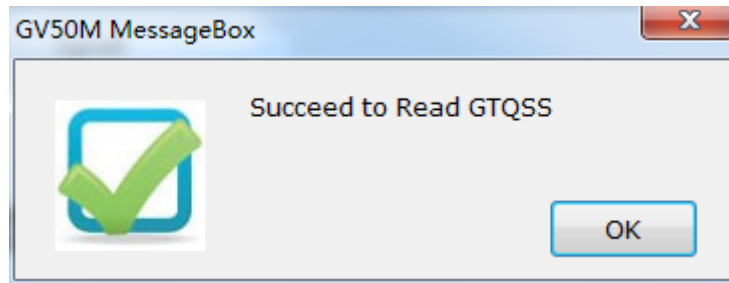
[Read]: Click this button to read the command from the device.

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

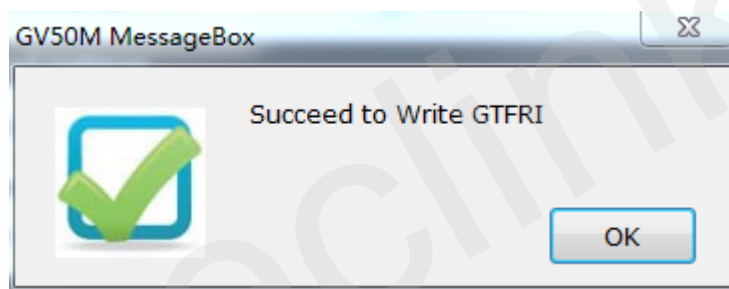
1.5. Operation Result Interfaces

1.5.1. Interfaces for Successful Operation

1.5.1.1. Command Read Successfully

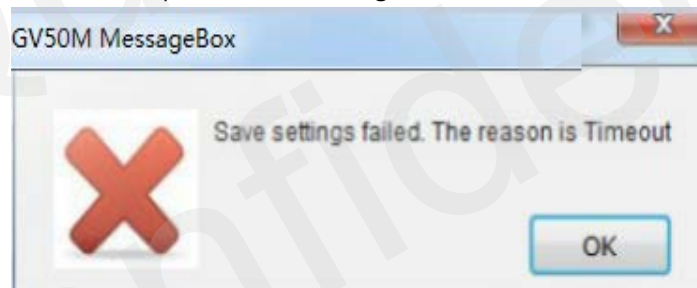


1.5.1.2. Command Sent Successfully

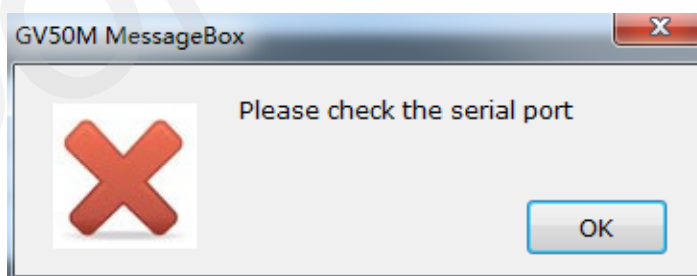


1.5.2. Interfaces for Failed Operation

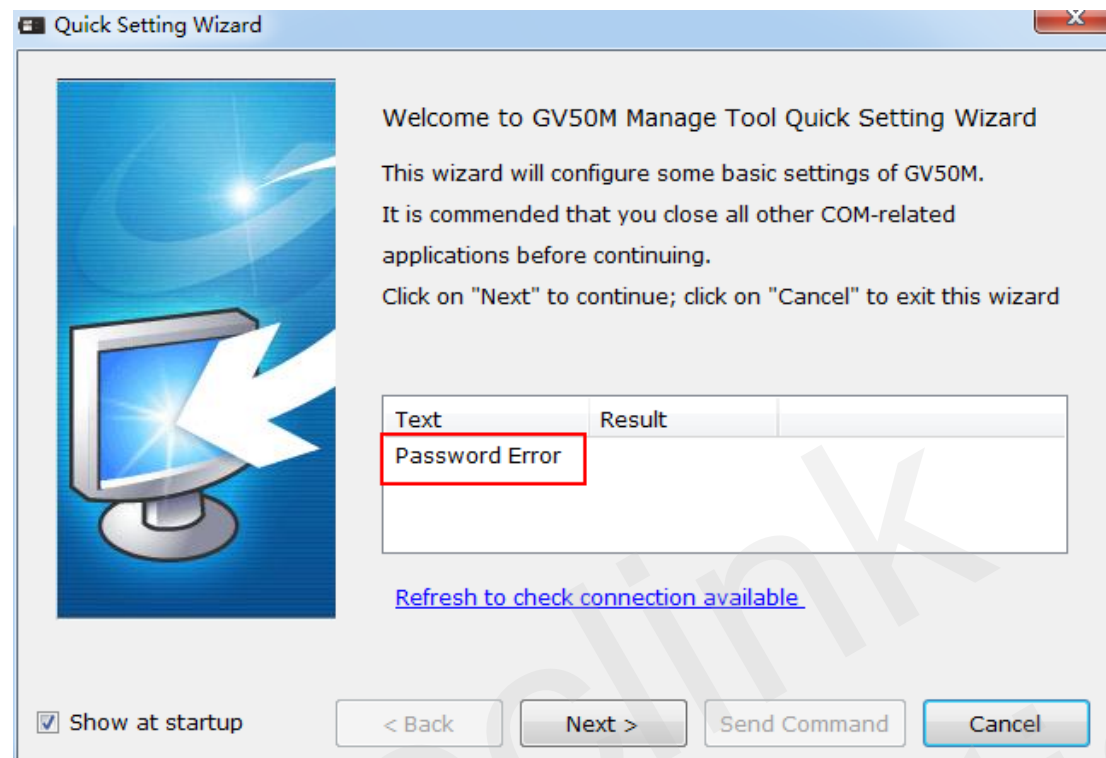
Problem may be with the COM port if the following error occurs.



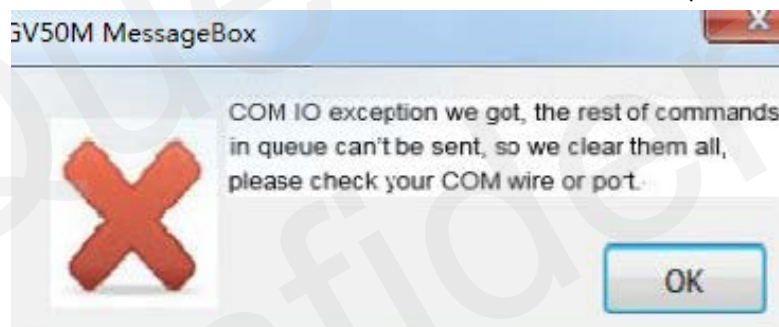
Current COM port is occupied. Please close and open again.



Please input the correct device password if Password Error occurs.



Problem may be with the COM. Please check the USB cable and the serial port.



2. Operation Instruction

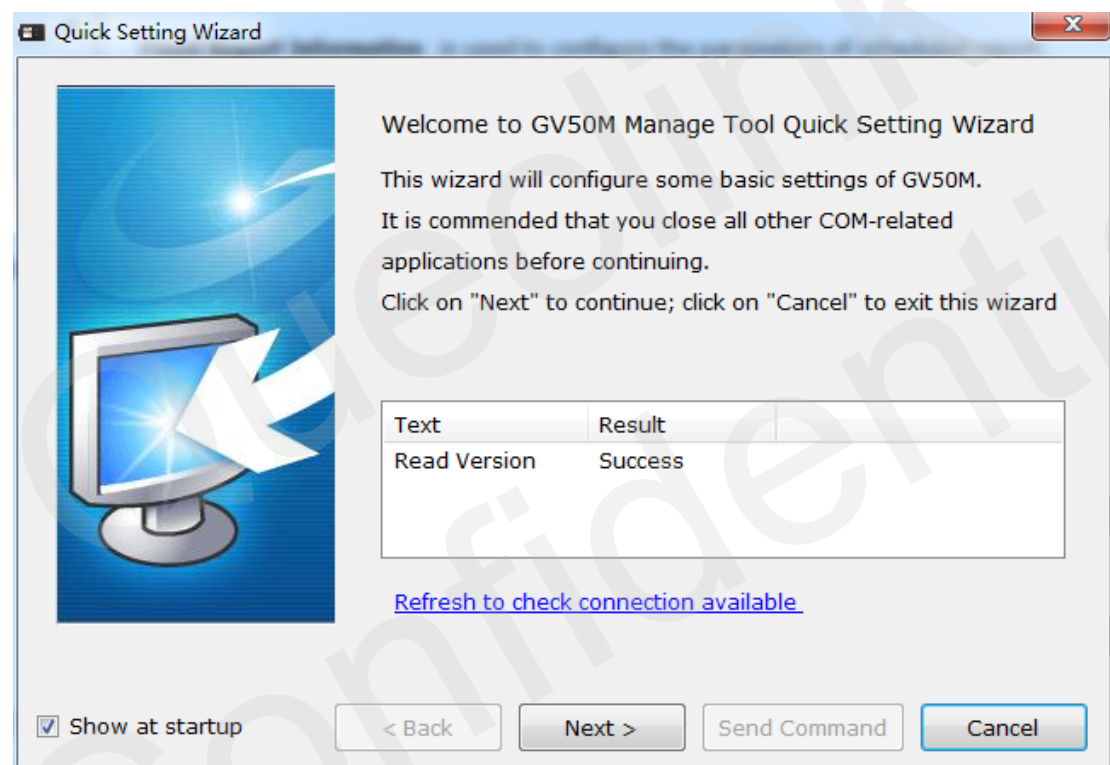
2.1. Device Configuration with Quick Setting Wizard

The Manage Tool is developed based on the @Track Air Interface Protocol. Please refer to "GV50M @Track Air Interface Protocol" for details.

The Quick Setting Wizard is used to configure basic settings for the device. Select professional setting mode if more functions are required.

2.1.1. Welcome to Quick Setting Wizard

Click "Quick Setting Wizard" in toolbar to open the Quick Setting Wizard. If the "Result" in this window is "Success", click "Next". If the "Result" is "Fail", please check the COM port connection till the result is "OK".

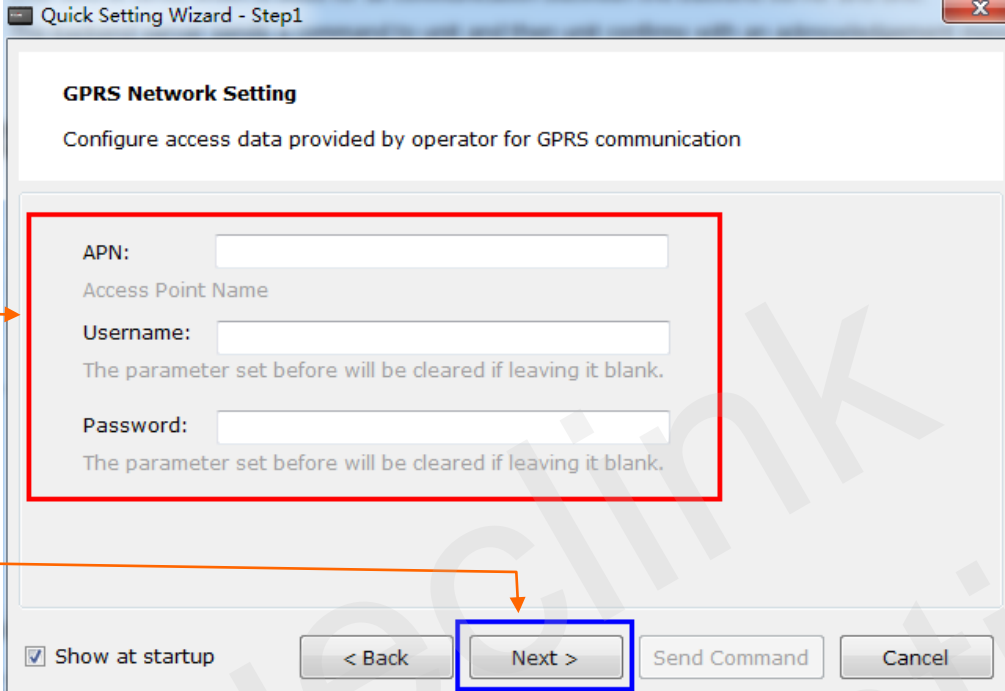


Welcome to Quick Setting Wizard

2.1.2. Network Setting

Step 1: Set APN, APN user name and password through the window below. For the meaning of these parameters, please refer to the “GV50M @Track Air Interface Protocol” for details.

Step 2: Click “Next”.



The screenshot shows the 'Quick Setting Wizard - Step1' window. The title bar includes a close button (X). The main content area is titled 'GPRS Network Setting' and contains the instruction 'Configure access data provided by operator for GPRS communication'. Below this, there are three input fields: 'APN:' (with a sub-label 'Access Point Name'), 'Username:', and 'Password:'. Each field has a text box and a note below it stating 'The parameter set before will be cleared if leaving it blank.' A red rectangular box highlights these three input fields. An orange arrow labeled 'Step 1' points to this red box. At the bottom of the window, there is a checkbox labeled 'Show at startup' which is checked. To the right of the checkbox are four buttons: '< Back', 'Next >', 'Send Command', and 'Cancel'. The 'Next >' button is highlighted with a blue rectangular box, and an orange arrow labeled 'Step 2' points to it.

Quick Setting Wizard - Step1

GPRS Network Setting

Configure access data provided by operator for GPRS communication

APN:
Access Point Name

Username:
The parameter set before will be cleared if leaving it blank.

Password:
The parameter set before will be cleared if leaving it blank.

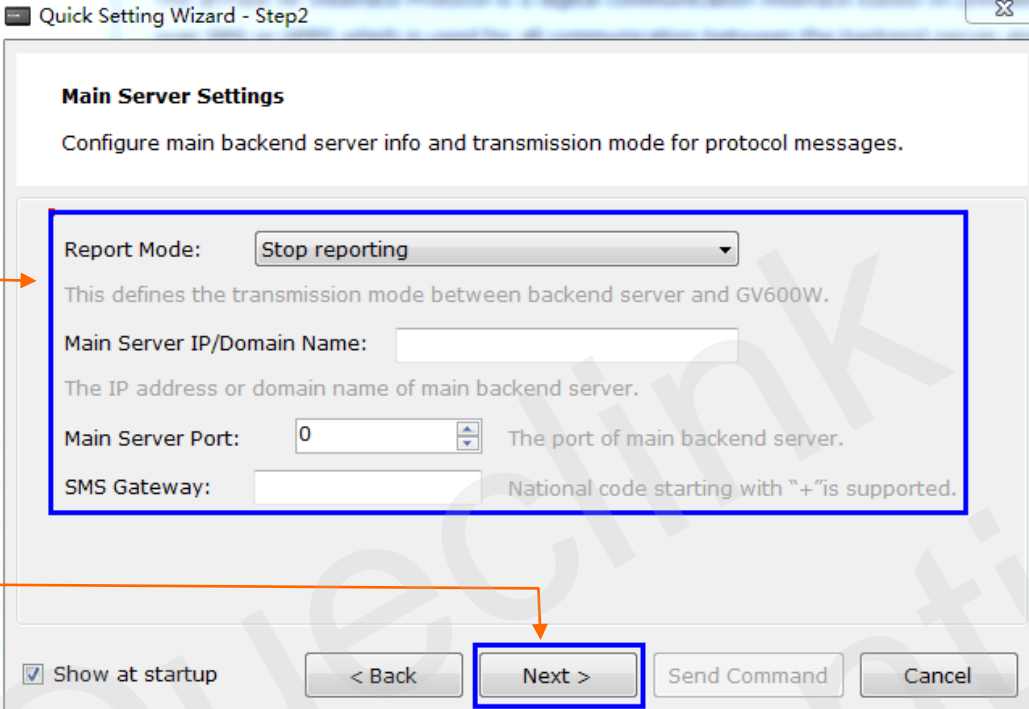
☒ Show at startup

< Back **Next >** Send Command Cancel

2.1.3. Main Server Setting

Step 1: Set report mode, main server IP/domain name, main server port, and SMS gateway through the window below. For the meaning of these parameters, please refer to the “GV50M @Track Air Interface Protocol” for details.

Step 2: Click “Next”.



The screenshot shows the 'Quick Setting Wizard - Step2' window. The title bar includes a close button. The main content area is titled 'Main Server Settings' and contains the instruction: 'Configure main backend server info and transmission mode for protocol messages.' Below this, there are four input fields: 'Report Mode' (a dropdown menu set to 'Stop reporting'), 'Main Server IP/Domain Name' (a text box), 'Main Server Port' (a spinner box set to '0'), and 'SMS Gateway' (a text box). Each field has a descriptive text line below it. A blue rectangular box highlights the four input fields. An orange arrow labeled 'Step 1' points to this box. At the bottom of the window, there is a checkbox labeled 'Show at startup' which is checked. To the right of the checkbox are four buttons: '< Back', 'Next >', 'Send Command', and 'Cancel'. The 'Next >' button is highlighted with a blue rectangular box. An orange arrow labeled 'Step 2' points to this button.

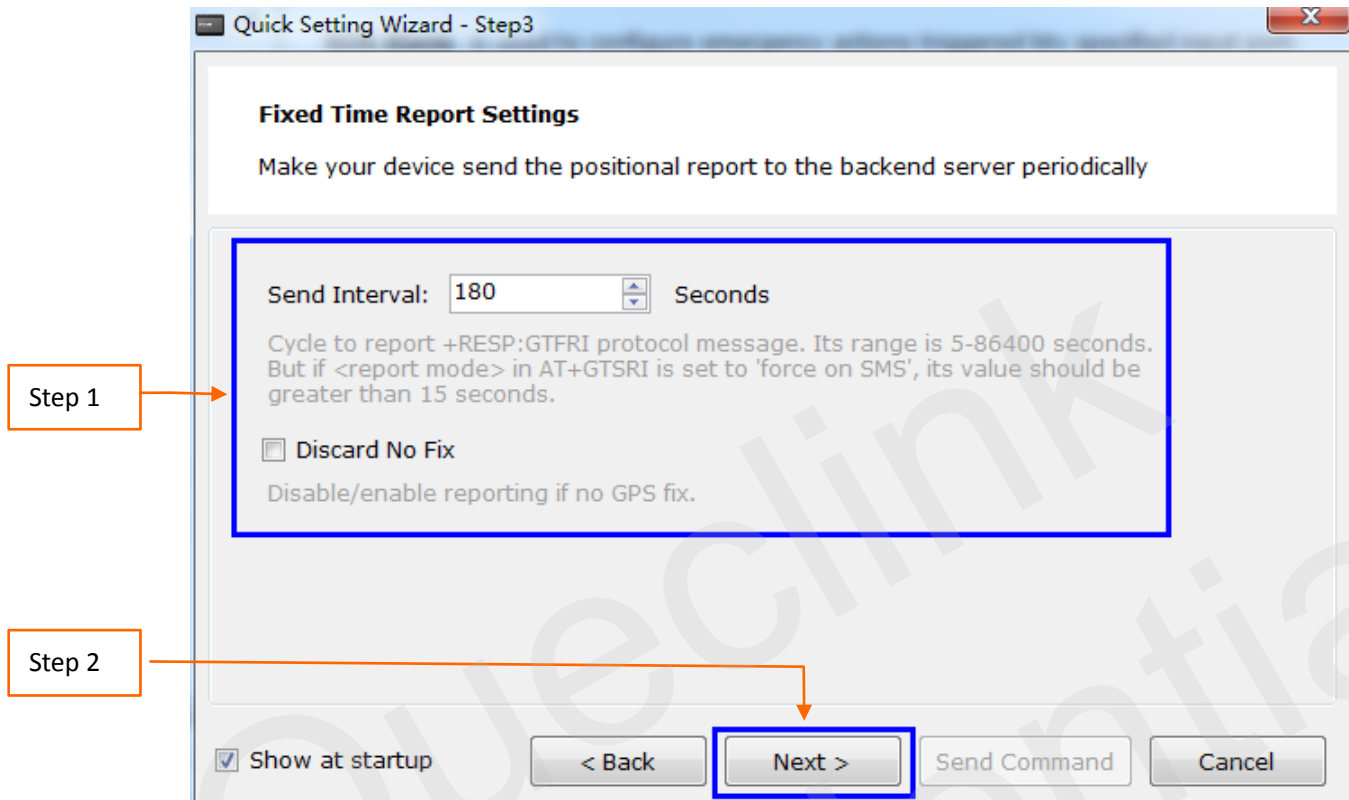
Step 1

Step 2

2.1.4. Fixed Time Report Setting

Step 1: Set send interval, discard no fix through the window below. For the meaning of these parameters, please refer to the “GV50M @Track Air Interface Protocol” for details.

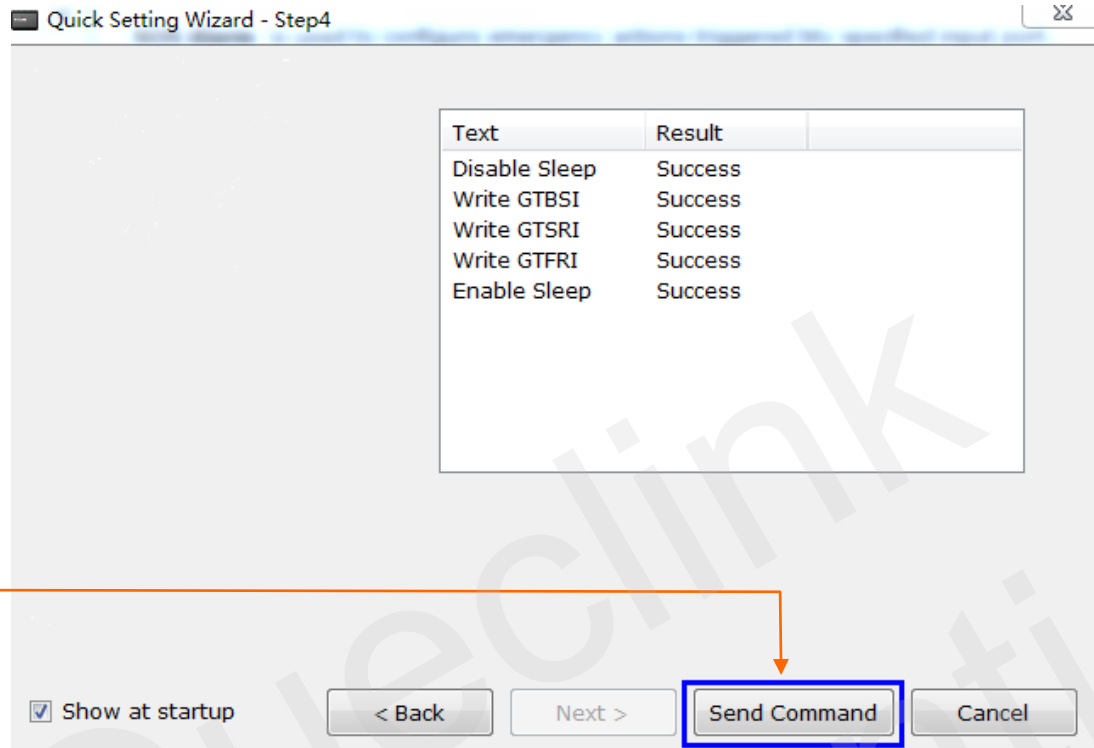
Step 2: Click “Next”.



2.1.5. Send a Command to the Device

Step 1: Click “Send Command”. The commands **GTBSI**, **GTSRI**, and **GTFRI** will be sent to the device.

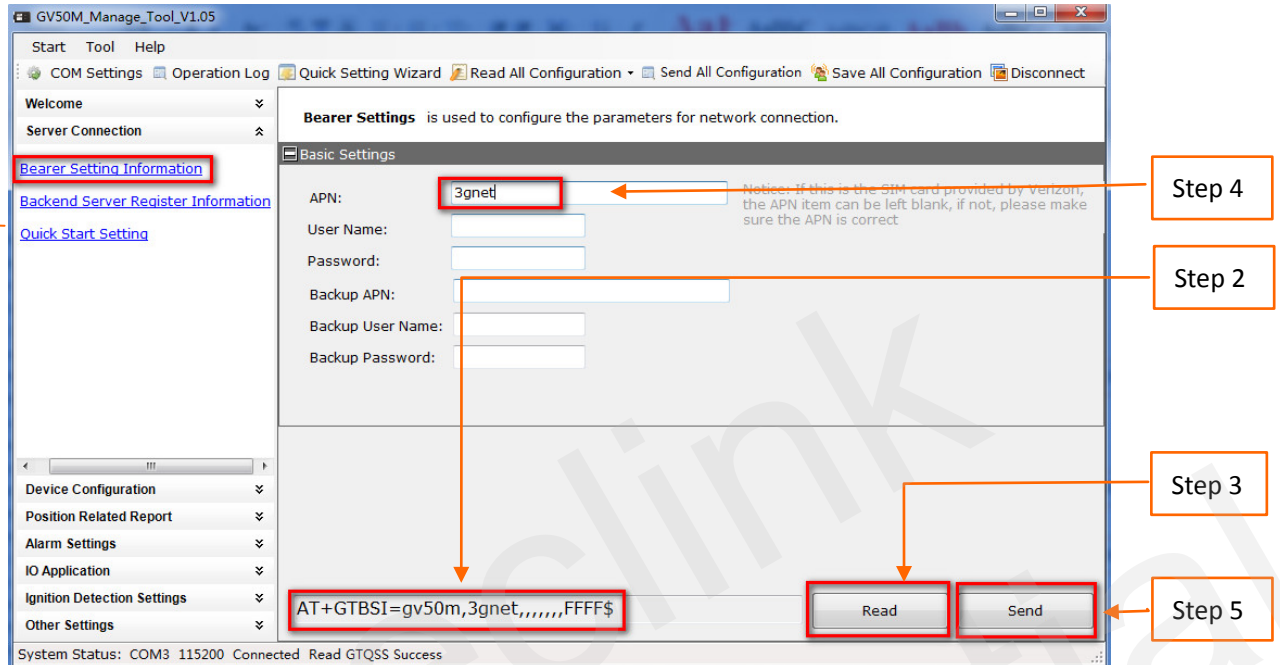
Step 2: Exit the Quick Setting Wizard.



2.2. Device Configuration in Professional Setting Mode

The Manage Tool is developed based on the @Track Air Interface Protocol. Please refer to “GV50M @Track Air Interface Protocol” for details.

The following shows a general procedure to configure GV50M with the Manage Tool.



Step 1: Select a Command

Select a command in Command Browser Space. After that, the parameters of the function will be shown in Command Operation Space.

Step 2: Create Command Automatically

The to-be-sent command message will be generated based on the inputs. Please note that the command message can also be sent to GV50M Series via SMS or network.

Step 3: Read Command from the Device

Read the parameters from GV50M and modify them as needed.

Step 4: Set Parameters

Set parameters in Command Operation Space. Please refer to “GV50M Series @Track Air Interface Protocol” for the meaning of each parameter.

Step 5: Send a Command to the Device

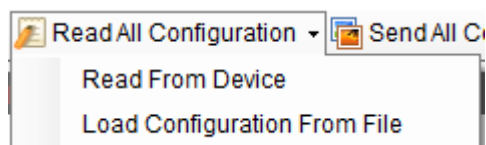
Click the “Send” button; download the parameters of this command to GV50M Series.

Note:

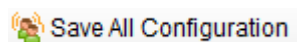
The parameters of GTSRI and GTBSI will also be changed when the parameters of GTQSS are changed.

2.3. Read/Save All Configurations

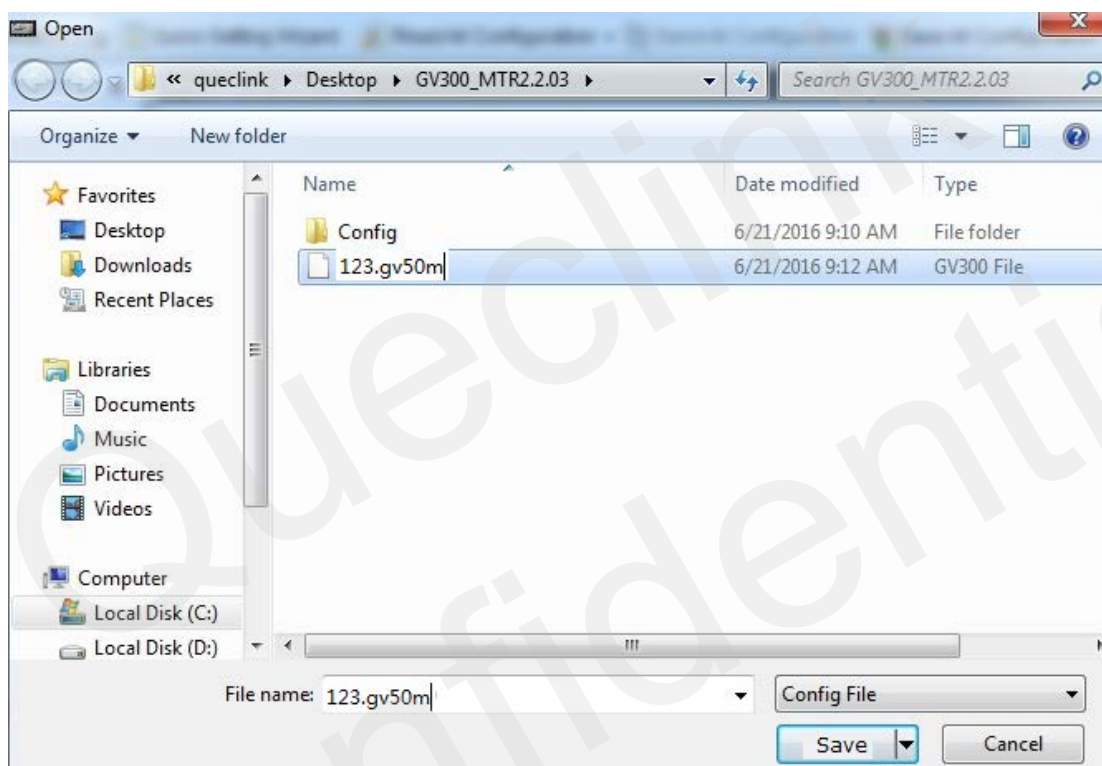
Step 1: It is recommended to read all configurations from the device before saving the configuration. Select “Read All Configuration”→“Read From Device”.



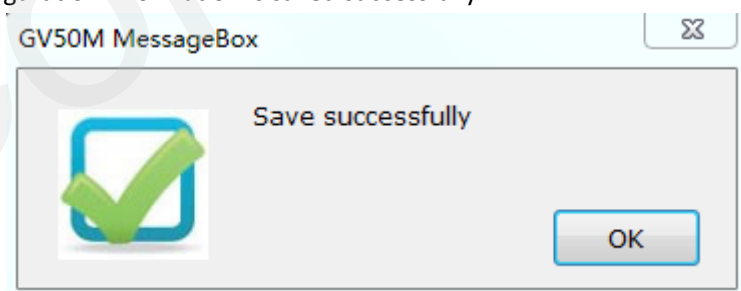
Step 2: After reading the configuration successfully, click “Save All Configuration” in toolbar.



Step 3: Select a folder, type in the name of the configuration file, and then click “Save” button.

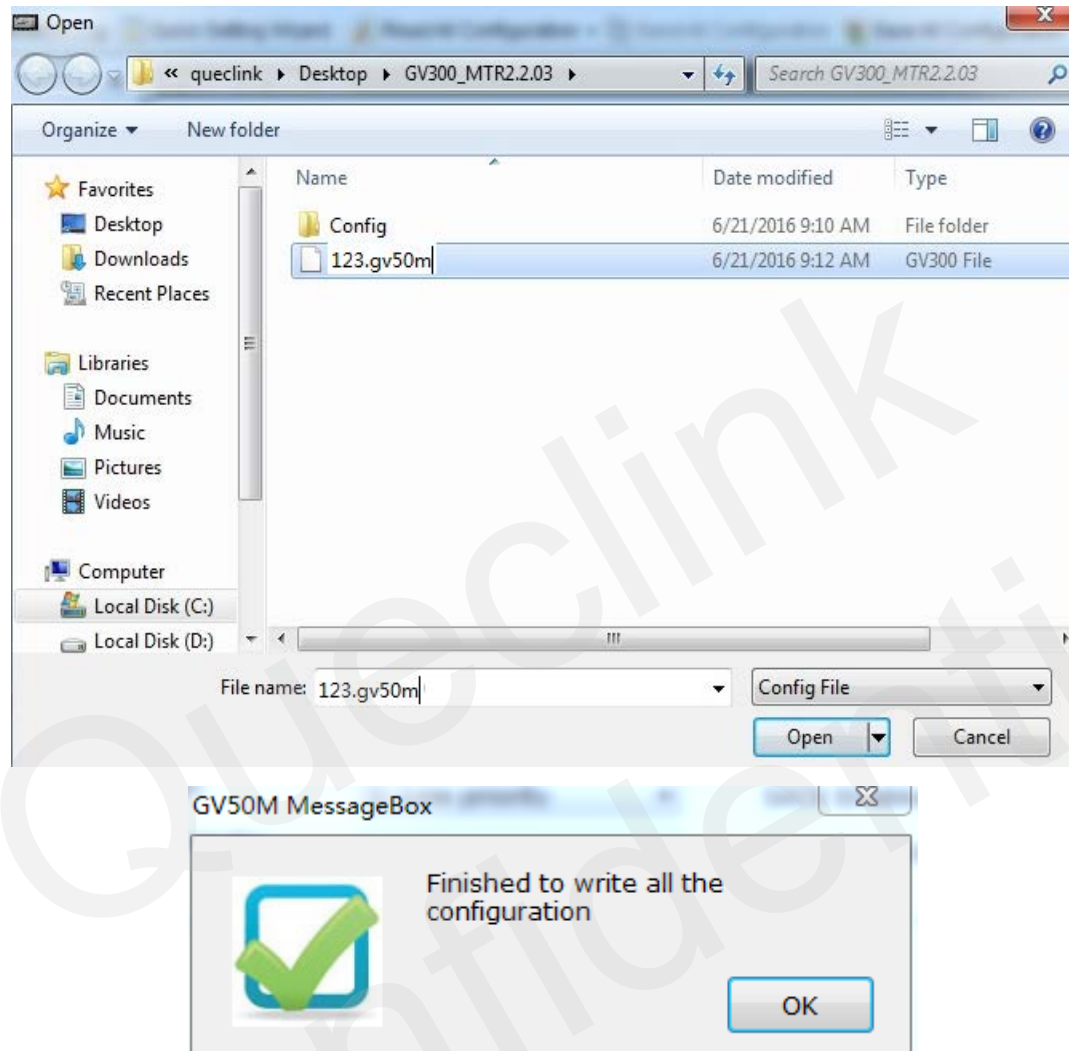


Step 4: The configuration information is saved successfully.

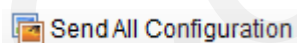


2.4. Load/Send All Configurations

Step 1: Load the configuration file or set all parameters of the commands before executing them. Select “Read All Configuration” → “Load Configurations From File”, and then select the needed configuration file.



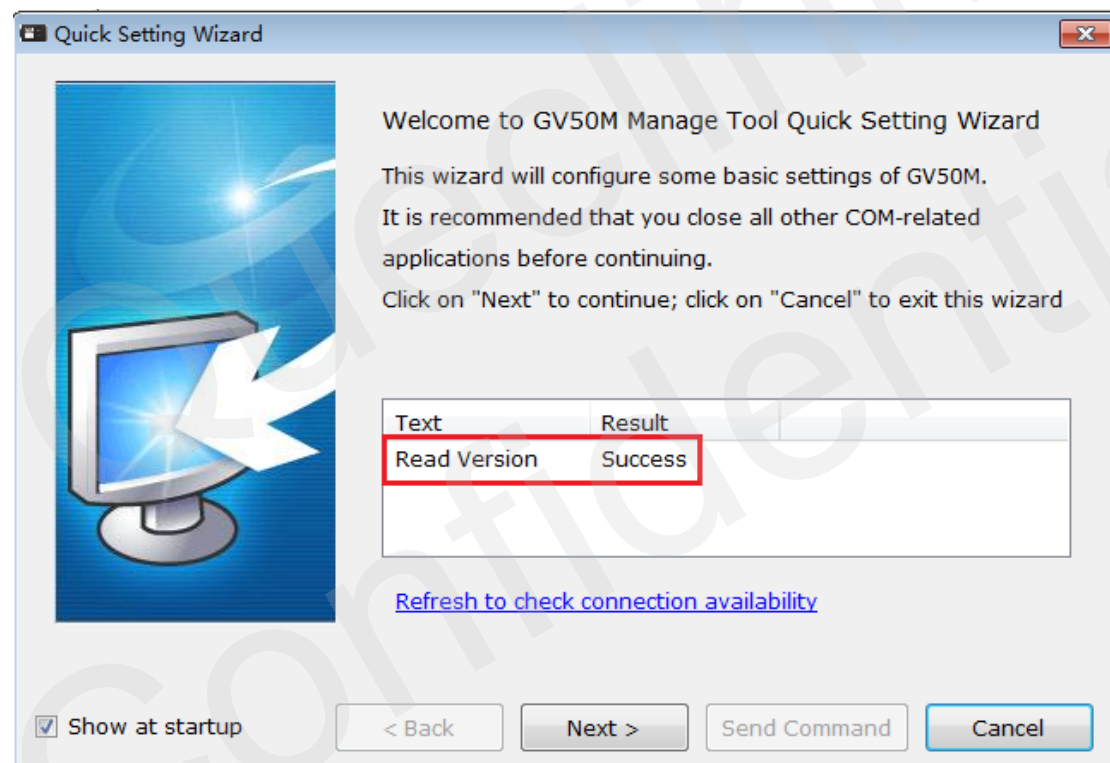
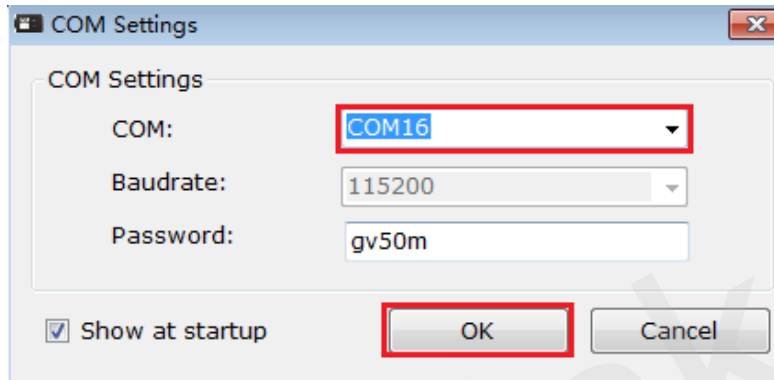
Step 2: The user can set the parameters of the commands based on the configuration file, and then click “Send All Configuration” in toolbar.



Step 3: The Manage Tool will write all commands to the device.

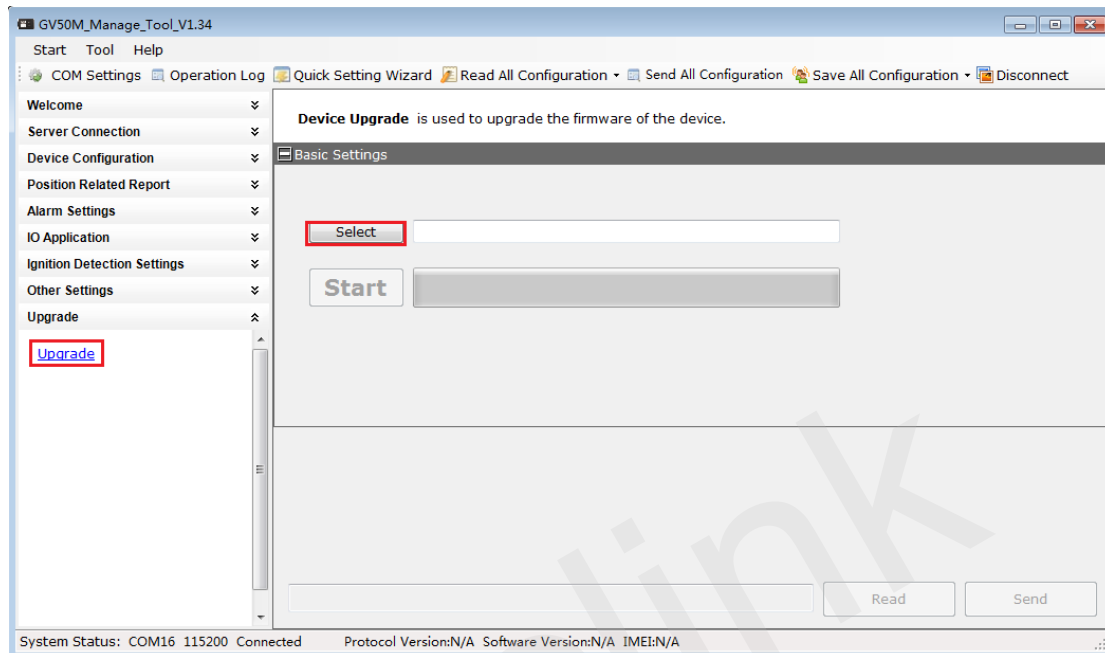
3. Device upgrade

1) Connect the device to the PC by Data_Cable_Mcable first. Open the tool and then select the correct COM port. Click "OK" when "Success" is displayed to enter the setting interface.



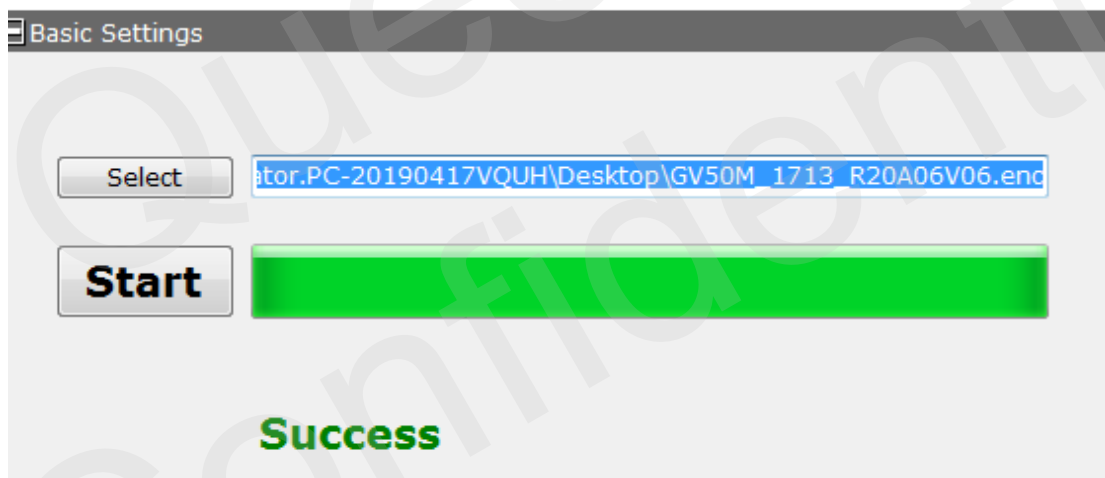
2) Click “Select”, select the file for upgrade (“.enc” file format).

3) Click “Start”, then the interface of upgrade process will show as below:



4) If upgrade is successful, the interface will show as below:

Device Upgrade is used to upgrade the firmware of the device.



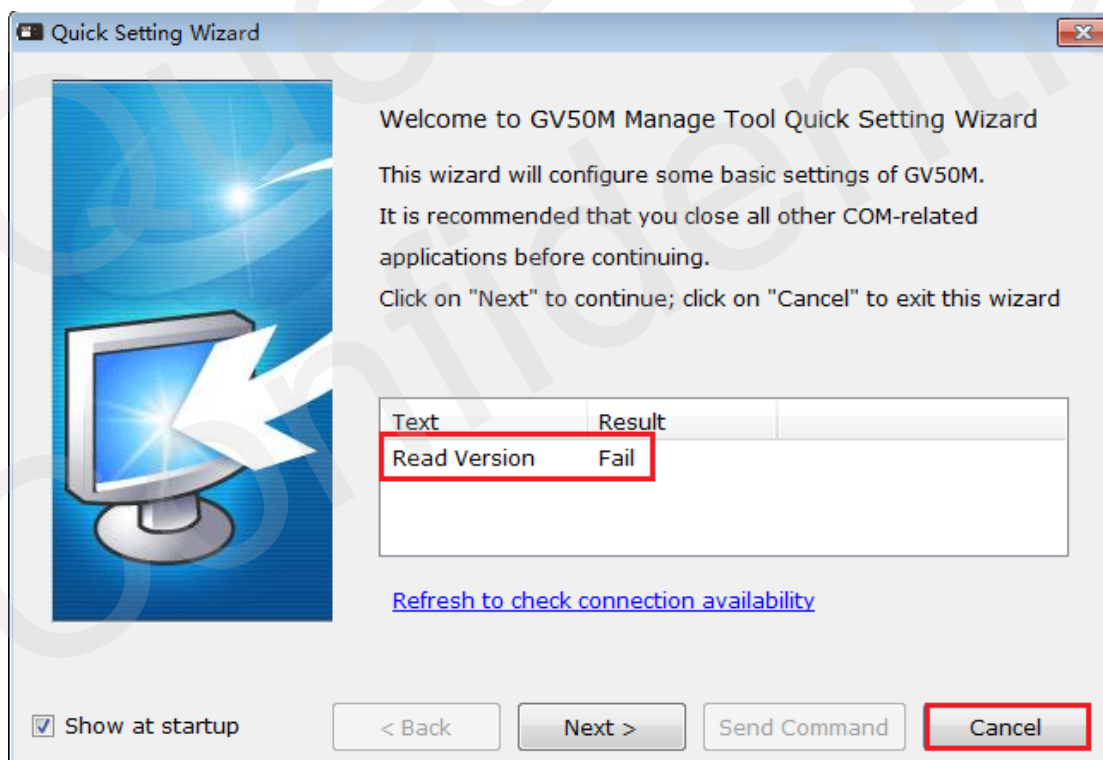
5) If upgrade failed, the interface will show as below:

Device Upgrade is used to upgrade the firmware of the device.



If upgrade failure happens after multiple trials, try to do as following:

- 1) Power off the device first.
- 2) Open the tool, select the correct COM port and "Fail" will be displayed but ignore it for the moment.
- 3) Click "Cancel" to enter the setting interface.



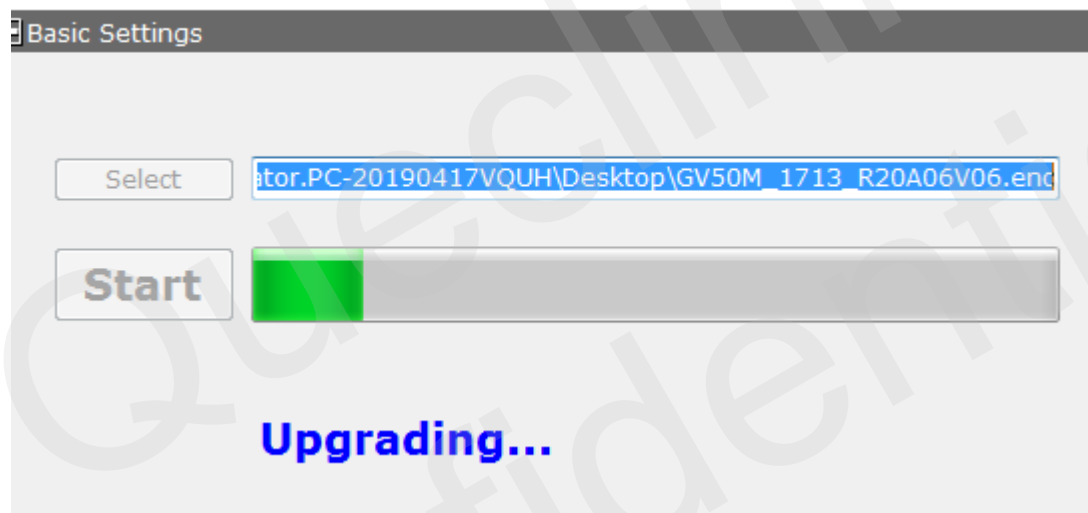
4) Select the correct firmware.

Device Upgrade is used to upgrade the firmware of the device.



5) Click "Start" and power on the device within 10s.

Device Upgrade is used to upgrade the firmware of the device.



Device Upgrade is used to upgrade the firmware of the device.

