



# EM7590 Windows User Guide

<b>Revision:</b>	<b>v0.1</b>
<b>FileHold#:</b>	<b>4134931</b>

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## 1 General

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### 1.1 Purpose

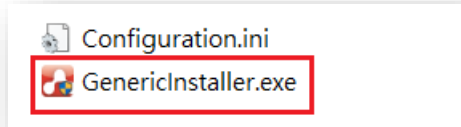
This document is intended to guide you how to use Qualcomm SDX12 chipsets (EM7590) on Windows platform. It will show you how to install below

- EM7590 driver package: Install EM7590 driver and tools on Windows.
- MBIMAT tool: AT Command tool over MBIM or serial port.
- Modem Logger Tool: Capture EM7590 modem log via DM port.
- Win Logger Tool: Capture Windows network trace log.
- FDTW: Windows Firmware download tool.

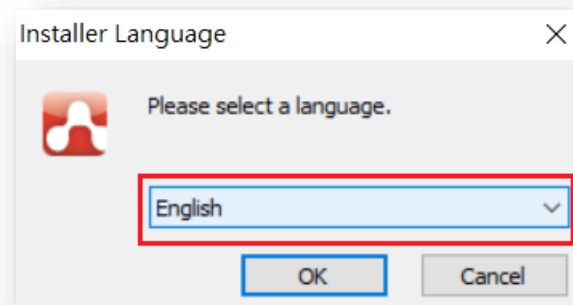
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## 2 Install EM7590 Driver Package

1. Please execute "GenericInstaller.exe" to start install EM7590 driver package.



2. Select the language you want to display.

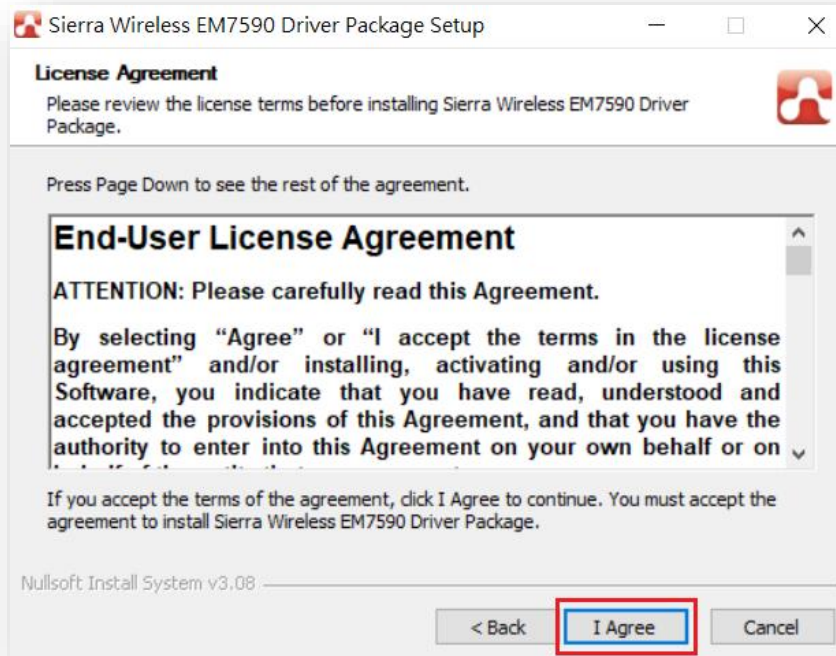


3. The welcome page will be displayed first, click "Nex" button to continue.

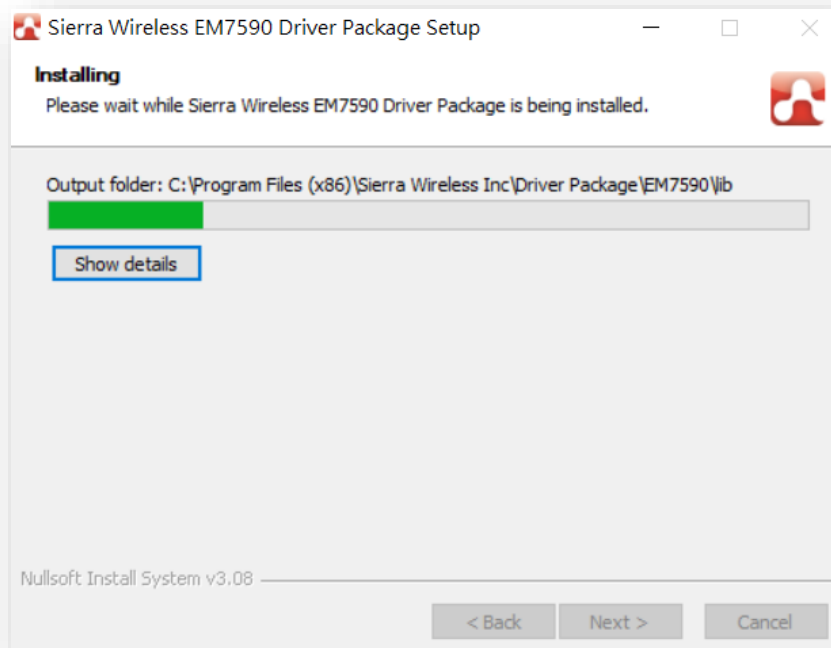


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- Please review the license page, click “I Agree” button to continue install.

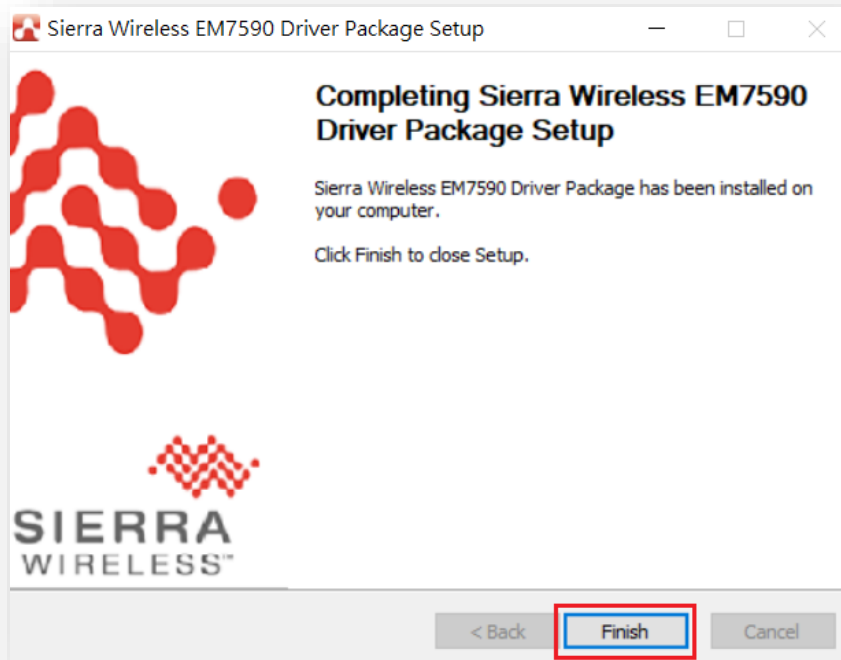


- Installer will start to install EM7590 driver and tools

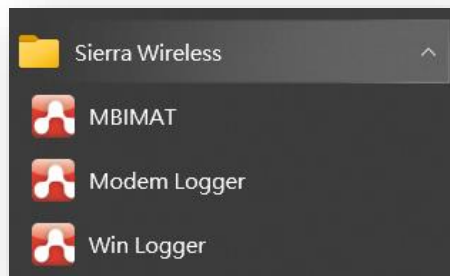


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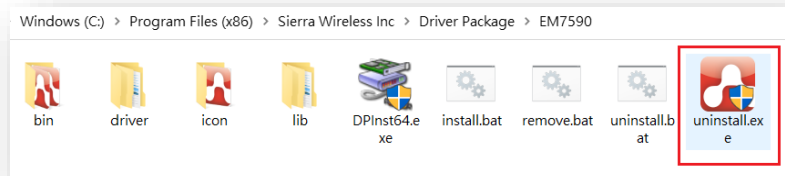
- After the installation is complete, press the "Finish" button to complete the installation process.



- After the installation is complete, you can also check the installed tools in the start menu.



- You can uninstall the EM7590 driver package by uninstalling the program in Windows. Or execute "uninstall.exe" in the program files folder.



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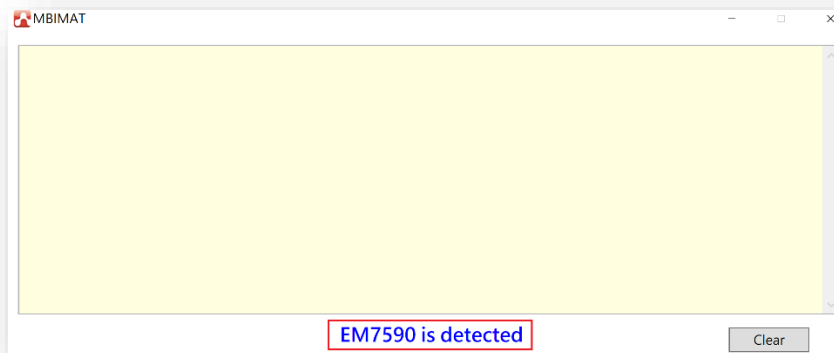
### 3 Introduction to the MBIMAT Tool

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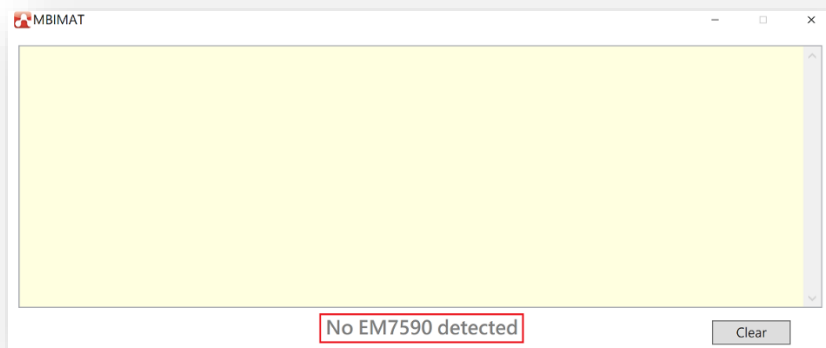
1. Please install this tool by EM7590 driver package.
2. Execute MBIMAT from start menu.



3. Make sure the EM7590 is properly connected.

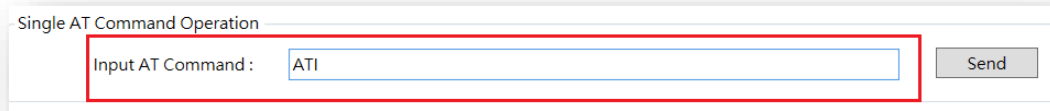


4. If the EM7590 is not connected, it will display "No EM7590 detected".



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5. You can start typing AT command in the input command field.

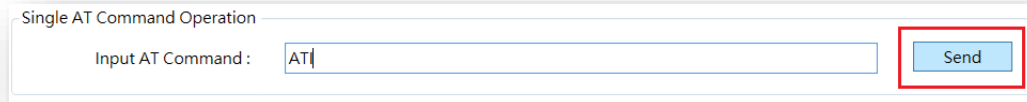


Single AT Command Operation

Input AT Command :

Send

6. Press “Send” button to send out the AT command.

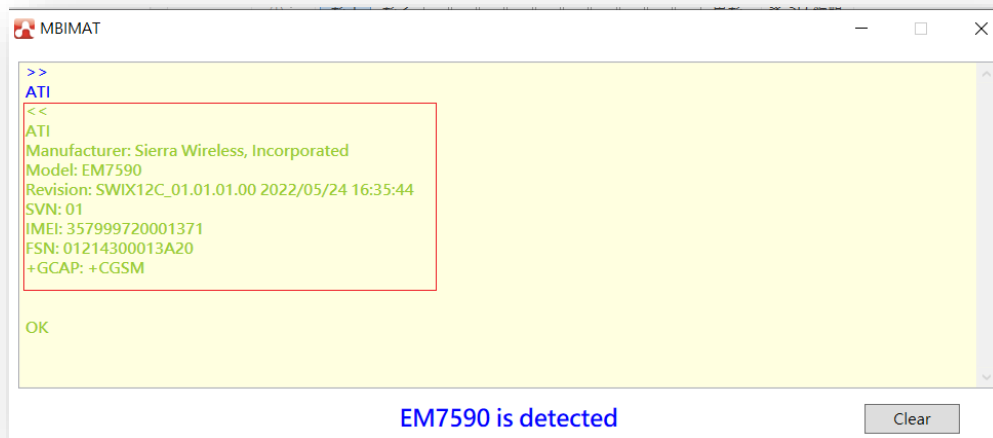


Single AT Command Operation

Input AT Command :

Send

7. You can check the result in log content windows.



MBIMAT

```
>>
ATI
<<
ATI
Manufacturer: Sierra Wireless, Incorporated
Model: EM7590
Revision: SWIX12C_01.01.01.00 2022/05/24 16:35:44
SVN: 01
IMEI: 357999720001371
FSN: 01214300013A20
+GCAP: +CGSM

OK
```

EM7590 is detected

Clear

8. Press the “Clear” button to clear the record.



MBIMAT

```
>>
ATI
<<
ATI
Manufacturer: Sierra Wireless, Incorporated
Model: EM7590
Revision: SWIX12C_01.01.01.00 2022/05/24 16:35:44
SVN: 01
IMEI: 357999720001371
FSN: 01214300013A20
+GCAP: +CGSM

OK
```

EM7590 is detected

Clear



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9. You can enable the advanced option to operate more functions.

☐ Advanced EM7590 is detected Clear

Frequently used AT Command

ATI	AT!GSTATUS?	AT!ENTERCND="A710"
AT!IMAGE?	AT!CUSTOM?	AT!RESET

Advanced enable:

☒ Advanced EM7590 is detected Clear

Frequently used AT Command

ATI	AT!GSTATUS?	AT!ENTERCND="A710"
AT!IMAGE?	AT!CUSTOM?	AT!RESET

Single AT Command Operation

Input AT Command :  Send

Log Save Location

Browse...

Multiple AT Command Operation

☒ Send Interval  ms/time

Import Command File  Execute Pause Stop

10. In addition to displaying on the window, the history record will also be stored in the log file synchronously. You can set the location where the log is stored.

Log Save Location

Browse...

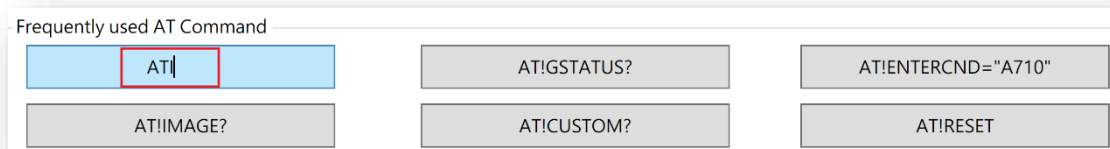
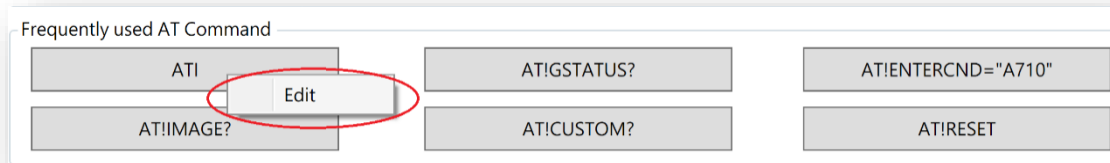
11. You can also use shortcut keys to directly send commonly used AT commands.

Frequently used AT Command

ATI	AT!GSTATUS?	AT!ENTERCND="A710"
AT!IMAGE?	AT!CUSTOM?	AT!RESET

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12. Press the right mouse button on the shortcut key to modify the command.  
Press Enter Key to save the modification.



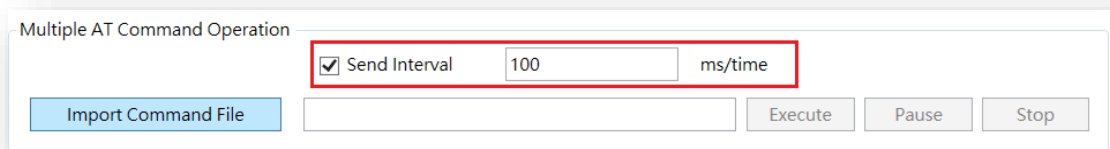
13. You can also use multiple AT command description files to send multiple AT commands at once.



Ex:

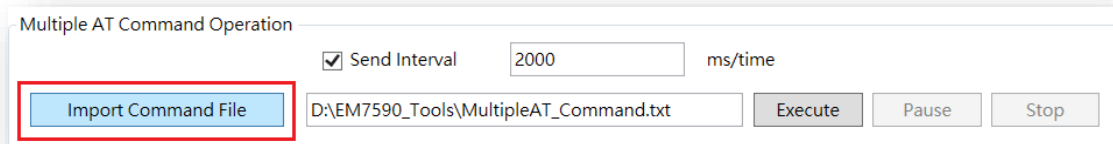
```
at!entercnd="A710"
at!usbcomp=1,1,100F
at+cfun=1,1
```

13. 1 Set the time of each command interval.

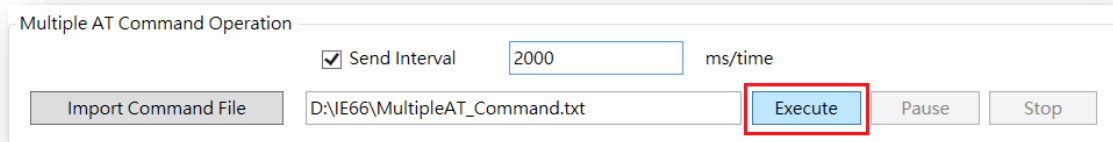


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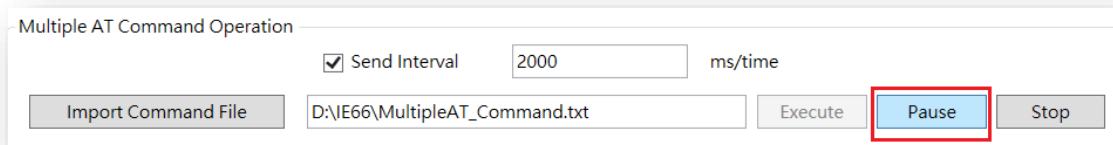
13.2 Select “Import Command File” to import command file.



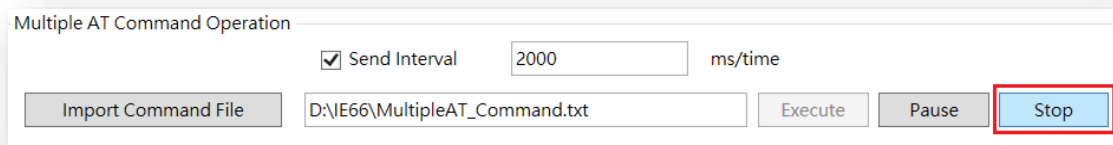
13.3 Press “Execute” button start to send AT command



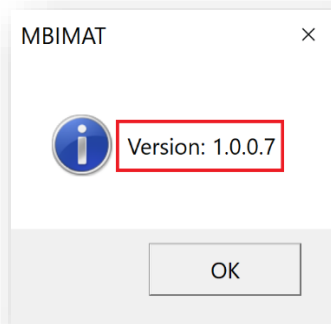
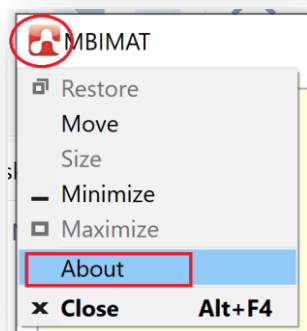
13.4 The “Pause” button can pause the execution of the process.



13.5 The “Stop” button can stop the execution of the process.



14. Click the left mouse button at the icon position in the upper left corner, you can select “About” to view the version information.

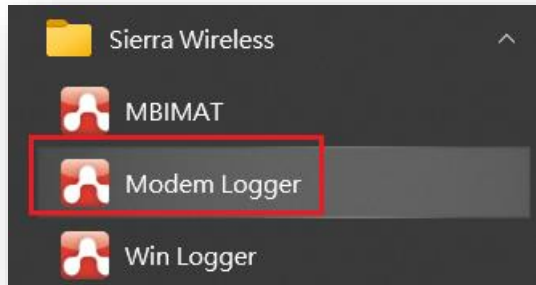


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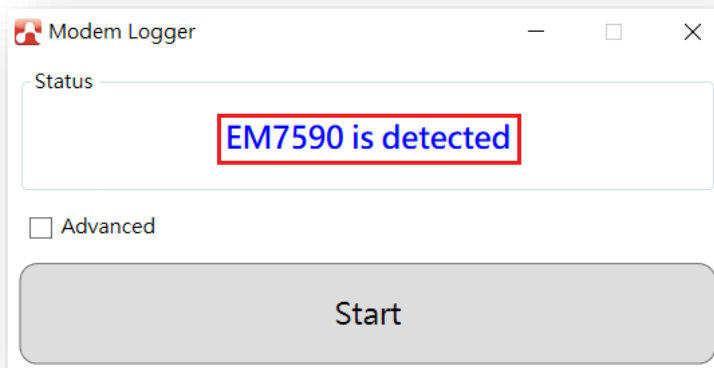
## 4 Introduction to the Modem Logger Tool

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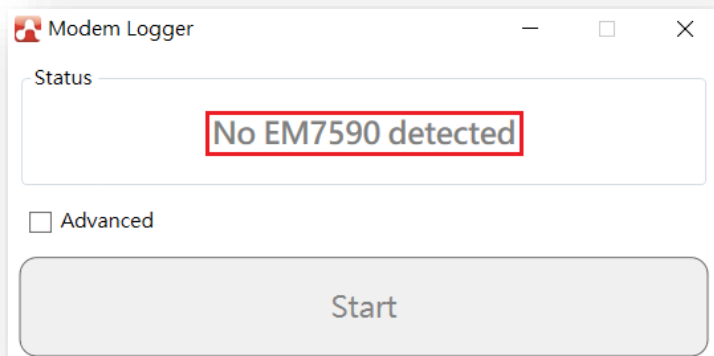
1. Please install this tool by EM7590 driver package.
2. Execute Modem Logger from start menu.



3. Make sure the EM7590 is properly connected.

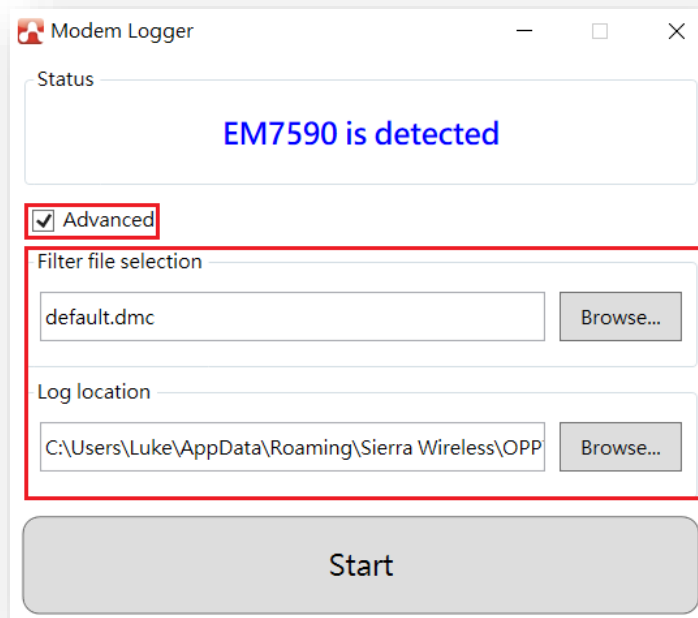


4. If the EM7590 is not connected, it will display "No EM7590 detected".

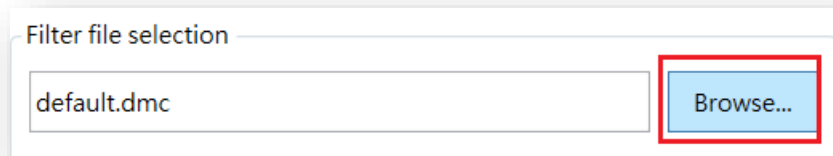


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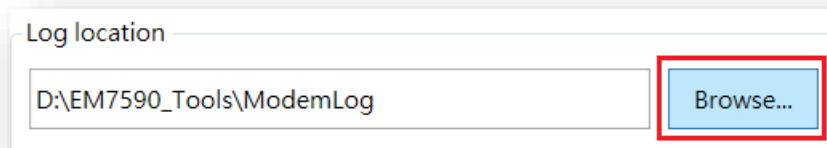
5. You can enable the advanced option to operate more functions.



6. Select the log filter file you want to use.

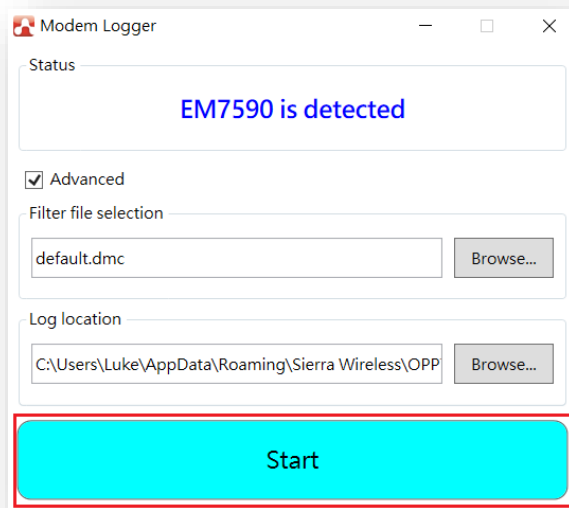


7. You can set the location where the log is stored.

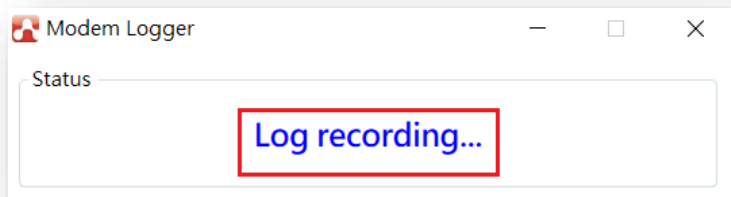


8. Press "Start" button start to record the modem log.

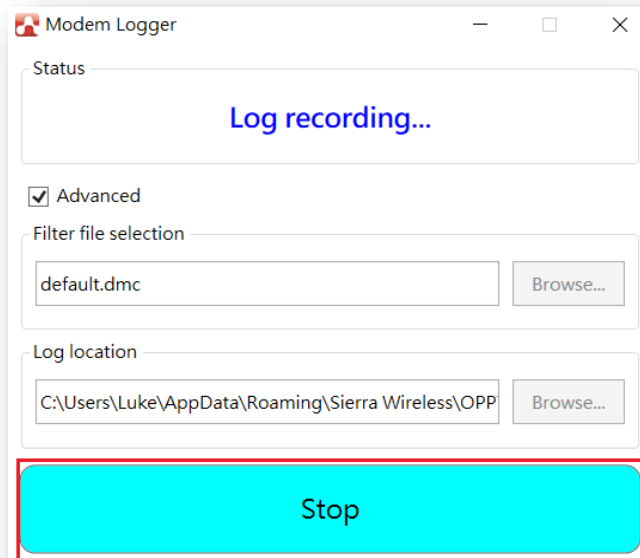
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The status window will show that the log is being recorded.



9. Press the “Stop” button to stop recording the log.

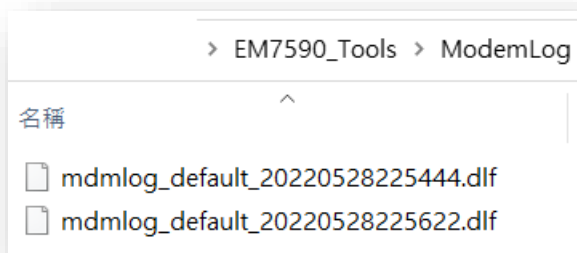


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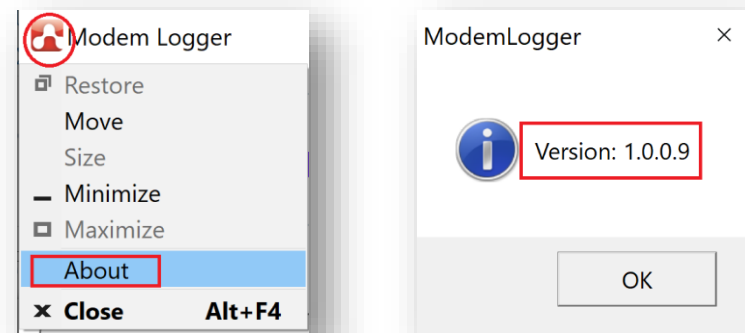
The status window will show that the log has stopped recording



10. The log file can be found in the location where the log is stored.  
Ex:



11. Click the left mouse button at the icon position in the upper left corner, you can select "About" to view the version information.



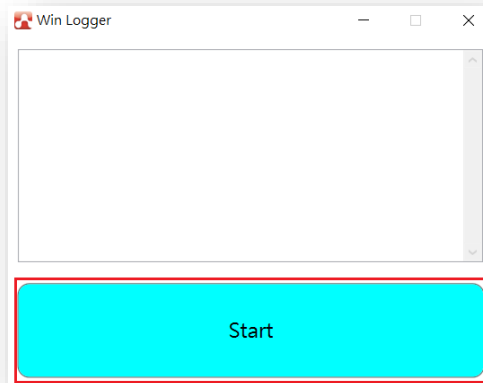
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## 5 Introduction to the Win Logger Tool

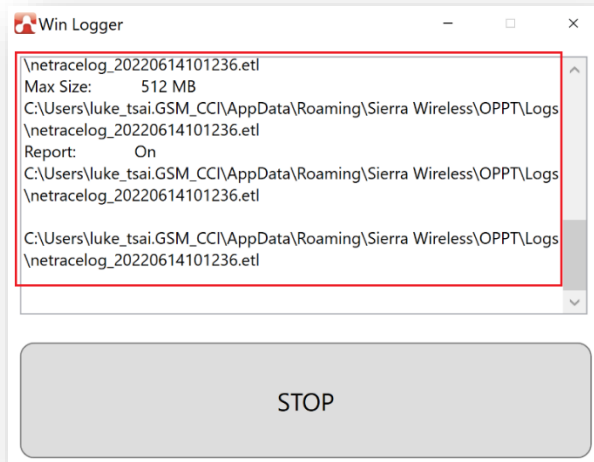
1. Please install this tool by EM7590 driver package.
2. Execute Win Logger from start menu.



3. Press "Start" button start to record the net trace log.



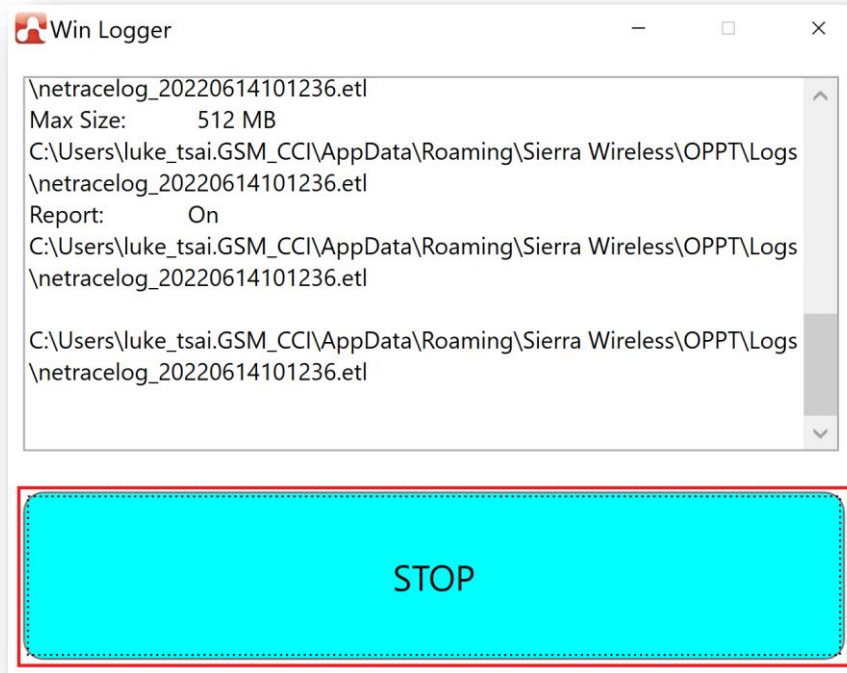
The status window will show that the log is being collected.



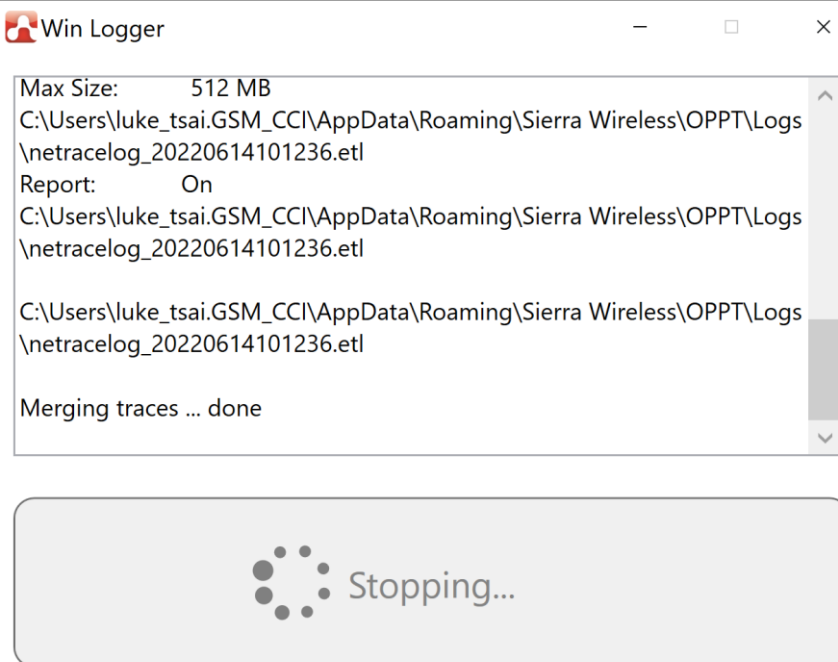


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4. Press the “Stop” button to stop recording the log.

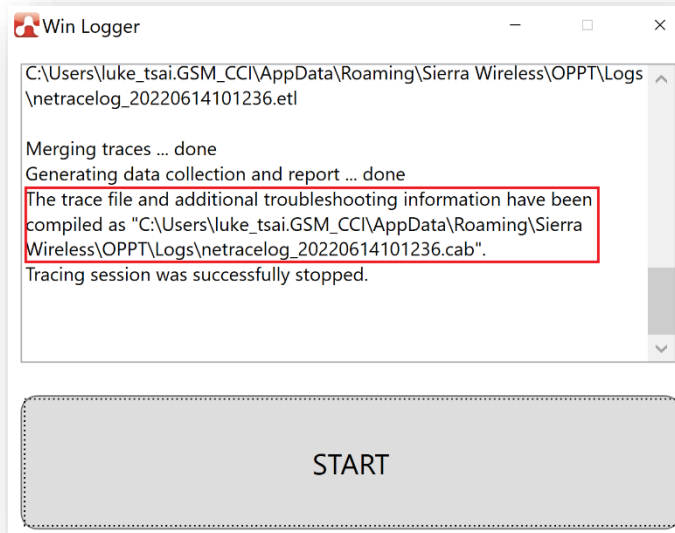


The button will display the process that is stopping the log recording.  
The stopped process will take a long time to wait.



5. You can find where the log is stored on the status window.

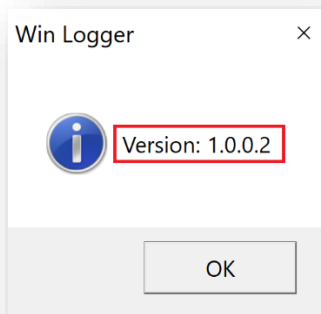
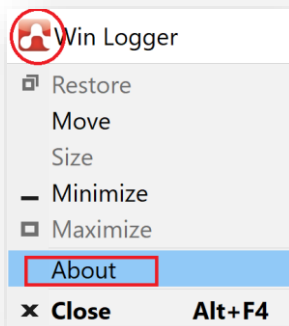
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AppData > Roaming > Sierra Wireless > OPPT > Logs >

Name	Date modified	Type	Size
netracelog_20220610160545.cab	6/10/2022 4:09 PM	Cabinet File	5,276 KB
netracelog_20220610160545.etl	6/10/2022 4:06 PM	ETL File	4,096 KB

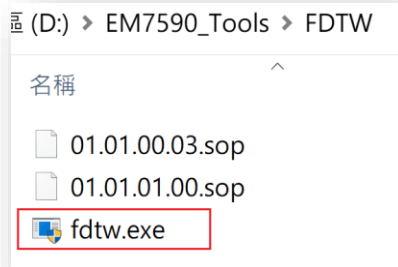
6. Click the left mouse button at the icon position in the upper left corner, you can select "About" to view the version information.



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## 6 FDTW SOP

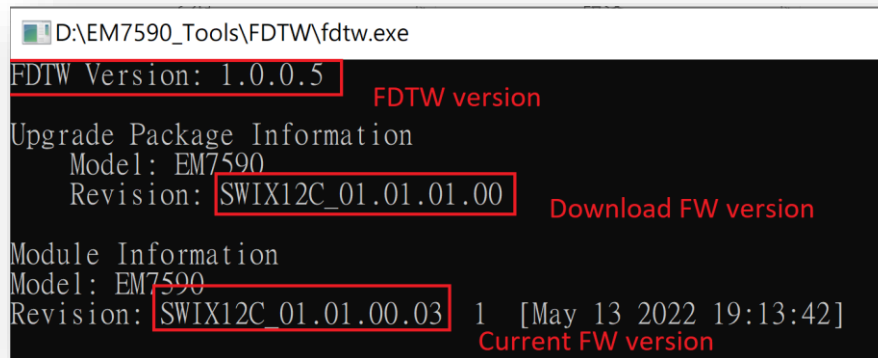
1. Prerequisites:  
Install the latest Windows driver from EM9570 Driver Package
2. Copy FDTW.exe to the test computer



4. Type fdtw and the parameter of "-f" that use as follows to start the download process:  
fdtw -f [FW file name]  
Ex:

```
D:\EM7590_Tools\FDTW>fdtw -f 01.01.01.00.sop
```

5. Download tool will open another window to execute the download procedure. Its will showing FDTW version, Download FW version and current FW version.



6. Set the COM port used by download then start the download process.



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7. Download finish

```
Setting download port ..... COM3
Downloading ..... finish.
```

8. After the FW is downloaded to the device, it will start to update the FW on the device

```
Setting download port ..... COM3
Downloading ..... finish.
Updating the firmware...
The update process takes up to 5 minutes, please wait.
.....
```

9. When all update procedures are complete, the version currently successfully updated on the device will be displayed.

```
Downloading ..... finish.
Updating the firmware...
The update process takes up to 5 minutes, please wait.
.....

Module Information
Model: EM7590
Revision: SWIX12C_01.01.01.00 2022/05/24 16:35:44
Upgrade Done
```

10. Press Enter to end the update process.

```
Module Information
Model: EM7590
Revision: SWIX12C_01.01.01.00 2022/05/24 16:35:44
Upgrade Done
Press Enter to continue ...
```

11. If you don't want to wait for a key to end the updated process, you can use the -a parameter, after the download is complete, it will automatically end the download process and executed window.

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fdtw -f [FW file name] -a

```
D:\EM7590_Tools\FDTW>fdtw -f 01.01.01.00.sop -a
```