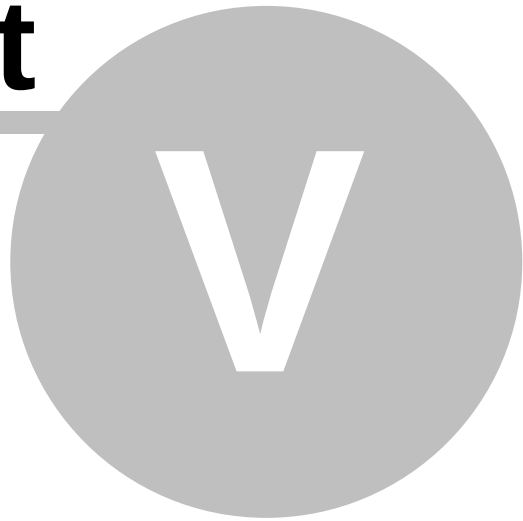


# MonitorTm Help Manual

## Part

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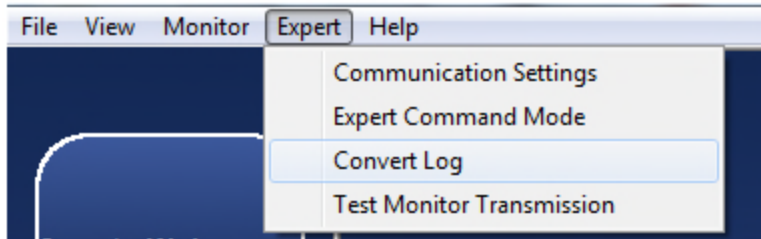


## Analyzing Data

## 5 Analyzing Data

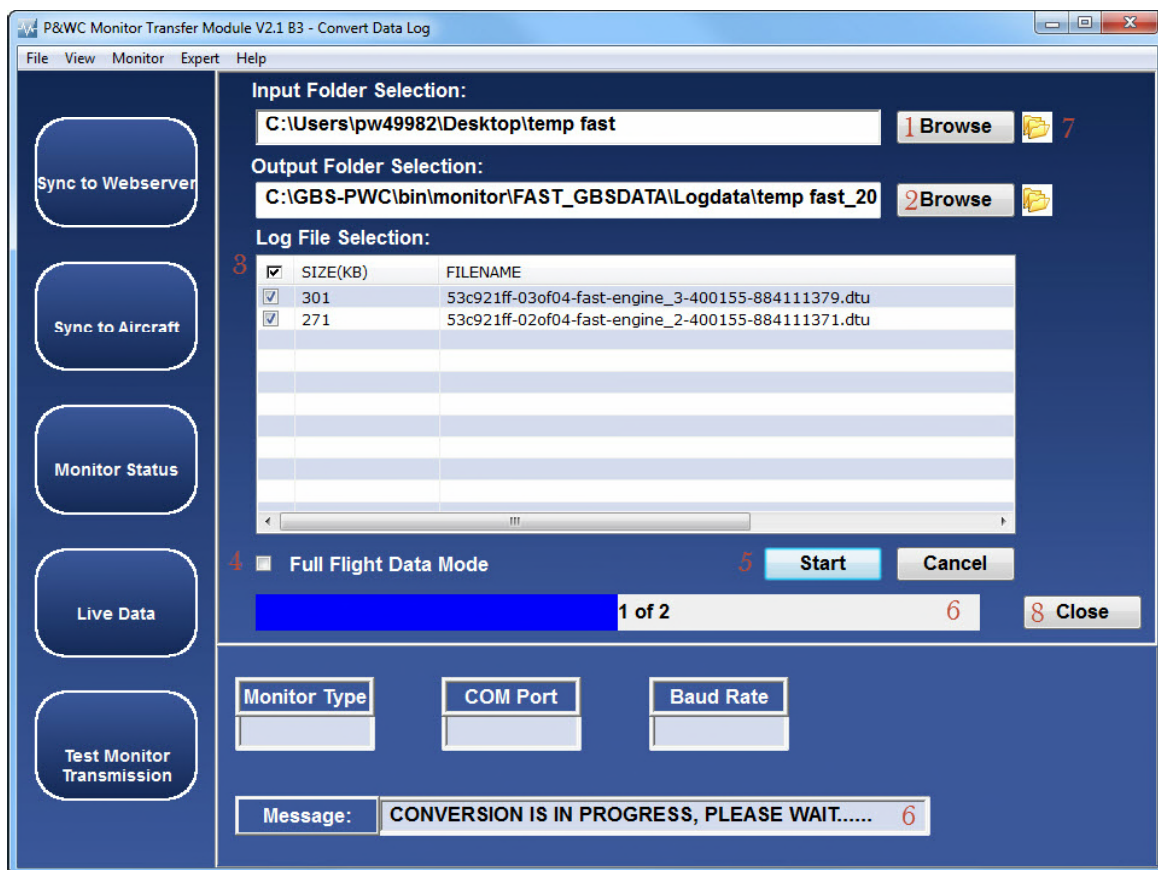
### 5.1 Convert Log Function

Accessing:



#### 5.1.1 General convert log function

Prior to [analyzing data locally in GBSLite](#)<sup>65</sup>, logs must be converted using the convert log function



1. The user must select the Input Folder Selection using the Browse button. The log files in the Input Folder will be listed. The user must select the log files to convert using check box next to the filename.

2. A unique Output Folder is proposed automatically. The user can modify the Output Folder location and name.

\*Please note that the Output Folder must always be different than the Input Folder.

3. The column header check box can be used to select all log files.

4. If required, Full Flight Data Mode option is used for troubleshooting and full flight data analysis.

5. Click the Start button to begin conversion of selected files

6. When conversion has begun, conversion progress and status will be displayed.

7. The icon near the browse button can be clicked to open a Windows Explorer window of the selected path.

8. To exit the convert log function, press close.

### 5.1.2 Q200/Q300/ATR42/ATR72 convert log function

For the Q400/Q300/ATR42/ATR72 application, the program converts only zip files that regroup the complete set of 4 data files per sequence as listed in the example below:

- 4ff8f1b2-01of04-fast-q300\_eec\_1-\*.dtu
- 4ff8f1b2-02of04-fast-q300\_foqa-\*.dtu
- 4ff8f1b2-03of04-fast-q300\_eec\_2-\*.dtu
- 4ff8f1b2-04of04-fast-sys-\*.dtu

**Input Folder Selection:**  
C:\Users\pw49982\Desktop\temp

**Output Folder Selection:**  
C:\GBS-PWC\bin\monitor\FAST\_GBSDATA\Logdata\temp\_2013-03-26@16-42-18

**Log File Selection:**

| <input type="checkbox"/> | SIZE(KB) | FILENAME                                            | DATE       | TIME     |
|--------------------------|----------|-----------------------------------------------------|------------|----------|
| <input type="checkbox"/> | 329      | 5138fc08-04-fast-q300-400028.zip                    | 2013/03/26 | 16:41:14 |
| <input type="checkbox"/> | 671      | 5138fbcd-01of04-fast-q300_foqa-400028-847723142.dtu | 2013/03/26 | 16:41:14 |
| <input type="checkbox"/> | 10       | 5138fbcd-03of04-fast-sys-400028-847723139.dtu       | 2013/03/26 | 16:41:14 |
| <input type="checkbox"/> | 409      | 5138fbcd-04-fast-q300-400028.zip                    | 2013/03/26 | 16:41:12 |

☒ Full Flight Data Mode

Start Cancel Close

Any incomplete zip file can only be converted in Full Flight Data Mode for troubleshooting analysis.

### 5.1.3 Q400 convert log function

For the Q400 application, the program converts only zip files that regroup the complete set of data files per sequence as listed in the examples below:

Set of 7 files – Full Flight and EMU data (Phase 2 with propeller monitoring):

- 53b22546-01of07-fast-q400\_cds-\*.dtu
- 53B22546-02of07-FAST-SYS-\*.dtu
- 53b22546-03of07-fast-q400\_foqa-\*.dtu
- 53b22546-04of07-fast-q400\_emu-\*.dtu
- 53b22546-05of07-fast-q400\_eec\_1-\*.dtu
- 53b22546-06of07-fast-q400\_eec\_2-\*.dtu
- 53b22546-07of07-fast-q400\_uib-\*.dtu

Set of 6 files – Full Flight and EMU data (Phase 2):

- 53b22546-01of06-fast-q400\_cds-\*.dtu
- 53B22546-02of06-FAST-SYS-\*.dtu
- 53b22546-03of06-fast-q400\_foqa-\*.dtu
- 53b22546-04of06-fast-q400\_emu-\*.dtu
- 53b22546-05of06-fast-q400\_eec\_1-\*.dtu
- 53b22546-06of06-fast-q400\_eec\_2-\*.dtu

Set of 4 files – Full Flight and EMU data (Phase 1):

- 53b22546-01of04-fast-q400\_cds-\*.dtu
- 53B22546-02of04-FAST-SYS-\*.dtu
- 53b22546-03of04-fast-q400\_foqa-\*.dtu
- 53b22546-04of04-fast-q400\_emu-\*.dtu

Set of 3 files – Full Flight Only

- 53b93856-01of03-fast-q400\_foqa-\*.dtu
- 53B93856-02of03-FAST-SYS-\*.dtu
- 53b93856-03of03-fast-q400\_cds-\*.dtu

Set of 2 files – EMU data Only:

- 53C26DC8-01of02-FAST-SYS-\*.dtu
- 53c26dc8-02of02-fast-q400\_emu-\*.dtu

Any incomplete Q400 zip file can only be converted in Full Flight Data Mode for troubleshooting analysis.

### 5.1.4 AW139 convert log function

For the AW139 application, the program converts only zip files that regroup the complete set of data files per sequence as listed in the example below:

Set of 5 files – Full Flight with APAC:

- 53C26DC8-01of05-FAST-SYS-\*.dtu
- 53c26dc8-02of05-fast-aw139\_foqa-\*.dtu
- 53c26dc8-03of05-fast-aw139\_eec\_1-\*.dtu
- 53c26dc8-04of05-fast-aw139\_eec\_2-\*.dtu
- 53c26dc8-05of05-fast-etm\_aw139-\*.dtu

Set of 2 files – Full Flight:

- 53C26DC8-01of02-FAST-SYS-\*.dtu
- 53c26dc8-02of02-fast-aw139\_foqa-\*.dtu

Any incomplete AW139 zip file can only be converted in Full Flight Data Mode for troubleshooting analysis.

### 5.1.5 680A convert log function

For the 680A application, the program converts only zip files that regroup the complete set of data files per sequence as listed in the example below:

Set of 5 files – Full Flight and EDU data:

- 53C26DC8-01of05-FAST-SYS-\*.dtu
- 53c26dc8-02of05-fast-680a\_eec\_1-\*.dtu
- 53c26dc8-03of05-fast-680a\_eec\_2-\*.dtu
- 53c26dc8-04of05-fast-680a\_edu\_1\*.dtu
- 53c26dc8-05of05-fast-680a\_edu\_2\*.dtu

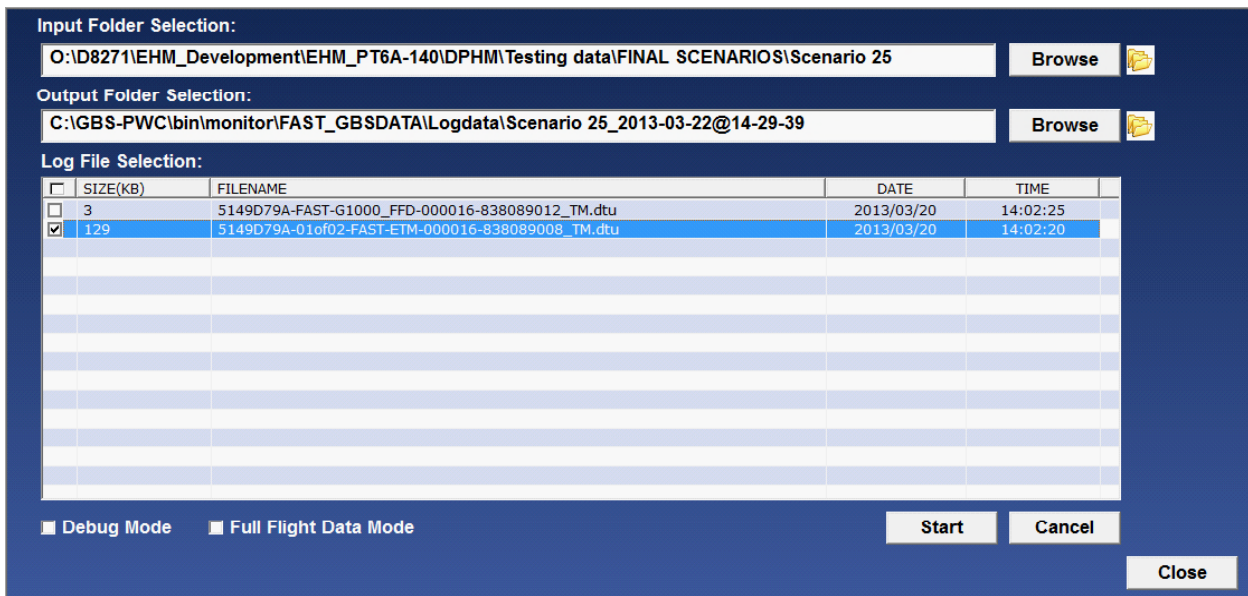
Any incomplete 680a zip file can only be converted in Full Flight Data Mode for troubleshooting analysis.

### 5.1.6 Caravan convert log function

For the Cessna Caravan application, the program can convert:

- An ETM file which contains engine exceedance, event, trend and creep information.
- A Full Flight data file (\*G1000\_FFD\*) which contains full flight data of engine parameters.

The ETM file must be converted into GBS standard file for analysis in GBSLite, as listed in the example below:



The Full Flight data files (\*G1000\_FFD\*) can be converted in Full Flight Data Mode to analyze full flight data in GBSLite.

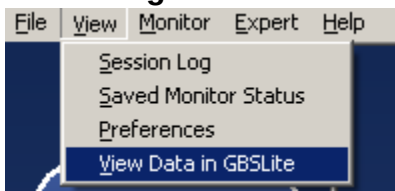
### 5.1.7 EPEC Convert Log function

For the EPECS application, the program converts DTU\* files in Full Flight Data Mode for analysis.

Note\*: This function is in development

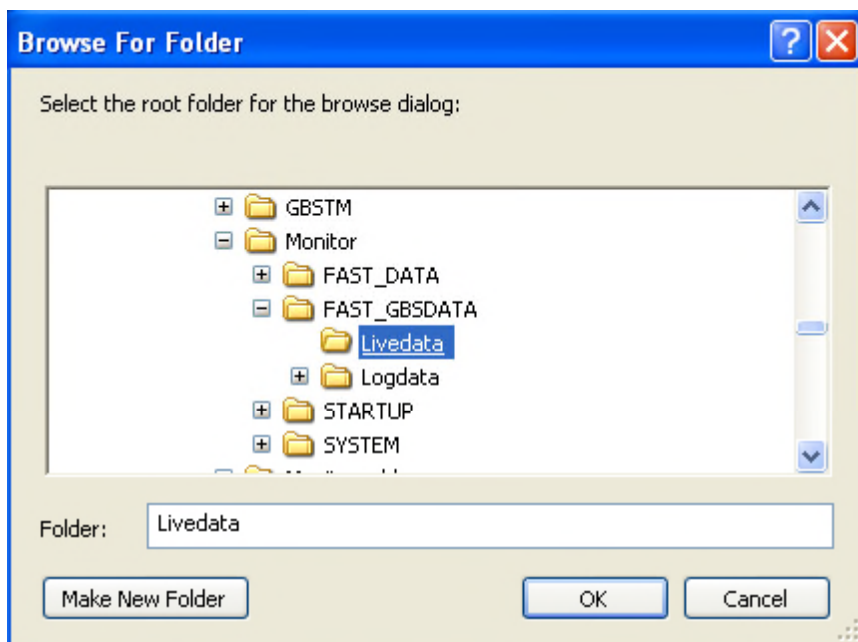
## 5.2 View Data in GBSLite Function

Accessing:



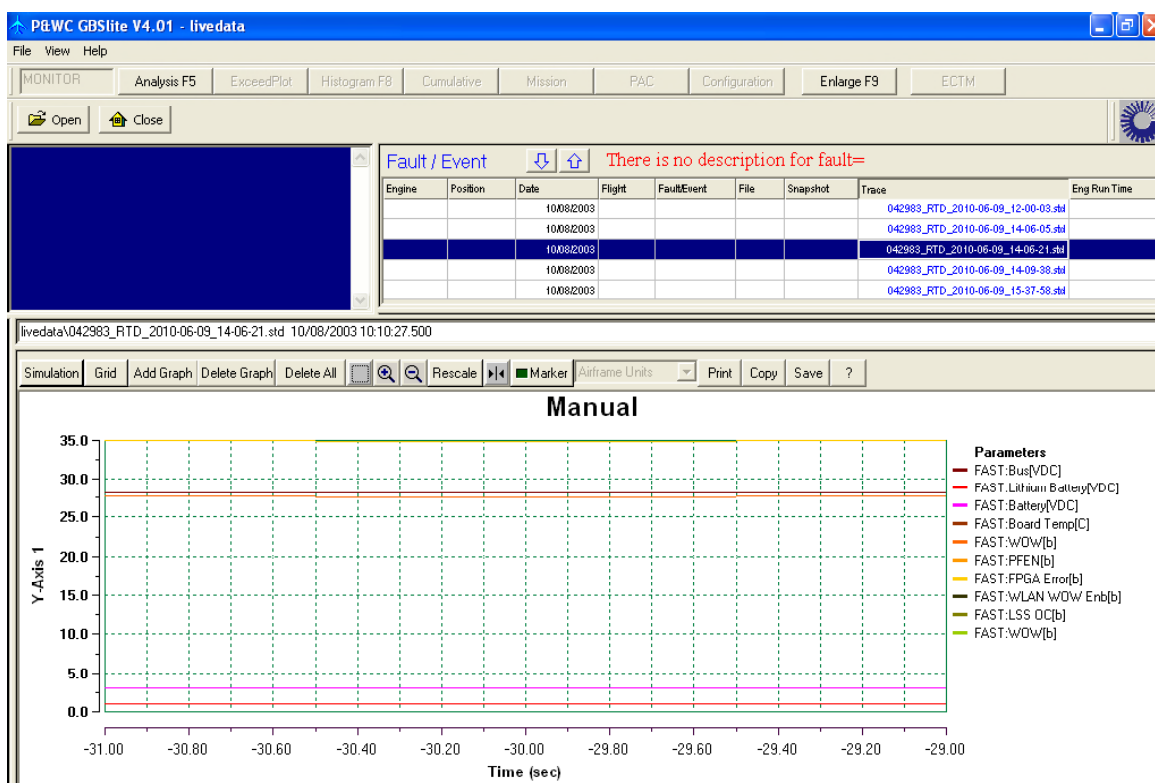
Opens [Live Data](#)<sup>34</sup> recordings and [Converted Log Data](#)<sup>61</sup> for analysis in GBSLite by selecting the desired folder.

Please refer to GBSLite Help Manual for additional information



The user must select the folder where the data has been converted. This can be under Liverdata, Logdata or any other location.

The data will be displayed in GBSLite



# Part

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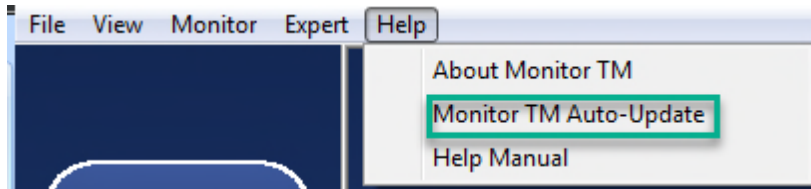
VI

## Monitor TM Auto-Update

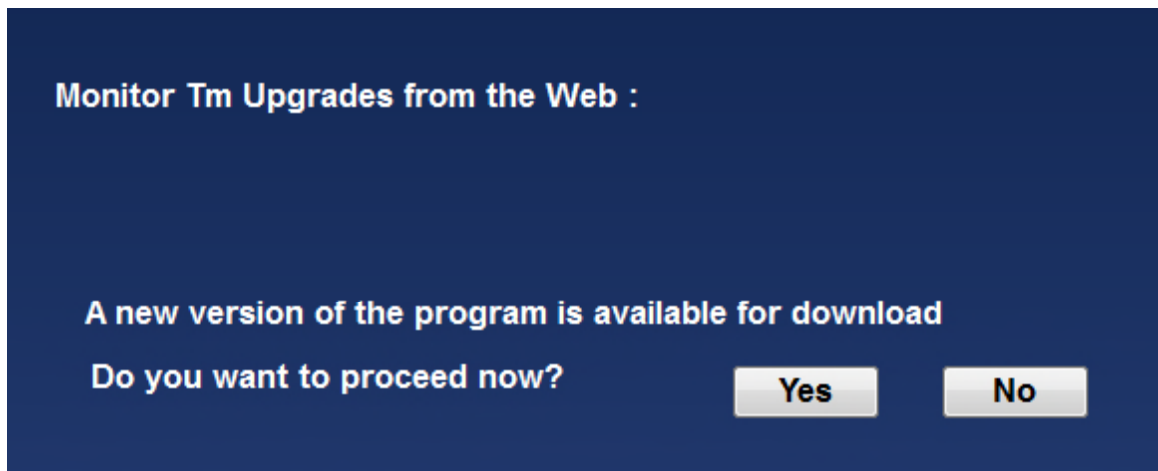
## 6 Monitor TM Auto-Update

### 6.1 Monitor TM Auto-Update

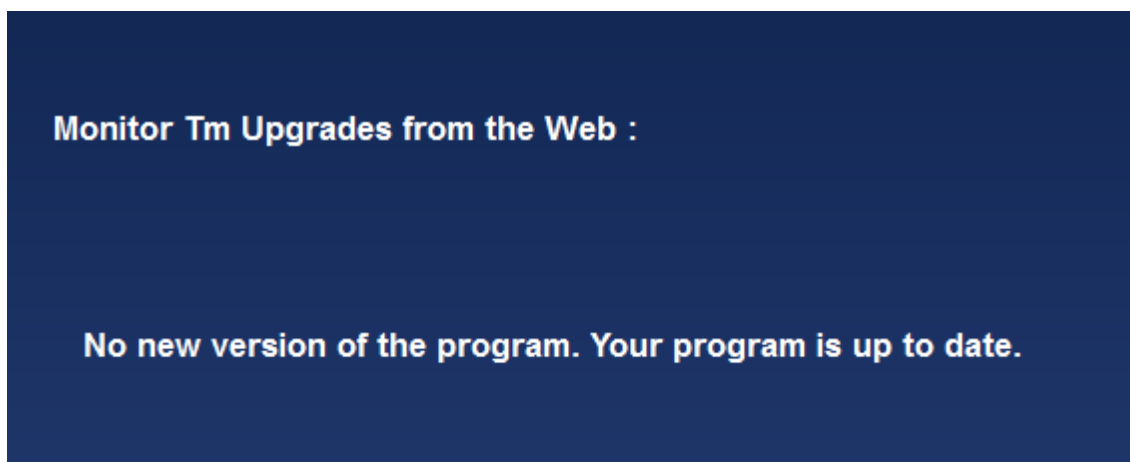
Accessing:



If an update exists, the program will indicate that an update is available and will need to follow the instructions



If no update exists, the program will indicate that your program is up to date.



# Part

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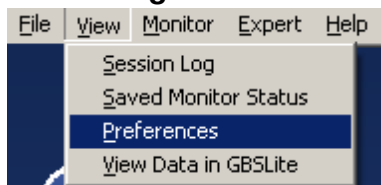


## Additional Information

## 7 Additional Information

### 7.1 Changing MonitorTm preferences

#### Accessing:



The Preferences function is available to customize the retrieve log files settings

#### Tag Data Transmitted:

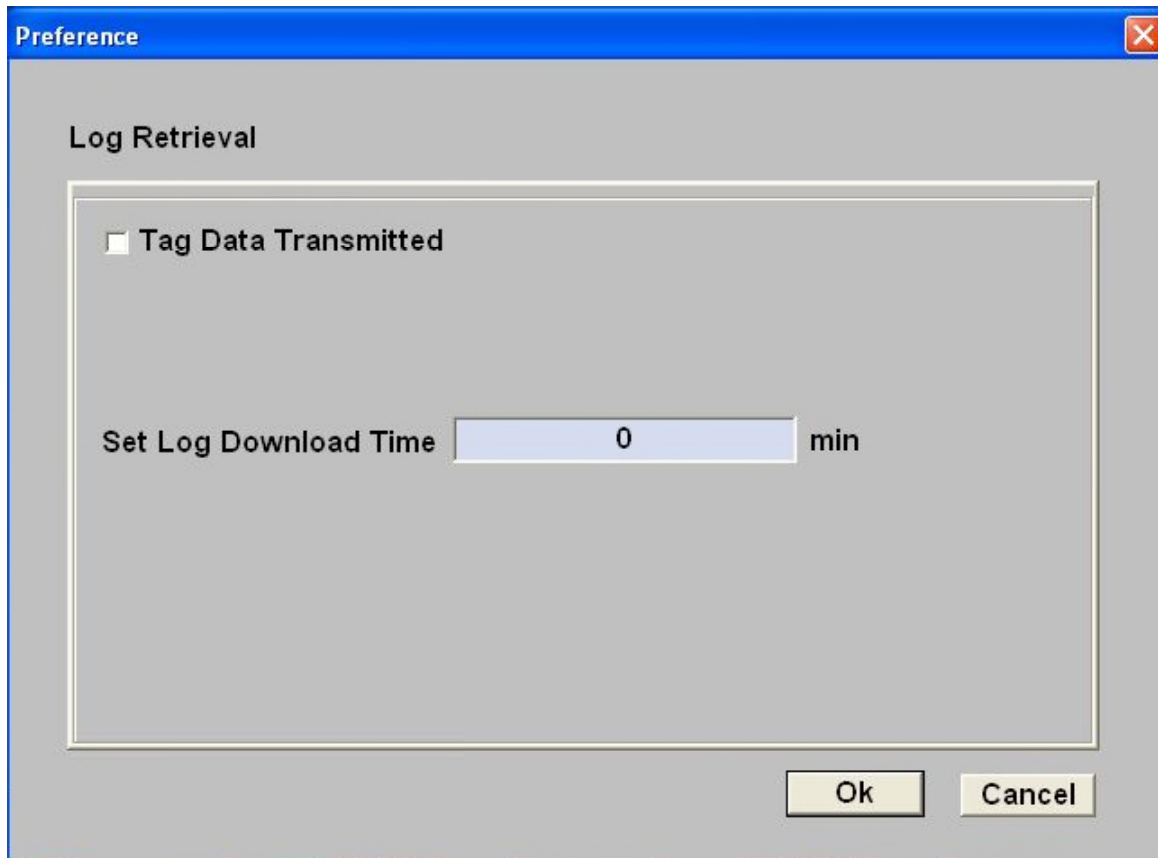
When checked, the files retrieved by the program will be tagged as transmitted

- It is the **user's responsibility** to send the data to the Web via the [Sync to Webserver Function](#) <sup>58</sup>.

When unchecked, the files retrieved will be transmitted to the Web via GSM at next available transmission.

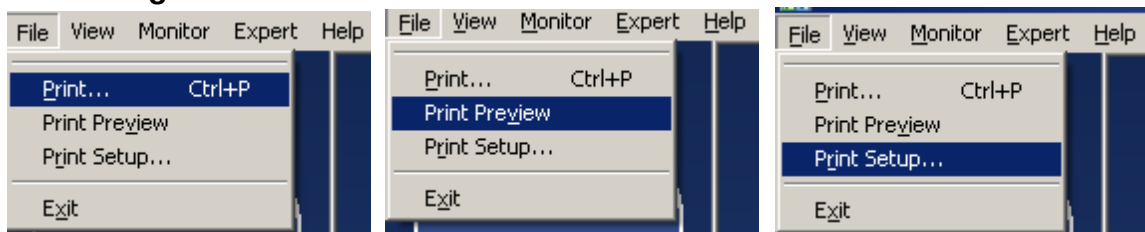
#### Log Download Time:

In the [Retrieve Log Files Function](#) <sup>20</sup>, when the download time to retrieve log files is below this value, the program will retrieve all log files without requiring user selection



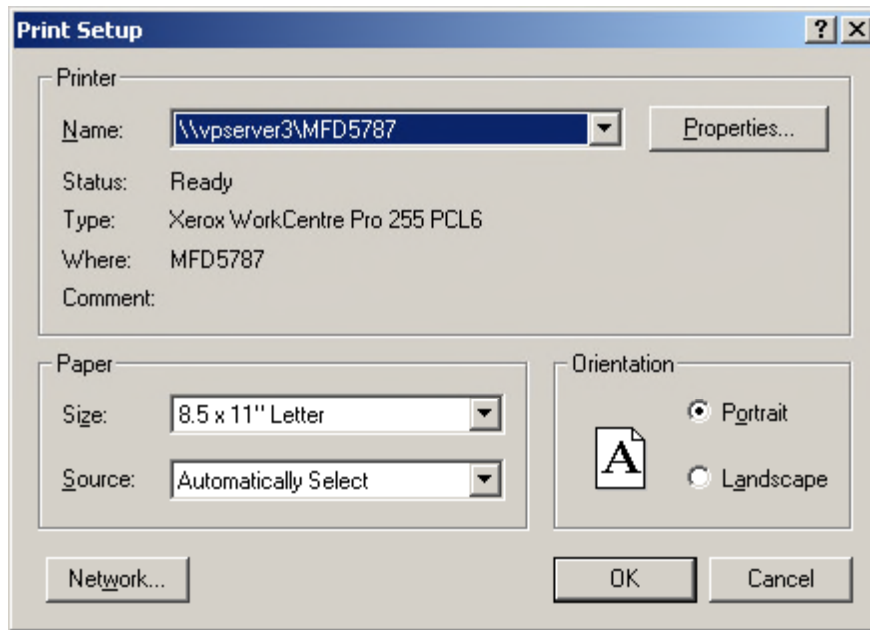
## 7.2 Printing

### Accessing:



Print and Print Preview can be used whenever a function is being performed

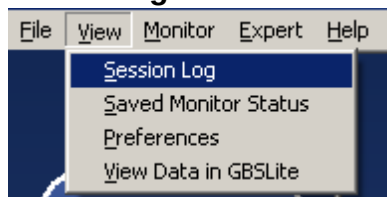
Print Setup allows the user to change the printing options such as orientation and paper size



## 7.3 Troubleshooting

### 7.3.1 View Session Log Function

#### Accessing:



All actions performed while using MonitorTM are recorded automatically in a session log file for troubleshooting purposes.

Session logs can be displayed by filtering the 4 different categories available and can be printed under File Menu/Print.

| <input checked="" type="checkbox"/> User Actions <input type="checkbox"/> Monitor Actions <input type="checkbox"/> WebServer Actions <input checked="" type="checkbox"/> Error |            |          |                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|----------------------------------------------------------------|
| TYPE                                                                                                                                                                           | DATE       | TIME     | MESSAGE                                                        |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:33:13 | Clicked : LogDataRetrieval->Close                              |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:33:09 | 1 Log Files Downloaded                                         |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:33:08 | Downloaded : FAST-SYS-042983-316315114.dtu.bz2.bfe             |
| Error                                                                                                                                                                          | 2010/06/09 | 15:33:08 | Unable to retrieve log file :                                  |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:33:05 | msfx.get_file=[CP_FILES]/FAST-SYS-042983-316315114.dtu.bz2.bfe |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:32:58 | msfx.get_file=[CP_FILES]/FAST-SYS-042983-316315114.dtu.bz2.bfe |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:32:57 | Downloading... Please Wait.....                                |
| User Action                                                                                                                                                                    | 2010/06/09 | 15:32:57 | Clicked : LogDataRetrieval->Start                              |

Close

### 7.3.2 View Saved Monitor Status Function

#### Accessing:



View previously saved [Monitor Status function](#) <sup>25</sup> sessions

Please refer to the [Monitor Status Function](#) <sup>25</sup> section for a description of the possible status messages and recommended actions

| NAME                              | VALUE                      |  |
|-----------------------------------|----------------------------|--|
| SERIAL NUMBER                     | 000001                     |  |
| TIME                              | 01/08/2004 14:30:33.010    |  |
| SOURCE OF TIME                    | LOCAL                      |  |
| CP SOFTWARE VERSION               | 2.0.12.TXTST DEMO 08102010 |  |
| CP_CRC                            | 0x93E317C9                 |  |
| INSTALL ID                        |                            |  |
| CONFIGURATION VERSION             | 1                          |  |
| NUMBER OF BOX POWER ON            | 227                        |  |
| NUMBER OF BOX POWER ON IN SECONDS | 395657                     |  |
| AIRCRAFT TAIL NUMBER              | N353UA                     |  |
| AIRCRAFT OPERATOR                 | United Technologies Lab    |  |
| AIRCRAFT OWNER                    | United Technologies        |  |
| #OF LOGS IN MEMORY                | 7                          |  |
| % OF LOG MEMORY USED              | 0.000131                   |  |
| BOX SYSTEM CONDITION              | FAULT                      |  |
| COMMUNICATION BETWEEN MS AND CP   | YES                        |  |

### 7.3.3 Communication Troubleshooting

Please follow the steps listed below to troubleshoot problems you may have while communicating with the Monitor

- Cycle Monitor Aircraft Power / Monitor power

**Ensure lights are seen on the monitor**

**Perform Communication Settings Function ([Auto-Detection](#) <sup>36</sup>)**

**Message: FAST Successfully Connected**

- Retry the original function. If problem persists, contact [cfirst@pwc.ca](mailto:cfirst@pwc.ca)

**Message: Connection not successful on any available ports**

- Problem Not Yet Solved. Proceed to next Step

- Ensure cable is inserted properly to the monitor J3 connector and to the PC

**Perform Communication Settings Function ([Auto-Detection](#) <sup>36</sup>)**

**Message: FAST Successfully Connected**

- Retry the original function. If problem persists, contact [cfirst@pwc.ca](mailto:cfirst@pwc.ca)

**Message: Connection not successful on any available ports**

- Problem Not Yet Solved. Proceed to next Step

- Disconnect Cable from the PC

**Perform Communication Settings Function ([Manual Detection](#) <sup>37</sup>)**

**Message: FAST Successfully Connected**

- Retry the original function. If problem persists, contact [cfirst@pwc.ca](mailto:cfirst@pwc.ca)

**Message: Connection not successful on any available ports**

- Problem Not Yet Solved. Contact [cfirst@pwc.ca](mailto:cfirst@pwc.ca)

If problem persists, contact Customer service at Pratt & Whitney Canada  
[cfirst@pwc.ca](mailto:cfirst@pwc.ca)

### 7.3.4 GBSlite Analysis Troubleshooting

Please follow the solution listed below to troubleshoot problems you may have while performing GBSlite analysis

| Error Message                            | Description                                      | Solution                                               |
|------------------------------------------|--------------------------------------------------|--------------------------------------------------------|
| There is no fault file in this directory | There is no viewable data in the selected folder | Make sure you are opening the correct folder. Refer to |

|                                                                           |                                                       |                                                                                |
|---------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------|
| Please select a different directory                                       |                                                       | <a href="#">View Data in GBSLite Function</a> <sup>65</sup>                    |
| Directory is empty. Please select a different directory                   |                                                       |                                                                                |
| System error. Missing GBSlite configuration files. Program will terminate | GBSlite is installed without MonitorTm.               | Install MonitorTm. Refer to <a href="#">Program Installation</a> <sup>11</sup> |
| A GBSlite program is already running                                      | Tried to start GBSlite program while already running. | Click GBSlite program button on the Windows taskbar                            |

### 7.3.5 Sync to Webserver Troubleshooting

If you see the error message below, your system may not be able to communicate with the MonitorTM servers.



Confirm that you can access the internet.

You may need to add the site "dphmsftp.pwc.ca " (without quotes) to your firewall's safe list.

In addition the proxy parameters can be edited to include the following:

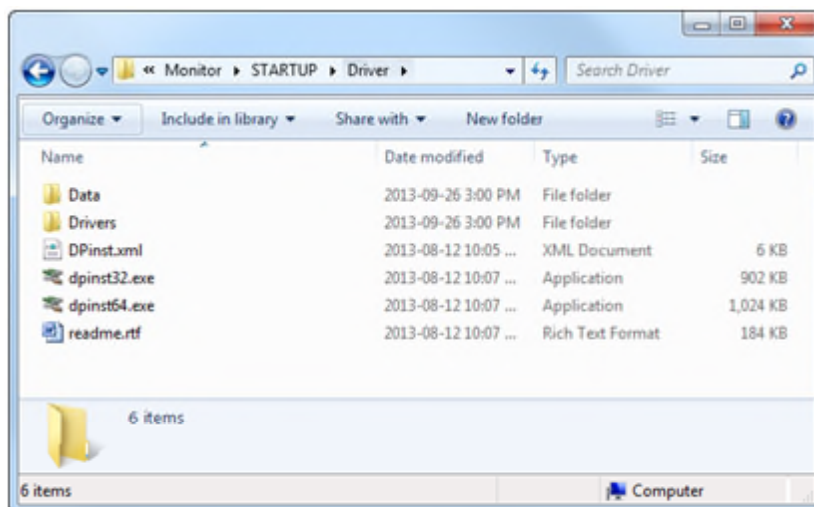
Adress: dphmsftp.pwc.ca  
Port: 22

Contact your IT department for additional help.

## 7.4 FAST USB GSE Cable Driver Installation

Driver installation can be done before or after inserting the USB cable into your PC's USB port.

1. Prior to hardware installation admin rights on the PC will be required.
2. With MonitorTM installed, open Windows explorer to "Driveletter:\GBS-PWC\bin\Monitor\STARTUP\Driver".



- Depending on your operating system, double-click dpinst32.exe for 32-bit version of Windows or dpinst64.exe for 64-bit version of Windows.

Note: If you are using 32-bit operating system, dpinst64.exe cannot be opened.

- Follow the onscreen instructions. Select the “Finish” button to complete the driver installation.



## 7.5 DCTU USB GSE Cable Driver Installation

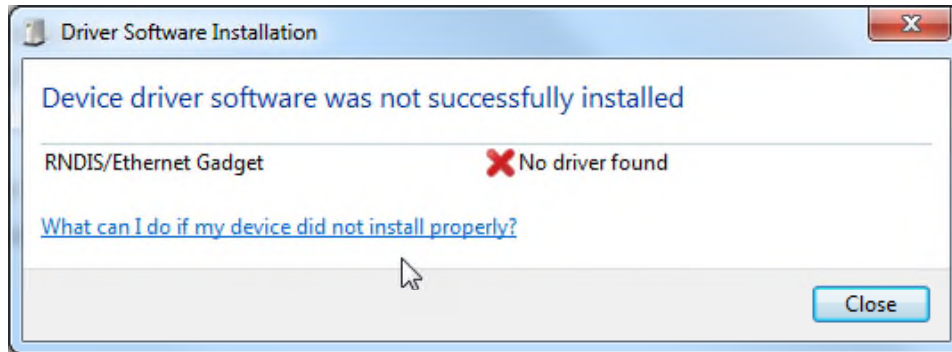
Driver installation is done after inserting the USB cable into your PC's USB port.

- Prior to hardware installation admin rights on the PC will be required.
- Power the DCTU and wait 1 Minute

Note: The DCTU USB interface presents a network interface to the host PC

3. Depending on your operating system, please follow the below instructions

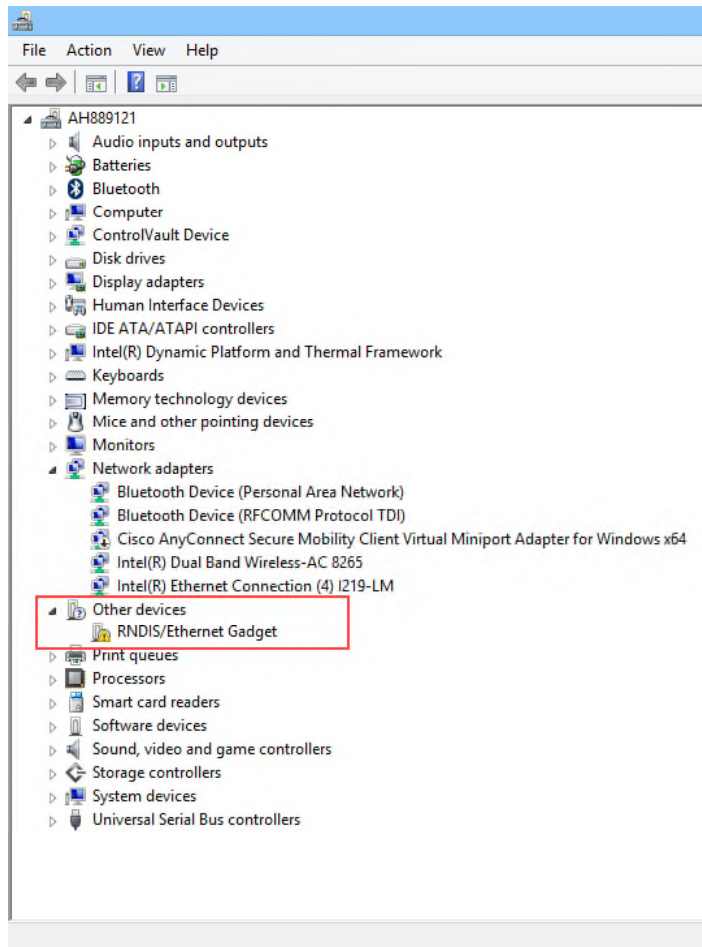
For Windows 7 , the OS will automatically search for the RNDIS driver and will display the following message:



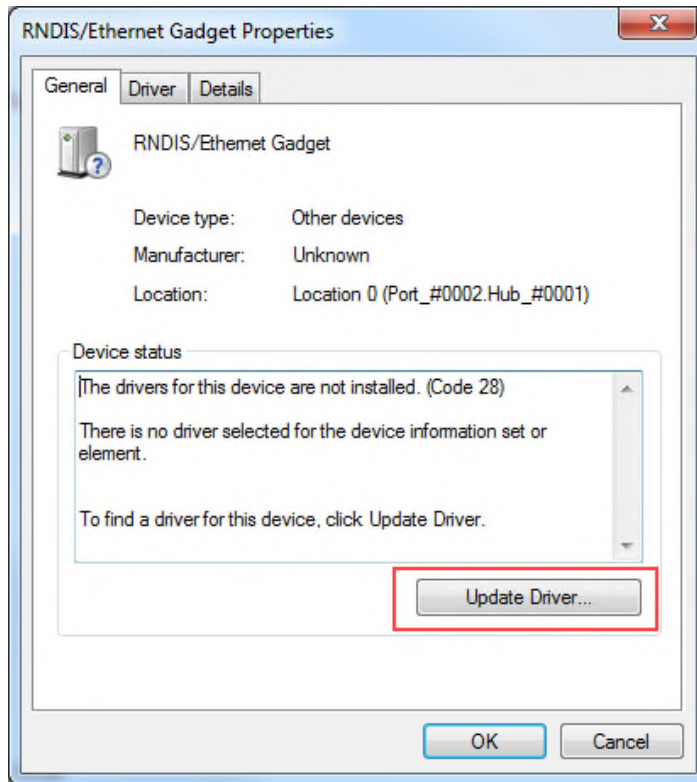
For windows 10 there is special instruction

For Windows 8 and above :

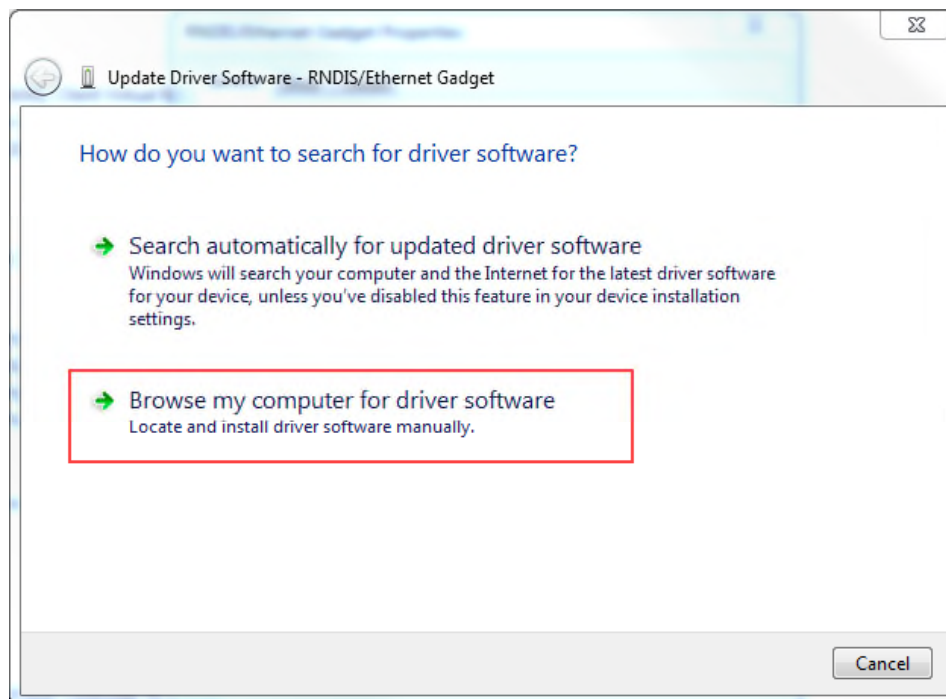
- Go to Device Manager
- Find the RNDIS/Ethernet Gadget under "Other Devices"



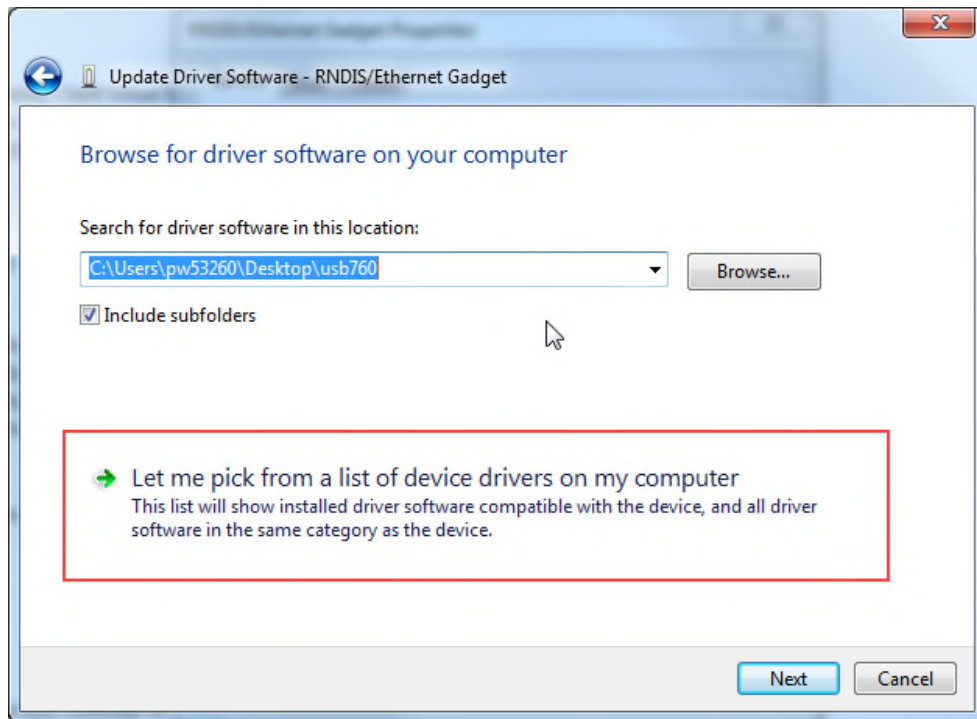
- Once here Right click on the RNDIS/ETHERNET Gadget and select **Update Driver**



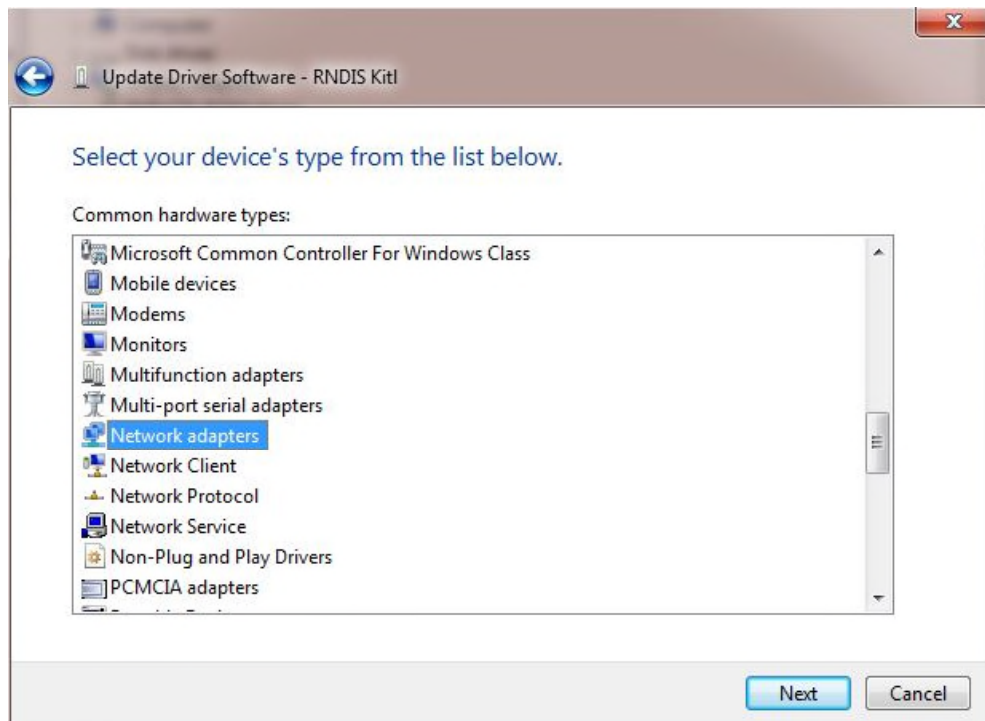
- Choose "**Browse my computer for driver software**"



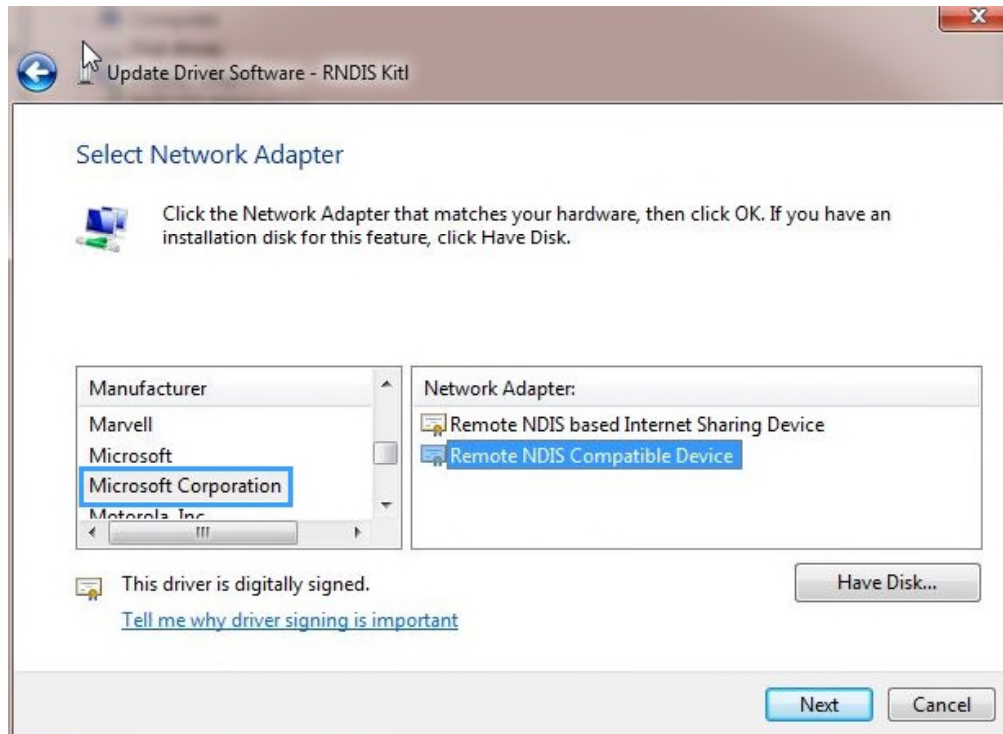
- Select "**Let me pick from a list of device drivers on my computer**" and click **next**.



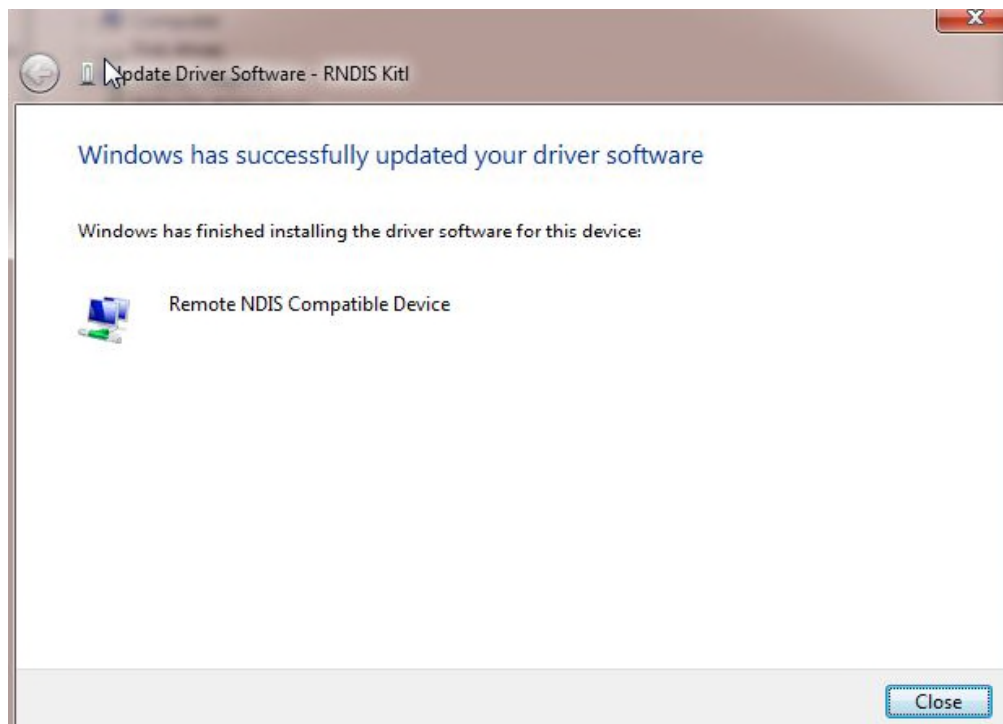
- Once prompt select "**Network Adapters**"



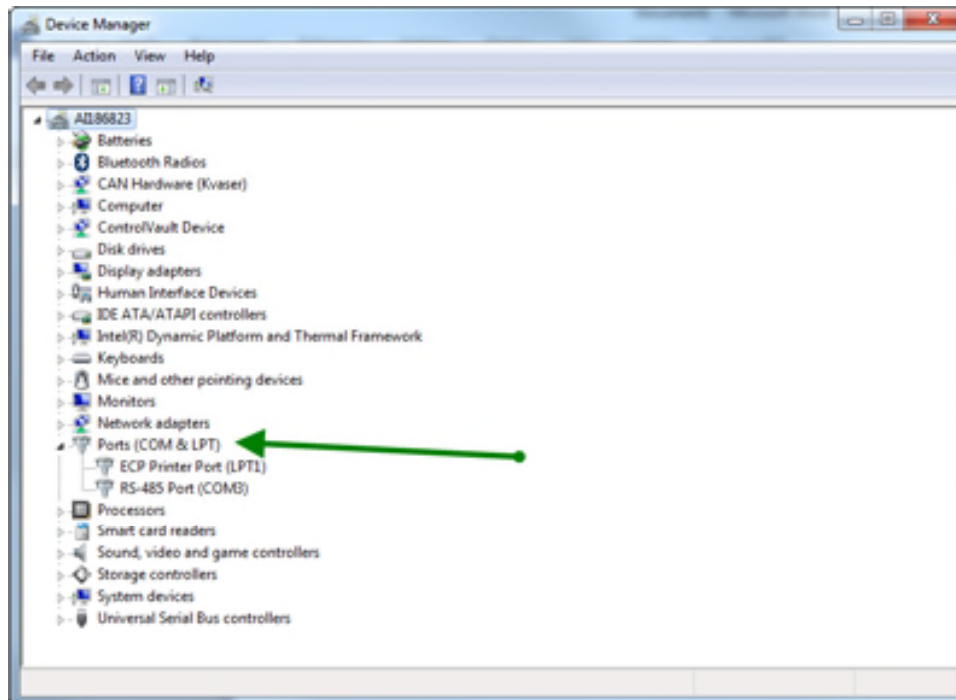
- In the Select Network Adapter window, select Microsoft Corporation



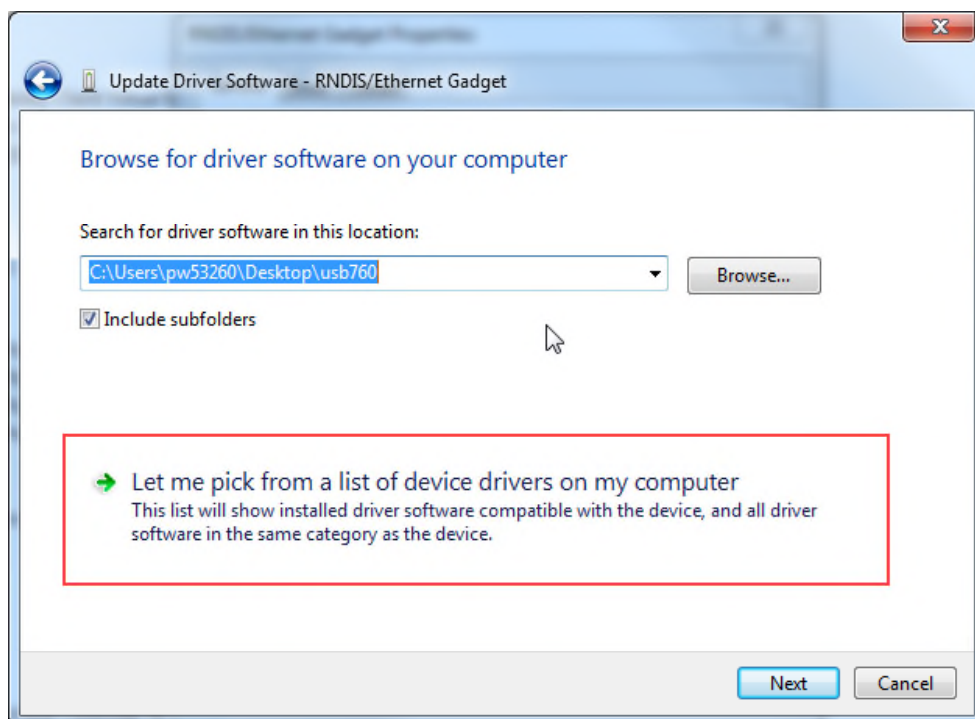
- Select Remote NDIS compatible Device and click next



Windows 10 has identified the device as a COM port, under Device manager right click on the comport (example: COM3)



Click on update driver



Click the Browse button and navigate to the location where the RNDIS.inf and rndis.cat files are from "Driveletter:\GBS-PWC\bin\Monitor\STARTUP\Driver\DCTU"

| > GBS-PWC > bin > Monitor > STARTUP > Driver > Drivers > DCTU                           |                    |                   |
|-----------------------------------------------------------------------------------------|--------------------|-------------------|
| Name                                                                                    | Date modified      | Type              |
|  rndis | 2010-03-12 3:58 PM | Security Catalog  |
|  RNDIS | 2010-02-02 6:42 PM | Setup Information |

4. Driver is now installed and ready to be use .

