

Analyzing Data

5 Analyzing Data

5.1 Convert Log Function

Accessing:

File View Monitor	Expert Help
Communication Settings	
	Expert Command Mode
$\boldsymbol{\mathcal{C}}$	Convert Log
	Test Monitor Transmission

5.1.1 General convert log function

Prior to <u>analyzing data locally in GBSLite</u>, logs must be converted using the convert log function

P&WC Monitor Transfer M	odule V2.1 B3 - Convert Data	a Log				
The rick monitor experi	Input Folder Se	lection:				
	C:\Users\pw4	1 Browse	1 7			
Sync to Webserver	C:\GBS-PWC\	2Browse	P			
	Log File Selecti	ion:				
	✓ SIZE(KB) ✓ 301	FILENAME 53c921ff-03of04-fas	t-engine_3-400155-8	84111379.dtu		
Sync to Aircraft	☑ 271	53c921ff-02of04-fas	t-engine_2-400155-8	84111371.dtu		
Monitor Status	· .				Þ	
	👍 🔲 Full Flight 🛛)ata Mode		Start	Cancel	
Live Data			1 of 2		6	8 Close
Test Monitor Transmission	Monitor Type	COM Port	Baud Rate	SE WAIT	6	

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 most always be different then 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 regroups 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

npu	t Folder Sele	ection:					
C:\Users\pw49982\Desktop\temp Browse							
Dut	out Folder Se	election:					
C :\	GBS-PWC\b	in\monitor\FAST_GBSDATA\Logdata\temp_2013-03-26@16-42-18	l .	Browse	1		
Log	File Selectio	n:					
	SIZE(KB)	FILENAME	DATE	TIME			
	329	5138fc08-04-fast-q300-400028.zip	2013/03/26	16:41:14			
	671	5138fbed-01of04-fast-q300_foqa-400028-847723142.dtu	2013/03/26	16:41:14			
	10	5138fbcf-03of04-fast-sys-400028-847723139.dtu	2013/03/26	16:41:14			
	409	5138fbcf-04-fast-q300-400028.zip	2013/03/26	16:41:12			
1 F	ull Flight Da	ta 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 regroups 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 regroups 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 regroups 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:

):\	D8271\EHM_	Development\EHM_PT6A-140\DPHM\Testing data\FINAL SCENARIOS\Sce	nario 25	Browse	6
ıtp	out Folder Se	lection:			
::\	GBS-PWC\bi	in\monitor\FAST_GBSDATA\Logdata\Scenario 25_2013-03-22@14-29-39		Browse	6
bg	File Selectio	n:			
	SIZE(KB)	FILENAME	DATE	TIME	
]	3	5149D79A-FAST-G1000_FFD-000016-838089012_TM.dtu	2013/03/20	14:02:25	
	129	5149D/9A-010f02-FAST-ETM-000016-838089008_TM.dtu	2013/03/20	14:02:20	
D	ebug Mode	🗖 Full Flight Data Mode	Start	Cancel	

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 a recordings and Converted Log Data for analysis in GBSLite by selecting the desired folder.

Please refer to GBSLite Help Manual for additional information

Browse For Folder	? 🛛
Select the root folder for the browse dialog:	
🗉 🧰 GBSTM	<u>~</u>
🖃 🧰 Monitor	
🗷 🚞 FAST_DATA	
🖃 🧰 FAST_GBSDATA	
🗁 Livedata	_
🗉 🧰 Logdata	
🗉 🧰 STARTUP	
🗷 🛅 SYSTEM	
Folder: Livedata	
Make New Folder	OK Cancel

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



The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.



Monitor TM Auto-Update

6 Monitor TM Auto-Update

6.1 Monitor TM Auto-Update

Accessing:

File	View	Monitor	Expert	Help
			Γ	About Monitor TM
				Monitor TM Auto-Update
	_			Help Manual

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

Monitor Tm Upgrades from the Web :	
A new version of the program is avail	ilable for download
Do you want to proceed now?	Yes No

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



Part VIII

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 <u>Sync to</u> <u>Webserver Function</u>.

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

Log Download Time:

In the <u>Retrieve Log Files Function</u>, when the download time to retrieve log files is below this value, the program will retrieve all log files without requiring user selection

Preference			×
Log Retrieval			
☐ Tag Data Transmitted			
Set Log Download Time	0	min	
			Capcel
		Ok	Cancel

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

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

Print Setup			? ×
Printer —			
<u>N</u> ame:	\\vpserver3\MFD5787	•	Properties
Status:	Ready		
Type:	Xerox WorkCentre Pro 255 PCL6		
Where:	MFD5787		
Comment	•		
- Paper		_ Orientation	n
Size:	8.5 x 11" Letter 💌		• Portrait
		A	
Source:	Automatically Select 📃		C L <u>a</u> ndscape
Net <u>w</u> ork		OK	Cancel

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.

User Actions	📕 Monitor Act	ions 🔳 We	ebServer Actions 🛛 Error	
TYPE	DATE	TIME	MESSAGE	.
User Action	2010/06/09	15:33:13	Clicked : LoyDataRetrieval->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 Sessions

Please refer to the Monitor Status Function 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	0×93E317C9	
INSTALL ID		· · · · · · · · · · · · · · · · · · ·
CONFIGURATION VERSION	1	
NUMBER OF BOX POWER ON	227	
NUMBER OF BOX POWER ON IN SECONDS	395657	
AIRCRAFT TAIL NUMBER	N353UA	
AICRAFT 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	

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

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 3)

Message: FAST Successfully Connected

o Retry the original function. If problem persists, contact 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 3)

Message: FAST Successfully Connected

 \circ Retry the original function. If problem persists, contact cfirst@pwc.ca

Message: Connection not successful on any available ports

 \circ Problem Not Yet Solved. Proceed to next Step

Disconnect Cable from the PC

Perform Communication Settings Function (Manual Detection 3)

Message: FAST Successfully Connected

 \circ Retry the original function. If problem persists, contact cfirst@pwc.ca

Message: Connection not successful on any available ports

Problem Not Yet Solved. Contact cfirst@pwc.ca

If problem persists, contact Customer service at Pratt & Whitney Canada 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		View Data in CRSL ito
Directory is empty. Please select a different directory		Function 6
System error. Missing GBSlite configuration files. Program will terminate	GBSIite is installed without MonitorTm.	Install MonitorTm. Refer to Program Installation 11
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.

Message:	Unable to connect to the Webserver.
- (1)	

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".

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

Organize Include in librai	ry Share with New fold	Sea Bra	• • •
Name	Date modified	Туре	Size
Data Data	2013-09-25 3:00 PM	File folder	
Drivers	2013-09-26 3:00 PM	File folder	
DPinst.xml	2013-08-12 10:05	XML Document	6 KB
Const32.exe	2013-08-12 10:07	Application	902 KB
💐 dpinst64.exe	2013-08-12 10:07	Application	1,024 KB
i readme.rtf	2013-08-12 10:07	Rich Text Format	184 KB
6 items			

3. 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.

4. 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.

- 1. Prior to hardware installation admin rights on the PC will be required.
- 2. 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

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

RN	IDIS/Eth	ernet G	adget Pro	perties	X
1	General	Driver	Details		
	17	RNDIS	S/Ethernet	Gadget	
		Device	etype:	Other devices	
		Manuf	acturer:	Unknown	
		Locatio	on:	Location 0 (Port_#0002.Hub_#0001)	
	Devic The Ther elem	Device status The drivers for this device are not installed. (Code 28) There is no driver selected for the device information set or element. To find a driver for this device, click Update Driver.			
				Update Driver	
				ОК С	ancel

- Choose "Browse my computer for driver software"



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

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

🗿 🗓 Update Driver Software - RN	DIS/Ethernet Gadget		
Browse for driver softwa	are on your computer		
Search for driver software in thi	s location:		
C:\Users\pw53260\Desktop\us	b760 👻	Browse	
Include subfolders	N		
Let me pick from a This list will show installe software in the same cate	list of device drivers on my con d driver software compatible with the de gory as the device.	nputer vice, and all driver	
L		Next	Cancel

- Once prompt select "Network Adapters"

Select your device's type from the list below.	
Common hardware types:	
Microsoft Common Controller For Windows Class	*
Mobile devices	
Modems	
Monitors	
Multifunction adapters	
I Multi-port serial adapters	
Retwork adapters	=
network Client	
Network Protocol	
Service	
Non-Plug and Play Drivers	
PCMCIA adapters	-

- In the Select Network Adapter window, select Microsoft Corporation

Select Network Adapte	er	
Click the Network A installation disk for	dapter ti this featu	hat matches your hardware, then click OK. If you have an ure, click Have Disk.
Manufacturer	*	Network Adapter:
Marvell Microsoft		Remote NDIS based Internet Sharing Device
	+	
This driver is digitally sig	ined.	Have Disk

- 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)

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.



Click on update driver

Update Driver Software - RNDIS/Ethernet Gadget	×
Browse for driver software on your computer	
Search for driver software in this location:	
✓ Include subfolders	
Let me pick from a list of device drivers on my computer This list will show installed driver software compatible with the device, and all driver software in the same category as the device.	
Next	Cancel

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

The export control classification with respect to this document is ECL: NSR, P-ECCN: 9E991.

 → GBS-PWC → bin → Monitor → STARTUP → Driver → Drivers → DCTU

 Name
 ^

 ② rndis
 2010-03-12 3:58 PM

 ③ RNDIS
 2010-02-02 6:42 PM

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

