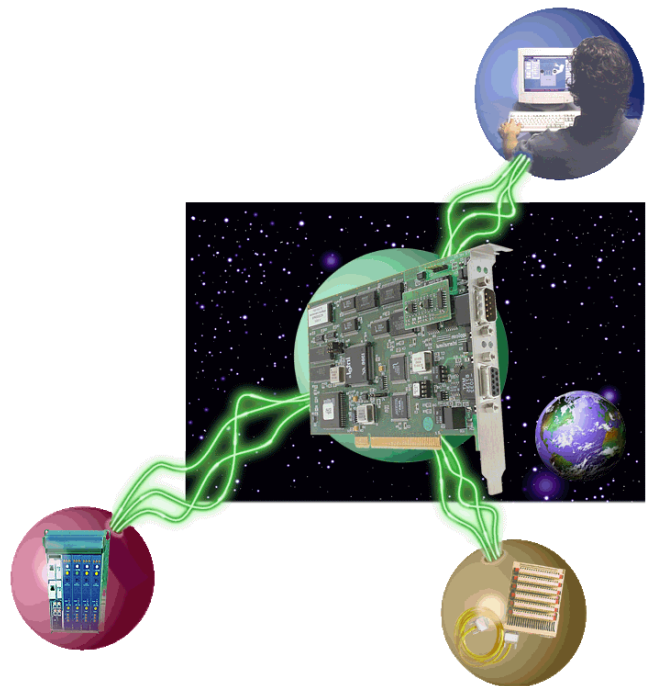


BradCommunications PROFIBUS USB

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Document Edition: 1.0

Date: May 29, 2006

This document applies to the BradCommunications PROFIBUS USB product

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1 Preface

Preface Sections:

- Purpose of this Guide
- Conventions

Purpose of this Guide

This guide explains how to install, configure and use the CommDTM **Brad**Communications PROFIBUS USB.

The CommDTM is used in conjunction with the **Brad**Communications USB100PFB.

Conventions

This guide uses stylistic conventions, special terms, and special notation to help enhance your understanding.

Terminology

The following special terms are used throughout this guide:

<i>BradCommunications USB100PFB</i>	Brad Communications interface between Profibus network and USB connection.
<i>DTM</i>	Device Type Manager. OLE software component.
<i>CommDTM</i>	OLE software component that interfaces with the network
<i>DTM container</i>	OLE software component that contains Device DTMs and CommDTMs.
<i>FDT frame application</i>	See <i>DTM container</i> .
<i>Device DTM</i>	OLE software component that allows a PROFIBUS DPV1 device to be configured and diagnosed.

Special Notation

The following special notations are used throughout this guide:



Warning

Warning messages alert the reader to situations where personal injury may result. Warnings are accompanied by the symbol shown, and precede the topic to which they refer.



Caution

Caution messages alert the reader to situations where device damage may result. Cautions are accompanied by the symbol shown, and precede the topic to which they refer.



Note

A note provides additional information, emphasizes a point, or gives a tip for easier operation. Notes are accompanied by the symbol shown, and follow the text to which they refer.

2 Overview

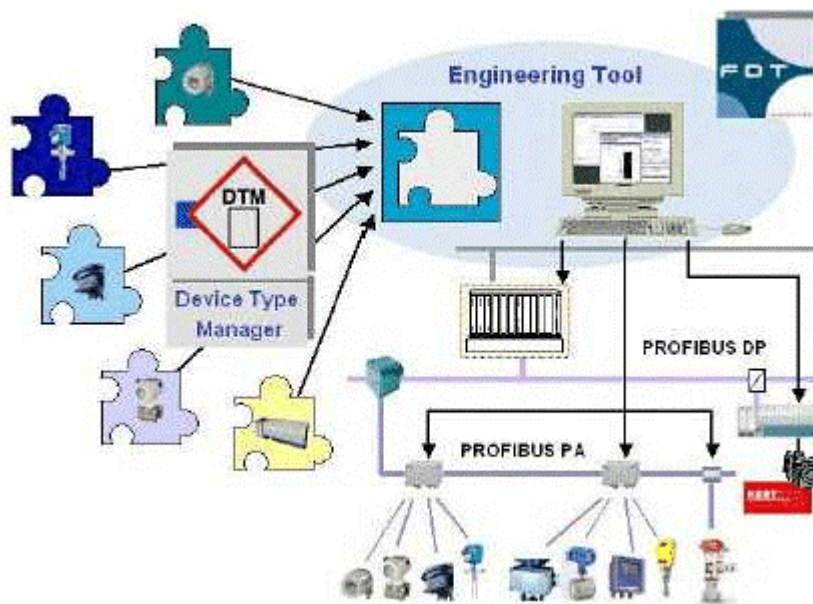
The CommDTM is an OLE software component that operates with a **Brad**Communications USB100PFB. The combined system allows you to configure and run diagnostics on a PROFIBUS DPV1 device (including PA).

2.1 The FDT Concept

The FDT (Field Device Tool) concept is used to configure and run diagnostics on the DPV1. It is an open concept, as each hardware manufacturer can implement their own graphics components. These components are known as **Device DTMs** (Device Type Managers).

Each DTM conforms to the FDT interface specification and can therefore be integrated within a single working environment, known as a **DTM Container** or **FDT Frame Application**.

The **CommDTM** is the OLE component that manages communication between DTMs and physical devices on the network. The Device DTM does not access the physical network directly. The CommDTM is able to use communications hardware, which is treated as a master on the fieldbus.



The **Brad**Communications PROFIBUS USB supports FDT specification Version 1.2 (PROFIBUS directive N° 2162).

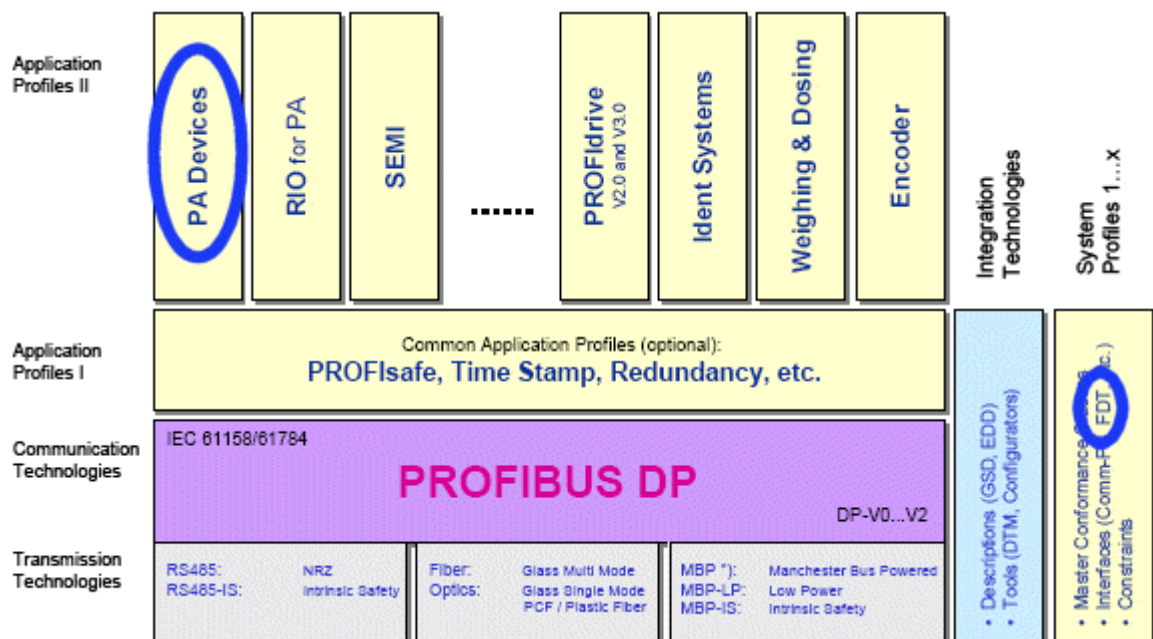
2.2 PROFIBUS

PROFIBUS is a communications system that meets the needs of a wide range of applications.

Originally geared towards communications, development efforts now focus on integration, engineering and, in particular, application profiles.

2.2.1 PROFIBUS DP

PROFIBUS DP (Decentralized Periphery) is a data exchange protocol that is divided into three progressive stages: DP-V0, DP-V1 and DP-V2. It is simple, fast, cyclic and deterministic between the bus master and its slaves.



2.2.2 PROFIBUS DP V1

PROFIBUS DP V1 transmits acyclic frames between master and slave. This enables configuration and standardization of the operating field devices, as well as alarm acknowledgment. This acyclic transmission works in parallel with cyclic communication, but at a lower priority.

The CommDTM supports only the DP-V1 extension (managing profiles based on DP-V0 is not possible).

2.2.3 PROFIBUS PA

Modern devices can execute all or part of the processes that were formerly centralized in the automated systems. The PA device profile defines the entire set of functionalities and parameters for different classes of process instruments that are involved in the data flow.

In particular, PROFIBUS PA relies on MBP-IS transmission and the DP protocol's DP-V1 extension.

2.2.4 Transmission Methods

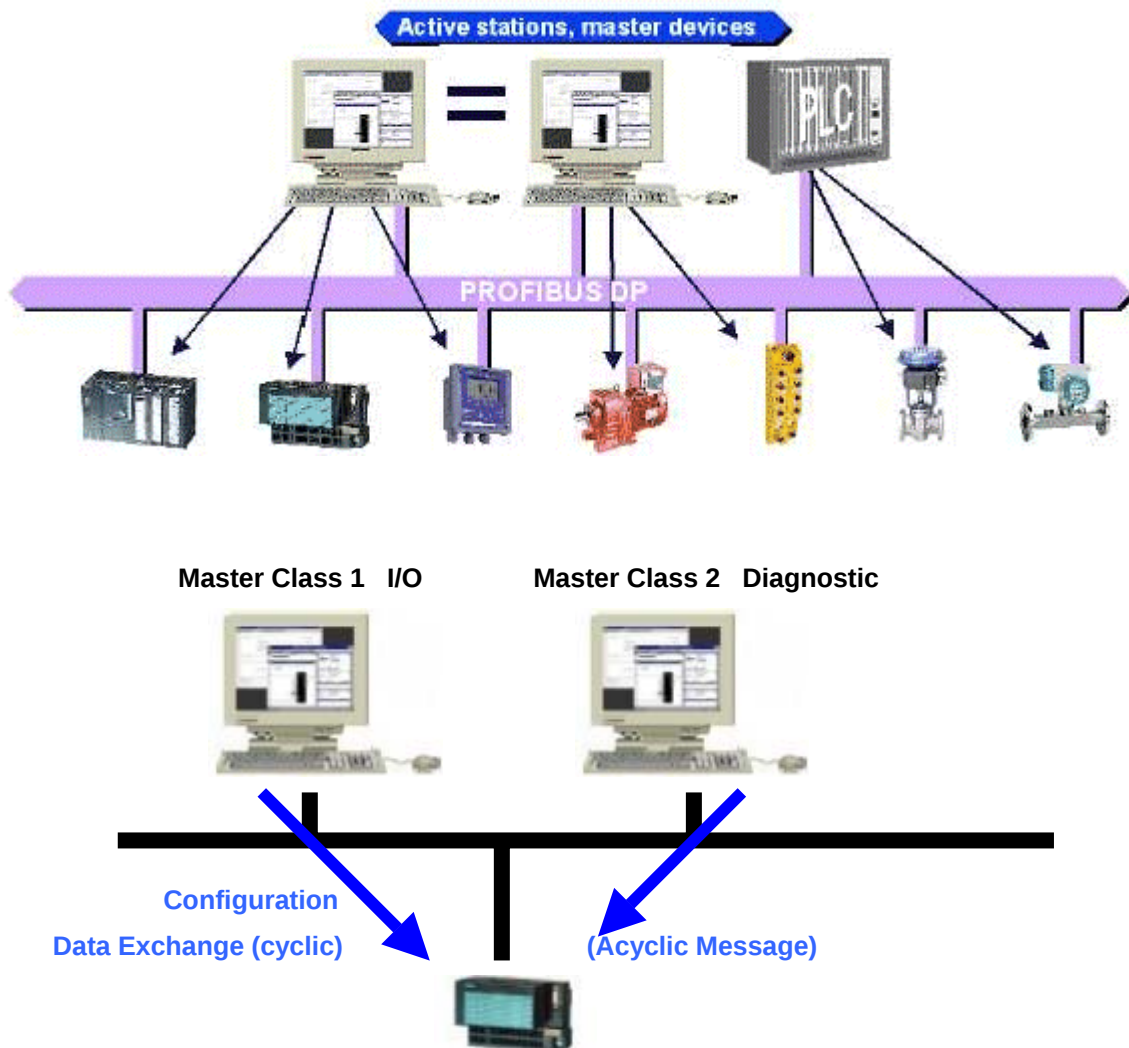
PROFIBUS can use the following transmission methods:

- RS485. This is the most frequently used method, and uses a shielded twisted pair cable. It allows data rates of up to 12 Mbps.
- RS485-IS. This is a 4-wire shielded twisted carrier that offers EEx i protection in an explosive zone. The baud rate varies from 9.6 to 1500 kbps.
- MBP-IS (Manchester Coded, Bus Powered). This uses a shielded twisted pair and offers EEx i protection in an explosive zone. The baud rate is fixed at 31.25 kbps.
- Optical fibre. This is suitable for environments with high-static noise or for long-distance transmission. The baud rate varies from 9.6 to 12,000 kbps.

2.2.5 Network Configuration

A PROFIBUS DP network can have one or several master stations. In the case of a multi-master network configuration, all master station settings (such as baud rate) must be compatible.

The CommDTM uses the DPV1 services and the **BradCommunications** USB100PFB interface as DPV1, master class 2.



3 Installation

3.1 Installing the Hardware and Software

3.1.1 Card and Windows Version

The **Brad**Communications PROFIBUS USB requires a **Brad**Communications USB100PFB interface to be connected on the USB port of your machine.

Windows versions Windows 2000, Windows XP or Windows 2003 Server are supported.

3.1.2 Installing the software

See the **Software Installation** chapter in **Contents.pdf**

3.1.3 List of Installed Files

Filename	Location	Registration	Comment
DTM DC100A.dll	Installation directory	Yes	CommDTM
WHDC100.ICO	Installation directory	No	Icon
DTM DC100A.pdf	Installation directory	No	Documentation
DTM DC100A.chm	Installation directory	No	Online help
isFDTDIgObjects2.dll	System32	Yes	Library
_isFDTObjects.dll	System32	Yes	Library
is FDT Template2.dll	System32	Yes	Library
FDT120.dll	System32	yes	Library
*.xml	"installation directory" \XmlSchemas	No	XML schemas
DC100dpmaccess.dll	System32	Yes	BradCommunications USB100PFB access library
dc100usb.sys	drivers	No	BradCommunications USB100PFB driver
dc100usb.inf	inf	No	Information file corresponding to the BradCommunications USB100PFB

4 Functionalities

The main task of the **Brad**Communications PROFIBUS USB is to manage communication between Device DTMs and physical devices on the network, according to the FDT specification. These devices can be DPV1 or PA.

The CommDTM can be integrated in all FDT frames that conform to the standard (e.g., PACTware).

Configuration of Master Parameters

The CommDTM uses the PROFIBUS DPV1 Master Class 2 services. The network can be single-master (with the CommDTM as the only master on the network) or multi-master.



Caution

In the case of a multi-master network, the master's parameters (such as baud rate) must be compatible with those of other masters.

The master's parameters are configured graphically, and can be reset to their default settings at any time. Each parameter is documented in the online help files.

Reading/Writing Device Parameters

The CommDTM uses the following DPV1 services: CONNECT, DISCONNECT, READ, WRITE and ABORT.

Polling Network Stations

The CommDTM enables two methods of network polling:

- detecting and identifying the device according to the FDT specification,
- displaying a list of the active and passive stations that are present on the network.

Changing a Device's Physical Address

For physical devices that support this functionality, the CommDTM allows you to change the device address.

Changing the Address of Device DTMs from the CommDTM

You can assign addresses to all Device DTMs from a single dialog box.

This functionality is useful because there's no standardized method for inputting addresses in the DTM.

Error Handling

CommDTM errors are displayed in adherence with the FDT specification. These errors are conveyed as logical messages that make it easier for the user to perform diagnostics. The error messages can either be displayed or not displayed, via a dialog box parameter in the CommDTM properties.

The CommDTM supports the optional IDtmAuditTrailEvents interface, which allows you to track modifications with regard to:

- Settings on the master
- Physical addresses changes
- Device DTM addresses.

Adaptation to Different Devices

The Expert parameters dialog box allows you to configure Retry Number and Wait between Retries in the DPV1 communication for some devices.

Log File

The Expert parameters dialog box allows you to create a log file of all the errors and communication between the devices and the PROFIBUS Network.

Managing User Levels

The CommDTM manages the user levels (administrator, maintenance, and so on) in accordance with the FDT specification.

Action	Observer	Operator	Maintenance	Planning Eng.	Admin.
Add CommDTM				x	x
Add device DTMs under CommDTM				x	x
Delete device DTMs				x	x
Modify master configuration				x	x
Modify device addresses on network				x	x
Modify device DTM addresses				x	x
Modify expert parameters				x	x
Switch in online mode	x	x	x	x	x
Switch in offline mode	x	x	x	x	x
Scan stations on network	x	x	x	x	x
DPV1 request from Device DTM to physical device	x	x	x	x	x

5 CommDTM Implementation Example

5.1 Description

The aim of this example is to implement the CommDTM on a single-master network together with several devices.

Prerequisites for this example:

- The DTM container PACTware is installed (this can be obtained free of charge on the website <http://www.pactware.com> or <http://www.pactware.com/english/PACTware/swdownload.htm>).
- The Device DTMs that correspond to the devices are installed.
- The CommDTM is installed
- The **Brad**Communications USB100PFB is connected to the USB port of your machine.

5.2 Creating the Configuration in PACTware

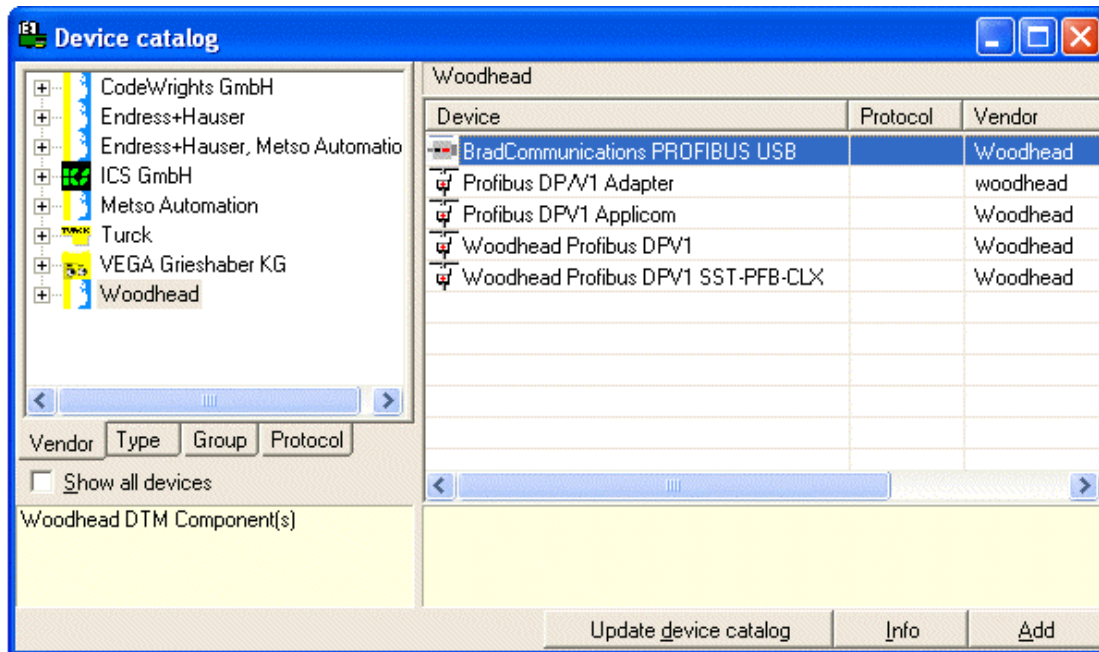
- Logging into PACTware.



Log in as “Administrator” or “Planning engineer”. The default password is “manager”.

- Updating the DTM Catalog

1. Go to **View > Device catalog**. The DTM catalog is displayed.
2. Click the **Update device catalog** button. The DTM is displayed in the catalog:



- Adding DTMs to the Current Configuration

1. To add the CommDTM to the current configuration, go to **Device > Add Device**.



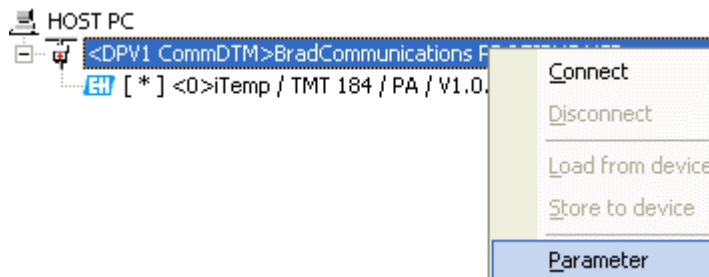
2. Add the Device DTMs that correspond to the device on the network.

 HOST PC
 <DPV1 CommDTM>BradCommunications PROFIBUS USB
 EN [*] <0>iTemp / TMT 184 / PA / V1.0...1.1

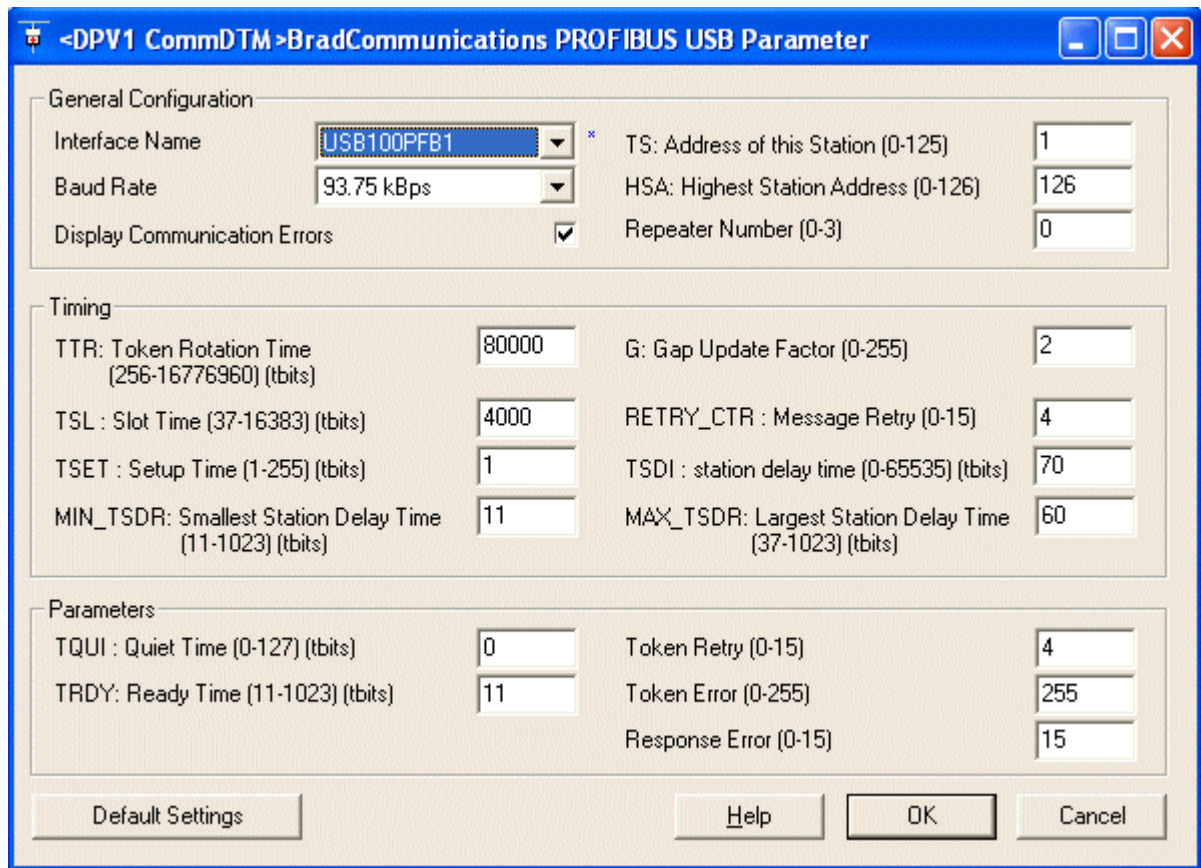
5.3 Updating Settings on the Master Station

By default, the master address is 1. If this address is already being used on the network, it will need to be changed.

To access them, right-click on the master and select **Parameter**:



The master configuration box is displayed. Change the address of the master station and any other parameters as necessary.



General Configuration	
Interface Name	USB100PFB1 *
Baud Rate	93.75 kBps
Display Communication Errors	☒
TS: Address of this Station (0-125)	1
HSA: Highest Station Address (0-126)	126
Repeater Number (0-3)	0

Timing	
TTR: Token Rotation Time (256-16776960) (tbits)	80000
G: Gap Update Factor (0-255)	2
TSL: Slot Time (37-16383) (tbits)	4000
RETRY_CTR: Message Retry (0-15)	4
TSET: Setup Time (1-255) (tbits)	1
TSDI: station delay time (0-65535) (tbits)	70
MIN_TSDR: Smallest Station Delay Time (11-1023) (tbits)	11
MAX_TSDR: Largest Station Delay Time (37-1023) (tbits)	60

Parameters	
TQUI: Quiet Time (0-127) (tbits)	0
Token Retry (0-15)	4
TRDY: Ready Time (11-1023) (tbits)	11
Token Error (0-255)	255
Response Error (0-15)	15

Buttons: Default Settings, Help, OK, Cancel



Caution

In the case of a multi-master network, the master's parameters (such as baud rate) must be compatible with those of other masters.

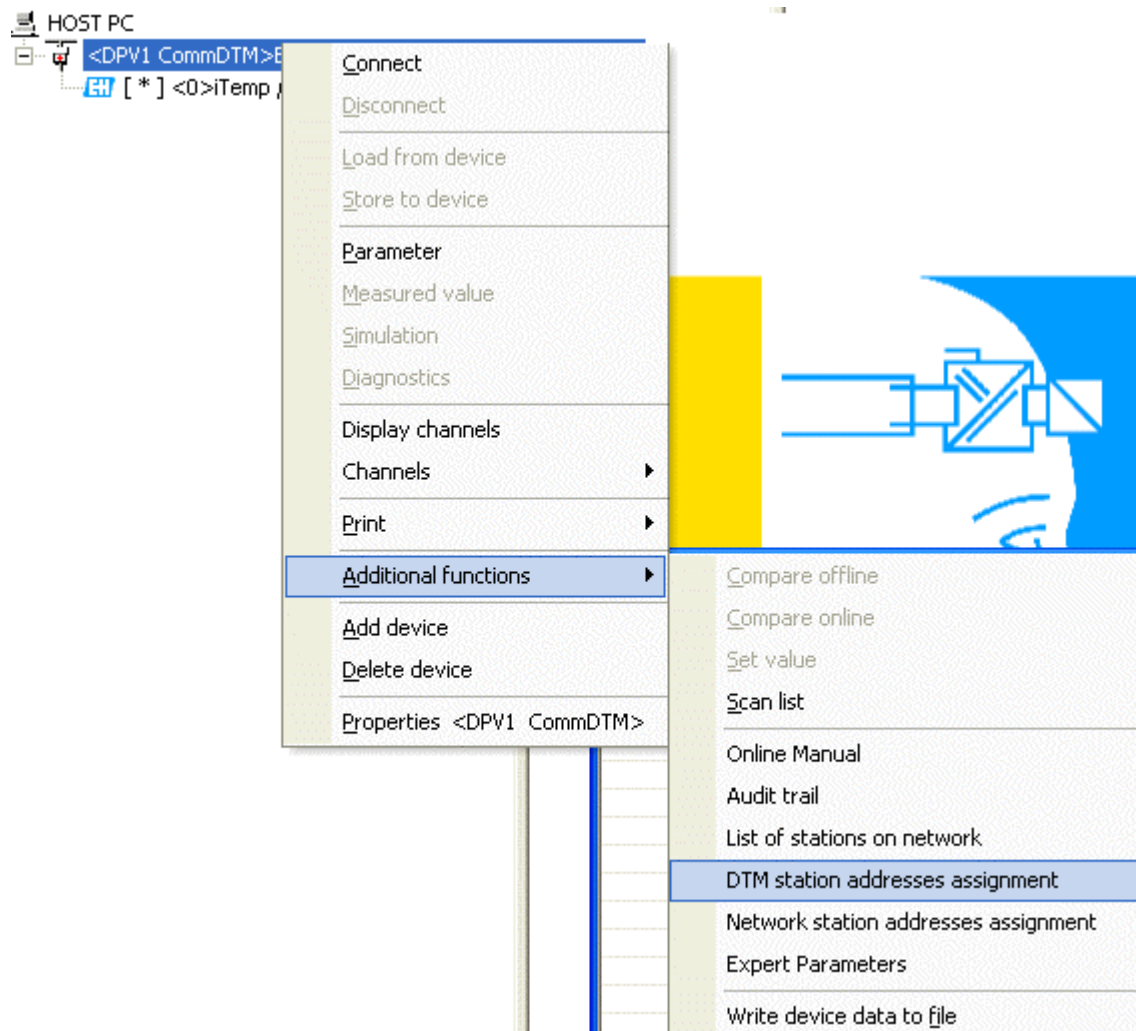
5.4 Updating the Device DTM Addresses

Device DTMs are connected to physical device addresses, which must be assigned. You can do this via one of the following two methods:

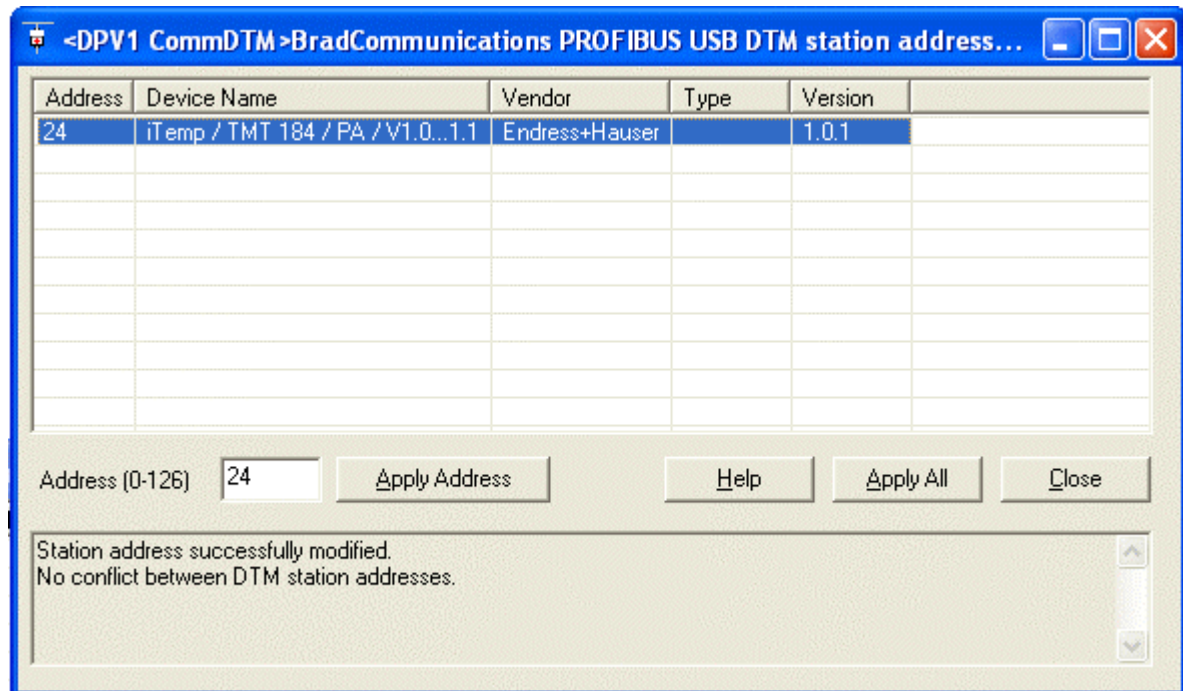
- The graphical interface on the Device DTMs. This is specific to each Device DTM.
- The “DTM station addresses assignment” command on the CommDTM

In the latter case:

Right-click on the master and select **Additional functions > DTM station addresses assignment**.



The Station Addresses Assignment dialog is displayed. Change the Device DTM addresses as appropriate.



The configuration is complete. You can now put the configuration online by using the **Connect PACTware** command.

6 Commands Supported

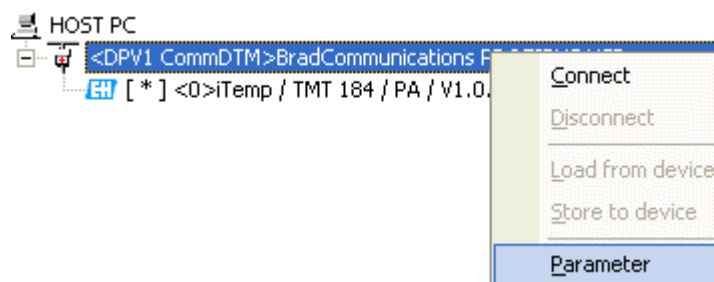


Note

The menu screen captures are taken using PACTware and may differ with other Frame FDTs.

6.1 Master configuration

To open the dialog box, right-click on the master and select **Parameter**.



<DPV1 CommDTM>BradCommunications PROFIBUS USB Parameter

General Configuration

Interface Name: **USB100PFB1** *
 Baud Rate: **93.75 kBps**
 Display Communication Errors: ☒
 TS: Address of this Station (0-125): **1**
 HSA: Highest Station Address (0-126): **126**
 Repeater Number (0-3): **0**

Timing

TTR: Token Rotation Time (256-16776960) (tbits): **80000**
 TSL: Slot Time (37-16383) (tbits): **4000**
 TSET: Setup Time (1-255) (tbits): **1**
 MIN_TSDR: Smallest Station Delay Time (11-1023) (tbits): **11**
 G: Gap Update Factor (0-255): **2**
 RETRY_CTR: Message Retry (0-15): **4**
 TSDI: station delay time (0-65535) (tbits): **70**
 MAX_TSDR: Largest Station Delay Time (37-1023) (tbits): **60**

Parameters

TQUI: Quiet Time (0-127) (tbits): **0**
 TRDY: Ready Time (11-1023) (tbits): **11**
 Token Retry (0-15): **4**
 Token Error (0-255): **255**
 Response Error (0-15): **15**

Default Settings Help OK Cancel



Notes

- The parameters can be modified using the “administrator” and “planning engineer” user levels. Under the other levels, the parameters are read-only.
- If the CommDTM is online (connected to the device), the parameters are read-only.



Caution

In the case of a multi-master network, the parameters for the master must be compatible with other masters (identical baud rate, etc.).



Caution

Only one **BradCommunications** USB100PFB must be connected to the USB port of your machine.

Interface Name

Interface name.

Baud Rate

This is the baud rate of the PROFIBUS network.

Value: 9.6 kbps to 12 Mkbps, 93.75 kbps by default.

Display Communication Errors

This allows you to determine whether or not to display communication error messages.

TS: Address of this Station

This is the address of the master on the DP network.

Value: 0-125, 1 by default

HSA: Highest Station Address

This is the highest allowed station address for any active station on the network. The highest station affects how much time is spent soliciting for new nodes.

Value: 0-126, 126 by default

Repeater Number

Repeater number. A repeater is required if there are more than 32 stations connected to the bus or if the maximum cable length of a bus segment is exceeded.

Value: 0-3, 3 by default

TTR: Token Rotation Time

This is the maximum target token rotation time for the network, expressed in Tbits and time.

Value: 256-16776960 Tbits.

The default value depends on the baud rate:

Baud Rate	TTR (Tbits)
9.6 kbps	14000
19.2 kbps	14000
45K45 kbps	14000
93.75 kbps	80000
187.5 kbps	14000
500 kbps	14000
1.5 Mbps	14000
3 Mbps	14000
6 Mbps	14000
12 Mbps	14000

TSL : Slot Time

This is the amount of time the master waits for a reply to a message.

Value: 37-16383 Tbits.

The default value depends on the baud rate:

Baud Rate	TSL (Tbits)
9.6 kbps	100
19.2 kbps	100
45K45 kbps	100
93.75 kbps	4000
187.5 kbps	100
500 kbps	250
1.5 Mbps	300
3 Mbps	400
6 Mbps	600
12 Mbps	1000

G: Gap Update Factor

This is the number of token rotations between solicits for a new node.

Value: 0-255

Default value: 2

Message Retry

This is the maximum number of times the master retries a message when the slot time expires.

Value: 0-15

Default value: 4

TSDI: Station Delay Time

This value specifies the station delay time of the initiator at the baud rate.

Value: 0-65535

Default value: 72

TSET: Setup Time

The dead time is the time that can elapse between an event (e.g. character reception or passage of an internal monitoring time) and the reaction to this event.(TSET).

Value: 1-255

Default value: 1

MIN_TSDR : Smallest Station Delay Time

Minimum time between reception of the last bit of a telegram and transmission of the first bit of the next telegram. This value is expressed in tBit.

Value: 11-1023 Tbits

MAX_TSDR : Largest Station Delay Time

Maximum time between reception of the last bit of a telegram and transmission of the first bit of the next telegram. This value is expressed in tBit.

Value: 11-1023 Tbits

TQUI : Quiet Time

Number of bits the master waits after it turns on its transmitter, before it begins to send data.

Value: 0-127 Tbits

The default value depends on the baud rate:

Baud Rate	TQUI (Tbits)
9.6 kbps	0
19.2 kbps	0
45K45 kbps	0
93.75 kbps	0
187.5 kbps	0
500 kbps	0
1.5 Mbps	0
3 Mbps	3
6 Mbps	6
12 Mbps	9

TRDY: Ready Time

This is the number of bits the master waits before sending an ACK response, after sending a command.

Value: 11-1023 Tbits

Default value: 11 Tbits

Token Retry

This is the number of times the master retries passing the token before deciding that the station is not present.

Value: 0-15

Default value: 4

Token Error

This is the maximum number of errors in 256 token cycles.

Value: 0-255

Default value: 255

Response Error

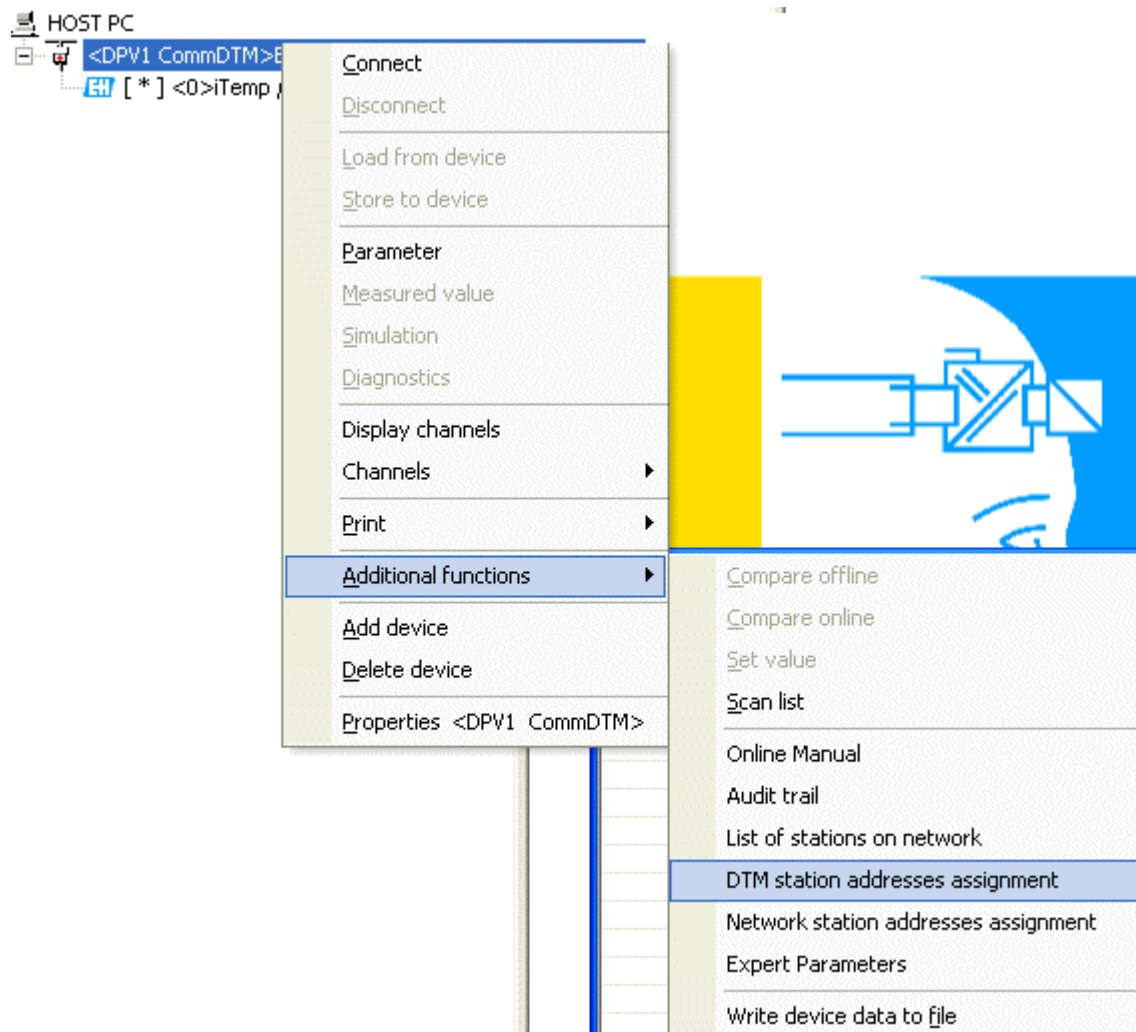
This is the maximum number of message failures in 16 successive messages.

Value: 0-15

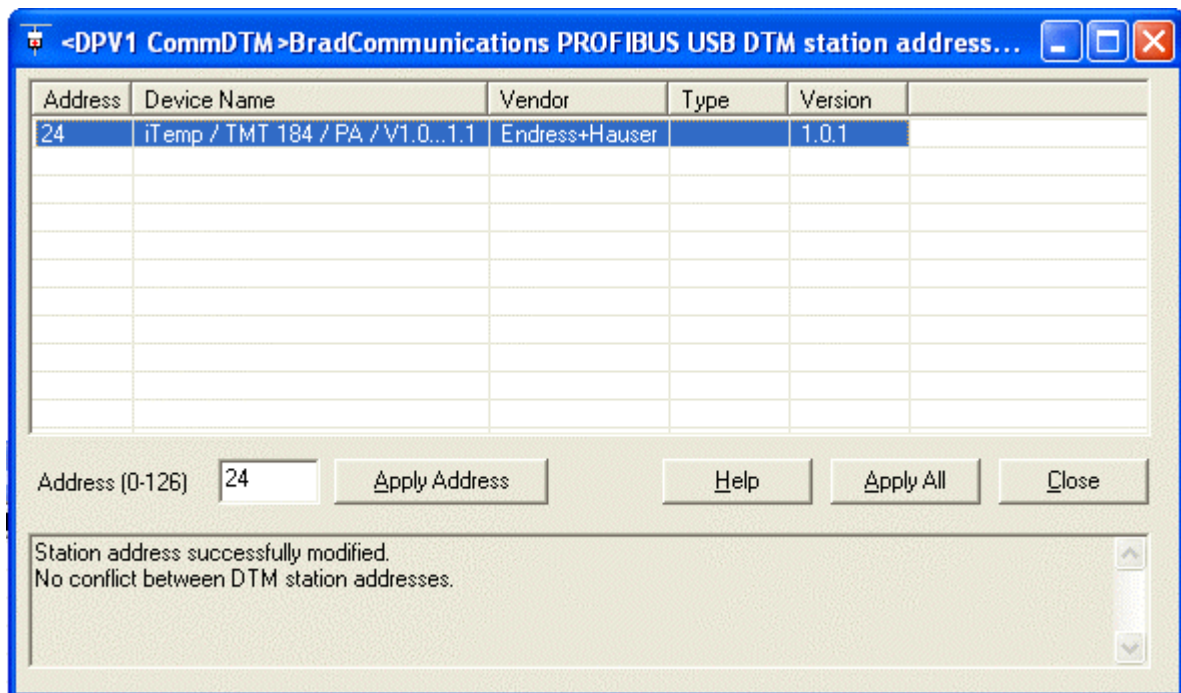
Default value: 15

6.2 Updating the Device DTM Addresses

To open the dialog box, go to:



The following graphical interface is then used to change the Device DTM addresses.



The list contains the configured Device DTMs. The **Apply Address** button is used to change the address of the Device DTM selected in the list. The **Apply All** button is used to change the address of all the Device DTMs.

The messages shown at the bottom of the dialog box indicate the results of an address assignment and of any address conflicts between the different DTMs.



Caution

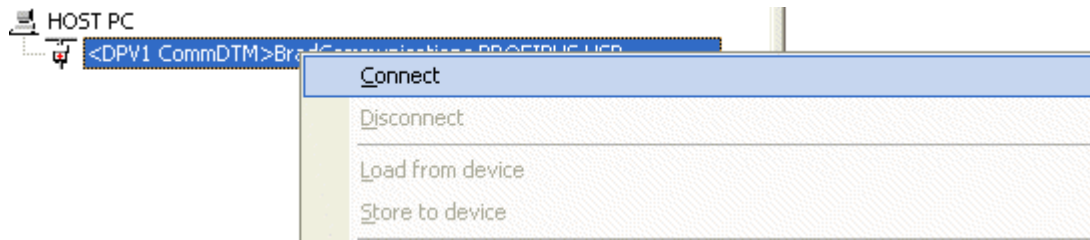
The address displayed here is Device DTM address, but it is not related to the physical address on the network. Changing the address in this dialog box will not change the device's physical address on the network.



Notes

- The addresses can be modified using the “administrator” and “planning engineer” user levels.
- If the CommDTM is online (connected to the device), the device DTM address cannot be modified.

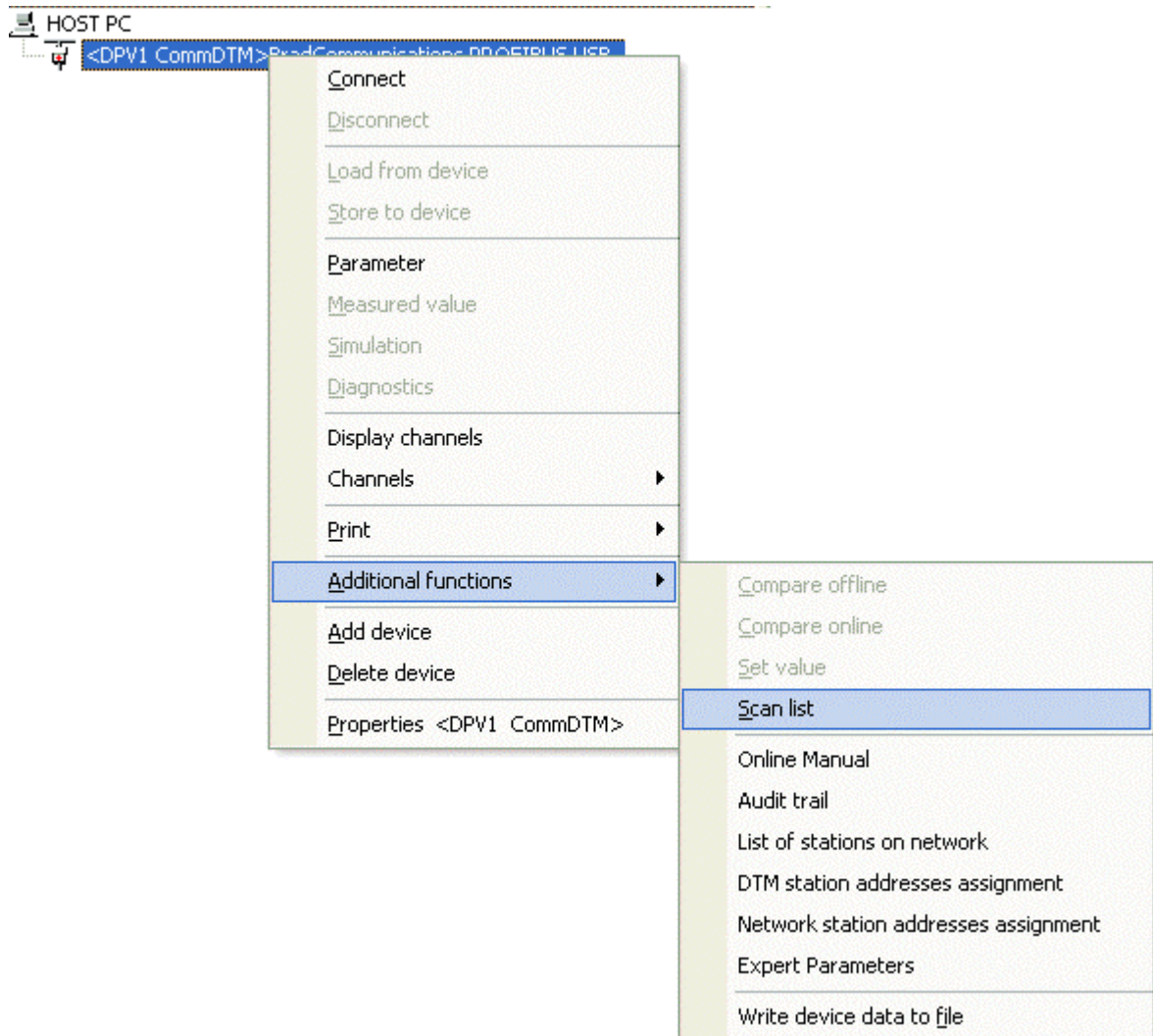
6.3 Putting the Configuration Online (Connect)



This command puts the CommDTM online. Within the same configuration, only one CommDTM **BradCommunications PROFIBUS USB** must be online.

6.4 Scanning the Network

To search for stations on the network, do the following:



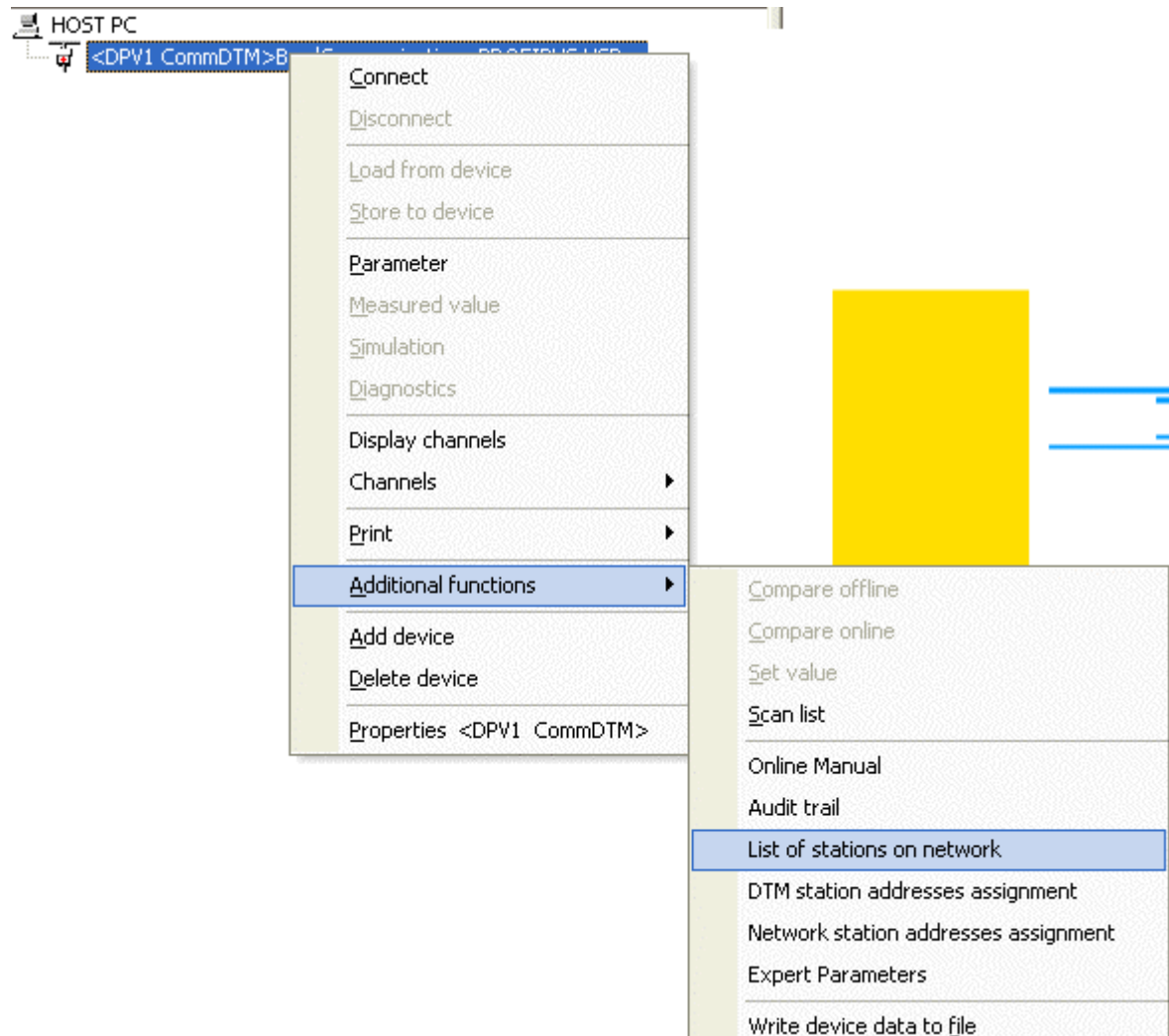


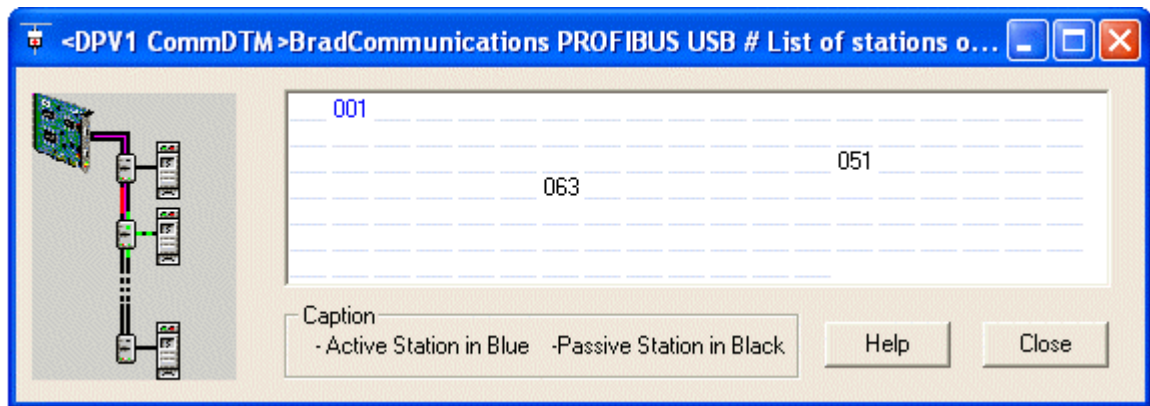
Note

The CommDTM must be put online using the Connect command (see the next chapter) before performing a network scan.

6.5 List of Stations on the Network

To open the dialog box, do the following:





This dialog box displays the numbers of the stations present on the network.

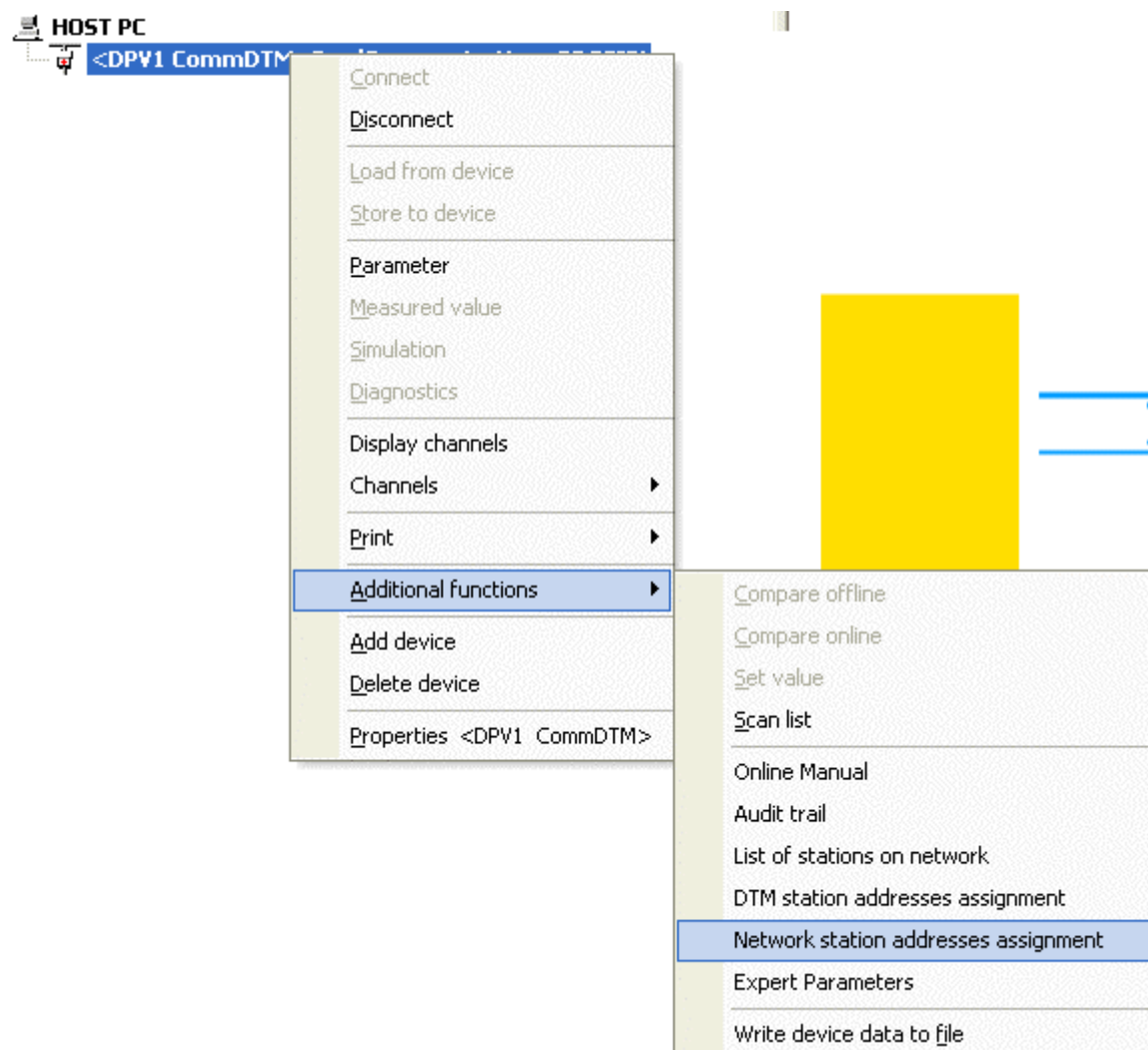


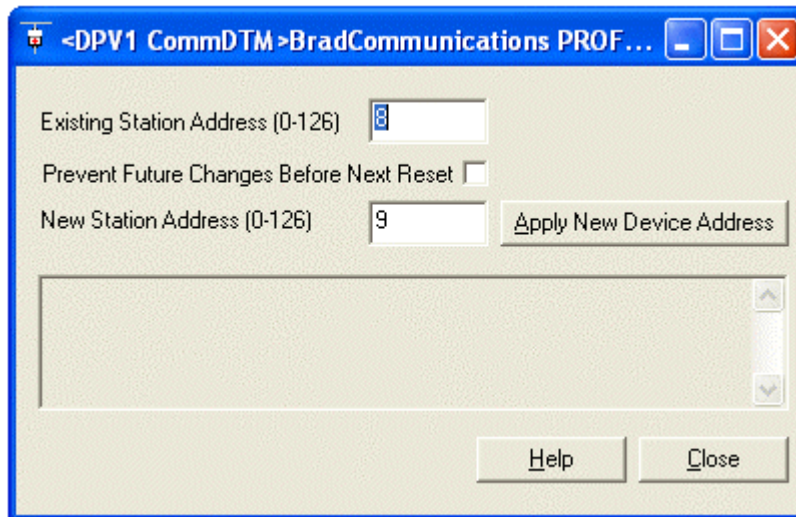
Note

The CommDTM must be online before this can be done.

6.6 Assigning a Station's Physical Address

To open the dialog box, do the following:





This dialog box is used to change a device's physical address, if the device supports this functionality.

If the **Prevent Future Changes Before Next Reset** checkbox is selected, the device address cannot be changed before the next device reset.



Notes

- The CommDTM must be online before this can be done.
- The address can only be modified using the “administrator” and “planning engineer” user levels.

6.7 Launching Online Help

The **Online Help manual** command is used to open the online help manual.

6.8 Using the Audit Trail Command

This command is used to log any modifications made to the master parameters, Device DTM addresses and physical stations if the address change was made using a CommDTM graphical interface.

These messages are managed by the DTM container.

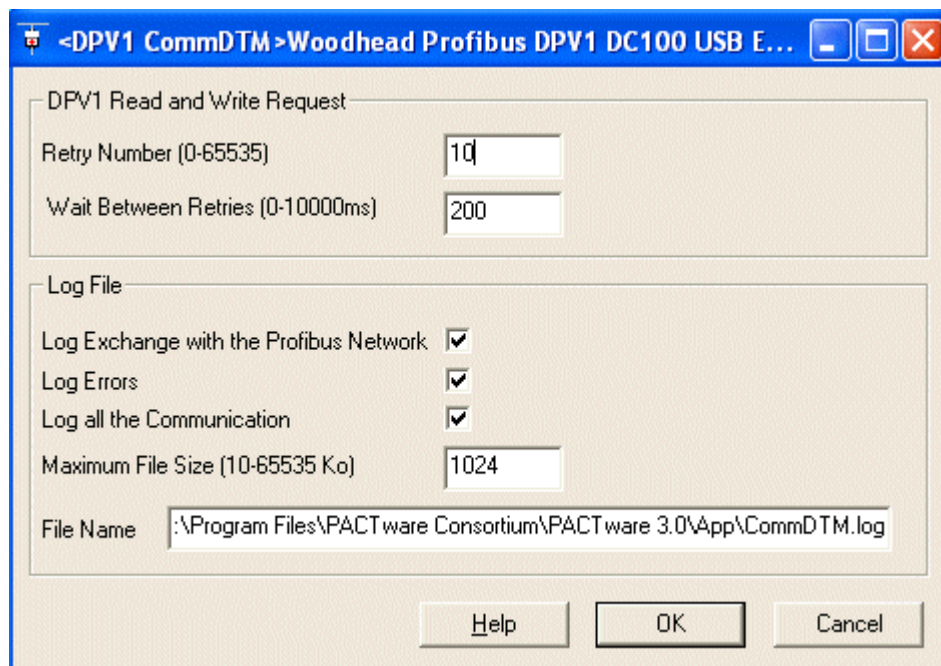
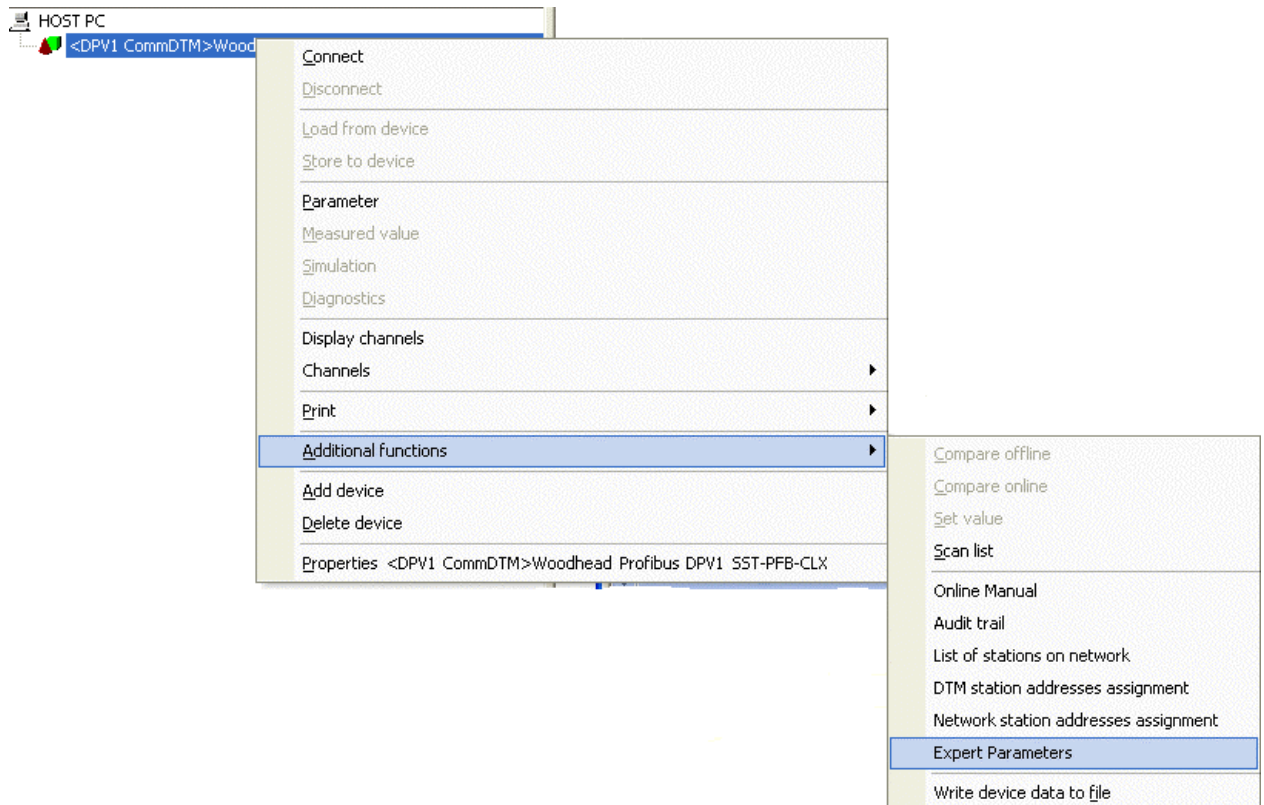


Note

This command uses an optional interface in the FDT specification, which certain DTM containers have not implemented.

6.9 Changing Expert Parameters

To open the dialog box, do the following:





Notes

- The parameters can be modified using the “administrator” and “planning engineer” user levels. Under the other levels, the parameters are read-only.
- If the CommDTM is online (connected to the device), the changed parameters are read-only.

Retry Number

This is the number of times the request is made again if it is not successful before the CommDTM returns an error. Value: 0-65535, 10 by default

Wait Between Retries

This is the amount of wait time between request retries. Value: 0-10000 milliseconds, 200 milliseconds by default

Log File

The CommDTM can generate a text file that logs the errors or all the communication between the devices and the PROFIBUS Network. By default, this file is not generated.

Log Exchange with the Profibus Network

If checked, the CommDTM generates the log file. By default, it is not checked (the log file is not generated).

Log Errors

If checked, the log file lists the errors that occurred between the device and the CommDTM. By default, it is not checked.

Log all the Communication

If checked, the log file contains all the communication occurred between the device and the CommDTM. By default, it is not checked.

Maximum File Size

This is the maximum file size of the log file. When the log file reach the maximum size, the beginning of the file is deleted. The CommDTM adds a string at the end of the log file. Value: 10-65535, 10 Ko by default.

7 Troubleshooting

Issue	Suggestion
The CommDTM is not displayed in the container's DTM catalog	The list of DTMs in the DTM container may not be up to date. This list must be regenerated.
The CommDTM is not displayed in the container's DTM catalog, even after the list has been regenerated	The CommDTM is not correctly entered in the registry. Uninstall the CommDTM, reboot the machine and reinstall the CommDTM. If the problem persists, restart the procedure on a different computer.
The Brad Communications USB100PFB is connected to the machine but the LED near the USB connector is red	The machine does not recognize the device. Verify in the Device Manager of Windows that the USB DC100 Fieldbus adapter is present without error. If there is an error, disconnect and reconnect the BradCommunications USB100PFB on the machine, then "Scan for hardware change" in the Device Manager. If the error persists, de-install and re-install the solution.
An error with a hexadecimal status code is displayed when I place the CommDTM online	• Verify that the BradCommunications USB100PFB is correctly connected to the USB port of your machine. Verify that the LED near the USB connector of the BradCommunications USB100PFB is green. The LED is red if the machine does not recognize the device (see above). • Verify that you have only one BradCommunications USB100PFB connected on your machine. • Check that there are no other applications running (including another CommDTM) that use this interface. • Disconnect the BradCommunications USB100PFB from your machine, reconnect it and retry.

Issue	Suggestion
An error “CommDTM right has not been set for this BradCommunications DC100PFB module, so it can not be used by the commDTM.” is displayed	• BradCommunications USB100PFB that you used as been sold to be used for another product range so internal protection doesn't allow you to use it with this commDTM. • Select a BradCommunications USB100PFB that has been sold to work with commDTM.
An error is displayed when I use an online Device DTM	This is a network communication error. • Check the Device DTM's station number • Check that the network is working correctly. All the LEDs on the BradCommunications USB100PFB should be green. • Check that there is no fault on the device • Check that the master configuration settings apply to your network (baud rate, timing, etc.). • In the Expert Parameters dialogue box, increase the Retry Number and Wait Between Retries parameters.

8 Error and Status Messages

8.1 Messages Indicating a PROFIBUS DPV1 Network Error

DPV1 invalid connection reference.
DPV1 not initialized.
DPV1 already initialized.
DPV1 no more FDL blocks available.
DPV1 invalid slave response.
DPV1 slave not ready.
DPV1 invalid subaddress parameter.
DPV1 Class 2 connection uninitialized.
DPV1 invalid slave reply.
DPV1 invalid number of block request.
DPV1 no free block.
DPV1 invalid length.
DPV1 invalid remote address.
DPV1 FDL error.
DPV1 error.

Possible Fixes:

- Check the Device DTM's station number
- Check that the network is working correctly.
- Check that there is no fault on the device
- Check that the master configuration settings apply to your network (baud rate, timing, and so on).
- In the Expert Parameters dialogue box, increase the Retry Number and Wait Between Retries parameters.

8.2 Error Messages Indicating an Initialization Error

Messages:

Impossible to get device list

Possible Fixes:

- **Brad**Communications USB100PFB not detected by the machine. Please see Troubleshooting chapter of this manual.

Messages:

BradCommunications USB100PFB not found

BradCommunications USB100PFB already used or not found

BradCommunications USB100PFB already used

Possible Fixes:

- Verify that you have only one **Brad**Communications USB100PFB connected on your machine.
- Check that there are no other applications running (including another CommDTM) that use this interface.
- Disconnect the **Brad**Communications USB100PFB from your machine, reconnect it and restart your machine.
- Switch the configuration to offline mode then to online mode

Messages:

Error during Get Information Firmware

Error during Test Firmware

Error: File not present in serial flash

Error sending master configuration to the interface

Error. Bad response from the interface after sending master configuration

Error sending device declaration to the interface

Bad response from the interface after sending device declaration

Error starting equipments

Error. Bad response from the interface after starting equipments

Error in channel initialization

DC100 card reset failed

Driver cannot be accessed

Possible Fixes:

- Disconnect the **Brad**Communications USB100PFB from your machine, reconnect it and retry the initialization.

- Switch the configuration to offline mode then to online mode

8.3 Other Error Messages

Unknown function. The requested function is not supported.
Data access not available.
Negative acknowledgement, remote FDL User / FDL interface error.
Negative acknowledgement, resources of the remote FDL controller Service or Rem_add at remote LSAP or remote LSAP not activated
Negative acknowledgement for sent data,
Negative acknowledgement for sent data,
Invalid parameters in request.
Indicates that the parameters passed to the functions are not correct
Response time failure (Time-Out).
Device not configured.
Non-resident dialogue software.
Configuration Fault.
No Receive Message block available.
Max PDU Size.
Driver cannot be accessed.
Handle invalid.
Parameters incorrect.
Create event failed.
WaitforSingleObject timeout.
GetOverlappedResult failed.
WriteFile failed.
ReadFile failed.
Resume failed.
Suspend failed.
Vendor request failed.
InfoGet failed.
InfoSet failed.
Device already opened.
Config failed.
Interface select failed.
Config dump failed.
InfoSet command failed.
FW write request setup failed.
Write request setup failed.
Read request setup failed.
ACK. negative: no Response FDL/FMA1/2-Data (&Send Data ok)
Data access not available.
ACK. negative: FDL/FMA1/2-User Error (remote SAP is locked)
Negative acknowledgement, remote FDL User / FDL interface error.
ACK. negative: no Resource for Send Data (&no Response FDL-Data)
Negative acknowledgement, resources of the remote FDL controller not available or not sufficient.
ACK. Negative : no Service activated
Service or Rem_add at remote LSAP or remote LSAP not activated.
Response FDL-Data low, no Resource for Send Data.
negative acknowledgement for sent data,
Response FDL-Data high, no Resource for Send Data
negative acknowledgement for sent data,
ACK. negative: (FLC-FMA-Service)
ACK. negative: invalid request length
ACK. negative: invalid parameter in request

Invalid parameters in request.

Indicates that the parameters passed to the functions are not correct

TO : Response time failure (Time-Out).

Device not configured.

Data not available.

Max PDU Size. The receive buffer size is not sufficient to receive data.

Possible Fixes:

- Check that the network is working correctly
- Check that there is no fault on the device
- Check that the master configuration settings apply to your network (baud rate, timing, etc.).
- Restart the test by activating the log file in the Expert Parameters dialog box. The end of the log file will contains error text which can help to understand the error. For example, if the error comes from reading or writing data in the device at a specific slot-index, use the test utility Diagnostic.exe to verify that the error comes from the device and not from the device DTM or CommDTM.

9 Support

9.1 Reference Documents

For information on Profibus, refer to one of the following:

- Profibus standard DIN 19 245 parts 1, 2 and 3. Part 1 describes the low-level protocol and electrical characteristics, Part 3 describes DP.
- European Standard EN 50170

9.2 Technical Support

Please ensure that you have the following information readily available before calling for technical support:

- Computer's make, model and hardware configuration
- Operating system type and version
- Details of the problem you are experiencing: application module type and version, target network, and circumstances that may have caused the problem
- Diag.log file which contains informations about the **BradCommunications** USB100PFB.
 - To do this, close any application which uses the interface.
 - Run Diagnostic.exe from the install directory. In the menu, choose "9. Write information in Diag.log" . The Diag.log will be created in the install directory.

9.2.1 Getting Help

Technical support is available during regular business hours by telephone, fax or email from any Woodhead Software & Electronics office, or from [contact.pdf](#).