1560-PDP

PROFIBUS™ Adapter
for
Allen-Bradley SCANport Devices

User Manual
Rev 2

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Please Read This Notice

Successful application of the 1560-PDP card requires a reasonable working knowledge of the Allen-Bradley hardware to be interfaced with, and the application on which the combination is to be used. For this reason, it is important that those responsible for implementing the 1560-PDP satisfy themselves that the 1560-PDP and Allen-Bradley hardware combination will meet the needs of the application without exposing personnel or equipment to unsafe or inappropriate working conditions.

This manual is provided to assist the user. Every attempt has been made to assure that the information provided is accurate and a true reflection of the product's installation requirements. In order to assure a complete understanding of the operation of the 1560-PDP, the user should read all applicable documentation on the operation of the Allen-Bradley hardware.

Under no conditions will ProSoft Technology, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of the 1560-PDP product.

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WARNING
The 1560-PDP card will allow remote access to commands in the Allen-Bradley drives and other SCANport compatible devices. The user is responsible for assuring that any applicable regulations concerning the remote operation of the equipment are adhered to.

Quick Start Guide

In this section we have assembled a simple step-by-step procedure for installing and making the 1560-PDP unit operational. This discussion presumes that the application decision such as PROFIBUS addressing and hierarchy, SCANport cable length, etc. have been addressed prior to this point.

Step-by-Step

The following steps will allow the 1560-PDP to be setup in the shortest period of time (the following steps refer to the Allen-Bradley drive implementation. Similar steps are followed when interfacing to other A-B Power Division products):

1	Set the dip switches	The 1560-PDP dip switch positions are detailed in Section 3.

1   Set the dip switches
          The 1560-PDP dip switch positions are detailed in Section 3.

2   Mount the 1560-PDP on the DIN rail
          See Section 3 for mounting instructions.

3   Connect power to the 1560-PDP
          Refer to Section 3.

4   Setup the Drive hardware
          Refer to the appropriate drive manual to connect control and power the drive. This aspect of the drive installation is out of the scope of this manual.

5   Setup the Drive parameters
          See Appendix A of the manual for assistance in setup of the drive parameters.

6   Install the SCANport cable between the drive and the 1560-PDP.

7   Connect the PROFIBUS cable between the host system and the 1560-PDP.

8   Retrieve the 1560-PDP GSD file, **psft087c.gsd** (downloadable from our web site at www.prosoft-technology.com) and import into your PROFIBUS configuration software.

9   Map the appropriate drive information and parameters to your addresses. The User must configure the Siemens Profibus Binary file using a Siemens compatible utility, importing the GSD file and configuring the I/O image as desired. A minimum configuration would normally include the Output Image(13 words) and the Input Image (11 words)

10   The unit will auto-baud once connected to the network

Table of Contents

Revisions

1.0	2	8/25/98	Started with Revision 1.4 (6/30/98) of the 1560-MBP module.
1.1	3	12/7/98	Modified spare byte so that all data is on word boundary for input and output images
1.2	4	01/05/99	Attempt to get Profibus LED to respond to states of engine, and to get scanport to fault when loss of Profibus exists
1.3	5	10/12/99	At Profibus Test Lab in Johnson City, TN

           - Change Set Address handling to return no response - Did not have fully disabled
           - Cfg handling on default. Did not have this set correctly where the default
         actual and default to spc 3 were not equal
           - added CommmTimeoutMultiplier based on SW2-1:3 (0 to 7) where 0 == 1
           - added call to 0 ssa_buf_ptr after spc3 init because otherwise address change
            generated a short response

1   Product Specifications

The ProSoft Technology, Inc. 1560-PDP card is a hardware product designed to be a communications front end for Allen-Bradley SCANport compatible products (1336 Plus, 1336 Plus II, 1397, Force, Vector, 1305, SMC Dialogue Plus, SMP3, etc.)

Communication Specifications

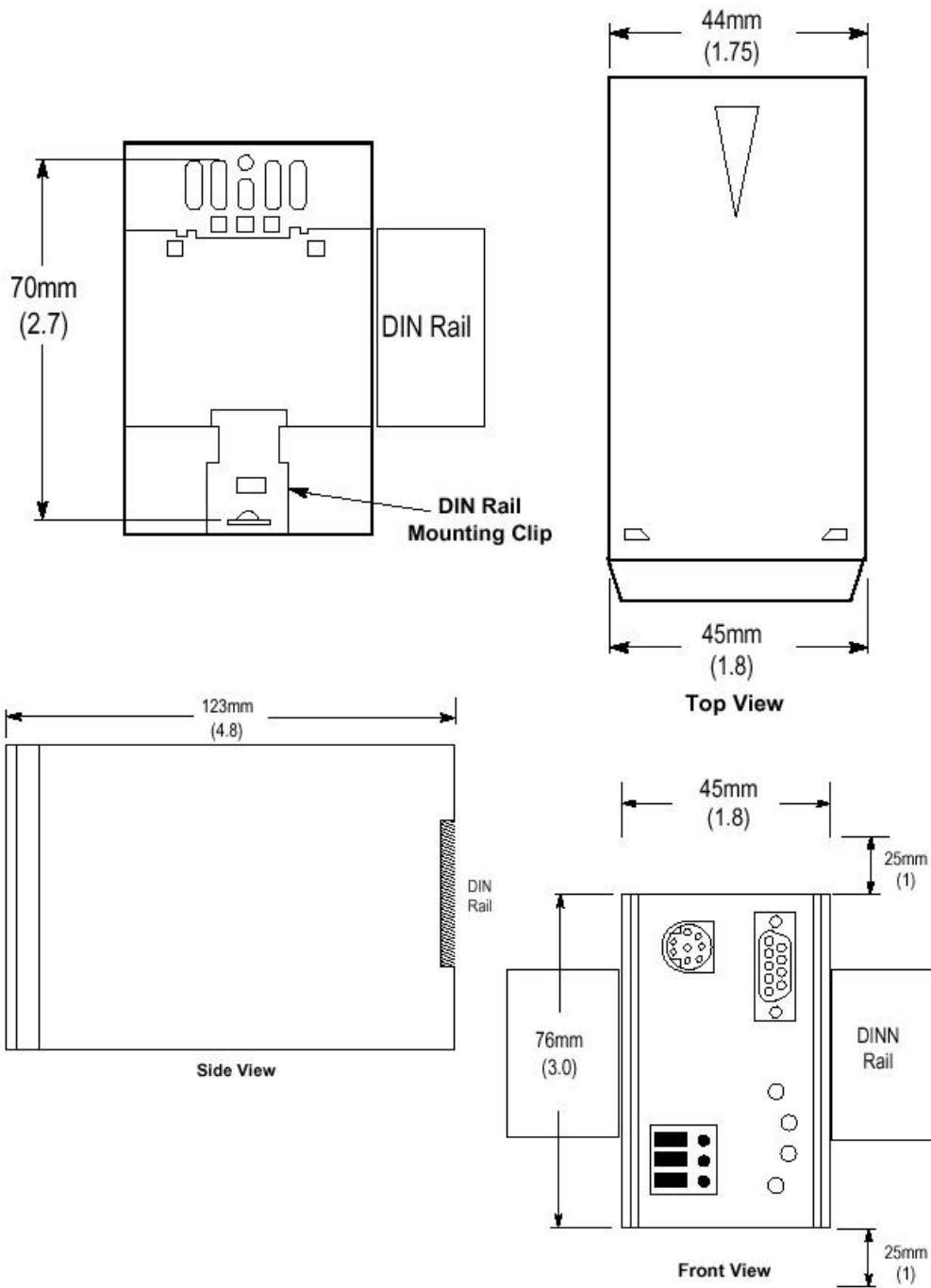| Name	Description
Protocol	Profibus DP Slave using SPC3 chipset
Baud Rate	Up to 12 M Baud Mx
Supported Profibus features	Input/Output data types Supports the high speed transfer of Control/Reference, Status/Feedback and up to 8 Datalinks in and Out
Pre-Assigned Map	Command Control and Reference Status/Feedback Datalinks In and Out: A to D Up to 32 parameter values

General Specifications

Name	Description
Configurable via dipswitches	Node Address: 1 to 126 Fault on Loss of Comm SCANport Messaging options - No Datalinks - Datalinks A only - Datalinks A & B only - Datalinks A,B,C & D
Profibus port Connection	Female DB-9 (Standard Profibus)
SCANport Connection	SCANport connector, using standard SCANport cable from distributor
Pre-Assigned Map	Command Control and Reference Status/Feedback Datalinks In and Out: A to D Up to 32 parameter values

Status LEDs	SCANport Status
	        (bi-color Red/Green)
	Profibus Status
	        (bi-color Red/Green)

Current Consumption	65ms at 24 VDC
Input Voltage	85 to 264 VAC, 1 phase, 45-63 Hz (Optional 24 VDC)
Storage Temperature	-40 to 85C
Operating Temperature	0 to 50C

2 Mounting and SCANport Cabling Instructions

2.1 Mounting Instructions

Following are the mounting dimensions and layout drawings for the enclosed style communication module, such as the 1560-PDP. The following drawings are excerpted from A-B document 1203-5.5.

44mm
(1.75)

70mm
(2.7)

DIN Rail

**DIN Rail
Mounting Clip**

45mm
(1.8)

Top View

123mm
(4.8)

DIN
Rail

Side View

45mm
(1.8)

25mm
(1)

76mm
(3.0)

DINN
Rail

25mm
(1)

Front View

2.2   Cable Requirements

SCANport cables are available in either Male to Male or Male to Female configurations. Cables of up to 10 meters (33 feet) can be connected from the SCANport device to the 1560-PDP. If a Port Expander is used, the cable length from the master to the Port Expander must be subtracted from the cable length used to connect the device to the expander (B1 + C = max 10 meters).

> Generally when selecting a SCANport cable, the Male-Male configuration will be used. This is true in all cases when connecting to Ports 2 through 5. If connecting to the HIM port (Port 1) the Mail-Female cable will be required.

Please verify with the Installation Manual for the A–B device the correct cable configuration. The following drawing, excerpted from A-B document 1203-5.2, is an example for a 1305 drive installation.
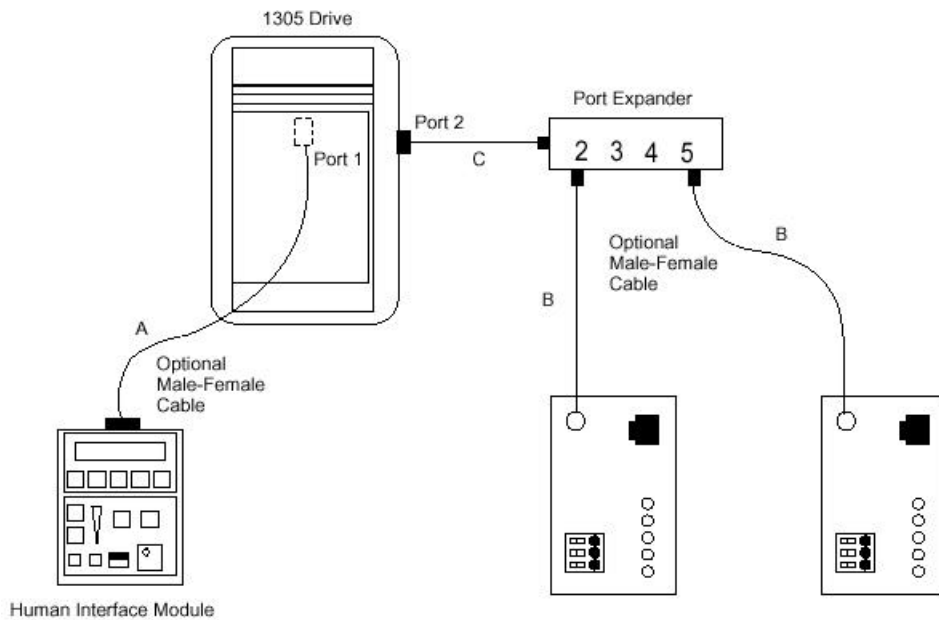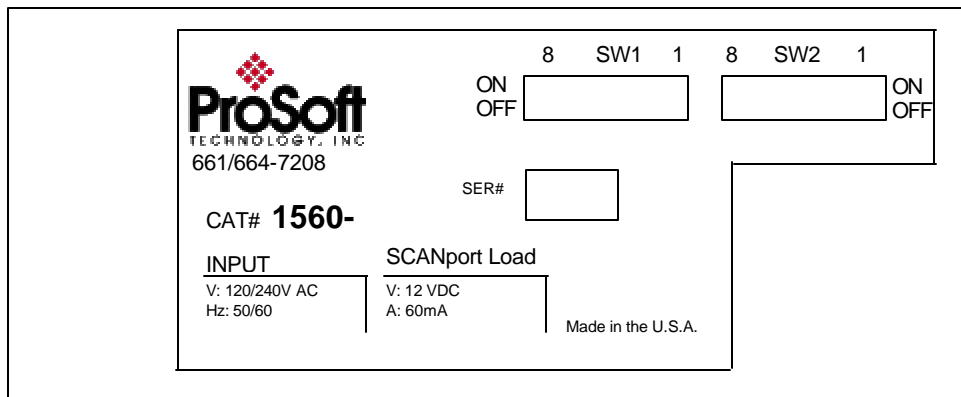
2.3   Hardware Setup

The layout of the LEDs and the connectors on the 1560-PDP is shown in the diagram below. The power connections for 120/240VAC and the 24VDC are also shown.

SCANport

Profibus

Profibus Status

SCANport Status

120 VAC	24 VDC*
L1	+
L2	-
GND	GND
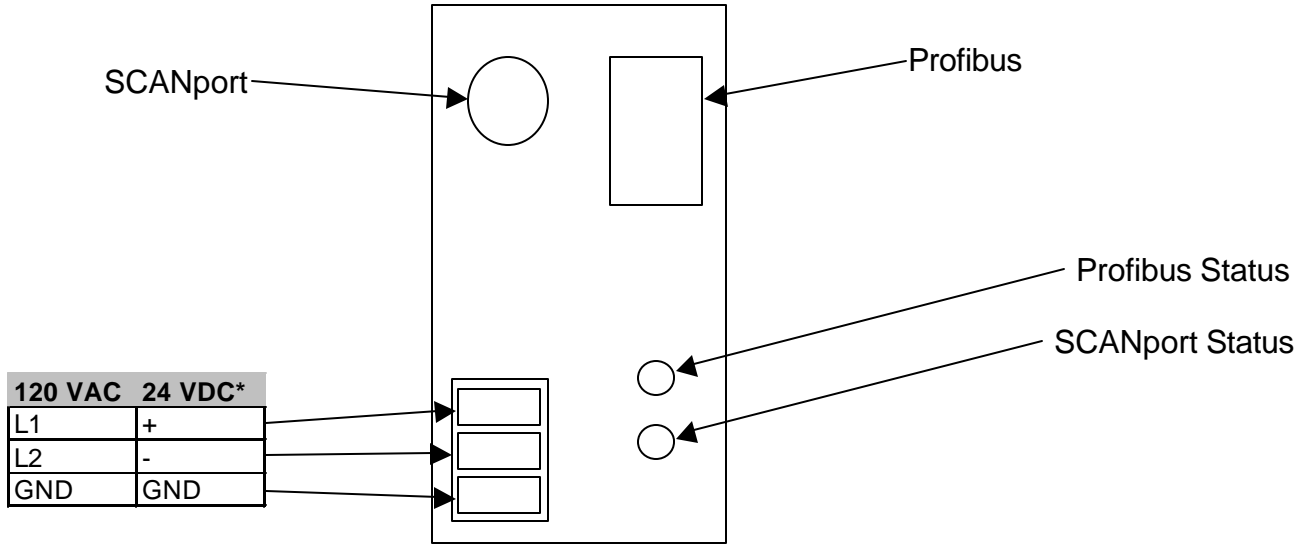
* 1560-PDP1   PROFIBUS to SCANport Communication Adapter - 120VAC
* 1560-PDP2   PROFIBUS to SCANport Communication Adapter - 24VDC

ProSoft
TECHNOLOGY, INC
661/664-7208

CAT# **1560-**

8   SW1   1   8   SW2   1

ON
OFF

ON
OFF

SER#

INPUT

SCANport Load

V: 120/240V AC
Hz: 50/60

V: 12 VDC
A: 60mA

Made in the U.S.A.

4

2.4   LED Indications

NAME	Color	Status	Indication
Profibus Status	Green	Steady	Profibus connection is in place with the host
	Red	Steady	Profibus connection is not good. Check that the Profibus cable is connected to a host. Also, verify that the Profibus network is correctly terminated.
		Blinking	Profibus connection is in place with the host,but possibly a bad configuration has been detected (Input or Output map duplicated, or more than 5 map images entered in configuration utility for this slave)
SCANport Status	Green	Steady	SCANport connection if OK
	Green	Blinking	Check cable connections. Indicates that the 1560 unit is not able to link up with the drive's SCANport. Make sure that the A-B device supports Datalinks if the 1560 Datalinks are enabled.
	Red	Steady	The SCANport connection has faulted. Check configuration switch settings, SCANport cable connections, cycle power. Contact ProSoft factory support if problem persists.

2.5   Dip Switch Settings
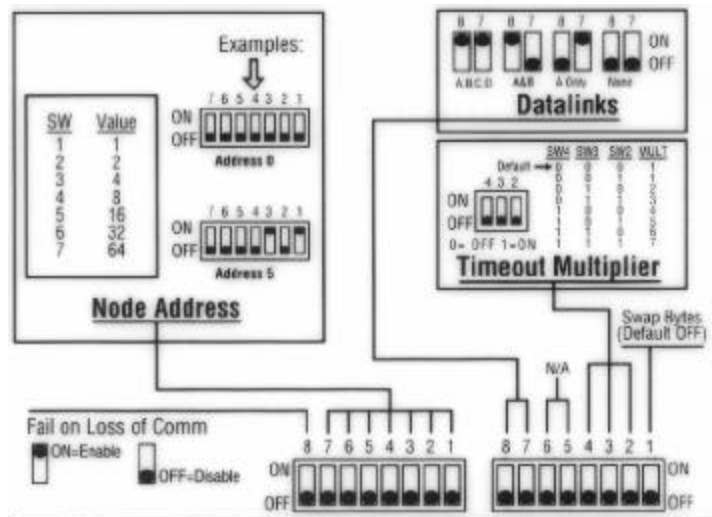
Example Switch Setting (Shipped Configuration)

Switch	8 7 6 5 4 3 2 1	
SW1	1 0 0 0 0 1 0 1	Comm Fail Enabled
		Node #5
SW2	1 1 0 0 0 0 0 0	All Datalinks enabled
		No Bytes Swapping

Dip Switches – SW1								Name	Description
8	7	6	5	4	3	2	1		
	X	X	X	X	X	X	X	Node Address	Selects the Profibus Node address for this adapter. Binary weighting on dip switches as follows: Bit Value 0 1 1 2 2 4 3 8 4 16 5 32 6 64 Example: **6 5 4 3 2 1 0** **Addr** 0 0 0 0 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 0 1 1 3 - - - - - - - - 1 1 1 1 1 1 1 127
X								Loss of Comm Failure Enable	The action that the adapter will take upon detecting loss of control from a Siemens host. This action will not be enabled until an initial Output Command has been received from the host, and the Timeout has expired (See SW2 table below): 0 = Disable Failure 1 = Enable Failure

Dip Switches – SW2								Name	Description
8	7	6	5	4	3	2	1		
							X	Byte Swap (Default off)	Position is a function of the Profibus host device 1 for Siemens S5 0 for all others

				X	X	X		Loss of Comm Timeout Multiplier	The adapter has a default timeout of 120ms. To adjust this value, use the following positions:
									            Timeout
									    432 Value
									    000 120ms
									    001 120ms
									    010 240ms
									    011 360ms
									    100 480ms
									    101 600ms
									    110 720ms
									    111 840ms

(Continued)

Dip Switches – SW2								Name	Description
8	7	6	5	4	3	2	1		
		X	X					Not Used	
X	X							Datalink Enable	Determines how many datalink parameters to exchange between the drive and the 1560-PDP adapter: 87 Datalinks 00 None 01 A 10 A& B 11 A,B,C,D

3 Adding 1560-PDP to Profibus Network Configuration

The User must configure the Siemens Profibus Binary file using a Siemens compatible utility, importing the GSD file and configuring the I/O image as desired. A minimum configuration would normally include the Output Image (13 words) and the Input Image (11 words)

The configuration shown below was developed using COM PROFIBUS version 3.3. Different versions of configuration utilities may appear different, but the concepts should be similar.

Step 1 : Select the 1560-PDPSCANport(*Adapter*)
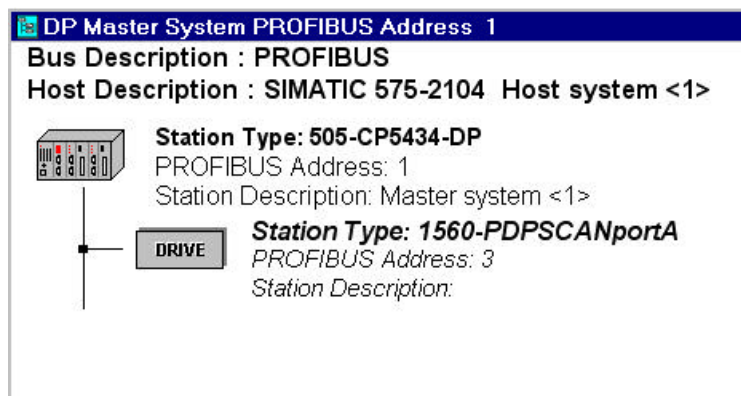
Step 2 : Select Configure Slave Parameters
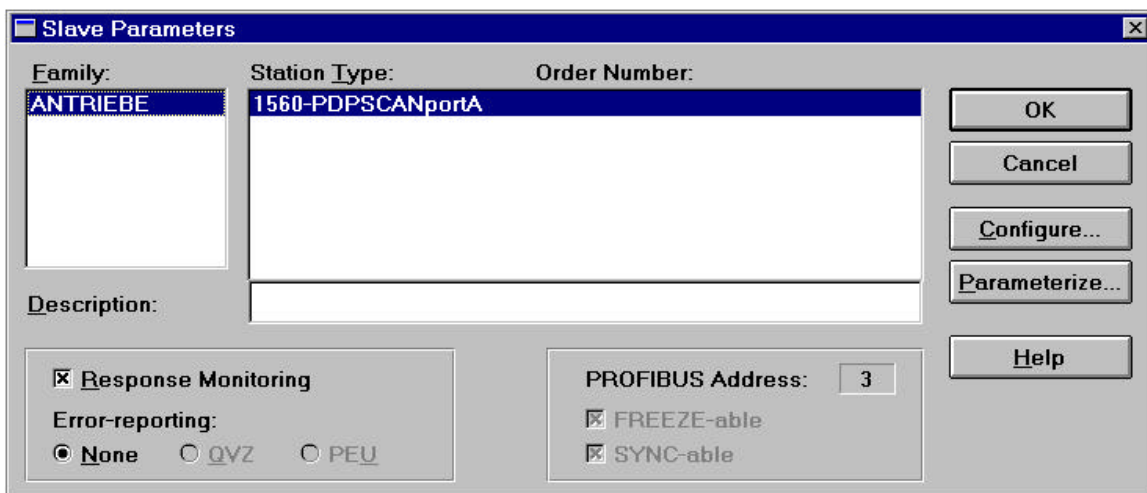
Step 3 : Select Configure

Choose what adapter information you wish to access.

	ID	Order Number	Remarks	I Addr.	O Addr.	
0	10AI	Adapter Status - 10 Words		P000		OK
1	11AI	Adptr In/Datalinks - 11 Words		P020		Cancel
2	16AI	Parameter Values - 16 Words		P042		Order No. ...
3	16AI	Parameter Values - 16 Words		P074		ID...
4	13AO	Adptr Out/Datalinks - 13 Words			P000	Data...
5						Reserve
6						Auto Addr.
7						Delete...
8						
9						Addresses...
10						
11						Param. ...
12						
13						Help

Select by Order Number for Slot 0

Adptr In/Datalinks - 11 Words
Adapter Status - 10 Words
Parameter Values - 16 Words
Adptr Out/Datalinks - 13   Words

[Accept] [Close] [Help]

● **None** ○ QVZ ○ PEU

A detailed description of the available options for configuring the adapter is available in the Appendix. See the Appendix for details on:

> Input IN/Datalinks – 11 words
> Adapter Out/Datalinks – 13 words
> Adapter Status – 10 words
> Parameter Values – 16 words

The most common configuration is to select the *Adapter In and Adapter Out* options.

Step 4 : Parameterize

If you will be accessing the Drive Parameters press the Parameterize button and enter the parameter information. Enter the total number you will be accessing(up to 32) and enter the parameter numbers.

Parameterize: 1560-PDPSCANportA #3 <>

	Parameter Name	Value	
1	Number of PRM read	32	OK
2	Drive Parameter No. 1	18	Cancel
3	Drive Parameter No. 2	19	Select...
4	Drive Parameter No. 3	20	
5	Drive Parameter No. 4	32	Hex...
6	Drive Parameter No. 5	140	
7	Drive Parameter No. 6	141	Help
8	Drive Parameter No. 7	142	
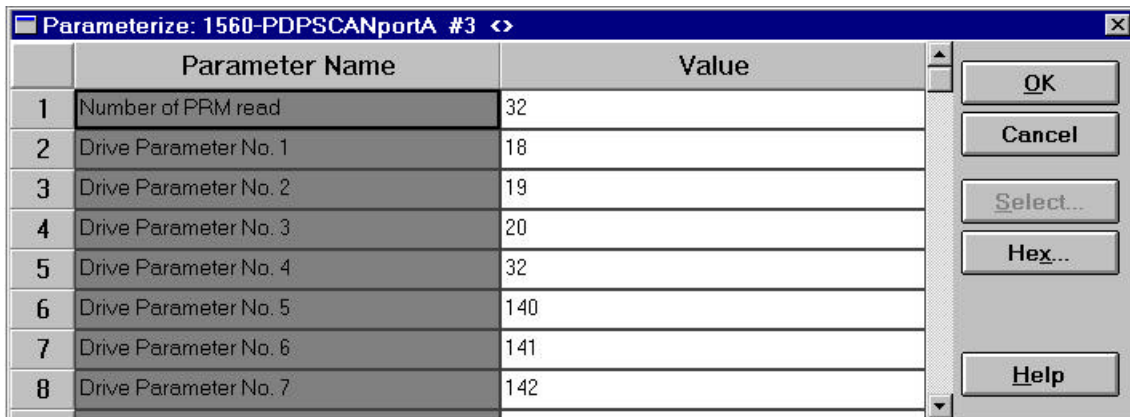
Step 5 : Assign I/O Addresses

*Choose what address will be associated with each data point, or let COM PROFIBUS decide by selecting **Auto Address**.*
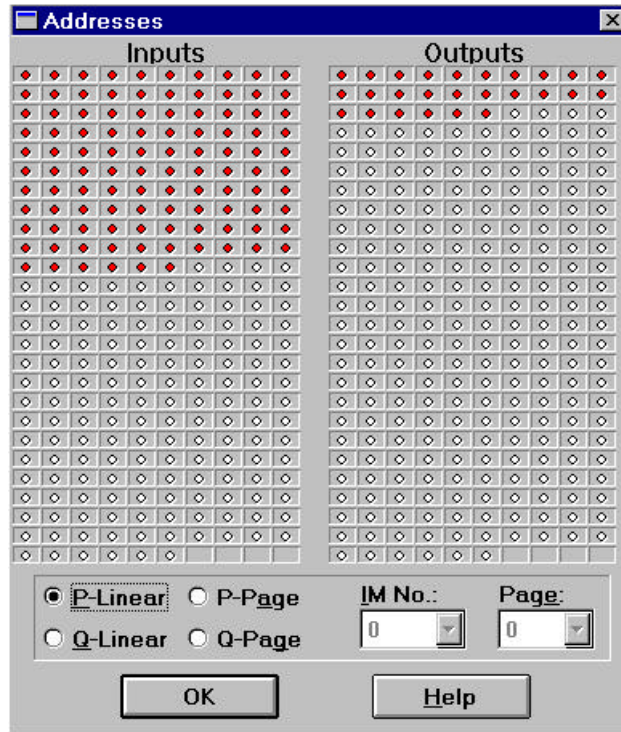
Step 6 : Save the Profibus Configuration

Save the PROFIBUS network configuration. Use this configuration along with your PLC programming software to setup control and monitoring of your AB drive.

Appendix A : Device Specific Hints

A.1   SMC Dialogue Plus
The SMC Dialogue Plus does not support Datalinks, therefore the configuration of SW2-7 and 8 should not include any of the Datalinks Enabled. If a Datalink is enabled, the SCANport Status LED will toggle, indicating an error in the SCANport communications. The version of SMC which was tested (Rev 1.05) had 88 parameters. The 1560-PDP is able to read 32 of the parameters out of the SMP3 unit.

A.2   SMP 3
The SMP3 does not support Datalinks, therefore the configuration of Datalinks should not include any of the Datalinks Enabled. If a Datalink is enabled, the SCANport Status LED will toggle, indicating an error in the SCANport communications. The 1560-PDP is able to read 32 of the parameters out of the SMP3 unit.

A.3   Variable Speed Drives
In order to enable Frequency control from the 1560-PDP, the drive parameter FREQUENCY SELECT 2 must be configured for the appropriate Adapter ID representing the 1560-PDP module. This will normally be Adaptor #2, unless a SCANport expander is being used (in which case this Adaptor number will be based on the port the 1560-PDP is plugged into).

Setting up the Adaptor I/O - Datalinks Out
Selects the parameter values which will be made available from the 1560-PDP via Global Data Out. Placement of the values in the 1560-PDP is referenced in Section #

Data Out Image	Suggested Parameter	Description
A1	54	Output Current
A2	1	Output Volts
B1	23	Output Power
B2	53	DC Bus Voltage
C1		
C2		
D1	19	Max Frequency
D2	4	Last Fault

Setting up the Adaptor I/O - Data In
Selects the parameters which will be made accessible for configuration/ writing from the 1560-PDP. As with the Data Out parameters, there are eight possible selections. These may be chosen by the programmer to meet the needs of the application.

Logic Control Word

Since the most common implementation of the 1560-PDP is with the variable speed drives, we have included the following table for the more commonly used control bits. This word should be verified in the A-B User Manual for the particular device being controlled.

Bit	Function	Description
0	Stop	1 = Stop, 0 = Not Stop
1	Start	1 = Start, 0 = Not Start
2	Jog	1 = Jog, 0 = Not Jog
3	Clear Faults	1 = Clear, 0 = Not Clear
4,5	Direction	00 = No Command
		01 = Forward
		10 = Reverse
		11 = Hold Direction

Drive Status Word

Since the most common implementation of the 1560-PDP is with the variable speed drives, we have included the following table for the more commonly used Status bits. This word should be verified in the A-B User Manual for the particular device being monitored.

Bit	Function	Description
0	Enabled	1 = Enabled
1	Running	1 = Running
2	Cmd Direction 1 = Forward, 0 = Reverse	
3	Actual Direction	1 = Forward, 0 = Reverse
4	Accel	1 = Accelerating
5	Decel	1 = Decelerating
6	Alarm	1 = Alarm Active
7	Fault	1 = Fault Active
8	At Speed	1 = At Speed

Appendix B : SCANport Datalink Operation

(Excerpted from A-B Publication 1203-5.2 - May 1995)

> In the following discussion, the term 'Datalink' is used extensively. When configuring some SCANport devices, the term 'Adaptor I/O' is used in place of Datalink.

A Datalink is a type of pointer used by some SCANport devices to transfer information between a SCANport communication interface (such as the 1560-PDP) and a SCANport device (such as a VFD, SMP3, etc.). Datalinks allow parameter values to be written when the Control Command and Reference are sent to the SCANport device. Datalinks also allow parameter values to be read whenever the Status and Feedback values are read from the SCANport device.

SCANport devices that support Datalinks have a group of parameters for Datalink configuration. These parameters are identified as 'Datalink In' and Datalink Out' parameters. The Datalink functions are enabled by setting the appropriate dip switches on SW1 and by configuring the 'Datalink In' and Datalink Out' adapter I/O parameters in the SCANport device.

Each Datalink consists of two 16-bit words of input and two 16-bit words of output. Each of the two input words can be configured to write to a different destination parameter inside the SCANport device by setting the two 'Datalink In' parameters for that Datalink to the desired destination parameters. Similarly, each of the two output words is configured by setting the two 'Datalink Out' parameters for that Datalink. If a Datalink is enabled the value of the parameters pointed to by the 'Datalink Out' parameters will be transferred to the 1560-PDP. Conversely, data values sent into the Datalink registers will be written to the parameter locations configured in the 'Datalink In' parameters. If a Datalink is not enabled, any data sent to the corresponding 1560-PDP data space will be ignored.

If no 'Datalink In' parameter is configured the SCANport device will ignore it. The same is true for a 'Datalink Out' parameter. A zero usually represents an un-configured Datalink.

Appendic C : Repair and Warranty

Service and Repair

The 1560-PDP card is an electronic product, designed and manufactured to function under somewhat adverse conditions. As with any product, through age, misapplication, or any one of many possible problems, the card may require repair. The 1560-PDP product has a one year parts and labor warranty according to the limits specified in the warranty. Replacement and/or returns should be directed to the distributor from whom the product was purchased. If you need to return the card for repair, it is first necessary to obtain an RMA number from ProSoft Technology. Please call the factory for this number and display the number prominently on the outside of the shipping carton used to return the card.

General Warranty Policy

ProSoft Technology, Inc. (Hereinafter referred to as ProSoft) warrants that the Product shall conform to and perform in accordance with published technical specifications and the accompanying written materials, and shall be free of defects in materials and workmanship, for the period of time herein indicated, such warranty period commencing upon receipt of the Product. This warranty is limited to the repair and/or replacement, at ProSoft's election, of defective or non-conforming Product, and ProSoft shall not be responsible for the failure of the Product to perform specified functions, or any other non-conformance caused by or attributable to: (a) any misapplication of misuse of the Product; (b) failure of Customer to adhere to any of ProSoft's specifications or instructions; (c) neglect of, abuse of, or accident to, the Product; or (d) any associated or complementary equipment or software not furnished by ProSoft. Limited warranty service may be obtained by delivering the Product to ProSoft and providing proof of purchase or receipt date. Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to ProSoft, and to use the original shipping container or equivalent. Contact ProSoft Customer Service for further information.

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Hardware Product Warranty Details

Warranty Period: ProSoft warranties hardware product for a period of one (1) year.

Warranty Procedure:

Upon return of the hardware Product ProSoft will, at its option, repair or replace Product at no additional charge, freight prepaid, except as set forth below. Repair parts and replacement Product will be furnished on an exchange basis and will be either reconditioned or new. All replaced Product and parts become the property of ProSoft. If ProSoft determines that the Product is not under warranty, it will, at the Customer's option, repair the Product using current ProSoft standard rates for parts and labor, and return the Product freight collect.

Appendix D : PSFT087C.GSD File

```
;===================================================================
; GSD-file example for ProSoft Technology 1560-PDP Profibus Adapter
;       Date: 09.19.98
;       Profibus DP Slave
;       Language : English
;       GSD Rev 2 Date: 02-24-99
;                        10-15-99 modified
;===================================================================
#Profibus_DP
;
ExtUserPrmData=1 "Number of PRM read"      ;
Unsigned8 0 0-32
EndExtUserPrmData
ExtUserPrmData=2 "Drive Parameter No. 1"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=3 "Drive Parameter No. 2"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=4 "Drive Parameter No. 3"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=5 "Drive Parameter No. 4"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=6 "Drive Parameter No. 5"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=7 "Drive Parameter No. 6"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=8 "Drive Parameter No. 7"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=9 "Drive Parameter No. 8"  ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=10 "Drive Parameter No. 9" ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=11 "Drive Parameter No. 10"       ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=12 "Drive Parameter No. 11"       ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=13 "Drive Parameter No. 12"       ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=14 "Drive Parameter No. 13"       ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=15 "Drive Parameter No. 14"       ;
Unsigned8 0 0-255
```

```
EndExtUserPrmData
ExtUserPrmData=16 "Drive Parameter No. 15"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=17 "Drive Parameter No. 16"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=18 "Drive Parameter No. 17"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=19 "Drive Parameter No. 18"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=20 "Drive Parameter No. 19"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=21 "Drive Parameter No. 20"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=22 "Drive Parameter No. 21"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=23 "Drive Parameter No. 22"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=24 "Drive Parameter No. 23"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=25 "Drive Parameter No. 24"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=26 "Drive Parameter No. 25"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=27 "Drive Parameter No. 26"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=28 "Drive Parameter No. 27"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=29 "Drive Parameter No. 28"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=30 "Drive Parameter No. 29"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=31 "Drive Parameter No. 30"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=32 "Drive Parameter No. 31"        ;
Unsigned8 0 0-255
EndExtUserPrmData
ExtUserPrmData=33 "Drive Parameter No. 32"        ;
Unsigned8 0 0-255
EndExtUserPrmData
;
GSD_Revision      = 2
```

```
Vendor_Name  = "ProSoft Technology Inc"
Model_Name   = "1560-PDP SCANport Adapter"
Revision     = "Rev 1.0 - 1";
Ident_Number = 0x087C   ; Need official ID from PTO
Protocol_Ident = 0      ; 0 = Profibus DP
Station_Type = 0        ; 0 = DP Slave
FMS_supp     = 0        ; No FMS support
Hardware_Release = "01"     ; Not a function of Hardware Release
Software_Release = "1"      ; Batch Number
;
; Supported Baud Rates
9.6_supp     = 1
19.2_supp    = 1
93.75_supp   = 1
187.5_supp   = 1
500_supp     = 1
1.5M_supp    = 1
3M_supp      = 1
6M_supp      = 1
12M_supp     = 1
;
; Maximum Responder time for supported baud rates
MaxTsdr_9.6      = 60
MaxTsdr_19.2     = 60
MaxTsdr_93.75    = 60
MaxTsdr_187.5    = 60
MaxTsdr_500      = 100
MaxTsdr_1.5M     = 150
MaxTsdr_3M       = 250
MaxTsdr_6M       = 450
MaxTsdr_12M      = 800
;
; Supported hardware features
Redundancy = 0                      ; Not supported
Repeater_Ctrl_Sig = 2               ; TTL
24V_Pins = 0                        ; Not Connected
Implementation_Type= "SPC3"
;
;
;
; Supported DP Features
Freeze_Mode_supp  = 1               ; supported
Sync_Mode_supp    = 1               ; supported
Auto_Baud_supp    = 1               ; supported
Set_Slave_Add_supp= 0               ; DIP Switch config address
;
;
;
; Maximum Polling Frequency
Min_Slave_Intervall = 1             ; 100 us
;
; Device Type
Slave_Family      = 1               ; 1 = Drives
;
; Maximum supported sizes
Modular_Station   = 1               ; Compact station - Predefined I/O
Max_Module = 5
```

```
Max_Input_Len = 106              ; 10 words + 1 Diag Control
                                 ; 10 words - Status Input Data
                                 ; 16 words - Parameter Read Block
                                 ; 16 words - Parameter Read Block
Max_Output_Len = 26              ; 12 words + 1 Diag Control
Max_Data_Len = 132
;
Max_Diag_Data_Len = 10
;
; Default Length of User Parameter
User_Prm_Data_Len = 34           ; List of Parameters in Drive to
read back
;
; First value is the number of parameters to read
Max_User_Prm_Data_Len = 34
Ext_User_Prm_Data_Const(0)=
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,\

0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,\
         0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,\
         0x00,0x00,0x00,0x00
Ext_User_Prm_Data_Ref(1)=1
Ext_User_Prm_Data_Ref(2)=2
Ext_User_Prm_Data_Ref(3)=3
Ext_User_Prm_Data_Ref(4)=4
Ext_User_Prm_Data_Ref(5)=5
Ext_User_Prm_Data_Ref(6)=6
Ext_User_Prm_Data_Ref(7)=7
Ext_User_Prm_Data_Ref(8)=8
Ext_User_Prm_Data_Ref(9)=9
Ext_User_Prm_Data_Ref(10)=10
Ext_User_Prm_Data_Ref(11)=11
Ext_User_Prm_Data_Ref(12)=12
Ext_User_Prm_Data_Ref(13)=13
Ext_User_Prm_Data_Ref(14)=14
Ext_User_Prm_Data_Ref(15)=15
Ext_User_Prm_Data_Ref(16)=16
Ext_User_Prm_Data_Ref(17)=17
Ext_User_Prm_Data_Ref(18)=18
Ext_User_Prm_Data_Ref(19)=19
Ext_User_Prm_Data_Ref(20)=20
Ext_User_Prm_Data_Ref(21)=21
Ext_User_Prm_Data_Ref(22)=22
Ext_User_Prm_Data_Ref(23)=23
Ext_User_Prm_Data_Ref(24)=24
Ext_User_Prm_Data_Ref(25)=25
Ext_User_Prm_Data_Ref(26)=26
Ext_User_Prm_Data_Ref(27)=27
Ext_User_Prm_Data_Ref(28)=28
Ext_User_Prm_Data_Ref(29)=29
Ext_User_Prm_Data_Ref(30)=30
Ext_User_Prm_Data_Ref(31)=31
Ext_User_Prm_Data_Ref(32)=32
Ext_User_Prm_Data_Ref(33)=33

;
; Diagnostic def
```

```
;
Unit_Diag_Bit(0) = "SCANport device not online" ; strings for
diagnostics
;
; Definitions of physical slots
;
; Module Word Input Image
;
Module = "Adptr In/Datalinks - 11 Words" 0x5A
EndModule
Module = "Adapter Status - 10 Words" 0x59
EndModule
Module = "Parameter Values - 16 Words" 0x5F
EndModule
;
; Module Word Output Image
;
Module = "Adptr Out/Datalinks - 13 Words" 0x6C
EndModule
```

Appendix E : Profibus Data Image Details

E.1 : Adapter Input Image (Read from 1560-PDP)
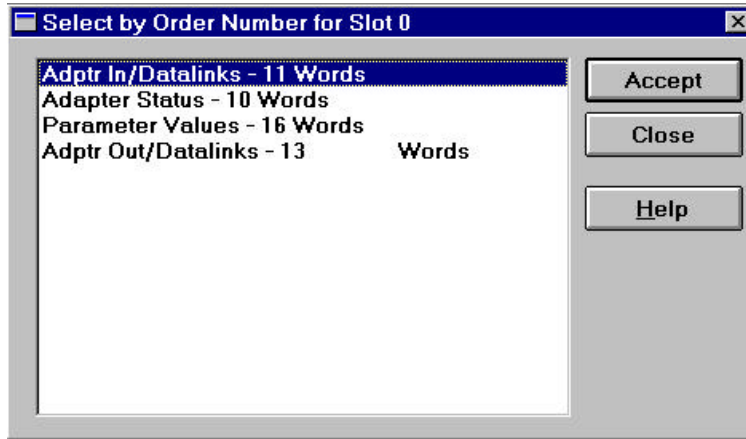
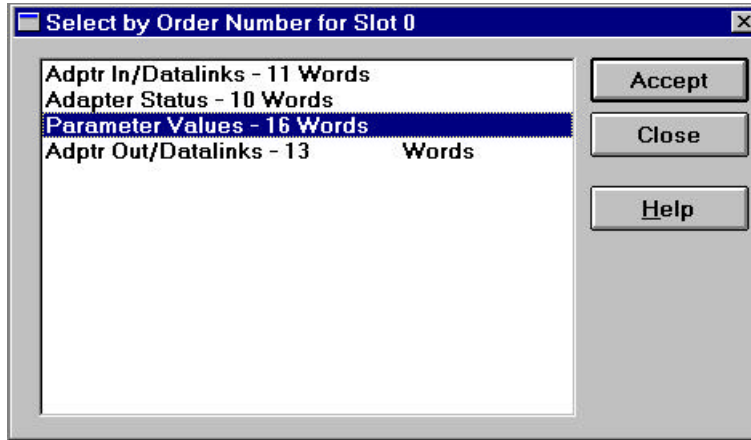| Word	Name	Description
0	Diagnostic Control Byte	(Future)
1	Status Word	This word should be verified in the A-B user manual for the particular device being controlled.
2	Feedback Value	This word should be verified in the A-B user manual for the particular device being controlled.
3	Datalink - A1	Adapter I/O (*Number of Datalinks set by DIP switch)
4	Datalink - A2	Adapter I/O (*Number of Datalinks set by DIP switch)
5	Datalink - B1	Adapter I/O (*Number of Datalinks set by DIP switch)
6	Datalink - B2	Adapter I/O (*Number of Datalinks set by DIP switch)
7	Datalink - C1	Adapter I/O (*Number of Datalinks set by DIP switch)
8	Datalink - C2	Adapter I/O (*Number of Datalinks set by DIP switch)
9	Datalink - D1	Adapter I/O (*Number of Datalinks set by DIP switch)
10	Datalink - D2	Adapter I/O (*Number of Datalinks set by DIP switch)

E.2 : Adapter Status Image (Read from 1560-PDP)
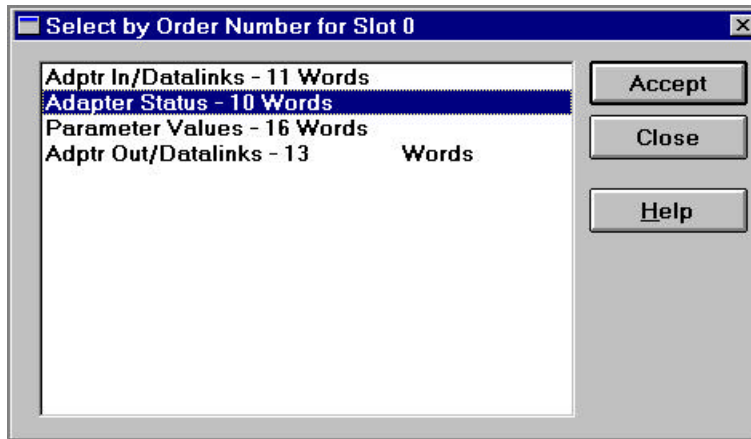
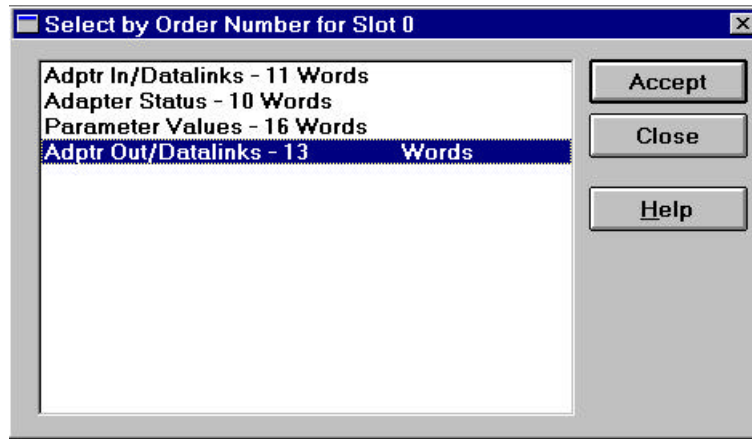| Word	Name	Values	Description
0	SCANport Status	0 = Offline 1 = Online	Indicates if 1560-PDP is logged into the drive. If drive is powered down or if SCANport cable becomes disconnected, the value will go to offline
1	Control/Reference Command Counter	0 to 0xFFFF	This is a rollover counter which increments each time the 1560-PDP received a Status word update from the SCANport device
2	Datalink A update counter	0 to 0xFFFF	This is a rollover counter which increments each time the Datalink A update is received from the SCANport device
3	Datalink B update counter	0 to 0xFFFF	This is a rollover counter which increments each time the Datalink B update is received from the SCANport device
4	Datalink C update counter	0 to 0xFFFF	This is a rollover counter which increments each time the Datalink C update is received from the SCANport device
5	Datalink D update counter	0 to 0xFFFF	This is a rollover counter which increments each time the Datalink D update is received from the SCANport device
6	Parameter Read Update Counter	0 to 0xFFFF	This is a rollover counter which increments each time a Rad Parameter command is received from the SCANport device
7	Parameter Write Update Counter	0 to 0xFFFF	This is a rollover counter which increments each time a Write Parameter command is executed
8	Profibus Status		(Future)
9	Product Revision		Provides the firmware revision level. The data should be viewed in hex mode

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E.3 : Parameters Image (Read from 1560-PDP)

Select by Order Number for Slot 0	☒
Adptr In/Datalinks - 11 Words	Accept
Adapter Status - 10 Words	
Parameter Values - 16 Words	Close
Adptr Out/Datalinks - 13 Words	
	Help

Word	Name
0	Parameter Value #1
1	Parameter Value #2
2	Parameter Value #3
3	Parameter Value #4
4	Parameter Value #5
5	Parameter Value #6
6	Parameter Value #7
7	Parameter Value #8
8	Parameter Value #9
9	Parameter Value #10
10	Parameter Value #11
11	Parameter Value #12
12	Parameter Value #13
13	Parameter Value #14
14	Parameter Value #15
15	Parameter Value #16

Up to two Parameter Read Blocks can be configured in the host read as 2 16 word blocks.

E.4 : Adapter Output Image (Write to 1560-PDP)

Word	Name	Description
0	Diagnostics Control Byte	When writing to a parameter enter a value of (0x10h) This will oneshot the parameter value
1	Logic Control Word	This word should be verified in the A-B user manual for the particular device being controlled.
2	Reference Control	This word should be verified in the A-B user manual for the particular device being controlled.
3	Datalink - A1	Adapter I/O (*Number of Datalinks set by DIP switch)
4	Datalink - A2	Adapter I/O (*Number of Datalinks set by DIP switch)
5	Datalink - B1	Adapter I/O (*Number of Datalinks set by DIP switch)
6	Datalink - B2	Adapter I/O (*Number of Datalinks set by DIP switch)
7	Datalink - C1	Adapter I/O (*Number of Datalinks set by DIP switch)
8	Datalink - C2	Adapter I/O (*Number of Datalinks set by DIP switch)
9	Datalink - D1	Adapter I/O (*Number of Datalinks set by DIP switch)
10	Datalink - D2	Adapter I/O (*Number of Datalinks set by DIP switch)
11	Parameter Number Write	Enter the value for the parameter you wish to write to(Parameter 112 = 112)
12	Parameter Value	Enter the value to set the parameter to

Writing A Parameter
1. Enter the parameter number into word 11
2. Enter the parameter value into word 12
3. Enter value 0x10h in word 0(This will oneshot the value to the parameter)
4. Clear word 0