### Foxboro Evo™ Process Automation System Hardware

**Product Specifications** 

# **Foxboro**<sub>®</sub>

by Schneider Electric

#### PSS 31S-10B4 B3

#### Field Device Manager for PROFIBUS Devices



Achieve significant productivity and operational savings when configuring PROFIBUS networks with the Foxboro Evo™ Control Editors and the Field Device Manager for PROFIBUS Devices.

#### **FEATURES**

Key features of the Field Device Manager for PROFIBUS Devices include:

- Complete lifecycle coverage of all field device tasks — configuration, commissioning, maintenance, and diagnostics — in one comprehensive tool set
- Integration of the device configuration into the control database
- GSD-informed editing tools for bus configuration, module selection, and I/O data definition
- Built-in universal PROFIBUS device type manager (DTM) providing online access to device data and diagnostic messages

- Option to run the device manufacturer's DTM within Field Device Manager for configuration and/or device maintenance
- Device templates that enable re-use of engineering for multiple tags of the same device type
- Convenient links to editors for the host control station and fieldbus module
- Watch screens that provide data history using tables and trend displays
- Compare screens that enable download and upload of DPV1 parameter values to align the host database with the device
- User-configured links to documents, photos, drawings, help files and other device-related resources

- Ability to create custom screens for viewing device data and diagnostic messages, and for downloading DPV1 device parameters
- Access based on log-in authentication and assigned Field Device Technology (FDT) roles
- Integration with the Foxboro Evo Control Editors' Network View and other application windows, which enable quick creation, assignment, tagging and deployment of devices
- Available Instrument Workshop edition for calibration, testing, and/or pre-commissioning of devices before their plant installation.

#### **OVERVIEW**

The Field Device Manager for PROFIBUS Devices (Field Device Manager) is a software application that adds on to the Foxboro Evo Control Editors to provide configuration support for PROFIBUS DP and PA devices, and integration of PROFIBUS networks into the Foxboro Evo Process Automation System. The PROFIBUS devices are connected to the control system via the FBM222 Redundant PROFIBUS Communication Interface.

The Field Device Manager's graphical user interface opens inside the Control Editors, and provides easyto-use bus configuration, module selection and data definition tools based on the device's General Slave Device (GSD) file. The device configuration is maintained in a Wonderware Galaxy database, where it is integrated with other control system elements such as compounds, strategies and Distributed Control Interface (DCI) blocks.

Field Device Manager's built-in universal PROFIBUS DTM provides highly customizable diagnostic displays and watch screens that facilitate deployment of the device and validation of the control strategy.

#### **TEMPLATES AND DEVICE INHERITANCE**

Field Device Manager is GSD-based. The user imports a GSD file into a copy of a PROFIBUS device template. The GSD file, which is bound to the template, informs all choices for bus settings, module selection and user parameters for each instance of the field device type used in the plant. The template also includes controls for specifying tags for devices derived from the template (Figure 1).

You can also define a device type by associating the device manufacturer's DTM with the template, in which case the GSD information is extracted from the DTM and bound to the template. You can then access the device specific DTM in the Vendor DTM tab to configure and maintain the devices.

🖻 \$SRD991	E	? 🖥	×
General Bus Settings Modules Data Definition Field Device Manager			
Object Information			^
Device Name: \$\$RD991			
Derived From: \$Profibus			
Associate GSD Associate DTM Export GSD			
Use Module Definition from 🕜 GSD 🌑 DTM			
GSD Information		۲	
Vendor Name: INVENSYS FOXBORO ECKARDT			
Device Model Name: SRD991			
Profibus IdentNo: 0xd991			
Device Revision: V1.3			
GSD Revision: 3			
Hardware Revision: 3			
Software Revision: 8, 9 or 10			
Device Instances			
Mask Prefix SRD			
Number of Digits 3			
Mask Preview SRD001			
			~

Figure 1. Device Template for a PA Positioner

The device templates provide the ability to engineer a typical field device type once, and propagate the configuration to multiple instances of the same device type, achieving maximum reusable engineering. Individual parameter values set in the template can be locked such that they cannot be changed in the device instances, or they can be left unlocked allowing the user to edit individual device configurations, overriding selections copied from the template. Changes made at the template level to locked parameters are propagated to the devices that have already been created from the template.

#### **DEVICE CREATION**

To create a PROFIBUS device in the Control Editors, the user simply drags the device template to the host FBM222 and drops the template on one of the two FBM ports (Figure 2).



Figure 2. Adding a PROFIBUS Device

The user then double-clicks the new device to open it in the Field Device Manager, sets the device address, and then views and modifies the bus settings, module selection, and other configuration choices inherited from the template. As part of the device creation, the Control Editors set up an equipment control block (ECB201) that represents the device in the Foxboro Evo control software. The Field Device Manager General tab provides a hotlink to an editor for the device ECB, where the user can specify block display settings, configure parameters for collection by the Foxboro Evo Control Software History application, and set runtime access permissions.

#### **CONFIGURATION TOOLS**

The Field Device Manager provides tabbed pages for editing bus settings (Figure 3), selecting modules and user parameters (Figure 4), and defining device I/O (Figure 5).

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General Bus Settings Modules Data Definition Field Device Manager	
Min Station Delay Response Time(MinTSDR) 11 TBit	~
Watchdog 🚽 🗗	
Enable Watchdog time base in 1 ms	
Timeout 250 ms (precision: 10ms)	
-Mode SupportP	
Sync Freeze Enable Timeout s	
Groups-an-	
_DPV1	
Enable DPV1 Response Timeout 4 s	
☐ FailSafe	
	<b>×</b>
@ RI0002	

Figure 3. Editing Device Bus Settings

	tangs 110	uules D	ata Definition	n    Field Devic	e Manager					
nfiguration	Data Us	er Param	eters							
	Madulaa									
available	Houses									
Name			Input	Outpu	it	Data	Po	ssible Slots		^
WAGO N	ETCON Du	mmy	0 bytes	0 byte	s	0x00	1a	nd 2 - 64		-
750-333	No PI Char	nnel	0 bytes	0 byte	S	0x00	1 a	nd 2 - 64		
750-333	2 Byte PI (	Channel	2 bytes	2 byte	s	0xB1	1 a	nd 2 - 64		
750-400	2 DI/24 V	DC/3	1 bytes	0 byte	s	0x10	2 -	64		
*750-400	2 DI/24	/ DC/	0 bytes	0 byte	s	0x00	2 -	64		
750-401	2 DI/24 V	DC/0	1 bytes	0 byte	s	0×10	2 -	64		
*/50-403	1 2 DI/24	/ DC/	0 bytes	0 byte	s	0x00	2 -	64		
750-402	4 DI/24 V	UC/3	1 bytes	0 byte	s	0x10	2-	64		
750 402	4 DU/24	DC/0	1 butes	0 byte	5	0x00	2-	64		
*750 403		0000	Obutes	Obyte	5	0,10	2-	64		×
Configure	d Module:	s(Cfg_Da	ata(Length :	7 bytes))						
Configure Slot No	d Module Name	s(Cfg_Da	ata(Length :	7 bytes))	nput Out	Data	~		dd/Replace	p.
Slot No	Name	s(Cfg_Da	ata(Length :	7 bytes)) II	nput Out	Data	<ul> <li>Image: A state of the state of</li></ul>	A	dd/Replace	e
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Slot No	Module: Name 750-333 750-400 750-435	s(Cfg_Da No PI Ch 2 DI/24 1 DI/24	ata(Length : annel V DC/3.0 ms V DC EEx i	7 bytes)) 1 0 1 1	nput Out 0 0	Data 0x00 0x10 0x10			dd/Replace Remove	e
Slot No Slot 2 Slot 3 Slot 4	Name 750-333 750-400 750-435 750-478	s(Cfg_Da No PI Ch 2 DI/24 1 DI/24 2 AI/0-1	ata(Length : annel V DC/3.0 ms V DC EEx i 0 V	7 bytes)) II 0 1 1 4	nput Out 0 0 0 0	Data 0x00 0x10 0x10 0x51		^A	dd/Replace Remove	e
Slot No 1 2 3 4 5	Module: Name 750-333 750-400 750-435 750-478 750-530	s(Cfg_Da No PI Ch 2 DI/24 1 DI/24 2 AI/0-1 8 DO/24	annel V DC/3.0 ms V DC EEx i 0 V V DC/0.5 A	7 bytes)) 0 1 1 4 0	nput Out 0 0 0 1	Data 0x00 0x10 0x10 0x51 0x20		A	dd/Replace Remove ock / Unloc	e k
Slot No 1 2 3 4 5 6	Module: Name 750-333 750-400 750-435 750-478 750-530 750-559	s(Cfg_Da No PI Ch 2 DI/24 1 DI/24 2 AI/0-1 8 DO/24 4 AO/0-:	annel V DC/3.0 ms V DC EX i 0 V V DC/0.5 A 10 V	7 bytes)) 0 1 1 4 0 0 0	nput Out 0 0 0 1 8	Data 0x00 0x10 0x10 0x51 0x20 0x63		A	dd/Replace Remove ock / Unloc	e k
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Configure Slot No 급 1 급 2 급 3 급 4 급 5 급 6 금 7 C Itax Input	Module: Name 750-333 750-400 750-435 750-478 750-530 750-559 750-460 Len Len	s(Cfg_Da No PI Ch 2 DI/24 1 DI/24 2 AI/0-1 8 DO/24 4 AO/0-: 4 AI/RTE 244 byte 14 bytes	ata(Length :: annel V DC/3.0 ms V DC 25.0 ms V DC Ex i 0 V V DC/0.5 A 10 V ) mm es s	7 bytes)) In 0 1 1 1 4 0 0 0 8 Max Output L Act Output Le	nput Out 0 0 1 8 0 en 244 en 9 b	Data 0x00 0x10 0x51 0x53 0x53 0x53 0x53	Max Ma Config	A La Sho bdules uredModule	dd/Replace Remove ock / Unloc wConfig D 64 s 7	e k ata

Figure 4. Configuring Modules in a Remote I/O Device

Configuration choices, whether made at the device template level or in an individual device, are always device-appropriate as the device configuration remains linked to the GSD for device description.

Once the modules have been selected, the Data Definition tab enables the creation of input and output parameters, diagnostic messages and parameters, and if the device supports DPV1 functionality, DPV1 device parameters. Parameter definitions include starting byte and bit position, bit length, data type, optional byte-swapping, complement definition, and plain-language names and descriptions for easy identification.

The parameters can be selected for display in the various standard and user-defined screens in Field Device Manager. The parameters are also shown in the Control Editors' browsers that enable quick and accurate specification of point number syntax in the control strategy DCI blocks.

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General Bus Settings Modules Data Definition Field D	evice Manager		
			^
Input Output Diagnostic Device Parameter (DPV1)		2.	
Input Parameters			
🖃 WAGO 750-333	Name	Temp_NW7_3	
M1 750-400 2 DI/24 V DC/3.0 ms - 1 Input P InputParameter 001			
M2 750-435 1 DI/24 V DC EEx i - 0 Input Par	Data Type	SignedInteger 16	
M3 750-478 2 AI/0-10 V - 0 Input Parameter			
Temp NW7 1	BytePosition	4 BitPosition 0 Bit Length 16	
Temp_NW7_2	1 ·		
Temp_NW7_3	Sign Bit Position	15 Swapping Byte0_Byte1	
- Temp_WW7_4			
	Complement	NoComplement	
	Units	C Lower Range -32768 Upper Range 32767	
	StatusParameter	None	
< >			
	Good Status Mask		
Add Delete Report			
	Description	RTD at Position 3 on NW7	
Input Data Structure			
0 - Byte			
2 - Byte			
- 3 - Byte			
- 4 - Byte			
6 - Byte			
7 - Byte			
Curte Durantus			
			~
RIO002 * PROF01			

Figure 5. Parameters Configured in the Template Can be Edited at the Device Level

#### **CONTROL CONFIGURATION**

PROFIBUS devices are connected to Foxboro Evo control blocks using DCI blocks. DCI block types include single and redundant input and output blocks for common data types such as integer and real. The DCI blocks are mapped to PROFIBUS data of the different PROFIBUS data types. The Control Editors' Strategy Editor provides graphical tools for adding DCI blocks to a control strategy, linking them to control blocks, and specifying the block execution order within the strategy. The user then opens a Device Browser in the editor to map the DCI blocks to the slave devices and their parameters created in the Data Definition tab (Figure 6).



Figure 6. Strategy Editor Device Browser Connects DCI Blocks to Slave Device Data

#### UNIVERSAL PROFIBUS DTM

Field Device Manager's built-in PROFIBUS DTM includes the following set of standard tab pages:

- Identification tab (Figure 7) displays information about the specific device such as the device manufacturer and type, and hardware and software versions. The tab also provides userconfigured links for quick and easy access to any document or image useful in engineering or maintaining the field device. The documents images can be linked to the Identification tab in the template or a device instance.
- Input tab (Figure 8) and Output tab provide realtime displays of the parameters defined in the Data Definition tab (or the Vendor DTM if the parameters were configured with the device manufacturer's DTM).
- Diagnostics tab displays diagnostic messages specified in the GSD and those which you define in the Data Definition tab based on either device diagnostics or DPV1 device parameters (Figure 9).



Figure 7. Hyperlinks to Documents and Drawings Can be Made on the Identification Tab

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<u>Galaxy</u> Edit View Object M	<u>N</u> etwork <u>T</u> ools <u>W</u> indow <u>H</u> elp		
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■ M1 750-400 2 DI/24 V D	C/3.0 ms	Inheritance	ж 🗗
■ M2 750-435 1 DI/24 V D	DC EEx i		
InputParameter 001	0	Inputs - parameter pool	Tab Parameters
InputParameter_002	1	M6 750.460 4 AL/RTD Temp NIW7 1	M1 750-400 2 DI/24 V DC/2 0 ms logi #Parameter .001
InputParameter_003	1	M6 750-460 4 AI/RTD.Temp_NW7_1	M3 750-478 2 Al/0-10 V.InputParameter 001
InputParameter_004	0	M6 750-460 4 AI/RTD.Temp_NW7_3	M4 750-530 8 DO/24 V DC/0.5 A.OutputParameter_00
InputParameter_005	0	M6 750-460 4 AI/RTD.Temp_NW7_4	M5 750-559 4 AO/0-10 V.OutputParameter_001
⊞ M4 750-530 8 DO/24 V	DC/0.5 A		M6 750-460 4 AI/RTD Temp_NW7_1
⊞ M5 750-559 4 AO/0-10	V	5	M6 750-460 4 AI/RTD.Temp_NW7_3
🗆 M6 750-460 4 AI/RTD			M6 750-460 4 AI/RTD.Temp_NW7_4
Temp_NW7_1	46.075		7
Temp_NW7_2	45.002		4
Temp_NW7_3	46.076		
Raw data			
		Show: Inputs Vpdate period:	10 ÷ [3ec [1 - 120]
🔨 RI0002 * 🗊 PROF01			OK Cancel
Beady			

Figure 8. Selecting Input Parameters for Online Display in Field Device Manager

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<u>Galaxy</u> Edit View Object Network Tools Window Help		
8 😢 🖾 🗙 18 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	< ~ ~ ~ ~ @ @ @	Raw Diagnostic Data Stream
💇 DEV004 *	🖬 ? 🖬 >	
General Bus Settings Modules Data Definition Field Device Manager		Byte # Value
		0 00
	Go Online Go Offline	1 04
		2 00
		3 01
	🏹 💭 Notes 🕐 Help	4 d9
		5 91
Identification Input Output Diagnostics Configuration Data Device	Parameter (DPV1) Compare Watch Customize	6 08
Timestamp Name Status Categor	Description Action	7 fe
4/17/2008 11:47:24 AM DP SLAVE (1) OK Device	The Diagnostic information is sent	8 00
4/17/2008 11:47:24 AM Master Address 1 Device	Station address of the master which	9 00
		10 00
	Station address of the master which has parameterized the slave	11 00
		12 00
		13 00
		⊖ Binary ⊙ Hex ⊖ Decimal
Raw data 😥 Refresh	S Customize	Close
📴 DEV004 * 🗐 F00004 👰 DEV003		
Ready Defaul	User FPB100Galaxy on FPB100	

Figure 9. Field Device Manager Displays Diagnostics Messages as well as Raw Device Diagnostic Data



Figure 10. The Device Parameter (DPV1) Tab Enables Downloads to DPV1 Devices and Trend Displays of Up to Eight Device Parameters

- Watch tab allows you to track up to eight parameters with a data table and a trend display.
- Configuration Data tab, which is displayed only when the Field Device Manager is online to the device, compares the configuration data in the device with the data set in the Galaxy database.
- Customize tab provides tools for adding custom tabs and parameter groups, setting access permissions for Field Device Manager functions based on the user's log-in information, and setting up downloads to selected devices.

Field Device Manager also displays the following tabs for devices that support DPV1 functions:

- Device Parameter (DPV1) tab displays selected device parameters in a grid format and a trend display (Figure 10). The tab enables upload and download of parameters that are defined as writable.
- Compare tab enables you to identify differences between DPV1 device parameter values in the Galaxy database and the values read from the device, and then reconcile the two sources by either uploading or downloading selected parameters.

The Tab Configuration dialog box, which is accessed from the Customize tab, enables addition of other tabs using one of three formats: Input/Output, Watch and Device Parameter (DPV1). Whether a tab is visible and enabled depends on the FDT roles assigned to the user and the access specified for those roles in the Set Permissions dialog box.

#### USING A DEVICE-SPECIFIC DTM

Field Device Manager provides the option of using a DTM supplied by the device manufacturer to configure and maintain the device. Selection of the device-specific DTM is made at the template level, at which point GSD information is extracted from the DTM and bound to the device template.

When the device DTM is associated with the device template, the manufacturer's user interface is made available for the template and derived devices in Vendor DTM tab in Field Device Manager (Figure 11).

You have a choice of configuring the device template and the derived device instances using the device DTM or the Control Editors configurators in other Field Device Manager tabs. Whichever tool is selected, both the vendor DTM and the universal PROFIBUS DTM are available for managing devices as they are brought online.

#### NOTE

Manufacturer-supplied DTMs may vary in their compliance with PROFIBUS and FDT specifications. Please confirm the applicability of vendor-supplied DTMs for your project.

neral Bus Modules Dat	a Definition Field De	evice Mana	iger Vendor DTM		
iSD Based Config					
Show Compa	are			Go Online Go Off	line
- NEC	051				
	031			KROH	IN
	lis./Outpute				
Operation Unit	invouputs [				
TAG			0		
Descriptor	MFC 051		0		
Message	Coriolis mass flow me	ater	0		
Device					
Manufacturer	KROHNE	0	Installation Date		0
Product designation		0	Tag ID	MFC051	0
Device Serial Num		0	Totaliser Reset	Allow Reset 🛛 🔽	0
Software Revision		0	PA Software identnumber	3196390100	0
Hardware Revision	2113100600	0	Parameter protection	None	0
Profile Revision	3.0	0		Write lock ✓ Service parameter lock	
Static Revision No.	0	Īo		Supervisor lock (Supervisor P	
PROFIBUS Ident Number	Manufacturer specifi	= ic (F701 H)	ex) 🔽 0		
Signal Converter					
Back End SW Version	1	0	Front End Serial Number	0 0	
Back End SW Sub Version	12	0	System Serial Number	0 0	
Back End Serial Number	0	0			

Figure 11. The Device Manufacturer's DTM is Opened in the Vendor DTM Tab for Configuring and Maintaining Devices

#### **MASTER BUS SETTINGS**

The Field Device Manager is also used to configure the master bus settings for each port in the host FBM222 (Figure 12). When you select a baud rate for the port from a pull-down list and press the Default button, the editor supplies the appropriate values for various timing parameters such as minimum station response time, which can be edited individually as needed. With a click of the Validate button, you can verify the bus settings of the FBM and all connected PROFIBUS devices on the port using the definitions in the GSD files. The CalculateTTR button on Bus Settings tab allows you to optimize the target token rotation time for each port.

		<b>11</b> \$7 \$1 \$5 \$9 \$6 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	
PROF01			Ci ? E
ware Software Bus Settings FBM M	anager		
Configure P	ort1 🗸	Use Port	
FBM Settings			
Master Station Address	1		
Highest StationAddress	2		
Min Slave Interval	125		
Data Control Time	1500	ms (precision: 10ms)	
EBM222 Bue Parametere		ine (precision zenis)	
1 DH222 Dus Parameters			
Segment Coupler Nono			
Segment Coupler None	~	Lorenze Lorenze et al.	
Segment Coupler None Baud Rate 500 kBaud	♥ Default	Validate CalculateTTR	
Segment Coupler None Baud Rate 500 kBaud Max Retry Limit 1	Default     GA	Validate CalculateTTR	
Segment Coupler None Baud Rate 500 kBaud Max Retry Limit 1	Default	Validate CalculateTTR	
Segment Coupler None Baud Rate S00 kBaud Max Retry Limit 1 Slot Time(TSL)	Default     GA     200	Validate CalculateTTR AP Update Factor (G) = 1 TBit	
Segment Coupler         None           Baud Rate         500 kBaud           Max Retry Limit         1           Slot Time(TSL)         Min Station Delay Response Time(Note)	V Default GA VinTSDR) 11	Validate CalculateTTR PUpdate Factor (G) = 1 TBit TBit TBit	
Segment Coupler         None           Baud Rate         500 kBaud           Max Retry Limit         1           Slot Time(TSL)         Instation Delay Response Time(Nation Delay Re	V Default GA 200 MinTSDR) 11 MaxTSDR) 100	Validate CalculateTTR PUpdate Factor (G) = 1 TBit TBit TBit TBit TBit	
Segment Coupler         None           Baud Rate         500 kBaud           Max Retry Limit         1           Slot Time(TSL)         Min Station Delay Response Time(Nation Delay	V Default GA VIINTSDR) 11 MaxTSDR) 100	Validate CalculateTTR PUpdate Factor (G) = 1 TBit TBit TBit TBit TBit TBit TBit	
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Segment Coupler         None           Baud Rate         500 kBaud           Max Retry Limit         1           Slot Time(TSL)         Min Station Delay Response Time(I)           Max Station Delay Response Time(I)         Setup Time(TSET)           Quiet Time(TQUI)         Target Rotation Time(TTR)	Default     Default     GA     GA     GA     InnTSDR)     I1     MaxTSDR)     100     1     0     100     100	Validate CalculateTTR AP Update Factor (G) = 1 TBit TBit TBit TBit TBit TBit TBit TBit	
Segment Coupler         None           Baud Rate         500 kBaud           Max Retry Limit         1           Slot Time(TSL)         Inin Station Delay Response Time(I)           Max Station Delay Response Time(I)         Setup Time(TSET)           Quiet Time(TSET)         Quiet Time(TTR)           Estimated Scan Time         Image	Default     Default     GA     GA     GA     InTSDR)     10     1	Validate CalculateTTR P Update Factor (G) = 1 TBit TBit TBit TBit TBit TBit TBit TBit	

Figure 12. Setting Master Bus Parameters

#### DEPLOYMENT

The device configurations can be deployed to the Foxboro Evo Process Automation System as part of a control database deployment, which also downloads the host FBM222 configuration and the DCI and control blocks contained in the various control strategies. The FBM222 uses the downloaded configurations to initialize the connected devices and manage cyclic and acyclic data exchange between the devices and the control station. After the initial deployment, the Control Editors provide a more selective deployment in which later changes to the device configurations can be made with minimal interruption to the process.

The Control Editors provide a variety of tools for monitoring the device as it is brought online and initialized from the FBM222 master. The Field Device Manager for the FBM222 includes a communication DTM that provides diagnostics and live lists for each port, while Field Device Manager for the device offers online displays of device data and screens that compare the physical device to the configuration database.

#### **COMMISSIONING WIZARD**

You can also deploy devices using the Foxboro Evo Control Software Commissioning Wizard. The wizard matches a physically connected slave device with a configuration in the Galaxy database (Figure 13, left side) and enables you to take one or more of the following commissioning actions (Figure 13, right side):

- Deploy the device, that is, download the device ECB to the Foxboro Evo Process Automation System
- Download to a device DPV1 device parameters that were configured with a vendor DTM
- Upload from a device DPV1 device parameters to a vendor DTM and the Galaxy database

- Bring the device online to the control system and begin cyclic and acyclic data exchange
- Change the device address.

Commissioni	ng DEV004 :	Select device									
Configured D	evice/GSD Info	rmation									
Address :	Ident No :	Vendor :	Model :	Device Revision :	Software Revision	: Hardware R	evision :				
10	0xd991	INVENSYS	SRD991	V1.3	Commissioning	DEV004 : Ex	ecuting the C	ommissioning Acti	ons		X
					Configured De	evice					
Matching Dev	rices				Address :	Ident No :	Vendor :	Model :	Device Revision :	Software Revision	: Hardware Revision :
Addr k	dent No d991	State Configured	Vendor Foxboro Eckardt	Model SRD991	10	0xd991	INVENSYS	SRD991	V1.3	10.245	3
					Physical Devi	ice					
					Address :	Ident No :	Vendor :	Model :	Order ID :	Software Revision :	Hardware Revision : Serial No :
					10	0xd991	Foxboro Ec	SRD991			
[<]											
					Commissioni	ng Actions					
Initializion					Deploy Dev	rice	Download Vend	or DTM Data	Upload Vendor DTM	Data 🗸	Enable Communications
Done Establishing c	onnection to FR	M222									
Done Populating De	evice List				Order	Action			Result		
Done Retrieving De	vice Details				2	Enable Comm	e iunications				
Done Done											
Establishing of Retrieving De	onnection to FE vice Details	M222									
Done											
					Deploying dev	vice instance. Thi	s action may take	a few minutes. Please v	wait		
Refre	esh	Next	Show All Dev	ices 0	G						
						Back		Finish	Stop		Cancel
					-				<u></u>		

Figure 13. The Commissioning Wizard Provides for Device Deployment, Download and Upload of DPV1 Device Parameters, and Device Initialization

### FIELD DEVICE MANAGER – INSTRUMENT WORKSHOP EDITION

The full Control Room edition of Field Device Manager has all the features previously described. This edition is used on workstations running Foxboro Evo Control Software with Foxboro control processors and FBM222s. In addition, the Control Editors and Field Device Manager (without the universal PROFIBUS DTM) are offered in a bundled Instrument Workshop edition. This off-platform edition uses a third-party interface card and communication DTM to provide DPV1 communication with the devices, and the device manufacturer's DTM to calibrate, pre-commission, and test instrumentation prior to installation and connection to the FBM222.

## LEGACY FBM223 TO FBM222 UPGRADE WITH THE CONTROL EDITORS

When configuring an FBM222 to replace a legacy FBM223 in the Control Editors, the FBM223's database, port configuration files (\*.PMA), slave device configuration files (\*.PSL), and GSD files can be used for the FBM222 as is.

For instructions on performing this upgrade, refer to the "FBM223 to FBM222 Upgrade Procedure" appendix in *Implementing PROFIBUS Networks in Foxboro Evo Control Software Applications* (B0750BE).

#### HARDWARE AND SOFTWARE REQUIREMENTS

#### CONTROL ROOM EDITION REQUIREMENTS

#### Computer

 Follow the hardware requirements for the Foxboro Evo Control Editors as specified in Control Editors (PSS 31S-10B3 B3).

#### System Hardware

- The MESH control network-connected station committed as AW70 or WP70 at I/A Series software v8.7-v8.8 and Foxboro Evo Control Core Services v9.0 or later
- ZCP270 or FCP270 at I/A Series software v8.7v8.8 and Foxboro Evo Control Core Services v9.0 or later with FBM222

#### Media

 Foxboro Evo Field Device Manager for PROFIBUS media kit (K0201HQ) for workstations with I/A Series software v8.7-v8.8 and Foxboro Evo Control Core Services v9.0 or later

Field Device Manager requires an S39 FCS Platform License.

## INSTRUMENT WORKSHOP EDITION REQUIREMENTS

- Laptop, desktop, or server class computer with 2.18 Ghz (or faster) Intel Pentium® 4 processor (or higher), minimum of 16.0 GB free hard disk space, and minimum of 2.0 gigabytes RAM
- DVD/CD drive
- Video Graphic Accelerator Card: 32 MB of memory
- Communications Network: 100 MHz TCP/IP Ethernet
- Compatible third-party interface card for one PROFIBUS port
- Third-party PROFIBUS communication DTM
- PROFIBUS junction devices, power supplies, and fieldbus terminations as necessary to connect the field devices.

#### SIZING GUIDELINES

The Field Device Manager for PROFIBUS along with the FBM222 provide the following capacity limits:

 125 PROFIBUS slave devices assigned to an FBM222 port

Refer to FBM222, Redundant PROFIBUS Communication Interface Module (PSS 31H-2Z22 B4) for additional information on the FBM222.



by Schneider Electric

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