

# I/A Series<sup>®</sup> FoxCom<sup>™</sup> Field Device Integration Checklist

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# Preface

This checklist describes the procedures for connecting and communicating with Foxboro Communications (FoxCom) Intelligent Field Devices from an I/A Series system. In addition to the procedure, an example is also provided for illustration purposes. The screen captures used in this document were created on an AW70, displays on 50 Series stations are similar.

# **Revision Information**

For this release (B0193XX, Rev. B), this document has been modified with the addition of FBM243 and FBM246.

## **Reference Documents**

Knowledge of Windows NT<sup>®</sup> commands is useful for performing procedures and checking the system once integration is complete. Basic knowledge of UNIX<sup>®</sup> commands is needed if using 50 Series systems. See the following reference documents for information on Foxboro software and hardware.

- Integrated Control Configurator (B0193AV)
- Integrated Control Software Concepts (B0193AW)
- Integrated Control Block Descriptions (B0193AX)
- Measurement Integration (B0193RA)
- System Definition: A Step-By-Step Procedure (B0193WQ)
- System Management Displays (B0193JC)
- Intelligent Positioner (B0193VH)
- DIN Rail Mounted FBM Subsystem User's Guide (B0400FA).

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# Field Device Integration Checklist

This document provides a checklist for integrating a FoxCom Intelligent Field Device with an I/A Series System.

The following FBMs are used with FoxCom Intelligent Field Devices and pertain to the following applications:

- FBM18: Intelligent Transmitter Interface Module
- FBM39: Intelligent Transmitter/0 to 20 mA Output Interface Module
- FBM43: Dual Baud Rate Intelligent Transmitter Interface Module
- FBM44: Dual Baud Rate Intelligent Transmitter/0 to 20 mA Output Interface Module
- FBM46: Redundant Dual Baud Rate Interface to Intelligent Transmitters and Redundant Analog Outputs
- FBM243: Dual Baud Rate Intelligent Device Interface Module (DIN for factor)
- FBM246: Redundant Dual Baud Rate Intelligence Device Interface Module (DIN for factor).

To integrate a FoxCom FBM with an I/A Series system you need to be familiar with the procedure for connecting FBMs to the I/A Series system, the I/A Series System Definition application and the I/A Series System Management software. To establish communication between the I/A Series system and a FoxCom Intelligent Field Device you need to be familiar with the procedure for connecting field devices to an I/A Series FBM, the I/A Series Integrated Control Configurator (ICC) and the I/A Series System Management software. Once the FBM and the device data is configured into the system, the FBM is manually attached to the Foxboro Fieldbus, and intelligent devices are wired to the FBM Termination Cable Assemblies (TCAs).

# **FBM Installation Overview**

To install a new FBM and integrate an intelligent field device, refer to this checklist of procedures.

Install a FoxCom FBM and Termination Assembly.
Install a FoxCom Field Device and make the wiring connections to a FoxCom FBM termination assembly.
Create Parent ECB for FoxCom FBM.
Place FoxCom FBM on-line using System Management.
Create Child ECB to establish communication between the FoxCom Field Device and the I/A Series system.
Place the FoxCom Field Device on-line using System Management.
Verify proper operation by calling up the Child ECB Detail Display.

Table 1 shows the relationship between FBM/field device Parent/Child ECBs.

FBM	HW Type	Parent ECBs	SW Type	Child ECBs
FBM18	18	ECB12	12	ECB18
FBM39	39	ECB23	23	ECB18
FBM43	43	ECB12	37	ECB18
	43	ECB73	73	ECB18, ECB74
FBM44	44	ECB23	38	ECB18
FBM46	98	ECB23	49	ECB18
	98	ECB38R	49	ECB18
FBM243	243	ECB73	73	ECB18 or ECB74
FBM246	246	ECB38R	73	ECB18 or ECB74

Table 1	<b>FRM/Field</b>	Device	FCBs
Table I.	FDIWI/FIEIU	Device	ECDS

The intelligent field devices from Foxboro with FoxCom digital output capability are as follows:

Table 2	Intelligent	Field De	vices with	FoxCom	Digital	Output (	Canability
Table 2.	memgent	Field De	VICES WILLI	FUXCOIII	Digital	οαιραι ν	σαμαυπιτή

Туре	Devices
Pressure	140, 820, 860, and I/A Series (IASPT)
Temperature	RTT10, RTT20 and TI20 Series
Magnetic Flow	IMT10, IMT20, IMT25 and IMT25L Series
Vortex	83 Series
Electrochemical	870ITEC, 870ITPH and 870ITCR Series
Buoyancy	140 Series
Positioners	SRD991 Series

Notes:

- The FoxCom version of the Coriolis meter (Model CFT10) does not attach to an intelligent FBM. Please refer to System Management Displays (B0193JC) and Integrated Control Configurator (B0193AV) for details. The Modbus<sup>™</sup> version of the Coriolis meter (Model CFT20) cannot be digitally integrated into an I/A Series system.
- 2. The SRD991 valve positioner with FoxCom digital output can only be attached to an FBM43, FBM243 or FBM246.
- 3. For integration of a Hydrostatic Tank Gauging system, refer to *Measurement Integration* (B0193RA).

## **Pre-Configuring an FBM for Intelligent Transmitters**

The following procedures show how to change work environments and pre-configure an FBM for intelligent transmitters using Windows NT and UNIX systems.

## **Changing Environments**

To access ICC and other configurators, you must first change the environment to either the Process Engineer's Environment, or the Software Engineer's Environment.

1. From the main screen of an I/A Series system (Windows NT version for this example), click the **Change Env** icon on the display bar at the left. The **Change Environment** dialog box appears.



Figure 1. Typical FoxView Initial Display (UNIX and Windows NT)

2. Click on the Environment field, then click Softw\_Eng. If necessary, click the Password field and enter the password. Click OK.



Figure 2. Change Environment

For a UNIX system using Display Manager:

- 1. Click the **Sys** button, located on the upper left-hand toolbar.
- 2. Double click on Change\_Env.



Figure 3. UNIX Change\_Env Display/Typical UNIX Display Manager Screen

3. Select **Softw\_Eng\_Env**. A password is generally not required.



Figure 4. UNIX Softw\_Eng\_Env Display

## Accessing The Integrated Control Configurator

For a Windows NT system, click the **Config** menu item on the top toolbar. From the pull-down menu, select **Control\_Cfg** and then select **CIO\_Config**.



Figure 5. Configurator Menu (Windows NT Version)

When using a UNIX system, click the **Config** button on the top toolbar. Select **Control\_Cfg**, then click on **CIO\_Config**.



Figure 6. UNIX Configurator Menu



Figure 7. UNIX CIO\_Config Menu

# **Integrated Control Configurator**

The following screen is the Integrated Control Configurator (ICC). The screen shows the names of the compounds and blocks already existing in the system.

X FOXBORO: Integrated Control Configurator		
HELP SHOW FBM PRINT	NEW CHECKPOINT MAINT	BUFFER EXIT
Integrated Control Configu		@AWNT01
	COMPOUND SEELCTION	
	COMPOUND NAME SEARCH	
	*	
	BLOCK NAME SEARCH	
	*	
	BLOCK TYPE SEARCH	
	*	
	AWNT01_ECB	
	AWNT01_STA	
	FBM_READ	
	PRESSURE	
	TANK2_COM	
	CHOICE	
	OK Vol CLOSE	

Figure 8. Integrated Control Configurator

Use the ICC to specify Allen-Bradley<sup>TM</sup>, GE<sup>TM</sup>, and Modicon<sup>TM</sup> Controllers, Bristol Babcock RTUs, FBMs, Fieldbus Processors (FBPs), Micro-I/A<sup>TM</sup> Equipment Control Blocks (ECBs), and all other ECBs. Set up the control database by defining compounds and their control blocks.

Access the ICC as follows:

- 1. While in an engineering environment click **Config**. From the **Config** menu, choose **Control\_Cfg**, then select **CIO\_Config**.
- 2. After selecting **CIO\_Config**, the first screen of the ICC, the **Compound Selection** window appears.
- 3. Click the Vol button to open the Select Station Type to Edit window.
- 4. Select Edit Station. The Select a Control Processor to Configure window appears.
- 5. Select the station name.

Proceed from here to configure all ECBPs, FBMs, ECBs, compounds, and blocks.

For systems using FoxView, see Figure 9. For systems using Display manager, see Figure 10.



Figure 9. Using the ICC (FoxView)

![](_page_20_Figure_2.jpeg)

Figure 10. Using the ICC (Display Manager)

## FBM Configuration Example: FBM246

#### - NOTE -

For more detailed descriptions, refer to *Integrated Control Block Descriptions* (B0193AX).

In this example, a pair of FBM246s (redundant) have been inserted into slots 03 and 04 of a DIN I/O baseplate with the letterbug SLOT00. The baseplate is connected to a CP60 named **CP6001**. In order to bring the FoxCom FBM on-line, it is necessary to make changes to the parameters listed below. Accept the defaults for the remaining parameters. The compound name in the example is CP6001\_ECB. The station is CP6001.

1. After you have accessed ICC, to add a new FBM to the existing compound CP6001\_ECB, select **CP6001\_ECB** and click **OK**.

HELP	SHOW	FBM	PRINT	NEW	CHECKPOINT	MAINT	BUF	ER		XIT	
Integr	ated C	Control	Configur	ator	Active		STA =	CP6001	@AW70	10	
Compour	nds:										
CP6001_	_STA										
CP6001_	ECB										
FBM_REA	1D		Comp	ound F	Functions:						
READ_4	31						_				
READ_43	32		Vieu	ı Block	ks/ECBs in th	is Comp	ound				+ S
TANK2_F	RUC		Inse	ert Neu	a Compound						
TANK1_F	RUC		Edit	t Compo	ound Parameter	rs -					
TANK 1_U			Copy	j to Pa	aste Buffer						
	UMP		Copy	jand (	Append to Pas	te Buff	er				
-NU ***	***		Past	re from	M Paste Buffei						
			Save	ето D:	ISKETTE						
			Load		Move						
			Mour		Move						
			Move	: Crow							
			End	Movo							
				nove	mound Daramo	tore					
			Dolo	au coi	iipouriu Paraille	iers					
			Dere								

2. Select View Blocks/ECBs in this Compound.

Figure 11. View Blocks/ECBs

3. The next screen highlights the compound **CP6001\_ECB**. On the left side, a list of all the ECBs associated with that compound is shown. Scroll down the ECB list on the left side to the last item (or click on the underlined down arrows), and the **END ECB**\*\*\* item becomes highlighted.

RO: In	tegrated Co	ontrol Config	urator							_
P (	SHOW	EBM	PRINT	NEW	CHECKPOINT	MATNT	BIJEEER		EXTT	
teora	ted Co	ontrol	Configu	rator	Active		STA = CPc	5001 @AW	7010	
001 F	CB									
05										
106										
07			Blog	k/ECB	Functions:					
108										
200			Vieu	J Comp	ound List					
201			Inse	ert Ne	w Block/ECB-					
3202			Edi	t Stan	dard Block/EC	B Parame	eters			
3203			Edi	F A 1 1	Block/ECB Par	ameters				
B204			Edi	Ladd	er Logic					
205			Edi	t Sequ	ence Logic					
8206			Edi	t Sequ	ential Functi	on Chart	E Contraction			
8207			Rena	ame Blo	ock/ECB					
8208			Sele	ect to	Move					
8300			Move	2						
3400			Move	e Grou						
3401			End	Move						
4100			Uplo	ad Bl	ock/ECB Param	eters				
4200			Dele	ete						
1300										
400										
D ECB*	**									
<b>**</b> 44	22									

Figure 12. ECB Identification

4. Click on Insert New Block/ECB.

#### - NOTE -

The ECB number and software number for a particular FBM must be known to add an FBM to the system. Refer to Table 1.

5. Type in **SLOT03** for the **Name** and press **Enter**. Each time information is typed and the **Enter** key pressed, another parameter appears. The **Name** parameter contains the name used by the CP60 accessing ECB.

#### - NOTE -

If invalid information is entered, a pop-up box appears notifying the operator. Click Continue and fix the problem.

- 6. In the **Type** box, type in **ECB38R** and press **Enter**.
- 7. For Dev\_id, type in SLOT03 and press Enter.
- 8. For Description, type in Intelligent FBM and press Enter.
- 9. Click on **Done**. Notice that the new ECB name, **SLOT03**, has been added to the bottom of the ECB list at the left.
- **10.** Place the FoxCom FBMs on-line.

At the I/A Series system:

- a. Access the I/A Series System Management displays. (For detailed information, refer to *System Management Displays* (B0193JC) and/or the associated System Management On-line Help).
- **b.** Select the FoxCom ECB, **SLOT03** in this case, on the System Management displays, and click on the **Equipment Change** button.
- c. On the Equipment Change window for the FoxCom FBMs, select GO ON-LINE.

## **Connecting FBM to Field Device**

For this example a FoxCom IDP10 Differential Pressure transmitter device has been physically installed and connected to an FBM246 and the transmitter now must be identified and added to the newly created FBM. For more detailed information, refer to *Integrated Control Block Descriptions* (B0193AX).

- 1. Scroll down the list on the left to the newly created ECB, (SLOT03). Highlight SLOT03 and click Insert New Block/ECB.
- 2. Type the Tag # for the instrument in the Name block, for example DP1001, and press Enter.
- 3. Type type ECB18 and press Enter.
- 4. Dev\_id type **DevNam**, the default value installed in the database of all Foxboro devices.

Device Identifier (**Dev\_Id**) is a text identifier used by system management (displays and messages). The value used in the **Name** parameter is commonly used for the **Dev\_Id** parameter.

Device Name (**DevNam**) is a nonconnectable, nonsettable 6-character soft letterbug identifier for the transmitter. The channel letterbug ID defined during System Configuration/Definition must match the DevNam in the Intelligent Field Device Configuration. The Hand-Held Terminal can display and/or reconfigure this transmitter parameter.

5. Descrp - type a description of the device to be attached to this block, such as Int Diff Pres X-Mitter, and press Enter.

Description (**Descrp**) is a user-defined string of up to 32 characters that describe the block's function (for example, "PLT 3 FURNACE 2 HEATER CONTROL").

6. Parent - type the name used in the FBM246 ECB38R configuration, namely **SLOT03**, and press **Enter**.

A Parent ECB is a nonconnectable, nonsettable string. Parameter is the full pathname of the Parent ECB that supports the FBM hosting this device.

#### - NOTE

The abbreviated format of the ECB name without the compound name can be used if the parent ECB resides in the Station\_ECB compound.

7. Chan - type channel 1 to 8, depending upon which FBM channel is being used to connect to the device, and press **Enter**.

Channel (**Chan**) is a short, nonconnectable, nonsettable input that represents the number of the parent FBM channel (1 of 8) assigned to the transmitter being supported by ECB. CHAN appears in a darker color indicating that this parameter was determined by the FBM Fix operation and cannot be edited using the FBM Configure function.

- 8. Enable communication between the FoxCom FBM and FoxCom device by accessing the I/A Series System Management displays and proceeding as follows:
  - a. Select the FoxCom FBM module on the System Management displays.
  - **b.** Select a FoxCom field device associated with the FBM **DP1001**, for this example, and click on the **Equipment Change** button.
  - c. On the Equipment Change window for the FoxCom field device, select ENABLE COMMUNICATIONS.
  - **d.** Repeat for each additional FoxCom field device. See "System Management" on page 16 for more information on monitoring the health and performance of all components of the configured system.

# System Management

Once the above procedures are complete, use System Management displays to check if the devices have been successfully added and to put devices on line. System Management allows you to monitor the health and performance of all components of the configured system, including intelligent devices and FBMs, and intervene in network operations. System Management displays are accessed from the main screen of an I/A Series system, whether FoxView<sup>TM</sup> or Display Manager is used.

For systems using FoxView, access System Management by clicking the **System** button on the Alarm bar. From this display you can select a monitor and navigate through the Domain display(s).

![](_page_25_Picture_5.jpeg)

Figure 13. Accessing System Management (FoxView)

For systems using Display Manager, access System Management by clicking on the **Sys** button. On the menu, scroll down to **Sys\_Mgmt** and double click.

![](_page_26_Picture_2.jpeg)

Figure 14. Accessing System Management (Display Manager)

Depending on the size of your configuration, one of the following initial system health displays appears when you access System Management.

<u>v</u>		System Management Di	splay Handler						
HELP CLO	SE HOME	DOMAIN CLR MSG	ACK CBL	ACK ALL SAL					
	SYST	EM MONITOR DOMAIN	- SMN1X1-X11AB1						
X11AB1	X11IS3	X2AW5B			Sn	naller siz	ed syster	ms	
X11AB3	X11MG3	X11WP3							
X11CP1	X11SI1	X12AB1							
X11CM1	X12SI1								
X11CP3	X13SI1								
NETWO	RK TIME	PERF CONFIG	OFFLINE INH DI	SP 🔻 🔺 1					
				X System Management Disp	lay Handler				
	Mo	dium cizod c	vetome	HELP CLOS	E HOME	DOMAIN CI	LR MSG ACK C	CBL ACK AL	L SAL
	INIEC	uum sizeu s	lystems —		5151	EM MUNITUR DI	JMAINS - SYMUT -	ETSUII	
				SYSM01		SMN002			
				EYS011*		PCAT01			
				GC2E01		CPEE03			
				UCE001	GC3E04				
				C0M002	UCE023				
								1	10
					K TIME	PERF CO	NFIG OFFLINE	INH DISP	1
X System Management Dis	splay Handler				×				
		SYSTEM MONI	TORS	SHL					
					La	rger size	ed system	IS	
SMNUUI *									
smn002									
	WORK TI	ME INH DISP							

Figure 15. System Monitor and System Monitor Domain Displays (Typical)

Access to all system health displays is granted through these initial health displays. Selecting an entry (System Monitor name) from the System Monitors Display list brings up the System Monitor Domain Display. However, if the system has only one System Monitor, the System Monitor Domain Display is the initial display. This display lists all of the stations configured for that single System Monitor.

## **Viewing Configuration Information**

The Configuration Information Display contains system domain and network configuration information for selected stations. You can use the information shown in this display when verifying conditions from system health displays, before you perform any actions, and when diagnosing system problems.

To access the Configuration Information Display from system health displays:

- 1. From either the System Monitor Domains Display or System Monitor Domain Display, select the station and click **CONFIG**. The station display appears with that station preselected.
- 2. Click **CONFIG INFO**. The configuration information for the selected station appears.

![](_page_28_Figure_7.jpeg)

Figure 16. Accessing Configuration Information (Typical)

![](_page_29_Figure_2.jpeg)

Figure 17. Configuration Information Display

To view configuration information for a specific device, click on the graphical representation of that device on the screen. Information regarding that device appears on the bottom half of the screen.

Use the Return soft key (double triangle icon) to return to the previous screen.

## **Viewing Equipment Information**

The Equipment Information Display contains information for selected stations or peripherals, including configuration information, current health status, equipment change action status information, and hardware and software information.

To access the Equipment Information Display from system health displays:

- 1. From an initial system health display, select the letterbug, or name, of the station for which you desire information.
- 2. Click **CONFIG**. The Station Display appears.
- **3.** From the Station Display, select the graphical representation of the station or any peripheral for which you want information.
- 4. Click **EQUIP INFO**. The Equipment Information Display appears.

The information box located on the lower half of the screen gives the operator information regarding the device selected, or using this document's example: the newly configured FBM. If an error occurred while installing or configuring the FBM, that information appears. Use the **Continue** key (upside down triangle icon) to move forward to the next screen if necessary.

7	System Manane	ment Display Handler	
03-22-94 15:34:12	2 C54D93 🛊 : Ecuipment	t Unknown to statio	n
E HELP 🗮 CLOBE 🚍	HOME 🗮 DOMAIN 🗮 CLA	R HSG 🗮 ACK CBL 🗮	ACK
EQJIPME	ENT INFORMATION - SMN10	05 *-C54CP3 *-IT323	9 *-IT390 <sup>.</sup> *
		10.00	
	113	\$2374	
	FBN	1 39	
	IT3904 IT3903	IT3902 IT3901*	
	XNTR XNTR	XMTR XNTR	
NAUE	****		
NAME Run Horr	: 113901 : Co. 1400	ITEL CIATE	: INTELLIGENT DEV
EATL ACK STATE	: Un Line : Not Coknowlodged	CONDOLUD NAME	: UN SCAN
DIACNOSTIC EPPOR	·	BLCCK NAME	- TT3901
ERN CHAN STATUS	· · · · · · · · · · · · · · · · · · ·	TAC NUMBER	- TAC NUMBER
XMIR STATUS NO. 1	1 : 0020 0000	ETELD DEVICE NO.	: 51
XMTR STATUS NO.2	2 : 0930 9909	FIELD DEVICE NAME	: VORTEX IT
	CONTINUE	I NEXT PAGE	
-			_
EQUIP CHG	EQUIP INFO		

Figure 18. Equipment Information Display for an Intelligent Transmitter

## **Viewing Intelligent Field Device Information**

The Intelligent Field Devices Display provides information for specific devices configured into the system.

To access the Intelligent Field Device Display from system health display:

1. From the Station Display, click **NEXT LEVEL**.

2. In the displayed Intelligent Devices Display, select the intelligent field device and click **EQUIP INFO**. The Equipment Information Display appears with information specific to the device selected.

![](_page_31_Figure_3.jpeg)

Figure 19. Intelligent Devices Display

The Intelligent Devices Display lists the color-coded letterbugs of each intelligent device attached to an FBM18, FBM39, FBM43, FBM44 or FBM46.

Equipment Information Displays for each intelligent field device attached to the FBM can be accessed by highlighting a specific device and clicking the **EQUIP INFO** button.

## **Identifying Alarms**

If a configuration, installation, or equipment error occurred, a list of failures can be viewed from either the System Monitor Domains Display, System Monitors Domain Display or System Monitors Display.

To acknowledge all faulted devices collectively, click **ACK ALL**.

The station monitor names and station letterbugs return to their normal states. The system generates a low-priority event message for each device acknowledged.

Level	Related System Event Messages	
Priority One	Equipment failure	
	Error protocol	
	Unexpected fault-tolerant state change for fault-tolerant module	
Priority Two	Device forced off-line	
	Equipment being monitored or is operational	
	Load is complete	
	Standard error messages	
Priority Three	Cable fault (cable, transmitter, receiver or PIO access fault)	

Table	3	Event	Message	Priorities
lable	υ.	Lvent	messaye	FIIOIIties

If an event message does not appear, the FBM and intelligent device were configured and installed properly. However, if an event message did appear, refer to *System Management Displays* (B0193JC) for further information and procedures.

## Putting FBMs On Line - Equipment Change Display

You can use the Equipment Change Display to perform equipment status operations on selected stations or peripheral devices. Only workstations designated (during System Monitor configuration) to perform secured actions on selected devices can access the Equipment Change Display.

The Equipment Change Display for the Primary FBM indicates the operator-initiated selection for the PIO bus (Fieldbus). The list of change actions available from the Equipment Change Display differ between stations and peripherals. For example, you can turn selected peripherals off before performing EEPROM updates or before performing maintenance on those peripherals.

## -AUTION -

Only designated personnel, aware of the effects of making equipment changes, should initiate equipment changes.

### - NOTE -

You can access the Calibrate Actions Display only for intelligent devices, or for Hydrostatic Tank Gauge Interface Units (HIUs).

System Management Display Handler			
HELP CLOSE HOME	DOMAIN 📃 CLR MSG 📃 ACK C	CBL	
EQUIPME	NT CHANGE - SMN1C5 *-C51CF	93-UCM138	
GO ON-LINE	PERIODIC PIO BUS SWITCH	ENABLE DEVICE ALARMING	
GO OFF-LINE	BUS A: ENABLE SWITCHING	INHIBIT DEVICE ALARMING	
GENERAL DOWNLOAD	BUS B: ENABLE SWITCHING	RESET ATTENTION BIT	
DOWNLOAD	BUS A: DISABL SWITCHING		
EEPROM UPDATE	BUS B: DISABL SWITCHING		
EQUIP CHG EQUIP	INFO CALIB	<b>_</b>	

Figure 20. Typical Equipment Change Display for Peripherals

Equipment Change actions for all peripherals include:

- GO ON-LINE or GO OFF-LINE actions
- **GENERAL DOWNLOAD** action
- DOWNLOAD action
- **EEPROM UPDATE** action
- PERIODIC PIO BUS SWITCH, BUS A: ENABLE SWITCHING, BUS B: ENABLE SWITCHING, BUS A: DISABLE SWITCHING, BUS B: DISABLE SWITCHING actions
- INHIBIT DEVICE ALARMING or ENABLE DEVICE ALARMING actions
- RESET ATTENTION BIT action
- Switch roles for redundant equipment.

Peripherals respond differently to the on-line and off-line actions, as follows:

- It is recommended that you place an FBM\_0 off-line for diagnostic purposes only. Placing an FBM\_0 off-line stops all communication to the Fieldbus. The system sends multiple messages to the printer indicating PIO Bus cable failures. An IIT reacts the same as an FBM\_0 in terms of stopping communication to the Fieldbus when offline.
- If you place an FBM on-line from a cold start, the FBM fail-safe condition for the FBM outputs is zero (outputs are de-energized). If you place an FBM on-line while it is running under control, the FBM fail-safe condition is dictated by the ECB

configuration. If the fail-safe timer is enabled, the outputs go to fail-safe as configured; if the fail-safe timer is not enabled, the outputs hold.

• If you remove FBMs from a rack, or power them off, ensure that you place those FBMs off-line to prevent them from being scanned.

If you place an intelligent field device on-line, the FBM uploads the intelligent field device database.

# Viewing FBMs and ECBs From the FoxSelect Screen

FoxSelect<sup>TM</sup> (the Compound and Block Overview Display) provides a representation of control databases. FoxSelect takes the place of the Select Screen in the UNIX Display Manager.

From this screen, you can check the compounds and blocks for the FBMs and associated intelligent devices that you just added.

#### - NOTE -

When you exit and restart FoxSelect, previously connected stations are not reconnected. Perform a Refresh to view the connected stations.

The FoxSelect window provides two views:

- A scrollable tree-like structure, indicating hierarchy among stations, compounds, and blocks
- A scrollable and sortable list of all blocks connected to FoxSelect.

Use FoxSelect to:

- Turn on and off compounds and their associated blocks
- Expand a list of the network's stations and compounds, revealing the hierarchical structure of the control database
- View a list of blocks connected to FoxSelect, and sort the list by different criteria
- View detail displays (Block Detail Display, Compound Detail Display, or Station Block Detail Display).

The I/A Series database is organized hierarchically by station, compound, and block. You view the database's hierarchical structure by placing FoxSelect in Network view.

When the FoxSelect window first opens, only the stations appear. Each station icon indicates its connection status.

Station Icon	Connection Status
Ē	Not yet connected
	Connected
<b>Ö</b>	Failed connection

Table	4.	Station	Icons
		••••••	

Data is retrieved from a station the first time it is expanded. The expanded station reveals its compounds.

Each compound displays its:

- Status (On or Off), indicated inside the compound icon
- Name
- Alarm highest priority number (if an alarm exists).

![](_page_35_Picture_7.jpeg)

Figure 21. An Expanded Station

The expanded compound shows the blocks within the compound. For each block in an expanded compound, you can view its:

- Block status, indicated inside the block icon
- Block name
- Alarm highest priority number (if an alarm exists)
- Block type.

![](_page_36_Figure_2.jpeg)

Figure 22. An Expanded Compound

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