Foxboro®

by Schneider Electric

Foxboro Evo™
Process Automation System

Control Core Services V9.x System Error Messages

B0700AF

Rev F
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Preface

This document provides the error codes and/or text you may encounter during Foxboro Evo™ Control Core Services (hereinafter referred to as Control Core Services) system operation and provides corrective actions where necessary.

Revision Information

For this revision of the document (B0700AF-F), the following changes were made:

Chapter 2 "Standard Coded Printed Messages"

- Updated "ROM Diagnostic Handler Subsystem (RDHSS) Fault Isolation Diagnostics Printed Messages" on page 85, "Fault Tolerant Executive Subsystem (FTXSS) Printed Messages" on page 88, and "Fault Tolerant Executive Control Processor Subsystem (FTXFCPSS) Printed Messages" on page 90.
- Removed "Address Translation Station (ATS) Printed Messages".

Reference Documents

The following reference documents provide additional and related information:

- *High Level Batch Language (HLBL) User's Guide* (B0400DF)
- *FoxSPC.com Statistical Process Control.com User's Guide* (B0193VT)
- *System Manager* (B0750AP)
- *I/A Series® Configuration Component (IACC) User's Guide* (B0700FE)
- *System Management Displays* (B0193JC)
- *Object Manager Calls* (B0193BC)
- *Data Validator* (B0193BQ)
- *Inter-Process Communications Calls* (B0193BB)
- *I/A Series Batch Suite Toolkit Reference Guide* (B0193YT)
- *I/A Series Batch Suite UNIX User's Guide* (B0193YS)
- *I/A Series Batch Suite User's Guide* (B0193YB)

Most of these documents are available on the Foxboro Evo Electronic Documentation media (K0174MA). The latest revisions of each document are also available through our Invensys Global Customer Support at *https://support.ips.invensys.com.*

Undocumented Error Messages

If you encounter an error message that is not described in this document, refer to the documents listed in "References to Additional Documented Error Messages" below to see if the message is described in another more specific document.

If you still cannot find documentation on the message, please report the message to Invensys Global Customer Support:

Global Customer Support Center B52-AA
Invensys Systems, Inc.
33 Commercial Street
Foxboro, MA 02035

Telephone (within the US): 1-866-746-6477
Telephone (outside the US): 508-549-2424
Fax: 1-508-549-4999

References to Additional Documented Error Messages

Error messages that are specific to a particular subsystem or software package may be described in their respective user documentation. Refer to the following documents for specific error message information:

- For Batch, Sequence, and Control and I/O Error messages, refer to *High Level Batch Language (HLBL) User's Guide* (B0400DF).
- For control software error messages, refer to:
  - *Integrated Control Configurator User's Guide* (B0193AV)
  - *Integrated Control Block Descriptions* (B0193AX)
  - *Control Processor 270 (CP270) and Field Control Processor 280 (CP280) Integrated Control Software Concepts* (B0700AG)
  - *Integrated Control Configurator Application Programming Interface* (B0193NE)
- For System Management error messages, refer to *System Management Displays* (B0193JC).
- For Object Manager error messages, refer to *Object Manager Calls* (B0193BC).
- For IPC error messages, refer to *Inter-Process Communications Calls* (B0193BB).
- For error messages relating to the time synchronization subsystem, refer to *Time Synchronization Subsystem* (B0700AQ).
- For System Definition error messages, refer to *System Definition: A Step-by-Step Procedure* (B0193WQ) and *System Definition Release Notes* (B0193XW).
- For Batch error messages, refer to:
  - *Batch Suite Toolkit Reference Guide* (B0193YT)
  - *Batch Suite UNIX User's Guide* (B0193YS)
  - *Batch Suite User's Guide* (B0193YB).
- For FoxSPC.com error messages, refer to *FoxSPC.com Statistical Process Control.com User's Guide* (B0193VT).
- For FBM228 system/error messages, refer to *Implementing FOUNDATION™ fieldbus on the I/A Series® System* (B0700BA).
- For HART and FoxCom FBMs, system/error messages, refer to *HART Communication Interface Modules User's Guide* (B0400FF)

- For FOUNDATION fieldbus FBMs error messages, refer to *Implementing FOUNDATION fieldbus in Foxboro Evo Core Services Applications* (B0750DA)
- For PROFIBUS FBMs error messages, refer to *PROFIBUS-DP Communication Interface Module (FBM223) User's Guide* (B0400FE)
- For DeviceNet FBM error messages, refer to *Implementing a DeviceNet Network on the Foxboro Evo Automated Process Control System* (B0750CH)

Most of these documents are available on the Foxboro Evo Electronic Documentation media (K0174MA). The latest revisions of each document are also available through our Invensys Global Customer Support at *https://support.ips.invensys.com.*

1. Workstation Screen Displayed Messages

This chapter describes those messages that appear on a Foxboro Evo Control Core Services workstation.

Workstation screen displayed messages are those viewed on a display monitor via the "message line" at the top of the screen. Messages may be generated as a general response to an operator's request, or may contain an "error" response reflecting status change, completion messages, operators results, or other problems associated with the software, system station, or communication path. Each software package (for example, System Management Display Handler or Integrated Control Configurator) is listed as a separate category in this chapter. Each section contains the various message types, probable causes that the message was generated, and corrective action to address the problem.

Software Installation Messages

Table 1-1 shows the error messages that may appear during software installation.

Table 1-1. Software Installation Messages

Message	Explanation
There are no packages found in the committed configuration install files which are configured to be installed. Please verify that the correct committed configuration install files have been used. This install must exit.	All packages for this station are set to a software install status of DONE. As such, nothing is scheduled to be installed. The commit media should be verified to ensure the correct media is in use.
Configuration File Mismatch: The package, PKGNAM, for station, STANAM, has not yet been installed on this station. The configuration files do not match this status. Would you like to install this package (Day0)? This will not modify the contents of your commit files media.	While performing a Day 0 installation (first time install), the package, PKGNAM, was found in the commit media with an installation status indicating that the package is already installed. Select Yes to ensure that this package is installed on the workstation, STANAM. The commit media should also be verified to ensure the correct media is in use.
Configuration File Mismatch: The package, PKGNAM, for station, STANAM, has already been installed on this station. Would you like to re-install this package (Day0)? This will not modify the contents of your commit files media.	While performing a Day 1 installation (re-commit), the package, PKGNAM, was found in the commit media with the package install status of NOTYET even though the package is already installed. Selecting Yes will re-install the package.
I/A Series drivers and services have been detected. In order to Install I/A Series software, these drivers and services need to be disabled and the station restarted. Would you like to disable the I/A Series drivers and services now?	Control Core Services (formerly I/A Series) must be turned off and the workstation must be rebooted in order for the installation to continue. Selecting Yes will result in the services being turned off. The workstation must then be rebooted and the installation must be re-started manually.
This station was not found on the commit diskette. Please load the appropriate commit diskette to continue.	The computer name of this workstation is not found in the committed configuration install files as a Control Core Services station of type WSTA70 or WSVR70. Verify the correct station name is assigned in System Definition and the local computer name has been set correctly.

Table 1-1. Software Installation Messages (Continued)

Message	Explanation
There is a mismatch between the configuration and the hardware. Server class hardware requires the WSVR70 station type to be configured. All other hardware requires the WSTA70 station type.	The workstation type (server or client) does not match the package type in the committed configuration install files. Server hardware requires a station type of WSVR70. Client hardware requires a station type of WSTA70. Verify the correct station type has been assigned in System Definition.
There is a mismatch between the bound IP address and the IP address in the committed configuration install files. A Day 0 installation is required to change the IP address of an I/A Series workstation.	When performing a Day 1 installation, it is not possible to change the IP address of a workstation. This message indicates that the IP address in the committed configuration files does not match the IP address which has previously been set during a Day 0 installation. Verify the correct IP address is assigned in System Definition.
The local UTC date and time do not match the UTC date and time on the Primary Domain Controller.	When performing a security enhanced installation, the local time must match the time on the PDC workstation prior to joining the domain. This message will also include the local and PDC times to aid in correcting the issue.
Unable to determine the local time on the Primary Domain Controller (PDC). The Time Zone, DST Setting, Date, and Time must match the PDC settings to within four minutes. Confirm that these match and click OK when ready to continue.	When performing a security enhanced installation, the local time must match the time on the PDC workstation prior to joining the domain. This message is often displayed when joining an off-MESH domain as it is not possible for the installer to determine the remote time on the off-MESH PDC. The time should be carefully checked prior to joining the domain. It is important to take into account DST, current date, and time zone settings when verifying the correct time is set.

System Management Screen Displayed Messages

The System Management screen displayed messages comprise those messages associated with On-Line Diagnostic Nodebus fault isolation, and those associated with the overall System Management Display Handler (SMDH) software.

The Network Fault Detection (NFD) type messages include completion messages of the Nodebus and Tokenbus cable test. These are displayed to the screen, printer, and historian. The CLAN test and CABLE TEST printed messages may be viewed in “Standard Coded Printed Messages” on page 25.

There are additional SMDH messages other than those displayed with cable testing (On-Line diagnostics). These Display Handler (SMDH) messages are displayed in response to operator actions, station limitations, and communication malfunctions.

Network Fault Detection Messages

The NFD screen displayed messages are those associated with Nodebus and Carrierband LAN (LAN Interface) cable tests. The cable test isolates faults contained within the cable structure connecting stations on the Nodebus and their communication path to the Cable Test Initiator. The test also isolates faults associated with a station’s transmitter/receiver.

NFD screen displayed messages are identical to the System Management coded printed messages. Refer to “Nodebus Cable Test Printed Messages” on page 26 and “System Management Operator (SM_MSG) Printed Messages” on page 35 for a complete listing.

Refer to the “Maintenance” section of *The MESH Control Network Architecture Guide* (B0700AZ) or the “Fault Analysis” section of *System Maintenance* (B0193AD) for details concerning station

communications and cable test message reporting. It would be very helpful to understand the function of On-Line Diagnostic testing before reading the message structure.

Refer to *System Management Displays* (B0193JC) for instructions on accessing On-Line Diagnostics display.

Table 1-2. Network Fault Detection Messages

Message	Description	Action
`Configuration Integrity In Question`	SMDH cannot communicate or does not know who is the current Nodebus Initiator.	Check for File Server Utility operation; close and reopen SMDH.

Station Manager (Part of SMDH) Screen Displayed Messages

— NOTE

Station Manager is part of the System Management Display Handler (SMDH) subsystem.

There are an additional SMDH messages other than those displayed with cable Network Fault Detection testing (On-Line diagnostics). These types of messages are displayed in response to operator actions, station limitations, and communication malfunctions. The messages appear on a "message line" at the top of the SMDH display while using the System Management software.

This subsection lists each SMDH message displayed, the symptom or cause for that message, and the corrective action, if any, that you can take.

Refer to *System Management Displays* (B0193JC) for instructions on accessing On-Line Diagnostics display.

Table 1-3. Station Manager Display Handler (SMDH) Messages

Code	Mnemonic	Message	Description	Action
-1	SM_NO_ACCESS	`System monitor(s) have no access`		
-2	SM_SYSMON_NOT_RESPOND	`System monitor(s) not responding`	Inability to communicate with a System Monitor.	Check path to the workstation hosting the System Monitor and the load on the workstation. Call Invensys field service personnel.
-3	SM_MT_NOT_RESPOND	`Master timekeeper(s) not responding`	SMDH is unable to initiate communications with a master timekeeper. Operator cannot set the Date and Time.	Check for an on-line Control Core Services workstation. A Control Core Services workstation must be present and on-line to run a master timekeeper.

Table 1-3. Station Manager Display Handler (SMDH) Messages (Continued)

Code	Mnemonic	Message	Description	Action
-4	SM_CHKPT_SUCCESS	Checkpoint success	Indicates the success of the checkpoint equipment change action for a specific type of station (control processor, selected gateways, display station processor).	This is an informational message.
-5	SM_CHKPT_FAIL	Checkpoint failure: *<Station Letterbug>*	Indicates the failure of the checkpoint equipment change action for a specific type of station (control processor, selected gateways, display station processor).	If checkpoint failed, retry checkpoint action. If problem continues, contact Invensys. Check printer for appropriate error code. Check subsystems as applicable.
-6	SM_DSP_EQUIP_DEL	Deleted equipment requires returning to previous screen	The device (station, peripheral, etc.) that the operator is viewing has been deleted. The information the SMDH has concerning that device may no longer be correct. Returning to a previous screen forces SMDH to re-request the desired information to ensure that the information displayed is accurate.	Observe new set of peripherals.
-7	SM_FATAL_NTWK_ERR	Unable to initiate network communications - Sys_Mgmt terminating		
-8	SM_NO_MEMORY	Unable to acquire needed memory - Sys_Mgmt terminating	SMDH was unable to allocate sufficient memory space to operate.	This indicates a problem with the station running SMDH only. Close and reenter SMDH. If the problem continues, contact Invensys service personnel.
-9	SM_PUT_OFLD	About to put station off line-Do you wish to continue?	The station will be put off-line.	This is an informational message. Respond as appropriate.
-10	SM_DS_COMM_F	Diagnostic supervisor : Communication failure		
-11	SM_FAIL_PASS	Diagnostic supervisor : Restart attempt passed		
-12	SM_FAIL_FAIL	Diagnostic supervisor : Fail attempt failed		

Table 1-3. Station Manager Display Handler (SMDH) Messages (Continued)

Code	Mnemonic	Message	Description	Action
-13	SM_RSTR_FAIL	Diagnostic supervisor : Restart attempt failed		
-14	SM_LOAD_HELP	No Message		
-15	SM_SCREEN_OVERFLOW	Station added on_line - Reconfigure display?		
-16	SM_RSTR_PASS	Diagnostic supervisor : Restart attempt passed		
-17	SM_NO_ECBS	No devices exist for this equipment	The operator has initiated a request to view the peripheral devices for a particular station, but none were declared for that station.	Check database for configuration information concerning peripherals associated with the station, if any. Check if checkpoint file exists in usr/fox/sp/user. Make sure you checkpoint the CP after a reboot.
-18	SM_CANT_ACCESS_SPF	Unable to access configuration database	SMDH was unable to access system configuration database or the Software Processing Facility (SPF) resources.	Verify existence of SPF configuration files, and verify that the SMDH/SPF interface process “smdh_spf” is actively running on the host workstation.
-19	SM_STATION_BUSY	Station already busy - do you wish to override?		Respond as appropriate.
-20	SM_MISSING_STATION_INFO	Missing station information - do you wish to continue?		
-21	SM_NETWORK_ERROR	Network error - unable to perform operation at this time	SMDH is unable to communicate with the network using Inter-process Communication (IPC).	Verify network configuration health and revision levels.
-22	SM_DS_TEST_PASS	Test passed		
-23	SM_DS_TEST_FAIL	Test failed		
-24	SM_FATAL_HI_ERR	Console interface error - Sys_Mgmt terminating		
-25	SM_TEXT_FILES_MISSING	Text files missing - Do you wish to continue?		
-26	SM_NO_HISTORIAN_AVAIL	No historian available for this system monitor		
-27	SM_NO_SMS_CFG_OR_RSP	No System Monitors configured or responding	The System Monitor data file (smonlst.cfg) is not available AND no System Monitors responded to SMDH’s request for information.	Verify existence of /usr/fox/sysmgm/ smonlst.cfg,” verify network communication, verify existence of active System Monitor(s).

Table 1-3. Station Manager Display Handler (SMDH) Messages (Continued)

Code	Mnemonic	Message	Description	Action
-28	SM_CANT_INIT_ACTION	Unable to initiate action	General error indicating SMDH could not communicate with a remote subsystem (for example, System Monitor, Station Manager, or Software Processing Facility).	Verify communications between SMDH and the remote subsystem. If communications are positive, try action again.
-29	SM_ACTION_NOT_ALLOWED	Action not allowed	Operator attempted to perform an invalid action. Actions can be invalid because of network operation, station status, or because the action is not available to that workstation.	Verify that the action can and should be requested for this station type. Check the system health, then try the action again. Check the station health, network health, and so forth, then try again.
-30	SM_NO_COUNTERS_AVAIL	No counters available	SMDH counter data file is not available, or there are no counters for this layer. See *System Management Displays* (B0193JC) and *System Maintenance* (B0193AD).	Verify the existence of the path and data file "/usr/fox/sysmgm/counters.dat".
-31	SM_ILL_STA_TYPE_OFLD	Illegal station type in ofldgn.dat		
-32	SM_NO_OFLDIAG_THIS_STA	No Off-line diagnostics for this station	SMDH cannot recognize the type of station, or SMDH's Off-Line test data file (ofldgn.dat) is not available.	Verify station type, verify existence of "/usr/fox/sysmgm/smdh/ofldgn.dat."
-33	SM_CANT_EXE_DIAGS	Unable to execute diagnostics		
-34	SM_NO_HELP_AVAIL	No Help available at this time	Embedded on-line help process is not running, or SMDH help file (/usr/edoc/mdh1.hlp) is not available. Unable to access file system.	Verify existence of /usr/edoc/mdh1.hlp file. No help is supported for the WP10s. Contact Invensys personnel to insure "embedded" is active on the WP.
-35	SM_NO_HELP_REQ	No Help required for this screen		
-36	SM_NALL_FAIL	Action not allowed on a failed station		
-37	SM_HIST_ACCESS_ERR	Unable to access historian database		
-38	SM_NO_HIST_UP	Historian not active or not responding		
-39	SM_LOST_SMGM	Lost communications to System Monitor		

Table 1-3. Station Manager Display Handler (SMDH) Messages (Continued)

Code	Mnemonic	Message	Description	Action
-40	SM_LICFG_ACCESS_ERR	Unable to access LI configuration file		
-41	SM_SLICFG_ACCESS_ERR	Unable to access SLI configuration file		
-42	SM_REBOOT_STATION	Rebooting Station - Do you want to continue?		
-43	SM_RESET_FBM	About to Reset FBM - Do you want to continue?		
-44	SM_SWCFG_ACCESS_ERRO R	No Configuration Switch File		
-45	SM_ALARM_SEL	Enable/Disable Alarming		
		<Peripheral Equipment Change Action> Succeeded or Failed: *<Letterbug>*	Indicates the success or failure of the following peripheral equipment change actions: Upload Database, Download Database, Download, EEPROM Update.	Retry action if failed.
		Cannot unlock station letterbug available	Unable to unlock station records. This prohibits reboots, and so forth.	Determine whether another utility such as a configuration or another SMDH is running and has locked the station.
		No message available	Cannot access message files.	Check communication path to the workstation's file system. Check /usr/fox/error_msg. Usually the workstation is disconnected.
	HICATGETS	Receive error–Sleeping		
	CAN'T_TALK_TO_SMDH_S PF_STR			
	CAN'T_COM_W_TB_INIT			
	CAN'T_COM_W_NB_INIT			

Control Configurator Screen Displayed Messages

The Integrated Control Configurator screen displayed messages comprise error messages generated while performing the following software functions:

1. Checkpoint execution.
2. Installation of blocks and compounds from the Control Processor database.
3. Compiling a block source file.

The error messages associated with these software functions are screen displayed messages (in a dialog box) viewed by an operator using a human interface device (for example, a Control Core Services workstation). The following subsections address the above software functions and list the error messages and/or associated codes.

Control Processor Checkpoint Error Messages

The control configurators provides checkpoint error messages upon a failure associated with checkpointing a station database. They present these messages as follows:

- The I/A Series Configuration Component (IACC) displays these error messages (with Type, Class and Code) in its Output window.
- The Foxboro Evo Control Editors display these error messages in its Output View window.
- The Integrated Control Configurator (ICC) displays an error line via a dialog box on the display screen. This line lists the type of message (for example, an action or an event description), the message class (for example, an internal, IPC, or System Manager message), and the software message code (for example, -001, -024, or 10).

  Table 1-4 lists the various types, classes and code numbers or references associated with checkpoint failure messages. The first line listed is an internal class and code reference indicating a generic "Insufficient Data Space" statement. The remaining codes and classes address Inter-process Communication (IPC) and the System Manager error message files.

Table 1-4. Integrated Control Configurator (ICC) Checkpoint Messages

Type	Class	Code	Description
1	9	6	Insufficient data space
2	1	See footnote for code[1]	General utility routines
3	1	See footnote for code[1]	Action request for IPC error
4	1	See footnote for code[1]	Action response for IPC error
4	8	See footnote for code[2]	Action response for System Manager error
5	1	See footnote for code[1]	Event message for IPC error
5	8	See footnote for code[2]	Event message for System Manager error

1. Refer to "IPC Component (IPC) Printed Messages" on page 92 for codes.
2. Refer to "System Manager Component (SMAS) Printed Messages" on page 99 for codes.

Refer to "IPC Component (IPC) Printed Messages" on page 92 or "System Manager (SYSMGM) Printed Messages" on page 99 for accessing the respective IPC and System Manager error message files.

Compound and Block Installation Error Messages

Compound and Block installation error messages are those generated when installing a compound and block into your configuration. A failure causes an error message and code to appear in a dialog box on the console screen. The error messages may result from an incorrect installation procedure, application software limitations, or an incorrect compound and block build.

The error messages associated with the various error codes are listed in this subsection. Each message contains a "symptom" and "corrective action" statement to assist you. If you need further explanation concerning the message, contact Invensys support personnel.

Table 1-5. Compound and Block Installation Error Messages

Code	Message	Description	Action
3	GET MEMORY - Out of Memory Fatal Aborting	Insufficient memory in the Control Processor (CP) to install this block/compound.	Check configuration and delete other block(s) to install this one.
4	GET MEMORY - Exceeded Maximum Size for Block	Sequence code in sequence block too large.	Delete some sequence statements to create space.
16	COMMON - CP_Locate Could not Find Path or Block	Reference block or compound does not exist in Control Processor. Probable mismatch in database between Control Processor and Integrated Control Configurator.	Check availability of block, or make sure path is correct. Check CP via “Select” display for existence of reference block.
17	ENDLINK - Block Cannot be Found to Insert Before	Possible mismatch in database between Control Processor and Integrated Control Configurator.	Check database for connecting file, and configured entry.
20	TYPE OF BLOCK - No Existing Blocktype in System	Block will not install. Block type is not valid for this controller.	Contact Invensys service personnel.
25	REMOTE_RESOLVE Node Cannot be Allocated	Insufficient memory in Control Processor.	Create space by deleting part of the database or reducing peer-to-peer connections.
35	Not Enough Memory to Load Sequential Block	Insufficient memory in the Control Processor (CP) to install this sequence block.	Reduce size of sequence block and/or delete other block(s) to install this one.
36	Cannot Connect to a Non-Connectable Parameter	Cannot make block connection to a peer via the source parameter. The block connection is invalid.	Check configurator entry and linkage from the compound processor.
37	End Link Sink Linkage Type Not Compatible with Source	Cannot make block connection to a peer via the source parameter. The block connection is invalid.	Check configurator entry and linkage from the compound processor.
40	End Link Compound or Block Not Unique Locally Cannot Install	Cannot install block/compound; it already exists in Control Processor.	Rename the block/compound.

Block Copy Error Messages

Block copy error messages are those messages that are generated when attempting to create blocks (such as the messages generated when a block is in an invalid position for its type or the block name already exists). A failure causes an error message and code to appear in a dialog box on the console screen. The error messages may result from an incorrect installation procedure, application software limitations, or an incorrect compound and block build.

The error messages associated with the various error codes are listed in this subsection. Each message contains a “symptom” and “corrective action” statement to assist you. If you need further explanation concerning the message, contact Invensys support personnel.

Table 1-6. Block Copy Error Messages

Code	Message	Description	Action
41 42 43	CP Interface or Unusual CP Interface	Indicates an error related to station locking.	A database lock cannot be overridden for block copy purposes. Check if someone is editing the library or station volume.
	Compound Summary Unavailable	Indicates that communications to the CSA Server failed.	This can possibly be caused by a problem with the workstation hosting the CSA Server or the LAN interface connecting to the CSA node.
-4	Compound Summary	The compound or block name is already used (-4).	Rename the compound or block as indicated by the error message.
-6		The compound exists, but not the block (-6).	
	Block Position	This messages indicates that the block type is invalid for the position in which it was inserted. (for example, if you inserted a Sequence or PLB block type in front of a continuous block type.	Reposition the block correctly.
	Block Type	This messages indicates that the block type is unknown to this station or volume (for example, attempting to copy a Modicon-specific block type into a CP station).	Check configuration rules.
	Find Object	This messages indicates that either the specified block does not exist, or the specification is invalid (for example, a zero-length block name, or a compound or block name greater than 12 characters).	Check configuration.
	Parameter Version Check	The parameter version of the library or station volume containing the specified block is not compatible with that of the current station.	Check compatibility of software with latest version in library.

Sequence Compiler Error Messages

The following pages list the possible user programming and internal error messages generated by the sequence compiler. These messages appear in the formatted listing file created when the block source file is compiled. Each message that appears beneath a line of code will point to the error in that code line. The message generated will describe the error in the code.

Table 1-7. Sequence Compiler Error Messages – User Programming Errors

User Programming Error Messages
‘:’ expected
‘(‘ expected
‘)’ expected
‘>>’ expected
semicolon expected
‘AFTER’ expected
‘WHEN ALREADY GOTO’ expected
‘(IN)DEPENDENT_SEQUENCE’ or ‘EXCEPTION_SEQUENCE’ expected

Table 1-7. Sequence Compiler Error Messages – User Programming Errors (Continued)

User Programming Error Messages
'DO' expected
'TO' or 'DOWNTO' expected
'ENDIF' expected
'ENDFOR' expected
'ENDWHILE' expected
'GOTO' expected
'THEN' expected
'UNTIL' expected
'WHEN' expected
'TO' expected
illegal symbol
assignment expected
expression expected
monitor cases expected
string too long
SYNTAX ERROR
label multiply declared
too many references to label
too many labels declared
expression type should be BOOLEAN
ucontrol variable non-integer
expression type should be INTEGER
expression type should be REAL or INTEGER
EXITLOOP only allowed within a loop
';' missing after previous (compound) statement
'UNTIL' expected in WAIT statement
message string table overflow
external reference table overflow
illegal message group
illegal parameter
path too long
expression too complex
wrong data type
illegal data type (combination) for operator XXX
illegal data type for function XXX
invalid function name
invalid enum literal for enumerated type
left operand is not an enumerated type
string operation attempted
illegal data type
full path name path too long
illegal timer name
illegal assignment

Table 1-7. Sequence Compiler Error Messages – User Programming Errors (Continued)

User Programming Error Messages
standard parameter not writable
boolean expression expected
parameter declared twice
parameter table overflow
illegal standard parameter
monitor activation pattern string too long
standard parameter already in use
wrong monitor case number
(possible) monitor cases missing
string containing only A's and I's expected
assignment to input parameter in FOR stat not allowed
parameter number doesn't fit in one byte
';' missing after previous declaration
external references in MONITOR not allowed
operator remark not allowed
block reference expected
'}' or '*)' missing
illegal status attribute
illegal string
divide by zero
operator remark too long
label XXX not declared
parameter XXX not declared
path / shared_variable name XXX too long
parameter name XXX too long
label name XXX too long
standard parameter name XXX too long
user parameter name XXX too long
XXX is a standard parameter name

Table 1-8. Sequence Compiler Error Messages – Fatal User Programming Errors (Compiler Aborted)

User Programming Fatal Error Messages (Compiler Aborted)
loops too deeply nested
memory space full, allocation failed
statement number > 9999
main code buffer overflow
temporary code buffer overflow
case number > 16

Table 1-9. Sequence Compiler Error Messages – Internal Errors (Compiler Aborted)

Internal (Compiler Aborted) Errors
loop stack underflow
attr flow stack underflow
system label multiply declared
system label not declared
system label not on top of table
temporary code buffer in use
illegal block type
case doesn't exist
monitor support table overflow
message string table empty
external reference table empty
illegal boolean operator
illegal rel. operator
illegal add. operator
illegal mul. operator
illegal unary operator
last evaluated type not EMPTY
data combination error
string is not an enumerated type literal
illegal left value type
illegal message group
illegal data type
assignment to external reference in FOR statement
integer should be 0-255
illegal index
statement number overflow
case number overflow
unknown static
expression complexity negative
enumeration type number overflow
illegal sccs revision control string

FoxView™ Software Block Detail Display Error Messages

Whenever you install a new block or modify the parameters of an existing block, certain parameters of the affected block are validated according to block-specific rules. If a violation is detected, a warning message is sent to the control configurator and displayed at the console. The same message is shown on the primary page of the block's detailed display. The string parameter ERCODE is also set to contain the violation message. Certain violations are considered fatal errors, and prevent the block from being installed. Others are considered only warnings. These warning mes-

sages are handled the same way as error messages, except that the incorrect configuration is preserved in the configuration work file. This allows you to see the error that must be corrected. Validation of block parameters does not proceed past the first error encountered by the block logic. Table 1-10 shows the warning messages. At present, all warnings except "W59 – DUPLICATE OUTPUT CHANNEL" cause the block to be marked Undefined.

Table 1-10. FoxView™ Software Block Detail Display (ERCODE Parameter) Messages

Message	Meaning
"W43 – INVALID PERIOD/PHASE COMBINATION"	PHASE does not exist for given block PERIOD, or block PERIOD not compatible with compound PERIOD.
"W44 – INVALID ENGINEERING RANGE"	High range value is less than or equal to low range value.
"W45 – CONFIGURATION ERROR IN STEP nn"	A parsing error has been detected in a CALC, CALCA, LOGIC, or MATH block; nn identifies the step in error.
"W46 – INVALID INPUT CONNECTION"	The source parameter specified in the input connection cannot be found in the source block, or the source parameter is not connectable, or an invalid boolean extension connection has been configured.
"W47 – INVALID PARAMETER CONNECTION"	A tuning block is connected to a PIDA block containing a connected tuning constant.
"W48 – INVALID BLOCK OPTION"	The configured value of a block option is illegal.
"W49 – INVALID BLOCK EXTENSION"	An illegal block extension has been configured for EXTBLK (AIN, AINR, MAIN blocks), NLNBLK (PIDA block), or PIDBLK (FBTUNE, FFTUNE blocks).
"W50 – INVALID SIGNAL CONDITIONING INDEX"	An SCI or SCO parameter setting is invalid.
"W51 – INVALID HARDWARE/SOFTWARE TYPE"	An I/O block is connected to an ECB or the wrong type.
"W52 – INVALID I/O CHANNEL/GROUP NUMBER"	An I/O block is connected to an ECB when the specified point number is invalid or when the specified group or octet number is invalid.
"W53 – INVALID PARAMETER VALUE"	A parameter value is not in the acceptable range.
"W54 – ECB DOES NOT EXIST"	An I/O block has a connection to an ECB that does not exist or has not yet been installed. When the ECB is installed, previously installed I/O blocks waiting for that ECB will initialize automatically.
"W55 – CONTROLLER DOES NOT EXIST"	An FBTUNE or FFTUNE block has an unspecified or unresolved extension connection to a PIDA controller block. When the PIDA is installed, previously installed tuning blocks waiting for that PIDA will initialize automatically.
"W56 – INVALID CONTROLLER MODE"	An FBTUNE or FFTUNE block has an extension connection to a PIDA block whose mode (MODOPT) is not tunable.
"W57 – TUNING_CONSTANT LINKED"	An FBTUNE or FFTUNE block has an extension connection to a PIDA block that has a linked tuning constant.
"W58 – INSTALL ERROR; DELETE/UNDELETE BLOCK"	A Database Installer error has occurred.
"W59 – DUPLICATE OUTPUT CHANNEL"	This block and another output block are connected to the same output point. Since this may be intentional, this message is only a warning.

Table 1-10. FoxView™ Software Block Detail Display (ERCODE Parameter) Messages (Continued)

Message	Meaning
"W62 – UNRESOLVED CONNECTION"	Connection not yet resolved. (Block remains defined.)
"W63 – INVALID SOFTWARE/HARDWARE TYPE"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an invalid software or hardware type configuration error.
"W64 – INVALID PORT NUMBER"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an invalid port number configuration error.
"W65 – INVALID POINT ADDRESS"	FBM parsing algorithm finds that a used PNT_NO is invalid.
"W66 – DUPLICATE CONNECTION"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate a duplicate connection configuration error.
"W67 – INSUFFICIENT FBM MEMORY/CONNECTIONS"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an insufficient FBM memory or connections configuration error.
"W68 – INVALID DEVICE CONNECTION"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an invalid device connection configuration error.
"W69 – INVALID POINT CONNECTION"	The point connection is invalid.
"W71 – INVALID DEVICE NAME"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an invalid device name configuration error.
"W72 – INVALID DEVICE OPTION"	If a CONNECT_DEVICE command to the FBM is unsuccessful, this string is stored in ERCODE and the ECB201 is set UNDEFINED to indicate an invalid device option configuration error.
"W73 – FF FUNCTION BLOCK CONFIGURATION ERROR"	This string is stored in ERCODE to indicate an FF function block configuration error. The block is marked DEFINED, but the value is marked OOS. When changing block modes on a DO (digital output) or AO (analog output) block and while the output value is simultaneously changing, the Detail display may display a CFG error indication, including this text message. This occurs because there is a "race" condition between the mode change and the output data change. The message clears when the mode is changed again. The block operates normally. To avoid this situation, when changing modes, wait for the transition to the new mode before changing the output value.
"W74 – FF FUNCTION BLOCK DDITEM MISMATCH"	This string is stored in ERCODE to indicate a mismatch between the FF function block DD Item ID (DDITEM) and the device (FBM228 only). The block is marked UNDEFINED.

Table 1-10. FoxView™ Software Block Detail Display (ERCODE Parameter) Messages (Continued)

Message	Meaning
"W75 – FF FUNCTION BLOCK DDMBR MISMATCH"	This string is stored in ERCODE to indicate a mismatch between the FF function block DD Member ID (DDMBR) and the device (FBM228 only). The block is marked UNDEFINED.
"W76 – INVALID FF MODE CONFIGURATION"	This string is stored in ERCODE to indicate that the FF mode configuration is invalid (FBM228 only). The block is marked UNDEFINED.
"W77 – FIELDBUS COMMUNICATIONS FAULT"	This string is stored in ERCODE to indicate a fieldbus communications fault (FBM228 only). The block is marked DEFINED, but the value is marked OOS.
"W78 – INVALID FUNCTION BLOCK"	This string is stored in ERCODE to indicate an invalid function block (FBM228 only). The block is marked DEFINED, but the value is marked OOS.
"W79 – INVALID PARAMETER INDEX"	This string is stored in ERCODE to indicate an invalid parameter index (FBM228 only). The block is marked UNDEFINED.
"W80 – FIELDBUS DEVICE NOT FOUND"	This string is stored in ERCODE to indicate that a fieldbus device was not found (FBM228 only). The block is marked DEFINED, but the value is marked OOS.
"W81 – INVALID PARENT DCI ECB PERIOD/PHASE"	This string is stored in ERCODE to indicate an invalid parent DCI ECB period/phase configuration error (FBM228 only). The block is marked UNDEFINED.
"W82 – FF CONFIGURATION IN PROGRESS"	

Programmable Logic Block Error Messages

The error messages associated with the use of the Programmable Logic Block (PLB) software are screen displayed messages (in a dialog box). They are viewed on a display monitor by an operator using a human interface device (that is, a Control Core Services workstation).

The following error messages are generated by the use of the PLB Editor or running the PLB Monitor. These messages are listed in separate subsections which address the error messages.

PLB Editor Error Messages

Table 1-11. PLB Editor Error Messages

Message	Description	Corrective Action
`Invalid Tech ID`	Cursor points to offending ladder element.	Check the proper spelling of the desired Tech ID.
`Tech ID not available`	Cursor points to offending ladder element.	You are attempting to assign the same output Tech ID to two different ladder output elements. Use a search function to find other occurrence of use of the Tech ID, then decide which single element to assign it to.
`Tech ID is not valid for a clock/counter`	The Tech ID assigned to a clock/counter must be of the form "TCnn_S" where "nn" are two digits varying from "01" to "16".	Press Enter to put the cursor in the Tech ID entry field, then enter a proper Tech ID.
`No upward branches in first line.`	Erroneous position in first line is highlighted by the cursor and this message appears on the message line.	Do not attempt to branch upward from the first line.

Table 1-11. PLB Editor Error Messages (Continued)

Message	Description	Corrective Action
No branches up between 2 symbols	Cursor points to erroneous position and this error message appears on the message line.	Do not attempt this operation. Horizontal lines and downward branches are acceptable.
Position reserved for outputs only	Attempt to assign a --_ _-- or --_/_-- symbol in column eight (the right-most column).	Assign a proper symbol.
This coil must be in a row alone	Cursor points to offending element.	The symbols --(NCR)-- and --(NCL)-- must be in a line alone (in column eight). Delete all other symbols. Also, the associated rung must contain only one line.
Coils are last symbol in row	Attempt to assign an output symbol to a column other than eight.	The PLB Editor will not allow you to assign an output symbol to a column other than column eight. Review your ladder logic design.
Can't enter rung descriptor for an empty line	The user pressed the Shift and Insert keys when the cursor was positioned on an empty line.	Check position of cursor. Either create a valid ladder line in the appropriate position or move the cursor to the desired ladder line before pressing Shift+Insert.
No more room	Cursor points to the last ladder line.	A single PLB ladder segment can contain up to 98 lines of 256 elements. This message means your ladder is too big. You should create another segment for the current FBM or use a different FBM for additional logic.
Rung descriptor table full	This message flashes when you try to enter a new rung descriptor.	There is a limit of 20 rung descriptors for each ladder segment. You must stay within this limit.
Not last line in rung	Cursor points to the offending line.	When entering a new rung descriptor, the cursor must be on the last line of the rung. Position the cursor appropriately.
Value entered is greater than 65500	When using the preset/reset edit window, this message appears if the value entered for one of the parameters is greater than 65500.	You must enter a value x where $0 \leq x \leq 65500$.
Tech ID must be filled in before register values are entered	This appears when you try to enter the preset/reset edit window after creating a timer/counter symbol.	Press Enter once to move to the Tech ID field. Enter a valid Tech ID. Then enter the preset/reset edit window using the right arrow key.
Can't insert. Ladder has already reached maximum size	There can be a maximum of 98 lines containing not more than 256 elements in a ladder.	Multiple segments (up to eight) in the same FBM or multiple FBMs may be used to increase the number of lines.
System error - error message invalid	This appears after pressing the "COMPILE" button in order to compile a ladder.	This is caused by system errors in the PLB software. Reinstall the CIO Configurator, which includes the PLB software.

Table 1-11. PLB Editor Error Messages (Continued)

Message	Description	Corrective Action
`Illegal connection`	After a compilation attempt, the cursor points to the offending connection. This message has a number of causes, any of which should be self-explanatory. Examples are “There is no connection between two elements” or “A dangling (unconnected) branch.”	Implement the solution indicated in the message. In the example cases listed in the Description column, connect the two elements or continue drawing the dangling branch until it reaches the power rail.
`First line in ladder is empty`	A compilation attempt fails and the cursor points to the first line, which contains no ladder elements.	Draw the first line such that it contains at least one valid ladder element.
`Invalid first line geometry or bad connection`	The first line contains a gap.	Fill in the gap.
`Coil missing in first line`	Column eight of the first line must have a valid output element.	Insert a valid element in column eight.
`Bad connection on left side`	A vertical branch on the left is not connected.	Connect it.
`Tech ID missing. All symbols must have an ID filled in`	Cursor points to the offending element.	Press Enter and type in a valid Tech ID.
`Invalid vertical connection`	Attempt to draw a vertical line from the middle of one horizontal ladder line to the middle of another.	Erase all vertical segments of the offending line and, if necessary, redraw incidentally deleted portions of the two horizontal ladder lines.
`Diags file was not properly retrieved - 1`	This error appears after an attempt to compile a ladder.	This indicates improper installation of the PLB software. Try to “tar” in just the PLB Compiler (plc_compi). If this does not work, you must reinstall the CIO Configurator, which includes the PLB software.

PLB Monitor Error Messages

Table 1-12. PLB Monitor Error Messages

Message	Description	Corrective Action
`IPC error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding system configuration errors.
`FIFO buffer error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding workstation problems. Also, since this error indicates a communication problem between two PLB programs, the installation of the CIO Configurator package should be checked, and the package reinstalled if necessary.
`Ladder source - file access error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the host workstation to ensure that the PLB source file is present. The path for this file is: /usr/fox/ciocfg/”compound”/”block”.p where: “compound” is the name of the compound containing the PLB block, and “block” is the name of the PLB block.

Table 1-12. PLB Monitor Error Messages (Continued)

Message	Description	Corrective Action
`Error returned from system call`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding VENIX problems.
`HI library error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding problems in the workstation on which you are working.
`Compound summary error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding communication or system configuration errors.
`Invalid object address/location`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node. Probably, the actual hardware doesn't match the system configuration.
`Invalid case encountered`	A dialog box containing this message appears and the PLB Monitor exits.	This is an internal error of the PLB software. The CIO Configurator should be reinstalled.
`Remote file server error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding hardware and/or system configuration errors.
`Object manager error`	A dialog box containing this message appears and the PLB Monitor exits.	Check the general health of the Control Core Services node, especially regarding system configuration errors. Most likely, the specified PLB block no longer exists in the system. However, communications failure can mirror this condition. If communication errors are suspected, retry the operation.
`Error encountered`	A dialog box containing this message appears and the PLB Monitor exits. This is a general message for some types of unexpected errors.	First, retry the operation. If this action fails, call Invensys field service.

Statistical Process Control (SPC) Error Messages

The error messages associated with the use of Statistical Process Control software are screen displayed messages (in a dialog box). They are viewed on a display monitor by an operator using a human interface device (that is, a Control Core Services workstation). The following categories of messages are listed in separate subsections which address the error messages.

Table 1-13. Statistical Process Control (SPC) Error Messages

Message	Description	Corrective Action
`Axis Scaling error`	The data range produced from the configured chart was too small.	Reconfigure the chart using one of the provided transformations to expand the range of the data values.
`Data Retrieval error`	A general failure occurred while trying to access the Historian Data Retrieval server.	Check the chart configuration. Make sure that the configured Historian name for all Historian points is correct.

Table 1-13. Statistical Process Control (SPC) Error Messages (Continued)

Message	Description	Corrective Action
Duplicate Note error	An attempt was made to ADD a note to a point that already has a note attached.	Typical solutions: 1) Attach the currently entered note to a different point. 2) Modify the note currently attached to that point.
File Creation error	A file that is used to store the chart calculations or report data could not be created. The operation was not performed.	A typical solution is to check the access permissions for directory "/usr/tmp" on the host workstation. Make sure that the permissions are read, write, and execute for user, group, and other.
Help error	The help facility was unavailable.	Make sure that the help file "/usr/edoc/SPCdsp.hlp" exists on the host workstation.
Hi Library error	An error occurred while using the Human Interface (HI) Library.	Restart the SPCP Display Process.
Insufficient data error	There were not enough good data points for the requested chart to be displayed.	Reconfigure the chart, so that: 1) The sample period matches that of the Historian point. 2) The requested time span has good data available.
Invalid calculation error	The chart was not displayed because of an invalid calculation.	Typical solutions: 1) Check the chart configuration and requested data values to ensure that the combination of Historian points does not produce an invalid data set. 2) Modify the variable transformation for the Historian point to produce more reasonable values that do not produce an out-of-bounds calculation.
Invalid calculation warning	A calculation that was not critical to the displaying of the chart has failed.	Enter reasonable values for chart specification limits.
IPC error	An error occurred while using the IPC subsystem. This error can occur under heavy system loads.	Try accessing the chart again. If this fails, restart the SPCP Display Process.
Memory allocation error	There was not enough memory for the SPCP Display Process to perform the function requested.	Reconfigure the chart to display fewer data points.
No Data error	The Historian Data Retrieval server returned an error while trying to access the requested Historian point.	Typical solutions: 1) Check the chart configuration. This error is usually caused by a misspelled Historian point name. 2) Check the time span for which the data was requested. There may be no data available for the requested time span.
No Printer warning	The report cannot be sent until a destination printer is selected.	Select a printer from the "Choose Printer" option in the SPC Operational Report overlay.
Printer List error	An error occurred while trying to build the list of available printers.	Make sure that the file "/etc/printers" exists on the host workstation and contains a valid list of printer names and descriptions.

Table 1-13. Statistical Process Control (SPC) Error Messages (Continued)

Message	Description	Corrective Action
Report error	The SPC Display Process could not communicate with the SPC Report Process.	Make sure the process “SPCPrpt” is running on the application processor (AP) hosting the FoxSPC.com.
Scaling error	One or more of the following occurred: 1) The range of the data was too large or too small, 2) One particular value was too large or too small, 3) Not enough good data values to build the chart.	Check the chart configuration for one of the following: 1) If the data could possibly be out of the range of “reasonable” data values, apply one of the available transformations to the Historian point. 2) Assure enough data is available for the given point. 3) Lack of data could also be caused by the “Sample Period” setting. If this period is too large, there may not be enough data to produce a chart.
Server communication error	An error occurred while accessing the SPCP Database Access Server. Check the SPCP log file for more information.	Typical solutions: 1) Try to display the chart again. 2) Ensure that the process “SPCPsrv” is running on the host workstation of the package being accessed. 3) Make sure that the chart exists by editing it with the SPCP Configurator, then try to display the chart again.
Server Response error	The SPCP Database Access server responded to the latest request with an error. The requested operation was not performed.	Typical solutions: 1) Retry the operation. 2) Make sure the chart, CED, or Text Object exists by checking the configuration. 3) If this error occurred while adding a note or saving a new chart configuration, make sure there is enough disk space on the workstation where the SPC application resides.
Invalid chart type	The chart type requested was invalid.	Check the version of the SPCP Display Process. If the version is too old, the chart type may not be recognized.
Point information error	An error occurred while displaying point information.	Redisplay the chart and try point information again.
SDdta_ptrs() failure	There was not enough memory to display the requested chart.	Reconfigure the chart to display fewer data points.
Unknown transformation type	The transformation applied to the Historian point was not recognized.	Check the version of the SPCP Display Process. If the version is too old, the transformation type may not be recognized.
HDRS response status not 0	One of the following occurred: 1) The Historian did not return enough data for the current chart to be displayed. 2) The Historian returned an error while accessing the requested point.	1) Reconfigure the chart to display a time span which contains more data. 2) Make sure that the configured point, group, and column names are correct.
Error sending message	There was an error sending the request for Historian data.	Make sure that the configured Historian name is correct.

Table 1-13. Statistical Process Control (SPC) Error Messages (Continued)

Message	Description	Corrective Action
Periodic data failure	There was a communication error while requesting Historian data. This could be due to a heavy system load or a bad Historian name configuration.	Check the Historian name configuration and try the chart again.
Nonperiodic data failure	There was a communication error while requesting Historian data. This could be due to a heavy system load or a bad Historian name configuration.	Check the Historian name configuration and try the chart again.
Error accessing calc file	An error occurred while trying to open a temporary file for calculations. This could be caused by lack of space on the host workstation.	Make sure there is space available in the “tmp” volume of the host workstation.
Print screen unavailable	The print screen request failed.	The destination printer was not chosen from the “Select Printer” option of the Display Manager.

I/A Series Letterbug Configurator (IRDA) Error Messages

Table 1-14 lists the messages for the I/A Series Letterbug Configurator (IRDA).

Table 1-14. I/A Series Letterbug Configurator (PDA) Printed Messages

Code	Mnemonic	Message	Corrective Action
1	IRDA_LBUG_MTCH	CONNECT SUCCESS using Letterbug ID	No longer used
2	IRDA_LBUG_NOMTCH	CONNECT FAILED using Letterbug ID	No longer used
3	IRDA_MFGID_MTCH	CONNECT SUCCESS using Manufacturing ID	No longer used
4	IRDA_MFGID_NOMTCH	CONNECT FAILED using Manufacturing ID	No longer used
5	IRDA_DISCONNECT	User-Requested Disconnect	
6	IRDA_NOOP_SUCCESS	IRDA NOOP Command successful	
7	IRDA_NOOP_NOSUCCESS	IRDA NOOP Command unsuccessful	The command failed. Retry the operation.
8	IRDA_GET_LBUG_OK	Get LETTERBUG Command Successful	
9	IRDA_GET_LBUG_NOK	Get LETTERBUG Command not Successful	The command failed. Retry the operation.
10	IRDA_SET_LBUG_I	SET LETTERBUG Command Initiated	
11	IRDA_SET_LBUG_C	SET LETTERBUG Command Completed	
12	IRDA_SET_LBUG_NOK	SET LETTERBUG Command Failed - Not Connected	The command failed because the client was disconnected. Retry the operation.
13	IRDA_WR_FLASH	WRITE TO FLASH Command issued	
14	IRDA_WR_FLASH_FAIL	WRITE TO FLASH Command failed	The command failed. Retry the operation.
15	IRDA_WR_FLASH_NOK	WRITE TO FLASH Command failed - Not Connected	The command failed because the client was disconnected. Retry the operation.

Table 1-14. I/A Series Letterbug Configurator (PDA) Printed Messages (Continued)

Code	Mnemonic	Message	Corrective Action
16	IRDA_RESET_MOD	RESET MODULE Command issued	
17	IRDA_RESET_MOD_NOK	RESET MODULE Command failed - Not Connected	The command failed because the client was disconnected. Retry the operation.
18	IRDA_READ_VLT	READ VAULT Command issued	
19	IRDA_READ_VLT_NOK	READ VAULT Command failed - Not Connected	The command failed because the client was disconnected. Retry the operation.
20	IRDA_SET_IP_I	SET IP Command Initiated	
21	IRDA_SET_IP_C	SET IP Command Completed	
22	IRDA_SET_IP_NOK	SET IP Command Failed	The command failed because the client was disconnected. Retry the operation.
23	IRDA_SET_MAC	SET Station/ROM MAC Address Initiated	
24	IRDA_SET_STAMAC	SET Station MAC Address Completed	
25	IRDA_SET_ROMMAC_A	SET ROM MAC Address A Completed	
26	IRDA_SET_ROMMAC_B	SET ROM MAC Address B Completed	
27	IRDA_SET_MAC_NOK	SET Station/ROM MAC Address Failed	The command failed because an invalid MAC was used. Retry the operation.
28	IRDA_ILLEGAL_CMD	Illegal Command	Illegal Command issued. Retry the operation.
29	IRDA_DISCONNECTED	IRDA Disconnected. Timeout Period Expired	IRDA Disconnected due to timeout expiration. Retry the operation.

2. Standard Coded Printed Messages

The standard coded messages listed in the following text sections are those contained within each Control Core Services text string files, (that is, System Management Display Handler [SMDH], System Monitor [SYSMON], Object Manager [OMSS], Inter-Process Communications [IPC], [PREAM], [FORMULA], and so forth).

These coded messages are classified as either priority-one (High) or priority-two (Low) messages.

Priority-one messages, requiring immediate attention, are those sent to the workstations designated to report system alarms. Priority-one messages are also sent to the historian and to a high-priority message printer.

Priority-two messages, those usually not requiring the user's immediate attention, are sent to the historian and to a low-priority message printer.

Formatted Message Lines and Message Line Variables

The following text string represents a "typical" diagnostic message format as it actually printed via a logging device to a priority printer:

```
mm-dd-yy  HH:MM:SS   PRI  SYSMON=     STALBG    Process=smon_ech
SYSMN1
SM_MSG                                 -58       Transmitter B
                                                 failed
```

Standard message lines contain the following variables:

`mm-dd-yy`	month-day-year
`HH:MM:SS`	hour:minute:second
`PRI <System Monitor>`	the primary system monitor (for example, `PRI SYSMON= SYSMN1`)
`STALBG`	the station's letterbug
`Process=<process name>`	a text string representing the process
`SM_MSG`	a text string representing the software subsystem in which the message originated
`-58`	the file code
"`Transmitter B failed`"	the message, an ASCII test string description of the event

System Management Printed Messages

The System Management Printed Messages are those concerned with Network Fault Detection (NFD) testing (On-Line Diagnostics). The messages address the Nodebus cable test, Tokenbus, and the Carrierband LAN (CLAN) cable reporter.

The Nodebus cable test isolates faults with the cable structure connecting stations on the Nodebus, a station's transmitter/receiver, and the communication path to the System Monitor.

The Tokenbus isolates faults with the cable structure connecting the LAN Interface (LI) transmitter/receiver and drop cables from the LI to the Nodebus.

The Carrierband LAN (CLAN) cable reporter monitors the health of the receivers and cables for the LAN Interface's (LI) Carrierband connections.

Nodebus Cable Test Printed Messages

The Nodebus Cable Test printed messages are listed in the following subsection. If a corrective action is required, it is described following the message.

— NOTE

The "%s" syntax in the following messages represents station letterbugs.

Message: **`0 NFD_SUCCESS–"NB Cable Test to %s and %s successful"`**

Corrective Action: Nodebus cable test is valid. No action is necessary.

Message: **`-1 NFD_NO_RSP_D–NB Cable test to %s OK. No response from %s`**
`-2 NFD_NO_RSP_S–No Response from %s to NB Cable Test. %s OK`
where the two instances of **`%s`** represent the letterbugs of the two stations involved in the test.

Corrective Action: Physically check Nodebus cables and connections between stations. Make sure the station in question is tightly secured in the mounting structure. Invoke cable test again. If symptom persists, select two different on-line stations and re-run the test. If this corrects the problem, notify service personnel for removal of originally tested station.

Message: **`-49 NFD_NO_RSP_DS–No response to NB Cable Test from %s or %s`**
where the two instances of **`%s`** represent the letterbugs of the two stations involved in the test.

Corrective Action: The Nodebus cable test initiator is not communicating with either station. Cabling is the likely problem. Physically check both Nodebus cables and connections to the stations and to the Cable Test Initiator. Make sure the stations are tightly secured in the mounting structure. Invoke the cable test again. If symptoms persist, select two different on-line stations and re-run the test. If this corrects the problem, notify service personnel for removal of originally tested station.

Message: **`-67 NFD_NO_RSP_SS–No response to Nodebus Cable Test from %s`**
where **`%s`** represents the letterbug of the station involved in the test.

Corrective Action: Physically check both Nodebus cables and connections to the stations. Make sure the station is tightly secured in the mounting structure. Invoke cable test again. If the symptom persists, select another on-line station and

re-run the test. If this corrects the problem, notify service personnel for removal of originally tested station.

Message:

-3 NFD_CAB_A_MRXA–Cable A to %s and %s OR NB Masters RxA Failed

-4 NFD_CAB_B_MRXB–Cable B to %s and %s OR NB Masters RxB Failed

where the two instances of **%s** represent the letterbugs of the two stations involved in the test and **Rx** represents the station receiver.

Corrective Action: Cable Test Initiator (NB Masters) is not receiving communicating from stations on cable A or B, as indicated by the message. Physically check both Nodebus cables and connections to the stations. Make sure the stations are tightly secured in the mounting structure. Invoke the cable test again. If the symptom persists, select another on-line station as the Cable Test Initiator and perform the cable test again. If this corrects the problem, notify service personnel for removal of originally tested Cable Test Initiator station.

Message:

-5 NFD_DRXA_MDESTA–Cable test to %s OK. %s RxA OR NBE/cable A failed

-6 NFD_SRXA_MSRCA–%s RxA OR NBE/Cable A failed. %s OK

-7 NFD_DRXB_MDESTB–Cable test to %s OK. %s RxB OR NBE/cable B failed

-8 NFD_SRXB_MSRCB–%s RxB OR NBE/Cable B Failed. %s OK

-21 NFD_DRXA–NB Cable Test to %s OK. %s RxA Failed

-22 NFD_SRXA–%s RxA Failed. NB Cable Test to %s OK

-23 NFD_DRXB–NB Cable Test to %s OK. %s RxB Failed

-24 NFD_SRXB–%s RxB Failed. NB Cable Test to %s OK

where the two instances of **%s** represent the letterbugs of the two stations involved in the test and **Rx** represents the station receiver.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus Extender (NBE) in question, the Nodebus Extender Cable, and their connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If the symptom persists, replace applicable Nodebus Extender and try again. If the symptom still remains, select two different on-line stations and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message:

-9 NFD_MTXB_NBB_BOTH–Masters TxB OR NBE B Failed to %s and %s

-25 NFD_MTXB–Masters TxB Failed. NB Cable test to %s and %s OK

-30 NFD_MTXA–Masters TxA Failed. NB Cable test to %s and %s OK

-37 NFD_MTXB_S–NB Masters TxB failed

-38 NFD_MTXA_S–NB Masters TxA failed

where the two instances of **%s** represent the letterbugs of the two stations involved in the test and **Tx** represents the station transmitter.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus Extender (NBE) in question, the Nodebus Extender Cable, and their connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If the symptom persists, replace applicable Nodebus Extender and try again. If the symptom still remains, select another Cable Test Initiator and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message:

-10 NFD_NBB_SRC–NBE B Failed to %s. %s OK

-11 NFD_NBB_DEST–Cable Test to %s OK. NBE B Failed to %s

-15 NFD_NBB_BOTH–NBE B Failed to %s and %s

-16 NFD_NBB_DTXB–Cable test to %s OK. NBE B OR TxB of %s Failed

-17 NFD_NBB_STXB–NBE B to OR %s TxB Failed. %s OK

where the two instances of **%s** represent the letterbugs of the two stations involved in the test and **Tx** represents the station transmitter.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check the questionable Nodebus Extender (NBE) on Cable B, the Nodebus Extender Cable B, and their connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If the symptom persists, replace Nodebus Extender B and try again. If the symptom still remains, select two different on-line stations and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message:

-12 NFD_NBA_BOTH–NBE A Failed to %s and %s

-13 NFD_NBA_DTXA–Cable Test to %s OK. NBE A OR TxA of %s Failed

-14 NFD_NBA_STXA–NBE A OR TxA of %s Failed. %s OK

-18 NFD_NBA_MTXA_BOTH–Masters TxA or NBE A to %s and %s Failed

-19 NFD_NBA_DEST–Cable Test to %s OK. NBE A to %s Failed

-20 NFD_NBA_SRC–NBE A to %s Failed. %s OK

where the two instances of **%s** represent the letterbugs of the two stations involved in the test, **Tx** represents the station transmitter, and **Master** represents the stations where the NFD running the cable test resides.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check the questionable Nodebus Extender A (NBE), the Nodebus Cable A, and their connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If the symptom persists, replace Nodebus Extender A and try again. If the symptom still remains, select two different on-line stations or select a new Cable Test Initiator station (as applicable to the message) and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message:

-26 NFD_DTXA–NB Cable Test to %s OK. %s TxA Failed

-27 NFD_STXA–%s TxA Failed. NB Cable test to %s OK
-28 NFD_DTXB–NB Cable Test to %s OK. %s TxB Failed
-29 NFD_STXB–%s TxB Failed. NB Cable Test to %s OK
-31 NFD_SDTXA–%s TxA and %s TxA Failed
-32 NFD_STXB_DTXA–%s TxB and %s TxA Failed
-33 NFD_SDTXB–%s TxB and %s TxB Failed
-34 NFD_STXA_DTXB–%s TxA and %s TxB Failed
-39 NFD_TXA–%s NB TxA failed
-40 NFD_TXB–%s NB TxB failed

where the two instances of **%s** represent the letterbugs of the two stations involved in the test and **Tx** represents the station transmitter.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus cable and connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If symptom persists, select two different on-line stations or select a new Cable Test Initiator station (as applicable to the message) and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message:
-35 NFD_RXA_CA–%s Receiver A or NB Cable A failed
-36 NFD_RXB_CB–%s Receiver B or NB Cable B failed

where the **%s** represents the letterbug of the station.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus cable and connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If the symptom still remains, select two different on-line stations and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Message: **-50 NFD_UNABLE_TO_COMPLY–Unable to process request**

Corrective Action: Missing configuration information. Check for consistent and up-to-date configuration software.

Message: **-54 NFD_CANT_ASSUME–Unable to assume 802.3 Nodebus mastership**

Corrective Action: Missing configuration information. Check for consistent and up-to-date configuration software.

Message: **-55 NFD_IN_PROGRESS–Nodebus Cable Test in progress**

Corrective Action: This is an informational message; no corrective action is required.

Message: **-57 NFD_ILL_TYPE–Illegal station type for operation**

Corrective Action: Nodebus Master can only be moved to LIs, AP20s, AP50s, AW50s, AW51s, and AW70s.

Message: **-58 NFD_NO_CORR_RESULT–Unable to diagnose %s & %s. Test other NB stations**

Corrective Action: Unexplainable results from test. Select another station and re-test.

Message: **-59 NFD_UNKNOWN_STATION–No information for station**

Corrective Action: Missing configuration information. Check for consistent and up-to-date configuration software.

Message: **-60 NFD_NO_FSU_RSP–No response from File Server Utility**

Corrective Action: Unable to communicate with agent. Verify up-to-date packages and network connectivity.

Message: **-61 NFD_BUSY–Master busy - Unable to accept request**

Corrective Action: Retry test request later.

Message: **-62 NFD_NOT_READY–Master not ready to run tests**

Corrective Action: Retry test request later.

Message: **-63 NFD_PIO_FAILURE–Failure on PIO bus : %s**

Corrective Action: Unable to communicate on PIO bus for station **%s**, where **%s** is the station letterbug.

Message: **-64 NFD_PIO_RECOVERY–Recovery on PIO bus : %s**

Corrective Action: Now able to communicate on PIO bus for station **%s**, where **%s** is the station letterbug.

Message: **-65 NFD_ASM_MAST–Assuming Nodebus mastership**

Corrective Action: This is an informational message where **%s** is the station letterbug. No corrective action is required.

Message: **-68 NFD_INCOMP_CONFIG–Incomplete Nodebus configuration Information**

Corrective Action: Missing configuration information. Check for consistent and up-to-date configuration software.

Message: **-69 NFD_ACT_IN_PROGRESS–Action in progress**

Corrective Action: This is an informational message; no corrective action is required.

Message: **-51 NFD_CRS_CAB_A–Station/SSB error detected on cable A : %s %s**
-52 NFD_CRS_CAB_B–Station/SSB error detected on cable B : %s %s
-53 NFD_CRS_CAB–Station/SSB error detected : %s %s

where the two instances of **%s** represent the letterbugs of the two stations involved in the test.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus cable and connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again.

Message:

-70 NFD_NR_DRMRCA–No resp from %s, %s or Master RxA or NB Cable A Failed

-71 NFD_NR_DRMRCB–No resp from %s, %s or Master RxB or NB Cable B Failed

-72 NFD_NR_DTXA–No response to NB test from %s, %s TxA Failed

-73 NFD_NR_DTXB–No response to NB test from %s, %s TxB Failed

-74 NFD_NR_MTXA–No response to NB test from %s, Masters TxA Failed

-75 NFD_NR_MTXB–No response to NB test from %s, Masters TxB Failed

-76 NFD_DRMRCA_NR–%s or Master RxA or Cable A Failed, No resp from %s

-77 NFD_DRMRCB_NR–%s or Master RxB or Cable B Failed, No resp from %s

-78 NFD_DTXA_NR–%s TxA Failed, No response to NB test from %s

-79 NFD_DTXB_NR–%s TxB Failed, No response to NB test from %s

-80 NFD_MTXA_NR–Masters TxA Failed, No response to NB test from %s

-81 NFD_MTXB_NR–Masters TxB Failed, No response to NB test from %s

where the two instances of **%s** represent the letterbugs of the two stations involved in the test, **Tx** represents the station transmitter, **Rx** represents the station receiver, and **Master** represents the stations where the NFD running the cable test resides.

Corrective Action: Perform corrective action where applicable to message symptom.

Physically check Nodebus cable and connections. Make sure the station(s) are tightly secured in the mounting structure. Invoke the cable test again. If symptom persists, select two different on-line stations or select a new Cable Test Initiator station (as applicable to the message) and re-run the test. If this corrects the problem, notify service personnel to perform maintenance on or to remove the station(s).

Carrierband LAN (CLAN) Cable Reporter Printed Messages

The CLAN Cable Reporter periodically polls the state of the receivers, and upon detecting a change of state, will output a message describing the change to the logging device. If the LI determines that a cable is bad, it will turn off the corresponding receiver. Therefore, cable faults are reported as receivers that are lost from several stations. A bad receiver or drop cable will be reported as a receiver lost from a single LI. When only one LI reports a failure, the error is possibly

in the module, or in the drop cable. Check the drop cable for proper connections and grounding. Once corrected, reboot the shadow module of the reporting LI.

If several LI(s) report different cable and receiver failures, the LI cabling is probably crossed. Check each LI to make sure the A channel is connected to the A cable. When complete, reboot the Shadow module of each reporting LI.

The following subsection explains the value content of the CLAN reported message, and lists the associated messages. Refer to "Formatted Message Lines and Message Line Variables" on page 25 for information concerning the complete formatted message line.

The reported message for the CLAN Cable Reporter has a generic format which is as follows:

```
mm-dd-yy          PRI  SYSMON=SYSMN1STALBG    Process=CBL_RPTR
HH:MM:SS
SYSMON   -00010  Carrierband       <module> <transition> <cable>
```

Where:

<module> is one of three values, **PRIMARY**, **SHADOW**, or **SINGLE**.

<transition> is one of three values:

- **No Longer Using**
- **Regained Use Of**, or
- **Marginal Use Of**.

All carrierband receivers are assumed to be operational at system initialization time. If a receiver becomes inoperative, the state of the receiver has "transitioned," and the value of the *<transition>* is `No Longer Using`. If the receiver was previously inoperative, and then becomes operative, the value of *<transition>* is `Regained Use Of` when the transition is detected.

<cable> is one of two values, **Cable A** or **Cable B**. Since the LI interfaces to two carrierband cables, there must be a separate receiver for each cable. The value of *<cable>* reflects the receiver of the corresponding cable that experienced the transition.

Message: **SYSMON -00024 Carrierband "Primary no longer using Cable A"**

Description: The primary module of the LI pair experienced a loss of its receiver and cable A. The Shadow's receiver A is still operable.

Message: **SYSMON -00021 Carrierband "Primary regained use of Cable A"**

Description: The primary module has regained operability of its A cable. The Shadow module's receiver A is not affected.

Message: **SYSMON -00032 Carrierband "Shadow no longer using Cable A, regained use of Cable B"**

Description: This message describes two simultaneous transitions for the shadow module of an LI pair. Before this message was printed, the shadow module's receiver A was operable, and its receiver B was inoperable. This message

indicates that both receivers for the shadow module experienced transitions into their opposite states.

Message: **SYSMON -00046 Carrierband "Single: marginal use of both cables A and B"**

Description: Receiver errors have been detected on both cables of a non-fault tolerant module. The module will utilize both cables; however, their capabilities are diminished.

Table 2-1 lists the printed messages for the CLAN Cable Reporter.

Table 2-1. CLAN Cable Reporter Printed Messages -1 through -58

Code	Message
-1	Bad address
-2	Modem error
-3	Faulty transmitter
-4	Duplicate token MAC address
-5	Controller timeout failure
-6	Duplicate node ID
-7	Primary loopback failure
-8	Shadow loopback failure
-9	Primary/shadow loopback failure
-10	Primary: No state change.
-11	Primary: Regained use of cable A.
-12	Primary: Regained use of cable B.
-13	Primary: Regained use of both cables A and B.
-14	Primary: Unreliable use of both cables A and B.
-15	Primary: No state change.
-16	Primary: Regained cable B. No longer using A.
-17	Primary: Regained use of cable B.
-18	Primary: Unreliable use of both cables A and B.
-19	Primary: Regained cable A. No longer using B.
-20	Primary: No state change.
-21	Primary: Regained use of cable A.
-22	Primary: Unreliable use of both cables A and B.
-23	Primary: No longer using cable B.
-24	Primary: No longer using cable A.
-25	Primary: No state change.
-26	Secondary: No state change.
-27	Secondary: Regained use of cable A.
-28	Secondary: Regained use of cable B.
-29	Secondary: Regained use of both cables A and B.
-30	Secondary: Unreliable use of both cables A and B.
-31	Secondary: No state change.
-32	Secondary: Regained cable B. No longer using A.
-33	Secondary: Regained use of cable B.
-34	Secondary: Unreliable use of both cables A and B.
-35	Secondary: Regained cable A. No longer using B.
-36	Secondary: No state change.
-37	Secondary: Regained use of cable A.

Table 2-1. CLAN Cable Reporter Printed Messages -1 through -58 (Continued)

Code	Message
-38	Secondary: Unreliable use of both cables A and B.
-39	Secondary: No longer using cable B.
-40	Secondary: No longer using cable A.
-41	Secondary: No state change.
-42	Single: No state change.
-43	Single: Regained use of cable A.
-44	Single: Regained use of cable B.
-45	Single: Regained use of both cables A and B.
-46	Single: Unreliable use of both cables A and B.
-47	Single: No state change.
-48	Single: Regained cable B. No longer using A.
-49	Single: Regained use of cable B.
-50	Single: Unreliable use of both cables A and B.
-51	Single: Regained cable A. No longer using B.
-52	Single: No state change.
-53	Single: Regained use of cable A.
-54	Single: Unreliable use of both cables A and B.
-55	Single: No longer using cable B.
-56	Single: No longer using cable A.
-57	Single: No state change.
-58	LI mismatched ring state.

System Management Display Handler (SMDH) Printed Messages

Table 2-2 lists the printed messages for System Management Display Handler (SMDH).

Table 2-2. System Management Display Handler (SMDH) Printed Messages

Code	Mnemonic	Message
-1	SM_NO_ACCESS	System monitor(s) have no access
-2	SM_SYSMON_NOT_RESPOND	System monitor(s) not responding
-3	SM_MT_NOT_RESPOND	Master timekeeper(s) not responding
-4	SM_CHKPT_SUCCESS	Checkpoint success
-5	SM_CHKPT_FAIL	Checkpoint failure
-6	SM_DSP_EQUIP_DEL	Deleted equipment requires returning to previous screen
-7	SM_FATAL_NTWK_ERR	Unable to initiate network communications - Sys_Mgmt terminating
-8	SM_NO_MEMORY	Unable to acquire needed memory - Sys_Mgmt terminating
-9	SM_PUT_OFLD	About to put station off line-Do you wish to continue?
-10	SM_DS_COMM_F	Diagnostic supervisor : Communication failure
-11	SM_FAIL_PASS	Diagnostic supervisor : Restart attempt passed
-12	SM_FAIL_FAIL	Diagnostic supervisor : Fail attempt failed
-13	SM_RSTR_FAIL	Diagnostic supervisor : Restart attempt failed
-14	SM_LOAD_HELP	No Message
-15	SM_SCREEN_OVERFLOW	Station added on_line - Reconfigure display?
-16	SM_RSTR_PASS	Diagnostic supervisor : Restart attempt passed
-17	SM_NO_ECBS	No devices exist for this equipment

Table 2-2. System Management Display Handler (SMDH) Printed Messages (Continued)

Code	Mnemonic	Message
-18	SM_CANT_ACCESS_SPF	Unable to access configuration database
-19	SM_STATION_BUSY	Station already busy - do you wish to override?
-20	SM_MISSING_STATION_INFO	Missing station information - do you wish to continue?
-21	SM_NETWORK_ERROR	Network error - unable to perform operation at this time
-22	SM_DS_TEST_PASS	Test passed
-23	SM_DS_TEST_FAIL	Test failed
-24	SM_FATAL_HI_ERR	Console interface error - Sys_Mgmt terminating
-25	SM_TEXT_FILES_MISSING	Text files missing - Do you wish to continue?
-26	SM_NO_HISTORIAN_AVAIL	No historian available for this system monitor
-27	SM_NO_SMS_CFG_OR_RSP	No system monitors configured or responding
-28	SM_CANT_INIT_ACTION	Unable to initiate action
-29	SM_ACTION_NOT_ALLOWED	Action not allowed
-30	SM_NO_COUNTERS_AVAIL	No counters available
-31	SM_ILL_STA_TYPE_OFLD	Illegal station type in ofldgn.dat
-32	SM_NO_OFLDIAG_THIS_STA	No Off-line diagnostics for this station
-33	SM_CANT_EXE_DIAGS	Unable to execute diagnostics
-34	SM_NO_HELP_AVAIL	No Help available at this time
-35	SM_NO_HELP_REQ	No Help required for this screen
-36	SM_NALL_FAIL	Action not allowed on a failed station
-37	SM_HIST_ACCESS_ERR	Unable to access historian database
-38	SM_NO_HIST_UP	Historian not active or not responding
-39	SM_LOST_SMGM	Lost communications to System Monitor
-40	SM_LICFG_ACCESS_ERR	Unable to access LI configuration file
-41	SM_SLICFG_ACCESS_ERR	Unable to access SLI configuration file
-42	SM_REBOOT_STATION	Rebooting Station - Do you want to continue?
-43	SM_RESET_FBM	About to Reset FBM - Do you want to continue?
-44	SM_SWCFG_ACCESS_ERROR	No Configuration Switch File

System Management Operator (SM_MSG) Printed Messages

Table 2-3 lists the printed operator messages for V8.x/9.x and later System Management (SM_MSG) software.

Table 2-3. System Management (SM_MSG) Printed Messages

Code	Mnemonic	Message
001	SM_FAIL	OPERATION FAILURE
000	SM_SUCCESS	OPERATION SUCCESS
-1	SM_RLR_DISABLED	ROM Load disabled
-2	SM_BOOT_LOAD_IN_PROGRESS	Boot load in progress
-3	SM_DIAG_LOAD_IN_PROGRESS	Diagnostic load in progress
-4	SM_EEPRM_LOAD_IN_PROGRESS	EEPROM load in progress
-5	SM_UPLOAD_IN_PROGRESS	Upload in progress
-20	SM_INVALID_REQ	Invalid message request received
-21	SM_ACTION_ALREADY_ACTIVE	Station already performing action
-22	SM_NOT_IN_SICT	Not in Station Configuration File
-23	SM_SICT_RECORD_LOCKED	Station Configuration Record Accessed by Another User

Table 2-3. System Management (SM_MSG) Printed Messages (Continued)

Code	Mnemonic	Message
-24	SM_SICT_FAILURE	Station Configuration File Unaccessible
-25	SM_STATION_NOT_RESPOND	Station not responding
-26	SM_STATION_OUTSIDE_DOMAIN	Station outside System Monitor(s)
-27	SM_PRIMARY_NOT_RESPOND	Fault Tolerant Primary Module not responding
-28	SM_SHADOW_NOT_RESPOND	Fault Tolerant Shadow Module not responding
-29	SM_INVALID_STATION_STATE	Invalid station state for operation
-30	SM_LS_NOT_RESPOND	Load Results not received
-31	SM_ALREADY_ENABLED	Already enabled
-32	SM_IN_PROGRESS	Operation in progress
-33	SM_TERMINATED	Load Terminated by another operation
-34	SM_STATION_LOADED	Station loaded
-35	SM_PRIMARY_LOADED	Fault Tolerant Primary Module loaded
-36	SM_SHADOW_LOADED	Fault Tolerant Shadow Module loaded
-37	SM_OTHER_MT_EN	Other Master Timekeeper enabled
-38	SM_INVALID_TIME	Invalid time
-39	SM_INVALID_IMAGE_SIZE	Invalid EEPROM image size
-40	SM_WRITE_TO_ROM_FAILED	Write to EEPROM failed. ROM Addr =
-41	SM_UNKNOWN_ECB	Equipment Unknown to station
-42	SM_BAD_CTR_ID	Bad counter ID
-43	SM_BAD_CTR_SIZE	Bad counter size
-44	SM_MEM_SIZE_ERROR	Memory size error
-45	SM_STATION_ALREADY_BUSY	Station already performing operation
-46	SM_SINGLE_TO_MARRIED	Fault Tolerant Modules Now Married
-47	SM_MARRIED_PRIMARY_TO_SINGLE	Fault Tolerant Prim Module Now Single. ROM Addr
-48	SM_MARRIED_SHADOW_TO_SINGLE	Fault Tolerant Shadow Module Now Single. ROM Addr
-49	SM_PRIM_DIAG_ACT	Fault Tolerant Prim Module's diagnostics activated.
-50	SM_SHAD_DIAG_ACT	Fault Tolerant Shadow Module's diagnostics activated
-51	SM_DIAG_ACTIVATED	Diagnostics activated
-52	SM_NO_STATION_AVAIL	No station available to run test with
-53	SM_A_CABLE_FAILED	Cable A failed
-54	SM_B_CABLE_FAILED	Cable B failed
-55	SM_A_RCVR_FAILED	Receiver A failed
-56	SM_B_RCVR_FAILED	Receiver B failed
-57	SM_A_XMTR_FAILED	Transmitter A failed
-58	SM_B_XMTR_FAILED	Transmitter B failed
-59	SM_DEV_HDSK_MIRROR	Hard disk mirrored
-60	SM_SMDH_NOT_IN_LIST	Select HOME for current status
-62	SM_BOTH_LOADING	Modules load status primary & shadow loading
-63	SM_PRIMARY_LOADING	Primary currently loading
-64	SM_SHADOW_LOADING	Shadow currently loading
-65	SM_SPF_ACCESS_ERR	SPF Access Error
-66	SM_SYSMON_PC_STATION	SYSMON is a PC station
-67	SM_PC_STATION	PC station
-68	SM_A_XRC_FAILED	Cannot isolate Xmtr/Rcvr/Cable A failed
-69	SM_B_XRC_FAILED	Cannot isolate Xmtr/Rcvr/Cable B failed
-70	SM_MON_A_RCVR_CAB_FAILED	SYSMON Receiver A or Cable A failed
-71	SM_MON_B_RCVR_CAB_FAILED	SYSMON Receiver B or Cable B failed

Table 2-3. System Management (SM_MSG) Printed Messages (Continued)

Code	Mnemonic	Message
-72	SM_MON_A_XMTR_FAILED	SYSMON Transmitter A failed
-73	SM_MON_B_XMTR_FAILED	SYSMON Transmitter B failed
-74	SM_CABLE_STATUS	Station/SSB error, Diagnose & run Cable Test,
-75	EU_CORE_STARTED	Core processor eeprom update has started.
-76	EU_8044_ERROR	GCIO EEPROM UPDATE has FAILED
-77	EU_GE_ERROR	Graphics Engine EEPROM UPDATE has FAILED
-78	EU_GE_STARTED	Graphics Engine eeprom update has started, GCIO complete.
-79	EU_8044_STARTED	GCIO primary eeprom update has started.
-80	EU_INVALID_DEVICE_TYPE	EEPROM UPDATE FAILED, Station Type Unknown.
-81	EU_8031_STARTED	SCSI Interface eeprom update has started.
-82	EU_8031_ERROR	SCSI Interface EEPROM UPDATE has FAILED.
-83	SM_CP_DB_LNKGS	DATABASE DOWNLOAD: RESOLVE LINKAGES SUCCESSFUL
-84	SM_CRS_CAB_A	Station/SSB error detected on cable A
-85	SM_CRS_CAB_B	Station/SSB error detected on cable B
-86	SM_TB_LOST_A	Token Bus or Tx/Rx lost A
-87	SM_TB_LOST_B	Token Bus or Tx/Rx lost B
-88	SM_TB_RA_LB	Token Bus regained A, Lost B
-89	SM_TB_RB_LA	Token Bus regained B, Lost A
-90	SM_TB_UNREL	Token Bus or Tx/Rx unreliable cable A, B
-91	SM_TB_REG_AB	Regained token bus or Tx/Rx cable A & B
-92	SM_TB_REG_B	Regained token bus or Tx/Rx cable B
-93	SM_TB_REG_A	Regained token bus or Tx/Rx cable A
-94	SM_TB_OK	Both token bus cables OK
-95	SM_TB_ABAD	Token Bus A Bad
-96	SM_TB_BBAD	Token Bus B Bad
-97	SM_TB_BOTHBAD	Both token bus cables bad
-98	SM_LOST_SMGM	Lost communication to System Monitor
-99	SM_PIO_FAIL	Failure on PIO bus
-100	SM_PIO_REC	Recovery on PIO bus
-101	SM_NO_RSP_CT	No Response to Cable Test
-102	SM_CANT_OPEN_PIPE	Unable to open pipe

Table 2-4 lists the Nodebus Network Fault Detection printed messages for pre-V8.0 System Management (SM_MSG) that may travel across an Address Translation Station (ATS).

Table 2-4. 802.3 Nodebus Network Fault Detection Messages

Code	Mnemonic	Message
0	NFD_SUCCESS	NB Cable Test to %s and %s successful
-1	NFD_NO_RSP_D	NB Cable test to %s OK. No response from %s
-2	NFD_NO_RSP_S	No Response from %s to NB Cable Test. %s OK
-3	NFD_CAB_A_MRXA	Cable A to %s and %s OR NB Masters RxA Failed
-4	NFD_CAB_B_MRXB	Cable B to %s and %s OR NB Masters RxB Failed
-5	NFD_DRXA_MDESTA	Cable test to %s OK. %s RxA OR NBE/cable A failed
-6	NFD_SRXA_MSRCA	%s RxA OR NBE/Cable A failed. %s OK
-7	NFD_DRXB_MDESTB	Cable test to %s OK. %s RxB OR NBE/cable B failed
-8	NFD_SRXB_MSRCB	%s RxB OR NBE/Cable B Failed. %s OK
-9	NFD_MTXB_NBB_BOTH	Masters TxB OR NBE B Failed to %s and %s

Table 2-4. 802.3 Nodebus Network Fault Detection Messages (Continued)

Code	Mnemonic	Message
-10	NFD_NBB_SRC	NBE B Failed to %s. %s OK
-11	NFD_NBB_DEST	Cable Test to %s OK. NBE B Failed to %s
-12	NFD_NBA_BOTH	NBE A Failed to %s and %s
-13	NFD_NBA_DTXA	Cable Test to %s OK. NBE A OR TxA of %s Failed
-14	NFD_NBA_STXA	NBE A OR TxA of %s Failed. %s OK
-15	NFD_NBB_BOTH	NBE B Failed to %s and %s
-16	NFD_NBB_DTXB	Cable test to %s OK. NBE B OR TxB of %s Failed
-17	NFD_NBB_STXB	NBE B to OR %s TxB Failed. %s OK
-18	NFD_NBA_MTXA_BOTH	Masters TxA or NBE A to %s and %s Failed
-19	NFD_NBA_DEST	Cable Test to %s OK. NBE A to %s Failed
-20	NFD_NBA_SRC	NBE A to %s Failed. %s OK
-21	NFD_DRXA	NB Cable Test to %s OK. %s RxA Failed
-22	NFD_SRXA	%s RxA Failed. NB Cable Test to %s OK
-23	NFD_DRXB	NB Cable Test to %s OK. %s RxB Failed
-24	NFD_SRXB	%s RxB Failed. NB Cable Test to %s OK
-25	NFD_MTXB	Masters TxB Failed. NB Cable test to %s and %s OK
-26	NFD_DTXA	NB Cable Test to %s OK. %s TxA Failed
-27	NFD_STXA	%s TxA Failed. NB Cable test to %s OK
-28	NFD_DTXB	NB Cable Test to %s OK. %s TxB Failed
-29	NFD_STXB	%s TxB Failed. NB Cable Test to %s OK
-30	NFD_MTXA	Masters TxA Failed. NB Cable test to %s and %s OK
-31	NFD_SDTXA	%s TxA and %s TxA Failed
-32	NFD_STXB_DTXA	%s TxB and %s TxA Failed
-33	NFD_SDTXB	%s TxB and %s TxB Failed
-34	NFD_STXA_DTXB	%s TxA and %s TxB Failed
-35	NFD_RXA_CA	%s Receiver A or NB Cable A failed
-36	NFD_RXB_CB	%s Receiver B or NB Cable B failed
-37	NFD_MTXB_S	NB Masters TxB failed
-38	NFD_MTXA_S	NB Masters TxA failed
-39	NFD_TXA	%s NB TxA failed
-40	NFD_TXB	%s NB TxB failed
-49	NFD_NO_RSP_DS	No response to NB Cable Test from %s or %s
-50	NFD_UNABLE_TO_COMPLY	Unable to process request
-51	NFD_CRS_CAB_A	Station/SSB error detected on cable A : %s %s
-52	NFD_CRS_CAB_B	Station/SSB error detected on cable B : %s %s
-53	NFD_CRS_CAB	Station/SSB error detected : %s %s
-54	NFD_CANT_ASSUME	Unable to assume 802.3 Nodebus mastership
-55	NFD_IN_PROGRESS	Nodebus Cable Test in progress
-56	NFD_UNREC_MSG	Unrecognized Message
-57	NFD_ILL_TYPE	Illegal station type for operation
-58	NFD_NO_CORR_RESULT	Unable to diagnose %s & %s. Test other NB stations
-59	NFD_UNKNOWN_STATION	No information for station
-60	NFD_NO_FSU_RSP	No response from File Server Utility
-61	NFD_BUSY	Master busy - Unable to accept request
-62	NFD_NOT_READY	Master not ready to run tests
-63	NFD_PIO_FAILURE	Failure on PIO bus : %s
-64	NFD_PIO_RECOVERY	Recovery on PIO bus : %s
-65	NFD_ASM_MAST	Assuming Nodebus mastership
-66	NFD_REL_MAST	Relinquishing Nodebus mastership

Table 2-4. 802.3 Nodebus Network Fault Detection Messages (Continued)

Code	Mnemonic	Message
-67	NFD_NO_RSP_SS	No response to Nodebus Cable Test from %s
-68	NFD_INCOMP_CONFIG	Incomplete Nodebus configuration Information
-69	NFD_ACT_IN_PROGRESS	Action in progress
-70	NFD_NR_DRMRCA	No resp from %s, %s or Master RxA or NBA Failed
-71	NFD_NR_DRMRCB	No resp from %s, %s or Master RxB or NBB Failed
-72	NFD_NR_DTXA	No response to NB test from %s, %s TxA Failed
-73	NFD_NR_DTXB	No response to NB test from %s, %s TxB Failed
-74	NFD_NR_MTXA	No response to NB test from %s, Masters TxA Failed
-75	NFD_NR_MTXB	No response to NB test from %s, Masters TxB Failed
-76	NFD_DRMRCA_NR	%s or Master RxA or Cable A Failed, No resp from %s
-77	NFD_DRMRCB_NR	%s or Master RxB or Cable B Failed, No resp from %s
-78	NFD_DTXA_NR	%s TxA Failed, No response to NB test from %s
-79	NFD_DTXB_NR	%s TxB Failed, No response to NB test from %s
-80	NFD_MTXA_NR	Masters TxA Failed, No response to NB test from %s
-81	NFD_MTXB_NR	Masters TxB Failed, No response to NB test from %s
-82	NFD_IN_TRA	%s TxRx pair A inhibited
-83	NFD_IN_TRB	%s TxRx pair B inhibited
-84	NFD_EN_TRA	%s TxRx pair A uninhibited
-85	NFD_EN_TRB	%s TxRx pair B uninhibited
-86	NFD_IN_NA	Nodebus side A inhibited
-87	NFD_IN_NB	Nodebus side B inhibited
-88	NFD_EN_NA	Nodebus side A uninhibited
-89	NFD_EN_NB	Nodebus side B uninhibited
-90	NFD_IN_CA	Nodebus cable side A inhibited
-91	NFD_IN_CB	Nodebus cable side B inhibited
-92	NFD_EN_CA	Nodebus cable side A uninhibited
-93	NFD_EN_CB	Nodebus cable side B uninhibited

Table 2-5 lists the printed Tokenbus Network Fault Detection messages for pre-V8.0 System Management (SM_MSG) that may travel across an Address Translation Station (ATS).

Table 2-5. 802.3 Tokenbus Network Fault Detection Messages

Code	Mnemonic	Message
0	NFI_TEST_SUCCESS	Token Bus test SUCCESSFUL
-1	NT_TX_A_FL	%s Intermittent Txmitter A failure on Token Bus
-2	INT_TX_B_FL	%s Intermittent Txmitter B failure on Token Bus
-3	CBL_A_FL_MSG	Token Bus Cable A failed
-4	CBL_B_FL_MSG	Token Bus Cable B failed
-5	ND_X_DRP_OR_CBL_A	%s Drop cable or cable A failed
-6	ND_X_DRP_OR_CBL_B	%s Drop cable or cable B failed
-7	ND_X_RX_A_FL	Suspected %s Receiver A failure
-8	ND_X_RX_B_FL	Suspected %s Receiver B failure
-9	ND_X_TX_A_FL	Suspected %s Transmitter A failure
-10	ND_X_TX_B_FL	Suspected %s Transmitter B failure
-11	CBL_DRP_CBL_A_FL_MSG	Token Bus Cable or Drop cable A failed
-12	CBL_DRP_CBL_B_FL_MSG	Token Bus Cable or Drop cable B failed
-13	REP_ND_RX_OTR_ND_TX_FL_	%s Rxvr OR %s Txmitter on Token Bus cable A

Table 2-5. 802.3 Tokenbus Network Fault Detection Messages (Continued)

Code	Mnemonic	Message
-14	REP_ND_RX_OTR_ND_TX_FL_B	%s Rxvr OR %s Txmitter on Token Bus cable B %s = Station Letterbug
-15	REP_ND_INTRX_OTR_ND_ INTTX_FL_A	%s Intermittent RX OR %s Intermittent TX on A
-16	REP_ND_INTRX_OTR_ND_ INTTX_FL_B	%s Intermittent RX OR %s Intermittent TX on B
-17	NSY_CBL_A	Token Bus Noisy cable A
-18	NSY_CBL_B	Token Bus Noisy cable B
-19	BOTH_CBLS_NSY	Both Token Bus Cables Noisy
-20	CBL_AB_FL_MSG	Both Token Bus Cables Failed
-21	NFI_M_OBJ_CREATE_FAILED	Failed takeover attempt by tokenbus master
-22	NFI_NBIT_UNKNOWN_MESG	Unknown message received by NBIT task
-23	NFI_804_NO_POOLS_AVAILABLE	NFI_804 unable to initialize pools
-24	NFI_DET_TX_FAIL	Transmitter failure detected
-25	NFI_DET_RX_FAIL	Receiver failure detected
-26	NFI_TIMER_INVOC_FAILED	NBIT task failed to start an IPC timer
-27	NFI_MTBM_UNKWN_MSG	Unknown message received by MTBM task
-28	NFI_CFRDF_UNKWN_MSG	Unknown message received by CFRDF task
-29	CFRDF_GBL_FND_FAIL	CFRDF global find failed
-30	NFI_TB_TEST_IN_PROGRESS	Token Bus Test in progress
-31	NFI_OBJ_DEL_FAILED	Object Delete Failed when giving up Master
-32	NFI_ALARM_INHIBIT_CABLE_A	Alarm Inhibit TB Cable A
-33	NFI_ALARM_INHIBIT_CABLE_B	Alarm Inhibit TB Cable B
-34	NFI_ALARM_INHIBIT_TX_RX_A	Alarm Inhibit %s TB Tx/Rx A
-35	NFI_ALARM_INHIBIT_TX_RX_B	Alarm Inhibit %s TB Tx/Rx B
-36	NFI_ALARM_ENABLE_CABLE_A	Alarm Enable TB Cable A
-37	NFI_ALARM_ENABLE_CABLE_B	Alarm Enable TB Cable B
-38	NFI_ALARM_ENABLE_TX_RX_A	Alarm Enable %s TB Tx/Rx A
-39	NFI_ALARM_ENABLE_TX_RX_B	Alarm Enable %s TB Tx/Rx B
-40	NFI_TB_NEW_MASTER_UNKN	Requested TB Master Unknown
-41	NFI_INVALID_REQUEST	Invalid parameters in request message
-42	NFI_ALARM_INHIBIT_CABLE_AB	Alarm Inhibit TB Cable A&B
-43	NFI_ALARM_INHIBIT_TX_RX_AB	Alarm Inhibit %s TB Tx/Rx A&B
-44	NFI_ALARM_ENABLE_CABLE_AB	Alarm Enable TB Cable A&B
-45	NFI_ALARM_ENABLE_TX_RX_AB	Alarm Enable %s TB Tx/Rx A&B

System Monitor (SYSMON) Printed Messages

Table 2-6 lists the printed messages for System Monitor (SYSMON) software.

Table 2-6. System Monitor (SYSMON) Printed Messages

Code	Mnemonic	Message
-1	SM_UNSPECIFIED_STA_LD_SUCCESS	Unknown why rebooted. Loaded OK. ROM Addr =
-2	SM_UNSPECIFIED_STA_LD_FAILURE	Unknown why rebooted. Load NOK. ROM Addr =
-3	SM_POWERUP_STA_LD_SUCCESS	Powerup reboot OK. ROM Addr =
-4	SM_POWERUP_STA_LD_FAILURE	Powerup reboot NOK. ROM Addr =
-5	SM_FORCED_STA_LD_SUCCESS	Forced reboot OK. ROM Addr =
-6	SM_FORCED_STA_LD_FAILURE	Forced reboot NOK. ROM Addr =
-7	SM_OP_FAILURE_STA_LD_SUCCESS	Oper Failure caused reboot. Loaded OK. ROM Addr =

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-8	SM_OP_FAILURE_STA_LD_FAILURE	Oper Failure caused reboot. Load NOK. ROM Addr =
-9	SM_LD_FAILURE_STA_LD_SUCCESS	Load Failure caused reboot. Loaded OK. ROM Addr =
-10	SM_LD_FAILURE_STA_LD_FAILURE	Load Failure caused reboot. Load NOK. ROM Addr =
-11	SM_RECONFIGURE_STA_LD_SUCCESS	Reconfigure Sta caused reboot. Loaded OK. ROM Addr =
-12	SM_RECONFIGURE_STA_LD_FAILURE	Reconfigure Sta caused reboot. Load NOK. ROM Addr =
-13	SM_EEPROM_LD_SUCCESS	EEPROM update in progress. ROM MAC =
-14	SM_EEPROM_LD_FAILURE	EEPROM Load Failed. ROM MAC =
-15	SM_DIAG_LD_SUCCESS	Diagnostic Load OK. ROM MAC =
-16	SM_DIAG_LD_FAILURE	Diagnostic Load Failed. ROM MAC =
-17	SM_LOADTHRU_LD_SUCCESS	Loadthru Successful. Equip Name =
-18	SM_LOADTHRU_LD_FAILURE	Loadthru Failed. Equip Name =
-19	SM_DATABASE_LD_SUCCESS	Database Load Successful
-20	SM_DATABASE_LD_FAILURE	Database Load Failed
-21	SM_CHECKPT_LD_SUCESS	Checkpoint Successful
-22	SM_CHECKPT_LD_FAILURE	Checkpoint Failed
-23	SM_MEM_DMP_LD_SUCESS	Memory Dump Successful. File name =
-24	SM_MEM_DMP_LD_FAILURE	Memory Dump Failed. File name =
-25	SM_IT_LD_SUCCESS	Intelligent Transmitter Load Successful
-26	SM_IT_LD_FAILURE	Intelligent Transmitter Load Failed
-27	SM_THRESH_XCEED	Ctr Threshld Exceeded
-28	SM_CTR_RESET	Ctr Reset
-29	SM_NO_CRCS	No Expected CRCS Reported
-30	SM_NO_SHORT_RPTS	No Short-Term Reports Received
-31	SM_NO_LONG_RPT	No Long-Term Reports Received
-32	SM_STA_PWF_FAIL	Station Experienced a Power Failure
-33	SM_LONG_PWF_FAIL	Station Powerfail - not Reporting
-34	SM_STA_BABBLER	Station Sending Unexpected Reports
-35	SM_MT_DIS_STATE	Master Timekeeper now Disabled
-36	SM_MT_EN_STATE	Master Timekeeper now Enabled
-37	SM_DEV_NOT_DLOADING	Equipment not loading
-38	SM_DEV_NOT_DIAG	Equipment not running diagnostics
-39	SM_NOT_EE_UPDATING	No longer EEPROM updating
-40	SM_DEV_OFFLINE	Equipment off-line
-41	SM_DEV_ONLINE	Equipment on-line
-42	SM_DEV_DIAG_MODE	Equipment running diagnostics
-43	SM_DEV_FAILED	Equipment failed
-44	SM_DEV_DLOAD_MODE	Equipment downloading
-45	SM_DEV_FAIL_ACKED	Equipment failure acknowledged
-46	SM_DEV_READY	Equipment ready
-47	SM_DEV_NOT_READY	Equipment not ready
-48	SM_EE_UPDATE_MODE	Equipment updating EEPROM
-49	SM_EEPROM_UPDATE_SUCCESS	Equipment EEPROM update success. ROM MAC =
-50	TERMINATING	Process Terminating
-51	SM_EQUIP_ADDED	Equipment has been added on-line
-52	SM_EQUIP_DELETED	Equipment has been deleted on-line
-53	SM_DEV_NOT_FAILED	Equipment is no longer failed
-54	SM_CANT_REMOVE_STA	Station not removed from Sysmon domain
-55	SM_MISSING_SMON	System Monitor not in configuration file

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-56	SM_PIO_BUS_A	Currently using PIO bus A
-57	SM_PIO_BUS_B	Currently using PIO bus B
-58	SM_PIO_SWITCH_EN	PIO bus switching enabled
-59	SM_PIO_SWITCH_DIS	PIO bus switching disabled
-60	SM_UPLOAD_DB	Field Bus module Uploading Database
-61	SM_DOWNLOAD_DB	Field Bus module Downloading Database
-62	SM_INVALID_NUM_SMONS	Invalid number of stations in sysmon domain
-63	NOT_USED	Possible historian database corruption
-64	NOT_USED	Possible historian database corruption
-65	SM_RECORD_SIZE	Invalid Record Size
-66	SM_DEV_DETACHED	Device Detached
-67	SM_CISAM	C ISAM Error
-68	SM_PIO_A_FAIL	Single PIO Bus Access Error on A
-69	SM_PIO_B_FAIL	Single PIO Bus Access Error on B
-70	SM_PIO_A_OK	Single PIO Bus Access Recovery on A
-71	SM_PIO_B_OK	Single PIO Bus Access Recovery on B
-72	SM_PERI_ON	Periodic Bus Switching On
-73	SM_PERI_OFF	Periodic Bus Switching Off
-74	SM_EN_RPT_NONE	Enrolling station with Report State : None
-75	SM_REB_REEN	Station Rebooted/Reenrolled. Now On-Line
-76	SM_CHG_REP_NONE	Changing desired reporting state to None for:
-77	SM_OFF_AND_DOWN	Equipment Off-Line and Downloading
-78	SM_RECOV_AB	PIO Bus Recovery on A & B
-79	SM_FAIL_AB	PIO Bus Access Error on A & B
-80	SM_PRC_STRT	Process Started
-81	SM_AP_ERR	aprint() error :
-82	SM_UNREC_STATION	Unrecognized Station
-83	SM_NRSP_NB	No Response from Nodebus Test Initiator
-84	SM_NRSP_TB	No Response from Token Bus Test Initiator
-85	SM_UNREC_DEVICE	Unrecognized Device
-86	SM_STA_INHIBITED	Station Inhibited
-87	SM_STA_UNINHIBITED	Station Uninhibited
-88	SM_DEV_INHIBITED	Device Inhibited
-89	SM_DEV_UNINHIBITED	Device Uninhibited
-90	NOT_USED	Token Bus Test Initiator Rejected Request
-91	NOT_USED	Nodebus Test Initiator Rejected Request
-92	SM_ADC_FAIL	A to D Converter Failure
-93	SM_ADC_OK	A to D Converter OK
-94	SM_BATB_FAIL	Battery Backup Failure
-95	SM_BATB_OK	Battery Backup OK
-96	SM_DP10_FAIL	DP10 Power Failure
-97	SM_DP10_OK	DP10 OK
-98	SM_CPAN_LOC	Control Panel Set Local
-99	SM_CPAN_ONL	Control Panel Set On Line
-100	SM_SYS_FLK	System Flunked
-101	SM_SYS_UFLK	System Unflunked
-102	SM_PWR_FAIL	System Power Fault
-103	SM_PWR_OK	System Power OK
-104	SM_PRT1_FLK	Port 1 Flunked

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-105	SM_PRT1_OK	Port 1 Unflunked
-106	SM_PRT2_FLK	Port 2 Flunked
-107	SM_PRT2_OK	Port 2 Unflunked
-108	SM_SP200_FAIL	SPEC200 Power Failure
-109	SM_SP200_OK	SPEC200 Power OK
-110	SM_ATTN_SET	Attention Bit Set
-111	SM_ATTN_RESET	Attention Bit Reset
-112	SM_PIO_A_IN	PIO bus A Inhibited
-113	SM_PIO_A_UIN	PIO bus A Uninhibited
-114	SM_PIO_A_IN	PIO bus B Inhibited
-115	SM_PIO_B_UIN	PIO bus B Uninhibited
-116	SM_PIO_AB_IN	PIO busses (A & B) Inhibited
-117	SM_PIO_AB_UNIN	PIO busses (A & B) Uninhibited
-118	SM_UNEX_EXIT	Unexpected exit of child process
-119	SM_INN	Node alarming disabled
-120	SM_ININN	Node alarming enabled
-121	SM_DEV_ON_SCAN	Device on scan
-122	SM_DEV_OOS	Device out of service
-123	SM_COMM_DEV_FAIL	Comm Device Failed
-124	SM_PLC_RUN_M	PLC in Run mode
-125	SM_PLC_PROG	PLC in Program mode
-126	SM_PLC_RRUN	PLC in Remote Run mode
-127	SM_PLC_RPROG	PLC in Remote Program mode
-128	SM_PLC_TEST_M	PLC in Test mode
-129	SM_DNLD_SUCCESS	Download successful & Device On-Line
-130	SM_DNLD_FAIL	Download failed & Device On-Line
-131	SM_EEP_SUCCESS	EEPROM update success
-132	SM_EEP_FAIL	EEPROM update failed
-133	SM_DEVICE_WARNING	Warning Error Condition Exists
-134	SM_DEVICE_OKAY	Warning Condition No Longer Exists
Main Module Messages		
-135	SM_CS_MOFFLINE	Main module Off-Line
-136	SM_CS_MFAILED	Main module Failed
-137	SM_CS_MACTIVE	Main module Active
-138	SM_CS_MSTANDBY	Main module Tracking
-139	SM_CS_MDLOADING	Main module Downloading
-140	SM_CS_MDLOAD_FAIL	Download of Main module Failed
-141	SM_CS_MDLOAD_OK	Download of Main module Successful
-142	SM_CS_MEEUP	Main module EEPROM being updated
-143	SM_CS_MEEPROM_FAIL	EEPROM update of Main module Failed
-144	SM_CS_MEEPROM_OK	EEPROM update of Main module Successful
Backup Module Messages		
-145	SM_CS_BOFFLINE	Backup module Off-Line
-146	SM_CS_BFAILED	Backup module Failed
-147	SM_CS_BACTIVE	Backup module Active
-148	SM_CS_BSTANDBY	Backup module Tracking
-149	SM_CS_BDLOADING	Backup module Downloading
-150	SM_CS_BDLOAD_FAIL	Download of Backup module Failed

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-151	SM_CS_BDLOAD_OK	Download of Backup module Successful
-152	SM_CS_BEEUP	Backup module EEPROM being updated
-153	SM_CS_BEEPROM_FAIL	EEPROM update of Backup module Failed
-154	SM_CS_BEEPROM_OK	EEPROM update of Backup module Successful
-155	SM_CS_MONLINE	Main module On-Line
-156	SM_CS_BONLINE	Backup module On-Line
-157	SM_CS_MNOTFAILED	Main no longer failed
-158	SM_CS_BNOTFAILED	Backup no longer failed
Triconex Station (FoxGuard Manager) Support Messages		
-159	SM_MP_A_OK	Main Processor (A) On-Line
-160	SM_MP_A_FAIL	Main Processor (A) Failed
-161	SM_MP_B_OK	Main Processor (B) On-Line
-162	SM_MP_B_FAIL	Main Processor (B) Failed
-163	SM_MP_C_OK	Main Processor (C) On-Line
-164	SM_MP_C_FAIL	Main Processor (C) Failed
-165	SM_MP_U_PWR_OK	Upper Power Supply OK
-166	SM_MP_U_PWR_FAIL	Upper Power Supply Failure
-167	SM_MP_L_PWR_OK	Lower Power Supply OK
-168	SM_MP_L_PWR_FAIL	Lower Power Supply Failure
-169	SM_MP_MAINT_OK	Maintenance Return to Normal
-170	SM_MP_MAINT_REQD	Maintenance Required
FCM Device Status Change Messages – FCM A Module Messages		
-171	SM_FCM_MOFFLINE	FCM A module Off-Line
-172	SM_FCM_MFAILED	FCM A module Failed
-173	SM_FCM_MACTIVE	FCM A module Active
-174	SM_FCM_MSTANDBY	FCM A module Tracking
-175	SM_FCM_MDLOADING	FCM A module Downloading
-176	SM_FCM_MDLOAD_FAIL	Download of FCM A module Failed
-177	SM_FCM_MDLOAD_OK	Download of FCM A module Successful
-178	SM_FCM_MEEUP	FCM A module EEPROM being updated
-179	SM_FCM_MEEPROM_FAIL	EEPROM update of FCM A module Failed
-180	SM_FCM_MEEPROM_OK	EEPROM update of FCM A module Successful
FCM Device Status Change Messages – FCM B Module Messages		
-181	SM_FCM_BOFFLINE	FCM B module Off-Line
-182	SM_FCM_BFAILED	FCM B module Failed
-183	SM_FCM_BACTIVE	FCM B module Active
-184	SM_FCM_BSTANDBY	FCM B module Tracking
-185	SM_FCM_BDLOADING	FCM B module Downloading
-186	SM_FCM_BDLOAD_FAIL	Download of FCM B module Failed
-187	SM_FCM_BDLOAD_OK	Download of FCM B module Successful
-188	SM_FCM_BEEUP	FCM B module EEPROM being updated
-189	SM_FCM_BEEPROM_FAIL	EEPROM update of FCM B module Failed
-190	SM_FCM_BEEPROM_OK	EEPROM update of FCM B module Successful
-191	SM_FCM_MONLINE	FCM A module On-Line
-192	SM_FCM_BONLINE	FCM B module On-Line
-193	SM_FCM_MNOTFAILED	FCM A no longer failed
-194	SM_FCM_BNOTFAILED	FCM B no longer failed
-195	SM_DCI_DLOAD_SUCC	DCI DB Download Success

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-196	SM_DCI_DLOAD_FAIL	DCI DB Download Failed
-197	SM_COMM_ENABLED	DCI Comm Enabled
-198	SM_COMM_DISABLED	DCI Comm Disabled
PROFIBUS 222 and 223 Port Messages		
-199	SM_PORT1_DISABLED	PORT 1 Disabled
-200	SM_PORT1_ENABLED	PORT 1 Enabled
-201	SM_PORT2_DISABLED	PORT 2 Disabled
-202	SM_PORT2_ENABLED	PORT 2 Enabled
-203	SM_PORT3_DISABLED	PORT 3 Disabled
-204	SM_PORT3_ENABLED	PORT 3 Enabled
-205	SM_PORT4_DISABLED	PORT 4 Disabled
-206	SM_PORT4_ENABLED	PORT 4 Enabled
Redundant HART Messages		
-207	SM_HART_MMASTER	Main module Master
-208	SM_HART_MTRACKER	Main module Tracker
-209	SM_HART_BMASTER	Backup module Master
-210	SM_HART_BTRACKER	Backup module Tracker
-211	SM_HPS_MT_GPS_DIS_STATE	HPS Timekeeper GPS Disabled
-212	SM_HPS_MT_GPS_EN_STATE	HPS Timekeeper GPS Enabled
-213	SM_HPS_MT_GPS_NOT_CFG	HPS Timekeeper GPS Not Configured
-215	SM_PORTA_FAIL	PORT A is failed
-216	SM_PORTB_FAIL	PORT B is failed
-217	SM_PORTAB_FAIL	PORT A and PORT B are failed
-218	SM_PORTAB_READY	PORTA and PORTB are ready
-219	SM_FCM100et_ROLE_SWITCH	FCM100et Role Switch
-220	SM_PWR_A_FAIL	CP Power 1 failed
-221	SM_PWR_A_OK	CP Power 1 OK
-222	SM_PWR_B_FAIL	CP Power 2 failed
-223	SM_PWR_B_OK	CP_Power 2 OK
-224	SM_ENET_CABLE_A	Currently using cable A
-225	SM_ENET_CABLE_B	Currently using cable B
-226	SM_ENET_CABLE_SWITCH_DIS	Cable switching disable
-227	SM_ENET_CALBE_SWITCH_EN	Cable switching enable
Control Network Interface (CNI) Messages[1]		
-234	SM_CNI_HEARTBEAT_TIMEOUT	Failure to detect heartbeat from remote CNI
-235	SM_CNI_RECEIVE_HEARTBEAT	Failure to detect heartbeat from remote CNI condition cleared
-236	SM_CNI_NO_CONFIGURATION	Connection configuration unavailable
-237	SM_CNI_CONFIG_AVAILABLE	Connection configuration unavailable condition cleared
-238	SM_CNI_EXCEED_OM_TAGS	Max number of OM tags in local system has been exceeded
-239	SM_CNI_NOT_EXCEED_OM_TAGS	Max number of OM tags in local system exceeded condition cleared
-240	SM_CNI_UPDATES_LOST	Change update(s) being lost
-241	SM_CNI_UPDATES_NO_LONGER_LOST	Change update(s) being lost condition cleared
-242	SM_CNI_CONNECTION_FAIL	Failure to connect to remote CNI
-243	SM_CNI_CONNECTION_RECOVERY	Failure to connect to remote CNI condition cleared

Table 2-6. System Monitor (SYSMON) Printed Messages (Continued)

Code	Mnemonic	Message
-244	SM_CNI_DATA_RESYNC_REQUIRED	Corrupted CSI data, disconnecting from remote CNI
-245	SM_CNI_EXCEED_OBJECT	Max number of remote system compounds is exceeded
-246	SM_CNI_NOT_EXCEED_OBJECT	Max number of remote system compounds exceeded condition cleared
-247	SM_CNI_RECONFIG_REBOOT_REQUIRED	A Manual reboot is required due to configuration changes
-248	SM_CNI_DEPLOYED_FROM_HOST_SUCC	Cfg sent to CNI is incompatible or corrupted condition cleared (Indicates error code -249 has been cleared)
-249	SM_CNI_CONFIGURATION_CHANGE_FAILED	Cfg sent to the CNI is incompatible or corrupted
-250	SM_CNI_DOWNLOAD_SVC_FAILURE	CNI download service has failed (This indicates that communications between the CNI and Data Load Server are broken.)
-251	SM_CNI_DOWNLOAD_SVC_RECOVER	CNI download service has failed condition cleared
-252	SM_CNI_RETRY_SINK_RECONNECTION_SUCC	Retry sink connections successful
-253	SM_CNI_RETRY_SINK_RECONNECTION_FAILED	Retry sink connections failed

1. Most of these messages are explained in Table 2-13 “Controller Network Interface (CNI) System Monitor Status Change Messages” on page 74.

SYSMON Exit Codes and Messages

Whenever the System Monitor terminates by executing a normal exit command, it will pass a descriptive exit code to the parent process of “SMON_ECH”. It will dump this code to a file on the workstation called “smon.exit”, and log a message to the printer. The “valid reason” codes are listed in Table 2-7:

Table 2-7. SYSMON Exit Codes and Messages

Code	Message
1	unname() failed
2	Error processing destact.cfg
3,4	Unable to get message from SMON_DRVR
5,6	Error creating/writing PID file
7,8	Error registering/activating with Foxboro IPC
9,10,11,12,13	Error processing smon1st.cfg
14,15,16	Error processing domain file
17	Could not start child : SMON_STRH
20,21	Could not start child : SMON_DRVR
22,23	Could not start child : SMON_CRL
24	Error processing PID file
25	Error on exec of child
26 thru 29	Error interfacing with historian
30	Change directory failed
31	Death of a child. (SMON_ECH will exit-Sun only)
34,35	Error processing smon1st.cfg
36	Normal exit path. Received a signal 15 (can happen on software install and shutdown of AP50)
37	Global find error

Table 2-7. SYSMON Exit Codes and Messages (Continued)

Code	Message
38	Unable to allocate space
39	Unable to get message from SMON_DRVR

Control Network Interface (CNI) Printed Messages

Table 2-8 lists the printed operator messages for the CNI.

Table 2-8. Control Network Interface (CNI) Printed Messages

Code	Mnemonic	Message
-1	SuccesfulConnectionTo	Successful connection to:
-2	CmpCfgDeploymentFailed	Compound config deployment failed
-3	CmpCfgDeploymentSucceeded	Compound configuration deployment succeeded
-4	CfgDeploymentSucceeded	Configuration deployment succeeded
-5	CfgDataCorrupted	Configuration sent to CNI is corrupted
-6	ALDeploymentSucceeded	Access List deployment succeeded
-7	ALDeploymentFailed	Access List deployment failed
-8	RetrySinkConnectionsSuccessful	Retry sink connections successful
-9	CniReceiverTaskRegFailed	Failed in registering CniReceiverTask
-10	CniReceiverTaskActFailed	Failed in activating CniReceiverTask
-11	InvalidCmd	Invalid command, cmd=
-12	LoadDataFailed	Load Data failed
-13	FailedToSend	Failed to send RESP=
-14	FailedToAllocate	OMExt: Failed to allocate Get resp buffer
-15	GetFailed	GET failed converting to 4 bytes
-16	SysAlarmMemAllocFailed	CNI system alarm message memory allocation failed
-17	CniSysAlarmQpostFailed	CNI sys alarm message qpost fail, err=
-18	DbqueryQPostFailed	DBQuery CNI QPOST failed. Name
-19	RetryOpenmListFailed	Retry open lists failed
-20	UnsupportedCniProcessorReq	Unsupported cni_processor request received
-21	GettingDataFromWksFailed	Failed in getting data from work station
-22	OmCloseForSinkCPDisconnectQpostFailed	OMClose for sink CP disconnect' QPOST failed
-23	OMCloseQpostFailed	OMClose QPOST failed
-24	AllocateMODBufferFailed	Failed to allocate MOD buffer
-25	OmModRemQpostFailed	OM ModRem QPOST failed

Network Management (NM) Printed Messages

The following table lists the printed messages for Network Management (NM).

These messages could result when an Ethernet switch's power is off, a broken cable exists in the configuration, or a workstation has lost link. Check all and retry.

Table 2-9. Network Management (NM) Printed Messages

Code	Mnemonic	Message
-1	SNMPERR_GENERR	Snmp Generic Error
-2	SNMPERR_BAD_LOCPORT	Invalid local port

Table 2-9. Network Management (NM) Printed Messages (Continued)

Code	Mnemonic	Message
-3	SNMPERR_BAD_ADDRESS	Unknown host
-4	SNMPERR_BAD_SESSION	Unknown session
-5	SNMPERR_TOO_LONG	Too long
-6	SNMPERR_ASN_ENCODE	Encoding ASN.1 Information
-7	SNMPERR_ASN_DECODE	Decoding ASN.1 Information
-8	SNMPERR_PDU_TRANSLATION	PDU Translation error
-9	SNMPERR_OS_ERR	OS error
-10	SNMPERR_INVALID_TXTOID	Invalid textual OID
-11	SNMPERR_UNABLE_TO_FIX	Unable to fix PDU
-12	SNMPERR_UNSUPPORTED_TYPE	Unsupported SNMP Type
-13	SNMPERR_PDU_PARSE	Unable to parse PDU
-14	SNMPERR_PACKET_ERR	Packet error
-15	SNMPERR_NO_RESPONSE	No response from host

Timekeeper Subsystem (HPSTK) Printed Messages

For error messages relating to the time synchronization subsystem, refer to *Time Synchronization Subsystem* (B0700AQ).

Control and I/O Database (CIO_DB) Printed Messages

Table 2-10 lists the printed messages for the Control and I/O Database (CIO_DB).

Table 2-10. Control and I/O Database (CIO_DB) Printed Messages

Code	Message	Corrective Action
01	DATABASE DOWNLOAD: RESOLVE LINKAGES SUCCESSFUL	This is an informational message; no corrective action is required.
02	DATABASE DOWNLOAD: RESOLVE LINKAGES FAILED	If the database download fails, reboot the CP, verify the checkpoint file, and reinitialize and reload the CP. If the problem persists, replace the module.
03	DATABASE DOWNLOAD COMPLETE	This is an informational message; no corrective action is required.
04	DATABASE DOWNLOAD FAILED	If the database download fails, reboot the CP, verify the checkpoint file, and reinitialize and reload the CP. If the problem persists, replace the module.
05	DUPLICATE COMPOUNDS FOUND	If the database download fails, reboot the CP, verify the checkpoint file, and reinitialize and reload the CP. If the problem persists, replace the module.
06	LOGICAL DEVICE NOT REGISTERED	
07	CHECKPOINT ABORTED: INSUFFICIENT MEMORY TO VALLOC	If the database download fails, reboot the CP, verify the checkpoint file, and reinitialize and reload the CP. If the problem persists, replace the module.
08	CHECKPOINT ABORTED: MESSAGE TIMEOUT	If the database download fails, reboot the CP, verify the checkpoint file, and reinitialize and reload the CP. If the problem persists, replace the module.

Table 2-10. Control and I/O Database (CIO_DB) Printed Messages (Continued)

Code	Message	Corrective Action
09	DATABASE UPLOAD COMPLETE	This is an informational message; no corrective action is required.
10	DATABASE UPLOAD FAILED	
11	AUTOMATIC CHECKPOINT	This is an informational message; no corrective action is required.
12	FIELD DEVICE DATABASE MODIFIED: UPLOAD REQUIRED	
13	UNDEFINED BLOCK(S)	
15	Database Load Successful	This is an informational message; no corrective action is required.
15	Checkpoint File Loaded from Flash	This is an informational message that appears when a controller in self-hosting mode boots up and loads the checkpoint file from flash. No corrective action is required.
15	Checkpoint Command Timeout	When a checkpoint is requested on-demand, this message appears in the System Monitor log when a controller in self-hosting mode does not respond to the checkpoint command before the timeout occurs. Manually re-issue the checkpoint command.
15	Manually Issue Checkpoint Command	When a checkpoint is requested on-demand, this message appears in the System Monitor log if the checkpoint command times out or fails. Manually re-issue the checkpoint command.
15	Checkpoint Command Failed	When a checkpoint is requested on-demand, this message appears in the System Monitor log when the checkpoint command is unsuccessful. Manually re-issue the checkpoint command.
15	Checkpoint to Flash Requested	When an FCP280 or CP270 is configured for self-hosting, this message appears after a checkpoint has been requested but before the checkpoint file is installed into the controller's flash memory.
15	Wait For Message 'Checkpoint installed into flash'	When an FCP280 or CP270 is configured for self-hosting, this message appears after the checkpoint file was successfully sent to the host workstation, but has not yet been burned to the controller's flash memory. The checkpoint cannot be considered complete until the Checkpoint installed into flash message appears.

Table 2-10. Control and I/O Database (CIO_DB) Printed Messages (Continued)

Code	Message	Corrective Action
15	Auto Checkpoint Override to 2 Hours	When you enable self-hosting in a controller, the smallest time interval allowed for the auto-checkpoint option is 2 hours. If self-hosting is enabled in a controller and you set the auto-checkpoint option to less than 2 hours (CKPOPT=1 or 2 and AUTCKP<4), the FCP280 or CP270 will evaluate the parameter combination when the control changes are downloaded. If AUTCKP is less than 4 under these circumstances, the FCP280 or CP270 automatically changes the AUTCKP to 4, and this message appears in the System Monitor log. Because there is no communication between the control configurator software and the FCP280 or CP270, it is recommended that you correct the AUTCKP parameter using ICC after the FCP280 or CP270 overrides it. To do this, set the AUTCKP between 4 (meaning that an auto-checkpoint is performed every 2 hours) and 127, or select the Station block and issue an Upload Block/ECB Parameters command. Additionally, if the FCP280 or CP270 overwrites the AUTCKP parameter because of this limitation and you later disable self-hosting, the auto-checkpoint option will not revert to its original value. In this situation, you must disable self-hosting, set the auto-checkpoint option to the desired time interval, and then download the configuration changes to the controller.
16	SH_FLDWNFL Self Hosting - Download From Flash Failed.	
15	Checkpoint File Loaded from Host	When an FCP280 or CP270 is **not** configured for self-hosting, this informational message appears when the controller boots up and loads the checkpoint file from its host. No corrective action is required.
	Shadow Checkpoint Incomplete - Reboot Shadow	If the checkpoint file in the shadow module's flash does not match the checkpoint file in the primary module's flash after the shadow module is rebooted, the shadow module goes off-line and receives the checkpoint file from the primary module. This is part of normal controller operation. However, if the shadow module does not receive the complete checkpoint file, the shadow module stays red/green, this message appears in the System Monitor log, and the remarriage does not complete. If this message appears, manually reboot the shadow module.

Control and I/O Message Delivery Service (CIO_MDS) Printed Messages

Table 2-11 lists the printed messages for the Control and I/O Message Delivery Service (CIO_MDS).

Table 2-11. Control and I/O Database (CIO_DB) Printed Messages

Code	Mnemonic	Message
01	CLIENT_CONNECTION	The Message Manager connected to the station.
02	CLIENT_DISCONNECTED	The Message Manager disconnected from the workstation.
03	DROPPED_MESSAGE	An alarm message was dropped because the message queue was full.
04	MSG_SEND_FAILED	All retries to sent alarm message to client failed.

Controller (Control Processor) Messages

Table 2-12 lists the printed messages for controllers.

Table 2-12. Controller (Control Processor) Messages

Code	Error Text	Message/Meaning
Mnemonic = 0 - representing System initialization messages		
15	SYSINIT EXTENSIONS INIT	Fatal Initialization Error; unable to proceed (time, scheduling, fault tolerance, Comex, IPC, OM failure) Possible remedy: System initialize has failed; reboot
15	SYSINIT STATION INIT	Fatal Initialization Error; unable to proceed (creation of mailboxes, tasks, queues and partitions failed) Possible remedy: System initialize has failed; reboot
15	<name of task>	Verror() has returned an error on creation Possible remedy: Invalid start; try again; look up error code
Mnemonic = 0 - representing VRTX Kernel Messages		
-	<task>	Scheduling this task failed Possible remedy: This could be a space issue.
Mnemonic = -1 (IPC) - representing Redl Manager Messages See Table 2-24 for definition of <IPC error> codes, corresponding mnemonics, and <IPC error text> for specific <IPC error> codes.		
-	<task> cl_send()_failed	Send and retry failed; came back with an error, error code is being reported Possible remedy: Action is dependent on message; correct condition and try again
-	RedlMan failed to ack msg	Chk_io did not get an acknowledgement of the send Possible remedy: Action is dependent on message; correct condition and try again
-	<task> cl_chkio()_failed	Message was sent and the results check found an error Possible remedy: Action is dependent on message; correct condition and try again
-	<task> cl_receive()_error	Receive came back with an error, error code is being reported Possible remedy: Action is dependent on message; correct condition and try again

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
-	<task> cl_bcast()_failed	Broadcast to master timekeeper came back with an error, error code is being reported Possible remedy: Action is dependent on message; correct condition and try again
-	<task> cl_chkio()_error	Receive call error, no dispatch, error code is being reported Possible remedy: Action is dependent on message; correct condition and try again
-	<task> TIME_IPC_FAIL	Registration or activation was not successful; task deleted Possible remedy: Correct condition and try again
Mnemonic = -1 (IPC_SS) - representing Device Receive Name Messages See Table 2-24 for definition of <IPC error> codes, corresponding mnemonics, and <IPC error text> for specific <IPC error> codes.		
-	<IPC error text> Fatal error from cs_register	Exception on registration of alias with IPC Possible remedy: Action is dependent on message; correct condition and try again
-	<IPC error text> Fatal error from cs_activate	Exception when activation alias with IPC Possible remedy: Action is dependent on message; correct condition and try again
-	<IPC error text> Error from cl_receive	Instead of a receive ID, an error code was received Possible remedy: Action is dependent on message; correct condition and try again
Mnemonic = -20 (IRDASS) - representing IrDA Messages can be found in Table 1-14.		
Mnemonic = -23 (FTFCPSS) - representing Fault Tolerant Executive Messages		
-	WDT_TASK ROM Addr <mac addr>	The following <error> codes listed below explain the nature of the fault tolerant fault Possible remedy: Fault tolerance issue; one or both CPs has a major issue. Correct issue if possible or replace CP.
16	-	Cooperative Diagnostics failed
17	-	Kernel version did not match other module
18	-	FT sequencer in RESOLVE state-(re)marriage
19	-	Returned by COOP_DIAG - Other mod. failed
20	-	Returned by COOP_DIAG - Non-isolated error
21	-	Cannot read Letterbug
22	-	Non-unique Letterbug

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
23	-	FT pair failed to exchange state roles
24	-	FT pair failed to get to consistent state
25	-	Interlink exchange failed
26	-	Message passed over Interlink do not match
27	-	FT Sequencer not valid state to continue
28	-	Improper Ethernet message transmit attempted
29	-	Bad message ID returned from receive call
30	-	Error escalation threshold has been exceeded
31	-	Modules failed to sync up prior to memory to memory
32	-	Modules failed to sync up after to memory to memory
33	-	FT state in unexpected state to continue
34	-	Returned by COOP_DIAG - Unrecognized Condition
35	-	Module rebooting to reload image for standby
36	-	Both modules saw other module as failed during diagnostics
37	-	Module has Loss of Ethernet Link Status
38	-	Module Went OFF Line due to RESET
39	-	Data Transfer failed during Error Recovery
40	-	Data Transfer failed during Remarriage
41	-	ZBUS is not connected to ZCP270
42	-	Returned by IOC DIAGS - Non-isolated error
43	-	Simultaneous Boot - Forced Module Reboot
44	-	Module loss Sync Pulse on both ports
45	-	Non-unique MAC Address
46	-	At Startup, Rebooting to free up SPRI module in RESOLVE state
47	-	Self Host - Invalidate Checkpoint
48	-	Self Host - Interlink Exchange Failed
Mnemonic = -30 (RDHSS) - representing Runtime Diagnostic Handler Subsystem Messages #define DUMP_OPERATIONS 0x80 Dump Operations/Dump Task		
128	Dump Task DUMP Success	Dump is complete; successful Informational
128	Dump Task DUMP Failure	Dump is complete; not successful Informational
128	Dump Task DUMP Starting	Dump has begun Informational
128	Dump Task Write Err - likely no dump file space	RLS error during dump; out of memory or retries exhausted to host Possible remedy: Free memory, check host connection

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
Mnemonic = -30 (RDHSS) - representing Runtime Diagnostic Handler Subsystem Messages #define IMAGE_LOAD_OPERATIONS 0x83 Note: For many of the messages in this subsection of the table, the “Process” name field of the actual message is included at the beginning of the Message column here; e.g., “Ping Test”, “Powerup Task”, etc.		
Image Load Operations/Flash Loader Messages		
131	Flash Loader CHKPT Load Failed Reboot Shadow	Shadow not ready for 2 seconds; update has gotten lost; aborting Possible remedy: Try again; reboot shadow
131	Flash Loader dump loaded	Load is complete Informational
131	Flash Loader Dump Not Loaded	Load did not complete Possible remedy: Try again
131	Flash Loader Flash Load Aborted TCPIP Error	Failure to open a communications socket with host Possible remedy: Restore connection to host or all sockets busy in CP/reboot
131	Flash Loader Flash Loaded Successfully rebooting now	Load of Strataflash is complete; rebooting shadow Informational
131	Flash Loader Flash Loaded Successfully reboot to activate	Load of Strataflash is complete; rebooting shadow Informational
131	Flash Loader Image Checksum Failed	Verification of the downloaded image resulted in a bad checksum Possible remedy: Most likely one or more of the packets failed to deliver; is the AW too busy? Are packets being garbled via bad communications?
131	Flash Loader Image verified	Verification of downloaded image Possible remedy: Informational
131	Flash Loader Load Incomplete	Final packet of load was not seen Possible remedy: Most likely packet failed to deliver; is the AW too busy? Are packets being garbled via bad communications?
131	Flash Loader Load ## pct	25, 50, 75 percent of load completed mark Informational
131	Flash Loader OLUG Failed rebooting Shadow	Shadow not ready for 2 seconds; update has gotten lost; rebooting Possible remedy: Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
131	Flash Loader Shadow CHKPT File Not Received	Retries exhausted; stopping Possible remedy: Try again; reboot shadow
131	Flash Loader Shadow Checkpoint File Incomplete Shadow Failed	No Ack for thirty packet times; shadow module if married has been aborted Possible remedy: Try again; reboot shadow
131	Flash Loader Shadow Checkpoint File Sent	Copy is complete Possible remedy: Informational
131	Flash Loader Shadow Checkpoint Incomplete - Reboot Shadow	Exchange buffer call failed Possible remedy: Reboot shadow
131	Flash Loader Shadow Checkpoint update Needed	Starting a copy of checkpoint to shadow Informational
131	Flash Loader Shadow Rebooting with updated Romvault	Test shows the shadow module needed an update Informational
131	Flash Loader Shadow update Incomplete Shadow Failed	No Ack for thirty packet times; shadow module if married has been aborted Possible remedy: Try again; reboot shadow
131	Flash Loader Shadow update Needed	Mismatch of CP images in pair; copy to shadow has been called Informational
131	Flash Loader Shadow update not received	Ready not asserted by Shadow; update process has gotten lost; aborting Possible remedy: Try again; reboot shadow
131	Flash Loader Shadow update sent	Shadow update has finished sending Informational
131	Flash Loader Shadow update Timeout	Shadow not ready for 2 seconds; update has gotten lost; aborting Possible remedy: Try again; reboot shadow
131	Flash Loader Strata Erased	Start of image update Informational
131	Flash Loader TCPIP Error	Failure to open a communications socket with host Possible remedy: Restore connection to host or all sockets busy in CP/reboot
Image Loader Operation/OLUG Loader Messages		
131	OLUG Loader BACKING out image disable B Port	Ready to copy main strataflash to shadow; disabling port B during this process Informational
131	OLUG Loader OLUG Checkpoint failed retrying	Time out of the copy process; restarting checkpoint Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
131	OLUG Loader OLUG update being sent	OLUG has been started Informational
131	OLUG Loader Shadow burning new image	Send is complete; burning new image Informational
131	OLUG Loader Flash Loaded OK updating shadow	Send is complete; burning new image Informational
131	OLUG Loader Checkpoint then disable B Port	After short wait ready to checkpoint; disabling port B during this process Informational
131	OLUG Aborted Married Upgrade requires both ports	The two Ethernet cables are used for different things in the upgrade. If both are not available, the upgrade cannot be carried out. Possible remedy: Make sure both FECN connections exist and are good connections
131	OLUG Auto New image running rebooting Shadow now	Automatic OLUG started Informational
131	OLUG Auto Automatic Upgrade started	Automatic OLUG is rebooting the shadow Informational
131	OLUG Cold Online Cold Upgrade started	Cold upgrade OLUG started Informational
131	OLUG Cold Loaded - reboot Shadow to accept new image	Cold upgrade OLUG is rebooting the shadow Informational
131	OLUG Cold or reboot Primary to go back to old image	2nd half of previous message
131	OLUG Warm Online Warm Upgrade started	Warm upgrade OLUG started Informational
131	OLUG Warm Loaded - reboot Shadow to accept new image	Warm upgrade OLUG is rebooting the shadow Informational
131	OLUG Warm or reboot Primary to go back to old image	2nd half of previous message
Image Loader Operation/Self Hosting Messages		
131	Self Hosting ** Shadow Reboot - Invalidate Flash **	Shadow is invalidating its flash so that a new image can be written Informational
131	Self Hosting Checkpoint loading to Flash	Checkpoint file is being burned to flash Informational
131	Self Hosting Backup Checkpoint erased	Start of update process Informational
131	Self Hosting Checkpoint Load Aborted TCPIP Error	The Ethernet socket necessary for a download was not created Possible remedy: Check Ethernet connections
131	Self Hosting Write to FLASH Failed	Server did not connect within a 20 minute window Possible remedy: Check host available, check Ethernet connections
131	Self Hosting Socket Failure Issue Checkpoint	Second part of previous message
131	Self Hosting Shadow Checkpoint Load Incomplete	Primary module succeeded and the shadow failed to load checkpoint file

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
131	Self Hosting Primary Checkpoint Load Incomplete	Shadow module succeeded and the primary failed to load checkpoint file
131	Self Hosting Checkpoint Load Incomplete*	Both modules failed to load checkpoint file; flash is invalidated
131	Self Hosting Checkpoint Checksum not found*	Both modules failed to load checkpoint file; no checksum found
131	Self Hosting Checkpoint Checksum Bad*	Both modules failed to load checkpoint file; checksum incorrect
131	Self Hosting Checkpoint Write to Flash Failed	2nd part of one of previous message marked with *
131	Self Hosting Shadow Checksum not found	Primary module succeeded and the shadow has no checksum found
131	Self Hosting Shadow Checksum Bad	Primary module succeeded and the shadow checksum does not match
131	Self Hosting Primary Checksum not found	Shadow module succeeded and the primary has no checksum found
131	Self Hosting Primary Checksum Bad	Shadow module succeeded and the primary checksum does not match
131	Self Hosting Checkpoint File verified	Checksums are correct for checkpoint file Informational
131	Self Hosting Checkpoint installed into flash	Checkpoint file write is complete and successful Informational
131	Self Hosting Self Hosting Disabled	OLUG is inactive Possible remedy: Ethernet transmitters are probably powered down
Image Load/Config Check Messages		
131	Config check Requesting Stabin	Getting the stabin file from the host and checking configuration data Informational
131	Config check TCPIP Error	Unable to get Ethernet socket Possible remedy: Should always work; most likely a coding error
131	Config check Wrong Station Info	Security check; Mac should contain a 0x6C Possible remedy: Possible security problem
131	Config check Station info does not match STABIN file	Scan rate does not match Informational; rebooting to try again
131	Config check Station rebooting to reconfigure	Second part of previous message
131	Config Check Config data verified	Stabin and config data checking is complete Informational
131	Config Check Config check data not received	Config data checking did not complete Possible remedy: Connection to host is in question (note: code wasn't reachable)
131	ROMV Backup	Erase backup romvault, write new romvault, and erase main romvault; backup effort is complete Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
131	ROMV Fail	Erase backup romvault, write new romvault, and erase main romvault; backup effort failed Possible remedy: Try another write; currently running from unchanged main
131	ROMV Updated	Write new main romvault; effort is complete Informational
131	Excessive Time Strobe Pulses received	Code is closing off interrupts from the time strobe because of “noise”; rearm and reenable interrupts Possible remedy: Check cabling
131	ZCP IOC Acquired Link Rebooting partner	A ZCP IOC Ethernet link has come back to life; partner is rebooting to insure pair have the same setup Informational
Image Load/Station Block Messages		
131	Station Block Available Memory is below recommended limits	Available memory has dropped below 400,000 bytes Possible remedy: Free memory
131	Station Block Available Memory far below recommended limits	Available memory has dropped below 200,000 bytes Possible remedy: Free memory
131	Station Block Available Memory is critically low	Available memory has dropped below 100,000 bytes Possible remedy: Free memory
Mnemonic = -30 (RDHSS) - representing Runtime Diagnostic Handler Subsystem Messages #define REBOOT_OPERATIONS 0x82 Note: For many of the messages in this subsection of the table, the “Process” name field of the actual message is included at the beginning of the Message column here; e.g., “Ping Test”, “Powerup Task”, etc.		
Reboot Operations/Powerup Task Messages		
130	Powerup Task WDT TIMEOUT Occurred	Reloading due to watchdog timeout Informational
130	Powerup Task Memory Error Detected	Reloading due to memory error Informational
130	Powerup Task Memory Violation Caused Reboot	Reloading due to memory violation Informational
130	*Powerup Task Violating TASK Priority - %u, ID - %u	Second part of previous message Memory violation was traced to this task (Data may not be reliable, best we have)
130	Powerup Task Operator Initiated Reboot	Reloading because operator requested reboot Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
130	Powerup Task Reconfiguration Auto-Reboot	Reloading due to new configuration; to make new config active Informational
130	Powerup Task Reboot due to Powerup Reset	Reloading for other reasons; presume power reset Informational
130	Powerup Task Memory Violation - Dump Available	Reloading due to memory violation Informational; get dump for examinations
130	Powerup Task Integer Divide by zero exception error	Second part of previous message, option 1; 3rd part is * listed above
130	Powerup Task Spurious Interrupt received	2nd part of previous message, option 2; 3rd part is * listed above
130	<empty>	Note: 2nd part may also be skipped; 3rd part is * and still printed
130	Powerup Task HW WDT timeout - dump available	Rebooting due GORDON hardware watchdog timer expiring or revision register not valid Informational
130	Powerup Task SW WDT timeout- dump available	Rebooting due to software timer expiring Informational
130	Powerup Task Protection Violation- dump available	Rebooting due to code executing in illegal area Informational; indicates code problem
130	Powerup Task Operator Initiated Reboot	Rebooting due to operator request Informational
130	Powerup Task Rebooted to correct error	Rebooting due to unknown error code - example NMI (divide by zero or other exception) Informational; usually indicates code problem
130	Powerup Task Reconfiguration Auto-Reboot	Reboot due to configuration mismatch Informational
130	Powerup Task Reboot due to Powerup Reset	Reboot due to power having been cycled unexpectedly Informational
130	Powerup Task Last Running TASK Priority - %u	Reboot for an unknown reason; attempt to provide information; warning - this information may not be available, values provided just in case Informational
130	SUBSYS_ID = %d , error code =%d	Second part of previous message
130	Powerup Task Speed Check Number = %u	Security - debug port is enabled on main processor and impacting processor speed Possible remedy: Hardware disable debug port
130	WARNING *** DEVELOPMENT DEBUG PORT ENABLED	Second part of previous message
130	UNPREDICTABLE CONTROLLER ERRORS MAY OCCUR	Third part of previous message
130	Powerup Task ZCPIOC Speed Check Number = %u	Security - debug port is enabled on IOC processor and impacting processor speed Possible remedy: Hardware disable debug port
130	WARNING *** IOC DEVELOPMENT DEBUG PORT ENABLED	Second part of previous message
130	UNPREDICTABLE CONTROLLER ERRORS MAY OCCUR	Third part of previous message

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
130	Powerup Complete CP Image name = <image revision>	Where <image revision> indicates the revision of the CP image. Informational
Reboot Operations/Shadow Reporter Messages		
130	Shadow Reporter WDT TIMEOUT Occurred- dump available	See powerup section
130	Shadow Reporter WDT TIMEOUT Occurred	See powerup section
130	Shadow Reporter Memory Error Detected	See powerup section
130	Shadow Reporter Memory Violation - dump available	See powerup section
130	Shadow Reporter Integer Divide by zero exception error	See powerup section
130	Shadow Reporter Spurious Interrupt received	See powerup section
130	Shadow Reporter Operator Initiated Reboot	See powerup section
130	Shadow Reporter Shadow Checkpoint Flash Updated	Reboot by command to load Informational
130	Shadow Reporter Shadow Checkpoint Flash Invalidated	Reboot by command to invalidate FLASH Informational
130	Shadow Reporter Rebooted to correct error	See powerup section
130	Shadow Reporter Reconfiguration Auto-Reboot	See powerup section
130	Shadow Reporter WARNING *** SHADOW MODULE HAS DEVELOPMENT DEBUG PORT ENABLED	The debug port has long been disabled on CPs. Possible remedy: The debug port can act as an antenna and lead to bad results; CP must be opened and the port disabled
130	Shadow Reporter THIS SHADOW MODULE MAY CAUSE UNPREDICTABLE ERRORS	Second part of previous message
130	Shadow Reporter Shadow Marriage Retry	A retry was executed, but all is good as the pair is married now Informational
130	SUBSYS_ID = %d , error code =%d	Second part of previous message
130	Shadow Reporter Shadow Marriage Retried	A retry was executed, but all is good as the pair is married now Informational
130	Shadow Reporter Reboot due to Powerup Reset	A clean reboot but no reboot reason found; power cycle presumed Informational
130	Shadow Reporter Last Running TASK Priority	Not a clean reboot; CP is dumping what information it has Informational
130	Shadow Reporter Violating TASK Priority - <task id>, ID - <task priority>	Second part of message Where <task id> is the task ID, <task priority> is the task priority
Reboot Operations/Ping Test Messages		

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
130	Ping Test A to B Mesh Failure go to port <port> to follow Master Timekeeper	Primary is not as good as the alternate port; report problem Where <port> is “A” or “B” Possible remedy: Replace CP
130	Ping Test Sent = <n> Replies = Pri <pri> Alt <alt> new cable = <new cable>	Primary is not as good as the alternate port; report problem Where: <n> is number of ping tests <pri> is the number of ping replies received over the primary cable <alt> is the number of ping replies received over the alternate cable <new cable> is “A” or “B” Possible remedy: Replace CP
Mnemonic = -39 (NO_SSID) - representing No Specific Subsystem Messages From Foxboro Evo System (formerly known as DCS) FBMs - refer to the specific Foxboro Evo System FBM's user guide for details of these messages. Code is specified in PIO message from the FBM. Mnemonic is documented in the specific Foxboro Evo System FBM's user guide. Message is specified in PIO message from the FBM. If the PIO message contains “message sender” text that is used as the Process in the printed message; otherwise, the FBM's letterbug is used as the Process. Note: normally turned off and unavailable. Only “*” are always active.		
TDR/SOE Messages		
2	TDR/SOE listen default	The Listen Socket is executing an illegal step function. Valid is 1-5, the current step is printed. Possible remedy: Function is blocked; task and CP need to be restarted to fully use TDR/SOE.
2	TDR/SOE adding host	You are adding another host to service Informational
2	*TDR/SOE duplicate AW IP	The CP is trying to add a host for a second time. This is not allowed and being rejected. Possible remedy: Check for two hosts with the same IP address
2	TDR/SOE no startup	Number of host slots exceeded Possible remedy: Configure less hosts to collect data from CP
2	TDR/SOE connecting client N	New host has been put into table under slot N Informational
2	TDR/SOE starting recv task	A receive task has been created for host N Informational
2	TDR/SOE shutting down receive task	The receive task for host N has been exited Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	TDR/SOE no recv socket	Failed sanity check that a socket exists for this host Possible remedy: Probably corrupt table; reboot CP if TDR/SOE needed
2	TDR/SOE invalid socket	Receive failed because the socket became invalid Possible remedy: Probably corrupt table; reboot CP; should disconnect
2	TDR/SOE connection broken	Receive failed because the connection was broken Informational; reconnect is automatic
2	TDR/SOE port lost	Receive failed because the port number stored in the descriptor is invalid Possible remedy: Probably corrupt table; reboot CP if TDR/SOE needed
2	TDR/SOE default case	Receive failed because of unknown error Possible remedy: Probably corrupt table; reboot CP if TDR/SOE needed
2	TDR/SOE bad digital config	Digital FBM configuration was rejected Possible remedy: Configuration was probably invalid; check host configuration
2	TDR/SOE bad analog config	Analog FBM configuration was rejected Possible remedy: Configuration was probably invalid; check host configuration
2	TDR/SOE bad multi config	Mixed FBM configuration was rejected Possible remedy: Configuration was probably invalid; check host configuration
2	TDR/SOE illegal cmd	Command sent from host could not be translated Possible remedy: No action occurred; packet was most likely corrupt; automatic retry
2	TDR/SOE not enabled no send	Send failed because FBM is offline Possible remedy: Put online
2	TDR/SOE no socket no send	Send failed because the socket became invalid Possible remedy: Probably corrupt table; reboot CP; should disconnect
2	TDR/SOE no host no send	Host N not found; send dropped Possible remedy: Did host reboot?

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	TDR/SOE Send Fail err N	Problem on send, error code N Possible remedy: Probably corrupt connection or table
2	TDR/SOE CountErr:sent N/M	Incomplete send, N out of M sent Possible remedy: Probably corrupt connection
2	TDR/SOE invalid analog cfg lbug = LBUG	Digital FBM configuration was rejected for letterbug LBUG Possible remedy: Fix host configuration
2	TDR/SOE invalid digital cfg lbug = LBUG	Analog FBM configuration was rejected for letterbug LBUG Possible remedy: Fix host configuration
2	TDR/SOE invalid multi cfg lbug = LBUG	Mixed FBM configuration was rejected for letterbug LBUG Possible remedy: Fix host configuration
2	TDR/SOE bad cfg response	FBM has rejected a configuration request Possible remedy: Fix host configuration
2	TDR/SOE bad data response	FBM data still invalid after retry Possible remedy: Communications to FBM do not appear to be stable
2	TDR/SOE short len response	FBM data is improper length Possible remedy: Communications to FBM do not appear to be stable
2	TDR/SOE result buffer reset	No room to store result from FBM Possible remedy: Communications to host may be out
2	TDR/SOE active loop breakout	Disconnect detected Informational; will automatically reconnect if wire to host is good
2	TDR/SOE disconnect client N	Host has been removed from table slot N Informational
2	TDR/SOE disconnect both clients	All Hosts have been removed Informational
2	TDR/SOE timeout	Nothing has been received from host for 8 seconds Possible remedy: Check connections to host
2	TDR/SOE digital cfg	Digital FBM configuration sent to FBM Informational
2	TDR/SOE multi cfg	Analog FBM configuration sent to FBM Informational
2	TDR/SOE analog cfg	Mixed FBM configuration sent to FBM Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	*No buffers	Unable to create an active point because out of buffers Possible remedy: Probably corrupt table; reboot CP if TDR/SOE needed
2	TDR/SOE start of disconnect socket	Start of Socket disconnection code Informational
2	TDR/SOE closing socket	Socket is disconnected/finish Informational
2	TDR/SOE start of close connection	Breaking the socket connection Informational
APRINT Messages		
0	Alarm Destination <dest> Unavailable	<dest> is the alarm destination; Destination import failed Informational
0	APR_SRVR EOC nBufsUsedCHK = <nbufs>; Value Corrected	<nbufs> is the # of alarm buffers used. “Stuck alarm problem” was fixed. Informational
Mnemonic = -38 (SYSMON) - representing System Monitor Subsystem Messages Code = -22 (SM_CHECKPT_LD_FAILURE)		
Checkpoint Failure Messages		
15	Checkpoint: DATA BASE MODIFIED - RETRY CHECKPOINT	Checkpoint issue; may have failed Advisory
Mnemonic = -41 (CIO_DB) - representing Control and I/O Database Subsystem Messages Code = 2 (UC_LNKFL) Code = 3 (UC_DOWNOK) Code = 15 (SELFHOSTING)		
Selfhosting Messages		
15	Checkpoint Auto Checkpoint Override to 2 Hours	Checkpoint file is loaded from host; self-hosting enabled; 2 hours is minimum value Informational
15	Checkpoint Checkpoint to Flash Requested	Self hosting enabled; checkpoint being sent to flash Informational
15	Checkpoint Wait For Message 'Checkpoint installed into flash'	Second part of previous message
15	downld Checkpoint File Loaded from Host	Checkpoint file has been loaded Informational
15	downld Self Hosting Enabled - Checkpoint Command Issued	The checkpoint file was loaded from the Host. Under Self Hosting, need to issue a checkpoint command to burn to flash. Informational
15	downld Checkpoint Command Timeout	Wait for command response timed out Possible remedy: Check connection to host, or host setup incorrect
15	downld Manually Issue Checkpoint Command	Second part of previous message

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
15	downld Database Load Successful	Flash database has been built Informational
15	downld Checkpoint File Loaded from Flash	Internal Checkpoint file is being used Informational
Download Message		
3	DATABASE DOWNLOAD COMPLETE UNDEFINED BLOCK(S)	One or more blocks have a period and phase mismatch with the compound or a configuration error Possible remedy: Change setup
Linkages Messages		
2	DATABASE DOWNLOAD COMPLETE UNDEFINED BLOCK(S)	One or more blocks have a period and phase mismatch with the compound or a configuration error Possible remedy: Change setup
2	DATABASE DOWNLOAD: RESOLVE LINKAGES FAILED COULD NOT ALLOCATE REMOTE LIST	Allocate and initialize the first OM open variable list and the parallel (reference count) array for it failed. Possible remedy: Change setup
2	DATABASE DOWNLOAD: RESOLVE LINKAGES FAILED DB DOWNLOAD FAILED	Database download failed; reboot as after wait of 2 minutes to avoid traffic jam Possible remedy: Change setup; check connections
2	DATABASE DOWNLOAD: RESOLVE LINKAGES FAILED TOTAL PACKETS EXCEEDED	Packet add failed; May be TOTAL_PACKETS limit violation Possible remedy: Change setup
2	<task> COULD NOT ALLOCATE REMOTE LIST	<task> could not allocate and initialize the first OM open variable list and the parallel (reference count) array for it failed. Possible remedy: Change setup
2	<task> REMOTE LIST OPENED	Allocate and initialize the first OM open variable list and the parallel (reference count) array for it succeeded. Informational
Mnemonic = -52 (PIOMAI) - representing PIO Maintenance Subsystem Messages Code = 2 (HARDWARE_FAULT) Note: All messages are preceded by ‘Hardware Fault…’.		
FCM Power Supplies Messages		

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Main power A fail Main power B fail	FCM Main module is running on one power supply Possible remedy: Replace supply, reseat cable
2	Backup power A fail Backup power B fail	FCM Backup module is running on one power supply Possible remedy: Replace supply, reseat cable
2	Main power A+B fail	FCM Backup module is reporting Main module is running without power. Possible remedy: Check both FCM modules seated correctly, replace Main module
2	Backup power A+B fail	FCM Main module is reporting Backup module is running without power. Possible remedy: Check both FCM modules seated correctly, replace Backup module
2	Main power A fail, B recovery Main power B fail, A recovery	FCM Main module has regained power on one line and lost power on the other during the previous 2 seconds Possible remedy: Likely someone working on connections, replace supply, reseat cables
2	Backup power A fail, B recovery Backup power B fail, A recovery	FCM Backup module has regained power on one line and lost power on the other during the previous 2 seconds Possible remedy: Likely someone working on connections, replace supply, reseat cables
2	Main power A recovery Main power B recovery Main power A+B recovery	FCM Main error condition has cleared Informational
2	Backup power A recovery Backup power B recovery Backup power A+B recovery	FCM Backup error condition has cleared Informational
GPC Strobes for FCM Messages		
2	Main strobe A fail Main strobe B fail	FCM Main module has lost one data strobe; since A runs in preference this is usually A Possible remedy: Reseat cable, check satellite connection & availability
2	Backup strobe A fail Backup strobe B fail	FCM Backup module has lost one data strobe; since A runs in preference this is usually A Possible remedy: Reseat cable, check satellite connection & availability

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Main strobe A+B fail	FCM Main module is running without GPS connections; time is probably drifting. Possible remedy: Reseat both cables, check satellite connections; replace Main
2	Backup strobe A+B fail	FCM Backup module is running without GPS connections; time is probably drifting. Possible remedy: Reseat both cables, check satellite connections; replace Backup
2	Main strobe A fail, B recovery Main strobe B fail, A recovery	FCM Main module has regained GPS on one line and lost GPS on the other during the previous 2 seconds Possible remedy: Likely someone working on connections, reseat cables
2	Backup strobe A fail, B recovery Backup strobe B fail, A recovery	FCM Backup module has regained GPS on one line and lost GPS on the other during the previous 2 seconds Possible remedy: Likely someone working on connections, reseat cables
2	Main strobe A recovery Main strobe B recovery Main strobe A+B recovery	FCM Main error condition has cleared Informational
2	Backup strobe A recovery Backup strobe B recovery Backup strobe A+B recovery	FCM Backup error condition has cleared Informational
FCM Ethernet Links Messages		
2	Main link A fail Main link B fail	FCM Main module has lost an Ethernet link Possible remedy: Check cable to splitter; if both Main and Backup check cable to switch
2	Backup link A fail Backup link B fail	FCM Backup module has lost an Ethernet link Possible remedy: Check cable to splitter; if both Main and Backup check cable to switch
2	Main link A+B fail	FCM Main module has lost both Ethernet links Possible remedy: Most likely chip problem; replace FCM
2	Backup link A+B fail	FCM Backup module has lost both Ethernet links Possible remedy: Most likely chip problem; replace FCM
2	Main link A fail, B recovery Main link B fail, A recovery	FCM Main module has regained one Ethernet while losing other during last 2 seconds Possible remedy: Unlikely, someone working on connections, reseat cables, check splitters and switches

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Backup link A fail, B recovery Backup link B fail, A recovery	FCM Backup module has regained one Ethernet while losing other during last 2 seconds Possible remedy: Unlikely, someone working on connections, reseat cables, check splitters and switches
2	Main link A recovery Main link B recovery Main link A+B recovery	FCM Main error condition has cleared Informational
2	Backup link A recovery Backup link B recovery Backup link A+B recovery	FCM Backup error condition has cleared Informational
FCM HDLC Links Messages		
2	Main HDLC A fail Main HDLC B fail	FCM Main module has lost one HDLC channel Possible remedy: Check HDLC connection; termination, broken FBM, esp if both Main and Backup have failed; possible bad transmitter Main
2	Backup HDLC A fail Backup HDLC B fail	FCM Backup module has lost one HDLC channel Possible remedy: Check HDLC connection; termination, broken FBM, esp if both Main and Backup have failed; possible bad transmitter Backup
2	Main HDLC A+B fail	FCM Main module has lost both HDLC channels Possible remedy: Check HDLC connections; terminators, reseat FCM, bad Main FCM
2	Backup HDLC A+B fail	FCM Backup module has lost both HDLC channels Possible remedy: Check HDLC connections; terminators, reseat FCM, bad Backup FCM
2	Main HDLC A fail, B recovery Main HDLC B fail, A recovery	FCM Main module has regained one HDLC channel while losing other during last 2 seconds Possible remedy: Unlikely, someone working on connections - reseat cables, check HDLC connections; terminators
2	Backup HDLC A fail, B recovery Backup HDLC B fail, A recovery	FCM Backup module has regained one HDLC channel while losing other during last 2 seconds Possible remedy: Unlikely, someone working on connections - reseat cables, check HDLC connections; terminators
2	Main HDLC A recovery Main HDLC B recovery Main HDLC A+B recovery	FCM Main error condition has cleared Informational
2	Backup HDLC A recovery Backup HDLC B recovery Backup HDLC A+B recovery	FCM Backup error condition has cleared Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	PIO work order mismatch	BADALM=8; Number of answers sent by FCM does not match number of requests Possible remedy: Most likely a long delay in response; CP moved on but FCM did not. Look for causes of overruns
Foundation Fieldbus (FBM128/228) Messages		
2	Code Protect: Null Download File Data	FBM228 has asked for a download of a file and the pointer was NULL; no action was taken Informational
2	Code Protect: Null Upload File Data	FBM228 has asked for a upload of a file and the pointer was NULL; no action was taken Informational
2	Code Protect: Set FF Cfg XXXXXX	FBM228 function block type was not recognized; XXXXX block type requested; no action was taken Informational
2	Code Protect: Chk FF Cfg XXXXXX	FBM228 function block type was not recognized; XXXXX block type requested; no action was taken Informational
2	Code Protect: Block Type XXXXXX	FBM228 function block type was not recognized; XXXXX block type requested; no action was taken Informational
ZCP Messages		
2	Power failed and warning requested	BADALM=2; loss of one power supply Possible remedy: Check power supply, cables, connections on CP
2	200 Series Power Bits Error	BADALM=2; FBM reporting bad power Possible remedy: FBM issue unless entire backplane reporting, then check power connections to backplane
2	IOC Tx Enet A failed IOC Tx Enet B failed	ZCP IOC Ethernet connection is not working Possible remedy: Check cabling to switch, splitter, switch itself; can be bad transmitter on IOC
2	IOC Tx Enet A recovery IOC Tx Enet B recovery	ZCP IOC Ethernet error condition has cleared Informational
2	IOC Link Errors	ZCP IOC Ethernet link error Possible remedy: At least one IOC link is not operational; check cabling to switch, splitter, switch itself
SPECTRUM Msgs Messages		

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Both of tracker's buses down or tracker failed	UCM failed bus indication on tracker (error 0x10) Possible remedy: Check connections; reseat tracker
2	Tracker bus recovery	UCM failed bus indication on tracker has cleared Informational
2	Tracker's bus A down Tracker's bus B down	UCM failed bus indication on tracker (error 0x20 - B, 0x40 A) Possible remedy: Check connection; reseat tracker
2	Tracker's bus A recovery Tracker's bus B recovery	UCM failed bus indication on tracker has cleared Informational
2	Spectrum card group 'flunked'	UCM failure 0x40 diagnostic status; flunk timer has run out; DMC has stopped writing Possible remedy: Allows shut down of related blocks
2	Spectrum card group 'flunked' condition cleared	Diagnostic status has cleared Informational
2	Spectrum card with group 'over temp'	UCM failure 0x20 diagnostic status Possible remedy: Data is marked out of service
2	Spectrum card group 'over temp' condition cleared	Diagnostic status has cleared Informational
2	Spectrum card with 'Bad Output'	UCM failure 0x10 diagnostic status Possible remedy: Data is marked out of service
2	Spectrum card group 'Bad Output' condition cleared	Diagnostic status has cleared Informational
2	Spectrum card with 'Bad Input'	UCM failure 0x08 diagnostic status Possible remedy: Data is marked out of service
2	Spectrum card group 'Bad Input' condition cleared	Diagnostic status has cleared Informational
2	Hardware Fault LTRBUG (FBP11/UCM)	Report of diagnostic bit raised on a Spectrum UCM Informational sys_alarm
2	Hardware Fault LTRBUG (FBP11R/UCM)	Report of diagnostic bit raised on a redundant Spectrum UCM Informational sys_alarm
2	Hardware Fault LTRBUG (FBP12/FIO)	Report of diagnostic bit raised on a Spectrum FIO Informational sys_alarm
2	Hardware Fault LTRBUG (FBP13/UFM)	Report of diagnostic bit raised on a Spectrum UFM Informational sys_alarm
2	Hardware Fault LTRBUG (FBP14/UIO)	Report of diagnostic bit raised on a Spectrum UIO Informational sys_alarm
Eckhart Messages		

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Hardware Fault LTRBUG (FBP10)	Report of diagnostic bit raised on a Eckhart Migration device Informational sys_alarm
2	Hardware Fault LTRBUG (FBP10R)	Report of diagnostic bit raised on a redundant Eckhart migration device Informational sys_alarm
Mnemonic = -56 (LANINT) - representing LAN Interface Subsystem Messages <Task create error (from sc_tcreate())> possibilities: 1 (ER_TID) Task ID error 3 (ER_MEM) No memory available		
Nucleus Messages		
2	DHCP Events task failed to start	Task Create failed Possible remedy: Invalid start; try again; look up error code
2	Socket Events Dispatcher task failed to start	Task Create failed Possible remedy: Invalid start; try again; look up error code
2	Socket Timer task failed to start	Task Create failed Possible remedy: Invalid start; try again; look up error code
DCI Messages		
2	ECB200 DCI_SYS_ALARM	ECB200 block is reporting system alarm Possible remedy: Varies by DCI FBM; clear condition of alarm
2	ECB201 DCI_SYS_ALARM	ECB201 block is reporting system alarm Possible remedy: Varies by DCI FBM; clear condition of alarm
2	ECB202 DCI_SYS_ALARM	ECB202 block is reporting system alarm Possible remedy: Varies by DCI FBM; clear condition of alarm
FoxCom Messages		
2	Hardware Fault LTRBUG (IT2)	Report of diagnostic bit raised on a FoxCom IT2 device Informational sys_alarm
2	Hardware Fault LTRBUG (VALVE)	Report of diagnostic bit raised on a FoxCom valve Informational sys_alarm
2	Additional BAD I/Os	BADALM=1; unspecified bad I/O bits found in child ECBs usually ECB22 Informational
Other messages		
2	Hardware Fault LTRBUG (COR)	Report of diagnostic bit raised on a Coriolis device Informational sys_alarm

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
2	Hardware Fault LTRBUG (HTG)	Report of diagnostic bit raised on a gas chromatograph Informational sys_alarm
Mnemonic = -80 (HPSTK) - representing HPS Timekeeper Subsystem Messages		
Slave TimeKeeper Msgs		
-	STIME STK task created failed	The call to sc_tcreate() failed Possible remedy: If error code 1 (ER_TID) Task ID error/coding fault; Error code 3 (ER_MEM) No memory available
-6	STIME lost sync pulse port A	No pulses long enough to be in failed state; switching ports Informational; check connections to timekeeper
-7	STIME lost sync pulse port B	No pulses long enough to be in failed state; switching ports Informational; check connections to timekeeper
-8	STIME lost sync pulse port A&B	No pulses long enough for both ports to be in failed state; switch to local timekeeping Informational; check connections to timekeeper
-10	STIME lost GPS message port A&B	At startup received good pulses but no 'time at' msg; return to no pulse mode Informational; check connections to timekeeper
-11	STIME lost GPS message port A	Expected message missed from port A Informational
-12	STIME lost GPS message port B	Expected message missed from port B Informational
-13	STIME GPS message recovery port A	First msg from different timekeeper (SYNC_PRIM) Informational
-14	STIME GPS message recovery port B	First msg from different timekeeper (SYNC_BACK) Informational
-17	STIME sync pulse received port A	Port A is now being used to listen for sync pulse Informational
-18	STIME sync pulse received port B	Port B is now being used to listen for sync pulse Informational
-19	STIME initialized as sync pulse station -Wait GPS msg A	Using port A for sync pulse but port A has failed Informational; check connections to timekeeper
-19	STIME initialized as sync pulse station -Wait GPS msg B	Using port B for sync pulse but port B has failed Informational; check connections to timekeeper
-19	STIME initialized as sync pulse station -Using port A	Initialization is complete to use port A for sync pulse Informational

Table 2-12. Controller (Control Processor) Messages (Continued)

Code	Error Text	Message/Meaning
-19	STIME initialized as sync pulse station -Using port B	Initialization is complete to use port B for sync pulse Informational
-20	STIME initialized as no pulse station	Not using sync pulse Informational
-21	STIME lost set time message	Waiting longer than 10 mins for lost set time msg; Informational; check connections to time-keeper
-22	STIME reverting to no pulse mode -no sync pulses for 48 hours	No sync pulses seen for 10 hours Informational; check connections to time-keeper
-22	STIME reverting to no pulse mode -no GPS messages	Multicast for current time of day drew no update Informational; check connections to time-keeper
-23	STIME recovered set time message	Once again seeing set time msg Informational

Control Network Interface (CNI) System Monitor Messages

The System Monitor provides the status change messages in Table 2-13 for the operation of the Control Network Interface (CNI). The CNI is discussed in *Control Network Integration (CNI) User's Guide* (B0700GE).

Table 2-13. Controller Network Interface (CNI) System Monitor Status Change Messages

Warning Message	Recovery Message	Notes
Failure to detect heartbeat from remote CNI	Failure to detect heartbeat from remote CNI condition cleared.	Warning Issued: When local CNI cannot detect heartbeat of remote CNI. This will be reported if the customer-supplied interconnection between the CNI and its remote CNI partner is unreliable/intermittent. This may be due to the nature of the network provided to communicate with the remote CNI or may be due to an equipment issue. The CNI is designed to operate over unreliable networks but heartbeat timeouts should be expected in these circumstances. The message will not be triggered until a connection has been successfully established (i.e., this message does not appear on bootup). Detection of this condition will not affect the status/value of data (data provided with other warnings in this table provide further information). Recovery Issued: When local CNI is able to detect heartbeat of remote CNI and re-establish communication, following a previously-issued SM_CNI_HEARTBEAT_TIMEOUT message. User Action for Recovery: Take steps needed to ensure physical network connectivity to remote CNI has not been compromised.

Table 2-13. Controller Network Interface (CNI) System Monitor Status Change Messages (Continued)

Warning Message	Recovery Message	Notes
The maximum number of local OM tags has been exceeded.	The maximum number of local OM tags has been exceeded condition cleared.	Warning Issued: When the CNI is managing the maximum number of local OM tags that it is able to. The CNI is capped at 10,000 OM tags. At this point, the CNI continues operating, but ignores requests to manage any additional OM tags until recovery has been achieved. Recovery Issued: When the number of OM tags managed by the CNI falls back below the current limit, following a previously-issued SM_CNI_EXCEED_OM_TAGS message. User Action for Recovery: Number of tags managed by the CNI should be reduced – either close HMI screens, reconfigure Historian, etc.
Change update(s) being lost	Change updates being lost (condition cleared).	Warning Issued: When the throughput capabilities of the CNI providing data on the remote instance of the Foxboro Evo Control Network have been exceeded. The CNI can support a throughput of 2,000 OM tags/sec (1000 bi-directionally). At this point, the CNI will continue operating, but will throttle the number of OM tags/second throughput to the maximum threshold limit. The data loss warning will only occur if the CNI cannot achieve the throughout currently requested. Recovery Issued: When the throughput requested of the CNI falls back below the current limit, following a previously-issued SM_CNI_EXCEED_OM_TAGS_PER_SEC message (i.e. when the CNI is now able to 'keep up' with the throughput requested). User Action for Recovery: Close HMI screens, etc. that are causing overrun, or slow down update rate requested within the HMI (nominally one second)
Failure to connect to remote CNI	Failure to connect to remote CNI condition cleared.	Warning Issued: When the CNI is unable to connect to its remote partner. This condition moves point status to disconnected. May be paired with SM_CNI_PORT_A_FAILURE and/or SM_CNI_PORT_B_FAILURE messages. To resolve, check the CNI Status reported on the LCD to ensure the connection configuration has been configured. If it has not been configured, refer to "Setting CNI Connection Parameters" in *Control Network Interface (CNI) User's Guide* (B0700GE) to set up the CNI connection parameters. Recovery Issued: When connectivity to the remote CNI has been re-established, following a previously-issued SM_CNI_CONNECTION_FAIL message. User Action for Recovery: Take steps needed to ensure physical network connectivity to remote CNI has not been compromised.

Table 2-13. Controller Network Interface (CNI) System Monitor Status Change Messages (Continued)

Warning Message	Recovery Message	Notes
Maximum number of remote system compounds has been exceeded	Maximum number of remote system compounds has been exceeded condition cleared.	Warning Issued: When the CNI has reached its limit in terms of local compounds it is managing. The CNI will be able to service local requests for points from up to 10K remote compounds. The CNI will set this warning if an deployment of more than 10K remote compounds is attempted. At this point, the CNI will continue operating, but ignores requests to manage additional compounds until recovery is achieved. Recovery Issued: When the number of compounds managed by the CNI falls back below the current limit, following a previously-issued SM_CNI_EXCEED_OBJECTS message. User Action for Recovery: Number of compounds managed by the CNI should be reduced. The remote compound list is managed by the CSA Monitor service. Refer to the CNI User's Guide document, B0700GE, for information on configuring the remote compound list.
CNI Download Service Failure	CNI download service failure condition cleared	Warning Issued: When CNI Data Load Server is unable to download data to the CNI (either CSA or Access List data). Recovery Issued: When the CNI Data Load Server is able to download data to the CNI (either CSA or Access List data), after a SM_CNI_DOWNLOAD_SVC_FAILURE message previously issued." Note if a failure occurs due to a CSA name space down load failure that a deploy of the ALE could clear the warning even though the CSA host is still not able to download to the CNI module. The reverse scenario is also true. User Action for Recovery: Ensure the Data Load Server downloading to the CNI (either CSA or Access List data) is up and running. If the failure was in response to a deployment request from the ALE then this deployment needs to be performed again as the warning will not clear until a successful download is performed from the Access List Editor. For failures in the case of the CSA Namespace Host it will be necessary to restart the CSA monitor service to trigger a further download in order to clear the warning.
Connection configuration unavailable	Connection configuration unavailable condition cleared	Warning Issued: When connection configuration data (deployed from the Access List Editor on the workstation) has not been found on start-up of the CNI. This will prevent successful connection to the remote CNI. Recovery issued: When connection configuration data has been successfully deployed to the CNI. User Action: Perform deployment operation from the Access List Editor to make this data available to the CNI.

Table 2-13. Controller Network Interface (CNI) System Monitor Status Change Messages (Continued)

Warning Message	Recovery Message	Notes
Corrupted CSI data, disconnecting from remote CNI	[No message other normal connection messages messages that follow.]	Warning issued: When a message containing corrupted data is received by a CNI over the customer supplied interconnect (CSI). This suggests the communications may have been compromised. The CNI receiving the data will disconnect and then reconnect to its remote CNI partner as a security measure. Recovery issued: When the CNI successfully reconnects and receives a valid message from its remote partner. If the CNI repeatedly disconnects/reconnects from its remote partner without recovery then it will be necessary to reboot the remote CNI partner in an attempt to correct the problem.
A Manual reboot is required due to configuration changes	N/A	Warning issued: When an updated remote compound configuration is deployed to the CNI that is different from the current remote compounds being managed. Recovery issued: On reboot of the CNI this warning will be cleared. User Action: The user should ensure that when making changes to the compounds managed by CNIs that those affected (have the reboot required warning raised) are ALL rebooted as a set to ensure that the change of management of compounds is clearly established.
Cfg sent to the CNI is incompatible or corrupted	Cfg sent to the CNI is incompatible or corrupted condition cleared	Warning issued: If remote compound deployment or Access List Editor data deployed to the CNI is not accepted for any reason. Recovery issued: When a subsequent attempt to deploy remote compound or Access List Editor data is successful. User Action: The user should examine the entries provided by the CNI in the System Monitor log. This will provide indication of whether the problem relates to remote compound or Access List Editor data and whether some reconfiguration is necessary before deployment will be successful.

Both the warning and recovery messages in Table 2-13 appear in the System Monitor log (smon_log).

As well, when a warning message is issued, a system alarm is generated. Warnings also cause the Equipment Info panel of the System Manager to display “Yes” or “No” adjacent to the label associated with the issue. Check the smon_log for further details on each issue when it occurs.

db_query and getpars Messages

The following subsections list and describe db and getpars error messages.

db_query Error Messages

The error codes returned by the db_query utility are built from two numbers, each four digits long. The first four digits represent the process ID of the offended process in the control processor

in decimal format. The second set of four digits is the error code; these are listed in the following table.

Table 2-14. db_query Messages

Code	Message	Description
0	NO_ERR	No errors encountered flag
1	IPC_ERR	IPC error was encountered
2	DB_ERR	Database error was encountered
3	OS_ERR	Operating system error
4	PATH_ERR	Error on specified path
5	CONN_ERR	Parameter not an input
6	STG_ERR	Could not get name from stringpool
7	NOT_DCI_PARENT	ECB is not DCI Parent
8	NO_CHILDREN	No children ECBs exist for parent ECB
9	NOT_DCI_ECB	ECB is not DCI Parent or Child
10	NO_DCI_BLOCKS	No DCI blocks connected to ECB
255	ILLEGAL_PATH	Path/command conflict.

getpars Error Messages

The getpars utility creates detailed reports of control blocks, compounds, and their descriptions. The following error codes are returned from getpars. For additional information on the getpars utility, refer to its man page.

— NOTE

Unlike db_query, if getpars encounters an error there is no process ID prepended to the error code; getpars only reports the error number.

Table 2-15. getpars Messages

Code	Message	Description
-1	NOT_FOUND	
2	INACTIVE	The parameter ACTIVE already has the value you are trying to write
3	SECURED	Attempt to set a parameter that is secured
4	NOT_SECURABLE	The point is not securable
5	NOT_SECURED	The point is not secured
6	NOT_RELEASABLE	The point is secured and cannot be released
9	TO_BOOL_CONV_ERROR	Value cannot be converted into boolean
10	TO_STRING_CONV_ERRO R	Value cannot be converted into string
11	TO_INTEGER_CONV_ERR OR	Value cannot be converted into integer
12	TO_REAL_CONV_ERROR	Value cannot be converted into real
13	TOO_BIG	Attempt to write a real value greater than an integer parameter can hold
14	NOT_CONNECTABLE	The point is not connectable
15	NOT_SETTABLE	Attempt to set a parameter that is not settable
16	TOO_MUCH	Attempt to write too much data to parameter, or not enough room available to read value from parameter

Table 2-15. getpars Messages (Continued)

Code	Message	Description
17	OUT_OF_ENG_RANGE	The point was set beyond the engineering range
18	LOCKED_ACCESS	Locked access to the parameter
19	TO_CHAR_CONV_ERROR	To character conversion error
20	GETPTRP_ERROR	The string could not be retrieved from the string pool
21	PUTSTR_ERROR	The string could not be stored in the string pool
22	ONLY_LONG_FOR_ACTPAT	The ACTPAT parameter of the Sequence Monitor block requires a data type of long integer; no other data type is acceptable
23	TO_PACKED_CONV_ERROR	To packed Boolean conversion error
24	OUTPUTS_DISABLED	Outputs are disabled
25	TOO_LITTLE	too little (for example, an attempt to write a large INTEGER value into SHORT INT, or an attempt to write a negative value into a parameter with the “non_negative” rule [refer to SPRATE of PIDA])

Field Device Systems Integrator (FDSI) Printed Messages

The following table lists the printed messages for the Field Device System Integrator (FDSI) subsystem.

The following text string represents a “typical” FDSI message format as it actually printed via a logging device to a priority printer:

```
yyyy-mm-dd        CP Process=Sender -Code  Time Stamp:Message.
HH:MM:SS
```

Standard message lines contain the following variables:

yyyy-mm-dd	year-month-day
HH:MM:SS	hour:minute:second
CP	the controller’s letterbug (for example, ZCP700)
Process=	a text string representing the process
Sender	A text string representing the software subsystem in which the message originated (for example, FCP70BB1130). The format for Sender is LLLLLL TTTT for FBMs 231 and 233 and LLLLLLMTTTT for FBMs 230 and 232, where: LLLLLL is the FBM’s letterbug TTTT is the month number and day of the month (for example, 0605 is June 5th). M (for FBMs 230 and 232 can be ‘M’ for Main/Master, ‘m’ for Main/Tracker, ‘B’ for Backup/Master, or ‘b’ for Backup/Tracker.
Code	The file code (for example, -39)

`Message Time Stamp` The message field for FDSI FBMs has a 6-digit time-stamp prepended, encoded as HHMSS (for example, 150403 is 3 seconds after 3:04 PM).

`Message` The message, an ASCII test string description of the event (for example, `Educating Tracker Finished.`)

Table 2-16. Field Device Systems Integrator (FDSI) Printed Messages

Code	Message	Meaning	Corrective Action
301	`File download invalid state.`	Invalid file download state. The internal processing has reached an invalid state.	Reboot the FBM.
302	`File download memory error.`	Insufficient memory. Not enough memory space could be reserved to hold a file to be downloaded.	Rebooting the FBM may help.
303	`File download timeout occurred.`	Download timeout. A file download started but was not finished within the time allotted.	Retry the download.
304	`File download checksum bad.`	Download checksum error. A downloaded file (driver file or configuration file) has an invalid checksum.	Recheck all driver and configuration files associated with the specified FBM.
1002	`Driver Version aaa vs. sss`	Driver version error. The driver is not compatible with the core, where aaa represents the actual version of the driver, and sss represents the first version supported by the core.	Load the correct version of the driver.
1002	`Driver internal version error: vvv vs. ccc`	Driver version error. The driver is not compatible with the core, where vvv represents the actual version of the driver, and ccc represents the version that was negotiated.	Load the correct version of the driver.
1001	`Could not find instantiation routine.` or `Could not cast GetDriverInterface().` or `Could not find DLL export: ReleaseDriverInterface().` or `Could not find DLL export: GetFdsiVersion().` or `Driver DLL Not Found.`	A driver exception occurred during version negotiation. The driver malfunctioned during version negotiation. The driver has serious problems, and has probably been corrupted.	Replace the driver file and try again.
1003	`Driver Hardware Mismatch.`	Driver hardware mismatch. The driver does not support the FBM's hardware configuration.	
1009	`Unknown exception in driver DLL.`	Unknown driver exception. The driver has malfunctioned in an unidentified manner.	Replace the driver and try again.

Table 2-16. Field Device Systems Integrator (FDSI) Printed Messages (Continued)

Code	Message	Meaning	Corrective Action

201	`Educating Tracker begins...`
	or
	`Educating Tracker Finished.`
		Educating Tracker progress (231 and 233 only). These messages are progress reports for the Tracker education process.	No action is necessary.

701	`Partner gone.`	Partner gone (231 and 233 only). The FBM's redundant partner has stopped responding. This can be caused by the physical removal of the partner, by a “reset” of the partner, or by a failure of the partner.	

703	`User role switch request denied: CCCC`
	or
	`Driver role switch request denied: CCCC`
	
	where: CCCC is the reason for the denial.
		Role switch denied (231 and 233 only). Either the user, via SMDH, or the driver has requested a role switch, and it was denied because the current state of the FBMs makes a role switch inappropriate at the time. This is usually because the Master has not yet completed “educating” the Tracker.	Wait awhile and try again.

601 or 602	`Driver file transfer begins...`
	or
	`Driver file transfer ends.`
		Driver file transfer progress (231 and 233 only). These messages are progress reports for the transfer of the driver file from the Master to the Tracker.	No action is necessary.

Compound Summary Access (CSA) Printed Messages

Table 2-17 lists the printed messages for the Compound Summary Access (CSA) software.

Table 2-17. Compound Summary Access (CSA) Printed Messages

Code	Mnemonic	Message	Corrective Action
100	`CS_SETUP`	`CSA Server ready`	This is an informational message.
-2	`CS_STATE_ERR`	`Invalid state for maintenance request`	Application error. Contact Invensys service personnel.
-3	`CS_MISMATCH`	`CSA authorization code mismatch`	Application error. Contact Invensys service personnel.
-4	`CS_NAME_IN_USE`	`Cmpd or block name already used`	Duplicate name. Retry using a different name.
-5	`CS_NOT_FND`	`Required element not found`	Verify search request and retry.
-6	`CS_BLK_NOT_FND`	`Block name (or type) not valid`	Verify search request and retry.
-7	`CS_DB_BAD`	`Invalid INFORMIX reference`	There is a database problem. Contact Invensys service personnel.
-8	`CS_FILTER_BAD`	`User filter rejected`	Verify filter and retry.
-9	`CS_BAD_STATION`	`Location is not defined in system`	Application error. Contact Invensys service personnel.
-10	`CS_MISSING_PARM`	`Required interface parameter is missing`	Application error. Contact Invensys service personnel.

Table 2-17. Compound Summary Access (CSA) Printed Messages (Continued)

Code	Mnemonic	Message	Corrective Action
-11	CS_USER_IPC_ERRO R	User Process not set-up for IPC	Verify workstation connections.
-12	CS_LARGE_LIST	User list is too large for single IPC message	Refine query to retrieve a smaller list. For example, narrow a search to a single CP.
-20	CS_UNKNOWN	Unrecognized CSA request (garbled message?)	The CSA package contains a client library which links to a CSA user program, such as the ICC, and also contains a server program which stores system names and other data in a DISAM (similar to INFORMIX) database. When the CSA user program makes a subroutine call to the client library, the library sends a message to the CSA server. This message is given a “message type code”. If error -20 occurs, it means that the CSA server did not recognize the message type code. If this error occurs, record what operation was being attempted and contact field service to report the issue.
-30	CS_UNAVAIL	CSA server is unavailable	CSA server is overloaded, has crashed, or is not configured properly. In this case. report the issue to field service.
-50	CS_F_ERR	CSA file I/O error detected	This is a file error which occurs when the CSA server attempts to access the DISAM database. This error may occur if the associated workstation has a bad hard drive. It could also be caused by a bug in either the CSA server or the DISAM DBMS subsystem. This is a system error; report the problem to field service.
-60	CS_IPC_ERR	CSA Server detected IPC interface error	This error often means that an object name change (such as the addition or deletion of a block) was not registered properly. If you were adding or deleting a compound or block, retry the operation. If this happens frequently, there may be an issue with system functionality or the system could be overloaded. Contact field service to address the issue.
-70	CS_OBJ_ERR	CSA Server cannot Object Mgr Create process name	There is a problem between CSA and Object Manager. Contact Invensys service personnel.
-81	CS_CALCINIT_ERR	Could not calculate initial conditions	This is an error reported by the CSA_SETUP program when the CSA server workstation is rebooted. It means that CSA_SETUP couldn’t initialize the licensing support software. The licensing software consists of a special CSA code and a third party licensing package “flexlm”. The error message indicates an error communicating with the flexlm license server.
-82	CS_STATYPE_ERR	Could Not Find Current I/A Station Type	This error relates to the license server and can be ignored.
-83	CS_STA_FTTYPE_ER R	Could Not Find Station Fault Tolerance	This error relates to the license server and can be ignored.
-84	CS_BLKWT_NOT_FND	Could Not Find Compound Block Weight	This error relates to the license server and can be ignored.
-85	CS_CHKSUM_ERR	Could Not Verify License File Checksum	This error relates to the license server and can be ignored.

Exception Handler Component (EHSS) Printed Messages

The following table lists the printed messages for the Exception Handler Component (EHSS).

Table 2-18. Exception Handler Component (EHSS) Printed Messages

Code	Message
-8	Spurious interrupt (NMI 8OH)
-7	Memory parity error
-6	Watchdog timeout
-5	SSB Jabber A
-4	SSB Jabber B
-3	Sync abort
-2	Test (NMI 86H)
-1	Spurious interrupt (NMI 87H)
0	Divide error exception
1	INTO detected integer overflow exception
2	Array bound range exceeded exception
3	Invalid opcode exception
4	80287 processor not available exception
5	Double exception detected
6	80287 segment overrun interrupt
7	Invalid task state segment
8	Segment not present
9	Stack segment overrun or not present
10	General protection
11	Floating point
12	Spurious interrupt
13	Breakpoint interrupt
14	Segment violation
15	No 80287 on FS3
20	Power failure
21	Restart
22	Restart no fail
30	State change
31	Remarry
40	Over-run
50	Abort Sync
51	Jabber A
52	Jabber B
54	Watch dog
60	I/O Error
61	I/O Error
62	SSB compare
63	No 8087
64	Driver Ind. Error
65	Sync. timeout
101	Alarm #1 ON
102	Alarm #2 ON
103	Alarm #3 ON

Table 2-18. Exception Handler Component (EHSS) Printed Messages (Continued)

Code	Message
104	Alarm #4 ON
105	Alarm #5 ON
106	Alarm #6 ON
107	Alarm #7 ON
108	Alarm #8 ON
109	Alarm #9 ON
110	Alarm #10 ON
111	Alarm #11 ON
112	Alarm #12 ON
113	Alarm #13 ON
114	Alarm #14 ON
115	Alarm #15 ON
116	Alarm #16 ON
117	Alarm #1 OFF
118	Alarm #2 OFF
119	Alarm #3 OFF
120	Alarm #4 OFF
121	Alarm #5 OFF
122	Alarm #6 OFF
123	Alarm #7 OFF
124	Alarm #8 OFF
125	Alarm #9 OFF
126	Alarm #10 OFF
127	Alarm #11 OFF
128	Alarm #12 OFF
129	Alarm #13 OFF
130	Alarm #14 OFF
131	Alarm #15 OFF
132	Alarm #16 OFF
140	Advance Power Fail - NMI Exception
141	Memory Parity Error - NMI Exception
142	Sync Abort - NMI Exception
143	SSB JABBER Interrupt - NMI Exception
144	Debug Break Key - NMI Exception
145	OS TICK failure - NMI Exception
146	Hardware Timer failure - NMI Exception
147	Spurious 8259 failure - NMI Exception
150	Memory Error - NMI Exception

EEPROM Update (EU) Printed Messages

The following table lists the printed messages for EEPROM Update (EU).

Table 2-19. EEPROM Update (EU) Printed Messages

Code	Message
1	Write To EEPROM Failed
2	Firmware Update Completed - Station Restarting

Data Validation (DATARE) Printed Messages

The following table lists the printed messages for Data Validation (DATARE).

Table 2-20. Data Validation (DATARE) Printed Messages

Code	Mnemonic	Message
-1	ENOMEM	no memory available
-2	EDEGEN	degeneracy in balance equations
-3	ESYSERR	systematic error(s) in input value(s) suspected
-4	ENODATA	no data retrieved from Historian
-5	ENOPATH	no path for database or directory found
-6	ENOSMODL	no stored model file
-7	ENODB	database not found
-8	ENOSOLN	solution not retrieved or not solutions in the database
-9	ENOSRQST	no stored request file
-10	ENOMODEL	incomplete model or no models found in the database
-11	EINCMOD	view selected from PM database is internally inconsistent
-12	ENOID	cannot find a logical id
-13	ENORQST	no request records found in scheduled request database
-14	ENOSUCHV	not one of the allowed values
-15	EZEROWT	one or more weight value(s) is (are) zero
-16	ENOSTAMP	timestamp is missing
-17	ECRTDIR	directory already exists
-18	EINFX	INFORMIX error number
-19	ENOSBND	no stored binding file
-20	ERGRP	reduced group does not exist or is cascaded
-21	ENOHIST	historian doesn't exist
-22	ENOTDEL	solution not deleted from database

ROM Diagnostic Handler Subsystem (RDHSS) Fault Isolation Diagnostics Printed Messages

Table 2-21 lists the printed messages for the fault isolation diagnostics for the FCP280, FCP270, ZCP270, or ATS from the ROM Diagnostic Handler Subsystem (RDHSS).

When these messages are printed, look at the LEDs on the front of the module. If the LED is red, reboot the module and try again. If the same failure occurs, replace the module.

Table 2-21. ROM Diagnostic Handler Subsystem (RDHSS) Fault Isolation Diagnostic Messages

Code	Mnemonic	Message
01	OSTICK_TIMEOUT_ERROR	No timeout from timer
02	OSTICK_COUNT_ERROR	No down count from timer
03	TICKNMI_COUNT_ERROR	No NMI down count
04	OSTICK_NO_INT	No interrupt from timer
05	OSTICK_NMI_TIMEOUT	No NMI on timer timeout
06	RDH_XBUF_FAIL	Exchange buffer failed

Table 2-21. ROM Diagnostic Handler Subsystem (RDHSS) Fault Isolation Diagnostic Messages

Code	Mnemonic	Message
07	LBK_XMIT_TIMEOUT	Ethernet Loopback Xmit Timeout
08	LBK_XMIT_FAIL	Ethernet Loopback Xmit Failed
09	LBK_REC_TIMEOUT	Ethernet Loopback Rec timeout
10	LBK_DATA_ERROR	Ethernet loopback Data Error
11	LBK_CNT_ERROR	Ethernet Loopback Word Count Error
12	LBK_RSTAT_ERROR	Ethernet Loopback Rec Status Error
13	LBK_XSTAT_ERROR	Ethernet Loopback Xmit Status Error
14	MACA_MII_LBK_FAIL	Ethernet A MII loopback fail
15	MACA_PHYA_LBK_FAIL	Ethernet A PHY A loopback fail
16	MACA_PHYC_LBK_FAIL	Ethernet A PHY C loopback fail
17	MACA_GORDON_CRC_FAIL	Ethernet A Gordon CRC fail
18	MACA_GORDON_STAT_FAIL	Ethernet A Gordon STAT fail
19	MACA_COMP_ABORT_FAIL	Ethernet A Compare Abort Fail
20	MACA_BAD_CRC_FAIL	Ethernet A Force Bad CRC Fail
21	MACA_BAD_STAT_FAIL	Ethernet A Force Bad STAT Fail
22	MACB_MII_LBK_FAIL	Ethernet B MII loopback fail
23	MACB_PHYB_LBK_FAIL	Ethernet B PHY A loopback fail
24	MACB_PHYD_LBK_FAIL	Ethernet B PHY C loopback fail
25	MACB_GORDON_CRC_FAIL	Ethernet B Gordon CRC fail
26	MACB_GORDON_STAT_FAIL	Ethernet B Gordon STAT fail
27	MACB_COMP_ABORT_FAIL	Ethernet B Compare Abort fail
28	MACB_BAD_CRC_FAIL	Ethernet B Force Bad CRC fail
29	MACB_BAD_STAT_FAIL	Ethernet B Force Bad STAT fail
30	COOP_PONG_RTOUT	Ethernet Coop Receive Error
31	COOP_PONG_CERR	Ethernet Coop Rec Count error
32	COOP_PONG_SERR	Ethernet Coop Rec Stat error
33	COOP_ENET_PING_OFAIL	Ethernet Coop Other Miscompare
34	COOP_ENET_PING_OTOUT	Ethernet Coop Other Timeout
35	COOP_ENET_PING_RBAD	Ethernet Coop Receive Bad
36	COOP_ENET_SYNC1	Ethernet Coop Sync1 Timeout
37	COOP_ENET_SYNC2	Ethernet Coop Sync2 Timeout
38	COOP_ENET_SYNC3	Ethernet Coop Sync3 Timeout
39	COOP_ENET_FAIL1	Ethernet Coop First Test Fail
40	COOP_ENET_FAIL2	Ethernet Coop Second Test Fail
41	COOP_ENET_FAIL3	Ethernet Coop Third Test Fail
42	COOP_ENET_FAIL4	Ethernet Coop Fourth Test Fail
43	COOP_ENET_NOLINK	Ethernet Coop No Link
44	RDHSS	Self Hosting - Bad Checksum Tag.
45	RDHSS	Self Hosting - Bad Checksum Value.
133	CHKPNT_LOAD_OPERATIONS	CHKPNT_LOAD_OPERATIONS
193	RDH_SYNC_TIMEOUT	Diagnostic Synchronization Timeout
194	RDH_SYNC_EXE_FAIL	Diagnostics were not at same point
195	RDH_XCHG_TIMEOUT	Exchange timeout between Modules
196	RDH_XCHG_DATA_TO	Exchange data was not ready
197	SS_OFF_LBK_FAIL	Local State Sequencer Off state fail
198	SS_BOOT_LBK_FAIL	Local State Sequencer Boot state fail
199	SS_SDI_LBK_FAIL	Local State Sequencer SDI state fail
200	SS_XMT_RDY_FAIL	Local State Sequence send not ready
201	SS_REC_RDY_FAIL	Local State Sequence rec not ready

Table 2-21. ROM Diagnostic Handler Subsystem (RDHSS) Fault Isolation Diagnostic Messages

Code	Mnemonic	Message
202	SS_REC_DATA_FAIL	Local State Sequence rec data incorrect
203	RDH_PHYS_INIT_FAIL	State PHY failed to initialize
204	RDH_CSEQ_START_TO	Coop State Sequencer start timeout
205	RDH_CSEQ_BSYNC_TO	Coop State Sequence Boot-Boot fail
206	RDH_CSEQ_SR0_FAIL	Coop State Sequence SR0-SR0 fail
207	RDH_CSEQ_SA0_FAIL	Coop State Sequence SA0-SA0 fail
208	RDH_CSEQ_CSA_FAIL	Coop State Sequence CSA-CSA fail
209	RDH_CSEQ_SPDI_FAIL	Coop State Sequence SDI-PDI fail
210	RDH_CSEQ_SHD_TO	Coop State Sequence SHD Timeout
211	RDH_CSEQ_PSDI_FAIL	Coop State Sequence PDI-SDI fail
212	RDH_CSEQ_MAR_FAIL	Coop State Sequence MPR-SHD fail
213	RDH_CSEQ_MARS_FAIL	Coop State Sequence SHD-MPR fail
214	RDH_CSEQ_SR0_SDI_FAIL	Coop State Sequence SR0-SDI fail
215	RDH_CSEQ_SR0_SA0_FAIL	Coop State Sequence SR0-SA0 fail
216	RDH_CSEQ_SA0_CSA_FAIL	Coop State Sequence SA0-CSA fail
217	RDH_CSEQ_CSA_MSH_FAIL	Coop State Sequence CSA-SHD fail
218	RDH_ECC_SBIT_FAIL	ECC Single bit Error not detected
219	RDH_ECC_BPOS_FAIL	ECC Wrong bit position indication
220	RDH_ECC_SADD_FAIL	ECC Wrong address indication
221	RDH_ECC_MB_FAIL	ECC Multiple bit error not detected
222	RDH_ECC_MADD_FAIL	ECC Wrong address indication
223	RDH_LOC_387_ERROR	Math Coprocessor Test failed
-30	RDHSS	Do Not Checkpoint during OLUG
-30	RDHSS	Checkpoint loading to Flash
-30	RDHSS	Backup Checkpoint erased
-30	RDHSS	Checkpoint Load Aborted TCPIP Error
-30	RDHSS	Checkpoint Load Incomplete
-30	RDHSS	Checkpoint Checksum not found
-30	RDHSS	Checkpoint Checksum Bad
-30	RDHSS	Checkpoint Write to Flash Failed
-30	RDHSS	Shadow Checksum not found
-30	RDHSS	Shadow Checksum Bad
-30	RDHSS	Shadow Load Incomplete
-30	RDHSS	Primary Checksum not found
-30	RDHSS	Primary Checksum Bad
-30	RDHSS	Primary Load Incomplete
-30	RDHSS	Checkpoint File verified
-30	RDHSS	Checkpoint installed into flash
-30	RDHSS	Self Hosting Disabled
-30	RDHSS	Shadow Checkpoint update Needed
-30	RDHSS	Shadow Checkpoint update Needed
-30	RDHSS	CHKPT Load Failed Reboot Shadow
-30	RDHSS	Shadow CHKPT File Not Received
-30	RDHSS	Shadow Checkpoint File Sent
-30	RDHSS	Shadow Checkpoint File Incomplete Shadow Failed
-30	RDHSS	** Shadow Reboot - Invalidate Flash **

Fault Tolerant Executive Subsystem (FTXSS) Printed Messages

The following table lists the printed messages from the Fault Tolerant Executive Subsystem (FTXSS) for the FCP280, FCP270, ZCP270, or ATS .

When these messages are printed, observe the state of the LEDs on the front of the module. Generally, if the LED is red, you need to replace the module. If the LED is red/green, check the cables and cable connections (i.e., no broken or bent pins) and reboot the module.

If the same failure occurs, replace the module. If the replacement corrects the problem, return the failed module. If the same errors occur after replacing a module, the problem exists in the partner module.

Table 2-22 lists the error messages.

Table 2-22. Fault Tolerant Executive Subsystem (FTXSS) Printed Messages

Code	Mnemonic	Message
01	FT_WRONG_STATES	FT sequencer not in valid state to run
02	FT_WDT_TIMEOUT	Watch Dog Timer expired - Running Married
03	FT_SYNCH_TIMEOUT	FT synchronization call timed out
04	FT_SOFT_TIMEOUT	Software Watch Dog Timer expired
05	FT_SSBCE	SSB Input/Output miscompare
06	FT_IOERR1	FT I/O Error 1
07	FT_IOERR2	FT I/O Error 2
08	FT_IOERR3	FT I/O Error 3
13	FT_POWERF	Module experienced power fail
16	FT_COOP_FAILED	Cooperative Diagnostics failed
17	FT_IOE2_LROOT	Ioerr2 message - loss of ROOT DEVICE
18	FT_IOE2_CRCMC	Ioerr2 message - CRC miscompare
19	FT_IOE2_SCSITO	Ioerr2 message - SCSI TIMEOUT
20	FT_IOE2_MDFAIL	Ioerr2 message - MIRROR DISK failed
21	FT_KRNL_MISMATCH	Kernel version did not match other module
22	FT_RESOLVE	FT sequencer in RESOLVE state-(re)marriage
23	FT_OTHER_FAILED	Returned by COOP_DIAG - Other module failed
24	FT_JABBER	JABBER error has occurred
25	FT_OSTICK	OS TICK failure has occurred
26	FT_SM_MSG_REJECTED	Sys Mon message rejected via cl_chkio call
27	FTX_CRLB	UNIQUE task - can't read Letter Bug
28	FTX_NULB	UNIQUE task - non-unique Letter Bug
29	FT_ROLE_XCHG_FAIL	FT pair failed to exchange state roles
30	FT_CANT_RENDEZVOUS	FT pair failed to get to consistent state
31	FT_ILXCHG_FAILED	Interlink exchange failed
32	FT_WRONG_MESSAGE	Message passed over Interlink do not match
33	FT_INVALID_STATE	FT Sequencer not valid state to continue
34	FT_ILCONF_FAILED	Interlink configuration failed
35	FT_SM_NOT_ACTIVATED	FT_SM_TASK failed cs_activate call
36	FT_NO_SYSTEM_MON	Get_system_monitor call failed
37	FT_ADPF_INV_STATE	Invalid seq state during PF recovery
38	FT_NOCOMM_ADPF	No interlink comm. during PF recovery
39	FT_HOT_DB_FAILED	DB Transfer failed during HOTREMARRY

Table 2-22. Fault Tolerant Executive Subsystem (FTXSS) Printed Messages (Continued)

Code	Mnemonic	Message
40	FT_OTHER_NOT_HOT	Other module not in position to HOTREMARRY
41	FT_ADPF_O_RUNNING	Other module SPRI - Reboot after Pwr Fail
42	FT_HOT_DBPF_FAILED	DB Xfer failed during Pwr Fail HOTREMARRY
43	FT_DB_FAILED	Data base transfer failed
44	FT_INVALID_DBTT	Invalid Data Base Transfer Table
45	FT_SMA_MISMATCH	Station MAC Add did not match other module
46	FT_LB_MISMATCH	LETTER BUG did not match other module
49	FT_FAIL_IODL	Failed PIO Down Load
50	FT_NOINIT_S68824	Unable to init 68824 while running SINGLE
51	FT_NOINIT_NOCOMM	Unable to init 68824 and failed Interlink Comm
52	FT_NOINIT_NOXMIT	Unable to init 68824 Appears to be bad Xmitter
53	FT_NOINIT_NORECV	Unable to init 68824 Appears to be bad recver
54	FT_NOINIT_MARSNG	Unable to init 68824 Tried MARRIED then SINGLE
55	FT_ILL_XMIT	An improper SSB message xmit was attempted
60	FT_NEWIMAGE_NCOM	IL Comm. failed during new image installation
61	FT_NEWIMAGE_NMSG	IL messages did not match
62	FT_NEWIMAGE_NSDI	Module failed to step to SHADOW DIAG state
63	FT_NEWIMAGE_NOFF	Module failed to step to OFF state
64	FT_NEWIMAGE_NBOT	Module failed to step to BOOT state
65	FT_NEWIMAGE_DERR	Dependent error occurred during newimage load
66	FT_NEWIMAGE_NRND	Rendezvous failed during newimage installation
67	FT_NEWI_REBOOT	Primary module rebooting to load new image
68	FT_VALLOC_FAIL	Valloc call failed in FT_RECEIVE()
69	FT_REG_ACT_FAIL	Unable to register and activate FTX for IPC
70	FT_BAD_CLRID	Bad message ID returned from cl_receive call
71	FT_NEWIMAGE_R1R2	The CL_SEND failed when trying to update R1,R2
72	FT_NEWIMAGE_WMSG	Received wrong message during NEWIMAGE\REMARRY
80	FT_AP20_MEMV	Memory violation occurred
81	FT_ESCALATION	Error Escalation Threshold has been exceeded
90	FT_CP30_SYNC1_F	Modules failed to sync up prior to mem to mem
91	FT_CP30_SYNC2_F	Modules failed to sync up after mem to mem
92	FT_CP30_NOZBUS	ZBUS is not connected to FT pair
93	FT_CP30_CHKSUM_D	Check sums did not match after mem to mem xfer
94	FT_CP30_PRI_FAIL	PRIMARY module failed during mem to mem xfer
95	FT_CP30_MTMILF	Il_xchg failed during memory validation
96	FT_CP30_CHKSUMF	The check sums did not match after MEM TO MEM
97	FT_CP30_WDT_TO	WDT timed out during error recovery - no SPRI
98	FT_BAD_STATE	FT state in unexpected state to continue
99	FT_BAD_COOPV	coop_diag() returned unexpected values
100	FT_DIFF_COOPV	coop_diag() returned different values
120	FT_USC_CH1TORE	USC Channel 1 Transmit OverRun Error - 186
121	FT_USC_CH2TORE	USC Channel 2 Transmit OverRun Error - 186
122	FT_USC_CH1RORE	USC Channel 1 Receive OverRun Error - 186
123	FT_USC_CH2RORE	USC Channel 2 Receive OverRun Error - 186
124	FT_USC_CH1CE	USC Channel 1 Compare Error - 186
125	FT_USC_CH2CE	USC Channel 2 Compare Error - 186
126	FT_INTRLNK_ERR	USC InterLink Error - 186
127	FT_USC_IME	USC Inter-Module Error (FT_OTHER_ERROR) - 186
128	FT_SYNC_186TO	Fault Tolerant Sync Timeout. - 186

Table 2-22. Fault Tolerant Executive Subsystem (FTXSS) Printed Messages (Continued)

Code	Mnemonic	Message
129	FT_80386_DE	Dependent Error on the 80386 side.
130	FT_186_WDT	80186 Watch Dog Timer Interrupt.
131	FT_186_PARITY	80186 Parity Error.
132	FT_NODIAG_STATE	2 modules didn't agree on different DIAG state
133	FT_186_NORESP	FTX/186 did not respond to FTX/386for E.R.
134	FT_80386_NMI	The Interrupt was generated by the 80386.
135	FT_RSOUT_BAD	Consistent RS232 SEND MSG Timeout. - 186
136	FT_RSIN_BAD	RS232 Receive Message Miscompare. - 186
137	FT_186_MEMFAIL	80186 Data Transfer Failed. - 186
138	FT_186_MMNORSP	80186 Did Not Respond After Data Xfer. - 186
140	FT_COOP_NONISO	Returned by COOP_DIAG - Unrecognized Condition.
141	FT_OLIU_COM	OLUG - Standby Module rebooting.
142	FT_OLIU_XFER	OLUG - Control Module rebooting.
143	FT_BOTH_SEEOTHER	Both modules saw OTHER module as failed diagnostics
144	FT_WRONG_IMAGE	The image does not match the Style B hardware
145	FT_COMEX_RBD_ISR	COMEX Exception - Loss of RBD's in 82586 ISR
146	FT_COMEX_RBD_IST	COMEX Exception - Loss of RBD's in 82586 IST
151	FT_BAD_DBXFER	Data Base Transfer Incomplete, Shadow Recovering

Fault Tolerant Executive Control Processor Subsystem (FTXFCPSS) Printed Messages

The following table lists the printed messages from the Fault Tolerant Executive Control Processor Subsystem (FTXCPSS) for the FCP280, FCP270, ZCP270, or ATS.

The fault tolerant communication (FTX) messages listed below are those contained in the "message line" of the printed format line. The fault tolerant (FT) State Sequencer is used to negotiate the states necessary to run redundant modules.

When these messages are printed, observe the state of the LEDs on the front of the module. Generally, if the LED is red, you need to replace the module. If the LED is red/green, check the cables and cable connections (i.e., no broken or bent pins) and reboot the module.

If the same failure occurs, replace the module. If the replacement corrects the problem, return the failed module. If the same errors occur after replacing a module, the problem exists in the partner module.

The ATS uses the same code set as the control processors, and shares the error messages indicated below.

Table 2-23 lists the error messages.

Table 2-23. Fault Tolerant Executive Control Processor Subsystem (FTXFCPSS) Printed Messages

Code	Mnemonic	Message
1[1]	FTFCP_WRONG_STATES	FT sequencer not in valid state to run.
2[1]	FTFCP_WDT_TIMEOUT	Watch Dog Timer expired - Running Married.
3	FTFCP_SYNCH_TIMEOUT	FT synchronization call timed out.

Table 2-23. Fault Tolerant Executive Control Processor Subsystem (FTXFCPSS) Printed Messages (Continued)

Code	Mnemonic	Message
4[1]	FTATS_LOSS_SPHY	(ATS only) Lost Gordon Link Status Bit (An interlink communication failure has occurred between redundant modules)
5	FTFCP_ETHERNET_CE	Ethernet Input/Output miscompare.
6	FTFCP_IOERR1	Control & I/O Compare Error.
7	FTFCP_IOERR2	FT I/O Error 2
8	FTFCP_IOERR3	FT I/O Error 3
9[1]	FTFCP_LOSS_LINK	Change in Ethernet Link Status
11[1]	FTATS_LOSS_CHNL	(ATS only) Lost Ethernet/Nodebus Link
12[1]	FTATS_REMARRY	(ATS only) Other module wants to Remarry
13[1]	FTATS_BCKUP_PING_FAILED	(ATS only) Ping Test on Backup Module Failed
14[1]	(CP) FTFCP_JABBER (ATS) FTATS_PINGTEST_FAIL	(CP) JABBER error has occurred. (ATS) Module failed the Ethernet Ping Test
15	FTFCP_OSTICK	OS TICK failure has occurred.
16[1]	FTFCP_COOP_FAILED	Cooperative Diagnostics failed.
17[1]	FTFCP_KRNL_MISMATCH	Image version did not match other module.
18[1]	FTFCP_RESOLVE	FT sequencer in RESOLVE state-(re)marriage.
19[1]	FTFCP_OTHER_FAILED	Returned by COOP_DIAG - Other module failed.
20[1]	FTATS_NONISOLATED	Returned by COOP_DIAG - Nonisolated error
21[1]	FTFCP_CRLB	UNIQUE task - can't read Letterbug.
22[1]	FTFCP_NULB	UNIQUE task - non-unique Letterbug.
23[1]	FTFCP_ROLE_XCHG_FAIL	FT pair failed to exchange state roles.
24[1]	FTFCP_CANT_RENDEZVOUS	FT pair failed to get to consistent state.
25[1]	FTFCP_ILXCHG_FAILED	Call to rdh_xchg_buff failed.
26[1]	FTFCP_WRONG_MESSAGE	Message passed over Interlink do not match.
27[1]	FTFCP_INVALID_STATE	FT Sequencer not valid state to continue.
28[1]	(CP) FTFCP_ILL_XMIT (ATS) FTATS_NU_MACADD	(CP) Improper Ethernet message xmit attempted. (ATS) UNIQUE task - non-unique MAC Address
29[1]	FTFCP_BAD_CLRID	Bad message ID returned from cl_receive call.
30[1]	FTFCP_ESCALATION	Error Escalation Threshold exceeded.
31[1]	(CP) FTFCP_CP30_SYNC1_F (ATS) FTATS_C_F_SWITCH_DIFF	(CP) Modules failed to sync up prior to mem to mem. (ATS) Copper/Fiber Cable Switch setting doesn't match
32[1]	(CP) FTFCP_CP30_SYNC2_F (ATS) FTATS_NO_ETHERNET_LINK	(CP) Modules failed to sync up after mem to mem. UNIQUE task - Module has No Ethernet Link
33[1]	FTFCP_BAD_STATE	FT state in unexpected state to continue
34[1]	FTFCP_COOP_NONISO	Returned by COOP_DIAG - Unrecognized Condition.
35[1]	FTFCP_OLIU_XFER	OLUG - Control Module rebooting.
36[1]	FTFCP_BOTH_SEEOTHER	Both modules saw OTHER module as failed diagnostics.
37[1]	FTFCP_ENET_LOSS_LNK	Module has Loss of Ethernet Link Status.
38[1]	FTFCP_SPURIOUS_REBOOT	Module Went OFF Line due to RESET.
39	FTFCP_FAILED_DATAXFER	Data Transfer failed during Error Recovery.
40	FTFCP_FAILED_DXFR_REM	Data Transfer failed during Remarriage.
41[1]	FTFCP_NOZBUS	ZBUS is not connected to ZCP270 or ATS.
42	FTFCP_IOC_NONISOLATED	Returned by ZCP IOC DIAGS - Nonisolated error
43[1]	FTFCP_SIMUL_BOOT	Simultaneous Boot - Forced Module Reboot
44	FTFCP_LOSS_OF_SYNCPULSE	Module lost Sync Pulse on both ports.
45[1]	FTATS_PRI_PORT_A_GOOD	ATS Primary - Port A Good
46[1]	FTATS_PRI_PORT_B_GOOD	ATS Primary - Port B Good
47[1]	FTATS_PRI_AGOOD_BFAILED	ATS Primary - Port A Good, Port B Failed
48[1]	FTATS_PRI_BGOOD_AFAILED	ATS Primary - Port B Good, Port A Failed

Table 2-23. Fault Tolerant Executive Control Processor Subsystem (FTXFCPSS) Printed Messages (Continued)

Code	Mnemonic	Message
49[1]	FTATS_PRI_PORT_A_FAILED	ATS Primary - Port A Failed
50[1]	FTATS_PRI_PORT_B_FAILED	ATS Primary - Port B Failed
51[1]	FTATS_PRI_PORT_AB_GOOD	ATS Primary - Port A & B Good
52[1]	FTATS_PRI_PORT_AB_FAILED	ATS Primary - Port A & B Failed
53[1]	FTATS_BU_PORT_A_GOOD	ATS Backup - Port A Good
54[1]	FTATS_BU_PORT_B_GOOD	ATS Backup - Port B Good
55[1]	FTATS_BU_AGOOD_BFAILED	ATS Backup - Port A Good, Port B Failed
56[1]	FTATS_BU_BGOOD_AFAILED	ATS Backup - Port B Good, Port A Failed
57[1]	FTATS_BU_PORT_A_FAILED	ATS Backup - Port A Failed
58[1]	FTATS_BU_PORT_B_FAILED	ATS Backup - Port B Failed
59[1]	FTATS_BU_PORT_AB_GOOD	ATS Backup - Port A & B Good
60[1]	(CP) CPU_NUC_SYS_ERR (ATS) FTATS_BU_PORT_AB_FAILED	(CP) Nucleus Operating System Error. (ATS) ATS Backup - Port A & B Failed
61	CPU_NUC_MEM_VIO	Memory violation
201	ZCPIOC_NMI_WPV	ZCPIOC - Write Protection Violation NMI
202	ZCPIOC_NMI_PCIHB	ZCPIOC - PCI Host Bridge NMI
204	ZCPIOC_NMI_MBECC	ZCPIOC - Multi Bit ECC Error NMI
205	ZCPIOC_NMI_FPUE	ZCPIOC - Floating Point Unit Error NMI
208	ZCPIOC_IOERR1	ZCPIOC - IOC Miscompare
212	ZCPIOC_SYNCTO	ZCPIOC - FT Synchronization Timeout
213	ZCPIOC_NMI_WDT_TO	ZCPIOC - Watch Dog Timer Interrupt NMI
214	ZCPIOC_LINK_LOSS	ZCPIOC - Detected loss of link
215	ZCPIOC_X_CABLES	ZCPIOC - Possible cross cables

1. Applies to ATS. For ATS messages, the “FTFCP_” portion of the mnemonic is replaced with “FTATS_”.

System Monitor Messages

There are additional System Monitor messages that are displayed in response to operator action, station limitations, and communication malfunctions. The messages appear on a “message line” at the top of the SMDH display while using the System Management software.

SMDH failure messages (not status) appearing in EQUIP INFO displays are also displayed on the system monitor displays when configured for alarming. See *Address Translation Station User’s Guide* (B0700BP).

IPC Component (IPC) Printed Messages

The following table lists the printed messages for the IPC Component (IPC).

Table 2-24. IPC Component (IPC) Printed Messages

Code	Mnemonic	Message
-1	E_INV_CHAN	invalid channel id
-2	E_NO_ACT	no c_activate
-3	E_NO_CHANS	no channels available
-4	E_TIME_OUT	transaction time-out
-5	E_MAX_SIZE	max buffer size exceeded

Table 2-24. IPC Component (IPC) Printed Messages (Continued)

Code	Mnemonic	Message
-7	E_NO_SERV	service not available
-9	E_INV_ACT	action never happened
-11	E_INV_NAM	bad station or process name
-12	E_NOT_REG	process not registered
-13	E_INV_UE	name not known
-15	E_DISCON	disconnect has been issued
-16	E_ILL_EFN	invalid event flag number
-18	E_TWO_DIS	second disconnect
-19	E_DISC_IND	disconnect received
-20	E_MULT_RCV	second receive call outstanding
-21	E_ANS_OUT	second answer call outstanding
-22	E_NOT_CHK	didn't check last operation
-23	E_NO_DEST	connect destination not found
-24	E_UE_DEST	destination process not known
-27	E_UE_UNACK	name not acceptable
-28	E_ANS_ABORT	answer was aborted
-29	E_ABORT_CON	abortion of a connect request
-30	E_ILL_EOM	EOM out of range (0/1)
-31	E_ILL_ACT	illegal action
-40	E_MULT_ACT	activate was already done
-41	E_ILL_MASK	invalid value for mask
-1000	E_UE_EXISTS	name already exists
-1001	E_INV_BUFPTR	invalid buffer pointer
-1002	E_NO_AL_ENT	no aliases were registered
-1003	E_ALS_NOT_CHK	didn't check last operation on an alias
-1004	E_ONGO_IPC	ongoing IPC transactions
-1005	E_GROUPID	invalid multicast group
-1006	E_INV_INFOPTR	invalid info structure pointer
-1007	E_INV_ANAME	invalid alias name
-1008	E_INV_DNAME	invalid d_name
-1010	E_MAX_CHAN	illegal value for max channels
-1012	E_NO_RES	out of IPC/system resources
-1013	E_INV_MID	invalid message id
-1021	E_SERVICE	illegal value for service
-1041	E_MSG_REJECTED	message could not be delivered to destination
-1050	CONN_PENDING	pending connection
-1065	E_ILL_AL_VAL	exceed maximum # of aliases
-1066	E_ILL_NAM_SZ	illegal size for name
-1069	E_NO_DT_ALIAS	aliases are not allowed for DT service
-1070	E_INV_MY_NAME	invalid my_name given in info structure
-1071	E_ILL_LOCA	invalid station address and/or letterbug
-2000	E_FILE_ACCESS_ERR	IPC device file access bad
-2001	E_INV_FILEDES	invalid file descriptor

ROM Load Requestor (RLRSS) Printed Messages (GW30 Only)

The following table lists the printed messages for the ROM Load Requestor (RLRSS).

Table 2-25. ROM Load Requester (RLRSS) Printed Messages

Code	Message
1	Station image download failed. ROM Addr =
2	Off-line Diag image load failed. ROM Addr =
3	EEPROM Update image download failed. ROM Addr =
4	Memory dump operation failed. ROM Addr =
5	Letterbug ID access failed. ROM Addr =
6	Load aborted by a ROM Update load cmd. ROM Addr =
7	Load aborted by a run Off-line Diag cmd. ROM Addr =

ROM Diagnostics (ROMDSS) Printed Messages (GW30 Only)

The following table lists the printed messages for ROM Diagnostics (ROMDSS).

Table 2-26. ROM Diagnostics (ROMDSS) Printed Messages

Code	Message
2	Diag fail, EEPROM Update Error. ROM Addr =
3	Diag fail, UC - 8087 Coprocessor. ROM Addr =
4	OLDD Active, Non-Maskable INT. ROM Addr =
5	OLDD Active, Memory Parity Error. ROM Addr =
6	OLDD Active, Watchdog Timer Interrupt. ROM Addr =
7	Diag fail, Letterbug. ROM Addr =
8	OLDD Active, Spurious Maskable INT. ROM Addr =
18	Diag fail, GC2 - Video CTRL Registers. ROM Addr =
19	Diag fail, GC2 - Video memory. ROM Addr =
21	Diag fail, GC2 - Mask Logic. ROM Addr =
23	Diag fail, GC2 - Video INT Logic. ROM Addr =
53	Diag fail, FS1 - Serial Port Loopback. ROM Addr =
55	Diag fail, FS1 - SCSI Interface. ROM Addr =
57	Diag fail, FS1 - Floppy Disk Interface. ROM Addr =
80	Diag fail, FS1 - Serial Port Registers. ROM Addr =
97	Diag fail, UC - PIO subassembly. ROM Addr =
98	Diag fail, GC2 - I/O subassembly. ROM Addr =
99	Diag fail, FSG - Port cntl register fail. ROM Addr =
100	Diag fail, FSG - Adma register test fail. ROM Addr =
101	Diag fail, FSG - Main data flow cntl err. ROM Addr =
102	Diag fail, FSG - Sec. data flow cntl err. ROM Addr =
103	Diag fail, FSG - Main cmd dma request err. ROM Addr =
112	Diag fail, Calendar Clock. ROM Addr =
132	Diag fail, SSB Compare Logic/Interlink. ROM Addr =
138	Diag fail, DMA subassembly. ROM Addr =

Table 2-26. ROM Diagnostics (ROMDSS) Printed Messages (Continued)

Code	Message
144	Diag fail, CS - SCC Interface. ROM Addr =
145	Diag fail, CS - SCC DMA Loopback. ROM Addr =
146	Diag fail, CS - SCC Async. Loopback. ROM Addr =
147	Diag fail, FS3 - ADMA memory to memory. ROM Addr =
148	Diag fail, FS3 - ADMA register test. ROM Addr =
150	Diag fail, FS3 - SCSI Sram test. ROM Addr =
160	Diag fail, GC3 - GE No response. ROM Addr =
161	Diag fail, GC3 - GE Core Processor fail. ROM Addr =
163	Diag fail, GC3 - GE Program ram fail. ROM Addr =
164	Diag fail, GC3 - GE Shared RAM. ROM Addr =
166	Diag fail, GC3 - GE Register Test. ROM Addr =
167	Diag fail, GC3 - GE Video Ram fail. ROM Addr =
168	Diag fail, GC3 - GE Interrupt Logic. ROM Addr =
169	Diag fail, GC3 - GE Plane mask logic. ROM Addr =
170	Diag fail, GC3 - GE Pixel mask logic. ROM Addr =
176	Transmitter failure. ROM Addr =
192	Diag fail, WP30 Host intf to Graph engine ROM Addr =
193	Diag fail, WP30 Graphic Engine SUD error ROM Addr =
194	Diag fail, WP30 Interrupt test failure ROM Addr =
198	Diag fail, CP30 Zbus xcvr loopback fail ROM Addr =
210	OMC - Socket Controller missing or bad on head unit.
211	OMC - Parallel port 1 not configured by POD.
212	OMC - Serial port 1 not configured by POD.
213	OMC - Inadequate processor card RAM size.
214	OMC - Invalid Manuf ROM Vault checksum in SPROM.
256	Diag fail, GW30 Shared mem cmp error (386) ROM Addr =
261	Diag fail, GW30 IOP did not respond ROM Addr =
262	Diag fail, GW30 IOP did not respond ROM Addr =
263	Diag fail, GW30 IOP did not respond ROM Addr =
264	Diag fail, GW30 386 MEMLOCK fail ROM Addr =
265	Diag fail, GW30 386 MEMLOCK timeout ROM Addr =
266	Diag fail, GW30 186 MEMLOCK timeout ROM Addr =
267	Diag fail, GW30 386 INTR RQLTCH ROM Addr =
268	Diag fail, GW30 IOP did not respond ROM Addr =
269	Diag fail, GW30 IOP PIOE nmi fail ROM Addr =
270	Diag fail, GW30 IOP did not respond ROM Addr =
271	Diag fail, GW30 IOP PIO intr fail ROM Addr =
272	Diag fail, GW30 386 OSTICK INTR not clear ROM Addr =
273	Diag fail, GW30 IOP OSTICK failed ROM Addr =
288	Diag fail, GW30 IOP Memlock fail ROM Addr =
289	Diag fail, GW30 IOP NMI fail ROM Addr =
290	Diag fail, GW30 IOP NMI fail ROM Addr =
291	Diag fail, GW30 IOP NMI fail ROM Addr =
292	Diag fail, GW30 IOP NMI fail ROM Addr =
293	Diag fail, GW30 Timer 0 (186) ROM Addr =
294	Diag fail, GW30 Timer 1 (186) ROM Addr =
295	Diag fail, GW30 Timer 2 (186) ROM Addr =
296	Diag fail, GW30 OSTICK fail (186) ROM Addr =
304	Diag fail, GW30 FTERR intr fault (186) ROM Addr =

Table 2-26. ROM Diagnostics (ROMDSS) Printed Messages (Continued)

Code	Message
305	Diag fail, GW30 Sync loopback failed (186) ROM Addr =
306	Diag fail, GW30 FTERR intr error (186) ROM Addr =
307	Diag fail, GW30 FTERR intr error (186) ROM Addr =
308	Diag fail, GW30 FTERR intr fault (186) ROM Addr =
309	Diag fail, GW30 Error reg fault ROM Addr =
310	Diag fail, GW30 FTERR intr error (186) ROM Addr =
311	Diag fail, GW30 FTERR intr error (186) ROM Addr =
312	Diag fail, GW30 FTERR Intr fault (186) ROM Addr =
313	Diag fail, GW30 Error reg fault (186) ROM Addr =
320	Diag fail, GW30 FTERR intr error (186) ROM Addr =
321	Diag fail, GW30 FTERR intr error (186) ROM Addr =
322	Diag fail, GW30 FTERR intr error (186) ROM Addr =
323	Diag fail, GW30 EPLD err async write (186) ROM Addr =
324	Diag fail, GW30 FTERR intr error (186) ROM Addr =
325	Diag fail, GW30 FDERR failed chan B (186) ROM Addr =
326	Diag fail, GW30 FDERR failed chan A (186) ROM Addr =
327	Diag fail, GW30 Chan B cmp error (186) ROM Addr =
328	Diag fail, GW30 Chan A cmp error (186) ROM Addr =
329	Diag fail, GW30 Chan A torerr (186) ROM Addr =
330	Diag fail, GW30 FTERR intr error (186) ROM Addr =
331	Diag fail, GW30 Chan B torerr (186) ROM Addr =
332	Diag fail, GW30 FTERR intr error (186) ROM Addr =
333	Diag fail, GW30 FTCTS Status reg not clr ROM Addr =
334	Diag fail, GW30 FTCTS FCTS not cause ctsin ROM Addr =
335	Diag fail, GW30 FTCTS ChB RTS no rstin ROM Addr =
336	Diag fail, GW30 FTCTS Ch2 no ctsout ROM Addr =
337	Diag fail, GW30 FTCTS ChB CTS at Z16c30 ROM Addr =
338	Diag fail, GW30 FTCTS ChA RTS no rstin ROM Addr =
339	Diag fail, GW30 FTCTS Ch1 no ctsout ROM Addr =
340	Diag fail, GW30 FTCTS ChA CTS at Z16c30 ROM Addr =
417	Diag fail, GW30 CHA Z16C30 lpbk failed ROM Addr =
418	Diag fail, GW30 CHA EPLD lpbck failed ROM Addr =
419	Diag fail, GW30 CHA RTS EPLD lpbk failed ROM Addr =
428	Diag fail, GW30 CHA TX DMA ISR ROM Addr =
429	Diag fail, GW30 CHA RX DMA ISR ROM Addr =
430	Diag fail, GW30 CHA Rx/Tx Buf cmp failed ROM Addr =
431	Diag fail, GW30 CHA Rx buffer ovrflw ROM Addr =
433	Diag fail, GW30 CHB Z16C30 lpbk failed ROM Addr =
434	Diag fail, GW30 CHB EPLD lpbck failed ROM Addr =
435	Diag fail, GW30 CHB RTS EPLD lpbk failed ROM Addr =
444	Diag fail, GW30 CHB TX DMA ISR ROM Addr =
445	Diag fail, GW30 CHB RX DMA ISR ROM Addr =
446	Diag fail, GW30 CHB Rx/Tx Buf cmp failed ROM Addr =
447	Diag fail, GW30 CHB Rx buffer ovrflw ROM Addr =

RAM Diagnostics (RAMDSS) Printed Messages (GW30 Only)

The following table lists the printed messages for RAM Diagnostics (RAMDSS).

Table 2-27. RAM Diagnostics (RAMDSS) Printed Messages

Code	Message
1	IMOST ERROR Intermodule OSTICK error.
2	COOP PIO Fail PIO Handshake line fail.
3	COOP IOBUS Fail FBM I/O Failure.
4	TST SYNC Fail Unable to step to off.
5	STEP TO BOOT Fail Unable to step to BOOT.
6	LOCAL FTSS Fail State sequencer Failure.
7	LOCAL TIMER Fail Timer 1 Failure.
8	LOCAL OST Fail Local OSTICK Failure.
9	LOCAL PIO Fail Shared Memory or Int Loopback Failure.
10	LOCAL SSB Fail SSB I/O Failure.
11	LOCAL IMR Fail Interrupt Controller Failure.
12	LOCAL TBC Fail Local TBC tests.
13	COOP TBC Fail Tbc initialization
14	COOP TBC Fail Tbc listen test on bus “A”.
15	COOP TBC Fail Tbc listen test on bus “B”.
16	FSG Port Control Register Failure.
17	FSG ADMA Memory Transfer Failure.
18	FSG DMA Request Logic Test Failure.
19	FSG Main Loopback Failure.
20	FSG Secondary Loopback Failure.
21	Local 8087 test failure.
22	SSB cooperative ssb external loopback failure.
23	SSB intermodule sync test failure.
24	SCSI diagnostic error.
25	COOP TBC listen test bus “A” exceeded noise threshold.
26	COOP TBC listen test bus “B” exceeded noise threshold.
27	Interlink configure failure
28	LOCAL Nmi intr controller failure
29	LOCAL Zbus xcvr loopback failure
256	Diag fail, GW30 Shared mem cmp error (386) ROM Addr =
261	Diag fail, GW30 IOP did not respond ROM Addr =
262	Diag fail, GW30 IOP did not respond ROM Addr =
263	Diag fail, GW30 IOP did not respond ROM Addr =
264	Diag fail, GW30 386 MEMLOCK fail ROM Addr =
265	Diag fail, GW30 386 MEMLOCK timeout ROM Addr =
266	Diag fail, GW30 186 MEMLOCK timeout ROM Addr =
267	Diag fail, GW30 386 INTR RQLTCH ROM Addr =
268	Diag fail, GW30 IOP did not respond ROM Addr =
269	Diag fail, GW30 IOP PIOE nmi fail ROM Addr =
270	Diag fail, GW30 IOP did not respond ROM Addr =
271	Diag fail, GW30 IOP PIO intr fail ROM Addr =
272	Diag fail, GW30 386 OSTICK INTR not clear ROM Addr =
273	Diag fail, GW30 IOP OSTICK failed ROM Addr =

Table 2-27. RAM Diagnostics (RAMDSS) Printed Messages (Continued)

Code	Message
288	Diag fail, GW30 IOP Memlock fail ROM Addr =
289	Diag fail, GW30 IOP NMI fail ROM Addr =
290	Diag fail, GW30 IOP NMI fail ROM Addr =
291	Diag fail, GW30 IOP NMI fail ROM Addr =
292	Diag fail, GW30 IOP NMI fail ROM Addr =
293	Diag fail, GW30 Timer 0 (186) ROM Addr =
294	Diag fail, GW30 Timer 1 (186) ROM Addr =
295	Diag fail, GW30 Timer 2 (186) ROM Addr =
296	Diag fail, GW30 OSTICK fail (186) ROM Addr =
304	Diag fail, GW30 FTERR intr fault (186) ROM Addr =
305	Diag fail, GW30 Sync loopback failed (186) ROM Addr =
306	Diag fail, GW30 FTERR intr error (186) ROM Addr =
307	Diag fail, GW30 FTERR intr error (186) ROM Addr =
308	Diag fail, GW30 FTERR intr fault (186) ROM Addr =
309	Diag fail, GW30 Error reg fault ROM Addr =
310	Diag fail, GW30 FTERR intr error (186) ROM Addr =
311	Diag fail, GW30 FTERR intr error (186) ROM Addr =
312	Diag fail, GW30 FTERR Intr fault (186) ROM Addr =
313	Diag fail, GW30 Error reg fault (186) ROM Addr =
320	Diag fail, GW30 FTERR intr error (186) ROM Addr =
321	Diag fail, GW30 FTERR intr error (186) ROM Addr =
322	Diag fail, GW30 FTERR intr error (186) ROM Addr =
323	Diag fail, GW30 EPLD err async write (186) ROM Addr =
324	Diag fail, GW30 FTERR intr error (186) ROM Addr =
325	Diag fail, GW30 FDERR failed chan B (186) ROM Addr =
326	Diag fail, GW30 FDERR failed chan A (186) ROM Addr =
327	Diag fail, GW30 Chan B cmp error (186) ROM Addr =
328	Diag fail, GW30 Chan A cmp error (186) ROM Addr =
329	Diag fail, GW30 Chan A torerr (186) ROM Addr =
330	Diag fail, GW30 FTERR intr error (186) ROM Addr =
331	Diag fail, GW30 Chan B torerr (186) ROM Addr =
332	Diag fail, GW30 FTERR intr error (186) ROM Addr =
333	Diag fail, GW30 FTCTS Status reg not clr ROM Addr =
334	Diag fail, GW30 FTCTS FCTS not cause ctsin ROM Addr =
335	Diag fail, GW30 FTCTS ChB RTS no rstin ROM Addr =
336	Diag fail, GW30 FTCTS Ch2 no ctsout ROM Addr =
337	Diag fail, GW30 FTCTS ChB CTS at Z16c30 ROM Addr =
338	Diag fail, GW30 FTCTS ChA RTS no rstin ROM Addr =
339	Diag fail, GW30 FTCTS Ch1 no ctsout ROM Addr =
340	Diag fail, GW30 FTCTS ChA CTS at Z16c30 ROM Addr =
417	Diag fail, GW30 CHA Z16C30 lpbk failed ROM Addr =
418	Diag fail, GW30 CHA EPLD lpbck failed ROM Addr =
419	Diag fail, GW30 CHA RTS EPLD lpbk failed ROM Addr =
428	Diag fail, GW30 CHA TX DMA ISR ROM Addr =
429	Diag fail, GW30 CHA RX DMA ISR ROM Addr =
430	Diag fail, GW30 CHA Rx/Tx Buf cmp failed ROM Addr =
431	Diag fail, GW30 CHA Rx buffer ovrflw ROM Addr =
433	Diag fail, GW30 CHB Z16C30 lpbk failed ROM Addr =
434	Diag fail, GW30 CHB EPLD lpbck failed ROM Addr =

Table 2-27. RAM Diagnostics (RAMDSS) Printed Messages (Continued)

Code	Message
435	Diag fail, GW30 CHB RTS EPLD lpbk failed ROM Addr =
444	Diag fail, GW30 CHB TX DMA ISR ROM Addr =
445	Diag fail, GW30 CHB RX DMA ISR ROM Addr =
446	Diag fail, GW30 CHB Rx/Tx Buf cmp failed ROM Addr =
447	Diag fail, GW30 CHB Rx buffer ovrflw ROM Addr =

System Manager (SYSMGM) Printed Messages

The following table lists the printed messages for the System Manager (SYSMGM).

Table 2-28. System Manager (SYSMGM) Printed Messages

Code	Mnemonic	Message
1	INVALID_PARAM_VALUE	Invalid Parameter Value
2	UNRECOGNIZED_IPC_MSG	Unrecognized FOX IPC Message
3	UNRECOGNIZED_VENIX_MSG	Unrecognized VENIX IPC Message
4	VENIX_MSG_Q_FULL	VENIX Message Queue is full
5	UNEXPECTED_PDU_RCVD	Unexpected SM_PDU received
6	INVALID_ECB_TYPE	Invalid ECB Type
7	NO_TMR_EXISTS	No such timer exists
8	OPER_SOFTWARE_REBOOT	Operator init'ed sftwr boot. ROM addr =
9	CANT_GET_SICT_INFO	Can't read SICT information
10	CANT_WRITE_NSAP_TO_SICT	Can't write NSAP into SICT
11	SM_NO_BUFFER	No buffer
12	OPER_FAIL_MODULE	Operator initiated module fail
13	SM_INVALID_LD_OPTS	Invalid Load Option
14	NUM_STAS_EXCEEDS_LIMIT	Number of Stations Exceeds Limit
15	SM_CANT_ENABLE_RPTING	Can't enable smon reporting
16	SM_CANT_CHG_RPTING	Can't mark rpting mode changed
17	SM_CANT_LOG_MT_CHG	Can't log Master Tmkpr change
18	SM_CANT_LOG_FT_CHG	Can't log Fault Toler exec chg
19	SM_CANT_FIND_INFO	Can't locate expected info
20	INVALID_XCODE	Rcvd an invalid xcode from RLR
21	SMD_RESET_CHIP	SMD has reset the MAC chip
22	SMON_STATUS_NOT_UPD	ECB station status not updated
23	INVAL_THRESH_FILE	Threshold file is invalid
24	INVALID_ECB_ID	Unrecognized ECB ID from SMAT
25	UNEXPECTED_SIG	Unexpected Signal Received
26	SM_OP_SET_DATE_TIME	Master Timekeeper disabled - use SYS_MGMT to set date/time
	CHECKPT_PROC_NAME	Name

System Manager Component (SMAS) Printed Messages

The following table lists the printed messages for the System Manager Component (SMAS).

Table 2-29. System Manager Component (SMAS) Printed Messages

Code	Message
1	ECB Counter ID Out of Range
2	ECB Counter Type Unknown
3	ECB Information Not Accessible
4	IPC error returned to component
5	ECB not found in declared list

Sequence Control Printed Error Messages

Operational Errors (OP_ERR) messages are those messages which can be raised in a Monitor or a Sequence block. When this occurs, the OP_ERR parameter assumes an integer that indicates the type of failure. For a list of these error messages, refer to *High Level Batch Language (HLBL) User's Guide* (B0400DF).

3. Bpm-Hi Alphabetical Screen Displayed Index To Messages (on WP20)

The Bpm-Hi screen displayed messages listed in this document consists of those associated with the startup procedure on the WP20. When the user performs Bpm-Hi startup, an error message will appear in a dialog box at the top of the console screen, and may result from one of the following conditions:

- An attempt to start Bpm-Hi while Bpm-Hi is on the screen.
- An attempt to start a mixture of Selection, Formula and Bpm-Hi.
- Errors made in entry of the Application Name.

The messages that result from these conditions are listed in this subsection. Each message contains a "corrective action" statement to assist the user. If further explanation is needed concerning the message, contact Invensys support personnel.

Table 3-1. Bpm-Hi Alphabetical Screen Displayed Index To Messages (on WP20)

Code	Message	Description	Action
	Application not entered, enter application and select DONE	You have selected DONE while the Application field was empty.	Re-enter Application and select DONE.
	<APPLIC> not in your configuration, re-enter & select DONE	You have entered an Application <APPLIC> which was not configured in your System Configuration. You have either mistyped the Application or System Configuration. Software Install of the Application was not completed.	Check the installation log files. Re-enter the Application and select DONE.
	<APPLIC> not found, re-enter or start applic & select DONE	The Application <APPLIC> entered is your System Configurator, however the station that hosts <APPLIC> is not available or not completely installed.	This can be verified by checking the installation log files. Re-enter or start Application and select DONE.
	Bpm-Hi not started; other user still busy	A program on the AP20 prevents Bpm-Hi from starting up. The program, most likely, is a left-behind remote drawing program not owned by BPM.	Remove the running program before re-requesting Bpm-Hi.
	Bpm-Hi not started; system error: <num>	This error only occurs in case of abnormal termination of the startup program; <num> will be greater than 128.	Repeat the Bpm-Hi request.
	Bpm-Hi not started; timeout error	The Bpm-Hi startup request was hindered by another user. The timeout time is three (3) minutes.	Repeat the Bpm-Hi request.

Table 3-1. Bpm-Hi Alphabetical Screen Displayed Index To Messages (on WP20) (Continued)

Code	Message	Description	Action
	Bpm-Hi not started; could not cleanup previous	The carry-over from a previous Bpm-Hi session could not be cleaned up	It is necessary to reboot the AP before Bpm-Hi can be re-requested.
	Could not start application	The WP is running another program that precludes simultaneous operation with Bpm-Hi. This message may also occur when starting other programs, (e.g., Formula when Bpm-Hi is on, or Selection when Formula is on the screen).	Exit program (e.g., FOI, Selection or Bpm-Hi itself) before re-requesting Bpm-Hi. If there is no program to exit, reboot the WP20 and repeat the request (could happen if you have re-booted the AP while Bpm-Hi was running).
-10	Entry already in table	Duplicate Object Manager object	
4	Destination process not found	Process required to perform function is not available	
10	Failed to send request message	Process required to perform function is not available	
900	Cannot execute install	/FSD/shell cannot be opened	
901	Mode should be ‘r’ or ‘s’	SUSPEND/RESUME requires ‘s’ for suspend and ‘r’ for resume	
905	No more windows available	Too many windows open.	You need to close windows before proceeding.
906	Internal database error	Database corruption	Exit and re-enter Bpm-Hi
907	Cannot pass parameters to sequence block		
911	Error opening a file	Bpm-Hi cannot find or open a file	Make sure you have entered the correct action and retry.
912	Unknown application entered		
913	No function found		

4. Predictive Analysis Monitor (PAM) Coded Printed Messages

PAM responds with three types of messages:

- Errors which are reported via the System Monitor.
- Major events are logged to support historical overviews.
- Return codes from the function library functions.

The PAM error messages are shown in the section on printed messages of the System Monitor in this manual.

The PAM event messages are classified as priority_two (Low) messages. They are sent to printer(s) and historians configured for the environment of a path.

A PAM event message consists of an event type as the first part (path, equipment or path exception), followed by a common message part and terminated by an event type dependent part.

The event types are:

- Path
- Equipment
- Path exception

The common message part has the following fields:

Table 4-1. PAM Coded Printed Message Fields

Field	Description
time_stamp	Date and time stamp in ISO format
valid-time flag	Valid time flag
mono_time_count	Monotonic time counter
PAM_package_id	PAM package identifier
letterbug	Letterbug of originating station
event_type	Numeric event type
event_descr	Description of the event

The event types have the following fields:

Table 4-2. PAM Event Type Fields

Number	Path	Equipment	Path Exception
1	requestor	requestor	requestor
2	path name	equipment name	path name
3	environment	parameter name	pattern name
4	pattern name	parameter value	reason
5	new status	user reference	
6	new mode	reference value	

Table 4-2. PAM Event Type Fields (Continued)

Number	Path	Equipment	Path Exception
7	from step	new status	
8	to step	new privilege	
9	number of steps	new usage	
10	condition		

The following string text represents a “typical” PAM message line that is printed via a logging device to a priority printer.

```
path 1990-03-30 10:25:48 1 1 PAMTST EYS011 7 Path Operation
testcase LA_001 - LINE_UP - - - - - -
```

Unused fields are filled with ‘-’ to distinguish these fields from used fields containing spaces as data.

Path Event Messages

Table 4-3. Path Event Messages

Code	Message	Action
001	E_AP_SELECT	Abort Path Selection
002	E_CO_MODE	Change Operation Mode
003	E_CP_STATUS	Change Path Status
004	RELEASE_P	Release Path
005	E_SELECT_P	Select Path
006	E_ABORT_P	Abort Path
007	E_PATH	Path Operation
008	E_STEP_P	Step Path
009	E_INIT_P	Initialize Path
010	E_FAIL_P	Failsafe Path
022	E_VALID_ERR	Path Validation Error
023	E_NON_PREF	Non Preferred Station

Equipment Event Messages

Table 4-4. Equipment Event Messages

Code	Message	Action
011	E_CE_PARAMETER	Change Equipment Parameter
012	E_CE_REFERENCE	Change Equipment Reference
013	E_E_CE_STATUS	Change Equipment Status
014	E_CO_PRIVILEGE	Change Operator Privilege
015	E_CU_SECURED	Change Usage To Secured
016	E_CU_LOCKED	Change Usage To Locked
017	E_RE_LOCKED	Register Equipment Locked
018	E_RE_SECURED	Register Equipment Secured
019	E_UE_USE	Unregister Equipment Use

Path Exception Event Messages

Table 4-5. Path Exception Event Messages

Code	Message	Action
020	E_P_EXCEPT	Path in Exception
020	E_RP_EXCEPT	Path Out Exception

PAM Function Library Messages

The PAM function library generates return codes to inform the application.

Table 4-6. PAM Function Library Messages

Code	Message	Action
000	PAM_OK	Pam function executed OK
801	P_ABORTED	Pattern processing aborted via abort_path command
802	P_ALR_OWNER	Already owner of equipment
803	P_ALR_SECURED	Equipment already secured
804	P_COMM_ERROR	Communication error
805	P_EQ_LOCKED	Equipment locked
806	P_EQ_NOT_USABLE	Equipment not usable
807	P_EQ_SECURED	Equipment secured
808	_FAILSAFE	Failsafe pattern is being processed
809	P_FATAL_ERROR	Fatal error caused by internal problems
810	P_FORMAT_ERROR	Message format error
811	P_FREED	Pattern processing stopped because PAC is freed
812	P_INITIALIZE	Initialize pattern is being processed
813	P_INIT_ABORTED	Initialize pattern is aborted
814	P_INIT_FAILED	Initialize pattern has failed
815	P_INV_CFG_FILE	Invalid configuration file
816	P_INV_CRITERIA_LIST	Invalid criteria list specified
817	P_INV_CRIT_NAME	Invalid criteria name specified
818	P_INV_ENVIRONMEN	Invalid environment specified
819	P_INV_EQ_NAME	Invalid equipment name specified
820	P_INV_LBUG	Invalid letterbug specified
821	P_INV_MODE	Invalid mode specified
822	P_INV_PAR_NAME	Invalid parameter name specified
823	P_INV_PAR_VALUE	Invalid parameter value specified
824	P_INV_PATH_KEY	Invalid path key specified
825	P_INV_PATH_NAME	Invalid path name specified
826	P_INV_PATTERN	Invalid pattern name specified
827	P_INV_PRIVILEGE	Invalid operator privilege specified
828	P_INV_REF_NAME	Invalid reference name specified
829	P_INV_REF_VALUE	Invalid reference value specified
830	P_INV_STATUS	Invalid status specified
831	P_INV_STEP_SPEC	Invalid step specification
832	P_INV_VARIABLE	Invalid variable specified
833	P_IN_EXCEPTION	Path in exception

Table 4-6. PAM Function Library Messages (Continued)

Code	Message	Action
834	P_IN_OPERATION	Path in operation
835	P_IN_PROGRESS	Command in progress
836	P_MALLOC	Memory allocation error
837	P_MORE_OWNERS	Equipment has more owners
838	P_NOT_IN_MANUAL	Path not in manual
839	P_NOT_LOCKED	Equipment not locked
840	P_NOT_OWNER	Not owner of path or equipment
841	P_NOT_SECURED	Equipment not secured
842	P_NOT_SELECTED	Path not selected
843	P_NO_EXCEPTION	There is no path exception
844	P_NO_FAILSAFE	There is no failsafe pattern specified
845	P_NO_INITIALIZE	There is no initialize pattern specified
846	P_NO_OPERATION	There is no path operation
847	P_NO_OWNER	There is no owner
848	P_NO_PATH_AVAILABLE	No path available with selection criteria
849	P_NO_PATH_POSSIBLE	No path possible with selection criteria
850	P_NO_SELECTION	No selection in progress for requestor/ environment
852	P_SELECT_ABORTED	Path selection aborted
853	P_TIME_OUT	No reply within time-out
854	P_TOO_MANY_OWNERS	Equipment is locked by maximum amount of owners
855	P_VAR_NOT_SET	Variable not set
856	P_NOT_SUPPORTED	Function not supported yet
857	P_INV_REQUESTOR	Specification for requestor invalid
858	P_INV_EVENT	Invalid event message type
859	P_OBJ_CREATE	Object Create failed
860	P_SYNC_OPEN	Open sync rule list failed
861	P_ALRM_OPEN	Open alarm list failed
862	P_DB_RW_ERR	Database read or write error
863	P_NO_PACS	No Path Controller available
864	P_INV_SEL_CRIT	Invalid Selection Criterion

5. FCP280/CNI LCD Messages

This chapter lists the messages which appear on the Liquid Crystal Display (LCD) on the faceplate of the Field Control Processor 280 (FCP280) or the Control Network Interface (CNI).

The Liquid Crystal Display (LCD) on the FCP280 and CNI faceplate has two rows for providing messages to operators. The following messages are described in this chapter:

- "Typical Messages During Normal Operation" below
- "Temporary Messages During Normal Operation" on page 109
- "Error Messages Following FCP280 Failure or CNI Runtime Errors" on page 109

For more details on the FCP280 or CNI, refer to *Field Control Processor 280 (FCP280) User's Guide* (B0700FW) or *Control Network Integration (CNI) User's Guide* (B0700GE).

Typical Messages During Normal Operation

During normal operation, by default, the two lines on the LCD show the letterbug and operation state of the module:

- Line1 - FCP280/CNI letterbug and operational status: "Single", "Primary", or "Shadow"
- Line2 - Field updates every 20 seconds to cycle through all four different second lines, displaying each piece of information for five seconds. The information is shown in Table 5-2.

The format of messages during normal operation is shown in Table 5-1.

Table 5-1. Format of Typical FCP280/CNI Messages During Normal Operation

Line1	Line2	Description	Format Examples
"<letterbug> <Status>" Where: <letterbug> is the FCP280/CNI letterbug <Status> is the CP's or CNI's operational status of "Single", "Primary", or "Shadow"	-	CP/CNI letterbug and operational status	"ABC800 Single", "ABC800 Primary", "ABC800 Shadow"

Typical messages during normal operation are listed in Table 5-2.

Table 5-2. Typical FCP280/CNI Messages During Normal Operation

Line1	Line2	Description	Action to Be Taken
See Table 5-1.	"Part No <part #>" Where: <part #> is the CP or CNI part number	Hardware status, such as “ABC800 Primary Part No RH924YA”	Informative
	"OS Ver <ver>" Where: <ver> is the CP or CNI image version	Version status, such as “ABC800 Primary OS Ver 092001”	Informative
	"Rev <rev> Date <date>" Where: HW revision and date Where <rev> is the hardware revision and <date> is the 2-digit year, followed by the 2-digit week within the year.	Manufacturing Status (YYWW), such as “ABC800 Primary Rev 03 Date 1320”	Informative "1320" means year 2013, week 20.
	"Ethernet OK" or "Ethernet A BAD" or "Ethernet B BAD" or "Ethernet A/B BAD"	Ethernet connections status, such as “ABC800 Primary Ethernet OK” One or more control network channels are not communicating	Verify channel cables, network Interface module and switch connections.
	“CNI STAT: NO CFG”	FOR CNI ONLY No connection configuration has been setup so no attempt to connect over the CSI can be made.	Informative
	“CNI STAT: CONN”	FOR CNI ONLY This CNI is connected to a remote CNI over the customer supplied interconnection (CSI).	Informative
	“CNI STAT: DISCON”	FOR CNI ONLY This CNI has failed to connect to the remote CNI over the CSI but the connection configuration has been setup.	Informative

Temporary Messages During Normal Operation

During normal operation, temporary messages are sometimes displayed on the LCD.

The format of these temporary messages and the definitions of the temporary messages displayed during normal operation is shown in Table 5-3.

Table 5-3. Temporary FCP280/CNI Messages Shown During Normal Operation

Line1	Line2	Description	Action to Be Taken
"<letterbug> <Status>" Where: <letterbug> is the FCP280 or CNI letterbug <Status> is the CP's or CNI's operational status of "Single", "Primary", or "Shadow"		CP letterbug and operational status For example: "ABC800 Single", "ABC800 Primary", "ABC800 Shadow"	Informative
	"CP280 - NO LINK" -or- "CNI - NO LINK"	No link between CP/CNI and control network switch	Verify Channel cables, Network Interface module and switch connections.
	"Marriage Wait"	Waiting for marriage between the Primary and Shadow CP/CNI modules	Informative - Waiting for action on Primary module to complete before initiating marriage.
	"DUMPING"	CP or CNI is dumping memory	Informative - When complete, retrieve dump file for evaluation.
	"GET PRI IMAGE"	Shadow module is receiving image from the Primary	Informative - Wait for module to reboot
	"SHADOW BURNING"	Shadow module burning image	Informative - Wait for module to reboot
"BURN PRI IMAGE"	"GET PRI IMAGE"	Shadow module is burning image received from Primary to flash	Informative - Wait for module to reboot

Error Messages Following FCP280 Failure or CNI Runtime Errors

When the FCP280/CNI is not operational due to a failure, the LCD shows the failure information.

Both lines of the LCD are limited to sixteen characters displayed at a time. Therefore, the display scrolls the message on each line to the left to allow up to 32 characters of information. It then repeats the message.

The format of the failure mode messages is explained in Table 5-4.

Table 5-4. FCP280/CNI Failure Mode Display Format

Line1	Line2	Description	Format Example
"<letterbug> Subsys ID <ID> Error = <error>" Where: <letterbug> is the FCP280 or CNI letterbug <ID> is the numeric ID for the reporting subsystem <error> is the numeric code for the specific error condition	<Error message text> Where: <Error message text> is descriptive text corresponding to the error condition.	Letterbug, subsystem ID and error code	"ABC800 Subsys ID -30 Error 134 Offline for Upload"

The details of the failure mode messages for the FCP280/CNI only are shown in Table 5-5.

Table 5-5. FCP280/CNI Failure Mode Display Details

Error Code	Error Code Mnemonic	Line1 Contents Line2 Contents	Meaning	Action to Be Taken
Runtime Diagnostic Handler Subsystem Errors (RDHSS = -30)				
71	RDHSS_EXSV_ECC	<letterbug> OFFLINE Excessive ECC errors detected	Excessive number of ECC errors detected	Replace Module
72	RDHSS_ECC_FAILED	<letterbug> OFFLINE ECC test Failed	ECC test Failed	Reboot module; if problem persists, replace module.
76	LPIO_HDLC_ILINK_FAIL	<letterbug> OFFLINE IOC PCIe link failure	PCI Express Bus Failure	Replace Module
80	FPU_VADD_ERR	<letterbug> OFFLINE FPU Add error	Floating Point Processor Failure	Replace Module
81	FPU_VSUB_ERR	<letterbug> OFFLINE FPU Subtract error	Floating Point Processor Failure	Replace Module
82	FPU_VMUL_ERR	<letterbug> OFFLINE FPU Multiply error	Floating Point Processor Failure	Replace Module
83	FPU_VDIV_ERR	<letterbug> OFFLINE FPU Square Root error	Floating Point Processor Failure	Replace Module
84	FPU_VSQRT_ERR	<letterbug> OFFLINE FPU Divide error	Floating Point Processor Failure	Replace Module
85	IMAC_NO_RESET	<letterbug> OFFLINE Interlink MAC Failed to Reset	Internal MDIO Communications Failure	Replace Module

Table 5-5. FCP280/CNI Failure Mode Display Details (Continued)

Error Code	Error Code Mnemonic	Line1 Contents Line2 Contents	Meaning	Action to Be Taken
86	MESH_A_LOOPBACK_ERR	<letterbug> OFFLINE Mesh A loopback test failed	Problem with Channel A	Reboot module; if problem persists, replace module.
87	MESH_B_LOOPBACK_ERR	<letterbug> OFFLINE Mesh B loopback test failed	Problem with Channel B	Reboot module; if problem persists, replace module.
88	COOP_ENET_NOLINK	<letterbug> OFFLINE Ethernet co-op diagnostics failed	Ethernet cooperative diagnostics failed	Verify Channel cables, Network Interface module and switch connections.
134	DUMP_UPLOAD_OPERATIONS	<letterbug> OFFLINE Offline for Upload	Primary module is sending dump file to workstation.	Informative - When Primary module completes, this module will reboot and marry.
151	CHECKPOINT_LOAD_FAILED	<letterbug> OFFLINE Checkpoint load failed	Self Hosting Checkpoint load failed	Reboot module; if problem persists, replace module.
225	RDH_UNHANDLED_INTR	<letterbug> OFFLINE Unhandled Interrupt	Unhandled Interrupt	Verify correct image. Reboot module; if problem persists, replace module.
Fault-tolerant Executive Subsystem Errors (FTFCPSS = -23)				
21	FTFCP_CRLB	<letterbug> OFFLINE UNIQUE task - can't read Letter Bug	Letterbug cannot be read.	Reboot module and reset the letterbug; if problem persists, replace module.
22	FTFCP_NULB	<letterbug> OFFLINE UNIQUE task - non-unique Letter Bug	Letterbug already exists on the system.	Solve conflict of multiple stations trying to run with Same letterbug.
24	FTFCP_CANT_RENDEZVOUS	<letterbug> OFFLINE FT pair failed to get to consistent state	Both modules of FT pair cannot agree on FT state.	Reboot module; if problem persists, replace module.
45	FTFCP_NU_MACADD	<letterbug> OFFLINE UNIQUE task - non-unique MAC Address	Station MAC Address already exists on the system.	Solve conflict of multiple stations trying to run with Same Station MAC Address.

Table 5-5. FCP280/CNI Failure Mode Display Details (Continued)

Error Code	Error Code Mnemonic	Line1 Contents Line2 Contents	Meaning	Action to Be Taken
49	FTFCP_UNOM	<letterbug> OFFLINE UNIQUE task - OM RE-Create LB Failed	OM Recreation of Letterbug Failed	Reboot module

NOTE

FPU is an acronym for Floating Point Unit.

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