

## CRAY X-MP AND CRAY-1® COMPUTER SYSTEMS

IBM VM STATION MESSAGES AND CODES SI-0165

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## PREFACE

This publication explains the messages and codes used by the software that logically links a CRAY X-MP or CRAY-1 Computer System to an International Business Machines (IBM) System/370 or compatible computer system, excluding the IBM PC XT/370, AT/370, and Extended Architecture (XA) computer systems. The software providing the logical link executes under the IBM Virtual Machine (VM/370) System Control Product (SCP) with a minimum update level of System Product (SP) Release 3.0 and RSCS program Product Release 3.0 to run the base station. VM/SP Release 3.0 is required for total networking support.

Cray Research, Inc., (CRI) developed the Virtual Machine (VM) station as a service to its customers. The VM station is a software link that provides several interfaces between the IBM-compatible front-end processor station operator, Control Program operator, CMS terminal users, and the Cray Computer System. This manual uses the term "VM station" or simply "station" to refer to this software link.

General familiarity with the characteristics of the IBM VM Facility/370 and the Cray Operating System (COS) is assumed. Familiarity with the following publications is also recommended:

• VM station manuals (CRI publications):

IBM VM Station Command and Reference, SI-0160 IBM VM Station Program Logic Manual, SI-0161 IBM VM Station Installation and Maintenance, SI-0162 IBM VM Station Reference Summary, SI-0163

• Other CRI publications:

COS Version 1 Reference Manual, SR-0011 COS Message Manual, SR-0039 COS Front-end Protocol Internal Reference Manual, SM-0042

• IBM publications:

VM/SP CMS Command and Macro Reference, SC19-6209
VM/SP CMS User's Guide, SC19-6210
VM/SP CP Command Reference for General Users, SC19-6211
Planning and System Generation Guide, SC19-6201
System 370: Principles of Operation, GA22-7000

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## **1** STATION MESSAGES

This section describes all messages issued by the VM station. The messages are presented in alphabetical order according to message code. Message codes follow this format:

CRIcccxxxs

where:

ccc	identifies	the so	urce	module;	generally	the	first	3	charac-
	ters of the	e modul	e nam	ne.					

xxx is the hexadecimal error code number.

s

indicates severity; one of the following:

- A Response required
- E Error
- I Informational
- S Severe error
- T Terminal error
- W Warning

The information presented here is also available online through the CMS HELP facility. To get help on a particular message, first abbreviate the CRI prefix to a single C; then issue the command "HELP MSG message-code". For example, to get help on the first message listed here, enter "HELP MSG CABNOOIT".

CRIABN001T Station' Has received a 'type' abend. Abend Code='code'

Module: ABENDSTA Type: Station - Console

- Explanation The VM station has encountered either an unexpected program interrupt or a software abend call. 'type' indicates either a HARD abend (the station nucleus will be re-IPLed) or a SOFT abend (a return address was specified for station execution to continue after memory dumps are taken).
- System Action This message is sent to the VM system's operator console, the station maintenance virtual machine, and the station log file. Memory dumps are taken according to those requested in the station configuration file DUMP command. The dump files are sent to the station maintenance machine's virtual reader.
- User Action For more information about the abend code, review the appropriate station abend HELP file. Use HELP ABEN

"code" to call the help file. Contact the CRI Site Analyst or installation systems personnel.

CRIABN002T Station' Has reached the 'type' abend count, Logging off

Module: ABENDSTA Type: Station - Console

Explanation This message informs the maintenance userid and system operator that the station is logging off the system because an excessive number of abends have occurred within a specific time period. 'station' denotes the VM userid of the station sending this message. 'type' designates the type of abend (hard or soft) that occurred.

System Action The station logs off the VM system.

User Action The station will have to be logged back on to the VM system. Contact the Cray Site Analyst or installation systems personnel.

CRIABN003T Station' Re-IPL has failed. Logging off

Module: ABENDSTA Type: Station - Console

Explanation This message informs the maintenance userid and system operator that the station is logging off the system because it has failed to automactically re-IPL the station nucleus after an abend.

System Action The station will log off the VM system.

User Action The station will have to be logged back on to the VM system. Contact the Cray Site Analyst or installation systems personnel.

CRIABN004TStation 'station' Problem communicating with CRAY;<br/>Interactive session interruptedModule: ABENDSTAType: User - StationExplanationA Cray interactive user receives this message if the<br/>Cray Computer System or the station goes down.

'station' denotes the VM userid of the station.

System Action The station will re-IPL itself unless an abend count has been exceeded. Exceeding an abend count will cause the station to log off the VM system.

User Action Enter the /LOGON subcommand to continue the COS interactive session once the VM station is logged back on to the Cray, or enter the /QUIT subcommand to leave CRINT and return to CMS.

CRIABN005T Station' Problem communicating with CRAY; Intertask connection broken

Module: ABENDSTA Type: User - Station

Explanation This message is sent to any active intertask dispose users (CRDISK and CRGRAPH). It indicates that the VM station is no longer logged on to COS because of a station or COS failure.

System Action The VM station nucleus will be re-IPLed from disk and will attempt to log back on to the Cray. Once logged on, the intertask dispose dataset transfer will be restarted by COS.

User Action Restart the intertask dispose application once COS has restarted the dataset transfer.

CRIAULFOAI Autolog has been 'type' as requested

Module: AULTASK Type: User - Logfile

Explanation This message is received when an AUTOLOG request has been aborted because the user is already logged on. 'Type' denotes the action taken; it can be PPN (postpone), CAN (cancelled) or CONT (dataset continued). These values are specified by the ALOG TEXT field parameter. The default value is PPN (postpone).

System Action The AUTOLOG request is processed as required.

User Action The error processing routine of your choice has been called. You should continue to review your console log (\$OUT dataset).

CRIAULF011	Autolog has been successful
	Module: AULTASK Type: User - Logfile
Explanation	This messge denotes that your AUTOLOG request has successfully autologged the userid requested. The userid has been brought onto the VM system and the CMD (command line) has been passed to it as required.
System Action	The dataset associated with the AUTOLOG request is received by a station dummy writer.
User Action	None required. Your COS JOB will continue processing if you have coded the WAIT parameter on your DISPOSE command.
CRIAULF02E	Autolog has failed, user is logged on
	Module: AULTASK Type: User - Logfile
Explanation	The AUTOLOG request (DISPOSE using DC=IN) failed. The failure was caused because the user is currently logged onto the VM system either in a disconnected (DSC) mode or with a terminal.
System Action	The AUTOLOG request will be processed as requested by the ALOG TEXT field parameter. The request can be postponed (PPN), which is the default. Or, it can be cancelled (CAN) and the associated job terminated if it still exists. The request can also continue processing (CONT) as though the AUTOLOG request had occurred correctly.
User Action	None required. Your AUTOLOG request is processing through your requested error recovery procedure.
CRIAULF03E	Autolog has failed, password is incorrect Module: AULTASK Type: User - Logfile

Explanation The AUTOLOG request (DISPOSE using DC=IN) failed because the logon password supplied in the TEXT field was invalid.

System Action The transfer is cancelled and the associated COS job is terminated if it is still processing.

User Action The correct logon password for the userid being autologged must be supplied.

CRIAULF04E	Autolog has failed, userid is not in CP directory
	Module: AULTASK Type: User - Logfile
Explanation	The AUTOLOG request (DISPOSE using DC=IN) failed be- cause the userid to be autologged does not currently exist in the VM system.
System Action	The transfer is cancelled and the associated COS job is terminated if it is still processing.
User Action	A currently valid userid must be supplied.
CRIAULF06E	Autolog has found a syntax error in the text field
	Module: AULTASK Type: User - Logfile

Explanation An error in analyzing your AUTOLOG's TEXT field has occurred. This error is usually caused by an improperly placed comma.

System Action The AUTOLOG request is cancelled. The associated COS job is terminated if the DISPOSE WAIT parameter was coded.

User Action Please review the documentation concerning an AUTOLOG request TEXT field by issuing the command HELP DIS-POSE IN.

CRIAULF07E Autolog has failed, the station does not have autolog privileges

Module: AULTASK Type: User - Logfile

Explanation The station cannot perform the station can not perform your AUTOLOG request because the IBM systems staff has not provided the necessary VM (CP) privilege class required.

System Action The AUTOLOG request is cancelled. The associated COS job is terminated if the DISPOSE WAIT parameter was coded.

User Action None directly required.

CRIAULF08E	Autolog has has received an unsupported AUTOLOG error
	Module: AULTASK Type: User - Logfile
Explanation	An unknown return code from a CP AUTOLOG command has been received by the station. It is likely that the station is executing under either an old level or a yet to be supported level of VM.
System Action	The AUTOLOG request is cancelled. The associated COS job is terminated if the DISPOSE WAIT parameter has been coded.
User Action	None directly possible.
CRIAULF09E	Autolog has not found a valid ALOG value. ALOG=PPN used
	Module: AULTASK Type: User - Logfile
Explanation	The userid to be autologged is currently logged on to your VM system. The station, while in error re- covery, has discovered an unknown or unsupported ALOG value. The station is using the default value PPN (postpone) to process your request.
System Action	The AUTOLOG request is postponed. The associated COS job continues to wait for the request to be processed if the DISPOSE WAIT parameter has been coded.
User Action	None directly required.
CRIAULOOAI	Device 'ldev' autolog of 'userid' has been 'type' as requested
	Module: AULTASK Type: Station - Console
Explanation	An autolog request being processed by 'ldev' has failed because 'userid' is currently logged on to VM. The request has entered an error recovery procedure which is currently postponing, cancelling, or con-
	by the associated COS job through the TEXT field ALOG parameter. The request is postponed if the ALOG pa-

System Action The dataset is processed as specified by the 'type' parameter. A similar message is being sent through LOGFILE to the associated COS job.

rameter has not been coded.

User Action None required.

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CRIAUL0011 Device	'ldev	' autolog	of	'userid'	has	been	successful
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Module: AULTASK Type: Station - Console

Explanation The user's AUTOLOG request has been successful. 'userid' has been brought onto the VM system and the CMD (command line) has been passed to it as required.

System Action The dataset associated with the AUTOLOG request is received by a station dummy writer.

User Action None directly required.

CRIAUL002E Device 'ldev' autolog of 'userid' has failed, user is logged on

Module: AULTASK Type: Station - Console

Explanation The AUTOLOG request (DISPOSE using DC=IN) failed because the user is currently logged on to the VM system either in a disconnected (DSC) mode or with a terminal.

System Action The AUTOLOG request will be processed as requested by the ALOG TEXT field parameter. The request can be postponed (PPN), which is the default. Or, it can be cancelled (CAN) and the associated job terminated if it still exists. The request can also continue processing (CONT) as though the AUTLOG request has occurred correctly.

User Action None required.

CRIAUL003E	Device 'ldev' autolog of 'userid' has failed, pass- word is incorrect						
	Module: AULTASK Type: Station - Console						
Explanation	The AUTOLOG request (DISPOSE using DC=IN) failed be- cause the logon password supplied in the TEXT field was invalid.						
System Action	The transfer is cancelled. The associated COS job is terminated if it is still processing.						
User Action	None directly required.						

CRIAUL004E	Device 'ldev' autolog of 'userid' has failed, userid is not in CP directory
	Module: AULTASK Type: Station - Console
Explanation	The AUTOLOG request (DISPOSE using DC=IN) failed be- cause 'userid' does not currently exist in the VM system.
System Action	The transfer is cancelled and the associated COS job is terminated if it is still processing.
User Action	None directly required.
CRIAUL0051	Device 'ldev' autolog of 'userid' has started cor- recting a RC 115 error
	Module: AULTASK Type: Station - Console
Explanation	A CP return code of 115 has been received by the station while issuing the AUTOLOG command. RC=115 indicates that the station has issued too many AUTOLOG commands with an invalid password The pass- word given with this request may be valid. The sta- tion attempts to regain the AUTOLOG command by a call to the installation exit (UEXAUL).

Note: The validity of the pending request has not yet been tested. Security violations have occurred prior to this autolog request. Review the station's console to determine which COS jobs have used invalid passwords up to this point. Because CP maintains the invalid AUTOLOG count from the time the station logs on to VM, the violation may not be severe. VM (CP) never resets this counter for any reason. Therefore, it is possible that the station has been logged on over a long period of time (perhaps two days) and invalid passwords have occurred because of coding errors or old jobs being run (with old passwords).

Review the station console to determine the cause of this error.

System Action A call to the installation exit UEXAUL will occur. This call should reset the invalid AUTOLOG counters. The autolog request will be performed over again after a successful UEXAUL call.

User Action

Review the information regarding security (above).

CRIAUL006E Device 'ldev' autolog of 'userid' has found a syntax error in the text field

Module: AULTASK Type: Station - Console

Explanation An error occurred in analyzing a user's AUTOLOG request TEXT field. This is usually caused by an improperly placed comma.

System Action The AUTOLOG request is cancelled. The associated COS job is terminated if the DISPOSE WAIT parameter was coded.

User Action None directly required.

CRIAUL007E Device 'ldev' autolog of 'userid' has failed, the station does not have autolog privileges

Module: AULTASK Type: Station - Console

Explanation This message denotes that the station cannot perform the user's AUTOLOG request because the IBM systems staff has not provided the VM (CP) privilege class required.

System Action The AUTOLOG request is cancelled. The associcated COS job is terminated if the DISPOSE WAIT parameter was coded.

User Action None directly required.

CRIAUL008E Device 'ldev' autolog of 'userid' has received an unsupported AUTOLOG error

Module: AULTASK Type: Station - Console

Explanation An unknown return code from a VM (CP) AUTOLOG command has been received by the station. It is likely that the station is executing under either an old level or a yet to be supported level of VM.

System Action The AUTOLOG request is cancelled. The associated COS job is terminated if the DISPOSE WAIT parameter has been coded.

User Action None.

CRIAUL009E	Device 'ldev' autolog of 'userid' has not found a valid ALOG value. ALOG=PPN used
	Module: AULTASK Type: Station - Console
Explanation	The userid to be autologged is currently logged on to your VM system. The station, while in error re- covery, has detected an unknown or unsupported ALOG value. The station uses the default value PPN (postpone) to process the user's request during this error condition.
System Action	The AUTOLOG request is postponed. The associated COS job will continue to wait for the request to be processed if the DISPOSE WAIT parameter has been coded.
User Action	None.
CRICHO001E	Method of calling 'CRCHOOSE' is unsupported
	Module: CRCHOOSE Type: User - CMS command
Explanation	An improper call to the CRCHOOSE subroutine (not EXEC or module) has occurred. The CRCHOOSE subroutine determines through which VM station a user communi- cates to the Cray.
System Action	The subroutine returns control to the calling CMS command with an appropriate return code. The CMS command then processes the error as it has been pro- grammed. The CRINT, CRSTAT CRSTATOP, CRDISK, and CRGRAPH commands return control immediately to CMS with a return code of 1.
User Action	Contact your CRI Site Analyst. This is an internal CMS command problem.
CRICHO002E	No station userid specified thru a 'Station IDFILE' or CONFIG file
	Module: CRCHOOSE Type: User - CMS command
Explanation	The CRCHOOSE subroutine or MODULE could not determine which VM userid you wish to use as a communications path to the Cray. The subroutine or MODULE has ex- amined both the STATION IDFILE and STATION CONFIG files.
System Action	The CRCHOOSE subroutine or MODULE returns control to the calling program with an appropiate return code.

	The CRINT, CRSTAT, CRSTATOP, CRDISK, and CRGRAPH commands return control immediately to CMS with a return code of 2. The CRSEND and CRSUBMIT commands return control to CMS with a return code of 1.
User Action	Issue the CRCHOOSE command (enter HELP CMS CRCHOOSE for help).
CRICHO003I	Your default station's userid is now 'station' at node 'node'
	Exec: CRCHOOSE Type: User - CMS command
Explanation	This indicates the VM station CMS userid and nodeid set by the CRCHOOSE command. Station user commands will be directed to the station that is named.
System Action	Control returns to CMS with a return code of 0.

- User Action None.
- CRICHO004E The station's VM userid can not be longer than eight characters

Exec: CRCHOOSE Type: User - CMS command

Explanation The VM station userid you specified is greater than the maximum of 8 characters.

System Action The CRCHOOSE command terminates and returns to CMS with a return code of 1.

User Action Correct the CRCHOOSE command and reissue.

CRICHO005E Your CRCHOOSE request can not be honored, the "A" disk is read/only

Exec: CRCHOOSE Type: User - CMS command

- Explanation The CRCHOOSE command creates or modifies a file on your A disk called STATION IDFILE; the A disk must therefore be accessed R/W.
- System Action The CRCHOOSE command terminates and returns to CMS with a return code of 2.
- User Action Access your A disk either in read/write mode or as an extension to itself or another disk.

CRICHO0061	Synonyms have not been assigned by your computer center staff
	Exec: CRCHOOSE Type: User - CMS command
Explanation	Your computer center has not created or assigned any synonyms for the station's virtual machine userid.
System Action	The CRCHOOSE command terminates and returns to CMS with a return code of 6.
User Action	Request that your computer center enable the synonym feature.
CRICON0011	VM/SP CRAY interface station: Release 03.00; Service level 00
	Module: CONTASK Type: Station - Console
Explanation	This message informs the maintenance userid and sys- tem operator that the station has just been IPLed. Both the release and service level (bugfix) of the station are given.
System Action	The station will be initialized and will then attempt log on to the Cray.
User Action	Ensure that the release or service level is as expected.
CRICON0021	Generated on: MM/DD/YY at HH:MM
	Module: CONTASK Type: Station - Console
Explanation	This message denotes when the station was last gen- erated.
System Action	The station continues initialization.
User Action	None.
CRICON0031	(C) Copyright Cray Research Inc, 1983, 1984, 1985. All rights reserved
	Module: CONTASK Type: Station - Console
Explanation	This VM station copyright notice is displayed when the station is IPLed.

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System Action	Station initialization continues.
User Action	None.
CRICRE001E	Error finding input file. 'description'
	Module: CRENTRY Type: Installer - CMS command
Explanation	This message indicates that the station load map file could not be found. The load map's file specifica- tion can be defined by the first three parameter on the CRENTRY command; it defaults to STATION MAP *. The possible 'description' values are as follows:
	• An invalid character was found in the supplied file identifier.
	• An invalid filemode was supplied.
	• The specified file does not exist.
	• A disk has not been accessed at the specified filemode.
System Action	The CRENTRY command terminates execution and returns control to CMS with RC=1.
User Action	Your action is based on the value presented by 'de- scription'.
CRICRE002E	Error reading input file. 'description'
	Module: CRENTRY Type: Installer - CMS command
Explanation	A CMS system error occurred while the station load map was being read from disk. The CMS return code is explained by 'description'.
System Action	The CRENTRY command returns control to CMS with RC=2. A partially built ENTRYPNT ASSEMBLE file may exist upon CRENTRY command termination.
	User-action:Refer to the IBM CMS Command and Macro Reference guide for assistance.

CRICRE003E	Error	writing	output	file.	'description'	

Module: CRENTRY Type: Installer - CMS command

- Explanation This message is generated when an error has occurred while writting the ENTRYPNT assembler file to disk. 'description' further describes the error condition.
- System Action The requested write operation is aborted. The CRENTRY command returns control to CMS with RC=3.
- User Action Several writing errors can occur since only the immediate write operation is aborted. Your action must be based on the specific failure that occurred.

CRICRIOOAW Invalid /INPUT command: File 'fileid' already open

Module: CRINT Type: User - CMS command

Explanation An attempt was made to submit a CMS disk file (with the /INPUT CRINT subcommand) that is already being sent to the Cray. This can occur when /INPUT file commands are improperly nested. Nested calls for the same minidisk file are not allowed.

System Action Processing of the original /INPUT file continues.

User Action Delete any nested /INPUT commands for the same minidisk file from any interactive input files.

- CRICRIOOBE No storage for File Control Block
  Module: CRINT Type: User CMS command
  Explanation No free CMS storage is available for an FSCB CMS file
  control block. The storage block is used to process
  a CRINT /INPUT subcommand or the interactive profile
  (CRINT \$PROFILE).
  System Action The input request is not processed. CRINT waits for
  user input.
- User Action Exit CRINT with either /LOGOFF or /LOGOFF HOLD and define more virtual storage. Reissue CRINT and /IN-PUT.

CRICRI00CE	Invalid option 'option'		
	Module: CRINT Type: User - CMS command		
Explanation	An unrecognized option was specified on the last CRINT command entered.		
System Action	CRINT waits for further input from the user.		
User Action	Verify the command and re-enter.		
CRICRI00DE	No storage for LCP		
	Module: CRINT Type: User - CMS command		
Explanation	No free virtual storage is available for an LCP (COS message) work area. The amount of virtual storage needed is 32K.		
System Action	Control returns to CMS with RC=13.		
User Action	Define more virtual storage and re-invoke CRINT.		
CRICR100EE	COS Interactive reply error 'n' - 'description'		
	Module: CRINTRE Type: User - CMS command		
Explanation	An interactive reply error was received from COS. See the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042, for descriptions of the error code 'n'. 'description' is from the CRI manual.		
System Action	This is a response to a message initiated by the CRINT user. It could indicate the failure of the user's interactive COS job. CRINT waits for input from the console.		
User Action	Note the error message and re-log on to your inter- active job or re-send the COS command.		
CRICR100FE	Rejected by station		
	Module: CRINTRE Type: User - CMS command		
Explanation	The VM station virtual machine issued a VMCF REJECT function in response to a request from a CRINT user.		

System Action RC = 15; CRINT returns to CMS.

User Action This error indicates a failure of the CRINT/station VMCF communication and should be reported to your CRI Site Analyst.

CRICRI001E Error 'operation' file 'fileid'; 'description'
Module: CRINT Type: User - CMS command
Explanation An error was encountered while performing 'operation'
on the minidisk file 'fileid'.
System Action File processing is terminated and CRINT waits for
input from the console.
User Action This may indicate a full minidisk or a CMS file system
error.

CRICRI002E Invalid option or option parameter found

Module: CRINT Type: User - CMS command

Explanation An invalid option was found on the CRINT command line.

System Action RC = 12; CRINT returns control to CMS.

User Action Re-enter the CRINT command line properly.

CRICRI003E No storage for deblocking buffer Module: CRINT Type: User - CMS command Explanation No free virtual storage was available for a COS data deblocking buffer. The minimum virtual storage necessary is 32K.
System Action RC = 30; CRINT returns control to CMS. User Action Define more virtual storage and re-enter the CRINT command. CRICRI004E VMCF send error 'nn'

Module: CRINT Type: User - CMS command

- Explanation A VMCF SEND function error occurred while CRINT was being used to communicate with the VM station. The error code 'nn' is reviewed in the IBM System Programmer's Guide, SC19-6203, under the CP Virtual Machine Communication Facility (VMCF).
- System Action The CRINT command attempts to continue normal operations of COS interactive. The message is not sent to the station or the Cray.
- User Action Note the error number and contact either the Cray Site Analyst or IBM system programming staff.

CRICRI005W	'station' not active
	Module: CRINT Type: User - CMS command
Explanation	The VM station virtual machine is not logged on to the front-end computer.
System Action	RC = 5; CRINT returns control to CMS.
User Action	None.

CRICRI006EVMCF data transfer error 'nn'Module: CRINTREType: User - CMS commandExplanationA VMCF SEND function error occurred while trying to<br/>transfer data from the CRINT user virtual machine to<br/>the VM station through CP VMCF. The error code 'nn'

SC19-6203-1.

System Action The interactive data that was to be sent to the VM station was not transferred successfully. This error indicates either a hardware error on the front end or the possibility of virtual storage overlay. After the error message is displayed, CRINT waits for input from the user.

is given in the IBM VM/SP System Programmers Guide,

User Action Re-enter the previous command. If the problem persists, contact the Cray Site Analyst or installation support personnel. CRICRI007E VMCF receive error 'nn'

Module: CRINTRE Type: User - CMS command

- Explanation A VMCF RECEIVE function error occurred while trying to receive data from the VM station through CP VMCF. The error code 'nn' is given in the IBM VM/SP System Programmers Guide, SC19-6203-1.
- System Action The data to be received from the VM station was not transferred successfully. The VM station continues operation and attempts to send any subsequent data from COS to the user. CRINT waits for input from the user.
- User Action It may be necessary to re-enter the previous command. If the problem persists, contact the Cray Site Analyst or installation support personnel.

**CRICRI008E** Message type 'mm' received, error code = 'nn'

Module: CRINTRE Type: User - CMS command

- Explanation The COS LCP error message 'mm' was received with the associated error code 'nn'. This indicates a message type not recognized by the VM station CRINT user command. See the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042, for descriptions of valid message codes.
- System Action This usually indicates a problem with COS or a user application on the Cray. The VM station continues to operate with CRINT waiting for user input.
- User Action It may be necessary to re-enter the previous command or check the status of the Cray. If the problem persists, contact the Cray Site Analyst or installation support personnel.

CRICRI0091 Logged on to COS, Process number = 'nn'

Module: CRINTRE Type: User - CMS command

Explanation This indicates successful logon to the COS interactive job. The process number 'nn' refers to the COS-assigned interactive job number.

System Action Normal operations continue.

User Action None.

CRICRI01AE	Help command finished. $RC = 'nn'$
	Module: CRINT Type: User - CMS command
Explanation	This message indicates the return to CRINT from the CMS HELP facility invoked by the CRINT /HELP subcommand. The CMS HELP return code 'nn' is also given.
System Action	CRINT waits for input from the user.
User Action	None.
CRICRI01BI	Appending period to COS JCL is 'status'
	Module: CRINT Type: User - CMS command
Explanation	This indicates the current setting of the automatic period appending feature of CRINT: either ON (period appended) or OFF (no period appended). It is the response to the CRINT /PERIOD subcommand.
System Action	If set ON, a period is appended to the end of each COS JCL statement entered by the user.
User Action	None.
CRICRI01CI	Unknown period parameter
CRICRI01CI	Unknown period parameter Module: CRINT Type: User - CMS command
CRICRIO1CI Explanation	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand.
<b>CRICRIOICI</b> Explanation System Action	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user.
<b>CRICRIOICI</b> Explanation System Action User Action	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command.
<b>CRICRIOICI</b> Explanation System Action User Action	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command.
CRICRIOICI Explanation System Action User Action CRICRIOIDE	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command. Interactive logons have been disabled by a station operator
CRICRIOICI Explanation System Action User Action CRICRIOIDE	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command. Interactive logons have been disabled by a station operator Module: CRINTRE Type: User - CMS command
CRICRIOICI Explanation System Action User Action CRICRIOIDE Explanation	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command. Interactive logons have been disabled by a station operator Module: CRINTRE Type: User - CMS command Interactive logon to COS through the VM station has been disallowed.
CRICRIOICI Explanation System Action User Action CRICRIOIDE Explanation System Action	Unknown period parameter Module: CRINT Type: User - CMS command An invalid parameter was specified on the CRINT /PE- RIOD subcommand. CRINT waits for input from the user. Re-enter the /PERIOD command. Interactive logons have been disabled by a station operator Module: CRINTRE Type: User - CMS command Interactive logon to COS through the VM station has been disallowed. CRINT waits for input from the user.

CRICRI01EE	Transparent data received without /TRANSOUT redi- rection. Transparent data lost
	Module: CRINTRE Type: User - CMS command
Explanation	Your interactive job requested that transparent data be displayed. The /TRANSOUT command, which denotes the disposition of transparent data, must be issued first.
System Action	The transparent data is ignored and processing con- tinues with the next record received from your job.
User Action	Issue the /TRANSOUT command to redirect the trans- parent data. Information on /TRANSOUT can be ob- tained by entering /HELP or HELP CRINT TRANSOUT.
CRICRI01FW	COS Interactive restart received, error code = 'n' - 'description'
	Module: CRINTRE Type: User - CMS command
Explanation	An interactive restart error was received from COS. See the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042, for descriptions of the error code 'n'. 'description' is from the CRI manual.
System Action	This is a response to an interactive logon request by the CRINT user and indicates that COS rejected the logon request for the reason stated.
User Action	Note the error message and re-log on to your inter- active job or re-send the COS command.
CRICRI010W	Station not logged on to Cray
	Module: CRINTRE Type: User - CMS command
Explanation	The VM station virtual machine is logged on to the front-end system but not logged on to COS.
System Action	RC = 16; CRINT returns control to CMS.

User Action None.

CRICRI011W	User not logged on to station - Enter '/LOGON'
	Module: CRINTRE Type: User - CMS command
Explanation	The CRINT user attempted to send data to the Cray but was not found in the VM station interactive tables. This could be due to a VM station relog.
System Action	CRINT waits for input from the user.
User Action	Log back on to interactive COS job.
CRICRI012W	User already logged on
	Module: CRINTRE Type: User - CMS command

Explanation The CRINT user issued a /LOGON subcommand but an interactive COS job already exists for the user.

System Action CRINT waits for input from the user.

User Action Continue the COS interactive session.

CRICRIO13W Job killed by operator Module: CRINTRE Type: User - CMS command Explanation The COS master operator issued a KILL command against your interactive COS job. System Action CRINT waits for input. User Action Start another interactive COS job with the /LOGON subcommand or use the /LOGOFF subcommand to leave CRINT and return to CMS.

CRICRI014EInvalid linesize - specify 40 to 255Module: CRINTType: User - CMS commandExplanationAn invalid value for the CRINT /LS subcommand was<br/>specified.System ActionCRINT waits for input. The linesize value is un-<br/>changed.User ActionLinesize must be between 40 and 255 characters.

CRICRI015W	No available station table entries		
	Module: CRINTRE Type: User - CMS command		
Explanation	A CRINT logon attempt was rejected by the VM station because the maximum number of interactive users has been reached.		
System Action	CRINT waits for input from the user.		
User Action	Return to CMS with the CRINT /LOGOFF subcommand.		

CRICRI016I	Your TID is 'tid'	Your TID is 'tid'		
	Module: CRINT	Type: User - CMS command		
Explanation	This message indi multiple COS inte	cates the current CRINT setting for ractive jobs from one CRINT session.		
System Action	CRINT waits for i	nput from the user.		
User Action	None.			

CRICRI017W	Your TID is already	in use, Please choose another one
	Module: CRINTRE	Type: User - CMS command
Explanation	A COS interactive jo already active in t	ob logon was attempted using a TID his CRINT session.

System Action CRINT waits for input.

User Action Attempt a logon with a different TID.

CRICRI018I Saving input to file 'fileid'

Module: CRINT Type: User - CMS command

Explanation This message is displayed when the CRINT /SAVE subcommand is used to send console input lines to a minidisk file.

System Action Any lines entered at the console to be sent to the Cray are also written to 'fileid'.

User Action None.

CRICRI019I Not saving input

Module: CRINT Type: User - CMS command

Explanation This message indicates that the CRINT /SAVE subcommand just entered has failed, probably because it was entered incorrectly.

System Action CRINT waits for input.

User Action None.

CRICRSOODE No virtual storage

Module: CRSTAT Type: User - CMS command

Explanation Not enough free virtual storage was available for CRSTAT to allocate space for work buffers.

System Action RC = 13; CRSTAT returns control to CMS.

User Action Define more virtual storage end enter the CRSTAT command again.

**CRICRSODEE** Incompatible verison of CRSTAT with requested station Module: CRSTAT Type: User - CMS command Explanation An attempt was made to use a version of CRSTAT (or CRSTATOP) that is not supported by the current VM station release. System Action RC = 14; CRSTAT returns control to CMS. User Action Contact your CRI Site Analyst or installation systems personnel. CRICRS001E Invalid option 'option' Module: CRSTAT Type: User - CMS command Explanation An invalid CRSTAT command line option was entered. RC = 1; CRSTAT returns control to CMS. System Action

User Action Correct and re-enter the CRSTAT command.

CRICRS002E	Invalid subcommand 'subcommand'
	Module: CRSTAT Type: User - CMS command
Explanation	An invalid CRSTAT subcommand was given on the CRSTAT command line.
System Action	RC = 2; CRSTAT returns control to CMS.
User Action	Enter the CRSTAT command line with a proper subcom- mand.
CRICRS003E	Timeout - no response from station'
	Module: CRSTAT Type: User - CMS command
Explanation	The VM station has not responded to a CRSTAT request after two minutes.
System Action	RC = 3; CRSTAT returns control to CMS.
User Action	None.
CRICRS004E	VMCF Send/Receive error 'nn'
	Module: CRSTAT Type: User - CMS command
Explanation	A VMCF SEND/RECEIVE function error occurred while a CRSTAT request was being sent to the VM station. The error code 'nn' is reviewed in the IBM System Pro- grammer's Guide, SC19-6203, under the CP Virtual Ma- chine Communication Facility (VMCF).
System Action	RC = 4; CRSTAT returns control to CMS.
User Action	Contact your CRI Site Analyst or installation systems personnel.
CRICRS005W	'station' not active
	Module: CRSTAT Type: User - CMS command
Explanation	The VM station virtual machine is not logged on to the front-end system.

System Action RC = 5; CRSTAT returns control to CMS.

User Action None.

CRICRS006E	Invalid command. Syntax is: 'subcommand'
	Module: CRSTAT Type: User - CMS command
Explanation	A CRSTAT subcommand was not entered correctly.
System Action	RC = 6; If CRSTAT is in refresh mode, CRSTAT waits for input from the user. If CRSTAT is line mode, control is returned to CMS.
User Action	Enter the subcommand correctly as indicated in the message.
CRICRS007E	Error writing file 'fileid'; 'description'
	Module: CRSTAT Type: User - CMS command
Explanation	A minidisk write error occurred while a CRSTAT reply was being written when the CRSTAT FILE option was specified.
System Action	RC = 7; CRSTAT returns control to CMS without writing the reply data to a file.
User Action	This is most likely the result of a full minidisk. Free some space on the minidisk and re-enter CRSTAT command.
CRICRS010W	Station not logged on to CRAY
	Module: CRSTAT Type: User - CMS command

Explanation The VM station virtual machine is logged on to the front-end system but not logged on to the Cray.

System Action RC = 16; CRSTAT returns control to CMS.

User Action None.

CRIDGDOOAI Graphic data being received through 'type' protocol Module: CRDGD Type: User - CMS command Explanation This message describes the method through which the graphics data is being transmitted to your virtual machine. 'Type' can be either interactive (CRINT) or dispose (CRGRAPH).

System Action	The CMS command continues normal operations.
User Action	None required.
CRIDGD00BI	Press enter when AUSCOM has been attached
	Module: CRDGD Type: User - CMS command
Explanation	This message informs the CRINT, CRGRAPH, or CRDGRAPH user that the AUSCOM device is not currently attached to his virtual machine. The AUSCOM device must be attached with a virtual address of X'110'.
System Action	The CMS command waits until the user presses ENTER (on a 3270) or RETURN (on a TTY).
User Action	Press ENTER or RETURN when the AUSCOM device is at- tached to your virtual machine. The same key can be pressed to check the status of the AUSCOM. The CMS command reissues this message if the AUSCOM is not yet attached. The command continues normal graphics operations if the device has been attached.
CRIDGD00CE	Another output device already exists
	Module: CRDGD Type: User - CMS command
Explanation	This message is in response to a request to turn on a graphics device. It states that another graphics device has already been turned on.
System Action	The request is aborted and the current status of all graphics devices is displayed. Normal operations continue.
User Action	None required. Review the graphics display to de- termine your current status.
CRIDGD00DE	Specified device was already turned off
	Module: CRDGD Type: User - CMS command
Explanation	This message is in response to a request to turn off a graphics device that is already off.
System Action	The request is aborted and the current status of all graphic devices is displayed. Normal operations continue.

User Action None required. Review the graphics display to determine your current status. CRIDGD00EE File name parameter must be supplied Module: CRDGD Type: User - CMS command Explanation This message is in response to a request to direct graphics data to a CMS disk file. The filename parameter is missing. System Action The request is aborted. CRINT aborts the /TRANSOUT subcommand. CRGRAPH returns to CMS with a return code of 5. User Action Supply a filename for this CMS disk request. CRIDGD001E Unsupported parameter "'parm'" Module: CRDGD Type: User - CMS command Explanation This message is in response to a request to enable a graphics device that is not supported by the graphics command used. System Action The request is aborted. CRINT aborts the /TRANSOUT subcommand. CRGRAPH and CRDGRAPH return to CMS with RC=1. User Action Only supported devices can be used. Please review the CRGRAPH or CRDGRAPH help file. The /TRANSOUT help file can be reviewed by issuing the command HELP CRINT TRANSOUT. CRIDGD002E Parameter "'parm'" must be supplied Module: CRDGD Type: User - CMS command The required parameter 'parm' is missing. Explanation System Action The request aborts. CRINT aborts the /TRANSOUT subcommand. CRGRAPH and CRDGRAPH return to CMS with RC=2. User Action The required parameter must be supplied. Please review the CRGRAPH or CRDGRAPH help file. The /TRANS-OUT help file can be reviewed by issuing the command HELP CRINT TRANSOUT.

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Module: CRDGD Type: User - CMS command

Explanation An error occurred when a graphics routine attempted to return a block of memory to the common CMS storage pool. 'Num' denotes the CMS error code which was given to the graphics routine by the standard CMS interface, DMSFRET. The possible values and their associated meanings are as follows:

- 02 Internal user CMS storage pointers have been corrupted.
- 03 Internal nucleus CMS storage pointers have been corrupted.
- 04 Improper memory parameter size requested.
- 05 Improper memory parameter size provided.
  - 06 Improper memory location address given.
  - 07 Improper memory location address given.
  - 09 Unsupported error returned to DMSFREE by a CMS support routine.

System Action Graphics deallocation of memory is aborted. The graphics routine may not have completely deallocated all of freed CMS memory.

User Action Review the 'num' specified by the error message.

CRIDGD004E Error reading file. 'description'

Module: CRDGD Type: User - CMS command

- Explanation An attempt was made to read a CMS disk file for graphics purposes. 'Description' indicates the CMS read error.
- System Action The CRDGRAPH command returns control to CMS with RC=4.

User Action A valid file must be used. The file's specification must be RECFM=V and LRECL=61440 or less.

CRIDGD0051Press enter (return) to continueModule: CRDGDType: User - CMS commandExplanationThis message informs the CRINT, CRGRAPH, or CRDGRAPH<br/>user that the graphics output device has not been<br/>dialed or attached to his virtual machine. It must

be dialed or attached before data is displayed.

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System ActionThe CMS command waits until the user presses ENTER<br/>(on a 3270) or RETURN (on a TTY).User ActionPress ENTER or RETURN after the device has been di-<br/>aled or attached to your virtual machine. This mes-<br/>sage is not repeated if the device is not dialed or<br/>attached to your machine.CRIDGD006EError 'num' occurred during memory allocation<br/>Module: CRDGDType: User - CMS command

Explanation This message indicates that an error occurred when a graphics routine attempted to obtain a block of CMS free storage. 'Num' denotes the CMS error code which was given to the CRDISK command by the standard CMS interface, DMSFREE. The possible values and their associated meanings are as follows:

- 01 Not enough CMS free storage is available to satisfy your request.
- 02 Internal user CMS storage pointers have been corrupted.
- 03 Internal nucleus CMS storage pointers have been corrupted.
- 04 Improper memory parameter size requested.
- 09 Unsupported error returned to DMSFREE by a CMS support routine.
- System Action Graphics initialization is aborted. The graphics routines attempt to deallocate any memory that has been freed. CRINT's /TRANSOUT subcommand is aborted. CRGRAPH and CRDGRAPH return control to CMS with RC=5.
- User Action Review the 'num' specified by the error message.
- **CRIDGD007E** Missing or unknown TRANSOUT parameter

Module: CRDGD Type: User - CMS command

- Explanation This indicates that either an unknown parameter was found or a required parameter was not found during a /TRANSOUT subcommand.
- System Action The /TRANSOUT subcommand is aborted.
- User Action Issue the command /HELP CRINT TRANSOUT to determine the correct format for this subcommand.

CRIDGD0081	Routing transparent data to 'device' is 'status'						
	Module: CRDGD Type: User - CMS command						
Explanation	This is in response to a graphics query request. The message can be manually requested (for example, with the /TRANSOUT QUERY subcommand) in response to an invalid graphics request, or through initialization of either CRGRAPH or CRDGRAPH.						
System Action	The graphics querying process continues.						
User Action	Note the status of all graphics devices.						
CRIDGD0091	Transout statistics have 'status' been requested						
	Module: CRDGD Type: User - CMS command						
Explanation	This message is in response to either a graphics query request or a status change to graphics statis- tics. 'Status' can be either ON or OFF.						
System Action	Normal processing continues.						
User Action	Note the status of all graphic devices.						
CRIDMP001E	'001' Punch not defined						
	Module: DMPMEM Type: Station - Console						
Explanation	Either an error occurred while virtual address 001 was being defined; or, while the station was punching a portion of virtual memory, the virtual address 001 was found to be nonoperational.						
System Action	Virtual memory dump discontinues.						
User Action	Review the station console listing for any messages from a DEFINE or DETACH command. Consider the pos- sibility that system spool space could have been full and therefore all virtual unit record devices would be nonoperational.						
CRIDSK00AI	LINK 'userid' 'vaddr1' 'vaddr2' RR						
	Module: DSKTASK Type: Station - Console						
Explanation	DSKTASK issues this message just before the command to link to the user's minidisk and acquire or fetch the requested file.						
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System Action	The CP LINK command is issued as given in the message.						
User Action	None.						
CRIDSK00BI	Retrying previous link, after fixing return code 115 error						
	Module: DSKTASK Type: Station - Console						
Explanation	A return code of 115 from the CP LINK command indi- cates that CP has disabled the LINK command due to too many attempts to use the command with bad pass- words.						
System Action	User exit routine UEXLINK is called before this mes- sage is issued. If the user exit routine is not present, DSKTASK issues an ABEND.						
User Action	None.						
CRIDSK00CE	FROM record does not exist in requested file						
	Module: DSKTASK Type: User - Logfile						
Explanation	A minidisk file acquire or fetch failed because a record number greater than the size of the file was coded on the FROM option.						
System Action	The minidisk file is not transferred. This message appears in the COS job log file.						
User Action	None.						
CRIDSK00DE	Invalid record number supplied						
	Module: DSKTASK Type: User - Logfile						
Explanation	An invalid (nonnumeric) value was coded on either the FROM or FOR option (which specify the beginning re- cord number and the record count, respectively, for a minidisk file) of the ACQUIRE or FETCH statements.						
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.						

User Action None. I/O err 'vaddr', CSW='csw' SEN='sen' CRIDSK00EE . . . Module: DSKTASK Type: Station - Console DSKTASK encountered an SIO (Start I/O) error while Explanation reading from a minidisk. The minidisk virtual address ('vaddr'), the channel status word ('csw'), and 24 sense bytes ('sen') are given. The VM station attempts to recover from the error by System Action using a DIAGNOSE I/O instruction to perform the read operation. If this fails, the dataset acquire or fetch is cancelled. User Action If the I/O error condition persists, contact your CRI Site Analyst or installation systems personnel. CRIDSK00FE Restricted disk transfer permitted . . . Module: DSKTASK Type: Station - Console A dataset acquire or fetch was completed from a user Explanation minidisk with restricted access, as defined in the station RESTRICTED DISK list. The dataset transfer is performed. System Action User Action None. CRIDSK001E Transfer canceled. Transfering from a restricted minidisk . . . Module: DSKTASK Type: User - Logfile Explanation A dataset acquire or fetch was attempted from a user minidisk with restricted access, as defined in the RESTRICTED DISK list. System Action The dataset transfer is cancelled. This message appears in the COS job log file. User Action Contact your CRI Site Analyst or installation systems personnel to change minidisk restrictions.

CRIDSK002E	Syntax error in text field
	Module: DSKTASK Type: User - Logfile
Explanation	An invalid value was found while parsing the ACQUIRE or FETCH statement TEXT parameter.
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK003E	Error linking to minidisk
	Module: DSKTASK Type: User - Logfile
Explanation	The VM station was unable to link to a minidisk specified in an ACQUIRE or FETCH statement.
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK004E	CMS file 'fn' 'ft' not found
	Module: DSKTASK Type: User - Logfile
Explanation	The minidisk file specified for a dataset acquire or fetch was not found. The requested filename and filetype are given.
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK005E	Minidisk unsupported device type
	Module: DSKTASK Type: User - Logfile
Explanation	A dataset acquire or fetch was requested from a minidisk device type not supported by the VM station. Valid minidisk types are:

	3330 3350 3370 3375 3380
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK006E	Minidisk not in EDF format
	Module: DSKTASK Type: User - Logfile
Explanation	The VM station supports dataset acquires and fetches from only EDF-formatted minidisks.
System Action	The dataset transfer is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK007E	Permanent I/O error on VADDR 'vaddr'
	Module: DSKTASK Type: User - Logfile
Explanation	DSKTASK received an SIO (Start I/O) error while try- ing to read data from the minidisk attached at vir- tual address 'vaddr'.
System Action	DSKTASK attempts to recover from an SIO error by is- suing a DIAGNOSE instruction for the I/O operation. This message indicates that the recovery attempt also failed. The dataset acquire or fetch is cancelled. This message appears in the COS job log file.
User Action	None.
CRIDSK008E	Transfer on VADDR 'vaddr' cancelled by the CRAY op- erating system
	Module: DSKTASK Type: User - Logfile
Explanation	COS cancelled the active dataset acquire or fetch. Either the COS KILL operator function was issued against the transfer, or the COS system failed.

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System Action The dataset transfer is discontinued and the user's minidisk is detached. This message appears in the COS job log file.

User Action None.

CRIDSK0091 'jn', 'tid' requesting 'fn' 'ft' from 'userid' 'vaddr' ...

Module: DSKTASK Type: Station - Console

Explanation DSKTASK received a request from the COS job 'jn' for the file 'fn' 'ft' from the given minidisk (CMS 'userid' and minidisk 'vaddr').

System Action The VM station links to the specified minidisk and reads the file.

User Action None.

CRIDSK010I Transfer on 'vaddr' completed - 'records' records'

Module: DSKTASK Type: Station - Console

Explanation A dataset acquire or fetch has completed on the given minidisk address. The number or file records read is also given.

System Action The minidisk is detached.

User Action None.

CRIEXT001I Station has a normal status

Module: EXTINT Type: Station - Console

Explanation This message is a response to the CP SMSG STAT command. It indicates that the VM station is logged on to the Cray and running normally. The message is sent to the user's virtual machine with the CP MSGNOH command.

System Action None.

User Action None.

CRIEXT0021	Station	is	not	logged	on	to	the	Cra
	Deacton	10	100	TORECU	011	20	CIIC	OLU

Module: EXTINT Type: Station - Console

- Explanation The VM station is not logged on to the Cray but is logged on to the front-end system. This message is a response to the CP SMSG STAT command and is sent to the user's console with the CP MSGNOH command.
- System Action None.
- User Action None.
- CRIEXT0031CRSAVE is no longer supported; instead please use<br/>CRSENDModule: EXTINTType: Station Console
- Explanation The station CRSAVE command is no longer supported in VM station release 3.0.
- System Action The CRSAVE dataset save request is rejected.
- User Action To save a minidisk file as a permanent COS dataset, use CRSEND instead.
- CRIEXT004I User 'userid' has attempted to use CRSAVE

Module: EXTINT Type: Station - Console

- Explanation The specified CMS user has attempted to use the CRSAVE command, which is no longer supported in VM station release 3.0.
- System Action The CRSAVE dataset save request is rejected.
- User Action To save a minidisk file as a permanent COS dataset, use CRSEND instead.
- CRIEXT0051Interface is timing out, use CRSTAT's STALEVEL com-<br/>mand for more informationModule: EXTINTType: Station Console
- Explanation This indicates that COS has not responded to a VM station message after at least 6 seconds. The message is a response to the CP SMSG STAT command and

is sent to the user's console with the CP MSGNOH command.

System Action The VM station continues to wait for a response from the Cray for up to 60 seconds, then re-IPLs the station nucleus and attempts to relog on to the Cray.

User Action Use the CRSTAT STALEVEL subcommand to display the actual timeout values (that is, how long ago the message was sent to COS and when the station will reach the 60-second timeout limit).

CRIEXT006E Unsupported command: 'command'

Module: EXTINT Type: Station - Console

Explanation The command submitted to the station through CRSTAT or CRSTATOP is not currently supported (that is, not in the STATION CONFIG file).

System Action None.

User Action If the command submitted is already in the STATION CONFIG file, check for typos; otherwise, contact your CRI Site Analyst or installation system support.

CRIEXT007E Privileged command

Module: EXTINT Type: Station - Console

Explanation The command submitted to the station through SMSG or CRSTAT/CRSTATOP is privileged. Certain station operator commands are controlled by the VM station through a command privilege table set at VM station generation time.

System Action The command is not processed.

User Action Before you can issue this command, your userid and associated privilege classes must be placed in the STATION CONFIG file. Contact your CRI Site Analyst or installation systems personnel to obtain this privilege.

CRIFE100AE	Already logged on
	Module: FEITASK Type: Station - Console
Explanation	The VM station was already logged on to the Cray when the LOGON station operator command was entered at the station console.
System Action	The logon request is rejected.
User Action	None.
CRIFEI00BE	Streams not idle - Logoff rejected
	Module: FEITASK Type: Station - Console
Explanation	The LOGOFF command cannot be entered while a dataset transfer is active.
System Action	The logoff request is rejected.
User Action	Use the station STATI command to display the status of transfer streams. Use the station CANCEL command to cancel any dataset transfers if necessary, then reenter the LOGOFF command.
CRIFE100CI	VM Station' Logging off
	Module: FEITASK Type: Station - Console
Explanation	This message is sent to the System operator if MODE = OPERATIONAL, or to the maintenance userid and the requesting user if the logoff was requested with a CP SMSG command. 'Station' is the VM userid of the station logging off of the Cray.
System Action	The VM station sends a logoff LCP to the Cray. If the CRAY option of the LOGOFF command was used, the station will re-IPL CMS. By default, the station also logs off from the front-end system.
User Action	None.

CRIFEI00DI Logon complete, 'today', 'version', Gen date 'gendate'

Module: FEITASK Type: Station - Console

Explanation	This message indicates a successful logon to the Cray. Today's date, the COS version, and the COS generation date are indicated.
System Action	Normal operation of the station continues. The sta- tion starts stream and non-stream polling of the Cray.
User Action	None.
CRIFE100EE	Message error LCP received. Error code = 'ec'
	Module: FEITASK Type: Station - Console
Explanation	A message error LCP (code = octal 12) was received from the Cray. 'ec' is the LCP error code (octal value); one of the following:
	010 Message/function not available 100 Invalid LCP field values (can be used in lieu of any lxx code) 101 Destination identifier (DID) field error (DID is known as CRAYID or CRID by the VM station) 102 Source identifier (SID) field error (SID is known as MF or MFID by the VM station) 103 Number of subsegments error 104 Message number error 105 Message code error 106 Message subcode error 107 Stream number error 110 Segment number error 111 Segment bit count error 112 Stream control byte error 113 Segment size error 114 Station message limit error 115 Logon parameter error 116 Resources not available to complete logon 140 Checksum error (checksum is not enabled by the VM station) 200 Segment data error (can be used in lieu of any 2xx code) 201-240 Operator function or debug function error 251 COS in restart process Review the COS Front-end Protocol Internal Reference
	Reference Manual, SM-0040, for more information.
System Action	Normal logon operations continue if the station is not logged on to the Cray. Error recovery operations will begin if the station is logged on to the Cray. The station will re-IPL itself if the error recovery operations fail. The error codes 116 and 251 indi-

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cate failure of a logon attempt; the logon will be retried by the station.

User Action This error could indicate either a software or hardware failure and should be reported to your CRI Site Analyst or installation systems personnel.

CRIFE100FE Unexpected LCP received. MC='mc', MSC='msc'

Module: FEITASK Type: Station - Console

- Explanation An unknown message and subcode were received by the station from the Cray. The expected message is either a start LCP if the station is attempting to log on to COS, or a logoff reply if the station is attempting to log off from COS. Review the COS Frontend Protocol Internal Reference Manual, SM-0042, for more information on the message codes and subcodes.
- System Action Normal operations continue if the station is not logged on to the Cray. Error recovery operations will begin if the station is logged on to the Cray. The station will re-IPL itself if the error recovery operations fail.
- User Action This message could indicate a COS failure should be reported to your CRI Site Anaylst or installation systems personnel.

**CRIFEI001E** Logon aborted; Interface error

Module: FEITASK Type: Station - Console

- Explanation The logon process failed due to I/O errors. Message CRIFEI010E is also displayed to show the nature of the I/O error. The I/O errors were encountered while issuing dummy read operations to the Front-end Interface to clear any outstanding messages. They could indicate that either a hardware failure occurred in the Cray Front-end Interface (FEI) or that COS is not running.
- System Action The station continues to attempt to log on to the Cray automatically every minute.

User Action None.

CRIFEI002E	Logon aborted; Adapter error							
	Module: FEITASK Type: Station - Console							
Explanation	The logon process failed due to I/O errors. Message CRIFEI010E is also displayed to show the nature of the I/O error. The I/O errors were encountered while attempting to write the logon LCP message to the Cray. They could indicate that either the Cray Front-end Interface (FEI) failed, or COS is not up and running.							
System Action	The station continues to attempt to log on to the Cray automatically every minute.							
User Action	None.							
	Isson shorted. Channel arrows							
CRIFEIOOSE	Logon aborted, channel errors							
	Module: FEITASK Type: Station - Console							
Explanation	The logon process failed due to I/O errors. Message CRIFEI010E is also displayed to show the nature of the I/O error. This message indicates that a start LCP was not received from the Cray. It could point to a COS failure.							
System Action	The station continues to attempt to log on to the Cray automatically every minute.							
User Action	Contact your CRI Site Analyst or installation systems personnel.							
CRIFEI004E	Logon aborted; Start LCP not received							
	Module: FEITASK Type: Station - Console							
Explanation	The logon process failed because the Cray did not respond with the correct link control package (LCP).							
System Action	The station continues to attempt to log on to the Cray every 60 seconds.							
User Action	Check the status of the Cray. If it is operational, contact your CRI Site Analyst or installation systems personnel.							

CRIFEI005E	ogon aborted; Error reading start segment					
	Module: FEITASK Type: Station - Console					
Explanation	The logon process failed because the station could not read the start response from the Cray.					
System Action	The station continues to attempt to log on to the Cray every 60 seconds.					
User Action	Check the status of the Cray and the Front-end Interface adapter. If both are operational, contact your CRI Site Analyst or installation systems per- sonnel.					

Logging off; I/O errors Module: FEITASK Type: Station - Console

CRIFE1006E

Explanation The station re-IPLs the executable code from disk because I/O errors were found while reading or writing to the Front-end Interface channel. Message CRIFEI010E is also displayed and gives the nature of the I/O error. This message could indicate a COS system failure or a hardware failure in the Cray FEI.

System Action After re-IPLing the nucleus, the station automatically attempts to log on to the Cray at 1-minute intervals.

User Action Contact your CRI Site Analyst or installation systems personnel.

CRIFE1008E Error writing logoff LCP

> Module: FEITASK Type: Station - Console

Explanation The station cannot write a logoff LCP to the Cray. This usually indicates a problem with the Front-end Interface hardware or the Cray.

System Action The station re-IPLs the executable code from disk and attempts to log on to the Cray.

User Action Check the status of the Front-end Interface hardware and the Cray.

CRIFEI009E	Logged off from the Cray					
	Module: FEITASK Type: Station - Console					
Explanation	This indicates successful logoff from the Cray after the LOGOFF station operator command was issued.					
System Action	If the LOGOFF command with the CRAY option was used, the station IPLs CMS. If the CRAY option was not specified, the station logs off from the front-end system.					
User Action	None.					
CRIFEI010E	I/O error, 'vaddr', 'type'					
	Module: FEITASK Type: Station - Console					
Explanation	An I/O error was detected on the IBM interface chan- nel or the Cray Front-end Interface (FEI) adapter. 'vaddr' denotes the virtual device address. 'type' is the I/O error encountered; it can be one of the following:					
	Not Operational Virtual device is not attached or defined to the station.					
	Software Timeout I/O operation did not complete before the expiration of an installation-determined timeout value. This timeout value is set in the SVT by the UCBGEN macro. For the FEI, this value is 60 seconds.					
	Busy, Hung Channel is in a busy condition. This usually indicates that the channel must be reset. It is recommended that the channel be run as a block multiplexer channel.					
1	<pre>ccw,csw,sense This usually indicates a hardware problem or that the Cray has crashed. 'ccw' is the channel command word, 'csw' is the channel status word, and 'sense' represents the sense bytes received from the FEI adapter.</pre>					
System Action	For 'Not Operational' and 'ccw,csw,sense' errors, the I/O operation is retried a maximum of 50 times before the station nucleus is re-IPLed from disk. For 'Software Timeout' and 'Busy, Hung' errors, the station nucleus is immediately re-IPLed from disk. In					

both cases, the station then attempts to log on to the Cray.

User Action This could indicate either a hardware failure in the Cray Front-end Interface (FEI) adapter or the failure of the COS operating system. Contact your CRI Site Analyst or installation systems personnel.

CRIFEI011E Invalid or unknown command

Module: FEITASK Type: Station - Console

Explanation An unsupported command was entered for the station's interface task. The supported commands are LOGON, LOGOFF and LOGOUT.

System Action The invalid command is ignored.

User Action None.

CRIFE10121 Successful retry, count = 'count', net = 'net'

Module: FEITASK Type: Station - Console

- Explanation This indicates the successful retry of an I/O operation to the Cray Front-end Interface (FEI) adapter that encountered the error noted in station message CRIFEI010E. 'count' gives the number of times (in hexadecimal) this I/O operation was retried and 'net' gives the total count (in hexadecimal) of retries for all I/O operations retried successfully.
- System Action Message traffic across the interface to the Cray continues normally.

User Action Frequent I/O errors and successful retries may indicate a hardware failure in the Cray Front-End Interface (FEI) adapter. Contact your CRI Site Analyst or installation systems personnel.

CRIFEI0131	Restart LCP received, Re-logging					
	Module: FEITASK	Type:	Station - Console			
Explanation	The Cray responded with a restart LCP.	to a sta	ation logon request L	CP		

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System Action The station nucleus is re-IPLed from disk and an attempt is made to log on to the Cray.

User Action If the problem persists, contact your Cray Site Analyst or installation systems personnel.

CRIGBC001E Condition code one (1) received from output. CSW = 'csw'

Module: GRAPBCCW Type: User - CMS command

- Explanation This message is generated when an I/O error has occurred during a display of graphics data. The message can denote many different types of error conditions. The 'csw' can be used to determine the basic type of error that has occurred. Sense data containing more information about this error is displayed by message CRIGBC002I after this message.
- System Action Normal graphics operations continue after error recovery conditions are attempted.
- User Action Review your display to determine if graphics data have been lost because of the error. The error condition may be hardware-related. Contact your local IBM support staff for an analysis of the 'csw' and sense data.
- CRIGBC002I Sense= 'sense'

Module: GRAPBCCW Type: User - CMS command

- Explanation This message is generated when an I/O error has occurred during a display of graphics data. The message can denote many different types of error conditions. The CSW is displayed before this message by message CRIGBC001E. The CSW can be used to analyze the 'sense' data.
- System Action Normal graphics operations continue after error recovery conditions are attempted.
- User Action Check your display to determine if graphics data have been lost becuase of the error. The error condition may be hardware-related. Contact your local IBM support staff for an analysis of the 'csw' and sense data.

**CRIGCI001E** Error writing file. 'description'

Module: GRAPCIO Type: User - CMS command

- Explanation This message is generated when an error has occurred while writting graphics data to a CMS file. 'description' further qualifies the condition.
- System Action The requested write operation is aborted. Normal operations of the graphics routine continue.
- User Action Several writing errors can occur since only the immediate write operation is aborted. The user's action must be based on the specific failure that occurred.

CRIGEN00AI 'modname' has been loaded and genmoded - RC(s) = 'rc1' + 'rc2'

From: GENUSER Type: Installation - CMS command

- Explanation The VM station CMS command 'modname' has been loaded and a module generated. The load function's return code is specified by 'rc1'. The GENMOD function's return code is specified by 'rC2'.
- System Action Normal operations of the generation process continue regardless of 'rc1' or 'rc2'.
- User Action Note the 'rc1' and 'rc2' values for all VM station CMS commands. Any nonzero return codes mean that an unacceptable error occurred.
- CRIGEN00BI Starting to LOAD and GENMOD station tool commands From: GENUSER Type: Installation - CMS command

Explanation The GENUSER installation EXEC is starting to process VM station CMS commands. GENUSER EXEC loads and creates an executable binary copy of each command.

System Action Normal operations for the installation process continue.

User Action None directly required.

**CRIGENOOCE** I can not determine the file type of 'parm'

From: STAGENA Type: Generation - CMS command

- Explanation The STAGENA station generation EXEC determines file specifications for the station configuration file, the load EXEC, and the control file. This error message reports the fact that the 'parm' file could not be found.
- System Action STAGENA EXEC returns control to the STAGEN EXEC with RC=999 and terminates the station generation process.
- User Action The generation files must exist prior to the execution of the STAGEN EXEC. The filetype of these required files are CONFIG for the configuration file, CNTRL for the control file, and EXEC for the load EXEC.
- CRIGENOODA Can I use the following files ( -Yes- | No | EXIT )

From: STAGENA Type: Generation - CMS command

- Explanation The STAGEN station generation EXEC determines file specifications for the station configuration file, the load EXEC, and the control file. The message requests verification of the files determined by this program and is coordinated with the message CRIGENO0EI.
- System Action The generation process continues normally if a Yes response is given and begins an error recovery procedure if a No response is given. If a response of EXIT is given, the generation process terminates.

User Action Respond with Yes, No, or EXIT.

CRIGENOOEI ''fn1' CONFIG'; ''fn2' EXEC'; ''fn3' CNTRL'

From: STAGENA Type: Generation - CMS command

Explanation

The STAGEN station generation EXEC determines file specification for the station configuration file ('fn1'), the load EXEC ('fn2'), and the control file ('fn3). This message is coordinated with the message CRIGEN00DA, which requires verification that fn1, fn2, and fn3 are correct.

System Action The generation process waits for the response to CRIGENOODA.

User Action Note the values for fn1, fn2, and fn3; they are necessary to answer the message CRIGEN00DA.

CRIGEN00FII have found ..... to be the station machineFrom:STAGENBType:Generation - CMS commandExplanationSelf-explanatory.System ActionProcessing continues.

User Action None.

- CRIGEN0011---- Building nucleus ----From: STAGENType: Generation CMS commandExplanationSTAGEN EXEC is currently issuing the VMFLOAD EXEC.System ActionProcessing continues.
- User Action None.

CRIGEN0021 ----- Waiting for station load map -----

Explanation Self-explanatory.

System Action Processing continues.

User Action None.

CRIGEN003AEnter logon password for user ..... -or- EXITFrom:STAGENType: Generation - CMS commandExplanationThis password is used to automatically log the station on to the front end.System ActionThe system waits for a proper response.User ActionEnter the station's logon password or EXIT to terminate the installation process.

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CRIGEN0031	Issuing command 'CP SEND							
	From: ST	AGEN	Type: Gene	eration - CM	IS command			
Explanation	This is a that are s facility.	n informat: sent to the	ional messa station ma	age about th achine using	e commands the CP SEND			
System Action	Processin	g continues	5.					
User Action	None.							
CRIGEN004A	Continue No   EXIT	waiting for )	the stat:	ion load map	9? ( -Yes-			
	From: ST	AGEN	Type: Gene	eration - CM	IS command			
Explanation	This mess STAGEN EX ing load map is no	age (with r EC is wait: map. This t found.	equired re ing for the message is	eply) is issu e station li s displayed	ned when the nkage edit- if the load			
System Action	A Yes rep ing for t played if map in th reply of terminate No or EXI not be se	ly causes the station STAGEN state e reader at either No co without pu T reply may nding a val	the STAGEN load map. ill doesn't fter waitin or EXIT can cocessing to be necess lid load ma	EXEC to con The messag t find the s ng several s uses the STA the station ary if the s ap.	tinue wait- e is redis- tation load econds. A GEN EXEC to map. The station will			
User Action	Respond w	ith Yes, No	o, or EXIT.	•				
CRIGEN005A	Enter sto ) From: ST	rage size o AGEN	f the stat: Type: Gene	ion ( -No cha eration - CM	ange-   EXIT S command			
Explanation	This mess chance to the stati least 972 jected by responses	age (reply increase o on. The st K. Any val the STAGEN to this me	required) or decrease tation's st lues less t station g essage are	gives the i e the storag torage size than 972K wi generation E as follows:	nstaller a ge size of must be at ll be re- XEC. Valid			

- Number of K bytes without the K (for example, 1024 or 8192)
- Number of K bytes with the K (for example, 2048K or 4096K)

- Number of M bytes; the M is required (for example, 1M, 8M, or 16M)
- System Action This message is redisplayed if the installer's response is invalid. A valid value is sent to the station for execution in the form of a CP DEFINE STORAGE command.

User Action Respond with a valid storage size or enter EXIT.

CRIGEN006I ----- Running MAPSTA -----

From: STAGEN Type: Generation - CMS command

Explanation The program MAPSTA, which analyzes and processes the station map for debugging purposes, is executing.

System Action Normal station generation operations continue.

User Action Note any MAPSTA errors that occur.

CRIGEN007I Starting to LOAD and GENMOD CMS commands

From: GENUSER Type: Installation - CMS command

- Explanation This message indicates that the GENUSER station installation EXEC will be loading and creating executable binary copies of all VM station CMS commands. The results of these steps will be reported by future messages created by either this EXEC or the CMS command LOAD and GENMOD.
- System Action Normal startup procedures of this installation EXEC continue.

User Action None directly required.

**CRIGEN008I** Finished loading and genmoding CMS commands

From: GENUSER Type: Installation - CMS command

Explanation This specifies the configuration, load EXEC, and control file used during installation. This message is used with CRIGEN007A.

System Action Processing continues.

User Action Note this information and use it to answer message CRIGEN007A.

- CRIGEN0091 Installation finished; PLS, Note any previous errors From: GENUSER Type: Installation - CMS command Explanation This message indicates that either the VM station CMS command or the entire installation procedure has been completed. System Action Normal termination of the station installation procedures continue. User Action None. CRIGEN0101 I have found 'userid' to be the installation machine STAGENB Type: Generation - CMS command From: This message indicates that the installation machine Explanation will be 'userid'. The value 'userid' was determined from the station's configuration file. Normal station generation procedures continue. System Action User Action None. CRIGEN011A Are these values correct? ( -Yes- | No | EXIT ) STAGENB From: Type: Generation - CMS command
- Explanation This message (reply required) permits you to confirm or reject the values chosen by STAGEN for the station's userid or maintenance machine userid. The default is to accept the userid proposed by STAGEN.
- System Action Your response is processed by the station generation procedure. This message is reissued if your response is not valid.

User Action Respond with Yes, No, or EXIT.

CRIGEN012A	PLS	enter '	the	correct	values	or	EXIT	(station	instal	)
------------	-----	---------	-----	---------	--------	----	------	----------	--------	---

From: STAGENB Type: Generation - CMS command

Explanation You must enter the station's userid and the station's maintenance machines userid.

System Action Normal installation procedures continue.

User Action Enter the two userids or type EXIT to terminate the procedure.

CRIGEN013E Invalid storage size. Station requires atleast 972K T )

From: STAGEN Type: Generation - CMS command

Explanation This message answers an invalid response for the message CRIGEN005A. The VM station requires at least 972K bytes in order to properly function in a production environment.

System Action The message CRIGEN005A is reissued.

- User Action Enter a valid response to the message CRIGEN005A.
- CRIGEN014E Error 'rc' occurred during the autolog process T )

From: STAGEN Type: Generation - CMS command

Explanation An error occurred whn the STAGEN station generation EXEC issued the CP AUTOLOG command. The 'rc' is the CP return code associated with the autolog error.

System Action The station generation process is terminated.

User Action Examine the CP return code.

codes are:

CRIGET001EUnsupported acquisition code (AC='ac'), acquire cancelledModule: GETDEVType: User - LogfileExplanationAn invalid acquisition code (AC=) was used on a dataset ACQUIRE or FETCH statement. Valid acquisition

	ST Minidisk file MT Magnetic tape file IN Same as ST
System Action	The dataset acquire or fetch is cancelled.
User Action	Use one of the above supported acquistion codes.
CRIGET002E	Unsupported text field acquisition code (DC='ac'), acquire cancelled
	Module: GETDEV Type: User - Logfile
Explanation	An invalid acquisition code was used on an ACQUIRE or FETCH statement in the TEXT parameter. The valid acquisition codes are:
	ST Minidisk file MT Magnetic tape file IN Same as ST
System Action	The dataset acquire or fetch is cancelled.
User Action	Use one of the valid acquistion codes listed above.
CRIGET003E	Invalid disposition code (DC='dc'), dispose cancelled
	Module: GETDEV Type: User - Logfile
Explanation	An unsupported disposition code (DC) was used on a dataset DISPOSE statement. The valid disposition codes are:
	<pre>PR Printer file PU Punch file IT Intertask dispose MT Magnetic tape file IN Virtual machine autolog</pre>
System Action	The dataset dispose is cancelled.
User Action	Use one of the valid disposition code listed above.
CRIGET004E	Requested device is not online
	Module: GETDEV Type: User - Logfile

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- Explanation All of the station virtual devices requested on a dataset transfer request (DISPOSE or ACQUIRE) are not active (offline).
- System Action The dataset transfer is either cancelled or postponed (default), depending on site specifics.
- User Action Use an alternate station virtual device for the dataset transfer or contact the CRI Site Analyst or installation systems personnel.
- CRIGET0051 AC=IN is not supported. Dataset tranfer changed to AC=ST

Module: GETDEV Type: User - Logfile

Explanation A dataset acquire or fetch will be performed from a minidisk file by default.

System Action The dataset is read from a user minidisk.

- User Action None.
- CRIGET006E Transfer has been 'action' TRTABLE value 'trtable' was not found

Module: GETDEV Type: User - Logfile

Explanation A user-specified, alternate translate table is not known to the VM station. The transfer is either cancelled or postponed according to site specifications. A translate table can be specified on a COS DISPOSE or ACQUIRE statement; it must be defined to the station at station generation time.

System Action The transfer is cancelled or postponed as indicated.

- User Action Use the CRSTAT TRTABLE subcommand or contact the CRI Site Analyst or installation systems personnel to obtain current station translate table options.
- CRIGET0071TRTABLE parameter is invalid when DF is not CBModule: GETDEVType: User LogfileExplanationThe TRTABLE option was coded on a DISPOSE or ACQUIRE<br/>statement with a dataset format other than character

blocked (CB). Data is not translated for transparent (TR) or binary blocked (BB) format datasets. System Action The dataset transfer proceeds according to the specified data format specified.

User Action None.

CRIGET008I TRTABLE value 'trtable' was not found, defautl value used

Module: GETDEV Type: User - Logfile

- Explanation A user-specified, alternate translate table is not known to the VM station. The transfer is completed but with the default translation table. A translation table (other than the default ASCII to EBCDIC or EBCDIC to ASCII) can be specified on a COS DISPOSE, ACQUIRE, or FETCH statement; it must be defined to the station at station generation time.
- System Action The transfer is completed with the default translation table.
- User Action Use the CRSTAT TRTABLE subcommand or contact the CRI Site Analyst or installation systems personnel to obtain current station translate table options.

CRIGST0011 Transout statistics: Length = 'length'

Module: GRAPSTAT Type: User - CMS command

- Explanation This message gives the number of bytes that were output to a graphics device. It occurs after the graphics output operations have completed. Graphics statistics are automactically given with CRGRAPH and CRDGRAPH usage. CRINT users must issue the command /TRANSOUT STATS ON to enable this message.
- System Action Normal graphics operations continue.

User Action None directly required.

CRIGWA001E Hndint error 'rc'

Module: GRAPWAIT Type: User - CMS command

Explanation A CMS error occurred while the currently executing graphics routine attempted to process an input/output operation. The possible return codes are:

- 1 Either the graphics output device address (vaddr) or the graphics interrupt handler address is invalid. This error occurred because the graphics routine specified either an improper output device address or an improper memory location for the subroutine designated to process I/O interrupts.
- 2 Existing interrupt handler replaced for specified device. This return code is not an error; it means that a new device handler subroutine has been designated to process I/O interrupts for the output graphics device.
- 3 Request rejected to disable interruption handler. This failure occurred because a device handler subroutine was never designated to process I/O interrupts for the specified output graphics device.

System Action The graphics subroutine GRAPWAIT returns control to the caller with RC=1001-1003.

User Action Action should be based upon the main graphics routine response to this error and the type of error that occurred.

CRIGWA002E Waitd error 'rc'

Module: GRAPWAIT Type: User - CMS command

Explanation A CMS error occurred while the currently executing graphics routine attempted to process an input/output operation. A return code of 1 indicates that the graphics output device address (vaddr) is invalid.

System Action The graphics subroutine GRAPWAIT returns control to the caller with RC=2001.

User Action Action should be based on the main graphics routine response to this error and the type of error that occurred.

	CRIIAT001E	Invalid	message	type	MT='mt	' PN='pn
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Module: IATASK Type: Station - Console

Explanation The station received an interactive terminal reply with an invalid message type of 'mt' for process number 'pn'.

System Action If the interactive CRINT user is active, the reply is sent to the user's virtual machine. Interactive reply segment processing continues.

User Action Contact the CRI Site Analyst or installation systems personnel.

CRIIAT0021 Restart: Tid='tid' Job='jn' PN='pn' EC='ec' Recuser='recuser'

Module: IATASK Type: Station - Console

Explanation The station has received a restart reply for the interactive COS job. Given are the CRINT user's CMS userid 'tid', the COS job name 'jn', the COS assigned process number 'pn', and the logical terminal ID 'recuser'.

System Action The restart reply is sent to the CRINT user's virtual machine and processing of the interactive reply segment continues.

User Action Enter /LOGON again to attempt interactive COS logon. If the problem persists, contact the CRI Site Analyst or installation systems personnel.

CRIIAT0031Killed by operator: Pn='pn' Tid='tid' Job='jn'<br/>Recuser='recuser'Module: IATASKType: Station - ConsoleExplanationThe specified interactive COS job has been killed by<br/>a COS operator function request (KILL command).System ActionThe interactive CRINT user is informed, and process-<br/>ing of the interactive reply segment continues.User ActionNone.

CRIIAT0041	Logoff: Tid='tid' Job='jn' PN='pn' Recuser='recuser'
	Module: IATASK Type: Station - Console
Explanation	The station received a logoff reply for the given interactive job. Given are the CRINT user's CMS userid 'tid', the COS job name 'jn', the COS assigned process number 'pn', and the logical terminal ID 'recuser'.
System Action	The CRINT interactive user is given the logoff reply and is dropped from station interactive tables.
User Action	CRINT returns control to CMS.

CRIIAT0051 Inactive process number: PN='pn' MT='mt'

Module: IATASK Type: Station - Console

- Explanation IATASK received an interactive COS reply for a process number that is not active in the Interactive User Table (IUT). In most cases, this is caused by an interactive CRINT user returning to CMS before all terminal replies for that user are received from COS.
- System Action The terminal reply message is ignored and processing of the interactive reply segment continues.
- User Action None.
- CRIIAT0061 Logon: Tid='tid' Job='jn' PN='pn' Recuser='recuser' Module: IATASK Type: Station - Console
- Explanation The station received a start message for the above interactive CRINT user. Given are the CRINT user's CMS userid or COS job terminal id 'tid', the COS job name 'jn', the COS assigned process number 'pn', and the logical CMS userid 'recuser'.
- System Action The interactive user is entered into the station interactive user table.

User Action None.

CRIIAT007E Error: Tid='tid' Job='jn' PN='pn' EC='ec' Recuser='recuser'

Module: IATASK Type: Station - Console

Explanation The station received an interactive terminal reply error message from COS. Given are the interactive CRINT user's CMS ID 'tid', the COS job name 'jn', the COS assigned process number 'pn', the interactive error code 'ec', and the logical terminal ID 'recuser'.

System Action The error code is sent to the interactive CRINT user and processing continues on the interactive reply segment.

User Action The meaning of error code 'ec' can be found in the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042.

CRIIAT008E VMCF error RC='rc' Tid='tid' Recuser='recuser'

Module: IATASK Type: Station - Console

Explanation The station received a VMCF error when it attempted to send an interactive reply to CRINT user 'tid' with the VMCF SEND function.

System Action If the error is that ten too many VMCF messages are outstanding, the user's interactive terminal is suspended on COS. Processing of the interactive reply segment continues.

User Action See IBM VM/SP System Programmer's Guide, IBM Form No. SC19-6203-1, for a description of the error codes. If the error persists, contact the CRI Site Analyst or installation systems personnel.

CRIIAT009E Out of range process number: PN='pn' MT='mt'

Module: IATASK Type: Station - Console

Explanation The station received a reply for a process number larger than that allowed in the station tables (32).

System Action The terminal message is ignored and processing of the interactive reply segment continues.

User Action If the process number is legal on COS, enlarge the size of the Interactive User Table (IUT) to allow for it.

CRIITDF011	Intertask dispose is attempting to connect with Recuser
	Module: ITDTASK Type: User - Logfile
Explanation	The user's DISPOSE statement is causing the station to attempt connection with the VM userid (recuser) specified by either the ID or TID DISPOSE parameter. A similar message (CRIITD001I) is displayed for both the station operator and the recuser, who receives the VM userid.
System Action	Normal operations of the station continue. Intertask dispose continues to attempt connection with the recuser/tid.
User Action	None.
CRIITDF021	Intertask dispose has finished data transmission
	Module: ITDTASK Type: User - Logfile
Explanation	The user's DISPOSE statement has completed trans- mission of the associated dataset to the VM userid (recuser) specified by either the ID or TID DISPOSE parameter. A similar message (CRIITD002I) is dis- played for both the station operator and the recuser, who receives the VM userid.
System Action	Normal operations of the station continue. Intertask dispose terminates operations on the associated da-taset and then waits for additional work.
User Action	None.
CRIITDF031	Intertask dispose has been cancelled, 'by whom/why'
	Module: ITDTASK Type: User - Logfile
Explanation	The user's DISPOSE statement was cancelled while ei- ther transmitting or attempting to transmit the user COS dataset to the VM userid (recuser) specified by either the ID or TID DISPOSE parameters. A similar message (CRIITD003I) is displayed for the station operator and the recuser, who receives the VM userid. 'by whom/why' further explains the condition.
System Action	Normal operations of the station continue. Intertask dispose terminates the dataset transfer and waits for COS to send additional work.

User Action None. CRIITDF041 Intertask dispose has successfully connected with Recuser Module: ITDTASK Type: User - Logfile The user's DISPOSE statement has established a com-Explanation munications path with the VM userid (recuser) specified by either the ID or TID DISPOSE parameter. A similar message (CRIITD004I) is displayed for the station operator and the recuser, who receives the VM userid. System Action Normal operations of the station continue. The intertask dispose begins transmission of the associated dataset. User Action None. CRIITDF051 Intertask dispose has received a VMCF error. RC='rc' Module: ITDTASK Type: User - Logfile Explanation A Virtual Machine Communication Facility (VMCF) error occurred while transmitting a Link Control Package (LCP) to the VM userid (recuser). The VM userid (recuser) is specified by either the ID or TID DIS-POSE parameter. A similar message (CRIITD005I) is displayed to both the station operator and the recuser, who receives the VM userid. The possible 'rc' values are: 01 The buffer address or length was invalid. 02 The send function code was invalid. The station has not been authorized to use 04 VMCF. 05 Recuser is not currently logged onto the VM system. 80 Duplicate usage of an active message number. 09 Recuser has QUIESCEd his virtual machine. Maximum number of outstanding VMCF send has 10 been reached. VM/CP has received a paging I/O error. 15 18 Unauthorized usage of the PRIORITY feature. System Action Normal operations of the station continue. The intertask dispose is terminated, the associated dataset is postponed, and the intertask dispose task waits for future work to process.

User Action None.

CRIITDF061	Intertask dispose has been postponed, 'description'
	Module: ITDTASK Type: User - Logfile
Explanation	The user's DISPOSE statement has been postponed be- cause of 'description', which occurs because of a communication problem with the VM userid (recuser). The VM userid (recuser) is specified by either the ID or the TID DISPOSE parameter. A similar message (CRIITD006I) is displayed to both the station opera- tor and the recuser, who receives the VM userid. The possible 'descriptions' are:
	<ul> <li>Recuser was not logged onto VM system</li> <li>Recuser not responding to VMCF sends</li> <li>Unacceptable VMCF error received</li> <li>At receiving user's request</li> <li>Receiving user is not responding</li> <li>Internal posting error</li> </ul>
System Action	Normal operations of the station continue. The intertask dispose terminates by postponing the data- set via a Station Call Processor Stream Control Byte (SCP SCB). The intertask dispose task then waits for future work to be assigned.
User Action	None.
CRIITDF071	Intertask dispose user exit has been called, 'de-scription'
	Module: ITDTASK Type: User - Logfile
Explanation	The intertask dispose user exit (UEXITDO1) will be processing the user's dataset. UEXITDO1 was called because the VM userid (recuser), which was specified by either the ID or TID DISPOSE parameter, did not accept the station's request for intertask dispose connection. A similar message (CRIITD007I) is dis- played to both the station operator and the recuser, who receives the VM userid.
	The possible 'description' values are:
	• Recuser was not logged onto VM system
	• Recuser not responding to VMCF sends

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System Action Normal station operations continue. The user exit (UEXITDO1) is called. This user exit as shipped by CRI postpones (the default), cancels, or punches (TEXT='NET=YES,LRECL=65535') the file. The disposition at your site determined by your installation administrator.

User Action None directly possible. The following are possible methods that you can use to prevent your error from occurring on future intertask disposes:

- Before issuing your DC=IT dispose, ensure that the recuser is logged on by using the DISPOSE parameter DC=IN (autolog) feature.
- Ensure that the recuser executes an intertask dispose application.

## CRIITDF08I Intertask dispose dataset has been transferred to PUNTASK

Module: ITDTASK Type: User - Logfile

- Explanation The user's DISPOSE statement was transferred to PUNTASK. The TEXT field is changed to TEXT='NET=YES,LRECL=65535'. This situtation occurs because the station could not connect within an installation-defined period to the VM userid (recuser). The VM userid (recuser) is specified by either the ID or TID DISPOSE parameter. A similar message (CRIITD008I) is displayed to both the station operator and the recuser, who receives the VM userid.
- System Action Normal operations of the station continue. The intertask dispose terminates processing the dispose requests and waits for the work.

User Action None.

CRIITD0011 L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': is attempting to connect with Recuser

Module: ITDTASK Type: Station & User

Explanation An intertask dispose wishes to transmit a COS dataset to the receiving user's (recuser's) application program. A copy of this message is placed in the station's console and a similar message (CRIITDF011) is placed in the associated COS job's \$OUT file. System Action Normal operations of the station continue. Intertask dispose continues to attempt connection with the recuser/tid.

User Action The 'recuser/tid' must start the execution of the application program that will accept the COS dataset. CRI provides two such applications: CRDISK (dispose to CMS files) and CRGRAPH (dispose to graphic devices).

CRIITD0021 L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': has finished data transmission

Module: ITDTASK Type: Station & User

Explanation An intertask dispose has finished transmitting a COS dataset to the recuser's application program. A copy of this message is placed in the station's console and a similar message (CRIITDF02I) is placed in the associated COS job's \$OUT file.

System Action Normal operations of the station continue. Intertask dispose terminates operations on the associated dataset and waits for additional work.

User Action None.

CRIITD0031 L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': has been cancelled, 'by whom'

Module: ITDTASK Type: Station & User

- Explanation An intertask dispose (of a COS dataset currently being transmitted to a recuser's application program) has been cancelled. A copy of this message is placed in the station's console and a similar message (CRIITDF03I) is placed in the associcated COS job's \$OUT file. The dataset transfer was cancelled by either the Cray master operator, a station operator, or the ITDTASK module. The 'by whom/why' value further explains the condition.
- System Action Normal operations of the station continue. Intertask dispose terminates operations on the associated dataset and then waits for additional work.

User Action None.

CRIITD0041 L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': has successfully connected with Recuser

Module: ITDTASK Type: Station & User

Explanation An intertask dispose has established a communications path with a receiving user. This path is used to transmit a COS dataset to recuser's application program. A copy of this message is placed in the station's console, and a similar message (CRIITDF04I) is placed in the associated COS job's \$OUT file.

System Action Normal operations of the station continue. The intertask dispose begins transmission of the associated dataset.

User Action

L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': has received a VMCF error. RC ='rc'

Module: ITDTASK Type: Station - Console

Explanation

CRIITD0051

An intertask dispose LCP transmission has failed because of a Virtual Machine Communication Facility (VMCF) error. A copy of this message is placed in the station's console and a similar message (CRIITDF05I) is placed in the associated COS job's \$OUT file. The possible values for 'rc' are:

- 01 The buffer address or length was invalid.
- 02 The send function code was invalid.
- 04 The station has not been authorized to use VMCF.
- 05 Recuser is not currently logged onto the VM system.
- 08 Duplicate usage an active message number.
- 09 Recuser has QUIESCEd his virtual machine.
- 10 Maximum number of outstanding VMCF send has been reached.
- 15 VM/CP has received a paging I/O error.
- 18 Unauthorized usage of the PRIORITY feature.
- System Action Normal operations of the station continue. The intertask dispose is terminated, the associated dataset is postponed, and the intertask dispose task waits for future work to process.

User Action

None.

None.

CRIITD0061	L'dev': From 'job' to 'recuser' at 'tid' of set': has been postponed, 'description'	'data-
	Module: ITDTASK Type: Station & User	
Explanation	An intertask dispose directed towards an ap running in recuser's virtual machine has be poned. 'description' provides the reason f postponement. A copy of this message is pl the station's console, and a similar messag (CRIITDF06I) is placed in the associated CO \$OUT file. The possible 'descriptions' are	plication en post- or the aced into e S job's :
	<ul> <li>Recuser was not logged onto VM system</li> <li>Recuser not responding to VMCF sends</li> <li>Unacceptable VMCF error received</li> <li>At receiving user's request</li> <li>Receiving user is not responding</li> <li>Internal posting error</li> </ul>	
System Action	Normal operations of the station continues. intertask dispose terminates by postponing set via a Station Call Processor Stream Con (SCP SCB). The intertask dispose task then future work to be assigned.	The the data- trol Byte waits for
User Action	None.	
CRIITD007I	L'dev': From 'job' to 'recuser' at 'tid' of set': user exit has been called, 'descripti	'data- on'
	Module: ITDTASK Type: Station - Console	
Explanation	The intertask dispose user exit (UEXITD01) called because recuser has not responded to station's intertask dispose advances within installation-defined period). A copy of this placed in the station's console, and a s message (CRIITDF07I) is placed in the association job's \$OUT file. The possible 'description are:	has been the an s message imilar iated COS ' values
	• Recuser was not logged onto VM system	
	• Recuser not responding to VMCF sends	
System Action	Normal station operations continue. The us (UEXITD01) is called. This user exit as sh CRI postpones (the default), cancels, or pu (TEXT='NET=YES,LRECL=65535') the dataset. position of your file is determined by your lation administrator.	er exit ipped by nches The dis- instal-
User Action	None.	
66 VM Station Me	ssages and Codes	SI-0165
## CRIITD008I L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': dataset has been transferred to PUNTASK

Module: ITDTASK Type: Station & User

Explanation An intertask dispose has been transferred to PUNTASK with a text field of TEXT='NET=YES,LRECL=65535'. This situation occurs when the recuser's application program has not connected with intertask dispose within an installation defined time period. A copy of this message is placed in the station's console and a similar message (CRIITDF08I) is placed in the associated COS job's \$OUT file.

System Action Normal operations of the station continue. The intertask dispose is terminated with the dataset being sent to PUNTASK. The intertask dispose task waits for work to be presented.

User Action None.

CRIITD0091 L'dev': From 'job' to 'recuser' at 'tid' of 'dataset': has been locally postponed

Module: ITDTASK Type: Station & User

Explanation An intertask dispose has been locally postponed by the current application or system program running in the receiving user's virtual machine. A local postponement causes the station to wait twenty seconds before attempting to connect with an intertask dispose application. A copy of this message is placed in the station's console. The associated COS job is not informed of this delay.

- System Action Normal operations of the station continue. The intertask dispose waits for twenty seconds before attempting to connect with an intertask dispose application.
- User Action The 'recuser/tid' must start the execution of the application program that will accept the COS dataset. CRI provides two such applications: CRDISK (dispose to CMS files) and CRGRAPH (dispose to graphic devices).
- CRIMAP001E Error finding input file. 'description' From Exec: MAPSTA Type: Installer - CMS command

Explanation The station load map file could not be found. The map's file specification can be defined by the first three parameter on the MAPSTA command; the default is STATION MAP \*. 'description' further explains the condition.

System ActionThe MAPSTA command returns control to CMS with RC=1.User ActionAction must be based on the value of 'description'.

**CRIMAP002E** Error reading input file. 'description'

Module: MAPSTA Type: Installer - CMS command

Explanation A CMS system error occurred while the station load map was being read from disk. The CMS system return code is explained by 'description'.

System Action The MAPSTA command returns control to CMS with RC=2. A partially built STATION FMAP file may exist upon MAPSTA command termination.

User Action Refer to the IBM CMS Command and Macro Reference guide for assistance.

CRIMAP003E Error writing output file. 'description'

Module: MAPSTA Type: Installer - CMS command

Explanation An error has occurred while writting the station binary load map to disk. 'description' further explains the error condition.

System Action The requested write operation is aborted. The MAPSTA command returns control to CMS with RC=3.

User Action Several writing errors can occur since only the immediate write operation is aborted. Action must be based on the specific failure that occurred.

CRIMAP004E'label' is an undefined external referenceModule: MAPSTAType: Installer - CMS commandExplanationAn undefined external label has been referenced by a<br/>station module. External references can be defined<br/>by either an ENTRY or CSECT assemble statement. The<br/>VM/SP XF assembler permits other methods to define

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external references but the VM station does not support these methods.

System Action The MAPSTA command continues processing the station load map. This message can be displayed multiple times. It is strongly suggested that a VM station not be permitted to execute if this message is displayed during the STAGEN execution.

User Action Refer to the station load map to resolve this problem.

CRINSCOFFE Operator request timeout

Module: NSCTASK Type: Station - Console

Explanation This message indicates the three-minute timeout of a COS synchronous request. Synchronous requests include interactive, COS operator function, and all CRSTAT/CRSTATOP COS display requests.

System Action The next synchronous request on the station's LCP request queue is sent to COS. Stream-related messages (dataset transfers) are not affected.

User Action This could indicate a COS failure; report it to the CRI Site Analyst or installation systems personnel.

CRINSCOOAE Already logged on

Module: NSCTASK Type: Station - Console

Explanation The VM station is already logged on to COS when the LOGON station operator command is entered at the station console.

System Action The logon request is rejected.

User Action None.

CRINSCOOBEStreams not idle - Logoff rejectedModule: NSCTASKType: Station - ConsoleExplanationA LOGOFF command was entered at the station console<br/>while a dataset transfer is active.System ActionThe logoff request is rejected.

User Action Use the VM station STATI command to display the status of transfer streams. Use the station CANCEL command, if necessary, to cancel any dataset transfers; reenter the LOGOFF command.

CRINSCOOCI VM Station 'station' Logging off

Module: NSCTASK Type: Station - Console

Explanation This message is sent to the following users: System operator (if MODE = OPERATIONAL), maintenance userid, and the requesting user (if the logoff was requested via a CP SMSG command). 'station' denotes the VM userid of the station logging off the Cray.

System Action The VM station sends a logoff LCP to the CRAY computer system. If the CRAY option of the logoff command was used, the station will re-IPL CMS. The default is for the station to also logoff from the front-end system.

User Action None.

CRINSCOODI Logon complete, 'today', 'version', Gen date 'gendate'

Module: NSCTASK Type: Station - Console

Explanation This message indicates a successful logon to COS. Today's date, COS version, and COS generation date are indicated.

System Action Normal operation of the station continues. The station starts stream and nonstream polling of COS.

User Action None.

CRINSCODEE Message error LCP received. Error code = 'ec' Module: NSCTASK Type: Station - Console Explanation A message error LCP (code = octal 12) was received from COS. 'ec' denotes the LCP error code number; one of the following: 010 Message/function not available

010 Message/function not available 100 Invalid LCP field values (can be used in lieu of any lxx code)

- 101 Destination identifier (DID) field error. DID is known as CRAYID or CRID by the VM station.
- 102 Source identifier (SID) field error. SID is known as MF or MFID by the VM station.
- 103 Number of subsegments error
- 104 Message number error
- 105 Message code error
- 106 Message subcode error
- 107 Stream number error
- 110 Segment number error
- 111 Segment bit count error
- 112 Stream control byte error
- 113 Segment size error
- 114 Station message limit error
- 115 Logon parameter error
- 116 Resources not available to complete logon
- 140 Checksum error Checksum is not enabled by the VM station.
- 200 Segment data error (can be used in lieu of any 2xx code)

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Operator function or debug function error 251 COS in restart process

Please review COS manuals, Front-end Protocol Internal Reference Manual, number SM-0042, and COS EXEC/STP/CSP Internal Reference Manual, number SM-0040, for more information.

- System Action Normal logon operations continue if the station is not logged on to COS; error recovery operations begin otherwise. The station re-IPLs itself if the error recovery operations fail. The error codes 116 and 251 indicate failure of a logon attempt and will be retried by the station.
- User Action This error could indicate either a software or hardware failure; report it to the CRI Site Analyst or installation systems personnel.
- CRINSCOOFE Unexpected LCP received. MC='mc', MSC='msc'

Module: NSCTASK Type: Station - Console

Explanation The station received an unknown message and subcode from COS. The expected message is either a start LCP if the station is attempting to logon to COS or a logoff reply if the station is attempting to logoff from COS. Please review the COS manual entitled Front-end Protocol Internal Reference Manual, number SM-0042, for more information on the message codes and subcodes. System Action Normal operations continue if the station is not logged on to COS; error recovery operations begin otherwise. The station re-IPLs itself if the error recovery operations fail.

User Action This message could indicate a COS failure; report it to the CRI Site Anaylst or installation systems personnel.

CRINSC002E Logon aborted; Adapter error

Module: NSCTASK Type: Station - Console

Explanation The logon process failed due to I/O errors. Message CRINSCO10E is also displayed to show the nature of the I/O error. The I/O errors were encountered when attempting to write the logon LCP message to COS.

System Action The station continues to attempt to logon to the Cray automatically every minute.

User Action This could indicate either that the NSC HYPERchannel adapter failed (NSC) or that COS is not up and running.

CRINSC003ELogon aborted; Channel errorsModule: NSCTASKType: Station - ConsoleExplanationThe logon process failed due to I/O errors. Message<br/>CRINSC010E is also displayed to show the nature of<br/>the I/O error. This message indicates that a start<br/>LCP was not received from COS.System ActionThe station continues to attempt to logon to the Cray<br/>automatically every minute.User ActionThis could indicate a COS failure. Contact the CRI<br/>Site Analyst or installation systems personnel.

CRINSC004ELogon aborted; Start LCP not receivedModule: NSCTASKType: Station - ConsoleExplanationThe logon process failed because the Cray did not<br/>respond with the correct link control package (LCP).

System Action The station continues to attempt to logon to the Cray every minute.

User Action Check the status of the Cray. If it is operational, contact the CRI Site Analyst or installation systems personnel.

**CRINSC006E** Logging off; I/O errors

Module: NSCTASK Type: Station - Console

Explanation The station re-IPLs the executable code from disk because I/O errors were found while reading or writing to the Front-end Interface channel. Message CRINSCO10E is also displayed and gives the nature of the I/O error.

System Action After nucleus re-IPL, the station automatically attempts to log on to COS every minute.

User Action This could indicate either a COS system failure or a hardware failure in the NSC HYPERchannel adapter (NSC). Contact the CRI Site Analyst or installation systems personnel.

CRINSCOO8E Error writing logoff LCP

Module: NSCTASK Type: Station - Console

Explanation The station cannot write a logoff LCP to COS. This usually indicates a problem with the NSC HYPERchannel hardware or the Cray.

System Action The station re-IPLs the executable code from disk and attempts to log on to COS.

User Action Check the status of the Front-end Interface hardware and the Cray.

CRINSC009ELogged off from the CrayModule: NSCTASKType: Station - ConsoleExplanationThis message indicates successful logoff from COS<br/>after the LOGOFF station operator command was issued.

System Action If the LOGOFF command with the CRAY option was used, the station will IPL CMS. If the CRAY option was not

	specified, the station will logoff from the front-end system.
User Action	None.
CRINSC010E	I/O error, 'vaddr', 'type'
	Module: NSCTASK Type: Station - Console
Explanation	An I/O error was detected on the IBM interface chan- nel or NSC HYPERchannel adapter (NSC). 'vaddr' de- notes the virtual device address. 'type' is the I/O error encountered; one of the following:
	Not Operational Virtual device is not attached or defined to the station.
	Software Timeout I/O operation did not complete before the expiration of an installation-determined timeout value. This timeout value is set in the SVT by the UCBGEN macro. For the FEI, this value is 60 seconds.
	Busy, Hung Channel is in a busy condition. This usu- ally indicates that the channel must be reset. It is recommended that the channel be run as a block multiplexer channel.
	<pre>ccw,csw,sense This message usually indicates a hardware problem or that the CRAY computer system has crashed. CCW denotes the channel com- mand word. CSW denotes the channel status word. SENSE denotes the sense bytes re- ceived from the NSC adapter.</pre>
System Action	For 'not operational' and 'ccw,csw,sense' type er- rors, the I/O operation is retried a maximum of 75 times before the station nucleus is re-IPLed from disk. For 'software timeout' and 'busy, hung' type errors the station sends COS an octal 307 LCP error message in an attempt to recover. If this fails, the station nucleus is re-IPLed. In both cases, the station attempts to log on to COS.
User Action	This could indicate either a hardware failure in the NSC HYPERchannel (NSC) adapter or the failure of the COS operating system. Review the Network Systems Corporation manual entitled A222 Adapter Reference Manual, number 42990035, for information on the sense

data. Contact the CRI Site Analyst or installation systems personnel.

CRINSC011E	Invalid or unknown command
	Module: NSCTASK Type: Station - Console
Explanation	An unsupported command was entered for the station's interface task. Supported commands are: LOGON, LOGOFF, and LOGOUT.
System Action	The invalid command is ignored.
User Action	None.
CRINSC0121	Successful retry, count = 'count', net = 'net'
	Module: NSCTASK Type: Station - Console
Explanation	This message indicates the successful retry of an I/O operation to the NSC HYPERchannel (NSC) adapter that encountered an error as noted in station message CRINSCO10E. 'count' gives the number of times (in hexadecimal) this I/O operation was retried, and 'net' gives the total count (in hexadecimal) of re- tries for all I/O operations retried successfully.
System Action	Message traffic across the interface to the Cray computer system continues normally.
User Action	Frequent I/O errors and successful retries may indi- cate a hardware failure in the NSC HYPERchannel (NSC) adapter. Contact the CRI Site Analyst or installa- tion systems personnel.
CRINSC0131	Restart LCP received, Re-logging
	Module: NSCTASK Type: Station - Console
Explanation	The Cray computer system responded to a station logon request LCP with a restart LCP.
System Action	The station nucleus is re-IPLed from disk and an at- tempt to logon to the Cray is made.
User Action	If the problem persists, contact the CRI Site Analyst or installation systems personnel.

## CRINSCO14E Message error LCP 307 sent

Module: NSCTASK Type: Station - Console

- Explanation The station has sent an octal 307 (general NSC error) error LCP message to COS to try to recover from a software timeout error. The error LCP induces COS to resend the reply that the station never received.
- System Action NSCTASK waits for a response from the Cray computer system. Normal station processing continues if COS responds with the expected LCP message. If the error LCP message fails, the station nucleus is re-IPLed from disk and attempts to logon to COS.
- User Action This indicates a failure in either the NSC HYPERchannel adapter hardware or the Cray operating system (COS).

CRINSCO15E Unexpected MSG: 'type', HDR = 'header' LCP = '1cp'=

Module: NSCTASK Type: Station - Console

- Explanation This message is displayed when an unexpected LCP reply is received from COS. This could be either an unexpected message number, station mainframe ID, or message code. The message will be displayed twice, once for the message sent to the Cray ('type'=SENT), and once for the message received from the Cray in reply ('type'=RECV). 'header' is the 16 byte NSC header bytes, and 'lcp' is the first 16 bytes of the LCP message read or written.
- System Action Error recovery is attempted by retrying the last message sent to the Cray. If it fails, the station nucleus is re-IPLed from disk and an attempt is made to logon to the Cray computer.
- User Action This indicates a failure in the NSC HYPERchannel hardware, the VM station software, or COS; reported it to the CRI Site Analyst or installation systems personnel.
- CRINSCO16E Invalid adapter unit address Module: NSCTASK Type: Station - Console
- Explanation An invalid NSC HYPERchannel adapter unit address was specified on a CRSTAT/CRSTATOP NSCSTAT subcommand. This error is returned to the station from the NSC

HYPERchannel network after the station sends a sense statistics request to the network.

System Action The message is sent to the CRSTAT/CRSTATOP user's virtual machine. Station processing continues normally.

User Action

Correct the unit address.

CRINSC017I

Adapter not available

Module: NSCTASK Type: Station - Console

Explanation The specified NSC HYPERchannel unit address on the CRSTAT/CRSTATOP NSCSTAT subcommand is not active at the current time. The error is returned to the station from the HYPERchannel adapter after the station issued a sense statistics request to it.

System Action The message is sent to the CRSTAT/CRSTATOP user's virtual machine. Station processing continues normally.

User Action None.

CRIOPC00AE	Invalid or unknown command
	Module: OPCTASK Type: Station - Console
Explanation	An unknown command was entered at the VM station console.
System Action	The command is rejected and station execution con- tinues normally.
User Action	None.
CRIOPC00BE	Invalid request
	Module: OPCTASK Type: Station - Console
Explanation	An invalid parameter was passed through the station STAT command entered at the VM station console.
System Action	The STAT request is ignored.
User Action	None.

CRIOPC00CI	Not	logged	on	to	the	CRAY

Module: OPCTASK Type: Station - Console

Explanation The station is not logged onto the Cray. This is a response to a command entered at the station virtual console.

System Action Normal operations of the station continue.

- User Action No action is required if either the Cray computer or connecting hardware is down. If both are up, issue the station LOGON command.
- CRIOPCOOFI Hardcopy LCP trace is 'status' to 'userid'

Module: CMDPROC Type: Station - Console

- Explanation This is a response to the TRACE QUERY command and denotes the status of LCP tracing to virtual printer x'002'. 'status' is either OFF or ON. 'userid' denotes the VM userid who will receive the LCP trace output when the virtual printer is closed.
- System Action Normal operations of the TRACE command QUERY function continue.
- User Action None.
- CRIOPC001E Unknown tracing parameter 'parameter'

Module: CMDPROC Type: Station - Console

Explanation An unknown parameter was specified on the station operator TRACE command.

System Action The TRACE command is ignored.

User Action None.

CRIOPC0011Internal tracing is now on<br/>Module: CMDPROCType: Station - ConsoleExplanationResponse to the TRACE ON command; it denotes new<br/>tracing status of the station.

System Action The current tracing mask is set to the default value. The default value was defined by the STATION CONFIG file (command TRACE\_DISABLE), which was used to initialize the station.

User Action None.

CRIOPC002I Internal tracing is now off

Module: CMDPROC Type: Station - Console

Explanation This is a response to the TRACE OFF command; it denotes new tracing status of the station.

System Action The current tracing mask will be set to all zeros. The TRON flag in the SVTFLGS will be set to zero and no station internal events will be traced.

User Action None.

CRIOPC003I Trace class 'class' 'status'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the TRACE ENABLE or DISABLE command; it denotes the new status of the event trace class. 'class' designates the tracing class being displayed. 'status' is denoted by either the word ENABLED or DISABLED.

The tracing classes are:

SIO Start I/O operations and I/O interrupts EXT External interrupts DISP Dispatchs, schedules and virtual machine waits WTPT Wait and post calls MACR Most macro calls (GETM, STIMER, CTIMER, etc.) LCP Sent and receieved LCPs Virtual Machine Communications VMCF SVC Supervisor calls and returns

System Action The trace class is on or off.

User Action

None.

CRIOPC004I Class Status

Module: CMDPROC Type: Station - Console

Explanation This is a response to the TRACE QUERY command. This response is the header information for the CRIOPC005I message that will follow.

System Action Normal operations of the TRACE command QUERY function continue.

User Action None.

CRIOPC005I 'class' 'status'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the TRACE QUERY command; it denotes the current status of the event tracing classes. 'class' designates the tracing class being displayed. 'status' is denoted by either the word ENABLED or DISABLED.

The tracing classes are:

SIO Start I/O operations and I/O interrupts EXT External interrupts Dispatchs, schedules and virtual machine DISP waits WTPT Wait and post calls Most macro calls (GETM, STIMER, CTIMER, etc.) MACR Sent and received LCPs LCP Virtual Machine Communications VMCF SVC Supervisor calls and returns

System Action Normal operation of the TRACE command QUERY function continues.

User Action None.

CRIOPC0061 Spool is 'status' to 'userid' Module: CMDPROC Type: Station - Console Explanation This is a response to the TRACE QUERY command; it denotes the status of spooling of the trace table. 'status' is either ON or OFF. 'userid' denotes the

userid who will receive the trace table when it

wraps.

Normal operation of the TRACE command QUERY function System Action continues. User Action None. CRIOPC007I Trace spool is now 'status' Module: CMDPROC Type: Station - Console Explanation This is a response to the TRACE SPOOL command; it denotes the status of spooling of the trace table. STATUS is either ON or OFF. If trace spooling is on, the trace table is dumped to a station virtual punch whenever the table wraps around. System Action Trace table spooling is enabled or disabled accordingly. User Action None. CRIOPC01AI Statistics reporting is 'status' Module: CMDPROC Type: Station - Console Explanation This is a response to the STASTATS station operator command. 'status' is either ON or OFF and pertains to the gathering of dataset transfer statistics. The display of dataset transfer statistics is enabled System Action or disabled accordingly. User Action None. CRIOPC01BI Storage chain status Module: CMDPROC Type: Station - Console Explanation This is a response to the station operator command STASTOR and is a header for message CRIOPCO1BI. System Action Normal operations of the STASTOR command ALLOCATE or FREE function continue. User Action None.

CRIOPC01CE	Current number of - Allocated blocks: Un- allocated blocks:
	Module: CMDPROC Type: Station - Console
Explanation	This is a header response to station operator command STASTOR.
System Action	Normal operations of the STASTOR command ALLOCATE or FREE function continue.
User Action	None.
CRIOPC01DI	Address Module name Length Time Flag Comment
	Module: CMDPROC Type: Station - Console
Explanation	This is a header response to station operator command STASTOR.
System Action	Normal operations of the STASTOR command ALLOCATE function continue.
User Action	None.
CRIOPC01EI	'addr' 'module' 'length' 'time' 'flag' 'comment'
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to station operator STASTOR com- mand. Each line displayed represents an allocated virtual storage block. 'addr' is the address of the start of the block, 'module' is the station module name that allocated the storage, 'length' is the block size in bytes, 'time' shows how long ago the block was allocated, 'flag' is how the station allo- cation routine was called, and 'comment' is a de- scription of the storage block's purpose.
System Action	Normal operations of the STASTOR command ALLOCATE function continue.
User Action	None.

CRIOPC01FI	Current number of - Allocated bytes : 'abytes' Un- allocated bytes : 'ubytes'
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to station operator STASTOR com- mand. 'abytes' indicates the total number of bytes of station virtual storage allocated by various sta- tion tasks, and 'ubytes' shows the total number of bytes of virtual memory still free.
System Action	Normal operations of the STASTOR command ALLOCATED or FREE function continue.
User Action	None.
CRIOPC010E	Unknown cancel parameter
	Module: OPCTASK Type: Station - Console
Explanation	An unknown parameter was specified on the station operator CANCEL command.
System Action	The CANCEL command is ignored.
User Action	None.
CRIOPC011E	Stream not active
	Module: OPCTASK Type: Station - Console
Explanation	Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.)
Explanation System Action	Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored.
Explanation System Action User Action	Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored. None.
Explanation System Action User Action	Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored. None.
Explanation System Action User Action	Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored. None.
Explanation System Action User Action CRIOPC0121	<pre>Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored. None. 'station message'</pre>
Explanation System Action User Action CRIOPC0121	<pre>Module: OPCTASK Type: Station - Console A station operator CANCEL command was issued against an idle stream. (The stream could have finished transmission by the time the CANCEL command started execution.) The CANCEL command is ignored. None. 'station message' Module: OPCTASK Type: User - Station</pre>

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command). The CMS user is the COS terminal I (TID) identified on the station message.

System Action The station message is sent to the CMS user's console with the CP MSG command.

User Action The station message is either from a COS job using COS system call 120 or from COS tape management system (TQM).

CRIOPC013E Unknown URBUFFER parameter

Module: CMDPROC Type: Station - Console

Explanation An unknown or unsupported parameter was discovered while processing the URBUFFER command.

System Action The URBUFFER command is ignored.

User Action None.

CRIOPC014E Device 'dev' is in use

Module: CMDPROC Type: Station - Console

Explanation An attempt was made to issue the station operator STDEVICE OFFLINE command during a dataset transfer for a currently active station virtual device.

System Action The STDEVICE command is ignored.

User Action None.

CRIOPC015E Unknown STDEVICE parameter

Module: CMDPROC Type: Station - Console

Explanation An unknown or unsupported parameter was discovered while processing the STDEVICE command.

System Action The STDEVICE command is ignored.

User Action None.

CRIUPCUIJI	Urbuffer Printer : 'pr' Punch : 'pu'
	Module: CMDPROC Type: Station - Console
Explanation	This is the number of pages allocated to a print or punch output; it is the response to the station op- erator URBUFFER command.
System Action	Normal operations of the URBUFFER command QUERY function continue.
User Action	None.
CRIOPC016E	Unknown STATS parmeter 'parm'
	Module: CMDPROC Type: Station - Console
Explanation	An invalid parameter was specified on the station operator STATS command. On and OFF are the only valid parameters.
System Action	The STATS command is ignored.
User Action	None.
CRIOPC017I	Devn   Add   Devclas   Status
	Module: CMDPROC Type: Station - Console
Explanation	Module: CMDPROC Type: Station - Console This is the header information for CRIOPCO18I; it is the response to the STDEVICE command.
Explanation System Action	Module: CMDPROC Type: Station - Console This is the header information for CRIOPCO18I; it is the response to the STDEVICE command. Normal operations of the STDEVICE command QUERY function continue.
Explanation System Action User Action	<pre>Module: CMDPROC Type: Station - Console This is the header information for CRIOPCO18I; it is the response to the STDEVICE command. Normal operations of the STDEVICE command QUERY function continue. None.</pre>
Explanation System Action User Action CRIOPC018I	<pre>Module: CMDPROC Type: Station - Console This is the header information for CRIOPCO18I; it is the response to the STDEVICE command. Normal operations of the STDEVICE command QUERY function continue. None. 'devn' 'addr' 'class' 'status'</pre>
Explanation System Action User Action CRIOPC018I	<pre>Module: CMDPROC Type: Station - Console This is the header information for CRIOPCO18I; it is the response to the STDEVICE command. Normal operations of the STDEVICE command QUERY function continue. None. 'devn' 'addr' 'class' 'status' Module: CMDPROC Type: Station - Console</pre>

System Action Normal operations of the STDEVICE command QUERY function continue. User Action None. CRIOPC0191 Device 'devn' has been varied 'status' Type: Station - Console Module: CMDPROC Explanation The specified device 'devn' has been made available or unavailable for allocation. The specified virtual device Unit Control Block (UCB) System Action is updated accordingly. User Action None. CRIOPC02AI Dataset transfers with an invalid TRTABLE value will be 'action' Module: CMDPROC Type: Station - Console Explanation This indicates the action to be taken by the station for a dataset transfer with an invalid TRTABLE option coded on the COS ACQUIRE or DISPOSE statement. The action will be to postpone or cancel the transfer, or to use the default translation table associated with the processing method. System Action Normal operations of the TRTABLE command continue. User Action None. CRIOPC02DI Logged onto VM system since MM/DD/YY at HH:MM Module: CMDPROC Type: Station - Console Explanation This is the response to the station operator STALEVEL command. Indicated is the day and time that the station virtual machine was logged on to the frontend system. System Action Normal operations of the STALEVEL command continue. User Action None.

CRIOPC02EI	Logged onto COS system since MM/DD/YY at MM:HH
	Module: CMDPROC Type: Station - Console
Explanation	This is the response to the station operator STALEVEL command. Indicated is the day and time that the VM station was last logged on to the Cray computer system.
System Action	Normal operations of the STALEVEL command continue.
User Action	None.
CRIOPC02FI	Station is not currently logged on to the CRAY
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station operator STALEVEL command if the VM station is not logged on to the Cray computer system.
System Action	Normal operations of the STALEVEL command continue.
User Action	None.
CRIOPC0201	Address Length

Explanation This is the header message for response to the station operator STASTOR FREE command.

Type: Station - Console

Module: CMDPROC

System Action Normal operations of the STASTOR command FREE function continue.

User Action None.

CRIOPC0211'addr' 'length'<br/>Module: CMDPROCType: Station - ConsoleExplanationThis is in response to the station operator STASTOR<br/>FREE command. The address 'addr' and length of sta-<br/>tion free virtual storage blocks are shown.System ActionNormal operations of the STASTOR command FREE func-<br/>tion continue.

User Action None.

CRIOPC0221	Label Address Label Address Label Address
	Module: CMDPROC Type: Station - Console
Explanation	This is in response to the station operator STAMAP command.
System Action	Normal operations of the STAMAP command continue.
User Action	None.
CRIOPC0231	'label' 'addr'
	Module: CMDPROC Type: Station - Console
Explanation	This is in response to the station operator STAMAP command. This command displays the station load map; 'label' is an entry-point label, and 'addr' is it's load address.
System Action	Normal operations of the STAMAP command continue.
User Action	None.
CRIOPC024E	Unknown interactive parameter: 'parm'
	Module: CMDPROC Type: Station - Console
Explanation	An unknown parameter was entered on the station op- erator INTERACT command.
System Action	The command is ignored.
User Action	The INTERACTIVE command must have a valid parameter. For further information, use the HELP CRSTAT INTERACT command.
CRIOPC0251	Interactive is 'status'
	Module: CMDPROC Type: Station - Console
Explanation	This indicates the status of station interactive support, which is either allowed or disallowed. If

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d r c	lisallowed, CRINT interactive user logon requests are rejected by the station. This restriction also in- ludes installation-written interactive interfaces.
System Action N	formal operations of the INTERACTIVE command QUERY function continue.
User Action N	lone.
CRIOPC026I I	nteractive list is 'status'
М	Iodule: CMDPROC Type: Station - Console
Explanation T i d t f f i	This message indicates the status of the VM station interactive user list, which is either enabled or lisabled. If the interactive user list is enabled, the station allows only those users in the list to og on to a COS interactive job. The restriction is for both CRINT and installation- written interactive interfaces.
System Action N f	ormal operations of the INTERACTIVE command QUERY function continue.
User Action N	lone.
CRIOPC027I +	+
М	lodule: CMDPROC Type: Station - Console
Explanation T	This is a response to the station operator STDEVICE command.
System Action N f	ormal operations of the STDEVICE command QUERY unction continue.
User Action N	lone.
CRIOPC028I	Table   Comment
	lodule: CMDPROC Type: Station - Console
Explanation T	This is a response to the station TRTABLE command.
System Action N	formal operations of the TRTABLE command continue
· · · · · · · · · · · · · · · · · · ·	ormar operations of the intribut committee concrete.

CRIOPC0291	'tbln'   'comment'
	Module: CMDPROC Type: Station - Console
Explanation	This is in response to the station TRTABLE command. Station dataset translate table names ('tbln') and their descriptions are shown.
System Action	Normal operations of the TRTABLE command continue.
User Action	None.

- CRIOPC03AI 'user' 'secuer' Module: CMDPROC Type: Station - Console
- Explanation This is in response to the station operator STASEC command. Shown are all CMS userids logged on to the front-end and each user's secondary console userid (if set). An '\*' preceeding the 'user' denotes that the user is in a diconnected mode of operation.
- System Action Normal operations of the STASEC command query function continue.
- User Action None.

CRIOPC03BE Locate of the station's VMBLOK failed

Module: CMDPROC Type: Station - Console

Explanation An attempt to use a station operator STASEC command to set a secondary console userid failed when the station could not locate a VMBLOK in real storage.

System Action The command is ignored.

- User Action Contact the CRI Site Analyst or installation systems personnel.
- CRIOPC03CI Relogs caused by I/O errors : 'count'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'count' is the total number of times the station has had to re-log on to the Cray computer because of errors on the interface adapter. System Action Normal operations of the STALEVEL command continue.

User Action A high number indicates either a hardware, Cray computer system, or station problem. Contact either the CRI Site Analyst or an IBM systems programming staff person.

CRIOPC03DI Interface box manufacturer: 'adapter'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'adapter' is the name of the interface adapter being used to communicate with the Cray computer.

System Action Normal operations of the STALEVEL command continue.

User Action None.

**CRIOPC03EE** The U2 parameter value is missing

Module: CMDPROC Type: Station - Console

Explanation The secondary console userid is missing on the station STASEC command.

System Action The STASEC command is rejected.

User Action The second parameter on the STASEC command must be specified. This parameter must be either a VM userid or the keyword OFF. For further information, use the command HELP CRSTAT STASEC.

CRIOPC03F1| Userid Secuser | Userid Secuser | Userid<br/>Secuser | Userid Secuser |Module: CMDPROCType: Station - ConsoleExplanationThis is a response to the station operator STASEC<br/>command.System ActionNormal operations of the STASEC command query func-<br/>tion continue.User ActionNone.

CRIOPC030I	Software time out in secs' seconds. I/O started 'secs' seconds ago
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station STALEVEL command. This message indicates that the Cray computer has not responded to a message sent to it by the VM station. 'secs' are the number of seconds remaining before the station reaches a 60-second timeout limit and re-IPLs the station nucleus from disk.

System Action Normal operations of the STALEVEL command continue.

User Action None.

CRIOPC0311 Number of hard abends: 'count'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'Count' is the number of times the VM station has abnormally terminated because of an unrecoverable software problem. The 'count' reflects the number of hard ABENDSTA calls that occurred since the station logged onto the VM system. Hard abends always cause a station relog if the station was logged onto the COS system; otherwise, a relog can not occur. The number of reported hard abends can exceed the maximum number permitted only if the abend timer expired before the maximum was reached. The station will logoff both the COS and VM system if the abend timer has not expired.

System Action Normal operations of the STALEVEL command continue.

User Action A high count indicates a station problem. Contact your local VM station support staff for assistance if a high count is reported.

CRIOPC032I Number of soft abends: 'count'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'Count' is the number of times the VM station has softly abended. A soft abend occurs when the ABENDSTA module takes a full dump but returns control to the caller instead of issuing the VM(CP)'s Initial Program Load (IPL) command to reload the station. The 'count' reflects the number of such calls to

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ABENDSTA since the station logged onto the VM system. Soft abends can cause a station relog only if the maximum number of soft abends is reached within the installation specified abend time period. The number of reported soft abends can exceed the maximum number permitted only if the abend timer has expired before the maximum is reached. The station will logoff both the COS and VM system if the abend timer has not expired.

System Action Normal operations of the STALEVEL command continue.

User Action A high count indicates a station problem. Contact you local VM station support staff for assistance if a high count is reported.

CRIOPC0331	Number	of	transfers	reported	by	STATS:	'count'

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'count' is the total number of dataset transfer recorded by the station.

System Action Normal operations of the STALEVEL command continue.

User Action None.

CRIOPC034I Number of 4K byte blocks transferred as reported by STATS:

Module: CMDPROC Type: Station - Console

Explanation This is a response to the station STALEVEL command. 'count' is the total number of 4K blocks transferred by the VM station.

System Action Normal operations of the STALEVEL command continue.

User Action None.

CRIOPC0351	Since VM logon : 'count'
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station STALEVEL command 'count' is the number of transfer or 4K blocks

	transferred since the station was logged on to the front-end system.
System Action	Normal operations of the STALEVEL command continue.
User Action	None
CRIOPC0361	Since COS logon: 'count'
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station STALEVEL command. 'count' is the total number of dataset transfers or 4K blocks transferred since the station logged on to the Cray computer.
System Action	Normal operations of the STALEVEL command continue.
User Action	None.
CRIOPC037I	The interface box is NOT timing out
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station STALEVEL command. It indicates normal status of I/O operations to the Cray computer.
System Action	Normal operations of the STALEVEL command continue.
User Action	None.
CRIOPC038I	The interface box is timing out
	Module: CMDPROC Type: Station - Console
Explanation	This is a response to the station STALEVEL command. It indicates that the Cray computer has not responded to a message sent to it by the VM station.
System Action	The station nucleus will be re-IPLed from disk if the Cray computer does not respond within 60 seconds.
User Action	None.

## CRIOPC039I A complete listing of these tables is contained within manual SI-0165

Module: CMDPROC Type: Station - Console

Explanation This is in response to the station TRTABLE command.

System Action Normal operations of the TRTABLE command continue.

User Action None directly required. You may wish to review the translation tables in the manual VM Station Messages and Codes, number SI-0165.

**CRIOPC04AE** Secondary console changes are not permitted at this installation

Module: CMDPROC Type: Station - Console

Explanation This message is in response to a STASEC command. The STASEC command was requested to change a user's secondary console status. The STASEC change feature has been disabled.

- System Action The STASEC change request is aborted. Normal operations of the station continue.
- User Action None directly available. The STASEC change feature can be enabled only by changing the station configuration file.
- CRIOPC04AE Secondary console changes are not permitted except to the station

Module: CMDPROC Type: Station - Console

Explanation This message is in response to a STASEC command. The STASEC command was requested to change a user's secondary console status. The station was generated such that the STASEC change feature has been restricted to changing only the station's secondary console status.

System Action The STASEC change request is aborted. Normal operations of the station continue.

User Action None directly available. The STASEC change feature can be enabled only by changing the station configuration file.

CRIOPC0401	+++++++
	Module: CMDPROC Type: Station - Console
Explanation	This message is in response to the station STASEC command.
System Action	STASEC command continues normal processing in QUERY mode.
User Action	None.

CRIOPC041E STCP of necessary information failed

Module: CMDPROC Type: Station - Console

Explanation An error occurred while the station was processing a station operator STASEC command. The secondary console status of the specified user could not be changed in the user's VMBLOK.

System Action The command is rejected.

User Action None.

CRIOPC042E Invalid VMBLOK chain discovered

Module: CMDPROC Type: Station - Console

Explanation An error was found while the station was processing a STASEC command. The CP VMBLOK chain is corrupted.

System Action The STASEC command is rejected.

User Action None.

CRIOPC043E Locate of 'userid' VMBLOK has failed

Module: CMDPROC Type: Station - Console

Explanation The station failed to locate the CP VMBLOK of the user-specified on the station operator STASEC command.

System Action The command is rejected.

User Action None.

CRIOPC0441	User 'user' secondary console has been changed to 'status'		
	Module: CMDPROC Type: Station - Console		
Explanation	This message is in response to the station operator STASEC command.		
System Action	None.		
User Action	None.		

CRIOPC0451	'cp message'
·	Module: CMDPROC Type: Station - Console
Explanation	A CP VMBLOK locate failed for the reason given ('cp message'). The station STASEC QUERY command has failed.
System Action	None.
User Action	None.

CRIOPC0461	'cp message'
	Module: CMDPROC Type: Station - Console
Explanation	An attempt to update a VMBLOK failed while the sta- tion was processing a station operator STASEC com- mand. The message is from CP.
System Action	The command is rejected.
User Action	None.
CRIOPC0471	Station was last IPLed on MM/DD/YY at HH:MM
	Module: CMDPROC Type: Station - Console
Explanation	This message is in response to the station STALEVEL command. The date and time that the station nucleus was last IPLed from disk is given.
System Action	None.
User Action	None.

CRIOPC048I	++
	Module: CMDPROC Type: Station - Console
Explanation	This message is in response to the station STDEVICE command.
System Action	None.
User Action	None.
CRIOPC0491	'cp response'
	Module: OPCTASK Type: Station - Console
Explanation	This is a CP response to a CRSTAT/CRSTATOP user CP subcommand.
System Action	The response is sent to the CRSTAT/CRSTATOP user's virtual machine.
User Action	None.
CRIPRO001E	Method of calling 'CRPROMPT' is unsupported
	Module: CRPROMPT Type: User - CMS command
Explanation	An unrecognized call was made to the station module CRPROMPT.
System Action	CRPROMPT returns control to the caller.
User Action	None.
	Detect 'da' from ich 'in' on 'art' for 'userid'
	stream 'sn'
	Module: PRTTASK Type: Station - Console
Explanation	This message indicates that a print dataset is being received from the Cray computer. One of the station's virtual printers is spooled to or for the CMS user indicated in the message. Also given are the COS dataset name, the COS job name, the virtual printer address, and the logical COS stream number used for the transfer. Station log message only.

System Action None.

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User Action

None.

CRIPRT0021	Dataset 'dn' printed from job 'jn'
	Module: PRTTASK Type: Station - Console
Explanation	This message is sent to the user's virtual machine with the CP MSG command indicating that the given print dataset has been sent to the VM system printer for that user. The distribution code is the same as specified in user's VM directory, the print filename is the COS dataset name, and the print filetype is LISTING. A file can be sent from COS directly to the system printer by coding a PRT=REAL in the COS DIS- POSE statement TEXT parameter.
System Action	None.
User Action	Retrieve the printed output.
CRIPRT0031	CLOSE 'prt' DIST 'dist' NAME 'fn' LISTING, 'recs' records
	Module: PRTTASK Type: Station - Console
Explanation	This message indicates the successful printing of a COS print dataset on a station virtual printer. Given are the virtual printer address, the file's distribution code, filename and filetype, and the total number of records printed. It is displayed on station log only and is used as the CP CLOSE command to close the virtual printer.
System Action	Spool file is closed and sent to user's virtual reader or sent to real VM system printer.
User Action	None.
	SPOOL 'mat' TO /FOR 'wear' GIASS 'sloop'
	Modula: DPTTASK Type: Station - Concole
	Hodule: FRITASK Type. Station - Console
Explanation	This message indicates that a print dataset is being received from the Cray computer. This is the CP SPOOL command issued before the file is actually printed. Given are the virtual printer address, the CMS userid owner of the file, and the spool file class. If the file is spooled TO the user, the file will be sent

	to that user's virtual reader when finished. If the file is spooled FOR that user, the file will be sent to the real VM system printer.
System Action	The specified virtual printer's spool status is changed as indicated.
User Action	None.
CRIPRT005E	Transfer on printer 'prt' cancelled, 'reason'
	Module: PRTTASK Type: Station - Console
Explanation	A print dataset transfer has been cancelled for one of the following reasons:
	• 'By the station operator'. A station operator issued the CANCEL command against the transfer)
	• 'By the Cray computer'. COS cancelled the transfer; either the COS KILL operator command was issued against the transfer or a failure of COS occurred.
	• 'Invalid block control word found'. Invalid data in a blocked dataset was found.
	• 'Record exceeds maximum length'. A blocked da- taset record longer than 64K was found.
	• 'Failed spool attempt'. The CP SPOOL command could not be issued at the beginning of the da-taset transfer (in this case no partial file will be sent to user).
System Action	The partial print file is closed and sent to the us- er's virtual reader with this error message as the last record. Unless the transfer was cancelled by the Cray computer, the stream is cancelled by the station.
User Action	Correct any bad data or contact operations staff for the reason that the transfer was cancelled by Cray or station operator.
CRIPRT006E	Transfer on printer 'prt' postponed, 'reason'
	Module: PRTTASK Type: Station - Console
Explanation	A print dataset transfer has been postponed for one of the following reasons:

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- 'By the Cray computer'. COS postponed the transfer either as a result of the COS operator issuing the COS DROP command against the transfer or a failure of the COS operating system.
- 'Device not ready'. The virtual device assigned to this transfer dropped the ready status that usually indicates full spool space.
- System Action The print file is closed and purged. If it is postponed because the device is not ready, a postpone is sent to the Cray computer. COS restarts the transfer after a set delay or the COS operator issues the COS RESUME command for the transfer.

User Action

CRIPRT007I TAG DEV 'prt' 'tag'

None.

Module: PRTTASK Type: Station - Console

Explanation

This message indicates the setting of CP TAG information (up to 136 characters) for a print file being received from the Cray. The virtual printer address and the TAG text are given. This message is also used as the CP TAG FILE command.

System Action The print file's CP TAG is set as specified.

User Action None.

CRIPUN0011 Dataset 'dn' from job 'jn' on 'pun' for 'userid' stream 'sn' .

Module: PUNTASK Type: Station - Console

Explanation This message indicates that a punch dataset is being received from the Cray computer. One of the station's virtual punches is spooled to or for the CMS user indicated in the message. Also given are the COS dataset name, the COS job name, the virtual punch address, and the logical COS stream number used for the transfer. Station log message only.

System Action None.

User Action None.

CRIPUN0031 CLOSE 'pun' DIST 'dist' NAME 'fn' CARDS, 'recs' records

Module: PUNTASK Type: Station - Console

- Explanation This message indicates the successful punching of a COS punch dataset on a station virtual punch. Given are the virtual punch address, the file's distribution code, filename and filetype, and the total number of records printed. It is displayed on station log only and used as the CP CLOSE command to close the virtual punch.
- System Action Spool file is closed and sent to user's virtual reader or sent to real VM system punch.

User Action None.

CRIPUN004I SPOOL 'pun' TO/FOR 'user' CLASS 'class'

Module: PUNTASK Type: Station - Console

- Explanation This message indicates that a punch dataset is being received from the Cray computer. This is the CP SPOOL command issued before the file is actually punched. Given are the virtual punch address, the CMS userid owner of the file, and the spool file class. If the file is spooled TO the user, the file will be sent to that user's virtual reader when finished. If the file is spooled FOR that user, the file will be sent to the real VM system punch.
- System Action The specified virtual punch's spool status is changed as indicated.

User Action None.

CRIPUN005E Transfer on punch 'pun' cancelled, 'reason'

Module: PUNTASK Type: Station - Console

Explanation A punch dataset transfer has been cancelled for one of the following reasons:

- 'By the station operator'. A station operator issued the CANCEL command against the transfer.
- 'By the Cray computer'. COS cancelled the transfer. Either the COS KILL operator command was issued against the transfer or a COS failure occurred.
- 'Invalid block control word found'. Invalid data in a blocked dataset was found.
- 'Record exceeds maximum length'. A blocked dataset record longer than 64K was found.
- 'Failed spool attempt'. The CP SPOOL command could not be issued at the beginning of the dataset transfer. (In this case, no partial file will be sent to user.)
- 'Invalid value in LRECL= field'. A nonnumeric or out-of-range value was coded for the LRECL option on the COS DISPOSE statement TEXT parameter. Maximum value accepted is 65535 bytes.
- System Action The partial punch file is closed and sent to the user's virtual reader with this error message as the last record. Unless the transfer was cancelled by the Cray computer, the stream is cancelled by the station.
- User Action Correct any bad data or contact operations staff for reason transfer was cancelled by Cray or station operator.
- CRIPUN006E Transfer on punch 'pun' postponed, 'reason'

Module: PUNTASK Type: Station - Console

Explanation

A punch dataset transfer has been postponed for one of the following reasons:

- 'By the Cray computer'. COS postponed the transfer either because the COS operator issued the COS DROP command against the transfer or because of a COS operating system failure.
- 'Device not ready'. The virtual device assigned to this transfer dropped the ready status, which usually indicates full spool space.
- System Action The punch file is closed and purged. If it is postponed because a device is not ready, a postpone is sent to the Cray computer. The COS operating system restarts the transfer after a set delay or the COS operator issues the COS RESUME command for the transfer.

User Action

None.

CRIPUN0071TAG DEV 'pun' 'tag'Module: PUNTASKType: Station - ConsoleExplanationThis message indicates the setting of CP TAG infor-<br/>mation (up to 136 characters) for a punch file being<br/>received from the Cray. The virtual punch address<br/>and the TAG text are given. This message is also used<br/>as the CP TAG FILE command.System ActionThe punch file's CP TAG is set as specified.User ActionNone.

CRIRDR001EUser 'user' has sent a fake RSCS TAG to the stationModule: RDRTASKType: Station - ConsoleExplanationThis message indicates that the station has received<br/>a virtual reader file from the specified CMS user,<br/>with the CP TAG for the file set in the format used<br/>by RSCS.System ActionThe routing slot entry is built as a user-defined

System Action The routing slot entry is built as a user-defined entry instead of being an RSCS routing slot entry.

User Action None.

CRIRDR0021 'type' 'name' staged to the CRAY by reader 'rdr' for 'userid', 'recs'

Module: RDRTASK Type: User - Station

- Explanation This message records that a COS job or dataset has been submitted to the Cray computer system. 'name' is either the COS jobname or the COS permanent dataset name. 'userid' denotes the VM user who submitted this job or dataset. 'rdr' indicates the virtual station virtual reader address, and 'recs' gives the number of records read in the file.
- System Action The submitting userid is informed that his job has been submitted to the CRAY computer system. Normal operations of the station continue.

User Action None.

CRIRDR003E	Transfer on RDR 'rdr' canceled by 'reason'
	Module: RDRTASK Type: Station - Console
Explanation	This message denotes that either the Cray computer computer system, the COS master operator, or the station operator cancelled the dataset transfer in progress on the specified station virtual reader.
System Action	The system terminates the current reader file trans- fer to the Cray computer system. The reader file is purged.
User Action	None.
CRIRDR004I	'job' 'jn' on reader 'rdr' from userid 'userid'
	Module: RDRTASK Type: Station - Console
Explanation	A COS job file or a COS dataset has been received in the station virtual reader 'rdr'.
System Action	The COS job or dataset is staged to the Cray computer system. The reader file is purged after successful transmission.
User Action	None.
CRIRDR0051	Transfer on RDR 'rdr' postponed by Cray
	Module: RDRTASK Type: Station - Console
Explanation	COS postponed the dataset transfer in progress on the specified station virtual reader 'rdr'.
System Action	The virtual reader file is closed, saved, and re-sent to the Cray computer after a 20-second delay.
User Action	None.
CRIRDR006E	'rdr' Reader file rejected, 'reason'
	Module: RDRTASK Type: User - Station
Explanation	A virtual reader file received by the station has been returned to the originating user because of one of the following reasons:

- 'Job card not found'. The COS JOB statement was not found as the first record in the reader file for a job file transfer (DC=IN).
- 'JN= parameter not found'. The COS JN jobname parameter was not found on the JOB statement for a job file transfer.
- 'Job name longer than seven characters' A COS jobname must be no longer than 7 characters.
- 'No job name found'. No jobname was found on the COS JOB statement JN parameter.
- 'Account card not found'. The COS ACCOUNT statement was not found anywhere in the reader file.
- 'Invalid NETDATA file'. An invalid MVS NETDATA file was received in the station virtual reader. This could be a NETDATA note file or a MVS partitioned dataset file. ;li.'NETDATA record too long'. A NETDATA file with a logical record greater than 64K bytes was found.
- System Action The reader file is closed and transferred back to the originating user's virtual reader.
- User Action This message is sent to the user's console with the CP MSG (or CP SMSG RSCS for remote users) command noting the rejected reader file.

CRISAV001E Unknown config command

Module: SAVNUC Type: Station - Configuration

Explanation An unsupported record was found when processing the configuration file after link editing. The next line is the unknown record.

System Action Processing continues.

User Action Locate the unknown record in the configuration file and correct, comment out, or delete it.

**CRISAV002E** Equal sign missing from the following:

Module: SAVNUCType: Station - ConfigurationExplanationThe correct syntax of "command=parameter" was not<br/>found. The next line is the rejected command record.

System Action The command record is ignored and processing continues.

User Action Locate the command record and correct the syntax by placing an equal sign between the command and parameter.

**CRISAV003E** Unknown parameter found on the following:

Module: SAVNUC Type: Station - Configuration

Explanation An unknown or unsupported parameter was found while processing the specified command. The next line is the rejected command.

System Action The command record is ignored and processing continues.

User Action Locate the command record and correct the error by using a valid parameter.

CRISAV004W Adapter on a byte-multiplexer channel Module: SAVNUC Type: Station - Configuration Explanation The adapter or interface was found on channel 0; this device must be on a block multiplexer channel (1-15). System Action Processing of the station configuration file continues. Code the adapter or interface to a channel between 1 User Action and 15. CRISAV005E Invalid RECUSER in interactive list Module: SAVNUC Type: Station - Configuration Explanation A RECUSER CMS userid longer than 8 characters was found in the station configuration file while processing the interactive user validation list INTERACTIVE LIST. System Action Processing of the config file continues.

User Action Locate the invalid userid and correct.

CRISAV006E	Invalid TID in interactive list
	Module: SAVNUC Type: Station - Configuration
Explanation	A TID CMS userid longer than 8 characters was found in the station configuration file while processing the interactive user validation list INTERACTIVE_LIST.
System Action	Processing of the config file continues.

User Action Locate the invalid userid and correct.

CRISAV007T NSC adapter must be specified

Module: SAVNUC Type: Station - Configuration

- Explanation The NSC adapter address was set to NONE, yet the RUN command requests that an NSC adapter be used. The next output record contains the command record being processed.
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
- User Action Locate the command record and place a valid adapter address or change the RUN command card.

CRISAV008T Total number of STREAMS over COS maximum

Module: SAVNUC Type: Station - Configuration

- Explanation The total active number of streams specified on the station config file STREAM command was greater than the maximum allowed by COS (8 input, 8 output, 16 total active).
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Use valid input, output, and total stream counts.

**CRISAV009T** FEI adapter must be specified

Module: SAVNUC Type: Station - Configuration

- Explanation The Cray adapter interface (FEI) adapter address was set to NONE, yet the RUN command requests that an FEI adapter be used. The next output record contains the command record being processed.
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
- User Action Locate the command record and place a valid adapter address or change the RUN command card.

**CRISAV010T** Invalid URBUFFER parameter value

Module: SAVNUC Type: Station - Configuration

Explanation An invalid Unit Record buffer count was coded on the station config file URBUFFER command.

- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
- User Action Locate the command record and place a valid unit record buffer count on the URBUFFER command card.
- CRISAV011T Unit check on reader, EOD card not found

Module: SAVNUC Type: Station - Configuration

- Explanation A unit check has occurred while reading the station configuration file from the reader. The unit check in this case probably means that End Of File (EOF) has occured without the EOD card being processed.
- System Action The system terminates with a disabled wait state. If the wait bit is reset and execution restarted, the error message will reappear.
- User Action The error could be either a real error on the reader or that the EOD command is not contained within your configuration file. Review your configuration file. A reader error should be considered if your configuration file is valid.

## CRISAV016T Direct Access Storage Device does not exist

Module: SAVNUC Type: Station - Configuration

Explanation The specified virtual device on the DISKACC command card does not currently exist on the executing userid (SAVENUC). The DISKACC command record is displayed following this message.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Either change the DISKACC command to reflect an existing disk, or have the executing userid define a minidisk at the specified address.

CRISAV017T DASD address must be supplied

Module: SAVNUC Type: Station - Configuration

Explanation The specified virtual device on the DISKACC command card is not of the direct access storage device (DASD) family. The DISKACC command record is displayed following this message.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Change the DISKACC command to reflect an existing direct access storage device or have the executing userid define a minidisk at the specified address.

**CRISAV018T** Error occurred while reading disk label

Module: SAVNUC Type: Station - Configuration

Explanation An I/O error was received while the specified disk's label was being read. This error could have been caused because either the DASD type is not supported or because the disk is not yet formatted as a CMS 1K blocked disk and then recomped. The DISKACC command being processed is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears. User Action Change the DISKACC command to reflect an existing formatted device or have the executing userid define and format a minidisk at the specified address.

CRISAV019T	DASD is not CMS EDF formatted
	Module: SAVNUC Type: Station - Configuration
Explanation	The specified disk has not been formatted as a CMS 1024-byte block disk. The DISKACC command being processed is displayed next.
System Action	The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Change the DISKACC command to reflect an existing formatted minidisk or have the executing userid define and format a minidisk at the specified address.

CRISAV020T Last cylinder is not available; disk is either not entirely formatted or recomped properly

Module: SAVNUC Type: Station - Configuration

Explanation The specified disk was not formatted entirely and reformatted with the RECOMP option. The DISKACC command being processed is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Specify a fully formatted and recomped minidisk in the DISKACC command.

CRISAV021TRequired parameter not found on configuration card<br/>Module: SAVNUCType: Station - ConfigurationExplanationDuring parameter scanning, a record containing no<br/>parameters was found. The record being processed is<br/>displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears. User Action Provide a parameter following the equals sign.

CRISAV022T	Required parameter not found on configuration card
	Module: SAVNUC Type: Station - Configuration
Explanation	During parameter scanning, a record containing no parameters was found. The record being processed is displayed next.
System Action	The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
User Action	Place at least one blank at the end of the config- uration card.
	RUN command must be specified
	Kon command must be specified
	Module: SAVNUC Type: Station - Configuration
Explanation	A valid RUN command was not found in the configura- tion file before the EOD command. The EOD command record is displayed next.
System Action	The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
User Action	Provide a correct RUN command card before the first EOD command.
CRISAV024T	DISKADD command must be specified
	Module: SAVNUC Type: Station - Configuration
Explanation	A valid DISKACC command was not found in the config- uration file while NUCLEUS=DISK. The EOD command record is displayed next.
System Action	The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
User Action	Provide a correct DISKACC command card or specify NUCLEUS=MEMORY.

CRISAV025T Error while writing IPL text

Module: SAVNUC Type: Station - Configuration

Explanation An I/O error was received while writing the IPL text out to 0. The EOD command record is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a read/write minidisk that has been formatted as a 1K CMS disk.

CRISAV026T Error while writing nucleus

Module: SAVNUC Type: Station - Configuration

Explanation An I/O error was received while writing the executable code (nucleus) to recomped cylinders. The EOD command record is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a read/write minidisk that has been formatted as a 1K CMS disk and then recomped.

CRISAV028T RUN=NSC and RUN=FEI both have been specified

Module: SAVNUC Type: Station - Configuration

Explanation Two or more valid RUN commands specifying different adapter types were found in the configuration file. The EOD command is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide one valid RUN command card.

CRISAV029T NSCTASK not loaded; but RUN=NSC

Module: SAVNUC Type: Station - Configuration

Explanation The link editor could not find the NSCTASK CSECT required while the RUN command requests NSC usage.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide the NSCTASK CSECT at link editing time or specify RUN=FEI.

**CRISAV030T** FEITASK not loaded; but RUN=FEI

Module: SAVNUC Type: Station - Configuration

Explanation The link editor could not find the FEITASK CSECT required while the RUN command requests FEI usage.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide the FEITASK CSECT at link editing time or specify RUN=NSC.

CRISAV031T NSC adapter address must be specified

Module: SAVNUC Type: Station - Configuration

Explanation A valid NSCADP command card was not found in the configuration file before the EOD command. This card is required because the RUN command specified NSC usage. The EOD command is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a valid NSCADP card before the first EOD command or specify RUN=FEI.

CRISAV032TFEI adapter address must be specifiedModule: SAVNUCType: Station - ConfigurationExplanationA valid FEIADP command card was not found in the

configuration file before the EOD command specified front-

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end interface (FEI) usage. The EOD command is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a valid FEIADP card before the first EOD command or specify RUN=NSC.

CRISAV034T NSCRCA can not be set to NONE

Module: SAVNUC Type: Station - Configuration

- Explanation The NSC remote Cray adapter address was set to NONE, yet the RUN command requests that an NSC adapter be used. The next output record contains the command being processed.
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
- User Action Locate the command record and insert a valid remote Cray adapter address or change the RUN command card.
- CRISAV035T NSCRCA must be specified

Module: SAVNUC Type: Station - Configuration

- Explanation A valid NSC remote Cray adapter address command was not found in the configuration file before the EOD command. This card is required because the RUN command specified NSC usage. The EOD command is displayed next.
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.
- User Action Provide a valid NSCRCA card before the first EOD command.

CRISAV037T Invali

Invalid valud found in ITDTASK

Module: SAVNUC Type: Station - Configuration

- Explanation An invalid parameter was specified on the ITDTASK command in the station configuration file.
- System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Locate the command record, and place a valid adapter address or change the ITDTASK command card.

CRISAV038T MF must be specified

Module: SAVNUC Type: Station - Configuration

Explanation A valid mainframe identifier command was not found in the configuraiton file before the EOD command. The EOD command record is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a valid mainframe identifier card before the first EOD command.

CRISAV039T CRAYID must be specified Module: SAVNUC Type: Station - Configuration

Explanation A valid CRAYID command was not found in the configuration file before the EOD command. The EOD command record is displayed next.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Provide a valid CRAYID card before the first EOD command.

CRISAV040E	Invalid class in (	DP_DIRECTORY
	Module: SAVNUC	Type: Station - Configuration
Explanation	An invalid privilo trol card while p section. Process	ede class was found on a user con- rocessing the OP_DIRECTORY contro ing continues and the user contro

statement is ignored. The next line output is the user control statement, which is in error.

System Action Station configuration file processing continues.

User Action Provide a valid class A through H on the user's control statement.

CRISAV042E

Invalid class in COMMAND LIST

Module: SAVNUC Type: Station - Configuration

Explanation An invalid privilege class was found on a command control card while processing the COMMAND\_LIST control section. Processing continues and the command control statement is ignored. The next line output is the command control statement, which is in error.

System Action Station configuration file processing continues.

User Action Provide a valid class A through H on the command control statement.

CRISAV045E Invalid NODEID in TAG LIST

Module: SAVNUC Type: Station - Configuration

Explanation A remote processor nodeid longer than 8 characters was found while processing the TAG\_LIST command in the station config file.

System Action Station configuration file processing continues.

User Action Provide valid 8-character or less remote nodeids.

CRISAV046E Invalid DC in TAG LIST

Module: SAVNUC Type: Station - Configuration

Explanation An invalid disposition code (DC) was found while processing the TAG\_LIST command in the station config file. Valid codes are PR (print), PU (punch), or \* (wildcard).

System Action Station configuration file processing continues.

User Action Provide a valid disposition code on the TAG\_LIST command card.

# CRISAV047E Invalid TAG in TAG\_LIST

	Module: SAVNUC Type: Station - Configurat	ion
Explanation	A CP TAG TEXT string of more than 60 character specified for a TAG_LIST command entry.	s was:
System Action	Station configuration file processing continue	≥s.
User Action	Provide a CP TAG string of 60 characters or le	ess.

CRISAV048E Invalid SF in TAG LIST

Module: SAVNUC Type: Station - Configuration

Explanation A special forms (SF) value greater than one character was found on a TAG LIST command entry.

System Action Station configuration file processing continues.

User Action Provide a special forms qualifier of one character only.

CRISAV049E TRACE ENTRIES set to minumum

Module: SAVNUC Type: Station - Configuration

Explanation The station configuration file specified a number less than 1,000. The minimum number of trace entries that must be allocated is 1,000.

System Action The command record is ignored, the number of entries is set to 1,000, and processing continues.

User Action Change the TRACE\_ENTRIES command to denote a request of at least x'003e8' (1,000).

CRISAV050TSTREAM parameter 'parm' is invalidModule: SAVNUCType: Station - ConfigurationExplanationAn invalid value was specified for the number of in-<br/>put, output, or total ('parm') dataset transfer<br/>streams on the station config file STREAM command.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Locate the command record and place valid stream counts for input (0-8), output (0-8), and total (0-16) parameters.

CRISAV051T Invalid NSCNSSS value Module: SAVNUC Type: Station - Configuration Explanation The number of subsegments specified was either equal to or less than 0, or greater than 15. System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears. User Action Enter a value between 1 and 15 for the NSCNSSG command. CRISAV052T Invalid FEINSSG value Module: SAVNUC Type: Station - Configuration The number of subsegments specified was equal to or Explanation less than 0, or greater than 15. System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears. User Action Enter a value between 1 and 15 for the FEINSSG command. CRISAV053E Invalid SUBSEGS value, default value used Module: SAVNUC Type: Station - Configuration Explanation An acceptable value for this command was not found. System Action The station uses a segment having only one subsegment, equal to FEINSSG/NSCNSSG times one page. SUBSEGS is set to one, the command record is ignored, and processing continues. User Action Enter the value of ONE or MULTI to suppress this error message.

#### CRISAV054E Invalid TID in TAG LIST

Module: SAVNUC Type: Station - Configuration

Explanation A CMS userid longer than 8 characters was found while processing the TAG\_LIST command in the station config file.

System Action Station configuration file processing continues.

User Action Provide a valid CMS userid (TID) value for TAG\_LIST command entries.

- CRISAV056T Total time exceeds 13 hours variance
  Module: SAVNUC Type: Station Configuration
  Explanation The total number of hours, minutes, and seconds
  specified exceeds 13 hours difference from Greenwich
  Mean Time (GMT).
  System Action The system terminates with a disabled wait state.
  If the wait bit is set and execution is restarted,
  this error message reappears.
- User Action Specify a total difference of time less than or equal to 13 hours.

CRISAV057T Invalid zone direction

Module: SAVNUCType: Station - ConfigurationExplanationA parameter other than EAST or WEST was specified.

System Action The system terminates with a disabled wait state. If the wait bit is set and execution is restarted, this error message reappears.

User Action Specify either EAST(ERN) or WEST(ERN) direction.

CRISEN001EUnable to determine VM station useridExec: CRSENDType: User - CMS commandExplanationCRSEND could not determine the default VM station<br/>virtual machine userid to which to send a file.System ActionRC = 1; CRSEND returns control to CMS.

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User Action Execute the VM station CRCHOOSE command to set the default station userid.

CRISEN003E	Invalid option 'option'
	Exec: CRSEND Type: User - CMS command
Explanation	An unknown option was specified on the CRSEND command line or found in the CRSEND \$PROFILE default file.
System Action	RC = 3; CRSEND returns control to CMS.
User Action	None.
CRISEN004E	Missing parameter to 'option'
	Exec: CRSEND Type: User - CMS command
Explanation	An option was specified on the CRSEND command line or in the CRSEND \$PROFILE default file with a missing parameter.
System Action	RC = 4; CRSEND returns control to CMS.
User Action	None.
CRISEN005E	'fileid' Profile file not found
	Exec: CRSEND Type: User - CMS command
Explanation	A CRSEND default profile file was specified on the CRSEND command line, and the PROF option was not found.
System Action	RC = 5; CRSEND returns control to CMS.
User Action	None.
CRISEN006E	'rscsid' RSCS userid is not in CP directory
	Exec: CRSEND Type: User - CMS command
Explanation	An RSCS virtual machine ID not in the local CP di- rectory was returned to CRSEND by the CMS IDENTIFY command.

System Action RC = 6; CRSEND returns control to CMS.

User Action This indicates a problem with the local VM system; report it to the CRI Site Analyst or installation systems personnel.

CRISEN007E Station 'station' not found in CP directory

Exec: CRSEND Type: User - CMS command

Explanation A VM station virtual machine ID not in the local CP directory was specifed on the CRSEND command line or read from the station default userid file.

System Action RC = 7; CRSEND returns control to CMS.

User Action Use the station CRCHOOSE command to set a valid VM station virtual machine userid.

CRISEN009E Unable to send file. DMSDDL RC = 'rc'

Exec: CRSEND Type: User - CMS command

Explanation CRSEND was unable to punch the specified file to the VM station because of a failure in CMS routine DMSDDL (NETDATA processor).

System Action RC = 9; CRSEND returns control to CMS.

User Action Contact the CRI Site Analyst or installation systems personnel.

CRISEN028E	File 'fileid' not found
	Exec: CRSEND Type: User - CMS command
Explanation	The CMS file specified on the CRSEND command line was not found.
System Action	RC = 28; CRSEND returns control to CMS.
User Action	None.

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## CRISEROOAI Beginning STASERV execution again

Exec: STASERV Type: Installation - CMS command

Explanation The STASERV installation EXEC requires that the EXEC reside on the 191 disk and that the disk be accessed with a filemode of E. The STASERV EXEC has determined that it is not executing from the E disk.

System Action STASERV execution terminates with an ACCESS 191 E and your STASERV command stacked. These commands are stacked so that your STASERV execution continues but in the proper manner. A return code of 99 is displayed prior to the ACCESS command being executed.

User Action None.

CRISER001E Error rewinding tape, Please mount and attach the correct tape

Exec: STASERV Type: Installation - CMS command

Explanation A tape drive was not attached as 181, or the installation tape was not mounted and the drive made ready.

System Action STASERV execution stops.

User Action Make sure that a tape drive is attached as 181 and that the installation tape is mounted and the drive is made ready. Restart the STASERV exec.

CRISER002A Do you want to load the station's listings? (-Yes-| No | Exit )

Exec: STASERV Type: Installation - CMS command

Explanation You are being asked if you want to load the assembly listings (as assembled by CRI) to the 4CF disk.

System Action Execution continues based on your response to the message.

User Action

Make the proper response to continue.

CRISER002EError updating "191 E" disk - Support program diskExec: STASERVType: Installation - CMS commandExplanationAn error occurred while accessing the 191 disk or<br/>while loading the support files and programs to 191.System ActionSTASERV execution stops.

User Action Make sure you have write access to 191 and that the disk is formatted. Make the necessary corrections, and restart the STASERV exec.

CRISER003A Do you wish to assemble the station now or later? (-Now- | Later | Exit)

Exec: STASERV Type: Installation - CMS command

- Explanation At this point you are given the opportunity to assemble the station now or to postpone that processing until another session.
- System Action The STASERV exec continues normal operation based on your response.

User Action Type the desired response to continue processing.

CRISER003E Error updating "294 B" disk - Update file disk

Exec: STASERV Type: Installation - CMS command

Explanation An error occurred while accessing the 294 disk or while loading the update files to 294.

System Action STASERV execution stops.

- User Action Make sure you have write access to 294 and that the disk is formatted. Make the necessary corrections, and restart the STASERV exec.
- CRISER004EError updating "394 C" disk Source diskExec: STASERVType: Installation CMS commandExplanationAn error occurred while accessing the 394 disk or<br/>while loading the source files to 394.System ActionSTASERV execution stops.

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User Action Make sure you have write access to 394 and that the disk is formatted. Make the necessary corrections, and restart the STASERV exec.

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CRISER005EError updating "4C6 H" disk - Online help diskExec: STASERVType: Installation - CMS commandExplanationAn error occurred while accessing the 4C6 disk or<br/>while loading the online help files to 4C6.System ActionSTASERV execution stops.User ActionMake sure you have write access to 4C6 and that the<br/>disk is formatted. Make the necessary corrections,<br/>and restart the STASERV exec.

CRISER006E Error updating "4C8 M" disk - Online manual disk Exec: STASERV Type: Installation - CMS command

Explanation An error occurred while accessing the 4C8 disk or while loading the online manuals to 4C8.

System Action STASERV execution stops.

User Action Make sure you have write access to 4C8 and that the disk is formatted. Make the necessary corrections, and restart the STASERV exec.

CRISER007ETape or printer error while finding SIB memoExec: STASERVType: Installation - CMS commandExplanationAn error occurred while scanning the installation<br/>tape for the SIB memo, or while attempting to load<br/>the memo to disk, or while printing the memo.System ActionSTASERV execution stops.User ActionCorrect the problem and restart the STASERV exec.

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CRISER008E	Error updating "4CF N" disk - Online listing disk
	Exec: STASERV Type: Installation - CMS command
Explanation	An error occurred while accessing the 4CF disk or while loading the online listings to 4CF.
System Action	STASERV execution stops.
User Action	Make sure you have write access to 4CF and that the

disk is formatted. Make the necessary corrections, and restart the STASERV exec.

CRISER009I This tape does not contain station listings

Exec: STASERV Type: Installation - CMS command

Explanation The installation tape does not contain the station assembly listings.

System Action STASERV execution continues.

User Action None.

**CRISIPOOCE** Performance enhancement 01 not available

Module: SIP Type: Station - Console

Explanation The CP command 'SET QDROP station userid OFF USERS' returned a nonzero completion code. This message assumes the reason for a nonzero return code is that the station does not have class A privilege.

System Action Execution of the station continues normally.

User Action Class A privilege for the station should be considered if a moderate or heavy VMCF load is expected. VMCF use is generated through the use of station CRINT, CRDISK, and CRSTAT commands. If you receive this message and class A is set ON, contact the CRI Site Analyst or installation system support.

CRISIPOODIPerformance enhancement 01 enabledModule: SIPType: Station - ConsoleExplanationThe CP command 'SET QDROP station userid OFF USERS'<br/>completed correctly. This improves performance where

VMCF communications is involved between the VM station and CMS user virtual machines.

System Action None.

User Action None.

CRISTA00AI 8 LCP = 'ltrace'

Exec: STARTSTA Type: Startup - CMS command

Explanation This message follows CRISTA001I and denotes the IPL status of the station's LCP tracing feature. The value for LCP (ltrace) can be specified either directly through the IPL command or through the STARTSTA station initialization EXEC.

System Action Normal station initialization procedures continue.

User Action None.

CRISTA00BI The IPL command to be used is:

Exec: STARTSTA Type: Startup - CMS command

Explanation The message is displayed to prepare you for the message CRISTA00CI. CRISTA00CI will display the VM(CP) Initial Program Load (IPL) command, which will start the station's execution.

System Action The STARTSTA station initialization EXEC will display the message CRISTA00CI next.

User Action None.

CRISTA00CI CP IPL 'vaddr' CLEAR PARM 'run' 'trace' 'mf' 'rca' 'adp' 'lcp

Exec: STARTSTA Type: Startup - CMS command

Explanation This message displays the VM(CP) Initial Program Load (IPL) command, which will be used to start the station's execution. You will have a chance to change any of the stated parameters.

System Action The station message CRISTA00DA will be issued next.

User Action None.

CRISTA00DA	Are	these	parameters	correct?	(-Yes-	No	Exit	)
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Exec: STARTSTA Type: Startup - CMS command

- Explanation This message permits you to accept or change the VM(CP) Initial Program Load (IPL) command, which will be used to start the execution of the VM station. You can also use the key word EXIT to terminate the station initialization process. This message is used in conjuction with the messages CRISTA00BI and CRISTA00CI.
- System Action The response is processed.
- User Action Respond with Yes, No, or Exit.

CRISTA00EE Invalid line number 'num' entered

Exec: STARTSTA Type: Startup - CMS command

Explanation An invalid line number was entered in response to the CRISTA00FA message.

System Action Normal initialization processing continues. The message CRISTA00FA will be reissued.

User Action Enter a valid line number or the keyword EXIT to the CRISTA00FA message.

CRISTA00FA Enter line number of variable you wish to change or EXIT

Exec: STARTSTA Type: Startup - CMS command

Explanation This message permits you to specify the IPL command parameters you wish to modify. EXIT terminates the STARTSTA station initialization EXEC.

System Action The system processes your reply as required.

User Action Enter either a valid line number or EXIT.

CRISTA001E File ''fn' CONFIG \*' not found

Exec: STARTSTA Type: Startup - CMS command

Explanation This message means that either the default station configuration file (STATION CONFIG) or the file specified by STARTSTA's parameter was not found.

System Action Station initialization procedures return control to CMS with RC=3333.

User Action The STARTSTA station initialization EXEC must have a station configuration file. The station configuration file can be designated by either a STARTSTA parameter or by using the default station configuration file (STATION CONFIG).

- CRISTA0011The following parameters will be used on IPLExec: STARTSTAType: Startup CMS commandExplanationThis message specifies messages with IPL parameters<br/>that are passed to the station during initialization.System ActionNormal station initialization procedures continue.User ActionNone.
- CRISTA002E Configuration file can not be found IPLing 191 as default

Exec: STARTSTA Type: Startup - CMS command

Explanation This message means that the station's configuration file could not be obtained. The STARTSTA station initialization EXEC will be using the station defaults set at station generation time (STAGEN EXEC). The station defaults are used by STARTSTA by simply IPLing 191 without any parameters.

System Action Normal initialization of the station continues for the previously discussed error recovery conditions.

User Action None.

CRISTA003ERUN parameter can not be determinedExec: STARTSTAType: Startup - CMS commandExplanationThe STARTSTA station initialization EXEC could not<br/>file the station configuration command, RUN, in the<br/>file designated as the station configuration file.

The station configuration file is designated by either the STARTSTA user via the parameter list or by default as the file STATION CONFIG. System initialization through STARTSTA usage is ter-System Action minated with a CMS RC=1012. Supply a valid station configuration file to User Action STARTSTA. CRISTA0031 Using configuration file 'fn' Exec: STARTSTA Type: Startup - CMS command This message denotes the filename of the station Explanation configuration file that is used to help initialize the VM station. The filetype of a station configuration file is CONFIG. System Action Normal station initialization continues. User Action Ensure that the correct station configuration is being processed. CRISTA0041 1 DEVADD = 'vaddr' Exec: STARTSTA Type: Startup - CMS command Explanation This message follows CRISTA001I and identifies the IPL status of the virtual address ('vaddr') from which the station is IPLed. The value for DEVADD is specified from the station configuration file, which the STARTSTA station initialization EXEC is processing. Normal station initialization procedures continue. System Action User Action None. CRISTA0051 2 RUN = 'itype' Type: Startup - CMS command Exec: STARTSTA Explanation This message follows CRISTA001I and denotes the IPL status of the interface task that the station uses during its execution. The value for RUN is specified from the station configuration file, which the

STARTSTA station initialization EXEC is processing.<br/>The possible values for 'itype' are NSC and FEI.System ActionNormal station initialization procedures continue.User ActionNone.

CRISTA006I 3 ADP = 'vaddr'

## Exec: STARTSTA Type: Startup - CMS command

Explanation This message follows CRISTA001I and denotes the IPL status of adapter address, which the station uses during its execution. The value for ADP is specified from the station configuration file that the STARTSTA station initialization EXEC is processing. The possible values for 'vaddr' are any valid virtual address on a block multiplexer channel.

System Action Normal station initialization procedures continue.

- User Action None.
- CRISTA007I 4 TRACE = 'trace'

Exec: STARTSTA Type: Startup - CMS command

Explanation This message follows CRISTA001I and denotes the event tracing status that the station uses during its execution. The value for TRACE is specified from the station configuration file, which the STARTSTA station initialization EXEC is processing. The possible values for 'trace' are ON and OFF.

System Action Normal station initialization procedures continue.

User Action None.

CRISTA008I	5 MFID = $'mf'$	
	Exec: STARTSTA Type: Startup - CMS command	
Explanation	This message follows CRISTA001I and denotes the station's mainframe identifier. The value for MFII is specified from the station configuration file that the STARTSTA station initialization EXEC is processing.	D at s-

System Action	Normal station initialization procedures continue.
User Action	None.
CRISTA0091	7  NSCRCA = 'rca'
	Exec: STARTSTA Type: Startup - CMS command
Explanation	This message follows CRISTA001I and identifies the Network System adapter address of the Cray computer system with which the station will communicate. The value for NSCRCA is specified from the station con- figuration file that the STARTSTA station initial- ization EXEC is processing.
System Action	Normal station initialization procedures continue.
User Action	None.
CRISTA010A	Enter data for 'num' field or EXIT
	Exec: STARTSTA Type: Startup - CMS command
Explanation	This message permits you to change an IPL parameter. You may reply to this message with either the keyword EXIT or the new data for the IPL parameter. The keyword EXIT will cause the STAGEN station initial- ization EXEC to terminate without starting the station's execution.
System Action	The STAGEN EXEC processes your reply.
User Action	Enter data for the specified IPL parameter, or type EXIT.
CRISUB001E	Unable to determine station userid
	Exec: CRSUBMIT Type: User - CMS command
Explanation	The default VM station virtual machine ID could not be determined.
System Action	RC = 1; CRSUBMIT returns control to CMS.
User Action	Use the station CRCHOOSE command to set the default station virtual machine ID.

CRISUB002E	File 'fileid' not found
	Exec: CRSUBMIT Type: User - CMS command
Explanation	The CMS file specified on the CRSUBMIT command line was not found.
System Action	RC = 28; CRSUBMIT returns control to CMS.
User Action	None.
CRISUB003E	Station 'station' not found in CP directory
	Exec: CRSUBMIT Type: User - CMS command

Explanation The specified VM station virtual machine ID given on the CRSUBMIT STAT option was not found in the local CP directory.

System Action RC = 3; CRSUBMIT returns control to CMS.

User Action Contact the CRI Site Analyst or installation systems personnel to determine the VM station virtual machine ID.

CRISUB004EA filemode of '\*' is not validExec: CRSUBMITType: User - CMS commandExplanationA CMS filemode of '\*' was specified on the CRSUBMIT<br/>command line.System ActionRC = 4; CRSUBMIT returns control to CMS.User ActionNone.

CRITAP00AE Unit check on 'vdev' Sense='sense'

Module: TAPTASK Type: Station - Console

- Explanation An unexpected unit check I/O error occurred on virtual tape device 'vdev' while reading or writing a tape dataset. The I/O sense bytes are given. A problem exists with the tape drive or the tape.
- System Action The tape I/O operation is attempted again with a CP diagnose operation. If this fails, the dataset transfer is postponed.

User Action When COS starts the dataset transfer again, a different tape or tape drive should be used. Contact the CRI Site Analyst or installation systems personnel.

CRITAP00BEPermanent I/O error on 'vdev'Module: TAPTASKType: Station - ConsoleExplanationAn unrecoverable I/O error other than a unit check<br/>occurred while reading or writing a tape dataset.<br/>There is a problem with the physical tape drive or<br/>the tape.

System Action The dataset transfer is postponed.

User Action When COS starts the transfer again, a different tape or tape drive should be used. Contact the CRI Site Analyst or installation systems personnel.

**CRITAPOOCE** Transfer on 'vdev' postponed

Module: TAPTASK Type: Station - Console

Explanation The dataset transfer active on virtual tape drive 'vdev' has been postponed by the station because of an unrecoverable I/O error.

System Action A postpone stream control is sent to COS and the tape drive is detached from the station virtual machine.

User Action When COS starts the transfer again, a different tape or tape drive should be used.

CRITAP00DE Transfer on 'vdev' canceled, by 'by'

Module: TAPTASK Type: Station - Console

Explanation The dataset transfer in progress on virtual tape drive 'vdev' has been canceled by either the VM station operator, the Cray Operating System (COS), or the COS master operator as indicated.

System Action The tape drive is detached from the station virtual machine.

User Action None.

CRITAP00EE	Tape 'vdev' Not Ready
	Module: TAPTASK Type: Station - Console
Explanation	The virtual tape drive 'vdev' is no longer in a ready status. The station is unable to read or write to the tape.
System Action	The dataset transfer in progress is postponed, and the tape drive is detached from the station virtual machine.
User Action	COS will restart the dataset transfer. Contact the CRI Site Analyst or installation systems personnel.
CRITAP001A	COS job 'jn' JSQ 'jsq' requesting tape drive, attach to 'station' as 'vdev'
	Module: UEXTAPE Type: Station - Console
Explanation	This message is sent to the VM system operator con- sole with CP MSG command indicating a station tape drive request. A tape drive should be attached to the VM station virtual machine 'station' as virtual device 'vdev'. Also given are the dataset transfer's associated COS job name 'jn' and job sequence number 'jsq'.
System Action	The station issues this message every 3 minutes until the tape drive is attached or the dataset transfer is cancelled.
User Action	Attach a tape drive to the station virtual machine as requested.
CRITAP002A	COS job 'jn' JSQ 'jsq' requesting tape VOLID= 'volid' on 'vdev' (TID='tid', PDN='pdn') 'ring'
	Module: UEXTAPE Type: Station - Console

Explanation This is the message sent to VM system operator console with CP MSG command requesting the operator to mount the specified tape. 'volid' is either the tape's volume ID as given by the user or the word SCRATCH if no volumne ID is given. Also given are the dataset transfer's associated COS job name 'jn', the job sequence number 'jsq', the job terminal ID 'tid', and the permanent dataset name 'pdn'. If the dataset is being written (disposed) to tape, 'ring' will indicate the request for a write ring on the mounted tape. System Action The station issues this message every 3 minutes until the proper tape is mounted or the dataset transfer is cancelled.

User Action Mount the requested tape.

CRITAP003I Transfer on 'vdev' completed 'status'

Module: TAPTASK Type: Station - Console

Explanation This is the message sent to the system operator console with CP MSG command and user's COS job log, indicating the successful or unsuccessful completion of a dataset transfer on virtual tape drive 'vdev'.

System Action The tape drive is detached from the station virtual machine.

User Action None.

CRITAP004A Tape on 'vdev' needs a ring

Module: TAPTASK Type: Station - Console

Explanation This message is sent to VM system operator console with CP MSG command, indicating that the tape mounted for a dataset dispose does not have a write ring.

System Action The tape is unloaded by the station and mount message CRITAP002A is issued until the requested tape is properly mounted.

User Action Add a write ring to the tape and remount it.

CRITAP008I Transfer on 'vdev' of 'nn' files, 'recs' records, has completed

Module: TAPTASK Type: Station - Console

- Explanation This message indicates successful completion of a tape dataset transfer on virtual tape drive 'vdev'. Given are the number of files read or written ('nn') and the total number of records read or written ('recs').
- System Action The tape drive is detached from the station virtual machine.

User Action None.

CRITAP0091	Records skipped = 'nn' ,less than 12 bytes
	Module: TAPTASK Type: Station - Console
Explanation	This message gives the number of records not written to tape during a dataset dispose because they were less than the minimum tape block size allowed (12 bytes). This could occur only with character or bi- nary blocked datasets.
System Action	The dataset transfer is performed.
User Action	Take note that data has been lost.
CRITAP010A	'user message'
	Module: TAPTASK Type: Station - Console
Explanation	This is an additional message sent to the VM system operator console when a tape mount request is re- quested. The text of this message is specified by the user on the COS DISPOSE or ACQUIRE statement TEXT parameter (OPMSG option).
System Action	The station issues this message every three minutes until the tape drive is attached and the proper tape is mounted by the operator.
User Action	This message could contain additional tape mount in- structions.
CRITAP020E	Tape 'vdev': Standard IBM tape label error
	Module: TAPTASK Type: Station - Console
Explanation	A standard format IBM tape label was not found on the tape mounted on virtual drive 'vdev'. The option LB=SL was specified on the COS DISPOSE or ACQUIRE statement TEXT parameter.
System Action	This message is sent to the VM system operator con- sole as well as the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is reissued to the VM system operator console.

User Action Mount th

CRITAP021E Tape 'vdev': Standard IBM tape label found, no label specified

Module: TAPTASK Type: Station - Console

Explanation A standard IBM tape label record was found on a tape that was mounted for a dataset transfer in which the user specified the LB=NL option (non-labelled tape) on the COS DISPOSE or ACQUIRE statement TEXT parameter.

- System Action This message is sent to the VM system operator console and the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is reissued to the system operator console.
- User Action Mount the proper nonlabelled tape on the specified tape drive.
- CRITAP022E Tape 'vdev': Tape label read error

Module: TAPTASK Type: Station - Console

Explanation The station was unable to read the first record of the mounted tape while inspecting for a tape label.

System Action This message is sent to the VM system operator console and the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is reissued.

User Action Mount the proper tape or cancel the dataset transfer.

CRITAP023E Tape 'vdev': File identifier mismatch

Module: TAPTASK Type: Station - Console

- Explanation The file identifier found on the mounted tape did not match the identifier specified by the user on the COS ACQUIRE or FETCH statement. This applies only to a standard IBM labelled tape.
- System Action This message is sent to the VM system operator console and the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is reissued to the operator console.
User Action Mount the proper tape.

CRITAP024E	Tape 'vdev': Volumne serial ID mismatch
	Module: TAPTASK Type: Station - Console
Explanation	The mounted tape did not have the same volume serial ID on the label as that specified by the user on the COS DISPOSE or ACQUIRE statement.
System Action	This message is sent to the VM system operator con- sole and to the user's COS job log. The tape is un- loaded by the station and a mount message for the proper tape is issued to the system operator console.
User Action	Mount the proper tape.

CRITAP025E Tape 'vdev': End-of-File or End-of-Tape

Module: TAPTASK Type: Station - Console

- Explanation The end of tape was sensed while attempting to read a tape label record or while file spacing forward.
- System Action This message is sent to the VM system operator console and the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is issued to the system operator console.
- User Action Mount the proper tape.
- CRITAP026E Tape 'vdev' Error writing tape label

Module: TAPTASK Type: Station - Console

- Explanation An error was encountered while trying to write a standard label record on the mounted tape.
- System Action This message is sent to the VM system operator console and to the user's COS job log. The tape is unloaded by the station and a mount message for the proper tape is issued to the system operator console.
- User Action This indicates a possible problem with the tape being used.

**CRITDD00AE** Unsupported return code 'rc' from DEBLOCK

Module: CRITDLCP Type: User - CMS command

- Explanation This message denotes that the module DEBLOCK exited with a return code which is not supported by the CRDISK command.
- System Action An unsupported return code from DEBLOCK causes your dataset transfer to be cancelled. The CRDISK command terminates and returns control back to CMS with an RC=10.
- User Action This message should never be displayed even with a supported DEBLOCK return code. Please contact your local VM station support staff for assistance.
- CRITDD00BE Error 'num' occurred during memory deallocation

Module: CRITDD Type: User - CMS command

- Explanation This message indicates that an error occurred when the CRDISK command attempted to return a block of memory to the common CMS storage pool. 'Num' denotes the CMS error code that was given to the CRDISK command by the standard CMS interface, DMSFRET. The possible values and their associated meanings are as follows:
  - 02 Internal user CMS storage pointers have been corrupted. This failure occurred because a user or system program was written to either an allocated or unallocated memory block which is not owned by the offending program.
  - 03 Internal nucleus CMS storage pointers have been corrupted. This failure occurred because a user or system program has written into either an allocated or unallocated memory block which is not owned by the offending program.
  - 04 Improper memory parameter size requested. This failure can occur for two possible reasons. First, the memory size requested (DWORDS parameter) was either zero or negative. Second, the minimum size (MIN parameter) specified a memory size greater than the initial size request, specified by DWORDS.
  - 05 Improper memory parameter size provided. This failure indicates that the memory size (DWORDS parameter) specified during memory deallocation was either zero or negative.

- 06 Improper memory location address given. This failure indicates that the memory block designated for deallocation was never allocated.
- 07 Improper memory location address given. This failure indicates that the memory block designated for deallocation is invalid because the address is not evenly divisable by eight.
- 09 Unsupported error returned to DMSFREE by a CMS support routine. This failure indicates that a CMS routine returned control to another CMS routine with an unexpected, nonprogrammed, and unexplainable error.
- System Action The CRDISK command terminates its deallocation process and returns control to the CMS system. RC=11 is given to the CMS system.

User Action Review the 'num' specified by the error message.

**CRITDDOOCE** PARSE failure, 'description'

Module: CRITDSH Type: User - CMS command

- Explanation This message indicates that the TEXT field associated with this dispose is unreadable because of 'description'. 'description' can be one of the following:
  - Syntax error in TEXT field.
  - Ambiguous text field keyword supplied.
  - Unsupported PARSE error has occurred. An internal error has occurred while examining your supplied TEXT field.
- System Action The CRDISK command is terminated by returning control to the CMS system. A return code of 12 is presented to the CMS system upon CRDISK termination. The associated dataset transfer is cancelled.
- User Action You must correct the TEXT field associated with your dataset transfer and then reissue the dispose.
- CRITDD00DE Text parameter 'parm' has an invalid value of 'value' Module: CRITDSH Type: User - CMS command

Explanation This message indicates that the TEXT field parameter 'parm' has an invalid value of 'value'. Valid text field parameter values can be determined by reviewing the CRDISK help file (issue the command HELP CMS CRDISK).

System Action The TEXT field is illegal. The transfer is cancelled because a text field can not be changed at this point. The CRDISK command terminates by returning control to the CMS system with RC=13.

User Action Review the syntax of the CRDISK TEXT field.

CRITDD00EE 'type' disk can NOT be used because: 'description'

Module: CRITDSH Type: User - CMS command

- Explanation This message indicates that the disk specified by the 'type' message field has been found to be unacceptable for CRIDSK processing. The possible values for 'type' are 'Input' and 'Output'. The value 'Input' denotes the filemode or minidisk specified by either the IFM or IADDR text field parameter. The value 'Output' denotes the filemode or minidisk specified by either the FM or ADDR text field parameter. The disk is unacceptable because of the message field 'description'. The possible vaules for 'description' are:
  - No CMS read/write disks are available
  - No CMS filemodes are available
  - Specified VADDR does not exist
  - Requested file is already active
  - Minidisk is read/only
  - Requested disk is not accessed
  - Requested disk is OS formatted
  - Requested disk is a DOS disk
- System Action Errors associated with a 'type' of 'Input' will cause the error message CRITDD00FW to be displayed stating that the input file is unavailable for usage. CRDISK will continue processing the user's data.

Errors assocated with a 'type' of 'Output' will cause the transfer to be postponed in order to permit you to correct the situation. The CRDISK will terminate execution by returning control to the CMS system. A return code of 14 will be passed to the CMS system.

User Action None directly required if the error was on the input disk. Your transfer is being continued. Your transfer is being postponed if the error displayed concerns the output disk.

CRITDD00FW	Requested	input	file	not	found

Module: CRITDSH Type: User - CMS command

- Explanation The specified input file was not found. Input file specification is through the IFN, IFT, IFM, and IVADDR text field parameters.
- System Action Normal operations of CRDISK continue without the specified input file being processed.
- User Action Ensure that valid input file specifications are given on future CRDISK disposes. You will have to use the CMS command COPYFILE for now to append any files to your CRDISK file.

CRITDD001E Unsupported option ''option''

Module: CRITDD Type: User - CMS command

- Explanation The option you specified is not currently supported by the CRDISK command.
- System Action The CRDISK command terminates and returns control to the CMS system with RC=1.
- User Action None directly possible. Please review the help file on CRDISK by issuing the command HELP CMS CRDISK.

CRITDD002E VMCF error 'rc' occurred

Module: CRITDD Type: User - CMS command

Explanation This message denotes that a Virtual Machine Communication Facility (VMCF) error occurred while attempting to receive a Link Control Package (LCP) from the VM station. The possible values for 'rc' are:

- 01 The buffer address or length was invalid.
- 02 The receive function code was invalid.
- 03 Improper protocol sequence.
- 04 The CRDISK command has not been authorized to use VMCF.
- 05 VM userid specified is not currently logged on.
- 06 Improper storage specified.
- 12 Message from the VM station does not exist.
- 13 Protocol sequence error.
- 15 VM/CP has received a paging I/O error.
- 16 Receive buffer length is insufficient.
- 17 Receive buffer will destroy send buffer.

System Action The CRDISK command terminates and returns control to the CMS system with an RC=2.

User Action None directly possible.

CRITDD003E Stream time out has occurred

Module: CRITDD Type: User - CMS command

Explanation This message indicates that a preset time limit has expired without an LCP being received from the VM station. This situation can occur prior to or after CRDISK has established communications with a VM station. This message will always be displayed if a VM station, which is not logged on to either VM or COS, is designated as your communicating station.

System Action The CRDISK command terminates and return control to the CMS system with aN RC=3.

User Action None.

CRITDD004E Station or Cray master operator 'type' the transfer

Module: CRITDD Type: User - CMS command

- Explanation This message indicates that your dataset dispose has been terminated by either a station or a Cray master operator. The 'type' field denotes the method of 'Type' can be either termination of your dataset. cancel or postpone. A cancelled dataset will not be retransmitted at a later time because the Cray computer system dequeues the DISPOSE request. A temporary file that is cancelled is lost forever. A postponed dataset will be retransmitted at a later time by the Cray computer system. The amount of time between the message and the retransmission is variable. A temporary file is not lost forever if your transfer has been postponed, unless the Cray computer system can not recover the dataset.
- System Action The CRDISK command terminates and returns control to the CMS system. An RC=62 is used if the transfer has been postponed by either the station or the Cray computer system. An RC=61 is used if the transfer has been cancelled by either a station operator, the Cray computer system, or the COS master operator.
- User Action Redispose the dataset. It may have to be recreated. For a dataset that has been postponed, you should

reissue the CRDISK command when the intertask dispose connection message appears.

CRITDD005E	Deblocking buffer is insufficient
	Module: CRITDLCP Type: User - CMS command
Explanation	This message denotes that a data record was discov- ered while processing your dataset, which is longer than can be handled by the CRDISK command. This error states that your COS application created a data re- cord longer than the space allocated for it by the CRDISK command. The CRDISK command allocates a de- blocking buffer of 61,140 bytes.
System Action	Your dataset transfer is cancelled. The CRDISK com- mand terminates by returning control to the CMS sys- tem with an RC=5.
User Action	Attempt to have your COS application create smaller records. If your data records are already shorter than the deblocking buffer, contact your local VM station support staff for assistance.
CRITDD006E	Error 'num' occurred during memory allocation
	Module: CRITDD Type: User - CMS command
Explanation	This message indicates that an error occurred when the CRDISK command attempted to obtain a block of CMS free storage. 'Num' denotes the CMS error code that was given to the CRDISK command by the standard CMS interface, DMSFREE. The possible values and their associated meanings are as follows:
	<ul> <li>Not enough CMS free storage is available to satisfy your request.</li> <li>Internal user CMS storage pointers have been corrupted.</li> <li>Internal nucleus CMS storage pointers have been corrupted.</li> <li>Improper memory parameter size requested.</li> <li>Unsupported error returned to DMSFREE by a CMS support routine.</li> </ul>
System Action	The CRDISK command terminates its initialization process and returns control to the CMS system. An RC=6 is given to the CMS system.

User Action Review the 'num' specified by the error message.

## **CRITDD007E** Invalid control word found during deblock call

Module: CRITDLCP Type: User - CMS command

- Explanation The message denotes that an unsupported or improperly placed Cray Operating System disk file control word was discovered while processing your dataset. The error states that your COS disk file has not been properly formatted on the Cray computer system. This error can be either a user application or COS problem. The CRDISK command does not provide any assistance in determining the position of the control word in question.
- System Action Your dataset transfer is cancelled. The CRDISK command terminates and returns control to the CMS system with an RC=7.
- User Action You should review the validatity of your Cray computer system disk file. For further assistance, contact your support staff.
- CRITDD008E Problem commicating with CRAY; Dispose to disk interrupted

Module: CRITDD Type: User - CMS command

- Explanation This message indicates that the VM station and Cray computer system you are currently using have broken their connection with one another. The connection could have been broken for several reasons that are unrelated to your current dataset dispose.
- System Action The CRDISK command terminates and returns control to the CMS system with an RC=8.
- User Action Be prepared to restart the CRDISK command when the connection between your designated VM station and Cray computer system is restored. A Cray computer system always attempts to recover your dataset so it can be retransmitted. Your COS dataset will be retransmitted in its entirety if it is recovered.
- CRITDD009E No data created after DEBLOCK call; use DF=TR instead of DF=BB or CB

Module: CRITDLCP Type: User - CMS command

Explanation This message indicates that the DEBLOCK module could not find any Cray Operating System control words in your dataset. A dataset without COS control words must be disposed using a data format (DF) of transparent (TR). Your COS DISPOSE command specified a data format of binary blocked (BB). A binary blocked dataset must have COS control words contained within it.

System Action The CRDISK command returns control to the CMS system with an RC=9. Your dataset is cancelled because it can not be processed by the VM station.

User Action The dataset must be recreated. A dataset with COS control words can be disposed using any data format. A transparent data format must be specified if your dataset does not have COS control words.

CRITDD01AE Error writing output file. 'description'

Module: CRITDCPY Type: User - CMS command

Explanation This message indicates that an error has occurred when the CRDISK command attempted to copy either your existing file or input file. 'description' further explains the condition.

System Action CRDISK terminates operations by returning control to the CMS operating system. An RC=26 is given to the CMS system. Your COS dataset transfer is postponed.

User Action Your action must be based upon the specific failure that occurred.

CRITDD01B1Number of bytes copied to temporary workspace:<br/>'bytes'Module: CRITDCPYType: User - CMS commandExplanationThis message reports the number of bytes written to<br/>the file 'CRITDD CMSUT1'. it is generated when an<br/>original file is being appended or when an input file<br/>is being processed.System ActionNormal operations of the CRDISK command continue.User ActionNone.

**CRITDD01CI** Copying 'type' file to temporary workspace

Module: CRITDCPY Type: User - CMS command

- Explanation This message indicates that an existing file is being copied to the temporary file 'CRITDD CMSUT1'. A temporary file is used so that in case of error, the original file is not destroyed. The field 'type' denotes the type of original file that is being copied. A value of 'original' designates that the output file already existed and is therefore being appended to by your COS dataset. A value of 'input' designates that you specified an input file to be processed with your COS dataset.
- System Action Normal operations of the CRDISK command continue. The specified file will be placed into the temporary workspace and named CRITDD CMSUT1.

User Action None.

CRITDD01DE Error writing COS file. 'description'

Module: CRITDLCP Type: User - CMS command

- Explanation This message indicates that an error has occurred when the CRDISK command attempted to write your COS dataset to disk. 'description' further explains the error condition.
- System Action CRDISK terminates operations by returning control to the CMS operating system. An RC=29 is given to the CMS system.

The COS dataset transfer is postponed if one of the following 'descriptions' is true:

- Unrecoverable (permanent) disk error has occurred
- Writing to a file on a read only disk
- The disk at the specified filemode is full
- Insufficient memory available to continue write operation
- Insufficient free storage is available for file management
- Updating a formatted record with an invalid length parameter

For all other 'descriptions', the transfer is cancelled.

User Action Your action must be based upon the specific failure that occurred.

# **CRITDD01EE** Error 'rc' occurred during RENAME of CRITDD CMSUT1 to your requested output file

Module: CRITDD Type: User - CMS command

Explanation An error occurred while the temporary working file CRITDD CMSUT1, which resides on your output disk, was being renamed. The error was returned to CRDISK by the CMS command RENAME. 'rc' is the return code given by RENAME.

System Action The CRDISK command returns control to CMS with RC=30, Your dataset transfer has completed; your file is most likely in the temporary working file call 'CRITDD CMSUT1' on the disk specified by your TEXT field and displayed when CRDISK was executed.

User Action Please consult the necessary IBM documentation to resolve this problem.

CRITDD01FE

VMCF error 'rc' occurred

Module: CRITDLOG Type: User - CMS command

Explanation This message indicates that a Virtual Machine Communication Facility (VMCF) error occurred while attempting to send a logfile message. The logfile message was being transmitted to the COS job associated with the dispose. The possible values for 'rc' and their meanings are as follows:

- 01 The buffer address or length was invalid.
- 02 The send function code was invalid.
- 04 The CRDISK command has not been authorized to use VMCF.
- 05 Station is not currently logged onto the VM system.
- 08 Duplicate usage of an active message number.
- 09 Station has QUIESCEd.
- 10 Maximum number of outstanding VMCF send has been reached.
- 15 VM/CP has received an paging I/O error.
- 18 Unauthorized usage of the PRIORITY feature.

System Action The CRIDSK command terminates execution by returning control to the CMS system. An RC=21 is given to the CMS system. The CRDISK does not attempt to postpone or cancel the dataset because a communication path with the station no longer exists. The station will postpone the transfer when it determines that you are no longer communicating.

User Action

None.

**CRITDD010E** Error accessing 'fm' disk. Access RC = 'rc'

Module: CRITDSH Type: User - CMS command

- Explanation An error occurred while the disk specified by 'type' was being accessed. The error was returned to CRDISK from the CMS command ACCESS in response to either an ADDR or IADDR TEXT field parameter. 'rc' is the return code given by ACCESS to CRDISK.
- System Action Errors associated with a 'type' of 'Input' cause the error message CRITDD00FW to be displayed stating that the input file is unavailable for usage. CRDISK continues processing the data.

Errors associated with a 'type' of 'Output' cause the transfer to be postponed so that you can correct the situation. CRDISK returns control to CMS with RC=16.

User Action Consult the necessary IBM documentation to resolve this problem.

**Note:** The CRDISK command uses a variable amount of virtual memory for deblocking and output buffer support. The amount of virtual memory is based on the amount of free storage available when the CRDISK command is executed. If RC=104, access your required

CRITDD011E Output file already exists. Transfer has been 'type' as requested

Module: CRITDSH Type: User - CMS command

Explanation This message indicates that your CRDISK output file already exists. The CRDISK command has referred to your REP text field parameter to decide the proper disposition of your COS dataset. The default is to append your COS dataset to the existing file. The default has not been requested in this situation. Two possible values exist for 'type' of disposition in this situation: cancelled and postponed.

> A cancelled request causes the dispose request to be dequeued from the COS SCP dispose queue. A temporary dataset that has been cancelled is lost. A postponed request causes the dispose request to be tryed at a later time by the COS system. A temporary dataset that has been postponed is not lost unless the COS system is dead started (COLD start).

System Action The CRDISK command terminates execution by returning control to the CMS system. An RC=1171 is given to CMS when the dataset transfer has been cancelled.

An RC=1172 is given to CMS when the dataset transfer has been postponed.

User Action None directly required. The CRDISK command has processed this dispose as you requested through the dispose's TEXT field.

**CRITDD012E** Error reading translation file. 'description'

Module: CRITDSH Type: User - CMS command

Explanation A CMS system error occurred while the translation table you specified (with TRTBL in the TEXT field) was being read. The CMS system return code is explained by 'description'.

System Action The CRDISK command returns control to CMS with RC=18. The dataset transfer being processed is postponed.

User Action Refer to the IBM CMS Command and Macro Reference guide for assistance.

**CRITDD013I** Text field parameters with overrides:

Module: CRITDSH Type: User - CMS command

Explanation This message indicates the TEXT field parameters that the CRDISK will use in processing your COS dataset. be located.

System Action Normal operations of the CRDISK command continue. The TEXT field parameters will be displayed next to message CTDD014I. This message may also be sent to the associated COS job executing on the Cray computer system.

User Action

CRITDD014I 'text field parameters'

None.

Module: CRITDSH Type: User - CMS command

Explanation This message indicates the current status of all CRDISK TEXT field parameters.

System Action Normal CRDISK operations continue. This message will be sent to the associated COS job if the IMSG parameter has been turned ON.

User Action None.

CRITDD015E Not enough free memory. Please increase your storage size

Module: CRITDD Type: User - CMS command

Explanation This message indicates that the CRDISK command was not able to obtain enough CMS free storage to begin its execution. The CRDISK command requires that at least 752K of CMS free storage be available during CRDISK's initialization.

System Action The CRDISK command terminates by returning control to the CMS system. RC=21 is given to the CMS system.

User Action The CRDISK must have at least 752K of free CMS storage. This storage is memory that is available for general user programs. Examples of programs that use free storage are ACCESS, XEDIT, ASSEMBLE, CRDISK, and CRSTAT, etc.

> To correct this problem, either release currently allocated memory by releasing accessed disks or increase the virtual storage size by using the CP DE-FINE STORAGE command. Contact your local IBM/VM system support staff if these suggestions do not solve the problem.

CRITDD0161Dataset format is 'df'<br/>Module: CRITDSHType: User - CMS commandExplanationThis informational message provides the COS dataset<br/>format that CRDISK uses to process your transfer.System ActionNormal operations of the CRDISK command continue.User ActionNone.

CRITDD017EError erasing CMSUT1 file. 'description'Module: CRITDSHType: User - CMS commandExplanationAn error has occurred while CRDISK was attempting to<br/>clear its temporary working file (CRITDD CMSUT1) so<br/>that your current dataset transfer could be proc-

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essed. 'description' further explains the error condition.

System Action The CRDISK command returns control to CMS with RC=23. The dataset transfer is postponed.

User Action Erase the working file CRITDD CMSUT1.

CRITDD018E Invalid output file. 'description'

Module: CRITDSH Type: User - CMS command

Explanation This message indicates that the file specified by your FN, FT, FM, or VADDR is invalid. 'description' further explains the error condition.

System Action The CRDISK command returns control to CMS with RC=24.

User Action Your action is based upon the value presented by the 'description' field.

**CRITDD019E** Error reading base file. 'description'

Module: CRITDCPY Type: User - CMS command

Explanation A CMS system error has occurred while your original or input file was being read from the specified disk. The CMS system return code is explained by 'description'.

System Action The CRDISK command returns control to CMS with RC=25. The dataset transfer being processed is postponed.

User Action Refer to the IBM CMS Command and Macro Reference guide for assistance.

CRITDG10AE VMCF error 'num' occurred

Module: GRAPHLOG Type: User - CMS command

Explanation A VMCF SEND function error occured while using CRGRAPH. CRGRAPH was performing a logfile activity at the time of the error. The error code number 'nn' is reviewed in the IBM manual System Programmer's Guide in the section about CP Virtual Machine Communication Facility (VMCF)

- System Action The CRGRAPH command attempts to continue normal operations of CRAY graphics. The logfile request is not sent to the station (or CRAY computer system).
- User Action Note the error number and contact the CRI Site Analyst or IBM system programming staff.

CRITDG100E Unsupported option ''option''

> Module: CRITDG Type: User - CMS command

- Explanation This message indicates that the option you specified is not currently supported by the CRGRAPH command.
- System Action The CRGRAPH command terminates and returns control to the CMS system with an RC=100.
- User Action None directly possible. Please review the help file concerning CRGRAPH, which you can access by issuing the command HELP CMS CRGRAPH.
- CRITDG101E VMCF error 'rc' occurred

Module: CRITDG Type: User - CMS command

- Explanation This message denotes that a Virtual Machine Communication Facility (VMCF) error occurred while attempting to receive a Link Control Package (LCP) from the VM station. The possible values for 'rc' and their assocated meanings are:
  - 01 The buffer address or length was invalid.
  - 02 The recieve function code was invalid.
  - 03 Improper protocol sequence.
  - 04 The graphics command has not been authorized to use VMCF.
  - VM userid specified is not currently logged on. 05
  - 06 Improper stroage specified.
  - 12 Message from the VM station does not exist.
  - 13 Protocol sequence error.
  - 15 VM/CP has received a paging I/O error.
  - 16 Receive buffer length is insufficient.
  - 17 Receive buffer will destroy send buffer.

System Action The graphics command returns control to the CMS system with RC=101.

User Action

None.

#### CRITDG102E Stream time out has occurred

Module: CRITDG Type: User - CMS command

Explanation This message indicates that a preset time limit has expired without a LCP being received from the VM station. This situation can occur before or after CRGRAPH has established communications with a VM station. This message will always be displayed if a VM station that is not logged on to either VM or COS is designated as your communicating station.

System Action The CRGRAPH command terminates and returns control to the CMS system with RC=102.

User Action

Check the status of the station you have designated to communicate with before you designate this as an abnormal condition.

#### CRITDG103E

Station or Cray master operator 'type' the transfer

Module: CRITDG Type: User - CMS command

Explanation

This message indicates that your graphics dispose was terminated by either a station or Cray master operator. The 'type' field denotes the method of termination of your dataset. 'Type' can be either cancel or postpone. A cancelled dataset will not be retransmitted at a later time because the Cray computer system dequeues the DISPOSE request. A temporary file that is cancelled is permanently lost. A postponed dataset will be retransmitted at a later time by the Cray computer system. The amount of time between the message and the retransmission is variable. A temporary file is not permanently lost if your transfer has been postponed, unless the Cray computer system can not recover the dataset.

System Action The CRGRAPH command terminates and returns control to the CMS system. An RC=62 is used if the transfer was postponed by either the station or the Cray computer system. An RC=61 is used if the transfer was cancelled by either a station operator, the Cray computer system, or the COS master operator.

User Action

Redispose the dataset.

**CRITDG104E** Deblocking buffer is insufficient

Module: GRAPHLCP Type: User - CMS command

- Explanation The message denotes that a data record was discovered while processing your dataset, which is longer than can be handled by your VM station graphics program. This error states that your COS graphics application created a data record that is longer than the space allocated for it by the VM station graphic program. The CRGRAPH program allocates a deblocking buffer of 61,140 bytes.
- System Action The graphics transfer is cancelled. The graphics routine returns control to the CMS system with an RC=104.
- User Action Try to have your COS graphics application create smaller records. If your data records are already shorter than the deblocking buffer, contact your local VM station support staff for assistance.
- CRITDG106E Invalid control word found during deblock call

Module: GRAPHLCP Type: User - CMS command

- Explanation The message denotes that an unsupported or improperly placed Cray Operating System disk file control word was discovered while processing your dataset. The error states that your COS disk file has not been properly formatted on the Cray computer system. This error can be either a user application or COS problem. The VM station graphics command does not provide any assistance in determining the position of the control word in question.
- System Action Your graphics transfer is cancelled. The graphics routine returns control to the CMS system with an RC=106.
- User Action Review the validity of your Cray computer system disk file. Contact your support staff for assistance.
- CRITDG107E Problem communicating with CRAY; Graphic dispose interrupted

Module: CRITDG Type: User - CMS command

Explanation This message indicates that the VM station and Cray computer system you are currently using have broken their connection with one another. The connection could have been broken for several reasons that are unrelated to your current graphic dispose.

System Action The CRGRAPH command terminates and returns control to the CMS system with an RC=107.

User Action Be prepared to restart CRGRAPH when the connection between your designated VM station and Cray computer system is restored. A Cray computer system always attempts to recover your dataset so it can be retransmitted. Your COS dataset is retransmitted in its entirety if it is recovered.

CRITDG108E No data created after DEBLOCK call; use DF=TR instead of DF=BB

Module: GRAPHLCP Type: User - CMS command

Explanation This message indicates that the DEBLOCK module could not find any Cray Operating System control words in your dataset. A dataset without COS control words must be disposed using a data format (DF) of transparent (TR). Your COS DISPOSE command specified a data format of binary blocked (BB). A binary blocked dataset must have COS control words contained within it.

- System Action The graphics routine returns control to the caller with an RC=108. The graphics dataset is cancelled because it can not be processed by the VM station. The CRGRAPH command when used with this routine returns control to the CMS system with an RC=108.
- User Action The dataset must be recreated. A graphic dataset with COS control words must be disposed with a binary blocked data format. A transparent data format must be specified if the graphic dataset does not have COS control words.

CRITDG109E Unsupported return code 'rc' from DEBLOCK

Module: GRAPHLCP Type: User - CMS command

Explanation This message denotes that the module DEBLOCK exited with a return code that is not supported by your graphics program.

System Action An unsupported return code from DEBLOCK caused your graphics transfer to be cancelled. The graphics program returns control back to CMS with RC=109.

User Action This message should never be displayed, even for a supported DEBLOCK return code. Please contact your local VM station support staff for assistance.

CRIUSR0011	Your userid is 'userid' - You are on terminal 'raddr'
	Module: USERIDB Type: Installation - CMS command
Explanation	This message informs you of your current userid and the real address 'raddr' of your terminal. The USERID module and EXEC are used during station in- itialization and generation.
System Action	Normal return to CMS occurs with RC=0.
User Action	None.

## 2 STATION ABEND CODES

This section provides explanations of an possible recovery techniques for the VM station abend codes. The codes are listed alphabetically according to source module, and numerically within each module.

The information presented here is also available online through the CMS HELP facility. To get help on a particular abend code, issue the command "HELP code ABEND", where "code" is one of the character strings that appear in boldface in this section. For example, to get help on the first abend code described here, enter "HELP ABEND ABENDS01".

ABENDS01	Module:	ABENDSTA	Type:	HARD
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Explanation An ABENDSTA call specified both a return address of 0 and a type of soft.

Action

The ABENDSTA macro which called the first abend should be checked for proper syntax. The RETURN parameter has a default value of 0, which should be used only when TYPE=HARD is coded. Two possibilities exist if the ABENDSTA macro has been correctly coded:

- The ABENDSTA module has incorrectly processed the abend call.
- The original calling module has destroyed the ABENDSTA macro data areas.

AULTASO1 Module: AULTASK Type: HARD

Explanation The station has lost the ability to autolog other VM users (DC=IN disposes) because one of the following

is true:The CP AUTOLOG command resulted in a return code of 115, which means that excessive bad passwords

were specified on autolog requests.

• The UEXAUL module either did not exist or set a nonzero return code.

The UEXAUL user exit routine attempts to reset the bad password count in its own VMBLOK so autolog requests can continue to be made. The station logs off from the VM system after dumping virtual memory. Action This abend is a normal event if an installation does not use the CRAY UEXAUL module. The UEXAUL module requires the VM privilege class C to update its own VMBLOK.

## CCLOCK01 Module: CCLOCK Type: HARD

Explanation A cancel timer request was made for a Clock Comparator Request Block (CRB) that is currently active. The Clock Comparator Block could not be found on either the SVTCLKQ queue or the currently active Task Control Block's event queue.

Action The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.

## CCLOCK02 Module: CCLOCK Type: HARD

- Explanation A cancel timer request was made for a Clock Comparator Request Block (CRB) that is currently active. The Clock Comparator Block could not be found on the SVTCLKQ queue. A valid task control block address does not exist in the CRB's CRBTCB field.
- Action The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.
- CTIMER01 Module: CTIMER Type: HARD
- Explanation A cancel timer request was made for an Interval Timer Request Block (TRB) that is currently active. The Interval Timer Block could not be found on either the SVTCLKQ queue or on the currently active Task Control Block's event queue.
- Action The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.

CTIMER02Module:CTIMERType:HARDExplanationA cancel timer request was made for an Interval Timer<br/>Request Block (TRB) that is currently active. The<br/>Interval Timer Block could not be found on the<br/>SVTCLKQ queue. A valid task control block address<br/>does not exist in the CRB's CRBTCB field.

Action The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.

#### DSKTASO1 Module: DSKTASK Type: HARD

Explanation The station has lost the ability to acquire data from minidisks because one of the following is true:

- The CP LINK command set a return code of 115 (excessive number of invalid passwords during this logon session).
- The UEXLINK module either did not exist or set a nonzero return code.

The station logs off from the VM system after dumping virtual memory.

Action This abend is a normal event if an installation does not use the CRAY UEXLINK module. The UEXLINK module requires the VM privilege class C to update its own VMBLOK.

DSKTAS02 Module: DSKTASK Type: HARD

Explanation A minidisk spanned record error has occurred. The station read a spanned record larger than the maximum record length found in the minidisk file's status table (FST).

Action This indicates a either problem with a CMS user's minidisk file system or a disk drive hardware failure. Contact the Cray Site Analyst or installation systems personnel. Explanation DSKTASK failed to find the user-specified translate table indicated in the TRTABLE option of the COS AC-QUIRE or FETCH TEXT field. The TRTABLE value given on the COS statement is screened in station executive routine GETDEV when the station allocates a disk task for the dataset transfer. This abend indicates that this check was not performed properly.

Type:

HARD

Module: DSKTASK

Action A problem exists in the station software logic. Contact the Cray Site Analyst or installation systems personnel.

#### FEITASO1 Module: FEITASK Type: HARD

DSKTAS03

Explanation This abend denotes that the station failed to properly IPL from disk during a relog operation. The IPL routine (ABNIPL) is called from FEITASK through a BALR instruction if an I/O error occurs while writing or reading from the Front-end Interface adapter.

## Action No specific action suggested. The problem could lie in three different areas:

- The IPL command used by ABNIPL (ABENDSTA module). The command itself resides in the SVT. The command could have been corrupted.
- The IPL program loaded by CP at location X'20000'.
- The station nucleus (IPL track) could have been corrupted or improperly created.

FEITAS02 Module: FEITASK Type: HARD

Explanation An error LCP message was received from COS. The error is related to the COS/SCP protocol. The message is resent to COS a maximum of 5 times before the abend is taken.

Action The error is indicated in the station console by the error message number CRIFEI00FE. This error code is documented in the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042. The station's internal tracing table can be used to determine the sequence by which the SCP protocol was violated. The problem can reside within COS. FEITASO3 Module: FEITASK Type: HARD

Explanation An attempt was made to send the Cray more than the maximum number of subsegments specified at station logon time. This abend can occur only when multi-subsegment support is being used.

Action The problem is most likely related to a programming error in a station task that builds dataset segments or synchronous requests to be sent to the Cray. Check the type of LCP being sent and then check the originating task code.

#### FEITASO4 Module: FEITASK Type: HARD

Explanation An LCP message that was read from COS did not contain an expected value in one of the following LCP fields:

- Front-end system ID -- a message was received for another station.
- Message number -- A message from COS was received out of sequence.
- Action This indicates either a problem with COS or with the Cray Front-eEnd Interface (FEI) hardware. Contact the Cray Site Analyst or installation systems personnel.

FEITAS09 Module: FEITASK Type: HARD

Explanation The count of active output streams (to COS) was decremented to less than zero. A violation in the COS SCP stream control protocol may have occurred.

Action The VM station internal trace table may give an indication of the protocol violation. Contact the Cray Site Analyst or installation systems personnel.

**FREEM 01** Module: FREEM Type: HARD

Explanation The length parameter passed in register 0 was 0.

Action This situation can occur for two reasons: either the FREEM macro was improperly coded or the caller improperly determined the length. The caller can be determined by reviewing register 14.

FREEM 02 Module: FREEM Type: HARD

Explanation An attempt was made by a station task to free a block of unallocated storage. The storage block identifer header should be marked (X'9A',CL3'GVN').

Action This situation can occur for three reasons:

- 1. The FREEM macro was improperly coded.
- 2. If the storage location pointed to by register 2 is marked X'9A', CL3'FRE', this storage block is being deallocated twice.
- 3. If the storage location is not marked as above, the allocating module or another module has over written the storage identifier. The calling module is pointed to in register 14.

FREEM 03 Module: FREEM Type: HARD

Explanation The length coded on the FREEM call does not agree with that found in the storage block's header information set when the block was allocated.

Action This situation can occur for two reasons: either the FREEM macro was improperly coded or the caller improperly determined the length. The caller can be determined by reviewing register 14. Contact the Cray Site Analyst or installation systems personnel.

FREEM 04 Module: FREEM Type: HARD

Explanation During a call to free a block of storage, validation of the free storage chain indicated overlapping free storage blocks.

Action Station virtual memory has been corrupted, possibly by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel.

FREEM 05 Module: FREEM Type: HARD

Explanation During a call to free a block of storage, validation of the free storage chain indicated overlapping free storage blocks. Action

Station virtual memory has been corrupted, possibly by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel.

FREEM 06 Module: FREEM Type: HARD

Explanation The length parameter passed in register 0 was 0. The length should be specified in pages.

Action This situation can occur for two reasons: either the FREEM macro was improperly coded or the caller improperly determined the length. The caller can be determined by reviewing register 14.

FREEM 07 Modul	e: FREEM Typ	be: HARD
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Explanation During validation of the free storage chain, the end of chain marker was not found.

Action This indicates a station virtual memory problem, possibly caused by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel.

**FREESTO1** Module: FREESTG Type: HARD

Explanation The length parameter passed in register 0 was 0.

Action This situation can occur for two reasons: either the FREESTG macro was improperly coded or the caller improperly determined the length. The caller can be determined by reviewing register 14.

**FREESTO2** Module: FREESTG Type: HARD

Explanation An attempt was made by a station task to free a block of unallocated storage. The storage block identifer header should be marked (X'9A',CL3'GVN').

Action This situation can occur for three reasons:

1. The FREESTG macro was improperly coded.

- 2. If the storage location pointed to by register 2 is marked X'9A', CL3'FRE', this storage block is being deallocated twice.
- 3. If the storage location is not marked as above, the allocating module or another module has over written the storage identifier. The calling module is pointed to in register 14.

## **FREEST03** Module: FREESTG Type: HARD

- Explanation The length coded on the FREESTG call does not agree with that found in the storage block's header information set when the block was allocated.
- Action This situation can occur for two reasons: either the FREESTG macro was improperly coded or the caller improperly determined the length. The caller can be determined by reviewing register 14. Contact the Cray Site Analyst or installation systems personnel.

FREESTO4 Module: FREESTG Type: HARD

Explanation During a call to free a block of storage, validation of the free storage chain indicated overlapping free storage blocks.

Action Station virtual memory has been corrupted, possibly by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel.

FREEST05Module:FREESTGType:HARD

Explanation During a call to free a block of storage, validation of the free storage chain indicated overlapping free storage blocks.

Action Station virtual memory has been corrupted, possibly by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel. FREEST07 Module: FREESTG Type: HARD

Explanation During validation of the free storage chain, the end of chain marker was not found.

Action This indicates a station virtual memory problem, possibly caused by a memory overlay error. Contact the Cray Site Analyst or installation systems personnel.

GETM\_01 Module: GETM Type: HARD

Explanation A storage allocation request failed because the station reached its limit of virtual memory.

Action This indicates one of two situations:

- The station was operating normally but without enough virtual memory defined to satisfy all buffer needs. Define more virtual memory for the station virtual machine for normal operation.
- The station software is not functioning correctly. Contact the Cray Site Analyst or installation systems personnel.

GETM_02	Module: GETM Type: HARD
Explanation	During validation of the station's free storage chain, the end of chain marker was not found.
Action	This indicates a station virtual memory problem, possibly caused by a storage overlay error. Contact the Cray Site Analyst or installation systems per- sonnel.

GETM\_03 Module: GETM Type: HARD

- Explanation While GETM attempted to allocate a page boundary block of free storage, an error occurred adjusting a suitable storage block down to an even page size.
- Action The GETM macro may have been coded incorrectly. Contact the Cray Site Analyst or installation systems personnel.

GETSTG01 Module: GETSTG Type: HARD

Explanation A storage allocation request failed because the station reached its limit of virtual memory.

Action ' This indicates one of two situations:

- The station was operating normally but without enough virtual memory defined to satisfy all buffer needs. Define more virtual memory for the station virtual machine.
- The station software is not functioning correctly. Contact the Cray Site Analyst or installation systems personnel.

GETSTG02 Module: GETSTG Type: HARD

Explanation During validation of the station's free storage chain, the end of chain marker was not found.

Action This indicates a station virtual memory problem, possibly caused by a storage overlay error. Contact the Cray Site Analyst or installation systems personnel.

**GETSTG03** Module: GETSTG Type: HARD

Explanation While GETSTG attempted to allocate a page boundary block of free storage, an error occurred adjusting a suitable storage block down to an even page size.

Action The GETSTG macro may have been coded incorrectly. Contact the Cray Site Analyst or installation systems personnel.

HALT 01 Module: HALT Type: HARD

- Explanation The HALT routine was unable to determine the I/O operation's real device address. The HALT routine issued a CP QUERY VIRTUAL device command that failed.
- Action The virtual device may have been detached from the station virtual machine. Contact the Cray Site Analyst or installation systems personnel.

HALT 02 Module: HALT Type: HARD

Explanation

A nonzero return code was returned from an attempt to issue the CP HALT command to a station I/O device.

Action The virtual device may have been detached from the station virtual machine. Contact the Cray Site Analyst or installation systems personnel.

**IOINT 01** Module: IOINT Type: HARD

Explanation

During an I/O restart operation, the device or channel was busy and no channel restart queue entry exists.

Action At dump time, register 2 indicates the busy virtual device address and register 1 points to its station Unit Control Block (UCB). Check the status of the device hardware and the Unit Control Block state. Contact the Cray Site Analyst or installation systems personnel.

IOINT 02 Module: IOINT Type: HARD

Explanation During an I/O restart operation, the Control Unit Busy flag in the Channel Status Word (CSW) is set and no control unit restart queue exists.

IOINT 01 Module: IOINT Type: HARD

Explanation During an I/O restart operation, the device or channel was busy and no channel restart queue entry exists.

Action At dump time, register 2 indicates the busy virtual device address and register 1 points to its station Unit Control Block (UCB). Check the status of the device hardware and the Unit Control Block state. Contact the Cray Site Analyst or installation systems personnel. ITDTAS01 Module: ITDTASK Type: HARD

Explanation The intertask dispose task could not find its Task Control Block (TCB) in the System Vector Table (SVT).

Action Contact the Cray Site Analyst or installation systems personnel.

ITDTAS02 Module: ITDTASK Type: SOFT

Explanation The station user exit routine UEXITD01 returned an unknown return code. The intertask dispose transfer is cancelled and station execution continues.

Action Examine the user exit routine UEXITD01.

TIDIAS03
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Module: ITDTASK Type: HARD

Explanation A valid dataset segment LCP was not found to send to the receiving user's virtual machine. This indicates a failure in the intertask dispose task (ITDTASK) double LCP buffering scheme.

Action Contact the Cray Site Analyst or installation systems personnel.

ITDTAS04 Module: ITDTASK Type: HARD

Explanation

More dataset segment LCPs have been received from COS than the intertask dispose task allows. This could have been caused by one of the following:

- An unsolicated LCP arrived from the station interface task.
- An extra call to ITDTASK routine LCPRTNF occurred.

Action

Contact the Cray Site Analyst or installation systems personnel.

ITDTAS05Module:ITDTASKType:HARDExplanationA failure in the intertask dispose task (ITDTASK)<br/>dataset segment LCP double buffering scheme has oc-<br/>curred. A VMCF to the user virtual machine must be<br/>outstanding for both LCP buffers to be active.ActionContact the Cray Site Analyst or installation systems

ITDTAS06 Module: ITDTASK Type: SOFT

personnel.

Explanation A datast header LCP was received after a station or COS operator cancelled the active dataset transfer. The transfer is cancelled and station execution continues.

Action Contact the Cray Site Analyst or installation systems personnel.

ITDTAS07 Module: ITDTASK Type: HARD

- Explanation A failure in the intertask dispose protocol with the user's virtual machine has occurred.
- Action Contact the Cray Site Analyst or installation systems personnel.

NSCTAS01 Module: NSCTASK Type: HARD

- Explanation This denotes that the station failed to properly IPL from disk during a relog operation. The IPL routine (ABNIPL) is called from NSCTASK through a BALR instruction if an I/O error occurs while writing or reading from the Front-end Interface adapter.
- Action No specific action is suggested. The problem could lie in three different areas:
  - 1. The IPL command used by ABNIPL (ABENDSTA module). The command itself resides in the SVT. The command could have been corrupted.
  - 2. The IPL program loaded by CP at location X'20000'.
  - 3. The station nucleus (IPL track) could have been corrupted or improperly created.

NSCTASO2 Module: NSCTASK Type: HARD

Explanation An error LCP message was received from COS The error is related to the COS/SCP protocol. The message is resent to the Cray a maximum of 5 times before the abend is taken.

Action The error is indicated in the station console by the error message number CRINSCOOFE. This error code is documented in the COS Front-end Protocol Internal Reference Manual, CRI publication SM-0042. The station's internal tracing table can be used to determine the sequence by which the SCP protocol was violated. The problem can reside within COS.

NSCTAS04 Module: NSCTASK Type: HARD

Explanation

An LCP message that was read from COS did not contain an expected value in one of the following LCP fields:

- Front-end system ID -- a message was received for another station.
- Message number -- A message from COS was received out of sequence.
- Action This indicates either a problem with COS or with the NSC HYPERchannel (NSC) adapter hardware. Contact the Cray Site Analyst or installation systems personnel.

NSCTAS09 Module: NSCTASK Type: HARD

- Explanation The count of active output streams (to COS) was decremented to less than zero. A violation in the COS SCP stream control protocol may have occurred.
- Action The VM station internal trace table may give an indication of the protocol violation. Contact the Cray Site Analyst or installation systems personnel.

PGMINTOAModule:PGMINTType:HARDExplanationA decimal overflow exception occurred within the<br/>station.ActionThe program old PSW (at address X'28') points to the<br/>instruction immediately following the one that caused<br/>the abend. General registers can be found at address

X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINTOB** Module: PGMINT Type: HARD

Explanation A decimal divide execption occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINTOC** Module: PGMINT Type: HARD

Explanation An exponent overflow exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINTOD** Module: PGMINT Type: HARD

Explanation An exponent underflow exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

#### **PGMINTOE** Module: PGMINT Type: HARD

Explanation A significance exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel. **PGMINTOF** Module: PGMINT Type: HARD

Explanation A floating-point divide exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

## **PGMINT00** Module: PGMINT Type: HARD

Explanation An unknown 370 program interrupt occurred. This is a fatal error and indicates a hardware or CP failure.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

## **PGMINT01** Module: PGMINT Type: HARD

Explanation An operation exception occurred within the station.

- Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.
- **PGMINT02** Module: PGMINT Type: HARD

Explanation A privileged operation exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.
**PGMINT03** Module: PGMINT Type: HARD

Explanation An execute exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

#### **PGMINT04** Module: PGMINT Type: HARD

Explanation A protection exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

#### **PGMINT05** Module: PGMINT Type: HARD

Explanation An addressing exception occurred within the station.

- Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.
- **PGMINT06** Module: PGMINT Type: HARD

Explanation A specification exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT07** Module: PGMINT Type: HARD

Explanation A data exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

PGMINT08 Module: PGMINT Type: HARD

Explanation A fixed-point overflow exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT09** Module: PGMINT Type: HARD

Explanation A fixed-point divide exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT10** Module: PGMINT Type: HARD

Explanation A segment translation exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT11** Module: PGMINT Type: HARD

Explanation A page translation exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT12** Module: PGMINT Type: HARD

Explanation A translation specification exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**PGMINT13** Module: PGMINT Type: HARD

Explanation A special operation exception occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

PGMINT40 Module: PGMINT Type: SOFT

Explanation A monitor event occurred within the station.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

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PGMINT80 Module: PGMINT Type: SOFT

Explanation A program event record (PER) interrupt occurred within the station. The station continues execution.

Action The program old PSW (at address X'28') points to the instruction immediately following the one that caused the abend. General registers can be found at address X'180'. Contact the Cray Site Analyst or installation systems personnel.

**POST 01** Module: POST Type: HARD

Explanation An illegal station Task Control Block (TCB) has been posted to the station dispatcher.

Action The station module issuing the post can be determined by reviewing the SVC old PSW (at address X'20') and the SVC register save area (at address X'140'). Contact the Cray Site Analyst or installation systems personnel.

**POST 02** Module: POST Type: HARD

Explanation An illegal station event has been posted to the station dispatcher.

Action The station module issuing the post can be determined by reviewing the SVC old PSW (at address X'20') and the SVC register save area (at address X'140'). Contact the Cray Site Analyst or installation systems personnel.

PRTTAS01 Module: PRTTASK Type: HARD

Explanation An invalid translate table name (TRTABLE) has been specified in the COS DISPOSE statement TEXT field.

Action The station executive routine GETDEV normally screens the TRTABLE value and cancels the dispose if an invalid name is specified. This did not occur. Contact the Cray Site Analyst or installation systems personnel. PUNTASO1 Module: PUNTASK Type: HARD

Explanation An invalid translate table name (TRTABLE) has been specified in the COS DISPOSE statement TEXT field.

Action The station executive routine GETDEV normally screens the TRTABLE value and cancels the dispose if an invalid name is specified. This did not occur. Contact the Cray Site Analyst or installation systems personnel.

RDRTASO1 Module: RDRTASK Type: HARD

Explanation An unspecified error occurred while reading the first block of a virtual reader spool file.

Action Check the return code from the DIAGNOSE X'14' against the current VM/SP System Programmer's Guide, IBM publication SC19-6203. The general registers can be found at address X'180'.

SCHEDU01 Module: SCHEDULE Type: HARD

Explanation An invalid event block was posted to the station task scheduling routine.

Action The station module that scheduled the event can be determined by insepcting the old SVC PSW (at address X'20') and the general registers at address X'140'.

SCLOCK01 Module: SCLOCK Type: HARD

Explanation A start timer request was made for a Clock Comparator Request Block (CRB) that was already active.

Action The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.

STIMER01Module:STIMERType:HARDExplanationA start timer request was made for a Timer Control<br/>Block (TRB) that was already active.

Action

The module that attempted to start the timer block and the timer block address can be determined by inspecting the old SVC PSW at address x'20' and the SVC register save area at address x'140'.

Cray Site Analyst or installation systems personnel.

SVCINTFFModule:SVCINTType:HARDExplanationAn unused SVC code was encountered by the station.<br/>The station logs off from the VM system.ActionThe SVC old PSW at address x'20' can be used to de-<br/>termine the invalid SVC code called. Contact the

SVCINT01 Module: SVCINT Type: HARD

Explanation An unknown SVC code was issued within the station.

Action The SVC old PSW at address x'20' can be used to determine which module issued the unknown SVC code. Contact the Cray Site Analyst or installation systems personnel.

SVCINT02	Module:	SVCINT	Type:	HARD
3 V C I N I 02	nouure.	DYUINI	Type.	nand

Explanation The maximum number of outstanding supervisor calls has been exceeded.

Action The SVC old PSW at address x'20' and SVC event trace table entries (if active) can be used to determine the SVC calls. Contact the Cray Site Analyst or installation systems personnel.

SVCINTO3 Module: SVCINT Type: HARD

Explanation The calculated number of outstanding supervisor calls has become negative.

Action The SVC event trace entries (if active) can be used to determine the cause of the bad SVC return count. Contact the Cray Site Analyst or installation systems personnel.

TAPTAS01Module:TAPTASKType:HARD

Explanation An invalid translate table name (TRTABLE) has been specified in the COS DISPOSE statement TEXT field.

Action The station executive routine GETDEV normally screens the TRTABLE value and cancels the dispose if an invalid name is specified. This did not occur. Contact the Cray Site Analyst or installation systems personnel.

TRACE FF Module: TRACE Type: SOFT

Explanation An unknown station internal trace code was encountered. Station virtual memory is dumped and control is returned to the calling module.

Action Contact the Cray Site Analyst or installation systems personnel.

UEXCAR01 Module: UEXCARD Type: HARD

Explanation An error occurred while spool file blocks were being read during JOB and ACCOUNT card validation.

Action Examine the condition code and return code from in the IBM publication System Programmer's Guide, order number SC19-6203. Contact the Cray Site Analyst or installation systems personnel.

UEXDSR01 Module: UEXDSRDR Type: SOFT

An invalid or unsupported return code was received Explanation from user exit routine UEXCARD while a station virtual reader file was being processed.

Action This may indicate a programming error in the station user exit routines UEXCARD or UEXDSRDR made by the installation. Contact the Cray Site Analyst or installation systems personnel.

WAIT_01 Modul	e: WAIT T	Ype: HARD
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Explanation An illegal event block was posted to the station WAIT routine.

Action

The module issuing the event block can be determined by inspecting the SVC old PSW at address x'20' and the SVC register save area at address x'140'. Contact the Cray Site Analyst or installation systems personnel.

WAIT\_02 Module: WAIT Type: HARD

Explanation An error has been found in the station event block queue. An event block points to itself as the next queue entry.

Action

Contact the Cray Site Analyst or installation systems personnel.

XIO 01 Module: XIO Type: HARD

Explanation

An I/O operation start was requested for a station virtual device that had a Busy, Intervention Required, or Sense Operation in Progress flag set in the device's Unit Control Block (UCB).

Action This is a station logic check. Contact the Cray Site Analyst or installation systems personnel.

XIO 02 Module: XIO Type: HARD

Explanation A request for a control unit I/O restart operation was made for a virtual device with no control unit queue.

Action Contact the Cray Site Analyst or installation systems personnel.

SI-0165

#### **3** TRANSLATION TABLES

This section contains the translation tables that are supplied with the VM station. These tables are used when you specify the TRTABLE parameter in ACQUIRE, FETCH, and DISPOSE statement TEXT fields, or the TRTBL option of the CRDISK command. The CRSTAT subcommand TRTABLE provides a list of these tables.

Here is a list of the tables provided:

Table Name	Description		
TRASEB	ASCII to EBCDIC; default for disposes		
TREBAS	EBCDIC to ASCII; default for acquires		
TREBASNU	EBCDIC to ASCII, blanks to nulls		
TRLOUPEB	EBCDIC lower case to EBCDIC uppercase		
TRASEBUP	ASCII to EBCDIC, lower case to uppercase		
TRASEBQS	Expanded ASCII to EBCDIC for all hex numbers		
TREBASQS	Expanded EBCDIC to ASCII for all hex numbers		

## 1.1 TRASEB (ASCII to EBCDIC)

	Translated		
ASCIT	to	ASCIT	EBCDIC
Code	FRCDIC	character	character
00	40	NUL	SP
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ЕТХ
04	37	EOT	ЕОТ
05	ן 1 2ח	ENO	ENO
06	2D 2E	ACK	АСК
07	21	BFT.	BFL.
08	16		BS
		1 DD 11 HT	100 110
04	25		
	10		
12	12	DC2	
13	15	DC3	DC3
14	30	DC4	DC4
15	3D	I NAK	NAK
16	32	SYN SYN	SYN
1/	26	ETB	ETB
18	18	CAN	CAN
19	19	EM	EM
1A	3F	SUB	SUB
18	27	ESC	ESC
10	10	FS	IFS
1D	1D	GS	IGS
1E	1E	RS	IRS
1F	1F	US	ITB/IUS
20	40	SP	SP
21	5A	ļ <b>!</b>	!
22	7F	11	
23	7B	<i>‡</i> ⊧	#
24	5B	\$	\$
25	6C	%	%
26	50	&	&
27	7D	T	T
28	4D	(	(
29	5D	)	)
2A	5C	*	*
2B	4E	+	+
1	1	1	

	Translated		
ASCII	to	ASCII	EBCDIC
Code	EBCDIC	character	character
İ	·	 	
2C	6B	,	,
2D	60	-	-
2E	4B	•	•
2F	61	/	/
30	FO	0	0
31	F1	1	1
32	F2	2	2
33	F3	3	3
34	F4	4	4
35	F5	5	5
36	F6	6	6
37	F7	7	7
38	F8	8	8
39	F9	9	9
3A	74	•	
3B	5E	•	
30	4C	, <	• <
1 3D	7E	=	_
3E	6E	>	>
3F	6F	2	2
<u>4</u> 0		6	a l
40		Δ	Δ
41   42		R	R
42		C	
45		י ט ת	ן ט ח
44		Б F	F
45		L F	
1 40		r G	r G
47		U .	ц Ц
40		Т	T
49   //A	נס	т Т	T T
		J V	r v
		T	
40   40	ען 15	М	M
4D   4F	D4	N	N
4 <u>6</u>   /r			
1 <del>4</del> 2	דת <u>ד</u> ת	ט	ם ט
50	ע וע חפ		
1 50		ע	ן א
52   53	עם   דס	r C	C I
5/	1112 112	ы т	ן ט ד
1 54	р. Г. Т. С.		
1 56	L L H	U V	1 1
50		V L7	V
1 50	1 E0 F7	W V	v I
50	ΓΩ	A V	Λ V
59	LO .	I	I

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
5A	E9	Z	Z
58	AD	l	
5C	EO	N N	
5D	BD	]	
5E	5F	-	<b>۲</b>
5F	6D		
60	79		
61	81	а	а
62	82	b	b
63	83	с	C
64	84	d	d
65	85	е	е
66	86	f	f
67	87	g	g
68	88	h	h
69	89	i .	i .
6A	91	j	j
6B	92	k	k
6C	93	1	1
6D	94	m	m
6E	95	n	n
6F	96	Ο	о
70	97	р	р
71	98	q	q
72	99	r	r
73	A2	S	S
74	A3	t	t
75	A4	u	u
76	A5	v	V
77	A6	Ŵ	Ŵ
78	A7	х	х
79	A8	У	У
7A	A9	Z	Z
7B	CO	{	{
7C	6A		_
7D	DO	}	}
7E	A1	U	U
7F	07	DEL	DEL
80	00	undefined	NUL
81	00	undefined	NUL
82	00	undefined	NUL
83	00	undefined	NUL
84	00	undefined	NUL
85	00	undefined	NUL
86		undefined	NUL
ა/	00	undefined	NUL

ASCII	Translated to	ASCII	EBCDIC
Code	EBCDIC	character	character
88	00	undefined	NUL
89	00	undefined	NUL
8A	00	undefined	NUL
8B	00	undefined	NUL
8C	00	undefined	NUL
8D	00	undefined	NUL
8E	00	undefined	NUL
8F	00	undefined	NUL
90	00	undefined	NUL
91	00	undefined	NUL
92	00	undefined	NUL
93	00	undefined	NUL
94	00	undefined	NUL
95	00	undefined	NUL
96	00	undefined	NUL
97	00	undefined	NUL
98	00	undefined	NUL
99	00	undefined	NUL
9A	00	undefined	NUL
9B	00	undefined	NUL
9C	00	undefined	NUL
9D	00	undefined	NUL
9E	00	undefined	NUL
9F	00	undefined	NUL
AO	00	undefined	NUL
A1	00	undefined	NUL
A2	00	undefined	NUL
A3	00	undefined	NUL
A4	00	undefined	NUL
A5	00	undefined	NUL
A6	00	undefined	NUL
A7	00	undefined	NUL
A8	00	undefined	NUL
A9	00	undefined	NUL
AA	00	undefined	NUL
AB	00	undefined	NUL
AC	00	undefined	NUL
AD AD		undefined	
AE		undefined	
AF	00	undefined	
BU BU	00	undefined	
BT BT	00	undefined	
BZ DC		undefined	
5 D/		undefined	
D4		undefined	
כם		underthed	

	Translated		
ASCII	to	ASCII	EBCDIC
Code	EBCDIC	character	character
B6	00	undefined	NUL
B7	00	undefined	NUL
B8	00	undefined	NUL
B9	00	undefined	NUL
BA	00	undefined	NUL
BB	00	undefined	NUL
BC	00	undefined	NUL
BD	00	undefined	NUL
BE	00	undefined	NUL
BF	00	undefined	NUL
CO	00	undefined	NUL
C1	00	undefined	NUL
C2	00	undefined	NUL
C3	00	undefined	NUL
C4	00	undefined	NUL
C5	00	undefined	NUL
C6	00	undefined	NUL
C7	00	undefined	NUL
C8	00	undefined	NUL
C9	00	undefined	NUT.
CA	00	undefined	NUT.
CB	00	undefined	NUT.
CC	00	undefined	NUT.
CD	00	undefined	NUT.
CE	00	undefined	NUL.
CF		undefined	NUT.
00		undefined	NUT
D0 D1	00	undefined	NUT
D1 D2		undefined	
D2	00	undefined	NUL
ע ח/נ		undefined	NUL
D4 D5		undefined	NUL
D5 D6		undefined	NUL
7 DU		undefined	NUL
ע אמ		undefined	
DO		underined	NUL
D9		under ined	
DA		undefined	
au DC		underined	NUL
		undefined	NUL
		undefined	NUL
		undefined	· NUL
DF		undefined	NUL
FO		undefined	NUL
EL	00	undefined	NUL
E2		undefined	NUL
ЕЗ	υu	undefined	NUL

1

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
E4	00	undefined	NUL
E5	00	undefined	NUL
E6	00	undefined	NUL
E7	00	undefined	NUL
E8	00	undefined	NUL
E9	00	undefined	NUL
EA	00	undefined	NUL
EB	00	undefined	NUL
EC	00	undefined	NUL
ED	00	undefined	NUL
EE	00	undefined	NUL
EF	00	undefined	NUL
FO	00	undefined	NUL
F1	00	undefined	NUL
F2	00	undefined	NUL
F3	00	undefined	NUL
F4	00	undefined	NUL
F5	00	undefined	NUL
F6	00	undefined	NUL
F7	00	undefined	NUL
F8	00	undefined	NUL
F9	00	undefined	NUL
FA	00	undefined	NUL
FB	00	undefined	NUL
FC FC	00	undefined	NUL
FD	00	undefined	NUL
FE	00	undefined	NUL
FF	00	undefined	NUL
1	1	1	1

### 1.2 TREBAS (EBCDIC to ASCII)

EPODIC	Translated	EDODIO	ACOLL
Code		EBCDIC	ASCII
			Character
00	00	NUL	NUL
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ETX
04	00	SEL	NUL
05	09	НТ	HT
06	00	RNL	NUL
07	7F	DEL	DEL
08	00	GE	NUL
09	00	SPS	NUL
OA	00	RPT	NUL
OB	OB	VT	VT
OC	OC OC	FF	FF
OD	OD	CR	CR
OE	OE	SO	SO
OF	OF	SI	SI
10	10	DLE	DLE
11	11	DC1	DC1
12	12	DC2	DC2
13	00	DC3	NUL
14	00	RES/ENP	NUL
15	13	NL	DC3
16	08	BS	BS
17	00	POS	NUL
18	18	CAN	CAN
19	19	EM	EM
1A	00	UBS	NUL
1B	00	CU1	NUL
1C	1C	IFS	FS
1D	1D	IGS	GS
1E	1E	IRS	RS
1F	1F	ITB/IUS	US
20	00	DS	NUL
21	00	SOS	NUL
22	10	FS	FS
23	00	WUS	NUL
24	00	BYP/INP	NUL
25			
20		ETB ECC	ETB
2/	I IB	L ESC	
		DA CDE	
29		DFE CM/CU	
		∂ri/ð₩	
		1 63r	

EBCDIC	Translated to	EBCDIC	ASCII
	ABUII		
2C	00	MFA	NUL
2D ~	05	ENO	ENO
2E	06	ACK	ACK
2F	07	BEL	BEL
30	00	undefined	NUL
31	00	undefined	NUL
32	16	SYN	SYN
33	00	TR	NUL
34	00	PP	NUL
35	1E	TRN	RS
36	00	NBS	NUL.
37	04	ЕОТ	EOT
38	00	SBS	NUT.
39	00	TT	NUL
3A	00	RFF	NUL
3B	00	CU3	NUL
30	14	DC4	DC4
3D	15	NAK	NAK
3E	00	undefined	NUL.
3F	14	SUB	SUB
40	20	SP	SP
41	00	RSP	NUT.
42	00	undefined	NUL
43	00	undefined	NUL
44	00	undefined	NUL
45	00	undefined	NUL
46	00	undefined	NUL
47	00	undefined	NUL
48	00	undefined	NUL
49	00	undefined	NUL
4A	00	ç	NUL
4B	2E	•	•
4C	3C	<	<
4D	28	(	(
4E	2B	, +	, +
4F	5E		-
50	26	& .	&
51	00	undefined	NUL
52	00	undefined	NUL
53	00	undefined	NUL
54	00	undefined	NUL
55	00	undefined	NUL
56	00	undefined	NUL
57	00	undefined	NUL
58	00	undefined	NUL
59	00	undefined	NUL
	L		L

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
5A	21	ł	1
5B	24	· s	Ś
50	24	.×	Ϋ́
5D	29	)	
5E	3B	•	•
5F	5E	ر ۲	, ,
60	2D	_	_
61	2F	/	/
62	00	undefined	NUT.
63	00	undefined	NUT.
64	00	undefined	NUT.
65	00	undefined	NUL
66	00	undefined	NUL
67	00	undefined	NUL
68	00	undefined	NUT.
69	00	undefined	NUL
6A	7C		
6B	20	•	
6C	25	%	%
6D	5F	, <b>.</b>	
6E	3E	>	~
6F	3F	?	?
70	00	undefined	NUL
71	00	undefined	NUL
72	00	undefined	NUL
73	00	undefined	NUL
74	00	undefined	NUL
75	00	undefined	NUL
76	00	undefined	NUL
77	00	undefined	NUL
78	00	undefined	NUL
79	60		
7A	3A	:	:
7B	23	#	#
7C	40	@	a
7D	27	ī	ī
7E	3D	=	=
7F	22	11	11
80	00	undefined	NUL
81	61	а	а
82	62	b	. b
83	63	с	c .
84	64	е	d
85	65	d	е
86	66	f	f
87	67	g	g
		0	0

(

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
88	68	h	h
89	69	i i	i
8A	00	undefined	NUL
8B	00	undefined	NUL
8C	00	undefined	NUL
8D	00	undefined	NUL
8E	00	undefined	NUL
8F	00	undefined	NUL
90	00	undefined	NUL
91	6A	i i	i
92	6B	k J	k J
93	60	1	1
94	60	m	, - m
95	6E	n	n
96	6F	0	
97		n n	n
98	70		P
99			Y r
97		undofined	
OR		undefined	NUIT
90		undefined	NUT
90		undefined	
9D 0E		undefined	NUIT
95		undefined	NUL
91	00	undefined	
AU			NOL o
AI		_	-
AZ		S S	S
AS		L.	L
A4		u u	u 
AS		V	V
AO		Ŵ	W
A/	78	X	X
Að	79	У	У
A9	/A		
AA	00	undefined	
AB	00	undefined	NUL
AC	00	undefined	NUL
AD	5B	undefined	NUL
AE	00	undefined	NUL
AF	00	undefined	NUL
BO	00	undefined	NUL
B1	00	undefined	NUL
B2	00	undefined	NUL
B3	00	undefined	NUL
B4	00	undefined	NUL
B2	00	undefined	NUL

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
B6	00	undefined	NUL
B7	00	undefined	NUL
B8	00	undefined	NUL
B9	00	undefined	NUL
BA	00	undefined	NUL
BB	00	undefined	NUL
BC	00	undefined	NUL
BD	5D	]	]
BE	00	undefined	NUL
BF	00	undefined	NUL
CO	7B	{	{
C1	41	A	A
C2	42	В	В
C3	43	C	C
C4	44	D	D
C5	45	Е	Е
C6	46	F	F
C7	47	G	G
C8	48	Н	Н
C9	49	I	I
CA	00	SHY	NUL
CB	00	undefined	NUL
CC	00	undefined	NUL
CD	00	undefined	NUL
CE	00	undefined	NUL
CF	00	undefined	NUT.
D0		}	}
D1	4A	J. .T	, , , , , , , , , , , , , , , , , , ,
D2	4B	ĸ	K K
D3	40	I.	T.
D9 D4	40 4D	M	M
D4 D5	4B 4E	N N	N N
D6	45   4F	0	
שט 7 ת	50	р 1	
80	51		
PG	52	r A	י ע ק
		undefined	NIT.
DR		undefined	
מנ		undefined	
סע		undefined	
DF		undefined	
DE DE		undefined	
E0 DL		underined	
丘U 〒1			
E1 E2			
<u>上</u> ∠	33   <u>-</u> /	D	
<u>دع</u>	بر 		. <b>1</b> 

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
E4	55	U	U
E5	56	V	V
E6	57	W	W
E7	58	Х	Х
E8	59	Y	Y
E9	5A	Z	Z
EA	00	undefined	NUL
EB	00	undefined	NUL
EC	00	undefined	NUL
ED	00	undefined	NUL
EE	00	undefined	NUL
EF	00	undefined	NUL
FO	30	0	0
F1	31	1	1
F2	32	2	2
F3	33	3	3
F4	34	4	4
F5	35	5	5
F6	36	6	6
F7	37	7	7
F8	38	8	8
F9	39	9	9
FA	00		NUL
FB	00	undefined	NUL
FC	00	undefined	NUL
FD	00	undefined	NUL
FE	00	undefined	NUL
FF	00	EO	NUL

# 1.3 TREBASNU (EBCDIC to ASCII; blanks to nulls)

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
00	00	NUL	NUL
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ETX
04	00	SEL	NUL
05	09	HT	HT
06	00	RNL	NUL
07	7F	DEL	DEL
08	00	GE	NUL
09	00	SPS	NUL
0A	00	RPT	NUL
OB	OB	VT	VT
OC	OC	FF	77
OD	OD	CR	CR
OE	OE	SO	so
OF	OF	ST	ST
10	10	DLE	DLE
11	11	DC1	DC1
12	12	DC2	DC2
13	00	DC3	DC3
14	00	RFS/FNP	NUT.
15	13	NT.	
16	08	RS	BCS RS
17		POS	
18	18	CAN	
10	19	FM	EM.
1 1 1			NUT
18		CU1	
	10		
10	10		
15	10		00 DC
20			
20		202 202	
21	10		
22		r S Luig	
25	00		
24	00	DIF/LNF	
25			
20	1/   1P		
21			
20			
29		DIL OM/CU	
		J STI/SW	
ZĎ		L 22	

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
20	00	MFA	NUT.
20	05	ENO	ENO
2E	06	ACK	АСК
2F	07	BEL	BEL
30		undefined	NUT.
31		undefined	NUT.
32	16	SYN	SYN
33	00	IR	NUL
34	00	PP	NUL
35	1E	TRN	RS
36	00	NBS	NUL
37	04	ЕОТ	ЕОТ
38	00	SBS	NUL
39	00	IT	NUL
3A	00	RFF	NUL
3B	00	CU3	NUL
3C	14	DC4	DC4
3D	15	NAK	NAK
3E	00	undefined	NUL
3F	1A	SUB	SUB
40	00	SP	NUL
41	00	RSP	NUL
42	00	undefined	NUL
43	00	undefined	NUL
44	00	undefined	NUL
45	00	undefined	NUL
46	00	undefined	NUL
47	00	undefined	NUL
48	00	undefined	NUL
49	00	undefined	NUL
4A	00	¢	NUL
4B	2E	•	•
4C	3C	<	<
4D	28	(	(
4E	2B	+	+
4F	5E		<b>۔</b>
50	26	&	&
51	00	undefined	NUL
52	00	undefined	NUL
53	00	undefined	NUL
54	00	undefined	NUL
55	00	undefined	NUL
56	00	undefined	NUL
57	00	undefined	NUL
58	00	undefined	NUL
59	00	undefined	NUL

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
5A	21	1	!
5B	24	Ś	s
5C	2A	*	*
5D	29	)	
5E	3B	:	:
5F	5E	, , ,	-
60	2D	-	-
61	2F	/	
62	00	undefined	NUL
63	00	undefined	NUL
64	00	undefined	NUL
65	00	undefined	NUL
66	00	undefined	NUL
67	00	undefined	NUL
68	00	undefined	NUL
69	00	undefined	NUL
6A	7C		
6B	2C	,	,
6C	25	%	%
6D	5F	_	_
6E	3E	>	>
6F	3F	?	?
70	00	undefined	NUL
71	00	undefined	NUL
72	00	undefined	NUL
73	00	undefined	NUL
74	00	undefined	NUL
75	00	undefined	NUL
/6	00	undefined	NUL
77	00	undefined	NUL
/8		undefined	NUL
79	60		
7A 7D	JA DD	•	
7 B 7 C	23		
70 7D	40	1	(a)
7D 7F	27	_	_
7E 7F	20	11	- 11
80	00	undofined	NITIT
81 81	61		
82	62	l a h	a   h
83	63		
84	64		
85	65	ש א	
86	66	l t	e f
87	67	α	ι 
		<u></u> б	Б

88 $68$ hh $89$ $69$ ii $8A$ $00$ undefinedNUL $8B$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8D$ $00$ undefinedNUL $8D$ $00$ undefinedNUL $8E$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ 11 $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ qq $94$ $00$ undefinedNUL $98$ $00$ undefinedNUL	
89 $69$ ii $84$ $00$ undefinedNUL $8B$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8D$ $00$ undefinedNUL $8E$ $00$ undefinedNUL $8F$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ $1$ $1$ $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ qq $94$ $00$ undefinedNUL $98$ $00$ undefinedNUL	
8A $00$ undefinedNUL $8B$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8D$ $00$ undefinedNUL $8E$ $00$ undefinedNUL $8F$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ 11 $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ qq $9A$ $00$ undefinedNUL $9B$ $00$ undefinedNUL	
0R $00$ undefinedNUL $8B$ $00$ undefinedNUL $8C$ $00$ undefinedNUL $8D$ $00$ undefinedNUL $8E$ $00$ undefinedNUL $90$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ 11 $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ qq $9A$ $00$ undefinedNUL $9B$ $00$ undefinedNUL	ļ
8C $00$ undefined $NUL$ $8D$ $00$ undefined $NUL$ $8D$ $00$ undefined $NUL$ $8E$ $00$ undefined $NUL$ $90$ $00$ undefined $NUL$ $90$ $00$ undefined $NUL$ $91$ $6A$ $j$ $j$ $92$ $6B$ $k$ $k$ $93$ $6C$ $1$ $1$ $94$ $6D$ $m$ $m$ $95$ $6E$ $n$ $n$ $96$ $6F$ $o$ $o$ $97$ $70$ $p$ $p$ $98$ $71$ $q$ $q$ $9A$ $00$ undefined $NUL$	
8D $00$ undefinedNUL $8D$ $00$ undefinedNUL $8E$ $00$ undefinedNUL $8F$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ 11 $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ $q$ $q$ $9A$ $00$ undefinedNUL $9B$ $00$ undefinedNUL	
8E $00$ undefinedNUL $8E$ $00$ undefinedNUL $8F$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ 11 $94$ $6D$ mm $95$ $6E$ nn $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ qq $9A$ $00$ undefinedNUL $9B$ $00$ undefinedNUL	
$\delta E$ $\delta G$ undefinedNUL $8F$ $00$ undefinedNUL $90$ $00$ undefinedNUL $91$ $6A$ jj $92$ $6B$ kk $93$ $6C$ $1$ $1$ $94$ $6D$ mm $95$ $6E$ $n$ $n$ $96$ $6F$ $o$ $o$ $97$ $70$ pp $98$ $71$ $q$ $q$ $94$ $00$ undefinedNUL $98$ $00$ undefinedNUL	
01 $00$ undefined       NUL $90$ $00$ undefined       NUL $91$ $6A$ j       j $92$ $6B$ k       k $93$ $6C$ 1       1 $94$ $6D$ m       m $95$ $6E$ n       n $96$ $6F$ $o$ $o$ $97$ $70$ $p$ $p$ $98$ $71$ $q$ $q$ $94$ $00$ undefined       NUL	
91 $6A$ j       j         92 $6B$ k       k         93 $6C$ 1       1         94 $6D$ m       m         95 $6E$ n       n         96 $6F$ $o$ $o$ 97 $70$ $p$ $p$ 98 $71$ $q$ $q$ 99 $72$ $r$ $r$ 9A $00$ undefined       NUL	
92     6B     k     k       93     6C     1     1       94     6D     m     m       95     6E     n     n       96     6F     o     o       97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL	
93     6C     1     1       94     6D     m     m       95     6E     n     n       96     6F     o     o       97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL	
94     6D     m     m       95     6E     n     n       96     6F     o     o       97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL       9B     00     undefined     NUL	ļ
95     6E     n     n       95     6E     n     n       96     6F     o     o       97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL       9B     00     undefined     NUL	
96     6F     0     0       97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL       9B     00     undefined     NUL	l
97     70     p     p       98     71     q     q       99     72     r     r       9A     00     undefined     NUL       9B     00     undefined     NUL	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{vmatrix} 99 \\ 99 \\ 94 \\ 98 \\ 00 \\ 98 \\ 00 \\ 98 \\ 00 \\ 98 \\ 00 \\ 00$	ļ
9A 00 undefined NUL 9B 00 undefined NUL	
9B 00 undefined NUL	.
9C 00 undefined NUL	ĺ
9D 00 undefined NUL	ļ
9E 00 undefined NUL	
9F 00 undefined NUL	
A0 00 undefined NUL	ļ
A2 73 S S	
A3 74 t t	
A4 75 u u	
A5 76 V V	i
A6 77 W W	
A7 78 x x	
A8 79 v v	
A9 7A z z	
AA 00 undefined NUL	ĺ
AB 00 undefined NUL	ĺ
AC 00 undefined NUL	
AD 5B undefined NUL	i
AE 00 undefined NUL	
AF 00 undefined NUL	
BO 00 undefined NUL	İ
B1 00 undefined NUL	ĺ
B2 00 undefined NUL	
B3 00 undefined NUL	İ
B4 00 undefined NUL	
B5 00 undefined NUL	

EBCDIC	Translated	EDCDIC	ACOTT
		charactor	ASCII
code	ADUIT	Cliaracter	
B6	00	undefined	NUL
B7	00	undefined	NUL
B8	00	undefined	NUL
B9	00	undefined	NUL
BA	00	undefined	NUL
BB	00	undefined	NUL
BC	00	undefined	NUL
BD	5D	1	]
BE	00	undefined	NUL
BF	00	undefined	NUL
CO	7B	{	{
C1	41	Å	A
C2	42	В	В
C3	43	С	Ċ
C4	44	D	D
C5	45	Е	Е
C6	46	F	F
C7	47	G	G
C8	48	Н	Н
C9	49	Ι	I
CA	00	SHY	NUL
CB	00	undefined	NUL
CC	00	undefined	NUL
CD	00	undefined	NUL
CE	00	undefined	NUL
$\mathbf{CF}$	00	undefined	NUL
DO	7D	}	}
D1	4A	J	J
D2	4B	К	K
D3	4C	$\mathbf{L}$	L
D4	4D	М	М
D5	4E	N	N
D6	4F	0	0
D7	50	Р	Р
D8	51	Q	Q
D9	52	R	R
DA	00	undefined	NUL
DB	00	undefined	NUL
DC	00	undefined	NUL
DD	00	undefined	NUL
DE	00	undefined	NUL
DF	00	undefined	NUL
EO	5C	١	$\mathbf{A}$
E1	00	NSP	NUL
E2	53	S	S
E3	54	Т	Т
······································	L		

(

.

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
E4	55	U	U
E5	56	V	V
E6	57	W	W
E7	58	Х	X
E8	59	Y	Y
E9	5A	Z	Z
EA	00	undefined	NUL
EB	00	undefined	NUL
EC	00	undefined	NUL
ED	00	undefined	NUL
EE	00	undefined	NUL
EF	00	undefined	NUL
FO	30	0	0
F1	31	1 .	1
F2	32	2	2
F3	33	3	3
F4	34	4	4
F5	35	5	5
F6	36	6	6
F7	37	7	7
F8	38	8	8
F9	39	9	9
FA	00		NUL
FB	00	undefined	NUL
FC	00	undefined	NUL
FD	00	undefined	NUL
FE	00	undefined	NUL
FF	00	EO	NUL

#### 1.4 TRLOUPEB (lower case to uppercase, EBCDIC)

Lower case	Upper- case	<u>(1)</u>	
FBCDIC	EBCDIC	Character	Character
00		NUT.	NUT.
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ETX
04	04	SEL	SEL
05	05	нт	НТ
06	06	RNT.	RNT.
07	07	DEL	DEL
08	08	GE	GE
09	09	SPS	SPS
		RPT	RPT
		VT	VT
		FF	77
00	а а	CR	CR
OE.	0E	SO	SO
OF	OF	SI	ST
10	10	DLE	DLE
11	11	DC1	DC1
12	12	DC2	DC2
13	13	DC3	DC3
14	14	RES/ENP	RES/ENP
15	15	NL	NL
16	16	BS	BS
17	17	POS	POS
18	18	CAN	CAN
19	19	EM	EM
1A	1A	UBS	UBS
1B	1B	CU1	CU1
1C	1C	IFS	IFS
1D	1D	IGS	IGS
1E	1E	IRS	IRS
1F	1F	ITB/IUS	ITB/IUS
20	20	DS	DS
21	21	SOS	SOS
22	22	FS	FS
23	23	WUS	WUS
24	24	BYP/INP	BYP/INP
25	25	LF	LF
26	26	ETB	ETB
27	27	ESC	· ESC
28	28	SA	SA
29	29	SFE	SFE
2A	2A	SM/SW	SM/SW
2B	2B	CSP	CSP

Lower case EBCDIC	Upper- case EBCDIC	Character	Character
2C	2C	MFA	MFA
2D	2D	ENO	ENO
2E	2E	ACK	ACK
2F	2F	BEL	BEL
30	30	undefined	undefined
31	31	undefined	undefined
32	32	SYN	SYN
33	33	IR	IR
34	34	PP	PP
35	35	TRN	TRN
36	36	NBS	NBS
37	37	EOT	EOT
38	38	SBS	SBS
39	39	IT	IT
3A	3A	RFF	RFF
3B	3B	CU3	CU3
3C	3C	DC4	DC4
3D	3D	NAK	NAK
3E	3E	undefined	undefined
3F	3F	SUB	SUB
40	40	SP	SP
41	41	RSP	RSP
42	42	undefined	undefined
43	43	undefined	undefined
44	44	undefined	undefined
45	45	undefined	undefined
46	46	undefined	undefined
47	47	undefined	undefined
48	48	undefined	undefined
49	49	undefined	undefined
4A	4A	¢	¢
4B	4B	•	•
4C	4C	<	<
4D	4D	(	(
4E	4E	+	+
4F	4F		٦
50	50	&	&
51	51	undefined	undefined
52	52	undefined	undefined
53	53	undefined	undefined
54	54	undefined	undefined
55	55	undefined	undefined
56	56	undefined	undefined
57	57	undefined	undefined
58	58	undefined	undefined
59	59	undefined	undefined

Lower case	Upper- case		
EBCDIC	EBCDIC	Character	Character
5A	5A	!	!
5B	5B	\$	\$
5C	5C	*	*
5D	5D	)	)
5E	5E	•	;
5F	5F	-	<b>–</b>
60	60	-	-
61	61	/	
62	62	undefined	undefined
63	63	undefined	undefined
64	64	undefined	undefined
65	65	undefined	undefined
66	66	undefined	undefined
67	67	undefined	undefined
68	68	undefined	undefined
69	69	undefined	undefined
6A	6A		
6B	6B	,	, ,
6C	6C	%	%
6D	6D	_	
6E	6E	>	>
6F	6F	?	?
70	70	undefined	undefined
71	71	undefined	undefined
72	72	undefined	undefined
73	73	undefined	undefined
74	74	undefined	undefined
75	75	undefined	undefined
76	76	undefined	undefined
77	77	undefined	undefined
78	78	undefined	undefined
79	79		
7A	7A	:	:
7B	7B	<i>‡</i> ‡	#
7C	7C	@	@
7D	7D	T	T
7E	7E	=	=
7F	7F	TT	TT
80	80	undefined	undefined
81	C1	а	A
82	C2	b	. B
83	C3	С	C
84	C4	е	D
85	C5	d	E
86	C6	f	F
87	C7	g	G

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	Lower	Upper-		
	case EBCDIC	case EBCDIC	Character	Character
	88	C8	h ·	H
	89		1	1
	OA OD	OA OD	underined	undefined
	80 80	0D 8C	undefined	undefined
	80	80	undefined	undefined
	8F	85	undefined	undefined
	8F	8F	undefined	undefined
	90	90	undefined	undefined
	91	D1	i	I
	92	D1 D2	J k	K I
	93	D2 D3	1	T.
	94	D4	m	M
	95	D5	n	N
	96	D6	0	0
	97	D7	D D	P
× .	98	D8	a a	0
	99	D9	r	R
	9A	9A	undefined	undefined
	9B	9B	undefined	undefined
	9C	9C	undefined	undefined
	9D	9D	undefined	undefined
	9E	9E	undefined	undefined
	9F	9F	undefined	undefined
	AO	AO	undefined	undefined
	A1	A1	0	0
	A2	E2	S	S
	A3	E3	t	Т
	A4	E4	u	U
	A5	E5	v	V
1	A6	E6	W	W
	A7	E7	х	Х
	A8	E8	У	Y
	A9	E9	Z	Z
	AA	AA	undefined	undefined
	AB	AB	undefined	undefined
	AC	AC	undefined	undefined
	AD	AD	undefined	undefined
	AE	AE	undefined	undefined
	AF	AF	undefined	undefined
	BO	BO	undefined	undefined
	BT BU	B1 B1	undefined	undefined
	B2	B2 DO	undefined	undefined
	83 D/	5 5 7	undefined	undefined
	54 DF	B4 DF	undefined	undefined
	Cđ	כם	underinea	underined

	r	····	i
Lower	Upper-		
case	case		
EBCDIC	EBCDIC	Character	Character
B6	B6	undefined	undefined
B7	B7	undefined	undefined
B8	B8	undefined	undefined
B9	B9	undefined	undefined
BA	BA	undefined	undefined
BB	BB	undefined	undefined
BC	BC	undefined	undefined
BD	BD	1	1
BE	BE	undefined	undefined
BF	BF	undefined	undefined
CO	CO	{	{
C1	C1	Ă	À
C2	C2	В	В
C3	C3	С	С
C4	C4	D	D
C5	C5	Е	E
C6	C6	F	F
C7	C7	G	G
C8	C8	Н	Н
C9	C9	I	T
CA	CA	SHY	SHY
CB	CB	undefined	undefined
CC	CC	undefined	undefined
CD	CD	undefined	undefined
CE	CE	undefined	undefined
CF	CF	undefined	undefined
DO		}	}
D1	D1	J	J
D2	D2	ĸ	ĸ
D3	D3	T.	T.
D4	ן 1 דע	M	M
D.5	D5	N	N
D6	D6	0	0
D7	D7	P	p
D8	D8	n n	0
D9	D9	R	R
DA		undefined	undefined
DB		undefined	undefined
DC		undefined	undefined
ספ	מת	undefined	undefined
DE		undefined	undefined
DF		undefined	undefined
FO	FU		
F1		NGD	NCP
<b>正</b> 1 下り	F 5	2 C	C 101
F3	<u>5</u> 2	ן ט ריי	5 T
С.J.		1	L

Lower case EBCDIC	Upper- case EBCDIC	Character	Character
E4	E4	U	U
E5	E5	V	V
E6	E6	W	W
E7	E7	Х	Х
E8	E8	Y	Y
E9	E9	Z	Z
EA	EA	undefined	undefined
EB	EB	undefined	undefined
EC	EC	undefined	undefined
ED ED	ED ED	undefined	undefined
EE	EE	undefined	undefined
EF	EF EF	undefined	undefined
FO	FO	0	0
F1	F1	1	1
F2	F2	2	2
F3	F3	3	3
F4	F4	4	4
F5	F5	5	5
F6	F6	6	6
F7	F7	7	7
F8	F8	8	8
F9	F9	9	9
FA	FA		
FB	FB	undefined	undefined
FC	FC	undefined	undefined
FD	FD	undefined	undefined
FE	FE	undefined	undefined
FF	FF	EO EO	EO

# 1.5 TRASEBUP (ASCII to EBCDIC; lower case to uppercase)

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
00	40	NUL	SP
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ETX
04	37	EOT	EOT
05	ן 1 20		FNO
06	25		
07		RFT.	REL.
08	16	BS	BC
		טט די	טע ידע
	25		
OB			
		SO	SO
		30 ST	50 ST
10			
10	10		
			DC2
13			
	3D	NAK	NAK
10	32		SIN
	26	EIB	EIB
18		CAN	CAN
19	19	EM CUD	EM
	J 3F	SUB	SUB
IB	27	ESC ESC	ESC
		FS	IFS
	1D	GS	IGS
			118/102
20	40	SP	SP
21	5A	l I 11	! !!
22		"	
23			#
24		S S	Ş v
25		- % 	%
20			کد ۱
2/			
28	4D		
29	עכ ן 50	)	)
	1 5U		*
28	4比	<b>+</b>	+

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
2C	6B	,	,
2D	60	-	-
2E	4B		
2F	61	/	/
30	F0	0	0
31 32 33 34 35	F1 F2 F3 F4 F5 F6	1 2 3 4 5	1 2 3 4 5
37 38 39 3A 3B	F0 F7 F8 F9 7A 5E	7 8 9 :	7 8 9 ;
3C	4C	<	<
3D	7E	=	=
3E	6E	?	?
3F	6F	@	@
40	7C	&	A
42	C2	B	B
43	C3	C	C
44	C4	D	D
45	C5	E	E
46	C6	F	F
47 48 49 4A 4B 4C	C7 C8 C9 D1 D2 D3	G H J K	G H J K
4D	D4	M	M
4E	D5	N	N
4F	D6	O	O
50	D7	P	P
51	D8	Q	Q
52 53 54 55 56	D9 E2 E3 E4 E5 E6	R S T U V	R S T U V
57	E0	w	w
58	E7	X	X
59	E8	Y	Y
5A	E9	Z	Z

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
5B	AD	[	[
5C	EO	Ň	Ň
5D	BD	1	1
5E	5F	- -	7
5F	6D		
60	79		_
61	C1	а	А
62	C2	b	B
63	C3	с	С
64	C4	d	D
65	C5	е	E
66	C6	f	F
67	C7	g	G
68	C8	h	Н
69	C9	í	I
6A	D1	j	J
6B	D2	k	K
6C	D3	1	L
6D	D4	m	M
6E	D5	n	N
6F	D6	0	0
70	D7	р	P
71	D8	Р	Q
72	D9	r	R
/3	E2	S	S
74	E3	t	T
75	上4 下5	u	U
/6 77	E5	v	V
//	E6	Ŵ	W
/8	E/	Х	X
79	E0 E0	У	Y Z
7 A 7 P	СО СО	Z	L r
7 D 7 C	64	ĩ	1
70		٦	٦
75 7F	Δ1	0 1	0 }
7E 7F	07	DFT	DET
80	00	undefined	NUL
81	00	undefined	NII
82	00	undefined	NIIT.
83	00	undefined	NIIT.
84	00	undefined	NIIT.
85	00	undefined	NUT.
86	00	undefined	NUT.
87	00	undefined	NUT.
88	00	undefined	NUL.
		WINCE THER	
# TRASEBUP (continued)

ASCII	Translated to	ASCII	EBCDIC
Code	EBCDIC	character	character
89	00	undefined	NUL
8A	00	undefined	NUL
8B	00	undefined	NUL
8C	00	undefined	NUL
8D	00	undefined	NUL
8E	00	undefined	NUL
8F	00	undefined	NUL
90	00	undefined	NUL
91	00	undefined	NUL
92	00	undefined	NUL
93	00	undefined	NUL
94	00	undefined	NUL
95	00	undefined	NUL
96	00	undefined	NUL
97	00	undefined	NUL
98	00	undefined	NUL
99	00	undefined	NUL
9A	00	undefined	NUL
9B	00	undefined	NUL
9C	00	undefined	NUL
9D	00	undefined	NUL
9E	00	undefined	NUL
9F	00	undefined	NUL
A0	00	undefined	NUL
A1	00	undefined	NUL
A2	00	undefined	NUL
A3	00	undefined	NUL
A4	00	undefined	NUL
A5	00	undefined	NUL
A6	00	undefined	NUL
A7	00	undefined	NUL
A8	00	undefined	NUL
A9	00	undefined	NUL
AA	00	undefined	NUL
AB	00	undefined	NUL
AC	00	undefined	NUL
AD	00	undefined	NUL
AE	00	undefined	NUL
AF	00	undefined	NUL
BO	00	undefined	NUL
B1	00	undefined	NUL
B2	00	undefined	NUL
B3	00	undefined	NUL
B4	00	undefined	NUL
85		undefined	NUL
В6		undefined	NUL

# TRASEBUP (continued)

	1		
	Translated		
ASCII	l to	ASCII	EBCDIC
Code	EBCDIC	character	character
B7	00	undefined	NUL
B8	00	undefined	NUL
B9	00	undefined	NUL
BA	00	undefined	NUL
BB	00	undefined	NUL
BC	00	undefined	NUL
BD	00	undefined	NUL
BE	00	undefined	NUL
BF	00	undefined	NUL
CO	00	undefined	NUL
C1	00	undefined	NUL
C2	00	undefined	NUL
C3	00	undefined	NUL
C4	00	undefined	NUL
C5	00	undefined	NUL
C6	00	undefined	NUL
C7	00	undefined	NUL
C8	00	undefined	NUL
C9	00	undefined	NUL
CA	00	undefined	NUL
CB	00	undefined	NUL
CC	00	undefined	NUL
CD	00	undefined	NUL
CE	00	undefined	NUL
$\mathbf{CF}$	00	undefined	NUL
DO	00	undefined	NUL
D1	00	undefined	NUL
D2	00	undefined	NUL
D3	00	undefined	NUL
D4	00	undefined	NUL
D5	00	undefined	NUL
D6	00	undefined	NUL
D7	00	undefined	NUL
D8	00	undefined	NUL
D9	00	undefined	NUL
DA	00	undefined	NUL
DB	00	undefined	NUL
DC	00	undefined	NUL
DD	00	undefined	NUL
DE	00	undefined	NUL
$\mathrm{DF}$	00	undefined	NUL
EO	00	undefined	NUL
E1	00	undefined	NUL
E2	00	undefined	NUL
E3	00	undefined	NUL
E4	00	undefined	NUL
	1		

-

#### TRASEBUP (continued)

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
E5	00	undefined	NUL
E6	00	undefined	NUL
E7	00	undefined	NUL
E8	00	undefined	NUL
E9	00	undefined	NUL
EA	00	undefined	NUL
EB	00	undefined	NUL
EC	00	undefined	NUL
ED	00	undefined	NUL
EE	00	undefined	NUL
EF	00	undefined	NUL
FO	00	undefined	NUL
F1	00	undefined	NUL
F2	00	undefined	NUL
F3	00	undefined	NUL
F4	00	undefined	NUL
F5	00	undefined	NUL
F6	00	undefined	NUL
F7	00	undefined	NUL
F8	00	undefined	NUL
F9	00	undefined	NUL
FA	00	undefined	NUL
FB	00	undefined	NUL
FC	00	undefined	NUL
FD	00	undefined	NUL
FE	00	undefined	NUL
FF	00	undefined	NUL

## 1.6 TRASEBQS (expanded ASCII to EBCDIC)

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
00	00	NITIT	NUIT
01			
			SUR
02			
	37		
	37   20		EUI
			ENQ
			ACK
		BEL	BEL
		BS	BS
09	05		HI TD
	25		LF.
			VT
			FF
		CR	CR
UE		SU	SU
		SI BIR	SI DIT
		DLE	DLE
		DC1	DC1
12		DC2	DC2
13	15	DC3	DC3
14	3C	DC4	DC4
15	3D	NAK	NAK
16	32	SYN	SYN
17	26	ETB	ETB
18	18	CAN	CAN
19	19	EM	EM
1A	3F	SUB	SUB
1B	27	ESC	ESC
10	10	FS	IFS
1D	1D	GS	IGS
1E	1E	RS	IRS
1F	1F	US	ITB/IUS
20	40	SP	SP
21	5A	1	!
22	7F	TT	T
23	7B	<i>#</i>	<i>‡</i> ‡
24	5B	\$	\$
25	6C	%	%
26	50	&	&
27	7D	T	Т
28	4D	(	(
29	5D	)	)
2A	5C	*	*
2B	4E	+	+

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
2C	6B	•	
2D	60	-	-
2E	4B	•	
2F	61	/	/
30	FO	Ó	o I
31	F1	1	1
32	F2	2	2
33	F3	3	3
34	F4	4	4
35	F5	5	5
36	F6	6	6
37	F7	7	7
38	F8	8	8
39	F9	9	9
3A	7A	:	:
3B	5E	;	;
3C	4C	<	<
3D	7E	=	=
3E	6E	>	>
3F	6F	?	?
40	7C	a d	@
41	C1	A	A
42	C2	В	В
43	C3	C	C
44	C4	D	D
45	C5	Е	E
46	C6	F	F
47	C7	G	G
48	C8	H	H
49	C9	I	I
4A	D1	J	J
4B	D2	K	K
4C	D3	L	L
4D	D4	М	М
4E	D5	N	N
4F	D6	0	0
50	D7	Р	P
51	D8	Q	Q
52	D9	R	R
53	E2	S	S
54	E3	Т	- T
55	E4	U	U
56	E5	V	V
57	E6	W	W
58	E7	X	X
59	E8	Y	Y

.

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
5A	E9	7.	7.
5B	AD	1	1
5C	EO		
5D	BD	1	1
5E	5F	- -	ן ק
5F	6D		
60	79	<del>_</del>	-
61	81	а	а
62	82	b	b
63	83	C	c
64	84	d	d
65	85	е	e
66	86	f	f
67	87	g	g
68	88	h	h l
69	89	i	i
6A	91	i	i
6B	92	k	k
6C	93	1	1
6D	94	m	m
6E	95	n	n
6F	96	о	o
70	97	p	р
71	98	q	q
72	99	r	r
73	A2	S	s
74	A3	t	t
75	A4	u	u
76	A5	v	v
77	A6	W	Ŵ
78	A7	х	x
79	A8	У	у
7 A	A9	Z	Z
7 B	CO	{	{
7C	6A		
7D	DO	}	}
7E	A1	0	o
7F	07	DEL	DEL
80	20	undefined	DS
81	21	undefined	SOS
82	22	undefined	FS
83	23	undefined	WUS
84	24	undefined	BYP/INP
85	13	undefined	DC3
86	06	undefined	RNL
87	17	undefined	POC

ASCII	Translated to	ASCII	EBCDIC
Code	EBCDIC	character	character
88	28	undefined	SA
89	29	undefined	SFE
8A	2A	undefined	SM/SW
8B	2B	undefined	CSP
8C	2C	undefined	MFA
8D	09	undefined	SPS
8E	0A	undefined	RPT
8F	1B	undefined	CU1
90	30	undefined	undefined
91	31	undefined	undefined
92	1A	undefined	UBS
93	33	undefined	IR
94	34	undefined	PP
95	35	undefined	TRN
96	36	undefined	NBS
97	08	undefined	GE
98	38	undefined	SBS
99	39	undefined	IT
9A	3A	undefined	RFF
9B	3B	undefined	CU3
9C	04	undefined	SEL
9D	14	undefined	SO
9E	3E	undefined	undefined
9F	E1	undefined	NSP
AO	41	undefined	RSP
A1	42	undefined	undefined
A2	43	undefined	undefined
A3	44	undefined	undefined
A4	45	undefined	undefined
A5	46	undefined	undefined
A6	47	undefined	undefined
A7	48	undefined	undefined
A8	49	undefined	undefined
A9	51	undefined	undefined
AA	52	undefined	undefined
AB	53	undefined	undefined
AC	54	undefined	undefined
AD	55	undefined	undefined
AE	56	undefined	undefined
AF	57	undefined	undefined
BO	58	undefined	undefined
B1	59	undefined	undefined
B2	62	undefined	undefined
B3	63	undefined	undefined
B4	64	undefined	undefined
B5	65	undefined	undefined

	Translated		
ASCII	to	ASCII	EBCDIC
Code	EBCDIC	character	character
B6	66	undefined	undefined
B7	67	undefined	undefined
B8	68	undefined	undefined
B9	69	undefined	undefined
BA	70	undefined	undefined
BB	71	undefined	undefined
BC	72	undefined	undefined
BD	73	undefined	undefined
BE	74	undefined	undefined
BF	75	undefined	undefined
Со	76	undefined	undefined
C1	77	undefined	undefined
C2	78	undefined	undefined
C3	80	undefined	undefined
C4	8A	undefined	undefined
C5	8B	undefined	undefined
C6	8C	undefined	undefined
C7	8D	undefined	undefined
C8	8E	undefined	undefined
C9	85	undefined	undefined
CA	90	undefined	undefined
CB	9A	undefined	undefined
CC	9B	undefined	undefined
CD	9C	undefined	undefined
CE	9D	undefined	undefined
CF	9E	undefined	undefined
	9F	undefined	undefined
D1	AO	undefined	undefined
D2	AA	undefined	undefined
D3	AB	undefined	undefined
D4	AC	undefined	undefined
D5	4A	undefined	¢
D6	AE	undefined	undefined
D7	AF	undefined	undefined
D8	во	undefined	undefined
D9	B1	undefined	undefined
DA	B2	undefined	undefined
DB	B3	undefined	undefined
DC	B4	undefined	undefined
DD	B5	undefined	undefined
DE	B6	undefined	undefined
DF	B7	undefined	undefined
EO	B8	undefined	undefined
E1	B9	undefined	undefined
E2	BA	undefined	undefined
E3	BB	undefined	undefined

ASCII Code	Translated to EBCDIC	ASCII character	EBCDIC character
E4	BC	undefined	undefined
E5	4F	undefined	
E6	BE	undefined	undefined
E7	BF	undefined	undefined
E8	CA	undefined	undefined
E9	СВ	undefined	undefined
EA	i cc	undefined	undefined
EB	CD	undefined	undefined
EC	CE	undefined	undefined
ED	CF	undefined	undefined
EE	DA	undefined	undefined
EF	DB	undefined	undefined
FO	DC	undefined	undefined
F1	DD	undefined	undefined
F2	DE	undefined	undefined
F3	DF	undefined	undefined
F4	EA	undefined	undefined
F5	EB	undefined	undefined
F6	EC	undefined	undefined
F7	ED	undefined	undefined
F8	EE	undefined	undefined
F9	EF	undefined	undefined
FA	FA	undefined	undefined
FB	FB	undefined	undefined
FC FC	FC	undefined	undefined
FD	FD	undefined	undefined
FE	FE	undefined	undefined
FF	FF	undefined	undefined
i i i i i i i i i i i i i i i i i i i	1		

## 1.7 TREBASQS (expanded EBCDIC to ASCII)

	Translated		
EBCDIC	to	EBCDIC	ASCII
Code	ASCII	character	character
00	00	NUL	NUL
01	01	SOH	SOH
02	02	STX	STX
03	03	ETX	ETX
04	9C	SEL	undefined
05	09	HT	HT
06	86	RNL	undefined
07	<b>7</b> F	DEL	DEL
08	97	GE	undefined
09	8D	SPS	undefined
0A	8E	RPT	undefined
OB	OB	VT	VT
		77	- - - -
	00	CR	CR
	0E	SO SO	SO
		ST	ST
10	10	DLE	DLE
11	11	DC1	DC1
12	12		
13	85	DC3	undefined
1/1	טס מפ	RES/END	undefined
14	13		DC3
15	08	BS	BS
10	87		undofinod
19	19		CAN
	10	EM	EM
			undofined
			undefined
			TC
			13 CC
			63
			KS
			US and Sined
20	00	200 200	underined
		505	underined
22	δ2	FS VUIC	undefined
23	83   97		undefined
24	84	L RIL/INL	unaeiinea
25			
26	1/	ETB	ETB
27		ESC	ESC
28	88	SA SA	undefined
29	89	SFE	undefined
2A	8A	SM/SW	undefined
2B	8B		undefined

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
20	80	MFA	undefined
ן 20 מו			
2D   2F	06		
25		RFL.	RFL
30	90	undefined	undefined
31	91	undefined	undefined
32	16	SYN	SYN
33	93		undefined
34	94	PP	undefined
35	95	TRN	undefined
36	96	NBS	undefined
37	04	ЕОТ	EOT
38	98	SBS	undefined
39	99	IT	undefined
3A	9A	RFF	undefined
3B	9B	CU3	undefined
3C	14	DC4	DC4
3D	15	NAK	NAK
3E	9E	undefined	undefined
3F	1A	SUB	SUB
40	20	SP	SP
41	AO	RSP	undefined
42	A1	undefined	undefined
43	A2	undefined	undefined
44	A3	undefined	undefined
45	A4	undefined	undefined
46	A5	undefined	undefined
47	A6	undefined	undefined
48	A7	undefined	undefined
49	A8	undefined	undefined
4A	D5	¢	undefined
4B	2E	•	•
4C	3C	<	<
4D	28	(	(
4E	2B	+	+
4F	E5		undefined
50	26	Č.	ά.
51	A9	undefined	undefined
52	AA	undefined	undefined
53		undefined	undefined
54		undefined	undefined
		underined	
50		undefined	undefined
50		undefined	undefined
50	ן DU דים	undefined	undefined
39		underined	underined

EBCDIC Code	Translated to ASCII	EBCDIC character	ASCII character
54	21	P	
50		,	् रू
50   5D	20		
1 5E	29   38	, ,	
5E		ا د	ر 
51   60			_
61		-	-
62		/ undofined	/ undofined
63		undefined	undefined
64	B7	undefined	undefined
65	D4   B5	undefined	undefined
66	B6	undefined	undefined
67	B7	undefined	undefined
68	I BR	undefined	undefined
69	R G	undefined	undefined
Γ 6Δ		diffeet theo	andermed
6B			
6C	25	3 0/	• %
6D	25   5F	/0	/0
6E	3E		
6F	3F	?	2
70	RΔ	undefined	undefined
71	BR	undefined	undefined
72	BC	undefined	undefined
73	BD	undefined	undefined
74	BE	undefined	undefined
75	BF	undefined	undefined
76		undefined	undefined
77	C1	undefined	undefined
78	C2	undefined	undefined
79	60	andor mod	unaorinoa
7A	3A	•	•
7B	23	4	4
70	40	n Q	a "
70	27	1	1
7E	3D	=	=
7F	22	11	**
80	C3	undefined	undefined
81	61	a	a
82	62	b	b
83	63	~ C	~ C
84	64	e	ď
85	65	d	e
86	66	f	f
87	67	- 9	ø
		5	5

	  Translated		
EBCDIC	to	EBCDIC	ASCII
Code	ASCII	character	character
		·	
88	68	h	h
89	69	i	i
8A	C4	undefined	undefined
8B	C5	undefined	undefined
8C	C6	undefined	undefined
8D	C7	undefined	undefined
8E	C8	undefined	undefined
8F	C9	undefined	undefined
.90	CA	undefined	undefined
91	6A	l j	j
92	6B	k	k
93	6C	1	1
94	6D	m	m
95	6E	n	n
96	6F	o	0
97	70	p	p
98	71	q	q
99	72	r	r
9A	CB	undefined	undefined
9B	i cc	undefined	undefined
9C	j CD	undefined	undefined
9D	CE	undefined	undefined
9E	CF	undefined	undefined
9F	DO	undefined	undefined
AO	D1	undefined	undefined
A1	7E	0	0
A2	73	s	S
A3	74	t	t
A4	75	u	u
A5	76	v	v
A6	77	w	W
A7	78	x	х
A8	79	У	У
A9	7A	Z	Z
AA	D2	undefined	undefined
AB	D3	undefined	undefined
AC	D4	undefined	undefined
AD	5B	undefined	undefined
AE	D6	undefined	undefined
AF	D7	undefined	undefined
BO	D8	undefined	undefined
B1	D9	undefined	undefined
B2	DA	undefined	undefined
B3	DB	undefined	undefined
B4	DC	undefined	undefined
B5	DD	undefined	undefined
L	1	1	

	Translated		
EBCDIC	to	EBCDIC	ASCIT
Code	ASCIT	character	character
		Character	
B6	DE	undefined	undefined
B7	DF	undefined	undefined
B8	EO	undefined	undefined
B9	E1	undefined	undefined
BA	E2	undefined	undefined
BB	E3	undefined	undefined
BC	E4	undefined	undefined
BD	5D	1	]
BE	E6	undefined	undefined
BF	E7	undefined	undefined
со	7B	{	{
C1	41	Â	Å
C2	42	В	В
C3	43	С	C
C4	44	D	D
C5	45	E	Е
C6	46	F	F
C7	47	G	G
C8	48	Н	Н
C9	49	I	I
CA	E8	SHY	undefined
СВ	E9	undefined	undefined
CC	EA	undefined	undefined
CD	EB	undefined	undefined
CE	EC	undefined	undefined
CF	ED	undefined	undefined
DO	7D	}	}
D1	4A	J	J
D2	4B	K	K
D3	4C	L	L
D4	4D	M	M
D5	4E	N	N
D6	4F	0	0
D7	50	Р	Р
D8	51	Q	Q
D9	52	R	R
DA	EE	undefined	undefined
DB	EF	undefined	undefined
DC	FO	undefined	undefined
DD	F1	undefined	undefined
DE	F2	undefined	undefined
DF	F3	undefined	undefined
EO	5C	۱ ۱	١
E1	9F	NSP	undefined
E2	53	S	S
E3	54	T	Т
	1	I	1

[	Tranclated		
	to	FRODIC	ASCIT
		EDUDIU	Abouton
	ASCII	cnaracter	character
E4	55	U	U
E5	56	V	V
E6	57	W	W
E7	58	Х	Х
E8	59	Y	Y
E9	5A	Z	Z
EA	F4	undefined	undefined
EB	F5	undefined	undefined
EC	F6	undefined	undefined
ED	F7	undefined	undefined
EE	F8	undefined	undefined
EF	F9	undefined	undefined
FO	30	0	0
F1	31	1	1
F2	32	2	2
F3	33	3	3
F4	34	4	4
F5	35	5	5
F6	36	6	6
F7	37	7	7
F8	38	8	8
F9	39	9	9
FA	FA		undefined
FB	FB	undefined	undefined
FC	FC	undefined	undefined
FD	FD	undefined	undefined
FE	FE	undefined	undefined
FF	FF	EO	undefined
1	1	1	1

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	STATE	ZIP
		STATE





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