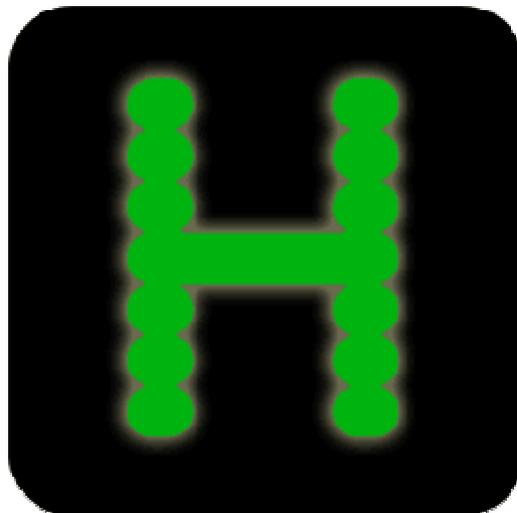


**Hercules System/370, ESA/390, z/Architecture Emulator**

# **Hercules – Messages and Codes**

*Version 3 Release 06*



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# 1. Preface

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## 1.1 Edition information

This edition applies to the Hercules S/370, ESA/390 and z/Architecture Emulator Release 3.06.0 and to all subsequent versions, releases and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of software you are using.

---

## 1.2 What this book is about

This book describes all messages and codes of the Hercules Emulator.

For guidance in operating or debugging Hercules, for a general overview or for guidance in installation of the product, additional manuals are available. Please see Chapter “Related Publications” for more information on these manuals.

Please note that some information can be found in more than one manual. This redundancy is not intended to unnecessarily expand the manuals but should help to find all necessary information in one place.

---

## 1.3 Who should read this book

This book is mainly intended for people who are responsible for operating the Hercules Emulator. It serves as a starting point for resolving errors in the Hercules environment.

---

## 1.4 What you need to know to understand this book

To understand this book you should be somewhat familiar with the Windows (XP, W2K, W2K3, Vista, W2K8) and/or Linux operating systems. You should also be familiar with the installation and operation of the Hercules Emulator itself.

Last but not least you should be familiar with the hardware and software of IBM mainframe environments and their underlying ideas and concepts, as Hercules emulates IBM mainframe hardware.

---

## 1.5 How to use this book

This book is designed as a reference book for all messages and codes of the Hercules Emulator and related products. It is not intended to be read chapter by chapter.

---

## 1.6 Revision Notice

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Date:	February 16, 2010

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## 1.7 Readers Comments

If you like or dislike anything about this book please send an email to the address below. Feel free to comment on any errors or lack of clarity. Please limit your comments on the information in this specific book and also include the "Revision Notice" just above. Thank you for your help.

Send your comments by email to the Hercules-390 discussion group:

[hercules-390@yahoogroups.com](mailto:hercules-390@yahoogroups.com)

---

## 1.8 Legal Advice

Hercules implements only the raw S/370, ESA/390, and z/Architecture instruction set, it does not provide any operating system facilities. This means that you need to provide an operating system or standalone program which Hercules can load from an emulated disk or tape device. You will have to write the operating system or standalone program yourself, unless you possess a license from IBM to run one of their operating systems on your PC, or use IBM programs and operating systems which have been placed in the public domain.

***NOTE: It is YOUR responsibility to comply with the terms of the license for the operating system you intend to run on the Hercules Emulator.***

---

## 1.9 Trademarks

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---

## 1.10 Acknowledgements

The Hercules manuals would not have been possible without the assistance of many people and I would like to thank all those who helped me. In particular I would like to thank:

- The Hercules developers for their documentation on various websites from which I derived a great deal of information.
- Roger Bowler and Fish for proof-reading the manuals.
- Loris Degoianni for allowing me to use parts of the original WinPcap documentation.
- Tom Brennan for allowing me to use parts of his Vista tn3270 documentation.
- My colleagues for working with early previews of the documentation, beginning with just a few pages.
- Mike Cairns for reviewing and editing the manuals.

If anyone feels they have been forgotten on this list please let me know.

Peter Glanzmann

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## **2. Related Publications**

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### **2.1 Hercules Emulator – General Information**

The Hercules "General Information" manual provides an overview of the ideas and concepts of the Hercules Emulator as well as documentation of the emulators functionality. It explains what Hercules does and does not and helps you decide if the software fits to your needs and if it can fulfill all your requirements.

---

### **2.2 Hercules Emulator – Installation Guide**

The Windows installation guide shows you how to install Hercules and all related optional and required software components under the Microsoft Windows, Linux and Apple Macintosh OS X operating systems. After going through the installation guide you will have a working emulator environment ready to IPL a S370, S/390 or z/Architecture mainframe operating system.

---

### **2.3 Hercules Emulator – User Reference Guide**

The Hercules "User Reference" leads you through all aspects of the emulators operation. It provides instruction in the operation of the Hercules Emulator with and without the Windows GUI. The usage details for all Hercules utilities are also covered in this guide.

After reading this manual you should be able to work with Hercules and the Hercules console, create virtual devices, understand backup/restore procedures and general housekeeping within the Hercules environment.

---

### **2.4 Hercules Emulator – Messages and Codes**

The "Messages and Codes" manual provides a detailed explanation of all Hercules related messages. It is the primary source for troubleshooting and debugging when you experience problems with Hercules.

---

### **2.5 Hercules Emulator – Reference Summary**

The Hercules "Reference Summary" booklet lists all the system parameters, device definitions, console commands, Hercules utilities etc. along with their arguments.

This booklet is intended as a quick reference guide for experienced users. Consult the Hercules "User Reference Guide" for more detailed and additional information.

---

## 3. Introduction

---

### 3.1 Overview

This Chapter gives an introduction to the messages and codes of the Hercules Emulator and related tools, as well as the messages written from the various standalone utility programs.

---

### 3.2 Locations

All messages are written to the Hercules console (native console as well as the Hercules Windows GUI) and to the Hercules log file, if a log file is specified in the startup command.

---

### 3.3 Message Format

All Hercules-issued Messages have the following format:

**H H C m m n n n s text**

The following table explains the various parts of the message format:

Part	Explanation
<b>HHC</b>	HHC is the message prefix for Hercules. All Hercules messages will have this prefix.
<b>mm</b>	“mm” specifies the function that issued the message. A detailed list of all functions can be found in section 3.4.
<b>nnn</b>	“nnn” specifies the message number. This number is assigned more or less sequentially.
<b>s</b>	“s” is the message severity. Details can be found in section 3.5.
<b>text</b>	“text” is the actual message text.

**Table 1: Message Format**

---

### 3.4 Function List

The following table presents all the Hercules function prefixes from the messages, along with a short description of the function:

Prefix	Function
<b>AO</b>	Hercules Automatic Operator

<b>Prefix</b>	<b>Function</b>
<b>CA</b>	Communication Adapter Emulation
<b>CF</b>	Configuration File Processing
<b>CP</b>	CPU Emulation
<b>CT</b>	Channel-to-Channel Adapter Emulation
<b>CU</b>	CCKD Utilities
<b>DA</b>	DASD Emulation (CKD, CCKD and FBA)
<b>DC</b>	DASDCOPY Utility
<b>DG</b>	Dyngui.DLL
<b>DI</b>	DASDINIT Utility
<b>DL</b>	DASDLOAD Utility
<b>DS</b>	DASDISUP Utility
<b>DT</b>	DASDCAT Utility
<b>DU</b>	DASD Utilities Common Functions
<b>HD</b>	Hercules Dynamic Loader
<b>HE</b>	HETINIT Utility
<b>HG</b>	HETGET Utility
<b>HM</b>	HETMAP Utility
<b>HT</b>	HTTP Server
<b>HU</b>	HETUPD Utility
<b>IF</b>	Network Interface Configuration Handler (hercific)
<b>IN</b>	Hercules Initialization
<b>LC</b>	LCS Emulation
<b>LG</b>	System Log Functions
<b>PN</b>	Hercules Control Panel Command Messages
<b>PR</b>	Printer Emulation
<b>PU</b>	Card Punch Emulation

Prefix	Function
RD	Card Reader Emulation
SD	Socket Devices Common Functions
TA	Tape Device Emulation
TC	TAPECOPY Utility
TE	Terminal Emulation
TM	TAPEMAP Utility
TS	TAPESPLT Utility
TT	TOD Clock and Timer Services
TU	TUN / TAP Driver Support
VM	VM / CP Emulation Facility

**Table 2: Hercules Function List**

---

### 3.5 Message Severity

The following table shows the different message severities, issued by the Hercules Emulator.

Code	Meaning
S	Severe error. This type of error causes immediate termination of Hercules.
E	Error. The function being executed did not execute correctly but Hercules should continue running
W	Warning. Not necessarily an error but something to take note of and possibly correct.
I	Information. General messages that do not require any further action.
A	Action. You need to do something.
D	Debug. Debugging Messages.

**Table 3: Message Severity**

---

## 3.6 Message Examples

The following figure shows some Hercules messages. Although these messages are from a real IPL, please note that they are not complete i.e some messages have been deleted. The messages are shown just as an example of how messages look, especially the variable parts of messages.

```
01:13:24 Hercules Version 3.05
01:13:24 (c)Copyright 1999-2007 by Roger Bowler, Jan Jaeger, and others
01:13:24 Built on Jun 24 2007 at 07:37:21
01:13:24 Build information:
01:13:24   Win32 (MSVC) build
01:13:24   Modes: S/370 ESA/390 z/Arch
01:13:24   Max CPU Engines: 8
01:13:24   Using fthreads instead of pthreads
01:13:24   Dynamic loading support
01:13:24   Loadable module default base directory is .
01:13:24   Using shared libraries
01:13:24   HTTP Server support
01:13:24   No SIGABEND handler
01:13:24   Regular Expressions support
01:13:24   Automatic Operator support
01:13:24   Machine dependent assists: cmpxchg1 cmpxchg4 cmpxchg8 fetch_dw store_dw
01:13:24 Running on LENA Windows_NT-5.1 i686 MP=2
01:13:24 Crypto module loaded (c) Copyright Bernard van der Helm, 2003-2007
01:13:24 HHCCF020W Vector Facility support not configured
01:13:24 HHCCF065I Hercules: tid=000006AC, pid=1900, pgid=1900, priority=0
01:13:24 HHCTE001I Console connection thread started: tid=00000FBC, pid=1900
01:13:24 HHCTE003I Waiting for console connection on port 3270
01:13:24 HHCDAA020I D:/MVS/DASD/WORK00.140c cyls=555 heads=30 tracks=16650 trklen=19456
.
.
.
01:13:24 HHCDAA020I D:/MVS/DASD/TST003.34Bc cyls=560 heads=30 tracks=16800 trklen=19456
01:13:24
01:13:24 HHCCF069I Run-options enabled for this run:
01:13:24   NUMCPU:          2
01:13:24   ASN-and-LX-reuse: DISabled
01:13:24   DIAG8CMD:        DISabled
01:13:24 HHCCP002I CPU0000 thread started: tid=00000820, pid=1900, priority=0
01:13:24 HHCCP003I CPU0000 architecture mode S/370
01:13:24 HHCTT002I Timer thread started: tid=000007A4, pid=1900, priority=-20
01:13:24 HHCCP002I CPU0001 thread started: tid=000008E4, pid=1900, priority=0
01:13:24 HHCCP003I CPU0001 architecture mode S/370
01:13:24 HHCPN001I Control panel thread started: tid=000006AC, pid=1900
01:13:24 HHCHT001I HTTP listener thread started: tid=00000818, pid=1900
01:13:24 HHCHT013I Using HTTPROOT directory "D:\Hercules\html\"
01:13:24 HHCAO001I Hercules Automatic Operator thread started;
01:13:24   tid=00000F58, pri=0, pid=1900
01:13:24 HHCHT006I Waiting for HTTP requests on port 8081
.
.
.
01:13:34 quit
01:13:34 HHCIN900I Begin Hercules shutdown
01:13:34 HHCIN901I Releasing configuration
01:13:34 HHCAO002I Hercules Automatic Operator thread ended
01:13:34 HHCCP008I CPU0000 thread ended: tid=00000820, pid=1900
01:13:34 HHCCP008I CPU0001 thread ended: tid=000008E4, pid=1900
01:13:34 HHCCF047I Subchannel 0:0000 detached
.
.
```

```

.
01:13:34 HHCCF047I Subchannel 0:000E detached
01:13:34 HHCTE004I Console connection thread terminated
01:13:34 HHCCD210I          size free  nbr st   reads  writes l2reads   hits
switches
01:13:34 HHCCD212I -----
01:13:34 HHCCD213I [*]      37956   0%   0           0       0       0       0       0
01:13:34 HHCCD215I D:/MVS/DASD/SORT00.130c
01:13:34 HHCCD216I [0]      37956   0%   0 rw        0       0       0
01:13:34 HHCTT003I Timer thread ended
01:13:34 HHCCF047I Subchannel 0:000F detached
.
.
.
01:13:34 HHCCD210I          size free  nbr st   reads  writes l2reads   hits
switches
01:13:34 HHCCD212I -----
01:13:34 HHCCD213I [*]      148260  0%   0           0       0       0       0       0
01:13:34 HHCCD215I D:/MVS/DASD/TST003.34Bc
01:13:34 HHCCD216I [0]      148260  0%   0 rw        0       0       0
01:13:34 HHCCF047I Subchannel 0:0030 detached
01:13:34 HHCCF047I Subchannel 0:0031 detached
01:13:34 HHCIN902I Configuration release complete
01:13:34 HHCIN903I Calling termination routines
01:13:34 HHCHD900I Begin shutdown sequence
01:13:34 HHCHD901I Calling panel_cleanup
01:13:34 HHCHD902I panel_cleanup complete
01:13:34 HHCHD901I Calling console_shutdown
01:13:34 HHCHD902I console_shutdown complete
01:13:34 HHCHD901I Calling hdl_term
01:13:34 HHCHD950I Begin HDL termination sequence
01:13:34 HHCLG014I logger thread terminating
01:13:34 HHCIN099I Hercules terminated

```

**Figure 1: Sample Messages**

---

## 4. Messages HHCAOnnns - Hercules Automatic Operator

---

### HHCAOnnns

Messages HHCAOnnns are not yet documented.

---

## 5. Messages HHCCAnnns - Communication Adapter Emulation

---

### HHCCA001I

**HHCCA001I CCUU:Connect out to *ipaddr:port* failed during initial status : *System Cause Text***

**Explanation**

Hercules attempted to make an outgoing TCP connection to *ipaddr:port* but the system indicated that there was an error while processing the request.

**System Action**

The DIAL or ENABLE CCW that caused the connection attempt ends with Unit Check and Intervention Required. The reason for the failure is indicated in the *System Cause Text* field

**Operator Action**

None

**Programmer Action**

Correct the RHOST/RPORT configuration statements in the configuration file. If this message occurred during a program initiated DIAL, correct the dial data.

---

### HHCCA002I

**HHCCA002I CCUU:Line Communication thread *thread id* started**

**Explanation**

The thread responsible for asynchronous operations for the BSC emulated line *CCUU* has been started.

**System Action**

The system continues.

**Operator Action**

None. This is an informational message.

**Programmer Action**

None. This is an informational message.

---

### HHCCA003E

**HHCCA003E CCUU:Cannot obtain socket for incoming calls : *System Cause Text***

**Explanation**

A system error occurred while attempting to create a socket to listen for incoming calls.

**System Action**

The device creation is aborted.

**Operator Action**

None.

**Programmer Action**

Check the *System Cause Text* for any information relating to the host system. Notify support.

---

**HHCCA004W****HHCCA004W CCUU:Waiting 5 seconds for port *port* to become available****Explanation**

While attempting to reserve port *port* to listen to, the system indicated the port was already being used.

**System Action**

The system waits 5 seconds and then retries the operation.

**Operator Action**

Terminate the device if the port is in error.

**Programmer Action**

Determine the program holding the specified port. If the port cannot be made available, use a different port.

---

**HHCCA005I****HHCCA005I CCUU:Listening on port *port* for incoming TCP connections****Explanation**

The system is now listening on port *port* for incoming a tcp connection.

**System Action**

The system continues.

**Operator Action**

None. This is an informational message.

**Programmer Action**

None. This is an informational message.

---

**HHCCA006T****HHCCA006T CCUU>Select failed : *System Cause Text*****Explanation**

An error occurred during a 'select' system call.

**System Action**

The BSC thread is terminated.

**Operator Action**

None.

---

**Programmer Action**

Check the *System Cause Text* for any indication of where the error might come from. Notify Support.

---

**HHCCA007W**

**HHCCA007W CCUU:Outgoing call failed during *ENABLE/DIAL* command : *System Cause Text***

**Explanation**

The system reported that a previously initiated TCP connection could not be completed.

**System Action**

The I/O operation responsible for the TCP outgoing connection is ended with Unit Check and Intervention Required.

**Operator Action**

If the error indicates that the error is temporary, retry the operation.

**Programmer Action**

Check that the destination for this line is correctly configured. If the operation was a DIAL attempt, check in the application configuration or operation data.

---

**HHCCA008I**

**HHCCA008I CCUU:cthread - Incoming Call**

**Explanation**

The BSC thread has received an incoming call.

**System Action**

Depending on configuration and operational status, the call is either accepted or rejected. Eventually an ongoing I/O operation may complete.

**Operator Action**

None. This is an informational message.

**Programmer Action**

None. This is an informational message.

---

**HHCCA009I**

**HHCCA009I CCUU:BSC utility thread terminated**

**Explanation**

The BSC thread has ended.

**System Action**

The system continues.

**Operator Action**

Refer to any previous error message to determine if this message was not unexpected.

---

**Programmer Action**

Refer to any previous error message to determine if this message was not unexpected.

---

**HHCCA010I****HHCCA010I CCUU:initialization not performed****Explanation**

The Device initialization process has failed.

**System Action**

The system terminates or continues, depending on the reason for which the device was initialization was initiated.

**Operator Action**

Refer to any previous error message.

**Programmer Action**

Refer to any previous error message.

---

**HHCCA011E****HHCCA011E CCUU>Error parsing *Keyword*****Explanation**

The device keyword parser found an error while parsing a known keyword.

**System Action**

The system continues. The device initialization routine turns on a NOGO flag.

**Operator Action**

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

**Programmer Action**

For an engine initialization, correct the device configuration parameters in the configuration file.

---

**HHCCA012E****HHCCA012E CCUU:Unrecognized parameter *Keyword*****Explanation**

The device keyword parser found an unknown keyword in the device parameter list.

**System Action**

The system continues. The device initialization routine turns on a NOGO flag.

**Operator Action**

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

**Programmer Action**

For an engine initialization, correct the device configuration parameters in the configuration file.

---

---

## HHCCA013E

**HHCCA013E CCUU:Incorrect *local port/remote port/local host/remote host specification value***

### **Explanation**

The device initialization routine could not correctly parse a parameter value.

### **System Action**

The system continues. The device initialization routine turns on a NOGO flag.

### **Operator Action**

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

### **Programmer Action**

For an engine initialization, correct the device configuration parameters in the configuration file.

---

## HHCCA014E

**HHCCA014E CCUU:Incorrect *switched/dial specification value; defaulting to DIAL=OUT***

### **Explanation**

The device initialization routine found an incorrect DIAL value.

### **System Action**

The system continues. The device initialization routine turns on a NOGO flag.

### **Operator Action**

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

### **Programmer Action**

For an engine initialization, correct the device configuration parameters in the configuration file.

---

## HHCCA015E

**HHCCA015E CCUU:Missing parameter : *DIAL=NO/IN/OUT/INOUT and LPORT/RPORT/LHOST/RHOST not specified***

### **Explanation**

The device initialization routine found that a mandatory parameter was not provided for a specific DIAL Value.

### **System Action**

The system continues. The device initialization routine turns on a NOGO flag.

### **Operator Action**

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

### **Programmer Action**

For an engine initialization, correct the device configuration parameters in the configuration file.

### **Note**

For DIAL=NO , LPORT, RPORT and RHOST are needed

For DIAL=IN , LPORT is required

For DIAL=OUT None of LPORT,LHOST,RPORT,RHOST are required  
For DIAL=INOUT, LPORT is required

---

## HHCCA016W

**HHCCA016W CCUU:Conflicting parameter : DIAL=NO|IN|OUT|INOUT and LPORT|RPORT|LHOST|RHOST=value specified**

### Explanation

The device initialization routine found that a parameter was provided for a parameter that is not relevant for a specific DIAL value.

### System Action

The parameter is ignored. The system continues.

### Operator Action

For a runtime initialization, correct the device initialization parameters, otherwise notify the programmer.

### Programmer Action

For an engine initialization, correct the device configuration parameters in the configuration file.

### Note

For DIAL=IN , RPORT and RHOST are ignored  
For DIAL=OUT , LPORT, LHOST, RPORT and RHOST are ignored  
For DIAL=INOUT, RPORT and RHOST are ignored

---

## HHCCA017I

**HHCCA017I CCUU:LPORT|RPORT|LHOST|RHOST parameter ignored**

### Explanation

The system indicates that the parameter specified is ignored. This message is preceded by message HHCCA016W.

### System Action

The system continues.

### Operator Action

None.

### Programmer Action

None.

---

## HHCCA018E

**HHCCA018E CCUU:Bind failed : *System Cause Text***

### Explanation

While attempting to bind a socket to a specific host/port, the host system returned an uncorrectable error.

### System Action

BSC Thread terminates.

**Operator Action**

None.

**Programmer Action**

Check that the LHOST parameter for this device is indeed a local IP address, otherwise notify support.

---

**HHCCA019E****HHCCA019E CCUU:BSC comm thread did not initialise****Explanation**

The BSC communication thread reported that it terminated while the device was initialising.

**System Action**

The device is not initialised.

**Operator Action**

Check for any previously issued error message.

**Programmer Action**

Check for any previously issued error message.

---

**HHCCA020E****HHCCA020E CCUU:Memory allocation failure for main control block****Explanation**

A memory allocation failure occurred, while attempting to reserve memory for the Communication Adapter control block.

**System Action**

The device is not initialised.

**Operator Action**

None.

**Programmer Action**

Contact support.

---

**HHCCA021I****HHCCA021I CCUU:Initialization failed due to previous errors****Explanation**

The initialization process for device *CCUU* did not complete successfully.

**System Action**

The device is not initialised.

**Operator Action**

None.

---

**Programmer Action**

Refer to any previous error message.

---

**HHCCA300D****HHCCA300D *Debug Message*****Explanation**

This is a debug message. CCW Tracing has been turned on for this device and the Line Handler issues debug messages to help diagnose interface, conformance and protocol issues.

**System Action**

The system continues.

**Operator Action**

If the debug messages are no longer necessary, turn off CCW tracing (panel command : 't-CCUU').

**Programmer Action**

None.

---

## 6. Messages HHCCFnnns - Configuration File Processing

---

### HHCCF001S

**HHCCF001S** Error reading file *filename* line *lineno*: *error*

**Explanation**

An error was encountered reading the configuration file named *filename* at line number *lineno*. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCCF002S

**HHCCF002S** File *filename* line *lineno* is too long

**Explanation**

The line at line number *lineno* in the configuration file *filename* is too long and cannot be processed.

**Action**

Correct the line and restart Hercules.

---

### HHCCF003S

**HHCCF003S** Cannot open file *filename*: *error*

**Explanation**

The configuration file named *filename* could not be opened. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCCF004S

**HHCCF004S** No device records in file *filename*

**Explanation**

The configuration file named *filename* does not contain any device definition records. Without these, Hercules cannot do any meaningful work.

**Action**

Specify one or more device definitions in the configuration file and restart Hercules.

---

---

## HHCCF005S

### HHCCF005S Error in *filename* line *lineno*: Unrecognized argument *argument*

#### Explanation

An invalid argument, *argument*, was specified on the HTTPPORT configuration statement in the file named *filename* at line number *lineno*. Only the arguments *auth* and *noauth* are valid.

#### Action

Correct the invalid argument and restart Hercules.

---

## HHCCF006S

### HHCCF006S Error in *filename* line *lineno*: Userid, but no password given *userid*

#### Explanation

A *userid*, *userid*, was specified on the HTTPPORT configuration statement in the file named *filename* at line number *lineno*, but no password was provided. A password is required if a *userid* is present.

#### Action

Either remove the *userid*, or specify a password, and restart Hercules.

---

## HHCCF007S

### HHCCF007S Error in *filename* line *lineno*: Missing argument

#### Explanation

The HTTPROOT configuration statement was specified in the file named *filename* at line number *lineno*, but no directory was specified. A directory is required.

#### Action

Specify the directory where the Hercules web server will find its HTML files and restart Hercules.

---

## HHCCF008E

### HHCCF008E Error in *filename* line *lineno*: Unrecognized keyword *keyword*

#### Explanation

An invalid configuration statement was specified in the file named *filename* at line number *lineno*. The invalid keyword was *keyword*.

#### Action

Correct the invalid statement and restart Hercules.

---

---

## HHCCF009S

**HHCCF009S Error in *filename* line *lineno*: Incorrect number of operands**

**Explanation**

The configuration statement at line *lineno* of the file named *filename* had an invalid number of operands. For all but the HTTPPORT statement exactly one operand is required.

**Action**

Correct the invalid statement and restart Hercules.

---

## HHCCF010S

**HHCCF010S Error in *filename* line *lineno*: Unknown or unsupported ARCHMODE specification *mode***

**Explanation**

The ARCHMODE configuration statement at line *lineno* of the file named *filename* specified an invalid architecture. Only S/370, ESA/390, or ESAME are valid. If one of these was specified, then support for that architecture was excluded when the copy of Hercules in use was compiled.

**Action**

Correct the specified value and restart Hercules. If the message was issued because support for the desired architecture was excluded, then recompile Hercules.

---

## HHCCF011S

**HHCCF011S Error in *filename* line *lineno*: *serialno* is not a valid serial number**

**Explanation**

The serial number *serialno* specified on the CPUSERIAL configuration statement at line number *lineno* of the file named *filename* must be exactly six digits long and must be a valid hexadecimal number.

**Action**

Correct the serial number and restart Hercules.

---

## HHCCF012S

**HHCCF012S Error in *filename* line *lineno*: *modelno* is not a valid CPU model**

**Explanation**

The model number *modelno* specified on the CPUMODEL configuration statement at line number *lineno* of the file named *filename* must be exactly four digits long, and must be a valid hexadecimal number.

**Action**

Correct the model number and restart Hercules.

---

---

## HHCCF013S

**HHCCF013S Error in *filename* line *lineno*: Invalid main storage size *size***

**Explanation**

The main storage size *size* specified on the MAINSIZE configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number between 2 and 1024.

**Action**

Correct the main storage size and restart Hercules.

---

## HHCCF014S

**HHCCF014S Error in *filename* line *lineno*: Invalid expanded storage size *size***

**Explanation**

The expanded storage size *size* specified on the XPNDSIZE configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number between 0 and 1024.

**Action**

Correct the expanded storage size and restart Hercules.

---

## HHCCF015S

**HHCCF015S Error in *filename* line *lineno*: Invalid console port number *port***

**Explanation**

The console port number *port* specified on the CNSLPORT configuration statement at line number *lineno* of the file named *filename* must be a valid nonzero decimal number.

**Action**

Correct the console port number and restart Hercules.

---

## HHCCF016S

**HHCCF016S Error in *filename* line *lineno*: Invalid *threadname* thread priority *priority***

**Explanation**

The thread priority *priority* specified on the xxxPRIO configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number.

**Action**

Correct the priority on the statement and restart Hercules.

---

---

## HHCCF017W

**HHCCF017W Hercules is not running as setuid root, cannot raise *threadname* priority**

### Explanation

A negative value for the *threadname* thread priority parameter *xxxPRIO* was specified but Hercules is not running as the root user (either directly or via the setuid mechanism). This parameter value would cause the priority of the CPU execution thread to be raised above the normal level if Hercules were running as root. Since it is not, however, the parameter will have no effect.

### Action

Either specify a positive value to lower the CPU thread priority, zero to not alter the priority, or omit the statement entirely to use the Hercules default CPU thread priority of 15.

---

## HHCCF018S

**HHCCF018S Error in *filename* line *lineno*: Invalid number of CPUs *number***

### Explanation

The number of emulated CPUs *number* specified on the NUMCPU configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number between 1 and the maximum number defined when Hercules was built (usually 2; this number is never more than 2 for S/370 mode, or 16 for ESA/390 or ESAME mode).

### Action

Correct the number of emulated CPUs and restart Hercules.

---

## HHCCF019S

**HHCCF019S Error in *filename* line *lineno*: Invalid number of VFs *number***

### Explanation

The number of emulated Vector Facility engines *number* specified on the NUMVEC configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number between 1 and the maximum number defined when Hercules was built (usually 2).

### Action

Correct the number of emulated Vector Facility engines and restart Hercules.

---

## HHCCF020W

**HHCCF020W Vector Facility support not configured**

### Explanation

A request for Vector Facility support was made by the NUMVEC configuration statement, but Hercules was built without the Vector Facility code. The request has been ignored.

**Action**

If Vector Facility support is desired, recompile Hercules. If not, remove the NUMVEC configuration statement.

---

**HHCCF021S**

**HHCCF021S Error in *filename* line *lineno*: Load parameter *loadparm* exceeds 8 characters**

**Explanation**

The IPL parameter *loadparm* specified on the LOADPARM configuration statement at line number *lineno* of the file named *filename* must be no more than 8 characters long.

**Action**

Correct the IPL parameter and restart Hercules.

---

**HHCCF022S**

**HHCCF022S Error in *filename* line *lineno*: *epoch* is not a valid system epoch**

**Explanation**

The system epoch *epoch* specified on the SYSEPOCH configuration statement at line number *lineno* of the file named *filename* must be one of the following: 1900, 1928, 1960, 1988, or 1970.

**Action**

Correct the system epoch and restart Hercules. If a different epoch is desired, a change must be made to the Hercules source file config.c and Hercules rebuilt.

---

**HHCCF023S**

**HHCCF023S Error in *filename* line *lineno*: *offset* is not a valid timezone offset**

**Explanation**

The system timezone offset *offset* specified on the TZOFFSET configuration statement at line number *lineno* of the file named *filename* must be five characters long and a valid decimal number of the form (+|-)number, where number must be between zero and 2359 (representing 23 hours, 59 minutes).

**Action**

Correct the time zone offset and restart Hercules.

---

**HHCCF024S**

**HHCCF024S Error in *filename* line *lineno*: Invalid TOD clock drag factor *drag***

**Explanation**

The TOD clock drag factor *drag* specified on the TODDRAG configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number between 1 and 10000.

**Action**

Correct the TOD clock drag factor and restart Hercules.

---

## HHCCF025S

**HHCCF025S Error in *filename* line *lineno*: Invalid panel refresh rate *rate***

**Explanation**

The control panel refresh rate *rate* specified on the PANRATE configuration statement at line number *lineno* of the file named *filename* must be either F, S, or a valid decimal number between 1 and 5000.

**Action**

Correct the control panel refresh rate and restart Hercules.

---

## HHCCF026S

**HHCCF026S Error in *filename* line *lineno*: Unknown OS tailor specification *tailor***

**Explanation**

The OS tailoring value *tailor* specified on the OSTAILOR configuration statement at line number *lineno* of the file named *filename* must be either OS/390, VSE, VM, LINUX, NULL, or QUIET.

**Action**

Correct the OS tailoring value and restart Hercules.

---

## HHCCF027S

**HHCCF027S Error in *filename* line *lineno*: Invalid maximum device threads *threads***

**Explanation**

The maximum device threads *threads* specified on the DEVTMAX configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number greater than -1.

**Action**

Correct the maximum device threads and restart Hercules.

---

## HHCCF028S

**HHCCF028S Error in *filename* line *lineno*: Invalid program product OS permission *permission***

**Explanation**

The program product OS permission *permission* specified on the PGMPRDOS configuration statement at line number *lineno* of the file named *filename* must be either LICENSED, LICENCED (for UK compatible spelling) or RESTRICTED.

**Action**

Correct the program product OS permission and restart Hercules.

---

## HHCCF029S

**HHCCF029S Error in *filename* line *lineno*: Invalid HTTP port number *port***

**Explanation**

The HTTP server port number *port* specified on the HTTPPORT configuration statement at line number *lineno* of the file named *filename* must be either 80, or a valid decimal number greater than 1024.

**Action**

Correct the HTTP server port number and restart Hercules.

---

## HHCCF030S

**HHCCF030S Error in *filename* line *lineno*: Invalid I/O delay value *delay***

**Explanation**

The I/O delay value *delay* specified on the IODELAY configuration statement at line number *lineno* of the file named *filename* must be a valid decimal number.

**Action**

Correct the I/O delay value and restart Hercules.

---

## HHCCF031S

**HHCCF031S Cannot obtain *sizeMB* main storage: *error***

**Explanation**

An attempt to obtain the amount of main storage specified by MAINSTOR failed for the reason described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCCF032S

**HHCCF032S Cannot obtain storage key array: *error***

**Explanation**

An attempt to obtain storage for the array of storage keys failed for the reason described by *error*.

**Action**

Correct the error and restart Hercules.

---

---

## HHCCF033S

### HHCCF033S Cannot obtain *sizeMB* expanded storage: *error*

#### Explanation

An attempt to obtain the amount of expanded storage specified by XPNDSTOR failed for the reason described by *error*.

#### Action

Correct the error and restart Hercules.

---

## HHCCF034W

### HHCCF034W Expanded storage support not installed

#### Explanation

A request was made for expanded storage by the XPNDSTOR configuration parameter, but Hercules was built without expanded storage support. The request was ignored.

#### Action

Either remove the XPNDSTOR configuration parameter or recompile Hercules with expanded storage support included.

---

## HHCCF035S

### HHCCF035S Error in *filename* line *lineno*: Missing device number or device type

#### Explanation

The I/O device definition statement at line number *lineno* of the file named *filename* did not contain a device number or a device type.

#### Action

Supply the missing value and restart Hercules.

---

## HHCCF036S

### HHCCF036S Error in *filename* line *lineno*: *number* is not a valid device number(s) specification

#### Explanation

The I/O device definition statement at line number *lineno* of the file named *filename* specified an invalid device number *number*. The device number must be one to four hexadecimal digits.

#### Action

Correct the device number and restart Hercules.

---

---

## HHCCF037S

### HHCCF037S Message pipe creation failed: *error*

#### Explanation

An attempt to create a pipe for communication with the control panel failed. The error is described by *error*.

#### Action

Correct the error and restart Hercules.

---

## HHCCF038S

### HHCCF038S Message pipe open failed: *error*

#### Explanation

An attempt to open the pipe for communication with the control panel failed. The error is described by *error*.

#### Action

Correct the error and restart Hercules.

---

## HHCCF039W

**HHCCF039W PGMPRDOS LICENSED specified. A licensed program product operating systems is running. You are responsible for meeting all conditions of your software license.**

#### Explanation

The configuration parameter PGMPRDOS LICENSED was specified and Hercules has detected that the operating system is a licensed program product. This message is issued to remind you that compliance with the terms of the license for your system's software is your responsibility.

#### Action

Be sure you know what you are doing.

---

## HHCCF040E

### HHCCF040E Cannot create CPU *number* thread: *error*

#### Explanation

An attempt to create a new thread for execution of CPU *number* failed. The error is described by *error*. The CPU has not been added to the configuration.

#### Action

Correct the error and retry the operation.

---

## HHCCF041E

### HHCCF041E Device *address* already exists

#### Explanation

An attempt was made to define a device at address *address*. There is already a device at that address.

#### Action

Either choose another device address or use the detach command to remove the existing device.

---

## HHCCF042E

### HHCCF042E Device type *type* not recognized

#### Explanation

An attempt was made to define a device of type *type*. This device type is not supported by Hercules. It may also indicate that the system was unable to load the device handler for the specified device type.

#### Action

Specify a supported device type. If the device type is supported, make sure the the system can load the load modules necessary for device operations. Either use the LD\_LIBRARY\_PATH environment variable or use ldconfig(8) to customize the library search path.

---

## HHCCF043E

### HHCCF043E Cannot obtain device block for device *address*: *error*

#### Explanation

An attempt to allocate memory for the control block describing the device with address *address* failed. The error is described by *error*. The device has not been defined.

#### Action

Correct the error and retry the operation.

---

## HHCCF044E

### HHCCF044E Initialization failed for device *address*

#### Explanation

The device at address *address* could not be initialized. The device initialization routine has issued a message describing the problem in further detail; refer to that message for more information.

#### Action

Correct the error and retry the operation.

---

## HHCCF045E

**HHCCF045E Cannot obtain buffer for device *address*: *error***

**Explanation**

An attempt to allocate memory for the data buffer for the device with address *address* failed. The error is described by *error*. The device has not been defined.

**Action**

Correct the error and retry the operation.

---

## HHCCF046E

**HHCCF046E Device *address* does not exist**

**Explanation**

An attempt was made to remove a device at address *address*. There is no device at that address.

**Action**

Choose another device address to remove, if desired.

---

## HHCCF047I

**HHCCF047I Device *address* detached**

**Explanation**

The device at address *address* has been successfully removed from the system.

**Action**

None.

---

## HHCCF048E

**HHCCF048E Device *address* does not exist**

**Explanation**

An attempt was made to rename a device at address *address*. There is no device at that address.

**Action**

Choose another device address to rename, if desired.

---

## HHCCF049E

**HHCCF049E Device *address* already exists**

**Explanation**

An attempt was made to rename a device to address *address*. There is already a device at that address.

---

**Action**

Either choose another device address or use the detach command to remove the existing device.

---

**HHCCF050I**

**HHCCF050I Device *oldaddr* defined as *newaddr***

**Explanation**

The device which was previously defined with the address *oldaddr* has been changed to the address *newaddr*.

**Action**

None.

---

**HHCCF051S**

**HHCCF051S Error in *filename* line *lineno*: *verid* is not a valid CPU version code**

**Explanation**

The version code *verid* specified on the CPUVERID configuration statement at line number *lineno* of the file named *filename* must be exactly two digits long and must be a valid hexadecimal number.

**Action**

Correct the model number and restart Hercules.

---

**HHCCF052S**

**HHCCF052S Error in *filename* line *lineno*: *option*: invalid argument**

**Explanation**

The argument *option* on the DIAG8CMD is invalid. Valid options are *enable* and *disable*.

**Action**

Correct the statement and restart Hercules.

---

**HHCCF053E**

**HHCCF053E Incorrect second device number in device range near character *c***

**Explanation**

The second argument of a device range contains an incorrect device number

**Action**

Correct the statement and restart Hercules.

---

---

## HHCCF054E

### HHCCF054E Incorrect Device count near character *c*

#### Explanation

The count field in a device count specification is invalid

#### Action

Correct the statement and restart Hercules.

---

## HHCCF055E

### HHCCF055E Incorrect device address specification near character *c*

#### Explanation

The first or only CUU in a device specification statement is invalid

#### Action

Correct the statement and restart Hercules.

---

## HHCCF056E

### HHCCF056E Incorrect device address range. *CUU1>CUU2*

#### Explanation

The first device number of a range is greater than the last device number

#### Action

Correct the statement and restart Hercules.

---

## HHCCF057E

### HHCCF057E *CUU* is on wrong channel (1st device defined on channel *CC*)

#### Explanation

At least one of the devices in a device number specification is on a different channel than a previously defined device number within the same specification. All device numbers on a single configuration line must be on a single channel (Group of 256 devices)

#### Action

Correct the statement and restart Hercules.

---

## HHCCF058E

### HHCCF058E Some or all devices in *CUU-CUU* duplicate devices already defined

#### Explanation

At least one of the device numbers on a device specification statement defines a device number that is already specified on that same statement.

---

**Action**

Correct the statement and restart Hercules.

---

**HHCCF061W****HHCCF061W ECPS:VM Statement deprecated. Use ECPSVM instead****Explanation**

The "ECPS:VM" statement was encountered. This statement is deprecated in favor of the "ECPSVM" statement.

**Action**

The configuration statement is still carried out but the statement syntax should be changed as soon as possible.

---

**HHCCF062W****HHCCF062W Missing ECPSVM level value. 20 Assumed****Explanation**

The "ECPSVM" statement keyword "LEVEL" was encountered but no numeric level followed it.

**Action**

The default level of 20 is used and the ECPS:VM feature is made available. The statement should be corrected as soon as possible.

---

**HHCCF063W****HHCCF063W Specifying ECPSVM level directly is deprecated. Use the 'LEVEL' keyword instead****Explanation**

The deprecated "ECPSVM" level syntax form (without the LEVEL keyword) was found.

**Action**

The ECPS:VM Level is set to the specified value. The configuration statement should be updated to include the "LEVEL" keyword.

---

**HHCCF064W****HHCCF064W Hercules set priority *priority* failed: *error*****Explanation**

An attempt to change the priority of the Hercules process to *priority* failed. The error is described by *error*. The process priority has not been changed. Hercules overall performance may be impaired as a result.

**Action**

If performance problems are noted, correct the error and restart Hercules.

---

---

## HHCCF065I

**HHCCF065I Hercules: tid=*threadid*, pid=*processid*, pgid=*processgroupid*, priority=*priority***

### **Explanation**

Hercules thread id is *threadid*, its process id is *processid*, its process group id is *processgroupid* and its execution priority is *priority*.

### **Action**

None.

---

## HHCCF066E

**HHCCF066E Invalid HTTPROOT: *error***

### **Explanation**

The pathname specified on your HTTPROOT statement is invalid. The error is described by *error*.

### **Action**

Correct the error and restart Hercules.

---

## HHCCF067S

**HHCCF067S Incorrect keyword *keyword* for the ASN\_AND\_LX\_REUSE statement**

### **Explanation**

The keyword specified for the ASN\_AND\_LX\_REUSE statement is not *ENABLE* or *DISABLE*.

### **Action**

Correct the error and restart Hercules.

---

## HHCCF068S

**HHCCF068S Error in *filename* line *lineno*: Invalid Auto\_SCSI\_Mount value: *value***

### **Explanation**

The automatic SCSI tape mount value is not "NO" nor a value between 1 and 99 seconds inclusive.

### **Action**

Correct the error and restart Hercules.

---

---

## HHCCF069I

**HHCCF069I** Run-options enabled for this run:  
NUMCPU: n  
ASN-and-LX-reuse: Enabled/Disabled  
DIAG8CMD: Enabled/Disabled

### Explanation

This message confirms the setting of various run-time options specified in the configuration file at startup time.

### Action

None.

---

## HHCCF074E

**HHCCF074E** Unspecified error occurred while parsing Logical Channel Subsystem Identification

### Explanation

A logic error occurred while parsing the Logical Channel Subsystem Identification component of a device number or device number group.

### Action

Notify Hercules support. This is an error in the Hercules parsing routines.

---

## HHCCF075E

**HHCCF075E** No more than 1 Logical Channel Subsystem Identification may be specified

### Explanation

While specifying a device number or device number group, more than one ':' character was encountered while parsing the Logical Channel Subsystem Identification component. There can be only one Logical Channel Subsystem Identification for a device or group of devices.

### Action

Correct the device number or device number group specification and either reissue the command or restart the Hercules engine, depending on whether the error occurred while issuing a command or while starting the engine.

---

## HHCCF076E

**HHCCF076E** Non numeric Logical Channel Subsystem Identification XX

### Explanation

While specifying a device number or device number group, a non-decimal value was encountered while parsing the Logical Channel Subsystem Identification component. The Logical Channel Subsystem Identification for a device or group of devices must be specified as a numeric value.

**Action**

Correct the device number or device number group specification and either reissue the command or restart the Hercules engine, depending on whether the error occurred while issuing a command or while starting the engine.

---

**HHCCF077E****HHCCF077E Logical Channel Subsystem Identification *NN* exceeds maximum of 3****Explanation**

While specifying a device number or device number group, a Logical Channel Identification was encountered that exceeded the architecture maximum value of *NN*. The Logical Channel Subsystem Identification for a device or group of devices must be within 0 and 3 (inclusive).

**Action**

Correct the device number or device number group specification and either reissue the command or restart the Hercules engine, depending on whether the error occurred while issuing a command or while starting the engine.

---

**HHCCF079A****HHCCF079A A licensed program product operating system has been detected.****Explanation**

Hercules has detected that the operating system is a licensed program product, but the PGMPRDOS LICENSED parameter was not specified in the Hercules configuration file.

**Action**

Hercules enters the stopped state. To run this operating system you must obtain a license from the operating system supplier and specify the PGMPRDOS LICENSED parameter in the configuration file. If you are unable to obtain a valid license allowing you to run this operating system on your machine, you must use another operating system (such as MVS 3.8J or Linux for System z) which does not require a license.

---

**HHCCF081I****HHCCF081I *fname* will ignore include errors.****Explanation**

An ignore include\_errors statement was encountered in file *fname* requesting that any include statements subsequently found within file *fname* which happen to reference include files which do not exist should simply cause a HHCCF084W warning instead of a HHCCF085S fatal error.

**Action**

Processing continues. This is an informational-only message.

---

## HHCCF082S

### HHCCF082S Error in *fname* line *nnn*: Maximum nesting level (*nn*) reached

#### Explanation

The maximum number of nested include statements has been exceeded. The include statement which caused the maximum nesting level of *nn* to be exceeded is identified as statement number *nnn* of file *fname*.

#### Action

This is a fatal error. Configuration file processing is immediately terminated and Hercules startup is aborted. Correct the error and restart Hercules.

---

## HHCCF083I

### HHCCF083I *fname1* Including *fname2* at *nnn*.

#### Explanation

An include statement for file *fname2* was encountered on line *nnn* of file *fname1*.

#### Action

Configuration file processing switches immediately to processing the statements contained in file *fname2*. Once all of the statements in file *fname2* have been completely processed, configuration file processing will then return to statement *nnn*+1 of file *fname1*. This is an informational-only message.

---

## HHCCF084W

### HHCCF084W *fname1* Open error ignored file *fname2*: error

#### Explanation

File *fname1* contained an include statement for file *fname2* which could not be opened because of error.

#### Action

Processing continues. This is an informational warning only. Check to make sure the filename specified by *fname2* was spelled correctly and restart Hercules if desired.

---

## HHCCF085S

### HHCCF085S *fname1* Open error file *fname2*: error

#### Explanation

File *fname1* contained an include statement for file *fname2* which could not be opened because of error.

#### Action

This is a fatal error. Configuration file processing is immediately terminated and Hercules startup is aborted. Correct any misspelling of filename *fname2* and restart Hercules.

---

## HHCCF089S

**HHCCF089S Error in *fname* line *linenum*: Invalid log option keyword *val***

**Explanation**

File *fname* contains an invalid log option keyword *val* on line *num*.

**Action**

Correct the log option keyword in file *fname* and restart Hercules.

---

## 7. Messages HHCCPnnns - CPU Emulation

---

### HHCCP001W

**HHCCP001W CPU thread set priority *priority* failed: *error***

**Explanation**

An attempt to change the priority of the CPU thread to *priority* failed. The error is described by *error*. The thread priority has not been changed. Hercules overall performance may be impaired as a result.

**Action**

If performance problems are noted, correct the error and restart Hercules.

---

### HHCCP002I

**HHCCP002I CPU *number* thread started: tid=*threadid*, pid=*processid*, priority=*priority***

**Explanation**

The execution thread for CPU number *number* has been started. Its thread id is *threadid*, its process id is *processid* and its execution priority is *priority*.

**Action**

None.

---

### HHCCP003I

**HHCCP003I CPU *number* architecture mode *mode***

**Explanation**

CPU *number* has been set to the *mode* architecture mode.

**Action**

If a different architecture mode is desired, it may be changed with the ARCHMODE configuration statement or the archmode control panel command.

---

### HHCCP004I

**HHCCP004I CPU *number* Vector Facility online**

**Explanation**

The Vector Facility for CPU *number* is online and available for use.

**Action**

None.

---

---

## HHCCP005E

### HHCCP005E CPU *number* thread already started

#### Explanation

An attempt was made to add CPU number *number* to the configuration. This CPU already exists.

#### Action

If another CPU is desired in the configuration, select a different number.

---

## HHCCP006S

### HHCCP006S Cannot create timer thread: *error*

#### Explanation

An attempt to create the thread used for timing functions has failed. The error is described by *error*. The CPU thread terminates and successful continuation of Hercules is not possible.

#### Action

Correct the error and restart Hercules.

---

## HHCCP007I

### HHCCP007I CPU *number* architecture mode set to *mode*

#### Explanation

CPU number *number* has been changed to the architecture mode *mode*.

#### Action

None.

---

## HHCCP008I

### HHCCP008I CPU *number* thread ended: tid=*threadid*, pid=*processid*

#### Explanation

The execution thread for CPU number *number* has ended. Its thread id was *threadid*, and its process id was *processid*.

#### Action

None.

---

---

## HHCCP009E

**HHCCP009E CPU MASK MISMATCH: *prevmask* - *currmask*. Last instruction: *instruction*.**

### **Explanation**

The CPU interrupt mask has changed unexpectedly. The previous mask was *prevmask* and the current mask is *currmask*. The last instruction executed was *instruction*. This is an internal error.

### **Action**

Report this message and the circumstances to the Hercules developers.

---

## HHCCP010I

**HHCCP010I CPU *number* store status completed.**

### **Explanation**

CPU number *number* has completed a store status operation.

### **Action**

None.

---

## HHCCP011I

**HHCCP011I CPU *number*: Disabled wait state**

### **Explanation**

CPU number *number* has entered a disabled wait state. It will not execute any further instructions unless it is reset or restarted. This is usually done to report a severe error in execution of an operating system.

### **Action**

Correct the error denoted by the wait state code if applicable.

---

## HHCCP023I

**HHCCP023I External interrupt: Interrupt key**

### **Explanation**

The CPU has taken an external interrupt because the operator pressed the interrupt key or issued the panel command `ext`.

### **Action**

None.

---

---

## HHCCP024I

### HHCCP024I External interrupt: Clock comparator

#### Explanation

The CPU has taken a clock comparator interrupt. This message is issued only when the CPU is in single-stepping or instruction-tracing mode.

#### Action

None. External interrupts are part of normal system operation.

---

## HHCCP025I

### HHCCP025I External interrupt: CPU timer=xx...xx

#### Explanation

The CPU has taken a CPU timer interrupt. xx...xx is the hexadecimal value of the CPU timer. This message is issued only when the CPU is in single-stepping or instruction-tracing mode.

#### Action

None. External interrupts are part of normal system operation.

---

## HHCCP026I

### HHCCP026I External interrupt: Interval timer

#### Explanation

The CPU has taken an external interrupt caused by the interval timer. This message is issued only when the CPU is in single-stepping or instruction-tracing mode.

#### Action

None. External interrupts are part of normal system operation.

---

## HHCCP027I

### HHCCP027I External interrupt: Service signal *intparm*

#### Explanation

The CPU has taken a service signal external interrupt. *intparm* is the interrupt parameter. This message is issued only when the CPU is in single-stepping or instruction-tracing mode.

#### Action

None. External interrupts are part of normal system operation.

---

## HHCCP090W

**HHCCP090W** The configuration has been placed into a system check-stop state because of an incompatible service call

### **Explanation**

A READ SCP INFO (code X'00020001') Service call has been issued from a CPU which is not a CP engine. All the CPUs in the configuration are put into a Check-Stop state.

### **Action**

Ensure the CPU that issues the service call is a CP engine and restart the program.

---

## **8. Messages HHCCTnnns - Channel-to-Channel Adapter Emulation**

---

### **HHCCTnnns**

Messages HHCCTnnns are not yet documented.

---

## 9. Messages HHCCUnns - CCKD Utilities

---

### 9.1 Format of the CCKD utilities messages

Messages generate by the CCKD utilities are in the format *message\_id file message\_text*. The format of the message ID is the same as with all other Hercules messages. *file* will either be the part of the file name following the last slash ("/" or "\") when called by a utility command, or will be *xxxx: file[n]* where *xxxx* is the device number and *n* is the shadow file number when called by Hercules.

The *file* portion of the message is omitted in the sections below for brevity.

---

#### HHCCU101I

##### HHCCU101I converting to *endian-format*

###### Explanation

The file is in the wrong endian (byte order) format for the host architecture. The file is being converted to the host endian format *endian-format*.

###### Action

None.

---

#### HHCCU102I

##### HHCCU102I compress successful, *n* bytes released

###### Explanation

The compress function successfully completed and free *n* bytes from the file. If *n* is 0, then the level 2 tables were repositioned to the beginning of the file in order.

###### Action

None.

---

#### HHCCU103I

##### HHCCU103I file already compressed

###### Explanation

The compress function determined that the file is already compressed. The file is not updated.

###### Action

None.

---

## HHCCU104I

### HHCCU104I free space rebuilt

#### Explanation

Free space errors were detected and free space has been successfully rebuilt.

#### Action

None.

---

## HHCCU300I

### HHCCU300I *number space* images recovered

#### Explanation

Recovery phase 1 completed, recovering *number spaces* (trks or blkgrps).

#### Action

None.

---

## HHCCU301I

### HHCCU301I *space[id]* recovered offset *offset* len *length*

#### Explanation

The space *space* (trk or blkgrp) was recovered at offset *offset* and length *length*. *id* is the trk or blkgrp number.

#### Action

None.

---

## HHCCU500W

### HHCCU500W recovery not completed, file opened read-only

#### Explanation

Phase 3 recovery did not complete because the file is not opened for write.

#### Action

Omit the *-ro* option for *cckdcdisk* or change the file permissions to enable the file to be opened for read-write for Hercules.

---

## HHCCU501W

### HHCCU501W recovery not completed, missing compression

#### Explanation

Phase 3 recovery did not complete because one or more trk or blkgrp images were compressed using a compression (zlib or bzip2) that was not built into Hercules.

---

**Action**

Processing terminates. The file has not been updated. Build Hercules with the missing compression libraries.

---

## HHCCU502W

**HHCCU502W free space not rebuilt, file opened read-only****Explanation**

Free space errors were detected but the free space was not rebuilt because the file is not opened for write.

**Action**

Omit the *-ro* option for *cckdcchk* or change the file permissions to enable the file to be opened for read-write by Hercules.

---

## HHCCU600W

**HHCCU600W forcing check level *level*[: *reason*]****Explanation**

Errors have been detected in the compressed file that warrant the escalation of the check level to *level*. An additional explanation *reason* may be supplied.

**Action**

At a minimum, free space will be rebuilt.

---

## HHCCU601W

**HHCCU601W cdevhdr inconsistencies found *code=code*****Explanation**

The space statistics in the *cckddasd* device header (*cdevhdr*) contain inconsistencies described by *code*. *code* is a 16-bit bit field and more than one bit may be on. See *cckdutil.c* for the different bit settings.

**Action**

At a minimum, free space will be rebuilt.

---

## HHCCU602W

**HHCCU602W *space* offset *offset len length* is out of bounds****Explanation**

The space *space* (*trk*, *blkgrp* or *l2*) either precedes the end of the L1 table (at the beginning of the file) or exceeds the end of the file.

**Action**

The space will be recovered. If the space is an L2 table, then all tracks or block groups associated with the table will also be recovered.

---

---

## HHCCU603W

**HHCCU603W** *space1* offset *offset1* len *length* overlaps *space2* offset *offset2*

### Explanation

The space *space1* overlaps space *space2*.

### Action

The spaces will be recovered. If either space is an L2 table, then all tracks or block groups associated with that table will also be recovered.

---

## HHCCU604W

**HHCCU604W** *space* l2 inconsistency: len *length*, size *size*

### Explanation

The space *space* (trk or blkgrp) has an inconsistent l2 entry. Either the length *length* is too small or is too large or exceeds the size *size*.

### Action

The space will be recovered.

---

## HHCCU610W

**HHCCU610W** free space errors detected

### Explanation

Free space is not consistent.

### Action

Free space will be rebuilt.

---

## HHCCU620W

**HHCCU620W** *space[id]* hdr error offset *offset*: *xxxxxxxxxx*

### Explanation

A header error was found for *space* (trk or blkgrp) during validation. *id* is the trk or blkgrp number. The header is located at file offset *offset*. The contents of the 5 byte header is *xxxxxxxxxx* in hex.

The first byte of the header should be either 00 (compress none), 01 (compress zlib) or 02 (compress bzip2).

For *ckd*, the next two bytes is the cylinder (in big-endian byte order) and the two bytes after that is the head (also in big-endian byte order).

For *fba*, the next four bytes is the block group number (in big-endian byte order).

The header contains an invalid value. Either the offset is incorrect or the header has been overlaid.

### Action

The space will be recovered.

---

## HHCCU621W

**HHCCU621W *space[id]* compressed using *compression*, not supported**

### **Explanation**

During validation, the header for *space* (trk or blkgrp) indicates that the space was compressed using *compression* (zlib or bzip2) but support for that compression method was not built into Hercules. *id* is the trk or blkgrp number.

### **Action**

Processing continues. However no recovery will take place. Build Hercules with the specified compression library.

---

## HHCCU622W

**HHCCU622W *space[id]* offset *offset* len *length* validation error**

### **Explanation**

The *space* (trk or blkgrp) at offset *offset* and length *length* failed validation. *id* is the trk or blkgrp number. Either the space did not uncompress successfully or the uncompressed space contains some kind of error. This error is detected during check level 3 validation.

### **Action**

The space will be recovered.

---

## HHCCU700E

**HHCCU700E open error: *error text***

### **Explanation**

Open failed for the file. The text associated with the error number is displayed.

### **Action**

Processing for the file terminates.

---

## HHCCU701E

**HHCCU701E fstat error: *error text***

### **Explanation**

The file status system call failed. The text associated with the error number is displayed.

### **Action**

Function processing terminates. Probable Hercules logic error. Contact the Hercules mailing list for assistance.

---

## HHCCU702E

**HHCCU702E lseek error offset *offset*: error text**

### **Explanation**

File reposition to offset *offset* failed. The text associated with the error number is displayed.

### **Action**

Function processing terminates. Probable Hercules logic error. Contact the Hercules mailing list for assistance.

---

## HHCCU703E

**HHCCU703E read error rc=*retcode* offset *offset* len *length*: error text**

### **Explanation**

A read failed at offset *offset* for length *length*. If *retcode* is not negative then the read was incomplete and the value indicates how many bytes were read. Otherwise the text associated with the error number is displayed.

### **Action**

Function processing terminates. Possible Hercules logic error. Possible hardware error. Contact the hercules mailing list for assistance.

---

## HHCCU704E

**HHCCU704E write error rc=*retcode* offset *offset* len *length*: error text**

### **Explanation**

A write failed at offset *offset* for length *length*. If *retcode* is not negative then the write was incomplete and the value indicates how many bytes were written. Otherwise the text associated with the error number is displayed.

### **Action**

Function processing terminates. Possible Hercules logic error. Possible hardware error. Contact the hercules mailing list for assistance.

---

## HHCCU705E

**HHCCU705E malloc error, size *size*: error text**

### **Explanation**

Malloc (allocate memory) failed for size *size*.

### **Action**

Function processing terminates. Try reducing Hercules storage requirements (e.g. mainsize).

---

## HHCCU706E

**HHCCU706E calloc error, size *size*: *error text***

**Explanation**

Calloc (allocate cleared memory) failed for size *size*.

**Action**

Function processing terminates. Try reducing Hercules storage requirements (eg mainsize).

---

## HHCCU707E

**HHCCU707E OPENED bit is on, use -f**

**Explanation**

The file OPENED bit is on in the cckd header but *-f* was not specified.

**Action**

File processing terminates. Make sure the file is not in use. If it is not, try the command again specifying the *-f* option.

---

## HHCCU708E

**HHCCU708E chkdsk errors**

**Explanation**

The utility called cckd\_chkdsk for the file and it returned in error.

**Action**

File processing terminates. Perform the actions suggested by the preceding cckd\_chkdsk errors.

---

## HHCCU900E

**HHCCU900E dasd lookup error *type=type* *cy/s=cy/s***

**Explanation**

The device type *type* from the device header along with the number of cylinders *cy/s* did not match a table entry in dasdtab.c. Note that *type* is the last two bytes of the device type (eg 90 for a 3390 device type).

**Action**

Function processing terminates. Specify the correct file name or manually correct the device header.

---

## HHCCU901E

**HHCCU901E bad trksize: *size1*, expecting *size2***

**Explanation**

The track size *size1* from the device header does not match the track size *size2* from the table entry in dasdtab.c.

---

**Action**

Function processing terminates. Specify the correct file name or manually correct the device header.

---

**HHCCU902E**

**HHCCU902E bad number of heads: *heads1*, expecting *heads2***

**Explanation**

The number of heads *heads1* from the device header does not match the number of heads *heads2* from the table entry in `dasdtab.c`.

**Action**

Function processing terminates. Specify the correct file name or manually correct the device header.

---

**HHCCU903E**

**HHCCU903E bad `numl1tab': *nbr1*, expecting *nbr2***

**Explanation**

The number of L1 table entries *nbr1* in the cckd device header does not match the number calculated *nbr2*. The number calculated is the number of cylinders times the number of heads (i.e. the number of tracks) divided by 256, rounded up by 1 if there is a remainder.

**Action**

Function processing terminates. Specify the correct file name or manually correct the device headers.

---

**HHCCU904E**

**HHCCU904E file too small to contain L1 table: %*size1*, need *size2***

**Explanation**

The size of the file *size1* is not large enough to contain all L1 table entries; the size required is *size2*. The minimum size of a cckd file is  $512 + 512 + (4 * \text{number of L1 entries})$ .

**Action**

Function processing terminates. Specify the correct file name.

---

**HHCCU905E**

**HHCCU905E not enough file space for recovery**

**Explanation**

During phase 2 recovery there was not enough space in the maximum file size to contain the rebuilt L2 tables. This is an unusual situation and probably indicates some kind of programming error.

**Action**

Function processing terminates. The file has not been updated. Contact the hercules mailing list for assistance.

---

---

## HHCCU910E

### HHCCU910E error during swap

**Explanation**

Error occurred during `cckd_swap()`.

**Action**

See the preceding error messages.

---

## HHCCU999E

### HHCCU999E not a compressed file

**Explanation**

The first 8 bytes of the file did not match an expected identifier. For a `cckd` file, the identifier must be either `CKD_C370` or `CKD_S370`. For a `cfba` file, the identifier must be either `FBA_C370` or `FBA_S370`.

**Action**

Function processing terminates. Specify the correct file name.

---

## **10. Messages HHCDAnnns - DASD Emulation (CKD, CCKD and FBA)**

---

### **HHCDAnnns**

Messages HHCDAnnns are not yet documented.

---

## 11. Messages HHCDCnnns - DASDCOPY Utility

---

### HHCDC001E

HHCDC001E *programe: filename open error: error*

**Explanation**

An error was encountered when trying to open the input file named *filename* to determine its type. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

### HHCDC002E

HHCDC002E *programe: filename read error: error*

**Explanation**

An error was encountered when trying to read the input file named *filename* to determine its type. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

### HHCDC003E

HHCDC003E *programe: filename open failed*

**Explanation**

An error was encountered when trying to open the input file named *filename* for copying. A previous message described the error.

**Action**

Correct the error and retry the operation.

---

### HHCDC004E

HHCDC004E *programe: ckd lookup failed for size cyls*

**Explanation**

There was no disk drive table entry that matched the number of cylinders in the CKD source file, *size*. The program cannot determine how much data to copy.

**Action**

Correct the error and retry the operation.

---

---

## HHCDC005E

**HHCDC005E** *progrname: fba lookup failed, blks size*

### **Explanation**

There was no disk drive table entry that matched the number of blocks in the FBA source file, *size*. The program cannot determine how much data to copy.

### **Action**

Correct the error and retry the operation.

---

## HHCDC006E

**HHCDC006E** *progrname: filename create failed*

### **Explanation**

An error was encountered when trying to create the output file named *filename*. A previous message described the error.

### **Action**

Correct the error and retry the operation.

---

## HHCDC007E

**HHCDC007E** *progrname: filename open failed*

### **Explanation**

An error was encountered when trying to open the newly created output file named *filename*. A previous message described the error.

### **Action**

Correct the error and retry the operation.

---

## HHCDC008E

**HHCDC008E** *progrname: filename read error (track|block) number stat=status*

### **Explanation**

An error was encountered when trying to read a block or track from the input file named *filename*. The block or track is number *number*. The status returned is shown as *status*.

### **Action**

Correct the error and retry the operation.

---

---

## HHCDC009E

**HHCDC009E** *progrname: filename* write error (*track|block*) *number* stat=*status*

### **Explanation**

An error was encountered when trying to read a block or track from the input file named *filename*. The block or track is number *number*. The status returned is shown as *status*.

### **Action**

Correct the error and retry the operation.

---

## HHCDC010I

**HHCDC010I** Copy successful !!!

### **Explanation**

The copy operation has completed successfully.

### **Action**

None.

---

## 12. Messages HHCDGnnns - Dyngui.DLL

---

### HHCDG001I

HHCDG001I dyngui.dll - *name* - version *vers* initiated

**Explanation**

The dyngui loadable module was successfully loaded and initiated.

**Action**

None. This message is informational only.

---

### HHCDG002I

HHCDG002I dyngui.dll terminated

**Explanation**

The dyngui loadable module was successfully terminated.

**Action**

None. This message is informational only.

---

### HHCDG003S

HHCDG003S select failed on input stream: *errmsg*

**Explanation**

The socket select function call failed on the input stream. *errmsg* describes the exact error.

**Action**

None; this is a fatal error, the system is immediately terminated.

---

### HHCDG004S

HHCDG004S read failed on input stream: *errmsg*

**Explanation**

An unrecoverable i/o error occurred while reading from the input stream. *errmsg* describes the exact error.

**Action**

None; this is a fatal error; the system is immediately terminated.

---

### HHCDG005E

HHCDG005E Device query buffer overflow! (device=*xxxx*)

**Explanation**

The device query buffer is not large enough to hold all of the information returned by the device handler. *xxxx* is the device whose information was being queried at the time the error occurred.

---

**Action**

The system attempts to continue functioning but unpredictable results may occur (i.e. the system could crash). You should report this error to the Hercules developers immediately so that they can build you a new dyngui.dll with a larger device query buffer. Since the dyngui.dll is an unloadable module you will need to restart Hercules in order to begin using the newly fixed version of dyngui.dll.

---

**HHCDG006S**

**HHCDG006S malloc pszInputBuff failed: *errmsg***

**Explanation**

There was not enough virtual memory on the host system to satisfy the malloc request for the input stream buffer. *errmsg* describes the exact error.

**Action**

None; this is a fatal error, the system is immediately terminated. You should increase the size of your host system's virtual memory allocation so that there is enough for Hercules to run, or else decrease the amount of memory that Hercules needs in order to run (e.g. decrease your MAINSIZE value).

---

**HHCDG007S**

**HHCDG007S malloc pszCommandBuff failed: *errmsg***

**Explanation**

There was not enough virtual memory on the host system to satisfy the malloc request for the command processing buffer. *errmsg* describes the exact error.

**Action**

None; this is a fatal error, the system is immediately terminated. You should increase the size of your host system's virtual memory allocation so that there is enough for Hercules to run, or else decrease the amount of memory that Hercules needs in order to run (e.g. decrease your MAINSIZE value).

---

## 13. Messages HHCDInnns - DASDINIT Utility

---

### HHCDI001I

**HHCDI001I DASD initialization successfully completed.**

**Explanation**

The requested DASD volume has been successfully initialized and is ready for use.

**Action**

None.

---

### HHCDI002I

**HHCDI002I DASD initialization unsuccessful.**

**Explanation**

Initialization of the requested DASD volume was not successful.

**Action**

Refer to preceding error messages to determine the cause.

---

## 14. Messages HHCDLnnns - DASDLOAD Utility

---

### HHCDL001E

**HHCDL001E Cannot open *filename*: *error***

**Explanation**

The control file named *filename* cannot be opened. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

### HHCDL002E

**HHCDL002E Volume serial statement missing from *filename***

**Explanation**

The control file named *filename* does not contain a volume serial statement. A volume serial is required.

**Action**

Supply a volume serial statement and rerun dasdload.

---

### HHCDL003E

**HHCDL003E Volume serial *serial* in *filename* line *lineno* is not valid**

**Explanation**

The volume serial *serial* supplied in line *lineno* of the control file named *filename* is not valid. It must be from one to six characters long.

**Action**

Supply a valid volume serial and rerun dasdload.

---

### HHCDL004E

**HHCDL004E Device type *type* in *filename* line *lineno* is not recognized**

**Explanation**

The device type *type* specified in line *lineno* of the control file named *filename* is not a supported CKD device.

**Action**

Specify a supported CKD device type and rerun dasdload.

---

---

## HHCDL005E

**HHCDL005E** *count* in *filename* line *lineno* is not a valid cylinder count

### Explanation

The requested number *count* of cylinders for the volume in line *lineno* of the control file named *filename* is invalid. It must be a decimal number.

### Action

Supply a valid cylinder count and rerun dasdload.

---

## HHCDL006I

**HHCDL006I** Creating *type* volume *serial*: *tracks* trks/cyl, *length* bytes/track

### Explanation

The volume named *serial* of type *type* is being created with *tracks* tracks per cylinder and *length* bytes per track.

### Message Level

0.

### Action

None.

---

## HHCDL007E

**HHCDL007E** Cannot create *filename*

### Explanation

The DASD image file named *filename* cannot be created. A previous message described the problem.

### Action

Correct the reported error and rerun dasdload.

---

## HHCDL008E

**HHCDL008E** Cannot open *filename*

### Explanation

The DASD image file named *filename* could not be opened. A previous message described the problem.

### Action

Correct the reported error and rerun dasdload.

---

## HHCDL009I

HHCDL009I Loading *type* volume *serial*

**Explanation**

The newly created volume with serial *serial* of type *type* is being loaded.

**Message Level**

0.

**Action**

None.

---

## HHCDL010E

HHCDL010E Cannot obtain storage for DSCB pointer array: *error*

**Explanation**

An attempt to obtain storage for the array of DSCB pointers, which will populate the VTOC, failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL011E

HHCDL011E Invalid statement in *filename* line *lineno*

**Explanation**

An invalid control statement was found at line *lineno* of the control file named *filename*.

**Action**

Correct the invalid statement and rerun dasdload.

---

## HHCDL012I

HHCDL012I Creating dataset *dsn* at cyl *cylinder* head *head*

**Explanation**

The dataset named *dsn* is being created. It begins at cylinder *cylinder* head *head*.

**Message level**

1

**Action**

None.

---

## HHCDL013I

**HHCDL013I Dataset *dsn* contains *size* tracks**

**Explanation**

The dataset named *dsn* is *size* tracks long.

**Message level**

2

**Action**

None.

---

## HHCDL014I

**HHCDL014I Free space starts at cyl *cylinder* head *head***

**Explanation**

Free space on the volume begins at cylinder *cylinder* head *head* and extends to the end of the volume.

**Message level**

1

**Action**

None.

---

## HHCDL015W

**HHCDL015W Volume exceeds *cylinders***

**Explanation**

The amount of space used on the volume exceeds the number of cylinders *cylinders* requested in the control file. The number of cylinders was explicitly requested instead of being allowed to default to the size of a full volume for the device type. The volume has been extended to accomodate the data written.

**Action**

Specify more cylinders in the control file or allow the number to default.

---

## HHCDL016I

**HHCDL016I Total of *count* cylinders written to *filename***

**Explanation**

A total of *count* cylinders have been written to the DASD image file named *filename*.

**Message level**

0

**Action**

None.

---

---

## HHCDL017I

### HHCDL017I Updating VTOC pointer *pointer*

#### Explanation

The pointer to the VTOC in the volume label is being updated to point to the VTOC at location *pointer*.

#### Message level

5

#### Action

None.

---

## HHCDL018E

### HHCDL018E Cannot read VOL1 record

#### Explanation

An attempt to read the volume label failed. A previous message described the error.

#### Action

Correct the error and rerun dasdload.

---

## HHCDL019E

### HHCDL019E Cannot read *filename* line *lineno*: error

#### Explanation

An error was encountered while trying to read the statement at line number *lineno* of the control file named *filename*. The error is described by *error*.

#### Action

Correct the error and rerun dasdload.

---

## HHCDL020E

### HHCDL020E Line too long in *filename* line *lineno*

#### Explanation

The line at line number *lineno* of the control file named *filename* is too long to be processed. This error can be caused by failing to terminate the last line with an end-of-line marker.

#### Action

Correct the error and rerun dasdload.

---

---

## HHCDL021E

### HHCDL021E DSNNAME or initialization method missing

#### Explanation

Either the dataset name or the method to be used to initialize it is missing from the control file. Both are required.

#### Action

Supply the missing value and rerun dasdload.

---

## HHCDL022E

### HHCDL022E Invalid initialization method: *method*

#### Explanation

The method specified to initialize the dataset *method* is invalid. It must be one of xmit, vs, empty, dip, cvol, vtoc, or seq.

#### Action

Correct the initialization method and rerun dasdload.

---

## HHCDL023E

### HHCDL023E Initialization file name missing

#### Explanation

A dataset was specified as being initialized by either the xmit, vs, or seq initialization methods but no source file was specified to provide the data to be loaded.

#### Action

Specify a source file name or specify the empty dataset initialization method if the dataset is not to be loaded.

---

## HHCDL024E

### HHCDL024E Invalid allocation units: *units*

#### Explanation

The allocation unit specified *units* is invalid. It must be either cyl or trk.

#### Action

Specify a valid allocation unit and rerun dasdload.

---

---

## HHCDL025E

### HHCDL025E Invalid primary space: *space*

#### Explanation

The primary space requested *space* is not a valid decimal number greater than 0.

#### Action

Specify a valid space request and rerun dasdload.

---

## HHCDL026E

### HHCDL026E Invalid secondary space: *space*

#### Explanation

The secondary space requested *space* is not a valid decimal number greater than 0.

#### Action

Specify a valid space request and rerun dasdload.

---

## HHCDL027E

### HHCDL027E Invalid directory space: *space*

#### Explanation

The PDS directory space requested *space* is not a valid decimal number greater than 0.

#### Action

Specify a valid space request and rerun dasdload.

---

## HHCDL028E

### HHCDL028E Invalid dataset organization: *dsorg*

#### Explanation

The requested dataset organization *dsorg* is invalid. It must be one of is, ps, da, or po.

#### Action

Specify a valid dataset organization and rerun dasdload.

---

## HHCDL029E

### HHCDL029E Invalid record format: *recfm*

#### Explanation

The requested record format *recfm* is invalid. It must be one of f, fb, fbs, v, vb, vbs, or u.

#### Action

Specify a valid record format and rerun dasdload.

---

---

## HHCDL030E

### HHCDL030E Invalid logical record length: *lrecl*

#### Explanation

The requested logical record length *lrecl* is invalid. It must be a decimal number between 0 and 32767.

#### Action

Specify a valid logical record length and rerun dasdload.

---

## HHCDL031E

### HHCDL031E Invalid block size: *blksize*

#### Explanation

The requested block size *blksize* is invalid. It must be a decimal number between 0 and 32767.

#### Action

Specify a valid block size and rerun dasdload.

---

## HHCDL032E

### HHCDL032E Invalid key length: *keylen*

#### Explanation

The requested key length *keylen* is invalid. It must be a decimal number between 0 and 255.

#### Action

Specify a valid key length and rerun dasdload.

---

## HHCDL033E

### HHCDL033E CCHH=*cchh* not found in extent table

#### Explanation

The absolute track address *cchh* was not found in the table listing the locations occupied by the dataset being loaded. There is likely a problem with the input file.

#### Action

Correct the input file and rerun dasdload.

---

## HHCDL034E

### HHCDL034E Cannot open *filename*: *error*

#### Explanation

The file named *filename*, which was specified as the source of IPL text to be written to the volume, could not be opened. The error is described by *error*.

---

**Action**

Correct the error and rerun dasdload.

---

**HHCDL035E****HHCDL035E Cannot read *filename*: error****Explanation**

An error was encountered while reading the IPL text file named *filename*. The error is described by *error*. If no error is reported, the file did not contain an integral number of 80-byte card images.

**Action**

Correct the reported error or supply a valid IPL text file consisting of 80-byte card images and rerun dasdload.

---

**HHCDL036E****HHCDL036E *filename* is not a valid object file****Explanation**

The IPL text file named *filename* is not a valid object file. A record read from the file did not contain the required flag in the first byte.

**Action**

Supply a valid object file and rerun dasdload.

---

**HHCDL037I****HHCDL037I IPL text address=*addr* length=*length*****Explanation**

The object code from the current record of the IPL text file will be loaded into memory at address *address*, and is *length* bytes long.

**Message level**

5

**Action**

None.

---

**HHCDL038E****HHCDL038E TXT record in *filename* has invalid count *length*****Explanation**

A text record in the IPL text file named *filename* has an invalid length *length*. The length cannot exceed 56.

**Action**

Supply a valid IPL text file and rerun dasdload.

---

---

## HHCDL039E

### HHCDL039E IPL text in *filename* exceeds *buflen* bytes

#### Explanation

The IPL text file named *filename* is too long to fit in the available space on the volume. The IPL text cannot exceed *buflen* bytes in length.

#### Action

Supply a shorter IPL text file or specify a volume with a larger track size and rerun dasdload.

---

## HHCDL040E

### HHCDL040E Input record CCHHR=*cchhr* exceeds output device track size

#### Explanation

The block to be written at absolute address *cchhr* is too large to fit on a track on the disk being loaded.

#### Action

Specify a device with a larger track size and rerun dasdload.

---

## HHCDL041E

### HHCDL041E Dataset exceeds extent size: *reltrk=track*, *maxtrk=maxtrk*

#### Explanation

The data to be written to the dataset is too large for the space requested for it. If the space request was allowed to default, the input file is corrupt.

#### Action

If the space request was made explicitly, then request more space. If the request was defaulted, supply a valid input file. Rerun dasdload.

---

## HHCDL042E

### HHCDL042E Input record CCHHR=*cchhr* exceeds virtual device track size

#### Explanation

The block to be written at absolute address *cchhr* is too large to fit on a track on the disk being loaded. In addition, this message being issued instead of message HHCDL040E indicates an internal inconsistency in the way Hercules computes the space available on a track.

#### Action

Specify a device with a larger track size and rerun dasdload. Report the inconsistency to the Hercules development team.

---

---

## HHCDL043E

**HHCDL043E** *filename cyl cylinder head head read error*

**Explanation**

The data at cylinder *cylinder*, head *head* of the disk image file named *filename* could not be read in order to be updated. A previous message described the error.

**Action**

Correct the previously reported error and rerun dasdload.

---

## HHCDL044E

**HHCDL044E** *filename cyl cylinder head head invalid track header header*

**Explanation**

The track header *header* at cylinder *cylinder*, head *head* in the disk image file named *filename* contained an address that did not match the actual address.

**Action**

Rerun dasdload. If the error persists, report it to the Hercules development team.

---

## HHCDL045E

**HHCDL045E** *filename cyl cylinder head head record record record not found*

**Explanation**

The record requested for update at cylinder *cylinder*, head *head*, record *record* of the DASD image file named *filename* was not found.

**Action**

Rerun dasdload. If the error persists, report it to the Hercules development team.

---

## HHCDL046E

**HHCDL046E** *Cannot update cyl cylinder head head rec record: Unmatched KL/DL*

**Explanation**

The record to be written at cylinder *cylinder*, head *head*, record *record* does not have the same key or data length as the record that already exists at that location. This is not allowed for a record update operation.

**Action**

Rerun dasdload. If the error persists, report it to the Hercules development team.

---

---

## HHCDL047E

**HHCDL047E** *filename* cyl *cylinder* head *head* read error

### Explanation

A read error was encountered when reading the track at cylinder *cylinder*, head *head*, in the disk image file named *filename*. A previous message described the error.

### Action

Correct the error reported by the previous message and rereun dasdload.

---

## HHCDL048I

**HHCDL048I** Updating cyl *cylinder* head *head* rec *record* kl *keylen* dl *datalen*

### Explanation

The record at cylinder *cylinder*, head *head*, record *record* is being updated. It has a key length of *keylen* and data length *datalen*.

### Message level

4

### Action

None.

---

## HHCDL049E

**HHCDL049E** Cannot obtain storage for DSCB: *error*

### Explanation

An attempt to obtain storage to build a DSCB to describe a dataset on the volume being loaded failed. The error is described by *error*.

### Action

Correct the error and rerun dasdload.

---

## HHCDL050E

**HHCDL050E** DSCB count exceeds *maximum*, increase MAXDSCB

### Explanation

There are too many datasets on the volume being loaded and an internal structure in dasdload is full.

### Action

Increase the value of the symbol MAXDSCB in the source program and recompile dasdload, then rerun the program.

---

---

## HHCDL051E

**HHCDL051E Cannot obtain storage for DSCB: *error***

**Explanation**

An attempt to obtain storage to build a DSCB to describe the VTOC on the volume being loaded failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL052E

**HHCDL052E DSCB count exceeds *maximum*, increase MAXDSCB**

**Explanation**

There are too many datasets on the volume being loaded and an internal structure in dasdload is full.

**Action**

Increase the value of the symbol MAXDSCB in the source program and recompile dasdload, then rerun the program.

---

## HHCDL053E

**HHCDL053E Cannot obtain storage for DSCB: *error***

**Explanation**

An attempt to obtain storage to build a DSCB to describe the free space on the volume being loaded failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL054E

**HHCDL054E DSCB count exceeds *maximum*, increase MAXDSCB**

**Explanation**

There are too many datasets on the volume being loaded and an internal structure in dasdload is full.

**Action**

Increase the value of the symbol MAXDSCB in the source program and recompile dasdload, then rerun the program.

---

---

## HHCDL055E

**HHCDL055E VTOC too small, *tracks* tracks required**

**Explanation**

The VTOC allocation of *tracks* is too small to hold the VTOC.

**Action**

Specify at least *tracks* tracks for the VTOC and rerun dasdload.

---

## HHCDL056E

**HHCDL056E Error reading VTOC cyl *cylinder* head *head***

**Explanation**

The first track of the VTOC could not be read so it could be updated. A previous message described the error.

**Action**

Correct the error reported by the previous message and rerun dasdload.

---

## HHCDL057I

**HHCDL057I VTOC starts at cyl *cylinder* head *head* and is *tracks* tracks**

**Explanation**

The VTOC on the volume being loaded starts at cylinder *cylinder*, head *head* and is *tracks* tracks long.

**Message level**

1

**Action**

None.

---

## HHCDL058I

**HHCDL058I Format *format* DSCB CCHHR=*cchhr* (TTR=*ttr*) *dsname***

**Explanation**

The format *format* DSCB is located at absolute address *cchhr* and relative address within the VTOC *ttr*. If *format* is 1, the dataset described by the DSCB is named *dsname*.

**Message level**

4

**Action**

None.

---

---

## HHCDL059I

HHCDL059I Format 0 DSCB CCHHR *cchhr* (TTR=*ttr*)

### Explanation

A format 0 (empty) DSCB is located at absolute address *cchhr* and relative address within the VTOC *ttr*.

### Message level

4

### Action

None.

---

## HHCDL060E

HHCDL060E Error reading track *cyl* *cylinder* head *head*

### Explanation

An error was encountered reading the track at cylinder *cyl*, head *head*. A previous message described the error.

### Action

Correct the error reported by the previous message and rerun dasdload.

---

## HHCDL061E

HHCDL061E Incomplete text unit

### Explanation

An text unit read from the input file was too short to contain a valid header. The input data is probably corrupt.

### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL062I

HHCDL062I *position* *tuname* *key* *fields*

### Explanation

The text unit at *position* of the input buffer has the name *tuname* and the numeric key value *key*. There are *fields* fields in the text unit.

### Message level

4

### Action

None.

---

---

## HHCDL063E

### HHCDL063E Too many fields in text unit

#### Explanation

A text unit was read from the input file that had too many fields in the header for that type of text unit. The input file is probably corrupt.

#### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL064E

### HHCDL064E Incomplete text unit

#### Explanation

A text unit read from the input file was too short to contain a valid field length. The input data is probably corrupt.

#### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL065E

### HHCDL065E Incomplete text unit

#### Explanation

A text unit read from the input file was shorter than the length in the field header. The input data is probably corrupt.

#### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL066E

### HHCDL066E *filename* read error: *error*

#### Explanation

An error was encountered when reading the input file named *filename*. The error is described by *error*.

#### Action

Correct the error and rerun dasdload.

---

## HHCDL067E

### HHCDL067E *filename* invalid segment header: *header*

#### Explanation

A segment read from the file named *filename* has an invalid header *header*. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

**HHCDL068E****HHCDL068E *filename* first segment indicator expected****Explanation**

A segment read from the file named *filename* should have the first segment indicator set but does not. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

**HHCDL069E****HHCDL069E *filename* first segment indicator not expected****Explanation**

A segment read from the file named *filename* should not have the first segment indicator set but does. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

**HHCDL070E****HHCDL070E *filename* control record indicator mismatch****Explanation**

There was a mismatch between the first segment and the control record. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

**HHCDL071E****HHCDL071E *filename* read error: *error*****Explanation**

An error was encountered when reading a segment from the input file named *filename*. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

---

## HHCDL072E

**HHCDL072E *filename* read error: *error***

**Explanation**

An error was encountered when reading a COPYR1 record from the input file named *filename*. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL073E

**HHCDL073E *filename* read error: *error***

**Explanation**

An error was encountered when reading a COPYR2 record from the input file named *filename*. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL074E

**HHCDL074E *filename* read error: *error***

**Explanation**

An error was encountered when reading a data block header from the input file named *filename*. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL075E

**HHCDL075E *filename* read error: *error***

**Explanation**

An error was encountered when reading a data block from the input file named *filename*. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL076I

HHCDL076I File number: *number*

### Explanation

The file being processed is number *number*.

### Message level

4

### Action

None.

---

## HHCDL077E

HHCDL077E Invalid text unit at offset *offset*

### Explanation

An invalid text unit was read from position *offset*. A previous message described the error. The input file is probably corrupt.

### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL078I

HHCDL078I File *filenum*: DSNAME=*dsname*

### Explanation

The dataset name of file number *filenum* is *dsname*.

### Message level

2

### Action

None.

---

## HHCDL079I

HHCDL079I DSORG=*dsorg* RECFM=*recfm* LRECL=*lrecl* BLKSIZE=*blksize* KEYLEN=*keylen*  
DIRBLKS=*dirblks*

### Explanation

For the dataset listed in the preceding HHCDL078I message the dataset organization is *dsorg*, the record format is *recfm*, the logical record length is *lrecl*, the block size is *blksize*, the key length is *keylen* and the directory block count is *dirblks*.

### Message level

2

**Action**  
None.

---

## HHCDL080E

### HHCDL080E Invalid text unit at offset *offset*

**Explanation**

An invalid text unit was read from position *offset*. A previous message described the error. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

## HHCDL081E

### HHCDL081E COPYR1 record length is invalid

**Explanation**

The length of the COPYR1 record is invalid. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

## HHCDL082E

### HHCDL082E COPYR1 header identifier not correct

**Explanation**

The header identifier of the COPYR1 record is invalid. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

## HHCDL083E

### HHCDL083E COPYR1 unload format is unsupported

**Explanation**

The COPYR1 record indicates that the file was unloaded in a format that is not supported by dasdload. The file may be corrupt or it may simply be in a newer format than is supported by this version of dasdload.

**Action**

Supply a supported input file and rerun dasdload.

---

## HHCDL084I

**HHCDL084I Original dataset: DSORG=*dsorg* RECFM=*rcfm* LRECL=*lrecl* BLKSIZE=*blksize* KEYLEN=*keylen***

### **Explanation**

For the original dataset, the dataset organization is *dsorg*, the record format is *rcfm*, the logical record length is *lrecl*, the block size is *blksize*, the key length is *keylen* and the directory block count is *dirblks*.

### **Message level**

2

### **Action**

None.

---

## HHCDL085I

**HHCDL085I Dataset was unloaded from device type *ucbtype* (*device*)**

### **Explanation**

The dataset was unloaded from a *device* device, with UCB device type *ucbtype*.

### **Message level**

2

### **Action**

None.

---

## HHCDL086I

**HHCDL086I Original device has *cylinders* *cyls* and *heads* *heads***

### **Explanation**

The device listed in the preceding HHCDL085I message has *cylinders* cylinders and *heads* heads.

### **Message level**

2

### **Action**

None.

---

## HHCDL087E

**HHCDL087E COPYR2 record length is invalid**

### **Explanation**

The length of the COPYR2 record just read is not valid. The input file is probably corrupt.

### **Action**

Supply a valid input file and rerun dasdload.

---

---

## HHCDL088E

### HHCDL088E Invalid number of extents *extents*

#### Explanation

The number of extents reported in the COPYR2 record is invalid, either less than 1 or more than 16. The input file is probably corrupt.

#### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL089I

### HHCDL089I Extent *extent*: Begin CCHH=*begcchh* End CCHH=*endcchh* Tracks=*tracks*

#### Explanation

For extent number *extent*, the extent starts at cylinder and head *begcchh*, and ends at *endcchh*, for a total of *tracks* tracks.

#### Message level

4

#### Action

None.

---

## HHCDL090I

### HHCDL090I End of directory

#### Explanation

The end of the PDS directory has been reached.

#### Message level

3

#### Action

None.

---

## HHCDL091E

### HHCDL091E Directory block record length is invalid

#### Explanation

The directory block read from the input file has the wrong length. It must be 276 bytes long. The input file is probably corrupt.

#### Action

Supply a valid input file and rerun dasdload.

---

---

## HHCDL092E

**HHCDL092E Cannot obtain storage for directory block: error**

### Explanation

An attempt to obtain storage for the directory block being processed failed. The error is described by *error*.

### Action

Correct the error and rerun dasdload.

---

## HHCDL093E

**HHCDL093E Number of directory blocks exceeds *maxdblk*, increase MAXDBLK**

### Explanation

The number of directory blocks in the dataset being processed exceeds the size of an internal control structure. The maximum number is *maxdblk*.

### Action

Increase the value of the constant MAXDBLK in the program source and recompile dasdload.

---

## HHCDL094E

**HHCDL094E Directory block byte count is invalid**

### Explanation

The length of the current directory block is invalid. The input file is probably corrupt.

### Action

Supply a valid input file and rerun dasdload.

---

## HHCDL095I

**HHCDL095I (Alias|Member) *memname* TTR=*ttr*  
Userdata=*userdata***

### Explanation

The alias or member named *memname* is located at relative address *ttr*. If user data is present, it is printed as *userdata*.

### Message level

3

### Action

None.

---

---

## HHCDL096I

HHCDL096I Member *name* TTR=*oldttr* replaced by *newttr*

### Explanation

In the directory entry for member *name*, the old pointer to the member *oldttr* was replaced by the member's actual relative address *newttr*.

### Message level

4

### Action

None.

---

## HHCDL097E

HHCDL097E Member *name* TTR=*ttr* not found in dataset

### Explanation

A request was made to update the directory entry for the member named *name* but there was no directory entry to update.

### Action

This is likely an internal logic error. Report the error to the Hercules development team.

---

## HHCDL098I

HHCDL098I Updating note list for member *name* at TTR=*ttr* CCHHR=*cchhr*

### Explanation

The note list for the member named *name*, at relative address *ttr*, absolute address *cchhr*, is being updated.

### Message level

4

### Action

None.

---

## HHCDL099E

HHCDL099E *filename* cyl *cylinder* head *head* read error

### Explanation

An attempt to read the track in the DASD image file named *filename* at cylinder *cylinder*, head *head*, failed. A previous error described the failure.

### Action

Correct the error reported by the previous message and rerun dasdload.

---

## HHCDL100E

**HHCDL100E** *filename cyl cylinder head head invalid track header header*

### Explanation

The header *header* of the track in the DASD image file named *filename* at cylinder *cylinder*, head *head* did not agree with the actual address of the track. This is probably an internal logic error.

### Action

Report the error to the Hercules development team.

---

## HHCDL101E

**HHCDL101E** *filename cyl cylinder head head rec record note list record not found*

### Explanation

A request was made to update a note list record at cylinder *cylinder*, head *head*, record *record*, but the record was not found. The input dataset may be corrupt.

### Action

Supply a valid input dataset and rerun dasdload.

---

## HHCDL102E

**HHCDL102E** Member *member* note list at cyl *cylinder* head *head* rec *record* dlen *datalen* is too short for *numttrs* TTRs

### Explanation

The data length *datalen* of the note list record for member *member* at cylinder *cylinder*, head *head*, record *record*, is too short to contain the requested number *numttrs* of record pointers. The input dataset is probably corrupt.

### Action

Supply a valid input dataset and rerun dasdload.

---

## HHCDL103E

**HHCDL103E** *filename track read error cyl cylinder head head*

### Explanation

An attempt to read the track in the DASD image file named *filename* at cylinder *cylinder*, head *head*, failed. A previous error described the failure.

### Action

Correct the error reported by the previous message and rerun dasdload.

---

---

## HHCDL104I

**HHCDL104I** Updating cyl *cylinder* head *head* rec *record* kl *keylen* dl *datalen*

**Explanation**

The record at cylinder *cylinder*, head *head*, record *record*, with key length *keylen* and data length *datalen* is being updated.

**Message level**

4

**Action**

None.

---

## HHCDL105E

**HHCDL105E** Directory block byte count is invalid

**Explanation**

The length of the current directory block is invalid. The input file is probably corrupt.

**Action**

Supply a valid input file and rerun dasdload.

---

## HHCDL106E

**HHCDL106E** Cannot open file *filename*: *error*

**Explanation**

An attempt to open the IEBCOPY input file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

## HHCDL107E

**HHCDL107E** Cannot obtain input buffer: *error*

**Explanation**

An attempt to obtain a 64K byte input buffer for reading the IEBCOPY input file failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdload.

---

---

## HHCDL108E

**HHCDL108E Cannot obtain storage for directory block array:***error*

**Explanation**

An attempt to obtain storage for the internal array used to store directory blocks failed. The error is described by *error*.

**Action**

Correct the error and rerun *dasdload*.

---

## HHCDL109E

**HHCDL109E Cannot obtain storage for TTR table:** *error*

**Explanation**

An attempt to obtain storage for the internal array used to store track pointers for later conversion failed. The error is described by *error*.

**Action**

Correct the error and rerun *dasdload*.

---

## HHCDL110I

**HHCDL110I Processing file** *filename*

**Explanation**

The input file named *filename* is being processed.

**Message level**

1

**Action**

None.

---

## HHCDL111I

**HHCDL111I Control record:** *rename* length *length*

**Explanation**

A control record named *rename* of length *length* has been read.

**Message level**

4

**Action**

None.

---

---

## HHCDL112I

HHCDL112I File number: *filenum* ((not) selected)

**Explanation**

The data file, number *filenum*, was (or was not) selected for processing.

**Message level**

4

**Action**

None.

---

## HHCDL113I

HHCDL113I Data record: length *length*

**Explanation**

A data record of length *length* has been read.

**Message level**

4

**Action**

None.

---

## HHCDL114E

HHCDL114E write error: input record CCHHR=*cchhr* (TTR=*ttr*) KL=*keylen* DL=*datalen*

**Explanation**

An error was encountered writing the data record at absolute address *cchhr*, relative address *ttr*, with key length *keylen* and data length *datalen*. A previous message described the error.

**Action**

Correct the error described by the previous message and rerun dasdload.

---

## HHCDL115I

HHCDL115I CCHHR=*incchhr* (TTR=*inttr*) KL=*keylen* DL=*datalen* -> CCHHR=*outcchhr* (TTR=*outttr*)

**Explanation**

The record at absolute address *incchhr*, relative address *inttr*, with key length *keylen* and data length *datalen*, is being written to the output DASD image at absolute address *outcchhr*, relative address *outttr*.

**Message level**

4

**Action**

None.

---

---

## HHCDL116E

HHCDL116E TTR count exceeds *maxttr*, increase MAXTTR

### Explanation

The list of relative address pointers exceeds the size of the internal array used to contain them, *maxttr*.

### Action

Increase the constant MAXTTR in the program source and recompile dasdload.

---

## HHCDL117I

HHCDL117I Catalog block at cyl *cylinder* head *head* rec *record*

### Explanation

A catalog record has been written to disk at cylinder *cylinder*, head *head* and record *record*.

### Message level

4

### Action

None.

---

## HHCDL118I

HHCDL118I Catalog block at cyl *cylinder* head *head* rec *record*

### Explanation

A catalog index record has been written to disk at cylinder *cylinder*, head *head* and record *record*.

### Message level

4

### Action

None.

---

## HHCDL119I

HHCDL119I Catalog block at cyl *cylinder* head *head* rec *record*

### Explanation

An empty catalog record has been written to disk at cylinder *cylinder*, head *head* and record *record*.

### Message level

4

### Action

None.

---

---

## HHCDL120I

**HHCDL120I DIP complete at cyl *cylinder* head *head* record *record***

**Explanation**

The LOGREC dataset has been initialized. The last block written was at cylinder *cylinder*, head *head*, record *record*.

**Message level**

3

**Action**

None.

---

## HHCDL121E

**HHCDL121E SEQ dsorg must be PS or DA: dsorg=*dsorg***

**Explanation**

The dataset organization specified for the input dataset was *dsorg*. It must be either PS or DA but is not.

**Action**

Specify a valid dataset organization for sequential file processing or specify the correct processing option for the file being loaded and rerun dasdload.

---

## HHCDL122E

**HHCDL122E SEQ recfm must be F or FB: recfm=*recfm***

**Explanation**

The record format specified for the input dataset was *recfm*. It must be either F or FB but is not.

**Action**

Specify a valid record format for sequential file processing and rerun dasdload.

---

## HHCDL123E

**HHCDL123E SEQ invalid lrecl or blkisz: lrecl=*lrecl* blkisz=*blkisz***

**Explanation**

The logical record length specified for the input dataset was *lrecl*, and the block size was *blkisz*. Either the block size was not a multiple of the logical record length and the record format was specified as FB or the block size was different from the logical record length and the record format was specified as F.

**Action**

Specify a valid logical record length and block size for sequential file processing and rerun dasdload.

---

---

## HHCDL124E

### HHCDL124E SEQ keyIn must be 0 for blocked files

#### Explanation

The key length was specified as nonzero and the record format was specified as FB. This combination is invalid.

#### Action

If a key is required, specify a record format of F. If no key is required, specify a key length of 0. Rerun dasdload.

---

## HHCDL125E

### HHCDL125E Cannot open *filename*: error

#### Explanation

An error was encountered when attempting to open the input file named *filename*. The error is described by *error*.

#### Action

Correct the error and rerun dasdload.

---

## HHCDL126E

### HHCDL126E Cannot stat *filename*: error

#### Explanation

An error was encountered when attempting to obtain the size of the file named *filename*. The error is described by *error*.

#### Action

Correct the error and rerun dasdload.

---

## HHCDL127E

### HHCDL127E *filename* cyl *cylinder* head *head* read error

#### Explanation

An attempt to read the track in the DASD image file named *filename* at cylinder *cylinder*, head *head*, failed. A previous error described the failure.

#### Action

Correct the error reported by the previous message and rerun dasdload.

---

## HHCDL128E

**HHCDL128E** *filename* read error: *error*

### **Explanation**

An error was encountered reading the input file named *filename*. The error is described by *error*.

### **Action**

Correct the error and rerun dasdload.

---

## 15. Messages HHCDSnnns - DASDISUP Utility

---

### HHCDS001E

**HHCDS001E Cannot obtain storage for member array: *error***

**Explanation**

An attempt to obtain storage for the array of SYS1.SVCLIB members failed. The error is described by *error*.

**Action**

Correct the error and rerun dasdisup.

---

### HHCDS002I

**HHCDS002I End of directory: *count* members selected**

**Explanation**

The end of the SYS1.SVCLIB directory has been reached. *count* members have been selected for processing.

**Action**

None.

---

### HHCDS003E

**HHCDS003E Directory block byte count is invalid**

**Explanation**

The length of the directory block read is invalid. The SYS1.SVCLIB directory is probably corrupt.

**Action**

Rebuild SYS1.SVCLIB and rerun dasdisup.

---

### HHCDS004E

**HHCDS004E Number of members exceeds MAX\_MEMBERS**

**Explanation**

SYS1.SVCLIB has too many members to fit in the array used to store their information.

**Action**

Increase the value of MAX\_MEMBERS in dasdisup.c and recompile the program, then run it again.

---

---

## HHCDS005E

**HHCDS005E Member *member* TTR count is zero**

**Explanation**

The member named *member* has no data associated with it. Since aliases have been skipped already, this means that the SYS1.SVCLIB directory is corrupt.

**Action**

Rebuild SYS1.SVCLIB and run dasdisup again.

---

## HHCDS006W

**HHCDS006W Member *member* is not single text record**

**Explanation**

The member named *member* is not contained in a single text record. This is an invalid condition. The member will be skipped later and message HHCDS011E will be issued.

**Action**

If this member must be processed, rebuild SYS1.SVCLIB and rerun dasdisup.

---

## HHCDS007W

**HHCDS007W Member *member* size *size* exceeds X'7F8' bytes**

**Explanation**

The member named *member* is too long. The maximum length of an OS/360 SVC load module is X'7F8' (2040 decimal) bytes. The member will be processed but OS/360 may not process it correctly.

**Action**

Correct the member in SYS1.SVCLIB and rerun dasdisup.

---

## HHCDS008W

**HHCDS008W Member *member* size *size* is not a multiple of 8**

**Explanation**

The member named *member* is not a multiple of 8 bytes long. Its actual size is *size*. This is not valid for an OS/360 load module. OS/360 will issue an ABEND when an attempt is made to load the module.

**Action**

Correct the member in SYS1.SVCLIB and rerun dasdisup.

---

---

## HHCDS009I

### HHCDS009I Alias *alias* skipped

#### Explanation

The alias named *alias* has been skipped, since no processing is necessary for it.

#### Action

None.

---

## HHCDS010I

### HHCDS010I Member *member* skipped

#### Explanation

The member named *member* has been skipped, since it does not have an XCTL table.

#### Action

If the member should have an XCTL table, rebuild it in SYS1.SVCLIB and rerun dasdisup.

---

## HHCDS011E

### HHCDS011E Member *member* has multiple text records

#### Explanation

The member named *member* has multiple text records. This is not a valid condition for an OS/360 SVC module. The member will not be processed. Message HHCDS006W was issued for this member earlier.

#### Action

If this member must be processed, rebuild it in SYS1.SVCLIB and rerun dasdisup.

---

## HHCDS012E

### HHCDS012E Member *member* has invalid TTR *ttr*

#### Explanation

The pointer to the text record for the member named *member* is invalid. The pointer found is *ttr*. The member cannot be located to be processed. The SYS1.SVCLIB directory is probably corrupt.

#### Action

Rebuild SYS1.SVCLIB and rerun dasdisup.

---

---

## HHCDS013I

HHCDS013I Processing member *member* text record TTR=*ttr* CCHHR=*cchhr*

### Explanation

The member named *member* is being processed. Its relative location is *ttr* and its absolute location is *cchhr*.

### Action

None.

---

## HHCDS014E

HHCDS014E Member *member* error reading TTR *ttr*

### Explanation

An attempt to read the member named *member*, at the relative location *ttr*, failed. The member cannot be processed.

### Action

Rebuild SYS1.SVCLIB and rerun dasdisup. If this is unsuccessful, rebuild the entire DASD volume.

---

## HHCDS015E

HHCDS015E Member *member* TTR *ttr* text record length *length* is not valid

### Explanation

The length *length* of the text record at location *ttr* of the member named *member* is less than 8, greater than 1024, or not a multiple of 8. All of these conditions must be met for the length to be valid. The member is probably corrupt.

### Action

Rebuild the member in SYS1.SVCLIB and rerun dasdisup.

---

## HHCDS016E

HHCDS016E Member *member* TTR *ttr* text record length *textlength* does not match length *dirlength* in directory

### Explanation

The length *textlength* of the text record at location *ttr* is not the same as the length *dirlength* in the directory entry for member *member*. Either the member, or the directory, is probably corrupt.

### Action

Rebuild the member in SYS1.SVCLIB and rerun dasdisup. If this does not correct the problem, rebuild SYS1.SVCLIB in its entirety.

---

---

## HHCDS017E

### HHCDS017E Member *member* TTR *ttr* XCTL table improperly terminated

#### Explanation

The XCTL table in member *member* at location *ttr* runs past the end of the text record. The member is probably corrupt.

#### Action

Rebuild the member and rerun dasdisup.

---

## HHCDS018I

### HHCDS018I *member* (Alias|Member) skipped

#### Explanation

The member or alias named *member* is not an Open, Close, or EOVS module, and so does not have an XCTL table that needs to be updated. It has been skipped.

#### Action

None.

---

## HHCDS019I

### HHCDS019I In member *member*: *reference* TTRL=*ttrl* *status*

#### Explanation

A reference to the member named *reference* in the member named *member* was found, the referenced member is at the location *ttrl* in the table. *status* is optional; it may be one of:

\*\* Member *reference* not found

The referenced member was not found in SYS1.SVCLIB. The reference cannot be updated.

replaced by TTRL=*newttrl* *flag*

The reference was updated to point to the referenced member's actual location at *newttrl*. If *flag* is \*\*\*\*, the actual length of the referenced member is different from the length of the member in the reference pointer.

#### Action

None.

---

## 16. Messages HHCDTnnns - DASDCAT Utility

---

### HHCDT001E

**HHCDT001E failed to open image *filename***

**Explanation**

An error was encountered trying to open the DASD image file named *filename*. A previous message described the error.

**Action**

Correct the error and rerun dasdcat.

---

### HHCDT002E

**HHCDT002E Can't make 80 column card images from block length *length***

**Explanation**

A block read from the member specified is not a multiple of 80 characters long, and so cannot be split evenly into 80-character card images. The actual length read is *length*.

**Action**

Select a different member, or omit the c flag from the member specification.

---

### HHCDT003E

**HHCDT003E Directory block byte count is invalid**

**Explanation**

The length of a PDS directory block in the specified dataset is invalid. The PDS directory is corrupt or the dataset is not a PDS.

**Action**

Make sure the dataset specified is a PDS (partitioned dataset). If it is, then the dataset is corrupt.

---

### HHCDT004E

**HHCDT004E non-PDS-members not yet supported**

**Explanation**

This version of dasdcat does not support reading sequential datasets.

**Action**

Specify a PDS as input to dasdcat.

---

---

## HHCDT005E

**HHCDT005E unknown dataset name option: '*option*'**

**Explanation**

An invalid option was specified on the dataset name specification. Only the options 'a' and 'c' are valid.

**Action**

Remove the invalid option from the dataset name specification and rerun dasdcat.

---

## 17. Messages HHCDUxxxx - DASD Utilities Common Functions

---

### HHCDU001I

HHCDU001I Updating cyl *cylinder* head *head*

**Explanation**

The track at cylinder number *cylinder* and head number *head* is being rewritten after being modified. This message is only issued if verbose message reporting has been selected.

**Action**

None.

---

### HHCDU002E

HHCDU002E *filename* write track error: stat=*status*

**Explanation**

An attempt to rewrite a track from the DASD image named *filename* failed. The status returned was *status*.

**Action**

Correct the error and retry the operation.

---

### HHCDU003I

HHCDU003I Reading cyl *cylinder* head *head*

**Explanation**

The track at cylinder number *cylinder* and head number *head* is being read. This message is only issued if verbose message reporting has been selected.

**Action**

None.

---

### HHCDU004E

HHCDU004E *filename* read track error: stat=*status*

**Explanation**

An attempt to read a track from the DASD image named *filename* failed. The status returned was *status*.

**Action**

Correct the error and retry the operation.

---

---

## HHCDU005I

**HHCDU005I Searching extent 0 begin (*begcyl,beghead*) end (*endcyl,endhead*)**

### **Explanation**

The first extent of the dataset is being searched for a key. The extent starts at the track at cylinder *begcyl*, head *beghead*, and ends at the track at cylinder *endcyl*, head *endhead*. This message is only issued if verbose message reporting has been selected.

### **Action**

None.

---

## HHCDU006I

**HHCDU006I Searching extent *extent* begin (*begcyl,beghead*) end (*endcyl,endhead*)**

### **Explanation**

An extent, *extent*, of the dataset is being searched for a key. The extent starts at the track at cylinder *begcyl*, head *beghead*, and ends at the track at cylinder *endcyl*, head *endhead*. This message is only issued if verbose message reporting has been selected.

### **Action**

None.

---

## HHCDU007E

**HHCDU007E Track *track* not found in extent table**

### **Explanation**

An attempt was made to convert a track number to an absolute address, but the track specified, *track*, is beyond the end of the dataset.

### **Action**

Correct the error and retry the operation. The dataset, the VTOC, or the DASD image may be corrupt.

---

## HHCDU008E

**HHCDU008E Cannot obtain storage for device descriptor buffer: *error***

### **Explanation**

An attempt to obtain storage for the buffer used to hold a CKD DASD image description failed. The error is described by *error*.

### **Action**

Correct the error and retry the operation.

---

---

## HHCDU009E

**HHCDU009E Cannot open *filename*: error**

**Explanation**

The CKD image file named *filename* could not be opened. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU010E

**HHCDU010E *filename* read error: error**

**Explanation**

An error was encountered while reading the CKD header record from the file named *filename*. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU011E

**HHCDU011E *filename* CKD header invalid**

**Explanation**

The file *filename* is not a valid CKD DASD image file. Either the first record is not the length of a CKD header record or the marker in the header record is not correct.

**Action**

Supply the name of a valid CKD DASD image file and retry the operation.

---

## HHCDU012E

**HHCDU012E DASD table entry not found for devtype *type***

**Explanation**

The device type in the CKD header record does not correspond to any known DASD device. The CKD DASD image file may be corrupt or the device is not supported by Hercules.

**Action**

Supply the name of a supported CKD DASD image file and retry the operation.

---

---

## HHCDU013E

### HHCDU013E CKD initialization failed for *filename*

#### Explanation

The device-specific initialization routine for the file named *filename* failed. Another message describes the specific failure.

#### Action

See the specific message for the action needed.

---

## HHCDU014I

### HHCDU014I *filename* heads=*heads* trklen=*trklen*

#### Explanation

The device represented by the CKD DASD image file named *filename* has *heads* heads and tracks of *trklen* bytes length. This message is only issued if verbose message reporting has been selected.

#### Action

None.

---

## HHCDU015I

### HHCDU015I Updating cyl *cylinder* head *head*

#### Explanation

During processing of a request to close the CKD image file, the track at cylinder number *cylinder* and head number *head* is being rewritten, since it has been modified. This message is only issued if verbose message reporting has been selected.

#### Action

None.

---

## HHCDU016E

### HHCDU016E *filename* write track error: stat=*status*

#### Explanation

During processing of a request to close the CKD image file, an attempt to rewrite a track from the DASD image named *filename* failed. The status returned was *status*.

#### Action

Correct the error and retry the operation.

---

## HHCDU017E

**HHCDU017E Cannot obtain storage for device descriptor buffer: *error***

**Explanation**

An attempt to obtain storage for the buffer used to hold a FBA DASD image description failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU018E

**HHCDU018E DASD table entry not found for devtype *type***

**Explanation**

The default FBA device type does not correspond to any known DASD device. This is likely an internal programming error.

**Action**

Report the bug to the Hercules development team.

---

## HHCDU019E

**HHCDU019E FBA initialization failed for *filename***

**Explanation**

The device-specific initialization routine for the file named *filename* failed. Another message describes the specific failure.

**Action**

See the specific message for the action needed.

---

## HHCDU020I

**HHCDU020I *filename* sectors=*sectors* size=*size***

**Explanation**

The device represented by the FBA DASD image file named *filename* has *sectors* sectors of *size* bytes length. This message is only issued if verbose message reporting has been selected.

**Action**

None.

---

## HHCDU021E

### HHCDU021E VOL1 record not found

#### Explanation

The volume being processed does not have a volume label. It is probably blank and unformatted.

#### Action

Format the volume or specify a formatted volume and retry the operation.

---

## HHCDU022I

### HHCDU022I VOLSER=*serial* VTOC=*cchhr*

#### Explanation

The volume being processed has the volume serial *serial* and its VTOC format 4 DSCB is at absolute location *cchhr*. This message is only issued if verbose message reporting has been selected.

#### Action

None.

---

## HHCDU023I

### HHCDU023I VTOC start *begcchh* end *endcchh*

#### Explanation

The VTOC of the volume being processed begins at cylinder and head *begcchh* and ends at cylinder and head *endcchh*. This message is only issued if verbose message reporting has been selected.

#### Action

None.

---

## HHCDU024E

### HHCDU024E Dataset *dsn* not found in VTOC

#### Explanation

The requested dataset *dsn* was not found in the VTOC and does not exist on this volume.

#### Action

Specify the correct dataset name or select the volume on which it appears.

---

## HHCDU025I

### HHCDU025I DSNAME=*dsn* F1DSCB CCHHR=*cchhr*

#### Explanation

The format 1 DSCB for the requested dataset *dsn* is at absolute location *cchhr*. This message is only issued if verbose message reporting has been selected.

---

**Action**

None.

---

**HHCDU026E****HHCDU026E F1DSCB record not found****Explanation**

The requested dataset is listed in the VTOC but its format 1 DSCB record was not found when an attempt was made to read it. The VTOC may be corrupt.

**Action**

Recreate the dataset and retry the operation.

---

**HHCDU027E****HHCDU027E F3DSCB record not found****Explanation**

The requested dataset is reported to contain more than three extents in the format 1 DSCB but its format 3 DSCB record was not found when an attempt was made to read it. The VTOC may be corrupt.

**Action**

Recreate the dataset and retry the operation.

---

**HHCDU028E****HHCDU028E *filename* open error: *error*****Explanation**

An attempt to create the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU029E****HHCDU029E *filename* device header write error: *error*****Explanation**

An attempt to write the device header to the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

---

## HHCDU030E

**HHCDU030E *filename* compressed device header write error: error**

**Explanation**

An attempt to write the compressed device header to the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU031E

**HHCDU031E Cannot obtain I1tab buffer: error**

**Explanation**

An attempt to obtain storage for the primary lookup table buffer failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU032E

**HHCDU032E *filename* primary lookup table write error: error**

**Explanation**

An attempt to write the primary lookup table to the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU033E

**HHCDU033E *filename* secondary lookup table write error: error**

**Explanation**

An attempt to write the secondary lookup table to the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU034E

**HHCDU034E *filename* dasdcopy ftruncate error: error**

**Explanation**

An attempt to truncate the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU035E**

**HHCDU035E *filename* cylinder *cyl* head *head* write error: *error***

**Explanation**

An attempt to write the track at cylinder *cyl*, head *head* to the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU036E**

**HHCDU036E *filename* compressed device header lseek error: *error***

**Explanation**

An attempt to reposition to the beginning of the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU037E**

**HHCDU037E *filename* compressed device header write error: *error***

**Explanation**

An attempt to rewrite the compressed device header record of the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU038E**

**HHCDU038E *filename* secondary lookup table lseek error: *error***

**Explanation**

An attempt to reposition to the secondary lookup table of the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

---

## HHCDU039E

**HHCDU039E *filename* secondary lookup table write error: *error***

**Explanation**

An attempt to rewrite the secondary lookup table of the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU040E

**HHCDU040E *filename* close error: *error***

**Explanation**

An attempt to close the CKD DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU041I

**HHCDU041I *count* cylinders successfully written to file *filename***

**Explanation**

The CKD DASD image file named *filename* has been successfully created. It contains *count* cylinders.

**Action**

None.

---

## HHCDU042E

**HHCDU042E Cylinder count *count* is outside range *min-max***

**Explanation**

The requested number of cylinders *count* is outside the valid range from *min* to *max*.

**Action**

Specify a valid number of cylinders and retry the operation.

---

## HHCDU043E

**HHCDU043E Cannot obtain track buffer: *error***

**Explanation**

An attempt to obtain storage for the track buffer failed. The error is described by *error*.

---

**Action**

Correct the error and retry the operation.

---

**HHCDU044I**

**HHCDU044I Creating *type* volume *serial*: *cylinders* *cyls*, *tracks* *trks/cyl*, *length* *bytes/track***

**Explanation**

A new volume is being created of device type *type* and volume serial number *serial*. It has *cylinders* cylinders, *tracks* tracks per cylinder and *length* bytes per track.

**Action**

None.

---

**HHCDU045E**

**HHCDU045E Sector count *count* is outside range *min-max***

**Explanation**

The requested number of sectors *count* is outside the valid range from *min* to *max*.

**Action**

Specify a valid number of cylinders and retry the operation.

---

**HHCDU046E**

**HHCDU046E Cannot obtain sector buffer: *error***

**Explanation**

An attempt to obtain storage for the sector buffer failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCDU047I**

**HHCDU047I Creating *type* volume *serial*: *sectors* *sectors*, *length* *bytes/sector***

**Explanation**

A new volume is being created of device type *type* and volume serial number *serial*. It has *sectors* sectors and *length* bytes per sector.

**Action**

None.

---

---

## HHCDU048E

**HHCDU048E *filename* open error: *error***

**Explanation**

An attempt to create the FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU049E

**HHCDU049E *filename* dasdcopy ftruncate error: *error***

**Explanation**

An attempt to truncate the FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU050E

**HHCDU050E *filename* sector *sector* write error: *error***

**Explanation**

An attempt to write sector number *sector* to the FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU051E

**HHCDU051E *filename* close error: *error***

**Explanation**

An attempt to close the FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU052I

**HHCDU052I *count* sectors successfully written to file *filename***

**Explanation**

The FBA DASD image file named *filename* has been successfully created. It contains *count* sectors.

---

**Action**  
None.

---

## HHCDU053E

**HHCDU053E File size too large: *size* [*/1tab*]**

**Explanation**

The requested file size *size* would result in a primary lookup table that is too large. The DASD image cannot be created as a compressed image.

**Action**

Either specify fewer sectors or create the DASD image uncompressed.

---

## HHCDU054E

**HHCDU054E *filename* open error: *error***

**Explanation**

An attempt to create the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU055I

**HHCDU055I Creating *type* compressed volume *serial*: *sectors* *sectors*, *length* bytes/sector**

**Explanation**

A new compressed FBA volume is being created of device type *type* and volume serial number *serial*. It has *sectors* sectors and *length* bytes per sector.

**Action**

None.

---

## HHCDU056E

**HHCDU056E *filename* devhdr write error: *error***

**Explanation**

An attempt to write the device header to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU057E

**HHCDU057E *filename* cdevhdr write error: error**

**Explanation**

An attempt to write the compressed device header to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU058E

**HHCDU058E *filename* l1tab write error: error**

**Explanation**

An attempt to write the primary lookup table to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU059E

**HHCDU059E *filename* l2tab write error: error**

**Explanation**

An attempt to write the secondary lookup table to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU060E

**HHCDU060E *filename* block header write error: error**

**Explanation**

An attempt to write a compressed block header to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU061E

**HHCDU061E *filename* block write error: error**

**Explanation**

An attempt to write a compressed block to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU062E

**HHCDU062E *filename* block write error: error**

**Explanation**

An attempt to write an uncompressed block to the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU063E

**HHCDU063E *filename* cdevhdr lseek error: error**

**Explanation**

An attempt to reposition to the beginning of the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU064E

**HHCDU064E *filename* cdevhdr rewrite error: error**

**Explanation**

An attempt to rewrite the compressed device header record of the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU065E

**HHCDU065E *filename* l2tab lseek error: error**

**Explanation**

An attempt to reposition to the secondary lookup table of the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU066E

**HHCDU066E *filename* l2tab rewrite error: error**

**Explanation**

An attempt to rewrite the secondary lookup table of the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU067E

**HHCDU067E *filename* close error: error**

**Explanation**

An attempt to close the compressed FBA DASD image file named *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCDU068I

**HHCDU068I *count* sectors successfully written to file *filename***

**Explanation**

The compressed FBA DASD image file named *filename* has been successfully created. It contains *count* sectors.

**Action**

None.

---

---

## 18. Messages HHCHDnnns - Hercules Dynamic Loader

---

### HHCHD001E

HHCHD001E registration alloc failed for *entry*

**Explanation**

Storage could not be obtained to register endpoint *entry*

**Action**

Correct the error and restart Hercules.

---

### HHCHD002E

HHCHD002E cannot allocate memory for DLL descriptor: *error*

**Explanation**

Initialisation of the dynamic loader environment failed due to the error described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCHD003E

HHCHD003E unable to open Hercules as DLL: *error*

**Explanation**

The main Hercules load module could not be opened by the dynamic loader. The dynamic loader error is described by *error*

**Action**

Correct the error and restart Hercules.

---

### HHCHD004I

HHCHD004I No initializer in *module*: *error*

**Explanation**

The initializer in DLL named *module* could not be found. The error is described by *error*

**Action**

Correct the error and restart Hercules.

---

---

## HHCHD005E

**HHCHD005E** *module already loaded.*

### **Explanation**

An attempt was made to load an already loaded module.

### **Action**

Unload to module first.

---

## HHCHD006S

**HHCHD006S** cannot allocate memory for DLL descriptor: *error*

### **Explanation**

Initialisation of the dynamic loader environment failed due to the error described by *error*.

### **Action**

Correct the error and restart Hercules.

---

## HHCHD007E

**HHCHD007E** unable to open DLL *module*: *error*

### **Explanation**

The DLL named *module* could not be opened. The error is described by *error*.

### **Action**

Ensure that the correct module is specified and is accessible.

---

## HHCHD008I

**HHCHD008I** No initializer in *module*: *error*

### **Explanation**

The initializer in DLL named *module* could not be found. The error is described by *error*

### **Action**

Correct the error and restart Hercules.

---

## HHCHD009E

**HHCHD009E** *module not found*

### **Explanation**

An attempt was made to unload a module that was not loaded.

### **Action**

No action required.

---

---

## HHCHD010I

**HHCHD010I** Dependency check failed for *module*, version(*vers\_actual*) expected(*vers\_exp*)

**Explanation**

The version of the module's required dependency does not match the version of the dependency in the module that contains the dependency.

**Action**

No action required.

---

## HHCHD011I

**HHCHD011I** Dependency check failed for *module*, size(*size\_actual*) expected(*size\_exp*)

**Explanation**

The size of the modules required dependency does not match the size of the dependency in the module that contains the dependency.

**Action**

No action required.

---

## HHCHD012E

**HHCHD012E** No dependency section in *module*: *error*

**Explanation**

The module being loaded does not contain the required dependency section. The error is described by *error*.

**Action**

Rebuild the module with the required HDL\_DEPENDENCY\_SECTION defined.

---

## HHCHD013E

**HHCHD013E** No dependency section in *module*: *error*

**Explanation**

The module being loaded does not contain the required dependency section. The error is described by *error*.

**Action**

Rebuild the module with the required HDL\_DEPENDENCY\_SECTION defined.

---

---

## HHCHD014E

### HHCHD014E Dependency check failed for module *module*

#### Explanation

One or more required dependencies were not satisfied. The preceding HHCHD010I and/or HHCHD011I message(s) identifies which of the dependencies failed and the reason why.

#### Action

If the module was not loaded, rebuild the module using the same version of the required dependency as the module that contains the dependency and try again.

---

## HHCHD015E

### HHCHD015E Unloading of *module* not allowed

#### Explanation

An attempt was made to unload a module that was not allowed to be unloaded.

#### Action

No action required.

---

## HHCHD018I

### HHCHD018I Loadable module directory is *dir*

#### Explanation

The default loadable module directory was manually changed to *dir* via either a supplied MODPATH configuration file statement or via the -d command line option.

#### Action

No action required.

---

## HHCHD100I

### HHCHD100I Loading *module* ...

#### Explanation

Module *module* is being loaded.

#### Action

No action required.

---

## HHCHD101I

### HHCHD101I Module *module* loaded

#### Explanation

Module *module* has been loaded.

**Action**

No action required

---

**HHCHD102I**

**HHCHD102I Unloading *module* ...**

**Explanation**

Module *module* is being unloaded.

**Action**

No action required

---

**HHCHD103I**

**HHCHD103I Module *module* unloaded**

**Explanation**

Module *module* has been unloaded.

**Action**

No action required

---

## 19. Messages HHCHEnns - HETINIT Utility

---

### HHCHEnns

Messages HHCHEnns are not yet documented.

---

## 20. Messages HHCHGnnns - HETGET Utility

---

### HHCHGnnns

Messages HHCHGnnns are not yet documented.

---

## 21. Messages HHCHMnnns - HETMAP Utility

---

### HHCHMnnns

Messages HHCHMnnns are not yet documented.

---

## 22. Messages HHCHTnnns - HTTP Server

---

### HHCHT001I

HHCHT001I HTTP listener thread started: tid=*threadid*, pid=*processid*

**Explanation**

The HTTP server thread to accept and process incoming requests has been started. The thread id is *threadid* and the process id is *processid*.

**Action**

No action required.

---

### HHCHT002E

HHCHT002E socket: *error*

**Explanation**

An attempt to obtain a TCP socket to receive HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCHT003W

HHCHT003W Waiting for port *port* to become free

**Explanation**

The thread that handles HTTP connection requests is waiting for the TCP port denoted by *port* to become available for use.

**Action**

If this message persists, some other program has control of the TCP port listed. Find out which one it is and terminate it.

---

### HHCHT004E

HHCHT004E bind: *error*

**Explanation**

An attempt to bind the socket to the TCP port to receive HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

---

## HHCHT005E

**HHCHT005E listen: *error***

**Explanation**

An attempt to put the socket into listening state for HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCHT006I

**HHCHT006I Waiting for HTTP requests on port *port* pid=*num***

**Explanation**

Hercules is ready to accept HTTP requests on port *port*.

**Action**

No action required.

---

## HHCHT007E

**HHCHT007E select: *error***

**Explanation**

An attempt to wait for data from HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCHT008E

**HHCHT008E accept: *error***

**Explanation**

An attempt to accept a TCP connection for HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCHT009E

**HHCHT009E fdopen: *error***

**Explanation**

An attempt to open the socket for reading HTTP requests failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

---

## HHCHT010E

HHCHT010E http\_request create\_thread: *error*

### Explanation

An attempt to create a thread for processing HTTP requests failed. The error is described by *error*.

### Action

Correct the error and restart Hercules.

---

## HHCHT011E

HHCHT011E html\_include: Cannot open *filename*: *error*

### Explanation

The file named *filename*, which was included from another file, could not be opened. The error is described by *error*.

### Action

Correct the error and retry the operation.

---

## HHCHT014I

HHCHT014I HTTPROOT = *pathname*

### Explanation

The root directory path for the HTTP server is *pathname*.

### Action

No action required.

---

---

## 23. Messages HHCHUnnns - HETUPD Utility

---

### HHCHUnnns

Messages HHCHUnnns are not yet documented.

---

## 24. Messages HHCIFnnns - Network Interface Configuration Handler (hercific)

---

### HHCIF001E

**HHCIF001E *programname*: Must be called from within Hercules.**

**Explanation**

This program can only be called from Hercules itself and may not be executed from the command line. The program was executed using the name *programname*.

**Action**

Don't do that.

---

### HHCIF002E

**HHCIF002E *programname*: Cannot obtain socket: *error***

**Explanation**

An attempt to obtain a socket for controlling the destination interface failed. The error is described by *error*. The program was executed using the name *programname*.

**Action**

Correct the error and retry the operation.

---

### HHCIF003E

**HHCIF003E *programname*: I/O error on read: *error***

**Explanation**

An attempt to read a request from Hercules failed. The error is described by *error*. The program was executed using the name *programname*.

**Action**

Correct the error and retry the operation.

---

### HHCIF004W

**HHCIF004W *programname*: Unknown request: *request*.**

**Explanation**

The request from Hercules was invalid. The request code was *request*. The request has been ignored. The program was executed using the name *programname*.

**Action**

Make sure that the hercific program is the same version as the running copy of Hercules. If so, this is an internal error. Report it.

---

---

## HHCIF005E

**HHCIF005E** *programname*: ioctl error doing *operation* on *interface*: *error*

### **Explanation**

An attempt to perform an ioctl operation *operation* on interface *interface* failed. The error is described by *error*. The program was executed using the name *programname*.

### **Action**

Correct the error and retry the operation.

---

## 25. Messages HHCINnnns - Hercules Initialization

---

### HHCIN001S

**HHCIN001S Cannot register SIGINT handler: *error***

**Explanation**

An attempt to register a handler for the SIGINT signal failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCIN002E

**HHCIN002E Cannot suppress SIGPIPE signal: *error***

**Explanation**

An attempt to ignore the SIGPIPE signal failed. The error is described by *error*. This will cause Hercules to terminate abnormally if a printer device is defined to a pipe and that pipe is closed while data is being written to it.

**Action**

Correct the error and restart Hercules. Do not print to a pipe until you have corrected the error.

---

### HHCIN003S

**HHCIN003S Cannot register SIGILL/FPE/SEGV/BUS/USR handler: *error***

**Explanation**

An attempt to register a handler for one of the listed signals failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCIN004S

**HHCIN004S Cannot create watchdog thread: *error***

**Explanation**

An attempt to create the watchdog thread to monitor Hercules execution failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

---

## HHCIN005S

**HHCIN005S Cannot create http\_server thread: error**

**Explanation**

An attempt to create the HTTP server thread failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCIN006S

**HHCIN006S Cannot create panel thread: error**

**Explanation**

An attempt to create the operator control panel thread failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCIN007S

**HHCIN007S Cannot create devnum connection thread: error**

**Explanation**

The shared device server was unable to create the thread meant to manage remote device *devnum*. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

## HHCIN008S

**HHCIN008S DYNGUI.DLL load failed; Hercules terminated.**

**Explanation**

The external GUI interface module 'dyngui.dll' could not loaded. The preceding HHCHD007E message should provide the reason for the failure.

**Action**

Correct the error and restart Hercules. If the error is Win32 error 126 ("The specified module could not be found"), check your Windows PATH setting and/or your MODPATH control statement to ensure one or both of them includes the directory where Hercules is executing from.

---

## **HHCIN099I**

**HHCIN099I Hercules terminated**

**Explanation**

Hercules has ended.

**Action**

No action required.

---

## 26. Messages HHCLCnnns - LCS Emulation

---

### HHCLC001E

HHCLC001E *nnnn* unable to allocate LCSBLK

**Explanation**

There is insufficient storage to allocate the control block for LCS device number *nnnn*.

**Action**

Correct the error and restart Hercules.

---

### HHCLC017E

HHCLC017E *nnnn* invalid device name *devname*

**Explanation**

The value of the -n or -dev parameter in the configuration statement for LCS device number *nnnn* is missing or too long.

**Action**

Correct the parameter and reinitialize the device.

---

### HHCLC018E

HHCLC018E *nnnn* invalid MAC address *macaddr*

**Explanation**

The value of the -m or -mac parameter in the configuration statement for LCS device number *nnnn* is not a valid MAC address.

**Action**

Correct the parameter and reinitialize the device.

---

### HHCLC019E

HHCLC019E *nnnn* too many arguments in statement

**Explanation**

The configuration statement for LCS device number *nnnn* contains too many positional parameters.

**Action**

Correct the statement and restart Hercules.

---

---

## HHCLC020E

HHCLC020E *nnnn* invalid IP address *ipaddr*

### Explanation

The first positional parameter in the configuration statement for LCS device number *nnnn* is not a valid IP address.

### Action

Correct the statement and reinitialize the device.

---

## HHCLC021E

HHCLC021E Invalid HWADD statement in *filename: stmt*

### Explanation

The port number parameter of the HWADD statement *stmt* in OAT file *filename* is not numeric.

### Action

Correct the statement and reinitialize the device.

---

## HHCLC022E

HHCLC022E Invalid MAC in HWADD statement in *filename: stmt (macaddr)*

### Explanation

The second positional parameter of the HWADD statement *stmt* in OAT file *filename* is not a valid MAC address.

### Action

Correct the parameter and reinitialize the device.

---

## HHCLC023E

HHCLC023E Invalid ROUTE statement in *filename: stmt*

### Explanation

The port number parameter of the ROUTE statement *stmt* in OAT file *filename* is not numeric.

### Action

Correct the statement and reinitialize the device.

---

## HHCLC024E

HHCLC024E Invalid net address in ROUTE *filename: stmt (netaddr)*

### Explanation

The second positional parameter of the ROUTE statement *stmt* in OAT file *filename* is not a valid IP network address.

### Action

Correct the parameter and reinitialize the device.

---

---

## HHCLC025E

**HHCLC025E Invalid net mask in ROUTE *filename: stmt (netaddr)***

### **Explanation**

The third positional parameter of the ROUTE statement *stmt* in OAT file *filename* is not a valid IP network mask.

### **Action**

Correct the parameter and reinitialize the device.

---

## HHCLC026E

**HHCLC026E Error in *filename*: Missing device number or mode**

### **Explanation**

The OAT file *filename* contains a statement which cannot be identified.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC027E

**HHCLC027E Error in *filename: devnum*: Invalid device number**

### **Explanation**

The device number *devnum* specified in the OAT file *filename* is not a valid hexadecimal number.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC028E

**HHCLC028E Error in *filename: stmt*: Missing PORT number**

### **Explanation**

Statement *stmt* in OAT file *filename* for the IP port of an LCS device does not contain a port number.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC029E

**HHCLC029E Error in *filename: port*: Invalid PORT number**

### **Explanation**

The port number *port* specified in the OAT file *filename* for the IP port of an LCS device is not a valid decimal number.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC031E

**HHCLC031E Error in *filename: stmt*: Invalid entry starting at *text***

### **Explanation**

The parameter *text* specified in statement *stmt* in the OAT file *filename* should be PRI, SEC, or NO.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC032E

**HHCLC032E Error in *filename: stmt*: Invalid IP address (*ipaddr*)**

### **Explanation**

The parameter *ipaddr* specified in statement *stmt* in the OAT file *filename* is not a valid IP address.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC033E

**HHCLC033E Error in *filename: stmt*: Missing PORT number**

### **Explanation**

Statement *stmt* in OAT file *filename* for the SNA port of an LCS device does not contain a port number.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC034E

**HHCLC034E Error in *filename: port*: Invalid PORT number**

### **Explanation**

The port number *port* specified in the OAT file *filename* for the SNA port of an LCS device is not a valid decimal number.

### **Action**

Correct the statement and reinitialize the device.

---

## HHCLC035E

**HHCLC035E Error in *filename: stmt*: SNA does not accept any arguments**

### **Explanation**

Statement *stmt* in OAT file *filename* for the SNA port of an LCS device contains positional parameters which are not used for SNA ports.

### **Action**

Correct the statement and reinitialize the device.

---

---

## HHCLC036E

HHCLC036E Error in *filename: mode: Invalid MODE*

### Explanation

Mode *mode* specified in a device statement in the OAT file *filename* should be IP or SNA.

### Action

Correct the statement and reinitialize the device.

---

## HHCLC037E

HHCLC037E Error reading file *filename* line *nnnn: description*

### Explanation

An error occurred reading the OAT file for an LCS device. *description* is the operating system's description of the error. The error occurred at line *nnnn* of file *filename*.

### Action

Check that the correct OAT file name is specified in the configuration file.

---

## HHCLC038E

HHCLC038E File *filename* line *nnnn* is too long

### Explanation

An error occurred reading the OAT file for an LCS device. The error occurred at line *nnnn* of file *filename*. Either the line exceeds 255 characters, or there is no linefeed at the end of the file.

### Action

Correct the OAT file.

---

## HHCLC039E

HHCLC039E Cannot open file *filename: description*

### Explanation

An error occurred opening the OAT file *filename* for an LCS device. *description* is the operating system's description of the error.

### Action

Check that the correct OAT file name is specified in the configuration file.

---

## HHCLC040E

HHCLC040E *nnnn* LCSDEV *mmmm* not in configuration

### Explanation

The device number *mmmm* specified in the OAT file does not match the LCS device number *nnnn* in the configuration file.

---

**Action**  
None.

---

## HHCLC055I

HHCLC055I *tapn* using MAC *hh:hh:hh:hh:hh:hh*

**Explanation**

The MAC address assigned the TUN/TAP device *tapn* is *hh:hh:hh:hh:hh:hh*.

**Action**

Correct the OAT file and reinitialize the device.

---

## HHCLC056W

HHCLC056W *tapn* NOT using MAC *hh:hh:hh:hh:hh:hh*

**Explanation**

MAC address *hh:hh:hh:hh:hh:hh* was requested in the configuration statement or in the OAT file for an LCS device but the operating system did not accept the request to change the MAC address for TUN/TAP device *tapn*.

**Action**

The device will use the MAC address shown in the preceding HHCLC055I message.

---

## HHCLC073I

HHCLC073I *nnnn*: TAP device *tapn* opened

**Explanation**

LCS device number *nnnn* is now associated with the kernel TUN/TAP device named *tapn*.

**Action**

None.

---

## 27. Messages HHCLGnnns - System Log Functions

---

### HHCLG001E

HHCLG001E Error redirecting stdout: *error*

**Explanation**

The stdout stream could not be redirected to the system logger. The error is described by *error*.

---

### HHCLG002E

HHCLG002E Error reading syslog pipe: *error*

**Explanation**

An error occurred while reading the syslog pipe. The error is described by *error*.

---

### HHCLG003E

HHCLG003E Error writing hardcopy log: *error*

**Explanation**

The error as indicated by *error* occurred while writing the hardcopy log.

---

### HHCLG004E

HHCLG004E Error duplicating stderr: *error*

**Explanation**

Stdout could not be redirected to stderr. The error is described by *error*.

---

### HHCLG005E

HHCLG005E Error duplicating stdout: *error*

**Explanation**

Stderr could not be redirected to stdout. The error is described by *error*.

---

### HHCLG006E

HHCLG006E Duplicate error redirecting hardcopy log: *error*

**Explanation**

The error described by *error* occurred whilst redirecting the hardcopy log.

---

---

## HHCLG007S

**HHCLG007S Hardcopy log fdopen failed: *error***

**Explanation**

An attempt to open a stream for the hardcopy log failed. The error is described by *error*.

---

## HHCLG008S

**HHCLG008S logbuffer malloc failed: *error***

**Explanation**

An instorage buffer for the system log could not be obtained. The error is described by *error*.

---

## HHCLG009S

**HHCLG009S Syslog message pipe creation failed: *error***

**Explanation**

An attempt to create the pipe for the system logger failed. The error is described by *error*.

**Action**

Check that your firewall is not preventing Hercules from opening a listening pipe.

---

## HHCLG012E

**HHCLG012E Cannot create logger thread: *error***

**Explanation**

An attempt to create the logger thread failed. *Error* is the description of the error code returned by the `pthread_create` call.

**Action**

If the error is "No error" ensure that Hercules has been correctly linked with the pthread library.

---

## HHCLG014E

**HHCLG014E Log not active**

**Explanation**

A *log off* command was issued but there was no active log file.

**Action**

None.

---

---

## HHCLG015I

### HHCLG015I Log closed

#### Explanation

The active log file has been closed as a result of a *log off* command.

#### Action

None.

---

## HHCLG016E

### HHCLG016E Error opening log file *filename: error*

#### Explanation

The new log file requested by a *log* command could not be opened. *error* is the description of the error code returned by the open call.

#### Action

Reissue the *log* command with the correct filename.

---

## HHCLG017S

### HHCLG017S Log file fdopen failed for *filename: error*

#### Explanation

The logger was unable to obtain the file descriptor for the new log file requested by a *log* command. *error* is the description of the error code returned by the fdopen call.

#### Action

Reissue the *log* command with the correct filename.

---

## HHCLG018I

### HHCLG018I Log switched to *filename*

#### Explanation

As a result of a *log* command the logger is now writing to the requested log file.

#### Action

None.

---

---

## 28. Messages HHCPNnnns - Control Panel Command Messages

---

### HHCPN001I

HHCPN001I Control panel thread started: tid=*threadid*, pid=*processid*

**Explanation**

The control panel thread has been started. Its thread id is *threadid* and its process id is *processid*.

**Action**

No action required.

---

### HHCPN002S

HHCPN002S Cannot obtain keyboard buffer: *error*

**Explanation**

An attempt to obtain memory for the keyboard buffer, used to hold operator input, failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCPN003S

HHCPN003S Cannot obtain message buffer: *error*

**Explanation**

An attempt to obtain memory for the message buffer, used to hold operator output, failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules.

---

### HHCPN004E

HHCPN004E select: *error*

**Explanation**

An error was encountered while waiting for input from the console. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

---

## HHCPN005E

**HHCPN005E keyboard read: *error***

**Explanation**

An error was encountered while attempting to read keyboard input. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCPN006E

**HHCPN006E message pipe read: *error***

**Explanation**

An error was encountered while attempting to read from the pipe used to communicate to the control panel thread from the rest of Hercules. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCPN007E

**HHCPN007E RC file *filename* open failed: *error***

**Explanation**

The RC file containing commands to be executed at Hercules startup, named *filename*, could not be opened. The error is described by *error*.

**Action**

Correct the error and restart Hercules if necessary. The commands contained in the file may be issued manually.

---

## HHCPN008I

**HHCPN008I RC file processing thread started using file *filename***

**Explanation**

Processing of the commands contained in the file named *filename* has begun.

**Action**

No action required.

---

---

## HHCPN009E

**HHCPN009E RC file buffer malloc failed: *error***

**Explanation**

An attempt to obtain storage for the buffer for commands being read from the startup command file failed. The error is described by *error*.

**Action**

Correct the error and restart Hercules, if needed. The comands contained in the file may be issued manually.

---

## HHCPN010W

**HHCPN010W Ignoring invalid RC file pause statement: *argument***

**Explanation**

The argument *argument* on the pause statement in the startup command file is invalid. It must be a decimal number between 0 and 999. Processing will continue without any pause.

**Action**

Correct the invalid argument and restart Hercules, if desired.

---

## HHCPN011I

**HHCPN011I Pausing RC file processing for *delay* seconds...**

**Explanation**

Processing of the startup command file is being delayed for *delay* seconds because of a pause statement in the file.

**Action**

No action required.

---

## HHCPN012I

**HHCPN012I Resuming RC file processing...**

**Explanation**

Processing of the startup command file has resumed at the expiration of the delay interval.

**Action**

No action required.

---

## HHCPN013I

**HHCPN013I EOF reached on RC file. Processing complete.**

**Explanation**

The end of the startup command file has been reached and processing of the file is complete.

**Action**

No action required.

---

## HHCPN014E

**HHCPN014E I/O error reading RC file: *error***

**Explanation**

An error was encountered while reading a command from the startup command file. The error is described by *error*. Any remaining commands in the file will not be processed.

**Action**

Correct the error and restart Hercules if desired. Any unprocessed commands may be issued manually.

---

## HHCPN052E

**HHCPN052E Target CPU *nnnn* type *cputype* does not allow ipl**

**Explanation**

An IPL command was issued but the target CPU *nnnn* is a processor engine of type *cputype* which does not support the initial program load procedure.

**Action**

Use the CPU command to set the target CPU to a processor of type CP, IFL, or ICF, then re-issue the IPL command.

---

## HHCPN162I

**HHCPN162I Hercules instruction trace displayed in { *regsfirst* | *noregs* | *traditional* } mode**

**Explanation**

This message shows the current setting of the traceopt mode.

**Action**

None.

---

---

## HHCPN180E

### HHCPN180E 'sh' commands are disabled

#### Explanation

The 'sh' (shell) command has been purposely disabled via a SHCMDOPT configuration file statement. Shell commands entered via the Hercules hardware console will not be processed.

#### Action

Remove or modify the SHCMDOPT configuration file statement and restart Hercules.

---

## HHCPN181E

### HHCPN181E Device number s:CCUU not found

#### Explanation

The device number "CCUU" on Logical Channel Subsystem "s" was not found in the configuration.

#### Action

Reissue the command with an existing device number.

---

## HHCPN195I

### HHCPN195I Log options: *val*

#### Explanation

This message displays the current logging options. It is issued when the LOGOPT command is entered without operands. *val* is `TIMESTAMP` or `NOTIMESTAMP`.

#### Action

None.

---

## HHCPN196E

### HHCPN196E Invalid logopt value *val*

#### Explanation

This message is issued when the operand of a LOGOPT command is an invalid value. Valid values for *val* are `TIMESTAMP` or `NOTIMESTAMP`.

#### Action

Reenter the LOGOPT command with a valid operand.

---

---

## HHCPN197I

**HHCPN197I Log option set: *val***

**Explanation**

As the result of the LOGOPT command, the Hercules logging option *val* has been set. *val* is `TIMESTAMP` or `NOTIMESTAMP`.

**Action**

None.

---

## 29. Messages HHCPRnnns - Printer Emulation

---

### HHCPR001E

**HHCPR001E File name missing or invalid for printer *address***

**Explanation**

There was no file name specified for the printer at address *address*, or else there was one specified but it was too long.

**Action**

Correct the error in the Hercules configuration file. The device may be made available by specifying a filename with the devinit command.

---

### HHCPR002E

**HHCPR002E Invalid argument for printer *address*: *argument***

**Explanation**

An invalid argument was specified on the definition of the printer at address *address*.

**Action**

Correct or remove the invalid argument.

---

### HHCPR003E

**HHCPR003E *address* Error writing to *filename*: *error***

**Explanation**

An error was encountered when writing output for the printer at address *address* to the file named *filename*. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

### HHCPR004E

**HHCPR004E Error opening file *filename*: *error***

**Explanation**

An error was encountered when opening the file named *filename*. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

---

## HH CPR005E

**HH CPR005E** *address* device initialization error: pipe: *error*

### Explanation

An error was encountered when opening a pipe for the printer at address *address*. The error is described by *error*.

### Action

Correct the error and retry the operation.

---

## HH CPR006E

**HH CPR006E** *address* device initialization error: fork: *error*

### Explanation

An error was encountered when starting the program to process the output from the printer at address *address*. The error is described by *error*.

### Action

Correct the error and retry the operation.

---

## HH CPR007I

**HH CPR007I** pipe receiver (pid=*processid*) starting for *address*

### Explanation

The program to process the output from the printer at address *address* is starting. Its process id is *processid*.

### Action

No action required.

---

## HH CPR008E

**HH CPR008E** *address* dup2 error: *error*

### Explanation

The file descriptor for stdin could not be duplicated for the program to process the output from the printer at address *address*. The error is described by *error*.

### Action

Correct the error and retry the operation.

---

---

## HH CPR009E

**HH CPR009E** *address dup2 error: error*

### **Explanation**

The file descriptor for stdout could not be duplicated for the program to process the output from the printer at address *address*. The error is described by *error*.

### **Action**

Correct the error and retry the operation.

---

## HH CPR010E

**HH CPR010E** *address dup2 error: error*

### **Explanation**

The file descriptor for stderr could not be duplicated for the program to process the output from the printer at address *address*. The error is described by *error*.

### **Action**

Correct the error and retry the operation.

---

## HH CPR011I

**HH CPR011I** *pipe receiver (pid=*processid*) terminating for *address**

### **Explanation**

The program to process the output from the printer at address *address* has ended successfully. Its process id was *processid*.

### **Action**

No action required.

---

## HH CPR012E

**HH CPR012E** *address Unable to execute *program*: error*

### **Explanation**

The program named *program* to process the output from the printer at address *address* could not be started. The error is described by *error*.

### **Action**

Correct the error and retry the operation.

---

---

## 30. Messages HHCPUnnns - Card Punch Emulation

---

### HHCPU001E

HHCPU001E File name missing or invalid

**Explanation**

The file name specified for punched output is invalid or no file name is given.

**Action**

Correct the error and retry the operation.

---

### HHCPU002E

HHCPU002E Invalid argument: *argument*

**Explanation**

An invalid argument *argument* was specified for the card punch. Valid arguments are ascii, ebcdic, and crlf.

**Action**

Correct the invalid argument and retry the operation.

---

### HHCPU003E

HHCPU003E Error opening file *filename: error*

**Explanation**

The file named *filename* could not be opened for output of card punch data. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

### HHCPU004E

HHCPU004E Error writing to *filename: error*

**Explanation**

The file named *filename* encountered an error while writing card punch data. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

---

## 31. Messages HHCRDnnns - Card Reader Emulation

---

### HHCRD001E

#### HHCRD001E Out of memory

**Explanation**

A request to allocate memory for the list of files to be read failed.

**Action**

Correct the error and retry the operation.

---

### HHCRD002E

#### HHCRD002E File name too long (max=*max*): "*filename*"

**Explanation**

The file name specified by *filename* is too long. The maximum length is *max*.

**Action**

Specify a shorter name.

---

### HHCRD003E

#### HHCRD003E Unable to access file "*filename*": *error*

**Explanation**

The file specified by *filename* could not be accessed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

### HHCRD004E

#### HHCRD004E Out of memory

**Explanation**

A request to allocate memory for the list of files to be read failed.

**Action**

Correct the error and retry the operation.

---

---

## HHCRD005E

### HHCRD005E Specify 'ascii' or 'ebcdic' (or neither) but not both

#### Explanation

Both of the character set translation options `ascii` and `ebcdic` were specified. At most one is allowed.

#### Action

Select only one character set translation option.

---

## HHCRD006E

### HHCRD006E Only one filename (`sock_spec`) allowed for socket devices

#### Explanation

More than one filename argument was given for a socket card reader device. Only one is allowed. This error can also result if an option name is misspelled.

#### Action

Remove the extraneous filenames or correct the misspelled options.

---

## HHCRD007I

### HHCRD007I Defaulting to 'ascii' for socket device *address*

#### Explanation

The socket card reader device at address *address* has been set to ASCII mode since neither translation option was specified. The socket card reader device cannot automatically select the translation option.

#### Action

If you wish to read cards without translation from ASCII to EBCDIC, you must specify the `ebcdic` option on the reader definition.

---

## HHCRD008W

### HHCRD008W 'multifile' option ignored: only one file specified

#### Explanation

Only one file was specified for input to the card reader and the `multifile` option was specified. This option is Explanationless with only one input file. The option has been ignored.

#### Action

If you wish to read more than one input file without signalling end-of-file or intervention required between them, then all files must all be specified on the same reader definition. If you only wish to process one file, omit the `multifile` option.

---

## HHCRD009E

**HHCRD009E File name too long (max=*max*): "*filename*"**

**Explanation**

The file name specified by *filename* is too long. The maximum length is *max*.

**Action**

Specify a shorter name.

---

## HHCRD010E

**HHCRD010E Unable to access file "*filename*": *error***

**Explanation**

The file specified by *filename* could not be accessed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCRD011E

**HHCRD011E Close error on file "*filename*": *error***

**Explanation**

An attempt to close the file specified by *filename* failed. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCRD012I

**HHCRD012I *ipaddr* (*hostname*) disconnected from device *address* (*socketspec*)**

**Explanation**

The client on the host named *hostname*, with the IP address *ipaddr*, has disconnected from the socket card reader device at address *address*, specified by *socketspec*.

**Action**

No action required.

---

## HHCRD013E

**HHCRD013E Error opening file *filename*: *error***

**Explanation**

The file named *filename* could not be opened for reading. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCRD014E****HHCRD014E Error reading file *filename*: *error*****Explanation**

An error was encountered while attempting to read the first 160 bytes of the file named *filename* in order to determine its character set. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCRD015E****HHCRD015E Seek error in file *filename*: *error*****Explanation**

An error was encountered while attempting to return to the beginning of file named *filename* after determining its character set. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCRD016E****HHCRD016E Error reading file *filename*: *error*****Explanation**

An error was encountered while attempting to read an EBCDIC card image from the file named *filename*. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

**HHCRD017E****HHCRD017E Unexpected end of file on *filename*****Explanation**

Too few characters were read from the file named *filename*. The autopad option was not specified.

**Action**

Either ensure that all records in the file are 80 bytes long, or specify the autopad option on the reader definition.

---

## HHCRD018E

**HHCRD018E Error reading file *filename*: *error***

**Explanation**

An error was encountered while attempting to read an ASCII card image from the file named *filename*. The error is described by *error*.

**Action**

Correct the error and retry the operation.

---

## HHCRD019E

**HHCRD019E Card image exceeds *size* bytes in file *filename***

**Explanation**

A line in the file named *filename* is too long to fit on one card. The trunc option was not specified. The maximum length is *size* bytes.

**Action**

Either ensure that all lines in the file are less than *size* bytes long or specify the trunc option on the reader definition.

---

## 32. Messages HHCSDnnns - Socket Devices Common Functions

---

### HHCSDnnns

Messages HHCSDnnns are not yet documented.

---

## 33. Messages HHCTAnnns - Tape Device Emulation

---

### HHCTAnnns

Messages HHCTAnnns are not yet documented.

---

## 34. Messages HHCTCnnns - TAPECOPY Utility

---

### HHCTCnnns

Messages HHCTCnnns are not yet documented.

---

## 35. Messages HHCTEnns - Terminal Emulation

---

### HHCTE001I

**HHCTE001I Console connection thread started: tid=*threadid*, pid=*processid***

**Explanation**

The thread that handles connection requests from console devices has been started.

**Action**

No action required.

---

### HHCTE002W

**HHCTE002W Waiting for port *port* to become free**

**Explanation**

The thread that handles connection requests from console devices is waiting for the TCP port denoted by *port* to become available for use.

**Action**

If this message persists, some other program has control of the TCP port listed. Determine the program involved and terminate it.

---

### HHCTE003I

**HHCTE003I Waiting for console connection on port *port* pid=*num***

**Explanation**

Hercules is ready to accept console connections on port *port*.

**Action**

No action required.

---

### HHCTE004I

**HHCTE004I Console connection thread terminated**

**Explanation**

The thread that handles connection requests from console devices has been terminated.

**Action**

No action required.

---

---

## HHCTE005E

**HHCTE005E Cannot create console thread: *reason***

**Explanation**

The thread that handles connection requests from console devices could not be started. The reason is shown as *reason*.

**Action**

Correct the reason listed and restart Hercules.

---

## HHCTE006A

**HHCTE006A Enter input for console device *address***

**Explanation**

The 1052 console device at *address* is waiting for input.

**Action**

Type the desired input for the console and press the ENTER key. If you do not wish to get this message when input is requested, define the console with the option `noprompt`.

---

## HHCTE007I

**HHCTE007I Device *address* closed by client *ipaddr***

**Explanation**

The client at IP address *ipaddr* that was connected to the 3270 console at address *address* has closed the connection. The device is no longer available for use.

**Action**

No action required.

---

## HHCTE008I

**HHCTE008I Device *address* closed by client *ipaddr***

**Explanation**

The client at IP address *ipaddr* that was connected to the 1052 console at address *address* has closed the connection. The device is no longer available for use.

**Action**

No action required.

---

---

## HHCTE009I

**HHCTE009I Client *ipaddr* connected to *type* device *address***

**Explanation**

The client at IP address *ipaddr* has connected to Hercules as a *type* device and is now available at address *address*.

**Action**

No action required.

---

## HHCTE010E

**HHCTE010E CNSLPORT statement invalid: *statement***

**Explanation**

The CNSLPORT statement in the Hercules configuration file is invalid.

**Action**

Correct the CNSLPORT statement in the configuration file and restart Hercules.

---

## HHCTE011E

**HHCTE011E Device *devn*: Invalid IP address: *ipaddr***

**Explanation**

The IP address *ipaddr* is invalid.

**Action**

Correct the IP address in the configuration file and restart Hercules.

---

## HHCTE012E

**HHCTE012E Device *devn*: Invalid mask value: *ipmask***

**Explanation**

The mask value *ipmask* is invalid.

**Action**

Correct the mask value in the configuration file and restart Hercules.

---

## HHCTE013E

**HHCTE013E Device *devn*: Extraneous argument(s): *xxx...***

**Explanation**

The argument(s) *xxx* and any which follow it (if any) was not recognized or understood and are thus invalid.

---

**Action**

Correct the arguments in the configuration file and restart Hercules.

---

**HHCTE014I**

**HHCTE014I** *type device devn disconnected.*

**Explanation**

The client connected to device *devn* has abruptly terminated the connection (ECONNRESET).

**Action**

No action required.

---

**HHCTE017E**

**HHCTE017E** Device *devn*: Duplicate SYSG console definition.

**Explanation**

Device number *devn* has been defined as an integrated 3270 (SYSG) console, but a SYSG console already exists. Only one SYSG console can be defined per system.

**Action**

Correct the statement in the configuration file and restart Hercules.

---

## 36. Messages HHCTMnnns - TAPEMAP Utility

---

### HHCTMnnns

Messages HHCTMnnns are not yet documented.

---

## 37. Messages HHCTSnnns - TAPESPLT Utility

---

### HHCTSnnns

Messages HHCTSnnns are not yet documented.

---

## 38. Messages HHCTTnnns - TOD Clock and Timer Services

---

### HHCTT001W

HHCTT001W Timer thread set priority *priority* failed: *error*

**Explanation**

An attempt to change the priority of the timer thread to *priority* failed. The error is described by *error*. The thread priority has not been changed. Hercules overall performance may be impaired as a result.

**Action**

If performance problems are noted, correct the error and restart Hercules.

---

### HHCTT002I

HHCTT002I Timer thread started: tid=*threadid*, pid=*processid*, priority=*priority*

**Explanation**

The thread for timing functions has been started. Its thread id is *threadid*, its process id is *processid* and the thread priority is *priority*.

**Action**

No action required.

---

### HHCTT003I

HHCTT003I Timer thread ended

**Explanation**

The thread for timing functions has ended.

**Action**

No action required.

---

---

## 39. Messages HHCTUnnns - TUN / TAP Driver Support

---

### HHCTUnnns

Messages HHCTUnnns are not yet documented.

---

## 40. Messages HHCVMnnns - VM / CP Emulation

---

### HHCVM001I

HHCVM001I \**panel\_command*\* panel command Module guest

**Explanation**

The guest operating system has issued a DIAGNOSE 8 instruction to perform the *panel\_command* panel command to be carried out by the Hercules panel command processor

**System Action**

The Hercules panel command processor carries out the command if possible.

**Operator Action**

None

**Programmer Action**

No action is requested if this behaviour is expected. If this behaviour poses a security concern, the *DIAG8CMD* configuration statement should either be omitted or specified with the *disabled* argument.

---

### HHCVM002I

HHCVM002I \**panel\_command* command complete

**Explanation**

The *panel\_command* panel command has been carried out by the panel command processor. Note that this message only appears if the guest issued diagnose 8 instruction specified that it did not request the command response to be placed in a supplied buffer.

**System Action**

The system continues

**Operator Action**

None. This is an informational message

**Programmer Action**

None. This is an informational message

---

### HHCVM003I

HHCVM003I Host command processing disabled by configuration statement

**Explanation**

The guest operating system attempted using the DIAGNOSE 8 Instruction to carry out a panel command, but the system configuration disabled this feature (with the *DIAG8CMD* configuration statement)

**System Action**

The panel command is ignored.

**Operator Action**

None.

**Programmer Action**

If it is deemed necessary for the guest operating system to issue DIAGNOSE 8 commands to issue panel commands, the *DIAG8CMD* with the *enable* argument should be specified in the configuration file.

---

**HHCVM004E****HHCVM004E Host command processing not included in engine build****Explanation**

The Hercules engine has been built without Diagnose 8 panel command facility support

**System Action**

The panel command is not issued. The system continues.

**Operator Action**

None

**Programmer Action**

If it is desired that DIAGNOSE 8 Instruction be carried out as panel commands, the facility should be included in the build process. Additionally, the *DIAG8CMD* configuration statement should be specified with the *enable* parameter.

---

## Appendix A. Links

- **The Hercules System/370, ESA/390, and z/Architecture Emulator**  
<http://www.hercules-390.org>
- **Hercules Developer Snapshots (Ivan Warren)**  
<http://www.ivansoftware.com/snapshots/snapshots>
- **Hercules PDF Documentation (Peter Glanzmann)**  
<http://hercdoc.glanzmann.org>
- **The MVS Tur(n)key System, Version 3 (Volker Bandke)**  
<http://www.bsp-gmbh.com/turnkey/index.html>  
<http://www.mvs-turnkey.de>
- **Hercules WinGUI (“Fish”, David B. Trout)**  
<http://www.softdevlabs.com/Hercules/hercgui-index.html>
- **CTCI-W32 (“Fish”, David B. Trout)**  
<http://www.softdevlabs.com/Hercules/ctci-w32-index.html>
- **Hercules Studio (Jacob Dekel)**  
<http://www.mvsdasd.org/hercstudio>
- **WinPcap, Politecnico di Torino**  
<http://www.winpcap.org>

- **Vista tn3270, Tom Brennan Software**  
<http://www.tombrennansoftware.com>
- **X3270, Paul Mattes**  
<http://x3270.bgp.nu>
- **AWSBROWSE (“Fish”, David B. Trout)**  
<http://www.softdevlabs.com/Hercules/hercgui-index.html>
- **XMIT Manager**  
[www.cbttape.org](http://www.cbttape.org)
- **CBT MVS Utilities Tape (CBTTAPE)**  
[www.cbttape.org](http://www.cbttape.org)
- **Microsoft Visual C++ 2008 Express**  
<http://www.microsoft.com/express/download/>
- **ZLIB**  
<http://www.zlib.net>  
<http://www.softdevlabs.com/Hercules/ZLIB1-1.2.3-bin-lib-inc-vc2008-x86-x64.zip>
- **BZIP2**  
<http://www.bzip.org>  
<http://www.softdevlabs.com/Hercules/BZIP2-1.0.5-bin-lib-inc-vc2008-x86-x64.zip>

- **PCRE**

<http://www.pcre.org>

<http://www.softdevlabs.com/Hercules/PCRE-6.4.1-bin-lib-inc-vc2008-x86-x64.zip>

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